

# arraid wORLD'S FINEST AUMOMATIC RECORD CHANGFIt 

 If SALED
buy any of these chancers \& B-A WILL INCLUDE YOUR CHOICE OF GE VRIOO7, PICKERING 380C, SHURE MTD STEREO CARTRIDGES

> FOR ONIY If MORE

## dios chathiniace $\$ 35.00$ value

NEW
ATG

BUY ON B-A's EASY TERMS


Incomparable precision quality....truly the world's finest recard changers for stereo or monoural. Combine the features and performance of the best professional turntables with advantages of automatic play Outstanding new feature is the very occessible side, slide control levers which simplify speed selection, manual control, etc Plays all records $78,331 / 3,45$ and $162 / 3$ RPM, all sizes 7, 10 and $12^{\prime \prime}$ with automatic shut-off at end
of last record. Features unusually quiet, smooth 4 pole motor, true-turret drive without belts far true even speed, and free-wheeling boll-bearing turntable mount to prevent wows and flutter. Turntable rubbermatted for full record protection. Simple to install. Hordware supplied for unique spring suspension. Wired for monaural and stereo. 6 ft . AC cord and pickup cables ferminoting in standard phono jacks included.

## REVOLUTIONARY NEW TYPE A GARRARD AUTOMATIC TURNTABLE

At last, professional furntable and professional tone arm combined with the convenience of playing records outomatically. Incomparable Garrard quality for the finest record changer of all times.
Tone arm dynamically balanced features adjustable rear counterweight with independent tracking pressure
adjustment. Knurled knob moves along colibrated adjustment. Knurled knob moves along colibrated scale, permits proper pressure setting to specifications of cortridge manufacturer. Tracks without side pres mal record wear and distortion. Equal or superior io separate tone orms selling for $\$ 35.00$ Turnioble 6 pounds weighted, dynamically balanced, provides increased torque and flywheel oction insures silent on-speed running. Two-piece construction, with foam disc separator further damps noise and vibrotion. Motor completely shielded with specially design-

## regardless of load or voltoge changes. Changing

 mechonism Garrard's exclusive pusher type with onepiece center spind:e. Short spindle included for manual plav. Also accommodates 45 RPM spindle listed of right with accessories. knob on side of the unit plate. Size $121 / 4^{\prime \prime} \mathrm{D}$. $x$ $15^{\prime \prime} \mathrm{W} . \times 25 / 8^{\prime \prime}$, below and $53 / /^{\prime \prime}$ obove motor board. side of tone arm to give clearance for counterweight. Color is rich Fown, controsted with white ond lustrous metal. Shpg. wt. 19 lbs.Stk. No. Cortridge (Stylus) Net Each
30 A 269
30 A271
30 A272
304273
304292

None, with Plug-in Head GE VR 1007 LP ( $\$ 24.95$ Value) Pickering 380C (\$24.45 Value) Dyno-Empire 108 ( $\$ 35.00 \mathrm{Value)}$

## NEW GARRARD AT6 AUTOMATIC TURNTABLE

Only surpassed by the famous Garrord Type A, this new outomatic furntable combines the features of a counter-bolonced tone orm, large turntable and professional performance into' a compact unit-the onswer to many instollations where space is restricted. bolanced with odiustoble counterweight for zeroing ony cortridge. Built-in gram scale permits setting of trocking weight without use of separate pressure peuge.
Perlectly balanced oversized turntable provides heovy torque and flywheel action to insure silent operation and occurote speed. Chonging mechanism handles records gently with precision occuracy. Interchangeoble spindles permit using of short one lor convenient manual ploying of records singly.
Replaceable plug-in shell with boyonet connector per Replaceable plug-in shell with bayonet connector per-
mits the use of any carfridge: simplifies chonging
cartridges. Fully wired for stereo with 4 pin fully isolated system, utilizing a fifth separate grounding lead.
New precision 4 pole shaded motor is accurate, pow erful and silent. Color is rich fawn, contrasted with white and with lustrous metal. Mig. dimensions and required cabinet space: $141 / 2^{\prime \prime}$ wide, $121 / 2^{\prime \prime}$ deep;
$41 / 2^{\prime \prime}$ above and $27 / 8^{\prime \prime}$ below top of motor boord. Additional $11 / 2$ " required at rear and to right rear of ditional $11 / 2$ " required at rear and to right rear of
tone arm for clearance of counterweight. Operates tone arm for clearance of counterweight. Operates
from $100-130$ volt 60 cycles AC . Net wt. 10 lbs. from $100-130$ vipg. wt. 12 lbs.
Stk. No. Stereo Cortridge Net Eoch $30 \mathrm{~B} 22 \quad$ Nane with Plug-in Head $\$ 54.50$ $\begin{array}{llr}30 B 23 & \text { With GE VR1007 } & 54.51 \\ 30824 & \text { With Pickering } 380 \mathrm{C} & 54.51\end{array}$ 30824 30B25

With GE VR 1007
With Pickering 38
With Pickering 38
With Shure M7D
54.51
54.51

## NEW AUTOSLIM AUTOMATIC MANUAL INTERMIX RECORD CHANGER

## An entirely new stondard of styling and performance.

 Economically priced but with the features and quality as on'y Garrard can produce. Most compact of record changers only $61 / 4^{\prime \prime}$ in height, overall requires only$41^{\prime \prime}$ above foo of motor haard; $23,3^{\prime \prime}$ helow. $141 / 4^{\prime \prime}$ 41 "" above top of moter
wide by $121 /$ " $^{\prime \prime}$ deep.
Intermixes all records regordless of size or sequence. Feotures: one-piece diecast tone arm for non-resanance and rigidity. Completely separate monual and automatic controls far playing pecords individually or automatically on Garrard's new center-changing mechanism. New type turntable and 4 -pole shoded motor are designed to provide the ideal combination
of torque, bolonce and quiet turning.
Simple downward pressure of the tone arm on tone rest locks it, preventing accidental damage to records. Simple upward movement rees it Beautitul blue/grey unit plote, with white trim. Op wt. 9 lbs

## Stk. No

30 B 8
$30 B 9$
30810
30B11

## Cortridge

Less Cartridge
With GE VRIOO7 (\$24.95 Value) With Shupe M70 ( $\$ 23.52$ Value)

Net Eoch
$\$ 39.50$
39.51
39.51 39.51

A complete new line, offering the most advanced features, performance and styling from the world's foremost manufacturer of high fidelity components.

## WEW STEREO componewts ar IS Clll

NEW BEAUTY: Trim, slim lines; deep gold-onodized panel; indirect lighting, walnut vinyl covers NEW ENGINEERING: Stronger structural moteriols, new chossis loyout for o higher level of musi col fidelity and performonce

NEW DESIGN: Distinction between mojor and minor controls in location, color, size-to simplify operation by the non-experts in your household

# FINEST ALL-IN-ONE STEREO COMPONENTS FOR FAMILY ENJOYMENT 44-WATT STEREO AMPLIFIER-TUNER COMBIMATION 30-WATT STEREO AMPLIFIER-TUNER COMBINATION <br>  

## 44-WATT STEREO AMPLIFIER-TUNER COMBINATION

ombines in one compact unit an exceptional 44 aft stereo amplifier and AM-FM stereo tuner rovides every feature, every control necessary for
he finest in stereo reproduction, regardless of the he finest in stereo reproduction, regardless of the
rogram source. Versotility of inputs for stereo hono, 2 mognetic and I ceromic, tope head as ell os tope amplifier with provision for oddition fFM mulfiplex with use of adopter listed of right.
lajor controls for simplified operotion include Tajor controls for simplified operation incjude
ush-pull on-off power switch, volume function ulector switch, balonce, and separate AM fund FM aning. Other front ponel controls which may be sed at the discretion of the user for personolized stening are separate bass and treble controls for sch channel, monoural-stereo-reverse, two posion loudness for full range listening ot low volume, sporate low filter ond high filter switch for eliinating turntable rumble os well os needle scratch, lus AFC switch for positive lock-in of FM brood2sts.
:parote edge-vu signal strength meters for AM nd FM insure easy positive accurate tuning of all -oodcasts. Wide band response provides AM re:ptlon to almost FM performance. Extreme sensivity with 3 gang tuning on both AM and FM -ings in hard to get stotions
eccifications Amplifier section: Music power outAt: 22 watts each channel; total 44. Frea. resp.

## 30-WATT STEREO AMPLIFIER-TUNER COMBINATION

e finest all-in-one stereo combination in its price watt stereo omplifier one compoct unit o full war stereo omplifier and FM-AM stereo tuner. and AM broadcasts. Features include autoitic frequency control and multiplex output for with odaptor listed of right
selfications Amplifier Section: 15 wotts powe rput eoch channel, 30 watts total; frequency ponse $20-20,000 \mathrm{cps} \pm 2 \mathrm{db}$ with less thon $2 \%$ portion; hum and noise level 66 db below 15 tis; tube complement $4-6 \mathrm{~V} 6 \mathrm{GT}$, 4-12AX7

Tuner Section: sensitivity 1.5 uv for 20 d etina. 2.5 uv for 30 db ouieting; selectivity 6 db
T.H.D.@ 1 KC@ 40 wotts. Hum and noise: 76 db below 22 wotts. Duol inputs: (6) tape head mog . phono 1; mog. phono 2; ceramic phono; ouxmx; tope amp. Tone cantrols: left and right bass (separate) $\pm 15 \mathrm{db} @ 50 \mathrm{cps}$. Left and right treble (separate) $\pm 15 \mathrm{~Tb} @ 10,000 \mathrm{cps}$. Switches :
AFC: on-off, low filter $50 @$ AFC; on-off, low filter 50 cps cutoff; high filter 5000 cPs cutoff; loudness, off 1-2. Dual oufputs (4): $4,8,16$ ohms, high impedance for tope recorder. Tubes (10) 4-7189A, 5-12AX7, 1-GZ34/ 5AR4.
FM Tuner Section: Sensitivity: 1-2 uv for 20 db quieting; 1.8 uv for 30 db quieting. Selectivity: Distortiown @ 250 KC . Image relection: -65 db Distortion: below 1\% T.H.D.@ $100 \%$ modulation Freq. resp: $20-20,000 \mathrm{cps} \pm .5 \mathrm{db}$. Hum and noise -52 db .
AM Tuner Section: sensitivity: 4 uv for 20 db sig nol-to-noise ratio. Selectivity: 6 db bandwidth @ $1 \%$. moge rejection:-100 db. Distortion: below 5000 cps includes 10 KC whistle filter). Hum ond noise: -60 db . Tubes whistle filter). Hum ond $1-6 A B 4 ;{ }^{3}-6 A \cup 6 ; \quad 2-6 B A 6 ; \quad 1-6 B E 6 ;$ 2-ECC85; 1-EZ80/6V4
Totol power consumption: 250 wotts @ 117 V .60 cycles. Size 5 IT" $^{\prime \prime} \mathrm{H}, 17$ 1月" $^{\prime \prime} \mathrm{W}, 133 / 4^{\prime \prime}$ D Shpo.
No. 30 B41. Eoch.
$\$ 329.95$
down at 240 KC; distortion below $1.5 \%$ T.H.D. of $100 \%$ modulation; frequency response $20-20,000$ $\mathrm{cps} \pm .5 \mathrm{db}$; hum and noise level -52 db .
AM Tuner Section: sensitivity 6 uv for 20 db for signal to noise ratio; selectivity 6 db bandwidth at 8 KC; distortion below $1.5 \%$ T.H.D. at $30 \%$ modu lation; frequency response $20-5000 \mathrm{cps}$; hum and noise -65 db
Tuner tube complement: 2-ECC85, 3-6AU6, 1-6AL5 1-6BE6, 1-6BA6, 1-EZ80/6V4. Has separate tone controls, source selector switch auxiliary. ouxiliory. Outputs for 8 and 16 ohms, high im


## SOUND DIVISION OF Thompson-Remo-Woolridge, Inc. <br> ALL NEW BELL STEREO COMPONENTS <br> ARE DESIGNED FOR QUICK, SIMPLE PANEL MOUNTING <br> SEE PAGES 3A, 3B, 3 F FOR TREMENDOUS SAVINGS ON SYSTEMS INCORPORATING THESE AMPLIFIERS <br> SPECIAL <br> BELL FM MULTIPLEX ADAPTOR <br> 5 $39^{9}$ $519^{95}$ <br> When purchosed <br> with Bell Compo <br> nents or System <br> using Bell compo- nents. <br> nents. <br> now ot this <br> big soving <br> stock No. <br> $30 C 74$ <br> 

## BELL MODEL 2420 34-WATT STEREO AMPLIFIER



Beautifully styled, brillantlv designed, with a com bination of features never before offered for your listening pleasure, this new Bell Amplifier provides unmatched high-fidelity power 117 watts per chan nel) from any program source. Controls are con veriently grouped so that most often used knobs ore difly housed, oll household to operate the sef with ease. Other features include two sets, of phono inputs, tape heod and treble wentrals fope amp inputs, individual bass and treble contrals for each chonnel. Filter switches screen out record scratch and turntoble pumble without cutting music response. Loudness control switch boosts bass response at low-level listening.
Specifications: power output 17 watts per channel, 34 wott total, frequency response 20-20,000 cps $\pm$ and distortion less than $1 \%$ at 28 watts, hum and noise 72 db below 17 watts; 7 dual inputs: tope head, mag. phono 1, mag. phono 2, ceramic phoss, and treble for anx tope amp; tone controls, bass and treble for left and right channels: 2 filter switches, low ( 50 cps ) and high 15000 cps ); dual output for $4,8,16$ ohm, plus high impedonce for tope recorder. Tubes include 4-6V6GT, 5-12AX7, $1-E Z 81 / 6 C A 4$. Total powe consumption 120 watts; W, $105 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 22 Ibs.
No. 30843 Model 2420 . Each.
\$129.95

MODEL 2421 FM-AM STEREO TUNER

bosic circuit os tuner section of Madel 2425 listed above. Sensitive FM section of 1.5 microvolt hos grounded grid RF stage, AFC plus output for multiplex. See odaptor listed obove. For detalled specificotions see tuner section af model



NOTE

## MODEL 2441 FM-AM STEREO TUNER

Same basic funer as supplied with
Model 2445 above. Extremely sensitive FM section of 1.2 mierovolts pulls in even the weakest signalis of low dis. tortion, has three wide-band If stoges, and bolanced rotio detector. AM sectral, 3 buitt-in automatic volume conAM and FM tuning copacitor on both specifications size 7 . $H^{\prime} 17$ detalled



44-WATT STEREO AMPLIFIER
${ }^{3} 179^{\circ 5}$
NO MONEY DOWN ON EASY TERMS

- 20-20,000 cps frequency response.
- 22 wofts per channel.
- Direct current filoments.
- Beautiful modernistic styling.
- Tape head input.


MODEL 2418

## s10995

-20-20,000 cps freq. response.

- 15 wotts each channel.
- Simplified controls.
- Modern styling.

$R$A ALE NEW 1962

## STHREO AMPLIFIERS

## WITH A COMBINATION OF FEATURES NEVER BEFORE OFFERED FOR YOUR LISTENING PLEASURE! <br> MODEL 244044 WATT STEREO AMPLIFIER

Provides the finest quality stereo repro duction of music. Completely versatile, ac ceots any program source, from tape head tape amplifier, magnetic phono, ceramic phono or tuner full provision for controlling the sound to glve music the same quality it had when originally recorded. Only basic controls, such as volume and bolance need be used, once program selector switch has been set to desired source. Makes it ideal for the wife who is interested in simplicity of operation. Secondary controls for complete adjustment ore on lower portion of panel, all are dork in colar as contrasted to white for the others. These include separate bass and treble controls for each chonnel, Switches for record scratch and rumble suppression. Two position loudness compensation for full tonal response at low level. Specificotions: Music power outpuit: 22
watts each channel, total 44 watts IIMFM method). Frequency response: 20-20.000 eps $\pm$ i db. Power response: $35-20,000$ cps @ 40 watts RMS $\pm 1 \mathrm{db}$. Distortion: less than 1\% T.H.D. @ 1 KC @ 40 watts. Hum and noise: 76 db below 22 watts. Dual inputs (61: Tape head, Mag. phono I Mag. phono 2; ceramic phono: Aux-mx Tape amp. Tone controls: left bass $\pm 15$ db @ 50 cps left treble $\pm 15 \mathrm{db}$ @ cps; Right treble +15 db Q $10,000 \mathrm{cos}$ Switches: AFC, On-off; Lo filter 50 cps cutoff; Hi filter 5000 eps cutoff; Loud ness off-1-2. Dual outputs (4): $4,8,16$ ohms. High impedance for Tape Recorder Tubes (10): 4-7189A, 5-12AX7, 1-GZ34/ 5AR4.Total power cons: 250 wotts @ 117 $\checkmark 60$ cycles size: $5 \% H_{17 \prime \prime} W$ $105 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 32 lbs No. 30 B 73 Net Each
\$179.95

## MODEL 241830 WATT STEREO AMPLIFIER

Bell's odvanced engineering desion has resulted in outstanding transient response with extremely low noise and distortion. Provides a music listening quality comparable only to amplifiers costing considerably more. Front panel contrals include function switch for mag phono and ouxmx , volume control for both channels simultaneously, and blend control for preeise listening level of both speakers. Tone controls are dual type, automatically setting boss and treble for both speakers at the same time. A perfect bosic omplifier for starting your high-fidelity system. Specifications: Music power output 15
watts per channel. 30 watts totol; fre quency response $20-20,000 \mathrm{cps} \pm \pm 2 \mathrm{db}$ distortion less than $2 \%$ @ 1 K watts; hum and noise 66 db below 1 watts; dual inputs (2) mog. phono, oux mx ; tone controls (2) dual bass $\pm 10 \mathrm{dl}$ @ 50 cps , dual treble $\pm 10 \mathrm{db}$ @ 10,00 cps; Dual outputs (3) 8, 16 ohms fo speakers, high impedance for tope re corder. Tubes (9) $4-6 \mathrm{~V} 6 \mathrm{GT}, 4-12 \mathrm{AX7}$ I-EZ81/6V4. Size 5 r $^{\prime \prime \prime} H H^{\prime \prime} 14 \frac{1}{4^{\prime \prime}} W$ 105/8"D. Wt. 19 ibs.
No. 30B77. Model 2418.
Net Eoch
\$109.9!

OUR LOWEST PRICED STEREO HICH FIDELITY SYSTEM


## YOU SAVE \$9170!

REGULAR VALUE $\mathbf{\$ 2 4 1 . 6 5}$ '149"
NO MONEY DOWN ON EASY TERMS

- Bell 2418 30-Watt Stereo Amplifier.
- 2 Narelca 8"Twin-Cone Speakers.
- Lesa CD2/21 4-Speed Record Changer and Base.
- GE VRI000-7 Stereo Cartridge with Diamand Stylus.
- 2 Quality canstructed "Tall Slim" Enclosures.

An outstanding value . . . a custom matened system of popularly priced An outstanding value compares with systems selling for much more. Bell 2418 30-Wott Stereo Amplifier (listed abovel has 15 watts of undistorted power on eoch chonnel. 20-20,000 cDs freq. response. Combines superior quality construction, exceptional versatility of controls ond the ultimate in modern styling. See listing obove for detailed specifications.
Leso CD2/21 4-Speed Intermix Changer (with mounting bose) handles oll sizes and speeds of records gently and oceurately due to precision made construetion by Italy's largest electronics monufacturer. Unusuolly quiet 4-pole motor, 6 -second chonge eycle regardless of record speed.
General Electric VR-1000-7 Stereo Cortridge with .7 mil diamond stylus plays oll stereo and mono LP records with flowless perfection. GE's famous varioble reluctance principle ossures moximum fidelity, minimum hum, widest seporation. Two
3 A
rated at 6 watts continuous and 10 watts peak, 4-6 ohms impedance, it quency response $75-19,000 \mathrm{cDs}$, provides excellent tonal reproduction mount in the two "Tall Slim" two-woy design enclosures for floor or bookshelf ipage 194). Two 25 ft . coils of speaker cables supplied.
COMPLETE STEREO SYSTEM-30-Walt Bell Amplifier, Leso Chonger w Base ond GE Stereo Cartridge, 2 Norelco Speakers and 2 Enclosures. Spec finish-Mohogony or Blonde. Shpg. wt 85 lbs. Net Value $\$ 241.65$
No. 49A102.
Speciol Net
$\$ 149.9$

## STEREO SYSTEM FOR CUSTOM INSTALLATION

## B-A SELECTED STEREO SYSTEMS

Chosen by B-A's Audio Experts to give you the best possible system in each price category. You can be assured that each component matches in quality with every other component in system.

And best of all ... by buying a B-A selected system you make substantial dollar savings over buying components individually

## BUY FOR GASH OR ON B-A'S EASY PAY PLANG



## OUR FINEST STEREO

## WITH YOUR CHOICE OF CARTRIDGE AND SPEAKERS

Each and every component in this system is perfectly matched in quolity and performance. Truly the ultimate in home musie systems.. at rea dollar savings. Your choice of speakers and cartridges all at one low

Feotures Bell 2440 44-Wott Stereo High-Fidelity Ampllfier. All the features fou'll ever need for the reproduction of fine music. See full description of mplifier on poge of left
Sorrord Type A Autamatic Turntable. A professional turntable and profes. ional tone arm combined with the convenience of playing records outomaticslly. Dynamically balanced tone orm features adjustable rear counterweight 3 Ib. turntable is weighted, dynamically balanced, providing increased torque and flywheel action for true-speed rototion. Changing mechanism is Gorrard's "xclusive pusher-type with one piece center spindle. Size $121 / 4^{\prime \prime} \mathrm{D}$. $\times 15^{\prime \prime} \mathrm{W}$. " $25 / 8$ " below and $53 / 4^{\prime \prime}$ above motor board. Color is rich Fawn, contrasted with white and lustrous metal. (See page 2 for full specifications). Ehaice of these Tap Magnetic Cortridaes: GE VRIOO0-7 Stereo Cartridge vith .7 mil diamond stylus; Shure M7D Stereo Cartridge; Pickering 380C jrereo Cartridge or Audio Empire 108
Two E-V 12TRXB 12-Inch Three-Woy Speokers. Each complete with adjustable brilliance controls to match room acoustics. Provides magnifieent wellzalanced wide range response even of subdued volume level. 50 ft . of speaker :able included. (See page 4 for full specifications).
Two Beoutiful Speoker Enclosures in choice of finish. Made of finest hardvoods. Acoustically designed to provide omazing sound reproduction using ninimum of space. Perfect match for above three-way speakers. Size $231 / 2$ $\times$. X . $\times 12$.
:OMPLETE STEREO SYSTEM-Bell 2440 Stereo Amplifier, Gorrard Changer vith Base and your choice of cartridge, 2 E-V 12 TRXB speakers with 50 ft if cable and 2 speaker enclosures. Specify Finish-Mohagony, Blonde o Nainut, also specify choice of cartridge.
$\$ 349.95$
-onsists of Bell 2440 FOR CUSTOM INSTALLATIONS our choice of cortridge, and 2 ' $\mathrm{E}-\mathrm{V} 12$ IRRX ${ }^{\circ} \mathrm{A}$ Changer (less Bose) and to. 49 A 109
$\$ 299.50$
COMPLETE STEREO SYSTEM
is described obove No. 49A112-except without I2TRXB speokers and enlosures) BUT WITH 2 E-V LEYTONS Low Resonance Ultra Compact Sysems. Provides top performance in a small spoce. Utilizes a special $12^{\prime \prime}$ igh-compliance low frequency driver with 1 lb. 6 az. ceramic magnet and natched $8^{\prime \prime}$ high frequency unit. Resulting low-resonance system out-perorms speakers and enclosures many times its size and of a considerable oving. Cabinet in beautiful walnut hand rubbed hardwood veneers. Size $41 / 8^{\prime \prime} \mathrm{H}_{\text {. }} 24^{\prime \prime} \mathrm{W}$., $12^{\prime \prime} \mathrm{D}$. Specify Cortridge. to. 49 Aill3. Reg. Value $\$ 458.35$. Speciol.
\$349.95

## HIGH FIDELITY SYSTEM



WITH YOUR CHOICE BETWEEM 2 SPEAKER SYSYEMS AND 4 FAMOUS-MAKE CARTRIDGES


## BUDGET-PRICED SPACE SAVER

- A has brought together these quality components, matched to bring to ru stereophonic three dimensional sound of amazing low cost. Complete every way for ploying all speeds, all sizes of records both stereo and onophonic.
eart of the System is the Bell Model 2420 34-Wott Stereo Amplifier deribed on page 3. Actually two 17 watt linear amplifiers on one chassis, - afuring a complete arroy of contrals including a single moster gain conal for simultaneous adjustment of both channels for proper listening level, etremely wide range frequency response insures the finest in stereo listening. arrord Autoslim 4-Speed Record Changer (page 2) is complete with handme mounting base and famous Shure M7D Stereo Cartridge. Plays all icrogroove records, monaural and stereo. Two beautiful space-saving $12^{\prime \prime}$ iclosures styled to match any decor, in choice of walnut or blonde. Coreity 3 Cu . ft. size $27^{\prime \prime} \mathrm{H}$. $191^{\prime \prime} \mathrm{H}^{\prime} \mathrm{W}^{\prime}, 131 /^{\prime \prime} \mathrm{D}$. Ducted-port design assures e finest reproduction possible form sueh compact units
vo 12-Inch Norelco Twin Cone Speakers, regular net price $\$ 39.00$ each nservatively rated of 20 wott continuous, 30 watts peak. Freq. resp. 30, 000 cps . $2-25 \mathrm{ft}$. coils of speaker cable supplied.
SMPLETE STEREO SYSTEM-Bell 34 Watt Stereo Amplifier, Record Changer th Base, 2-12" Norelco Speakers, and 2 Speaker Enelosures. Specify fin-?- Walnut ar Blonde. Shpg wt. II 1 lbs .
0.49 Allo. Reg. Value $\$ 327.40$. Special.
\$199.50


## FOR CUSTOM INSTALLATION

10ther big $\$ \$ \$$ soving B-A Value-you sove $\$ 122.50$. Consists of Bell 34oft Stereo Amplifier as above, Garrard Autoslim Changer (less base) ure M7D Stereo Cartridge ond .7 mil diamond needle, and 2 Norelca in-Cone $12^{\prime \prime}$ Speakers, $2-25 \mathrm{ft}$. cails of speaker cable included. Shpo. in-Cone
.56 lbs

49Alli. Reg. Value $\$ 286.45$ speciol
$\$ 163.95$

## YOU SAVE S127AS

REGULAR VALUE $\$ 327.40$


FOR CUSTOM INSTALLATION


Regular Het Value \$286.45
'163 ${ }^{\text {ss }}$

## YOU SAYE $\$ 150.85$

REG. VALUE \$630.80
S47995
CHOICE BETWEEN 2 SPEAKER SYSTEMS AND 4 CARTRIDGES

## OUR FINEST HI-FI SYSTEM

## WITH BELL 2445 STEREO AM-FM TUMER AND AMPLIFIER

Bell 2445 Stereo Receiver combines on one chassis o highly sensitive FM Tuner a superb AM Tuner, a 44-Watt Stereo Amplifier, and a versatile control center. Unexcelled quality is engineered into every component for matchless stereo fidelity. Tuner includes separate signal strength meters for both AM and FM, 3 gang funing condenser ond AFC. Amplifier hos 22 watts of Dower per channel of $20-20,000 \mathrm{cps}$, simplified controls. For detoiled specifications see page 3 . Gorrord Type A Automotic Turntoble ond Tone Arm of professional quality combined with Garrord's exelusive push-type center spindle drop, give oll the convenience of a top-quality record changer and a precision turntoble. Dynamically balanced tone arm features adjustable rear counter weight, with tracking pressure odjustment. 6 lb . turntable is dynamically bolanced for constont wow-free speeds. Size $121 / 4^{\prime \prime} \mathrm{D} \times 15^{\prime \prime} \mathrm{W} \times 25 / \mathrm{m}^{\prime \prime}$ below and $53 / 4^{\prime \prime}$ above motor board. Color rich Fown, controsted with white and lustrous metal.
Your Choice of the World's Finest Stereo Cortridges-GE VR-1000-7 (Reg. Your Choice of the World's Finest Stereo Cortridges-GE VR-1000-7 (Reg.
$\$ 24.451$; Shure M7D (Reg. $\$ 24.001$; Pickering 380C (Reg. $\$ 29.85$ ); or Empire 108 (Reg. $\$ 37.501$.
Two E-V12TRXB 12-Inch 3-Woy Speakers. Provides magnificent tonal reproduction over entire frequency range, pich bass, smooth mid-range, sparkling highs. Eoch has its own adjustoble brilliance control for motching room acoustics. $50-\mathrm{ft}$, of speaker coble supplied. (See page 4 for full specs.)
Two Beoutiful Speaker Enclasures in choice of tinish. Made of woods. Space tion. Perfect match for obove 3 -woy speakers of ons omazing sound reproduc COMPLETE STEREO RECEIVER SYSTEM B Chonger and base, your choice of 4 Cartridges, 2 three-way Speakers with 50 ft . of cable and two enclosures. Specify flnish-Blande, Mahogony or Wolnut. Ho. 49 wi 106 lbs.
THE LEYTON SYS. Value $\$ 630.80$. Speciol................................... $\$ 49.95$ Leyton low-resonance speaker system as above with the famous Electro-Voice enclosures listed above. The Leyton utilizes a special high-compliance low frequency driver $112^{\prime \prime}$ dio.) with 1 lb .6 oz . cepamic magnet, ond a matched $8^{\prime \prime}$ high frequency unit, resulting in o small size speoker-enclosure system thot out-performs speakers and enclosures many times its size. Enclosure in beauti-

$\$ 479.95$ No. 49A107 Reg. Volue $\$ 607.90$. Speciol Consists of obove system less enclosure ond chonger bose, for built-in installations. Includes bell 2445 Receiver, Type $A$ Chonger less bose, Cortricae oi No. 49A108 Reg. Value. \$565.95. Speciol.
$\$ 423.52$
"THE LEYTON" ULTRA COMPACT SPEAKER SYSTEM

ElectroWoics


Amazing performonce bookshelf speaker system. Out-performs speakers and enclosures severol times its size and costing considerably more. Utilizes special high compliance, 12 inch woofer with $13 / 8 \mathrm{lb}$. ceramic magnet and long-throw voice coils for extended boss response. True 2 -way system, crosses over of 200 cycles. $8^{\prime \prime}$ mid-high ronge speaker totally isolated preventing interaction with woofer. Power hondling copocity 70 watts. Response 40-13,000 cycles flat, usable frequency beyond oudibility. Imp 8 ohms. Size $14^{\prime \prime} \mathrm{H}, 25^{\prime \prime}$ W, $12^{\prime \prime} \mathrm{D}$ wt. 29 lbs. Mand rubbed walnut veneer. No. 40A357. Net
$\$ 84.50$

## YOU SAVE $\$ 174.30$

REG. VALUE $\$ 504.25$
5329을

- Bell 2425 AM-FM Stereo Tuner and Amplifier.
- 2 Norelco $12^{\prime \prime}$ Twin-Cone Speokers.
- Gerrord AT6 4-Speed Record Chonger.
- Shure M7D Cortridge
- 2 Bcoutiful Speoker Enclosures.



## OUR BUDGET-PRICED STEREO SYSTEM

WITH BELL 2425 AM-FM STEREO TUNER AND AMPLIFIER
Bell 2425 30-Wott Stereo Combinotion. Combines in one compoct chassis a stereo AM-FM Tuner with a 30-Watt Stereo Amplifier and versatile control center. Freq. resp. 20-20,000 cps $\pm 2$ db. FM sensitivity 1.5 uv, AM sensitivity 6 uv. Tubes 4-6V6GT, 4-12AX7, 1-EZ81/6V4, 3-ECC85, 3-6AU6. Garror, $1-6 B E 6,1-6 B A 6,1-E 280 / 6 \mathrm{~V} 4$. For defailed specificotions see page 3 Garrard AT6 Automatic Turntoble. Combines a counter-balanced tone arm, large turntable and professional performance inta one compact unit. Handles records of all sizes and all 4 speeds with precision accuracy (see page 2 for detailed specifications)
Shure M7D Mognetic Cortridge (Reg. $\$ 24.00$ ) with diamond stylus. Roted "tops" by the experts.
2 Norelco $12^{\prime \prime}$ Twin-Cone Super Deluxe Speokers (Reg. $\$ 72.50$ Value). Superbly engineered for finest sound reproduction as demanded by the most discriminating high fidelity enthusiasts. Incorporates Ticanal VII, the most powerful of modern magnet alloys, with long air-gap and extra high flux density (11,000 gauss) for exceptional transient response, maximum efficiency ( $14 \%$ of 400 cps ) and damping. Constont impedonce ossures flat response curve, frequency range very conservatively rated 35 to $18,000 \mathrm{cps}$. Employs two cones which are always in phase, operate in complete harmony, providing o wider, more effective distribution of sound. Power handling capacity, also conservatively rated, 20 watts continuous with 30 watts peak Voice coil impedance 8 ohms.
Two Beoutiful Speoker Enclosures in choice of finish. Made of finest hard. woods. Space sover design fits onywhere, and offers amazing sound reproduction. Perfect match for obove speakers. Size $231 / 3^{\prime \prime} \mathrm{H}=17 \prime \prime \mathrm{~W} \times 12^{\prime \prime} \mathrm{D}$ COMPLETE STEREO SYSTEM-Bell 2425 Stereo Combination, Garrard ATE Changer with Bose ond Shure M7D Cortridge, 2-12" Norelco Twin-Cons Speakers with 50 ft . speaker cable and 2 Enclosures. Specify finish-Mo. hagony, Blonde or Walnut. Shpg. wt. 90 lbs No, 49Al04 Reg. Value $\$ 504.25$. Speciol
\$329.9!
FOR CUSTOM INSTALLATION
Consists of obove system, less speaker enclosures and changer base f built-in installation.
No. 49A105 Reg. Value $\$ 439.40$. Special
\$278.9!

## DELUXE SPACE-SAVER 8-IN. OR 12-IN. HI-FI SPIEAKER ENCLOSURE

Add richness to any type of decorative scheme. Beautiful furnifure fin ish and styling.
Made to exacting specifications of fine hardwoods in the most luxurious furniture finish. Not only ortistically styled but ocoustically engineered to ossure finest reproduction from $8^{\prime \prime}$ or $12^{\prime \prime}$ speokers. Full $21 / 2 \mathrm{cu}$. ff; provides omozing performance over the entire tonal range from deed, full boss to brilliont highs. Slze $231 / 2^{\prime \prime}$ high, $17^{\prime \prime}$ wide, $12^{\prime \prime}$ deep. Completely assembled, and finished ready to mount $12^{\prime \prime}$ speoker (adaptor ring included for $8^{\prime \prime}$ speoker). Wt. 28 lbs. Choice of Wolnut, Maple, Mahogony or Blonde.
No. 40B1i5. Net Eoch.... $\$ 29.95$



## RADAX COAXIAL SPEAKERS

Jtilize the E-V "Rodax" principle of two coaxiolly mounted canes with bulltn mechonical crossaver. Provides a true two-way speaker system to ossure leon, sparkling wide range reproduction. Frequency range $8^{\prime \prime} 45-13,000 \mathrm{cps}$, P128 $4 \pi-13,000 \mathrm{cps}$, SP12 $35-13,000 \mathrm{cps}$, SP15B $35-13,000 \mathrm{cps}$, SP15 $30-$ $3,000 \mathrm{cps}$. 1 mp .16 ohms

| Stock No. | Model | Dia. Depth | Power Wafts | Crossover of | Mog. Wt. | Shpg. Wt. | Net Eech |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34 A 220 | SP8B | 8'" $436^{\prime \prime}$ | 20 | 6000 cps . | $11 / 2 \mathrm{lb}$. | 9 lbs | \$28.91 |
| 31 Cl 4 | SP12B | $12^{\prime \prime} 6^{\prime \prime}$ | 20 | 4500 cps . | $11 / 2 \mathrm{lb}$. | 11 lbs. | 34.30 |
| $34 A 221$ | SP12 | 12", 71/2"." | 25 | 4000 cps . | 3 lb . | 23 lbs. | 64.68 |
| $34 A 296$ | SP15B | 15"' $75 / 8^{\prime \prime}$ | 15-20 | 3500 cps. | $11 / 2 \mathrm{lb}$. | 16 lbs . | 42.14 |
| 34 A222 | SP15 | $15^{\prime \prime} 9$ | 30 | 3000 cps . | $43 / 4 \mathrm{lb}$. | 29 lbs. | 87.22 |

## TRX INTEGRATED 3-WAY SPEAKERS

'rovide oll the magic of high fidellity
all commbined for anced bass, full rodied mid-range and sllky-smooth highs, all combined for an exceptionally
vell balanced response. Concentric mounting of al speaker elements insures vell batanced response. Concentric mounting of all speaker elements insures omplete full range room coverage. All speakers include adjustable bril-
iance control to match room acoustics. Frequency range $12 T R \times B \quad 35-15,000$ ince control to match room ocoustics. Fres
ps , all others $30-15,000 \mathrm{cps}$. Imp. 16 ohms.

| Stock No. | Model | $\begin{gathered} \text { Size } \\ \text { Dla. Depth } \end{gathered}$ | Power Watts | Crossover of | Mag. Wf. | Shpg. Wt. | Nef Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 348194 | 12 | 12" 6 1'0 | 20 | 000 | $11 / 4 \mathrm{lb}$. | 17 lbs . | - \$64.68 |
| A2 | $12 T R$ | 12"', | 25 | 2000 | $31 / 2$ | 27 lbs. | 122.50 |
| $34 \wedge 295$ | 15TRXB | $\begin{array}{ll}15^{\prime \prime} & 75 \\ 15^{\prime \prime} & \\ \end{array}$ | 20 | 2000 cps . | $11 / 4$ | 17 tbs. | 77.42 |
| 34A278 | I5TRX | $15^{\prime \prime} 91 / 8$ | 30 | 2000 cp | 53/4 | 43 lbs . | 147.02 |

UNIVERSITY'S AMAZING SPHERICON SUPER TWEETER


FREQUENCY RESPONSE 3,000 eps 40,000 eps

NOW HEAR HIGH NOTES NEVER HEARD FROM OTHER TWEETERS
, entirely new tweeter concept. Prodes virtually a linear response of (rilling brilliont highs with true e finest electrostatic tweeter.
perfect match for any speaker sys$m$ without sacrificing bass effl-ancy-o virtue not present in elec-
rect rodiator desion with special med phenolic diaphrogm and herical diffroctor provides $120^{\circ}$ spersion in oll directions with ofrelency response of 3000 cps to 40 ,10 cps and $\pm 2 \mathrm{db}$ to $22,000 \mathrm{cps}$.

Brilliance control permits odjustment to satisfy the most critical listener. Built-In network crosses over at 3000 cps.
Specifleations: Power capacity: 30 watts integroted progrom. Impedance: 8 ohms nominal (may be used with any $4-16$ ohm speakerl. Design features: domed phenolic dlaphragm, conoidal ring looding, spherical diffractor. Crossover: 3000 cps. Sensitivity 93 db at 4 ft . with 1 watt input. Mounting front or rear surface of baffleboord. Dimensions: $45 / 8^{\prime \prime}$ dio, $4^{\prime \prime}$ depth overall. Complete with built-in network and adjustable brilliance control.
No. 34 Al70

NEW SLIM JENSEN 3-P/2 LOUDSPEAKER SYSTEM

## IIS NEW SUPRRSLIM PANEL SPEAKER PRACTICALLY DISAPPEARS IN

 IUR LIVING SPACE...ADDS MEW DECOR NOTE..., WITH FULL REALISM
## 513950 <br> NO MONEY DOWN

 sitively the most sensational vancement in speaker hisy. 5 speakers $-3-\mathrm{P}$ woofer, j-range, two tweeters combined into the thinnes aker system yet Meosures y $35 / 8^{\prime \prime}$ depth. Woofer uses y molded Polvtec plane uses * molded Polytec plane pis-, radiator with long $3 / 4$ " vel for low distortion repro-ition of from $20-600$ cycles. :tion of from 20-600 cycles. ance mid-range and ultra eter reproduces beyond ouility. Only $285 / /^{\prime \prime} \mathrm{H}, 211 / 6^{\prime \prime}$ e in oiled walnut veneer e in oiled walnut finish 7 rattan orille and ook trim ps. $40 \mathrm{B211}$.
$\$ 139.50$


## FOR TRUE HIGH FIDELITY FULL RANGE SPEAKERS AND STEP-UP KITS



## WOLVERINE FULL RANGE SPEAKERS

The mast sensotionol odvoncement in speoker design yet! Motchless specifications con only be campared ta ather speakers of over 3 times the cost. Ruggedly constructed with heavy duty diecast frome assures positive centering of all elements. Rodax construction-two cones divide the sound for maximum boss reproduction and efficient high frequency perfarmence. Edgewise-waund ribbon voice coils cuts gap size and Increoses efficiency $18 \%$ over conventional design speakers gaining the equivalent of 5 extra wofts from a typical amplifier. All three models have power handling capaclty of 20 watts with peak of 40 watts. Big $2^{\prime \prime}$ dia. vaice coils af 8 ahms impedance. LS 15 has frequency response of 35 to $13,000 \mathrm{cps}$. LS $1240.13,000 \mathrm{cps}$. LS8 55 to $13,000 \mathrm{cps}$ Thin construction mokes these speakers ideal for wall and ceiling mountings or any place where space is restricted.
any place where spoce is restricted.
Stock

| Stock No. | Model | Dio. | Dep | Mechanical Crossover At | Shpg. Wt. | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (3) $34 A 186$ | LS 8 | $83 / 8{ }^{\prime \prime}$ | $31 /{ }^{\circ}$ | 6000 cps . | 5 lbs. | \$17.64 |
| (1) 34 A 185 | LSI 2 | 121/4" | $31 /$ | 4500 cps | 6 lbs. | 19.11 |
| (1) 34 A233 | LS15 | $151 / 8^{\prime \prime}$ | 63/8" | 4500 cps | 12 lbs . | 24.01 |

## WOLVERINE STEP-UP KITS

Years of engineering research have gone into the Wolverine line. Outstonding evidence of this is $\ln$ the mid and high frequency step-up kits. Two new drivers, the TW35 high-frequency unit and the MR10 mid-ronge feature the Avedon throot design which prevents sound conceilotion of highest frequencies ond extends the frequency response. A Hoodwin diffroction horn produces realistic reproduction in oll ports af listening oreo. Crossover networks ore true cross-
overs, not just high pass filters, leaving crossover points completely Inaudible. overs, not just high pass filters, leoving crossover points completely Inaudible. Bullt-in level control. Components sold only in Step-Up kits listed below.
(3) HIGH FREQUENCY STEP I KIT Designed to extend the range of Wolverine full-range speakers. Extends high-frequency performance to beyond the ronge of oudibility, for silky precise definition of all string and woodwind instruments. Consists of TW35 VHF driver and CR35 crossover network with built-in level control. Power handling capacity 50 watts. Freq. resp. 3500-18,000 cps. Imp. 8 ohms. TW35 size $51_{/^{\prime \prime}} \times 2^{\prime \prime} \times 23 / 4^{\prime \prime}$, Boffle opening $13 / /^{\circ} \times \times 41 / 4^{\prime \prime}$ CR 35 size $31 / 4^{\prime \prime} \times 21 / 2^{\prime \prime} \times 3^{\prime \prime} \times$ Complete with all wiring, mounting hardware and in-
structions for simple 5 -minute instal-

(1) MID-RANGE STEP 2 KIT Con be odded to $15^{\circ \prime}$ and $12^{\prime \prime}$ Wolverine speakers after the HF \& kit has been installed. Completes system into a 3-way system which spreads midrange sound evenly throughout the room, and smooth peak-free, frequency responie.
Consists of MRio treble driver and CR10 crossover network with built-in tevel control. Power handling capocity 20 watts. Frea resp. 1000-15,000 cps. MRIO size $4 \times 10^{1 / 2} \times 93 / 8^{\prime \prime}$. Baffle apening $91 / 2 \times 3^{\prime \prime}$. CR 35 size $31 / 4 \times$ Complete with oll wiring, mounting hordware and instructions for simple,
 No. ${ }^{34 A 1} 188$ Kit.
$\$ 24.50$

## FAMOUS JAMES B. LANSING PRECISION LOUDSPEAKERS

High efficiency speakers noted for their crisp cleen transient response and remarkable "presence" these JEL pracision transducers are used in the finest music installations the warld over. All listed hove 16 ohm voice call.

| Stock No. | Model | $\text { Dia. }{ }^{\text {Sixe }}$ | Depth | Power Wotts | $\mathrm{V} . \mathrm{C}$ Eio. | Shpg. Wt. | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $34 C 147$ | D130 | 1510" | 55/8* | 25 | $4{ }^{\prime \prime}$ | 23 lbs. | \$96.00 |
| 33 A183 | D123 | $121 /{ }^{\prime \prime}$ | 35\%" | 20 | 5' | 12 lbs. | \$9.00 |
| 344260 | D216 | 81/4" | 27/8" | 12 | 211 | 8 lbs. | 33.60 |

## Norelco t-7 loudspeakers

WITH THE NEW TICONAL VII VOICE COIL MAGNETS $30 \%$ MORE POWER THAN ALNICO

Designed to motch the quality requirements of the ciscriminoting music lover the most powerful of modern price. Voice coil mognets of Ticonal-7 steel, the most powerful of modern magnet alloys, far maximum efficiency and domping. Dual cones provide wide frequency response. Feotures constont impedonce resulting in on extremely stroight response curve. Longer effective airgaps and extra high flux densify provide exceptional translent response and ellminate ringing and overshoot.

| Stock No. | Model | Continuous |  |  | Flux Density |  | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Size | Pawer | Impedance | Gouss | Freq. Resp. |  |
| 34 Al17 | ADS277M | 12" | 20 | 8 | 11,000 | 35-18,000 cps | \$72.50 |
| 344119 | AD4277M | $12^{\prime \prime}$ | 20 | 8 | 8,000 | 35-18,000 cps | 39.00 |
| 344120 | AD4877M | $8{ }^{\prime \prime \prime}$ | 6 | 4-6 | 13,000 | 50-20,000 cps | 26.00 |
| 344121 | AD3800M | $8^{\prime \prime}$ | 6 | 4-6 | 11,000 | 75-19,000 cps | 9.90 |

# ITIRODUCING B-A's NEW 

 custom COMPOMENIS MADE IN THE U.S.A.
## 15-DAY TRIAL WITH FULL MONEY-BACK GUARANTEE

Less o:lly transportation charges


Try our components in your own home, where they are to be used . . . your eors are the best judge of what sounds best to you.

None finer. Compore the specs ...compore the cost ... the design of distinction. All ore mode in the United Stotes with Americon made parts. Engineered with every desiroble control and the most advanced circuitry. Feotures oversized tronsformers for full high fidelity range and distartionless reproduction constont duty power transformers resulting in top stereophonic and monophonic reproduction. Many additional expensive qual-ity-feotures have been included in every component in the entire series.
Tuners, and tuner amplifier combinotions feoture wide-band IF circuits. Maximum sensitivity for flowless multiplex performance. Lock-in AFC, built-in ontenno, and multiplex output for oddition of FM multiplex adoptor when desired.
All Amplifiers compliment the AM-FM Tuner in appearance.

## GUARANTEED ONE FULL YEAR AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP

## B-A CUSTOM MULIPLEX ADAPTOR FOR STEREO FM

DESIGNED TO MOUNT ON CHASSIS OF B-A CUSTOM TUNER AND TUNER AMPLIFIER COMBINATIONS LISTED ON THESE TWO FACING PAGES
Convert any of the tuners listed above to stereo FM by the addition of this high quality, wideband multiplex adaptor. Custom fits inta chossis, receives power from the tuner section. Attractive satin chrome ponel with charcoal gray housing. Size $5^{\prime \prime} \mathrm{W} . \times 41 / 2^{\prime \prime} \mathrm{D} . \times 7^{\prime \prime} \mathrm{L}$. Shpg. wt. 7 lbs.
Wt. 7 lis.
No. 33 All 7. Model BA-MXLP
(Less Power Supoly). Speciol Net........ $\$ 39.95$


B-A breaks the price barrier! Compare the specifications ... compare the quality . . . compare the design
You'd expect to poy over $\$ 200.00$ but B-A ogain proves its purchasing "know-how" to bring down the price. Yes, only $\$ 119.95$ at B-A. 24 watts of sustained stereo power combined with multiplexible FM-AM Tuner provides in one compoct unit on unsurpassable control center. The perfect heort for even the finest stereophonic music system. Every needed feoture hos been included to give you the best from tope, records or rodio.
Nine 19j front ponel controls assures you of being able to compensote any musical selection to meet your critical listening requirements. Space provided on chassis for custom mounting of multiplex odaptor unit (listed below).
Speciticotions: Amplifier: sustained power output 24 watts. RMS 112 watt each chonnel). Music Power: 14 watts each channel. Frequency re-
sponse: +1 db 20 to $20,000 \mathrm{cps}$ at 1 watt. Powe bondwidth: 30 to $20,000 \mathrm{cps}$ at half power wit $3 \%$ harmonic distartion. Hormonic distartion (1000 cps). Intermodulotion distortion: 2\% 10 watts. Domping factor 4.5. Controls (9) flywheel funing; 2 -selector, ${ }^{3}$-loudness dual con trywheelaruning; -treble idual control chonnel channel BI; 5-bass dual control channel A, chan hel B Slide switches multiplex, AFC, power, stere monaural. Tuner specs: FM 2 uv for 20 db or $40 \mathrm{db}-3$ db quieting. AM 5 mv
Antann: FM 300 ohm: AM built-in ferrite ro Anfor Noise: FM 50 db below $100 \%$ mod A Hum $G$ Noise: FM 50 db below $100 \%$ mod. A 50 db below $100 \%$ mod. Size 5 H . $x$ tin $x$ A Wt. 22 lbs. Made in U.S.A. Finish: satin chrom anel with satin chrome metal knobs. No. 33 Al 34 .
$\$ 119.9!$
No. $33 A 135$. Chorcoal Grey Cover for obove. $\$ 6.5$ Net

## B-A CUSTOM 24-WATT STEREO AMPLIFIER

Check features against AMPLIFIERS COSTING UP $T 0 \$ 130.00$

* 10 | 15 |
| :---: |
| $\begin{array}{c}\text { Less } \\ \text { cover }\end{array}$ |
- Brushed Chrome Metal Knobs and Panel
- Beautifully Designed Charcoal Grey Cove FREQUENCY RESPONSE 20-20,000 CPS

MODEL B-A 245


POWERFUL PUSH-PULL EL84's IN OUTPUT 12 WATTS PER CHANNEI


SEPARATE BASS AND TREBLE CONTROL FOR EACH CHANNEL

Matchless performance and styling at a price only $B-A$ can offer.
$B-A$ custom 245 . all new stereo high fidelity amplifier. Features engineerlng design and qualomp of construction worthy of use in the finest sfereophonic high fidelity music system.
Versotility of controls ossures matchless performance from all program sources, whether records once from oll progrom sources, whether records, tape or radio. Preamplifier properly equalized for NARTB tope permits feeding tope head directly to amplifier. Phono inputs (2) provic magnetic, erystol or ceramic cartridges. Satin-chrome panel with sotin-chrome knabs add
the mark of elegance found only in the highest the mark of elegance found only in the highest
price ompliftiers. Provides 24 watts of sustained
stereophonic power with 14 watts of music power stereophonic power with 14 watts of music power from each channel.
Specificotions: Sustoined Power Output watts RMS (12 watts each channel). Music Power: 14 watts each channel. Frequency response. db 20 to $20,000 \mathrm{cps}$ at one watt. Power bandwidth: 30 to $20,000 \mathrm{eps}$ at holf power with $3 \%$
harmonic distortion. Hormanic distartion 5116 cps). Intermodulotion distortion: $2 \%$ at io wo Domping foctor 4.5. Controls (8) 1 -selector-a tuner, NARTB tape, RIAA phono, crystol pho 2-function-stereo, monoural phono, chonnel chonnel B ; 3-chónnel balance, 4 -loudness; $5-\mathrm{b}$ -12 db to +8 db @ 50 cps; 6 -treble -12 db +8 db @ 10,000 cps; 7 -loudness contour off (slide switch): 8-pawer off-on (slide switch). put sensitivity: Oux., funer-. 7 volt; mag. pho .0055 volt; tape head .0075 volt and erystal p no .35 volif for rated output ( 1000 cps ). Outpi $4,8,16$ ohms and high impedance for tape corder. Hum ond nolse 72 db tuner input 52 db phono input below rated output. Tubes $4-6 E U 7$ 4-EL84/6BO5 EZ81/6CA4. Fused line with 2 AC outlets for $110-120 \mathrm{~V}$ cps AC operation. Size $14^{\prime \prime} \mathrm{W} . \times 4^{1 / 2^{\prime \prime} \mathrm{H} . \times 9^{\prime}}$ cps AC operot
No. 33 Al 25 . Net Eoch
$\$ 49 .!$ No. 33A126. Chorcool Grey Cover for above. No. 33 Al 26

# B-A CUSTOM FM-AM HIGH FIDELITY TUNER 

MODRL



COMPARE WITH OTHERS AT OVER $\$ 99.00$ NO MONEY DOWN ON EASY TERMS

Aufomatic Frequeney Contral for DriftFree Reception.


HANDSOME MODERNISTIC STYLING

WITH MULTIPLEX OUTPUT JACK AND BUILT-IN ANTENNA
Rich elegant styling, magnificent performance are blended into this súperb quality tuner to provide optimum listening pleosure for even the most critical ear.
Carefully designed and brilliantly engineered for outstonding range, sensitivity and drift-free operation. Offers many feotures found only in much higher priced tuners.... another perfect example of B-A purchasing "know-how" for providing greoter value for the dollar.
Smooth, effortless flywheel tuning, "Magic Bar", funing indicatar for precise, visual "on station" tuning, AFC for lock-in tuning of FM stotions these are just a few of the mony fine features bult into this unit. FM section has an extra stage of RF omplification far use in extreme fringe areas. of RF omplification far use in extreme fringe areas.
Space provided on chossis for custam mounting of Space provided on chossis far custam mounting of
multiplex odaptor (listed on opposite page) for
stereo FM broadcasts.
Speclficotions: FM sensitivity 2 microvolts for 20 db quieting, 5 microvolis for AM; frequency response $20-20,000 \mathrm{cps} \pm 1 \mathrm{db}$; distortion $1 \%$ hormonic, $2 \%$ IM: hum and noise 60 db below $100 \%$ mod.
for $F M$; 50 db for AM ; slide switches for AF ( mul for $F M$; 50 db for AM; slide switches for AFC, multiplex, power.
Size $43 / 4^{\prime \prime} \times 133 / 4^{\prime \prime} \times 91 / 4^{\prime \prime}$. Shpg. wt. 12 lbs. Finish, satin-chrame with satin-chrome knobs No. 33 A1 32.
Model BA-500 AM-FM Tuner.
Special Net
No. 33A1 33. Chorcool Gray Cover for Special Net

B-A CUSTOM 502 FM-AM TUNER AND 80-WATT STEREO AMPLIFIER

## 33 TUBE PERFORMANCE

- Magic bar tuning indiectar for pinpoint FM and AM station tuning.
- 19 tubes, 4 diodes, 5 silicon rectifiers.
- Full array of cantrols.
- Edge-lighted dial.
- Unconditional One Year Guarantee


## SATIN CHROME KMOBS AND SATIN CHROME PANEL

## COMPARE WITH UNITS SELHING FOR OVER \$400.00!

|  |
| :---: |

 with other units at twice the price. 80 watts stereo music power combined with on extremely sensitive AM-FM funer provides the bosis for the finest home music system. Every conceivoble feature has been included for unlimited flexibility and the finest reproduction possible. Stereo or monaural from any source includes FM-AM, FM multiplex, phono records or tape. Super sensitive tuner feotures sub-chassis cons'ruction, two wide band If and two limiter stages. Uses advanced circuitry with rotio detector, coscode RF stage, law noise triode mixer ond AFC for locked-in FM reception. Mogic bar tuning indicator assures positive on station thling. Rapid station change made eosy with big flywhee luning. 14 controls provides every desired odjustment for the most critical listener. Center chonnel output permits direct speaker connection. Space oge engineering gives omazing 33 tube performance from 19 tubes, 4 diodes, ond 5 low heot silicon rectifiers.
Specifications: IHFM Music Power Output: 80 watt (40 wotts ench channel). Frequency response: + 5 db 20 to 20,000 cps of 1 watt Power bondwidth:
distortion ar less. Harmonic distortion 6\% 11000 cps), intermadulation distortion $2 \%$ of roted output. Domping factor: 8. Input sensitivity: FM 1 microvolt 12 microvalt IHFM), AM 3 microvalt; Aux; Mtplx -4 volts; mag. phono - .004 valt and tape head -.0045 volt for roted output of 1000 cps . Outputs: $4,8,16$ ohm, tope recorder (each channell FM multiplex and center channel. Hum $\sigma$ noise: all inputs min. vol. 75 db phona, max. vol. 50 db below rated outpur.
Controls: (1) AM tuning, FM tuning; 121 selectorAux, FM Miplx, FM-AM tope heod, phono; (3) funćrian-stereo, mon., phons, FM món., AM mon. (4) channel balance; ( 5 ) budness; ( 6 ') boss; ( 7 i treble with power off-an. Slide switches: (1) low filter, (2) hi-filter, (3) AFC, (4) contour 1, (5) contour 2.
Tuner bondwidth: FM 650 KC , AM 10 KC . Antenno: FM 300 ohm, AM adjustable ferrite rod. Tubes: 2 . 6DT8, 2-6EA8, 6CB6A, 2-ЄBA6, 6BE6, 2-6FG6, 56EU7, 4-EL84/6BQ5, 4 diodes, 5 silicon rectifiers Other feotures: fused, AC outlet. Size 6 H, $15^{\prime \prime}$ D. Shpg. wt. 40 lbs. No. 33 All 15 . Net
$\$ 199.95$
No. 33 Al16. Charcoal Grey Fover for above.

## B-A CUSTOM 4O-WATT STEREO AMPLIFIER MODEL B-A $40 S$ HIGHEST QUALITY

FREQUENCY RESPONSE 20-20,000 CPS

Beautiful Brushed Chrome Panel

- Matching Metal Knobs
- Most Advanced Circuitry

NO MONEY DOWN ON EASY TERMS

outiful design and quality of construction for perlor to amplifiers selling for considerably more. A's purchasing "know-how" brings you this exisive amplifier with all the contrals and basic quirements to provide the finest music reproducinding in appearance but with specificotions secd to none. Read and compare. ecifications: Music Power 40 watt stereo IMFM gifications: Music Power 40 watt stereo IMFM watts per channel). Frequency response $\pm .5$
20 to $20,000 \mathrm{cps}$. Power bandwidth: $30-20,000$
cps of holf power with 2\% distortion. Hormonis distortion less than $1 \%$ at 1000 cps . IMD $2 \%$ of 15 watts. Domping factor 8. Controls (11): 1 -selecfor: oux, funer, NARTB tape, RIAA phono, crystol phono; 2 -function; stereo, monoural, phono, chonnel A, channel B; 3 -loudness; 4 -bass -15 db to flat to +15 db of 50 cps : 5 -treble -15 db to flat to +15 db at 10,000 cos: 6-channel bolance; slide swltches: 7-lo-filter; 8 -hi-filter; 9 -loudness contour
Input sensitivity: Aux, tuner -. 4 volt, mag. phono
-. 004 valt, tape head -.0045 , crystal phono -.25 volt far rated output 1000 cps . Outputs $4,8,16$ ohms and high impedance for tope recorder. Hum and nolse 75 db tuner, input and 50 db phono inand nolse 75 do tuner, input and 50 db phono in-
 ${ }^{43 / 44^{\prime \prime} H_{\text {f }} 1333 /^{\prime \prime} \mathrm{W}, 91 / 4^{\prime \prime} \mathrm{D} \text {. Shpg. wt. } 20 \mathrm{lbs} \text {. Beau- }}$ tiful sofin-chrome ponel with motching metal knobs. No. 33 Al 27 .
Nome mith mothing metal knobs,
$\$ 74.95$
Net. 33 Al31. Choreoal Grey Cover for obove.
Not
Net


Made for B-A by Electro-Voice, the leading high fidelity speaker manufocturer, this new low-resonance speaker system gives concert hall realism to every program source, with unbellevably low boss response, broct, beautifully mid-range, and sparkling highs. Bic feet in size! Bass speaker is a specially styled cobinet, less than 2.5 cubic feet in size! Bass speaker is a speciamic designed high-compliance, low resonance $12^{\prime \prime}$ woofer with $10 . \mathrm{oz}^{6}$. Ceramch mognet, long-throw voice coil for clean bass response below chomber, pre-mid-high range speaker is mounted in totally isolated ocoustic chomber preventing distorting interoction with the woofer. Built-in crossover beling cospeakers set of 200 cycles. ElA sensitivity rating $43 \mathrm{db;}$ power handing copocity 70 watts. Conservatively rated frequency response $14-13,000 \mathrm{cps}$ absolutely flat, with usable response beyond the ronge of audibility. Mmpedance 8 ohms. Cobinet size $14^{\prime \prime} H_{i} 25^{\prime \prime}$ hand rubbed walnut veneer No. 408212 . $\$ 84.50$ Value. Two-Way Speoker System Complete, Speciol Net
$\$ 69.50$


## NEW JENSEN X-10 ULTRA COMPACT 2-WAY SYSTEM

IDEAL FOR COMPACT HI-FI STEREO SYSTEM . . . EXTENSION SPEAKERS . . . ETC.
A miniature speaker system that provides the from small control on front panel. most amazing "big sound" yet. Boss and treble response far beyond expectation, comparable only to larger expensive units.
Heart of $X=10$ is special miniature woofer precisely matched to its mass-loaded diminutive enclosure. Woofer uses powerful 10 oz. Synotox-6 magnet. High frequency ronge is handled by a $3^{\prime \prime}$ tweeter that carries response
out to 14,000 rvcles. Volume is odjustable
from small control on front panel.
ereo or as an extension speaker suitabio tereo or as an extension speaker suitable for use even with the most expensive system.
beautiful oiled walnut. Moy be used with out or impedances of 4, 8 , or 16 ohms. Powe put impedances of 8 , 8 , or room sound with oting 6 watts. Adequare $7^{\prime \prime} 4^{\prime \prime} \mathrm{H} 13^{\prime \prime} \mathrm{W}$

No.34C231. Net Eech.

## STEREO FM IS MERE!

Now you can onjoy the magic of stereo sound on wide range FM by the addition of an one of these multiplex adaptors to your present FM funer and stereo speaker systen Custom engineered to B-A's exacting specificotions by Electro-Voice, a leader in the field of high fidelity sound. Combines in a single compoct speaker the most desired features of the finest separate three-way systems. Exclusive 3-in-1 concentric design incorporates the proven advantages of E-V's famous radax and super sonax principles for even, smooth, full room coverage of all audible ranges. Phonomenal bass response, full-bodied mid-range and silky smooth upper octoves are reproduced with unusually pleasing musical balance. Masking effects and imposed distortion are eliminated, you hear only what you should heor. and you hear it for better. Little wonder B-A's audio experts, men who know their products, a you can't beot this B-A super value. es recommend satisfaction guranteed
Specifications: Handles 20 watts of program materlal with peaks to 40 watts. requency response 35 to $18,000 \mathrm{cDs}$ ElA sensitivity roting 46 db . Free-spoce eqency minimizes distortion Mechanical crossover. 2000 cps. Electrical crossover 500 cps Mint $11 / \mathrm{lbs}$ Includes adiustable high-level brilliance conal el sorptive effects of rugs and draperies. Edge-wise wound design offords tortion. Size, $121 / 4^{\prime \prime}$ dio., $6^{\prime \prime}$ deep. Requires $\$ 44.40$ botfle opening. W79.5C
No. 34 A 189. No. 34 A 189.
COMPARE THE FEATURES COMPARE THE PRICE. BEST BUY ANYWHERE!

Integrated 3-Way system, com bines Super Sonax, Radax Propagator, and large bass cone in one compact concen tric assembly.

SPECIALLY PRICED TO SAVE YOU \$\$\$!

H.H. SCOTT MODEL 335

## CROSBY MULTIPLEX ADAPTOR

Universol model designed for oll FM tuners with a multiplex output lock, engineered by the compony who pioneered the stereo multiplex system. Selfpowered self-antoined unit has exclusive dimension control which varies stereo separation from mono to exponded stereo. Selector switch for stereo or stereo filter Dush-pull power switch ollows turning off separation is at least 20 db over entire audio range. Frequency 15000 cps on both channels with full seporation Main channel adjustment on chassis transmitter permits proper separation ridual stations Noise filter standards used by stereo reception in fringe filer enobles sotisfoctory stereo reception in molly be mosked Uses 2 cathode follower outputs special low-loss input cable supplied. Tubes used 2-12AU7 1-6C4 input cable supplied. Tubes used Power consumption 25 watts Size $51^{\prime \prime} W^{\prime \prime} 41 /{ }^{\prime \prime}$ Hower con No. 30 A28

## PILOT MODEL 200

 AUTOMATIC MULTIPLEX ADAPTOR
## No tools, no controls, no switches, no problems

with the new Automatic Pilot Multiplex. When the FM station broadcasts stereo FM, an indicator light goes on and the odaptor automatically switches to stereo reception. All connections made externally. Completely self-powered. Meosures $5^{\prime \prime} \mathrm{H}, 3^{\prime \prime} \mathrm{W}$, $14^{\prime \prime} \mathrm{L}$. Contains 3 tubes plus rectifier. Housed in $\$ 7950$ No. 31A65. Model 200. Net Eoch.
\$79.50
PILOT MODEL 100. Semi-outomotic FM multiplexer hos only one operationol control-a simple slide witch to put the multiplexer into or out of the circuit. All connections ore made externally. Contains 2 tubes and 1 rectifier. Dimensions $41 / 2^{\prime \prime} \mathrm{H}$ $5^{\prime \prime} \mathrm{W}^{\prime \prime} \mathrm{L}$. in handsome black and brass styling. No. 31 A66. Model 100. Net Each

Designed specifically for use with all Scott tune egardless of oge or model, this new model perm egardless of oge or mocel, this new model perm eception of both main and multiplex channeis wit ower distortion and greater fidelity than is possit with any other adaptor, even in weak signal are Front panel controls include level control, mas selector for off, mono, sub-channel noise filter, o tereo. Slide switches for adaptor in or out circuit, stereo nolse filter in-out. Special circuli permits high quality tape recording of multipl stereo progroms. Self-powered, self-contained ul with all connecting cobles supplied. Frequency sponse is flat out to 75 KC . Perfectly matches pedance output of all Scott funers. Cabinet styli matches all scott tuners. Size of cabinet $51 / 4^{\prime \prime} H_{1} 13^{\prime \prime} \mathrm{D}$.
No. 31 A67. Model 335. Net Eoch.

## NEW BSR MONARCH UA-I2 RECORD CHANGER

mationally advertised in life, look, post, this week precision crafted in great britain

## COMPARE

## THE FEATURES

Simple cosy-ro-operote slide speed selector and operotional controls.
New deluxe model of the World's best selling record changer. Feafures engineering tested quality second to none. . proved "jomproof" in o 550,000 consecutive record changing cycles! Light, skip-free trocking easily adjustable from $21 / 2$ grams to meet any cortridge compliance re quirement. Heavy concentrically weighted turntable provides less than . $1 \%$ flutter, less than $.35 \%$ wow os measured by Goumont-Kalee meter: Turn toble top has non-slip rubber mat. Shielded motor is rumble-free, precision bolanced with full rubber suspension, minimizing vibration. Equipped with famous BSR "full-fi" flip-over stereo cartridge for finest quolity reproduc tion from 4 speed monoural and stereo records $78,45,33$, and 16 RPM Automatically plays ten $12^{\prime \prime}$. $10^{\prime \prime}$ or $7^{\prime \prime}$. Records some speed intermixed. Operates on 115 V . 60 eyclé AC. Size $131 / 8 \times 111 / 4 \mathrm{~W} \times 711 \mathrm{H}$. Shog. wt 11 lbs. List $\$ 49.95$
$\$ 29.95$

| No. |
| :---: |
| No. |
| No. |
|  |

o. 1 A211. 45 RPM Adoptor Spindle. List \$3.75. Net Eoch
$\$ 2.25$ No. 31 A213. Mounting Boord far above chonger. Net Eoch............. \$3.

PROFESSIONAL TYPE HIGH FIDELITY STEREO TURNTABLE

## WITH WIDE-RANGE

 ITEREO CARTRIDGE G DIAMOND LP NEEDLE429

At last, a quality-built professional type manual turntable designed for discriminating listeners, but at a real low down budget price. Will odd immeasurable listehing pleasure from all records-monaural and stereo -with performance and precision operotion as only expected from fine furntables, Just look at the quality features and distinctive design. Massive $11^{\prime \prime}$ turnioble driven by quiet, constont, true speed motor. Plays all 4 speeds- $78,331 / 3,45$ and $162 / 3$ RPM. Feather-light, extra long dynamically balanced tone arm with finger-lift for easier set down Wide range turnover cortridge with diamond needle for monoural and stereo LP's; sopphire needle for 78 RPM. Equipped with seporote 45 RPM insert spindle. Handsome Fown Gold and Brown finish. Size $6^{\prime \prime} \mathrm{H} \times 131 / 4^{\prime \prime} \mathrm{W} \times 12^{\prime \prime} \mathrm{D}$ Requires $3^{\prime \prime}$ above and $25 / 8^{\prime \prime}$ below motor boord. Operotes ${ }^{\prime \prime} 10$ V. 60 cy. AC. Shpg. wt. 9 lbs.
\$27.95
No. 30A52. Model 1580 . Net Eoch
$\$ 1.48$
$\$ 3.87$

## CHANGER ACCESSORIES



(2) (3)

(3)

NG CASE
(1) CHANGER CARRYING CASE sily cut to accommodate any make cord Changer. Made of heovy ply-- Size: $161 / 4 \times 141 / 2 \times 103 / 4$ " high, with $i^{\prime \prime \prime}$ obove motor boord. Shpg. wt. . 40A130. Net Each.
$\$ 12.35$
PRECUT MOUNTING BOARDS inished 3-ply veneer board precut ready for use in any cabinet or built-ins

(3) VM 45 RPM SPINDLE For all VM changers. Eliminotes need No. (1) SLIDE DRAWER HARDWARE Easy mounting of radia chassis, record changers, recorders, etc., in cusfom cobinets, record comportments of consoles, etc. Mode of $1{ }^{18}$ " aluminum. Oven leng. M ibs Silel gith. Load copacity 30 lbs. Silencer spring No. 20A918. Poir
(3) Heovy-duty type. Made. of $\$ 1.49$ gauge steel Lood copacity 50 lbs gauge steel. Lood capocity 50 lbs. Otherwise os above
No. 20A934. Pair.


## STERE-O-MATIC 4-SPEED RECORD CHANGERS

## PLAYS NEW STEREOPHONIC RECORDS

## PLUS ALL STANDARD (MONAURAL) RECORDS

Outstanding new changers incorporating the latest odvances in record player design for providing finest reproduction of all records, monoural and stereo. features new massive transcription turntable, micro precision furntable bearing system with genuine Teflon thrust bearina. Model 1571 is equipped with ceramic cartridge and diamond needle. Both models hove full provision for stereo hookup including dual phono leads. Also easily Installed in standard (monaural) systems.
Completely outomatic operation of all records- $331 / 3,45,78$ and the "Talking Book' 16 RPM; oll sizes- $7^{\prime \prime}, 10^{\prime \prime \prime}$ ond $12^{\prime \prime}$. Records' may also be ployed manually if desired. New automatic manual-play feature returns tone arm to rest post automaticatly ofter playing single record. Record "copocity-Twelve $10^{\prime \prime}$, ten $12^{\prime \prime}$ or fourteen $7^{\prime \prime}$. Will intermix ten $10^{\prime \prime}$ and 12 " records of the same 'speed. Automatically shius-off after last record has played-tone orm refurns to rest. Positive record protection-records are dropped flat, air cushioned to rubber matted furntable.
Eosy to operote. All controls e-e eosily occessible. Completely jamprooftone orm can be held ot any time during operation withour domaging mech-
anism. New Eosy-Lift support arm offers exclusive front loading convenonism. New Eosy-Lift support arm offers exclusive front looding conven'ence. New Direct-Drive motor ossures constant speed at all times. New for $110-120$ V, 60 AC . Includes $A C$ to help prevent flats on drive wheel. for $110-120 \mathrm{~V}$. 60 AC . Includes AC and phono leads with plugs. Average Model 1572 hos
ing GE and other magnetic stereo is equipped with plug-in heads for accept1572 designed

 $30 A 45$ Nitroctive High Impoct Styre (Plug-In Head Only) 5750.00 obove. Shpg. wt. 11 lb .
No. 30A54. Net Eoch

## VM 4-SPEED STEREO RECORD CHANGER

 now at a new low price
## EVERYONE CAN AFFORD!

LATEST MODEL... PLAYS ALL RECORDS, MONAURAL STEREO
America's fastest selling changer now at fremendous $\$ \$ \$$ savings. It's the kind of value you fust can't afford to pass up. Your complete satisfaction guaraneed. It's the very same automatic changer as used in scores of top name hi-fi and stereo consoles and phonographs. Perfect for replacement of old worn aut changers, for custom built-in music systems, for building your awn record Complaterc.
Completely automatic operation in playing all records, all speeds (16. 33. 45 and 78 RPMI, all sizes (7, 10 and $12^{\prime \prime}$ ). Intermixes 10 and $12^{\prime \prime}$ records of the same speed. Automatically shuts-off after last recard. Direct-drive motor assures constant speed at all times. Pasitive record protection assured by flat air-cushion drop of records to rubber matted turntable. Lightweight, jam-proof tone arm camplete with stereo turnover cartridge with long-life dual sapphire needles. Dimensions: $123 / 8^{\prime \prime} \times 133 / 4^{\prime \prime} \times 41 / 2^{\prime \prime}$ above and $3^{\prime \prime}$ below mator board.
For $110-120 \mathrm{~V} .60 \mathrm{cy}$. AC. Fully guaranteed. Shpg. wt. $11^{\prime}$ Ibs. $\$ 27.95$
No. $31 \mathrm{~A} 283 \ldots . .25$ No. 31 A283
\$27.95

## HIGH FIDELITY MUSIC MINDER

## OFF ENTIRE SYSTEM AFTER <br> LAST RECORD PLAYSI <br> 

Now one can place a stack of records on the record changer with no worry about turning equipment off. Just plug AC cords of record chonger and amplifier into "Music Minder." Speciol built-in device auto matically shuts-off amplifier after last record has play ed. (Note: Changer must hove outomatic shut-off feo 33C31. For Gorrord \& Thorens. Choice
33C32. For VM, Webcor, BSR, Etc. Net Eoch. \$7.20



Automatic intermbx Absolutely lom-proof Bolonced tone arm - Constant speed change cycle Heovy duty 4-pole motor

Truly a remarkable fete of engineering and workmanship. Every single part of this changer is of the finest quallty, manufactured to the most exacting tolerances by the largest electronic manufacturer in Italy. This amazing low price has been accomplished through simplification of the operating mechanism, not by reducing the quality of the unit

Fully automatic, it will intermix 7, 10 and $12^{\prime \prime}$ records at all four speeds. Works through change cycle in only six seconds regardless of the turntable speed. After last record is played and the arm returns to rest the motor shuts off and it retracts its own idler.
Tone arm is spring-counterbalanced, fully adjustable from less than zero to well over 15 grams.
Rumble level is -32 db , in accordance with NARTB standards, only 3 db below the standard for broadcast reproducing furntables. Two-tone neutral finish. Size $131 / 2 \times 111 / 2^{\prime \prime}-4^{\prime \prime}$ above, $33 / 4^{\prime \prime}$ below. Shog. wt. 17 lbs.
No. 31 A76. Less Cartridge \&ase. Not........................ Ber
$\$ 44.50$
No. 31A77. Nat.
Lesa Changer with GE VR-1000-7 Stereo Cartridge $\$ 44.51$
Nosa Changer with \$44.51
Leso Changer with Shure M70 Stereo Cartridge \$44.51
No. 31 A79. Net.

## No. 31A57

Custom Designed Base in Wolnul, Mahogany or Blond. Specify finish. Net
$\$ 4.75$
No. 31A58. Precut Mounting Board. Net.
2.00
No. 31 A59. Automatic 45 RPM Spinde. Not $\$ 3.75$

## GARRARD MODEL T/MKII 4-SPEED

 MANUAL PLAYER

True Gorrord precision quality throughout for manually playing all records, monaural or stereo, $7^{\prime \prime}, 10^{\prime \prime}$ or $12^{\prime \prime}$ at 16 ,
33.45 or 78 RPM. Feotures 33,45 or 78 RPM. Features shaded motor; belt-free true turret drive; heavy precision flywheel action turntoble with rubber traction mot; outomatic start and stop - move tone sorm to start, shuts off at end of record, stylus pressure adjustment.
Wired for monoural or stereo sions: $143 / 4^{\prime \prime}$ W, $121 / 2^{\prime \prime} \mathrm{D}, 3^{\prime \prime}$ obove and 2 1 " below motor board. 'Includes $^{\prime \prime}$ 6 ft . UL AC cord two oudio cobles terminating into pin jacks, and 45 RPM adoptor. Shpg. wt. 15 lbs.
No. 30A143. Model T/MKII. Net Each
$\$ 32.50$
For other Garrord products including Mig. Board and Bose for $T / M K I I$ see poge 2.

## MULLARD LABORATORY BALANCED MATCHED PAIR POWER OUTPUT TUBES



MFG. LIST \$5.35
as Low As
$\$ 7 \begin{gathered}73 \\ \text { GAR5 } \\ \text { PAIR }\end{gathered}$

- Provides optimum performonce of high fidelity push-pull omplifiers. - Eliminates distortion, hum ond power lass coused by unbolanced tubes.

Premium quality tubes in motched poirs which have undergone extensive laboratory test procedures to assure true balonced audio reproduction. Eliminates distortion, audio hum, and loss of power caused by unbalanced output tubes. Greatly improves performance of cny console, component system, tape recorder, phonogroph, etc. using push-pull omplifiers

| Sth. Mullard No Tyoe | $\begin{aligned} & \text { ElA } \\ & \text { Type } \end{aligned}$ | List Pair | Net Poir | $\begin{aligned} & \text { Stk. M } \\ & \text { Mo. } \end{aligned}$ | Mullard True | $\begin{aligned} & \text { ElA } \\ & \text { Type } \end{aligned}$ | List Poir | Net Pais |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $41 \mathrm{AlO5}$ EL34 | $6 \mathrm{CA7}$ | \$13.45 | \$6.86 | 414110 | EL95 | 6DLS | \$5.35 | \$2.73 |
| 41 A106 EL37 |  | 13.90 | 6.82 | 414111 | ECL82 | 6BM8 | 7.15 | 3.6 |
| 41 A107 EL84 | 6BQ5 | 5.55 | 2.84 | 41 All 2 | UCL82 | 50BM8 | 7.15 | 3.6 |
| 41 A 108 EL86 | 6CW5 | 6.50 | 3.32 | 41 All 3 | UL84 | 45B5 | 5.95 | 3.3 |
| 41A109 EL90 | 6 A05 | 5.35 | 2.73 | 41 All4 | 1189 | 7189 | 6.95 | 3.5 |

BOGEN PRESTO B-6I TURNTABLE

## $\$ 5995$

Automatic cueing device.
Integrated tone orm
Vorioble speed from 29 to 86 RPM

- Heory duty 4 -pole motor.

A revolutionory approach to turntable design, the B61 offers new unusuo features not found on any other turntoble. An automatic cueing device raises or lowers the tone arm to any spot on the record by the touch of a knob, eliminating damage to the record or the stylus. Dynamically balanced tone arm is the Bogen PA=1. Speed selector is infinitely variable from 29 RPM, with click stops of $162 / 3,331 / 3,45$ and 78 RPM. Ideal for square dancing, swimming, calisthenics, language study, or mony other uses where change of pitch or record speed is desirable. Full 12 . hurniable is $73 / 4$ io machined zinc alloy casting with heavy rubber mat, driven by heovy duty 4-pole motor. Wow and flutter less than $0.2 \%$ rumble 51 ob below overage ecording level. Tone arm has plug-in head for stereo or monaural cart idges. Chassis deck size $151 / 4 \times 131 / 4^{\prime \prime}, 21 / 4^{\prime \prime}$ below deck. For 115 V .6 cycles AC. Shpg. wt. $181 / 2 \mathrm{lbs}$.
No. 32A58. Model B6I (Less Cortridge).
Net Eoch
$\$ 59.95$
Net Eoch...Type PB6. Wolnut finish wood bose for B61. Net Eoch...... $\$ 5.28$
No. $32 A 60$. No. 22A361. Type H4. Extro Plug-In Head, aluminum for B61. Net Eo. \$4.0C BOGEN PRESTO B6O TUR.NTABLE
Economy model of the B61. The B60 is exactly the same in every way, with lighter weight purntable ( $33 / 4 \mathrm{lbs}$.) made of formed steel. Waw futter less than $0.25 \%$. rumble 45 db below overage recording level. Sho watrel 131 lbs
No. 32c57. Model B60. Net Eoch.
$\$ 49.95$


- Complete stereo seporotion.

Personolized, privote listening.

- Brilliont reolism.
(1) Model SP3. Add new dramatic realism to your recorded music. Wi these specially designed, comfortable phones, you hear startling new sounc from your fovorite records. This is occomplished with extremely sensiti $31 / 2^{\prime \prime}$ reproducers which fit snugly to your ears, shutting out $95 \%$ of outside noise, allowing intimate private listening without disturbing other Frequency response $30-15000 \mathrm{cps} .4 \mathrm{ohm}$ impedance allows connection rectly to output of amplifier or across voice coil leads. Extremely comfor able, lightweight, and rugged. Has soft foam ear cushions, 8 ff . cord ar stereo plug Special lock assembly included for easy hookup to speake Stereo plug. spe Shpg. Wt. 2 lbs. 22 A 364 . Model SP3. Net Eoch
$\$ 24.9$
(3) Model T-5 Junction Box. For connecting stereophones to existing ster or monaural systems. Impedance 4-16 ohms. Contains two volume contrc for controlling sound level in each phone. Has two output jacks for ster or monaural use. Equipped with speaker off-on switch for personalized I tening. Shog. wt. 1 lb.
No. 22 A387. Model T-5.
No. 22A387. Model T-5. Net Eoch.
$\$ 7.9$


## B-A SPECIAL PURCHASE

## REGULAR NET \$34.95



## ALL <br> BALL-BEARING PIVOTS

PLAYS AT ANY ANGLE UP TO 90 DEGREES

## SAVE $37 \%$ ON THE FAMOUE ES L PROFESSIONAL STERE TONE ARM

Rated No. 1 by oleading consumer research organization, the fabulous $\$ .1000$ tone arm by ESL was a hi-fi bargain at $\$ 34.95$, but now is offered at o fontastic savings of $\$ 13.00$. Specifically designed for stereo, uses ball-bearing action or vertical and horizontal motions. Turntable leveling is unnecessary, plays record at any angle up to 90 degrees. Tracks at 2 grams for minimum record wear. Detachable cartridge shell will accept any cortridge with $1 / 2^{\prime \prime \prime}$ or ${ }^{\frac{7}{18}}{ }^{\prime \prime} \mathrm{mtg}$. cen ters. Finished in attractive satin-chrome. For up to $12^{\prime \prime}$ records. Shpg. wt. 3 lbs No. 22A376.
S. 1000 Tone Arm, Special.
$\$ 21.95$


GE STEREO CARTRIDGES
The entirely new GE VR Series Stereo Cartridge marks on outstanding advance in magnetic stereo cartridge design. Unsurpassed perfection in ali four critical areas of stereo performance-unusually high compliance, (both lateral and verticall, wide and consistent channel separation, wide-range frequency response on both channels, triple mu-metal shield against all possible hum sources. Available in models listed below.
(1) NEW MODEL VR1000-7. Designed for optimum performance in the finest music systems, this new model features triple mu-metal shielding, obsolute flat response between 20 and 20,000 cps of only 2 grams tracking farce.
No. 60 B156. Madel VR-1000.7 with No. 608156. Model VR-1000-7. With .7 mil diomond stylus. Net Eoch . $\$ 24.45$ No. 60 B157. Model VR-1000-5. With 5 mil diamond stylur. Net Eoch. $\$ 29.35$
No. 608158 . Replocement dia. stylus for VR-1000-7. Model OR-70. Eo. $\$ 12.69$ No. 60B160. Replacement dio. stylus for VR-1000-5. Model DR-5D. Eo. \$14.65 (9) MODEL VR-227. For record changers and furntables. Has 20-17,000 cps frea. response. 6 millivolt output. 30 db channel separation. Tracking force 5 to 7 grams. ${ }^{2 \prime 2}$ "1 or $1 / 2^{\prime \prime} \mathrm{mtg}^{\prime 2}$. centers
60A67. Model VR-227. With 7 mil diam
(3) Model VR-225. For professional iype cps. Tracking force 2 to 4 grams, otherwise same as VR. 227 No. 60A68. Model VR-225. With .5 mil diamond stylus. Met
$\$ 18.57$ VR $\|$ VARIABLE RELUCTANCE HI-FI CARTRIDGES
Frequency response from $20-20,000 \mathrm{cps}$, slim design and plug-in connections Tracks at only 6 groms. Triple or single speed clip-in-tip stylus. 001 for $331 / 3-45$ RPM: 003 for 78 RPM. "D" for Diamond tip and " 5 " for Sapphire.
Pre-amp listed below is required. Pre-amp listed below is required.

| Stk. No. (3) 208248 (8) 608141 208249 208250 (4) $60 B 144$ | $\begin{aligned} & \text { GE Cort. } \\ & 4 \mathrm{G}-050 \\ & 4 \mathrm{G}-052 \\ & 4 \mathrm{G}-040 \\ & 4 \mathrm{G}-041 \\ & 4 \mathrm{G}-061 \end{aligned}$ | Applicotion <br> Triple Play <br> Triple-Play <br> Single-Play <br> Single-Ploy <br> Single-Play | $\begin{aligned} & \text { Tip } \\ & .0015-.0035 \\ & .0010-.0035 \\ & .0035 \\ & .0015 \\ & .0010 \end{aligned}$ | Net Eoch $\$ 12.69$ 17.59 9.75 9.75 14.65 |
| :---: | :---: | :---: | :---: | :---: |



## GE PHONO PREAMPLIFIER

MODEL UPX-003B MONAURAL PREAMP. Perfectly matched unit for IAA compensation well as any magnetic cartridge. Automatically provides put with "Phono-Mike" switch furnished. 32 db gain on mike inpur mike lete with 65 C 7 fube, input phono lack, output lead with phono plug ComC cord. $35 / 8^{\prime \prime} \mathrm{W} . \times .35 / 6^{\prime \prime} \mathrm{L} . \times 33 / 4^{\prime \prime} \mathrm{H}^{\prime}$. For $115^{\circ} \mathrm{V}$. AC $\$ 14.45$ MODEL MF-1 STEREO PREAMP. Two preamps on one chassis for stereo 'stems. Has inputs for twe phono and two tope channels, both equalized. No switches provided for switching tope or phone channels individually. amplete with 2 tubes 17025 ), line cord and 4 input phono lacks. Size o. 22A354. Model MF-1. Net Eoch.
\$24.45
FAIRCHILD SM-2 STEREO CARTRIDGE
Designed to fulfill professional studio ploybock requirements this new low-mass, moving magnet cartridge reproduces all The fidelity ond response originally pressed into the record. Features unusually high compliance, wide lineor separation 5 mv. Output, 2.5 gram trocking fórce. Has .7 mil polished diamond replaceable stylus.
No. 60A69. Net Eoch.
\$37.50

## SHURE STEREO CARTRIDGES

## (C) SHURE M7D CUSTOM DYNETIC

Fomous Stereo Cortriage roted tops by o leading consumer reseorch mogozine. A complefely hum-free stereo dynetic cortridge designed to offer high neede compliance, low needle talk, low tracking forces, wide range and no magnetic otfroction to steel turntables external magnetic fields ridge, the quality of which is reflected in its acceptonce by leading manufacturers for use in their finest quality package equipment. Works perfectly in record changers as well as franscription tone arms
Specifications: Freq. resp. 20 to 15,000 cps. Output voltage 5 millivalts per channel. Channel separation 20 db of 1000 cps . Recommended load impedance 47,000 ohms per channel. Tracking force 4 to 7 grams. Standard No. 60A78. M7D Cortridge. Net Eoch....
$\$ 23.52$ No. 60A60. Replocement Diomond Stylus. Net Eoch
$\$ 11.76$
MODEL M7-N21D. Cartridge obove is combined with the fabulous N210 tubular diamond stylus to give incredibly high campliance. Optimum track. ing pressure 2 grams. For manuol tone arms. No. 60B161. Net Eacb
No. GOB162. N21D Diomond Stylus Only. For M7D or M3D. Nef Each.... $\$ 24.25$ Rated No. I by a leading consumer research publication
Designed for those who will accept no compromise in the quality of reproduction from their stereo records. Campletely compotible for playing both stereo and standard LP's. For use in all record changers and tone arms, will operate through mognetic input of any good quality preamplifier. Frequency response $20-15,000 \mathrm{cps}$ at $\pm 3 \mathrm{db}$. Chonnel separation 20 db . Output valtoge 5 MV . Recommended tracking force $3-4$ grams for tone arms, 6 grams for record changers, Complete with .7 mil diamond stylus.
No. 60A88. Model M3D. Net Eoch
\$44.10
(6) SHURE M8D STEREO "STANDARD" DYNETIC

A new member to the growing fomily of fine cartridges by Shure, the M8D represents the finest stereo value at such o moderate price. Frequency response 30 to $15,000 \mathrm{cps}$, 5 millivolts per channel at 1000 eps. Channel separation more than 20 db at 1000 cps. Tracking force 5 to 8 grams. Standard $1 / 2^{\prime \prime} \mathrm{mfg}$. centers. Dia. .7 mil. stylus. No. 60A44. Model M8D. Net Eoch.....
$\$ 16.17$
Replacement Diamond Stylus
No. 60A 45 . N8D. Net Eoch
$\$ 8.09$

## PICKERING STEREO FLUX-VALVE CARTRIDGES

## (7) MODEL 380-C. Troditional Pickering quallity design. Hermetically sealed

 ond fully encapsulated in mu-metal for hum-free performance. Exclusive mognetic discriminator provides channel separation of 25 db . Freq. response 20 to $20,000 \mathrm{cps} \pm 2 \mathrm{db}$. Fits all chongers ond tone orms. Tracking force 3-7 grams. Equipped with new "V-Guard" stylus assembly. No. 60A71. Model $380-\mathrm{C}$. With .7 mil diamond stylus. Net Each. $\$ 29.85$ B NEW! MODEL "STEREO $90^{\circ}$. A fine quality stereo pickup designed specitype with hum bucking coils, offering smooth response over mognetic circult range. Freq. response 30-15,000 cps; output 8 millivalts per channey tracking force 4 to 6 grams, channel separation 20 db . Uses famous T-Guard diomond stylus assemblyNo. 60441. Model 90 . Net Eoch
Replacement "V-Guord" diamond assembly for Model 380 C No. 60A72. Type D3807C. Net Eoch............................... $\$ 16.50$ Replacement "T-Guard" diomond assembly for Model 37ilic........... \$15.00 No. 60A79. Type D3707C. Net Eoch.................................... \$12.00 Replacement "T-Guard" diamond assembly for Model 90 . No. 60A42. Type D9007. Net Eoch.................................................... $\$ 9.90$

## (9)SONOTONE STEREO CARTRIDGE

NEW 9T.Absolutely flat over entire recording range $\pm 1 \mathrm{db}$ ot 20 to is,000 cps, this new model sets a new standord of excellence for ceramic stereo cartridges. Features high compliance, fool-proof turnover stylus assembly for ploying all speeds, low noise level. Tracking pressure 2 to 6 brams. Output voltage .3 volt per channel, seporation more than 20 db between channels. For turntables or high quality record changers. $\$ 9.70$
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No. 60A40. Model 9T-SD. 7 mil dia. 3 mil sapphire. Net Eoch........

## (10) DUOTONE "ACOS" STEREO CARTRIDGE

Roted best buy by leading consumer research publication.
Features the exclusive "Floatling Needle Action" which nullifies needle talk and allows greater vertical ond lateral compliance. Provides smoother, cleare sound reproduction. Foolproof furnover mechanism places stylus at a perfect $45^{\circ}$ to each record foce assuring flawless, balanced reproduction in stereo as well as monaural. Completely compatible for all types of tumtables and chongers. Response $40-15,000 \mathrm{cps}$, output voltage 1 volt. Trocking force $2-4$ grams, channel separotion 25 db . 7 mli diamond, 3 mil sapphire stylii. No. 60A76. Model GP573SD.
Net Eoch..
$\$ 9.95$
DYNA-EMPIRE 108 STEREO CARTRIDGE
An excitingly new moving magnet tronsducer offers the quality, stereo bolance, channel separotion compliquale, tracking efficiency and complete freedom from hum prick-up. The superlative quolity engineered into this cartridge assures that every note in your finest records will be foithfully reproduced. Frequency response 15 to $30,000 \mathrm{cps} \pm 2 \mathrm{db}$, output voltage 8 millivolts per chonnel balanced to within $\pm 1 \mathrm{db}$; tracking force 1.5 to 5 grams. 4 -terminal output No. 60A43. Model 108.
Net Eoch.
$\$ 35.00$



## NEW DECORATOR GRILLE FABRIC <br> WOVEN ESPECIALLY FOR B-A BY MELLOTONE

Now, for the first time the same specially woven grille fabrics used by the nation's leading manufacturers of sound equipment are avail able for your own hi-fi, TV or other scund installations at $B-A^{\prime}$ low prices.
These are not ordinary materials! Each was created by the finest designers mode of the highest quality materials, and woven especially tor the trans hundreds of fobrics to give you just the righ selection to blend with an furniture style or wood tone. For your convenience suggested furniture style and cabinet woods are noted with each pattern

Fern Weave. A fine tracery af delicately tinted tan and off-white with glitter ing gold metallic thread at regular intervals. Dark brawn vertical fibers pro duce shimmering triangular designs. Far use with walnut, mahogany, maple Furniture style-Eorly American, Traditional,
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Hmaple, walnut, fruitwood, cherry. $\$$ No. 324328 . $36 \times 36^{\prime \prime}$. Net Each $\$ 4.75$ (1) Americona-Medium. Same design as above except that rich browns wit darker stripe used in background. For use with same furniture styles an No. 32 A 327 . $18 \times 24^{\prime \prime}$. Net Each $\$ 2.40$ No. 324326 . $36 \times 36^{\prime \prime}$. Net Eoch $\$ 4.7$

## 

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A level Purntable or recard chonger is o must for stereo reproduction. K includes circular bubble level and four adjustoble teet. Level is $3 / 44^{4}$ dia. tir ished in nickel plated brass. Mig. list price $\$ 3.25$ No. 11 A 397. Type 30-226. Net Each
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## HEW MALLORY "LL" STEREO L-PAD



## DEXTRAFIX TONE ARM CONTROL

$\$ 2.93$


A unique, precision-made accessory far raising or lowering orms or record changers. Allow exact placement of cortridge on record, while protecting both recard and stylus fram damage due to accidental drapping of tone orm. fram damage due to occidental drapping of tone arm. recard. Easy to install and operate. Adjusts to any tane orm height. Complete instructions supplied. No. 11A387. Dextrafix.
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High quality connecting cables for use with audio and high fidelity equipment, tape recorders, speaker extensions, or wherever jumper cords are needed. Connectors are molded in plastic directly to coble, with molded-in finger grip for easy removal from socket. Wlre is oftractive chrome-gray All ore shielded except \$which ore unshlelded.

| Stock No. | One End | Other End | Length | Each | Stock No. | One End | Other End | Length | Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 204276 | (1) | (1) | 6 Ft . | \$1.63 | 204373 | (5) | (6) | 6 Ft . | - |
| 204277 | (1) | (2) | 6 Ft . | 1.18 | 204374 | (5) | (6) | 10 Ft | . 7 |
| 204284 | (1) | (3) | 6 Ft . | 1.28 | 204331 | (2) | (2) | 18 ln . |  |
| 204289 | (1) | (4) | 6 Ft . | 1.53 | 20 A332 | (2) | (2) | 3 Ft . |  |
| 204290 | (1) | (5) | 6 Ft . | 1.18 | 204333 | (2) | (2) | 6 Ft . |  |
| 204291 | (8) | (8) | 6 Ft . | 1.53 | 208245 | (2) | (2) | 10 Ft . |  |
| 204105 | (8) | (8) | 10 Ft . | 2.08 | 204110 | (2) | (2) | 25 Ft . |  |
| 204106 | (8) | (8) | 25 Ft . | 2.78 | 204336 | (2) | (3) | 3 Ft . |  |
| 20A330 | (8) | $(2)$ | 6 Ft . | 1.18 | 204337 | (2) | (3) | 6 Ft . | . 0 |
| 204107 | (8) | (2) | 10 Ft . | 1.62 | $20 B 246$ | (2) | (3) | 10 Ft . | 1.18 |
| 204292 | (8) | (3) | 6 Ft . | 1.28 | 204111 | (2) | (3) | 25 Ft . |  |
| 20A311 ${ }^{\text {n }}$ | (8) | (7) | 6 Ft . | 1.12 | 204375 | (2) | (4) | 6 Ft . |  |
| 204109* | (8) | (7) | 20 Ft . | 1.76 | 204376 | (2) | (5) | 6 Ft . |  |
| 20A313 | (5) | (5) | 18 ln . | . 82 | 204377 | (2) | (5) | 10 Ft . | 1.18 |
| 204323 | (5) | (5) | 3 Ft . | .71 | 204379\% | (2) | $(6)$ | 6 Ft . |  |
| 204324 | (5) | (5) | 6 Ft . | .88 | 20A112 | (2) | (6) | 18 ln . | 4 |
| 204325 | (5) | (5) | 10 Ft . | 1.18 | 204334 | (2) | (6) | 3 Ft . |  |
| 204326 | (5) | (3) | 18 ln . | .74 | 204335 | $(2)$ | (6) | 6 Ft . |  |
| 204327 | (5) | (3) | 3 Ft . | .78 | 204380 | (2) | (6) | 10 Ft . | 8 |
| 204328 | (5) | (3) | 6 Ft . | 1.03 | 204113 | (2) | (6) 2 | 25 Ft . | . 81 |
| 204365 | (5) | (3) | 10 Ft . | 1.18 | 20A381品 | (2) | (17) | 6 Ft . | 03 |
| 204372 | (5) | (6) | 3 Ft . | .68 |  |  |  |  |  |

## 8

## ? <br> (2)

Provides a convenient means of coupling various cambinations of phono and mike leads interchangeably with positive noise free electrical connections. In sturdy brass nickel plated housings 1 , .he" long, $13^{1} y^{\prime \prime}$ diameter. Wt. 5 oz .
$\begin{array}{ll}\text { Stack No. Type } \\ \text { (1) } 128225 & 332 \mathrm{~A} \text { Input } \\ \text { Phone Jack }\end{array}$ (1) 128226 334A Phona Jack Connector (8) 128227 336A Phone Jock 12B228 338A Male Mike Connector (8) 20 A 484336 B
(128230 345 A Phone Jock
Phono Jack
Two Phone Tip Jacks
Output
Nef Ea. Female Mike Connector $\$ 1.03$ Female Mike Connector Phono Plug Connector Phono Plug Connector Phono Jock
Phone Plug
Phane Plug
Phono Jock
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STEREO LINE BALANCE CONTROLS (1) VOLUME CONTROL ADAPTOR. Has bullt-in valume
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cuit (crystal mike, phono, etc.). Designed for use in unbalanced stereo channels. Completely shielded. Attroctive nick
plug output.

## plug output.

ype 366. Net Each
nel some nel, some as obove except twa completely isolated nels. Two phono jock inputs to twa phono plug autputs. Attractive tan finish completely shielded hout ing with nickel plated occéssories. No. 20A479. Type 367. Net Eoch
$\$ 4.41$


## SWITCHCRAFT CONTROL UNITS

## (1) MULTIPLE SELECTOR SWITCH

Accepts up to 5 input circuits with clrcuit switch connecting ony one input tc single output. Inputs are labeled-AM, FM, Phono, Tope and Aux. Attroctive ton finished, completely shielded housing. All inputs are phono jocks. Mounts to ponel or cobinet. Complete with mounting screws
No. 20A198. Model 664. Net Each
$\$ 2.81$
(3) STEREO SELECTOR SWITCH

With one switch, you can select any one of 3 stereo inouts to one stereo output. Ideal for switching tape, tuner, or phono to amp. 4 pairs of phono jacks mounted on tan metal box $2^{\prime \prime} \times 2^{\prime \prime} \times 1^{\prime \prime}$. Complete with instructions and No. 20A179. Type 668. Net Each

S3. 88

## (3) STEREO-MONAURAL SELECTOR

Simple and instont switching from stereo to monoural or vice versa. Dual channel feed thru for stereo or outputs corinected together for monaural. switch has channel reversing for stereo. Size $2 \times 2 \times 1^{\prime \prime}$. Complete with mounting screws
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$\$ 2.06$
(1) SPEAKER CONTROL WITH T-PAD

A constant impedance T-Pad mounted on attractive natural brushed brass woll plote for remote control of any stereo, hi-ft, or PA system speoker. Ivory knob with block escutcheon, white letters. Roted 4 watts (15 watts oudio) Plate size $23 / 4 \times 41 / 2^{\prime \prime}$. Fits stondard outlet box.
No. 20A181. Type 651-With 8 Ohm T-Pad Choice
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Some os obove but furnished with 8 Ohm L-Pad.

## MULTI-SPEAKER SELECTOR SWITCH

A seven-position switch mounted on en attractive notural brushed brass wall plote. Selects any one of 3 speakers, any 2 or 3 , or all at once. Ideal for remote speakers in different rooms of your home. Constant impedance maintained regordless of switch position. Ivory knob ' with black escutcheon, white letters. Plate size $23 / 8 \times 41 / 2^{\prime \prime}$, fits standard outlet box ar can be mounted on speaker cabinet. No. 20A184. Type 655. Net Eoch................33.23

## NEWI "STROBOLAMP" ACCURATE SPEED CHECK FOR RECORD TURNTABLES

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Come To The Falr, Tennessee Ernie Ford
All The Way, Frank Sinatra
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Johnny Horton Makes History
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RCA. 32 RCA-32 Col.
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| Title and Artist | Mfy. | No. | List | Net |
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## 5-TUBE TABLE RADIO

Terrlfic value! Brings a world of listening pleasure for much less than you would normally expect to pay. Just look at the fine features, the truly appeoling modern styling, and compare. Powerful 5 tube lincluding rectifier) superhet circuit employs dual purpose fubes for 6 tube performance. Automatic volume control ossures steady, clear sound without foding or blosting. Heavy duty Alnico $V$ PM speaker provides superior tone quality. Precision built -in loop antenna pulls in locai and distant stotions clear and sharr.: Beoutliul
 W. $6 / 4 / 4$, D. 1 T5-125 v. 60 cy . AC-DC.' Shpo.

sweep second hand and large easy-ta-read numeroils. Luminous hands glow in the dork. Has oll! the populor clock teatures. Automatic "on" for waking one to music; alorm buzzer for heavier sleepers; appliance outlet 11200 wott) to stort the coffee perking; "Sleep-switch" to autamatically turn radio off up to 60 minutes after retiring.
Beautiful slim-line styled cabinet with smart qoid , colored trim. $\mathrm{W} . \mathrm{G}^{\prime \prime} \mathrm{D}$. $105-125 \mathrm{~V}$. 60 cy . Ac. Shpg. Wr.
10 los. Choice of White or Charcool Grey. No. 364343
$\$ 24.97$


MFG. LIST $\$ 26.95$

$S 3{ }_{785}^{95}$ MFG. LIST $\$ 49.95$



A boon to the sleepyheod. Simply push the button fon top of the set or on keyboard contrall. re-owaken you "40 winks" later.

52995
MFG. LIST $\$ 36.95$
PHILCO

## "40 WINKS" <br> the philco timer that doesn't FORGET

## CLOCK RADIOS FOR 19.62

## MODEL 78D... SMALL AND ELEGANT

A triumph in value! New jet black clock foce high-lighted by aluminum contrasts with solid calor cabinet for beauty that will be appreciated everywhere. Finest AM 5 tube (including rectifier) radia with $4^{\prime \prime}$ speaker ond self-contained antenna performs like sets costing much more. Has large easy reading clock face, rodio timer for wake up music and " 40 winks" timer. Clean modern styled plastic cobinet $63 / 8 \times 13 \times 51 / \mathrm{g}^{\prime \prime}$. Wt. 4 lbs. 115 V . AC. Mig. list $\$ 26.95$ No. 36A 350 . Ivory or Mocho, specify color. Net Eoch.
\$21.95

## MODEL 783...SPARKLING STYLING: MORE FEATURES

Charming combination of modern design and warm appeal that Charming combination af modern design and aura of yesteryear. All-over plastic cobinet has finsuggests an aura of yesteryear. All-over plastic cobinet has finshed bock for fine appearance, better tone quality. AM 5 tube (including rectifier) radio has $4^{\prime \prime}$ speaker, loop antenna. Clock has luminous hands. Features radio on timer, buzzer olarm, lull away timer for up to 65 minutes of bed-time listening before music au Wt. los specify whit and pink or white and beige. \$29.95 No. 36 A351. Mfg. list $\$ 36.95$. Net Eoch

## MODEL 785 ... OUR MOST BEAUTIFUL CLOCK RADIO

 Pleasing "unit-treatment" of clock and radio provide fine tone and for greater ease of reading radio and clock dials. AM radio has 5 tubes (including rectifier) modern dust and moisture sealed circuit panels, heavy $4^{\prime \prime}$ round speaker, lighted slide rule vernier tuning ond powerful loop ontenno.Simplified keyboord control center selects all automatic functions simp a with a roucher for to 65 minutes of bed time listening before music automatically fades away and 40 winks timer.
Cabinet is fully enclosed, finished front and back. Size $41 / 2^{\prime \prime}$ deep. Wt. 5 lbs. Mf́g. list $\$ 49.95$.
No. $\mathbf{3 6 A 3 5 2 \text { 2. IVory or Block. Net Each. }}$
$\$ 39.95^{x}$

# PHILO PORTA：BE RADIOS FOR 1862 

## FAMOUS FOR QUALITY THE WORLD OVER

## LIST PRIEE $\$ 49.95$ <br> $\$ 31^{88}$ <br> CAMERA SIZE！ <br> RUGGED BEAUTY <br> finist pirformance EVIRYWHERE


－With deluxe corrying cose，private corsst ond Whteries：
－Plays 100 hours on just two pen celle．
Shirt－pocket size personal portoble delivers big－ set performance．Extra－sensitive Magnecor an－ tenno， 6 powerful transistors plus diade and exclusive power－boost push－pull audio circuit com－ bine to deliver maximum power to the full－ voiced PM speaker．Provides tone and volume to fill a room．．．music and voice produced faith． fully at all volume levels．Easy，vernier funing with finger－tlp knob．
Handsome super－tough＂break－proof＂cose meas－ ures Just $4^{3 / 8^{\prime \prime}} \mathrm{H}, 2 / 2^{\prime \prime} \mathrm{W}$ ， 1 月月 $^{\prime \prime} \mathrm{D}$ D．Weighs only ures just $\mathrm{o}^{\mathrm{oz} \text { ．Complete with occessories．Choice of Ebony }}$
 Ivary or Terra Cofta．
No．SOA32．Model Net Eoch
Bottery Kit 12 Penlight Batterles）
No． 21 A124．Net
－Exclusive power－boost push－pull oudlo system． －Precision spoce－oge type tronsistors ond circuitry －Highly stried break resistant cose．
Precision crofted Inslde ond out．Has the look and the feel of a fine comera，the advanced engineerina and construction needed for satlisfying listening．
Features extro dependable circuit panels and tron－ sistors like developed far critical space－age projects extra sensitive Magnecor ontenno and acoustically motched powertul $23 / 4$＂Alnico $V$ speaker．Operopes on Just 2 long life penlight botteries．Highly styled ebony and chrome，break－resistont case withstands more than normal usage without harmful damage． Has refractible carry－about handle． $35 / 8 \times 31 / 2$ 1 fit deep．Weighs only 14 oz． No．60A14．Net Eoch．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．\＄31．88 No．178594．Earset for private listening．Eoch．．．$\$ 2.79$ No．21A124．Bottery Kit（2 Penlight Cells）．．．．．．．．．．． 28 c

．
LIST PRICE $\$ 59.95$ SUPER
$\$ \triangle 550$ LONG RANGE！

## MODEL T－901

## T：ANSTSTOR

## PYIn HIGH PERFORMANGE PORTABLES

－All American－All Transisfor

## （ TRANSISTOR

MPG．LIST \＄39．95
$532^{95}$

Tuned RF Amplifier
3 Stage Push－Pull
Audio．
Big $31 / 2^{\prime \prime}$ Alnico $V$ Speaker．
－ 200 Hours Oparation on Just 4 ＂C＂Size Batteries．


## GENUINE TOP GRAIN LEATHER CASE

## Latest superheterodyne circuit with 8 ＂prestige＂

 transistors and one diode gives superlative selec－ tivity and sensitivity．Hos extended two stage au－ tomotic volume control，two position tone contral for voice or muslc，audio amplifier with inverse teedbock sensitive ferrite rod ontenna and slide ule tuning dial with regular kilocycle markings and civil defense frequencies identilied for quick station settings． 4 standord＂$C$＂size botteries， operotes over 200 hours for only pennies．Case is chestnut tonned，top－grain leather covered $75 /{ }^{\prime \prime \prime} \mathrm{W}, 5 \mathrm{~m}^{\prime \prime} \mathrm{H}, 218^{\prime \prime}$ deep．With earset and No．37A258．Mfg．List $\$ 39.95$.
No． 37 A2
18


An outstanding buy complete with alt accessories！ A corry－about radio to please everyone！Has genu－ ine top－grain leather case to take the hard knocks of regular use．Has 7 ＂prestloge＂transistors plus 2 diodes，rugged ond dependoble super－sensitive printed circuit， 3 oudio stoges with inverse feed－ back，full range $23 / 4^{\prime \prime}$ Alnico $V$ speaker，extended automatic volume control，noise－free air dielectric tuning condenser，easier precision drive vernier tun－ ing，ferrite rad antenna for even the weak stations． Operotes economically on 4 common＿penliaht cells Chestrut leather cose 3 钅＂wide， $57 / 8^{\prime \prime}$ high， 2 dr $^{\prime \prime}$ deep，hos snop－on protective front．Private earset and 4 pen cells included．Wt． $21 / 4$ lbs．$\$ 2005$ No．60A13．Mfg．List \＄34．95．Net Eoch． No．21837．Botfery Kh（4 Penlight Cells）
－Tuned RF stoge．3－gong funing condenser －Precision vernler dioling．
－Ble speoker powered by push－pull audio system Truly a sensational value with performance that will omoze you．Super－powered 9 transistor chassls and Magnecor ontenna brings in weokest stotlons where other sets fail．Rich－toned $4^{\prime \prime}$ speaker in extra large tone chamber powered by Philco＇s map． nificent push－pull audio syitem gives the tops in listening pleosure ．plays hundreds of hours on just 4 regular＂D＂flashlight batteries．
Beautiful genuine leather case with satin metal trim．Size $81 / 6^{\prime \prime} H, 101 / 8^{\prime \prime} \mathrm{W}, 35 / 8^{\circ \prime}$ ．D．Weighs 4 lbs 14 oz List $\$ 5995$ No．374285．Model T－901．Less Bottery．
\＄47．50 Not Eoch
No． 21 A49．Bottery Kit．
$56 c$
$\$ 2.79$

# SPECIAL PURCHASE . . . TREMENDOUS \$\$\$ SAVINGS 

## STEREO HIGH FIDELITY PORTABLE

 AUTOMATIC PHONOGRAPHS YHRILL TO 3 dImensional sound For exciting niw listening pleasurei
## BIGGEST SPEAKER EVER PUT IN A PORTABLE GIANT 15 INCHES!

Packed with feotures no other porfables can motch. Brings bigger, richer, fuller sound than ever before imagined. Real mosterpieces. skillfully designed and constructed to assure the finest in listening style cases ruggedly built to withstand all oround usoge.
B-A's special purchase of these notionally fomous Copitol phonographs mokes possible these greatest \$\$\$ savings ever.
Deluxe VM 4-Speed Record Chonger. Plays all rec. ords, all sizes, all speeds-stereo and monoural (regular). Intermixes 10 and $12^{\prime \prime}$ of the same speed. Automotically shuts-off complete instrument after last record plays. Rubber-mat on turniable pratects records. Wide-range turnover cartridge has dual diamond-sapphire needle.
Hi-Power Push-Pull High-Fidelity Stereo Amplifiers. Straight AC designed with power transformer for qum-free performance and amazing undistorted qum-free performance and amazing undistorted yower. Delivers exceptional wide range frequency
-esponse from lowest boss to silkiest highs, Master :ontrol panel with four controls provides exacting jdjustment of bass, treble. loudness and balance.
B-Channel Speoker Systems. Provides on amazing lew dimension of sound. Big English EMI 15-inch ival woofer, larger than in any other portoble, rovides bass response thot is unbeatable. Detach-
ible speaker enclosures, each with its own midange speaker and tweeter, reproduces the middle ange speaker and tweeter, reproduces the middle 0 ft. cables for most effective stereo placement.

MODEL 132-WING SPEAKERS SIMULATED LEATHER CASE
Hoh fashion cose covered in Dupont Vitolon gives ppearance of rich soddle leather. Augmented by leaming brass hardwore. Popular wing design with etachoble speoker enclosures that swing outward or stereo sound. 5 speakers: $15^{\prime \prime}$ oval woofer, " $6 \times 9^{\prime \prime}$ mid-range and $2-2 \times 6^{\prime \prime}$ tweeters. 30 watt C transformer-powered push-pull high fidelity
mplifier. Size $151 / \mathrm{N}^{\prime \prime} \mathrm{W}, 233 / "^{\prime \prime} \mathrm{D}, 91 / 2^{\prime \prime} \mathrm{H}$. 110 $20 \mathrm{~V}, 60 \mathrm{cy}$. AC. Shpg. wt. 49 lbs . Regularly was 179.95.
\$119.95

## MODEL 128 SPEAKER ENCLOSURES FIT IN LID

 londsome carrying case of striking jet-block with hite trim. Covered in scuff-resistont Pyraxylin. etochable $91 / 2 \times 133 / 4 \times 23 / 4 "$ speaker enclosures lay be used in lid position ar moved anywhere ith 10 ft : cables attached. 5 speakers: $15^{\prime \prime}$ oval oofer, $2-3 \times 5^{\prime \prime}$ mid-range, and $2-3 \times 5^{\circ \prime}$ tweeters. 5 woif AC tronsformer-Dowered push-pull ampller. Size $191 / 2^{\prime \prime}$ W. $21^{\prime \prime} \mathrm{D}$, $10^{\prime \prime} \mathrm{H} .110-120 \mathrm{~V} .60$ \%. AC. Shpg seciol Eoch.$\$ 99.95$

## SAVE $\$ 60.00$



## B-A SPEGIAL VALUEE COMPACT AC POWERED TAPE RECORDER

## RUE PRECISION QUALITY AT AMAZING LOW PRICE

 DUAL SPEED-FULL FEATURED USES FULL 7-INCM REELhot a terrific value this is! Not to be classed with other inexpensive re-irders-for here is a reol top quality unit with the kind of features and solity of workmonship tound only in instruments costing a great deol mare. nal speed $31 / 4$ and $71 / 2$ lps, dual track, $7^{\prime \prime}$ reel copocity. Up to 4 hours cording or ploybock on boith tracks of o 2400 ft . $1 / 2$ mil tope, 2 hours ntinuous on one track. Hos eye type recording level indlcator,' fast forard, tost rewind, lock out button to prevent occidental erase, positive in-tope spilling mechanism, simple, easy switch type function controls, in-tope spilling mechanism, simple, easy switch type function controls,
ne control, separate ind ne control, separate inputs for microphone, and rodia,
id output for external speaker. Power output, 2 to 3 watis. Id output for external speaker. power output, 2 ab 3 wotts.
pused in a sturdy wood cose finished in durable black and white plastic zused in a sturdy wood cose finished in duroble black and white plastic
atherette, richly embellished with chrome fittings. Has comportment for 2thererte, richly embellished with chrome fittings. Has camportment for
cessaries. P Professional black ond chrome control panel. Size $13 \times 93 / 4 \mathrm{x}$
 full and empty tope reels
31A81. Money Soving Import Speciol.
\$64.95

AT LEAST A $\$ 99.95$ VALUE
${ }^{5} 64^{3}$
OUTSTANDING TOME QUALITY FREQ. RESPONSE

100-10,000
CPS

# HTलH QUALTY PORUA:3LE MHNLTVIE RECORDERE 

-TRANSISTORIZED •BATTERY-POWERED -FOR USE EVERYWHERE


## portable tape recorded sound an exciting new WORLD OF INTEREST-NOW AVAILABLE TO EVERYONE AT AN UNBELIEVABLY LOW COST!

Opens up o vost new world of possiblli- being corried about, giving true-to-life Pens for pleasure ar business while on the les for pieasure or business while on the 90. Operofes completely independent of any AC power source using tiny, lightWill work in ony position, even while
recording ond reproduction of voice ond music on standard magnetic recording tope. Tapes may be ployed over and over again or outomatically erosed when a new recording is made.

## PERSONAL SIZE "MINY 401" TOP-PERFORMING IMPORT BY AMERICAN CONCERTONE



Records' and ploys $1 / 2$, trock approximately 45 minutes on a 300 ft . 3 reel of tope $(221 / 2$ minutes on eoch trock). Frequency response 200 to 6000 cps. Cryspal mike is corried inside of case. Has snap-off cover conceoling, reels and will operate with cover closed. "Pouse" button stops recording or playbock when depressed. Recessed function control changes easily from "stop" to "fost rewind," "play" or "record." Has thumb operoted volume control, mike jock ond phone jack for monitoring while pecording. Amplifier hos 4 transistors plus 1 diode, push pull 150 milliwatt output stoge to drive the bullt-in $21 / 4^{\prime \prime}$ PM speoker. Reproduction is cleorly understandable, will flll a good sized room. Amplifier operotes 100 hours on 6 inexpensive pencell batteries. Rim drive record and rewind motors operate dependobly on 3 " $C$ " size cells. Has adjustable speed compensator for long 50 hour bottery life. Attractive molded plastic 2 -tone beige case has collopsible carrying hondle. With crystal microphone 200 tt reel of tope and toke-up rei. No. 31 A 70. Special Value Import, Net Eoch.
No. 31 A71. Bottery Kit, 3 " C " cells, 6 pencells. Net................................................... $\$ 1.26$

## INTERNATIONALLY FAMOUS

 GRUNDIG Miki portable
## TAPE RECORDER



- Fabulous perfarmance. Precision engineered. - Simple to operate.

And whot on eye appeoling beoutyl Campare these specifications. You will be amazed of the big "recorder" features, especially when you realize the size is only $11 \times 63 / 4 \times 31 / 2^{\prime \prime}$ and that it weighs just 5 lbs. complete with botteries! Records and plays dual track of $33 / 4$ ips tape speed, giving approx. 30 minutes time on a $3^{\prime \prime}$ reel of $1 / 2 \mathrm{mil}$ tope. Frequency response, $150-6000 \mathrm{cps}$ unusually fine for a unit of this smoll size. Has single knob selector for off, fast rewind, playback and record; stop bar for fast stort-stop control during recording or ploybock; push-pull 100 milliwatt output, and pleasing clear reproduction from the built-in permanent magnet speaker. Highly engineered electronic desion employs 5 tronsistors. Tape drive mechonism is precision constructed by west German craftsmen.
The entire unit is powered by 4 standard large size floshlight cells and 2 penlight cells for low cost operation. Has jacks for external speaker ond for external power from a 6 V . DC source. Shpg. wt. 6 lbs. Mfg. list $\$ 99.95$.
No. 324291 . Net Eoch (Less Botteries) ..... $\$ 69.95$
No. 32A292, Set of Botferies................................. 84 C

NEW DELUXE GRUNDIG TKI ALL-TRANSISTOR RECORDER

## MFG. LIST \$129.95 <br> \$9995 <br>  <br> WITH MANY EXTRA FEATURES

- Electronic Eye Recording Level Indicator.
- Precision Copstan Drive for constant speed.

Advanced design circuit employs 7 transistors, records wide range, 80 to $10,000 \mathrm{cps}$ ot $33 / 4$ " tope peed, dual track, 30 minutes on a $3^{\prime \prime}$ reel of tape ( 15 min . each trock). Has precision Capston drive and heavy weighted flywheel for constant speed. Produces topes fully compotible with other tope players. Recording level indicator ossures perfect recordings every time. Hos sofety button to prevent reccidental erose, tone control, pouse bar (lock or accidentary as desired) ond simple, positive selector for record, fast rewind and ploybock. Push pull oudio output produces 250 milliwatts power to oudio output produces 250 milliwatts power to volume. Also hos privocy eapphone jock for pervolume. Also has privocy eorphone jack for personal listening. Operates 15 hours on one set of 6 inexpensive external power. In light belge streamline moldDC external power. In light beige streamline mold
ed case with snap off cover. Size $113 / 4 \times 7 \times 41 / 2^{\prime \prime}$. Wt. 8 lbs. With high quality miniature microphone $3^{\prime \prime}$ reel of tope take-up reel. Ne Each. $\$ 99.95$
No. 30 A144, Mto, List $\$ 129.95$. Net Na. 30A145. Bottery No. 30A145. Botrery Kit, $4^{\circ} \mathrm{D}$ " Cells, 2 " C " cells.

## Wercor timanmen TAPE RECORDER

## TAKE IT ANYWHERE . . . USE IT ANYWHERE

Think of itl A recopder you can carry with you wherever you go. Powered by just 1-9 $V$. and 6 inexpensive penlight batteries, this amazing unit is sturdily constructed of aluminum and weighs only $41 / 4$ lbs. complere.
Simply amazing sound reproductlon because of superb design and engineering. Recordings made on the "Microcorder" can be played on bigger hi-fi tape decks Recoroings made ont with excellent results.
Easy to use with push-butron controls for rewind stop, play and record. Jack: provided for microphone (included), external amplifier, external power unit and remote control. Two speeds ( $17 / 8$ and $33 / 4$ ips) dual track for Up to one full hour of recording and playback on a $3^{\prime \prime}$ reel of $1 / 2$ mil tape. Plays or records in any position whith lid open or closed. Powerful $21 / 2 \times 33 / \mu^{\prime \prime}$ PM dynamic speaker. Has adiustable carrying strap that can be detached. Size $8^{\prime \prime \prime} W_{s} 8^{\prime \prime} \mathrm{D}, 2$. $2 \mathrm{~A}^{\prime \prime}$ H. Supplied complete with microphone, bafteries and No. 32A203. $\$ 175.00 \mathrm{Mfg}$. List. Net Each...
$\$ 134.50$
Na. 32A209. Madel A2963 Carrying Case. Net Eoch.
$\$ 11.95$
No. 32A204. Model A2965 110 V. 60 cy. AC Converter. Net Each
No. 32 A206. Model A2973 Remote Control Mike. Net Eoch.
Na. 32A208. Model A2971 Hond Remote Control. Net Eoch..
No. 32A225. Model A2974 All-Purpose Coble Kit. Net Eoch.

## B-A SPECIAL VALUE AMERICAN-MADE TAPE RECORDERS

## FINEST QUALITY AT LOWEST COST! 2-SPEED 4-TRACK

Now, get twice the recording and playing time from a single roll of tape, more thon any other recorder in this price ronge. 4 track monaural recording provides for up to 8 full hours on $7{ }^{\prime \prime}$ reel of tong play ( 2400 ') tape. Perfect for home, school, church and business. All the
features with finest quality construction to reproduce all sound, valce and feotures with finest quality construc
music, with full fidelity life-like tones.
Easy to operate with single knob function control. Positive record safety interlock prevents accidental erasure. Straight in-line slot looding provides simple split second threoding. Separate volume and full range tone controls. Recording level indicators eliminates all guess work, assures proper volume setting during recording. Push-pull speed selector knob instantly changes speed from $33 / 4$ to $71 / 2$ ips.
5 watt omplifler delivers amazing power with exceptional frequency response 100-12,000 cps. Signal to noise ratio: 42 db . Wow and flutter: less than $.25 \%$ RMS. Input one dual level with a switch. Auxiliary output jack for direct connection to external speaker of users choice. Handsomely styled modern, deluxe black leotherette, carrying case with contrasting satin chrome panel. Size $151 / 2 \times 123 / 4 \times 5^{\prime \prime}$. Complete with $7^{\prime \prime}$ ree recording tope, take-up reel and microphone. Shpg. wt. 20 lbs . $\$ 89.95$
No. 31 . 292 . Net................................................................

## NEW 2-SPEED 4-TRACK STEREO

Deluxe stereo reçorder-compare the features, quality, cost-No other recorder at near this low cost performs all these functions. Plays 4 track stereo recordings with the fullest fldelity. Recards ond plays. 4 track monaural stereo recordings with the fullest fidelity. Recards ond ploys "sorack monoural permits recording on one chonnel while listening to the other. Big io watt's permits recording on one chonnel while histening to the other. Big lo watts stereo power with self-contained inal channel power omplifier and preamplifier. Separote speaker system in adaition ta seff-c
stereo sound reproduction
 Spec.: Freq. resp. 100-12,000 cps. S/N: better thon 42 db . Wow and flutter:
less thon $.25 \%$ RMS. Input: 1 dual level with swlith. Outputs: 2 for external less thon $.25 \%$ RMS. Input: 1 dual level with switch. Outputs: 2 for external
speakers. Dual tone ond valume controls for each channel. Single knob funcspeakers. Dual tone ond valume controls for each channel. Single knob func-
tion control. Record safety interlock. Fast wind, fost rewind. Two speeds $71 / 2$ and $33 / 4$ ips. Handsome black leotherette carrying case with satin chrome ponel. UL approved. Operotes from $115 \mathrm{~V}, 60$ cycle AC. Size $151 / 2 \times 123 / 4 \times$ $61 / 2^{\prime \prime}$. Shpg. wt. 25 lbs. Complete with $7^{\circ 0}$ reel of tape, empty reel, micro phone, and separate speaker No. 31'C293-2. Not
\$124.95

TAKES BIG 7-IN. REEL


4 track monaural
record.
Record 8 full hours on
Single knob function control.

- Font forword-fost rewind.
5 woft omplifier.

s12495
- Plays 4 track stereo
- Sound-with-sound control.
Separate stereo speaker system.
- 10 watt stereo amplifier.


## PROFESSIONAL 4-TRACK STEREO TAPE RECORDER

One of the finest recorders we have seen for such a low price, has features usually found only in recorders selling from $\$ 300$ to $\$ 500$. Records 4 trock stereo, perfect for moking highest quality recordings from stereo disc, other tapes or from FM multiplex broadcasts. Plays 4 track stereo tapes with flawless perfection from two self-contained speaker systems.
"Sound-on-sound" recordings can be made with the 4 track monaural head, allows recording on one channel while listening to the other. Ideal for lanquage study, speech improvement, music study (sing with piano etc.) A completely self-contained stereo unit with two separate speaker systems one for each channel. Each speaker is big $51 / 2 \times 71 / 2$ with 3.16 oz . magnet, and ${ }^{\prime \prime}$ voice coil. Ful 20 watts of stereo power, usoble also for PA work. Each channel in addition has record playback preampllfler with separate push-pull bias oscillatar. Full output power
ot all times even while monltoring recordings, Com plete versotility of controls with separate volume tone controls and selector switch for each channel. Designed for operation in vertical position, permits playing $7^{\prime \prime \prime}$ reel with front cover closed. Other de luxe features include accurate digital tope footage counter, automatic shut-off, fast forward and re wind-less than 90 seconds on a $7^{\prime \prime}$ reel. Dual light recording indicators. Beoutiful block leather ette corrying case with satin chrome panel. Specificotions: Freq. resp.: 50-15,000 cps of $71 / 2$ db ; $50-10,000 \mathrm{cps}$ of $33 / 4 \mathrm{ips}$. S/N: better thion 48 pee Wow and flutter: less than $0.25 \%$ RMS. Two speeds: $33 / 4$ and $71 / 2$ ips. U/L approved. Operates $71 / 2^{\prime \prime}$ Cole 60 cycles AC. size 203/4 $\times 1 / x$ $7^{\prime \prime 2}$ empomes complete with $7^{\prime \prime \prime}$ reel of blank tape desk stonds, with lavalier straps 2 mirophones for use on floor stonds (not furnished). \$199.50

- 4 trock monourol record ond play. Sound-on-sound recording.
- 20 wott push-pult push-pull plat AND RECORD



## WOLLENSAK TAPE REGORDERS

## MODEL T-I500 LOW COST MONAURAL TAPE RECORDER

# MFG. LIST An excellent monaural tape recorder. Provides up to 4 hours recording time on $7^{\prime \prime}$ $\$ 199.50$ reel using long play tope. Big 10 wott push-pull output is four times greater than 

 s14950 48 db W W ips; $40-8,000 \mathrm{cps}-3 \mathrm{db}$ at $33 / 4 \mathrm{ips}$. Both speeds-. signal to noise rotio $110-125 \mathrm{~V} .60 \mathrm{cy}$. AC. Shpg. wt. 27 libs . Mifg. List $\$ 199.50$. $8 \%$. $\$ 149.50$
## 4-TRACK MONAURAL RECORD-2 \& 4 TRACK STEREO/MONO PLAY



Identical to Model T-1500 with excep
figurotlon.
Stereo head and precision track shifting mechanism enobles you to play 2 and 4 track stereo tapes, while exclusive track dialing feature makes it possible to record up to four seporate monophonic trocks on a single roll of tape. For stereo sound simply plug the lower stereo channel with built-in preamplifier
into the input of a hi-fi system, radio, phonograph
or TV, serves as a second ampllfler. speaker. Guaranteed specifications: Frequency response of both chonnels $30-20,000 \mathrm{cps} \pm 3 \mathrm{db}$ of $71 / 2$ ips (NARTB equalized). Upper channel response: 30$15,000 \mathrm{cps} \frac{ \pm}{\%} \mathrm{db}$ at $33 / 4$ ips. Wow and flutter 48 db signal from preamp output 5.15 volts. 48 db. Signal from preamp outpu.115 V Crosstolk 50 db . Operates from $10-115 \mathrm{~V} .60 \mathrm{cy}$ No. 31 C282.
Net.
$\$ 167.50$

## MODEL T-1700 MOBILE TAPE RECORDER



Works on $110 \mathrm{~V} . \mathrm{AC}$ or 12 V . DC. Simply plugs into cilgar:
ette lighter socket on car or boot dosh. The most versotile recorder yet. Big 10 watt amplffier provides ample high fidelity power for dance outings, beach parties, picnics etc. Plenty of power for external speakers. Executives, salesmen, protessional people etc. Save time and errors by ploys 2 track monophonic tapes at $33 / 4$ and $71 / 2$
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## CONTINENTAL "400" ALL-IN-ONE 4-TRACK STEREO/MONAURAL RECORD \& PLAYBACK RECORDER 3-SPEEDS FOR UP 1016 FULL HOURS PLAYIMG TIME ON ONE TAPE

The lost word in self-contoined, single-cose, portable stereo tape recording ond ployback systems. Provides a chote of 3 operating, speeds- $17 / 8,33 / 4$ and $71 / 2$ ips Track monourol recording ond playbock. Moognetic heod trock monoural recording , ond ployback, Moognetic head olr gap of only. $0002^{\prime \prime}$ assures extended high- freequency response even of stlower speeds. Range 50


 | better. cross tolk: 55 db . Wow and flutrer less than |
| :--- |
| $15 \%$ | Duil power amplifiers and preamps completely self-contoined. Tubes: EF86 (2), ECC83 (3), EL84 (2), EM84. 3 inpuis: for stereo microohone; stereo phono or tuner (2). 5 . outputs: for extension speaker (2); external amplifier (2); stereo heodphone. Additional controls: for recording only; ganged mike volume, ganged phono/ rodio volume. For ploybock only;, chonnel tone, gonged volume ond ganged channel bolance.

Stereo speaker system with one speoker in cose, one in detachoble fid with cable included for proser stereo spocing. Size $181^{\prime \prime} \times 15^{1} / 2^{\prime \prime} \times 10^{\prime \prime}$. With take-up reet demo tope and Norelco EL3752 stereo mike. 117 volt's 60 Cy . AC. Weight 43 lbs. Mfg. list $\$ 399.50$
No. 31 A 254
Nei Each
$\$ 299.50$

## CONTINENTAL "300"

4-TRACK MONAURAL RECORD / PLAYBACK STEREO PLAYBACK RECORDER
3-SPEEDS: $17 / 6,33 / 4$ AND $71 / 2$ IPS
All the wonderful advantoges of a portable tape recorder combined with the superb precision quality and performonce of o professional type tape deck. Completely self-contolned with power amplifier and preamplifier for 4 -track monoural record and playback. Also equipped with stereo head output for playing pre-recorded stereo topes through external stereo system.
Recorder moy also perform function of second chonnel if used with monoural systems. Frequency response: $50-16,000 \mathrm{cps}$ of $71 / 2 \mathrm{ips}$; $60-$ $13,000 \mathrm{cps}$ ot $33 / 4 \mathrm{lps}$; $60-6500 \mathrm{cps}$ of $17 / \mathrm{B} \mathrm{ips}$. Wow and flutter: $0.15 \%$ ot $71 / 2$ ips.
Wide-range Norelco twin-cone speoker system with output jack provided for external speaker. Outputs also for stereo head (2) and headphone monitoring. Inputs for radio/phono and microphone. Tubes: EF86, ECC83, ECL82, EM81, EZ80. Size $153 / 4 \times 13 \times 63 / 4^{\prime \prime}$. With toke-up reel, demo tape and high-impedonce dynomic microphane, 117 volts 60 cy . AC. Shpg. wt. 30 lbs. Mfg. List $\$ 269.50$
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## CONTIMENTAL "200"

## NEW . . . 4-TRACK STEREO PLAYBACK AND MONAURAL RECORD/PLAYBACK RECORDER SINGLE SPEED-71/2 IPS

Designed specially for the discriminating audio listener and music lover on a moderate budget! Yet, despite its low price, has virtually oll the operating features and superb quality of the renowned 300 . Operates of one speed ( $71 / 2 \mathrm{ips}$ ) the importont speed for high fidelity reproduction. Wide range frequency response 50-14,000 cps. Wow and flutter less than $\pm .3 \%$. Has Bullt-in power amplifier and preamplifier for 4 Bulit-in power amplifier and preampilifier for
track monoural recording and playback. Stereo track monoural recording and playback. Stereo head outputs (2) for playing pre-recorded stereo
topes through external stereo hi-fl systems. topes
May also be used with monaural systems with Moy also be used with monaural systems with
recorder performing function of second channel. Norelca wide-range twin-cone speaker system with output jacks proviaed for external speaker and headphone monitoring. Inputs for microphone and rodio/ phono. Tubes: EF86, ECC83
ECL 82 EM84 EZ80 Size $133 / 4 \times 113 / 4 \times 63 / 4{ }^{\prime \prime}$ With high quality microphone, take-up reel and demo tape. 117 volts 60 cy . AC. Shpg. wt. 18 Ibs. Mfg. list \$179.50. No. 31A223. Special Each.
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 tion-free reproduction. All ore recorded at $71 / 2^{\prime \prime}$ per second and ore for use on tope players or recorders using stocked (in-line) tope heods. If youore not alreody equipped for ploying these fobulous new recordings, see pages $3 C, 21,22,25,94,198$ for 0 wide selection of tope ployer comleo
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Oklahoma \& Symphony For The Blues
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NEW BELL PROFESSIONAL STEREO RECORDER
From Bell, the first to moke stereo home-recording possible for everyone, comes this odvanced version of the popular Bell Stereo Tape Transport. Provides all of the most desirable feotures for tape recording ond playbock.
Features a professional three-motor drive, with three heovy duty 4 -pole motors. Wow and flutter less than $0.2 \%$ @ $71 / 2$ ips, $0.25 \%$ @ $33 / 4 \mathrm{ips}$. Has outo-stop mechanlsm, stops reels instantly when tape has "run-out." New "stondby" key engages drive motor and activates main power supply reody for operation
Speed key automatically switches pre-amp record equalization for maximum response of both speeds. "Off" key disengoges idler drives when power supply is turned off. Record level meters on each chonnel provide accurate indication of recording level and visuol channel bolance on ploybock. positive recard interlock has back lighted indicators for additional safeguard ogainst accidental erasure. Mike inputs locoted on master control panel, are Mike inputs locoted on master control panel, are
readily accessible regardless of how transport is readily occessible regardless of how transport is
mounted. Headphone monitor output jack on rear of pre-omp permits monitoring whot is being reof pre-amp permits monitoring whot is
corded, direct from the record pre-amp. Specifications: Freq. resp: 18-16,500 cps $\pm 3 \mathrm{db}$ @ $71 / 2 \mathrm{ips}, 18-15,000 \mathrm{cps} . \pm 3 \mathrm{db} @ 33 / 4 \mathrm{ips}$, (overol record-ploybock, 2 trock and 4 trock). Ployback only, response extends to $20,000 \mathrm{cps} @ 71 / 2 \mathrm{ips} ;$
$16,000 \mathrm{cps} @ 33 / 4 \mathrm{lps}$. Tape heods: 4 track $00017^{\prime \prime}$ gap width, 3.5 mv . output; 2 track, . $00017^{\prime \prime} \mathrm{gop}$
width 5 mv output; (from stondard test tope) Sensitivity-record: $2.5 \mathrm{mv}(63 \mathrm{db}$ gain @ KC$)$ @ mike input: 100 mv (31 db goin @ 1 KC ) @ high tevel input (full recording levell.
Sensitivity-ploybock: 68 db gain @ $@ \mathrm{KC} ; 12 \mathrm{~V}$. output ( 2 trock), 9 V . output ( 4 track) from std. test tape. Distortion: less thon $1 \%$ T.M.D.@ 12 $V$. playback output ond mox. record level. Noise level: 60 db below maximum output. Bios oscillator: push-pull single oscillator, 60 KC nominal, 60 db erasures of full level recording I switched for monaural or stereo operationl
Signal-to-noise rotlo: better than 50 db @ peak record signal reaching $3 \%$ T.H.D. Flutter: less than $0.2 \%$ @ $71 / 2$ ips; $0.25 \%$ @ $33 / 4$ ips. Rewind ond forword: overage $30^{\prime}$ per secand
Tope Lifter: removes tope from heads during standby and high speeds. Mox. reel sixe: 7 inch.
Inputs (4): 2 high impedonce for microphone; 2 high impedonce, high level for amplifler or tuner etc. Outputs (4): 2 high impedance to feed power amplifier: 2 high impedance for crystal headphone monitor (dual phone jock)
Tubes (6): 2-12AX7, 2-12AT7, 1-12AU7, 1-EZ80/ 6 V4.
Power consumption: 56 watts @ 117 V .60 cycles Size $151 / 4^{\prime \prime}$ W, $131 / 2^{\prime \prime}$ front to back, $5^{\prime \prime}$ below mtg. surface, $2^{\prime \prime}$ obove mounting surfoce (includes preomplifier). Shpg. wt. 33 lbs .
No. 31 A197. Eoch.
\$334.95

NEW SONY
MODEL 262-D STEREO TAPE DECK


- Hos 4 trock stereo erase heod and 4 trock stereo record/ployback head.

Heads are wired to six output and input jacks for connection to external amplifiers for playing and recording 4 track stereo.
This is the same quality mechanism used in the most expensive Sany tape recorders. Features $33 / 4$ and $71 / 2$ ios, selectable of a twist of a knob. Smooth operoting bor knob controls wind, stop, rewind with seporote lever for fost forword. Seporote toggle AC switch controls motor. A slide switch on ponel switches lacks from record to
playback. Perfect for use os stereo tape player, feeding the tape head outputs directly into equivalent inputs on a modern preamp-amplifier or moy be used for recording stereo using separate electronics.
for those desiring to butld o recording amplifier bias erase oscillator a complete circuit diogram is included in the accompanying instruction book size $13^{\prime \prime} \mathrm{W} \times 10^{\prime \prime} \mathrm{D} \times 5 \frac{3 / g^{\prime \prime}}{} \mathrm{H}$. Wt. 10 lbs. Shpg wt. 21 lbs. No. 31A22. Net.
$\$ 89.50$

## NEW SONY SRA-2 RECORDING AMPLIFIER

Provides complete stereo as well as monophonic recording for the Model 262-D deck. Feotures 2 merers, selector switch for stereo or channe cessible microphone inputs on front panel; all
other inputs and outputs for recording and play bock, mounted on rear panel. Shpg. wt is lbs No. 31A163.
Net Each..

## OESIGNED FOR CUSTOM Installation

The new 464-D is a compact, Integrated 2 speed $(71 / 2$ and $33 / 4$ ips), 4 track stereo and monophonic ecord/play tope unit complete with built-in record and play pre-amplifiers. Provides an excellent way to add tape to your present stereo system. Truly o quality belt-free drive mechanism. Features: sound-on-sound, and sound with sound switch, push-button mode selector for stereo or 4 -track monophonic record and playbock. Speciol compact accessory panel available, when custom mounting the 464-D permits easy accessibillty to microphone inputs and sound-on sound switching. Complete with mounting brockets. Size $131 / 2 \times 113 / 4^{\prime \prime}$ with $5^{\prime \prime}$ below $G 23 / 4^{\prime \prime}$ above motor boord. Shoo. wt. 30 lbs. $\$ 199.50$
No. 31 Al 64 . Net Eoch......................... 19 Remote Control Accessory Ponel. Size $23 / 4 \times 33 / 4$ No. 31 A 165.
Not Eech.
$\$ 10.00$


## VIKING 86 STEREO COMPACT



## NOTHING DOWN ON EASY TERMS

## matchless combination of the famed vixing TRANSPORT WITH A COMPLETELY NEW STEREO RECORD/PLAYBACK PREAMPLIFIER

- This integration of heads and amplifier actuolly provides 0 recording range of $20-20,000 \mathrm{eps}$, with little roll off.

Designed with the recording of stereo FM rodio broodcosts in mind, incorporotes o shorp cut off filter, prevents interaction of the recording bias frequency with the 38 KC carrier frequency used in multiplex broodcosting.
Feoture packed unit includes the "Erase-Protek" recording interlock; monaural-stereo selector switch; outomatic equalization of recording and playback for $33 / 4$ and $71 / 2$ ips speeds, variable playback preamplification; instontaneous selection of sound-on-sound function from front panel which permits use of this unit for languoge loborotory opplications; equalization switch permits duplicating tapes from the tape head of another deck. Independent, calibrated VU meters, digitol tape counter, and head shift control permitting playback of half-track as well as quarter-
track tapes. Dual-channel ployback preamplifier equalized for $33 / 4$ and $71 / 2$ ips. Monitoring provision directly from the tape heods. Moy be installed vertically or horizontally, requires only a $12 \frac{1}{2} 2^{\prime \prime}$ square mounting hole. inputs for microphones and tape heod on trant panel. Flutter and wow less than $.2 \%$ tras. Operotes from 115 volts 60 cycles A . Shpg. wt. 25 lbs.
Model 86 RMQ has quarter-track erose, quarter track recording (wide gap) and quarter-track ploybock (with shift). Records and plays quar-ter-frock. May be used for playbock or holfNo. 31 A195. Net Eoch
$\$ 297.50$
Model $86 E R Q$ - Half-track erase, half-track recording and quarter-track playback (with shiff). Records holf-track, plays half or quar-ter-frack topes
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$\$ 297.50$

## AMPEX <br> PROFESSIONAL QUALITY TAPE DECKS AND RECORDERS



## FAMOUS AMPEX 960 STEREO TAPE RECORDER

Ampex brings down the price on this fomous professional recorder. At $\$ 650.00$ it was a best buy in a professional recorder but now of this fan tostic new low price it has been put in the range of everyone
With flawless professional quality you con make permonent recordings on mognetic tape from FM or AM radio, from TV sound, from a stereo or monoural record player, or "live" from microphones... and you can add "live" music or volce to any of those sources of sound. Provide as much as 4 hours and 16 minutes of 4 track stereo from a $7^{\prime \prime}$ standard 2400 ft . reel.
Every feature, every part, whether electronic or mechonical, has been engineered and manufactured to highest professional standards solely for opfimum performonce in its one specific function
Frequency response, essentiolly distortionless from 30 to 20,000 eps of $71 / 2$ ips, 30 to $15,000 \mathrm{cps}$ at $33 / 4 \mathrm{ips}$ within $\pm 2 \mathrm{db}$. $50-15,000 \mathrm{cps}$ of $71 / 2 \mathrm{ips}$, 55 db dynamic range within $+2 \mathrm{db} 50-10,000 \mathrm{cps}$ of $33 / 4 \mathrm{ips} 50 \mathrm{db} \mathrm{dy}$ 55 db dynamic range within $\pm 2 \mathrm{db}, 50-10,000 \mathrm{cps}$ of $33 / 4 \mathrm{ips}, 50 \mathrm{db} \mathrm{dy}-$
namic range. Tliming accurocy: pitch tolerance less than $1 / 3$ of o half-tone. namic range. Timing accurocy: pitch tolerance less than $1 / 3$ of a half-tone.
flutter ond wow: under $0.2 \% \mathrm{rms}$ of $71 / 2 \mathrm{ips}$, under $0.25 \% \mathrm{rms}$ of $33 / 4 \mathrm{ips}$. Flutter ond wow: under $0.2 \%$ rms af $71 / 2 \mathrm{ips}$, under $0.25 \% \mathrm{rms}$ of $33 / \mathrm{ips}$.
Heads: ultra precision made. Ground ta optical flatness to minimize effects of head wear. Alignment of stereo head gaps held to less thon 10 millionths of head wear. Alignment of stereo head gaps heid to less thon 10 mili
of inch. Head gop width 90 millionths $\pm 5$ millionths of an inch. Record Inputs: for each channel; high impedance line (radio/TV/phono/ ouxiliary) 0.3 V rms for program level; hiph impedance microphone. Rugged scuff-proof carrying case in two-tone grey with satin oluminum trim Cose size $9^{\prime \prime}$ D. $15^{\prime \prime}$. $171 /$ L. Wt. 36 lbs
$\$ 495.00$ Model 952, os obove but less corrying cose for custom instollations. Unmounted size $13^{\prime \prime} \times 15^{\prime \prime} \times 61 / 8^{\prime \prime}$ below top plate, $13 / 8 "$ above. Shpg. wh. 36 Ibs No. 40A372. Net Each.
$\$ 449.50$

## MODEL 2560

## STEREO PORTABLE HOME MUSIC SYSTEM

The 960 recorder/reproducer in portable case described obove with two amplifier/speaker transducers, integrated Into a system with tremendously exciting stereophonic capobilities. All necessory operating controls are on the recorder itself. Matched three-piece portability makes it equolly ot home on the patio, in the rumpus room, college dorm, church sociol, etc. Plugs in onywhere-cords ond cables ore self-contoined. Tronssucers deliver on eif-
 lugooge units, size ond finish as above, Tronsducers weigh 31 lbs. Toto system weight 98 lbs.
$\$ 849.50$

MODEL 934 TAPE DECK

## 519950

NOTHING DOWN ON EASY TERMS

ADD PROFESSIONAL QUALITY TAPE PLAYER TO YOUR hl-FI AT LOWEST COST YET!


MEETS THE SAME STANDARD OF PRECISION EXISTING IN AMPEX STUDIO EQUIPMENT

## AMPEX MODEL 934 TAPE DECK

Now by Ampex world leader in magnetic recording and reproduction. tape players that concentrate on bringing you the finest possible reproduction of the wonderful world of music. Plays 2 and 4 track ssereo trapes as well as monophonic tapes ...at $33 / 4$ and $71 / 2$ ips. Takes all size reels up to a maximum of $7^{\prime \prime}$. Handles all tape thickness, standard, long-ploy and extra lono-play. Flutter and wow: under $.25 \%$ rms at $71 / 2$ lps. Special, 2 channel playback head has builpin positive shift control accommodating either 4 track or 2 track tapes. Manufaciured to the same standards of precision that exists in Ampex broadcast and recording studio equipment. Surfaces are lapped flat within 10 millionths of on inch, resulting in uniform performance characteristics throughout the life of the head. Head gap length: 90 millionths of an inch. Rewind time only 90 seconds for 1200 foot reel.
Madel 934 has connections for feeding outpur from each channel of the playback head to an external preamplifier. Controls are fast wind (either direction), stop button, (Disengages copstan, stops tape motion in playing or fast rewind functions), play control-tape speed selector, head shiff lever, and automatic stop. Size Size $15^{\prime \prime} \times 13^{\prime \prime} \times 61 / 2^{\prime \prime}$ (below deck). Shpg. wt. 32 lbs
No. 40 A204.
$\$ 199.50$
Model 936 os above with built-in preamplifier for amplifying and equalizing the signal to a level adequate to feed common power amplifiers and audio control centers. Output connections should connect to "tape input" or "auxiliary input" on amplifier.
Playback output: approximately 0,75 volts rms from tapes recorded of maximum normal recording level. Features cathode follower output for maximum flexibility in connecting to other components. Playback response: essentially flat throughout the audio range with extremely low background nolse level. Dynamic range as followsi $71 / 2 \mathrm{lps} \pm 2 \mathrm{db}$ from 50 to $15,000 \mathrm{cps} ; 33 / 2 \mathrm{ips} \pm 2 \mathrm{db}$ from 50 to 8,000 cps. Operating controls: volume control, fast wind (winds tape in either direction), too button (disengages capstan, stops tope motion in playing or fast rewind unctions), play control, on-off control, tape speed selectors, and automatic stop Size $15^{\prime \prime} \mathrm{W}^{\prime} 13^{\prime \prime} \mathrm{D}, 61 / 2^{\prime \prime}$ (below panel). Shpg. wt. 30 lbs.
No. 40A206
$\$ 249.50$

## IN STOCK IN BA' KANSAS CITY WAREHOUSE AMPEX PROFESSIONAL RECORDING EQUIPMENT

The famous Model 300 Series Master Recorder, Model 351 Serles Recorder New 354 Professional Recorder for either stereophonic or mono phonic recording, and 3200 Series high speed duplicators. All Models Avoilable in Rock Mounting, Portoble or Console. AT FACTORY NET PRICES-WRITE US TODAY.
Also complete line of replacement parts.
All inquiries answered by B-A's Ampex Factary Trained Specialist.

## WEBCOR REGENT CORONET STEREO HIGH FIDELITY TAPE DECK

Now you can actuolly make and playback four-frock sterea recordings and with a simple turn of the switch moke the finest monaural recordings. Playbock and
record preampllfier provides the finest fidelity possible. Big new feoture is the delity possible. Big new feoture is the synchro-trock which permits listening to
one track ond recording a second track one frack ond recording a second track
simultaneously. An ideal educational aid simultaneously. An ideal educational oid especialy
slide projector jock also permits synchronizing unit with slides being shown.
Specifications: Model 2250: Freq. resp. normal voice frequency at $17 / \mathrm{B}$ ips; 50 to $7,000 \mathrm{cps} \pm 2 \mathrm{db}$ of $33 / 4 \mathrm{ips} ; 40$ to 14,000 $\mathrm{cps} \pm 3 \mathrm{db}$ ot $71 / 2 \mathrm{ips}$. Two preompllfiers: pre-amplitiers built-in tor each enannel. Eothode follower output for each chonnel. Output from " 0 " level recording -2 volts. Wow and flutter: $0.2 \%$ of $7 \frac{1}{2}$ lips. Signal to noise ratio: better than 50 db per chon-
nel. Tubes: 6 including dual selenium rec-
tifier; $D C$ filaments- ${ }^{\text {st }}$ and 2 nd stoges. Power requirements: 117 volts; 60 cycles AC; 90 watts. Speclal feotures: two or four track stereo record ond playback. 4 pole, heavy duty electronically balanced motor. Three speeds. Belt driven tape transport. Professional type editina key. Record safety lock. Automatic shut-off of amplifier and recorder mechonism. VU meter indicates correct recording level for each channel. Monitor-volume control. Numericol type tope counter. Individual volume controls. "Dual-gang" bass and treble controls, Function switch. 2 microphone in-
puts plus 2 hi-level input iocks, Ch. I and puts plus 2 hi-level input jocks, Ch. I and Ch. 2; 2 ext. amp. output jacks. One slide projector jock. Dimensions $71 / 2^{\prime \prime} \mathrm{H}^{\prime} \times 15^{\prime \prime}$ W $\times 15^{\prime \prime}$ O. Mounting center
$121 / 6^{\prime \prime} \mathrm{D}$. Shpg. wt. 26 lbs. No. 31A200. Net Eoch............. $\$ 219.95$

## MOST ADVANCED TAPE DECK YET

NEW MODEL 2250 WITH SYNCHRO TRACK


## HANDY TAPE RECORDING AGGESSORIES

## TAPE ACCESSORY KITS



Everything needed for proper care of the recorder and tapes. Adds greatly to the pleasure and convenience of moking, editing and playing tube recording, and assures maximum performance af the equipment
Contains Gibson Girl. Standard Splicer, Splieing Tape, Fast Tape Threader, Recording Head Cleaner, Tope Cleaning Cloth, Tape Clips, Reel Labels and Tape
Editing Book.
No. 11 A 767.
7. Mfg. list
st $\$ 12.00$. Net Eoch
$\$ 7.95$
With hobbyist Splicer using unique curved blode for proper Gibson Girl Splice, Tape Cleaning Clath, Splicing Tape, Tape Clips ond Tape Editing Book No. 11 B405. Mfg. list $\$ 3.50$.
$\$ 2.10$
Net Eoch.

## (3) TAPE KARE CLEANER KIT

Effective cleaner-solvent for removing occumulated oxides from recorder heads plus a cleaning "jockey cloth" for wiping grime from tapes.
$\$ 1.20$

## NEW TAPE STROBE KIT



Accurote, easy woy to check tope speed. Con-

 oper ated plow lomp illuminotes tape, "stops".
 No. 118408. Net Zoch

## ROBINS HEAD DEMAGNETIZER

For eliminating one major cause of high noise level in many tape recorders... the accumulation of permonent mognetism in the recording, erose and playback heads. Simple to use. ing, erase and playback heads. Simple tisted


## WALSCO "KLEEN-TAPE"



Cleons recording heads as easy os playing a roll of tape. Consists of 100 ft . of super lough $1 / 4^{\prime \prime}$ tope especially impregnoted with Walseo head cleaner, wound on $5^{\prime \prime}$ plastic reet. Running "Kleen-Tape" through your tape recorder at normal playback speed cleans all harmful residue from face of recording head, insuring cleon, distortion-free recordings and ploybocks. Can be
used ogain ond again.
No. IIA614. Mfg. list $\$ 2.95$. Net Eash.
\$2.06

ROBINS "GIBSON GIRL" TAPE SPLICERS


Makes diagonal mitie eut and slightly eurved trim eut. Splicing tape ad hesive stays off recorder heads and next loyer of lope. SP-4 can be hand held or ottached to recorder. TS4A splicers are faster, take only 5 seconds. They need remave only $1 / q^{\prime \prime}$ of recarding and have advantage of replaceoble cutters. SP-4 and JR hold tape in guide by friction; others have clamps. A plostic dust cover is supplied with STD and DLX models.

| $\begin{aligned} & \text { St. No. } \\ & 11 A 703 \end{aligned}$ | Robins No. SP-4 | Description <br> Semi-Prafessional | $\begin{aligned} & \text { List } \\ & \$ 3.50 \end{aligned}$ | Net Eoch $\$ 2.57$ |
| :---: | :---: | :---: | :---: | :---: |
| (3118407 | TS4A-JR | Handy smoli size | 6.50 | 4.78 |
| (3) 114638 | TS4A-STD | Fast Prafessional | 8.50 | 6.25 |
| (2) 114704 | TS4A-DLX | With Tope Dispenser | 11.50 | 8.46 |
| (1) $11 \times 705$ | ST-500 | $1 / 2^{\prime \prime}-100^{\prime \prime}$ Splicing Tope | . 50 | 36 |
| No. 114706 | Reploceme | utier Kit for TS4A |  |  |

## ROBINS M/M REPLACEMENT HEADS

MICHIGAN MACNETICS RECORDING AND ERASE HEADS

```
- Convert fo Stereo Upgrade old equipment 
8-A can supoly them all. State
recorder, allow iwo weeks delivery
FREE REFERENCE GUIDE. Covers
```



## COMVERT FROM 2 TO 4 TRACK STEREO PLAY

Robins M/M 5Q17 head. Makes conversion a matter of merely changing heods. Engineered for optimum performance at $33 / 4 \mathrm{ips}$. Fits Pentron NLIS, NL2S, NL3S, PTI, PT. 72 S, PT. 745 ; VM 700, 711,711 A, $750,720,755$ 1000; most models of Wilcox Goy Recordio and many Ampro, Bell, RCA Silvertone and Telectro recorders.
No. 11 A771. Trpe 5 Q17.
\$22.05

## BULK TAPE ERASER

Removes recorded and unwanted signals from entire reel of tape in just seconds. Reduces bockground noise levels from 3 to 6 db . below normal recorder erase heod level. For ony, size reel includino $101 / 3^{\prime \prime}$ and tape up to $1 / 3$ " wide. Size $33 / 4 \times 51 / 4 \times 63 / 4{ }^{\prime \prime}$. Operates on 110 120 V. AC. UL listed. Wt. 9 lbs.
118409. ME99. Mfg. list \$33.00.

Net Each
\$24.25


Recording Head Cleane


Tope Cleoning Cloth


Fost Tope Threader


Reel

RECORDING HEAD CLEANER. Dissolves accumulated oxides, No. 11 A768. Type HC:2. Mifs. list $\$ 1.00$. Net Eoch.
JOCKEY CLEANING CLOTH. Treated to wipe grime from tope. No. 11A769. Type JCT-2. Mfrs. list \$1.00. Net Eoch
FAST TAPE THREADER. Short-cuts starting tape on reel. No. 11A587. Type TT.i. Mfrs. list \$1.00. Net Eoch... 73 c

REEL CLIPS. Holds end of tape os ilustrated or at side of reel

CUEING LABELS. Color coded, numbered, odhesive bocked. No. 11 A709. With separote index. Pkg. of 30, Per Pkg.
REEL LABELS. Adhesive bocked. Write on or type identitication No. 11 A770. Type SL-30. Pkg. 30, Per Pkg.

## SHIELDED RECORDER AUDIO PATCH CORD



WOULD USUALLY COST OVER DOUBLE
Highest quality shielded 71" microphone type coble with standord phone plug one end and miniature alligator Clips with insulators on other end. er input to radio, phono, or TV er input to radio, phono, or TV speoker voice coil. Also con't be in experimental oudlo applications.


REEL HOLDERS. Prevents wobble. Holds reel on spindle
No. 17A737. Rubber molded for firm grip. Per Pair..
SPLICING TAPE. $1 / 2^{\prime \prime} \times 100^{\prime \prime}$. Super strong Mylor.
COLORED MYLAR LEADER. $1 / 4^{\prime \prime} \times 150^{\circ}$. Protects and identifies.
No. IIB315. Choice of Blue, Gold, Red or White. Net Eoch.
EMPTY REELS IN MAllers. "letters" reports. In mailing box. No. 11 B383. $3^{\prime \prime}-150^{\prime}$ size. Net Each
No. 11 B318. $4^{\prime \prime}-300^{\prime}$ size. Net Eoch
for recorde
17 c 12 @ Ech....... 15
37 e 12 Eoch.... 33 PLASTIC 5"-7" REEL STORAGE CAN. Dust-proof protection. Interlocking Flanges. Easier to open than metal cons. Grooved for horizontal stacking. No. 11 772.

## TAPE STORAGE STEEL CHEST AND REEL CANS

- Portable - All Steel - Platinum.gray baked enamel

For protecting, storing and filing valuable recorded topes. Dividers for holding 12 tope cans, in-dex-cord. Wt. 5 lbs.
d
11 A544. Chest only, for 7"' cons.............
$\$ 2.97$
11A753. Chest only, for $5^{\prime \prime}$ cons. Eo.
$\$ 2.48$

## STEEL TAPE REEL CANS

Dust-proof, magnetic-proof containers
obove chest os illus. Shpg. wt. 8 oz .




## REEVES SOUNDCRAFT RECORDING TAPE

"STANDARD" SERIES TAPE-11/2 MIL. ACETATE. With the new FA-4 frequency adjusted formulation. Provides superlative reproduction, even at slower tape speeds. On plastic reels except $101 / 2^{\prime \prime}$, oluminum.

"LIFETIME" SERIES TAPE- $11 / 2$ MIL MYLAR. With superior FA- 4 formulo- tion, super strength and dimensional stabllity. Recommended for recordings to be played repeatedly or for documentary recordings to be kept through the years. Reels ore plastic except $101 / 2^{\prime \prime}$ RM, Aluminum; RF, fibre gloss.

| Stk. No. | Fact. No. | Reel | Length | Wt. | Mfg. Lis | st Each |  | Quontity | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 114786 | L-6 | 5' | 600 | 6 oz . | \$2.65 | \$1.77 |  | Eo | + |
| 114787 | L-12 |  | 1200 | 12 oz . | 4.25 | 2.83 | 10 | Ea |  |
| 114801 | L-24RM | 101/2" | $2400^{\prime}$ | 34 oz . | 10.40 | 6.94 | 5 ¢ |  | 6.24 |
| 11 B317 | L24RF3 | 101/2" | $2400^{\circ}$ | 34 oz . | 10.40 | 6.94 | 5 @ | Eo. | 6.24 |

"PLUS-50" SERIES TAPE-I MIL MYLAR. $50 \%$ greoter time on some reel sizc, extra strong compared to plastic base 1 mil tapes plus exclusive Soundcraft FA-4 formulation

| Stk. No. Fact. No. | Reel | Length | Wt. | Mfg. List Each | Quontity Price |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 11 A788 PL-9 | 5" | 900 | Oz. | \$3.40 \$2.27 | @ |


| $11 A 788$ | PL-9 | $5^{\prime \prime}$ | 900 | 602 | $\$ 3.40$ | $\$ 2.27$ | 10 | Ea..... $\$ 2.04$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $11 A 789$ | PL-18 | $7^{\prime \prime}$ | $1800^{\prime}$ | 1202. | 5.80 | 3.87 | 10 | Eo..... |

 "PLUS-100X" SERIES TAPE- $1 / 2$ MIL TENSILIZED MYLAR. $100 \%$ greater time on same reel size. Precision coated with new FA-4 formulation. 53/4" fits foreign recorders.

| Stk. No. | Fact. No. | Reet | Length | W\%. | Mfg. Lis | Each | Quantity Price |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 114791 | XP-12X | 5" | $1200{ }^{\prime}$ | 6 oz . | \$5.45 | 53.63 | 10 @ | Ea. |
| 114792 | XP-18X | 53/4" | 1800 | $90 z$. | 7.48 | 4.99 | 10 @ | Ea. |
| 114793 | XP-24X | 7" | $2400^{\prime}$ | 12 oz . | 9.50 | 6.33 | 10@ | Ea.. |

## RCA "VIBRANT" SERIES TAPE

Money soving, full quality tape for flowless recordings. Gives true response, uniform output, minimizes recorder head wear and tape noise-high-fidelity performance that is reodily discernible from the very first recording. On easy-load plastic reel.

| stk. No. | RCA No. | ription | Mfrs. List Each Eoch |
| :---: | :---: | :---: | :---: |
| 11 B550 | 703 Cl | Reel 900 Ft . 1 Mil Acetate B | \$2.50 \$1.65 \$1.50 |
| 118565 | $704 C 1$ | $7^{\prime \prime}$ Reel 1800 Ft . 1 Mil Acetate Base | $4.25 \quad 2.80 \quad 2.55$ |
| 118566 | 701C1 | 5" Reel 600 Ft . 1.5 Mil Acetate Base | $\begin{array}{lll}1.75 & 1.15 & 1.05\end{array}$ |
| 118588 | 702 C | $7^{\prime \prime}$ Reel 1200 Ft . 1.5 Mil Acetote Base | $\begin{array}{lll}2.95 & 1.95 & 1.75\end{array}$ |

## RCA RED SEAL SERIES TAPE

Finest, full-frequency, high fidelity professional tope. A superlatlve product, produced by the most advanced techniques yet conservatively priced and ovailable for home use. Some as used in recording RCA Victor record albums and pre-recorded tapes. On easy-load plastic reels.

Stk. No. RCA No. 11A725 15A-1.5 3", Reel 150 Ft . 1.5 Mil Acetate Bose 11 A726 15A-6 5"' Reel 600 Ft . 1.5 Mil Acetate Base 11 A727 15A-12 7" Reel 1200 Ft . 1.5 Mil Acetate Base
 $\begin{array}{lll}118595 & 10 \mathrm{M} 18 & 7^{\prime \prime} \text { Reel } 1800 \mathrm{Ft} \text {. } 1 \text { Mil Mylar Base } \\ 11 \text { A598 } & \text { STM3 } & \text { 3", Reel } 300 \mathrm{Ft} \text {. } 1 / 2 \text { Mil Tensilized Mylar }\end{array}$
 $\begin{array}{lll}11 \text { B608 } & \text { 5TM12 } & \text { 5"' Reel } 1200 \mathrm{Ft} .1 / 2 \text { Mil Tensillzed Mylar } \\ 11 \mathrm{~B} 609 & \text { 5TM24 } & \text { 7" Reel } 2400 \mathrm{Ft} \text {. } / 2 \text { Mil Tensilized Mylar }\end{array}$

Mfg. List Each Each $\begin{array}{lllllllll}11 B 609 & 5 T M 24 & 7^{\prime \prime} \text { Reel } 2400 \mathrm{Ft} \text {. } 1 / 2 \mathrm{Mil} \text { Tensilized Mylar } & 8.75 & 5.83 & 5.25\end{array}$

## "SCOTCH" BRAND SOUND TAPE CARTRIDGE



QUICK LOADING ... SNAPS IN NO TAPE THREADING
FITS ALL RCA AND BELL
CARTRIDGE TYPE RECORDERS
2 Full Hours 4 Track Record or Play

[^0]MINNESOTA MINING "SCOTCH" BRAND TAPE
TYPE 111 STANDARD TAPE- $11 / 2$ MIL ACETATE. All-purpose, first-choice of most engineers and recording , fons for flawless sound repróduction. On easy threading plastic reels. $101 \frac{1}{2}$ "' reel is aluminum.

| Stk. No. | act. No. | Reel | Length | Wt. | Li | Each | Quantity Price |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11A551 | 111-1.5 | 3 " | 150' | 2 oz | \$0.70 | \$0. | 12 @ |  | \$0.42 |
| 114552 | 111-3 | $4{ }^{\prime \prime}$ | $300^{\prime}$ | 4 oz . | 1.35 |  | 12 @ |  |  |
| 114554 | 111-6 | 5"' | $600^{\prime}$ | 6 oz . | 2.25 | 1.50 | 12 ¢ |  |  |
| 114559 | 111-12 | $7{ }^{\prime \prime}$ | $1200^{\prime}$ | 12 oz . | 3.50 | 2.34 | 12 @ |  |  |
| 14776 | 111-24R | 101/2 | 2400' | 34 oz . | 0.90 | 7.27 | 12 @ | $\underline{\omega}$ | 6.54 |

TYPE 120 GREEN "HIGH OUTPUT" TAPE-I $1 / 2$ MIL ACEEATE. Produces 133\% more output resulting in greater dynamic range, freedom from distortion or signal peaks . . . brilliont sound reproduction. A must for hi-fi fans. Stk. No. Fact. No. Reel Length Wt. Mfg. List Each Quantity Price | 11A556 | $120-6$ | $5^{\prime \prime}$ | $600^{\prime}$ | $60 z$. | $\$ 2.25$ | $\$ 1.50$ | $12 @$ | Eo..... $\$ 1.35$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $11 A 562$ | $120-12$ | $7^{\prime \prime}$ | $1200^{\prime}$ | 12 Oz | 3.50 | $\mathbf{2 . 3 4}$ | $12 @$ | Ea..... |

NEW TYPE 311 "TENZAR"- $11 / 2$ MIL BASE. Developed especially for heavy duty uses. Extro tough, tear-resistant, stretch-resistant, non-drying. Perfect for all-weather use and long time storage. On standard plastic reels. $\mathbf{S t k}$. No. Foct. No. Reel Length Wt. Mfg. List Eoch Quantity Price | 11 A755 | $311-6$ | $5^{\prime \prime}$ | $600^{\prime}$ | 6 oz. $\$ 2.40$ | $\$ 1.60$ | $12 @$ Ea..... $\$ 1.44$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $11 A 756$ | $311-12$ | $7^{\prime \prime}$ | $1200^{\prime}$ | 12 oz. | 3.75 | $\mathbf{2 . 6 0}$ | $12 @$ Ea..... |

TYPE 190 EXTRA PLAY TAPE-I MIL ACETATE. Gives $50 \%$ greater time than $11 / 2$ mil tapes on same reel size. On plastic reels except $101 / 2^{\prime \prime}$ aluminum, NARTB type.



TYPE 150 EXTRA PLAY TAPE-1 MIL MYLAR. Extra strong, extro long lasting Dupont Mylar bose withstands extremes of temperature and humidity. Especially recommended for home or business recordings to be kept $\mathbf{S t k}$. No. Fact. No. Reel Length W t . Mfg. List Each Quantity Price



TYPE 200 DOUBLE PLAY- $1 / 2$ MIL TENSILIZED MYLAR. New "tensilized" polyester (specially conditioned tough Dupont Mylar) makes tape twice os strong as before. Works on all machines. Doubles recording-playing time compared to $11 / 2$ mil tapes on same reel size. $200-48 R$ is plastic EIA reel. Stk. No. Foct. No. Reel Length Wt. Mfg. List Eoch Quontity Prlee

 TYPE 151 SPECIAL LUBRICATED-1 MIL MYLAR. For repeoter mechanisms and cartridge tape players, like Cousino, Viking and Frdelipok. Has dark No. 11 A779. Type 151-17PR. $1 / 4^{\prime \prime} \times 1700^{\prime}$, 7" Reel. Net Eo.
$\mathbf{\$ 7 . 0 7}$
$\mathbf{\$ 6 . 3 6}$

(3)


EMPTY CLEAR PLASTIC TAPE REELS IN SCOTCH BOXES Capacity rating is for standard $11 / 2$ mil base tape.
Sapacity Weight Quantity Price
 11A603. Aluminum NAB Type with Flanges..Ea. $\$ 3.0012$ @ Eo. $\$ 2.70$ 11A549. Plostic ElA Type (with 3 holes)....Ea. 3.0012 @ Ea. 2.70 PLASTIC LEADER AND TIMING TAPE
For splicing onto ends of recorded tapes to prevent repeated breakage; or between selections for identlification and timing. White. Write-on type.
No. 114578 . Type 43P-1.5. $1 / 4 \times 150 \mathrm{Ft}$. Each.....60c $12 @$ Each..54c (3) SCOTCH TYPE 41 SPLICING TAPE

Specially compounded, non-oozlng. डg." is applied lengthwise, others crosswise, then trimmed.


76
on Pages 209-210
27

# Phono Pick-up Cartridges 



## ASTATIC PICK-UP CARTRIDGES


A wide selection of high quality cortridges designed for easy replacement of $90 \%$ of all makes. Crystal units are Rochelle-salt type especialy treated to resist heat and humid $\dot{G}$. respectively. 78 RPM cortridges are less needle. Any standard thumb-screw type needle will fit as listed on opposite poge. Average shpg. wt. 4 oz. TURNOVER TWO-NEEDLE CARTRIDGES


Popular plug-in type cortrldges used as original equipment in thousands of phonographs. Has highly sensitive ceramic element for clear wide-range response. Movement is precision engineered for high compliance, excellent 13AT is same as $13 T$ except has wider range and higher compliance.

| Stk. No. | Type | Fig. | Response Cps | Needle Tip | Output Volts | Stylus Pressure | Mfg. List | Net Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 144565 | 13T | (1) | 20-15,000 | 7S-53 | 5 V . | 5 Gr . | \$6.95 | 94.09 |
| 60473 | 13TX | (1) | 20-15,000 | .7D-35 | . 5 V . | 5 Gr . | 10.95 | 6.44 |
| $20 \mathrm{B286}$ | 13 TB | (1)G(2) | 20-15,000 | . $7 \mathrm{~S}-35$ | . 5 V . | 5 Gr . | 7.95 | 4.67 |
| 60B111 | 13TBX | (1)G(2) | 20-15,000 | .70-35 | .5 V | 5 Gr . | 11.95 | 7.03 |
| 14 A 529 | $13 A T$ | (1) | 30-20,000 | . $7 \mathrm{~S}-35$ | . 3 V . | 6 Gr . | 7.95 | 4.67 |
| 60A36 | 13ATX | (1) | 30-20,000 | .7D-35 | 3 V | 6 Gr . | 13.95 | 8.20 |
| 144593 | 817 | (3) | 30-15,000 | 15-35 | 1.0 V | 6 Gr . | 3.95 | 2.32 |
| 60482 | 81TX | (3) | 30-15,000 | $10-35$ | 1.0 V | 6 Gr . | 7.95 | 4.67 |

## ASTATIC CRYSTAL STEREO CARTRIDGES

Replocement for many imported cortridges such os Acos Ronetre, Telefunken, Vaco, etc. Exact replacement high quality crystol cartridges hove wide frequency range and separation. Turnover type can be mounted in standard 1/2 centers or through the tone arm. Turnover bracket, put, 50-10,000 cps frequency response. Type 86TS hos . 8 volt output, $50-15,000 \mathrm{cps}$, frea. response, No. 4A654. Model 76TS-TB, Mfg. list \$7.95. Net Eoch
$\$ 4.67$ No. 14A656. Model 86TS-TB. Mfg. list $\$ 8.50$. Net Eoch. ................ $\mathbf{\$ 5 . 0 0}$
SHURE REPLACEMENT CRYSTAL CARTRIDGES


High quality replacement cortridges for mast record changers and phonographs. All ore crystal types except WC1O and ML44 which are ceramic. WClo is "twin-lever type with response of $30-12,000 \mathrm{cps} . \mathrm{ML} 44$ is music lovers type for hidi use, frea. response $30-15,00$ eps,

| Stock No. | Mfg. Illus. No. Fig. | Type | Needle Tip | Needle Pressure | Output Volts | Net Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $20 C 639$ | $\begin{array}{ll} \text { W31AR* } & 1 \\ \text { W22 } & 2 \\ \text { Turnover } & 2 \\ \text { W26 } & 3 \\ \text { W78 } & 3 \\ \text { WC10 } & 4 \\ \text { ML44 } & 5 \end{array}$ | MG <br> MG <br> Std. <br> All Groove Std. <br> Std.-LP <br> Std.-LP | Osmium Sapphire Osmlum Osmium | 7 gr. | 2.1 | 4.41 |
| $20 \subset 640$ |  |  |  | 8 gr . | 1.2 | . 51 |
|  |  |  |  | 8 gr. | 1.4 |  |
| 204516 |  |  |  | 8 gr. | 1. | 3.82 |
| $204296$ |  |  |  | 1 oz . |  | 3.26 |
| 204347 |  |  | Sopphire | 7 gr . | .780r 1 | 5.68 |
| 204348 |  |  | Sapphire | 5-8 gr. | . 4 | 8.20 |



## SONOTONE CERAMIC CARTRIDGES

High quality ceramic cartridges not affected by temperature or humidity. High output, flat response without equalization. LB types are less bracket for pressure-fit tone arms. Trocking force 6 to 10 groms.

| Stk. No. | Fig. | Type | Response Cps | Needle Tip | Output Volts | Mfs. List | Net Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $14 \mathrm{C580}$ | (1) | 1P-15 | 30-15,000 | 15 | 1 V . | \$7.50 | \$4.41 |
| 14 C 581 | (1) | $1 \mathrm{P}-2 \mathrm{~S}$ | 30-15,000 | 25 | 1 V | 7.50 |  |
| 144571 | (1) | 1 P-LB-2S | 30-15,000 | 25 | 1 V | 7.50 | 4.41 |
| $14 \mathrm{C583}$ | (2) | 2T-S | 30-15,000 | 15-35 | 1 V | 8.50 | 5.00 |
| 144572 | (2) | 2T-LB-S | 30-15,000 | 15-35 | 1 V | 8.50 | 6.00 |
| 60435 | (2) | 2T-SD | 30-15,000 | 10-35 | 1 V | 14.50 | 8.53 |
| 148597 | (3) | 3T-S | 20-20,000 | 15-35 | .5 V . | 12.50 | 7.36 |
| 608135 | (3) | 3T-SD | 20-20,000 | 10-35 | .5 V | 15.00 | 8.82 |

(c) MODEL $10 T$ SNAP-IN. Four gold-plated contacts mean years of troublefree performance. Two separate ceramic armotures assure dependable highfidellty stereo listening. Freq. response $30-15,000 \mathrm{cps}$. Tracking force 5-7 grams, 20 db separation.
No. 14A567. Model 10T2-S. Sapphire Tips. Net Each,
53.79

No. 60A75. Model 10T2-SD. Diamond-Sapphire Tips, Net Each.... $\$ 7.91$ Same as above except has $15^{\prime \prime}$ tone arm leads for easier stereo conversion.
No. 14A560. Model 10T2-S15. Sapp. Tips. Mfa. List $\$ 6.95$. Net Ea.. $\$ 4.09$ No. 60A34. Model 10T2-SDIS. Dio.-Sapp Tips. Mfg. List $\$ 13.95$. Ea. . \$8. 20 (4) MODELS $16 T$ AND 18 T . New replocement stereo ceramic cartridges used os original equipment in thousonds of phonogrophs. Response is flat from 20 to $10,000 \mathrm{cps}, 22 \mathrm{db}$ separation. Tracks of $4-7$ grams. 16 T is low output .5 volts, 18 T is high output, .7 volts.
14A657. 16T-S. Dual Sapphire Needles. Mfg. list \$12.50. Net Eoch 60C114. 16T-SD. Dio.-Sopphire Needles. Mfg. list \$15.50. Net Each. 4A658. 18 T-S. Duat Sopphire Needles. Mfg list $\$ 12.50$. Net Each 60B 112 . 18T_SD. Dig.-Sopphire needles. Mfg. list \$15.50. Net Eoch . \$7.35 (3) MODEL 8TA-4. Famous leader in ceramic stereo cartridges, has smooth $4-6$ tonal range. Freq. response $20-15,000 \mathrm{cps}$. tracking force $4-6$ grams. Mfg. list $\$ 14.50$.
SOB 134 Model 8TA-4SD. 7 mil 3 mil sapphire. Net Eoch.

## ELECTRO-VOICE POWER-POINT CARTRIDGES



Popular slib-in type turn-under cortridge of diecast nylon. When needles become worn, entire cartridge can be slipped aut and reploced. Response 20 to 15 KC cps, 1 volt output, trocks 5 to 8 grams. Will replace any cartridge with $1 / 2^{\prime \prime} \mathrm{mig}$. centers. Has separate 1 mil and 3 mil needle tips.
(1) 208403. Model 56 Cortridge (less mount), sapphire tips, Ea,
(1) 608116 . Model 56DS Cart. (less mount), dio-sopp. tips. Eo.

60B176. Model (1) 20B404. Model 765 (Webcor Repl.) Cort. (less mount), sapp. tips. 2.37 (1) 60B117. Model 7605 Cortridge (less mount), dia-sapp. tips. Ea... 5.97 2) 20B391. Model PT-2 Turn-under Mount for 56 cortridge tips, Eo.. . 80 (3) ELECTRO-VOICE POWER POINT STEREO CARTRIDGE, Plug-in cartridge type for easy replacement. Response flat from 20 cps to 15 KC , output one volt, trocking force 5 to 8 grams. Diecast nylon case. With needle tips. 208398. Type 66 Cortridge (less mount) dual sapphire tips. Each. . \$3.57
60B115. Type 66DS Cortridge (less mount) dia.-sapp, tips. Eoch.... \$7.77 60B115. Type 66DS Cortridge (less mount dio.-sapp, tips
20B399. Type PT-3 Turn-under Mount for obove. Eoch.

## E-V POWER POINTS FOR ZENITA COBRA ARMS

Direct replacement slip-in cartridges for all Cobra arms mfg. since 1957. Color coded for casy identification. "D" suffix denotes dia. stylus.

| Stk. No. | E-V No. | Zenith No. | Color | Mifg. List | Net Eo. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (4) 20A607 | 3501 | 142-71 | Blue | \$5.00 | \$3.00 |
| (4) 204621 | 3502 | 142-72 | Yellow | 5.00 | 3.00 |
| (4) 608124 | 35000 | 142-74 | Black-White | 15.00 | 9.00 |
| (4) 608125 | 350405 | 142-76 | Gray | 16.50 | 9.90 |
| (4) 204629 | 3505 | 142-77 | Brown | 7.50 | 4.50 |
| (1) 204657 | 256 | 142-87 | Purple | 3.95 | 2.37 |
| (1) 204667 | Z56DS | 142-88 | White | 9.95 | 5.97 |
| (4) 204668 | 106 | 142-108 |  | 5.95 | 3.57 |
| (4) 608126 | 106DS | 142-109 |  | 12.95 | 7.77 |
| (4) 204669 | 3508 | 5-11473 | Red | 3.50 | 2.10 |
| (6) 204670 | 3507 | S-15222 | Green | 3.50 | 2.10 |
| (4) 204672 | 3506 | S-15780 | Red-Green | 3.50 | 2.10 |

## RECORDING AND PLAYBACK CARTRIDGES





ASTATIC X-26 CRYSTAL CARTRIDGE. Replocement for General Industries recorder playback units. Uses regular General industries recorder playback units. Uses regular cutting needles (not furnished). Maximum recording
voltage 150 volts RMS. Frequency response to 6000 cps . Wt. $51 / 2$ oz.; size $13 / 8 \times 5 / 8 \times 31 / 4^{\prime \prime}$. Oxidized finish.
No. 14A532. Shpg. Wt. 10 ozs. Net Eech.
57.53
87.53

## Phono Needles, Motor, Pick-Ups \& Discs

 lor sopphire tips offer foithful tracking to bring out all the sound from the
record grooves. "Size" description indicotes "MG" for microgroove, "AG" for all-groove, and "STD" for standard 78 RPM speeds, "TO" for turnover type. Select proper needle by Mfg. No. or illustration.

ACOS

| (1) | 244351 | 525* | 73 Series | SS-73 | TO | \$1.49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASTATIC |  |  |  |  |  |  |
| (2) | 244444 | 444 | 66, 62 | K-78 | Std. | 99 |
| (3) | 24A445 | 445 | 66,62 | K | MG | . 99 |
| (3) | 24A305 | 446 | 66-2 | K-AG | AG | .99 |
| (9) | 24A393 | 393R* | 57-T | N-57 | TO | 1.49 |
| (3) | 24A354 | 393** | 55-T | N-55 | TO | 1.49 |
| (4) | 244356 | 386 | LT Series | D | Std. | .99 |
| (4) | 244357 | 387 | LT Series | D-33 | MG | .99 |
| (1) | 244358 | 388 | LT Series | D-AG | AG | .99 |
| (6) | 244373 | 373 | GC. 51 | G-33 | MG | .99 |
| (6) | 244340 | 340 | GC, 51 | G-AG | AG | 99 |
| © | 244371 | 371 | AC Series | A-3 | Std. | .99 |
| 0 | 24A370 | 370 | AC Series | A-1 | MG | 99 |
| 0 | 24A372 | 372 | AC AG | A-AG | AG | 99 |
| (\%) | 244310 | 310 | 408 | N10.1J | MG | .99 |
| \% | 244302 | 302 | CAC, LQD | Q $R$ | Std. | . 9 |
| (\%) | 244303 | 303 | CAC, LQD | QR-33 | MG | 9 |
| ¢ | 244361 | 466 | 310,420 | N8-3 | Std. | .99 |
| ¢ | 244362 | 464 | 310,420 | N8-1 | MG |  |
| © | 244359 | 465 | 310,420 | N8-2 | AG | . 9 |
| (1) | 24A546 | 546 ${ }^{\text {\% }}$ | 17,170 | N-41 | Stereo TO | 1.49 |
| ELECTRO-VOICE |  |  |  |  |  |  |
| (11) | 244322 | 506 | 21, 26 | D1-1 | Stereo | .99 |
| (17) | 244375 | 375 | 96,33 | S-2 |  | . 99 |
| EUPHONICS |  |  |  |  |  |  |
| (13) | 24A541 | 541 | E1 | J-47 | Stereo |  |
| (1i) | 24A542 | 542 | El | J-41 | MG | .99 |
| (i12) | 24A543 | 543 | E1 | J-43 | Std. | .99 |
| MAGNAVOX |  |  |  |  |  |  |
| (19) | 244327 | 395* | 560 Series | 560 | Twin | 1.49 |
| PHILCO |  |  |  |  |  |  |
| (13) | 244325 | 353** | 76 Series | 35 Series | Twin | 1.49 |
| RCA |  |  |  |  |  |  |
| (1) | 244310 | 310 | 75475 | 74068 | MG | 99 |
| (10) | 244523 | 523 | 106771 | 106786 | Stereo | . 99 |
| (1i1) | 24A533 | 533* | 106770A | 108214 | Stereo Twin | 1.49 |

## RECOTON CONVENTIONAL TYPE NEEDLES

High quality ploying needles, set screw type, for 78 RPM or microgroove

(1) MODEL KR-314-T. Popular original equlpment pickup with high output turnover cartridge for playing all speeds, $16,331 / 3,45$, and 78 RPM. Ideal required. Base of pickup retracts into tone orm for use on phonos having orm rest. Mfg. list $\$ 6.95$
No. 14A501. Model KR-3i4-T Pickup. Net Each
(1) Some os obove exeept equipped with Astatic 74TS high cartridge. Mfg. list $\$ 8.25$.
(2) MODEL Mod Each
4.09
...4.85 inal equipment phono pickup. Grocefully styled, enhances the appearance of ony phonogroph. Ideal for converting older phonos to modern design. 3 volts, freq. response $30-11,000 \mathrm{cps}$. Mfg. iist $\$ 9.95$. No. 14A503. Model B-310T. 'Net Eoch
5.85

## GENERAL INDUSTRIES 3-SPEED PHONO MOTOR

 Madel DSS RIm Drive 4 Pole Motor. 78, 45 and$331 / 3$ RPM is accomplished by shifting idler wheel vertically to desired diameter of motor shaft. Four pole shaded-pole motor gives obsolute minimum stroy field radiation for use with any type pickup. Motor and turntable use oilless bearings. Complete with $10^{\prime \prime}$ turntable, speed indicator, 45 RPM adap-



## (1) ANTI-STATIC RECORD CLEANER

For vinylite and oll standard records. The aerosol spray action removes dust and deposits a micrascopically thin film. The film grounds static electricatly and mokes records permonently dust free, it will no longer cling to the sur face. This reduces surface noise and increases record life.
No. 168582.5 Oz . Cam, Mfg. list $\$ 1.50$. Net Eoch.
886 No. 11 B 634 . 12 Oz. Can. Mifg. list \$1.79. Net Each
$\$ 1.32$
(8) ELECTRO-WIPE STATIC ELIMINATOR RECORD CLOTH

Preserve your good records from harmful dirt and grit os well os static charge with one wipel Eliminates record "pop and click" from vinyl attracted charges. Lubricates records for smoother needle operation, ellminates friction and static. Keeps grooves clean for true, clear fidelity, longer record life. Used by many broadcast stations and recording companies. No. 20C691. Mfg list $\$ 1.00$. Net Each.

59c

## (0) 4-SPEED STROBOSCOPE DISC

Accurately tests all four turntable speeds. At correct speed, lines on disc oppeor to remain stationary. Each speed has 4 extro sets of lines for showing whether turntable is running $2 \%$ or $4 \%$ slow or fast.
No. 11B220. Made of sturdy cardboard. Mfg. list 55c. Net Each. .... 325 No. 118221 . Made of durable plastic. Mfg. list \$1.65. Net Eoch.

## (4) PLASTIC SNAP INSERTS FOR 45 RPM RECORDS

 Snaps in the lorge hole of o 45 RPM record to odapt for use onspindles of 4 -speed chongers or other players with 45 RPM speed. spindles of 4 -speed chongers or other players with 45 RPM speed. No. 17A814. Pkg. of 6 For

Fits over standard spindle of record player and allows playing of 45 RPM records Made of durable plastic. Mfg. list 25 c
No. 24A298. Not Each.

## ROBINS SYL-A-SCOPES


(1)


First truly relloble method for checking strius wear, this new shadowgroph unit provides on illuminated, magnified image of the stylus tip, showing every detail. Enables anyone to tell at a
glance whether his stylus is wom or chippod, thus glance whether his stylus is
protecting valuoble records.
(1) Model SG-33. Battery operated model can be placed on turntoble and stylus placed in aperture without the necessity of removing stylus from cortridge or cartridge from tone arm. Size of
screen is $13 / 4 \times 1$. Powered by two penlite batteries (not included). Has off-on slide switch. High impact styrene case, overall size $51 / 2 \times 31 / 2 \times 11 / 4^{\prime \prime}$ Shpg, wt 8. oz.
No. N1A378. Mfg. list \$6.75. Net Each. 4.42 (2) Model SG-66. Ac powered model copable of detecting stylus weor with o remarkable degree of accuracy. So precise it can be used by industry for quality control and smali parts inspection. Ideal for broadcost stations, audiophiles, and service technicions. Large ground gloss screen $\left.125 / 8 \times 21 / 4^{\prime \prime}\right)$ highlights every detoil of stylus or part at 80-to-1 linear magnification. Sturdy metal case with grey hammertone finish, hos off-on slide switch. Overall size $7 \times 5 \mathrm{~V} / 4 \times 3 \mathrm{k} / \mathrm{B}^{\prime \prime}$. For $110-120$
(2) 11 A 377 . Mfg. list $\$ 19.95$. Net Each 13.45

## RECORD ACCESSORIES


(1) RECORD SAVERS

Heavy, cleor plastic envelopes to protect your records. Prevents occidental damage from scratches, and protects records agoinst dust, oil, and dirt Mfg. list 49c
No. 33 A 87 . For $10^{\prime \prime}$, records. Pack of 6, For.

## (3) DISK-O-KLEEN RECORD CLEANING CLOTH

Dauble action record cleaning cloth is silicone treoted, eliminates dust-attracting stotic electricity os it cleans. Speciolly woven long-nop velvet reoches deep inside grooves, removes oll dirt for longer record life, improved performance. Comes in clear plastic pouch. No. 11 B210. Mfg. list \$1.25. Net Each.

73c
(1) RECOR-DE-STAT CLEANING KIT

Kit includes bottle of anti-static detergent in plastic squeeze bottle, and a velvet opplicator with deep nop for cleaning out imbedded dirt from repellent film on the record. Complete with clear plastic pouch. No. 11 B211. Mfg. list $\$ 2.00$. Net Each.
$\$ 1.18$ (4) TONE ARM LIFT

Only sure way to place tone orm on record, helps place stylus on right spot without domoging needle or scratching record. Small, proctically weightless, the tiny spring metal plostic coated li
No. $11 \mathrm{B2} 16$. Mfg. list 75 c . Net Eoch.

| Tube | Optional |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Tist | Net | Net | 50 or | $\begin{array}{lllll}\text { OAZ } & \$ 2.05 & \$ 1.46 & \$ 1.24 & \$ 1.24\end{array}$ 043 VR75 $\quad \begin{array}{llll}2.20 & 1.54 & 1.30 & 1.30\end{array}$ OA4G OB3/VR90 OC3/VRI 105

OD3/VR150 $0 Z 4$
0746 OZ4G
IA7GT $1 A \times 2$
$1 B 3 G T / I G 3 G T$
IK3/1J3 IL6
IN5
IR5
IS5
$1 R 5$
155
174
174
114
145
$1 V 2$
$1 \times 2 B$
$2 A F 4 A$
2AF4A
$2 \mathrm{CY5}$
$2 \times 2 A$ $3 A 2$
$3 A 3$
3AF4A
$3 A L 5$
$3 A L 5$
$3 A U 6$
$3 A Y 6$
$3 B C 5$
$3 B N 4 A$
$3 B N 6$
$3 B U 8$
$3 B Z 6$
$3 C B 6$
3 CF6
3 CS6
3 CY5
3 DK 6
3016
3076
304
$3 Q^{4}$
$3 Q G T$
354
$3 V 4$
$4 A U 6$
$48 C 8$
4 ACB
$4 \mathrm{CN6}$
$4 \mathrm{BQ7A}$
会心


5V46A
$5 \times 66 T$
5

$5 Y 4 \mathrm{G}$
$5 Z 3$
648
6A8 64
6AC7/1852
6AF3
6AG5
6AH4GT
$6 A H 6$
6AH6
6AK6
6AL5
$6 A M 4$

Tube
6AMBA $\quad$ List

| $\begin{array}{c}\text { Tube } \\ \text { Type }\end{array}$ | $\begin{array}{c}\text { Optional } \\ \text { List }\end{array}$ | $\mathbf{1 . 4}$ | $5-49$ | $\begin{array}{c}\text { Net } \\ \text { Su or } \\ \text { Over }\end{array}$ |
| :--- | :---: | :---: | :---: | ---: |
| 6DT6A | 2.15 | 1.14 | 1.05 | .95 |
| 6DT8 | 3.80 | 2.01 | 1.86 | 1.67 |$|$

## 6AN8 GAQ5A <br> 6AQ6 $6 A Q 7 G T$

$6 A S 5$
$6 A 57 G$
$6 A S 8$
6AT6
$6 A T 8 A$
6AT8A
6AU4GTA
6AU5GT

| Tube Type | Optional List | Net $1-4$ | $\begin{aligned} & \mathrm{Net} \\ & 5-49 \end{aligned}$ | 50 or Over |
| :---: | :---: | :---: | :---: | :---: |
| 12BA7 | 3.95 | 2.09 | 1.93 | 1.74 |
| 12BD6 | 2.45 | 1.29 | 1.20 | 1.08 |
| 12BE6 | 1.75 | . 92 | . 86 | . 77 |
| 128F6 | 2.20 | 1.16 | 1.08 | . 97 |
| 12BH7A | 3.05 | 1.61 | 1.49 | 1.34 |
| 12 BK 5 | 4.00 | 2.11 | 1.96 | 1.76 |
| 12BL6 | 2.30 | 1.22 | 1.13 | 1.01 |
| $12 \mathrm{BQ6GTB}$ | 4.45 | 2.35 | 2.18 | 1.96 |
| 12BR7 | 2.95 | 1.56 | 1.44 | 1.30 |
| 12BV7 | 3.05 | 1.61 | 1.49 | 1.34 |
| 12BY7A | 3.20 | 1.69 | 1.57 | 1.41 |
| $12 \mathrm{BZ7}$ | 3.05 | 1.61 | 1.49 | 1.34 |
| 12 C 5 | 2.35 | 1.24 | 1.15 | 1.03 |
| $12 \mathrm{CA5}$ | 2.50 | 1.32 | 1.22 | 1.10 |
| 12 CNS | 2.45 | 1.29 | 1.20 | 1.08 |
| 12 CR 6 | 2.40 | 1.27 | 1.17 | 1.06 |
| $12 \mathrm{CU5}$ | 2.35 | 1.24 | 1.15 | 1.03 |
| 1204 | 2.75 | 1.45 | 1.35 | 1.21 |
| 12DB5 | 2.75 | 1.45 | 1.35 | 1.21 |
| 12DQ6A | 4.20 | 2.22 | 2.06 | 1.85 |
| 12057 | 3.40 | 1.80 | 1.66 | 1.50 |
| 12DT8 | 3.80 | 2.01 | 1.86 | 1.67 |
| 12047 | 3.35 | 1.77 | 1.64 | 1.48 |
| 120 C | 3.55 | 1.88 | 1.74 | 1.56 |
| 12026 | 2.55 | 1.35 | 1.25 | 1.12 |
| 12 CD | 2.50 | 1.32 | 1.22 | 1.10 |
| 12EG6 | 2.30 | 1.22 | 1.13 | 1.01 |
| 12EK6 | 2.55 | 1.35 | 1.25 | 1.12 |
| 12 F 8 | 2.75 | 1.45 | 1.35 | 1.21 |
| 12FK6 | 2.10 | 1.11 | 1.03 | . 92 |
| 12 FM6 | 2.05 | 1.08 | 1.00 | . 90 |
| 12H6 | 3.30 | 1.74 | 1.62 | 1.45 |
| 12 J GT | 2.95 | 1.56 | 1.44 | 1.30 |
| 12 J | 3.30 | 1.74 | 1.62 | 1.45 |
| 12K5 | 2.95 | 1.56 | 1.44 | 1.30 |
| 12L6GT | 2.55 | 1.35 | 1.25 | 1.12 |
| 12R5 | 2.60 | 1.37 | 1.27 | 1.14 |
| $125 A 7$ | 3.95 | 2.09 | 1.93 | 1.74 |
| $125 A 7 G T$ | 3.25 | 1.72 | 1.59 | 1.43 |
| 12567 | 4.25 | 2.25 | 2.08 | 1.87 |
| 12557 | 3.75 | 1.98 | 1.84 | 1.65 |
| $125 K 7$ | 3.60 | 1.90 | 1.76 | 1.59 |
| 125K7GT | 3.55 | 1.88 | 1.74 | 1.56 |
| 125L7GT | 3.75 | 1.98 | 1.84 | 1.65 |
| $125 N 7 \mathrm{GTA}$ | 2.70 | 1.43 | 1.32 | 1.19 |
| $125 Q 7$ | 3.30 | 1.74 | 1.62 | 1.45 |
| 125Q7GT | 2.90 | 1.53 | 1.42 | 1.28 |
| 12 V 6 GT | 2.15 | 1.14 | 1.05 | . 95 |
| 12W6GT | 3.00 | 1.59 | 1.47 | 1.32 |
| $12 \times 4$ | 1.90 | 1.00 | . 93 | 84 |
| $13 \mathrm{DE7}$ | 2.95 | 1.56 | 1.44 | 1.30 |
| 14A7/12B7 | 3.95 | 2.09 | 1.93 | 1.74 |
| 14B6 | 3.60 | 1.90 | 1.76 | 1.59 |
| 14 Q 7 | 4.20 | 2.22 | 2.06 | 1.85 |
| 17AX4GT | 2.70 | 1.43 | 1.32 | 1.19 |
| 17D4 | 2.75 | 1.45 | 1.35 | 1.21 |
| 17026B | 4.20 | 2.22 | 2.06 | 1.85 |
| 18 FW 6 | 2.00 | 1.06 | . 98 | . 88 |
| $18 \mathrm{FX6}$ | 2.15 | 1.14 | 1.05 | . 95 |
| 18FY6 | 1.65 | . 87 | . 81 | 73 |
| 19AU4GTA | 3.50 | 1.85 | 1.71 | 1.54 |
| $19 \mathrm{BG6GA}$ | 6.50 | 3.44 | 3.18 | 2.86 |
| 19 T 8 | 3.35 | 1.77 | 1.64 | 1.48 |
| 25AX4GT | 2.90 | 1.53 | 1.42 | 1.28 |
| 25BQ6GTB | 4.60 | 2.43 | 2.25 | 2.03 |
| $25 C 5$ | 2.15 | 1.14 | 1.05 | . 95 |
| 25CD6GB | 5.85 | 3.09 | 2.86 | 2.58 |
| 25DN6 | 5.55 | 2.94 | 2.72 | 2.45 |
| 25 EH5 | 2.30 | 1.22 | 1.13 | 1.01 |
| 25L6GT | 2.35 | 1.24 | 1.15 | 1.03 |
| 25W4GT | 2.70 | 1.43 | 1.32 | 1.19 |
| 2575 | 3.15 | 1.66 | 1.54 | 1.39 |
| 2526GT | 2.90 | 1.53 | 1.42 | 1.28 |
| 35A5 | 4.00 | 2.11 | 1.96 | 1.76 |
| 35B5 | 2.65 | 1.40 | 1.30 | 1.17 |
| 35C5 | 2.15 | 1.14 | 1.05 | . 95 |
| 35L6GT | 2.40 | 1.27 | 1.17 | 1.06 |
| 35 W 4 | 1.10 | . 58 | . 54 | . 48 |
| 35 Y 4 | 2.80 | 1.48 | 1.37 | 1.23 |
| 3525GT | 1.85 | . 98 | . 90 | . 81 |
| 36AM3 | 1.50 | 79 | 73 | . 66 |
| 5045 | 4.25 | 2.25 | 2.08 | 1.87 |
| 5085 | 2.65 | 1.40 | 1.30 | 1.17 |
| 50 C 5 | 2.15 | 1.14 | 1.05 | . 95 |
| S0EH5 | 2.30 | 1.22 | 1.13 | 1.01 |
| 50L6GT | 2.55 | 1.35 | 1.25 | 1.12 |
| 80 | 2.90 | 1.53 | 1.42 | 1.28 |
| EM84/6FG6 | - 3.25 | 1.72 | 1.59 | 1.43 |
| 117L7/M7G | GT10.15 | 5.37 | 4.97 | 4.48 |
| 11723 | 2.50 | 1.32 | 1.22 | 1.10 |
| 5879 | 4.05 | 2.14 | 1.98 | 1.78 |
| 5881 | 6.40 | 3.38 | 3.13 | 2.82 |
| 6973 | 4.50 | 2.38 | 2.20 | 1.98 |
| 7025 | 2.95 | 1.56 | 1.44 | 1.30 |
| 7027A | 5.30 | 2.80 | 2.60 | 2.34 |
| 7189 | 2.65 | 1.40 | 1.30 | 1.17 |
| 7199 | 3.30 | 1.74 | 1.62 | 1.45 |
| 7581 | 3.80 | 2.01 | 1.86 | 1.67 |
| 7591 | 3.05 | 1.61 | 1.49 | 1.34 |

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## RCA

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New types stocked as they are onnouncedsend us your arder.
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| Stk. No. | Tube Type | $\begin{aligned} & \text { Wt. } \\ & \text { Lbs. } \end{aligned}$ | Optionol List | Net Each |  | Tube Trpe | $\begin{aligned} & \text { Wt. } \\ & \text { Lbs. } \end{aligned}$ | ptiono | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 AI | 7JP4 | 6 | \$34. |  | 8 A17 | 21 ALP4 |  |  |  |
| 842 | 10BP4A | 14 |  | 25.87 |  | CBP4A | 34 | \$45.50 | 3 |
| $8 A^{3}$ | 12LP4A | 19 |  | 28.67 | 8418 | 21 AMP4A | 34 | 45.75 | 32.00 |
| A4 | 14BP4/ |  |  |  | 8419 | 21 AP 4 | 27 |  |  |
|  | CP4/EP4 | 15 | 36.75 | 25.67 | 8A20 | 21ATP4A | 34 | 45.50 |  |
| 845 | 16GP4B | 16 |  |  | 8421 | 21 AUP4 |  |  |  |
|  | 16KP4A |  |  |  |  | AVP4B | 35 |  |  |
|  | RP4A | 20 | 38.75 | 27.00 | 8 8 | $21 E P 48$ | 36 | 45 | 32.00 |
| 8 A8 | 17AVP4A |  |  |  | 8 822 | 21 FP4C | 36 | 45.75 | 32.00 |
|  | ATP4A | 19 | 39.25 | 27.33 | 8425 | $21 \mathrm{MP4}$ | 27 | 73.50 | 51.40 |
| 8A1O | 178P4B | 24 | 37.25 | 26.00 | 8 A27 | $21 \mathrm{YP4A}$ | 36 | 44.75 |  |
| 8 All | 17CP4 | 16 | 57.25 | 40.07 | 8428 | 212P4B | 36 | 44.75 | 31.33 |
|  | 170KP/ |  |  |  | 8432 | 23EP4 | 36 | 76.25 | 53.33 |
|  | DLP4 | 13 | 44.75 | 31.33 | 8437 | $23 \mathrm{MP4}$ | 30 | 68.75 | 48.00 |
|  | $17 \mathrm{DXP4}$ | 13 | 44.00 | 30.67 | 8A36 | 23YP4 |  |  |  |
| 8434 | 19AP4A/B | 26 | 62.75 | 43.87 |  | XP4 | 30 | 76.25 |  |
| 8 843 | $19 \times P 4$ | 19 | 49.50 | 34.67 | 842 | 24CP4A | 43 | 65.75 | 0 |
|  | 20DP4C/ |  |  |  | 8A30 | 24DP4A | 43 | 65.50 | 5.87 |
|  | CP | 31 | 46.75 | 32.67 | 8A31 | 27EP4 | 66 | 122.00 | 3 |
| COLOR PICTURE TUBES |  |  |  |  |  |  |  |  |  |

## B \& K MODEL CRT 440

PICTURE TUBE TESTER AND REJUVENATOR


Tests picture tubes for Cothode emission, has grid bias necessary for tube cut-off. - Interelement shorts and leakage (up to several megohms). Life test feature checks gas content and shows useful life expectancy. Tests and rejuvenates all picture tubes including new 1 to 12 volt series ond $110^{\circ}$ types. Also tests each gun seporately in color tubes. Removes shorts between elements, repairs open connections and reactivates cothade which restores emission and brightness. Large $41 / 2^{\prime \prime}$ meter. Leotherette cov-
ered partable case $14^{\prime} \times 8 \times 43 / 4^{\prime \prime}$. Weight 10 ered partable case $14 \times 8 \times 43 / 4$
lbs. Has oll necessary connecting structions. For 115 V .60 cy . AC No. 35A229. Net Each
$\$ 74.95$
ADAPTERS FOR MODEL 400 ANO 350 TESTER

C40 for $110^{\circ}$ picture tubes
No. 35A523. Net Eoch
CR48 for $110^{\circ}$ picture tubes with 2.34-2.68-8.4 volt filoment No. 35A230. Net Each
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NEW B \& K MODEL 420


Tests and reiuvenotes picture tubes.
Hondy compact size -new low price. Tests and rejuvenates all picture tubes, removes interelement shorts and leakage, restores emission and ment shorts and leakage, restores emission tube brightness, extends useful life of picture tube Complete operation in iust minutes without re moving tube from set-a real money make
Checks and repairs color tubes with the C40 adaptor listed above.
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| Tube <br> Type | Make | $\begin{aligned} & 1-4 \\ & \text { Eoch } \end{aligned}$ | $\begin{aligned} & \text { S-up } \\ & \text { Eoch } \end{aligned}$ | Tube Type | Moke | $\begin{gathered} 1-4 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & \text { 5-up } \\ & \text { Eoch } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OA2 | RCA | 1.46 | 1.24 | PL-175A | Penta | 50.00 | 50.00 |
| OA3 | RCA | 1.54 | 1.30 | 250TH | Eim. | 38.50 | 36.25 |
| OA4G | RCA | 1.86 | 1.58 | 250TL | Eim. | 38.50 | 36.25 |
| OB2 | RCA | 1.44 | 1.22 | 304TL | Eim. | 64.50 | 60.00 |
| OB2WA | Roy. | 2.97 | 2.52 | 450TH | Eim. | 75.00 | 71.25 |
| OC3 | RCA | 1.50 | 1.28 | 450TL | Eim. | 75.00 | 71.25 |
| OD3 | RCA | 1.44 | 1.22 | 502A | GE | 2.30 | 1.96 |
| OG3/8582 | Amp. | 2.30 | 2.30 | CK506AX | Ray. | 2.30 | 2.02 |
| OZ4A | Roy. | 1.12 | 1.12 | CK512AX | Ray. | 2.77 | 2.47 |
| 1 AD4 | Roy. | 2.80 | 2.52 | CK526AX | Ray. | 4.59 | 4.10 |
| 1 AE4 | Roy. | 4.50 | 4.05 | CK533AX | Roy. | 2.94 | 2.62 |
| 1AG4 | Ray. | 3.05 | 2.75 | CK534AX | Ray. | 3.01 | 2.69 |
| lag5 | Roy. | 2.05 | 1.85 | NL-604 | N.E. | 11.80 | 11.80 |
| 1AK4 | Roy. | 5.82 | 5.24 | NL-604L | N.E. | 13.00 | 13.00 |
| IC21 | RCA | 4.15 | 3.53 | NL606L | N.E. | 21.90 | 21.90 |
| 1 P 39 | RCA | 2.30 | 2.00 | NL-615 | N.E. | 9.75 | 9.75 |
| 1 P 40 | RCA | 3.75 | 3.25 | NL-616 | N.E. | 10.00 | 10.00 |
| 1 P 41 | RCA | 4.00 | 3.50 | NL-635 | N.E. | 13.00 | 13.00 |
| 2-01C | Eim. | 18.50 | 18.50 | NL-635L | N.E. | 13.50 | 13.50 |
| 2AP1A | RCA | 15.75 | 15.75 | NL-635P | N.E. | 14.15 | 14.15 |
| 2C39A | RCA | 22.50 | 19.38 | NL-649 | N.E. | 9.20 | 9.20 |
| $2 \mathrm{C40}$ | RCA | 29.30 | 25.62 | 673 | Amp. | 22.15 | 22.15 |
| $2 C 40 A$ | RCA | 33.00 | 28.75 | NL-710 | N.E. | 13.00 | 13.00 |
| 2D21 | RCA | 1.29 | 1.10 | NL-715 | N.E. | 9.50 | 9.50 |
| 2E24 | Roy. | 5.25 | 4.62 | NL-716 | N.E. | 12.50 | 12.50 |
| 2 E 26 | RCA | 3.85 | 3.57 | NL-740L | N.E. | 21.40 | 21.40 |
| RK2K25 | Roy. | 34.80 | 34.80 | NL-740P | N.E. | 20.10 | 20.10 |
| RK2K28A | Roy. | 75.00 | 75.00 | NL-760 | N.E. | 28.10 | 28.10 |
| 3 A4 | RCA | 1.25 | 1.06 | NL-760L | N.E. | 29.40 | 29.40 |
| 3 A5 | RCA | 2.03 | 1.82 | NL-760P | N.E. | 30.00 | 30.00 |
| 345 | Ray. | 1.78 | 1.51 | 805 | RCA | 22.10 | 21.25 |
| $3 \mathrm{B4}$ | Ray. | 2.75 | 2.43 | 807 | RCA | 3.00 | 2.55 |
| RK3824W | Ray. | 10.55 | 9.87 | 810 | RCA | 26.95 | 25.87 |
| 3 B 28 | Amp. | 6.50 | 6.50 | 8114 | RCA | 6.90 | 5.87 |
| 3 C 23 | Amp. | 11.98 | 10.12 | 812A | RCA | 6.90 | 5.87 |
| NL-3C23 | N.E. | 11.98 | 11.98 | 813 | RCA | 23.15 | 22.25 |
| 3-CX10045 | Eim. | 32.00 | 30.00 | 816 | RCA | 2.95 | 2.51 |
| 3-4002 | Eim. | 52.00 | 49.75 | 826 | RCA | 28.40 | 27.31 |
| 3-X2500A3 | Eim. | 200.00 |  | 828 | RCA | 32.95 | 31.71 |
| 4-65A | Eim. | 28.50 | 26.87 | 829 B | RCA | 19.00 | 16.15 |
| 4-125A | Eim. | 36.00 | 33.75 | 832A | RCA | 15.90 | 15.90 |
| 4-125A | Amp. | 36.00 | 33.75 | 833A | RCA | 53.65 | 51.56 |
| 4-250A | Eim. | 46.50 | 43.75 | 833A | Amp. | 53.65 | 51.56 |
| 4-400 A | Eim. | 48.00 | 45.00 | 866A | RCA | 2.90 | 2.46 |
| 4-1000A | Eim. | 132.00 |  | RK-866A | Roy. | 2.90 | 2.46 |
| $4-\mathrm{CX} 250 \mathrm{~B}$ | Eim. | 39.00 | 36.87 | 866AX | Amp. | 2.65 | 2.25 |
| $4 . \mathrm{CX} 300 \mathrm{~A}$ | Eim. | 55.00 | 52.50 | 868 | RCA | 3.90 | 3.37 |
| 4-CX1000A | Elm. | 156.00 |  | 872AX | Amp. | 9.90 | 8.69 |
| 4E27A/ |  |  |  | 884 | RCA | 2.28 | 1.94 |
| 5-125B | Eim. | 50.00 | 46.87 | 885 | RCA | 2.00 | 1.75 |
| 4-X150A | Eim. | 25.00 | 23.44 | 892 R | RCA | 425.00 |  |
| 4-X150G | Eim. | 58.00 | 54.40 | 918 | RCA | 4.45 | 3.88 |
| 4-×250B | Eim. | 39.35 | 36.90 | 921 | RCA | 3.50 | 3.06 |
| $4 \times 250 \mathrm{~B}$ | Amp. | 36.50 | 34.25 | 922 | RCA | 3.10 | 2.69 |
| $4-\times 500 \mathrm{~A}$ | Eim. | 128.50 |  | 923 | RCA | 3.40 | 2.94 |
| $5 \mathrm{BP1A}$ | RCA | 23.30 | 23.30 | 925 | RCA | 3.65 | 3.19 |
| 5R4GY | RCA | 2.03 | 1.73 | 927 | RCA | 3.80 | 3.31 |
| 6 AJ5 | Roy. | 3.95 | 3.43 | 929 | RCA | 2.15 | 1.87 |
| GAN5 | Roy. | 3.75 | 3.35 | 930 | RCA | 3.10 | 2.69 |
| 6 6AS6 | Roy. | 3.43 | 3.06 | 931 A | RCA | 11.15 | 9.75 |
| 6CA7/EL34 | Amp. | 2.90 | 2.90 | 934 | RCA | 4.15 | 3.53 |
| 6ER5 | Amp. | 1.07 | 1.07 | 955 | RCA | 5.70 | 5.07 |
| 654 | Roy. | 4.19 | 3.74 | 991 | RCA | . 87 | 77 |
| 6SN7WGT | Roy. | 2.34 | 2.09 | CK1026 |  | 4.34 | 3.87 |
| $6 \times 4 W$ | Ray. | 1.60 | 1.44 | NLIO51A | N.E. | 65.00 | 65.00 |
| 6X5WGT | Roy. | 1.51 | 1.36 | NLI052A | N.E. | 99.00 | 99.00 |
| 7TP4 | RCA | 68.00 | 65.31 | 1612 | RCA | 4.60 | 4.10 |
| 8021 | RCA | 1985.00 |  | 1614 | RCA | 4.10 | 3.69 |
| 12AT7WA | Ray. | 2.95 | 2.65 | 1616 | RCA | 13.90 | 12.12 |
| EL34 | Mul. | 3.72 | 3.35 | 1619 | RCA | 4.85 | 4.33 |
| GZ34 | Mul. | 2.67 | 2.40 | 1620 | RCA | 6.99 | 5.94 |
| 357 | Eim. | 21.50 | 20.00 | 1621 | RCA | 2.90 | 2.55 |
| EL37 | Mul. | 3.99 | 3.59 | 1622 | RCA | 4.05 | 3.59 |
| RK61 | Roy. | 4.20 | 3.72 | 1626 | RCA | 2.65 | 2.33 |
| DM70 | Mul. | 1.23 | 1.11 | 1629 | RCA | 1.90 | 1.62 |
| ECL80 | Mul. | 2.04 | 1.84 | 1631 | RCA | 3.45 | 3.00 |
| EZ80/6V4 | Amp. | . 75 | . 69 | 1635 | RCA | 2.86 | 2.55 |
| ECC81/12AT7 | Amp. | 1.53 | 1.30 | 2050 | RCA | 2.37 | 2.01 |
| EM81/60AS | Amp. | 1.23 | 1.19 | CK5517 | Roy. | 3.80 | 3.36 |
| EZ81/6CA4 | Amp. | 1.05 | . 95 | 5544 | GE | 32.50 | 30.62 |
| ECC82 | Amp. | 1.23 | 1.05 |  | Wes. | 49.00 | 49.00 |
| ECF82 | Mul. | 2.37 | 2.13 | WL5551 | Wes. | 65.00 | 65.00 |
| ECL82/6BM8 | Amp. | 1.60 | 1.67 | WL5552 | Wes. | 99.00 99.00 | 99.00 |
| ECL82 | Mul. | 1.86 | 1.67 | WL5552A | Wes. | 99.00 | 99.00 |
| UCL82/50BM8 | Amp. | 1.50 | 1.31 | 5555 | GE | 316.00 | 316.00 |
| ECC83/12AX7 | Amp. | 1.28 | 1.09 | 5557 | GE | 9.50 | 9.50 |
| EL84 | Mul. | 1.47 | 1.32 | 5558 | GE | 17.50 | 15.31 |
| EM84/6FG6 | Amp. | 1.48 | 1.40 | 5560 | RCA | 33.00 | 29.87 |
| ECC85/6AQ8 | Amp. | 1.45 | 1.19 | 5581 | RCA | 3.45 | 3.10 |
| ECC86 | Amp. | 2.28 | 2.05 | 5582 | RCA | 5.40 | 4.69 |
| EF86/6267 | Amp. | 1.38 | 1.15 | 5583 | RCA | 4.80 | 4.19 |
| EL86/6CW5 | Amp. | 1.43 | 1.20 | NL5632/C3J | N.E. | 13.80 3.45 | 13.80 |
| ECC88/6DJ8 | Amp. | 1.89 | 1.89 | 5642 | RCA | 2.45 | 2.16 |
| EBF89/6DC8 | Mul. | 1.95 | 1.75 | CK5651 | Ray. | 1.78 | 1.59 |
| EZ90 | Mul. | 1.02 | . 92 | CK5654 | Ray. | 3.05 | 2.59 |
| ECC91/6J6 | Amp. | 1.40 | 1.20 | 5670 $C K 5672$ | RE, | 3.70 2.27 | 3.15 1.93 |
| EF94 | Mul. | 1.26 | 1.13 | CK5676 | Ray. | 2.27 3.05 | 1.93 2.69 |
| 100TH | Eim. | 23.60 | 23.60 | CK5678 | Ray. | 2.27 | 2.02 |
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| 1N627 | 85 | 30 | . 72 | . 54 |
| 1 N628 | 130 | 30 | . 86 | . 63 |
| IN629 | 180 | 30 | . 96 | . 75 |
| IN660 | 110 | 100 | 2.60 | 2.03 |
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| SILICON RECTIFIERS <br> (0) Axial Lead Stk. No. 4488 |  |  |  |  | 0 Wort Stk. No. 44816  <br> IN3016 $6.8 \pm 200 \%$ $\$ 2.95$ $\$ 2.30$ <br> IN3022 $12 \pm \pm 20 \%$ 2.95 2.30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Mfg. } \\ & \text { No. } \end{aligned}$ |  | F,C. | 1.99 | $100 \mathrm{Up}$ |  |  |  |  |
|  | Piv | MA | Eoch | Eoch | IN3030 | $27+20 \%$ | 2.95 | 2.30 |
| $\begin{aligned} & \text { TK21 } \\ & \text { TK } 4 \end{aligned}$ | 200 | 1000 | \$2.00 | \$1.45 | IN3032 | $33 \pm 20 \%$ | 3.25 | 2.60 |
|  | 400 | 1000 | 3.00 | 2.20 |  |  |  |  |
| $\begin{aligned} & \text { TP301 } \\ & \text { IN320 } \end{aligned}$ | 300 | 500 | . 91 | . 68 | IN204i ${ }^{1}$ | a-Wott Stk. | No. ${ }^{\mathbf{4} .00}$ | 17 \$6.75 |
|  | 500 | 200 | 2.50 | 1.60 | in2042 | 5.2-5.4 | \$9.00 | 6.75 |
| 1 N363 | 500 | 100 | 2.50 | 1.60 | in2043 | 5.2-8.4 | 7.00 | 5.60 |
| 1N536 | 50 | 750 | . 85 | . 59 | in2044 | 7.5-10 | 7.00 | 5.60 |
| INS38 | 200 | 750 | 1.40 | . 90 | in2045 | 9.12 | 7.00 | 5.60 |
| 1 N539 | 300 | 750 | 1.28 | . 85 | iN2046 | 11-14.5 | 7.00 | 5.60 |
| 1N540 | 400 | 750 | 1.50 | 1.00 | 1N2047 | 13.5-18 | 7.00 | 5.60 |
| 1 N547 | 600 | 750 | 2.70 | 1.80 | in2048 | 17-21 | 7.00 | 5.60 |
| 1N1695 | 400 | 250 | 1.02 | . 75 | IN2049 | 20-27 | 7.00 |  |
| $\begin{aligned} & \text { IN2069 } \\ & \text { IN2070 } \end{aligned}$ | 200 | 750 | .95 1.15 | . 82 |  | LICON TR | NSISTO |  |
|  | $\begin{aligned} & 400 \\ & 600 \end{aligned}$ | 750 | 1.40 | . 85 |  | Small Sign | NPN |  |
| 1 N 2071 | $100$ | 200 | 1.00 | . 70 |  | Stk. No. | 818 |  |
| 1 N3077 | 300 | 200 | 1.70 | 1.05 | Mfg. No. | VCE HFE | 1-99 Ea. | 100 Up |
| 1 N3079 | 400 | 200 | 1.95 | 1.25 | 2 N 332 | $45 \quad 14$ | \$4.65 | \$3.10 |
| (3) Stud | Mounted | d | 44B9 |  | 2N337 | $45 \quad 55$ | 4.85 | 3.20 |
| Mfg. No. | PIV | Amp | $1-99$ | 100 Up |  | 30 |  |  |
|  |  |  | Each | Each | 2N706 | 2535 | 5.40 | 3.60 |
| TM4 | 50 | 1 | \$1.55 | \$1.15 | 2N844 | 6080 | 11.60 | 7.75 |
| TM7 | 50 | 3 | 2.40 | 1.75 | ST1176 | 4530 | 1.80 | 1.10 |
| TM17 | 100 | 3 | 3.00 | 2.25 | 2 N 1417 | 1560 | 2.30 | 1.60 |
| TM63 | 600 | 2 | 3.80 | 2.50 | 2N1418 | 3060 | 2.75 | 1.90 |
| TR151 | 150 | 10 | 4.60 | 3.25 | (B) | Medium | NPN |  |
| IN248IN248A | 50 | 10 | 3.20 | 2.50 |  | Spt. No. | 4819 |  |
|  | 50 | 20 | 3.50 | 2.70 | 2N549 | 6035 | \$16.00 | 1.20 |
| IN248A IN249 | 100 | 10 | 3.90 | 2.90 | 2N696 | 4040 | 6.00 | 4.00 |
| 1N249A | 100 | 20 | 4.10 | 3.05 | 2N697 | 4075 | 7.65 | 5.10 |
| 1 N 250 | 200 | 10 | 5.00 | 3.75 | 2N728 | 1540 | 15.00 | 10.00 |
| $\begin{aligned} & \text { IN250A } \\ & \text { IN338 } \end{aligned}$ | 200 | 20 | 6.00 | 4.40 | 2N729 | $30 \quad 40$ | 18.00 | 2.00 |
|  | 100 | + | 2.00 | 1.25 | ST4201 | $45 \quad 20$ | 4.60 | 3.00 |
| IN4118(fig 3) 50 |  | 50 | 8.50 | 5.90 | ST4202 | 7520 | 7.20 | 4.75 |

RAYTHEON TRANSISTORS
The entire line of Roytheon Semi-Conductors ore ovaitable from B-A. You moy select with contidence al your B-A offers foctory DEM quantity prices on all Raythean semiconductors. GENERAL PURPOSE GERMANIUM No. ond Mrg. SILICON TYPES


## GENERAL PURPOSE GERMANIUM DIFFUSED JUNCTION SILICON

| Mfg. No, | Fig. | Peat <br> IN. V. | $\begin{gathered} \text { Net } \\ 1-99 \end{gathered}$ | $\begin{gathered} \text { Each } \\ 100 U_{p} \end{gathered}$ | Mfg. No. | Fig. | $\begin{aligned} & \text { Peok } \\ & \text { IN. V. } \end{aligned}$ | $\begin{gathered} \text { Net } \\ 1-99 \end{gathered}$ | $\begin{gathered} \text { Eoch } \\ 100 U_{p} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IN34A | A | 60 | \$0.35 | \$0.23 | IN253 | H | 95 | \$1.58 | \$8.05 |
| IN558 | A | 150 | 1.10 | . 85 | IN254 | H | 190 | 1.76 | 1.17 |
| IN66A | A | 60 | . 40 | . 31 | IN536 | 1 | 50 | . 66 | . 44 |
| IN67A | A | 80 | . 70 | . 48 | IN537 | 1 | 100 | . 74 | 49 |
| IN68A | A | 100 | . 75 | . 55 | 1N538 | 1 | 200 | 76 | . 51 |
| IN82A | A. | 5 | 1.05 | . 80 | 1N539 | 1 | 300 | 91 | . 61 |
| IN95 | A | 60 | . 52 | . 35 | IN540 | 1 | 400 | 1.07 | 71 |
| INI26A | A | 60 | . 44 | . 34 | 2 AM | AT | VOLT | E SHO | WN |
| IN127A | 1 | 100 | . 91 | . 71 | IN1096 | F | 600 | 1.65 | 1.10 |
| IN294A | A | 60 | . 52 | . 40 | IN1763 | E | 400 | . 92 | . 62 |
| N | A | 80 | 72 | 55 | 4 | E | 500 | .12 | .75 |

## CLEVITE POWER TRANSISTORS

High rellability Clevite power transis
ors for power converters, oudio ompli-
fiers, and high current switching cir-
cuits. All Clevite Products are ovail-
able at B-A ot OEM prices. "New



SPECHAL PURCHASE AT LOWEST COST HIGH QUALITY

## CBS SUB-MINIATURE IN34

Latest subminiature glass type design. The of applications in all types of with hundreds cuitry.
St. No.
1-24-EO. 25-99 Eo. 100 Up


TRANSISTORS Order Stock No. 41 AlO ond Monufocturer No.

| Mfg. <br> No. | Use | Fig. | $\begin{aligned} & \text { 1-99 } \\ & \text { Eoch } \end{aligned}$ | $100 \text { Up }$ Eoch | Mfg. <br> No. <br> Use | Fig. | $\begin{aligned} & 1-99 \\ & \text { Eoch } \end{aligned}$ | $\underset{\text { Eoch }}{100 \text { Up }}$ | Mfg. No. | Use | Fig. | $\begin{aligned} & 1-99 \\ & \text { Eoch } \end{aligned}$ | $\begin{aligned} & 100 \text { Up } \\ & \text { Eoch } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2N104 | Audio | 2 | 1.82 | \$ 1.21 | 2N591 Audio |  | . 74 | 50 | 2N1384 | Computer | 2 | 4.87 | 3.25 |
| 2N109 | Audio |  | 1.24 | . 83 | 2N643 Computer | 8 | 2.92 | 1.95 | 2N1395 | Comm. | 8 | 2.81 | 1.87 |
| 2N139 |  | 2 | 1.49 | . 99 | 2N644 Computer | 8 | 4.42 | 2.95 | 2N1396 | Comm. | 8 | 3.71 | 2.48 |
| 2N140 | Conv. | 2 | 1.53 | 1.02 | 2N645 Computer | 8 | 5.78 | 3.85 | 2N1397 | Comm. | 8 | 5.45 | 3.63 |
| 2 N 173 | Power | 5 | 6.01 | 4.00 | 2N647 Audio | 2 | 1.16 | . 77 | 2N1412 | Power | 7 | 14.26 | 9.50 |
| 2 N 174 | Power | 2 | 7.13 | 4.75 | 2N649 Audio |  | . 86 | . 57 | 2N1425 | Radio | 6 | . 86 | . 57 |
| 2N175 | Audio | 2 | 1.63 | 1.09 | 2 N656 Sil. Powr. | 8 | 21.55 | 14.35 | 2N1426 | Radio | 6 | . 89 | . 59 |
| 2N176 | Audio | 5 | 1.88 | 1.25 | 2N705 Computer | 8 | 7.66 | 5.10 | 2N1450 | Computer |  | 5.94 | 3.96 |
| 2N215 | Audio | 2 | 1.73 | 1.16 | 2N706A Computer | 8 | 7.65 | 5.10 | 2N1479 | Power | 8 | 6.60 | 4.40 |
| 2 N 217 | Audio | 2 | 1.16 | . 77 | 2N710 Computer | 8 | 6.75 | 4.50 | 2N1480 | Power | 8 | 8.25 | 5.50 |
| 2N218 | Rodio | 2 | 1.40 | . 94 | 2N711 Computer | 8 | 2.92 | 1.95 | 2N1481 | Power | 8 | 11.55 | 7.70 |
| 2N219 | Radio | 2 | 1.45 | . 97 | 2N794 Computer | 8 | 2.64 | 1.76 | 2N1482 | Power | 8 | 13.20 | 8.80 |
| 2N220 | Rodio | 2 | 1.55 | 1.03 | 2N795 Computer | 8 | 4.54 | 3.03 | 2N1483 | Power | 8 | 11.55 | 7.70 |
| 2N269 | Computer | 2 | 1.98 | 1.32 | 2N796 Computer | 8 | 6.19 | 4.13 | 2N1484 | Power | 8 | 14.85 | 9.90 |
| 2N270 | Audio |  | 1.32 | 88 | 2N934 Computer | 8 | 6.60 | 4.40 | 2N1486 | Power | 8 | 42.50 | 28.35 |
| 2N274 | Comm. | 2 | 1.65 | 1.10 | 2N1010 Audio | 2 | 2.89 | 1.93 | 2N1487 | Power | 5 | 19.80 | 13.20 |
| 2N277 | Power | 7 | 3.51 | 2.34 | 2N1023 Comm. | 2 | 3.88 | 2.59 | 2N1488 | Power | 5 | 23.10 | 15.40 |
| 2N278 | Power | 7 | 4.92 | 3.28 | $2 N 1066$ Comm. | 8 | 4.13 | 2.75 | 2N1489 | Power | 5 | 33.00 | 22.00 |
| 2 N 301 | Power | 5 | 1.98 | 1.32 | 2N1067 Power | 8 | 20.95 | 13.95 | 2N1490 | Power | 5 | 64.75 | 43.20 |
| 2N301A | Power | 5 | 4.50 | 3.00 | 2N1068 Power | 8 | 21.95 | 14.65 | 2N1491 | Comm. | 8 | 13.55 | 9.00 |
| 2N307 | Hobby | 5 | 1.49 | 99 | 2N1069 Power | 5 | 49.90 | 33.30 | 2N1492 | Comm. | 8 | 16.50 | 11.00 |
| 2N351 | Power | 5 | 2.03 | 1.35 | 2N1070 Power | 5 | 64.95 | 43.30 | 2N1493 | Comm. | 8 | 20.95 | 13.95 |
| 2N370 | RF | 6 | 1.49 | . 99 | 2N1090 Computer | 8 | 1.40 | . 94 | 2N1511 | Power | 7 | 19.80 | 13.20 |
| 2N371 | RF | 6 | 1.40 | . 94 | 2 N 1091 Computer | 8 | 2.23 | 1.49 | 2N1512 | Power | 7 | 23.10 | 15.40 |
| 2N372 | RF | 6 | 1.40 | . 94 | 2N1092 Power | 8 | 10.75 | 7.15 | 2N1513 | Power | 7 | 33.00 | 22.00 |
| 2N376 | Power | 5 | 2.10 | 1.40 | 2N1099 Power | 7 | 9.83 | 6.55 | 2N1514 | Power | 7 | 64.75 | 43.20 |
| 2N384 | Comm. | 2 | 2.48 | 1.65 | 2NI100 Power | 7 | 18.00 | 12.00 | 2N1524 | Radio | 2 | . 86 | . 57 |
| 2N398 | Computer | 8 | 1.86 | 1.24 | 2N1169 Computer | 8 | 3.71 | 2.48 | 2N1525 | Radio | 2 | . 86 | . 57 |
| 2 N 404 | Computer | 8 | . 99 | . 66 | 2N1170 Computer | 8 | 5.20 | 3.47 | 2N1526 | Radio | 2 | . 89 | . 59 |
| 2 N 405 | Audio | 2 | . 68 | . 41 | 2N1177 Radio | 5 | 1.65 | 1.10 | 2N1527 | Radio | 2 | . 89 | . 59 |
| 2 N 406 | Audio | 2 | . 68 | . 45 | 2N1178 Rodio | 6 | 1.49 | . 99 | 2N1631 | Radio | 2 | 1.20 | . 80 |
| 2 N 407 | Audio | 2 | . 73 | . 48 | 2N1179 Rodio | 6 | 1.49 | . 99 | 2N1632 | Radio | 2 | 1.20 | . 80 |
| 2 N 408 | RF | 2 | . 73 | . 48 | 2N1180 Radio | 6 | 1.12 | . 75 | 2N1633 | Radio | 2 | 1.24 | . 83 |
| 2N409 | RF | 2 | . 86 | . 52 | 2N1183 Power | 8 | 2.06 | 1.38 | 2N1634 | Radio | 2 | 1.24 | . 83 |
| 2 N 411 | Conv. | 2 | . 89 | . 59 | 2N1183A Power | 8 | 2.72 | 1.82 | 2N1635 | Radio |  | 1.32 | . 88 |
| 2 N 412 | Rodio | 2 | . 89 | . 59 | 2N1183BPower | 8 | 3.30 | 2.20 | 2N1636 | Radio |  | 1.32 | . 88 |
| 2N414 | Computer | 2 | . 97 | . 65 | 2N1184 Power | 8 | 4.13 | 2.75 | 2N1637 | Radio | 2 | 1.20 | . 80 |
| 2N441 | Power | 7 | 3.17 | 2.11 | 2N1184A Power | 8 | 4.95 | 3.30 | 2N1638 | Radio |  | 1.11 | 74 |
| 2N442 | Power | 7 | 4.54 | 3.03 | 2N1184B Power | 8 | 7.43 | 4.95 | 2N1639 | Radio | 2 | 1.16 | . 77 |
| 2 N 443 | Power | 7 | 5.64 | 3.76 | 2N1213 Thyristor | 8 | 7.84 | 5.23 | 2 N 1683 | Computer | 8 | 4.29 | 2.86 |
| 2 N 497 | Sil. Powr. | 8 | 15.70 | 10.45 | 2N1214 Thyristor | 8 | 7.84 | 5.23 | 2 N 1700 | Power | 8 | 5.35 | 3.60 |
| 2N578 | Computer | 8 | 2.48 | 1.65 | 2N1215 Thyristor | 8 | 7.84 | 5.23 | 2 N 1701 | Power | 8 | 7.85 | 5.25 |
| 2N579 | Computer | 8 | 3.30 | 2.20 | 2N1216 Thyristor | 8 | 4.95 | 3.30 | 2N1702 | Power | 5 | 12.40 | 8.25 |
| 2N580 | Rodio | 8 | 4.50 | 3.00 | 2 N 1224 Comm. | 2 | 2.06 | 1.38 | 2N1703 | Power | 7 | 12.40 | 8.25 |
| 2 N 581 | Rodio | 8 | . 99 | . 66 | 2N1225 Comm. | 8 | 2.89 | 1.93 | 2N1768 | Power |  | 24.75 | 16.50 |
| 2N582 | Rodio | 8 | 2.23 | 1.49 | 2N1226 Comm. | 8 | 3.30 | 2.20 | 2N1769 | Power | 7 | 42.50 | 28.35 |
| 2 N 583 | Rodio | 2 | 1.82 | 1.21 | 2N1300 Computer | 8 | 2.06 | 1.38 | 2 N1905 | Power | 5 | 4.13 | 2.75 |
| 2N584 | Rodio | 2 | 3.22 1.07 | 2.15 .72 | 2N1301 Computer 2N1319 Computer | 8 | 2.72 5.20 | 1.82 3.47 | 2N1906 | Power | 5 | 6.60 | 4.40 |
| 2N586 | Computer | 6 | 1.73 | 1.16 | 2N1358 Power | 2 | 16.50 | 11.00 |  |  |  |  |  |

SILICON RECTIFIERS
Stk. No. 41 All G Mfg. N

SARKES TARZIAN SILICON RECTIFIERS
 Con Supply oll sorkes To Feature extreme small size, only
$.275^{\prime \prime}$ dia. $\times .25^{\prime \prime}$ high. Pigtail leads for solder-in mounting. $\begin{array}{lllcr}\text { Stk. No. Mfg. No PIV } & \text { Amp } & \text { Net Eo. } \\ 17 A 108 & F-2 & 200 & .5 & \$ 1.20 \\ 17 A 116 & F-4 & 400 & .5 & 1.15 \\ 17 A 117 & F-6 & 600 & 5 & 1.25\end{array}$

(1) Cortridge Type-Axial LIGH VOLTAGE TYPE
tk. No No. PIV $25^{\circ} \mathrm{C}$ I-9E0. Stk. No. Mfg. No. PIV Amp. 1-9 Eo.


## HIGH CURRENT SERIES

Half wave units, for single or polyphase applications up to 480 amps. orhers ovailable for up to 960 amps. Lost letter of Mfg . Number: N for Handbook No. 25 Al45.
Foctory OEM prices opply on oll larger quantities. Contact B-A for quotes.


B-A is Industrial Distributor for all products of Transitron, RCA, International Rectifier, Sarkes Tarzian, Roytheon, GE, Amperex and Clevite.

# International Rectifiers and Diodes 

INTERNATIONAL-RECTIFIERS-DIODES


Produced by the world's lorgest industrial rectifier manufacturer. Features reliable performance, advonced design and a wide se

| Stock No. | Mfg. No. | $\begin{aligned} & \text { Input* } \\ & \text { Volts AC } \end{aligned}$ | $\begin{aligned} & \text { DC } \\ & \text { Volts } \end{aligned}$ | utput Amps | Sixe Inches | $\begin{gathered} 1-9 \\ \text { Eoch } \end{gathered}$ | $\begin{aligned} & 10-99 \\ & \text { Eoch } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 A297 | J29804 | 36 | 29 | 4 | $1 \times 1 \times 1.5$ | 32.36 | 1.97 |
| 298333 | J29B5 | 36 | 29 | 4.8 | $3 \times 3 \times 2.63$ | 6.43 | 5.83 |
| 41459 | 12981 | 36 | 29 | 1.5 | $1.5 \times 1.5 \times 1.5$ | 2.28 | 1.90 |
| 41 A60 | J29B8 | 36 | 29 | 8.4 | $4 \times 4 \times 2.63$ | 8.93 | 7.44 |
| 41461 | J5881 | 72 | 58 | 1.5 | $1.5 \times 1.5 \times 2.25$ | 4.49 | 3.74 |
| 298336 | J5885 | 72 | 58 | 4.5 | $3 \times 3 \times 4.2$ | 12.08 | 10.07 |
| 29B338 | 1116 BO 4 | 144 | 116 | . 4 | $1 \times 1 \times 3.8$ | 5.58 | 4.63 |
| 298339 | J11681 | 144 | 116 | 1.5 | $11 / 2 \times 11 / 2 \times 3.8$ | 8.15 | 6.80 |
| 41463 | J116B5 | 144 | 116 | 4.8 | $3 \times 3 \times 7.19$ | 22.91 | 19.10 |
| 29B341 | J135B1 | 180 | 135 | 1.5 | $1.5 \times 1.5 \times 4.56$ | 9.93 | 8.28 |

Fig. (A) BATTERY CHARGING TYPES
JD4346B is a universal fost charge type, fits most 100 omp units. Other types may be used singly or in multiples for various circuits.


41 Li73 DDO6 GOW TO MEDIUM POWER SILICON RECTIFIERS

Fig. D Hermetically sealed-encapsuloted. Stk. No. 41452
 SD95A Elg. EN Miniature Diffused Type
Exceptional Stability ond DerfarmExceptional Stability ond perfarm-
ance. $2 \times .375$ long. 625 MA reance. $2 x$ sistive loo
Mfg.

Rated. 750 MA Temperoture ${ }^{\text {TyPO }}$ $150^{\circ} \mathrm{C}$.

## Mfg.

No.
10B

## 1081 1082

1082
1083
1083
1084
1084
1085
1086

$$
\begin{aligned}
& \text { Fig. D Extremely Low Current } \\
& \text { Rated } 1.8 \\
& \begin{array}{l}
\text { Mfg. PRV RMS In } 1-99 \quad 100 \text { UD } \\
\text { No. Volts Volts AC Eoch Eoch }
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \text { antN538 } \\
& \begin{array}{l}
\text { INS } 40 \\
\text { JanIN5 }
\end{array} \\
& \begin{array}{l}
\text { Extremely Low Current } \\
\text { Leakage Type sink } 13
\end{array}
\end{aligned}
$$

Stk. No, 41449

PRV RMS In 1-99 100 Up Volts Volts AC Each Each| 100 | 70 | $\$ 0.86$ |
| :--- | :--- | ---: |
| 200 | 140 | 1.24 |
| 30 | .95 |  |

$\begin{array}{llll}200 & 140 & \mathbf{1 . 7 4 5} & \mathbf{1 . 9 5} \\ 300 & 210 & \mathbf{1 8} \\ 400 & 280 & \mathbf{2 . 4} & \mathbf{1 . 8 9} \\ 500 & 350 & \mathbf{3 . 4 8} & \mathbf{2 . 6 5} \\ 600 & 420 & \mathbf{4 . 8 9} & \mathbf{3 . 7 5}\end{array}$

## AC AND DC CONTACT PROTECTORS

To prevent orcing and flashaver of relay, switch and other
component contacts. Highly rellable at very low cost. Small component contacts. Highly rellable at very low cost. Small
cortridge with pigtoil leads for easy installation. Quantity
prices on request.

$$
\begin{aligned}
& \text { prices on request. } \\
& \text { AC TYPES }
\end{aligned}
$$




36


Stud mounted, hermetically sealed highly dependable lang life units. Order by Graup Stock Number and Manufocturers Number.

Fig. (H) 6 Amp
Stk. No. 41 A53
Fig. (1) 25-35 Amp (Continued)


SILICON ZENER DIODES
Hermetically sealed assuring maximum protection. Types with "A" suffix are $5 \%$ tolerance oll others are $10 \%$.

| Fig. | I-Woft T Stk. No. |  | $\begin{aligned} & \text { Top Hot } \\ & 41 \mathrm{ASI} \end{aligned}$ | Trpe | Fig (M) | 10-Wott Stud Mtg. Stk. No. 41450 |  |  | Typo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JEDEC No. | Zener Volts | Mox. <br> Zener MA | $\begin{aligned} & \text { I-99 } \\ & \text { Eoch } \end{aligned}$ | $\begin{aligned} & 100 \text { Up } \\ & \text { Eoch } \end{aligned}$ | JEDEC No. | Zene Volts | Max. <br> Z Zener MA | $\begin{aligned} & 1-99 \\ & \text { Each } \end{aligned}$ | $100 \text { Up }$ |
| INI518 | 3.9 | 250 | 58.20 | \$4.80 | NN1599 | 3.9 | 2500 | \$8.5 | 0 |
| INIS18A | 3.9 | 250 | 7.44 | 5.78 | iN1599A | 3.9 | 2500 | 0.20 | 8.40 |
| IN1519 | 4.7 | 200 | 6.20 | 4.80 | INI600 | 4.7 | 2000 | 8.50 | 2.00 |
| INISI9A | 4.7 | 200 | 7.44 | 5.76 | IN1600A | 4.7 | 2000 | 8.52 | 2 |
| INI520 | 5.6 | 175 | 3.50 | 2.80 | IN1601 | 5.6 | 1750 | 7.10 | 89 |
| INIS20A | 5.6 | 175 | 4.20 | 3.38 | IN1601A | 5.6 | 1750 | 8.52 | 2 |
| INIS21 | 6.8 | 150 | 3.50 | 2.80 | IN1602 | 6.8 | 1500 | 7.10 | 1 |
| INI521A | 6.8 | 150 | 4.20 | 3.36 | IN1602A | 6.8 | 1500 | 8.52 | 2 |
| 1NIS22 | 8.2 | 120 | 3.50 | 2.80 | IN1603 | 8.2 | 1200 | 7.10 | 60 |
| 1NI522A | 8.2 | 120 | 4.20 | 3.36 | INI603A | 8.2 | 1200 | 9.00 | 7.20 |
| INIS23 | 10 | 100 | 3.50 | 2.80 | IN1604 | 10 | 1000 | 7.10 | 80 |
| INIS23A | 10 | 100 | 4.20 | 3.36 | IN1604A | 10 | 1000 | 8.52 |  |
| 1N1524 | 12 | 80 | 3.50 | 2.80 | IN:605 | 12 | 850 | 7.10 | 89 |
| 1NIS24A | 12 | 80 | 4.20 | 3.36 | IN1605A | 12 | 850 | 8.52 | 2 |
| 1N1525 | 15 | 65 | 3.50 | 2.80 | IN1606 | 15 | 650 | 7.10 | 80 |
| IN1525A | 15 | 65 | 4.20 | 3.36 | 1N1606A | 15 | 650 | 8.52 | 72 |
| IN1526 | 18 | 55 | 3.50 | 2.8 | 3N1607 | 18 | 550 | 7.10 |  |
| 1N1526A | 18 | 55 | 4.20 | 3.36 | INI607A | 18 | 550 | 8.52 |  |
| 1 N1527 | 22 | 45 | 3.50 | 2.80 | 1N1608 | 22 | 450 | 7.10 | 60 |
| INI527A | 22 | 45 | 4.20 | 3.36 | INI608A | 22 | 450 | 8.52 | 72 |
| 1N1528 | 27 | 35 | 4.00 | 3.00 | $1 N 1609$ | 27 | 350 | 7.10 |  |
| N1528A | 27 | 35 | 4.80 | 3.60 | IN1609A | 27 | 350 | 8.52 | . 72 |

GENERAL INSTRUMENTS "HCD"

## HEAVY-DUTY SELENIUM RECTIFIERS

## New Petti-Sel improved rectifiers ore more efficient, langer

New Pefti-Sel improved rectifiers ore more efficient, Ianger
Nved. Single phose, full-wave bridge, dry-disc rectifiers. For use in power supplies, chorgers, electroplating, etc.


# Transistor \& Instrument Transformers 

| TRIAD |  |  |  | TRANSFORMERS MINIATURE AUDIOS FOR TRANSISTOR APPLICATIONS Lost letter in Triod type indicotes mounting style. rder by Group Stock No. 26 A161 and Triad Type. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Triad |  | S |  |  |  |  |  | Prices, | Each |
| Type | Imperfance | Impedance | watts | H. | W. | D. | 1-9 | 10-24 | 25-49 |
| TY-23X | $50 \mathrm{~K}(5 \mathrm{MA})$ | 500 CT | 100 | 5 | 1 |  | \$3.90 | 83.51 | \$3.16 |
| TY-24X | $50 \mathrm{~K}(.5 \mathrm{MA})$ | 3 KCT | 200 | 暏 | 15 |  | 4.53 | 4.08 | 3.67 |
| TY-25X | $100 \mathrm{~K}(.5 \mathrm{MA})$ | 200 CT | 200 | \% | 1\% | 7 | 4.62 | 4.16 | 3.74 |
| TY-26X | $100 \mathrm{~K}(5 \mathrm{MA})$ | 3 KCT | 200 |  | 1\% | 16 | 4.65 | 4.19 | 3.77 |
| TY-32X | 200CT (2MA) | 2 KCT | 200 | \% | 1\% | \% | 3.90 | 3.51 | 3.16 |
| TY-33X | $400 \mathrm{CT}(5 \mathrm{MA})$ | 16/8/4 | 200 | \% | $1{ }^{18}$ | 7 | 3.90 | 3.51 | 3.16 |
| TY-34X | 400 (T $(5 \mathrm{MA})$ | 2KCT | 200 |  | 13\% | 710 | 3.90 | 3.51 | 3.16 |
| TY-35X | $500 \mathrm{CT}(2 \mathrm{MA})$ | 150 CT | 100 |  | $1{ }^{17}$ | 4 | 3.75 | 3.38 | 3.04 |
| TY-36X | 2K (2MA) | 1.5 KCT | 200 |  | 1\% | 7 | 3.90 | 3.51 | 3.16 |
| TY-37X | $2 \mathrm{KCT}(4 \mathrm{MA})$ | 8 KCT | 200 |  | 1\% | $1 / 0$ | 3.99 | 3.59 | 3.23 |
| TY-38X | $3 \mathrm{KCT}(4 \mathrm{MA})$ | 1 KCT | 200 |  | 11. | $7 /$ | 3.99 | 3.59 | 3.23 |
| TY-39X | ${ }^{\text {4KCT }}$ (4MA) | 16/8/4 | 200 |  | 1\% | \% | 4.05 | 3.65 | 3.28 |
| TY-40X | 5K(1MA) | 200 CT | 100 | \% | 117 | 4 | 3.75 | 3.38 | 3.04 |
| TY-11X | $16 \mathrm{~K}(1 \mathrm{MA})$ | 4 K | 100 | 4 | $1{ }^{1 \frac{1}{31}}$ | 0 | 3.84 | 3.46 | 3.11 |
| TY-42X | 20K (.5MA) | 8/4 | 100 |  | $1{ }_{1}^{13}$ | \% | 3.75 | 3.38 | 3.04 |
| TY-43X | $20 \mathrm{~K}(5 \mathrm{MA})$ | 800 CT | 100 | \% | $1 \frac{1}{12}$ | 0 | 3.84 | 3.46 | 3.11 |
| TY-45X | 500CT(5MA) | 16/8/4 | 200 |  | 11 | \% | 3.87 | 3.48 | 3.13 |
| TY-50X | $125 \mathrm{~K}(\mathrm{OMA})$ | 2 KCT | 40 | * | 1\% | 18 | 4.80 | 4.32 | 3.89 |
| TY-52X | 20KCT(1MA) | 2 KCT | 100 | 5 | 1\% | 9 | 4.47 | 4.02 | 3.62 |
| TY-54X | $15 \mathrm{~K}(1.5 \mathrm{MA})$ | 200 CT | 100 | - | $1 \%$ | 76 | 4.26 | 3.83 | 3.45 |
| TY-5.5X | 2KCT (2MA) | 500 CT | 200 | 4 | $1 \%$ | 5 | 4.32 | 3.89 | 3.50 3.50 |
| TY-56X | $10 \mathrm{~K}(1 \mathrm{MA})$ | 2KCT | 50 | 5 | 1\% | 7 | 4.32 | 3.89 | 3.50 |
| TY-59X | 5KCT(1MA) | 50KCT | 20 | \% | 13/4 | 78 | 4.74 | 4.27 | 3.84 |

OUTPUT \& DRIVER TRANSISTOR TRANSFORMERS
Order by Group Stock No. 26A160 and Triod Tyoe

| $\begin{aligned} & \text { Triad } \\ & \text { Type } \\ & \hline \end{aligned}$ | Primary Impedance | Secondary <br> Impedance | Output Watts |  | $\begin{aligned} & \text { Size } \\ & \text {. } \end{aligned}$ | D. | Net Prices, Each |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | H. |  |  | 1-9 | 10-24 | 25-49 |
| TY-29X | $24 \mathrm{CT}(500 \mathrm{MA})$ | 8/4 | 8 | 2 | 3\% | 17/8 | \$4.26 | \$3.83 | \$3.45 |
| TY 30X | $100 \mathrm{CT}(100 \mathrm{MA})$ | $8 / 4$ | 2 | 1\% | $21 /$ | 11/4 | ${ }^{3.33}$ | 3.00 | 2.70 |
| TY-31X | $200 \mathrm{CT}(60 \mathrm{MA})$ | $8 / 4$ | 2 | $1 \%$ | 21\% | $11 / 4$ | 3.33 | 3.00 | 2.70 |
| TY-48X | $100 \mathrm{CT}(40 \mathrm{MA})$ | 16/8/4 | 0.5 | 5 5 | 1588 | 7 | 4.08 | 3.67 | 3.30 |
| TY-53X | 200 CT (10MA) | 400 CT | 0.6 |  | $3 \%$ | 2 | 3.42 | 3.08 | 2.77 |
| TY-61X | $100 \mathrm{CT}(100 \mathrm{MA})$ | 100CT | 0.5 | 15/8 | $2 \%$ | $15 / 8$ | 3.06 | 2.75 | 2.48 |
| TY-63X | 48CT (550MA) | 16/8 | 5 | 2 | 3 约 | 17\% | 4.17 | 3.75 | 3.38 |
| TY-64X | 32CT (575MA) | 16/8/4 | 10 |  | 31 | $17 / 8$ | 3.81 | 3.43 | 3.09 |
| TY-65Z | 32CT (575MA) | $6 \mathrm{~K} / 4 \mathrm{~K} / 3 \mathrm{~K}$ | 10 | 27 | $27 / 8$ | 2 | 3.81 | 3.43 | 3.99 |
| TY-66. | ${ }^{6} \mathrm{CT}(5 \mathrm{~A})$ | $6 \mathrm{~K} / 4 \mathrm{~K} / 3 \mathrm{~K}$ | 40 | 371/8 | $3 \frac{1}{12}$ | 31/6 | 9.42 | 8.46 | 7.63 |
| TY-67A | 6СT (5A) | 16/8/4 | 40 | 37\% | $3{ }^{\frac{1}{15}}$ | 31/\% | 9.75 | 8.78 | 7.90 |

## MINIATURE AUDIO-"Trijets"



```
Mtg. c
```

cos, Each

| $\begin{aligned} & \text { Triad } \\ & \text { Type } \\ & \hline \end{aligned}$ | Description | Imped. <br> Pri. Sec. |  | Response | Max. Level | Net Prices, Each |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1-9 |  | 10-24 | 25-49 |
| T-1X | Line or Mike to Grid | $600 / 250 / 50$ | 150K |  | 60-15000 | 0 DBM | \$4.32 | \$3.89 | \$3.50 |
| T-2X | Line or Mike to Grid | 800/250/50 | 250 K | 100-5000 | 0 DBM | 4.32 | 3.89 | 3.50 |
| T-12X | Plate to PP Grid | ${ }^{15 \mathrm{~K}}$ | $60 \mathrm{~K} \mathrm{C.T}$. | 60-1.5000 | 10 DBM | 4.32 | 3.89 | 3.50 |
| T-20X | Plate to Line | 15 K | $600 / 250 / 50$ | 60-15000 | 10 DBM | 4.05 | 3.65 | 3.28 |
| T-23X | PP Plates to Line | 20 K C.T. | 600/250/50 | 60-15000 | 10 DBM | 4.01 | 3.61 | 3.25 |

TRANSCEIVER AUDIO/MODULATION Transformers Order by Group Stock No. 26A157 ond Triod Type.

|  |  |  |  |  |  | Prices, | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Description | Pri. | Sec. | W. D. | 1-9 | 10-24 | 25-49 |
| A-1X | 8gl. Bution Mike | 100 | 1Ratio 31.4: |  | \$2.04 | \$1.84 | \$1.65 |
|  |  | 100 10 K |  | $1 / 181818$ |  |  |  |
| A-23X | To Grid (2 Primaries) <br> Tube to line and | 10 K | 100 and |  | 2.31 | 208 |  |
|  | Hi-Imped. Phones Modulation 5 Watts | ${ }_{10 \mathrm{~K}}^{10 \mathrm{Cr}}$ | ${ }^{2000} 5 \mathrm{~K}, 8 \mathrm{~K}, 10 \mathrm{~K}$ | $\begin{array}{lll}13 / 9 & 23 & 13 \\ 1 \% 6\end{array}$ | 2.81 | 2.35 2.87 | 2.11 |
|  | Modulation. <br> Modulation, 20 Watts | ${ }_{10 \mathrm{~K}} \mathrm{CT}$ |  | $\begin{array}{llll}131 / 4 & 318 & 23\end{array}$ | 2.95 | 2.87 4.46 | 2.41 4.01 |
|  | Modulation, Speaker Output | *6750/: | 4 |  | 3.09 | 2.7 | 2.50 |

## TRANSISTOR POWER SUPPLY TRAN.

 For use with power tronsistors and silicon rectifiers to produce HV DC from ${ }^{12}$ Volt DC. Highly efficient epoxy 6 V . ond 28 V . DC input ore ovailoble from foctory stock Priced quoted on request. Order by Group Stock No. 26A159 Priced quoted onand Triad type.


## STANCOR TRANSISTOR TRANSFORMERS <br>  <br> a <br> altor

Designed especially for tronsistar opplications. Highest quality throughout Types TA-15, TA-16 and TA-17 are transformers for a 30 watt transistor mobile modulator using P.P. 2N278's. Ask for No. 25A125. Bulletin 545 Showing modulator circuit.
For Quantity Price in Lots of 25-49 Deduct Approx. $10 \%$. Exoct Prices on Request. Order by Group Stock No. 13A801 and Stoncor No.

| Type No. | Use | Ohms. Imp. Pri Sec |  | $\begin{aligned} & \text { DC } \\ & \text { MA } \end{aligned}$ | $\begin{aligned} & \text { Ohms DC } \\ & \text { Pri. } \\ & \text { Sec. } \end{aligned}$ |  | Power Watts | Mig. Fig. | Ht. | Base Area | Net Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1-9 |  |  | 10-24 |  |  |  |
| TA-1 | Input | 600 CT | 10 |  | 20 | 42 |  | 8 | 0.05 | A |  | 15 | \$1.89 | \$1.74 |
| TA-2 | Inter | 100CT | 10 CT | 100 | 4.3 | 8 | 0.25 | A |  | $21 / 1{ }^{\circ}$ | 1.89 | 1.74 |
| TA-3 | Inter | 100 | 1000 CT | 100 | 5.8 | 45 | 0.25 | A | 13 | $2{ }^{\frac{1}{15}} 1^{3}$ \% | 1.89 | 1.74 |
| TA-4 | Inter. | 500 CT | 5000 CT | 12 | 37 | 250 | 0.03 | A | $1^{3} 8$ | 2 \% 136 | 2.48 | 2.28 |
| TA-5 | Drive | 1000 | 200 CT | 10 | 400 | 115 | 0.05 | A | \%/8 | $\mid 11 / 41 / 2$ | 4.70 | 4.32 |
| TA-6 | Driver | 2000 | 200 CT | 5 | 720 | 115 | 0.05 | A |  | $11 / 4$ | 5.32 | 4.89 |
| TA-7 | Driver | 100 | 100 CT | 100 | 12 | 12 | 0.5 | A | 1\% $\%$ | 2 11\% | 1.89 | 1.74 |
| TA-8 | Output | 9800 | 15 | 2 | 640 | 2 | 0.05 | A | 13 | 2\% $13 \%$ | 4.25 | 3.90 |
| TA-9 | Output | 1000 | 4/8/16 | 10 | 180 | 3.5 | 0.2 | A |  | $1{ }^{5}{ }^{5}$ | 4.86 | 4.47 |
| TA-10 | Output | 2000CT | 4/8/16 |  | 250 | , | 0.2 | A | $1 / 4$ | $\left\lvert\, \begin{array}{ll}18 & 3 / 4\end{array}\right.$ | 5.32 | 4.89 |
| TA-11 | Outpu | 48 CT | 8/16 | 275 | 5 | 1.5 | 5.0 | A |  | $1813 / 4$ | 3.65 | 3.35 |
| TA-12 | Output | 20 CT |  | 500 | . 55 | . 35 | 10.0 | A | $13 / 6$ | $1{ }^{1} 11 / 2$ | 1.89 | 1.74 |
| TA-13 | Driver | 200 CT | 400 CT | 10 | 5 |  | 0.6 | TD |  |  | 4.02 | 3.71 |
| TA-14 | Output | 24 CT | 16/4 CT | 200 | , | 7 | 10.0 | TD |  | $46 / 83$ | 10.06 | 9.24 |
| TA-15 | Mike | 50-100 | 10 | 50 | 2 | 6 | 5MW | A |  | $\left\lvert\, \begin{array}{ll}176 & 11\end{array}\right.$ | 1.47 | 1.35 |
| TA-16 | Driver |  | 36 CT | 400 |  |  | W | A |  |  | 1.69 | 1.56 |
| TA-17 | Mod. | 8 CT | 7500/5000 |  |  |  | 35 W | C |  | $3{ }^{3}$ | 6.36 | 5.84 |
| TA-56 | Output | 48 CT | 3.2/8/16 | 550 | 3.6 | 1.4 | 10 | J |  | $2^{7 / 8} 8$ | 3.04 | 2.79 |
| TA-57 | Output | 100 CT | 3.2/8/16 | 500 | 6.6 | 1.6 | 10 | 8 |  | $2^{\text {\% \% }} 2$ | 2.99 | 2.75 |
| TA-58 | Driver | 100 | 1200 CT | 200 | 6.5 | 15.5 | . 5 | A | $13 / 4$ | $12 \quad 11 / 4$ | 2.13 | 1.95 |
| TA-59 | Driver | 500 CT | 200 CT | 50 | 36.5 | 15.5 | 5 | A | 11/4 | $\left\lvert\, \begin{array}{ll}2 & 11 / 4\end{array}\right.$ | 2.37 | 2.18 |
| TA-60 | Output | 125 CT | 8 | 50 | 7.5 | 0.9 | 1.5 | TS | 13/4 | $\mid 11 / 411 / 4$ | 4.11 | 3.77 |

AUTO RADIO TRANSISTOR TRANSFORMERS
A2 and S2 mtgs. are similar to $A$ and $S$ with tobs insteod of punched flanges.

| TA-48 | Inter. | 1000 | 40 | 10 | 136 | 2.8 | 2 | S 2 | $1 \%$ | 1 B | 11 | 2.06 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

TA-49 Output 30 CT 4

0 1.5tap@

## AUTO RADIO TRANSISTOR FILTER CHOKE

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Type } \\ & \text { No. } \end{aligned}$ | Inductance |  |  | Net Prices, Each |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | MH@ DCMA | DC Ohms | Base Are | $1-9$ | 10-24 | 25-4 |
| A7 |  |  | 25 |  | 1. | \$1.22 | \$1.09 |
| 13A705 | TC-2 | 11 (1) 1000 | 75 | 18480 | 1.21 |  |  |
| TRANSISTOR POWER TRANSFORMER (Pri. 117 V .60 Cy . AC) <br> For bridge rectifier. Two windings, each 13 or 18 V . AC., 900 MA . Upright type C mount. Size $3 \times 21 / 2 \times 3^{\prime \prime} \mathrm{H}$. Wt. 3 lbs. <br> No. 13A793. Type TP-1. <br> No. 1 , E0.....\$4.86 10-24, Eo..... $\$ 4.47$ 25-49, Eo..... $\$ 4.02$ |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

## STANCOR MINIATURE

## TRANSISTOR

TRANSFORMERS
${ }^{5} 3^{65}$
 Open frame style with caded wire leads. Size, 150 milliwatt units $31^{\prime \prime \prime}$ be-


No. 26B101. Order by Stock No. and Stancor No
$1-9$, Eo.....\$3.65
$10-24$, Eo.....\$3.35

| $\begin{aligned} & \text { Stancor } \\ & \text { No. } \end{aligned}$ | Appli- cation | $\begin{aligned} & \text { Turns } \\ & \text { Ratio } \end{aligned}$ | Imped. Pri. | Ohms See. | $\begin{aligned} & \text { Stancor } \\ & \text { No. } \end{aligned}$ | Application | Turns Ratio | Imped. Pri. | Ohtus Sec. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TA-18 | laput | 1.00:45.5 | 30 CT | 50K | TA-33 | Output | 24.6:1 | 10KCT | 4,8,16 |
| TA-19 | In. 8 tg. | 3.08:1 | 100 CT | 10CT | TA-34 | In. Stg. | 6.97:1 | 10K | 2000 |
| TA-20 | Output | 5.22:1 | 350CT | 4, 12 | TA-35 | In. Stg. | 2.24:1 | 10 K | 2 KCT |
| TA-21 | Output | 5.53:1 | 500CT | 4, 8, 16 | TA-36 | In. Stg. | 1.83:1 | 10K | 3 KCT |
| TA-22 | In. Stg. | 3.16:1 | 500CT |  | TA-37 | Output | 3.55:1 | 400 CT |  |
| TA-23 | Output | 5.65:1 | 600 CT | 4, 8, 16 | TA-38 | In. Stg. | 1.72:1 | 5000 T | 150CT |
| TA-24 | In Stg. | 10.0:1 | 500 CT | 50 K | -TA-39 | Output | 2.5:1 | 100 CT | 4, 8, 16 |
| TA-25 | Output | 6.75:1 | 825 CT | 4, 8, 16 | -TA-40 | Output | 3.27:1 | 160 | 4,8,16 |
| TA-26 | Output | 9.80:1 | 1250 | 4,12 | -TA-41 | Output | 5.00:1 | 400 CT | 4, 8, 16 |
| TA-27 | In. Stg. | 4.08:1 | 1200 | 20 KCT | -TA-42 | Output | 5.60:1 | 500 CT | 4, 8, 16 |
| TA-28 | In. Stg. | 1.65:1 | 1500 | 500CT | -TA-43 | Output | 8.63:1 | 700 CT | 4, 8, 16 |
| TA-29 | Output | 11.8:1 | 2500 | 4,16 | -TA-44 | Output | 12.5:1 | 2500 | 4, 8, 16 |
| TA-30 | In. Sts. | 1.00:1.22 | 5KCT | 7.5 KCT | -TA-45 | Output | 13.7:1 | 3000 | 4, 8, 16 |
| TA-31 | In. Stg. | 1.00:1.41 | 5KCT | 10KCT | -TA-46 | In. Stg. | 8.17:1 | 100K | 1.5 KCT |
| TA-32 | In. Stg. | 1.00:4 | 5KCT | 80KCT | -TA-47 | Input | 1.00:14.1 | 1KCT | 200 KCT |


| Stock | Type | Application | Turns | $\begin{aligned} & \text { Imped. Ohms } \\ & \text { Pri. } \end{aligned}$ |  | Milllwatts | Net Prices, Each |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 1-9 | 10-24 | -49 |
| 13 A803 | TA-52 | Interstag | 1:1 | 500 | 500 CT |  | 300 | \$2.99 | \$2.75 | \$2.48 |
| 13 A804 | TA-63 | Interstage | 3:1 | 5000 CT | 45,000 | 150 | 3.16 | 2.90 | 2.61 |
| 13 A805 | TA-54 | Interstage | 5:1 | 20,000 | 800 CT | 1.50 | 2.89 | 2.66 | 2.39 |
| 13 A806 | TA-55 | lnput | 50:1 | 500,000 | 200 CT | 300 | 4.16 | 3.81 | 3.43 |

[^1]
## Stancor Transformers

##  <br> anio <br> AGPA

MICROPHONE AND LINE INPUT TRANSFORMERS
*: Duol primory, 500 and 200 ohm sections C. T. Use A4350 for line to line, pickup. A4779 is for Sgl. or PP. grids, A4780 for PP. only. All others for single grid. Wt. I th.

| Stock No. | Mfr's No. | Pri. Ohms | Sec. Ohms | Mitg. | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | Not Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 1-9 | 10-2412 | 25-491 | 50-99 |
| 13 A570 | A4778 | 1000/600\% 7 | 240.000 | Cl | 21/4x24.4x ${ }^{7 / 6}$ | 3.89 | 3.98 | 3.22 | 2.98 |
| 13A571 | A4779 | 600/500 CT | 60,000 CT | 1 | $138 \times 21.6 \times 1 \%$ | 2.25 | 2.07 | 1.87 | 1.73 |
| 134572 | A4780 | 600/500 CT | 240,000 CT | VE | $2 \times 31{ }^{1}$ | 3.96 | 3.62 | 3.26 | 3.02 |
| 13 A 5 | * A 4350 | 500/333/200/125/50 | Like Pri. | $\bigcirc$ | $2 \times 31 / 4 \times 13$ | 4.24 | 3.90 | 3.51 | 3.25 |
| 13 A 4 | ${ }^{*}$ A 4.351 | 500/333/200/125/50 | 89.000 | TD | $24.5{ }^{23} \times 2 \times$ | 4.54 | 4.17 | 3.75 | 3.47 |
| $13 \mathrm{B11}$ | *A4352 | 500/333/300/125/50 | 89.000 |  | $2 \times 314 \times 136$ | 4.70 | 4.32 | 3.89 | 3.60 |
| 13 A713 | A 4709 | 30/15/8/4 | 106,000 | TD | $23 \times 23 \times 23$ | 5.09 | 4.68 | 4.21 | 3.90 |
| 13 A379 | A 4705 | 200/70 | 100,000 | A | 13/823 /8x 13 | 2.91 | 2.67 | 2.40 |  |
| 138107 | A 4706 | 100 | 60,000 | A |  | 2.13 | 1.95 | 1.76 | 1.63 |
| 13 A712 | A4747 | 70 | 1,300,000 | VE | 1361\%x1建 | 3.099 | 2.84 | 2.55 | 2.36 |

INTERCOM, TRANSCEIVER, PHONE PATCH TRANS. Used in populor Citizens Bond Transceiver. Ask for 2
A8090 and A8091 are intercom outputs. Average wt. I lb

| Stock No. | $\begin{gathered} \mathrm{Mrr}^{\prime} \mathrm{s} \\ \mathrm{No} . \end{gathered}$ | Description | Mtg. | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | Nol Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $1-9$ | 10-24 | -491 | -99 |
| 13 Al | A4744 | VC to Grid, 4 to 25K Ohms | रE | 13/123\%\%11/2 | 1.98 | 1.82 | 1.63 | 1.51 |
| 13A410 | A4748 | VC to Grid. 45 to 50 K 0 hms | A | 1\% $20 \times 11 / 4$ | 2.94 | 2.70 | 2.43 | 2.25 |
| 13 A714 | A8090 | 3W lisine to VC, 45 Ohm Pri. | Q |  | 1.73 | 1.58 |  | 1.33 |
| 13 A471 | A8091 | 8W/ 10 3-4 or 6-8 Ohms | Q | 1:8220 $\times 1 \times$ | 2.08 | 1.88 | 1.70 | 1.57 |
| 13 B 110 | A383.3 | Transceiver 200/5K to $06 \mathrm{~K}, 5 \mathrm{~W}$ | A | $1^{5} 5 \times 2505115$ | 2.81 | 2.58 | 2.32 | 2.15 |
| 138459 <br> 13 <br> 13247 | * $\begin{array}{r}\text { A3817 } \\ \text { A4749 }\end{array}$ |  | ${ }_{\text {A }}^{\text {A }}$ |  | 2.94 <br> 4.75 | 2.70 4.37 | 2.43 3.93 | 2.25 3.61 |

INTERSTAGE TRANSFORMERS
A-53, single $7 K-20 \mathrm{~K}$ ohm plate to single grid A4711 PP $7 \mathrm{~K}-$ isk plates to PP grids, others single $7 \mathrm{~K}-15 \mathrm{~K}$ ohm plate to PP grids. Max. DC in primary 10 MA . Core size $1 / 2^{\prime \prime} \times 1 / 2^{\prime \prime}$ except $A 63 C$, $A 64 C$ and $A 4711$, $5 / 8^{\prime \prime} x^{5 / 8 / 8^{\prime \prime}}$.

| Stock No. | Mfr's. No. | Turns Ratio | Mig. | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | Net Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 1-9 | 10-24 | 25-49 | 50-99 |
| 13 A359 | ${ }^{\text {A53 }}$ | 1:3 | 1 | ${ }^{13} 6 \times 23 \times 11 / 2$ | 1.98 | 1.82 | 1.63 | 1.51 |
| 13 A208 | A52C | 1:2 | $\wedge$ | $14.624 \times 13$ | 2.20 | 2.03 | 1.82 | 1.69 |
| 13 A 6 | A53C | 1.3 | A | 133023/813/4 | 2.35 | 2.16 | 1.94 | 1.80 |
| 13 A 7 | $\wedge 63 \mathrm{C}$ | 1:3 | A | 15:8x27 $\times 1{ }^{1} \frac{1}{2}$ | 2.65 | 2.43 | 2.19 | 2.03 |
| 13 A10 | A4711 | 1:1 | A | 15\%8279x192 | 3.09 | 2.84 | 2.55 | 2.36 |

DRIVER TRANSFORMERS
(Avg. Shpg. Wt. 3 Lbs. urns ratio is pri. to $1 / 2$ sec. DCMA is for pri. Pri. imped. $10 K$ ohms except A4702, $1.5 \mathrm{~K}-5 \mathrm{~K}$ ohms. All mig. style A except A4702 is style C.

| Stock No. | Mfr"s. No. | $\begin{aligned} & \text { Turns } \\ & \text { Ratio } \end{aligned}$ | $\begin{aligned} & \text { DC } \\ & \text { MA } \end{aligned}$ | $\begin{gathered} \text { Size } \\ \text { H.W.D. } \end{gathered}$ | Net Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 1-9 | 10-24 | 25-49 | 50-9 |
| 13 A15 | 14713 | 2:1 | 30 | $15 \times 1{ }^{57 / 8 \times 1 / 6}$ | 2.08 | 1.91 | 1.71 | 1.59 |
| 13 A14 | A4752 | 2/1.5/1:1 | 40 | $2 \times 34 \times 13$ | 2.87 | 2.64 | 2.38 | 2.20 |
| 138111 | A4723 | 3:1 | 30 |  | 2.11 | 1.94 | 1.74 | 1.61 |
| 138115 | A4702 | 5:1 | 80 | 3\% ${ }^{1} \times 25 \% \times 2 \%$ | 4.80 | 4.41 | 3.97 | 3.67 |

PLATE MODULATION TRANSFORMERS

|  |  | $\begin{aligned} & \text { Sute } \\ & \text { Mod } \end{aligned}$ | Clars "C" Load Ohms. | $\begin{aligned} & \text { Audio } \\ & \text { Waths } \end{aligned}$ | $\mathrm{Hg} \text {. }$ | H. W |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 | A-3871 | S81. 616. | 8500 | 10 | TD | 18 | 4. |
| 13A | A-3812 | Sg1. 6KB | 4000 | 5 | , | 12 | 2.38 |
| 138 |  | Pp | 4/5M | 25 | C |  | 2 |
| UNIVERSAL POLY-PEDANCE MODULATION TRANSFORMERS Motches 2,000 to 20,000 ohm class " $B$ " amplifier to class " $C$ " lood of some. |  |  |  |  |  |  |  |
| Stock No. | Stancor No. | $\begin{array}{l\|l} \text { Audio } \\ \text { Watti } \end{array}$ | $\begin{aligned} & \text { Max. D. C. ma } \\ & \text { Pri. } \\ & \text { See. } \end{aligned}$ | $\begin{aligned} & \text { MLg. } \\ & \text { Fig. } \end{aligned}$ | Dituensions ${ }_{\text {W }}$ W. |  | Your Cost |
|  |  |  |  |  |  |  |  |
| $13 \mathrm{B155}$ | A-3893 | 3 | 180 180 | D |  | 31/4 44/8 | \$12.90 |
| 138156 | A-3894 | 4125 | $225 \mid 225$ | D | 434 | 45 | 6.2 |

## MODULATION SPLATTER CHOKE

Tapped .048 to 0.9 henrles. Mox DC, 300 MA . B mounting. Size, $3 \times 3^{\prime \prime}$ base, 25/8" high, Shpg. wh. 3 lbs. NET EACH

CONSTANT VOLTAGE LINE TO VOICE COIL TRANS. for matching speakers requiring different power levels to constont voltage output from amplifier. To determine transformer primary impedance at any given power step use formula $Z=K / P$ where $Z=$ transformer impedonce, $=$ desired power of speaker $K=$ constont 625 for 25 V . line, 5000 for 70.7 V and 20,000 for 140 V
A8099, A8105 and A8109 have $4 / 8 \mathrm{ohm} \mathrm{sec}$. all others $4 / 8 / 16 \mathrm{ohm}$ sec. 25 VOLT LINE TO VOICE COIL

|  | Mir's. | Power Steps |  | Size | Not Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | in Watts | Type | H. W. D. | 1-9 | 10-24 | 25-49 | 50-99 |
| 134573 | A8099 | 2/1/0.5 | Q | $11 / 4 \times 24 / 8 \times 18 / 6$ | 2.45 | 2.25 | 2.03 | 1.89 |
| 138327 | A8096 | 8/4/2/1/5 | J | 2191982 | 3.53 | 3.24 | 292 | 2.70 |
| 13B328 | A8097 | $\begin{aligned} & 16 / 8 / 4 \\ & 2 / 1 / .5 \end{aligned}$ | J | 23/6x23/4x31/4 | 4.23 | 3.88 | 3.50 | 3.24 |
| 70.7 VOLT LINE TO VOICE COIL |  |  |  |  |  |  |  |  |
| 134415 | A8103 | 16/8/4/2 |  |  |  |  |  |  |
|  |  | 1/.5 | J | 29/421/831/4 | 4.85 | 4.45 | 4.01 | 3.71 |
| 134414 | ${ }_{48105}$ | 8/4/2/1/.5 | J | $21515 \times 2$ \% | 3.43 | 3.15 | 2.84 | 2.63 |
| 134252 |  | ${ }_{\text {. } 62 / .31}$ |  | $13 / 4 \times 23 / 811 / 8$ | 278 | 2.55 | 230 | 2.13 |
| 13 A574 | A8109 | 2/1/0.5 | Q | $114 \times 21 / 116$ | 245 | 2.25 | 2.03 | 1.89 |
| 134575 | A8080 | 5/4/3/2/1 | Q | $13 / 1 \times 23 / 413 / 2$ | 285 | 2.62 | 2.36 | 2.18 |

## - <br> UNIVERSAL OUTPUT TRANSFORIEERS

Any plate to any voice coil except A3824 and A3825 which hove 1, 2, 4 ohm sec. All $Q$ mtg. except A3850, A3852 and A3830 are type 1 .

| Stock No. | Mfr*s. No. | Primary | Watts | $\begin{aligned} & \text { Sizo } \\ & \text { H.W.D. } \end{aligned}$ | Nat Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 1-9 | 10-24 | 25-49 | 50-99 |
| 13 A19 | A3850 | 4 K to 14\% | 4 | 13/6x23/813/6 | 2.84 | 2.61 | 2.35 | 2.18 |
| 13 A20 | A3823 | 4K to 14K | 8 | 15/6x21/x11/2 | 3.30 | 3.03 | 2.73 | 2.53 |
| 13 A614 | A 3825 | 1.5K to 4.5K | 8 | $2 \times 31 / 4 \times 15 \%$ | 2.58 | 2.37 | 2.13 | 1.98 |
| 13 A615 | 13824 | 6 K to 10K | 8 | $2 \times 31 / 4 \times 2$ | 3.23 | 2.97 | 2.67 | 2.48 |
| 13 A27 | A3849 | 1.5 K to 10K | 10 | 15/6x21/6x11/2 | 3.30 | 3.03 | 2.73 | 2.53 |
| 134616 | 13880 | PP 4 KK to 14 K | 15 | 21/x331421/6 | 4.30 | 3.95 | 3.55 | 3.29 |
| 13 A22 | A3852 | PP 4K to 14K | 18 | 2,9x21/6x2 | 3.93 | 3.66 | 3.29 | 3.05 |
| 13 A26 | A38:0 | PP 3 K to 10 K | 20 | $24 / 6 \times 34 \times 21 / 6$ | 4.41 | 4.05 | 3.65 | 3.38 |

## OUTPUT TRANSFORMERS

SINGLE PLATE TO VOICE COIL
Indicotes sec. 500/15/8/4 ohms
A3336 hos $3 \%$ and $6 \%$ primary tops used in hum reduction
A3337 S mtg., A3310 C mig., others A mtg. Avg. wt. $3 \mathrm{~W}, 1 / 2 \mathrm{lb}$. others 1 to 5 lbs.

| Stack No. | Mfr's. No. | fimpedance |  | Watts | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | Net Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pri. | Soc. |  |  | 1-9 | 10-24 | 25-49 | 50-99 |
| 13A378 | A3332 | 2000 | 3.2 | 3 | 156x2Ya | 1.36 | 1.25 | 1.12 | 1.04 |
| 13 B 126 | A3876 | 2000 | , | 5 | $13,7 \times 2 \pi / 8513$ | 1.45 | 1.34 | 1.20 | 1.11 |
| 13 A412 | A3336 | 2500 | 3.5 | 5 | $13 / 8 \times 27813 / 8$ | 1.95 | 1.79 | 1.61 | 1.49 |
| 13 B 322 | A3328 | 4000 | 3.5 | 3 | $17 / 42^{1 / 81}$ | 1.34 | 1.23 | 1.11 | 1.03 |
| 138127 | A3877 | 5000 | 1 | 5 | 13.623 $6 \times 1 \%$ | 1.45 | 1.34 | 1.20 | 1.11 |
| 13889 | A3337 | 5000 | 8-8 | 10 |  | 2.28 | 2.10 | 1.89 | 1.75 |
| 138323 | A8092 | 5000 | 3-4 | 8 | $11 / 2 \times 11 / 2 \times 27$ | 2.06 | 1.89 | 1.70 | 1.57 |
| 13 A364 | 13310 | 5000 | * | 20 | $3 \% \times 25 / 5 \times 24$ | 5.59 | 5.13 | 4.62 | 4.28 |
| 13A34 | A3878 | 7000 | 4 | 5 | 1318823/8x $13 / 8$ | 1.49 | 1.37 | 1.23 | 1.14 |
| 13A533 | A8114 | 7600 | 3.2 | 5 | $13 / 8 \times 238 \times 13 / 8$ | 1.73 | 1.59 | 1.43 | 1.33 |
| 13 A 375 | A3329 | 8000 | 3.5 | 3 | $1 \times \times 21 / 3 \times 1$ | 1.34 | 1.23 | 1.11 | 1.63 |
| 13 B 128 | A8879 | 10000 | 4 | 5 | $18.6 \times 23 / 8 \times 12 / 8$ | 1.45 | 1.34 | 1.20 | 1.11 |
| 13 A366 | A3327 | 25000 | 4 | 5 | $13 / 7 \times 238 \times 17$ | 1.80 | 1.65 | 1.49 | 1.38 |

OUTPUT TRANSFORMERS PP PLATES TO V.C.
Indicates $500 / 250 / 15 / 8 / 4$ ohms except A 3304 and A 3311 do not have similar to $A$. Wt. . 4 to 4.8 lbs.

| Stock Na. | Mir's. No. | Impedarice |  | Watts | Size H.W.O. | Net Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pri. | Sec. |  |  | 1.9 | 10 | 25-48 | 50-89 |
| 13A578 | A8098 | $2000 \mathrm{CT}^{\text {P }}$ | 8/16/32 | 15 | 3181849431/4 | 7.98 | 7.33 | 6.60 | 6.11 |
| 138324, | A8094 | 40000. | 8/16/32 | 71/2 | 21/2x21/435/6 | 3.99 | 3.66 | 3.29 | 3.05 |
| 13 A36 | A3800 | 50000.T |  | 30 | $3593 \times 3$ | 6.73 | 6.18 | 5.56 | 5.15 |
| 138132 | A3801 | 6600\%:T |  | 35 | $4 \times 31 / 4 \times 334$ | 8.58 | 7.88 | 7.09 | 6.56 |
| 13A9 | A4430 | 9000:'T | 3.2 | 5 |  | 2.23 | 2.06 | 1.85 | 1.71 |
| 13 A12 | A4432 | 10000CT | 4 | 10 | $2.8 \times 2 \times 136$ | 2.41 | 2.22 | 2.00 | 1.85 |
| 13A38 | A3304 | $10 \mathrm{~K}-7 \mathrm{KCT}$ |  | 25 | $39 \times 1425 / 6 \times 29$ | 6.30 | 5.79 | 5.21 | 4.83 |
| 1382 | A3311 | 10000\% |  | 25 | 35 ¢03 $331 / 8$ | 6.77 | 6.21 | 5.59 | 5.18 |
| 13A500, | A3831 | 10000X: | 8/4/2 | 5 | 1) $\times 27 / 6 \times 11 / 2$ | 2.65 | 2.43 | 2.19 | 2.03 |
| 138325 | A8093 | 10000 CT | 3-4 | 10 | 11/2511/2x2\% | 2.12 | 1.95 | 1.75 | 1.62 |
| 13 A411 | A3335 | 10000CT | $8-4$ | 10 | $25 \times 258013$ | 3.09 | 2.84 | 2.55 | 2.36 |
| 13 A534 | A2312 | 14000\%T | 4 | 10 | $250 \times 29 \times 11 /$ | 2.79 | 2.57 | 2.31 | 2.14 |
| 13 A17 | A3857 | 25000 ${ }^{\text {Pr }}$ | 4 | 5 | $130 \times 23 / 8 \times 13 / 8$ | 2.35 | 2.16 | 1.94 | 1.80 |

TUBE TO LINE TRANSFORMERS


## LINE TO VOICE COIL TRANSFORMERS

| Stock No. | Mfr's. No. | Primary Ohms | Sec. Ohms | Audio Watts | $\begin{gathered} \text { Size } \\ \text { H.W.D. } \end{gathered}$ | Net Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 1-9 | 10-24 | 25-49 | -99 |
| 13816 | A8101 | 500 | 6-8/3.2 | 5 | 13/6 | 1.73 | 1.59 | 1.43 | 1.32 |
| 13825 | A3883 | 500 | 15/8/6/4 | 25 | 250 | 3.38 | 3.10 | 2.79 | 2.59 |
| 13B35 | A3818 | 1500/1000/500 | 15/8/4 | 25 | 31/83 3 \% $\times 21 / 4$ | 4.82 | 4.43 | 3.98 | 3.69 |
| 13837 | A7947 | 2001)/1500/ $1000 / 500$ |  | 8 |  | 2.87 | 2.64 | 2.38 | 2.20 |
| 13B68 | A7949 | 20:00/1500/ |  |  |  |  |  |  |  |
|  |  | 1000/500 | 6-8/3.2 | 12 | 2:6x27/8x14/4 | 3.37 | 3.09 | 2.78 | 2.57 |
| 13 A532 | A8104 | $3000 / 2000 /$ $1500 / 1000 / 500$ | 16 | 10 | 25x240x134 | 3.99 | 3.66 | 3.29 | 3.05 |
| 13B183 | * A3837 | 500 to 3000 Ohnes |  | 10 | 2 $5 \times 2 \mathrm{x} \times 13$ |  | 3.60 |  |  |
|  |  | in 500 ohm steps. | Note $\dagger$ | 15 | 25x2\%/0x2 | 3.83 | 3.60 | 3.24 | 3.00 |

## $\div$ For operating one or more speakers ocross a 500 ohm line + Sec. 06 to 8 ohms when pri. is 500 ohms, .12 to 16 ohms when pri. is

HIGH FIDELITY OUTPUT TRANSFORMERS
Response $\pm$ db. 20 to $20,000 \mathrm{cps}$ at 25 watts with extremely low inter modulation distortion over entire frequency range up to 50 watts. Fig. C


| Stock No. | Mir's. No. | Impedanco |  | Pri. <br> MA | Net Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PP Pri | Sec. |  | 1.8 | 10-24 | 25-49 | 50-99 |
| 13828 | A8053 | 5000 | $8 / 16$ | 150 | 13.36 | 12.27 | 11.04 | 10.22 |
| 13 A417 | A8056 | 6800 | 8/16 | 125 | 13.36 | 12.27 | 11.04 | 10.22 |
| 13857 | A8054 | 9000 | 8/16 | 100 | 13.36 | 12.27 | 11.04 | 10.22 |
| 138343 | A8072 | 7600 | 4/8/16 | 100 | 16.27 | 15.00 | 13.50 | 12.50 |

## Stancor Transformers

## Cill <br> SGPS

$\xrightarrow{n}$
s-2

POWER TRANSFORMERS

## Top quality-well within industry standords. All primaries for 117 V .60 cy

 Type PM, full shielded horizontal mtg. P ond PC, enclosed upright mtg. TO PROYIDE APPROX. 260 V . DC TO CONDENSER INPUT FILTER| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Mfr's. No. | $\begin{aligned} & \hline \text { H. V. Sec. } \\ & \hline \text { V. CT. MA } \end{aligned}$ |  | $\begin{gathered} 5 \mathrm{~V} . \\ \text { (a) } \end{gathered}$ | $\left\|\begin{array}{ll} 6.3 \\ \text { CT } \\ \text { V. } \end{array}\right\|$ | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | WL. Lbs. | et Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | 10-24 | 25-49 | 50-99 |
| $13 \mathrm{B90}$ | PM8401 | 470 | 40 |  | 2 A | 2 A | $2^{56}{ }_{6} 2^{1 / 1 / 2}$ | 2.2 | 5.65 | 5.22 | 4.7 |  |
| 13 A380 | PC, 840 | 470 | 40 | A | A | $34 \times 2{ }^{15} \times 2$ | 2.2 | 5 | 4.97 | 4.4 |  |
|  | PM 8402 |  |  | 2. | 2 A | $23 \times \times 2$, $\times$ 3 | 2.4 | 5.53 | 5.07 | 4. |  |
| 13 A381 | PC 8402 | 480 | 5.5 | 2 A | , |  | 2.4 | 5.38 | 4.94 | 4.4 |  |
| 13853 | - | 500 | 70 | 2A | 2.5 A |  | 3.2 | 6.23 | 5.73 | 5.16 |  |
| 13A382 | PC 840 | 50 | 70 | 2 A | 2.5. ${ }^{\text {a }}$ | $3{ }^{3} \times \times 2$ 3/4x | 3.2 | 6. | 5.7 | 5.1 |  |
| $13 \mathrm{B9}$ | PM840 | 520 |  |  |  | 3 s , $\times$ x |  | 8.9 | 6.35 | 5.7 |  |
|  | PC 840 | 20 |  |  |  | ${ }^{35} \times{ }^{3} \times 3$ |  | 8.91 | 6.35 | 5.7 |  |
|  | PM840 | 540 | 120 | 3 A | 3.5A | 31/2x ${ }^{1 / 1 / x}$ | 4.9 | 9.00 | 8.2 | 7.45 |  |
|  |  |  |  |  |  | 1 |  |  |  |  |  |
| FOR USE WITH CHOKE INPUT FILTER, VR-TUBE REGULATED SUPPLY, OR HIGHER VOLTAGE WITH CÓNDENSER INPUT FILTER *PC8414 hos dual 6.3 V .3 A. windings, no C.T. |  |  |  |  |  |  |  |  |  |  |  |
|  | PM812 | 600 | 00 |  | 3.5 A |  |  |  |  |  |  |
|  |  |  | 40 |  | 2 A | $23 / 1 \times 2$ |  | 5.6 | 5.19 | 4.67 |  |
| 3893 | PM8407 | 650 | 55 | $2 A$ | 2 A | $314 \times 21 / 2 \mathrm{x}$ | 3.2 | 5 | 5.40 |  |  |
| A38 |  | 5 |  | 2A | 2 A | $33 \times 2 \times 2 \% 3$ | 3.2 | 5.8 | 5.40 | 4.86 |  |
| 81 | PC |  | 50 | 3 A | 5A | $4 \times 31 / \times 3$ | . | 9.4 | 8.63 | 7.76 |  |
|  | PM |  |  |  | 2.5 | $31 / 2 \times 27 / 8 \times 3$ |  | 7.3 |  |  |  |
|  | PM | 700 |  | 2 A |  | 33,4 $\times$ |  | 7.7 | 7.13 | 6.41 |  |
| 13A38 | PC, 8409 | 700 | 90 | 2 A | A | $35 \% \times 3$ | 4.5 | 7.76 | 7.13 | 6.41 |  |
| 13898 | 8410 | 720 | 120 | 3 A | 3.5 A | $33 \times 31 / 5 \times 33 / 4$ | 5.5 | 9. 1 | 8.4 | 7.57 |  |
| 13A389 | PC 8410 | 720 | 120 | 3 A | 3.5A | $4 \times 31 / 4 \times 3$ | 5.5 | 8.81 | 8.09 | 7. |  |
| 138100 | PM8411 | 750 | 150 | 3 A | 4.5 A | $3{ }^{1 / 4 x} 3^{1 / 2} 84$ | 5.8 | 12.30 | 11.28 | 10.15 |  |
| 13A390 | PC 8411 | 80 | 150 | A | 4.5 A | 4\% $6 \times 35 / 8 \times 4$ | 5.8 | 11.79 | 10.83 | 9.74 |  |
|  | PC 8112 | 800 | 200 | 3 A | 54 | $431 \times 4$ | 8.2 | 12.30 | 11.28 | 10.15 |  |
| 退A392 | PC 8413 | 800 | 250 | 4 A | 5 A | 430184 | 10 | 14.06 | 12.9 | 11. | dr. |
| 3A393 | PC 8414 |  | 200 | 3 A | 3 A | $4 \times 4$ | 8.3 | 14. | 13.28 |  |  |

## FOR USE WITH $6 \times 5,6 A \times 5,6 \times 4$ OR SELENIUM RECTIFIER

## *PS84IS ol winding

| 13830 | PS8 415 | 125 | 15 | .6A | $2 \times{ }^{23} 8^{13}{ }^{13}$ | . 7 | 2.32 | 2.13 | 1.92 | 1.78 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13832 | PA8421 | * 125 | 50 | 2 A | $21 / 4 \times 3 \frac{1}{4} \times 2$ 17 | 1.5 | 3.76 | 3.45 | 3.11 | 2.88 |
| 13 A634 | PC8417 | 440 | 50 | . 1 A | $34 \times 2$ \% $\times 23$ | 2.2 | 6.28 | 5.78 | 5.18 | 4. |
| 13 B 84 | P48416 | 250 | 25 | 1A | 25 \%x2 $96 \times 13 / 6$ | 1 | 2.79 | 2.57 | 2.31 | 2. |
| $13 \mathrm{C40}$ | PM8418 | 460 | 50 | 2.5A | 23/82 $20.5 \times 3$ | 2.2 | 4.70 | 4.32 | 3.89 | 3. |
| 13A394 | PC8418 | 460 | 50 | 2.5 A | 3 \% ${ }^{1} \times 2^{3 / 8} \times 2^{3 / 6}$ | 2.2 | 4.70 | 4.32 | 3.89 | 3.60 |
| 13 B 88 | PM8419 | 480 | 70 | 3 A | $27 / 8 \times 21 / 2 \times 3$ | 2.6 | 5.41 | 4.97 | 4.47 | 4. |
| 13A395 | PC 8419 | 480 | 70 | 3A | 3) $\times 25$ \% $\times 27 / 6$ | 2.6 | 5.41 | 4.97 | 4.47 | 4. |
| 13 A618 | PC 8420 | 520 | 90 | 1 A | 31/2x $3 \times 31 / 2$ | 3.5 | 6.29 | 5.78 | 5.20 | 4.8 |
| 13 A650 | P8358 | 800 | 6.5 | 2.7A | $346 \times 25 \times 21 / 2$ | 3 | 5.84 | 5.36 | 4.83 |  |

CATHODE RAY TUBE POWER TRANSFORMERS
P8150 TD Mig.: P-8151 and P8178, C Mitg. P8178 has odditional Fil. 6.3 V @ 0.6 A


6-VOLT VIBRATOR POWER TRANSFORMERS

| Stock | Stancor | $\begin{aligned} & \text { Secondary } \\ & \text { DC Volts } \stackrel{\text { N. A. }}{ } . \end{aligned}$ |  | Type |  | ensio | D. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A619 | P6301 | 150 | 40 | 8 | $2{ }^{16}$ | 27/8 |  | \$3.67 |
| 13A620 | P4062 | 260 | 65 | N | 316 | $21 / 2$ | 25 | 5.34 |
| 13 A621 | P6131 | 330 | 100 | N | $31 / 2$ | 27/1 | 27/8 | 7.20 |

## EXACT DUPLICATE AUTO RADIO VIBRATOR TRANS.

| Stk. No. | Type | Orig. Part No. | Make of Radio | Net Each |
| :---: | :---: | :---: | :---: | :---: |
| 138 80 | P6471 | 25B472.533 | Motorola 408-508, | \$5.29 |
| 13 A625 | P6478 | 25C501644 | Motorola | 3.46 |
| 13 A797 | P6481 | 32-8313-1 | Philco | 4.41 |
| 13 A177 | P6448 | 25 C 511454 | Motorola | 4.38 |
| 13 A724 | P6490 | C291787-1 | Rendix (Ford 5B8F) | 3.26 |
| WITH 12 VOLT DC PRIMARY |  |  |  |  |
| $13 A 726$ | P6489 | 6067 | United Motors (Delco) | \$4.07 |
| 13 A727 | P6403 | 2.5 C 35794 | Motorola | 4.05 3.65 |
| 13 A728 | P6404 | 32-8582-1 | Philco | 3.65 4.19 |
| $13 A 729$ 13 | P6485 | ${ }_{725565094}$ | Motorola ${ }^{\text {United Motors ( }}$ ( lclco ) | 4.19 3.59 |



TRANSISTOR TRANSVERTER TRANSFORMERS CONVERT BATTERY VOLTAGE TO PLATE SUPPLY VOLTAGE For construction of dependable, high efficiency 12 Volt DC operoted units to power communications equipment. With schematic. Rerectifiers. Fully enclosed Type TD mounting.


| C2303 insulated for 2000 V. RMS; C2705 for 2500 V., C1001, C1421, C1411 $\mathrm{C} 1721, \mathrm{Cl} 412$ for 3000 V .; C1646 and $\mathrm{C} 1413,5000^{\circ} \mathrm{V}$.; all others 1500 V insulation. For high current filter chokes see Poge 40. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Mfr's. |  |  |  |  |  |  | Net Each |  |  |  |
| No. | No. | Hys. | MA | Ohms | Fig. | H. | Wt. | 1.9 | 1 10-2 | 25- | 5-99 |
| 13A51 | C1515 | 20 | 15 | 000 | A | 13/8x27/8x1/2 | 7 | 2.10 | 1.93 | 1.74 | 1.61 |
| 13A41 | C1706 | 4.5 | 50 | 300 | A | $13 / 8 \times 23 / 8 \times 1 \frac{13}{6}$ | 4 | 1.25 | 1.16 | 1.04 |  |
| 13 A42 | C1707 | 7 | 50 | 550 | A | $1318 \times 2{ }^{29} 8 \times 13 / 8$ | 4 | 1.39 | 1.28 | 1.15 | 1.06 |
| 13A43 | C1003 | 16 | 50 | 580 | A | $2 \times 33 / 4 \times 13$ | 1.1 | 2.13 | 1.95 | 1.75 | 1.62 |
| 13A44 | C1708 | 13 | 65 | 500 | A | $2 \times 31 / 4 \times 1 / 6$ |  | 2.35 | 2.16 | 1.94 | 1.80 |
| 13A525 | C1355 | 8 | 75 | 290 | L | 2 $4 \times 2 \mathrm{x} / \mathrm{x} \times 1^{3}$ | 1 | 2.60 | 2.38 | 2.15 | 1.99 |
| 13 A45 | C1002 | 15 | 75 | 400 | A | $21 \times 33 \times 21 / 4$ | 1.7 | 2.82 | 2.59 | 2.34 | 2.16 |
| 13A46 | C1709 |  | 85 | 250 | A | $2 \times 31 / 6 \times 2$ | 1.4 | 2.35 | 2. 16 | 1.94 | 1.80 |
| 13 A48 | C1001 | 10.5 | 110 | 225 | A | 25.6x4 $\times 21 / 4$ | 2.3 | 3.52 | 3.22 | 2.90 | 2.69 |
| 13 A52 | C2303 | 2.5 | 130 | 100 | A | $2 \times 31 / 4 \times 13 / 4$ | 1 | 2.20 | 2.03 | 1.82 | 1.69 |
| 13A49 | C1421 | 7 | 140 | 165 | C | 374x2\% $\times 25$ | 2.5 | 4.55 | 4.17 | 3.75 | 3.47 |
| 13 A638 | C2304 | 2.3 | 150 | 60 | A | $2 \times 31 / 6 \times 13$ |  | 2.20 | 2.03 | 1.82 | 1.69 |
| 13 A47 | C1710 | 7 | 150 | 200 | A | $25 \times 4 \times 21 / 4$ | 2.2 | 3.53 | 3.24 | 2.92 | 2.70 |
| 13 A635 | C2327 | 1.5 | 200 | 85 | A | 136827/611/2 | . 8 | 1.76 | 1. 62 | 1.46 | 1.35 |
| 13C20 | C2325 | 2 | 200 | 60 | A | $21.4 \times 3 \times 4 \times 21 / 4$ | 1.8 | 2.7 | 2.57 | 2.31 | 2.14 |
| 13A54 | C1411 | 4.5 | 200 | 80 | C | 35/8x3 $\times 3$ 1/8 | 3.5 | 5.56 | 5.10 | 4.59 | 4.25 |
| 13B266 | C1721 | 8.5 | 200 | 120 | NV | 37/8x ${ }^{3}$ 143 | 4.4 | 7.35 | 6.75 | 6.08 | 5.63 |
| 13 A278 | C2705 | 10 | 200 | 150 | C |  | 4.5 | 7.09 | 6.51 | 5.86 | 5.42 |
| 13 A55 | C1412 | 4 | 250 | 60 | C | 3 \% $\times 3 \times 31 / 2$ | 4.3 | 6.82 | 6.27 | 5.64 | 5.22 |
| 13C203 | C2326 | 1 | 300 | 43 | A | $21 / 4 \times 3{ }^{3} \times 2 \times 1 / 4$ | 1.7 | 2.84 | 2.61 | 2.35 | 2.18 |
| 138134 | C143 |  | 300 | 80 | D | $4^{3} 4 \times 4 \times 418$ | 7.8 | 11.25 | 10.32 | 9.29 | 8.60 |
| ${ }^{13} 13279$ | C2706 | 2.6 | 310 | 50 | C | $316 \times 25 / 6 \times 31 / 4$ | 4. | 5.94 | 5.45 | 4.91 | 4.55 |
| A636 | C2328 | 8 | 375 | 25 | A |  | 1.5 | 3.5 | 3.24 | 2.9 | 2.70 |

## AC-DC FILTER CHOKES

| St | Mfr's |  | ax |  |  | Size |  |  | Net Eac |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Hys. | MA | Ohms | Fig. | H.W.D. | Wt. | 1-9 | 10-24 | 25-491 | 50-99 |
| 13891 | C1723 | 4.5 | 50 | 325 | A | $13.8 \times 236 \times 1{ }^{3 / 8}$ | . 4 | 1.39 | 1.28 | 1.15 | 1.06 |
| 13 A61 | C1279 | 8.5 | 50 | 400 | A | $158 \times 23 \times 11 / 2$ | . 7 | 1.62 | 1.48 | 1.34 | 1.24 |
| 13 A62 | $\mathrm{Cl215}$ | 9 | 50 | 500 | A | 15\% $x^{27}$ \% $\times 1 \frac{1}{2}$ | . 7 | 1.57 | 1.44 | 1.30 | 1.20 |

FILAMENT TRANSFORMERS
Primaries for P6309 hove top for $117 / 107 \mathrm{~V}$. All hove electrostatic shield between windings except P3060, P6467, P6135, P6134, P6432, P6433, P6464, P8190,

| Stock | Mfr's.No. | Secondary |  | Test Volts | Mitg Fig. | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | WL. | Net Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | V. CT @A. |  |  |  |  |  | 1-9 | 10-24 | \|25-4 | 50-99 |
| 138139 | P6133 | 2.5 | 5 | 7500 | ¢ | 21405340121/2 | 1.5 | 3.72 | 3.42 | 3.08 | 2.85 |
| 13A29 | P6454 | 2.5 | 10 | 7500 | 8 | 34.6x3\% $\times 21 / 2$ | 2.5 | 3.92 | 3.60 | 3.24 | 3.00 |
| 138141 | P3060 | 2.5 | 10 | 10000 | B | $31 / 2 \times 27 / 621 / 2$ | 2.5 | 6.58 | 6.05 | 5.44 | 5.04 |
| 13A399 | P6467 | 5 |  | 2500 | A | $2 \mathrm{x} 36 \times 2$ | 1.4 | 3.13 | 2.88 | 2.59 | 2.40 |
| 13894 | P3062 | 5 | 6 | 2500 | B | $318 \times 21 / 2 \times 21 / 2$ | 2.3 | 5.04 | 4.62 | 4.16 | 3.85 |
| 138144 | P6135 | 5 | 10 | 2500 | B | $31 / 5 \times 21 / 2 \times 27 / 6$ | 3 | 5.49 | 5.04 | 4.54 | 4.20 |
| 13A630 | P6433 | 5 | 15 | 2500 | B | $31 / 821 / 2 \times 27 /$ |  | 7.01 | 6.44 | 5.80 | 5.36 |
| 13A629 | P6432 | 5 | 21 | 2500 | B | 37/6x ${ }^{3} \times 31$ | 4.5 | 8.16 | 7.50 | 6.76 | 6.25 |
| 13A245 | P6468 | 5 | 30 | 2500 | D | 4\% $\times 3$ 9 $9 \times 3{ }^{7 / 8}$ | 4.3 | 12.53 | 11.51 | 10.35 | 9.59 |
| 13899 | P6134 | 6.3 | 1.2 | 3000 | A | $14.6 \times 2{ }^{1} \times 1{ }^{3}$ | . 8 | 2.06 | 1.89 | 1.70 | 1.58 |
| 13A401 | P8190 | 6.3 | 1.2 | 5000 | A | $2 \times 31 / 4 \times 13$ | . | 2.70 | 2.49 | 2.24 | 2.08 |
| 138145 | P5014 | 6.3 | 3 | 2500 | B | $3^{1 / 4 \times 2}{ }^{1 / 1} \times x^{21 / 2}$ | 2 | 4.58 | 4.20 | 3.78 | 3.50 |
| 13 A402 | P6466 | 6.3 | 3 | 2500 | A | $2 \times 3 \times 2$ | 1.4 | 3.32 | 3.05 | 2.75 | 2.54 |
| 138102 | P4019 | 6.3 | 4 | 2500 | C | $35 \times 258 \times 23 / 8$ | 2.7 | 4.94 | 4.53 | 4.08 | 3.78 |
| 13B148 | P3064 | 6.3 | 6 | 2500 | B | 3 , 1 ¢ $21 / 2 \times 27 / 6$ | 2.4 | 5.31 | 4.88 | 4.39 | 4.06 |
| 13 C 124 | ${ }^{1}+4089$ | 6.3 | 6 | 2500 | C | $33 / 8 \times 3 \times 31 / 8$ | 3.5 | 8.49 | 5.96 | 5.36 | 4.96 |
| 138147 | P6308 | 6.3 | 10 | 2500 |  | $3^{11} \times 2 \times 27 / 8 \times 27 / 8$ | 3.4 | 8.46 | 5.93 | 5.37 | f. 94 |
| 13 A631 | P6464 | 6.3 | 10 | 2000 | C | $31 / 2 \times 3 \times 31 / 4$ | 3.5 | 8.80 | 8.24 | 5.62 | 5.20 |
| 13A721 | P6309 | 6.3 | 20 | 2500 | 8 | $4^{5} \cdot x^{3}{ }^{3} \times x^{3}$ | 6.7 | 10.00 | 9.18 | 8.26 | 7.65 |
| $13 \mathrm{B191}$ | P5015 | 7.5 | 4 | 2500 | 8 | $31.6 \times 24 / 2 \times 27 / 6$ | 2.7 | 4.65 | 4.28 | 3.85 | 3.56 |
| 13B149 | P:5016 | 10 | 4 | 2500 | B | $31 / 2 \times 27 / 8 \times 25$ | 3.3 | B.93 | 5.45 | 4.90 | 4.54 |
| 138150 | P6139 | 10 | 8 | 2500 | B | $3^{7} .4 \times 3,8 \times 31 / 8$ | 4.9 | 7.35 | 6.75 | 6.08 | 5.63 |
| 138192 | P8130 | 12.6 | 2 | 1500 | A | 24031/42 | 1.4 | 3.36 | 3.09 | 2.78 | 2.58 |
| 138211 | P6469 | 25.2 | 1 | 1500 | A | $2 \times 31 / 4 \times 2$ | 1.4 | 3.20 | 2.94 | 2.65 | 2.45 |

STANCOR PLATE TRANSFORMERS
Husky transformers for amateur transmitters and other applications. No exposed terminals. Heavily inconnection to rectifiers. Primary connections on bot tom. DC output rated for choke input filter with full wove mercury vopor rectifiers. Primary 117 volts, 60 cycles. Shipping weights: PT8311 l3
lbs., PT8314 24 lbs., PT8315 25 lbs.

| Stock Stoncor Sce. RMS D.C. D.C. MA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | No. | Volts | Volts CCS ICAS Dimensions | Your |
| Nost |  |  |  |  |




TRANSISTOR INVERTER POWER TRANSFORMER OR MOBILE 12 V DC OR FIXED 117 Y AC
Supplies 280 V . DC @ 150 MA . Requires two $2 \mathrm{~N} \in 27$ or equivolent transistors for 12 V . operotion. Has 12.6 V .@ 3 A . fil. (when 117 V . AC pri. is No. 13 A655. Type P8195. Wt. 6 lbs. Net Eoch. . ..................... $\$ 13.5 \mathrm{~F}$

## Voltage Control Transformers

STANCOR LINE VOLTAGE CONTROL

## TRANSFORMERS



LINE ISOLATION SO/60 CY. AC INPUT
Eliminates most shock hazard becouse of possible grounded circuits within the equipment. A necessity when testing AC-DC sets. Built-in electrostatic shields are grounded to core.
P6410 is $K$ style with line cord and plug on input; receptacle on output P6160 in $K$ mitg. with line cord, top switch and receptocle.

P6415 designed for test service work has line cord and three output receptactes. \begin{tabular}{|l|l|l|l|l|l|l|l|l|l|}
\hline $\begin{array}{c}\text { Stock } \\
\text { No. }\end{array}$ \& $\begin{array}{c}\text { Mirs. } \\
\text { No. }\end{array}$ \& $\begin{array}{c}\text { Watts } \\
\text { Max. }\end{array}$ \& $\begin{array}{l}\text { Input } \\
\text { Volts }\end{array}$ \& $\begin{array}{c}\text { Output } \\
\text { Volts }\end{array}$ \& H. \& $\begin{array}{c}\text { Size } \\
\text { W. }\end{array}$ \& D. \& $\begin{array}{c}\text { Wt. } \\
\text { Lbs. }\end{array}$ \& $1-9$

$|$

$10-24$ \& $25-49$ <br>
\hline
\end{tabular}

 220 TO 110 V. STEP-DONM AUTO-TRANSFORMERS For operation of 110 V. A.C. devices in oreos where $220 \mathrm{~V}, 50$ or 60 Cy . A.C. is the standard supply voltage. All types hove 110 V. A.C. plug-in receptacle mounted on side of transformer. Windings are not isolated P6287 is K style except output receptacle is on top. P6124 is FK style. All others are $K$ style os illustrated; cord and output receptacle on side.

| Stock No. | Mfr's. No. | Watts Max. | H. | Size W. | D. | WL. Lbs. | 1.9 | 10-24 | 25-49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A317 | P6287 | 40 | 31/2 | 2K | 274 | 2.2 | \$ 6.36 | \$5.84 | \$ 5.25 |
| 13 A318 | P5063 | 100 | 4 | $3 \%$ | 34 | 4.5 | 8.25 | 7.58 | 6.82 |
| 13 A82 | P5064 | 150 | 4.6 | 35\% | 39 | 5.2 | 9.72 | 8.93 | 8.03 |
| $13 \mathrm{B151}$ | P5065 | 300 | 411 | 4 | 43 | 8.8 | 13.50 | 12.38 | 11.15 |
| 13A296 | P6141 | 500 | 413 | 4 | 515 | 13.7 | 17.76 | 16.31 | 14.67 |
| 37 A36 | P6124 | 1000 | 7\% | 5\% | 63 | 24.5 | 37.63 | 31.58 | 30.30 |

STANCOR LINE ADJUSTING TRANSFORMERS Meter on side of transformer occurotely indicates output voltage. Tapped cutoformer type winding permits full 115 volts output with $50-60 \mathrm{cy}$. AC
input voltoges of $65 / 75 / 90 / 100 / 115 / 130$ or 145 . Also useful for altering input voltages of $65 / 75 / 90 / 100 / 115 / 130$. With cord plug tap switch re ceptacle.

| Stock No. | Mfr's. No. | VoltAmps | H. | Sizo w. | D. | WL Lbs. | 1-9 | 10-24 | 25-49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A418 | PV6441 | 150 | 5\% | $31 /$ | 578 | 6.4 | \$19.40 | \$17.82 | \$16.04 |
| 13 A419 | PV6442 | 350 | 515 | 31/8 | 61\% | 10.5 | 22.34 | 20.52 | 18.47 |
| 13 A420 | PV6443 | 500 | $51 / 2$ | 37\% | 67/3 | 15 | 24.70 | 22.68 | 20.41 |

## TAPPED SELENIUM RECTIFIER TRANSFORMERS Variable tap isolated primary and secondary windings vide output voltages in 12 steps within ranges shown. many cases wilt fill the need for custom made special voltage tronsformers at great sovings in cost and time. DC output voltages are based on conventional circuits employing, dry disc selenium rectifiers and high capacity filters. RT-201,    <br> 

 R $71 / 8{ }^{\prime \prime} \mathrm{H} . \mathrm{H}^{2} \mathrm{wt} .33 .5 \mathrm{lbs}$. Res=resistive, Cap copacitive loads.| Stock No. | Stancor Na. | Rect. Ckt | AC Volts Range | DC Amps. | DC V. Out. Res. Load | DC V. Out. Cap. Load | 1.9 | 10-24 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A734 | RT-201 | CT Bridge | $\begin{aligned} & 11.7-29.4 \\ & 11.1-28.5 \end{aligned}$ | $\begin{aligned} & 2 \\ & 1.25 \end{aligned}$ | $\begin{aligned} & 3.3 \text { to } 11.2 \\ & 7.4 \text { to } 23 \end{aligned}$ | $\begin{aligned} & 3.5 \text { to } 13.8 \\ & 8.7 \text { to } 30 \\ & \hline \end{aligned}$ | \$ 4.97 | \$ 4.58 |
| 13 A735 | RT-202 | CT Bridge | $\begin{aligned} & 12.2-29.7 \\ & 12.2-29.7 \end{aligned}$ | $\begin{aligned} & 4 \\ & 2 \end{aligned}$ | $\begin{aligned} & 3.7 \text { to } 11.1 \\ & 8.9 \text { to } 24.3 \end{aligned}$ | $\begin{array}{r} 4 \text { to } 14.7 \\ 10.8 \text { to } 33 \\ \hline \end{array}$ | 6.75 | 8.20 |
| 13 A736 | RT-204 | CT Bridge | $\begin{aligned} & 11.7-29.2 \\ & 11.8-29.2 \end{aligned}$ | $\begin{aligned} & 8 \\ & 4 \end{aligned}$ | $\begin{aligned} & 4.3 \text { to } 12 \\ & 8.8 \text { to } 24 \end{aligned}$ | $\begin{array}{r} 4.5 \text { to } 14.5 \\ 11.4 \text { to } 32.4 \end{array}$ | 6.73 | 8.01 |
| 13 A737 | RT-206 | CT Bridge | $\begin{aligned} & 12-29.8 \\ & 12-29.6 \end{aligned}$ | $\begin{array}{r} 12 \\ 6 \end{array}$ | $\begin{aligned} & 8.4 \text { to } 11.5 \\ & 8.4 \text { to } 24 \end{aligned}$ | $\begin{aligned} & 3.9 \text { to } 14.4 \\ & 10 \text { to } 32 \end{aligned}$ | 11.87 | 10.68 |
| 13 A738 | RT-208 | CT Bridge | $\begin{aligned} & 12.2-29.2 \\ & 12.1-29.2 \end{aligned}$ | $\begin{array}{r} 15 \\ 8 \end{array}$ | $\begin{aligned} & 3.9 \text { to } 11.4 \\ & 8.7 \text { to } 23.7 \end{aligned}$ | $\begin{array}{r} 4.4 \text { to } 14.8 \\ 10.4 \text { to } 32.5 \end{array}$ | 14.95 | 13.73 |
| 37428 | RT-2012 | CT Bridge | $\begin{aligned} & 18.2-29.1 \\ & 12.2-29.0 \end{aligned}$ | $\begin{aligned} & 22.5 \\ & 12 \end{aligned}$ | $\begin{aligned} & 3.9 \text { to } 11.4 \\ & 8.6 \text { to } 23.5 \end{aligned}$ | $\begin{aligned} & 4.0 \text { to } 14.3 \\ & 10.8 \text { to } 33 \\ & \hline \end{aligned}$ | 22.06 | 20.24 |
| $\begin{aligned} & 37 A 29 \\ & 37 A 30 \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { RT-408 } \\ \text { RT-4012 } \end{array}$ | Bridge Bridge | 25.0-53.5 25.0-53.0 | 8 12 | 18.0 to 44.0 18.0 to 43.5 | 25.0 to 63.0 24.0 to 60.0 | 32.81 | 29.93 39.41 |

P8193 has single 6A secondory. Size $31 / 8 \times 35 / 8 \times 33 / 4$. H. Wt. 6 lbs. P8194 has dual $3 A$ secondories. Size $33 / 4 \times 4 \times 41 / 2 \prime \mathrm{H}$. Wt. 10 lbs. Same style mig. as RT series abave

| 13 | P8 | Bridge | $18$ | $\underset{4-5}{2.5-2.8}$ | $\begin{aligned} & 7 \text { V. @ } 2.5 A \\ & 14 \text { V. GA } \end{aligned}$ | $17 \text { V. () }{ }_{4 \mathrm{~A}}^{2.8 \mathrm{~A}}$ | 8.44 | 7.75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 | P | II. W. Bridge | $\begin{aligned} & 36 \\ & 36 \end{aligned}$ | $\begin{gathered} 2-2.5 \\ 3.5-5.2 \end{gathered}$ | $\begin{aligned} & 14 \mathrm{~V} \text {. © } 2.5 \mathrm{~A} \\ & 28 \mathrm{~V} \text {. (a) } 5.2 \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 34 \mathrm{~V} . @ 2 \mathrm{~A} \\ & 38 \mathrm{~V} . @ \mathrm{a} .5 \mathrm{~A} \end{aligned}$ | 14.35 | 13.18 |

## HIGH CURRENT FILTER CHOKES

For use with selenium rectifiers in DC power supplies. Mtg. simitor to RT series transformers above with leads instead of lugs. RMS voltage rating 1500 V . C2690 and C2691 have dual windings; first rating is series, second, parallel.

| Stock No. | Mfr's. No. | Ind. Hys. | DC Amns. | Ohms Res. | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | WL Lbs. | Nat Prico |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 1-9 | 10-24 | 25-49 |
| 13 A276 | C2690 | 0.3k.075 | 182 | 3 \& 75 | $3 \frac{1}{18} \times 27 / 8 \times 31 / 4$ | 5 | \$7.86 | \$ 7.21 | \$ 6.50 |
| 13 A277 | C2691 | 80 MH | 2.5 | $0.0 \frac{1}{4}$ |  |  |  | 8.19 |  |
|  | C2685 | \& 20 MH .035 | ${ }_{2} 5$ | 0.15 .75 |  | 7.9 | 10.01 $\$ 3.48$ | 9.19 +3.20 | $\begin{array}{r}\text { B. } 28 \\ \hline 2.83\end{array}$ |
| 13A55t | C8886 | . 025 | 4 | . 425 | $33627 / 6 \times 3$ | 3.4 | - 5.93 | - 5.45 | 4.90 |
| 13 A552 | $\mathrm{C}_{2} 288$ | . 01 | 8 | . 15 | $33634 \times 316$ | 5. 3 | 7.80 | 7.17 | 6.45 |
| 13 A553 | C2688 | . 01 | 12.5 | 11 | $4153 \% \times 318$ | 5.9 | 8.99 | 8.25 | 7.43 |
| 13 A554 | C2889 | . 005 | 22.5 | . 03 | $41 / 2 \times 41 / 2 \times 37 \%$ | 11.9 | 13.18 | 12.11 | 10.9 |



Compoct, industrial duty, voltage control auto-formers wound on toroidal silicon steel cores. Low resistance alloy brush contoct varies output from zero to $17 \%$ above line voltage without interruption of current as knob is rototed. Con be wired for line voltage maximum if desired. Features long life, low maintenance, voltage regulation independent of load, no wave form distortion and very low temperature rise. Input, 120 volt 60 CY . AC, except $\$ 240 \mathrm{~V}$. for 520 B . Cased units 500 B and 520 B have line cord, plug, out put receptocle, pilot light, fuse and line switch. All have connection for limiting output to line voltoge maximum if over voltage is not desired.

| Stock No. | Factory Na. | Output Voltage | Output Amps. | KVA | Sizo |  | Weight Lbs. | Not Prices |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A 70 | 300 BU | 0-140 | 3.0 | 42 | $3{ }^{1}$ | 318 | 5 | \$12.50 | \$11.25 |
| $13 A 72$ | 500BU | 0-140 | 7.5 | 1.05 | $5 H$ | 5 | 10 | 18.00 | 16.20 |
| $13 A 74$ | 500 B | 0-140 | 7.5 | 1.05 | 71 | $61 / 2$ | 11 | 23.00 | 20.70 |
| $13 A 75$ | 520B | 0-880 | 3.0 | 0.84 | 45 | $6 \%$ | 11 | 26.00 | 23.40 | IV-1-4M ISOLATED, METERED "ADUST-A-VOLT"

Has separate primary and secondary. Professional, industrial quality unit with pilot light, input switch, output receptocle, output voltmeter, thermal circuit breaker. Input 120 V ., output $0-140 \mathrm{~V}$., $4 \mathrm{~A} ., .56 \mathrm{KVA}$. Size $71 / 2 \times$ $81 / 4 \times 91 /{ }^{\prime \prime} H_{3}$ Wt. 20 lhs.
No. 378368. Net Each

## $\mathbf{\$ 7 9 . 5 0}$



## SOLA TV-APPLIANCE AUTOMATIC

 LINE VOLTAGE REGULATOR
## Banishes flicker and distortion from Television screen

 we to line voltage variations caused by home appliances or other electric powered devices. Unit plugs into AC socket and has outlet for the TV power cord. Turns on outomatically -no extro switching. Input line voltage moy vary from 95 V . to 130 V ., but output holds steady of 115 V . $\pm 3 \%$. Size $8 \frac{1}{1 /} \times 71 / 4 \times 41 / 2$high. Wt: 27 lbs. for $300 \mathrm{~W} . .20$ lbs. for 180 W .

| Stk. No. | Sola Type | Wotts | List | Net Eoch |
| :--- | :---: | :---: | :---: | :---: |
| 31831 | CVA72104 | 300 | $\$ 37.50$ | $\mathbf{\$ 3 0 . 0 0}$ |

NEW SOLA "COLORVOLT" AUTOMATIC REGULATOR Utilizes the Sola harmonic free principle which delivers a good sine wove
output, necessory becouse of the voltage sensitive circuits used in color TV receivers. Input $95-130 \mathrm{~V}$ Nominal output $115-120 \mathrm{~V} .400 \mathrm{VA}$ mox. $7{ }^{3} \times 415 \times 9+8^{\prime \prime} \mathrm{H}$. Wt. 32 lbs.

$\$ 44.00$

## AUTOMATION CONTROL TRANSFORMERS



Typical applications: Relays, solenoids, control valves, small motors, electronic ing, signal lamps, buzzers, bells, etc. Dual winding primaries ore connected parallel for 115 V .: in serles for 230 V . $50-60 \mathrm{cy}$. AC. Dual secondaries also may be connected series or parallel. I mtg. except P6378 and P6379 ore BV type.

| $\begin{aligned} & \text { Stock } \\ & \text { No } \end{aligned}$ | MIg. No. | SocondaryParalielSerlos |  | V. A. | WL | $\text { H. }{ }_{\text {Size }} \text { W. D. }$ | $\begin{aligned} & \text { Net Prices } \\ & \left.\begin{array}{l} 1-9 \\ \\ \hline \end{array} 110-24 \right\rvert\, 25-49 \\ & \hline \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A617 | P6375 | 6 V . (1) 2A. | 12 V . $\mathrm{al}_{1} 1$. | 12 | 1 | 23/6x27/4x13/4 | \$ 3.27 | \$ 3.00 | 2.70 |
| 13 A622 | P6376 | 6 V . ${ }^{\text {a }} 4 \mathrm{AA}$. | 12 V (92A. | 24 | 1.5 | 35031/0x2 | 3.71 | 3.41 | 7 |
| 134623 | ${ }^{\text {P }}$ P377 7 | 12 V . © 1 A . | 24 V . 2 A . | 48 | 2.5 | 3, $4 \times 39 \times 2 \frac{1}{6}$ | 4.69 | 4.31 | 3.88 |
| 13 A624 | P6378 | 12 V (a) 8 A | 24 V (a 4A. |  | 4.3 | 33/3x $21 / 83$ | 73.57 | ${ }_{11}^{6.95}$ | ${ }_{10}^{6.26}$ |
| 134627 | P6379 | 12 V . (a) 16A. | 24 V. © 8A. | 192 |  | $41,8 x 3 / 4 \times 3 y / 2$ | 13.06 | 11.99 | 10.81 |

REGOMATIC AUTOMATIC VOLTAGE REGULATOR


Input May Vary Between 95-130 Volts. Output, $115 \mathrm{~V} . \pm 3 \%$. Automatically corrects and stabi izes fluctuating line voltage for operating TV seti, FM-AM Tuners, Hi-Fi and industrial equipment cit peak efficiency. Helps eliminote shrinking pictures,
flicker and distortlon; keeps Hi-Fi record turntable flicker and distortlon; keeps Hi-Fi record turntable operating at more constant speed; eliminates laboratory and product testing problems brought about by unstable voltoges. Built-in automatic re-
loy turns requiator on with equipment. Requires lay turns regulator on with equipment. Requires
no extra switching . . just install and forget no extro switching
Size $12^{\prime \prime} \times 4^{\prime \prime} \times 858^{\circ} \mathrm{H}$. Wust install an $101 / 2$ lbs.
Model 200 Regomatic. For loads of 130 to 200 wotts.
No. 37B206. Mfg. List $\$ 29.95$. NET EACH.
$\$ 17.64$
Model 300 Regomatic. For loads of 180 to 300 wotts.
No. 378207 . Mfg. List $\$ 29.95$. NET EACH
$\$ 20.58$
REPLACEMENT REGULATOR TUBE FOR ABOVE
No. 20c233. Special CBC Type 15A20 Shpg, wt. i tb. Net Each.... \$2.94

## COMFERCIAL AND IRDUSTRIAL USERS

B-A can supply ofl Stoncor products. B-A is your one-stop source for oll transformer needs. PRICES: Lowest factory OEM prices in quantities of 50 and 100 and over are ouoted on request
Write or call our Industrial Division BAltimore 1-4266.

# Voltage Control Transformers 

 for precise variable AC valtage control from zera up to or obove line valtefficient auto-former type with single winding over toroidal core. Extremely low heoting, zero waveform distartion and excellent regulation from no load plated brush cammutotor in athers is virtually maintenance free. Uncosed pypes $10 \mathrm{~B}, 21,116 \mathrm{U}, 117 \mathrm{U}, 126 \mathrm{U}, 216 \mathrm{U}$ and 217 U are panel maunting. Portable types 2PF10, 116,216 and 2PF136 hove input cord and output receptacle. Cosed types 117 and 217 for bench or wall mount have en-
closed terminal boord. Other cased types 126, 136, 226, 236, 1156 C and 1256 C for behind panel, bench or woll mount exposed terminais.


NEW HIGH CURRENT 40-VOLT POWERSTATS
Appearance same as types 10B, 21 ond 116 U illustrated above. Designed to meet 6A, 15A, or 25A maximum high current needs in electronic and electrical control equipment. Features new gold alloy plated commutator. All other inherent Powersigned for increosed output either clock-wise ob counter signed for increosed output either clock-wise or counter
clockwise. Max. 60 cy . AC input 40 volts. Max output volt-

| Stock | age equals input valtage. |  |  | Size |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Na . | Amps | KVA | Dio. | Depth | Lbs. | Eoch |
| 378363 | 10B-40 | 6.0 | 0.24 | 218 | $21 / 4$ | 2.4 | \$10.00 |
| 378364 | 21-40 | 15.0 | 0.6 | $33 / 4$ | 3 \% | 5.5 | 14.50 |
| 378366 | 116U-40 | 25.0 | 1.0 | 45/8 | $47 / 8$ | 12 | 20.50 |

## B-A CAN SUPPLY ALL SUPERIOR PRODUCTS <br> AT OEM PRICES

For speedy informotion and lowest prices on other Superior Powerstats not listed above; for Motor Driven Powerstots, Line Correctors, completeIy automatic Stobiline Voltoge Regulators of the instantaneous electronic and transistorized type and for assistance and prices on ather superior provucts including 50 and 100 power supples, So-sy synchroncus plier. We quote lowest OEM prices. Free Superior Catalogs ovolloble on request. Please indicate product. Call or write our Industrial Division for fast service. Telephone BAltimore 1-4266, direct to Industrial Order for fast service. Telephone BAltimore 1-4266, direct to Industrial Order
Dept.

## SOLA CONSTANT VOLTAGE TRANSFORMERS



Hormonic-free, static-magnetic line voltoge regulators hoving ultra-fost regulating action, Response time 1.5 cycles or less. Output voltage is constant within $\pm 1 \%$ with input voltage variation as great as $\pm 15 \%$. Less than $3 \%$ total RMS harmonic content in output; therefore well suited for critical instruments and systems. All Type CVS Transformers have exposed core, end housings and screw terminals in outlet box. Fig. (1) obove.

| Stock No. | Mfr's. Type | *input Volts | Output |  | L. | Size W. | H. | Shpg. Wt. | Net Price |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31435 | 23-13-060 | 05 to 130 | 118 | 60 | 6\%\% | 4 | 53 | 10 | \$ 30.00 | \$ 27.00 |
| 31 A36 | 23-22-112 | Note 1 | 118 | 120 | 8 | 4 | 5\% | 14 | 38.00 | 34.20 |
| 31B33 | 23-22-125 | Note 1 | 118 | 250 | $93 /$ | 5\% ${ }^{\text {\% }}$ | 7 m | 28 | 52.00 | 46.80 |
| 31834 | 23-22-150 | Note 1 | 118 | 500 | 125/8 | 9 | 6 \% ${ }^{3}$ | 47 | 81.00 | 72.90 |
| 31 A37 | 23-22-210 | Note 1 | 118 | 1000 | 17\% | 9 | $6 \%$ | 80 | 135.00 | 121.50 |
| 50 A111 | 23-25-220 | Note 2 | 118 \& 236 | 2000 | 19\%\% | 121/4 | 104 | 183 | 245.00 | 220.50 |
| 50 A120 | 23-25-230 | Note 2 | 1188 \& 236 | 3000 | 1217/8 | $123 / 4$ | 10 H | 270 | 330.00 | 297.00 |

TInput Volts: Nate (1) dual range 95 to 130 and 190 to 260 volts; Note (3) 95 to 130,175 to 235 and 190 to 260 volts.

## NORMAL-HARMONIC TYPE CVN

Reliable regulators for most electrical loads, such as filoments, relays, solenoids and other tronsformers serving AC loads. Regulation $\pm 1 \%$ with in put voltage variation as great as $\pm 15 \%$. Average total RMS hormonic Input 95 to 130 volts for oll CVN types.

| Stock No. | Mfr's. Type | $\begin{array}{r} 0 \\ \text { Volts } \end{array}$ | ut Watts | Mtg. Fig. | L. | $\begin{aligned} & \text { Sizo } \\ & \text { W. } \end{aligned}$ | H. | Shpg. Wt. | $\begin{gathered} \text { Net } \\ 1-4 \end{gathered}$ | Pice $5-9$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A561 | 20-10-015 | 118 | 15 | 3 | 5 \% | 28\% | $31 / 2$ | 4 | \$ 15.00 | \$ 13.50 |
| 13D215 | 20-13-030 | 118 | 30 | 1 | 6 | 4 | 5, | 7 | 20.00 | 18.00 |
| 13 D 216 | 20-13-060 | 118 | 60 | 1 | 65\% | 4 | 53 | 10 | 25.00 | 22.50 |
| 378177 | 20-13-112 | 118 | 120 | 1 | 77/8 | 4 | $5 \%$ | 13 | 33.00 | 29.70 |
| 37 Al 78 | 20-13-125 | 118 | 250 | 1 | 111/y | 64 | 67 | 25 | 49.00 | 44.10 |
| 374179 | 20-13-150 | 118 | 500 | 1 | 121/2 | 6\% | 67 | 36 | 77.00 | 69.30 |
| 37 A180 | 20-13-210 | 118 | 1000 | 1 | 151/3 | 64\% | 6.7 | 54 | 128.00 | 115.20 |

(3) PLUG-IN ADAPTER KIT. Two wire cord and socket for portable-bench operation. Easily installed on tronsformers designated.
No. 31A38. Type 999-004. Fits 30, 60, 120 W. CVN; 60, 120 W. CVS.
Net Each
 No. 31A39. Type 999-009. Fits 250,500 W. CVN; 500,1000 W. CVS
$\$ 2.00$

## FILAMENT TYPE CVF

For ossembly into electronic equipment. Type 20-02-015 has drown cose Fig. 3. 20-04-030 in upright mtg. with separate copacitor, Fig. 4. 95 to 130 vait primory

| Stock No. | Mir's. Type | Output Volts Amps. |  | MIg. Fig. | L. | Size W. | H. | Shng. Wt. | Net Price |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A555 | 20-02-015 | 6.3 | 2.38 | 3 | 59, | $25 / 8$ | $31 / 2$ | 6 | \$15.00 | \$13.50 |
| 13 A556 | $20-04030$ | 6.3 | 5.0 | 4 | 45 | 31\% | $31 / 8$ | 6 | 16.00 | 14.40 |

For automatic regulation within $\pm 3 \%$ of both plate and filament supply voltages to eritcal electronic equipment with primary input variation between 100-130 volts. ln upright mtg. with separate reguiator capacitor, Fig. 4 DC output is from rectifier tube, Type 5 Y 3 for 7104 and 7106 .


## RAYTHEON MAGNETIC VOLTAGE

## REGULATORS

INPUT 95 TO 130 VOLTS 60 CY. AC
OUTPUT CONSTANT WITHIN $\pm 10 \%$ Completely automotic. Contains no moving ports and connot be domaged by accidental overlood or even short circuit. Stabilizers of like type con be porallel for greater output. All units designed 2000 and 3000 VA units have 3 range input; 95 130, 175-235 and 190-260 volts

| Stock No. | Mfr's. Type | Output |  | L. | Size <br> W. | H. | Weight Lbs. | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 134474 | RVA-15 | 1.5 | 117 | $5^{3} 8$ | $21 / 2$ | $4 \frac{18}{6}$ | 3 | \$ 15.00 |
| 13 A475 | RVA-30 | 30 | 117 | 53\% | 21.2 | $5{ }^{2}$ | 5 | 20.00 |
| 13876 | RVA-60 | 60 | 117 | 53.8 | 31/4 | 51 | 9 | 25.00 |
| 13878 | RVA-125 | 125 | 117 | 912 | 4\% | 6\% | 14 | 33.00 |
| 13 A307 | RVA-250 | 250 | 117 | 91/2 | 412 | 71 | 24 | 49.00 |
| 13 A308 | RVA-500 | 500 | 117 | 91/2 | 41/2 | $10{ }^{\frac{1}{3}}$ | 39 | 77.00 |
| 37 A345 | RVA-1000 | 1000 | 117 | 9 | 9 | 143/8 | 59 | 128.00 |
| 50 A 45 | RVA-2000 | 2000 | 117/234 | 9 | 9 | 16.2 | 86 | 232.00 |
| 50 A46 | RVA-3000 | 3000 | 117/234 | 9 | 9 | $195 \%$ | 124 | 315.00 |

AC CORD, PLUG AND OUTPUT SOCKET ADAPTORS
Handy accessory for portable bench use of regulotors.
No. 13A297. Type RCP-40. For 15 and 30 VA units. Net Each..... $\$ 1.75$
No. 13A298. Type RCP-75. For 60 VA Unit. Net Eoch........ $\$ 1.75$ No. 13A299. Type RCP-500. For 125, 250, and 500 VA Units. Net Eo... $\$ 2.00$ Ask for Catalog No. 25 A 206 covering other Raytheon Magnetic Voltage
Regulators having output rotings uo to 2000 watts for nominal 115 ond 230 Regulators hoving output rotings up to 2000 watts for nominal 115 and 230 $\checkmark$. power circuits, and regulating plate-filament power transformers to hold

# Television Service Parts 



## STANCOR TV COMPONENTS

- Exact Engineered Replocements. - Duplicates Electrically ond Physically. - Minimum Instollotion Time Required.

High quality components equal to or better thon the original parts. Should you not be oble to identify needed items from the listing below- onen mereport number. B-A will select the replacement for you.
ASK FOR FREE STANCOR "PART-TO-PART" TV TRANSFORMER GUIDE Stock No. 25A207.
EXACT REPLACEMENT FLYBACK TRANSFORMERS
Built to exact original specs. No circuit or chassis alterand stoncor No.

| Stoncor | Net | Stoncor | Net Each | Stoncor Type | Net Each | Stancor Trpe | Net Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Type } \\ & \text { A-8127 } \end{aligned}$ | $\begin{aligned} & \text { Eoch } \\ & \mathbf{S 6 . 8 8} \end{aligned}$ | $\begin{aligned} & \text { Type } \\ & \text { A- } 8235 \end{aligned}$ | $\begin{aligned} & \text { Eoch } \\ & \mathbf{\$ 5 . 3 8} \end{aligned}$ | $\begin{gathered} \text { Type } \\ \text { A-8270 } \end{gathered}$ | $\begin{aligned} & \text { Eoch } \\ & \mathbf{\$ 6 . 5 3} \end{aligned}$ | Trpe HO-268 | E0ch |
| A-8128 | 6.88 | A-8236 | 7.76 | A-8271 |  | HO-271 |  |
| A-8129 | 7.17 | A-8237 |  | A-8279 |  | HO-274 |  |
| A-8130 | 7.17 | A-8238 | 6.66 | A-8281 | 6.20 | HO-276 | 8.47 |
| A-8131 | 5.87 | A-8239 | 6.98 | A-8285 | 7.64 | HO-277 | 9.4 |
| A-8132 | 8.82 | A-8240 | 7.06 | A-8288 | 6.17 | HO-280 | 8 |
| A-8133 | 9.89 | A-8241 | 6.36 | A-8292 | 7.06 | HO-281 | 8.8 |
| A-8134 | 8.96 | A-8244 | 6.60 | A-8294 | 7.06 | HO-282 | 8.3 |
| A-8135 | 7.64 | A-8248 | 9.37 | A.8295 | 7.08 | HO-283 | 6.8 |
| A-8136 | 7.47 | A-8252 | 6.53 | A-8296 | 6.00 | HO-284 | 7.0 |
| A-8137 | 6.99 | A-8254 | 6.59 | A-8298 | 7.88 | HO-287 | 7.18 |
| A-8139 | 6.53 | A-8255 | 8.49 | A-8299 | 8.22 | HO-290 | 6.0 |
| A-8220 | 8.22 | A-8256 | 7.15 | HO-250 |  | HO-293 | 8 |
| A-8224 | 9.11 | A-8258 | 6.53 | HO-251 | 5.82 | HO-301 |  |
| A-8228 | 5.53 | A.8261 | 6.63 | HO-254 | 6.47 | H0-303 | 6.47 |
| A-8229 | 6.29 | A-8262 | 6.91 | HO-255 | 6.47 | H0-305 | 7.79 |
| A-8230 | 7.35 | A-8263 | 7.56 | HO-256 | 6.47 | HO-306 | 9.26 |
| A-8231 |  | A-8264 | 6.80 | HO-257 | 7.47 | HO-307 | 8.44 |
| A-8232 |  | A-8265 | 7.56 | HO-259 |  |  |  |

## TV POWER TRANSFORMERS

All primaries for 117 V .60 cycle operation

| Stk. No. | Stancor No. Wt. Lb | Eoch | Stk. No. | StancorNo. Wt. L | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 134405 | P-8164 <br> 1.5 | 5.88 | 134302 | P-8335 13 | \$17.00 |
| 13 A301 | P-8166 13 | 19.29 | 134649 | P-8340 12 | 18.40 |
| 13 A408 | P-8169 10.5 | 16.77 | 13 A668 | P-8356 6.5 | 10.95 |
| 13 A656 | P-8171 10.5 | 17.64 |  |  |  |

VERTICAL DEFLECTION OUTPUT TRANSFORMERS
*Type VO-IO9 is new multi-ratio type suitable in both isolotion and autoformer circuits.


STANCOR VERTICAL BLOCKING OSCILLATOR TRANSFORMERS (Wt. 2 Lbs.)

| $13 C 253$ | A-8111 | $\$ 1.94$ | $13 A 611$ | A-8125 | $\$ 1.91$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $13 C 257$ | A-8122 | $\mathbf{3 . 8 3}$ | $13 A 612$ | A-8126 | $\mathbf{1 . 9 4}$ |



## PERMANENT MAGNET

## FOCUSING ASSEMBLY

QF4 Quam Focolizer. PM unit to be used in place of conventional focus coil. For 15 KV to 18 KV tubes. Mfg. list $\$ 5.25$.
No. 22Bi57. Net Each
33.15

## TV SERVICE CORDS



## (1) CHEATER CORDS

\#18 POSJ-6 ft. brown rubber card with rubber standord sofety intertock connector for plugging set into AC socket while back panel is detached or
10 Lots , chassis out of cabinet.
No. 19B907. Eoch
35c 10 Lots,

296
No. 16A635. For Zenith Sets. Eoch. .89 c
STANDARD TV INTERLOCK RECEPTACLE, MII, ctrs. 1 In
(2) No. 16B540. Recessed mounting. CHOICE,
(3) No. 14B254. Flush mounting.

NET EAC

> (9) (4) HIGH QUALITY EXTENSION LEAOS

No. 148281. 4 Ft . high voltoge anode lead. Each
No. 148283.4 Ft .6 wire pix tube extension. Eoch.
No. 14A167.3 Ft. Sylvanio $110^{\circ}$ pix tube ex̀tension. Eoch
No. 14 Al 168 . 3 Ft. RCA $110^{\circ}$ pix tube extension. Eoch
No. 14B284. Universal 8 wire yoke extension. Eoch.

PERMA-POWER TV TUBE BRIGHTENERS
ADD MONTHS TO LIFE OF WEAK
or falling picture tubes

(2)
(1) UNIVERSAL GOLDEN "C-BRITE"

SERIES OR PARALLEL, 6.3 V. 0.6 A., DUOOECAL BASE
For electrostatic or magnetic focus picture tubes. Handles the majority of brightener needs. Boosts to 7.8 volts to increose cothode emission. Gold onodized aluminum housing stays new looking, especiolly importont where it is desirable to use same unit over again many times. Wt. 8 oz No. 29857. Model C-201. Mfg. list $\$ 2.49$.
Net Each

## (1) LOWEST PRICED BRITENERS

NOTHING TO ADJUST-FITS DUODECAL BASE TUBES
Boosis filament to 7.8 volts. Mfg. list \$1.49. Wt. 8 oz .
No. 29A101. Model C-401 for parallel wired filaments, 6.3 V @ 0.3, 0.45 or No. 29
0.6 A

No. 29A102. Modei G402 for series wired filaments, 6.3 V . @ 0.6 Choice
$87 \mathrm{C} \begin{gathered}10 \text { Lots, } \\ \text { Net Each }\end{gathered}$
79c
(2) NEW UNIVERSAL "2-8RITE"

IF THE BASE IS RIGHT, THE BOOST IS RIGHT
Completely universal, series or parallel, regardless of heater roting. No charts to check. Hos slide switch for series or parallel. Will not endanger delicate filaments through too much voltoge boost. Mfg. list \$3.75.
$\begin{array}{lll}\text { No. 29B54. Model C-202. Duodecal Base. } & \text { Your Choice } \\ \text { No. } 29855 \text {. Model C-212. } 110^{\circ} \text { Button Base (RCA) } & \text { Net } \\ \text { No. 29856. Model C-222. } 110^{\circ} \text { Shell Base (Sylv.) } & \text { Eoch ...... S2 }\end{array}$

## (3) TV TUBE RESTORER

Corrects dozens of picture tube foults. Simple cure for open cathode, heoter to cathode short, open control grid, control grid to cothode short magnetic focus tubes. Wt. 1 th. No. 29B156. Model K-101. Mfg. list $\$ 6.65$. Net Each
$\$ 3.90$
MILLER TV COILS

(1) 4.5 MC INTERCARRIER SOUND IF COMPONENTS

Iron core single and double tuned. Discriminator is Foster-Seeley type. Di6203,6204 and 6205 ore minioture $3 / 4^{\prime \prime}$ sa., $2^{\prime \prime}$ high.
Stk. No. Type Descrlption Net Eo. Stk. No. Type Description Net Eo. $\begin{array}{llllll}\text { Stk. No. Type } & \text { Description Net Eo. Stk. No. Type } & \text { Description } & \text { Net Eo. } \\ \text { 17A533 } & 1466 & \text { Input-Int. Stg. } \$ 1.76 & 17 A 893 & 6204 & \text { Discrim. } \\ \mathbf{\$ 2 . 2 0}\end{array}$

 $\begin{array}{lllll}17 A 536 & 1469 & \text { Pick Off. } & 2.20 & 1787831481 \\ 1780 & \text { Quadrature }\end{array}$
 (3) HORIZONTAL OSCILLATOR G SYNC. CONTROL COILS Permeability tuned shielded assemblies for use in horizontal sweep osciltator and outomatic frequency control circults. Maximum size $1_{1 / 7^{\prime \prime}}$ sq. $\times 21 / 2^{\prime \prime}$ high.

| Stk No. Type | Description | Net Eo. |
| :--- | :---: | :--- |
| 17B861 | 6194 | Synchrolock, Osc.GAFC Discriminator |
|  | $\$ 1.82$ |  |

17 B 861
178863
174538
174581
174582

Synchrolock, Osc. G AFC Discriminator
Osc. G Sync. Frea. G Phase Stabilizer
Sync. Stabilizer, $16-42 \mathrm{mh}$.
Horiz. Osc., topped $12-35 \mathrm{mh}$
Horiz. Osc., tapped $60-130 \mathrm{mh}$.
(1) VIDEO PEAKING COILS

On molded plostic forms, except shunt types, wound over resistor
Type 6175 Filament Choke, $3^{\frac{2}{2}}{ }^{\prime \prime}$ dia. $K / 8^{\prime \prime}$ lang; All video Peaking Coils, Order by Group long.
Mrer by Grup Srock No. 17A697 and Miller No. Net Eoch..........50c Miero Hy. Milter No. Miero Hy. Miller No. Micro Hy. Miller No.

| Micro Hy. Milfer No. | Micro Hy. Miller No. | Micro $\mathbf{H y}$. Miller No. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.8 | 6175 | 120 | 6153 | 330 | 6132 |
| 20 | 6152 | 155 | 6120 | 375 | 6134 |
| 36 | 6176 | 180 | 6180 | 470 | 6138 |
| 60 | 6110 | 200 | 6154 | 500 | 6174 |
| 93 | 6177 | 250 | 6181 | 800 | 6156 |
| 100 | 6112 | 300 | 6155 | 950 | 6157 |

With mig. clip to fit ADJUSTABLE WIOTH CONTROLS
With mtg. clip to fit $\mathrm{A}^{\prime \prime}$ " or "7 " hole. Required in TV, widely used in low frequency oscillator circuits and as adjustable RF chokes.
$\begin{array}{ccc}\text { Stock } & \text { Miller } & \text { Induct. } \\ \text { No. } & \text { Type } & \text { Milli-Hy. } \\ 178739 & 6313 & .5-5\end{array}$
$17 B 740 \quad 6314$
$\begin{array}{lll}7 B 741 & 6314 & 2.5-17 \\ 7 B 742 & 6315 & 4-30\end{array}$
$\begin{array}{lll}17 B 742 & 6315 & 4-30 \\ 17 B 744 & 6318 & 4-30 A G C \\ 173\end{array}$
$\begin{array}{lll}17 B 744 & 6318 & 3-3 \\ 17 B 745 & 6319 & 15-60 \\ 17 B 747 & 6321 & 51\end{array}$
$\begin{array}{llllllll}17 B 747 & 6321 & 1-5 T \text { Tapped } & 1.47 & 178723 & 6197 & .55-2.3 \text { Tapped } & .85 \\ 178 & 178727 & 6199 B & .5-1.7 & .88\end{array}$ $\begin{array}{llll}178747 & 6321 & -5 \text { Tapped } & 1.18 \\ 17 B 748 & 6322 & 1.5-10 & 1.12\end{array}$

## B-A WILL SELECT YOUR

TV REPLACEMENT PARTS FOR YOU!
Should you find it impossible to order the correct replacement TV item from the listings obove. . Then send us your order stating make, model and chassis number of set, name of port and original part number. B-A will select the correct replocement for you.

## Miller IF \& RF Coils


(1) $\mathbf{1} / \mathbf{2}^{\prime \prime}$ Sub-Miniature Iron Core IF's
 455 KC Input 17 A 452 10-C1 $\$ 1.65$ 455KC Output 174455 10-C2 $\$ 1.65$
(1) 3/4" Miniature "K-Tran" Iron Core IF's Slug tuned, top and battom. Silver mica condensers. $3 / /^{\prime \prime}$ sq., $2^{\prime \prime} \mathrm{H}$. For
standard mounting to chassis. $\# 13 \mathrm{PCl}$ and 13 PC 2 for printed circuits. standard mounting to chassis. \#13PC1 and $13 \mathrm{PC2}$ for printed ccircuits.



(2) $\mathbf{3} / \mathbf{4}$ " Miniature "J"-Tran Iron Core IF's Modern top-tumed type. Has hollow hexagonai-hole cores which , permit ewher double or single ended tuning. Snap tastener mount. ${ }^{3 / 4}$ Sa., ${ }^{2}$ High. tery radios, 14C9 and 14C10 for AC-DC radio 6270 also interstage. Stk. No. Type Description Net Eo. Stk. No. Type Description Net Eo 17 A 360 14H1 $\quad 262 \mathrm{KC}$ Input $\mathbf{\$ 1 . 7 0} 17 \mathrm{~A} 37914 \mathrm{HC} \quad 455 \mathrm{KC}$ Input $\mathbf{\$ 1 . 5 9}$
 17 A 376 14C $\boldsymbol{\sigma}^{*} 455 \mathrm{KC}$ Output (17A388 6271 4.5 MC Ratio

High
(3) $11 / 8$ " Midget IF's_Mica Trimmer Tuned_- ${ }^{\prime \prime}$ "'
Double funed construction for excellent gain ond selectivity.
IRON CORE RON CORE

| Description | Stk. |  |  | 17A635 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 A473 | 012 | 1.8 | 17A474 | 112 | \$1.76 |
| 455 KC Fullwave Output | 174911 | $012-$ | 82 | 17A636 | 112-C3 | 8 |
| 455 KC Halfwave Output | 174912 | 012-C4 | . 8 | 174637 | 112-C4 |  |
| 500 KC Inp | 174472 | 012-W1 | 82 | 174471 | 112-W1 |  |

(4) Low Cost Universal IF Transformers AIR CORE-CERAMIC TRIMMERS- $21 / 2^{\prime \prime}$ HIGH
Popular all purpose replacements for household and portable radios.
Stk. No. Description Net Eo. Stk. No. Descriptlon Net Ea. (b) $13 / 8$ " Permeability Tuned Transformers

For unmatched stability. Capacitors are zero drift silver micas. Both tuning slugs accessible from one side of shield can. Can size $13 / 8^{\prime \prime}$ square, $31 / 4^{9}$ high except BFO which is $21 / 4^{\prime \prime}$ high. Wt. 60

| Stk. No. | Miller No. | Fre | Description | Net Each |
| :---: | :---: | :---: | :---: | :---: |
| 174921 | 912-Cl | 456KC | Input IF | \$2.65 |
| 17 A922 | 912-C2 | 456 KC | Interstage IF | 2.65 |
| 17 A924 | 912-C4 | 456 KC | Output If Holfwave | 2.65 |
| 17 A925 | 912-C5 | 456 KC | Beat Frequency Oscillator | 2.06 |
| 17 A648 | 1890-P1 | 100 KC | Input or Interstage | 5.58 |

## MINIATURE TRANSISTOR RADIO COILS


(1) MILLER SUB-MINIATURE TRANSISTOR IF
Very sm
Stk. NO.
178905
178906
178982
178983
$17 C 457$
178794
$17 A 651$

$$
\begin{aligned}
& \begin{array}{l}
\text { only } 3 / 8^{\prime \prime} \text { sq. } 5 / 8^{\prime \prime \prime} \text { high } \\
\text { Miller No. }{ }^{\text {requency }} \\
9-\mathrm{Cl} \\
\hline 455 \mathrm{KC}
\end{array} \\
& \begin{array}{l}
\text { Finest construction } \\
\text { Description }
\end{array}
\end{aligned}
$$ Net Eoch


(3) UNSHIELDED TRANSISTOR OSCILLATOR COILS

Range 540 to 1650 KC . IF, 455 KC . Mig. clip fits P" hole. Size $3 / 8 \times 1^{\prime \prime} \mathrm{H}$ 2020 and 2022 are 5 lug type for single transistor oscillator-mixer. 2023 is 6 lug type for two transistor oscillator and mixer
Stk. No.


## 2-GANG SUBMINIATURE CONDENSER

 mmfd. Osc. section 9 plates 4.2 mmfd-74.4 mmfd. Trimmer $=0^{\circ}{ }^{\circ}$.

No. 17C707. Miller 2109. Net Each<br>$\$ 2.06$

## COMPACT RF AND OSCILLATOR COILS FOR CONSTRUCTION OR REPLACEMENT <br>  <br>  <br>  <br> $=\frac{\sqrt{5} x^{2}}{10}$ <br> (B)

## AIR CORE BROADCAST BAND COILS

High gain, four-bank Litz wire wound secondaries, high impedance primaries.
Tune 540-1700 KC with 365 mm fd. condenser.

(1) Unshielded $\left(5 / 8^{\prime \prime} \mathrm{D} . \times 21 / 8^{\prime \prime} \mathrm{H} .1\right.$ (2) Shielded ( $13 / 8^{\prime \prime}$ Sq. $\times 21 / 2^{\prime \prime}$ H.) Stk. No. Miller No. Description Each Stk. No. Miller No. Deseription Each 174935 43-A Antenna .88 174940 44-A Antenna $\mathbf{\$ 1 . 0 3}$ | $17 A 936$ | $43-R F$ | $R F$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $17 A 938$ | $43-C$ | $2-W$ inding Osc. | .88 | $17 A 941$ | $44-R F$ |
| $17 A 943$ | $44-C$ | $2-W i n d i n g$ | Ose |  |  | $17 A 939$

(3) SHIELDED AIR CORE MINIATURE COILS

## Order by Group Stock No. 17 A698 ond Miller No.

Description 140-425 KC Net Eo. 540-1700 KC Net Ea. 2.1-6.3 MC Net Eo. $\begin{array}{llrlrlr}\text { Antenna } & X-121 A & \$ 1.47 & A-121 A & \$ 1.32 & B-121 A & \$ 1.32 \\ R F S t a g e & X-121 R F & 1.47 & \text { A-121RF } & \mathbf{1 . 3 2} & B-121 R F & 1.32 \\ \text { Oscillator } & X-121 C & \mathbf{1 . 4 7} & \text { A-121C } & \mathbf{1 . 3 2} & B-121 C & 1.32\end{array}$

## (4) MINIATURE ADJUSTABLE COILS

Extremely compoct iron core units $1 / 2^{\prime \prime}$ dia. $\times 11 / 2^{\prime \prime}$ long. Tune $540-1600 \mathrm{KC}$ with any condenser having maximum capacity between 250 and 450 mmfd . Oscilliator coils track with IF amplifier between 100 and 550 KC . Type 0-0SC has primary and tapped secondary; 69-0SC has capacity coupled Stk. No. Miller No. Description Eoch Stk. No. Miller No. Deseription Eoch 114932 70-A Antenna $\$ 1.03$ 17A934 70 -OSC Oscillator $\$ 1.03$ 17 A933 70-RF RF 1.03 17A650 69-OSC Oscillator 1.03 4) COMPACT UNIVERSAL OSCILLATOR COIL
value between 250 and 450 mmfd . in all types of circuits with all types of tubes. Size $1 / 8^{\prime \prime}$ dig. $\times 1 / 2^{\prime \prime}$ high. Spring mtg. Clips fit $\frac{\text { fit }}{}{ }^{\prime \prime}$ dia. hole. RF range ,
(5) UNSHIELDED COMPACT OSCILLATOR COILS
rune with 365 mmfd , variable condenser and series padder from 540 to
Two Winding Type. For Pentagrid converter tubes
17A954. Type 5480C. 455 KC IF. Requires . 0004 padder. Net Eo... $\$ 1.03$ Topped Coil Type with cothode return. For 6SA7, etc., where separate oscil-
17A955. Type 5481C. 455 KC IF. Requires . 0004 padder. Net Ea... $\$ 1.03$

## (6) ADJUSTABLE ALL-WAVE RADIO COILS

High Q shielded. $3 / 8 \times 2^{\prime \prime}$. Tune with 365 mmfd. condenser. Order by Group Description $140-420 \mathrm{KC}$ 540-1700 KC 1.7-5.5 MC 5.5-18 MC $12-36 \mathrm{MC}$ $\begin{array}{llllll}\text { Antenna } & \times 5495 A & \text { AS } \\ \text { RFStage } & \times 5495 R F & \text { AS495RF B5495RF C5495A } & \text { D5495A } \\ \text { C5 F }\end{array}$ $\begin{array}{lllll}\text { Std. Osc. } & \times 5495 \mathrm{C} & \text { A5495C } & \text { B5495C } & \text { C5495C } \\ \text { ropped Osc. } \times 5496 \mathrm{C} & \text { A5496C } & \text { B54996C } & \text { C5496C } & \text { D5496C }\end{array}$

## FM RF COILS AND TUNING CONDENSER

Signal frequency, $88-108 \mathrm{MC}$, permeobility funed coils for clip mounting in $7^{7 .}$ dia. hole. Designed to tune with $6.6-23$ mmfd. ${ }^{3}$ section

| Stk. No. | Miller No. | Description | Net Eech |
| :--- | :---: | :---: | ---: |
| $17 A 652$ | 1447 | $88-108 \mathrm{MC}$ Ant. Coil | $\mathbf{\$ 1 . 0 9}$ |
| $17 A 653$ | 1448 | $88-108 \mathrm{MC}$ RF Coil | $\mathbf{1 . 0 9}$ |

$174654 \quad 1449$
17 A656 1461BS
88-108 MC Osc. Coil


Highest quality litz wire, wound on low loss ferrite cores for the highest pickup obtainable. For replacement in or construction of conventional tube Transistor types have 600 ohm tap. Range $540-1650 \mathrm{KC}$.
 $17 \mathrm{B792} \quad 2005 \quad$ Transistor 130 Mmfd 1.62 (4) Long Loop-Rod. Highest efficiency. Type 705A; adjustable, recommended for replacing "old style" wire loops. Size with mig. $31 / 4 \times 91 / 2$ ". Type 2000

 | 178828 | 2000 | Transistor | $300-400$ | Mmfd. |
| :--- | :--- | :--- | ---: | :--- |
| $17 C 479$ | 205 | 1.76 |  |  |

## CAPACITY RELAY COIL

Basic oscillator coil for constructing a capacity operated control the ploce of normal "off-on" switch and provide automatic control when a person or object moves close. Coil size: $7 / 8^{\prime \prime}$ dia. $x$ $21 / 4$ " H. With typical wiring diagram.
No. 17A655. Type 695. Net Each.


## Ohmite Carbon \& Power Resistors

OHMITE "LITTLE DEVIL" RESISTORS


Molded insulated composition resistors in four sizes, $1 / 10,1 / 2$, 1 and 2 watts. Tiny in size but hove exceptional ruggedness, stability and current carrying capacity. An Meet all test are ReTMA color coded Meet all test requirements of Mil-R-I humidity tests. Hove high insulation break humidity tests. Hove high insulation break down voltage, low noise level, low voltage co-efficient. Can be used at their full
wattoge ratings at $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right.$ ) ambient temperature and dissipate heot ropidly

| Ohmes | Ohms | Ohms | Ohms | Ohms | Ohms | Megohms Megohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 / 2$-Wott | 10 | 82 | 680 | 5.600 | 47.000 | $0.39 \quad 3.3$ |
| and | 12 | 100 | 820 | 6.800 | 56,000 | $0.47 \quad 3.9$ |
| 1-Watt | 15 | 120 | 1.000 | 8,200 | 68,000 | 0.56 |
| Size Only | 18 | 150 | 1.200 | 10,000 | 82,000 | 0.68 ¢ 5.6 |
| 2.7 | 22 | 180 | 1.500 | 12.000 | 0.1 Meg. | $0.82 \quad 6.8$ |
| 3.3 | 27 | 220 | 1.800 | 15.000 | 0.12 Meg . | $1.00 \quad 8.2$ |
| 3.9 | 33 | 270 | 2,200 | 18,000 | 0.15 Meg . | 1.210 .0 |
| 4.7 | 39 | 330 | 2.700 | 22.000 | 0.18 Meg . | 1.512 .0 |
| 5.6 | 47 | 390 | 3.300 | 27,000 | 0.22 Meg . | 1.815 .0 |
| 6.8 | 56 | 470 | 3.900 | 33,000 | 0.27 Meg. | 2.218 .0 |
| 8.2 | 68 | 560 | 4.700 | 39,000 | 0.33 Meg . | 2.722 .0 |

Quontity prices apply to One Volue Only

| Stk. Na | Wotts | $\begin{array}{r} 1-49 \\ \text { E0. } \end{array}$ | $\begin{gathered} 50-99 \\ E_{0} \end{gathered}$ | $\begin{gathered} 100-249 \\ \text { Ea. } \end{gathered}$ | $\begin{gathered} 250-499 \\ \mathrm{Ea} . \end{gathered}$ | $\begin{gathered} 500.999 \\ \text { Eo. } \end{gathered}$ | $\begin{gathered} 1000 \text {-up } \\ \text { E. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1581026* | 1/10 | . 22 | - 20 | . 14 | .122 | .112 | 5 |
| 15A1002 | 1/2 | 11 | .06 | .05 | .04 | .032 | 0 |
| 15 A1004 |  | 17 | .09 | .08 | .055 | .05 |  |
| 15A1005 | 2 | . 22 | -15 | .11 | .096 | .088 | .082 |

All obove are $10 \%$ tolerance. $\div 10$ ohms to 1 meg. only.
OHMITE OHMS LAW CALCULATORS
OHMITE OHMS LAW CALCULATORS
Pocket size slide rule with paraliel resistance scole


Urable Plastic Madel. Same as above but impervious to wear No. 148304. NET EACM
and stondard slide rule scoles A,B,C and D on one side and Ohms Law Calculator with full instructions on the other side.
No. 14825 . NET EACM. 25c Tinn in -i,

COLOR CDDE GUIDE FOR RESISTORS. Here is one of the hondlest Color Code Guides for Resistors ever de-
vised. Stondard RETMA range is automatically ond ac. curotely indicated.
No. 16 il16. Each


OHMITE 5-10-20 WATT "BROWN DEVILS"
Small size wire wound units with wire leads for concoating provides lasting protection fram humidity and mechonical damage. Tolerance is $\pm 5 \%$. Sizes: 5 wott $1 \times \frac{10}{\prime \prime}, 10$ watt $13 / 4 \times h^{\prime \prime}, 20$ watt $2 \times \frac{7}{15} \%$.

Specify Stock No. and Resistance on all orders.

| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . 5 | 25 | 300 | 11007 | 4500 | 13,500* $\ddagger$ | 50,000 |
| 1 | 304 | 350 | 1200 | 5000 | 15,000 | 55,000 |
| 1.57 | 35: | 400 | 1250 | 6000 | 16,000** | 60,000 |
| 2 | 404 | $450 \%$ | 1500 | 7000 | 17,500t | 65,000 |
| 3 | 50 | 500 | 1750 | 7500 | 18,000 | 70,000 |
| 4 | 75 | $600 \pm$ | 2000 | 8000 | 20,000 | 75,000 |
| 5 | 100 | 650\% $\dagger$ | 2250 | 8500\% 4 | 22.5001 | 80,000 |
| $7.5 \%$ | 125 | 700 | 2500 | 9000 | 25,000 | 85,000 |
| 10 | 150 | 750 | 2750\% ${ }^{\text {\% }}$ | 10,000 | 30,000 | 90,000 |
| 12\% | 200 | 800 | 3000 | 11,000*: | 35,000 | 95,000 |
| $15 \pm$ | 225 $\ddagger$ | 900 | 3500 | 12,000* | 40,000 | 100,000 |
| 204 | 250 | 1000 | 4000 | 12,500 | 45,000 | 100,000 |

5-WATT "BROWN DEVILS". Availoble in above values from 1 Ohm to 25,000 Ohms except values morked*. Specify Stk. No. 1581023 and volue.
Value
1 to 1000 Ohms

100 to 5000 Ohms
100 to 5000 Ohms
6000 to 10.000 Ohms
12,500 to 20,000 Otms 12,500 to 20,000 Ohms
$\mathbf{2 2 , 5 0 0 ~ t o ~} 25,000$ Ohms .9 ع
.51
.54
.57
.67 0.24

10-WATT "BRDWN DEVILS". Availoble in above values from .5 Ohm to 50,000 ohms except those values morked t. Specify Stk. No. 15 B1006 and value when ordering.

| Volue | 1-9E0. | 10-24 Eo. | 25-99 Ea. | 100-249E0. |
| :---: | :---: | :---: | :---: | :---: |
| . 5 to 1000 Ohms | . 58 | . 48 | .40 | .34 |
| 1100 to 5000 Ohms | . 80 | . 52 | .43 | . 37 |
| 6000 to 10,000 Ohms | .89 | . 60 | . 49 | . 42 |
| 11,000 to 20,000 Ohms | .77 | . 67 | . 55 | .47 |
| 22,500 to $40,000 \mathrm{Ohms}$ | .81 | . 71 | . 58 | . 50 |
| 45,000 \& 50,000 Ohms | .91 | .79 | .65 | 56 |

20-WATT "BROWN DEVILS". Available in above values from . 5 Ohm to 100,000 Ohms except values marked $\ddagger$. Specify $5 t k$. No. 15 B1010 and value.


## OHMITE DIVIDOHMS

Vitreous enomeled over resistonce wound on ceramic core. Dividohm supplied with one slider and two mounting brackets. Tolerance $\pm 10 \%$. Specify Stock No. and Resistonce on all orders.

10, 25 ANO 50-WATT VALUES

| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Ohms |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $20 t$ | 300 | 1250 | 4500 | 10,000 | 60,000 |
| 2 | 25 | $350 \dagger \ddagger$ | 1500 | 5000 | 12,000 | 80,000 |
| 3 | 50 | 400 | 2000 | 6000 | 15,000 | 100,000 |
| $4 * t$ | 75 | 500 | 2250 | 7000 | 20,000 |  |
| 5 | 100 | $600+1$ | 2500 | 7500 | 25,000 |  |
| $7.5 \$$ | 150 | 750 | 3000 | 8000 | 30,000 |  |
| 10 | 200 | 800 | 3500 | $8500+\$$ | 40,000 |  |
| $15 \$$ | 250 | 1000 | 4000 | 9000 | 50,000 |  |

10-WATT ADJUSTABLE DIVIDOHM. Size $13 / 4 \times 1^{8 \prime \prime}$ ". Wt. 2 oz. Available in above values from 1 Ohm to 10,000 Ohms except volues morked \%. Specify 5tk. No. 1581011 and Value when ordering.

| Value | 1.9 Ea . | 10-24 Ea. | 25-99 Eo. | 100-249 Ea. |
| :---: | :---: | :---: | :---: | :---: |
| 1 to 1000 Ohms | 1.12 | . 97 | . 80 | . 68 |
| 1250 to 5000 Ohms | 1.16 | 1.00 | . 83 | .71 |
| 6000 to 10,000 Ohms | 1.25 | 1.08 | . 89 | 78 |

25-WATT ADJUSTABLE DIVIDOHM. Size $2 \times \frac{1^{\prime \prime}}{}{ }^{\prime \prime}$. Wt. 2 oz . Available in above values from I Ohm to 25,000 Ohms, except values marked $\%$. Speeify Stock No. 15B1501 and Value when ordering

| Volue | 1-9E. | 10-24 Eo. | 25-99 Ea. | 100-249 Em. |
| :---: | :---: | :---: | :---: | :---: |
| 1 to 1000 Ohms | 1.28 | 1.10 | . 80 | . 77 |
| 1250 to 5000 Ohms | 1.29 | 1.12 | . 92 | .79 |
| 6000 to 10,000 Ohms | 1.39 | 1.21 | 99 | .85 |
| 12,000 to 20,000 Ohms | 1.44 | 1.25 | 1.03 | .88 |
| 25,000 Ohms | 1.58 | 1.37 | 1.13 | .97 |

50-WATT ADJUSTABLE DIVIDOMM. Size $4 x{ }^{\circ}{ }^{\prime \prime}$. Wt. 4 oz . Avallable in above values from 1 ohm to 100,000 Ohm except values marked $\ddagger$. Specify Stock No. 1581506 and Value when ordering.

| Volue | 1-9 Eo. | 10-24E0. | 25-99 Ea. | 100-249 Eo. |
| :---: | :---: | :---: | :---: | :---: |
| 1 Ohm | 2.08 | 1.80 | 1.48 | 1.27 |
| 2 to 1000 Ohms | 1.65 | 1.43 | 1.18 | 1.01 |
| 1250 to 5000 Ohms | 1.68 | 1.45 | 1.20 | 1.03 |
| 6000 to 10,000 Ohms | 1.76 | 1.53 | 1.26 | 1.08 |
| 12,000 to 20,000 Ohms | 1.88 | 1.83 | 1.34 | 15 |
| 25,000 to 40,000 Ohms | 2.07 | 1.79 | 1.48 | 27 |
| 50,000 to 60,000 Ohms | 2.24 | 1.95 | 1.60 | 37 |
| 80,000 Ohms | 2.49 | 2.16 | 1.78 | 52 |
| 100,000 Ohms | 2.85 | 2.30 | 1.89 | 1.62 |


|  |  |  |  |  |  | 100 AND 200-WATT VALUES |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms |  |
| 1 | 5 | 100 | 1500 | 15,000 | 40,000 |  |
| 2 | 10 | 250 | 2500 | 20,000 | 50,000 |  |
| 3 | 25 | 500 | 5000 | 25,000 | 75,000 |  |
| 4 | 50 | 1000 | 10,000 | 30,000 | 100,000 |  |

100-WATT ADJUSTABLE DIVIDOHM. Size $61 / 2^{\prime \prime} \times 3 / 4 "$. Wt. 8 oz. Avoilable In obove volues. Specify Stock No. 15 B 1508 ond Volue when ordering.
Value 1-9Ea. 10-24 Ea. 25-99 Eo. 100-249 Eo.

1 to 3 Ohms
4 to 1000 Ohms
1500 to 5000 Ohms
10,000 Ohms
15,000 to 20,000 Ohms
25,000 to 40,000 Ohms
$50,000 \mathrm{Ohms}$
75,000 Ohms
100,000 Ohms

| 2.68 | 2.32 |
| :--- | :--- |
| 2.07 | 1.79 |
| 2.13 | 1.84 |
| 2.25 | 2.96 |
| 2.39 | 2.37 |
| 2.65 | 2.36 |
| 2.72 | 2.57 |
| 2.96 | 2.82 |
| 3.25 |  |

1.91
1.48
1.52
1.61
1.71
1.89
2.95
2.32
1.64
1.27
1.30
1.38
1.48
1.62
1.81
1.99

200-WATT ADJUSTABLE DIVIDOMM. Size $101 / /^{\prime \prime} \times 11 / 8^{\prime \prime}$. Wt. I Ib. Available in above values. Specify Stock No. 1581512 and Value when ordering.

| Value | 1-9 Ea. | 10-24 Ea. | 25-99 Ea. | 100-249 Ea. |
| :---: | :---: | :---: | :---: | :---: |
| 1 to 5 Ohms | 4.23 | 3.67 | 3.02 | 2.59 |
| 10 to 1000 Ohms | 3.27 | 2.84 | 2.34 | 2.00 |
| 1500 to 5000 Ohms | 3.34 | 2.90 | 2.39 | 2.05 |
| 10,000 Ohms | 3.52 | 3.06 | 2.51 | 2.15 |
| 15,000 to 20,000 Ohms | 3.69 | 3.20 | 2.64 | 2.26 |
| 25,000 to 40,000 Ohms | 3.78 | 3.28 | 2.70 | 2.32 |
| 50,000 Ohms | 3.88 | 3.37 | 2.77 | 2.31 |
| 75,000 Ohms | 4.08 | 3.52 | 2.90 | 2.48 |
| 100,000 Ohms | 4.25 | 3.69 | 3.04 | 2.80 |

ADJUSTABLE BANDS FOR DIVIDOHMS
Screwdriver type adjustobles lugs for obove power resistors. Has sitver contoct button.

| Stk. No. | For | 1-9 Eal | 10-24 Ea. | 25-99 Ea. |
| :---: | :---: | :---: | :---: | :---: |
| $15 \mathrm{Al012}$ | 10 Watt Size | . 14 | . 12 | . 10 |
| 1541014 | 25 E 50 Watt Size | . 14 | .12 | -10 |
| 15 A1015 | 100 Watt Size | . 14 | .12 | . 10 |
| 15A1528 | 200 Watt Size | .23 | .20 | -16 |

## OHMITE LITTLE DEVIL RESISTOR ASSORTMENT

Molded plastic cabinet with all selected re-
sistors for serviceman and builder. 40 values from 10 ohm to 10 Megohm. Cobinet hos five drawers with eight comportments eoch for quick ond easy, visual check on stock. Size $9^{\prime \prime}$ long, $434^{\prime \prime}$ high and $51 / 4^{\prime \prime}$ deep. Cabinets are grooved for stacking. You pay only for resistors. Shpg. wt. 5 tbs. No. 338137. CAB-10 Asstmt.
150 1/2-Watt. EACH.
No. 338138. CAB-2 Asstmt.
125 1-Woft. EACH,
No. 33B136. CAB-3 Asstmt.


## IRC Resistors, Micropots and Regulators


(1) Madel 205 "Micropot". Precision made ten turn linear potentlometer used in military and industrial installations where micrometer type accuracy is
desired. Resistance is directly proportional to shaft rotation with $0.1 \%$ desired. Resistance is directly proportional to shaft rotation with $0.1 \%$
linearity. Velvet 5 mooth action with low uniform torque. Built-in anti-backlosh mechanism. Electrical and mechanical rotatlon 3600 degrees. Powe dissipation 5 watts at 40 degrees C. Control size $21 / 8 \times 13 / 4$. dia. Shaft 7/8" long. Average shpg. wt. I 1/2 lbs. Availoble in volues listed below. $\begin{array}{ll}100 \text { Ohms } & 1000 \text { Ohms } \\ 500 \text { Ohms } & 5000 \text { Ohms } \\ \text { No. } 43 \text { Al37. Model } & 205 \text { Micropot }\end{array}$

10,000 Ohms
50,000 Ohms

## $\$ 16.86$

${ }_{\text {lo.... }}^{10}$ S15.81 (2) Model 1111 B "Micropot". High quality precision ten-turn potentiometer. Similar to Model 205 above but mode chiefly for commercial opplications. Same smooth oction and low torque as above, with linearity of $0.5 \%$. Power
dissipation 3 watt at 40 degrees C. Control size: $21 / 8 \times 11 \mathrm{c}^{\prime \prime}$ dia. Shaft $7 / \mathrm{s}^{\prime \prime}$ long. Average shpg. wt, $11 / 2 \mathrm{lbs}$. Avoiloble in values llsted obove. No. 43 A138. Model 1111 B Mieropot

NOTE: Please Specify Stock Number ond Volue When Ordering. (3) Ten-Turn "Microdial". For obove Micropots. Preclsion dial with Indexed accuracy of one part in 1000 . Accurotely counts the number of turns to
within $/ 100$ th of one furn. Built-in fingertip brake allows locking in any position. For ponels up to "" thick. Dia $13 /{ }^{\prime \prime}$ depth 1 s." Shpg. wt. 4 ozs 43A139. Model 1320 -Bright Chrome Cover $G$ Dial. Choice

Net Each. N. 2 ? reading insures accurate indexing af all points. Rotation continuous in either direction. Built-in fingertip brake. Readings from 0 to 999 . Size $15 / 8 \times 2^{\prime \prime}$ dio. Shpg. wt. 4 ozs.

CLAROSTAT "Fixtohm" PRECISION RESISTORS


Pleose Specify Stock Number and Volue When Ordering. No. 44A98. Working voltage 350 volts
 No. 44 A 99 . Working voltage 500 volts. ABOVE PRICES APPLY TO ONE VALUE, NOT ASSORTED.
$48 c$

## CLAROSTAT VOLTAGE REGULATOR



## AMPERITE REGULATOR TUBES

For outomatic regulation of current and voltage. Listed ore popular types used in many industrial aprications of eiecironic equipment. IIIt $\begin{array}{llllll}208753 & 3-4 & 20 B 761 & 4 \mathrm{H} 4 \mathrm{C} & 20 \mathrm{B777} & 3-14 \\ 208756 & 3-16 & 20 B 762 & 6-4 & 20 B 766 & 10-4 C\end{array}$ $20 B 756$
YOUR CHOICE, EACH 20B766

## RESISTOR CORDS

Sturdy 6 ft. Cords with trim bokelite olug. Specify re360,560 ohms JFD ADJUSTABLE BALLAST TUBES



## Replacement Controls \& Power Rheostats

MALLORY 4-WATT WIRE WOUND CONTROLS


TYPE " $M$ " RHEOSTATS

## 4-WATT, $15 / /^{\prime \prime}$ DIAMETER




| Stock No. | Mellory Type | Ohms Res. | M.A. Cap. |
| :---: | :---: | :---: | :---: |
| 14 A149 | MIMPK | 1,000 | 63 M.A. |
| 144150 | M2MPK | 2,000 | 45 M.A. |
| 144151 | M3MPK | 3,000 | 37 M.A. |
| 144152 | M4MPK | 4,000 | 32 M.A. |
| 14A153 | MSMPK | 5,000 | 28 M.A. |
| 14 Al 54 | MIOMPK | 10,000 | 20 M.A. |

14 A155 M15MPK 15,000 16 M.A $14 A 156$ M2OMPK 20,000 14 M.A. Any of the above TYpe " $M$ " $\$ 1.44$

Potentiometers. NETEACH. 1.4 $14 \mathrm{Al58}$ M50MPK 50,000 9 M.A. | The above TYpe "M" |
| :--- |
| Potentiometers. NET EACH. |
| 1 |

## HEAVY DUTY TYPE "E"

## 7-WATT

$2 \mathrm{ft}^{\prime \prime}$ diometer. Slatted shaft.

|  | $4 A 139$ M30PK | 30 |
| :--- | :--- | :--- |
|  | $400 \mathrm{M.A}$ |  |

$\begin{array}{llll} & & & \\ \text { 14A144 MSOPK } & 50 & 280 \text { M.A. }\end{array}$
$\begin{array}{llll}14 A 145 & \text { M200PK } & 200 & 140 \mathrm{M.A} . \\ 14 A 146 & \text { M400PK } & 400 & 100 \mathrm{M} . \mathrm{A} .\end{array}$
$\begin{array}{llll}14 A 147 & \text { M500PK } & 500 & 90 \text { M.A. } \\ 148269 & \text { M600PK } & 600 & 82 \text { M.A. }\end{array}$
Any of the above TyPe "M" $\$ 1.32$
Sto

## 1

Type " $M$ " Control Shafts. Can be extend
3 " shoft which taps In. Na. 14B367. Each


Designed to produce permonently smooth, close control. Construction is all ceramic and metal with pivoted universal - action - mounted contact brush of copper-graphite or silver-
graphite on the heovier current rheostats. Mounting for ponels up to $1 / 4^{\text {"0 }}$ by means of $3 / 8^{\prime \prime}-32$ bushing and hex nut lexcept Model EI. Avg. Shpg. wt. $1 / 2 \mathrm{lb}$. Less knob.
MODEL "E" 121/2 WATT MINIATURE RHEOSTATS
Dio. $7 / 8^{\prime \prime}$. Depth lf $^{\prime \prime}$. Shoft $1 / 8^{\prime \prime}$

| Stik. No. | Ohms | 1-4 | $\begin{aligned} & 5-9 \\ & \text { Each } \end{aligned}$ | $10-24$ Each |
| :---: | :---: | :---: | :---: | :---: |
| 148808 | 1 | \$4.54 | \$3.94 | \$3.10 |
| 148809 | 10 | 4.54 | 3.94 | 3.10 |
| $14 \mathrm{B810}$ | 15 | 4.03 | 3.49 | 2.75 |
| 148811 | 25 | 4.03 | 3.49 | 2.75 |
| 148812 | 50 | 4.03 | 3.49 | 2.75 |
| 148813 | 100 | 4.03 | 3.49 | 2.75 |
| 148814 | 250 | 4.03 | 3.49 | 2.75 |
| 148815 | 500 | 4.03 | 3.49 | 2.75 |
| 148816 | 1000 | 4.54 | 3.94 | 3.10 |
| 148817 | 2500 | 4.54 | 3.94 | 3.10 |
| 148818 | 5000 | 4.80 | 4.17 | 3.28 |

ia. 1 g'". Depth $13 / 8^{\prime \prime}$. Shaft $1 / 4^{\prime \prime}$

| No. | Ohms | $\begin{aligned} & 1-4 \\ & \text { Eoch } \end{aligned}$ | $5-9$ <br> Eoch | 10-24 |
| :---: | :---: | :---: | :---: | :---: |
| 14A700 | 1 | \$4.54 | \$3.94 | \$3.10 |
| 144701 | 3 | 4.54 | 3.94 | 3.10 |
| 148772 | 6 | 4.54 | 3.94 | 3.10 |
| 148773 | 10 | 4.54 | 3.94 | 3.10 |
| 148774 | 25 | 4.03 | 3.49 | 2.75 |
| 148775 | 50 | 4.03 | 3.49 | 2.75 |
| 148776 | 100 | 4.03 | 3.49 | 2.75 |
| 148777 | 250 | 4.03 | 3.49 | 2.75 |
| 148778 | 500 | 4.03 | 3.49 | 2.75 |
| 148779 | 1000 | 4.54 | 3.94 | 3.10 |
| 148780 | 2500 | 4.54 | 3.94 | 3.10 |
| 148781 | 5000 | 4.80 | 4.17 | 3.28 |



## OHMITE TYPE AB POTENTIOMETER



## LINEAR TAPER, TYPE CU



High quality unit designed for use where $100 \%$ dependability is essen-
tlal. Very low nolse level and low tlal. Very low nolse level and low
voltage coefficient. Will pass A.N. 200 hour salt spray test, spec. AN-QQ-S-91. 1 " ${ }^{\prime \prime}$ dia. Extends $5 / \mathrm{g}^{\prime \prime}$ behind panel. CU shaft length $2^{\prime \prime} C^{\prime \prime}$ du screwAll are plus or minus $10 \%$ except items $\pm$ are $20 \%$.
LINEAR TAPER, TYPE CLU Stk. No. Resistonce Ohmite Na $148827 \quad 50$ ohms CLUS001 $\begin{array}{lll}148827 & 50 \text { ohms } & \text { CLU500 } \\ 148828 & 100 \text { ohms } & \text { CLU101 }\end{array}$ $148829 \quad 250 \mathrm{chms}$ $\begin{array}{lr}148830 & 500 \mathrm{ohms} \\ 148831 & 1,000 \mathrm{chms}\end{array}$ 2,500 ohms 5,000 ohms 10,000 ohms 25,000 chm 10 Meg
.100 M 25 Meg 1.0 Meg 2.5 Meg ${ }^{*}$ 5.0 Meg*

Type CLU Potentiometer
Net Eoch. . . . . . . . . . . . CS-1 S.P.S.T. Switch for obove.
No. $14 A 875$. NET EACH ....

## SHAFT LOCK

Instantly converts any plain $1 /$ in $^{\prime \prime}$ shaft to "shaft lock type". Mounts in place of regulor mounting nut. 450
MALLORY VOLUME CONTROL ACCESSORIES


## DIAL PLATES

Calibrated 0-10 in proper degrees matching rotation of various volume
rheostats.
No. 14A160; Type 395 for use with M" and "WW" controls.
No. 14A162: Type 397 for use with carbon controls
No. 14A163: Type 398 for carbon
No. controls with switch 393 for carbon controls with switch.
Your Choice, Each.

21 c

# IRC and Centralab Controls 

## IRC REPLACEMENT CONTROLS

## IRC "Q" CONTROLS



Standard Radio and TV replacement contrals. Small slize, $1 \xi^{\prime \prime}$ diometer with universal shoft. WIII meet most ${ }^{\text {m }}$, no odditianal special parts needed. Use type 76 ottachable switches. Lock-in shofts for special applications

| Stk. No. | IRC Type | Ohms Res. | Tap |
| :---: | :---: | :---: | :---: |
| 14C377 | 211-201 | 250 | A |
| 148416 | Q11-103 | 500 | A |
| 14 C 378 | 011-105 | 750 | A |
| 148417 | Q11-108 | 1000 | A |
| 14C379 | Q11-109 | 1500 | A |
| 14C380 | Q11-110 | 2000 | A |
| 14C381 | Q13-111 | 2500 | C |
| 148419 | Q11-112 | 3 K | A |
| 148421 | Q11-114 | 5K | A |
| $14 C 382$ | Q11-115 | 7500 | A |
| 148425 | Q11-116 | 10K | A |
| 148426 | 213-116 | 10K | C |
| 148427 | 014-116 | 10K | D |
| 144399 | Q11-119 | 20K | A |
| 148432 | 211-120 | 25K | A |
| 144398 | Q11-121 | 30 K | A |
| 148435 | Q11-123 | 50K | A |
| 148436 | Q13-123 | 50K | C |
| 14 C 383 | Q11-125 | 75K | A |
| 148440 | Q11-128 | 100K |  |
| 148441 | 013-128 | 100K |  |
| 14C384 | Q13-328 | 150K |  |
| 148444 | Q11-130 | 250K | A |
| 148445 | Q13-130 | 250K | C |
| 148451 | Q11-133 | 500K |  |
| 148452 | 013-133 | 500K | C |
| 148454 | Q14-133 | 500K |  |
| 148456 | Q11-137 | 1 Meg . | A |
| 148457 | 013-137 | 1 Meg . | C |
| 14A395 | Q11-139 | 2 Meg . | A |
| 148463 | Q13-139 | 2 Meg . | C |
| 144394 | Q11-239 | 2.5 Meg . | A |
| 14 A393 | Q11-140 | 3 Meg . |  |
| 148469 | Q13-140 | 3 Meg . |  |
| 148470 | Q11-141 | 5 Meg . | A |
| 14 C 390 | (11-142 | 7.5 Meg . | A |
| 148471 | Q11-143 | 10 Meg . |  |
| YOUR | HOICE |  |  |

YOUR CHOICE
NET EACH $\ldots . . . . . . . . . \$ 1.00$

EXPLANATION OF IRC CONTROL
"A" Lineor. "C" Logarithmic for oudia and ontenna shunt. " ${ }^{\text {p }}$ "Tapbias or antenna control. "Sp" Special

Type Q Fixed Shafts PQ, Universal full round. For $1 / 4^{\prime \prime}$ 3/8" bushing. $3 /{ }^{\prime \prime \prime}$ " bushing included.
No. 144376 . Eoch......... 566 c
R0. Short RQ; Shart screwdriver slot. $1 / 2^{\prime \prime}$ long, $1 / 4$ dia. for $^{3 / 8 "}$ bushing.
No. $14 A 375$. Each
SQ. Knurle Each. diometer, $3 / 4$ " long No. 14A374. Eoch
(1) IRC MULTISECTIONS

(1)

Factory assembled Multisections designed to ottach to the standard control, like a switch, making it a
dual type for use with standard condual type for use with standard rols at left.
Type 76 switches may then be added where required. Wt. 2 oz .

| Stock No. | $\begin{aligned} & \text { IRC } \\ & \text { Type } \end{aligned}$ | Res. Ohms | Toper |
| :---: | :---: | :---: | :---: |
| 148299 | M11-103 | 500 | A |
| 148181 | M11-108 | 1 K | A |
| 148305 | M11-110 | 2 K | A |
| 148306 | M11-112 | 3 K | A |
| $14 \mathrm{B1} 182$ | M11-114 | 5 K | A |
| 14B183 | M11-116 | 10 K | A |
| 148200 | M11-120 | 25 K | A |
| 148201 | M11-123 | 50 K |  |
| 148202 | M11-128 | .1 M |  |
| 148203 | M13-128 | .1 M | C |
| 14B204 | M11-130 | . 25 M | 9 A |
| 148206 | M11-133 |  |  |
| 148207 | M13-133 | .5 M | C |
| 148208 | M11-137 | 1.0 | A |
| 148209 | M13-137 | 1.0 | 9 |
| 148307 | M13-138 | 1.5 | ${ }^{\text {C }}$ |
| 148210 | M11-139 | 2.0 M | 9 A |
| 148319 | M13-139 | 2.0 |  |
| 148212 | M11-141 | 5.0 | g A |
| $14 \mathrm{B213}$ | M11-143 | 10.0 |  |
| CHOICE EACH |  |  | $32$ |
| (2) SNAP-ON SWITCHES |  |  |  |
| Type 76-1 S.P.S.T. Switch No. 14B506. EACH |  |  |  |
| Type 76-2 D.P.S.T. Switch. No. 14B507. EACH. |  |  |  |

## TAPPED "Q" CONTROLS

| Stock | $\begin{aligned} & \text { IRC } \\ & \text { Type } \end{aligned}$ | Ohms Res. | Tap | Taper |
| :---: | :---: | :---: | :---: | :---: |
| 14B446 | 13-130x | 250K | 125K | 5p. |
| 14B450 | 8-132 | 350K | 75 K |  |
| $1{ }^{1}$ | 13 |  |  |  |

CENTRALAB 5-WATT WIRE WOUND CONTROLS
Rated a full 5 watts, in a 2 watt size and at 2 wott price. Only $13^{3} 2^{\prime \prime}$ diameter $x$ 星" $^{\prime \prime}$ deep. Hos $3^{\prime \prime}$ long, full round $1 / 4^{\prime \prime}$ aluminum shaft. Bushing is standard $3 / 8{ }^{\prime \prime}$ long, $3 / 8-32$ thread. $295^{\circ}$ rotation. Shpg. wt. 4 oz .

| Res. Ohms | Mfg. No. | Res. Ohms | Mfg. No. | Res. Ohms | Mfg. No. | Res. Ohms | Mfg. No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | WW-010 | 25 | WW-250 | 400 | WW-401 | 7500 | WW-752 |
| 2 | WW-020 | 30 | WW-300 | 500 | WW-501 | 10K | WW-103 |
| 3 | WW-030 | 40 | WW-400 | 750 | WW-751 | 15K | WW-153 |
| 4 | WW-040 | 50 | WW-500 | 1000 | WW-102 | 20K | WW-203 |
| 5 | WW-050 | 60 | WW-600 | 1500 | WW-152 | 25K | WW-253 |
| 6 | WW-060 | 75 | WW-750 | 2000 | WW-202 | 30K | WW-303 |
| 8 | WW-080 | 100 | WW-101 | 2500 | WW-252 | 40K | WW-403 |
| 10 | WW-100 | 200 | WW-201 | 3000 | WW-302 | 50 K | WW-503 |
| 15 | WW-150 | 250 | WW-251 | 4000 | WW-402 | 75K | WW-753 |
| 20 | WW-200 | 300 | WW-301 | 5000 | WW-502 | 100K | WW-104 |


| When Ordering Specify Resistonce Value ond Stock No. 148303. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Eoch } \\ 1-9 \end{gathered}$ | $\begin{aligned} & \text { Eoch } \\ & 10-24 \end{aligned}$ | $\begin{aligned} & \text { Eoch } \\ & 25-49 \end{aligned}$ | $\begin{array}{r} \text { Each } \\ 50-99 \end{array}$ | $\begin{gathered} \text { Each } \\ 100-249 \end{gathered}$ |
| 1 Ohm to 15 K Ohm | \$1.12 | \$1.03 | \$0.95 | $\$ 0.91$ | \$0.86 |
| 20 K Ohm to 30 K Ohm | 1 | 1.35 | 1.25 | 1.19 | 1.13 |
| 40 K Ohm to 50 K Ohm | 76 | 1.62 | .50 |  |  |
| 75 K Ohm to 100 K Ohm | 2.41 | 1. | 2.05 | .95 |  |
| CENTRALAB | L-PADS | AND | RIDG | T-PADS |  |



Constont impedonce attenuators designed to provide optimum sound reproduction. Rated conservatively at 20 watts audio, 5 watts DC, yet are smaller than 2 -wott controls. Anti-backlash construction eliminates "play" between the dual sections, assuring smooth frequency response over entire resistance ronge. Size $1 \mathrm{~s}^{3 /}$ dia. $13^{3} \mathbf{3 月}^{\prime \prime}$ deep fits eosily in standard junction and outlet boxes. Has $3 / \%^{\%}$ threoded bushing with $1 / 4$ round shaft, $17 / \%^{\prime \prime}$ long. Comes complete with gold anodized dial plate, black knob, and instructions. Shpg. wt. 6 az. Attenuotors. Centralab Madel WL. 4, 8, 16, 500, 600 ohm values.
 $14 \mathrm{~A} 21 \mathrm{I} \quad \mathbf{\$ 2 . 9 4} \mathbf{\$ 2 . 6 7} \quad \mathbf{\$ 2 . 4 8} \quad \$ 2.36 \quad \$ 2.23$ (2) Bridged T-Pod Attenuotors. Centralab Madel WDT. 4, 8, 16, 500, 600 ohm values. 1-9 Eo. $10-24 \mathrm{Ea}$. $25-49 \mathrm{Eo}$. $50-99 \mathrm{Eo} . \quad 100-249 \mathrm{Eo}$. No. 14 A 222 \$3.50 $\$ 3.21$ \$2.98 $\$ 2.83 \quad \$ 2.68$ (3) Wall Outtet Plote for obove contrals. Made to fit standard outlet boxes Center hole fits any $3 / 8^{\prime \prime}$ bushing. Size $41 / 2^{\prime \prime}$ L. $\times 23 / 4^{\prime \prime}$ wide. E.. 888 No. 14 A220. Brushed Aluminum anadized finish. Model AK-35. Net Ea., 88 c (1) Adopter Bushing for mounting above controls in thick panels or enclosures Fits any control with stondord $3 / 8^{\prime \prime}$ bushing and extends bushing $1^{\prime \prime}$. Avail able in brass or phenalic.
No. 14A223. Type AK-31. Brass Adaptor. Net Eoch. ................... 44 4 . 4 .

## CENTRALAB HOT MOLDED POTENTIOMETERS

 2 wott molded composition controls, designed to meet MIL-R-94 environmental and test requirements, offer exceptionally long life and noise-free operation. Totally enclosed and sealed ogainst moisture and dirt. Features increased high valtage stability due to wide cleoronce between bushwotts of 70 degree C . Size $13^{3} \mathbf{3}^{\prime \prime}$ dia. $5 / 8^{\prime \prime}$ deep. All values are linear taper at $10 \%$ talerance, except those mark ed* which are $20 \%$. Available in following values.

| Ohms | Ohms | Ohms | Ohms | $0 h m s$ | Ohms |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 50 | 500 | 5,000 | 50,000 | 500,000 | $\approx 5$ Meg. |
| 100 | 1,000 | 10,000 | 100,000 | $\approx 1 \mathrm{Meg}$. |  |
| 250 | 2,500 | 25,000 | 250,000 | $\geqslant 2.5 \mathrm{Meg}$. |  |

## (1) Type ACS hos standord $3 / \mathrm{B}^{\prime \prime}$ bushing with $1 / 4^{\prime \prime}$ stainless steel, slotted shoft

 $21 / 2$ ' long.(0) Type AFS has $3 / 8^{\prime \prime}$ locking type bushing with stainless steel, slatted shaft
 $\begin{array}{lllllll}14 A 217 & \text { ACS } & \$ 1.73 & \$ 1.63 & \$ 1.47 & \$ 1.40 & \$ 1.30 \\ 14 A 216 & \text { AFS } & 1.99 & 1.88 & 1.70 & 1.62 & 1.50\end{array}$ SENIOR COMPENTROLS. Designed for use in Hi-Fi amplifiers ar pre-amplifiers. Duol shoft construction permits odjustment compensotion ot any level. Universal (reptaces $1 / 4$ Meg. to 1 Meg.) contral supplied with knobs. Plain type only. 1C2-200 same as C2-100 except shafts may be cut to loths. before Assembly.) Shpg. wt. 6 oz

| Stk. No. | Foct. No. | Description | Net Eoch | 5 Eoch |
| :---: | :---: | :---: | :---: | :---: |
| 14B273 | C2-100 | Seniar Compentral | \$3.30 | \$2.97 |
| 148297 | C2-200 | Senior Compentrol | 3.30 | 2.97 |
| 14B106 | C3-300 | Compensated tone contral |  |  |

SK-2 SHAFT-KUT TOOL The perfect onswer to the servicemon's biggest headoche, contral shaft cutting that is occurate, ard salid ar hallaw shaft can be measured and cut ting of concentric controls or any switch with a standard shaft. Made of case-hardened tool steel, complete with mtg . hardware and full instructions.
Shpg. wt. 3 lbs. No. 144346 . SK-2. Net Eoch


First line contrals of highest quality with naise free velvet smooth action. Only 4 numbers needed for $90 \%$ of oll radio ond television replocement needs. Switches are Universal for use as spst, (1) 3" Grooved Shoft—Less Switch (3) $3^{\prime \prime}$ Grooved Shoft-With Switch No. Type Ohm Eoch 10, Eo. No. Type Ohm Eoch 10, Eo.



## Electrolytic Condensers



# Selected Capacitors 



MALLORY HI-CAPACITY DRY ELECTROLYTICS
INDUSTRIAL TYPE CAPACITOR. For filtering dry disc recti-
fiers, electric fence controls or ony uses requiring high co-
pacify of low voltage. Has screw terminals ond mounting bracket. Plastic case provides complete insulation. Wt. 8 oz. HC 1060 A is special fence control replocement.

| $\overline{\text { Mfd. }}$ | Voits | Mfg. No. | Size | Stk. No. | 1.9 Eo . | 10-24 E0. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6000 | 10 | HC1060 | 11/2441/6 | 158992 | \$5.20 | \$4.48 |
| 4000 | 15 | HC1540A | $1{ }^{18 \times 484}$ | 158994 |  | 2.91 |
| 6000 | 15 | HC1560A | 1 183\% | 158995 | 5.62 | 4.82 |
| 1000 | 25 | HC2510A | $1{ }_{1} 1 \times 2{ }^{2}$ | 154790 | 8.19 | 2.73 |
| 2000 | 25 | HC2520A | $1{ }^{2} \times 38$ | 154791 | 4.15 | 3.56 |
| 4000 |  |  |  |  | 5.68 | 4.79 |
| 500 | 50 | HC5005A | 1 1 $\times 12 \%$ | 154793 | 3.33 | 2.85 |
| 2000 | 50 | HC5020A | $1{ }^{1 \times 3}$ |  | 4.25 | 3.66 4.34 |
| 4000 | 50 | HC5040 | $2 \times 4 \%$ | 154713 | 7.32 | 27 |
| 1000 | 150 | HC15010a |  | 154717 | 6.44 | 5.52 |
| 500 | 00 | HC20005A | $118 \times 3 \%$ | 15 SA729 | 5.53 |  |
| 300 | 450 | HC45003 | 2 \% $10 \times 4 \%$ | 154732 | 8.47 | 7.26 |

## CAN TYPE ELECTROLYTIC

| MALLORY MOTOR STARTING CAPACITORS <br> Housing is water and oll proof molded bokelite. Easily installed, universally interchangeable with capacitors of like dimen- sions and ratings. All are for $110-125$ volt AC motors, except is for 220 volt AC motors. To select proper copacitor you may use the Mfd. rating on original capacitor and select the, some or next higher Midd. capocity. All ore 1 . dio., $33 / /^{\prime \prime}$ long, PS43010, $43 / \mathbf{/ 月}^{\prime \prime}$ long. Wt. $1 / 2 \mathrm{lb}$. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mfd | Mfg. No. | k. No. | Each | Mfd. | Mfg. No | Stk. No. | Eoch |
|  | PSU9710 | 148637 | \$1.08 | 194 | PSU19410 | 148652 | \$1.59 |
| 108 | PSU | 148638 | 1.08 | 216 | PS | 148646 | 1.68 |
| 130 | PSU13010 |  |  | 378 | PSU37810 |  |  |
|  | PSU145 | 148644 | . 32 | 430 | PSU43010 | 148653 |  |

MOLDED TUBULAR CAPACITORS


WHEN ORDERING give group stock number, capacity and brand deslred. All sizes are available in all brands except th types are Goodoll only and t types ore Cornell-Dubilier ond Sprogue only.


## CORNELL-DUBILIER DPMS <br> SIDE LEAD TUBULARS

Mylar-paper dielectric side lead compact type capacitors. Rock-hard dipped casing. High temperature -55 to $+125^{\circ}$ C. Tolerance $\pm 10 \%$. Ideal for printed and transistoried circuitry

| Mfd. | Size | VOLT Stk. No. | E. | 10 Eo. | Mfd. | Size | VOLT Stk. No. | E. | 10 Eo. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . 02 | . $35 \times .85$ | 154688 | \$. 15 | \$.13 | . 001 | . $34 \times .69$ | 154809 | \$.15 | \$.13 |
| . 047 | . $45 \times .85$ | 154694 | . 18 | . 15 | . 0015 | . $34 \times .69$ | 158836 | . 15 | . 13 |
| . 05 | . $45 \times .85$ | 154698 | . 18 | .15 | . 002 | . $34 \times .69$ | 154814 | . 15 | . 13 |
| . 1 | . $47 \times 1.2$ | 154699 | . 21 | .19 | . 0022 | . $34 \times .69$ | $15 \mathrm{B837}$ | .15 | .13 |
| . 25 | . $62 \times 1.3$ | 154733 | . 27 | . 24 | . 003 | . $37 \times .69$ | 15 B 838 | . 15 | .13 |
| . 47 | . $73 \times 1.6$ | 154805 | . 36 | . 32 | . 004 | . $37 \times .69$ | $15 \mathrm{B8} 45$ | . 15 | .13 |
| 400 VOLT |  |  |  |  | . 0047 | $.4 \times .69$ $.4 \times 69$ | 158840 | . 15 | . 13 |
| . 01 | . $39 \times .69$ | 158830 | \$.15 | \$.13 | . 01 | $.4 \times .69$ $.39 \times .87$ | 154821 | .18 | . 12 |
| . 015 | . $43 \times .69$ | 158847 | . 15 | +. 13 | . 02 | . $44 \times .87$ | 158841 | .18 | .15 |
| . 02 | . $39 \times .85$ | 158831 | .18 | . 15 | . 022 | . $47 \times .87$ | 158842 | . 18 | .15 |
| . 047 | $.41 \times 1.15$ | 158846 | . 18 | .15 | . 047 | $.49 \times 1.1$ | 158843 | . 21 | .19 |
| . 05 | $.41 \times 1.2$ | 15B833 | . 21 | . 19 | . 05 | $.49 \times 1.1$ | 154826 | . 24 | 21 |
|  | . $5 \times 1.2$ | 158834 | . 24 | .21 | . | . $64 \times 1.3$ | 154832 | 27 | . 24 |
| . 25 | . $6 \times 1.6$ | 15B835 | . 36 | . 32 | . 25 | . $83 \times 1.5$ | 158844 | . 36 | . 32 |

## Famous-Name Capacitors

## AEROVOX MOLDED MICA CONDENSERS

 Fabricated from India ruby mica and rigidly tested to provide long life and
high sofety factor. Fig. K size ilx
 $88 \times 18 \times 12.500$ Volts
and English morked.
When Ordering Specity Stk. No. When Ordering Spe
15B190 and capacity.

| Fig. | Capocity |  | $\begin{aligned} & 1-49 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 50-99 \\ & \text { Each } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| K | . 000005 | . 00001 | . 18 | . 15 | . 14 |
| K | . 000022 | . 000025 | . 18 | .15 | .14 |
| K | .000027 | . 00003 | . 18 | . 15 | . 14 |
| K | . 000004 | . 0000047 | .12 | .10 | . 09 |
| K | . 00005 | . 000068 | .12 | . 10 | . 09 |
| K | . 000075 | . 000082 | . 12 | . 10 | . 09 |
| K | . 0001 | . 00012 | .12 | . 10 | . 09 |
| K | . 00015 | . 0002 | . 15 | . 13 | . 11 |
| K | . 00025 | . 0003 | . 18 | . 15 | . 14 |
| K | . 00033 | . 00036 | . 18 | . 15 | . 14 |
| K | . 0004 | . 00047 | .18 | . 15 | . 14 |
| K | . 0005 | .00051 | . 18 | .15 | .14 |
| C | . 00056 | . 00062 | . 18 | . 15 | . 14 |
| C | . 00068 | . 00075 | . 18 | . 15 | . 14 |
| C | . 00082 | . 00091 | . 18 | . 15 | .14 |
| C | . 001 |  | . 21 | . 18 | .16 |
| c | . 0015 |  | . 24 | . 20 | . 18 |
| $\overline{\mathrm{C}}$ | . 002 |  | . 27 | . 23 | . 20 |
| C | . 0025 |  | . 30 | . 25 | . 23 |
| C | . 003 |  | . 36 | . 30 | . 27 |
| C | . 004 |  | . 39 | . 33 | . 29 |
| c | . 005 |  | . 42 | . 35 | . 32 |
| C | . 006 |  | . 54 | . 45 | . 41 |
| C | . 01 |  | . 72 | . 60 | 54 |

For television VOLTAGE MICAS
power amplifiers opplications, etc Tested of 5000 volts. Standord tolerance $20 \%$.
When Ordering Specify Stock Na. 15B192 ond copocity.

| Fig. | Co |
| :--- | :--- |
| K | .00 |
| K | .00 |
| C | .00 |
| C | .000 |
| C | .000 |
| C | .00 |

## Stk. No. Mfg. No. Mfd. Dla. Lgth: Each Stk. No. Mfg. No. Mfd. Dia. Leth. Eoch

 $15 A 479$ RP3301$15 A 480$ RP3 302 $15 A 480$
$15 A 485$
RP3 3302

Condenser Products Co. ASG Glassmike Capacitors


For highly dependable and exacting requirements. Pyrex glass encosed, plastic film dielectric, slicone-filled and impregnated. $85^{\circ}$ C. $150 \%$ overlood test voltoge. Metol end caps with $8-32$ screw terminals except $\ddagger$ which have axial leads of tinmed $\# 18$ wire. $10 \%$ tolerance.


| M5d. | W. |
| :--- | :--- |
| .011 | .31 |
| .015 | .31 |
| .0223 | .53 |
| .037 | .53 |
| 50 |  |

## MALLORY HEAYY DUTY AC CAPACITORS

For continuous duty AC applications such as motor running copacitors and fluorescent bollasts. Widely used on air conditioner mable providing a high sofety factor and long life. Tol. $\pm 10 \%$, $330 \vee$ AC. For motor starting capacitors see page 49

## 50 VOLT MYLAR GOOD-ALL 601PE

Slim line type for transistor circuitry. Mylar non-inductive extended foil construction. Moisture fight, Epoxy case. Excellent temperature
stablity. $601 P \mathrm{P}$ offers higher stability, better reliobility at greater
economy than ceramic equivalents. economy than ceramic equivalents.

Specify B-A Stock No. 15A899 and Copacity when ordering.

## Sixe D. 1-24 25-49 50-99

 $\begin{array}{ll}\text { H. } \\ .56 \\ .56 \\ .56 \\ .40 & . \\ .45 & .\end{array}$ 88
8
8
9
20

Eac $\begin{array}{ll}.69 & \$ .4 \\ .70 & .42 \\ .72 & .4 \\ .75 & .4\end{array}$ 41
42
43
44
45

1-24 25-49 50-99 D. Each Each Eoch $22 \$ .79 \$ .47$ E.34

CORNELL DUBILIER DYCANOL SIMILAR TO CP70
Rectangular can, Mill-C-25A, $85^{\circ}$, tolerance $\pm 10 \%$. Dynacal filled, hermetically sealed. Transmitting capocitor. Supplied with TJU universol mounting as illustrated. Avg. shag. wt. 5 lbs. Foll type numbers start with TJU

| Stik. No. | TJU Type* | Mfd. | Volts | $\text { H. } \stackrel{\text { Size }}{\mathrm{L} .} \mathrm{W} .$ | $\begin{gathered} \text { 1-9 } \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 10-24 \\ & \text { Eoch } \end{aligned}$ | $25-49$ Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A1358 | 6005 | 5 | 600 | $21 / 8 \times 1 / 1{ }^{1 / 1}$ | \$2.56 |  |  |
| 15A1359 | 6010 | 1 | 600 | $218 \times 1$ 得x1 | 2.72 | 1.43 |  |
| 15A1360 | 6020 | 2 | 600 | $278 \times 1$ 13 $\times 1$ " | 3.26 |  |  |
| 1541361 | 6040 | 4 | 600 | $33 / 8 \times 21 / 2 \times 1$ | 4.40 | 2.27 | 2.04 |
| 15A1378 | 6060 | 6 | 600 | $45 / 8 \times 21 / 2 \times 1{ }^{3} 8^{\prime \prime}$ |  | 2.65 | 2.40 |
| 15A1363 | 6080 | 8 | 600 | $311 \times 33 / 4 \times 11 / 4 "$ |  | 3.22 | 1 |
| 15A1364 | 6100 | 10 | 600 | $45 / 8 \times 33 / 4 \times 11 / 4 "$ | 6.78 | 3.45 | 3.20 |
| 15A1380 | 100025 | . 25 | 1000 |  | 2.65 | 1.45 |  |
| 1541365 | 10005 | 5 | 1000 | $218 \times 1$ ¢ 1 10" | 2.72 | 1.49 |  |
| 15A1366 | 10010 | 1 | 1000 | $21 / 8 \times 1$ - 18 | 2.94 | 1.53 |  |
| 15A1367 | 10020 | 2 | 1000 | $4 \times 1$ ¢ $4^{1}$ | 3.88 | 1.92 |  |
| 15A1368 | 10040 | 4 | 1000 | $45 / 8 \times 21 / 2 \times 1$ \%.". |  | 2.54 |  |
| 15A1369 | 10080 | 8 | 1000 | $31 / 8 \times 33 / 4 \times 13 / 4 . \prime$ | 7.08 | 3.60 |  |
| 1541370 | 10100 | 10 | 1000 | $458 \times 33 / 4 \times 13 / 4.1$ | 8.09 | 4.11 |  |
| 1541381 | 10150 | 15 | 1000 | $43 / 4 \times 33 / 4 \times 21 / 2{ }^{\prime \prime}$ | 10.61 | 5.38 | 5.05 |
| 15A1382 | 20005 | . 5 | 2000 | $27 / 8 \times 1$ 18x1 ${ }^{2}$ | 4.21 | 2.07 | 1.90 |
| 1541383 | 20010 |  | 2000 | $3318 \times 21 / 2 \times 1{ }^{1 / 0}$ | 4.82 | 2.55 | 2.30 |
| 1541385 | 20040 | 4 | 2000 | $318 \times 33 / 4 \times 21 / 4^{\prime \prime}$ | 8.15 | 4.10 | 3.90 |

## CORNELL-DUBILIER DYR <br> BATHTUB TYPE CP53

Single units listed have two insulated terminals. Induc-
tively wound, oll filled, hermetically sealed in metal can.
Mil C 25 A spec. $\pm 20 \%$ tolerance-operoting temperature
to $125^{\circ} \mathrm{C}$. $\pm 20 \%$ tolerance-operating temperature


Stk. No.


## Ceramic Capacitors

ERIE GENERAL PURPOSE CERAMICONS
Feis $\quad$ Feotures excellent high frequency characteristics. Fully cc21/315 $.562^{\prime \prime}$ long $.25^{\circ \prime}$ dia. Tolerance $10 \%$. Ideally suited for coupling and by-passing non-resonont circuits
Quontity prices ovoilable on all Erie Items

| Stk. No. | Mmf. | Stk. No. | Style Mmf. | and 31 Stk. | Mmf. | Stk. No, | Mmf. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15828 | 5 | 15896 | 30 | 15B106 | 100 | 15A526 | 330 |
| 15829 | 10 | 15B97 | 33 | 154518 | 150 | 154528 | 390 |
| 15B39 | 12 | $15 \mathrm{B98}$ | 39 | 15A519 | 180 | 154529 | 470 |
| 15B40 | 15 | 15B99 | 47 | 15A520 | 200 | 15A530 | 500 |
| 15 B42 | 20 | 158100 | 50 | 15A521 | 220 | 15A531 | 510 |
| 15B57 | 22 | 158102 | 56 | 15A523 | 250 | 15A534 | 750 |
| 15894 | 25 | 15B104 | 75 | 15A524 | 270 | 158107 | 1000 |
| 15B95 | 27 | 15 B 105 | 82 | 154525 | 300 | 158109 | 1500 |
| Chaice $1-49$ |  | $99$ | to Eoch |  |  | or Each |  |

## ERIE N330 NEGATIVE TEMPERATURE TYPE

Erie No. TC3 show negative capacity of minus 330 ports per million per degree $C$ rise in temperature. Tubular type 600 V . Jan style CC20 size $.2 \times 4$ CC21 . $25 \times .562$, CC26 $.25 \times .812$.

| Stock No. | Cap. | Jon | 1.49 | 50.99 | Stack | Cop. | Jon | 1-49 | 50-99 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Mmf. | Style | Eoch | Eoch | No. | Mmf. | Style | Eoch | Eoch |
| 15 A114 |  | CC20 | \$. 10 | \$.08 | 15 A120 | 12 | CC21 | S. 18 | \$.14 |
| 15 A115 | 2.2 | CC20 | .10 | . 08 | 154131 | 15 | CC21 | . 18 | 14 |
| 15 A116 | 3.3 | CC20 | .10 | .08 | 154132 | 22 | CC21 | .18 |  |
| 15 A117 | 4.7 | CC20 | .10 | .08 | 15 A133 | 33 | CC21 | 18 | 14 |
| 15 A118 | 6.8 | CC20 | 22 | .16 | 15A145 | 47 | CC26 | 19 |  |
| 15 A119 | 10 | CC20 | .22 | .16 | 15B152 | 68 | CC26 | 19 | 14 |

## ERIE TYPE N750 TUBULARS

Erie No. TC7 show negatlve capocity of minus 750 parts per million per degree C rise in remperature. Tubulor type 600 V . Jon style CC20 size .2x.4; CC21 $.25 \times .562$; CC26 .25x.812; CC33 .315×1.25

| Cop. | Jon | 1.49 | 50-9 | Stock | cap. | Jon | 1. | 50-99 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mmf. | Style | Eoch | Eoch |  |  |  | Eoch | Eoch |
| ${ }_{5}^{2.2}$ | CC20 | \$.10 | 5.08 | ${ }^{154178}$ | 30 | $\mathrm{CC21}^{\text {CC2 }}$ | \$.18 | \$.14 |
| 10 | CC20 | .22 | 16 | 15A180 | 68 | CC26 | 19 | 14 |
|  | CC21 | . 18 |  | 15A218 | 100 | $\mathrm{CCL}^{6}$ |  |  |
| 24 | CC21 | .18 | :14 | 15B153 | 120 | CC26 | 9 |  |

## ERIE ZERO CHANGE TYPE NPO

## Erie No. TCO provide zero copocity char Size $25^{\prime \prime}$ dio $\times 562^{\prime \prime}$ long 600 VDCW.



ERIE DISC CERAMICONS TYPE ED
Type ED. Highly efficient general purpose copocitor. Over all protective coating provides insulation. 600 Valt warking 1500 VDC Test. Tolerance 10\% through . 0015 Mmf ., bolance guoranteed minimum value.
Mmf. Mmf. Mmf. Mmf.
> $\begin{array}{cc}\text { mf. } & \text { Mmf. } \\ 56 & 150 \\ 68 & 180 \\ 75 & 200 \\ 82 & 220 \\ 91 & 240 \\ 100 & 250 \\ 120 & 270\end{array}$
Mmf. Mmf.
300
330
350
360
390
470
500

Mmf. 560 680 750 800 820 1000

 $7 c$

## ERIE CERAMIC TRIMMERS



557


Style TS. NPO types hove zero drift Styie 538 New Minioture Trimmer. with temperature. N500 types hove Highly reliable. Only $3 / 8^{\prime \prime}$ dia. $\times .33^{\prime \prime}$ uniform negative change $500 / \mathrm{mil}-$ Stk. No. Mmf. Type Eoch Eoch 15 A567 $1.5-7$ NPO $\$ 1.10$ So.87 $\begin{array}{llll}15 A 568 & 3-12 ~ N P O & 1.10 & .87 \\ 15 A 569 & 4-30 N 500 & 1.10 & .87 \\ 15 B 516 & 5-20 \text { N300 } & 1.10 & .87 \\ 15 A 570 & 7-45 \text { NSOO } & 1.10 & .87\end{array}$ Style 532 . Compact design only ${ }^{\circ}{ }^{3}$ ". in type mtg . Voltage rating 500 V
DC. $1-49 \quad 50-99$
$\begin{array}{lcccc}\text { Stk. No. } & \text { Mmf. } & \text { Type } & \text { Eo. } & \text { Ea. } \\ 15 \text { B } 138 & 0.5 \text { to } 5 & 532-A & .32 & .27\end{array}$
$\begin{array}{lllll}15 \text { B138 } & 0.5 \text { to } 5 & 532-A & .32 & -27 \\ 15 \text { B139 } & 1 \text { to } 8 & 532-B & .32 & .27\end{array}$
SB139 1 to 8
Erie $3115-D$ Tubulor. Trimmer with
ceramic dlelectric. Low minimum
ceromic delectric. Low minimurn
copacity, mounts in .025 to $065^{\prime \prime}$

Stk. No. Mmf. Mfg. No Eo 1.4959

| $15 B 656$ | 0.5 to 3 | $3115-D$ | 29 | .25 | $15 B 665$ | $5-25$ | NPO |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| $15 B 657$ | I to 4 | $3115-E$ | .29 | .25 | $15 B 665$ | $5-30$ | $N 750$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

ERIE 357 FEED-THRU CERAMICON

## Efficient RF by-possing with

ponents or use os tie points
No. 15 B658. Mfg. No. 357
No. 158659. Mfg. No. 357-102. 1000 Mmf. Net Each. . . . . 81 . 1500 Mmf . Nef Each. . . . $81 \mathbf{c}$

## CENTRALAB HI-CAPACITY LOW VOLTAGEDISCS

For tronsistor circuits requiring high copocity and very low power factor combined with smoll size ond light weight.


## SPRAGUE CERAMIC CAPACITORS

GENERAL PURPOSE TYPES


## SPRAGUE TYPE TG

MINIATURE DISCS FOR TRANSISTOR CIRCUITRY, 50 VOLTS DC WORKING Designed for tronsistor, coupling and by-poss.


SPRAGUE HIGH VOLTAGE DISCS


## Guardian Relays



ALL PURPOSE ECONOMY RELAY AC-DC
Compact, lightweight reloy capable of unusually heovy powe control for its size. Long life, high quality relay, available in a variety of AC and DC voltages with a selection of contact combinotions. 10 amp. contocts. $115 \mathrm{~V}^{\prime \prime}$ non-inductive lood. 8 omp. for 4 pole types. Size, $1 \mathrm{fj}^{\prime \prime} \times 11 / 2^{\prime \prime} \times 1^{\prime \prime}$. Shpg. wt. 4 oz
IR500
(1)


CYCLE AC

| Stock No. | $\left\lvert\, \begin{gathered} \text { Coil } \\ \text { Volts } \end{gathered}\right.$ | Mfg. No. | Cont. | Net Each |
| :---: | :---: | :---: | :---: | :---: |
| 19 A 117 | 6 | IR-500-A6 | SPST | \$2.50 |
| 19 A416 | 6 | IR-500-C6 | SPDT | 2.80 |
| 19A419 | 6 | 1R-500-66 | DPDT | 3.10 |
| 19A420 | 6 | IR-500-GG6 | 4PDT | 4.30 |
| 19A421 | 24 | 1R-500-A 24 | SPST | 2.50 |
| 19 A 422 | 24 | IR-500-C24 | SPDT | 2.80 |
| 19A423 | 24 | IR-500-G24 | DPDT | 3.10 |
| 19A424 | 24 | IR-500-G624 | 4PDT | 4.30 |
| 19A425 | 115 | IR-500-A115 | SPST | 2.50 |
| 19A426 | 115 | IR-500-C115 | SPDT | 2.80 |
| 19A427 | 115 | IR-500-G115 | DPDT | 3.10 |
| 19A428 | 115 | IR-500-GG115 | 4PDT | 4.30 |
| 194429 | 230 | IR-500-G230 | DPDT | 3.70 |
| All Guardian relays are continuous duty unless otherwise stoted. |  |  |  |  |



## ENCLOSED PLUG-IN

(1) Type 1210 ond 1215 . Plug-in retects against dust, moisture, etc., for $213 \times 133 \times 1 \pm \%$, Wree service. Small size $218 \times 13 /{ }^{2} \times 1 / 8$. Wt. 3.5 ozs . DPDT has Contacts 8 amp. for all plug-in types. (1) TYPE 1210 AC COIL

| Stock No. | $\left\|\begin{array}{c} \text { Coil } \\ \text { Volts } \end{array}\right\|$ | $\begin{aligned} & \mathrm{Mfg} . \\ & \mathrm{No} \text {. } \end{aligned}$ | Cont. Comb. | Net Each |
| :---: | :---: | :---: | :---: | :---: |
| 19A527 | 6 | 1210-66 | DPDT | \$5.70 |
| 19A528 | 6 | 1210-GC6 | 3PDT | 7.10 |
| 19A529 | 24 | 1210-G24 | DPDT | 5.70 |
| 19A530 | 24 | $1210-\mathrm{GC} 24$ | 3PDT | 7.10 |
| 19A538 | 115 | $1210-\mathrm{G} 115$ | DPDT | 5.70 |
| 19 A 31 | 115 | 1210-GC115 | 3PDT | 7.10 |
| (1) TYPE 1215 DC COILS |  |  |  |  |
| 19A532 | 16 | 1215-G6 | DPDT | \$5.80 |
| 19A533 | 6 | 1215-GC6 | 3PDT | 7.25 |
| 19A534 | 24 | 1215-(624 | DPDT | 5.60 |
| 19A535 | 24 | 1215-GC24 | 3PDT | 7.25 |

Enclosed plug-in for Dit TYPE

| Stk. No. | Mfg. No. | Contacts | Each |
| :---: | :---: | :---: | :---: |
| 19A525 | 1215-G 2.5 K ohm | DPDT | \$6.00 |
| 19A526 | 1215-G 5 K ohm | DPDT | 6.10 |
| 19A541 | $1215-\mathrm{G} 10 \mathrm{~K}$ ohm | DPDT | 6.40 |
| 19A542 | 1215-ciC 2.5 K ohm | 3PDT | 7.00 |
| 19A543 | 1215-GC 5 K ohm | 3PDT | 7.20 |
| 19 A490 | 1215-GC 10K ohm | 3PDT | 7.50 |

(3) WITH BUILT-IN NEON LAMP Same as above except it has neon lights when coil is energized. Used for indicating circuit faults in relay bonks or Individual switching points. For 115 V AC operation. Eoch
$19 A 491$. 1210 N -G115. DPDT. $\mathbf{\$ 6 . 3 0}$ 19A491. $1210 \mathrm{~N}-\mathrm{G115}$. DPDT. $\mathbf{\$ 6 . 3 0}$
19A600. $1210 \mathrm{NGCl15}$. 3PDT. $\mathbf{\$ 7 . 7 0}$

## OPEN STYLE AC-DC

1200 G 1205 . Highly dependable relay. 8 amp contacts. Solder term, molded in phenolic barrier type specs. $15 / 8 \times 1 \times 11 / 4^{\circ}$

| Stock No. | $\left\lvert\, \begin{gathered} \text { Coil } \\ \text { Volts } \end{gathered}\right.$ | Mfg. No. | Cont. Comb | Net Each |
| :---: | :---: | :---: | :---: | :---: |
| 194452 | - | 1200-G0 | DPDT | \$3.60 |
| 19A453 | 6 | 1200-GC6 | 3 PDT | 4.00 |
| 19A454 | 24 | 1200-(22 | DPDT | 3.60 |
| 19A455 | 24 | 1200-GC24 | 3PDT | 4.00 |
| 19 A456 | 115 | 1200-G115 | DPUT | 3.60 |
| 19 A457 | 115 | 1200-GC115 | 3PPDT | 4.00 |
| TYPE 1205 DC COILS |  |  |  |  |
| 19A458 | 6 | 1205-G6 | DPIDT | \$3.30 |
| 19 A459 | 6 | 1205-(CC6 | 3PDT | 3.70 |
| 19A460 | 24 | 1205-G24 | DPDT | 3.30 |
| 19A461 | 24 | 1205-GC24 | 3PDT | 3.70 |



TELEPHONE TYPE IR-590-595 Small size, lightweight, powerful, fast octing units. Ideal for communications ond similar service where posi-
tive octing long life operation is essential. size 1 \& $\times 1 y^{\prime \prime} H_{1} \times l^{\prime \prime} W^{2}$

All contacts ore $11 / 2$ amp for 115 \begin{tabular}{l}
All. Shpg. wt. $31 / 2 \mathrm{oz}$. <br>

| volt. |
| :--- |
| Slock $\mid$ Volts |$|$ Mfo <br>

\hline
\end{tabular}


(1) IR625 SENSITIVE RELAY

Constructed with extro long coil for greater sensitivity. Adaptable to voltoge operating and plate circuit con-
tral. Contacts fine silver, roted ot 8 $\mathrm{mmps}^{0.2}$. Averoge power requirement. Size: $2^{1 / 8 \times 2 \times 11 / 2^{\prime \prime} \text {. Wt. }}$ 0.2 watts. Size: $21 / 8 \times 2 \times 11 / 2$
5.5 oz . $\begin{array}{lll}\text { Stk. No. Mfg. No. } & \text { Ohms Net Eo. } \\ 194447 & \text { IR-625-2.5\% } & 2500 \\ \$ 3.85\end{array}$ $\begin{array}{llrr}19 A 447 & R-625-5 \% & 5000 & \$ 3.85 \\ 19 A 448 & \text { IR-625-5\% } \\ 19 A 449 & \text { IR-625-10\% } & 10000 & 5.25\end{array}$ 19A449 IR-625-10\% 10000
Contact Combination DPDT.

HEAVY DUTY AC

## TYPE IR-X-30OER OVERLOAD RELAY

Electrical reset type. Protects against overloads. Adjustable
from 250 to 750 MA . Front ponel control. SPST circuit breaker contocts, also SPDT contacts for indicator circuit. Size $43 / 4 \times$ $118 \times 2$ Shisg, wt. 1302
No. 19Ais8. Net Eoch.
(3) HEAVY DUTY AC

Rugged unit breaks up to 20 amperes, Armature is equipped with bokelite contact mounting block carrying i" dual contacts. Bakelite is tested ot 1500 volts breakdown to ground. Contaets are silver alloy SPST, normally open. Size $3 \times 17 / 8^{\times 13 / 4^{\prime \prime}}$. 'Shpg. wt.
Stk. No. Mfg. No. Volts Net Eo. $\begin{array}{llrr}19 A 408 & \text { IR-220-A24 } & 24 & \$ 3.95 \\ 19 A 409 & \text { IR-220-A115 } & 115 & \mathbf{4 . 4 5} \\ 19 A 410 & \text { IR-220-A230 } & 230 & \mathbf{4 . 9 5}\end{array}$ (6) SENSITIVE AC RELAYS Economical SPDT AC reloy with 88
amp. contacts rated of 115 V .60 amp. contacts rated ot Size, $3 \times 1 \frac{1 / 8}{8}$ $\times 11 / 2^{\prime \prime}$. Wt. 4.5 oz . Coil resistance for 24 volt model, 25 ohms; 115 volt model 600
2500 ohms.

| Stk. No. Volts AC Mfg. No. |  |
| :--- | :--- |
| 198262 | 24 |
| MR-120-C 24 |  | $\begin{array}{ccc}198262 & 24 & \text { IR-120-C24 } \\ 198263 & 115 & \text { IR-120-C115 } \\ 198264 & 230 & \text { IR-120-C230 }\end{array}$

Each


32 POLE RELAY TYPE 805
32 pole-group selector relay, Can simultoneously make ing members completely enclosed. Roted 3 A. per set of blades. Size 2 g' $^{\prime \prime} \mathrm{L} \times 11 \mathrm{l}^{\prime \prime} \mathrm{H} \times 2 \mathrm{~m}^{\prime \prime} \mathrm{W}$. Shpg. wt. 6 oz . 32 P Shorting Relay. 24 V . DC.

## LATCHING ON/OFF RELAY 60 CYCLES AC



## INTERLOCKING AC RELAYS

TYPE IR-1200-1200. Used to maintain circuits continuousty without coil power consumption. Unit is electrically pulse operated with mechanical hold and electrical release. 8 amp contacts 60 cycle, non-in-
 $\begin{array}{llll}\text { Stk. No. Mfg. No. } & \text { Montacts Volts } & \text { Eoch } \\ 19 A 549 \text { IR-1 } 200 / 1200-G G 115 & \text { 4PDT } 115 \text { V.AC } & 10.25\end{array}$

## IMPULSE RATCHET RELAYS

Type 670. Built for longer life and more dependable
 service. For on-off control of lighting, motors, aptoct ratings to $121 / 2$ amp. resistive load 110 volts. Each impulso reverses contacts, fast acting lup to 10 per second). Intormittent duty coll. Relay size $3 \times 13 / 4$
$\times 2,{ }^{\prime \prime}$ Wt. $71 / 2 \mathrm{oz}$. Replaces and is interchangeable with discontinued serles IR-RC-100.


# Guardian \& Advance Relays \& Solenoids 


(1) 2200 DPDT.
 Scrics 2200 and 2210 Power Reloys ore rated 25 omperes, continuous dut at 230 valts AC with $75 \%$ power factor, Operoting power requirement fol
AC is 9.5 volt amperes, 60 cycles. Molded bakelite base with interchangeable coil. Screw terminals. For heavy duty applications including motor starting, heoter loads, etc. Mounting: 2 holes for $8-32$ screws on $17 / 8^{\circ}$
centers

| Stock No. | $\begin{aligned} & \text { Volts } \\ & A C \end{aligned}$ | Mig. No. | Net Each | Stock No. | Volts AC | Mfg. No. | Net Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 194462 | d | 2200-DPDT-6 | \$6.10 | 19A269 |  | 2210-DPST- | 6\$5.25 |
| 19 A 463 | 24 | 2200-DPDT-24 | 6.10 | 19A272 | 24 | 2210-DPS | 25 |
| 19A464 | 115 | 2200-DPDT-115 | 6.10 | 19A273 | 115 | $10-\mathrm{DP}$ |  |
| 19A465 | 230 | 2200-DPDT-230 | -50 | 19A303 |  | 10 |  |
| REPLACEMENT COILS |  |  | S FOR BOTH 2200 |  | AND 2210 RELAYS |  |  |
| Stk. No. |  | Coil Volts AC | Net Each | Stk. No. |  | Coil Volts A | Net Eoch |
| 194466 |  |  | \$2.25 | 19A468 |  | oit | \$2.25 |
| 19 A 467 |  | 24 Volt | 2.25 | 194469 |  | 230 Volt | $2.50$ |

REPLACEMENT CONTACT SWITCH PARTS FOR 2200
Availcble for Series 2200 only-replacement contact switch ports for either right or left SPDT ossembly. No solder needed

## NEW 2400 POWER RELAY

New design featuring inverted coil construction which protects armature and contacts insuring long life and reliable operation. DPDT contacts UL rated 15 omp of cycle. Screw type terminals. Size 3 . $115 / 230$ volts 60 Wt. 8 oz. Auxiliary easy to mount SPDT switch roted 10 amps is ovailoble os separate unit


## UNIVERSAL "200" SERIES

## COIL AND CONTACT ASSEMBLIES



Two basic parts-a Coil Assembly with core piece and a Contact Assembly with switch blades, armature, spring and frome-comprlse this versatile reloy. Very easy to Order choice of Coil Assembly and choice of Contact Assembly from tobles below for each complete relay. Average shpg. wt. 4 oz.
All coil assemblies are AC


## Potter \& Brumfield Relays

## ATTENTION INDUSTRIAL BUYERS

B-A offers you factory Net Prices I Save time-we ship from stock. Use this quantity discount schedule.
Deduct from the single lot price shown $5 \%$ for 25 to 50 reloys of a type,
We can supply all stondord PGB relays. Request special catalog.

## GENERAL PURPOSE TYPES

 LIGHT DUTY KA RELAY

OC and 60 Cy . AC Coils
High quality, all purpase relay. 10 amps. Single $6-32$ stud mounting with locating tab. Solder lug terminols. Size $17^{\prime \prime} \times 18^{\prime \prime} \times 1 \mid d^{\prime \prime}$ high. 110
V . DC Coil res. 10,000 ohms. Wt. 2


Small size long life relay for dependable use in autimation contro, comin clear plastic dust cover. Size $111 \times$ $148 \times 2^{\prime \prime}$ high. 10 amp contocts on KRP types ending in $G$, all others are ${ }^{5}$ PII, il pin for P14. Wt. 3 . 3 az Stk. No. $19 A 1390$ KRPSAG
$19 A 1355$ KRPSD
$19 A 1381 \mathrm{KRPIIA}$
$19 A 1391 \mathrm{KRP} 11 \mathrm{AG}$
19 A 1357 KRP 11 A
$19 A 1382$ KRPIIA
$19 A 1392$ KRP | 1 A
19A1339KRPIIA

$\begin{array}{ll}19 A 1393 & \text { KRPIIAG DPDT } 115 A C \\ 19 A 1383 & \text { KRPIID } \\ 19.2\end{array}$ $19 A 1383 \mathrm{KRPIID}$ DPDT 6DC 6.00 $\begin{array}{llll}19 A 1394 K R P I I D G ~ D P D T ~ 6 D C ~ \\ 19.20 \\ 194 & \end{array}$ $19 A 1395$ KRPIIDG DPDT $12 D C 6.00$ | $19 A 1395$ |  |
| :--- | :--- |
| $19 A 1385$ | $K R P I I D$ |
| DPD | $24 D C$ | $19 A 1396 K R P \mid 1 D G$ DPDT 24DC 6.20

$19 A 1358 K R P I I D$ DPDT $110 D C 6.60$ $19 A 1358$ KRPIID $19 A 1397$ KRP14AG $19 A 1328$ KRP14D

## KCP SENSITIVE TYPE

## Same appearance os KRP above. Op-

 for DPsilver contacts rated
square
Stk. No, Type Cont.
$19 A 1353$ KYP
$\begin{array}{lll}19 A 1312 & \mathrm{KCPS} & \text { SPDT } \\ 19 A 1532 & \mathrm{KCPI} & \mathrm{DPDT} \\ 19 A 1533 & \mathrm{KCP} 11 & \mathrm{DPDT}\end{array}$
$19 A 1533$ KCP11 DPDT
$19 A 1311$ KCP14 3PDT
54
ENCLOSED

## PLUG-IN

## KRP RELAYS

## MEDIUM DUTY MR POWER RELAYS <br> For small motors, transmitters and

general purpose use. Fost, positive Full floating armature. Fost, positive
60 cy . AC coils 3.25 watts. DC coils 1.6 watts. 3 sin siver contacts roted 8
 for double pole.

Stk. No. Type Contacts Coil V. Each $19 A 383$ MR3A SPSTDB 6AC $\$ 3.85$ $19 A 384$ MR3A SPSTDB 24AC 3.85 $\begin{array}{llll}19 A 385 & M R 3 A & \text { SPSTDB } 115 A C & 3.85 \\ 19 A 1405 M R 5 A & \text { SPDT } & \text { GAC } & 3.45\end{array}$ | $19 A 1405$ | $M R 5 A$ | SPDT | 6AC |
| :--- | :--- | ---: | :--- |
| 19.45 |  |  |  |
| $19 A 1417 M R 5 A$ | SPDT | $24 A C$ | 3.45 | $\begin{array}{llll}19 A 1406 M R S A & \text { SPDT } & 115 A C & 3.45 \\ 19 A 1333 M R 5 A & \text { SPDT } & 230 A C & 3.85\end{array}$ $\begin{array}{llrl}19 A 1333 & \text { MRSA } & \text { SPDT } & 230 A C \\ 3.85 \\ 19 A 1409 ~ M R S D ~ S P D T ~ & \text { SDC } & 3.20\end{array}$

$19 A 1409$ MRSD
$19 A 1316$ MRSD 19A1318 MRSD SPDT $110 D C$
$\begin{array}{llrl}19 A 1407 M R 11 A & \text { DPDT } & \text { 6AC } & 4.85 \\ 19 A 1319 M R 11 A & D P D T & 12 A C & 4.85\end{array}$
$\begin{array}{llll}19 A 1419 M R I I A & \text { DPDT } & 24 A C & 4.85 \\ 19 A 1408 M R I I A & \text { DPDT } & 15 A C & 4.85\end{array}$
$\begin{array}{llll}19 A 1449 \mathrm{MRIIA} & \text { DPDT } & \text { 230AC } & 5.25 \\ 19 A 1410 \mathrm{MRIID} & \text { DPDT } & \text { 6DC } & 4.60\end{array}$
$\begin{array}{llll}19 A 1410 ~ M R 1 I D & \text { DPDT } & & 12 D C \\ 19 A 387 & 4.60 \\ 19 A 1320 M R 11 D & \text { DPDT } & \text { DPDT } & 24 D C \\ 4.60\end{array}$
$\begin{array}{llrl}19 A 1334 M R 14 A & \text { 3PDT } & 6 A C & 5.80 \\ 19 A 1440 M R 14 A & 3 P D T & 24 A C & 5.80\end{array}$
$\begin{array}{llll}19 A 1440 \mathrm{MR} 14 \mathrm{~A} & \text { 3PDT } & 24 A C & 5.80 \\ 19 A 1422 \mathrm{MRI} 4 \mathrm{~A} & \text { 3PDT } & 115 A C & 5.80\end{array}$ $19 A 1450$ MRI4A 3PDT 230AC 6.20

rocker type octu-
otor with single coll provides impulse switching far circuit
reversing or on-off
use. Requires only 60 MS puse Con-
tacts
roted ot 75
7 omps. Size $2{ }_{1}^{\frac{1}{4}} \times 2$ 11 $\times 2$ "̈, two hole mounting. Wt. 5 oz 19A1344 PCIIA Conts. Coll V. Each $19 A 1345 \mathrm{PC} 17 \mathrm{~A}$ 4PDT 24AC 7.60 $\begin{array}{llll}19 A 1346 & P C \\ 19 A A & 4 P D T & 115 A C & 7.60 \\ 19 A 1347 & \text { PCi7A } & \text { 4PDT } & 230 A C \\ 8.00\end{array}$ AP RATCMET OPERATED Actuotes on electricat
impulses os short os
60 milliseconds. Each
successive impulse re-
verses contoct posi-
tion. is fine sitver
contocts, Rating 5 A. Size $33 / 4 \times 21 / 4 \times 21^{\prime \prime}{ }^{\prime \prime} H^{\prime}$
Stk. No. Type Confocts Cail V. Eoch $19 A 1435$ AP $11 A$ DPDT $24 A C \$ 8.70$ $19 A 1436$ AP $11 A$ DPDT $115 A C \quad 8.70$ $19 A 1330$ AP11D DPDT 24DC 8.70 $19 A 1389$ API7D 4PDT 6DC 10.50

## MINIATURE MH

TELEPHONE TYPE
 Extremely fost octing
and long life. Ideal wherespace and
weight are foctors weight are factors.
Overall size $13 / 8^{\prime \prime} \mathrm{H}$.


## MHIIL, 3 omp.



HEAVY DUTY POWER TYPES
FOR HEATING-VENTILATING-AIR CONDITIONING-MOTOR STARTING


PR PR HEAVYY DUTY POWER RELAYS
A highly dependable, fast acting, sturdily constructed relay for continuous heavy duty use in industrial control applicotions. Molded phenolic base, bobbin and contact carrier. 25 amp sitver contacts. $21 / 2$ wide $x 21 / 2$ tong 2re high (PRI] are 4 年" long


## PR11AL5 TYPE

Same power type PR described above with additional set of SPDT mits such as push button, time deloy, efc $\begin{array}{llll}\text { Stk. No, Type } & \text { CoilV. Each } \\ 19 A 1341 & \text { PRIIAL5 } & 24 A C & \$ 8.15\end{array}$
$\begin{array}{llll}19 A 1342 & \text { PRIIALS } & 115 A C & 8.15 \\ 19 A 1343 & \text { PRIIALS } & 230 A C & 8.55\end{array}$
PM 4PDT PONER TYPE For use in polyphase and heavy duty
switching. $1 / 4$ contacts rated 16 amps. $115 \mathrm{~V}-8 \mathrm{amp} 220 \mathrm{~V}$. resist115 or 220 single phose. Meats af requirements. $23^{\prime \prime} \mathrm{W}, 3$ de" $^{\prime \prime} \mathrm{D}, 210^{\prime \prime}$
 Stk. No Mig. No. Coil Volts Net Each $\begin{array}{llrr}19 A 1510 & P M 17 A & 6 & \$ 12.35 \\ 19 A 1511 & \text { PM17A } & 12 & 12.35 \\ 19 A 1512 & \text { PM17A } & 24 & 12.35\end{array}$ $\begin{array}{llll}19 A 1513 & \text { PMI7A } & 115 & 12.35 \\ 19 A 1514 & \text { PMI7A } & 230 & 12.75\end{array}$ ALL METAL DUST COVER for all PR 194438. PB \#350013. Eoch. . $\$ 3.00$ For MS, MR and SP Relays
19 A1441, PB \#35D130. Each. $\$ 1.90$ KE LATCHING TYPE
 Consists of one coil ro set latch and another coil
to release it. Both aperto release it. Both aper-
ate on some voltage with For memory devices, overload protec-
tion and automatic control. All are 5 omp contacts except last three with No. ending in $G$ which ore 10 omp .
 19 A1468 KB17AY 4PDT GAC $\$ 10.50$ $\begin{array}{llll}19 A 1469 \mathrm{~KB} 17 \mathrm{AY} & 4 P D T & 24 \mathrm{AC} & 10.50 \\ 19 \mathrm{~A} 1470 \mathrm{~KB} 17 \mathrm{AY} \text { 4PDT } 115 \mathrm{AC} & 10.50\end{array}$ $\begin{array}{llll}19 A 1470 \text { KB17AY 4POT } 115 A C & 10.50 \\ 19 A 1360 \text { KB17D 4PDT } & 12 D C & 9.45\end{array}$ $19 A 1361 \mathrm{~KB} 170$ 4PDT 24DC 9.45 $\begin{array}{llll}19 A 1398 \mathrm{~KB} 17 \mathrm{AG} & 4 P D T & 24 \mathrm{AC} & 10.60 \\ 19 A 1443 \mathrm{KB17AG} 4 P D T & 15 \mathrm{AC} & 10.60\end{array}$ $\begin{array}{llll}19 A 1443 K B 17 A G & \text { 4PDT } 115 A C & 10.60 \\ 19 A 1399 K B 17 D G 4 P D T & 24 D C & 9.65\end{array}$

## PLATE CIRCUIT TVPE

 LE-S LOW COST SPDT

Designed for top per-
formance of unusually con cost. 5 amp silver entacts wo hole mtg Stk. Na. Coil Res. Coll Ma. Each 19 A1413 $\square$ Coll
9.0 Each 19A1444 10,000 4.5 RSEAT 2.85

model controls, $l i g h t$ dim
mers, radiosonde, etc.
omp Omp
Size
oz.

## Stk. No. Coil Ohm

Ohms Pullifn Eoch
$\begin{array}{llll} & & \text { Pull } & \text { Eoch } \\ 19 A 1491 & 335 & 6 \mathrm{~V} & \$ 2.60 \\ 19 A 1442 & 1.35 \mathrm{~K} & 12 \mathrm{~V} & \mathbf{2 . 7 5} \\ 19 A 1493 & 25 \mathrm{~K} & 5 \mathrm{MA} & 2.85\end{array}$

| Stk. No | Type | Contacts | Coll | Eac |
| :---: | :---: | :---: | :---: | :---: |
|  | PR | DPST | 115AC | \$4.90 |
| 19A36 | PRTAY | DPST | 230 A |  |
| 19A13 | PR7D | DP |  |  |
| 19A1321 | PR7D | DP | 24 |  |
| 19A1374 | PR7D | DPST |  |  |
| 19A1369 | PR1 | DPDT |  |  |
| 19A372 | PRIIA | Y DPDT |  |  |
| 19A160 | PRIIA | Y DPDT | 115AC | 45 |
| 19A373 |  |  |  |  |
| 19A1416 | PR110 | DPDT | 6DC |  |
| 19A1338 | PR11D | DPDT |  |  |
|  |  |  |  |  |

## MS MOTOR STARTING

 motors. Operotes on bock EMF of running winding. Meets all underwriters requirements. Size 2 有 $\times 2 \frac{1}{2}$ $x 2 \%$ high. Pure silver contacts.Far $3 / 4$ H.P. Motors Stk. Na. Type Roting V AC Ea.
$19 A 1455$ MS2AY SPST-NC $115 \$ 3.55$ $19 A 1456$ MSZAY SPST-NC 230
For Motors UP to 3 HP (DB Contocts) Far Motors Up to 3 HP (DB Contocts)
$19 A 1457$ MS4AY SPST-NC 115
4.15 $19 A 1458$ MSAAY SPST-NC 2304.55 MB3D Power Contactor Minwature high current type. Rated 60 amp ot 28 V. DC up to 130 amp arm. SPST double break normally open. Dimensions i5/8" L, fi" W. W .

$\qquad$ 5 EOch
5.40

NEW KHP SERIES Small size - rugged
4PDT nylon enclosed relay. For exacting high speed data proprocess controler and tacts 3 amp silver connols with $3-48$ termisockets listed below. $1 \frac{17}{}$ " used with



Our Choire, Each

 Sensitive relays with
adjustable spring tenadjustable spring ten-
sion, adjustable release screw, and $3^{7 \prime 2}$ dia.
silver contacts rated at
5 amps. on 115 a Type LM-5 S.P.D.T.

| $\begin{gathered} \text { No, } \\ 19 \mathrm{Al} 411 \end{gathered}$ | $2,500$ | $6.3$ | $\$ 3.90$ |
| :---: | :---: | :---: | :---: |
| $19 \mathrm{Al412}$ | 2 5,000 | 4.5 | 0 |
| 194161 | 10,000 | 3.2 |  |
|  | Type LM-11 | D.P.D.T. |  |
| 19 A162 | 2,500 | 9.0 | $\$ 5.55$ |
| 194163 | 5,000 | 6.3 |  |
| 194164 | 10,000 | 4.5 | 6.3 |

## Time Delay, Relays, Solenoids

## AMPERITE TIME DELAY RELAY

Thermostatic type hermetically seoled, unoffected by altitude, roted of 3 omps
Standard amps.
Standard type are $27 / 8^{\prime \prime}$ high less pins, $x 11 / 4^{\prime \prime}$ maximum diameter "have octal bose. Miniature type are $21 / 2^{\prime \prime}$ above pins $\times 7 / 8$ diometer with 9 in miniature base.
See ordering information below.
NORMALLY OPEN CONTACTS
NORMALLY CLOSED CONT.

| Deloy Sec. | 6.3 | Heoter Voltoge |  |  | Heoter Valtage |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 |  |  | 26N02 | 115 NO 2 | 2 6C2 | 26C2 | 115C2 |
| 3 | 6 NO 3 |  | 26NO3 | 115 NO3 | 36 C 3 | 26 C 3 | 11503 |
| 5 | 6 NOS | 12 NOS | 26N05 | 115 N05 | 56 C 5 | 26 C 5 | $115 C 5$ |
| 8 |  |  |  | 115 NO8 | 8 |  | 115 C 8 |
| 10 | 6 NO 0 |  | 26NO1O | 115 NO 10 | 10 | 26 C 10 | 115010 |
| 15 | 6 NO 15 | 12 NO 15 | 26NO15 | 115 NO 15 | 156 C 15 | 26C15 | $115 C 15$ |
| 20 | 6 NO 20 |  | 26NO2O | 115 NO 20 | 20 6C20 | 26C20 | $115 C 20$ |
| 30 | 6N030 | 12 NO 30 | 26N030 | 115 N 030 | 30 6C30 | 26C30 | $115 C 30$ |
| 45 |  |  | 26N045 | 115 NO 45 |  |  |  |
| 60 | 6N060 | 12 NO 0 | 26N060 | 115 NO 0 | 60 6C60 | 26C60 | 115C60 |
| 90 | 6 NO 90 |  | 26N090 | 115 N 090 | $906 C 90$ | 26C90 | $115 C 90$ |
| 120 | 6NOI20 | 12 NO 120 | 26NO120 | 115 NO 20 | 120 6C120 | 26C120 | $115 C 12$ |
| 180 | 6 NO 180 |  | 26NO180 | 115 NO 180 | 1806 C 180 | 26C180 | 115C1 |

26N180, 115 NO180, 26C180, 115C180 not ovoiloble in Min. 9-Pin Series No. $20 B 805$. STANDARD OCTAL BASE TIME DELAY RELAY. For standard octol bose types specify our stock number and Amperite type number. No. 20B806. 9-PIN MINIATURE TIME DELAY RELAY. For 9-pin miniature type specify our stock number ond add $T$ to Amperite type numbe Your Choice of ony type,

## DOW COAXIAL RELAYS



For switching 52 ohm coax line from receiver to fronsmitter. Rated to one KW on matched line. - Silver cantocts.

- SWR less thon 1.1 to $1 ~ u p ~ t o ~$
400
MC . Size $23 / 4 \mathrm{x}$ $33 / 4 \times 11 / 8^{\prime \prime}$. Wt. under 9 oz . Low loss Teflon insulated terminals.
Type DK60-G with receiver protectlon
No. 164987.115 V .60 cy . AC. Each.
Type DK60-G2C. Same as DK60-G with auxlliary DPDT contacts. No. 1649998.6 V DC, Eoch,
No. 164999.12 V. DC. Eoch
No. 16 .
. $\$ 13.70$

DOW ELECTRONIC ANTENNA SWITCH

$\$ 15.65$
15.65
15.65

## Vocumm tube fronsmit-receive TYDe Switch



## ADVANCE ANTENNA RELAYS

## ADVANCE COAXIAL TYPE

advance antenna relay


Heovy dury RF and high voltoge relay
with conservative with conservative
KW
roting. Highly efficient ceramic steotite insulotion.
Excellent wiping ac.
tion ossures no loss of minute current flow in receive position. Height 1 1t " $218^{\prime \prime}$ wide, 3 it " long. Wt. 12.6 oz
$\$ 12.15$ DPDT 10 amp contacts. For 115 VAC operation. AT/ $2 \mathrm{C} / 115 \mathrm{VA}$.
$\$ 13.25$ No. 17C837. Each
$\$ 13.20$

## AUTOMATIC ELECTRIC

ANTENNA RELAY
Automotic Model 51 provides DPDT switching for any RF or power circult up to 1000 wotts requiring, a high quality well insulated reloy. Contacts are $1 / 1 /{ }^{\prime \prime}$
pure silver. Base and bar ceramic. $110-v o l t$ AC Size pure silver. Bose and bar ceramic.
$318 \times 218 \times 1 \nmid b^{\prime \prime}$. Shpg. wt. 1 lb . Type 51 . No. 17A731. Net Eoch
$\$ 4.95$
SIGMA SENSITIVE RELAYS
$41 F Z$ SERIES AC RELAY
Highly sensitive, completely quiet shoded - pole, long life relay. All 0.2 volt omperes, contact
carry 2 omps. All 2 amps. All others require 0.4
 contacts $21 / 202$. 1 FZ Volts $\begin{array}{lr} & \begin{array}{c}\text { Ne } \\ \text { Eoch }\end{array} \\ 6 . & \$ 3.5 \\ 6 * & 4.0 \\ 24 * & 3.5 \\ 24 . & 3 . \\ 15= & 4 .\end{array}$ Net
och
.50
.00
.50
3.00
4.45 5

> Stoc No. 19859
> 19859

198595
198596


## 5F SERIES

## SPDT DC

Sensitive, generol purpose DC relay mature construction Offers precise opersensitivity SPDT I amp silver contacts. Open type desion-mounting two 6-32 tapped holes. Size 13 , long, $1 \mathrm{f}^{\prime \prime \prime}$ wide, $1 \nmid \mathrm{z}^{\prime \prime}$ high. Wt. 41/4

# ck 

## SERIES 72



TYPE $4 F$ RELAY Useful in model air plane control or an electronic circult retivity A ding sensispring tension and air gap varies sen-
sitivity from 10 to 200 milliwatts Balanced armature permits relay to work in any position. SPDT contacts rated 2 amps. Size $11 / 2 \times 15 / 8 \times 188^{\circ}$
Wt. $21 / 4 \mathrm{oz}$. Stock Mig. Coil Oper. Net 19 A 515 4F-10005-SIL IM 45 Each 19 A5 16 FF-2500S-SIL 25 M 3.0 $\begin{array}{llll}19 A 516 & 4 F-2500 S-S I L ~ & 2.5 M & 3.0 \\ 6.05 \\ 19 A 517 & 4 \mathrm{~F}-5000 S-\text { SIL } & 5 \mathrm{M} & 2.0 \\ 6.35\end{array}$ $\begin{array}{lllll}19 A 517 & 4 F-5000 S-S I L & \text { SM } & 2.0 & 6.35 \\ 19 A 518 & 4 F-8000 S-S I L & 8 M & 1.6 & 6.6\end{array}$

TYPE IIF. New low cost DC Relay. Very popular sensitive type. Wize
$\times 1$ 名 $x 1^{\prime \prime}$. Weight oz. tivity SPDT mill sensitivity SPDT silver con-
tacts rated of 1 omp.
Un-insulated from chossis. Mounts by means of two $4-40$ screws tapped in Stock

Mfg. Coil Oper. Net
No. Ohms MA No. No. Ohms MA Each 19A504 IIF-1000G-SIL $10007.0 \$ 1.75$ $19 A 580$ IIF-1500G-SIL $15005.8 \quad 1.75$ 19A505 IIF-2300G-SIL 23004.61 .75 19A582 IIF-3500G-SIL 3500 $3.7 \quad 1.75$ $19 A 506$ IIF-6000G-SIL $60003.0 \quad 1.95$

## $46 \& 42$ serits plug.IN relars

Power type relay for switching up to 10 amp loods. Used for cover. Fits standard octal socket. Base, wired for conventional contoct connections. Size: 1 p" sq., 2 te" high. Wt. 5 oz. $_{\text {hig }}$

## thk No DC Mig \#46RO

Stk. No.
17 Mfg. No. Volts Each Stk. No.
19B558-65-LW-SIL
$19 \mathrm{~B} 560-280-L W-S I L$
198562 -650-LW-SIL
$198564-1100-L W-S I L$
$19 B 566-6500-L W-S I L$
6
12
24
36
48
120

Mfg. No. Volts Eoch $\$ 6.00$ 19B568-1700M-ACW-SIL
$\begin{array}{llll}2 & 6.00 & 19 B 570 & -6500 \mathrm{M}-\mathrm{ACW}-\mathrm{S} \\ 4 & 6.00 & 19 B 572 & -28-A C W-S I L \\ 6 & 6.00 & 19 B 574 & -65-A C W-S I L\end{array}$
$\begin{array}{llll}6.00 & 19 B 574 & -65-A C W-S I L \\ 6.20 & 19 B 576 & -110-A C W-S I L\end{array}$
$\begin{array}{llll}20 & 6.60 & \text { 19B578 } & -650-A C W-S I L\end{array}$

## 42 SERIES DPDT

General purpose plug-in, high sensitivity type. ULA listed. Ideal for output relay in control circuits. 5 amp contacts. Flts octal socket, has conventional contoct connections. Size 1 g" " 2 2d" high. Wt. $51 / 4$

| Stk. No. | Mfg. No. | Coil Ohms | Net Eo. |
| :--- | :--- | :--- | :--- |
| $19 B 544$ | $42 R O 6-1000-G-S I L$ | 1000 | $\mathbf{S 6 . 2 0}$ |
| $19 B 546$ | $42 R O 6-2500-G-S I L$ | 2500 | 6.20 |
| $19 B 548$ | $42 R O 6-5000-G-S I L$ | 5000 | 6.40 |
| $19 B 554$ | $42 R 06-10000-G-S I L$ | 10000 | 6.60 |

CALL ON B-A FOR ALL YOUR RELAY REQUIREMENTS,
QUANTITY PRICES ARE EQUAL TO FACTORY SCHEDULE
AND WE SAVE YOU TIME WITH OFF-THE-SHELF DELIVERY

CONTROLS COMPANY HEAVY-DUTY SOLENOIDS

| Stock No. | $\begin{aligned} & \text { Mfg. } \\ & \text { No. } \end{aligned}$ | Duty | $\begin{gathered} \mathrm{AC} \\ \text { Volts } \end{gathered}$ | Max Stroke | Max Pullibs | $L$. | Overall W. | H. | $\begin{aligned} & 1-9 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 10-24 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 43 A 101 | 801-101 | Constant | 110 | 8 | 41/2 | 15 | 18 | , | \$4.33 | \$3.90 |
| 43 A102 | 801-102 | Int | 110 | 58 | 53/3 | 13/8 | 1. | 113 | 4.33 | 3.90 |
| 43 A 104 | 812-101 | Constant | 110 | $1{ }^{18}$ | 83.4 | 21/2 | 1 | 2 | 5.76 | 5.19 |
| 43 A 105 | 812-102 | Int. | 110 | $1{ }^{18}$ | 11 | $21 / 2$ | 1 | 2 | 5.71 | 5.14 |
| 43A106 | 812-103 | Constant | 220 | 11 | 101/2 | 21/2 | $1+$ | 2 | 5.97 | 5.38 |
| 43 A 107 | 812-201 | Constant | 110 | 12 | 11 | $21 / 2$ | 21. | 2 | 6.00 | 5.40 |
| 43 Al 08 | 812-202 | Int. | 110 | 12 | 14 | 21/2/ | 218 | 2 | 5.95 | 5.36 |
| 43 Al 109 | 812-203 | Constant | 220 | $1{ }^{16}$ | 11 | 215 | $2{ }^{1}$ | 2 | 6.35 | 5.72 |
| 43A110 | 821-101 | Constant | 110 | 11 | 13 | $2 \%$ |  | 2 H | 8.36 | 7.53 |
| $43 \mathrm{Al11}$ | 821-102 | Int. | 110 | 11/6 | 20 | $27 \%$ | 2\% | 2 | 7.40 | 6.66 |
| 43A112 | 821-103 | Constant | 220 | 11/\% | 20 | $27 / 1$ | $23 / 6$ | 2 | 9.33 | 8.40 |
| 43 A113 | 860-101 | Constant | 110 | 1 | 1.25 | 1\% | $1 \frac{1}{17}$ | $1{ }^{1}$ | 3.00 | 2.70 |
| 43 Al14 | 860-102 | Int | 110 | $1 / 8$ | 2.25 | 1\%\% | $1{ }^{1 / 2}$ | $1{ }^{16}$ | 3.00 | 2.70 |
| $\begin{array}{r} 43 \text { A115 } \\ 43 \text { A116 } \\ \hline \end{array}$ | $2 \mathrm{~J}-12270110$ Volt Solenoid-Switch $25 \mathrm{amp} .125 / 250 \mathrm{~V}$. AC $2 \mathrm{~K}-12270220$ Volt Solenoid-Switch 25 amp . $125 / 250 \mathrm{~V}$. AC. |  |  |  |  |  |  |  | 5.30 5.48 | 4.83 4.93 |



860
Types 801-821 and 812 are heovy duty solenoids of superior quality for operoting valves, clutches, switches, metering devices, shutters and dompers, interlocks and mechonical controls of mony types. Features highly efficient "double T" plunger deslan moisture proof coil molded in Epoxy plastic, convenient screw terminals. There is a wide range of sizes for 110 and 220 V AC operation, further application data available on request.
Type 860 . Compoct unit where big power in a small size is required. Operotes quietly in ony position.
Type 12270. Solenoid operoted DPST switch roted 25 amps for heavy-duty contral applications. Choice of 110 or 220 V . AC solenoid.

# Mallory And Centralab Switches 


SINGLE-GANG
3100J \& 3200J SERIES
Compact switches having wide application including use in oll electranic equipment. Rating 500 V . break-
down: mox. current .125 amp 300 V , DC 3 amp @ 6 V . DC. Hove $2^{\prime \prime}$ notched shafts, silver contacts, $3 /{ }^{\prime \prime}$ " dia. $x, 3 / 8$ " long brass threoded bushing. Bar knot and mounting hardwore included. See Below for Plates.

| Specity B-A |  | Stock | 124366 | d | No. | 促 | ( |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shorting Type | NonShorting Type | Poles | Positions | Bast Dia. | $\begin{aligned} & \text { Each } \\ & 1-4 \end{aligned}$ | $\begin{aligned} & \text { Each } \\ & 5 \rightarrow 9 \end{aligned}$ | $\begin{aligned} & \text { Each } \\ & 10-24 \end{aligned}$ | $\begin{aligned} & \text { Each } \\ & 25-49 \end{aligned}$ |
| 3115 J | 3215 J | 1 | 5 | 11/4* | \$ 993 | \$0.84 | \$0.76 | \$0.72 |
| 31112 J | 32112 J | 1 | 12 | 11/4* | . 99 | . 84 | . 76 | . 72 |
| 3122 J | 3222 J | 2 | 2 | 11/" | . 99 | . 84 | . 76 | . 72 |
| 3123 J | 3223 J | 2 | 3 | 13. | . 99 | . 84 | . 76 | . 72 |
| $3126 . J$ | 3226 J | 2 | 6 | 11/4 | . 99 | . 84 | . 76 | . 72 |
| 3134 J | 3234 J | 3 | 4 | 114* | 1.02 | . 87 | . 78 | . 74 |
| 3142 J | 3242 J | 4 | 2 | 14* | 1.02 | . 87 | . 78 | . 74 |
| 3143 J | 3243 J | 4 | 3 | 119* | 1.02 | . 87 | . 78 | . 74 |
| 31117 J | 32117 J | 1 | 17* | 14" | 1.52 | 1.29 | 1.16 | 1.10 |
| 3129.5 | 3229 J | 2 | 9* | 1400 | 1.52 | 1.29 | 1.16 | 1.10 |
| 3136J | 3236 J | 3 | $6^{*}$ | 1\%" | 1.63 | 1.38 | 1.24 | 1.18 |
| 3163 J | 326.3J | 6 | 3* | 130 | 1.63 | 1.38 | 1.24 | 1.18 |

## MULTI-GANG 1300L SERIES



11/4" Mounting Rodius. 1 fixed and 1 adjustable stop, silver piated contacts, solid silver rotor contoct slugs and special alloy springs. $2^{\prime \prime \prime}$ notched shafts. gang which have $I^{\prime \prime}$ spacing. Rating $1000 . V^{\circ}$ omp @ $6 V$. DC. Bar knob, mig. hardware included. Uses $11 / 4^{\prime \prime}$ Base-Plates. All switches are non-shorting.


## CERAMIC SECTION 170C \& 160C SERIES



Rotary, non-shorting, odjustoble stops $30^{\circ}$ indexing, 2 gong $1 /{ }^{\prime \prime}$. spacing; 3 gang i'. "Indi-
cates extra position (Off). Max. breaking current, resistive lood, 5 A . @ 300 V . AC-DC. Non-
breoking 10 A. Hamband non-shorting continuous rotation, $90^{\circ}$ index. 2 gang $17 / 800^{\circ}$ spacing.
all others $1 "$. Rated 100 watts @ $180 \mathrm{~V}^{2}$.


## MINIATURE PUSH-BUTTON

Use in test panals, meter circuits and labs or any
applicatlon requiring a momentary contact switch of this type. Mounts in a single hole ", $7^{70}$ dia. on panels min. (1011) and $3 / 4^{1 / 2}$ max. (10i6). 500 V . OC Complete with mtg . hardware.
Specify B-A Stock No. 12 C538 and Type When Ordering

| Type | Action | 1-4 | 5-9 | 10-24 | 25-49 | Yype | Action | 1-4 | 5-9 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SP | \$ . 67 | . 57 | 5 . 51 | \$ . 48 | 1014 |  | 5.84 | \$ . 72 | \$ . 65 |  |
| 1012 | SPST, N.C. |  | . 57 |  |  | 1015 |  |  |  |  |  |
|  | SPDT |  |  |  |  |  | DP |  |  |  |  |

## SWITCH DIAL PLATES

Aluminum figures efched on black background. $118^{\circ}$ OD with ${ }^{7}{ }^{\circ}$ hole. Al are for $11 / 4^{\prime \prime}$ base switches with $30^{\circ}$ syacing, ex
ore for $11 / 16^{\prime \prime}$ base switches with $20^{\circ}$ spocing.

Specify B-A No. 12C541 and Type When Ordering

| Type | Marked | Type | Marked | Typo | Marked | Type | Marked | Type | Markod |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 372 | 1 to 2 | 377 | 1 to 7 | 382 | 1 to 12 | 387 | Off 1 to ? | 458* | 1 to 6 |
| 373 | 1 to 3 | 378 | 1 10 8 | 388 | Off 1 to | 388 | Off 1 Lo 8 | 459** | 110 |
| 374 | 1 to 4 | 379 | 1 to 9 | 388 | Off 1 to | 389 | Off 1 to 9 | $467^{*}$ | 1 Lo |
| 375 376 | 1 1 1 to c | 380 381 | $\begin{array}{lll}1 & 20 & 10 \\ 1 & \text { to } 11\end{array}$ | 38.8 386 | Off 1 to | 453** | Oto 3 | hoice | Each |

## CENTRALAB UNIVERSAL ROTARY

Use as SPST, SPDT, DPST, DPDT, 3PST, 3PDT, 4PST, 4PDT. Non-shorting type $5 / 8^{\prime \prime}$ deep, $\left\langle 1 / 4^{\prime \prime}\right.$ shaft. With bat knob. CRL type 1450.
No. 12A533. Your Cost, Each

## CENTRALAB SWITCHES MINIATURE STEATITE <br> PA2000 SERIES

Small and compoct-only $7 / 8^{\prime \prime} \mathrm{mtg}$. radius required! Silver plated spring bross clips and contacts; adjustable stop; $30^{\circ}$ indexing; $1^{\prime \prime}$ spacing between sectlons; $17 / 8^{\prime \prime}$.
shatt. Includes $1 / 4^{\circ}$ bar knob and mounting hardwore. All are non-starting lbreak before moket, except those marked with on osterisk signifying "shorting". Roting-excellent RF characteristics, low inter-capacity. Rated 2 amp of 15 VDC: 150 milliamps of 110 VAC

Specify B-A Stock No. 12 C 481 and Type When Ordering

| Type | Gg. | Pole | Pos. | 1-4 | 5-9 | $\begin{aligned} & 10- \\ & 24 \end{aligned}$ | $\begin{gathered} 25- \\ 49 \end{gathered}$ | Type | Gg. | Pole | Pos. | 1-4 | 5-9 | $\begin{aligned} & 10- \\ & 24 \end{aligned}$ | $\begin{aligned} & 25- \\ & 49 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| *2000 | 1 | 1 | 12 | \$2.32 | \$1.98 | \$1.78 | \$1.69 | 2019 | 1 | 6 | 2 | \$2.32 | \$1.98 | \$1.78 | \$1.69 |
| 2001 | 1 | 1 | 12 | 2.32 | 1.98 | 1.78 | 1.69 | 2021 | 2 | 6 | 5 | 3.32 | 2.83 | 2.55 | 2.42 |
| - 2002 | 1 | 2 | 6 | 2.32 | 1.98 | 1.78 | 1.69 | * 2022 | 3 | 6 | 6 | 4.23 | 3.60 | 3.24 | 3.08 |
| 2003 | 1 | 2 | 6 | 2.32 | 1.98 | 1.78 | 1.69 | 2023 | 3 | 6 | 6 | 4.23 | 3.60 | 3.24 | 3.08 |
| *2004 | 2 | 2 | 12 | 3.32 | 2.83 | 2.55 | 2.42 | 2025 | 6 | 6 | 12 | 7.06 | 6.00 | 5.40 | 5.13 |
| 2005 | 2 | 2 | 12 | 3.32 | 2.83 | 2.55 | 2.42 | 2027 | 4 | 8 | 6 | 5.09 | 4.33 | 3.90 | 3.71 |
| *2006 | 1 | 3 | 5 | 2.32 | 1.98 | 1.78 | 1.69 | 2029 | 3 | 9 | 5 | 4.23 | 3.60 | 3.24 | 3.08 |
| 2007 | 1 | 3 | 5 | 2.32 | 1.98 | 1.78 | 1.69 | 2031 | 2 | 10 | 3 | 3.32 | 2.83 | 2.55 | 2.42 |
| *2008 | 3 | 3 | 12 | 4.23 | 3.60 | 3.24 | 3.08 | 2033 | 5 | 2 | 6 | 6.09 | 5.18 | 4.66 | 4.43 |
| 2009 | 3 | 3 | 12 | 4.23 | 3.60 | 3.24 | 3.08 | 20:35 | 2 | 12 | 2 | 3.32 | 2.83 | 2.55 | 2.42 |
| - 2010 | 2 | 4 | 6 | 3.32 | 2.83 | 2.55 | 2.42 | 2037 | 6 | 2 | 6 | 7.06 | 6.00 | 5.40 | 5.13 |
| 2011 | 2 | 4 | 6 | 3.32 | 2.83 | 2.55 | 2.42 | 2039 | 3 | 15 | 3 | 4.59 | 3.90 | 3.51 | 3.33 |
| 2013 | 4 | 4 | 12 | 5.09 | 4.33 | 3.90 | 3.71 | 2041 | 3 | 18 | 2 | 4.59 | 3.90 | 3.51 | 3.33 |
| *2014 | 1 | 5 | 3 | 2.32 | 1.98 | 1.78 | 1.69 | * 2042 | , | 1 | 10 | 2.12 | 1.80 | 1.62 | 1.54 |
| 2015 |  | 5 | 3 | 2.32 | 1.98 | 1.78 | 1.69 | 2043 | 1 | 1 | 6 | 2.12 | 1.80 | 1.62 | 1.54 |
| 2017 | 5 | 5 | 12 | 6.09 | 5.18 | 4.66 | 4.43 | 2045 | 2 | 2 | 6 | 2.97 | 2.53 | 2.28 | 2.17 |

## MINIATURE PHENOLIC PA1000 SERIES

military phenolic-insulated switches that meet rigorous commercial or capacitance and low contact resistance. Ideal for limited spoce applica tons. $30^{\circ}$ indexing, adjustable stop $11 / 2 \times 1 \frac{6}{16}$."dia. Shaft $21 / 4^{\prime \prime}$ long. 2 omps@15V.DC. $150 \mathrm{MA} @ 110 \mathrm{~V}$ @ AC. Withstand 25 hour salt sproy test. With knob, nut, lockwosher. Wt. 3 oz.
Specify B-A Stock No. $12 A 755$ ond Type When Ordering.
Odd NumSered Switches are Non-Shorting-Even Numbers ore Shorting Type


## SMALL GENERAL PURPOSE PHENOLIC SWITCHES

High quality laminated phenolic. Voltage breakdown 1000
 amps @ 110 V . AC (Make and break, resistlve load.) Mis. in single hole. Bushing $3 / 8{ }^{\prime \prime}-32$ thread, $3 / 8 "$ long. With mtg . nut and lock washer.

Specify B-A Stk. No. 12 A568 ond Type When Ordering.
Type 1460: l pole, 2 position, shorting. Positive index. SPST or SPDT for phono-radio, tone or sensitivity control
Type 1461: 1 pale, 3 position, shorting. Positive index. Use as minioture band change, steptype tone or sensitivity control, and P.A. chonnel selector. Yype 1462: 2 pole, 2 position, shorting. Positive index. Use as SPST, lines on phono-radio control. Type 1463 : 1 pole, 2 position, non-shorting, spring return index. For
Type $1464: 2$ pole, 2 pasition. non-shorting. Spring return index. Use as neter switch and momentary line or remote speaker return on intercoms. 1-4, Eoch.. \$1.08 5-9, Each..90c 10-24, Each.. B1c 25-49, Eoch. 76 c LEVER ACTION PHENOLIC SWITCHES Spoce saving lever switches have many uses: With multiple groups on special plates (listed below), are particularly adaptoble to intercoms, PA systems, test instruments, broadcast antenno interchange speaker selection, etc. All
ing holes on $15 / 8^{\prime \prime}$ centers in switch front plate. Rating 2 amp @ 15 V $D C: 150$ milliamps of 110 V . AC (make and break, resistive load). $30^{\circ}$ indexing. Complete with screws and biock knob.

Specify B-A Stk. No. 124720 and Type When Ordering.

| Shorting | NonShorting | Potes | Posit. | Indexing | 1-4 | 5-9 | 10-24 | 25-48 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1452 | 1454 | 2 | 3 | Positive | \$1.24 | \$1.05 | \$ .95 | \$. 90 |
| 1453 | 1455 | 2 | 3 | Sprisg lieturn | 1.24 | 1.05 | . 95 | . 90 |
| 1466 | 1467 | 2 | 3 | Posit. © Sp. Return | 1.24 | 1.05 | . 95 | . 90 |
| 1456 | 1457 | 4 | 2 | Spring Return | 1.41 | 1.20 | 1.08 | 1.03 |
| 1459 | 1458 |  | 2 | Poxitive | 1.41 | 1.20 | 1.08 | 1.03 |
|  | *1475 | 1 | 3 | Positive | 1.24 | 1.05 | . 95 | . 90 |

*Primarily replacement part for the ganged switches in tube testers and equip.
LEVER SWITCH MOUNTING PLATES
Sperify B-A Stk. No. 124722 and Type When Ordering
First column indicates quantity of switches to be ganged

| Gang | Type | Size | Gang | Tуро | Size | Your Choice Each |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | P1755 | 295\% ${ }^{2}$ | 4 | P1758 | $25 / 6 \times 3$ | 1-4 | 5-9 | 10-24 | 24-49 |
| 2 | P1756 |  | 5 | P1759 | $25 \% 3 \times{ }^{\prime \prime}$ | 29c | 25c | 23c | 22c |
| 3 | P1757 | 24/1821/4" |  |  |  |  |  |  |  |

# Switches 

## CARLING TOGGLE SWITCHES


(1) AC-DC TOGGLE SWITCHES
" bot type toggle switch with $13^{\prime \prime}$ stem length. Dia. $11^{\prime \prime} \times 32$ thread.

| Stock No. | Mifg. Type | Astion | 125 A. | $250 \mathrm{~V} \text {. }$ | $\begin{aligned} & 1-9 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & \text { 10-99 } \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 100 \text { Up } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A647 | 110-73 | SPST | 6 | 3 | \$ . 43 | \$ . 39 | \$ . 32 |
| 12A648 | 112-73 | SPDT | 3 | 1 | . 51 | . 46 | . 38 |
| 12 A649 | 216-73 | DPST | 3 | 1 | . 70 | . 63 | . 52 |
| 12A650 | 316-73 | DPDT | 3 | 1 | . 78 | . 70 | . 58 |
| 12B402 | 111-16-73* | SPST | 6 | 3 | . 46 | . 41 | . 34 |
| 12A403 | 111-16-22* | SPST | 6 | 3 | . 48 | . 43 | . 36 |

(2) HEAVY DUTY AC TOGGLE SWITCHES 11" bat handle toggle switch. Metal covered bakelite bose. Stem $3 f^{\prime \prime}$ lang, dio. ${ }^{46 "} \times 32$ thread " $6-32$ binder head screw terminals, oll others, hove
 Neoprene seol. Fione side momentorily
momentorily on. Center off. UL opproved.

| 12A651 | 2FA53-73 | SPST | 15 | 10 | . 48 | . 43 | . 36 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 A652 |  | SPST | 15 | 10 | . 64 | . 54 | . 48 |
| 12 A 553 | 2FB53-73 | SPDT | 15 | 10 | . 54 | . 49 | . 40 |
| $12 \mathrm{A654}$ | 2 FC 53.73 | SPDT** | 15 | 10 | . 54 | . 49 | . 40 |
| 12 A655 | $2 \mathrm{CK} 53-73$ | DPST | 15 | 10 | . 70 | . 66 | . 54 |
| ${ }^{12 A 6566}$ | ${ }^{2 \mathrm{CK} 54-62-\mathrm{Neo}}{ }^{+} \dagger$ |  | 15 | 10 | . 98 |  | . 76 |
| 12 A657 | $2 \mathrm{CLLS3}-73$ | DPDT | 15 | 10 | . 86 | . 77 | . 64 |
| ${ }^{12 A B 58}$ | 2GM53-73 | ${ }^{\text {DPDT*** }}$ | ${ }^{15}$ | 10 | . 86 | . 77 | . 64 |
| 12A659 | 6FB53-73 | DPDT | 15 | 10 | . 68 | . 61 | . 50 |
| 12 A660 |  | SPDT5 | 15 | 10 | . 78 | . 71 | 58 |

(3) HEAVY DUTY PLASTIC-TOGGLE AC SWITCHES

Miniature in size: toggle $1 /{ }^{\prime \prime}$ long $\times 1 / 4^{\prime \prime}$ dio., stem $1 / 4^{\prime \prime}$ long, $11^{\prime \prime}-32$ threaded stem. Requires only $1 / 2^{\prime \prime}$ behind panels. Rated 15 amps at 125 V . and Available with Red, Black, Brown or White toggle. Specify both Stock No. and Color when ordering.

| 12A663 | AA252 | SPST | 15 | $71 / 2$ | .48 | .44 | .36 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 12A679 | AB252 | SPDT | 15 | $71 / 2$ | .54 | .49 | .40 |
| 12A680 | AC252 | SPDT* | 15 | $71 / 2$ | .57 | .51 | .42 |

12 A680 AC252
(4) HI-POWER TOGGLE SWITCH

16" dia. stem, $3 / 8^{\prime \prime}$ long 32 threads, $13^{\prime \prime}$ long bot hondle. Bakelite base. | $12 A 794$ | 600 C | 8PST | 20 | 10 | 10 | .70 | .63 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | (3) HEAVY DUTY AC-DC TOGGLE SWITCHES

$1 f^{\prime \prime}$ toggle length, $\}^{\prime \prime}$ stem length- 32 thread. SCrew terminal 12A661 2DK25-73 DPST 12

15 \begin{tabular}{c|c}
6 \& .89 <br>
10 \& 1.49 <br>
\hline

 

.80 \& .66 <br>
1.34 \& 1.10 <br>
\hline
\end{tabular}

## (1) EAGLE FLUSH MOUNT



Momentory push button switch norlights, buzzers, etc. Has heavy type deep pearl button with a nickel plated outer ring. Will not stick or mounts in $5 / 6^{\prime \prime}$ dia. hole. Perfect for mounting on metal boxes, chossis, efc. Depth of shan
\# 188 . Wt. $1 / 3 \mathrm{oz}$.



| $\mid 1$ to 9 | 10 to 99 | 100 Up |
| :---: | :---: | :---: |
| \|Fach $\ldots .35 \mid$ | .30 | .28 |

## (2) EAGLE DOOR SWITCHES

 Use anywhere it is required that theopening or closing of a door turn on a light or sound on alarm, buzzer, bell, etc. Type $\# 174$-bell rings or

light goes on while door is OPEN: \#175, while door is CLOSED; \#176, \#175, while door is CLOSED; \# I76, | Stk. No. | Type | Circult | $1-9$ | $10-99$ |
| :---: | :---: | :---: | :---: | :---: |
| $12 A 752$ | 174 | Closed | .65 | .61 |
| $12 A 753$ | 175 | Open | .65 | .61 |
| $12 A 754$ | 176 | Make \& Break | .65 | .61 | ating force. 1品" dia. $x$ P" " long

## SLIDE SWITCHES

 No. Type, Size, Each 10 Ea. $12 A 550$ SPST । $\times 15 / 8^{\prime \prime}, 20 \mathrm{c} 16 \mathrm{c}$ $12 A 551$ SPDT $125 / 8^{\prime \prime}, 25 \mathrm{C} 19 \mathrm{C}$
$12 A 552$ DPST $112 \times 13 / 4,31 \mathrm{C} 28 \mathrm{C}$

## Acro "D" Momentary P. B. Nut Switches

S. P. precision switches using Acro rolling spring double-break principle. Ideal for DC loods! U. L. approved for $12 \mathrm{~A} / 125 \mathrm{~V}$ 6 A. $/ 250 \mathrm{~V}$. or $1 / 2 \mathrm{H.P}$., Bakelite plunger requires 10 az . oper No. 124812 . Type $3005-5 P-N . O$ Ea... $\$ 1.7510$, Ea... S1.58
No. 124813 . Type $30 C 5-5 P-N . C$ EO.. $\$ 1.75$ 10, Ea.. S 1.58 REAR SEAT SPEAKER SWITCH KIT


Complete assembly for switching between dual speokers such as auta rear seat and front seat speakers; TV, radio, PA re-
mate speaker installations; etc. Permits operation of either mate speaker installations; etc. Permits operation of either
speaker separately or both together. Kit comes complete with SP-3 Pos. Switch, brocket, dial, knob and hardware. No. 12A414. Centralab PK-300. EACH
No. 12A414. Centralab PK-300. EACH. . ... Each.
No. 12B583. Switch Only, Centralab 1483 . Net Each. 88c No. 148874. Wired Fader Control Kit. For intermixing front and rear speakers. Net Each.

ARROW-HART \& HEGEMAN SWITCHES

(1)

(3)

(4)
(3) BAT TOGGLE SWITCHES

Underwriters Approved: Far radia sets, small motors, lomps, meters, etc. Rated at 3-amp., 125-volt; 1-amp., 250valt. Laminated bakelite or fibre in-
sulation. Solder lug connections. sulation. Solder lug connection
stem length, $\$ 1^{\prime \prime} \times 32$ thread.

## (1) BALL HANDLE

| (1) BALL HANDLE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | Mifg. No. | Type | Each | $\left\|\begin{array}{c} 10-98 \\ \text { Each } \end{array}\right\|$ | $\& \begin{gathered} 100 \\ \& \quad U p \end{gathered}$ |
| 12 A 770 | 20994BF | SPST $\dagger$ | . 52 | 43 | . 36 |
| 12A586* | 21615BD | SPST $\dagger$ | . 68 | . 55 | . 46 |
| 12 A 772 | 21350-B | SPDT | . 68 | . 55 | . 46 |
| 12 A 774 | 20902AM | DPST | 96 | . 79 | . 66 |
| 12A776 | 20905Z | DPDT | 1.10 | . 81 | . 75 |
| \#Shank I-in. long. <br> †SPST rated 3 A $250 \vee$ AC-DC. |  |  |  |  |  |
| (8) BAT HANDLE |  |  |  |  |  |
| 12 A771 | 20994 NV | \|SPST $\dagger$ | . 54 | . 43 | . 36 |
| 12 A773 | 21350CF | SPDT | . 68 | . 55 | . 46 |
| 12A775 | 20902AJ | DPST | 96 | . 79 | . 66 |
| 12 A777 | 20905AN | DPDT | 1.10 | . 91 | . 75 |

## (3) MINIATURE HI-POWER

HGH TOGGLE SWITCHES
Rated 10 amps at 250 V . AC; 15 amps at 125 V . $A C$; $3 / 4 \mathrm{HP} 115-230$
V . AC. Solder-type terminals. Small overall size. Bakelite case $11 / 8^{\prime \prime}$ "long,
$5 / 8^{\prime \prime}$ wide, ${ }^{\prime \prime \prime}{ }^{\prime \prime}$ high. Shank $11^{\prime \prime}$ dio.,


| Stock No. | Mig. No. | Type | $\begin{gathered} 1-9 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 10-99 \\ & \text { Each } \end{aligned}$ | ${ }_{8}^{100}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12 A1640 | 82601 | SPST | . 52 | . 43 | . 36 |
| 12A1641 | 82603 | *SPDT | . 60 | . 49 | . 41 |
| 12A1668 | 82605 | SPDT | . 60 | . 49 | . 41 |
| 12A1666 | 82607 | DPST | . 81 | . 67 | . 56 |
| 12A1667 | 82609 | *DPDT | . 96 | . 79 | . 66 |

3A. 250V. AC - 6A. 125 V. AC
UL opproved. $1 / 6 \mathrm{HP}$ 120-240 V. AC. Soider term., bokelite case $11 / 8^{\prime \prime}$ L. $5 / 8^{\prime \prime} \mathrm{W}, 13^{\prime \prime} \mathrm{H}$, shank if" dia. $1 / 2 \mathrm{~L}$. Bot hondle. Complete with nuts. F . C ter off.

| Stock No. | Mig. No. | Type | Each | $\begin{aligned} & 1099 \\ & \text { Each } \end{aligned}$ | $100$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12 A645 | 83001 | SPST | . 45 | . 38 | 31 |
| 12 A646 | 83004 | *SPDT | . 49 | . 41 | . 34 |
| 12 A 757 | 83007 | SPDT | . 49 | . 41 | . 34 |
| 12 A 758 | 83025 | DPST | . 66 | . 55 | . 45 |
| 12 A 759 | 83028 | *DPDT | . 73 | . 61 | . 51 |
| (4) EXTRA HEAVY DUTY TOGGLE SWITCH |  |  |  |  |  | For heovy current circuits such os transmitters, ampllfiers, motors, etc. "Fast-break" type contacts. Roted 10 amps of 125 volts. Size, $2^{\prime \prime}$ long, shonk. | 12A780 \| 80638 |DPDT | $\$ 3.70\|\$ 3.06\| \$ 2.55$ |
| :--- |

## HI-POWER SWITCHES

For motars, oppliances, etc. Roted 12 amps of 125 volts; 6 omps at 250 Shank the" dia., 年" long (toggle), If" long (push button). UL approved.

| $12 B 582$ | 80607 | SPST | 1.01 | .83 |
| :--- | :--- | :--- | :--- | :--- | | $12 B 582$ | 80607 | SPST | 1.01 | .83 | .69 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $12 A 779$ | 80600 | DPST | 1.01 | .83 | .69 |

PUSH-BUTTON-Momentary N.O.


## ARROW-HART \& HEGEMAN SWITCHES


(B)

(7)

(8)

(a)

PUSH-BUTTON SWITCHES TWO-CIRCUIT MOMENTARY

O Laminoted construction. Reverses circuit when pushed. Slow make-break contacts. Rated 1 amp, at 125 V. AC. Bushing ${ }^{\frac{15}{\prime \prime} \text { dio. }{ }^{\text {T8 }} \text { " long. Solder }}$ lugs. With $5 / 8^{\prime \prime}$ dio. concave snop-on \begin{tabular}{l|l|l|l|l|}
\hline Stk. No. \& H\&:H Type \& $1-8$ \& $10-99$ \& 100 Up

 

\hline 12A723 \& $\begin{array}{l}3392 A-R e d ~ \\
3392 A-B l a c k ~\end{array}$ \& .90 \& .75 \& .62 <br>
12A724 \& .90 \& .75 \& .62 <br>
\hline
\end{tabular}

(7) SINGLE POLEMOMENTARY
Molded bokelite. Roted- 3 A. 120 use in any application where o momentary opening or closing of a
circuit is required. Base is $18^{\prime \prime}$ long $x 3^{\prime \prime}$ depth behind panel. Mtg. shonk $1^{\prime \prime}$ " $\mathrm{L} \times 1 \mathrm{y}^{\prime \prime}$ dio., metal button
$11^{\prime \prime}$ dla. Solder lugs. "Hos block phenolic snap-on is normally closed, button. N. C. is normally closed,

N . O. is normally open. Stk. No. 1 Had Type | 1-9 |10-99|100up | Stk. | No. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 12A897 | 80511 E-N.O. | .39 | .34 | .29 |
| $12 A 898$ | $80511-N . C$. | .39 | .34 | .29 |
| 12A746 | *80541-N.C. | .74 | .61 | .51 |
| 12A747 | †80541R-N.C. | .74 | .61 | .51 |
| 12A749 | \&80541E-N.O. | .74 | .61 | .51 |
| 12A750 | +80541ER-N.O. | .74 | .61 | .51 |

Turns on with key. SPST. 3 amps at Turns on with key. SPST. 3 amps at
250 V ., 6 amps of 125 V . Single hole $250 V_{\text {st }} 6$ amps of $125 V$. Single hoie mtg. Stem lith A" ", dia. 18" Solder $\mathrm{lug}_{\mathrm{key}}$.

| Stu. No. |  | 1-9 | 10. | $100 \mathrm{U}_{0}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 1.18 | 95 |  |
| 128577 | Ex. Key | . 16 | 15 | . 14 |

## (8) 3-POSITION SWITCHES

U/L Approved; Dimenslons behind ponel only $11 / 2^{\prime \prime}$ long, $5 /$ B $^{\prime \prime}$, wide, and
 amps ot 125 amps at at AC or DC ( 6 amps ot 125 volts. AC or DC. 6.

solder lug contacts. DPDT-Center-Off. *With Ball Handle. D With Bat. | 12 A5888 | $82024^{\circ}$ | 1.58 | 1.30 | 1.09 |
| :--- | :--- | :--- | :--- | :--- |


TOGGLE SWITCH

## PLATES

(A) For (A) OF (B) No. 12A785. Ea. . 3 C 10 For. $20{ }^{\circ}$ (B) For toggle switches. Etched markings, polkground $1 / 8^{\prime \prime}$ dia, " hole.
No. I7A1013. Off-On. Each. . . 39 C
10 Lots, Each. . . . . ........... 360

## Switches And Switch Timers

## GRAYHILL SWITCHES

Bemen


Momentary, SPST, push button. Rated 10 amps, 115 V , AC, resistive. Life approx. 50,000 operations. $13^{\prime \prime}-32$ threaded bushing. $7 / 8^{\prime \prime} 0$ O. D. I If " overall length including solder type terminols.
124689. \# 2201 . N.O. Red. I-49, Ea.

12A690. \#2202. N.C. Black. i-49, Ea
$\begin{array}{cc}\$ 1.85 & 50-99, E \mathrm{Ea} . \\ \$ 1.85 & 50-99, \mathrm{Ea} .\end{array}$
$\$ 1.39$
silent action, normally open, momentary DPST push button switch. Roted 1/2 amp 115 V . AC, resistive. Life over 100,000 aperations. Button and 12A685. Type $35-1$. Red. 1-49, Ea... 1 . $\$ 1.20$ 50-99, Ea.........90c silent oction, momentary, normally open SPST roted $1 / 4$ amps, 115 V . AC, resistive. Life $1 / 2$ million aperations. Button and housing molded phenolic. fre 32 threaded bushing, $1 / 2^{\prime \prime}$ O.D., $18{ }^{\prime \prime}$ overalt length including solder 124691. Type 23-1. Red. 1-49, Eo...... 85c 50-99, Ea. (1) ULTRA-MINIATURE SWITCH

Silent action. momentary, normally open, SPST push button switch. Rated $1 / 10$ amps, 15 AC resistive, Lite ${ }^{\prime}$, miwion operations. Button and base
 12B670. Til SILENT ACTION SWITCH
Momentary, SPST, push button. Rated $1 / 2 \mathrm{amp}, 115 \mathrm{~V}$. AC, resistive for 800,000 operations, or 1 omp for 100,000 operations. Il-32 threaded bushing. $\$ 1^{\prime \prime} \mathrm{O} . \mathrm{D}$. ${ }^{11 h^{\prime \prime}}$ overall length including solder type terminals.
12A687. \#4001. N.O. Red. 1-49, Ea....... 70c 50-99, Eo.
53 c
 For use wherever switches ond indicator lights are used to ent lamp and switch cincuits. Silent action SPST, momentary normally open. Life 500,000 operations at 1 amp 115 V AC' resistlve. Clear button ith NE-2E neon tomp. If" mtg . hole required. Solder terminals. Overall length including terminal 1.84 .
-49, EO.
() SUB-MINIATURE SWITCH
$\$ 1.50$ Silent action, momentary SPST push button. Rated @ $1 / 10$ omp, 115 V . $A C$, resistive. Life $1 / 2$ miltion operations. Button and housing molded phenolic. $1 / 4-32$ threaded bushing, $3 / 8^{\prime \prime}$ O.D., $8 i^{\prime \prime}$ overall tength including solder terminals.
12A683. \#30-1. N.O. Red. 1-49, Ea.
$\begin{array}{ll}95 \mathrm{c} & 50-99, \text { Ea. } \\ 95 \mathrm{c} & \text { 50-99, Ea }\end{array}$
-95c 50-99, Eo.
$72 c$
$72 c$
-2. N.C. Block. ${ }^{\text {BUTHON GUARD }}$
DECORATIVE
 For use with series 2000, For MOUNTING NUT $4000,35-1$, and $30-16$. For use with series 2000 , for buttons. Brass cod. custom finishing. i\$-32
 plated. Fits if" 32 thread.
No. i2A686. Type 10C- No. 12B669. Type 7C1040.
10is. Each......25c Each .............. 15 c

## SWITCHCRAFT LEV-R SWMTCMES

## (B)NEW MINIATURE PUSH-PULL SWITCH

Applications: On ooff for computors, dota processing equipment, printed circuit test panels. Con replace toggle switches, providing spoce and cost savings. SPST, normally open. Button travel . $41^{\prime \prime}$. Actuating force 2 $2 / 2-41 / 2$ lbs. Return force $11 / 4-3 \mathrm{bbs}$. Mtg. hole $1 / 2^{\prime \prime}$ dia. Rated 1 amp, $115^{2} \mathrm{~V}$ AC, resistive. $18^{\prime \prime}-32$ threaded bushing. Plunger-tap to bottom lug $1.492^{\prime \prime} \mathrm{L}$., length to bottom of lugs $1.497^{\prime \prime}$.
12B668. Type 30-16. 1-49 Each.
\$1.15 50-99 Each.
$86 c$


Compact lever-oction switches. Silver contocts rated
 tion itype, others are 2 position.

| Spring Stock No. | Return Type | $\begin{aligned} & \text { Locking } \\ & \text { Stock No. Type } \end{aligned}$ |  | Action | 1 to 48 Each | $\begin{aligned} & 50-89 \\ & \text { Each } \end{aligned}$ | $\underset{\text { Each }}{100 \text { Up }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 A 91 | 3003 | 12 A792 | 3003 L | SPDT | \$1.32 | \$1.13 | \$1.04 |
| 12 A 29 | 3000 | 12 A 35 | 3006 L . | DPDT | 1.62 | 1.38 | 1.24 |
| 12 A793 | *3033 | 12 A795 | *3033L | SPDT. NO | 1.47 | 1.25 | 1.13 |
| 12 A 796 | *3036 | 12 A797 | *3036L | DP 2-Ckt. | 1.71 | 1.45 | 1.31 |
| 12A431 | *3037 | 12A437 | *3037L | DPDT, NO | 1.73 | 1.48 | 1.33 |

12A439. it to 49, Ea... S1.73; 50-99, Eo...S1.48;100 Up, Ea... $\$ 1.33$


Telephone typ
elephone type Lever Switch. Requires single mounting hole " $1 / a^{\text {" }}$ " thick. Depth behind ponel 3 , " Silver contacts, paper bose phenolic insulation. 3 amps, 120 volts DC. $\$ 3$ position.

| Spring | Roturn |
| :---: | :---: |
| Stock No. | Type |
| $12 A 761$ | 16006 |
| 12A763 | 16036 |


| Locking |  |
| :--- | :---: |
| Slock No. | Type |
| $12 A 762$ | 16006 L |
| 12A769 | 16036 L |


$|$| Action |
| :---: |
| DPDT |
| SPDT |


$|$| 1 to 49 | $60-99$ | $100 U_{p}$ |
| :---: | :---: | :---: |
| Each | Each <br> Each |  |
| $\$ 2.94$ | $\$ 2.50$ | $\$ 2.25$ |
| 2.94 | 2.50 | 2.25 |



AFT BUTTON SWITCHES
Momentary type. Ideal for use where space is limited. 200 115 volts DC. Series 900 , provides behind panel mounting in 11" ${ }^{\text {A }}{ }^{8}$ hole 250 mits, non-inductive lood, AC Type 951 Tiny Swith similar to 200 Series, but mounts in $1 / 4^{\prime \prime}$ dia. hole. "Block Button. 'tred Button.

| Flg. | Stock No. | Type | Action | 1-49 Ea. | 50-99 Ea | $100 \mathrm{Up,Ea}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (A) | 12A798 | * 201 | SP8T-NO | 53 c | 44 c | 41 c |
| (A) | 12 A 787 | *202 | SPST-NC | 53 c | 44 c | 41 c |
| (A) | 12 A788 | *203 | SPDT | 59 c | 49 c | 45 c |
| (B) | 12 A 89 | $\pm 903$ | SPDT | 88 c | 75 c | 686 |
| (B) | 124790 | -913 | 8PIDT | 88 c | 75 c | 68 c |
| (B) | 12A750 | t951 | SPST-NO | 53 c | 45 c | 41c |

INTERMATIC AUTOMATIC TINERS

"TIME-ALL"
MAKES ANY APPLIANCE AUTOMATIC!
Turns appliances, fans, lights, etc. Not only tells time, but also is a de"on" and "off" at ony selected time pendable autamatic timer for confrom 1 hour to 23 hours. Automatlc- trolling electric fans and heaters, TV ally repeats same "on" and "off" op- sets, lamps, radios, etc. Turns aperation daily without reset. Manual pliance on automatically for periods control switch allows temporary or permanent "on"-"off" independent of automatic switch if desired:
Requires no installotion-simply plug cord into receptocle on the TimeAll." Handles up to 1650 wotts. Gray plastic case only $5 \times 4 \times 2^{\prime \prime}$. Mounts on wall if desired. UL approved. Wt 3 lbs. Mfg. List $\$ 11.95$.
No. 37A315. Time-All
Model A211. Net Each
$\$ 7.97$

## INTERMATIC MODEL T101 UTILITY TIMER ALL-PURPOSE TIME SWITCH

FOR DEPENDABLE AUTOMATIC ON-OFF ELECTRIC CONTROL OF:

- APPLIANCES - LIGHTS - FANS
- MUSIC SYSTEMS - ETC.

HEAVY-DUTY
UP TO 35 AMPS
14375 WATTS
125 VOLTS AC


HANDLES EVERY TIME
NEED AROUND THE HOME OR BUSINESS


Automatic switch, powered by 115 V. 60 cy . AC synchronous clack, repeats timing cycle each 24 hours. Monual switch allows independent operation when desired. Comes with one set of odjustable on-off trippers; others easily added without removing dial, for up to 11 on-off operations per day. Minimum time between settings, hour $\dot{\text { tacts will handle in-rush currents up to } 8 \text { times normal rating. }}$
 $734^{\prime \prime} \mathrm{H}, \mathrm{S}^{\prime \prime}$ W. 3" D. For 115 V .60 cy . AC. Wt. 4 lbs.
No. 378350 . Mfg. List $\$ 11.95$. Net Each.

Type 107 T8A. Set of "On and Off" Trippers for Intermatic switches. 28
No. 37A321. Mfg. List 40c. Nef Per Set.

## LEVITON APPLIANCE SWITCHES


(1) SINGLE POLE ROTARY

For lamp and appliance repairs SPST switch. Rated 3-amp., 125-volt; 1-amp 250-volt. Hos "" shank, brown bakelite knob, 6 " wire leads.
No. $12 A 725$. No. 574 . Each...... 10 Lots, Each
No. 12A725. No. 574. Each . 3 POSiTION ROTARY
For 3 -light floor and desk lamps. Roted 3 amps of 125 volts. Bakelite cose ${ }^{\prime \prime}$ dia. by $7^{\prime \prime \prime}$ high. Shank $3 / 8^{\prime \prime}$ dio. by $3 / 8^{\prime \prime}$ long. Metol knob, $6^{\prime \prime}$ wire leads.
No. 128578 . No. 582 . Each..........43c 10 Lots, Each........ 36 c (B) SINGLE POLE PUSH-BUTTON

SPST. Rated 3 amp. at 125 volts. Bokelite case $j^{\prime \prime}$ long $\times 5 / 8^{\prime \prime}$ wide $\times 4 f^{\prime \prime}$ high. Shank, $3 / 6^{\prime \prime}$ dia. by " long. $6^{\prime \prime}$ wire leads. Plastic $s^{\prime \prime}$ " dia. push button.

(3) FLUORESCENT LAMAP STARTER SWITCH

15 40 W lamps. Eliminates storter from cicul Meos-
ures 1 " dia by $3 / 4$ " high. Shank $3 / 8 "$ dla. by ${ }^{\prime \prime} "$. $6^{\prime \prime}$ wire leads. Bakelite push button.
No. 12B58
No. 128580 . No. 382 . Eoct............
Available From K.C. Stock

## 3AG STANDARD FUSES LITTELFUSE SERIES 312000



Quick-acting general purpose fuses for UL Approved. Size $11 / 4^{\circ} \times 1 / 4^{\prime \prime}$

| Stock No. | Amps. <br> Rating | Box of 5 | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 12 A857 | 1/16 | 50.62 | \$10.50 |
| 12 A858 |  | . 62 | 10.50 |
| 124964 | 15/100 | . 62 | 10.50 |
| 124965 | . 175 | . 62 | 10.50 |
| 124963 | 3/16 | .62 | 10.50 |
| $12 A 1113$ |  | . 41 | 7.00 |
| 12A966 | $3 / 10$ | .41 | 7.00 |
| 124859 | 3/8 | .41 | 7.00 |
| 12A1114 | 1/2 | .41 | 7.00 |
| 12A1115 | 3/4 | .41 | 7.00 |
| 1241116 | 1 | .25 | 4.20 |
| $12 \mathrm{Al117}$ | $11 / 2$ | . 25 | 4.20 |
| 12 A1118 | 2 | .25 | 4.20 |
| 12A1120 | 3 | . 22 | 3.70 |
| 12 A 860 | 4 | .31 | 5.25 |
| [2A861 | 5 | .31 | 5.25 |
| +2A862 | 6 | . 31 | 5.25 |
| 124967 | 8 | . 44 | 7.50 |

Same size as 3 AG, Steotite enclosed, sharts. UL opproved for 250 volts $\begin{array}{llll}\text { shorts. } & \text { l2A968 } & 1 & \$ 0.53 \\ 124969 & 2 & \mathbf{5 9 . 0 0}\end{array}$ 124863 $12 A 815$
$12 A 816$ 124817


LOW VOLTAGE FUSES All the following are $1 / 4$
various lengths shown.


## 3AG PIGTAIL FUSES

 LITTELFUSE SERIES 318000For 250 volts. Size $11 / 4 \times 1 / 4^{\prime \prime}$ with leads. UL opproved.

| Stack | Amps | Box | 100 |
| :---: | :---: | :---: | ---: |
| No. | Roting | of | For |
| $12 A 614$ | $1 / 9$ | $\mathbf{\$ 0 . 7 6}$ | $\mathbf{\$ 1 3 . 0 0}$ |
| $12 A 615$ | $1 / 4$ | .62 | 10.50 |
| $12 A 616$ | $3 / 8$ | .62 | $\mathbf{1 0 . 5 0}$ |
| $12 A 617$ | $1 / 2$ | .62 | $\mathbf{1 0 . 5 0}$ |
| $12 A 618$ | $1 / 2$ | .47 | 8.00 |
| $12 A 620$ | 2 | .47 | 8.00 |
| $12 A 621$ | 3 | .47 | 8.00 |
| $12 A 622$ | 4 | .50 | 8.50 |
| 124623 | 5 | .50 | 8.50 |

SNAP-ON TV
FUSE HOLDER
For eosy replocement
of TV plgtail fuses

3AG "SLO-BLO" FUSES LITTELFUSE SERIES 313000


High time lag withstonds heavy surges hoving high inductive or capacitative starting loods. All are for 125 V . circuits, except $61 / 4$ amp. G up, for 32


| Stock No. | Amps Roting | ${ }_{\text {For }}^{5}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 12A946 | 1/32 | $\$ 1.15$ | 19.50 |
| 12 A947 | 1/16 | . 82 | 14.00 |
| $12 A 602$ | 1/10 | . 82 | 14.00 |
| 124906 |  | . 82 | 14.00 |
| 12A948 | 15/100 | . 82 | 14.00 |
| 12A949 | 3/16 | . 82 | 14.00 |
| 12A604 | $2 / 10$ | . 82 | 14.00 |
| 12A605 |  | . 82 | 14.00 |
| 124819 | $3 / 10$ | . 82 | 14.00 |
| 12A950 |  | . 82 | 14.00 |
| 12A907 | 4/10 | . 82 | 14.00 |
| 12A606 |  | . 82 | 14.00 |
| 12A951 | $6 / 10$ | . 82 | 14.00 |
| 12A952 | 7/10 | . 82 | 14.00 |
| 128601 | $3 / 4$ | . 82 | 14.00 |
| 124908 | $8 / 10$ | . 82 | 14.00 |
| 124607 |  | -82 | 14.00 |
| 12A953 | 12/10 | .76 | 13.00 |
| 124954 | $11 / 4$ | .76 | 13.00 |
| 124955 | $11 / 2$ | .78 | 13.00 |
| 124956 | 16/10 | .76 | 13.00 |
| 12A608 | 2 | 76 | 13.00 |
| 12A957 | $21 / 2$ | . 62 | 10.50 |
| 12B609 |  | 62 | 10.60 |
| 12A958 | 32/10 | . 62 | 10.50 |
| 12A610 | 4 | . 82 | 10.50 |
| 12A611 | 5 | :62 | 10.60 |
| 124959 | $61 / 4$ | .62 | 10.50 |
| 12A960 | 8 | 62 | 10.50 |
| 124820 | 10 | . 62 | 10.50 |
| 124612 | 15 | .62 | 10.50 |
| 12A613 | 20 | 62 | 0.50 |
| 124961 | 25 | . 62 | 10.50 |
| 124962 | 30 | . 62 | 10.50 |

## 8 AG INSTRUMENT FUSES <br> LITTELFUSE SERIES 361000

| Stock No. | Amps Rating | ${ }^{5}$ | $\begin{aligned} & \hline 100 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 12A1100 | 1/200 | \$1.70 | \$29.00 |
| 1241101 | 1/100 | 1.53 | 26.00 |
| 1241102 | 1/32 | 1.32 | 22.50 |
| 12 A1103 | 1/16 | . 82 | 14.00 |
| 12A1105 | 1/8 | . 62 | 10.50 |
| 1241106 | 1/4 | . 38 |  |
| 12 A1107 | 者 | . 38 | 6.50 |
| 12A1108 |  | . 38 | 6.50 |
| 12A1109 | 3/4 | . 38 | 6.50 |
| 12A1110 | 1 | . 29 | 5.00 |
| 12A1111 | $11 / 2$ | . 29 | 5.00 |
| 12A1112 | $2^{1 / 2}$ | . 29 | 5.00 |
| 12 A845 | 3 | . 29 | 5.00 |
| 124846 | 5 | . 29 | 5.00 |

## 8AG SERIES 362000

U/L approved for TV circuits. Size $1^{\prime \prime}$
long. $/ 4^{\prime \prime}$ dio. ( $1 / 4$ to IA) roted 250 $\checkmark$., others 125 V . Stock
No. 124847 124848
124852 124853 124854 <br> LIT}

Heo
St
N

| Heavy duty straight element $11 / 4 \times_{3}{ }^{3}{ }^{\prime \prime}$ " |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stk. No. | Amps Roting | Volis Roting | Box $\text { of } 5$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ |
| 124871 |  | 250 | 41 c | \$7.00 |
| 124872 | 2 | 250 | 41 c | 7.00 |
| 124873 |  | 250 | 41 c | 7.00 |
| 124874 |  | 32 | 35 c | 6.00 |
| 124876 | 10 | 32 | 35 c | 6.00 |
| 124877 | 15 | 32 | 35 c | 6.00 |
| 124878 | 20 | 32 | 35 c | 6.00 |
| 124879 | 25 | 32 | 35 c | 6.00 |
| 124880 | 30 | 32 | 35 c | 6.00 |
| 124882 | 40 | 32 |  |  |

## LIMITED-CURRENT BAYONET TYPE FUSES



Series 332000 ore 250 volt, 333000 125 volt. Will fit only lock-type bayonet halders, UL appraved.


FUSE ASSORTMENTS


LITTELFUSE FUSEMASTER RACK
100 assorted Littelfuses in a wollplastic rock. Will hold
types, ready to 60
far Instant use. Comes with 100 most used fuses for service shop or dealer
ment. Ideal for se
stock. Removable labels permit stock stock. Removable labels permit stock Mfg. No. 094047.
$\$ 12.35$

## STANDARD FUSE KHT

 No. 12 A856.
$\$ 6.57$

## LC FUSE CADDY

"LC" fuses hove locking tobs which vary in width with fuse roting to preThe "LC" Caddy is the same plostic box shown obove. Contains 15 boxes sizes used in all TV sets.
A practical method of maintaining o stock of the most needed No. 12A922. Eoch
58.82


## FUSE RETAINERS



Quick, safe, simple metnou for mounting and changing fuses trom frant of panel. All bakelite, fully insulated. Mounts. in thick. UL $A$ inpanels
proved. Type $A$ to proved lenpe $21 / o^{\prime \prime}$; Type B , finger knob, overall length
Stock
Foctory Fits Net No. No. Type Fuse Eoch
124138 341001 Stot 3AG 41c $\begin{array}{llll}12 A 1138 & 341001 & \text { Stot } \\ 12 A A G & 41 \mathrm{c} \\ 1242001 & \text { Knob } & \text { 3AG } 41 \mathrm{c}\end{array}$
 $\begin{array}{llll}12 A 868 & 442001 & \text { Knob 4AG 82c } \\ 12 A 1137 & 371001 & \text { Slot } \\ \text { 8AG } \\ \text { 41c }\end{array}$ $\begin{array}{llll}12 A 1137 & 371001 & \text { Slot 8AG 41c } \\ 12 A 823 & 372001 & \text { Knob 8AG 41c }\end{array}$ Miniature 3AG Fuse Post


Popular minioture types featuring fluted and knurled knobs with straight or right angle bottom termi2 hi; Fotal length Fig. ! and 2 only ${ }^{3} z_{10}$ hig. 3 and was Mounts in Roting 15 amp. 250 volt, for 3 AG
Stk. No. Mfg. No. 1-99 Eo. 100 Up
12A850 342012
$12 A 802342022$
$\begin{array}{r}124803 \\ 342014 \\ \hline\end{array}$
$\begin{array}{ll}.30 & .26 \\ .35 & .30 \\ .30 & .26 \\ .35 & .30\end{array}$

## (1) $4 A G$ FUSE POST

Heory duty, wotertight. Meosures 1 有 behind panel $2 \neq 18$ overoll No. 124890. Net Eoch...... $\$ 2.07$
INDICATING FUSE POST


Has Clear plastic cap which lights when the fuse blows. Fits all 3AG fuses up to 20 omps. Select required voltage for the circuit it is to be
used in. All are the same physical size: $23 / 8^{\circ \prime}$ overall, $1 \mathrm{I}^{\prime \prime}$ behind ponel. Maunts in 5/8" hole.
Stk. No. Mfg. No. Voltoge $\begin{array}{llll}12 A 806 & 344006 & 21 / 2-7 \\ 124807 & 344012 & 7-16\end{array}$ $\begin{array}{lll}12 A 807 & 344012 & 16-32\end{array}$ $\begin{array}{lll}124809 & 344125 & 90-125 \\ 12 A 810 & 344250 & 200-250\end{array}$ Eoch
$\$ 2.17$
2.17
2.17
1.32
1.32

## Fuse Mountings


(1) For obove ponel connections. 12A1129. For 8AG, 1" fuse. Eoch 13 c 12A1130. For 3AG, $11 / 4^{\prime \prime}$ fuse. Ea. 13 c 12 All31. For 8AG ${ }^{\prime \prime}$ fuse. Eo.. 35 c 12 A 1132 . For $3 \mathrm{AG} 11 / 4^{\prime \prime}$ fuse. Eo. 35 C (3) Mounts directly on mefer fermi nal. Will not touch other posts. 12A1133. For 8AG $I^{\prime \prime}$ fuses only. (4) Spring clips for any length $1 / 4$ " diameter fuse. PELOT RURB REMOVER

For fost and simple removal and installation of miniature and candelabra lamps. Facilitates mass production, Indispensoble for hard-to-reoch places. Made of high-grade rubber No. 16 BS 61.
Net Eoch.

## Panel Lights, Sockets

## DIALCO PILOT LIGHT ASSEMBLIES



Oll-Tight Dialeo (2) 103-3101 heow duty industrial type. Gasket sealed agoinst oll, woter or dust. Front lamp replocement. $\mathbf{I G}^{\prime \prime}$ hole mitg. Chrome linish. Uses 56 , 115 Vort bulbs. Wing Less bulb. Specify red, green, amber orss bulb
i2A974. Eo. $\$ 2.20$ 10 Eo.. $\$ 1.98$ (3) Diolco Oil-Tight \#125-408 for "th" mtg . hole. Built-in resistor for NE51 Neon 1 lomp on 115 V . UL listed. Gosket sealed against oil, water, dust. 2st" long. Fluted lens, screw terms., front removable bulb. Less lomp. Specify, red, amber, yellow or clear
$12 A 975$. Ea.. $\mathbf{\$ 1 . 9 4}$
IO Ea.. $\mathbf{\$ 1 . 7 4}$ (2) Diolea \#81410 $\mathrm{HJ}^{\prime \prime} \mathrm{mtg}$. For low voltage miniature boyonet lamps. UL listed. Aviation type, meets mil
specs. Smooth
t/2,
 panels up to $3 / \mathrm{s}^{\prime \prime}$. Solder terminals, less lomp. Specify color, red, green, amber or white.
No. 12A825. Ea., 1.19 10 Eo.. 1.07 (5). Diatco 812210 . For low valtage minioture bayonet lamps. Bulb replociable from the front. $21 / /^{\prime \prime}$ long, requires ty", mounting hole for
 miated. brass mounting.
Specify color: Red, Green
No. 12A885. Net Each...
${ }^{56 c}$
 Uses 56 , ${ }^{1115}$ Volt bulbs. Foceted ${ }^{\prime \prime \prime}$
 ify color, red, green, amber or cleor.
12A1165. Eo..s1.03
10 EO. 93 c

## MINIATURE GE LAMPS


(A)

## (A) Tubular-Min. Screw Base

 | (B) Tubular-Min. Bayonet Base |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | ---: |
| $16 A 158$ | 43 | 2.5 | 0.50 | .15 | .92 |
| $16 A 159$ | 44 | 6.3 | 0.25 | .15 | .92 |
| $16 A 160$ | 49 | 2.3 | 0.06 | .15 | .92 |
| $16 A 161$ | 47 | 6.3 | 0.15 | .15 | .92 |
| 168134 | 313 | 28 | .17 | .23 | $\mathbf{2 . 1 4}$ |
| $16 A 584$ | 1490 | 3.2 | 0.16 | .17 | 1.04 |
| 168154 | 1815 | 12 | 0.20 | .20 | 1.22 |
| 168135 | 1819 | 28 | .04 | .30 | 2.75 |
| $16 A 210$ | 1829 | 28 | .07 | .35 | 2.14 |
| $16 C 177$ | 1847 | 12 | 0.5 | .20 | 1.22 |
| $16 C 178$ | 1891 | 12 | .24 | .17 | 1.04 |

## (C) Round-Min. Screw Base 16 A165 $50 \quad 6.8 \quad 0.20 \quad .15 \quad .92$

\section*{(D) Round-Min. Bayonet Bas <br> | $16 A 166$ | 51 | 6.8 | 0.20 | $\mathbf{1 5}$ | .92 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 168138 | 53 | 12 | $1 C P$ | $\mathbf{1 5}$ | .92 |
| $16 A 167$ | 55 | 6.8 | 0.40 | 15 | .92 |
| 168139 | 57 | 14 | $2 C P$ | .15 | .92 |}

(E) Sub-Min Flange Bose $\begin{array}{rrrrrr}16 C 180 & 327 & 28 . & .08 & .90 & 5.50 \\ 16 C 179 & 328 & 6 . & .2 & .70 & 4.28\end{array}$ Floshlight Bulbs

| $16 A 163$ | 14 | 2.5 | 0.30 | .17 | 1.04 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $16 A 465$ | PR2 | 2.4 | 0.50 | .20 | 1.22 |
| 168137 | PR | 3.57 | 0.50 | .20 | 1.22 |
| $16 A 171$ | 222 | 2.2 | 0.25 | .17 | 1.04 |
| $16 A 149$ | 407 | FLASHER | .20 | 1.22 |  |

Note: Deduct $10 \%$ from above 10 Lot prices by buying 100 or mare of
a type either Pilot or Flashlight bulbs. 60

Dialca \#95408 popular dome lens ti" mig. built-in resistor for using NE5, Neon bulb on 105-125 V. Lgth. 2 's". UL listed, Less lamp. SpecNo. $12 A 666$. Eo. . $97 \mathrm{c} \quad 10 \mathrm{Ea} ., 87 \mathrm{c}$ Dialeo \#95408H for high brightness NE5IH Ncon bulbs. Produces six times more light than regular NESI. Description same as 95408 above. Less lomp. Specify color, red, omber, white or clear.
No. 12A972, Eo..97c 10 Eo.. 87 c
Replacement plastic caps for 95408 and 95408 H . Specify color, red, omNo, 12A973. Eoch
(3) Dialco 952208. Enclosed type for use with NESI and NE51H minlature bayonet nean bulbs. Built-in resistor permits use on $115-120$ volts. $1 / 2$ wideview plastic dome lens. Bakelite body, solder terminals. Length 2 尔" requires Listed. Less bulb. Specify color: Red, Amber, White or Clear No. 12A886. For NE5I Bulb
No. 12A887. For NESIH high brightness buib.
CHOICE, NET EACH
65c
O Dialco \#249-7841 Dotolites with permanent built-in non-replaceable neon NE-2E lomps. Stovepipe lens, two insulated terminals. Conforms to mil specs. Mounts in $3 /{ }^{\prime \prime}$ " hole. "敩" sistor for use on 105-125 volts. Spe cify color: Red, Yellow, White or
No. i24896. Each Net... S1.34

## G-E NEON LAMPS



NE4O NE30 NE45 NE48
NE5 1
NE34
Standard Screw Base
Cleor gloss nean filled glow lomps Hove built-in resistor. For 110-125
volt AC or DC.

\section*{| No. | Type |
| :---: | :---: | :---: |
| 16A143 | Watts Eoch $10 @ E 0$ |
| NE30 |  |}

$\begin{array}{llll}16 A 143 & N E 30 & 1 \\ 16 A 142 & N E 34 & 2 & 1.11 \\ 160.94 \\ & \text { NE } & 1.681 .45\end{array}$ $\begin{array}{lllll}16 A 142 & \text { NE34 } & 2 & 1.68 & 1.45 \\ 16 A 141 & \text { NE4O } & 3 & 2.52 & 2.12\end{array}$ $16 A 145 \begin{gathered}\text { Candelabra Screw Bose } \\ \text { NE } \\ \text { N }\end{gathered} 1 / 4 \quad .79 \quad .66$ Double Contoct Condelobro Bay. Bose 16 A147 Rest
$6 A 148$ NE48 $\quad 1 / 4 \quad 1.815 \quad \mathbf{. 9 4}$
Minioture Bayonet Base Type Requires 200 M ohms for NE51 and
56 M ohms for NESIH high-brightness 56 M ohms for NES 1 H high-brig.
type to use on $105-125$ volts.
Used extensively in neon ponel indicotors.

| $16 B 170$ | NE51 |  |  |
| :--- | :--- | :--- | :--- |
| $16 A 150$ | NE5IH | .20 | .28 |
| 16 |  |  |  |

## NE2 1/25 Watt Neon

Wintosed, with 200,000 ohm series resistor for los-

No. 16A140. Eoch. 10 c 10 For. 88 c


S6 Candelabra Base 110-120 V. Bulb
Watts, clear glass, can
dolabra base for indica tor and other needs, 16A168. $21 F$
Net Each
10
Lots 19 100 Lots, Eoch.

# 101 <br> $101-75$ 

Sub Miniature Series. Uses tiny flange DIALCO SERIES 510-710. Economica bose bulbs No. 327 and 328 . Bulbs angle bracket ossemblies. With $1 / 2^{\prime \prime}$ ore front replaceable. Has screw out dome type lens. Overall length $13 / /^{\prime \prime}$ Two solder terminals. Specity Red, Green, Amber or White.
Diaico 101-5030. Front mig. type, requires
124977 . ${ }^{\prime \prime}$ ho.. $\$ 1.2410$ Eo.. $\$ 1.12$ Dioleo 101-3830. Back mtg. type, requires $12^{\prime \prime}$ hole. DIALCO SERIES 75 HO I'. S 1.12 jewel. Candelabra screw base socket for 115 V . lamps is detachable from reor. Mounts in hole. Specify color, red. green or omber. 10 Eoch. 63 c DIALCO SERIES 810 . Hos $1 / 2^{\prime \prime}$ foceted jewel, removable from front for easy occess to bulb. Mounte in tt:" hole. Specify color, red, green or amber.
12 Al1 $12 A 1160$. Min. serew socket....32c No.
$12 \mathrm{Al161}$. Min. bayonet socket..32c convex iewel, Mount in ? lens holder. Bulb accessible from rear Specify color, red, green or amber No. 12Al156. Minioture
screw socket $\qquad$
No. 12A1157. Minioture
boyonet socket. ..............
For 110 -Volt, Type $\mathbf{S 6}$ Lam
$21 c$
$3 / 4^{\prime \prime}$ For 110 -Volt, Type $\mathbf{5 6}$ Lamp
3/4" jewel in bracket like above. Mounts in $11 / 16^{\prime \prime}$ hole. Candelabra socket, Specify Red, Green, Amber. 12A1158. Net Eoch.
. 53 c
Diolco 80901 . Attroctive torpedo wide view lens mounted in one inch nicke ploted screw cop. For use with S6 plorew screw condelioro 115 volt lamp screw bose condelabro 115 volt lamp instolled from the front. UL approved Side screw terminals. Length behind panel $2^{\prime \prime}$ mounts in $1^{\prime \prime}$ hole. Specify color: Red, Green or Amber


For clip or brocket offachment to dial, ponel, etc. Fig. E not illustroted, same as Fig. D but with bracket down. MINIATURE SCREW BASE

| No. | Fig. | Eoch | 10 For |
| :---: | :---: | :---: | :---: |
| 12 A1142 | A | 9 c | 74 c |
| 12 A1143 | B | 9 c | 74 c |
| 12 A1146 | C | 9 c | 74 c |
| 12 Al144 | D | 9 c | 74 c |
| 12A1145 | E | 9 c | 74 c |
| MIN1 | IATURE BAYO | ONET BA |  |
| 12 Al152 | A | 9 c | 746 |
| 12 Al153 | B | 9 c | 74 c |
| 12 A1147 | C | 9 c | 74 c |
| 12 Al150 | D | 9 C | $74 c$ |
| 12A1151 | E | 9 c | 74 c |
| 110 V | CANDELABR | SCREW | BASE |
| 124831 | A | 11 c | 99 c |
| 124832 | B | 11 c | 99 c |
| 124833 | C | 10 c | 89 c |
| 12 A1154 | D | 11 c | 99 c |
| 12A1155 | E | 11 c | 99 c |

(3) HOODED PANEL LIGHT

For front panel illuminotion. Polished nickel plated hood rototes to direct light. $1 / 2^{\prime \prime}$ mig. hole. Bulb removable light $1 / 2 \quad \mathrm{~m}$
12B246. Johnson 147-330. 815
For Min. Sc, bose lamps, Ea., For Min. Sc, bose lamps, Eo. No. 128247 . Johnson 147-329.
For Min. boy, bose lamps. Ea.

30

$$
\begin{aligned}
& \text { BAKELITE BASE TYPES } \\
& \text { contoct condelobra bo }
\end{aligned}
$$

Double contact condelobro bovonet Fits neon lomps, NE32, NE48. 52 SINGLE CONTACT CANDELABRA lamps, efc.
 172. Eoch

52 c

## (3) MILLEN 33991 SOCKET

 D91 VR Contact Condelobra for type standard auto lamps.
## SURFACE MTG. SOCKETS

PILOT LIGHT JEWELS
 BAKELITE SCREW BASE For minlature base lamps No. 20A343. Eo... 11 c For condelabro bose lamps.
No. 20A342, Eo.... 11 c BAKELITE CLEAT For stondord screw lamps No. 20A341. Eo.... 16 c

PHOT LGHT JEWELS


## DRAKE NEON INDICATORS

## (



Ponel Type Drake HRII7. Attractive, inexpensive indicotor assemblies for many applications in radio, hi-fi, electronics equlpment, opplionces, toys, etc. Mounts in $1 / 2^{\prime \prime}$ hole by means of a snop-in plug. Has leads for direct connection to $110-125$ volt AC-DC. Assembly is complete with high brightness type long life neon bulb and built-in limiting resistor. Speclty choice of color-Red, ciear.

33c
Dreke No. ilo-2 $\mathbf{S}^{\prime}$ Flushlite. For use on $110-12 \dot{5}$ voits $\ddot{A C}$ or $D C$ Special one piece body and translucent dome consiruction. Mounts with two screws or rivets, either on front panel or through panel from the rear. Mig. ctrs, $112^{\prime \prime}$. Bose, "E" wide, $17 / 8^{\prime \prime}$ long. Ideal for mation equipment offlce machines, computers, portable applionces mation equipment, offlce machines, computers, portable appliances, freezers, and mony others. Specify choice of color-Red or Milk White.
No. $12 A 994$ Each.

Eoch..
Droke Type 105 Postilite. Low cost, oftractive, iong life indicator
Eoch.
$5 B$ Eoch.
$40 c$ units. One piece body and Jewel of polystyrene. Mounts in $1 / 2^{\prime \prime}$ hole. Extends $3 / 4^{\prime \prime}$ in front of parel and 1 "" behind. For AC or DC volt use, has built-in resistor and high brightness neon bulb. Easy to install. Specify Colorless or Red.
No. 12A995. Each.
65
10-49.
$58 c$

## Coax Cable, Connectors

AMPHENOL COAX CONNECTORS

xyesplat 88
so morked in same series.
UHF SINGLE CONTACT CONNECTORS

| Fly. | Stock No. | Amphenol No. | Military No. | Descriviton | Used With Cable No. | $\begin{aligned} & 1-9 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 10-49 \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $18 \times 1122$ | 83-18P | PL-259 | Plug | 8,9,10,11,12 | 50.73 | \$0.61 |
| 2 | 18 A1124 | 83-1R | 80-239* | Recept. |  | . 75 | . 63 |
| 3 | 18 A1125 | 83-1AP | M-359* | Right Angle |  | 1.69 | 1.41 |
| 6 | 18A1128 | 83-1F | PL-274* | Feed thru Junction |  | 1.98 | 1.65 |
| 4 | 18A1126 | 83-1 J | PL-258* | Allaptor |  | 1.15 | . 96 |
| 1 | 18A1220 | 83-1SPN | PI-259A | Plug | 8, 9, 10, 11 | 1.00 | . 83 |
| 5 | 18 A1127 | 83-1T | M-358* | Tee |  | 2.64 | 2.20 |
| 2 | 18A1145 | 83-2R | 80265* | Recept, Twin |  | 2.38 | 1.98 |
| 1 | 18A1146 | 83-28P | PL295 | Plug, Twin | 57, 130 | 3.53 | 2.94 |
| 1 | 18 A 1218 | 83-776 | UG2030 | Plug | $55,59,62,71$ | 1.13 | . 94 |
| 16 | $18 \mathrm{Al273}$ | 83-850 |  | Solderless Plug | 111 | 1.38 | 1.15 |
| 16 | 18 A1274 | 83-851 |  | Solderless Plug | 8,9,11,58,59 | 1.20 | 1.00 |
|  | $18 \mathrm{A1219}$ | 83-1AC |  | Cap-Chain |  | . 56 | . 46 |
| 7 | 18 A1129 | 83-1H | M-360 | . 345 ID Hood | $8,9,11,65$ | . 27 | . 22 |
| 8 | 188148 | 83-168 | UG176U | . 25.5 ID Reducer | $59,62,71$ | . 20 | . 17 |
| 8 | 188149 | 83-185 | UG175U | . 207 ID Reducer | 58 | . 20 | . 17 |
| 7 | 18 A 1217 | 83-765 | UG177U | . 15.5 Hood | 29, 55, 58 | . 31 | . 26 |
| 1 | 18 A1102 | 83-750 | UGil1U | Plug | 59, 62, 71 | 1.00 | . 83 |
| TYPE "N" SERIES CONNECTORS |  |  |  |  |  |  |  |
| 20 | 18 A1104 | 82-86 | UQ18B/U | Plug | 5, 6, 21 | \$2.15 | \$1.79 |
| 20 | 18A1105 | 82-203 | UG18C/U | Plug | 5, 6, 21 | 2.69 | 2.24 |
| 20 | 1841231 | 82-61 | UG21B/U | Plug | 8, 9, 10 | 1.91 | 1.59 |
| 20 | 18 A1106 | 82-202 | UG21D/U | Plug | 8, 9, 10 | 2.58 | 2.15 |
| 11 | 18A1107 | 82-62 | UG22B/U* | Panel Jack | 8, 9, 10 | 1.80 | 1.50 |
| 12 | 18 A1269 | 82-63 | UG23B/U* | Jack | 8,9,10 | 1.75 | 1.46 |
| 13 | $18 \mathrm{Al108}$ | 82-64 | UG27A/U* | Angle Adaptor | 8, 0,10 | 3.46 | 289 |
| 13 | 18A1270 | 82-98 | UG27B/U* | Angle Adaptor |  | 3.60 | 3.00 |
| 13 | $18 \mathrm{Al109}$ | 82-213 | UG27C/U* | Angle Adaptor |  | 4.42 | 3.68 |
| 15 | 18 A1110 | 82-99 | UG28A/ ${ }^{*}$ | Tce |  | 3.89 | 3.24 |
| 2 | 18 A1230 | 82-24 | UG58U* | Recept. |  | 1.22 | 1.02 |
| 2 | $18 \mathrm{Al112}$ | 82-97 | UG88A/U* | Recept. |  | 1.20 | 1.00 |
| 20 | $18 A 1113$ | 82-84 | UG94A/U | Plug | 11, 12, 13 | 2.24 | 1.87 |
| 11 | $18 \mathrm{Al114}$ | 82-90 | UG96A/U* | Panel Jack | 11, 12, 13 | 2.86 | 2.38 |
| 14 | 18A1271 | 82-101 | UG29B/U* | Adaptor | "N" Series | 1.98 | 1.65 |
| 17 | 18^1275 | 82-100 | UG57B/U | Adaptor | " N" Series | 2.86 | 2.39 |
| 15 | 1841272 | 82-102 | UG 107B/U* | Tee |  | 4.28 | 3.57 |
| 19 | $18 \mathrm{Al115}$ | 82-104 | UG167A/U | Plug | 17, 18 | 5.46 | 4.55 |
| 19 | 18 A1117 | 82-312 | UG1185/U | Plug Captivated | $8,9,10,115$ | 2.51 | 2.09 |
| 2 | 18 A1118 | 82-313 | UG1186/U* | Jack Captivated | $8,9,10,115$ | 2.15 | 1.79 |
| 11 | 18 A1119 | 82-314 | UG1187U* | Panel Jack | $8,9,10,115$ | 2.29 | 1.91 |
| 1 | 1841221 | 83-22SP | UG102U | 2-Cond. Plug | 22 U | 1.22 | 1.02 |
| 2 | 18 A1222 | 83-22R | UG103U** | 2-Cond. Resept. | 22 U | 1.00 | . 83 |
| TYPE "BNC" CDNNECTORS |  |  |  |  |  |  |  |
| 9 | 1841223 | 31-002 | U(188U | Plug | 55, 58 | \$1.11 | \$0.93 |
| - | 18A1120 | 31-018 | UGB8H/U | Plug | 55, 58 | 1.18 | . 98 |
| 10 | 18A1228 | 31-005 | UG89U* | Jack | 55, 88 | 1.20 | 1.00 |
| 18 | 18A1121 | $31-830$ | UG?01U | "N" to "BNC" |  | 2.66 | 2.22 |
| 9 | 18A1225 | 31-012 | UG260U | Plug | 89, 62, 71 | 1.18 | . 98 |
| 9 | $18 \mathrm{Al123}$ | 31-212 | UG260B/U | Plug | $59,62,71$ | 1.48 | 1.24 |
| 10 | 18A1130 | 31-015 | UG261U* | Jack | $59,62,71$ | 1.24 | 1.04 |
| 11 | 18 A1229 | 31-011 | UG262U* | Panel Jack | $59,62,71$ | 1.29 | 1.07 |
| 15 | 18A1131 | 31-008 | UG274U* | Tee |  | 2.82 | 2.35 |
| 11 | 18A1224 | 31-003 | UG290U*********** | Recept. |  | 1.02 | . 85 |
| 11 | 18 A1132 | 31-203 | UG290A/U* | Recept. |  | 1.15 | . 96 |
| 11 | 18A1227 | 31-001 | UG291 ${ }^{\text {* }}$ | Panel Jack | 55, 58 | 1.27 | 1.05 |
| 17 | 18A1134 | 31-028 | UG273U | "UHF" to "BNC" |  | 1.93 | 1.61 |
| 18 | 18A1135 | 31-217 | UG349A U | "N" to "BNC" |  | 2.80 | 2.33 |
| 1 | 18 A1232 18 Al233 | $82-38$ $82-804$ | UG59A/U | Plug "'HN"* Plug "HN" | $8,9,10$ $8,9,10$ | 3.17 3.44 | 2.65 2.87 |
| 10 | 18A1149 | 31-102 | UG657 ${ }^{\text {\% }}$ | Plug HN | $8,9,10$ | 3.44 1.64 | 2.87 1.37 |
| 9 | 18 A1150 | 31-202 | UG88C/U | Plug | 55, 88 | 1.55 | 1.30 |
| 13 | 18 A1151 | $31-204$ | UG913U | Angle | 55, 58 | 3.77 | 3.15 |
| 14 | 18 A1153 | 31-219 | UG914U** | Adaptor |  | 1.86 | 1.55 |
| 10 | 18 A1163 | 31-817 | UG447U* | Recept. |  | 1.11 | . 93 |

CPA


COAX CABLE CONNECTOR ADAPTORS

For converting PL-259, SO-239 plugs to Motorola and RCA type sockets. ment also for fast conversion without altering original equipment cables No 18 C427 - 259 Plug to standard auto antenna plug (2) Adopts PL -259 plug to RCA type phono plug. No. 18C428. Model CPP. Mfg. list 75c. Net Eoch Na. $18 \mathrm{C429}$. Model CSA Mitan (4) Standard outo ontenno plug to RCA fype phono plug
$\qquad$
$\qquad$
$\qquad$

CIRCUIT CLOSING TYPE. As used on expensive communications equipment for coax RF connecting leads. Back plate is fibre gloss. Closes circuit when plug is removed, or can be wired open. Mtg. ctrs. ${ }^{7}$ "̈̈ Depth $1 \mathrm{~J}^{\prime \prime}$.
No. 18 C 259 . Special Each.

## MIL C-17-B COAX CABLE

## AMPHENOL AND TIMES WIRE AND CABLE


#### Abstract

Highest quality coax cable used for


commercial, amateur, millitary or citi-
zens band transmission or receiving.
Eliminates "stray" fields and confines
signal within cable. Vinyl jacket overall for temperotures from - $40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$, but remains flexible and is impervious to most acids, oils, alka. lis and gasoline. Palyethylene insulation over center conductor provides low lass and mechanical stability

| Stock No. | Military <br> AN No. | Imp. Ohens. | O.D. |  | Amphenol |  |  | Times Wire |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Ft. | 100' | $1 M^{\prime}$ | Ft. | $100^{\prime}$ | 1M' |
| 2W21-004 | RG8U | 52 | 405 | 101/2 | 13c | \$11.85 | \$109.75 | 12c | \$10.50 | \$ 95.00 |
| 2W21-290 | R(98A/U | 50 | 405 | 101/2 | 15c. | 13.20 | 122.25 | 13c | 11.80 | 108.00 |
| 2W21-007 | RGilU | 75 | 405 | 10 | 12c | 10.95 | 101.50 | 12c | 10.10 | 91.00 |
| 2W21-013 | RG17U | 52 | 870 | 47 | 64c | 58.30 | 525.00 | 57c | 51.40 | 468.00 |
| 2W21-024 | RG58U | 53.5 | 195 | 3 | 6 c | 4.90 | 45.50 | 5 c | 4.41 | 40.10 |
| 2W21-199 | Ha58A/U | 80 | 195 | 3 | 6 c | 4.90 | 45.50 | 5 c | 4.49 | 40.80 |
| 2W21-316 | RG58C/U | 50 | 195 | 3 | 7 c | 5.40 | 50.00 | 6 c | 4.75 | 43.20 |
| 2W21-025 | RG59U | 73 | 242 | 4 | 7 c | 5.07 | 47.00 | 6 c | 4.49 | 40.80 |
| 2W21-794 | RC598/U | 75 | 242 | 4 | 8 c | 5.85 | 54.00 | 6 c | 5.12 | 46.50 |
| 2W21-026 | RG62U | 93 | 242 | 4 | 7 c | 5.40 | 50.00 | 6 c | 4.76 | 43.00 |
| 2W21-318 | RG62A/U | 93 | 242 | 4 | 8 c | 6.20 | 57.50 | 7 c | 5.46 | 49.60 |
| 2W21-804 | RG718/U | 93 | 250 | 41/2 | 12c | 10.10 | 91.50 | 11c | 9.20 | 84.00 |
| 2W21-440 | RG114U | 185 | 405 | $81 / 2$ | 17c | 14.10 | 127.50 | 14c | 12.50 | 114.00 |
| 2W21-598 | RG174U | 50 | 105 | 1 | 6 c | 4.80 | 43.0 C | 4 c | 3.63 | 33.00 |
| 2W21-597 | Sub Minax | 75 | 150 | 11/3 | 6 c | 5.30 | 48.00 |  |  |  |

## POLYFOAM COAXIAL CABLE


 $\begin{array}{llllllll}2 C 123 & 621-701-100 & 59 U & 73 \text { ohms } & .195^{\prime \prime} & 2 & \mathrm{lbs} . & .05 \\ 2 C 131 & 621-111 & 8 U & 50 \text { ohms } & .405^{\prime \prime} & 10.6 \mathrm{lbs} & .16 & 14.30\end{array}$

DOW-KEY 60-P CONNECTOR
Single hole ponel mounting connector requires only one $5 / 8^{"}$ hole. Two serroted lom nuts
No. $16 A 941$. Net Eoch

DOUBLE COAX CONNECTOR
Special double male coax connector for mounting relay directly onto output of tronsmitter or S.W.R. meter. Silver plated.
No. 164945 . Net Eoch. . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.25$

## COPPERWELD ANTENNA WIRE

Tensile strength exceeds 100,000 lbs. per inch or 3 times that of ordinary copper. Will not stretch or sog. Electrical properties ore the same as copper of high
Vinyl cooted type is non-corrosive. All frequencies. Vinyl co

$$
\begin{aligned}
& \text { hove solid conductors. } \\
& \text { Stk. SARE } 100^{\circ} \text { Coil }
\end{aligned}
$$



| No. | (AWG) | Wt. Each | Wt. | Eoch | Wt. Eoch |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $2 A 44$ | 10 | 3 lbs | $\$ 3.34$ | 7 lbs | $\$ 8.03$ | $14 \mathrm{lbs} . \$ 15.8$ |


| 2444 | 10 | 3 lbs . | \$3.34 | 7 lbs . | \$8.03 | 14 lbs. | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2445 | 12 | 2 lbs. | 2.89 | 5 lbs. | 6.30 | 9 tbs. | 10.73 |
| $2 A 46$ | 14 | 1 lb . | 2.38 | 3 lbs. | 5.12 | 6 lbs. | 8.23 |
| 2 A 47 | 18 | $1 / 2 \mathrm{lb}$. | .70 | $11 / 2$ lbs. | 1.40 | 3 lbs. | 2.50 |



## COPPER ANTENNA WIRE

Excellent for antenna requirements; as bus bar hookup wire; for winding coils, efc. Formvor type is non-corrosive. SOLID FORMVAR

SOLID BRIGHT TINNED
N
$2 \mathrm{2A}$
2 A
$\begin{array}{llll}2 A 12 & 12 & \$ 2.50 \\ 2 A 42 & 14 & 1.70 & 3.35 \\ & \$ 10.90 \\ 7.35\end{array}$
STRANDED BARE
No. 2A43-Size $16 \quad(7 \times 24$ stronding $)$
100 Ft. For...................98c

$100^{\circ}$ $\$ 2.10$


## TINNED COPPER

 SHIELDINGForms perfect electrostatic and interference shield for wires. Very flexi-
ble. Expands to nearly double its original diameter, reducing length original diameter, reducing eng th
about $25 \%$. Extensively used in auto radio instaliations.
Stk. No. Type I.D. 10 Ft . 50 Ft .

| 2A134 | 8660 | $1 / 8$ | $\$ 0.50$ | $\$ 1.50$ | coil on most any |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 2B139 | 8668 | $1 /$ | .68 | $\mathbf{2 . 0 6}$ | type set. Cood pick- |

$\begin{array}{lllrr}\text { 2B139 } & 8668 & 1 / 8 & .68 & 2.06 \\ 2 A 135 & 8661 & 1 / 8 & 1.18 & 2.35 \\ 2 B 140 & 8669 & 1 / 2 & 1.55 & \end{array}$
而
No. 20 B 15.
29c


## NEW FLEXFOAM MIBE CABLE

Ideal for use where long lengths or portability
is a must. Very flexible stranded low copacity
Tonly 16 mmf per. to. Foam poly dielectric.
Tinned
Tinned copper braid with gray vinyl lacket
overall. 190 O. O. Weighs only $11 / 2$ lbs. per 100 ft

15 Ft .
100
$\$ 4.63$

## Belden Wire and Cable

MIL-W-76A TYPE-A VINYL HOOK-UP WIRE


For Voltoges up to 1000 RMS-Wall Thickness .017
STRANDED CONDUCTOR
COnd.


## SHIELDED HOOK-UP WIRE

Conductor is size 20 inned copper stranded 10/30; rubber insulated. Loequer coated cellulose acetate yarn

Belden Type 8885
No. 2A70. 25-Ft. Coil 100 Ft . Coil.
$\$ 1.00$ braid and tin
LEAD-IN WIRE

## UNSHIELDED TYPE 8200 <br> $\longrightarrow$ Them

Size 18 with 7 strands tinned copper
wire and thick rubber sheath. Easy to strip and solder. No.2A9. 100-Ft. Cail. No00-Ft. Spool ............... . 12.15 BELDEN 2-WIRE SPEAKER 12.15 2A137. 15 Ft .73 c ; $100 \mathrm{Ff} . . \$ 3.60$ Type 8782. Bore \& INTERCOM CABLE
 Cable diameter $.058 \times .115^{\prime \prime} .7 / 32$ stronding

SOUND SYSTEM, ALARM OR SPEAKER EXTENSION
 size 19 solid conductors with coding of bare Conductor is size 18 tinned copper Cranded and ruber insuloted Tinned tranded and rubber insuloted copper braid shleld over-all.

## Wire, Cable, Etc.

## BELDEN MAGNET WIRE

Copper magnet wire with successive coots of formvar and nylon enamels. Resists acids, alkali and petroleum solvents. Takes up less winding space than bulky textile or paper coverings Exoct B-S gauge, uniform length on each spool.

1 POUND SPOOLS NYLCLAD

| Sizo | Stk. No. | Ft. Per Spo | Eoch | Size | No. | Spool | Ft. Per | I. Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 194338 | 79 | \$1.15 | 14 | 194354 | $1 / 2 \mathrm{lb}$. |  | \$0.67 |
| 16 | 194339 | 125 | 1.16 | 16 | 19A601 | $1 / 2 \mathrm{lb}$. | 63 | .67 |
| 18 | 19A340 | 199 | 1.18 | 18 | $19 A 602$ | $1 / 2 \mathrm{lb}$. | 100 | 7 |
| 20 | 19A341 | 316 | 1.23 | 20 | 19A603 | $1 / 2 \mathrm{lb}$. | 160 | 67 |
| 22 | 194342 | 503 | 1.28 | 22 | 19A504 | $1 / 2 \mathrm{lb}$. | 250 |  |
| 24 | 194343 | 809 | 1.35 | 24 | 194605 | $1 / 2 \mathrm{lb}$. | 400 | 3 |
| 26 | 19A344 | 1264 | 1.49 | 26 | 19A606 | $1 / 2 \mathrm{ib}$. | 638 | 79 |
| 28 | 194345 | 2001 | 1.62 | 28 | 19A607 | to lb . | 1010 | 8 |
| 30 | 19A346 | 3167 | 1.84 | 30 | 194608 | $1 / 2 \mathrm{lb}$. | 1610 | 93 |
| 32 | 19 A347 | 5023 | 2.02 | 32 | 194609 | $1 / 4 \mathrm{lb}$. | 1270 | 5 |
| 34 | 194348 | 7962 | 2.35 | 34 | 194610 | $1 / 4 \mathrm{lb}$. | 2015 | 59 |
| 36 | 194349 | 12618 | 2.91 | 36 | 194611 | $1 / 4 \mathrm{lb}$. | 3200 | 68 |
| 38 | 19A350 | 20004 | 3.75 | 38 | 194612 | $1 / 4 \mathrm{lb}$. | 5070 | 88 |
| 40 | 194351 | 31686 | 5.52 | 40 | 194613 | $1 / 4 \mathrm{lb}$. | 8050 | .17 |

## LITZ_VOICE COIL_PHONO LEAD WIRE

 BELDEN 8431 PHONE PICK-UP ARM CABLE. Single conductor \# 24 stranded, and shielded with brown cotton braid overal
No. 2A103; 10 ft . for 53 c ; 15 ft . for 66 c ; 100 ft . for $\$ 3.25$ Litz Wire: Belden 8817 ; $5 \times 44$ stranded-enamel, Nyton wrap. 29 . $29 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ Voice Coil. Wire: Belden 8127 ; broided of 32 str. \#40 bore copper.
$37 c$

## ALPHA PVC-105 PLASTIC TUBING

Manufactured for all electronic, eiectrical and oircraft applications. Conforms to MIL-1-631-C, ASTM-D876 and D922 specs and is UL approved High dielectric strength, non-flammable and resistant to ails ond corrosion.
Flexible from $+105^{\circ} \mathrm{C}$ ta $-30^{\circ} \mathrm{C}$. Avalloble in Black ar Clear. Continuous lengths af $1000^{\prime}$ ovaitable on reques

| Stk. No. | Size | I.D. | $\begin{aligned} & 25^{\prime} \\ & \text { For } \end{aligned}$ | $\begin{gathered} 100^{\prime} \\ \text { For } \end{gathered}$ | $\begin{aligned} & \text { Stk. } \\ & \text { Na. } \end{aligned}$ | Size | I.D. | 25'For | $100^{\circ} \mathrm{For}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3847 | 24 | . 022 | 0.6 | \$1.86 | 3871 | 6 | . 166 | \$1.23 | \$4.26 |
| 3848 | 22 | . 027 | . 66 | 1.97 | 3879 | 5 | . 186 | 1.31 | 4.58 |
| 3849 | 20 | . 034 | . 67 | 2.01 | $3 \mathrm{B80}$ | 4 | . 208 | 1.40 | 4.93 |
| 3853 | 19 | . 038 | .68 | 2.06 | $3 \mathrm{B81}$ | 3 | . 234 | 1.48 | 5.25 |
| $3 \mathrm{B54}$ | 18 | . 042 | . 68 | 2.08 | 3883 | 2 | . 263 | 1.59 | 5.6 |
| $3 \mathrm{B57}$ | 17 | . 047 | .69 | 2.11 | 3884 | 1 | . 294 | 1.69 | 6.1 |
| 3858 | 16 | . 053 | .71 | 2.20 | $3 \mathrm{B85}$ | $A_{8 \prime \prime}$ | . 312 | 2.11 | 7.79 |
| 3859 | 15 | . 059 | . 73 | 2.27 | 3886 |  | . 330 | 1.81 | 6.58 |
| 3860 | 14 | . 066 | .75 | 2.34 | 3889 | 3/8,", | . 375 | 2.40 | 8.94 |
| 3 B61 | 13 | . 076 | .78 | 2.39 | 3890 |  | . 438 | 2.66 | 9.65 |
| $3 \mathrm{B62}$ | 12 | . 085 | .79 | 2.49 | 3891 |  | . 500 | 2.91 | 10.64 |
| 3863 | 11 | . 095 | . 80 | 2.56 | 3892 |  | . 562 | 3.79 | 14.17 |
| 3 B64 | 10 | . 106 | 83 | 2.66 | 3894 |  | . 625 | 4.08 | 5.30 |
| 3866 | 9 | . 118 | . 04 | 3.49 | $3 \mathrm{B99}$ |  | . 750 | 5.63 |  |
| 3867 | 8 | . 133 | . 10 | 3.74 | 38116 |  |  | 6.19 | +11.87 |
| 3868 | 7 | . 148 | 1.16 | 3.97 |  | * ${ }_{\text {ndi }}$ | S 5 | , | +1.87 |

## TY-RAP CABLE TIES

## BY MFG. OF FAMOUS STA-KON TERMINALS

Fast, law cost cable tying. Up to six times foster than tying with string. Hioh tensile strength 85 libs. unlocking torce over 60 :bs. Temp. range $-65^{\circ} \mathrm{F}$. to $+350^{\circ} \mathrm{F}$. Will not unmald. Eock Ty-Rap cable tie will accommodote ony
wire bundle from for easier threading in close quarters. Hond tool makes easy work of tying and crimping
(1) 19 A1 1244
(19A1244
Mfg. No. Description
TY503
$\qquad$ TY515 Tie No. 19 A 1246 WT183F. HAND TOOL. EOCh No. I9A1245 WTI85F. HAND TOOL. EOCh

## HELI-TUBE SPIRAL WRAP



Spiral cut clear polyethylene tubing for cabling or harness wiring. Allows taps or tead off at ony paint. Retains, original form and may be reused in dia. Not offected by solvents, ocid or alkolies For use in temp. from


100 ft. For $\$ 7.50$

## SCOTCH VINYL PLASTIC ELECTRICAL TAPE

## SUPER-TOUGH AND STRETCHY

Seatch No. 33. Block vinyl plastic molds to ony surface, remoins flexible ot low temperoture. Resistont to grease, acids alcohals, water, gasoline. etc. Non-
corrosive. Has high tensile strength. 7 mils thick. corrosive. Has high tensile ${ }^{\text {strength. } 7} 7$ mils thick
Dielectric strength $10,000 \mathrm{~V}$. breokdown. UL AD praved.
11A584. 66 Ft., $3 / 4$ ", Wide. Roll, Eoch.... $\$ 1.5012$ Rolls, Eoch.... $\$ 1.36$ 11 A585. $20 \mathrm{Ft} . \times 3 / /^{\prime \prime}$. Wide Roll. Scoteh No. 27 Gloss Cloth Adhesive Tape for temperatures up to $300^{\circ} \mathrm{F}$ Tensile strength 150 lbs. Der inch. Thickness 7 mils. Dielectric strength
1800 volts.
No. $11 A 589$. 66 Ft. Rall $1 / 2^{\prime \prime}$ Wide, Ea... $\$ 1.75 \quad 12$ Rolls, Eo... ${ }^{1} 1.58$

PYRAMID AMPROBES
Snop oround type Volt-Ammeter. Close the probe jows
around conductor of the circuit under test and read current directly on Meter scole. Voltoge checks are made by the use of safety type leads.
Here are a few of the tests you con

(1)

(2)

(4) foad condition of equlpment without shut down; Diognose trouble colls faster, under actual load.
(1) Amprobe Junior size $21 / 2 \times 43 / 4 \times 1^{\prime \prime}$. 11 oz

35A307. Model Y525. For 0-25 Amps. AC, O-150-600 Volts AC 35A308. Model Y500. For 0-100 Amps AC, 0-150-600 Valts AC YOUR CHOICE EACH
(3) Amprobe Jr. Testmoster.Kit. Complete ohmmeter, voltmeter, ommeter. The only precision instrument that measures voltage, amperage and resistance instantly within $3 \%$ accuracy. Energizer increases sensitivity 10 times with o capacity of 25 omps. Ammeter measures on insulated or non-insulated conductor. Ohmmeter measures resistonce with plug-in bottery ottochment for test leods.
Energizer "splits" dauble line cords for reading of outlet or 10 times sensitivity. Also permits voltage reading under load conditions.
Complete Kit includes instrument listed above, Energizer. Ohmmeter Probe, No. 354345 . TM Yos eother cose.
No. 35A346. TM-YO500, 0-100 AmPs.
$\$ 29.85$
No. 35A346, TM-YO500 0-100 Amps. Net Each
$\$ 29.85$
(3) Model RS-2. New reoding ease with rotating scale under magnifying unbreakable window. Only one of six ranges visible at any time. 4 AC current ranges for 0-5-15-40-100 amperes and 2 AC voltoge ranges for 0-150poin vols. Easy one-hand operation plus finger tip pointer-lock. Locks pard to in position for accurote reoding away from conductor when used in leads and leother carrying case. Wt. 14 ozs. Only $71 / 2^{\prime \prime}$ lang. 539.85
39.85
(3) Madel RS-3. Does 3 jobs, measures amperes, valts and ahms resistance. Has some ranges as RS-2 described above with addition of $0-300$ amps, che vais and ohms scaie for measuring resistance tracing circuits and checking for opens. Reads 25 ohms center scale, 2000 ohms full scale. Most camplete tester available. With leather carrying case and connecting leads for voltage and resistonce meosurements
No. 35 A581. Net Each
$\$ 52.50$
(4) Model A40 Energizer divides Amprobe Meter reading by 10 for checking low current equipment. Also divides line cord so Amprobe may be used for current or voltage checks without having to split line cord. With weatherproof pouch. Wt. 3 az.
35A310. Model A40. Eoch

## PRESSURE SENSITIVE LABELS

Codes wires, leads, circuits, reloys, and other ports fast and cheap. Easy io use, they stik-quik without mois coch number, to 33 . coch number, to 33.
No. 19A259. Per Cord
Card of Letters-A ta E. 5 of each



## 8-CONDUCTOR POWER CABLE

Interconnecting cable for industrial or amastronded. each cotton wrapped, rubber insulated int color coded. Royon braid over canductors and fillers, with tinned copper shield, cotton terve and black rubber jocket averall. O.D. 386. Wt per 100 ft .12 lbs.
2B195. Per Ft. 22c 100 Ft. Far. $\$ 17.64$

ADJUSTABLE WIRE STRIPPER
THREE-TOOLS-IN-ONE
Fully odiustoble for stripping solid or
stranded wire from No. 6 to smallest.
Calibratlon on handle assures proper od-
justment. Hardened and ground steel
blades.
No. 16B526. Net Each..........?

##  CORDS FOR COFFEEMAKERS, FRYPANS, ETC. <br> 

Extends up to 6 ft . Stronded HPN \#18 (41×34) parollel neoprene cord for 10 amp, 125 valt. Malded rubber plug one end. $1 / 2^{\prime \prime}$ minlature or 194903 Wpac Miniature Plug Net Each No. 19A903. With Miniature Plug. Net Each No. 19A904. With Standord Plug. Net Each

## KINK-FREE 24" APPLIANCE CORD

2 ft . neoprene l7AWG stranded $(52 \times 34)$ parallel cord eliminotes counter mess of excess card. For cotfee maker and fry pans using $1 / 2$ UL opproved.
No. 194906. Net Each

## Crimp－On Terminals，Hole Plugs \＆Grommets

RUBBER GROMMETS，PLUGS \＆BUMPERS

（1）

（I）SNAP HOLE PLUGS

| Stock No. | Fits Hole Dia． | $\begin{gathered} \text { Qty. in } \\ 35 \mathrm{c} \\ \text { Pkg. } \end{gathered}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | $\begin{aligned} & 500 \\ & \text { For } \end{aligned}$ | $\begin{gathered} 1000 \\ \text { For } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1448 | 10， | 8 | 2.21 | 9.95 | 17 |
| 12A1335 | 4\％＂ | 8 | 3.02 | 13.59 | 24.11 |
| 12A1336 |  | 6 | 3.02 | 13.59 | 24.11 |
| 12 A 1337 |  | 6 | 3.24 | 14.58 | 25.87 |
| 12A1338 |  | 5 | 3.53 | 15.89 | 28.22 |
| 12A1343 |  | 5 | 4.53 | 20.39 | 36.16 |
| 12A1344 | $1^{* *}$ | 5 | 4.85 | 21.83 | 38.81 |
| 12A1339 | 11／6＂ | 5 | 5.81 | 26.15 | 58.21 |
| 12A1340 | 11／4＊ | 4 | 6.32 | 28. | 0.57 |

 The Sto－Kon terminal is internally serrated moking a shakeproof contact． suring high conductivity and a heovy tin coating prevents corroslon．Self－ insulated Sto－Kon terminals have a nylon sleeve cavering the barrel and a
For quantities of 5,000 or more of one type terminal deduct $25 \%$ from
For quantiries of 5,000 or more of one
the 500 column price for your cost per 100

| NON－INSULATED <br> （1）RING TONGUE |  |  |  |  |  | SELF－INSULATED <br> （8）GRIP RING TONGUE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Non－Insulated |  |  |  | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | $\begin{gathered} 500 \\ \text { Per C } \end{gathered}$ | Self－Insulated |  |  |  | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | $\begin{array}{r} 500 \\ \text { Per C } \end{array}$ |
| Stk．No． | Mifg．No． | Wire | Stud |  |  | Stk．No． | Mfg．No． | Wire | Stud |  |  |
| 19 A1250 | A18－6A18－8A18－10A18－14B14－6B14－10C10．C10．8C10－10 | 22－18 |  | \＄3．75 | \＄2．64 | 19A1279 | RA18－6 | 22－18 | 6 | $\$ 7.20$ | \＄5．60 |
| $19 \mathrm{Al251}$ |  | 22－18 | 8 | 3.75 | 2.64 | 19 A1280 | RA18－8 | 22－18 | 8 | 7.20 | 5.60 |
| 19 A1252 |  | 22－18 | 10 | 3.75 | 2.64 | 13 A1281 | RA18－10 | 22－18 | 10 | 7.20 | 5.60 |
| 19 A1253 |  | 22－18 | 3／4 | 4.80 | 3.50 | 19 A1282 | RA18－14 | 22－18 | 1／4 | 8.30 | 6.30 |
| 19 A 1254 |  | 20－14 |  | 3.75 | 2.64 | 19 A1283 | RB14－6 | 16－14 | 6 | 7.20 | 5.60 |
| 19 A1256 |  | 20－14 | 10 | 3.75 | 2.64 | 19＾1285 | RB14－10 | 16－14 | 10 | 7.20 | 5.60 |
| 19 A1258 |  | 16－12 | 6 | 5.20 | 3.80 | O GRIP SPADE TONGUE |  |  |  |  |  |
| 19 A1259 |  | 16－12 | 8 | 5.20 | 3.80 |  |  |  |  |  |  |  |  |
| 19A1260 |  | 16－12 | 10 | 5.20 | 3.80 | 19 A1286 | RA18－6F | 22－18 | ${ }_{8}^{6}$ | ． 20 | 5.60 |
| （1）SPADE TONGUE |  |  |  |  |  | $13 A 1287$ $19 A 1289$ | ${ }_{\text {RA18－8F }}$ | ｜$22-18$ <br> $16-14$ | 8 | 7.20 7.20 | 5.60 5.60 |
| 19 Al |  | 22－18 | 6 | 3.75 | 2.64 | 19A1290 | PB148P | 16－14 | 8 | 7.20 |  |
| 19 A1263 |  | 22－18 | 10 | 3.75 | 2.64 |  |  |  |  |  |  |
| 19 A1264 |  | $20-14$ | 6 | 3.75 | 2.64 |  | InSULAT | ED CO | NNEC | CTORS |  |
| 19A12 |  | 20.14 | 8 | 3.75 | 2.64 | 19A1292 | 2RA－18 | 22－18 |  | 6.88 | ｜ 5.35 |
| （2）FLAG TYPE |  |  |  |  |  | 19 | RB－ | 16 |  | 6.8 | 5 |
| $19 \mathrm{A1267}$ | AB14－6A | 22－14 | 6 | 4.00 | 3.10 |  | ONE PI | ECE W | IRE J | OINT |  |
| 1941268 | AB14－8A | 22－14 | 8 | 4.00 | 3.10 | 19A1294 | RB－44 | 2f16． | 18．e | 4.0 | 270 |
| 19A1269 | AB14－10 | 22－14 | 10 | 4.00 | 3.10 | 19A1295 | －10 | 3F14， | 16，et | 5.80 | 4．45 |
| （1）RING TONGUE CABLE GRIP |  |  |  |  |  | （13）WRISTLOCK DISCONNECT |  |  |  |  |  |
| 19A1270｜ | 14－6G | 20－141 | 6 | $4.30 \mid$ | 3.20 | 129 | 14－D | 20－14 |  | 7.80 | － 5.50 |
| （3）SPADE TONGUE CABLE GRIP |  |  |  |  |  | （14．DISCONNECTS |  |  |  |  |  |
| 19A1272 | 14－6FG | 20－14 | 6 | 4．30｜ | 3.20 |  | B14 |  | Female |  |  |
| （0）TELEVISION HOOK <br> For dual conductor plastic ribbon lead－in． |  |  |  |  |  | STA－KON CRIMP TOOL |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19A1275 A18－10TV |  | $\begin{array}{r} .025- \\ .046 \end{array}$ | 10 | 7.50 | 5.30 | minals，splices，and wire loints，\＃22 －Meosures bolt lengths． <br> Choses and cleans threads．Cuts wires． |  |  |  |  |  |
| （7）TWO－WAY CONNECTORS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $19 \mathrm{Al276}$ | $2 \mathrm{Al8}$ | 22－18 |  | 4.66 | 3.20 | Wt． 1 |  |  |  |  |  |
| $19 \mathrm{Al277}$ | 2B14 | 20.14 |  | 4.66 | 3.20 | No．19A1300．TGB \＃WT－100． <br> Net Eoch |  |  |  |  |  |
| 19A1278 | 2C10 | 16 |  | 6.35 | 4.50 |  |  |  |  |  |  |  |  |

 NON－INSULATED

（1）RING TONGUE \begin{tabular}{l|l|l|l|l}
\hline 19 A1267 \& AB14－6A \& $22-14$ \& 6 \& 4.00 <br>
3.10

 

$19 A 1268$ \& AB14－8A \& $22-14$ \& 8 \& 4.00 <br>
\hline 19.10 <br>
\hline $19 A 1269$ \& AB1 10 A \& $22-14$ \& 10 \& 4.00 <br>
\hline

 （c）RING TONGUE CABLE GRIP （3）SPADE TONGUE CABLE GRIP 

\hline $19 \mathrm{~A} 1272|\mathrm{BI}| 4 \mathrm{FG}|20-14|$ <br>
\hline
\end{tabular}

For dua lead－in．

SELFF－INSULATED
（8）GRIP RING TONGUE
（11）ONE PIECE WIRE JOINT

（13）WRISTLOCK DISCONNECT

19A1298｜B14－250F $|20-14|$ Female $4.80 \mid 3.70$
STA－KON CRIMP TOOL
Stakes both plain ond insuloted ter－ minols，splices，and wire joints，\＃22 －Meosures bolt lengths．Chases and cleons threads．Cuts wires No．19A1300．TEB \＃WT－100． $\$ 3.95$
（2）RUBBER GROMMETS



（3）RUBBER BUTTON BUMPERS Just Put in Hole

|  |  |  |  | 35cPkg．For |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{array}{r} 10 \\ 8 \\ 6 \end{array}$ | $\begin{array}{\|c\|c} 1.41 & 6.34 \\ 2.07 & 9.31 \\ 3.32 & 14.94 \end{array}$ |  | $\begin{aligned} & .28 \\ & .51 \end{aligned}$ |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| （4）RUBBER FEET <br> With recessed eavity for serews，nails，ete |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0．0． |  |  | $\begin{array}{l\|l\|l} \text { Qty. in } & 100 \\ 35 \mathrm{cPkg} . & \text { For } \end{array}$ |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  | 8 <br> 8 | $2.18 / 9.81$ |  |  |
|  |  |  |  |  |  |  |  |  |  |

## C AKADP HAND TOOL <br> DOES 5 JOBS！ <br> CRIMPS TERMINALS！

 SHEARS BOLTS！STRIPS， CUTS AND GAUGES WIRE！

## （1）

THE IDEAL TOOL FOR TV，RADIO G ELECTRICAL WORK Crimps terminals as listed below to wire ends for clean and true connec－ tions－no nolder needed． $10-24,10-32,8-32,6-32$ ，or $4-40$ to desired length without domage to threads．Strips and cuts wire sizes 22 to 10 fost and clean．Stripper notches olso serve os a Wire Gouge． No．19B1100．EACH
$\$ 4.95$
SOLDERLESS TERMINALS for Use with Above Hond Toal

Assortment of 50 ．New＂Solistrand＂
solderless terminals．For solid，strand－ ed，or irregulorly shaped wires，or Their cambinations．
（A）RING TONGUE TYPES－
WIRE SIZES 22－16 100
Stud W，Lgth．No． 19 E1101 $4 \mathrm{c} \$ 2.85$


（B）SLOTTED TONGUE TYPES－
Stud W．WiRE SIZES 22－16
Stud W．Lgth No．Each 100

WIRE SIZES 16ed．
WIA

c）Knife type for quick connection
（C）Knife type for quick connection
and disconnection．Wire sizes $16-14$ ． and disconnection．Wire sizes $16-14$ ．
19 B 1111 ．Pr． $15 \mathrm{C} ; 50 \mathrm{Prs}$ ． $\mathbf{S . 3 7}$


## WALDOM CRIMP－ON TERMINALS TOP QUALITY－LOW COST



Terminols are made o
with ils are made of the finest moteria
with Electro－tin finish． NON－INSULATED terminals make positive connections and sove labor－the most uniformly reliable connection possible． INSULATED terminals have all of the advantages and features of non－in－ sulated terminals plus a permanently oftached rigid vinyl plastic insulating sleeve．SPADE TONGUE TERMINALS FIG． 1



| Stock No． | Wire | Length | 100 For | 1000 For | Stock No． | Length | 100 For | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 19 \text { A1117 } \\ & 19 \text { A1118 } \end{aligned}$ | $\begin{aligned} & 22-16 \\ & 16-14 \end{aligned}$ | \％ | $\begin{array}{r} \$ 1.96 \\ \mathbf{1 . 9 6} \end{array}$ | $\begin{array}{r} \$ 16.68 \\ 16.68 \\ \hline \end{array}$ | $\begin{aligned} & 19 \text { A1165 } \\ & 19 \text { A1166 } \end{aligned}$ |  | $\begin{array}{r} \$ 4.99 \\ 4.99 \end{array}$ | $\begin{array}{r} \$ 42.45 \\ 42.45 \end{array}$ |



| Stock No． | Width | Length | 100 For | 1000 For： | Stock No． | Length | 100 For | 1000 For |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A1119 <br> 19 A1120 | 1／4 Male 1．4 Female | 新 | $\begin{array}{r} \$ 1.92 \\ 1.92 \end{array}$ | $\begin{array}{r} \$ 16.34 \\ 16.34 \end{array}$ | 19 A1167 <br> 19 A1168 | $\begin{aligned} & \text { 敦 } \\ & \text { 嘍 } \\ & \hline \end{aligned}$ | $\begin{array}{r} \$ 4.46 \\ 4.46 \end{array}$ | $\begin{array}{r} \$ 37.91 \\ 37.91 \end{array}$ |


| NYLON |  | NSULATED C |  | CLOSED－END CONNECTORS FIG． 7 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No． | Wire | O．D． | Length | Barrel <br> Length | I． D ． | Circular Mill Area | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | $\begin{aligned} & 1000 \\ & \text { For } \end{aligned}$ |
| $\begin{aligned} & \text { 19A1121 } \\ & 19 A 1122 \end{aligned}$ | $\begin{aligned} & 22-14 \\ & 16-10 \end{aligned}$ |  | 新 | 孝 8 | 1／2 | $\left\lvert\, \begin{aligned} & 600-5.180 \\ & 2,400-13,100 \end{aligned}\right.$ | $\begin{array}{r} \$ 3.05 \\ 4.17 \end{array}$ | $\begin{array}{r} \$ 25.88 \\ 35.78 \end{array}$ |

# Plugs - Jacks - Clips 

BANANA PLUGS \& JACKS

## PHONE TIP PLUGS \& JACKS

## 8.perpoter

## MUELLER CLIPS AND INSULATORS

SCREW OR LUG CONNECTIONS NO SOLDER NEEDED. TYPES MARKED WITH ASTERISKS ( $\%$ ) ARE COPPER. OTHERS ARE OF STEEL (CodmiumPloted). "S" AFTER TYPE NUMBER INDICATES SCREW CONNECTORS. †SOLDER TYPE. STANDARD PACKAGES OF 10 AND 100 CLIPS.

(1) "MINI-GATOR" CLIP

 Protects against shocks and shorts in compact equipment. Red or black.

 Utilizes cord stroin relicf ears to prevent breakoge of leod wire
No. $\begin{aligned} & \text { Type } \\ & \text { Loth. }\end{aligned}$ Open $\quad$ Eoch 10 F

| No. | Type | Lgth. | Open | Eoch | 10 For | 100 For |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 124923 | $\dagger 70$ | 116." | ${ }^{5}$ | 7 c | . 44 | 3.80 |
| 124924 | 705 | $1{ }^{\text {d }}$ " |  | 8 C | . 50 | 4.40 |
| 124925 | *70CS | 1td" |  | 11 c | 75 | 6.40 |
| 12A1010 | 85 |  | DILE, | 9 C | 60 | 5.20 |
| 12 Bl 1041 | *85C | 2 \%" |  | 18 c | 10 | 5.20 |
| 12A1011 | $\ddagger 85 \mathrm{~T}$ | 25/8" |  | 216 | .50 | 12.8 | 12 121011

885 C
+85 T
*Copper. \$Phone Tid on One Jow
(1) SOLID BRONZE CLIPS

Needie type makes a quick temporary contact through insulation


| Eoch | 10 For | 100 For |
| ---: | ---: | ---: |
| 45 c | $\$ 3.20$ | $\$ 27.00$ |
| 23 c | 1.80 | 13.70 |
| 15 c | 1.00 | 8.80 |
| 6 c | .40 | 3.50 |
| 6 c | .44 | 3.80 |
| 9 c | .65 | 5.40 |
| 6 c | .40 | 3.50 |
| 6 c | .40 | 3.50 |
| 6 c | .44 | 3.80 |
| 12 c | .80 | 7.00 |

## NEW MUELLER MICRO-GATOR CLIP

This amazing sub-miniature alligatar clip can be used where no other clip will do... on printed circuits, in tight spots and on tiny The Micro-gator is truly small takes 30 microscopic fip. The Micro-gator is truly small (takes 30 ta weigh on ounce) its is smaller still: including separate skin-tight insulator, it's no bigger than the head af a pin! Yet the Micra-gator has ample thumb grip and plenty of bite to stand up straigh on the smallest arminals or wire
Kip Feotures: Leng. across. Knurled thumb grip. Solder connection, with clinching ears to relieve strain

Eo. 10 For 100 For 500 For
No. 12A1069 Type 34. Steel codmium plated 7c 44c \$3.80 \$18.00

## Jones Strips, Lugs, Sockets


(2) JONES NO. 2000 TERMINAL STRIPS
(1) SERIES 140. Metal to metal spacing over bakelite $1 / 4 "$ Prices below ore for one type only-not assorted.

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Terms. } \\ & \text { Type } \end{aligned}$ | $\begin{aligned} & \text { 1-49 } \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 50- \\ 99 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 100- \\ & 249 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 250- \\ 499 \\ \text { Per C } \end{gathered}$ | $\begin{gathered} \text { Stock } \\ \text { No. } \end{gathered}$ | Terms. Type | $\begin{aligned} & 1-49 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 50- \\ 99 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 100- \\ & 249 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 250- \\ & 499 \\ & \text { Per C } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A152 | 2 | \$0.14 | \$0.12 | \$0.10 | \$ 9.12 | 12A1533 | 12-140 | \$0.67 | \$0.56 | \$0.45 | 542.56 |
| 1241527 | 2-140 | . 20 | . 17 | . 13 | 12.54 | 12A1477 | 13-140 | . 73 | 61 | . 48 | 45.98 |
| 12 A1528 | 4-140 | . 25 | . 21 | . 17 | 15.96 | 12A1534 | 14-140 | . 79 | . 66 | 52 | 78 |
| $12 \mathrm{A1529}$ | 5-140 | . 31 | . 26 | . 20 | 19.38 | 12A1478 | 15-140 | . 84 | . 70 | 56 | 53.20 |
| 12A1530 | 6-140 | . 35 | . 30 | . 24 | 22.42 | 12 A1535 | 16-140 | . 89 | . 79 | . 63 | 56.62 59.66 |
| 12A1474 | $7-140$ | . 41 | . 34 | 27 | 25.84 | 12 A1479 | 17-140 | . 94 | . 89 | . 63 | 59.62 63.08 |
| 12 A 1531 | 8 8-140 | . 46 | . 39 | . 31 | 29.26 32.68 | 12A1536 | 18-140 | 1.00 | . 88 | . 70 | 63.08 66.50 |
| $12 \mathrm{Al475}$ | 9-140 | . 52 | . 48 | . 34 | 32.68 36.10 | 12A1480 | 20-140 | 1.10 | . 92 | 74 | 69.92 |
| 12 A1532 | 10-140 | . 57 | . 48 | . 38 | 36.10 39.14 | 12A1481 | 21-140 | 1.16 | . 97 | . 71 | 73.34 |

1) SERIES 141. Metal to metal spocing over bakelite $3 / \mathrm{g}^{\prime \prime}$. Base $11 / 6^{\prime \prime} \mathrm{W} \times$

(1) SERIES 142. Metal to metal spacing over bakelite fi". Bose $1 \mathrm{H}_{\mathrm{B}} \mathrm{W} \times$ $5 / 8^{\prime \prime}$ H. "i" centers. Has $8-32 \times$ 多" binder heod serews.

| Stock | Terms. Type | $\begin{aligned} & 1-49 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 50- \\ 99 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 100- \\ & 249 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 250- \\ & 499 \\ & \text { Per C } \end{aligned}$ | Stock No. | $\begin{array}{\|c} \hline \text { Termss. } \\ \text { \& } \\ \text { Type } \end{array}$ | $\begin{aligned} & 1-49 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 50- \\ 99 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 100- \\ & 249 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 250- \\ & 499 \\ & \text { Per C } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2-142 | \$0.22 | \$0.18 | \$0.14 | \$13.68 | 12A1572 | 10-142 | \$ 89 | \$ . 75 | S .60 | \$56.62 |
| $12 A 1567$ | 3-142 | + 31 | 50. 26 | . 20 | 19.38 | 12A1452 | 11-142 | . 97 | . 81 | . 65 | 61.75 |
| $12 A 1568$ | 4 | . 39 | . 33 | . 26 | 24.70 | 12A1573 | 12-142 | 1.06 | . 88 | . 70 | 66.88 72 |
| 12 Al 569 | 5-142 | . 47 | . 39 | . 31 | 29.64 | 12 A1422 | 13-142 | 1.14 | . 95 | . 76 | 72.20 |
| 12 A1570 | 6-142 | . 55 | . 46 | . 37 | 34.96 | 12A1423 | 14142 | 1.22 | 1.02 | . 82 | 77.52 |
| 12A1439 | 7-142 | . 64 | . 54 | . 43 | 40.85 | 12A1424 | 15-142 | 1.31 | 1.09 | . 83 | 82.84 88.16 |
| 1241571 | $8-142$ | . 72 | . 67 | . 48 | 45.60 51.30 | 12A1425 | 17-142 | 1.47 | 1.23 | . 98 | 93.10 |
| 12A1442 | 9-142 | . 80 | . 67 | . 54 |  |  | 17 |  |  |  |  |
|  |  |  | C | 10 | ES | SOLD | RI | G | G | STR |  |
|  |  |  | $0$ |  |  |  | $\frac{1}{0} 5$ |  |  |  | $\begin{aligned} & -10 \\ & 0 \\ & 0 \end{aligned}$ |
|  | (2) |  | (3) |  | (4) |  |  |  |  |  |  |

Bakelite strips hondy for all types of circuit wiring. Solder cooted steel lugs are spaced on $3 / 8^{\prime \prime}$ centers. Mig. feet have $.140^{\prime \prime}$ dia. holes. Types 1 , 2, ${ }^{3}$ ground lug: type 5 has one mtg . foot and one ground lug; type 6 has two ground lug; type has one mig "No. of lugs" below refers to total number of lugs on a strip, including ground lugs.

| Stock No. | $\begin{aligned} & \text { Jones } \\ & \text { No. } \end{aligned}$ | Fig. | No. of Lugs | $\begin{aligned} & 10 \\ & \text { For } \end{aligned}$ | $100$ | Stack No. | Jones No. | Fig. | No. of Lugs | $\begin{aligned} & 10 \\ & \text { For } \end{aligned}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1256 | 51 F | 1 | 1 | \$0.24 | \$2.00 | 12A1270 | 55 | 4 | 5 | 50.48 | \$4.00 |
| 12A1258 | 51 T | 2 | 1 | . 30 | 2.50 | 12A1273 | 56 | 4 | 8 |  |  |
| 12 A 1280 | 52 T | 2 | 2 | . 36 | 3.00 | 12 A 1262 | 51 A | 5 | 2 | . 20 | 1.50 |
| 12A1263 | 53 T | 2 | 3 | . 60 | 5.00 | 12A1268 | 52 A | 5 | 3 | . 29 | 200 |
| 12A1261 | 51 | 3 | 1 | . 20 | 1.50 | 12A1275 | 53 F | 5 | 4 | . 24 | 2.00 |
| 12 A 1267 | 52 | 3 | 2 | . 25 | 2.00 | 12 A 1282 | $5 \cdot \mathrm{C}$ | 5 | 5 | . 42 | 3.50 |
| 12 A1264 | 53 E | 3 | 3 | . 25 | 2.00 | 12A1274 | 53 A | 6 | 5 | . 60 | 5.00 |
| 12 A1265 | 54B | 3 | 4 | . 42 | 3.50 | 12A1257 | 54 A | 6 | 6 | . 42 | 3.50 |
| $12 \mathrm{Al266}$ | 53 | 4 | 3 | . 60 | 5.00 | 12A1283 | 55A | 6 | 7 | . 48 | 4.00 |
| 12A1269 | 54 | 4 | 4 | . 42 | 3.50 | 12A1258 | 56 A | 6 | 8 | 1.08 | 9.00 |

## SOLDERING LUGS



No. Type Lgth. Hole $100 \quad 1000$ No. Type Hole 1001000 $12 A 1286$ A $5 / 8^{\prime \prime}, 6-81.11 \quad 8.92 \quad 12 A 1294 \mathrm{H} \quad 7 / 8^{\prime \prime}, 8^{8} \$ 1.11$ \$8.92

 $12 A 1293 \mathrm{~F}$ 伖" Rivet $1.89 \quad 8.84$ Stock Hole 10 Pkg. Pkg.
 B-A BARGAIN SPECIAL $\quad 12 A 1299$ 6 29 C C 2.20 18.00 18.00

Terminal . $019^{\prime \prime}$ bross, tin plated -compact and sturdy function terminal trip Us in insulation: bakelite. Brackets: steel, cadmium plated. Terminals spaced on $\mathrm{ra}^{\prime \prime}$ centers.

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Terms. \& Type | $\begin{aligned} & \text { 1-49 } \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 50- \\ 99 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 100- \\ 249 \\ \text { Per C } \end{gathered}$ | $\begin{aligned} & 250- \\ & 499 \\ & \text { Per C } \end{aligned}$ | Stock No. | $\begin{gathered} \text { Terms. } \\ \mathbf{\&} \\ \text { \& } \end{gathered}$ | $\begin{aligned} & 1-49 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 50- \\ 99 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 100- \\ & 249 \\ & \operatorname{Per} C \end{aligned}$ | $\begin{aligned} & 250- \\ & 499 \\ & \text { Per C } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1582 | 2-2002 | \$0.07 | \$0.06 | \$4.40 | \$4.18 | 12A1587 | 8-2008 | \$ .12 | \$ 10 | \$8.00 | \$7.60 |
| 12 A 1583 | 3-2003 | . 07 | . 06 | 4.80 | 4.56 | 12A1461 | 9-2009 | . 13 | . 11 | 8.80 | 8.36 |
| 12 A 1584 | 4-2004 | . 08 | . 07 | 5.60 | 5.32 | 12A1588 | 10-2010 | . 14 | . 12 | 9.20 | 8.74 |
| 12 A 1585 | 5-2005 | . 08 | . 08 | 6.00 | 5.70 | $12 \mathrm{Al462}$ | 11-2011 | . 15 | . 13 | 10.00 | 9.50 |
| 12 Al 586 | 6-2006 | . 10 | ,09 | 6.80 | 6.46 | 12A1589 | 12-2012 | . 17 | . 13 | 10.40 | 9.88 |
| 1241460 | 7-2007 | . 11 | . 09 | 7.20 | 6.84 | 12A1463 | 13-2013 | . 17 | . 14 | 11.20 | 10.64 |

(9)ADAPTER SOLDER TERMINALS FOR JONES BARRIER STRIPS
" $3 / 4$ W." type lugs are for wiring above the chossis. " $Y$ " type lugs are for wiring below the chassis.

| Stock | Type | $\begin{aligned} & \text { Fit } \\ & \text { Strip } \end{aligned}$ | $\begin{aligned} & 1.99 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 100- \\ 249 \\ \text { Per } \end{gathered}$ | $\begin{aligned} & 250- \\ & 499 \\ & \text { Per } C \end{aligned}$ | Stock No. | Type | $\stackrel{\text { Fit }}{\text { Strip }}$ | $\begin{aligned} & 1-99 \\ & \text { Eich } \end{aligned}$ | $\left\lvert\, \begin{aligned} & 100- \\ & 249 \\ & \text { Per C } \end{aligned}\right.$ | $\begin{gathered} 250- \\ \mathbf{4 9 9} \\ \mathbf{P e r} \mathbf{C} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1434 | 3/4 | 140 | \$0.03 | \$2.20 | \$1.76 | 12B1329 | Y | 140 | \$0.03 | \$2.20 | \$1.76 |
| 12 A1435 | $3 / 4 \mathrm{~W}$ | 141 | . 04 | 2.95 | 2.36 | 1281330 | Y | 141 | . 04 | 2.95 | 2.36 |
| 12 A1436 | $3 / 4 \mathrm{~W}$ | 142 | . 04 | 3.60 | 2.88 | 12B1331 | Y | 142 | . 04 | 3.60 | 2.88 |

## (4) MARKER STRIPS FOR BARRIER TERMINAL STRIPS

These strips have identical mtg . holes as barrier strips they mount under and leave exposed white numbers which serve to identify the contocts. Made of thick black fibre-also serve the purpose of insulating strips and when barriers are mounted on metal surfoces they prevent short circuits when longer serew's are accidentally inserted.
When TO ORDER: If a marker strip imprinted 1-2 is required for type 2-140 borrier specify B-A Stock No. 12 A1500 plus MS-2-140. If o morker strip barrier specify B-A stock No. for barrier 12-142, specify B-A stock No. 12A1500 plus MS-12-142 etc.

|  | Fits 140 Series |  |  | Fits 141 Serles |  |  | Fits 142 Series |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | 1-49 | 50-99 | 100-249 | 1-49 | 50-90 | 100-249 | 1-49 | 50-99 | 100-249 |
| MS-2 | 5 c | 4 c | 3,42 | 6 c | 5 c | 4 c | 6 c | 5 c |  |
| MS-3 | 6 c | 5 c | 4 c | 6 c | 5 c | 4 c | 7 c | 6 c | 5 c |
| MS-4 | 6 c | 5 c | 4 C | 7 c | 6 c | 5 c | 8 c | 7 c | 5 c |
| MS-5 | 7 c | 6 c | 5 c | 8 c | 7 c | 5 c | 9 c 10 c | $7 c$ 80 | 7 c |
| MS-8 | 8 c | 6 c | 5 c | 9 c 10 c | $7 c$ 8 c | $6 c$ 7 c | 10c | 8 c | 76 80 |
| MS-7 | 8 c | 7 c | 6 c | 10c | 8 c 9 c | $7 c$ $7 c$ | 12c | 10 c | 8 c |
| MS-8 | 9 c | 7 c | 6c | 110 c | 9 c 10 c | 7c 8 c | 13c | 11 c | 9 c |
| MS-9 | $9 \mathrm{9c}$ | 8c | 7 c 9 c | 11 c | 12 c | 10c | 17 c | 14 c | 11c |
| MS-10 | 13c | 11c | 9 c 9 c | 15c | 12c | 11c | 18 c | 15 e | 12c |
| MS-11 | $13 c$ $14 c$ | 12c | 9 c 9 c | 16c | 14 c | 11c | 19c | 15 c | 12c |
| MS-12 MS-13 | $14 c$ $15 c$ | 12 c 13 c | 10c | 17 c | 15 c | 12 c | 20c | 17 c | 13 c |
| MS-13 MS-14 | $15 c$ $15 c$ | 13 c 13 c | 10c | 18 c | 15 c | 12 c | 20 c | 17c | 14 c |
| MS-14 | $15 c$ $16 c$ | 13 c 14 c | 11c | 18 c 22 c | 18 c | 15 c | 24 c | 21c | 17c |
| Ms-15 | 19c | 16 c | 13 c | 22c | 19c | 15c | 25 c | 21 c | 17c |
| MS-17 | 20c | 17c | 14c | 23 c | 20 c | 16 c | 26c | 22 c | 18c |
| MS-18 | 20 c | 17c | 14c | 24 c | 20 c | $16 c$ |  |  |  |
| MS-19 | 21c | 18c | 15 c | 28 c | 23 c | 19 c |  |  |  |
| MS-20 | 25c | 20 c | 16 c | 28c | 24 c | 19c |  |  |  |
| MS-21 | 25 c | 22 c | 17c |  |  |  |  |  |  |

(3) CINCH SCREW TYPE TERMINAL STRIPS WITH SOLDER LUGS Ideal for chassis or breadboard layouts. Solder coated bross terminals. $136^{\prime \prime}$ dio. mtg. holes. Strips with to 6 lugs are of \$r" bakelite; 7 to 10 terminals mounted onals are spaced on fis" centers.

| Stock No. | $\begin{aligned} & \text { Type } \\ & \& \\ & \text { Lugs } \end{aligned}$ | Mig. Centers | $\begin{aligned} & \text { 1-99 } \\ & \text { Each } \end{aligned}$ | $\left.\begin{gathered} 100- \\ 999 \\ \text { Per } \mathbf{C} \end{gathered} \right\rvert\,$ | $\begin{gathered} 1000 \\ \text { Up }^{2} \end{gathered}$ | Stock No. | $\begin{aligned} & \text { Type } \\ & \text { \& } \\ & \text { Lugs } \end{aligned}$ | MIg. Centers | $\begin{aligned} & \text { 1-99 } \\ & \text { Each } \end{aligned}$ | $\left\|\begin{array}{c} 100- \\ 999 \\ \text { Per C C } \end{array}\right\|$ | $\left\lvert\, \begin{gathered} 1000 \\ \text { Upor } C \end{gathered}\right.$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1509 | 17-1 | 7/80 | 4 c | \$ 2.00 | \$ 1.75 | $12 \mathrm{Al514}$ | 17-6 | 31/" | 17c | \$ 9.10 | \$ 8.38 |
| 12A1510 | $17-2$ | $1{ }^{1 \%}$ | 6 c | 3.40 | 3.13 | 12A1515 | 17-7 | 312" | 21c | 11.30 1280 | 10.38 |
| 12A1511 | 17-3 | 13" | 9 c | 4.80 | 4.38 | 12A1616 | $17-8$ $17-9$ | 3\%" | 23 c 27 c | 12.80 | 11.75 |
| 12A1512 | 17-4 | $2 \%^{\prime \prime}$ | 12c | 6.20 770 | 5.75 7.00 | 12A1517 12A1518 | $17-9$ $17-10$ | 478" | 27 c 29 c | 14.30 15.70 | 14.50 |
| 12A1513 | 17-5 | 28/8" | 14c | 7.70 | 7.00 | 12A1518 | 17-10 | 458 | 28 c | 15.70 | 14.50 |



 | Stock No. | Tyne |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $12 A 1438$ | $13 \mathrm{C}-1$ | $\frac{1-99 \text { Each }}{5 c}\left\|\frac{100-999 \text { Per C }}{\$ 3.30}\right\|$ | 1000 Up Per C |
| $\$ 2.75$ |  |  |  |

## JOHNSON TRANSMITTING TUBE SOCKETS

(1) 11 git
(2)

(4) $\square$

Boyonet types have porcelain bases, glozed top and sides, cad. plated phosphor bronze contacts, nickel plated hardware, etched oluminum bayonet shells. Wofer types hove glazed steatite base ond plated brass contacts with


## SERIES 400 CONNECTORS

(1)


Small in size with good separation between contacts, black bakelite insulotion roted of 730 RMS volts at 10 amp . sertion. CSA approved. Average special long polarizing pin for correct insertion. both B-A Stock No. and Jones Type No.
speelfy bot

300 SERIES PLUGS G SOCKETS
CABLE TYPE WITH CLAMP
(1) PLUGS stk. No. 124179
(3) SOCKETS Stk. No. $12 A 179$

(3) PLUGS

## CHASSIS TYPE WITH ANGLE BRACKETS

Con
2
2
3
4
6
8
10
12
15
18
21
2
2
3
30
(b)

(2)


400 Series. Heavy duty polarized connectors for high power applications Roted 1100 RMS volts of 15 amps. Plug prongs ore $1 / 4^{\prime \prime}$ wide and $x^{\prime \prime}$ stock No. it 6 oz . Specify B-A Stock No. and Jones Type No. when ordering.

CABLE TYPE WITH CLAMP

|  | (1)PLUG, Jones | Stk. ${ }_{\text {c }}$ N | $\begin{array}{r} 12 A 176 \\ 50-991 \end{array}$ | 100-249 |  | (2) SOCKET, Jones | $\begin{aligned} & \text { Stk. } \\ & 1-49 \end{aligned}$ | No. $12 \mathrm{Al76}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Eoch | Eoch | Eoch |  |  | Eoch | Eoch | Eoch |
|  | P402CC | \$.78 | \$.65 | \$.52 |  | S402CCT | \$.85 | \$.71 | \$. 56 |
| 4 | P404CC | .95 | 80 | 64 | 4 | S404CCT | 1.06 | 88 | 70 |
| 6 | P406C | 1.12 | 93 | 74 | 6 | S406CCT | 1.28 | 1.07 | 86 |
| 8 | P408CC | 1.27 | 1.06 | 85 | 8 | \$408CCT | 1.51 | 1.26 | 0 |
| 10 | P410CCT | 1.43 | 1.20 | 96 | 10 | S410CCT | . 73 | . 45 |  |
| 12 | P412CCT | 1.60 | 1.34 | 07 | 12 | S412CCT | 1.95 | 63 | 30 |
|  | (3) PLUG, | $\begin{aligned} & \text { CHA } \\ & \text { Stk. } \mathrm{Na} \\ & 1.49 \end{aligned}$ |  | YPE WIT 17 $100-249$ |  | LE BRA SOCKE | KET | No. |  |
|  |  | Eoch | Eoch | Eoch | Co | No. | Eoch | Eoch | $00-249$ |
|  | P402AB | \$.50 | \$.42 | \$.33 | 2 | S402AB | . 5 | \$.47 |  |
| 4 | P404AB |  | 5 | 40 | 4 | S404AB | .73 | 6 | 49 |
| 6 | P406AB | 3 | . 61 | .49 | 6 | S406AB | 89 | 74 | 59 |
| 8 | P408AB | 4 | .70 | 56 | 8 | S408AB | 05 | 88 | 70 |
| 10 | P4IOAB | 5 | . 80 | 8 | 10 | S4IOAB | . 23 | .03 | 82 |
| 12 | P412AB | 1.05 | . 88 | 70 | 12 | S412AB | 1.39 | 1.16 | 92 |

## TRANSISTOR SOCKETS, DIODE HOLDER

$\frac{7-8}{41^{2}}$

(b)

Low Icss phen
silver plated.
No. 14B332. 3-Prong. Cinch Type 2H3. Eoch... 18 c c 10, Eoch. ... 15 c No. 17A1056. 5-Prong. Cinch Type 2H5. Eoch. . . 21 c 10, Eoch.... 17c COMBINATION TRANSISTOR SOCKETS
Fits all transistors having 3-pins on $.200^{\prime \prime}$ dla. circle or stralght in line Molded block bokelite. 3303 is less mto. ring.
(3) 1781033. Elco 3301. Saddle Mtg. Net Eoch... 35 c 10, Each... 32 c (1) 17B1034. Elco 3304 Retainer Mtg. Net Eoch...24c 10, Eoch... 22c (4) 1781035. Elco 3303 P. C. Mtg. Net Each...27c 10, Each...24c (b) Cinch Universal Socket. For use with any transistor with 3 pins. Gold ploted copper contacts. Snap-in P.C. mount.
No. 14A246. Cinch 7-UTS. Net Eoch. .......77c 10, Eoch. ....... 65 c (a) Cinch All-Molded Socket, fits triangular base. $2 \times .1$ " centers, or 3-contact in-line, $.048 \times .192$ contact centers. Bakelite with phosphor bronze contocts No. 14 A 247 Cinch 2TS-4. Net Eoch........17c 10, Eoch....... 14c

(7)

(8)

(9)
(10)


(11) 100

## (7) DIODE HOLDER

Hos plated bross spring shaped to support most diodes. Makes positive, No. 148336. Net Eoch............... 9 c 10, Each
(B) POWER TRANSISTOR SOCKETS

Wafer type for 2-prong power transistors with $7 / 8^{* \prime}$ spacings. Has grounding strap which octs as heot sink. Size $11 / 8^{\prime \prime} \times 1^{\prime \prime}$
No. 14A337. Cinch Type 2TS-1. Eoch. ......... 9 c 10, Eoch
Some os above except has two mto evelets for easier chassis mounting No. 14A338. Cinch Type 2TS-2. Eoch........ 11c 10, Eoch........ 8c (9) Molded Socket for all power transistors toking E-3 or E-4 bose designation Bakelite base, phosphor bronze contacts.
No. 14A248. Cinch 2TS-3. Net Eoch.
..... 9
9 c 10, Eoch.
(i9) HEAT SINKS
Anodized aluminum insulator wafers for use with power tronsistors. Hove high thermol conductivity and high resistance.
For 2 Ni79, 2 N176, etc. power tronsistors. $\frac{7}{16} \times 9$ " 4 -hole type.
No. 12A53. Cinch Type $2 W-1$. Net Each......25c 10, Eoch......20c For 2 Nl 74 , etc. power transistors. $1 / 2 \times 1{ }^{\prime \prime}$ centers. Center bolt hole.
No. 12A46. Cinch Type $2 \mathrm{~W}-2$. Net Eoch. ......25c 10, Eech...... 20 c For $2 N 389$, etc. power tronsistors. If $\times 3 / 8{ }^{\prime \prime}$ centers.
No. 12447 . Cinch Type $2 W-3$. Net Each......25c 10, Eoch.......20c (II) 5-Pin Socket for new nuvistor tube. Low-loss phenolic bose with stee mig. saddle for snap-in mount. Copper alloy contacts

10, Eoch.
12c

## PRINTED CIRCUIT SOCKETS



# Amphenol Sockets, Plugs, AC Connectors 

## AMPHENOL STANDARD CONNECTORS


(2)

(3)
"CP" pluos made of block bokelite, for chassis mounting, fits $1^{3}{ }^{3}$ " hole. PM and PF connectors ore molded black bakelite with steel shell. Rubber grommet in hole.

| Fig. | Stock No. | Type | Pins | 1-49 Ea. | 50-249 Ea. | 250-499 Ea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 12A58 | 86-CP4 | 4 | \$0.16 | 50.13 | 50.11 |
| (1) | 12 A59 | 86-CP5 | 5 | . 17 | . 13 | . 12 |
| (1) | 12A63 | 86-CP8 | 8 | . 18 | . 15 | .13 |
| (2) | 12A80 | 78-PF4 | 4 | . 31 | . 24 | . 21 |
| (2) | 12 A81 | 78-PP5 | 5 | . 31 | . 24 | . 22 |
| (2) | 12 A82 | 78-PP6 | 6 | . 33 | . 26 | 23 |
| (2) | 12 A 83 | 78-PF78 | 78 | . 34 | . 26 | 24 |
| (2) | 12 A85 | 78-PF8 | 8 | . 33 | . 25 | 23 |
| (2) | 12 A86 | 78-PF9 | 9 | . 35 | . 27 | . 25 |
| (2) | 12 A87 | 78-PF11 | 11 | . 37 | . 29 | . 26 |
| (3) | 12 A 72 | 96-PM4 | 4 | . 34 | .27 | . 24 |
| (3) | 12 A73 | 86-PMS | 5 | . 35 | . 27 | . 25 |
| (3) | 12 A74 | 86-PM6 | 6 | . 36 | -28 | . 25 |
| (3) | 12 A75 | 86-PM73 | 78 | . 37 | . 29 | - 26 |
| (3) | 12 A77 | 86-PM8 | 8 | . 37 | . 29 | . 26 |
| (3) | 12 A78 | 86-PM9 | 9 | . 38 | . 29 | $\begin{array}{r}27 \\ \hline 29\end{array}$ |
| (3) | 12 A 79 | 86-PM11 | ${ }^{11}$ | . 41 | . 32 | .29 .07 |
| No. 12A91. Cable Clamp for above (not shown) |  |  |  | . 10 | . 08 | . 07 |



Molded of high dielectric black bokelite, $U / L$ approved, rated 15 omps at 110 volts. Flg.(8) and (8) hove metal shell with built-in cable clamp. Fig (3) I founts in hole. Includes mounting ring.

| Flg. | Stock No. | Type | $1-49$ Each | $50-249$ Ea. | 250-499 Each |
| :---: | :---: | :--- | :---: | :---: | :---: |
| $(1)$ | 12889 | $61-M 11$ | $\$ 0.51$ | 50.40 | $\$ 0.36$ |
| $(2)$ | 12890 | $61-\mathrm{F} 11$ | .49 | .38 | .34 |
| $(3)$ | $12 A 354$ | $61-M I P-61 F$ | .28 | .21 | .19 |
| $(5)$ | $12 A 121$ | $61-M$ | .27 | .21 | .19 |
| $(5)$ | $12 A 122$ | $61-\mathrm{F}$ | .25 | 20 | .18 |

## AMPHENOL POLARIZED AC CONNECTORS



Heavy duty outlet type plugs and receptacles, U/L approved, for use with home appliances and electric power tools. Third prong is grounded for Made of block phenolic bokelite, contocts and ground prong ore copper alloy, meets MIL-M-14-F specifications. Caps are cod, plated steet, mounting plate is nickel plated steel. Roted of $15 \mathrm{omp}, 125 \mathrm{~V}$. AC. Type 160-2 ing plate is nickel plated stee. hole, hos $11 / 2^{\prime \prime} \mathrm{mtg}$. centers. Cable type are I It" long with either cable ciamp or grommet


Type
160-2-MIP
Receptoc
1-24 25-99 100-249
60-3 MiP Plug

| $12 A 1$ | $60-2-$ MiP Receptocle |
| :--- | :--- |
| $12 A 2$ | $160-3$ MiP Plug |
| $12 A 4$ | $160-7$ Coble Plug-Grommet |
| 12 A41 | $160-9$ Cable Plug-Cable Clamp |
| $12 A 3$ | $160-6$ Coble Socket-Grommet |

## GRID \& PLATE CAPS



Size $1 / 4^{" \prime}$ tits metal or GT tubes, size
$3 / 8{ }^{\prime \prime}$ fits std. glass tubes, also type $3 / 8^{\prime \prime}$ fits std. glass tubes, also type
807 , size ${ }^{\text {Pr " }}$ fits 866 and other transmitting types. Insulated types recommended for high voltage or tronsmitting tubes
Stock No. Size
1241349
$\begin{array}{ll}1841349 & 3 / 8^{\prime \prime} \text { "National National } \\ 184220 & 70^{\prime \prime} \text { Natinal }\end{array}$ 12A1350 $1 / 4 . "$ National 12A1356 ${ }^{\circ}$ ". Ins. Millen 17 A1041 \%/ Ins. Millen

$-71$

## WALDOM "EASYCAP"

For HV recttfier and
horizontal output tube cap replacements. Simplifies and improves instaliation.
No. 148497. 3/8" Cap for 1B3, 6CD6. A., 110 V . Mounts in il $x$ 剈" hole No. 148498. 1/" Cap for 6BQ6. Nounting cirs. Net Each 100 For Choice Eoch. 28e 10, Each.20e No. 124899. 15 c . 58.70

AMPHENOL SOCKETS AND MOUNTS


Quality engineered sockets for every need. MIP. RS and $S$ type are black phenolic, RSS is steatite. MiP type has molded-in steel mounting plate. Type 78 adaptor sockets are same size as $S$ type but fit 7 and 9 pin minioture tubes.

| Fig, | Stock No. | Type | Pins | Mig. Centers | Mig. Hole | $\begin{aligned} & \text { 1-49 } \\ & \text { Each } \end{aligned}$ | 50-249 Each | $\begin{gathered} 250-499 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 12A93 | 77 MIP 4 | 4 | 112* | 1\%" | \$0.13 | \$0.10 | \$0.09 |
| (1) | 12A94 | 77 MIP5 | 5 | 11/2" | 13" | . 15 | . 11 | . 10 |
| (1) | 12A95 | 77MIP6 | 6 | 11/2' | 1 \% | . 17 | . 13 | . 12 |
| (1) | 12A96 | $77 \mathrm{MLP7}$ | 78 | 11/2' | $1 \%$ | . 18 | . 14 | . 13 |
| (1) | 12 A97 | 77MIP7L | 7 L | 11/8' | 1\%" | . 18 | . 14 | .13 |
| (1) | 12A98 | 77MIP8 | 8 | 11/2' | $1{ }^{\circ}$ | . 15 | . 12 | . 11 |
| (1) | 12A1440 | 77 MIP 9 | 9 | 11/2" | 13 " | . 17 | . 13 | . 12 |
| (1) | 12A1441 | $77 \mathrm{MIP11}$ | 11 | 112" | 1\%" | . 20 | . 16 | . 14 |
| (1) | 128166 | $77 \mathrm{MIP12}$ | 12 | 11/3" | 13 " | . 20 | . 16 | . 14 |
| (1) | 128167 | 77 MIP20 | 20 | 11/8" | $1 \%$ " | . 51 | . 40 | . 38 |
| (1) | 12A100 | 88-8 | 8 | 1\%" | $13^{\prime \prime}$ | . 16 | . 12 | . 11 |
| (1) | 12 A101 | 88-8X | Loct. | 1\%* | 14" | . 21 | . 16 | . 15 |
| (2) | $12 \mathrm{AlO4}$ | 78-R84 | 4 | 13" | $1 \%$ " | .17 | . 13 | . 12 |
| (2) | 12 A 105 | 78-R85 | 5 | 1\%" | $1 \%$ \% | . 19 | . 15 | .13 |
| (2) | 12A106 | 78-R96 | 6 | 13" | 1\%" | . 20 | . 15 | .14 |
| (2) | $12 \mathrm{Al10}$ | 78-RS8 | 8 | 13" | 1\%" | . 19 | . 15 | . 13 |
| (2) | 12 A112 | 40-RSS4 | 4 | 13* | 11/ | . 58 | . 45 | . 41 |
| (2) | 12 A113 | 49-R885 | 5 | 1\%" | 11" | . 60 | . 47 | . 42 |
| (2) | 12 A116 | 49-RSS7L | 7 L | 11** | 11"' | . 64 | . 50 | . 45 |
| (2) | 12 A117 | 40-RSS8 | 8 | 13" | 11/" | . 60 | . 46 | . 42 |
| (3) | 12448 | 78.54 | 4 |  | 1\%" | . 12 | . 10 | . 09 |
| (3) | 12A49 | 78-35 | 5 |  | $13 "$ | . 13 | .10 | . 09 |
| (3) | 12A50 | 78-86 | 6 |  | $15^{\prime \prime}$ | . 15 | . 12 | . 11 |
| (3) | 12 A 54 | 78-58 | 8 |  | 13 | . 15 | . 11 | . 10 |
| (3) | 12 A 56 | 78-89 | 9 |  | 1\%" | . 17 | . 13 | . 12 |
| (3) | 12A57 | $78-811$ | 11 |  | 13 | . 19 | . 15 | . 13 |
| (3) | $17 \mathrm{B765}$ | 78-A7P | 7 Min , |  | 1\%" | . 33 | . 25 | . 23 |
| (3) | 17B766 | 78-A9P | 9 Min . |  | $1{ }^{*}$ | . 32 | . 25 | .23 |

[^2] Steel mitg. plate has slotted holes with $11 / "^{\prime \prime}$ to $17 / 8^{\prime \prime}$ centers. Above surface mount raises socket $1 \%^{\prime \prime}$ above surface, $13 / 4^{\prime \prime}$ dia. Below surface mount extends I ${ }^{\prime \prime}$ " below surface. Mounts in $1 \frac{7}{18}^{\prime \prime}$ hole on $13 / 4^{\prime \prime}$ centers.

| Fig. | Stock No. | Description | $1-49 \mathrm{Ea}$. | $50-249$ Ea. | $250-499 \mathrm{Ea}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (4) | $12 A 56$ | Mounting Plate | $\mathbf{5 0 . 0 5}$ | $\$ 0.04$ | 50.03 |
| $(5)$ | $12 A 67$ | Above Surface Shell | .14 | .11 | .10 |
| $(6)$ | $12 A 70$ | Below Surface Shell | .11 | .09 | .08 |

AMPHENOL MINIATURE PLUGS AND SOCKETS


78 series and 86 series mount in $5 / 8^{\prime \prime}$ hole with push-on spring. Plugs can be chossis mounted or wired to crable. 7-pin sockets fit 7 -pin miniature tubes. $78-1 \mathrm{M}$ socket mounts in $3 / 8^{\prime \prime}$ hole. $78-1 \mathrm{M}$, 78-1P, $71-1 \mathrm{M}$ available in Red or Block. 71 Series are less retainer ring. $78-1 \mathrm{M}$ and $71-1 \mathrm{M}$ have $1 / 8^{\prime \prime}$

| Fig. | Stock No. | Type | Pins | 1-48 Each | 50-249 Each | 250 Up Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 12A140 | 78-338 | 3 | \$0.09 | \$0.07 | \$0.06 |
| (1) | 12 A141 | 78.348 | 4 | . 12 | . 09 | . 08 |
| (1) | 12 A 125 | 78-35S | 5 | . 15 | .11 | . 10 |
| (1) | $12 \mathrm{Al18}$ | 78-80S | 6 | . 16 | . 12 | . 11 |
| (1) | 12A123 | 78-7P | 7 | . 21 | . 16 | . 15 |
| (2) | 12A138 | 86-(PP38 | 3 | . 11 | . 09 | . 08 |
| (2) | 12A139 | $86-\mathrm{CP}_{4} 5$ | 4 | . 12 | . 09 | . 08 |
| (2) | 128171 | 71-58 | 5 | . 11 | . 09 | .08 |
| (2) | 128172 | 71-6S | 6 | . 14 | . 11 | . 10 |
| (3) | 128268 | 78-1M | 1 | . 10 | . 08 | . 07 |
| (3) | 128269 | 78-1P | 1 | . 10 | . 08 | . 07 |
| (4) | $12 \mathrm{B270}$ | 71-1 M |  | . 08 | . 06 | . 05 |

## AMPHENOL MINIATURE SHIELDED CONNECTORS

Shells are codmium ploted brass $1 \frac{1}{16}$ dia. Inserts ore bakelite. Fig. (b) is flonged femol
chassis socket

| Fig. | Stock No. | Type | Pins | 1-49 Each | 50-99 Each | 100-249 Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (5) | 12A148 | 91-MPF3L | 3 | \$0.38 | \$0.30 | \$0.27 |
| (5) | 12 A 148 | 91-MPP4L | 4 | . 42 | . 32 | . 29 |
| (6) | 12 A142 | 91-MPM3L | 3 | . 35 | . 27 | . 24 |
| (6) | 12 A 143 | 91-MPM4L | 4 | . 36 | . 28 | . 25 |
| (6) | 12822 | 91-MPM5L | 5 | . 39 | . 30 | . 27 |
| (6) | 12823 | 91-MPM6L | 6 | . 41 | . 32 | . 29 |
| (7) | 12A150 | 78-PCC3 | 3 | . 19 | . 15 | . 14 |
| (7) | 12A151 | 78-PCCH | 4 | 23 | .18 | . 16 |
| (7) | 12824 | 78-PCG5 | 5 | . 23 | . 18 | . 16 |

SURFACE MOUNTED BREADBOARD SOCKETS
Ideal for schools,
hobbyists. For ex- Pins Stk. No. Type Net Eo. 10, Ed. perimental circuit $\begin{aligned} & \text { design. Insulated } 7 \text { Min. } 17 B 262 \times 5-7 \times 8 \mathrm{C}\end{aligned}$ $\begin{array}{lllll}\text { design. Insulated } 7-\mathrm{Min} . & 178262 \times 5-7 & 48 \mathrm{c} & 44 \mathrm{c} \\ \text { bose prevents Octol } & 178263 \times 5-8 & 56 \mathrm{c} & 51 \mathrm{c}\end{array}$
 shorts.
Pomona)

# Cinch Sockets, Switchcraft Plugs \& Jacks 

## CINCH-JONES MINIATURE SOCKETS \& SHIELDS <br> 

T-PIN MINIATURE SOCKETS Unshielded types are bottom mount.
Shielded types are top mount. Both mount in $5 / 8^{\prime \prime}$ hole with $7 / 8^{\circ \prime} \mathrm{mtg}$. et

| Flg. | Stock No. | Type | Body | $\begin{aligned} & \text { 1-99 } \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | Fig. | Stock | Typo | Body | $\begin{aligned} & 1-69 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 17 A768 | 7FB | Bakelite | 9 c | \$ 8.00 | (1) | 17A770 | 9EB | Bakelite | 12c | \$ 8.00 |
| (1) | 17 C 718 | 7EM | Mica | 11 c | 7.20 | (1) | 17A771 | 9EM | Mica | 14 c | 9.20 |
| (2) | 174772 | $7 \mathrm{XB1}$ | Bukelite | 17c | 11.20 | (2) | 17A775 | 9 XB | Bakclite | 19c | 12.80 |
| (2) | 17A773 | 7XM1 | Miea | 19c | 12.80 | (2) | 17 A776 | ${ }^{9 \times M}$ | Mica | 20 c | 13.60 |
| (2) | 17 A774 | 7XC | Ceramic | 32c | 21.20 | (2) | 17 A777 | 9 XC | Ceramic | 30c | 20.00 |

Durable steel shields with "J-Slot" for locking onta base. Tube holding spring on top

| Stock No. | Type | Size | $\begin{aligned} & \text { 1-99 } \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 17 A779 | 752 | $13{ }^{1 / 2}$ L L | 11 c | \$ 7.60 |
| 17 A 880 | 753 | $133^{\prime \prime} \mathrm{L}^{\text {L }}$ | 12c | 8.00 |
| 17 A 78 | 784 | 21/4. L . | 18c | 12.00 |


| Stock No. | Type | Size | $\begin{aligned} & 8-99 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 17A1065 | 981 | $11 / 201$. | 14 c | \$ 9.60 |
| 17at064 | 982 | 1\%is. L | ${ }^{14} \mathrm{c}$ | 8.60 |
| 17A1063 | 983 | 23/8" L . | 28 c | 18.40 |

## MOLDED OCTAL SOCKETS

Molded (4) Soddle Maunt Type
bakelite. Steel saddle has 4 ground Complete one-piece construction, body bagelite. Mounts in $l^{\prime \prime}$ hole. I $\mathrm{A}^{\prime \prime} \mathrm{mtg}$. and saddle from a single casting. Has mtg centers. Fits in 1 hole. lugs. Mounts in hole. Ti mig. I Re" mig. centers. Fits in 1 " hole.
centers.



## JAN SOCKETS AND SHIELDS

Material and finlsh constructed to rigid requirements of MIL-12883A. Un shielded type is bottom-mount, shielded is top mount. 7 -pin mounts in $5 / 8$," hole with $7 / 8^{\prime \prime} \mathrm{mtg}$. centers. 9-pin type mounts in $3 / 4 "$ hole with $11 / \mathrm{m}^{\prime \prime}$ mounting ecenters. Octal type mounts in $11 / 8^{\prime \prime}$ hole with $11 / 2^{\prime \prime} \mathrm{mtg}$. centers.


TOP QUALITY SWITCHCRAFT PLUGS AND JACKS


MILITARY TYPE PLUGS
Meets the ormed services MIL-P-642 (A) specifications. PJ-055B fits stand-
ard $1 / 4^{\prime \prime} 2$-cond. lacks. PJ- 068 fits .206" dio. 3-cond. jack. Employ lug ord $1 / 4^{\prime \prime}$ 2-cond. lacks. PJ-068 fits. $206^{\prime \prime}$ dio. 3 -cond. iack. Employ lug terminals attached internally with brass screws. Shells MIL Spec. plastic.
 (9) $1 / 4^{\prime \prime}$ DIAMETER "'LITTEL-PLUGS"'

Shell $1 / 2^{\prime \prime}$ dia., $15 / 8^{\prime \prime}$ long. Screw terminal types supplied with 3-48 screws. Solder types hove anchor for shielded wire. Shielded shells are brass, nickei plated. No. Type Shell Term. Conductors Net Each 10, Eoch

| Stk. No. | Type | Shell | Term. | Conduct | Net Each | 10, Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 128252 | 240 | Black | Screw | 2 | 44 c | 41 c |
| 128253 | 245 | Red | Screw | 2 | 44 c | 41 c |
| 128254 | 270 | Bross | Screw | 2 | 62 c | 57 c |
| 124440 | 250 | Black | Solder | 2 | 41 c | 38 c |
| 124441 | 255 | Red | Solder | 2 | 41 c | 38 c |
| 124442 | 280 | Brass | Solder | 2 | 69 c | 54 c |
| 124447 | 267 | Black | Solder | 3 | 62 c | 57 c |
| 12A448 | 297 | Brass | Solder | 3 | 76 c | 70 c |

Two conductor precision cord conmectors. Molded plastic cose cements together. Size $1 / 2$ W. 2 . 12 A28
2A290 Jock JJO48 Each
35 c 10 Eoch
$.32 c$
$.43 c$
Used on mobile radio equipment where spoce is at a premium. Black plastic hande, screw terminals. Nylon spocers in finger
No. 12A292. Type 5-230. Net Each

## SWITCHCRAFT "LITTLE-JAX"

Compact jacks of highest quality
Mount in $3 /{ }^{\prime \prime}$ hole on
TWO CONDUCTOR- $1 / 4$ " DIA.
THREE CONDUCTOR
 tk. No. TyDe Eoch 10 Ea. $12 A 398$ 12B Eo. 32c $10{ }^{\prime \prime}$ Ea DIA. $\$ 2 A 39611$ Openckt. 24 c 22c THREE CONDUCTOR-. $206^{\circ}$ DIA. $12 A 397$ 12AClosed Ckt. 27 c 24c 12A451.CI2BEo..41c 10 Ea .. 38 c

## SUB-MINIATURE PLUGS AND JACKS

Used in almost all transistor radios. Only $1 / 3$
size of "Littel-Jax" ond "Littel-Plugs". Jack
mounts in $1 / 4^{\prime \prime}$ hole in panels up to $1 / 8^{\prime \prime}$ thick.
Plug is 2 -cond., Dia. $1 / \theta^{\prime \prime}$ of shell, length $15 / 6^{\circ}$
overall. For Ai or smaller cable.

(1) No. 128426 . Type 41. Open Circult Jock. Each. (1) No. 128427 , Type 42A. Closed Circuit Jack. Eoch..27c 27 c 10, Eoch..22c WITH SCREW TERMINALS "TINI-PLUGS" WITH SOLDER TERMINALS
No. 740 Type $\quad$ Elk. Tennite..... Each Hos clamp anchor for shielded wire. $128420 \quad 740$ Bik. Tennite. .....44c 128423 750 Blk. Tennite. Eo... 41 c 12B422 770 Brass, N.P.........62c $\mathbf{c}$ i2B425 780 Brass, N.P. Eo...... 69 c Uitra-minlaturized version of Tini-plugs AND JACK
Ultra-miniaturized version of Tini-plugs obove. Plug is 1 ghe $^{\prime \prime}$ long, $1 / 4^{\prime \prime}$ O.D.
with $097^{\prime \prime}$ dia. finger. Jack is $1 z^{\prime \prime}$ long, mounts in A" hole on panels up
to sit" thick. Both 2-cond. Jack is closed circuit. (8) No. 12A287. 850 Black Plug. Eoch. ...
(1) No. $12 A 288$. TR-2A. Jock, Eoch. . $.45 c$

## MALLORY PLUG \& JACKS

## MALLORY MIDGET

 \& JUNIOR $1 / 4$ " JACKS

Screw terminal 2 -cond. plugs and acks, will take wire or phone tips.
Type 75 pling and 100 jack has bakeite shell 100 N and 100A have shielded brass nickel plated. 100A
is two-piece with coble clamp. Fig. Stk. No. Type Ea. 10 Ea.

$\begin{array}{lllr}12 A 445 & 100 \mathrm{~N} \text { - lack } & 1.06 & .97 \\ 12 A 446 & 100 \mathrm{~A} \text { - } 0 \text { ock } & 1.47 & 1.35\end{array}$ MALLORY HEAVY-DUTY MILITARY TYPE JACKS


Open circult like AI in diogram at right. Fits stondard plugs. Type SC1A.
No. $12 A 384$. EACH.......... 35 c No. 12A384. EACH . . . . . . . . . 35 C
10 Lots, Eoch.
Three-conductor like 702 B in diagram Three-conductor like 702 B in diagram
of right. For plugs WE1O9, PJ-068, of right. For plugs WE109, PJ-068,
PL68. PLi68, etc.
$12 A 385$. Type SCA2B. EACH. . 41 c 12 A385. Type SCA2B. EACH . . 410
10 Lats, Eoch. . . . . . . ....... 38 c

## Knobs, Dials and Dial Plates



##  <br> 10039

## NATIONAL VERNIER TUNING DIALS WITH BLANK SCALES FOR CALIBRATION

Highest quolity, for receivers, oscillators, etc. Both hove 0-100 $180^{\circ}$ logging scale in oddition to blonk scales, smooth 5 to 1 velvet vernier ond plastic pointers. For $1 / 4^{\prime \prime}$ shafts. Finished in professional black. Wt. 1 lb . No. 29A73. MCN $23 / 4 \times 37 /$ 月 " $^{\prime \prime}$. Each
$\$ 7.20$
No. 29A74. ICN $51 / 8 \times 71 / 4$, EOch

## THE POPULAR MILLEN MIDGET DIAL

 WITH PRECISION 8:1 RATIORight for today's miniature size equipment. Colibroted $0-100$ plus 5 blank Na. 29A91. Millen 10039 . Net Each. ............................ $\mathbf{~ W 3 . 2 4}$

## GROTH TURN COUNT DIAL



For use on multi-turn devices such os roller coil inductance, inductuners, multi-turn potentiometers and vocuum capocitors. Molded black bakelite with logging card spoce. ters of each turn of knob dial, upper numeral wheel ot each 10 turns, thereby registering froctional turns to 99.9. Increases clockwlse, permits exact return to any point.
Mounts on front panel by 4 corner screws or the shaft bushing. Hos removable $1 / 4^{\prime \prime}$ shoft extending $11 / 2^{\prime \prime}$ behind dial. Dial case

$\$ 5.50$ No. 29A65. TC3. $13^{\prime \prime}$ dial dial Net Each
$\$ 5.75$
. .75 c


## DAVIES <br> ELECTRONIC <br> INSTRUMENT KNOBS

Modern fluted, skirted style like used on most professional electronic equip ment. Flowlessly molded of very durable, heot resistont black plastic, gloss finished, with white filled pointer tine on top and skirt of two smalier sizes, nation of type 1910 . 1920 sizes. All are set screw type for $1 / 4$ shatt

 MILLEN MIDGET KNOBS-COUPLERS


Stk. No Mfg. No. $17 A 614$ Mg. No 17 A615 AO18 17 A616 A007 17 A616 A007 $17 A 617$ A006 17 A618 A015 $\begin{array}{ll}17 A 619 & \text { MOO1 } \\ 17 A 620 & M O 17\end{array}$ $17 A 620$
$17 A 621$ 17A622 A068 $\begin{array}{ll}17 A 622 & \text { A06 } \\ 17 A 623 & M 003\end{array}$ $17 A 623$ M003 17 A62 1246
 Description_All Items, ore for $1 / 8^{\prime \prime}$ Shofts Net 4 Block Plostic knob re high, bross, insert Some as A019 above, except with 3/" dia. skirt $3 / 4^{" B}$ Black Plastlc Fluted Knob $1 / 2$ " high $1^{\prime \prime}$ Block Fluted Dial Knob $1 / 2^{\prime \prime}$ high $180^{\circ} \mathrm{CW}$ insulated Flexible Coupler-Universal Joint Type Insulated Flexible Coupler, $13^{\prime \prime}$ L. Is" $^{\prime \prime}$ Dia. Insulated Solid Coupler brass inserts Shaft Bearing, Nickel Plated Brass Solid Nickel Plated Brass Coupler Shoft Lock, Nickel Ploted Brass Shoft Lock with Knurled Thumb-nu $1 / 8^{\prime \prime}$ Brass Shafting-12" Lengths

INDICATOR EYE UNITS
For adopting "Magic Eye" tubes to FM radio tuning, signal tracers and volume or modulation level indicators. Includes tube socket, $22^{\prime \prime}$ cable, adjustable mounting bracket, branze escutcheon $36 c$
$39 c$ and hardware. Tube Not Furnished.
Na. 17A759. 58-MEA-6. Assembly for 6-prong tube
No. 17A760. 58-MEA-8 Assembly for Octal tube
$\$ 1.98$

## CLOCK-RADIO KNOB KIT

990
SAVES TIME TRYING TO FIND EXACT DUPLICATES REPLACE ALL KNOBS WITH NEW MATCHING SET
Handy Kit of 25 Minioture Knobs, 5 each white, black, red, brown and clear. Fit $1 / 8^{\prime \prime}$ spllt shafts on clocks, elect
etc. ${ }^{\text {s." }}$ dia., $1 / 2 "$ long. Import Savings.
No. 178143. Per Kit of 25. Special.

Tancoss calsTEKNI-CAL PANEL MARKING DECAL SETS ADD CUSTOM PROFESSIONAL APPEARANCE TO EQUIPMENT - Ecanomical Permanent - Nent Appeorance Quick, easy, transfer labels for permonent morking of Electronic
Instruments and equipment. Many sets contain 1000 or more marks, titles, symbols, etc., of appropriate sizes for their purpose. Alphobet sets include $1 / 8^{\prime \prime}, 1 / 4^{\prime \prime}, 38^{\prime \prime}$ and $1^{\prime \prime}$ complete sets of letters and numerals.
Stk. No. Deseription Calar Each Stk. No. Description Color Each Stk. No. Description White $\$ 5.95 \quad$ 20A350 Hi-FiAudio Gold 1.85 208156 Alphabet White $1.65{ }^{20178}$ Instrument White 1.85


20 Al72 Audio
20A173 Audio
$20 \mathrm{B75}$ Dials
20 A351 Dials
$\begin{array}{llll}204351 & \text { Diols } \quad \text { White } 1.85 & 20874 & \text { Television } \\ 204349 & \text { Hlack } & 1.85 & 20876\end{array}$
204349 Hi-FiAudio White 1.85204355 VTVM
FINISHING SOLVENT FOR TEKNI-CAL TRANSFERS
Dissolves the clear background material on which transfers ore imprinted and permonently odheres them to mounting surfoce. Produces very finished appearance. I oz
No. 20A176. Teckni-Solv. Net Each
SMARTLY STYLED INSTRUMENT KNOBS

(1)

(2)

(3)
(4)
(5)
(6)

(3)

Lustrous black molded bakelite with white filled pointer line. For $1 / 4^{\prime \prime}$ shaft. All ore set screw type, indicates brass insert type.
Fig. Stk. No. Size Calar Each 10, Ea. Fig. Stk. No. Size Color Each 10, Eo.


## QUALITY KNOBS for EVERY PURPOSE <br>  <br> (1) <br>  <br> (4) <br> 

BAKELITE MOLDED KNDBS-
(3) ELECTRIC CLOCK KNOB

SET SCREW TYPE-FOR $1 / 4^{\prime \prime}$ SHAFTS Type Stk. No. Oio. Calor Each $128375^{3 / 8^{\prime \prime}}$ Net Eoch ${ }^{7}$ " height. Trpe Stk. No.
$12 \mathrm{Al\mid} 227$
 (4) DAVIES 2110

VIES 2110 LEVER KNO ${ }^{21 c}$ For $1 / 4^{\prime \prime}$ shaft. Overoll length $15 / 8^{\prime \prime}$ set screw type, motded bakelite No. 12 2B433. Black. Eoch.
No. 12 B434. Brown. Eoch. $17 c$ (3) 12A664. Chrome Auto Knob for fi Shoft. Eoch. ....................... 38 c

## BLACK FLUTED KNOBS

NATIONAL KNOBS

(1)


Sturdy molded black bokellte, with for $1 / 4$, grip shaft. Fig. Stk. No. Size Each 10, Ea. 1244
1243 12437
12438
$12 A 34$
$12 A 35$
Gleaming chrome trim, for $1 / 4^{\prime \prime}$ shaft Gieaming chrome trim, for $1 / 4^{\prime \prime}$ shaft. Fig. Stk. No. Size, Color Eaci HRS-3 15A1101 $13 / 8^{\prime \prime}$ Gray 58 C $\begin{array}{lllll}\text { HRS-3 } & 1581117 & 13 \% & \text { B1, } & 58 \\ \text { HRS-4 } & 1581119 & 13 / 8^{\prime \prime} & \text { Gray } & 58 \\ \text { HRS-4 } & 15 B 1120 & 13 \% & 81 & 58\end{array}$ HRS-5 15
"DRESS-UP" CONTROL KNOBS
IMPORTED TOP QUALITY AT BIG SAVINGS


Trim, functionally styled, in keeping with the best in Hi-fi equipment, tuners, Attractive fluted taper cylinder of solid color plastic has notural ar gold aluminum trim ring in recessed face. All have white indicator line opposite set screw. For $1 / 4^{\prime \prime}$ shofts
$11 / 16^{\text {size }} \mathrm{D}$.
Body/Ring Black/Alum Black/Gold Grey/Alum. Ivory/Gold
Brown/Gold

-
Large
178595
178585
178596
178597
178630

## TITLE PLATES FOR AUDIO AND HIGH-FIDELITY EQUIPMENT

Beautifully onodized bronze tone oluminum. Harmonizes with dark or blond tones. Sizes $2 \times 21 / 4^{\prime \prime}$ with $3 / 8^{\prime \prime}$ center hole. Order by title ond stock number: Volume, Tone, Bass, Treble, Tape, Mike, Blank. Knobs to $13 / 8^{\prime \prime}$ dia. No. 17B998. Choice, Each (Specify Titles Wanted).44c

## Variable Condensers-Dial Accessories



## (1) BUD TINY MITE

 Small size, $1 \mathrm{f} \mathrm{B}^{\prime \prime}$ by $1 \mathrm{~T}^{\circ}{ }^{\circ}$. Well suited for ultro-high frequency circuits where good stability is required. Has brass plates, ceramic insuiation, and o separate shic| DUAL SECTION AIR GAP 017 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stock | Cap. P | er Sec. | Mfg. | Nat |
|  |  |  |  |  |
| 16 A710 | 8 | 2.5 | LC1659 | \$2.8 |
| 16A711 | 15 | 3 | LC1660 | 3. |
| 16A712 | 25 | 4 | LC1661 | 3.8 |
| 16 A713 | 50 | 6 | LCI662 |  |
| 16 A714 | 100 | 9 | LC1663 |  |
| TRIPLE SECTION |  |  |  |  |
| 144308 | 11 |  | LC1845 | 5 |
| 14 A309 | 17 | 5 | LC1846 | 5. |
| 14A310 | 25 | 6 | LC1847 |  |

JOHNSON SUBMIDGETS Steatite end plate only $5 / \mathbf{y}^{3} \times 3 / 4^{\circ \prime}$. ${ }^{\prime \prime \prime}$ dia. slofted shaft extending $1 / 4^{\prime \prime}$ from Rigidly soldered rotor and stator os Rigidly soldered rotor and stator os
semblies. Plate spacing .017, rating semblies. Plate
750 -Volt R.M.S.

| Stock No. | (2) SINGLE Mfg. No. | SECTION Cap. Mmf. Min.-Max. | Net Each |
| :---: | :---: | :---: | :---: |
| 14A311 | 5 MII | $1.5 \quad 5.0$ | 51.00 |
| 14 A312 | 9 MlI | $\begin{array}{lll}1.8 & 8.7\end{array}$ | 5 |
| 144313 | 15M1I | 2.314 .2 | 20 |
| 14 A314 | 20MII | 2.719 .6 | 5 |
|  | BU | ERFLY |  |
| 144316 | 5 MBI | 1.85 .1 | 60 |
| 144317 | 9 MBII | 2.28 | 1.80 |
| 14 A318 | 11 MBII | 2.710 .8 | 2.00 |

## 

With low loss ceramic base and clear India Ruby mica dielectric.
Type A: $3 / 4$ " $\times 5 / /^{\prime \prime}$
Type 8: 7/8" $\times 78^{\prime \prime}$
(4) HAMMARLUND HF MICROS

Very efficient in critical high frequency circults. Steatite insulation. Equipped with special wide front bearing. Plate spacing .015 . FHove .045 spacing.

| Stack No. | Mif's Type | Ma Mm |  | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 17 A84 | HF-15 | 17.5 | 2.8 |  |
| 17485 | HF-35 | 36 | 3.2 |  |
| 17486 | HF-50 | 52 | 3.7 |  |
| 17487 | HF-100 | 102 | 5.3 |  |
| 17488 | HF-140 | 142 | 6.3 |  |
| 17889 | - HF-15-X | 15 | 3.6 | 2 |
| 17A90 | \%HF-30-X | 30 | 5.2 |  |

17 A99 HFD-15-X 16 to $3.8 \$ 8.55$ 17897 \#HFD-30-X 28.5 to $5 \mathbf{4 . 6 5}$
(5) HAMMARLUND APC MICROS Particularly adoptable to S.W. Steatite base. Air gap .015". Screwdriver odjusiment.

| Stack | Mfr's | Max. Min. | NET |  |
| :--- | :--- | :---: | :---: | :---: |
| No. | Type | Mmf. Mmf. | EACH |  |
| $17 A 79$ | APC-25 | 25 | 3.0 | $\$ 1.35$ |
| $17 A 80$ | APC-50 | 50 | 3.9 | 1.55 |
| $17 A 82$ | APC-100 | 100 | 5.5 | 1.85 |
| $17 A 83$ | APC-140 | 140 | 6.7 | $\mathbf{2 . 1 5}$ |
|  | SHAFT TYPE APC |  |  |  |

## $1 / 4$ " SHAFT COUPLERS



163
1089
085

(6)BUD MC TYPE MIDGET VARIABLES TOP CHOICE CONDENSER FOR RECEIVER AND TRANSMITTER TUNING The popular high quality steatite in sulated midget condenser. Stoble two bearing design, $1 / 4^{\prime \prime}$ shaft extends $1^{\prime \prime}$ to the front and also "f "to rear for ganging. Has cadmium plated brass plates. Mounts on base or with single hole through the panel. Air gap .024" *Semi-circular plates (straight line capacity) all others are mid line plates (straight line wave length)
Stk.
Type Mmf. Mmf. Eoch
17A58 ${ }^{\circ}$
17A59*
17 A
17 17A6
17A62
1746
$17 A 6$
17848ㅎ․
$\begin{array}{lllll}17 A 648 & 1858 & 190 & 9 & 2.94 \\ 17 A 68 & 909 & 250 & 11 & 3.29 \\ 17 A 69 & 910 & 300 & 13 & \mathbf{3 . 6 9}\end{array}$
MC DUAL CONDENSERS
$\begin{array}{lllll}1741147 & 911 A & 100 & 6 & \$ 4.37 \\ 17 A 1148 & 912 A & 140 & 7 & 4.73\end{array}$

(7) BUD MIDGET

## SINGLE BEARING TYPE

Electro soldered semi-circular plates. Ceramic insulated. Wiping spring cantoct on rotor. Mounts in "7" hole. Double spaced units. $06^{\prime \prime}$ air gap others . 024
Stk. Type Max. Min. Net
No. Mmf. Eoch

$\begin{array}{llrlr}17 A 53 & \text { MC1872 } & 33 & 4 & 1.84 \\ 17 A 54 & M C 1873 & 50 & 5 & 1.91 \\ & \text { MC1875 } & 100 & 7 & \mathbf{2} .96\end{array}$
$\begin{array}{lllll}17 A 54 & M C 1875 & 100 & 7 & 2.06 \\ 1740 & 8 & \mathbf{2 . 3 5}\end{array}$
DOUBLE SPACED
17 M57 MCI881 $50 \quad 7 \quad \$ 2.35$
(8) HAMMARLUND BUTTERFLY

Precision design for VHF and UHF Perfect symmetry for dual split stator circulication. Air gap $.03^{\prime \prime}$. Size $13 / \mathrm{a}^{\prime \prime}$ sq. $11 / 2$ deep.
Stk. No. Type Mox. Min. Net Eo. $17 A 1092$ BFC-12 14.5 3.4 $\$ 1.96$ (9) MIDGET 2-GANG

Osc. section 10-78 mmfd. Ant. sec No. 178985 mmfo
 Osc. section $10-365 \mathrm{mmfd}$. Ant. secion $10-365 \mathrm{mmfd}$

## ONE, TWO AND THREE GANG

## SEMI-MIDGET CONDENSERS

Latest mechon-
and gears. Overall length $41 / 2^{\prime \prime} .1 / 4^{\prime \prime}$ shaft extends $2^{\prime \prime}$. Ideal for drivin condensers, etc.
No. 29A76. Net Eoch.... 4.31
TYPE RAD
mu

CNOBS FOR $1 / \mathbf{s}^{*}$ SHAFTS PERFECT FOR MINIATURE EQUIPMENT


ical design with ball bearing ro tors, heavy brass rotor contoct
springs, and $1 / 4^{\prime \prime}$ dia. shoft.
The correct tuning condenser for building radio receivers. Will also replace many used in standard broadcost rodio receivers.
(A) ODD. National Vernier pinch type drive. 29A75. Net Eoch. ........48c (B) 10021. Millen dial position marker. ${ }^{\text {ma }}$ 172. Net Eoch
(C) ODL. National dial lock.

No. 15Bil32. Net Eoch.
(D) MILEN 10050 Diol 38 c No. 17A611. Eoch.............. 45 c (D) MILLEN 10050 Diol Lock. Single MILLEN 10062 Shaft Lock. Thumb hole. Mounts through ponel. 54 e Screw action, for $1 / a^{" \prime}$ shatts
No. 17B799. Net Eoch......... 54c No. 17A610. Net Eoch
$54 c$

## SHAFTS, BEARINGS, COUPLERS


(1) FLEXIBLE SHAFTS
(3) PANEL BEARINGS

(B)

## DIAL ACCESSORIES_SHAFT LOCKS

(2)
(C)
(D)
(D)
(c)
(a)
$133 / 16^{\circ \prime} \mathrm{W} ., 23 / 4^{\prime \prime} \mathrm{H}, \mathrm{A}^{\left.27 / 16^{\prime \prime} \mathrm{L} .\right)}$ $\begin{array}{lll}\text { lock No. Capacity } & \text { EACH } \\ 19 A 1212 & 365 \mathrm{Mmfd} & \$ 1.15\end{array}$ TWO GANC
(1 13/16" W., 2" H., 3 3/16" L.)
Sil2 365 Mmid. $\$ 1.62$ THREE GANG


Phosphor bronze. When used with Cadmium plated brabs for panela suitable couplings, control of units at up to */ thick. Furnished separ angles up to 90 degrees with the ately or with $3^{\prime \prime}$ or $6^{\prime \prime}$ cadmium panel is permitted.


## R. F. Chokes-Coil Forms-Insulators

NATIONAL RF CHOKES

A wide selection of popular RF Chokes for receiver and transmitter circuits. R100-300 are wound on ceramic forms, R33 and millihenties except + which and R50-1 on powdered iron. 4000 volts, for 6 through 80 meters, 3000 $v$. Modulated. Current roting below is 20 degrees rise.

MILLER, SUPEREX, OHMITE RF CHOKES

## (1)

 (4) Miller RF Chokes Fig. 1 ore $11 / 8^{\prime \prime}$ dia, $* 691 \mathrm{~T}$ is center tapped. Fig. 2 Miller Ferrite Ch. Fig. 37867 and 7868 are mercury vapor rectifier hash filters Yig. 4 Superex vori-chokes with Ferrite cores give high impedance in miniOhmite frequency roted chokes, very low loss.

## BARKER \& WILLIAMSON CHOKES

B \& W FILAMENT CHOKES for Grounded Grid Amplifiers Broadband choracteristics from 80 through 10 meters, no tuning. Use with regulor fllam.
No. FC- 15 for total of 15 amp current to one or two tubes. Size $11 / 2 \times 11 / 2 \times 4^{\prime \prime}$. Wr. 1 Ib
No. FC-30 for one or two tubes requiring total of No. FC- current. Size $2 \times 21 / 2 \times 5^{\prime \prime}$. Wt. 2 lbs. filament current No. 29A280. Net Eoch
$\$ 7.60$ No. 800 B $G$ W RF Plate Chake. Ideal for transmitter parallel or series fed circuits, 80 through 10 meters. Maximum rating 2500 DC at 500 miliomps. $6 x 3 / 4$ steatiz core, threaded for mounting with $1 / 4-20$ screws. Wt. 6 oz,
No. $29 A 278$. Net Each........................... $\$ 3.75$
EIMAC PREFORMED CONTACT FINGER STOCK
(1)) $)$ ) Berylium copper, silver plated. Sight curvoture for spring effect proof. Also ideal for moking transmitting fube plate and grid caps. No. 1481012. 3', Long $\times 17^{\prime \prime}$, wide. Eoch.


## CAMBRIDGE SLUG TUNED COIL FORMS

(1) (2) (3) (4)

Midget low loss coil forms for compoct high frequency equipment. Type LS4 has fixed terminals. Al others adjustable. Slug adjustment from top ar bottom. Complete ware. Figure one coils are ceramic, all others phenolic. Stk. No. Mfg. No. Dio.
(1) 144709
(1) $14 A 708$
(8) 148400
(3) 148406

## MINIATURE WOUND COILS

Completely wound coils on LSM and LS3 forms listed obove. Mmf. variranges are with oble shunt capocity
(3) 148401 LS3-.6-2.7 MC $\$ \mathbf{1 . 2 1}$
(2) 148402 LS3-2.0-8.0 MC 1.21 $\begin{array}{lll}\text { (2) } 148403 & \text { LS3-4.2-25.0 MC } & 1.05 \\ \text { (2) } 148404 & \text { LS3-16.0-90.0 MC } & .99\end{array}$

NATIONAL COIL FORMS

## XR-50 FOR UHF

Mica filled bakelite permeabillty tuned coil form, using iron slug. Coil winding space $+\hbar^{\prime \prime}$, diameter $1 / 2^{\prime \prime}$. Small size is particulorly adapted to UHF circuits where space is limited and extreme stablity and high efficiency is re-
quired.
164716 . Eoch....


## JOHNSO

MILLER TUNED COILS
Miniature size
silicone impreg
nated ceramic
coils with pow
dered iron core
tuning slug;
$1 / 4$ dia. $x y / 8$
L. Requires i" Requires ${ }^{3 /}$ (A) (B) (C)
mounting hole. (A) $17 A 700$ and Mfg. Order by Stack No. 17 A700 and Mig.
No. of coil sclected. No. of coil selected. 10
Fig. No. Min. Mox. Eoch Eoch


## MILLEN COIL FORMS

Low loss mica base phenolic. (il Supplied less prongs for per-
15/8"1107. No. 45000...39 c
No. 45004 with 4 prongs for standard tube bose socket
No. 17A1108. Eoch .... 51 c iff if No. 45005 with
No. 17 Allo9. Eoch
.516


THRU-PANEL TYPE
Furnished with nickeled brass hard ware for mounting in panels up to $1 / 2$ " thick. Dimension shown is height obove ponel. Average weight 12 ozs
Porceiain except type 45 , steatite. Stk. No. Type Fig. Top Hdwe. NET $\begin{array}{llllll}12 A 262 & 40 & \text { (1) } & 11 / 4^{\prime \prime} & 10-32 & 35 \mathrm{c} \\ 12 A 264 & 42 & 1 & 7 / 8^{\prime \prime} & 10-32 & 35 \mathrm{c} \\ 12 A 266 & 44 & \text { (1) } & 5 / 8^{\prime \prime} & 6-32 & 27 \mathrm{c}\end{array}$ $\begin{array}{llllll}12 A 266 & 44 & \text { (3) } & 5 / \theta_{0 \prime \prime} & 6-32 & 27 c \\ 12 A 267 & 45 & \text { (3) } & 10-32 & 47 \mathrm{c}\end{array}$ STEATITE FEED-THRU BUSHINGS
Have many applications in transmitter and antenna installations. All are supplied with nickeled brass pods and nuts. Average wt. 12 oz
Stk. No. Type Fig. Hgt. Dia. NET
 <br> \section*{ <br> \section*{ <br> NATIONAL FEED-THRU INSULATORS}

X 59 National ceromic feed-thru insulator for high frequency.
No. 12B335. Net Each
TPB NB. . .oivstyrene iushing TPB National threaded po $1 / 4$ " dio. 28 thread. Ideal UHF insulator.
No. 12B334. Eoch.... 10 c 12 For.... 8 Bc


Types 65, 66, hove Cadmium steel cotes Jack Type. Average wt. 12 oz . cotes Jack Type. Average wt. 12 oz.
Stk. No. Type Fig. Hgt. Hdwe. NET $\begin{array}{ll}\text { Stk. No. Type Fig. HEst. Hdwe. NET } \\ 124249 & 20 \\ 10-32 & 25 c\end{array}$ $12 A 249$
$12 A 250$ 1 解" $\begin{array}{ll}743 & 30 \\ 8-32 & 18\end{array}$ $2 A 258$
$2 A 258$

## (8) ULTRA-STEATITE CONES

 Mode of low obsorption Steatite for superior high frequency insulation Threads are tapped directly into the insulator. Furnished with machine screws and cushion washers for both top and bottom. Average wt. 4 ozs stk. No. Trpe Hgt. Top Bot. NET $\begin{array}{lllll}12 A 271 & 500 & 5 / 8 & \frac{7}{2} & 5 / 8 \\ 130\end{array}$ $\begin{array}{llllll}12 A 271 & 500 & 5 / 8 & 7 & 5 / 8 & 23 \\ 12 A 272 & 501 & 1 & 1 / 2 & 3 / 4 & 31 \\ 12 A 274 & 502 & 11 / 2 & 1 / 2 & 11 & 51 \\ 12 A 276 & 503 & 2 & 5 / 8 & 11 / 8 & 71\end{array}$
## NEW MORRIS COILMASTER

## MODERN COIL-WINDER FOR ELECTRONICS

Well constructed hond-powered ma-
chine far accurately winding modern style coils, chokes, etc. Fully adjustable for self-supporting, universal and honeycomb windings, solenoids, single layers, spaced pi-sections, etc. Very practical for individuals, labs and shops engaged in electronic experimenting and construction. Literally

[^3]Handles size 22 to 40 wire. No. 37B334
No. 37 B 33
Net Each
$\$ 6.95$

## Cabinets-Cases-Insulating Material

## MIDGET SIZE CABINETS


(1) Premier Sloping Front Cabinet. Stecl, groy crackle. Ideal for minioture size equipment. $41 / 4^{\prime \prime} \mathrm{D} .41 / 2^{\prime \prime} \mathrm{H}$. $58145 \quad 4 \mathrm{~A}^{\prime \prime} \quad 8 \mathrm{oz} . \quad \$ 1.12$

deep, $4^{\prime \prime}$ high. Detachable back and
(1) Bud Slaping Front Cabinet. Alumibottom.
Stk. No. Width

| Stk. No. | Width | Wt. | Eoch |
| :--- | :---: | :---: | ---: |
| $5 A 224$ | $4^{\prime \prime}$ | $1 / 2 \mathrm{lb}$. | $\$ 1.65$ |
| $5 A 225$ | $5^{\prime \prime}$ | $1 / 2 \mathrm{lb}$ | 1.72 |
| $5 A 226$ | $6^{\prime \prime}$ | $3 / 4 \mathrm{lb}$. | 1.88 |
| $5 A 228$ | $7^{\prime \prime}$ | $3 / 4 \mathrm{lb}$ | 2.08 |

## (2) BUD MIDGET SPEAKER CASE. IDEAL FOR MULTIPLE SPEAKER

 INSTALLATIONS FOR PUBLIC ADDRESS OR INTERCOM. FOR 2 AND 3 INCH SPEAKERS (3) BUD MIDGET WALL TYPE SPEAKER CASE

Jimilor to above except brown wrinkle finish, with keyway for wall mounting as well as table top use. All steel. For 4 ond 5 inch speakers.



## (1) BUD UNIVERSAL CASE For 2 or 3 in. Meters

Punched for $2^{\prime \prime}$ meter with easy removable knock out ring to increase hole ize for $3^{\prime \prime}$ meter. One piece removable back and bottom. Two $3^{\prime \prime}$ "knock SAs9. Steel. $4 \times 4 \times 41 / 4^{\prime \prime}$. Ea.. $\$ 1.20{ }^{5} 5440$. Aluminum. $4 \times 4 \times 41 / 4^{\circ}$. Eo. . $\$ 1.44$


## PORTABLE SPEAKER CABINETS

Ideal for portable "PA"s speakers; NON-RATTLE construction in streamline design, rounded corners, ornamental grille, carrying handle; well baffled. Black wrinkle enomel. Stk. No. Dimensions Far Speoker Shpg. Wt. Lbs. Net Ea. $\begin{array}{lllll}5 A 127 & 10 \times 10 \times 6^{\circ \prime} & 6 \text {-inch } & 71 / 2 & \$ 3.94 \\ 5 \text { A128 } & 12 \times 12 \times 7^{\circ} & 8 \text {-inch } & 10^{2} & 4.94\end{array}$

## L.M.B. ALUMINUM BOXES

Features simple interiocking design. Slips together easily making a sturdy finished box requiring only two fostening screws. Eliminates hard-to-get-at places. Made of 18 -gauge aluminum. Ideally suited for bullding preamps, oscillators, junction moxes, etc. Choice of Black Wrinkle, Groy Homquantity prices available - write for quotations

|  | W. | W. H. | LMB No. | W\%. | Block No. | Noturol No. | Groy No . | Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | MOO | 3 oz. | 204456 | 204457 | 204458 |  |
|  | $218 \times 21 / 8$ | $\times 2 / 8 \times 1$ | 002 | 4 oz . | 204529 | 204530 | 204531 | 4 |
|  | $23 / 4 \times 21 / 9$ | $\times 218 \times 25$ | 100 | 4 oz . | 204421 | 204419 | 204420 | -89 |
|  | $31 / 4 \times 218$ | 21881 | 000 | 40 Oz . | 204532 | 204533 | 204534 | 68 |
|  | $4 \times 2$ | 21881 | 107 | 6 oz . | 204129 | 204132 | 204507 |  |
|  | $4 \times 2$ | $\times 2 \times 23$ | 102 | 6 oz. | 204459 | 204500 | 204499 |  |
|  | $4 \times 4$ | + $4 \times 2$ | 143 | 6 oz . | 20a459 | 20A504 | 204503 |  |
|  | $5 \times 21 / 4$ | $\times 21 / 4 \times 21 / 4$ | 108 | 602. | 204130 | 204133 | 204506 |  |
|  | $51 / 2 \times 3$ | $\times 3 \times 1 /$ | 139 | 6 oz : | 204424 | 204422 | 204423 | .01 |
|  | 33/4 $\times 3$ | $\times 3 \times 218$ | 135 | 5 oz . | 204535 | 204536 | 204537 |  |
|  | $51 / 4 \times 3$ |  | 136 | $8 \mathrm{oz}$. | 20A131 | 204134 | 204505 | . 08 |
|  | 3 64 $\times 4$ | +4 $\times 3$ | 141 | 8 coz oz. |  | 204491 |  |  |
|  | $5 \times 4$ | $\times 4 \times 3$ | 141 | $6 \mathrm{oz}$. | 204927 |  | 204426 |  |
|  | $6{ }^{\times 4}$ | $4 \times 5$ " | 142 | $8 \mathrm{oz}$. |  | 204492 |  |  |
|  | $61 / 4 \times 31 / 2 \times 2$ | 31/2×21/8". | 138 | 8 oz . | 204498 | 204497 | 204496 |  |
|  | $\times 5$ | $5 \times 3$ | 145 | 8 oz . | 5 A303 | 54301 | 54302 |  |
|  | $8 \times 3 \times$ | 3 $623 / 4 . "$ | 137 | 10 oz. |  | 204502 | 204501 |  |
|  | 8 $\times 6$ | 6 $4 \times 2$ | 146 | 12 oz . | 54332 54329 | 54330 | 54331 | 2.99 |
|  | + ${ }^{\times 4} \times 2$ | $2 \times 21 /{ }^{\prime}{ }^{\prime}$ | 144 | 12 oz . | [ $\begin{array}{r}54329 \\ 204495\end{array}$ | 54327 204494 | 54328 04493 | 2.19 |
| SLIDECOVER TYPE ALUMINUM BOXES |  |  |  |  |  |  |  |  |
| Natural finish aluminum. Ideal for rack ponel |  |  |  |  |  |  |  |  |
| $5 A 182.41 / \mathrm{mx} 13 \times 25 / 8^{\circ \prime}{ }^{\circ}$. Wt. I Ib. Eoch. . $\$ 3.18$ $5 \mathrm{~A} 183.51 / 4 \times 13 \times 25 / 8^{\circ \prime}$. W. W. $^{1} \mathrm{lb}$ Each.. 3.51 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

## MOLDED PLASTIC INSTRUMENT CASES

Made of beautiful black plastic with highly polished finish. Heavy construction to withstand rugged usage which may se mounted meters and other components and tapped also are recessed for tlush panel monting

## Model 240B

Size, $33 / 4^{\prime \prime}$ wide, $61 / 4^{\prime \prime}$ long, $2^{\prime \prime}$ deep. Inside dimensions
 Model 260A. Size $53^{3}{ }^{\prime \prime}$ wide, 6ł3" long, 2 琞" high No. 29A2, NET EACH MATCHING PANEL cut fing PANELS. Made of same molded black plastic as above. Precision No. 29467 Fing
No. 29A6s. For 240B. Net Eoch........46c 10 Lots, Each
88 c . 10 Lots, Each No. 29A63. For 260A. Net Eoch


Stondard Etching Kit S101A. A complete assortment of material used for manually producing a basic printed circuit. Contains 2 copper clad unsensitized sheets $3 \times 6 \times 1$. pertorated $3 \times 6 \times$ tre " copper clod unsensitized phenolic sheet, etching resist, etching solution, plastic etching troy, etc. with printed-step instructions. So simple that anyone con successfully produce printed circuit boords.
No. 29B80. SIOlA Kit. Wr. $11 / 2 \mathrm{lbs}$.
Net Each.
$\$ 3.87$
Professional Kit P101A. An etched clrcuit kit utilizing photo engraving pracess for fine professional quality work. A negotive of layout is produced, hen the sensitized sheet af copper clad phenolic board is exposed through all material for this process as well is developed and etched. Kit contains No. 29B81. PlO1A Kit. Wt. $11 / 2$ lbs.
Net Eoch

Unsensitized Phenalic Bcords
29A106 PI - 33 . $3 \times 3$, side.

| $29 A 106 P 1-33$. | $3 \times 3^{\prime \prime}$ |
| :--- | :--- |
| $29 A 107$ P1- Each. 36. | $3 \times 6^{\prime \prime}$ |

 Copper Clad Proc


Sensitized Phenolic Boord $\begin{array}{lll}29 A 109 & 51-33 . & 3 \times 3^{\prime \prime \prime} \\ 29 A 110 & \text { Each } \\ 296 . & 3 \times 6^{\prime \prime} & \text { Each. }\end{array}$


Each.
Eoch.... 1 1.69
2.50
2.50

Eo. 1.03
POLYSTYRENE SHEETS, TUBING, RODS
Polystyrene is unexcelled for high frequency insulation. It is an ideal material for coil forms and insulotors for ultra high frequency applications becouse of its very low loss fac does not deteriorate with age. Aside from radio opplications many attractive articles may be built using this polystyrene.

$$
\text { RODS } 12^{\prime \prime} \text { LENGTH }
$$

| Stk. No. | O.D. | Wt. | h |
| :---: | :---: | :---: | :---: |
| 128300 | 8 | 1/402. | \$0.05 |
| $12 \mathrm{B301}$ | \% | $1 / 402$. | . 07 |
| 128219 | " | $1 / 4 \mathrm{Oz}$. |  |
| 12 B 302 |  | oz. | 8 |
| 12B220 |  | oz. |  |
| $12 \mathrm{B3} 03$ |  |  | 35 |
| 128221 | $1{ }^{\prime \prime}$ | $11 / 2 \mathrm{oz}$. | 47 |
| 12B304 |  | 2 oz . |  |
| $12 \mathrm{B222}$ |  | oz. |  |
| 12B305 |  | oz. |  |
| 12 B 223 |  | 6 oz . | 1.86 |
| $12 \mathrm{B3} 88$ | 11/8" | 7 oz . |  |
| 12 B 314 | 11/4** | 10 oz . |  |
| 128389 | 1 为", | 12 oz. |  |
| 128308 |  | 16 oz . |  |
| 128390 | $13 / 4$ | 20 oz. | 8 |
| 128391 |  | 25 oz. | 5 |
|  | GC No. CEMEN | $\begin{aligned} & 37 \\ & \mathrm{~T}_{8} \mathrm{POLY} \mathrm{COHL} \end{aligned}$ | STYRENE DOPE |
| $-15$ | Stk. No. <br> 11425 <br> 11A631 | GC No. $37-2-02 .$ $37-8 \mathrm{oz} \text {. }$ | Net Eoch $\$ 0.47$ $1.18$ |



24 pieces, eoch $9^{\prime \prime \prime}$ lang. varnished high grode tubing in assorted populor sizes and colors.
No. 18 A69
(3) FISH PAPER

High grade fibre sheet paraffined for insulatlon purposes. Fine for field coils, transformers, etc. . 010 thick sheet of 240 sq . in.
No. 11 A3O. PER SHEET

44c

## INSL-X E-26 CLEAR <br> INSULATING SPRAY

Quick dry- 3 to 5 min utes. Insulate everything in TV except moving parts and tubes spray antenna and al connecrions. arcing - keeps ut moisture, rust. Dielectric $1200 \mathrm{~V} / \mathrm{M}$. Adhesion excellent on al surfaces. Woter, chemical, oll resistant.
No. 11 A683.
$120 \mathrm{Oz} . \mathrm{Con} .1 .19$

| $\begin{aligned} & \text { Stk. No. } \\ & 128212 \end{aligned}$ | O.D. I.D. Wt.Oz. Net EO $1 / 4^{\circ \prime}$ " $1 / 8^{\prime \prime}$ " $1 / 4$ \$0.10 |
| :---: | :---: |
| 128309 | A' P'" 1/4 14 |
| 128213 | $1 / 4.18$ |
| $12 \mathrm{B214}$ | 1/2" ${ }^{1 / 8}{ }^{\prime \prime}$ " $1 / 4$ |
| $12 \mathrm{B310}$ | $1 / 2 \quad .31$ |
| 128215 | $1 / 2.39$ |
| 128216 | \%"11/2 5 |
| 128217 | $11 / 2 \prime 11 / 4^{\prime \prime} 4^{\prime \prime} 1.47$ |
| 128218 | $13 / 4{ }^{\prime \prime} 51 / 2 \quad 2.15$ |
|  | 12"x12" SHEETS |
| 54192 | 10. 8 Oz. $\$ 4$ |
| 54193 | 9 oz . |
| 54194 | 13 oz . 5.39 |
| 54195 | Ti" 16 oz. 7.01 |
| $5 A 196$ | $22 \mathrm{oz}$. |
|  | 12"×24"' SHEETS |
| 54197 | $1 / 8.026 \mathrm{oz} .810 .29$ |
| 54198 | $1 / 4.44 \mathrm{oz}$. 15.34 |
|  | No. 41 THINNER |
| Stk. No. | GC No. Net Eoch |
| 11436 | 41-2oz. $\quad \mathbf{0} 0.44$ |
| 114630 | 41 -8 oz. 82 |

(3) LAMINATED BAKELITE


## TUBING-12" Length

insulating ports, terminal strips, etc. Glossy jet black. No. llalf9. $6 \times 6 \times$ re"....... 410 (1) INSULATING CAMBRIC Breokdown voltoge 10,000 valts. Prevents grounds and shorts on field coils, transformers, resistors, condensers, wires, etc. Dry, Yellow Combric in rolls of over 210 sq . in. No. 11 A29
$76 c$
DIAL ACCESSORIES

(1) NYLON DIAL CABLE $168431.026^{\prime \prime}$ dia. Thin 100 Ft . 68c $168432.028^{\prime \prime}$ dia. Med. 100 Ff. $168433.038^{\circ}$ dia. Large 100 Ft .99 c Kit of 25 DIAL DRIVE SPRINGS Kit of 25, 6 sizes for ony lob.
No. 11477 . Kir of $25 . . . . .$.

# BUD Relay Racks，Cabinets，Mini Boxes 



Inches Wt． H．W．Lbs．



BUD ALUMINUM MINIBOXES
Simple two piece design with both snop－lock and screw type fastening．Provides complete access for installation or service of components．tdeal for housing shielded sub－ assemblies as well as the many separate self－contained
units which hove made this box so popular．Choice of units which hove made this box so popul
Gray Hammertone or Notural Aluminum．

| Natural | Finish | 1－49 | Mfo．No． | ge Gray Stk．No． | 1－49 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mig. No. | 20c558 | \＄0．58 | CUZ100A | 20C581 |  |
| CU3001A | 200559 | .60 | CU2101A | 20 C 583 |  |
| CU3002A | $20 \subset 564$ |  | CU2102A | $20 C 584$ | 8 |
| CU3003A | $20<565$ | － | CU2103A | $20 ¢ 585$ | 88 |
| CU3004A | 20C566 | ． 74 | CU2104A | $20 C 587$ | － |
| CU3005A | $20 \subset 567$ | ．94 | CU2105A | 5 A333 | 8 |
| CU3006A | $20 C 574$ | ． 80 | CU2106A | 54334 | 1.00 |
| CU3007A | 54271 | 1.18 | CU2107A | 5 A335 | 47 |
| CU3008A | 54272 | 1.29 | CU2108A | $5 A 336$ | 2 |
| CU3009A | 54273 | 1.65 | CU2109A | 54337 | 2.06 |
| CU3010A | 54274 | 1.84 | CU2110A | 54279 | 2.30 |
| CU3011A | 54275 | 2.51 | CU2111A | 54280 |  |
| CU3012A | 54276 | 2.51 | CU2112A | 5 S281 |  |
| CU3013A | 54277 | .94 | CU2113A | 54282 |  |
| CU3014A | 54278 | 1.22 | CU2114A | 54283 | 1.51 |
| CU3015A | $20 ¢ 578$ | 3 | CU2115A | 204488 | 0 |
| CU3016A | $20 \subset 579$ |  | CU2116A | 204489 | 0 |
| CU3017A | 20C580 | 81 | CU2117A | 204490 | 7 |

## BUD COWL－TYPE MINIBOX



A highly practical addition to the Minibox line．The pro－ jecting cowl reduces glare on panel from overheod light－ ing－protects controls－permits use of vorious indirect tom section forming a rigid unit with excellent acces－ sability．Made of $.040^{\circ}$ aluminum in Naturol or Mam－ mertone Gray finish． M SC
SC
SC
SC


1－49 Not
Mfgi N
SC 303
SC 30
SC 30
for ral Finis
o．Stk $\begin{array}{ll}\text { No．} \\ 259 & \\ 260\end{array}$ -49
och

## BUD MINIATURE UTILITY CABINETS

## AlUMNUM TTPE



Miniature size re－
movable front and movable front and rear panel design．
Available in o Available in a
range of sizes which are particu－ larly usaful in ment of miniature size．Natural or gray hammertone finish

Naturol Finish Groy Hammertonc | Natupol Finish | Groy Hammertone |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | $\begin{array}{c}\text { Net } \\ \text { Eoch }\end{array}$ | Size |  |  | Stock | Net |
| No． | No． | Eoch |  |  |  |  |
| 204428 | 1.26 | 4 | 4 | 2 | 204431 | 1.47 |
| 204429 | 1.34 | 4 | 5 | 3 | 204432 | 1.64 |
| 204430 | 1.47 | 6 | 5 | 4 | 204433 | 1.80 |
| $5 A 264$ | 2.13 | 6 | 6 | 54266 | 2.37 |  |
| 54265 | 2.48 | 9 | 5 | 54267 | 2.78 |  |

BUD SHADOW CABINET


## STEEL TYPE



Designed for use in building minia－ ture apparatus where smaller size is essential． Convenient design with built－in chas－ sis attached to removable front panel． Rear panel is also removable．Steel with black ripple finish．

| Stk．No． | H．W．D． | Wt． | Net Eo． |
| :--- | :--- | :--- | :--- |
| $20 A 434$ | $4 \times 4 \times 2$ | $11 / 8 \mathrm{lb}$. | S 1.31 |
| 204435 | $4 \times 5 \times 3$ | $11 / 2 \mathrm{lb}$. | 1.45 |
| 204436 | $5 \times 4 \times 3$ | $11 / 2 \mathrm{lb}$. | 1.58 |
| 204437 | $6 \times 5 \times 4$ | $21 / 4 \mathrm{lb}$. | 1.87 |
| 204438 | $5 \times 6 \times 4$ | $21 / 4 \mathrm{lb}$. | 1.88 |
| 54268 | $6 \times 6 \times 6$ | $31 / 2 \mathrm{lb}$. | 2.13 |

## Quontity Prices 50 to 99 less $10 \%$ ； 100 up less $20 \%$

## BUD DELUXE RELAY RACKS

Block or Grey ripple finish．Attroctive rounded comer design， with red filled chrome trim ond recessed panel supports for streamlined mounting．Racks of 16 gauge steel， ．$^{\prime \prime}$＂panel supports．Drilled and tapped for $10-32$ screws，spacing for all standard $19^{\prime \prime}$ panels．Well ventllated，louvers side and rear．Hinged rear door with snap catches．All are $22^{\prime \prime}$ wide， $171 / 4$＂deep O．D．Has special supports for mounting free－ rolling cosfers listed below．Shipped knocked down．

| Gray | Black | Mfg． No． | Hgt. in. | Panel Spoce | Wt． <br> Lbs． | 1 to 9 Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40W70 | 40W70B | CR1774 | 42 18＂ | 363／4＂ | 90 | \＄44．2 |
| 40W39 | 40W398 | CR1771 | 47 哭＂。 | 42＂＇＊ | ． 95 | 50.08 |
| 40W71 | 40W71B | CR1772 |  | 611／4＂ | 116 | 62.68 |
| 40W72 | 40W728 | CR1773 | 82 告＂ | 77＇ | 137 | 75.04 |

Casters for Bud DeLuxe Relay Racks．Install on bottom supports．
No．5A310．Bud RC7756．Wt． 7 oz．Net Eoch
BUD DELUXE CABINET RACKS
Professional quality and appearance for equipment builders． All have hinged top with recessed snap tock and the five larger sizes also have hinged reor door．For use with stand． deep．Black or Groy wrinkle finish．Order color by Stock No．below．Aluminum relay rock panel covering entire No．bel spoce now supplied at no extro cost．

| Groy No． | Block No． | Mfg．No． | Helght | Ponel Spoce | Wt．Lbs． | Net Ea． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40W48 | 40W48B | CR1726 | $8 \mathrm{I}^{\prime \prime}$ | $7{ }^{\prime \prime}$ | 26 | \＄14．97 |
| 40W46 | 40W46B | CR1741 | 10 ¹． | $83 / 4 \prime$ | 28 | 18.37 |
| 40W40 | 40W40B | CR1740 | 12怣＂ | 101／2 | 30 | 18.74 |
| 40W47 | 40 W 47 B | CR1742 | $14{ }^{\prime \prime}$ | 121／4＂ | 32 | 19.72 |
| 40W45 | 40W458 | CR1739 | 15 | $14^{\prime \prime}$ | 34 | 21.52 |
| 40W49 | 40W49B | CR1743 | 19 ＂＇ | $171 /{ }^{\prime \prime}$ | 38 | 25.70 |
| 40W50 | 40W508 | CR1727 | 22 \％＂＇ | 21 ＂＇ | $391 / 2$ | 27.50 |
| 40W57 | 40W57B | CR1744 | $28{ }^{\circ \prime}$ | 261／4＂ | $471 / 2$ | 29.54 |
| 40W51 | 40W5 1 B | CR1728 |  | $311 /{ }^{\prime \prime}$ | 52 | 31.34 |
| 40W58 | 40W58B | CR1745 | 36 \％${ }^{\prime \prime}$ | $351 / 2^{\prime \prime}$ | 60 | 32.98 |

## BUD TRANS－AIRE BLOWERS

Features greater air displacement for given area and panel space．May be used os ex－ 110 volt 2 speed motor is rubber mounted for quiet operation．Equipped with oilite bearings quiet oil impregnated felt wicks．Has thermat overlood protection and automatic reset． Mounted on $19^{\prime \prime}$ rack panels．Complete with air filter ond connecting cord．


All Bud Products including the new Sixty Series are ovailable from B－A． Ask for special catalog No．S60－60 covering this new line．

## Bud Cabinets, Panels \& Chassis


(A) Deluxe rounded corner design, (B) Utility Type. Sturdy spot welded chrome trim. Air vents, on sides, top. All ore $9^{\prime \prime}$ high with $3^{\prime \prime}$ high chossis. Grey wrinkle finish.
5 A 34
$\begin{array}{ll}5 \text { A34 } & 5 \times 10^{\prime \prime} \\ 5 A 35 & 7 \times 12^{\prime \prime}\end{array}$
$5 A 35$
$5 A 36$
$7 \times 17^{\prime \prime}$
$10 \times 17^{\prime \prime}$

| 5 A38 $10 \times 17^{\prime \prime}$ | 11 lbs | 8.35 |
| :--- | :--- | :--- | Bud CAl754 Miniorure Size similor to

(A) $6^{\circ \prime}$ high, $73 / 8^{\prime \prime}$ long, $5^{\circ \prime}$ deep. Perforated top with handle. $11 / 2$ lbs. No. 5A31. Block Wrinkle, Eo.. $\$ 3.92$ Quantity discount scheduie for obove: Quantity discount schedule for obove 25 to 49 less $10 \%$ : 50 up less $20 \% 50$ to 99 less $10 \%-100$ up less $20 \%$
(C) SLOPING FRONT CABINET-BLACK WRINKLE FINISH

Ideally suited far housing amplifiers, test instruments, etc. Advantages are hlinged lid for convenient occess to interior; removable front panel which Stk. No. Mfg. No. H. W. D. Lbs. Fits Chossis Eoch

| Stk. No. | Mfg. No. | H | W. | D. | Lbs. | Fits Chossis | Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5B135 | C1584 | 61/2 | 7 \% | 7 知 | 21/2 | $7 \times 6 \times 2$ | \$3.23 |
| 54326 | C1587 | 8 | 81 | 8 | $23 / 4$ | $7 \times 7 \times 2$ | 4.42 |
| 5B136 | C1585 | 61/2 | 918 | 7 ff | 3 | $7 \times 8 \times 2$ | 3.67 |
| 5 A134 | C1588 | 8 | $10 \%$ | 8 | $31 / 4$ | $7 \times 9 \times 2$ | 4.91 |
| 58139 | C1586 | $61 / 2$ | 11 \% | $7{ }^{518}$ | $31 / 2$ | $7 \times 10 \times 2$ | 4.25 |
| 5 A130 | C1894 | 8 | $14 \frac{1}{16}$ | 8 | 4 | $7 \times 13 \times 2$ | 5.23 |
| SB142 | C1892 | 8 | $13{ }^{1}$ | $81 / 2$ | $51 / 4$ | $8 \times 12 \times 21 / 2$ | 5.83 |
| 5 A131 | C1896 | 9 | 1818 | $81 / 8$ | 7 | $7 \times 17 \times 3$ | 7.53 |
| 5 B 144 | C1893 | 10 | $18 \frac{18}{18}$ | 101/2 | 81/2 | $10 \times 17 \times 3$ | 7.69 |

Quontity Discount Schedule for obove: 25 to 49 less $10 \% ; 50$ up less $20 \%$.


## MINIATURE ALUMINUM CHASSIS

For any application requiring small, light-weight chassis Hos flange bottom for easy mounting and odded strength Suitable for minioture cabinets on opposite page.


|  |  | BUD CHASSlS |  |  |  |  | HASSIS BRACKETS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Essential for proper chossis suppart. Heavy gauge steel, black finish. Cut out to mount chossis flush against panel. *For chassis up to four lnches high, all athers up to 3 Inches high. |  |  |  |  |  |  |  |
| No. | Wt. | Depth | Hgt. | Net P | No. | Wt. | Depth | Hgt. | Net Pr. |
| 5 A99 | 2 lbs. | 8'" | 61/2" | \$1.0 | 54284 | 3 Ibs. | 13" | 61/2" | \$1.66 |
| 54113 | 3 lbs . | $10^{\prime \prime}$ |  | \% | 5A157\% | 3 lbs. | $10^{\prime \prime}$ | $81 /{ }^{\prime \prime}$ | 1.83 |
| $5 A 98$ $5 A 156$ | 3 lbs | $11^{\prime \prime \prime}$ |  |  | 5A158* | 4 lbs. | 13" |  | 2.06 |
| 56 | 3 lb |  |  |  |  |  |  |  |  |
|  |  |  |  | $: 100$ | less |  |  |  |  |

## CMASSIS SUPPORTING ANGLES (Not Illustrated)

Chossis slides in on top of this
No. 5 A238. Bud No. SA1349. Length $141 / 2^{\prime \prime}$. Wt. 4 lbs. 21
No. 5A239. Bư No. SA1350. Length $12 \%$ Wi. 3 ibs. Per Poir... $\$ 2.13$

BUD STEEL CHASSIS BASES Made from one piece of steel, corners reinforced ond spot-welded. Have fold-over bottom (except where not listed). for attaching bottom plates. Choice of Zinc or Block flnish. $* 18$ Gouge all others 20 gauge.

| Size, Inches | Wt. Lb. | Chossis Bases |  | Chossis Bases |  | Bottom Plates | 1-24 E0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Zine | 1-24 Ea | Block | 1-24 Eo |  |  |
| $4 \times 17 \times 3^{\prime \prime}$ | $21 / 4$ | 54287 | \$2.10 | 54288 | \$1.76 | 5A141 | \$1.05 |
| $5 \times 7 \times 2^{\prime \prime}$ | $11 / 2$ | 54312 | 1.27 | 54311 | 1.05 |  |  |
| $5 \times 91 / 2 \times 11 / 2 "$ | $11 / 2$ | 5452 | 1.66 | 5 A5 3 | 1.18 | 5A101 | . 73 |
| $5 \times 91 / 2 \times 21 / 2^{\prime \prime}$ |  | 5 A54 | 1.64 | 5455 | 1.34 | 5A101 | .73 |
| $5 \times 10 \times 3 "$ | 2 | 5 A56 | 1.80 | 5 A57 | 1.24 | SA102 | 72 |
| $5 \times 131 / 2 \times 21 / 2^{\prime \prime}$ | $13 / 4$ | 54285 | 2.13 | 54286 | 1.73 | 5A140 | .98 |
| $6 \times 14 \times 3$ " | $13 / 4$ | 54162 | 2.01 | 54161 | 1.72 |  |  |
| $7 \times 7 \times 2^{\prime \prime}$ | $21 / 4$ | 5460 | 1.47 | 5461 | 1.18 | 54104 | 95 |
| $7 \times 9 \times 2{ }^{\prime \prime}$ | 21/2 | 5462 | 1.56 | 5463 | 1.37 | SA105 | .97 |
| $7 \times 11 \times 2$ " | $23 / 4$ | 5464 | 1.64 | 5465 | 1.42 | 5A106 | 1.05 |
| $7 \times 12 \times 3^{\prime \prime}$ | 3 | 5466 | 2.01 | 5467 | 1.54 | 5A107 | 1.10 |
| $7 \times 13 \times 2$ ", | $31 / 4$ | 5 A68 | 1.88 | 5469 | 1.51 | 5 5108 | 1.18 |
| $7 \times 15 \times 3^{\prime \prime}$ | $31 / 2$ | 5 A70 | 2.35 | 5 A71 | 1.96 | 5A109 | .71 |
| $7 \times 17 \times 3^{\prime \prime}$ | $31 / 2$ | 5472 | 2.54 | 5473 | 2.11 | 5A110 | 1.34 |
| $8 \times 12 \times 21 / 2$ | $21 / 2$ | 5 A122 | 2.20 | 54121 | 1.71 | 54111 | 1.31 |
| $8 \times 12 \times 3$ " | $33 / 4$ | 5474 | 2.29 | 5475 | 1.81 | 54111 | 1.31 |
| $8 \times 17 \times 3^{\prime \prime}$ | $31 / 2$ | 5476 | 2.57 | 5477 | 2.01 | 54112 | 1.51 |
| $10 \times 12 \times 3 \prime$ | $31 / 2$ | 5480 | 2.20 | 5481 | 1.85 | 5 A114 | 1.54 |
| $10 \times 14 \times 3$ "' | $41 / 4$ | 5 A82 | 2.39 | 5483 | 2.00 | 5 SA115 | 1.30 |
| $10 \times 17 \times 2{ }^{\prime \prime}$ | 31/4 | 54217 | 2.34 | 54218 | 1.96 | SA116 | 57 |
| $10 \times 17 \times 3^{\prime \prime}$ | 6 | 5484 | 2.78 | 5485 | 1.96 | 5A116 | 1.57 |
| $10 \times 23 \times 3$ - ${ }^{\prime \prime}$ | 4 | 5 A86 | 3.35 | $5487$ | 2.30 | 54117 | $.55$ |
| $11 \times 17 \times 2$ "1, | $41 / 2$ | 5A166 | 2.75 | 54165 | 2.30 | 5A118 | 1.57 |
| $11 \times 17 \times 3{ }^{\prime \prime}$-********) | $4^{1 / 2}$ | 5488 | 3.42 | 5489 | 2.71 | 5A118 | 1.57 |
| $12 \times 17 \times 3^{\prime \prime}$ - | 4 | 5490 | 3.60 | 5491 | 2.85 | 54119 | 1.84 |
| $13 \times 17 \times 3^{\prime \prime}$-* | 6 | 5 A92 | 3.99 | 5493 | 3.34 | SA120 | 2.20 |
| $10 \times 17 \times 4^{\prime \prime}$ - | $41 / 4$ | 5494 | 3.44 | 5495 | 2.86 | 54116 | . 57 |
| $13 \times 17 \times 4$ - ${ }^{\text {\% }}$ | 7 | 5A96 | 4.59 | 5497 | 3.84 | $5 A 120$ | 2.20 |

## EUD ALUMINUM CHASSIS BASES

Lightweight, exceptional strength, etched finish Same construction as steel chassis, see illustrotion above. 18 gauge through size $7 \times 13 \times 2^{\prime \prime}$, 1690. hrough $10 \times 17 \times 3{ }^{\prime \prime}$ and others $14 \mathrm{go}$. Size St No

| Stk. No. | Siz | 1-24 Eo. | Stk. No. | e | Wt. | 1-24 Eo. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 58154 | $4 \times 6 \times 3^{\prime \prime}$ | 802.51 .31 | 5 A207 | $7 \times 15 \times 3^{\prime \prime}$ | $11 / \mathrm{lb}$. | S2.62 |
| $5 \mathrm{B1} 160$ | $4 \times 6 \times 2$ "1 | 8 oz. 1.08 | 54208 | $7 \times 17 \times 3^{\prime \prime}$ | $11 / 4 \mathrm{lb}$. | 2.89 |
| 5B164 | $4 \times 17 \times 3^{\prime \prime}$ | $11 / 4 \mathrm{lb} .2 .29$ | 54209 | $8 \times 12 \times 3{ }^{\prime \prime}$ | $1 / 4 \mathrm{lb}$. | 2.37 |
| 5 A313 | $5 \times 7 \times 2$ " | 8 oz. 1.15 | 54317 | $8 \times 17 \times 2$ " | $11 / 2 \mathrm{lb}$. | 2.46 |
| 5B168 | $5 \times 7 \times 3$ "' | $12 \mathrm{az}$. | 5 A219 | $8 \times 17 \times 3^{\prime \prime}$ | $13 / 4 \mathrm{lb}$. | 2.78 |
| 54202 | $5 \times 91 / 2 \times 3$ " | $13 \mathrm{oz}$. | 54210 | $10 \times 12 \times 3^{\prime \prime}$ | $13 / 4 \mathrm{lb}$. | 2.42 |
| 54314 | $5 \times 91 / 2 \times 2^{\prime \prime}$ | 802.1 .22 | 5A318 | $10 \times 17 \times 2$ " | $11 / 4 \mathrm{lb}$ | 2.63 |
| 5B169 | $5 \times 10 \times 3^{\prime \prime}$ | 12 az . 1.60 | 54211 | $10 \times 17 \times 3^{\prime \prime}$ | 2 lb . |  |
| 5 A203 | $5 \times 13 \times 3$ " | 1 lb .1 .80 | 5B172 | $10 \times 17 \times 4^{\prime \prime}$ | $31 / 2 \mathrm{lb}$. | 4.42 |
| 5B170 | $6 \times 17 \times 3^{\prime \prime}$ | 11/4 lb. 2.62 | 5 S 155 | $11 \times 17 \times 2$ " | $21 / 4 \mathrm{lb}$ | 3.35 |
| 5 A204 | $7 \times 7 \times 2^{\prime \prime}$ | 10 oz 1.33 | 5 A319 | $11 \times 17 \times 3^{\prime \prime}$ | $23 / 4 \mathrm{lb}$. | 3.88 |
| 5 A205 | $7 \times 9 \times 2$ "10 | 12 oz . 1.43 | 54212 | $12 \times 17 \times 3$ " | $13 / 4 \mathrm{lb}$. | .00 |
| 54315 | $7 \times 11 \times 2$. | 902.1 .55 | 54163 | $13 \times 17 \times 2$ "' | $21 / 2 \mathrm{lb}$. |  |
| 54206 | $7 \times 12 \times 3$ " | $11 / 4 \mathrm{lb} .1 .96$ | 54213 | $13 \times 17 \times 3^{\prime \prime}$ | $21 / 4 \mathrm{lb}$. | 4.17 |
| 54316 | $7 \times 13 \times 2$ "1 | 902.1 .64 | 5B173 | $13 \times 17 \times 4^{\prime \prime}$ | $33 / 4 \mathrm{lb}$. | 5 |
| Quontity | scount for | $l l$ above | 25 to | ess $10 \%$ | up | $20 \%$ |

## BUD PANEL CHASSIS

Horizontal desion permits casier access for testing and maintenance. Mounts on regular 19"' relay racks and cabinets. All have 19 " overall length and $5 \mathrm{~g}^{\prime \prime}$ " depth. ing as relay rack panels. Made of .062 aluminum with
etched finish.
$5 A 320$
5 A321
5A322
$5 A 323$
$5 A 324$
$5 A 325$
$5 A 237$





Quantity Prices on Ponel Chossis; 25 to 49 less $10 \% ; 50$ up less $20 \%$.
BUD RELAY RACM PANELS
All ponels ore $19^{\prime \prime}$ wide furnished in $1 / 8^{\prime \prime}$ steel or oluminum. Notched to RMA specifications which fits all finish, and the znumbers in new Hammertone Groy on arders for Gray add "G" to Stock Number for Hommer one Gray odd "HG". Block will be shipped when col s not specificd. Only znumbers are stocked in "HG" but all other sizes are avoilable on special order
 aLe avainable on special order

| Height | stk. No. | Weight | Net | Stk. No. | STEEL <br> Weight | Net |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * $13 / 4$ " | 54289 | \% lb. | \$1.07 | SA21\% | Weight | $\begin{aligned} & \text { Net } \\ & \$ 0.82 \end{aligned}$ |
| *31/2" | 5 A290 | 2 lbs. | 1.39 | 5422* | 3 lbs. | 5.98 |
| *51/4" | 54291 | 2 Ibs. | 1.88 | 5A23* | 4 lbs. | 1.22 |
| * $7^{*}$ | 5 A292 | 2 lbs. | 2.37 | 5A24* | $6 \mathrm{lbs}$. | 1.39 |
| * $83 / 4$ " | 54293 | 3 lbs . | 2.78 | 5A25; | 7 tbs. | 1.71 |
| * $101 / 2$ | 54294 | 3 lbs. | 3.52 | 5A26* | 8 lbs. | 2.05 |
| $7121 / 4{ }^{\prime \prime}$ | 54295 | 4 lbs. | 4.01 | 5A27\% | 9 lbs. | 2.37 |
| *14" | 5 A296 | 4 lbs. | 4.66 | 5A28* | 10 lbs . | 2.78 |
| * $153 / 4{ }^{\circ \prime}$ | 54297 | 5 lbs . | 5.23 | 5429* | 12 lbs . | 3.03 |
| 171/2 | 54298 | 5 lbs. | 5.78 |  | 2 Ibs. | 3.03 |
| 191/4" | 54299 | 6 lbs. | 6.30 |  |  |  |
| $21^{\prime \prime}$ | 54300 | 7 lbs. | 6.87 |  |  |  |

## Quontity Price an Panels: 1 to 49 net; 50 to 99 less $10 \% ; 100$ up less $20 \%$.

## TRIANGULAR MOUNTING BRACKETS

pravides rigid support ponel for chossls ossemblies and for
shelves. Heovy gouge steel with $3 / 4$ flonge. Block enomel.
$\begin{array}{lccccc}\text { Stk. No. Bud No. Hetght Depth Weight } & \text { Per Poir } \\ 5 A 240 & M B 1266 & 5^{\prime \prime} & 5^{\prime \prime} & 1 \mathrm{lb} & \$ 0.98 \\ 5 A 241 & M B 1267 & 7^{\prime \prime} & 7^{\prime \prime} & 1 \mathrm{lb} & 1.16\end{array}$
Quantlty Prices Available On All Bud Cabinets
Binder Head（2）Pound Head Phillips Head Oval Head
MACHINE SCREWS
BRASS NICKEL PLATED
Bright finish－Rustproof．Non－
Mognetic．

Please indicate B－A Stock No，and Quantity desired when ordering．Please odd an＂X＂to B－A Stock No．when ordering 35 c pockaged hordware ＊Quantities shown in 35c packages are approximate．

## （I）BINDER HEAD

4－36 Nickel Plated BRASS

| $\begin{aligned} & \text { Brass } \\ & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Loth. } \\ & \text { Inchos } \end{aligned}$ |  | $\begin{aligned} & 100 \\ & \text { for } \end{aligned}$ | $\begin{aligned} & 500 \\ & \text { For } \end{aligned}$ | $\begin{gathered} 1000 \\ \text { For } \\ \hline \end{gathered}$ | $\begin{array}{\|c} 5000 \\ \text { Per } \\ \mathrm{M} \end{array}$ | $\begin{aligned} & \text { Stoel } \\ & \text { Stock } \\ & \text { No. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 198719 | 1／4 | 20 | ． 87 | 3.91 | 7.02 | 6.32 | 19A70 |
| 198 |  | 20 | ． 98 | 4.41 | 7．87 |  |  |
| 198736 | 1／2 | 20 | 1.09 | 4.90 | 8.71 |  |  |
| 6－32 Nickel Plated BRASS |  |  |  |  |  |  |  |
| 198856 |  |  |  | 5.13 | S ${ }^{5} 13$ |  | 19471 |
| 198863 |  | 18 | 1.31 | 5.89 | 10.51 |  |  |
| 198876 | $1 /$ | 17 | 1.49 | 6.70 | 11．89 |  | 19 |
| 198877 |  | 15 | 1.79 |  | 14.3 |  |  |
| 198883 | 1 | 13 | 2. | 9.6 | 17．09 |  |  |
| 8－32 Nickel Plated BRASS |  |  |  |  |  |  |  |
| 198882 |  |  | 1.64 | 7．38 | 13.09 | 11. |  |
| 198760 |  | 15 | 1.86 | 8.37 | 14.89 | 3．46 | 19 A7 |
| ${ }^{198886}$ |  | 13 |  |  |  |  | 19A75 |
| 198887 | 3／4 |  |  |  |  |  | 19A75 |
| 198888 | 1 | 8 |  |  |  |  |  |



## 6．32 Nickel Plated STEEL




## 8－32 Nickel Plated STEEL

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 198882 |  | 15 | 1.64 | 7.38 | 13．0911．78 | 198781 | 1／3 |  |  |  | 32 |  |
| 198760 | 3／18 | 15 | ${ }^{1.86}$ |  | 14．89 ${ }^{13} 13.46$ | ${ }^{194746}$ | 㐋 | ${ }_{25}^{25}$ | ． 76 |  | 5．63 |  |
| 1988886 198887 | 3／3 | $1 \begin{aligned} & 13 \\ & 10\end{aligned}$ |  | ${ }^{\text {11．65 }}$ | ${ }_{20.68}^{16.69} 18.61$ | 19A754 | 2 | ${ }_{23}^{25}$ |  | 4．09 | 6．123 |  |
| 198888 | 14 | － | 3．08 | 13.861 | 24．59 22.13 | 19A759 | 1 | 20 | 1.1 | 4.95 | 8.30 |  |

## （2）ROUND HEAD



## （3）Phillips Round Head N．P．Brass





（4）Oval Head（Rack Screws） N．P．Steel

## RADIO

HARDWARE ASSORTMENT

## AUTs，woshers．

## THREADED BRASS RODS

## аитит

Ideal for making your own long screws
clomps，eyelets，screws，etc．A part to
fill proctically ony occasionol need． Very handy for workshop or tool box．
Over 600 pieces contained in a clear No． 11 A335．Net Eoch．．．．．．．$\$ 1.15$
by cutting to any desired length．Sup－ plied in $12^{\circ 8}$ lengths．

## 19B805 <br> $19 \mathrm{B807}$

Burstein

# （1）（2） <br> （3） <br> <br> （1）HEXAGON NUTS 

 <br> <br> （1）HEXAGON NUTS}

## bRass nickel plated <br> Rustoroof，Non－Mognetic

| Rustproot，Non－Magnetic |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． |  | $\left\|\begin{array}{c} *+0 t y . \\ \text { in 35c } \\ \text { Pko } \end{array}\right\|$ | $\left\|\begin{array}{l} 100 \\ \text { For } \end{array}\right\|$ | $\begin{aligned} & 500 \\ & \text { For } \end{aligned}$ | $\begin{gathered} 1000 \\ \mathbf{F}_{\text {or }} \end{gathered}$ |  |  |  | $\begin{array}{\|l\|l\|} \hline \begin{array}{l} \text { OTHy } \\ \text { in } 35 \mathrm{c} \\ \mathrm{Pkg} \end{array} \\ \hline \end{array}$ | $\left.\begin{array}{\|c\|} 100 \\ \text { For } \end{array} \right\rvert\,$ | $\begin{aligned} & 500 \\ & \text { For } \end{aligned}$ | $\begin{array}{\|c\|c\|} 1000 \\ \text { For } \end{array}$ | $\begin{aligned} & \text { Por } \\ & \text { M } \end{aligned}$ |
|  |  |  | ． 96 | 4.32 | 7.07 |  |  |  |  | ． 60 | 2.78 |  |  |
|  |  | 3 | 1.16 | 5.22 |  | 8.30 |  |  |  |  |  |  |  |
| 19 A |  | 2 |  |  |  | 8.20 |  |  |  | 6 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## （2）MOUNTINC NUTS




（3）




## SELF－TAPPING METAL SCREWS



## METAL AND FIBRE WASHERS

| （1） | FLAT |  | ES A |  | ASHEI | ERS |  | SH | EPRO | W | ASHE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock |  | D |  | 100 | 1000 | 5000 |  | （3） | EXT | NAL | TY |  |  |
| $19 \mathrm{B900}$ | Size | In． | Thk． | 35c | 2.64 | 2.38 | Stock No． | $\left\lvert\, \begin{gathered} \text { Fits } \\ \text { Screw } \end{gathered}\right.$ | $\left\|\begin{array}{\|c\|c\|c\|} \hline \text { Qty. in } \\ 35 c \mathrm{Pk} . \end{array}\right\|$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | $\begin{aligned} & 500 \\ & \text { For } \end{aligned}$ | $\left\lvert\, \begin{gathered} 1000 \\ \text { For } \end{gathered}\right.$ | $\begin{aligned} & 5000 \\ & \text { per M } \end{aligned}$ |
| 19 A 1022 | 4 | $\frac{1}{4}$ | ． 025 | ${ }^{35 \mathrm{c}}$ | 1.98 | 1.79 |  |  |  |  |  |  |  |
| 19A1023 19A1024 | 8 | $3 / 8$ | .028 .032 | ${ }^{35 \mathrm{c}}$ 35c | 2.21 2.36 | 1.99 2.12 | $19 A 919$ $19 A 920$ | 18 | 50 50 | ． 45 | 2.02 | 3.57 3.57 | 3.21 3.21 3.51 |
| 19 l 1025 | 10 | \％ | ${ }_{0} .038$ | 35c | 2.36 | 2.12 | 19 A921 | 18 | 50 | ． 49 | 2.20 | 3.90 | 3.51 |
| （2） C | UP TYPE WASHERS，Nickel Plated |  |  |  |  |  | （4） |  | INTERNAL |  | TYPE |  |  |


|  | Size |  | $\begin{aligned} & 100 \\ & \text { for } \end{aligned}$ | $\begin{aligned} & 500 \\ & \text { For } \end{aligned}$ | $\left\lvert\, \begin{gathered} 10 x 0 \\ \text { For } \end{gathered}\right.$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ． 46 | 1.75 | 3.1 |  |  |  |
|  | 8 |  |  |  |  |  |  |  |


| 50 | .4 |
| :---: | :---: |
| 50 | .4 |
| 50 | .4 |
| 45 | .4 |
| 35 | 1.0 |

45 2．02 3 57）

|  | （5） | flat fizre washers |  |  |  |  | （6） | FIB | RE EX | trud | WASHERS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stack | 0．0． | $\overbrace{\text { Size }}^{\text {Serew }}$ | Thk． | $\left.\right\|_{35 \mathrm{CPk}} ^{\mathrm{Oty} . \text { In }} .$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | $\begin{gathered} 1000 \\ \text { For } \end{gathered}$ | Stock No． | 0．D． | $\left\lvert\, \begin{gathered} \text { Screw } \\ \text { Size } \end{gathered}\right.$ | $\left\lvert\, \begin{aligned} & \text { Entr. } \\ & \text { 0.0. } \end{aligned}\right.$ | Oty．in 35cPkg | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | 1000 |
| $19 \mathrm{C975}$ | 1／4 | ${ }^{6}$ | त | 30 | ． 45 | 2.65 | 19C970 | 50， | 6 | ． 187 | 35 | ． 84 | 6．70 |
| $19 \mathrm{C976}$ |  | 8 | $1{ }^{1}$ | 30 | ． 45 | 2.87 | $19 C 971$ | ＊ | 8 |  | 35 |  |  |
| $19 \mathrm{Cg77}$ | \％ | 10 | \％＂ | 30 | ． 45 |  | $19 \mathrm{Cg72}$ |  |  | ${ }^{235}$ | 35 35 35 |  | 7.3 |
| 19С983 19С98 | 12\％＂ | \％ | 等＂． | 24 20 | ． 74 |  | 19 l |  | 㐌＂ | 375 | 35 30 | ， |  |



B－A SUPER HARDWARE DEAL
2 lbs ．－over 1000 top quolity machine screws and nuts，all plated steel－all popular radio－ TV sizes
and
Hd．
2



PLEASE SPECIFY BOTH STOCK No. 1981199 AND G-C NUMBER WHEN ORDERING

| Description | Fig. | G-C No. | * Q + 5 . |
| :---: | :---: | :---: | :---: |
| Alten Hex Set Screws, ossorted lengths 8-32 | 1 | H1678F | 5 |
| Coble Holder Clamps | 2 | H500F | 20 |
| Cord Strain Reliefs | 3 | H048F | 5 |
| Dial Drive Springs, Regular | 4 | H401F | 8 |
| Diol Pulleys, Bross Grommets, Gum Rubber | 5 | $\begin{aligned} & \mathrm{H} 1966 \mathrm{~F} \\ & \mathrm{HO4OF} \end{aligned}$ |  |
| Grommets, Ploin Rubber | 6 | H025F | 15 |
| Hole Plugs, Snop Button | 7 | H300F | 8 |
| Lugs, Soldering | 8 | H100F | 30 |
| Mach. Screw 6 Nuts, Steel N.PI. 4-36 to 10-32 | 9 | H1001F | 40 |
| Moch. Screw, Binder H., Steel N.PI. 4-36 to 10-32 Nuts, Hex, Steel Nickel Ploted $4-36$ to 10-32 | 10 | H1168F H1800F | 35 30 |
| Nuts, Hex, Steel Nickel Ploted 4-36 to 10-32 Nuts, Mrg. Vol. Control G Switches | 11 | H1800F H1920F | 30 12 |
| Nuts, Tinnerman Speed | 1.3 | H1960F | 30 |
| Phono Cortridge Mtg. Screws | 14 | His60F | 60 |


| Description | Fig. | G-C No. | "Qty. |
| :---: | :---: | :---: | :---: |
| Phono Drive Belts-VM, GI, Garror | 15 | HOI4F | 4 |
| Phona Drive Rubber Tires, VM, GI, 3 Speed | -15 | H017F | 3 |
| Radio-Knob Push-On Springs | 16 | H480F | 18 |
| Rivets and Eyelets | 17 | H526F | 55 |
| Rubber Feet, Screw Type | 18 | H050F | 8 |
| Set Screws, Rodio Knob Type <br> Sheet Metal Screws, Hex H. 4, 6, 8, 10 | 19 .20 | H 1605 F H 1300 F | $15$ |
| Sheet Metal Screws, Hex H. 4, 6, 8, 10 | -20 | - H +1300F | 25 |
| Twin Leod Wiring Noils | . 22 | H565F | 35 |
| Vent. Plugs, Punched Holes, Snop-in for 1" Hales | 23 | H334F | 4 |
| Woshers, "C" G Retaining Ring | 24 | H770F | 25 |
| Woshers, Cup, Asst. 6, 8, 10 | 25 | H805F | 40 |
| Woshers, Extruded Fibre | 26 | H855F | 30 |
| Washers, Lock, Sizes 2, 4, 6, 8, 10, All Types | 27 | H918F | 45 |
| Woshers, Metol Nickel Ploted | 28 | H870F | 80 |

## ALWAYS NEEDED HARDWARE

80(ब)

(6) (6)

## HANDY STORAGE CONTAINERS



Plated
(1) CABLE CLAMPS

Heovy gouge steel, cadmium plated. a/s wide with No. 6 mounting hole.
fits coble up to size shown. $12 \mathrm{Al} 303 \quad 1 / 2^{\prime \prime} 10$ For 100 For $\mathbf{1 M}$ For $\mathbf{\$ 1 9} \mathbf{\$ 1 . 2 5} \mathbf{\$ 9 . 9 3}$ 12A1304 $/ 1 / 4^{\prime \prime \prime} \$ .19 \$ 1.25 \$ 9.93$

## (2) CINCH CABLE CLAMPS

 Bross nickel plated with 6-32 screw No. I.D. Each 10 For| 12 Al 159 | 1/i, ${ }_{\text {i }}$ \$0.12 | \$1.08 |
| :---: | :---: | :---: |
| 12 Al |  |  |
| 12 A 1592 | 19... 14 |  |
| 12 A 1594 | \%1. 15 |  |
| 12 A1595 | 很"15 |  |

(3) NYLON CABLE CLAMPS

Hold their shape under severest stress Stands temp. of -60 to 250 degrees F., do not support combustion
${ }_{2}$ No. $1 . \mathrm{Al}^{2}$. Eoch 10 For 100 For
$12 \mathrm{AlO98}$
$12 A 1099$
$12 A 1255$
$2 A 1255$
$2 A 1345$
12 A1345

No. Size Éoch 10100 $12 \mathrm{Al314} \quad 1 / 2 \times 1 / 2^{\prime \prime} \quad .03 \quad .19 \quad 1.45 \quad 12 \mathrm{Al302} 10 \mathrm{For} 100$ For 1000 For



## BRASS SPACERS

 G-C Shank Length 100 1000 No. Dio. Under, Head For For


## (7) SPADE MTG. BOLTS

Codmium Ploted. 6-32 screw end.

CADMIUM PLATED. These bross bushings are ideal for use in raising sub ponels, chassis condensers, transformers, spocing switch decks, breadboard mounting of sockets and other components, etc.
tk. No. Lgth. Each \#6 Screw 12A1173 $12 A 117$
$12 A 117$ $\begin{array}{lllll}12 A 1176 & 3 /{ }^{\prime \prime} & .08 & .57 & 4.20 \\ 12 A 1177 & .09 & .68 & 5.10 \\ & .10 & .78 & 5.83\end{array}$

## THREADED SPACERS

Brass cadmium ploted $1 / 4^{\prime \prime}$ O.D. -Takes a 6-32 screw. For roising condensers, stk. No. Stk. No.
$12 A 1469$



## INSULATED SPACERS

Fibre bushings $1 / /^{\prime \prime}$ autside diameter wond hole for \#6 screw for roising Stk. No. LTh. EEch 10 For 100 For
12 A 1250
$1 / 4 .$,
$\$ .07$
$\$ .42$
$\$ 3.14$

## Chemicals \& Service Aids


(1) CEMENTS

SERVICE CEMENT - For replacing and repairing speaker cones; sealing odjustments, cementing loose tube boses, etc. Vibration and waterpraof. Fast drying. 11 A33-2 2 oz. 114678 - 8 or.

### 50.47

$\$ 1.24$
$\$ 2.14$
SERVICE SOLVENT - Loosens ald coment. Alsa thinner for obove. $11435-2$ ox.
$\$ 0.44$ $114679-8$
$16 A 498-1$
Pt. 1.29

PLASTIC G BAKELITE CEMENT-16A440-2 ox. Jor, EOCh. . . 47 C VINYLITE CEMENT - A plastic cement. for nomporous moterlals. LUCITECEMENT - For lucite, plexiglass and ather acrylic materials. Fast drying.
16A575-2 oz. Jor. Eoch... 52 c RUBBER TO METAL CEMENT--
$11 A 76-2$ OZ. JOR. EOCh.... 52 C ELEC. G RESISTOR CEMENT-Heat-proof, hardens like porcelain. Q-DOPE (COIL DOPE)-Coots and seals coil windings, etc. Low RF loss. Ideal for HI-freq. Use.
$11 A 25-2$ oz. Bottle. Each. 47 c (3) CEMENT LAB KIT 14 different 2 oz. bottles cement for any requirement. No. 228234. Per Kit. . . . . 55.85
$\qquad$
NO-ARC SPRAY INSULATOR
20,000 Volts Dielectric
Provides a tough insulating coating to prevent arcing and corona shorts. Sproy on transformers,
circuits, etc.


## (3) CHEMICALS

CARBON CONTROL CLEANER Repoirs noisy valume controls, switches, etc. while chassis is
cabinet. Applicator supplied. cabinet. Applicator supplied.
164443 -2 ox. Jar. Each. . 44 c
"NO-OX" CONTACT CLEANERDissolves corrosion by chemical iltion. Contains no solvent $66 c$
$.85 c$ $11868-1$ oz.. CARBON TET - $100 \%$ pure. Dissolves dirt and grease. Use on $114680-8 \mathrm{ox}$.
$7 B c$
$\$ 1.24$
LUBE-REX-Repels moisture, prevents rust and carrosion. Lubricotes dials, switches, etc. 11A21-2 ox. Bottle. Eoch . . 47 e INSULATING VARNISH-Produces waterproof, oilproof, non-corrosive film on colls, transformers, sole-


## ANTI-CORONA LACQUER - Has

 high dielectric strength to prevent corono in TV high voltage.$11 \mathrm{~B} 175-2 \mathrm{oz}$. Bottle. Each. 7 Oc

## (4) INJECTOR

Surgical needle in ail resistant rubber bulb.
No. 11 B234. Eoch
$44 c$

## (5) LUBRICATOR

Spring plunger releases lubricant.
No. 11 B150. Each. . . . . . . . . 52 C
\& TUN-O-LUBE

## TUNER CLEANER

Just sproy it on- cleans and lubricates all types of tuners. Leoves a long lasting protective cooting ogainst noise and oxidation. Non-Inflam oble, non-tox
No. 114373.
8 ox. Spray Con. $\$ 1.94$

## "DURO" PLASTIC MENDERS



Easiest, most economical means ever to accomplish hundreds of "fix-it" lobs. Perfect for the home, auto, boot, shop and form. Just apply and
let dry, provides a permanent bond to almost any surface. PLASTIC ALUMINUM. Repoirs metal,
DURO waod or concrete. Seals, salders, and repairs-
hardens to metal in a few hours, Stands $600^{\circ}$ hordens to metal in a few hours, Stand
Fi not offocted by gasoline, oil or water.
No No. 11 A433. Lorge $51 / 2$ oz. Tube.
Net Each
No. llats
75c
LARGE
DURO A44. Qt. Con, 3 libs. Net Eoch
made PLASTIC RUBBER. Repairs most onything made of rubber, plastic and canvas. Chemically Dries tough and elastic insulate fools.
insulate tools. 11 A448. Large 4 fd. Oz. Tube. Not Each
75c
No. 11 A493. Qt. Can, 3 lbs. Net Eoch.
$\$ 2.99$
DURO WHITE PLASTIC PORCELAIN. In liquid form-air dries to a vitreous kiln hardened finish. Repairs porcelain which has become cracked, chipped or worn down to the
Wilt not yellow. 11 . 450 . Contents $13 / 4 \mathrm{Oz}$. Net Eoch.
$75 c$
 welds, seals, solders and fills metal. Consis
E-POX-E ressin; 2 , hardener; 3 atomized steel.
No. 11 A449. Wt. 12 Oz. Kit Net Eoch.
DURO PLASTIC MENDER (transparent)
75 c DURO PLASTIC MENDER (transparent) Repairs all vinyl plastics-just ap-
ply and let dry. Once dry, it's not offected by oil, water or gasoline and ply and let dry. Once dry,
will withstand bolling water
No. 11 A452. $3 / 4$ az. Pube. Net Each
DURO RUST REMOVER. Cleans and polishes chrame, aluminum, co....................... most metais. Leaves a tronspanent film of protection to help prevent further rusting and tarnishing.
No. 1 IA $451,41 / 2$ oz. tube. Net Each
HANDYMAN REPAIR KIT. Four 75 c tubes of aluminum, rubbor, porcelac and chem-steel plus Ouro rust remover.
No. 11 B432. Special, Per Kit.

## The Finest Television Antennas

## Winegard SUPER POWERTRON

 THE ELECTRONIC ANTENNA30 ELEMENTS PLUS TRANSISTORIZED INTENSIFIER

## WIH UP TO \& THES MORE GAIK OM ALL c!aMNELS, BLACK \& WLITE OR COLOR

HERE'S WHAT THIS SUPER POWERFUL ANTENNA CAN DO FOR YOU...

- Virtualiy eliminote snow and inter-
fercnce.
- Operate up to $1 / 4$ mite from the TV set.
- Drive up to 10 TV ouflets directly
- Provide easier lower height installation
- Give losting service becousz of finest
$\$ 104.95$
MFG. LIST
${ }^{5} 67^{17}$

SUPERB PERFORMANCE ON ALL CHANNELS 2-13 Almost without exception a Winegard Powertron will greatly improve every channel you watch, cleor up snow and interference and make weak, faded pictures become crisp and clear...just like odding new channels in many locations. Compored to the famous Winegard CL4 Color Ceptor the Powertron delivers tremendous signol gains of 19 db , equiol to 81 times the power or 9 times the signal voltoge.
There's nothing finer for excellent color or block and white because of near perfect linear frequency response ond perfect impedonce match to the lead in. The electronic intensifier is coupled direct, built-in, not an odd-an feoture. Operating power for the electronic intensifier is supplied at a safe 12 voits
ond fed up the some leod that carries the $T V$ signals to the power coupler

## FOR A NEW HIGH IN PERFORMANCE THE PRECISION-ENGINEERED TACO T-BIRD ANTENNA

GUARANTEES HIGH-POWERED
CHANNEL 2-13 RECEPTION OF BLACK \& WHITE OR COLOR TV - $121 / 2 \mathrm{db}$ gain, 20 db front to back rotio.

- True single lobe response.



## ${ }^{\text {Mits. }} \$ 32^{31}$

BACKED BY WRITTEN 12 MONTH GUARANTEE! finest engineering, highest quality materials throughout Brightens and sharpens pictures on any set at distances for beyond normal becouse of outstanding technical excellence. Loboratory checked and proved to show a gain of $121 / 2 \mathrm{db}$, believed to be the highest ever ottained chonnels is controlled to $\pm 1$ do guaranteeing full pleture fidelity. Shuts out side and rear interfering slignais and phosts due to shard single lobe pickup pattern. Matches 300 ohm line impedonce with near perfection on all VHF channels.
Mechonically strong all-oluminum construction, thoroughly weather pratected, ossures long service life Comes pre-assembled, quick-rigged for fost instal lation. Less mast and 300 ohm line. Shpg. wt. 12 ligs. Mig. list $\$ 54.95$.


## GREATER PERFORMANCE STILLI TRANSISTORIZED TACO T-BIRD ELECTRA

 WITH BUILT-IN ELECTRONIC AMPLIFIER
## MFG. LIST $\$ 109.75$ <br> $\$ 6453$

SUPER CHARGES SIGNALS ON ALL CHANNELS 2-13 - Operates 2 sets directly. - Allows lower ontenna height.


So powerful that the ontenno may be located up to $1 / 4$ mile from TV set without any odditional boosters or amplifiers or it can be installed at lower height than normal and thereby sove extra cost of high tower or most. Auromatically this matched system feeds two TV sets or TV and FM with the finest possible pictures and sound. AC operated coupler ot the set feeds low voltage power for the weather proof ontenno mounted amplifier through the 300 ohm signal lead. Installation is as simple as for on ordinary onfenna, Features same fine long-life construction as model 707-8
above. Less mast and 300 ohm lead. Shog wt 14 tbs. No. 9475. Toco G990-8 Mfg. list \$109.75. Net Each.
$\$ 64.53$
GLoth, \$59.26

# BUY YOUR TV ANTENNAS FROM B-A WITH COMPLETE CONFIDENCE! 

We hove pre-selected only items formance volue, quality and perwhether for $\because$ mode your choice, for replocin o new instollotion or one, easier ond old worn out you hove B-A.'s maney .... and ontee thot every itey bock guoras represented.

## USE OUR EASY-PAY PLAN

See Order Blank for Eosy Poy Plan on orders totoling $\$ 40.00$
or more.
ot the set. Using 300 ohm line, ontenno con be remoted up to $1 / 4$ mile, up to several hundred feet using RG59 coax. Fitted for both types of lead. Constructed entirely of heary duty gold anodized aluminum and iridited weotherproof hardwore, campletely preassembled for fast easy instollotion.
With power units, less most ond With power units, less most ond 300 ohm lead. Installed size $110^{\prime \prime} \mathrm{W}$ $184^{\prime \prime}$ long. Shpg, wt. 19 los.
Na. 7 All 18 . Mfg. list $\$ 104.95$. Net Each
WINEGARD 300 OHM.
$\$ 61.71$
WINEGARD 300 OHM LINE TAPS FOR MULTIPLE OUUTLETS
"Through-line"" type couplers for extending TV lead to other rooms. The Powertron will handle up to 6 in fringe areas, up to 10 in normal areas. No. 188502. Surtace Type. Mfg. list $\$ 4.95$. Net Eoch. .e.s. ....... $\mathbf{\$ 2 . 9 1}$
No. 188501. Flush, in-wali type. Mfg. list $\$ 3.50$. Net Eoch. ....... $\mathbf{\$ 2 . 0 6}$

## WINEGARD CHANNEL 2-13 ANTENNAS

HIGH POWER 18 ELEMENT COLOR 'CEPTOR FOR BLACK G WHITE OR COLOR
MODEL CL-4X

- Duroble Gold Anodized
- All Aluminum

Construction


Precision 18 element antenno with Power Pack, incorporating the Winegard Electro-Lens principle. Produces super high gain on oll 12 VHF channels (up to 16 db ). Exceptional front-to-back rotio of 31 db average virtually eliminotes venetion blind effect coused by co-channel interference. Ultrolineor flot responses across oll chonnels provides utmost color fidelity and best obtainable black and white reception. Mechanically balanced for use with orotofor, Constructed of protective gold onodized oluminum for extro long life and resistonce to corrosive effects of smoke-heavy atmosphere or salt sproy, factory pre-assembled, With automatic hardware and highNo. 74122. Mfg. list \$47.25 Single Boy CL-4X. Net Each
$\$ 27.72$

## 11 ELEMENT COLOR 'CEPTOR MODEL CL-4

Smaller, less powerful antenno incorporating the proven Electro-Lens principle. Produces superb results on all 12 VHF channels in black and white or color. Recommended for oll areas, even the fringe, except where super 300 ohm lead. Wt. Der bay 8 lbs . Mfg. list $\$ 31.50$. No. 7A124. Single Boy CL-4. Net Each,
.18 .45
TWO BAY STACKING HARNESS ONLY. For CL4 or CL4X. For wide spacing. Gold anodized.
7A72. Model SB-4C. Mfg. list \$3.35. Net Each. . . . . . . . . . . ..... $\$ 1.94$

## TENNA TOP-QUALITY <br> PRE-ASSEMBLED

10 ELEMENT CONICALS
${ }^{5 \text { singets }}$ EACH $\$ \mathbf{3}^{11}$
SINGLE OR TWO-BAY STACK FOR CHANNELS 2-13


Eoch bay has six forward elements, 4 reflectors. Qualify all-aluminum construction with "Presto Instant Mount Assembly". Spring oction clomps position elements securely, thumb nuts hold them permanently 300 as quick
and easy to set up os opening on umbrella! Less mast and 300 ohm lead
No. 6A146. Two Bay, Madel T-742A.
Wt. 3 lbs. Mfg. list $\$ 5.80$. Net Eoch
相 $\$ 7.25$


6 Lots,
$\$ 3.11$

## JFD Television Antennas

HH-FI SATELLITE HELIX MODEL VXII\|


- For up to 150 miles.
- 31 working elements.
- All channels 2-13.

Ultro sensitive sotellite Helix design shrinks the miles and flattens the mountains for brilliont movic-clear pictu
out in the deep fringe. on high band, 7 db on low bond.

## MFG. LIST $\$ 49.50$ $\$ 10$


#### Abstract

Needle-sharp directivity helps relect ghosts and troublesome interference of up to $25: 1$ screening out unwanted side and rear signals. 25 dual funcfion elements work as 31 elements to copture more signal, even up in the mountains or down in the valley. Preassembled all-oluminum construction, oluminum dowel reinforced elements, one inch square boom, one inch tubuoluminum dowel reinforced elements, one inch square bom, one inch 9 lbs. lar boom brace, double lea-bolt, solid list $\$ 49.50$. SINGLE BAY Model VXIII. No. 9 A 68 . Net Eoch TWO BAY STACKING KIT ONLY. Couples 2, No. 9 A98. Model 1169 . Wt. 2 lbs. Net Eoch,

\section*{HI-FI SUPER BANSHEE MODEL BS350}




## - For up to 110 miles.

- 27 working elements.
- Super-sensitivebroadband Yagi design. A superior antenna for all VHF channels. Loaded with outstanding electrical and mechanical features. Has precision spaced elements and shorter, stronger low-band directors that operate without "shadowing" other elements. All-aluminum, pre-ossembled, built to last. Less mast and 300 ohm $\$ 88.80$ Shpg. wt. 9 lbs. Mfg. list $\$ 28.80$.
No. 9 AS

Single Bay. Model BS350. | Net |
| :--- |
| Eoch $\ldots 16^{93}$ Eoch, $\$ 1555$ |

## FAMOUS ORIGINAL "SUPER-JET"



- 50 to 75 miles.
- Excellent for suburban and outlying areas
- Finest Construction.

Still one of the most populor antennas made! Hos fine directivity needed for ghost-free pictures. All-aluminum, quick-rig design. Wt. 8 lbs. Less mast and 300 ohm lead. Mfg. list $\$ 13.90$.
Single Bar Model JET-213
No. 9 A90
$\$ 8.17{ }^{\text {E. Lots }}$ Eoch: $\$ 7.35$
HIGH QUALITY TV ANTENNA OUTFITS KITS INCLUDE MOUNT, WIRE, G HARDWARE FOR QUICK, EASY INSTALLATION-NOTHING ELSE TO BUY
FOR ALL CHANNELS 2-13-BLACK AND WHITE OR COLOR


JFD ZIP-CONICAL KIT-FOR UP TO 30 MILES Most populcr of all ontenna types for urban and suburban locations. no tools-ontenna elements remoin permanently locked in positive alignment merely by moving them into position by hand. Installation kit includes 5 ft . all-aluminum universal mount for roof, peak or side mount: positively the quickest, simplest and best mounting yet devised. Additional 5 ft . aluminum most included. Antenna can be 10 ft . high, in the clear for maximum performance. Includes also 50 ft . of high quality 300 ohm twin lead, and 5 stand-off insulators. Shpg. No. 9AS5. Complete Kit Pockaged far Mailing.
Speciol Eoch
$\$ 6.99$

## JFD PIP-JET KIT_FOR 50 TO 75 MILES

Top-Quality all aluminum. An excellent performing ontenno with the extra advantage of greater signal pickup, 6 ta 8 db gain on low channels, git is same os described obave. Shpg, wt. 12 lbs . No. 9 A56. Complete Kit. Speciol Eoch

## HI-FI POWER HELIX MODEL PX911

- Up to 125 miles.
- 26 elements.

HAS ALL FEATURES
FOR FINEST BLACK \& WHITE OR COLOR RECEPTION.
Extremely high front-to-bock rotio; up to 28 db-minimizes cochannel and adjocentchonnel interference. Narrow beom widthreduces picture smearing.


## RECEIVES ALL CHANNELS 2-13

Gives photo-sharp steady reception for almost any fringe lacation. Has fine balance and light weight needed for rotor installations. Unique twin-driven callector system provides close 300 ohm impedance motch
callector system provides close 300 ohm impedonce march. Comper Als clamp. Less mast and 300 ohm lead. Shpg. wt. per bay 10 lbs . Mfg. list $\$ 36.95$. Model PX911. Single Boy.
No. 9A78. Net Eoch
$\$ 21.73 \begin{gathered}6 \text { Lots, } \$ 19.56 \\ \text { Eoch. }\end{gathered}$
TWO BAY STACKING Kit óniY. Joins 2 boys for 3 db added gain. No. 9A67. Madel J170. Wt. 2 lbs. Net Each
\$2.35

## HI-FI BANSHEE MODEL B350

- For 65 to 75 miles.
- 17 working elements.
- Yagi super strength and signal power.
Finest antema for the moneyl Gives sparkling picture quality on black and white or color, all channels 2 to 13. Ruggedized all-oluminum construction, 100 per cent pre-ossembled to $g o$ up in minutes. Con be mounted in the ottic, too. Less mast and 300 ohm lead. Shpg. wt. 7 lbs. Mfg. list $\$ 19.30$.
No. 9A51. Single Boy. Model B350. $\underset{\text { Eoch }}{\mathrm{Net}} \mathbf{\$ 1 1 3 5} \underset{\text { Each.: }}{6 \text { Lots, }} \mathbf{1 0}^{\mathbf{4 2}}$


MFG. LIS
$\$ 19.30$
s1135


## HIGH QUALITY "RABEIT EAR" ANTENNAS Model TAl41 $\$ 724$ <br> Megulor $\$ 7.95$ ${ }_{2}{ }^{\text {Eoch }}$

New 4 section dipoles, only $13^{\prime \prime}$ high, $38^{\prime \prime}$ extended. Looks neater, easier to use
design for quick, sure positioning of the dipoles.
Smartly styled, compact, tip-proof bose enhances beauty of any television cabinet, period or modern.
300 ohm lead. Wt. 2 lbs. (1) Standard Channel 2-13 "Rabbit Ear". $38 B 118.51 .59$
Net Eo.
${ }_{\text {loch }}^{10}$ Lots. $\$ 1.43$ 25 Lots, Each $\$ 1.24$
 (3) Switch Type All-Chonnel 'Robbit Eor'

(2)


Frumin All new "4 section" dipoles like pedance and electrically odjust antenna for maximum signal. Helps tune out ghosts. Covers VHF and UHF channels 2 to 83. Mfs. List $\$ 9.9$
 Special Each
$\$ 2.53$
REPLACEMENT ANTENNAS FOR PORTABLE SETS (1) "PERISCOPE" REAR-OF-SET ANTENNA Ball socket, 5 section $37^{\prime \prime}$ telescoping dipole
pivot in ony direction, drop out of sight in a wink when not in use. Length closed $73 / 4^{\prime \prime}$ Plostic protective housing mounts on rear o most ony set. Exact replacement for Admirol, Dumant ond Westinghouse except for models No. 38C110. Type TA155. ......... $\mathbf{2} \mathbf{2 1}$ (3) "TUK-A-TENNA" Folds down when not in use. Easily installed on rear of most any set. Nickel plated 4 -section brass dipoles $381 / 2^{\prime \prime}$ extended, $12^{\prime \prime}$ closed. Also exoct replocement for Dumont, Emerson, GE, Hotpoint, Olympic, Sentinel, Sylvonio and Trav-ler except for models listed below. Wt. 2 lbs . Mfg. list $\$ 3.95$. No. 38C111. Type TA442. S2.32


## ANTENNAS FOR OTHER PORTABLE TV SETS

Most types are available for immediate shipment ronging from approximately $\$ 3.00$ to $\$ 6.00$ cost. Order by specifying Make and Model of TV Set ond Port Number of Original Antenno ond Group Stock No. 38 A47. JFD EXACT REPLACEMENT ANTENNA GUIDE
4234

## Television And FM Antennas

10 ELEMENT VHF TV CUT-TO-CHANNEL

AS LOW AS $\$ 477$ GREATEST RANGE SINGLE CHANNEL TYPE
 TRIO
SHARPSHOOTER

The least expensive antenno for areas requiring extreme performance on o single channel. Proven Yagi design gives lowest response of sides and rear and greatest forward gain of any type antenna.
Automatic hardware and factory pre-assembly saves installation time-provides extreme strength for "tough" locations. Boom braces included, for channels 2 thru 6 . Folded rotia type dipole collector element matches 300 ohm line, Supplied less most and lead. Approx. shpg. wts. Ch. 2 through 6, $10 \mathrm{lb} . ; \mathrm{Ch} .7$ through 13, 6 lbs.
Sik. No. Chonne! Net Each 6 Lts., Ea. Stk. No. Channel Net Each 6 Lts., Ea,

## 7 FAl 102

$7 \mathrm{AlO3}$ 74104 7A105 7A106 74107
$\$ 12.31$
11.89
11.45
11.02
10.16

4.77 | Lts., |  |
| :---: | :---: |
| 11.30 | 7 |
| 10.92 | 7 |
| 10.51 | 7 |
| 10.13 | 7 |
| 9.34 | 7 |
| 4.43 | 7 |

4.77
4.77
4.77
4.77
4.77
4.43
4.43
4.43
4.43
4.43

STACKING KITS FOR 10 ELEMENT YAGIS

Gives still greater signal by combining two Yogi bays for same channel for

use with a single lead. Specify desired channel when ordering. Shpg wi | approx. 2 lbs. |
| :--- |
| No. 7478 . For Low Chonnels $2-6$. Eoch 51.18 |
| No. 7A77. For High Chonnels 7-13. |
| Net Eoch. ................................. 49 Loch. |



TRIO SU-44 4-BAY ALL CHANNEL UHF ANTENNA
Rugged, greatly improved 4 -stock "Bow-tle" with the wide vertical exponse so necessary for dependable reception on all UHF channels. Roted by independent, unsolicited test as the highest goin UHF type on the morket. Features quick assembly (no loose hardware), sturdy, hot-dipped golvanized


## UHF TRANSLATOR ANTENNA

Specifically designed for extremely high gain on UHF Translator channels 64 through 83. Actually a 24 element curtain array with close spaced screen reflector to give highest goin on upper frequencles. Aluminum and hotdipped galvanized steel construction. Fully assembled-ho loose hardware. No. 7A99. Mfg. list $\$ 22.95$.
Tronslotor Model T24. Net Eocl

FINEST BG ANTENNAS, 88-108 MC
FOR IMPROVED RECEPTION-GREATER RANGE GOLD ANODIZED-ALL ALUMINUM



## WINEGARD HIGH POWER FM YAGI

High gain, 8-element, wide spoced. Gives 10.2 db goin across entire FM band. None finer. Sharply directional. Must be rotated to receive signals more thon $80^{\circ}$ apart. Stocking increases gain additionol 2.7 db . Length $94^{\prime \prime}$ width $66^{\circ}$. Completely gold onodized. Less most and 300 ohm leod. Wt.
Na. 7A98. Model FMY8. Single Bay. Mfg. list \$23.65. Eoch
$\$ 13.90$
(2) WINEGARD TURNSTILE ALL-DIRECTION TYPE

Gives excellent results ocross entire FM band with equal high pickup in all directions. Unique sidearm fixture makes installation on existing TV mast fast and simple. Also provides excellent means for stacking to increase power. Up to 4 bays can be used when separated 49 inches and interconnected with
 TACO FM Hef Each
Finit TACO FM "LARK" ANTENNA
Finest all-direction pickup. Very popular in city locations. Moy be added to existing TV installation or mounted separately, even in the attic. Wt. 2 lbs. Less mast and $\mathbf{3 0 0} \mathrm{ohm}$ lead. Mfg. list $\$ 6.95$.
No. 9A94. Model G626A. Net Each
$\$ 3.95$

## WINEGARD SUPER POWERFUL FM ANTENNA

 WITH TRANSISTORIZED ELECTRONIC INTENSIFIER FINEST FOR LONG DISTANCE FM AND MULTIPLEXOpens a vast new range of FM reception in all areas normally a FM stations. Enobles you to reach from city to clty for more stations, greater program selection. Offsets the power loss of transmitter carrier and sub-carrier on Alltiplex systems.
All-aluminum, gold onodized, fully weather prooted. Less mast and
lead-in. Mfg. list $\$ 49.95$. Wt. 10
For 300 Ohm Lead
No. 7A94. Model PF8
For 75 Otim Coox Lead
No. 7A95. Model PF8C
Choice
Eoch ............ 29.37


## ROOF-TOP INSTALLATION KIT

 COMPLETES ANY TV-FM ANTENNA Contains read-in, insulators, mast and support. Eliminates, chore of selecting the right installation "hardware and greatly short-cuts work on the root. Aluforms mid ". mast with tripod odjustable side braces forms rigid "quick-rig" tripod for ony angle, peak orflot roof. With weather-tight drive fasteners, 50 ft . 300 ohm lead and insulators. No. 9A91. Toco Model K797. Net Each.... 44.18


## SPICO "GOLDEN LINE" BEST PERFORMING INDOOR TV ANTENNAS

## (1) TENNA-SCOPE INDOOR ANTENNA

All round superior construction mokes this standard "rabbit ear" a much better performer than the ordinary type. Has the some high quality all plus positive positioning, smooth oction expensive Spico Golden Antennas, hold elements exactly where wanted. Elements extend from $171 / 2$ to and Bose and ball are mahogany brown. Base has gold finished $171 / 2$ to $41^{\prime \prime}$ Bose and ball are mahogany brown. Base has gold finished No. 38 A27. Model B5G. Mig. list $\$ 7.95$. Net Eoch.

## (2) DELUXE GOLDEN "SUPER-SIX";

 WITH EXCLUSIVE "ELECTRONIC" TUNINGThousonds of sotistled users con't be wrong. The only indoor TV antenno mode with these exclusive U.S. Patented features... funable impedance matching device that gives clear, sharp pictures on each individual chan "el . adjustaknob" at base for microfine adjustment... no gimmicks fruly an electronic achievement. Recommended for all areas even the rough ones, where the usual type indoor ontenna fails to give satisfactory picrures. Equipped with carefully assembled 3 section brass elements ex and 300 ohm lead. Shpg. wt. 2lbs No. 38A26. Modet S6GB, Mfg, list \$12.95. Net Each
$\$ 5.85$
3) "STRAT-O-MATIC"

WITH PRECISION "ON-THE-BEAM" DIALING
A TOP SELLER ALL OVER THE COUNTRY
Will out-perform most other indoor antennos because of full length 41 telescoping brass dipoles that won't sag, slip or jam. Superior fit of element sections provides positive contact for steady unblemished pictures Heavy tilt-proof base contains 6 step selector for outomatic electronic positioning. Makes antenno easy to "tune", reduces ghosts and picture smear. Tough low-loss bakelite insulator assembly holds elements exactly where you wont them. Beoutifully gold finished with neatly styled browr wrinkle finished, felt-podded, tip proof base and 300 ohm leod. No. 38425 . Model $\$ 7 \mathrm{G}$. Mfg. list $\$ 10.95$. Net Each
$\$ 3.96$

TUNE VHF-UNF, BLACK \& WHITE OR COLOR ... FM TOO! - 8eautlully Styled. Engineered to Lest. Guaranteed to Sasisfy


## Antenna Towers, Masts and Rotators

ANTENNA TOWERS, MASTS AND MOUNTS


HIGHEST QUALITY-LONG LASTING-NON-RUSTING (1) GALVANIZED $12^{\prime \prime}$ TRIANGULAR TOWER SECTIONS Will stand 40 ft . above house brocket without guys, 280 H . max. when guyed. Hot-dipped galvonized seamless $11 / 4$ "heovy wall uprights, precision welded zig-zag broces, double bolted ioints.
No. 6A47. 10 Ft . Straight Sectlon. Rohn 25G. 40 lbs . Net Eoch No. 6A48. 9 Ft. Top Section for $11 / /^{\prime \prime}$ Mast. 31 lbs. Net Eoch
$\$ 18.25$ (3) 6A56-2 Ground Bose G 4 Ft . Drive Rods. 18 lbs . Per Set $\$ 19.00$ (3) 6A53. House Brocket, $15^{\prime \prime}$ to 24". Rohn HB25BG. 10 lbs. Net Eo. $55^{\circ} 00$ (1) 6A57. Guy Brocket, Torque Bors. 9 lbs. Set. $\$ 7.65$
(5) 6A51. Rotor Post. Mounts inside tower. 3 lbs. Net Eoch.
$\$ 1.70$
Heavy 17 (0) ROHN GALVANIZED TELESCOPING MASTS hot-dipped gauge. Has most brake for simpler installations. Sectized
hot-dipped galvanized inside and out. With guy rings.
Stk. No
$6 A 90$
$6 A 89$
$6 A 88$
$6 A 91$
Height
20 Ft
30 Ft
40 Ft
50 Ft.
Tubing Size
$11 / 2^{\prime \prime}$ to $11 / 4^{\prime \prime}$
13 to $1 / 4^{\prime \prime}$
$2^{\prime \prime}$ to $11 / 4^{\prime \prime}$
$21 / 4^{\prime \prime}$ to $11 / 4^{\prime \prime}$
W. Lb
15
24
34
48
Net Eo
$\$ 5.18$
7.95
11.17
15.30
6 Lts. Ea.
$\$ 4.80$
10.40
14.20
(74114. Universol Bose, Alt-angle ratatable, 2 lbs. Net Each. (6) 4A184. Ground Maunt. Hondy drive-in type. $31 / 2$ lbs. Net Eoch. 31

 6A106. 5 ft. $\times 11 / 4^{\prime \prime}$ Aluminum 1 lb Eo.. ....
60 Al $07.10 \mathrm{ff} . \times 11 / 4^{\prime \prime}$. Aluminum. 2 lbs. Ea. (15) 4A126. All-Angle Bose. Galv. steel. $1 / 2 \mathrm{lbs}$ Eo.... . 4212 @ Eo.. 38 (114) 4A124. Univ. Roof Mount. Galv. steel, $11 / 2$ Ibs. Eo.. .8212 Ea.
(18) NO-GUY ROOF MOUNT.

4A158. Weotherproof steel. 4 lbs. Ea................ $\$ 3.13$ 10 Ea. $\$ 2.88$ 4 4156. Telco 9241 . Zinc ploted steel. I Ib. Per Pr. . $\$ 0.655^{\prime \prime} 10$ Pr. Eo. $\$ 0.59$ US HOUSE PEAK MOUNT. $30^{\prime}$ long. For mosts to $13 / 4^{\prime \prime}$ dio. 4A140. Telco 8625. Zinz ploted steel, 4 lbs . Per Pr... $\$ 3.0610 \mathrm{Pr}$. Eo.. $\$ 2.81$
(1) STAINLESS STEEL STRAP CHIMNEY MOUNT. $12^{\prime}$ long straps, 4A160. Telco 8930. 4 lbs. Per Pr. (1) ROHN TRIANGULAR ROOF MOUNTS

Hot dipped galvanized tubular steel. Takes mosts to $13 / 4^{\prime \prime}$
No. 6462 . 3 Ft . Type TRT36. Wt. 8 lbs. Net Each.
No. 6A64. 10 Ft. Type TRT120. Wt 22 lbs. Net Eoch

## GUYING ACCESSORIES

(1)

(1) No. 18B145
(1) No. 18B145. (1) No. 18C164.
(3) No. 18A384.
No. 184386.

No. 184386.
No. 1981020.
No. 1981020.
(3) No. 19A644. GU
(1) No. 19B986. $114^{\prime \prime}$ MAST GUY CLAMP. Eo
(3) No. 18A692. Leak-Proof Guy Anchor. Eoch
(0) No. 18B146. Serew Eye Guy Anchor. Eoch
(7) No. 18 A59. $11 / 2^{\prime \prime}$ Strain Insulator. Eoch.
(8) No. 18 A60. Heovy Strain Insulator, Eoch

(4)

(3)
 , GUY WIRE CLAMP. Eoch " GUY WIRE CLAMP. Eoch $x{ }^{3}{ }^{\prime \prime}$ TURNBUCKLE. Each $1 / 2^{\prime} \times 1 / 4^{\prime \prime}$ " TURNBUCKLE. Each. sail. Rods are $48^{\prime \prime}$ long, have $11 / 2^{\prime \prime}$ eye.


SCREW-IN EARTH ANCHOR FOR GUYS
Very easy to install. Literally screws into ground of an angle to conform with pull of the guy. Paunds of pull roting is for overoge
$\begin{array}{lllll}\text { Stk. No. Withstands Pull Description } & \text { Wt. Each } 6 \text { @ Ea. } \\ 24205 & 1500 \text { lbs. } 4^{\prime \prime} \text { Plate, tl" Dia. Rod. } 6 \text { lbs. } \$ 2.60 & \$ 2.36\end{array}$ $\begin{array}{llllll}2 A 205 & 1500 \text { lbs. } 4^{\prime \prime} \text { Plate, } 11^{\prime \prime} \text { Dio. Rod. } 6 \text { lbs. } \$ 2.60 & \$ 2.36 \\ 2 A 206 & 2500 \text { lbs. } 6 " \text { Plate, } 3 / 44^{\prime \prime} \text { Dio. Rod. } 8 \text { lbs. } & 3.12 & 2.84\end{array}$

## alliance TENAA•ROTOR

FOR TELEVISION OR LIGHTWEIGHT AMATEUR BEAMS

WITH INDICATOR LIGHT MFG. LIST PRICE $\$ 24.95$

- UNSURPASSED PERFORMANCE


Rotator. Swings ontenno either direction through o full $360^{\circ}$ in 30 seconds. Stops where desired. Magnetic brake prevents drifting. Has outomatic stap of end of rototion, permonent lubrication and strong, weother-tight die-cost metal housing. Masts up to $13 / 8^{\prime \prime}$ dio. slip through rotor; are held by clomps. Optional TBB bearing tokes stress off rotor where needed. Size $73 / 4 x$ $51 / 2 \times 8^{\prime \prime} \mathrm{H}$. Control boxes operote on 115 V , 60 cycle AC .
Alliance Ncw Model T-12 with improved constont reoding, meter type direction indicator. Rotor stops when contral bar switch is releosed. Requires 4 wire control coble. Shpg. wt. 12 lbs. Mfg. List $\$ 34.95$.
No. 4Al71. Net Each.
$\$ 22.12$
Alliance Model U-98 with new improved outomatic direction control. To operate, wointer on control is set of desired direction; rotator then turns and stops outomatically ot exact point selected. Mointains perfect synchronization between control and ontenna. Requires 4 wire control cable. Shpg. wt. 12 lbs. Mfg. List $\$ 44.95$
$\$ 25.77$
No. 4Al72. Net Eoch
trol switch is
Alliance Model K-22 with indicotor light. In operation, the control switch is turned "on" ond TV screen is observed for "peak" reception. Releasing contral switch stops rotor instontly. Indicator light shows end of trovel in either
direction. Requires 4 wire control cable. Shpg. wt. 12 lbs. Mfg. List $\$ 24.95$.
 NET EACH

ALLIANCE MODEL TBB THRUST BEARING BRACKET
A boll thrust bearing support for heovy TV ontenno or amoteur beams. Clomps below rotator and carries vertical thrust of antenna.
No. 4A164. NET EACH. ..................................................

## C-D-R ANTENNA ROTATOR FOR TV AND AMATEUR BEAMS

## ${ }^{3} 31{ }^{13}$

HEAVY-DUTY MODEL
For In-Line Mast, Tower
or Plotform Mount

## HEAVY DUTY ROTOR UNIT

First chaice of thousonds! Rotates full 375 degrees at approximotely I RPM with positive, outomatic stop in either direction. Instont reversing.
Built-in $61 / 2^{\prime \prime}$ diameter boll thrust beoring will handle heavy antennos.. no additional bearing support needed. Clamps toke $7 / 8^{\prime \prime}$ to $2^{\prime \prime}$ diometer mosts. Mounts also on flot surfoce when lower most support is removed. Mechanism has oilite and ball bearings, lifetime lubricotion.
With Automotic Control. The very eoslest to operate.
 Knob is set on desired compass point; rototor then turns and stops automatically of the precise point selected. Dial is lighted while rotor is operoting. Unit shuts off completely when antenna reaches position. Control box is molded walnut brown plastic with nonscratch rubber feet. Operotes on $115 \mathrm{~V}, 60 \mathrm{cy}$. AC Shipg. wt. 15 lbs. Requires 4 -wire control coble No. 4A185. C-D-R Model AR-22.
Mfg. list \$45.95. Net Eoch
$\$ 31.31$
STRANDED GALVANIZED STEEL GUY WIRE


GUY WIRE ON SPOOLS Stk. No. Description Length Spool 2B147 4 stronds No. 20 1000' $\$ 5.00$ 2B148 6 stronds No. 20 1000' | $2 B 149$ | 6 stronds No. 18 | $500^{\prime}$ |
| :--- | :--- | :--- |
| 5.20 |  |  |

Highest quality, full gouge steel wire, heovily golvanized to prevent rust ond corrosion. Specioily coiled to minimize kinking and tongling. Approximate breoking strength: 4 strond No. 20 240 lbs.; 6 strand No. 20, 350 Ibs.; 6 trond No. 18, 640 lbs. Approx. shpg. wts. from 13 to 33 lbs . per 1000 ft 50-FT. CONNECTED COILS Simplifies handling and measuring. Stk. No. Deseription Coil 10 Coils Stk. No. Description
3 B 95
4 stronds No. 20 Coil 10 Coils
3.3 c
$\mathbf{S 3 . 0 0}$ 38954 stronds No. $20 \quad 33$ c $\$ 3.00$ 381036 stronds No. 20

E FOR GUYING GALVANIZED

| Stk. No, | Size | Strength | Wt. Per $100^{\circ}$ | 100 Ft . For |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2 A 211 \\ & 2 A 212 \\ & 2 A 213 \end{aligned}$ | 1/8", | $\begin{aligned} & 2100 \text { lbs. } \\ & 3300 \text { lbs. } \\ & 4700 \text { lbs. } \end{aligned}$ | $\begin{aligned} & 3.5 \mathrm{lb.} . \\ & 5.5 \mathrm{~b} . \\ & 7.7 \mathrm{lb.} \end{aligned}$ | $\begin{array}{r} \$ 5.55 \\ 6.72 \\ 8.94 \end{array}$ |



## SPRING TYPE ROTATOR

## STANDOFF INSULATOR

Will save its cost many times over by preventing premature line falluro. Flexible spring enobles ontenna iead wire to follow rotator yet keeps lead suspended from any metol. Universal low-loss insert is snap-in type. Pipe strap mtg. Overall length 13 No. 19B317. Net Eoch

47 c

(1) "Y-TY" LEAD-IN CONNECTOR FOR ANTENNAS. Prevents broken leads coused by wind and swaying lines. Makes instaliotions neater, easier. Works with ony type line. Connerting strips fan out to fit antenno terminals.
1881009. Tyoe 263-S. For terminals spaced up to 4 inches. Net Eo. 1881010. Type 263-L. For terminals spoced up to 6 inches. Net Eo..... 41 c (3) WEATHER-PROOF "ROOF-THRU" LEAD ENTRANCE, LOW loss polystyrene feed-through bushing combined with $8^{\prime \prime} \times 9^{\prime \prime \prime}$ copper floshing. Eoslly installed. for leod-in or rotor control cable. Permits shorter lead-in, less pickup of interference, hides leod-in wires
No. 18B1006. Type 624. For Flot Leod-in. Net Eoch.
No. 18B1008. Type 623. For Tubular or Oval Lead Net Eoch .....53.80 (5) WEATHER-PROOE "WALL-FEED" LEAD ENTRANCE. FOr entronce into ottic, traller woll, efc. Has molded weother hood and $2^{\prime \prime}$ polystyrene tube odoptoble to thickness of most types of exterior woll. Specify ivory or brown. No. 18B1011. Type 626. For oll types of leod. Net Eoch. (4) WEATHER-PROOF "WALL-THRU" BUSHING. FOr all types TV transmission line and smoll coax cobles. Has onchor points for open wire line. Installs through fat " dio. round hole in wolls up to $13^{\prime \prime}$ thick. End plates are molded polystyrene, tube is extruded polystyrene.

## LEAD-IN AND ROTATOR CABLE CONNECTORS PLEASE TURN PAGE FOR TV WALL PLATES



## UHF-VHF TELEVISION TWIN LEADS


(1) AMPHENOL FLAT 300 OHM TWIN LEAD, 214-056. Hiohest quolity 60 mil brown polyethylene, $7 / 28$ copper conductors, 18 lbs . per $\mathrm{M}^{\prime}$. (1) BELDEN WELDOHM FLAT 300 OHM TWIN LEAD, 8230. Hos $11 / 2$ times the strength of pure copper, yet retains all the electrical characteristics. 72


(3) AMPHENOL TUBULAR 300 OHM LEAD, 214-271. For installations requiring long leods, VHF or UHF. Rain, snow, ice hove no effect. Brown poly. No. 2B163. (3) BELDEN CELLULINE 300 OHM LEAD, 8275. Highly efficient, VHF or UHF Absolutely water-proof cellular foom construction. Brown poly. jocket. . 356

$\$ 4.28$
(1) NEW BELDEN "PERMOHM" 300 OHM LINE, 8285. Lower loss, more constant impedance, compared to pegulor line. Not offected by extremes of solt spray, industrial contamination, roin or snow. Encapsulated in low-loss cellular polyethylene. Copperweld $7 \times 30$ conductors. Ovol, $.255^{\prime \prime} \times .468$ " Wt. 16 lbs. per 1000 tt


Size 18 solld conductor (3) LOW LOSS OPEN LEAD every $6^{\prime \prime}$. Recommended for weak signal oreas or where extremely long lines are needed. Matches 300 ohm antennas and receivers


## (3) FEDERAL SHIELDED LEAD K-111

300 ohm shielded lead highly recommended in VHF oreas where reception is hompered by noise, snow, or ghosts. Palyethylene insuloted conductors copper broid shield and vinylite jocket overoll. Shpg, wt. 8 lbs. per C ft .
No. 2A194. PER FT.
14 c 100 Ft .
(7) BELDEN RECEIVING AND TRANSMISSION CABLE

For use at high frequencies. Highly efficient polyethylene plostic insulated cables. Bare copper, flexible stronding; conductors parallel.


为

## BELDEN ANTENNA ROTATOR CARLE


Vinyl plastic weatherproof insulet
In four ond five conductor ond
minimum voltage drop.
No. Belden Type Conductors

| No. | Belden Type | Conductors | For | ft. | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2B20 | 8464 | 4 | Allionce, Rodiort | 4 c | \$2.95 |
| 2B21 | 8485 | 5 | Selsyns, etc. | 5 c | 3.70 |
| 2B22 | 8488 | 8 | Rodiort, TR-2 | 6 c | 4.50 |

## ANTENNA GROUNDING ACCESSORIES


(1)

(2)

(3)

## (1) UNIVERSAL UHF-VHF LIGTHNING ARRESTOR

Will hondle all TV or FM Arrestor problems
Warks with open, flot, or tubular lead-in on both UHF ond VHF. Toothed washers pierce leod insulation-requires no lead stripping. Installs eosity Inside or out. Made of sturdy, molded plastic with brass weother-resistant hordware. Shpg. wt. 1202.
No. 198353 . Net Each.

65c 10 Lots, Eoch
. . 59 c
(2) NO. 8 ALUMINUM GROUND WIRE

Sott drawn. Recommended by Notional Electrical Code. Wt. 2 lbs. 100 tt No. 2B29. 50 Ft. Coil

90c: 100 Ft .
.$\$ 1.73$
(3) GROUND CLAMP

For oftoching ground wire to mosts, pipes, etc., up to $136^{\prime \prime}$ dio. Rlgid channeled construction gives five point contoct. Cose hordened screw.
No. 12A678. Mueller Type 58. Eoch.....20c; 10 Lots, Eoch....... 14c
(1) GROUND RODS

Efficient, easy-to-instoll, copper ploted steel, One end pointed for driving Other end has screw-clomp to hald No. 4 to No. 14 gouge wire.
No. 2A203. $3 / \mathrm{B}^{\prime \prime} \times \mathrm{A}^{\prime}$. Eoch............. 63 c : 10 Lofs, Eoch.
No. 24202. $\frac{3}{7} 8^{\prime \prime} \times 6^{\prime}$. Eoch
87 c: 10 Lots, Eoch
$.58 c$
79 e

## TV Antenna Accessories

## TV WALL PLATES AND SOCKETS <br> (1) CHROME PLATES (2) <br> MOLDED PLASTIC PLATES MATCHING <br> PLUG <br> CINCH-JONES CHROME PLATES <br> Fit standard <br> (1) FOR 300 OHM TWIN LEAD. <br> 16A614. (Requires P302FHT plug) <br> (3) FOR 300 OHM LEAD G ROTATOR up to 4 wires 16A615. Requires P302FHT and P304FHT plugs. FOR 300 OHM LEAD AND ROTATOR पp to 8 wires 16A616. Requires P302FHT and P308FHT plugs JONES PLUGS FOR ABOVE 16A617. Type P302FHT. 2 Cont. 16A618. Type P304FHT. 4 Cont <br> 

## TV-FM MULTIPLE SET COUPLERS


(1) BLONDER-TONGUE "EXACT-MATCH" 2 AND 4 SET COUPLERS Used in hame TV-FM systems. Divides TV or FM signal from 300 ohm ontenno tead for aperating 2 to 4 sets without interference between them. Sets moy be tuned to same or different channels. Makes ane permanently installed antenna serve entire hame. Has separate palr of screw terminals for 300 ohm lead to each set. Tan plastic weotherproof cose $27 / 8 \times 21 / 4 \times$ 118"H. instolls inside or out
No. 4A107. For 2 Sets. Model A-102. Mfg. List \$3.50. Net Each. .... \$1.76 No. 4A108. For 4 Sets. Model A-104. Mfg. List $\$ 4.95$. Net Eoch. .... $\$ 2.45$ No. 4A109. Mast Mounting Kit A-100. Mifg. List \$1.10. Net Eoch..... 65 c

B-T SINGLE SET TAP-OFFS FOR MASTER TV-FM SYSTEMS
For lorge home or commercial installotions. Differ from above couplers in manner of wiring. Feed line supplying TV signal is continued on to next sel in the system. One tap-off, connected across the line is required for each set. As many taps may be used as necessory providing signal voltage is adequate. Often used with baoster amplifier ar amplified power-type ontenno. New no-strip terminals cut through standord 300 ohm insulation for fost installation. 75 ohm coax connectors ore new solderless type.
300 ohms through feeder in, 300 ohms out. Isoloted
俗 isolation 12 db, Feed line continues on to 18 A882. Model A-331-A. Mfg. list $\$ 1.90$. Net Eoch.............. $\mathbf{5 1 . 1 3}$
75 ohms coox through feeder in, 300 ohms out. Isalated. Insertion loss 0.7 db . Isolation 17 db . Coax feeder continues on to other outlets.
No. 184884. Model TS-731B. Mfg. list \$4.30. Net Each............ $\mathbf{\$ 2 . 5 5}$
75 (3) TAP-OFF IN FLUSH PLATE FOR WALL OR OUTLET BOX
75 ohms coox through feeder in, 300 ahms out. Isolated. Insertion loss


75 OHM TO 300 OHM MATCHING TRANSFORMERS
"Balun" type cauplers for converting fram balanced 300 ohm to coaxial 75 ohm circuits ar vice versa. Will perfectly match an antenna or TV set to cooxial lead giving advantage of noise-free distribution of signal. Model MB is weotherpraof for antenna mounting. has tor use ot TV set. Only TS-731 and TF-731 are non-isolating transformer for use of TV set. Only one can be instalied on each 7 ohm Flush type mounts in wall or outlet Surface type is $2 / 8 \times 21 / x$
(8) 4A123. Antenno Transformer. Model MB. Mfg. list \$10.00. Net Ea. \$5.88 18A883. Surface Set Trons. Model TS-731. Mfg. Ilst \$3.40. Net Eo.. \$2.01 (2) 18A880. Flush Sct Trans. Model TF-731. Mifg. list $\$ 3.35$. Net Eo...... $\mathbf{\$ 1 . 9 6}$ (9) SURFACE MOUNTED 75 OHM LINE SPLITTERS

Mion loss 3.5 db . isolation 14 db . With solderless fittings. No. 18A885. Model TS $\mathbf{7 7 7 2}$. 2 Branches. Mfg. list \$5.20. Net Each. . $\$ 3.04$ No. 18A890. Model TS-774. 4 Branches. Mfg. list \$7.50. Net Each. \$4.41

## TACO 2 AND 3 SET COUPLERS

## TY ANTENNA SWITCHES AND MIXERS



## (1) TACO 3-WAY SWITCH

 Accommodates up to three leads from seporate antennos. Low-loss design. No. 4A170. Type 873. Mfg's List \$3.75. Net Eo.... $\mathbf{\$ 2 . 2 1 ;} 6$ Eo..... $\mathbf{\$ 1 . 9 9}$ (3) TACO ATTENUATOR SWITCHA must in many oreas. Three posifion switch feeds antenno system stroight through or inserts 15 db or 30 db attenuator pad. Clears up strong signal overload problems.
No. 4A169. Type 835. Mfg's List \$4.78. Net Ea.... \$2.81; 6 Eo.... $\$ 2.53$ TACO MIXER FOR 2 TV AITENNAS
For a perfect motch between two VHF ontennos and a single 300 ohm lead. Contains self-supporting high $Q$ coils and ceramic capocitors. Rigid mounting fits mosts up to $2^{\prime \prime}$ dia.


## TACO NOISE AND GHOST FREE COAX LEAD-IN SYSTEM

Eliminates problems of picture smear, ghosts,

etc., caused by unwonted signal pickup on lead-in. Especiolly helpful in ghosty, strong signal areas or locations troubled by electrical noise from signs, etc. Uses type RG$59 /$ U 72 ohm coax line in place of regular 300 ohm lead. Coax can be run close to any object without loss, eliminates line insulators. System conslsts of two couplers; Type 1597 installed ot antenna and Type 1570 ot TV set.
Most Mounted Antenna Transformer Type 1597. Appearance similar to
 No. 4A166, Net Each.... Each.... 300 Each....


Indaor for bosement, attic, etc. Very low-loss design.
Pravents interaction between sets.
No. 4A191. Taco 820-2.
Net Eoch... \$1.80 6 Each . $\$ 1.6512$ Eo... $\$ 1.53$ 3 Set Coupler. Otherwise like Madel 820-2 above.

FILTERS FOR IMPROVED TV RECEPTION
CLEAR UP MOST PROBLEMS CAUSED BY UNWANTED SIGNALS


DRAKE "HIGH PASS" TV FILTER Ta stop interferen
ohm antenna lead. Eliminates amateur or other signals on 6 thru 160 meters. 60 db attenuation from zero to 52 mc . Does not decrease TV signal itself. 29A86. Type TV-300-HP.
$\$ 3.97$

## TV "IGNITION INTERFERENCE" ELIMINATOR


INSTALLS AT THE TV SET

Very effective yet simple to connect . . does not require removing or cutting the antenna lead: Rejects streaks and "staric" caused by ignition of
 14Eilit. Superex. Madel CPI. Net Each.

## TUNAELE TELEVISION CLARIFIER

Highly popular and effective "TVI" fitter for eliminating
 or greatly reducing lines, herringbone potterns, tears, wovy effects and other pieture distortion when caused by FM, Police, Amateur and other short wave transmitters; diothermy, industrial equipment, Ignition and adjacent TV chonnels. Does not reduce wánted signal. Can bo installed and tuned for clearest picture by anyone. Full instructions included. In metal cose, size $4 \times 31 / 4 \times 11 / 2^{\prime \prime}$
294243 . Mfg. List $\$ 7.50$. Wt. 8 oz. Net Each. $\$ 4.41$

## LOW COST REGENCY TVI HI-PASS FILTER



Effectively suppresses most common television interference. Carefully designed, small and simple to install right on the set. Requires no funing and no molntenance. There is no loss of signal to the television set

995

# TV Boosters, Master Systems, UHF Converters 



Fine for block and white or color TV, olso FM. Use it os a "single set" amplifier with any outdoor or indoor ontenno. Very effective with rabbit eors, giving the signal goin of expensive outdoor ontennas. Use it as a "home system" omplifier to drive up to 6 or 7 sets. Clears up snow, im= proves contrast, gives a tlat gain of 16 db on chonnels 2 through 6 ond FM, 14 db on channels 7 through 13 . Employs new low noise high gain transistor with fully isoloted transformer type AC power supply. Power
drain 1.2 wotts (would cost pennies a year to operate if-left on. condrain 1.2 woits twould cost pennies a year to operate li-left on con-
tinuously). Can be mounted anywhere in the home or on bock of set. Input 300 ohms; output 300 or 75 ohms, for twin lead or coax. Threeposition goin control switch. In ventiloted enclosure, size $13 / 4 \times 41 / 2 \times 3^{\prime \prime} \mathrm{H}$ Shpg. wt. 2 lbs.
No. 4A153. Mig. list $\$ 34.95$. Net Eoch
$\$ 20.97$
Signal splitter for 300 ohm SIX-SET COUPLER plates and other set couplers on poge ot left No. 4A154. Model LT-63. Mfg. list $\$ 7.95$. Net Eoch
$\$ 4.77$ See preceding poge for 75 ohm coox line top-offs. Up to seven sets con be occommodated using the through-feeder system where lead continues on TV next set. TV DISTRIBUTION AMPLIFIER WINEGARD MODEL A-400


## FOR UP TO 30 SETS

- Up to 26 db gain.
- Flot response for all VHF TV and FM.

Economical, yet fully dependable. Capable of supplying finest TV or FM signal to a large number of sets. Frequency response $\pm .25$ db on any 6 MC chonnel, system goin 26 db minimum. Input 300 ohm balanced or 75 ohm cooxial. Output, two 75 ohm connectors for 2 trunk lines. Uses
$4-6 \mathrm{FY} 5$ tubes. Power consumption 28 watts, 115 V .60 cy . AC. Perforoted steel cobinet size $37 / 8 \times 71 / 2 \times 33 / 4^{\prime \prime} \mathrm{H}$. finished in blue baked enam wt. 5 lbs.
No. 4A155. Mfg. list \$79.95. Net Eoch
$\$ 47.97$
B-T MASTER SYSTEM TV AMPLIFIERS


Model DAB-B Distribution Amplifier for 3 to 8 Sets Provides eight isolated TV ou'lets from one 75 or 300 ohm input. Each outlet handles 75 or 300 ohm line and delivers 10 db gain on all VHF channels. Hos varioble gain control. Recommended for display rooms and
 No. 4A190. Model DA8-B. Mifg. list $\$ 94.50$. Net Eoch.

Model MLA-b "Masterline" Distribution Amplifier Most powerful broad bond antenna or tine amplifier for Master TV systems. Provides more than 40 db (100X) amplification on all VHF channels. Maxi6 MC channei and within 1 db over either high or low $1 / 2 \mathrm{db}$. acrass any and low band varioble gain controls. Input and output, 75 ohms, through coax fittings. Circuit is improved coscode type using fubes. In gray hom. H . Operates on illo-120 V. 60 cy. AC. Draws 55 watts. Shpg. wt. 9 lbs. No. 4A141. Model MLA-b, Mfg. list $\$ 149.95$. Net Eoch.
$\$ 88.15$

JERROLD TRANSISTORIZED "POWERMATE" ANTENNA MOUNTED PRE-AMFLIFIER


MAKES AN ELECTRONIC POWER SYSTEM OF ANY TV OR FM ANTENNA OUT PERFORMS ORDINARY BOOSTERS!
Tronsistorized all-chonnel pre-amplifier "sporks $u p^{\prime \prime}$ the signal tremen-dously-mokes ony TV or FM antenno do o better job over greater distonce. Direct coupling to the antenno feeds only wanted signals into the amplifier, avoids boosting noise, ghosts, etc. normally. picked up on the lead-in. Amplifier uses very latest transistor techniques for high gain, low noise and tong trouble-free performance. in small, weather proofed oluminum housing - for mounting right on the anterno, on mast ar side of house.
AC operoted power unit of TV set provides safe 15 V . AC power to operote preamplifier using some 300 ohm leod that corries the TV signal. Dual output feeds one or two TV sets. or TV and FM, requiring no additional couplers. No. 4A144. Model AM-101. Mfg. list $\$ 39.95$.

## JERROLD FMX POWERFUL FM RANGE EXTENDER

 FOR REGULAR MONAURAL OR MULTIPLEX RECEPTION Makes even inexpensive FM tuners and receivers
sound like "a million" by increasing the signol many times ond eliminating unwanted background noise. Overcomes the power loss on FM multiplex stations. Often mokes it possible to receive on simple indoor antennos where more expensive, more powerful outdoar type should be used.
Incorporotes 6DJ8 frame grid tube and printed circultry. 300 ohms in and out. Gives 20 db gain and con feed several sets through 300 ohm multilight alloy housing. Operates on 115
No. 4Al46. Mfg. list $\$ 29.95$. Net Each
\$18.95


HIGH QUALITY TV/FM AMPLIFIERS FOR HOME OR COMMERCIAL USE VERY EASY TO INSTALL BY ANYONE

## MODEL AB-3 ANTENNA MOUNTED BOOSTER

- Delivers 22 db . goin. Con be remotely locoted up to 1 mile from AC source when using open wire lead. Gives best signol-to-noise rotio for fringe oreas.
Remotely. controlled amplifier in weotherproof housing for most mounting is designed for direct connection to 300 ohm antenna. Employs o dual triade 6DJ8 frame grid tube and 2-6EW6 tubes. Includes indoor control box with power supply to operate from $110-120 \mathrm{~V} .60 \mathrm{cy}$. AC. Low voltage for operoting amplifier is delivered by same line that carries the signal to the set. Turns on manually or automoticolly with TV set. Output is 75 ohms coox or 300 ohms balanced to feed one set or distribution line to several sets. See multiple set couplers and top-otfs on opposite poge. Outdoor unit measures $73 / 4 \times 53 / 9 \times 51 / 4^{\prime \prime}$. Power unit, $63 / 4 \times 33 / 4 \times 41 / 2^{\prime \prime}$. Shpg.
wit. 9 lbs. Wt. 9 lbs.
No. 4 Al43. Mfg. list $\$ 104.95$. Net Eoch
.563 .21
MODEL B24C TV-FM BOOSTER \& SET COUPLER HANDLES UP TO 4 SETS WITH NO SIGNAL LOSS
Automotic powered signol splitter for oll chonnel VHF TV ond FM. Delivers Automotic powered signol splitter for oll chonnel
gain of 8 to 11 db for 1 set, 3.5 to 6 db for 2 sets, 2 to 4 db for 3 sets and up to $11 / 2$ db for 4 sets. Vastly superior to non-powered couplers. Size



## (1) BLONDER TONGUE BTC-99R CONVERTER

 Makes any TV set a modern 82 channel UHF receiver. Provides good driftset and output on regular channels, 5 and 6 installation ot terminals of TV crystal diode mixer. In handsome mahogany plostic cablnet $63 / 4 \times 5 \times 43 / 4$ " deep. For 117 V . 60 cycle AC. Shpg. wt. 4 lbs........(2) BLONDER-TONGUE BTU-2S ULTRAVERTER For sparkling picture quality and CHANNEL UHF CONVERTER chonnels from 14 to 83 . Uses new "trome-grid" lity on all available UHF os the very tops for the new "Tronslator" stations. Converts to VHF chaned os the
5 or 6 . In handsome plastic cablnet, $63 / 4 \times 43 / 4 \times 5{ }^{\circ} \mathrm{H}$.
No.4Averts to VHF channel

## Converters, Chargers, Power Supplies, Etc.

## ATR INVERTERS \& POWER SUPPLIES



RSF-RHG
Chonges 6 or 12 volt bottery power to 115 valt 60 phonos, TV, etc. Also operates dictating machines, power tools, mixers, emergency lighting. Has 110 volt receptacle, and on-off switch. RSF units are $81 / 2 \times 91 / 8 \times 51 / 4$; RHG size $67 / 8 \times 111 / 4 \times 81 / 9^{\prime \prime}$; Hove clips for direct battery connection. RME ond RMF are $83 / 8 \times 8 \times 83 / 4^{\prime \prime}$ ideal for radio, TV, phono and dictating mochines, both have cigarette lighter ottachment. To select proper inverter choo
wattage rating equal to or higher than device to be operated.


## NEW EICO POWER UNITS <br> WIRED OR IN KIT FORM

Model 1064 6-12 V. Power Supply \& Battery Charger


Delivers ripple free $D C$ in two ranges. $0-8$ volts and $0-16$ volts continuously variable by front panel control adjustment of voriable transformer.
sistor equipment, auto sets, portables, as battery substisistor equipment, auto sets, portables, as battery substi-
tute or battery charger. Ranges iselected by toggle switch) $0-8$ volts at 10 amp continuous, 20 amp intermittent and 0-16 volts at 6 amps concmuas, permits intermittent. Output voltmeter and ammeter permits
constont monitoring. Fused primary, automatic reset constont monitoring. Fused primary, automo $81 / \times 53 / 4$ $71 / 2^{\circ}$. Wt. 14 lbs . Use on $105-125$ volts $A C$ line.
No.35A272. 1064K. Kit Each
$\begin{array}{r}50.60 \text { cycie } \\ \$ 4.95 \\ \hline 52.95\end{array}$
No. 35 A273. 1064. Factory Wired. Eoch......
ange Variable AC Bench Supplies
Dual Range Variable AC Bench Supplies
Chole of Two Dual Rongc Units. Model 0.3 and $0-1$ and
 provide continuously variable line testing, quality control, servicing radio ond TV, finding intermittent components by over-voltage test, etc. Also useful to compensate ammeter permits continuous monitoring of output voltage and current. Uses variable outo-tronsfarmer of toroidal core design, solector switch, off-on switch, AC receptacle and dual fuse holders on the front panel. Housed in compact grey cabinet $81 / 2 \times 53 / 4 \times 7^{\prime \prime}$. For use on $115-120$

Model 1073 Kir. Ranges $0-1$ and $0-3$ amps. Wt. 9 lbs. No. 35 A268.
Net Eoch
$\$ 39.95$
No. 35A269. Model 1075 Factory Wired. Eoch. $\$ 47.95$ Model 1078 Kit. Ranges $0-21 / 2$ ond
No. $35 A 270$. Wt. 13 lb . Net Eoch
$\$ 42.95$ No. 35 A271. Model 1078 Foctory Wired and Tested. Net Each..... $\$ 54.95$ 6-12 V. DC POWER SUPPLY
 Incorporates extra low-ripple filter circuit to supply dependable DC power for servicing and oper-vibrator-tube sets ond other equipment. Has variac-type voltoge adjustment. Ranges (selected by $6-12$ volt toggle switch), are $0-8$ volts at 10
amp. continuous or 20 amp . intermittent and $0-16$ amp. Continuous or 20 amp. 10 amp intermittent.
volt ot 6 amp . continuous, 10 Two meters, $0-20$ volts ond $0-10 / 0-20$ amperes permits constant monitoring of the output. Ruggedly constructed with fused primary and overload reset protection. Oper-
 No. ${ }^{\text {Model } 1050} \mathbf{1} \mathbf{~}$ \& 12 VOLT BATTERY ELIMINATOR Original model battery eliminator for servicing all types vacuum tube 6 and 12 volt equipment, where additional filtering of Model 1060 , described above,
 No. 35A191. Net Eoch

SECO TRANSISTOR BATTERY SUBSTITUTE


Model PS2 supplies well filtered direct current for servicing and operating transistor radios, amplifiers and other equipment without the use of botreries, plugs into 115 volt AC outlet. Has ronge of 0 to is volts at 100 mils; Cannot be domaged by short circult. Size
$41 / 2 \times 5 \times 11 / 2$. Wt. $11 / 2 \mathrm{lbs}$.
No. 16 B3i7. Net Each. . . . . . . . . . . .
"TERADO" TRAV-ELECTRIC CONVERTERS CHANGE BATTERY POWER TO


Operating from 6 or 12 volt DC, the Terado converters offer a range of 115 volt 60 cycle power ranging from 25 to 300 watts. A convenient efficient means of operating radios, phonos, tope recorders, TV sets, shavers, small drills, emergency lighting, etc. Has cigorette lighter connector.
Electrol, small glove compartment size, operates tape recorder, radios, etc. Has cigarette lighter connector
Senior, time proven, reliable, small in size. Has cigarette lighter connector. Chief, operates dietating machines, power tools, etc., has toggle switch output control, convenient mounting. Connects direct to battery.
Supreme, up to 200 watts AC power, has 'remote control with variable output switch and indicotor light. Connects direct to battery.
New Continentol Model 50191 Tronsistórized 300 Woft continuous duty. Uses transistors for more efficient, quieter operation. Produces good wave form, will hold cycle for operating tape recorder, phonograph and other form, will hold cycle ap well as TV sets, power fools, etc, Complete with remote control and all wiring.

| Stock No. | DC Volts Input | Outp Cont. | t Wtge. Interm. | Mfg. No. | Wt. Lbs. | Size Inches | Net Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29B130 | 12 | 25 | 30 | Dynamo | $12 \times 2$ | $\times 3^{3 / 4}$ |  |
| 294152 | 12 | 42 | 52 | Electral | 13 | $3 \times 21 / 4 \times 51$ | 17.82 |
| $29 A 145$ | 6 | 30 | 40 | Senior | 3 | $21 / 2 \times 21 / 4 \times 41 / 2$ | 15.68 |
| $29 A 146$ | 12 | 40 | 50 | Senior | 3 | $21 / 2 \times 21 / 4 \times 41 / 2$ | 15.68 |
| $29 A 123$ | 12 | 100 | 125 | Chlef | , $91 / 2$ | $31 / 2 \times 4 \times 61 / 2$ | $5.73$ |
| $29 A 154$ | 12 | 175 | 200 | Supreme | 25 | $103 / 4 \times 6 \times 6$ | 7 |
| 294176 | 12 | 300 |  | Cont'nt'1 | 28 | $11 \times 6 \times 6$ | 114.02 |



TERADO BATTERY CHARGERS (1) Terado Chollenger No. 50189. For use on both 6 or ' 12 volts by flip of switch. 6 amp rating, has chorge rate meter. Brown enamel
steel case $4 \times 5 \times 6$. Wt. 5 lbs. Complete ready
 (1) Terado Hi-Power No. 50180 A 5 amp charger for 12 volts only. Charge indicator light shows: condition of battery. Copper clad steel case $21 / 4 \times 3 \times 51 / 2^{\prime \prime}$. No. 29A173. Nef Eoch
$\$ 13.69$
(3) Terodo 50185. $1 \frac{1}{2}$ amp charger for both 6 and 12
or improper connectio
(3) Terado Dynomite 50186.
battery connection.
No. 298132 . Net


## PERMA-POWER

BATTERY ELIMINATOR
Model AlO1. A simple, plug-in unit converts $11 / 2$ volt battery sets for oll eleetric operation from $110 V_{\text {." }} 60$ cycle AC lines. thas universal sool kets to accommodate any radio and its 5 size will also fit most portables. Sufficient "A
and " $B$ " power is supplied for 4 to 6 tube sets, and " $B$ " power is supplied for 4 to 6 tube sets,
$11 / 2$ volts " $A$ " at 350 MA and 90 volts " $B$ " at $13^{2} \mathrm{MA}$ Complete with instructions. Size $21 / 8 \mathrm{x}$ $41 / 2 \times 63 / 4^{\prime \prime}$. Wt. 4 lbs. Supplied with $A C$ line cord and plug.
$\$ 12.40$

## BATTERY PLUGS AND

 SNAP-ONSNo. Illus. Bott. No. Prongs Eo.
teners for $455,457,467$, efc. Male

$12 A 162$ A $742,4 F \quad 2 \quad 7 \mathrm{C}$
$12 A 574$ B $482, M 3 \quad 3 \quad 7 \mathrm{c}$ (E) $14 \mathrm{C4}$. Snap on strip for 437 ,


## CLIP-IN BATTERY HOLDERS



| Stk. No. | Holds | Fits Bottery Types Ne | Net Each |
| :---: | :---: | :---: | :---: |
| 488109 | one? | 912 Eveready-No. 7 Burgess, \$ | \$0.23 |
| 148110 | two | Size . $4^{\prime \prime}$ dia. $\times 13 / 4^{\prime \prime}$ Mini. cell | . 37 |
| $\begin{aligned} & 14 B 111 \\ & 14 B 112 \end{aligned}$ | $\left.\begin{array}{l} \text { one } \\ \text { two } \end{array}\right\}$ | 915 Eveready-Z Burgess Pencell or ZM-9 Mercury cell | .237 |
| $\begin{aligned} & 14 B 113 \\ & 14 B 114 \end{aligned}$ | one ${ }_{\text {cho }}$ tw | 935 Eveready-1 Burgess " C " cell or TR233 Mercury cell | . 29 |
| $\begin{aligned} & 148120 \\ & 148121 \end{aligned}$ | one two | 412 Eveready-U15 Burgess $221 / 2$ volt or RM-412R Mercury cell | or 2.29 |
| $\begin{aligned} & 148123 \\ & 148125 \end{aligned}$ | one | 413 Eveready-U20 Burgess 30 volt or RM-413R Mercury cell | . 29 |
| $\begin{aligned} & 14853 \\ & 14854 \end{aligned}$ | one two | 950 Eveready-No. 2 Burgess "D" cell or RM42R Mercury cell | or .29 |
| $\begin{aligned} & 14855 \\ & 148131 \end{aligned}$ | one one | 504 Eveready-Y 10 Burgess 15 volt 411 Eveready-U10 Burgess, 15 volt | $\begin{array}{r} .23 \\ .29 \\ \hline \end{array}$ |

## EVEREADY Batteries la <br> FOR RADIO AND ELECTRONICS <br> ENERGIZERS－TRANSISTOR BATTERIES

| Stock No． | Foct． No． | $\begin{aligned} & \text { List } \\ & \text { Eoch } \end{aligned}$ | Net Eoch | $\begin{aligned} & \text { Pkg. © } \\ & \text { Qty. Eoch } \end{aligned}$ | Volts | $\text { Limenslons } \mathrm{H} \text {. }$ | Reploces Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21863 | E9 | ． 75 | ． 56 | .51 | 1.4 | ． 55 dia．$\times 1.968$ | 29 |
| 21441 | E91 | ． 50 | .33 | .33 |  | Alkaline Type Pe |  |
| 21438 | A 100 | 25 | ．16 | ． 16 | $1.1 / 2$ | 1 \％ | 230 |
| 21443 | 206 | ． 75 | ． 53 | ． 53 | 9 | $3 / 4{ }^{\prime \prime}$ dio．$\times 2$ | V5327 |
| 218141 | 216 |  | ． 69 | －69 | 9 | 13 教 13 | $2 \mathrm{U6}$ |
| 218159 | 226 |  | ． 89 | ． 89 | 9 | $1.1511{ }^{32}$ | P6 |
| $21 \mathrm{C62}$ | 239 | 1.50 | 1.05 | 1.05 | 131／2 |  | XX9 |
| 218175 | 243 | 1.70 | 1.19 | 1.19 | $41 / 2$ | 113114 | 223 |
| 218142 | 246 | 1.85 | 1.30 | ．30 | 9 |  | 2N6 |
| 218137 | 276 | 1.80 | 1.26 | 1.26 | 9 | 29815 | D6 |
| 21446 | 333 | ． 75 | ． 53 | ． 53 | 4.5 | ． 662 dio．$\times 1.965$ | 1306 |
| 21871 | 411 | 1.15 | 81 | 81 | 15 | 1818 | 410 |
| 21439 | 635 | ． 25 | 16 | 1.16 | $11 / 2$ |  | 130 |
| 21878 | 1015 | 25 | .16 | .16 | 1.5 | if dio．$\times 131$ |  |
| 218174 | 2506 | 2.50 | 1.78 | 1.76 | ． | $8^{18} \quad 18 \cdot 218$ | D6P1 |



PORTABLE＂A＂BATTERIES



| $21 A 50$ | 815 | .25 | .16 | 1 | .16 | $11 / 2$ | PenCellsize | 915 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $21 A 51$ | 835 | .25 | .16 | 1 | .16 | $1.1 / 2$ | Cellsize | 935 |
| $21 A 52$ | 850 | .25 | .16 | 1 | .16 | $11 / 2$ | DCellsize | 950 |
| $21 B 116$ | $460 K$ | 2.50 | 1.67 | 1 | 1.67 | For PolaroidWinklite | w／Lomp |  |

For Flashlight，Lantern，Emergency Lighting

| Stock Foct．List |  |  |
| :--- | :--- | :--- | :--- |
| No． | Net <br> Na．Each <br> Eoch | Unit <br> Pkg． Per |



## POPULAR＂MINI－MAX＂A－B BATTERY PACKS

| Stock Mfg． No．No． | Net Eoch | Reploces Burgess For | Voltage | Size | $\begin{aligned} & \text { Wt. } \\ & \text { Lbs. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 214209752 | 5.78 | G6B60 Zenith | 9／90 | $14 \times 2 \times 6 \times 4$ 年 | $63 / 4$ |
| 214208753 | 5.43 | F6A60 Philca，RCA | 71／2－9／90 | $93 \times 2$ 析 $\times 4$ dis |  |
| 21864755 | 5.08 | T5250 | $6-71 / 2 / 75$ | $8{ }^{2} \times 2$ T ${ }^{2} \times 33 / 4$ | $33 / 4$ |
| 21865 756 | 4.87 | T6Z60 | $71 / 2-9 / 90$ | $81 / 8 \times 21 / 8 \times 3$ |  |
| 214210757 | 6.57 | F6A60P Zenith，Holll | 9／90 |  | 5 |
| 214206759 | 7.95 | Standard 11／2／90 | Volt Pock | $15 \mathrm{k} \times 4 \times 6$ | 17 |
| 21 A220 W369 | 5.48 | 6 6A60 | 11／2－90 | $918 \times 21 / 4 \times 4 \frac{1}{3}$ | 5 |

## BURGESS Batteries <br> THE ACCEPTED STANDARD INDUSTRY，LABORATORY， AND ELECTRONIC NEEDS．

＂A＂BATTERIES

| Stock No． | $\begin{aligned} & \text { Mfg. } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { List } \\ & \text { Eoch } \end{aligned}$ | Net Each | Pkg．＠ Qty．Each | Voits | Dimensions W． |  |  | $\begin{aligned} & \text { Wh. } \\ & \text { Lbs. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 218123 | 2 F | \＄1．10 \＄ | 0.77 | 150.77 | $11 / 2$ | 218 | 13／8 | 41 |  |
| 21879 | 2R | ． 20 | 14 | 48.13 | $11 / 2$ | 1 | Dio． | 22 |  |
| 21880 | 4 F | 1.65 | 1.26 | 61.15 | $11 / 2$ | 25 | 25／8 | $4{ }^{3}$ |  |
| 21881 | 21 R | ． 45 | .35 | 12.32 | $11 / 2$ | $1{ }^{1}$ | Dio． | 4 |  |
| 21887 | 2FBP | 1.15 | ． 87 | 5.79 | $11 / 2$ | $2{ }^{2}$ | 13／6 | 4 |  |
| 21888 | F2BP | 1.15 | 87 | 5.78 |  | 21 | $13 / 8$ | 435 |  |
| 21889 | F4BP | 1.19 | 79 | 1.79 | 6 | 25 | 25／8 |  | \％ |
| 21890 | 2 F 2 H | 1.55 | 1.18 | 51.08 | 3 | 25.8 | 25 |  |  |
| 21891 | 422 | ． 85 | 63 | 10.67 |  |  | 1 | 2 |  |
| 21892 | 432 | 1.00 | 73 | 10.66 | 41 |  | ， |  |  |
| 21893 | 532 | 1.02 | 68 | 1.68 | 41／2 | 23 |  | 2. |  |
| 218153 | B5 | 2.25 | 1.58 | 1.58 | 71／2 | $3{ }^{3}$ |  | 23 |  |
|  |  | ＂8＂ | AND | ＂C＂ | ATTE | R |  |  | Reploces veready |
| 21897 | P45 | 3.10 | 2.39 | 2.17 | 671／2 | 138 | 1 | 5 | 477 |
| 21898 | M30 | 3.85 | 2.70 | 2.70 | 45 | $3{ }^{\circ}$ | $13 / 4$ | 5 | 482 |
| 218100 | 4156 | 2.35 | 1.61 | 1.61 | $221 / 2$ |  | $21 / 8$ | 2. | 763 |
| 214215 | 213085 C | 7.65 | 5.86 | 5.36 | 45 | 81 | $4{ }^{4}$ | 7 | W364F |
| 218101 | $51565 C$ | 4.45 | 3.43 | 3.12 | 221／2 | $41 / 8$ | $21 / 2$ | 2 | 778 |
| 218102 | 5308 | 4.35 | 3.05 | 3.05 | 45. | 4 |  | 5 | 7625 |
| 218104 | K15 | 1.75 | 1.23 | 1.23 | $221 / 2$ | $11 / 4$ | 8 | $2{ }^{2 / 3}$ | 420 |
| 218109 | U30 $\times \times 45$ | 2.50 | 1.75 | 1.75 | 45 | 1 | $1{ }^{1 / 2}$ | 317 | 415 |
| 21899 | X $\times 45$ | 3.50 | 2.45 | 2.45 | $671 / 2$ | 23／4 | 1 | 36 | 467 |
| 21861 | UX45 | 2.95 | 2.07 | 2.07 | $671 / 2$ | 1 |  | 31 | 416 |
| 218112 | $\times \times 30 \mathrm{PI}$ | 3.00 | 2.10 | 12.10 | 45 | 21 |  |  |  |
| 218113 | Z3ONX | 3.85 | 2.96 | 52.69 | 45 | 31 | 1 有 | 41 | W350 |

## PHOTO－FLASH BATTERIES

| 218115220 | ． 25 | 18 | 12 | ． 16 |  | 1 did Dio． 274850 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 218117 U15 | 50 | 1.05 | 1 | 1.05 |  | d |  |  | 2 |
| 214216 N150 | 7.95 | 5.56 | 1 | 5.56 | 225 | Stro | ar 6 |  | 492 |
| $214218 \times 150$ | 9.95 | 6.96 |  | 6.96 | 225 |  | losh |  | 489 |
| 214219 U160 | 7.95 | 5.58 | 1 | 5.56 | 240 | Stro | losh I |  | 491 |

IGNITION，TELEPHONE，LANTERN BATTERIES


BATTERY ACTIVATORS FOR TRANSISTORS

| Stock No． | $\begin{aligned} & \text { Mfg } \\ & \text { No. } \end{aligned}$ | List Eoch | Net Each | Pkg．© Qry．Each | Volts | Dimensions | Reploces Evereods |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21883 | 5R | \＄0．20 | 0.14 | 12 \＄0．13 | 11／2 | $1 \times 2$ |  |
| 21885 | 9 R | 17 | ． 13 | 12.12 | $1 / 2$ | $\\|^{1} 1$ | 15 E |
| 21444 | 930 | ． 25 |  | 12.16 | $11 / 2$ |  |  |
| 218106 | U10 | 1.15 | 81 | 1 |  | $\times 3$ | 411 |
| 218107 | U15 | 1.50 | ． 05 | 1.05 | 221／2 | $x$ \％ | 412 |
| 218108 | U20 | 1.75 | 23 | 11.23 |  |  | 413 |
| 218144 | Y10 | 1.15 | ． 81 | 81 | 15 |  | 504 |
| 218145 | Y15 | 1：50 | 1.05 | 05 |  | － $12 x$ | $505$ |
| 218110 | $\times \times 15$ | 1.95 | ． 37 | 11.37 | 22 | $1{ }^{13} \times 18 \times 3$ | $425 P$ |
| 218147 | NE |  | ． 09 | 6.08 |  |  |  |
| 218148 | $\times \times 9$ | 1.50 | 1.05 | 1.05 | 9．131／2 | $1{ }^{1} 2 \times$ | 239 |
| 218149 | D6 | 1.80 | 1.26 | ． 26 |  | $2{ }^{2} \times 2 \times$ | 276 |
| 218150 | 2N6 | 1.85 | 1.30 | 1.30 | 9 | 1 易×13／8× |  |
| 218152 | 2 U 6 |  | ． 69 | .89 | 9 | $1 \times 1$ | 216 |
| 218179 | P6 |  | 89 | 89 | 9 | Extro Lif | 6 or 226 |
| 21 18180 <br> 218182 | M6 | $1.50$ | $.05$ | 11.05 |  | $118 \times 118 \times 2$ <br> $138 \times 18 \times 2$ | $\begin{aligned} & 266 \\ & 243 \end{aligned}$ |

## NICKEL－CADMIUM RECHARGEABLE BATTERIES

Provides more energy than primory dry cell，are rechargeable many times Write for Burgess brochure describing the complete line．
 $\begin{array}{llrllllll}21 A 58 & \text { CD6 } & \$ 2.75 & \$ 1.93 & 1.25 & .560 & 1.95 & \text { Pencil＂Z＂or } 915 & 2 \\ 21 A 59 & \text { CD7 } & 5.00 & \mathbf{3 . 5 0} & 1.25 & 1.3 & 2.425 & \# 2 \text { or } 950 \text { size D } & 6.4\end{array}$

MALLORY LONG LIFE MANGANESE CELLS
$14 A 678 \mathrm{MN} 9100$ Replaces 904 or NE．Net Eoch．．．．22c 24 Lots． 20 C

OR MAXIMUM DEPENDABILITY

| Stock No． | Mollory No． | List Eoch | Net Eoch |  | ＠ <br> Each | Volts | Dimen | ions | Replaces Eveready |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 144555 | RM640 | 45 | ． 33 | 4 | ． 30 | 1.4 | 5／8 |  | E640 |
| 14B422 | RMI | ． 59 | ． 42 | 4 | ． 38 | 1.35 | ． 6 | ． 6 | E1 |
| 14B428 | RM3 | ． 87 | ． 61 | 4 | .56 | 1.35 | ． 9 | ． 6 | E3 |
| 14B439 | RM4 | 1.10 | .79 | 4 | .72 | 1.35 | 1.2 | ． 6 | E4 |
| 14B442 | RMII2 | 1.25 | .90 | 2 | ． 82 | 1.35 | ． 6 | 1.9 | E12 |
| 14C515 | RM400 | ． 36 | ． 27 | 2 | ． 26 | 1.35 | ． 4 | ． 1 | E400 |
| $14 \mathrm{C415}$ | RM401 | ． 50 | .37 | 2 | .34 | 1.35 | ． 45 | 1.1 | E401 |
| 148438 | RM502 | 1.00 | .72 | 2 | .65 | 1.35 | 5 | 1.9 | E502 |
| 14C418 | RM625 | ． 45 | ． 33 | 2 | ．30 | 1.35 | ． 6 | ． 2 | E625 |
| $14 \mathrm{C514}$ | RM42 | 3.15 | ． 48 | 2 | 2.25 | 1.35 | 1.19 | 2.3 | 950 |
| 14C516 | RM450 | ． 52 | .37 | 2 | .34 | 1.35 | ． 4 | ． 5 |  |
| 148595 | ZM－9 | ． 75 | .58 | 4 | ． 51 | 1.4 | ． 5 | 1.9 | 915 |

## Electrical Specialties

 llfetime use, can be recharged thousands af times: simply unscrew the cap and insert prongs into ordinary 110 volt $A C$ outlet and leave it plugged in overnight. It cannot be overcharged. Dependable- inese cells are minlature sealed adaptations of the Sonotone sintered-plate, nickel cadmium vented botteries now used in jet aircraft and missiles. A compiete lechproof case. is incorparated with the seal Weighs only $81 / 2 \mathrm{ozs}$. Mfg. Hist price $\$ 7.95$.
 $60 A 58 \quad$ FC-2 $\$ 5.67 \quad \$ 5.20 \quad \$ 4.77 \quad \$ 4.29 \quad \$ 4.07$ HEAVY DUTY INDUSTRIAL FC-3
Suggested for utilities, municipals and other industriol users who require a longer time between charges. Lighting time up to 4 hours with PR-4 or
PR-6 bulb. Mitg. list $\$ 9.95$. $\begin{array}{lcccccc}\text { Stk. No. } & \text { Mfg. No. } & 1-3 & \text { 4-35 } & \mathbf{3 6 - 1 0 7} & 108-251 & 252-503 \\ 60 A 33 & \text { FC. } & \$ 8.97 & \$ 6.47 & \$ 6.97 & \$ 5.37 & \$ 5.10\end{array}$

(1) HANDY DELAYED ACTION LIGHT SWITCH

Brond new solution to on ald problem! Turns off lights 35 to 60 seconds after switch is flipped to the "off" position. Allows you to reach your desfination without groping in the dark. Fine for bedroom, haltway, etc. oround No. Il A 362 . Specify Ivory or Brown $\mathbf{S}^{2} 19$ Single Pole. Npecify

## (8) MODERN "TOUCH" WALL SWITCH

Converts "old-fashioned" noisy toggle switch installations to quiet pushbutton control with no wiring changes! Just o touch or nudge and lights go "on": another touch and they're "off". Very convenient, especiolly when arms are looded. U/L roted. 15A. 120-240
No. 20 A 96 . Single Pole.
Net Eoch Net Eoch
Not 20A97. 3-Way. Net Each
(3) SILENT MERCURY SWITCH WITH ILLUMINATED HANDLE

Mokes no sound when switching lights on and off. Ivory switch handle Mokes not soun the dork, guides you directly to the switch. Glow light will plows gently in the dork, guides you ififetime! Plotinum contacts in pools of mercury inside hermetically sealed capsule cannot ore. Large heod $8-32$ screw terminals. U/L roted, 10 A. 125 V . AC 5 A. 250 V . AC

No. 20A98. Single Pole.
Net Eoch

51.2410 Lots,
$\$ 1.98 \quad 10$ Lots, Eoch
$\$ 1.12$
3-Woy Net Each

## TELEPHONE OUTLETS AND PLUGS

STANDARD WESTERN ELECTRIC STYLE, 4-WIRE
teiphone intercom or speaker installa(1) WALL JACK. For in stondard outlet box. Has positive, spring tensioned contacts, screw terminols.
contacts, screw terminots.
. $\mathbf{5 2 . 5 9}$
(3) SURFACE JACK ONLY. Screw terminols. 2-hole mount. No. 20A58. Brown or Ivory. Net Eoch
menis. Screw terminas No. 20A57. Brown or Ivory. Net Eoch No. 20A57. Brown or Jvory. Net Eoch.... iis; Wire, po
Coil Cords for Telephones, page
WVINKER FLASHER PLUGS
$\$ 1.69$
51.47


FOR USE WITH ANY SIZE IISV LAMP

losher Socket; floshes



## SONOTONE RECHARGEABLE

 FLASHLIGHT BATTERY FITS 2-CELL FLASHLIGHTS OUTLASTS HUNDREDS OF STANDARD FLASHLIGHT BATTERIESReplaces $211 / 2$ volt stondord D floshlight bottcries and can be used in any application where multiples of 2 stand ard $D$ cells are used. Economical-gives
S. $19{ }^{3}$ for
55.95
$\$ 1.16$
10 Lots, Eoch
NUTONE ELECTRICAL DOOR CHIMES
beautiful to SEE AND HEAR

(1)

(2)

(3)

(4)

LIFETIME FINISH GUARANTEED NOT TO RUST OR TARNISH
Electrical types require transformer and pushbuttons listed below. (1) L-12 "CHAMPION"-Plostic, cover. Ivory and gold. Two notes front door, No. 36 Al30. Mfg. list $\$ 4.95$. Net Each
(3) L-16 "HARMONY"-Plastic cover. ivory and gold. Two notes $\$ 5.35$ one note rear door. $7 \times 71 / 8 \times 23 / 4$. Wt.
No. $36 A 136$. Mfg. list $\$ 7.95$. Net Eoch No. 36A136. Mfg. list \$7.95. Net Eoch
cover sino............ lecked grille cloth. Two tones front $\times 27 / 8^{\prime \prime}$. Wt. $33 / 4$ lbs.
No. 36A137. Mfg. list \$13.95. Net Each
MUTONE PUSHBUTTONS FOR ELECTRIC DOOR CHIMES
(4) MODEL PB-8. Electrically lighted "Push-Lite". Gold anodized finish with nomeplate. Size $3 \times 11 /{ }^{\prime \prime}$. Wt. 2 oz.
No. 20A5. Mig. list $\$ 2.50$. Net Each.... .... ........ . . . . . . . . . . . . . $\$ 1.68$ (5) MODEL PB-10. Electrically lighted "Beacon". Gold onodized and black. Size $25 / 8 \times 7 / 8^{\prime \prime}$. Wt. 202 . No. Eoch
(8) MODEL PB-11. No light "Pacesetter". Gold onodized, $23 / 4 \times 3 / 4$ No. 20A7. Mfg. list 65 c . Net Eoch.
. $.44 c$ NUTONE TRANSFORMER. For use with obove electric door chimes. 16 volts 110 VAI mounts anyploce. Con toke substantial surge loads. 10 watts Measures $2 \times 25 / 8 \times 2 \times 3$ Shpg. Wf. 10 .
No. 20A4. Mtg. list \$3.35. Net Each.
.52 .26

## SYLVANIA PANELESCENT "NITE LITES"


(1) WALL PLATE. Attractive pear!-tone luminescent night light for hallwoy bedroom or nursery. Installs easily in ploce of regular switch plate. Automatically goes "on No. IIA364. Mfg. List $\$ 2.49$.

## Net Each

when room light is "of
(3) PLUG-IN NITE LITE. Sheds gentle luminescen Plet-simply plugs in. Only $31 / 4^{\prime \prime}$ dia., $1 / 4^{\prime \prime}$ thick.
No. 11 A474
Net Each


SYLVANIA 250-WATT 1efra-hed

R-40
HEAT LAMP

## Instant penetrating heat for treat

 ment of aches, paing pipes, 250 watt, 115 volt $A C$ or $D C$. Fits ony stándord light socket. Clear gloss reflector. No. 11 A535 88 E 12 @ 80 E Net Eoch. except Red Bowl Reflector As above except Red bowd prepora tion, etc.No. 11 AS74. Net Eo.
12 @. Each
OUTDOOR LIGHTI
Cadmium plated
OUTLET-BOX type
 Cadmium plated
OUTLET-BOX type bracket for ANY Reflector, Prolec tor, or Heat lamp. Adjustable beam of light in ANY direction. May be fastened
direct to $4^{\prime \prime}$ outlet
box, or by screws to ony surface. All stee!; porcelain socket. Bose $41 / 8$ diameter. Wt. $11 / 2$ lbs. (Less Lamp.)
l1A536. 51.
Each....
Eoch
@1.51
$99 c$

10 Lots
\$1.75

Clamp-On Infra-Red Lamp

Burstein-Applebee Co.r 1012-14 McGee St., Kansas City 6, Mo

# Electric Plugs, Elements, Control Devices 



First quality U/L approved devices for home, shop or commercial use. Bokelite items are furnished in brown only. When ordering other items specify color choice where given
Stk. No

Description
(1) 204114
lack, Brown or Ivory Vinyl Co
Sto-tite brass blodes, screw terms.
Eoch lock, Brown or Ivory Vinyl Cord Receptacle $14 c$ $\$ 1.20$
(1) $20 A_{115}$
(3) 20429
(4) 20 A 181 Bakelite Flat Hondle Cap
$\begin{array}{ll}\text { (8) } 20 C 37 & \text { Heavy Dury Armored Cop-7" cord clomp } \\ \text { (6) } 20 \mathrm{C} 38 & \text { Heavy Duty Armared Receptocle. Mor }\end{array}$
(8) $20 \mathrm{C38}$ Heavy Duty Armored Receptocle. M
(8) 20430 Bakelite Duplex Top. Cord or surface mount
O20A31 Bakelite In-Line Cord Switch
(1) 204101 Porcelain Pull Choln Receptocle, $31 / 4$ or 4
(ii) 20A341 Bokelite Cleat Receptocle. Std. screw base
1320484 Bokellte Pull Socket-2 live side tops
(13) $20 A 116$ Vinyl Plug-In Trio-Top. Sto-tite blodes
20A100 Bokelite 4-Top Adoptor for std. duplex recp
(3) Bokelite 3-Prong Grounded Adaptor for single
(13) 204117 Bokelite 3-Prong Grounded Adoptor for duplex
(11) 20A102 Armored 3-Prong Grounded Cep ground.
20A103 A 35, (15)
REPLACEMENT IRON AND


## Fluorescent Fixtures \& Lamps



## FINE ADJUSTABLE DESK LAMPS

 Feather-fouch control ollows adjustment of orms to ANY position, smoothly, noiselessly ond without effort; stays put in selected position until moved ogoin! 36-inch total length of orms with "unlversal joints" at base," center and shode. Shade with "on-off" switch on top, is 18 long, $41 / 2$ wide. Has decorative die-cast ends and high light output reflec
are UL opproved and are fitted with 8-ft. connecting cords.

## (1) DESK MODEL 4324

Has heary no-tip cost base with felt Has heow no-lip cos base Mifg. list $\$ 28.95$. Less Lamps No. 32B54-Royal Gray No. 31 A262-Stotuory Bronze No.
Choice
Net Eo...

## COOL FLUORESCENT LIGHTING FOR BROAD AREAS

QUALITY STRIPLIGHTS_15 TO 150 WATTS


Features U/L approved components throughout, heary steel bodies finished in baked white enamel and removable covers to permit easy, installotion. Overall lengths are $1 / 2^{\prime \prime}$ longer than lamp used.
$96^{\prime \prime}$ units ore supplied with $11 / 2^{\prime \prime}$ dio. 430 MA Slimiline Cool White Lomps. Others, with chaice of lamp. Pleose speclify.

| Stk. No. | mp | Chonnel Size | Weight | Net Eo. | @ E. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15-Wott, 18" | $2 \times 23 / 4{ }^{\prime \prime}$, W. | 4 lbs . | \$3.68 |  |
| 31415 31416 | 20-Wott, $24^{\prime \prime}$ | $2 \times 23 / 4^{\prime \prime}{ }^{\prime} \mathrm{W}$. | 5 lbs. | 3.83 | 3.53 |
| 408187 | 30-Wott, $36^{\prime \prime}$ | $2 \times 23 / 4, \ldots \mathrm{~W}$. | 8 lbs . | 5.89 | 20 |
| 408188 | 40-Watt, 48 $8^{\prime \prime}$ | $2 \times 23 / 4 . \mathrm{W}$. | 10 lbs. | 5.69 | 5.20 |
| $40{ }^{4} 18$ | 75-Wot, $96^{\prime \prime}$ | $43 / 8 \times 3{ }^{1 / 2^{\prime \prime}, \mathrm{W}}$ | 28 libs. | 15.83 | 5 |
| 40419 | Two 75-W ott, 96 | $488 \times 5$ |  |  |  |

## "DREADNAUGHT" DOUBLE-40 PLUG-IN UNIT



Top efficiency, partable illumination -quickly instolled or moved! TWO 40 -wott lomps spoced 5 -inches oport in full $13^{\prime \prime}$ wide reflector! $\mathrm{U} / \mathrm{L}$ opproved components mounted in strong steel wireway with knockouts on top and both ends-may be hung by rod, pipe or chains fastened to brockets on eoch end. Quick-on Reflector slips over lamp holders, is held by thumb screws. Super-white reflecting surface, gnay enomel exterior plug, supplicd complete with your choice of 40 -watt lomps. supplicd complete No. 40B189. "Dreadnought"
$\$ 12.31$
3 @
Each
$\$ 11.26$ Double-40 Unit, Each.

## sylvania selectric

## FLUORESCENT LAMPS

DAYLIGHT, COOL WHITE $14500^{\circ}$ Whitel CIRCLINE LAMP popular WARM WHITE. All prices include Excise Tax.

| Daylight stk. No. | Cool White Stk. No. | Warm White sik. No. | Roted Lomp Wotts | Net Wt. | Net Eoch | Lots of 6 Lomps Each | Lots of 24 Lomps Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $34 C 139$ | 34C140 | $34 C 141$ | 15 | 80 c | \$1.13 | $\mathbf{\$ 0 . 9 2}$ | \$0.82 |
| 34 Cl 42 | 34 Cl 48 | $34 C 149$ | 20 | 8 oz. | 1.13 | 92 | . 82 |
|  | 408190 408192 | $40 \mathrm{B1} 193$ | 30 40 | $1 \mathrm{lb}$. | 1.27 | 1.04 | 93 |
| 408191 | 408192 | CIRCLINE FLUORESCENT |  |  |  |  |  |
|  |  |  |  |  | LAMPS. |  |  |
| $12^{\prime \prime}$ Dio. | 3486 | 34810 | 32 |  | 3.42 | $2.99$ | 2.66 |
| 8' ${ }^{\prime \prime}$ Dio. | 34814 |  | 22 |  | 3.42 | $2.99$ | 2.66 |

## SYLVANIA FLUORESCENT STARTER SWITCHES

2
6
8
4


Mast convenient seeing aids made. Lamp head can be rotated and tilted ta Mast convenient seeng aidsallel action steel arms allow lamp to be raised or ony posith ithore Can be pushed aside or returnlowered without ofrecting adjustent up to $45^{\prime \prime}$ in any direction. Unbreaked to service instanty elomps for edge of desk or bench. able all-speel bose hos extra stable double elamps for edge desk or bend.
(3) FOR TWO 15-WATT LAMPS (4) INSPECTION LAMP-MAGNIFIER Finest light for close work of any Both hands free to manipulate work. kind, used by draftsmen, machine op- Fumlshes glore-free light from 22 erators, offices, homes. Mfg. list watt circline lomp around $5^{\prime \prime}$ distor$\$ 26.45$ Less Lomps. Wt. 10 lbs. No. 34A13G-Grey



## CLAMP-ON INCANDESCENT LAMPS



Fiexo Model 5600. Fully adjustable arm totals 31" length, beams light in Full brocket holds securely to flat surtace up to $21 / 8 "$ thick. Complete with 6 ft . AC cord and plug. Mfg. list $\$ 12.95$. No. 30A248G-Grey Wt. $51 / 2 \mathrm{lbs}$. Less Bulb. Net Each $\$ 8.77$
58.33 Glldelite Regal Lamp. Most versatile adjustable lamp made. Has balanced parallel acting support arms to hold ongle position of light regardless of up down or side clamp fits edge of table or other flat surfoce. Mfg. Hist $\$ 19.90$. Less Bulb.
No. 34A16-Groy
Wt. 7 lbs. Net Each
$\$ 14.95$
${ }_{c}^{3,}$ Ben $\$ 14.20$
FLEXIBLE ARM DESK LAMPS FLUORESCENT FLEXARM LAMP


12-INCH
FLEXIBLE
ARM
${ }_{5} 2^{40}$
USE UP TO 75-WATT LAMP


Two 15 watt lamps shed wonderfui light-ta-see-by over a broad desk area. Two for wide range odiustment, up, down or tilted as define for he sturdy flexible arm. Shode is $21 / 8 \times 41 / 2 \times 18^{\prime \prime}$ long sired made possible by sturdioy reflector ond switch on top. Pencil grooved with white enomeled interior reflector ond swith card ond plug. Mifg. list bose, $51 / 4 \times 6 .{ }^{\times 1 / 2}$. We ruboer 10 Ibs. Less Lomps.
No. 30A217-Statuary Bronze


## INCANDESCENT DESK LAMP

A lomp of a thousond uses! Fine for every room of the home, office, shop, Ab. Bross socket with push-button switch lab. Fully adjustable to and 7 -inch porabola shade take any sizer heat lomps. Hos weighted felt covered base, 6 ft . cord and plug. Wt. 4 lbs . Less Lomp.
No. 32A20.
Net Eoch.
\$2.40 ${ }^{6 \text { @ } @ \text {. }}$
$\$ 2.18$

## INCANDESCENT NITE-LITE

FOR BEDROOM, NURSERY, STAIRS OR HALL Plugs into ony outlet. New right-angle design hugs the wall Shode controls illuminotion. On-off switch. No. 118116.

46c

10.40
$\qquad$


## BUILD NATIONALIY FAMOUS BRAND NAME KITS SPECIALLY SELECTED BY B-A!

## SAVE UP TO 50\% AND MORI!

QUICKLY AND EASILY ASSEMBLED BY ANYONE-NO ELECTRONIC EXPERIENCE NECESSARY
All Kits on the following pages hove been chosen by B-A for their tremendous volue and quality of performonce.

\&ellllllllllllllllllllllllllle\%


USE B-A's EASY PAYMENT PLAN ON MOST KITS

सानपWORLD-FAMOUS EICO HFT9O FM TUNER KIT PRAISED BY EXPERTE AS "BEST BUY"


## INSTANTLY ADAPTABLE TO FM

 MULTIPLEX-See Bottom Right on Page 92 for Adaptor EXCLUSIVE FEATURES- Precision Eye-Tronic Tuningcolorful traveling tuning indicator cantracts into on exclamation point at the exact center of each broodcast channel.
- Drift-free without AFC.

Pre-wired, pre-oligned "front end"

- Pre-oligned IF tronsformers. Pre-wired precision Eye-Tronic Tuning ossembly.

Equal to or surposses wired tuners up to three times its price! First kit to include on entirely pre-wired, pre-oligned "front end" thoused and completely shielded in on aluminum zinc cooting). This front end provides fabulous sensitivity, low noise and low oscillator radiation plus stobility and guoronteed drift-free operotion by virtue of the most odvonced circuitry and temperature compensoted components. As in the costliest and finest FM tuners no AFC is used because none is needed. With o sensitivity more thon six times that of other kit tuners the HFT90 proSPECIFICATIONS: Frequency Response; unifo
SPECIFICATIONS: Frequency Response; uniform from 20 to 20,000 eps $\pm 1 \mathrm{db}$. Sensitivity: 1.5 uv for 20 db quieting, 2.5 uv for 30 db quieting full limiting from 25 uv. Inputs: 300 ohm bolanced. If Bandwidth: 260 KC of 6 db points. Detector characteristic: Peak separation of 600 KC Lineor bandwidth of 400 KC broadbond ratio detector preceded by stabilized limiter stage. Output: Two provided; Cathode follower ond multiplex. Cothode follower permits use of up to 200 ft . of connecting coble. tor Hum 60 db below I volt Controls. Tuning output of 1.0 volt is obtained. Hum 60 db below I volt. Controls: Tuning, Level/Power On-Off. Tubes: 1-ECC85/6AQ8; grounded grid RF omplifier and reflex converter; 2-6AU6 IF amplifiers; 1-6AU6 IF amplifier/limiter; 1-6AL5 dual diode detector, 1-DM70 tuning indicator; 1-6C4 cathode follower output: $1-6 \times 4$ fullwove rectifier: Power: $110-125 \mathrm{~V}$. AC 60 cy . 40 watts drain. Size $35 /{ }^{\prime \prime} \mathrm{Hx}$ $12^{\prime \prime} \mathrm{W} \times 81 / 4^{\prime \prime} \mathrm{D}$. Wt. 10 lbs. Shpg. wt. 14 lbs.
$\$ 39.95$
No. 30A75. HFT90 FM Tuner, Factory Wired. Net Eoch
No. 3042 . Metal Cover Each......................................
No. 308225 . Uetal
No. 304255. Unfinished Birch Wood Cobinet. Each
No. 30A256. Finished Walnut Wood Coblnet. Eoch.......
No. 30A257. Finished Mahogony Wood Cabinet. Each.


The mogic af stereophonic sound is yours at a low price with this new "low silhouette" dual chonnel amplifier-preamplifier. One compoct chassis contoins two separate 14 watt amplifiers complete with their respective preamplifiers. Separore bal ance controls allows eoch amplitier to be set of odjustment of bath amplifiers simultaneously for desired overoll listening volume.
Feotures separote law level input in eoch channel for mognetic phono, lape head, and microphane. Front panel switch for proper NARTB tape head equolization for either $71 / 2$ and 15 or $33 / 4$ ips equalization for either $71 / 2$ and is or $33 / 4$ ips
tape speeds. Separate high level inputs for AM tuner, FM tuner, and FM multiplex. Two ouxitiory inputs, one in each chonnel. Input selector switch on front ponel has positions for feeding FM funer output to one channel ond AM tuner to other,
or FM tuner to one channel and FM multiplex odopter output to other. Independent full-range bass and treble controls of the vorioble erossover feedback type in each chonnel. Identical Wil liamson type, push-pull EL84 pawer amplifiers with high quolity output tronsformers.
Specificatians: 28 watts (two 14 watt channels) continuous: 56 wotts peak; IM distortion $2 \%$ a rated output. Frequency response $\pm .5 \mathrm{db} 10 \mathrm{cps}$ 10100 KC at 2 watts. Harmonic distortion less than 1\%. Speaker oufput 4, 8, 16 , and 32 ohms Tubes: 4 -ECC83/12AX7, 2-ECC82/12AU7, 4-EL84 2-EZ81. Size $15^{\prime \prime} W \times 43 / 4$ H $\times 101 / 2$. Wt. 24 lbs.
No. 30
No. 30A94. HF81. Complete Kir Including Metol
Cover
$\$ 69.95$
30A95. HF81 Foctory Wired, Net Eoch...... $\$ 109.95$

## EICO ST-40 40-WATT STEREO INTEGRATED AMPLIFIER



Newest styling.

- Adronced Engineering
\$

A complete Hi-Fi Stereo Control Center at your finger tips - contoining a master stereo preamplifier ond iwo 20-wott aroplifier units, all on cabinet. Selects, controls, and amplifies any pragram source, stereo or manoural, tape, dises or broodeosts. 'Switched pairs of stereo inputs inbroodcosts. Switched pairs of stereo inpurs in-FM-AM : mag. phono, tape head, preamplitied tope, auxiliary. Level controls are clutch cancentric auxiliary. Level contrais ore clutch cancentric type, with concentric bass and treble controls. level switch, 6-pasition mode selector, tope monlitor scratch and rumble switches. Output for 4 , 8 , and 16 ohm impedance, with provision for third channel.
Specifications: Power output - 40 watts contin. sous (20 watts each channel), 80 watts pegk: 1 M distortion - $2 \%$ of 40 watts; harmonic dis: partion $5 \%$ of 40 watts; frequency response tortion $.5 \%$ ot
$20-20.000 \mathrm{cps} \pm .5 \mathrm{db}$. Tubes: $2-12 A X 7,4-7247$, $1-\mathrm{GZ} 34,4-7591^{\text {I }}$. Size $15 \% \mathrm{~m}^{\prime \prime} \mathrm{W} \times 5^{\prime \prime} \mathrm{H}^{\prime} \times 16^{\prime \prime} \mathrm{D}$. Wf. $27^{\prime}$ lbs
30 At 261 . Model st-40 Kit Complete $\$ 79.95$ 304262 . Model ST-40, Foctory Wired ........ $\$ 129.95$
70-WATT STEREO INTEGRATEO AMPLIFIER
Identical in appearance and function to the ST-40 obove, except the power is 70 watts total, 35 watts each channel. Has additional features of infinitely variable blend control, and tape speed equalizotion. Specifications are the some as the ST-40. Tubes: $3-12 A \times 7$, $2-7247,2-6 S N 7 G T$, 1-GZ34, 4-7591. Size $15^{\prime \prime} \%^{\prime \prime} W \times 5^{\prime \prime} \mathrm{H} \times 16^{\prime \prime}$ deep. Wt. 35 lbs.

Metol Cover, Net Eoch.
No. 30A264.' $\boldsymbol{\text { ST }} 70$ Foctory Wired............ $\$ 149.95$

## EICO MODEL ST96 * FM-AM STEREO TUNER



## - "Eye-Tronic"

 Tuning Indicotor. - PM Fre-wired, End. - Adoptoble to FM Multiplex.s8995

Superb, advanced designed FM-AM Stereo Tuner with handsame new decorofor styling. Features prewired, pre-aligned FM front end completely shielded in a die-cost housing ond pre-wired and pre-aligned FM and AM IF strips. "Eye-Tranic" traveling tuning indicators controct into on "exclamation point" of the exoct center of each broodcost channel. sinstontly odoptable to FM multiplex (see below right).
FM section Includes switched AFC, AGC, stabilized Fow section includes swithe excellent performance from weoker signals and brood-band ratio detector for improved capture ratio and easier tuning for improved capture 1.5 uv for 20 db quieting: Selectivity: 250 KC if bondwidth 16 db downl: Frea. resp. $20-$ $15,000 \mathrm{cps} \pm 1 \mathrm{db}$; Image rejection: 40 db ; Hum level: 60 db down; Drift: less than 2 ports in 10,000 from cold stort; Tuning range 87.5-108. me. Output level $2.5 \dot{V}$ for $100 \%$ modulotion.
AM Section feotures include tuned RF stoge, switched "broad" and "narrow" band-pass, high Q 10 KC whistle filter, and built-in ferrite loop antenna. Bath sections have slide-rule dials with effartless flywheel tuning, very low interstation naise, high oufput at law impedance. Sensitivity. 3 uv for 1.0 V average autput of $20 \mathrm{db} \mathrm{S} / \mathrm{N}$ rotio: Selectivity: overall IF of 18 KC at "braod-bond-width," 9 KC of "norraw bandwidth", 6 db down: Freg. response: 20-9000 cps on "wide bandwidth." image rejection: 60 db ; Hum level 60 db down; Drift: negliglble; Tuning range 540 to 1650 KC ; Qutput level 1.0 V . average ${ }^{\prime \prime}$ deep. No. 30A265, ST96 Kit with \$89.95 No. 30A266. ST96, Foctory Wired

# SAVE UP TO 50\%-BUILD THESE TOP-MAKE HI-FI KITS Be 

 FLAT DESIGN AMPLIFIER KIT

## $\$ 3495$

- Built-in Preamplifier Equalizer and Control Section.
- Beoutiful Styling
- Easy to Build

Compact, modern desion provides a complete 12 wott high-fidelity amplifier with built-in preamplifier. Completely controllable equalization for direct tope heod ond mognetic phono inputs with NARTB (Tape) and RIAA (Phono) feedback equalizations.

Features 6 tube circuit, dual triode for varioble turnover bass and treble feedback-type tone controls. Output power: 12 watts continuous, 25 watts peak. Intermodulation distortion, $1.5 \%$ @ 12 watts $.55 \%$ @ 6 watts, $.3 \%$ | $@$ |
| :--- |
| 4 | wotts. Frequency response: 11 watt $\pm .5 \mathrm{db} \quad 12-50,000 \mathrm{cps} ; 12$ watts $\frac{1}{1 / 2} \%$ @ 2.5 wotts; $30 \mathrm{cps} 2 \%$ @ 111 wotts, $1 / 2 \%$ @ 0.3 .3 watts; 40 cps : cos: T\% @ 10 watts, $1 / 2 \%$ wots; 2000 cps: $1 / 2 \%$ @ 60 watts; 10,000 square wave reproduction $(4 \mathrm{usec}$ rise-time) ; negligible ringing rapid set tling an 10 KC square wove. Inverse feedbock: 20 db . Stability margin: 12 db . Domping factor: above 8, 20-15,000 cycles. Speoker connections: ; is ohms. Tone control range: @ 10,000 cycles $\pm 13 \mathrm{db}$ @ 50 cycle $\pm 12$ di., Tube complement: 3-ECC83/12AX7, 2-EL84, 1-EZ81. Size 35/8 Comolete with oll neces

No. 308221. HF12 Kit With Metal Cover.
No. 30B222. HF12. As obove, foctory wired and tested. Net Each....... $\$ 57.95$
$\$ 34.95$

## GROMMES 10-WATT HI-FI AMPLIFIER KIT



[^4] with eosy-ta-follow assembly and wiring instrustions, so simple that anyone con complete it.
Acclaimed the most popular Hi-Fi Amplifier in its price class and featured by a notional mogazine as the best buy in its field.
Specifications: Power output 10 wotts - 15 watts peak. At 10 wotts output distortion is $2 \%$ harmonic and $3 \%$ intermodulation. Frequency Response $\pm 1 \mathrm{db}$ from 20 to $20,000 \mathrm{cps}$ at room level.
Hum ond noise roted 80 db below output. Fos three inputs; Radio, RIAA Magnetic and Crystal Phono and Microphone. Has 12 db negative teedbock Bass control for flat up to 15 db boast, Treble control for flat up to 18 db oftenuation, .5 volt input sensitivity for Radio, tape or crystal phono. Out-
put impedonces $4-8-16$ ohms.
Tube complement: 2-12AX7, 2-6V6GT, 1-6X5. With convenient AC occes sory outlef. Chossis is chorcoal grey and bross finish, size $10 \times 6 \times 6$.
No. 33Al6s. Model LJKK Kit with Tubes. Net Eoch..... \$24.45
No. 33A168. Model U6K Kit with Tubes. Net Each

## EICO HF-20 20-WATT HIGH FIDELITY AMPLIFIER KIT

Exceptional quolity Ultro-Linear Williamson type Amplifier to please the most critical enthuslast Complefe with preamplifier, equalizer, and control sectlon-all in a single unit. Ready to wire and assemble with easy-to-follow instructions. Speciflcotions: 20 watts continuous, 34 watts peak power. Mid-bond harmonics distortion only $0.3 \%$ Frea. response: $\pm 0.5 \mathrm{db} 13$ to $35,000 \mathrm{cps}$. Sen sitivity: Phono input (magnetic) 4 millivolts; Tuner, TV, Tape 0.4 volts. Hum level: Mog phono 60 db below roted output. Preamplifier equalizer cliccuit uses feedback equalization fo extremely low distortion. Five equalization posi tions plus separate non-interacting treble and bass controls compensotes for the various forelgn and domestic record choracteristics. Loudness contral changes volume in occordance with ear-response curve.
six inputs- 2 low level for mognetic pickups, 4 high level for crystal pickups, tuners, tape recorders, TV, etc. Speoker output impedonces: 4, 8, 16 ohms. Lew impedance output provided for tape recorder with all controls effective except loudness. Has contral for bolancing out 60 eycle hum, and two AC outlets with one conrolled by off-on switch. Tube complement: $2-$ 12AX7, 1-6SL7, 2-6L6GB, 1-5V4GB.
Handsomely styled with removable panel for cobinet mounting. Size $81 / 2^{\prime \prime} \mathrm{H}, 15^{\prime \prime} \mathrm{W}, 10^{\prime \prime} \mathrm{D}$. Ooerates an $110-120$ volts $60^{\prime}$ cycles AC. Shpg. wt. 24 lbs.
No. 30B214. HF20 Kit with Tubes,
Net Each......................................... $\$ 49.95$ No. 30B215. HF20, Factory Assembled, ready to use..............................
79.95 No. SOA220. Model E-1, Motching Cover........ $\$ 4.50$


## EICO HF87 70-WATT STEREO POWER AMPLIFIER

## EICO HF86 28-WATT STEREO DUAL POWER AMPLIFIER

14 Watts Stere, 28 Watt Monaural.
Frequency Response @ 2 Watts $\pm .5 \mathrm{db} 10$ cycles 10 100,000 cycles

- 35 Watt Stereo- 70 Watt Monaurol.
- Push, Pull EL34 output.
- Frequency response $\pm .5 \mathrm{db} 5-100,000 \mathrm{cps}$.
- Exceptlonal reguloted power supply,

Williamson Type Circuit
All parts operete below their rotings to insure long life.
Designed for use with the HF85 Stereo Preamp or any self-powered quality preamp. Conservatively roted of 14 watt; each chonnel output and employs a Williamson type circuit with push pull EL84 output stages. The two omplifiers moy be operated in parallel to delliver 28 watts of monaural power. Paralleling of inputs accomplished y single switch.
Features a level control of each input, on AC power switch, two convenience outlets ond fused line. Frequency response $\pm .5 \mathrm{db} 10$ cycles to 100,000 cycles at 2 watts. IM distortion $1.5 \%$ at 28 watt 114 watt each). Hormonic distartion less than $1 \%$ from 30 to $15,000 \mathrm{cps}$. Inverse Feedback: 20 dtz Transient Response: Excellent quare wove reproduction (4 usec rise time): negligible ringing, rapid settling on 10 kc square wove. Sensitivity 1.15 V . for 14 W output. Hum 90 db below rafed output. Speaker connections: $4,8,16$ ond 32 ohms. Controls: level Ch. 1 level Ch. 2, "service selector" switch, on-off switch. Tubes: 2-12DW7, 4-EL84, 2-EZ81. Operates from 117 V . 50 cycle. Size $5^{\prime \prime} \times 131 / 2^{\prime \prime} \times 9^{\prime \prime}$ Shpg. Wt. 16 lbs
$\$ 43.95$
No. 30A3. MF86 Factory Wired, Net Each.... $\$ 74.9$ No. 30A3. MF 86 Roctory Wired, Net Each.... $\$ 74.95$
No. 30A4. E-7 Cover for obove. Net Each..... $\$ 3.95$

A professionol deck complete with record and ploybock pre-omplifiers priced below the cost of comporoble units. Provides such importont feotures as monitoring while signol is being recorded, recording 4 trock stereo for a full hour of stereo on a $1200^{\prime}$ reel of $71 / 2 \mathrm{ips}$ or two full hours at $33 / 4 \mathrm{ips}$. Records up to 2 full hours of high fidelity monourol on a single $1200^{\prime}$ reel at $71 / 2$ lps or 4 hours ot $33 / 4$ ips 14 tracks-one of a time). Permits oddition of your own vocal or instrumental to professionally recorded bockgrounds. Moke sound on sound recordings. Perfect for language study. Will provide years of trouble-free service. Assures perfect pitch and timing occuracy necessory for studio, professional and musical study use, through use of hysteresis synchronous capstan
motor. 7 inches. Tope looding:: sweep type for rapid, eosy threading. Winding time: 1200 ft . per minute. Wow and flutter: $0.2 \%$ RMS of $71 / 2 \mathrm{ips}, 0.25 \%$ RMS at $33 / 4$ ips. Timing occuracy: $\pm 0.15 \%$ ( $\pm 3$ sec. in 30 minutes). Start ond stop: proctically instantaneous (electrical). No slack on stop. Ploybock trea. resp:: $\pm 2 \mathrm{db} 30-15,000 \mathrm{cps}$ of $71 / 2 \mathrm{ips}, 55 \mathrm{db}$ "signal-to-noise rotio, $\pm 2 \mathrm{db} 30$ $10,000 \mathrm{cps}$ of $33 / 4 \mathrm{lps}, 50 \mathrm{db}$ signal-to-noise rotio. Wlth signol recorded 12 db below saturation.
Playbock/Monitor Outputs: approximately 1.0 volt of 5000 ohms output impedance. Microphone inputs sensitivity: .5 mv Isuitable for dynamic mikes with low-z output connectlon). Line inputs sensitivity: 100 mv . Sound-onsound recording: requires no chonge in Input connectlons. Electronics: 2 playback amplifiers ( $2 \times 3$ transistors). 2 microphone preamplifiers ( $2 \times 2$ transisfors). 2 line recording omplifiers $(2 \times 2$ tranisistors). One push-pull bios-erase oscil-
 bios erase oscillator power supply, one power pack incorporoting selenium amplifiers. Meters: 2 for stereo recording, 1 in each recording chonnel. Heads: istacked $1 / 4$ track erase head, I stacked $1 / 4$ track record head (wide gap), I stacked $1 / 4$ track playback/monitor head (narrow gop). Motors: I hysteresis synchronous copstan motor, 2 custom reel motors, high-torque 4 pole induction synch.
 No. 30B50. Kit, Net Eoch ................................................................... $\$ 399.00$ No. 30B51. Foctory Wired, Net Eoch.....


## 72-WATT STEREO AMPLIFIER KIT

## An easy-to-build stereo amplifier kit that locks and pe

 forms like factory-built units.Beautifully designed, perfectly engineered, and so easy to wire that you can't go wrong. In just a few evenings you can build a professional 72 watt H. H. Scott stereo amplifier... One so good it challenges factory-assembled units in both laoks and performance. Costs less than many lower power amplifier kits.
Comes in exclusive Kit-Pok container which unfolds to o self-contained work-table. All wires are pre-cut and prestripped. Parts are mounted on special cards in the order you use them. All mechanical parts are pre-riveted to the chassis. Hard work is all done, but the fun's left for youl Technical specifications: Full power output: 72 watts, 36 watts per chonnel. IHF power bands extends down to 20 cps . Total harmonic distortion: (IXC) and $0.4 \%$ at full power. Amplifier hum level: better than 70 db below full power output. Tubes 4.7591 output tubes, $2-7199,4-12$ AX7, 1-5AR4. Weighs of outpur transformer 12 lbs . Amplifier stable under all loads including capacitive. Dimensions in accessory case: $151 / 2^{\prime \prime} \mathrm{W}, 51 / /^{\prime \prime} \mathrm{H}, 131 / 4^{\prime \prime} \mathrm{D}$. Size and styling marches H. H. assembled or kit tuner. Shpg. wt. 22 lbs.
No. 31 Al62. No. 31 Al 62 .
Not.............
\$159.95

## 59995

FM TUNER KIT
Now for the first time H. H. Scotr's famous Wide-Bana FM Tuner in KIp form. Works like a factory aligned tuner giving greater selectivity and sensitivity than ever before possible. Fearures the very ${ }^{\text {same }}$ silver
plated front end, used exclusively in H . H. Scott's plated front end, used
factory-assembled funers.
Requires no special tools or tesp equipment front additional alignment that need and pre-ang is done simply with the tuner's own meter. All parts such as tube sockets and terminal strips are professionally pre-riveted to the chassis a pio wires are pre-eut, -the hard uninteresting work is done. Truly a kit that is fun to build and one you will be proud to own.
Lab. specs: useable (IHFM sensitivity 2.5 uv.) Signal: nolse ratio 60 db below $100 \%$ mod. Harmonic distortion $0.8 \%$. Drift $.02 \%$. Freq. resp. 30 in the range of $30-15,000$ cps. The unis actually has far wider of $30-15,000 \mathrm{cps}$. The unit scfually has far wider frequency range than shown here). Size $151 / 2$ W
$51 / 4 . \mathrm{H}, 131 / 4^{\prime \prime} \mathrm{D}$. Shpg. wf. 12 lbs.
No. 31 A161. Net................................ $\$ 99.95$

## KARLSON SPEAKER ENCLOSURE KITS



New bosic ocoustic principle provides speaker performance never before thought possible in such o compact Unit. Accommodotes any single-cone, coaxial or triaxiat speoker of user's choice. Provides o smooth non-resonant, distortion free response loom Consists of 34 precision pre-cut pieces all ready for simple ossembly. Slde ponels ore routed out to. exactly flt the internal construction. Assures the entire structure being vibration-free and non-resonont. 12 and $15^{\prime \prime}$ kits hove exterior of $3 / 4^{\prime \prime}$ unfinished natural birch plywood with matching trim. $8^{\prime \prime}$ kit mode of trim.
For $8^{\prime \prime}$ Speoker. Size $171 / 4 \times 113 / 4 \times 93 / 4$
sembled $\$ 42.00$. Shpg. Wt. 20 lbs.
floctior os. sembled $\$ 42.00$. Shpg.
No. 4OB223. Net Eoch
$\$ 18.23$
For $12^{\prime \prime}$ Speaker. Size $243 / 4 \times 163 / 4 \times 133 / 4$ ossembled $\$ 97.61$. Shpg. wt. 45 lbs . No. 40A221. Net Eoch.
$\$ 41.16$
For $15^{\prime \prime}$ Speoker. Size $34 \times 22 \times 18^{\prime \prime}$ sembled \$126.42. Shog, Wh.

## Electro7orics mach notur ENCLOSURES AND KITS



SAVE MONEY and HAVE FUN TOO by bullding your own high fidelity speaker enclosure. These superlatlve, completely engineered kits are styled and designed to provide the same fine quality of appearance and performance os the hove ot lowest preassembled units. Enables you to have ot lowest cost, enclosures thot will bring out the very best performance qualifies of ony speaker or speaker system (all models will occommodate 2 or systems), Hardwood exteriors ossure
permit finishing like fine furniture.
EASY TO ASSEMBLE. All wood parts are precut. Glue, noils and serews are included. Derolled step-by-step instruction book supplied with each kit.
(1) MODEL KDG THE ARISTOCRAT KIT

Podular Deluxe $12^{\prime \prime}$ corner folded-horn model. Size cloth. Shpg. wt. 44 lbs. $3 / 4$. Complete with grite
Foctory Preossembled and Finished. \$70.56
Foctory Preossembled ond Finis
No. 40 A1 69 . Mahogony. Eoch.
No. 40A169. Mahogony. Eoch
No. 40A170. Blonde. Eech....
$\$ 77.42$
$\$ 77.42$
Brass grille trim for Aristocrat (as in photo).
Brass grile trim for Aristocrot Each.................. $\$ 4.70$

## (2) MODEL KD9 THE MARQUIS KIT

Delure $12^{\prime \prime}$ along-the-wall model. Size $295 /{ }^{\prime \prime} \mathrm{H}$, $19^{\prime \prime} \mathrm{W}$. $141 / 2^{\prime \prime} \mathrm{D}$. Complete with grille cloth. Shpg.


# SAVE EVEN MORE! LOW COST BIG \$\$\$ VALUE KITS 

WILLIAMSON TYPE 12-WATT HIGH FIDELITY AMPLIFIER KIT now at lowest PRICE EVER!

- Easy ta build step-by-step instructions.
- Special design output fronsfarmer.
Quality parts.

A fabulous value specially priced to sove you money!
Never before has B-A been oble to offer a complete 12-watt amplifier kit with bult-In preamplifier for magnetic phonos or tape inputs of this low price. The advanced circuitry incorporates the latest miniature tubes for low noise and hum, and feotures a special design Williamson type output transformer multi-tapped at 4,8 and 16 ohms to match the speaker system of your choice.
Four front ponel controls include Loudness, Selector switch for instant selection of four (4) inputs; Magnetic phono or tape, crystal phono, tuner/radio, and mike or ouxiliary. Separate full range Bass and Treble controls for adustment of highs and lows to sult the listener.
The amplifier features a powerful advanced beam power push-pull output circuit, self balance phase inverter system, full ronge tone contral and feedback circuit
Specifications: Power output 12 wotts. Frequency response 20-20,000 cycles $\pm 1$ db. Distortion: $1 \%$ at roted output. Output impedances: 4,8 and 16 ohms. Tube complement: 1-12AX7/ECC83, 1-12AT7, 2-6V6. Controls 141 : Function, Loudness, Bass, Treble/Power switch. Convenience outlet on reap of chassis controlled by power switch. Power consumption 55 watts. 117
 Mo. 31A152. - Metol Cover for above. Net Each



## MI-FI AM TUNER KIT

A sparkling new concept in high fidelity AM tuners, yet realistically priced to fit everyone's budget. This excellent unit ossures the listener the finest reproduction in AM sound. Extended frequency range covers 20 ta 8000 cps for reception of high fidelity broadcasts. New detector circuit insures minimum distortion even of high modulation. Perfectly motches Model 1100 FM Tuner (at right) for quality AM-FM stereo operotion. Powerful 4-tube superhet circuit (plus selenium rectifier) plus AFC gives maximum selectivity and sensitivity over enfire broadcast bond. Other feotures include ferrite loopstick ontenno, smooth counter-weight flywheel funing, in-directly-Illuminated slide rule dial with logging
scale, 24 poge easy-to-read instruction book scale, 24 page easy-to-read instruction book.
Specifications: Frequency response- $20-8,000 \mathrm{cps}$ $\pm 3 \mathrm{db}$; Frequency range- $540-1650 \mathrm{KC}$. Sensitiv-ity- 25 uv; Selectivity- 8 KC bondwidth; harmonic distórtion-below $1 \%$ up to $80 \%$ mod.; Hum level-60 db below $100 \%$ mod.; Outpuit level-1 volt, high imp. Power consumption 25 watts on $105-125$ volt AC. Tube lineup: 2-6BAG, 1-6BE6, $1-5 A L 5$, 1 -selenium rectifier. 3 color front ponel is mothogony, ivory ond gold. Dimensions: $103 / /^{\prime \prime}$ W. $\times 4^{\prime \prime} H^{\prime} \times 8^{\prime \prime}$ deep. Shpg. wt. 8 lbs. Less cover and legs.
No. 31A149.- "Qual-Kit" Madel 1200 Tuner Kit, Net Eoch................. \$19.95 No. 31A150.- Cover only \& Koliywood Legs. $\$ 5.95$


## HI-FI FM TUNER KIT

A truly outstanding quality tuner for a minimum of cost, using the most odvanced design feotures of the engineer's ort. The Armstrong FM circuit utilizes o bolonced Foster-Seeley Discriminator and limiter with a $75 \mathrm{u}-\mathrm{sec}$. deemphasis circuit. Perfect match for Model 1200 (at left) AM tuner, giving superb high fidelity stereo broadcosts for less than the cost of any other single unit funer kit.
Other deluxe feotures include full AFC to eliminote FM stotion drift, low noise front end using grounded grid triode amp section and separate triode oscillotor, smooth counter-welghted flywheel tuning, and indirectly illuminated slide rule dial. Specificotions: Frequency response $20-20,000 \mathrm{cps}$ $\pm .5$ db; Range $88-108$ MC; FM drift $\pm 5 \mathrm{kc}$ mox-; Sensitivity 5 uv for 20 db quieting; Seleclivity 200 KC bandwidth 6 do down. Distortion, less than 1\%: Hum level 60 db below $100 \%$ modulotion; Output level $21 / 4$ volts for 1000 mod.: Power consumption 30 wotts at 100-125 voits AC. Tube line-up: $2-12 A T 7$ 1-6BA6, $2-6 A U 6,1-6 A L 5,1-s e l$. rectifier. Three-color front panel is mahogany, ivory and gold. Controls: control selector with AFC defect switch; and tuning control. Dimensions: $103 / 4^{\prime \prime} \mathrm{W} \times 4^{\prime \prime}$ $H \times 8^{\prime \prime}$ deep. Shpg. wt. 8 lbs. Less cover and Hollywood legs;
No. 31A147.- "Qual-Kit" Madel 1100
No. 31A148. - Cover and Hollywood Legs
$\$ 25.50$


## NEW AM-FM TUNER KIT

Unmatched in its price closs for beauty and per formonce. Superbly engineered with such costly feotures as counter-weight tuning with built-in AFC defeat switch, advanced AFC circuitry preventing drift when selected stotion is locked in, temperature-compensated oscillator circuit on adaltional ald in preventing drift.
Powerful 7 tube plus selenium rectifier circuit has Armstrong FM circuit with Foster-Seeley discriminator! The AM section features a superheterodyne circuit with AVC and powerful Ferrite loopstick antenno
Specifications: Freq, resp. FM $\pm .5 \mathrm{db}$ 20-20,000 cps; AM 3 db $20-5,000$ cps. Freq. range FM 88 to 108 MC. AM 540 to 1650 KC . FM drift: $\pm 5$ KC maximum. Sensitivity: FM 5 UV for $30^{\circ} \mathrm{db}$ quieting, $A M 25$ UV. Selectivity: $F M 200 \mathrm{KC}$ bondwldth, AM 8 KC bondwidth. Distartion: less than $1 \%$ on FM. Hum level: 60 db . Output level FM 2 volts for $100 \%$ mod. AM 1 volt. Controls: Off-AM-FM, funing with AFC incorporoted. Op: $\mathrm{W}^{\mathrm{W}} \mathrm{m}^{4}$, on $105,-125$ volt 60 cycles $A C$. Size $103 / 4^{\prime \prime}$ W, 4"" H, 8" ${ }^{\prime \prime} \mathrm{D}$. Front panel ivory and gold. Chassis, bright copper color. Tube complement 2-12AT7, 6BE6, 6BA6, 2-6AU6, 6AL5. Complete with 20 page construction book (less cover ond legs). Shpg. wt. 9 lbs.
No. 31A134. "Qual-Kit", Model 1000 (M. $\$ 31.85$ No. 31 A135. Mahogeny Cover $\mathfrak{G}$ Holiywood Leg No. 31A135. Mahogany Cover G Hollywood Legs
for above...................................................


MODEL 232 PEAK-TO-PEAK VTVM
WITH $41 / 2$ INCH METER AND SWITCHING TYPE UNIPROBE
Combines precision performonce and advonced engineering found anly in 0 VTVM selling for ot least double this price.
With dual purpose Uni-Probe, a half turn of Probe tip selects AC or DC function Laborotory precision, professionol quality, new engineering design, exceptional stability, $41 / 2$ inch meter, can't burn-out circuit, adjusts to zero center $1 \%$ multipliers. Measures directly $\mathrm{p}-\mathrm{p}$ voltages of complex and sine center, $0.4 \quad 1442,420,1400,4200$ valts $0-0$. DC/RMS up ta 1500 volts $(30,000$ with high voltage Probe). Resistance 0.2 to 1000 Megs. in 7 ranges with no skip. Calibration without remaval from cabinet. One zero center for Smartly styled gray cabinet etched panel, cantrasting knobs. Size $81 / 2 \times 5 \times 5$ Wt. 7 lbs. For use on 117 V .60 cycle AC
No. 35 A281. Model 232 K -Build it Yourself Ki
No. 35A282. Model 232. Foctory Wired ond Tested 549.95

MODEL 249 DELUXE PEAK-TO-PEAK VTVM WITH EASY TO READ $71 / 2$ INCH METER
All functions ore the some as Model 232 described above except Modfl 249 s equipped with o $71 / 2$ INCH METER with the odded convenience of easy-o-read large scales to permit fost occurote readings. Ideal for bench laborotory use. Size $13 \times 81 / 2 \times \times 5^{\prime \prime} \mathrm{Wt} .9 \mathrm{lbs}$ No. 35A283. Madel 249K-Build it Yourself Kit
$\$ 39.95$
No. 35A284. Model 249. Foctory Wired ond Tested
$\$ 59.85$
HVp-2 Migh Voltoge Probe with 1090 meg. resistor. Use with Models 232.
249 . Extends range to 30,000 volts. Wt. 1 ib. No. 35 A329. Foctory Wired, reody to use. Net Eoch $\$ 4.95$
 No. 35 A286. Foctory Wired, reody to use. Net Eoch

## EICO 460 WIDEBAND 5-INCH SCOPE WITH 5-MC BAND WIDTH AND DC AMPLIFIERS

## '79."

FACTORY WIRED $\$ 129.50$


- Ideal for industrial reseoreh, and maintenance work, TV servicing
- Surposses in feotures ond performonce 'scopes selling for mony times the kit price.
Outstonding Feotures: Will provide distinct 3.58 MC sync. burst and 3.58 MC oscillator signals in color TV receivers. - Band width DC to 4.5 MC useable to above 5 MC . 4 step compensated of tenuator, both $A C$ and $D C$ position tivity. 25 millivalts per inch vertical sensi-- 6X horizontal expansion. Push-pull vertical omplifier throughout. Coth. ode follower input both in $V$ and $H$. - Voltoge reguloted vertical amplifier - Automotic sync. Iimiter and amplifler - 10 cycles to 100 KC sweep frequency - Intensity modulotion, sowtooth output 60 cycle test signal. 60 cycle varioble phose hor. sweep. Uses 5UPI CRT. Bezel will occommodate standard photographic equipment. Weight, 26 lbs. Size $13 \times 81 / 2 \times 16^{\prime \prime}$
 Euldilitulut ini No. 354336 . Model 460. Foctory Wired
ond Tested. Met Eoch...... $\$ \mathbf{2 9 . 5 0}$


EICO 368 TV-FM SWEEP GENERATOR AND MARKER The most highly perfected sweep generator avalladie for accurate alignment of FM-TV monochrome and color sets. Features: - Entirely electronic sweep cir cuit. Excellent linearity on both sides of center frequency. Uniform high level RF output through frequency. with $6: 1$ vernier. with $6: 1$ vernier.
Frequency ronge and output: $3-6.5 \mathrm{MC}, 3$ volt RMS output, $6.5-16 \mathrm{MC}, 4$ volt RMS output; $14-36$ MC, 35 vclt RMS output; 34-90 MC, 2 volt RMS output; 80-216 MC, , volt RMS output. Mas vorioble frequency morker and a fixed frequency marker using 4 is if desired. Has provision for using ex ternal marker. Attenuators for marker size and a step and variable attenu ternal marker. Attenuators for marker swep width 0-3 MC lowest moximum otor for sweeg. 30 MC highest maximum deviotion. For 105 to 125 volts $A C 50 / 60$ cycles. Size $83 / 4 \times 131 / 2 \times 71 / 4^{\prime \prime}$. Wt. 16 lbs. Complete with out put cable. scope horizontal coble and compensated scope vertical cable. No. 35 A382. Model 368 K Complete Ports Kit.
$\$ 69.95$
Net Each
No. 35 A383. Model 368 Foctory Wired ond Tested. Net Eoch
$+119.95$

MODEL 666 TUBE AND TRANSISTOR TESTER Speedy-testing with unexcelled occuracy-Tests all TV and receiving tubes, black and white TV picture tubes with accessory adaptor listed below. Dynamic conductance tube test indicates the composite mutual conductance, plate conductance and peak emission capability of the tube by the applicaplate conductance and peak emission capability of the tube by the applica-
tlon of properly selected plate, screen and grid voltage with highly accurate tron of properly
variable controls.
Sensitive 200 ua meter with five ranges. Extensive roll chart. Transistor Leakage test measures up to 20 meg. Has accurate line voltage adjustment, etched aluminum panal, $41 / 2^{\prime \prime}$ clear plastic frame meter. Housed in gray wrinkle steel cabinet and cover, size $12 \times 15 \times 41 / 2^{\prime \prime}$. Weight俍 No. 35 A385. Model 666 Factory Wired and Tested. Net CRA- 110 odapter for testing new $110^{\circ}$ deflection picture tubes.
569.95 No. 35A536. Use with 666 or 625 tube fester. Net Each.........3.3. MODEL 536 MULTIMETER 1000 O.P.V. AC-DC Look of these handy RANGES: 0-1 AC/DC Lo-Volts; 0-5,000 AC/DC HIplete ranges are, 0-1-5-10-50-100-500-5,000 $\mathrm{AC} / \mathrm{DC}$ volts; Current, $0-1-10$ ma., $0.1,1$-Amp. Ohms, $0-5000-100 \mathrm{~K}$, 1-Meg at new, low bottery droin! DB: No. 35A584. Model 536K Kit. Net Eoch.
No. 35A585. Model 536 . Factory Wired Ne No. 35A205. Model 526K Kit Net Each
No. 35A206. Model 526 Factory Wired. Net
$\$ 12.90$ $\$ 13.90$ $\$ 18.90$


## MODEL 556 MULTIMETER 1000 O.P.V.

Feafures o large $41 / 2$ inch Meter for more accurate readings. $1 \%$ precision AC-DC current $0-1$, $10 \mathrm{MA} ; 0.1$, A. Ohms: $0-5000$, $100{ }^{\prime} \mathrm{K}$, 1 Meg .6 db ranges; - 20 to No. 35A279. Model 556K Complete Kit
$\$ 16.90$
 MODEL 565 MULTIMETER 20,000 O.P.V.
ISome illustration 20,000 O.P.V. SENSITVITY- 51 RANGES brated ond tested rectifier; eosy-10-read, full scole ranges; DC/AC/Output Volts: 0-2.5, 10, 250, 1000, 5000. DC Current: 0-100-Micro-Amp., 0-10-100+55 . Exitra rugged construction. Cose is $63 / 4,51 / 43^{\prime \prime}$. 5 D . B. Ronges, -12 to No. 35A203. Model 565 K Parts Kit. Net....................... $\$ 24.95$ No. 35A204. Model 565 Foctory Wired, Complete. Each ............ \$29.95 MODEL 625 TUBE TESTER Tests AM-FM-TV Tubes 4,5,6, large and small 7, octol, loctal, noval VR, and pilot bulbs! Twin grid caps, extra spare socket. Test CR picture tubes with CRA Adapter lisfed below Illuminated, gear driven, "SPEEDROLL" CHART, "new" tube test settings Tree from factory on request! 6H6 rectifier! Lever-action switches for indishows testing of every fube element, line volrage odjuster. $41 / 2$ meter shows tube condition on reploce-weak-good scale Plus zero to 1000 reference
scale. Circult overroad panel indicator. Finest components throughout! 3scale. Circult ovenoad panel indear No. 35 Al 20 . Model 625K.
Complete parts kit
$\$ 49.95$
$\$ 4.50$
PICTURE TUBE ADAPTERS FOR BOTH 666 AND 625 .
No. 35 A376. CRA Picture Tube Test Adapter. Net Each


MODEL 315 DELUXE SIGNAL GENERATOR Feotures: Extreme stobillty of oscil lator circuit, band-spread vernier tun ing $(0-100$ scale), illuminated pointer
Frequency range 75 KC to 150 MC 7 -separately calibrated scales-at ac curacy of $1 \%$ or better on all ranges 4-step. RF-shielded output multiplier very low leakage. VR tube mointains accuracy regardless of line-voltage fluctuations. 400 cy. pure sine-wove audio modulates RF, is AF attenuated for external use. Connections for ex-
fernal modulation. 3 -color rubproof ternal modulation. panel, heavy steel case is las. 35A117. Model $315 K . .5$
No. 35B48. Model 315 Foctom and Tested, ready to use...\$59.95

साCD
UNBEATABLE SSS SAVING KITS


LOW COST MODEL 320 SIGNAL GENERATOR

- For FM-AM alignment, provides
- $150 \mathrm{kc}-102 \mathrm{me}$ Hartley oscillator with fundamentals to 34 me ho monics to 102 mcl
Feotures: 5 step band switch, vernier type condenser; TV I.F's. morked on scale. Selector switch for pure RF or pure 400 cy. AF. Colpitts audio oscllaror. Continuous type shielded RF $8 \times 43$ af attenuators. Steel case $10 x$ Wt. $10^{\circ}$ lbs
No. 35831.
Model 320 K
$\$ 19.95$ 35842. Model 320.
$\$ 29.95$


## MODEL 1140 RC NETWORK BOX


substitution box. Permits selection indlvidually or any combination of the two, either in series or parallel. A valuable aid for TV, rodio and audio servicing as well as loboratory and experimental work.
from 15 ohms to 10 megotim in standard 1 waft resistors $10 \%$ occ
35A582. Model 1140K. Cmpte. Kit, Net Ea. 313.95 35A583. Model 1140, Factory Wired ${ }^{6}$ Tested. $\$ 19.95$ 950B RESISTANCE-CAPACITY BRIDGE A professional quality instrument for testing all resistance 0.5 ohms to 500 meg . and all types of condensers from 10 mmf . $\mathrm{to} 5,000$ mrd. Builitin variable DC voltage source of $0-500$ volts tests condensers for. leaks, power
factor, polarity. factor, polarity.
All resistance-
All resistance-capacity ranges calibrated on panel! Preindicator tube. Size $10 \times 8 \times 43 / /^{\circ}$. Wt. 10 lbs. 19.95
354142 . Eico Model 950 BK . Ports Kit. Net. 1.9. 35A142. Eico Model 950BK. Parts Kit. Net. 35A144. Model 950B Factory Wired. Net.
$\$ 29.95$


## MODEL 377 AUDIO GENERATOR

For servicing, testing and designing amplifiers, speakers, etc., used in HiWlen Bridge osclllator circuit. Ranges; sine wave 20-200,000 cps, square wove $60-50,000 \mathrm{cps}$. Accuracy $3 \%$ or 1 eps, output 10 volts across 1000 ohms, constant output over wide frequency range. For use on $105-125 \mathrm{~V}$. AC 50-60 cps. Gray wrinkle steel case
 No. 35A587. Model 377, Foctory Wired $\begin{array}{ll}\text { No. 35A587. Model 377, Foctory Wired } \\ \text { ond Tested. ............... } \mathbf{\$ 4 9 . 9 5} & \text { Model 324. Factory wired reody to use. } \\ \text { 35A30. Net Eoch. ........ } \$ 39.95\end{array}$

## MODEL 147 DELUXE SIGNAL TRACER

For RF-IF and audio signal tracing in TV, RF and AM (through loudspeaker), indication of the signal. High RF sensitivity permits signal tracing in tuner and IF section. Also cheeks phono crystals, microphones and gain per stage. Naise localizer detects noisy resistors, con-
densers, solder joints. One probe and ground lead serves for all functions. Size $8 \times 10 \times 5^{\prime \prime}$. Wt. 10 lbs. $\mathbf{2 4} 95$
No. 35 A275. Model 147 K Kit, Complete. . 92. No. 35A276. Model 147 Foctory Wired, Net.... $\$ 39.95$ MODEL 540 UTILITY TESTER Low cost multi-range meter for locating defects in irons,
fans, TV, radio, automobile batteries, etc. Measures AC or DC volts up to 300 volts, current up to 15 omps , resistance up to 1000 ohms. Neon lamp checks leakoge, continulty, Kilowatt scale shaws power consumption. Has good-bad reading for $6^{\text {or }} 112$ volt storage batteries.
Black bakelite case $31 / 4 \times 61 / 2 \times 31 / 2^{\prime \prime}$ with clear lucite meter. Weight 3 lbs. With operating instruction book. No. 35A386. Model 540K. Complete Parts Kit, Net No. 35A387. Model 540 Factory Wired ond Tested,

A low priced, high quality generator with frequency range for servicing colar and mono-chrome TV, FM and up to 145 MC on fundamentals. Qual ity and performance compare to the most expensive instruments to the cations: RF output 100000 microvolts: 400 cy. Af output' 10 volts: 6 o I vernier dial; coorse ond fine'RF attenuators: Colpitts oscillator: external modulator amplifier; 50 oh'm output, Gray wrinkle finished cabinet
 ..................................... 815.95
 voltage ranges . 25 and 1 volt.

- Fuse protection.


## RCA WV38A

VOLT-OHM MILLIAMMETER WV28A Multimeter, All new volt-ohm meter win

 Yolts. Frequency response 10 cycles to 50 KC , useoble to 500 KC © ${ }^{3}$ resisionce ronges to 20 meg. : Polority reversing $\begin{gathered}\text { switch. } \\ \text { Lorge } \\ 5 \\ 5 / 4,4 \\ \text { M }\end{gathered}$

 No. 35A89. Model WV38A. Foctory Wirced Cam plete. Net Each
$\$ 43.95$

## E

 $\$ 29^{95}$ factory WIRED$\$ 43.95$

- World famous RCA Voltohmyst circuit.
- Simply and quickly assembled.


## $\underset{\substack{\text { FACTORY } \\ \text { WIRED } \\ \text { SIZ }}}{ } \$ 7095$

RCA WV77E VOLTOHMYST

## Now you moy

 fobulous soving! Features: Burn-out protection. - 11 meg input imp. Uliro slim probes. Leod storage in the handle. Wide view 400 microamp meter. $1 \%$ tolerance resistors. Seven over-lopping voltoge ronges $0-1500$ volts. Peok-tapeak 7 ranges to 4000 volts. Frequency response $\pm 5 \%$ to 5 MC . 7 overlopping ohmeter ronges . 2 to 1000 meg. Zero center indication for discriminotor ollgnment. Metol cose shields agoinst magnetic fields. Groy-blue finish. $55 / 8 \times 43 / 4 \prime$. Wt. 4 lbs. 115
No. $35 A 289$. Model WV77EK
Complete Kit. Net Eoch

## EICO COMPACT PROFESSIONAL SERIES



MODEL 250
AC VTVM AC VTVM
AMPLIFIER


Model 250 is a high sensitivity, wide band AC VTVM ond omplifier of lob auolity and occurocy. Measures AC valts from 100 microvalts to 300 volts in 12 ranges. Function switch converts to wide boand amplifier with 60 db gain on 1 mv ronge. Moximum output 5 volts RMS. Amplifier frequency
 impedonce $5^{5}{ }^{\mathrm{K}}$ ohms. Groy cobinet $81 / 2 \times 53 / 4 \times 7^{\prime \prime}$. Wt. 7 lbs. Operotes
on $105-125 \mathrm{~V}$. AC. $50-60$ cycles.
$\$ 49.95$ No. 358413. Complere Kit
$\$ 49.95$ No. 358409. Foctory Wired
$\$ 79.95$
Model 260 is a highly useful combinotion. AC voltmeter, oudio wottmeter and db meter. Feetures laboratory quality, accuracy and dependability. Measures amplifler goin response, power output, network response, ouput
level. Useful for null indication for "O" meosurements ond comporison meosurements of copocity resistance ond inductonce, hos if RMS voltage monges from 01 to 1000 vaits, occeurocy $\pm 4 \%$ full' scole -7 wott meter power ronges from 15 MW to 150 wotts ocross standord loods from 4 to 6 ohms, occurocy $\pm 5 \%$ full scale. Groy cobinet size $81 / 2 \times 53 / 4 \times 7$ ". Wt. No. 3 SB408. Complete Kit.
$\$ 49.95$
No. 358408 . Complete Kit...
No. 358411 . Foctory Wlred

## EICO SIGNAL TRACER



High gain RF and low goin oudio input chonnels for signal tracing and trouble shooting RF, IF and oudio stoges of AM, FM and TV receivers.
Signals heard on built-in 5 inch speoker. It is ransformer operoted for safety and complete isolotion. Moy be used os test speaker, null indicator.
scope preomp, etc. Steel cose $718 \times 59 / 10 \times 5$ 有. Wt. 7 lbs.
Wt. 7 lbs.
No, 35 Al 40 . Model 145 AK. Complete Kit. $\$ 19.95$
No. 35A139. Model 145A. Foctory Wired
.$\$ 28.95$
RESISTANCE SUBSTITUTION BOX
Modef 1100 provides a rapid selection of resistance volues in decode multiples of $15,22,33,47,68$ and 100 ohms with stondard wott $10 \%$ resistors. Has mony experimentol
Wt. 2 lbs.
35A277. Model llook. Complete Kit.... $\$ 5.95$ 35A278. Model 1100. Foctory Wired $G$ Tested.. $\$ 9.95$

## CAPACITANCE SUBSTITUTION BOX

Model 1120 contoins range of 600 volt capocitors from .0001 to .22 mfd . with switch selector and 5 for determining correct circuit copocity by substi

35A87. Model 1120K. Complete Kit............ $\$ 9.95$
35 A122. Model 1120 . Foctory Wired 6 Tested.. $\$ 9.95$


MODEL 109 EMC 20,000 OHM PER VOLT METER features full view clear plastic meter - $41 / 2^{\prime \prime}$ Squore Meter 24 Ranges- 40 Microomperes!
$D C$ voltoge ranges (ot 20,000 o.p.v.) $0 / 6 / 60 / 300 / 600 / 3,000 ; \mathrm{AC}$ voltage ronges (ot 10,000 o.p.v.) - $0 / 12 / 120 / 600 / 1200 / 3000$ Resistance ronges, $0 / 20 \mathrm{~K} / 200 \mathrm{~K} / \mathrm{O}-20$ Megohms. AC current ronges $0-30-300 \mathrm{MA}, 0-3$ omps. DC current ranges, 0-6-60-600 MA. DB ronges, minus 4 to plus 67 db . Ali ronges above are on self-contained botterles. Round carnered, molded bake-
 Net Each.
No. 35 C 10
\$28.41

## MODEL 102F EMC MULTIMETER FEATURES SAFETY FUSED METER

Pocket size sturdy built, economicolly priced. Has $31 / 2^{\prime \prime}$ meter with sensitive 800 microompere movement cleor plostic full view front. Accurocy $2 \%$. Five DC valtage ronges: $0-6-60-300-600-3000$ volts. Five $A C$ voltoge ranges: $0-12-120-600-1200-3000$ volts. Four DC current ranges: $0-6-30-130$ MA and 0-1.2 amps. Three $A C$ current ranges $0-30-150-600$ MA. Two resistonce ronges: $0-1000,0-1$ megohms. Housed in bokelite cose $33 / 4 x$ x$61 / 4 \times 2^{\prime \prime \prime}$ Wt. ${ }^{2}$ los.
No. 353999 . Model 102 F Complete ${ }_{2}$ Kit, Net Eoch.
\$12.84

## MODEL 801 RESISTANCE-CAPACITY COMPARATOR

BRIDGE AND IN-CIRCUIT CAPACITY CHECKER
it measures condensers in or out of circuit tor opens, shoris or intermitients. A resistance and capocity checker which measures actual copacity, leakoge and power factor. Meosures copacity in four ronges 10 to 5000 mfd . Resistance in four ranges . 5 to 500 megs , power foctor from 0 to $60 \%$ on
condensers between. 1 and 5000 mfd . Will check open or shorted condencondensers between, in circuits not shunted by excessively low resistonce sers oove $505^{\prime \prime} . W \mathrm{~W}+7 \mathrm{lbs}$.
No. 35 Al59. Model 801 Complete Kit. Net Eoch.
$\$ 24.95$
No. 35Al58. Model 801 Foctory Wired. Net Eoch
338.95

## NEW ARKAY TRANSISTOR INVERTER

Supplies 115 valt AC 60 cycle volrage
12
Holt
DC
bottery. vibrotors, uses two 2 N 442 tronsistors. You factory con operote rodios, portoble TV, record WIRED colayer, recorders, amplifiers, smail oppli- $\$ 35.95$ onces, shovers, emergency lighting, etc. Outout is 115 V . AC 60 cycles, 125 wotts continuous, 200 watts intermittent. The new transistor design insures long trouble-free service, it is small in size, simple to assemble. Has off-on switch, reploceable fuse ble. Has off-on switch, reploceable fuse,
binding post Input terminals and stondord electricol female output. Size $10^{\prime \prime}$ long, $41 / 2^{\prime \prime}$ wide, $41 / 8^{\prime \prime}$ high. Shpg. wt. $71 / 2$ los. No. 35 A 200
Complete Kit No. 35A201. Foctory Wired.........\$35.95
$529^{95}$
Complete Kit

## LOW-PRICED EDUCATIONAL KITS FOR EVERYONE!

## BUILD THIS TUBE TESTER AT LOWEST GOST EVER \$1/90 <br> \$22.90 FACTORY WIRED

## THE NEWEST! THE SMALLEST! THE LOWEST PRICED!

A complete tube tester, not a gadget! Checks eoch section of multipurpose tubes separately...ccecks all octal, loctal, 9 prorig and miniature tubes for shorts, leakages, opens, intermittents as well as for quality, same as tube tester costing over three times ments in the tube can be detected instantly. Check mogic eye and voltage regulator tubes as well. Quality of tube is indicated directly on a two color meter dial using the standard emission test. Has an etched panel and a high impact bakelite case. Comes complete with instructions and tube charts in ring bound manuol. Size $63 / 4 \times 51 / 4 \times 21 / 4^{\prime \prime}$ deep. Operotes from 115 V . 60 cy . AC . Shpg. wt. 3 libs. No. 35 A143 Complete Kit, Net Eoch
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## CALCULO ANALOG COMPUTER



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A bosi introduction to ando A bosic introduction to analog comal principles of mothemetics phy and principles of mothematics, physics and mechonical drawing. Does mulcompound interest and many other functions Comes with simple osser bly monual ond 48 page booklet ilustrating various experiments lustroting various experiments. Easily Requires no soppring Uses hours. floshlight botteries. Shpo wh 2 No. 364251 . 516,95

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- Exciting experiments with Polarized Light - For Ages 10 to 16

Challenging experiments with the noture of light woves using a hand spectroscope ond light polarizer. The analysis of color and types of spectra polarization ond depolarizotion of light are among the many prolects outined in the two lllustrated manuals. Contains all materials for ossembling the Hond Spectroscope ond Light Polarizer with occessories for otion
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- Spudenfs
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An introduction to the basic circuitry of digital computers.
Now you can build any of 125 electric brain mochines, logic machines intelligence tester, game playing machines, orithmetical mochines (binory and decimali add, subtroct, multiply divide. Code machines: secret coder secret decoder, burglor olarm, puzzle solver, mochine to co.npose music to forecost weather and many others 100 numerous to mention. The perfect kit for everyone from 12 year old students to groduate engineers Comes with easy to understand instruct
Comes with easy to understand instruction manuals and full seale diagrams for beginners to the advonced science student. A real educational kit now Complete with mounting ro
Complete with mounting rack and battery. Shpg. wt. 6 lbs. No. 36B256. Genioc Kit. Net Eoch.

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## MINIATURE ATOM SMASHER

Not a toy or gadget but a true scientific -makes sparks up to $2^{\prime \prime}$ long-yet is absolutely safe becouse the current is infinitesimal.
Mony experiments can be performed which will ostound your friends, students or fomily. Makes smoke disappear-defy grovityturns propellers at a distance-tronsforms otomic energy into light-makes artificial lightning-smashes atoms-demonstrates ion ic space ship drive and many other experiments. Constructed of the finest materials. Will do exactly, for instruction purposes what generators that cost 3 to 10 times more. The perfect devise to teach and learn the secrets of atomic physics and electricity. Will hold an audience spellbound as it performs trick ofter smoshing trick. In cludes on experiment kit and illustrated ex periment manual. - Manual explains "how and why." A fine research tool that will give years of use. Shpg. wt. 3 lbs. Oper ates from 115 V . 60 cy . AC.
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MOST COMPLETE CHEMISTRY SET EVER MADE!


Designed for the young researcher from 12 yeors on up. Can be used in professional reseerch projects in Electro-Chemistry, Crystollography, Quolitative and Quontitative Analysis, Metallurgy ond Chromatogrophy. Professionol lob equipment includes Erlenmeyer flosk, Flarence ring stand, retort, thistle tube, equipment for 24 K gold pláting. Hos periodle toble of elements plus numerous chemicols.
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What makes the lights go on? What makes an electric motor run? How does a batfery sfore energy? LEARN THE ANSWERS WITH THIS EXCIIING KIT!


#### Abstract

Hours af foscinoting fun while learning with this large professional set Complete set of ports and apporotus offers safe, exciting experiments for the young seientists interested in learning about electricity and why it universal mator, 2 -telegroph set, telegraph communicotion system, electromagnets. Also includes reody-built motor. Experiments in instrumentation, remote control, etc. Size $24^{\prime \prime} \mathrm{L}, 163 / 4^{\prime \prime} \mathrm{W}, 21 / \mathrm{g}^{\prime \prime} \mathrm{H}$. Shpg. wt. 8 lbs . Mfg. suggested retail $\$ 12.98$. $\$ 9.95$


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Similar to obove kit but has less experiments. Has laroe quontity of parts mognetic experiments. Makes electric voltages and conduct electrico olorm, telegroph communicotion system. Fully sofety tested and approved Size $211 / /^{\prime \prime} \mathrm{L}, 15^{\prime \prime} \mathrm{W}, 21 / 8^{\prime \prime} \mathrm{H}$. Shpg. wt. 5 lbs. Suggested retail $\$ 7.98$ No. 33473
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similar to above kit only uses all transistor circuits. Has everything needed to build o complete broodeasting station, various receivers, code practice
set, elc. 9 different projects in all. Absolutely no tools or experience neéded. Kit includes poris, and components, transistor, templates, peg-
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The fascinating world of physical laws and action-demonstroted through exciting experiments.
Giont size physics lab crammed with ports, equipment and apporatus for endless hours of sofe experimentation in solor heat, light bending, optics, fluid dynamics, air and woter pressures and other fields. Equipment includes professional radiometer, porabolic reflector, polorazing filters, opticol bench beaker, illuminator, thermometer, ring, stonds and other pieces. Answers in interesting, foshion the "why" nnd "how" of everydoy pheno gested retoil \$14.98.
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tically how woter behaves under the pressure of air and gravity. Permits interesting experiments in hydraulics, diffusion, convection, etc. Ports supplied for moking o woter piston, svphon, force pump and many other
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NEW PHILMORE GERMANIUM SELECTIVE CRYSTAL RADIO KIT
Eosy to build. Features new midger luning condenser, Germanium fixed crystal diode for better sensitivity and selectivity than regulor type crystal sets. Ports all mount on a $3 / /^{\prime \prime}$ thick plywood baseboord included. Coil comes oireody wound. Simplified construction with gummed label pictorial diagram which fits boseboard as a template showing location of parts ond cornecect. Wt. I lb.
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Con be installed on root, between trees, in attic or garage, etc. Consists of $50^{\prime}$ coil stronded copper aerial 1 lead-in strip, 2 porcelain insulators, 2 nail-it knobs. Complete with instructions.
No. 22B225. Net Eoch.
95 c

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4
(1)

(3) $\Rightarrow$ CIEARCD $-(4)$
(1) OPEN TYPE CRYSTAL DETECTOR. Universal jaint on swivel arm provides quick accurate adjustment on any point of crystal. (Less Crystol) No. 17A44. NET EACM

15 c
(3) SUPER SENSITIVE CRYSTALS. Made from finest galena are.

88 C No. 12A1401. NEE EACH......... 10 c . No. 17A144. Per Pkg. of 3

12c 10 pkgs. for
$\$ 1.00$ (a) FIXED CRYSTAL. Compact, only $f \times 3 / /^{\prime \prime}$ with $11 / /^{\prime \prime}$ copper leads. Self adjusting contact is not offected by changes in weother, temperature or hondling.
Crystal Sets.
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## NEW 3-STAGE ROCKET RADIO

Lots of fun for kids of all ages. Looks just ike a 3 stage rocket with on artificial satellite in its nose cone. Each stoge in o difterent bright color. In actuality it's o crystal diode radio which plays through attoched crystalearset. Tuning of different stations is occomplished bat screwing and unscrewing nose cone. Uses no barleries or electrical power. Picks up strong local stations with only connection to a water plpe, telephone dial, bedsprings, er lapable metal picking up er large metal surfoce capable of paves. Suction cup on bottom of rocket rodio wave inuming position on any 4 lat hoce Sno No. 17A224. Net Each


EDUCATIONAL BENEFITS DERIVED FROM THIS KIT WORTH MANY, MANY DOLLARS!

## CARBON MICROPHONE

bROADCASTS OVER ANY HOME RADIO
Push-button switch cuts off rodio progroms ond brings in home broadcoster's voice very cleorly. Sensifive, with ex cellent volume, shock-proof. Easily ottached ion ony se
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Corbon type, hand held, ldeal for parties-cuts in on broodeasts ond permits person to tolk or sing through rodio speaker. Button type switch curs mike in and out of broadcast. Simple to instoll. Completely shockproof. Groy hammertone finish. Complete with 9 ft . card. . $\$ 1.911$
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Start your novice experience by building your own code practice oscillator. Unit is easily constructed using only basic tools. Uses 12AX7 or 12AT? tube. Plugs right in Mis cotolen Leess key, Earhone ond Tube. $\mathbf{\$ 5 . 0 0}$


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## NEW 10-IN-1 TRANSISTOR RADIO LABORATORY KIT



BUILD ALL THESE
Sun-powered
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Now a complete radio Laboratory Kit that gives the latest theory as well as practical experience while working with the newest of electronic components, Transistor, Germanium Diode and the sensational new Sun Battery.
A Tronsistor Sun Battery powered Rodio (obtains power from sunlight): Tronsistor Rodio using flashlight bottery power; a Germanium Diode Receiver: Code Proctice Key Morse Code can be sent through any radio in the house): Wireless Home Broodcaster (broadeast through any radio in the house): Cade Practice Oscillator; Code Blinker Light; Audio Preamplifier; a Sine Wave Clipper, a useful piece of test equipment for learning more about electronies. Kit includes all necessary parts includlearning more about elecironics. Diode, Transistor, Headphone, iron core Antenno Coll, mounting boord, mounting hordware, and easy to understond 12 poí instruction book. Wt. 3 lbs
Mo. 37B374. Net Each
$\$ 8.96$
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Ease of building ond excellent per formance when completed, mokes this all new low priced transistor kit onywhere . . ideal as a bike radio. Two high quality tronsistors, germonium diade defector and matched Ferri-Loopstick antenno give excel Ferri-Loopstick antenno give excelomple volume from $4^{\prime \prime}$ PM speoker Low cost operation from single long life standard battery. Kit assembles into small sturdy lvory plostic cobinet $71 / 2 \times 5 \times 2 \frac{1}{2 \prime \prime}$. Weighs only 1 lb . 6 oz.
37B193. (Incl. Fed. Tax) \$1294 Net Each.
21B159. Battery for above. Ea. 89 c


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FOR WORLD-WIDE SHORTWAVE RADIO LISTENING AT LOWEST COST EVER
Converts any AC; AC-DC or battery radio regardless of size or original cost into a short wave set .. receives omoteur, police, ships of sea, erc., ony short wave stotion operoting between 2 and is megocycles. Requires no electrical connections, hos self-contoined bottery supply, connects to any radio by placing converter coupling device neor loop or loopstick of radio. Complete with plastic case, 3AS tube, 3 varlable condensers, set af plug-in coils, everything needed (except botteries) includ-
ing step-by-step easy instructions. No. 37B376. Net Each.
$\$ 9.95$
Battery KHt for above
No. 21 B167. Per Kit.

## POPULAR ARKAY HI-FI KITS TRUE HI-FI 5-WATT AMPLIFIER KIT



Unparalleled in performance and simplicity of construction! This low price amplifier kit features full 5 watts of unusual tonal realism with low hum and noise level and o frequency response of 20 to 18,000 cycles $\pm 1.5$ db . Noth only interesting ond educotional to build but hours of listening pleasure will result from the finished product. Entire amplifier bullds into handsome cabinet. Complete with cage cover such as used only on high priced units. Uses 12AX7, 2-35C5, 35W4 tubes. Output to any 3-4 ohm speaker. Step by step instructions moke building easy for even the newcomer. Wt. 4 lbs. Complete with tubes. (Price Includes Federal Excise Tax). No. 33 C38. Net Each
$\$ 12.95$


## SPECIAL OFFER! ABOVE AMPLIFIER

 PLUS NORELCO $8^{\prime \prime}$ HI-FI SPEAKER$\$ 28.00$ VALUE!
ALL FOR ONLY
$517{ }^{9}$
This deal is without comparisonl You get the popular Arkay Model FL-5 high-fidelity amplifier kit os listed above plus the fomous Norelco Model AD3800M $8^{\prime \prime}$ twin cone speaker, a regular $\$ 16.50$ list value, of $\mathrm{B}-\mathrm{A}^{\prime}$ 's sen sotional low price. Speoker specs: Hondles up to 10 watt Freg. response 75-19,000 cps. Imp. 4-6 ohms. S17.99
33 C44. Amplifier Kit and Speaker, Special.

NEW HI-FI SPEAKER ENCLOSURE KIT


## LOW IN COSTPERFORMANC

3495
Now on easy to ossemble infinite im pedonce ocoustically tuned boffle. Designed for exceptlonolly cleon oudio response $\pm 5 \mathrm{db}$ from $40-13,000 \mathrm{cps}$. When ossembled meosures $17 \times 171 / 2 \times 15$ fin
exclusive of Hollywood ished or stained to your toste. Everything is pre-cut to size-just mark and glue Takes ony $12^{\prime \prime}$ speaker or 8 "speake with adopter ring listed below. Ideol for use with $8^{\prime \prime}$ Norelco speaker in system above. Complete with all parts, naits, glue trim, insulation, grille cloth, legs and easy to follow step-by-step instructions. Shpg, wt. 29 lbs.
No. 36C41. Net Each
$\$ 12.95$ $8^{\prime \prime}$ Adapter Ring
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85 c

## LOW COST 5-TUBE SUPERHET RADIO KIT

Lgtest superhet circuit designed for and tonal quality. Covers standord AM broodcast bond 1550 to 1600 KC) using all-American tube series consisting of $125 A 7,125 \mathrm{K7}, 12507$, $50 L 6$ and 3525 rectifier. With built: in loop antenna. Small in size, $9 \times 5 \times 5^{\prime \prime}$ yet gives big set performance. Instruction monual using new sensotional 3-D Eye-O-Grom simplifies wiring so thot even the newest of newcomers moy ochieve professional results. The 3-D Eye-O-Gram consists of 3 translucent sheets each in a different color and showing one phase of wiring. Each sheet is placed $n$ its turn on the chossis for a picorial wiring gulde. In odditlon there are 16 fully illustrated pages showing grophs of each component as well as grophs of each component as well as complefed set, bosic receiver theory, everything needed from o check list when starting to a very simple means of aligning completed set without use plete with cobinet, tubes and all parts
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- Ideal kit for getting started in electroni:s.
- For individual or group in-
- A quality set when built.


## NEW EICO MODEL RAG 6-TRANSISTOR PORTABLE RADIO KIT <br> $\$>95$ <br> - All U. S. Made <br> - Migh Sensitivity and Selectivity <br> - Built-in Ferrite Loop Antenna <br> - Pre-aligned RF and IF Transformers <br> No Alignment or test instruments <br> needed.

Engineered without compromise for distinguished quality and performance yet o simple to construct that even the newcomer will be proud of the professonal performance and oppeoronce once the kit is built. Not only is it easy creative fun to build but also gives a lifetime of big set radio entertainment wherever you and your family go . . Indoors or out, on picnics, boating bicycling, strolling, motoring ... practically onywhere.
The RA-6 provides unusual sensitivity, selectivity and high undistorted sound output in a size that's just righ't for carrying around comfortobly Operating features include plonetary vernier tuning (7:1 reduction) thot makes it eosy to find and tune in stations properly; a high impedance earphone jock that eliminates the drain of the output stage when an earphone s used.
Construction feotures include plug-in transistor sockets and pre-oligned tronsformers.
Case of simulated ton leather with retractable handle. Size $81 / 2^{\prime \prime} \mathrm{L} . \times 41 / 2^{\prime \prime}$ $\mathrm{H} . \times 21 / 2^{\prime \prime} \mathrm{D}$. Battery required, Eveready 246. Shpg. wt. 3 Ibs No. 35A83. (Less Bottery). Net Each
$\$ 29.95$ As above but factory wired ond tested, less battery No. 35A84. Net Eoch


NEW 3-TUBE AC-DC 2-BAND RADIO KIT
$\$ 14{ }^{23}$

- Simple to build.
- Uses modern miniature tubes.
- Big $31 / 2$ speaker.

Here is a professional two band radio klt designed for the beginner in rodio. Provides the apportunity to When built furnishes a high quality broadcast ond shortwave band rodio Up to date circuitry utilizes modern miniature tubes. Covers frequencies (broadcast bond) 550-1650 KC and (shortwove) $3-13 \mathrm{MC}$. Panel is finished a beautiful grey hommertone using I eoch $35 \mathrm{~W} 4,50 \mathrm{C} 5$ and 12 AU 6 iubes Supplied with simplified easy to fotlow pictorial ond schemotic diagroms Complete with all ports including $31 / 2^{\prime \prime}$ speaker (less tubes). Shpg. wt. lbs. Mfg. list \$22.00.
$\$ 14.23$
No. 37 B301. Tuse Kif for above. Net

## NEW TRANSISTORIZED CODE PRACTICE OSCILLATOR AND MONITOR

serves os code proctice oscillator and phone-CW monitor without making any changes. Bullds into smoll two-piece sain finish copper case. Avallable as Kif or
 No. 33 A139. CPS-MTK Kit. Net Eoch
$\$ 4.85$

35.75

5-TUBE COMMUNICATIONS RECEIVER KIT
PHILMORE
MODEL
CRSAC
$\$ 87.75$ Wired

Includes
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Covers oll Freq. 550 KC to $30 . \mathrm{MC}$ in 4 bonds.
Built-in colibrated S -meter.
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Full eleetrical bandspread on eoch band.
Transformer-operoted power supply.
Positively surpasses all other all-band receiver kits on the market at any where near this low price.
Professionally engineered by Philmore, one of the oldest names in rodio kits, to meet the exacting requirements of the present day amateur, novice, hom and short-wave listener.
The-Model CRSAC features-A highly sensitive five-tube lincluding rectifier) superheterodyne circuit with individual adjustable coils for each band. Built-in calibroted S-meter emplaying its own.driver tube. Transformer operated power supply for sofe shockproof operotion. Four-band aperation covering all frequencies up to 30 megacycles including amoteur bands from 10 to 160 meters. A built-in BFO with fully adjustable tone control for optimum CW reception. Built-in speaker with heavy magnet fully protected and top-mounted so that receiver can be ploced between additional gear. Input lock for external $Q$ multiplier when desired. Front panel controls include : a full range RF Gain Control, incorporating on AVC on-off switch; function selector for phone or CW reception, with standby position for use while transmitting; large no-sllp bandswitch knob; bandspread calibrated from ornal speaker or earphone Th mounted phone jack for ex$6 A Q 5$. Size 15 n'" $^{\prime \prime} \mathrm{W} . \times 6$ 名" $\mathrm{H} . \times 10^{\prime \prime} \mathrm{D}$.
Complete Kit with Tubes ond Instruction Baok, less cabinet.
No. 37A37. Model CRSAC. Shpg. wf. 12 lbs. Net...
$\$ 49.95$
Beoutiful Gray Wrinkle All Steel Cobinet for above.
$\$ 9.45$ No. 37 A38. Shpg. wt. 5 lbs. Net. Model CR5AC. Communication Receiver as above wired and tested in Cabi-
net. Shpg. wt. 17 lbs.
No. 37 A 40 . Net. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 87.75$ net. Shpg. Wr. 17 lbs.
\$87.75


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## 2-WAY Radio TELEPHONE

\$39995
No tests, no speciol technical skill required. Just fill out FCC form enclosed with each Philmore KHt, ond send to Federal Communicotions Commission.


Brand new kit so designed that anyane can bulld it without previous electronic knowledge or skill! Through the use of self-explanatory pictorial diagrams, clear step-by-step instructions and carefully selected components, proper operation on any of the 22 authorized channels is virtually assured upon completion of the kit.

- Any three desired channels may be automatically switch-selected from the front panel (crystal for one channel supplled)
- Interchangeable power supplies allow 6 and 12 volt DC operation from cigarette lighter socket or 110 V . AC operation in fixed locotion.
- Sensitive super-regenerative receiver gives clear reception on weak signals as low as 1 micro-valt.
- 5 tube circuit allows legal maximum 5 watt transmitter power.
- Works with Model TCI5 Whip Antenna or any other 52 ohm coox fed Citizens Band Antenno.
Kit supplied with tubes, one chonnel erystal, mierophone, cobinet isize $10^{\prime \prime}$ W, $\left.41 / \mathrm{m}^{\mathrm{H}} \mathrm{H}, 107 / \mathrm{g}^{\prime \prime} \mathrm{D}.\right)$, Instructions for ossembly. Wt. 15 lbs . $\$ 3$.
No. 35A432. TC612. Kit for 6 \& 12 V. DC. Eoch
$\$ 44.49$
$\$ 4.50$
No. 35A433. TCl5. Whip Antenno. Eoch. . $\$ 4.50$


## SEE PAGE 124 FOR CITIZENS BAND ANTENNAS,

PAGE 118 FOR OTHER CLASS "D" CITIZENS 2-WAY RADIOS

# PHILMORE CITIZENS Z-WAY RADIO KITS IN MODULAR FORM- YOU BUY ONLY AS MUCH AS YOU NEED AT TREMENDOUS SAVINGS 



## CITIZENS BAND TRANSMITTER KIT

- Small sixe -only $3^{\prime \prime}$ H. $9^{\prime \prime \prime}$ W., $8^{\prime \prime}$ D., with swivel bracket for mounting under dash or as a tilt stand on desk. ch. 12 supplied. Tune up mefer on cantralled channels. Crystal for input or relative power output. E Separate optional pawer supplies. Complete versatility for 12 V . mobile or 117 V . AC fixed operation.
- Professionally designed throughout. Fully meets FLC regulations. Operates at legal 5 watt power input with high efficiency and low battery drain. $100 \%$ plate modulated. 3 tubes, $6 \mathrm{CX8}$ crystal oscillator and neutralized RF power amplifier, 12AX7 speech amplifier, 6AQ5A modulaton. Easily ossembled and wired; full instructions supplied,
Madel CT-1 Transmitter Kit. With cabinet, handle bracket, microphone, tubes and erystal for channel 12. Shpg. wf. 7 libs.
tubes and erystol for channel 12. Shpg. Wf. 7
No. 35A172. Net Eoch...............................
Foctory Wired and Tested CT-1 Tronsmitter.
No. 35 Al73. Shpg. wt. 7 lbs. Net Eoch
$\$ 39.95$
rystals for ather channels. Specify channel or frequency
No. 50A98. Eoch.............................. $\$ 2.95$ 5 For.................................. $\$ 13.75$

Now you can build this value-pocked and feature-loaded camplete citizens and stotion for your oufo, or hame perience ond perience and pleosure in the borgoin.
(1) Transistorized 12 Volt DC Kit. Furnishes 300 V . DC @ 100 MA choke filtered. Size $4 \times 5 \times 5^{\prime \prime} \mathrm{H}$. With transistors, diodes, detailed assembly instruetions, Wt. 7 lbs.
No. 35 Alif9. CPM-1 Kit. Net Each. Foctary Wired and Tested CPM-1 Mabile Power Supply. No. 35 Al 80. Shpg. wt. 7 lbs. Net Each

## CITIZENS BAND(And 10 METER)CONVERTER KIT

- Dauble-conversion superhet reception. Used in conjunction with your regulor outomobile or home radio with all funing done of the rodio. Radio push-buttons con be pre-set for specific CB channels. Requires only simple antenno connection to set, has panel switch for refurning radlo to regular operation. Two tube circuit uses 6 BH 6 RF amp., 6 U 8 asc . mixer.
- Crystal contralled for utmost stability on CB channels. Optional plug-in crystal also allows tuning 28.5 to 29.5 mc 10 meter band.
- Extremely small size- $2^{\prime \prime}$ H., $6^{\prime \prime}$ W., $5^{\prime \prime}$ D. with swivel mig. bracket.

Model CC-1 Converter Kit. With cabinet, swivel-handle bracket, tubes, CB crystol (only one needed for all 22 chonnels) and complete wiring instructions. Power supplies below furnish all operating voltages for both transmitter and converter. $\$ 17.95$ Foctory Wired and Tested CC-1 Converter. Foctory Wired and Tested CC-1 Converter. 10 Meter Amotegr Band Converter Crystal. \$24.95 No. 35A176. Type CC-1000 9316 KC. Net Eoch.

## POWER SUPPLIES WITH INTERNAL ANTENNA CHANGEOVER RELAY

(2) 115 V. AC Operoted Kit. Comporison unit for home-base operation of CT-1 and CC-1. Output 300 V . DC @ 100 MA . Uses silicon diode rectifiers. Size $4 \times 5 \times 5{ }^{\prime \prime}$ H. Wt. 7 lbs. No. 35 A177. CPA-1 Kit. Net Each
$\$ 21.75$
Foctory Wired ond Tested CPA-1 AC Power Supply.

AM-FM RADIO OR AM RADIO PLUS INTERCOM THROUGHOUT THE HOUSE

(1) AM-FM Radio Master

(3) Deluxe AM Rodio Master

More versotile thon ever. Individuol pockoging ond pricing of Moster Unit and separate components permits eustomizing ony installotion to meet your requirements. Choose the moster you wont, pick the number and type of remotes you need. Purchose only the wire you'll use ond you hove a customized system

## \$4 4 06 MFG. © MODEL 2057 AND 2058 LIST $\$ 151.50$ AM-FM <br> RADIO MASTER UNIT

New powerful moster with AM-FM Rodio permits moking up system with up to 10 femote stations. Feotures large $8 \times 4^{\prime \prime}$ speoker MASTER is heort of system which may converse with one, several or all of the remote sfotions. Unique feature is the switchboord type operation. It may "set up" any two or more remiotes for direct communication with eoch other. The "Monitor" feature enables the Moster as well os one or more remotes to monitor (listen in) ony other locatlon. Crying from baby's room ond the children ploying in the yord (with outside remote) may be heord on powerful 8 tube incl. rect. plus transistor rodio and intercom allows listening to rodio while monitoring other stotions. Thus radio can be ployed and baby erying of conversation can still be heard. New slim-line design permits use in $2^{\prime \prime}$ walls. Transistor in intercom circuit plus transformer powered omplifier ossures hum free, noise free operation. Other Master Ponel Controls-tone, system volume, FM-AM radio selector switch, illuminated dials with tuning knobs, 10 slide remote selector switches and high impedance input for phonograph or tape recorder-allowing fovorite records or topes to be played over entire system. Moster box size $73 / 8$ $H \times 141 / 2^{\prime}$ W. Comes complete with rough-in box. Choose remotes of right plus length of 3 conductor wire needed to each remote.
Model 2057 Silver anodized AM-FM Moster Uni
No. 36 C 152 . Net Eoch..... $\$ 111.06{ }_{\text {Each }}^{2}$ Lofs,
Model 2058 Copper Anodized AM-FM Master Unit Mfo list... \$150.97 No. 3ticis3. Net Eoch................. $\$ 111.06$ Master Unit. Mfg. list 2 Lots, Each................ $\$ 100.97$


## L71 "ELECTRONIC" BUILT-IN OOOR CHIME

 loying chimecrly with Nutone Rodio-intercom Systems, re- ndependently os chime when intercom system is turned off. Two notes front door, one note rear and odjustable volume control. Gold onodized bezel with Ivory Grille. Bezel $718^{\prime \prime}$ $101-0 \mathrm{E}$ transformer included. Mfg. list $\$ 16.95$. $\$ 12.12$ No. 36A124. Net Eoch

L70 "DELUXE ELECTRONIC CHIME"
More deluxe surface mount chime. Operotes in some manner as $L 71$ but with 8 or 4 notes front door, one note reor door different note 3rd door. Transformer included. Mfg. list \$34.95
No. 36A104. Nef Eoch
$\$ 24.40$
ALL TRANSISTOR HOME INTERCOM SYSTEM


COMPLETE 5-STATION SYSTEM

${ }_{52^{30}}^{50}$

- Requires no AC
- Run wire only to coch remote.
- Operotes for months
on 9 V . bottery.
- Absolutely-no-shock or fire hazord.

A completely tronsistorized flush-wall intercom system. Provides room to roam communication from moster to remotes or from remotes to remotes. Additional feature permits one or, more rooms to "monitor" any other room or rooms for "boby sitting," listening in on a sick potient, etc.
Long battery life is assured by the fact that when master "talk-listen" switch is in "stondby" there is no current drain. However any remote may still call the moster by pressing his "tolk-listen" switch which causes "beep' tone of the master
Five selector switches of the master panel enables the moster to select any or several of the remote stations by setting the proper switches to elther "on" position or to "monitor." Complete system: master 3 indoor remotes, door remote, 200 ft . 3 -conductor cobie, alf rough-in material. (Less bottery). 5th switch position permits odditional remote to be added see
below.
No. 36C159. List $\$ 69.95$. Net
$\$ 52.50$
No. 21 1137. 9 V. Battery for above. Eveready 276
$\$ 1.26$
Extro Imdoor Remotes with box, for above systêm. Size $61 / 4 \times 43 / 4$. $\$ 5.25$

# TOP-QUALITY UNTERCOM SYSTEMS FOR EVERY NEED 

## MASCO "Wireless-talk" INTER-COMMUNICATOR

 no Wires! no cables! no installation!

JUST PLUG INTO
ELECTRICAL OUTLET
ELECTRICAL OUTLET!

- Ideal for home, form, resrauront, institution, office - Beautiful portoble styled cose with easy carrying hondle.
- Take it anywhere-use it anywhere, inside or out. Even works between adjocent buildings.
FULLY U/L APPROVED
Complete Two Unit System for Instant two-way communication in home or business wherever two-station intercom system is needed. Also perfect as silent baby sitter or nurse for the sick. Requires only 115 volt outlet. Eoch unit is a complete electronic transmitter-receiver operating on an interferto listen frequency of 200 KC over your electric wires. Press to talk, release to listen switch plus position for constont listening. Size $10 \times 5 \times 7 / 4$. . For
$105-125$ volt, $50 / 60$ cycle AC/DC operation. Shpg. wt. 12 lbs.
No. 36 B 123 . Two Unit System. Mfo. List Price $\$ 88.60$. Net.... 80.96

MASCO IJM FOR 2 TO 10 STATIONS


ALL-MASTER OR MASTER-
TO-REMOTE SYSTEM

A.ll Master System-Consisting of from 2 up to 11 -IJMIO Mosters, no Remotes, permitting up to 5 pairs of private conversations of one time. Any Master can call any other Master in system even though station called has power off. Controls: Station Selector, Volume Control with AC Switch and press-to-talk Switch with lock-in feature for baby sitting, dictation, sick rrom, etc. Coble required: 1-conductor more than No. of Masters in system to interconnect all Mosters.
Master-Remote System-Consists of 1-IJM-10 Master and from 1 to 10 Model JR Remotes. IJM10 Master unit can call at will any Remote in sys. tem or all simultaneously. Remotes call moster by pressing call bor; can answer Master of distonces to 20 ft . from Remote. For privacy of Remote simple instructions furnished to alter, so pressing of call bar is necessory to onswer Master. 3 -conductor coble (listed At Right) required trom Master each Remote.
1JM-10 Moster in dark mahogany cost aluminum case. $4^{\prime \prime}$ Alnico 5 Speaker has 13 ohm voice coil. Uses $1-12 A \times 71-50 C 5$, and $1-35 W 4$ tubes. Operates
 Ho. 36A206. IJM-10 Master. Mfg. List $\$ 63.75$. NET EACH


MASCO ECONOFONE FOR 2 TO 6 STATIONS
MASTER-TO-MASTER OR
MASTER-TO-REMOTE SYSTEMS


All Moster System consisting of 2 up to 6 Masters, no remotes, permit ting up to 3 pairs of stations to converse at one time. Master can call and talk with ony other Master or group of Masters at one time. Any Master con call ony other Master in system even though station called has power off. Ample room volume. Master has volume control with on-off switch, talk-listen switch and 5 individual station selector switches. Coble required: 1 -Conductor more than No. of Masters in system, to interconnect all Masters See Cable listing (At Right).
Master Remate System-Consists of 1 Moster and from 1 to 5-REW Remotes. Master can call and talk to any remote or any group of remotes at one time. Remotes call Master by pressing talk-listen switch; can answer Master of distance to 10 ft . from Remote. Use 3-conductor cable (listed (At Right) from Master to each Remote.
Econofone Masterhoused in light brown hammertone steel cabinels. $4^{\prime \prime}$ Alnico 5 Speoker has 3.2 ohm voice coil. Uses 1-12AX7 1-50C5, and 1-500C4 tubes
 No. 36A204. Econofone Moster. Eoch.


## SLEEK, MODERN DESIGN FANFARE TWIN

Consists of Master that requires only "plugging-in" to any 115 -volt DC or nections through the 50 tule connections through the 50 ft . cable (supplied) to the Remote
${ }^{5} 20^{95}$
MFG.
LIST \$27.95 presto . dependable, low cost 2 way private ar non-private intercommunication for any need in hame or business. Used os Nurse-Baby sitter, Remote can be left "oden" to pick up all sounds in children's room or
sick room! Remote can be "closed" sick room! Remote can be "closed" any call from the master. Remote may coll the Master at will-and can answer calls from the Master unit from a distance, without having to oper ote o press-to-talk switch. 2-Tube plus Rectifier Master Unit hos on-off switch, Volume Control pilot light, press-to-talk switch and 6 ft . AC cord. $31 / 2$-inch Alnico "V" speakers in both Moster and Remote have standard 3.2 ohm voice coils. nets $8^{\prime \prime} \times 4^{\prime \prime} \times 4^{\prime \prime}$ high. Tan ename cabinet with white panel. Shpg. wt. 6 lbs.

36B30. FX-2 "Fanfore Twin" Complete Intercom System
MET LACH


A COMPLETE 2-STATION U/L APPROVED INTERCOM "PACKAGE" SYSTEM READY TO INSTALL AND OPERATE IN A "JIFFY

## FANON INTERMIX SYSTEM

## THE MOST FLEXIBLE DESIGNED FOR THE THREE MOST AND VERSATILE INTERCOM SYSTEM ON THE MARKET U



These Fanon Units offer the most vepsatile intercom systems possible. For on All Moster System use up to 12 Masters.
For on All Master System use up to 12 Masters. For a Master-Remote System use one master and up to 11 FC remotes.
For a Master-Remote-Intermix System-each master can occommodate For a Master-Remote-Infermix System-each master can occommodate up
to 11 stations in any combination of masters and remotes. Use FC- 6 to 11 stations in any combination of masters and remotes. Use FC-6 remote when more than one mastar station is to be contacted. FC remote

FIM-12 MASTER
FIM 12 Master has volume control, AC On-Off switch, 12 station rotary selecor switch with stand-by position, talk-listen switch with spring return and dictate position for extended talking. Eoch moster must be powered from $110-120 \mathrm{~V}$. AC or DC. Speaker is $31 / 2^{\prime \prime}$. Alnico $V$ with 3.2 ohm voice coil. Power output is $21 / 2$ wotts. Tubes $12 \mathrm{AG}, 50 \mathrm{C}$, , and $35 \mathrm{~W} 4, \mathrm{NE}-2$ neon pilot lamp indicates when unit is on. Size $8 \times 4 \times 4^{\prime \prime}, w^{\prime \prime} .33 / 4$ lbs. Cable re. quired in all master hook-up is one more conductor than number of masters No. system (see wire listing below). Mfg. List $\$ 44.95$. U/L APPROVED. No. 36B27
Net Eoch
$\$ 26.43$

## FC REMOTE

FC Remote has call switch and can call master of will, can be installed for private or non-private operation. When private the FC must use its call switch to converse, but cannot be eavesdropped upon by Master. When its switch: but uses call-switch to originate calls to its master. The FC cannot talk to other remotes. If so desired the FC moy be installed so that call-switch is inoperotive. In this service (baby sitting, stock rooms, etc.) the remote connot originate calls. Remote FC does not require AC power. Uses $31 / 2^{\prime \prime}$ Alnico $V$ speaker. Size $8 \times 4 \times 4^{\prime \prime}$. Wt. $21 / 2$ lbs. Cable required in moster to remote system is 3 conductor from master to each remote with inating feature. (See wire listed belows to each remote without coll origNo. 36B28. Mfg. List \$13.25. FC Remote. N

FC-6 REMOTE
$\$ 7.81$
The FC-6 has a call switch and 6 position selector switch which can call up to 6 different Masters. In connecting up intermix system, Master connected Remotes require 3 conductor il with shield) to eoch Moster. 1173

## No. 36B29. Mig. INTERCONNECTING CABLE

## 2-Conductor twisted for master to remote without call originating feature. No. 2A94. Per Ft............................2c $100 \mathrm{Ft} . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ \$ 1.80 ~$

 7 -Conductor coble with vinyl jacket overall for up to 6 station all-master
 13-Conductor cable with vinyl jacket overall for up to 12 station all-master system or 1 master with up to 11 remotes.
No. 2B178. 100 ft .

FC-6 one length to each of its masters required



# THE AMAZING NEW TRANSISTORIZED LOUDSPEAKING ATTACHMENT 

## FOR 2-WAY TELEPHONE CONVERSATION WITHOUT THE USE OF HANDS



Allows everyone in the room to hear or speak over the phone with perfect clarity A valuable asset and convenience in business offices for conference calls, in shops or offices to free your hands for other tasks while you talk, in homes, sick rooms, kitchen, bedroom ... almost everywhere.
Completely portable, transistor and battery powered, requires no installation of any kind. In use, the telephone hondset is placed on top the unit much like returning the handset to the normal telephone crade. Automotically the transistor amplifler turns on providing room volume for everyone to hear. Has extension speaker and adjustable volume control. When conversation is completed, the phone is simply returned to its normal position.
Cose is durable break-resistont block polystyrene plastic. Uses 4 standard Cose is durable break-resistont block polystyrene plastic. Uses 4 standord penlight cells, less batterles. Shpg. wt. 4 lbs. Mfg. list $\$ 29.95$. $\$ 22.50$
No. 36 Cl 61 . Net................................................................ No. 21A3. Penlight Bottery. Net Eoch

NEW PORTABLE MEGAPHONE


- Sehools - Sports Events - Cheer Leoders Construction Crews - Industry Porking Lots Comps Lifeguords Boot Owners - Police Fire Deportments - Civil Defense - Publie Goth-

Now at a cost everyone can afford, a compact portable hand megaphone, designed for long trouble free operation. Powered by four standard flashlight batteries it has an approximate range of 300 yards, depending on noise level in area. "wo power." Light in weight, only $31 / 4 \mathrm{lbs}$., yet durably constructed of aluminum finished In baked enamel. Easy to carry around the neck with convenient strap Si $61 / 2^{\prime \prime} \times 121 / 2^{\prime \prime}$. Load current: 6 volts at 200 MA. Shpg. wt. 6 lbs. No. 36A19. (Supplied less batteries.) Net Each.
\$29.95
NEW MAJ-I-NOUNCER I5-WATT TRANSISTORIZED PORTABLE PUBLIC ADDRESS SYSTEM


100's of APPLICATIONS

- Bottery-operoted
- "No is onywhere!
- "No Hands" operotion permits
complete frecdom of octivity.
- Weighs only $61 / 4 \mathrm{lbs}$

Perfect for group instructions and octivities, othletic cooches, ouctioneers, construction crews, contest judging, field demonstrations, fairs, ex hibitions, fire departments farm use forestry service, Ilfe guards, militory, plant tours, police work, sofety patrol, summer camps ond hundreds of other applications. Baom type microphone plugs in and leather neck strap permits hanging unit from neck leoving hands free. Long battery life, 50-100 hours overage use. May be powered from 12 volt car battery if destred. Use odaptor cord listed below. Sturdy gray hammertone finish. Weatherproofed. (Less Battery) No. 36C195.
$\$ 99.50$
No. 21 Al6. 2780 Bottery for obove. $\$ 2.37$ No. 36C196. Cigorette Lighter Adop. tor. Net....................................... $\$ 1.49$

# $\$ 5460$ 20-WATT BOGEN CHALLENGER AMPLIFIERS <br>  <br>  <br> front panel for easy accessibllity. Negative voltage feedbock circuitry. - Separate Bass and Treble controls. Constant voltage and balanced line outputs in oddition to stondord output impedances for easy matching and balancing af speakers. New spreamlined designs, dressed in a neutral tan tone, blend with any decor. Block ponel, ton knobs with etched silver skirts. 

- Bogen Challenger Amplifiers hove been designed to meet the requirements of most public address applications. Engineered for hours of continuous operation with a minimum of malntengnce
Every Challenger Amplifier has these outstanding teatures


## 20-WATT MEDIUM POWER

Uses 5 tubes: 2-6V6GT, 1-6AX5GT, 2-12AX7 in negative feedbock circuit to produce full 20-wotts pcwer output with frequency response of plus or m nus 2 db . $30 / 15,000 \mathrm{cps}$. Inputs, microphone with gain of 120 db , and phono with gain of 76 dt. Outputs $4,8,16$ and 245 ohms and 70 volt lire. Other features described above. Terminal st ip and two plug-in sockets for speakers; in stzel cose with carrying handles. Size $141 / 8 \times$ $8 \mathrm{~T} / 2 \times 103 / 4^{\prime \prime}$ high. Wt. 20 lbs. for operation on $105-125 \mathrm{~V} .60 \mathrm{cy}$. AC. With tubes and instructions. Mfg. list \$91.00.
No. $33 A 235$. "Chollenger"
CHA20 AmDlifier $G$ Tubes.
$\$ 54.60$ No. 33 B2.62. CHA20 Amplifier os listed above
w th 3 speed Phono Top. Net..................... $\$ 73.50$

## 33-WATT PA AMPLIFIER

A quality amplifier with outstanding features and specificatlons thot speak for themselves. Has 2 Microphone Inputs at gain of 120 db each and Phono input at gain of 83 db. Frequency donces of $\frac{ \pm}{4}$ db $30-150$ ohms ond constont voltoge output of 70 volts; push-pull output with negotive feedback circuit provides output stability. Tubes: 2-6L6GC, 2-5Y3GT, 2-12AX7, 1-6AV6. Output terminal' strip with two speaker plugs, fused $A C$ line. Individuol input goin controls. Steel coge $141 / 8 \times 81 / 3 \times 61 / 2^{\prime \prime}$ high recessed handes. liserotes. No. 33A236. "Challenger"
Model CHA33 Amplifier. Net....... $\$ 69.00$ No. 33 A244. CHA33 Amplifier os listed obove with 3 -Speed Phono Top. Net os


NEW BOGEN 25 WATT TRANSISTOR PUBLIC ADDRESS AMPLIFIER

## - Provides 25 watts from a 12 volt bottery

- Tokes microphone plus a program source-record ployer, radio tuner or tape deck.

The first commercially available, fully transistorized public oddress amplifier offering 25 watts from a 12 volt battery. So versotile it will serve scores of PA applications. . so small it will fit in the glove compartment of a car. The perfect amplifier for use in cars, trucks and buses for regular public address or emergency use. 25 watts of power make it ideal for fire deportment or police use, for disoster work and civil disturbances as well as boats, carnivals, electioneering amplifier is needed. Unique fransistorized
lioble PA and eircuity provides maximum power with minimum battery drain. When opEroted from 12 volt battery, the draln is approximately 3 amperes, when opfroted from 6 volts, output is 6 watts ond bottery drain is only 1.4 amperes. here are no rubes to burn out, no vibrotors to reploce and if is completely hum-free. Guaranteed one full year by Bogen. Frequency response is oppimized $0 \%$ moximum inteligibily- 400 eps : microphone Gain. auxiliary goin: on off: 6 volt-12 volt selector (inside chassis). Inputs (2) low imp microff; 6 volit-12 voit selector (inside chassis) inputs hin imp. . Wh. phone; oux. Ituner, tape, ph
No. 36 339. Net Each
$\$ 72.00$

NEW B-A 25 WATT ALL-TRANSISTOR (a) MOBILS

Operates from 12 volt DC source. Plugs into car clgarette lighter receptacle. Ideal for sound trucks, picnics, outdoor meetings, boots, planes or anywhere AC
Specifications: Power oupput 25 wotts. Frequency response $\pm 2 \mathrm{db}$ 80 to 12,000 cyeles. Controls: microphone, phano, bass, treble ond power. Output: 4,8 and 16 ohms. Input sensitivity: microphone .0001 volt of $50-150$ ohms. Phono 2 volt high impedance. Noise level: phono -80 db and microphone -60 db below roted output. Current drain: idle $.43 \mathrm{amps} ; 3.5 \mathrm{omp} @ 12$ volts DC of full power. Other features: low impedance microphione connector; fused. Size: No. 33 iAlob. Less Phono Top. Net
$\$ 72.87$ No. 33A107. 4-Speed Phono Tod for above. Net.

BOGEN CHALLENGER 33-WATT PORTABLE SYSTEM
EXTREMELY VERSATILE . .. PERFECT FOR DANCE BANDS,
SCHOOL FUNCTIONS, ROAD SHOWS, THEATRE GROUPS


- Completely selfcontoined
- Heovy duty 12 speokers.
- Quality Electro-

Voice 664 Mike.
Designed for medium power applications; this deluxe quality system will handle most of the portable public address needs. Complete system is easily carried in single carrying case. Break away carrying case houses 2 top quolity heow duty $12^{\prime \prime}$ PM speakers, each with $25^{\circ}$ coble and plug. Mike stand is fine quality floor stand of high-gloss double chrome plated brass. Easily odjustoble from 35 to $64^{\prime \prime}$ in height with weighted $10^{\prime \prime}$ dia. bose finished in baked wrinkle enamel. No. 33A233. Complete 33-Wott
Portoble System. Net
$\$ 149.95$
No. 33 A 234 . Portable System os listed obove
$\$ 168.85$

## 33-WATT DELUXE INDOOR SYSTEM

An outstanding system for medium power appllcations. Perfect for averoge-sized school auditoriums, churches,
etc. System includes Bogen Challenger CHA33 33 -Wati Amplifier, Two $12^{\prime \prime}$ heovy duty PM Speakers, Two solld woinut furniture finished Baffles; Electro-Voice 664 Dy namic Microphone with 18 f . coble. High quality floor mike stond odjustable from 35 to $64^{\prime \prime}$ in helght. $50^{\circ}$ coll of speoker wire with 2 connecting plugs. Amplifier design permits adding one more microphone plus odd
tion of phono, tuner or tape recorder. tion of ohono, tuner or tape record
33 A 240 . Complete Indoor System...
\$154.95
$\$ 173.85$
 No. 33A241. Indoor System os listed obove with 3 -Speed Phono Top. Net

## ADD AUTOMATIC RECORD CHANGER TO ANY SYSTEM

Fomous-moke Record Chonger mounted in luggage type corrying case. Plugs into any amplifier or PA System to give more thon four hours of uninterrupted progrom material from a stock of ten twelve inch LP records. Plays, all sizes, and all 4 speeds,
intermixes $10^{\prime \prime}$ and $12^{\prime \prime}$ records; 45 RPM intermixes ovale ovalabe; ploys manually or automofically. Equipped with fomous make furnover cartridge with dual sopphire stylus for trouble-free service. Complete with $6^{\prime}$ line cord ond $72^{\prime \prime}$ phono connector córd and plugs. Wt. 17 libs. Net. S 39.95
$31 \mathrm{C} 237, \$ 64.95$ value. 22A352. 45 RPM Automatic Spindle. 51.82

##  <br>  <br> \$4167 <br> 20-WATT AMPLIFIE:


${ }^{5} 51^{60}$
30-NATT AMPLIFIE


## $\$ 80^{97}$ AMPLIFIER



## FOR THE BEST BUY IN SOUND SELECT FROM B-A'S OWN QUALITY AMPLIFIERS

## GUARANTEED ONE FULL YEAR AGAINST DEFECTS IN MATERIALS AND WORKMANSHIPD

The answer to every sound installation is in the selection of the proper amplifier for the porticular job. These B-A amplifiers and the systems on poge 109 offer complete flexibility, excellent response and eosy installation to cover
any sound problem in industry, office or home. Economy, modern styling plus fomous B-A full year guarantee assures you more from your Sound Dollar at B-A

## B-A's 10-WATT PA AMPLIFIER

Ideal for store demonstrations, ouctions, clubs churches, offices, clossrooms, efc. Full 10 watts of power for improved performance sufficient for 2-12" speakers. Separate volume controls permi mixing microphone and phono. Has two speake outpuit sockets
Specificotions: Tubes 12AX7, 6L6GC, EZ80/6BW4 rectifier. Peak Power 12 watts. input goin: mi* crophone 105 db , phono 65 db . Freq. resp. 40 to
$10,000 \mathrm{cps} . \pm 1 \mathrm{db}$. Controls: micropione, phono tone, power off-on. Inputs: 2, 1-microphone and 1 -phono. Oufpul impedonces: $4,8,16$ ohms and 500 ohms 170 volt linel. Hum ond moise: 60 db below rated output. Power consumption: 70 watts, $110 / 120 \mathrm{~V}$. AC. 60 cps. Sizz $101 / 2 \% \mathrm{~W}$ $51 / 2^{\prime \prime} \mathrm{D}, 6^{\prime \prime} \mathrm{H}$. Shpg. W. 12 libs. $\quad \$ 29.10$ No. 33A1 28. Nef Eoch (With Tubes)

## B-A's 20-WATT PA AMPLIFIER

Meets power requirements of chapels, clubs, schools, restourants, industrial plonts, orchestras paging systems. Ample output for 4-12" PM speakers. New improved circuif using 2-6BO5/EL84 high output tubes gives wide range frequency response. Covers up to 50,000 square feet when used with trumpet type speakers. Finished in baked hammerloid enamel coge.

Specificotions: Tubes: 2-6EU7, 2-6BQ5/EL84, 1EZ80/6BW4 (rectifier). Input Goin: microphone 120 db ; phono 80 db . Freq. resp. 30-15,000 cps $\pm 1 \cdot \mathrm{db}$. Tone controls: bass $\pm 15 \mathrm{db}$ of 50 cps . treble $\pm 15 \mathrm{db}$ of $10,000^{ \pm} \mathrm{cps}$. Power oufput 20 wotts. Inputs: 2, 1-microphone ond 1-phono. Outpuf impedonces: $4,8,16$ and 70 volt line
( 250 ohms). High impedance output sor coupling booster amplifier. Hum level 68 db below roted output. Controls: 5; microphone, on-off, bass treble, phono. Power consumption! 75 wotts, 117 trolts 60 cycles AC . Size $14^{\prime \prime} \mathrm{W}, 8^{\prime \prime} \mathrm{D}, 6^{\prime \prime} \mathrm{H}$ Shpg. wt. 17 lbs.
No. 33 N 129 .
(With Tubes less Phono Top)
$\$ 41.67$
4-SPEED PHONO TOP for obove 20-wiott Amplifier. Attaches easily and quickly. Wi-h constant speed motor, turnover cartridge for ploying 78 45, $331 / 3$ and 16 RPM records, two liong lasting needles, arm rest and plug connection for 117 volt 60 cucles.

No. 33A156. 4 Speed Phono Top. Net.
$\$ 17.80$

## B-A's 30-WATT PA AMPLIFIER

So powerful and dependable that it answers $90 \%$ of all needs for PA Amplifiers. Perfect power for small theatres, bands, churches, stores, auditoriums, cornivals, night clubs, industrial plonts, etc. Low priced and quolity construction ossures extra profits when used in rentals. Separate boss and treble tone contiols permits adjustment to meet all acoustical conditions. Provides coveroge up to 100,000 square feet when used with trump up type speokers In eet wixin used with trump phones ond phono channels. Cobinet finished in hammerloid tan ond bungundy.
Phono top may be odded (see below).
Specificotions: 30 wotts. Freq. resp: 30 to 15,000
$\mathrm{cps} \pm 1 \mathrm{db}$. Controls: microphone-1, microphone2, phono-bass, treble, power off-on, slide switch for operating magnetic phono through channel 2 .

Output: $4,8,16$ and 250 ohms 170 valt line at 20 wotts): High impedance output for cqupling 20 wotts). High impedance output for caupling booster amplifier. Gain: microphone 125 db , phono 80 db . Hum and noise 70 db . below rated output. Tubes: $6^{\prime \prime}$ 3-6EU7, 2-6L6GC, 5U4GB. Size 14" W0 cos AC Fused Shpg. wt. 18 lbs. For 117 volt $60 \mathrm{cps} A C$
No. $33 A 130$.
No. 33 A 130 .
(With Tubes less Phono Top) Net.
$\$ 51.60$
No. 33 A156.4-Speed Phono Top for obove.. $\$ 17.80$

## B-A's 60-WATT PA AMPLIFIER

Super amplifier conservatively rated for long life in continuous operation. Ideal for large installotions such os auditoriums, halls and stadiums, factories, foir grounds, airports, rail yards, hotels, outdoor gotherings, etc. Uses popular high fidelity high power output tubes type 6CA7/EL34 for wide ronge 30-15,000 cps frequency response. Perfect for voice or music. It can be used with up ta 12 trumpet type speakers or 16 cone type $12^{\prime \prime}$ PM speakers or any combinotion of the two types.
Specificotions: 60 watts. Frea. resp: 30 to 15,000 cDS $\pm 1$ db. Controls: microphone-1, micro-
phone-2, phono, boss, treble, power off-on slide switch for operating magnetic phono through channel 2. Output: 8,16 , and 84 ohms 170 volt line ot 60 watts). High impedance output for coupling to booster omplifier. Gain: microphone 130 db . Phono 80 db . Hum and noi:se 72 db below roted output. Tubes: $3-12 A \times 7,7-6 C^{\prime 2}$ do
$E L 34,2-5 U 4 G B, 6973$. Size $16^{\prime \prime} \mathrm{W}, 61,3^{\prime \prime} \mathrm{H} 10^{\prime \prime}$ D. Shpg. wt. 45 jbs . 117 volts 60 cps . AC. Fused. No. $33 A 154$. Complete with Tubes $\$ 80.97$ Less Phono Top, Net
obove
No, 33A193. 4-Speed Phono Top for obove. Net

## 30-WATT UNIVERSAL MOBILE PA AMPLIFIER

## OPERATES ON 6 AND 12 <br> OLT DC AND 117 VOLT AC

A high power comblnation 6 or 12 V . DC battery and 117 volt AC PA amplifier for sound trucks, cottle auctions, circuses, ball parks, foirs, group picnics, polifical rallies, beaches, parks, boats, planes or onywhere it is desirable to hove mobile or bottery powered operation. $D C$ to $A C$ operation is accomplished by changing "plug-in" power cables. Change 6 to 12 volt $D C$ operationtby switch on top of chassis. Features separate boss and treble controls for correct attenuation or boost os required. "Economizing" switch euts battery drain while amplifier is on "standby." Specifications: 30 watts output, freq. resp. $\pm 2$ db 30-15,000 cps. Contrals: microphone-1, micro-
phone-2, phono, bass, treble, off-on switch for battery, combination off-on AC and standby switch for $D C, 6-12$ volt function switch. Output: $4,8,16$ and 250 ohms 170 volt lirie of 20 watts): Goin: mierophone 125 db . Phono 80 db Hatts) and noise: 70 db below rated output (AC Hum and noise: 70 db below rated output (AC
operation). Tubes: $3-12 \mathrm{AX} 7,2-6 \mathrm{~L} 6 \mathrm{~GB}, 2-6 \times 5 \mathrm{GT}$.
 . $10^{\circ} H_{i} 10^{\prime \prime} D$. Shpg. wt. 33 lbs No. 33A142. Complete with Tubes Less Phono Too. Net
$\$ 82.92$
No. 33A193. 4-Speed Phono Top for obove.
Net ..................... $\$ 19.84$

# SAVE S\$S ON PA SYSTEMS AT B-A: <br> (1) B-A 2-SPEAKER 20-WATT FIXED SYSTEM <br> <br> (1) B-A 2-SPEAKER <br> <br> (1) B-A 2-SPEAKER <br> <br> 20-WATT PORTABLE SYSTEM 

 <br> <br> 20-WATT PORTABLE SYSTEM}

- Shaice of lovalief, floor stand or desk-hand held nierodhone
2-Heovy duty $12^{\prime \prime}$ speakers. 2-Wolnut baffles. - 7-Speed phono top may be odded.

An exceptional value 20 watt fixed system. Beoutiful walnut boffles moke an attractive installation for affices, small dance halls, dance studias, Sunday schools, small auditoriums, meeting halls, etc. For areas up to $12,000 \mathrm{sq}$. ft. The complete flxed sys tem includes 20 watt $B-A$ amplifier (listed on page at leftl, 2-6.8 az. $12^{\prime \prime}$ heavy duty PM speakers; at left), 2-6.8 az. $2-35^{\prime}$ speaker cables and plugs; 2 walnut wooden well baffles; your choice af either the Electra-Vaice 7275 microphane with on-off switch complete with 7275 microphane with on-off switch complete with detachable base for desk roble top and 5 , attoched cord or Turner crystal microphone with $12^{\prime}$ of cable complete with lavalier bracket and strap plus floo stund mounting brocket and B-A leader value floor stind adlustable 35 ta 64
B-A 20 Wott Fixed System complete with Electro Voice 7275 Microphone (less phono top) $\$ 79.95$
No. 49A86. Nef....................................... 9.95
With Turner Microphone, lavolier accessories, floor stand brocket and B-A's leader floor stand other whe as above.
No. 49 A 87 . Net
$\$ 83.65$
4. Specd Phono Top for B-A 20 Wott Amplifie No. 33A156. Net......

## B-A's 30-WATT PORTABLE SYSTEM



A complete 30 wott portable system for $90 \%$ of a 1 public address needs. Derfect for large halls, auditorlums, gyms, churches, lecture halls, tent revivals, etc.
Features B-A's 30 watt feature-packed ampllfler (listed on page at left). twa heavy duty 6.8 oz . plug, split type carrying cose size $15 \times 17 \times 20^{\prime \prime}$ provides separate baffles for the two speakers plus convenient secure carrying case for the amplifier. Your choice of Electra-Vaice regular $\$ 85.00$ list 664 cardioid dynamic micraphone ar the new Electra-Voice $\$ 49.50$ list 951 high quality crystal microphone. Both mikes hove on-off swifh, 18 E-A's leader value floor stand adjustable from $35^{\prime \prime}$ to $64^{\prime \prime}$. Amplifier operotes from $117^{\circ} \mathrm{V}$. 60 cy AC. Shpg. wt. 74 lbs. Supplied less phono top. 64 Dynomic No. 49A94. Net. $\$ 115.39$ E.A.A's 30 Wort System with E-V 951 Crystol Mike. No. 49A95.
$\$ 99.95$


## 30-WATT MOBILE SYSTEM

 FOR 6V.-12V. BATTERY, 117 V .60 GY. AC

Provides the versatility of two systems for the prlce of one. Plenty of power far ony lob mobile, ouldoor or indoor. Covers areas up to 100,000
 Jutomobile, truck or bus sto
$110-125$ valts 60 cycles $A C$.
110-125 valts 60 cycles $A C$. 30 wott omplifier (as listed on page of left), with 4 speed phona top, 2 Electro-Voice 848 CDP projectors with $80^{\prime}$ 2 cond. cable, 1 E-V 624 lovolier mike with 18' ottached coble all ready to plug together. No. 49A82.
With 4 -speed phono-top. Net........... $\$ 199.95$ Some System os obove but with Electro. Voice 664 No. 49A83. Net
\$219.95

- Choice of lavalier or desk-ston
- Two heovy duty $12^{\prime \prime}$ speokers.

4eavy duty leatherette covered
A complete ready to operate 20 watt portable PA system featuring B-A's own 20 watt amplifier (shown on page of left). Ideal for lectures, combos, small groups, ouctions, etc. Also perfect for rentals.
rentals. 20 watt amplifier, 2 heavy duty 6.8 oz . $12^{\prime \prime}$ PM speakers each with $35^{\circ}$ cable and plugs. Portable break away leatherette covered carrying case mounts entire system for easy carrying and case mounts entire system for easy carrying and 7275 mlke. Turner mike is complete with lavalier 727 S mike. Turner mike is complete with lavalier
accessories and $\mathrm{B}-\mathrm{A}^{\prime}$ 's leader value adjustable $135^{\prime \prime}$ to $\left.64^{\prime \prime}\right)$ floor stand, for hand held, stand mounting to 64 floor stand, for hand held, stand mounting or lovalier, use. E-V 727 S mike
B-A's 20 Watt Partable System camplete with Turner crystal mierophone and accessories above No. 49 A84.
$\$ 81.76$ (less phono top). Net

Dessk Bose.
$\$ 77.97$ Notherwise as above
4.Speed Phono Top for B-A 20 Wott Amplifier.


## 2-SPEAKER 30-WATT FIXED SYSTEM FOR INDOORS \& OUTDOORS

MORE VERSATILE THAN EVER! CHOOSE THE SPEAKERS


30 WATT OUTDOOR SYSTEMS

Designed for large halls, industrial plants, gyms, playing fields, ouditoriums, music systems for stores, restourants, etc. Good generol duty amptifier plus
quality matching components assure long troublequality matching

30 WATT INDOOR SYSTEMS
B-A 30 watt amplifier $2-12^{\prime \prime} 6.8$ az. heavy duty speakers, two fine quality hardwood baffles, 150 speaker cable, 2 speaker plugs, B-A leader value speoker coble, phono tapl. $\$ 126.03$
Wifh E-V 951 Mierophone otherwise os above. 110.12
No 49A89. Net.................................................... 110.12

B-A 30 wott omplifier with 2 E-V 848CDP horns, $150^{\prime}$ speaker cable with 2 plugs, B-A leader value floor mike stand and E-V 654 microphane lless phono top)
 Units otherwise os obove.
No. 49A92. Net...................................................... $\$ 169.31$
With E.V 951 Mierophone atherwise as No. 49A90. No. 49A91. Net.................................................. $\$ 161.49$ With 2 University PH Trumpets and 1030 Driver Unit otherwise os No. 49A91.
No. 49493. Net
.$\$ 154.40$
B-A'S 60-WATT HI-POWER FIXED SYSTEM FOR INDOORS OR OUTDOORS
 Includes B-A's 60 watt PA amplifler isee page of leftl, 4 Electro-Voice 848 compound diffraction projectors, the modern way for betfer sound saturo ion, E-V 664 dynomic microphone, B-A's leoder phonol. 49 ig6. Net $\$ 263.61$ With 4 University PH Trumpets, 41030 Drivers atherwise os above.
No. 49A98. Net.......
\$266.79
With Electro-Voice 605 Mike and Desk Top Touch-to-tolk Stond otherwise as No. 49A96. \$235.71
With 4 University PH Trumpets with 41030 Drivers Otherwise os No. 49 A97. $\$ 239.89$

60 WATT INDOOR FIXEO SYSTEMS
FOR OUTDOORS: Choice of 4 Electro-Voice 848 compound diffroction project
trumpets with 1030 drlvers
FOR INDOORS: 8-1 2" 6.8 oz. heovy duty speokers with tine matching tronsformers complete with solid wood baffles. B. choicc of $\mathrm{E}-\mathrm{V} 664$ dynamic mdcrophone with B-A's floor stond

Includes B-A's 60 watt PA amplifier (shown on poge of leff), 8-6.8 oz. 12' heavy duty speokers with motching tronsformers, $812^{\prime \prime}$ solid wod walcomplete with B-A's leader floor stand (less phona

## top). <br> No. 49A100. Net.

$\$ 245.82$
With Electro-Yoice 605 Microphone ond Desk Top Touch-iatalk stand otherwise as above. No. 49A101.
$\$ 217.92$
4-Speed Phono Top for B-A 60 wott omplifier 9.84 Sce page 62 for speaker wire.

## UNIVERSITY WEATHERPROOF TRUMPETS AND DRIVER UNITS



Electro-Voice weatherproof FULL RANGE SPEAKERS


MUSICASTER-Here's a speaker system with which you can easily set up a music system with true high-fidelity performance. Compoct a.nd portable, the Musicaster has a sturdy aluminum diecost housing. Finished in Mesa Ton, it protects the weotherproof cone speaker and extends bass response throagh bock-loaded folded horn. Dual Rodax cone rodiates smooth useful highs through $120^{\circ}$ angle. Can be mounted anywhere or used as a portable speaker. The Musicaster's clean, wide-range reproduction is ideal for square dances, school oudltoriums, clubs, outdoor hi-fi or anywhere tha: music and voice must be reproduced with moximum clarity.
Provisions for mounting 70.7 -volt line transformer inside. Frequency response $60-13,000 \mathrm{cps}$. 8 ohms impedance. Dispersion $120^{\circ}$. Power handling capocity 30 wotts progrom. Sound pressure level 110 db . Size $211 / 2^{\prime \prime} \times$

No. 34 A277. Musicoster with 8 -ohm voice coil. Net Eoch ......... $\$ 52.82$ MUSICASTER II-Some fine performance os Musicaster except has added brillionce ond coverage of VHF driver. Smooth response to 18 kc .36 lbs . No. 34A280. Musicaster 11 with 8 -ohm vaice coil. Mfg. List $\$ 125.00$ Net Eoch.
MB-1-Mounting brocket for Musicaster in neat flat-agoinst-woll irstallotions
No. 37 A221. Model M8-1 Mount. Net Eoch.
$\$ 2.85$
848 COMPOUND DIFFRACTION PROJECTOR. The quality way to outdoor PA sound. A wide-range horn and driver system using single driver uni plus high and low frequency horns coupled to both sides of the diaphragm. The outer horn is fobricated of fibergloss ond polyester resin for strength light weight and resistance to corrosion. Provides better than twice the sound distribution of ordinory reentront or multi-cellular horns of compor able size. Smooth, peak-free sound with extended high-frequensy response is the result of this exclusive EV development. Specifications: Freq. resp. $150-10,000 \mathrm{cps}$. Power handling capocity 30 watt program, 60 watts peak $120^{\circ}$ vertical or mounted horizontally 1000 eps . Dispersion $90^{\circ}$ horizontal $120^{\circ}$ vertical or mounted horizontally, $120^{\circ}$ horizontal, $90^{\circ}$ verti=al.
Mounting: universal " $U^{\prime \prime}$ brocket. Size $201 / 2^{\prime \prime} \mathrm{H}, 10^{\prime} 12^{\prime \prime} \mathrm{W}, 20^{\prime \prime} \mathrm{D}$, Wt Mounting: universal " U " brocket. Síze $201 / 2$ "
$13 \mathrm{l} / 2 \mathrm{lbs}$. net. Shpg. 15 lbs . Mfg. list $\$ 82.50$. No. 40A9. Net Eoch
.. $\$ 48.51$


MODEL 844 PAGING PROJECTOR
A compoct general purpose speaker system feoturing natural vo ce reproduction and high intelligibility. The rugged, die-cast horn assembly and sturdy mounting brocket assure minimum maintenance ofter installation. sturdy mounting bracket assure
Feoture removable 30 watt driver. Feature removable 30 watt driver.
Specifications: Freq. resp. 250-13,000 eps. Imp. 8 ohms, dispersion $90^{\circ}$.


## MODEL 847 CDP PROJECTOR

Wide-range paging speaker uses a single driver unit with two coaxially mounted horns mounted to opposite sides of the single diaphrogm. Proctically indestructible horn is made of fibergloss ond polyester res $n$. Combines strength, weather resistance, and light welght. Smooth peok-free frequency response characteristics reduces feedback and provides morz notural voice and music reproduction. Toilored boss range allows omplifier energy to be restricted for most efficient operation. Specifications: frequency resp. 250 to $10,000 \mathrm{cps} .25$ watt progrom power handling capocity. Imped. 16 ohms. Dispersion $90^{\circ} \times 120^{\circ}$. Crossover 1500 cps . Mig.: easy-off-stee " $U^{\prime \prime}$ brocket. Three $\mathrm{H}^{\prime \prime}$ holes in line on $11 / 2^{\prime \prime}$ center. Size $113 / 4$ " H, $73 / 4$ " Wo. $103_{3}$ " D. Net Eoch.
\$29.99

## NEW MODEL PAIIS PAGING SPEAKER

Compoct poging speaker of unusually rugged construction. Entirely die-cast finished in neutral mesa tan. Response is smooth and rising in the vaice ronge for best intelligibility with maximum efficiency. Replaceable drive mokes field service easy. Installs by unique swivel mount. Where 70.7 volt lines are used the PAIST with its built-in motching tronsformere 10.7 volt stallation and lowers the cost. Completely weatherproofed for operation in ony climote.
Specificotions Model PA15: Frea. resp $350-13,000 \mathrm{cps}$ power honding capacity 15 watt program. Imped 8 ohms. $120^{\circ}$ dispersion. Wt. $41 / 4 \mathrm{lbs}$ net. Size $9^{\prime \prime} \mathrm{H}, 6^{\prime \prime} \mathrm{W}, 91 / 2^{\prime \prime} \mathrm{D}$. Mfg. list $\$ 30.00$. No. 34A200. Nét Each.
$\$ 17.64$
Model PA15T. Same os obove but with built-in tronsformer topped of 1.5 , $2.5,5$ 10, 15 watts; $3300,2000,1000,500,350$ ohms. Wt. $41 / 2 \mathrm{bs}$. Mitg. list $\$ 36.00$. Net Each
\$21.17

NEW POPULAR THIN LINE DESIGN WALL BAFFLES WITH SPEAKERS FEATURING JENSEN 8-INCH PROFILE SPEAKER


## (1) WALL BAFFLE

Here of last is a good-looking all purpose baffle complete with fine quality meaker that meets every coich. TV or radio distribution need. Fine for the home PA and background music or for any other application where school or office for aldio power handling ability is needed. Speaker has 6 az . ceramic magnet, 8 ohm veice coil. Boffle is wood in choice of walnut or blond fabric finish, with entire front covered by affractive grille cloth. Size $12 \times 91 / 2 \times 41 / 4^{\prime \prime}$. Shpg. wt. $41 / 2 \mathrm{lbs}$. Mfg. List $\$ 16.50$.
$\$ 9.70$
.
. $\$ 12.10$ Some os 34484 with $L$ Pod, in addition has 70.7 volt line tronsformer for

CORNER BAFFLE

SIanting carner thinline speaker and boffle. Ideal for patio fomily room, carner of room or shelf, churches, etc. Combination of slonting corner ond bass reflex design provides exceptional performance, both in area coverage sfeedy, easy installation. Same speaker os in wall baffle obove. 8 ohm output. $18^{\prime} \mathrm{H} \times 121 / 2^{\prime \prime} \mathrm{W}$ at $10 \mathrm{D}, 63 / 4^{\prime \prime} \mathrm{D}$ at top. Wr. $51 / 2 \mathrm{lbs}$. 13.38 No. 40A279. Mfg. List $\$ 22.75$. Specity Blond or Wolnut. Net Eoch.... $\$ 13.38$

## POPULAR JENSEN B-INCH PROFILE SPEAKER

SAME SPEAKER USED IN ABOVE BAFFLES
Rugged, dependable, ideal choice for background music system In offices, stores, restourants, homes, etc. Extended high frequency range, smooth response ond wide angular coverage for excellent music reproduction. Syn-tox- 6 ceramic magnets gives $1 / 2$ to 2 db more acoustic output than speakers
employing 6.8 oz. Alnico $\vee$ magnets. Extremely shallow to permit in the-
 W/f. $21 / 4 \mathrm{lbs}$.
No. 22A68. Model C8-RC. Mfg. list \$12.95. Net Eoch
$\$ 7.77$

## DELUXE DAVIS CORNER ENCLOSURE

FOR 8' ${ }^{\prime \prime}$ AND 12"' SPEAKERS A. completely enclosed baffle for corner or wall-ceiling
installation. Scientifically designed of extra heovy wood with construction that ossures it to be vibration and rattle free. Speaker opening is of bass reflex desion assuring maximum bass response. Interior is lined with ccoustical insulation. Hi-fi Saran grille moterial used with gold ornamentotions. Beautiful furniture finish in walnut or notural blonde. Specify color choice. Model C-8 for $8^{\prime \prime}$ speokers. Size $14 \times 121 / 2 \times 61 / 2^{\prime \prime}$ Shpg. wt. 7 lbs.
No. 34A175. Net Each.
$\$ 10.42$
Model C-12 for $12^{\prime \prime}$
Shpg. wf. 12 lbs
No. 34Ai55. Net Eoch


DAVIS HARDWOOD WALL BAFFLES
Bultt of solid hand rubbed furniture finished walnut or ook. Mortised and glued construction with $3 / 8^{\prime \prime}$ front panel ond full $5 / 8^{\prime \prime}$ sldes. Speokel mounts behind modern non-sag soron plastic grille. Strictly of home in the finest paneled interiors where beauty of design and decor are essential. for halls, school rooms, paging systems, wherever good sound distribution is necessary. Complefe with speaker gounting hordware and wall honger. Shpg. wts.: 8 inch, 3 lbs.; 12 inch, 6 los.


## LOWEST PRICE ANYWHERE!

 PORTABLE SPEAKER CASEDUAL SPEAKER - AMPLIFIER CASE. For TWO $12^{\prime \prime}$ speakers, omplifier spoce of $14 \times 16 \times 8^{\prime \prime}$; overall size, No. 40A131. NET EACH


FLUSH MOUNTING WALL AND CEILING BAFFLES


## AT LOWEST COST EVER!

IN PLASTIC OR METAL
(1) Inexpensive $914^{\prime \prime}$ " Diameter Brushed Aluminum Celling or Wall Maunting Baffle. Perfect for extension speaker or background music Instollations. $8^{\prime \prime}$ speaker mounts by two screws. Secures to wall or ceiling by two wood screws, toggle bolts or mollys. Shpg. wt. I lb.
No. 34 A74. Net Eoch.. $\$ 1.69$ @ Eoch.
No. 34A74. Net Eoch... $\$ 1.694$ @ Eoch... $\$ 1.4910$ @ Eoch... 51.27 (2) Beautiful Aluminum Ceiling Maunting Baffle with baked white enamel finish. $8^{\prime \prime}$ speaker mounts directly to baffle by four screws; supplled. Four holes in $1 / 2^{\prime \prime}$ flange area permit mounting boffle to ceiling with wood screws, mollys or toggle bolts. $125 / 8^{\prime \prime}$ diameter. Ceiling hole size $81 / 2^{\prime \prime}$ dla. Shpg. Wt. ' lb. Each... \$2.75 4 @ Each... \$2.39 10 @ Eoch... $\$ 2.24$ () Raund $10^{\prime \prime}$ Diometer Spun-Aluminum Baffle takes $y^{\circ}$ speaker. Mounts directly to celling or woll by wood screws, toggle bolts or mollys. Edge has No.34A76. Net Each... \$1.59 4 @ Eoch... \$1.39 10 @ Each... $\mathbf{\$ 1 . 1 9}$

(1) Law Cost $10^{\prime \prime}$ Square Grille with beveled edge. Attractive brushed aluminum mounts $8^{\prime \prime}$ speaker. Moy be attached to wall or ceiling with wood screws, toggle bolts or mollys. Ideal for background music systems in homes, offices or industry. Shpg. wt. I 1 lb
No. 34A77. Net Each... $\mathbf{\$ 2 . 9 5} 4$ @ Each... $\$ 2.7910$ @ Each... $\mathbf{5 2} 54$ (1) Simllor in appearance to above Grille except is $12^{\prime \prime}$ Square and has R"̈ lip. Designed to replace a block of acoustical tile. To install, you need onily remove block of acoustical tile ana replace with this unit. Takes any $8^{\prime \prime}$ speaker. Brushed aluminum. Shpg. wt. 1 lb . 10. Na.34A78. Net Each. . . \$2.59 4 @ Eoch... \$2.39 10@ Eoch...\$2.29 (3) New $10^{\prime \prime}$ Square White Plastic Grille. Mounts ony $y^{\circ \prime \prime}$ speaker by self topping screws supplied. May be ottoched to wall or eeiling by wood serews, toggle bolts or mollys. Can be painted ony color desired. Shpg. wt. 12 oz . No. 34A79. Net Each... $\$ 2.494$ @ Eoch...\$2.36 10 @ Eoch... $\$ 2.25$ O $10^{\prime \prime}$ Square White Plastic Grille with Cancentric Spirats. Designed to add beauty os well as camoufloge the speaker. Mounts any $8^{\prime \prime}$ speaker. Atbeauty os well as camouflage the speaker. Mounts any speaker, Atpointed any color desired. Shpg. wt. 1 lb . No. 34A80. Net Each...\$2.69 4 @ Each... $\$ 2.6510$ @ Eoch... $\$ 2.40$

QUAM ALNICO-V ADJUST-A-CONE SPEAKERS


Engineered to be "best" for replacement in all types of receivess and Public Address fields. Famous Adjust-A-Cane suspension permits cone centering after speaker installotion hos been mode. Universal mounting bracket on speakers up to $61 / 2$ inch may be oftacnad to ony two of the four threaded mounting holes in the " $U$ " shaped pot. Built to ElA standard dimetrsions. Fully dustproof and finished in baked enamel. All replacement speakers have 3.2 ohm voice coil. PA Speokers have 8 ohm voice coils
Note: Special voice coil impedances, field coil speakers, and autcoor moisture resistant speakers can be supplied upon request. \#Indicates "Thin-Man" very shallow construction.

| Size | Illus. | Magnet Wt. Ounces | Wotts | Spkr. Depth | Quam No. | Shpg. Wi Lbs. | Stozk Nc. | Nef Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21/4" | C | . 62 | 1/4 | 18 | 22A0628 | $1 / 4$ | 22C159 | \$2.78 |
| $21 /{ }^{\prime \prime}$ | A | . 65 | 1.5 | $11 / 4$ | 25 A07 | 1/4 | 228182 | 2.35 |
| $31 / 2$ " | A | . 65 | 2.5 | 113 | 3 A07 | $1 / 2$ | 228113 | 2.36 |
| $3 \times 5$ " | D | . 55 | 2 | 13 | 35 A05 | $1 / 2$ | 22C160 | 2.47 |
| 4" ${ }^{\prime \prime}$ | A | . 65 | 3 | 13 | $4 \mathrm{A07}$ | $1 / 2$ | 228114 | 2.53 |
| $4^{\prime \prime}$ | A | 1.0 | 3 | $2{ }^{18}$ | 4 Al | $3 / 4$ | 228115 | 2.70 |
| $4^{\prime \prime}$ | A | 1.47 | 3 | 218 | 4 Al 5 | $3 / 4$ | 228116 | 2.97 |
| $4 \times 6^{\prime \prime \prime}$ | E | 65 | 3.5 | 114 | 46A07 | $3 / 4$ | 228117 | 2.78 |
| $4 \times 6$ " | E | 1.47 | 3.5 | $21 \%$ | 46A15 | 1 | $22 \mathrm{B119}$ | 3.23 |
| 501 年 | C | . 65 | 3.5 | $17 / 8$ | 5 A07 | $3 / 4$ | 228120 | 2.85 |
| $5{ }^{\prime \prime}$ | C | 1.0 | 3.5 | 28 | 5 Al | $1$ | 22B121 | 2.86 |
| $5{ }^{\prime \prime}$ | C | 1.47 | 3.5 | $2{ }^{\circ}$ | 5 A15 | 1 | 228122 | 3.09 |
| $51 / 4$. | C | 2.15 | 4. | 21 | 52 A 21 | $11 / 4$ | 228123 | 3.68 |
| $5 \times 7$ 年 | E | 2.15 | 5 | 281 | 57 A 21 | $11 / 4$ | 22B-26 | 3.87 |
| $61 / 2^{\prime \prime}$ | C | 1.0 | 5 | 25/8 | 6 AI | 1 | 228127 | 3.12 |
| 617. | C | 1.47 | 5 | 25 | 6 6A15 | 1 | 228128 | 3.38 |
| $61{ }^{\prime \prime}$ | C | 2.15 | 5 | $27 / 8$ | 6 621 | $11 / 4$ | 228129 | 3.79 |
| 61/2" | C | 3.16 | 6 | 3 fif | 6431 | $13 / 4$ | 22B130 | 4.47 |
| $6 \times 9^{\prime \prime}$ | D | 3.2 | 10 | 3 B | 69 A 3 | 2 | 34 C 113 | 5.41 |
| 8"' | C | 2.15 | 7 | $31 \%$ | 8 A21 | $11 / 2$ | $34 \subset 737$ | 4.68 |
| $8^{\prime \prime}$ | C | 3.16 | 9 | 31. | 8431 | 2 | $34 C 145$ | 5.28 |
| 10" | B | 3.16 | 9 | $41 / 2$ | 10A31 | 23/4 | $34 C 150$ | 6.76 |
| $12^{\prime \prime}$ | B | 3.16 | 10 | 415 | 12 A 31 | $33 / 4$ | $34 C 152$ | 7.03 |



HIGH IMPEDANCE INTERCOM SPEAKERS, 45 OHM V.E

| $31 / 2^{\prime \prime}$ | A | .65 | 2.5 | 111 | $3 A O 7 Z 45$ | $1 / 2$ | $22 B 110$ | 2.50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $4^{\prime \prime}$ | A | .65 | 3.0 | $11 /$ | $4 A 07 Z 45$ | $1 / 3$ | $22 A 131$ | 2.88 |
| $4^{\prime \prime}$ | A | 1.0 | 3 | 27 | $4 A 1 Z 45$ | $3 / 4$ | $22 B 111$ | 2.86 |
| $5^{\prime \prime}$ | $C$ | 1.0 | 3.5 | 28 | $5 A 1 Z 45$ | $1^{18}$ | $22 B 112$ | 3.00 |

## OUTDOOR SPEAKERS

Completely moisture-resistant with plastic impregnated Humi-Garct cones. 3.2 ohm voice coils. Highly recommended for areas where excessive molsture or high humidify ore encountered

| $31 / 2^{\prime \prime}$ | A | . 65 | 2.5 | 143 | 3 S07 OT | 1/2 | $22 C 54$ | 2.35 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $4^{\prime \prime}$ | A | 1.0 | 3.0 | 27 | 4Al OT | $3 / 4$ | $22 C 55$ | 2.73 |
| $5{ }^{\prime \prime}$ | C | 1.47 | 3.5 | 2 H | 5 A15 OT | 1 | $22 C 53$ | 3.15 |
| 61/2" | C | 1.47 | 5 | 25/8 | 6A15 OT | 1 | 22C151 | 3.63 |

Large quantity users please contact our Industrial Sales Dept. for quotations 8-A can ship different voice coll impedances or field resistance speakers other than ones llsted above Send us your order!

(1)
(2)
$360^{\circ}$ sound dispersion for perfect coverage in ony locotion. In large rooms or hails, these speakers should be installed on "spocing in straight lines. Type RS and AL shauld be installed with XCP bock covers as listed below. All ore mode of Heavy Spun Atuminum, brushed finish with coat of
(1) SURFACE MOUNTING CEILING BAFFLES

Stk. No.
$34 A 218$
34 A223
$34 A 217$
344226
$34 A 227$
$34 A 227$
$34 A 228$

34 A225
$34 A 224$


# ELECTRO-VOICE MICROPHONES <br> 712 <br>  <br> 718 <br>  <br> 911 <br>  <br> 924 <br>  <br> 951 <br>  

## GUIDE TO SELEGTION OF E-V CERAMIC AND CRYSTAL MIKES

for full description of Crystal and Ceramic Microphone characteristics see information at right. All are high impedance, for use with amplifiers or other equipment hoving high impedance microphone in plis.
plits. 7155 R has press-to-talk relay control switch as ncrmally required for communications equipment ci-izens band transceivers, etc. 718, ideal replacement for home recorders, has ot tashed phono plug and phone plug adaptor to fit
727 and 729 hove slip-in diecast desk stand base.

Very popular for rodio amateur and poging. 911 hos very high output permitting operation of equipment of lower gain setting than usual. Essentially non-directional, becoming slightly directive at higher frequencies.
(S) following EV type indicates slide switch to short microphone in "OFF" position
Types designated for stand mounting fit standard /8-27 threaded stands or accessories. Cables are not equipped with plugs for omplifier (except 718). See page 117 for complete plug selection.

| Steck | ty | $\begin{aligned} & \text { Cene } \\ & 3+y L \end{aligned}$ | Tryen of | Plekup | Cene | $\mathrm{R}^{\text {Remener }}$ | Onvent | Cuble | Stise | Net. | Mtr's Lite | Neft |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29 ก77 | 712 | Hond Held | C* | Non-Dir. | rover | 70. 7000 | -55 to | 5' Arroch | 21 | 4 oz | 0 |  |
| 29417 | 715 | Mand or St | Cerom | an-D | ustre Groy | 60-7000 | -55 cb | $5^{5}$ Alfoched |  | 6 oz . | 13,00 | 4 |
| 29417 | 71515 | Mond or Stond | Ceromic | Non-Dir | Lustre Croy | 60-7000 | $-55 \mathrm{da}$ | $5^{\prime}$ Aftoched | $2 \mathrm{~A} \times 1 \times{ }^{\prime \prime}{ }^{\prime \prime} \mathrm{H}$ | 60 | 15.00 | 8.82 |
| 294180 | 7155R | Hand or Stand | Ceromic | Non-Dir. | Lustre Groy | 60-7000 | -55 db | $5^{4}$ Atroched | 2A×1×3"H | 60 | 17.50 | 10. |
| 294181 | 718 | Hond or Toble | Ceromi | Non-Dir | 2-Tone Gray | 60-6000 | -55 db | $5^{5}$ Altoched |  | 8 oz. | 12.00 |  |
| 294182 | 72 ? | Hand or frond | Ceromi | Non-D | 2-Tone Gray | 60-8000 | -55 db | $5{ }^{5}$ Aptached | $11 / 2 \times 1$ 年 $\times 784$ | 14 oz | 18.00 | 10.58 |
| 294183 | 727 | Mend or Stand | Ceromic | Non-Dir. | 2-Tome Gray | 60-8000 | -55 do | $5^{5}$ Altached | $11 / 2 \times 1 \% \times 7 \%{ }^{\prime \prime}$ | 14 oz . | 20.00 | 11 |
| 294184 | 729 | \| Mend or Stand | Ceromic | Uni-Dir. | 2-Tone Gray | 60-8000 | -60 db | 10' Atroched | 11/2x1\% $1 / 874^{\prime \prime}$ | 16 | 24.50 | 14 |
| 294185 | 72915 | Hand or Stand | Ceramic | Uni-Dir. | 2-Tone Gray | 60. 8000 | -60 do | 10' Arrochad |  | 16 | 26.50 32.50 |  |
| 294186 | 911 | Srand Mre. | Crymer | Non- | Sotin Chrome | 50. 9000 | -50 co | 18' Detachoble | 2\%x ${ }^{3} 1 / 8 x^{1 / 4}{ }^{\prime \prime}$ | 240 | 32.50 2000 |  |
| 294187 | 924 | tovar | Crystol | Non-Dir | Satin Chrome | 60-8000 | -60 do | 18. Atroched | 1品"dia. x 3 A", | 10. | 20.00 54.50 | 38 |


600D
602


## IMPORTANT CHARAGTERISTICS OF E-V DYNAMIC MIKES

All of odvonced design moving coil construction emproying the exclusive E-V non-metallic "Acoustalloy" daphropm for wide-ronge distortion-free and blostp'oof long-life operation. See "ype of Mike Elerrent" at right for general choracteristics
Types 6000 and 602 hove oftoched coiled card extending to 6 ft . and DPDT press-to-talk relay control switch, especially recommended for mobile 2-woy rodio.
6ill, while essentially non-directional becomes slightly cirective of higher frequencies.
623, 636, 644, 647 and 664 hove high or low impedance selectable by moving one wire of cable con-

| Syeck | Ty | cryle |  | $\begin{aligned} & \text { Plakimp } \\ & \text { Pattorn } \end{aligned}$ | Ionpor | Receosen | Lerpel | Cable | giee | Not. | $\mathrm{Mtr}^{\mathrm{L}}$ | Net Eech |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29 A189 | 6000 | Hond Held | Bnc. PI. | Nan-Bir | High | 100-7000 | -55 do | $6^{\prime}$ Coil Cord | , | 808. | 47.50 | 587.08 |
| $2 \cdot 19193$ | (511) | Stand | Sot. Chrome | Non-Di | High | 50-9000 | -55 m | 18' Datochoble | $24 \times 31 / 0 \times 61 / 40$ | 20 cz. | 45.00 | 28.48 |
| 278194 | Com (s) | Stand Mrg. | Sot. Chrome | Non-Dir. | High or Low | 60-12000 | -56 dm, | 18' Detachable | 1 ${ }^{\prime \prime}$ dic. $x$ 71/2" | 15 oz. | 57.00 | 38.5 |
| 23 A186 | 630151 | Stond Mrg. | Sot. Chroma | Non-Dir | Migh | 60-11000 | -55 \% | 18' Dutachob | $2^{\prime \prime}$ dio. $\times 61 /{ }^{\prime \prime}{ }^{\prime \prime}$ | 160 | 52.50 | 30.87 |
| 53 A127 | 635151 | Stond Mrg. | Sat. Chrome | Non-Dir. | 50 or 250 | 60-13000 | -55 ${ }^{6}$ | 18' Defochoble | $2^{\prime \prime}$ dia. $\times 6$ y/" | 1602 | 82.0 | 48.2 |
| 23 A197 | 636151 | Stand Mig. | Sot. Chrdmo | Non | High or Low | 60.13000 | -58 $\quad$ | $18^{\prime}$ Detochoble | $14^{\prime \prime}$ dic, $\times 101 / 4^{\prime \prime}$ | 15 og . | 72.50 | 48.68 |
| 294198 | 64415) | Stond Mrg. | Sof. Chrome | Uni-Dir. | Migh or Low | 40-12000 | -53 | 18' Datochabin | $2 \mathrm{~h}^{\prime \prime} \mathrm{max} \times 16^{\prime \prime}$ | 41 oz . | . 00 |  |
| 29A190 | 647 | Lavaller | Grey | Non-Dir. | High or Low | 60-10000 | -55 c | $18^{\prime}$ Detochoble | $1 \mathrm{~m}^{\prime \prime}$ dio. $\times 5^{\prime \prime}$ | 602. | 82.50 | 43.5 |
| 50129 | 6498 | Lavo | Mat. Grey | Non-Di | 50-250 | 70-10000 | -61 ${ }^{\text {c }}$ | $30^{\circ}$ Artoched | \%/4" die. x $311^{\prime \prime}$ | 202. | 105.00 | 14 |
| 504130 | 654A | Stand Mig. | Grey | on-D | 50 or 250 | 50-16000 | -57 | 18' Detochotle | $1 \mathrm{~A}^{\prime \prime}$ dio. $\times 10 \mathrm{~h}^{\prime \prime}$ | 16 cz | 100.00 | 10 |
| 504134 | 655C | Stond Mig. | Grey | Non-D | 50-250 | 40-20000 | -55 cb | 20' Detachoble |  | 7 oz | 200.00 | 117.8 |
| -9a200 | 664 (5) | Stond M10. | Sot. Chromo | Uni-Dir. | High or Low | 40-15000 | -55 ct | $18^{\circ}$ Defochoble | 17/9" max. Dx 7 | 60 | 85.00 | 48.2 |
| S0A121 | 665 | Stond Mrg. | Grey | Uni-Dis. | 50-250 | 50-14000 | $-58 \mathrm{ctb}$ | 18' Detachoble | 1\%" max. D $\times 7$ | 26 oz | 150.00 | 88.20 |
| 20A13 | 666 | Stand Mig. | C | \%. | 50-250 | 6000 | -55 do | $20^{\circ}$ Detachoble | 111" mox. Dx 7 |  | 255.00 | 4 |

nection. These ore hioh auolit at 25 times oreoter 644 Sound Spor can be used at 2.5 times greoter 635 and 654 hove 50 or 250 ohm impedance selected by recessed switch, for professional studio use. 655 C and 666 have 50,150 and 250 ohm impedance selectable by moving one wire in connector
(S) following EV type indicates slide switch to short microphone in "OFF" position.
Types designoted for stand mounting fit standard $5 / 8^{\prime \prime}-27$ threaded stands or accessories. Cables do no hove plugs for amplifier end. See page 117 for complete plug selection.

## MODEL 664 DYNAMIC UNI-DIRECTIONAL MIKE

## FIRST CHOICE FOR PERFORMANCE, RUGGEDNESS, VERSATILITY

Especially recommended for PA service, churches, schools, clubs, recording, com-munications-truly the work horse of the microphone field
Built to take rough treatment, yet a superb performer sounding smooth and natural on voice ond music.
Cordioid pickup pattern greatly minimizes feed bock, retains directional chorocteristics of all frequencies, permits operation much farther from sound source or close up as desired.
Response $40-15,000 \mathrm{cps}$. High impedance or 150 ohm low impedance by moving one wire in connector. Other specifications in chart obove.
No. 29A200. Model 664. Satin chrome finish.
List $\$ 85.00$. Net Each....................................................
No. 294408. Model 419 matching stand.
$\$ 49.98$

CUIDE TO MICROPHONE SELECTION B-A's SIMPLE $1,2,3$ PLAN

## 1

Select first the type of element or microphone cartridge, whether "dynomic," "crysperature humidity ond handling conditions perature, humidity ond handling conditions you expect. Read the general characteristics and important features of each type, exploined below. Determine whether shor or long mike cable will be required. Use high impedance ( $\mathrm{Hi}-\mathrm{Z}$ ) elements for short coble (usually not over $25 \mathrm{ft}$. ; use low impedance dynamic elements for long cables


Then choose the pickup pottern, whether "non-directional," "uni-directional" or "differential," necessary because of acoustic conditions. This is explained in simpte terms below.


Finally, check the table listings showing microphones using the type of element you hove chosen. Determine degree of perfection wanted, noting frequency response and price. Output level is stated as ${ }^{\circ}$ negative figure; therefore mikes hoving higher output hove the smaller negative DB rating. Check mechanical features and peoronce, styling, etc.

## TYPE OF MIKE ELEMENT

Crystal, Coromic, Dynomic. General characteristics and important features of each. Crystol: Generally low in cost, giving faithful reproduction with high output to work ful reproduction with high output of work with most equipment hoving Wigh impedance for home recording, dietating, indoors for home recording, ding where ordinary comfortable temperature and huordinary conditions prevail and normally careful hondling is expected. Usual cable length, not over 25 ft. Longer cable generally degrade performance due to generaily degr

Ceramic: Only slightly higher in cost than Ceramic: Only sivighty higher in cost types, giving long life and low distortion with medium output to work into tortion with medium outpur to work into high impedonce omplifiers. Can withstand extremes of temperoture ond humidity in doors or outdoors, is considered quite rupged ond moy be used in virtually all appli mally specified.

Dynamic: Generally recommended as the best type for all applications. Most capable of oll common microphones for foithful, smooth, wide range response everywhere. Not affected by temperature or humidity ond can withstand easily the rough handling common to mony communications and public address uses. Available in high impedance models for normal length cables ond in low impedance models for best possible results over long mike lines. Cost ranges from economical to high, depending on degree of perfection.

## TYPE OF PICX-UP PATTERN

Non-directional and Uni-Directional. Choice is bosed on prevailing ocoustic conditions. Non-Directional: Near equol sound pickup from all sides. Normally excellent for recording, poging and public oddress where the sound is close to the microphone ond the room is quiet and free of reverberation. Uni-Directional: Cardioid or heart shaped pottern of pickup discriminates ogainst unwanted sound from rear and sides. This unwanted sound from rear and sides. room and random noise are noticeable and where the source of sound may of times be for from the microphone Highly beneficial for oll high quality recording and public address; absolutely essential in repubic or preventing ocoustic feadbock or howl commonly associated with PA systems.

(See Poge 113 for B-A's Easy (1) (2) All microphones in this group are designed to give best possible performance in high quality music and public oddress systems. in addition they meet or cording, entertoinment ond utility service. Very cording, entertoinmer for highly recommended for dependable service in church, requiring full fidelity sound pickup with minimum maintenance problems.
Pickup Pottern: Types 55S, 555W, 545 and 545S hove true cordioid pickup pattern permitting great freedom from ocoustic reedbock with operation forther from sound source or close up as desired. 515 535 and 5405 are essentially non-directive. The new 5405 feotures a variable frequency response for "tailoring" to best vaice intelligibility in paging and

## COMPARISON CMART FOR SMURE DYNAMIE MICROPMONES

| $\begin{array}{\|c} \text { Srock } \\ \text { No. } \end{array}$ | $\begin{aligned} & \text { Shure } \\ & \text { Type } \end{aligned}$ | $\begin{aligned} & \text { Case } \\ & \text { Style } \end{aligned}$ | $\begin{aligned} & \text { Cose } \\ & \text { finish } \\ & \hline \end{aligned}$ | Piekup Pattern | Response Cps | Output Level | coble | $\begin{gathered} \text { sise } \\ \text { overell } \end{gathered}$ | $\begin{aligned} & \text { Net } \\ & \text { We. } \end{aligned}$ | $\begin{gathered} \mathrm{Mfg} . \\ \text { Lut } \end{gathered}$ | $\begin{aligned} & \text { Net } \\ & \text { Ioch } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. 29 A205 | \| 51 | Less Switch | Sotin Chrome | Semi-Dir. | 60-10,000 | -52 db | Detachable $15^{\circ}$ | 31/8x21/8x5 ${ }^{\prime \prime}$ H. | 28 Oz | 549.50 | \$29.11 |
| 298229 | 515 | With Swith | Sot. Ch. © 8ik. | Semi-Dir. | 60-10,000 | -52 db | Detochoble 15* | $31 / 8 \times 21 / 0 \times 5 \mathrm{~A}^{\prime \prime} \mathrm{H}$. | 28 Oz | 51.50 | 0.28 |
| 298231 | 5405 | Stand Mrg. | Sot. Ch. G Bilk. | Non-Dir. | 60-10,000 | -52.5 do | Detochoble 15' | 131" Dio.x3\%"L | 28 | 49.95 | 29.37 |
| 29A20 | 535 | Hond or Stond | Solin Chame | Non-Oir. | 60-13,500 | -61 db | Detochoble 18' | $1^{\prime \prime}$ Oio. $\times 7{ }^{\circ \prime \prime}$ | 14 Oz | 72 | 42.63 |
| 29 A207 | 55s | Less Switch | Sotin Chrome | Uni-Dir. | 50-15,000 | $-57 \mathrm{db}$ | Detachoble 18' |  | 260 | 83 | 8.80 |
| 298241 | 555w | With Switch | Sot. Ch. © Blk. | Uni-Oir. | 50-15.000 | $-57 \mathrm{db}$ | Defochoble 18' |  | 260 | 85.00 | 49.98 |
| 294208 | 545 | Hond or Stand | Sat. Ch, \& bilk. | Uni-Dir. | 50-15.000 | -55 db | Detochoble $18^{\prime}$ | 1 1t" Dio. x $511^{\prime \prime}$ | 100 | 85.0 | 49.98 |
| 29823 | 5455 | Stand Mig. | Sot. Ch. G Blk. | Uni-Dir. | 50-15,000 | -55 db | Detochable 18* | Ifi' Dio. x 511 | 10 Oz | 89.9 | 52.89 |

(3) Guide ta Microphone Selection

Impedances: All are high impedance for usual length cobles plus low impedance change over to allow use of long cables. 51, 51 S, 555 and 555 W have 35 to 50 ohm, 150 to 250 ohm and high impedance selectable by a 3 position switch: 535, 5405,50 550 ohms o high impedance.

All types hove integral lifetime swivel mounting threaded for $5 / 8,-27$ stands except 535 and 545 which are supplied with A-25 swivel adaptor for $5 / 8$ -27 stonds, allowing microphone to be sllpped from odaptor for hand use. Switches provided shor microphone in "off" position. All cobles plug int nicrophone and do not have plug on free end for amplifier. Order Plug from page 117.

## COMMUNICATIONS SERIES

(1) "TEN-FOUR" HAND AND MOBILE MICROPHONES. Practically indestructible, in high impoct grey "ArmoDur" molded cose. Controlled mognetic element provides utmost speech clority and dependability. Response 200-8000 cps. Used on outdoor PA for sports, cornivals, call systems; best chaice for mablle 2 -woy adio. Compact size $49 / 64 \times 25 / 8 \times 311 / 16^{\prime \prime} \mathrm{H}_{\text {, }}$ fits palm snugly. Has heavy duty DPST press-to-talk switch for mike and relay control. Colled cord is high quality shielded with copper (not tinsel) con-
ductors extendoble to $51 / 2 \mathrm{ft}$. Hang-up brocket induetors
cluded.

(3) NEW 440 SIDEBAND MIKE. Has special narrow response from 300 to 3000 cps . for best radio trons mission. Cuts off sharply, glves excellent speech intelligibility even in presence of noise. Output - 52.5 db , high impedance. 7 ft . Ottoched cord." Solin
 No. 29 B 239 . Mita. List $\$ 25.00$. Net Eoch $\ldots . . . . . . . . . . \$ 14.70$ (3) 520 GREEN BULLET. Full ronge $100-9000 \mathrm{cDs}$. for PA and music. Metallic green, chrome grille. High impedance. Some size and style os model 440 above No. 29A212. Mfg. List \$22.50. Net Eoch.
(3) NEW 440SL SIDEBAND MIKE WITH GRIP-TOTALK STAND. Has DPST switch for relay and microphone control. Easily wired for optimum use on crophone contro. Vox or pushto-talk operation. Wt. $21 / 21 \mathrm{lbs}$.
either vor... $\$ 27.93$
No. 298240 . Mfg. List $\$ 47.50$. Net Eoch........

## COMMANDO SERIES

Dramatic looking rugged mikes unaffected by tem- 430 Commando. Like 415 in appeorance, with A25 perature or humidity. Non-directionol pickup pottern, response 60-10000 cps. Output - 52 db . Excellent for voice or music, recording, paging, lecturing, ete. Coses are sotin chrome and grey. Recommended desk stand, S38B, or S33B.
415 Commando. (Stond not supplied). With A25 swivel of adoptor for hand. High impedance.

| Stock | Shure <br> Type | Cose Style | Pickup Pottern | $\begin{aligned} & \text { With } \\ & \text { Coble } \end{aligned}$ | Size Overoll | Net Wr. | M\&r's List | Met Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline 29 A 209 \\ & 29 A 210 \\ & 20 A \Delta 11 \end{aligned}$ | $\begin{aligned} & 415 \\ & 420 \\ & 430 \end{aligned}$ | Hond or Stand Hond or Neck Hand or Stand | Non-Dir. <br> Non-Dir <br> Non-Dir | Attached 7. Attached $20^{\circ}$ Detachable 15 |  | $\begin{array}{r} 8 \mathrm{oz} \\ 4 \mathrm{oz} \\ 16 \mathrm{oz} \\ \hline \end{array}$ | $\begin{array}{r} \$ 27.50 \\ 30.00 \\ 38.50 \\ \hline \end{array}$ | $\begin{array}{r} \$ 16.17 \\ 17.64 \\ 22.84 \end{array}$ |

30 Commondo. Like 415 in appeorance, with A25 swivel adaptor. Hos selector for high impedance or
$150-250$ ohms low impedance and combination press.: o-tolk slide-lock switch shorting microphone in "OFF" position.
420 Lavalier "Commando". Supplied with neck cord or used in hand. Shorter case than 415-430, not mode for stond adoptor. Has selector for high impedance or 150-250 ohms low impedance.


- Coll Cord.
- Reloy Switch. Ronge.
Not Affected by Heat or
xact replacement for many citizens band 2. way radios . a tremendous improve ment for oll that come with ordinary home ecorder style mike. Will improve distance cnge by up-grading oudio modulation of set. Excellent for mobile hom stations, for puging and call systems. Response 350-5000 cDs, high impedance. Has spring-return thumb relay switch, handy hang-up bracket ack case and grili, chrome cap. Mitg. Lis $\$ 17.90$.
$\$ 10.53$


## ASTATIC HAM MIKES ON "G" STAND



(1)



The popular grip-to-tolk desk stand with sliding bor to lock in "on" position, in
chrome ond grey. Swlith oction is DPST for chrome ond grey. Switch action is DPST for relay ond mike. Stond ovailable separate
0 with ehoica of $\mathrm{D}-104,10-\mathrm{C}$ or $10-\mathrm{D}$ O. with choic? of D-104, 10-C or $10-\mathrm{m}$
microph Astone
Astotic With Mtr's Net

| No. | Type Microphone List | Eoch |  |  |
| :--- | :--- | :--- | :--- | :--- |
| NA |  |  |  |  |
| GO2 | GDIO4 | DIO4 | $\$ 51.20$ | $\$ 30.10$ |
| $7 A 403$ | $G-10 C$ | $10-C$ | 49.90 | $\mathbf{2 9 . 3 4}$ |
| $7 A 404$ | $G-10 D$ | $10-D$ | 59.50 | $\mathbf{3 5 . 2 2}$ |



## ASTATIC MIKE ELEMENTS

Exact, easily instrailed replocenents for populor Astatic models. Ceramil con be wsiat 5 replass crystal
cutput.
 sik. No. Type Fits Mikes Nef Eoch 29A 396 MC. Type Crystol JT-30, T-3 $\$ 4.12$ 29 A397 MC-127 Ceramic JT-30C, T-3C 4.12 294398 MC- 320 Crystal D-104 29 A 399 MC- 321 Ceromic D-104C 5.59 294400 MC- 226 Dynomic 10-D 9.70

## TURNER MIKE CARTRIDGES

Like new performance for old mikes. Fits Turner exactly. OK for many others. More durable ceramic ideal as repiacement for
aystal Type 2-BC, with odoporystol., Type 2-BC, with odoptor 2 hr $^{\prime \prime}$ D.

 29A384 28C Ceromic $22 \times, 33 \times 17 / 6^{\prime \prime} D . \times 56^{\prime \prime} \quad 4.70$ 29A385 23 Crystal $80,95 \times \quad 1^{\prime \prime}$ D. $\times 1^{\prime \prime} \quad 4.70$


Spade terminals and metal cord clomp attoched, vinyl insulated

| Stk. | Beid |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | No. | Cond. Length | Net Eoe |  |
| $29 B 244$ | 8495 | 3 | $10^{\prime \prime}$ to $41 / 2^{\prime \prime}$ | $\$ 0.99$ |
| 9 B245 | 8494 | 4 | $10^{\prime \prime}$ to $41 / 2^{\prime \prime}$ | 1.17 |

## SHIELDED MICROPHONE CORDS

 jingle conductor type has tinned copper shield; three conductor has superior Beld-foll-braid plus drain wire on one conductor only. All conductors rubber insulared. Available with glossy black-vinyl or extra durable from $7^{\prime \prime}$ to $4^{\prime \prime}$ dia. $180^{\prime \prime} ; 3$ cond. $101 / 2^{\prime \prime}$ to $5^{\prime}$ \% dio. Beld|  | Be |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 298246 | 8498 | I shlelded |  | - |
| 9 B 247 | 8499 | shielded | Neoprene | 72 |
| $9 \mathrm{B248}$ |  | 3 (1 shleld | Vinyl |  |
| 29B249 | 8497 | 3 (1 shielded) | Neopr | 14 |



FAVORITE ASTATIC CRYSTAL \& DYNAMIC MIKES

For full explanation of microphone element charocteristics and helpful how-to-order information on choosing microphones, see poge 113
Time proven top performers like the JT-30, D104 and the newer side-band 10-C and 10-D have made Astotic first-choice for amoteurs everywhere. The
 and PA; comes with toke-a-part desk stand. With 5 base removed, the stem is a handie. Mike case has $5 / 8^{\prime \prime}-27$ stand thread.
JT-30F, head only, same as supplied with JT-30.
302 and 151 recommended for tape recorders, have
330 Series. New high performance mikes with tough 330 Series. New high performance mikes with
Mylar diaphrogm. With $5 / /^{\prime \prime}-27$ stand adaptor and Mylor diophrogm.

| Stock |  | Suse | Trye of | ${ }^{\text {Reuponit }}$ CPs | Output | Cable | Cout | $\xrightarrow{\text { Size }}$ | Not. | $\mathrm{Mh} \mathrm{\%}_{\text {List }}$ | ${ }_{\text {Not }}^{\text {Noch }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29A3B6 | 17-30 | Desk-Hond | crssol | 30-10000 | -49 db | 8. Removoble | Grey | $2 \times 1.0 \times{ }^{\text {a }}$ | 21 oz. | \$18.40 | \$10.82 |
| 294387 | JT-30F | Stond Mro. | Crrstal | 30-10000 | -49 db | ${ }^{8}$ R Removable | Grey | 2i." ${ }^{\text {a }}$ |  | 15.90 | 9.35 |
| 29A388 | 151 | Oesk.Mand | Ceromic | 30-10000 | -4d db | $5{ }^{5}$ Attoched | Grey | 2meso. $\times 1 / 1 / 2$ | az. | 6.5 | 3.82 |
| 29A389 | M-302 | Dest-Mand | Crystol | 30-10000 | - ${ }^{48} \mathrm{db}$ | $8^{8}$ A Altoched | Gold |  | 1102. <br> 1600 <br> 1 | 12.50 <br> 17.90 | $\begin{array}{r}7.35 \\ \hline 10.53\end{array}$ |
| 29A390 | 333151 | Universol | Ceramic | 30-10000 $50-12000$ | - 58 | 8. Allioched | - Block | 11/4x1/2x41/4"H | 16 or. 21 or | 17.90 26.50 | 10.53 15.58 |
| 29 A391 | 335H151 | Universol | Dunomic | 60-12000 | -56db | 8. Atrached |  | 119x140x9/4"M | 2108. 28 az. | 26.50 31.00 | 15.58 18.23 |
| 29A393 | D. 104 | Stons Mig. | Crysol | 30. 7500 | -46 db | $5^{\text {S }}$, Removable | Chrome | 㑑 |  | 31.00 | 18.23 |
| 29A394 | 10.C | Stond mio. | Ceromic | 300. 3000 | -52 db | 5 5. Removoble | Grev $G$ Chrome |  | 902. | 29.70 | 17.46 |
| 294395 | 10-D | Stand Mio. | Dynomic | 3000. 3000 | -52 db | $5^{\text {5 }}$. Remorable | Chrome |  | 1502. | 39.70 | 23.34 |
| 294392 | 17 | Srond Mio. | Dmamic | 30-15000 | -52db | 20'Removable | cold |  |  |  | 54.39 |

77 (s) is superb high-fidelity, single direction Cordioid pickup mike with multi-impedance selector for
$30-50,150-250 \mathrm{chms}$ and high impedance. Highly recommended for high quality public oddress.
D.104, 10-C and 10-D. "Ham favorites" hove plug-in connector to fit Astatic " G " stand. Also with adaptor and cord to $\mathrm{fit} 5 / 8^{\prime \prime}-27$ threaded stands.
10-C and 10-D have tailored response for higher talk power needed on SSB and AM radio transmitters and poging coll systems.
(5) following Astotic type indicotes slide lock switch sharting microphone in "OFF" position.
All types supplied high impedance only, and all hove nan-directional pickup pottem except Model 77 explained above

## TURNER MICROPHONES



QUICK COMPARISON CHART FOR TURNER CRYSTAL, CERAMIC 6 DYNAMIC MIKES

Conservotively priced fine quality, high performance mikes for every use. For full explonation of micro phones element characteristics, reod how-to-order in formotion on page 113. Pickup Potrem: Essentiolly non-directional. Excellent where room is quiet and free from reverberation. Fine for recording, Daging, communications and general purpase public address 100 has swivel action elothing clip.
304 C high performonce, desk stond, lavalier neck cord assembly, and $5 / 8^{\prime \prime}-27$ stand áooptor

350 ceramic low cost mobile type with relay push switch is used with citizens band ond other communipod is low impedance
900 is low impedance 200 ohm, with SPST push-toalk switch. Highly recommended for paging, call systems. Excellent speech clarity. 58 is wired for quick selection of high impedance or High impedonce only, all types except P9D and 58 as exploined above.

|  | $\begin{array}{r} \text { Turner } \\ \hline \end{array}$ | $\begin{gathered} \text { Use } \\ \text { styis } \end{gathered}$ | Type of Element | Response | Output Level | Cable |  | $\begin{gathered} \text { Sixe } \\ \text { Overall } \end{gathered}$ | Net. W: | Mtr's List | Net <br> Eech |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29A367 | L100 | Lapel | Crystol | 50-10000 | -52 d6 | 20' Attoched | Grey PI. | $2^{\prime \prime}$ Dio. | 4 oz . | \$12.50 | 57.35 |
| 29A369 | $304 C$ | Univ. | Ceromic | 60-10000 | -60 db | 12' Atroched | ck PI. | $51 / 4 \times 15 / 8$ | 16 | 16.50 | 0 |
| 29 A371 | 350C | Hond | Ceromic | 80-7000 | -54 db | $5^{\prime}$ Coll Cord | Ivory PI. | $35 / 8 \times 21 / 2^{\prime \prime}$ W 11/2" T | 10 ar | 16.80 | 9.88 |
| 29437 | 90 | Mond/Stand | Dynomic | 150-7000 | -52 db | 7 'Removable | Salin Chrome | $43 / 4 \times 21 / 2 \times 2^{\prime \prime}$ | 30 oz | 32.50 | 18.11 |
| 29 A374 | P-90 | Hond/Stand | Dynomic | 150. 7000 | -52 db | 7 'Removable | Sotin Chrome | $43 / 4 \times 21 / 2 \times 2^{\prime \prime}$ | 30 ax | 32.50 | 18.11 |
| 294375 | 58 | Lavalier | Dynomic | 60-13000 | -60 db | 25' Alfoched | Grey | 4x1"0 | 8 - | 57.00 | 33.52 |
| 29 A376 | 330 | Stond | Dynamic | 100-9000 | -54 db | 20' Removable | Satin Chrome | $41 / 2 \times 23 / 4 \times 2$ | 2 | 35.00 | 20.58 |
| 294377 | 950 | Stond | Dynami | 100-1000 | -58 | $20^{\prime}$ Removob | Solin Chrom | $1^{\prime \prime} \mathrm{D} \times 81 / 2$ | 20. | 37.50 | 22.05 |

## TURNER "LIFT SWITCH" MICROPHONE

TURNER "LIFT SWITCH" MICROPHONE OFFERS YOU MORE VERSATILITY, THAN ANY OTHER COMBINATION OF SEPARATE MIKE, STAND AND SWITCHES

Hondy one-piece unit-mike and stond cam convenience. (3) Move the lever with control switch-integrated into one unit for utmost operating convenlence. Ideal for dispotch, control tower, amoteur and 2 -way radio.
Exclusive 3 -woy switching arrongement. (1) Lift the mike, it's live outomatically; set it down for outomatic shut-off. Additional switch in bose deactivates lift-switch when necessary. (2) Press the front bor for push-to-talk: gives inter Stk. No. Turner Type Switching Overall Finish Mfg. List Net Each $\begin{array}{lllll}\text { Stk. No. Turner Dynamic } 29 \text { A } 379 & 250 & \text { D-Woy, DPST Chrome } \$ 49.50 & \$ 29.11\end{array}$ $\begin{array}{llll}29 A 379 & 250 & \text { Dynamic } & \text { Dynamic } \\ 29 A 380 & 252 & \text { 2-Way, DPST }\end{array}$ $\begin{array}{llll}29 A 380 & 252 & \text { Dynamic } & \text { 2-way. DPST } \\ 29 A 381 & 256 & \text { Crystal } & \text { 3-Way, DPST }\end{array}$ $\begin{array}{llll}29 A 381 & 256 & \text { Crystal } & \text { 2-Way, } \\ 29 A 382 & 254 & \text { Crystal } & \text { 2-Way, SPST }\end{array}$ lock switch for
freeing honds.
2-Way switching is some, less llft switch DPST switching is for microphone and reloy, SPST for microphone only Pickup pattern, non-directional. All elements high impedance. Dynamic output -52 db , response $60-10,000 \mathrm{cps}$. Crystol - 22 db , response 60-10,000 cps. Crysto output -48 db response $60-8000 \mathrm{cps}$.

Grey Chrom
Grey

MIKE FLOOR STANDS AND BOOMS

(1)b-A Leader value floor stand a top-notch quality stand with heavy high-gloss, double chrome ploted Brass Tubes. Easily adiustable from $35^{\prime \prime}$ to $64^{\prime \prime}$ in height by simple, damaoe-proof one-hand clutch, without mar or scratch on the chrome tubes! Weighted $10^{\prime \prime}$ dia. base is finished in baked wrinkle enamel, has pads to prevent floor mars. Clean $5 / 1{ }^{\prime \prime}-27$ threads.
Stock No. 32 A 3 . Leoder value Floor Stond. Wt. 9 ibs. Net Eoch $\$ 5.73$

## ATLAS "VELVET ACTION" MICROPHONE STANDS

No Slipping - No Rattle - No Noise - No Scratching - No Wear Feature full-grip, jam-proof elutch for easy height adjustment, functionally designed "Anti-tip" bases with chrome cover or scuff-proof baked on gray wrinkle finish, and life-time super chrome plated tube assemblies. MsilC uses 7/2 "and $5 / /^{\prime \prime}$ tube; MS-20 and MS-25, $1 / /^{\prime \prime}$ and $7 / 8^{\prime \prime}$ tube. MS-25 has controlled "air lock" cushion for extra quiet collapse of stand. All have
$5 / 81-27$ top thread.

| Stk. No. | Model | Height | Weight | Base | Not E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (1) 32812 | MS-11C | 35", to 65" | 12 lbs | 10, Chrome | \$7.84 |
| (1) 3241 | MS-20 | $37^{\prime \prime}$ to 66"' | 1.5 lbs . | 12", Wrinkle | 9.41 |
| (1) 32A2 | MS-25 | $37^{\prime \prime}$ to 66" | 24 lbs. | 17" Wrinkle | 15.29 |

(3) FOLD-UP DELUXE FLOOR STAND. Button at top gives one-hand height control from $37^{\prime \prime}$ to $66^{\circ \prime}$. Locks automatically. Locking-type adjustable leos permit stand to be ploced against wall. Legs fold back for storage, have spread when extended. Beoutiful satin chrome finish. Standard No. 32All Eled stem. Shpg. wt. 9 lbs

BooM ATrachM (1) BOOM ATTACHMENT. An extremely versatile device to center mike over best pickup orea. Can be attoched to any stand having 5/e"-27 thread. Ideal for 'piano and similar pickup where obstocles make regular mike stond impossible to use. All swivel parts are die-cast resulting in smooth operation and
$31 / 2$ lbs.
No. 32814 . Atlos B8-1. Mfo. List $\$ 7.50$. Net Eoch.
$\$ 4.41$
() "FLEXO" MIKESTER Clamp-On Desk or Pulpit Boom Stand. Has universolly adjustable spring controlled flooting arms. Clomps to any desk Pulpit or Desk Stand! Weipht, 6 lbe 36 ar in any ditction Mo 31 50. "FLEXO" MIRESTER Pbs.
No. 31A50. "FLEXO" MIKESTER Pulgit or Desk Stand. Net Eo.
58.23

## POCKET SIZE TWO-WAY RADIO 9 TRANSISTOR CITIZENS BAND WALKIE-TALKIE <br>  <br> TOP QUALITY IMPORT <br> COMPARE AT OVER \$100 EACH FOR <br> - Reliable voice communications whare ever you 90. - Extro convenience and safefy. - Up to 1 mile or mare range. <br> MO LICENSE REQUIRED! CAN BE OPERATED BY ANYONE

Pravides clear, understandable 2 -way voice contact. Allaws complete freedom af movement, no wires! Supplements or tokes the place of speakers, intercoms and telephone hookups on construction jobs, moterials yards, playing fields, etc. Outmodes wig wag signals and laud shouting, providing greoter safety and convenience for autdoors men in booting, hunting, surveying, etc. Up to 1 mile ronge, more over water
Tiny yet thoroughly reliable crystal controlled transmitter-receiver is contained in a campact and light-weight metal case, anly $67 / 8$ $21 / 2 \times 15 /{ }^{\prime \prime}$. Finely engineered superheterodyne circuit uses 9 transistors, 1 diode, I temperature compensating voristor. Receiver sensitivity 2 microvolts, transmitter power input 90 mv . Has push-to-talk switch, internal speaker-microphone ond talescoping antenno. Pawered by 7 easy-to-get penlight cells. With leather carrying case, personol earplece and crystal for channel 7, less batteries.
No. $35 A 314$
$\$ 49.95$ for
$\$ 89.95$

DESK AND BANQUET MIKE STANDS


(5)
(6)
(1) ATLAS "CHESTY" MIKE SUPPORT. Hangs around neck on lavalier cord. Wire frame and flexible gooseneck hold mike-no hands!
\$2.94
O CLAMP-ON BRACKET. Hoids securely on flat surface
 Mfo. List $\$ 3.50$. Net Eoch. (1) MULTI-PURPOSE BRACKET. Swivels $350^{\circ}$ at base or up and down, with positive stops. Moving parts spring looded. Needs no locking adjustments. Cable moy be concealed in arm. Completely tamper-proof. All chrome. Length $123 /^{\prime \prime}$. 5 S/ " 27 threaded. Wt. 3 libs.
No. 204798. Atlas US-2. Mfo. list $\$ 9.50$. Net Each
\$5.59
(1) TOUCH-TO-TALK DESK STAND. Dependable, DPDT switch action for relay control, paging, radio communiceitions. May be locked "on", or in-

\$10.29 No. 208688. Electro-Yoice 428. MTO. List \$ \$17.50. Net Each. 90 "STREAMLINED" DESK STAND. Features concealed rear cale exit and functional design. Perfect for ony mike. Gun metal and chrome with rubber

No. 20A94. Atlos OS-IO. Mfo. List $\$ 5.00$. Net Each.

## CHROME-BRASS TUBE DESK STAND. Stem $4^{\prime \prime}$ high,

## HANDY MIKE MOUNTING ACCESSORIES

$\Omega$
(1)
(2)
10
(4)

(6)
(7)



Highest quality chrome plated fittings, standard $5 /{ }^{\prime \prime}-27$ threadec, for attaching microphone to almost any stand, pipe or flat surface.


## CARDIOID DYNAMIC STEREO MICROPHONE

Designed for Home Stereo Recording. Prafessional fidelity dynamic moving cail type with dual cardioid cartridges set of right angles for left and right stereo channels. Hos unusually high output, -50 db , and greater sensitivity than other mikes. High impodance, 25,000 ohms. Aluminum and steel encased dynamic olements will take rough handling and high temperatures up to $165^{\circ} \mathrm{F}$. Withstands high humidity. Fin for open air or indoors
Attractively housed in very strong plastic finished in blue and gray. Height $61 / 2^{\prime \prime}$. With bose ond atfached $16^{\mathrm{ft}}$. 3 conductor shielded coble. Wt. 2 lbs. Mfo. list $\$ 39.50$
$\$ 29.50$


NORELCO PROFESSIONAL
QUALITY - SAME AS WITH \$399.50 RECORDER

# MICROPHONE CONNECTORS AND ACCESSORIES 

AMPHENOL MICROPHONE CONNECTORS


Standard single contact pressure type connectors with $5 / 8-27$ mole or female thread as Illustrated. Made of brass, chrome plated. Type 75 -MCIF has o renovable coupling ring (see inset) and will mate with both male and female fittings. Type $75-\mathrm{MCIM}$ is supplied less the coupling ring. Type 7E-CL-PCIM has a spring contact to short across circult when coble connector is removed.

$\quad$ Deseription
Univ. Mole or Female
Mole, Less Ring
Female, Angle
Male, Chassis
Chossis, Shorting
1/"Phone Plug Adapter
Dust Cover

| $1-49$ | $50-249$ | 250 |
| ---: | ---: | ---: |
| Eoch | EEch | Eoch |
| $\$ 0.44$ | $\$ 0.34$ | $\$ 0.31$ |
| 1.40 | .31 | .28 |
| 1.23 | .95 | .86 |
| .35 | .27 | .24 |
| .40 | .39 | .35 |
| .47 | .37 | .33 |
| .42 | .32 | .29 |

## AMPHENOL MIKE SWITCH

Mole one end, female on other, mates with all standard 5/8"-27 single contact connectors. Push-to-talk or slide switch for permanent contact. Shorts ocross circult in "OFF" position.
Stk. No. Type $\quad 1-49 \mathrm{Eo} \quad 50-249 \mathrm{Eo}, 250 \mathrm{EO}$.


## AMPHENOL SHIELDED CABLE CONNECTORS

(1)
(2) (3)

(1)

(6) $\frac{18}{13}$

Equipped with screw coupling ring to prevent accidentol disconnection. Bross atrome-plated. 2 and 3 contact cable connector has $f^{\prime \prime}$ spring cord protector, 4-contact has ", 3/8". Type (1) chassis connector mounts in 5/8" hole. "ype (6) mounts in "32"


## SWITCHCRAFT "MINI-MIX" 2 INPUT MIXERS



Aecommodates two high impedance microphones or pickups, each with separate gain control for mixing. Control knobs ore recessed. Case is
 with aftractive brown finish and nickeled accessories. Wt. 4 oz .
a) 128454. Type 310, Phone Jack Inputs, Phone Plug Output. Net Ea. (9) 128450. Type 315, Phone Jack Inputs, Mike Conn. Output. Not Ea, i1) 20A259. Type 340, some as type 310, less volume controls. Not Ea.

CANNON XLR AUDIO CONNECTORS


Durable professional type connectors for oudio equipment. Stondord on many types of microphones, amplifiers and recorders. (3 conductor). Mating units are polarized ond equlpped with a latchlock device to prevent accidental disconnection. Housing finlsh is nickel satin. (1) and (3) have serrated finger grips for easier handling. With cable clamp and neoprene cable relief. Will take up to "O.D. coble. Shpg. wt. 2 oz.

| Stk. No. |  | Description | $\begin{aligned} & 1-9 \\ & \text { Eoch } \end{aligned}$ | $10-49$ Each |
| :---: | :---: | :---: | :---: | :---: |
| (1) $12 C 257$ | XLR-3-11C | female coble plug | \$1.29 | 51.18 |
| (3)12C259 | XLR-3-12C | male cable plug | 1.13 | 1.03 |
| (8124194 | XLR-3-15 | $90^{\circ}$ female plug | 3.38 | 3.10 |
| (6) 12 C 260 | XLR-3-31 | female wall recpt. | 1.93 | 1.7 |
| (5) 12 C 261 | XLR-3-32 | male wall recpt. | 1.10 | 1.0 |
| (12A193 | XLR-3-42 | $90^{\circ}$ male mike recpt. | 1.39 | . 27 |
| (7) 12B291 | XLR-3-13 | female woll recpt. | 1.85 | .70 |
| (1) 12B293 | XLR-3-14 | male wall recpt. | . 83 | 76 |
| (1)128295 | XLR-3-13N | female panel recpt. | 2.14 | . 88 |
| (I) 128297 | XLR-3-14N | male panel recpt. | 1.73 | . 69 |



## SWITCHCRAFT MIKE ACCESSORIES

## MICROPHONE VOLUME

## CONTROL ADAPTOR

for use in high impedance circuits to increase or reduce omplifier volume. Attaches between microphone and cable with stondard threaded connectors
Handy for critical odjustments of volume right of the microphone when feedback is a problem and amplifie reoch. Shpg. Wh. 4 oz, Net Eoch
No. 12A239. Type 329. Net

## MICROPHONE CONNECTORS


(3) Y-CONNECTOR. For 2 mikes in parallel on a y- input. Has standard $5 / 8-27$ threade No. 1ZA307. Type 25Y. Net Each 971 (3) DOUBLE MALE CONNECTOR. Joins two $5 / 8$ standord female connectors. Net Each
No. 12A356. Type 2501MT. Net

416
(3) DOUBLE FEMALE CONNECTOR. Joins twa $5 / 8^{\prime \prime}$ stondord male connectors No. 12A357. Type 2501FT. Net Each

476


## "MINI-CON" CONNECTORS

ABOUT $1 / 4$ THE SIZE OF STANDARD CONNECTORS
For single conductor shielded coble up to $\mathrm{B}^{\prime \prime}$ O.D. Panel receptocle mounts in si" hole when grounded, $1 / 4$ " hole when insuloted.
(1) 12A358. Type 5501F Female Cable Plug. Removable ring. Net Each.


## 35 c

## READY-MADE MICROPHONE CABLE 25-ft. Iong with $5 / 8^{\prime \prime}-27$ U <br> both ends 52.94

## SWITCHCRAFT "MIX-AMP" MINIATURE TRANSISTORIZED AMPLIFIER

Designed "for use with resistance type mixers
such os "Mini-mix" of left, overcomes usual such os Mini-mix of left, overcomes usua loss in such mixers ond provides a 3 db gain. Con be 30 ft wh without serious loss of hioh up to 30 ft . long without serious loss of high trequencies. Compact, completely portable, "uses ", volt bottery lincluded. Equipped with "hi-lo" impedance switch and off-on switch. and provides 6 db gain. On low impedance and provides 6 db gain. On low impedance hos 25 go magnetic phono cortridges. Standord phone jock input and phone plug. output. $\$ 11.76$
No. 294113. Model 501 Mix-Amp. Net Each................... 1. Some os obove, except hos stondord mike connectors input and output.
No. 294114 . Model 502 Mlx-Amp. Net Eoch.

## SWITCHCRAFT TRANSISTORIZED MIXERS

4-channel high impedance stereomonoural mixer feoturing built-in transistor amplifier in each of two stereo channels with individual gain controls on each input. "Stereo-
Mono" switch allows oll 4 inputs to Mono" switch allows all 4 inputs to be used manaurally. Amplifier pow-
ered by 9 volt battery (included) ered by 9 volt battery (included)
overcomes usual loss encountered in overcomes usual loss encountered
resistance type mixers and provides resistance type mow noise level, low distortion, frequency response 20 to 20,000 cps. Inputs ore phone jacks,
 phono jacks output.
Modern styling with tan finish, brown knobs with gold metallic inserts. Size
 Tronsistorized Monoural Mixer. Same as obove except single transistor ompliNa. 20A197. Model 301TR. Mixer. Net Each

## AMPHENDL "QWIK" MIKE CONNECTORS



Quick-disconnect microphone connectars make for easy, efficient operation. Disconnect is mode by finger-tip slide button on side of cable connector, or of zinc alloy. Bronze contacts ore gold-plated over silver. Inserts are blue diallyl phthalate.
Stk. No Type Fig. Cont. Stk. No.
5 Trpe
$91-853$ 12 A 21 $12 A 28$
$12 A 29$ 12429 $12 A 31$
$12 A 32$
 $-853$

## Description Male Cable

 Female, Cable Female, CableMale, Chassis Male, Chassis Male, Coble Female, Cable Female, Cable $\begin{array}{ll}\text { Male, Chassis } & 1.96 \\ \text { Female, Chossis } & \mathbf{2 . 9 8}\end{array}$
1.35
1.55
1.00
2.22
1.43
1.98
1.04
2.29 $\begin{array}{ll}0, & 25 \\ 5 & \$ \\ 5 & \\ 2 & \\ 3 & \\ 8 & \\ 4 & \end{array}$
c. 100 Ea.
 . 78
.768
$i .68$ .78

1. 58
1.00
1.37
73
1.83


MEETS ALL FGC
REQUIREMENTS

## B-A's NEW IMPROVED CLASS "D" CITIZENS RADIO PHONE

## BUSINESS HOME COMMERCIAL FARMS BOATING

COMPLETELY WIRED
MFG. LIST $\$ 99.95$
SUPERHET TRANSCEIVER
$\$ 84,50$

- satisfying performance - complete operating convenience - all the wanted features

Receiver Section. Super sensitive super-het with vernier tuning on all 22 eitizens band channels. Has bulit--in "SF" meter, full squelch control, noise limiter, AVC, RF stage, high selectivity, stable nondrift performonce ond 3 wotts oudio power. Tronsmitter Section. Full' 5 watts (legal moximum) input power to a plote moduloted RF power omplifier, crystol conirolled on ony of the 22 channels. Has front panel selector for 5 crystals, all eosily. occessible from top of set, press-to-taik ceramic microphone, fool proof reloy control and meter to read plote current of omplifier. Transmitter output matches dipole, ground plane, beom or mobite
antennas through cooxial connector of rear. In durable steel grey cabinet $101 / 4^{\prime \prime} \times 63 / 3^{\prime \prime} \times 43 / 4^{\prime \prime} \mathrm{H}$. grey and oluminum panel. With microphone, crystal for 1 channel and unlversal moblle mounting brockets. Wt. 9 lbs No. 35 A 267 . Mfg. list $\$ 99.95$ For 115 V .60 Cy. AC. Net
$\$ 84.50$
Moblle Power Supply. For battery operotion in ouNo. 35 A255. Model TR-12. For 12 V. Net $\$ 12.95$ No. 35A255. Model TR-12. For 12 V. Net.... $\$ 12.95$
No. 35 A256. Model TR-6. For 6 V. Net....... $\$ 12.95$ Extra Transmitting Crystals. For ony of 22 chanExtra Transmitting Crystols. For ony of 22 chan-
nels. Specity frequency or chonnel.
No. 50A62. Net Each....... $\$ 2.95$ For........ $\$ 10.95$

## CLASS "D" CITIZENS RADIO IS FOR EVERYONE! NOW YOU CAN HAVE YOUR OWN 2-WAY RADIO PHONE

For Use Wherever Human Veice Communicotion is wonted for Personal, Business or Emergency use on Every Kind of Vehicle or of Fixed Locations.

Operating permit oveitioble to USA Citizens ioe is or oiver by bopllication on FCC Form 505 . Tronsmitter Dower
limited by low to 5 watts maximum.

NORMAL RANGE: Distonces covered ore dependent on local terrain and effectiveness of equipment and ontennas; therefore ranges cannot be guaranteed. Typical base station installations, using proper onteqnna installed in the clear can usualiy operate up to 15 or 20 miles; base to mobile up to 5 or 10 miles; between mobiles up to 3 or 5 miles. Operition over woter is particularly effective. For Moblle ond Bose Station Antennas see page 124 QUANTITY USERS; Write B-A's Citizen Band Rodio Dept. for recomrendotions and price quototions.

## FOR THE VERY BEST PERFORMANCE



## JOHNSON MESSENGER 5-CHANNEL CLASS "D" TWO-WAY <br> RADIO TRANSCEIVER <br> - Operetes with highest trensmifter efficiency beceuse elrcuits and components are copoble of more than <br> Receives with morimum <br> Receives with moximum readobillty ayer greatest possible distance-no tiner recelver made.

Deluxe 10 tube superheterodyne receiver-5 watt tronsmitter combination that performs with unmatched claritv. Superbly engineered, uses rugoed. ized components, many of which meet militarv requirements.
Has automatic noise limiter odjustable outomatic squelch, automatic vol ume control, extreme sensitivity for reading weok signals, greater selec. tivity for minimum odjacent chonnel interference, 5 -channel switch on front panel and press-fo-talk ceramic microphone. Switching channels requires no realignment for paak operation. Efficient conservatively rated transmitter has adjustoble pi-net output for all ontennas and transmit indicator to monitor operation. Duol power units use vibrotor type DC supply In perforated steel cobinet, grey wrinkle finished with chrome ploted front ponel. Size $55 / 8 \times 7 \times 113 / /^{\prime \prime}$ deed. Shpa. wt. 14 lbs. With crystals for one = chonnel, less ontenno
No. 35 Ás89. Modet $\angle 42.128 .115 \mathrm{~V}, \mathrm{AC} / 12 \mathrm{~V}$. DC. Net Each... \$144.95
No. 35A590. Model 242-127. 115 V. AC/6 V. DC. Net Eoch............ $\$ 144.95$ No. 35 A591. Model 242-126: 115 V . AC only. Net Eceh..................... $\$ 134.95$ No. 35A592. Model 251-828. Under dosh mounting kit. Net Eoch........... 52.50 No. 35A593. Model 251-830. Swing-away handle. Net Each..................... 51.50 No. 50A94. Crystals for other channels. Specify channet. Per Pair......... \$5.90

## NEW JOHNSON PERSONAL MESSENGER HAND-HELD 2-WAY RADIO TRANSCEIVER



Moy be operoted witho
BUY OM EASY TERMS - Hos full squelch control. - Automatic volume control. - Built for "on-the-job" service. Vastly improved superheterodyne eircuits operate built-in loudspeaker with clear intelligibility giving up to $40 \%$
greater range over similar 100 milliwatt units. Operating greater range over similar 100 milliwatt units. Operating
range usually up to a mile or more. Works for short range range usually up to a mile or more. Works for short range
paging or 2 -woy with antenna fully collapsed. Requires no license when used with other 100 milliwatt transceivers; when licensed, operates at extended range with system employing full power transceivers. Uses 11 tronsistors, 4 diodes, powered by 8 penlight cells in plug-in compartment, or by optional long life nickel-codmium rechargeable battery. Battery compartments are quickly interchangeable. In rugqed high-impoct cose $8^{\prime \prime} \mathrm{H}, 31 / 2^{\prime \prime}$ W, $2^{\prime \prime}$ thick with convenient strap handle. Wt. and 8 cells 23 oz . Furnished with olug-in crystals for 1 channel, less bofferies.
No. 3 Sa332. moded $242-101-1$.
Net Eoch
No. 35 A325. Set of 8 Penlight "Z"̈ Cells. Net............... $\$ 1.12$
 No. 35A333. Model 250-804. Net Eoch
No. 35 A334. Private Eorset. Net.
$\$ 19.95$
No. 50466 Crystals for Other Channels. Spesify Channel

## SAVE \$\$\$! BUILD YOUR OWN... הाFD CLASS "D" RADIO PHONE SIMPLE "BEGINNER-TESTED" STEP-BY-STEP INSTRUCTIONS GUIDE YOU TO A PERFECT COMPLETION

## NEW TRANSISTORIZED WALKIE-TALKIE

All U.S. mode . . on original product of EICO research, so designed that anyone can complete the assembly cost.
Tiny size, only $15 / 8 \times 25 / 8 \times 7 / /^{\prime \prime}$ long in neat durably finished aluminum case. Self-contained rechargeoble nickel-cadmium battery ( ©charger in-
cluded) provides fram 10 to 12 hours cluded) provides from 10 to 12 hours Full superhet circuit 17 transistors, 1 diodel has omazing 1 to 2 microvolt sensitivity, 100 milliwatt transmitter power. Ronge up to 1 mile or more. Built-in speoker-mike gives
clear reproduction. Has jock for eorclear reproduction. Has jack for eorcodmium bottery and charger, nickel cadmium bottery and charger, crystal for channel 16 and simple pictorial
instructions. Shipg. wt. 2 b.
No. 35 A 356.
Model 740 K Kit. Net Each. $\$ 54.95$ No. 35A357. Model 740W. Factory Wired and tested. Net.......... 579.95 CRYSTALS FOR OTHER CMANNELS Na. 50A63. Specify channel. Matched


## ALL NEW EICO DELUXE 770 SERIES RADIO PHONE KITS WITH ALL THE FEATURES

- Press-to-talk mithe and reiay cantrol - Tunoble all-chonnel recelver. - Optlonal crystal recelve channel - 4 chonnel tronsmit erystal switch - Full featured superhet circuit.

Operates with complete versatlity, complete canvenience
thon of everything between 26.965 and 27.255 MC . noise limiter, AVC, full selectivity and sensitivity, fine electrical stability, 8 tubes ( 4 are dual purpose). Crisp, clear audio from $3 \times 5 \mathrm{P} M$ speaker. Transmitter operates at full 5 watts. Meets all FCC requirements. Alt selfcontained with power supply in $6 \times 81 / 2 \times 9^{\prime \prime}$ brown and beige steel cobinet Dualpowered units hove moblle bracket. With 1 transmit erystal. 12 lbs. No. 35A358. Model 772K. Kit for 117 V . AC and 12 V . DC. Net Ea... $\$ 79.95$ Na. 354359 . Model 772W. Factory Wired ond Tested. Net Each.......... $\$ 109.95$ No. 35 A360. Model 771 K . Kit for 117 V. AC and 6 V. DC. Net Each 579.9 No. 35 A361. Model 771 W. Factory Wired and Tested. Net Each No. 35A362. Model 770K. Kit for 117 V . No. 35 A363. Model 770W Factory Wired and Tested. Net Each. a. 50A64. STALS FOR OTMER CHANNELS (Specify Chonnel No. 50A65. Transmitting Only. Net Each. Transmitting. Pair Far.

# FINEST RECEIVERS FOR WORLDWIDE SHORTWAVE LISTENING aVAILABLE ON B-A's EASY PAY PLAN ... NOTHING dOWN ... UP TO 24 MONTHS TO PAY 

HALLICRAFTERS S-119 "SKY BUDDY"
SHORT WAVE \& BROADCAST BAND RECEIVER



- Receives Volee ond Cade

Signals.

- Tunes Music and News
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Speoker or Heodphones

- Avolloble Wired or In Kit


## FOR FUM-FILLED HOURS OF LISTENING AT LOWEST COST:

The fomous old name "Hollicrafters Sky-Buddy" is remembered with nostalgia by many old-timers in radlo who first thrilled to the wanders of short wove listening while tuning a set with the identical name
The new Sky-Buddy hos been revised.... It's completely up-to-date in for more sensitive to weak signals... much eosier to tune...you'll enjoy hours of pleasure tuning short wave, forelign broadcosts, homs, time signols, eic. on two bonds 2 to 5.5 MC and 6 to 16 MC ; also standard broadcost 535 to 1620 KC .
Superheterodyne, 3 tubes, separate diode detector. Has beat oscillator for ejde reception. Safe transformer operated, with silicon rectifier. 117 V . € Cr. AC only. Size $101 / 2^{\prime \prime}$ W $\times 71 / 2^{\prime \prime}$ deep, $5^{\prime \prime} \mathrm{H}$. Wt. 9 lbs. $\$ 49.95$
Mo. $35 A 445$. Foctory Wired. Net................................ $\$ 4$. SAVE $\$ 10$-SKY-BUDDY IN KIT FORM
With easy, beginner-tested pictorial instructions. Con be finished by anyone Mo. 35 A446. S-119K
$\$ 39.95$
BRAND NEW FROM HALLICRAFTERS
\$9995
MODEL 5118 5 BAND RECEIVER

WITH 185 KC TO 31 MC TUNING RANGE


- Covers Shortwove, Broodcost and

Longwove.

- Electricol Bondspreod Stide-Rule
- Elect
- Naise Limiter-5 Tubes Plus Rectifiers.

Features a plenty! Tremendous tuning range covers low band oeronoutical, mabile and International distress frequencies plus U. S. Gov't. weather zroodcosts, not found on any other set... as well as the broadacst, ama--eur and international shortwove bonds. All 5 bands, 185 KC ta 420 KC 795 KC to $1.62 \mathrm{MC}, 1.6 \mathrm{MC}$ to $4.95 \mathrm{MC}, 4.85$ to $15 \mathrm{MC}, 14.8$ to 31 MC
-Iearly calibrated on full-length slide rule dial bandspread for easy tuning :learly calibrated on full-length slide rule dial bandspread for easy tuning. tas outomotic noise limiter, beat oscillator for code, internal speaker; jacks Ior headphones, phono input and socket on rear for external power source.
Transformer operoted, $105 / 125 \mathrm{~V}$. 60 cy . AC. Size $133 / 4^{\prime \prime} \times 61 /{ }^{\prime \prime} \times 81 / 2^{\prime \prime} \mathrm{D}$. Transformer operoted, $105 / 125 \mathrm{~V} .60 \mathrm{cy}$. AC. Size $133 / 4^{\prime \prime} \times 61 / 8^{\prime \prime} \times 81 / 2^{\prime \prime} \mathrm{D}$.
N. 19 lbs.
No. 354447 . Net...............................................................

MAKE YOUR LISTENING POST REALLY COMPLETE NEW HALIICRAFTERS VHF RECEIVERS - IMDUSTRIAL • POLICE - AIRCRAFT


3 MODELS TO MONITOR all operational and EmERGENCY BROADCASTS - 30-50 MC FM - 108-135 MC AM -151-174 MC FM MANUAL OR CRYSTAL CONTROLLED TUNING

## HALLICRAFTERS MODEL S-120 SHORTWAVE RECEIVER

## COMPLETELY WIRED READY-TO-GO <br> s6995

TT'S A WINNER

- Feotures 3 Antennos. Slide Rule Bondspread Diol. - New Compoct Styling.

AM EXCITING SHORTWAVE SET . . . A FINE STANDARD 8ROADCAST RECEIVER TOO!

You can be in on the action with this exciting new high styled super-sensitive radio receiver. Tunes 1600 KC to 30 MC and 550.1600 KC .. pulls in the best of short wove on voice and code; ships, planes, foreign stations, amateurs, police, emerbroadcast band.
Feotures choice of 3 ontennas, ferrite loop for broadcast band, adjustable whip for short wave reception or wire antenna (all except wire antenna are supplied). Has large slide rule dial to show you where to listen for what, electrical bandspread for greatest tuning ease, built-in speaker with front panel iack for headphone or external speaker, BFO/selectivity control, standby/receive switch, 4 tubes plus one rectifier. Beautiful new compact styling with "clean look" of modern precision equipment will complement any room. Cabinet is gray steel with silver trim. $131 / 2 \times 57 / 6 \times 83 / 4^{\prime \prime}$ deep.
Operates from 105.125 V. $50 / 60$ cy. AC/DC. 30 wotts. Shpg. wt. 12 lbs. $\$ 69.95$
No. 35 A293. Net Each..........................................................................

## NEW NATIONAL NC-190 DELUXE GENERAL COVERAGE RECEIVER




#### Abstract

Has tremendous performance odvantages over sets costing up to $\$ 100$ more because of great sensitivity (1 microvolt for $10 \mathrm{db} \mathrm{S} / \mathrm{N}$ ratia) and the exclusive Notional Ferrite Fiter glving choice af 5 KC AN. 3 KC SSB or 600 in a double conversion circuit hoving seporate product detector far SSB, in o double conversion circuit hoving seporate product detector for SSB, Herighly stable both mechonically ond eiectrically. Attractive blue finished cobinet $83 / 4 \times 153 / 4 \times 9^{\prime \prime}$ deep. Wt. 28 lbs. For $105-125 \mathrm{~V} .50-60 \mathrm{cy}$. AC. No. 354440 . $\$ 199.50$ No. Each. 


POWERFUL 18-TUBE HAMMARLUND HQ180C A "DREAM RECEIVER" THAT HAS EVERYTHING FOR FINEST SHORT WAVE LISTENING, COMMERCIAL OR AMATEUR USE!

- Has Telechron Clock Timer For - Automotic Turn-on Mir. Amoteu
- Bonds Calibroted.
- Crystol Filter Plus Adjustoble Slot

Frystol

- Crystol Colibratar Built-In
- Automotic Noise Limiter.
- Collbrated "s" Meter.

Am-SSE-6v AT TH Very Bext
Greatly advanced circuit techniques ollow olmost infinite "tuning" adjust-

$$
\begin{aligned}
& \text { Greatly advanced circuit technlques ollow olmost infinite "funing" adjust- } \\
& \text { ment to overcome troublesome interference and great sensitivity; } .5 \text { micro- }
\end{aligned}
$$ volt on AM MV on CW to distont, weok signals; yet not complicoted in operotion. Here truly is the "dream"' receiver for the serious listener. Super high performance meets critical professional requirements. Has high frequency erystal filter in triple conversion IF ranges, tuned if omplifier with 7 position selectivity from .5 to 6 KC , separate linear detector, selectable side bond, outomatic noise limiter olso on CW and SSB and "outoresponse" oudio thot outomotically adjusts to receiving conditions. In modern desion cobinet with heovy die cost ponel. Size $101 / 2^{\prime \prime} \times 14^{\prime \prime} \times 13^{\prime \prime}$





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monitgaving 3-way gUarantied teadeoms 90-DAY WARRANTY ON ALL COMPONENTS 10-DAY TRLAL AND MONEY-BACK GUARANTEE IFull Refund of Purchose Price less only tronsportation chorges) 90-DAY $100 \%$ RETURN VALUE ON NEW GEAR (If returned in origiool condition) ISTEFETGES HALL-KITS • . BUILD-AND-SAVE OR BUY READY-TO-OPERATE A COMPPLETE MAN STATMON AT REAL DOMNGTO-EARTM PRMES


## MODEL SX-140K RECEIVER KIT

Completely new in design, both in styling and circuitry. Tunes six amateup bands
 ratio shide rule dial, crystal calibrator band edge marker, built-in erystal oscillator aufomatic noise limiter, antenna trimmer, high sensitivity and sharp selectivity alf the important features of a complete amateur receiver. Uses 5 dual purpose and 2 silicon diode rectifiers, Complete amateur receiver. Uses 5 dual purpose tubes H. Power drain only 47 watts, 117 V. $50 / 60 \mathrm{cv}$. AC. Wt. 14 lbs. $\$ 104.95$ No. 35A296. SX.14OK Receiver Kit. Net Each........................................ $\$ 104.95$ No. 35A295. Foctory Wired SX.140 Receiver. Nep Each No. 35A9. R48 SPEAKER. Ea $\$ 19.95$ No. 35A472. R47 Speaker. Eo $\$ 12.95$


MODEL HT-40K TRANSMITTER KIT
A carefully designed 75 watt six band ( 80 thru 6 meters) CW/AM phane rig with features as important to old timers as they are to novices. Compact in sze and light in weight matches the SX-140 Receiver perfectly. Well engineered circuit uses o OCX8 crystal oscillator/buffer, 6DQ5 power amplifler with adjustabe pi-section output to match antenna impedance, $12 A X 7$ speech amplifier and $6 D E$ ? modulator, plus 2 silicon diade rectifiers in the power supply. Features TVI and harmonic suppression, low hum and naise dual range tuning meter, ideal CW keying. Operates full 75 watts input power on all bands except 6 meters where input is slightly less. Operates on 117 V. $50 / 60 \mathrm{cy}$. AC power. Wr. 19 lbs.
No. 35A294. Factory Wired HI40 Transmitter. Net Each
$\$ 89.95$

## THE TOPS IN POPULARITY



HALLICRAFTERS SX-111 RECEIVER. New top-performer for the hord-topleose SSB-CW-AM operotor. Covers $80,40,20,15$ and 10 meters in 5 full length bond spread ranges, plus 10 MC WWV check point. Hos most of the fine features of the fomous $5 x-101$, ineluding a high degree of mechanical and electricol stability. Sensitivity 1 microvalt on all bands, selectlvity odjustable in 5 steps from 500 to 5000 cps . Double conversion, 10 tubes plus regulator ond rectifier, crystal colibrotor, selectoble side-band, "Tee-Notch" filter, nolse limiter and $\$$ meter. For $105 / 125 \mathrm{~V} .50 / 60 \mathrm{cy}$. AC. Size $18 / 1 \mathrm{x}$ $818 \times 10^{\prime \prime \prime}$ deep. Shpg. wt. 40 lbs. Use R47 or R48 Speoker $\$ 279.50$
No. 354167 . Less Speaker. Net Each................................. $\$ 29$.
HALLICRAFTERS HT- 37 TRANSMITTER. Aceloimed everywhere os the very best phosing type SSB-AM-CW unit ovoiloble ot moderote cost. Bond switching, $80,40,20,15$ and 10 meters; 144 wotts input (PEP two-tone) to pair of 6146's with pl-net output. Has o highly stable VFO, ideal CW keying, both sidebands transmitted on AM, SSB with corrier suppression down 50 db , and unwanted sideband down 40 db , full Vox control, dual range meter for runing, 15 tubes plus 2 rectifiers and regulotor. For $105 \%$
$125 \mathrm{~V} .50 / 60 \mathrm{cy}$. AC. Size 8 R $\times 199_{3}^{7} \times 157^{7}$ deep. No. 35 Al62. Shpg. wi. 80 lbs . Net Eoch

## MULTI-ELMAC MOBILE PORTABLE TRANSMITTER \& RECEIVER

(1) AF-68 "TRANS-CITER". 6 meters through 80 meters, 60 wotts AM phone or CW. Directly calibrated VFO, or crystal (holds $21,6146 \mathrm{pl}$-net final and high level PP 6L6GB modulotor. 9 tubes including regulator. chrome, $131 / 2 \times 61 / 2 \times 71 / 2^{\prime \prime}$ deep. Shpg. Wt. 18 lbs.
No. 35 A81. Less Power Supply. Net Eoch....... No. $35 A 81$. Less Power Supply. Net Eoch....
(2) PMR-8 RECEIVER. AM-CW-SSB. 8 tubes $\$ 205.00$ hrough 80 meters plus regulor broadcost, dual conversion, 7 bands, 6 noise, effective noise limiter, upper and lower Feotures high sensitivity, low AF-68 oppearonce. $41 / 2 \times 7 \times 91 / 2^{\prime \prime}$ deep. Wi. 11 lbs No. 35 A 116 . Less Power Supply. Net Eoch. 11 lbs,
$\$ 189.50$ $A C-D C$ Combinotion Power Supply. Furnishes all voltoges for AF-68 and $250 \mathrm{MA}, 250 \mathrm{~V}$ DC @ 75 MA ond 105 V . $\mathrm{DC}^{2}$ source. output 500 V . DC @ $250 \mathrm{MA}, 250 \mathrm{VDC} @^{\prime} 75 \mathrm{MA}$ ond 105 V . DC regulated. Sillicon rectifiers, Na. vibrator. $8 \times 5 \times 6^{\prime \prime} \mathrm{H}_{1}$ Wh. 20 los.
Na. 35437 . Model M-1070. Foctory No. 35A37. Model M-1070. Foctory Wired. Net Eoch
$\$ 69.50$ No. 35 A38. In Kit Form, with Instructions. Net Eoch...

## LATEST HALLICRAFTERS GEAR



NEW HALLICRAFTERS HT-41 KW LINEAR AMPLIFIER. Ideal low cost companion for the HT-37 or other SSB exciter that delivers 20 to 100 watts out put. Real "big signal" performance; 1000 watts DC input 85 thru 20 meters, slightly less on 15 and 10 meters; efficiency no less thon $65 \%$ Power input, AM phone, 450 wotts. Grounded grid pi-network circuit with odjustoble looding, coox output using 2-7094's, self contoined power supply, 866 A rectifiers, with meter for plate, grid and output. For $105 / 125$
$50 / 60 \mathrm{cy}$. AC. Size some os HT37. No. 35 A438. Shipg. wt. 97 lbs. Net Eoch.
\$395.00
NEW HALLICRAFTERS $5 X-115$ TRIPLE CONVERSION RECEIVER. 18 Tubes, 5 Diodes. Feotures I KC occurate direct reading calibration and very high stobility. Sensitivity under I microvolt on AM, less than $1 / 2$ micr.jvalt SSB CW. Tunes nine 500 KC segments, $3.5-4.0 \mathrm{MC}, 7.0-7.5 \mathrm{MC}, 14 . \mathrm{C}-14.5 \mathrm{MC}$ $21.0-21.5 \mathrm{MC}, 28.0-28.5 \mathrm{MC}, 28.5-29.0 \mathrm{MC}, 29.0-29.5 \mathrm{MC}, 29.5-30.0 \mathrm{MC}$ 9.5-10 MC (WWV). "T" notch filter, crysfal colibrotor, gear ctriven VFO IF type noise limiter, product detector, " $\$$ " meter. Bond pass "quant-end" hos better out of band rejection. Spurious and image signols down 60 db or more. Use R47 or R48 speaker. $16 \times 101 / 2 \times 16^{\prime \prime}$ deep
No. 354439 . Shpg. wt. 47 lbs. Net Eoch...
$\$ 595.00$


## HALLICRAFTERS SPEAKERS



MODELL R-48 SPEAKER. Switch for flll fidelity music or voice response. $131 / 4 \times 81 / 4 \times 65 / 8^{\prime \prime} \mathrm{H}$ $35 A 9$. Eoch.
$\$ 19.95$ MODEL R-47 SPEAKER. For phone and CW. 300 to 2850 CPs. $51 / 2 \times 51 / 2 \times 31 / 2^{\prime \prime}$.
35 A472. Wt. 3 lbs. 3.2 Ohms. Eo..... \$12. 95

## YOUR REST DEALS •TOP TRADES •EASY TERMS •FAST PERSONAL SERVICE



## NEW COLLINS 3OL-1 DESK TOP KILOWATT LINEAR AMPLIFIER

## - In one pockoge, exoctly the same size os the KWM-2!

 - Only 38 lbs. including power supply. 1000 wotts PEP input. Uses 4-811A tubes in grounded grld pi-net circuit covering 80, 40, 20, 15 storp signals and maximum talk-power lequivalent to the famaus KWS -1) w thout overdriving or distortion. Compatible with any $70-100$ wott exciter; o perfect componion for the KNM-2 or 32S-1. Has superior operoting and performonce feotures; RF irverse feedback. ALC automatic toad control, antenna relays built in, excuits, tuning and loading of low power with full metering. Instant heating cuits, tuning and looding of low power with fult metering. F nished in same oftractive slote gray os famous S/line. Size $143 / 4^{\prime \prime} \mathrm{W}, 6 \mathrm{~m}^{\prime \prime}$ H , $133 / 4 \mathrm{deeD}$. For 1200 W . AC. SSB- 300 W . AC no modulation 550 W AC speech rodulated. Wt. 38 lbs.
No. 35A437. Net Eoch
$\$ 520.00$


GONSET G-76 TRANSCEIVER
ALL BANDS 6 THRU 80 METERS

- AM-CW - For Fixed or Mobile


Flves top performance on all bands. 6 through 80 meters-RF power input 100 watts AM phone, 120 watts CW stable, separate VFO's for transmit and eceive. Crystal control optional. VFO does nat functian on 50 MC . Has "ceeive. Crystal control optional. VFO does nat functian on 50 MC . Has neter, dual conversion, automatic notse limiter, provision's for 100 KC colineter, dual conversion, automatic notse limiter provisions for 100 KC coli-
prator. Sensitivity 1
mv Prator. Sensitivity 1 mv , selectivity 3 to 3.5 KC of 6 db down. $121 / 2 \times 5 \times$ 10 $1 / 3^{\prime \prime}$ deep. Model 3349 power supply has built-in speaker. Sh
Vo. 35 A217. Model 3338. Less Power Supply and Speaker.
$\$ 399.50$
No. Eoch...... Model 3365. Moblle Mounting Brocket. Net Eoch
.. $\$ 3.95$ POWER SUPPLIES FOR G-76
No. 35A218. Model 3349. 117 V . AC Power Supply. Net Eoch ........ $\$ 145.00$ No. 35A219. Model 3350. 12 V. DC Supply, transistorlzed. Net Eoch.. $\$ 145.00$

## GONSET COMMUNICATOR IV SERIES



AM TRANSCEIVERS 20 WATTS AM INPUT FIXED OR MOBILE
2 SEPARATE MODELS

- 2 Meter - 6 Meter
- Crystal ar Optianal VFO

2 METER COMMUNICATOR TV TRANSCEIVER. 20 wotts AM phone, high level modulated with speech elipping for full tolk power. Hos front ponel jock for press-to-talk microphone. Tronsmitting frequency crystal controlled; front panel switch for 6 crystals. Tune-up greatly simplified through use of broadbanded exclter and panel meter. Hlohly sensitive and selective recelver of latest low noise design has adjustable squelch, famous Gonset nolse limiter, $S$ meter, full vision dial and built-in speaker. Internal power supply size $123 / 4 \times 51 / 8 \times 103 / 43^{\circ 1}$. Wt. 22 lbs. Supplied less crystals and mierophone. No. 35A215. Model 3341 .
$\$ 369.50$
or 2 Meters. Net Eoch..
6 METER COMMUNICATOR IV. Fuli 24 watts power input. Triple conversion eceiver hos sensitivity of 1 microvolt for 10 db signal/noise rotio or better. Noise figure $6-8 \mathrm{db}$. Tunes 49.9 to 54.1 MC . Other features like 2 meter model obove. Less crysto
No. 35A434. Model 3342 . No. 35A434. Model 3342
For 6 Meters. Net Eoch...
\$349.50
For use with Communicator IV or other 2 Meter, 6 Meter or 220 MC transmitter that requires 8 to 9 MC crystals. Frequency stability $.005 \%$. Matches modern oppearance of the IV Series.
No. 35 A435. Model 3357. Net Eoch....

## COLLINS KWM-2 TRANSCEIVER

- For homs on-phe-go. Finest, most operotianolly efficient mobile-portable SSB-CW rig ovailoble. Operates on all bands between 3.4 MC and 29.7 MC . Receiver and transmitter performance and features similar to the $S /$ Line. Has 2.1 KC mechanical filter and ALC for maximum talk power. RF power input 175 W . SSE PEP, 160 W . CW. Transmits and receives on exact same frequency, VOX or PTT relay controlled. Size $61 / 2 \times 143 / 4 \times 13^{\prime \prime}$ deep. Wt. 16 lbs. No. $35 A 2$ '38. KWM-2. Less Speaker and Power Supply. $\$ 1150.00$ Net Each


## OPTIONAL ACCESSORIES FOR KWM-2

No. 35A15. 312-B3. Matching Speaker. Nef Eoch
.$\$ 32.00$
No. 35 A428. 136B-2. Noise Blanker for KWM-2. Net Each................ $\$ 124.00$ No. 35 A23.516F-2. Standard 115 V . AC Power Supply. 28 lbs . Net Ea....... $\$ 115.00$ No. 35 A261. PM-2. Portable 115 V. AC Power Supply. 13 lbs. Net Eo.... $\$ 150.00$ No. 35 A261. PM-2. Portable 115V. AC Power Supply. 13 lbs. Net Eo... $\$ 150.00$ No. 35 A242. MP-1. Mabile 12 V. DC Power Supply. Net Eoch........... $\$ 198.00$ No. 35 A240. $351 \mathrm{D}=2$. Mobile Mount with Cable. Net Eoch................. $\$ 120.00$ No. 36A338. MM-2. Boom Microphone w/Earphone. Nef Each............. $\$ 39.00$

## 312B-5 SPEAKER/PTO CONSOLE

Includes external PTO for additional transmitting or recelving frequency. Even more versatile than separate transmitter and receiver. Also includes forward/reflected power meter, phone paich, coordlnated switching and speaker.
No. 35A241. Net Each.
$\$ 350.00$


755-3 RECEIVER. Surpasses all previous Collins 75 series receivers in performance. New feotures; Q multipler, variable VFO as well as crystal VFO, AVc control, 200 cycle crystal filter plus 2.1 KC mechonical fiter, optional trols, plus highest accurocy of calibration and stability. Tunes amateur bands 3.5 MC to 29.7 MC with coveroge of any frequency in the 3.5 to 30 MC range except 5.0 to 6.5 MC by substituting crystals. Size $67 / \mathrm{s}^{\prime \prime} \mathrm{H}, 141 / 2^{\prime \prime}$ W. $115 / 9^{\prime \prime}$ D. Wt. 20 lbs.
$\$ 620.00$ No. 35B416. Less Speoker. Net Eoch.
No. 35A15. 312B-3 Speaker in Matching Cobinet Net
.$\$ 50.60$ No. Coordinated switching, control unit containing speake reflected power meter and phone potch.
$\$ 1$ tomes ona reflected power meter
No. 35A20. Net Eoch.

## 325-1 TRANSMITTER

175 W. PEP input on SSB, 160 W . CW. Range $3.5-29.7 \mathrm{MC}$ except 5.0 to 6.5 MC. Mechanical filter sideband generation, permeoblity-tuned VFO. outomotic load control for higher overage talk power. Internal switching permits transceive operation when used with 75S-1 recelver. Same size cabinet as receiver. Less po
No. 35A22. Net Eoch.
$\$ 666.00$
AC POWER SUPPLY FOR 32S-1
35A23. $516 \mathrm{~F}-2$. For 115 V .60 cy . AC. $73 / 4 \times 10 \times 12^{\prime \prime}$
28 Ibs. Each.. $\$ 115.00$

## GONSET G-50 COMMUNICATOR 50-WATT 6 METER STATION

- Bullt-in VFO or crystal control. Complete medium power "package for meter operotion. Receiver is a highly meter, automotic noise limiter, odjustmeter, outomatic noise limiter, odjustmitter uses 6146 in pi-network final mitter $40-50$ wotts input modulated with 2 at $40-50$ wotts input modulated with
 $13^{\prime \prime} \mathrm{Wy}$. AC . Tess crystals ond press-to60 cy. AC. Less crystals and press-t tol 35 A 32 Model 3221 .
No. 35A32. Model 3221. $\$ 319.50$



## B-A's SSS SAVING



6-METER TRANSCEIVER - 10 TUBES - SUPERHET - 7 WATTS POWER

COMPLETELY WIRED ${ }^{5} 699^{95}$

COVERS 50-54 MC HAM BANDS

Transmitter: Operates at 7 wafts input, fully plate modulated. Matches antenna fransmission lines from 30 to 140 ohms. Transmitter frequency is crystal controlled; front panel crystal socket allows quick crystal change to different frequencies Has buils-in TVI filter, antenna frimmer, on-off and RF indieators and front panel send/receive switch. Output connection is regular SO-239 coaxial type.
Receiver: A full superhep with vernier dial puning to any frequency in the ama teur 6 meter band. Has automatic volume control and an adiustable noise limiter Employs 10 tubes plus 2 diode rectifiers.
Supplied with ceramic microphone, one crystal and internal power supply for operation on
In sturdy steel cabinet, 10 琞" $\times 57 / 9^{\prime \prime} \times 67 / 8^{\prime \prime}$ dark grey baked enamel finished. Shpg. W. 10 lbs. No. 3SA468, Madel TR-850. Net Exch

MOBILE POWER SUPPLIES
No. 35A256. Model TRG. ${ }^{6}$ V. DC Power Supply.
No. 35A2S5. Model TR12. 12 V . DC Power Supply
\$69.95
$\$ 12.95$
$\$ 12.95$

## SAVE SSS WHILE YOU LEARN!



BAND SWITCHING-80, 40, 20, 15 AND 10 METERS Not the usual Novice "beginners rig" but one ony ham would be proud to own ond operate. Non-compromising engineering and high quality components throughout. Runs 60 watts input to a 6006 B final amplifier with pi-network tuning. Has 6CL6 erystol oscillator break-in oscillator keying and provision for later addition of externol VFO. Has internal 500 V . power supply and metered tuning. All circuits TVI suppressed and filtered. Tight fitting cabinet with die-cost panel is both oftractive and an excellent RF shield. Size $6 \times 81 / 2 \times$ $111 / 4^{\prime \prime}$ deep. Power requirements 117 V .60 cy . AC. i 40 watts Be-ginner-tested wiring instructions included. Less crystal. Wt. 15 lbs. No. 35A458. Model 723 Kit.
Net Eoch...
$\$ 49.95$
No. 35A459. Model 723 Factory Wired. Net Eoch

## OTHER POPULAR EICO KITS



722 VFO
90 WATT CW TRANSMITTER MODEL 720. Rated "Top-Quolity" by Electronics Kits Guide. Bandswitching, 80, 40, 20, 15 and 10 meters 6146 final amplifier, 6CL6 Colpitts crystal oscillátor, 6AQ5 clamper, 6AQ5 buffer-mulfiplier, GZ34 rectifier. "Novice limif" colibrotion on meter. Fully TVI suppressed, excellently engineered. Attractive de-
 No. 35A75. Model 720W Fórory Wired. less crystal. Net Eo... $\$ 119.95$ Perfect companion to either the 60 watt tronsmitter or 90 watt tronsmitter above-fine for ony other. Output frequencies 3.5-4.0 MC 7.0-7.3. MC, 7.25-7.64 MC. Calibrated bands 80, 40, 20, 15 and 10 meters. Uses 6 AU6 osc, 6 CB 6 buffer multiplier, OA2 régulatar. RF output $10-20$ volts. Self-contoined tronsformer power supply for 115 N. 60 cy . AC. Cabinet $6 \times 81 / 2 \times 9^{\prime \prime}$. Wr. 8 lbs.

No. 35 A460. Model 722 Kit. Net Eoch.
No. 35 A461. Model 722 Foctory Wired.
$\$ 44.95$
No. 35 A461. Model 722 Foctory Wired. Net Eoch.
$\$ 59.95$

For very best performance on any one bond- $50,144,220 \mathrm{MC}$. DELUXE CN SERIES CONVERTERS
Very high gain and extremely low noise figures ore made posible by use of 3 Nuvistors in 2 RF amplifier stages and mixer.
Performance: Noise figure $50 \mathrm{MC} 2.5 \mathrm{db}, 144 \mathrm{MC} 3 \mathrm{db} ., 220 \mathrm{MC} 4 \mathrm{db}$ Gain 50 db average. Image and spurious rejection better than 70 db . If rejection better than 100 db .
Tube line up: 3 RCA 6CW4 Nuvistors, plus 616 oscillotor. Pover required $100-150 \mathrm{~V}$. of $30 \mathrm{MA}, 6.3 \mathrm{~V}$. of 1 A . Compactly assembled on 2 -piece copper finished chassis, $2 \times 21 / 2 \times 63 / 4$ ". Has outo style pin plug coax input and output, octal power plug, odjustable gain control. Supplied with converter crystal for IF range shown. Converter output IF is easily adjusted to another range by simply retuning and chonging 35 A 45 I . Model CN-50W. 50 MC Band, $28-32 \mathrm{MC}$ IF Range.
$\$ 44.95$
Net Eoch. Model CN-144W. 144MC Bond, $28-32 \mathrm{MC}$ IF Range. Net Ea $\$ 44.95$ 35A453. Madel CN-220W. 220 MC Band, 14-18 MC IF Range. Net Eo.... $\$ 44.95$ When used aheag DELUXE PV SERIES PREAMPLIFIERS
When used aheaa or your present converter or receıver, will greatly improve sensifivity, gain and nolse.
Performonee: Noise figure 2.5 db at $50 \mathrm{MC}, 3.0^{\circ} \mathrm{db}$ at 144 MC , and 4.0 db of 220 MC . Over 20 db gain. Has 2 tuned circuits, improves image and spurious rejection. 6CW4 Nuvistor is completely neutralized. Re.juires 100150 V . at $8 \mathrm{MA}, 6.3 \mathrm{~V}$. at 13 A . On chassis like CN above, slightly smaller. Completely wired, with instructions.
No. 354454 . Model PV-50W. 50 MC .
No. 354454. Model PV-50W. 50 MC . Net Eoch.
$\$ 13.95$
No. 35 A455. Model PV 144 W .144 MC . Nef Eech
No. 354456 . Model PV-220W. 220 MC
$\$ 13.95$
$\$ 13.95$ Delivers up to 50 MA of 125 V DC FOR CN AND PV CN or PV units without interconn, 2 A . of 6.3 V . $A C$. Plugs directly into No. 35A457. Model PS-IW. Wired. Net Eoch.......


GONSET "SUPER 12 " MOBILE CONVERTER. Covers all amateur bands, 10 through 75 meters, plus 19 and 49 meter shortwave broadcost bands. For
12 V . DC operation only. New low voltage tubes require na B+ high voltage supply. Converter output 1430 KC . In newly styled are na B+ high volrage with chrome front trim. Size $4^{\prime \prime} \times 6^{\prime \prime} \times 8^{\prime \prime}$
No. 354485 . Modsl 3261 . Net Eoch.
$\$ 74.50$
NEW GONSET 6 METER CONVERTER. Covers 49-54 MC whe 12 V . auto radio. With clipper to suppress ignition noise.
$\$ 74.50$

## hallicrafters TRANSVERTERS

FOR SSB-AM-CW-RTTY ON 2 AND 6 METERS CONVERTS 10 METER SIATION TO VHF

Brond new opproach to VHF operotion. Works with any existing 10 meter receiver and 10 meter transmitter extending their coverage with greot simverts 10 meter pronsmitper modes of ransmission and receptien. Conwotts PEP on VHF. Output tube is type 5894 . Receiving converter hes excellent sensitivity ond noise figure due to nuvistor front end. Supplied completely wired with 7 tubes and built-in coaxial antenna reloy. Pewer required, 750 V . @ $160 \mathrm{MA}, 250 \mathrm{~V}$ @ @ 70 MA , minus 60 V . @ 10 MA . Cobinet is steel, groy finished with silver trim. Size $8 \times 17 \times 8 / / 日^{\prime \prime}$ deep. No. 35A448. Model HA-2. For 2 Meters.
No. 35A449. Model HA-6. For 6 Meters.
Choice Net Eech.
$\$ 349.50$
No. 35A450. Model P-26 Completely Assembled. Net Each.

## VOUR REST DEAL ©TOP TRADES OEASY TERMS OFAST PERSONAL SERVIGE



IMPROVED
24-HOUR STATION CLOCKS


DIRECT READING IN SECONDS!

## (1) GONSET HYBRID PHONE PATCH

Advanced design with exclusive VU meter for monitoring phone line levels. By switching, meter also indicates occurate and complete null so receiver output connot trip transmitter VOX circuits. In use, operation is automatic Has separat? transmitter and receiver gain contrals and Off-On-Null switch Lne impedance 600 ohms; receiver impedance 3.2 to 8 ahms from speoker ostput; frarsmitter, high impedance to mike input. Beautiful grey cose. $4 \times 61 / 8 \times 77 / 8^{\circ}$. Wt. 5 lbs.
$\$ 44.50$
(2) HALLICRAFTERS HA-4 AUTOMATIC KEYER All tronsistorized version of the fomous "TO automatic keyer (no reloys) Produces perfect CW. Dots ond dashes self-completing. Dual speed range 8-18 WPM and 18-50 WPM. Has monitor speaker, full adjustment for outomatic, semi-automatic, hoid, volume, dot "weight", 10 diodes, 8 transistors including hijgh valtage type to key transmitter. $71 / 2 \times 25 / 8 \mathrm{H}$.
$\$ 59.95$ No. 35 A462. Net Each
(3) VIBROPLEX "VIBRO-KEYER"

Ferfect comsonion for the "HA-4" kever. Smooth operating, fully odjustoble, beautifully constructed. Switching action is S.P.D.T. Base size $31 / 2^{\prime \prime} \times 41 / 2^{\prime \prime}$ Waight $23 / 4$ lbs. No. 33 Al48. Nel Each
$\$ 17.95$

## CITIZENS BAND CRYSTALS

U
For Class D" Citizens Band Transceivers. Wright manufoc tured to meet FCC required, $005 \%$, frequency tolerance. Her metically sealed. Pin size $05^{\prime \prime}$. $1 / 2^{\prime \prime}$ spocing. Order by Single Crystol, specify Receiving of Transmitting.
Net Each.... channel.
Per Pair for
$\$ 2.95$
$\$ 5.90$
AMATEUR AND COMMERCIAL CRYSTALS

(1) HUNDLEY CRYSTALS FOR AMATEUR BANDS Dependable active crystols, fully guaranteed. Mounted in FT243 type holders, No. VIAIOCiO-H. Net Eoch
$\$ 1.79$
(3) WRIGHT ELECTRONICS CRYSTALS

Precision made, guaranteed by Wright ond B-A to be dependable active ascillators uccurately colibrated within toleronces specified at standard laad GW-43 pressure type holder, befter, more compact than old FT-243, has 486" spoced, .093" dio. pins.
EXACT FREQUENCY AMATEUR BAND CRYSTALS. Tolerance $.01 \%$. FUn damental cscillators. Available 3500 to 8500 KC . Allow 1 to 2 weeks. AMATEUR CRYSTALS +5 KC. Fundamental oscillators within 5 KC of your specified frequency. Calibrated $\pm 500$ eycles. Available 3500 to 4000 KC
No. 17A1014. In GW43 Holder. Net Eoch
$\$ 2.45$
1600 TO 12000 KC $\pm .005 \%$. Fundamental oscillators on offlcial MARS, EAP and CAA Civilion Aircraft frequencies. Also for experimental purposes, converters etc Allow 1 to 2 weeks
No. 50A69. In GW43 Holder. Net Eoch
12001 to $\geq 5000 \mathrm{KC}+.005 \%$. 3rd mode oscillators. Allow to 23.45 No. 50A70. In GW43 Hoider. Net Eoch.
(3) PETERSEN Z-GA FREQUENCY STANDARD

No. 1781005. 100 KC. Plugs into octal socket. Net Eoch. . . . . . . . . . $\mathbf{\$ 8 . 9 5}$

## CRYSTAL HOLDER SOCKETS <br> (1) <br> FH? <br> (8) <br>  <br> CINCH BAKELITE SOCKETS

With silver plated contocts. Type 2 KM mico-filled; 2 KIB , Block. (1) No. 1781007. . 486 spocing for pin size .093". Type 2 KM . Eoch. (3) No. 17B1011. $1 / 2^{\prime \prime}$ spacing for pin size $125^{\prime \prime}$. Type 2 KIB . Eoch. (3) MILLEN CERAMIC CRYSTAL SOCKETS
 No. 17A720. 3/4 spocing for pin size .125. Mig. No. 33002 . Eoch No. 17A730. 487 spocing for pin size .095. Mfg. No. 33102. Eoch (ㄱ) MOSLEY CRYSTAL HOLDER ADAPTERS
No. 174728. Adopts $1 / /^{\prime \prime}$ " holder to socket with $3 / 4{ }^{\prime \prime}$ " spacing.
No. 174738 . Adopts ${ }^{\prime}$ holder to socket with $1 / 2^{\prime \prime}$ spacing.
© PLUGS FOR CRYSTAL SOCKETS
Fine for connecting VFO in place of crystal. Solder terminals No. 17B953. $1 / 2^{\prime \prime}-.093$ pin. Fits 178730 and 17B1007. Eoch

10-INCH WALL OR PANEL MOUNTING CLOCK Beoutifully lithographed 10 -inch dial shows minutes, seconds and 2400 hours. Adjustoble inner dial shows time in oll zones directly. Key cities shown. Highly dependable, well constructed. Gray aluminum cose presents a distinctive oppearonce. Wt. 7 lbs
$\$ 14.85$

## 24 HOUR NUMERCHRON DESK CLOCK DIRECT READING

Exact spllt second time can be read at a glance. Has separate $1 / 4^{\prime \prime}$ number wheels for hour, minute and second. Fine for home, desk; ideal for rodio stations. Quiet operating. Ebony plastic case $73 / 4^{\prime \prime} \times 4^{\prime \prime}$ No. 378261.
Net Eoch.
JOHNSON "T-R" SWITCH ELECTRONIC TRANSMIT-RECEIVE ANTENNA CHANGEOVER RELAY
For Low or High Power Up to 4000 Watts Peak RF. Eliminotes need of conventional ontenno reloys on 80 through 10 meter bonds. Changeover is outomotic and instontaneous. tdeal for break-in CW, AM phone and voice opercted SSB. Shows gain of 6 to 0 db . on reception with
virtually immeasurable transmitting power loss. Uses exclusive new double goted circultry with a 6BL7 dual triode for improved receiver isolotion and modern printed circuit wiring with tronsformer isoloted power supply. Grey finished steel cabinet, 4 因 $\times 43 / 8 \times 51^{\prime \prime}$ deep. Powered from $115 V .60 \mathrm{cy}$. No. 29B170. Madel 250-39. Net Each.


## LOW PASS TRANSMITTER TVI FILTERS

 cellent attenuation of tronsmitter harmonics falling in TV bands. All hove SO-239 fittings, except Drake TV-100-LP. Factory adjusted for maximum ottenuation except Bud LF-601 which permits individual peaking on any two chomels.
(1) $29 A 135$. Barker-Wlliamson Model 425. For 52 Ohm Coox. Eo. (1) 29A136. Barker-Williamson Model 426. For 22 hmm Coox. Ea...S17.10 (3) 29A125. Johnson Model 250-20. For 52 Ohm Coox. Eoch........ $\$ 14.95$ (9) NEW DRAKE 52 OHM FILTERS. Cut off between 6 meters and channel 2 Designed with particulor attention to 10 meter and 6 meter operotion. No. 298166. Model TV-1000-LP. 1000 Watts except 6 meters, 200 watts.
 Each 298167. Model TV-100-LP 100 Watts except 6 meters, 20 5.83

## $B$ \& W MINIDUCTORS



Air-Wound" construction for very efficient operation as tonk colls, RF chokes, etc. Easily cut to required length. $1 / 2^{\prime \prime}$ and $5 / 8^{\prime \prime}$ dia. coils are $2^{\prime \prime}$ lang; $3 / 4^{\prime \prime}$ and $1^{\prime \prime}$ are $3^{\prime \prime}$ long: $11 / 4^{\prime \prime}$ and $13 / 4^{\prime \prime}$ are $4^{\prime \prime}$ long.




## $B$ \& W PI-NETWORK INDUCTORS

Bandswitching 80-40-20-15 and 10 meters; single or paraltel tubes. Ratings: 890A and $8521 \mathrm{KW}(4000 \mathrm{~V}$. CW/5SB, 3000 V. AMI: 851 roted 500 W . CW/SSB at $2000 \mathrm{~V}, 250 \mathrm{~W}$. AM ot 1250 V
Model 8504 . Size $8 \times 6 \times 4^{\prime \prime}$. Wt. 3 lbs.
No. 29A133. Net Eoch.
$x^{\prime}{ }^{1} 1 / 2^{\prime \prime}$ high. Wt. $\mathbf{3}^{\prime}$ ibs.
No. 29A149. Net Eoch.
No. 29A149. Net Eoch. ${ }^{\circ \prime}$. Wi. 3 ibs.
Model 852 . Size $8 \times 6 \times 44^{\prime \prime}$.
No. 29B172. Net Each.

## Ham Antennas \& Accessories



HY GAIN "THUNDERBIRD" TRAP TRI-BANDERS
Automotic three-bond operation an 10,15 ond 20 meters. Proven "Beta" broadband, pre-tuned match system gives low SWR; requires only one 52 pletely weatherproof polypropylene plastic toke full 2 KW PEP or 1 KW pletely weatherproot polypropylene plastic toke full 2 KW PEP or 10 KW AM fully modulated, lnter-laced 4 th element is active on 10 meters, Ele-
ments are oluminum alloy $11 / 4^{\circ \prime} O . D$. telescoping to $3 / 4^{\prime \prime} 0.0 . ;$ boom $2^{\prime \prime}$ O.D. aluminum allay. Has new formed steel ribbed boom-to-mast elamp and plostic end cops on boom and elements. Longest element: TH-4, 32 ft .; TH-3, 26 ft.
Stk. No.
$\begin{array}{ll}\text { Srk. No. Mode } \\ \text { 9A165 } & \text { TH-4 } \\ 9 A 166 & \text { TH- }\end{array}$
${ }^{1}$
Goln
$\begin{array}{lll}\text { Up to } 8.9 \mathrm{db} & 192^{\prime \prime} & 42 \mathrm{lbs} . \\ \text { Up to } 8 \mathrm{db} . & 168^{\prime \prime} & 36 \mathrm{lbs} .\end{array}$
Each
S117.50
89.95

## FULL SIZE SINGLE BAND BEAMS

New heavy duty construction, using heat-treated high strength aluminum alloy tubing for elements and boom. Proven Beta broad-bond match for 52 ohm coax feed gives low SWR, campletely unaffected by weother, 12 M types may also be fed with open line. All rated 1 KW RF power; F/B rotio 25 db or higher. With weotherproofed hordwore, less mast.

| Sik. No. | Model | Description | Gain | Size Element | Size Boom | Weight | Net. Es. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $9 \mathrm{9A} 108$ | 25 | $2 \mathrm{M} ., 5 \mathrm{~kL}$. | 9 db . | $41^{\prime \prime}{ }^{\prime \prime}{ }^{\text {a }}$ R Rod | 64'x11/4' | 3 lbe. | \$ 8.85 |
| 8 A110 | 210 | $2 \mathrm{M} ., 10 \mathrm{kl}$. | 13.4 db. |  | $144^{\prime \prime} \times 1 / 6$ | 6 lb . | 14.85 |
| 9 A111 | 65B | 6 M , 5 Kl. | 9 db . | $116^{\prime \prime}$ | $108^{\prime \prime} 1^{11}$ | 8 Ibe. | 18.95 |
| 9A138 | 68B | 6 M ., 8 El . | 12.1 db . | $116^{\prime \prime}$ ¹' $^{\frac{1}{1}}$ | $216^{\circ} \mathrm{z1} 1 /{ }^{\prime \prime}$ | 13 lbe. | 32.96 |
| 9 9113 | 103B | 10 M , 3 El . | 8 db . | $17^{\prime} x^{7} 6^{2}-1 / 6$ | $96^{*}-2^{*}$ | 9 Ibe. | 32.95 |
| 9 A114 | 153 B | 15 M , 3 El . | 8 db . | $23^{\prime}{ }^{\prime} 7^{\prime} 8^{-1}{ }^{\prime \prime}$ | 12' $2^{\prime \prime}$ | 16 lbe. | 38.50 |
| $9 \mathrm{Al15}$ | 203B | 20 M ., 3 K . | 8 db . | $35^{\prime} \times 11 / 4^{\prime \prime}-1 /{ }^{\prime \prime}$ | $16^{\prime} \times 2^{\prime \prime}$ | 29 lbe. | 65.95 |

## HY GAIN MULTI-BAND TRAP

Stim Trap


Bose
nsulotor

## VERTICALS

Automatic band selection accomplished through use of paraliel resonant "Silim-Traps" which isolate the vorious ontenna sections on all bands for which the antenna is designed. Base fittings are heavy duty weatherproofed steel with nylon insulator and 52 ohm coox receptacle. Element is high strength aluminum. Tubing size $11 / 4^{\prime \prime}$ to $3 / 4^{\prime \prime}$ Stk. No. Model Bands Ht. Wt. Net Each 9A124 12AVS 10,15 G 20 M . $131 / 2 \mathrm{ft}$. 9 lbs . $\$ 21.95$ 9A126. 14AVS 10, 15, 20 G $40 \mathrm{M}, 21 \mathrm{ft} .10 \mathrm{lbs} . \$ 27.95$ MOUNTING KiTS. Include rodials for the ontenna, 5 ft . $11 / 2^{\prime \prime}$ O.D. steel mast section, roof mount and hardware. Type 12-RMK Mig. KIt for 12 AVS Ant. 7 lbs.
No. 9Al 25. Eoch.
$\mathbf{5 9 . 5 0}$
Type 14-RMK Mig. Kit for $14 A \cup S$ Ảnt. 9 ibs.
$\$ 11.95$

## HY GAIN DOUBLET INSULATORS



HEAVY DUTY MOLDED "CYCOLAC"
 COAX FED WIRE ANTS.
No. $9 \mathrm{Al73} \mathrm{CI}$. Center Insulator. Fits ali sizes coax. 8 oz. Net Ea..... $\$ \mathbf{3 . 9 5}$
No. $9 \mathrm{Al74} \mathrm{El}$. End insuiator. Has oluminum bushings. 3 oz. Net Eo.,. $\$ 1.00$
ILLUMITRONICS AIR DUX BALUN
\#B2009 colls are used in pairs for 75 ohm unbolonced to 300 ohms bolonced or 75 unbalanced to 75 ohms balonced antenna lines, 10 through 80 meters. May be
used on receivers or with transmitters hoving power output up to 200 wotts. Comes with diagram instruc fions, mounting insulators and hardware.
No. 17A1217. 2 Required. Wt. 1 lb. Eoch.
53.29

No. 17A1218, MB2009 Complete mounting plate for above coils (less coox
cormector). Each. ................................................... 1 .


- Heovy Duty Broke Bullt-In
- Most, Tower or Plofform Mounting
\$11.11 Down Clomps toke up to $2^{\prime \prime}$ diameter masts. Lower METER TYPE Housing dia, $8^{\prime \prime}$ maximum. Dellvers approx 360 inch pounds torque. Gear troin is made of precision machined stalnless steel. Rotates $365^{\circ}$ at 1 RPM. Lower portion of unit contains the automatic solenoid operoted brake capoble of withstonding 3600 inch pounds torque.
Meter Type Direction Indicotor is continuous indicating type. Gives occurate heodings. Requires 8 wire coble $12 \# 18,2$ \#22. Belden type 8448). Shpg. wr. 20 los. No. 4A198. Modet
HAM-M. Net Eoch
\$117.11


TA-33
10-15-20 METERS
T.A-33 JR.

## WIDE SPACED 6 ELEMENT TA-36

Employs 4 operoting elements on 10 meters, 3 on 15 and 3 or 20, outomatically bandswitched. Built for full KW power. Gain on 10 meters 9 db , 15 meters $8.5 \mathrm{db}, 20$ meters 8 db . Front-to-bock rotio is 20 db or better on all 3 bands. SWR on 52 ohms, coox feed line is $1.5 / 1$ ar bet-er at resonance. Max. element length $29^{\prime \prime}$. Boom, $2^{\prime \prime} \times 2^{\prime \prime}$ O.D. Turning radius $19^{\prime} 3^{\prime \prime}$ pearance. U-bolts ore heavy duty stoinless sfeel. Assembled wt. 69 lbs apNo. 9A9.
No. Nay .

## WORLD FAMOUS 3-ELEMENT TA-33

$\$ 129.50$
Used the world over for fine three bond performance on 10, 15 and 20 meters with up to full KW transmitter power. Forward gain up to 8 db wlth 25 db or better front-to-bock ratio. SWR $1.1 / 1$ or less at resonance. Finest oll-oluminum construction. Element length 28'. Boom, 14'. Turning radius $151 / 2^{\prime}$. Assembled weight 45 lbs .
No. 945. Net Eoch
$\$ 99.75$

## TA-33 JR. FOR 300 WATTS OR LESS

Conserves spoce yet provides flne performance on 10,15 and 20 meters. Forward goin and front-to-back ratio olmost os good as for TA-33. SWR usually less than 1.5 to 1 at resonance. All aluminum. Elemients $26^{\prime} 8^{\prime \prime}$ max. Boom $11 / 4^{\prime \prime} \times 2^{i}$. Turning radius $14^{\prime} 9^{\prime \prime}$. Assembled wt. 20 bs. No. 9A6.
Net Eoch


## EICO GRID DIP METER

## MODEL 710 WIRED OR KIT

Compact, versatile and rugged. Easy to hold and thumb-tuns with one hand. Covers 400 KC to 250 MC in 7 over-lapping ranges. Plug-in coils hove protected "internal" wirdings. Exceptionally stable, pre-calibroted for accuracy. Has sensitivity control, 500 microamp meter, built-in absorstion wave meter circuits and 110 V AC transformer power supply.
No. 35 A74. Kit, with Tubes ond Instructions Net Eoch.
No. 35A73. Fötory Wired and Tested. Net Eoch... \$49.95 BENDIX-JONES RF BRIDGE-POWER METER MICROMATCH VSWR AND RF POWER INDICATOR. For use with Type 261 Coupler below. Simple throw of switch changes circuit and forward power VSWR.
No. 29A1 44. Model 262. Shpg. wt. 2 lbs. Net Ea.. 4 4 MICROMATCH COUPLER. Double RF bridge for measuring
both forword and reflected power in the range of 0.5 to 225
 both forword and reflected power in the range of 0.5 to 225
$M C$ at power levels up ta 1 KW on 52 ohm coax line. Has MC at power levels up ta 1 KW on 52 ohm coax line. Has
SO- 239 connectors each end. Very low insertion loss, can be left in feed line of all times. With lnstructions for building? indicator similor to Model 262 obove.
No. 29A143. Model 261. Shpg. wt. 1 tb. Net Eo... 2250

## B\&W COAX SWITCH



Model 550A. For switching up to five antennas or other equipment lines to fransmitter or receiver with a simple turn of a knoth. Will handle up to 1 KW . Crass talk is nectors for either 52 or 75 ohms. Housed in $21 / 4$ " diometer aluminum cose, with single hole mounting $21 / 4$ diomNo. 29A137.
$\$ 8.25$
"BLITZ BUG" COAXIAL CABLE LIGHTNING ARRESTOR
Added lightning protection for receiving and transmitting equipment, ham gear, citizens cooxial ontenno lead. Threoded for standord PL259 ond SO239 fittings. No. T9A145


Net Eoch

## SPRAGUE "HYPASS" FILTERS

 TWO-TERMINAL SERIES FEED THRU-CASE GIROUNDED For suppressing TVI radiation from power circults of transmitters, diathermy, Industrial apporatus, etc. Pronyermat gypass with proctically zero series resistonce to AC or DC cur UNE and regulator noises in mobile radio installatiors and for Type 80P3 has flanged bulkheod mtg., illustrated ejuipment. left. All others, brocket mig. Averoge wt. 2 cz . at far| Stk. No. | Tуре | Mfd. | Amps. | Voltage | Dio. | Length | Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $15 \mathrm{B988}$ | 48P18 | . 5 | 40 | 50 V . DC | 1 | 11\% | \$2.23 |
| 148256 | 48P9 | . 1 | 20 | 250 V. AC | 11 | 13 | 1.63 |
| $15 \mathrm{B987}$ | 80 P 3 | . 1 | 20 | 600 V. DC | ft | 1 1180 | 1.73 |

MOBILE GENERATOR NOISE FILTER-TUNED TYPE
For Amoteur, Citizens and Commercial 2-Woy Rodio.
No. 9 - 33 . Ronge $3-30 \mathrm{MC}$ Choice
$\qquad$

No. 9A33. Ronge $3-30 \mathrm{MC}$ Choice
No. 9A34. Ronge $30-60 \mathrm{MC}$ Net Eac
$\$ 2.95$

## Antennas for Amateur $\&$ Citizens Radio



## (1) WEBSTER "BAND SPANNER" <br> FOR FINEST ALL BAND MOBILE OPERATION

Cavers omotzur 75-40-20-15-10 meter bands dalso MARS and CB frequencies! with no external tops, no plug-in coils. High " $Q$ " center loaded coil section is eproxy sealed. Top whip slides in and out for frequency adjust glass. Beautifully finished. Brass fittings are heavy chrome plated, whip is stainiess steel. Has $3 / 0^{\prime \prime}-24$ threaded stud for heavy duty body or bumper mounts.
Mounts.
Nb. 9A82. Regular Bondspanner, 117" Overall. Net Eoch
$\$ 24.75$
No. 9A83. Shart Bandspanner, $93^{\prime \prime}$ Overoll. Net Each. . . . . . . . . . . $\$ 24.75$

## AMATEUR AND COMMERCIAL WHIPS

## WITH 3/:"-24 STUD

Heliwhips are tough fibre glass rod with taper wound spiral wrapped antenno umning full length weatherproaf plastic covered Matches 52 ohm line has unusually hizh radiation efficiency and inherent broadbonding
S-ainless Steel Whips are deluxe taper ground, cutable to exact frea. ©. 9A101. $60^{\prime \prime}$ Stainless Steel, cutable 48 MC or higher. Each E, 9A47. 72" Stainless Steel, cutable 40 MC or higher. Eoch 21 9A48. $96^{\circ}$ Stainless Steel, cutable 29 MC or higher. Eoch (3) FA128. 48, Heliwhip, 10 Meter Amateur Band. Each G9A129. 48' Heliwhip, 15 Meter Amoteur Bond. Eoch 9A130.72" Heliwhip, 20 Meter Amateur Band. Eoch 9A131. 72' Heliwhip, 40 Meter Amateur Band. Each. (2) 9A132. 72" Heliwhip, 75-80 Meter Amoteur Band. Eoch

## 11 METER CITIZENS RADIO WHIPS

For very best possible performance use the 102" full length stainless steel whip. Height usually requires bumper mounting in order to clear overhead abstructions. For lower height fender or body mounting use elther the new righ efficiency "rop-looded" Hy Goin TLW (very neat, coil section only 1/4" (ciameter) or the mare rugged fibreglass Heliwhip. Heliwhip description above.
(9) 9A49. 10:" Deluxe Stainless Steel toper ground, cutable. Eoch. 89495. 50", Top Looded Stainless Steel. Hy Gain TLW. Eoch.
$\$ 4.35$
$\$ 5.37$

## ALL-AMGLE SWIVEL AND BALL BODY MOUNTS <br> FOR $3 / 8^{\prime \prime}-24$ WHIPS

[rependable, insulated mounts of newest design and finest materiais. Use Fig. () Jifty Mount, for rear deck. Bracket fits under deck lid without camage to auto Very eosy to install and remove and will support short loaded whips perfectly. Fig. © Swivel Mount has tough cycolac insulator, trim neat appearance. Fig. (7) Deluxe Mount is rugged heovy duty type beautifully chrome plated. Has socket head
phenolic base, and cooxial connector. phenolic base, and cooxial connector
(2) 9 A38. Jiffy Mount. Fits under deck lid. Hy Goin JM. Net Eoch. (3) 9A37. Swivel Body Mount. Cad. Plated. Hy Goin BDYS. Net Each
9444. Deluxe Chrome Ball Mount, Coox Conn

Tenna MB9.. Net Eoch
§ 9A39. Standard Ball Mount with spring. Tenna MB2. Net Each
9A133. Fibregioss Single Hole Mount. Coax. Conn. Mark Mobite HWM-1
$\$ 2.70$
$\$ 3.03$
. $\$ 5.32$

## BUMPER MOUNTS, SPRINGS, ACCESSORIES

For fast, simple installation without dritling holes. Fig. (11) double chain ype is extra heayy duty for tong whips or heovier omateur antennas. Fig. 2-piece bayonet connector allowing rapid removal of whip
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(1) 3 INCH RECTANGULAR MODELS 27, 57, 37, 47. Bright finlshed block bokelite cose, $3^{\prime \prime}$ wide, $31 / 8^{\prime \prime}$ high. Mounts flush to ponel in round $23 / /^{\circ "}$ D'Arsonval movement. AC ore lronvane rype.
(3) MODERN "WIDE-VUE" $31 / 2$ " METER MODELS 1327 , 1357 with 3.14 " scale length. Has one piece molded wrop around cover of highest quality clear plastic, case color durable black. Will odd beouty and modern styling wherever used. All DC movements are selt shielded core magnet movement elimond 50 microammeters excepted. AC meters ore moving vane type. Mounts in $23 /{ }^{\circ}$.". hole. (3) 41/2"RECTANGULAR MODEL 29 and 59 . Large, occurate, open face
 Calibroted $\pm 2 \%$. Average shpg. wt. I

QUANTITY PRICES: 10 to 24 deduct $8 \%$ from "Each" price; 25 up
deduct $13 \%$ from "Each" price.
deduct $13 \%$ from "Each" price
DC MILLIAMCMETER

| Ronge MA | Made No. | l Stock No. | Net Eoch | Model No. | Stock No. | Net Eoch | $\begin{aligned} & \text { Model } \\ & \text { No. } \end{aligned}$ | Stock No. | Net Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-1 | 27.2 | 29A1288 | \$11.61 | 1327 | $29 A 1025$ | \$12.79 | 292 | 29A1333 | \$12.79 |
| $0-5$ | $27 \quad 2$ | 2941289 | 11.61 | 1327 | 29A1026 | 12.79 |  |  |  |
| 0-10 | $27 \quad 2$ | 2941326 | 11.61 | . 1327 | 2941027 | 12.79 | $29 \quad 2$ | 2941334 | 12.79 |
| 0.15 | 272 | 2941327 | 11.61 | 1327 | 29A1041 | 12.79 | $29 \quad 2$ | 29A1100 | 12.79 |
| 0-25 | $27 \quad 2$ | 2941290 | 12.20 | 1327 | 2941028 | 13.08 | 292 | 2941101 | 13.67 |
| $0-50$ | 272 | 29A1328 | 12.20 | 1327 | 2941029 | 13.08 | $29 \quad 2$ | 29A1102 | 13:67 |
| 0-100 | 272 | 2941291 | 12.20 | 1327 | 29A1030 | 13.08 | 292 | 29A1335 | 13.67 |
| 0-150 | 27.2 | 2941329 | 12.20 | 1327 | 2941031 | 13.08 |  |  |  |
| 0-200 | 272 | 2941292 | 12.20 | 1327 | 2941032 | 13.08 | 292 | 2941361 | 13.67 |
| $0-250$ | 272 | 2941330 | 12.20 | 1327 | 2941033 | 13.08 |  |  |  |
| $0-300$ | 272 | 2941293 | 12.20 | 1327 | 2941034 | 13.08 | $29 \quad 2$ | 2941336 | 13.67 |
| 0-500 | 27.2 | $29 A 1294$ | 12.20 | 1327 | 2941035 | 13.08 | 292 | 2941337 | 13.67 |
| DC MICROAMMETERS (0Nof Shielded Core) |  |  |  |  |  |  |  |  |  |
| -UA | Mode | el Stk. No. | Eoch | Model | Stk. No. | Each | Madel | Stk. No. | Eoch |
| 0-25 | 27 | 29A1274 | \$19.25 | 1327* | 2941036 | \$19.26 | 29.2 | 29A1338 | \$21.31 |
| $0-50$ | 27 | 2941275 | 16.31 | 1327* | 2941037 | 16.32 | 292 | 2941339 | 17.64 |
| $0-100$ | 27 | 2941276 | 14.26 | 1327 | 2941038 | 14.85 | 29.2 | 2941358 | 16.02 |
| 0-200 | 27 | 2941277 | 12.79 | 1327 | 2941039 | 13.52 | 292 | 2941359 | 14.26 |
| 0-500 | 27 | 2941322 | 12.20 | 1327 | 2941040 | 13.23 | 292 | 2941340 | 13.67 |
| 00-0-500 | 27 | 2941103 | 11.76 | 1327 | 2941111 | 12.94 | $29 \quad 2$ | 2941104 | 12.94 |


| DC AMMETERS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amps | Mod | el Stk. No. | Eoch | Mode! | Stk. No. | Eoch | Mo | l Stk. No. | Eoch |
| 0-1 | 27 | 29A1278 | \$12.20 | 1327 | 29A1001 | \$12.94 | 29 | 29A1341 | \$13.54 |
| $0-3$ | 27 | 2941323 | 12.20 | 1327 | 2941002 | 12.94 |  |  |  |
| $0-5$ | 27 | 29A1324 | 12.20 | 1327 | 2941003 | 12.94 | 29 | 29A1342 | 13.54 |
| $0-10$ | 27 | 2941279 | 12.20 | 1327 | 29A1004 | 12.94 |  |  |  |
| 0-25 | 27 | 29A1280 | 12.20 | 327 | 2941005 | 12.94 | 29 | 2941343 | 13.54 |
| O-50 | 27 | 29A1281 | 12.20 | 1327 | 2941006 | 12.94 | 29 | 29A1365 | 13.54 |
| $\begin{array}{lllllll}\text { S0-0-50 } & 27 & 29 A 1325 & 12.491327 & 29 A 1055 & 13.82\end{array}$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Range V. Model Stk. No. |  |  | Eoch | Madel | Stk. No. | Each |  | Stk. No | Eoch |
| 0-3 | 27 | 29A1310 | \$12.34 |  |  |  |  |  |  |
| $0-5$ | 27 | 2941311 | 12.34 | 13 2iv | 29A1095 | \$13.52 |  |  |  |
|  | 27 | 2941298 | 12.34 | 1327 | $29 A 1007$ | 13.52 | 29 | 2941020 | \$13.67 |
| $0-25$ $0-50$ | 27 | $29 A 1312$ $29 A 1299$ | 12.34 | 1327 | $29 A 1008$ $29 A 1009$ | 13.52 | 29 | 2941021 2941022 | 13.67 |
| $0-100$ | 27 | 2941313 | 12.34 | 1327 | 29A1010 | 13.52 | 29 | 2941023 | 13.67 |
| 0-150 | 27 | 29A1300 | 12.34 | 1327 | 2941011 | 13.52 | 29 | 2941345 | 13.67 |
| 0-300 | 27 | 2941301 | 12.34 | 1327 | 2941012 | 13.52 | 29 | $29 A 1346$ | 13.67 |
| 0-500 | 27 | 2941314 | 12.94 | 1327 | 2941096 | 14.26 | 29 | 2941347 | 14.11 |
| 0-1000 | 27 | 2941302 | 16.32 | 1327 | $29 A 1097$ | 17.79 | 29 | 2941348 | 17.93 |
| $0-2000$ $0-4000$ | 27 27 | $29 A 1303$ $29 A 1304$ | 16.90 |  |  |  | 29 | 2941364 | 18.52 |
| 0-5000 | 127 | 29A1024 | 18.08 |  |  |  | 29 | 29A1350 | 19.70 |
| AC VOLTMETERS |  |  |  |  |  |  |  |  |  |
| 0-1.5 | 57 | 29A1315 | \$11.32 |  |  |  |  |  |  |
| $0-5$ | 57 | 2941316 | 11.32 |  |  |  |  |  |  |
| 0-10 | 57 | 29A1317 | 11.32 | 1357 | 29A1013 | \$11.91 |  |  |  |
| 0-15 | 57 57 | 29A1271 | 11.32 |  |  |  | 59 | 29A1351 | \$12.94 |
| $0-25$ | 57 | 29A1318 | 11.61 |  |  |  |  |  |  |
| $0-50$ 0.100 | 57 57 | $29 A 1319$ $29 A 1320$ | 11.61 |  |  |  | 59 | $29 A 1362$ | 12.94 |
| 0.150 | 57 | 29A1272 | 12.49 | 1357 | 29A1014 | 13.23 | 59 | 29A1352 | 13.67 |
| 0.300 | 57 | 29A1273 | 12.49 | 1357 | 29A1015 | 13.23 | 59 | 29A1353 | 13.67 |
| 0-500 | 157 | 29A1321 | 16.46 |  | ....... |  | 59 | 29A1363 | 17.05 |


| Ronge | Model Stk. No. |  | Each | Model | Stk. No. | ach |  | Stk. Na |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-1 A. | 57 | $29 A 1$ | \$11.03 | 1357 | 29A1016 | \$11.7 | 59 | 29 |  |
| 3 A. | 57 | 29A1283 | 11.03 | 357 | 29A1098 | 11.76 |  |  |  |
|  | 57 | 29A1284 | 11.03 | 357 | 2941017 | 11.76 | 59 | 29A1355 | 13.2 |
|  |  | 29A1285 | 11.03 | 357 | 29A1099 | 11.76 | - | 29A1356 | \% 23 |
|  | 57 | 29A1286 | 11.32 | 357 | 29A1018 | 12.20 |  | 29A1360 | 13.82 |
|  | 57 | 29A1287 | 11.32 |  | 2941019 | 12.2 |  | $29 A 1357$ | 13. |

(1) MODEL 57 AC MILLIAMMETERS (1) MODEL. 37 R.F. AMMETERS No. Range Ohms Each No. Range Thermo. Each $\begin{array}{llllllll}29 A 1295 & 0-15 & 875 & \$ 11.03 & \text { No. } & \text { Range } & \text { Thermo. } \\ 29 A 1296 & 0 & 100 & 20 & 11.03 & 2941305 & 0.1 .5 & \text { Internal } \$ 13.82\end{array}$ General purpose type. Colibrated for use on 500 ohm line. Power 6 MW Resistance 5000 ohms. Scale - 10 to. Hos type " $B$ " scale calibrated -20 +6 DB $3^{\prime \prime}$, except percent scole is emNo. 29A1331. Net Each... . 517.20 No. 29Ai308. Net Eoch.... $\$ 21.02$


TRIPLETT PANEL. METERS
All DC Mctere have D'Arsonval movement, AC hove fron core
type with lewel type with lewel
bearings. Accurocy all types $2 \%$.
(1) Type 327 T and 337 S conventional block bakelite square tlush mounting. Mounts in round $23 / 437$ hel Clease plastic square case, offer longer, more legible scole with no obstruction to notural lighting. Mounts in round $23 / 4^{\prime \prime}$ hole cose front $3 \mathrm{~B} / 9 \times 3$ " ${ }^{\prime \prime}$ high
(3) Type 220 M and 320 M . Completely new design of clear and black plastic longer easier to read dial 220 M front slze $2 \mathrm{hf}^{\prime \prime}$ square, mounts in 2 ft round hole. 320 M front size $31 / 2 \times 31 / 2^{\prime \prime}$ high, mounts in $23 / 4^{\prime \prime}$ hole.

| 10 to 24 deduct $10 \%$ : 25 up deduct $15 \%$ from 1-9 price. | 21/2" DC Microomm |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Ronge Stock Mfg 1-9 <br> Miero $A$ No. No. Eoch |  |  |  |
|  | $\begin{aligned} & 0-50 \\ & 0-100 \\ & 0-200 \end{aligned}$ | $\begin{aligned} & 29 A 1231 \\ & 29 A 1232 \\ & 29 A 1233 \\ & 29 A 1234 \end{aligned}$ | $\begin{aligned} & 220 \mathrm{M} \\ & 220 \mathrm{M} \\ & 220 \mathrm{M} \end{aligned}$$220 \mathrm{M}$ | $\begin{aligned} & 16.40 \\ & 14.30 \\ & 12.20 \end{aligned}$ |
| (1) Bokelite $3^{\prime \prime}$ DC Milliammeter |  |  |  |  |
| Range Stock Mfg. |  |  |  |  |
| MA No. No. | (1) Bokelite $3^{\prime \prime}$ DC Amm |  |  |  |
| $\begin{array}{llr}29 A 1239 & 327 T & \$ 11.60 \\ 2941197 & 327 T & 11.60\end{array}$ |  |  |  |  |
| $\begin{array}{llll}-5 & 29 A 1197 & 327 T & 11.60 \\ 10 & 29 A 1198 & 327 T & 11.60\end{array}$ | Amps | No. | No. | Eo |
| 2941199 327T 12.00 | 0-10 | 29A1246 | 3275 | 12.30 |
| $\begin{array}{llll}50 & 2941240 & 327 T & 12.00\end{array}$ | -25 | 2941247 | 3275 | 12.30 |
| $\begin{array}{lllll}100 & 2941241 & 327 T & 12.00\end{array}$ | 50 | $29 A 1137$ | 327 T |  |
| $\begin{array}{llll}200 & 2941242 & 327 T & 12.00\end{array}$ |  |  |  |  |
| 500 29A1244 327T 12.00 | (3) Clear Plostic 3" DC Ammeter |  |  |  |
| eor Plastic 3" ${ }^{\prime \prime}$ DC Milliammeter | (3) $31 / 2^{\prime \prime}$ DC Ammeter |  |  |  |
| $\begin{array}{llll}0-1 & 29 A 1043 & 327 P L & \$ 11.60\end{array}$ |  |  |  |  |  |  |  |
| $0-50$ $29 A 1044$ $327 P L$ 12.0 |  (3) $31 / 2^{\prime \prime}$ DC Ammeter   <br> 0.5 $29 A 1220$ 320 M $\$ 12.30$ |  |  |  |
| $0-100$ $29 A 1045$ 327 PL $12: 00$ <br> 0 $29 A 1046$ 327 PL 1200 | $\begin{aligned} & 0-3 \\ & 0-10 \\ & 0-25 \end{aligned}$ | $\begin{aligned} & 29 A 1221 \\ & 29 A 1222 \end{aligned}$ | $\begin{aligned} & 320 \mathrm{M} \\ & 320 \mathrm{M} \end{aligned}$ | 12.3012.30 |
| $0-200$ $29 A 1046$ 327 PL 12.00 <br> $0-500$ $29 A 1048$ 327 PL 12.00 |  |  |  |  |
| (3) $31 / 2^{\prime \prime}$ DC Milliommeter | (1) Bakelite $3^{\prime \prime}$ DC Voltmeter 1000 O.P.V. Film Type Resistor |  |  |  |
|  | Ronge Volts | Stock No. | $\begin{aligned} & \text { Mfg } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & 1.9 \\ & \text { Each } \end{aligned}$ |
| $29 A 1205$ $320 M$ <br> $29 A 1206$ $320 M$ <br> $29 A 1207$ 320 M <br> $29 A 1208$ $320 M$ <br> $29 A 1209$ 320 M <br> $29 A 1210$ 320 M <br> $29 A 1213$ 320 M <br> $29 A 1214$ 320 M |  |  |  |  |
|  | $0-10$$0-25$$0-150$$0-300$ | 294115 | 327 T | \$12.30 |
|  |  | 29A1148 |  |  |
|  |  | 29A11153 <br> 29A1154 | $\begin{aligned} & 3277 \\ & 3277 \\ & 377 \end{aligned}$ | $\begin{aligned} & 12.30 \\ & 12.30 \end{aligned}$ |
|  |  |  |  |  |
| $\begin{array}{llll}0-500 & 29 A 1214 & 320 \mathrm{M} & 12.00\end{array}$ | (3) Cleor Plastic 3" DC Valimeter |  |  |  |
| (3) $\mathbf{2 1 / 2 " O}$ OC Milliommiter | 0-50 | 2941052 | 327PL | 12.30 |
| 2941227 220M |  | (3) $312^{\prime \prime}$ DC Volfmeter |  |  |
| 0-50 29A1228 220M | $0-10$ $29 A 1223$ $320 M$ <br> $0-50$ $29 A 1224$ $320 M$ <br> 0.150 $29 A 1225$ $320 M$ <br> $0-300$ $29 A 1226$ $320 M$ |  |  | $\begin{aligned} & 12.30 \\ & 12.30 \\ & 12.30 \\ & 12.30 \end{aligned}$ |
| $100 \quad 2941229$ 220M 11.30 |  |  |  |  |  |  |
| 500 29A1230 220M 11.30 |  |  |  |  |  |  |
| (1) Bakelite $3^{\prime \prime}$ DC Microommeter |  |  |  |  |  |  |
| ange Stock Mtg. | (3) Bokelite 3**AC Am |  |  |  |
| Micro A No. No. | Ronge Amps | Bokelite 3"StockNo. | Mfg. No. | $\begin{aligned} & 1-9 \\ & \text { Eoch } \end{aligned}$ |
| $29 \mathrm{Al266} \mathrm{327T}$ |  |  |  |  |
| $\begin{array}{llll} 50 & 2941268 & 327 T & 16.9 \end{array}$ |  | 29A1110 | 3375 | \$12.10 |
| $\begin{array}{llll}-100 & 2941248 & 327 T & 14.90\end{array}$ |  | 29A125929A126029A1261 | 33753375 | 12.10 |
| $\begin{array}{llll}0-200 & 29 A 1251 & 327 T & 12.90\end{array}$ |  |  |  |  |
| $\begin{array}{llll} & 2941270 & 327 T & 12.20\end{array}$ | $\begin{aligned} & 0-10 \\ & 0-25 \\ & 0-50 \end{aligned}$ |  | 33753375 | 12.10 <br> 12.10 |
| 29A1235 327T 14.9 |  | 29A1261 $29 A 1204$ |  |  |
| (3) Clear Plastic 3" DC Microammeter | (1) Cleor Plostic 3" AC Anmeter |  |  |  |
| $\begin{array}{llll}0-50 & 2941049 & 327 P L & \$ 16.90\end{array}$ | $\begin{aligned} & 0-10 \\ & 0-25 \\ & 0-30 \\ & 0-50 \end{aligned}$ | $\begin{aligned} & \text { 29A1060 } \\ & 29 A 1061 \\ & 29 A 1062 \\ & 29 A 1063 \\ & 29 A 1042 \\ & \hline \end{aligned}$ |  | 12.10 |
| O-100 29A1050 327PL 14.90 |  |  |  |  |
| $\begin{array}{llll}0.200 & 2941051 & 327 \mathrm{PL} & 12.90\end{array}$ |  |  |  | 12.10 |
| (3) $31 / 2^{\prime \prime}$ DC Microommeter | $\begin{array}{r} 0-30 \\ 0-50 \\ \hline \end{array}$ |  | $\begin{aligned} & \text { 337PL } \\ & \text { 337PL } \end{aligned}$ | 12.10 |
| $0-50$ $29 A 1215$ 320 M $\$ 16.90$ <br> $0-100$ 29 A 1216 320 M 14.90 <br> $0-200$ $29 A 1217$ 320 M 12.90 <br> $0-500$ $29 A 1218$ 320 M 12.20 <br> $50-0-50$ $29 A 1219$ 320 M 14.90 | (1) Bakelite $3^{\circ \prime}$ RF Amm |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  $0-1$ <br> $0.29 A 1252$  <br> 0.5 $29 A 1253$ <br> $0-5$ $29 A 1254$ |  |  | 12.80 |
|  |  |  | 3475 | 12.80 |
|  |  |  | 347 T |  |
| Clear Plostic 3" DB Meter | (1) Bakelite 3" AC Voltmeter $^{\text {a }}$ |  |  |  |
| Callbrated for 500 ohm line. Up 6 down 10 db. Accuracy 5\%. Internal resistance 5000 chms. <br> 29A1065-Round 321-PL. Eo. $\$ 17.60$ | Range <br> Volfs Stock <br> No. Mf9. <br> No. <br> $0-5$ $29 A 1255$ $337 S$ <br> $0-15$ $29 A 1129$ $337 S$ <br> $0-150$ $29 A 1257$ 3375 <br> $0-300$ $.29 A 1258$ 3375 |  |  | $1-9$ Eoch |
|  |  |  |  | \$12.10 |
|  |  |  |  | 12.10 |
| Clear Plostic 3'0 VU Meter |  |  |  | 3.1 |
| Internal impedonce 3900 ohms. Reference 1 milliwatt for 600 chm line. Scale "A" - 20 to plus 3 VU on top arc bottom 0-100\%. <br> 29A1066. Round 32i-PL. Eo. \$21.00 | (3) Clear Plostic 3" AC Valimeter |  |  |  |
|  | 0-50 | 2941056 | 337 P | 12.10 |
|  | 0-150 | $29 A 1057$ | 337P | 13.10 |
|  | 0-300 | 29A1058 | 337 PL | 14.30 |

NEW SIMPSON WIDE-VUE $1 \frac{1}{2}$ \& $21 / 2-I N$. METERS See description opposite column for $31 / 2^{\prime \prime}$ sizes.
Model $1212 \mathrm{C} \mid 1 / 2^{\prime \prime}$ Type has scale length of 1.5 inches for mode readings. Mounts in $11 / 2^{\prime \prime}$ pound hole. Foce, overall size $13 / /^{\prime \prime}$ square.
Model $1227 \mathrm{C} 21^{\prime 1} 2^{\prime \prime}$. Type has scale length of 2.5 inches.
Mounts in $2.17^{\prime \prime}$ dia. hole. Foce, overall size $21 / 2^{\prime \prime}$ squore.

| ng | Stk. No. |  |  | WIDE-VUE DC MILL. ${ }^{21 / 20}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 29 |  | \$11.85 | 0-1 | $29 A 1124$ | 122 |  |
| -10 | 2941113 | 1212 | 11.85 | 0-10 | 2941132 | 1227 | 12.45 |
| 0-100 | 2941116 | 1212C | 12.30 | 0-100 | 2941136 | 1227 | 12.75 |
| 0-200 | 29 Alll | 1212 C | 12.30 | 0-200 | 2941140 | 122 |  |
| W10 | VUE DC | , |  |  |  | ROA |  |
| 50 | 2941118 | $1212 C$ | \$15.75 | 0-50 | 2941141 | 1227 | 16.20 |
| 100 | 2941119 | 1212C | 13.95 | 0-100 | $29 A 1145$ | $1227 C$ |  |
|  |  |  |  |  |  |  |  |

## Panel Meters-Testers

## SHURITE PANEL METERS



MODEL 850


Model 850-Clear Plastic Case. Case Model 950-Black Metal Case 25 front $21^{\circ} \mathrm{W} 2$ P.


RCA QUALITY TESTERS


RCA WO91A WIDE BAND 5-1NCH SCOPE. Designed for color or black and white TV service and wide variety of commerciol uses. Feafures: 4.5 MC bandwidth. 18 mv sensitivity. Multigraph screen for occurate peak-to peak voltage measurement. Voltage-calibrated 3.1 step attenuator - Positive lock internal sync. Response, wide operation within 3 db .10 Cps to 4.5 MC . High sensitivity operation within - 1 db 10 cps to .5 MC ; within -6 db 1.5 MC sensitivity; .05 volt peak-to-peak per inch (.018 volt RMS) in high sensitivity position.
Cobinet size $9^{\prime \prime}$ wide, $131 / 2^{\prime \prime}$ high, $161 / 2^{\prime \prime}$ deep. Wt. 28 Ibs. Complete with direct low capacitance probe, all leads and instructions.
No. 35 A232. Complete as described. Each
$\$ 239.50$
RCA WV98B SENIOR VOLTOHMYST. Improved all-electronic VTVM. Idea for Radio and TV servicing and the exacting requirements in laborataries or industry. New deluxe feofures include: $61 / 2$ wide vision meter with ex panded easy to read scales; improved accuracy of $\pm 3 \%$ oll ranges ful or ohms reading. Rugged die-cast aluminum case. Has seven DC voltage ranges from 0.1500 volts. Fourteen $A C$ ranges; seven peak-to-peak from scole, switch type $A C-D C$-ohms probe with finger tip selection for $A C-D C$ 0 to 4200 volts, seven RMS (sine wovel 0 to 1500 volts, frequency to 3 MC . seven ohm ranges 0 to 1000 megohms. For $115-125$ volts, $50-60$ cycle AC Size $61 / 2^{\prime \prime}$ high, $7^{\prime \prime}$ wide, 3
aluminum panel. Wt. 6 lbs.
a. 35 A355. Comply. Nir, Net Each
$\$ 62.50$

Crystol Probe frequency response 30 cps to 250 MC Nor No. 35A263. WG289 Hi-Voltage (30K) Probe for WV98B and
.59 .85
301 WESTON PANEL METERS
B-A IS DISTRIBUTOR FOR ENTIRE WESTON LINE WRITE FOR INFORMATION ON ITEMS NOT LISTED. The Famous Westan 301 has new modern look-new law price-new "Cormag mechanism which is immune to stray magnetic fields. Special colibration for use on metal ponals is not required.
value. Mounts in $23 / 4^{\prime \prime}$ cutout.

## DC MILLIAMMETERS

| Range <br> MA | Model <br> No. | Stoek No. | Net Ea. |
| :---: | :---: | :---: | ---: |
| $0-1$ | 301 | $29 A 1411$ | $\$ 14.75$ |
| $0-10$ | 301 | $29 A 1413$ | 14.75 |
| $0-100$ | 301 | $29 A 1414$ | 14.75 |
| $0-300$ | 301 | $29 A 1415$ | 14.75 |


| DC VOLT -1000 OHMS PER VOLT |  |  |  |
| :--- | :--- | :--- | :--- |
| Vaits | Model | Stack No. | Net Eo. |
| $0-15$ | 301 | $29 A 1416$ | $\$ 15.25$ |
| $0-30$ | 301 | $29 A 1417$ | 15.25 |
| $0-150$ | 301 | $29 A 1420$ | 15.25 |

DC AMMETERS

| Amps | Madel | Stock |
| :---: | :---: | :---: |
| 0.10 | 301 | $\frac{\text { No }}{2}-$ |
| 0.301423 | Net E |  |
| 14.7 |  |  |


| Micro- <br> Amps | Model | Stock No. | Net Eo. |
| :---: | :---: | :---: | ---: |
| $0-100$ | 301 | $29 A 1425$ | $\$ 17.75$ |
| $0-200$ | 301 | $29 A 1426$ | 15.25 |

## JBT ELAPSED TAME METER

Indicates occumulated operating time of AC electrical and electronic equipment. Registers $1 / 10$ hour steps to $9,999.9$ $31 / 2^{\prime \prime}$ bakelite case: mourts in $2 \frac{1}{4}$ " hole. For $110-130$ $60^{2}$ cy AC. Shpo wi $11 / 4 \mathrm{Ib}$ No. 29A1309 Model 31 -EX. NET EACH....
 C VOLTS-Black Metal

| $19 A 559$ | 9403 | $\$ 3.25$ |
| ---: | ---: | ---: |
| $19 A 248$ | 9404 | 3.25 |
| $19 A 567$ | 9405 | 3.60 |
| 194249 | 9406 | 3.70 |
| 194250 | 9407 | 4.35 |
| $19 A 365$ | 9409 | 5.60 | AC AMMETER-Black Metol

Measures resistance from 0-10,000 st
$\begin{array}{lll}\text { Stk. No. } & \text { Model } & \text { Net Eo. } \\ 19 A 252 & 9701 \text { Sq. Metal } & \$ 2.6 \\ 198315 & 8701 & \text { Sq. Plostic }\end{array}$

## NEW SHURITE EDGEWISE METERS



Model 350 presents the New Look in low cos panel meters. Has clear polystyrene meter front with controsting black escutcheon. Makes possible many new designs and panel layouts. Escutcheon hind panel. Rear depth i p" width $15 / 8^{\prime \prime}$. Mounts in 1 发" $\times 13^{7} 9^{\prime \prime}$ cutout with two screws from the 850 above

| Range | Stk. No. | VOLTS Mfg. | Each | Range | DC M Stk. No. | LIAMPS Mfg. No | h |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.10 | 19A442 | 3107 | \$3.35 | 0-10 | 19 A 446 | 3303 | Soch |
| 0-15 | 194443 | 3108 | 3.35 | $0-50$ | 19A450 | 3306 | . |
|  |  |  |  | 0.100 | $19 A 475$ | 3307 | 5 |
|  | DC | AMPS |  |  | AC | VOLTS |  |
| 0-5 | 194445 | 3203 | \$3.35 | 0.150 | 194476 | 3406 | S4.10 |

EDGEWISE S METER NO. 3333. CLEAR PLASTIC VU METER. SOme OS Measures relative signal strength. Model 850 above. Measures oudio Ranges as Madel 350. Has suggested accuracy. AC rectifier type circuit. No. 198394. Net Eoch. . . . $\$ 3.45$ No. 19B400. Net Each...... $\$ 5.85$


## STERLING POCKET METERS

No. 31A HEARING AID BATTERY TESTER. Has two scoles
 nocke tarn hed
No. 42A PORTABLE RADIO BATTERY TESTER. Equipped with red ond green "Good-Bad" color chart for oll standord "B" and "A" batteries. Also has $0-100$ volt scale. All dition. Case size, $21 / 4^{\prime \prime}$ diameter, $5 /{ }^{\prime \prime}$ " thick, b finished
\$3.82
No. 13 Transistor Batiter tistre. has 0.7 voltooe sale. for the new Mercury cells and transistor batteries. Indicates battery strength with No. 16B718 Nower
No. 16B718. Net Eoch.
$\$ 2.73$

## Simpson and Triplett Instruments



IMPROVED SIMPSON 260 V.O.M.A.
Better thon ever of no increose in price! New features: polority reversing switch, increased sensitivity $0-50$ microamp and 250 millivolt range- 5000 o.p.V. on AC. Frequency respanse 5 to 5000 -full-wove bridge rectifier-
exponded scoles for eosier reoding. High sensitivity 120,000 o.p.v. DC volts; 5000 o.p.v. AC valts). Provides AC ond DC volts ranges of $0-250 \mathrm{MV}, 2.5$, 10 , 50,250 , 1000,5000 volts; $A C$ volts ranges of $0,2.5,10,50,250,1000$ : AC valts with internal series capacitor $0-2.5,10,50$, 250 ; Current 'Ranges

 No. 35A165. Corning Cose, for Model 260-270. Wt Simpson Model 260R in ROLL TOP SAFETY CASE. Heovy molded bokelite
 No. 155515184.45
$\$ 48.95$
MODEL 270 MULTIMETER
The Extro Quality Loborotary Instrument feoturing: - Greater occurocy over a wide range of temperoture changes.
20,000 ohms per volt. $A C$ occuracy $11 / 2 \%$ full scale
occurocy $2 \%$ full scole 5,000 otms per volt. - Mirrored scale. Knife-edge pointer. Ranges: 7 DC valts from 250 MV to 5000 volts. 6 AC volts from 2.5 to 5000 volts. AF volts loutput) 4 ronges 2.5 to 250 volts. 6 Decibels -20 to +50 in 4 ronges. ${ }^{\circ} \mathrm{DC}$ curcenter) to 20 megohm in 3 ronges.
Block molded cose $51 / 4 \times 7 \times 31 / 8^{\prime \prime}$. Wt. $51 / 2 \mathrm{lbs}$.
No. 35A41. Model 270. Net Eoch
$\$ 58.75$

## SIMPSON 388-3L THERM-O-METER

Model 388-3L Therm-O-Meter permits three probe opplication with o ronge from $-50^{\circ}$ to $+1000^{\circ}$. F on a cambination Fáhrenheit and Centigrode scale. Has selector switch for eoch probe where more than one temperoture is behigh degree of occurocy. Automatic compensotion for room temperoture. Complete with one generol purpose thermocouple probe. Size $8 \times 6 \times 3$ wt 5 Ibs. Complete reody, to use.
No. 35 Al04. Eoch
No. 35A105. No. 0190 General Purpose Probe. Eoch No. 354106 . No. 0187 Surface Temperature Probe. Each
$\$ 66.59$

| $\$ 4.85$ |
| :--- |
| $\$ 8.72$ |
| 9.75 |

SIMPSON LOW RANGE OHM METER MODEL 362 Ronge 0.1 to 25 ohms in two ranges 0 to 5 and 0 to 25 . Accuracy of $3 \%$ clomped wire connections, switch or relay contocts, checking motor arma fures and fields for shorts or grounds. Black bokelite cose Completely self-contained with leads reody t
No. 354540 . Simpson Model 362 . Net Eoch.
$\$ 24.45$
SIMPSON 383A CAPACOHMETER
Time saving, in circuit capacitor tester. Measures leakage in ohms of defective paper mico from 10 mmf to 10 mfd . Exclusive "Pulse Test knocks out border line capocltors before they go bod, eliminating many intermittent circuit conditions and call bocks. Hos $41 / 2^{\prime \prime}$ meter. Requires no difficult odjustment or balancing. Groy
No. 35 A 366
No. 35 A 366.
$\$ 88.15$
NEW TRIPLETT VTVM MODEL 850
Feotures: - Long view scales, $7^{\prime \prime \prime}$ ot top orc. - Clear plastic front floods diol with unabstructed notural light. Burnout protected meter. - Single, unit probe. hondle also serves as tester stond holding meter at $25^{\circ}$ angle for perfect viewing. Meosures up to 1500 DC voits in 8 ranges, $0-1500$ to-peok in seven ronges, up to 1000 volts peakseven ronges. 15 cps to 3 MC frequency ronge (to
250 MC with accessory probe). input impedance DC volts 11 meg., AC volts min. .83 meg. For 115 volt No. 354464 . Complete, Net Each
$\$ 77.91$


TRIPLETT 690A TRANSISTOR TESTER Dependoble, occurate leakage and gain tests for oll NPN
or PNP transistors. Meosures DC Beta current goin from or PNP transistors. Meosures DC Beta current goin from 5 to infinity. Hos on exoct shart and leakoge test plus moy be used onywhere. Hos both sockets and test leads for occommodating ony bose loyout. Black molded cose $6 \times 51 / 2 \times 21 / 2^{\prime \prime}$. Wt. 4 lbs. Complete reody to use. No. 35 A102.
531.85

## TRIPLETT MULTIMETERS



## MODEL 310 POCKET SIZE V.O.M.A.

Size, $23 / 4^{\prime \prime} \times 4 / 4 \times 1 r^{\prime \prime}$. Plastic foce meter fits in shirt porket or in leather cose with convenient belt clip (listed below). Weighs cnly 14 oz . with bottery. Complete miniature 20,000 ohm per volt meter, 5 DC volt ranges $0-1200$. AC - 5 ranges $0-1200$ valts of 5 K ohms/volt. Microamperes $0-600$, DC mils 3 ranges $0-600$, ohms 0 to $20^{\mathrm{K}} \mathrm{K} .200 \mathrm{~K}$. Megohris $0-2$ and $0-20$. Accuracy $3 \%$ DC. $4 \% \mathrm{AC}$. Hos $24^{\prime \prime}$ test leods ond removoble negative or common test prod at meter end. Uses bonono type Jocks. Complete With test leods reody to use.
No. 35A352. Net Eoch
$\$ 36.75$
No. 35 A353. Model 369 Corrying Cose for 310 Meter. Eoch
.33.14
TRIPLETT CLAMP-ON ADAPTER
Model 10 odapts Model 310 obove for checking AC line loods up to 300 amps without breoking circuit or interrupting work. No. 35 A 100 . Complete ready to use. Each No. 35 A101. Complete with Instructions. Each

## 630 ALL-TIME FAVORITE MULTIMETER

Proven dependobility over o long period of time hos mode this instrument the all-time fovorite. 20,000 ohm per volt sensitivity DC and 5000 ohms AC 3\% occuracy- DC and AC voltage ranges $0-3-12-60-300-1200-6000$. Ohms
$1-1000-1000$. Megs $0-1-100$. $D E$ microomps $0-60$. $D C$ milliomps $0-1,2-12$ 120 of 250 millivolts. DC omperes $0-12$ DB -20 to +77 . OLiput volts No. 35 A170. Model 630. Complete with ieods. Net Eoch

NEW FULL-VIEW MODEL 63OPL Y.O.M.A.
20,000 O.P.V. DC-5,000 O.P.V. AC. New features include: DC pularity re versing switch; instant vision, wider spread scoles, with new streamlined plostic front meter: AC frequency response 5 to $500,000 \mathrm{cps}$. Sing e selector
switch has $21 / 2^{\prime \prime}$ recessed knob flush with ponel. precision separate molded recessed knob lush with ponel. Precision resistors in separate molded compartments, integral with switch. DC Volts Ronges: megohms. AC Volts Ronges: 0-3-10-50-250-1000-5000. DC Current Ranges. megohms. AC Volts Ronges: $0-3-10-50-250-1000-5000$. DC Current Ranges:
Mieroomp: $0-100$. Milliomp: $0-10-100-1000 \mathrm{MA}$ Output: Contenser in Microomp: $0-100$. Milliomp: $0-10-100-1000 \mathrm{MA}$. Output: Con.jenser in
series with $A C$ voit ranges. Decibels: -20 to +75 in 6 ronges. With $50^{\circ}$
 SUPER-PRECISION MODEL G30APL, idertical to 630 PL above $1 / 2 \%$ resistors ond long mirro
35 A1 49 . Model 630 APL. Net
$\$ 58.31$ 35B68. Block Leather Corrying Cose for 630PL, 631 or 630 NA . Net . . 59.71


630NA


631


666-1

## SUPER V.O.M.A. MODEL G30NA

Features 70 meter ronges: overiond protection; occurocy DC $1 / 1 / 2 \%$; $A C 3 \%$ -
 ot 20 K onm/volt, 6 AC volts 0 to 6 K ot 5 K onms/volt, 6 AC volts 0 to 3 K of 10 K ohms/ Volt, ${ }^{12}$ output (series condenser on AC ronges), 12 db
-20 to +70 db . 3 DC Microomperes 0.120 ot 240 MV ond $0-60 \mathrm{C}$ at 120 MV .4 DC mils 0.1200 of 240 MV ond $30-600$ ot 120 MV . 1 DZ at 120
 lbs. Complete with leods and instructions.
No. 35A354. Net Each.
$\$ 77.91$

## MODEL 631 VOM \& VTVM

34 ronges. VOM sensitivity 20,000 ohms per volt $D C, 5000$ for $A C$ and VOM Ronges both DC ond AC volts $0-3-12-60-300$ cler with expondec scales. O-60; DC Mils 0-1.2-12-120-1200. DC Amps 0-1. 12; DB Micro-amperes: Ohms $0-1500-15 \mathrm{~K}$ and $0-1.5-150$ Megs. Outp $0-1,12$ condenser in series with AC volts. VTVM Ronges: DC volts O-1.2-6-30-120. Zero-center. VTVM is a stable battery operated circuit with convenient push switch to TVM is a No. 354313 . Model 631. Complete. Reody to Use

## $\$ 68.11$

## MODEL 666-R VOMA

Hondy, rugged "Pocket Lab" with 3-inch 200 Micro-omp. Meter.
Single recessed molded selector switch. Ronges: AC-DC Volts: 0-10-50-250Resistance: $0-3000-300,000$ ohms; $0-3 \mathrm{Meg}$. Compensated Ohmp 12 EO mvV Block molded cose, handy pocket size $3109 \times 57 / 8 \times 29^{\prime \prime}$. Onmmeter circuit. No. 35 Alo3. Wt. 2 lbs. Complete with test leods. Net.
$\$ 31.85$


## HICKOK INSTRUMENTS CHOICE OF THE EXPERTS



MODEL 539B LABORATORY TUBE TESTER. The most accurate and most complete laborotory portable. Dynamic mutual conductance type, designed to furnish professional accuracy for lab, design engineers, field engineers and technicions in Rodio-TV and all phases of electronics. Special feotures: sercen voltage. Thignals. Rectified DC grid bias and seporate plate and sercen voltage. © Tests valtage regulator tubes, selenium rectifiers and dicdes. Direct reoding 50 megohm short test. Reads heater current. - Line voltage monitored on AC meter. Panel plug for plate milliammeter. Mi-cro-mho ratings, 905 and tube lite tests. Uses 3 highest accuracy Hickok
 MODEL 6000 TECHNICIANS TUBE TESTER. High-Speed Portoble Size for Rodio and TV Technicions. Feoturing Dynamic Mutuol Conductonce test and
ALL types of receiving and television tubes-gas tests, future life tests, and MLL types of receiving and television tubes-gas tests, future life tests, and English reading, "Good-Bad" scolel Matches tubes for PP omplifiers ond television tubes for clearer picturesl Has same circuit features as other Helevision testers but is a smaller lighter weight portable instrument other Hickok testers but is o smaller, lighter weight portable instrument-at a
 No. 35B47. Model 6000 Tube Tester. Net Eoch
$\$ 197.50$ MODEL 800 STANDARD TUBE TESTER. Hickok's most complete, occurote tester for the money. Dynamic Mutual Conductance Portable Tube Tester-Tronsistar-Diode Checker. Features leakage and short test for inter-element series string tubes. Incorporates Hickoks original dynomic mutual conductance clrcuit plus new gas test. Hos 5 -inch meter, reods 0-15,000 micromohs roll chort. Red leatherette case $163 / 4 \times 113 / 4 \times 7 \frac{1}{2}$ " deep.
No. 354208 . Shpg. wt. 21 lbs. Model 800 Complete....... PICTURE TUBE TEST ADAPTER for all tube testers listed. No. 35A1 45. Mickok Model CRT. Eoch
$\$ 15.75$

## EMC QUALITY TEST INSTRUMENTS



206P MUTUAL CONDUCTANCE TUBE TESTER
The finest in tube testing equipment of a very competitive price. Checks mutual conductonce on a calibroted Micromho scale and "RejectGood" scale on $41 / 2$-inch meter. Completely flexible, extremely occurate. Tests for shorts, opens, gas content, RF and other nolse. Lever type switches ments on tube bose Roller and Cure tubes regardiess of location $121 / 2 \times 41 / 2^{\prime \prime}$. Wt. 16 lbs.
No. 35A168. EMC Madel 206-P, Net Each
$\$ 81.82$ No. 35A212. Pieture Tube Test Adapter for 206P. Net Each
$\$ 6.37$

## 204P TUBE BATTERY-OHMS-CAPACITY TESTER

Offers four essential service tests in one instrument, checks tubes, botteries,
Ohms resistonce ond condensers capocity.
Iest oll Tubes by standard emission method. 4-position modern lever switchand voltage regulator types! Checks botteries under rated load. Checks capacity from .01 to 1 mfd . Checks condenser leakage to 1 megohm. Checks resistance to 4 megahms! Dauble width Roll Chort, neon shorts and leak WV. 14 lbs
No. $35 A 151$.
No. 354320 .
$\$ 54.78$


## 301P SPEDI-TUBE TESTER

Spedi-checker requires only two simple settings ta test tubes for quality, leakage and shorts Reliable and occurate results for over 375 tube types, including octal, loctol, miniature 7 and 9 pin and OZ4 rectifier. New types can be added as they appear. Has line voltage regulation. Also tests and rejuvenates picture rubes with A a apth lipedinge cover size In solid oak case with slip-hinge cover. Size $11 \times 12 \times 4 \frac{1}{2 \prime}$. Wt. 12 lbs.
No. 35A559. Model 301P
Reody to use. Net.
35A560. PTA Pleture Tube Adoptor . . . $\$ 4.41$


MIGHTY MITE TUBE CHECKER TC114
A time saving tester that finds tube troubles other testers miss, soves call bocks. Tests over 1300 types for cathode emission, grid emission, leakoge,
 No. 35A185. Model TCl14. Shpg. wt. 7 Ibs. Nef Eoch

## MODEL PS103 BATTERY SUBSTITUTE

 For use while servicing tronsistor rodios, ampliflers, etc. Output variablefrom 0 to 24 volts and read on meter. By use of function switch the curfrom 0 to 24 volts and read on meter. By use of function switch the curmaximum current. Unit may also be used for charging batteries. Size $5 \times 41 / 2 \times 21 / 2$. Wt. 2 lbs
No. 16A293. Modet PS103. Net Each
\$19.95

## SENCORE TR115 TRANSISTOR TESTER

Accurate tests on all transistors, diodes and rectifiers. Hos simple set up chart, reads transistor gain, leakage and indicates good or bod on meter
scale. Measures forword and reverse current on diodes.
No. 35 AS57. Wt. 2 bs. Modet TR115. Net Each..............

## SENCORE SWEEP CIRCUIT TROUBLE SHOOTER <br> SENSATIONAL NEW INSTRUMENT FINDS HORIZONTAL AND <br> VERTICAL SWEEP CIRCUIT TROUBLES IN SECONDS, NO GUESSWORK

Mode! SSIO5. Functions ore

- Universal horizontal oscillator substitute
-output variable from 0 to 200 volts
- Cathode current checker in horizontal output, use sacket adapter without dis
- Deflection yoke tester. Flybock tester
- Voltmeter 0-1000 volts range
- Checks ver

It's complete, nothing else to buy. Size $7 \times 6 \times 31 / 2$
operation.
No. $35 A 150$. Madel 55105
$\$ 42.95$


## MODEL TR-110 TRANSI-MASTER

 Anolyze transistor circuit troublos in minutes. It is a tery tester and milliometer. tery tester and millometer. check. Tests all transistors out of clrcult with either check. AC gain or DC current gain and leakage check. Read AC gain or DC current gain and leakage check. Read current goin (Beta) direct. Checks diodes with for2000 cycle signal. Checks botteries under operating As miliameter to monitor current of en tre tronsistor circuit, for olignment or checking crocked boards. . Llsts Jap equivalents. Automotically determines NPN-PNP. ApAn "up to the minute" tester far all the latest semiconductor testing. Its easy to use, has complete instructions transistor and diade chorts. Gray cobinet size $8 \times 75 / 8 \times 3^{\prime \prime}$. Wt. 5 lbs.
No. 35A322. Model TR-110. Net Eoch
$\$ 49.50$

## WESTON QUALITY INSTRUMENTS

 WESTON MODEL 749AC CLAMP VOLT-AMMETER
Pocket size, easy to hondle highly dependable volt-ammeter. with shotterproof meter window. Safely insulated for 750 volts. 6 ampere ranges $0-6-15-30-60-150-300$ and 3 voltage ranges curacy $\pm 3 \%$ on $50-60$ cycle and $\pm 5 \%$ on 400 cycle for full scale value. Size $71 / 2^{\prime \prime}$ long, $3^{\prime \prime} x 11 / 4^{\prime \prime}$. Wt. 14 az Nef Each
Nef Each
$\$ 51.50$
No 35 Al20 Mg-in 10
55.25

## WESTON MODEL 980 MARK II MULTIMETERS

A highly sensitive instrument which maintains extreme ac
cations: 7 DC valt ranges to 4000 volts ot 20,000 ohm per volt $2 \%$ accuracy; 6 AC volt ranges to 1600 volts a 1000 ohms per volt $3 \%$ accuracy; $4 D C$ milliamp ranges to 800 mlls; 0 to 80 DC microamps; $0-8$ DC amps; 5 fused resistance ranges to 10 megohms. Simpliflea, singie sengroved panel with white markings, 7 D. including knobs. Wt. 3 lbs

No. 35A561. Net Each.

## Selected Service Instruments

## ECONOMICAL SUPERIOR INSTRUMENTS, EVERYONE CAN AFFORD



## SENSATIONAL SUPER METER MODEL 79 ALL PURPOSE MULTI-RANGE TESTER

- Measures Volts-Ohms-Current Capocity-Reactance-Inductance-DB. - Tests Selenium \& Silicon Rectifiers, Diodes G Copocitars.

Features: Plastic front $6^{\prime \prime}$ full view meter, contained in madern design plastic cose. An extra value Instrument offering all the following tests in one highly dependable and accurate tester. DC valts 0 to 1500 in six ronges; AC valts 0 to 3000 in six ranges; DC current 0 to 150 milliomp in three ranges and 0 to 1.5 and 15 omperes. Reslstance 0 to 10 megohms in three 2500 ohms to 2.5 megohms. Inductance .15 to 7 henries, 7 to 7000 henries. Decibels -6 in five ranges to +58 . The following quality tests are made of proper voltage, read on good-bad scole. Electrolytic condensers 1 to 1000 mfd, ond all, selenium and silicon rectifiers and diodes. Size $61 / 2^{\prime \prime} \mathrm{W}$. x $71 / 2$ i, Cose. N5A246. Model 79 Complete, nathing else to buy. Net Eoch 53713

SEVEN SIGNAL GENERATORS IN ONE
SAVES THE PRICE OF SEVERAL INSTRUMENTS

- RF signol for AM.
- RF signal for FM.
- Audio frequency gencrotor. - Bar generator.
- Cross hatch generatar.
- Colar dat pottern generator.
- Morker generatar.

Super Model TV50A. Provides RF signol for both AM and FM ollgnment, frequency range from 100 kilocycles to 100 megacycles. Modulated by 400 cycle or voriable 300 to 20,000 cycle oudio. Audio generator of 400 cycle sine wave and 300 to 20,000 cycle peaked audio signal. Bar generator,
Cross hatch consists of a non-shifting interlocked vertical and horizontai pottern. Dot pattern for color TV adjusting. Marker generotor includes 13 marker frequencies set by precise factory alignment.
An extremely stable instrument, easy to use. A comprehensive instruction book explains each operation. It is fully guoranteed. Housed in black case,
size $10 \times 81 / 2 \times 43 / 4^{\prime \prime}$. Wt. 10 lbs . size $10 \times 81 / 2 \times 43 / 4^{\prime \prime}$. Wt. 10 lbs.
No. 35A148. Complete, Ready to Use.
$\$ 47.50$

## NEW MODEL 1076 B \& K TELEVISION ANALYST

 COMPLETELY NEW ADVANCED DESIGN

Model 1076. Eliminates guesswark-no oscilloscape needed. Supples test signal for eoch separate stoge, you wotch results on TV set can signal trace ony stage throughout the video, audio ond sweep sections of black and white or color TV sets. By use of generoted test pottern you octuolly see the condition directly on the picture tube. Test points con be reached elther on top or bottom of TV panel of Analyst. In addition it provides a switch-type tuner for channel selection. Negative bias supply, AGC Keying pulse and a high-level test signal to operate a picture tube direct.
Cabinet size, $121 / 2 \times 12 \times 81 / 2^{\prime \prime}$. Shpg. wt. 34 lbs. Supplied with standard test pattern, white dot, and white line crosshatch and calor bar pottern slide transparencies, one clear acetate and slide holder, all necessary cables and leads. Operates on $110-120$ volts 60 cycle AC No. 35 A302. Complete Each.
\$293.95

## B\&K MODEL 160 TRANSISTOR TESTER

 FOR SERVICE-LAB AND INDUSTRIAL USE

Modet 160 is a professional quality vester for fost, accurate results at low cost. Rmall signal AC for gain test 3\%. Uses dynamic conditions with actual operating circults for graund emitter test. Complete reference chart. Socket and cllp-in type connections. Tests power transistors ond tetrodes. Op . AC power supply. The DC output Operates from AC power supply. Na. 35 A303.
Complete, ready to operate
$\$ 68.55$


## SPRAGUE TO-5 ANALYZER

Copacitance Bridge meosures up to 2000 mfd . in five ranges. Special 1 mmf . to 100 mmf , range. Measures insulation resistance to 20,000 megohm on the meter. Leakage eurrent, ta 60 MA meosured with ony voltoge up to 600 volts.
Power factor up to $55 \%$, three ranges. Hos magle-eye bridge balonce. Two-tone gray cobinet $8 / 8 \times 145 / 8 \times 61 / 8$. Wh
No. $35 A 19$. Net Eoch
$\$ 90.65$

[^5]


SUPERIOR 770A MULTI-METER

## HIGHLY VERSATILE POCKET-SIZED INSTRUMENT

"Full View" meter fearures $71 \%$ more scale area assuring aceurate reodings on this pocket sized instrument in a block bakelite case only $31 / 8 \times 57 / 8 \times 21 / 4$, 1 Uses 850 Microampere Meter. Six AC voltoge ronges 0-15/30/150/300/ $1500 / 3000$ volts. Six DC voltoge ranges $0-7.5 / 15 / 75 / 150 / 750 / 1500$ volts. Two resistance ranges $0-10,000$ ohms $0-1$ megohm. Three $D C$ current ranges $+38 \mathrm{db}+34 \mathrm{db}$ to +58 db . Comes CB ranges -6 db to $+18 ;+14 \mathrm{db}$ to
 No. 35A247. Net Eoch.

## MODEL 70 UTILITY TESTER

ANYONE CAN USE THIS ALL-PURPOSE TESTER
An oll around trouble shooter for servicing Rodio-TV, electric motors, fons, appliances, refrigerotors, ranges, thermostats, outomotive electrical systems, etc. It meosures AC or DC voltage 0-150 and 300 volts and $0-15$ AC or DC current 0 to 1500 watts (with motor or appliance in operotion). Has plugin receptacle on front panel. Ohms resistance $0-1000$, leakoge indication
$0-5$ megohms. Booklet supplied shows step-by-step method for oll tests. O-5 megohms. Booklet supplied shows step-by-step method for oll tests.
Size $31 / 8 \times 57 / 8 \times 21 / 4{ }^{\prime \prime}$ Wt. 3 Ibs.
No. 354253 . With Test Lead 6 Instructians. . . . . . . . . . . . . .

## PROFESSIONAL QUALITY PEAK-TO-PEAK VTVM <br> MODEL 77-ADVANCED DESIGN, RELIABLE, ACCURATE AT A PRICE

 EVERYONE CAN AFFORDFeatures $6^{\prime \prime}$ full view meter-burnout proof- $1 \%$ zero temp. coefficient re-sistors- 400 microampere meter.
DC valtage ranges: $0-1500$ in seven ranges, 11 megohm input, accurate zero center for FM and goted beam detector alignment.
AC voltage ranges: $0-1500$ RMS in seven ranges. Peok-to-peak $0-2000$ in six ronges. Frequency 30 cycles to 5 MC .
Ohmmeter ranges: $0-1000$ megohm in seven ranges, occurate meosurements as low as 2 ohm. Complete with instructions, service hints, probs and test leads-all contoined with the $61 / 2^{\prime \prime}$ W. $\times 71 / 2^{\prime \prime} H^{\prime \prime} \times 5^{\prime \prime} \mathrm{D}^{\prime \prime} \mathrm{D}$. grey plastic
instrument in hondy corrying case. Operates on $110-120 \mathrm{~V}$. 60 cycle AC. Wt. 4 lbs. No. 35A580. Superior Model 77, Complete. Net Each.
$\$ 41.65$

## B\&K MODEL 360 ENTIRELY NEW MULTIMETER



Faster, cosier, error-free readings with greater simplicity. Only the scale in use is vislble-each scale Reads direct with no multiplying needed Hos knif. Reods direct with no multiplying needed. Has knife Regular ronges: Six DC and AC volts O-s000. AF Regular 4 ges 0 and AC volts -5000 . AF uo, 5 MA, $100 \mathrm{MA}, 500 \mathrm{MA}$ and 10 arips. Ohms Ho, MA, $400 \mathrm{MA}, 500 \mathrm{MA}$ and 10 arips. Ohms resistance 4 ranges to 100 megohms.
Supplementary ranges: DC volts 0-250 mi. Capocitance 100 mfd to 4 mfd in 3 ranges. Audio power output 14 ohm lood) $0-56$ wotts, 2 rorges- 18 $0-56$ wotts, 3 ronges. $D B$ i 1 mu 600 ohm load $)^{2}-20$ to +62 in 5 ranges. Peok-to-peok sine wave only 0-170-850 volts. Sensitivity 20,000 ohms per volt $D C, 5000 \mathrm{AC}$. Accurocy $+3 \% \mathrm{DC} ; 5 \% \mathrm{AC}$ full scale. Meter is burnout proof. Size $61 / 4 \times 83 / 8 \times 41 / 4^{\prime \prime}$. $\overline{W t}$. 4 lbs. Includes angle stand, batterles and
test leads. test leads.
No. 35B5io. Complete, Net Eoch.
$\$ 58.75$
B\&K FAMOUS DYNA-QUICK 600


A low cost, high quality Tube Checker. Tests the newest os well as all of the old commenly used tubes. Saves call bocks. Its fast relioble and very occurate. Tests nuvistors, new 10 pin tubes and 12 pin compactrons, regulators, thyratrons, auto radio types.
Check all shorts, grid emission, leokage and gas. Has exclusive adjustable grid current check with exceptional sensitivity over 100 megohms. Checks each section of tubes separately. Measures tube quality under actual operating conditions. Complete with tube listling in handy reference index. Leatherette covered case $81 / 2 \times 11$
$\times 41 / 2$. Wt. $53 / 4$, lbs.
No. 35 B511. Net Eoch. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

## DOSS PIONEER MODEL 250 TESTER

[^6]
## Automotive Testers And Tools

Keep your car tuned to pak performance and maximum gasoline mileage.... SAVE MONEY!




Accurately checks all ports of the charging system, positive or negative ground. Bath voltoge and current measurements can be made at once or separately. You f.) the best engine performance. Has voltage selector 5 witch for either 6 or 12 volt systems and a dual range voltmeter. Ammeter reads 0 to 50 amps. Comes with cetailed instructions. All leads ore oftached. Insulated clips provide safe positive connections. Housed in high impact black phenolic case. Size $7 \times 6 \times 2 \frac{1}{2}$ Complete.
Mo. 35A245. Model RTG-612. Eoch ......... S19.85

Dwell cam ongle tester has selector switch to set for number of cylinders and is accurately calibrated for each setting.
Engine dwell time odjustment is varied until the tester meter reading shows exoct cor manufacturers dwell angle spec. With the use of important distributar adiustment this highly importont distributor adiustment.

1000 or 5000 RPM. The RPM test gives positive proof of engine performance. Permits adjustment of the carburetor and outomatic transmission.
Tester is of modern two meter design with iransistor circuitry. Completely self contained with clip leads ottached, ready to use any where. Size $7 \times 6 \times 21 / 2^{\prime \prime}$. Wt. 3 lbs. Complet with illustrated instructions
No. 35A244. Model CT615. Each
$\$ 31.95$

## (3) IGNITION TIMING LIGHT

 A quick occurote method for testing and odjusting 6, 12, or 24 valt ignition systems, Uses stroboscopic principle of light which "stops" timing, determine condition of ignition system, timing mark while engine runs. Use to adjust synchronize double points, test action of outamatic spark advance, discover worn distributar shaft and many other troubles. Consists of special prefocused neon light, mounted in rugged plastic case with 3 ft . leads and insulated connectors. Complete ready to use with detoiled instructions. No. 29A414. Wt. 1 lb. Model 37. Each$\$ 3.25$
(4) REMOTE STARTER SWITCH ELIMINATES NEED OF SECOND MAN WHEN TURNING ENGINE
The most useful of all outomobile occessories. Every mechanic needs one. With this unit connected in place the engine moy be furned from outside the car. Ideal when moking com-
pression, fuel pump or electrical test or setting pression, fuel pump or electrical test or setting starter type push button switch, and extra tong leads with insulated connecting clips. Wt. $1 / 2$ ib. Complete with detoiled instruction No. 29A412.
Madel 34. Each
$\$ 2.59$


REVERSIBLE RATCHET SOCKET WRENCH SETS


## (3) EXTRA STRONG PRECISION SOCKETS AND

American made by one of the most famous names in professional quality tools. Sockets are hot brooched to provide smooth, thin walls of uniform thickness and accurate centered teeth. Both sets hove square drives. Fully guaranteed, mode of chrome alloy steel, chrome plated and polished
(1) 16 PIECE $1 / 4$-INCH DRIVE SOCKET SET

Versatile wrench set ideal for repair and adlustment of ignition systems, carburefors, and many ather automotlve ond aviation repair iobs. Extremely 6-pt. sockets $\mathrm{s}^{18}$. to $\mathrm{T}^{7} "^{\prime \prime}$ : three 8 -pt. sockets $1 / 4$ to $3 / 8^{\prime \prime \prime} \mathrm{i}^{\prime \prime} 2^{\prime \prime}$ extension, $6^{\prime \prime}$ extension; $6^{\prime \prime}$ swing head hondle; reversible ratchet. Supplied in handy metal box. Shpg. wt. 2 libs.
(3) 15 PIECE $1 / 2$-INCH DRIVE SOCKET SET

NEVER BEFORE AT THIS LOW PRICE SPEEDWAY $3 / 8$ IN. ELECTRIC DRILL


Prafessional quality and performance of a sensational low, low pricel Provides the extra power and capacity for all around use in the shop, home, or form. All steel precision hobbed gears and special alloy bearings assure long trouble-free life. Lock-in button on drill hondle for continuous use. Die-cost aluminum housing has tough silicone bonded finish. Overall length $81 / 4 "$. Net wt. $4 \frac{1}{2}$ lbs. Shipped with 3 -wire cord and adaplor for standord 2-prong AC outlet. Shpg. wt. lbs
No. 374280 . Special Eoch

The most popular size sockets ta quickly and easily perform almost ony nutdriving job. Perfect for outomotive, oircraft, industrial-accomplishes hundreds of jobs in the shop and on the form
Includes: Twelve $12-p t$. sockets $\mathrm{p}^{\prime \prime}$ "to $11 / \mathrm{B}^{\prime \prime}$; $15^{\prime \prime}$ swing head handle; $\mathrm{r}-$ versible ratchet. Supplied in handy metol box. Shpg. wt. 8 Ib No. 164571
$\$ 14.79$

## Handy Tools, Test Leads



POPULAR TOOL KITS AND AIDS USED IN TESTING AND SERVICING

(1) HANDY TV ALIGNMENT KIT
low cost kit thot contains oll the necessary oligning tools for doing o complete TV servicing job, 9 tools in oll-in o convenient pocket sized leatherette roll case.
Mode to last and wear for hundreds of jobs-an absolute must for every service shop. Includes K-tron tool,
channel tool tool for RF and IF core channel tool, tool for RF and IF, core oligner, oscillator tool, long reoch oligner, universal aligner, duplex oligner, ond flexible tuning wond. No. 16AB41. Each.
$\$ 4.67$

## DELUXE

TV ALIGNMENT KIT Similar to above but with 16 tools in
foll cose. Handles alignment of most foll cose. Hondles alignment of most available. Na 16C725
Net
$\$ 8.46$
(2) EVERY SHOP NEEDS

THIS TV SERVICE CORD KIT A really practical kif for every TV servicemon.
Contains "most-needed" universal extension leads in a plastic roll-case handy for carrying on the job.

## YOU GET ALL THIS

All of finest quality: 4 ft . high voltage onode extension lead with polystyrene socket; 4 ft . picture tube extension for electrostotic ond magnetic type tubes with kinescope socket, CRT base and 6 leads; 5 ft. onode connectors of each end of high voltage lead; yoke extension harness with 8 wires that can be wired as desired; ond combination 6 ft . cheoter cord for both stondord and Zenith sets. Mfg. List price $\$ 7.16$. No. 14B285.
Complete Roll Set
V BIAS SUPPLY
(3) R-C SUBSTITUTOR

Provides 36 of the most often needed components for direct substitution: 12 one-watt $10 \%$ resistors from 10 to 5600 ohms; 12 half-watt $10 \%$ resistors from 10 K ohms to 5.6 megs.; 10 copacitors from 100 mmfd . to 0.5 mfd., 600 volts; one 10 mfd . and one 40 mfd .450 volt electrolytic. Threepole, 12 position switch selects each No. 168316 . Net ...... 1215 (4) NEON GLOW VOLTMETER READS AC or DC 65 to 660 VOLTS Just rotate the knob until glow lomp goes out ond read voltage direct from the calibrated scale. A handy, portable instrument that can stand knocking oround. Resistance opprox. $1 / 2$ megohm. Neon indicator 900 d
25,000 hours octual operation. Has $12^{\text {b }}$, flexible leads ond test prods. Bokelite case dia. 2 "
No. 17 A572. Net Eoch... 2.49
SIGNAL TRACER TROUBLE SHOOTING AID

## SAVES TIME AND MONEY

Finds defective stage in a minute. Produces 1000 cyele signal for fast tracing of troubles in transistor radios, tube radios, hiunsolder trónsistors for checking. Size $31 / 2 \times 41 / 2 \times 13 / 4^{\prime \prime}$. Complete with botteries. No. 16 A315. Net Each
 Instantly provides oll TV bioses recommended facturers. Perfect for AGC troubleshooting. TV alignment, instrument calibration, etc. Moy be used os a single $0-20$ volts DC bias supply, or as two seporate $0-20$ volts $D C$ bias supplies
without interaction. Produces pure DC with less without interaction. Produces pure DC with less than one tenth of $1 \%$ ripple.
No. 164541
Eoch

Test Leads of Best Quality Flexible, Kinkless Wire $48^{\prime \prime}$ to $50^{\prime \prime}$ Lang
(1) PHONO NEEDLE TYPE Repiaceable phono needles one end, choice of belaw connectors other end. Slim $4^{\prime \prime}$ red and black handies. Pair Pair 11851. With spade fugs. Poir 55 With aligator clips. Pr..91c (2) SLIM LINE TYPE Long vinyl-insulated shaft for probing closely wired circuits without shorting. Red and black tenite handles. Phone tip plugs.
No. 164517 . Per Pair. . . . 1.12

## TEST PRODS AND WIRE


(3) Heavy Duty Type-For high volt- (3) Solderless Type-Tapped Removage needs. Has finger guard ring, minimum of metol exposed. 11 A178. $53 / 4^{\prime \prime}$ long
(3) Phono Needle Type-Tapped removable chuck holds standard phono needies. Red or Black Tenolite handle.
11 A173. $5^{\prime \prime}$ long . . . . . . . . . 29 c
\$12.75
$\$ 4.21$

MOST POPULAR GC ALIGNMENT TOOLS
(2)

## TEST LEADS


(1) Narrow Blade "Fibreglos" driver completely insuloted.
Gives full protection when working on "hor" chassis. Gets inta deep inaccessible ploces.
16B868. $7^{\prime \prime} \mathrm{L} \times \mathrm{sf}^{\prime \prime \prime}$ dia. Eo... $\$ 0.73$ (8) Long Reach Alignment Screwdrivers. Made of bone fibre, extra thin $1 / 8^{\prime \prime}$ dia. blades for those extra hard to reach places.
Screwdriver tips both ends-can be re-ground. 168870. 12" L. $\times 1^{\prime \prime}$. 5 sets, etc. $5^{\prime \prime} \mathrm{L}^{\prime \prime} \mathrm{K}^{\prime \prime}$ " dio. Recessed 11812. $16^{\prime \prime}$ L. ${ }^{1 / 8}$." dia. Eo...39c blade one end, extended blade other. TV \& FM TUNING TOOL
Fine recessed screwdriver tip for TV and FM
odiustments. No need to remove chassis
dia. 11B58. Each. . . . . . . . .......... $37^{\text {Ma. }}$

## LOW COST ALIGNMENT TOOL SET

Fountain pen size when closed! Hos $1 / 6^{\prime \prime}$ and cering nut wrenches, small blade screwdriver, and full size screwdriver. Firnest bone-fibre metal ends for longer wear. ... S1.15 NyIon Hex Wrench Has hex wrench on both ends, one tom sluas in iron cares. $111^{\circ} \mathrm{L} . \times 10^{\circ \prime}$ across flats of both hex. No. 16C727. Net Each

## $62 c$

 TWEEZERS(A)

Special toot removes and inserts "C" woshers and retaining rings on valume controls, turntables, recorders, switches, radia and TV sets, etc. Made of high grade steel, nickle
plated.
No. 1 iB56. Eoch...................$~$

## Service Tools



CHASSIS CRADLE FOR SERVICING CHANGERS, RADIO Fugged, non-wobble, steel service stond soves time, speeds work, prevents damage to equipment. $360^{\circ}$
rotating clomps hold work securecllow it to be furned to ony desired prosition and locked in that position for inspection and repair. Fully braced uprights are fully adjustoble - holds units up to $20^{\prime \prime}$ wide. Stand can be quickly token opart for use on serv$121 / 2^{\prime \prime}$ cross supports. Shpg. wt. $71 / 2$ Ho. 33C12. NET EACH . . 57.35


TV SERVICE MIRROR FOR VIEWING SCREEN
Just the thing for viewing the TV screen while adiusting controls or servicing in rear of set. Good quality $12 \times 10^{\prime \prime}$ gloss mirror does not distort image. Telescoping stand adjusts to the necessory height-collapses for easy carrying when making servic colls. Shpg. Wt. 4 lbs.
No. 35 A85. NET EACH... 5.14 MIRROR ONLY FOR BENCH USE $2 \times 10^{\prime \prime}$ glass mirror in chrome frome and with upright brocket. S2. 91

s795

COMPARE AT $\$ 14.00$

## CHASSIS PUNCH SET

5 PUNCHES PLUS BURRING REAMER AT PRICE YOU NORMALLY PAY FOR 2 OR 3 PUNCHES ALONE! Five most aften needed round hole Five most aften needed round hole in chassis or panel to accommodate sockets, switches, controls, etc. Does The iob quickly and eosily-drive with any wrench or with T-hondle in cluded., Punch sizes are $5 / 8^{\circ \prime} 3^{\prime \prime}$ te" $l^{\prime \prime}$ " and $13^{3} 3^{\prime \prime}$. Complete with punches, dies, $T$-handle, $1 / 8{ }^{\text {" }}$ to $1 / 2$
tapered burring reamer, and handsome finished wooden case. Quality import. Shpg. wt. 3 lbs. No. 17 A626. Special Per Set
$\$ 7.95$

ARROW GUN TACKER LOWEST PRICE EVER!


## $\$ 3^{97}$

JUST A SQUEEZE OF THE HAND DRIVES STAPLES INTO WORK Now at a price everyone can offord -a fost, easy operating gun tacke Does those clumsy, fough-to-handle racking jobs easily and rapidly. Per fect for screening, upholstery, shelv ing, linings and own other job around home and shop. Fits hand comfortably. racker locks to fit in pocket and prevent occidental firing Built-in staple extroctor at rear o stoples of one loading.
Na. 22B301
JT-21 Gun Tacker. Spec. Ea. S. 57
STAPLES FOR MODEL JT-21 GUN 22B302-JT-1/4". 22B303-JT-5/16


## POPULAR SERVICE SHOP TOOLS



## (1) TUBE AND PARTS EXTRACTOR

For extrocting tubes and other parts from deep inocNo. 16855. EACH

96
(8) G-C ILLUMINATED INSPECTION MIRROR Gets into those dark, hard-to-get-at places. Completely, insulated. $/ 1 /$ dia. adjustabie mirror fostened tol
 No. 16A950, (Less Batteries). Eoch. Ho. 21A3. Botteries for obove. Each

## (3) G-C PLASTIC INSPECTION MIRROR

 Just the thing for inspecting coils, parts, solder conne tions, ete. Completely insuloted-No danger of shack No. 16 B560. Each38c

## (4) BULB REMOVER

Removes pilot bulbs easily from awkward places.26e
No. 16 B561. EACH.............................

## (5) FOLDING POCKET MAGNIFIER

$13 / 4^{\prime \prime}$ diometer lens of $21 / 2$ Power in moulded non-inflommable frame which folds into stliff leother case to No. 11 A308. Your Cost, Each

## (6) JIFFY SPRING CLAMPS



Hundreds of uses such as clamping wood strips to gather for gluing, metal parts for soidering or welding efc. Mode of heovy gauge steel with powerful tension spring. Nickel ploted
No. 11 C13. $1^{\prime \prime}$ Opening. Each.
$.45 c$
$.75 c$
(7) FLEXIBLE SCREWHOLDING AND PICKUP TOOL
Handy flexible tool made of spring coiled wire with retractoble spring stcel jaws. Ideal for storting screws places. $12^{\prime \prime}$ long. No. 11 C2. Net Eoch
$96 c$
(8) HANDY POCKET STRIPPER


Strips wire quickly, cleonly. Handy tool to pocket or tool box or hove on work bench
$24 c$
TV CHASSIS SERVICE
HANDLES
Handy for Carrying TV Chassis
Smooth, comfortable, tubular steel handles lock on to chassis as if is Saves abuse to fingers from sharp chassis edges. Every serviceman needs a po. 16B932. Per Poir.... $\$ 2.09$

HANDY 4-IN-1 TOOL - Pin Straightener

- Tube Puller

For both 7 and 9 pin minature tubes. Extremely well made of top quality live rubber with aligning dies of specially hordened wear-resistant nylon bakelite. Costs $1 / 4$ the price of the 4 tools it reploces.
16864 . Speciol, Ea..

POPULAR G-C SERVICE AIDS

(1) TUBE LIFTER

Lifts tubes, vibrators, plugs and similar type parts easily and quickly. Simply insert tool under base of part and
lift. Right angle end is for compact auto radios and for pulling knobs. Nade of stainless steel. No. 16A832. EACH

## (2) SOLDERING AID

Soldering mode eosier tast! Spe probe-clears lug of solder, pushes other wire aside. Fork tip on other end guides and holds wire when soldering in tight spots.
No. 16B933

## (3) SOLDERING AID

Hondy new tool with a stiff wire brush on one end fors cheong wires, tering, and a fork-tip on the other end for guidin
soldering
soldering

## (4) LONG NOSE CLAMP PLIERS

Like an extra hand. Spring tension keeps jaws closed until handles are squeezed. Handy for installing small ports in hard-to-get-ot spots. 73 C
No. 168928 . Stroight Nose. No. 168929. Curred Nose

## 80c

## NE-O-LITE <br> ELECTRIC TROUBLE SHOOTER

Hondy for radio men and electricions for testing $A C$ lines, polority of $A C$ or $D C$, for blown fuses
rracing ground line in $A C$ circuits, os an RF indicator, spork plug and cablé tester, etc. Con be used en roltoges of 60
$A C$ to 550 volts $A C$ or $\mathrm{DC}_{1184 .}$ Each ....44C


## Paint and Insulating Materials

KRYLON CLEAR PLASTIC SPRAY GIANT 16-OUNCE CAN


SEALSI PROTECTSI RESISTS RUST and CORROSION!
Transparent plastic protective cooting adheres to proctically any surface. Seals out oir, woter, chemicals, oll, grease and acids Protects outomotive chrome, golf clubs, fishing rods, tools, leather goods, photos, blueprints, etc. Seals TV ontennas against the effects of weather and corroshigh voltage sections. Fost dry 208863. \#1302 (For radio G TV) 1.1A702. \#1303 (For Graphic Your Choice

16 oz. can Mfg. list \$1.95 $\begin{array}{llll}\text { lto } 11 & 12-47 & 48-95 & 96 \text { up } \\ \text { Eoch } & \text { Eoch } & \text { Eoch } & \text { Eoch } \\ 1.27 & 1.17 & 1.14 & 1.10\end{array}$
OTHER KRYLON SPRAYS FOR EVERY NEED


```
- NO BRUSH! - NO MIXING!
    - NO MUSS OR WASTE!
```

GIANT ECONOMY SIZE 16-0Z. DISPENSER $\begin{array}{cc}\text { NEW COLORS } \\ \text { NEW KACQUER } \\ \text { FINISHES } & \text { MFG. } \\ \$ 1.79\end{array}$ Just press the button and sproy sive built-in governor regulates spray prevents sogging, running or bubbling. Dries in just 5 minutes. Won't work off, peel off or chip off. Non-toxic. 16 oz , con covers approx. 200 sq . ft . All colors with osterlsk* hove new Rustcor rust preventative. Easy
ta follow directions on can. Mfg. List $\$ 1.79$. BUY SEVERAL CANS NOW ... KEEP ON HAND FOR USE-WON'T SPOIL

```
11A640-Chrome Aluminum
11A642-Bottleship Grey*
114643-Garden Green*
1A644-Medium Blure
1A645-Pink*
11A646-Sky Blue**
|\A647.-Chinese Red"
11A648--Dove Gr
11A255-Chocolate Brown*
11A262-Lemon Peel:
|A649-Gloss White:*
```

11A650-Gloss Black ${ }^{7}$
11A651-Appliance White
114652 - Cleor Plastic
11 A655-Zinc Chromate Primer*
11A628-Clear Vornish
?1A624-Structural Red Primer*
11 A258-Hi-Temp Aluminum
11A259-Grey All-Purpose Primer*
11 A656-Mist Green ${ }^{*}$
11 A267-Tangerine Red*
IIA269 -Postel Citron*
IlA649-Gloss White:* SPRAY LACQUER FINISHES

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11A276_Gloss Black
11A277-Gloss White
11A278-Aluminum
11A279-Flat Block
\(11 A 279\)-Flat Block
```

SPRAY LACQUER FINIAKES Gloss Red
$11 A 280$-Gloss Red
11 A281_Gloss Blue
$11 A 282$ _Gloss Green
$11 A 283$-Gloss Yellow

WROUGHT IRON COLORS
11 A653-Flat Black
114654 -Flat White
11A616-Cloud Grey
NEW PLATER'S FINISH METALLICS


16 OZ. HAMMERTONE SPRAY
For custom finishing or touch-up of chassis, racks, ponels, etc Just sproy it on no brush streaks, or mess. Provides hammer fin Bronze. Specify the finest electronic equipment. Made by lilinois or Blue. M9. list $\$ 1.89$. Each \$1.39 i2 @
"SCOTCM" CELLOPHANE TAPE

"Scotch" Transporent Tope -sticks to onything. Far procticolly ony sealing need plus numeraus mending jobs such os torn speoker cones, onchoring cails, etc.
(A) 1296 Inch Roll $1 / 2^{\prime \prime}$ Wide, fits the hondy dispenser illustrated 11 A580.
Per Roll.... 686
12 Lots,
Eoch.
(B) Dispenser. 296

2592 In
114582.
114582.
Each......28
12 Loth, 836

Each....... 2592 Inch Roll $3 / 4^{\prime \prime}$ Wide

SCOTCH VINYL PLASTIC ELECTRICAL TAPE SUPER-TOUGH AND STRETCHY-THIS FAMOUS MINNESOTA - MINING PRODUCT CARRIES FULL U/L APPROVAL.
Scotrh No. 33. Black vinyl plastic molds to any surface, remains lexible at low temperature. Resistant to grease, ocids, olcohols, water, gasoline, etc. Non-corrosive. Has high strength $10,000 \mathrm{~K}$. breokdown. No. $114584.66 \mathrm{Ft} ., 3 / 4^{41}$ Wide. Roli, Eoch
$\$ 1.50$
 11A585. 20 Ft. $\times 3 / 4^{\prime \prime}$ Wide Roil 55c 114586 . 3/" $\times 20$ Ft Roll 35
"DEVOSEAL" POLYETHYLENE ELECTRICAL TAPE *MEETS MILITARY SPECIFICATIONS MIL-1-15126C
FFIVE COLORS: Black, Red, Blue, Yellow or White. 12,500 volt treakdown insulation resistance 150 million megohms): electrolytic corrosion (less than .02 micromicromnos) : lowest incidence of coning and remalns soft and plioble in extremely low temperotures. Specity Color tPkg. I rall per tin. + No. 11 A502. 66 ft., $3 / 4^{\prime \prime}$ wide. $\$ 1.38$ Each 12 Lots, ......... 22 No.HA503. 15 ft., $1 / 2^{\prime \prime}$ wide. Eoch.... 34 c 12 Lots, Each..... 31 c

## "SCOTCH" MULTI-USE MASKING TAPE

A hondy aid for many uses in oddition ta its original purpose of protecting areas where painting isn't desired. For exomple: Write-on for lobeling, holds ports together whlle soldering, temporarily secures moving ports which might become domoged during transportation, such as phono pick-up arms, efc. for moking notes on factory packed boxes, then removing them without: trace, etc.

| Stk. No. Size | Eoch | 12 Rolls Eoch | Stk. No. | Size | Eoch | 12 Rolls Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $114540.3 / 4^{\prime \prime} \times 300^{\prime \prime}$ | 0.35 | \$0.32 | 114542. | $\times$ | \$0.69 |  |
| $114541.3 / 4{ }^{\prime \prime} \times 90 \mathrm{Ft}$ | .98 | . 89 | 11A543. | $\times 60 \mathrm{Yds}$. | 1.69 | 3 |



## INSL-X RED INSULATING

 TOOL-DIP
## Used by major utility

 componies, for insulating power linemen's tools. Gives more than odequate protection ogainst 110 to 220 volts exposure. Dielectric strength $1500 \mathrm{v} / \mathrm{m}$. Resists ocids, alkalies, andNo. 11 A379. 996

## RUST-KON-TROL SPRAY

## Stops Rust Indoors or Out

## Penetrates old rust or scale,

 stops further rust action Withstands heat up to $160^{\circ}$ F. Prevents rust on tools machinery, storage bins and all other exposes metal surfaces subject to rust. Sproys on wet or dry sur-foces. Clear-will rot stain.

11 A625. Mfg. List $\$ 1.85$.
11 Oz. Con, Eoch....... $\$ 1.27$

## NEN UGMESEE EASEリ MAGIC All-Purpose SILICONE LUBRICANT FOR - HOME SHOP AUTO



The most fontastic lubricant we have ever seen! Lubricates to easy operation bearing shafts, windows-practically anything where other lubricants hove failed to penetrate. Easy to use-simply spray on and "Mister Ease" dues the work for you. Oilless, dripless, greoseless-will not gum, melt or freeze.
Keep o can of home and shap. Magic silicone formula instontly frees sticky stubborn doors, windows and drawers-lubricates home workshop sticky stubborn doors, windows and drawers-lub
Corry a con in outo and toys, lawn mowers, etc.
Carry a con in auta and boat. Lubricates, waterproofs, weatherproofs, preserves and protects. rubber, metal, glass, leather, fibre, wood and canvos. Stops annoying body squeaks and squeaky doors lubrizotes fon belts, pedal shafts, speedometer cables, etc. Prevents freezing of ice on door locks, trunk lids and handles. Protects chrome. Prevents ust, matew and corrosion
No. Voch. 6 oz. Can. Mifg. Llst $\$ 1.39$
Net Eoch
99 c
$\$ 1.89$

## Ungar Soldering Pencils \& Tips

## UNGAR SOLDERING PENCIL \& TIPS <br>  <br> <br>  <br> <br>  <br> <br> (3) (3) <br> <br> (3) (3) <br> (1) NEW IMPRDVED MODEL (8) (10) (11) (12) (13) (14)

New Ungor "Insul-cool handle" ruggedized for production line soldering Feotures stainless steel deflector for lowest handle temperature, ceramic and glosss insulation or longer lite, tough phenolic for added durability ond extro
hoovy, extro flexible 6 t . 18 gouge Polvvinyl cord with molded cord protector.
 TIPS WITH SELF-CONTAINED ELEMENTS 500 STANDARD SERIES-231/2 WATTS
For instrument repoir, and general use. Tips of new UC47 copper.
 1200 HI-HEAT SERIES- $371 / 2$ WATTS
Fer general service and light to medium production line service. Tip of ${ }_{11}^{\text {new }}$ U 61 (13) 123
11

## HEATING UNITS ONLY <br> NEW THREAD ON HEATING UNITS <br>  THREAD-IN HEATING UNITS

 itk. No. Fig. TYPE TIPLETS FOR 535, 1235,4035 HEATING UNITS 17 EOCh 10 EO. 50 EO. 11853 (11i) PL331* 1/" Pencil Piplet $50.47 \mathbf{\$ 0 . 3 9} \mathbf{\$ 0} 0$





## \#8000 SOLDERING IRON HOLDER

A unique soldering iron holder designed to provide safer and more efficient production soldering. Safety guard design protects operator from accidental burns profects iron against breakoge. Keeps iron cradled safely and securely-ready for easy, instant use. Angle of crodle odjustable for operator's convenience. Mounts
 114240 Ea...
4 400 Ka. KLEEN-TIP
Double life of soldering tips with new tip cleoner. Consists of special sponge, tray and brocket for fostening



NEW UNGAR "IMPERIAL" SOLDERING PENCIL AND TIPS
(1) (3) (3) (3) $)^{6}$ (2) $\left.\right|^{(8)}$ (9) (10) (13)
5
COMPLETELY INTERCHANGEABLE HEAT CARTRIDGES E TIPS TO FIT ANY SOLDERING JOB

Satisfies every demand for a cool, Ilghtwelght, easy-handling soldering iron Engineered to get jobs done foster, better, more economically. Built to provide years of dependable, trouble-froe operation. Complete unit weighs less than 5 ounces. Hondles ond heat cortridges are color keyed for instont identification.
(1) IMPERIAL "PERMA-COOL" HANDLE

Introduces a completely new heat sink principle... double cushion of air combined with five heat transition surfaces evenily dissipotes heot, keeps hondle cool and comfortoble all day lang. Durably built of Lexan high strength polycarbonate resin with built-in die-cast oluminum heat sink.


## INTERCHANGEABLE PLUG \& CORD SETS

Select the cord thot fits your noeds, plug on to Perma-Cool Hondle. 6 ft 18 gouge flexible stranded wire, polyvinyl chloride insulation on both wire ond female connector. Specify color: Turquoise, Beige or Ivory.
Stk. No. Type
Description

Each 100 Ee. | Stk. No. | Type Description | Each 10 Eo. 100 Ee. |  |
| :--- | :--- | :--- | :--- |
| $11 A 803$ | 6132 | 2-Wire cord W/Plug | $\$ 1.25 \$ 1.07$ |
| 140.96 |  |  |  | $\begin{array}{lllll}11 A 803 & 6102 & \text { 2-Wire cord W/Plug } & \$ 1.25 \$ 1.07 \\ 114804 & 6103 & 3 \text {-Wire Nema Cord W/Plug } & \$ 2.96 \\ 11 A 805 & 6104 & 3 \text {-Wire Cord W/Stripped Ends } & 1.88 & 1.73 \\ 1.58\end{array}$

## (2) INTERCHANGEABLE HEAT CARTRIDGES

New element winding principle provides reduced wott density, insures tonger life. Heating element ot tip end of cortridge results in less heot to honde more heat to ment staipen steel completely sealed eliminates handle, more heat to tip. Stoincess steel, completely sealed eliminates heat waste providing maximum heat transfer. Slim tubular desión offer heat wase. prosk $25^{\prime \prime}$ beyond handle $110-120$ volts ACIDC volts AClDC. 6200 cortidge has color keyed bond 6202 inston watrage dentification. 6200 has red bond. 6201 blue band, 6202 green bond.

| Stk. No | Type | Wottage | Tomp. To Tip | Eoch 10 Ea. 100 Eo. |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 114806 | 6200 | 40 | $950^{\circ}$ | 53.08 | 52.60 |
| 114807 | 6201 | 30 | $850^{\circ}$ | 3.3 .4 | 2.60 |
| 114808 | 6202 | 25 | $800^{\circ}$ | 3.34 |  |

## INTERCHANGEABLE THREAD-ON "MINI-TIPS"

All are of Tellurium Copper except those marked which are iron clad 24 K gold plated.


Ungar De-Soldering Tiplets remove components $70 \%$ foster thon ordinary soldering Iron tips by melting solder on all terminals of a component simul-
taneously. Avoids lug breaking, wire shorting and printed board rupturing.

Stk. No. Fig. Type Description Eoch 10 Eo. 50 Ea.
$\begin{array}{lll}\text { Stk. No. Fig; } & \text { TYpo } \\ 11 A 108 & \text { (i) } & 862^{2}\end{array}$ 1/8" Dia. Offset Slotted $\$ \mathbf{1}$. Cube 15 Dia. Slotte Cube
$5 / 8 . C^{\text {Cup }}$
$3 / 4$ Cup
$1^{\prime \prime}$ Cup
Triangle
$11 A 438$
$11 A 127$
$11 A 127$
$11 A 139$
$11 A 139$
114141
$11 A 142$
lalog
0.59 \$0.49 \$0.45

## UNGAR No. 270 DE-SOLDERING KIT

Tedious printed clrcuit repairs now made easily and safely. Includes Ungar handie, and rectangular de-soldering tiplet $11 / 2 x$, 3 " for removing resistors and fiplet $1 / 2 x$ or other components within this size. Desoldering tiplets $1^{\prime \prime}, 3 / 4^{\prime \prime}$ and $5 / 8^{\prime \prime}$ diameter for removing 9 , ${ }^{7}$ in and 5 pin tube socket respectively. All
storing. Wt. 1 lb .
No. 11 A2 246.
Each.
Eix,
$\$ 5.24$
$\$ 4.76$


## Soldering Guns \& Irons, Blow Torch

HEXACON "FEATHER-WEIGHT" POWER-PACKED 150 WATT INSTANT SOLDERING GUN


FOR THE FIRST TIME ALL THE ADVANTAGES OF SOLDER GUN AND CONVENIRON COMBINED IN ONE COMPACT UNIT.

Weighs only 8 ozs.
Lifetime Tlp.

- U/L Approved.


## WEN SOLDERING GUNS

TRUE SOLDERING CONVENIENCE AND PERFORMANCE AT AMAZING LOW COST

- Heots in Just $21 / 2$ seconds
- Built-in Spotlight
- Small-Fits Tool Kir or Pocket
- Light-Eosy to hondie,

Mfg. List Price $\$ 7.9$

New unique element design eliminates need of bulky transformer or froglle thermostat ...provides a compact, lightweight, quick-heoting tool perfect for performing all types of soldering work-light or heavy. Ideally sulted for serviceman, industrial, hobbyist, or for general home use.
Trigger contral gives any degree of heat required without overheating. Lifetime $1 / 4^{\prime \prime}$ tip requires no maintenance, cannot bend or wear. Permits longer light directly on work. Operotes directly from $110-120$ volt AC or DC. No. 37 B204. Model G14.
Shipg. wt. $11 / 4$ lbs. Net Eoch.... 5.95 Eoch... Shpg. wt. $11 / 4$ lbs. Net Eoch $1 / \%$ tip supplied with Eoch
No. 16B494. Cutting Tip. Eo. 42 C No. 168496 . Smoothing Tip. Eo...42e 16B489. With $1 / 4^{\prime \prime}$ tip. Eoch. $\$ 2.80$ 16B491. With $1 / 8^{* /}$ tip. Eoch. . $\$ 2.80$


Exceptionally dependable Irons widely used by indusprial and servicemen for continuous duty work. All are supplied with 6 ft . card and stand. Net Each Stk. No. Model Heot
$30-W$

Lgth.
$8^{\prime \prime}$
$9^{\prime \prime}$
$121 / 4^{\prime \prime}$
$127 / 8^{\prime \prime}$
$1358^{\prime \prime}$ Net Eoch $\begin{array}{ll}\text { (i) } 228168 & 31185 \mathrm{SCP} \\ \text { 22C186 } & 3114\end{array}$
$\begin{array}{ll}\text { ()22C186 } & 3114 \\ 22 \mathrm{B166} & 3128\end{array}$ $\begin{array}{llr}\text { (2) } 228166 & 3128 & 60 \text {-Watt } \\ \text { (8) } 228165 & 3138 & \text { 60-Wott }\end{array}$ $\begin{array}{lll}\text { 8) } 228165 & 3138 & 100-\mathrm{Wott}\end{array}$ 6.65
 7.70
9.24 11 A 365 . For 3118 SCP . Each.... 18 C 11A243. For 3138. Each.
$.46 c$

## (3) TEMPERATURE REGULATOR STAND-MODEL 475

Prevents overheating. Maintains iron at proper soldering temperature of all times. For 110 V. AC. 100-660 watt capocity. Wt. $21 / 2 \mathrm{lbs}$.
No. 22B167. Net Eoch
\$6.51
DRAKE (SHOPMATE) SOLDERING IRONS


The accepted standard for Industry, school and home shop use. All have 6 ft . UL cord and plug for 110 V . AC-DC. The famous PEE-WEE Type 360 is unexcelled for fine precision work

| Stk. No. | Type | Watts | Lgth. | Tip | Wt. | Net Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) 228170 | 315 | 60 | $111 / 2^{\prime \prime}$ | 3 年" | 1 lb . | \$1.87 |
| (1)228171 | 325 | 100 | 131/4" |  | $11 / 2 \mathrm{lb}$. | 4.33 |
| (8) 228172 | 400 | 60 | $9^{\prime \prime}$ | 1/4" | 115. | 4.00 |
| (4) 228176 | 360 | 35 | $71 / 2{ }^{\prime \prime}$ | 18" | 8 oz . | 3.17 |



HEAT SINK \& SOLDER AID


The perfect heat sink-"clamps on" and holds wires in position while

soldering. Retrieves small items in soldering. Retrieves small items in | hord to reoch places. Lightweight |
| :--- |
| aluminum. $5^{\prime \prime}$ long. |
| No. 114348 . Each. . . . . . |

## SOLDER ALL METALS EASILY!

## SENSATIONAL "SAL-MET"

 NON CORROSIVE FLUXMokes a formerly impossible job easy. No speclal solder needed, na special preparotion necessary. Just put a dab of "Sal-Met" on the spot to be soldered and proceed to solder in the usual monner ulsing your favorite iron,
gun, or torch. Results will be a positive elecgun, or torch. Resuls winm be a
Used by Hughes Aircraft Westinghouse, NoResistor Corp. ond many others. Handy one oz. tubes sufficient for hundreds of jobs. 72 ©
No. 11 B78. Net Each. ...............

less tiresome

- Extro long nor for Tight Spots

A little sweetheart of a soldering gun, priced within the reach of everybody. Accomplishes those regular soldering jobs with ease, gives ample soldering heat quickly! Cools when trigger is releosed. Weighs only $11 / 2 \mathrm{lk}$. with perfect bolance. Easy to use-not tiring. Plostic hondle ond cose are heat ond shock resistont. $31 / 4{ }^{\prime \prime}$ " long, norrow lifetime tip reaches into those tight spots with real ease, while spotlight focuses on work. 115 volts, 60 cycle AC. Wt. $21 / 4$ lbs. Mfg. List $\$ 7.95$
$55.83 \quad 3$ Lots,

## HEAVY-DUTY MODELS

With extra-long rigid tip for all work-light, medium and heavs.

| Stk. No. | Model | Wotts | Wt. | Mfg. List | Eoch | $\mathbf{3} @$ Eo. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 378260 | 288 | 200 | 3 lbs. | $\$ 9.95$ | $\mathbf{\$ 7 . 3 1}$ | $\mathbf{8 6 . 6 4}$ |
| $\mathbf{3 7 A 2 3 8}$ | 250 | 250 | 4 lbs. | 12.95 | $\mathbf{9 . 5 2}$ | $\mathbf{8 . 6 4}$ |


| WEN REPLACEMENT TIPS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stk. No. | Typo | For Gun Model | Each | 3 @ Ec. |
| 164375 | Long Reach (1984) | \#199, 100 | \$0.38 | \$0.35 |
| 16B445 | Standard (25A4) | \# 250 | -20 | .17 |
| 164657 | Long Life ( $25 \times 20$ ) | \# 250 | -38 | 3 |
| 164658 | Plastic Tile Cutting (25C1) | \#250 | . 38 | 35 |
| 168659 | Plastic Tile Cutting (19C1) | \# 199, 100 | . 46 |  |
| 164859 | Standard (28C4) | \#288 | 48 | 42 |
| 164860 | Plastic Tile Cutting (28C1) | \#288 | .46 | 42 |
| 164861 | Fiot Iron Tip (28F33) | \#288, 250 | . 46 | 42 |

## WEN UNIVERSAL FINE SOLDERING TIP KIT

Contalns 2 couplers and 5 lengths of wire. Form wire tips to whatever shape required. For Wen Model 100, 199, 288 ond 250 soldering guns. No. 16A374. Part No. U-4

## Package Each

.535

## WEN 100K SOLDERING GUN KIT

YOU GET MFG. LIST PRICE $\$ 7.95$

## - Regular Tip <br> - Plostic <br> - Roll Solder <br> $5^{83}$

A real vaiuel Wen quality soldering gun in handy carry pockoge. Comes complete with standord soldering tip, complete with standord soldering tip, plastic cutting tip plus handy roll of ers, experimenters os well as service-
men. Some high quality as heovier men. Some high quality os heovier Rated 100 watts. Rapid heat ready
for use in 5 seconds. 120 volts 60 cy . AC. Fully guaronteed. UL opproved. Wt. 3 lbs. Mifg. List $\$ 7.95$.
No. 37 A35. $\$ 583$
Net Eoch. .. . $\begin{aligned} & 3 \\ & \text { Each, } \\ & \text { Each. }\end{aligned} 519$


## SOLDERING AID AND SCRIBER

## (1)

Perfect aids in repairing printed circuit boards, holding leads while soldering, stringing dial cords, removing parts from inoccessible places-a thousand uses from one tool. Hardened steel scriber polnt for marking chassis, panels, etc.
(3) No. IIA1. Combinotion Scriber and Hook-7"' long. Net Each. .....45c (3) No. 11 A3. Combinotion Scriber and Awl- $81 / 2^{\prime \prime}$ long. Net Each......45e

POCKET BLOW TORCH \& SOLDERING KIT


HANDY 2-IN-1 TOOL WORKS FROM
PROPANE GAS CARTRIDGE
Handiest torch yet for doing those small repair jobs quickly and easily. Provides high heat ( 3500 deg ees) pin point flome sufficlent for soldering, brazing, softening paint and pitty, fixing leaks plus numerous other uses.
Pays for itself in no time of all! Uses tridges similar to those used in cigarette lighters. Kit includes compact size $7^{\prime \prime}$ torch with soldering tip, all purpose solder and two propane gas cortridges. Soldering tip slips over torch heod to provide portable iron for those outdoor or oway from bench soldering lobs. Entire kit fits hondily in pocket.
No. 11 Cl O. Kit Eoch.
No. 118118 . Torch Only with one cartridge
52.49

No. 11 Bll9. Extro Cortridges. Box of 2..
. $\$ 1.95$

## Soldering Guns, Irons \& Solder

WELLER DUAL HEAT SOLDERING KIT


## MAKES SOLDERING FASTER-EASIER

The hottest solder gun voluc ever offered Here is true Weller professional performance and quality construction in a smoll, lightweight, exceptionally eosy to handle solder gun. Perfect for hobbyist or serviceman-does a real man-sized soldering job. New improved gun, rated $90 / 125$ watts furnishes soldering heot in just 5 seconds by a trigger control. Prefocused spotight heavier soldering needs. Uses high efficiency long life tip. 120 valts 60 cy . AC Fully guaranteed. UL approved. Wt. 3 lbs. $\$ 5 \mathbf{8 3} \mathbf{3}$ Lots, $\$ 5 \mathbf{8 9}$ No. 16A796. Extro Tips. Pkg of 2

## NEW WELLER KORMAT SOLDERING KIT



Ni feature the mognastat controller which outomatically maintains proper temperature ot the tip. Tips are premium plated for long life, topered for heot efficiency, replaceable by simply unscrewing knurled nut which holds tio in place. All models operote from $110-120$ volts AC

ALL MOOELS SUPPLIED LESS TIP



## KESTER "RESIN-FIVE" <br> CORE SOLDER

The better Rosin Core solder for TV all radio and electronic parts ....everything electrical.
Flux is mare active and stable yet noncorrosive and non-conductive. Consists of
the highest grades of tin and lead commercially ovallable.
No. 11 A692. Small can for the occosional user. $40 \%$ tin- $60 \%$ lead, in" diameter. Approx. $6^{\prime}$. Eoch .................... 18 c $40 \%$
132" (.092) Diameter
No. 11 A684. 1 Lb Spool. Eo. $\$ 1.25$ No. 11 A685. 1 Lb. Spool. Eo.. $\$ 1.26$ Vo, 11 AG 94 . 5 Lb. Spool. Eo.. $\mathbf{~ E . 0 0}$ No. 11 A695, 5 Lb. Spool. Eo.. $\mathbf{8 . 1 5}$ No. IIA686. I Lb. Spool. Ea.. $\$ 1.47{ }^{2}$ No. IIA687. 1 Lb. Spool. Eo. $\$ 1.50$
 No. $11 A 688.1$ Lb. Spool. EO. $\$ 1.67$ No. 11 A689. 1 Lb. Spool. Eo. $\$ 1.70$ No. 11 A698. 5 Lb. Spool. Eo. 8.15 No. $11 A 699,5 \mathrm{Lb}$. Spool. Eo.. 8.25 No. 11 A691. Soldering Poste. Per 2 oz. Con... 14 c 10 Cans, Eoch. 12 c KESTER SILVER SOLDER FOR PRINTED CIRCUITS
Contains $3 \%$ silver, $611 / 2 \%$ tin $351 / 2 \%$ lead with an . 062 diameter.

## "HANDYMAN" KIT

## FOR SERVICEMAN,

 HOMECRAFTER HOBBYIST, EVERYONE!MFG. LIST
PRICE $\$ 14.95$

## $\$$ <br> $10^{99}$ <br> - SOLDERS! <br> - MENDS! <br> SEALS! <br> CUTS!

Accomplishes scores of money-soving jobs. Handy to have for ready use in the shop, ot home, out on the job, anywhere


Comes complete with the very popular Weller heavy-duty 250 watt soldering gun that has such desirable feotures os: Instant heating-tokes only 5 secsible ploces: Dual spotlights to focus on the work; Rugged housino that sible ploces; Dual sporights to focus on the work; Rugged housing that stays cool. includes 3 hondy fips. Long-life soldering ip, Smoothing lip for heat-sealing, and mending plastic orticles; Cutting tip for cutting plastic cles, removing hard putty from broken windows, etc. Two "How-to-do-it Sturdy metal case is convenient for storage and has handle for easy carrying. Mfg. Llst Price $\$ 14.95$. Shpg. wt. $61 / 2 \mathrm{lbs}$. Model 8250 AK Sots, 9.77 No. 374367.
Net Eoch . . . . . . . . S 10.99
3 Lots,
Eoch.
$\$ 9.77$
IMPROVED WELLER SPEED IRONS


New-improved models designed to do ony or all soldering jobs, heovy or light, with equal ease. Instant heating-tokes only 5 seconds to obtain solder heat. $514^{\prime \prime}$ reach gets into the deep inaccessible places-dual spotlights focus on the work. Rugged housing withstands abuse--stays cool. Guns ore perfecyly bolanced- do not fatigue the user. Low-cost tips can be changed in a jiffy. Dual $H$ eot provides $35 \%$ reserve power for heavier
soldering needs. Operotes on 115 volt 60 cycles $A C$.

## DELUXE DUAL HEAT MODELS



WELLER SOLDERING TIPS
No. Type For Gun Models Pkg. 25 Pkgs.

| No. | Type | For Gun Models | Eoch |
| :---: | :---: | :---: | :---: |
| 164655 | 7250 | WS-200, WD-250, S-500 | 33 |
| 164656 | 7135 | WS-100, WD-135, S-400, | 3 c |
| 16A598 | 7300 | S-107, D-207 | 3 c |
| 164796 | 8125 | 8200, 8100 B | 33 c |

## WELLER HOBBY \& HOMECRAFTER TIPS

For cutting plostic tile; fixing home appliances and wiring; heat-sealing home-freezer pockoges; model roilroads, regrooving tires, removing putty, etc Smoothing Typo Cutting Type roilroods, regrooving tor Gun Models

168552 WD-250, S-500, D-550, 8250A 168551 350


## WELLER REPLACEMENT PARTS


$16 A 908$ Tip Nut (7417) WS-200, W6-250, 'S-500, b-550, 8250A
$16 A 906$ Switch (7323) All single heot models
$\begin{array}{llll}16 A 906 & \text { Switch (7323) } & \text { All single heot models } & \mathbf{1 . 2 2} \\ 16 A 907 & \text { Switch }(7324) & \text { All dual heat models } & 1.37\end{array}$

## ERSIN MULTICORE SOLDER



Extra active, non-corrosive. 5 core construction assures flux continuity . specs. QQS-sioic.
KIT-PAK. Two solder gauges for the occasional user $25 c$ KIT-PAK. Two solder gouges for
No. 11 A701. Approx. $6^{\circ}$ Eoch.
18 Gauge- $60 \%$ Tin18 Gauge- $60 \%$ Tin- $40 \%$ Leod
No. 11 A693. Service Pak (Avg. 20') Per Spool. . . . . . . . 50 c No. 11 A690. I Lb. Spool. . . . . . . . . . . . . . . . . . . . . . . . . $\$ 1.93$

## Pliers, Vise Grips

## 뭉

## FAMOUS KLEIN PROFESSIONAL QUALITY PLIERS

BY MATHIAS KLEIN AND SONS-FOREMOST IN QUALITY TOOLS FOR THE INDUSTRY SINCE 1857

- HIGHEST QUALITY • POLISHED HEADS - TEMPERED BLUE HANDLES • FULLY GUARANTEED



Pliers with prefix " $D$ " hove plastic cushion grip handies
SPECIAL KLEIN ELECTRONIC PLIERS


Description
$51 / 2^{\prime \prime}$ Oblique w/Shear Cutters $\$ 3.60 \$ 3.00$ $6^{\prime \prime}$ L.N. w/Shear Cutters $6^{\prime \prime}$ Needle w/Shear Cutters $51 / 2 "$ Long Needle Nose $4^{*}$ Oblique Cutters spring to hold jaws apen for use

## NEW KLEIN WIRE GRIPPING

## OBLIQUE CUTTERS

Has special steel springs between lows to hold clipped end of wire. With plostic cushion grip hondles and coiled spring to k No. $1649174^{\prime \prime}$ Long Type D229-4C 2 oz No. 16 A918 $5^{\prime \prime}$ Long Type D229-5C 3 oz. Your Choico Eo. $\$ 4.80$ Lots, Eo. $\$ 4.00$ KLEIN PUMP PLIERS
 Unique construction will not allow plier to slip occidentally from one position to on
other. No. 168701. Wt. 13 oz. Klein No. 510 . Eoch …............................ $\mathbf{\$ 2 . 5 6}$


The first choice of mechanics for years, Interlocking princlple positively prevents slipping under any load.. the heavier the job the greater the interlocking action. Made of highest grade steel with polished heads and handles. $440-\mathrm{G}$ supplied with plastic cushion grips.



## Stk, No. Mfg. No. Fig. Wt.

 $16 \mathrm{C767}$ D321-41/ Fig. Wt. $41 /$ Description (1) 0 , $41 /{ }^{\prime \prime}$ Long Nose Plier Each 6 Eoch $16 C 768$ D224-41/2 (3) 3 oz . $41 / /^{\prime \prime}$ End Cutters $\$ 2.40$ \$2.00


## LEATHER TOOL POUCH

Fits belt. 5 compartments for pliers,
screwdrivers etc. snap screwdrivers, etc., snap
for knife. $8 \times 9 "$ Finest plioble leather, stitched and riveted. Wt. 1 lb. List $\$ 5.25$. 37 Bl 14.
Nef Eoch. 5019


## GENUINE VISE-GRIP HAND TOOLS

## WITH NEW "EASY RELEASE"'JUST PRESS LEVER - JAWS SPRING OPEN

(1) VISE GRIP WIRE CUTTERS

Does more things easier and quicker thon ony other wrench
Hos Vise-Grips fomous tong-grip that remains locked to the work with hands removed. Adjusts to super-plier action-opens outomatically when grosp is releosed. Also feotures o powerful wire cutter, thin nose for close quarwork of the very tip. Actually on end wrench pipe wrench, plier, vise, etc., all in one tool. Model 7WR-7" $1 / 4^{\prime \prime}$ thick jows odjust to $15 / 8^{\prime \prime}$. Wt. 10 oz. Mfg. List $\$ 2.50$ No. 11 A360. Net Each
$\$ 1.88$ Model 10WR-10" $3 / /^{\prime \prime}$ thick jaws adjust to $17 / 8^{\prime \prime}$. W. I $1 / 2$ lbs. Mfg. List $\$ 2.95$
No. 11 A359. Net Eoch........... $\mathbf{S}^{2} 21$ (2) VISE-GRIP SHEET METAL TOOL Handy for all types of sheet meral work around the shop, such as forming chossis, making angle brockets, angling panels, bending metal edges, etc. Also ldeal as a vise for working dous gripdous grip-eliminates muscular effort to hold locking plier action feature Miade of locking plier action feoture. Made of fine aldepth. Wt. 18 oz . Mfg. List price $\$ 3.35$ depth. Wt. 18 oz. Mfg. List price $\$ 3.35$
No. $16 A 948$. Type $8 R$ No. 16A948. Type 8R Net Each
(3) VISE-GRIP C-CLAMP

Most versotile tool of its type yet! "Ice-Tong" jows reach around any shope object. Adjust to $33 / 4$. Locks to work by a squeeze of ing wo-k for gluing, drilling, sowing etc. A ing wo.k for gluing, drilling, sowing, etc. A $11^{\prime \prime} . W 4.28 \mathrm{az}$. Mifg. List $\$ 3.35$
No. 168927 . Type 11 . Net Eoch. $\$ 2.51$


# Pliers \& Screwdrivers 



KRAEUTER JEWELERS' PLIERS


Perfect for accomplishing the most delicate lob, yet large enough for easy handling. Quality made, drop forged from the finest steel and fully polished. Endorsed by instrument monufocturers. Plostic cushion grip handles.
Stk. No. Mfg. No. Fig. Description Wt. Each 6, Ed.
16 A603 CG8I 6A603 CG81 (i) 41/2" Diagonal Cutters 164602 CG83 © $4 /$ B ". Choin Nose $^{2}$ 164606 CG82 () $41 /$ ºnd Nippers $^{\prime \prime}$ 16 A604 CG84 © $41 / 2^{\prime \prime}$ Flof Nose
16 A605 CG85 (6) 41/2 Round Nose-Round Jow 3 oz . $2.35 \quad 2.13$ SET OF FIVE PLIERS. All above pliers in black zipper case, $53 / 4 \times 91 / 4^{\prime \prime}$. Wt. I lb. Mfa. No. CG90.

## No. 164607. Complete Set. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 514.33

## NEW KRAEUTER ELECTRONIC PLIERS WITH PLASTIC CUSHION GRIP HANDLES

Finest quolity pliers designed for workIng with miniature equipment such as transistor sets, heoring olds, etc. Overall length
No. 11 A393. Net Eoch
$\$ 2.64$

## (1) $41 / 2^{\prime \prime}$ NEEDLE POINT DIAGONAL CUTTERS

Precision needle point for fine, exact cutting. Flush edge for close square cut. Coil spring keeps iows open
 (3) $6^{\prime \prime}$ LONG NOSE PLIERS

Fine st" tip reaches into oreos inaccessible to other pliers. Coil spring keeps jows apen ready for use. Wt. $4 \mathrm{oz} . \mathrm{Mfg}$. No. C-CG140-6".
No. 16A473. Eoch....\$3.12 6 @ Each... $\$ 2.83$ (3) $7^{\prime \prime}$ EXTRA FINE LONG NOSE PLIERS
${ }^{1}{ }^{\prime \prime}$ " extro fine point for the most delicote precision $51 / 4$ oz. Mig. No. C-CG160-7'
 $51 / 4$ or. Mfo. No. C-CG160-7

## XCELITE "SEIZER" TOOL

A versatile instrument with unusual holding qualities especially designed for working with minioture components.
Clamps on to work and will outhold needle nose pliers. Ideal for use as a heat sink, holding leads while soldering, restringing dial cords, etc. All stainless steel with precise box joints. Length
(B) No. 11 A 218 . Model 42 H . Straight Nose. Net Eoch.
$\$ 4.27$ Net Eoch

## XCELITE SCREWDRIVERS

Drop forged from the finest alloy steel to ossure dependable long life. ed block handles. Average shpg. wt. 8 oz .
(1) Diaganal Cutting Pliers. Sharp, flush 16A562. Type 141. Each.... $\$ 3.02$ (3) Midget Snips with Stripper. Adjustoble stripping notches for up to $\# 18$ wire. Size $41 / 2$
16A563. Type 103. Each..... \$3.23 (1) Long Needle Nose Pliers. For fine ossembly work. Size ${ }^{\circ}$. 16 . 564 . Type 777. Ech.
$\$ 2.37$

(4) Electronic Snips. Shear action cuts filoment, fine wire, etc. With spring and plastic cushion grip handles. Size 16A565. Type 272-CS. Eoch. . \$2.76 (6) Chain Nose Pliers. For Subminiature work. Fine scored jaws. Size $41 / 2^{\prime \prime}$.
$16 A 566$. Type 23. Each . . . . $\$ 2.09$ © Printed Circuit Pliers. Cuts and crimps in onc operation. Prevents cut whe from sliding back through hole in printed circuit board. Size 5 16AS67. Type 470. Each.


Top quality Screwdriver skillfully designed for better performance. Full sized shock and break-proor honde is correctly shoped for grip and balance. Chrome Vano-

## Nut Drivers, Precision Tools, Etc.

## XCELITE NUT DRIVER SETS



Type 127. The 7 most populor size nutdrivers. Shockproof, breakproof plastic hondles are color coded for eosier selection of sizes. Fully polished
 some metal container can be fostened to woll or work bench. Wt. 2 lb.
No. 11 A229.
Per Set. . . . . . . . . . . . . . . . .
$\$ 5.97$

## XCELITE NUTDRIVER




Type 137. The 5 most popular size nutdrivers together with 2 hollow shaft type for fitting over volume controls, etc. Shockproof, breakproof handles are color coded. Consists of sizes $1{ }^{\text {" }}$ shaft drivers $9^{\prime \prime} \prime$ and $1 / 2^{\prime \prime}$. Attractive seral stond. Wh. $21 / 2 \mathrm{lbs}$. $\$ 6.66$
No. 11 ci4. Per Set...... No. $11 \mathrm{Cl4}$. Per Set.

## SCREWDRIVER SETS

No. 99PR-Consists of omber plastic
hondle with 9 snop-in nutdrivers, sizes handle with 9 snop-in nutdrivers, sizes fr" to $1 / 2^{\prime \prime}$ : double end snop-in screw-
driver bit with 18 "and $s_{2}$ " blodes; and double end snap-in serewdriver with Phillips No. 1 and 2 blades. Tools fasten simply-are held securely in No. 11 B231. Complefe.
$\$ 8.67$ No. 99 Jr. Pocket version of the big
"99". Has smaller hondle.
11 8230. Eoch..........

## 118230. Eoch

XCELITE SERVICE MASTER KIT
Handles $99 \%$ of All Service Calls
 Versotile set of high-quality tools need. Set includes: 6" long nose pliers; $5^{\prime \prime}$ diagonal cutters; $6^{\prime \prime}$ odjustable wrench 9 regular nutdrivers "I"" through $1 / 2^{\prime \prime}$ : T1" and $x_{2}^{\prime \prime}$ slotted screwdrivers; \# 1 Phillips screwdriver; $1 / 8^{\circ "}-3 / 8^{\circ \prime}$ reomer; handle ond stubby handle. All tools tough alloy steel with highly polished
nickel chrome finish. In roll-up kit with separate comportment for eoch
 toct tision tool sets

## MOODY PRECIGNED FOR MINIATURE WORK

These handy precision mode minioture tools are just the ticket for handling those jobs requiring the use of tiny size tools. Ideal for working on small radios, jewelry, comeras, model trains, heoring oids, electric rozors, etc. (1) SCREWDRIVER SET


With 4 Interchongeoble Blodes And Awl
 die with aluminum' swivel top and' chuck; Handy aluminum stond with cleor plastic cover. No. 18 A392. PER SET.
(2) SCREW HOLDING SCREWDRIVER SET

Ideol for Minioture Size Screws
Interchangeoble spring steel clip fits either the $13 / /^{\prime \prime}$ or $21 / 2^{\prime \prime}$
blade supolied-holds tiny screws with a firm orip for drivin or blade supplied-holds tiny screws with a firm grip for driving or
removing from hord-to-get-at places. Swivel top screwdriver honremoving from hord-to-get-at places. Swivel top screwdriver han-
dle with chuck takes either blode. Plostic container. No. 18A300, PER SET

## (3) MAGNETIC SOCKET WRENCH SET

## For Those Tiny Size Nuts

New set has amazing utility value, contains 5 tiny socket wrenches,
 top chuck type handle. Mognetized to simplify the hondling of
 places.
No. 18B389. PER SET
$\$ 2.67$

## (4) OFFSET OPEN END WRENCH SET

A brand new kit specifically designed for subminiature work. Eoslly removes or atfaches tiny nuts found in hotbby, electronics, instruments, ignition, ete. Contains five heat treated steel inter-
 clear plostic dust cover. No. 18A391. Eoch
$\$ 1.69$

## (5) NEW HOBBYIST TAP SET

Contains 5 of the most popular sized taps 0-80, 1-72, 2-56, 3-48, and 4 -40 plus tap wrench. The perfect tool for hobby and model shop work for tapping plastic, metal etc. Supplied in stond with No. 184390 Eoch cover.

## XCELITE NUTDRIVERS



Color caded far cosy Identificatian of size. Finest quolity nutdrivers with full size shockproof, breakproof plostic handles, fully polished blodes. Hollow shoft type fits over volume control shofts, protruding bolts, efc.
HOLLOW SHAFT TYPE (Illus.)


Stubby Type - For $1 / 4^{\prime \prime}$ nuts. $11 / 4^{\prime \prime}$ Shaft, overall length $31 / 4 "^{\prime \prime} .636$
No. 118137 . Eoch........

## TWEEZER KIT



Always handy for small work. In$43 / 4^{\prime \prime}$ slide-lock, $51 / 2^{\prime \prime}$ self-closing, ond $43 / 4^{\prime \prime}$ standord type. Nickel



RATCHET OFFSET SCREWDRIVER


Very handy sturdy nickel plated steel ratchet screwdrivers hondle both small and large hard-to-get-at screws. Ratchet is instontly reversible in elther chet is instontly
forword or reverse.
With Standord $1 / 4^{\prime \prime}$ and $3 / 8{ }^{\prime \prime}$
blades. No. 11882 . Net Each. © 5

blades. No. 11 B228. Net
EIN WRENCHES

## IN 4 POPULAR SIZES



CHROME PLATED


## JEWELERS SCREWDRIVER SET

Perfect for working with jewelry, instruments, small electronic devices, hobbies, etc. Six hardened steel reploceable blades, sizes: $.100^{\circ \prime} .080^{\circ \prime}, .070^{\prime \prime}, .055^{\prime \prime}$ $.040^{\prime \prime} .025^{\circ}$. Each unit hos hexagón swivel heod with thumb rest and knurled steel handle. Threaded chuck firmly holds blade in posltion. Overall length $33 / 4$." Shog. wt. $1 / 2 \mathrm{lb}$.
$\$ 2.89$

## MAGNETIZE AND DEMAGNETIZE TOOLS



Now magnetize or demagnetize all small tools of ferrous metal instantly. Screwdrivers, nutdrivers, tweezparts for simple starting. Tools which hove become a nuisance due to hoving become magnetized row can be demognetized and returned to their origiral usefulness. Small portable unit operotes from ary $1110-$ 120 V. AC line. Complete with simple instr sctions. Model F-100.

# Wire Strippers, Rules, Gauges 

## AMP HAND TOOL <br> CRIMPS SOLDERLESS TERMINALS TO WIRE . . . SHEARS BOLTS CUTS, STRIPS AND GAUGES WIRE Never before a single tool with so many uses. Crimps solderless terminols bolts sizes $10-24,10-32,8-32,6-32$, and $4-40$ to desired length without damaging threads; Strips, Cuts, and No. 1981100 Amp 49835 . Each <br> $\$ 4.95$ Assort. of 50. New "Solistrand" solderless terminals. For solid, stranded, or irregularl <br> 19B1113. Per Asst.

## SPEEDEX AUTOMATIC WIRE STRIPPERS

## (1) SPEEDEX WIRE STRIPPERS

Strips insulation autamotically from wire easily and cieanly with out crushing it. It soves time-ust squeeze the handles ond the ob is done. Deluxe models are fully outomatic with deloyed return action-prevents crushing of fine stranded wire. Jows remain open until wire is removed.

bax Strlps solid or strond Leod.
No. 22B134. Type 766K Camplete

## LOW COST ADJUSTABLE

 WIRE STRIPPERSTRIPS CLEAN AND FAST

Does the job quickly and easily. Cut ters are instontly adjusted to wire being stripped, \#6 or smaller. Made of high grade steel with precision ground cutter. Small in size-fits in No. 16844.

## Each. VERNIER CAMOPER



WITH HANDY DEPTH GAVGE

1001 Uses Every Doy. Made of cold rolled steel, graduations deeply etched of 's" and ' $\mathrm{\prime}$ " permit close readings Inside laws offset and may be used for scribing circles or dividers 5 papacity. Vernier reoding and gouge.
No. liA195. Your Cost, Eo. \$1.35 Millers-Falls STEEL
TOOL MARKING SETS


V/ " Roman pace characters for mark ing chassis, parts, etc. Simply ham mer to produce clear sharp impressions.
Letter Set-Consists of 28 characters No. 11 AL 273
No. IIA27
Per se
$\$ 4.58$
Figure Sct-Consists of 9 characters
"9") to 8 with " 6 " being used also as
No. ila274. Per Set . . . . S1.58


NEW DELUXE MODELS
No. 22B138. Type 766. For 12 to 20 wire. No. 22B135. Type 766A. For 14 to 30 wire HOICE
$\$ 5.82$
No. 22B136. Type 733. For 12 to 20 wire.
No. 22B137. Type 733A. For 14 to 30 wir
CHOICE
(3) SPEEDEX WIRE STRIPPER Handy Wire Stripper Kit comes complete with deluxe type wire stripper as described above and 7 different size blades in a special steel \#8 to \#30, 18 POSJ, and 300 ohm twin $\$ 11.73$

## REVOLUTIONARY NEW UTICA "STRIPWRIGHT" WIRE STRIPPER

## MFG. LIST $\$ 19.95$

$514^{25}$

- Hondles Teflon os well as ather insu. lations.

REACHES INTO THE MOST CONFINED AREAS EASILY


The most versatile wire stripper ever made! Slim nose design makes it ideal for working on small electronic opparatus .. reaches into the most closely for working on small electronic apparatus, reaches into the most closely confined areas. Handles routine wire stripping jobs with ease. Perfect for the serviceman engineered for efficiency and ease of handing in production the use. simple to use lust insert wire in end aws and squeeze hander strips fost and clean. Calibrated cam oction dial adjusts to strip from \# 12 to \#26 wire gauge size. Gripping jows hold wires firmly, keeps insulation marking ot an absolute minimum. Adjustable stop permits insulation strip fatigue even ofter hours of continuous use. Shpg. wt. I lb. No. 16A570. Model SW-1. Eoch

## DELUXE AUTOMATIC WIRE STRIPPER

 STRIPS WIRE SIZES 10 TO 22- Highest quality pressed steel construction
- "Stoy-open" feoture to prevent crushing of wire.
New improved version of an old favorite. Popular for years among radiomen everywhere becouse of its many exclusive features ... particularly designed for electronics work but equally effective for electricions, linemen etc. Easy to use-just insert wire and squeeze handle. Automatically strips replaceable type blades. Shpg. wt. I lb. No. 16B243. Mfg. List $\$ 9.90$. Net Each.
$\$ 5.81$
No. 16B243. Mfg. List $\$ 9.90$. Net Each
No. 16B244. Replacement Blode. Each
.51 .62


## USEFUL MEASURING TOOLS


(1) Handy Wire Gauge

American Standard. Gauges wire and non-ferrous metals sizes 0 to 36 with decimal equivalent of eoch on reNa. 11 A3 23. Each
$\$ 3.99$
(2) $6^{\prime \prime}$ Rule \& Wire Gauge Handy pocket all-purpose rule. Mode of stainless steel with dy" and d" graduations. Has Americon or Browne has Sharpe wire gouge. Reverse side No. 16 A536. NET £ACH .... 595
(3) Pocket Rule \& Depth Ga. Tempered steel $6^{\prime \prime}$ rule with pocket clip. Quick reading 64th graduotion. No. 184421 . EACH

146

## REVERSIBLE SCRIBER

11A272. Extro Points...................... 19 c
Knurled steel handle with chuck that holds needle point and retracts inta handle when not in use
11A271. Complete, Each
11A272. Extro Points.

#  

(5)
(4) Micrometer

Precision tool. Meosures $0^{\prime \prime}$ to $1^{\prime \prime}$ with great occuracy. Guaranteed cormakes zero adjustment easy Dio cost special alloy frame. S3.59

## (5) Drill \& Tap Gauge

Made of heavy gauge tempered steel Gauges and gives decimal equivalent of numbered drills, sizes to 60 screw tops.
No. 11 Al93. Eoch. . . . . . S1. 41

## (6) Jobbers Drill Gauge

Gauges fractional slze drills "fi" to $1 / 2^{\prime \prime}$. Gives decimal equivalent of pered stect of heavy gauge temNo. 11 Al94. Eoch.
$\$ 1.41$

## UTICA "KUTMASTER"

Standard 23/4" knife blade and a special screwdriver blade with insulation cutter and wire scroper. Screwdriver blode locks in open position. $33 / 4$ " Rasewood handle with shackle ring, polished bolsters, and brass linings. Made to government specs.
60A119. \$ 6012 Lots, 5445

(7) Multi-Use Rule \& Gauge $4^{\prime \prime}$ rule with 32 nd and 64 th scale, dril point gauge; a square, a beve finder, and top drill toble. Stainles steel with leother cose. S
No. $11 A 196$. Net Eoch. .
(8) Combination Square
$12^{\prime \prime} \times 1^{\prime \prime}$ steel blode with elearly etched figures and graduations. Grad uoted in 8 th and 16 ths on one sid and 6 ths and 32 nds level and scriber. No. 11 A384
(9) 12" Steel Rule

Stainless steel rule. $7 / 8^{\prime \prime}$ wide groduated in 8 ths, 16 ths, 32 nds and 64 ths one side. 32 nds, 64 ths, 16 ths on the othe
No. 114303 $\qquad$ $75 c$
ELECTRICIANS' KNIFE


## Tackers, Punches, Etc.


 provide for casier and for more effi cient installation of wire and cables Powerful single strake action drives staple occurately into desired position - in close corners, hard-to-get-at places, anywhere. Built-in groove guide base eliminates danger o domoging wires-staple never even
scratches protective sheothing. Stoples seratches protective sheothing. Stoples ore rosin coated for.
Model T-25 for wir
diometer. Wt. f lb.
No. 22 B 246.
Net Eoch
$\$ 12.49$
Model T-75 for cable
diameter. Wt. 2 lb. Mf
lameter. Nat Mis. list \$\{8.00 o. 228245 Nef EACh FOVE FOR ABOVE GUNS $\mathbf{S} \mathbf{4} .99$ Stk. No. For Model Leg Lgth. Bx. 1000 22B247
$22 \mathrm{B249}$

|  |
| :---: |

## 


Quickly cuts clean, accurate holes In chassis or panel to accommodate sock ts, switches, controls, meters, etc. Cufting is done by 2-point punch driven by $3 / 8{ }^{\prime \prime}$ dia. square head cap screw. Operates simply with an ordinary wrench


## GREENLEE CHASSIS PUNCHES





## CIRCLE CUTTERS



ALL PURPOSE TYPE
For cutting round holes in metals, wood, plostics, etc. Drill acts $2 s$ center pilot, keeping cutter in constant olignment. Cross bar ond cutting bits are easily adjusted. May be used in slow speed drill press or hand brace. Cutting bits are of high speed steel.
(A) PAWOOD TYpe 5. Cuts holes $1^{\prime \prime}$ (B) PAWOOD Type 4. Cuts holes $7 / 8 "$ No. $11 / 2$ dis1. Round Shank. Choice Ea. $1 / 4$
 Na. 12A1501. Extro Cutter for types 4 or 5 listed above. Eoch.......... 526 (C) HEAVY DUTY TYPE-CUTS HOLE $11 / 2 "$ TO $8^{\prime \prime}$

3/8" Hex shank fits either hand brace, or drill press. Removable $\mathbf{r}^{\prime \prime}$ " centering drill cutting bit and adjustable $3 / 8^{\prime \prime}$ square cutting bar are held in position by compression washer and take-up nut. No set screws- easy to adjust.
No. IIA184. Each
.$\$ 3.29$

## (3) BALL BEARING REPLACEMENT DRIVE SCREWS

Greenlee punches cut easier and faster than ever regardless of toughness
of metal. Specially designed bearing assembly replaces present drive screw. of metal. Specially designed bearing assembly replaces present drive screw.
Boll bearing sooks up friction allowing screw to be turned with ease.
Stk. No.
$11 A 444$
$11 A 445$
$11 A 446$ Type
AV $322 B B$
AVII2BB
AV249BB
$A V 304 B B$

Eoch
$\$ 0.90$
2.83
2.37
hand operated nibbling tool CUTS ANY SHAPE OPENING IN SHEET METAL,

COPPER, ALUMINUM, PLASTIC, ETC
Cut those odd shope holes without distortion or strain in steel, oluminum, copper or plastic. Handles easily tion toal for cutting transformer holes socket holes, tion. in chassis. Capacity: steel 18 gaus, sockef holes,
 No. 114441 ris

Replocement Punches for Nibbling Tool. No. 11 A442. Net
$\$ 3.85$
$\$ 1.68$


STAPLER Small and com-pact-corry with always at you fingertips
1001 uses in workshop, home, school Lightweight, fits hand comfortably Handsome two-tone brown and nicke finish. Shpg. wt. JB oz
22 C 271 . Model JB/66
Net Each.
$\$ 1.24$
22C272. Box of i200 Sioples. . 29 c
KRAEUTER 7-IN. SNIPS
 High quality drop forged
steel shears. Shaped to cut straight as well as right or full length of $15 / 8$ inch polished blades. Hard black enameled handles. Lgth. in. Shpg. wt. 6 oz .

ADJUSTABLE HANDLE


Self-equalizing parallel jaws provide positive vise-like grip of long handle tools such as hock sow blades, files, reamers, etc. Hordwood h other ports steel. Size $41 / 2$ No. 11B80. Each


High grade chrome vanadiur burring reamers ropidly remove burrs from chassis cutauts, antenna mast cutoffs,
etc. Also handy for enlarging holes (1) T-Handic Type. Tapers $1 /{ }^{\prime \prime}$. No. 11 A188.

## ,

Eoch
Bit-Shonk Type. Tapers 51.40 No. 114321.
$\$ 1.95$
(2) Bit Shonk Type. Topers
$\$ 3.50$ Each pers $1 / 5^{\circ}$ io No
B
$\mathrm{V} / 2$
N No


## PIN PUNCH SET

Handy kit of 8 high quality forged steel pin zunches in most popular sizes fin" en case for bench or hox. 11 A388. Eo.
$\$ 4.13$


WORTH OVER \$5.00 ONLY
\$279 Engineers quality 11 piece German made drafting set. 4/2 cornpass with pen and pencil part, $41 / 2^{\prime \prime}$ divider, $31 / 2^{\prime \prime}$ ruling pen, 1 eoch of $31 / 2^{\circ}$ bow pencil, bow divider and bcw pen all heavy nickel plated brass ir felt lined
container. $\$ 5.00$ value. No. 37 B175. Speciol, Eoch. 27

## DRAWING BOARD SET

$18 \times 24^{\prime \prime}$ drawing board of righ grade $3 / 4$ " bosswood and with end cleats for hardwood T-square. hardwood T-square.
No. 36 A 200 . Per Set

## Tif RADIO RULE

Makes symbols indicating tubes, meters, coils, trans-formers-all port: in chassis. Pocket size. Wirn di-
rections
No. 114314 . Ench.

## Cabinets and Embossing Tools

## AKRO-MILS METAL STORAGE UNITS WITH CLEAR PLASTIC DRAWERS

## NO MORE FRANTIC SEARCHING FOR MISPLACED ITEMS



All metal cobinets have handsome hammertone gray baked on enamel finish. May be placed on bench of hung on wall. Stacks side by side, back to back, or one on too of the other. Molded plastic drawers are erystal clear, lifetime guaranteed, spillproot, and divide lengthwise or crosswise into several compartments Soves spoce, contents olways fully visible, dust-proof
easily indexed. Labels and drawer dividers included

DELUXE "HAZ-BIN" JR. SERIES CABINETS

Spoce conserving metal orkshop store home etc. All have $5 \% / Q^{\prime \prime} \mathrm{L} x$ plastic drawers. Supplied with index labels and long and 3 short dividers for every four drawers. Cobinets are $6^{\prime \prime}$ deep. f3-32SD supplied with one $57 / 8^{\prime \prime} \mathrm{L} \times 111 / 2^{\prime \prime} \mathrm{W} \times 31 / 8^{\prime \prime}$ H steel drower at bottom of cabinet for storing large


## POPULAR "E-Z FIND" CABINETS

WITH LARGE FULL WIDTH DRAWERS
Full width $12 \times 57 / 8 \times 11^{7 \prime \prime} \mathrm{H}$. Drowers, each divided into 4 large comportments with dividers supplied for up to 8 smoller compartments. Overall depth all cabinets. 16 Comportments ( 4 full width drawers) $71 / 2^{\prime \prime}$ H $\times 121 / 2^{\prime \prime}$ W. Wt. 7 lbs
No. 40889. Model i6-V.
Net Eoch
$\$ 4.68$
24 Comportments ${ }^{16}$ full width No. 40890 . Model $24-\mathrm{V}$ Net Eoch 32 Camportments ( 8 full Ho $\times 121 / 2^{\prime \prime}$ W. Wt. 12 lbs Net Eoch.



## HANDY-BIN

## STEEL CABINETS

Strong, welded steel cabinets can b $234^{\prime \prime}$ singly $\mathrm{W}^{\text {stocked }} 14^{\prime \prime}$ or hung on wall. $23 / 4^{\prime \prime}$ W. $11 / 4^{\prime \prime}$ D. $53 / 4^{\prime \prime}$ L. eleor plastic drowers with metal dividers con be divided into two or three compart ments. Complete with index label and one divider per drower. All cabnets are $6^{\prime \prime}$ deep. 18 Drawers. $10^{\prime \prime}$ W. $\times 9$ 虎" H. Wt No. 36C193. 5399 24 Drowers. 13 ti" $w{ }^{2} \times{ }^{\prime \prime} H$. W 24 ibs. No. 36C194. Each 35.29

## HANDY-BIN

ALL PLASTIC CABINETS Made of breakproof styrene, can be used singly or stacked one on top of the other. $23 / 4 " W, ~$
clear plastic drawers have plastic viders an note number All cabinets are $61 / 4^{\prime \prime}$ deep. 9 Drawers. $10^{\prime \prime} \mathrm{W} \times 5^{\prime \prime} \mathrm{H}$. No. 36C189
Model 9HB-A. Net Eoch. S1.99 15 Drawers. $10^{\prime \prime} \mathrm{W} \times 71 / 2^{\prime \prime} \mathrm{H}$. Wt. $31 / 2$ No. 36 Cl 90
Model $15 \mathrm{HB}-\mathrm{A}$. Net Each. 52.99 21 Drowers. $10^{\prime \prime} \mathrm{W} \times 103$ No. 36C191
Model $21 \mathrm{HB}-\mathrm{A}$. Eoch
53.99

## REVOLUTIONARY NEW TOOLS MAKE PROFESSIONAL EMBOSSED LABELS, NAME PLATES

 DYMO PROFESSIONAL MODEL M-2PRINTS ACROSS OR UP-AND-DOWN
ON PLASTIC OR METAL-FOR JUST PENNIES!
Dymo-Mite embosses raised white letters or numerals on choice of colored, pressure sensitive vinyl tapes, or plain roised letters on metal tapes for denting lools, parts bins, switch boxes, controls, lockers-onywhere, everywhere, indoors or out. As easy os dialing a telephone tope roll in handy magazine handle; (2) Emboss by simply rotating lettered dial to spellout desired words; (3) Cut-off embossed label with ottached CHOICE OF HORIZONTAL AND/OR VERTICAL TAPEWRITERS M-2 Tapewriter. Makes horizontal labels only. No. 47 A99. Net Each
334.95

Morizontal/Vertical M-2 Kit. Complete with M-2 Tool and "quick-change" horizontal and vertical wheels for both ocross and up-and-down embossing. No. 47A99. Type 1024. Wt. 3 lbs. Net Eoch
Vertical "Quick-change" wheel. Equips any M-2, M-2C or M-3 machine to make verticol lettered labels.
PLASTIC AND METAL TAPES FOR ABOVE TOOL
Tapes without adhesive hove ploin back for brad mounting or gluing. 141 Series hove satin finish, 158 glossy finish.



NEW ECONOMY MODEL TAPEWRITER


Now everyone can make their own name plates for luggage, sports equipment, tools, etc.-plus hundreds of identificotion labels for the home, office or shop with this new lost cost version of the fomous Dymo-mite embossing tool. Easy to operate-just dial letters and numerals- they come up instontly, crisp white raised letters against a colored background. Cut off finished label with ottached cutter and you ore reody to apply it immedlotely-inside, outside-onywhere. New smaller series pressure sensitive tapes ore supplied in a handy throw-awoy magazine-loads in a flash, just discard when empty. Shpg. wt. 10 o empty. Shpg. wt. 10 oz.
No. 4iA95. M-5 Dymo-Mite Tool. Each
$\$ 24.95$

# Tool and Parts Chests, Vises 



MASTER TOOL BOX Provldes the space for keeping all those needed tools, parts, etc. in one compoct place-easy to find when needed. Constructed of heavy-gauge steel with combination lock seam and spot weld. Extra reinforced corners. Overall size $18^{\prime \prime}$ long x $101 / 2^{\prime \prime}$ wide $x 13^{\prime \prime}$ high. 4 cantilever trays. Gray metallic finish. Wt. 21 lbs. No. 36 All 19 Net Each
(1) 2.79


## PARTS \& TOOL CHEST

 Designed particularly for the servicemanismalt parts is provided for carrying
os well os tools. Contains main tool compartment ond two trays for resistors, condensers, etc. Rigid full-drawn, seamless construction with rounded corners and embossed tapered cover. Hard baked bossed tapered cover. Hard baked ${ }^{\prime \prime} \mathrm{encm}$. Shisg. wf. 7 lbs. No. 37 A230 Eoch



## "REMOYABLE"

TRAY BOX
Finest quality steel with two bolt catches; built-in padlock eye; rustproof handle, Full lock-seamed construction, rounded reinforced corners. Continuous type hinge with lid opening entirely back. Gray rippie finish. Handy Tote Tray, $211 / 2 \times 81 / 2 \times 11 / 2^{2}$ Overall size $22 \times 9 \times 8^{\prime \prime}$. Wt. 12 lbs. No. 40C101 Not Each.

S8.19


## GENERAL UTILITY BOX

Handy for carrying tools on the job. watematic retracting tray, Seamless waterproof construction with raunded both cover and red reinforcement on Hard baked bornel
hal , baked enamel finish. 4 lbs.
No. 37 A 231 . Each.
52.62

HANDY SWING BINS
Handy ta have in garage, warkshop, kitchent anywhere, K.eeps small items easily accessible for ready use. Attaches securely to wall, tabletop, or ceiling with only 2 screws. Crystalclear plastic drawers, $21 / 2^{\prime 2}$. $x$ ir on weighted pedestal base. Movable dividers provide up ta 4 compartments in eoch drower. Wh. 2 lbs . N . 99
No. 36 A198. 6 Drower. . .

POPULARLY PRICED

## TUBE AND TOOL CARRIERS

ESSENTIAL FOR "OUT-OF-THE SHOP" WORKI

## DELUXE FEATURES

- Lorge Tube $G$ Tool Copocity. - Lightweight for easy carrying. - Professional appearance. - Durably built to toke abuse. POPULAR LOW-COST ECONOMY MODEL Lightweight, easy to carry, yet with large capacity for carrying up to 100 tubes plus toals. Special de. sign for easy identification and accessibility of both tubes and tools. Attractively covered in washable plastic coated grey tweed fabric giving modern protessional appearance. Sturcily consiructed for losting service. Size $16^{\prime \prime}$ wide Wh. 9 10B165. Net Each. 87.35

NEW MEDIUM COST LARGER MODEL
Here's all the popular teatures of the above model, now available in a large roomier case. Space pravided for carrying an additional 100 rubes faver 200 in all plus more space for tools, small meters, etc. A wonderful buy for the servicemon having need for the ex$15^{\prime \prime}$ high $\times 8^{\prime \prime}$ deep. Shpg. wt 12 lbs .
No. 40 B 167 . Net Ea. 51.95

"FILE-A-WAY" PERSONAL FILES

## FOR HOME - OFFICE - SHOP

Handiest files ever! Important private popers olways easy to locate. . keep a File-f-Way for each calendar year and solve your lost poper problems at income tax time. Portable, take it anywhere-corrying handle is recessed for privacy. All steel construction with finish of pleasing durable baked on litho gray. Both sizes contain a complete set of inder folders. No. 36A55. Jumbo File-A-Way, size $121 / 2^{\prime \prime}$ W
 No. 36A54. Regulor File-A-Way, size $12 \mathrm{~V} / 2^{\prime \prime} \mathrm{W}$


## HANDY CHECK FILE

No more lost or misplaced cancelled checks! Just file them by month and they're always at hand for immediate reference. Supplied with corrplete set No. 36 C 59 . Each
$\$ 2.39$

## WILTON QUALITY VISES


(1) WILTON MIDGET POWRARM AND VISE

Finest addition to any engineer's or experlmenter's work bench. Unique PowRarm Vise combination securely locks work in most advontageous position. Release lever allows instontaneous changing of vertical and/or horizontal position. Steel vise jaws are $21 / 4^{\prime \prime}$ wide, open to a moximum of $21 / 4^{\prime \prime}$. PowRarm is made of rugged cadmium plated steel. Bolts to any flat surface. Shps. wt. 5 lbs.

Net Eoch
\$13.65
(2) WILTON HOBBY VISE

Low priced, high quality precision built vise, specifically designed to hondie mall intricate work. tures one-piece body, fully profected lead screw, removable sfeel jo ws, and
 bolt mounting swive base. lbapacity Li/4 $\$ 5.30$ No. 22B311. Net Eoch
$\$ 3.90$
(3) WILTON CLAMP-ON VISE

A precision built tool at low cost. Solid clamp bose with positive locking screw secures vise to table, bench-anywhere on wood up ta $2^{\prime \prime}$ thick. Twin guide construction. $21 / 2^{\prime \prime}$ wide hordened steet jows open to maximum
21/4". Red enamel finish, Wi. ${ }^{33 / 4}$ lbs.
No. 22 B197. Model 1112 . Mfg. List $\$ 4.10$. Net Each.
53.02

## Precision Hobby Tools

## DELUXE "HANDEE" POWER TOOL SET

ELECTRIC GRINDING AND ENGRAVING TOOI SETS


POWER TOOL AND 45 OF THE MOST POPULAR ACCESSORIES

## $\underset{\substack{\text { MFG. LIST } \\ \$ 32.95}}{ } 5$

The ultimate in professional quality equipment - on extremely, hobbyists, servicemen, industriolist, etc. It's whole shop full of toals in one, priced

unbelievably low-you would usually expect to pay con
comparotive set.
feomparative set. tric tool acclaimed for its remorkable speed, power, versatility, and long service life. plus a complete as sortment of fine occessories that as sure maximum utility.
Tool Speciflcations: Handles as easily as a pencil. Smali in size, only $6^{\circ}$ long, weighs 14 oz . Fits snugly in the polm of the hand, gets into those hard-to-get-ot-places. Speed 25,000 R collet chuck holds accessories firmly. N, ample for all requirements. Spring dependable service with extra power for all jobs. Uses reploceable type corbon brushes. Sturdy bokelite cose covers all moving parts. UL approved Cord and Plug for 110 valt 25 to 60 cycle $A C$ operation. 45 Accessorics included to grind, polish, cut, carve, sand, sow, engrave, etc Does 1001 jobs quickly, simply, and with precision. All pock compact steel corrying cose. Wt. $41 / 2 \mathrm{lbs}$.
$\$ 23.95$

$$
\begin{aligned}
& \text { compact steel carrying cose. } \\
& \text { No. } 37 \text { A349. COMPLETE SET. }
\end{aligned}
$$

HOBBY POWER TOOL ACCESSORIES
 For working on hard steel, writing on
glass ond other hard moterials. All hove 32 shank.

SENSATIONAL NEW BURGESS
MARKING AND ENGRAVING TOOL

## MARKS AND ENGRAVES ANY

 MATERIAL, EASIER, BETTER, FASTER, AT LOWER COST
## MFG. LIST $\$ 12.95$

## $\$ 949$



Permonently identifies "oll types of tools, marks parts, frosts glass, tools leather. " "writes" on the hardest steel, aluminum, wood, plastics, copper, ceromics, stone, and many other moterials. Does hundreds of jobs easier and faster-hondes inke o pencil-anyone con use it. Ideal for the hobbyplus small size and light weight permits comfortable new hond-rest design plus small size and inght weight permits continuous use without tiring the
operator. Reciprocoting 110 volt 60 cycle AC motor delivers 7200 strokes per minute for fost clean work. Control wheel adjusts "impact" for fine medium or coorse stroke. Unbreakable polypropylene housing. Supplied complete with hard tantalum point. Shpg. wt. I Ib. Mfg. list \$12.95 complete with hard tantalum point.
No. 20A194.
Eoch 16 OB32. Extro Point. Eoch
No. 208216. Diomond Point. For extro heovy-duty marking needs.
Each

## FAMOUS

## DREMEL MOTO-TOOL KIT

## NATIONALLY ADVERTISED IN

 leading magazines MFG. LIST$\$ 23.50$

- Now for the first time, of o low cost, - high quality power tool ond occessory

kit designed to do small precision jobs. repairman, model makers, dentists, oprepairman, Grinds, polishes, carves, drills, sands and saws. High speed-approximately 25,000 RPM Does in seconds those time consuming jobs that are difficult to do with ordinary hond tools. Wrenchless collet chuck provides easy colvenient means of changing tilless Universol motor aperates on $110-120$ volf 00 cycle $A C$ or $D$. Has olless self-oligning bearing mounted in felt retainers. Switch ollows fingerrip con trol for rapid start and stop or for continuous operation. Tool only is Kit includes Mato-Tool with chuck and 3 collets: $1 / 8^{\prime \prime}$. $1^{\prime \prime}$ " $3^{3 / 2}$ ". 8 steel cutters, 4 emery wheel points, $3 / 8$ " drum sander, dressing stone, 4 mondrels, 3 bristle 2 rubber polishing wheels, 5 polishing and sanding accessories. All in attroctive fitted steel case. Shpg. wt. 4 lbs.
No. 37 A413. Dremel Model No. 1. Net Eoch
$\$ 18.42$


Surgically keen sharp knives and cutting tools af finest quality steel. The first choice of model bullders and hobby croftsmen for years-extensive used by engineers and producrion ine workers in many types of industry. INTERCHANGEABLE BLADE PRECISION KNIVES
Finger-tip knurled chucks provide fast, easy changing of blades.
(1) TYpe 1-5T. For Hight to medium work. Aluminum handle $5^{\prime \prime}$ Iong $\mathrm{Ha}^{\prime \prime}$ dia No. 16A825. Complete with Type 11 Blode. EO.....60c $\$ 12$ Eo... 1.45 c
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May be ossorted for Quantiry P
INTERCHANGEABLE BLADES Application
Stock No. Type Fits Knife
(b) $16482911 \quad 1$-ST
(16A830 16 1-5T
(7) $16 A 83119 \quad$ 2-ST,5-ST
(1) 164831
0) $16 A 83423 \times$
$2-S T, 5-S T$
$2-S i g h t ~ C h i s e l l n g, ~ R o u g h ~ S h o p i n g ~$
0) 16 A834 $23 \times$ 2-ST, 5-ST Double-Edge for limited space area (1) $164828 \quad 10$ I-ST Fine Cutting, Corving
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(). Razor Sow Blade. For fine and accurate cross-cutting, trimming and motching of metal, wood and plastic. Use with type 5-5T knife
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\#May be ossorted for Quontity Prices.

## X-ACTO KNIFE CHEST

Contains all the knives and blades needed for carving and cutting jobs in wood, plastic, leather, etc. Ideal for the beginning hobbyist always handy to have around the shop. includes: Types 1-ST, 2-ST, and 5-ST knives of left plus 9 extra assorted blades. Natural finish wood chest. left
Ib.

No. 368237. Type 82. Net Each
$\$ 4.50$
X-ACTO HOBBY CHEST
Popular set of the most often needed hobby tools for model building, wood carving, plastic crafts, etc. Ideal for the serious hobbyist-allows even the beginner to turn out top quality work jioht and medium cutting: heovy duty Includes: Two standord knives for light and medium curting; heovy duty knife for tough cuts; completa assortment of blodes, gouges, routers, ank punches; ploner, sander with sondpaper; spokeshove for hevel pule Supplied Balsa stripper for occurately cutting ribbing and siding: steel rule. Supplied in handsome notural finish fitted wood No. 368236 X-octo Type 86.
Net Eoch

## DELUXE KNIFE AND TOOL CHEST

Has every tool needed for the skilled craftsman to handie even the most in tricote work! Carves, sows, drills, sands, routs, punches-performs hundreds of jobs in wood, plastlc, metal and leather. Tough model building projects now become routine with this complete precision tool kit. Cantoins all the tools in above Hobby Chest PLUS Hobbyeraft saw; extra blades, routers, gouges and punches; pin vise and hand drill with assorted drill bits. In big natural finish fitted wood chest. Shpg. wt. $31 / 2$ lbs No. 36 1235. X-acto Type 87
Net Eoch
$\$ 18.75$

# Drills and Other Tools 



"Mogic Black." A special tempering treatment that produces extra wearing qualities-makes drill bits stay sharp much longer. "Quickstay sharp "much longer. points" penetrate twice-asfost with one half the pressurefast wot "walk" or "wander." Greatly reduces load on electric drill

## (1) MB3 DRILL SETS

13 high speed mechanics length drills. Sizes tif "to $1 / 4^{\prime \prime}$ by 64ths. Use with power or hand drill on metal, wood, plastic,
toiner.
No. 16A382. Per Set.

## (2) MB753 DRILL SETS

7 high speed drills. Sizes ti" to $1 / 4^{\prime \prime}$ by 32 nds. Use with any power or hand drill on metal or wood, plastic,
ete. In plastic cose. No, 16A667. Per Set.... \$3.25
(3) MB525 DRILL SET

5 high speed drills. Sizes $1 / 4^{\prime \prime}$ to $1 / 2^{\prime \prime}$ All have $1 / 4^{\prime \prime}$ shonks-mokes possible their use in $1 / 4^{\prime \prime}$ electric drills. Sizes handy clear piostic case. 88.65

## (4) MASONRY DRILLS

WITH $1 / 4$-INCH SHANKS
For TV antenna installation and other work that requires drilling in concrete, plaster or brick. New precision mcchined oval flutes, narrow lands, and fast spiral assures clean, fast, accurate work in the toughest mosonry. All
sizes hove $1 / 4^{\prime \prime}$ shanks for use, if desired, in portoble electric drills.
Stk. No. Size Length Net Eo. Stk. No.
16 A669 164670
$16 A 671$


## HANSON QUALITY TAP \& DIE TOOLS

 FOR ACCURATE THREADING IN METAL
(5)

(1) NO. 21 TAP G DIE SET

Popular set for the rodiomon or hobbyist. Consists of excellent quality high carbon alloy steel taps and salid dies, sizes 6-32, 8-32, 10-24, 12-24 and structed die stock. Comes in handy mohogony box. Wt. 3 lbs. 56.99 No. 22B187. PER SET.
(3) DIE STOEK

## (2) TAP WRENCH

Sliding hondle type with spring tension to huld handle in any. desired position. Knurled chuck holds No.
to No. 12 taps
No. 168346 . Eoch .......... 49 C

Holds 1 " O.D. dies far straight ac-
curate cutting. Rugged
construction curate cutting. Rugge
for long service life.

## (1) TAPS

Made of high corbon, alloy steel.
No.
Soch

| Made of No. | $\begin{gathered} \text { high } \\ \text { Size } \end{gathered}$ | o. oll | steel. Eoch | bon, all | dil. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1241630 | 2-56 | . 086 | \$0.41 | Stk. No. | Size | O.D. Thd. | Eoch |
| 12 A1503 | 4-36 | . 112 | . 30 | 1241669 | 4-36 |  | 44 c |
| 12A1504 | 6-32 | . 138 | .30 | 1241670 | 6-32 | 138 | 44 c |
| 12A1505 | 8-32 | . 164 | . 30 | $12 A 1671$ | 8-32 | . 164 | 44 c |
| 12A1506 | 10-24 | . 190 | . 34 | 1241672 | 10-24 | . 190 | 44 c |
| 12 A1507 | 10-32 | . 190 | .34 | $12 A 1673$ | 10-32 | . 190 | 44 c |
| 12A1508 | 1/4-20 | . 250 | . 30 | $12 A 1674$ | $1 / 4-20$ | 250 | 44 c |



## "SCREW-DRILL" SET

 DRILLS! COUNTERSINKS! AND COUNTERBORES!ALL IN ONE EASY OPERATION
4 SIZES-\#6, \#8, \#10, \#12
The quick, sure way for screw driving in wood, plastic, fiber, sheet aluminum, etc. Chrome-vanodium drill bit with nickel plated hardened steel holder drills pilot hole, countersinks and counterbores ta desired depth with odjustable stop indicator all in one simple operation. Se consists of 4 sizes for \#6, \#8, \#10 and \#12 screws. fits all hand and electric drills. Mfg. List $\$ 3.69$.
No. 16C227. Set of 4.
$\$ 2.76$

## LEVEL-SQUARE-10 FT. RULE

 ALL-IN-ONE!Now by the KGECO., foremost mfgr. of measuring instruments, a $10 \mathrm{ft} .-1 / 2 \mathrm{in}$. wide "wyteface" rule, a square and an accurate unbreakable level, all contained in $2 \times$ ing occurate "inside" measurements. ing occurate inside measurements.
154
$\$ 1.49$

## Electric Drills, Scissors, Grinder

## THOR-SPEEDWAY EXCEPTIONAL VALUE ELECTRIC DRILLS



An unbelievable value for sure! Has many topnotch features as found only in drills costing several dollors more. For power, value and pertormonce surpasses any other $1 /{ }^{\prime \prime}$ drill we've seen at wound 115 V . AC motor, for home, shop and form use. A real quolity tool , now, you con afford to hove that extra drill to carry in the tool box. Full load speed 1500 RPM. Momentary contact Full load speed 1500 RPM. Momentary contact switch has locking pin for continuous operatian. trouble-free operation Die cost oluminum housing trouble-free operation, bie cost oluminum housing hos tough silicore bonded finish.
Overall length $73 / 8^{\prime \prime}$. UL approved 3 -wire cord and No. 374336 . Shpg. wt. 5 lbs. Spec. Each

Extro powerful with features usually found only drill for costing a great deal more. The perfec drill for farm, home or shop. Extra power and etc. The ideal all aromend drill. Heavy duty universal 115 V. AC motor hos no load speed of 925 RPM, fuil load speed of 610 RPM. Ollite bearings and hobbed steel gears provide for long trouble-free life under rugged use. Lock-in button on drill handle for continuous running. Die cost oluminum housing has tough silicone bondcast oluminum housing has tough silicone Overall length $81 / 2^{\prime \prime}$. Net wt. $41 / 2 \mathrm{lbs}$. ed finish. Wverall length $81 / 2$. Net wt. $41 / 2 \mathrm{lbs}$. supplied with $\begin{aligned} & \text { adaptor for } 2 \text { prong outlet. Shpg. wt. } 5 \text { ibs. }\end{aligned}$
 Special Each.

## THOR SPEED-GRINDER



- Built-in water cooling tray and work holder.
- Portable or bench use.

Low priced, ruggedly constructed grinder pocked with feotures found only in higher priced units. Perfect for hobbyists, model makers, home craftsmen, etc. Powerful, smooth running 3450 RPM motor has seff oiling bearings to assure long life trouble-free operation. Has two $41 / 2^{\prime \prime} \times 1 / 2^{\prime \prime}$ wheels, $1-40$ grit and $1-70$ grit. Adjustable tool rests make angle tool grinding eosy, Wheels extend beyond housing to ollow for "across the foce" grinding. Weighs only 7 jbs. for easy portobility, hos mounting holes for permonent mounting. Die-cost aluminum housing $10^{\prime \prime}$ long, 6 ft . 3 -wire cord and odaptor for 2 -prong outlet. For 110120 V . 60 cycle AC.
No. 37 B 352 . Model 116 . No. 37 B352. Model 116 . Shpg. wt. 8 lbs.
\$13.95

## THOR "SPEED-SNIPS" ELECTRIC SCISSORS



Amazing new electric scissors eliminate tiresome hand cutting. Perfect for hi-fi installers, service shops, drapery makers, tailors, housewives Sofe even for children, fully approved by Underwriters Laborotories and C.S.A. Lightweight and easy to handle, non tirling even after hours of Precision ground steel blades stoy, sharp longer. Durable polystyrene case $558^{\prime \prime} \mathrm{L} \times 15 / \mathrm{a}^{\prime \prime} \mathrm{W} \times 2^{\prime \prime} \mathrm{H}$. Complete with long 10 foot cord. Wt. 6025.

No. 37 Al I4. Net Each.
$\$ 5.95$

## 29 DRILL BITS, SIZES <br> TO $1 / 2^{\prime \prime}$ BY 64THS <br> HIGH SPEED DRILL SET BIG IMPORT VALUE TO SAVE YOU $\$ \$ \$$

## Compare at <br> Several Times <br> $55^{79}$

- Full 6.5 Ampere Pawer Rating
- Heavy-Duty Scaled Thrust Ball-Bearing an Spindle Buitt throughout to professional standords .... here is a truly terrific value to please every craftsman. Provides tremendous pawer for occomplishing the toughest jobs with the greatest ease-yet handles amazingly well. Hos popular 3 -iow geared chuck with key. No raad speed 550 RPM for highest Safety switched aluminum alloy die-cost housing. Safery switch with push-button lock for continuous AC-DC motor, UL approved 3 -wire cord and adoptor for 2 prong outlet. Length overall $143 / /^{\prime \prime}$ adily " for 2 prong outlet. Length overall $143 / /^{\prime \prime}$ (111/4 $\$ 34.95$
No. 37 A371. Special Net Eoch.
$\$ 24.95$


## WEN SENSATIONAL

## 3/8-INCH TWO SPEED ELECTRIC DRILL

| FOR FIRST | TIMEI |
| :---: | :---: |
| THE RIGHT SPEED |  |
| FOR ALL | JOBS |

- Powerful and husky but not bulky.
- Positive "D" grip handle.
- Ropid speed change- 3000 RPM or 1000 RPM.
- Geared Key Chuck with Key.
- Universal 115 V. AC-DC 2 omp motor.
- Fully U/L approved.


Now ane heavy duty " ${ }^{\prime \prime}$ (B) Low Speed Bill formerly requiring two drills or speed reducing equiloment To change speed simply insert chuck in proper power take-off. In top postion (A) full 3000 RPM for high speed drifling in thin metals, wood or for use of attochments for sanding, sowing, dritinging, buffing, etc. Wood or por use of at for jobs requiring lower speed grinding, butfing, etc. Lower position ibl and higher power as needed in drilling heavy steel, wood, etc. and for polishing, waxing, screw driving, paint mixing, etc. Auxiliary grip handle can be inserted in either side depending on which power toke-off is being used, makes for perfect balance regardless of drill position. Outstanding desion feotures: balt thrust bearings on both spindles, oversize oilite bearings, special wound maximum torque under load motor. Overall length $121 / 4^{\prime \prime} \times 21 / 2^{\prime \prime}$ wide. Lustrous silver-gray finish. Geared key chuck,


Complete set of high speed drills at an unbelievable low price! Precision ground of quality chrome vanadium steel for fost, accurate drilling in wood, plastic, metal, etc. All are standard jobber lengths, straight shank type. Supplied in handy indexed metal stand. Quility import. No. 16A580. Special Each

MFG. LIST $\$ 29.95$
s2201

## Electric Drill Accessories, Torches, Peg Board

## SUPREME "VERSAMATIC" WONDER TOOL REVERSIBLE SCREWDRIVER \& SPEED REDUCER FOR ELECTRIC DRILLS



MFG. LIST \$14.95 $\$ 1121$
MOST VERSATILE UNIT OF ITS KIND YET PRODUCED.

Fits directly into chuck of ony drill - Bocsts power 7 times Converts for heovy work.

## Will lighten the work-load of any mechanic

 professional or omateur. Eliminates usually tough, tresome hand work. Just look of what it does and througi torque increases the power by a like amount. As a sensational added feature-runs in reverse with one easy twist; both drives and removes all screws, big or little... fast... safe? Drives and removes nuts- $1 / 4^{\prime \prime}$ socket drive includ. ed; with the oddition of $1 / 2^{\prime \prime}$ chuck similor to that listed below handles such heavy duty jobs as large diameter drilling witn hole sows, ouger blts, etc., in metal or mosonry; plus precision topping. Bits and tops last far langer, cut more efficiently Complete ready ta use with the parts needed for ard screwdriver bit: No. 2 Phillips type bit: ard screwdriver bit: No. 2 Philips type bit; $1 / 4$square drive socket odapter and 16 page instruc square drive socket odapter and 16 page instruc
tion manual. Fully guaronteed. Wt. 3 lbs. Mfg List $\$ 14.95$
No. 378123 . Complete Set.
$\$ 11.21$

SCREWDRIVER
ATTACHMENT

FOR HOME - OFFICE - SHOP
A HANDY PLACE FOR TOOLS CUTLERY-PLUS HUNDREDS OF OTHER ITEMS
Complete 84 Piece Kit

## 

Most convenient means ever for staring shop tools, household utensils, hardwore, gorden tools, etc. Provides extra storage spoce-mounts on wall or door, eliminates cluttered work bench ond floors. Assorted hooks and hangers may be positioned on perforated peg boapds to accammadate almost any item Contoins: Four $18 \times 24$ pegboords $1 / \mathrm{s}$ thick; four 4 oz , jars ond halders heovy metal tool rack; complete assortment of hooks and hangers. screw and spocers for mounting. Shpg. wt. 14 lbs. No. 36B102. Kit Each

## NOW AT NEW

LOW PRICE!

## JIG SAW ATTACHMENT

 Does work of jig, caping, rip, crosscut, band and hack sows. Fits ony $1 / 4^{\prime \prime}$ or tems, circles, etc., in plywood wollboord, plostics, metals-even lumber up to $2 \times 4$ 's. Simply guide it over the cutting line, sowdust is automatically blown away from the blade.No. 22A173. Complete Mfg. List \$8.95. Net Each
$\$ 6.29$


As above with adjustoble circle cutter and rip guide.
No. 22B223. Mfg. list $\$ 9.95$. Net Eoch
No. 16B174. Replocement Blodes. Pkg.

## HACK SAW FOR ANY

1/4 IN. ELECTRIC DRILL


HOLE SAW SETS FOR ANY ELECTRIC DRILL


Low priced hack sow attochment that does o whale of a job. Cuts smoothly through wood, metal or plastic, etc. Now with new thrust ball bearings; no exposed moving ports except saw blode. Well constructed with all moving parts of hardened, heat-treoted steel. Only $1 \times 1 / 2^{\prime} \times 4^{\prime \prime}$ in size, it fits easity into electric drill kit or tool
box. Uses stondard hack saw blades. box. Uses stondard hack saw blades. No. 16 B772.
Net Each

## VERTICAL STAND CONVERTS ELECTRIC DRILL

 TO DRILL PRESS AT LOWEST COST YET REMOVER
ust the ticket for cutting holes fost and clean in wood, plastics, metals hatt Set consists of 7 high s,eed $1 / 4^{\prime}$ s. Cuts 3 sows - fimes foster than $21 / 2^{\prime \prime}$ by hale saws selling for twice as much Rugged alloy fool head with much, pilot drill for holding blades. Mfo ist \$7.95
No. 168878. Per set
$\$ 5.88$ 14-IN-1 SET. Sow sizes- $7 / 8^{\prime \prime}$ to $21 / 2$ by $1 / 8$ 's. Includes two $h$. pilot drill \$11.19

## Any pistol grip electric drill now becomes o drill press. Do those tough and accuracy-requiring when tapping. Drill sets in cradle and locks into position with fast acting clamp. Only $\vee$ woy slide moves when drilling. Depth stop for repented drilling to pre-determined depth. Depth patpe dial calibrated in sixteenths shows depth of hole being drilled. Features sturdy $11 / 4^{\prime \prime}$ diameter column with heavy square base with slots wt. 7 lbs. Mfg. List price $\$ 13.95$ No. 36 B 155 . <br> DISC RASP \& PAINT



FITS ANY ELECTRIC DRILL
woodworking jobs. Eliminates hours of tiresome hand work. Hardened steel discs complete with arbor aftachment. Quality import.
No. 11 B382. For Rasping and Flling. No. 118381. Eoch.

# POPULAR ELECTRIC SANDERS 



## SPEEDWAY ORBITAL SANDER

Now a fine quolity motor driven sonder of o price for below inferior vibrator types. Perfect for home or shop. Sands old finishes from wood or metal, or polishes surfoces to a piano finish. Sanding area $41 / 2 \times 51 / 8^{\prime \prime}$. Powerful 115 V . AC 3450 RPM motor. Length overall $8^{\prime \prime}$. Net wt. 5 lbs. Ruggedly constructed with push-button switch for fast stop-start. Teflon coated thrust washer, and bronze beoring ossures long trouble-free operation. Uses either standard sondpaper or wet free obrasive paper cut to size. Equipped with 6 ft . 3 wire cord and adap No. 37A328. Special Eoch
$\$ 11.95$ USEFUL ACCESSORIES FOR ABOVE 20B25. Lambswool Bonnet. Each. . . . . . . . . . 85 c 11A325. 18 Sheets Asst. Sandpaper. Pkg. 51.07 228221. Contour Plate Assembly with prene pad for sanding curved surfaces. Each

## BURGESS BELT SANDER

## Powerful motor-Sensational low pricel

 Here it is! A fine belt sander. . so amazingly low-priced that every home owner, craftsman ond hobbyist can now afford to own one of these indispensable tools. It's a rugged, sturdy, man-size sonder thot hondtes every sonding iob quickly and eosily . from the roughest work with coarse belts to the finest finish sanding. Sand tables, choirs, desks, cobinets, bookcoses, floors, woodwork, doors . 10 times faster than hand sanding!' Useful for removing paint and varnish too. Uses fine, medium, or coarse belts, size $2 \times 173 / 9^{\prime \prime}$. Sturdily built of rugged cost aluminum. Has quiet positive chain drive ond self-lubricating bearings. Built-in blower keeps motor cool. 115 volts ACDC. Coarse and medium belts included. Wt. 9 lbs. No. 374272.$\$ 17.46$
Net Each ......................
No. 16A448. Medium Belts. Eoch
No. 16A449. Fine Beits. Eoch
$29 c$
$29 c$ $29 c$
296

## "DUALINE" SANDER

Both orbital and reciprocoting motion with one toall Powerful electric tool takes the drudgery out of
those tedious sonding jobs. Permits user to do on exceptianal job from start to finish.
Equipped with two instantly interchangeable plates. One provides fost cutting orbital motion; the other a reciprocating (straight linel motion. Produces omazing speed 14500 vibrotions per minute under load) to cut sonding time to a minimum.
Powerful 1.75 amp. industrial class motor with highest quality ball bearings throughout; Gilmer timing belt (toothed) drive to assure quiet trouble free operotion. Sturdy aluminum die-cost housing. Convenient slide switch; Three conductor DOwer
cord with two prong adaptor for 110 volts AC-DC cord with two prong adaptor for 110 volts AC-DC operation. Plate sizes, $32 / 3 \times 7^{\prime \prime}$. Uses $1 / 3$ sheet
of standard $9 \times 11^{\prime \prime}$ paper. of standard $9 \times 11^{\prime \prime}$ paper.
364208 . Shpg. wt. 8 lbs. Net Each

## SENSATIONAL NEW WEN BELT SANDER

INDUSTRIAL QUALITY FULL 3-INCH BELT SANDER AT A HOME WORKSHOP PRICE!
Never before o professional quality belt sonder with so many plus feotures at this low economy pricel Has the extro power and big sanding capacity to huces ofine finish in iust seconds. Big $3 \times 18^{\prime \prime}$ sanding belts cover a larger area allowing you to get the job done quicker and easier. Flush body design sands close to edges, eliminates tiresome "touch-up" hand sanding. Powerneedle and oversize delivers 850 sanding feet per minute, has precision Unique tension device maintains correct belt tension, ollows quick belt chonging. Ventilation fan keeps work and belt free from dust-speeds up sanding, extends belt life. Completely driven by extra heavy duty gears, permanently lubricated for continuous long life operation. Compact, well balonced die cast aluminum housing with contour grip handle ond two position knob Heavy duty construction throughout-industriolly rated. On-off slide switch.
 shipg. wt. $83 / 4 \mathrm{llbs}$. Mfg. list $\$ 44.95$. No. 368282 . Wen Model 910
$\$ 33.05{ }^{\substack{3 \\ \text { E.cots. }}} \mathbf{\$ 2 9 . 9 7}$ Net Eoch
No. 164636 Coorse Sonding Belt. Each
No. 16A637. Medium Sanding Belf. Each
No. I6A638. Fine Sanding Belt. Eoch
${ }^{4}$

BURGESS INSECT FOGGER CIEARS OUTDOOR AREAS OF INSECTS FOR hours



#### Abstract

Just pul the trigger and approved oil-base insecticides are instantly vaporized into a thick insect killing fog-spreods through the air and rolls over the ground killing flies. mosquitoes, flying and crawling insects. Harmless to humons ond pets, irawted areos con be occupied immediately. Thermostaticolly controlled heating chamber produces mostaficolly controlled heating chamber produces enough insecticide to cover opproximately $200^{\prime} \times$ enough insecticide to cover opproximately $200^{\prime} \mathrm{X}$ $200^{\prime}$ orea. Plugs into $110-115 \mathrm{~V} .50-60 \mathrm{cycle} \mathrm{AC}$ $200^{\circ}$ area. Plugs into $110-115$, $50-60$ cycle AC Shpg. wt. 6 Ibs. No. 378348 . Model F- 900 . Eoch. ...





ECONOMY MODEL VS855. Completely self-contained . requires no extros. Just plug-in, pull trigger, and spray. It's eosy, it's fast.
Sproys paint, varnish, enomel, shelloc, lacquer, Sproys paińt, varnish, enomel, shelloc, loc
moth-proofers, gorden sproys, insecticides. Weighs less than 3 lbs. Safe operating mechanism sealed in shock-proof head. Easy to cleon. Foolproof, clogproof, trouble free. Adjusting knob for light or heavy spray. Groduated 24-oz. container. Stainless steel piston, corrosion proof cylinder . . will not rust or foul. Trigger proof cylinder
Convenient honging hook. Fully guaranteed. 115 V. 60 cy . AC. Shpg. wt. $31 / 2 \mathrm{lbs}$.


MODEL VS-850. Now, sproy like o pro . . simple as dialing o phone. Unique rotating turret enobles you to select the correct nozzle for every sproying need. 3 nozzles-each has genuine sapphire orifice, color coded for instant identification. Gold nozzle produces fon-shoped spray for pointing large, flat surfoces; silver nozzte gives round sproy for generol painting; grean nozzle produces a fog-like spray for garden sprays, mothproofers, etc. Completely self contoined no extras to buy, simply plug-in, pull trigger and sproy. Foolproof, clogproof, trouble free. Graduated 24 oz. container. Convenient honging hook. Trigger onnoff switch. Operoting mechonism sealed in shock-proof head. Adjusting knob for light or heavy spray. 115 V .60 cy . Shpg. wt. $31 / 2 \mathrm{lbs}$. Na 36B185. Modef V5850. Each.

## Skil Portable Electric Tools


incorporates the most desired feotures for providing Americo's top buy in a $61 / 2^{\prime \prime}$ portoble electric saw. Heavyduty 5800 RPM high speed universal motor roted of 10 omps , statically and dynamically balanced-vibration free under heoviest loods. Varioble-forque clutch protects against motor burn-out, excessive wear to gears and bearings. Precision helical gears transmit full motor power to blade. All ball bearings for greoter efficiency, longest trouble-free service.
Bevel cuts $2^{\prime \prime \prime}$ dressed lumber at $45^{\circ}$. Fully odjustable $0^{\circ}$ to $45^{\circ}$. Vertical cuts is" to $2 \mathrm{H}^{3 \prime \prime}$ depth. Simple, accurate depth and angle adjustments. Automatic telescoping guard and sofety retractor handle. Momentary trigger switch. Three wire cord with grounding connector 115 volts AC-DC. Overall length $101 / 4^{\prime \prime}$. Net wt. $113 / 4 \mathrm{lbs}$, shpg. wt. 15 36B225. Mfg. List $\$ 69.95$. Net Each
$\$ 52.23$ No, 16C730. Replocement Blode. 61/2" Comb. Net Each. . . . . . . . . . \$2.07

Unmotched versatility! Rips, cross-cuts, scrolls, notches, and bevels up to 45 degrees by adjusting tilting base. Cúts practically any material including metal, steel, plastic and $2^{\prime \prime}$ lumber. Amazing orbital cutting action provides fastest cutting-reduces blade "drag". Powerful motor and precision eut helical gears deliver tremendous power to blade. Automatic blower keeps sawdust oway from line of cut. Has self-lubricating, anti-friction bearings for trouble-free operation. No load speed 3700 strokes per minute. Overall length $71 / 2^{\prime \prime}$, net wt. 4 ibs. Complete with 3 wood cutting blodes, 3 wire cord and 2 -prong odoptor. 115 V . AC. Shpg. wt. $51 / 2 \mathrm{lbs}$. $\$ 22.97$
No. 16C722. Metal Cutting Blode 132 Teeth Per Inch). Each.......... 83 c No. 16C723. Wood Cutting Blade (10 Teeth Per Inchi. Each..........72c

## SKIL MODEL 503 1/4" ELECTRIC DRILL



A fabulous buy ....more power, greater drilling torque, yet amazingly low-priced. No wonder this is one of the fostest selling dxills on the morker today.
Big full 2.5 amp motor with precision cut helical gears delivers tremendous power. Drills through the toughest moterials with amazing ease. Lightweight aluminum housing, bolonced for easy handling. Trigger switch with lock-bufton for sustained drilling. Sturdy geared key chuck. cord ond connector for 115 V. AC. Shpg. wt. 4 lbs.... . $\$ 13.27$

## SKIL ECONOMY

$71 / 4$-INCH SAW

## MODEL 537

MFG. LIST $\$ 59.95$
$\$ 4476$

BIG CUTTING
CAPACITY AT
AMAZING LOW COST
The perfect choice for craftsman or professional builder desiring the finest all-purpose electric sow. Hondies froming and rafter cuts-races through $2 \times 4{ }^{2}$ s even at $45^{\circ}$ bevel. Ball and anti-friction bearing construction provides smooth superior performance with long lasting trouble-free service Makes the toughest jobs easy. Heavy duty 10 amp universal motor develops 5150 RPM no load speed, provides full power to blode through frecision helical gears. Built-in safety clutch gives extra sofety-protects agoinst motor burn-out. Fully adjustable for accurate bevel cuts cuts of to $45^{\circ}$, vertical cuts of with to $23 / 8$ satety reatures include: outomatic telescoping blade switch.
Three wire cord with grounding connector for 115 volts AC-DC operation.
 No. 37 A344.
Net Eoch ${ }^{\text {No. } 16 C 741 \text {. Replacement Blade. } 71 / 4 \text { Comb. Net Eoch. }}$
$\$ 44.76$ .+32.07

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Net Each.
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$\$ 13.44$


## SKIL MODEL 576 SAW TABLE

## CONVERTS MODEL 552

FOR TABLE SAW USE
Full $21 \times 16^{\prime \prime}$ top, ample size for handling rip, cut-off and miter cuts. Also fine for grooving, notching and dadoing by adjusting blade height. Mounts on workbench or toble top. Easy to move from job to job. Equipped with adjustable
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No. 36B224. Net Each.
$\$ 14.89$
SKIL MODEL 25524 SAW TABLE CONVERTS MODEL 524 FOR TABLE SAW USE
Holds saw firmly in place for fast, accurote cutting of bevels and all intricate potterns Hundreds of uses in the home workshop-perfect for the hobbyist. Toble top size $101 / 2 x$ $111 / 4^{\prime \prime}$. Readily mounts to workbench or table top. Shpg. wt. 5 lbs. Mfg. list $\$ 4.95$ No. 36Cl63.
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[^7]
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No. 37 A65
Not íaitos in Combinotion siode ES 52.95
No. 16A705. $7^{\prime \prime}$ Combinotion Blode. Eoch $\$ 2.29$

## EXCEPTIONAL VALUE POWER SAWS



REATURES FOUND ONLY IN THE MORE EXPENSIVE SAWS

- Adiustoble sofety clutch.
- Retractoble blade guord.
- Toilor fit hondle.
- 5000 RPM.
- Precision built and bolonced
universol motor.
- Die-cost oluminum housina. - Calibrated Rip Guide
- Combination Blade Included


## FULL 1 H.P. $61 / 4$ INCH

## POWER SAW

## A power packed I H.P. 61/4" sow that zip

 hrough $2 \times 4^{\prime}$ s easier and faster. . . even at a $45^{\circ}$ angle. Rips, crosscuts, grooves, bevels, mitres, rabbets and dadoes. The ideal all-purpose saw for the home or workshop. Tailar fit hondle and perfect balance make -it easy to use hour ofter hour. molly faund only in the most expensive sows ends common cause of motor burn out and blade ends common couse of motro burn our and blade kick bock. oimpie positive finger tip ${ }^{\circ}{ }^{\circ}$. Heavy duty sole plate adds ruggedness and insures acduty sole plate odds ruggedness and insures aceurccy of cut. Has a full 6 ampere rating. equipped with calibrated rip guide. 3-wire cord with odoptor for standard 2 prong outlet Sow in metallic blue finish. Shpg. wt. 10 lbs. No. 37A24. Each.............. S 19.95No. 164709 . $61 / 4$ Combinotion Blode. Eo. $\$ 1.88$

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## 7-INCH POWER SAW

 Rugged, dependable $7^{\prime \prime}$ saw with powerfut $11 / 9$H.P. motor alides throuigh any material from wallboard to rough $2^{\prime \prime}$ lumber with blode to spare. Races through $2 \times 4^{\prime}$ s even of $45^{\circ}$ angle. Tailor fit handle and perfect balance combine to provide easiest handling. Built-in externally adjustable safety clutch ends common cause of motor burnout and blode kick back. Precision built 8 amp motor delivers 5000 RPM through helical drive gears. Heavy duty sole plate insures accurate cuts. Simple, positive fingertio adjustments for depth of cut and beveis $0^{\circ}$ to $45^{\circ}$. Maximum depth of cut $27^{\circ}$. maximum cut of $45^{\circ}$ 2 2.
Equipped with calibroted rip guide and 3 -wire cord with odaptor for standard 2 prong outlets. Bright finish die cast aluminum housing, 115 V 50-60 cycle AC-DC. Shpg, wt. 13 lbs. Mfo list $\$ 39.95$. 5270 . 95 No. ${ }^{\text {No. } 164581 \text { 1. } 7^{\prime \prime} \text { Combinotion Blode. Each. } \$ 2.29}$

\section*{THOR-SPEEDWAY IIG SAM <br> | CUTS 2-IN. WOOD, |
| :---: |
| $1 / 8-I N$. STEEL |

COMPARE AT $\$ 29.95$
MFG. LIST
STS <br> AMAZING LOW PRICE <br> - Has powerful 3 omp motar. <br> - Bose tills to 45 degrees. <br> }

Now a professional quality iig saw at a fantastic low price! Breezes through wood up to $2^{\prime \prime}$ thick, occurately cuts curved or stroight lines in plywood, plastic, metal, fibre board, etc. Base titts to $45^{\circ}$ on either side. Powerful
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No. 37A340. Special Net. .........
$\$ 13.95$
16B103. Wood eutting blade. .39c i6Bio4. Mertal cutting blade..51c
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here is a safe and VERSATILE, HEAVY DUTY, FAST CUTTING POWER SAW FOR
EVERY KIND OF SAWING!
$\underset{\substack{\text { MFG. } \\ \text { LRITE } \\ \text { PRICE }}}{\$ 4.95} \mid \$ 05$

- Feotures powerful 6 Amp- $1 / 2$ H.P

Motor.

- Cuts all metals, from thinnest to
$1 / 2$-inch thick.
- Cuts up to $6 \times 6$ 's, with up to $4 \times 4$ 's
of $45^{\circ}$ ongle.


One saw performs the cutting lobs of many. Seven different blades furnished for cutting tile, bakelite, rubber, cardboard, wood and metal from thin to $1 / 2^{\prime \prime}$ thick. Conventional saw grip with finger control trigger switch makes for safe and fast operation. Cutting blade always remains in line of sight with air stream clearing dust from the line of cut. Beautifully balanced ond llght weight for hours of fatigue-free operation. All gears are heavy duty and hardened. Powerful $1 / 2$ H.P. motor has heavy duty roller oilite bearing for long life. Saw operates of 3400 strokes per minute, length of stroke $1^{\prime \prime}$ Comes complete with seven blades, rip guide, circle cutter ond $45^{\circ}$ tilting base plate. UL opproved. Size $71 / 2 \times 7 \times 8^{\prime \prime}$. For $110-120 \mathrm{~V}$ Wt. $81 / 4$ lbs. Wt. $81 / 4$ lbs.
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SAW TABLE FOR ABOVE. Converts in seconds for roble sow use. Complete with rip fence and protractor. Sturdy steel construc-
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- New extermal sights for fest-
- New prism-like optical sys-
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Has 11 blades to accomplish a multitude of indoor and outdoor functions. Consists of: large size knife blade, corkscrew, bottie opener and screwhriver blade, , eother punch, pruming blode, con opener, saw blade, scissors, fish-hook remover, and owl. Highly polished olloy steel with knurled bone wide $x 7 / 8^{\prime \prime}$ deep. Shpg. wt. $1 / 2$ b. ${ }^{3}{ }^{1 / 2}{ }^{2} 9$ No. 60A159. Net Each
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(1) Tubing Cutter Always needed tool for cutting coptubing up to $\mathrm{j}^{\prime \prime}$ dio. Ideal for refrigerotion work light plumbing, heoting, etc. Equlpped with hordened steel rollers and handy slide-lock reamer. Quality import.

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 "" 14" $3 /{ }^{\prime \prime}$ l $^{2}$ " and $1 / 2^{\prime \prime}$ with easy grip shockproof amber plastic handles. In handy plostic roll case. S3.59
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Mandiest liftle wire stripper we've seen. Small enough to fit in the shirt pocket, yet will accomplish those usually nosty
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shearing ease.
Fhearing ease. stranded wire from No. 6 to smallest. Colibration on handle assures proper adiustment. Hardened and ground
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$\$ 139$ 1200 FT.
$7^{\prime \prime}$ REEL.
1/2 MIL ACETATE EASE

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SUPER SPECIALL 1200 Ft . on $5^{\circ \prime}$ Recl, extro long-ploy $1 / 2$ MIL Mylor Bose Tape. Provides twice the normal recording time
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|  | $18 \mathrm{C433}$ | .44 -39 |  |  |  |
|  | 18 C 434 | .44 -39 | $18 \subset 42$ | \$. 59 |  |
|  | 18C435 | .44 .39 | $18 \mathrm{C443}$ | . 59 | . 52 |

## QUICK-FIND INDEX TO \$\$\$ SAVING B-A BARGAINS

| Amatour | Lamps, Panel |
| :---: | :---: |
| Amplifiers, Phono . . . . . . . . . . . 175 | Meters, Ponel |
| Antenno Accessories . . . 16 | Microphones |
| Assortments ....... . 164, 178, 179 | Motors |
| Bottery, Storage . . . . . . . . . . . . 163 | Phono Components . . . . . . . . 175 , 176 |
| Binding Posts . . . . . . . . . . . . . . . 173 | Pilot Lite Assemblies . . . . . . . . . 166 |
| Blowers . . . . . . . . . . 172.17170 | Plugs |
| Coble G Wire . . . . . . 172, 174, 177 | Power Supplies . . . . . . . . . . 162, 163 |
| Cortridges, Phono . . . . . . . 175 | Reloys |
| Chokes . . . . . . . . . . . . . . . 162, 166 | Resistor Kits |
|  | Sockets, Tube . . . . . . 166, 172, 179 |
| Condensers ..... 164, 165, 178, 179 | Solenoids . . . . . . . . . . . . . . ij $^{17}$ |
| Coil Form . . . . . . . . 161 |  |
| Connectors .....166, 172, 173, 177 | Switches $\ldots . . . .168,169,177,178$ |
| Cords, AC . . . . . . . . . . . . . 174 | Terminal Strips . . . . . . . . 173, 179 |
| Crystals . . . . . . . . . . . . . . . . . . 172 | Timers . . . . . . . . . . . . . . 169, 171 |
| Dynamotors ............. $17{ }^{\text {d }} 172$ | Transformers ....... 162, 163, 172 |
| Earphones $\cdots \cdots, \ldots . .172,173$ | Tubes . . . . . . . . . . . . 161, 165, 172 |
| Hardware, Assortments $174.178,179$ | Turntables . ${ }^{\text {Vorioble }}$ Condensers . . . . . . . . 175 |
| Hi Fi Components. . . . 174, 173, 174, 176 | Vorioble Condensers. . . . . . . . . . 167 |
| Keys, Code . . . . . . . . . . . . . . 172 | Wire . . . . . . . 174 , 177, 178, 179 |

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| Tube Type | $\begin{aligned} & \text { Sugge } \\ & \text { List } \end{aligned}$ | ed Net Eoch | $\begin{array}{r} 10 \\ \text { Asst. } \end{array}$ | $\begin{gathered} 25 \\ \text { Asst. } \end{gathered}$ | Tube Type | Sugges List | ted Net Eoch | $\begin{gathered} 10 \\ \text { Asst. } \end{gathered}$ | $\begin{gathered} 25 \\ \text { Asst. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \mathrm{K3}$ | \$2.90 | \$1.08 | \$0.99 | \$0.90 | $65.7 \mathrm{GT}^{\text {\% }}$ | \$3.75 | \$0.80 | \$0.72 | \$0.65 |
| 104 | 2.50 | . 39 | . 35 | . 29 | 6SL7GT | 3.50 | 1.08 | . 99 | 90 |
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| 354 | 2.65 | . 79 | . 71 | . 66 | 6W4: | 2.40 | . 70 | . 63 | . 57 |
| 5Y3GT*: | 1.75 | . 59 | . 55 | 49 | 6X4* | 1.65 | . 44 | . 40 | . 36 |
| 6AG5 | 2.75 | . 69 | . 63 | . 57 | 12AT7 | 3.05 | 1.08 | . 99 | . 90 |
| GAK5 | 4.20 | 1.10 | . 99 | 90 | 12AU7* | 2.45 | . 76 | . 69 | . 62 |
| 6AL5* | 1.85 | . 59 | . 55 | 49 | 12AV6 ${ }^{\text {\% }}$ | 1.65 | . 50 | . 45 | . 41 |
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| 6AU6* | 2.10 | . 60 | . 54 | . 49 | 12BA6* | 2.00 | . 54 | . 50 | . 45 |
| 6AV6* | 1.65 | . 57 | . 52 | . 47 | 128E6* | 2.15 | . 60 | . 54 | . 49 |
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Spec．$\$ \mathbf{~ E a} . .$. 130 V ．＠ 30 MA See．Topped for $2 \times 21 / 4$ Ctrs． $236, \ldots \mathrm{Wt} 11 \mathrm{l}$ ．
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Each． 25

SUPER VALUE！POWER SUPPLY KITS
PRICED LESS THAN YOU USUALLY PAY FOR THE TRANSFORMER ALONE！


250 V．DC， 50 MA
POWER TRANSFORMER－Rated 500 V．CT＠ 50 MA，6．3 V．＠ 2 amp 5 V．＠ 2 amps．Coded wire leads． pright mtg．Size 3 盟 $\times 21 / 4 \times 31 / 8^{\circ} \mathrm{H}$ ， FILTER CHOKE－4．5 hy，＠ 50 MA ． ELECTROLYTIC CONDENSER－Rated 20－20 mfd．＠ 450 volts．Twist－prong type．Slze $1 \times 3^{\prime \prime}$ ．Shpg．wt． 4 lbs.
No． 19 B 552 ．Complete Kit No．198552．Complete Kit S4． 98
with Schemotic．．．．．．．．．．．


300 V．DC， 90 MA
POWER TRANSFORMER－Rated 600 5．CT＠90 MA，6．3 V．＠ 3 mps 5 V．＠ 2 omps．Coded wire leods． Upright $m$ tg．Size $27 / 8 \times 31 / 4 \times 3 \mathrm{IV}^{7}{ }^{\prime \prime} \mathrm{H}$ FILTER CHOKE－ 10 Hy ．＠ 90 MA ． ELECTROLYTIC CONDENSER－Roted $20-20 \mathrm{mfd}$ ．＠ 450 volts．Twist－prong No．i9B553．Complete Kit． 55 lbs． with Schematic


335 V．DC， 120 MA POWER TRANSFORMER－Roted 670 $\mathrm{V} . \mathrm{CT} @ 120 \mathrm{MA}, 6.3 \mathrm{~V}$ ．＠ 3 amps ， 6.3 ．＠ 3 omps， 5 ．＠ 3 omps． Coded wire leods．Upright mtg．Size $27 / 8 \times 33 / 8 \times 31 / 2^{\prime \prime} \mathrm{H}$ 。
FILTER CHOKE－ 10 hy．＠ 120 MA ． $25 / 8 \times 2 \times 4^{\prime \prime}$ ．Mtg ctrs． $3 \mathrm{R}^{\prime \prime}$
ELECTROLYTIC CONDENSE ELECTROLYTIC CONDENSER－Rated 20－20 mfd．＠＠ 450 V ．Twist－prong type．Size $\times 3^{\prime \prime}$ ．Shpg．wt． 9 lbs． No．：Alse compiet kit S7．97


EXTRA HEAVY DUTY 300 V．DC 200 MA KIT REAL＂POWERHOUSE＂BUY AT BIG $\$ \$ \$$ SAVINGS

## HIGHEST CUALITY COMPONENTS THROUGHOUT－

 AT WAY BELOW THE USUAL COST！Provides DC output for transmitters，amplifiers，lab．and experimental devices． B－A buyers hove gone all out to beat rising components costs．They scored or buying an entire stock of matched transformers and chokes that were standard half－shell or govemment praduction．These high quality units are standard half－shell type，better hon normal becouse of more iron ond superior construction．Color coded $12^{\prime \prime}$ wire leads．Light grey enamel finish 1－POWER TRANSFORMER．Conservatively OF： 6.3 V．CT＠ 5 A， 5 V．CT＠ 3 A．Primory 117 V． 60 cy．AC．Compoct half－shell construction allows spoce saving installation．Size $31 / 2 \times 41 / 8 \times 41^{1}$ high．Extends only ${ }^{\text {B }}$＂above chassis．
—FILTER CHOKE，Rated 8 hy ，＠ 200 MA ．Also compact half－shell type Size $2^{21 / 2 \times 3 \times 25 / 8^{\prime \prime}}$ high．Extends $2^{\prime \prime}$ obove chassis．
DUAL FILTER CONDENSER．Twist－prong type electrolytic rated $10-10 \mathrm{mfd}$ ． ＠SO voits．
1－BLEEDER RESISTOR． 25,000 ohm， 20 watt．
Complete with wiring instructions．Shpg．wt． 10 lbs. No． 3 B158．SPECIAL NET
$\$ 8.88$

FILTER CHOKES AT TREMENDOUS SAVINGS

（1）


（1） 4.5 HY ．， 50 MA ．DC resistance 300 （1） 6 HY ．， 100 MA ．DC resistunce 200 ohms．Strop mtg．bose．Size $1\left\{\begin{array}{l} \\ \hline 13 / 8^{\prime \prime} \\ \text { ohms．Strop } m \text { tg．type．Size } 21^{\prime} \times 2^{\prime \prime}\end{array}\right.$ $H$ ．with $2^{\prime \prime}$ mtg．ctrs．Wt． 1 Ib，Reg． net value $\$ 1.30$ net value $\$ 1.30$

79
（2） 8 HY 75 MA ．DC resistance 290 ohms．Ưniv．mtg．type．Size 2 琞＂$x$ $13 / 4{ }^{\prime \prime} \times 2$ 有＂H．Wt． 1 lb stancor C－1355．Reg．$\$ 2.60$.
No．13A593．Speciol Each．$\$ 1.29$ H．with $218^{\prime \prime} \mathrm{mtg}$ ．ctrs．Wt． $1 / 2$ lbs． Reg．net value $\$ 3.00$ ． 13 A 461 ．Special Each 1.59 （1） $7 \mathrm{HY}, 150 \mathrm{MA}, \mathrm{DC}$ resistance 200 ohms．Strop mtg．type．Size $4 \times 21 / 4 x$ $25 / \mathrm{s}^{\prime \prime} \mathrm{H}$ ．with 3 ．${ }^{\prime \prime} \mathrm{mtg}$ ．ctrs．Wt． 2 lbs．Reg，net value over $\$ 3.50$ No．13A239．
Special Eoch ．．．．．．．．．． 2.39
（3）SUPER VALUE！HEAVY DUTY 8 HY． 200 MA DC resistance 120 ohms．Half－shell mtg．Size only $3 \times 21 / 2 \times 23 / 4^{\prime \prime} \mathrm{H}$ ．Reg． net ot least $\$ 5.50$ ．Wt． 3 lbs． No．3Blo4．Special Eoch
\＄2．49

## EXTRA HEAVY DUTY

 FILTER CHOKE

4．5 HY． 260 MA
Exceptianal valuel Popular upright mtg．style．DC resistance 80 ohms Size $31 / 4 \times 31 / 4 \times 37 / 8^{\prime \prime} \mathrm{H}^{2}$ Wt． $41 / 4 \mathrm{lbs}$ ． Would regulorly cost of least $\$ 6.75$ ． No． $13 A 527$.
Special Each Special Each Special Eoch．．

S2．99

BARGAIN SPECIAL！ AC－DC FILTER CHOKES


5495

Twa completely isalated windings， 110 V ．and 117 V ．Eliminates shock hoz－ ard in testing and servicing AC－DC equipment．Can also be used os 117 $\checkmark$ ．power transformer roted at 350 MA for $1 / 2$ wave selenium rectifler circuits． $9^{1 / 2}$ wire leads． $23 / 421 / 2 \times 21 /{ }^{\prime \prime}$ Mig ctrs． $31 / \mathrm{g}^{\prime \prime}$ Wt． $13 / 4 \mathrm{lbs}$ ． $\begin{array}{ll}13 \text { B463．} \$ 2^{79} & 10 \text { Lots，} \$ 265 \\ \text { Special Each．}\end{array}$

AMAZING SAVINGI REGULAR
VALUE OVER $\$ 1.50$ EA Popular type same as used in hun－ dieds of $A C-D C$ radios anc ampli－ Strap mtg ．size $15 / 8 \times 11 / 8 \times 11 / 8^{\circ} \mathrm{H}$ ． No．18C222．
Special Eo．．
S． ${ }^{5}$ For $\$ 1.95$

FILAMENT TRANSFORMERS AT BIG SAVINGS!

(1) 6.3 V . @ 1 A .


ALL HAVE 117 V. 60 CY. AC PRIMARIES SINGLE SECONDARY
(1) 6.3 V .@ 1 AMP ${ }^{(1)} 6.3 \mathrm{~V}$. @ 2 AMPS
 No. 134498 . Speciol Eoch 990 Wt. 116.18 B 297 . Speciol Each. 51.39
 Wr. $11 / 4 \mathrm{lbs}$. Wo. 18 C 644 . Special Eoch \$1-24 Size $2 \times 31 / 4 \times 13 / 4^{\prime \prime}$ with 2 2 ${ }^{\prime \prime}$ Wt. 2 lbs.
Wt. 2 lbs.
No. 134243 . Special Each. $\$ 1.99$ Beautifully made, fuliy @ 5 Amps Beoutifully mode, fully encased, in
shiny black finish. Also may be used os power tronsformer with odditional
120 V .@ 30 MA sec . Size $21 / 4 \mathrm{x}$ $120 \vee{ }^{2}$ @ 30 MA sec. . Size $21 / 4 \times$. $23{ }^{2} \times 23 / 4^{\prime \prime} H$. ${ }^{\text {Hith }}$ No. 13A427. Special Each 5239 Solder lugs. Wt. I lb.
No. 18 B 140 . Special Eoch. 51.59 2500 volts ${ }^{(1)} \mathbf{5}$ V. @ 2 AMP
 ind 2500 (1) $\mathbf{5}$ V. @ 6 AMP 2500 volt test insulation. Size $21 / 4 \times$ lifs. $7 / 8$ with $31 / 8$ mig. ctrs. Wt. 9 dUAL SECONDARY
(1) 6.3 V . @ 5 A. G 6.3 V @ 2 A.

Fully encosed. Size $21 / 2 \times 233 / 4 \times 3^{\prime \prime \prime} H$. with $31 /{ }^{\prime \prime}$ mig. ctrs. Shpg. wt. $21 / 2$ libs. Worth at least $\$ 5.00$.
No. 13B464. Speciol Each. 59
HEAVY DUTY 24 VOLT FILAMENT
TRANSFORMER
 Converts 24 valt AC equipment for
operation on 110 V . AC. Ideal for operars, relays, rectifier power supplies, etc. Handles continuous duty loads up $31 / 8$ mtg. ctrs. Shpg. wi. $11 / 2$ lbs. 186637 . $\$ 179$ Each. 10 Lots, $\$ 155$
Spec., Eoch. 15 18 C 637. Eoch. 179 Each..i
Spec., MIDGET 24-VOLT TRANSFORMER

(3) 6.3 V . © 2 A 624 V . @ $3 / 4 \mathrm{~A}$ Fully. encosed. $21 / 4 \times 21 / 4 \times 3^{1 /} \mathrm{H}$. with
$23 / 4$ mtg. ctrs. 24 V . winding sup$23 / 4$ mtg. ctrs. 24 V . winding supplies up to 2 amps for intermity
service. Wt. $11 / 2$ lbs.
No. $13 A 423$. Special Each.

### 2.5 VOLT FILAMENT <br> FOR 866A's


2.5 V. CT 10 a 10,000 y. Insulation. ceromic pitlor sealedinals. $3 \times 4$ oil-filied with H. Wt. 8 lbs.


UTILITY 20-24 VOLT

## TRANSFORMER



115 V .60 cy AC primary. Hondy universal low voltoge AC supply for bells, chimes, furnoce thermostot circuits, industrial controls, relays, etc. Makes excellent power source for DC devices when used with selenium rectifier. Made for continuous duty. On stondard AC outlet box cover, eosily removed for chossis mounting. $21 / 4 x$

Fully encosed, continuous duty type Use for powering signal devices such os bells and buzzers, supplying ete Roted .3 amps with fully isolated 115 V .60 cy . AC primary. Size $1 \%{ }^{\prime \prime}$ H. x $11 / 2^{\prime \prime}$ W. $2^{\prime \prime \prime} \mathrm{mtg}$ i ctrs.
188506 io Lots, 898
Speciol Eoch 855 Eoch...

AT LEAST A $\$ 7.50$ VALUE

## SAVE 20 VO ULLY 110

FINE FOR POWERING SMALL RECEIVERS, PREAMPS, TEST GEAR, BIAS SUPPLIES O ALC
SORTS EXPERIMENTAL DEVICES


With silicon diade rectifier for coat operation and instant voltage output. Fully filtered DC, fine for powering small receivers, preamps, test gear, bias supplies, experimental devices of alt sorts. Also has 6.3 volt e 1 amp nonisolated fllament winding. Power transformer size $2{ }^{\circ} \times 21 / 8 \times 17 / 8^{\prime \prime} \mathrm{H} ; 4.5$
 $\times 2^{\prime \prime} ; ~$
No. 3 Alo8. Complete Kit, Special Each.

## MIDGET FILAMENT

 TRANSFORMER

69c
Each, 10 Lots
6.3 V. @ .75 Amp. 117 V. 60 cy AC primary. Fine for equipment using 1 or 2 tubes. Only $15 / 8 \times 11 / 8 x$
 No. 188135,798 Each... 698
Speciol Each TRIPLE SECONDARY Filament TRANSFORMER


Three Sccondories: 6.3 V .@ 5 Amp 5 V . @ 2 Amp and 5 V @ 2 Amp. 117 V .60 cy . AC primary. A whole lot of transformer with many experimental possibilities. Windings con be poralleled for higher current or connected in series for higher voltage. Versatite universal mig. above or below chassis or vertical upright. $21 / 2$ $\times 31 / 4 \times 3^{\prime \prime}$. Wt. 3 los. $\$ 3.49$

## OUTPUT TRANSFORMERS



For 50L6, 25L6, 35L6 etc. to 3-4 ohm $18 . \mathrm{Cl}^{2} \mathrm{mtg}$. etrs. $\times 11 / 4 \mathrm{H}$. 184888 . 59 ech 10 Lots, 498
Epechal Eoch For single 6 V6 to 4 ohm V.C. Mig. ctrs. $23 / 4$
18 B 1072.
Special Each $796{ }^{10 \text { Lots, }}$ Eoch... 96 For push pull 6 V6 to $3-4$ ohm V.C 18 As 19 .
Special Eoch
10 Lots, 895
Eoch... Special EOch
SUB-MINIATURE

## AUDIO TRANSFORMERS

$\sqrt{6}+\mathbb{C} \begin{gathered}\text { REG. NET } \\ \text { VALUES } \\ \text { OVER } \\ \$ 3.00\end{gathered}$
High ond low impedonce windings, 100
for 100,000 ohms, forms ond over ohms and over coupling dynamic earsets to amplifier coupling dynamic earsets to ampltier or rodio output, or for morching to am plifier tutbe grid. Truly tiny, $3 / 4 \times 5 / 8 \times$ plifier tube grid. Truly tiny, $3 / 4 \times 5 / 8 \times$ No. 18 B658. 39 E 10 Lots, 298 VARIABLE-ISOLATION TRANSFORMER
PRIMARY ANO SECONDARY COMPLETELY ISOLATEO


## YOU SAVE SSS ON TMESE SPECIAL RGAIIS

## TRANSFORMERS

## ALL ARE

 BRAND MEW: FULLY GUARANTEED!
## 12 VOLT VIBRATOR

 POWER TRANSFORMER FANTASTIC GIVE AWAY PRICE

135 V. DC @ 118 MA. Fully cosed hermetically sealed. Solder terminals $23 / 8 \times 27 / 8 \times 213^{\prime \prime} \mathrm{H}$. W8. 3 lbs right. $21 / 2 \times 2 \frac{1 / 4}{} \times 31 / 8^{\prime \prime}$. Wt. 3 lbs.
No. $13 A 767$.
Speciol Each
69c

## INTERSTAGE <br> TRANSFORMER <br> AS USED IN CODE OSCILLATORS <br> 

Single Plate to Single Grid
Popular 3 to 1 audio as used in practically all tronsformer coupled audioamplifiers and code practice oscil lotors. 10,000 ohm priman Works into single, Closs A grids. Size $13 / 4 \times$ $11 / 4 \times 1=/ \mathrm{m}^{\prime \prime} \mathrm{H}$. with $2^{\prime \prime} \mathrm{mtg}$. ctrs.
Shipg. wr.


## Single Button CARBON

MIKE TRANSFORMER


Miniature, fully encased with conven: ient mounting flanges. Size only $7 / \mathrm{B}^{\prime \prime}$ dia. $\times 13 / 4^{\prime \prime}$ long. Primary 100 ohms. Secondary 125,000 ohms. Priced at a fraction of its original cost.


## 2 VOLT STORAGE BATTERY

Delivers 150 Wotts at 115 V. from 90
250 V . Source. ment to $230-250$ volt $50-60 \mathrm{cy}$. AC supply, or as on odiustable power source for testing, experimenting, etc. Has separate primory and secondary, 6 position primary tap switch, $64 \%$
cord and plug. Mig. ctrs. $3 \times 31 / 4 \%$ cord and plug. Mig. ctrs. $3 \times 31 / 4$ Shpg, wt. 9 lbs.
No. $13 A 542$. Special Each $S 7.95$

WILLARD
24 AMP HOUR


WORTH
AT LOUBLE
In cear plastic case $2 \times 2 \times 61 / 2^{\prime \prime} \mathrm{H}$. Built-in charge indicotor. Serew ternis. Shipped dry. Requires regulor bottery ocid. Wt. 3 libs.
No. 4A83.
No.
53.95

## YOU SAVE SSS  BEIISS <br> CONDENSERS <br> ALL ARE BRAMD MEW！ FULLY GUARANTEED！



## CONDENSERS AT LOWEST PRICES EVER！ B－A SPECIAL PURCHASE OF BRAND NEW CAPACITORS DIRECT FROM ORIGINAL PRODUCERS MAKES POSSIBLE THESE FANTASTIC SAVINGS！

 GENERATOR FILTER
.5 Mfd．＠ 250 Volts for auto radios．

TV HIGH－VOLTAGE CERAMIC CAPACITORS
500 MMFD．＠20，000 VOLTS
Centralab Hi－Vo Kap standare TV replacement type olso ideal as coupling condenser in shunt female threaded terminals．Reg，net \＄1．02．



## EPOXY COATED TRANSISTOR MYLARS



Stk．No．Mfd． $\begin{array}{ll}184342 & .01 \\ 18 A 343 & .05\end{array}$

Finest quality midget size condensers designed specifically for transistor and other circuits where highly stoble，re－
liable service is reauired．Oval shape with high insulatlon resistant Mylar
dielectric and moisture tight Epoxy
REG．NET OYER $\begin{array}{lrlllll}\text { Each } & 10 @ \text { Eo．Stk．No．Mfd．} & \text { Each } & 10 @ \text { Ea．} \\ \$ 0.24 & \$ 0.19 & 18 A 344 & 1 & .35 & -29\end{array}$ MITE SIZE DISC CERAMICS


MOLDED TUBULARS
Plastic impregnated to withstand high temperatures enceuntered in Rodio，TV and other common elec－ tronic circuits．Rugged and com－ poct，highly stable．A premium quality copacitor for ：ervice re－ placement ond construction．


## HIGH VOLTAGE GENERAL PURPOSE DISC CERAMIC CAPACITORS


you，at far less than you normally pay for Here ore finest qual－ recomm voltage discs recommended for in
dustrials，TV service etc．wherever disc

3000 W．V．DC
Tolerance 4.7 to $60 \mathrm{mmfd} \pm 10 \%$ ． 68 to $1000 \mathrm{mmfd} \pm 20 \%$ ；Specify Stock No．ond Mmfd when ordering．

|  |  |  |
| :---: | :---: | :---: |
| No．18A56．Regular 24c Net Value． <br>  |  |  |
| 5000 W．V．DC Tolerance：$\pm 20 \%$ ．Specify Stock No． and Mmfd when ordering． |  |  |
| Mmfd．Dio． | Mmfd．Dio | Mmfd．Dio |
| $\begin{array}{ll} \hline 4.7 & 3 / 8 \\ 10 & 3 / 8 \\ 22 & 8 \end{array}$ | $\begin{array}{ll} 47 \\ 100 & 3 / 8 \\ 220 \end{array}$ | $\begin{array}{ll}330 \\ 470 & \text { 迷 } \\ \\ \text { 3／4 }\end{array}$ |

Tolerance： 4.7 to $100 \mathrm{mmfd} \pm 10 \%$ ： 150 to $1000 \mathrm{mmfd}+20 \%$ ． 1200 to and $M_{m f d}$ when ordering．

| Mmfd．Dia． | Mmfo | Dio． | Mmfd．Dia． |  |
| :---: | :---: | :---: | :---: | :---: |
| 4.7 3／8 | 47 | 18 | 390 | 3／8 |
| 6.8 3／8 | 56 |  | 470 | \％ |
| 10 3／8 | 62 |  | 680 |  |
| 12 3 | 68 |  | 1000 |  |
| 15 3／8 | 82 | 1. | 1200 |  |
| 18 年 | 150 | 者 | 1500 |  |
| 20 3／8 | 180 | 38 | 2000 |  |
| 22 3／8 | 220 | 3 | 2200 | ${ }^{1}$ |
| 33 3／8 | 330 | \％／8 | 3300 | 18 | No．18A54．Regular 18 c Net Valuc．

Choice 10 Eoch9 $9550 \& 88$
Eoch 10 Eoch 88

2000 W．V．DC
Tolerance： 4.7 to $82 \mathrm{mmfd} \pm 10 \%$ ； Stock No．and Mmfd when ordering． Stock No．and Mmfd when ordering．
Mmfd．Dio Mmfd．Dia Mmfd．Dio



## TUBULAR ELECTROLYTICS

Finest quality compact tubular capocitors hermetically sealed in aluminum container with phapes shown are metal-cased, have cardboard sleeves, vinyl insulated leads and common negative.

|  |  | 주웅ㅈㅇㅇㅇㅇ |  | \% | \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ancin |  | ${ }_{8}^{\text {¢ }}$ |
|  |  |  |  |  | 류융 |
| \% А¢ \% \% \% \% |  | ¢ |  | $\bigcirc 8$ | \% |
|  | АА |  | \%\% | \% | 彦 ${ }^{\text {¢ }}$ |
|  |  |  | \%్ల్ర |  | $\begin{aligned} & \text { mon } \\ & \text { Co } \end{aligned}$ |



450 w. V. DC

| Mfd. | Size | Stock No. | Each | $\begin{aligned} & 10- \\ & 49 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 50 \text { or } \\ & \text { Over } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | \% 61 | 18846 | 36c | 32 c | 29c |
| 2 | \% 11 | 184847 | 43c | 39c | 35 c |
| 4 | \%x17 | 18A848 | 45c | 41 c | 37c |
| 10 | \%x1\% | 188465 | 49c | 44 c | 39c |
| 12 | $4{ }^{4} 1+$ | 18A849 | 54 c | 49c | 44c |
| 30 | $1 \times 2 \%$ | 18B470 | 59c | 54c | 49c |
| 60 | $1 \mathrm{x} 3^{\text {c }}$ | 18A851 | 75 c | 69c | 63 c |
| 100 | 1 4120 | 18B471 | 1.29 | 1.19 | 1.09 |
| 8-8 | $1 \mathrm{x} 1^{\prime \prime}$ | $18 \mathrm{C4} 72$ | 59c | 55c | 49 |
| $\begin{gathered} 10-10- \\ 10 \end{gathered}$ | $1 \mathrm{x} 21 \mathrm{C}^{\prime \prime}$ | 18A855 | 95 c | 88 c | 80 c |

## SUB-MINIATURE

 ELECTROLYTICSFOR TRANSISTOR RADIOS, HEARING AIDS, ETC.
Ultra-small, hermetically sealed in metal contain-
in length. Specify Both Stock Number and Ca
pacity when ardering
6 W.V. DC Stk. No. 18432
Reguor Net Values 75 c to 90 c

| Mfd. Each | $\begin{aligned} & 100 @ \\ & \text { Eoch } \end{aligned}$ | Mfd. | Each | $10 @$ | Mfd. Eoch | $\begin{aligned} & 10 @ \\ & \text { Each } \end{aligned}$ | Mfd. | Each | $\begin{aligned} & 10 @ \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$.59 | \$.49 | 25 | \$.59 | \$.49 | 10.59 | . 49 | 50 | . 69 | . 59 |
| $2 \quad .59$ | . 49 | 50 | . 65 | . 55 | $30 \quad .62$ | . 52 | 100 | . 69 | 59 |
| $8 \quad .59$ | . 49 | 100 | 69 | . 59 | 25 W.V. DC Stk. No. 18436 Reguar Net Values 75 c to $\$ 1.26$ |  |  |  |  |
| 10 W.V. DC Stk. No. 18433 Reguar Net Values 81 c to $\$ 1.02$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | . 59 | . 49 | 25 | . 69 | 59 |
| 10.59 | . 49 | 50 | . 69 | . 59 | 59 | . 49 | 50 | . 69 | . 59 |
| $25 \quad .62$ | . 52 | 100 | . 69 | . 59 | $10 \quad .59$ | . 49 | 100 | . 73 | . 63 |
| 12 W.V. DC Stk. No. 18 A34 Reguar Net Values 75 c to $\$ 1.05$ |  |  |  |  | 50 W.V. DC Stk. No. 18 A37 Reguar Net Values 78 c to $\$ 1.11$. |  |  |  |  |
| 1.59 | . 49 | 50 | . 69 | . 59 | . 65 | . 55 | 20 | . 69 | 59 |
| . 62 | . 52 | 100 | . 69 | . 59 | 10.65 | . 55 | 50 | . 71 |  |

## BATH TUB CAPACITOR

SUE-MIDGET TUBULARS

. 5 Mfd. 400 V. DC. Size $13 / 4 \times 1 \times 7 / 8^{\prime \prime}$
No. 18B198. 910 Lots, 25 Asst. most populor capacities No. 18B198. $195 \quad 10$ Lots, 156
Spechial, Each 19 RCA 2021
Thyratron Control Tube

## 

Minioture 7 pin high-sensitivity tube commoniy used in control circuits remote control devices. Operates direct from photo cell output. Heater rect from .phoio cell output. Heat 6.3 . Fully guaronteed. No. 70A28. 70 Lots, 59
 No. 18B330. 25 Asst.. .........49c OD3/VR150 Voltage Regulator Tube


Mointoins constont 150 volts DC in power supplies. Can also be used as a relaxation osclllator. All brond new ond perfect. Fully gwaranteed.

TWIST PRONG
ELECTROLYTICS
AS LOW AS VALUES 39c

## FAMOUS BRANDSI

140 Mfd . @ 150 V . Size $11 / 8 \times 33 / 4^{\prime \prime}$ List Value
Each..... 49 Each...4, 4 (1/2
$30-30$ Mid. @ 150 v. Size
 $20-20 \mathrm{Mfd}$. @ 350 V . Size $11 / 8 \times 2^{\prime \prime}$. List Value $\$ 2.90$
$18 \mathrm{C655}$. 49 Each.... 10 Lots, 44 E 80-10 Mifd. @ 450 voch... $11 / 9 \times 3^{\prime \prime}$ List $\$ 3.60$. 69 Each. 10 Lots, 59 E
184788. 40-40/10 Mifd.@ $450 / 25^{\circ}$ V. Size $138 \times 3$.
184369.
Eoch....... 896 Eoch... 79 5140 MFD. AT 300 V ELECTROLYTIC


Perfect for filtering low voltage power supplies, or for cothode by-pass. Highest quallty hermetically sealed.
Plug into standord octal sockets. Plug into standard octal sockets.
Popular size for general purpose filrering, for plate, screen and bias supplies, etc. Encased in compact mefal brocket.
No. 18 B 787 . 98
10 Lots, 291 00 Mfd.@ 50 V. Size $13 / 8 \times 3$
 2000 Mfd . (c) 15 Y . Size $13 / 6 \times 41 / 4^{\prime \prime}$ List $\$ 3.45$.
$18 A 517$. Eo. 48 Each... 10 Lots, M-VOLTAGE OML-FILLED CONDENSERS

## TREMENDOUS $\$ \$ \$$ SAVINES

FROM REGULAR WHOLESALE!

- BRAND NEWI © FULLY GUARANTEED


Hermetically seoled in metal cans. Fig. (1) is rectangular with ceramic piliar insulated terminals. Fig. (2) rectangular with insulated lug terminals.

$18 \mathrm{~B} 196 \quad 10 \quad 57 / 8 \quad 33 / 4 \quad 600$ VOLTS DC $\quad$ GE $\% \quad \$ 9.09 \quad \$ 1.39$ $\begin{array}{ll}51 / 8 & 33 / 4 \\ 41 / 2 & 35\end{array}$
174996
174991
18 B 301

| $51 / 4$ | 118 |
| :--- | :--- |
| $51 / 2$ | $21 / 2$ |
| $43 / 4$ | $33 / 4$ |

$\begin{array}{lll}1 / 4 & 1 / 2 & \text { (3) } \\ 1000 & \text { VOLTS } & \text { DC } \\ 11 / 8 & 33 / 4 & 8 \\ 11 / 8 & 3 / 4 & 8\end{array}$
Sprogue ${ }^{*}+$
$\$ 9.09$ \$ 1.39
Top Brand
Too Brand $6.27 \quad .99$
$\begin{array}{lll}\text { Industriol: } & 6.25 & 1.39 \\ \text { Top Brand: } & 9.09 & \mathbf{2 . 7 9}\end{array}$
188825
$21 / 2$
Aerovox 10.08
1.39

5000 VOLT FILTER CONDENSERS HIGH CAPACITY-SMALL SIZE

## $\$ 495$ <br> similar rated <br> UNITS COST OVER $\$ 35.00$

New production surplus from moder space age projects. Very small size or voltoge and capacity roting. Idea high capacity filter for HV supply on near RF power omplifiers. Case only $21 / 4 \times 27 / 8 \times 49^{\circ \prime \prime}$ H. overall. With spoce saving insulated terminal. Exact capacity stamped on each. Guaranteed perrect. Shpg. wt. ${ }^{2}$ b. 95 18A649. 3.6 Mid. 5000 V...... 56.85 o. 18 C335. Spceial Each. . 60 18A180. 6.7 Mfd. 5000 V... . S6.
8-8-8-8 Mfd. 600 V. DC. FILTER CONDENSER

Highest quality Cornell Dubilier, on filled type. Especially sulted for transmitters, amplifiers, laboratory and dependability in service is of prime importance. Has 5 lug terminals with common negative, all insulated from 10.

No. 18 E119.
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## GUE-AWAY VARUE!

 AEROVOX1 MFD@3000 VOLTS OIL-FILLED CONDENSER


- Ceromic Pillar Insulating Terminals. - Mounting Bracket Included.

Never, never before a capacitor deal to equal. Genuine Aerovox Type 3009 use with mounting brocket included. use with mounting brocket included. Size $47 / 9^{\prime \prime} \mathrm{H}_{2} \times 33 / 4^{\prime \prime} \mathrm{W} . \times 21 / 4^{\prime}$,

McGee.St., Kansas City 6, Mo.

## m <br> YOU SAVE SSS on these spicial

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CHASSIS MOUNTING AC SOCKETS


Fits standard $A C$ plugs. Fine for repairs or new construction. Maunts in If "x $3 / 4$ " hole. Mitg. ctrs. 1 1/8 No. 18 B26.
Spec. Each.
26 Lots, 10
Each. 10 With 8-Inch Wire Leads No. 18 A351.
Spec. Eoch.. $4 C \underset{~ E a c h . . . ~}{10}$ Lots,

TWO-WIRE
JIFFY CONNECTOR


Handiest ever for quickly ottoching and removing speaker leods, AC leads to turntable motor, for elecrical and electronic devices around the outo shop, etc. Consists of top quality black bakelite 2 conductor male ond female polarized plugs each with 15 " stranded size, 18 leads ottached.
 2-WIRE Midget AC LINE CONNECTOR SET

## C ${ }^{0.0}$

Perfect and hondy for extending AC cords, speoker leads, etc. Smal brown bakelite. Makes sturdy, posi No. $17 A 75$
Per Set $24 S$
5 Sets 8 UL $18 / 2$ PARALLEL CORD Extro flexible brown all rubber poral el cord. Bargain pred
 PIGTAIL LEAD
PILOT LAMP SOCKETS BARGAIN PRICED


Fully insulated, with mefal mounting clip and attoched insulated stranded lead for easy connection. Fine for repoirs, builders and experimenters. For Miniature Bayonet Lamps $8^{\prime \prime}$ wire leads.

For Candelabra Serew Base Lamps (S6) $24^{\prime \prime}$ wire leods. 10 Lots, 15
No. 18 A 110 .


SAVE ON THESE ALWAYS NEEDED TUBE SOCKETS ALL ARE TOP BRAND, FINEST QUALITY, AT LOWEST PRICES ANYWHERE


MANY PRICED BELOW MANUFACTURER'S REGULAR OEM COST

| Stock No. | Fig. | Pin | Insul. | Mitg. Hole | Mtg. Ctr. | Each | $\begin{gathered} 10 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 100 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} \text { Stock } \\ \text { No. } \end{gathered}$ | Fig. | Pin | Insul. | Mitg. Hole | Mtg. Ctr. | Each | $\begin{gathered} 10 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 100 \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 188668 | 1 | Octal | Bakelite | 1 18* |  | :12 | 11 | . 09 | 17870 | 5 | 7 Min . | Ceramic | $5{ }^{3 /}$ | 7/8* | . 23 | . 20 | . 15 |
| 18C210 | 2 | Octal | Bakelite | 14\% | 11/2* | . 08 | . 07 | . 06 | 18C894 | 4 | ${ }^{9} \mathrm{Min}$. | Bakelite |  | 14\% | . 11 | . 10 | . 08 |
| 188159 | 2 | Octal | Mica | 11/8" | 11/2" | . 11 | . 10 | . 07 | 18B456 | 4 | 9 Min. | Mica |  | 11/" | . 12 | . 11 | . 09 |
| 188677 | 3 | Octal | Bakelite | 1H" | 13/8" | . 15 | . 14 | . 12 | 188652 | 5 | 9 Min . | Mica |  | $11 /$ | . 19 | . 17 | . 12 |
| 18A832 | 3 | Octal | Ceramic | 1** | 13/0 | . 29 | . 24 | . 15 | 18B487 | 5 | 9 Min . | Ceramic | $8 \times$ | 11/8 | . 28 | . 24 | . 18 |
| 18C893 | 4 | 7 Min | Bakelite | "伯" | 70 | . 08 | . 07 | . 05 | 18A1083 | 6 | 7 Min. | Wafer |  |  | . 07 | . 04 | . 03 |
| 18C639 | 4 | 7 Min | Ceramic | ${ }^{3 / 8}$ | 7/8" | . 12 | . 10 | . 08 | 18B455 | 6 | 9 Min . | Wafer |  | 13/3 | . 08 | . 06 | . 05 |
| 18B653 | 5 | 7 Min. | Mica | $8 / 8{ }^{\prime \prime}$ | 7复" | . 14 | . 12 | . 08 |  |  |  |  |  |  |  |  |  |

MINIATURE SOCKETS
With SNAP-ON SHIELDS


Low loss isolontite ceramic with shield base and snap-on plated metal shield with hold-down spring. 7-pin shield 7-Pin Socket $G$ Sticld. Reg. Net $44 c$ No. 178273
Net Each. 29
10 Lats 24 9-Pin Socket 6 Shield. Reg. Net 44 c LOOK AT THIS SAVING! RF CHOKE


RATED 21/2 MH 125 MA
Popular four pie type for use in high frequency circuits of receivers and R50 and Rio0. Small size, only $\quad x$ "1," dia. with axial leads. Humidity proof vornish impregnoted.
No. 18 B 42.31510 Lots, 271
Net Eoch. . 31


DOUBLE SLUG TUNED 456 KC MIDGET IF regular
$\underset{\substack{\text { SULLER } \\ \text { VALUE }}}{ }$ Each, 10 Lots

OCTAL PLUG AND SOCKET SET


39 c .
Most popular combination for power cobles, speakers, remote control etc Highest quality standard octal 8prong, black bakelite plug with snapbakelite socket with removoble mounting plote. Reg. net 56 c .


> GLAZED STEATITE


35/8" long, 5/8" diometer. Copper elecroplated end caps with heavy layer of nickel. Body corrugated to provide ong leakage path. Withstand endpull of several hundred pounds.
deal for any anterna. Shpg. wt
No. 18B167. 39e 10 Lots, 33 E


PRICE \$2.18!

SUB-MINIATURE TUBE \& TRANSISTOR SOCKET


Accommodotes 4 and 5 -pin sub-mincoture tubes, also most transistors. No. 17 B250.
Net Each. . 10 Lots, 128
$E a c h . . .15$ Net Each 100 Lots Each............ 11 c
 BARE COPPERWELD ANTENNA WIRE


Has many times the strength of ordiHas many times the strength of ordisag. ldeol where long lines stretch or ed. Electrical properties some a needper of high frequency. Wt 3 lbs
No. 2B24. Size 18
$\$ 1.88$

COAX CABLE CONNECTORS FOR RG-11U AND 8U


Only $7 / 8^{\prime \prime}$ square $x 1$ 18" high. Uni-
No. 164717
Noch
No.
49c ${ }^{\text {toch }}$ lots 39 c
BIG SAVINGS
TYPE 47 PANEL LAMPS
fine fualty impont io
G-E NEON LAMPS
LIKE NE51 AND NE2


Operates on 115 V . AC-DC with external $200,000 \mathrm{ohm}$ resistor. Fine for pilot light, neon audio level indicator, RF indicotor, oudic oscillotors, etc. Fits std. min. bayonet base sockets. No. 18A831.
Spec. Each. 5 F 10 For. 1.29

PG259A cable end for Ris8U or RGo plus the handy ancle con usual cost at less by for than the Gov't cost of one alone. Mode to New specs. and silver plofed. silver tornish which in no way harms the usability.


## 12-INCH LENGTHS

## POLYSTYRENE TUBING

Transparent and colorless. Urexcelled for high frequency insulation, coil forms etc., because of its very low loss foctor. Also popular in hobby
work. $12^{\prime \prime}$ lengths. $3 / 4^{\prime \prime}$ O.D. $16^{\prime \prime}$ I.D.
No. 174877.
Pkg. of 8 .
99c
PILOT LITE ASSEmbliIES REG. NET VALUES AT LEAST 90c EA.

MBDGET VARIABLES AT GIVE-AWAY PRICES!

"APC" SCREWDRIVER ADJUSTMENT TYPE


## JOHNSON SUB-MIDGET

JUST RIGHT FOR HAM \& CITIZENS BAND EQUIPMENT
SMALLEST VARIABLE EVER BUILT,


REC. NET VALUE $\$ 1.18$

Ronge 2.3-14.2 mmfd. Size only $5 /$ $\times 3 / 4^{\prime \prime} \times 1 \mathrm{bj}{ }^{\prime \prime}$ deep. T3", dia. slotted shoft extends $1 / 4^{\prime \prime}$ from ${ }^{3}{ }^{3} 3^{\prime \prime}$ " bushing, mounts in $1 / 4$ hole. Berylium copper rotor 750 V . RMS. Type $160-107-14$, roting No. 188424.
Spec., Each. 695
10 Lots, 836

206 MMF-15 MMF TRANSMITTING VARIABLE


DEPENDABLE CARDWELL
Type MO-165-BE. Hos 25 aluminum plates $.050^{\prime \prime}$ air gop. Optional shaft lock. Mycalex insulation, $1 / 4^{\prime \prime}$ dia. $x$ $x^{18} 21 / 4^{\prime \prime} \mathrm{H}^{\text {. Less than }} 1 / 3$ monufoc: No. 178316 . Net Each. \$1.69

## 114 MMF-20 MMF FOR 20 THRU 80 METER HAM

 TRANSMITTERS, ANTENNA TUNING, ETC.

Terrific sovings on a really top qual27 varioble. Sturdy oluminum frame, ceramic insulation, ball thrust bearing, pasitlve wiping rotor contoct, standard $1 / 4^{\prime \prime}$ shaft. Size $31 / 4^{\prime \prime}$

$\$ 1.39$

## VELVET SMOOTH VERNIER DIALS



Planetory drive, surface mounting type for $1 / /^{\prime \prime}$ shaft. Ratio, approx. 8 brushed "German-silver" finish with occurate, easy-to-read deep-etched blackfilled morkings. Reads 0 to 100 in $180^{\circ}$, counter clockwise. All internal parts of brass and spring bronze. Knob and housing molded black phe: nolle. A truly fine quality imported product. Fully guaranteed.

No. 17 C269. $11 / 2^{\prime \prime}$ (36 MM) diameter. Special
Eoch
N1. $\mathbf{S}^{4}$ Lots 51.29 No. 17C274. ${ }^{2 \prime}$ (50MM) diameter.
Special $51.59{ }^{4}$ Lots 81.39

No. 17C272. $3^{\prime \prime}(70 \mathrm{MM})$ diameter With vernier to read $1 / 10$ scale division

## SLUG-TUNED <br> CERAMIC COIL FORM WITH ALUMINUM SHIELD



Ceramic form $1 / 2^{\prime \prime}$ dio. $11 / 8^{\prime \prime}$ long. Comes already wound with two closecoupled coils of 24 and 51 turns Easily dismantled for rewinding to suit. Has six insulated terminals in mounting studs. Sluo 6-32 threaded mounting, studs. "lug odjusts from able even after wiring into circuit No. 188120.36 E 10 Lats, 296
Spec. Ea.... TUNING SLUGS



HAMMARLUND "MC"
$75 \mathrm{Mmt} .-8 \mathrm{Mmf}$. Ceromic insuloted single spoced heavy brass NP plates nositive wiping contocts, long $1 / 4^{\prime \prime}$ shafts. Single-hole bracket mount No. 18 B 585
Spedial Each
79c
Brou saye sss rou saye sss 0 DRCAIIS

VARIABLE CONDENSERS

ALL ARE BRAND NEW! fully guaranteed!

## SUB-MINIATURE 365 MMFD. VARIABLE

## FOR TRANSISTOR AND OTHER TINY EQUIPMENT

 Ideal for transistor radios and erystal sets os well as use in scores of minioture experimental projects. Measuresonly $11 / 2^{2 \prime}$ square $\times 3 / 4^{\prime \prime}$ deep. Standonly $11 / 2^{\prime \prime}$ square $x, 3 / 4^{\prime \prime}$ deep. Standth" hole in ponels up to $1 / 4^{\prime \prime}$ thick. No. 18A598.
Special Eoch S 10 Lots, 39 Each. .


SEMA-MIDGET SINGLE GANG 365 MMF VARIABLE Top quality, all brass and aluminum construction with smooth action ball venient panel or bose mount. Size lan. $\left.W \times 1 \lg ^{\prime \prime} H \times 1\right)^{2 / 2} \mathrm{D}$.
Imported to sove you money.
No. $17 \mathrm{Cl280}$
Special, Eo.... 79 (
10 Lots, 716


SEMI-MIDGET 2-GANG BROADCAST VARIABLES

Factory fresh-beoutifully mode with boll-bearing rotor and built-in trim-
mers. Frome size $1 / 8^{\prime \prime} \times 1 /{ }^{\prime \prime} \times 2$, mers. Frome size $11 / 8^{\prime \prime} \times 1 / 8^{\prime \prime} \times 2{ }^{3 / \prime \prime}$,
long. $1 / 4^{\prime \prime}$ brass shaft extends $7 / 8^{\prime \prime \prime}$, None better ovailable! Will tune broadcost band in standard TRF or superhet circuits. mental uses, too
Cut Plate Type. For superhet with
456 KC IF 365 mmid section and 456 KC IF. 365 mmid section and 129 mmfd
$\underset{\text { Noch }}{\mathrm{No}} 18848499 \mathrm{E}$

## VHF TRANSMITTER PLATE COIL ASSEMBLY FOR 2 TO 6 AND 10 METERS



## 306

Limilloss building possibilitios for novices, hams

Consists of a heay silver-plated air-
wound coil with "accordion" wound coil with "occordion" Tuming, useful small copacitors, RF chokes, insulators, etc. all mounted in a brass siliver-plated frome, $2 \times 3 \times 11 / 2^{\prime \prime}$ deep. silver-plated frome, $2 \times 3 \times 1 /$
No. 18B374. With $91 / 2$ Turn $3 / 4^{\prime \prime}$ dia. coil ( 10 Meters).
Na.
coll
12 to
18
Choice, Special Eoch
59c

## PROFESSIONAL STYLE

 EQUIPMENT KNOBSBeautifully made, will really dress up equipment. Skirted, io marking, with bross insert. Specify Block or Grey No. $17 A 672.39$ E 10 Lots, 356
Each... .35


Duat 365 Mmfd . Fine for tuned rodio frequency circuits. crystal and trancults racios, or for experimental cir high capacitie.


MOTOROLA PUSHBUTTON TUNING UNIT


Takes the place of variable condenser and tuning controls. Consists of permeability tuned ontenno, RF amplifier and oscillator sections with manal and outomotic push-button (7) controls. Compact size ${ }^{71 / 4^{\prime \prime}} \mathrm{W} \times$ $31 / 3^{\prime \prime} \mathrm{D} \times \mathrm{X}^{1 / 2^{\prime \prime}} \mathrm{H}$. Diagrams for building into receiver included. Shpg
22B71. Special, Net Ea... $\$ 1.39$
No. 20A346. Set of Knobs . . . . 39 c
39c

BIG IMPORT SAVINGS


## SAYEI RJGHT ANGLE GEAR DRIVE

Small high quality $1: 1$ ratio $90^{\circ}$ gear drive that can be odapted for tuning or controlling todoy's compact equipment. Has splined shaft couplers to fit "Command" equipment. Eoslly converted to $1 / 4^{\prime \prime}$ shaft fittings by pressing short length of tubing onto splline. Instructlons included. Housing only $1 \times 1 \times 58^{\prime \prime}$ thick.
No. $18 \mathrm{C324}$
Spoc. Eo... .


## OM YOU GAVE SSE Bil Remins

SWITCHES

## (4) ALL ARE BRAND NEW! fully guaranteed!

## CUTLER-HAMMER HEAVY DUTY

 TOGGLE SWITCHES

Made to government specs. of a cost mony times our price. Highly recombyists, etc. Ruggedly built with hlush plates etc. Ruggedy built with flush plates for screw mig. Roted 5 amps.
ot $125 \mathrm{~V}: 35$ amps. ot 24 V . Size $11 / 2 \times 3 / 4 \times 1^{\prime \prime}$ deep. Mtg. plate 2 1 $\times 3 / 4$ " "On" with Spring Return. CH No 8211 kS with Spring Return. CH No.
 100 Lats, Each SPDT. Center "Off", Positive" "On" either direction. CH No. 8200 K 5
 100 Lots, Each

BIG SAVINGS! MICRO SNAP ACTION SWITCHES


Genuine UL approved Micro Switches that regularly sell at many times B-A's
 (1) 18 A168 (1) 18 A994 -18C650 (3) 18 A 4404 (3) 18 A404 (4) 18 A571 (6) 18 A403


33c<br>$30 c$

(1) CARLING SPDT BAT HANDLE Bokelite enclosed UL opproved switch with solder, lugs. Fated 3 omps @ 125 V. $11^{\prime \prime}$ dia. x 1 l $^{\prime \prime}$ long shank. Mfg. List 95c.
No. 18B673. Net Eoch. . . . . . . 496 10 Lots, Eo. . 44 c 100 Lots, Eo. . 36 c


## CARLING SPST TOGGLE SWITCH WITH WIRE LEADS

 Compact, bakelite enclosed with two $2^{\prime \prime}$ wireleods. UL approved. 6 amp @ $125^{\text {volts. }}$.
 No. Each
Net Each
100 Lots, Each

## C-H HEAVY DUTY

4PDT TOGGLE SWITCH
Positive "on" one direction, momentary "on"
spring return other direction. Compact mold-
 die. Screw terminals. 20 omp @ 28 V . DC;


(3) CARLING 2 CIRCUIT NORMALLY OPEN OR CLOSED Standord SPST or SPDT positive acting. Bakelite enclosed, 4 lugs, bot hondle. UL opproved. 3 amps @ 125 \$i. $35^{\prime \prime}$ dia. x $1 \mathrm{l}^{\prime \prime}$ L. shonk. Mfg. Llst

No. 184572.39 E 10 Lots, 33 Each...
Net Each.. 100 Lots, Each. . . . . . . . . . . . . . 30c
(3) HGH, DPST

Laminated bakelite. UL approved. 3 shonk. Reg. 84 c eooch
No. 184604
Net Each. 49 E 10 Lots, 445
Eoch... Net Each. ËCh..................39c DS

of popular bat handle
Bakelite encosed. Rated 3 amp (o) 5 DPDT CENTER "OFF"
No. 17 C249. Si
Net Each. . 10 Lors, 558
$E a c h . . . ~$

SPST normally open, roted 15 A . Q 125 V . AC; $71 / 2 \mathrm{~A}$. © 250 V . AC. lite case measures only ${ }^{1}{ }^{\prime \prime}$ " thick $x$ ${ }^{2}{ }^{\prime \prime}$ "wide $\times 1 \%{ }^{\prime \prime}$ long.
No. $184524.36 G \quad 10$ Lots, 296
Speclal Eoch. 36 168



DPST normally open. Bor actuator with overall rubber boot. Use indoors or out. Fine for paging systems, inter$5 / 8 \times 1 / 2$ "tephone signoling, etc.
No. 184163.39 Epecial Eoch 30 Lots, 35
Eoch. . 35
 SNAP ACTION SWITCH


Every Item NEW, TOP QUALITY and GUARANTEED

# CLOCK TIMER MECHANISM 

MFG. LIST
Synchronous elock movement keeps perfect time; hos brass bezel, sof ond minute hands, black set hand ond red sweep second hand. All controls operate from "ront. Can be set lor autarnatic An up "to has manual "on" or "off" os desired. Switch rating 1875 , watts, $2^{\prime \prime}$ amperes. Size opprox. $31 / 4^{\prime \prime}$ dia. 60 cy . AC only. Shpg. wt. $11 / 2 \mathrm{lb}$ No. 37'8212.
Special Net Eoch. . . . . . .
4.95

## CLOCK TIMER WITH "SLEEP" SWITCH

Like above with added feature of up to 60 minutes "on" operation for outomotically shutting off music ofter
retiring. Will then operate outomotically to turn "on" up to 12 hours later.
No. 3
$\$ 6.45$

## HAND-OPERATED REMOTE CONTROL SWITCH

## WITH 20 FT. CABLE <br> HUNDREDS OF INTERESTING APPLICATIONS <br> Excellent for remote control applicotions. $11 / 8^{\prime \prime}$ dia. × $21 / 4^{\prime \prime}$ sturdy bakelite encased switch is spebe ponel mounted if desired. Unique switching arrangement permits SPST operotion of two circults tacts are normaly 2-conductor plastic covered cable. Has cable clamp and screw terminals. Terrific value! <br> No. 18B410. <br> 695 <br> 10 Lats, 555 Each. <br> 

Complete ............

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Eoch 10 Lots
AMAZING SAVING

Pole 4 Position, positive oction horting.
No. $184543.695 \quad 10$ Lots, 819
Speciol Eoch 2 Pale 3 Position (two positive, one spring return), nan-shorting. CRL1467.
No. 18 A108. 69 E 10 Lots, 618
Special Eoch HIGH CURRENT MOMENTARY SWITCH Hetherington SPST snapaction. 35 amps cont. : 50 DC and 120 V . AC. Metoi Snclosed, Shank 1 $11 / 8^{\prime \prime} \mathrm{D}$. behind ponel. ${ }^{2}$ Type
A 1940 . Reg. $\$ 8.50$.



3 POLE 3 POS. CERAMIC SELECTOR SWITCH
 indexing and ceramic insulation minimizes RF losses and retards moisture obsarption $2^{\prime \prime}$ dia. x $1^{\prime \prime}$ depth. Mounting shank size $3 / 8^{\prime \prime}$ dio. $x$ 1/4" lang. Na. 18 A531. 69 E 10 Lots, 556
Special Each. SLIDE SWITCHES
 Small with black bakellte slide han dle. Solder lugs. $\mathrm{amp} @ 125 \mathrm{~V}$. AC.
Stock $\begin{array}{lllll}\text { No. Action Each Eoch Eoch } \\ 18 A 534 & \text { SPST } & 10 \mathrm{c} & 8 \mathrm{c} & 6 \mathrm{c}\end{array}$

 | $17 B 403$ | DPST | $15 c$ | $12 c$ |
| :--- | :--- | :--- | :--- |
| $18 B 802$ | DPDT | $17 c$ |  | HANDY FOOT SWITCH



Momentary push type normally open with 44" 3 conductor coble. When button is depressed all 3 leads are electrically connected. Ruggedly constructed for surface mtg . on floor.
No. 18B50.

DAVEN NOISE-FREE SINGLE POLE 17 POINT


## FAMOUS DAVEN SUPER QUALITY THROUGHOUT 59c

 Each, 10 LotsContinuous rotating, no stops, detents or pigtails. Insulated shaft and bushing. Pure silver to silver contacts with double laminated spring looded wiper. Adfacent contacts are shorted as switch is rototed. Decks easily ganged or multiple pole requirements. Law loss phenolic with turret solder termi nals. Deck dio 2 ". Depth behind panel $3 / 4^{\prime \prime}$. $1 / 4^{\prime \prime}$ dia. shoft, $I^{\prime \prime}$ L. $3 / 8^{\prime \prime}$ dia. $\times 1 / 2^{\prime \prime}$ L. mtg. bushing.
No. 18 C503. 89 Each. 10 Lats $5 ? ~$
Special Each LEVER ACTION SWITCH 4PDT teiephone type mode to high
Western Electric standards. Block enameled dress plate, $21 / 4 \times 13^{\prime \prime}$. Be hind panel $31 / \mathrm{B}^{\prime \prime}$. Worth $\$ 3.50$. See illustration of right.
No. 18B491 13910 @ 119

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## 4 PDT LEVER SWITCH



## TOP QUALITY FOOT CONTROL SWITCH

Mondy for remote operation of Tope Recorders. Ham Gear, Photographic Devices, etc.
SPST normally open, snap action. Roted 6 amps 115 V . AC. Especially suited for relay control of comrecorders, photographic darkroom devices, industrial and shop machines, Size 3 名" dia., ${ }^{\prime \prime}$ high. keeps mechanism cleon. High quality type SJ 8 ft . UL approved rubp302CCT plug attached. 51.95

## 4-GANG PUSH-BUTTON

 SWITCH

As used in $\mathrm{hi}-\mathrm{fi}$, intercoms and othe SPST circuits, ali isolated. Each push button releases the other buftons when pressed, and octuotes an SPDT plus 3 SPST eircuits, all circuits elosed when button is in. Size 4 ? ${ }^{\prime \prime}$

| No. 18 B 490 |
| :--- |
| Speciol Eo... 99 | 3PDT ROTARY SWITCH



Universal style, fine for single and
double pole as well as 3 pole apolicotions. Size $13 / 8 \times 11 / 8 \times 11 / 8$ " ${ }^{\prime \prime}$ with stondard $1 / 4^{\prime \prime}$ shaft extending $1 \nmid k^{\prime \prime}$ Reg. net volue over $\$ 1.00$
No. 184829
Speclai Eo...44
10 Lots, 39 Eoch.. DPDT MINIATURE KNIFE SWITCH
$5<\begin{aligned} & \text { SPECIAL } \\ & \text { VALUE } \\ & \text { IMPORT }\end{aligned}$
Black bakelite handle and body. Size $11 / 2 \times 23 / 8^{\prime \prime}$. Low resistance contacts. Screw terms. Fine for antenna changeover.
No. 174675
Speciat En.... 39 ${ }^{3} 51.01$


Serves as extro sofe moster fuse for any gear, hi-fi, public address, eic., con cause serious damage. Takes place of individual fuses. Convenient push-button reset. Neot panel mountNo. 18 A3il. Special Each... 9 MOMENTARY SPRING RETURN SWITCH

## FINE <br> AS A DOOR <br> $\cdots 2$

U/L opproved. 3A @ 125 V. SPST normally closed circuit. Turns on light or other signal when door is opened. Fully insulated. Convenient
 Socioil to. 39C iscot.. 35C PUSH-BUTTON SWITCH


Highest quality, normally open, for buzzers, bells, signals, etc. Deep peorl button with nickle plated ring. Flush mounts. Snops in $1 / 8^{\prime \prime}$ dio. hole No. $18 \mathrm{B266}$.59 E 10 @
Eoch ......

## YOU SAVE $\mathbf{5 S S}$ TAradits BLOWERS \& MOTORS <br> ALL ARE BRAND NEW! FULLY GUARANTEED!

## GIANT SAVINGS GENERAL INDUSTRIES

 4-POLE MOTOR

SMOOTH, QUIET, HEAVY-DUTY Four-pole construction shoded pole induction type, for 115 V. 60 cy .
AC. $1 / 70 \mathrm{HP}$ cont. duty 1740 RPM. Has plenty power for all sorts of devices . quiet fons, tape recorderplayer mechanisms, record turntables, disploys, etc. " shaft extends 1 is "
one side, $15 / 8{ }^{\prime \prime}$ other. Turns counter clock-wise. Oilite bearings. Slze $33 / 8^{\prime \prime}$ square, $3^{\prime \prime}$ below mig. Shpg. wt. $31 / 2$ Ibs. Mfg. list $\$ 15.00$. No. 18 B299. Special
$\$ 4.96$

## TINY REVERSIBLE DC MOTOR

BATTERY-POWERED FOR MODEL CARS, BOATS, TOYS, ETC.


Unbelievably small and powerful Operates from just ordinary flashlight batteries. Very nicely import mode, hos brass bearings, convenient mounting bose and extended steel shoft for easy coupling to model. Reverses simply by chonging high. Operates from $11 / 2 \times 41 / 2 \times$ (1 to 3 flashlight botteries). Speed coll BONDINE $1 / 25$ H.P. 115 VERY
HIGH TORQUE

Series wound, 3300 RPM. Intermit tent duty, AC or DC, 1.3 amps. Speed and power can be controlled by add. ing a series rheostat. Shaft $1 / 4^{\prime \prime} \times 3 / 8^{\prime \prime}$ L. 9 tooth gear at other end. 2 fil ia., 4 long

High quality, defendable, efficient, quiet-operating blow- atus, forced draft to furnoces, exhausting bad odors or running Torrington wheels; well designed glossy black enome housings.

200 CFM TWIN-BLOWER
Universal Electric motor rated 2700 RPM, I amp. 3/I" dia. wheels, $37 / 8$ dia. intakes, $2^{\prime \prime}$ outlets with $3^{\prime \prime}$ sq. ing dia, $53 / 8^{\prime \prime}$. Overali width entire



B-A EXCLUSIVE! 115 VOLT AC-DC MOTOR WITH FOOT CONTROL

- POWERFUL I;15 HP at liast a 51295 yaul! AC-DC MOTOR.
- VARIABLE-SPEED FOOT CONTROL.
- CONNECTING CORDS Plug and Rece jtacle.

Wanderful for powering mator driven models, tays, hobby tools, etc., to canvert foat treadle sewing mochines or iust to godget around with.

## 135 CFM TWIN-BLOWER

Fasco motor roted $67 \mathrm{amp} .31 / \mathrm{B}_{, \prime \prime}$ dia. whee is, $238^{\prime \prime}$ dio. intakes, $21 / 8^{\prime \prime}$ dio. Blower housing dio $53 /{ }^{\prime}$ Onges. width entire unit $101 / 8^{\prime \prime} .12^{\prime \prime}$ wire 4A199. Speciol Each.

HEAVY-DUTY 1750 RPM MOTOR

$$
115 \text { V. } 60 \mathrm{Cr} \text {. SHADED POLE }
$$ induction TYPE

Powerful quiet-operating double shaft motor for driving cooling fans, models tays, godgets, etc. Nondia. $\times 13^{3 / \prime}$ long armoture, enclosed bearings with felt oil retainers Shaft lengths $1^{\prime \prime}$ and $2 A^{\prime \prime}$ dia Shaft Frome size $23 / 8{ }^{\prime \prime} \times 1$ 乍" $\times 3^{\prime \prime}$ high. Would cost several times our price to manufocture. No. 188309. $\$ 169 \underset{\substack{5 \text { Lots } \\ \text { Each. } \\ \$ 150}}{ }$ MIDGET REVERSIBLE DC MOTOR

## HOBBYISTS, TOYMAKERS LOOK

 doysery-powered for model cars, boots, net, efc. Highest quality permonent maggeors. 3 to 12 V . DC operotion. $11 / \mathrm{B}^{\prime \prime}$ dia., No. 184161Special Each
596
10 Lots
Each. 496

## MOTOR DRIVEN FLASHER. ACTUATOR 115 V .60 CY. AC POWERED

Made originally for continuous duty sign
animation. Has dozens of uses for animation. Has dozens of uses for odver-
tising displays, agitating liquids, film tanks, floshing lights, etc. Has cronk orm and cam operated switch controlled by high quality 10 RPM synchronous motor. Motor is removable for other uses, too. Switch cycles 3 sec . on, 3 sec . off, controls power to attached standard AC receptacle. With 6 ft . AC cord and plug. Frome size $21 / 2 \times 67 / 9 \times 5 / 8^{\prime \prime}$. Shipg. Wt. 2 lb . No. 184845
$\$ 2.49$

100 CFM BLOWER
Motor roted 3000 RPM, 1.05 amp. 21/4" dio. wheel, $31 / 4^{\prime \prime}$ dio. intoke flange (not illus.) with $43^{1} 2^{\prime \prime}$ mounting Blower housing h
width housing height $5 z^{\prime \prime}$. Overall leads. Shpg. wt. $41 / 4$ fbs.' © 95 No. 4A201. Soec. Eoch.
$\$ 9.95$
SPECIAL PURCHASE 125 V. 60 CY SLOW SPEED GEAR MOTOR


Continuous duty shaded pole induc. tion motor, directly coupled to : fully encased gear train hoving $1 / 4^{\prime \prime}$ dia. output shaft revolving of 22.8 RPM. Shaft has removable slotted coupler. Develops considerable torque and will activate displays, barbecue spits, all sorts of models ond devices. Hos removable 3P N.O. switch that closes automatically by end thrust of motor armature when unit is installed shaft up. Armature gear then olso disengages allowing shaft to turn freely, with power off. Size $33 / 4 \times 23 / 4$ $\times 31 / 2^{\prime \prime}$ deep overall. Wr. 2 lbs . No. 18C405. Soecial Each
$\$ 3.29$


THE MOTOR. Powerful, series-wound brush type. Designed for sewing mochine service, therefore ideal for full 115 V . AC 25 to 50 Rotates counter clockwise. With direct to motor, no-load speed is approximately 10,000 RPM. With foot control rheostat speed can be varied smoothly from slow to fast. Exact degree of variation depends on motor load. Mator shaft is .250 dia tends $18^{\prime \prime}$ from housing. Pulley supplied is for dound exsmall V-type belts; otfoches with set screw. Overall size. $21 / 4^{\prime \prime}$ high, $25 / 8^{\prime \prime}$ wide, $43 / /^{\prime \prime}$ long exclusive of shaft Mounts with two screws threaded exclusive of shaft. cose, glossy black screws threaded into bottom of motor Name plate rating 1.5 ampere.
FOOT CONTROL. A top quality, wire-wound resistance unit built for proper speed control of the above motor. Non-wearing slider arm gives control from full resistance to zero. Heavy steel housing has streamlined, modern shape, glossy black enomel finish, non-marring rubber for safety. $10^{\circ} \mathrm{AC}$ cord and plug and speciol plug-in junction with to occommodote motor and light pug-in junction block outiet is independent of foot control.
No. 33C76. COMBINATION DEAL - Motor, Pulley $6^{\prime \prime}$ Shpg. wt. 4 lbs. While They Lost . ........... 96.97


RELAYS AT SMASHING BARGAIN PRICES!

115 V. 60 CY
AC MEDIUM
POWER
RELAYS

MOST OFTEN NEEDED OF ALL RELAYS!
115 V. 60 CY. AC DPDT 10 AMP POWER RELAY


Compoct size, molded bakellte barrier, nylon bobbin, quiet continuous difyl operation plus absolutely beau$H$. Single $6-32$ stud mounting.
No. 19A550. DPDT 8 Ampere.
Speciolt 25
Eoch. 10 Lots
Each.. 5
100 Lots. Each .... 52.60
ro. 19A551. SPDT 8 Ampere
$\left.\begin{array}{l}\text { Special: } 255 \\ \text { Eoch. } 10 \text { Lots } \\ \text { Each.. }\end{array}\right\}$
100 Lots, Each......... .... $\$ 2.10$


IN SEALED OCTAL BASE PLUG-IN THAT WOULD NORMALLY COST MANY \$ \$ MORE Best buy we've seen! Heavy duty positive acting, of highest quality throughout. Has large $1 / 4^{\prime \prime}$ diameter silver contacts, continuous duty coil, molded bakelite barrier supporting contacts and terminals. Relay frame size, only $15 / 8 \times 11 / 4 \times 1 / 8^{* 4} \mathrm{H}$. overall with convenient 4 hole mtg. base. Comes completely enclosed in dust tight, waterproof plug, In assembly with stondard octal base. Con size $23^{\circ \prime}$ dia. $\times 3^{\prime \prime}$ high. Extremely easy to remove from can if open mounting is desired. Allied Controt No $\mathrm{BOHX}-1$.
No. 18 AS88. 10 Lots,
Special Each $\rightarrow 2 \rightarrow 5$
Eoch.
100 Lots, Each.
$\$ 2.79$
. $\$ 2.65$

ALI ARE BRAND NEW! fuLiY guaranteed!

## SAVE \$\$\$ ON POWERFUL 110 VOLT AC SOLENOIDS



Moving pole piece exerts pull af 60 Extro powerful, continuous duty type. ozs. and a stroke length af $5 / \mathrm{g}^{\prime \prime}$. Has Exerts 65 oz . pull of $1 / 8^{\prime \prime}$ stroke, Max tremendous holding power. Contin-
 188669.6
Spec. Ea. 0510 Lots 9

## RELAYS FOR MOBILE

HEAVY DUTY 12 V. DC Fine far mobile communications control and normally open contacts will handle io amps per pair. Easity paralleted for higher current. Has 85 ohm coil, heavy duty lug rerminals. Compact size $15 / 8 \times 13 / 4 \times 21 / 8$ least $\$ 3.00$. ro. 1 Bcesot. Spectal, Gcoh. .... $\$ 1.29$

## DPST 12 V. RELAY

Has mony uses around the outo for radio and other power control. With large 10 barrier, heouy duty solder terminals and 80 ohm coil for continuous duty use. Size $15 / 8 \times 23 / 3 \times 2^{\prime \prime}$ high. Highest quality through- Af Leost No. 18B769. Special Each

99 c


HAYDON 0-10 MIN. ADJ. RESET TIMER
 60 CY. AC CLOCK-TIMER

Warks as adjustable automatic switch for "on" or "off" time delay up ta 10 minutes. Haydon synchronous motor drive octuates a SPDT micro switch. Spring refurn provides olmost instontaneous reset. Operates 2 on " $^{\prime \prime}$ Canvenient 2 hole flange $230^{\prime \prime}$. Canvenient 2 hole flange mounting. Shpg. wt. 1 lb .
No. 184522.
Spec. Each.

Clock foce tells time. Fine for rodios and music systems. Will turn "on" ot any time selected within 12 hours and stay "on" for $13 / 4$ hours, then cycle off automatically, Timing Con wil not repeat umless reset. "off" at ony time Switch rating 15 amps. All adjustments made from front. Size $31 / 2^{\prime \prime} \mathrm{sq} ., 2^{\prime \prime}$ deep overall. No. 37 B298
Speciat Eoch


Ideal for aperating door latches, mechanical safety stops on machines and all sorts of experimental projects Highest quality construction. Hos extra long $I^{\prime \prime}$ stroke under loads a - few ounces. Develaps considerable pull when plunger is nearly all the woy in. Heavy totted for making mechonical connection. Coil is fully insulated, rated 115 neci . 60 . 4 . Smat frome AC for normal use. Smalf frome, only $11 / 8 \times 1 \times 2^{\prime \prime}$ Lg



## SIGMA MINIATURE

GUARDIAN 115 V. AC 25 AMP POWER RELAY


BIG SAVINGS


SPST, normally open. Dual filver alloy contacts rated ot 25 amps. Ruggedly built for heavier duty applications. Size $3 \times 13 / 4 \times 1 / 8^{\prime \prime}$ high. Na. 18 B 116 Special Each
$\$ 3.95$

## 115 VOLT AC

CERAMIC INSULATED CHANGE-OVER RELAY


Has DPDT $1 / 4^{\prime \prime}$ heary duty sliver contocts for RF or high voltage switching plus SPST normaily open $1 / 4^{\prime \prime}$ auxiliary contocts, all rated 10 amps. Coil resistonce 280 ohms, far 90-115 V., 50-60 Cy. AC continuous duty aperation. Unbeatable for ontenna change over or power control. $23 / 4^{\prime 2}$,
No. 18 C320.
Special Each
$\$ 4.95$
 Ekectronic Auto mafic Keys, Ets

LIGHT SENSITIVE PHOTO CELL AND RELAY
The two basic components, a high qualty extra sensitive relay and a light sensitive cell .. plus circuit diagrams for building useful and interesting devicus. day-night control of lights or other electrical equipment, light actuated burglar alarm and remote control TV Commercial Killer. Many ather uses will suggest themselves to the experimenter and engineer. Fine for production or traffic counters. door openers, etc.
Tiny glass enctosed light cell is only $1 / 2^{\prime \prime} x_{18}{ }^{5}{ }^{\prime \prime}$ " with 2 wire leads. Relay, size 1 " $1 \times 1{ }^{\frac{7}{2}} \times 11 / 8 "$ H., has SPDT 1 ampere contacts. Completed control Operates on $115^{18} V$. AC

Popular 11 IF-9000G-SIL being used
for model control, electronic outomatic keys etc. ${ }^{5}$ Size only $i{ }^{5} \times 1{ }^{3 \prime}$ H. 9000 ohm coil. SPDT silver contacts rated 1 amp. 50 MW operoting sensitivity. Simple 2-hole mtg, Wt. 1 oz.



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## AMATEURS

 \& BUILDERS
## $(10)$ <br> ALL ARE <br> BRAND WEW! fuLIY GUARAMTEED!

SYLVANIA IN34A \& GERMANIUM CRYSTAL DIODES

## 29 C

 ALL FIRST QUALITYEACH 10 LOTS BRAND
FULLY GUARANTEED
Most popular diode! General application type used as detector in transistor radios, erystal sets, wave meters, stonding wave ratio and frequency meosuring instruments. $1 / 4^{\prime \prime}$ dio. $\times 7 / 8^{\prime \prime}$ long. Glass enclosed with axiol leods. Every one brand new fully guaronteed.
1
 SCOOP! RCA 1625
TRANSMITTING TUBES
$39 \mathrm{c} \underset{\substack{\text { REG. NET } \\ \text { VAE } \\ \$ 4.30^{W / A S}}}{\text { WNA }}$ Populor 12 V . equivolent of the tamous ${ }^{\text {tion }}$ 807 Made by


7-PRONG STEATITE SOCKET FOR 1625 TUBES | $-0^{\circ}-0^{\circ}$ |
| :---: |
| $0-0$ |
| 0 | Lown tos trosmititin troe witit sive

 Shacise $75 c$
PHONE PATCH-AUDIO


TRANSFORMER

$\$ 129$ WORTH
SEVEAL
SMES
ORIR
PRICE

Schemotic Included for building effective Phone Potch.
Midget hermetically sealed speech range tronsformer. Rated 250 to 2500 cps. Has three isolated windings 22,000 ohms, 5200 ohms and 600 ohms, all center tapped. Size $7 / 8^{\prime \prime}$ sQ $x$ lif" high, upright mig.
No. 18 C 47 . Special Eo..

SAVE ON CRYSTALS!

## 19195 59\%

IN POPULAR FT243 HOLDERS Finest quality guoranteed active acsil otors. Made to Signal Corps specs Every one brand new and perfect of
3980 KC
7073.3 KC
$1541277 \quad 7273.3 \mathrm{KC} \quad 74063 \mathrm{KC}$
Choice Eoch. 598 5 Lts. 498
172
Burstein-Applebee Co., 1012-14 McGee St

Top import volue compares with other asclllators selling for twice the price. transmits clean, clear dots and
dashes through the built-in louddashes through the built-in loud-
speoker. Volume contral permits odjustment to the desired listening level Beautiful block plastic case with brass legs, size- $31 / 2^{\prime \prime}$ W., $3^{\prime \prime} H_{\text {., }} 13 / 4^{\circ}$ Dupplied complete with fine quality
 21A3. Replocement Botteries.
Eoch .......................... 18

## FAMOUS U. S. NAVY

Streamlined, hlghest quality all bross and bakelite construction. Has heovy Unique construction insulotes current carrying contacts completely from key arm and pivats. Base and terminals also fully insulated. Has slot af side for insertion of wedge type plug W, $5^{\prime \prime}$ long overall. Precision made Shpg. wt. 2 lbs. Replocement Key Knob. Block Bokelite. For obove and other keys.
No. 18 A 100.
Speciol Eoch. . . . . . . . . . . . . . 24
 TOP QUALITY IMPORTED DOUBLE HEADPHONES


Germon mode. Ruggedly built with high flux magnet, highly polished bokelite shell and cap, adjustable headbond. Extra sensitive with exceptionally good fidelity.
No. 22C251- 2000 ohm .
No. 22B226-4000 Ohm. Choice Eoch.
$\$ 2.95$
 RG-IIU. 75 ohm. Shpg. wt. 10 lbs . p No. 2Bi60. Reg. $\$ 10.95$. 25 Ft. For RG-58U. 53.5 Ohm. Shpg. wt. 3 lbs No. 2A217. Reg. \$4.90. 25 Ft For RG-59U. 73 ohm. Shpg. wt. 4 lbs. p
No. 2A218. Reg. $\$ 5.08$. 25 Ft . For


SAVE ON THESE IMPORTED CODE SETS!
TRANSISTOR CODE CODE PRACTICE SET
B-A BARGAIN SPECIAL TELEGRAPH KEY


Beautifully made import. Gives clear steody "code note" ot omple listening pairs of headphones wired in several Two sets, each with headphones ond hooked together with wire will trons mlt code messoges 100 ft . aport Uses standard flashllight battery.
No. 22A61. Less Bottery. Wt. I lb.

No. 21A1. Battery for above... 14 c

Finest key we've seen ot anywhere
near this low price. Neat import made with heavy $1 / 8^{\prime \prime}$ contacts, bright plated sturdy steel lever orm, fully odjustable spring and spacing, brass hordware, molded bokelite bose. Wonderful for code practice or ham stotion operating.

695 LEARNING THE CODE
ARRL Book provides bosic instruction for sending and receiving.
No. 16A63. Eoch. 50c

## HI-FREQUENCY BUZZER



Fine companion for key obove. Gives clear, steady code" note. Fully adjustoble. In morates on single $11 / 2 \mathrm{~V}$, battery. In molded bakelite case $2^{\prime \prime}$ dio. No. 22B51. Speclol Eoch..... 895 21 A-. ER950 Battery. Net Eo.. 14B53. Clip-in Bottery Holder Net Eoch. . . . . . . . . . . . . . . . . . . 29 c
ST COST EVERI
STETHOSCOPE TYPE CRYSTAL EARSET


Lightweight, high quality imported headsets. 3 ft . plastic covered cord, 17 plás $^{10}$. 17A337. Generol Purpose 2000 Ohm. Radios ond Devices. For Tronsistor Choice, Each.

BIG SAVINGS ON

## COAK CABLES

ALL ARE FINEST QUALITY BY TOP MANUFACTURERS
$\$ 2.49$
$\$ 1.39$
$\$ 1.39$

100 Ft. 97.95
For..$S$
100 Ft. 53.95
For ...


## RG-8/AU COAX CABLE ASSEMBLY WITH

## PL2S9 CONNECTORS

$6^{\circ}$ length genuine RG-8/AU coox coble foctory ossembled with populor value! Priced ot less than the regular Priced ot less than the reguiar
the cable alone. Wt. 2 lbs No. 3A163.
\$1.95



Modern, lightwelght, under-chin design. Fully adjustoble. High impedonce, wide ronge. 3 fi. cord. 998
No. 178202 . Special Each. 99 12-V. DYNAMOTORS


Removable shock mount bases with jones sockets. Spare brush sets included.
Type DM35A. Output 625 V. DC 225 MA. Input 12.5 V . DC 18.7 A. $712^{\circ}$ No. 4 A202. Speciol Eoch. 39.98 Type DM65A. Output 440 V. DC 400 MA. Input 12.5 V. DC $28^{\circ} \mathrm{A} .81 / 4^{\prime \prime}$


HEAYY DUTY 12 V.D.C. RELAY
wo relays in onnors os obave.
Two relays in one. Each, SP double break normally open with silver conlacts rated 50 A . Serew term. Insu-
No. $18 \mathrm{~A} A 37 \mathrm{~B} /$ Speciol Eo. $\$ 1.95$

MIKES AT SMASHING BARGAIN PRICES!

CARBON MICROPHONE


Zillions of gimmick possibilities. Don't be misled by $B-A^{\prime}$ s ridiculous low the usual complete mike at less thon ton alone. Neat modern styling, fits comfortably in poim of hond or is self-standing for toble top use $36^{\prime \prime}$ wire lead with banana plug. No. I8A363. Speciol Eoch

69c
Mike Tronsformer for motching obove to input of amplifier, recorder, etc. No. I8A695
Special Eoch
69 c

CRYSTAL HAND

REG. NET \$5.70
$\$ 199$

PRODUCT OF FAMOUS AMERICAM
MAKER
Top quality for use with ; originally infended over $\$ 125$ Hith o -way rodio selling for over $\$ 125$. High impedance, high recording, paging, detectophones, ham and citizens band gear, efc. Truly neat and compoct. Grey plastic housing, $218 \times 21 / 8 \times 7 / 8^{\prime \prime}$ fits hond perhousing, $218 \times 218 \times 7 / 8$
fectly. 30 to 10,000 cos response Output level -48 db . Atfached 5 ft shielded cable. Wt. $1 / 2$ lbs. P ? shielded cable. Wt. $1 / 2$ Ibs.
No. $18 A 62$. Special Eoch.. N



HEAVY DUTY TYPE
"S-WAY" BINDING POST

需
 REGULAR NOW AT A PRICE EVERYONE CAN AFFORD Takes up to No. 12 buss wire or pin tip through cross hole, spade lug or plug in the tom Brass 10-32 hardware, heavy shank for high current low resistance contact. Hex cap and mounting collar are insulated.
Mounts $/ 8$,

| No. 18C65I. |
| :--- |
| speciol Eoch |
| 10 @ 245 | Speciol Eoch.. Eoch. . . . . . . . ..... 21 c

## ERY SPRING TYPE BINDING POSTS

\[

\]

Metal cop $7^{77^{\prime \prime}}$ dia. $\times 5 / 8^{\prime \prime}$ H. with No. 18A53. $15910^{1 / 2} 99$ P INSULATED FEED-THRU TERMINAL


## SUB-MINIATURE

 PLUG \& JACK SET

Real tiny size. Plug measures only $11 / s^{\prime \prime}$ long overall $x$ fi" dio. Solder type for $1 / 8$ " or smaller 2 cond. or hole in panel up to st" thick.
 BARRIER-TYPE TERMINAL BLOCKS


Finest quallity Kulka high tensile strength bakelite strips complete with brass screw 15-TERM. 601 (53-331. Low loss phenolic type. $11 / \mathrm{s}^{\prime \prime} \mathrm{W} \times 1 / \mathbf{y}^{\prime \prime} \mathrm{Hx}$
 type. $7 / \mathrm{s}^{\prime} \mathrm{W} \times \mathrm{M} \mathrm{I}^{\prime \prime} \mathrm{H} \times 73 / \mathrm{M}^{\prime \prime} \mathrm{L}$. $18 \mathrm{C9O} 59010$ Lots. 490 JONES SOLDER TYPE 10 TERMINAL STRIP


Real top quality with rugged enomeled black steel case and polfine fidelity - with bass response that is absolutely amazing. Works well ocross voice coil of radio, phono, recorder, amplifier, etc. for private listening or monitoring. Fine also for testing 80 ohms. $23 / 8^{\prime \prime}$ dio, 1 " thlck 6 ft. cord with spode lugs. Shpg.
wt. ib. 188393 . Special Eoch....
No.

## MOST POPULAR STANDARD $1 / 4$ " PHONE PLUGS \& JACKS BARGAIN PRICED


(1) FLAT TYPE PLUG. Two conductor Use where spoce is limited. Protrudes only $1 / 4 "$. Bokelite shell screw connectors
184241. Eo, 58 IOLots,
Eoch...
() STANDARD TWO - CONDUCTOR PLUG. For 1 or 2 pairs of phones with either pin tip or jug type cords. BakeIlte barrel.
$17 A 793$. Each 29 Eoch... 10 Lats,
(3) ALL METAL SHIELDED PLUG. An other top quolity import volue. $1 /{ }^{\prime \prime} x$
l $x$ " nickel plate brass shelt. way with solder lug connections. 59c value.
$17 c 411$. Eoch 35
Each. . 29
(1) MODERN SLIM DESIGN PHONE PLUG AT BIG SAVINGS. TOp quality import made. Neat $1 / 2^{\prime \prime}$ dia. x $15 / 6^{\prime \prime}$ long bakelite shell. Two-woy with solder lug connections. Red and Black, pleose specify. 45 c value.
No. 17 C665.
Net Each
$29-10$ Lots.
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## PLUG AND JACK SET

FOR MAKING PHONE MIKE,
Priced at a mere fraction of the original value. All are brand new and perfect. Phug is the popular Signal Corp type PLS. Jock is open circuit type JK-26. Buy plenty while they tost.



## GENUINE PL55 PLUES

All brand new and perfect at a terrific price soving. Overoll length $2 \mathrm{l}^{\prime \prime}$ Finest quality with Tennite shel No. 198993. 49
Special, Eo.. 10 Lots, 298 PL68 PLUGS
(6) OPEN CIRCUIT TYPE, JACK. Mates with all stondard $1 / 4$ "phone
plugs. Mounts in $3 / 8^{\prime \prime}$ hole. plugs. Mounts in $3 / 8^{\prime \prime}$ hole.
No. 18 B 856.29 E 10 Lots, 24
Net Each...
Each... (b) CLOSED CIRCUIT TYPE JACK. Fits all stondard $1 / 4$ " phone plugs. Top quality. Mounts in $3 / 3^{\prime \prime}$ hole.
 (a) PORTABLE TYPE JACK. Single open circuit type for phone or mike extension use. Flts all stondard plugs. Bakelite barrel $2^{\prime \prime} \mathrm{L} \times 1 \mathrm{l}^{\prime \prime}$ dia.

[^8](1) Stondard Female coble trpe 14 A 320 10 Each ... 4 Ea.... 4 (3) Standord Mole chassis type.
14 A 321.
Eooh....2! 10
Ea.... ?



Porutar 3 cornductor mike plug for $206^{\prime \prime}$ dia. iacks as used with Collins, gear. Reg. net over $\$ 2.00$. No. 18 A385. $\%$ ( 10 Lots,
Speciol Eo..
Eoch... 6-FT. PATCM CORD With PL55 and JK26 Jock. Fits HS23, H33, etc. Also standard plugs and locks for extensions.
No. 174878 . Special Each....

CRYSTAR MICROPHONE


EQUAL TO MIKES SELLING 3 TIMES OUR LOW PRICE Best mike value we've seen. Built and imported for use with a fomous moke tape recorder. High impedance with excoptional clear cut response and high output. Beautlful grey plasic cose $3 \times 21 / 4 \times 11 / 4$, for threaded desk stand or hand held use. 5 ft. shielded coble. Shpg. wf. $1 / 2 \mathrm{lb}$
No. 18 A536.
Special Each
52.19

## B) YOU SAVE SSS bintrains

 mikes and CONNECTORS ALL ARE BRAND NEW! fully cuaranteed!MIKE CONNECTORS

WILL OUTLAST 6 ORDINARY CORDS

## BA You sayEsss BjARCATS

CORDS, WIRE,
PANEL METERS



Highest grode, extro flexible plastic conductors Fine for speaker hookups conductors. Fine for speaker hookups, AC extensions, etc. Specify choice of
Brown or lvory. 2863 . 2559 Spec. 100 Ft .51 .59
For.... 1000 Ft. For. . . ............ $\$ 14.95$ NEOPRENE INSULATED PARALLEL WIRE
${ }^{3} 2^{35}$
100 FT.

| PERFECT ALL-PURPOSE WIRE |
| :--- |
| FOR INDOOR, OUTDOOR OR |
| UNDERGROUND USE |

Really rugged. Water and obrosion underground alorm intercom tele phone PA atc installions, Two phone, PA, etc. installotions. Two size is copperweld high strength conductors encosed in laminated neoprene and cotton with black neo$.300^{\prime \prime}$. Wt. per 1000 ft . 48 libs.
 ${ }_{1000}{ }^{51} \mathrm{Ft}$ Ft. For. .518 .95

## DOUBLE PHONO JACK


jacks mondord phona
 for stereo instolloNo. 18 A215 9e Speciol Eoch..
10 For .......69c

BELDEN 71⁄2-FT. HEAVY DUTY AC LINE CORD Heavy flexible, tinned copper conduc tors sheothed with liberal thickness of good live rubber and attached to rugcontacts. A superior, extremely flexible all purpose cord. Pearl groy. No. 19B800. 44 E 10 Lots, 39
Spechial Eoch BELDEN ALL PURPOSE 8-FT. CORD
Type SJ. Two size 18 tinned copper conductors rubber insulated, color coded, cotton wropped ond block rubber sheoth overall. Soft molded plug, bare ends stripped. A truly rugged
No. $19 A 753$
Speciol Eo... 556 Each... 49 Speciol
sens


PROVIOES POSITIVE PROTECTION AGAINST SHORT CIRCUITS IN TELEVISION,

APPLIANCES, ETC. No. 14C179. (Less Fuse) Each 39 C
6 FT. AC LINE CORDS Extra flexible "zip-apart" size 18 cords with molded attachment plug. Free end stripped.

POT PLASTIC

No. 198911-Brown No. 19A910-Gray | Choice |
| :--- |
| Eoch.... 27 ( for... |
| 10 | POSJ RUBBER

No. 19B850-Brown No. 19A912-Ivory
Choice Chaice 329 For
$\$ 2.49$

## 3-OUTLET EXTENSION SETS

Top quolity extension cord sets with bakelite cube top, No. 18 POSJ brown

6 Foot
198871. Eo.. 39 E 10 Lots, 358 12 Foot
198879. Eo.. 55 P 10 Lots, 50 E
Eoch...

## USE PLUG

## TREMENDOUS SAVINGS ON PANEL METERS!

$4\left(\begin{array}{ll}5 & 2 \\ 0 & 0\end{array}\right)_{0}^{a}$

## $\$ 27.00$ VALUE $\$ .999$

RF AMMETER

## $52^{88}$

0.500

MICROAMMETER

18 Ft. APPLIANCE CORD
Finest SV type. Extra long life, extra flexible, with pearl grey plastic (41x34) conductors vinyl insulated. Molded-on rubber plua. No. 19A917 B9 E 10 @
Special Ea....
Eoch. 20 Ft. EXTENSION CORD Finest, best looking househald extension cord set made. With smooth lvory rubber jocket and ivory mole and female soft molded plugs. Type SJ, extra flexible, with two size 18 radios hi-fi
 9 Ft. REPLACEMENT CORD
Extra long, much neoter thon using extensions for lomps, clocks, rodios, ete. High quality $18 / 2$ parallel brown plostic (POT) with molded plug.


## SAVE ON HIGHEST QUALITY SHIELDED



## VinyI PLASTIC JACKET

Exactly as used for audio leads in hi-
f1 installations. Extremely low loss with close woven tinned copper lengthin None better for long custom omplifiers no effect to performance of nents. per conductor sinyl insulated copshield and gray vinyl $130^{\prime}$. and gray vinyl jocket. O.D.



## TWO-CONDUCTOR

wo size 22 tinned copper stronded conductors, plastic and nylon insulatwith tinned color coded. Tightly twisted with tinned copper braided shield and lear nylon jocket overall. Small . 112 outside diameter ideal for pulling throu
lbs.
No. 2A216. 25 Ft. for. . ..... 79
$\begin{array}{ll}100 \mathrm{Ft} . \$ 249 & 1000 \mathrm{Ft} . \$ 2295 \\ \text { For... } & \text { For.... }\end{array}$
E With SHIELDED PLUGS

Highest quality D'Arsonval maving coil types in neat black bakelite cases. Plainly callbrated for easier reading. All have zera set. RF type has in ternal thermocouple Stk. No. 18 A10 Range Mfg 18 A10
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## $\$ 295$


l" depth.
No. 18 A387
Speciol Eo... 2.95 5 @ Eoch. 52.50
WESTON MINIATURE $0-100$ DC MA
Precision quality $13 / 4 "$ square D'Arsonval type. Neat black bakelite case with black on white calibrated scale
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THAN WIRE G PLUGS ALONE Highest quality, American made of flexible shielded mike cable with ofplugs. male ond female $1 / 4$ phone plugs ANGLE MIKE CONNECTOR Stondard single contact female type with $5 / 8-27$ threod. Bross, chrome plated. Amphenol 75 MCIF-A. Reg. net $\$ 1.23$.
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69

## WEATHERPROOF TWISTED PAIR WIRE

 FINE FOR TELEPHONES, INTERCOMS, PA, SIGNAL SYSTEMS, ETC. 500 FT. WITH PORTABLE PAY-OUT/REWIND CARRIER. Also includes ground stake and handle for payout or rewind from fixed position Easily relooded after wire is used. Shpg. wt. 20 lbs. No. 2A208. 500 Ft. Reel of Wire wlth Carrier
$\$ 3.95$

# REPLACEMENT PHONO CARTRIDGES \& ARMS 



## (1) UNIVERSAL <br> ALL-GROOVE

For oll ployers., Use with oll-groove needle. Std. $1 / 2^{\prime \prime}$ mig. Output 3 to 5 V , range $50-8000$ cps. Top import quality. Less needie.


## (2) UNIVERSAL TURNOVER

With sapphire stondard and microgroove needies. Regular $1 / 2$ mounting tor all Wide range 40 to $13,000 \mathrm{cps}$.


##  <br> (2) STEREO TURNOVER <br> 5185 <br> STEREO <br> VERSION <br> \$2.49

For stereo conversion or replacement. Fits standord $1 / 2^{\prime \prime} \mathrm{mtg}$. ctrs. Ronette type high output crystal with dual sapphire needles for monoural and sfereo records. $40-12,000 \mathrm{cps}$ fre-
quency
response. No. 17A194, Special Each. 52.49

## STEREO WIRING KIT

$36^{\circ \prime}$ shielded phono lead with plug, hardware and instructions for converting changers and ployers to stereo. No. 228325.
Net Each.
$\$ 1.29$

GIANT SAVINGS ON PHONO COMPONENTS HAVE FUN \& SAVE - BUILD YOUR OWN PHONO!


TOP VALUE! 3 TUBE PHONO AMPLIFIER - PLUS 4-INCH PM SPEAKER FINE FOR STEREO CONVERSIONS A real sweet deal! Fine quality amplifier as used in the better record players. Compact, " $L$ " shope, mounts in almost any position in smallest space. 3 fube 150C5, 22 AV 6 ; 35W4 rect.1 for 2 wotts output, with excellent tone.
 Output Transformer. Wt. 2 lbs.
No. 22887. Complete with Tubes $G$ Speaker No. 228200. Amplifier only (less tubes). Net Each
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## RONETTE TURNOVER ALLIANCE 4-SPEED

CRYSTAL PICKUP PHONO MOTOR
Features world famous Ronetto TO- Rim drive $8^{\prime \prime}$ turntable for all sizes, 222 turnover crystal cartridge and oll four speeds of records, standard dual sapphire needles for all standard and stereo. Has 45 RPM center records, 78 RPM and long playing. adapter. Dynamically balanced for Wide ronge respanse. Output 2.2 volts. dependable constont speed operotion Modern, lightweight arm. Sove over No. 17898. Special Each. S4.59 No. 37 cy 188 .

SUPER-SAVING COMEINATION OFFER Everything needed to build a top quality 4 -speed record player in cabinet of your choice. Includes Phono Amplifier deal, Phono Motor, and Pickup, all os described obove. Complete with simple hookup instructions. Shpg. wt. 6 lbs. Reg. net value of least $\$ 30.00$. No. 32B215. All For Only.
$\$ 16.95$


## FAMOUS MAKE REPLACEMENT PHONO CARTRIDGES AT BIG SAVINGS!

## (1) SHURE CERAMIC "TURNOVER" FOR ALL-SPEED PHONOS

 Superior quality wide-range cartridge for most record changers or players.
(1) SHURE CRYSTAL "TURNOVER" FOR ALL-SPEED PHONOS Top quality, hi-output for superior performance in low-gain phonos. Fre-

(3) RONETTE CRYSTAL "SINGLE-NEEDLE" FOR 45 RPM PHONOS Popular series NE-395-S-2 os used in 45 RPM players requiring pressure fit type cartridge with replaceable type needle. Mifg. list $\$ 7.25$.


(3) PHONO ARM WITH TURNOVER CARTRIDGE Fine for replocement or for building your own phono. Plays oll 4 speeds. Sturdy lightweight retroctable mounting type complete with turnover cortridge described at left (17A673), arm rest ond hordware. Gray hommertone Ho. 22A385. special Eoch. 5235
(3) STEREO ARM $\&$ CARTRIDGE
As above, but with stereo turnover cartridge for playing all records monoural and stereo. Output 3 V.
Ivory finish.

YOU SAVE SSS a reanis PHONO COMPONENTS


RECORD BRUSH
PROTECTS VALUABLE RECORDS


Prevents static $G$ noise from dirt in record grooves.

Attoches to any phono orm | 17C657. |
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| Net Each. |
| 15 |

## BUILD YOUR OWN BATTERY OPERATED PHONOI



45 RPM

## PHONOGRAPH KIT

Kit consists of battery-aperated 45
RPM phono motor with $61 / \prime$ RPM phono motor with $61 /{ }^{\prime \prime}$ dio. output (' 3 Vickup with Astatic high reploceable needie, "automolic switch assembly, and $81 / 2 "$ metal mounting plote.
metal
Operates on $6 V$. DC or from 4 standard flashlight batteries. Speed control ossures proper turntoble speed even ofter botteries hove been in service for some time.

All wiring and assembly instructions | Included. Perfect for use with tran- |
| :--- |
| sistor amplifier of right. | sistor amplifier at right.

No. 328265 . Complete. . $\$ 7.88$

## BUILD YOUR OWN STEREO PHONO <br> AT A TREMENDOUS S\$S SAYINCS



Lots of fun for everyone white soving $\$ \$ \$$. Easy to build-nothing more needed except the cobinet. Builds into practically onything, takes little room. All components highest quality, same as expensive factory made models. Amplifier completely wired ready for hookup to speaker ond phono arm. 4 TUBE STEREO AMPLIFIER powered by 2-12AU6 and 2-50C5 tubes for providing big set volume and tone. Versatile $L$ shape for vertical or horizontal mounting. Separate volume ond tone controls for each channel. $7^{\prime \prime}$ L., $23 / 4^{\prime \prime} \mathrm{D} . \mathrm{F}^{\circ} 33 / 4^{\prime \prime} \mathrm{H}$. Bright cadmium finish. Modern decorative knobs. TWO BIG $5^{\prime \prime}$ SPEAKERS for excellent tone. Extra powerful with 1 oz . Alnico V PM magnets. Includes output transformers.
ALLIANCE 4-SPEEO MOTOR with $8^{\prime \prime}$ rim driven turntable. Has 45 RPM center adapter. Dependable, constont speed operation ot 78,33, 45 or 16 RPM. LIGHTWEIGHT PHONO ARM with stereo turnover cortridge and dual sopphire needles for playing all records-monaural (standard) ond stereo. Convenient, spoce soving retroctoble mounting. Attroctive ivory finish. Supplied complete with arm rest and hardware. $110-120$ V. AC. Shpg. wt. 6 lbs. No. 33 A17.
Stereo Phono Kit. Complete with Tubes
$\$ 22.95$
No. 22A377. AMPLIFIER ONLY WITH TUBES.
(Less Knobs) Special Each.

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## REMARKABLE BUYS! <br> 

Surprising top quality. Will improve tonal performance of any radio, TV, phono or hi-fi having single cone of speakers costing many performance Attractive blue cones, laid baskets, dust covers over pots lord baskets, dust covers over pots. 8-IN. COAXIAL. Heavy duty $8^{\prime \prime}$ woofer
( 3.16 oz. magnet) with $3^{\prime \prime}$ tweeter. Crossover at 2800 cps . Freq. response $60-15,000$ cps. Rated 8 watts. Imp. 8 ohms. Mfg. List $\$ 12.80$.
No. 22B312. Special Each. S. 97 12-IN. COAXIAL. Heavy tweeter Crossover of 2000 with $31 / 2^{\prime \prime}$ 12 watts. Response 50-15,000 cps ohms. Mfg. List $\$ 19.50$.
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woofer $\left(6.8\right.$ oz. magnet) with $5^{\prime \prime}$ woofer 16.8 oz . magnet) with 5
tweeter crossover at 1800 cps. Rated 14 watts. Response $40-15,000$ cps. 8 ohms. Mfg. List $\$ 26.00$
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Incomparable Magnavox quality a surprising low cost. Produced for experformance is a must. Fine as single full-range speaker for hi-fi, PA etc Especially well suited as woofer for 2 or 3 -way speaker systems providing exceptional boss response with free 3 cps. Full finch voice coil and watts power handling capacity for 10 No. 344291 \$888 4 For $\$ 2995$

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 WITH MAGNAVOX $15^{\prime \prime}$ WOOFER 8" MID-RANGE HORN TWEETER CROSSOVER NETWORK An exceptional value Consists of 15 r at right, University "Baton" 3-Way Crossover plus o fine $8^{\prime \prime}$ Mid-range Speaker. A real money saving op portunity. 8 ohms V.C. Imp. Wt. 16 Ib.

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8-INCH TWIN- G-INCH TWO-WAY HI-FI
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SPEAKER
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EXCEPTIONAL QUALITY AT SURPRISINGLY LOW COST A fantastic value Ideal replacement for alder type speakers in record ploy systems where space is limited. systems where space is limited.
Handles up to 10 watts. Frequency response 75-19,000 cps. Impedance No. 34 B207. \$726 3 Lots, \$860
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$21 / 2^{\prime \prime} \times 10^{\prime \prime}$ SPEAKER FITS MOST UNUSUAL SPACES Nothing else like it to compare? Fits where no other speaker will fit while providing unusually fine performance. Mounts horizontally or vertically in bookcases, cabinets, drawers...tucks owoy conveniently anywhere. Top moke with 1.47 oz . Alnico $V$ magnet. 3.2 ohm V.C. B-A special purchase bes possible the low, low price. No. 22 B 282. Special Exch

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12-INCH

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Right up-to-the-minute
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once and performance. Jvancemen antage of the newest advancements n high fidelity speaker design for exceptional sound reproduction as
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cone assures greatly improved boas response. Coaxially mounted cone reproduces silky highs with innervet smooth crossover. Frequency refrequency $45 \pm 13$ cps. Power han ding capacity 20 watts with peak of 40 watts. Crossover at 1800 Cps.
Total flux 85,000 maxwell. Depth
5
SPEAKER FITS UNDER PILLOW
LISTEN TO RADIO OR TV WITHOUT DISTURBING OTHERS

bow impedance magnetic unit operates put conduction principle. Connects to out plug can be plugged into earset or extension speaker lack of sets so equipped. 2 I." ia. $x$ ff" thick plastic case with $74^{\prime \prime}$ two con
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SENSATIONAL BUYS! TWEETERS COMPARE WITH UNITS COSTING 3 TIMES OUR SUPER DELUXE HORN-TWEETER
 Exceptional import value! Superbly engineered to provide $360^{\circ}$ dispersion of high frequency sound. Highly efficient driver has edgewise
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noetic flux 30,000 maxwell.
Beautifully con structed heavy diecast horn in satin colic tricked hoary fiecast horn in soling gold
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Amazing performance at fantastic low price! Provide phono, IV, hi-fi, etc., with improved high fidelity single cone or coaxial speaker. Handles 20 watts of power. Frequency response 3000 to 16,000 cps. Use with crossover at right or similar. Attractive satin gold. size $27 / 8^{\prime \prime}$ dio., 2 18" $^{\prime \prime}$ deep. With mtg. bracket.
Shpg. wt. 1 lb . Top Import quality. No. $178817-80 \mathrm{hm}$. No. 17B819-16 Ohm.

Choice
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Genuine high frequency tweeter with hard Curvilinear cone, fully encased rear. Use with any 8 ohm speaker or fem. Crossover recommended at 2500 cps. Frequency response 1800-20,000 Silltinut 1 No. 228327. Special foch $\$ 1.95$ Conocito Comes ion tor


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$6 \times 9^{\prime \prime}$ TWIN-CONE
TRU-FIDELITY SPEAKER


## ALNICO

PAM


Powerful heavy duty, high quality twin-cone speaker. Perfect for inproved tone in record plovers, radios, TV sets, automobile radio dash and design and principle same as found in the more expensive high - fidelity speakers. Inner cone carries the high notes, outer cone the lows. 3.16 oz . Alnico $V$ PM magnet 3.2 ohm ompedance. Mfg List $\$ 9.50$.
No. $228275 . \$ 499 \quad 10$ Lots, $\$ / 49$
Net Each HEAVIER DUTY $6 \times 9^{\prime \prime}$ 8 watts of power, full 1 inch voice coil, wider frequency response than
above 4.64 oz . Alnico $V$ PM magnet. above 4.64 oz . Alnico $V$ PM magnet
$22849 \ldots \${ }^{3}$ @
${ }^{5} 6^{61}$
\& CROSSOVERS
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UNUSUAL VALUES IN EXTENSION SPEAKERS!


WIDE RANGE SPEAKER In Mahogany Enclosure WITH BUILT-IN VOLUME CONTROL Complete, ready to hook up ta any radio, TV, phono, hi-fi, etc. Beautiful mahogany finished hordwood enclosure witely enclosed for finest baf fling of heovy-duty 61/2" PM speaker Provides full wide-ronge tone. Built Provides full wide-ronge tone. Built affecting other speokers in system affecting other speakers in system -8 ohm V.C. Shpg. wt. 8 lb No. 34 Al76. Import Speciol
$\$ 8.95$
CEILING-WALL SPEAKER IN FLUSH MOUNTING BAFFLE


Pipe music from radio, hi-fi, etc. to any roam of the house, office, plont, enc. easily and economically. Heovy duty $61 / 2$ speaker is premounted in beoutiful white enomeled boffle tho flush mounts-no cutouts necessory -to ceiling or wall. $91 / 2^{\prime \prime}$ dia., $21 / 2$ No. 22B324. Special Eoch
$\$ 5.95$
0 REMOTE SPEAKER


Controls both speakers, main and re Fi , TV, Intercom, PA, etc. $21 / 8 \times 21 / \mathrm{s}^{\prime \prime}$ gold tone mounting plote. Requires $5 / /^{\prime \prime}$ depth behind panel
No. 17 A604. $695 \begin{gathered}3 \text { Lots, } \\ \text { Epecial Eoch. }\end{gathered} 595$

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EACH SET WORTH OVER 40E
Black bakelite polorized plug and matching socket with 3 ft , 4 -conduc tor coble attached. Very high quality. Stranded wire leads, color coded size 18 thermoplastic insulated, end stripped and tinned. Handy for dozens of uses - stereo speaker aftachments, power supplies, test cords, quick wire disconnects, etc. A steal at B-A's low



TWISTED PAIR WIRE

Ideal for speaker installations, also for intercoms, door bells and general hook-up needs. Stranded tinned copWropped color coded conductors. No. 28193. Wt. 8 lbs. Per 1000 ft. | to0 Ft 998 |
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 ACOUSTICAL SPEAKER SOUND FLOWS FROM BOTH ENDS Absolutely amazing sound reproduc tion ... you must hear it! Provides big speaker performance with unusua from both ends. Perfect for hiw from both ends. Pertect for hi-fi raway, auto rear seop, towle, in bookcase- or moti, unde on ceilling, heodboord mounts easily desired 12 " long $336^{\prime \prime}$ dio wherev desired. $2^{\prime \prime}$ long, $33 / 8$ dia. With foot cord. Shpg. Wt. 5 lbs. $\$ 4.95$No. 34 A276. Import Specioi


4-INCH PM SPEAKER IN WOOD BAFFLE HANDY MIDGET SIZE-MOUNTED Find READY TO USE Finished 2 -tone natural wood miniature cobinet, closed of rear. Contain full $4^{\prime \prime}$ speoker with heory mognet. 3.2 ohm mote or chairside TV-radio extension mote or chairside TV-radio extension A dondy speaker for code practice, short wove listening, audio expertmenting of all kinds. Built-in two prong jack and plug for quick con Shpg. wt. 2 Ibs .
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## DELUXE HI-FI REMOTE SPEAKER KIT

Extends the listening pleosure of hi-
B.a ExClusive
fi or radio to ather rooms of the house. Finest quality for exceptional performance ot all listening levelsroom filling volume to soothing background music. World famous Norelco Model AD3800 8" twin-cone speaker roted 6 watts with freq. response 75 -
$19,000 \mathrm{cos} 4.6 \mathrm{ohm} v$ $19,000 \mathrm{cps} 4-6$ ohm V.C. Beautiful hand rubbed hordwoad wall baffle with attractive modern grille measures $101 / 2^{\prime \prime} \mathrm{H}, 101 / 4^{\prime \prime} \mathrm{W}^{2} 63 / 4^{\prime \prime} \mathrm{D}$. L-pad type volume control with dial plate and knob mounts in baffle. Easily assembled and installed, instructions included. Shpg. wt. 6 lbs. Recommended list $\$ 24.95$.
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For adjusting and motching the listening levels of 2 or more speakers used in a multiple speaker system. Matt silver and black $21 / 2 \times 2^{\prime \prime}$ panel plate with black plastic contour knob. Mounts in panels up to $3 / 4$.
No. 178325-8 Ohm. Special Impart Value
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(2) MULTIPLE SPEAKER SWITCH For Up to 6 REMOTE SPEAKERS

## For centralized "on-off" control of up to 6 remote speakers used in a hi-fi


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For use of up to three extension speakers. Permits using each speaker indi-
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MULTIPLE JACK STRIP
10 standard phona type iacks, ceramic
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SMALL PARALLEL WIRE Neot gray plostic insulated 2-wire parallel cable. Extro flexibie with size 24 stranded copper conductors. Perfect for hi-fi and intercom instalna-
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Highest grode, extra flexible brown all rubber parallel cord with size 18 AC extensions, etc.
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## SAVE OVER 50\% ON TOP QUALITY ALNICO $V$ <br> PM SPEAKERS <br> ALL HAVE 3-4 OHM VOICE COIL

MIDGET $2^{\prime \prime}, 1$ Ox. Mognet.


MIDGET 3", 1.47 Ox. Magnet.


POPULAR 4", . 68 Oz. Mognet. No. 228280. $\$ 19$ Lots, 10 Lech
Special Eoch, NORELCO HI-FI 3-INCH 6 oz . magnet. Range 240-12,000 cps. Type AD1300.
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S-INCH PM SPEAKER WITH OUTPUT TRANSFORMER Meavy-duty Alnico magnet. Premounted transformer matches speaker to amplifiers, phonos, radios, etc. using 50L6, 25L6, 35 L 6 , etc. No. 22A50. \$199 10 Lots, \$175 8 WATT PAGING AND PA SPEAKER FOR OUTDOOR AND INDOOR

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Waterproof, rustproof, shockproof really rugged to withstand outdoor abuse. Driver unit enclosed within the horn. Special designed diophragm withstands up to $30 \%$ power input overlood. Frequency response 380 to 7000 cps . Dispersion $120^{\circ}$. Impedance 8 ohms. Size only $61 / 4^{\prime \prime}$ long with $6^{\prime \prime}$ dia, horn opening. Blue hammertone With swivel mig. bracket. Shpg. Wt

WALL-MOUNTED L-PADS
Speaker control on bross wall plate to fit standoro box. Has closed circuit joc for odditional speaker.
No. 22A384
16 ohm.
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The perfect way for storing small items and parts. Crystal clear heavily molded plastic drawers, $53 / 4^{\prime \prime} \mathrm{L} \times 218^{\prime \prime}$ W $\times 11 / 4^{\prime \prime} \mathrm{D}$, are spillproof and divide movable dividers included. Sturdy steel gray enamel finished cabinet, size B-A Speciol Value compares with units usuolly selling for over $\$ 12.00$ list. No. 40B96.
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CLEAR PLASTIC BOXES

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Handy for condensers, resistors, hardware. Size $7 \times 31 / 2 \times 13^{3 \prime}$. With hinged lid.
 WITH PARTITIONS
As above, except with comportments for keeping small items separated
 KING-SIZE TACKANAIL FIX-IT KIT
OVER 700 PIECES


ITEMS N HINGED PLASTIC BOX WITH COMPARTMENTS A handy kit to have oround shop thumb tacks; 18 flot heod
 92 \# 9 double-pointed 1017 wire noils; 40 \# 43 bross-ploted furniture nails; 76 noils and ${ }^{1 / 2}$ brads in 6 tacks; 80 lizes; ond 140
nerger $5 /$ ails $^{\prime \prime}$ brass ploted linoleum binding 5/8ils.
noils.
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High quolity, compoct, rugged to withstond high temperature and high peak voltage in TV, rodia, etc. 4

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25 Assorted top quality midget size disc ceramics in most needed capac-
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50 different types including concen tric, chonnel selectors, tuning, etc
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PARTS ASSORTMENT


Consists of a mixture of various type Condensers, Resistors, Switches, etc. Surprise Pockoge.

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Highest quality insuloted resistors in popular resistonces.il All Americon, IRC , mostly smon types by AB TRC, stackpole, etc. Includes ${ }^{75-1 / 2}$

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Ultra-small hermetically seoled con densers so essential for transistor work, 10 includes popular capacity values net value each condenser of least 73 c $\begin{gathered}\text { No. } 18 \mathrm{Cl337} \\ 10 \text { Assorted }\end{gathered} . . . . . . . . . \$ 1.99$

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Kit of 10 finest quality, 1 ca. 40 mfd
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No. 18 B 494.7 Assorted. $\$ 1.99$ 10 TO 20 WATT WIRE WOUND RESISTORS
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35 Assorted popular capocities, some silver. All top quatity with regular


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10 Coils, Assorted Colors high qual ity thermoplostic insuloted hook-up re. All size 20 stronded copper Treen, Alue, vellow, etc. \$1.88 35 MIDGET CERAMIC TUBULAR CONDENSERS


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25 PAPER TUBULAR CONDENSERS


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10 Assorted popular vitreous enam end types. 50 watt each 20 watt fixed, 25 watt adjustable.
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VOLUME CONTROLS


5 Assorted standard types with $1 / 4^{\prime \prime}$ shofts. All popular resistance values including $1 / 2$ and 1 meg. One with


Consists of 100 each $4-40 \times 1 / 2{ }^{\prime \prime}$ and 6-32x $1 / 4^{\prime \prime}$ RH machine screws; $1 / 4^{\prime \prime}$ 50 each $6-32 \times 3 / 4^{\prime \prime}$ and $8-32 \times 1 / 2^{\prime \prime}$ RH machine screws and 75 No. $6 \times 1 / 2^{\prime \prime}$
sheet metal serews. sheet metol serews.
53.29 RADIO HARDWARE


Nuts, woshers, grommets, springs, clamps, evelets, screws, etc. A port Very handy for workshop or tool box. Over 600 pieces contalned in a clear plastic box.
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25 Assorted populor types in vorious lengths. Alwoys needed by everyone
who builds or repairs.
No. 1889. 25 Pieces........ 490

PLASTIC G VARNISHED CAMBRIC ASSORTED SPAGHETTI

## (O) 60 FT .

A fine lot of assorted colors and sizes high grode extruded plastic and camhandy for countless needs. Alw you get it at a froction of regular value.
No. 18 A284.
Per 60 Ft . Lot
69c

## ASSORTED LUGS <br>  <br> Handy metal can with a wide assart-

ment of popular types of lugs.
No. 18 All 144.
Approx. 100 Pieces in can... 696
RUBBER GROMMETS


High quality, tough black rubster. Approx. 50 pleces in populor sizes to fit holes from $1 / 4$ to $5 / 8^{\prime \prime}$ dio. in metal panels. Big Sovings!
No. 18A509.
Per Assortment, Speciol
69e
PIN PLUGS AND JACKS


RCA type pin plug and jack so poput lor for Phono, Recorder. Auto Radio jack is needed.
Includes 10 sets.
No. 17895. Per Asst.
$95 c$

## CHEST FULL OF CONDENSERS



A B-A treasure chest value! Handiest, most complete deal of its type available anywhere! Contains the condensers most needed in everyday electronics work spilling over in handy metal storage unit included.
Every piece top make. All ot a fraction of regular price. Your average cost per condenser less thon 7 C and the cobinet is free.
Just look at what you get: 10 Tubuiar Electralytics, both single and duals, 35 Molded Tubulars, 400 and 600 volts in most popular capocities; 50 Tubulor Ceromics: 25 Disc Ceromics; and 35 Midget Micas. 155 pieces total, all very useable values.
Heavy gauge steet storage unit with "see-thru" clear plastic drawers measures $1 / 2$ wide, $4^{\prime \prime}$ hi, $6^{\prime \prime}$ deep. Regular net volue cobinet alone $\$ 3.98$. Shpg. WI. $71 / 2$ Ibs.
No. 18 A181. COMPLETE KIT SPECIAL EACH
$\$ 9.99$

## CHEST FULL OF RESISTORS

225 RESISTORS PLUS METAL STORAGE CABINET
Another B-A fabulous offer, the perfect componion to the condenser deal above. Everyone will want a pair of these sensational money savers. Just a glance of regular prices is proof enough of the unmotched value! Average cost per resistor less than $41 / 2 c$ and the cobinet is free. Here's what you get: 150-1/2 Wott ond 50-1 Waft Insuloted Resistors in mast popular resistance values. All latest. small types by IRC, Stockpole, efc.: 15-10 Watt, 5-20 Watt, 3-25 Wott and 2-50 Wott vitreous enomeled porcelain wire wounds including both fixed and adjustable types. 225 pieces totol-all brand new, fully guaronteed. Includes Mefol Storage Unit, as with above. Shpg. wh. 6 lbs,
No. 18 AI82. COMPLETE KIT SPECIAL EACH
Extro Cobinets.
No. 20A956. Type $V-8$
$\mathbf{\$ 9 . 9 9}$
$\$ 3.98$

HOT VALUE! BARGAIN WIRE ASSORTMENT

## 109 99c

Highest quality thermoplostle insulated tinned copper \#22 stranded hookup wire in $5-50 \mathrm{ft}$. coils, sorted colors.
$\$ 2.33$.
No. 2A215. 250 Ft. Asst..... 9

## 2 LBS. OFTEN NEEDED

 SELF-TAPPING SCREWS
## (x) <br> 100's of PIECES <br> 99c

Handiest hardware ossortment vou't buy! A big voriety of sizes and lengths tically all head styles. No. I18385. 2 Lb. Asstm 99c

## POPULAR

SOLDERLESS TERMINALS


100
ASSORTED
s139

100 Assorted most popular types and sizes as used with the Amp Hond Tool shown on page 56. Includes ring tongues, slotted tongues, splice con139 188742 Pece nast of ion $\$ 1.39$ BUNDLE OF SPAGHETTI

## 23c

A neat bundle of 24 pieces, each $9^{\prime}$ long, varnished high grode tubing in No. 18 A69. Per Asst..

23c

## JIM ROWLAND ASSORTMENT

## ? VALUE \$195

New Modernized Version... Greater Than Ever


Jim Rowland, our Boss worehouseman has won thousands of friends for B-A through the sale of his very popular cleon-up assortment. Jim now tells
us the deck has been cleared of most us the deck has been cleared of most
of the bulky, less expensive items that contributed to the total weight of the assortment. So, we got our
heads together heads together
mine lust what would bring to determine lust what would bring home the
bacon now. Jim said. "cut the weight, but triple the quolity". We went along, so here it is, better thon ever- 3 ths. of usually costly compo-nents-resistors, condensers, switches, volume controls, plugs, jocks, wire. amaze you. A truly tremendous value at only a very fraction of the original cost. Try one and if you're not happy -biame Jim but we will give you your $\$ 1.95$ back. Shpg. wt. 3 Hs:
Mo.38183. 3 Value No.38183.? Value
Jim Rowlond Assortment. .

## 01 <br> YOU SAVE SSS on these spicial RG:INS

POPULAR ASSORTMENTS

## (Q) ALL ARE <br> BRAND NEW! <br> fuLLY gUaranteto!

INSULATED PHONE TIP JACKS
5 BLACK
5 RED

## 39c

Highest quatity insulated tandard est leods une ip plugs as used on needed for building, experimenting etc. Buy plenty now of B-A's big price soving and hove on hond for future as well as present projects. Motded $1 / 2$ " bakelite heod brass spring, specdi-clip mounting. Fits is
hole in metol or ather ponels up to hole in metol or other ponels
in" thick. Mfg. list value $\$ 1.10$. No. $18 A 370.5$ Red 55 Block. 39
Per Pockoge. ............... No, 20 TINNED COPPER WIRE $24 c$ Always handy to have around for reody use. Fine for spoce wound coils, 18 A395. 2.210 Spools
Per Spool.. Eoch.... 200-FT. WIRE KIT



CUT-STRIPPED, AND TINNED
BOTH ENDS . READY TO SOLDER Saves tume, work, and $\$ \$ \$$ tool Highest quality thermoplastic insulated and tinned, ready for instant use, No more fumbling around with cufters strippers ond the like. Simply pick the length and size needed and solder Consists of several hundred lengths 4 inch to 2 ft . In assorted calors both solid and stranded, sizes 20 to 22. About the handiest wire ossortment ever of a fraction of its regular value, Shpg. Wt. I to. ?
188316 . Approx, 200 Ft . Eo.

INTER-CONNECTING CABLE KIT
FOR MI-FI, INTERCOM, ETC.

$700^{\circ}$ Highest Quolity Vinyl Jocketed Shielded Coble Plus 10 RCA Type Plugs. A real good buy! Use of only one on iwo 6 to 12 cables will pay for en tire kit. Extro flexible size 22 timned copper stranded, thermoplastic insulated wire with tinned copper braid and tough vinyl jacketed overall. Perfect for hookup of record plover, tuner. speaker, etc., in hi-fi installotions, for intercom, telephone, signal for etc.
tem.
$\$ 1.79$

# STOCK UP AT BA＇s LOW PRICES <br> EVERY ITEM FACTORY－FRESH PRODUCTION OF LEADING MANUFACTURERS！ 



All singie copacity units are hermeticolly sealed in aluminum tubes，covered with red kraftboard insulating iockets－tinned copper leods－

| Cop． Mfd． | Wkg． <br> V．DC | $\begin{gathered} \text { Size } \\ \text { Inches } \end{gathered}$ | Stock No． | Net Eo. | 10 ot Eoch |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 450 | $3 / 4 \times 15 / 8$ | 17A225 | ． 40 | ． 36 |
| 8－8 | 450 | $7 / 8 \times 2$ 10 | 17A234 | ． 62 | ． 56 |
| 16 | 450 | $1 / 8 \times 2$ 10 | 174232 | ． 49 | ． 45 |
| 20 | 450 | $1 \times 2$ | 178254 | ． 54 | .49 |
| 20－20 | 450 | $1 \times 2$ 16 | 17A231 | ． 90 | ． 81 |
| 30 | 450 | $1 \times 2$ 者 | 174233 | ． 59 | ． 54 |
| 40 | 450 | $1 \times 24$ | 178286 | ． 65 | ． 59 |
| 80 | 450 | $18 \times 21$ | 178238 | 1.06 | ． 96 |
| 20 | 150 | 5／8×15／8 | 184634 | ． 36 | 33 |
| 30 | 150 | $3 / 4 \times 15 / 8$ | 154412 | ． 40 | ． 36 |
| 40 | 150 | $3 / 4 \times 2$ 1 | 154413 | ． 44 | ． 40 |
| 20－20 | 150 | $3 / 4 \times 15 / 8$ | 174235 | ． 49 | ． 45 |
| 30－30 | 150 | $7 / 8 \times 158$ | 174440 | ． 54 | ． 49 |
| 40－20 | 150 | 7／8×15／8 | 184632 | ． 54 | ． 49 |
| 40－40 | 150 | 7／8×2 ${ }^{14}$ | 154416 | ． 57 | ． 52 |
| 50－30 | 150 | $7 / 8 \times 2 \times 1$ | 17A441 | ． 49 | 45 |
| 10 | 50 | $1 / 2 \times 15 / 8$ | 154419 | ． 33 | ． 30 |
| 25 | 50 | $1 / 2 \times 15 / 8$ | 178287 | ． 36 | ． 33 |
| 50 | 50 | $5 / 8 \times 15 / 8$ | 178288 | ． 39 | ． 36 |
| 100 | 50 | $3 / 4 \times 15 / 8$ ， | 178251 | ． 54 | ． 49 |
| 10 | 25 | $1 / 2 \times 1 / 8$ | 178239 | ． 35 | ． 33 |
| 25 | 25 | 5／2×15／8 | 154418 | ． 38 | ． 34 |
| 50 | 25 | $58 \times 15$ | 178252 | ． 39 | ． 35 |
| 100 | 25 | $5{ }^{\text {5 }} \times 15 / 8$ | 178240 | ． 49 | ． 45 |
| $\begin{array}{r} 40-30 \\ -20 \end{array}$ | 150 | 1x3 | 154941 | 69 | ． 62 |

 mfd，2－40 mfd＠ $450 \mathrm{~V}: 2-20 \mathrm{mfd}$ ， $1-40$ mfd， $2-50 / 30 \mathrm{mfd}, 1-40 / 30 / 20$
$\mathrm{mfd} @ 150 \mathrm{~V} .1-25 \mathrm{mfd} @ 50 \mathrm{~V}$ ． $1-10$ mfd $2-50$ mfd＠ 25 ＠ 5 No． 184968. Special Per Asst．．．．．．．．．．\＄5．99

## MITE－SIZE CERAMIC CONDENSERS



600 WORKING VOLTS DC Finest quality general purpose ceramic capocitors featuring excellent high fre－
quency charocteristics，extreme small size and rugged construction．All ore fresh stock －Fully Guaranteed．

Minimum order 5，not ossorted．

| Stock No． | Cop． Mfd． | 5 Lts． Each | $\begin{aligned} & 100 \text { Lis. } \\ & \text { Eoch. } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 15A1199 | ． 000005 |  |  |
| 15A1200 | ． .00001 | 9 c | 8 C |
| $15 A 1201$ | ． 00002 | 9 c | 8 c |
| $15 A 1202$ | ． 00005 | 9 c | 8 c |
| $15 A 1203$ | ． 0001 | 9 c | 8 C |
| 15 A1204． | ． 0002 | 10 c | 9 c |
| $15 A 1205$ | ． 00047 | 10 c | 9 c |
| $15 A 1206$ | ． 001 | 10 c | 9 c |
| 15 A1207 | ． 002 | 15 c | 14 c |
| DISC TYPE |  |  |  |
| 15A1210 | ． 00001 | 9 c | 8 c |
| 15A1219 | ． 000002 | 9 c | 8 C |
| 15A1211 | ． 000047 | 9 c | 8 c |
| $15 A 1212$ | ． 0001 | 9 c | 8 c |
| 1541213 | ． 00047 | 9 c | 8 c |
| $15 A 1214$ $15 A 1215$ | ． 001 | 9 c | 8 C |
| 15 A1216 | ． 005 | 9 c | 8 C |
| $15 A 1217$ | ． 01 | 9 C | 8 C |
| 1541218 | ． 02 | 13 c | 8 cc |

56 Assorted From Above：Conslsts of 4 eoch Tubular types plus 2 each Disc types， No．15A397．Speciol，Per Asst．54．38

MOLDED PLASTIC TUBULAR CONDENSERS AS LOW AS ©
EACH， 10 LOTS Top quality plastic molded compoct tubu－ lars．Compact，yet with the rugged con－
struction needed to withstand the high temperoture in TV，Radio，Etc．

| Mfd． <br> Cop． | Volts | Stock <br> No． | Price <br> Eoch | 10 ot <br> Eoch |
| :--- | :---: | :---: | :---: | :---: |
| .01 | 400 | $18 A 761$ | .10 | .09 |
| .05 | 400 | $18 A 7762$ | .12 | .11 |
| .1 | 400 | $18 A 763$ | .16 | .15 |
| .25 | 400 | $18 A 764$ | .24 | .22 |
| .5 | 400 | $18 A 765$ | .42 | .39 |
| .001 | 600 | $18 A 729$ | .09 | .08 |
| .002 | 600 | $18 A 730$ | .09 | .08 |
| .005 | 600 | $18 A 731$ | .09 | .08 |
| .01 | 600 | $18 A 732$ | .10 | .09 |
| .02 | 600 | $18 A 733$ | .11 | .10 |
| .03 | 600 | $18 A 715$ | .14 | .13 |
| .05 | 600 | $18 A 734$ | .16 | .14 | Kit of 36 of Above： 4 each $.001, .002$

.005 ；and 6 eoch $.01, .02, .05, .1$ all 600
No． 1

## MOLDED PLASTIC BUFFER CONDENSERS

## FILLS BULK OF AUTO RADIO NEEDS

 Compact，top quality．Withstands high heat impregnated． 1600 Wkg．V．DC| Cap． Mfd． | Size Inches | Stock No． | Net Eoch | $\begin{gathered} 10 \text { Lots, } \\ \text { Eoch } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| ． 002 | 3／8×11／4 | 184970 | 22 c | c |
| ． 003 | ${ }^{7} \mathrm{~T} \times 1 / 4$ | 184755 | 22 c | 20 c |
| ． 004 | ？${ }^{1} \times 114$ | 184756 | $22 c$ | $20 c$ |
| ． 005 | 3 $3^{1} \times 1 / 4$ | 184736 | 22 c | 20 c |
| ． 006 | 1／2×15／8 | 184757 | 22 c | 20 c |
| ． 007 | $1 / 2 \times 15 / 8$ | 184737 | $24 c$ | 22 c |
| ． 0075 | $1 / 2 \times 11 / 2$ | 184971 | 24 c | 22 c |
| ． 008 | $1 / 2 \times 15$ | 184758 | $24 c$ | 22 c |
| ． 01 | $1 / 2 \times 15$ | 184738 | $24 c$ | 22 c |
| ． 02 | $5 / 8 \times 178$ | 184759 | $24 c$ | 22 c |
| ． 03 | $5 / 8 \times 17 / 8$ | 18A760 | 24 c | 22 c | 005 of $.006, .01, .02, .03,2$ each $.003, .004$ No． 184766 ．Spec．Per Asst．．．$\$ 2.97$



Mermetically sealed in aluminum cans．



WITH ALNICO V HIGH EFFICIENCY MAGNETS The measuring stick for speaker efficiency and its value is the All hef Weight．Be sure you check when you compare prices Al 3.2 ohm voice coils rexcept 32A70 and 22B59 whi

| Size | $\log _{\mathrm{O}_{\mathrm{x}} .} \mathrm{W} t .$ | illus． | Depth | Stk．No． | Each | $10 @$ Each | $\begin{aligned} & 24 @ \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2^{\prime \prime}$ | 1.47 | 3 | $18{ }^{\text {fi＂}}$ | 22B76 | \＄1．99 | 51.88 | 1 |
| $3^{\prime \prime}$ | 1.00 | 3 | $2{ }^{10}$ | 22A235 | 1.79 | 1.63 | 1.4 |
| 4＂＇ | 1.00 | 3 | 2 | 22B77 | 1.65 | 1.55 |  |
| $4 \%$ | 1.00 | 3 |  | $22 A 125$ | 1.99 | 1.80 | ． 6 |
| $4{ }^{\prime \prime \prime}$ | 1.47 | 3 | 21／4＂， | $22 \mathrm{Al24}$ | 1.80 | 1.70 | ． 5 |
| $5{ }^{\prime \prime \prime}$ | 1.00 | 1 | $20^{\circ}{ }^{\circ}$ | 22878 | 1.75 | 1.65 | ． 5 |
| 5＂， | 1.47 | 1 | $2{ }^{\prime \prime}$ | 22879 | 1.95 | 1.79 | ． 6 |
| $5^{\prime \prime}$ | 2.15 | 1 | 2 関＂ | $22 \mathrm{B316}$ | 2.35 | 2.19 | ． 9 |
| $6^{\prime \prime}$ | 1.47 | 4 | 2玮＂， | 22881 | 2.25 | 1.99 | ． 8 |
|  | 2.15 | 4 | 218．＂ | 22882 | 2.69 | 2.49 | ， |
| $8{ }^{\prime \prime \prime}$ | 1.47 | 1 | 3＊＂ | 22848 | 2.75 | 2.49 |  |
| $8^{8 \prime \prime}$ | 2.15 | 1 |  | 22852 22859 | 2.95 | 2.79 | 2.4 |
| $8^{\prime \prime \prime}$ 10 | 6.8 | 4 |  | 22859 | 5.95 | 5.39 | 4.8 |
| 10．＂ | 3.16 | 1 | $4^{\prime \prime}$ | 33871 | 4.39 | 3.99 | ． |
| 12＂．＂\％ | 2.15 6.8 |  | 47\％＂， | 34 Bl 3266 3240 | 4.35 | 3.95 6.35 | 3．5 |
| $4 \times 6^{\prime \prime}$ | － 1.47 | 2 | 2硣＂ | 22B80 | 6.95 2.25 | 1.95 |  |
| $5 \times 7$ | － 1.47 | 2 | 24\％＂ | 22B62 | 2.69 | 2.49 | 2.1 |
| $6 \times 9$＂＇， | ， 2.15 | 2 | $31{ }^{\circ}{ }^{\prime \prime}$ | 22 B 53 | 3.29 | 2.99 | 2.6 |
| $6 \times 9 \times 1$ | ． 3.16 | 2 | 31／3＇ | 22B83 | 3.59 | 3.29 | 2.8 |

POPULAR TWIN CONE SPEAKERS
FOR IMPROVED TONE AT AMAZING LOW COST


DELUXE 8 INCH．Superior quality replacement tor TV，phonos rodios，etc．；where better tone is desired．Heovy－duty 2.15 02 ．Alnico $V$ PM magnet． $3 / 4^{\prime \prime}$ voice coil．imp． 3.2 ohms． No．22A149．
\＄3．85 Each．
$\$ 3.45$
HIGH FIDELITY 8 INCH．Perfect choice for hi－fi systems， bockground music Installations，TV，radio，phono，replacement －anywhere a superb quality speaker is required．Accordion edge cone suspension plus high frequency whizzer cone pro－ vides omozing boss，ciean crisp highs．Heavy 6.8 oz．mognet wt． $31 / 2$ lbs
No．22A150．Special Eoch
$\$ 7.95$

## DELUXE CHROME FINISH GRILLES



FOR AUTO REAR SEAT SPEAKERS，INTERCOMS，PA，ETC．
（1） $4 \times 6^{\prime \prime}$ Grille．
No． 22 B 106 ．
51.65
（3） $6 \times 9^{\circ \prime}$ Grille．
No．22B107．
Eoch．
\＄2．37 （3） $5 \times 7^{\prime \prime}$ Grille． 52.10 （3） $8^{\prime \prime}$ Round．
No． 22 B109．Eoch． 22 B108．Eoch．S2． 55 REMOTE SPEAKER SWITCH KIT
For switching between dual speokers such as auto rear seat and front seat speakers； tions，etc．Permits operation of either complete with mtg．hardware． 88 C
 VARI－CONTROL KIT．Regulates volume in both front and rear speakers allowing mixing os desired，or operates each separately．Complet
No．14B874．Each
6，Mo．（Phone BAltimore 1－1155）

# on ALWAYS NEEDED COMPONENTS 

## 



12A998 1/2-WATT
Net Eoch. 10 (one-valuel 10 For

- 100 For . :Minimum $\$ 4.95$ valu
Kit of 100 of above: Consists of $75-1 / 2$ watt and $25-1$ watt in lor resistance values.
No. 158908. Special Per Asit.
$\$ 4.95$


BIG SAYINGS!
VITREOUS ENAMELED WIRE-WOUND RESISTORS

In most needed resistonce values. Finest quality resistors wound on mil grode steatite forms. Silver soldered connections between wire ond lug.
Please specify Sk. No. ond resistance.

| 5 | 100 | 500 | 3000 | 20,000 |
| ---: | ---: | ---: | ---: | ---: |
| 10 | 150 | 1000 | 5000 | 25,000 |
| 20 | 200 | 2000 | 10,000 | 50,000 |
| 50 | 300 |  |  |  |


| No. $26 A 121$ <br> 5 to 5000 Ohm <br> 10,000 Ohm <br> $20,000 \mathrm{Ohm}$ <br> $50,000 \mathrm{Ohm}$ |  |  | Net Ea <br> 5.44 <br> .54 | 10 Ea $\$ .39$ .45 .49 |
| :---: | :---: | :---: | :---: | :---: |
|  | 20 w | ATt | (ED-2x7 | $6^{\prime \prime}$ |
|  | $\begin{aligned} & 100 \\ & 200 \\ & 300 \\ & \hline \end{aligned}$ | 500 1000 3000 |  | $\begin{aligned} & 20,000 \\ & 40,000 \\ & \hline 0 \end{aligned}$ |


| No. $26 A 122$ | Net Eo. | 10 Ea. |
| :--- | :--- | :--- |
| 5 to 5000 Ohm | $\$ .68$ | $\$ .48$ |

$\begin{array}{lll}10,000 \text { to } 40,000 \mathrm{Ohm} \\ \mathbf{\$ . 5 8} & \mathbf{8 9} & \mathbf{8 . 4 8}\end{array}$

| (1) 10 WATT ADS. $-13 / 4 \times 5 / 16^{\prime \prime}$ |
| :--- |
| $10 \quad 50$ |
| 25 |

Mo. $26 A 123$ NefEa. 10 Ea.
$10+101000$ Ohm $\quad \$ .94 \quad \$ .78$
IRC AXIAL-LEAD POWER WIRE-WOUND RESISTORS


|  | IT AD |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 25 | 300 500 | 2500 | 10,000 | 25,000 |
|  |  |  |  | $\begin{aligned} & 0 \mathrm{Eo} \\ & .89 \\ & .04 \end{aligned}$ |
| (3) 50 WATT ADS - $4 \times 9 / 16^{\prime \prime}$ |  |  |  |  |
| 50 | 5000 | 2000 3000 | 10,000 | 25,0 |


| No. 26412 | Net Ea. | . |
| :---: | :---: | :---: |
| 50 to 5000 Omm | \$1.39 | \$1.16 |
| 10,000 Ohm | 1.46 | 1.22 |
| 25,000 Ohm | 1.72 |  |
| 50,000 Omm | 1.80 | 1.50 |


\section*{(3) 100 WATT ADJ. $61 / 2 \times 3 / 4$} | 10 | 100 | 1000 | 10,000 | 50,000 |
| :--- | :--- | :--- | :--- | :--- |
| 50 | 500 | 5000 | 25,000 | 100,000 | No. $26 A 126$ Net Ea. 10 Eo.



WIRE-WOUND RESISTORS volue.

|  |
| :---: |
|  |  |
|  |  |

MIDGET VOLUME CONTROLS
Brand new, fully guoranteed, fresh production Highest quality contrals at fantastic sovings Small size, $7 / 8^{\circ \prime}$ dio. with $3^{\prime \prime}$ long $\times 1 / 4^{\prime \prime}$ standord flotted shaft (can be cosily cut ta obtoin necessary length). All ore logarithmic taper os needed for both tone and volume.

> LESS SWITCH
 Choice Each

## WITH SPST SWITCH

$1 / 2$ Meg. No. 188709 . Reg. Net $\$ 132$.

Precisely wound element sealed in ce peedier perfect for use in tight spoces size perfect for use in tight spaces. Can 2 or more far against chassis an

\$\$S IN SAVINGS factory BOXED TUBES

Every tube is the product of a Notionolly known Monufocturer-NAME BRAND

MINIMUM ORDER 10-TUBES
Ais All of one type or ossorted os you desire. All orders MUST spealfy will bo shlpped of prevailing prices for guantity ordered as show only


NEW DELUXE TUBE \& TOOL CARRYING CASE
Extro light and easy to handle. Holds over 200 tubes and necessary tools for most service needs. Compact, rugged good looking, solid woad construction Covered in washoble plostic coated grey tweed fobric. Size $21^{\prime \prime}$ wide $\times 15$ high $\times 8^{\prime \prime}$ deep. Shpg. wt. 12 lbs.
No. 40 A238.
Net Each.
$\$ 11.95$
When Ordered with 10 Tubes obove
Net Each. . . . . . ............. S8.95
When Ordered with 20 Tubes above


Burstein-Applebee Co., 1012-14 McGee St., Kansas City 6, Mo., (Phone BAltimore 1-1155)

# SAVE \$ \$ ON B-A SPECIALS! 

TOP QUALITY MAKES! FRESH PRODUCTION! FULLY GUARANTEED!


## TV PICTURE TUBES

## FACTORY SEALED CARTONS

GUARANTEED ONE FULL YEAR
Fully licensed under all opplicable patents and monufoctured in one of the notion's mast modern plonts under strictest cantinuaus line quality contral.
No Glass Trade Ins or other inconvenience necessary for B-A's "below the market prices." Safe arrival guaranteed vio Railway Express (not mailable). All tubes F.O.B. Kansas City. Bold face type indicates Aluminized Face Plate.



COMPLETE TV PICTURE TUBE SAVER Works on either series or porallel filoments. Isolated
windings correct filament-cothode "shorts". Variable conwindings correct filament-cathode "shorts". Variable con-
trol permits selection of exact amount of voltage boost trol permits selection of exact amount of voltage boost
needed. Controlled increase in very small steps stretches needed. Controlled increase in very small steps stretches
picture tube life many times that available with fixed voltoge boosters. Fully enclosed in metol cose $61 / 2^{\prime \prime} \times$ $21 / 4^{\prime \prime} \times 15 / /^{\prime \prime} \mathrm{H}$. Mounts inside set. With instructions
for simple plug-in installation. Shpg. wt. 2 lbs. $\mathbf{S O}^{2} 88$
$29 A 282$ CBC model DUB. Mfg. list $\$ 4.90$. Eo.. 29A282. CBC model DUB. Mfg. list $\$ 4.90$. Eo.. $\$ 288$ PERMA-POWER TV TUBE RESTORER CORRECTS DOZENS OF PICTURE TUBE FAULTS
Simple cure for open cothode, heater to cathode short, open control grid, control grid to cathode short, low trostotic or electromagnetic focus pix tubes, in series or poraliel-wired fllament clrcuits. Wt. 1 lb. \$3.90 ATR ELECTRONIC TUBE PROTECTOR DOUBLES OR TRIPLES TUBE LIFE
For TV (including picture tubes), Rodio, Hi-Fi sets. ElimInates the initial voltage surge which oceurs before the set warms up. Use on sets from 100 to 300 watts. Simmatic operation. Wt. I lb. Size $118 \times 31 / \mathrm{s}^{\prime \prime}$.
No. 32C275. ATR Model 250 . Eoch........ 2.63 No. 32C275. ATR Model 250. Eoch.


### 7.5 OHM FUSED RESISTOR

## Often needed replacement in series wired

 TV sets. Exactly matches electrical specifications and dimensions of the original part. Buy plenty at this lowest price anywhere. Regular net price 38 c each.No. 18 C640.
Spec., Eoch..... SC 10 Lats, $12 C$ KIT OF 10 IN HANDY PLASTIC BOX Contoins the popular always needed sizes;
$6-7.5 \mathrm{ohm}$, plus 1 each of $4.7,5.6$ ond value $\$ 3.80$. volue $\$ 3.80$ No. 17C427. Kit of 10 , speciol. \$1.99


N GE NE2 NEON LAMPS Extremely popular $1 / 25$ watt bulb as
used for pllot light ossemblies and used for pllot light ossemblies and
for volume level indicator on recorders. Unbosed, with 2 wire leads $1 / 4 "$ dio., 1 ri" long. Requires $200,=$
000 ohm series resistor for $105-125$ $\checkmark$. Operation No. 184841
10 For....59C For 52.49

FOR IMPROVED
BARGAIN PRICED!
TV PICTURE TUBE "BRIGHTENER"


DIM PICTURE TUBES RESTORED TO NEW BRILLIANCE
Makes dull smoggy pictures bright and crisp, extends life for many months. Works with electrostofic ond magallel tube filaments. Very simply installed, just plugs-in.

| No. 20A339.87 |
| :--- |
| Net Eoch. 6 |
| For . S4. |
| 19 |

HANDY TV ANTENNA CONNECTORS


REG. 35 Net Value

Mighty handy. Makes connecting and disconnecting 300 ohm lead from TV set quick and easy. Clothespin type. Snaps onto antenna terminals of set
No. 178420.19810 Lots, 158
Net Eoch... 19

## TV CHEATER CORDS BARGAIN PRICED!

TOP QUALITY NO. 18 POSS UL APPROVED 6-FOOT CORDS

(1) Essential for TV servicing. Enables detached or chassis out of cabinet. Always hondy to have-buy severa Na. 198907.
Each..... 55
10 Lats
Each... 296 (3) WITH NOTCHED PLUG

Latest style with notched type plug that can be removed from back of set. Mighest quality No. 18 POT No. 19A916. 356 10 @ach. 296
Eoch ......35

## SAVE ON TOP QUALITY SELENIUM RECTIFIERS

 Dry dise, half wave universally used in rodios record playfiers, etc. Made with high quality plates to assure long life and dependability. Brand New fres monufocturer iso fresh from original 380 volts maximum peak inverse rating. All below are High Density.| Stock No. | DC MA | Size Inches | Eoch | 5 Lts. Eo. |
| :---: | :---: | :---: | :---: | :---: |
| 1781095 | 65 | . $67 \times .67 \times 3 / 4$ | 50.47 | \$0.42 |
| 1781096 | 75 | . $67 \times .67 \times 1 \frac{1}{10}$ | . 65 | . 59 |
| 1781097 | 100 | $1 \times 1 \times 1 \times$ | . 69 | . 62 |
| 1781098 | 150 | $1 \times 1 \times 1{ }^{6}$ | . 88 | . 79 |
| 1781114 1781101 | $300-400$ 500 | $11 / 2 \times 11 / 2 \times 1 / 2 \times 2$ | .99 1.29 | .90 |

500 MA MINIATURE SILICON RECTIFIER UNIVERSAL REPLACEMENT FOR ANY SELENIUM UP TO 500 MA


Highest quality encapsulated minioture size silicon with oxiol leads. Requires no heat sink, simply wire TV applicotions. 400 peak inverse TV applications. 400 peak inverse voltage. Measures only $3 / 8$ dia. $\begin{array}{ll}\text { No. } 1781102 . \$ 129 & 10-49 \\ \text { Net Eoch..... } \\ 50-99 & 948 \\ \text { Eoch. } & 100\end{array}$ Eoch....... $946{ }^{50-99}$ Each. 896
(96) GE 1000 MA GERMANIUM RECTIFIER DIODE. Rated 400 P.I.V.
No. $18 A 538$
Net Each ............................... 59 Each.... $\$ 1.45$

# MORE B-A "EYE-OPENER" VALUES! 

FINEST FOR LESS! YOUR COMPLETE SATISFACTION GUARANTEEDI


These 2 types reploce ony Cortridge 294, 859, 901 M : Radiart 5300,5301 covers the moiority of demand for etc. $\$ 12910$ Lots, $\$ 119$ both single 178 RPM) and 3 or 4 No. 19B93. Each... 3 Prong - Replaces Mallory G874/ G883: ATR 1343; Detco 8550; Rodiort
 Ho. 19 B206. Elaces Mallory G859; ATR 1340, 1344 ; Radiart 6326 , ete. $\begin{array}{ll}\text { 1340, 1344; Radiart } & 6326 \text {, etc. } \\ \text { No. 19B204. } \$ 1 \mathbf{2 9} \\ \text { Each....... } 10 \text { Lots, } \$ 19 \\ \text { Each.. }\end{array}$


## NOW.

## ON ANY TUBE TESTER

TWO AOAPTORS IN ONE! FOR BOTH 3 ANO 4 PRONG VIBRATORS, 6 OR 12 VOLT
Speeds up auto rodio servicing work. Handy new checker tests vibrators quickly and eosily. Works with any standard tube tester-Just plug-in. Ruggedly mode of steel with instructions screened on front. No. 16C288. Net Each
52.69


HIGHEST QUALITY SILVER PLATED COAX CABLE CONNECTORS
(1) PL25
No. 18 Bl
(1) PL258 No. 18Bi53. Spec., Each. . 108 (3) $50-239.18 \mathrm{~B} 252$. spec., Each 59 10 Lots. 556 10 Lots, 886 10 Lots, 586
Each. . . 58 (1) REDUCERS No. 188254. UGI75U. No. 188255. UGI76U. CHOICE

156

## 10 Lots <br> Eoch.



SUPEREX "VARI-TENNAS" G "FERRI-LOOPSTICKS"
Replaces the old-fashioned loop or honk-of-wire and antenno coil used in many older broadcast radios. Highly efficient, extremely high " $Q$ " whinding on speciol ferro-mognetic core pulls in stations never heard before. Varioble tuning allows for "peaking" ot best performance for each set.

- Boosts sensitivity and goin up to 25 times over ald loaps and hanks. Completely adjustable by screwing "slug" in and out. Small enough to fit any set. Also poputar for tiny tunable crystal radios. $2^{\prime \prime}$ long, IE" dia. Clipmounts in hole. Mfg. list $\$ 1.25$.
No. 14C89. Net Eoch.
© SUPER ENERGIZEO FERRI-LOOPSTICK
- Even more powerful than the Vari-Temno.

Has larger ferrite core. fully odjustoble, by sliding in and out of coil form Self-locking. Extended length approx. $4^{\circ \circ}$. Clip mounts in is" hole or with bracket supplied. Mfg. list \$1.50.
No. 14C94. Net Each
.885
© EXTRA POWERFUL 7 : KING-SIZE LOOPSTICK

- Outperforms them all.

Almost like odding another stage of amplificotion to the set. Gives amazing performonce becouse of extreme high " $Q$ " of 425 . Self-locking full adjustment for "peaking." With mounting bracket. Mfg. list $\$ 2.25$. \$1 . 32
No. 14C277. Net Eoch. . . . . . . . . . . . . . . . . . . . . . . . . . .


## FLAT LOOPSTICKS

Most powerful yet! Flat shape provides more pickup, fits smaller ploces. Easy to mount. Works with ony set hoving stondord AM variable condenser. Sliding coil section, provides perfect motch. Compact $35 / \mathrm{B}^{\prime \prime} \mathrm{L}$ No. 14A37.

## Eoch

$\$ 1.62$ No. 14A38. Extra sensitive \$ 1.76

## SAVE UP TO $50 \%$

## "K-TRAN" IF TRANSFORMERS

Top quality universal imput or output permeability tumed compoct if's. Small enough for personal porthome and auto sets. Has flxed capacitors, low loss base, oluminum cans, 4 fixed capocitors, $1 / \mathrm{s}^{\prime \prime} \mathrm{H} \times 3 / /^{\prime \prime}$ Sq.
lugs. Size only $210{ }^{\prime}$

No. 18A87-455 KC No.18A88-262 KC Choice 54595 Pr NET VALUE


## BUY THESE HIGH QUALITY TRANSFORMERS AT LOWEST COST!

## BRAND NEW FRESH PRODUCTION BY LEADING TRANSFORMER MANUFACTURERS

## POWER TRANSFORMERS

Highest quality, yet economy priced. Truly unbeatoble volues! Fully shielded tripe with heovy-duty $5^{\prime \prime}$ flexible
caded leads. All plate ond filament 1 windings contercoded leads. All plate and filoment windings contertapped. 110-120 V. 50-60 cycle primaries.

| Stock No. | Plate <br> Volts MA |  | Rect. Volt Amp |  | $\begin{aligned} & \text { FIL } 1 \\ & \text { Volt Amp. } \end{aligned}$ |  | Mig. Centers | Weight Lbs. | $\begin{aligned} & \text { Net Each } \\ & 10-24 \quad 25-49 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -13A248 | 500 | 50 | 5 | 2 | 6.3 | 2 | 3 $\%_{8}^{6}$ | 21/4 | \$3.85 | 53.50 | \$3.15 |
| 13 A153 | 650 | 70 | 5 | 3 | 6.3 | 3.5 | $2 \times 21 / 2$ | 5 | 3.99 | 3.59 | 3.41 |
| 134416 | 600 | 90 | 5 | 2 | 6.3 |  | 24. | 53/ | 4.29 | 3.86 | 3.67 |
| *33157 | 670 | 120 | 5 | 3 | 6.3 | 3 | 21482\% | 5 | 5.97 | 5.37 | 5.11 |
| *3A160 | 750 | 150 | 5 | 3 | 6.3 | 8 | 232x318 | 71/4 | 6.88 | 6.23 | 5.61 |
| 13 A162 | B00 | 200 | 5 | 3 | 6.3 | 5 | $3 \times 2+8^{\circ}$ | 10 | 7.99 | 7.19 | 6.83 |
| *3A105 | 1200 | 300 | 5 | 3 | 6.3 | 5 | $3 \mathrm{x} \mathrm{S}^{1 / 4}$ | 12 | 9.95 | 9.65 | 9.35 | STANDARD OUTPUT TRANSFORMERS

Matches plate or plates of the output stoge to the speaker voice coil. Designed for Class A Amplifiers. Averoge wt. $3 / 4 \mathrm{lb}$.

| Stock No. | Primary |  | Sec. 1 mp . | Audio Watts | Size | Net Each |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 mp . | MA |  |  |  | 1-9 | $10-24$ | 25-49 |
| 13 A166 | 5000 | 40 | 3.2 | 3 |  | \$0.93 | \$0.84 | \$0.80 |
| 13 A168 | 2500 | 50 | 3.2 | 3 |  | . 93 | . 84 | . 80 |
| 13 A169 | 800 | 20 | 3.5 | 3 | 1)/617010 | . 93 | . 84 | . 80 |
| 13 A170 | 2000 | 50 | 3-4 | 5 |  | . 93 | . 94 | . 80 |
| 13 A182 | 5000 | 40 | 4 | 5 | $1 \mathrm{t} \times 2{ }^{2} \times 1 \frac{18}{18}$ | . 83 | . 84 | . 80 |
| 13 A223 | 25010 | 10 | 3.5 | 5 | 14/623/411/4 | . 83 | . 84 | . 80 |
| 13A224 | 7000 | 30 | 3-4 | 5 |  | . 93 | . 84 | . 80 |



## UNIVERSAL OUTPUT TRANSFORMER

Primary 4000-14,000 ohms. 8 watts. Motches 3.2, 8 or 16 ohm V. C. Size $15 / \mathrm{m}^{2} \times 2 \mathrm{ff} \times 11 / 2^{\prime \prime}$. Wf. I 1b.
No. $134237 . \quad 10$ Lots, 25 Lots
Net Each.... $\$ 1.75$ Each.. $\$ 1.57$ Eoch.. $\$ 1.49$
70.7 VOLT LINE-TO-VOICE COIL OUTPUT

Tapped for $5,2.5,1.25,62$ and .31 watts. Moximum 5 wotts. Secondories $3.2-4,6-8$ ohm. Size 1 \& $\times 2-1 / 8 \times 1 / 22^{2}$. Wt. $3 / 4 \mathrm{lb}$.
No. 13 A 238 . No. 13 A238.
Net Each.
$\$ 1.73 \quad 10$ Lots, $\$ 1.56 \quad 25$ Lots.


## ISOLATION TRANSFORMERS

Reduces, shock hazard particularly when used with AC-DC equipment. Needed by serviceman ond highy recommended for TV sets, hi-fi amplifiers, etc. can be poralleled for higher power. Convenient AC cord with plug and AC output receptable makes installation simple. For 115 volt $50-60$ eycle.

| Stock Na | Watts | Sizo | Weight | [1-8 Each] | 10-24 Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 13A163 } \\ & \text { 13A165 } \end{aligned}$ | $\begin{aligned} & 100 \\ & 250 \end{aligned}$ | $\text { 4y } 430 \times 31 / 2$ <br> $45 / x^{3} 3+1 \times 46^{\circ}$ | $\begin{array}{cc} 7 & \mathrm{Itsx} \\ 124 \mathrm{Ltws} . \end{array}$ | $8.5 .95$ | $\begin{array}{r} 5.45 \\ 12.28 \end{array}$ |

SUB-MINIATURE OUTPUT FOR PERSONAL PORTABLES
Matches, 9000 ohms ( 354 etc .1 to $3-8$ ohm speaker voice coil. Measures anly $3 / 4^{\prime \prime} \mathrm{W}, 1^{\prime \prime} H, 1^{\prime \prime} \mathrm{L}$. Mig. centers $13 / 8^{\prime \prime}$. Color coded wire leads.
No. 18489 . 10 Lots, 25 Lors.
Speciol Each......\$1.29 Each ......S1.19 Each ......\$1.16

## FILTER CHOKES

Ideally suited for DC Power Supplies.

| Stock No. | Hys. | MA | Ohms | Sizo | Lbs. | 1-9 Ea. 10-24 Ea- $25-49 \mathrm{Ea}$. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A228 | 5.5 | 60 | 330 |  | 1/2 | \$0.84 | \$0.76 | \$0.72 |
| 13 A230 | 16 | 60 | 550 |  | 11/2 | 1.38 | 1.24 | 1.18 |
| 13 A591 | 8 | 75 | 290 |  | 1 | 1.50 | 1.35 | 1.28 |
| 13 A232 | 10.5 | 110 | 220 | $2{ }^{2} \times 4 \times 23^{\circ}$ | 21/2 | 2.21 | 1.99 | 1.89 |
| 13 A239 | 7 | 150 | 200 | 25 "x $4 \times 21{ }^{\prime \prime}$ | 21/4 | 239 | 2.15 | 1.95 |
| 13A240 | 8 | 200 | 70 | $43 / 837 / 1 \times 4{ }^{4}$ | 8 | 5.95 | 5.65 | 5.40 |

FILAMENT TRANSFORMERS
105-125 volts 50-60 cycle $A C$ primaries.

| Stock No. | Volts | Ampes | Size | Lbs | 1-9 Ea. $\left.{ }^{10-24 \mathrm{Ea}}\right\|^{25-49 \mathrm{Ea}}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A233 | 6.3 | 1 |  | 11/4 | \$1.35 | \$1.21 | 81.15 |
| 134234 | 6.8 | 3 | $2 \times 31 / 4176$ | 13 | 1.94 | 1.75 | 1.67 |
| 13 A236 | 5 | 6 | $24 \times 31417$ \% | 214 | 2.49 | 2.25 | 213 |
| 13 A249 | 12.6 | 2 | $2 \times 31 / 1^{18}$ | - | 2.21 | 1.99 | 1.90 |

POPULAR GE TRANSISTORS AT SENSATIONAL NEW LOW PRICES
 GENERAL PURPOSE 2N107
Diffused junction hermetically sealed generol purpose type. For low frequency ap-
plications such as radio omplifier, preplications such as radio omplifier, pre1 MC. Bose amp. foctor of 20.
No. 20B51. Eoch. . . . . . . . . . 59

## NEW RF $\begin{array}{cc}\text { TYPE } & \text { WAS } \\ \text { 2N170 } & \$ 1.27\end{array}$

NPN Germanium Transistor intended for use in high frequency circuits. Perfect for building vest pocket radios, regenerotonge receivers,

ronge $4 M C$ Met Eoch
No. 20850 . Net
75 c
NEW FIFTH EDITION GE TRANSISTOR BOOK

POPULAR RAYTHEON TRANSISTORS CK722

RAYTHEON TRANSISTOR APPLICATIONS BOOK


Volume
popularity proven by the millions already sold and used. Perfect for buildaudio ompllfiers, preamplifiers aters, audio omplifiers, preamplifiers, CW monitors, etc. . book at right lists
numerous other interesting projects numerous other interesting projects using this junction type transistar. Base current amplifier foctor 22 . Fre-
quency cutoff .6 MC . Includes wiring diagrom. No. 20A357. Net Each...... 99

RF UNIT CK768


Now of low cost, a transistor especially designed for use in RF circuits. Perfect for use with populor CK722 for building radios and ather devices where a freq. Cutoff of 3 MC is needed. Makes passible scores of od ditional experimental and practical
prajects. Base current amp. foctor prajects. Base current amp.
20. Wiring diogram included No. 20 A 356. Net Each.


B-A SPECIAL PURCHASE! PRICED FAR BELOW REGULAR NET


BENDIX B1022 AUDIO DRIVER TRANSISTOR Vostly superior general purpose germonium PNP type for long life and stable operation. Warks in circuits for CK722, etc. Callectar ta base voltage - 15 ; collector current 300 MA ; base current 30 MA ; collector dissipation 300 MW; current amplification ratia 20; frequency cut-aff 7.5 KC .
No. 20A853. Special Eoch

## BENDIX B1017 POWER TRANSISTOR

90 c Makes passible relotively high power audio amplifiers operating directly from a 6 volt bottery. Output comparable to 6AG5, 6V6 and similar tubes. Also used in high current switching eircuits to operate small motors, servos, regulators, small power converters, high power audio oscillatars, ete. Germanium PNP type callector to base rating 20 volts max.;
callector current 3 amps; bose current 150 MA ; collectar dissipotion 25 watts. Lood impedance, 17 ohms, freq. response 6 KC , power gain 20 db , minimum output power with no cllpping 2 wotts No. 204854.
Special Eoch. . . . . . . . . . . . S1. 19 Lots,
Eoch. . . . . . . . ... 99 MOUNTING KIT FOR B1017 TRANSISTOR Convenient, matching socket meeting all insulation ond he
requirements. Mokes installation simple. Mode by Bendix. No. 20A855. Special Eoch.

PAC OF 8 MOST NEEDED TRANSISTORS


Handiest, most economical deal you'll buy! Use of only one or two will poy for the entire pac, and you hove that badly needed transistar right there reody for instant replacement. Simple cross reference included for replacing aver 450 transistars. Poc of 8 consists of 5 different universal types- $2-1 \mathrm{~F}$ amplifier, RF omplifler, ${ }^{2-a u d i o}$ output, oudio driver, and general purpose diode (for I
Poc of 8 .
$\$ 4.95$

PNP AUDIO TRANSISTOR

General audio type for building code proctice oscillators and various ather small signal devices. Everyone guored perfect
No. 20A14. 49 E 10 Lots, 39 E
Net Eoch. POPULAR 3-CONTACT TRANSISTOR SOCKET


Low loss rectangular socket with ring. Has low resistance plated cont tocts. Only $3 / 8 \times 1 / 4 \times \mathrm{I}_{8}^{\prime \prime} \mathrm{H}$. Quolity
 100 Lots, Each............... 13 c SYLVANIA INB4A GERMANIUM DIODE
the advanced techamplifiers plus many ather interesting and use ful tronsistorized gadgets. Complete construction information with wiring diagrams and parts lists. Also bosic theory and information on printed
circuitry. 58 poges.
No. 25 A231. Eoch. ..........


MINIATURE 365 MMFD.
VARIABLE WITH DIAL
Just it for those miniature transistor radios. diose fitting handsome clear plastic $11 / 4^{\prime \prime}$ dia. size $1^{\prime \prime}$ square $\times 1 / 2^{\prime \prime}$ deep. Knurled edge for easy tuning. No. 17C407. Special Net Eoch. . . . . . . 896 AS ABOVE, LESS DIAL Meosures only $11 / 2$ ", square $\times 3 / 4$ " deep. Standin ponels up to $\mathrm{f} /$ /a $^{\prime \prime}$ thick.
No. 178222 . Net Eoch.............. 696


SAVE ON SUPER-SENSITIVE
"VARI-LOOPSTICK"
MINIATURE RADIO ANTENNA
Powerful high-Q type topped for transistor circuits. Tunes with 365 mmfd . condenser. Size No. 178301 . ${ }^{2 \prime \prime}$ long. Mounts in is" hale. Net Each. $73 c$

## SUBMINIATURE IF AND OSCILLATOR COILS FOR

 TRANSISTOR RADIOS
Finest replocements for most Japanese
 ing, fully shielded. printed circuit mountNo. 17427 IF

Import Special
Choice 598
Each...
No. 17A28. 2nd IF


## VLCHEK CLEAR PLASTIC CASES

 IDEALLY SUITED FOR BUILDING MINIATURERADIOS, ETC.
Stk. No. Sixe Type Lid Net Ea. $1784822^{41 / 2^{\prime \prime}} \mathrm{L}, 23 / 4^{\prime \prime} \mathrm{W}, 1^{\prime \prime}$. D. Hinged 29 C



## HOWARD W. SAMS

 TRANSISTOR SUBSTITUTION HANDBOOKNeeded by every student, engineer, experimenter, serviceman, etc. Ends confusion-aids in making transistor substitutions here befare practically impossible because of lack of
camplete information and specs. Includes bosing diagrams camplete information and specs. Includes bosing diograms,

No. 16B169. Each

# OTHER MINIATURE COMPONENTS <br> ALL ARE TOP QUALITY, BRAND NEW! TRULY EXCITING VALUES! 



## SAVE! MINIATURE PANEL METERS

## $\$ 195$ MEASURES ONLY $15 / /^{\prime \prime}$ SQUARE <br> LATEST MODERN DESIGNED CLEAR PLASTIC CASES

Improved appearance-easier to reod-lets in light from sides. Standord D'Arsonval moving cail type with zero sef. Mounts in front or behind ponel in $11 / 2^{\prime \prime}$ diometer hole. Silvered dial and black numerals. Precision quality import. At least a $50 \%$ savings.

| Stock No. | Troe | Each | Lots Eo. |
| :--- | :--- | ---: | ---: |
| $17 A 552$ | $0-1$ DC Milliomps | $\mathbf{S 4 . 9 5}$ | $\mathbf{5 4 . 5 0}$ |
| $17 A 553$ | $0-100$ DC Milliomps | $\mathbf{4 . 9 5}$ | $\mathbf{4 . 5 0}$ |
| $17 A 554$ | $0-200$ DC Milliomps | $\mathbf{4 . 9 5}$ | $\mathbf{4 . 5 0}$ |
| $17 A 556$ | $0-50$ DC Miroomps | $\mathbf{6 . 4 5}$ | $\mathbf{5 . 9 5}$ |
| $17 A 557$ | $0-100$ DC Microomps | $\mathbf{5 . 9 5}$ | $\mathbf{5 . 4 5}$ |
| $17 A 558$ | $0-150$ AC Volts |  |  |

Calibrated in dhs ond percentage Standard marking
No. 17A559. Net Each $\qquad$ $\$ 4.95$ 3 Lats
Quontity uontity Price
$\$ 4.50$

## 0

SUB-MINIATURE VOLUME CONTROLS

- Only $3 / 4$-inch diometer - Precision Italion import

Just right far transistor and other sub-miniature circuits. $1 / 8 \times 1^{\prime \prime}$ long shoft Linear taper for volume and tone
Specify Resistance Voluc: $5 \mathrm{~K}, 10 \mathrm{~K}, 25 \mathrm{~K}, 50 \mathrm{~K}$ or $1 / 2 \mathrm{Meg}$.
No. 17A22. Less Switch 498 Eoch 10 Lots,

## Your Chaice, Eoch 69 C citatis <br> No. 17A23. With SPST Switci <br> MA

Mo. 18A217. Speciol Eoch moue tontais 798 dio tech
$63 c$

MINIATURE TRANSISTOR AUDIO TRANSFORMERS


HIGHEST QUALITY IMPORTS AT A BIG SAVINGS
Tiny size. Measures $1 / 4 \times 5 / 8 \times 5 / 8^{\prime \prime}$. Specialty selected to meet the needs omplifier and radio circuits using the standard types of transistors such os Raytheon ond GE listed on opposite page. No. $17 \mathrm{C659}$. Input. Pri. 20,000 ohms; sec. 1000 ohms.
No. 17C660. Oriver. Pri. 10,000 ohms; sec. 2000 ohms C. T. No. 17C661, Output. Pri. 500 ohms YOUR CHOICE EACH.

896 NEW! Crystal Mike Input. Pri. 200,000 ohms; sec. 1000 otrms. Only $1 / 2 x$ 1/2×1/2"'14634. Special Each.... 896
SUB-MINIATURE JACK


Closed circuit type. Mates with plug listed at right. Mounts in $1 / 4^{\prime \prime}$ hole in ponels up to $1 / 8^{\prime \prime}$. Jock hole $1 / 8$. No. 178248.155
special Each 10 Lots, 136
Each... 100 Lats, Each

SUB-MINIATURE SHIELDED PLUG \& JACK SET Fine import at big savings. Unbreakable miniature shielded 2 -way plug, bright ploted, measures only $11^{\prime \prime}$ "L. $\times 3 / 8^{\prime \prime}$ dia. Internal screw terminals. Closed circuit iock mounts in $1 / 4^{"}$ hole in panels up ta 1/8". Solder lugs No. 17 A627
Spec. Per Set. . 59 E
105 Sets, 556


ST normally open, momentary contoct. Perfect for all sorts of minio ture $A C$ or battery-pawered DC de vices.
Molded insulated housing and red button. Solder terminals. Really small, only $3^{\prime \prime} 8^{\prime \prime}$ dia. $x^{\prime \prime}{ }^{\prime \prime \prime}$ long overall. Mounts in $1 / 4^{\prime \prime}$ hole. Top quality impart at less than half the usual cas
No. 17 A404 36 Eth 10 Lots, 296
Net Eoch... 296

## SELENIUM

Extra high output-gencrates 2 MA at .5 volts in sunlight. Highest quality, lang life, proctically indestrucradios (circuit enclosed), light meters, sensitive relays for turning on and off lights, opening doors, counting, etc.-Ony application where light variotions can be utilized. Size only $11 f \times 7 / \mathrm{s}^{\prime \prime}$ with wire leads. Includes suggested circuits.
 12 For. . . . . . . . . . . . . . . . . . $\$ 6.89$ SAVE! MINIATURE 9 VOLT BATTERY FOR

## TRANSISTOR RADIOS

Top quality import replaces Burgess COMPARE 2U6, RCA VS-312, Eveready 216, eft. at big sovings. Compare of 9Sc net.

SUB-MINIATURE 15-AMP


Really tiny-perfect for miniature equipment. Rated 15 amps © 125 Hardwore inciuded. Unusuolly fine import quolity

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EXCITINGLY NEW! AS USED IN

PERFECT FOR SCIENCE CLASS


DYNAMIC EARSETS AT LOWEST COST


Lightweight, high quality imported headsets at lowest cost ever. Perfect for tronsistor rodios, code oscillators, etc. 3 ft. plostic covered cord with 174349 geck.
174349. General Purpase 2000 Ohm. 17A337. For Transistor Rodios and
Devices. 15 Ohm. CHOICE, EACH.

## SUB-MINIATURE PLUG

## Tap

2.wor. Motes with iock ot left. sodocer terminals. Barrel size ${ }^{\prime \prime}$ L x B/8" dio. $^{\prime \prime}$ Specify Red or Black No. 17 C 454 or Block. 10 Lots Soecial Each \& B 10 Lots, 55


Special Each
$\$ 1.95$
$\qquad$

Simple to use, soves money too
No. 17446. Bottery and Charger. Import

EXTRA WET CELL BATTERY
No. 17447. Reploces 9 V . type
216, efc.
SAME SIZE AS EVEREADY 216 BURGESS 246 AND RCA VS-312 Sealed wet cell battery reju venates to full capocity over night when plugged into its own 15 V. AC powered charger
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$\$ 2.95$

## SPECTACULAR TEST INSTRUMENT VALUES



MODERN, STREAMLINED AND COMPACT
A PRECISION QUALITY INSTRUMENT... RELIABLE AND ACCURATE FOR ALL ELECTRONICS WORK
A truly professional precision quality instrument, all American made specially priced to sove you money! Provides golden opportunity for serviceman, ham, experimenter, engineer, hi-fi enthusiast, etc. to enjoy the desired odvontages of a dependoble, versatile, highly sensitive VTVM of lower cost than many ardinary multimeters.

HERE ARE THE SPECIFICATIONS:
DC Voltmeter Ranges: $0-3,30,150,300$ and 1500 volts
Zera Center Volimeter (fór discriminotor alignment etc.) Ranges: 0-1.5, 15, 75, 150,750 volts.
AC Valtmeter. RMS Rongers: $0-3,30,150,300,1500$ volts
Accuracy oll voltage ranges $\pm 3 \%$ full scole-Ińput resistance 11 megohm. Peak-to-Peak Ronges: 0 to $8,80,400,800$ volts.
Ohmeter Ronges. $0=1000$ megohm in 5 overlapping ranges
DB Meter for all oudio measurements. Ranges: -10 to $+5,+6$ to +25 . +26 to +45 decibels. Based zero DB ot 1.73 on 500 ohm line.
Housed in beautiful gray cose with color motched oluminum panel and carrying handle. Size $7 \times 71 / 2 \times 5^{\prime \prime}$. Complete with instructions, service hints, probe and cable and test leads. Operates on $110-120$ AC volts. Wt. 4 lbs. No.
$\$ 29.95$


## HOW TO USE A VTVM

Explains clearly the practical application of the VTVM in radio, TV service, industrial plant maintenance and many miscéllaneous opplications. 224 poges crammed full of inNo. 16C259. Gernsback \#57. Net Each
\$2.50



## COMPLETELY WIRED AND TESTED

## TO USE-NO EXTRAS TO BUY

 CONVENIENT CARRYING CASE FOR ON THE JOB- Compores with tube testers selling for as much as $\$ 50$. Made for B-A by one of America's leoding tester monufacturers.
- Fully guoranteed by both the maker and B-A for one full year.
- Free tube dota for 5 years, keeps tester up to date for all new tube types. For Servicemen! Low cost, dependable, fits in a tube caddy, makes all tests for shorts, filament continuity and indicates quality of all 7 and 9 pin miniatures, octals, lock-ins, 9 pin novel miniotures and new T-9 types.
For the Hom, Hobbyist or Hi-Fi enthusiast. With just "out of the porket money" you can have a dependable tester ta make "on the spot" tests of questionable tubes soving hours of time and expense.
New engineering ideas have conceived a simplified switching arrangement to speed up testing. The new meter is rugged, highly accurate full view type with clean easy to read scole indicoting good or bad tubes. Housed in durwt. 6 lbs. Complete with instructions and tube chart. No. 35A344. Each
$\$ 21.95$


## ALLIGATOR CLIP LEADS

Bundie of ten olwoys needed flexible plastic insulated 15" jumper cords with spring alligator clip ond insulator on each end. Mode up, ready for use in 5 assorted Nolors. 17 B566. Per Bundle
$\$ 1.39$

## MULTI-RANGE VOLT-OHM-MA CIRCUIT TESTERS



TOP IMPORT VALUES-GUARANTEED TO SATISFY! 186

AT LOW, LOW PRICES EVERY EXPERIMENTER, STUDENT, HOBBYIST, SERVICEMAN CAN AFFORD

## POCKET TESTER

1000 Ohms per volt. A complete multi-tester of less than the usual price of just the meter olone! Reads $A C$ or $D C$ volts in 3 ranges of $0-15,0-150$ and venient volts; DC eurrent 0-150 MA; Resistance $0-100,000$ ohms. Has convenient thumb-operated ohms zero adjust and pin iocks for ali 5 ranges.
Bakelite cose $4^{\prime \prime} \times 21 / 4^{\prime \prime} \times 13 / 8^{\prime \prime}$. Test leads, self-contained battery ond


## SENSITIVE MIDGET TESTER

2000 Ohms per volt. Extro convenient and versatile. Reads $A C$ or DC volts in 5 ranges of $0-10,0-50,0-250,0-500$ and $0-1000$ volts; Resistance in 2 ronges, $0-10,000$ ohms ond $0-1$ megohm, Decibels in 2 ronges, -20 to +36 db. Hos ohms zero adjust, rotary self-wiping range switch, bakelite meter case and panel. Outer case is steel, black wrinkle finish. Size $51 / /^{\prime \prime} \times 31 / 2^{\prime \prime}$
$\times 11 / 2^{\prime \prime}$. With test leads, self-cantained battery and instructions. ${ }^{\text {Shpg }}$. wt. 2 libs. With test leads, self-contained battery and instructions. Shpg.
No. 35 A574. Speciol Eoch. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 .
N5

## HIGH SENSITIVITY MULTI-TESTER

20,000 Ohms per volt DC, 10,000 Ohms per volt AC. Compares with meters costing double our price. Unusually high sensitivity and wide choice of ranges make this the best tester buy of oll time. Measures $D C$ volts in 5 ranges $0-6,0-30,0-120,0-600$ and $0-1200$ volts at 20,000 ohms per volt sensitivity, $A C$ volts in 5 ronges $0-6,0-30,0-120,0-600$ and $0-1200$ volts MA, O-12 MA, Der volt; DC current in 4 ronges of $0-60$ microomps, $0-1.2$ MA, 0-12 MA, O-300 MA; Resistance in 4 ronges of $0-10,000$ ohms with half scale reading of 60 ohm, $0-100,000$ ohms, $0-1$ megohms and $0-10$ megohms; Decibels -20 to +17 db . Has ohmeter zera adjust, rotary range switch,
all bakelite case, large $3^{\prime \prime}$ meter face. Size $61 / 4 \times 41 / 8 \times 2^{\prime \prime}$. With test leads, all bakelite case, large $3^{\prime \prime}$ meter face. Size $61 / 4 \times 41 / 8 \times 2^{\prime \prime}$. With test leads, self-contained bottery and instructions. Shpg. wt. 3 lbs.
No. 35 A575. Special Eoch......................................... 816.95

# SAVE \$\$\$ ON B-A's TOP QUALITY IMPORTS 

- LATEST PROFESSIONAL DESIGNS
- AMAZINGLY FINE PERFORMANCE



## CRYSTAL

## LAPEL MIKE

A natural for hidden detectophanes, hearing ded recrophones, hearing devices, erc. Non-direcrional and gives crisp cleor speech reproduction. Hi impedonce, hi output type with spring clip for oftaching. Weighs anly 2 oz. Brushed bright metal case $15 /{ }^{\prime \prime}$ " dia., $3 / 4^{\prime \prime}$ thick No. 17B438.
$\begin{aligned} & \text { Special Eoch. .... } \\ & 3 \text { Lols, Eoch .... } \\ & \$ 29.19\end{aligned}$

## MINIATURE DYNAMIC MICROPHONE

SLIM HAND-HELD CRYSTAL MICROPHONE vilith handy slide an-aff switch and detrachable 57" cable. Rugged and small, weighs only 6 az. Taps for vaice or music. Wide range respanse; output -65 db ; high impedance. Beautiful sotin finished bright cast metal housing 47/8" L, $11 / 8^{\prime \prime}$ max. dia. Shpg. wt, 1 lb.
supplied with swivel cradle holder for use of mike on flaor ar desk stand. Hos standard 5/6"-27 thread.
Mo. 36 A285.
Special Eoch............ $3^{95} \begin{gathered}3 \text { Lots, } \\ \text { Eoch......... }\end{gathered} 3^{75}$

POPULAR BULLET STYLE CRYSTAL MIKE
Good looking full size, top performing mike with stondord $5 / 8-27$, thread to fit mast any desk or floor stand. Fine for poging, public address, hams, hame recording, etc. High impedance type with wide range respanse for voice or music. High output - 52 db .
Case of tough die-cost metal with smooth grey-green enamal finish and bright trim. Size $4^{\prime \prime} \mathrm{L}, 25 / 8^{\prime \prime}$ dia., $4 \frac{1}{B^{\prime \prime}}$


STUDIO STYLE DUAL CRYSTAL MICROPHONE
Reafly impressive prafessianal style with Really impressive prafessianal style with
features not found in any other mike. Weatures not found in any other mike. Wide range, high impedance type with two phased crystal units far higher output ( -50 db ), greater sensitivity. Swivel yoke mount and $360^{\circ}$ pickup pattern makes it perfect for hame recarding, canference tables, instrumental and choral groups, etc. Finished in bright chrome and block. Size $7^{\prime \prime} \mathrm{H} . \times$ $3^{\prime \prime}$ W. With pray plastic shlelded cable.
Shpg. wt. I Ib. $\$ 5^{85} 3$ Lois, $\$ \$^{65}$
No. 36484.
Spechol Eoch............ No.cial Eoch........ $\$ 5^{85}$ Lols, $\$ 5^{65}$
Eoch.......

## 10 DYNAMIC <br> HIGH STYLED STUDIO DYNAMIC MICROPHONE

really beautiful as well AS AN EXCELLENT PERFORMER .. IT'S RUGGED TOO! Perfectly suited for use indaors or out withaut regard to high temperature or humidity. Non-directianal -wide range pickup fine for tape recording conferences, PA systems, vaice or music. Response $60-10,000$ cos. Output -71 db . High impedonce. Silver gray and chrame finished.
Just-right size, only $53 / 4 \times 15 / 8$ dia. Coble.
No. 29 A410. Special Each... $\$ 9.85$


## RUGGED DYNAMIC MICROPHONE

LOOKS LIKI REAL EXPENSIVE SLIM LINE TV STUDIO MIKES!

Not offected by high temperature or humidity. Especially suited for hard usage because of compact, sturdy case design. Beautlfully prostand. Instantly removable from swivel stand odapter for hand held "swivel stand odapter for hand held rugged for P.A. paging, recording, conterence sefups, etc. Responsé $80-8,000 \mathrm{cps}$, output etc. Response $80-8,000 \mathrm{cps}$, output -56 db . High impedance. Hos stide type on-off switch and derachable fore cable. Approx. $1 / 2$ fong, $1 / 4$ dia. black deed. ${ }^{\text {No. 29A409, special Each } \$ 7.95}$

## b-A LEADER VALUE MIKE FLOOR STAND



Holds ALL madom mikes without tipping - yot easy to use and move.

Full size brass tube stem is highgloss double chrome plated. Easily odjustable from $35^{\prime \prime}$ to $64^{\prime \prime}$ in height by simple, damage-praaf one-hand clutch, without mar op scratch on the chrome tubes. Weighted $10^{\prime \prime}$ dio. base is finished in baked wrinkle enomel, hos pads to prevent floor mars. $5 / 8^{\prime \prime}-27$ thread. Shpg. wt. 9 lbs. $\$ 5.73$
No.32A3. Net Eoch........ $\$ 5$

Perfect for recarders, paging, ham stations, lecturers, sales demanstrators, efc. Small size, light weight; hangs conveniently from neck card or fits hond where close tolking is desired. Pickup is non-directional. Dynamic high impedance unit adds ruggedness and perfarmance not found in ardinory microphones. Glves crisp, smooth wide-range reproduction, not offected by high temperaure and humidity.
Cose is beautifully finished in chrame Detochoble 5 it shielded coble. Im ported of great sovings.
No. 17 A606. Speclal Each

ULTRA-MODERN STUDIO DYNAMIC MIKE


SWIVEL MOUNTED-FOR EITHER DESK
OR FLOOR STAND
Absolutely beautiful... should be seen and heard to be fully oppreciated. Tostefully designed throughout from the smort concentric ring grill to the rubber padded non-tilt base.
Features: rugged 50,000 ohm high impedance dynamic unit, wide range flat response 60 to $12,000 \mathrm{cps}$ high sensitivity -54 db output, and all-directian pickup. Perfectly machined ball and socket jaint. tilts to any angle or stands vertically. Mike and swive easily removed from base for mounting on $2^{5 /}-27$ threaded stand or fixtures, Mox. dia. all' in gleaming blue mist metallic lacquer with chrome trim. With attached $96^{\prime \prime}$ shield ed cable. Shog. wt. 4 lbs
No. 36A286. Special Eoch.
$\$ 13.95$

## CARDIOID DYNAMIC

SINGLE DIRECTION PICK-UP
c

## DUAL IMPEDANCE

Fine for PA recording, both volce ond music. Will stop or greatly re-
duce feed-back howl on PA sysduce feed-back howl on PA sys-
tems and allow greater working distance from.mike. Quickly changed from regular high impedonce to 50 ohm low impedance, allawing long mike lines without frequency loss. Has off-on switch and detachable cable. Flat response $60-12,000 \mathrm{cps}$. Output -62 db . Swlivel mounting for $5 /(27$ stands.
No. 388289 . Speciol Ea... $\$ 13.95$


## MICROPHONE



HANDSO谟 NEW STYLING: TERRIFIC PERFORMANCE


Adapts one to 4 high Impedance sound sources, microphones, tuners, phonographs, recorders, etc., into a single high impedance input at your recorder or amplif. Hum-tree battery powered wide range tracish annl allow mixing and fading without interaction. Input jacks are standard phone plug type; output, phono pin plug.
In gold finished case $57 / 8 \times 23 / 4 \times 2^{\prime \prime} \mathrm{H}$. with brown and gold knobs and mar-proof
rubber feel. Imported at Big Savings. Special Each
$\$ 7.95$


## B-A'S SPECIAL VALUE CERAMIC COMMUNICATIONS MICROPHONE <br> IDEAL FOR CITIZGNS BAND- <br> AMATEUR

All the wanted feotures. Made to B-A specs by a leoding American Microphone producer. Has coiled cord, press-to-talk reloy switch, ceramic
long-life cortridge. Best ever for re-long-life cortridge. Best ever for re-
placement on
$B$ placement on CB and ham equip rigs. Response 80-7,000 cps. Output -54 db .5 ft , coiled cord. Professional grey plastic case siliver trim. Cose only $35 / 8 \times 21 / 2 \times 11 / 2^{\prime \prime}{ }^{\top}$. With No. 29A277. Special Eoc
$\$ 8.19$

## ALL-PURPOSE CRYSTAL MIKE

MFG. LIST $6^{98}$
From hond, io stond or lovalier in seconds!
Truly versatile in application, too Wide range 60 to $10,000 \mathrm{cps}$ frequency response, high output of -54 db and all-directional pickup pattern are ideal for home recording, paging,
lecturers public address, ham stations efc. Pleasingly proportioned case is gleaming black plastic with
gold grille screen. Size $1+k^{\prime \prime}$ maxigold grille screen. Size 1 th" moxiwith 12 ft . offached cloth covered shielded cable, $5 / 8-27$ threaded stand adapter and lavalier neck cord. Shpg. Wt. $1 \mathrm{lb} \mathrm{M}^{\text {Made in U. S. A. }}$
No. 29 Al 68
Speciol Each. . . . . . . . . . 588


## CERAMIC MIKE

- NEW DESIGN AND FEATURES


Small enough, sensltive enough for conceoling in pocket.
At last, the perfect mike for tape recording, public oddress, homs-what hove you of a truly realistic price. Available for the first time with long lasting ceramic element. Really rugged, not affected by high temperoture or humidity. Small and lightweight . .. fits comfortably in hand, balanced and weighted to set squarely on desk Amazing performance! Frequency, response $60-8500 \mathrm{cps}$. Oufput level: - 45 db . Sturdy ton plostic case, $\mathbf{2}$ ozs. including 5 ft , otfached coble. Mitg. list value $\$ 8.00$ No. 20B600. Speciol, Net Eoch
$\$ 3.49$

## HIGH QUALITY PJ-055B PHONE PLUG



BRAND NEW PRODUCTION! Not War Surplus Designed especially for critical communicotions equipment to meet military specifications, sonductor jacks. Metal parts are brass, precision machined. Internal insulation is blue, latest lowloss high dielectric type. Complete with lug oss hing dielecross screws. Don't miss this opportunity to stock up of terrific sovings. 498 10 Lots, Eoch. 44 c 100 Lots, Eoch. 39 c

## STUDIO QUALITY STEREO HEADPHONES

ENJOY THI FULL REALISM OF STEREO AS ONLY POSSIBLE THRU PROFESSIONAL TYPE HEADPHONES

Provides the fullest dimension of sound with complete channel separation and finest tonal qualities obtainable. Each eorpiece actually contains a high qualspeaker. Perfect for private listenino speoker. Perfect for privare listening to stereophonic high fidelity systems regordless of program source. Also fine for electronic orgons. Comfortable to use with soft rubber head pod and using these phones one of privary and ufmost relaxation. Imp. 8 ohms. With $51 / 2 \mathrm{ft}$. cord and 3 woy plug. No. 22A67 67.
$\$ 14.95$


## HIGH QUALITY CRYSTAL HEADPHONES

Professional quality to meet laboratory stondards while priced within the range of ham, experimenter, hi-fi hobbyist, etc. Exceptiona High impedance 85,000 ohms permits monitoring without oppreclable effect on associated equip ment. Adjustable double headband chrome plated, covered with soft cushion plastic same as protessional types used by airline pilots, etc. Cord with standard phone tips. Lightweight only 8 oz. Shpy. wt. I lo, $\$ 5.95$


## POPULAR AUDIO "Y" ADAPTERS

(1) Two RCA type phono jacks connected paroliel to RCA iype pin plug. Chrome finish, fully shielded. 69c
No. 17 A692. Import special, Eo..... (5) Two RCA type phono jocks connected in parallel and terminated into RCA type pin plug by $4^{\prime \prime}$ shielded cables. All connectors molded on to cable for durobility. No . 17 A696. Import Special, EO..


## "WALKIE-TALKIE"

## TWO-WAY TRANSISTOR RADIO

## ONLY $21 / 2 \times 5^{\prime \prime}$-FITS POCKET

## $524^{95}$

AMERICAN MADE
REQUIRES
NO LICINSE
RANGE UP TO
$\frac{1}{2}$ MILEI OR PALM OF HAND
For everyone to use. Boating, hiking, hunting or around the home, form, firemen. fully transistorized, battery powered. Press-to-talk, release-to-listen over built-in speoker. Has telescoping antenno, high impact shock resistant case. Wt. only 8 No. 35 A595.
So.
$\$ 24.95$
$21 \mathrm{B141}$. Type 216.9 V. Bottery. 69 c

## 4-TRANSISTOR HEARING AID



Truly a fine quolity instrument, a product of odvanced engineering skill and modern production focilities, yet so inexpensive to own and operate within reach of everyone!
Unlike many other quality hearing oids, this unit requires no special fit. ting ... equipped with 3 earphone insert sizes to accommodote the snap-on molded earpiece. The earpiece itself is skin-toned, finy in size and light in weight for greotest comfort. Engineered for wide range sound output with exceptional clarity. Convenient fingertip 2 position tone and 10 position louddness controls on the tiny, powerful 4 transistor instrument let you adiust instantly and precisely to your special needs helps you hear better and with for less nervous strain in every location and under all conditions. Extended range, ultra-sensitive micraphone is the magnetic type for better, longer, trouble-free operation. Important telephone switch lets you "zero-in" on phone conversations by eliminating annoying external sounds.
Supplied in sheepskin carrying cose, with earphone, 3 ear inserts and bottery, ottroctively gift boxed. Satisfoction guoranteed or money bock if returned within
$\$ 29.95$

## SAVE MORE ON THESE B-A SPECIALS!

 LOWEST PRIGE EVER... RECORDING TAPES

- finest quality - full ranee - by leading producer - satisfaction guaranteed


## STANDARD $11 / 2$ MIL ACETATE TAPE

Stondord 1200 ft . acetote base, brown oxide tape wound on cleor plastic $7^{\prime \prime}$ reel. First quality, splice-free equal to competitive brands selling for twice our price
Stock up now ot the low, low price Y"'1200' Reel. $\$ 188 \quad 5$ Lots, 8189
17A874. Each.
Eoch.


## LONG PLAY 1 MIL

 ACETATE TAPEExtro-ploy 1800 acetote base, brown oxide tape on standard $7^{\prime \prime}$ reel. Provides $50 \%$ more recording and ploying time than standard $1 / 1 / 2$ mil on the some size reel. Flnest quality. Meets the high standards required for protessional and high fidelify re-cordings-for all uses. Your complete satisfaction guaronfeed.


## LONG PLAY 1 MIL

 MYLAR TAPEExtra-ploy, extra-strength 1800' Mylar plastic base recording tape on stondard $7^{\prime \prime}$ reel. $50 \%$ more recording and playing time than stondgrd $11 / 2$ mil. Super strong dupont Mylor prevents breakage, lasts extro long for repeoted ployings. Not affected by temperature or humidity. Recommended for business or personal re $7{ }^{\prime \prime}$-1800 Rewl.s $\mathbf{g}^{29} 5$ Lots, ${ }^{297}$

DOUBLE-PLAY $1 / 2$ MIL MYLAR TAPE
Twice the normal recording and play: ing time, 2400 ft . on standard 7 " reel. Made of tough $1 / 2$ mil Mylar to moke possible extremely long uninterrupted recordings. For instance, ploys 2 hours on single track, 4 hours on dual track at $33 / 4$ ips with no increase in reel size. Guaranteed first quality, continuous length with 1 or 2 actory made bonds per reel.


HANDY AUDIO AND RECORDING ACCESSORIES


IMPORT SPECIAL AT BIG \$\$\$ SAVINGS Professional quality! Eroses a campiete reel of tape quickly, easily and with greatest efficiency without rewinding. Simply place tope on reel on spindle of Eraser-takes just seconds. Permits improved, distortion tree recordings by "quieting" topes 3 to 6 db . For better than erosing on the overoge recorder. Accommodores tope reel from $3^{\prime \prime \prime}$ to $101 /{ }^{\prime \prime \prime}$. Size of unit $71 / 2 \times 45 / 8 \times$ $35 / 8^{\prime \prime} \mathrm{H}$. Operates on 117 V 60 cy . AC. Also will demagnetize screwdrivers and other tools. Shpg. wh. $81 / 2 \mathrm{lbs}$. No. 17A628. Speciol Each


## TWO-CHANNEL AUDIO MIXER

IDEAL FOR USE WITH TAPE RECORDER, HI-FI, PA, ETC., FOR MIXING VOICE WITH MUSIC COMPARE AT $\$ 4.50$ OR MORE
Versatile unlt makes possible the mixing of two sound sources such os two mikes, mike and phono, mike ond musical instrument pickup, etc. Simply connect standard pin plug output into high impedance input af tape recarder or amplifier. Hos two pin jack inputs eoch with its own level control. quality No. 17C702. Net Eoch
$\$ 2.95$

PIN PLUG TO PHONE PLUG ADAPTOR


69c
BIG VALUE
Convenient means of attaching RCA type phono plugs to amplifier or tape recorder hoving regular $1 /{ }^{\text {" }}$ dia. jack. Fully shielded. Highest quolity American made.
No. 17 B879.
Speciol Eoch. 69 E 10 Lots, 596
Each...


PIN PLUG JUNCTION JACK
Simple method of inferconnecting two cobles having RCA type phono plugs. made. Highest quality Americon
No. 17A216. Special Eoch.

TAPE RECORDER PATCH CORD


For Recording Direct from Rodio, Phono of TV. Flexible 72" two conductor cable with attached insuloted alligotor clips and RCA pin plug. Perfrom for direct electrical connection from radio, phono or TV speaker voice coil to input of recorder. Assures much befter results thon from the usual sound coupling between speoker and microphone. Comes with pin plug to phone plut a a dapter to fit any re-
corder. Beautitul import mode.
No. 17 A321. Special Eoch....

## SAVEI TAPE HEAD DEMAGNETIZER EASY-TO-USE AIO FOR BETTIR PAPI RECORDINE <br> Quickly rids recorder of one common

 cause of high noise. . . The accumulation of permanent magnetism in the recording, erose ond ploybock heads. Simple to operote, with instructions. No. 17 A415. Import speciol.. $\$ 4.95$

## PHONE PLUG TO

PIN PLUG ADAPTOR
Adapts microphones, heodphones ca-
bles, etc. hoving stondard $1 / 4^{\prime \prime}$ phone plug, to fit RCX pin jock on equlp. ment.
No. 174690.
Imported Sp
$69 c$ 10 Each.

CONTACT MIKE FOR MUSICAL INSTRUMENTS HIGHLY SENSITIVE CRYSTAL TYPE!
Operates with music or public address amplifier like an ordinary crystol mike, except designed for direct mechonical contoct to instrument. Provides brilliont tone over entire musical ronge. Fine for gultars, pianos, etc. High output crystal element is high impedance type. Housed In tiny gold onodized aluminum case 1 省" long, $3 / 4^{\prime \prime}$ wide with slotted otfochment brocket. Hos 6 ft . shielded cable and bross phone plug. Imported at great sovings. No . 17B593. Special, Net Eo. 2.79


TELEPHONE PICKUP COILS FOR RECORDING SIMILAR UNITS NORMALLY SELL FOR 3 TO 4 TIMES OUR PRICE

- For Recording Conversations, Etc.
- Requires No Wire Tapping. No Special Circuits Makes possible recording phone conversations or loud speaking telephone when used with a standord recorder or mike omplifier. Connects in place of regular microphone. Highly sensitive and efficient magnetic induction coll picks up both sides of telephone conversations. Installs by slipping under base of desk phone or by laying on top of ringer box of wall phones. Size $41 / 2^{\prime \prime} L, 11 / 2^{\prime \prime} \mathrm{W}$, only $1 / 4^{\prime \prime}$ thick. Shielded coble 56" long. S2
No. 17B257. Net Each. ............... 5.


## WITH JIFFY RUBEER SUCTION CUP

As above except conveniently attaches with suction cup to rear of any desk phone or on side of ringer box. Only 1 " max. dia., $2^{\prime \prime}$ long with 5 ff . shielded coble No. 17A811. Spocial Eoch
$\$ 1.69$


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Brings to life with thrilling realism the Bible ... read aloud by one of America's finest professional readers. Every word is read correctly and Every word is read correctly and reverently ar liet a word has been
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nearly an hour. A special adaptor is available for playing them on any phonograph capable of operating at $331 / 3$ RPM, or they can be used with any 4 -speed Record Player.
Widely acclaimed by religious leaders, editors and laymen - ideal for the home, Bible classes, Sunday for the home. Albums handsomely Schools, etc. Ambated black leather lacketed with lettering.
Complete ond unabridged-all 27
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## STORIES FROM THE OLD TESTAMENT

 21 complete storles, including such fovorites as Nooh and the Ark. Dovid and Goliath, Doniel in the Lion's Den, etc. Plays 2 hours. Mfg. List $\$ 2.95$.$\$ 1.96$

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All the Audio Book Records as shown here are recorded ot $162 / 3$ RPM. They con be ployed on any phonograph of record changer capable of operating of
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No. 23 ClO . Nat Eoch.

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an extremely high quality impedance compensoted 3 -way crossover netwark. an extremely high quality impedance compensoted 3 -way crossover
Terminals ore incorporated for addition of brilliance control if desired.
Outstanding engineering design includes thermally boking on of Polyester resin on tront and back of both tweeter and mid-range cone edge. This results in even propagation of treble and mid-range frequencies. Off-center mounting of tweeter and mid-range speaker provides smooth frequency response, eliminating ony distortion coused by cone interaction. Frequency response $30^{\prime}-20,000 \mathrm{cps}$, No. 34C229. Net Each............................................. \$49.95



## FAMOUS TWIN-COME DESIGN

Why poy more when you con get the best for less? Compore with ony speaker priced at $\$ 70$ to $\$ 100$ for truly convincing evidence of this great 9762 M . Superbly enaineered for finest sound reproduction as demanded by the most discriminoting high fidelity enthusiosts, Incorporates Ticonal Vil, the most powerful of modern magnet alloys, with long air-gap and extra high flux density (11,000 gauss) for exceptional long air-gap and extra high flux density ( $4 \%$ of 400 cps ) and domping.
transient response, moximum efficiency ( $4 \%$ or transient response, moximum efficiency constont impedance ossures flat pesponse curve frequency range very conservatively rated 35 to $18,000 \mathrm{cps}$. Employs two cones which ore always in servatively rated 35 to 18,000 cps. Employs two cones which are always in phase operafe in complete harmony, providing a wider, more effecfive disribution of sound. Power handling capacity, also conservatively rated 20 No. 342404 . Eoch ....... $\$ 24.50 \quad$ For ............ $\$ 45.00$ No. 34A204. Eoch.

## WHARFEDALE 8-IN. HIGH FIDELITY SPEAKER



From Wharfedale, Englond's foremost manufacturer of High Fidelity Speakers. The biggest speaker value yefl 8 solt skiver full range speaker with heavy die-cast frame provides phenomeng Dere. ing for considerobly more. secifications: Voice coil diameter: 1". Impedance 12-16 ohms. Flux density: 10,000 fotol flux: 39,500. Double ino $7^{\prime \prime}$ depth $33 / 4$ " Frea resp $45-13,000 \mathrm{cps}$ Shpo wt ${ }_{\text {No }}^{1} 5$

HI-FI SPEAKER ENCLOSURES
SENSATIONAL NEW DUCTED PORT DESIGN PROVIDES EXCEPTIONAL
PERFORMANCE EQUAL TO LARGER, MUCH MORE EXPENSIVE UNITS


194


Out they go at the lowest cost ever! Never befare anywhere a speaker of this outstonding high quality at such o low, low price. World fomous for its incomparable hioh tide

NORELCO 12 -INCH TWIN-CONE MODEL AD4200M
Lotest improved model superseding the populor 9760 M . Now better than ever. Special design extends the response curve o full octove obove 10,000 cps. Employs two cones which are always in phase and complete harmony producing cleon smooth wide range response 35 to $18,000 \mathrm{cps}$. Features new powerful Ticonal VIl voice coil magnet for maximum efficiency and damping. Magnet wh. 17 oz . Flux density 8000 gouss. Power hondling


NORELCO 8-INCH TWIN-CONE MODEL AD4800M New improved version of the popular selling Model 9710 M at big savings. Some famous design as obove. Specs. are: frequency response 50 to 20,000 handling capacity 10 watts peok. V.C. impedance 4-6 ohms. Reg. net value


NORELCO 5-INCH TWIN-CONE MODEL AD3500M Amazing wide-range response and terrific power for its size. Provides true high fidellity performance. Especially well suited where only llmited speaker space is ovaitable. Also use in multiples of 2 or more for truly fantastic results. Frea, response 130 to $19,000 \mathrm{cps}$. Heavy Ticonal VII magnet. Flux density 11,000 gauss. Peak power handling capacity 5 watts. V.C. Impedance Sis
AT AMAZING LOW COST!
Best buys we've seen. New ducted port design extends the low end of the response curve, gives unusually rich wide-range hifi tone such os never before imagined fram cabinets of this compact size and sensational low cost Sturdy all wood construction. Covered in beautiful scuffproof "wood grain" pyroxylin giving wood oppeoronce finish.
Desioned "TALL-SLIM" ENCLOSURE FOR FLOOR OR BOOKSMELF
Designed for maximum flexibility. Includes 4 short legs for use as an of bookshelf or on table. Top, bottom and two sides completely covered in pyroxylin. Internal copacity 2165 cu . in. Takes any $8^{\prime \prime}$ speaker individually or with tweeter. Size $24^{\prime \prime} \mathrm{W}, 11 " \mathrm{H}, 101 / 2 \% \mathrm{D}$. Shpg. wt. 17 lbs . No. 40A35. Mohogany.

$\$ 27.50$

## (3) ATTRACTIVE SPACE-SAVER ENCLOSURE

Styled to fit hondsomely any decor while requiring only limited space. Takes any $12^{\prime \prime}$ or 8 (reducer ring included) speaker individually or with tweeter. No. 40A38. Wolnut
No. 40A41. Blonde


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## 4-SPEED STEREO AUTOMATIC RECORD CMANCER



45 RPM SPINDLE INCLUDED

NO BETTER CHOICE FOR REPLACEMENT OF OUTDATED OR WORNOUT CHANGER OR BUILDING YOUR OWN PLAYER

- Extremely efficient, smooth 4 pole motor. Heary wilghted contont speed turntoble whith rubber mat.
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ette High fidellty Turnover Stereo Cortridge.
- Foolproaf, dependoble, quiet changer mechan. lem.

Absolutely greati Never before o chonger buy to compare. It's the world renowned "Perpetuum-Ebner" bet-
ter known as the Rex, one of Europe's finest changers. Precision designed and built for extro dependable long llfe service in outomatically playing all records-all sizes all speeds-monoural and stereo. Every part carefully selected to meet best performance standards. Records handled gently, quickly and posifively. 4-pole motor plus weighted turntable for assured accurate, constant speed at $162 / 3,33,45$ or 78 RPM. Rubber mat provides fullest record protection.
All slzes intermixed- $7^{\prime \prime}, 10^{\prime \prime}$ and $12^{\prime \prime}$. Plays a large stack of records unattended with automatic shut-off ofter last record plays. Famous Ronette furnover stereo cartridge with long-life sopphire stylus for full fidelity wide-range reproduction of stereo and monaurat rec-
ords. Lightwelght tone orm properly balonced for truest tracking.
Chonger is most desired size for replocement or new installations. Measures $13^{\prime \prime} \mathrm{W}, 105 / \mathrm{B}^{\prime \prime} \mathrm{D}, 41 / 4^{\prime \prime}$ above and $3^{\prime \prime}$ below motor plate. Can be used for monaural as well os stereo systems. $110-120 \mathrm{~V} .60 \mathrm{cy}$. AC. Less cord and phono leads. Hondsome silver gray finish. Bettar Buy Now while B-A's Special Purchose Quontity Lasts of This Low Price. Shpg. Wt. 11 lbs. $\$ 22.95$
No. 31 A84. Spectal, Net Eoch....................... 22. No. 31A86. Precut Mounting Boord. Eoch...
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No. 31 A89. Speclai....................................................... 1.29

## TRANSISTOR-POWERED MEGAPHONE

## AMPLIFIES

 VOICE CLEARLY AND DISTINCTLY UP TO 1000 FT. AWAY

Extremely useful for sports, construction jobs, plants, group meetings, camps, etc. Easy to operate-jus press the trigger and talk into high gain built-in microphone. Fully transistorlzed circuit provides omple volume up to 1000 ft . Unique for listening feature horn bell for listening to remote conversations bird calls, distont sounds, etc. Lightweight only 2 lbs. high impoct, shock resistont case, $101 / 2^{\prime \prime}$ long. Uses 6 stondard $1 / 2.10$. No. 34 A 320 . Net
$\$ 14.95$
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Amozing simplicity, exceptional quality bines the with the operational ease and convenience of an ordinary record player. All the wonderful advantoges of music on rape now a reality in on instrument that every member of the fomily con use and en joy. MAKES STEREO AND MONAURAL RECORDINGS TOO! Keep memorable occasions alive for yeors-birthdoys, weddings, baby's first words PLUS hi fi recordings of fovorite musicals, concerts, operos, etc. from rodia (AM, FM or Multiplexi. TV, records or other tapes. So cosy ond convenient to operote. Loads in just two seconds. Just insert tope cortridge and flick automatic. Even stops at end of tape cartridge and shuts-itself off.
Up to a full hour of ploying time. Records and plays of $33 / 4$ ips on four sound trocks, two simultaneously. Ploys first pair os tope moves in one Finest component quality stereo flipping cartridge. finest component quality stereo omplifier and preomplifier. Assures highest standard of reproduction even the most critical music lover. Integrated units even the most critical music lover. Integrated units most makers of high fidelity stereo components.

Record-playback preamplifier transistorized for noise and hum free operation. Prafessional VU meter to assure perfect recordings.
Specifications: Power output 14 watts, 7 watts per
channel. Frequency response $30-15000$ cps conchannel. Frequency response 30-15,000 cps. Controls: left valume, dual bass $1+11 \mathrm{db},-16$ @ 50 cps), dual treble $(+6 \mathrm{db},-15 \mathrm{db} @ 10,000 \mathrm{cps})$, right volume ond monitor volume Tubes: 4-6AQ5A,
$1-12 A U 7,2-12 A \times 7 / E C C 83$ 1-12AU7, 2-12AX7/ECC83 3 , for mognetic phono, ouxiliary iradia, TV, etc. 1 and low impedance microphones.
Use with Speokers of your choice. Hos dual 8 ohm output for using with high fidelity speakers or speaker systems of your choosing, Moster monitor control enobles you to "listen-in" while recording. For a really compact, complete stereo music system
we recommend two Jensen Model $X-10$ speoker we recommend two ensen Model $x$ systems described in detail on page 6 .
Hondsomely styled wolnut cobinet has lift-up lid which reveals all contrals, conveniently locoted on front ponel. Size $93 / /^{\prime \prime} \mathrm{H}_{1} 16^{\prime \prime} \mathrm{W}$,
V .60 cy AC. Shpg. wt. $45^{1 / 2 \mathrm{lbs} \text {. }}$ V. 60 cy AC. Shpg. wt
No. 328101 . Model 405.
(Less Speokers \& Mikes) Eoch
No. 368289 . Microphones for abo....... $\$ 164.95$

YOUR PRESENT HIGH FIDELITY STEREO SYSTEM


Complete with some easy-to-use tope cortridge deck os with the Model 405 isee full description of leftl. Hos 9 tronsistor dual record-playback preomplifiers for connecting directly into your present stereo high fidelity system, or console nothing more needed for recording or playback. Has 3 dual inputs for recording from magnetic phono, rodio inputs for recording from magnetic phono, rodio
tuner, TV or other tape recorder and low imp. mike. tuner, TV or other tape recorder and low imp. mike.
Volume control provided for each channel plus Volume control provided for each channel plus
selector switch for all functions. Professional type selector switch for all functions. Professional type
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## FOR ALL RCA AND BELL CARTRIDGE RECORDERS

$560^{\prime}$ of specially processed famous Scotch 150 tape on tough $\mid$ mil Mylor base. Completely tape on tough mintainar free from dirt and enclosed in plostic contaiter free from dirt and
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$\$ 2.70$

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MOST CHOICE SELECTION FROM - RCA BEL CANTO LIBERTY

Convenient "drop-in" cortridges . . highest quality pre-recorded stereo tope for thrilling " 3 -D" sound-proand yill frequency response, minimum bockground nore corded of $33 / 4^{\prime \prime}$ per second.

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| Okiahoma \& Symphony for the Blues |
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| RCA-17 | KCS.4029 | 6.95 | 5.56 |
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MUSIC FOR DANCIMG MOOD MUSIC a VOCALISTS

# EXTRAORDINARY \$\$\$ SAVING SALE TAPE SPECAL TRAMSPORT PURERASE TAPE 

## WITH THE REVOLUTIONARY NEW DROP-IN TAPE CARTRIDGE

## 35TH ANNIVERSARY SPECIAL <br> $\left.\begin{array}{c}\text { ORICINALLY } \\ \text { SOLD FOR }\end{array}\right\}$ <br> NEVER BEFORE A RECORDER SO EASY TO USE!

$\$ 1950$GREATEST EXCLUSIVE B-A OFFER EVER!

- No Threading - No Rewinding


## Tape cartridge slips

 into ploce as easy os spindle. Na threoding - na reversing of topes. Provides up to twa full hours of uninterrupted playing with outomatic shutoff at end of cartridge. Simple enough for even a child ta foruse.


## 4 TRACK STEREO AND MONAURAL RECORD/PLAYBACK

Most exciting $\$ \$ \$$ saving value we hove seen! Not onmes B-A's unbelievable low price. The tremendous times $B-A^{\prime}$ s unbelievable low price. The tremendous
sovings mode possible by B-A's ofquisition of the entire remaining inventory of mojor components (omplifier, tope tronsport, and case) formerly used in the ossembly of the RCA $\$ 349.95$ Model SCP3 stereo tape recorder. Both the omplifier ond the
tope tronsport ore completely wired, ossembled, tope tronsport ore completely wired, ossembled,
tested and. ready for operation. Need only be mounted in the carrying cose and plugged together by the interconnecting cable ossemblies supplled, Eosy-to-follow instructions ond all hordware ore included for quick, simple assembly which is eosily
accomplished by onyone in a motter of minutes. Nothing more needed, except the speakers and microphones for exacily duplicating the original factory ossembled $\$ 349.95$ recorder.
Simplificd Push-Button Controls mokes recording and playback easier than ever. Just press a button for start, stop, fast forword, fast reverse and track selection.
Moster Control Panel. Includes: push-pull on-off dual loudness control with provision for outomatic or standby operation; dual tone control; function selector (AUX-STR-MON); and play-record switch. Mogic-eye record level indicator assures proper volume setting while recording.
Fully Automatic Tope Tronsport. Hondles tape cartridges with unusual precision and convenience. Records and plays back on four sound tracks of $33 / 4$ track for monaural. Automatically reverses direction of end of each track providing up ta one full hour of uninterrupted playing stereophonically, fwo end of cartridge. Convenlent "window" indicator shows a a glance track playing. Digital type "Program" indicotor provides fost, easy "location" of pla, and erase heads. Specially designed for opplimum high fidelity reproduction. Record/Ploybock Amplifier with tronsistarized preamplifier orovides exceptional high fidelity per-
formance. Combines on a single compact chassis the two omplitiers ond preamplifiers needed for stereophonic sound. Delivers amozing power with a maximum output of 12 watts. Frequency response with speaker system such os shown below, 50 ta $15,000 \mathrm{cps}$. Capable of even greater ronge when used with lorger, more expensive speakers. 6 tubes
$(3-12 A X 7,2-6 V 6 G T, 1-6 C G 7), 2$ transistors, plus 1 tube ( 5 Y 3 GT) rectifier and I 1 selenium rectifier. Bolonce control provided for bolancing volume of the two channels on stereo playback. Equipped with 2 pairs of input jocks for recording stereo-
phonically or monourally from mierophone, phonogroph, radio or TV. Will record multiplex ond FMAM stereo broadcosts. Output jock incorporated for external speaker system ta provide second channel for stereo ploybock. Comparable record/ playbock amplifiers sell for over $\$ 80.00$. Beoutiful Durable All Wood Corrying Cose. Covered in scuff resistont two-tone brown and beige. Mounting board of heavy $1 / 2^{\prime \prime}$ plywoad. Size $12^{\prime \prime} \mathrm{H}, 20^{\prime \prime}$ W. 17" D. Storage compartment for microphone and up to 6 tope cortridges. Pre-recorded tope cortridge included. Operates on 115 V . 60 Cy . AC. Complete satisfaction guaranteed No. 32 C 73 . Complete Kit
(Less Speokers $\mathcal{E}$ Microphones)
$\$ 119.50$
CUSTOM SPEAKER SYSTEM. Mounts right into existing openings in corrying case. Consists of heovy duty $8^{\prime \prime}$ Alnica $V$ woofer and two $31 / 2^{\prime \prime}$ tweeters. Performs functlon af one audio chonnel. Requires additional externol speaker system for stereo. Shpg. Wo. 32C74. Complete Speaker System.
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SENSITIVE CERAMIC MICROPHONE Small and lightweight, fits comfortably in hand or sits on table. Includes 5 ft . attached cable and plug. Two required for stereo recorder.
No. 20 B600.
Eoch.................. $\$ 3.49$ For............... $\$ 6.63$

HEVER BEFORE A RECORDER OF SUCH VERSATILITY, PROFESSIOMAL QUALITY AMD features priced so low

## EXCEPTIONAL DESIGN WITH ALL THE WANTED PROFESSIONAL FEATURES

## EASTMAN KODACOLOR FILM COMPARE B-A'S NEM LOM PRICES:

PRIGES INCLUDE: FILM, DEVELOPING OF FILM AMD GIANT POSTGA:D SI ZE $(31 / 2,25)$ COLOR PRNHS -square megatives are FIMISHED JUMBO $3 \frac{1}{2} \times x^{\frac{1}{2}}{ }_{2}^{\prime \prime}$<br>- Factory Fresh. Original<br>Unbroken Cartons.<br>- Top Quality Processing.<br>- Fast, Convenient "Direct Mail" Service.<br>- PLUS Exclusive $100 \%$ Picture Guarantee on Standard Rolls.

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You're Guaranteed ALL pictures an o standard rall. If comero shoots $8^{\circ}$ exposure film, you'll recelve GIANT POSTCARD SIZE $31 / 2 \times 5^{\prime \prime}$ prints. If camera shaots 12 expasures, you'll get JUMBO SIZE, $31 / 2 \times 31 / 2^{\prime \prime}$ prints fram every printable negotive plus SPECIAL COUPONS good for free prints to moke up the difference in cose same don't turn aut or a new FREE PROCESSING LABEL if the whale rall is blank

EASTMAN KODACOLOR FILM (Dual Purpose Film for Doylloht of Flosh)


## PREPAID PROCESSING LABELS FOR EASTMAN KODACOLOR

Each lobel good for developing and Giant Postcard Size Printing $31 / 2 \times 5^{\prime \prime}$ ( 8 exposure roll or $31 / 2 \times 31 / 2^{\prime \prime}$ ( 12 exposure roll) of one rall. You get a FREE Coupon for every unprintable negotive on a roll ar a new Free pracessing
Label if the whale roll is blank. All prints guaranteed on 35 MM KodaLabel if the whale rall is blank. All prints guaranteed on 35 MM Kodocalar too.

| Stock No. | Description | Llst Price | Net Each | $\begin{array}{\|l\|} \hline 3 \text { Lts. } \\ \text { Each } \\ \hline \end{array}$ | 10 Lts. Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 60A318 60A314 60A283 | 12 Expasure Kodacolor 620, 120 or 127 8 Exposure Kadacalar 620,120 or 127 35 MM 20 Exposure G $21 / 4 \times 31 / 2^{\prime \prime}$ Prints | $\begin{array}{r} \$ 3.90 \\ 3.22 \\ 4.30 \end{array}$ | $\begin{array}{r} \$ 2.37 \\ 1.94 \\ 2.58 \end{array}$ | $\begin{array}{r} \$ 2.25 \\ 1.72 \\ 2.45 \end{array}$ | $\begin{array}{r} \$ 2.11 \\ 1.61 \\ 2.30 \end{array}$ |

## EASTMAN KODAK FILM wirmout PROCESSING

## ALL FILM FACTORY FRESH! ORIGINAL UNBROKEN CARTONS!

8MM KODACNROME MOVIE FILMS (Without Processing)

| Stock No. | Eostmon Troe | Description | Each Roll | $\begin{aligned} & 3 \text { Lots } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 604305 | K459 | 8 MM 25 'Rall Day Kadachrame | \$2.79 | \$2.51 |

EASTMAN COLOR ROLL FILMS (Without Processing)

- KODACHROME EKTACHROME KODACOLOR

| 60A299 | K135-20 | 35 MM Day Kodachrame, 20 Exp. | $\$ 2.01$ | $\$ 1.80$ | $\$ 1.69$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 60A300 | KF1 $135-20$ | 35 MM Flash Kodachrame, 20 Exp. | 2.01 | 1.80 | 1.69 |
| 60A301 | K115536 | 35 MM Doy Kodochrome, 36 Exp. | 2.79 | 2.52 | 2.36 |
| 60A291 | EH135-20 | 35 MM Doy Hi-Speed EKfo. 20 Exp. | 2.45 | 2.20 | 2.06 |
| 60A293 | C620 | 620 Kodocolor for Doy or Flosh | 1.13 | 1.05 | 1.01 |
| 60A294 | C120 | 120 Kodacolor for Day or Flosh | 1.13 | 1.05 | 1.01 |
| 60A295 | C127 | 127 Kodacolor for Doy or Flosh | 1.13 | 1.05 | 1.01 |

MOST POPULAR EASTMAN BLACK \& WHITE ROLL FILMS

| 604296 | P $\times 135-20$ | 35 MM Plus X , 20 Exposures | . 83 | . 69 | . 65 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 60A284 | TX $135-20$ | 35 MM Tri X, 20 Exposures | . 88 | . 72 | . 68 |
| 60A286 | TX135-36 | 35 MM Tri X, 36 Exposures | 1.13 | . 92 | . 86 |
| 604285 | FX135-20 | 35 MM Ponotomic $\mathrm{X}, 20$ Exp. | . 88 | . 72 | . 68 |
| 604288 | VP620 | 620 Verichrome Pan | . 54 | . 44 | . 41 |
| 604289 | VP120 | 120 Verichrome Pan | . 54 | . 44 | . 41 |
| 604290 | VP127 | 127 Verichrome Pon | . 54 | . 44 | . 41 |
| 604276 | TX120 | 120 Tri X | . 64 | . 52 | . 49 |
| 60A277 | TX127 | 127 Tri X | . 64 | . 52 | . 49 |
| 60A278 | FX620 | 620 Panatomic $\times$ | . 64 | . 52 | . 49 |
| 604279 | FX120 | 120 Ponatomic $X$ | . 64 | . 52 | . 49 |

## NEW KODACHROME II

Kodachrome ts now avoilable in a new and improved emulsion. Supplementing rother than replacing regulor ASA 10 Doylight/16 Tungsten Kodachrame is this new ASA 25 Daylight/40 Tungsten Kodachrome if offering increased shadow detall and vastly improved color rendition of yellaws, reds and greens, this new film amazingly is of even finer grain and higher resolution than regular Kodachrome. Of special interest to 8 MM movie makers-whase Kodachrame II films will now screen with near 16 MM (regular Kadachrame) quality-this newest of calar films will also be
welcamed by 35 MM fans because of its increased speed and superb quolity.

KODACHROME II ASA 25 DAYLIGHT/ASA 40 TUNGSTEN (Includes Processing)

| Stk. No. | Description | Llst | Net <br> Eoch | 3 Lrs. 1O Lis. |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Each | Eoch |  |  |  |

EASTMAN KODACHROME FILW | FACTORY | LIST PRICE $\$ 4.70$ |
| :--- | ---: |
| FRFGM: | 3 |
| ORIGINAL |  |
| UNBROKEN |  |
| GARTONS |  |



## Dollas <br> - Houston <br> Woshington, D.C. <br> Mlaml <br> - New York <br> - Cleveland <br> Los Angoles

It takes mare than price to be campetitive-B-A not anly offers substantial sovings an Factary Fresh Kodachrome films but now for the first time you can hove the ossurance of the warld's finest quality Kodachrome processina from nne of the largest Independent processors in the world, FOTOCHROME, INC.
Film for every purpose with top quolity processing included in the one low price. Preserve the precious maments of grawing children; capture the excitement of vacatians and travels in full calar for a lasting family recard. After toking pictures simply moil the exposed film to the laboratory (PLEASE DO NOT MAIL FILM TO B-A COMPANY), your priceless photos are on the way bock to you in less time than it would toke in any ather woy, completely
processed at no odditional charge. Handy self-oddressed mailing bog and label ore supplied with each rall of film. Guaranteed, finest top quality pracessing with the lotest electronic equipment.

## EASTMAN KODACHROME COLOR MOVIE FILM

| Stock No. | Description | List Price | Net Each | $\begin{aligned} & 3 \text { Lots } \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 10 \text { Lots } \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 60A197 | 8 MM Daylight, $25^{\prime}$ Rall | \$4.70 | \$3.67 | \$3.49 | \$3.28 |
| 604198 | 8 MM Indaor, $25^{\circ}$ Rall | 4.70 | 3.67 | 3.49 | 3.28 |
| 60A203 | 8 MM Doylight, $25^{\prime} \mathrm{Mag}$. | 5.65 | 4.49 | 4.28 | 4.01 |
| 604196 | 8 MM Indoor, $25^{\prime} \mathrm{Mag}$. | 5.65 | 4.49 | 4.28 | 4.01 |
| 60A194 | 16 MM Daylight, $50^{\prime} \mathrm{Mag}$. | 8.85 | 7.46 | 7.10 | 6.66 |
| 60A195 | 16 MM Indoar, $50^{\prime} \mathrm{Mag}$. | 8.85 | 7.46 | 7.10 | 6.66 |
| 60A192 | 16 MM Daylight, $100^{\circ}$ Roll | 13.10 | 10.78 | 10.26 | 9.63 |
| 604193 | 16 MM Indoor, 100' Roll | 13.10 | 10.78 | 10.26 | 9.63 |


| EASTMAN KODACHROME 35 MM COLOR FILM |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 60A199 | Daylight, 20 Exposures |  | $\begin{aligned} & \$ 2.93 \\ & 2.93 \end{aligned}$ | \$2.79 |  |
| 60A200 | Flash \& Indeor, 20 Exposures | $\begin{aligned} & 3.90 \\ & 5.90 \end{aligned}$ | 2.93 4.35 | 2.79 4.15 | 2.61 3.89 |
| $\begin{aligned} & 604202 \\ & 60 \text { A } 201 \end{aligned}$ | Daylight, ${ }^{\text {a }}$, Exposures | $\begin{aligned} & 5.90 \\ & 5.90 \end{aligned}$ | 4.35 4.35 | 4.15 4.15 | 3.89 3.89 |
| EASTMAN EKTACHROME COLOR FILM (Regulor \% Hi-Speed) |  |  |  |  |  |
| 60A210 | 35 MM Daylight, 20 Exp. | \$4.10 | \$3.19 | \$3.04 | \$2.85 |
| 604211 | 35 MM Flash \& Indoor, 20 Exp. | 4.10 | 3.19 | 3.04 | 2.85 |
| 60A 224 | *35 MM Mi-Speed Daylight, 20 Exp. | 4.35 | 3.43 | 3.27 | 3.06 |
| 60A225 | * 35 MM Flash \& Indoor Mi-Speed |  |  |  |  |
|  | Tvpe B, 20 Exposure | 4.35 | 3.43 | 3.27 | 3.06 |
| 604212 | 620 Size, Daylight | 3.20 | 2.37 | 2.25 | 2.11 |
| 604213 | 620 Size, Flash \& Indoor | 3.20 | 2.37 | 2.25 | 2.11 |
| 604214 | 120 Size, Daylight | 3.20 | 2.37 | 2.25 | 2.11 |
| 604215 | 120 Size, Flash 8 Indoor | 3.20 |  | 2.25 2.25 | 2.11 |
| 604216 | 127 Size, Daylight | 3.20 | 2.37 | 2.25 | 2.11 |
| 604217 | 127 Size, Flash 8 Indoor | 3.20 | 2.37 | 2.25 | 2.11 |

## COMPARE B-A's NEW LOW PRICES!

 B-A OFFERS HUGE SAVINGS ON KODACHROME PROCESSINGFOR REOULAR KODACHROME, KODACHROME II, EKTACHROME \& ANSCOCHROME All film listed above includes processing; however if Kodachrome or Ektachrome has been purchased less prosessing from B-A or any place else-you may buy the has been ourchased less processing from $\mathrm{B}-\mathrm{A}$ or any
prepaid process mallers listed below ond sove $\$ \$ \$$.

## PREPAID PROCESSING LABELS FOR KODACHROME FILM

Eoch Lobel represents prepoid processing tor ane roll.

| $\begin{gathered} \text { Stook } \\ \text { No. } \end{gathered}$ | Description | Processing List Per Roll | Net Each | 3 Lots Eoch | 10 Lols Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 604205 | 8 MM, 25' Roll Labels | \$1.85 | \$1.05 | \$0.98 | \$0.93 |
| 604206 | 8 MM Magazine Labels | 1.50 | . 60 | . 53 | . 45 |
| 604207 | $16 \mathrm{MM}, 100^{\prime}$ Rall Labels | 4.50 | 2.52 | 2.40 | 2.25 |
| 604208 | 16 MM Magazine Labels | 1.85 | . 46 | . 40 | . 35 |
| 60A 209 | 35 MM - 20 Exp. Labels | 1.85 | 1.05 | . 98 | . 93 |
| 60A204 | 35 MM -36 Exp. Labels | 3.05 | 1.71 | 1.63 | 1.53 |

PREPAID PROCESSING MAILERS FOR EKTACHROME OR ANSCOCHROME Eoch Mailer represents prepaid processing for one roll

## 604209

 , $35 \mathrm{MM}-20$ Exp. Labels 60 A319 620, 120 or 127 Roll Labels

If you can oim this Comero you've got it mode! This new J66 is the simplest Land Comero ever designed-yet it takes the some large pictures $31 / 4 \times 41 / 4^{\prime \prime}$
os the most expensive Polaroid ever mode-the $J 66$ is fully automatic, no settings to make-simply alm ond shoot and get perfect pictures every timein only 10 seconds. Hos buitt-in AG-1 Floshgun. Shog. wt. 8 lbs. No. 37C71. Mfa. List $\$ 93.50$
$\$ 79.94$
THE $J 66$ COMPLETE OUTFIT-Ineludes Camera, Fitted top-groin cowhide cose, 2 type 47 picture rolls, 12 AG-1 bulbs. Shpg. wt. 10 lbs. $\$ 95.59$
No. 37 c91. J66 Outfil. Mfg. List $\$ 110.45$. Net Eoch............... $\$ 9.5$

## MANSFIELD HOLIDAY M-1000 8MM MOVIE PROJECTOR



- 500 Watt Projection lamp.
- 400 Ff. Reel Capacity.

Coated $1 / 4$ " $\$ 1.6$ Lens for wide Angle
Viewing.

- Swing out gate for easy loading and cloaning.
All alumi
All aluminum die cast construction. High intensity blower for uniform Marex film system.
- Lifetime lubrication
tiferime ill movin pith oillte bear Memorable evenis of parts. Memopable evenis o lifetime projected 8 mm style, quality and price leader 8 mm style, quality and price leader its powertul Mumination and precise opfical system results in crisp, brilliantly will enjoy. At last a quality projector wit down to earth pricel Wi. 8 lbs. List $\$ 49.95$. o be absolutely the best 8 mm Proiector listing under $\$ 70.00$ available. Mansfield listing under $\$ 70.00$ available. Manstield

Nationally Advertised Price of $\$ 49.95$ in Nationally represents an amazingly good value, however. an amazingly good $25 \%$ Savings this Projector must be Top Rated as a "Best Buy." Backed by Mans. field's lifetime guarantee on all perts. | No. 37 A436. |
| :--- |
| Net................................. | 5.95

Carrylng Case. Wi. 3 lbs.
Carrylng Case. Wi-
No. $37 \mathrm{~S}_{437}$ liss.
. $\$ 3.96$

## 8MM ACTION EDITOR AND SPLICER



One of the finest quality, most efficient, easy to use editors mode. Film slips in without ony threading whatsoever. Turn one knob and film is lacked permonently in focus and frame. Film trovel is very smooth without skipping, fickering or wear. Baia design puts emulsion side up for easiest splicing. Folding reels have 800 tt. capocity. All metal construction. Take-up rewind splicer. Has on-off switch. Operates on 110 volts $A C-D C$. Wt. 8 lbs Mit splicer. Has on-off switch. Operates on 110 vo
list $\$ 34.95$.
No. 114763 . Complete in Corry-Carton. Net Each
$\$ 23.30$


## BATTERY-OPERATED SLIDE VIEWER

B.A GUARANTEES this viewer to be equal in quality and optical performance
to viewers selling from $\$ 6.95$ to $\$ 9.95$. to viewers seling from $\$ 0.95$ to $\$ 9.95$.
Simply insert slide in top-builp-in swith furns light on when slide is pushed down-viewer rests ither flat or UP at
$45^{\circ}$ angle for group viewing. Uses standard C iype flashlight batreries No. 11 A465. Complete with Batteries. Nat


## Stock Type

No. ASA Speed Shpg. wt. 12 lbs. No. 37C72. J3' Ouffit. Mfg. List $\$ 87.90$.

POLAROID LAND PICTURE ROLLS FOR FINISNED PICTURES IN 10 SECONDS AT LOWEST COST
Recommended for
J66 G All except $80,80 \mathrm{~A}, \mathrm{G} 80 \mathrm{~B}$
All Models exc. J66, $80,80 \mathrm{~A}, 80 \mathrm{~B}$
Models $80,80 \mathrm{~A}$ and 80 B

| Mfg. | Net <br> Lech | EQCh <br> E. | $6 @$ <br> Eoch |
| :---: | :---: | :---: | :---: |
| $\$ 2.29$ | $\$ 2.01$ | $\$ 1.89$ | $\$ 1.81$ |
| 2.14 | 1.88 | 1.76 | 1.69 |
| 1.79 | 1.57 | 1.48 | 1.42 |
| 1.64 | 1.44 | 1.35 | 1.30 |

## POLAROID LAND CAMERA KTTS

THE 900 COMPLETE OUTFIT-Comero, Fitted Cose, Winklight, 2 \# 47 Rolis. Shpg. wt. ${ }^{12}$ lbs.
No. 37 C 92 . Complete Outfit. Mfg. list $\$ 199.95$. Net Each......... \$ 162.95 THE 850 COMPLETE OUTFIT-Comero, Fitted Case, Winklight, 2 \# 47 Rolls
No. 37 C93. Complete Outfit. Mfg. List $\$ 179.95$. Net Eoch............. \$148.88 NEWEST 133 OUTFIT_Makes $21 / 4 \times 31 / 4 "$ pictures in 10 seconds. You get:
$\qquad$ $\$ 76.97$

## OUR FINEST EXPOSURE METER

furer of quality professional tripods. Rock-solid camera support eliminating hard to look at bumpy effect in home movies-no more blurred "ssills" caused by camera movement. Loaded with pro fessional features all combining for better reproduction of most cherished oceasions. Including: All precision ma chined gearing, smooth running; no slip or lam leg locks-loosen or fighten with only quarter turn; elevator column carried in precision bearings - locks rigid at any height. Made of high strength alreraft aluminum with life
time finish time finish - all parts protected agains wear and corrosion. Lighsweight, iust $23 / 4 \mathrm{lbs}$. A must for sharpest pictures! $\mathrm{No}_{\mathrm{B}} 368147$.
Special Not Eech.
$\$ 12.88$ 正

## MEN COSSEN 

THIS EXTREMELY ACCURATE METER WILL MORE THAN PAY FOR ITSELF IN FILM NO LONGER WASTED!

MEASURES DIRECT

- INCIDENT - MOVIES - polaroId e EVS

Supersensitive, from Gossen warks of RANGE Western Germany, renowned monu-


Has instant flip-thumb-lever that slides a built-in screen over photocell im-B-A Guorantees this Meter to be as fine in quality of workmanship and equal to the light sensitivity of any photoelectric type basic meter selling under $\$ 50.00$. Shpg. wt. 8 oz
$\$ 13.56$
No. 37A306. Meter, Cose G Strap. Net

- 13.549

KALIMAR A-I PHOTOELECTRIC EXPOSURE METER COMPLETE WITH PLUG-IN 64X BOOSTER Has ASA 3 to 3200 sensitivity scale-Time scale 60 seconds to $1 / 1000$ th-Lens reading $F: 1$ to $F: 32-$ Polorold and LVS-Movies 8 to 64 frames per secwith oenuine Leather Eveready Cose light, Complete with genuine Leather Eveready Case and 16 " chrome with leother case, instruction booklet, registration and guorantee
Meter \& Cose Plus Booster \& Case No. 11 B428. Net
$\$ 8.97$

## QUICKSET/WHITEMALL ELEVATOR TRIPOD

## Made by Quiekset foremost manufac.

## QUICKSET/WHITEHALL "DREXEL" ELEVATOR TRIPOD

For those desiring a ilttle heavier duty trlpod than average needs require, this model is excellent. Smooth pan head swings freely and lacks instantly. Other specs: height extended $671 / 2^{\prime \prime}$-telescoped $243 / 4^{\prime \prime}$-crank operated elevator column $7 / 8^{\prime \prime}$ dia. $13^{\prime \prime}$, rise-Deluxe finish black anodize with chrome occent. 3 section legs $7 / 8^{\prime \prime} 3^{\prime 3} / 4^{\prime \prime \prime}$, $5 / \mathrm{m}^{\prime \prime}$ dia. Wt. $31 / 2 \mathrm{lbs}$ No. 36 C 164. M4g. list $\$ 24.95$. Net Eoch.
$\$ 17.88$

## BXGLUSIVE MANGFIELD 8 MM ZOOM REFLEX MOVIE GAMERA <br>  <br> - Built-in Automatic Electric Eye Me ter-indicates correst lens selfing. - Focusing eyepiece. <br> Fast F/1.8 Zoom Focusing Lens-color corrected and hard coated. <br> - Whisper-quiel molor. <br> hat you see. <br> - Trigger-action pistol grip included For sheer movie-making excitement this new Mansfield 8 MM Zoom Camera can't be equalled! Through-the-Lens viewing shows the aclual scene as you ZOOM in from wide angle to tele. photo shotsl You get exactly what you see as with other non-reflex cameras. Fast drop-in spool loading. Focusing eyepiece adjusts to any eyesight cond ruge. $n$ ness. This very fine camera lists forgedness. This very fine camera lists 8 MM Zoom Cameras-and it provides pictures every bit as good-no reason to pay more. $\mathrm{B} \cdot \mathrm{A}^{\prime}$ 's net price is $\$ 72.88$ ful Value-Backed by B.A.s Guarantee: Satisfaction or your money back. Shpg. Wo. 37 A7. Net Each............. \$72. 88

## MANSIIELD ULTRA ZOOM HOLIDAY 8 MM MOVIE PROJECTOR



## ACME-LITE PROJEK-TABLE

pORTABLE ELECTRIFIED STAND FOR SLIOE \& MOVIE PROJECTOR PLUS 101 USES FOR HOME, SCHOOL OR OFFICE Ideal for bedside toble for lamp, vaporizer, coffee and snack table, rodia or portable plóyers, electric typewriter, electric appll-
Discover how enjayoble picture projection can be with all these conveniences of your finger tips: switch controlled viewer window
for previewing slides; service-lite for working in dork, three surface outlets for connecting projector room lamp, tape recorder, etc. Projek-Toble opens on self-leveling tri-
pod legs to $30^{\prime \prime}$ height and closes in a jiffy storing in only $9^{\prime \prime}$ of floor spoce. All steel construction with $15 \times 17^{\prime \prime}$ scuff-proof vinyl plastic covered top. Beoutifully finished
 COMPLETELY NEW AND IMPROVED

## ILLUMINATION FOR INDOOR MOVIES

## ACME-LITE Q-BEAM VACUUMSEALED QUARTZ MOV-E-LITE

Want indoor movies bright as all outdoorseverytime? The new Q-Beom is your answer. Here's why: Q-8eam is so compart a hondful. So powerful it outshines multiple light bars ond inefficient sealed tungsten lamps. Its brilliant, vacuum-sealed GE uniflood lamp literally bothes your subject in pockoged sunlight. bou your sublect in packaged sunferts: eliminate double shodows, glare and underexposure.
-Beam hinged camera mount the lamp posiFor bounce-light effects the unique Q-Beam hinged camera mount folds alongside the hondle. Its omozing replaceable DXK lamp has a life of 16 hours, four times that of conventional lamps, and brilliance and color remoin constant without current ond no special fuses are needed. Has $12^{\prime}$ power cord. M Na. 328245. Mfg. list $\$ 22.95$. Net
\$15.95 OELUXE TAILORED SHOULDER C shape of Q-Beam. Wt. I It
No. $32 \mathrm{B246}$. Mfg. Jist $\$ 6.95$. No. 32 B246. Mfg. Jist $\$ 6.95$. Ne

RSYLVANIA blue dot flashbulbs FOR BLACK AND WHITE AND ALL COLOR FILM


BUY IN STANDARD FACTORY CASES SAVE
MORE \$ \$ \$

SYLVANIA CLEAR FLASHBULBS. Recommended for oll Black and White Films and every popular type INDOOR Color Film plus Kodocolor. Bulb shapes and bases are illustrated above. M5B same as M5, efc. "Bantam 8 . (not illus. has some base as "Press 25 " but is only 48 " in diameter Some os column below shows comparable bulbs of other monufacturers. "Try the new unbelievoble Minioture $M 5$ ond M25. "Tirconium Tilled frosh: diameter. \#Each carton contains 12 floshbulbs.

| Stock No | $\begin{aligned} & \text { Bulb } \\ & \text { Type } \end{aligned}$ | Class | Lumen Seconds | Color Temp. K | Same As | Ctn. List | $\begin{aligned} & \text { Per } \\ & \text { Ctn. } \end{aligned}$ | 3 Cins <br> @ Ea. | $\begin{aligned} & \text { Cose of } \\ & 144 \text { For } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 60454 | AG-1 | - | 7,000 | $3800^{\circ} \mathrm{K}$ | AG-1 | \$1.32 | \$1.02 | \$0.91 | \$ 9.79 |
| 118508 | M-5 | M | 16,000 | $3800^{\circ} \mathrm{K}$ | M-5 | 1.80 | 1.40 | 1.24 | 13.34 |
| 118506 | M-25 | - | 16,000 | $3800^{\circ} \mathrm{K}$ | M-25 | 1.80 | 1.40 | 1.24 | 13.34 |
| 114513 | M-2 | - | 7,200 | $3800^{\circ} \mathrm{K}$ | M-2 | 1.56 | 1.20 | 1.07 | 11.57 |
| 114523 | Bant. 8 | M | 7,000 | $3800^{\circ} \mathrm{K}$ | 8 | 1.50 | 1.16 | 1.03 | 11.12 |
| 114514 | SF | F | 5,000 | $3400^{\circ} \mathrm{K}$ | SM | 2.16 | 1.67 | 1.48 | 16.02 |
| 114515 | Press 25 | M | 20,000 | $3800^{\circ} \mathrm{K}$ | 5 | 1.80 | 1.40 | 1.24 | 13.34 |
| 114512 | FP-26 | FP | 19,000 | $3800^{\circ} \mathrm{K}$ | 6 | 2.16 | 1.67 | 1.48 | 16.02 |


| Stock No. | $\begin{aligned} & \text { Butb } \\ & \text { Type } \end{aligned}$ | Class | Lumen Seconds | Color Temp. K | $\begin{gathered} \text { Same } \\ \text { As } \end{gathered}$ | Cin. List | $\begin{aligned} & \text { Per } \\ & \text { \# } \end{aligned}$ | 3 Cins. <br> @ Ea. | $\begin{aligned} & \text { Case of } \\ & 144 \text { for } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 60455 | AG-1B | - | 4,000 | $6000^{\circ} \mathrm{K}$ | AG-1B | \$1.56 | \$1.20 | \$1.07 | \$11.57 |
| 118509 | M-5B | M | 8,500 | $6000{ }^{\circ} \mathrm{K}$ | M-58 | 2.16 | 1.67 | 1.48 | 16.02 |
| 118507 | M-25B | - | 8,500 | $6000^{\circ} \mathrm{K}$ | M-25B | 2.16 | 1.67 | 1.48 | 16.02 |
| 118511 | M. 28 | - | 6,000 | $5100^{\circ} \mathrm{K}$ | M-2B | 1.80 | 1.40 | 1.24 | 13.34 |
| 114519 | 258 | M | 9,000 | $6000^{\circ} \mathrm{K}$ | 58 | 2.16 | 1.67 | 1.48 | 16.02 |
| 114521 | FP26B | FP | 8,500 | $6000^{\circ} \mathrm{K}$ | 68 | 2.52 | 1.95 | 1.73 | 18.68 |

## SYLYAMIA REFLEGTOR SUPERFLOODS

For both Movies and Stills. Perfect for all Black and White and Populor Indoor Color Films. Screw base for standard 115 V . AC sockets. All lamps hove o color temp nf 3400 except R32 $13200^{\circ} \mathrm{K}$ ' which provides softer skin tones.


| Stock | Type | Watts | Angle | Life | Size In. | List | Each | For | For | For |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: | ---: | ---: |
| No. | Fors |  |  |  |  |  |  |  |  |  |
| 118410 | DAN | 200 | $25^{\circ}$ | 4 hours | $23 / 8 \times 33 / 4$ | $\$ 125$ | 51.96 | $\$ 5.22$ | $\$ 9.27$ |  |
| $11 B 522$ | EBR | 375 | $25^{\circ}$ | 4 hours | $33 / 4 \times 51 / 4$ | 1.15 | 1.78 | 4.74 | 8.50 |  |
| $11 A 622$ | BEP | 300 | $30^{\circ}$ | 4 hours | $33 / 4 \times 51 / 4$ | .93 | 1.44 | 3.84 | 6.91 |  |
| $11 A 537$ | R34 | 375 | $25^{\circ}$ | 4 hours | $41 / 4 \times 61 / 4$ | 1.25 | 1.96 | 5.22 | 9.71 |  |
| $11 A S 30$ | R32 | 375 | $25^{\circ}$ | 15 hours | $4 \times 61 / 2$ | 2.20 | 3.40 | 9.06 | 16.32 |  |

mew ceramic "blue top" SYIVAMIA PROJECTION LAMPS Exact replacement for all slide and movie proiectars. All
prices include Federal Tox. Wattoge equals number prefix COOLER! BRIGHTER!

| Stack No. | $\begin{aligned} & \text { ASA } \\ & \text { CODE } \end{aligned}$ | Type Number | $\begin{aligned} & \text { List } \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & \text { Net } \\ & \text { Eoch } \end{aligned}$ | $\begin{aligned} & 3 \text { Lots } \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 6 \text { Lots } \\ & \text { Eoch } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 114477 | CEM | 10078/1085C | \$1.90 | \$1.47 | \$1.37 | \$1.30 |
| 114478 | CEL | 10078/108DC | 2.00 | 1.55 | 1.44 | 1.37 |
| 114553 | DFA | 150T12TFR | 5.35 |  | 3.79 1.66 1 | +3.60 |
| 114528 | CEW | 15078/711 | 2.30 2.65 | 1:78 | 1.66 <br> 1.91 <br> 1 | 1.58 1.82 |
|  | CEH | 150710 TF1 | 2.90 | 2.24 | 2.09 | . 99 |
| ${ }_{118414}$ | CAR | $150712 \mathrm{TFR} / \mathrm{LV}$ | 5.25 | 4.06 | 3.79 | 3.60 |
| A482 | CGW | 20078/113 | 2.40 | 1.85 | 1.73 | 1.65 |
| $111{ }^{4} 884$ | CMV | 300781/2/2SC | 4.00 | 3.09 | 2.88 | 2.75 |
| 114524 | CLS | $300781 / 2 / 11$ | 3.30 | 2.55 | 2.38 | 2.27 |
| 114485 | ${ }_{\text {CLI }}$ | 300T81/3/12 | 3.40 | 2.63 | 2.45 | 2.33 |
| A486 | CYC | 3007105 C | 3.40 | 2.63 | 2.45 | 2.33 |
| A526 | CXK | 300710 P | 4.60 | 3.55 | 3.32 |  |
| A773 | CWD | 300TIOTF1 | 3.75 | 2.90 | 2.70 |  |
| 7 | DGA | 30012 TF | 4.05 | 3.13 | 2.92 | 2.78 |
| 118415 | CRA | 300010TF3 | 4.30 | 3.32 | 3.10 |  |
| 118416 | CAL | 300 T 10 TF4 $500 \mathrm{~T} 10 / 25 \mathrm{C}$ | 4.40 |  | 2.88 | 2.75 |
| 11 A492 | DAK | 500710 F | 4.70 | 3.63 | 3.39 | 3.23 |
| 11 A527 | CZX | 500T10P | 4.95 | 3.82 | 3.57 | 3.40 |
| 11 A174 |  | 500 T10TF2 | 4 | 3.82 | 3,57 | 3.40 |
| 11 A 775 | cza | 5000 T10TFI | 5 | ${ }^{3.82}$ | 3.57 | 3.40 |
| A525 | DDB |  | 5.95 | 4.13 |  | 3.07 |
| 114539 | DEJ | 750T12/3LR |  | 4.6 6.64 | 6.20 | 5.98 |
| 11 A475 | DGH | 750T12 ${ }^{\text {M/T12P }}$ | 5.75 | 4.44 | 4.15 | 3.95 |
| 118510 | DFK | IM/T12/3LR | 6.55 | 5.06 5.45 | 4.72 5.08 | 4.50 4.84 |
| 118417 | DFY | IMTI2/5LR | 7.05 | 5.45 | 5.08 |  |

## MICO SLIDE TRAYS

1000's SOLD MATIONALLY FOR $\$ 1.06$ EACH
Universol Design-fits Viewlex, TDC, Bell

Universol Design-firs Viewlex, TDC, Bell $G$ Howell Robomotic. Americon Opticol ond Keysuper). Halds 30 slides in all types of mounts. Eoch is indexed with engraved numbers. NONJAMMING and NON-WARPING-special block unbreokable plostic prevents worping regordiess of time, temperoture ond use. Guoranteed for


## EXTRA AIREQUIPT MAGAZINES

For any
11 A748
Not $\mathrm{E}_{\mathrm{s}}$.
$\$ 1.83^{6}$
$\$ 1.71{ }_{6 \cdot}^{24}$ @ $\$ 1.54$



## PENTA-PRISM 35 MM LENS REFLEX

## NEW AIRES PENTA

F\&2 LM
35 MM CAMERA

- Accepts spandard 20 or 36 exposure 35 MM black and whito or color film. - SOMM F:2 H-Coral six element lens, amber coated and color corrected Saikosha SLV shutter, 11 click-set shutter-speeds, $1,1 / 2,1 / 4,1 / 8,1 / 15,1 / 30$, $1 / 60,1 / 125,1 / 250$, $1 / 500$ and " 8 ." if desired, shutter speed and lens aperture can be set independently of meter.
- Fully symehronized M-X-V shutter. $M$ for popular flashbulbs, X for electronic flash and $V$ for built-in delayed action timer.
- Split-image Rangefinder in Through.The-Lens Focusing Panta-Prism Viow. finder. You get what you soe with no parallax probloms.
Automatic diaphragm allows full-aperture viowing and focusing. It stops down to the desired pre-set opening automatically and refurns to full opening when film is advanced for the next exposure.

Every concelvable professional feature-yat so simple to use: Photographer merely aims camera at subject, looks on top of camera at number indicatad by meter, then sets ring on front of camera to the same number-your lens and shutter ara automatically set at the proper combination for perfect picrure taking. Sensitive meter is centered in Penta-Prism housing above lons for truest possible light reading.
This new "Aires Penta F:2 LM" has additional features too numerous to mention in this limited space-but if you want the very bast pictures ob tainable-don't think for a minute that a more expensive camera wlll do a better job-because it wouldn't. There is no resson to pay more-order now and ses for yourself B-A Guarantees complete satisfaction or your monay and sea for yourself. B-A Guarantees complete sarisfaction or your monay chorer's Nationally Advertised ist complete with case and auxiliary adaptor
 No 37 A3. Camera, Case and Adaplor Ring. Not. 4 lbs.

## NEW . . . SELF-OPERATING 35 MM SLIDE PROJECTOR

 AT A DOWN-TO-EARTH PRICE!

REMOTE AUTOMATIC TIMING CONTROL-Just set time for any interval from 5 to 60 seconds-then sit back and enioy the show as the Holiday ' $500^{\prime \prime}$ " advances, shows and replaces slides all by liself. Remote control allows you to alter timing, advance or hold slides on screen as long as desired-from as far as 12 feet awey-choice of manual control if desired.
500 WATT PICTURE BRILLIANCE-New 500 -watt proximity reflector lamp provides up to $25 \%$ more picture brilliance than comparable prolectors. Lens is F3.5, $4^{" \prime}$ focal longth, 3 element, coated anastigmat. Precision rack and pinion focusing.
POWERFUL BLOWER COOLING SYSTEM-Prevents overheating, proheats slide to prevent "popping" out of focus.
45.SLIDE PROJECTION TRAY - No special inserts or mounts needed- just drop in cardboard-mounted slldes and you're ready to go. Holds 45 slldes.
Mansfield Model 416 Holiday " 500 :" Operates on 105 , 10120 volis $A C$ with 10 ft . power cord. Complete with remote timer and one "45" troy. All moral conspruction beautifully finished in black with chrome and gold trim.
No. 37885. Complete shpg. wt. 15 Ibs. Nol
$\$ 57.60$
No. 37886. Carry Case for " 500 ." Each.....
No. 37C90. Projector \& Case. Spacial Each No. 118744. Extra" "45" Tray: List \$1.45. Not Each.
. 1.25
12 lois

## RADIANT PROJECTION SCREEN

meteor

$\$ 897$
MFG.
LIST
$\$ 14.95$
FUNGUS RESISTANT
40×40" SIZE-INSTANTLY CONVERTS TO OBLONG FOR

SLIDE OR MOVIES
High quality, brilliant glass-beaded sereen that assures sharpest phótographic detail. Built-in carrying handle sharpest 9 photographic detail. Built-in carrying handle. $\$ \$ .97$
Weight 9 lbs. Liss $\$ 14.95$.
Mo. 40 C 104 . Size $40 \times 40$. Net Eoch......................... $\$ 8.97$

## ALL NEW KALIMAR TRANSISTORIZED AC OR BATTERY-OPERATED PM540

## PERFECT FOR FILLING IN SHADOWS OUTDOORS... OR AS AN ONLY LIGHF SOUREE INDOORS

Look at these specs: Output $=54$ watt seconds-color temperature $=6000^{\circ}$ (Balanced for daytight color films)-recycling time B-10 seconds - 150 flashes pet balpery set. $1 / 800$ th second flash duration.
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PM540 transistorized electronic flash can be used with any camera synchronizec PM540 transistorized electronic flash can be used with any camera synchronizec
for electronic flash (your shutter must be marked " $X$ "). Operates on ordinary 11 . for electronic flash (your shulter must be marked "X"). Operates on ordinary
AC household current or just 4 D -size flash batteries. Exposure calculator quickls AC household current or just 4 D.size flash batteries. Exposure calculator quickl,
shows correct lens openings at various distances. Open.flash button for testing ane shows correct lens openings at various distances. Open-flash button for testing and for bleeding Unip. Mulri-flash pictures may be paken by connecting two or mo Units together using all battery or all AC or their combination. Ready lamp ligh when unit is charged and ready for next flash.
Packaged with Battery Case-Plus All These Accessories at No Extra Cost: Power cord, Synchro cord, AC Line Cord. Camera Bracket, Camera Accessory Clip an Botrery Case Shoulder Strap. Mig. List $\$ 39.95$
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Hurry, hurry for the best buy ever on o popular 35 MM Prolector. B-A sold several hundred of $\$ 29.95$. Now only 0 limited quantlty remains for a lucky few of this reduced clearance prlce. Feaof this reduced clearonce price.
tures true foeus 300 watt bulb-turbo blower cooled, $4^{\prime \prime}$ F3.5 color corrected cooted lens, Éastman Kodak presto-matic cooted lens, Eastman Kodok preston
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AUTOMATIC PHOTOELECTRIC LIGHTMETER coupled to shutter with manual override.

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## THESE GREAT NEW fEATURES GUARANTEE

 A LIFETIME OF PHOTOGRAPHIC SATISFACTION- Aecepts standard 20 or 36 exposure 35 mm black $G$ white or color film. - Fost Rakkar 45 mm F2 lens. Fully coated and corrected; detent oction stops to F22. This lens is world fomous for neede-sharp performance. boosting $M X V$ sync. IM fo egular floshbulbs, $X$ for electronic flash and $V$ for delayed action.l sec. and $B$ (all these speeds hoving detent action)
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This Camera is especially recommended for those wanting a fost-handling all oround excellent 35 mm comera-ideal for sports, ovailable light, and generol vacation color shots or for that matter any occasion demanding the finest optical performance and mechonical perfection. B-A is so extremely praud of this special offering that we are Guoronteeing this Comera uncanditionally for one year-that's right uncanditianally which means if for ony reoson you are dissotisfied with the performance or even the looks of this Minolta AL- money cheerfully refunded anytime within one year. Camera, complete with Deluxe Eveready Leather Carrying Case and instruetion booklet. Mfg. List $\$ 99.50$. No. 37 C 99 . Shpg. wt. 4 lbs. Special
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All Empire Binoculars are double-strength, all-weather construction. Precision ground, hord-cooted lenses.. Pockoged with Deluxe Plush-Lined Genlightweight lined leather case. Prices include Federal Exclse Tax.
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$7 \times 18$ BINOCULAR
All the power, brilliance, and field coverage of highest quality full size binoculors-yet just $1 / 5$ th their bulk and weight-meosures $21 / 2^{\prime \prime}$. H. by $31 / 2^{\prime \prime} \mathrm{W}$. Shpg. wt. I lb. Mfg. List
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Center Focus. Net Each...... $\$ 17.25$ Center Focus. Net Each......
New, rugged glasses thot bring you front-seot viewing for all sporting events. Lightweight, only 18 oz . Field of view 400 ft . of 1000 yds . Ht. $51 / 2$
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These large $7 \times 50$ BINOCULAR
These large glosses offer big value and best results. Unsurpassed for outdoor use especially at dawn or dusk. Field of view 385 ft . at 1000 yds. H0A23i. Chpg. Wt. 4 lbs. List Price $\$ 51.45$. Net Eo... \$26.97 60A 229 . Individual Focus. $\$ 23.17$
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OBSERVE WONDERS
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Jason 300x "Universal." This astronomical reflector is the same type as the one of Mt. Palomar and the country's lergest observatories. Powerful 6 ranges of power from $45 x$ to $300 x, 3$ super coated lenses plus $2 x$ Barlow lens and large $4^{\prime \prime}$ optically ground and polished mirror combine to give you the ultimate for clear, powerful, brilliant observation. Solor and lunar enses included. $5 \times 24$ finder scope. Big floor tripod and accessory tray. Focal
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## WTRELESS 2-STATION

Just plug each unit in 115 volt $A C$ or $D C$ outlet, furn on and presto . . . two-way intercommunication at lowest cost ever. Works anywhere-between rooms, aportments, offices, nearby homes, adjacent buildings-also perfect as boby listener or for sick rooms Press-to-talk switch with constant listening position. UL opproved Size only $81 / 4 \times 33 / 4 \times 41 / 2^{\prime \prime} \mathrm{H}$. Shpg wt. 8 lbs .
No. 36 B 203
2-stotion system $\quad \$ 39.95$

## BATTERY POWERED ALL TRANSISTOR

Four transistor battery-powered for portability! Move from room-to-room or out-of-doors. No electrical plug-in. Simply connected by 2 -wire cable $150^{\circ}$ included). Master has 3 -position lever switch for standby, talk and listen, also volume control. Remote works from distánces, has "beep" signal switch for buzzing moster even when off. Ivory cobinets, $61 / 2 \times 41 / 2 \times 41 / 2^{\prime \prime}$
Shpg. wt. 6 lbs.
No. $36 A 20$.(Less Botteries) Net.... $\$ 24.95$ No. 36B25. Set of 4 Penlight Cells (AA)

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Sensational value, full.quality electric razor at a spectaculor B-A Special Purchase price. and skin action shaving head with built-in whisker guides that gently press the skin down pop up whiskers for close, clean, non-irritating shaves; new "Magna-Matic" moto for quiet non-radio interfering power and constant speed, $110 \mathrm{~V}, \mathrm{AC}$ only and host of other fine features including the very tops in handsome styling. Shpg. wt. 2 lbs. Brand new, perfect. Standard factory warranty. With plaid waterproof pouch. No. 60A186.
SPECIAL $\$ 7.99 \underset{\text { EGeh }}{4}$ Lots, $\$ 7.50$

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 WITH UNIQUE SOUTH POLAR PROJEGTION MAP

- $8^{\prime \prime \prime}$ Diameter-Self Starting Electric - Highest Quality-UL Approved

Relisble solit second, round the world pime at a glance. For Hams, Short-wave listeners commercial radio stations, home or office seautifully chrome plated all metal con whiten witrols. Has swe black fale and Whire numerals. Has sweep second hand Unique feature is iner dial world south polar projection map to show world time motor. For 115 V .60 cy . AC. UL approved Wotor $11 / 2 \mathrm{lb}$.
No 37 B 282
Not Each (Tax Included)

## EASY-TO-WIRE 2-STATION

Moster plugs into $115 \mathrm{~V} . \mathrm{DC}$ or AC 150.60 cy. $)$ connects to remote through 2 cond. cable 150 ft.) furnished. Remote remains open, no switch to operate, so Moster can hear of all fimes. Moster can heler of altrimes, on-off switch, separate press-to-on-off switch, separate press-to-
tolk switch and 6 ff . AC cord. Ivary all metal cabinets. UL aplvory oll metal cabinets. UL ap-
 6 ft . cord for 117 V .60 ey $A C$.
No. $17 A 405$. Special Import Volue.

## USES NEW SPACE AGE PRIMCIPLE

## QUALITY-BUILT ATTACHE CASE

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TIMELY B-A SPECIAL PURCHASE MAKES POSSIBLE THIS EXCITING OFFER
Sturdy all wood frame, yet lightweight for easy toting with convenient easygrip carrying hondle. Handsome, rich, leather-like scuft-resistance vinyl covering of lasting durability and finest professional appearance.
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Compact, well proportioned and roomy. Size $17^{\prime \prime} \times 111 / 2^{\prime \prime} \times 41 / 4^{\prime \prime}$. Nickel plated locks. Choice of Color: Ginger or Palomino Tan, pleose specify preference. 3 Shpg. wt. 4 lbs. Your complete satisfaction guaronteed.
2682

WIRELESS NURSE


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No connecting wires needed. Compact little unit picks up and transmits sound loud and clear through any radio by funing in on through any radio by funing in on 1750 KC . No installation required just place unit in nursery, sickroom, just place unit in nursery, sickroom, etc.-any place from which sound pickup is desired. Plugs into 115 V . 60 cy . AC or DC. No other wiring necessary. Attroctive blue enamel. Size only $81 / 4 \times 33 / 4 \times 41 / 2^{\prime \prime} H$. Shpg. wt. 4 lbs. UL approved. No. 368168.
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Just plug lamp or uther light into standard outlet on rear of "Photo-eye". Light sensitive photo cell does the rest. Automatically furns light on when it gets dapk, off when it gets light again. Wonderful for house protection, store displays, etc. Hondles up to 300 watts or will handle heovier loods with external power relay. Neat black bakelite case, size only $37 / 8^{\prime \prime} \mathrm{L} x$ $13 / /^{\prime \prime} \mathrm{W} \times 23 / 4^{\prime \prime} \mathrm{H}$. Rubber suction feet holds to any surface. Complete with
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NO WIRES - SENDS VOICES 100's OF YARDS ON BEAM OF INVISIBLE LIGMT:

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Simply oim and tolk! Hold two-way "wolkie-talkie" conversations anywhere within line of sight . . . indoors or out . . . day or night. Talk in secret through gloss... oround corners with mirrops. Eoch phone sends and receives simultaneously. All-transistor omplifiers ready for instant use without warmup. Telephone like clarity from high quality earset. Housings are highimpoct styrene, designer-styled in attractive red and aquo with groy trim opprox. $31 / 2^{\prime \prime} \times 101 / 2^{\prime \prime} \times 61 / 2^{\prime \prime}$ overall. Powered by three ( $D$ size) flashlight botteries (not included)
No. 37B87. Per Poir..
$\$ 24.50$
No. 37B88. Bottery kit for obov

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NEW! EXCITING! BUDGET PRICED!


Truly portable, weighs less thon 2 lbs. . . . records anything, plays anywhere. Battery pawered-na electrical plug-in needed. Simplified single control foolproof operation .. wonderful for young people whether for fun or learning-memory work, language courses, speech training, etc. Mom or Dod might even want to borrow it for personal correspondence ltapes are mailable). Erases old recordings outomatically while recording-tapes can be used over and over again or kept indefinitely. Supplied with sensitive crystal microphone, $150^{\prime}$ tape, toke-up reel and instructions. Has bullt-in Alnico $V$ speaker for playback. High impoct plastic carrying case with molded in handle. Size only $81 / 4 \times 91 / 4 \times 31 / 8^{\prime \prime}$. Shpg, wt. 3 lbs . Mfg. list $\$ 29.95$ No. 32 A 293.
\$21.97
No. 32A294. Bottery Kit (Eveready 216 ond 2 "D" Floshlight Cells) 97 c


## ALL TRANSISTOR PERSONAL PORTABLE RADIOS


MFG. LIST $\$ 9.95$


Tiny . . . easlly fits into purse or shirt pocket. Weight only 5 ozs. Truly fobulous! Offers fine listening pleosure, modern styling at lowest cost. Efficient 3 -transistor plus diode reflex circuit assures ample volume through high quality earphone. Volume control permits adjusting volume to desired level. Feotherweight, unbreakoble plostic cose meosures only $21 / 4^{\prime \prime} W \times 33 / 4^{\prime \prime} L \times 1^{\prime \prime}$ thick. Operates over 500 hours on a single selfContoined bottery No. Evereody 60 A1 87 All-Transistor No. 60A187. All-Transistor Rodio Complete with earphone. \$7 35 LLess Bottery) Each
7.35 No. 21 B141. Battery for above... 69 c

A really big performing pocket-sized transistor rodio of lowest costl Special reflex circuit employs 3 fransistors to provide fine tone quality through Alnico $V$ speoker. Mognetic eorphone included plugs in for personal listening. Volume control allows odjusting volume to desired level. Smartly styled highimpoct plostic cose measures $41 / 4 x^{x}$ $21 / 2 \times 11 / 4^{\prime \prime}$, weighs only 11 ozs. Inexpensive to operate, uses one 9 volt battery (Eveready 216 ).
No. G6A16. All-tronsist
No. 60A16. All-Tronsistor Radio Complete with Earphone.
(Less Bottery) Each........... $\$ 10.85$ No.218141. Bottery for Above Each

## BARGAIN PRICED 110 V. AC SIGNAL BUZZER



Produces loud buzzer tone. Can be used in place of bells, low voltage byzzer, etc. for call systems, alarms, warning devices on opplionces and power equioment plus dozens af other useful applications. A real sweet find for the experimenter, a real money sover for the quantity user. Small $11 / 4 \times 3 / 4 \times 2$ with


## HANDY ILLUMINATED MAGNIFIER

- Finest Import Quality.
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Mognifies work 5 times giving fully Illuminoted cleor view. Field of vislon is $2^{\prime \prime}$ of $11 / 8^{\prime \prime}$ working distance. Unlimited usage for home, shop, and industry. Ideal for inspection of meter movements, fine soldering, printed circults, spork plugs, documents, fobrics, efc. Perfect for hobbyist, experimenter, serviceman, phatogropher, docrs , los two sles C floshlight batteries. 7" long.
178565. Less Batteries.
Shoo. wt. 1 lb . Net Each. .95

Shpo. Wt. Ib Net Each. Ea.. 14 c
21 A . Floshlight Bottery. Ea.

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3 POPULAR STYLES FOR DEPENDABLE 2-WAY COMMUNICATIONS


Talk and hear-loud and clear-anywhere . . . indoors or out with this exciting new phone set. Provides exceptional voice transmission for hundreds of uses-perfect for room to roum, house to garage, form use, etc. Unique dial automatically lights when receiver is lifted. Dial signal bell at other end rings until phone is answered. Made of tough high-impact styrene. No. 37A449. Less Batteries.
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## HAND PHONE SET

WITH SIGNAL

## BUZZERS

Powered by self-contained flashlight batteries 1935 Eveready or equivalent) and operated over two-conductor exceptionally fine speech reception exceporable to that of any ordinary telephone. Each phone is equipped telephone. Ideal for TV installers, construction Ideal for TV installers, construction gongs, portable communication sys tems in factories, on the farm, in homes, for emergency uses, etc. So simple in operation it can also b used by children for ploy.
Molded of break-resistant high impoct styrene. Complete with 25 ft . cable. Shpg. wt 2 lbs
No. 374382.
Less Botteries. Per Pair. . S3.78 No. 37A383. Battery Kit. Eoch. 28 C No. 2B200. Weatherproof 2 cand. tolephone wirt for either phone set 100 Ft. For . . . . . . . . . . . . . . . . . 85 c


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BELL RINGS WHEN PHONE IS DIALED!
Notionally advertised Brumberger phones of high-impoct block styrene. Provides amazing results for the sur prising low cost. Has appearance of repular telephones with excellent voice reception. Convenient to use. Just pick up recelver, dial and signal bell rings at other end until phone is answered. Fine for house to garage, house to house room to room- 25 ft . apolications. Complete with 25 ft . cable and simple instructions, Shpo. wt. 4 los. Less Botteries,
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$\$ 5.70$

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FOR USE IN WORKSHOPS, OFFICES, LABS AND HOMES ESPECIALLY HELPFUL IN BEDROOMS AND KITCHENS

How Does PURITRON Operate? PURITRON operational success is based on a new principle of air purification. Air is pulled into the machine, over a series of ultravialet tubes (3.O24 GE Ozone Tubes), and through an impregnated filier, then back into the room, Odors, smoke, dusis, and pollen are removed. Constant re circulation of the What Does It Cost to Operate? PURITRON operates
Whar Does 1 Cost to Operate? 110 volt AC 60 cycle alternating current. Draws only 1.5 Amps. It costs approximately one cent for three hours of continuous operation. Since its current usage is so low, it will operate satisplugged into any outlet with no danger of overloading any facilities. how Safe? PURITRON bears the Underwriters label and has been found thoroughly Aid for Allergies. Since the air is cleaned so thoroughly, airborne Irritants which brings rellef to sufferers.
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In addition to being used in thousands of homes nationally-PURITRON is currently being used in leading hospltals, doctors and dentist offices throughout the United Srates, and industrial users include the following: Pan American Airways, WestingMotors, The Armed Forces, Atomic Energy Installations and various Government Agencies
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No. 37 A 81 . Model F-20. (Measures $71 / 2^{\prime \prime} \mathrm{H} \times 91 / 2^{\prime \prime} \mathrm{W} \times 7^{\prime \prime}$ deep)
For 15'x15; Areas. Shpg. wi. 12 lbs. List $\$ 39.95$. Net Each...
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For $30^{\circ} \times 25^{\prime}$ Areas. Shpg. wi. 20 Ibs. List $\$ 79.95$.
For $30^{\circ} \times$
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three thermostatically controlled heats three thermostatically controlled heats -
1000 watts $/ 3000$ BTU; 1320 watts $/ 4500$ BTU or 1650 watts $/ 5600$ BTU. Fan forced air over ribbon elements distributes heated air room wide. Exclusive Touch-N-Off safety
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202

With Automotic. Thermostat. Newest type ribbon element instantly gives heat with worm red glow. Adjust automotic control to desired temperature and heater will quietly worm the room without further attention Turns off and on outomatically as room temperature changes. Large polished chrome reflector concentrates heat in the direction you desire. Large, quiet fan pro vides ropid heat circulation. No radio or TV interfer ence. Safety switch stops current immediately if heater is turned over. Absolutely child-sote, cose is alwoys cool
to the touch. Tiny fingers cannot penetrate fine-mesh to the touch. Tiny fingers cannot penetrate fine-mesh
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Works even with the windows shut-electronically. This new Puritron Elec tronic Range Hood actually "inhales" grease, pulls cooking smoke and odors out of the air-in seconds. Warks perfectly over electric or gas ranges.
Superfine washable aluminum filter and baffled strainers trap irritants, then air passes, before 6 wonder-working tubes that octually dissipate irritonts Durify and recirculate air. Just think of it. No More Greasy Walls, No More Smoky, Smelly Kitchens! Puritron Guorontees It! Each unit below hos a built-in single 60 watt lumiline fluorescent fixture with switch-complete with lamp. Complete with mounting hardware and instructions-installs in seconds. Operates on stondard 110 volt AC 60 cycles.
Model 2030. STAINLESS STEEL (Meosures $30^{\prime \prime} \mathrm{L} \times 15^{\prime \prime} \mathrm{W} \times 8^{\prime \prime} \mathrm{DI}$
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No. Eoch
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VENTILATES ANY BATHROOM ELECTRONICALLY
WITHOUT WINDOW, EXHAUST FAN OR YENTS
Push the button; all odors vonish into this electronic miracle. Quietly. Quickly. Permonently. Developed just for bothroom odors, it even works on diaper derful clean-smelling freshness. No bigger than table radio, it comes all ready to plug-in. Let it stand, hang it, mount it. White finish. 1100115 7 Ibs. No 37 A94. Mfg. List $\$ 29.95$. Net Each
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(1) "Director" Giont $131 / 2$-inch dia. Hammered BlueGray enamel finished metal Case has Big $123 / 4$ inch white Dial with contrasting Black numerals honds hon 37A262. Model 88950.\$9.58 Eoch
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Set in a lustrous beaded frame. By doy, its dial rearures large graceful black numerals and black hands, eosy to see onywhere. Hobnail border adds emits a steady diffused light- enabling one to see the toble, choirs, refrigerotor, etc.- light olso discourages prowlers when you're oway. Lighted dial costs less than ic per year oway. Lighted diol $6 \neq /^{\prime \prime} \mathrm{W}$ and $2^{\prime \prime}$ deep Specify B-A Stk No H color. White, Red, Yellow, Turquoise or Suntan. So Noch

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## MOST USEFUL BEDROOM CLOCK EVER DESIGNED "MOON GLOW" PANELESCENT ELECTRIC ALARM CLOCK

New SYLVANIA Ponelescent dial foce lights up with a soft glow and can be read easily from ocross the room, olso acts as a night light. Also tearures o sweep second hond. Ponelescent dial operotes for less thon ic per yeor, no bulbs to burn
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$\$ 14.63$
(2) MAGIC HOSTESS ELECTRIC ICE CRUSHER. White with chrome. Halds full tray of cubes. Dial-your-ice selector. With cord ond Recipe Book. $\$ 19.97$
No. 314122. Shpg. Wp. 11 Ibs. List $\$ 29.95$. Net Eoch . (3) OSTER ELECTRIC KNIFE E SCISSOR SHARPENER. White. With keen edge to any knife. Plus 'seporate scissors slot. Wt. 6 l6s. No. 37A219.. Mfg. List $\$ 17.95$. New Model 518 -01. Net Eoch ...
$\$ 12.97$
© SUPERLECTRIC ELECTRIC 3-QT. CORN POPPER. With cleor lid $\$ 3.69$
 A hondy oppllance that's o real ioy to the budget-minded housewife. Wonderful for breaktasts, buffets, ond snacks. Thermastatic heat control, cool-touch han-
 teatures. Will not mor table top 6 cooks anywhere. Size $101 / 2 \times 9 \times 41 / 2 \mathrm{y}$.
Finished in gleaming chrome. Hos 6 ft cord ond plug. UL appraved. Model 50 .
 No. 36 A68. Shpg. Wt. 11 1bs. List $\$ 29.95$. Speciol Eoch
(7)BI Model N-550 AUTOMATIC ELECTRIC CAN OPE (7)BVI Model N-550 AUTOMATIC ELECTRIC CAN OPENER.

Opens con-one touch lever... locks, pierces, odens and shuts off. No. 36 A 344
\$10.97
BOSTER CHROME AIRJET ELECTRIC HAIR DRYER. Complete



## NEW

Shtland MODEL T-39 FLOORSMITH

## RUG CLAANKG FLOOR POLISHER

 SCRUBBER-WAXER-BUFFER
## GUARANTEED

 MFARANTEED LIST S3 YEARS
MOMEY
$\$ 59.95$ MO MONEY DOWN
Shetland's finest, Model T-39 Floorsmith offers o completely outomotic method of floor and rug care. Self-contained outomatic dispenser is rust and break-proof and translucent for easy see-through
convenience Easily removed for fillin convenience. Easily removed for filling with wox,
shampoo, or scrubbing shampoo, or scrubbing solution. Self-storing, selfwringing spreader sponge ossures easier scrubbing and woxing coveroge. Built-in finger-tip trigger outomotically dispenses all liquids.
Complete with 2 palishing brushes, 2 scrubbing brushes, 2 lombswool bonnets, reversible steelwool pads, sug cleaning unit and sample of Shetlond rug cleaning shampoo. Pawerful heovy duty motor drives brushes of 600 RPM. 3 Year Guarantee, UL
approved, has Good Housekeeping seal of approved, has Good Housekeeping seal of apporval. PLUS: Free $\$ 2.49$ Upholstery Kit. Shpg. wt. 20 lbs No. 40A375. Model T-39 "Floorsmith." \$43.29

COMPARE AT TW
THE THE
PRICE

## SHETLAND 104 SUPER SPECIAL

 ELECTRIC AUTOMATIC DISPENSING SCRUBBER-WAXER-BUFFER Features finger-tip control for economical wax dis-pensing. Gentle flaating action brushes odjust aupensing. Gentle flaating action brushes odjust au-
tomatically ta every rug thickness. Anyone can shampoo ony $9 \times 12^{\prime}$ rug with professional results in shampoo ony $9 \times 12^{\prime}$ rug with professional results in
less than an hour: of a cost of less than 50 c -this Shetland actually pays for itself in one round of rug-cleaning.
Complete with polishing brushes, felt buffing pads, scrubbing and scouring pads, rug cleaning unit and outomatic liquid dispenser. $110 \mathrm{~V} . \mathrm{AC}-D C$. Wr. 17 ibs . No. 40484. Model 104. Speciol.
$\$ 24.97$


Powerful - light as a handbag, weighs only $31 / 2$ lbs. yet ooes everything a full size cleaner can do. Carry it like a shoulder bag - with no lifting or fugging around heavy appliance. Super-iet suction power from high-speed moror surges out or disposable bag. Comes complate with 8 atruction with dual purpose empty. Attachment, 2-Piece Extension Wand, Shoulder strap, Revolving Service Brush Uice ity Service Tool, Flexible Hose Atiachment and Filter Balving Service Brush, UrilSure grip handle, large push-bution offon swich, 15 Bag. EXIRA PIUS FEATURES: specially designed handle for neat storage, leg rest for standing unit upright, spe. cial hang-up device. PLUS One Year Written Guarantee. Ul approved. Shpg. Wp. 10 lbs, Complete Outfit. Net Each.
No. 37 A82. Comp $\$ 19.97$
No. 37A53. Pkg. of 6 Filter Bags. Per Pkg.

$$
\begin{aligned}
& \begin{array}{l}
\text { Geovy oury motor. "Good Housekeeping; Lerge } 38 \text { oz. Pyrex type container. } \\
\text { Ho. } 36 \text { A68. Shpg. Wr. } 11 \text { lbs. List } \$ 29.95 \text {. Speciol Eoch.... } \$ 16.66
\end{array} \\
& \$ 16.66
\end{aligned}
$$

(5) Superlectric Automatic Woffle $G$ Sondwich Grill. Light on when done. With interchange grids. Wt. 10 lbs No. 37 A79. Speciol.
$\$ 9.99$
(6) LASKO Automotic Pop-Up Tooster-compensoting thermastat assures uniform color. Gives years af service.
No. $34 A 115$. Special Eoch................ $\$ 9.99$

# 17243 KitchenAid mxises 

wORLD'S FIMEST. GIVE GENERATIONS


## of DEPENDABLE SERVICE

SUPER-POWER MODEL K5-A

## Deluxe, Extra Power and Extra Capacity 15 -quari

 bowll. 1000's in use in commercial kitchens and large homes. $1 / 6$ th H.P. motor is self-lubricatiate speeds for ony mixing need PLUS planetary becier oction. Built-in power unit for many attachments. Equipped with 5 qt. tinned steel pastry knife. Cas base is $1 \mid \times 12^{\prime \prime}$, total height 5159.5 C Istocked in Whito oniv) $\$ 106.10$


#### Abstract

NEWI KITCHEN-AID MODEL 4C. NNow with larger 4 at. Capacity). Full $1 / 1 /$ H.P. motor, electricol governor controlled, 10 definite speeds for every need  easy-hold hand grip. Cost base $87 / /^{\prime \prime} \times 137 /{ }^{\prime \prime}$ " overall heloht $135 /{ }^{\prime \prime}$. Com. plete with 4 at. pyrex bowl and planetary beoter 110 volt $\mathrm{AC}-\mathrm{D}$ plete with 4 at pyrex lbs. Mfo. List $\$ 74.50$. Ibs. Mfo. List $\$ 74.50$. No. 31 A A308. Model 4-C




MFG. LIST $\$ 32.95$ An outstanding value for general
 home massage. Its soothing, reloxing benefits will delight every
member of the fomily. Not too vigorous, not too light. Not tock crackle enomel finish, long, life Neoprene hand pod. Highly polished aluminum base. Complete with booklet on massoge, fully lllustrated with directions for use. Shpg wt. 3 Ibs. Mfg. List $\$ 32.95$.
No . 37 A 217 . Model 4-01. Net Eoch
$\$ 23.99$
OSTER "SCIENTIFIC" MODEL 1-01-A PROFESSIONAL INSTRUMENT Massage instrument for heovy-duty massoge service wherever professional quality ond performance are preferred. Universol motor construction with maximum eccentric stroke
delivers a more vigorous mossage action. weight polished aluminum housing and bose. Shpg.
No. 37 A 48 . Model 1 -01. Mtg. List $\$ 46.95$. Net Eech.
$\$ 34.16$


ORIGINAL 2-SPEED LIQUEFIER-BLENDER *exclusive features no other blender can match


## MFG. LIST $\$ 52.95$

GIAMT 40 OZ. CAPACITY


Whips up fovarite party drinks-blend smooth dips, spreods, souces, dressings. Chops up fresh foods, purees foods for baby, diets. Utillizes leftovers. even grinds coffee. Refreshes trozen luices - mokes beoutifu drinks from tresh truits and vegetobles. "EXCLUSIVE FEA uiner rough cleoning. Topered cutting well for continuous feedough cleoning. Topered cutting well for continuous reed measuring cop for adding Ingredients while operating Pow erful $1 / 4$ H.P. motor. Shpg. wt. 16 lbs . Mfo. List $\$ 52.95$. No. 34A202. Deluxe Chrome Model 403.
Net Eoch.
\$38.54
STANDARD WHITE OSTERIZER. Single speed Model 234-01. Boosts the some ${ }^{*}$ EXCLUSIVE FEATURES as above but with single speed and white enamel finish. Shpg.
$\$ 23.86$

## No 34 A 2 O



## Oster cold mist WITH HUMID-I-MASK

 FASTER RESPIRATORY RELIEF MFG. LIST $\$ 39.95$ 5295 MODIL 240-06Scientifically eases the discomfort of colds. For soothing and clearing clogged nosal possages, the COLD-MIST generotes cool, finely otomized moisture thot is now odvocoted by medicol outhorities.
Safe relief for children. COLD-MIST cannot burn or shock even on direct contact -use safely oround the clock.
The Humid-I-Mask may be used to concentrate soothing COLD-MIST directly to nose and throat for immediate relief. A heod strap adjusts mask comfortably to nose and throat for immediate relief. A heod strap adjusts mask comfortably use bv all family members.
Sofe, easy to operate. Pour in $41 / 2$ quarts top woter
Sofe, easy to operate. Pour in $41 / 2$ quorts tap woter plug in enjoy
8 to 10 hours relief. When COLD-MIST runs dry, it continues to eirculate air without damage to unit. Completely portable . . . move it where most needed. Econamical. Uses iust $1 / 10$ the electricity of hot type humidifiers.
Specs: Impoct-type Polystyrene housing. Fully enclosed die-cast motor, permanently lubricated. 6 ft . cord with plug. 110-120 volts, 60 cycles AC, 55 watts. HUMID-I-MASK molded of tough Polypropylene. Shpg. wf. II lbs.
No. 37 A50.
Model
\$28.95

## Dormeyer <br> ELEGTRIC APPLIANCES <br> THAT SERVE YOU WELL

## (1) DORMEYER "COFFEE-WELL"

Bru-Vue handle shows from the outside the exact level of coffee or woter Signols when reody, holds proper temperature. Brew switch permits re-heating without repercolating. IO-cup capacity. Shimmering Silver-Smith aluminum
 Mfg. List $\$ 20.95$. Net Eoch.
(2) "COFFEE-CENTER" Auto. brews 10-40 cups. Chrome. Wf. 6 lbs.
$\$ 29.63$
No. 34A318. Model CP-40CH. Mfg. List \$39.95. Net Each

## (3) NEW DELUXE "SILVER STAR" MIXER

## EASILY DETACHED HEAD FOR PORTABLE USE

With Meot Grinder Attochments. Grinds meats, vegetables, nutmeats. Mixes go whites to bread dough with 10 governor controlled speeds. Automatic bowl size indicator adjusts beoter to any size bow-gets all botter into action. Has chrome mixer head, two stainless steel bowls, beater release. New Phenolic scratch-proof bose. $110 / 120$ V. AC/DC. With recipe book. Wr. 161/2 Mfg. List $\$ 59.95$
$\$ 44.92$

## (4) DORMEYER AUTOMATIC POP-UP TOASTER

Toasts exactly to your taste-in ony shode trom light through dark. Set ighted Selecto-Matic 5 -shade Color Guide-toast pops up perfect, every time vide wells hold muffins, rolls, etc. Hinged crumb troy. Chrome finish. 110 No. 34A193. Model TR-5-CH. Mfg. List \$20.95. Net Eoch.
$\$ 14.09$

## (6) DORMEYER 4-SLICE TOASTER

for fomilies of three or more-this is terrific. Toasts 1 to 4 slices to perfec tion. Illuminated Selecto-Matic 5 -shade color range-quide. Sporkling chrome with wide wells, double hinge tray. Ebony trim. $110-120 \mathrm{~V}$. AC. UL listed Shpg. Wt. 8 lbs.
No. $34 A 197$.
No. 34A197. Model TR-6-CH. Mig. List \$24.95. Net Eoch
$\$ 16.22$

## DORMEYER "FRI-WAY" ELEGTRIC SKILLET

Fries, cooks, braises, bakes, stews and casseroles. Automatically controlled heot reduces food shrinkoge-perfect results alwoys. Detoch Dormo-Stat control and submerge skillet completely under water for washing. Size: $12^{\prime \prime}$ square, in forged aluminum. With probe, high-dome vented cover, recipe No. 368210. Model SK-1-BU.Mfg. List $\$ 24.95$. Net Each
$\$ 17.24$

## stk. No. Mfg. No. $\begin{aligned} & \text { 34A196 } \\ & H M-5\end{aligned}$

OTHER DORMEYER APPLIANCES
378159 KS-2
Portable 3-Speed Mi
Weight List Net Eo.
Knife G Scissors Shorpener
$1 / 2$ lbs.
$\$ 14.95$
$\$ 10.21$


Fries (1) FULLY IMMERSIBLE ELECTRIC AUTOMATIC 12" FRY SKILLET Fries, bakes, stews, grills, braises, deep fries, casseroles, chates. Temperature $4-$ at. Molded hondle and ossist handle on opposite side, no-mor feet. "Cost-plug-in thermostat control and recipe book.
No. 368209. Model 2256. Wt. 11 lbs. Mfg. List \$23.95. Net Each...... \$16.74 Only self-storin (3) NEW DOMINION "STOW AWAY HAND MIXER handle. Push button releases large chrome beaters. Perfectly balanced. Light-weight-only $21 / 2$ lbs., Powerful 110120 V . Mixing speed guide. No. 36A347. Model 1905. Mfo. List \$17.95. Net Each
$\$ 12.04$
DOMINION FULLY IMMERSIBLE 4 TO 10 CUP COFFEE MAKER Completely immersible-hondle and all. Brews either regular or instant coffee Accurote, pre-set thermostat. 110-12 Vout. Wit $31 / 2 \mathrm{lbs}$ jewe; cup markings No. 36A348. Model 1610 . Mfg. List $\$ 16.95$. Net Each.
\$11.55

(1) PRESTO SUBMERSIBLE STAINLESS STEEL COFFEEMAKER

Dripless spout, "Gold Anodized" coffee basket is easier to fill ond clean Presto makes coffee the one right way 500 light shows when to serve and is held of perfect serving temperature. 500 wotts 115 volts AC. With cord and meosure. 2 to 9 eups. Wt. 5 lbs . Mfg. List $\$ 24.95$
\$16.84 No. 36A131. Model KKO1. Net. Hos stainless steel 9 oz. water tonk for 40 minutes steaming. More steam for all fabrics; switch for steam or dry! Beoutifully styled, one piece con Struction. 115 V. AC 1.1200 watts. wt. 5 lbs. Mifg. List $\$ 16.95$. \$11.53 (3) PRESTC STAINLESS STEEL PRESSURE COOKERS No. 36A349. Model C601. 6-Qt. Mig. List $\$ 26.95$. Deoler Net.........
No. 36B197. Model C401. 4-Qt. Mifg. List $\$ 22.95$. Dealer Net.
$\$ 17.97$


## FPomingtorn LEKTRONIC SHAVER

## 6 DIAMOND HONED CUTTERS PLUS ADJUSTABLE ROLLER COMBS

MFG. LIST $\$ 35.95$

## $\$ 237$ NO POWER CORDS

Lets you shove anywhere in the world charges on any $A C$ power from 90 to 250 volts . . . at home, office, camp, auto, boat, with utmost canvenience. . . ideal for everyday use, for travelers and sportsmen, too.
Secret of Lektronic is the rechargeoble, built-in nickel codmium battery, gives o week of shaves from one charge on 115 V . AC. With travel case No. 60A52. Wt. 3 lbs. Mfg. List $\$ 35.95$. Net Each. ROLL-A-MATIC 659. Exclusive Roller Combs RISE for light beards and render skin, LOWER for heovier, week-long beards, sideburns or mustache. 6 diomondhoned cutters. Instant cleoning. With cord, brush, travel case.
No. 60B169. Wt. 2 lbs. Mfg. List $\$ 26.95$. Net Eoch.
AUTO-HOME ROLL-A-MATIC. Above features plus ... works in cor, boat, plane, train or home-onywhere 12 volt $D C$ or 110 AC . With adaptor plug for 12 volt auto lighter socket.
No. 60A166. Wt. 2 lbs. Mfg. List \$28.95. Net Eoch...................................... $\$ 18.66$ LADY REMINGTON. Adjusts for legs and underarms with adjustable roller combs. So safe-it can's chafe, con't nick or scrape. Petite-yet it shaves fast. No. 60A164. Orchid. Wt. 2 lbs. Mfg. List \$18.50. Net Eoch......................... $\$ 11.64$ No. 60A56. L22 For Roll-A-Motics G Rollectrics. Eoch No. 60A139. L9 For 60 Deluxe $G$ World Wide. Each.

## NEW PRESTO 12-INCH "COOK 'N SERV" BUFFET FRY SKLLLET ST $: 88$ MFG. LIST $\$ 28.70$

 MORE VARIABLE NEAT THAN ANY OTHER FRY SKILLET FULLY SUBMERSIBLE Complete with detachable control master and $12^{\prime \prime}$ vented dome cover. feoturing new popular left and right buiffet handles for easier corrying servicing and storing. manent mold construction. guaranteed never to worp. Provides guaranteed never to warp. Provides more variable heat thon ony otherskillet-as. high as 1350 watts at skillet-as high as 115 valts $A C$. the turn of 0.0101
Mfg . List $\$ 28.70$.
No. 34A17-3. Skillet,
No. 34 Al7-3. Skillet,
Contral G Cover, Special.. $\$ 17.88$


AUTO REAR SEAT SPEAKER KITS


FEATURES POPULAR NEW VARI-CONTROL

Permits control of volume on both front and rear speakers, allowing mixing as desired, or either speaker can be operated olone.
Includes control, indicator dial, knob, mtg. hordware, wire and instructions.

## SUPER DELUXE KITS IN THREE POPULAR SIZES

All three kits consist of top make, finest quality oval PM speaker with extro heovy Alnico $V$ Magnet, vari-control kit, chrome-finished grille with flocked screen, all necessary mtg . hardware, and instructions. Determine kit needed by size of opening or available space in automo-
bile rear deck. Shpg. wt. 3 lbs.
$4 \times 6^{\prime \prime}$ KIT Magnet wt. 1.47 oz . Speaker mig. ctrs $35 / 8 \times 45 / 8$. List $\$ 9.95$
$\underset{\substack{\text { No. } \\ \text { Complete.... } \\ \text { 3647 }}}{ } \mathbf{4} 45$

$$
\begin{array}{ll}
5 \times 7^{\prime \prime} & \mathrm{KIT} \\
\text { Mognet } \mathrm{wt} .1 .47 & \text { oz. } \\
\text { Speaker } \mathrm{mig} . & \text { ctrs. } \\
43 / 8 \times \quad 4 \mathrm{3} / 8^{\prime \prime} . & \text { List } \\
\$ 11.95 &
\end{array}
$$

No. 36 B48.
Complete.... 4.95
Mach $6 \times 1{ }^{\prime \prime}$ KIT
Magnet wt. 2.15 oz. Speaker mtg . ctrs. $43 / 4 \times 65 / 8^{\prime \prime}$. List

No. $36 \mathrm{C711}$.
Complete... $\$ 5.95$

## "PRESENCE" REAR SEAT SPEAKER KIT

Here's better sound for in-the-car listening pleasure! Feotures o powerful, high quality, heavy-dupy 13.16 oz. Alnico VI twin-cone $6 \times 9^{\prime \prime}$ PM speaker. High fidelity in design with inner cone utilized to reinforce the high frequency ton providing o more balanced and wider frequency range.
Kit complete with deluxe chromefinished grille with flocked screen, popular vari-control (permits mixing volume as desired of front and rear speakers), all necessary mounting 4 hardware and instructions. Shog. wt. No. 36B69. Complete Kit
$\$ 7.97$


## UNIVERSAL REPLACEMENT ANTENHA MASTS

(1) Standard Telescoping Mast. Fastest and easiest way yet devised for replacing broken antennas. No need to re-mount a complete new installation. Bell shaped collar slips onto stub of broken mast and tostens with set serews. 3 sections
telescoping $24^{\prime \prime}$ to $57^{\prime \prime}$. Shpg. wt. 1 lb . No. 38644. Net Eoch..
$\$ 1.32$
(2) Flex-O-Rod Replacement Most. Spring supported 1 piece rod flexes when antenna strikes any object. Prevents domoge so often incurred by leaning agoinst ontenna while servicing cor. Fostens to broken antenno stub with sef
screws. Length $26^{\prime \prime}$. Shpg. wt. I lb. Screws. Length $26^{\prime \prime}$. Shpg. wt. 1 lb .
$\$ 1.43$

## AUTO ANTENNA CONNECTORS AND LEADS


(1) Flonge Mounted Receptocle. Fits (1) Universal Lead Coble. Hondy 54" stondard pin plugs like (3), or male 12A1404. Each. . $14 \mathrm{c} \quad 10$ For. . $\$ 1.29$ (2) Male Cable Plug. Standard pype most often used. Mates with (1) or femole end of (1). 12A1406. Eoch... 12 e 10 For. $\$ 1.08$ (2) "T" Connector for Dual Antennas. two female pin type sockets. Motes with (1) and 8 (
18 B 1133 . Eoch


## AUTOMATIC "GLO-DROP" RESISTOR

## ADAPTS 6 VOLT AUTO RADIOS

 FOR USE IN 12 VOLT CARSHigh wattage Globar type resistor in ventilated protective metal enclosure. Drops output to 6 or 7 volis under 4 to 20 amp normal current conditions. Enables use of 6 volt equipment from 12 volt source.

LOWER POWER TYPE FOR ACCESSORIES (Without enclosure)

## 206

## Stk. No. 17 C 421 <br> 17C426

 $\begin{array}{lc}\text { Amps } & \text { Wotts } \\ 2,4 \text { or } 6 & 50 \\ 7 \text { to } 8 & 50\end{array}$ Net Each$\$ 1.94$ eplacement cable. Fully shielded, highest quality. Has 3 sizes of nuts to mate connector on most any make antenno. Stondard automotive pin No.38 on set end, wt. 8 oz. \$ $\$ 1.09$ Extension Leads Finest Coox Type
 15.48
63 .63
.80 .80 2.21
2.93

WARD PRODUCTS AUTO RADIO ANTENNAS KNOWN WORLD WIDE FOR FINE QUALITY

##  Triple chrome-plated brass tubing. Completely waterproof, rattleproof construction. Low loss Elektron lead cables.

## "LOCK-MATIC" SERIES

Highest " $Q$ " ever gives better reception. Superb waterproof construction and polystyrene insulation provide lasting high efficiency.
Automatic triple-lock hordware is positive and foolproof. Positions itself outomatically, holds ontenna permanently in desired position. Installs in seconds by one man from the outside. So strong that usual shield fube braces for disappearing rypes ore unnecessary. Fits all cars, even the new ' 62 models.
L1000 and D2000 hove 54" low loss lead cables. M1825, recommended for foreign, sports and American compact cars, has $48^{\prime \prime}$ cable.
Spk. No. Word Type
$\begin{array}{ll}38 A 37 & L-1000 \\ 38438 & D-2000\end{array}$
$\begin{array}{ll}38 A 38 & \mathrm{D}-2000 \\ 384123 & \mathrm{M}-182 \mathrm{D}\end{array}$
Description and Size


#### Abstract

Disoppeoring 3 -Sect. to $45^{\prime \prime}$


$\begin{array}{ccr}\text { Wt. } & \text { Mifg. } & \text { Net } \\ \text { Lbs. } & \text { List } & \text { Eoch } \\ 2 & \$ 4.65 & \$ 2.72 \\ 2 & 6.15 & 3.60 \\ 2 & 3.50 & 2.06\end{array}$

## SIDE MOUNT CONTIMENTAL "FLEX-AnGLE"

Perfect fit and styling tor Volkswagen and other foreign cars. Also suited for cab mount on trucks, etc. Sturdy stanchion mounts easily, adiusts and locks antenna vertically. $36^{\prime \prime}$ lead cable. Wt. 2 lbs. Mfg. List $\$ 5.95$.
3-5ection 22 to $56^{\prime \prime}$. Net Each.
$\$ 3.50$

## FAMOUS WARD "8-BALL" SERIES

Top fovorite, top quality ontennas with the genuine Word Products rattlefree 8 -ball mount. Smart appeoring on any car. Sectlons telescope smoothly, have phosphor bronze contacts fing on any car. Sections telescope smoothly, hove phosphor bronze contacts for permanent high efficiency. Very easy to install TCF-3C fits top cowl or tender; new SB-100 Swivel 8-8oll fits every New DS-8 Soring 8 -Ball will any surface ongle from horizontal to vertical. stainless steel and bross constructlon. All hove $54^{\prime \prime}$ low loss lead High tensile

| Stk. No. | Ward Type |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 48 | TCF-3C | Stondord 3-Sect. 22 to 56 | 4 |  |  |
| 38472 | SB-100 | Swivel Type 3-Sect. 22 to 56 | 4 | 5.20 | 2.97 |
| 38473 | DS-8 | Spring Type 3-5ect. 22 to 56" | $21 / 4$ | 7.95 | 4.67 |

## FM FIBREGLASS 8-BALL ANTENNA

Operates the new FM outo radio tuners of top high efficlency, provides the full fidelity of FM even in low loss signal areas. Made of ever-lasting Has $54^{\prime \prime \prime}$ low loss lead coble. Mfg. list $\$ 5.95$. Wt. 2 lbs. No. 38A74. Type FM-100. Net Eoch..
$\$ 3.50$

## MALLORY REPLACEMENT VIBRATORS



Quiet operating, long-lasting, "the stonderd of the lindustry" If yau are unoble to identify the Mibrotor needed or do not hove your Mallory Vibrotor Guide - then order by stoting year, make ond model of
set. B-A will select the replocement set. B-A will select the replocement for you. Indicates Auto Rodio Receiver type, priced including Fed. Exclse Tox. Others ore communicaions vibrators, not texed.

MALLORY VIBRATOR GUIDE
No. $19 A 26$. Each 15c or Free with
Order for Vibrators.
Please Order by "group" Stock No. 19A9 and Mallary Type Number

| Mallory $\qquad$ | Replace Type | Roted Yolts | Mfg. List | Net Each | Mallory Ma. | Replaces Trpe | Roted Yolis | Mfg. List | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$294 |  | 5 | \$4.90 | \$3.02 | W1601 | W859 | Pous. | \$4.90 | \$3.02 |
| \$509P |  |  | 4.15 | 2.56 | \%G1602 | G883 | 12 | +4.70 | $\$ 3.90$ 2 |
| \%825S | 825C | 6 | 6.90 | 4.26 | *1604 | 1100 | 6 | 4.90 | 3.02 |
| \%870 |  |  | 4.90 | 3.02 | 1701 |  | 6/12 | 9.60 | 5.64 |
| \%903M |  | 6 | 3.60 | 2.22 | G1801 | G4549 | 12 | 8.55 | 5.03 |
| 1501 | 4501 | 6 | 6.35 | 3.73 | G18015 | G725C | 12 | 9.95 | 5.85 |
| 61501 | 64501 | 612 | 6.90 | 4.06 |  | G567C | 12 | 9.95 | 5.85 |
| 1513 1514 | 4513 4514 | 6/12 | 6.90 | 4.06 | 1807 | 4548 | 2 | 7.70 | 4.53 |
| 1514 $* 1601$ | 4514 859 | 6 6 | 6.90 4.70 | 4.06 | 61807 | G4548 | 12 | 8.55 | 5.03 |
| G1601 | G859 | 12 | 4.70 | 2.90 | 1808 1813 | 4546 | 6 | 7.70 7.70 | 4.53 <br> 4.53 |



Finest Radio Performance Imaginable . . . with powerful chassis incorporating 7 high goin tuned circuits including tuned RF stage. Provides exceptional sensitivity and selectivity. Also features full AVC and full range tone control.

## CUSTOM STYLED TO MATCH INSTRUMENT PANEL OF YOUR CAR

## QUALTY FEATURES

- Full ronge Tone control.
- Volumonitor Electronic level control.
- Tuned RF Sfoge for extreme sensifivity ond selectiviry.
- Easily installed, no Cobles, no Brackefs.

More Economical and Trouble-Free Operation transistors and low valtage tubes assure longer life, increased efficiency and less than $1 / 2$ the normal bottery drain.

Instant operation of the flick of a switch.


Custom Appearance Like Foctory Installed Radios . . . and at a tremendous sovings. Custom fit behind dash in spoce provided by cor maker.
Easy to install. Separate cancert-quality speaker included.

## PUSM-BUTTON TUNING

| Stk. No. | Moke Car | Yeor | Mfg. List | Net Ea. | 3 @ Ea |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $32 \mathrm{Al42}$ | Chevrolet | 59-60 | \$69.95 | \$48.27 | \$45.97 |
| 32 Al 199 | Chevrolet |  | 69.95 | 48.27 | 45.97 |
| 32 Al 43 | Corvair | 60-61 | 69.95 | 51.42 | 48.97 |
| 32 Al 10 | Comet | 60-61 | 69.95 | 46.17 | 43.97 |
| 32A144 | Dodge | 60-61 | 69.95 | 46.17 | 43.97 |
| 32 A145 | Ford | 60-61 | 69.95 | 46.17 | 43.97 |
| 32 A146 | Folcon | 60-61 | 69.95 | 46.17 | 43.97 |
| 324201 | Plymouth | 61 | 69.95 | 46.17 | 43.97 |
| 32 C 32 | Pontiac | 61 | 69.95 | 51.42 | 48.97 |
| $32 \mathrm{Al72}$ | Rambler | 60-61 | 69.95 | 48.27 | 45.97 |
| 314167 | Volkswagen | 58-61 | 59.95 | 44.07 | 41.97 |

## MANUAL TUNING

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| 32 C 33 | Chevrolet Truck | 60-61 | \$59.95 | \$38.82 | \$36.97 |
| 324135 | Chevrolet | 59.60 | 59.95 | 38.82 | 36.97 |
| 32A198 | Chevrolet |  | 59.95 | 38.82 | 36.97 |
| 32 A136 | Corvair | 60-61 | 59.95 | 38.82 | 36.97 |
| $32 \mathrm{Al71}$ | Comet | 60-61 | 59.95 | 38.82 | 36.97 |
| $32 \mathrm{C35}$ | Renault Doup. | 59-61 | 59.95 | 38.92 | 37.07 |
| $32 \mathrm{Al37}$ | Ford | 60-61 | 59.95 | 38.82 | 36.97 |
| 32 Al 38 | Falcon | 60-61 | 59.95 | 38.82 | 36.97 |
| 324141 | Lark | 59-60 | 59.95 | 38.82 | 36.97 |
| 32 Al 193 | Lork | 61 | 59.95 | 38.82 | 36.97 |
| 32 A194 | Plymouth | 61 | 59.95 | 38.82 | 36.97 |
| $32 A 197$ | Valiant | 61 | 59.95 | 38.82 | 36.97 |
| 314166 | Volkswagen | 58-61 | 47.95 | 34.75 | 33.57 |

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Compact, self - contained, airplane - style radio especially engineered for trucks, boats and other vehicles where overheod mounting is odvontageous. Installs quickly and easily in cob roof of any make or model liust drill one hole. connect one wirel. Yoke-type swivel brocket holds one wire. Yoke-type swivel brocket holds rodio securely of ony required angle. 33 " of the way obove cab roof on same stud holding radio. Lock-nut assembly ossures watertight, trouble-free installation.

Powerful 6 tube superhet utilizing dual purpose tubes for 8 tube performance. Pulls in distant stations for finest "over the road" reception. Large easy to read dial. Automatic volume contral (AVC). tone control, Lorge built -in PM speaker. Rodio size : $7^{\prime \prime}$ deep, $4^{\prime \prime}$ high, $61 / 2^{\prime \prime}$ wide. Shpg. wt. $101 / 2$ lbs. Complete ready to install with antenna List $\$ 59.95$
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ground. Mfg. List $\$ 39.95$.
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Choice
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MANDY INDUSTRIAR INDEX

|  |  |  | National Co. $\qquad$ 68-72,119 <br> National Electronics <br> Nutone $\qquad$ 88, 104 <br> Ohmite $\qquad$ $44,46,72$ <br> Perma Power 32, 42, 86, 140, 148 Pomona 68 <br> Potter G Brumfield $\qquad$ 54 <br> Pyromid Inst. (Amprobe Div.) <br> Quam $\qquad$ <br> Roytheon $\qquad$ <br> 27, 31-33 $32,33,41$, <br> .32 112 <br> RCA. <br> Rider publicatians $\qquad$ $\qquad$ 127-129 <br> Rohn $\qquad$ <br> Soms, Haward W. Publications |  |
| :---: | :---: | :---: | :---: | :---: | Namismem



Ammeters, $63,134,135$, 137
AMPLIFIERS, Hi-Fi $G$ stereo
AMPLIFIERS, HI-Fi G Stereo
...................32-95, 5, 5A
Cobinets \& Coses

## Cobineis $G$ Coses .......75, 102,17 Phono 175 Public Address..............107, 108 Recording Amprobes

## AUTO AS. <br>  <br> Couplers......................................$~$ FM Insulotors In Kit Mobile

APPLIANCES, ELECTRIC
Appliance Testers ……..97,138



Bollast Tubes ........................ 45
Bargain Section $\quad 161-179$
BATTERIES 4 PLUGS 86-88, 185 Clips
Eliminotors
Holders
Tester Tester
$.135,137$
Binding Posts
Binocula
Blowers
$3,183,18$

Books G Manuals $128-133,18$

## C CABINETS



## CABLE O WIRE

Clamps
Comps

Connectors $61,64-68,83,117$ | Intercom G Mike....61, |
| :--- |
| Speaker ............................62 |

## Comeros 6 Accessories..... 1990

 Copocitors $\cdots 71,167,180,184$ Cartridges, Phono $28,175,183,193$ Mike Piostic ......................77, 184 Cement G Chemicals..........................73, 160 Changers, Recard $2,7,8,107,195$ CHASSis, Bose Transmitting
ircle Cutter Circle Cutter
CITIZEN'S RADIO Equip.
$\ldots \ldots . .103,116,118,123,188$ Antennos
Clips, Battery 6 Fuse $59,65,86$ Clips, Battery $G$ Fuse $59,65,86$

Clocks, Electric $123,200,202$ | Coaxial Cable G Connectors.. |
| :--- |
| Code Practice Sets |
| 183 |



## Tronsmitting TV Winders COMMUNIC................................. Receivers Receivers Transmitters



## Microphones

Converters
K KEYS, Code K.....123,127,172 Amplifier..

## Educotional

Hi-fi G Stereo
Morking Sanding
Polish $G$ Sanding
Radio G Phono Osc. ..101, 102
Rear Seat Speaker
Record Player
Resistor
Test Instruments
Tronsmitter

## Knives

Knobs G Diols
L "L" "L Film

## Labels

CORDS, AC Lin
Microphone Resistance
Coupling Shat
CRYSTALS, Cartridge, $28,175,183,193$
Detector, Sets $G$ Kits Diodes

## - Decals <br> Detectors, Crystal <br> DIALS Knob

$$
\begin{aligned}
& \text { Lights } \\
& \text { Plates } \\
& \text { Diodes }
\end{aligned}
$$

$$
\begin{aligned}
& \text { Diodes } \\
& \text { Discs, Recording } \\
& \text { Door Chimes }
\end{aligned}
$$

Dormever Applionces
DRILLS, Electric ....

E Earphone,$\ldots 7 . . . . . . . . . .126$
Electrical Appliances 12735,188 Electrical Appliances ....202-205
Electrical Sundries
Eliminators, Bottery Eliminators, Bottery Interference 89, 123,124,182 Embossing Tool Material
Epoxy Bonding Mater
F Fobric, Grille Film, Eostman $\ldots .199,199 \mathrm{~A}$
FILTERS, Choke $39,40,162,183$
Condensers ...48-50,165,180 Condensers 48 -50, 165,180
Interference $G$ Line
Fixtures, Light
Flash Bulbs, Photo
Flash Bulbs, Photo
Flasher Plugs
Flashlights
Batteries
Batteries
Bulbs
Floor Polisher $G$ Waxer
FLUORESCENT Fixture
Filters
Lamps, Tubes $G$ Starters...
FM Antenna
Fuses, Meter, Radio G TV.
Holders G Posts
House
C Gouges .........2, 30, 149, 193 Grid Caps $G$ Radiating 95,138
Grid Dip Meter
Grille Cloth G Grilles
Grinders
Grommets
Ground Rods
Gun Tocker.

## M Hardwore

Hearing Aids................126, 126,188

## Heat Lamps

Heat Sinks
Hi-Fidelity Equip. ........................ 67
Connector Cobles 191-198, 208
Systems
Hole Plugs
Hook-Up Wir
Hook-Up Wire ........62, 179
If Transformers ..................42, 43, 183, 184
Instruments, Test
Insulation Moteriols $135-139,186$
insulators ............65, $72,82,83$
Insulators ............65, 72, 82, 83
Intercom Systems..104, 105, 200
Interference Filters
Interference Filters.
Inverters .................................... 86,98 Inverters .................86, 98
IRONS, Household ............... 89
Elements ...................... 89
Elements..................................$~$
89
Soldering 145

$.11,61,65,69,173,185$
ones Plugs E Sockets .. 67
45,70, 167
$+\quad .46,56,70$
Neon Gluorescent
Phota-Flash G Filood
ight Fixtures
Lightning Arrestors.......
Lubricators $G$ Lubricants
Lugs, Soldering
Solderless
M Mognet Wire Magnifier Magnetizer
Manuals, Se Monuals, Service …….......128-133 Morking Tools Masts G Tow
Megaphone

## METERS Pone

## Exposure

CROPHONE
101, $113-116,185,187,188$
Coble .....61, 62, 115, 117, 174
Connectors
Mixer
Sionds, Accessories
Micropots $G$ Accessories
Mirrors, TV
Mixers, Electric
Mobile PA Systems.106, 107,109 Mabile Radio Equip
Multiplex Adoptors $\ldots . .12,3,6,92$
Motors
Motors
Musical Instrument Pickup.. .1189
Needles ....................29, 30
Neon Lamps 182
Noise Filtors

| Noise Filters $\quad . .89,123,124,182$ |
| :--- |
| Nut Drivers |

Oscillotors, Test $\quad . . . . . . .96-97$
Code Practice........... .127
Coils
Oscilloscope ............96, 98, 135
$P$ P. A. Systems $. . . . . . . .107,109$
$\begin{array}{r}87.88 \\ \hline\end{array}$

## Panels

Panel Lambs 6 Assemblies
Ponel Meters .134, 135,174, 185
Parts Bins
Pan, $151,152,178$ Parts Bins
Pea Boord
Phone Patch
Phones

## Phone Tips, Jacks, Plugs .......65, 69

## PHONO

Amplif
Accessories
Cartridges $G$ Pis $28-30,175,193$
Cartridges G' Pickups 17
Motors
Pre-Amp

## Records PHONOGRAPHS

Photo Cell Equip. 32, 89, 171, 200
Photo Flosh Bulbs, Floods …1998 Photo Equipment …....199.1990 Picture Tubes

Brightener
Rejuvenators
Pillow Speaker Pilot Bulbs $G$ Sockets
Plastic
Pliers
Pl

| Pllers |
| :--- |
| Plugs, Electricol $141,146,147,160$ |

Radio ..........65-69,88,185 POIystyrene, Sheets G Tubing
PORTABE Rodios Phonos......18, 102, 201, 211 Phonos $\begin{aligned} & \text { Recorders........19-21,198, } 201 \\ & \text { Potentiometers . } 46,47,161,185\end{aligned}$ Pouch, Tool Powerstats
Power Tools Drills
Grinders, Bench
Engrover
Point Spr
Sanders
Saws


Power Supply ....103, 162, 73, 63


## 5 Sanders

Scotch Tape, Cellulase
Electrical
Recording
Screwdrivers
Re...147, 148, 156, 160
Semi-Conductars …...33-36, 184
Service Aids $42,73,78,133,140-142$ Shotis \& ritfings $\ldots .46,47,70,71$
Shavers, Electric $. . .200,204,205$ Shields, Tube
Short-Wave Receivers $\quad .119,120$

Signal Generators .... $96,97,138$ | Signal Generators .... 96, 97, 138 |
| :--- |
| Tracers |
| Skillet, Electric |
| Sli.............203, 203 |

## Slide Rules

SOCKETS, Crys
Electricol
Jones ......
Pilot Lamp
Tube $G$ Tran

## OLDER

Guns, Irons $G$ Tios $\ldots 141,144$
Lugs ........................ 66
Tool .......64, 149 Solderless Terminals .............. 6

Solenoids | Sound-Powered Phones |
| :--- |
| Spocers, Brass G Insulated ..... 10 | Spocers, Brass $G$ Insulated

Spaghetti Tubing

## SPEAKERS

180, 185, 194, i95
Baffles $G$ Enclosures
Crossover, Networks $3 C, \ldots . . .4,176$
Cross
pillow
Tronsforme
Sproy Poin
Sproyers
Stapler $G$ staples
TEREO. Amplifiers $95,192,212$
Arms $G$ Cortridges ......8,9, 28
Record Chonger
Recorders
Recordings 20, 22, 25, 196-199

## Systems Tapes

Tapes
Tuners
Suppressors, Noise

RCA
Sec
Sencare
Simposon
Sprogue
Triplett
Test Leods GProds

## Timers

Tip Jacks

## Torches

TRANSFORMERS
Filament
IF, Ant G RF
Isolotion
Mike $G$
Mod
Powerstats
Speake

Transisto Tronsistors $G$ Accessori

Converter Truck
TUBES Bollos 1
Brightener
Brighten
Caddy
Industrial
Matched Pai
Picture
Receiving

Testers
Time Delay
Tubing
Turniobles VIBRATORS
Vibro-Tools
Viewers, Slide
Vises

Wrenches
Zener Diodes

, Mo.
.

Recorder G Player ................199 Accessories
Scotch, Electrical $\ldots . . . . . . . . . . .63,189$ 142


## TELEVISION

$\begin{array}{r}\text {...79-81 } \\ \ldots .82-85 \\ \hline .85\end{array}$


Filters
Filters
84,123
32,182
Picture Tube Testers $32,97,137$
Rototors
Towers $G$ Masts
Twin Lead
Terminals, Soldering
Solderless

## Test Equioment

$32,86,96-99,135-139,186$
Automotive Testers
Amprobes
B GK
Doss
EICOKi
Hickok $.86,96-98$
$98,99,1$

Time Deloy Tubes $G$ Reloys

| Toosters, Electric $47,64,139-160$ |
| :--- |
| Tools ............................. 65 |

37-42, $114,162-163,183,185$
Audio ..........37,38, 163,

Power

Voltage Regulator
Tronscription Ployers
Amplifiers
Heot Sinks $G$ Sockets
$\begin{aligned} & \text { Mike Mixer } \\ & \text { Radios } \\ & \text { Testers }\end{aligned} 18,102,201,208,211$
Testers $. . . . . . . .32,136-138$
Tronsmitting Equipment.. $121-124$

Receiving $\quad$ Shields $G$ Sockets $. . .66-69,166$
Special Purpose ............8, 33

| Tronsmitting |
| :--- |
| Tubing |
| ............................................ 173 |

FM
$3,92,94,95,192$
$8,191,212$
M Vacuum Cleaners ............... 203 $96,98,135,136,138,186$

Voltage Regulators ......40, 41, 45
Voltmeters, Pocket ...... 36,186
Volt-Ohm-Milliameters ........
.96-98, 135-138, 186
$10,11,46,47,177,181,185$
$\mathbf{W}$ WIRE $89,105,140,171-63,82,83$
$8,174,177$
Gouges 6 Strippers.
63, 141,
149,160
$.139,148$


34, 36


[^9] -
"

[^10]
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No. 21A57. Bottery Kit No. 21 A 57 . Bottery Kit No. 17B594. Lightweight Earset ..................................................... 279

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Beautiful new fashion-smart thin-line styling and tiny size to fit the pocket! Has easy, vernier tuning, battery economizer, outomatic volume control, sensitive
ferrite rod antenna, life-time printed circuif and biaset tone trom the dynamically balonced Alnico $v$ sef tone
speaker. 6 trom transistors, 2 diodes ond varistor for top speaker. 6 transistors ${ }^{2}$ dicerformance and efficiency alwoys. Finely finished performance and efticiency olways. Finely finished
molded case, gold-toned protective grille and trim, self-locking eosel on bock. With all accessories and bottery
No. 601

## 9 TRANSISTOR POCKET RADIO

## For a Thrilling Extra in Performance

- Finer Tane Longer Range Advanced Stylling Campact and really pawertul! The ultimate in pocket radios. Exclusive new high sensitivity ceramic tuner brings in stations normally out of range to pocket sets Instrument type varistor in power output stage maintains peak operating efficiency even during wide ternperature changes. Generous size $21 / 2^{\prime \prime}$ heovier Alnico $V$ speaker is acoustically matched to both circuit and cobinet. All these other fine feotures, too; vernier tuning, battery economizer, fade-proof automatic volume control, ferrite antenna, life-time printed circut, 9 dynomic transistors, 1 diode. Comport and modern styrene case hondsomely styled with gold toned grille, easel back. Only $41 / 2 \times 3 \times 11 / 8^{\prime \prime}$ With all aceessories and batter
Na. 60 A15. B.A Smash Value
$\$ 24.95$


Handsome Table Top Styling With Partable

## SIX TRANSISTOR $\$ 1 \bigcirc 95$




# FAMOUS SHiROM:BRC-GARLSOM 

 30-WATT HIGH FIDEITY STEREO AMPLIFIER SAVE $\$ 60.00$...WINLE THEY LAST!B-A's EXCLUSIVE SPECIAL PURCHASE! UNSURPASSED
QUALITY AT AN UNPRECEDENTED \$\$\$ SAVING PRICE

YOU MUST BE SATISFIED OR YOUR MONEY BACK!

All of Stromberg-Carlson advanced engineering, superior quality and matchless styling hove gone into this superb stereophonic control center. In one less styling hove gone into this superb stereophonic control center. I wo wide compact unit are faur integrated high-quality audio components-itwo wide
range 15 -watt amplifiers, and two matching preamplifiers. Simplified control range 15 -watt omplifiers, and two matching preamplifiers.
panel offers easy access to every switching or ottenuating function needed pone offers easy access to every switching of ottenuating function needed separate bass and treble controls and loudness controls for each channel, separate bass ond trebtrol for controlling output from both channels. Exact with a master gain control for controling output from both channes. Exact toneously. Selector switeh cantrals the inputs for RIAA phono, tape head, tuner and aux. tape for each channel.


Mothime Dow


Latest improved model! s-a's best selling amplifier
100's sald of $\$ 129.95$. Now B-A's Speciol Purchose brings this lotest improved madel with inzreased pawer ot nearly $50 \%$ sovings. GYMAMICS

Specificotions: power output 30 wotts 115 watts per channell. Freq. resp. $20-20,000 \mathrm{cps} \pm 0.1 \mathrm{db}$. Hormonic and iM distortion less than $1 \%$ at full output. Extremely low distortion is accomplished with exclusive full frequency feedbock circuit. Uses 4 -EL84 output tubes. Outputs 4, 8,16 ohms and tape output. Loudness contour switch in-out, continuously variable.
Channel selector switch for channel "A," channel "B" stereo and monaural
Size $131 / 2^{\prime \prime} \mathrm{W}, 13^{3} 8^{\prime \prime} \mathrm{D}, 45 / 8^{\prime \prime} \mathrm{H}$. Less Cover. Shpg. wt. 28 lbs.
Stromberg-Corlson Madel ASR433. Speciol Net
$\$ 69.50$
No. 30C196. Cover for obove

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BURSTEIN-APPLEEEE CO., 1012-14 McGEE St., KANSAS CITY 6, MO.


[^0]:    Contains 560 ft . of specially processed Scotch 150 tope on 1 mil Mylar base. Has maximum frequency response 2 to 4 db . greater thon other tapes at slow speeds. Very long lasting, silicone dry lubricated.
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    B-A Supplias all Stoncor products. Prices: Lowest foctory OEM prices re quoted promptly on request. are quoted promptly on request.

[^2]:    "S" SOCKET MOUNTINGS. Fits all "S" type sockets except 9 and 11 pin

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    pays for itself by saving
    tory mode parts. Shpg.
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[^4]:    The fomous Grommes "LJ" 10 Watt Music Lover's Amplifier in kit form . . .

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[^6]:    A sensotional new idea far horizontal sweep analysis, Saves time, isalares frauble quickly with point test routine. Makes quantitive analysis of entire horizontal system, nothing is left to quesswork. Quick to set up-TV chossis need not be work. Quick Tester is plugged into horizontal removed. Tester is plugged into horlzontal damper and output tube sockets. By following the tester chort the defective ports ore located quickly and positively, Cobinet size $12 \times 8 \times 4^{\prime \prime}$. Wt. 8 lbs. Complete
    

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