
the
green
list

1985

david **green**

broadcast consultants corporation

Box 8782 BWI Airport, Baltimore, Maryland 21240

1-800-54-RADIO/1-301-796-1500

**For All Your Broadcast
Needs . . .**

- Low cost equipment packages
- Lease financing available
- Extensive equipment inventory
- Test equipment for rent
- Discounts for cash purchases
- Unconditional guarantee of satisfaction

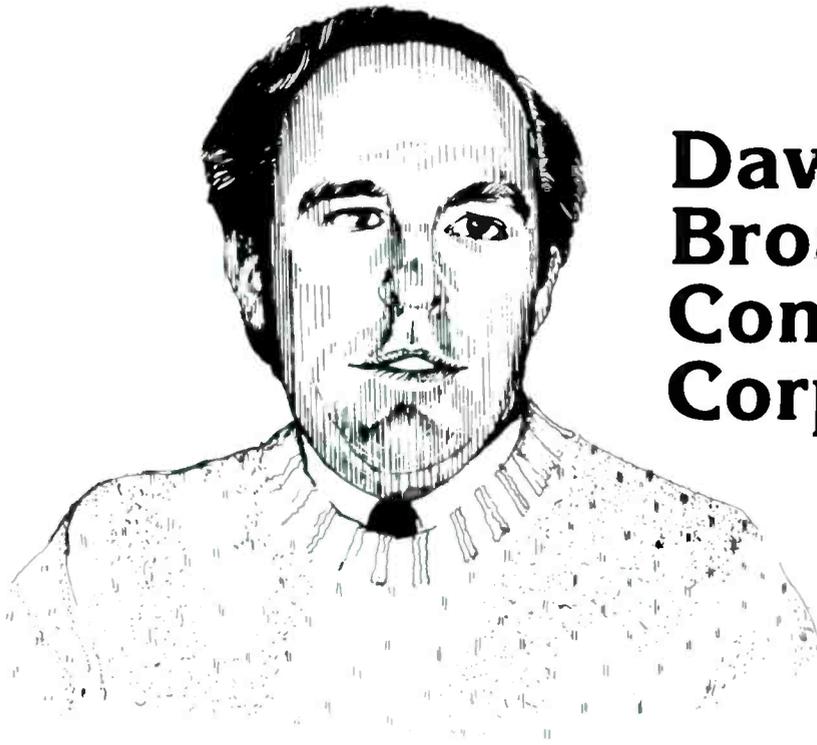
Call us . . .

301-796-1500

800-547-2346

800-824-5911 (California only)

We Pride Ourselves On Personal Service



David Green Broadcast Consultants Corporation

Many aspects of our company have undergone change during the past year. In June, we moved the business to the BWI Airport from Leesburg, and were fortunate to retain the same dedicated sales staff while hiring a new supportive administrative staff. Also, a change in ownership took place.

Through all of these changes, we have retained the same dedication to excellent service at reasonable prices that was the foundation on which our business was built. Our very knowledgeable sales staff wants to help you determine the product you need at a price that meets your budget. If desired, we even have third party leasing plans available to help you finance your purchase.

We maintain an extensive inventory of the products you use every day, and are always striving to better anticipate your needs in an industry whose technology improves yearly. Of course, we back what we sell you with our unconditional guarantee of satisfaction.

So, give us a try. We welcome your suggestions, and we believe you will find us responsive to them and interested in your broadcasting needs.

Sincerely,

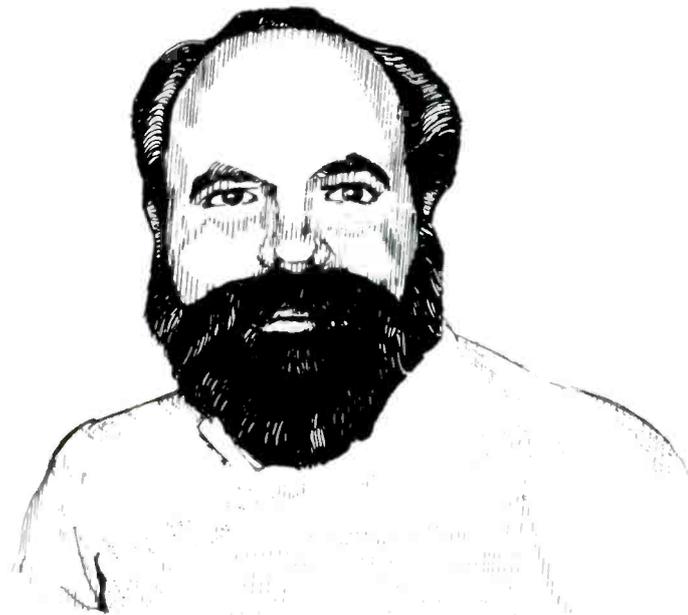

Ashley Scarborough
President

Our Sales Team



Kathleen Karas

Kathleen is well-known in the industry. She needs little introduction. An expert at matching your needs and budget to the right equipment, she can assist you in any size project from start to finish.



Walt Lowery

Walt is our chief engineer. His experience in broadcast construction and operation make him the person you should talk with before starting any major studio or RF project. He can also help you find the used equipment that you need.



Bernie O'Brien

Bernie is our specialist on audio processing, studio construction and operations. His engineering-program experience enables him to recommend alternative products to get the job done. Bernie also manages our test equipment rental fleet.



Roy Storey

Has spent his entire career in the broadcast industry as a well-known broadcaster. Roy is able to use his "on air" experience to assist nontechnical oriented broadcasters with their equipment purchases.

Our Administrative Staff



Joyce Hagins

Our contact with manufacturers. Joyce works with the sales staff, warehouse staff and the manufacturer to see that your order is filled accurately and promptly.



Kim Langanes

Operates our computer system along with assisting in the billing and collection of accounts receivable.



Carol Parrish

Pays the manufacturers for the products we purchase as well as handling other general bookkeeping duties.



Ellen Scarborough

Generally the first person you speak with at our office. Ellen is our secretary and coordinates a great many of the office functions.

Administrative Staff cont.



Steve Scarborough

Operates our warehouse and shipping/receiving area. Steve packs your order and arranges for the shipper to meet your delivery requirements.



Debbie Sullivan

The billing and collection of accounts receivable is Debbie's responsibility. If you have a question about your bill or your account, ask for her when you call.

Ordering Information

Cash-With-Order

You get the greatest discount when you send payment at the time you place your order. We recognize the cost of borrowing money and our not having to incur a collection cost so we pass the combined savings on to you through lower prices.

A separate shipping and handling charge will be added to each order.

Billed Orders

For those clients with approved credit who wish to be invoiced for their purchase, we will quote the billed price. This is generally higher than the cash-with-order price. Your invoice will include shipping and handling charges.

All invoices are due in 30 days.

Credit Card Order

Master Card and Visa are accepted.

Leasing Your Equipment Is Easy

We can provide you with the ability to finance your equipment purchase with Lease Financing.

At very attractive and competitive interest rates, we can provide several leasing sources that can customize a lease to fit your particular needs.

Some features of lease financing are:

1. Little or no down payment required
2. Interest rates that are competitive with bank financing
3. Ability to finance equipment purchases from \$2500 to \$250,000 or higher depending upon credit
4. Approval of lease takes only a few days
5. You can obtain title to the equipment at the end of the lease term

Our company does not provide the financing nor do we participate in any income earned by the Leasing Company. We only act as the catalyst in helping you, our customer, to obtain financing when needed.

Call us for lease financing information at **1-800-54-RADIO**. We will tell you how it works!

Equipment Packages

We take great pride in our ability to prepare a written quotation on a group of equipment items that meet your technical requirements and your budget. Because our quotations are computerized, we can make as many changes as you like until the list of equipment and the cost exactly match your needs.

We have a great resource of Manufacturer printed material on the equipment you are interested in and our Sales Staff is happy to spend the necessary time to assist you in selecting the best combination of equipment items to fit your particular situation.

Call us at **1-800-54-RADIO** for your customized equipment quotation. You will find our prices very competitive.

Unconditional Satisfaction Guarantee Policy

If for any reason you are not satisfied with a product you purchased from us, we want to know it immediately so we can take care of it.

We have a lot to gain by standing behind what we sell because we value each one of our customers. We want you to come back and we want you to tell others about us.

Shipping Charges

All shipping and handling charges are the responsibility of the customer.

Sales Taxes

All Maryland stations should add 5% sales tax to each order. Sales tax is also added to any purchase when charged by the manufacturer.

Package Quote

When you want several pieces of equipment totaling more than \$5000, we quote it as a package. Call us for a detailed written estimate.

Defective Merchandise

We want to know immediately about any problems with the merchandise. Save the packing list and original packing material and warranty cards should be set aside until you check the equipment. Merchandise found defective on receipt will be immediately replaced, providing you follow the instructions listed below.

To Return Defective Merchandise

1. Notify us of problem. Include copy of packing list or identify by our order number.
2. Repack carefully in original packaging with all accessories and manuals, include short note on station letterhead to manufacturer describing the problem. Thanks for your help.

3. We will send a UPS 'Call-Tag' for pickup of the equipment. It will automatically return to us and at no charge to you. (UPS Call-Tag System is occasionally slow; allow 5 to 10 days). In certain situations we may ask you to return the equipment directly to the manufacturer.

Freight Damage

It is the station's responsibility to immediately advise carrier of any shipping damage. The carrier is responsible for immediate inspection of original packaging. If you have difficulty with this, call and we will help.

Price Increases

We will absorb manufacturers' price increases when possible, but prices listed are subject to change.

Our pledge: if we bought it for less, you pay less. Saving you money is what brings you back.

Return Check Charge

We charge \$15 for a check that is returned by your bank due to insufficient funds. In addition, should a check have been for payment at our cash price, the billed price plus UPS costs will then be invoiced.

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- Unconditional guarantee of satisfaction

Call us . . .

301-796-1500

800-547-2346

800-824-5911 (California only)

We Pride Ourselves On Personal Service

This is what our customers say about us . . .



KPBS. SAN DIEGO STATE UNIVERSITY. SAN DIEGO. CA 92182-0527

(619) 265-6431

January 15, 1985

David Green
7483 Candlewood Road
Harmans, Maryland 21077

Dear David:

I think you know I don't hand out compliments casually. In fact, most vendors find me to be downright hypercritical.

Nonetheless, in the past nine years of doing business with your firm I must admit the service is outstanding. Your total satisfaction - guaranteed is not a slogan, but a commitment I've put to the test more than once.

In a recent example, our main FM antenna was scheduled to be moved in just a few days when the antenna on our Potomac Field Strength Meter broke. We were right in the middle of the "before" part of our before and after measurements. I called Walt Lowery who didn't have a replacement in stock. However, he found one somewhere (do you have a Personal FIM 71?). We had it by air the next day just in time to finish the measurements.

Doing business with a superb, service-orientated company like David Green's is truly a pleasure.

Sincerely,

A handwritten signature in cursive script that reads 'Michael Starling'.

Michael Starling
Chief Engineer
KPBS-Radio

This is what our customers say about us . . .

"A lot of stations we work with depend on your company because of your guarantee. In addition, when we are not certain of an application, your suggestions and experience are invaluable. We feel protected to get the job done right."

Jim Davis
Cluster Engineer
Durham, NC

"Your cooperation when time is short is wonderful. I have met Kathleen Karas at NAB shows. In fact, your entire staff is professional yet friendly. I have confidence you can get us out of any jam we get in."

Paul Tichenal
KQWB Radio
Moorehead, MN

"When it comes to broadcast equipment and advice, our station feels confident we are in good hands with your company. The benefits are not just price but people who understand. Your stocking inventory is extensive."

Frank Newell
Owner, KJMO
Jefferson City, MO

"You make it easy to do business. Our network covers state government in action and we depend on your advice for what works best. In the many years of doing a lot of business, we found your company to be the best for problem solving, advice and a well stocked inventory."

Mal Leary
Maine Radio
News Service

"You are just simply easier to do business with . . . and your consistent good delivery is very important to us."

Rhett McMahon
VP-Technical
Mississippi Network

"The integrity of your company is very good. You stand by your word and you're honest. You have the quality every business needs. Any problems are solved quickly."

Terry Havell
WBSD Radio
Burlington, WI

"I have enjoyed watching your company grow to become a major force in the industry. In the purchase of more than \$100,000, you knocked yourself out with delivery, backup and satisfaction. In more than 30 separate orders over 36 months, we were constantly pampered by great service. You earned every compliment I hear other broadcasters give you in meetings."

Operations Manager
Major Group Owner

"Your immediate replacement of any defective gear we have received is truly refreshing. You are willing to go to bat with the manufacturers in a way that is not common in our business. You save us valuable time. The times we have recommended you to others is countless."

Terry Duffee
WKMX Radio
Enterprise, AL

"When the chips are down and the pressure is on, somehow you come up with the things we need promptly. In my opinion, you go so much further in trying to please."

Chief Operator
Network Owned
Major Market FM

"What I like about your company is recommendations when I need advice. The way your company is organized is better for us. We are very satisfied with your help."

Ken Romero
KANE Radio
New Iberia, IA

"Your company makes the burdens lighter. Walt Lowery, for instance, always remembers my voice—he makes me feel confident when discussing my challenges. I have always felt I could trust every member of your staff."

Dean Tollefson
Partner, KCGN
Milbank, SD

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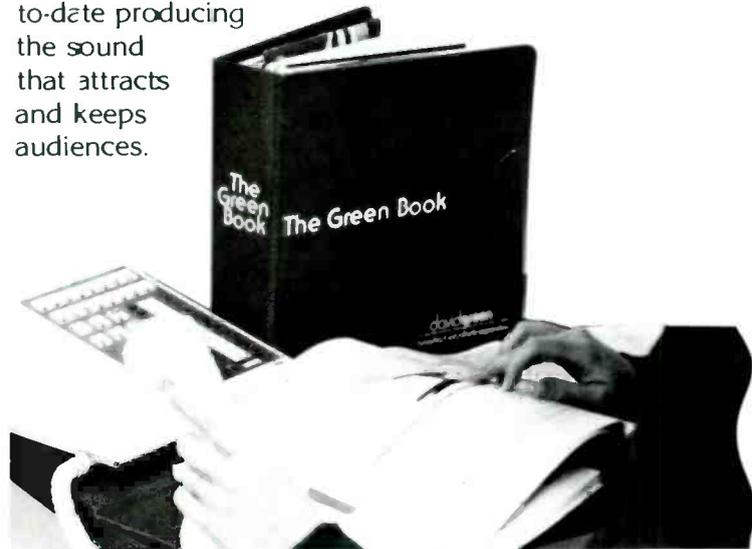
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Here's a Best Seller for Broadcast Engineers

We have combined original manufacturer product literature alphabetically to make one of the most complete reference and specification system into one volume that is easy to use for planning and purchasing equipment.

With the **Green Book** you can keep up with all the new products available to keep your station up-to-date producing the sound that attracts and keeps audiences.



This large, handy reference will pay for itself many times over. To order your **Green Book** at the nominal cost of \$59 just call **1-800-54-RADIO**. When you purchase a package of equipment of \$5000 or more you will be credited with the \$59 toward your next purchase.

The use of the **Green Book** will save you many hours of searching and filing.

These are the reviews The Green Book gets.

"I found this the quickest way to brief myself on what various equipment accomplishes at my station. When I made the investment in this property, I honestly didn't understand what the functions of the various pieces of equipment were. It was great to obtain all this in one volume. I appreciate the service your company performs."

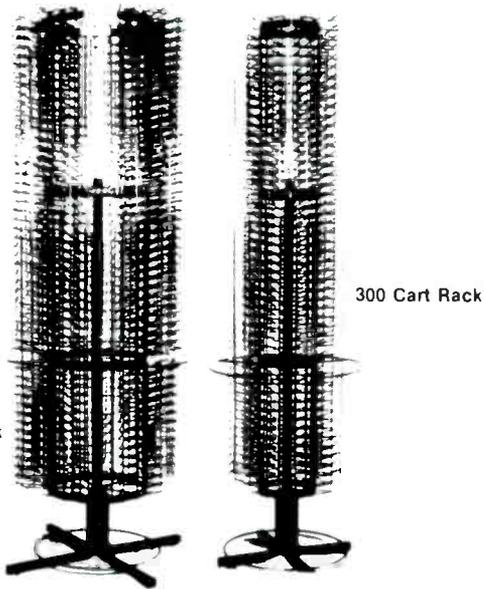
Owner of medium-market station

"To find everything so well organized in such an indexed way was worth the invested cost of The Green Book. We refer to it several times a week. The binder was the largest, most efficient I had ever seen. Your separator sheets make it easy to get to the correct section rapidly."

Manager of radio station

Order your **Green Book** Today!
Phone **1-800-54-RADIO**

ABCO



500 Cart Rack

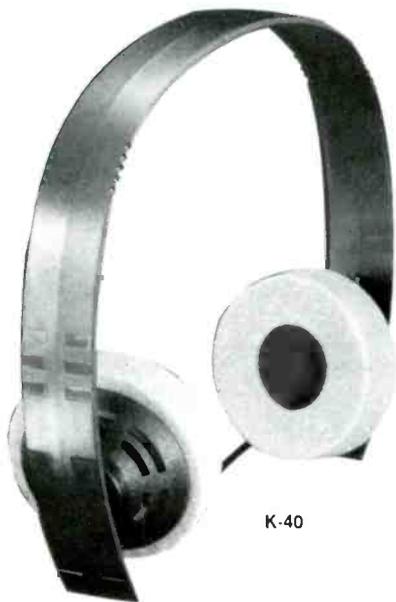
300 Cart Rack

Cart Racks

ABCO 500—Probably the most cart rack for your investment. Stringers in a vertical row of 50 carts each are detachable and can be loaded separately, then moved to the studio. Also available in a 300 cart model.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
ABCO 500 Cart Rack	\$520.00	\$482.63	\$460.20
ABCO 300 Cart Rack	339.00	314.86	300.38
50 Cart Rack	49.30	44.86	42.20

AKG



K-40

K-40 Stereo/Rugged Headphones

Excellent choice whenever a rugged headphone is preferred which is both high in performance and also economical to purchase. Its vented earpieces are furnished with large dynamic moving coil transducers, and cardan-coupled on a flexi-plastic headband. It is supra-aural, with acoustical foam earpads . . . a true "open air" model. Provides quality reproduction.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
K-40	\$35.00	\$32.20	\$29.40



K-130

K-141

K-240

K-130 Stereo/Wide Frequency Range Headphones

A stepped-up model over the K-40, with numerous subtle design refinements. The K-130 boasts an exceptionally wide frequency range—providing the user a tireless, natural listening experience. A supra-aural, its foam padded and vented earpieces promote resonance-free "open air" listening enjoyment . . . supported by a comfortable, flexible headband. Patented AKG cardan-coupled, it is light and easy to wear over long periods of use. Goes unnoticed! a worthy performer.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
K-130	\$55.00	\$51.33	47.67

K-141 Stereo/Lightweight and Semi-Open Headphones

Finest of the AKG conventional headphone designs, this lightweight semi-open model also features the much desired resonance-free characteristics of "open air" hearing with absence of low-frequency side effects found in most circumaural headphones. Provides supreme clarity and definition throughout the entire frequency spectrum. Widely used as a monitoring headphone. Noted for natural, unexaggerated stereo separation.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
K-141	\$80.00	\$74.67	\$69.33

K-240 Stereo/Passive Diaphragm Headphones

Common to all AKG headphone designs, the circumaural K-240 possesses outstanding features which increase wearing comfort, fit and flexibility of the headphone. Unique self-adjusting headband and cardan-swivels locate the earpieces precisely and accurately regardless of head or ear shape, long-term wearer fatigue is eliminated. Weight is distributed uniformly over wide headbands. In environments where noise could be a problem, circumaural headphones are an ideal selection. And remember, the patented "Passive Diaphragms" yield qualities equal to the most natural listening environment.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
K-240	\$99.00	\$92.40	\$85.80

AKG cont.



D-130E

C-535-EB

D-130E Microphone

Expressly developed to provide broadcast journalists and interviewers with an ultra-dependable field-reporting tool—one that can be relied on as the newsman's "best friend."

The D-130E offers "open," natural reproduction of speech and music—without harshness, popping or bass emphasis. Its omnidirectional pattern and consequent absence of proximity effect enable the microphone to retain this natural quality.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
D-130E	\$105.00	\$83.25	\$79.25

C-535EB Microphone

Perhaps the most unique feature of the AKG C-535EB is its output level/base-rolloff switch which reduces the total output level and allows bass response attenuation. Applications for the C-535 range from a "First Class" live-performance vocal and instrumental mic to studio applications, as an excellent announcer/DJ mic, as a podium mic or a choir pick-up. The C-535 requires phantom powering in the 9-52 volt range, or any AKG accessory AC or battery power supply.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
C-535EB	\$295.00	\$275.33	\$255.67



C-567E Microphone

Miniature lavalier microphone, the C-567E is a fully professional phantom-powered unit designed for the most demanding user-worn and instrument clip-on applications in television, film and theatrical or general sound reinforcement. With its exceptionally wide frequency range and low distortion at high sound-pressure levels, the C-567E provides appreciably cleaner and more natural reproduction of both speech and music than competitive units.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
C-567E	\$235.00	\$219.33	\$203.67



KM-270 Microphone Floor Stand With Boom

Heavy-duty rubber bumpered chrome tripod folding stand. Collapsible for compact portability. 33" adjustable single-section boom arm. Clutch-held upright adjustable 34" through 61½". Maximum height with boom arm 91". Folds down to 33" length. Snap-on cable clamp. ⅜"-27 thread. Chrome with matte-black fittings. Net Wt. 9 lbs.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
KM-270	\$70.00	\$61.60	\$53.20



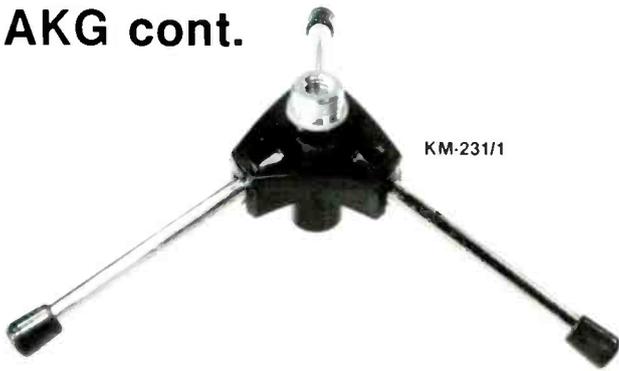
KM-201A/2 Microphone Floor Stand

Heavy-duty collapsible floor stand. Impact resistant. Noiseless telescopic height adjustment between 36" and 63". Heavy-duty feet with elastic-rubber tips. Base radius: 14½". Collapsed length: 33". ⅜"-27 thread. Chrome with matte-black fittings. Includes handy cable clamp on main telescope section. Net Wt. 5½ lbs.

Also available with matte-black finish throughout.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
KM-201A/2	\$45.00	\$42.00	\$39.00

AKG cont.



Microphone Accessories

KM-211/2

Telescoping adjustable two-section boom arm for KM-200, KM-201A/2 or KM 251A. Extension: min. 17 1/4", max. 33", 5/8"-27 thread. Collapsed length: 22 1/2". Chrome with matte-black fittings. Net Wt. 2 lbs. Also available with matte-black finish throughout.

KM-231/1

Collapsible-tripod table stand. 5/8"-27 thread. Chrome with matte-black fitting.

GN-7E

7" flexible-gooseneck. Highly adaptable directly to table, floor stand or XLR connector. Supports up to 16 ozs. Matte-nickel finish.

GN-14E

14" flexible gooseneck. For microphones up to 9 oz. Matte-nickel finish.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
KM-211/2	\$25.00	\$23.33	\$21.67
KM-231/1	7.00	6.44	5.88
GN-7E	29.00	27.26	25.52
GN-14E	32.00	29.95	28.50

AMPEX

Tapes

The success of Ampex mastering tape is backed by an unparalleled record of preference by Audio Recording Professionals. Increasing numbers of producers, recording engineers and musical talents simply won't allow the RECORD button to be pressed unless their recorder is loaded with AMPEX 456 or 406/407 Studio Mastering Tape.

406/407 Series

Features

- Performing flawlessly in studios throughout the world.
- Extremely durable oxide binder system.
- High S/N ratio, high headroom, reduced distortion.
- Excellent uniformity reel-to-reel.
- Bias compatible with 456 GRAND MASTER™.

The 406/407 series has been setting the pace for studio mastering tape for years and is an important part of the Ampex high quality mastering family—all bias compatible.

Durable binder system

Designed to meet the demanding requirements of modern recording studios, the magnetic oxide binder system's extreme durability withstands the many passes required for mixdown, with no signal degradation.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
AMPEX-406 1.5 mil Mastering Tape			
Hub—each	\$ 18.03	\$ 15.87	\$ 14.25
10 inch—each	34.96	30.65	27.41
7 inch—each	14.21	12.41	11.06

AMPEX—407 1.0 mil Mastering Tape

Hub—each	26.34	23.38	21.16
10 inch—each	47.48	41.62	37.22
7 inch—each	17.49	15.36	13.76

456 Grand Master

Features

- Our highest performance tape
- Bias compatible with Ampex 406/407
- Backcoated for improved handling and reduced static generation
- 100% tested 2" configuration

Ampex 456 Grand Master is the master tape to use in recording sessions requiring the ultimate in sound reproduction.

Our highest performance tape

The exclusive oxide particle developed for 456 Grand Master tape provides high magnetic capacity due to its very dense packing capability. The result is a tape with extra-high output sensitivity, great saturation capability and brilliance, and exceptionally low distortion. In fact, Grand Master provides more undistorted output across the entire audible range than any other mastering tape.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
AMPEX—456 1.5 mil Grand Master Mastering			
Hub—each	\$22.54	\$19.83	\$17.79
10 inch—each	40.13	35.38	31.82
7 inch—each	17.31	15.08	13.41

631/632/641/642 Series

Features

- Designed for high speed applications
- Durable oxide and binder
- Controlled surface conductivity
- Ferrosheen™ polished surface
- Fully protective packaging

Designed for high speed applications

Ampex 631/641 tapes are designed especially for use in high speed open reel duplicating and bulk winding applications. Special attention is given during manufacture to maintain uniformity within each batch and between batches to meet the consistency needs of duplicators. Extra care is given to slitting and winding to assure that tapes will handle well at all duplicating and winding speeds.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
AMPEX—631 1.5 mil Open Reel Duplicator Tape			
Hub—each	\$11.23	\$ 9.88	\$ 8.87
10 inch—each	25.12	22.33	20.24
7 inch—each	8.34	7.34	6.59

AMPEX—632 1.5 mil Low Noise-High Output Open Reel Duplicator Tape

Hub—each	\$11.83	\$10.41	\$ 9.35
10 inch—each	29.23	25.81	23.25
7 inch—each	9.17	8.07	7.25

AMPEX—641 1.0 mil Open Reel Duplicator Tape

Hub—each	14.73	12.96	11.64
10 inch—each	30.54	27.14	24.58
7 inch—each	11.74	10.30	9.22

AMPEX—642 1.0 mil Low Noise-High Output Open Reel Duplicator Tape

Hub—each	15.48	13.62	12.23
10 inch—each	37.47	32.93	29.53
7 inch—each	12.60	11.08	9.95

AMPEX cont.

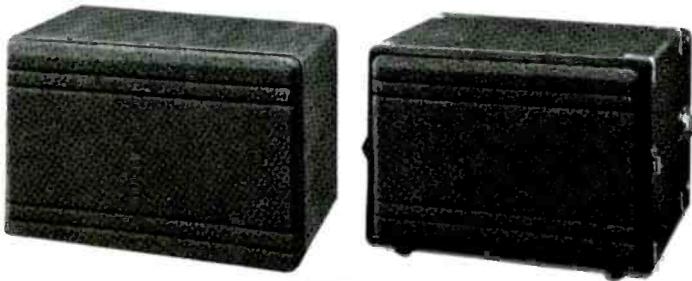
TIME CHART—RECORDING TIME EACH DIRECTION

Reel Size	Footage	1 7/8 IPS	3 3/4	7 1/2 IPS	
5 inch	600 ft.	1 hr.	1/2 hrs.	15 mins.	1.5 mil
	900 ft.	1.5 hrs.	45 mins.	22.5 mins.	1.0 mil
	1200 ft.	2 hrs.	1 hr.	1/2 hr.	0.5 mil
7 inch	1200 ft.	2 hrs.	1 hr.	30 mins.	1.5 mil
	1800 ft.	3 hrs.	1.5 hrs.	45 mins.	1.0 mil
	2400 ft.	4 hrs.	2 hrs.	1 hr.	0.5 mil
10 inch	2400 ft.	4 hrs.	2 hrs.	1 hr.	1.5 mil
	3600 ft.	6 hrs.	3 hrs.	1.5 hrs.	1.0 mil
	4800 ft.	8 hrs.	4 hrs.	2 hrs.	0.5 mil

ANCHOR



AN 100/150



AN 200/250

AN 100/150 and AN 200/250 Series Mini P.A. Systems

Anchor delivers the word, pure and undistorted, from the nation's headquarters or the networks' newsrooms, from the podium or the pulpit. Plus Anchor delivers music to your ears like no other system of its kind. Anchor . . . the completely self-contained, heavyweight sound system with built-in amplifier in a compact, lightweight package. Why settle for less?

The precision miniature Anchor 100 and its counterpart Anchor 150 "Roadie" use a single 4 1/2" high-compliance, full-spectrum, ultra-high-fidelity speaker.

Each is a complete self-contained, sound system weighing in at just 10 pounds (add 2 pounds for the 150 "Roadie" integral traveling case).

For versatility, the package provides balanced microphone, magnetic phono, and line inputs. Also included are speech/music equalization and a line output for recording or for simultaneous driving of multiple units.

Best of all—Anchor Systems are not nearly as expensive as they sound!

AN 100/150 Series

Speaker Type: 4 1/2 in. high compliance full range speaker.

Frequency Response: Music—100 Hz to 15 kHz, Speech—150 Hz to 15 kHz

Rated Power: 35 Watts

Maximum SPL at 1 m,

Full Power Input Impedance: Microphone—780 ohms, balanced, Phono—51 kilohms, unbalanced, Line—35 kilohms, unbalanced

Indicator Lights: Two green LED's, one on front grille, one on back panel

Power Requirements: 120 V ac, 60 Hz, 1 A

AN 100: 35 watt amp with line, low Z mic, and mag phono inputs, line output, and 4 1/2" full range driver in walnut enclosure, speech/music equalization switch.

Weight—11 lbs., Height—6 1/4", Length—6 3/4", Width—7"

AN 200/250 Series

Speaker Type: Two 4 1/2 in. high compliance woofer and one 1 in. diameter HF dome tweeter

Frequency Response: Music—100 Hz to 20 kHz, Speech—150 Hz to 20 kHz

Rated Power: 55 Watts, **Maximum SPL at 1 m:** 109 dB SPL

Full Power Input Impedance: Microphone—780 ohms, balanced, Phono—51 kilohms, unbalanced, Line—35 kilohms, unbalanced, **Indicator Lights:** Two green LED's, one on front grille, one on back panel

Power Requirements: 120 V ac, 60 Hz, 1 A

AN 200: 55 watt amp with line, low Z mic, and mag phono inputs, line output, two 4 1/2" woofers, and one Phillips dome tweeter, in walnut enclosure, speech/music equalization switch.

Weight—15 lbs., Height—8", Length—6 3/4", Width—12"

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
AN-100	\$349.00	\$330.00	\$285.00
AN-150	369.00	350.00	300.00
AN-200	449.00	425.00	365.00
AN-250	469.00	445.00	385.00

ANDREW

Would you trust anything less than the industry standard to get your station's signal to the antenna? The commitment to absolute top quality at Andrew assures you of "no problem" operation and our commitment to stock the most frequently used cable and connectors assure you that when lightning or vandals strike, we can get you back on the air with minimum delay.

The industry standard for STL and RPU transmission lines is Andrew LDF series cable. It's also a better choice for AM feed line, since it has less loss per foot and more reserve a capacity than RG-8.

Brochures detailing this manufacturers products will help your planning process. To get your copy or pricing information call 1-800-54-RADIO.



LDF Series Foam—Dielectric Cable

Size Part Number	1/2	7/8	1 1/8
LDF4-50A	LDF5-50A	LDF7-50A	
Power Rating KW @ 100 MHZ	1.8 KW	5.4 KW	13.3 KW

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
LDF4-50A	\$1.65	\$1.59	\$1.51

ANDREW cont.



HJ Series Air—Dielectric Cable

For FM transmission line the benchmark of quality is the Andrew HJ series air dielectric transmission line. Its "one piece" continuous length construction solves the problem of connector loss and nitrogen leaks found in rigid line systems. It's easier to install also, because it's flexible.

SIZE	7/8	1 1/8	3
PART NUMBER	HJ5-50	HJ7-50A	HJ8-50B
Power Rating KW @ 100 MHZ	6.4 KW	14.4 KW	37 KW

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HJ5-50	\$ 5.10	\$ 4.91	\$ 4.66
HJ7-50A	11.00	10.59	10.04
HJ8-50B	20.50	19.73	18.71



Andrew Grid Antennas

Diameter	Gain (dBi)	Part Number
4 foot	19.3	GP4F-890
6 foot	22.2	GP6F-890A
8 foot	24.6	GP8F-890A
10 foot	26.6	GP10F-890A
12 foot	28.2	GP12F-890

I'll bet that you didn't know that Andrew made STL antennas! Now you can buy the same industry standard quality dish for your STL. Andrew has been making UHF and SHF antennas for the telephone industry worldwide for years. Somebody just forgot to tell the broadcasters about them.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
GP4F-890	\$690.00	\$664.13	\$629.63

ARISTOCART

20-slot rack

ARISTOCART 20-slot cart rack, plan with it as a building block. Mounting screw holes in this unique slotted column allow you to build onto these racks side-by-side or stacked row on top of row. Since the rack width is one cart wide, height is 20 carts. You tailor-make your own customized cart storage area.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
RACK	\$11.00	\$10.06	\$9.50

Standard Length Carts

This product is the Cadillac of quality control. The shell is made of shatterproof Lexan plastic. We import the product from Canada and regularly have in stock standard lengths up to 7 minutes.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
010 SEC	\$3.39	\$3.18	\$3.06
020 SEC	3.44	3.23	3.10
040 SEC	5.18	4.79	4.56
070 SEC	5.28	4.89	4.65
090 SEC	5.37	4.97	4.73
100 SEC	5.37	4.97	4.73
140 SEC	4.80	4.50	4.32
2.5 MIN	5.66	5.24	4.98
3.5 MIN	5.92	5.48	5.21
4.5 MIN	6.18	5.72	5.44
5.5 MIN	6.25	5.78	5.50
7.0 MIN	6.88	6.37	6.06
8.0 MIN	7.14	6.61	6.28
9.0 MIN	7.42	6.86	6.53



ASTROLITE



Broadcast (Sportcaster) Systems

Astrolite Series	Single Earphone	Double Earphone
Dynamic (Old Part No.)	2656-G1 (LS 136B)	263 (LS 436B)
Omni-Directional Electret (Old Part No.)	2658-G1	2638-G1 (8650)
Noise-Cancelling Electret (Old Part No.)	2657-G1	2637-G1 (8649)

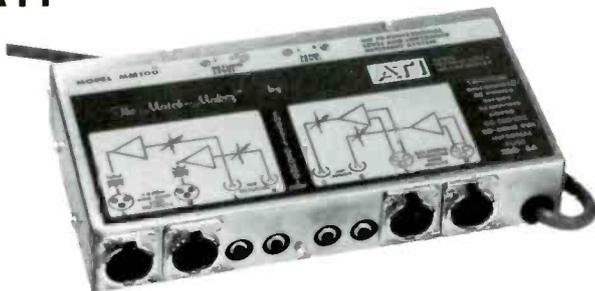
- Noise-cancelling Electret microphone enhances speaker's voice and microphone frequency range equal to fine studio microphone performance.
- Lightweight headset with extensive padding provides a comfortable fit and gently cradles the head.
- Eliminates off-mike problems.
- For use in high noise—ear enveloping foam cushions attenuate ambient sound. Comfortable ventilated foam cushions eliminate perspiration, accommodate eyeglass frames, permit user to hear ambient sound.
- Earphones can be wired independently or monoaurally.

We've been listening . . . for the last ten years Racal's Sportcaster headsets has been the choice of discriminating Radio and TV stations demanding a comfortable and durable headset for sports broadcasting . . . but they needed more . . .

- For basketball and hockey pick-ups with high ambient noise problems, they wanted better attenuation and a noise-cancelling microphone that didn't sacrifice quality . . . now we have it.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
2637-G1	\$259.00	\$242.81	\$233.10

ATI



MM100-1 Bi-Directional Interface

IHF — — PRO
Level and Impedance Interface

Interconnects consumer/industrial Reel to Reel and Cassette Recorders, Graphic Equalizers and Noise Reduction Systems,

Audio Effects Processors and Digital Reverb into Professional 600 ohm balanced, + 4dBm systems without loading distortion, hum loops, RF pickup or high frequency rolloff.

60db Line Input CMR hum rejection, effective RF protection, adjustable IHF output level. True transformer balanced and protected line outputs drive + 22dBm at under .01% THD, 20Hz to 20kHz with + 0, - 25db response and over 98db dynamic range. Adjustable line outputs. Self contained power supply, Velcro™ or rack panel mounting, one or two units in 1 3/4".

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
MM100-1	\$239.00	\$230.04	\$219.88



DP100-1 Uni-Directional

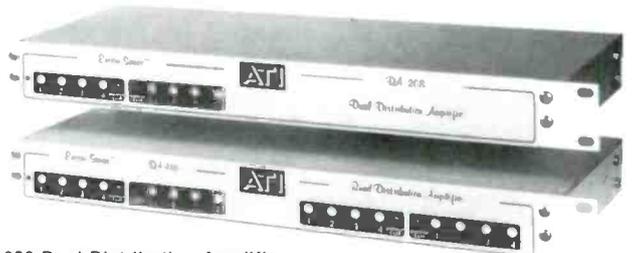
IHF — — PRO
Level and Impedance Interface

Interconnects Compact Digital Audio Disc Player, Off-Air Monitor Tuners, ENG Cassettes, and Console Audition Outputs into Professional 600 ohm balanced, + 4dBm systems without loading distortion, ground loops, RF pickup or high frequency rolloff.

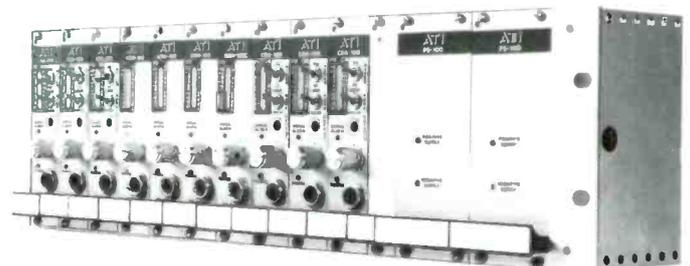
True transformer balanced, isolated and protected outputs with greater dynamic range (102db), flatter response (+ 0, - 25db) lower nominal THD (.005%, 20 to 20,000Hz) than Digital Audio Disc Systems.

Adjustable outputs, self contained power supply, Velcro™ or rack panel mounting.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
DP100-1	\$189.00	\$181.91	\$173.88
P/N 20273501 Rack Panel			
Rack Mount Panel, Single or Dual	22.00	20.50	19.00



DA 208 Dual Distribution Amplifier



DA 1000 Price Varies According to Configuration

ATI offers many of the products that broadcasters use every day, plus a few items that are really unique.

ATI cont.

The Micro-amp series from ATI are the excellent quality amplifiers that you need every day. The M-1000 is the stereo microphone amp that you need to feed a microphone into equipment that requires a line level input. The L-1000 is a stereo line amplifier, and the P-1000 is a stereo phono preamplifier with high boost or cut and a rumble filter.

ATI offers a full line of distribution amplifiers. The DA-1000 is a no frills, 1 in and 8 out. The DA-2008 is dual 1 by 4.

The DA-1008 is a 1 in, 8 out DA with selectable and adjustable metering, which also offers headphone monitoring. The DA-2016 is the stereo version.

If you have a really large DA requirement, consider the DA-10000 system. You start with the RM-1000 rack frame and a PS-100 power supply, two if you want redundant power supplies, then add the 1 in, 6 out modules that you require.

The ATI microamp line switcher is a selectable metering unit that can be used as a DA in reverse. It can be used to monitor and select up to 8 sources of audio at a single point. It's great for combining the Telco feeds, RPU receivers and satellite feeds in the newsroom, and it can drive a speaker for monitoring.

Rounding out the ATI line is the P-100, the no frills, top quality phono preamp. Why pay for a fancy cabinet that you mount under the turntable and never see again?

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
DA1000-1	\$ 325.00	\$ 312.81	\$ 299.00
DA1008-1	795.00	765.19	731.40
DA2008-1	345.00	332.06	317.40
DA208	319.00	307.04	293.48
DA416	469.00	451.41	431.48
EM1000-1	1395.00	1342.69	1283.40
P100M	199.00	191.54	183.08
P100S	219.00	210.79	201.48
P1000-1	345.00	332.06	317.40

ATLAS

Microphone Stands

Atlas microphone stands and accessories are functional, modern and long-lasting. Made of rust resistant, chrome plated, seamless steel tubing. Standard 5/8" — 27 threads used throughout. Clutches are wear-proof for positive locking control.

MS-12C

General Purpose Stand. Same profile and stability as MS-11C with base in charcoal wrinkle finish.

Height: 34"-62"/Base: 10" dia./Weight: 12 lbs.

MS-20

Heavy Duty Professional Stand. Grip-action clutch. Extra height, oversize 1 1/8" dia. tube assembly with 5/8"-27 thread top adaptor. Low contour base.

Height: 37"-66"/Base: 12" dia., charcoal/Weight: 14 lbs.

DS-7

Adjustable Desk Stand. Chrome tube assembly, adjustable height 8" to 13". Grip-action clutch. 6" dia. charcoal base. Weight 3 lbs.

BB-44

Contemporary Microphone Boom Attachment. Single positive-action triangular knob to control motion and positioning of die-cast one-piece universal swivel. For use with any 5/8"-27 threaded adjustable microphone stand. Chrome tube 31" long, tapered black counterweight. Recessed cable guide for professional appearance. Weight: 3 lbs.

PB-1X

Boom-expandable from 31"-47" with grip action clutch. Weight 4.5 lbs.



MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
MS-12C	\$34.60	\$29.24	\$26.02
MS-20	62.65	53.25	47.61
DS-7	18.60	15.81	14.14
BB-44	25.15	21.25	18.91
PB-1X	40.40	34.14	30.38

AUDICORD



Twin Deck Reproducer—
TDS Series

Cart Machine

Audicord offers just about any configuration of cart machine you could imagine. The "A" series is a versatile modular system which can be assembled into a triple deck playback unit or a dual deck recorder which can make dubs or record two carts at once. The "S" series and "100" series is the standard model which offers an optional recording timer.

All Audicords feature slide-out design and plug-in circuit cards for easy maintenance. The decks are made of thick aluminum plate with stainless steel overlays to prevent wear. The heads are adjusted easily from the top and Audicord head mounts are one of the best designs in the industry.

Brochures detailing this manufacturers products will help your planning process. To get your copy—call 1-800-54 RADIO

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
TDS-1	\$1499.00	\$1499.00	\$1481.00
TDS-6	1679.00	1679.00	1658.85

AUDIOCOM



"The Talk Show Necessity"

The Telecoupler incorporates a "down stream" mixing system that frees up your console for other uses and allows you to control and monitor the problems associated with call-in spots. Its unique configuration allows the host and caller to speak to each other without interruption or change in audio level. The host also has the option to dominate the conversation by simply turning down the receive level. The interface even has conference call capabilities!

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
TC-100S	\$795.00	\$768.75	\$725.00

AUDIOLAB



TD-1B Tape Degausser

Audiolab TD-1B Tape degausser with automatic overheat thermal protection that warns you when the unit is becoming too hot. It will erase audio, video, computer, data tape, magnetic films, cartridges, and cassettes and will handle tape up to three-quarters of an inch wide on 10 1/2 inch reels. Center post is removable for large carts.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
TD-1B	\$105.00	\$102.38	\$95.81

AUDIOPAK

Broadcast Cartridges

We are pleased to introduce to you the best sounding and the most reliable broadcast cartridge—the new Audiopak AA-4!

The key feature of the AA-4 is the new SGS-4 broadcast mastering tape. When recorded on a high quality cartridge recorder, the SGS-4 tape can produce virtually identical copies of the best analog or digital master tapes. The SGS-4 tape, available exclusively in AA-4 cartridges, offers nearly 5 dB higher saturation headroom at 16 KHz (7 1/2 ips) compared to the HOLN tape in AA-3 cartridges. No bias adjustment is usually necessary when recording on machines optimized for HOLN or other "hot" tapes. The new binder formulation used in the SGS-4 tape also has improved physical properties, which result in longer life, less maintenance and a cleaner sound than is obtainable with most other broadcast cartridges.

Try an AA-4 and hear the dramatic difference!

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
Audiopak AA4			
010 SEC	5.90	4.49	4.30
020 SEC	5.90	4.49	4.30
035 SEC	5.90	4.49	4.30
040 SEC	5.90	4.49	4.30
050 SEC	5.90	4.49	4.30
065 SEC	5.90	4.49	4.30
070 SEC	5.90	4.49	4.30
090 SEC	5.90	4.49	4.30
100 SEC	5.90	4.49	4.30
140 SEC	6.60	5.01	4.80
2.5 MIN	6.60	5.01	4.80
3.0 MIN	6.60	5.01	4.80
3.5 MIN	6.60	5.01	4.80
4.0 MIN	6.60	5.01	4.80
4.5 MIN	6.60	5.01	4.80
5.0 MIN	7.90	6.01	5.76
5.5 MIN	7.90	6.01	5.76
6.0 MIN	7.90	6.01	5.76
6.5 MIN	7.90	6.01	5.76
7.5 MIN	7.90	6.01	5.76
8.5 MIN	7.90	6.01	5.76
9.5 MIN	7.90	6.01	5.76
10.5 MIN	7.90	6.01	5.76

AUDIOPAK cont.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
Audiopak AA3			
010 SEC	5.30	4.04	3.87
020 SEC	5.30	4.04	3.87
040 SEC	5.30	4.04	3.87
060 SEC	5.30	4.04	3.87
065 SEC	5.30	4.04	3.87
070 SEC	5.30	4.04	3.87
090 SEC	5.30	4.04	3.87
100 SEC	5.30	4.04	3.87
140 SEC	6.00	4.56	4.37
2.5 MIN	6.00	4.56	4.37
3.0 MIN	6.00	4.56	4.37
3.5 MIN	6.00	4.56	4.37
4.0 MIN	6.00	4.56	4.37
4.5 MIN	6.00	4.56	4.37
5.0 MIN	7.00	5.32	5.10
5.5 MIN	7.00	5.32	5.10
6.5 MIN	7.00	5.32	5.10
7.5 MIN	7.00	5.32	5.10
8.5 MIN	7.00	5.32	5.10
10.5 MIN	7.00	5.32	5.10
Audiopak A-2			
010 SEC	4.20	3.18	3.06
020 SEC	4.20	3.18	3.06
040 SEC	4.20	3.18	3.06
070 SEC	4.20	3.18	3.06
090 SEC	4.20	3.18	3.06
100 SEC	4.20	3.18	3.06
130 SEC	4.70	3.56	3.43
140 SEC	4.70	3.56	3.43
2.5 MIN	4.70	3.56	3.43
3.0 MIN	4.70	3.56	3.43
3.5 MIN	4.70	3.56	3.43
4.0 MIN	4.70	3.56	3.43
4.5 MIN	4.70	3.56	3.43
5.0 MIN	5.20	3.94	3.79
5.5 MIN	5.20	3.94	3.79
6.0 MIN	5.20	3.94	3.79
6.5 MIN	5.20	3.94	3.79
7.0 MIN	5.20	3.94	3.79
7.5 MIN	5.20	3.94	3.79
8.5 MIN	5.20	3.94	3.79
10.5 MIN	5.20	3.94	3.79

AUDIO-TECHNICA

AT801 Omnidirectional

Smooth, extended response makes the AT801 omnidirectional Fixed-Charge condenser ideal for close miking, or for more distant pickups in well-behaved acoustic surroundings. A gentle rise above 2kHz adds controlled presence, reducing the need for equalization usually required with other mikes.

Frequency Responses: 40 to 18,000 Hz

AT815a Line + Gradient

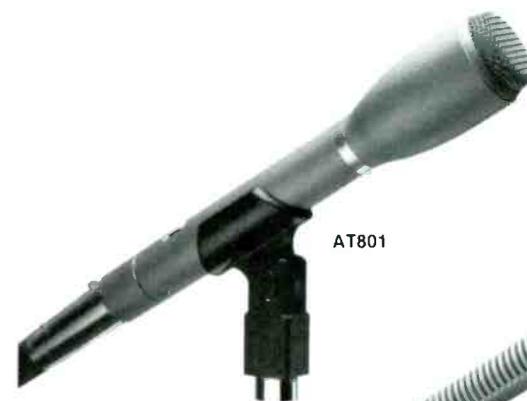
With an acceptance angle of approximately 40° at high frequencies, the AT815a provides a useful tool to overcome problems of noise or distance for radio or TV broadcasting, special stage applications, and motion picture dialogue recording. Its flat response and high output insures well-balanced, natural-sounding pickup of voices, music, and natural sounds outdoors, in the studio, and on stage.

Frequency Response: 40 to 20,000 Hz (flat)/100 to 20,000 Hz (bass rolloff)

AT831a Unidirectional

A true problem solver, the AT831a subminiature microphone provides unique versatility with its unidirectional (cardioid) pickup pattern. While most miniature microphones respond equally to sounds from every direction, the new AT831a rejects sound from the sides and rear. This reduces noise, increases microphone gain before feedback, and improves isolation in recording applications. The Fixed-Charge construction insures excellent transient response.

Frequency Response: 40 to 20,000 Hz (close)/70 to 20,000 Hz (distant)



AT801



AT815a



AT831a

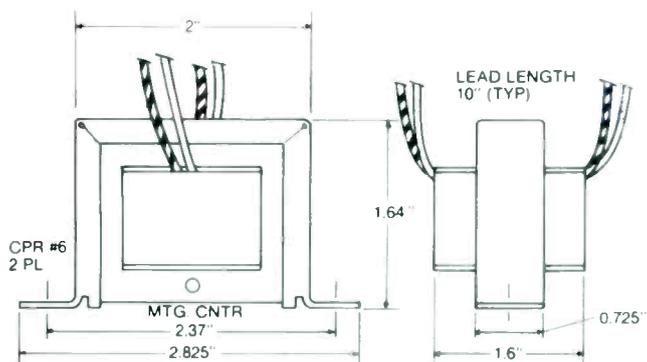
MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
AT801	\$175.00	\$122.18	\$111.61
AT815a	\$385.00	\$229.00	\$205.00
AT831a	\$230.00	\$160.35	\$146.42

Tonearms

The Audio-Technica ATP Professional Series tonearms have been designed specifically to meet the stringent needs of radio and TV studios. Will mount on almost all presently available turntables and bases. Four separate cartridge mounting positions accommodate all popular cartridges. The ATP-12T and ATP-16T are 12" and 16" respectively.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ATP-12T	\$175.00	\$145.00	\$139.00

AUDISAR



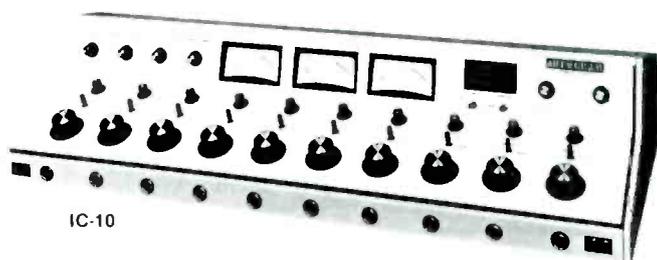
9K-600-2
9K-600-3
9K-600-6

Transformers and Repeat Coils

Audisar offers broadcasters transformers and repeat coils that we need every day for isolation, RFI protection and construction projects. The 9K-600-3 and 9K-600-6 lets you feed audio to feed several pieces of equipment without the expense of a DA.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
9K-600-3	\$60.50	\$50.82	\$45.98
9K-600-6	77.00	64.68	58.42

AUTOGRAM



IC-10

Mono/Stereo Audio Consoles

Consoles that are field proven, attractively designed, easy/minimal service, functional. This is Autogram—in stereo or mono. All consoles use built-in remote start switches with your choice of options via plug-in modules.

AC-6—Six pot, 23 available inputs, Pgm/Aud. outputs

AC-8—Eight pot, 26 available inputs, Pgm/Aud./Mono Pgm.

Outputs

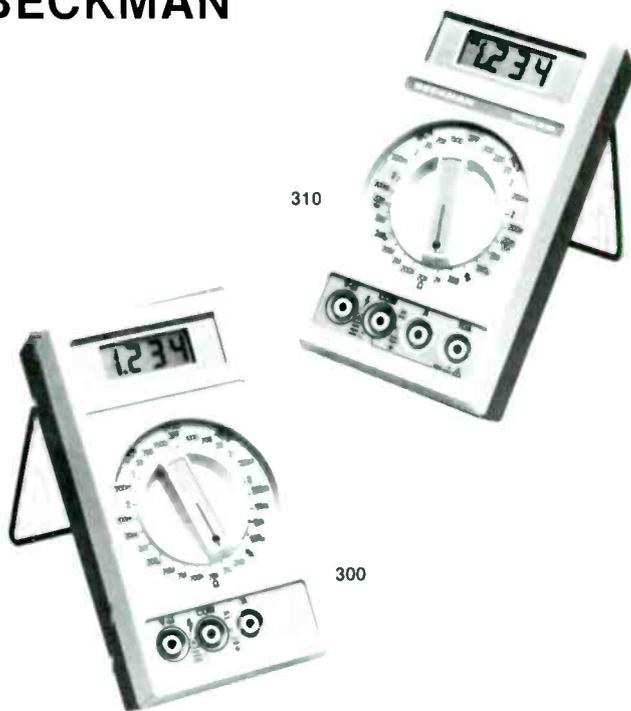
IC-10—Ten pot, 28 available inputs, Pgm/Aud./Mono. Pgm.

Outputs

The T-8 Frequency Response Test Set speeds in testing any part of your broadcast chain. Eight preset switchable sinewave audio frequencies from 50 to 15KHz can be manually or automatically programmed to "spot check" your . . . whatever! Switching capacity of 3 different output/impedence levels: +8, -10, -50dB. Built-in VU meter lets you "tweak" all control up front in standard 19" rack mount package.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
IC-10s	\$8445.00	\$8,300.00	\$8,000.00
T-8	498.00	495.00	480.00

BECKMAN



Model 300 Digital Multimeter

- 3½ Digits.
- 0.5% DC Volts Accuracy.
- 2000 Hour Battery Life.
- Diode Test Function.

The Model 300 is ideal for repairing televisions, appliances, stereo, and common electrical problems. This model is a workhorse designed to handle a wide variety of basic repairs and testing.

High performance is achieved through a combination of special features, including RF shielding to prevent stray signals from affecting the reading. The Diode Test feature allows checking of diodes and transistor junctions. The 22 megohm input impedance on all DC voltage ranges reduces circuit loading.

Model 300 is designed to get the job done. The 2000 hour battery life keeps the Model 300 working for up to two years. The convenience of the meter is enhanced by the easy-to-use single rotary switch and the multiposition tilt bail.

Backed by a one-year, no-fault warranty and rapid service turnaround time, the Model 300 comes complete with test lead set, battery, spare fuse, and operator's manual.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
300	\$120	—	—

Model 310 Digital Multimeter

- 10 Amp Current Range.
- 0.25% DC Volts Accuracy.
- Insta-Ohms.
- Diode Test Function.
- 2000 Hour Battery Life.

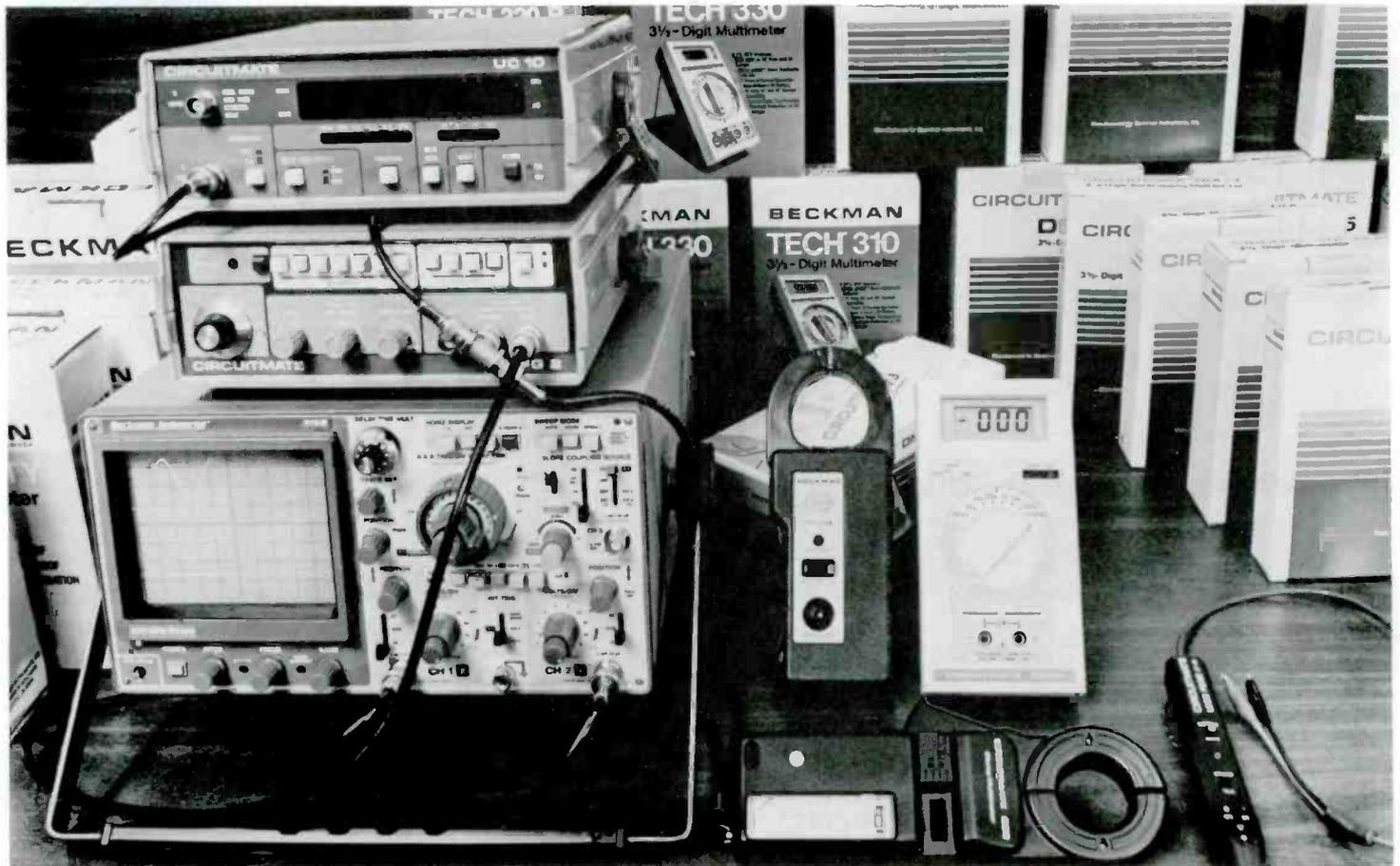
The 310 group measures up to 10 amps AC or DC without special adaptors. The 2 amp range is protected with a 2 amp/600V fuse. The 10 amp range is unfused and can withstand up to 20 amps for 30 seconds. Voltage ranges can withstand transients of up to 6KV for 10 microseconds.

The Insta-Ohms Quick Continuity test provides a visual symbol in the display. The 310 group comes complete with test lead set, battery, spare fuse, and operator's manual.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
310	\$145	—	—

BECKMAN cont.

BECKMAN



Model 320 Digital Multimeter

- 0.1% DC Volts Accuracy.
- 10 Amps Current Range.
- Diode Test.
- 2000 Hour Battery Life.
- Insta-Ohms Quick Continuity.

The 320 group is designed for the professional who desires high accuracy in a reliable hand-held meter. The highest quality state of the art technology provides overload and transient protection, diode test, 10 amps AC/DC current range, Insta-Ohms Continuity Test, and 22 megohms input impedance.

The easy-to-use rotary switch and contamination resistant case make the Model 320 very popular in the electronic field service industry. The 320 group complete with test lead set, battery, spare fuse and operator's manual. The meters are backed by a one-year, no-fault warranty and 100% factory testing.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
320	\$179.00	—	—

Model 330 Digital Multimeter

- True RMS.
- 0.1% DC Volts Accuracy.
- 10 Amp Current Range.
- 2000 Hour Battery Life.
- Insta-Ohms Quick Continuity.

The Model 330 features True RMS (AC + DC coupled) voltage and current capability. The True RMS capability provides accurate measurements of nonsinusoidal waveforms, such as the square waves found in digital circuitry and the output of rectifiers and transformers. True RMS is also the most accurate measurements of the irregular waveforms of SCR's and TRIAC's found in power control equipment.

The Model 330 includes an adaptor capacitor accessory (Model BC-047), which allows decoupling of the AC and DC signals. This is very handy for measuring the AC ripple in the output of a DC power supply.

Model 330 also features a 10 amp current range, 2000 hour battery life, a diode test function, Insta-Ohms Quick Continuity Test, and 22 megohm input impedance. Model 330 also offers a wide, 100KHz, AC bandwidth which is ideal for communications, radio and medical applications. The Model 330 comes complete with test lead set, battery, spare fuse, BC-047 accessory, and operator's manual.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
330	\$219.00	—	—

Pocket-sized Model DM15 Digital Multimeter

- 24 Ranges
- 0.8% VDC Accuracy.
- 10A AC/DC Measurements.
- Diode Test Function.
- Low Price.

The pocket-size DM15 offers you full-function digital multimeter capabilities, with 24 ranges to measure AC/DC voltages, AC/DC current, and resistance.

The DM15 provides high quality at an extremely low price, giving you all the basics with 0.8% basic VDC accuracy. Also included are a 10A current measurement capability and a separate diode test function to test junction forward bias.

The DM15 is overload protected to 500 VDC/350 VAC on the 2V range, and 1200 VDC/800 VAC on all other ranges.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
DM15	\$59.95	—	—

BECKMAN cont.

Model DM25 Digital Multimeter

- Capacitance Measurements.
- Continuity Beeper.
- Dual Voltage Resistance Test.
- Conductance Measurements.
- 30 Ranges.
- 0.8% VDC Accuracy.

The DM25 is specifically designed to measure capacitance at up to 20 μ F. As compared with the DM15 and DM20 Models, the DM25 incorporates all the basic functions offered by the DM15, and the added features of dual voltage resistance test and conductance measurements offered by the DM20.

Another added feature unique to the DM25 is an audible continuity beeper to facilitate circuit tracing.

The DM25 measures AC/DC voltages, AC/DC current, resistance, capacitance, and conductance using 30 ranges with 0.8% basic VDC accuracy.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
DM25	\$84.95	—	—

Model HD-110 Digital Multimeter

- Heavy-Duty Design.
- 10 Amp Current Range.
- 0.25% DC Volts Accuracy.
- 2000 Hour Battery Life.
- Diode Test Function.
- Insta-Ohms.

The HD-110 is used with confidence by transportation companies, electrical contractors, and maritime operators. This workhorse is at home in a shop or up a power pole. The case is extra thick so it won't crack or chip even if the meter is dropped from 10 feet. The sensitive components are shock-mounted, and O-ring seals keep out all dirt, grime, and liquids. The display window is ultrasonically welded into place. Contamination cannot get inside the meter and affect a reading.

The HD-110 can measure 10 amps AC or DC without use of special adaptors. The 10 amp current range is protected to 20 amps for 30 seconds (unfused). The bright yellow case makes the meter easy to see and helps to prevent accidental misplacement.

Other features include: 2000 hour battery life, diode test function, RF shielding, and the Insta-Ohms Quick Continuity Function for easy continuity tests. Each HD-110 includes test lead set, battery, spare fuse, operator's manual, and is backed by a one-year, no-fault warranty.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HD-110	\$189.00	—	—

BELAR



Model FMS-2

AM and FM Modulation Monitors

BELAR AM and FM Modulation Monitors are the most dependable, well-built monitors available today. Belar's stringent quality control methods are reflected in their pride of workmanship and consistent low prices. The FMM-2 is the newest modulation-only FM monitor on the market, with the FMS-2 the add-on for stereo.

Still available is the FMM-1, FMS-1, Frequency and Modulation Monitor and Stereo Monitor. The SCM-1 is their SCA Frequency and Modulation Monitor, capable of monitoring up to four SCA frequencies with the addition of the proper crystals. The RFA-1 FM RF Amplifier completes the series.

The AMM-2A monitors AM positive or negative peaks. The AMM-3 measures both simultaneously. AM RF amplifier is the RFA-2. Loop antenna with built-in preamp is also available.

The Model FMS-2 is the first stereo monitor to incorporate two independent autoranging voltmeters allowing the broadcaster to automatically measure the channel separation and crosstalk. The left modulation meter can be switched to monitor Total, L + R, Pilot, or Left Channel Audio. The right modulation meter can be switched to monitor Pilot Phase, L-R, 38 kHz Suppression, or Right Channel Audio.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FMM-2	\$1350.00	\$1336.50	\$1301.40
FMS-2	1550.00	1534.50	1494.20

B.G.W.



Model 150

B.G.W. 150 & 75 Professional Power Amplifiers

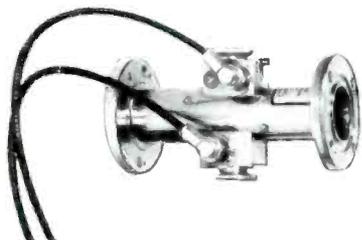
Exacting design standards and unique features establish the BGW amplifier as the industry leader in power amplifier technology. Features such as all steel chassis and covers, metal-cased output and driver transistors, totally modular construction and large aluminum heat-sink extrusions have set the industry standard in audio power amplifiers.

Features

- Low noise toroidal mains power transformer
- Front panel mounted magnetic circuit breaker/power switch
- Improved noise performance—6dB lower noise floor
- Fully modular construction
- Heavy 3/16" aluminum front panel
- Multi-color LED front panel metering with indicators at idle, 0.5% and 50% power
- Separate loss-of-feedback peak clipping indicator
- Full complementary all metal output devices with full 200 watts dissipation
- Peak current limiter to prevent shutdown under shorted load conditions
- New rear panel layout with both XLR and 1/4" input connectors
- Provisions for plug-in input transformers
- Barrier strip circuit and chassis grounds—a BGW first!
- New precision Laser trimmed Stepped Attenuators

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
BGW 150	\$679.00	\$662.00	\$628.00
BGW 75	400.00	390.68	372.00

BIRD

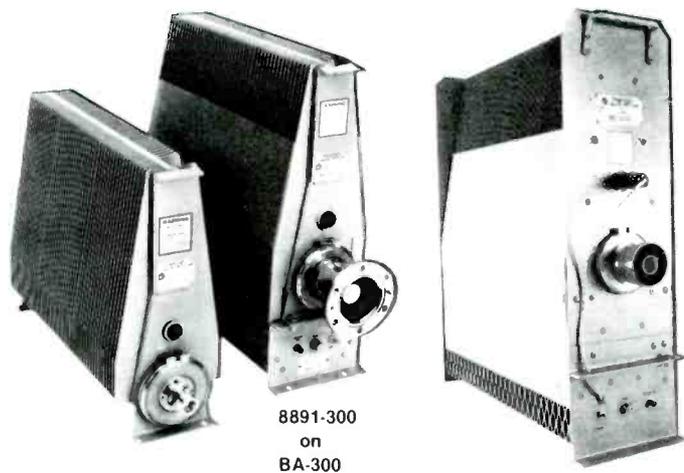


Transmitter Protection: High Speed Watcher® RF Monitoring System

Model 3171 is a new high-speed monitoring system for remote and on-location supervision of transmitters ancillary services. The two most important features of the new design are a shortening of response time down to 200 microseconds—much faster than equipment protection requires—and remote reset capability.

The series 3171 WATTCHER RF Monitoring Systems warn a remote operator 1) Of low power due to detuning, component aging, AC line difficulties (to conform with FCC part 21.107 requirements) and 2) Of high VSWR due to antenna icing, transmission line moisture or deformation, or lightning. Alarm trip levels for both functions can be set from the front.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
3171	\$960.00	\$925.00	\$890.00



8891-300
on
BA-300

Air-Cooled Liquid-Dielectric TERMALINE® RF Load Resistors

Unique New Radiators Extend Upper Limits: 10,000 Watts

Bird liquid-dielectric convection-cooled Termaline® Loads have given trouble-free service as dummy antennas for over 35 years. The sleek new rhombic-shaped designs permit advantageous size-to-power ratios. Many are now also used in dual-transmitter operation as stand-by terminations ("Reject Loads") which must be ready to function at once in case one transmitter fails. The 10kW series 8930, for instance, is so used in FM installations up to 40kW and TV installations up to 67kW.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
8891-300	865.00	830.00	795.00

New Econoload High Power Termaline RF

Loads 50 ohm nominal

Field-Replaceable Resistors!

10kW, 20kW, 30kW, 40kW, 50kW, 50kW & 80

Line-Mounted RF Terminations for CW, AM, FM, SSB and TV Transmitters

These popular new water-cooled Econoload® Terminations offer a host of desirable features:

- Initial cost is low.
- New, rugged resistor withstands shocks.
- In the rare case of damage, the resistor is field replaceable.
- A new resistor can be installed in 15-30 minutes.
- Substantially lower pressure drop than competitive units—as much as two-to-one—lets Econoloads be used without dedicated pumps in low-pressure environments (e.g. atop mountains and tall structures, as additions to existing water-cooled systems, etc.).
- Large selection of power levels avoids paying for unwanted capacity.
- All models available for line-mounting, or completely assembled with controls on a dolly for convenience in handling.

Call for prices. 1-800-54-RADIO

Model 43 THRULINE® RF Directional Wattmeters

50 ohms nominal

Range: 100mW to 10,000W

Affectively referred to by radio engineers around the world as "The Bird," the low-cost Model 43 THRULINE Directional Wattmeter has an unequalled history of reliability, durability and flexibility. Its in-the-field service record spans nearly three decades.

"The Bird" is a thoroughly engineered, portable, insertion-type instrument designed to measure both forward and reflected CW power in coaxial transmission lines. It gives accurate RF power flow readings under any load conditions.

The Model 43 THRULINE Wattmeter is comprised of a line section and a direct-reading 3 scale meter housed in a rugged, corrosion-resistant aluminum case. QC (Quick Change) Type Connectors and a full range of Plug-In measuring elements (ordered separately now or later to meet your existing needs) give "The Bird" amazing flexibility and adaptability. Two extra elements can be stored in the housing, one on each side. The Model 43 is easy to use and simple to service in the field.

Call for prices. 1-800-54-RADIO

460 Series THRULINE RF Directional Wattmeters

50 ohms nominal

Each Bird High Power Rigid Line THRULINE® RF Directional Wattmeter is comprised of a Line Section and a direct reading 3 scale meter housed in a convenient carrying case. Measuring Element(s) are ordered separately.

Call for prices. 1-800-54-RADIO

BROADCAST ELECTRONICS



MODEL 2100RPS. Stereo record/playback.

Series 3200

Series 2100 Tape Cartridge Machines

- Top Quality at an Economical Price
- Accepts A, B or C size Carts
- Two Cue Tones Standard (1 kHz and 150 Hz)
- Exclusive Mono/Stereo Switching
- Direct Drive Transport
- Modular Construction
- Quality Nortronics Heads
- New Phase Lok IV Head Assembly
- Low Voltage Air Damped Solenoid
- 1/2 Inch Aluminum Deck

Broadcast Electronics' 2100 family of tape cartridge machines combines versatile operation, quality components and top specifications, all at an economical price. There's more value in the 2100 series than ever found before in any professional cart machine. The combination of advanced engineering design and Broadcast Electronics' cost saving production methods produces a cart machine with double value for the most quality minded users and for those who can now afford the best.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
2100P	\$1125.00	\$1118.25	\$1035.00
2100RP	1725.00	1714.65	1587.00
2100RPS	2025.00	2012.85	1863.00

Series 3200

Series 3200 machines have all the standard features: a direct-drive hysteresis synchronous motor, an air damped solenoid with excellent reserve capability, and a 1/2-inch thick machined aluminum deck. In addition, these machines are loaded with exclusives: the Phase Lok III head bracket; low voltage solenoid switching; advanced integrated circuit/solid-state design with exceptionally wide dynamic operating ranges; long life Nortronics. Duracore® heads; and an outstanding set of performance specifications.

Available Options

Secondary and Tertiary Cue Tones—Options include front panel indicator switches, oscillators (record models) and detectors for 150 Hz and 8 kHz tones; contact closures are provided for external control.

Manual Fast Forward—Spring loaded front panel switch, when pressed advances the tape at 3x normal speed to next cue tone.

Automatic/Manual Fast Forward (includes secondary and tertiary cue tones)—In automatic operation machine detects end-of-message (150 Hz) cue tone and automatically advances at 3x normal speed to next cue tone (audio is muted during advance). Manual Operation, as described above, is included in this option.

Remote Control Unit—Five models available: offers duplication of essential front panel functions.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
3200 RPS	\$2525.00	\$2509.85	\$2323.00



Dual-Channel, Stereo Outputs Model 10S350



Deluxe 8-Mixer Dual-Channel Stereo (with mono-channel option) Model 8S250



5-Mixer Dual-Channel Mono Model 5M150

350 Series Audio Consoles

10 Mixing Channels. Vertical conductive plastic attenuators. Quiet, contactless FET bus selection. Built-in intercom. 22 inputs. Low level balanced microphone or line level input selection. Field-proven 3600 Series, plug-in modular electronics. Multi-channel muting. Superb audio performance.

Front panel graphics are under a laminated polycarbonate overlay for maximum durability. Stylized control knobs.

A vertical fader console at rotary-fader prices. Elegant appearance.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
10M350	\$4050.00	\$4025.70	\$3726.00
10S350	5250.00	5218.50	4830.00

Deluxe 250 Series Rotary-Mixer Consoles

Featuring ladder-type maintainable step attenuators with cue bus switching, telephone-type channel keys and contact-free FET bus selection. Separate monitor, headphone and cue channels. Field proven 3600 Series modular plug-in electronics. Two-input pushbutton preselection and microphone or high level capability for each mixing channel. Mono/stereo mode switching optional on stereo models. Front panel graphics are under a laminated polycarbonate overlay for maximum durability.

MODEL NC.	LIST PRICE	BILLED PRICE	CASH PRICE
8S250	\$4650.00	\$4622.10	\$4278.00
5S250	3550.00	3528.70	3266.00
8M250	3595.00	3573.00	3307.40
5M250	2695.00	2678.83	2479.40

BROADCAST ELECTRONICS cont.

150 Series Rotary Mixer Consoles

Mixing controls are of sealed potentiometer, high-reliability, long-life design, each equipped with cue bus switches. The 150 Series features contact-free FET bus selection and field-proven 3600 Series plug-in modular electronics. Each mixing channel accommodates two pushbutton-selected inputs, and may be preset for either microphone or high-level service. Mono/stereo mode switching optional on stereo models. Monitor, headphone and cue amplifiers insure full-monitoring capability. Professional performance at a reasonable price insures the broadcaster of a console tailored to his needs. Front panel graphics are under a laminated polycarbonate overlay for maximum durability.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
8S150	\$3550.00	\$3528.70	\$3266.00
5S150	2850.00	2832.00	2622.00
8M150	2795.00	2778.23	2571.40
5M150	2295.00	2281.23	2111.40

Professional Quality Deck Machines

The Model 5300B: This top of the line professional three deck cartridge machine features all solid-state integrated circuits, a direct-drive hysteresis synchronous motor, quiet air damped solenoid and a one-half inch thick machined aluminum decks.

Every Model 5300 B machine incorporates the Phase Lok IV head bracket with totally independent azimuth setting and top quality long life heads for superb response and performance.

Features unique to this multi-deck design are plug-in decks, all ribbon cable wiring and rear panel LED service aids. Run lights are adjacent to each deck.

Model Description

5301B	Mono Playback (A & B Size)
5302B	Mono Playback (A & B Size) with Cue Tones
5303B	Stereo Playback (A & B Size)
5304B	Stereo Playback (A & B Size) with Cue Tones

The Model 5500 5-deck machine incorporates the latest design features: solid-state/integrated circuit design, dependable direct-drive hysteresis synchronous motor, solid-state, low-voltage solenoid switching, and the unique Phase Lok III head bracket. It is available for monaural or stereo and for NAB or IEC/CCIR equalization.

A choice of options allows the broadcaster to customize his unit to his specific needs in mono or stereo, with or without cue tones. The cue tone option package includes the 150 Hz and a 8 kHz sensors for sequential switching or other cueing assignments in addition to the 1 kHz stop tone provided on each machine.

Model Description

5501	Mono Playback
5502	Mono Playback with cue tones
5503	Stereo Playback
5504	Stereo Playback with cue tones

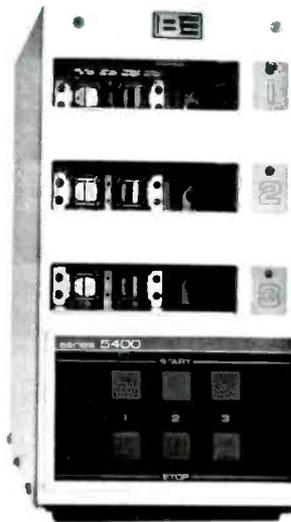
The Model 5400 3-deck is designed for the purist. Clean sound is because of the low wow and flutter from the direct drive synchronous motor, the 52 dB stereo S/N, the Phase Lok IV head bracket for optimum stereo phasing and the solid 1/2 inch aluminum precision machined deck for stable cartridge positioning.

The new Model 5400 three-deck machine is a meld of ruggedness, reliability and outstanding performance. Inside this new three deck, construction follows the rugged mechanical design acclaimed by thousands of users of the field proven Model 5300B. Access to electronics and mechanical assemblies is superb. Plug-in decks and PC cards make maintenance and servicing a snap.

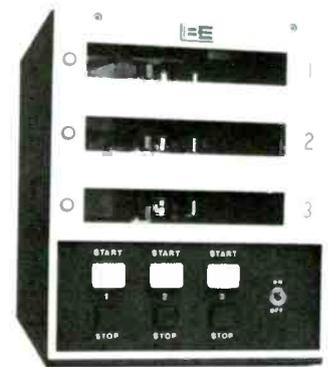
Clean and practical design attention has produced the coolest running, best sounding, multideck cart tape equipment you can buy today. And, the trim line design permits three machines to be rack mounted side-by-side.

Model	Description
5401	Mono Playback
5402	Mono Playback with Cue Tones
5403	Stereo Playback
5404	Stereo Playback with Cue Tones

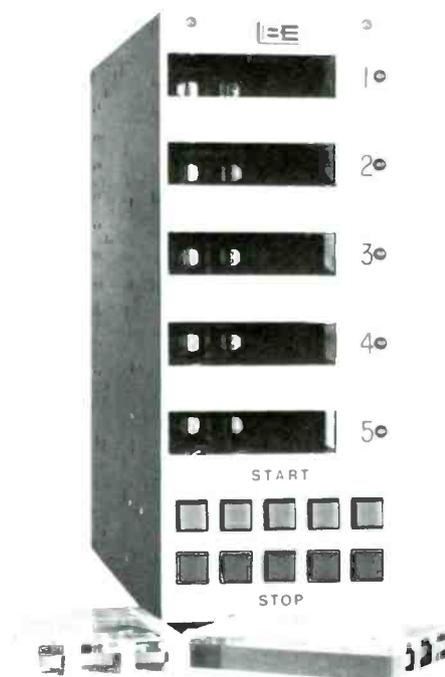
MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
5501	\$4050.00	\$4025.70	\$3726.00
5502	4250.00	4230.00	3995.00
5503	4650.00	4622.10	4278.00
5504	4850.00	4828.18	4559.00
5401	\$3100.00	\$3081.40	\$2852.00
5402	3300.00	3280.20	3036.00
5403	3700.00	3677.80	3404.00
5404	3900.00	3876.60	3588.00



Model 5400



Model 5300B



Model 5500

BROADCAST ELECTRONICS cont.



FM-3.5A

FM-30

FM-30, One Tube 10-30 kW FM Transmitter

Features

- *Folded half-wave output cavity—no plate blocking capacitor or sliding contacts
- Advance digital control system provides 37 status and diagnostic indications
- Thirteen meters including 4 multi-function meters
- Synthesized FX-30 exciter with extremely low distortion
- Conservative 30kW output
- High efficiency for low operating cost
- Elegant styling
- FCC type accepted
- Canada DOC approval No. 131-531-138

* Patented

The Model FM-30 Transmitter—The single-tube FM-30 incorporates a unique *folded half-wave cavity power amplifier design, digitally programmed FX-30 ultra-linear exciter and an advanced digital control system.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FM-30	\$61,950.00	\$61,671.00	\$58,233.00

FM-3.5A, One Tube 3500 Watt FM Transmitter

Features

- One tube transmitter
- *Folded half-wave output cavity—no plate blocking capacitor or sliding contacts
- Broadband input matching network
- Solid state broadband IPA
- Advanced digital control system
- Optional microprocessor diagnostics
- Synthesized BE FX-30 exciter
- Automatic Power Control with Proportional VSWR Foldback
- Extensive metering, 10 meters

* Patented

The single tube model FM-3.5A incorporates a unique patented folded half-wave cavity power amplifier, digitally programmed FX-30 ultra linear exciter and a second generation digital control system. A new automatic power control system (APC), a simplified input circuit, and a computer optimized coaxial cavity set new standards of dependability. With the FM-3.5A, Broadcast Electronics has produced a transmitter for optimum reliability and superb FM performance.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FM-3.5A	\$27,950.00	\$27,824.00	\$26,273.00

BROADCASTER BRAND

Cart Labels

Color Coded, Typewriter Compatible

Many stations color code their carts using our Broadcaster Brand cart label system. Red means Commercial, Blue—Jingle, Green—PSA, Black—Promo, Orange—Format, Yellow—Special.

The Broadcaster Brand labels peel off gently, stick where they should and come off leaving no residue on the cart.

Note: New! 7th style of cart labels—pure white. Many stations asked us for a cart label on which you have more room to type—so we now introduce a 7th color—white (absence of color).

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Cart Labels	\$12.00	\$10.00	\$9.00

Cartimer

Timer also shows machine function status

Cartridge or reel-to-reel machine timing to produce commercials can quickly be read in large .7-inch red LED display. Can remotely start your recorder. A series of self-contained lamps may easily be wired to display machine status of several functions. Momentary pushbutton switch "reset" brings display to 0:00 at any time it is pushed. Times up to 9:59 minutes. Satisfaction unconditionally guaranteed.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Cartimer	\$169.00	\$159.25	\$153.40

Racks for Audio Cassettes

Each rack is made of sturdy wood products and hand assembled. Quality is guaranteed in every cabinet shipped. Four columns hold 24 each for total of 96 cassettes. Our part #CASS-RK-96.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Racks	\$55.00	\$47.56	\$43.10

Copy-Holder

with Lexan Plastic

Least expensive in the field is the add-a-shelf concept Broadcaster Brand copyholder. Sturdy birch wood plank has special slit milled into wood so unbreakable Lexan sheet slips into groove and tilts at an angle to correctly support your copy book. Sits atop any console. Held firmly in place by two strips of 3M thick dual-stick tape. Easily installed in seconds. Design incorporates two holes on either side drilled for standard pencil width. When pencil is in place, pages from copy book are prevented from turning. Satisfaction unconditionally guaranteed.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Copyholder	\$39.00	\$35.00	\$32.64

Edit-Marker

The pencil that writes on recording tape

Developed by Broadcaster Brand for the radio production room. Special formulated wax shows up as white slash on recording tape at a position of the edit. The product was developed for us by BEROL—the largest USA manufacturer of marking pencils on special surfaces. Convenient unit packages of 2-4-6 and a dozen Edit-Markers.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
1 doz. Edit-Markers	\$15.00	\$12.50	\$11.00

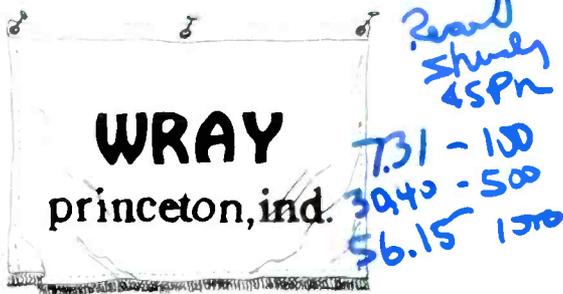
BROADCASTER BRAND cont.



All Weather High Voltage Signs

One of our largest sellers over the years has been this aluminum baked enamel 3-color "Danger—High Voltage" sign. White background sets off the red word "Danger." "High Voltage" is in back. Three sizes are stocked.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
7"x10" Sign	\$8.80	\$6.97	\$5.88



Banner for Stations

Across the basketball court . . . you see our famous Broadcaster Brand radio station banners on television. We design it around your station logo. Send us your logo and the size you would prefer and we will get back to you with costs. Allow 10 days for quote, six weeks for delivery. Satisfaction unconditionally guaranteed. Made of quality materials, superior workmanship, will last for years.

Call for prices. 1-800-54-RADIO

Microphone Mount

Excellent, emergency fast-mount mic mount system . . .

If you've been looking for a way to mount a microphone ANYWHERE, here's exactly what you need! The Broadcaster Brand "Mike-it-kit"!!! Use it on podiums, tabletops, even other mike stands—in the control room, production room, or newsroom. It's perfect for any temporary or permanent miking job!

You get a precision-tooled clamp with adjustable 360-degree swivel head and a 13-inch gooseneck that will fit all commonly used mikes. All you have to do is tighten one extra-large wingnut on the clamp . . . and it's on!! No tools needed.

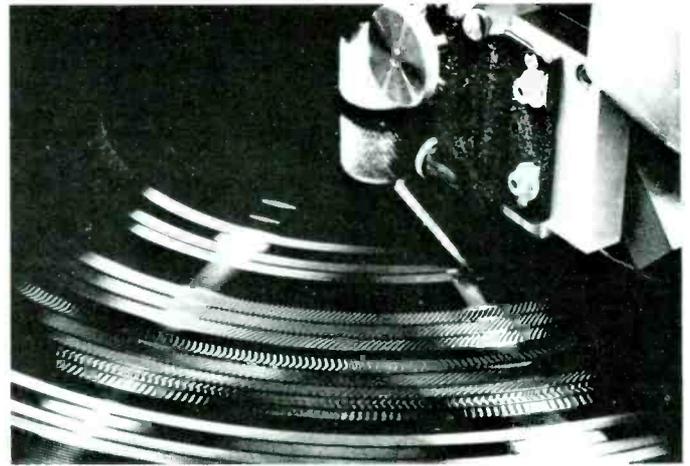
If you buy the complete kit, the gooseneck is only about \$4. It makes the mic mount so much more versatile—you'll be glad you took us up the kit offer. The mount is available separately.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Microphone Mount	\$26.20	\$23.65	\$22.12

Long Handled Wood Swabs for cleaning recording heads

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SWAB-PK1000	\$12.50	\$10.36	\$9.08

CBS



Professional Test Records

CBS Laboratories Technical Series Professional Test Records are unique, high-precision tools designed to assist audio and quality control engineers and test and service technicians in the rapid evaluation of audio components, equipment and systems. Each record has a complete series of tests, which eliminates the need for equipment, saves hours of time, and makes it a productive tool in the laboratory, on the production line, and in field testing.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
STR-151	\$25.00	\$18.00	\$15.20

CELWAVE



Rigid Coaxial Transmission Lines and FM Broadcast Antennas

Celwave offers a full line of circularly and horizontally polarized FM antennas. The low-power units employ 1 1/8 inch feedline. The high-power units use 3 1/8 inch line. Each of the radiators is constructed of 1 1/8 inch thickwalled copper tubing with spherical ends which eliminate corona problems. The radiator centers of both the horizontal and vertical components are identical, resulting in the phase coincidence essential for true circular polarization. The stainless steel deicers are removable and designed for long life. All antennas are shipped complete and ready to attach to your tower.

Call for prices. 1-800-54-RADIO

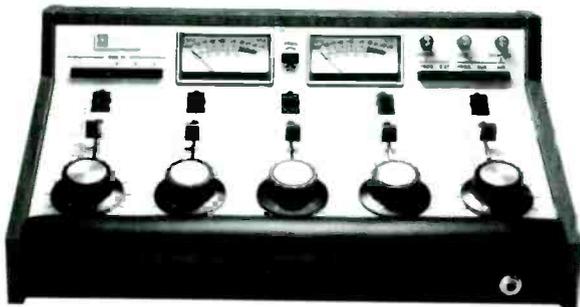
CENTURY

Budget Cassettes

An inexpensive and serviceable cassette where economy is the prime factor. The need for tape material of all kinds is never ending. Century fills an important requirement for the broadcaster at an affordable price.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
C120-PK100	\$175.00	\$168.30	\$148.20
C20-PK100	66.00	64.30	59.20
C30-PK100	68.00	66.50	62.00
C45-Pk100	77.00	75.10	69.40
C60-PK100	81.00	78.90	72.60
C90-PK100	102.00	99.60	92.40

CETEC



The Cetec 2000 5-mixer console is available in mono and stereo.

2000 Series Broadcast Consoles

The Cetec 2000 series consoles offer broadcasts three advantages: performance, reliability and price. They are ready to go to work right out of the box. There are no extras in the fine print that add up to your cost. Monitor amps and muting relays are built in, so are headphone amps, cue amp and in the 8 channel model, a talkback system. Check the features and the price; you'll find that Cetec consoles can save you as much as \$500 over the competition.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
2002	\$2700.00	\$2578.50	\$2430.00

COMPUTEMP



Computemp

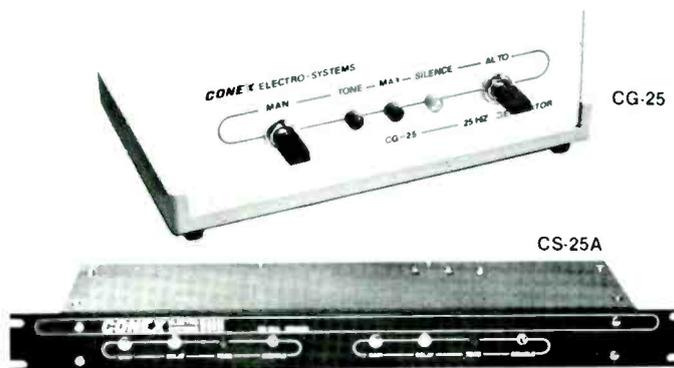
Time & Temp

This remarkable table top control center can randomly flash information at your main control operator or newsmen. It shows time of day, temperature indoor and out. It can be programmed to tell your announcer the time the low and high of that day

were reached. Large, bright LED digital readout exceeds one-inch in height. Functions can be programmed to flash in random order. Temperatures can be displayed in either Fahrenheit or Celsius.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
TEMP GAUGE	\$72.95	\$65.77	\$60.98
100F CABLE	15.00	12.70	11.17

CONEX



Models CG-25 and CG-25A Electro Systems

The CONEX CG-25 tone generator provides a simple low cost method of recording tapes for automation.

CS-25A is a compact and reliable bridging-type 25 HZ tone sensor for use in broadcast automation and tape control systems. The unit features two independent sensors, allowing very economical expansion of existing systems.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
CG-25	\$350.00	\$341.25	\$328.13
CS-25A	395.00	387.10	375.25

CRL



SCA 300 System

This unit was specifically designed to solve the problems associated with older SCA equipment. The result is a state of the art unit that brings a new quality to SCA signals. Using the new CRL unit, a station would gain increased coverage without increasing injection levels; improved protection of the main channel signal, increased stability of the whole subcarrier operation, and greatly improved fidelity and intelligibility. Replacing existing equipment with the SCA 300 will result in a dramatic improvement in quality.

This integrated SCA system includes audio processing, low distortion crystal controlled oscillator, non-overshooting low pass filters, pre-emphasis and a DC coupled data input port.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SCA 300	\$1500.00	\$1455.00	\$1410.00

CRL cont.



Circuit Research Labs

CRL knows that your business is selling sound, and the station with the best sound will have the edge on its competition. With the CRL system, you can buy only as much processing as you want—one unit, or a complete system.

AM-2 (MONO)	FM-2 (STEREO)
AM-2 (STEREO)	FM-4 (STEREO)
AM-4 (MONO)	TV-2 (MONO)
AM-4 (STEREO)	SCA-2 (MONO)

The CRL AM-4 system deserves the attention of every AM station owner or manager. Give us a call or see the CRL section of the Green Book for the complete CRL story.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
AM-2 (Mono)	\$2,200.00	\$2,134.00	\$2,068.00
AM-2 (Stereo)	3,700.00	3,589.00	3,478.00
AM-4 (Mono)	3,450.00	3,346.00	3,243.00
AM-4 (Stereo)	6,400.00	6,208.00	6,016.00



SG 800 Stereo Generator

Now the finest stereo processor in the country has a stereo generator to match. This latest addition to our product line offers outstanding performance at a modest price. It is the first stereo generator **designed** to handle highly processed audio.

The SG800 has outstanding specs. One of the reasons is CRL's exclusive Balanced Modulator design. This allows ultralinear modulation of the 38-kHz subcarrier, while maintaining a precision digital phase lock with the pilot to prevent any frequency drift.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SG-800	\$1450.00	\$1406.50	\$1363.00

CRONUS

LCD Professional Series

When a product has a full 5 year warranty, you know it has been built to exceptional standards. Only the Cronus LCD Professional Series offers such a warranty. The Professional Series will give you years of dependable timing with features not found on other stopwatches.

These include:

- Low Battery Indicator—to warn you "before" your batteries fail.
- Safety Reset—to save you from accidental error.
- Single Action Logic® —so that you can take successive splits with "Single" presses of the control.
- Optional Wriststrap—so you can wear it like a wristwatch.

With watertight construction and a large-sized display, the Cronus Professionals are the superior choice.



LC-S



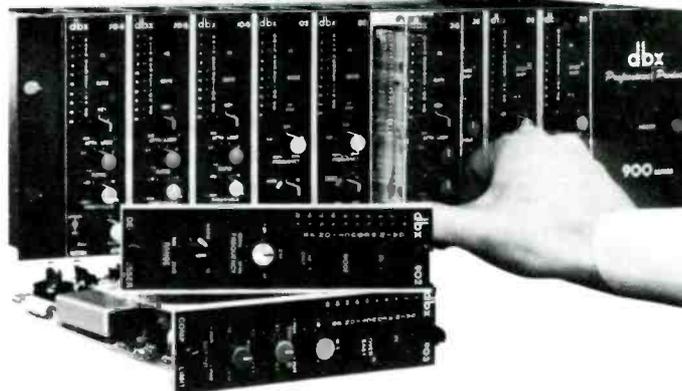
LC-ST

LC-S—Single Action Logic® makes this the best stopwatch for taking cumulative SPLITS. Also has 1-2 finish and time-out capabilities.

LC-ST—With all the features of the LC-S, you can also take individual Lap (Taylor) splits or cumulative splits.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
LC-S	\$39.95	\$33.93	\$31.35
LC-ST	44.95	38.14	35.23

DBX



900 Series Modular Signal Processing System

Today signal processing plays a greater role in sound production than ever before, both in the studio and on the road. As a result, rack space is at a premium. Innovation packaging eliminates redundant power supplies, simplifies interconnects, and saves space. With this in mind, dbx has created the 900 Series Modular Signal Processing System.

The dbx 900 Series features convenience with flexibility. You can fit up to 8 sophisticated signal processing modules into a rackmount unit measuring just 5 1/4" high. Each 900 Series module represents a step forward in state-of-the-art technology. Installation is quick and easy to accomplish. Standard connectors enable you to wire the rack into your system like any other component. The interchangeable signal processing modules slip in and out in seconds.

The dbx 900 Series is the ultimate in flexibility. These modules place at fingertip control creative tools to express your unique sense of artistry in sound production.

Call for prices. 1-800-54-RADIO

DELTA

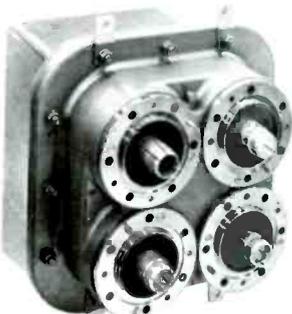


RG-4 Receiver/Generator

Delta Electronics Model RG-4 Receiver/Generator couples precision with reliable performance, providing an indispensable piece of test gear for broadcast and consulting engineers. An RF signal generator to excite the impedance bridge and a sensitive receiver for external null detection are housed in a single rugged case. With an OIP-1, 2 or 3, the RG-4 forms a portable impedance measuring system.

Convenient size and efficient power supply alternatives extend RG-4 utility for on-site testing. The Gel-Cell battery pack for portable operation yields four hours operating time from a full charge. A separate AC line-powered supply permits continued operation while the battery charger restores the Gel-Cells to full charge. Automatic switching to a trickle charge mode maintains the full charge without damage to the batteries.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RG-4	\$5095.00		



Model 6740B/6742B
3 1/8" Coaxial Transfer Switch



Model 6730E/6732E
1 1/8" Coaxial Transfer Switch



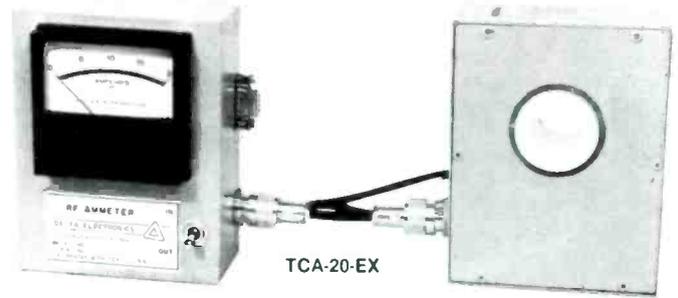
Model 33630A
Coaxial Switch Control Panel

Coaxial Transfer Switch

The manually or remotely operated Coaxial Transfer Switches are designed to change coaxial connections with a minimum of changeover or off-air-time. They can switch pairs of transmission lines in less than two seconds.

Transfer switches are used to switch transmitters, transmission lines, antennas, dummy loads and auxiliary equipment quickly and efficiently when failures occur, when operating procedure is changed, or during scheduled maintenance periods. They also simplify equipment tuning, testing, and emergency repairs by facilitating quick checks under actual operating conditions.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
6730E/6732E	\$1600.00		
33630A	520.00		
6740B/6742B	3900.00		



TCA-20-EX

RF Ammeter Systems

The TCA-EX and TCA-XM series of RF Ammeters include a wide variety of scales, scale combinations, and optional features, all of which are uniquely defined in the model numbering system.

TCA-N-EX. This model is a single-scale meter with external output. The system consists of a current transformer; a six-foot coaxial cable; and a meter box housing the meter movement, rectifier circuitry, and external output connector. The external output can be used in conjunction with a series 10K-ohm potentiometer connected to a second meter to provide for "remote metering." The external output may also be used to drive automatic logging, remote control, or ATS equipment. A two-position toggle switch mounted on the front of the meter box turns the circuit on and off, and when switched off, effectively protects the rectifier circuit against lightning damage. A spring-loaded, momentary contact toggle switch is also available to prevent leaving the ammeter in the "on" position. The "N" designation represents the full-scale current value, and the following models and current ranges are available:

Model	Current Range
TCA-5-EX	1 to 5 Amperes
TCA-10-EX	2 to 10 Amperes
TCA-20-EX	4 to 20 Amperes
TCA-40-EX	8 to 40 Amperes
TCA-80-EX	16 to 80 Amperes

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
TCA-20-Ex	\$450.00		



OIB-1

Operating Impedance Bridges

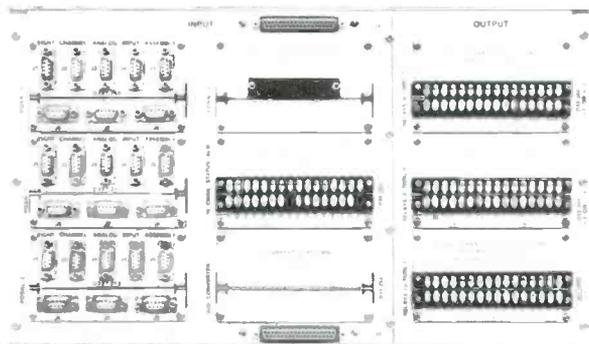
The Model OIB-1 Operating Impedance Bridge measures the operating impedance of the individual radiators, networks, transmission line sections, and common point of directional antenna systems *while they are functioning under normal power*. This "operating impedance" cannot be measured by usual impedance bridge methods because the system characteristics are disrupted when the bridge is inserted in the circuit. The OIB-1 thus satisfies a critical requirement long felt by consulting and broadcast station engineers. In addition it has many applications in other fields that cannot be duplicated by any other instrument.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
OIB-1	\$1760.00		
OIB-3	2400.00		

DELTA cont.



Front



Back

RCV-IV Remote Control System

Delta Electronics has developed a new Remote Control/ATS[®] System intended primarily for unattended monitoring and control of standard broadcast, FM, and TV stations.

Delta Electronics RCS-IV Remote Control System provides radio and TV broadcast studio personnel with constant monitoring and control of unattended transmitter facilities. The system offers:

- Continuous video display of digital readings and equipment status indicators
- Automatic update of channel readings and status
- Highlighted out-of-tolerance and alarm flags
- User-designated screen format
- A number of system options including autologging, telephone access with voice synthesizer, and modulation bargraph display.

The system can be thought of (without regard, just now, to physical packaging) as three basic components: (1) a human interface, where the operator receives information from, and gives commands to, the system; (2) a machine interface, where the system receives information from the station's equipment and controls elements of that equipment; and (3) a micro-processor logic system that converts the information from the station equipment to the most usable form for the operator and converts the commands of the operator to control station equipment.

Call for prices. 1-800-54-RADIO

DICTAPHONE



Series 5600k Professional Voice Communications Recording System

There are now two different types of Dictaphone loggers. The 5600 series is available in three different configurations—one channel-four pass, two channel-two pass, and four channel-one pass. The system may be single or dual transport. Optional features include AGC, start timer, voice activation, and time code generator/reader.

The 5000 series is far more versatile, enabling up to 40 channels of simultaneous logging. All options of the 5600 series are available on the 5000. An additional feature option of the 5000 is the high speed search (700X normal speed) of exact time of day and date. This is particularly useful for location of a specific event rapidly, such as commercial matter on a verified log. The 5000 also features "Safe-Scan" which continuously verifies proper operation of all system channels. Also featured are cassette recording output and emergency standby internal power supply.

Call for prices. 1-800-54-RADIO

DORROUGH



Discriminate Audio Processor

The Discriminate Audio Processor Model 610 is a digital controlled tri-band audio processor. A maximum of three channels has proved to be the most colorless and least modifying of program material. The use of gain reduction independently in the three channels eliminates the typical restrictions heard on single channel devices. It is the intention of this device by virtue of the three bands not to doctor or modify the average or peak of the program content in any way that would be offensive to the ear.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
610	\$3900.00	\$3861.00	\$3744.00

DUROTEST



Obstruction

Code Beacon

Tower Lighting

620 Watts clear is the best buy for the money due to the guaranteed 4500 hours life. 700-Watt duxex is guaranteed 7500-hours and is further protected with a hard glass surface called Duxex. Obstruction lamps or side lights are in packages of 3-or-6. They have a 7500-hour guarantee. Let's face it, no matter what the guarantee, the hassle is getting a tower climber to come relamp. That's why we selected Durotest product because after severe testing under the most stringent of all conditions, we found it to be the highest quality for the best price.

Call for prices. 1-800-54-RADIO

EDITALL

Tape Slicing

EDITALL-EDITAB, Changing the way broadcaster think of splicing

A man named Joel Tall invented a method of crimping recording tape so that when placed in an aluminum slit, the tape sits up at an angle that promotes a clean slice with a single edged razor blade. S2-block, best buy for the money is 4-inches long, S3 is 5. He went a little further, making life a little easier for you. Joel Tall felt you deserved a quick pre-cut tab of splicing tape in a self peel form, easily zipped on the splice. He called it Editab. If an opportunity to test this 20th century way of editing has not presented itself, do your self a favor. Next time you need splicing tape, get a kit of 50-EDITABS instead.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
S-2 Block Block—4" Long	\$22.00	\$18.10	\$16.14
S-3 Splice Block—5" Long	30.00	24.48	21.72
EDITABS PK-1000	27.00	21.56	19.38

ELECTROVOICE

RE10 Microphone

A fine, moderate-cost microphone for sound reinforcement, broadcasting, choir pickup and stage work. The RE10 is similar in design to the RE15, but meets requirements where somewhat more unit-to-unit variability is acceptable. It has effective directional control, little off-axis coloration, greatest rejection of unwanted sounds at 150° off axis and a bass roll-off switch. Use with 411 "mike mouse" for phase-interference-free stage pickup.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RE10	\$177.85	\$151.17	\$143.46



RE11

RE11 Microphone

An excellent microphone for broadcast and quality sound reinforcement, the RE11 is a modestly priced unit with many of the features of the RE16 but where the most precise unit-to-unit matching is not necessary. It has a built-in blast filter, Memraflex grille screen, a high degree of directional control, little off-axis coloration, the greatest rejection of unwanted sounds at 150° off axis and a bass roll-off switch.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RE11	\$190.00	\$161.49	\$153.26

RE15 Microphone

Literally born in a Hollywood TV studio, the performance and reliability of the RE15 have made it the workhorse directional microphone for broadcast and high-quality sound reinforcement. Two nulls at 150° off axis provide greater average rejection over the microphone's rear hemisphere than a traditional single-null cardioid pattern, particularly useful on the boom and in many on-stage and recording studio applications. Frequency response is unusually independent of the angular location of sound. Essentially flat frequency response in the 150-15,000 Hz range preserves the essential character of most sound sources, while a rolled response below 150 Hz (-10 dB at 50 Hz) eliminates the detrimental effects of common low-frequency noise. Use with the optional 411 floor-mount "mike mouse" for excellent on-stage pickup. The Memraflex grille screen resists denting.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RE15	\$267.00	\$226.95	\$215.38

ELECTROVOICE cont.



RE16



RE20



RE34

RE30



635A

RE16 Microphone

The RE16 has a different blast filter that makes possible the closest hand-held use without any "P-pops." The RE16 is rugged has a mechanically "nested" design and is highly resistant to damage. Uniform response, independent of the angular location of sound, and super-cardioid rejection of unwanted sounds at 150 degrees off axis pickup. It has a "hum-buck" coil to reduce hum an extra 25 dB, a bass roll-off switch, and a Memraflex grille screen to retain its shape.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RE16	\$280.00	\$237.99	\$225.86

RE18 Microphone

The RE18 is a direct descendant of the popular RE15 and RE16 microphones. While maintaining the accurate frequency response characteristics and super-cardioid polar pattern of the RE15, the RE18 has added an integral shock mount for even

better performance. The superb shock isolation sharply reduces handling and cord noise, and in sound reinforcement systems effectively silences the transmission of mechanical stand and lectern noises. A refined, low-profile blast filter makes possible close hand-held use with a reduction of "P-pops." The Memraflex grille screen resists dents and keeps its shape. A "hum-buck" coil rejects hum in the presence of heavy alternating magnetic fields from stage lighting and power transformers. The silver tone beige finish is perfect for on camera use in TV.

Unlike "multi-port" directional microphones, E-V's exclusive Variable-D design insures uniform frequency response at all angles for uncolored off-axis pickup. The super-cardioid polar response of the RE18 rejects more random unwanted noise than the standard cardioid pattern. Two nulls, each at 150° off axis instead of one at 180° off axis, make the RE18 superb for those applications where high ambient noise rejection is mandatory. An additional advantage of the Variable-D design is the absence of bass-boosting proximity effect for those situations where frequency response needs to be uniform regardless of the mike-to-sound-source working distance.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RE18	\$291.00	\$247.35	\$234.74

RE20 Microphone

The RE20 was created especially for critical recording, broadcast, and sound reinforcement applications which require response that extends to the frequency extremes. Combined with a subtle elevation of response in the 5,000 to 15,000 Hz range, the RE20 provides performance heretofore available only from the most expensive condenser microphones.

The sound of the RE20 has made it one of the world coveted, unique microphones in the world. The RE20 has become a recording studio standard in Japan and the microphone of choice for many eminent vocalists throughout the world.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RE20	\$515.00	\$422.30	\$395.52

RE30/34 Microphones

The unique RE30 and RE34 microphones were engineered specifically for electronic news gathering (ENG) and electronic field productio (EFP). The products of several years of research into the unique requirements of ENG/EFP, these microphones incorporate features never before available in any microphone.

The RE30 is an omnidirectional microphone with carefully tailored frequency response extending from 40 to 15,000 Hz. It is finished in a rugged non-reflective black.

The RE34 is a cardioid microphone with an exceptional front-to-back ratio and frequency response from 40 to 15,000 Hz.

Except for pickup pattern, both the RE30 and RE34 offer the same unique features.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RE30	\$400.00	\$340.00	\$322.67
RE34	\$400.00	\$340.00	\$322.67

635A Microphone

The 635A is quite simply the most rugged, durable microphone we manufacture. The 635A's moderately high output level (-55 dB) is appropriate for a broad range of studio and field applications. Its response has been specially shaped for up-close vocals. A slow roll-off below 200 Hz (-8 dB at 50 Hz) with a broad rise of several dB from 2,000-12,000 Hz results in bright yet natural vocal quality without the low-frequency noise pickup problems that can plague microphones with flat low-frequency response.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
635A	\$103.00	\$84.46	\$79.10

ELECTROVOICE cont.



CO90 Microphone

The CO90 is a miniature omnidirectional electret condenser microphone and is perfect for today's broadcasting and wide-range sound reinforcement system. It was designed to be worn as a lavalier using the tie clasp bar which is included with the microphone. A windscreen is also supplied to help minimize wind sound in remote applications.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
C090	\$150.00	\$127.50	\$121.00



ELX-1 Mixer

The Electro-Voice ELX-1 Microphone Mixer packs the features you've asked for in a "friendly" format that's easy to use. In the studio or on the scene, the ELX-1 delivers the same exceptional performance that has made EV equipment the standard of the broadcast industry.

With optional mounting brackets, the ELX-1 fits in a standard equipment rack and provides more performance options than you would think possible in 1.75 inches of space . . . more mixer in half the space of the competition.

The "news" on the ELX-1 is that it's small enough to pack almost anywhere and tough enough to take it. A truly portable mixer for ENG/EFP use, the ELX-1 "sports" an adjustable shoulder strap, a rugged, all-metal case and an ac line cord that detaches when not in use.

Transformerless balanced inputs offer exceptionally low distortion, while special filtering circuits provide superior RF rejection. Each input of the ELX-1 is equipped with a mic-line switch, phantom power for condenser microphone use (30-volts dc) and a switchable high-pass (low-cut) filter that reduces wind, handling and background noise. The switches used throughout the ELX-1 are high-quality, positive-action, push-button devices . . . no noisy, intermittent slide switches for this quiet performer.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ELX-1	\$515.00	\$437.75	\$415.43



Sentry 100EL



Sentry 100A

Sentry 100A for tight spaces

Just because your monitor space is limited, you don't have to compromise on sonic accuracy. The Sentry 100A is a compact, no-frills system that's ideal for restricted environments like mobile recording studios. It's the oldest member of the Sentry family and has become the industry standard of reliability.

The Sentry 100A delivers a flat 45-18,000 Hz frequency response with wide 120° dispersion at 5000 Hz. The Super-Dome™ tweeter handles a remarkable 25 watts of input power and is matched with an 8" direct radiator woofer in an optimally vented enclosure.

The Sentry 100A is designed for efficient set up and operation. With the optional SRB-7 rack mount kit, the monitor can be installed from the front of a standard EIA 19" rack. The front mounted high frequency control allows quick and easy boost and cut adjustment.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
100A	\$249.00	\$204.18	\$191.23

Sentry 100EL with an integral power amplifier

The Sentry 100EL combines the reproduction components of the Sentry 100A with an integral high-performance 50 watt power amplifier that's perfectly matched to the requirements of the speaker system. In addition to the practical benefits of conserving space and eliminating the need for a separate amplifier, the Sentry 100EL provides a power source ideally mated to the characteristics of the speaker system. There's no power loss from a connecting cable between the amplifier and speaker and the electrical damping of the system remains optimum in all installations. The amplifier power has been calculated to provide optimum acoustic levels while minimizing the possibility of speaker damage due to inadvertent signal overload.

The mated speaker/amplifier system of the Sentry 100EL provides additional versatility: The monitor may be driven from any line-level signal source. The high impedance bridging input design allows a number of systems to be interconnected—up to 16 units may be paralleled across an unbalanced 600-ohm line or 50 units across a balanced 600-ohm line.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
100EL	\$499.00	\$424.14	\$402.52

ELGIN

Telephone Recorder Equipment

Elgin manufactures various types of telephone recorder couplers and connectors formerly provided by your local telephone company. The EC-30A is the standard side-mount telephone coupler used for remote broadcasting over a dial line. The 19645-4 enables recording of broadcast of a 2-way phone conversation with audio leveling to bring both sides of the conversation to similar levels. The 20721-1 enables automatic answer and listening to a signal fed to the phone line. Many stations use this as a remote air check device. The 19522-21 is the recorder connector used in conjunction with an automatic recorded announcement.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
EC-30A	\$60.00	\$56.40	\$52.80

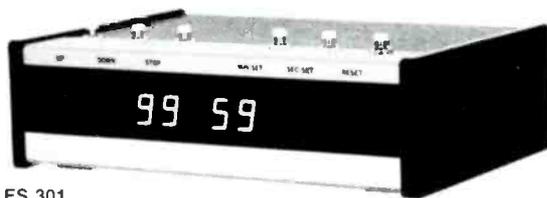
ESE



ES 112AL and ES 124AL Digital Clock

ES 112AL (12 hr.) and ES 124AL (24 hr.) are solid state, six digit clocks. Three simple controls make setting to the precise second easy. No moving parts. Silent seven segment tubes. Built to last a lifetime. Three setting controls: Fast Advance, Slow Advance, Hold. Can drive 80 Series and 90 Series slaves. Displays are incandescent filament, .6" high.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ES 112AL	\$173.00	\$166.50	\$157.00



ES 301



ES 302

ES 301E and ES 302E 100 Minute Up/Down Timers

ES 301E is a four-digit, one hundred minute timer (99:59) with six controls: Count Up, Count Down, Stop, Minutes Advance, Seconds Advance, Reset. Controls are single pole, momentary, push-button switches. Minutes and seconds can be advanced simultaneously or independently in order to pre-set for a specified count-down. This present time will be automatically held until the timer is started. Counting can be activated up or

down from that point or set back to zero. When "Stop" control is pressed, the four digit display is held. Counting direction (up or down) can be changed or time can be reset to zero without stopping the count. It will continue to register elapsed time beyond the zero setting unless stopped. The ES 301E can drive 80 Series and 90 Series Slaves. Displays are planar gas discharge, .55" high.

With the ES 302E, the user can preset times much faster than with the ES 301E, because lever-wheel type switches are used for the preset feature.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ES 301E	\$246.00	\$236.78	\$223.25
ES 302E	317.00	305.11	287.68



ES 510E Four Digit 60 Minute Timer

ES 510E is a four digit, sixty minute timer (59:59) with Start, Stop and Reset controls (Single pole, momentary pushbutton). Runs continuously unless stopped or reset. If stopped, display will hold time reading and when restarted will continue with next count from last displayed figure. Reset returns display to all zeros. Can reset while running or stopped. If reset while running, time will continue to run.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ES 510E	\$166.00	\$159.78	\$150.65



70 Series Console Mount Clocks and Timers

Compact enclosures, bright easy to read .3" red LED's and many features and options combined to make the 70 Series of clocks and timers a fitting addition to your console array. All units have access to control inputs on rear-mounted connector. Connect your own SPST momentary controls or specify option M or D.

ES 172 six digit, 12 hour clock: Three setting controls—Fast Advance, Slow Advance, and Hold. Four line multiplexed BCD is present on the rear connector. Options are C, D, J, M and V.

ES 370 four-digit, one hundred minute up/down timer: Six controls—Count Up, Count Down, Stop, Minutes Advance, Seconds Advance, Reset. Options are B, C, D, J, M, N, S, V, Y and Z.

ES 371 up/down timer: Similar to the ES 370 except with Leverwheel Preset capability for faster setting of the desired time. Option D is an integral, separately mounted part of this unit. Options are C, J, N, V, Y and Z.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ES172	\$166.00	\$159.78	\$150.65

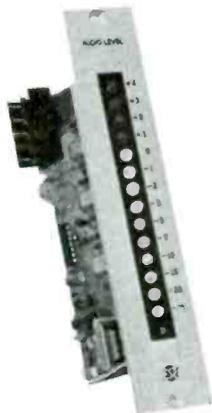
ESE cont.

ES 212 Hybrid Telephone Interface

Radio and television broadcasters encounter special problems when attempting to bridge telephone lines for broadcast purposes. When the broadcaster starts with a dial-up telephone line, how can he preserve any real quality? The ESE PHONE PATCH was designed over a period of 10 years, refined in the field. The special needs of broadcasters are met because the signal quality is unexcelled.

The ESE PHONE PATCH is not just another interface device. It is a quality broadcast instrument, fully compatible with the requirements of fine audio.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ES 212	\$995.00	\$980.00	\$965.00



ES 214 Dynamic Audio Level Indicator

The ES 214 is a highly accurate audio level indicator which is designed to stimulate the action of a conventional VU-Meter but with superior dynamic characteristics. The LED meter is five to one hundred times faster in responding to complex waveforms than the mechanical meter without sacrificing the familiar meter "movement". Operators will immediately be at home with the new volume display since its high degree of visibility catches the eye, even with its rapid response. Apparent loudness changes between voice and music can be smoothed out with the quicker LED meter from ESE. Short duration peaks are more accurately measured on the ES 214, enabling the operator to maintain more consistent levels.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ES 214	\$119.00	\$112.00	\$107.00

EVENTIDE



Model H949 Harmonizers

Eventide Harmonizers® are the best known, best selling digital effects in the industry. They are incredibly versatile, incorporating delay, pitch change and a variety of other features. Harmonizers can be used for "doubling" vocals, for delay equalization in sound reinforcement, and for many types of reverb/echo effects. They are an invaluable tool for recording studios, post-production facilities, broadcast studio and live performances.

This model is Eventide's top-of-the line Harmonizer. It is unbeatable in value and versatility. *Features: Pitch change: one octave, two down. Delay: two outputs each 393.75 ms. Frequency Response: 15kHz. Dynamic Range: 96 dB. Micro Pitch Change for extremely precise stable settings near unison. Two selectable algorithms to optimize pitch change performance. Also: Time reversal, Repeat, & Randomized Delay. Long Delay permits simulated reverb.*

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
H949	\$3500.00	\$3389.00	\$3267.00



Delay Lines

BD955 Broadcast Audio Delay Line

This unit was designed specifically for the policing of live talk shows. The BD955 replaces unreliable tape loop devices with solid state digital reliability. It is a RAM-based digital delay line available in two frequency ranges: 7.5 kHz (for reproduction of telephone audio) and 15 kHz (for quality reproduction of the full audio spectrum). There are three maximum delay times: 1.6, 3.2 or 6.4 seconds.

The BD955's unique "catch-up" feature automatically rebuilds the delay safety margin after objectionable material has been dumped, eliminating the need to fill time with a taped jingle or announcement. The BD955 doubles as a production effect tool, providing delay times ranging from 6.5 ms up to the unit's maximum.

Call for prices. 1-800-54-RADIO

FIDELIPAC

Dynamax™ Back-Lubricated Broadcast Tapes

Dynamax is totally new brand of brilliant audio tape formulated specifically for the broadcast professional.

Fidelipac manufactures Dynamax in Standard, HOLN and HOLN-DX (High-Output Low Noise-High Overload) tape. HOLN-DX is exclusive to Fidelipac.

With its base film of 1 mil Mylar™, Dynamax delivers the extremely high mechanical strength so vital when confronted by less-than-gentle cart machines. And the cross-linked urethane resin binder system guarantees you high technology's longest lasting tape. Tape so durable that oxide shedding is almost obsolete. For example, new Fidelipac cartridges last up to 10,000 plays when loaded with Dynamax tape.

LENGTH	LIST PRICE	BILLED PRICE	CASH PRICE
Model 300 (NAB Type A) Loaded with Dynamax Series 400 Standard Tape			
20 Second	4.58	3.34	3.03
40 Second	4.67	3.40	3.09
70 Second	4.76	3.48	3.16
90 Second	4.85	3.54	3.22
100 Second	4.95	3.61	3.28
2 Minute	5.15	3.75	3.40
2.5 Minute	5.25	3.83	3.48
3 Minute	5.37	3.92	3.56
3.5 Minute	5.51	4.02	3.64
4 Minute	5.61	4.09	3.71
4.5 Minute	5.76	4.19	3.80
5 Minute	5.94	4.30	3.89
5.5 Minute	6.11	4.41	3.98
7.5 Minute	6.47	4.70	4.26
8 Minute	6.59	4.78	4.33
10 Minute	6.98	5.08	4.61
10.5 Minute	7.10	5.17	4.69

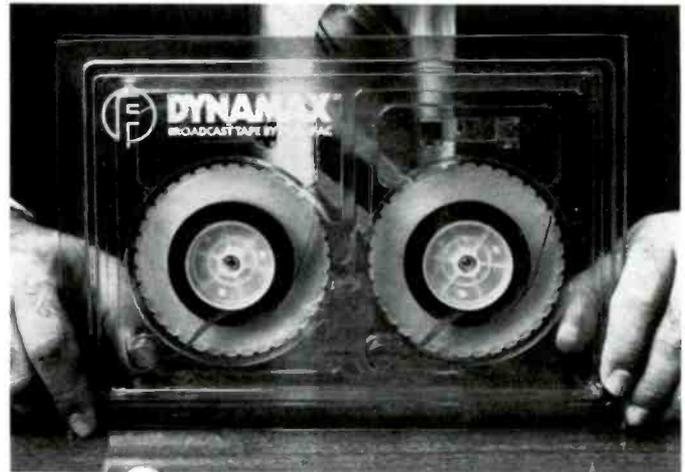
Master Cart (NAB Type AA—Red Base) Loaded with Dynamax Series 400

20 Second	5.52	4.29	3.85
40 Second	5.62	4.36	3.91
70 Second	5.73	4.46	4.00
90 Second	5.84	4.54	4.07
100 Second	5.97	4.64	4.16
2 Minute	6.09	4.73	4.24
2.5 Minute	6.20	4.82	4.32
3 Minute	6.32	4.92	4.41
3.5 Minute	6.47	5.03	4.50
4 Minute	6.59	5.13	4.60
4.5 Minute	6.72	5.23	4.69
5 Minute	6.86	5.33	4.78
5.5 Minute	6.99	5.43	4.87
7.5 Minute	7.41	5.77	5.17
8 Minute	7.56	5.88	5.27
10 Minute	8.00	6.22	5.57
10.5 Minute	8.12	6.32	5.67

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
Master Cart II (NAB Type AA—Gold Base) Loaded with Dynamax Series 500			
20 Second	5.52	4.29	3.80
40 Second	5.61	4.36	3.86
70 Second	5.73	4.46	3.95
90 Second	5.84	4.54	4.02
100 Second	5.97	4.64	4.11
2 Minute	6.09	4.73	4.19
2.5 Minute	6.20	4.82	4.27
3 Minute	6.32	4.92	4.35
3.5 Minute	6.47	5.03	4.45
4 Minute	6.59	5.13	4.54
4.5 Minute	6.72	5.23	4.63
5 Minute	6.86	5.33	4.72
5.5 Minute	6.99	5.43	4.81
7.5 Minute	7.41	5.77	5.11
8 Minute	7.56	5.88	5.20
10 Minute	8.00	6.62	5.50
10.5 Minute	8.12	6.32	5.59

Master Cart DX (NAB Type AA—Charcoal Base-Smoked Cover) Loaded with Series 700 HOLN-DX Tape

20 Second	6.65	5.31	4.87
40 Second	6.76	5.40	4.95
70 Second	6.91	5.52	5.06
90 Second	7.03	5.63	5.16
100 Second	7.18	5.74	5.26
2 Minute	7.33	5.85	5.36
2.5 Minute	7.46	5.97	5.47
3 Minute	7.61	6.09	5.58
3.5 Minute	7.77	6.22	5.70
4 Minute	7.92	6.34	5.81
4.5 Minute	8.10	6.48	5.93
5 Minute	8.26	6.60	6.05
5.5 Minute	8.41	6.72	6.16
7.5 Minute	8.93	7.14	6.55
8 Minute	9.10	7.28	6.67
10 Minute	9.62	7.69	7.05
10.5 Minute	9.77	7.82	7.17



Dynamax™ Reload Kit for Fidelipac Tape Cartridges

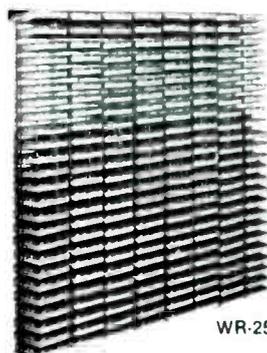
In 60 seconds or less, give new life to any A or AA Fidelipac carts. Fidelipac provides you with factory measured and spliced Dynamax tape conveniently packaged and ready to drop into a Fidelipac cartridge shell. New pressure pads are included, too.

With Dynamax Reload Kits you always use exactly the same tape Fidelipac installs in its factory-tested and sealed carts—and guarantee yourself tape uniformity.

Dynamax Reload Kits are available in all standard cart times, from 20 seconds to 10.5 minutes at 7.5 i.p.s. Kits come in three tape formulas: Standard, HOLN and—the never-before-available HOLN-DX (High Output Low Noise-High Overload) tape.

Call for discount price. 1-800-54-RADIO

FIDELIPAC cont.



WR-25's



TR-96

Cart Racks

Confused about cart storage?

We stock and sell more cart racks—so we have learned how to solve your space-squeeze challenge. Call us for suggestions.

Fidelipac MR-200 uses WR-25 modules that can hang on wall until mounted on frame to be pushed into control room.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
WR-25's	\$ 28.70	\$ 26.65	\$ 25.42
MR-200	296.50	275.78	263.34
TR-48	83.70	78.03	74.62
TR-96	150.40	140.05	133.84

Blank-It Tape Eraser

- Greatest magnetic field strength of any hand-held eraser
- Longest on-duty cycle of any handheld unit—permits continuous erasure of more tape
- Internal thermal overload coil protection—can't burn out

Guaranteed for one year from date of purchase under normal operating conditions.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Blank-It Tape Eraser	\$64.75	\$59.59	\$56.49



World-Standard Studio Warning Lights

Your broadcast or recording studio will really be "off limits" when Fidelipac Studio Warning Lights are lit. Their brilliant red lettering on jet black background can be seen in the brightest ambient light conditions. With a faceplate of unbreakable plexiglas the light includes lamps and mounting hardware.

- Erases all audio, video and computer tapes up to 1 inch
- Erases down to virgin tape level
- Removable aluminum guide pin for erasing large format tape
- Attractive and durable hand rubber hardwood case
- High current horsepower-rated switch for long reliable life
- Thermally-protected core—will not burn out
- Scuff-resistant top
- Non marring skidproof feet

Guaranteed for 2 years from date of purchase

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Studio Warning Lights	\$48.90	\$45.60	\$43.62

FOSTEX



A-2 Mastering Recorder/Reproducer

Rather than "hot rod" an existing transport, Fostex developed and built a new one. Specifically for multitrack recording.

Three D.C. motors provide less weight, lower heat generation, negligible hum induction, and better slow-speed than A.C. motors. There's a servo circuit on the capstan motor to eliminate speed variations and the transport commands are IC logic-controlled. There's full motion-sensing in all modes to eliminate tape stretch and breaking.

The A-2's sound gets to you through a newly designed DC FET reproduction amplifier with extraordinary linearity throughout the audio band, very wide overall frequency response, unusually low distortion and remarkable phase response. With NAB equalization it is instantly compatible with standard broadcast and recording formats. Other EQ set-ups are available on special order.

All the record/play electronics are on plug-in cards. The transport electronics are located on a hinged PC board. And most components (ICs, etc.) use industry standard part numbers for ready availability.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
A-2	\$850.00	\$786.25	\$748.00

GENTNER



SPH-3A Telephone Interface

The SPH-3A is the basic system for interconnecting broadcasting equipment with telephone lines. It uses the Wheatstone bridge method and results in a null of -20dB.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SPH-3A	\$499.00	\$489.02	\$474.05



SPH-4 Telephone Interface

The SPH-4 is an active hybrid system for talk shows and newsroom use. It provides the best in audio quality and ease of operation giving the operator full control over the caller. The typical null is -18dB.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SPH-4	\$699.00	\$685.00	\$664.00

GENTNER cont.



Microtel-1

The Microtel is a battery operated interface that can be used for a variety of applications. The telephone handset cord plugs into the Microtel making it easy for non-technical people to set up and use for sending and receiving audio from the telephone.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
Microtel-1	\$199.00	\$179.00	\$167.00



Pre-Wired Patch Panels

Gentner offers a full line of pre-wired patch panels which save engineering time and money. They are custom built to your specifications and offer several termination choices. Call us for a quotation on a patch panel to fit your needs.

Call for discount price. 1-800-54-RADIO

GORMAN-REDLICH

Model CRW Weather Receiver

The Model CRW is a sensitive, highly selective receiver for NWS transmissions. It is equipped with tone decoders that process 1050 and 1650 hz. signalling tones transmitted by NWS for automatic audible and visual alarm signals in the event of impending dangerous weather and to make possible automated recording of weather forecasts and emergency alert messages. The receiver has rear terminals for remoting, and coaxial connector for an external antenna.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
CRW	\$425.00	\$425.00	\$414.05

Model CEB EBS Equipment

The Model CEB offers, in a single 3 1/2 " rack mounting chassis, everything necessary for the two-frequency EBS system required by the FCC, except a receiver that can be tuned to the station being monitored. Any stable receiver will do; if you presently have a satisfactory EBS receiver it can be used with the Model CEB.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
CEB	\$425.00	\$425.00	\$414.05

HENRY ENGINEERING



Matchbox

The MATCHBOX is the inexpensive way to interconnect "HiFi" or "Semi-Pro (IHF standard) equipment with professional studio gear. It is a bi-directional unit, with four independent amplifiers providing full stereo input and output interface. Two amplifiers convert a stereo IHF HI-Z unbalanced source to LO-Z balanced outputs at studio level. A second pair of amplifiers converts a stereo balanced studio line source to unbalanced IHF outputs to feed the inputs of an IHF device. All circuitry is active and direct-coupled for absolute sonic transparency. The Matchbox is compact and lightweight, allowing it to be permanently mounted to most cassette recorders, tuners, portable mixers, etc.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Matchbox	\$195.00	\$181.35	\$167.70



The Universal Turntable Controller

Remote Control for Direct-Drive Turntables!

The Universal Turntable Controller is a control interface device that allows full remote control of popular direct-drive turntables, such as Technics SP10s, SP15s, and the new Russco RT-700. The "UTC" easily connects to the turntable with just three wires, and provides CMOS/contact closure compatible outputs for separate START and STOP switches, plus RUN and STOP tally lamps. The turntable's own start/stop switch can still be used for cueing records, and the UTC always stays in sync with the turntable. One UTC will control two turntables.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Universal Turntable Controller	\$150.00	\$132.00	\$126.00

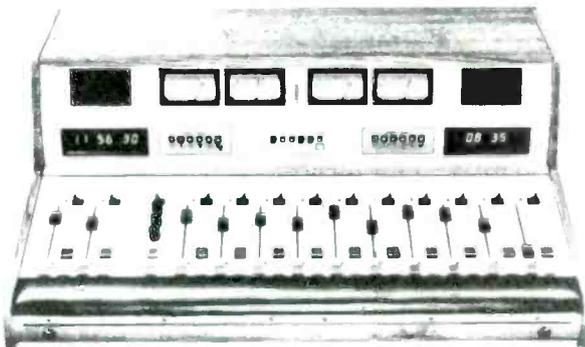
HOWE



Series 2100 Phase Chaser™

An exceptional product designed to correct phase errors in stereo sources. The Phase Chaser™ utilizes a sophisticated cross-correlator system to achieve accurate tracking of left and right channels. Phase errors in cart machines, reel-to-reel tape decks, or any other stereo source are effectively eliminated, without any signal degradation. The Phase Chaser™ is ideal in AM & FM stereo applications, and is currently being used by many major broadcasters. The Phase Chaser™ ... providing accurate, dynamic sound at an affordable price.

Call for discount price. 1-800-54-RADIO



Series 7000 and 7500 Consoles

Audio 7500 Series Audio Consoles

Packed with the most advanced features. Yet designed to be simple to operate and maintain. The interior of the console is readily accessible, no catches, no latches; it just unfolds. Once inside, you'll find high technology circuitry, plug-in modules with interchangeability, and a logical, straightforward layout.

Another outstanding achievement for you, the broadcaster, features the most reliable, state-of-the-art audio performance available anywhere. We invite you to ask a HOWE AUDIO user what they think of their console.

Call for discount price. 1-800-54-RADIO



Series 9000 Modular Audio Consoles

Howe Audio Series 9000 ... a new concept in consoles. The only modular consoles that do not require the broadcaster to purchase an expensive mainframe. This means a substantial savings to you, yet still affords you the ability to add on channels and features at a later time.

The Series 9000 consoles are available in sizes from 8 to 22 channels. Check these features and compare them with the other modular consoles:

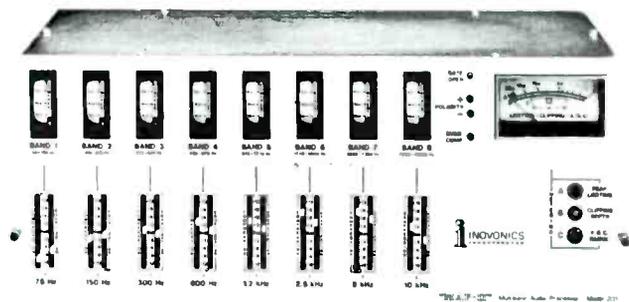
- 3 inputs per channel
- 3 output per channel, including mix-minus
- Each channel can be either mic or line level
- TTL Digital Logic for machine controls, assignable to each of your input selections
- Membrane switches for spill and dust proof service
- Linear faders designed to resist spillage
- VCA level control for the cleanest audio possible
- LED Status indicators for each channel function
- Standard analog V.U. meters
- Optional Vacuum Fluorescent meters
- Built-in Cue speaker
- Built-in Headphone Amp
- Your choice of a clock or timer standard in smaller units
- Both clock and timer standard in larger units

Expandable at any time!

The Series 9000 consoles are expandable at any time by adding more channel modules, adding to the metering section, and adding options such as another clock or timer, another cue speaker, a 10 by 1 routing switcher, 1 into 5 distribution amplifier, and many others.

Call for discount price. 1-800-54-RADIO

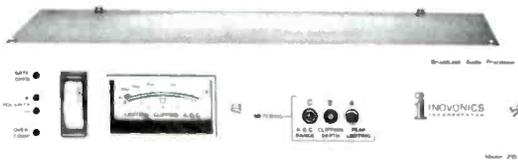
INOVONICS



Model 231 (MAPII) Multiband Audio Processor

The Inovonics MAPII features 8 bands of frequency-selective compression, with the amount of compression and relative equalization individually front-panel adjustable for each of the eight channels. Ahead of the multiband compressor is a gated AGC to correct for long term level variations and operator error in level setting. This presents the inputs of the multiband compressor with a stable correct input level to achieve maximum effectiveness. The peak limiter section of the MAPII features a "phase rotation" circuit to present the transmitter with the maximum positive peak at all times, without the annoying clicks and pops which are characteristic of other limiters' phase-reversing circuitry. The unit also features a selectable low pass filter following the peak limiter stage to provide a cut-off frequency of 7, 10, or 15kHz, and a built-in pink noise generator for maximum ease of set-up.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
231-03	\$2035.00	\$2035.00	\$1839.65

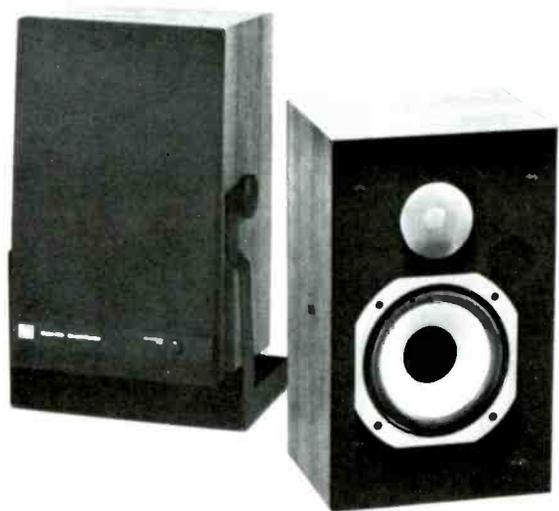


Model 215 Broadcast Audio Processor

The Inovonics 215 offers an "as needed" approach to audio processing for AM and FM broadcasting. Processing options are provided in the form of plug-in subassemblies to perform gain-riding A.G.C., average level compression and peak control functions. The various options are available singly or in pairs to fulfill a specific processing requirement or to complement existing equipment "Fully-loaded," the 215 stands alone as a complete broadcast audio processing chain.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
215 Chassis	\$395.00	\$395.00	\$357.00
215 AGC-01	230.00	230.00	208.00
215 Compressor-02	193.00	193.00	174.50
215 AM Limiter-03	220.00	220.00	199.00
215 FM Limiter-04	193.00	193.00	174.50

JBL



Model 4401 Studio Monitor

The most compact of the JBL studio monitors, the 4401 is ideal for use as a main monitor in applications where space is at a premium. The tight driver cluster gives the 4401 outstanding coherency in the near field, making it also an excellent choice for a console-mount secondary monitor.

Particular attention has been paid to the design of the dividing network and to the physical placement of the drivers. Each driver is the product of extensive research and testing, and each has been designed for optimum performance in the system.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
4401	\$189.00	\$160.60	\$146.40



Model 4312 Control Monitor

- Smooth, powerful, wide-range response within a compact enclosure
- Components: 300 mm (12 in.), long excursion, low frequency loudspeaker;
- 130 mm (5 in) midrange loudspeaker; 36 mm (1.4 in) high frequency direct radiator
- Mirror-imaged for better stereo imaging 90° dispersion allows vertical or horizontal placement

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
4312	\$432.00	\$374.40	\$345.60

JBL cont.



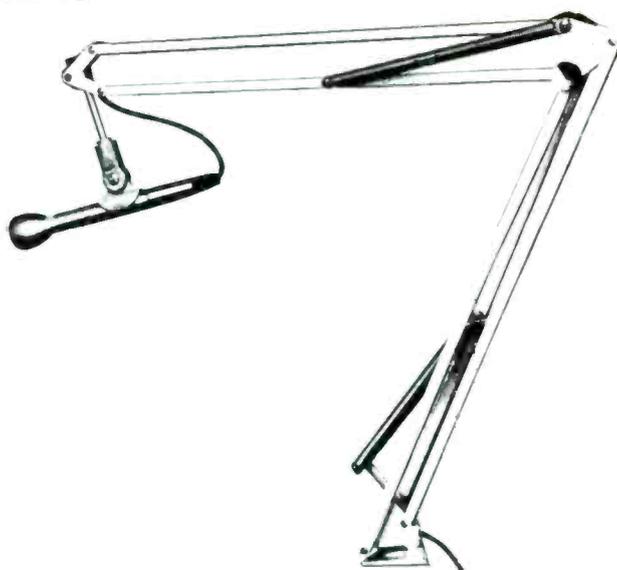
Model JBL 4411 Studio Monitor

- Smooth, accurate response from 45 Hz to 18 kHz (± 3 dB)
- 90 dB SPL, 1 W, 1 m (3.3 ft)
- Components: 300 mm (12 in) low frequency loudspeaker, 130 mm (5 in) midrange loudspeaker, 25 mm (1 in) high frequency dome radiator
- Oiled walnut enclosure

The Model 4411 is JBL's most sophisticated 3-way direct radiator monitor loudspeaker system. Applying the knowledge gained in the design of the 4430 and 4435 constant coverage systems, JBL has created a compact monitor especially well suited to the demands of the digital age.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
4411	\$570.00	\$494.00	\$456.00

LUXO



Microphone Arm

The microphone arm that mounts on table or wall

Luxo LM 41-inch reach. Choice of base: screw-down, wall mount, C-clamp like the vise of a workbench. For microphones over 2.5-lbs, order the Luxo Heavy-1, screw down or wall bracket.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
LM-41-SDB	\$29.00	\$26.00	\$24.00
LM-41-WM	29.00	26.00	24.00
HEAVY1-SDB	64.50	54.70	48.20



Copy Holder

The Luxo Copy Holder . . . Two Sizes, Supports 1 Lb. or 3 Lbs.

Works like the famous Luxo mic-arm. Holds copy book. Adjustable two-elements arm can let copy be held at arm's length. Holder can be placed in 45° angle to flat position or anywhere in between. Standard table connector is C-clamp. Works like a vise. Position strip is an option and runs from left side of holder to keep pages of your copy book flat.

Luxo Copyholder: 16007 = 1 lb. lettersize,
16008 = 3 lb. lettersize

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
16007	\$44.95	\$39.56	\$35.96

MARANTZ

PMD 221



PMD 360

PMD 201 Portable Two-Head Two-Speed Cassette Recorder

- 2-Head Design
- Two-Speed 1-7/8 and 15/16 IPS
- Full Auto Shutoff
- 3-Way Power with Low Battery Indication
- Vu Level indication
- Switchable Limiter
- 3-Position Mic Attenuation (0, 10, 20 dB)
- Built-in Monitor Speaker
- 3-Digit Tape Counter
- Direct Telephone Connective Jack
- Telephone Pickup Jack
- Line Input and Output Jacks
- External Speaker Jack
- Anti-Roll Transport
- Vari-Speed
- 3-Position Tape Selector (Normal, CrO₂, Metal)
- Automatic or Manual Record Level
- Built-in Electret Condenser Microphone
- Cue and Review
- Volume and Tone Control
- 3-Position Automatic Noise Cancel Switch
- External Mic Jack
- Headphone Jack

Shipping Dimensions & Weight: 7½" H x 11W x 8-7/8D
Actual Dimensions: 2H x 8-7/8W x 6½D

Availability: May 1985

Call for prices: 1-800-54-RADIO

PMD 221 Deluxe Portable Three-Head Two-Speed Cassette Recorder

- 3-Head Design
- Two-Speed 1-7/8 and 15/16 IPS
- Full Auto Shutoff
- 3-Way Power with Low Battery Indication
- Vu Level indication
- Switchable Limiter
- 3-Position Mic Attenuation (0, 10, 20 dB)
- Built-in Monitor Speaker
- 3-Digit Tape Counter
- Direct Telephone Connective Jack
- Telephone Pickup Jack
- Line Input and Output Jacks
- External Speaker Jack
- Anti-Roll Transport
- Vari-Speed
- 3-Position Tape Selector (Normal, CrO₂, Metal)
- Automatic or Manual Record Level
- Built-in Electret Condenser Microphone
- Cue and Review
- Volume and Tone Control
- 3-Position Automatic Noise Cancel Switch
- External Mic Jack
- Headphone Jack
- Memory Rewind and Replay

Shipping Dimensions & Weight: 7½" H x 11W x 8-7/8D
Actual Dimensions: 2H x 8-7/8W x 6½D

Availability: May 1985

Call for prices: 1-800-54-RADIO

PMD 340 Portable Stereo Cassette Deck With Dolby

- Dolby Noise Reduction System
- Super-Hard Permalloy Record/Playback Head
- Separate Left and Right Channel Record Level Controls
- DC Servo-Controlled Motor
- 4 Way Power
- 4-Inch Full-Range Speaker
- Dual Flywheel Mechanism
- Tape Equalization and Bias Selector Switch for Chrome, Ferrichrome, and Standard Tapes
- Cue and Review
- Dual VU Meters
- Input and Output Jacks
- Total Mechanism Shut-Off
- Peak Limiter
- Mic Attenuator
- Automatic Recording Level
- 3 Digit Tape Counter
- Headphone Jack
- Impact Resistant Case
- 4 "D" Cells

Shipping Dimensions & Weight: 21W x 16H x 11D 8 lbs. 3 oz.
Actual Dimensions: 11¾" W x 3¼" H x 7¾" D

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
PMD 340	\$299.95	\$246.90	\$235.10

PMD 360 Portable 3-Head Stereo Cassette Deck With Dolby

- Three Head Tape/Source Monitoring
- Double Dolby Noise Reduction System
- 4 Way Power
- Automatic Recording Level
- Dual Flywheel Mechanism
- 4-Inch Full-Range Speaker
- External Speaker Output Jacks
- Line In and Line Output Jacks
- Equalization and Bias Selector Switch for Chrome, Ferrichrome, and Standard Tapes
- Volume and Tone Control
- Cue and Review
- Total Mechanism Shut-Off
- Automatic Mic/Line Switching
- Mic Attenuator
- Peak Limiter
- Mic Input Jacks
- Headphone Jack
- 3 Digit Tape Counter
- Impact Resistant Case
- 4 "D" Cells

Shipping Dimensions & Weight: 21W x 16H x 11D 8 lbs. 5 oz.
Actual Dimensions: 11¾" W x 3¼" H x 7¾" D

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
PMD 360	\$399.95	\$325.72	\$309.23

PMD 420 Portable Cassette Deck with Dolby B™

- Dolby B Noise Reduction
- Pitch Control ± 6%
- Bias Fine Adjustment
- Auto Shutoff
- Memory Rewind
- Auto Replay
- 3-Position Tape Selector (Metal, CrO₂, Normal)
- 3-Position MIC Attenuator (-0, -15, -30dB)
- Limiter
- Illuminated Vu Meters
- 3-Digit Tape Counter
- 4-Way Power Supply: 120 VAC, 4.5 VDC, 3 D Cells, Optional Rechargeable RB430 Battery Pack
- Built-In Speaker
- Headphone Output Jack

Unit Dimensions: 2H x 8¾" W x 6½D
(50mmH x 227mmW x 165mmD) 2.4 lbs (1.3 Kg)

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
PMD 420	\$399.95	\$327.96	\$311.96

MARANTZ cont.



PMD 430

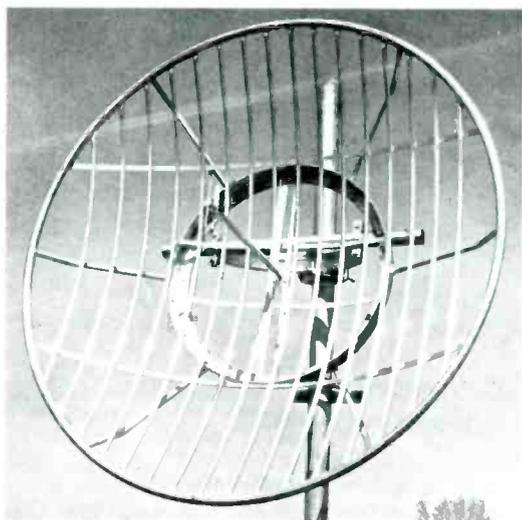
PMD 430 Portable Cassette Deck with Dolby B™, dbx™ and 3 Heads

- Dolby B Noise Reduction
- dbx Noise Reduction
- 3 Heads
- Pitch Control $\pm 6\%$
- Bias Fine Adjustment
- Auto Shutoff
- Memory Rewind
- Auto Replay
- 3-Position Tape Selector (Metal, CrO₂, Normal)
- 3-Position MIC Attenuator (-0, -15, -30dB)
- Limiter
- Illuminated Vu Meters
- 3-Digit Tape Counter
- Impact Resistant Case
- 4-Way Power Supply: 120 VAC, 4.5 VDC, 3 D Cells, Optional Rechargeable RB430 Battery Pack
- Built-In Speaker
- Headphone Output Jack

Unit Dimensions: 2H x 8 $\frac{1}{8}$ W x 6 $\frac{1}{2}$ D
(50mmH x 227mmW x 165mmD) 2.4 lbs (1.3 Kg)

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
PMD 430	\$499.95	\$408.62	\$388.33

MARK-ANTENNA

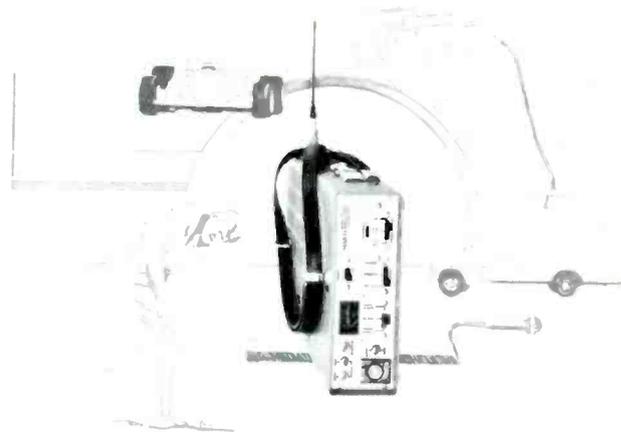


Grid Antennas

These grid antennas represent the superior quality and year-after-year dependability needed for the only way you have to get your audio to the transmitter—the STL. They use heavy walled aluminum pipe heli-arc welded for strength. Feeds are heavy brass protected against oxidation. The radiator's active element is protected by Teflon. These antennas represent the best value for your money.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
P948GRNM1	\$697.00	\$670.86	\$636.00

MARTI

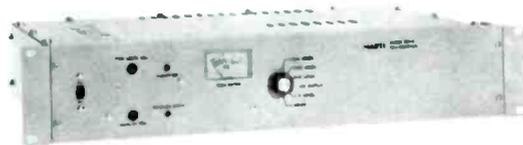


Get Tough. Get Marti.

Tired of being seen but not heard? Many of today's live news and sports remotes present problems that call for new technology. MARTI has that technology, and it's available to radio broadcasters today.

We have developed a new generation of broadcast quality, continuous duty equipment that integrates into a high performance system of hand carried portables, mobile repeaters, fixed automatic repeaters, and base transceivers.

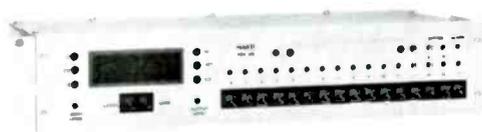
In remote broadcast, when the going gets tough, the tough get MARTI.



BR-10 Series Base Receiver

Model BR-10 is a rack-mounted VHF or UHF base station receiver designed for broadcast remote pickup service. This receiver has dual frequency capability built in. Marti Technology has provided the highest frequency response with the lowest noise and distortion possible for the assigned channel band width. Special attention has been given to solving today's high interference problems. The BR-10 features a built-in test meter, squelch relay, optional DC operation, built-in sub-audible tone decoder, special noise reduction circuit, 90 DB spurious rejection.

Call for discount price. 1-800-54-RADIO



RMC-15 Digital Remote Control

- 32 Commands, 16 Data Channels
- Fully Digital Command and Telemetry (FSK)
- Single Push-Button Channel Select
- Telemetry Accuracy 0.1% for Directional Antenna Monitoring. RMC-15S Does Not Require Operator Calibration
- Expandable to 30 Channels by Optional RMC-30 Units
- Quartz Crystal Synthesized Frequencies
- Radio Link or Wire Line Operation
- Large Digital LED Readout at BOTH Studio and Remote Unit
- Decimal Point Location Can Be Selected for Each Channel
- Communication Level Adjustments and Indicators on Front Panel

RMC-15 System includes a Studio Unit, Transmitter Unit and Relay Control Panel

Call for discount price. 1-800-54-RADIO

MARTI cont.



Hand Carried 2.5 Watt Portable/Mobile Repeaters

RPT2 Features

- Type accepted on all VHF-UHF RPU channels
- 2.5 watts continuous output
- Dual frequency provision
- Sub-audible encoder
- Built-in metering
- 3-way power option
- Internal ni-cad battery
- Internal charger and AC supply
- FM Compressor-Limiter
- Mixing mic and line inputs

The RPT2 is a hand-carried broadcast quality, continuous duty transmitter. It will operate from its internal ni-cad battery, from 115V. AC power, or from external 12 V. DC power. A special sub-audible encoder enables the RPT2 to access Marti mobile repeaters for coverage of indoor events. 2.5 watts is the maximum power allowed by FCC Rule 74.431 (C)(1).

Call for discount price. 1-800-54-RADIO

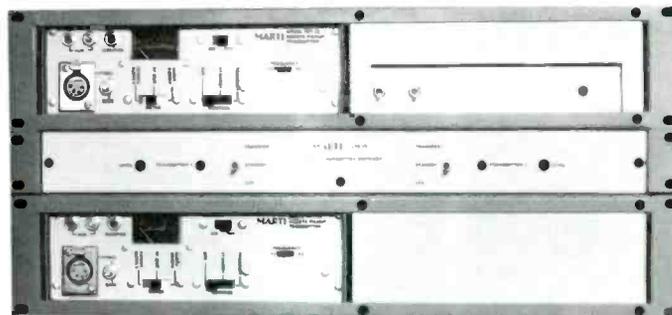
FCC Type Accepted Transmitter				Systems Specifications					
Model No.	Power Watts	FCC Freq. Group	Freq. MHz.	% Freq. Tolerance -30° C. to +50° C.	Type Emis-sion	Receiver Model No.	System Freq. Response ±1.5 DB	Dist. Ratio %	S/N DB*
RPT2-150L	2.5	K, L	152-172	.0005	25F3	RR-30/150	50-7,500	2	50
RPT2-450R	2.5	N1, R	450-456	.00025	50F3	RR-50/450	50-10,500	2	53
RPT2-450N	2.5	N2	450-456	.00025	25F3	RR-30-450	50-7,500	2	50
RPT-450P	2.5	P	450-456	.00025	10F3	RR-30-450	20-3,000	2	40
RPT-450S	2.5	S	450-925 or 456-925	.00025	100F3	RR-100-450	50-15,000	1	58

*High-Level Input

AR-10 Portable or Mobile Repeat Receiver

The Marti AR-10 series receiver is a portable or mobile repeater receiver. This receiver has a built-in AC power supply, and will operate from an external source of 12-15 volts DC. A built-in sub-audible tone decoder meets FCC rule 74.431 allowing this receiver to automatically turn on a mobile transmitter upon receiving an encoded signal from a hand-carried portable transmitter, thus automatically relaying a broadcast to the base station receiver over a greater distance. The receiver operates on all remote pickup frequencies and band widths. Other built-in features include dual frequency capabilities, monitor speaker, and terminals for feeding telephone lines in portable operations. The unit weighs only 5½ pounds.

Call for discount price. 1-800-54-RADIO



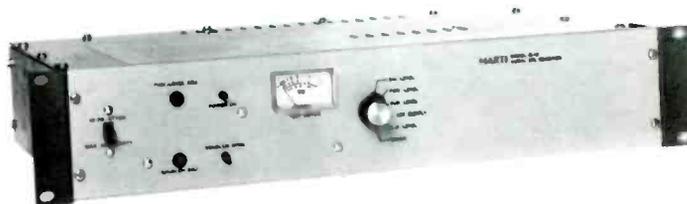
Telemetry Return Link

The Marti TSL-2 and TSL-15 Telemetry Links provide reliable telemetry circuits for AM, FM and television stations. Expensive and unreliable FM Subcarrier and Telco lines can now be replaced with cost effective Marti TSL Systems. These links are simple to install, easy to operate and maintain. Marti has assembled complete equipment packages consisting of Transmitter, Receiver, Yagi Antennas, Cable, Identifier and optional items. The 2.5 watt transmitter is available for solar power or other limited power source applications. The 15 watt transmitter is recommended for use on medium to long paths having high signal attenuation.



Model RPT15 15 Watt Transmitter

Model RPT15 is a compact 15 watt transmitter designed for portable and mobile remote broadcast service. It delivers the maximum power allowed by the FCC for airborne remotes such as traffic reports. The RPT15 has a built-in power supply for operation on 115 V. AC. It will also operate on an external 12-14 volt DC supply. Standard features include dual frequency and subaudible encoder for use with Marti mobile repeaters and automatic repeaters. All this plus famous Marti broadcast quality and continuous duty operation.



Aural Broadcast STL-10 Studio-Transmitter Links Intercity Relay

Applications of the STL-10 include:

- STL for FM stereo broadcast (Dual system).
- STL for AM stereo broadcast (Dual system).
- STL for FM mono or AM broadcast.
- Intercity relay for linking two or more broadcast facilities.
- Multi-relay system for radio network distribution.
- Communications link between satellite earth station and broadcast facilities.

Call for discount price. 1-800-54-RADIO

MICRO-TRAK



Sport IV Sports/remote Audio Console

For Telecommunications and General Purpose Applications

- Electronic rotary telephone dial
- Low impedance mic inputs
- Ultra portable—Comes in case
- Full hybrid talkback—Single line
- Built in AC and batteries supplies
- Cart or cassette tape input

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
Sport IV	\$799.50	\$677.98	\$626.33



Model 7213



Model 7216

Audio Distribution Amplifiers

Model 7116—1x6, Model 7213—2x3 and Model 7216—2x6

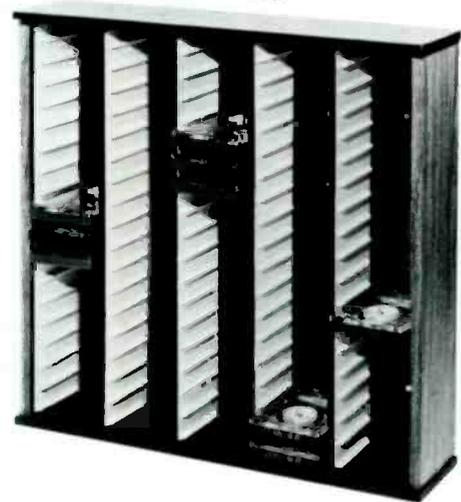
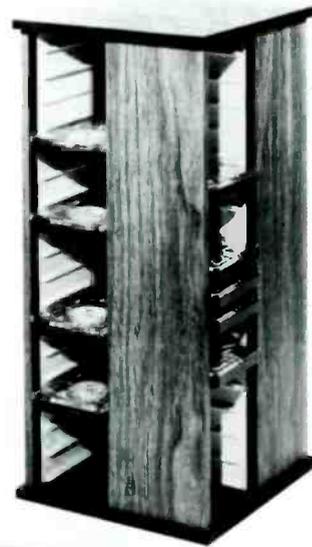
- Full transformer isolation
- Low noise—low distortion
- Plus 8 dBm out nominal
- 7116-7213 optional rackmount
- 7216 19" rack mount standard

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
7116	\$249.50	\$211.58	\$195.46
7213	279.50	237.02	218.96
7216	459.50	389.66	359.97

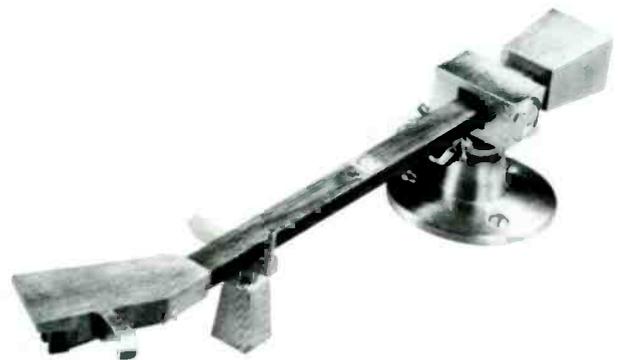
Broadcast Cartridge Tape Racks

L90 Wall Mounting and L72 Lazy Susan

- L90 holds 90 carts—L72 holds 72
- Beautiful woodgrain formica
- Molded holders—Easy on carts
- Low low cost—L90's can stack
- L72 small—Fits by cart machine



MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
L90	\$79.50	\$69.96	\$65.91
L72	79.50	69.96	65.91



Professional Broadcast Tone Arms

Model 303—12 inch/Model 306—16 inch

- Nothing to tangle or break
- No jock adjustments
- Fluid anti-skate—jewel pivots
- High strength impregnated wood
- Low resonance—low mass

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
303	\$129.50	\$109.82	\$101.45
306	169.50	143.74	132.79

3M

Broadcast Cartridges

ScotchCart Broadcast Cartridges . . . an innovation in audio carts!

Life Extension Cam

After 300 passes the average cart sounds bad, because of higher tension, phase error, and/or flutter (usually due to built-up tension). ScotchCart runs far beyond the average cart due to the Life Extension Cam which counteracts tension build-up or loop growth. Result . . . longer life!

No Pressure Pads

Pressure pads are not needed due to constant tension design. Pressure pads create a frictional force that in turn creates modulation noise, tape and head wear. They can also steer the tape, resulting in increased phase error.

Mastering Quality Tape

Newly formulated, this tape offers the same superior oxide formulation as 226/227 mastering quality tapes. More head room, high frequency output, short wavelength stability and significantly reduced modulation noise.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
10 sec	\$5.75	\$4.60	\$4.28
20 sec	5.80	4.64	4.32
40 sec	5.88	4.71	4.38
70 sec	6.00	4.80	4.46
100 sec	6.15	4.92	4.58
140 sec	6.32	5.06	4.70
2.5 min	6.37	5.10	4.74
3.0 min	6.48	5.19	4.82
3.5 min	6.64	5.31	4.94
4.0 min	6.80	5.44	5.06
4.5 min	6.96	5.57	5.18
5.0 min	7.13	5.71	5.31
5.5 min	7.29	5.83	5.42
6.5 min	7.64	6.11	5.68
7.5 min	7.92	6.34	5.89
9.5 min	8.60	6.88	6.40

Cassettes

AVX cassettes are multi-purpose. Perfect for the sales team!

XSI cassettes maximize the normal bias recording and playback capabilities of any cassette recorder. Dual layer construction reproduces an extremely wide frequency range, these cassettes are superior for recording live concerts or contemporary music.

XSII cassettes take your recordings one step above chrome capabilities. Designed using a dual layer of cobalt modified ferric oxide, performance characteristics are heightened assuring you of the purest sound optimized at a "chrome" setting on your deck. Perfect choice for all music including the most demanding classical piece.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
AVX-20	\$1.50	\$1.34	\$1.20
AVX-30	1.56	1.40	1.25
AVX-40	1.66	1.49	1.33
AVX-60	1.80	1.61	1.44
AVX-90	2.30	2.06	1.84
AVX-120	2.98	2.67	2.39
XSI-C60	3.38	3.04	2.74
XSI-C90	4.36	3.92	3.53
XSII-C60	3.60	3.24	2.92
XSII-C90	4.50	4.05	3.65

Tapes

Leader Tape

- #61 1.5 mil polyester 1500 feet (available in white and yellow)
- #20 2.5 mil paper 1000 feet

Splice Tape

- #41 1.5 mil acetate (66 feet)
- #620 1.0 mil polyester (66 feet)
- #67 (100 feet)

176/177 Tape

176/177 series are premium products for heavy-duty recording applications. This exceptionally durable series boasts increased output at high frequencies, reduced noise, and increased head and tape life. Great for instructional use.

206/207 Tape

Regarded as the *industry standard* audio mastering tape, 206/207 offers improved magnetic performance over standard low noise oxide tapes and a reel-to-reel reliability proven by many years of successful performance. 206 is 1.5 mil and 207 is 1 mil.

208/209 Tape

Low Print audio mastering tapes have proven desirable for on-location recording, especially for voice mastering where low print properties are desired. 208 is 1.5 mil and 209 is 1.0 mil.

217 Tape

ScotchCart HOLN tape.

227/227

Designed for critical audio mastering. Scotch 226/227 offers improved signal-to-noise and signal-to-print performance over standard low noise oxide mastering tapes. 226 is 1.5 mil and 227 is 1 mil.

250 Tape

You can't buy, use or listen to a better audio mastering tape. Scotch 250 offers the industry's greatest dynamic range and cleanest, most quiet sound. 1.5 mil.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
3M-Leader Tape			
#61	\$13.35	\$12.17	\$11.11
#20	6.00	5.26	4.60
3M-Splicing Tape			
#41	2.26	1.99	1.85
#620	7.06	5.94	5.35
#67	4.00	3.85	3.78
3M-176			
HUB	11.40	6.61	6.06
10" Reel	27.50	16.42	15.15
7" Reel	9.68	5.78	5.34
3M-177			
HUB	14.90	8.64	7.93
10" Reel	35.15	20.98	19.36
7" Reel	13.25	7.91	7.30
3M-206			
HUB	17.03	10.02	9.21
10" Reel	31.70	18.83	17.36
7" Reel	12.80	7.61	7.01
3M-207			
HUB	28.35	16.44	15.08
10" Reel	42.15	25.17	23.23
7" Reel	17.38	10.37	9.57
3M-208			
HUB	18.05	10.47	9.60
10" Reel	31.40	18.39	16.91
7" Reel	12.80	7.49	6.89

3M cont.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
3M-209			
HUB	28.90	16.76	15.37
10" Reel	44.25	25.92	23.82
7" Reel	16.88	9.89	9.09
3M-217			
7" HUB	25.38	14.72	13.50
7" Reel	26.25	15.23	13.97
3M-226			
HUB	25.38	13.63	12.29
10" Reel	37.50	22.28	20.54
7" Reel	15.00	8.74	8.02
3M-227			
HUB	35.78	21.05	19.37
10" Reel	56.03	33.46	30.88
7" Reel	20.58	12.28	11.33
3M-250			
HUB	25.38	13.63	12.29
10" Reel	37.50	22.28	20.54
7" Reel	15.00	8.74	8.02

TIME CHART—RECORDING TIME EACH DIRECTION

Reel Size	Footage	1 1/8 IPS	3/4	7/8 IPS	
5 inch	600 ft.	1 hr.	1/2 hrs.	15 mins.	1.5 mil
	900 ft.	1.5 hrs.	45 mins.	22.5 mins.	1.0 mil
	1200 ft.	2 hrs.	1 hr.	1/2 hr.	0.5 mil
7 inch	1200 ft.	2 hrs.	1 hr.	30 mins.	1.5 mil
	1800 ft.	3 hrs.	1.5 hrs.	45 mins.	1.0 mil
	2400 ft.	4 hrs.	2 hrs.	1 hr.	0.5 mil
10 inch	2400 ft.	4 hrs.	2 hrs.	1 hr.	1.5 mil
	3600 ft.	6 hrs.	3 hrs.	1.5 hrs.	1.0 mil
	4800 ft.	8 hrs.	4 hrs.	2 hrs.	0.5 mil

MODULATION SCIENCES, INC.



Sidekick SCA Generator

- Excellent RF shielding.
- Built in transmitter tuning aid.
- Stable over a wide temperature range.
- Compatible with compander, data or telemetry systems.
- Integral audio processing can be optimized for music or speech.
- Peak holding deviation meter can eliminate need for a modulation monitor.
- Quartz crystal controlled synthesizer can be programmed to any SCA frequency.

Call for prices. 1-800-54-RADIO



CP-803 Composite Processor

The Composite Processor improves the sound of your FM station by eliminating peaks of over-modulation. These peaks occur in two ways:

First, the CP-803 eliminates the brief electrical overshoots that exist in all audio limiters and stereo generators—even those described as overshoot-compensated. Preventing such overshoots increases modulation with essentially no audible effect on the signal.

Second, the Processor controls the high-frequency peaks that are present in all program material. Though not acoustically significant, these peaks cause over-modulation. Controlling them makes greater average modulation possible. The audible effect is minimal, far less than that of conventional variable-gain devices.

Call for prices. 1-800-54-RADIO

MRL

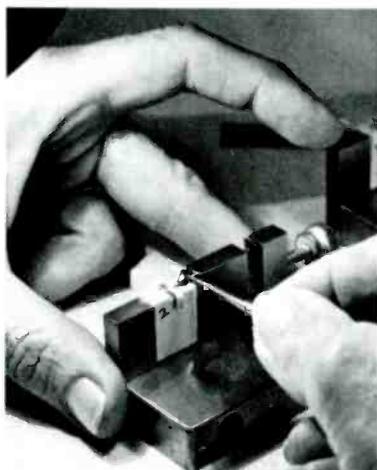
MRL Precision Calibration Tapes

Alignment for reel-to-reel and cart

MRL manufactures more than 160 different types of Reproducer Calibration Tapes; most of them are available from stock. They are suitable for a wide range of applications in the design, manufacture, and maintenance of tape recorders in studio, broadcasting, duplicating, and consumer applications.

Call for prices. 1-800-54-RADIO

NORTRONICS

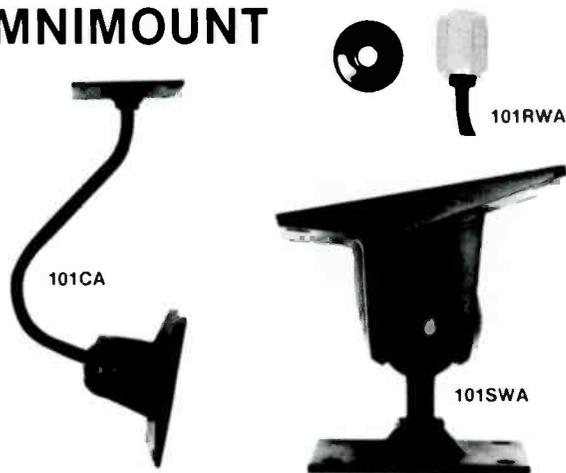


Replacement Heads

Precise Replacement Heads With Consistent Uniform Quality You can Depend Upon!

When you use professional recording equipment for demanding professional applications, you just can't afford second best in a replacement head. We know that quality and dependability are the hallmarks of performance in broadcasting, recording studios, tape duplication, and other professional environments where equipment downtime must be minimized and optimum audio quality maximized. Call for prices. 1-800-54-RADIO

OMNIMOUNT



Omnimount Systems

The Omnimount System, doing things for you that no other mounting system can do. You can use it in ways almost without limit—limited only by your own ingenuity.

The key to Omnimount's omnidirectional movement is its artfully simple, patented, ball & clamp assembly. It gives a capability that goes very far beyond the usual pan-and-tilt function. With an extra dimension, too, in lateral movement. The tube section of the assembly can be turned laterally and locked into place at any point on its revolving axis.

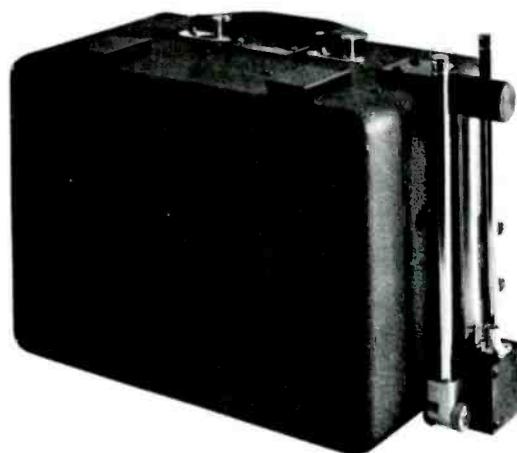
Mount speakers, cameras, TV screens, or a variety of studio equipment where floor space is not available. Hang from wall or ceiling.

Place equipment in an optimum location, suspended in space that is otherwise unusable.

OMNIMOUNT—Make it work for you!

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
101CA	\$69.95	\$58.76	\$54.56
101RWA	71.50	60.06	55.77
101SWA	60.50	50.82	47.19

POTOMAC



FIM-71 Solid State VHF Field Strength Meter

The FIM-71 Field Strength Meter is a truly portable test instrument of laboratory quality which is designed to withstand the rigors of extended field use. Combining a calibrated half-wave dipole antenna and a highly accurate tuned voltmeter with a range of 140 dB, this instrument is suitable for practically all types of RF emission measurements in the 45 MHz to 225 MHz frequency spectrum. Depending upon the characteristic of the signal to be measured, the operator can switch select wide or narrow bandwidth, peak or average value or TV or pulse modulated signals, AM or FM demodulation, and meter dynamic range of either 20 dB or 60 dB.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FIM-71	\$3825.00	\$3825.00	\$3779.00

POTOMAC cont.



FIM-21, FIM-22 and FIM-41 Solid State Field Strength Meters

The Models FIM-21, FIM-22, and FIM-41 represent a new generation of precision instruments for direct measurement of electromagnetic fields in the 200 kHz to 5.0 MHz frequency spectrum. These units are intended for portable field use and include a laboratory quality receiver, integral shielded loop antenna, precision attenuator, internal calibration source, and voltage regulated battery power supply. With calibration accuracy traceable to the National Bureau of Standards, these instruments are capable of meeting the most exacting requirements of government and industry. Cases are of ruggedized drawn aluminum with a hinged cover containing the loop antenna. With the cover in the vertical position, the antenna terminals are connected to the receiver by maintenance-free gold-plated contacts. An interlock switch prevents inadvertent battery discharge when the cover is closed.

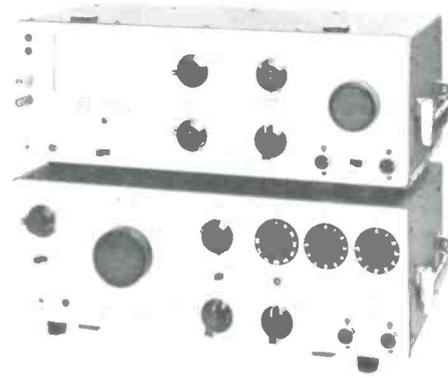
MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FIM-41	\$2600.00	\$2600.00	\$2568.80
FIM-21	1950.00	1950.00	1926.60

SD-31 Frequency Synthesizer and Coherent Detector

The Model SD-31 Synthesizer-Detector is a high-output signal generator of precisely known frequency combined with a sensitive, selective detector for RF bridge measurements of AM antenna impedance. Packages in a single light-weight battery-powered unit, the SD-31 complements bridges such as the General Radio 1606, 916, and the Delta OIB-1.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SD-31	\$2425.00	\$2425.00	\$2395.90
RX-31	575.00	575.00	568.10

AA-51
Audio
Analyzer



AG-51
Audio
Generator

AT-51 Audio Test System

The AT-51 is an innovative audio test system which facilitates the measurement of critical parameters in monophonic and stereophonic audio equipment. Designed primarily for commercial broadcast proof-of-performance measurements and equipment maintenance, the AT-51 exhibits features which are unique and well suited to laboratory type measurements by design engineers, quality control facilities and professional high fidelity service centers. The AG-51 Audio Generator and AA-51 Audio Analyzer are packaged separately for remote measurements requiring physical separation of signal source and signal analyzer. Both units are RFI shielded to enable accurate measurements in high level radio frequently environments typical to broadcast transmitter facilities. Signal input and output connectors are also RFI shielded.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
AA-51	\$2125.00	\$2125.00	\$2098.00
AG-51	1875.00	1875.00	1852.50



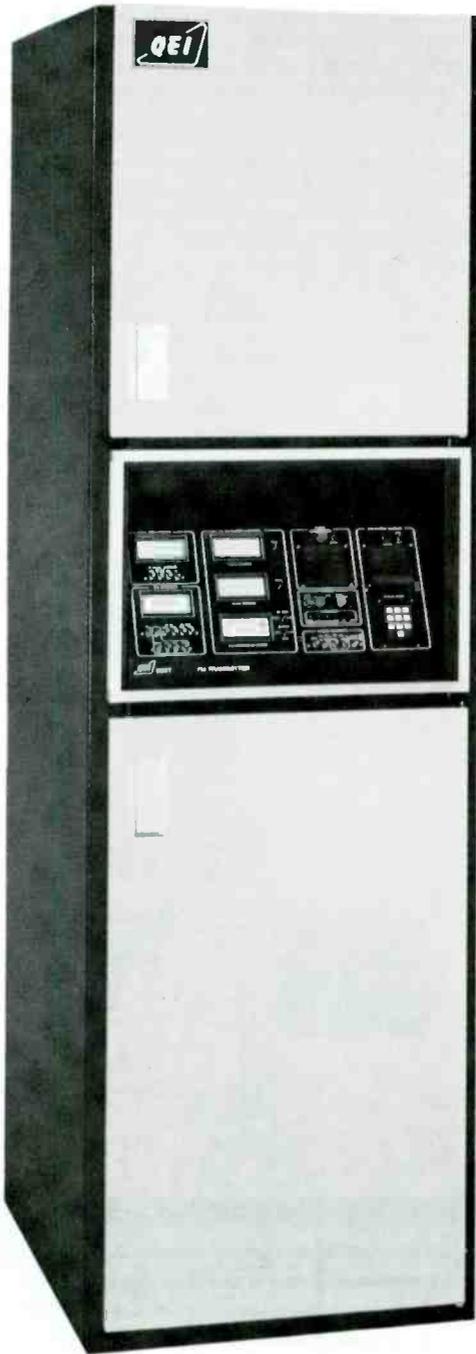
RC 16 + Automatic Remote Control System

- 16 Telemetry Channels
- 16 Status Channels
- 32 Control Function
- Single Point Calibration
- Microprocessor Continuous Scan
- Automatic Tolerance Alarms
- Power Fail Memory
- Automatic Pattern/Power Switching
- Automatic Transmitter Power Control
- Automatic Transmitter Re-Start
- Direct Antenna Monitor Interface
- Easily Installed
- Simple to Operate
- Potomac Instruments Quality and Reliability

The RC 16 + is designed to simplify operator workload at remote controlled AM and FM Broadcast Stations. The design concept is predicated upon years of experience and first hand knowledge of the capabilities and limitations of broadcast equipment and station operators. Employing microprocessor technology, the RC 16 + offers the broadcaster a level of sophistication and value unmatched by competing systems.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RC16 +	\$4995.00	\$4995.00	\$4935.00

QEI



695T3.5KW Transmitter

The 695T3.5KW is a new, advanced-technology transmitter using a single tube and offering a myriad of features made possible only by introducing recent technological advances to FM transmitter design. The 695T3.5KW's design blends micro-processor technology with QEI's expertise in solid-state transmitters, control systems (ATS), and FM modulation monitors.

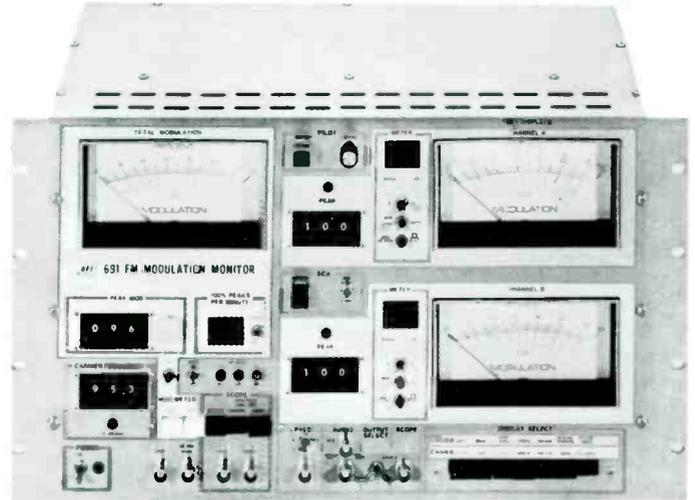
Features heretofore not available in FM transmitters are built into the 695T3.5KW. Alarm points on important parameters will warn you before a catastrophic failure occurs. Automatic Power and Modulation Control or ATS are available at the flick of a switch; ideal for stations with satellite feed or those that are heavily automated.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
695T3.5KW	\$25990.00	Call for our discount price	

695T30KWA FM Amplifier

The 695T30KWA is a 30,000 Watt FM amplifier using advanced technology to provide a reliable and efficient transmitter package. The amplifier is driven by the 695T1KW all solid state 1000 watt transmitter or the 695T3.5KW single tube 3500 watt transmitter depending on the total output power requirement. High voltage power supply components are housed in a separate interlocked vault that can be conveniently located next to or apart from the power amplifier cabinet. The 695T30KWA meets all requirements of the FCC for educational or commercial mono, stereo, and SCA applications.

Call for discount price. 1-800-54-RADIO



691 FM Monitor/Test Set

Features

- A complete proof-of-performance instrument for Mono, Stereo, and SCA measurements
- Tuneable in 100 kHz steps over the entire FM band.
- Autoranging meters select correct meter operating range automatically.
- Converts a standard X-Y oscilloscope into a spectrum analyzer.
- Of-the-air or direct transmitter connection.
- Will accept up to 50 Watts of RF input with a suitable termination.
- Functional front panel layout with color coded groupings and unique over-under meter arrangement.
- Peak flashers adjustable from 1% to 199% with 100% peak counting digitally displayed.
- Vector display of stereo phasing with standard oscilloscope.
- Extremely low internal distortion.
- Composite input allows direct measurement at the outputs of the STL receiver, stereo or SCA generators.
- Over forty proof-of-performance and trouble-shooting tests possible when used with an oscilloscope.
- Full one year warranty on all parts and labor.
- Built-in bench full feature allows calibration verification

The 691 FM Monitor/Test Set is a high technology, precision instrument employing a combination of new techniques in a single, highly versatile, but very compact package. It was designed to be a complete FM test package with facilities for all proof-of-performance measurements and a wide range of troubleshooting tests. Operator convenience and simplicity of use were primary considerations in the design of the 691. Component selection and device ratings are such as to enhance the instruments reliability even with adverse handling. The 691 occupies only 10 1/2" of vertical rack space in a standard 19" rack.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
691	\$5295.00	\$5295.00	\$5263.00

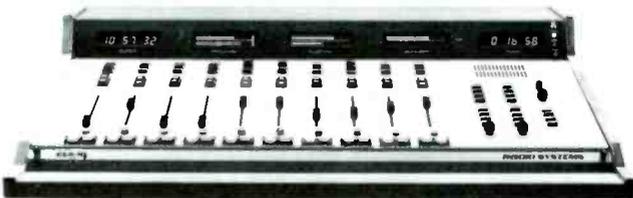
RADIO SYSTEMS



PA-1



DA-16



ESA-10

Distribution Amplifier

The DA-16 provides 8 stereo or 16 mono, independent audio outputs from one input. The DA-8 provides 8 mono outputs. Each output is completely isolated and has an individual level control. A single feed can be routed to multiple locations of varying level requirements and impedance, protecting the integrity of the signal quality through every output.

Bridging inputs allow these DA's to be connected to a program feed with no line loading. A typical studio application is to connect the DA in parallel with the console air output for distribution of the program signal to other feeds.

Level controls are accessible, yet tamper resistant, through front panel access holes. All connections are made on convenient, full sized, rear panel barrier strips.

The entire DA occupies only one unit (1 3/4") of rack space.

ESA-10 Console

The Radio Systems ESA-10 Console is a ten channel, stereo, dual output console which utilizes total DC control to provide superb audio specifications.

A special, digitally controlled attenuator and C-MOS input and output switching confines all the audio to the rear of the console yielding extremely low noise and distortion figures and high RFI immunity.

Internal level adjustments can be trimmed for each input and output. A set up meter is provided for precise calibration. The stereo, high definition LED meters can be set for average or peak response and peak indicator turn on point.

Specifications

Distortion: .02% Max THD

Noise: 90 DB below +8 output (line)
80 DB below +8 output (mic)

Frequency Response: 20 to 20 KHZ ± .1 DB

Max Output: +25 DB

Phono Preamplifier

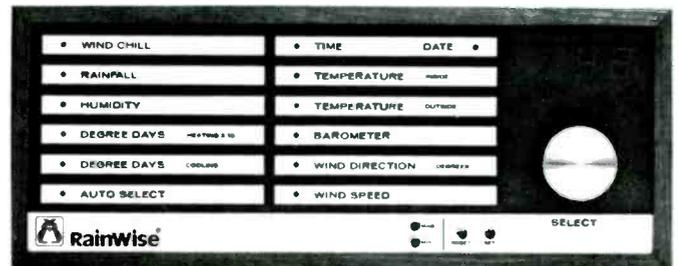
The pre-amp that set the standards:

Today, with over 2,000 in use, broadcasters, have made the PA-1 the sensible choice. That's because it fills the gap perfectly between older designs that degrade critical turntable audio and expensive "audiophile" units that are not built to broadcast specifications.

Time and time again, the PA-1 performs flawlessly in intense RF environments where no other phono pre-amplifier will work. **Input and output RF suppression and ground-plane circuit technology block RF interference, eliminating the need to resort to distortion-prone audio transformers.**

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ESA-10	\$9950.00	\$9751.00	\$9353.00
PA-1	295.00	287.60	272.90
DA-8	329.00	320.80	304.35
DA-16	409.00	398.80	378.35

RAINWISE



Digital WeatherStation™

The ultimate in weather watching

Engineered for precision and trouble-free operation, this computer-age WeatherStation™ monitors seven different weather phenomena.

Each WeatherStation™ comes complete with appropriate outdoor transducer and all wire and hardware necessary for simplified installation. The low voltage solid state transducers will provide many years of trouble-free service. **Wind Speed, Wind Direction, and Rainfall** are provided with 100 feet of connecting wire.

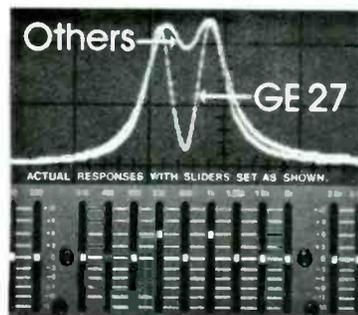
RAINWISE cont.

Temperature and outdoor Relative Humidity are provided with 40 feet of connecting wire. Longer lengths are available by special order.

- **Wind Chill** Choice of readout in F° or C°
- **Rainfall** Measures in .01 of an inch. Provides a cumulative recall.
- **Relative Humidity** Shown in percent.
- Degree Days Heating, X10
- **Degree Days Cooling.**
- **Auto Select** Provides 4 second readout of each function in sequence.
- **Time** 12 hour format. **Date** Month and Day (24 hour format for Max/Min).
- **Inside Temperature** Choice of readout in F° or C°.
- Readout in Millibars available by special order.
- **Outside Temperature** Max/Min for selected period of time. Choice of readout in F° or C°.
- **Barometric Pressure** in inches of mercury. Flashing indicates falling. Has max/min recall.*
- **Wind Direction** Display in 10° increments of 360° compass rose.
- **Wind Speed** With maximum gust. Choice of scales: MPH, KPH, Knots.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
WS-1000	\$990.00	\$891.00	\$792.00

RANE



GE 27 State Variable Graphic Equalizer

- 27 Precision state variable filters on ISO centers maintain constant 1/3 octave bandwidth at all slider positions
- State variable filters provide maximum resolution with minimum interaction and ripple allowing greater feedback control with minimal effect on sound quality.
- Long throw 45mm sliders provide high resolution with 12 dB boost and 15dB cut, precisely calibrated.
- 91dB signal-to-noise ratio, 10V/uS slew rate, all steel chassis with automatic unbalanced/balanced/floating 1/4" RTS input and output.
- Sliders are grouped into three sections: Bass, Mid-range and treble for greater ease of operation.

The GE27 State Variable Graphic Equalizer brings a whole new standard of precision to the third-octave format. Through the development of special state variable filter circuits the GE27 provides dramatic performance advantages over standard LRC or gyrator designs.

Call for prices. 1-800-54-RADIO

REVEAL



Reveal makes records sound better

Let's face it . . . a lot of time is wasted in the recording studios because of "pops", "clicks", surface noise and distortion just transferring library music from disc to tape. Too often, the "right" piece of music is available only on disc and quality leaves something to be desired (either because of the accumulation of dust and dirt, or the simple wear and tear of many plays), or even worse, a "new" record comes in and sounds like it has been played a few hundred times.

We think REVEAL will change a lot of that in your station. But before you try it we think you should know a few facts about REVEAL:

- REVEAL works by improving the performance of the record disc itself . . . by first removing all the obstacles that the stylus encounters such as particles of accumulation, even the stubborn mold release compound left behind in the record pressing process. . . .
- Then conditioning the groove surface for optimal transfer of music signal information through the cartridge by vastly improving several aspects of tracking.
- REVEAL is a radical departure from other record care products. It is completely safe and contains no alcohol or petroleum by-products which can harm records and build up. In lab test of REVEAL the results were astonishing. Using new test records from consecutive stampers, REVEAL reduced low frequency noise on a silent groove 3dB! Not only that, but REVEAL reduced Total Harmonic Distortion 11.25%!

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
PRO-KIT	\$9.95	\$8.85	\$7.76
REFIL	5.95	4.46	4.01

REVOX

PR99 MKII Audio Recorder

The REVOX PR99 MK II is a versatile, compact, and fully professional audio recorder. It offers a long list of operating features for production flexibility, yet it in no way compromises a commitment to engineering excellence which has made STUDER REVOX the world's most respected name in audio recording.

PR99 MK II is a practical alternative to more expensive machines in a variety of applications.

Broadcast: On-air studio playback, production, OB vans, portable remotes, and automation systems. Standard and Reproduce-Only versions.

Recording Studio: Ideal for dubbing, slap echo, and other general uses. An excellent mastering deck for small 4 and 8-track studios.

Remote Recording: An ideal lightweight package. Transport case, monitor panel, and balanced mic inputs available.

Designed in Switzerland and manufactured in West Germany, the PR99 MK II draws on the same engineering experience and technology that have made STUDER recorders the world standard for excellence. No matter what your application, a PR99 MK II will provide a level of performance you'd expect only from a higher-priced recorder.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
B710	\$1999.00	\$1899.00	\$1809.00
B77	1799.00	1666.00	1546.30
PR-99	2250.00	2137.40	2036.00
PR-99 PLAY	1499.00	1376.60	1311.44

REVOX cont.

B225 Compact Disc Player

In designing the B225 CD-Player, REVOX has clearly demonstrated the development and production experience which has made the company world famous as audio specialists.

The outstanding performance specification and exceptional operating convenience will satisfy even the most discerning users.

A commitment to better sound quality

The acceptance of the compact disc system is virtually total. Using a laser to extract information from the CD medium eliminates mechanical wear from both disc and player. With the B225, REVOX has entered the world market at the forefront of this technology. This component of the REVOX system is outstanding in technical construction and operating ease. The transport and its laser system are designed to enable trouble free playback of discs that are eccentric, dirty or scratched.

A full range of features

Almost every conceivable feature has been realised by REVOX: professional programming capacity with 19 program steps, extremely short cueing times, calibration tone for adjustment of system levels, adjustable headphones output and two



audio outputs. The "oversampling" technique developed in Europe, eliminates distortion of frequencies above half of the sampling rate without affecting phase relationship and guaranteeing highest sound resolution.

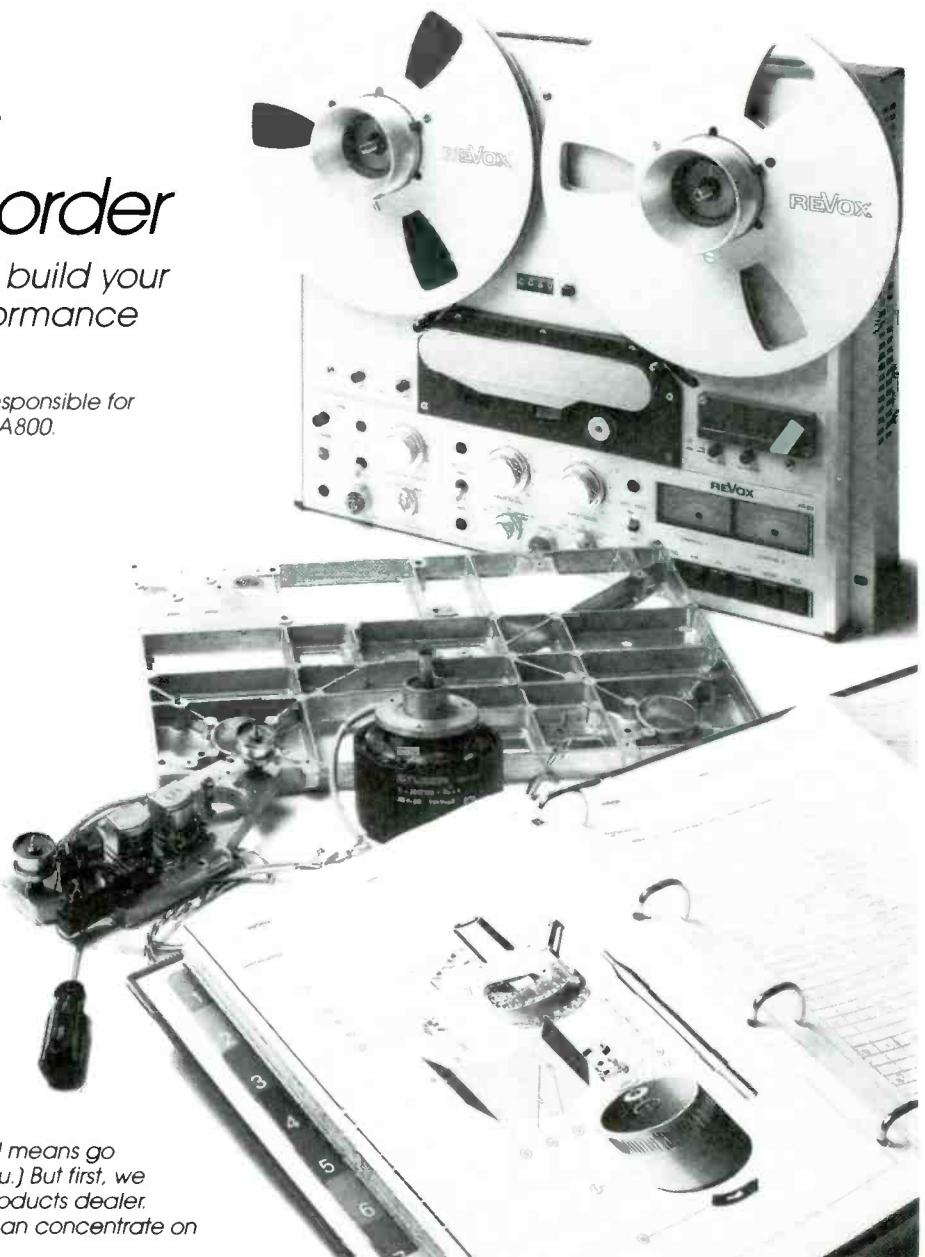
MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
B225	\$1150.00	\$1092.60	\$1040.95

How to Build a Better Compact Professional Recorder

Follow this step-by-step guide to build your own rugged, reliable, high-performance professional recorder.

1. For your design team, hire the same engineers responsible for world's premier multi-track recorder, the *STUDER A800*.
2. Employ meticulous Swiss and German craftsmen for all fabrication and assembly.
3. Use solid aluminum alloy die-castings for transport chassis and headblock.
4. Use the finest Swiss and German machine tools for milling, drilling, and tapping.
5. Use only professional-grade mechanical and electronic components.
6. Make your own audio heads to ensure the highest quality.
7. Apply gold plating to audio switching contacts.
8. Include the following standard features: Balanced and floating + 4 inputs and outputs • Calibrate/uncalibrate switches • Self-sync • Tape dump • Edit mode • Full logic transport control • Servo controlled capstan motor • Front panel input and output mode switching • Universal power supply • Rack mount.
9. Provide the following options: Rugged, steel-legged console • Transport case • Monitor panel • Remote control • Vari-speed control • Balanced mike inputs.
10. Support your finished product with a worldwide parts and service network.

If you can do all of this for under \$2100*—by all means go ahead! (Even Dr. Willi Studer would be proud of you.) But first, we suggest you consult with your *Revox Professional Products dealer*. He'll provide you with a ready-built *PR99*...so you can concentrate on building your reputation as an audio professional.



RUSSCO



American Built Direct Drive Turntable

After extensive research on direct drive systems for the last two years, RUSSCO ELECTRONICS offers the affordable RT-700.

Specifications

- All Aluminum construction . . . NO PLASTIC.
- Turntable Chassis dimension . . . 16" Deep x 17" Wide.
- Turntable will come up to full speed without wow, with back cue of 1½ inches.
- Speed locked by CRYSTAL REFERENCE.
- Rumble less than - 50 DB unweighted, D in "A", - 70 DB D in "B".
- Platter has 45 RPM built-in disc adaptor.
- Removable tone arm mounting plate. May be ordered with holes pre-cut to fit most available tone arms including the RUSSCO RTA-12.
- Turntable may be easily removed by a simple momentary action switch.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RT-700	\$850.00	\$824.50	\$799.00



RTA-12 Tone Arm

Russco has designed the polished aluminum and chromed brass RTA-12 to stand above all the competition. Here's a tone-arm for the professional that literally floats on slick moving instrument ball bearing races and widely spaced jeweled pivots. Stylus pressure is adjusted so easily with accurate calibrated weights You needn't worry about accidental scratches or damage to the stylus with the extra wide tone arm rest. But don't be fooled by the RTA-12's precise delicacy of movement. This is a tone arm built to last a lifetime of use. Every part that fails in the usual home entertainment tone arm has either been designed out or strengthened beyond normal specifications. For instance, the head shell is permanently an integral part of the arm to insure positive connection. There's simply no comparison for quality!

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
RTA-12	\$154.00	\$147.10	\$140.20



Monitor/Master 225 Stereo Amplifier

- All purpose Audio Amplifier
- Dual Channel 25 watts RMS each
- Excellent channel separation allows use as two monaural amplifier.
- All solid state
- Epoxy glass circuit board
- Low distortion-excellent frequency response
- Fused output lines
- Integrated circuit input stages
- Accessory amplifier to the Russco 505 S console mixer
- Accessibility thru the panel to change channel level preset controls

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
MA-225	\$264.00	\$254.10	\$244.20



DA 4428



DA 2418

Distribution Amplifiers

If you've been wanting a distribution amplifier to make your system more flexible and professionally functional . . . Wait no longer! Plug into the New, versatile RUSSCO MULTI-MATE that gives you simplified routing of multiple audio signals throughout your station INEXPENSIVELY! You'll have instant flexibility without modifications or options; either stereo or mono with the same unit. The basic 2418 model offers you 2 inputs with 4 stereo outputs or 8 monaural channels total. The larger capacity 4428 model doubles those channels to 16 maximum. Notice you may use either model balanced or unbalanced with no internal changes. Each individual output is separately screwdriver adjustable. The MULTI-MATE amps are RF proofed. The only option you may ever require is handsome anodized rack mount panel.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
DA 4428	\$482.00	462.80	\$443.60
DA 2418	316.00	304.15	292.30

RUSSCO cont.



Stereo Fidelity-Master
FMSU
 Stereo—Unbalanced output
FMSB
 Stereo—Balanced output

Stereo Fidelity-Pro
FPSU
 Stereo—Unbalanced output
FPSB
 Stereo—Balanced output



Russco Fidelity Pro & Fidelity Master Phone Pre-Amps

Designed exclusively for the professional, these new photo pre-amps are years ahead in quality engineering! These attractive pre-amps include integrated circuits, self-contained power supplies, industrial rated components and a custom-made "Easy-access" enclosure. Mono or Stereo versions are available with balanced or unbalanced output. The FIDELITY MASTER series offers straight RIAA equalization. The FIDELITY-PRO units feature switchable high and low frequency filters. The balanced output models include highest quality transformers for true line isolation! You'll find the right one for your requirements with eight different models in all.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
Stereo Fidelity-Master			
FMSU	\$238.00	\$229.00	\$220.00
FMSB	295.00	283.90	272.80
Stereo Fidelity-Pro			
FPSU	257.00	247.25	237.50
FPSB	309.00	297.45	285.90



Model 2U: Stereo Unbalanced
 Model 2B: Stereo Balanced



Model PS: Power Supply
 (for PHONO-MATE pre-amps)

Phono-Mate Professional Phone Pre-Amps

The PHONO-MATE series is the complimentary line to the RUSSCO Fidelity-Pro and Fidelity Master pre-amps. PHONO-MATE Pre-Amps however, were specially designed for use with an outside power supply. That means a big savings in initial

cost and besides, your existing equipment may already contain an adequate power supply. The PHONO-MATE is supplied with connector cables for use with any outside source of DC power between 27 and 39 Volts. Or you may purchase RUSSCO's PHONO-MATE Power Supply will reduce hum and noise.

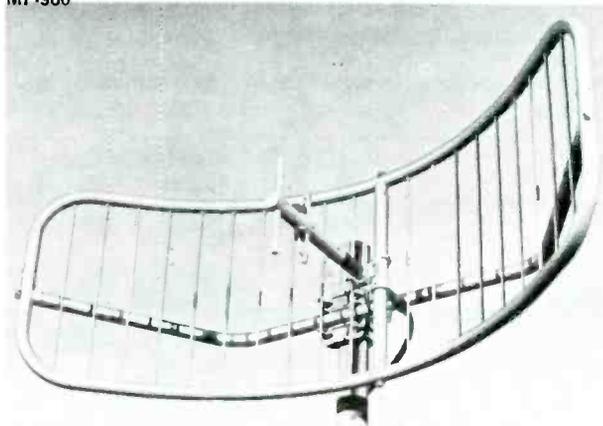
MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
2U	\$148.00	\$142.45	\$136.90
2B	177.00	170.40	163.80
PS	68.00	65.00	62.00

SCALA



PR-450U

MF-960



MF-960 Miniflector

The Scala MF-960 Miniflector™ is designed for broadband applications in the 940-960 MHz spectrum where the higher performance of the Scala PR-450U Paraflector™ is not required.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
MF-960	\$300.00	\$297.00	\$288.00

PR-450U Paraflector

The Scala PR-450U Paraflector™ is widely used in point-to-point communications, telemetry and UHF-TV systems in the 350 to 1000 MHz spectrum. Paraflector™ performance approximates that of a parabolic dish of the same aperture, and is easier to assemble and install. The PR-450U offers rugged construction for reliable long-term service, even in severe environmental conditions.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
PR-450U	\$500.00	\$495.00	\$480.00

SENNHEISER



MD 421



MD 441

MD 421 Cardioid Dynamic Microphone

This is the microphone for today. Today's world of rock concerts at over 130 dB . . . studio recording sessions in close proximity to all types of instruments . . . disco deejay applications . . . and location field recording—like jetports—with even higher levels. No other microphone is this immune to overload, yet so precise over such a wide range of frequencies.

Technical Data

Frequency response: 30-17,000 Hz

Acoustical mode of operation: pressure gradient transducer

Directional characteristic: cardioid

Rejection at 180° and 1000 Hz: 18 dB-2 dB

Open circuit output level at 1000 Hz ref. 1 V/10 μ bar:
- 54 dB \pm 3 dB

Impedance (1 kHz): 200 Ω

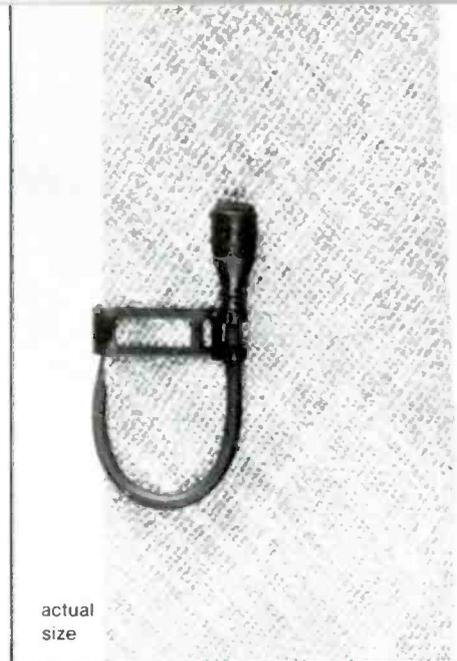
Bass attenuator switch: 5 steps

MD 441 Supercardioid Dynamic Microphone

- Studio Accuracy
- Onstage Ruggedness
- Superb Performance with Vocals and Instruments

The MD 441 is designed for a wide variety of professional applications, including live performances, sound reinforcement, recording studio, film and broadcasting. Human-engineered with satin-chrome finish and non-slip, leatherlike grip surfaces—and acoustically engineered for superb technical performance—the MD 441 is a precision instrument that will delight any professional. Performers and engineers alike.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
MD 421	\$332.00	\$294.82	\$268.26
MD 441	469.00	416.47	378.95



actual size

MKE 2 Miniature Electret Lavalier Microphone

Measuring a mere 5.9 mm (approx. 0.23 inches) in diameter and 11 mm (approx. 0.43 inches) in length, the MKE 2 represents Sennheiser's thoughtfully conceived answer to the increasing demand for smaller and less conspicuous lavalier microphones. Its exceedingly small size, matte-black finish and the multitude of mounting options provide the video, motion picture and theatrical professions with a broad choice of inconspicuous or concealed microphone placement possibilities.

Call for prices. 1-800-54-RADIO



K3U

ME 20

Omnidirectional, Super Cardioid Shotgun, Spot, Lavalier Multimike System

K3U Powering Module Equipped with a 5.6V battery—or remote-controlled with a recorder or console via a 12 to 48V phantom circuit—the K3U powers any one of the five modular heads. Battery life is approximately 600 hours. An LED indicator flashes when the K3U is switched on, indicating at least 20 hours of remaining battery life.

A three-position roll-off switch (flat, -7 dB and -20dB at 50Hz) permits reduction of wind and handling noise without affecting voice pickup.

The K3U has a balanced, low-impedance output.

K1U Powering Module (not shown) can be used for unbalanced inputs with medium or high impedance, such as those required by audio recordings.

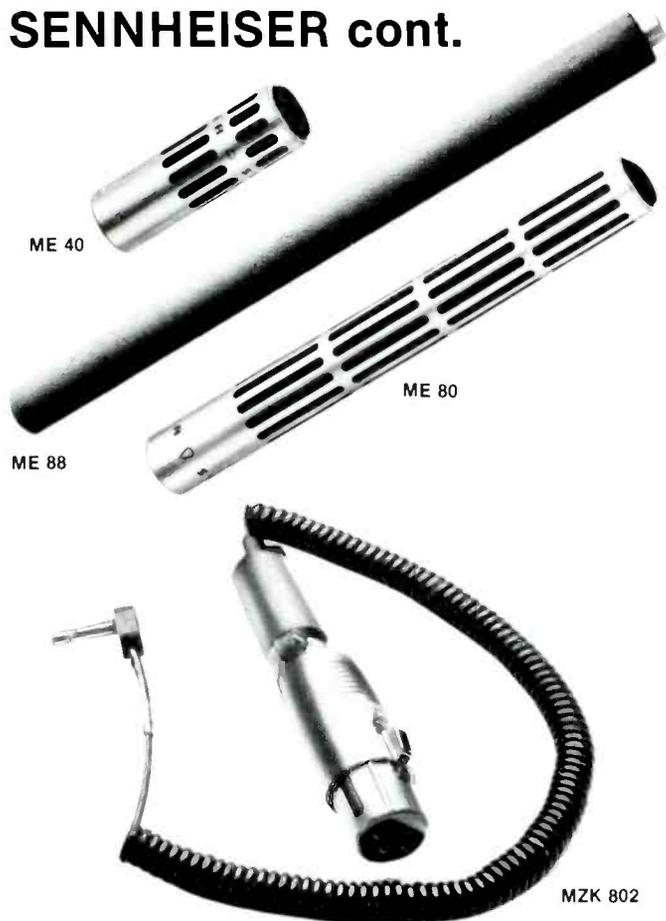
Call for prices. 1-800-54-RADIO

ME 20 Microphone Module

The omnidirectional characteristic of this microphone module simplifies the conduct of Interviews, as it is no longer necessary to point the mike back and forth from speaker to speaker. Its insensitivity to handling noise is another useful feature. The uniform all-around pickup sensitivity permits more interesting highlighting of broadcasts owing to the selective background noise level. Moreover, where it is possible to use only one single microphone—for example for a round-table discussion in a quiet environment—this microphone head offers the ideal solution.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
ME 20	92.00	81.70	74.34

SENNHEISER cont.



ME 40

ME 80

ME 88

MZK 802

ME 40 Microphone Module

The cardioid directional characteristic of this microphone module is ideal for working in acoustically unfavourable surroundings tending to generate feedback and in the presence of high ambient noise and reverberation. During interviews it permits a more selective emphasis of the voice of the speaker from environmental noises. However, a degree of dexterity is required of the interviewer, who must ensure that the microphone is always aimed at the speaker. Other typical applications for this microphone include dubbing of amateur film, voice transmission on small PA systems, music transmission from amateur groups and bands and even for the teaching of elocution and language courses.

ME 80 Microphone Module

Combination of a supercardioid with a shotgun characteristic at frequencies above 2000 Hz renders this microphone still more sensitive in the main direction of an acoustic intake. It is therefore suitable for use in those cases where the directivity of the ME 40 Module is no longer adequate. For example, this has led to widespread adoption of this microphone module by live sound amateur filmmakers in conjunction with the MZG 802 and MZS 802 described overleaf.

The greater directivity of this microphone module guarantees even greater protection against feedback when used in PA systems.

ME 88 Microphone Module

Combination of a cardioid characteristic with a shotgun characteristic at frequencies above 1000 Hz renders this particular microphone ideal for recording from even greater distances than any of the modules described so far. Without any exaggeration it may be claimed that this microphone module offers the audio amateur similar scope to the facilities available to the professional using the MKH 816 URF condenser microphone. The extremely low weight of only 64 gr and expanded foam windscreen render this mike particularly suitable for use in this area. When used in conjunction with a sound camera its ability to suppress camera noises will prove particularly beneficial.

MZK 802 Connection Cable

Connects the powering module directly to a sound camera with compact coiled cable extending a full three feet. Steel-reinforced for durability and safety.



Windkap

HMD 414-6

HMD 414 Microphone/Headphone

- Frequency response of headphone: 20 to 20,000 Hz.
- Frequency response of microphone: 50 to 12,000 Hz.
- Dynamic transducer principle: Headphone systems 600 Ohms.
- Microphone system 200 Ohms.
- Simple microphone adjustment.
- Flexible microphone mounting.
- Maximum microphone sensitivity in mouth direction by pronounced patented "displaced" directional characteristic.

At the time of the World Cup football competition in Mexico in 1970 the German broadcasting organisation foresaw a special problem confronting them; they were aware that the enthusiasm of football audiences in Central and South America was said to be distinctly greater than in Europe. For the reporters working there in the football stadium this meant that a considerable amount of crowd noise was to be anticipated, on the order of 10 to 15 dB above the levels to which they had been accustomed in Europe.

Conventional headphone/microphone combinations were totally unable to cope with these conditions. Consequently Sennheiser launched development work on a totally new headphone/microphone combination based on the world-proven HD 414 model. A microphone which could be positioned at varying angles to the mouth and with a directional characteristic which could be described as "displaced" in relation to the mouth was developed and patented. As a result of this unusual solution all transmissions on West German radio and TV from the World cup championships in Mexico—and naturally also from numerous other similar events since that time—been reproduced in perfect quality despite any amount of background crowd noise.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HMD 414	\$200.00	\$181.24	\$167.84
ME 40	130.00	115.44	105.04
ME 80	201.00	182.15	168.68
ME 88	270.00	244.67	226.58
MZK 802	32.85	29.77	27.57

SENNHEISER cont.



HMD 224 Enclosed Headphone/ Microphone Combination

- Frequency response of headphone: 15 to 20,000 Hz.
- Frequency response of microphone: 50 to 12,000 Hz.
- Dynamic transducer principle: Headphone drivers 200 Ohms. Microphone system 200 Ohms.
- Microphone easily adjustable.
- Maximum sensitivity of microphone in direction of mouth owing to distinctive "displaced" directional characteristic.

The high electro-acoustical quality and rugged mechanical design of the enclosed Sennheiser HD 224 headphone with circumaural air-filled double-layer plastic air cushions forms the basis of the HMD 224 headphone/microphone combination. The directional microphone used for this purpose is identical to that used in the HMD 414-6 described previously and naturally displays the same advantages. The combination of headphone and microphone weighs a total of only 360 g. It is therefore lightweight and comfortable to wear and is absolutely ideal for studio use and a wide range of commercial application.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HMD224	\$220.00	\$195.36	\$177.76

HD 430 New Generation Open aire® —Headphones

An exclusive design advance, with adjustable suspension strap for custom fit and comfort . . . and unique ear cushions which separate the ear from contact with the pad, yet permit a total Open-Aire listening environment.

- Frequency Range: 16 Hz to 20 KHz
- Impedance: 600 ohms per channel
- Sensitivity Nominal SPL @ 1KHz: 94 dB with 1mW input
- Harmonic Distortion: Less than 0.5%
- Weight: 7 ounces
- Cable: 10 foot cable and stereo phone plug

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HD430	\$134.00	\$117.49	\$105.70

HD 420 Open-aire Headphones

A favorite in our family of Open-Aire headphones, with adjustable suspension strap and cushion-like earpads for unbelievable comfort. And truly unbelievable sound. Smoother midrange and highs. Richer bass tones. The headset for hours of listening enjoyment without discomfort or fatigue.

- Frequency Range: 18 Hz to 20 KHz
- Impedance: 600 ohms per channel
- Sensitivity Nominal SPL @ 1 KHz: 94 dB with 1 mW input
- Harmonic Distortion: Less than 1%
- Weight: 4 ounces
- Cable: 10 foot cable and stereo phone plug

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HD420	\$94.00	\$83.47	\$75.95

HD 414 SL Open-aire Headphones

Introducing the worthy successor to our famous HD 414—the largest selling headphone in history. The HD 414 SL features improved transient response and wider dynamic range. Like all Sennheiser headphones, our new HD 414 SL is perfect for digital sound.

Sennheiser's Open-Aire® technique, plus new contoured cushions, adjustable headband, and advanced structural design, make owning the HD 414 SL a most pleasurable experience.

- Frequency Range: 20 to 20,000 Hz
- Impedance: 600 ohms; may be used with 4-ohm to 600-ohm outputs
- Sensitivity: 94 dB SPL/1mW/1KHz
- Distortion: Less than 1% THD @ 94 dB SPL
- Weight: 4 ounces without cable
- Cable: 10 Ft. stranded steel with molded standard ¼" stereo phone plug

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HD414	\$84.00	\$73.63	\$66.26



SENNHEISER cont.



HD 410



HD 40



MS 100



HD 224X

HD 410 Open-Aire® Headphones

With these new HD 410 headphones, Sennheiser has improved on the hard-to-improve. The HD 410 replaces the best-selling HD 400, but continues the Sennheiser Open-Air® family tradition of featherweight convenience combined with sound that exceeds that of the most expensive loudspeakers.

What is more, they now come with user-replaceable, stranded-steel cables for even greater durability and lightweight versatility. The HD 410 provides clarity and definition that are extraordinarily lifelike and rich, as well as remarkably flat, wide response and excellent dynamic range.

The Sennheiser 410. Engineered for breathtaking sound, designed for elegance and simplicity, constructed to be rugged and durable.

Frequency Range: 20 Hz to 18,000 Hz

Impedance: 600 ohms; may be used with 4-ohm to 600-ohm outputs

Sensitivity: 94dB SPL/1mW/1 kHz

Distortion: ≤ 1.2% THD at 94 dB SPL

Weight: 2.8 ounces without cable

Cable: 10 foot user-replaceable stranded-steel with molded standard ¼-inch stereo phone plug

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HD410	\$36.49	\$34.67	\$33.37

HD 40 Stereo Headphones

- Frequency response: 22 to 18,000 Hz.
- Open dynamic transducers.
- Ideal price/performance ratio.
- Extremely lightweight, only 60 g.
- Excellent reproduction characteristics.
- Pivoted earphone capsules.

With the HD stereo headphones Sennheiser has expanded the range of open headphones for those customers wishing to obtain excellent tonal quality and perfect wearing comfort at a budget price. The headphone is extremely lightweight and virtually unnoticeable when worn. The relatively large headphone capsules sit comfortably in position and adapt readily to the ear. In addition the larger headphone elements give a quality sound which is fully in line with customary Sennheiser standards. The headphone capsules can be pivoted by 90° about the headband axis to permit safe storage in even the shallowest drawer, also when travelling. The HD 40 is fitted with the PX 1 universal jack connector.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HD40	\$37.50	\$32.88	\$29.58

MS 100 New Inside-Out™ Headphones

An exclusive new design in headphones that are compatible both with fine home stereo equipment and portable walk-arounds . . . complete with 6-foot "Inside" extension cable . . . exclusive Sennheiser Open-Aire® technology is comfortable, lightweight, yet permits total listening environment indoors or out.

Frequency Range: 20 Hz to 20000 Hz

Impedance: 42 ohms

Sensitivity Nominal SPL at 1 KHz: 96 dB

Harmonic Distortion: 1%

Weight: 1.4 ounces

ACCESSORIES: Outside 4-foot cable with standard mini-stereo plug. Inside 6-foot extension cable with standard stereo phone plug. 2 extra Open-Aire® headphone cushions

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
MS100	\$85.00	\$75.48	\$68.68

HD 224X Enclosed Dynamic Hi-Fi Stereo Headphones

- Frequency response: 16 to 20,000 Hz.
- Enclosed dynamic transducers.
- Thoroughly proven magnet system.
- Weight: approx. 240 g.
- Break-resistant stainless steel connecting lead.

This enclosed hi-fi stereo headphone guarantees excellent screening of ambient noise. Emphasis can be laid on the extreme wearing comfort, excellent transmission range and brilliant treble reproduction together with superb dynamic range. The lightweight, soft ear cushions enclose the ears comfortably to eliminate external noises without any trace of discomfort, even after hours of wearing.

Even at low volume levels virtually no ambient noises can be heard which might impair listening pleasure. The superlative acoustic qualities of this headphone render it particularly suitable for binaural stereo listening.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HD224	\$153.00	\$135.86	\$123.62

SHIVELY



High Power Circularly Polarized Model 6810 FM Antenna

- Broadband low Q impedance characteristics
- 10 kw power rating per bay
- Directional patterns available
- Pattern optimization available
- Automatic pressure relief valve included

The Shively Model 6810 Circularly Polarized Antenna provides the high power FM broadcaster with a proven reliable antenna. Shively Labs is proud to have this model operating on the summit of Mt. Washington, N.H., which experiences the most extreme weather conditions in the United States. Its outstanding engineering design offers true circular polarization and excellent azimuth pattern circularity. Its bandwidth is such that it enhances stereo broadcasting and can be diplexed over a 2.4 MHz bandwidth with a VSWR of 1.1:1 or better over each channel. On a single frequency the VSWR is 1.08:1 or better over the channel.

The Model 6810 is unusually capable of being directionalized. Pattern studies and optimization as well as null fill and beam tilt are available at extra cost.

Call for discount prices. 1-800-54-RADIO

Medium Power Circularly Polarized Model 6813 FM Antenna

- 3 kw power rating per bay
- Pattern optimization available
- Automatic pressure relief valve included

The Shively Model 6813 Circularly Polarized Antenna is a proven reliable antenna for the medium power FM broadcaster. Its outstanding engineering design provides true circular polarization, excellent azimuth pattern circularity and fine stereo performance. The Model 6813 is competitively priced to give unusual value. Pattern studies as well as null fill and beam tilt are available at extra cost.

The antennas have very low windloading. Even with radomes it windload favorably compares with other antennas which claim not to need radomes.

Call for discount prices. 1-800-54-RADIO

SHURE



M267 Professional Microphone Mixer

- For Professional Broadcasting both TV and Radio—in studio and for remote broadcast applications
- For Professional Recording
- For Professional Sound Reinforcement for more complex public address systems

Features

- **IMPROVED! Mic/Line Switch**—XLR output and all four XLR inputs are switchable to Microphone or Line Level. Gold contacts!
- **New! Simplex (Phantom) Power**—switchable 30 Vdc on all microphone inputs to power condenser microphones.
- **NEW! Headphone Ampl/Line Switch**—choose Amplifier position for high level monitoring or Line position for talkback. Gold contacts!
- **IMPROVED! Low Distortion**—less than 0.35% at line level output.
- **NEW! Electronic Power Supply Regulation**—improved performance on low or high ac line voltage
- **IMPROVED! Low Distortion Tone Oscillator**—1 kHz signal with front panel switch. Gold contacts!
- **NEW! Active Gain Controls**—lower noise, greater dynamic range, and automatic input attenuation through the use of feedback-type volume controls.
- **NEW! LED Peak Indicator**—faster than any VU meter, it warns user when program levels approach overload or indicates the onset of limiting.
- **IMPROVED! Battery Check Function**—check battery condition without interrupting the program.
- **NEW! Headphone Level Control**—adjusts monitor volume to user's need.
- **IMPROVED! More Headphone Power**—improves headphone monitoring under noisy conditions; use headphone output to drive a tape deck or power amplifier.
- **NEW! Automatic Muting Circuit**—prevents annoying clicks and thumps when unit is turned on or off.
- **NEW! Peak Program Limiter**—eliminates overload distortion by monitoring program levels AND power supply level.
- **NEW! Built-In Battery Pack**—operates on three readily available 9-volt alkaline batteries and switches automatically to battery power if ac fails.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
M267	\$440.00	\$352.00	\$325.60

SHURE cont.



FP11



FP12

FP11 Mic to Line Amplifier

The FP11 is a 1-input, 1-output mic to line level amplifier designed for field production use. The device is battery operated and has a maximum gain of 84dB, adjustable in 6dB steps. Field production encompasses the areas of electronic news gathering, electronic field production, and all on-location audio production. Daily news captured on tape or transmitted live via microwave and/or satellite. News documentary, an hour-long interview with the guy on the street, the President, or a sports event. The FP11 provides the features, the performance, and the portability demanded by the professional market. The FP11 will amplify any microphone level signal to line level. Such a device is needed when very long cable runs are necessary. Often signals are sent via telephone lines at sporting events. The FP11 will provide a line level signal from virtually any type of audio source. There has long been a need for a compact single-channel "mixer" for commonly encountered situations. The FP11 fills a product niche created by audio professionals who demand a compact, high-grain amplifier that has many applications.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FP11	\$175.00	\$135.00	\$126.00

FP12 Headphone Bridging Amplifier

The FP12 is a 1-input, 2-output headphone amplifier designed to provide headphone feeds from any type of audio input. The FP12 can be used for a variety of applications, such as adding headphone feeds, trouble-shooting audio lines, boosting headphone levels, or providing a simple intercom system. Where ever headphone monitoring is needed, broadcast, production, recording, and sound reinforcement, the FP12 is a valuable, and perhaps indispensable, tool. FP12 provides very loud monitor signals without interrupting the signal being monitored. It is compact, convenient, and quickly added anywhere. The audio signal inserted into the FP12 passes through it essentially undisturbed. The FP12 "bridges" the input signal with a high-impedance circuit, picks off a tiny portion of the signal, and then amplifies that portion many times, finally sending it to the headphone outputs. This type of bridging circuit allows many FP12 units to be used together without deteriorating the original audio signal. All competitive headphone amplifiers "terminate" the signal; that is, the monitored signals *does not* pass through. Terminating the signal severely limits the use of such a product.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FP12	\$160.00	\$128.00	\$118.40



FP31 Mixer

A compact, portable microphone mixer specially designed for electronic news gathering (ENG) and electronic field production (EFP) use, including film, video, and remote broadcast applications. Measuring just 6 $\frac{1}{16}$ "x1 $\frac{1}{8}$ ", the FP31 incorporates the features most requested by audio engineers, electronic news professionals, sportcasters, and film and video sound engineers.

The FP31 provides a wide, flat frequently response, low distortion, and up to +18 dBm output (up to +22 dBm with 18Vdc supply). The unit features extremely low internal noise and switchable low-cut filters for each input that effectively reject low-frequency handling and wind noise.

The FP31's versatility is enhanced by switchable simplex (phantom) or A-B power at each input for use with condenser microphones, a tape out mini-jack for connection to a cassette recorder, a coaxial battery jack permitting optional connection to external battery or power supplies, and a battery compartment that accommodates three standard 9V batteries. Batteries can be tested with without program interruption.

Supplied with the FP31 is a removable shoulder strap and a rugged, carrying case which allows easy access to every mixer function and lets you piggyback the mixer on your VCR or other equipment.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FP31	\$830.00	\$664.00	\$614.20



SM5B Unidirectional Dynamic Microphone

Specifically designed to minimize boom microphone problems in television and motion picture sound stage and location recording. Also excellent for voice-over and radio D.J. use. A smooth, wide-range frequency response with moderate presence rise makes it especially suitable for vocal pickup as well as scoring assignments. The SM5B has a cardioid pickup pattern with exemplary off-axis uniformity, even at the extreme low end, giving minimal coloration and maximum rejection of unwanted sounds.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SM5B	\$336.75	\$277.88	\$260.21

SHURE cont.



SM7 Unidirectional Dynamic Microphone

The SM7, designed in conjunction with professional users, is among the finest studio professional dynamic microphone in use today. Its "smooth and silky" sound has made it extremely popular for voice-over recording in radio and television work. It is also an excellent microphone for use with either instruments or voice in multi-track recording situations.

It features a wide-range, very smooth frequency response with graphic *response-tailoring switches* to permit the choice of four different microphone response curves: (1) flat response from 40 to 16,000 Hz; (2) midrange boost (presence peak) for enhanced speech or vocal intelligibility (+ 3 dB at 3,000 Hz); (3) low-frequency rolloff for natural close-up miking (- 6 dB at 100 Hz); (4) combination response with both midrange boost and bass rolloff. The slide switches provides a visual indication of the response selected (as shown at right). The microphone is supplied with a switch cover plate to guard against accidental switching.

The SM7 has an accurate, symmetrical cardioid pickup pattern, uniform with frequency. It provides maximum rejection of unwanted background noise along with minimum coloration of off-axis sound. Designed for boom or stand mounting.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SM7	\$510.00	\$408.00	\$377.40

SM53-SM54 Unidirectional Dynamic Microphones

Two versatile studio-quality microphones combine a smooth, wide-range, flat frequency response without strident peaks or false coloration—plus excellent noise rejection. They are highly recommended for use in recording, broadcasting, and high quality sound reinforcement.

Both microphones features an additional acoustic port for improved low-frequency directional control which effectively reduces proximity effect (the increase in bass response when a microphone is used close-up). They also feature a broad front working angle that provides constant tone quality despite user movement. This insures uniform sound quality even when the performer-to-microphone position and distance varies throughout a performance.

The SM53 and SM54 can be hand-held, stand mounted, or used in an overhead boom. The special internal shock mounting reduces susceptibility to mechanical noise, and an internal humbucking and coil prevents interference from strong hum fields, even for distant pickup applications. Their cardioid polar response is uniform over a broad frequently range so off-axis reflections, reverberation, and background noises can be controlled. Further, low-frequently background noise can be suppressed by means of a switch-selectable bass rolloff. Both microphone provide extraordinary ruggedness and are finished in durable champagne enamel.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SM53	\$324.50	\$259.60	\$240.13
SM54	346.25	277.00	256.23



Professional Performance/Unidirectional Dynamic Microphone

The world standard professional stage microphone, with the distinctive Shure upper mid-range presence peak for an intelligible, lively sound. A tough, handsome microphone that weighs less than 11 oz.

The SM58 is preferred for its punch in live vocal applications ... especially where close miking is important. In addition to the slight presence rise in mid-frequencies, it has a fixed low-frequency rolloff to minimize the "boominess" usually accented by close pickup. A built-in spherical windscreen takes the pop out of close-up use, and minimizes breath and wind noise distortion. The uniform cardioid pickup pattern greatly reduces off-axis coloration and rejects background noise to permit higher amplifier gain before feedback.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SM58	\$180.25	\$144.20	\$133.39

General Purpose/Unidirectional Dynamic Microphone

The SM62's flat, uncolored frequency response and uniform cardioid pickup pattern provide excellent performance as well as control of feedback and unwanted background noise. A carefully controlled low-frequency rolloff prevents the "boominess" associated with close miking. A rubber cartridge shock mount keeps handling noise low, and the integral wind-screen minimizes breath pop.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SM62	\$144.25	\$115.40	\$106.75

SHURE cont.



SM81



SM83

Professional Studio/Unidirectional Condenser Microphone

- Professional Recording
- Broadcast
- Motion Picture Recording
- Critical Sound Reinforcement
- EXTREMELY WIDE-RANGED FREQUENCY RESPONSE for exceptionally accurate recording, broadcast, and critical sound reinforcement applications.
- WIDE DYNAMIC RANGE—low noise and high output clipping level characteristics.
- QUIET—low handling noise, low internal electrical noise.
- PRECISE CARDIOID polar pattern with the supplied cartridge, uniform with frequency and symmetrical about axis, to provide maximum rejection and minimum coloration of off-axis sounds.
- OMNIDIRECTIONAL CARTRIDGE AVAILABLE—uniform sensitivity in all directions, instant changeover, fits own built-in attenuator.
- SUPERIOR LOW DISTORTION characteristics (right up to the overload point) over the entire audio spectrum for a wide range of load impedances.
- VERY LOW RF SUSCEPTIBILITY.
- SELECTABLE LOW-FREQUENCY RESPONSE FLAT: FLAT; 6 dB/octave rolloff at 100 Hz compensates for proximity effect; 18 dB/octave cutoff at 80 Hz reduces effects of low-frequency disturbances with minimal effect on wide-range program material.
- 10 dB ATTENUATOR for operation at high sound pressure levels, up to 145 dB SPL—accessible without disassembly, lockable in either position.
- FIELD-USABLE over a wide range of temperature and humidity conditions.
- DEPENDABLE DESIGN—Temperature and humidity stabilized diaphragm configuration, unique backplate structure designed to maximize signal-to-noise ratio and insure long-term charge stability.
- RUGGED CONSTRUCTION for outstanding reliability.
- WIDE-RANGE SIMPLEX POWERING includes DIN 45 596 voltages of 12 and 48 Vdc. In addition, it will operate over a wide range of power supply impedances.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SM81	\$348.00	\$275.00	\$253.15

Professional Studio/Line Level Condenser Microphone

A hand-held, self-contained, unidirectional condenser microphone with a built-in line level amplifier, peak limiter and battery. The exceptional performance and unique features of

the SM82 make it an outstanding choice for on-the-spot broadcasting, sound reinforcement, and recording applications where a line level microphone with a built-in limiter is needed. It is also ideal for applications involving long cable runs (up to one mile without equalization) such as sporting events, parades, political rallies, and other live remotes.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SM82	\$336.75	\$277.88	\$260.21

SM83 Omni Directional Condenser Lavalier Microphone

The SM83 has been specifically designed to provide superior quality sound reproduction in professional broadcasting, film, and related sound reinforcement applications. It features a wide-range frequency response, specially tailored to provide more natural sound. This response is achieved by an electronically created dip at 730 Hz to overcome the chest resonance phenomenon, and by an acoustically generated high-frequency boost above 3 kHz resulting in a cleaner, more pleasing sound than other lavalier mics. In addition, a 12 dB per octave rolloff below 100 Hz helps reduce room noise and other undesirable low-frequency signals.

The Shure-developed amplifier supplied with the SM83 is compact, lightweight and can easily clip onto a belt or fit into a pocket.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
SM83	210.00	169.00	151.50



50AC Telephone AcoustiCoupler

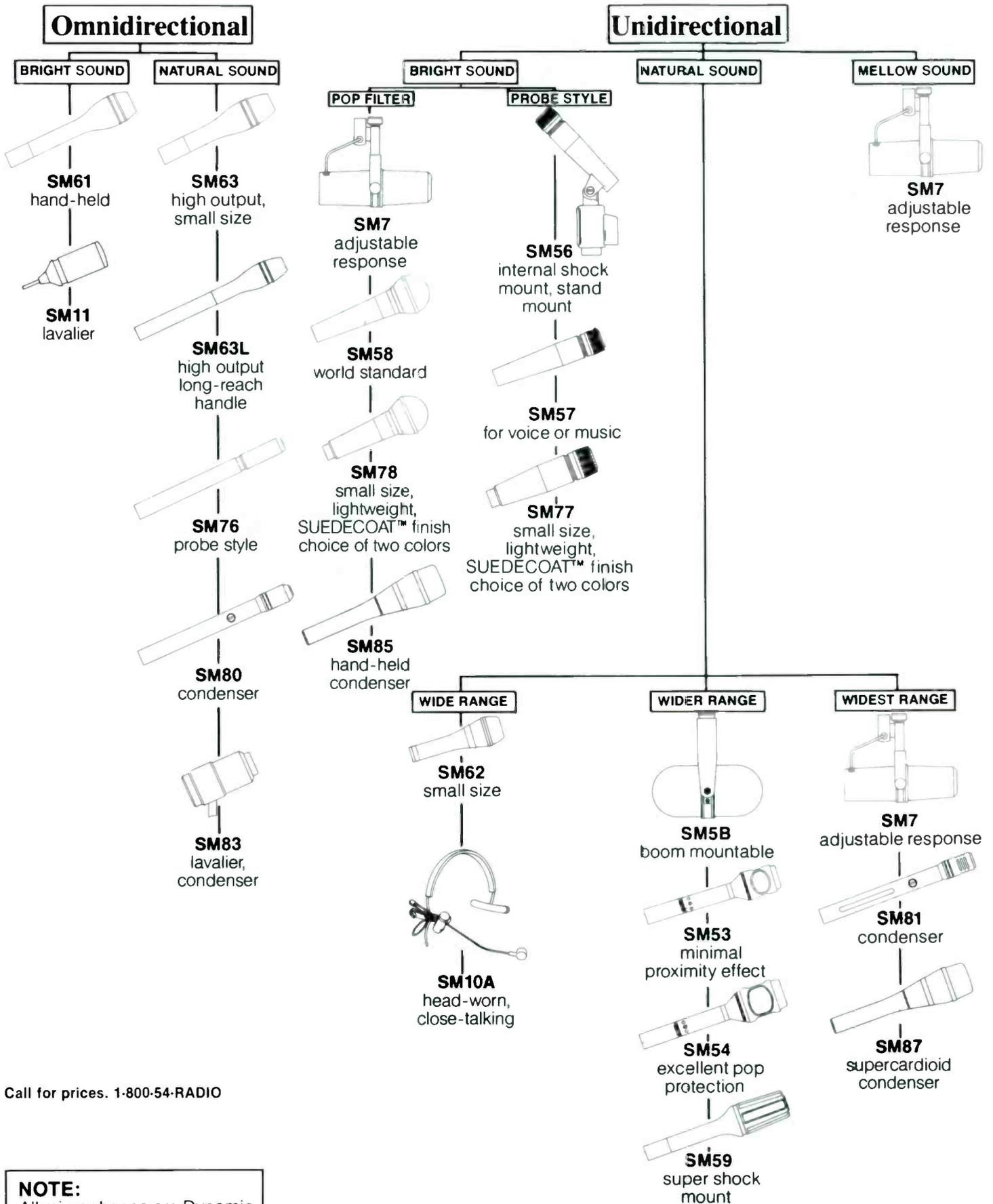
The 50AC is designed to acoustically couple tape-recorded information to a telephone handset transmitter. This is most useful in recorded interview broadcast applications when a tape recorder cannot be "hard-wired" to a telephone line. A simple strap assembly easily attaches and holds the 50AC in place on almost any telephone handset. Its rubber case seals the 50AC to the telephone, blocking out external sounds, thereby enhancing the intelligibility of the transmitted information. Depressing an integral lever break the seal and permits the operator to comment or add supplemental material without interrupting the tape or removing the 50AC from the handset.

The 50AC can also be used in real-time broadcasting applications with a mixer that has a line-level output. In addition, the 50AC can be used as a tape recorder microphone; its frequency response approximates that of a telephone.

The 50AC consists of a dynamic transducer cartridge in a small, lightweight molded rubber and plastic case. The attached 1.5 m (5 ft) cable terminates in a 1/8 in. "mini-plug" connector for attachment to the earphone or external speaker jack of most portable cassette recorders.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
50AC	\$46.25	\$37.00	\$34.23

SHURE cont.



Call for prices. 1-800-54-RADIO

NOTE:

All microphones are Dynamic unless otherwise indicated.

SONEX



The Beautiful Way to Kill Sound

Miracle 'fingers' absorb sound, 4x4-ft. squares

Sonex foam is a cost-effective means of improving your studio acoustics without resorting to major structural redesign. It uses the proven anechoic-wedge principle to significantly damp-out reflected sound. Each case contains 8 panels for a total of 128 square feet. Our clients have found 2-inch charcoal to be the most useful. Other thicknesses are available for unusual requirements.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
2-inch	\$310.00	\$310.00	\$297.60

SONY

TCM-5000 EV Professional Portable Cassette-Corder

- **Auto/VOR/Manual recording adjustment** for ultimate recording flexibility. Allows continuous recording with automatic level control, VOR recording, or continuous recording with manual level control for optimum recording results
- **Bucket Brigade Device (BBD)** works with VOR to store the first sounds until the recorder starts and the tape starts moving
- **Three-head recording/monitoring system** permits listening to the tape as the recording is made for professional-quality results
- **Professional-grade VU meter** for accurate readings of recording levels; battery check position shows battery level
- **Counter-inertial flywheel** helps maintain tape speed even when the unit is in motion
- **Electret condenser microphone design**—invented by Sony and now a "must" on all portable recorders. Combines small size with extended frequently response.
- **Voice Operated Recording (VOR)** starts recording when talking starts
- **VOR operation indicator LED**
- **Built-in electret condenser microphone**
- **Microphone mixing** allows mixing of signals from two microphones
- **Pre-end alarm LED and audible signal through earphone** alerts the user that the tape is about to end
- **Locking pause control**
- **Playback speed control** (+ 40%, - 20%) allows exact pitch matching or slow or rapid review
- **Continuous tone control** adjusts playback sound for best listening
- **Automatic shutoff** from the record and play modes conserves battery power and prevents mechanical wear
- **Three-digit tape counter** enables you to index your cassettes
- **Four-way power supply**

Power Requirements: Battery "C" x 4 (6V) (supplied); AC-120V, 60 Hz with AC-61 AC Adaptor (optional); DC-12V with DCC-127A Car Battery Cord (optional); Rechargeable Battery Pack BP-16H (optional)

Battery Life: 20 hours recording time (alkaline battery)

Supplied Accessories: (Carrying case; shoulder belt, ear-phone, RK-69A connecting cord; batteries "C" x 4

Optional Accessories: AC-61 AC Adaptor; DCC-127A Car Battery Cord; BP-16H Rechargeable Battery Pack; DR-200C Microphone/Headset

Weight: 3lb., 3 oz (with batteries installed)

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
TCM-5000EV	\$388.70	\$370.76	\$357.31

SOUNDOLIER



Modular Equipment Cabinets

- Vertical Racks
- Slope Front Console
- Slope Front Turrets
- Phono and Storage Drawers
- Steel Rack Panel

This is just one of many types of heavy duty styles available. Sturdy construction, futuristic design, many colors to fit any design, easy access and avoids clutter.

Call for information. 1-800-54-RADIO

SSAC

Tower Flasher

- **Totally Solid State**—No moving parts or contacts.
- **Zero Voltage Switching**—5 to 10 times longer lamp life, no RFI due to contact closure.
- **Encapsulated**—Protected against shock, vibration and humidity.
- **High Surge Capability**—Up to 300 Amperes.
- **Transient Protected**—High immunity to "LIGHTNING."
- **Easy to Install**—Replaces existing types, FAST, with no special tools.
- **Small Size**—2" x 2" x 3/4".

SSAC totally SOLID STATE TOWER FLASHERS have proven reliability with years of use on Radio and TV towers throughout the country. Each of these controls are built to exacting specification using only the highest quality electronic components. Design features such as zero voltage switching, inherent fail-safe, encapsulation and long life makes these devices superior to all others.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FS155-30T	\$52.00	\$47.32	\$44.20

STANTON



Model 310 Phone Preamp/Equalizer

Stanton Magnetics introduces its latest Model 310 Stereo Phone Preamp, designed to correctly interface all Stanton and selected magnetic phonograph cartridges for optimum playback of disc records and calibration of audio systems. The Stanton 310 Preamp features universal mounting by special brackets, instant selection of flat or NAB postemphasis curves, switchable effective rumble filter, individual adjustment of gains and high frequency responses, trimming of the capacitive cartridge loading at the input, providing for setting the power transformer for either 117 or 230 V operation at 50 or 60 Hz and immunity to external magnetic AC fields.

Performance Specifications 310 Preamp

OUTPUT: + 20dBm Maximum

FREQUENCY RESPONSE: ±0.5 dB from 20 Hz—20kHz in FLAT or NAB position of Mode Selector

DISTORTION: THD < .05% @ 20 dBm

OUTPUT SOURCE IMPEDANCE: 5 Ohms, Designed for loads 150 Ohms or higher

GAIN: Adjustable 30-60 dB

RUMBLE FILTER: 3 dB Knee @ 28 Hz; -35 dB @ 5 Hz

MAXIMUM INPUT LEVEL @ 1kHz: 120 mV

NOISE (input terminated in cartridge): - 70 dB Below 10mV input @ 1kHz NAB Curve, 44 dB Voltage gain
- 74 dB or lower with Rumble Filter in

INPUT RESISTANCE: 47K Ohms

INPUT CAPACITANCE: 15 pF, Switchable in 50 pF steps to 350 pF Maximum

CHANNEL SEPARATION: 60 db Minimum (20 Hz—15 kHz)

INPUT CONNECTORS: RCA Phono Jacks

OUTPUT CONNECTOR: 5 Terminal Barrier Strip

POWER REQUIREMENTS: Can be set for 100-125 VAC, or 200-240 VAC, 50-60 Hz, 5 Watts Maximum

INDICATORS: LED Pilot Light

UNIT DIMENSIONS: 2 1/4" x 5" x 7 1/4"
(57 mm x 127 mm x 184 mm)

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
310	\$190.00	\$180.00	\$165.00

500 Series Cartridge

There is a Stanton 500 for every broadcast application from critical auditioning in the record library to "Top 40" combo work where DJ operators have no time for stylus failures. The stylus assembly of the 500 Series can withstand the back-cueing and rough handling that would ruin ordinary pickups. Yet frequency response is superb, as are tracking ability, output and stereo channel separation.

500 Broadcast Standard Replacement Styli

CARTRIDGE NO.	REPLACE-MENT STYLUS NO.	SIZE	TRACKING FORCE	COLOR
500EE	D5100EE	0.3 x 0.7 mil Elliptical	1-2 grams	Black w/Gold Dot
500E	D5100E	0.4 x 0.7 mil Elliptical	2-5 grams	Black w/Red Dot
500AA	D5105AA	0.5 mil	1-2 1/2 grams	Black w/Gray Dot
500A	D5107A	0.7 mil	2-5 grams	Black w/Yellow Dot
500AL*	D5107AL	0.7 mil	3-7 grams	Black w/Aqua Dot
LP STYLI	D5110**	1.0 mil	2-5 grams	Black w/White Dot
78 RPM	D5127***	2.7 mil	3-7 grams	Black w/Blue Dot

*Extra heavy duty

**For LP's

***For 78 RPM's

600 Series Cartridge

This is an important group in Stanton's Professional Standard Series of cartridges. It's designated "The Broadcast Standard—H.P.," and it represents a noteworthy advance in cartridge design and engineering. Some outstanding features of Stanton's top-of-the-line 681 Series have been carefully engineered into this new series in order to produce pick-ups of outstandingly High Performance.

600 Professional Standard Replacement Styli

CARTRIDGE NO.	REPLACE-MENT STYLUS NO.	SIZE	TRACKING FORCE	COLOR
600EE	D6003EE	0.3 x 0.7 Mil Elliptical	1 to 2 grams	Black
600E	D6004E	0.4 x 0.7 Mil Elliptical	1 1/2 to 3 grams	Black
600A	D6071A	0.7 Mil	2 to 4 grams	Black
LP STYLI for above	D6010	1.0 Mil	2 to 5 grams	Black
78 RPM for above	D6027	2.7 Mil	3 to 7 grams	Black

680 Stereo Standard Series Cartridge

This series was developed for qualities of ruggedness, born out of the needs of the Disco industry. Here is where a cartridge has to face probably the toughest physical demands of any professional situation. The result was a cartridge, the 680 EL, designed and engineered with optimum balance of vertical stylus force, compliance and stylus shank strength.

Its toughness and sound excellence make it a perfect choice too, for on-the-air use by the broadcast industry, in fact, anywhere that there's a need for toughness and sound quality.

As a result of the techniques learned in producing the extra tough "workhorse" cartridge, Stanton also developed a cartridge not quite so tough, but perfect for critical listening, the 680 EE. It is more strongly constructed than most cartridges; yet it possesses outstanding listening characteristics, and it tracks at the very lightest forces.

CARTRIDGE NO.	REPLACE-MENT STYLUS NO.	SIZE	TRACKING FORCE	COLOR
681EEE (S-Type)	D 6800EEE-S	Stereo-hedron™	3/4-1 1/2 grams	Black w/silver EEE-S
681EEE	D 6800EEE	0.2 x 0.7 mil Elliptical	3/4-1 1/2 grams	Black w/silver EES-S
681EE	D 6800EE	0.2 x 0.7 mil Elliptical	3/4-1 1/2 grams	Black w/silver Elliptical
681A	D 6807A	0.7 mil	1 1/2-3 grams	Black w/Silver Dot
681SE	D 6800SE	0.4 x 0.7 mil	2-4 grams	Black w/Red Ellipse
681BPS	D6800BPSM D 6800BPSR	Bi-point Special	3/4-1 1/2 grams 3-7 grams	Black w/silver BPS-M BPS-R
LP Styli for Above	D 6810	1.0 mil	2-5 grams	Black w/Green Dot
78 RPM for Above	D 6827	2.7 mil.	2-7 grams	Black w/Blue Dot

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
500A	\$15.75	\$14.18	\$11.83
500AA	18.38	16.32	13.24
500AL	15.75	14.18	11.83
500E	18.38	16.32	13.24
500EE	21.25	19.10	15.88
600A	24.20	22.00	18.70
600E	26.55	24.30	20.93
600EE	29.35	26.78	22.93
681A	55.00	51.20	45.50
681EE	60.00	55.80	49.50
681EEE	72.00	66.10	57.25
681EEE (S-TYPE)	84.00	76.60	65.50
681SE	60.00	55.80	49.50

STANTON cont.

P-Mount Series

This series combines all of the unique cartridge designs incorporated in the Stanton Professional line with the added convenience of simple plug-in mounting. Stanton offers the user the same performance and sound found in the regular Stanton cartridges. Similarly, each design level offers specific performance benefits based on the sophistication of construction. Now the hi-fi enthusiast is offered a complete selection of Stanton plug-in cartridges to match his specific needs.

Technical Data

Model	Stylus Type & Size	Tracking Force ¹	Frequency Response ²	Channel Separation	Tracking Ability	Output Voltage ³	Channel Balance	DC Resistance	Inductance	Replacement Stylus
L7200EE	.0004" x .0007" Elliptical	¾-1½ grams	10-20kHz	28dB	70µ	3.2mV	2dB	535 ohms	400mH	D71EE
L725E	.0004" x .0007" Elliptical	¾-1½ grams	10-22kHz	28dB	70µ	3.0mV	2dB	535 ohms	400mH	D71-2E
L727E	.0004" x .0007" Elliptical	¾-1½ grams	10-22kHz	32dB	60µ	4.4mV	2dB	1300 ohms	900mH	D72E
L737E	.0003" x .0007" Elliptical	¾-1½ grams	10-22kHz	35dB	70µ	4.4mV	2dB	1300 ohms	900mH	D73E
L737S	Stereohedron 2(.3 x 2.8 mil)	¾-1½ grams	10-22kHz	35dB	70µ	4.4mV	2dB	1300 ohms	900mH	D73S
L747S	Stereohedron 2(.3 x 2.8 mil)	¾-1½ grams	10-25kHz	35dB	80µ	4.4mV	2dB	1300 ohms	900mH	D74S
L837S	Stereohedron 2(.3 x 2.8 mil)	¾-1½ grams	10-30kHz	35dB	80µ	3.0mV	2dB	600 ohms	270mH	D83S
L847S	Stereohedron 2(.3 x 2.8 mil)	¾-1½ grams	10-36kHz	35dB	90µ	2.5mV	2dB	900 ohms	510mH	D84S

Dimensions and weights of Stanton standard plug-in cartridges are in accordance with standard P-Mount specifications.

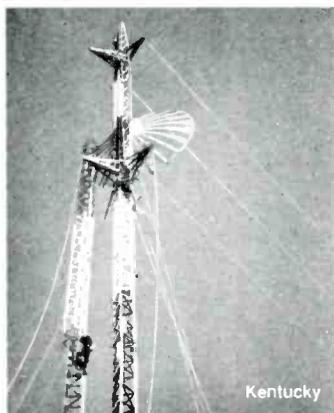
Note 1: Recommended by manufacturer for optimum performance.

Note 2: When the cartridge is terminated in the recommended load of 47k ohms and 275pF.

Note 3: Output with reference to 5.5 cm/sec record velocity.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
L7200EE	\$ 25.00	\$10.25	\$ 8.50
L725E	30.00	15.00	12.50
L727E	34.00	21.00	17.50
L737E	48.00	27.80	23.15
L737S	60.00	33.00	27.50
L747S	66.00	44.25	36.89
L837S	84.00	59.95	49.95
L847S	100.00	75.00	62.50

SWAGER



Towers

Tough custom job? Swager Tower accepts the challenge.

Swager Tower offers a complete tower service from design of custom installations, through fabrication with materials selected to meet the performance requirements. We are also equipped to carry through installation and maintenance throughout the United States and around the world. Custom installations shown on this page have ranged from emergency replacements to custom designs for specific performance, mountain top to swamp. No project has yet thwarted Swager Tower determination.

Call 1-800-54-RADIO for information.

SYMETRIX



TI-101 Telephone Interface

The Symetrix TI-101 Telephone Interface is the most practical, yet economical device on the market today designed specifically for the connection of professional audio equipment to telephone lines in broadcast and production operations. The TI-101 employs a carefully engineered electronic hybrid circuit which creates a maximum trans-hybrid loss, yielding effective isolation between your studio's send to the telephone line, and your caller return signal. Your net result is clear, intelligible telephone audio which helps you keep pace with today's rapid improvements in AM, FM, and TV audio.

The TI-101 provides you with not just some, but all of the features you need in a telephone interface. At the same time the unit is simple to connect, simple to adjust, and simple to operate. An output buss or mic pre-amp feed from your console connects to the TI-101 and sends your studio signal down the telephone line. The TI-101 allows you to optimize your send level for maximum intelligibility. At the same time you can adjust the unit's built-in send limiter to prevent overdrive of the telephone line. The return signal from the TI-101 to your console is just the caller's voice. The DJ or host voice has been effectively nulled out.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
TI-101	\$495.00	\$423.44	\$387.66

TAPECASTER



Model X-100 Cartridge Loader

Specifications:

Size: 15" wide, 26" deep, 6" high.
 Weight: 25 lbs.
 Power: 115 Volts, 60 Hz.
 Loading speed: Approx 50 IPS.

- 2 direct drive motors.
- Maximum wind time 39 minutes 59 seconds
- Floating aluminum tape supply-disc holds 7" reel or 10.5" pancake or lube tape.
- Solenoid operated brake stops the supply-disc at the end of wind.
- Adjustable tension control for the supply-disc brake.
- EDITail splice block, designed for the X-100.
- Ramp design tape guides.
- Heavy steel top plate mounted on Formica trimmed wood base.
- 4 gold contact rotary switches programs the wind time at 7.5 IPS. (may be factory wired for 3.75 IPS)
- Wind time is accurately metered by the light chopper, nylon counter wheel.
- B&C size cartridges may be loaded by removing splice block.
- Adapter to load the 3 M cartridge option extra.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
X100	\$495.00	\$495.00	\$487.58



Model X-700P Cartridge Player

Specifications:

Equalizing: NAB Standard.

Frequency Response: $\pm 2\text{db}$ 50-12,000 Hz @ 7.5 IPS.
 $\pm 3\text{db}$ 40-15,000 Hz @ 7.5 IPS.

Distortion: 2% or less.

Signal to Noise Ratio: 55db or better.

Wow and Flutter: 0.2% or less @ 7.5IPS.

Tape Speed: 7.5 IPS.

Output: 0 dbm @ 600 ohms.

Cue-Tones: Primary—1,000 Hz (stop)
 Secondary—150 Hz (optional)

Cueing Accuracy: 0.1 second.

Starting Time: 0.05 second.

Power Supply: Regulated, Solid State.

Motor: Hysteresis Synchronous.

- Precision Adjustable Head Bracket
- SUPER-TORQUE hysteresis synchronous motor
- Heavy Duty Air Damped Solenoid

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
X-700P	\$650.00	\$650.00	\$635.38



Model X-700RP Cartridge Recorder

Specifications

Equalization: NAB Standard

Frequency Response: $\pm 2\text{db}$ 50-12,000 Hz @ 7.5 IPS
 $\pm 3\text{db}$ 40-15,000 Hz @ 7.5 IPS.

Distortion: 2% or less.

Signal to Noise Ratio: 55db or better.

Wow and Flutter: 0.2% or less @ 7.5IPS.

Tape Speed: 7.5 IPS.

Input (Line): 0.1 Volt (Bridging)

Input (Microphone, 150 ohms): .5 mv.

Output: 0 dbm @ 600 ohms.

Cue-Tones: Primary—1,000 Hz (stop)
 Secondary—150 Hz (optional)

Starting time: 0.05 second.

Cueing Accuracy: 0.1 second.

Power Supply: Regulated, Solid State.

Motor: Hysteresis Synchronous

- Precision Adjustable Head Bracket
- SUPER-TORQUE hysteresis synchronous motor
- Heavy Duty Air Damped Solenoid

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
X700RP	\$850.00	\$850.00	\$830.88

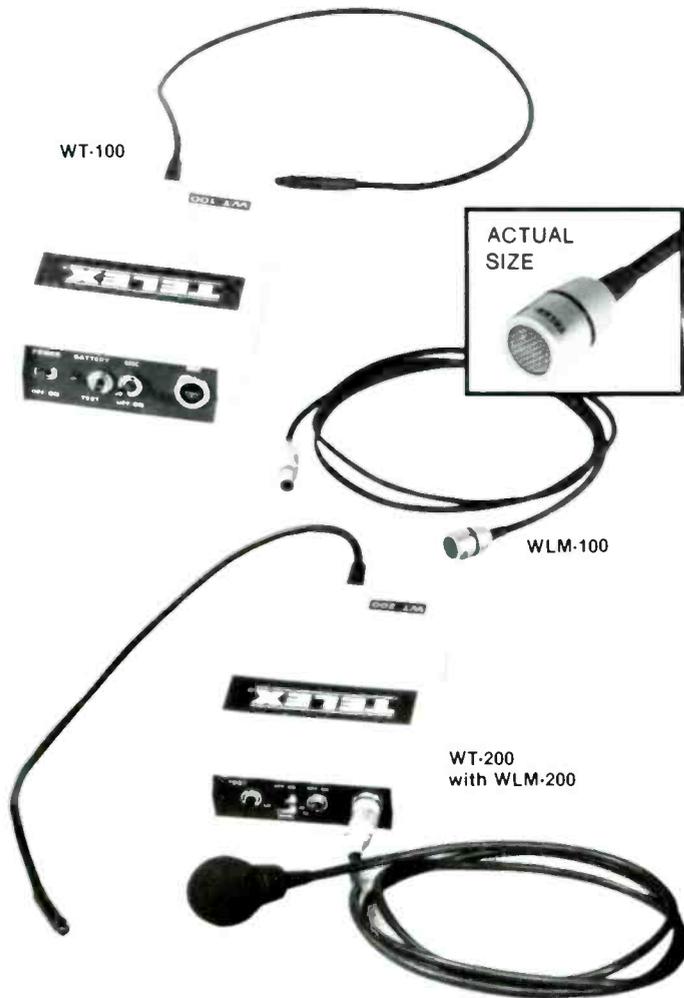
TELEX

Wireless Microphones

The Telex transmitter and receiver are single channel, crystal controlled units operating in the VHF band between 150-216 MHz. There are 48 standard frequencies available, and Telex offers a computerized service which selects, at no cost, an "interference free" frequency for each operating area. The use of highly selective Telex FMR-2 receivers permit the operation of more than a dozen systems in a single location, simultaneously, without interference.

Most wireless microphones systems lose dynamic range because they operate by RF signal transmission which is normally limited. The Telex wireless microphone system incorporates a unique COMPANDER circuit that takes the full dynamic range of the audio, compresses it for RF transmission and expands it to its original range at the receiver. The result is wide dynamic range and a signal-to-noise ratio that provides a full-blooded sound that equals most wired microphone installations.

TELEX cont.



Wireless Belt-Pack Transmitter WT-100

The belt-pack battery-operated transmitter is roughly the size of a package of cigarettes and is easily concealed under clothing. The WT-100 produces an FM signal up to 50 mW at its assigned crystal controlled frequency.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
WT100	\$370.00	\$339.36	\$305.32

All New WT-200

This belt-pack battery operated transmitter is roughly the size of a package of cigarettes and easily concealed under clothing. A unique feature of the WT-200 is a sensitivity selection switch that allows fine tuning for complete compatibility with all brands of microphones or even provide WIRELESS ELECTRIC GUITAR hookup. Other features include phantom power, connector-less battery terminals and battery test circuit with handy LED indicator. Separate on/off switches for RF and audio allows the user to shut off the audio without causing "on-off" popping noise that is common in many wireless systems. A four foot (1.22 m) adaptor cable also allows any traditional (wired) low impedance mic with male XLR type connector to be used as a wireless mic with the WT-200.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
WT200	\$475.00	\$435.67	\$391.97

Electret Lavalier Microphone WLM-100

The WLM-100 electret omnidirectional lavalier microphone is specifically made for this system. It is one of the smallest

microphones in the industry, ideal for inconspicuous use in live performance, film or video productions. The WLM-100 is equipped with special anti-noise cordage and LEMO connector. Three mounting clips (a vertical and a horizontal tie clasp, plus a tie tack configuration) are supplied with the WLM-100.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
WLM-100	\$130.00	\$119.24	\$107.28
WLM200	\$130.00	\$119.24	\$107.28



Wireless Handheld Transmitter-Microphones

WHM-300 and WHM-400

For those who prefer a handheld microphone with self-contained transmitter, the Telex WHM-300 and WHM-400 microphones are the ideal selection. In both units, the transmitter and compressor circuits are integral with the microphone housing, which also serves as the omnidirectional antenna. There are no unsightly protruding wires or external antennas to distract from the slim, elegantly tapered appearance.

The WHM-300 has an electret cardioid element which provides a smooth, flat frequency response designed for normal speech applications. It has separate on/off switches for RF and audio to permit turning the audio "off" without losing control of the RF carrier.

The WHM-400 has a dynamic cardioid element which is specifically tailored for vocal entertainment applications at higher sound pressure levels. No switches are provided to prevent the entertainer from inadvertently turning "off" the microphone. Audio is normally controlled by the sound "mixer". RF power is shut "off" by removal of the batteries.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
WHM 300	\$425.00	\$389.81	\$350.71
WHM 400	425.00	389.81	350.71

WHM-500 Handheld Condenser Microphone/Transmitter

This handheld microphone with self-contained transmitter is comfortably slim and lightweight. It's ideal for the vocalist because of a tailored frequency response and studio quality condenser element. The element is suspended in a unique fashion within a double windscreen for superb rejection of handling noise. Its specially shaped, tight cardioid pick-up pattern virtually makes embarrassing feedback problems a thing of the past. The unit has two switches for the convenience of the performer. One acts as a "stand-by" that silently turns off the audio but not the RF carrier, and a separate switch controls the RF. Two wind screen styles and two 4.5 volt batteries are provided. Microphone accessories such as Nicad batteries, chargers, mic stand adapters, foam wind screens and foam hand sleeves are available.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
WHM 500	\$500.00	\$458.60	\$412.60

TELEX cont.



CS-91



FMR-1



FMR-2

FMR-1 and FMR-2 FM Receiver

The Telex **FMR-1** operates as a conventional wireless microphone receiver when only one antenna is installed, and automatically operates as a diversity receiver when two antennas are attached to the UHF type connectors. The receiver automatically phase-shifts the combined signal from two antennas for the best signal-to-noise ratio. An integral logarithmic expander circuit inversely corresponds to the compressor in the transmitter and restores the dynamic range of the original audio input up to 90dB or more.

A headphone jack and associated volume control allows monitoring of the receiver's 600 ohm output line, which is also indicated by a VU meter. A switch inserts a pad to feed conventional low impedance microphone inputs when desired.

The new, easy-to-monitor **FMR-2** receiver has a **PEAK READING** volume indicator that clearly displays audio level on a segmented LED color bar. There is also a power-on LED and a display that indicates RF field strength using an LED dot that moves across a ten point scale. The receiver provides adjustable mic and auxiliary (headphone) output capability plus a fixed line level output. Two $\frac{1}{8}$ wave antennas are supplied with the receiver.

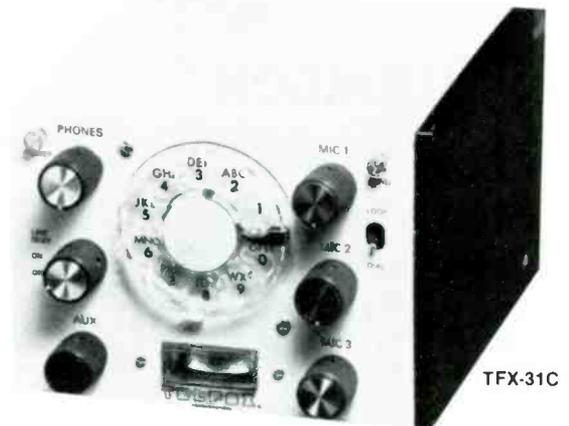
MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FMR-1	\$770.00	\$706.24	\$635.40
FMR-2	890.00	816.31	734.43

Sportcaster™ Headsets

The Telex **CS-91 "Sportcaster II"** is a professional sports announcer's headset designed specifically for live, remote broadcasting. Omnidirectional dynamic boom microphone allows full freedom of head movement while the circumaural ear cushions screen out ambient noise. Comes with extra earcushion comfort socks. Audiometric type receiver resists shock and insures excellent stability under varying conditions of temperature and humidity. An in-line, non-locking push-to-cough switch, with clothing clip, momentarily mutes the microphone when needed. Binaural earphones permit hearing the program in one ear while receiving cues on the other.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
CS-91	\$165.00	\$151.34	\$136.16

TELEFAX



TFX-31C

TFX-31C and TFX-131A Telephone Remote Unit

TFX-31C

This is the new standard in remote broadcasting—The Telfax **TFX-31C** Phone Remote Unit! It is the smallest, lightest and most feature-packed unit on the market. Just connect it to the phone line, plug in your headset and you're ready to broadcast with superior audio quality. Compare size, features and price carefully—The Telfax **TFX-31C** is the only wise choice!

TELEFAX cont.

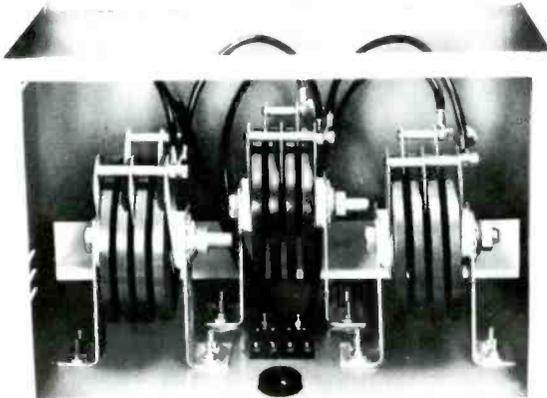


TFX-131A

From Telfax, manufacturers of the most widely used miniature phone remote units in North America, comes a revolutionary new unit for the *professional* broadcaster . . . The TFX-131A. More features . . . like pushbutton dialing with memory redial, LCD Clock/stopwatch timer, four microphone inputs, two auxiliary inputs, tone oscillator, closed circuit spotter channel, instant compatibility with Low Frequency Extenders and other external audio processors, custom engraved call letter nameplate, modular phone line connectors, and much more. Even with all these new features The TFX-131A control panel is uncluttered, with seldom used controls hidden behind the easily removed access/nameplate cover. It makes remote broadcasting easier than ever! Superior audio quality, miniature size, and loaded with features; but there is more to tell . . .

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
TFX-31C	\$595.00	\$589.50	\$578.50
TFX-131A	795.00	775.50	726.75

TTC/WILKINSON



AC Line Surge Protector Model S1A

- Protection against lightning surges—more than a lightning arrestor
- Protection against transient surges—more than a voltage spike suppressor
- Protection against excessive line voltage—more than an overvoltage regulator
- Pulse compensated
- Instantaneous protection
- Continuous protection
- Non-interrupting
- Non-arcing . . .

The Wilkinson Electronics Line Surge Protector is far superior to standard lightning arrestors, surge reactors or other AC line protection devices.

AC line voltage surges, caused by lightning, transformer arcing and induced transients are everyday occurrences that causes heavy damage to equipment incorporating silicon rectifiers, mercury vapor tubes, or other semi-conductor devices. The Wilkinson Electronics Model S1A protects valuable equipment against surges that often exceed many times the normal line voltage.

Other lightning arrestors use arc gap devices which depend on overvoltage arcing as the safety measure. Such devices are woefully slow and often generate high frequency transients which are often as harmful to solid state equipment as the initial lightning strike. In addition, during the time of the arc, an interruption of power occurs which, in itself can be extremely disruptive in any system where data transmission is involved.

The Wilkinson Line Surge Protector produces no arcs or transient and power is never interrupted. It improves line voltage stability as it only attacks overvoltage conditions.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
S1A-1			
110 volts, single phase	\$ 700.00	\$ 688.80	\$ 672.00
S1A-2			
220 volts, single phase	900.00	885.60	864.00
S1A-3			
220 volts, three phase	1400.00	1377.60	1344.00
S1A-4			
480 volts, three phase	1500.00	1476.00	1440.00



FM Translators XLFM Series

Distortion Free, Spurious Free and Overload Proof

- Up to two 1 or 10 watt outputs with independent ALC.
- Rugged power amplifier can operate continuously into any load.
- Phased Locked Loop up-converter virtually eliminates off-channel noise and heterodyne spurious signals.
- Phase linear filtering for outstanding selectivity at low distortion.
- High dynamic range front end.
- Low noise figure.
- Stereo audio monitor.
- Local modulation capability.
- Rugged power supply is immune to wide power line variation.
- Local announcements may be activated automatically or by remote tone control.
- Modular construction permits all major subassemblies to be easily removed with a screwdriver.

The modular, all solid-state construction of the XLFM series allows field servicing and the high performance of these units allows crystal clear FM stereo! They can be modulated locally and local announcements can be inserted automatically or by remote tones. Convection cooled, these FM translators can operate unattended for long periods of time.

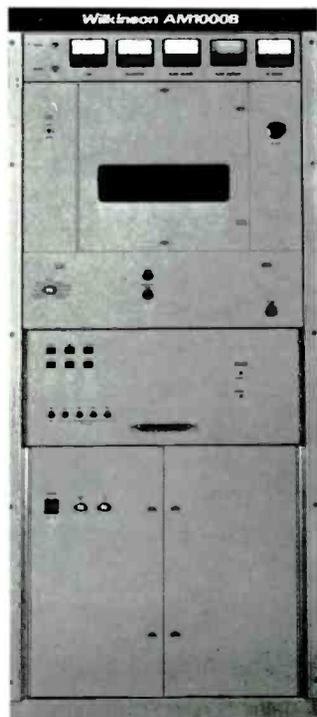
MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
XL1FM	\$2995.00	\$2947.00	\$2875.00
XL1FM-2	3550.00	3493.00	3408.00
XL10FM	3265.00	3213.00	3134.40
XL10FM-2	3700.00	3640.80	3552.00

TTC/WILKINSON cont.

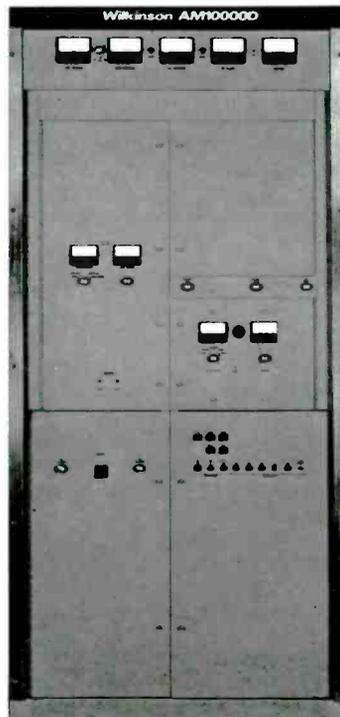
FM Exciter

The FME-10 is the field proven model that Wilkinson developed to be so stable it requires no oven. Its audio fidelity is flat from below 25 Hz to over 15 KHz at over 100% modulation. The FME-10 has a solid-state 10 watt output and distortion free performance.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
FME-10	\$3000.00	\$2952.00	\$2880.00
SG-1E	1900.00	1869.00	1824.00
SCG-1	980.00	964.32	940.80



AM-1000B
AM-2500*
AM-3000B*



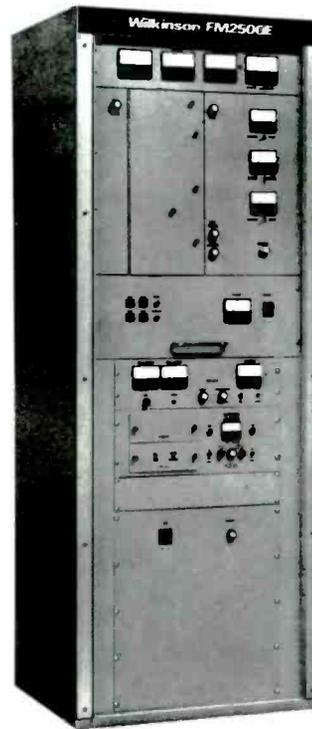
AM-5000D*
AM-10000D

AM Transmitters

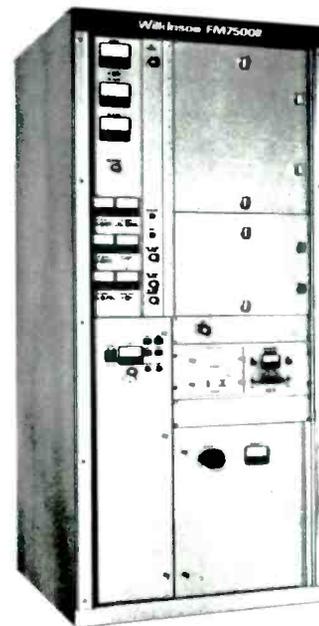
Wilkinson AM Transmitters are housed in steel cabinets, finished in a durable gray Rantex™ finish with brushed aluminum trim. All operating controls are located on the front panel and remote control capability is accomplished with the installation of an optional remote control interface panel.

All transmitters are extremely quiet due to oversized air intakes and the use of low noise, direct-drive blowers. These blowers eliminate unreliable belts and pulleys, pillow blocks, and bearings. All air intakes are filtered to assure cleanliness and long component life.

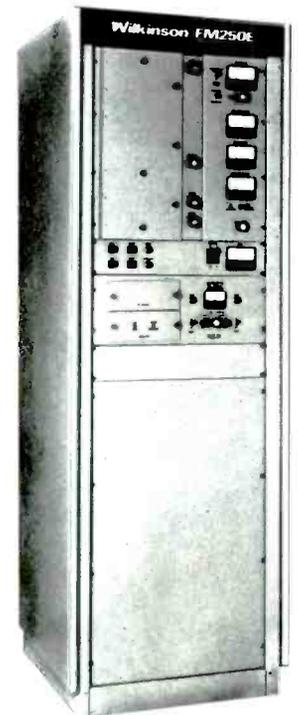
Call for additional information and prices. 1-800-54-RADIO



FM-1500E*
FM-2500E



FM-5000*
FM-7500E
FM-10000E*
FM-20000E*
FM-25000E*
FM-30000E*



FM-250E

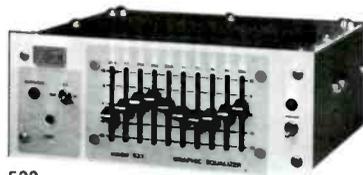
FM Transmitters

Wilkinson FM transmitters are housed in steel cabinets finished in a durable gray Rantex™ enamel finish with brushed aluminum trim. Access to all transmitters is easily accomplished through either the front or rear interlocked doors. All operating controls are located on the front panel, and access to the power amplifier is through the door of the PA compartment.

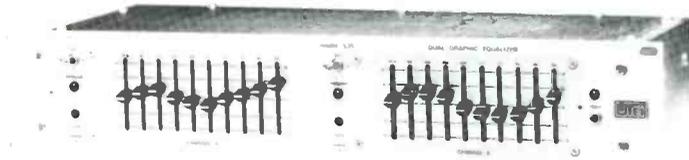
All transmitters are provided with the FME-10 exciter as standard equipment. The FME-10 is a Direct FM exciter capable of both monophonic and stereophonic operation.

Call for additional information and prices. 1-800-54-RADIO

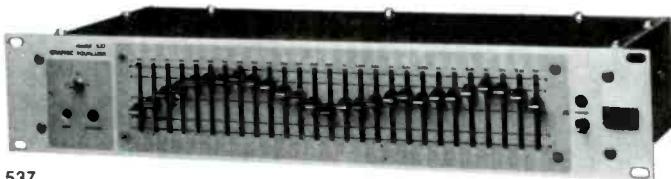
UREI



533



535



537



546

Octave Graphic Equalizer 533

The 533 provides 12 dB of boost or cut at each of its 10 frequencies, which are centered at ISO one-octave increments from 31.5 Hz to 16 kHz. Filter parameters have been optimized for excellent combining action with minimum phase shift. The positions of the control arms of the vertical, stepless controls provide a graphic representation of the response curve selected.

Signal-to-noise ratio is better than 106 dB at maximum output, thanks to sophisticated new active circuitry and components. Input capability of +20 dB and output capability of +24 dBm, combined with this excellent noise figure, provide exceptional dynamic range.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
533	\$366.00	\$356.85	\$335.81

Dual Graphic Equalizer 535

- Two channels in one compact package.
- 10 adjustable equalizers on ISO one-octave center frequencies for each channel.
- 12 dB boost or 12 dB attenuation at each center frequency.
- Stepless, noiseless, calibrated controls.
- Gain variables from -10 dB to +20 dB.
- State of the art synthesized LC filter circuitry.
- Low distortion, lowest noise, minimum phase shift.
- Standard rack mounting, only 3½ inches high.
- Optional front panel security cover.
- Competitively priced.
- UREI quality of course.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
535	\$496.00	\$483.60	\$455.08

1/3 Octave Graphic Equalizer 537

Model 537 is an active filter set for general purpose frequency response adjustment of audio signals. Program material with large dynamic range requires equipment with exceptional specifications. The Model 537 accepts signals up to +20 dB and its output capability is +24 dBm. The low inherent noise, due to the use of discrete inductors, provides the user with a signal-to-noise ratio of more than 110 dB.

It provides 12 dB of boost or cut at each of its 27 frequencies, which are centered at ISO 1/3 octave increments from 40 Hz to 16 kHz. Filter parameters have been optimized for excellent combining action with minimum phase shift. The positions of the control arms of the 27 vertical, stepless controls provide a graphic representation of the response curve selected.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
537	\$896.00	\$873.60	\$822.08

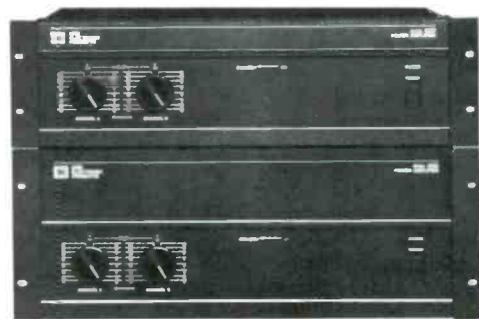
Dual Parameter Equalizer 546

- Most flexible EQ. filter set.
- Two independent channels, may be switched to expanded single channel mode, providing 8 parametric filters.
- Bypass switches for each channel and also each individual filter.
- Reciprocal response curve in boost and cut.
- Large and easy-to-adjust controls.
- Output transformer is standard.

The Model 546 is a true Dual Parametric Equalizer equally suited for creative and corrective equalization needs.

Each of the 546's two channels had a different input amplifier, four parametric filter sections with overlapping ranges, a low cut filter and a high cut filter, and an equalization bypass switch that returns the 546 to flat response. The gain of the input amplifier is adjustable from the front panel over a 30 dB range, allowing the 546 to be operated at any output level from -20 dB to -26 dB. An overload LED for each channel is provided to warn of excessive levels anywhere in the 546. Large output headroom is provided to avoid dipping or distortion when using large amounts of boost.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
546	\$746.00	\$727.35	\$684.46



Models 6230 and 6260 Power Amplifier

- Active, balanced bridging input circuitry
- Full complementary driver and output circuitry
- Low transient intermodulation distortion (TIM)
- Rugged, road-worthy construction
- Individual stepped gain controls
- XL-type, phone jack, and barrier strip input connectors
- Heavy duty 5-way output binding posts
- Rear panel switch for bridged, dual mono, or stereo operation

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
6230	\$618.00	\$593.28	\$536.42
6260	870.00	835.20	755.16

UREI cont.



Models 6150, 6250, 6300 and 6500 Power Amplifier

- Active, balanced input circuitry.
- Fully complementary output sections.
- Standby mode/speaker disconnect protection.
- Inputs are balanced bridging XL-type and 6.3 mm (1/4 in) phone jacks (may be operated balanced and unbalanced).
- Outputs are heavy duty five-way binding posts. A separate back panel bridge switch is provided for convenient high power mono operation.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
6150	\$ 746.00	\$ 727.35	\$ 684.46
6250	896.00	873.60	822.08
6300	1346.00	1312.35	1234.96
6500	2396.00	2336.10	2198.33



Series 1650 and 1680 Broadcast Consoles

- Six all-new on-air boards
- Choice of 5-mixer or 8-mixer units
- Choice of Penny & Gilles, Shallco or conductive plastic attenuators
- +24 dBm output into 600-ohm load
- Better than 90 dB signal to noise ratio
- Built-in monitor, headphone and cue amplifiers
- Built-in cueing loudspeaker
- Competitively priced

The UREI 1650 and 1680 Series Broadcast Consoles are an all-new line of six on-the-air boards with the features most requested by engineers and consultants and with full UREI quality, yet priced within the budget of the small-market station.

The new consoles offer a choice of five or eight mixers and a choice of attenuator types as well. There is ample provision for customization to fit individual station requirements, but no accessories are required to put them on the air—each board is ready to operate as supplied from the factory.

Call for prices. 1-800-54-RADIO



Compressor/Limiter

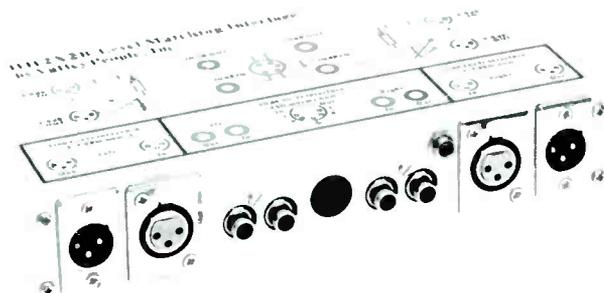
The LA-4 Compressor/Limiter is another great performer in the continually expanding product line from UREI—the company which has built and sold more limiters and compressors through the world than any other manufacturer. Making use of patented Electro-Optical Attenuator technology owned by UREI, the LA-4 offers smooth, predictable performance coupled with ease of operation. Its electroluminescent light source is a light-emitting semiconductor, which will not change or deteriorate with age.

Compression is adjustable by an easily re-settable multiposition switch to allow ratios from a soft, smooth 2:1 compression through super tight-sounding 20:1 limiting. The gain reduction circuitry is RMS responding (like human hearing) so there are no surprises in its operation, as can happen with pure peak limiters.

Note: Because its gain reduction circuitry is RMS responding, the LA-4 is not recommended for overmodulation protection of broadcast transmitters, disc or optical recorders, unless followed by a peak limiter, such as the UREI 1176 LN.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
LA-4	\$496.00	\$483.60	\$455.08

VALLEY PEOPLE



HH 2 x 2 Level Matching Interface

The HH 2 x 2 Level Matching Interface is a complete two-channel line amplifier/attenuator which boost -10dBm signals to a nominal +4 or +8 line level output or pads +4/+8 levels by 14dB to avoid any potential overload problems as the input of -10dBm devices.

XLR connectors insure easy interface to line level gear, with RCA phone jacks and a 5-pin D.I.M. jack provided for consumer and semi-pro equipment. Power supply is include.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
HH 2x2	\$215.00	\$212.31	\$201.56
430	560.00	553.00	525.00
430M	400.00	395.00	375.00

VALLEY PEOPLE cont.



Dyna-Mite™ Multi-Function Dynamics Processors

When processing the human voice, most conventional limiters which perform well in sine wave tests will completely misread the more complex voice waveforms. A falsetto voice passage may peg the output meter, while a raspy scream is reduced by 5 to 7 dB. Thus, while it is hoped that the voice will be limited to a consistently high output level, the actual result is as much as an 8 to 10 dB variation in output, both in audible as well as meter terms. Even worse, the types of waveforms which are discriminated against are the very ones that the performer intended to sound louder.

As one can readily see, this effect explains the "squashed" or "strained" audible effect often associated with the indiscriminate use of conventional limiters.

Now, compare this to the action of Dyna-Mite while limiting in the Linear Integration Detection mode (avg). When the output level control is set to +4 dB, a vu meter, reading the output level, will indicate +4 dBm (0 vu for most professional equipment) regardless of the complexity of the waveform or the amount of limiting. Only on very short duration inputs will the meter fail to reach +4 dBm because of vu meter response time.

Call for prices. 1-800-54-RADIO

VOICE ACT

Electronic Mixer

The Voice-Actuality electronic mixer for radio news

Network radio reporters asked an engineer to solve the problem of need for instant switching from their live wrap-around to prerecorded voice actuality at the scene. The engineer invented & built Voice-Act with a built-in slide switch that alternates between Voice-Act microphone and recorder input mini-jack. Mike has windscreen. V-A conveniently screws in place of a telephone handset mouthpiece. To accomplish same purpose with pay-station welded-on handsets, we recommend Shure 50AC. In this product a slide lever tilts back the recorder-connected speaker when reporter does wrap around. Buy them both as a kit to handle either.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
Bell	\$81.95	\$79.07	\$75.24

WESTCLOX



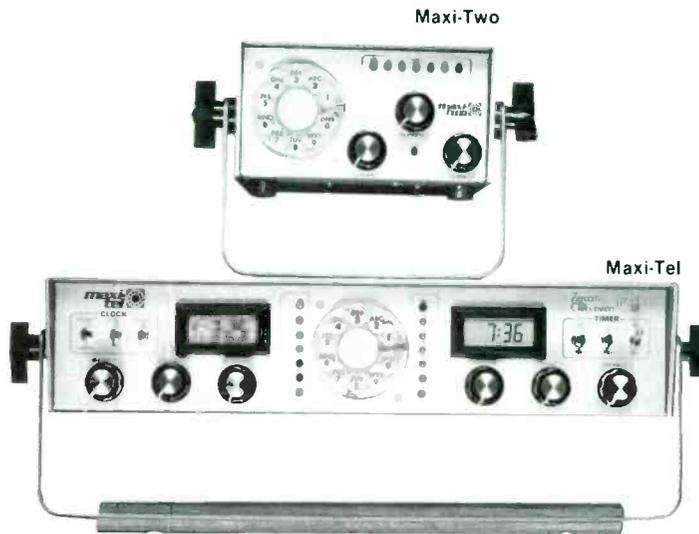
Quartz Battery Wall Clocks

Perfect for commercial use, Quartz Monitor by Westclox provides timekeeping accuracy. Each quartz movement beats with

the heart of a genuine quartz crystal. Quartz movements provide complete, reliable timekeeping performance. No costly installation or unsightly cords. Requires one "C" size battery. Large, easy-to-read numerals. Protective glass lens. Full sweep second hand.

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
12 inch quartz	\$39.95	\$34.14	\$30.65
8 inch quartz	35.95	31.10	28.19

ZERCOM



Maxi-Tel Remote Broadcast System

Exclusive Features:

- Human Engineering Designed System, only the controls you need while broadcasting are in front of you—no more cluttered control console.

Indicators Include:

- LCD Clock and Timer.
- Pulsed line loss indicator.
- Pulsed visual/aural ring system.
- Automatic pulsed low battery indicator. [Warns you when 3 hours of battery life remains.]
- Ladder logarithmic VU indicator, from -15 to +3 dbm, 7 step.
- 4 mike/line channels with no switching required. [Will accept cart or cassette tape inputs.]
- Failsafe power circuit prevents batteries from being drained unintentionally. [System automatically merges to batteries when 120 volt power fail.]
- Long telephone line equalization selector. [Boost low and high frequencies to maintain proper spectral/balance and intelligibility.]
- Switchable ultra sharp notch filter, turned to 2.6 KHz. [To prevent spurious crowd noise from disconnecting phone line.]

ITEM	LIST PRICE	BILLED PRICE	CASH PRICE
Maxi-Two	\$425.00	\$423.09	\$405.88
Maxi-Tel	825.00	821.31	788.10

LPB



Model C-8S

8 Mixer Dual Stereo Output, Two Stereo Mic Input Pre-amps, 6 Stereo Line Input Preamps, and Two Meters.

Citation Consoles

LPB's reputation for quality and dependability has been earned by devoting more attention to craftsmanship, component quality and performance than to flashy bells and whistles. Let us send you the specifications on the LPB consoles or just talk to anyone at a station that uses an LPB.

The Citation is LPB's most versatile console and is available with eight or ten mixers and optional slider faders, timers, clocks or additional metering.

The Signature II series is LPB's largest and most popular series available with five, eight or ten mixers.

The Monogram II series is LPB's economy line. It's available in five or eight mixer models.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
C-8S	\$6995.00	\$6925.00	\$6785.00
C-8SL	7995.00	7915.00	7755.00
C-10S	7995.00	7915.00	7755.00
C-10SL	8995.00	8905.00	8725.00



Model M-8S

Monogram Consoles

- All input circuitry plug-in
- Visible indicators input selectors
- Torque controlled cermet attenuators standard
- All active components plug-in
- Barrier strip input/output connections
- All outputs short-circuit-proof
- Bi-polar regulated power supply

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
M-5M	\$2195.00	\$2173.00	\$2129.00
M-5S	2895.00	2866.00	2808.00
M-8S	3595.00	3559.00	3487.00



Model S-20

Signature Consoles

A unique feature of the Signature II Stereo Consoles is the **monos/stereo input switch** located behind the front panel, which enables a mono source to be split to the left and right program busses. These selectors are provided for each microphone-capable channel and one high level channel.

Signature II 8 and 10 mixer consoles feature 3 position **input selector switches** giving 24 and 30 input source capability. An exclusive manufacturing technique called "wedgelock" contact fastening secures the stationary contact to prevent loosening and rotation of contacts. Spring tempered silver alloy contacts and coin silver rotor blades have a minimum lifetime of 250,000 cycles of operation.

Signature II Console Features

Output Director Switch: Dual Consoles have a three position output director switch on the audition output line, other consoles have this switch on the program output line.

Internal Cue System: A 5" speaker and 1 watt power amplifier are located within the console to provide high quality audio performance.

Muting and Tally Relays: Rugged telephone-type relays are utilized and are socket mounted for ease of maintenance.

Power Transformer: The power supply and transformer is completely internal to the console, and the transformer is specifically designed for low field operation and has mylar interwinding insulation for protection against transient damage.

Chassis Construction: Consoles are constructed completely of aluminum alloy, with wood grain formica and vinyl covered warp free end panels attached to the metal end plates.

Modular Electronics: All active signal processing circuitry is "plug-in," and located on 2 "mother board" main frame assemblies. 5 types of plug-in modules are utilized for microphone preamps, balanced high level inputs, line outputs, voltage regulator, monitor output drivers and cue amplifier functions.

Dual Line Level Outputs: All audition (P2) outputs of Signature II Series consoles are balanced line level and metered, identical in performance to the main program (P1) output.

MODEL NO.	LIST PRICE	BILLED PRICE	CASH PRICE
S-12	\$3395.00	\$3353.00	\$3269.00
S-13C	4495.00	4442.00	4336.00
S-14A	2695.00	2660.00	2590.00
S-15A	3495.00	3452.00	3366.00
S-20	5395.00	5333.00	5209.00
S-21B	4395.00	4343.00	4239.00



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