

MODERN

1963 "WSBP"
Award Winner



electronic service dealer

THE OFFICIAL PUBLICATION OF THE CALIFORNIA STATE ELECTRONICS ASSOCIATION

VOL. 3, NO. 8

DECEMBER, 1963

33,000 TO RECEIVE REGISTRATION FORMS

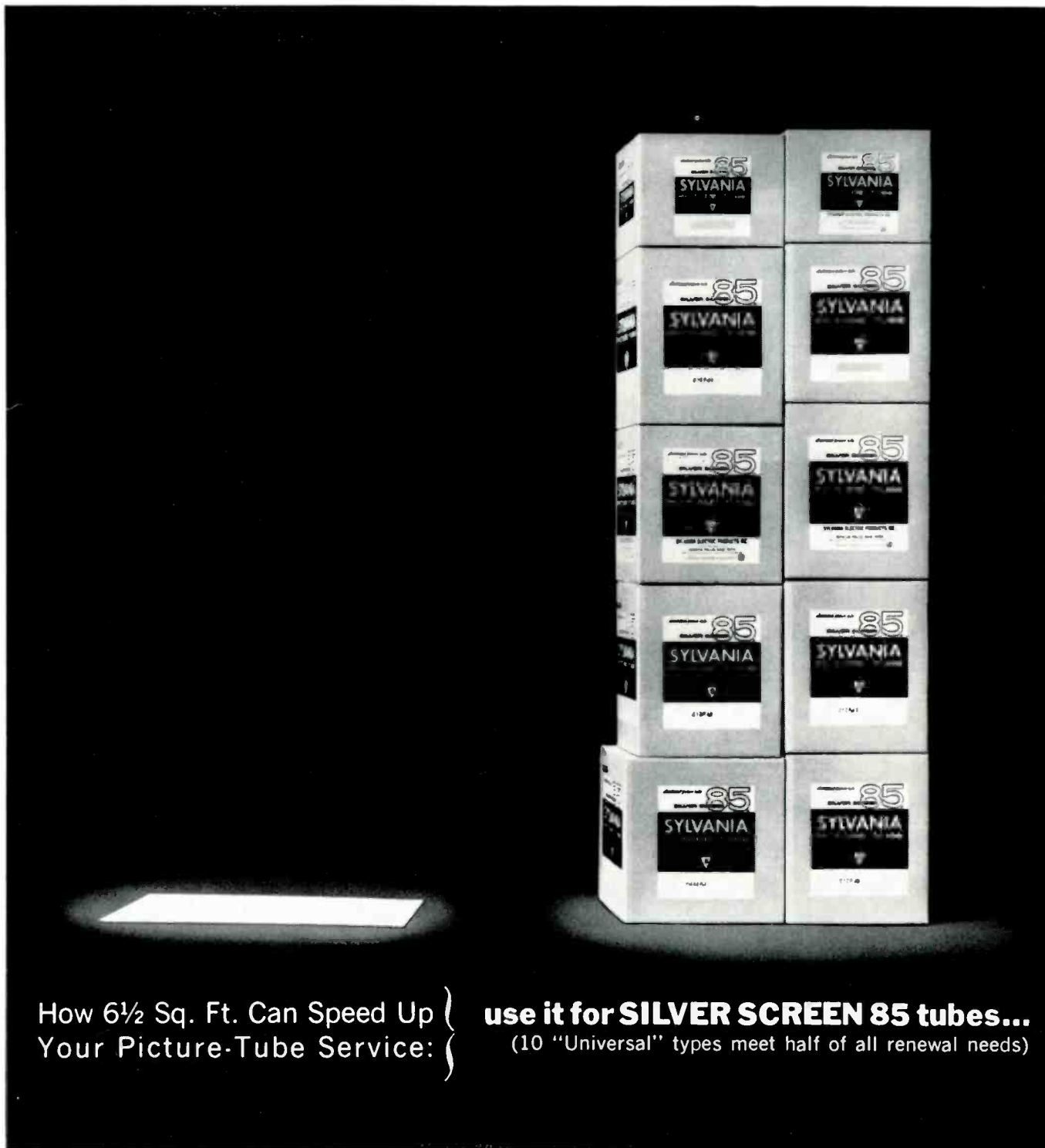
THE TUBE DILEMMA—AN EDITORIAL

governor brown appoints 5-man commission

estimate and registration form samples

part 2—ELEMENTS OF SWEEP CIRCUITS

Advertising For The Small Businessman



How 6½ Sq. Ft. Can Speed Up
Your Picture-Tube Service:

use it for **SILVER SCREEN 85 tubes...**
(10 "Universal" types meet half of all renewal needs)



10 versatile "Universal" picture-tube types from our SILVER SCREEN 85® line may be all you need to fill 52% of your renewal needs! This fact, verified by a recent industry survey, stems from a remarkable streamlining of the Sylvania line—fewer, more versatile types can be used as replacements for many others. Already 54 types can replace 217.

Think what the versatility of these "Universal" tubes can mean. An in-shop inventory of a few popular types can

help you quickly take care of most of your renewal calls. Ordering is simplified...and distributor calls for special tubes can be cut way down.

Start profiting now with SILVER SCREEN

85 picture tubes from Sylvania. Call your Distributor and put an inventory in your own shop—where it can enhance your reputation for fast service and quality replacements.

SILVER SCREEN 85 Picture Tubes are made only from new parts and materials except for the envelopes which, prior to reuse, are inspected and tested to the same standards as new envelopes.

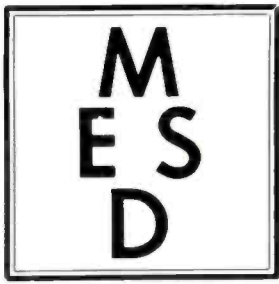
SYLVANIA

SUBSIDIARY OF

GENERAL TELEPHONE & ELECTRONICS



MODERN ELECTRONIC SERVICE DEALER



MODERN ELECTRONIC SERVICE DEALER

STAFF:

DONALD J. MARTIN
Publisher

CSEA Press Secretary

SIMON NATHANSON
Managing Editor

IRVING TJOMSLAND
Technical Editor

FRANK BURNS
Business Manager

MORRI OVSEY
Art & Cover Director

GRAYCE KENNEDY
Classified Advertising Director

CSEA EDITORIAL ADVISORY BOARD AND OFFICERS

President
EMMETT MEFFORD

Vice President
RALPH JOHANNOT

Secretary
KEN PRESTON

Treasurer
PAUL E. FORT, JR.

BOARD OF DIRECTORS

ZONE A
Darrell Petzwal, 1627 19th St., Sacramento, Calif.

ZONE B
Wesley C. Keys, 2014 No. Main St., Walnut Creek, Cal.
Ralph L. Hoy, 912 A Street, San Rafael, Calif.

ZONE C
Kenneth Preston, 4137 No Eldorado, Stockton, Calif.

ZONE D
Russ Hamm, 4612 Soquel Dr., Soquel, Calif.

ZONE E
Ralph Cornelius, 3129 Chester Lane, Bakersfield, Calif.

ZONE F
Ralph Johannot, 1817 W. Verdugo Ave., Burbank, Cal.
Emmett Mefford, 16820 Faathill Blvd., Fontana, Calif.
Robert Whitmore, 17816 Bellflower, Bellflower, Cal.

ZONE G
Paul E. Fort, Jr., 1546 30th St., San Diego, Calif.

BOARD OF DELEGATES

Chairman
RON M. KEALEY
1657 E. Colorado St., Pasadena, Calif.

Vice-Chairman
EARL CAPP LOUGHBORO
2460 E. Main St., Ventura, Calif.

Secretary
VIRGIL GAITHER
4305 Eagle Rock Blvd., Los Angeles, Calif.

Legal Advisor
A. J. Anastasi, Commercial Bldg., San Jose, Calif.



CALIFORNIA STATE
ELECTRONICS ASSOCIATION, INC.
JIM WAKEFIELD
Executive Director
3333 Well Ave.
Sacramento 21, Calif.
482-0706

Modern Electronic Service Dealer is Published Monthly
at 2930 W. Imperial Hwy., Inglewood, Calif. Phone:
755-5261 by Associated Publications. Controlled cir-
culation postage paid at Los Angeles, Calif.

Western Society of Business
Publications Member



DECEMBER, 1963

VOL. 3, NO. 8

FEATURE ARTICLES

- 10 Estimate and Registration Form Samples
- 11 The Horizontal Sweep Cycle (Part Two of "Elements of Sweep Circuits) by Technical Editor Irving Tjomsland
- 13 Advertising For The Small Businessman
A Special MESD Feature

DEALER NEWS

- 7 Registration Forms To Be Mailed To 33,000 Dealers Throughout The State
- 7 L.A. Bunko Reports Decline In Complaints
- 7 Governor Appoints Industry Representatives To Commission
- 7 Two New CSEA Chapters Installed
- 7 Complete Repair Commission
- 8 Zone "F" To Promote Chapter Activities Over Next 60-days
- 8 Sacramento CSEA Answers Call For TV Set
- 8 Diablo Valley Elects New Officers
- 8 San Antonio Chapter Re-Elects Officers, Sponsors Color Course
- 8 San Bernardino Chapter Regains CSEA Charter
- 8 ACTRA Discusses Business Problems
- 17 Orange County Chapter Formed-Petkoff Prexy
- 17 Zone To Hold Christmas Party December 7th
- 17 SRTT Group Hears Motorola Color Story

INDUSTRY NOTES

- 16 Three New All-Channel Yagi TV Antennas Now Available
- 16 JFD Log-Periodic LPV Goes To The New York World's Fair
- 17 Jerrold-Taco Line Described In New 16-page Catalog
- 18 Edisco Franchised As GE TV and Component Distributor
- 18 Bob Gage Joins RCA Victor Dist.

DEPARTMENTS

- 5 Letters to the Editor
- 6 Editorially Speaking
- 9 President's Message
- 15 Antenna Talk
- 17 Classified Ads

We would like to take this opportunity to wish
everyone a Happy Holiday Season and most
prosperous New Year.

Winegard

brings you the first low cost all-channel UHF antenna amplifier (channels 14 to 83)



look at what the UHF-110 will do!

ADDS MANY MILES TO RECEPTION DISTANCE.

- Improves over-all signal-to-noise ratio as much as 12 DB
- Practically Eliminates Snow for better pictures
- Works perfectly on color and black and white

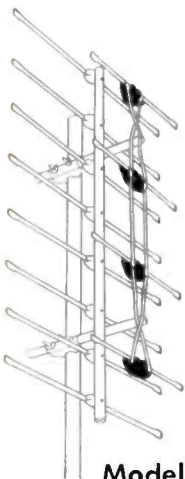
Never before has an all-channel antenna amplifier been available for UHF. Now, at a price that everyone can afford, the new Winegard Model UHF-110 brings to UHF the same sensitivity and low noise reception as VHF! This means you can clear up snowy UHF pictures, get distant stations,

and new clarity to color and black and white TV!

Model UHF-110 employs a new, ultra low noise RF transistor that amplifies UHF signals on all channels 14—83. It works on any UHF antenna and can be mounted on the antenna boom, mast or remote. Has balanced 300 ohm input and output, lightning protected circuit—no transistor burn-out, comes with an all AC power supply. No polarity problems.

For your next UHF installation, try the new Winegard MODEL UHF-110. Ask your distributor or write for spec. sheets.

other UHF products by Winegard . . .

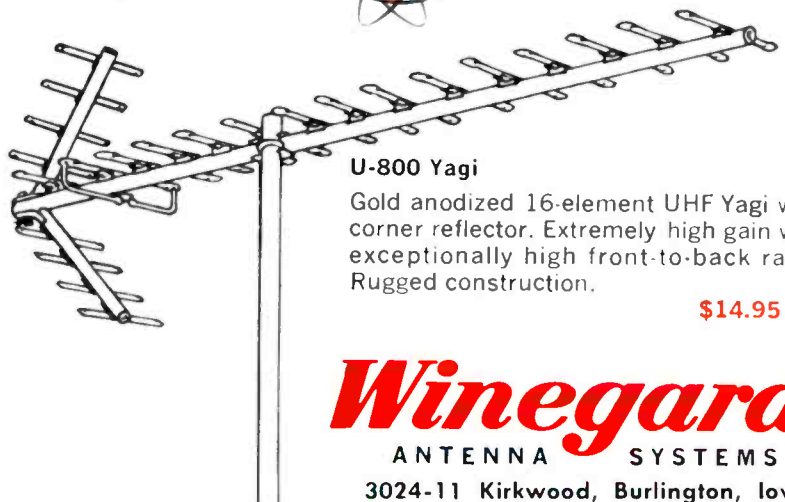


"Ultra-Beam" Antenna

Gold Anodized colinear UHF antenna for all areas including deep fringe. As much gain as an expensive parabolic.

\$12.50 list.

Model U-730



U-800 Yagi

Gold anodized 16-element UHF Yagi with corner reflector. Extremely high gain with exceptionally high front-to-back ratio. Rugged construction.

\$14.95 list.

Winegard

ANTENNA SYSTEMS

3024-11 Kirkwood, Burlington, Iowa

**RCA VICTOR
DISTRIBUTING CORP.**
6051 Telegraph Rd., Los Angeles 22
RA 3-6661

**HURLEY
ELECTRONICS**
1429 So. Sycamore Ave., Santa Ana
KI 3-9236

**DUNLAP
ELECTRONICS**
1800 18th St., Sacramento
GL 2-3171

**RADIO PARTS
COMPANY**
2060 India Street, San Diego
232-8951

Letters To The Editor

Dear Sir:

I would appreciate receiving a copy of the November Issue of Modern Electronic Service Dealer. There is some special information in it that we can not obtain anywhere else. Thank you.

Thompson Radio & TV Service, L.

Under separate cover we are sending you a copy of this issue with our compliments. We hope this information will be of benefit to you and your business.

Dear Sir:

To date we have not received a form with which to register as an Electronic Repair Dealer. Would you kindly advise where we can obtain same.

Roy Brown, Associated
Radio & TV Service

There is a great deal of information in this issue of MESD that should clear up any questions dealers might have concerning the new Registration Law. The forms will go into the mail shortly and we encourage everyone to fill them out and return them as soon as possible to the State. Questions concerning the form itself should be directed to the Department of Business and Vocational Standards, State Building either in your local area or in Sacramento.

Dear Mr. Martin:

Thank you very much for sending me your August issue of "Modern Electronic Service Dealer." I appreciate your thinking of me.

Sincerely,
Edmund G. Brown, Governor
State of California

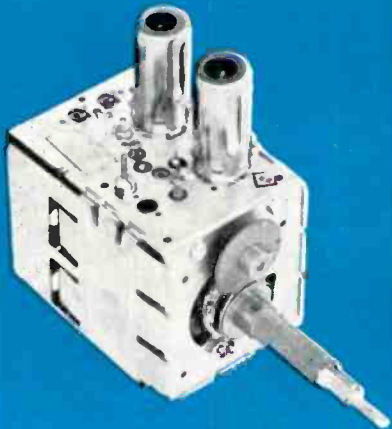
Dear Sir:

I am a member of TSA of Ohio and have just read the July Issue of MESD. I have tried twice to obtain information on the "bean-stalk" Antenna mast and have received no reply from the company. It is possible I have the wrong address and my mail was lost. I would appreciate your forwarding the address of this Company if you have it available.

Jack Fain, Video Soundcraft,
1753 Oberlin Ave.,
Lorain, Ohio

We have checked our material and the address of the Sealing Corp of America in Santa Monica is now in a new location. As soon as we are able to determine the correct address we will have them get in touch with you directly. Often times Manufacturers will spend a great deal of money to promote their products and completely overlook the follow up to such inquiries.

TUNER REPAIRS



\$9.50

FOR COMPLETE OVERHAUL

Includes ALL parts (except tubes)
ALL labor on ALL makes

24-HOUR SERVICE with FULL YEAR WARRANTY

Sarkes Tarzian, Inc., largest manufacturer of TV and FM tuners, maintains two completely-equipped Service Centers to serve YOU. Both centers are staffed by well-trained technicians in this specialized field and are assisted by engineering personnel to assure you of FAST, DEPENDABLE service.

⊕ Tarzian-made tuners—identified by this stamping—received one day will be repaired and shipped out the next. A little more time may be required on other makes. Every channel is checked and re-aligned per manufacturer's specifications, not just the channels which might exist in any given area.

You get a 12-month guarantee against defective workmanship and parts failure due to normal usage. Cost to you is only \$9.50 and \$15 for UV combinations, including all labor and parts except tubes. No additional costs. No

hidden charges. All tuners repaired on approved, open accounts. You pay shipping. Replacements on tuners beyond practical repair are available at low cost.

When inquiring about service on other than Tarzian-made tuners, always send TV make, chassis and Model number. Check with your local distributor for Sarkes Tarzian replacement tuners, parts, or repair service. Or, use this address for fast factory repair service.



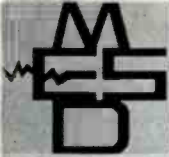
SARKES TARZIAN, INC.
TUNER SERVICE DIVISION

See your distributor,
or use this address

10654 Magnolia Blvd.,
North Hollywood, Calif.
Tel: 769-2720

MANUFACTURERS OF TUNERS... SEMICONDUCTORS... AIR TRIMMERS... FM RADIOS
AM-FM RADIOS... AUDIO TAPE... BROADCAST EQUIPMENT

OUR BEST
WISHES
FOR A
HAPPY HOLIDAY
AND
PROSPEROUS
NEW YEAR



DON MARTIN

THE TUBE DILEMMA

Some very interesting, maybe not practical, conversation came out in a recent meeting with a few dealers that I feel bares a little paper and ink. Two major manufacturers of tubes, maybe three, are now offering receiving tubes at as high as 72% off of list. I have seen 50%, 60% and even 70% but now even more? These are not poor tubes but first line quality with advance code dates. Does this actually mean another break for the dealer in his purchase of tubes? Not to my way of thinking. What it does do is to make us aware that in the not too distant future the dealer is going to have to take a realistic view of his price structure and start making his labor carry the freight instead of his parts. For years the receiving tube was the guy who took the beating from the public as many hid the true cost of labor. A \$2 house call meant a \$3 or \$4 tube cost. The consumer soon learned that tubes could be purchased for \$1.50. The dealers yelled at the open house distributor for selling the tube at \$1.50 which, in turn, made the industry look like clip artists. What the dealers did not do was to increase their charges for service calls and decrease the charges for the receiving tubes they were replacing. During this discussion it was actually advocated that the dealers should now take a realistic view of the tube price and work on a maximum mark up of 10% to 20% instead of the so-called "list" price.

In other words let's take this as an example. A dealer makes a house call and replaces one tube. He charges \$5 for the house call and \$3.50 for the tube. Why not charge \$7.00 for the house call and \$1.50 for the tube. Many feel, and I must agree, that this would do more for the uplifting of the industry then any other single thing. I have actually seen dealers begin to reduce their house call charge as the number of tubes needed to repair a set in the home increased. In fact, I have seen the charge eliminated as soon as five tubes at \$3 average were used. In this case, a \$7 service call charge and 5 tubes at \$1.50 would still get the \$15.00.

The many new tubes coming out, almost weekly, will kill a lot of the tube checker business. Why not start charging for labor, which you can certainly justify, rather than letting the tubes make us all look bad? It's worth a thought.

We have advocated, and some manufacturers have also, that the tube prices should be controlled by the manufacturers. How silly is a price that presents the logic that we want them as high as possible so we can merchandise the big discounts? A tube lists for \$3. It is offered at 70% off or less \$2.10. The real cost of the tube is \$.90. It is sold to the consumer for \$3.00. The dealer makes \$2.10 or does he? I say that the cost of the service call didn't drive people to the checker . . . it was the \$3.00 per tube charge when he knew he could buy it at an over the counter distributor for 50% off. Believe me, and I don't think I am telling anyone anything, the public is getting wise to the tube checker. They are using it to test the tubes and then heading for the same \$1.50 from the over the counter boys. Why not? The same guy who then can't fix it with tubes calls the dealer for repair. By that time most of the tubes are new so he can't pick up some of his profit through the tubes so finally is forced to settle for a labor profit . . . which he should have been selling in the first place.

There are some rules of thumb being used that are not good but are, at least, some guide. The best we have found was a time cost to do a job and then the doubling of this factor. For example: a job costs you the dealer five hours of work from a bench man that you are paying \$3 per hour. This is a total of \$15 doubled is \$30 plus a charge for parts.

In another section of this issue we have reproduced the suggested estimate form that complies with the new laws. These new laws may force you to take a good look at how you arrive at your charges. Don't be surprised if you learn that by using this type of form that you have been undercharging your labor.

In using this form why not look at the labor side as a number of hours you feel it will take to fix the set. Pre-determine the hourly cost of your labor and double it as an entry in the labor side. Using the mentioned \$3 per hour labor cost is \$15 . . . doubled is \$30 plus parts. I feel that this form used in this way will go a long way in helping to determine a true labor cost and charge.

NATIONAL ELECTRONICS ASSOCIATION

At the recent Board of Directors meeting of CSEA a report was made by Executive Secretary Jim Wakefield in regards to the National Electronics Association and his attendance at their last meeting in Kansas City.

This report was made in two parts. 1. a newsletter put out by NEA as a result of this meeting and 2. a report of his opinion in regards to his experience with the group and his recommendations to the Board.

First of all in reading over the NEA Newsletter, it seems to me that the group is a "doer" as opposed to a "don'ter." There seemed to be no negative thinking in regards to the future of their Association or any other Association. It doesn't seem like they are the group of rebels some people have painted them and it looks to me as if they are going to continue to be in business for a long time to come.

The report that Jim Wakefield made was a good one. It spelled out certain things that would have to be done but it did not try to make the decision for the Board. The reaction to the report was just as sound as the board then referred both reports to the different zones and asked for a "grass roots" report of the re-action, by the different chapters, to the proposal. The Board did not make the decision that this was a good or bad plan but insisted that every member of the State wide Association have an opportunity to voice his opinion. There are several alternatives to membership in NEA. When this is brought up at the chapter level I am sure the Association will have adequate direction.

Several people feel that we need a stronger CSEA before attempting to move nationally. There is a lot of sense to this position but where is the exact point at which this will occur? There must be a destination or termination point when the Association as a body can say "we are strong enough NOW to endorse a national Association and to take an active part." Others feel that this point has been reached and that we can not wait to take an active part in the national program of building a better profession. The Association is basically sound right now. With a lot less strength they accomplish the improbable. The impossible may take a little while.

L.A. Bunko Reports Decline In Complaints

A recent meeting between representatives of the Los Angeles Bunko squad and the California State Electronics Association revealed that TV fraud complaints are down from 50% to 70% since the enactment of the new lien law.

The chief complaint to the Bunko squad has always centered around high prices of TV repair. As many of you know, a high bill is not a cause, in itself, for an investigation. Everyone recognizes the fact that every businessman has a right to charge what ever price he feels is proper for labor. The only time fraud is involved is when the repair is misrepresented, when parts are charged for and not used or when work is billed for but not performed.

With the enactment of a required estimate before a set is removed from the house the consumer is aware of the charges before he authorizes the work to be done. This, according to the Bunko people, has reduced all calls in regards to high charges for TV repair and has minimized a great deal of the petty fraud that has plagued the industry for years.

Registration Forms To Be Mailed To 33,000 Dealers Throughout The State

December 1st is the target date set by the State of California for the mass mailing of over 33,000 registration forms to dealers throughout the State.

The list being used for this mailing is being supplied by the State Board of Equalization and will be sent to every person that sells or services electronic consumer products. Although the list is very large, it was felt, about 10,000 are expected to be returned. The fee price is still to be set but reliable sources indicate it will run \$35 per year.

The law goes into effect on January 1st and every dealer in the State will be required to be registered by that date. Anyone who does not register will be liable for a fine of not more than \$1,000, a possible jail sentence of six months or both. All dealers are urged to report any person doing electronic service repair without registration to the Department of Business and Professional Standards at the State Building nearest to them for investigation after the January 1st deadline.

Two New CSEA Chapters Installed

Two more new chapters have been installed into the California State Electronics Association, according to a report by Association Executive Director Jim Wakefield.

At the moment Orange County and Santa Marie have both become new chapters of CSEA. These new chapters, along with the re-instatement of San Bernardino, brings the total chapters throughout the State to thirty-one.

Wakefield also reported that there has been extensive work in several other areas and it looks very favorable that we will be adding other chapters, especially in the Bay area, very soon.

Governor Appoints Industry Representative To Commission

Governor Edmund G. Brown has announced the appointment of the Industry segment of the new Commission that will administer the Electronic Service Registration Law.

Earl Capp Loughboro, Ventura Dealer and vice-chairman of the California State Electronics Association's Board of Delegates will represent Southern California and Andy Anderson of Handy Andy's in Sacramento, also a long time CSEA member, will represent the Northern California area on the Commission.

Although the Association had formally endorsed two other dealer members both of these two appointees were on a list of eight dealers presented to the Governor, at his request, by CSEA. With the announcement, it was felt, the Governor had made a good choice and that out of the over 200 names submitted to him for

consideration these two men would do an outstanding job of representing the industry.

As we go to press only one other name has appeared as an appointment to this commission and that is Miles Rubin a Los Angeles Attorney. Mr. Rubin had been a member of Attorney General Stanley Mosk's office for a number of years before re-signing to enter private practice. It is felt that Mr. Rubin will be an outstanding representative on the Commission because of his long association with the problems of the Electronic Repair Industry as a part of the Attorney General's staff.

LATE NEWS BULLETIN

Complete Electronic Repair Commission

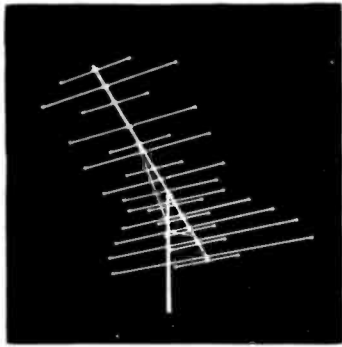
Kieth V. Anderson, Industry
3730 Winding Creek Road
Sacramento, Calif.

Earl C. Loughboro, Industry
3182 Porter Lane
Ventura, Calif.

Mrs. Rubin E. Jimenez, Public
607 Anderson Street
Manhattan Beach, Calif.

Miles J. Rubin, Public
2940 Military Avenue
Los Angeles, Calif.

Thomas Schneider, Public
1417 Arch Street
Berkeley, Calif.



NEW FROM RCA !!! ANTENNAS

New RCA outdoor antennas feature a unique cross-fed, stagger-tuned driven element assembly to feed maximum energy into the 300 ohm line. The result? Sharper, clearer pictures for color and black/white TV.

For best local city reception, suggest the RCA 200 . . . the RCA 300 for suburban "near fringe" areas . . . the RCA 400 for "outer fringe" or distant stations.

All RCA antennas feature a gold anodized finish for weather and corrosion protection . . . AND ARE PRICED TO SELL!

| | *List | Net |
|------------------|---------|---------|
| RCA 200 | \$26.10 | \$14.85 |
| RCA 300 | \$35.00 | \$20.50 |
| RCA 400 | \$52.75 | \$30.00 |
| RCA FM 500 | \$24.00 | \$14.40 |

*Factory suggested list optional w/dealer
Quantity discounts are available

The Most Trusted
Name In Electronics

**RCA VICTOR DISTRIBUTING
CORP.**

6051 Telegraph Road, Los Angeles 22, Calif.

RA 3-6661

ZONE "F" TO PROMOTE CHAPTER ACTIVITIES OVER THE NEXT 60 DAYS

The Zone "F" Council of CSEA has directed its Executive Secretary Al Fisher to concentrate on local chapter work.

Under this plan, Al Fisher will work directly with the chapters in providing programs, service call referral ideas and general chapter promotional activities throughout the month of December.

In reporting to the Zone Delegates Fisher stated that the membership activity has been good but that a long term program of membership campaigns, at the local chapter level, would probably provide the best results. Chapters are encouraged to set up good programs of general interest to dealers throughout their area and then invite the Executive Secretary of the Zone to present a small membership pitch at the same time.

Sacramento CSEA Answers Call For TV Set

A recent item in the Sacramento Union Newspaper brought immediate results and a good image of the Sacramento Chapter of CSEA.

On November 8th a special appeal was made in Kirt MacBride's column concerning a 21 year old man that was lying in a Sacramento hospital with a broken back. The ladies aid had arranged for a series of mirrors so that he could lie in bed but the need was for a TV that he could watch through these mirrors. On November 9th an item appeared next to MacBride's column stating that Floyd Marshall of CSEA had arranged, through his organization, to supply the 19-inch Television set. On November 11th MacBride publicly thanked Floyd and CSEA for this fine gift and expressed the thanks of the bed ridden Jim Bedford.

These type of things are happening every day. Why not let MESD know about them so that others can benefit through these experiences.

DIABLO VALLEY ELECTS NEW OFFICERS

The Diablo Valley Chapter of CSEA has just recently announced the election of new officers for 1964.

Dean Hilburn has been elected as the new President with H. Broom as Vice President and Gene Free as Secretary.

The group meets the 3rd Wednesday of every month at Kellogg's Steak House

in Walnut Creek. Dinner begins at 7:30 p.m. with the meeting to follow. Wives are invited to attend.

SAN BERNARDINO CHAPTER REGAINS CSEA CHAPTER

The San Bernardino Chapter of CSEA has been re-chartered in the California State Electronics Association and were presented with their original number 18 charter at a special dinner held last month.

At the same time, new officers were installed by CSEA President Emmett Mefford. They included Norman Thorpe as the new President; F. R. Stevens as Vice President; Howard Bouge as Secretary and Jesse Adams as Treasurer.

The regular monthly meeting of the group will be held the second Thursday of every month at the San Bernardino Elks Club.

SAN ANTONIO CHAPTER RE-ELECTS OFFICERS SPONSORS COLOR SCHOOL

The San Antonio Chapter of CSEA recently re-elected Andy Goodwin as President for another term. At the same time they elected Burr Deal as Vice President; Fred Bowerman as Secretary and Stan Young as Treasurer.

The chapter will also sponsor a color course to be presented starting in February at a Fee of \$3 per lesson. At the present time, eight members have signed for the course, to be held at Compton Junior College and, it is hoped, more will be signing up shortly.

ACTRA Discusses Business Problems

The Alameda County Chapter of CSEA held their last meeting Nov. 5 at the Driftwood Restaurant, 1313 Park Street, Alameda.

There was no outside speaker, but rather, Allan Crawford, ACTRA president and director in CSEA, discussed a survey made by him personally on, "Dealer Pricing As It Exists."

Also topics discussed at the meeting were: "Why did sixteen Alameda County dealers go out of business during the past year? Is Pay TV threatening to come into the Bay Area? and Making a Living and at the same time dealing fairly and honestly with consumers.



MODERN
electronic
Service Dealer

PRESIDENT'S MESSAGE



By
EMMETT
MEFFORD

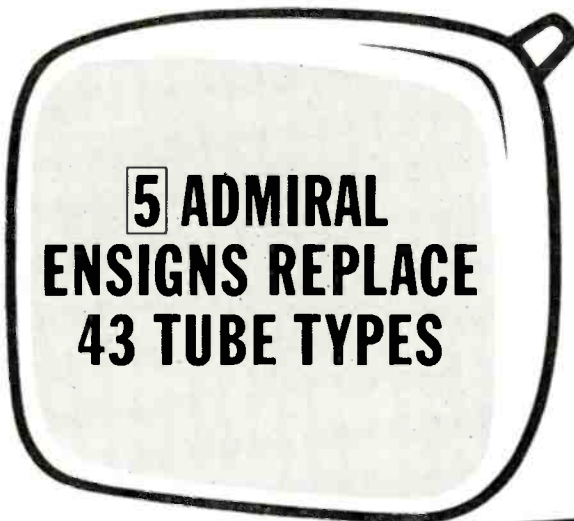
Time to pause and take stock of our desire to develop conditions in the Electronic Service Industry which will be more conducive to professionalism. Looking back several years and analyzing the accomplishments of the California State Electronics Association gives me reason to be proud that I am a member of such an association. To be able to meet with my fellow Technicians and associates at round table discussions of technical and business gives one the possible answers to some of his own problems.

During the past years that I have attended chapter and state meetings with my fellowmen, I have often heard comments by new members, after attending a few meetings such as, I had not met Mr. so-and-so until I attended these meetings and I think he is a real nice guy, these and many more observations make you realize that the time given for association work and obtaining new members, leaves one with a feeling of accomplishment.

In helping others you in turn help yourself and there can be no better place than to mutually improve one's place in society and business which is directly tied to family life and pleasures.

I have been most fortunate in the past months to have had the pleasure and opportunity to have worked with so many fine fellowmen. I would like to take this opportunity to let each and every one of you know how greatly I value your friendship. Your loyalty has made my past months a very pleasant one as president of your association.

It is my sincerest hope that we may see a substantial growth in membership in the California State Electronics Association through the coming year. May I extend the Season's Greetings in a warm and sincere way for a Joyous Holiday and a NEW YEAR abundant with happiness and good health to all.



5 ADMIRAL
ENSIGNS REPLACE
43 TUBE TYPES

| | | | |
|-------------------------------------|---|--|---|
| ENSGN 17BJP4 REPLACES | } 17ATP4 17ATP4A 17AVP4 | 17AVP4A 17BUP4 17CBP4 | 17CLP4 |
| ENSGN 21AMP4A REPLACES | } 21ACP4 21ACP4A 21AMP4 | 21AQP4 21AQP4A 21CUP4 | 21BSP4 |
| ENSGN 21CBP4A REPLACES | } 21FLP4 21ALP4 21ALP4A 21ALP4B 21ANP4 21ANP4A | 21ATP4 21ATP4A 21ATP4B 21BAP4 21BNP4 21BTP4 | 21CBP4B 21CMP4 21CVP4 21CWP4 21DNP4 21CBP4 |
| ENSGN 24CP4A REPLACES | } 24ADP4 24CP4 24QP4 | 24ATP4 24VP4 24VP4A | 24XP4 |
| ENSGN 24AEP4 REPLACES | } 24DP4A 24YP4 | 24ANP4 24ZP4 | |

REDUCE INVENTORY! INCREASE SALES!

Save space, save dollars! Make more profit per sale with the Admiral ENSIGN "Big 5" as your basic tube inventory. All materials and parts used in the manufacture of these tubes are new except for the envelopes, which prior to reuse, have been inspected and tested to the same standard as new envelopes. Every Admiral ENSIGN tube is of fine/precision quality manufacture.



Call your ADMIRAL DISTRIBUTOR tomorrow... start cutting inventory cost, pocketing new profits right away!

Be wise... standardize on
ADMIRAL®
ENSIGN
REPLACEMENT PICTURE TUBES
Always Fine/Precision Quality

DEPARTMENT OF PROFESSIONAL AND VOCATIONAL STANDARDS
BUREAU OF ELECTRONIC REPAIR DEALER REGISTRATION
 1020 N. STREET
 SACRAMENTO

For Agency
Use Only

REGISTRATION

Having complied with the provisions of Chapter 20 (commencing with Section 9800) of Division 3 of the Business and Professions Code, this application is validated as shown.

Date: _____

Name of Firm: _____

| | | | | |
|-------------------------------------|--------|---------------|------------------------|--------------|
| Business Address: Number and Street | | City | State | Zip Code No. |
| RETAIL SELLER'S PERMIT NUMBER | | Phone Number | | |
| Manager of Firm or Branch (Name) | | Sign Here | | |
| Home Address: Number and Street | | City | State | Zip Code No. |
| Height | Weight | Color of Eyes | Social Security Number | |

OWNER(S), OR PARTNERS, OR CORPORATION

The following data is required for all owners; if a partnership, include limited partners; if a corporation enter the president's name and the address of the principal office.

| NAME | TITLE | RESIDENCE ADDRESS | SOCIAL SECURITY NUMBER |
|------|-------|-------------------|------------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Instructions—To Avoid Errors Please Read Carefully—F

Each question should be fully and truthfully answered, preferably by typewriter (or print) padded by the requisite fee, in money order, certified, cashier's or personal check pay Registration. DO NOT SEND CASH.

SAMPLE OF NEW REGISTRATION LAW FORM

This is a sample of the registration form that will be mailed to you around the 1st of December. Anyone who does not receive this form should contact their office of the Business and Professional Standards. All dealers who are engaged in the electronic repair business must be registered by January 1, 1964 or face a possible fine of not more than \$1,000 or not more than six months in jail or both.

RECOMMENDED ESTIMATE FORMS TO FULLFIL BOTH LAW REQUIREMENTS

This is a form that was submitted by a CSEA committee that will fulfill all requirements of both new Television service laws. The new lien law for Los Angeles County only requires that all Dealers must give an estimate before removing a Television from the home if the work will cost more than \$15. The law does not require all of the detail in this form in that it states you must give a maximum figure of the estimated cost. If this cost should run higher you must receive written permission from the customer before you can proceed. The reason behind this form is to act as a guide to the dealer in order to have a better idea of what the actual cost may run. The registration law requires that you must give an estimate if the customer requests it. These forms are available to all CSEA members at a cost of \$2 per 100 sets. They are in tablet form of 50 sets with a minimum of two sets per member. Arrangements are being made to produce these forms, at a later date, as pull outs with carbon paper included in each set. They may be ordered from the State office at 3333 Watt Avenue, Sacramento.

RADIO & TV REPAIR ESTIMATE

Date _____ Initial Est
 Revised Est

No 4

Owner's Name _____ Address _____
 Home Telephone _____ Other Telephone _____
 Type of Equipment _____ Description _____
 Make _____ Model _____ Serial No. _____
 Customer's description of trouble _____
 Technician's diagnosis of trouble _____

From symptoms observed by the technicians, it appears that repairs are needed in the sections of the instrument checked below:

| | | | | | | |
|---|--------------------------|----|--------------------------|----|-------|----|
| 1. <input type="checkbox"/> VHF Tuner 2. <input type="checkbox"/> UHF Tuner 3. <input type="checkbox"/> Video IF, 2nd Det. Circuit 4. <input type="checkbox"/> Video Amp, Contrast, Brightness 5. <input type="checkbox"/> AGC, Noise Cancel Circuits 6. <input type="checkbox"/> Sync Circuits 7. <input type="checkbox"/> Vertical Sweep Circuit 8. <input type="checkbox"/> Horizontal Sweep Circuit 9. <input type="checkbox"/> High Voltage Section 10. <input type="checkbox"/> Low Voltage Supply Section 11. <input type="checkbox"/> Sound Circuits 12. <input type="checkbox"/> Picture Tube 13. <input type="checkbox"/> Color Circuitry 14. <input type="checkbox"/> Other | Television | | Parts | | Labor | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| \$ | | \$ | | \$ | | |
| 15. <input type="checkbox"/> Power Supply 16. <input type="checkbox"/> RF-IF Circuits 17. <input type="checkbox"/> Amplifier Circuits 18. <input type="checkbox"/> Other | Radio | | Parts | | Labor | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| 19. <input type="checkbox"/> Motor 20. <input type="checkbox"/> Cartridge 21. <input type="checkbox"/> Needle 22. <input type="checkbox"/> Drives, Idlers 23. <input type="checkbox"/> Other | Phonograph-Record Player | | Parts | | Labor | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| | \$ | | \$ | | \$ | |
| Total | | \$ | | \$ | | \$ |
| | | | Parts | | Labor | |
| | | | Sales Tax | | \$ | |
| | | | Removal & Reinstallation | | \$ | |
| | | | Other | | \$ | |
| Grand Total | | \$ | | | \$ | |

Should additional repairs be found advisable, requiring additional charges, this company will obtain separate authorization before proceeding with same.
 Repairs will be performed at the company's address unless noted here:
 If equipment is returned without repair at the request of customer, a diagnosis fee of \$ _____ will be charged (includes handling charge)
 Equipment received for repair by _____
 I understand the above estimate and terms and hereby authorize the pickup of the above described equipment for repair. Receipt of a copy of this estimate is hereby acknowledged.

Owner _____ By _____ Original _____

For the Beginner:

A NEW
SIX PART SERIES—PART TWO
ELEMENTS OF SWEEP CIRCUITS

technical section

An MESD special feature

Irv Tjomsland, Editor

THE HORIZONTAL SWEEP CYCLE

In Chapter 1 the basic factors of the television picture were outlined. Persistence of vision, makeup of the raster and time elements of horizontal and vertical scanning were discussed.

Apprentice servicemen may question the emphasis on data of such an academic nature when their experience indicates that raster failure relates directly to tube or component malfunction.

Is it necessary to bother with microseconds, blanking time, and other technical aspects in order to perform service work?

The answer is very likely "yes" if the serviceman intends to perform repair and adjustment that will restore the receiver to the highest performance consistent with the standard of the original design and manufacture.

Theoretical knowledge will be useful, not only as an aid to rapid, accurate diagnosis of trouble, but also will help determine when performance has been fully restored.

Many an incompletely serviced receiver is returned to a customer because the significance of a blanking, sync, or sweep detail is not understood. The owner may not be aware of the reason for his decreased enjoyment from the receiver, but inevitably his opinion of the serviceman is adversely affected.

Therefore, with the idea that better service and adjustment can be provided if both CAUSE and EFFECT are understood, the student and apprentice are urged to improve their theoretical knowledge at the same time as they strive to upgrade their general experience.

2-1. ELEMENTS OF DEFLECTION: HORIZONTAL

Just as the engineering pioneers had to establish standards of deflection, blanking, and interlace, so does the serviceman have to keep his customer's receiver within these limits, or the receiver will be of little or no value.

To help attain a basic understanding of how the sweep cycle functions within the time limits established by the standards, the two systems of deflection will be examined separately: In this chapter the horizontal, and in a later chapter the vertical.

2-2. THE INITIAL POWER PULSE

If a picture tube is operated without the yoke in place, a spot of light will appear near the center of the faceplate and will indicate the natural position of the beam as the electrons are impelled from the gun to the phosphor.

In a normal receiver another condition exists: At the

time the beam is near the center (horizontally) of the screen during operation, the sawtooth applied to the horizontal output tube is just about to overcome the bias on the grid and start the horizontal output tube conduction period.

This will be the reference point used to start the description of the sweep cycle.

At this time the damper is cut off because the boost capacitor is holding the cathode at a positive potential with respect to the plate.

As the horizontal output conducts electrons flow through the primary of the flyback, divide between the yoke and part of the flyback shunted by the yoke, on the way to the boost capacitor.

Actually the yoke may be energized in more than one way, such as by providing a direct path for the electron flow, and by coupling to the flyback. It represents a relatively low impedance to the pulsating current flowing since a typical unit may measure 15 millihenries but is connected in parallel with a section of the flyback winding with 300 to 500 millihenries inductance. The relatively large yoke core permits storage of a substantial quantity of energy.

As this electron or current flow begins to increase through the yoke a magnetic field develops between the two horizontal windings and concentrates in the neck of the picture tube, at the point where the neck flares out in the bell portion.

The electron beam traveling through the neck encounters this field and is deflected in a right angle direction. Since the horizontal yoke windings are positioned above and below the neck of the tube the beam moves in a horizontal direction.

The counter EMF that opposes the INCREASE in current flow through the yoke-flyback system tends to cause the beam to move at an even velocity.

If you refer to Chapter 1-10 you will note that the beam has a total of about 56 microseconds to complete the whole line, so if it starts from somewhere near the center of the screen, it can be assumed that from 20 to 30 microseconds are involved in moving it to the far right side.

At about the time the beam reaches the far right side, current through the horizontal output tube has reached maximum and the field in the yoke has developed to the greatest point.

But also at this time, the sawtooth on the horizontal output grid has reached maximum positive and suddenly reverses and drives the horizontal output grid negative and cuts off all plate conduction.

This change triggers a whole series of reactions and the second part of the sweep cycle is initiated.

2-3. THE RETRACE PART OF THE CYCLE

As mentioned, at the point of cut off the magnetic field has achieved maximum intensity, and at this point represents stored energy.

The instant the current is cut off this field collapses and the energy of this field reappears as current flow through the yoke windings, but of course, in the opposite direction to the current flow caused by the conduction of the horizontal output tube.

This current flow causes a new magnetic field of opposite polarity to build up, and the electron beam is driven rapidly to the left side of the picture tube.

How rapidly must and does it travel?

According to Chapter 1-10 7.5 microseconds are allowed for this operation. (Since the beam is actually blanked for some two three additional microseconds, it is possible to operate with a slightly longer retrace time.)

To overcome the problems outlined in Chapter 1-14, that is to keep the beam "on" time long with respect to "off" time, retrace time is limited to about 1/7th the time allowed for trace, or 7.5 usec against 56.

To make this possible the whole horizontal sweep circuit is carefully arranged to be resonant at some frequency between sixty and ninety kilocycles, and the magnetic field which builds up during the first half cycle of this high frequency reaction whips the beam from right to left to accomplish the retrace.

Since the whole flyback-yoke circuit is resonant the collapse of the driver conduction causes a similar reverse current to flow in the flyback and a large voltage pulse appears across the entire flyback winding.

The high voltage rectifier is connected to the highest potential point of the secondary winding and is arranged so that it conducts on the tip of the pulse when it goes positive and the resulting high voltage is applied to the picture tube to accelerate the electron beam.

It should be noted that during this retrace period the horizontal output tube has been held in a state of "cutoff" by the grid bias.

At the same time the damper tube has been held at "cutoff" by the positive retrace spike which holds the cathode positive with respect to the plate.

In other words, the stored energy in the yoke (and to a certain extent in the flyback and other accessories) has caused a high voltage pulse and a magnetic field to appear, but because the damper and horizontal output tube are not conducting, only a small portion of the energy is lost to the high voltage rectifier, and to such factors as heating and dielectric losses. This energy has retraced the beam, but it is still in the system and ready to start the next portion of the retrace cycle.

The instant the retrace pulse passes maximum the magnetic field again collapses and current flow reverses. As this reverse current builds up so does the opposite polarity magnetic field, and the beam starts to move from the left side toward the center. This movement would be at retrace speed and would not produce a useful raster.

2-4. THE DAMPER CYCLE

Except for the damper. When the retrace pulse reverses the cathode of the damper is driven negative with respect to the plate and it conducts heavily. The energy conducted swamps the normal inductance characteristics of the flyback and yoke, and the boost capacitor goes positive to a point where the voltage at the boost capacitor will be about double the initial B plus. Since the damper acts as a load on the sweep system the resonant characteristics no longer exist

and the magnetic field built up by the retrace energy decreases to about zero as the electron beam approaches the center of the screen to complete the cycle.

2-5. SUMMARY

The foregoing description of the horizontal scan cycle suffers from over simplification. In that the many variations employed by manufacturers introduce modifications which have to be taken into consideration when the circuits are studied. In addition, certain factors such as damper conduction during the horizontal output conduction period have been ignored. But since the power added to circuit is inductively coupled to the yoke it does not greatly change the actual cycle. It does, however, change the amount of power which flows in the transformer and driver tube circuit and is considered in the original circuit design.

Of course, other factors such as linearity or efficiency circuits, width or lossier systems, feedback and pulse circuits all represent additions to the basic circuit and involve additional possibilities for trouble.

Sweep circuits are primarily AC in nature, and the student or serviceman who takes time to review his AC functions such as reactance, impedance, resonance, and so forth, will find it much easier to understand or grasp the basic operation than the man who limits his knowledge to the few DC functions indicated on schematics. The resistance of a flyback or yoke is not nearly as important as the inductance.

The material in this chapter is based on the operation of the modern autoformer type flyback rather than the early and more obsolete separate secondary circuit. A typical circuit would be represented by Tructone 2DC303A as described in Howard W Sams Set 474, Folder 1.

Next month some basic service procedure for horizontal sweep components will be presented, and the relations between sync, sweep, and blanking will be explored.

TEN YEARS OF COLOR! STARTS NEXT MONTH

December 17th marks a very important anniversary in the field of Color Television: Ten years ago on that date the present system of compatible Color telecasting was given the go ahead and Color as we know it became a reality.

In those same ten years the members of the service profession have seen the "new infant" grow to a multi-billion dollar industry.

As a sidelight, that was also the day that certain components were released which made construction of the "IRON MONSTER" possible.

Now, ten years later, through the full cooperation of the Society of Radio and Television Technicians (SRTT) a project is under way to restore the early receiver to operating condition.

Several organizations, including the SRTT, Andrews Electronics, Hurleys of Long Beach, and others, have announced plans to celebrate the 10th Anniversary of color.

Some features under consideration include comparisons of early and late receivers, components, and circuits. The Iron Monster will no doubt be in evidence at some of the events, and no doubt other museum pieces will be resurrected.

In tune with the times, MODERN ELECTRONIC SERVICE DEALER will feature this theme in the January issue, and will include many time saving and income producing ideas for the servicemen who have made "10 years of Color" possible.



ADVERTISING FOR THE SMALL BUSINESSMAN

All over the world ADVERTISING has made its domineering mark on the modern day buying public and businessman. Evolving into a technical science, it has readily engulfed every end of business, with major advertisers ranging from morticians to beer brewers and of course never overlooking the Service Dealer.

The ability to categorize and limit advertising to its highest point of generation is an invaluable asset to any businessman as well as the Service dealer.

As in everything, there must be a reason to advertise. An entirely wrong and frequent mistake, is the use of advertising to keep up with a near-by competitor. To approach the existing problem in this manner is often times more harmful than advantageous. Advertising is no longer a hit-and-miss game ruled simply by trial and error.

To benefit from it at all one must become aware of some general rulings to help aid in the development of an efficient promotional program. A program is exactly what your advertising campaign should be—one with a direct schedule to follow and a general build-up, not only making the buying community aware of your existence, but of your earthwhile character and interest in them.

It is well recognized that the most favorable way of deciding whether or not your ad is working for you, is to sit back and trade places with the reader for a few moments. Most people are unaware of their hidden, "what's in it for me" attitude and this is why you must jump right in and make it worth their while to read that ad. This doesn't necessarily have to include "tremendous junk give-aways" or the "prizes for everyone" approach, but honestly and plainly indicating that yours is a more than reputable business that can provide the reader with the fastest, most prompt and best service in the area. Your ad should go on to convince the customer that by dealing with your company only the best of values are at his disposal.

When suggesting better service, attempt to make mention of your guarantee service, or that you only repair when

necessary and that all elements of the set are checked for recommended services which may be pending.

If you prefer to exaggerate more on the prompt service aspect, try pointing out a specific time allotment in which you can, for certain, make it to the customers home and also be specific with completion dates of merchandise being repaired.

Under the area of better value, which customers are probably most interested in, indicate your minimum hourly rate, your experienced employees giving the customer only professional service, that you work only with the finest of parts and equipment, that you sometimes are able to provide repair estimates and that credit be extended for delayed payment.

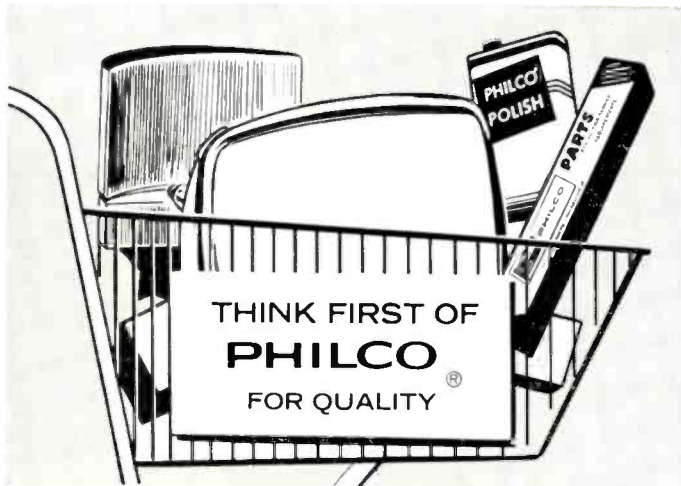
After suggesting to the prospective customer, the specific qualities of your organization and the numerous advantages being offered to him—step in and take your turn with what is known as "bid for action" or a request to the reader for a response to your inducement. These are often quotes such as "come in and see us soon" perhaps written at the bottom of the ad in a hand-lettered signature fact type, giving it that personal touch.

In all the effort to bring out every superior service of your business—Don't forget to tell them who you are, what your telephone number is and where you are located. The easier you make it for them the more calls you're going to receive for service.

It is up to the individual dealer to decide exactly who he wants to reach with his advertising. A common error frequently made in local promotional activities is the use of magazines, newspapers, radio and television, whose coverage and expanse is out of proportion with their business.

Make use of the papers that reach the people in your business radius—the people that are most likely to be calling you for service.

It has been proven that newspapers are read more on general shopping days than any other during the rest of the



4" Contemporary Styled EXTENSION SPEAKERS

For home, office, shop, music or sound systems. Beige molded plastic cabinet. Connector socket, 8 ohm voice coil impedance; .68 oz. Alnico magnet. With or without built-in volume control. Cabinet size, 5x3½x5¼".

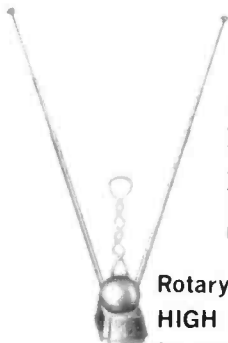


Deluxe 4 Speed STEREO CHANGER M60A

- Plays all speeds, 16, 33, 45, 78
- Intermixes 7", 10" and 12" records
- Shuts off after last record
- Supplied complete with stereo cartridge and sapphire needles.

PHILCO VIBRATORS Tops in quality low in price

Made to Philco standards of quality and specifications. Rigidly inspected and tested. 3 Pin models for 12 Volt General Motors and Chrysler systems, also 4 Pin Model Vibrators for 6 Volt systems.

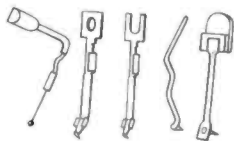


Rotary Switch HIGH GAIN ANTENNA

Six position switch for best possible signal with minimum of interference and ghosts. 3 section dipoles finished in brass. Cast-iron base prevents tipping.

PHILCO PHONOGRAPH NEEDLES for all makes

Replacement needles for Philco, Ronette, Astatic, RCA, Shure, Sonotone, Phillips, Piezo, Telefunken, Electrovoice, Perpetuum Ebner, Euphonics and other makes. Sapphire, Diamond and Diamond-Sapphire.



PARTS & SERVICE OPERATIONS
PHILCO
A SUBSIDIARY OF *Ford Motor Company*

week, so it would, therefore, be wise to take advantage of this. This timing cycle is especially helpful during the summer months, when people are less likely to be spending time inside reading.

Size of the ad would depend on exactly what you are attempting to accomplish. If trying to establish and build up general prestige, the smaller but long ranged schedule is preferable. On the other hand, if you are running a special, it would be more profitable to devote your entire ad budget in one or two larger appearances.

Don't lend yourself to the cramming of the space you have purchased, but instead leave some "air" or areas of open white space that affords the reader a more relaxing visual appearance.

Popular newspaper trend tends to be making use of more lines column rules that box or semi-box, making each item you are trying to feature, more outstanding to the reader. Experiment with the occasional use of horizontal make-up. Laying out ad copy and cuts in this fashion may be just the attention-getter required to spark sales and make your ads stand-out from the traditional vertical method of lay-out, perhaps being used by your competitor.

Begin the ad with your store name at the top of the page. This position is the first to catch the eye of the reader along with any artwork or pictures. Remember, at all times, to avoid being cute or trite especially when incorporating the domestic approach of baby or animal pictures. This technique is effective but should be used sparingly and regarded objectively.

The use of color in the full size ad should be handled very carefully also, as it is generally better to use to little than too much. Certain experts advocate that the service dealer is far better off using the simplicity of black and white.

In a recent survey it was revealed that three-fourths of the dealers use their local newspapers as main advertising outlets, however let us not forget the other medium that perhaps would be beneficial to your specific needs. In addition to newspaper advertising there is the sponsorship of radio and television commercials, which of course involves quite a large amount of working capital and a talented artist to arrange the commercials for broadcasting. Outdoor advertising with roadside billboards has surprisingly enough proven to be very effective yet relatively inexpensive. The prime rule to remember here would be getting the message across in as few words as possible (10 maximum), always keeping in mind that the reader just wouldn't have time to absorb a lengthy message as he drove by. If at all possible one could buy advertising in local or trade magazines. Don't overlook the advantage of advertising at local shows, dinners, charities, etc. This not only makes the community aware of your business but of your interest in furthering all social and charitable aspects of the community.

Telephone and local business directories are always beneficial and of course breaking away from the traditional is the use of novelty advertising which includes; car cards, match books, give-aways, pens, blotters, etc.

In conclusion we can, therefore, assume that getting the most out of your advertising depends directly on the attention, impact, and penetration the program has on the prospective buying customer and the action he takes in response to your advertising campaign. Along with this the terms planning, proper timing, adequate appeal and organization can all be associated with the art of advertising and making sales.



How To Talk

ANTENNAS TO YOUR CUSTOMERS

By ROBERT D. RAYNOR, President
Clear Beam Antenna Corp.

SERVICE SALES PROGRAM

Nobody has as fine an opportunity to sell a TV antenna as a Service man who is called into the house because a customer is unhappy with their reception. Because he is the doctor . . . what he says is gospel! More important, the purpose of a service call is to give the customer service . . . if you as a service man do not sell a new antenna where one is necessary . . . or at least mention that better pictures are possible with a new antenna (when the antenna looks old) you are not actually providing service.

By statistics we know that an antenna loses up to 50% of its picture producing power in the first three years of use. This is due to rust, corrosion, and the insulators of the antenna, lead-in and standoffs becoming porous. At the end of five years not only have the above conditions worsened but, in addition, you will generally find that elements have bent or even dropped off due to wind, bird-fatigue, or icing conditions.

Right now over 60% of all the antennas presently in use are over three years old. Over 40% are five years old. This means that unless you are recommending an antenna replacement on every other service call you make, you are not giving the customer the service he is paying for and *asking for*.

The following program is designed to assist you in bringing the antenna wear-out problem to your customers' attention.

HERE'S WHAT YOU NEED

1. There's an old adage which goes "You can't sell from an empty wagon," which certainly is applicable to selling an antenna on a service call.
Be certain that you have antennas and installation materials with you on your truck at all times. You may carry these individual components, such as a box of bulk antennas, masts, a spool of twin lead, etc., or you may find it more convenient to carry "Do It Yourself Antenna Kits" since they are easier to inventory and also afford the opportunity of selling the kit outright to the do it yourself enthusiast. Also, remember, you might need a ladder or other installation equipment.
2. We have available for you a sign which reads, "Free TV Antenna Check Up." Place this on your tube caddy or tool box, where the customer will see it. This will act as a reminder to you to mention the antenna and will also stimulate inquiries from your customer.
3. Carry antenna check lists (also available; see attached sample) with you on service calls; keep them in a spot where they are easy to get to and where they will not become soiled.
4. Be prepared to explain how an antenna works and why it wears out in simple layman's language. As a service technician you are familiar with the results a worn out antenna can have on TV reception. Being able to explain

this in simple convincing every day language which your customer will understand is another problem. Review the information at the top of the check list as well as the explanations under each check point, and use it as a non-technical approach in explaining the need for a replacement antenna.

HERE'S WHAT YOU DO

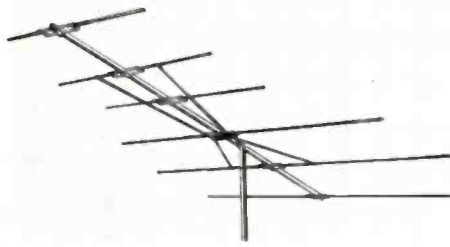
1. As you get off the truck in front of the house glance up at the roof. You have three distinct possibilities for a sale and you should be aware of all of them before you ring the door bell.
 - A. See if the TV antenna looks old or worn out. If it is obviously old you have an excellent prospect.
 - B. Notice if no antenna is present. If there is none be prepared to explain why an outdoor antenna is better than rabbit ears.
 - C. Count the number of antennas. There may be two sets in the home and only one antenna. This might mean that the second set is improperly attached to the antenna (which will save you service time) or that it is working on rabbit ears. You have an opportunity to sell a better antenna with a two set coupler or a second antenna.
 - D. Look to see if there is an FM antenna. Bear this in mind when you are in the house later. FM receivers are getting more and more popular and most people are not aware that they can receive more stations with more fidelity if they have an outdoor FM antenna. With stereo FM (multiplex) an outdoor antenna is a must.

As you can see it, in one way or another the largest majority of the people you call on are excellent prospects for antennas. By looking up at their roof tops as you walk to the house you will know what type of antenna they will need, and generally how you can best present it to them.

2. When you are in the customer's home and working on the set be certain that your tool box or tube caddy is placed so that she can see the sign offering Free TV Antenna Check Up. Naturally, it's best if your customer sees the sticker first and asks for the antenna check up. However, if she does not notice it be sure to call it to her attention with a comment such as "I don't know if you noticed or not . . . this month we're offering a free TV antenna check up on every service call. There's no obligation to buy anything . . . we make an appraisal to see if your set is getting all the signal it needs and to see if we could get a sharper picture for you." At this point be ready to answer a few questions explaining how and why an antenna wears out and why it must be periodically checked and replaced.

(Final Article to appear next month)

INDUSTRY NOTES



THREE NEW ALL-CHANNEL YAGI TV ANTENNAS NOW AVAILABLE

Three new San Franciscan style all-channel yagi antennas have been intro-

duced by Clear Beam Antenna Corporation, one of the nation's largest T.V. and FM antenna manufacturers.

The "San Franciscan" style broad band yagi antenna has sold more than one half million units. Models DG600, DG620 and DG700 all feature Clear Beam's exclusive Dura-Gold finish for lasting weather protection. All models are designed with separate yagi sections for the low and high VHF bands. Model DG620 is peaked for extra gain on the low band. Model DG700 has an additional director element for higher gain and greater directivity on all VHF channels.

The San Franciscan series is 100% snap open in construction. It is the lowest cost channel configuration on the market offering performance greater than the traditional but cumbersome two-bay conical installation.



Lady Malcolm Douglas-Hamilton, creator of the New York World's Fair House of Good Taste exhibit, points out the JFD Long-Periodic LPV TV/FM antenna miniature on the model of the Edward Durell Stone modern house to Edward Finkel, vice-president (left), and Albert Finkel, president (right), JFD Electronics Corporation.

PICTURE TUBE SAVINGS!



COLOR

BONDED FACE & BLACK & WHITE

- TOP QUALITY
- ALL SIZES
- ONE YEAR GUARANTEE

WHOLESALE ONLY—DIRECT FACTORY TO YOU

Distributors of:

Westinghouse Receiving Tubes—Rogers Transformers & Yolks—
Test Equipment—Condensers—Resistors—Antennas—Everything
for the TV Replacement Market.

PICO PARTS

STORES IN

LOS ANGELES
3660 W. Pico Blvd.
RE 1-2177

LYNWOOD
10906 Atlantic
NE 9-6248

EAST LOS ANGELES
5916 Whittier Blvd.
PA 1-2907

JFD LOG-PERIODIC LPV GOES TO THE NEW YORK WORLD'S FAIR

The JFD Log-Periodic LPV TV/FM antenna will be featured in the 1964-65 New York World's Fair House of Good Taste three-home showcase. It was announced by Edward Finkel, vice-president of JFD Electronics Corporation, Brooklyn, New York.

Mr. Finkel said "I am pleased that the invitation committee of The House of Good Taste selected the LPV; this is another fine result of the painstaking work that went into its design.

The JFD Log-Periodic LPV TV/FM antenna is based on a completely new antenna idea developed at the Antenna Research Laboratories of the University of Illinois and adapted for VHF and UHF TV reception by the JFD Electronics Corporation. It is a cousin to the telemetering antenna used on the Transit Satellite to communicate with ground tracking stations. The LPV is different from other antennas because all elements work together on every received TV and FM station.

**Orange County Chapter
Formed—Petkoff Prexy**

The Orange County Chapter of CSEA was officially welcomed into the Association at a special "Charter Night" held Wednesday October 29th.

The first officers of the new chapter included Ivan Petkoff as President; Bill Cooper as Vice President; Don Humble as Secretary and John Nix as Treasurer.

Bob Whitmore, immediate past president of the State wide Association made the presentation of the charter to the new officers.

**Jerrold-Taco Line
Described in New
16-Page Catalog**

PHILADELPHIA, Pa. — A new 16-page, 2 color brochure (Catalog DS-C-502), describing Jerrold-TACO's complete lines of antennas for both black-and-white and color TV markets. FM stereo models for master antenna systems, has been issued by the Distributor Sales Division of Jerrold Electronics Corporation.

**ZONE TO HOLD
CHRISTMAS PARTY
DECEMBER 7TH**

The second annual Zone "F" Christmas Party is slated for Saturday evening December 7th at the Elks Hall, 201 No. 1st Street, in Alhambra.

Last year over 150 members and their wives attended this big affair that included dinner, dancing and a car load of door prizes donated by leading Distributors.

Cocktails begin at 7:00 p.m. with dinner at 8:00 p.m. Tickets are available from all Zone Delegates.

**SRTT GROUP
HEARS MOTOROLA
COLOR STORY**

The Society of Radio Television Technicians, Inc. (SRTT) heard the Motorola 23" and color circuitry story and demonstration at their last meeting held at the Skytrails Restaurant in Van Nuys.

The newest method of tracking was presented by Tee Yakura and George Bossman of Craig Electronics.

**Kiesub San Diego
Moves To New
Location**

Kiesub Corporation at 2426 4th Avenue in San Diego have just completed their move to new and larger quarters at 3510 Adams Street in San Diego.

DUNBAR PICTURE TUBES
— Manufactured in the West's Newest Most Modern Tube Factory!

BONDED FACE PICTURE TUBES

They said it couldn't be done . . . but DUNBAR is doing it! The first independent tube plant to de-laminate and laminate bonded face picture tubes. Old plates removed, new plates replaced. Tubes processed electrically. 1 YEAR GUARANTEE.

SPECIAL ANY 23" BONDED TUBE **\$27.50** EX. REGULAR \$32.50

WRITE FOR PRICE LIST
Shipments anywhere in California. Free delivery in Los Angeles area.

DUNBAR SALES CO. 2033 Venice Blvd.
Los Angeles, Calif. RE 5-1104

✓ CLASSIFIED ADS BUY, SELL, TRADE, HIRE HERE

POSITIONS OFFERED

TV SERVICE MAN

For Black & White & Color. Bench man and outside service preferred, but would take either. 25 miles No. West of Sacramento.

TOP WAGES
Largest Electronic Store in County.

Benders TV & Radio Service
1315 College Street
Woodland, California.
662-2847

EQUIP. FOR SALE

RECONDITIONED T.V.'S
17" to 21"—3 for \$105
AS IS TRADE-INS
Not Checked or Butchered
17" to 24" Table & Consoles
\$15 ea.—Lots of 20-30 pcs.

T. V. CENTER
200 E. MANCHESTER
Los Angeles, Calif. 90003
780-2818

USED TV'S FOR SALE

**USED—TV'S
AS IS
WHOLESALE TO
DEALERS**

100's OF SETS TO CHOOSE
FROM
LOW SHIPPING COSTS
ANYWHERE

TV BROKERS
4920 W. PICO, LA. 19, Calif.
WE 1-6622

PARTS & SUPPLIES

PARTS BARGAINS

750 Mil Silicon rectifiers.....45¢ ea.
Indoor TV Antennas.....68¢ ea.
Cheeter Cords.....18¢ ea.
Plastic Tape (30 ft. rolls).....25¢ ea.
#47 Pilot Lamps.....6¢ ea.
7.5 OHM fused resistors.....10¢ ea.
Receiving tubes—all numbers 70% off

**MANY OTHER SPECIALS
WRITE FOR FREE CATALOG
All Merchandise Guaranteed**

**L. B. ELECTRONIC DISTRIBUTING
CO.**
2033 Venice Blvd.
Los Angeles 6, Calif.
RE 1-6991

**HOW TO USE WANT AD PAGE
TO PLACE AN AD**

BY PHONE: in Los Angeles call AXminster 2-0287. (This is the number of the Classified Dept., only) ask for GRAYCE KENNEDY.
IN PERSON: Come to 4041 Marlton Ave. in the Crenshaw Shopping Center, next to Barker's. (This Address is for the Classified Dept. only.)
BY MAIL: Send your ad to MODERN ELECTRONIC SERVICE Classified Dept., 4041 Marlton Ave., Los Angeles 8, Calif.

RATES

95¢ PER LINE, one time. **MINIMUM*** 5 lines.
BOX NO.: Add 50¢ service charge, and allow 2 lines for reply address.
RE-RUNS: 2nd and 3rd times, less 10% each, 4th and thereafter less 15% each. Same copy.
HEADLINES, ETC.: Large headlines, box borders and 2-col. ads available at modest charge.
POSITION WANTED: Less 15%, payable in advance.

FOR SALE

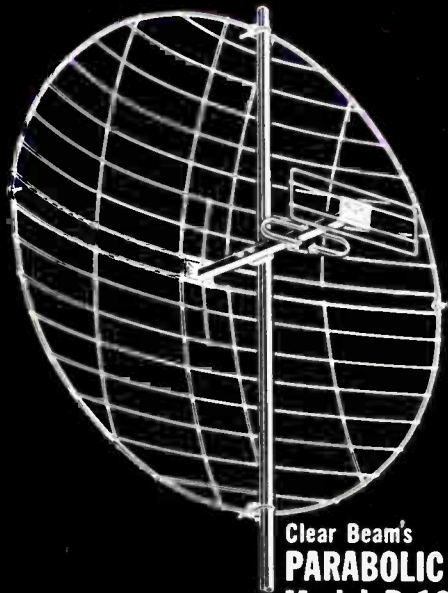
TV TUNERS *\$9.50
Rebuilt & Aligned with
Factory Equipment per Specifications.
Including all parts except tubes.
1 day service most tuners. Guaranteed.

Ship to: Valley TV Tuner Service
5641-C Cahuenga Blvd.
North Hollywood, Calif.
POplar 9-4730

*Practical repairs. Plus shp. chgs.

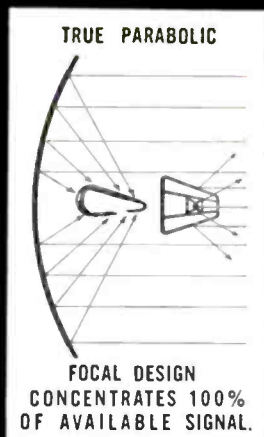
**BUY
SELL
TRADE**

Most POWERFUL UHF FRINGE ANTENNA EVER!



Clear Beam's
PARABOLIC
Model P-100

New, from Clear Beam UHF Research



Focusing screen
selects directional signal
... Rejects ghosts.

Unique parabolic "big screen" design, single dipole feature, and all metallic construction provide maximum performance even in the toughest fringe and translator UHF areas. Prevents signal loss caused by weather deterioration and phasing harness mismatch. Preassembled screen and dipole for fast, strong installation! Up to 18 db gain. *Proven the most powerful UHF antenna ever designed!*

Ask your distributor or write today
for technical bulletin

FOR THE BEST • UHF RESEARCH UHF DESIGN • UHF PERFORMANCE • CLEAR BEAM

Through continuing research and nationwide evaluation of problems in UHF areas, Clear Beam brings you the widest selection of proven UHF designs. Clear Beam's UHF antennas have been field tested in every type of UHF reception area to assure you maximum performance, maximum profits!



CLEAR BEAM ANTENNA CORPORATION
21341 Roscoe Boulevard • Canoga Park, California

... one step ahead!

Edisco Franchised As GE Distributor

The General Electric Company has announced that Edisco Inc., 5901 Mission St., San Francisco, has been Franchised an Authorized General Electric Distributor of component parts for General Electric Television and Hi-Fi Stereo.

Mr. Jim Cooper, Supervisor of Parts Department of General Electric Co., stated when announcing Edisco's Franchise that this is a new approach to Television Parts Distribution as far as General Electric is concerned. It is General Electric's idea that if this venture proves successful and satisfactory they will distribute General Electric T.V. and Hi-Fi Parts through Independent Wholesale Electronics Distributors throughout the United States.

It is quite an honor for Edisco Inc. to be one of the first to be Franchised in the United States. Mr. Fred Roehrig, President of Edisco Inc. stated he is extremely happy with this new arrangement. He feels it will be very advantageous for the San Francisco T.V. Service Dealer to be able to get General Electric exact replacement parts the same day. Edisco, as every San Francisco Dealer knows has excellent delivery service. Any order in by 10 A.M. is delivered by noon and by 2:30 P.M. delivered the same day via their own truck. The San Mateo County delivery hours are 12:30 every day. Their driver also picks up Picture Tube Duds.

At present Edisco has only a basic stock but within a few months they should be able to supply most all the requirements. All dealers are invited to visit Edisco and see a real Dealer Wholesaler in operation.

BOB GAGE JOINS RCA VICTOR DIST.

Bob Gage, well known Philco Parts Manager since 1954, recently resigned that position to become an electronic parts representative in the San Fernando Valley for RCA Victor Distributing Corp. of Los Angeles.

Gage had been with Philco in different positions since 1952 and prior to that with their distributor Gough Industries.

According to RCA Parts Sales Manager Walt Pasner, "Bob brings with him vast experience in the electronic industry and we consider ourselves fortunate to have a man of his caliber with us."



This straight shooter never gets trapped

G-E "SG" straight gun picture tubes* do away with ion traps. No fuss, no call-backs. A G-E "SG's" rugged gun fires electrons with uncanny precision straight at the aluminized phosphor screen—assuring sharply resolved pictures up to 80% brighter. How's that for "Accent on Value"? These features save your time and give your customers thousands of hours of viewing pleasure.

And that's not all the value accents you get with these "straight shooters." A single G-E "SG" picture tube replaces as many as twenty other types, bent gun or straight gun—the types that get "trapped." In fact, with only 25 G-E "SG's", you're ready to replace 250 other picture tube types. You'll serve customers faster—and say *good-bye* to emergency pick-ups and the ion trap nuisance.

MORE "ACCENT ON VALUE" FROM YOUR
G-E ELECTRONICS DISTRIBUTOR

CONTACT ANY OF THE FOLLOWING DISTRIBUTORS:

**MILLERS RADIO &
TV SUPPLY, INC.**

530 East 8th St., Oakland, Calif.
7076 Armory Dr., Santa Rosa
1263 Arroyo Way, Walnut Creek
785 S. First St., San Jose

ANDREWS ELECTRONICS

1500 W. Burbank Blvd., Burbank

**WHOLESALE ELECTRONIC
SUPPLY**

265 So. Laurel, Ventura
209 W. Cannon Perdido, Santa Barbara

GET THIS "ACCENT ON VALUE" BONUS, TOO!



This 16" x 12" x 1/2" polyurethane foam bench pad neatly protects the picture tube from marks and scratches. The handy pad's yours with the purchase of a G-ESG-21FLP4 Service-Designed "straight shooter." Your

reliable General Electric distributor is waiting for your order now. Call him today. General Electric Company, Distributor Sales, Electronic Components Division, Room 3018, Owensboro, Kentucky.

**All new parts and material in a reused envelope.*

Progress Is Our Most Important Product

GENERAL  ELECTRIC

KIESUB CORP.

311 W. Pacific Coast Hwy., Long Beach
1162 Industrial Ave., Oxnard
14511 Delano St., Van Nuys
910 - 11th St., San Bernardino
318 - 21st St., Bakersfield
2426 - 4th Ave., San Diego
725 N. Los Angeles St., Anaheim

COOK ELECTRONICS

210 E. Hardy St., Inglewood

EDISCO, INC.

5901 Mission Street, San Francisco

NEW TWIN-TRANSISTOR SUPER POWERMATE

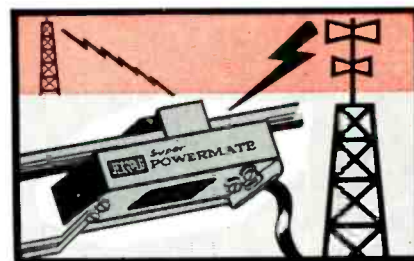


BREAKS THE GAIN/OVERLOAD BARRIER

Servicemen and the public long wanted it, but were told they couldn't have it—a transistorized TV antenna preamplifier with the overload capacity to handle local signals without sacrificing the gain that brings in distant stations.

But Jerrold did what couldn't be done. With the new twin-transistor SUPER POWERMATE, you have, for the first time, a transistor preamplifier with the high gain and low noise figure that made the original Jerrold Powermate famous—plus an unprecedented overload capability for local-signal situations. SUPER POWERMATE offers a gain range from 15.5db with 700,000 μ v max. output at Channel 2, to 11.3db with 200,000 μ v max. output at Channel 13. There are no tubes or nuvistors to replace. And frequency response is fantastically flat—a boon to color TV.

Sell new SUPER POWERMATE, the all-channel antenna preamplifier with G/O—the industry's best Gain/Overload capability. List \$44.95. See your Jerrold distributor or write Jerrold Electronics, Philadelphia 32, Pa.



GAIN to reach far-distant stations, OVERLOAD capability to prevent local-signal interference.

SUPER POWERMATE *GO*
HAS
GAIN / OVERLOAD

JERROLD
ELECTRONICS

A subsidiary of The Jerrold Corporation

ANDREWS ELECTRONICS
1500 W. Burbank Blvd., Burbank
TH 5-3536

FIGARTS RADIO SUPPLY
6320 Commodore Sloat Dr.,
Los Angeles
WE 6-6218

CAPITOL ELECTRONICS SUPPLY
17724 Van Owen, Reseda
ST 6-5870

SOUTHLAND ELECTRONIC SUPPLY
3610 University St.
San Diego, Calif.
AT 3-3941

COOK ELECTRONICS
210 E. Hardy St., Inglewood
OR 8-7644

WHOLESALE ELECTRONIC SUPPLY
265 So. Laurel, Ventura
MI 8-3163

HURLEY ELECTRONICS
1429 So. Sycamore Ave., Santa Ana
KI 3-9236

SOUTHLAND ELECTRONICS, INC.
555 El Cajon Blvd., El Cajon
HI 2-9638