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ELECTRONICS

Service Management

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2

New phono pickup cartridges to help simplify cartridge replacement



Model W22AB-T
TURNOVER CARTRIDGE



Model W42BH
"DUAL-VOLTAGE CARTRIDGE"

WHAT IT IS:	A high quality extended range "Vertical Drive" Cartridge complete with positive turnover mechanism. Has sapphire tipped fine-groove and osmium tipped standard-groove needle.	WHAT IT IS:	A low cost "Lever Type" Cartridge for 78 RPM records. Equipped with unique "slip on" condenser-harness for dual-voltage output. 1.5 volts or 3.75 volts obtainable in one cartridge.
WHAT IT DOES:	Offers greatly improved performance when used as replacement for single-needle all purpose cartridge. Also recommended for replacement of other types of turnover and dual-needle cartridges. Replaces not only cartridge but turnover mechanism as well.	WHAT IT DOES:	Gives servicemen an ideal replacement for old style 78 RPM cartridges. A "leader" value — it modernizes the equipment at an extremely low price — only \$4.95 list. It guarantees improved reproduction. Minimizes inventory problem. One cartridge with choice of two output voltages covers bulk of requirements.
SPECIAL FEATURES:	<ol style="list-style-type: none"> 1. Extended frequency response to 10,000 c. p. s. 2. Tracks at low needle point pressure — only 8 grams. 3. Sturdy construction guarantees long life of turnover mechanism. 4. Standard 1/2" bracket mount has elongated holes for versatility and quick easy installation. <p>MODEL W22AB-T — CODE: RUVUR LIST PRICE \$10.00</p>	SPECIAL FEATURES:	<ol style="list-style-type: none"> 1. "Lever Type" construction assures improved tracking. 2. Specially designed needle guard which protects crystal from breakage. 3. Equipped with pin jacks and pin terminals. 4. If used for high output, the condenser may be used separately by the serviceman for other purposes. <p>MODEL W42BH — CODE: RUVUS LIST PRICE \$4.95</p>



Write Dept. S

FREE! THE WONDERFUL NEW CARTRIDGE Replacement Manual No. 66

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PEOPLE and PLACES

MILTON "MIKE" ROTH who has recently opened offices in Cleveland has been appointed as a sales representative by the JFD Manufacturing Company for Western Ohio and Kentucky. . . . **WILLIAM L. PARKINSON** named manager-product service of the General Electric Company's receiver department. . . . The Astron Corporation announced the appointment of the **DICK HYDE CO.**, of Denver, Colorado, as representatives in New Mexico, Colorado, Utah, Wyoming and South Dakota. . . . **RON L. COOK** has been named assistant director of Member Services of the National Appliance & Radio-TV Dealers Association. . . . The Sacramento Electronic Supply Company has appointed **CLIFFORD E. BOHM-BACH, JR.**, as vice-president and manager. . . . Channel Master Corp. has named three new district sales managers: **EDWARD S. HILL** in the Southeast, **SAM R. ALEXANDER** in the Southwest and **OSCAR K. LEISCHER** in Central Pennsylvania and Maryland. . . .



EDWARD S. HILL



OSCAR K. LEISHER



SAM R. ALEXANDER

JOSEPH HOLZMAN appointed industrial sales engineer for the Insuline Corporation of America. . . . **PETER CHANKO** of Chanrose Radio Distributors, Inc., and **FRED ROSENSTEIN** of Jersey Electronic Distributors Co. were elected president and vice-president respectively of the New York Metropolitan Chapter President and Vice-President respectively of the New York Metropolitan Chapter of NEDA. . . . The following appointments were recently announced by Sidney Pariser of RMS, Inc.: **EDWARD CAPPUCCI** as plant superintendent, **GENE REICH** as quality control head and **MAL GREENBERG** as sales engineer. . . . NEDA's Southern New England Chapter elected **MURRAY DRESSLER** of Hatry and Young as president-secretary. . . . **TIM COAKLEY** made factory represen-

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Sidney M. Sherman, television service technician, is shown receiving the first Philco Factory Supervised Service award for outstanding service on Philco television receivers. Roger Ketterman (r), general service manager of Philco Distributors, Inc., Philadelphia, is shown making the award. Looking on is Samuel A. Whittingham, president of Whittingham Bros., Inc., employers of Mr. Sherman, who expressed deep gratification because of the signal honor that has come to his television service firm.



**no other fan conical
assembles so fast
performs so well!**

JFD JETENNA, the conical with the jet-action assembly, has absolutely no separate parts to put together—just swing out the elements, tighten two "T" bolts and two wing nuts and it's assembled! See your Jobber or write for further information about this revolutionary new antenna.

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manufacturer of TV antennas
and accessories



N.Y.-N.J. RCA Victor Sales Clinic

2,500 dealers and sales people attended a TV sales clinic conducted by Bruno-New York and Krich-New Jersey in cooperation with RCA Victor in the Center Theater, Radio City, New York, on March 15.

Dealers at the clinic were greeted by Frank M. Folsom, president of RCA. They were given a private viewing of the RCA Victor Television Show as guests of the sponsor and Ezio Pinza, star of the program.

A highlight of the sales clinic was the first New York presentation of a motion picture dramatizing proven sales and demonstration techniques. The film was televised and shown on the Center's theater-sized TV viewing screen to demonstrate the usefulness of closed-circuit TV as a sales training instrument.

Similar TV sales clinics are being held by RCA Victor distributors throughout the country. 16 mm. prints of the film, "Prove It Yourself," have been prepared for these meetings.

Mort Farr Deplores Industry Rackets

Warning members of the Memphis Appliance Dealers Association at their mid-March meeting, Mort Farr, president of the National Appliance and Radio-TV Dealers Association, said that our industry is becoming racket-ridden, discredited and "our profession is becoming insulted by promoters."

Activities of the promoters, Farr said, "advertise sirloins at 66 cents a pound, TV Service at \$1 a call and include offers of \$100 discount to anyone who can recognize the Star Spangled Banner."

He closed his remarks by paying particular tribute to the Better Business Bureaus, Chambers of Commerce and other agencies "who have cooperated with the wholesome element by helping to curb the fact-twisting ads which have appeared recently."

Farr also commended newspapers, radio stations and television broadcasters "who have taken steps to protect the public from the charlatans."

Cleveland Stations Adopt 45 RPM Records

45 rpm systems have been adopted as standard for music recordings by WTAM, WHK and WERE in Cleveland, O. This joint action is said to be the first in which more than one broadcast station in a city has adopted the 45 rpm system. The system was inaugurated by WFIL, Philadelphia, last year, with WGMS, KFI, WHDH, WMAQ, KOA, and KNBC following. Main Line Cleveland, Inc., RCA Victor's record distributor, conducted a comprehensive promotion campaign to tie in the broadcasters' adoption of the 45 rpm system with local RCA Victor record shops.

NARDA Members Take Top Honors

Four out of the five Brand Name Competition awards winners this year in the electrical appliance field are members of the National Appliance and Radio-TV Dealers Association, with the coveted title of "Brand Name Retailer of the Year" going to NARDA dealer Roy W. Springer, of Ross Electrical Co., in Superior, Wisconsin.

Other NARDA members, winning "Certificate of Distinction" awards, are O. B. Lank of O. B. Lank & Sons, Inc., Harrisburg, Pa.; George Marcuse and Lorin K. Levy, The Radio Center, New Orleans, and Harold Samson, Samson's Enterprises, Inc., Milwaukee, Wis.

Service Management

VOLUME 1, NUMBER 7

APRIL, 1952

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"OUR OPINION"

NOT long ago we stopped by to see a Dealer who owns the best Radio and Appliance store in a small, compact trading area. This Dealer has been in business in his present location for many years. He knows every family in his area—practically every adult person. And they all know him. He is what you call really "well known" in his community.

We talked about advertising, sales promotion and salesmanship in selling merchandise in the small trading area where he operated. He is an aggressive merchandiser and uses every sales vehicle available to him to keep prospective buyers apprised of specific items that he has to sell.

But he was not always sold on this need for aggressive salesmanship.

He told us he learned about the absolute necessity for consistent individual product promotion the "hard way." For years he had operated on the assumption that since he was so well known personally in his community he had no need for either store or product promotion. He labored under the impression that people knew him so well they would just naturally come to his store when they were in the market for some product that he had to sell.

Then it so happened that his area was one of those selected for an appliance consumer preference study by a national market research organization. When he was informed of their findings he was amazed. He was told that a fair percentage of his possible customers had never been in his store while others had not been in for long periods. And many had bought little or nothing from him.

This taught him that it is not enough for customers to know where a store is located, and what kind of a store it is. It is not enough for them to know the owner, manager or the entire personnel. They must also know the store—know its items so well and favorably that when they want a product or service they think first of that store. He found from this survey that it takes constant selling—advertising, merchandising, selling—all three—to do this job.

The Dealer with a specific product to sell handles tangible merchandise. Whether it be a radio, television, refrigerator, stove or any one of a number of small appliances, it is a specific thing

for which consumer "wants" are being promoted through advertising, editorial articles and every possible type of interest creating medium. Yet, even though he is surrounded with prospective customers who want the things he has to sell, the Dealer himself must aggressively "sell" them to get the business.

Compare this with the product we have to sell—SERVICE. It is an intangible commodity. It is something that people normally do not want to buy. It is not "romanced" in advertising copy or in feature articles in newspapers and magazines.

Further, the complexity of our Industry and the products it produces sets up a confusing situation on consumer service. Users of many of the electronic or electronic-mechanical devices that are being sold in the home market often do not know when those instruments need maintenance attention nor whom to call when they become inoperative.

In the past most Service Businesses have been operated on the theory that when a user needed service he would recognize that need and either phone or bring the set into the shop. The concept of service as a commodity that must be sold just like a piece of tangible merchandise has just recently started to take hold in the Service Industry, primarily among major TV service contractors who have found it necessary to use planned service selling programs in order to maintain their required volume of business.

However, most service sales programs are still confined to television and little attention is being given to the exploitation of the tremendous volume of business that lies dormant in malfunctioning and inoperative radios, record reproducers and home recorders. The promotion of this business is largely the responsibility of the servicing industry for in selling the reactivation of an old instrument, the service businessman is in competition with the manufacturer who would prefer to sell the customer a new one.

One of these days we hope to see Parts Distributors get together with their local Radio-TV service businessmen to work out service selling programs that will effectively tap this dormant service market. P. H. W.

PHOTOFACT Users Write Our Best ADS!

Hundreds of unsolicited letters tell what the world's finest Radio & TV Data means to Service Technicians



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"Just as a technician can't do without a V.O.M., he can't do without PHOTOFACTS! In our shop—as well as thousands of TV service organizations—we pride ourselves on having the first to the latest sets of PHOTOFACT. SAMS has helped us out of many TV and radio headaches with its simple, precise layouts, schematics, alignment data and parts replacements."



Douglas G. Thompson
224 E. Woodrow St.
Tulsa, Okla.

"PHOTOFACTS are the best of all schematics. I get them all as soon as they are published."



Reuben C. McClenon
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"I never fail to get PHOTOFACTS, as they make servicing very easy. Keep up the good work."

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We'll send you a Free Photofact Folder on any receiver listed in "PF Index & Technical Digest."

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Raytheon Customer Relations Meetings

Ed Tilton, president of Pacific Wholesale Company, welcomed nearly 300 TV Service-dealers to a Raytheon joint customer relations and TV Service meeting at the Whitcomb Hotel, San Francisco, February 18. Harold L. Newman, northern California representative for Raytheon tubes, reviewed local advertising plans for Raytheon's Bonded Dealer Program.

Feature speaker was Ken Kleiden of Raytheon's TV Service Department who presented a service lecture entitled, "How to Interpret What You See."

Door prizes included a 17" TV picture tube; a de luxe tool kit; test equipment and ten boxes of candy.

Similar meetings were held in Elks Temple, Los Angeles on February 20 and 21, with an attendance of 1,500. These meetings were sponsored by the Henderson Company, Raytheon tube distributor; James J. Kerwin, distributor of Raytheon TV sets; and the following Raytheon tube distributors: Kierluff & Co.; Martin Distributing Company; Acorn Radio & Electric; Hollywood Radio Supply; and Mac's Radio Supply.

Ken Kleiden gave an illustrated presentation of "How to Interpret What You See" at both meetings. The Raytheon Bonded Dealer film, "Inside Straight," was presented by the Henderson Company, exclusive sponsors of Raytheon's customer relations plan in the area. Door prizes included several pieces of test equipment.

Permo Phono Needle Plant to Be Shown On TV Show

Manufacturing processes used by Permo, Inc., 6415 N. Ravenswood Ave., producers of long life phonograph needles, will be featured on a forthcoming television show, "Industry in Action," sponsored by the National Association of Manufacturers. This program, to be aired locally by nearly 65 TV stations throughout the U. S., is currently being filmed at the plant by ace NBC newsreel cameraman Earle Crotchett. About 40 minutes of film is being shot, for cutting and editing later.

It is anticipated that the film will have high interest for viewers, since phonograph needles are an item in widespread general use, and the microscopic precision with which they are made provides an unusual manufacturing story that can be told with telling effect by the camera.



The Effect of Technical Developments and Products Upon Your Present and Future Business Activities

By EDWARD M. NOLL

Time is a significant factor in the profit potential of your field servicing operation. The ability of your technicians to enter a house and work efficiently and effectively is a prime consideration. A capable technician can survey the problem by observation of the apparent defect and after a few checks and adjustments tell if receiver can be serviced immediately or if chassis has to be removed for bench repairs.

This desirable ability is a function of three factors — practical intelligence and aliveness of the technician, a good general knowledge of television and a specific and thorough knowledge of chassis types most common to your operation, and a technician's file and record system. In choosing a technician, be concerned with his ability to correlate information and make an accurate decision quickly, the exactness of his fundamental knowledge of television, and his increasing interest in new models and new developments. We are often inclined to keep all our best technical men for benchwork while we should have capable representation in the field, too, where we contact the public. These men should be excused from most of the time-consuming jobs such as set installation, antenna erection and repair, and chassis removal work. Rather they should make many calls, planning the work for the crews that follow and making repairs where they can be made quickly.

The educational level of the technicians must be kept high. A few will progress on their own initiative; most must be encouraged. Attendance at local service meetings is a means of obtaining much useful information that has already been researched and sorted to meet your needs.

A service organization with a high technical reputation has a technical book and periodical library. Copies of the latest technical books are purchased as soon as they reach the market. Subscriptions on eight to ten of the leading service and electronic magazines are kept active. You should be relentless

Service Operation Chart

1. Capable Field Technicians
2. Educational Activity
3. Chassis Type Defect Files
4. Effective Picture Tube Checks

in your efforts to have each technician know as much as he possibly can about the receiver models and types with which you are most concerned. Plan a progressive educational plan for your service group and observe the slow but persistent rise in the technical reputation and competence of your service department.

A system should be conceived within the service group whereby the knowledge acquired by each technician can be made available to all. We realize receivers very often have characteristic defects according to chassis type. After a technician has spent considerable time tracing down a specific trouble, a record of the nature of the apparent disturbance and the defect causing it should be recorded for the specific type. Next time the same disturbance appears on a similar model, any one of the bench technicians can refer to the file and save servicing time. A complete file should be kept on each chassis type. It will be noted over a period of time that specific chassis types have their own common defects. This information concerning types of disturbances and how corrected should be made accessible to the entire service group. Often one of these defects can be recognized in the home and if only a minor replacement job can be corrected without removing chassis to shop.

When a defect file is kept according to chassis type, a technician can glance through the file before he makes a service call and acquire data as to most common failings for specific chassis type. It is true that like defects in two different chassis types can possibly set

up differing disturbances on respective picture tube screens. Our minds are not human filing cabinets and we can not retain all this information useful as it might be. The next best is a defect file system for the service group.

During the initial months after the introduction of new models, these records are especially important in having a growing source of information on likely early defects in new chassis types. Regular weekly discussion periods during this interval help to keep all informed on the defect trend of the new models.

Picture Tube Circuit Checker

On occasion in our diagnosing of a receiver defect, we suddenly reach a point where we must decide if picture tube replacement is necessary or receiver chassis removed from customer's house for repair. Symptoms in general have been — normal high voltage, normal sound, weak or no raster (or perhaps ineffective brightness or contrast regulation), and video and i.f. tubes OK. In this situation a simple picture tube and circuit checker is helpful.

Such a unit, figure 1, is plugged into picture tube socket and checks heater supply potential, brightness (bias), and presence of video signal. The RMS PIX-EYE tester consists of eye tube and associated circuit, and standard base to plug into standard picture tube socket.

An understanding of its utility can be obtained by considering recommended test procedures:

1. Plug tester into picture tube socket, figure 1.
2. If filament of the eye tube shows a normal and steady glow, picture tube filament voltage is normal, figure 2.
3. If fluorescent screen of the eye tube shows a bright green glow, the low voltage +B supply voltage to the picture tube is apparently normal. This is telling us that picture tube accelerating grid voltage is present.

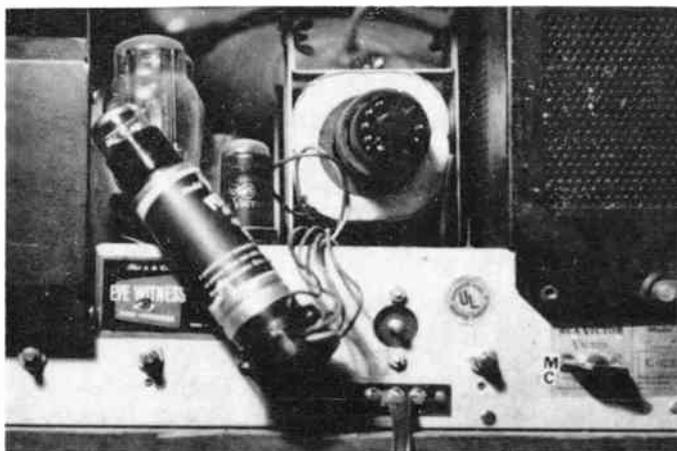


FIGURE 1. RMS PIX-EYE attached to receiver

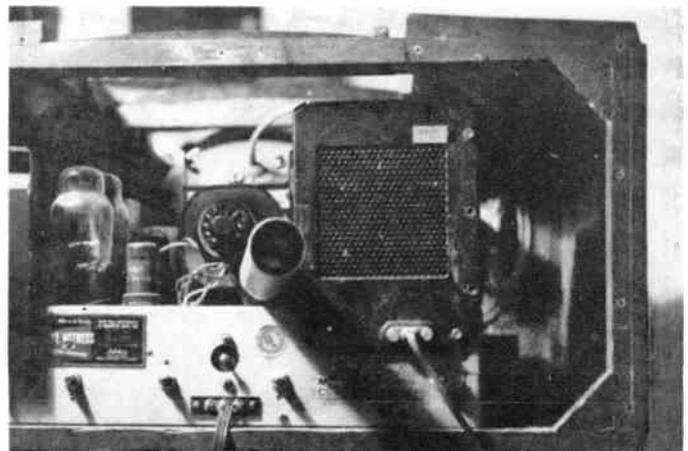


FIGURE 2. PIX-EYE indication of normal filament

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TV TRANSFORMER REPLACEMENT GUIDE and CATALOG

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1958 9610 MODELS AND CHASSIS

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NEW... Stancor Part Nos. A-8133 and A-8134

"Flyback" transformers—exact replacements for Admiral #79C30-1, 79C30-3, 79C30-4 in 80 Admiral TV models. See Stancor Bulletin #391.

This big new reference book lists transformer replacement information on 2416 TV models and chassis made by 82 manufacturers. The catalog section carries detailed electrical and physical specifications on 106 Stancor TV Replacement Transformers. A frequency chart shows the number of chassis that use each component.

To save your valuable time, this Guide lists all models and chassis components in numerical order under each manufacturer's name. Every replacement recommendation is listed with the manufacturer's part number for instant identification.

Get this up-to-the-minute TV Guide from your Stancor distributor now—or write directly to Stancor.

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4. If one side of the screen opening varies when brightness control is changed, the grid-cathode bias and brightness control circuit of the picture tube is apparently normal.

5. The presence of video at the picture tube will vary the eye opening on one side or the other (function of receiver circuit design). A change in contrast control setting will vary the eye opening also. Thus the eye tells if video has reached picture tube grid-cathode circuit.

If all the above checks are normal and there is high voltage present at anode, it is a rather definite indication of a defective picture tube. PIX-EYE is small, easy to handle, and checks can be made quickly from back of receiver right in customer's house.

Unit can speed shop repair work as well and can also serve as a signal indicator. It can assist in the alignment of traps and whenever single frequency alignment technique is used. For example, any signal frequency with 400 cycle tone modulation can be applied to i.f. input and a corresponding resonant circuit peaked or minimized. A maximum is indicated by minimum eye opening; a minimum, by maximum eye opening.

Picture Tube Checker

A more straight-forward approach to picture tube checking has been the development of an actual tube checker for cathode-ray scope and picture tubes.

Such a checker as exemplified by the Precision CR-30, figure 3, permits critical checking of the various elements of a picture tube. The instrument checks scope and picture tubes, electrostatic deflection tubes, and magnetic deflection tubes regardless of type of gun or ion

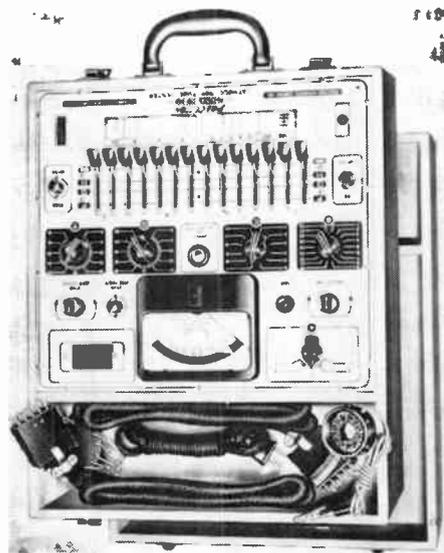


FIGURE 3. Photo of Precision CR-30

control. Tests on picture tubes can be made as follows:

1. Tests proportionate screen brightness as related to beam current of the various types of picture tubes. Checks cathode area and influence of control grid.

2. Special tests for accelerating anodes and deflection plate elements.

3. Inter-electrode leakage and short tests for all elements. Open filament check.

Pulse and Test Generator

A recently developed test generator, figure 4, can be used to advantage in the

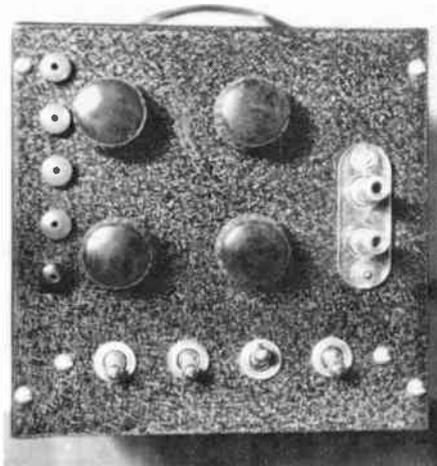


FIGURE 4. Test and pulse generator

demonstration and teaching of television principles. It forms a composite television pulse signal that conforms in a number of ways to a standard transmitted signal from a commercial TV station. When applied to the antenna terminals of a standard TV receiver it is able to lock in the raster just as a received signal from a station.

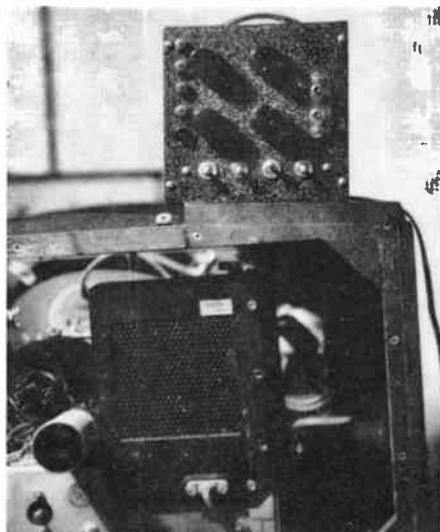


FIGURE 5. Test generator as used with RMS PIX-EYE.

Pulses can be modified in shape and frequency to present various pulse techniques and defects. A group of experiments with explanatory step-by-step procedures are being prepared. Generator can also be used as a signal tracing and service tool, figure 5. The utility and versatility of the unit can be disclosed by mentioning the various types of signals and methods of operation available:

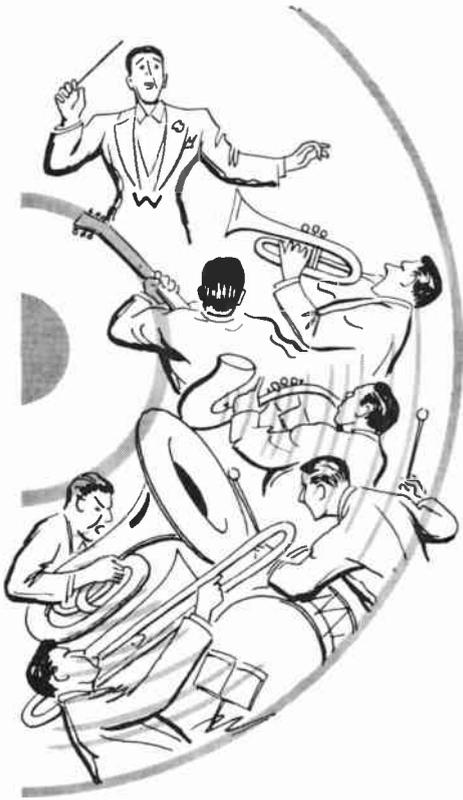
1. Horizontal frequency pulses—Pulses can be adjusted to same frequency and duration as horizontal pulses received from a commercial TV station. A square-wave pulse instead of a rectangular one can be made available. Horizontal pulses can be differentiated and integrated.
2. Vertical frequency pulses — These pulses can be obtained with some variations as mentioned above for the horizontal pulses. In addition, vertical can be locked in at power line frequency if desired.
3. Horizontal and vertical pulses separately or combined — As combined pulses they can be applied to video amplifier of a commercial TV receiver and will lock in raster.
4. Combined pulses and r.f. generator — Combined horizontal and vertical pulses also modulate a low band r.f. oscillator. Output of oscillator can be applied to antenna terminals of a commercial TV receiver and will lock in raster.
5. Horizontal and vertical sawtooth waves — Sawtooth waves are available for observation and experimentation.

Experiments being prepared for unit are as follows:

1. The formation and combining of pulses
2. Influence of frequency response on horizontal and vertical pulses
3. Formation of a raster
4. Principles of differentiation and integration
5. Synchronization of a raster
6. Measurement of a pulse
7. Square-wave checking of audio and video amplifiers
8. Pulse generator as an effective service tool

This test generator has been designed specifically for electronic schools, plant and distributor TV training schools, service organization training, and for self-education of television principles. For more complete technical information, write Technical Topics, SERVICE MANAGEMENT, 501 Fifth Ave., New York 17, N. Y.

Your Market



from the Needle to the Changer

*A potential volume of more than a
half billion dollars exists in replacement
of single speed changers*

By
PAUL WENDEL, Editor,
Service Management

Not long ago in looking over his sales records a Parts Distributor was very much impressed with the number of 3-speed record changers that were being purchased by one of his TV service accounts. Television parts and accessories had represented such a large percentage of his volume for so long that he had not paid too much attention to equipment sales for use in the normal "radio market." However, here was a service business man who seemed to have tapped a small "business bonanza" and it aroused his curiosity. He decided to ask this customer what plan he was using to sell so many replacement changers.

He discovered that this service operator had accidentally found the technique for putting new buyers to work as salesmen that has long been used by vacuum cleaner and other direct selling appliance salesmen. The idea is to get each new customer's active help in selling at least one of his friends. This is done by getting the customer to put his natural enthusiasm for a new device to work in influencing friends to buy.

In this particular case, the service operator first discovered how to make salesmen out of his new customers when he replaced a 78 rpm single speed rec-

ord player with a 3-speed unit in a radio console. The customer was delighted with the new changer which enabled him to play discs designed to operate at any of the three speeds, long play, 45 and 78 rpm. This purchaser was a naturally effusive sort of a man and when the service technician who made the replacement suggested that he demonstrate it to a few of his friends he readily agreed. As a result three more 3-speed replacement changers were sold during the following two weeks to friends of this enthusiastic user.

This experience gave the service operator ideas. "Why not," he reasoned, "ask each of our new customers to demonstrate their 3-speed changers to their friends? That customer turned out to be a good salesman who happily worked for me 'for free.' If I can get every one of my customers to work for me like that I'll soon have a good sales organization beating the bushes for business for me and their services won't cost me anything."

In the course of his contacts with new prospects for record changers replacements this service business man found that the average person who owned a console combination did not know that the changer could be replaced with a

3-speed unit that would work with the rest of the set. He also discovered that the husband was usually the big booster for the new changer. It is a mechanical device that appeals to a man. They like to play with it and show it off.

The magnitude of the market that exists right now for replacing single speed changers with modern 3-speed units, replacement crystal cartridges and needles is almost incredible.

For instance, it is estimated that there are about eleven million 78 rpm single speed changers in service whose owners could be sold a 3-speed changer as a replacement. With the average list price of top-quality 3-speed changer units at about \$50.00, this represents a total potential dollar volume of \$550,000,000. More than half a billion dollars! The average labor cost for a change-over from a single speed to a 3-speed unit is approximately \$5.00. This represents a total potential service labor income of \$5,500,000.

Since about 75% of the change-over jobs also involve other adjustments and repairs to the radio unit, the service labor income potential is actually more than ten million dollars.

What does this mean *per shop* if this market was aggressively exploited and this business was evenly divided among all of the independent radio and television service shops now in operation? It would provide a \$27,000 new business potential for each shop. The gross profit potential from the sale of material and labor on this volume of business would amount to \$7,000 per shop.

As the service industry now stands, only about 20% of our present service business operators are sufficiently "merchandising-minded" to exploit the sales possibilities of this tremendous market. Because of this, the latent replacement 3-speed changer market actually holds a \$135,000 per shop new business potential for these "sales-minded" service businesses.

The Replacement Phono-Cartridge Market

When you drop in to see a family that has just purchased a new radio-phono or television-phono combination you will find that the entire family is more keenly interested in the record player part of the combination than either the radio or the television sections. The radio part is simple — you just dial in the station you want and set the volume at a suitable level. But the record player is different. It holds the same fascination to the average person as a mechanical toy. The cycling of the pick-up arm and the dropping of the records from their nested position attract the interest of young and old in every family.

The record player also gives each member of the family the facility for playing the kind of music they like to hear when they want to hear it. So various members of the family buy the records of numbers that appeal to them and the family's album of records builds up rapidly.

Then, within a year or so in the average home this record playing instrument that had brought so much fun and pleasure into the home will be seldom played. Why?

When the first record was played on the new record player the needle started to wear. And during the months of its use the cartridge, affected by heat and cold and dampness, was deteriorating. Record reproduction is only as good as the needle and the cartridge and as they gradually lost their efficiency the music from records suffered in comparison to the music from the radio. The family gradually lost interest in recorded music played on their own player. It is estimated that fully 80% of the finest phonographs ever produced are now standing in American homes, either totally unusable, or reproducing so poorly that they no longer bear any resemblance to the fine sound reproducing instruments they were when first sold.

This tremendous market for service business has been badly neglected by the service industry. How big is it?

Of the 25 to 30 million record players that are estimated to be now in service — or in homes — about ten million have pick-up cartridges that are either obso-

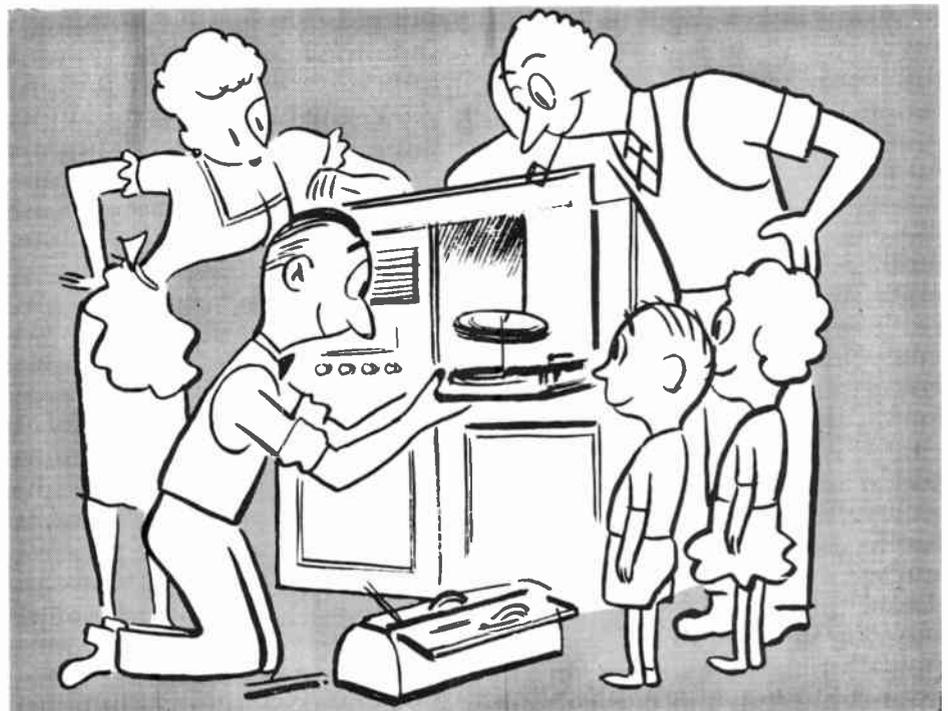
lete or worn out and should be replaced. At an average selling price of \$7.50 per cartridge, this represents a national dollar service market of \$70,500,000. Stated in terms of individual service shops it represents a potential volume of \$2,500 per shop plus labor and the other service work that is usually authorized on sets when the changer is repaired.

Since most sound pick-up devices are crystals they are affected by climatic conditions. In some sections of the country where they have a lot of hot, humid weather, crystals are apt to deteriorate rather rapidly and should be replaced possibly once a year to maintain good play-back fidelity. In other sections crystal pick-up cartridges will maintain their efficiency for periods up to three years.

Cartridge manufacturers have made great strides in improving the efficiency and the longevity of these units. Since the difference in the quality of reproduction between a new cartridge and an old one can be demonstrated so readily on a customer's own player it is not hard to sell replacements. But — they must be sold. The average owner of a record player doesn't know anything about the cartridge or the needle. All he knows is that the music from the record reproducer does not sound good so he just quits playing it.

Needles — Bread and Butter Service Business

Millions of people have bought "lifetime" needles under the assumption that they would never require attention.
(Continued on page 19)



— WEBSTER — CHICAGO

Stimulate sales in the home on every service call.

Survey Your Market

The Use of Simplified Market Research Will Point Up New Business

One of the best ways to get more business is to find out *where* your market is, *what* it wants, then apply intelligent promotion to supply the need. This is the basic concept of market research that is recognized by progressive businesses.

Fortunately the principles of market research are simple. They are things that every TV Serviceman, large or small, can apply to increase his sales and his profits. The TV Serviceman can conduct a market survey without appreciable extra expenditure of time or money. With the facts of his market at hand, he can then plan intelligent promotion of new business. Properly handled, the new business can do much to eliminate the valley of activity commonly called the summer slump.

The first step in market research has already been made by most TV Servicemen because they know *where* their market is. They have no need for professional counsel to tell them where they should look or to guide them to locations.

The second step, finding out *what* customers want, has been *partially* covered by most TV Servicemen. They know that their customers want TV Service. But they do not know very much about other kinds of service that they can sell their customers. This is understandable because TV came like a big wave. Most TV Servicemen have been very busy trying to satisfy customers who have found them.

The first real market research job

for the TV Serviceman, therefore, is to find out what beside TV Service should be a source of revenue from his customers.

This should present no problem because TV Servicemen are calling on their customers almost every day and have an excellent opportunity to look around and find the answer. At the outset, every representative on home calls should be provided with record cards, and instructions to fill in information during every service call.

A convenient size for the cards is either 3" x 5" or 4" x 6" so that they may be filed. The cards should have space for the customer's name, address,

telephone number and the date. Other space should be arranged for the model number of all radios, portable radios, TV sets, record players and auto sets owned by the customer. Cards should also identify the man obtaining the information.

After cards have been filled in, they should be turned in for filing by the TV Service organization manager. Effort should be made to obtain basic data on a good cross-section of the TV Service organization's customers but usually it is not necessary to obtain data from all customers, unless future promotion plans include elimination of duplication in mailings, or an exact count is considered advisable.

Small Group Needed

Professional research organizations seek only a "qualified" sample, by selecting representative groups of people according to age and income and, in national surveys, geographical areas. An effective TV Service survey is not dependent on these considerations but at least 10% of equipment owned by customers should be covered to obtain a pattern of market. The pattern will appear in one out of ten where it is important in sales planning.

This means that basic data will begin to shape up in a relatively short time. The actual time required for collection of data may not be more than ten days to two weeks, assuming that the TV Service business is fairly active.

The initial market trend may show a predominance of certain brands of radio and TV receivers and should show the prevalence of radios, portable radios and other potential sources of service revenue.

(Continued on page 20)

Name: _____		Address: _____	
TV: _____		Phone: _____	
TV: _____		Date: _____	
TV: _____		Representative: _____	
Radios	Portables	Record Players	Auto Radios

A simple but complete Survey Card

Norfolk

Price's Inc., One of Country's Leading Television Dealers, Runs His Service Department as a Separate Operation

Service, an oft-times elusive phase of business, is of primary concern to Price's, Inc., of Norfolk, Va. This is true with television as well as the appliances the firm sells. Officials of the store, from President Harry B. Price, Jr., right on down to the technicians, will tell you that the best way to get the most business is to give the most service.

With this philosophy in mind, Price's, Inc., offers viewers in Norfolk and vicinity the facilities of its service department, a smoothly-coordinated function using a combination of ideas which, in many instances, returns a set to its owner within a few hours after it's brought to the shop.

"We try diligently to service immediately whenever we receive any complaint call," said President Price not long ago. "We do our best to satisfy the customer and give him a fair break. Just give me half a chance and I'll see that you're satisfied when you think you have a reasonable complaint about anything we've sold you."

Price's, Inc., operators of three appliance stores in Norfolk, has taken the lead in service and sales. In 1950 it won recognition as top electrical appliance store in the nation, according



Harry B. Price, Jr.
President of Price's, Inc.



TV Service Center

By CARL CAHILL

to standards set up by Brand Names Foundation, Inc., of New York. For the past several years, the firm has had a gross volume in excess of \$1,000,000, thus becoming one of the top 20 such specialty appliance operations in the country.

With the advent of television in the Tidewater, Virginia, area in the Spring of 1950, Price's opened a store at 122 West 21st Street to emphasize the new medium. It was called, appropriately, Price's Television Center, Inc. To give customers the same high quality service for their receivers they had been receiving for their appliances, a TV service department was set up in a separate building close at hand.

The building, a white brick structure with lettering to match the 16 Price's, Inc. trucks which call for and deliver receivers, contains the repair room, office where records are kept and calls received, stock room and storeroom where the completed receivers are taken just prior to delivery. If necessary, there's room for the trucks to back into the building so sets can be loaded without exposing them to the elements.

General manager of the TV Center is E. L. Capps, who agrees that service is important. "It's the most valuable thing we have. I think it's the greatest sales builder. We sell service as much as we sell the product."

Supervising this valuable, though intangible commodity, is C. E. Case, manager of the service department. On the organization table he is in charge of the parts department, although Storekeeper S. N. Butler does most of the purchasing, the record department and Shop Manager Curtis Anderson. Anderson, in turn, is in charge of antenna installation, the seven bench technicians and 10 field technicians. There are 33 persons employed in the service department, making it the largest single department of Price's, Inc. The appliance service department is maintained at the downtown Price's, Inc., store.

Any receiver will be serviced at the shop although the shop has specialists for each of the various kinds of sets sold by Price's and records are kept of all repairs made on any sets.

This brings us to the office of the service department where four girls are kept busy answering telephones and

Service Is of Primary Concern

SERVICE MANAGEMENT

keeping case histories of sets up to date. A card file expedites work here and a glance at it will enable an office girl to tell a customer if his set is still within the warranty period, plus any other pertinent information needed.

Case is quick to praise the card file. "If the set is on file, the girls can look, while the customer is still on the telephone, and see if parts or service are still within the guarantee period. It's quick. You have an answer for the customer right away," he says. Some 125 telephone calls come into the office each day and the girls are able to clear most of them by use of the card file. These few moments saved add up to hours in a week's time.

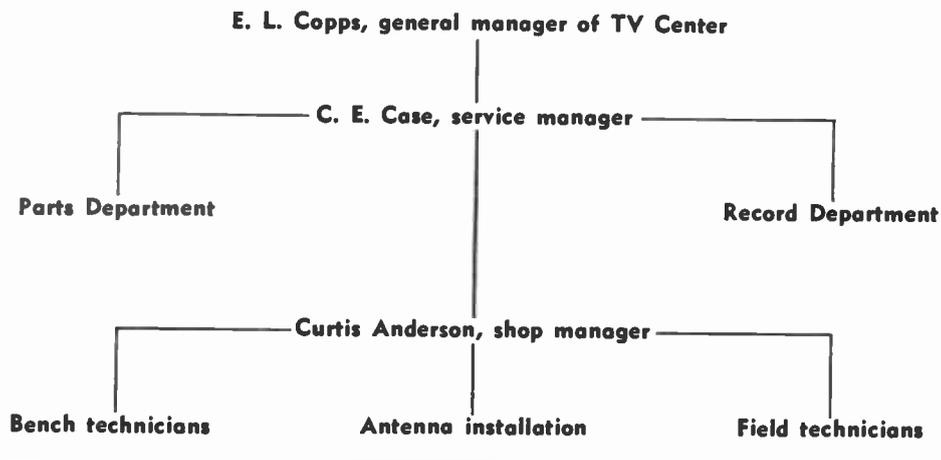
Another innovation which the service department uses to speed facilities to the home where a disabled receiver is located is the zone system. Under it the city is laid off in zones. A field technician is assigned to each zone and it's in this territory that he works.

The usual procedure, Case explains, is to take calls one day for the following day. This enables the office force to make up a work sheet for each of the field technicians. The work sheet usually contains about 12 calls for a technician to make in his zone. It also contains information gleaned from the card file, such as whether the work to be done is under the warranty agreement or C.O.D.

If the technician finds the set needs to be returned to the shop it is done. When it can be repaired at the home, the technician makes an effort to collect for the work if it's C.O.D. This is, of course, impossible at times and the work sheet records what disposition is made of the set.

Price's Television Center, Inc.

SERVICE DEPARTMENT ORGANIZATION



The service department has added an incentive to encourage collections by the technicians. Five per cent of all C.O.D.'s goes into the "kitty" and at the end of the year this is divided among them. The five per cent paid is cheaper than the cost of putting the work on the account books, Case says.

The technicians start out at 8 A.M. each day and work until 5 P.M. They keep in constant contact with the service department office and in the event of a complaint from their zone they are dispatched almost immediately to it. Special effort is made to repair demonstration sets right away. "We work men overtime to take care of those calls," says Case. Two of the field technicians work from noon until 8 P.M. to handle any late calls. A telephone operator is on duty the same hours relaying complaints to them.

The field technicians check in with their work reports at the end of the day and the office girls begin a cost breakdown of each job ticket, showing for the records the labor and parts that were warranty or C.O.D.

Receivers brought to the shop by customers or Price's, Inc. trucks are repaired by the bench technicians who work in a modern, uncluttered shop. Picture tubes of the various sets sold by Price's, Inc. are mounted on shelves above the benches which are partitioned off. This leaves the bench free to receive the set without having a test picture tube lying in the way. Each technician is a specialist in one brand of set.

Mounted on the partitions are mirrors in which the technicians view the set's picture while working on the set's undersides. This eliminates the familiar crick-in-the-neck. The service department is air-conditioned for further comfort.

A bench report, similar to the field technician's work sheet, is prepared by the shop manager. This assignment sheet usually shows six sets for each technician. They are wheeled in on dollies and his day begins, also at 8 A.M.

All the service department employees work on a weekly salary basis plus overtime. When the workload increases all pitch in and help. The service department keeps abreast of the work except when TV perfection is demanded such as the World Series. "Every receiver has got to be right up on the nose then," Case says. The next events expected to tax the service department are the Republican and Democratic conventions.



A bench technician in the shop of Price's, Inc.

(Continued on page 16)



Can You Fix My Recorder?

*Too Few Service Operations Are Prepared
to Take on Recorder Maintenance*

By FAITH YEAGER,
*Assistant Editor,
Service Management*

Wire and tape recorders are daily opening up new spheres of usefulness and are adding pleasure to the lives of people who are using them in business and in their personal life.

There is Dr. Brown for example. There was a time when he could depend on his receptionist to take care of all his correspondence. Not so now. He has a girl who greets his patients and takes care of his appointment register. Add a few more duties and her time is filled. With such a shortage of competent help he is at a loss until someone tells him about recorded secretarial service. Now he keeps a wire recorder on his desk and dictates the necessary letters each day, along with the notes about different patients which he wishes to keep, into the amazing little machine.

The used spool of wire is picked up at the end of the doctor's work day and when he returns the next morning, the letters are on his desk, ready for his signature. The notes on patients of the previous day have been neatly typed on the cards he uses in his files and he is ready to start over.

The pastor of the doctor's church uses his wire recorder to perfect each and every sermon before he delivers it from the pulpit on Sunday morning. While the pastor listens to his voice coming back to him, his thoughts are on the

famous choir that is going to be at his church in a few weeks to render an evening of beautiful music. He would like so much to have a recording of that program, but his wire recorder does not work so well when it comes to recording vocal groups. He remembers that one of his congregation has a tape recorder and he wonders how that would work. Phoning to make arrangements to use the tape recorder that evening, he thinks, "If this works I'll ask the board to buy a tape recorder for the use of our own choir and other vocal groups."

Then there is the housewife who sits before a tiny microphone. She is chatting eagerly away and her words are melting hundreds of miles—the miles while separate herself from the friend to whom she is "talking a letter." When her friend receives the wire, she has the actual voice coming into her home and when the last goodbye has been said, she feels like she had just had a personal, if somewhat one-sided, chat with her dear friend who is so many miles away.

These are but a few cases where wire and tape recorders are playing an important part in people's daily lives.

Growing Market

The expanding use of wire and tape recorders is adding a good many service responsibilities. The intricate mechanism of the recorder confuses many good electronic technicians. Many recorders have fallen into disuse simply because the owners were unable to find a capable technician who could repair them properly. Many owners

have been bitterly disappointed in the type of service they have received on their recorders. To cite an example of how lack of adequate service stopped a growing chain of wire "respondents":

About two years ago, an Indiana woman discovered the thrill of having a wire recorder for her own use. Sometimes she carried the recorder with her and obtained interviews with interesting people she met. She then persuaded the folks back home to buy a recorder so they could enjoy the wires she had made. Her aunt, on discovering how the personal recordings literally erased the miles between them, asked a couple of her sons who lived in distant cities to get recorders so they could "talk" their letters instead of writing them. As time went on, other friends acquired recorders until this wire respondent chain had more than twelve recorders scattered across the country.

Then what happened?

Some members had difficulty obtaining wire in their home towns—but this problem was solved when one member started to buy the spooled wire in quantity and supplied the other members of the chain.

However, after about six months, some of the members dropped out of the chain because their recorders were in need of repair and they became discouraged in their attempts to have them fixed. One by one the members dropped out as their recorders became unusable and they could find no one to do the work satisfactorily.

(Continued on page 16)

REPORT

FROM

MICHIGAN

Service Takes the Offensive

The Television Service Association of Michigan, sparked by its former president, E. J. Barton, held a meeting recently to establish an active public relations program based on the recommendations of other groups that have made similar forward moves. The counsel of recognized authorities in the TV Service business and the cooperation of representatives of manufacturers and broadcasters was willingly contributed.

Chairman of the meeting, that was held in Detroit, was Louis Wolfgang, then acting TSA president and chairman of TSA public relations. He was among the speakers who addressed about 200 service management representatives from Jackson, Kalamazoo, Port Huron, Battle Creek and other Michigan localities. Other members of the TSA public relations committee, in addition to chairman Wolfgang, included: Lyle C. Armstrong of Armstrong, Beitel, Merkle Company, Highland Park; P. Heffernan, Buhl Sons; Mrs. H. L. Hinton, president of Radio Supply & Engineering Co.; Wm. Morgan, director of advertising, WXYZ; and H. R. Perkins, Perkins Radio & Television Company.

National service management people who attended the meeting included the national service managers for: Capehart-Farnsworth, Hallicrafters, Motorola, Philco, RCA, and RTMA. Albert M. Haas, president, and Paul V. Forte, executive secretary of TCA of Philadelphia and Paul H. Wendel, editor and publisher of *SERVICE MANAGEMENT*, were guest speakers.

The importance of the follow-through of organization plans was stressed by Haas who warned "that it is necessary to keep on working at the old problems and still be prepared to tackle the new ones that keep constantly cropping up." The old problems, according to Haas, affect the entire industry and require active participation of all to do an intelligent job of solving them. Other



Louis Wolfgang, Chairman of TSA Public Relations.

groups, he said, "are ready and willing to help, once they know that the TV Service group is responsible — and genuinely interested in raising the standards of the TV Service industry."

Haas cited the good work done by JERCS in Philadelphia during the past six months by saying that they "have been at work in bringing harmony to all local groups in Philadelphia. They are making progress in educating the TV set-owning public about the nature and service needs of their TV receivers."

He also touched briefly on the serious shortage of competent technicians and what he termed the "crying need for raising the efficiency of this vital group." Questionable practices of technicians, Haas warned, "are things that too many present-day technicians have been found guilty of — practices that are all too often bringing serious loss to their employers and disrepute to their own group." He also mentioned the need of raising the standards of technicians' personal appearance and behavior while servicing sets in owners' homes.

Paul V. Forte, executive secretary of JERCS and TCA of Philadelphia, pointed out that present poor business management is driving many service organizations out of business and outlined what active membership in TSA

and TCA should mean to service management. In specific, Forte mentioned that these organizations should create a better understanding of the industry's problems through an exchange of ideas. A major factor, Forte explained, is the need for an intelligent and continuous public relations activity, to develop better service standards and to gain public acceptance. He then outlined some of the things that JERCS has done along those lines in the Philadelphia area.

Paul H. Wendel, editor and publisher of *SERVICE MANAGEMENT*, told the group that TV Service management, like management in any other retail field, must employ the fundamentals of good management — that its job is primarily to provide business management in face of keen competition so that satisfactory service is provided for its customers and a reasonable profit is earned by the TV Service organization.

He said that surveys have indicated the prevalence of a feeling that "the set-owning public wants good service, rather than cheap service." He also took a glance backward by reporting that the total dollar volume of the TV Service business has grown from about \$172 million to more than \$272 million

(Continued on page 22)



Harold Chase (left), of Chase Television Service, Inc., recently elected President of TSA, carries on discussion with Dan Creato, General Counsel and V.-P. of RCA.

PRODUCT REVIEWS



NEW PENTODE AND TRIODE BOOSTERS

Radio Merchandise Sales, 1165 Southern Blvd., New York 59, N. Y., has announced new triode and pentode TV boosters. Type SP-6 pentode booster features an external gain control for prevention of overload that frequently causes noise and "snow." The SP-6 is designed particularly for extreme fringe



areas where maximum power is required for good image quality. Type SP-6J is a new duo-triode booster designed to provide low noise level and high gain. Both types are supplied in attractive plastic cabinets with convenient tuning controls.

TV CONTROLS

International Resistance Company, 401 North Broad Street, Philadelphia 8, Pa., has announced a completely new TV Control Line. Featured with a "Double-Your-Money-Back" Guarantee are 295 factory assembled Exact Duplicate Concentric Dual Controls individually packaged in uniform size cartons each marked with Manufacturers' Part Numbers as well as with IRC Stock Numbers, and a unique Universal Line which assembles these Concentric Duals in less than a minute.

The Control Line also includes new IRC CONCENTRIPAKS with a special selection of Universal parts for specific makes of TV Concentric Dual Controls all housed in a sturdy plastic box, a new Dealer CONCENTRIKIT Assortment in a standard IRC all-metal four-drawer cabinet, and Form S012 TV Con-

centric Dual Replacements listed by trade name and part number showing IRC Exact Duplicate Controls and Concentrikit equivalent.

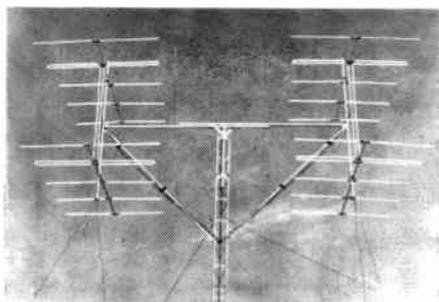
For further information, write for Catalog DC1C covering complete line—International Resistance Company, 401 North Broad Street, Philadelphia 8, Pa.

NEW JACK

Insuline Corporation of America, 3602 35th Avenue, Long Island City 1, N. Y., announced a new high-voltage tip jack, designed expressly for stability in sensitive electronic test equipment. The insulation is of nylon, withstands 10,000 volts, and has negligible moisture absorption. The spring contact is made of one piece of phosphor bronze and takes all standard phone tips and test prods. The jack is furnished with a molded washer that affords positive protection against "shorts" to a metal panel.

MOUNTING STRUCTURE FOR ANTENNA STACKING

Channel Master Corp., Napanoch Rd., Ellenville, N. Y., has announced the availability of a new ready-made mounting structure for side-by-side stacking of four antennas and new stacking arrangements for improved TV reception. It is said to be the only commercial product permitting the installation of four low band Yagis for a single



channel; two pair of Yagis for two different channels; or any combination of broad band and Yagi antennas on one mount. The structure is made of bright zinc plated seamless steel tubing and is marked for full wave spacing for each channel. A sliding arrangement simplifies installation so that the mount may be assembled at the top of the tower or on the ground and swung into position.

IMPROVED ELECTRONIC VOLTMETER

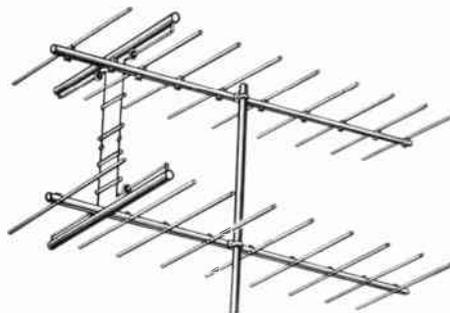
The Daven Co., 191 Central Ave., Newark 4, N. J., is distributing a new portable electronic voltmeter for general laboratory and production applications. The voltmeter includes a completely shock-mounted amplifier to re-



duce microphonic effects to a minimum. Individual amplifier and power sections are subassemblies with electrostatic and magnetic shielding, from each other and from external fields. The Daven type 170-A voltmeter is designed for accurate measurement of a-c sinusoidal voltages at frequencies ranging from 10 cps to 250 kc at voltages ranging from .001 to 100 volts. An illuminated meter scale is calibrated in volts and decibels. Detailed catalog information is available on request to The Daven Co.

TEN ELEMENT YAGI ANTENNA

JFD Mfg. Co., Inc., 6101 16th Ave., Brooklyn 4, N. Y., has reported testing and introduction of a new ten element Yagi antenna that is claimed to produce 52% more gain than other five element Yagi antennas and 12% more gain than



extra-long Yagi antennas. The increased gain is attributed to a matching transformer system that eliminates impedance lowering jumper bars and similar devices. The "Baline" antennas, available in single bay and stacked models are constructed of seamless aluminum. Literature on these new antennas is available on request to JFD Mfg. Co., Inc.

INDOOR ANTENNA

Spirling Products Co., Inc., New York 13, N. Y., announced a new addition to their indoor antenna line, "Indoor-Tenna."



This antenna has top plates of heavy solid bakelite securely mounted on a heavy metal base. The triple section telescopic dipoles are of brass (not steel) and will not rust, assuring permanent

clean contact between sections and easy telescoping.

Concealed wiring, gleaming bakelite top plates on a crackle finish heavy metal base makes this unit most attractive. Available for immediate delivery, individually packed in an attractive two-color carton and shipped 25 to a master carton, "Indoor-Tenna" is very competitively priced. It weighs 1½ lbs. and measures 18" x 2" x 4" (closed).

CHANNEL MASTER MATCHBOOKS

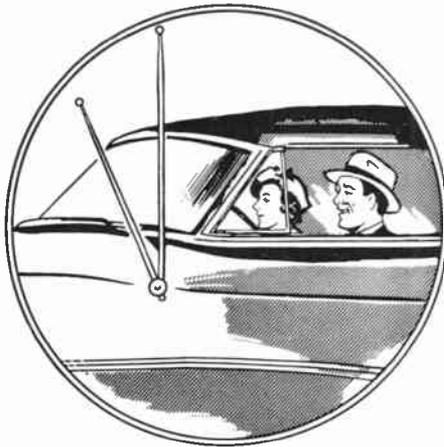
Channel Master Corp., Napanoch Rd., Ellenville, N. Y., has announced giant book matches, 3¾" x 4¼", as a promotion giveaway. The giant Z-matchbook covers include illustrations and descriptions of Z-Match Yagi mismatch elimi-



nation and diagrams showing how the impedance of single 300 ohm Z-Match Yagi is adjusted automatically in a stacked antenna array. Z-Matchbooks, printed in three colors, are available to TV Servicemen, dealers and installation men from Channel Master distributors.

AUTO RADIO ANTENNA BOOSTER

T. V. Development Corp., 2024 McDonald Ave., Brooklyn 23, N. Y., has introduced a new booster for auto radio antennas that is said to produce strong signals while driving under steel structures, near tall buildings, and to eliminate fading while driving away from



transmitters. The "Tenna-Doubler" is made of rustproof non-corrosive triple chrome-plated brass and embodies a 360° rotation principle. It may be attached to the base of any automobile antenna in less than a minute with a screwdriver. "Tenna-Doublers" are available through parts distributors.

FRINGE AREA ANTENNA ARRAY

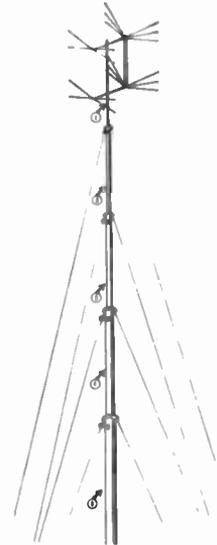
Fretco, Inc., 1041 Forbes St., Pittsburgh 19, Pa., has conducted tests on its Fretaray antenna that show reception of an average TV signal with good picture quality from about 100 miles. The Fretaray antenna has 30 elements on the high band, 12 elements on the low band and uses a single transmission line. It is supplied assembled and may be installed simply by unpacking, tightening and mounting.

NEW RCA UHF POWER TUBE

Radio Corporation of America, Tube Dept., Harrison, N. J., has announced a new, compact, grounded-grid power triode for uhf transmitters. The new type 6161 is only 3¼" long and 1¾" in diameter. Suitable for TV and cw applications, the tube has maximum plate dissipation of 250 watts and may be operated at full plate voltage and input ratings at frequencies up to 900 mc. Compensating reduction in ratings permits operation at frequencies up to 2000 mc. The tube is similar to type 5588 but it provides 25 per cent higher plate-input and plate-dissipation ratings.

FRINGE AREA ANTENNA MAST

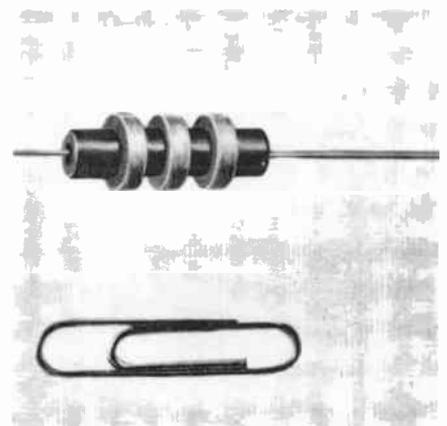
JFD Mfg. Co., Inc., 6101 16th Ave., Brooklyn 4, N. Y., has announced a new "zoom up" antenna mast designed especially for convenient installation in fringe areas. The tower-type mast consists of five telescoping sections to attain a height of fifty feet. In addition to the



fifty-foot mast, seven combinations are available with ten-foot sections for masts of twenty, thirty and forty-foot heights. Masts are supplied collapsed and are identified by model number ZU. Additional information may be obtained on request to JFD Mfg. Co., Inc.

COMPACT FERRITE CORE RF CHOKES

Grayburne Corporation, 103 Lafayette St., New York 13, N. Y., has announced a new line of miniature ferrite core r-f chokes having a reduction in d-c resistance, distributed capacity and weight. The chokes are available with



inductance values ranging from 500 microhenries to 250 millihenries; pie or solenoid wound, with various types of mountings. Standard types of Grayburne ferri-chokes include: model F-25, 2½ mh. @ 125 ma.; model F-50, 5 mh. @ 125 ma.; model F-100, 10 mh. @ 125 ma.; and model HD-25, 2½ mh. @ 300 ma.

FROM THE NEEDLE TO THE CHANGER

(Continued from page 10)

tion or replacement. Whether "life-time" meant the life of the needle, the record player in which it is used or the life of the purchaser was never defined. It is obvious that any needle will wear out because any material, no matter how hard, will ultimately wear down when subjected to friction, especially the strong and permanent friction created through the contact of needle and disc.

The sale of needles is a service market. Needle manufacturers have gone to great lengths to provide needle kits to enable the field service technician to make needle replacements in the customer's home. It should be a standard part of every home service call for the technician to inquire about the condition of the customer's record reproducers and to ask whether the customer wants them checked while he is there. This plus income that will come from the sale of needles on solicited business is well worth going after.

Selling in This Market

The dormant condition of this tremendous service market in replacement changers, phono-cartridges and needles is due to some extent, to the fact that the bulk of the record reproducers is sold as a part of a combination. Its purchase was incidental to the radio or television unit and cabinet in which it was housed.

However, the public is more than ever interested in recorded music — "the music you want when you want it." And most people in acquiring a record player in combination with either a radio or television receiver in the beginning happily avail themselves of the facility it affords to hear the type of music they want to listen to when it is not available on the radio.

In selling replacements or service in this market it is well to take a leaf out of the appliance dealer's "book of experience" in dealing with husbands and wives in the sale of radios and phono-combinations.

They say that a woman is first interested in the appearance of the radio-combination in terms of her home setting. She is interested in TONE in terms of how SHE likes it. Then — ease of operation and will it please the

children. Lastly, she is interested in performance, quality and brand name.

On the other hand, a man's first considerations are performance, name and quality. Will friends admire it when he shows it off? He is interested in TONE in terms of what the salesman can make him believe. His last interest is in the appearance of the unit in the home.

Why this difference? Well, men like a radio-combination as a device. They like to play with it, talk about it, show it off. To them it is magic — a romantic instrument which most men want quite automatically.

Women are matter-of-fact about radio-combinations — and most other appliances. It's a piece of furniture, something the children enjoy, it helps keep her husband at home, and is occasionally a diversion during a lonely hour. Many women do not know the brand name of radios they have had for years. Their husbands nearly always do.

These experiences of appliance dealers in selling husbands and wives provide the information "keys" for service selling campaigns that will tap this tremendous market in volume.

A 3-speed automatic record changer is an interesting mechanical device that appeals especially to men. Consequently, promotional material to be mailed to the home should be written for men and directed to the man of the house. Where a demonstration is given in the home every effort should be made to have the husband present, for the chances are excellent that its appeal to him as a mechanical gadget will make the sale.

On the other hand, a bad cartridge or needle in a record player makes it an inoperative device in the eyes of the average woman. She usually wants everything they use in the house to be working well. Consequently, she is the best prospect in the home to work on in selling replacement cartridges and needles. Promotional pieces on these two items should be written for and directed to her.

Besides, she could probably pay for a new needle or a cartridge replacement out of her household budget whereas she would probably have to get her husband's consent before she would make the commitment for the changer replacement. And she would rather have him make the decision anyway.

City of Elkhart Saved Cost of Monitoring TV Installations

Floyd J. Hutchison, executive vice president of the Elkhart (Ind.) Chamber of Commerce, saved the city the expense and difficulty of monitoring television antenna installations by agreeing to take action to organize local dealers and servicemen under the Certified Television Installation and Service Program initiated by NARDA. Mr. Hutchison secured the city's agreement to hold the proposed licensing measure in abeyance pending the dealer organization and its plan to have the dealers themselves police installations.

The proposed municipal ordinance providing regulation and inspection of radio and television antenna installations would make it unlawful to erect antennas without a permit, sets structural adequacy standards, requires a surety bond to the city and a penal sum of \$500 and requires servicemen to apply for all installations to the Electrical Inspector in writing with detailed drawings of each installation, pay a \$2 fee for each permit and have the permit mounted on the premises of the installation until it is inspected and approved. The installer is still subject to all liabilities and damages involved in the installation. If the rules are violated, he is subject to a \$5 to \$50 fine for each offense plus costs of prosecution.

RCA Catalog of Service Parts

The RCA Tube Department recently announced the availability of a comprehensive parts catalogue designed to expedite the service dealer's parts-ordering activities.

Listing more than 16,000 parts contained in RCA Victor television receivers, radios, and phonographs, as well as a cross reference of RCA replacement cabinets, the catalogue is now available for distribution to radio and television service dealers through their RCA parts distributors.

Parts are listed in numerical order by stock numbers, and each listing includes description, package quantity, and suggested list price, enabling the service dealer to furnish his customers with price information accurately and speedily.

The catalogue will be revised and re-issued periodically to keep it up-to-date with new parts and price changes.

SURVEY YOUR MARKET

(Continued from page 11)

TV set owners are usually also owners of several radios but the incidence of record players and portables probably will vary widely from territory to territory.

Some TV Service organization employees may resent the "extra" work incurred by the survey. If this appears to be a real problem, an incentive program may be set up and tied in with future sales promotion plans. The data cards turned in by each representative will identify possible sales and leads he has helped establish. When promotion campaigns are working a special bonus, in the form of a small commission, might be allowed on initial sales of new service to his leads.

Properly handled, the solicitation of data can have good customer relations value. The representative of the TV Service organization should be instructed so that he will impress the customer with the organization's interest in being of greater service. He can explain, for example, that he is surveying radios and other equipment to help the Company maintain an adequate supply of parts so that prompt service will be rendered when it is needed. In the process he will quietly reveal that the TV Service organization is considering increasing service to the customer.

This work may occasionally result in spot pickup of radios and portables for repair, but the representative should not stimulate this, unless business is very poor. The survey is being made not for immediate business but rather for business that is scheduled for the future.

Cards Checked

After an adequate number of cards has been received and filed, a careful tabulation of the basic data should be made. The first tabulation should depend on the first promotion campaign. The TV Service organization may decide that the campaign should be to

increase business by pushing portable radio service.

If that is the case, the number of portables should be tabulated, according to model and location. Also the frequency in which portables appear in regular TV Service customer homes should be noted, since basic data may not include information on all customers. With a 10% sample, tabulation might indicate, for example, that for every ten TV set owners there were six owners of portable radios. It is a fairly safe bet that study of the other 90% of the TV Serviceman's customers would reveal about the same ratio, if the 10% sample provided a good cross-section of his customers.

Projecting the probable number of portable radio owners among his clientele, and experience with their portable radios, the TV Service operator could set sales quotas on portables and go aggressively after a definite sales potential. By the same token he could intelligently gauge his parts requirements and design packaged deals for service that would probably be required.

If this portable service campaign were well-timed, say in the middle of the spring, he could streamline his shop operation to efficiently handle overall check, speakers, tubes and handling of minor repairs. Thus his market survey would have been instrumental in finding, soliciting and efficient handling of new service business. The activity would also be timed so that it would bolster the beginning of a normal summer slump.

A similar use of market research material could be made to stimulate new and increased business in home radio service. This year being a presidential election year will increase radio use. A summer campaign on radio repair will help TV Servicemen to overcome the summer slump. Their customers should appreciate not having to give up their receivers at a time when they are anxious to participate in peak radio listening.

Southern Distributors Sponsor Service Meetings

Last month, Atlanta, Georgia distributors, Southeastern Radio Parts Company and Nash-Kelvinator Sales Corporation were hosts to the leading TV service dealers of Atlanta at a meeting held in the Georgian Terrace Hotel of that city.

These distributors, who represent Raytheon replacement tubes and Raytheon TV sets respectively in the area, jointly showed to the service dealers the popular film, "Inside Straight," depicting the unique Raytheon "Bonded" plan, which is available to qualified service dealers as an aid in building better customer relations.

As the major attraction of the evening the successful Raytheon "How to Interpret What You See" service lecture, created by the Raytheon TV Service Department to instruct and aid dealers in their technical TV servicing problems, was presented and many of the most important TV service dealer problems today were explained.

Around 400 service dealers from Atlanta and suburbs attended this meeting and were most enthusiastic over the entire program. Door prizes of most popular test equipment were donated by Southeastern Radio Parts and Nash-Kelvinator, Atlanta.

TCA House Organ Remodeled for Consumer

Acting on the proposal of Samuel A. Whittingham, president of Whittingham Bros., Inc., the Television Contractors Association approved the changing of the association's official publication, the *TV Tuner*, from a trade to a consumer publication. Beginning April 1st, the *TV Tuner* will carry consumer copy only which will inform the television owner about many of his receiver's attendant service and maintenance problems.

The publication will be prepared by Paul V. Forte, public relations director of the organization, and it will be sold in bulk, at cost, to the subscribing members of the TCA. The back cover will carry the member's advertisement and no other service advertisement will be carried. Initial subscriptions indicate that the first printing of publication will be in excess of 25,000 copies.

PEOPLE AND PLACES (Continued from page 3)

tative for the New England area by Industrial Television, Inc. . . . **HAROLD L. HERNDON** named district manager in charge of sales and service for the Cleveland district by the Raytheon Mfg. Co. . . . The following appointments were recently announced by the Allied Radio Corp.: **LEO BROOK**, industrial and broadcast sales manager; **DAVE KENNEDY**, sales development manager; **GORDON HOUGH**, inside sales administration; **GEORGE KELLY**, government sales manager; **JACK LIZARS**, dealer sales manager; **FRED PREHN**, Chicago store sales manager; **EUGENE CARRINGTON**, general product promotion; and **JULIAN McBARRON**, general account promotion. . . . The John F. Rider Company has appointed the **MICHAEL SCOTT CO.** of Wellesly Hills, Massachusetts, as sales representative in the New England area. . . .

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Solve Industry Racket Problems, Farr Tells Dealers

Hard-hitting, intensive, clean selling by the established appliance and television dealers is the best method possible for combating the series of rackets and the fact-distorting advertising that have arisen in these fields, Mort Farr, president of the National Appliance and Radio-TV Dealers Association, told the members of the Memphis Appliance Dealers Association.

"Our industry is becoming racket-ridden," he warned. "We're getting discredited and our profession is becoming insulted by promoters who advertise sirloins at 66 cents a pound, television service at \$1 a call, or \$100 discount to anyone who can recognize the Star Spangled Banner as a tune to be identified.

"Let's realize that we can't follow the precepts of Ralph Waldo Emerson about the world beating paths to our doors to buy our better mousetraps in the face of this kind of selling. You can't win a fight by sulking, or retiring from the field of battle. The store that's out selling won't be outsold."

He warned the retailers that they were losing an excellent opportunity to profit from the precipitous rise in interest in freezers by letting this business go to the professional door-to-door salesman from other industries which have recognized the effectiveness of the food plan for making sales.

More intensive selling, devoted to quality, service, and brand names identified with the retail establishment is the major mandate imposed on the retailer by today's business conditions, he said. "There are no evils, no difficulties facing this industry or any of the individual retail establishments in it that intense, well-directed selling effort cannot solve."

New Receiving Tube For Television

The General Electric Company recently announced the development of a new receiving tube which will fill a major requirement in the development of a tuning unit for television receivers which will tune in the entire range of television frequencies.

Development of the new tube is expected to be an important step in the design of a television receiver which will receive telecasts from present television stations and new ultra-high frequency stations.



Mr. Yeranko (left), Chairman of the RTMA Service Committee and Mr. Cooper (right), Hallicrafter's National Service Manager, talk it over with Mr. Wolfgang during recent Michigan meeting.

REPORT FROM MICHIGAN

(Continued from page 15)

during the past three years. Looking ahead, Wendel said that the number of vhf TV stations in Michigan would soon grow from nine to seventeen and that this number would soon be increased by an addition of 48 new uhf TV stations.

"When these new stations are operating," Wendel concluded, "a rapid growth in TV Service demand may be expected." But he warned that this may create an additional problem in the

form of finding many more properly-trained technicians.

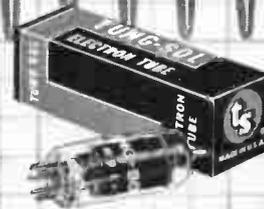
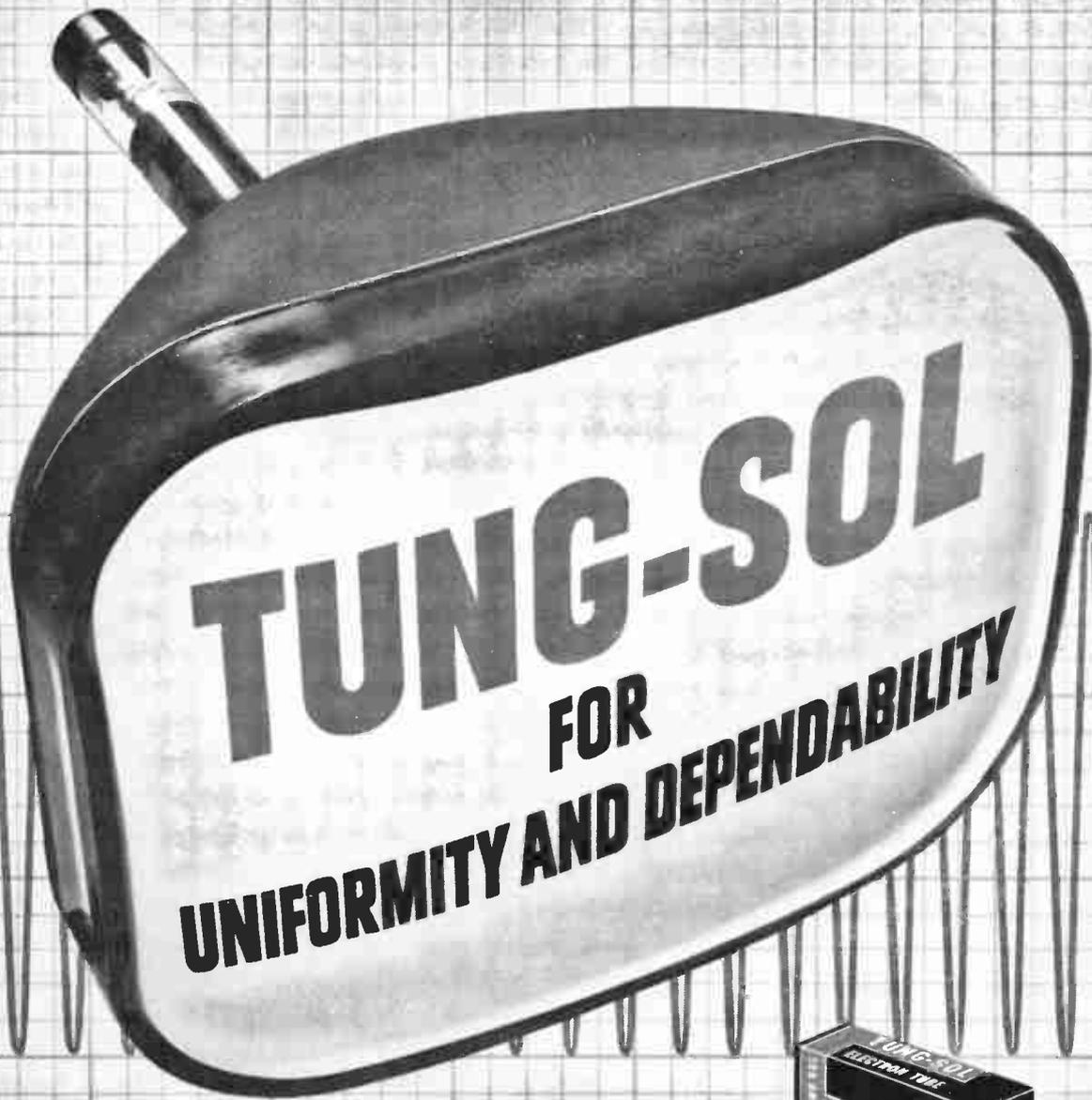
At the TSA meeting, a committee on business management and customer relations was set up with C. Ferguson and Charles Nutting, Sr., as co-chairmen. Others appointed to the committee included: Bob Brotherson, Frank Mosser, Cliff Whitworth and Charles Wycoff.

TSA headquarters has been established at 2238 Dime Building, Detroit 26, Michigan. This office will also serve as the clearinghouse for meetings to be carried out in the Detroit area.



FOUR RCA SERVICE CO. BRANCH MANAGERS HONORED

Frank M. Folsom (third from left), president of the Radio Corporation of America, presents special "President's Cup" trophies to managers of four RCA Service Co. television service branches. Awards were made in recognition of the branches' achievements in "serving the community" during a three-month contest just concluded. Looking on, at extreme right, is E. C. Cahill, president of the RCA Service Co. Displaying their trophies are branch managers (from left to right) R. E. Hartleb, Oklahoma City; J. T. McAllister, Hollywood; R. F. Adams, Dallas; and J. W. Van Cleve, Columbus. The winning branches were selected on the basis of their customer relations achievements and general excellence in the quality and efficiency of television installation and service work.



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NARDA VP Warns On Price-Cutting

Dealer indifference to the threat of price-cutting and its implications can undermine an entire market and jeopardize the structure of our industry, H. B. Price, Jr., vice president of the National Appliance and Radio-TV Dealers Association, warned the Charlotte, N. C., Merchants Association on March 11.

He described price-cutting as an armament race that nobody can win and he said that it results in a ravished market and a discredited industry. Mr. Price attributed the price-cutting trend to dealers: under economic distress, trying to make a quick killing, and to a lack of business that stimulates dealers into thinking that they can bribe customers with their profits.

Among remedies suggested by Mr. Price was aggressive selling because, he said, "There is a direct ratio of quality between a retail appliance operation and the calibre of its salesmen. You don't find an unhealthy store with really good salesmen, or a healthy one without them."

Mr. Price stressed the importance of established, quality brand names as the core of retail operation. "These lines," he stated, "skillfully sold and honestly serviced, create customers that last long after the profits-whittler has gone out to seek new areas of destruction."

Improved Tube Case Offered to Servicemen By National Union

An improved de luxe carrying case for receiving tubes and small hand tools has just been announced by the National Union Radio Corporation, Orange, New Jersey. This heavy duty case, especially designed for use on home radio and television service calls, creates a professional appearance, thereby enhancing the serviceman's prestige.

By the addition of one inch to the height, GT cartons will now fit in the removable tray. Redesign of the top compartments makes possible the stowage of miniature tubes on one side and GT on the other. Fabricated of plywood throughout, it is covered with a smart-appearing tweed-textured leatherette material which resists scuffing. There is a steel band reinforcement over the top which, in addition, seals the closure. The corners are protected and reinforced by top-grain cowhide leather pieces. Hardware is plated and protection against pilferage is assured

by the positive draw bolt fitted with a lock.

This rugged case, measuring 19 $\frac{1}{2}$ " long x 9 $\frac{3}{8}$ " wide x 15 $\frac{1}{4}$ " high, will safely support 350 pounds. It, therefore, can be used as a stool to extend the reach. The entire inside, including all compartments, is lined with leatherette.

This new design will handle 200 to 250 or more tubes. The two compartments in the hinged top are useful for tools having a length as great as 19 inches. The removable tray, also of plywood, has a small compartment with a hinged cover that is suitable for such small items as fuses, panel lamps, etc. The case which would sell at \$24.95 net to the dealer, is available solely through National Union distributors with the purchase of N.U. receiving tubes.

FRSAP Honors Rider

On Sunday, March 16th, at the Hotel Harrisburger, the Federation delegates from all chapters and delegations from the various associations in New York and New Jersey with many honored guests representing other segments of the industry were present to attend the awarding of the Federation's annual plaque to John Rider of Rider Publications. The presentation was made by Carl Smith, president of the Central Penna. Radio Technicians Ass'n (Williamsport) on behalf of the Federation of Radio Servicemen's Associations of Penna. The award was given to Mr. Rider "In recognition of his outstanding achievements on behalf of the Electronic Servicing Industry, the Radio and Television Technician and his wholehearted encouragement of their Associations." Mr. Rider, in his acceptance speech, praised the unity that exists within the State Federation and of its progressiveness and of its many accomplishments since its formation. Mr. Rider advised all delegates present that there is more work to be done in the organizing of the servicing technicians and the dealers and of the need for the formation, within each state where individual associations exist, of a State Federation in order to overcome and meet local problems. Also present among the guests was Mr. Albert Courmont, service manager of the Radio-Television Manufacturers Ass'n. Mr. Courmont expressed his desire to have the cooperation of the Federation in solving many of the servicing industry's problems and of the great need for better understanding between all segments of the industry, with the servicing technicians' problems and the need for a public relations program.

Mr. Ed Chaill, president of R.C.A. Service Co., discussed the future of UHF and color TV and of the great need for the servicing industry to prepare itself

for the public's needs for the servicing of these new mediums.

Mr. Dan Creato, legal counsel for R.C.A. Service Co., in his talk praised the many accomplishments of the servicing technicians' associations that they have made in the past two years and of the need for the servicing technicians to carry their responsibility in the industry.

General Electric Scranton Tube Plant

J. Milton Lang, general manager of the General Electric tube department, has announced that the Company's Scranton, Pa., home dish-washer plant will be converted for production of electron tubes in April. After conversion it will produce hydrogen thyratrons and industrial and transmitting tubes, and will employ about 500 people.

General Electric Offers Revised Service Guide

The second edition of General Electric's television receiver service guide is now available to distributors, dealers and servicemen. With the first edition sold out within two months of its publication, additional information has been added to the 80-page publication which will increase its value in the field. The original 17 x 11 inch size, the fingerprint and dirt-resistant paper, and the binding, which allows the book to open flat, are features retained in the second edition.

Like the first, this new television service guide contains accurate information on 102 General Electric chassis, schematic diagrams with circuit symbol numbers, tube locations, top and bottom view and cabling diagrams of each model. It also supplies information on 10 RF tuners used in those chassis. The picture section, identifying every post-war GE television set, including the 24-inch, the resistor and ceramic and molded mica capacitor color code charts have been retained as valuable features of the publication.

As further information, two new charts have been added. One gives the channel frequencies and antenna dimensions for all VHF channels. The other gives I-F operating frequencies for all G-E television receiver models.

In addition, a new section has been added to the second edition, covering G-E's line of phono-accessories. This section contains complete specifications and prices for all G-E speakers, tone arms, cartridges, pre-amplifiers, styli and replacement styli for G-E variable reluctance cartridges.

The new edition of the TV Receiver Service Guide has been priced at \$1.00.

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- if you don't know the secret of picking, training, supervising the **RIGHT** employees?
- if you charge too little, too much, have constant "misunderstandings" with customers?
- if the parts and supplies you need are not in stock when required?
- if you don't keep proper books, never discount your bills, can't get along with your banker?
- if you never use sales-helps, never advertise, ignore elementary principles of salesmanship?
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New Book for TV- Radio Servicemen

A new technician's notebook that treats twenty basic parts of a television receiver in a technique for efficient TV Servicing has been announced by the Paul H. Wendel Publishing Co., Inc., of Indianapolis.

The new notebook, authored by A. C. W. Saunders, director of Saunders Radio and Electronic School, Boston, Mass., and president of the Radio Television Technicians' Guild, presents the essentials for rapid TV Servicing by circuit analysis. This technique was developed by Mr. Saunders during lectures to thousands of TV Servicemen throughout the United States.

His technique consists of an analysis of twenty basic circuit points that are described in texts and circuit diagrams including: design of video amplifiers for broadband response; control of stage gain; function of automatic gain control; tuned circuit response; gain and bandwidth comparisons; stagger tuning of i-f stages; parallel effect of grid circuit on plate load; design requirements of video detectors; phase inversion properties of a conventional amplifier; and many others.

Voltage waveforms and concise data on proper ion trap adjustment are also given.

The 44-page notebook, the fifth in the Television Technicians' Lecture Bureau series, measures 8½" x 11". Copies may be obtained through parts distributors or by remitting \$1.00 direct to the Paul H. Wendel Publishing Co., Inc., Post Office Box 1321, Indianapolis 6, Indiana.

La.-Miss. Chapter of NEDA Meets in New Orleans

The Louisiana & Mississippi Chapter of the National Electronic Distributors Association convened for a pre-Chicago Show meeting in Arnaud's Restaurant, New Orleans, La., April 6.

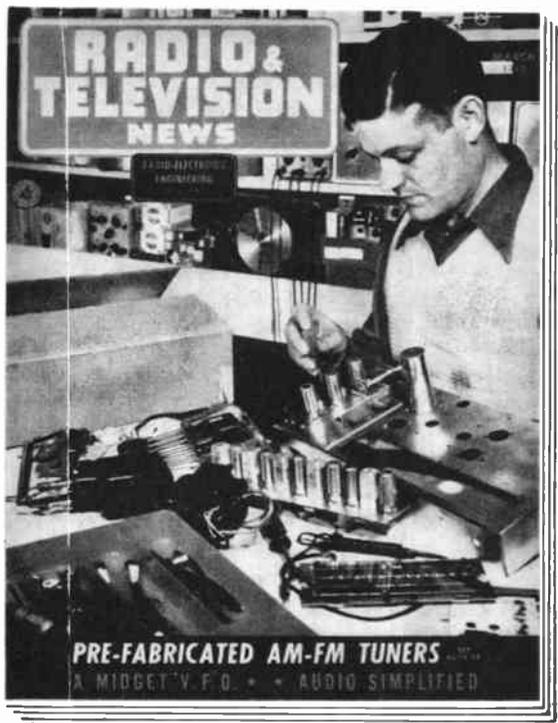
Distributors, members as well as non-members of the Association, were invited to attend the meeting. Keynote of the session was an informal get-together for the purpose of discussing mutual problems. Phases of NEDA's work in the interest of the parts distributor, locally and nationally, were reviewed to illustrate how the Association works.

Following the meeting a Dutch treat lunch was served.

Officers in charge included R. K. Andrews, Central Radio, Alexandria, La.; William B. Allen Co., New Orleans; C. E. Davidson, Columbia Radio, New Orleans, and Bill Kerlin, Shuler Supply Co., New Orleans.

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