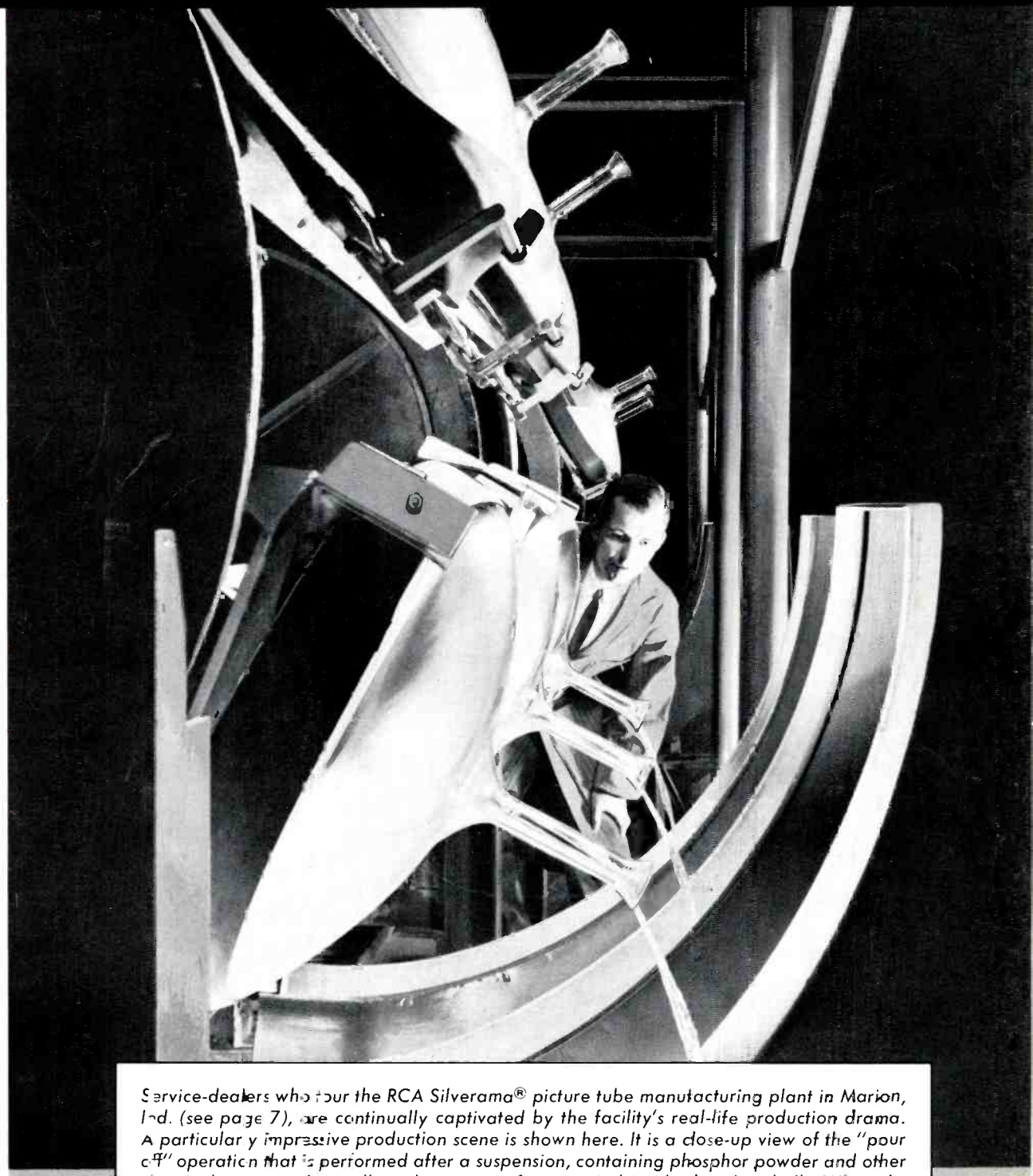
RADIO AND TELEVISION

Service News

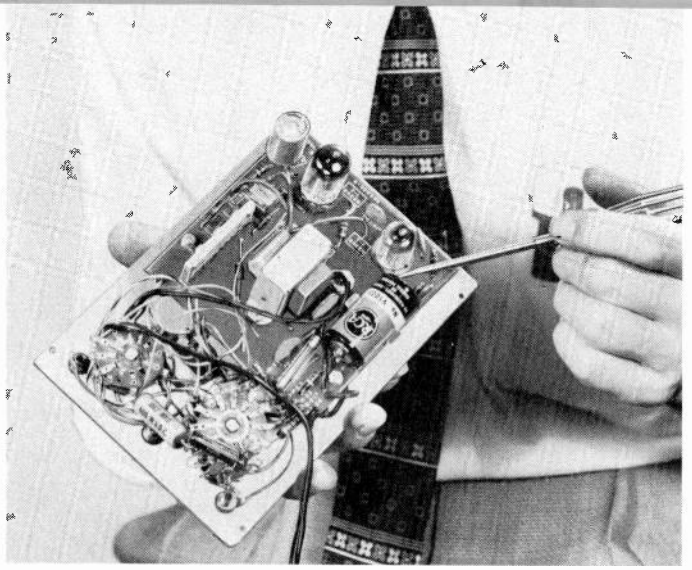
A PUBLICATION OF THE RCA ELECTRON TUBE DIVISION



Service-dealers who tour the RCA Silverama® picture tube manufacturing plant in Marion, Ind. (see page 7), are continually captivated by the facility's real-life production drama. A particularly impressive production scene is shown here. It is a close-up view of the "pour off" operation that is performed after a suspension, containing phosphor powder and other chemical compounds, is allowed to remain for a period inside the glass bulb. When the phosphor powder has settled on the bulb's inside face, settling conveyors then tilt the bulb slowly so that all liquid inside the bulb is drained off, leaving an evenly distributed film of phosphor adhering to the inner glass surface of the face.

JANUARY
1959

Vol. 24, No. 1



The WV-77E(K) VoltOhmyst features simple, easy-to-assemble, laminated circuit-board construction.

Kit and Wired VoltOhmyst Replaces Popular WV-77C

Television service technicians for quite some time have been asking for an RCA vacuum-tube voltmeter which they may purchase either as a factory-wired unit or as an easy-to-assemble kit. It's here! RCA has just announced the WV-77E *VoltOhmyst*®—the first in a series of RCA test instruments offered by your RCA distributor in both kit and wired form.

Competitively priced, the WV-77E is a replacement for RCA's popular WV-77C Junior VoltOhmyst. It incorporates the high standard of quality, superior performance, and attractive styling for which RCA VoltOhmysts have earned such an outstanding reputation in the industry.

The new VoltOhmyst kit and the fully-wired, factory-calibrated RCA VTVM are practically identical. The letter "K" following the serial number is stamped on the bottom of the case of the home-assembled unit to identify it as a kit. There is no "do-it-yourself" nomenclature on the front panel of the kit.

* * *

Features of the WV-77E and the WV-77E(K) instruments include the following:

- Meter is electronically protected against burnout. In addition, the resistors in the "OHMS" divider network are protected by a separate fuse.
- Ultra-slim probes and flexible leads are easy to use in tight spots.
- Cables can be stored in plastic holder attached to handle for increased portability. (There is plenty of room for the power cord, too.)
- Separate scales for the 1½-volt rms range and 4-volt peak-to-peak range assure rated accuracy on low ac readings.
- Famous RCA VoltOhmyst circuit means excellent stability under conditions of line voltage fluctuation. There is also a special circuit to minimize effects of residual gas in bridge tube.
- Easier, faster-to-read scales—meter scale color-coded to match range switch.
- Extra rugged 400-microampere meter movement.
- Front panel is brushed aluminum. All lettering is acid-etched to last the life of the unit.

* * *

As a bonus when you buy a WV-77E or WV-77E(K), you can obtain a new RCA technical booklet entitled, "Servicing is Easy with the RCA VoltOhmyst." This valuable publication is priced at $1.00 but is given free to purchasers of RCA's new VoltOhmyst who register their instruments.

Also, please note that along with the WV-77E(K) you will receive a special worksheet which completely covers mechanical assembly and electrical connection instructions. Center area of this worksheet is for the actual building of the kit. Hence, no time is lost looking up separate reference material.

* * *

Whether you buy the WV-77E kit or wired unit, naturally, is up to you. User prices (optional) are $49.95 for the factory-wired WV-77E and $29.95 for the WV-77E(K). Whichever unit you purchase, you may be assured that your new VoltOhmyst—lightweight, compact, and versatile—will give you long, reliable performance as a measuring device.

RADIO AND TELEVISION
Service News
A PUBLICATION OF THE RCA ELECTRON TUBE DIVISION

RCA RADIO & TELEVISION SERVICE NEWS is published in the interest of dealers and service technicians. It is written to assist them in providing better service, and to foster the growth of their business by supplying them with information on the latest trouble-shooting and sales promotion techniques, sales and service aids, together with invaluable data on RCA tubes, transistors, batteries, parts, and test equipment.

JANUARY 1959

RCA RADIO & TELEVISION SERVICE NEWS is a bi-monthly publication of the RCA Electron Tube Division, Harrison, New Jersey.

Harvey Slovik
Editor

Vol. 24, No. 1

Specifications of the

DC VOLTMETER (Reads from 0.02 volt to 1500 volts):

- Ranges—0 to 1.5, 5, 15, 50, 150, 500, 1500 volts (7 overlapping ranges)
- Accuracy—±3% of full scale
- Input Resistance—11 megohms (1 megohm in probe tip)
- Zero-center indication for discriminator alignment

AC VOLTMETER (Reads from 0.1 volt to 1500 volts rms and from 0.2 volt to 4000 volts p-p):

- Ranges (rms)—0 to 1.5, 5, 15, 50, 150, 500, 1500 volts (7 overlapping ranges)
- Ranges (peak-to-peak)—0 to 4, 14, 40, 140, 400, 1400, 4000 volts (7 overlapping ranges)
- Accuracy—±5% of full scale

Line of Silicon Rectifiers Launched

Your local distributor of RCA semiconductor products is now boasting a brand new product line. See him about RCA silicon rectifiers—intended for power supplies of entertainment, industrial, and military electronic equipment. Among other specific uses, these silicon rectifiers convert the alternating current in homes into direct current for the tubes and transistors of radios, television receivers, and phonographs.

RCA entered the silicon rectifier field with its recent commercial announcement of diffused-junction types 1N1763 and 1N1764. In mass production, these units are currently being supplied to distributors.

The 1N1763 has a maximum dc forward current rating of 500 milliamperes and peak inverse voltage rating of 400 volts and is designed for use with alternating current supplies

WV-77E VoltOhmyst

- Frequency Response—flat within ±5%, from 40 cycles to 5 Mc on the 1.5-, 5-, and 15-volt rms ranges and the 4-, 14-, and 40-volt peak-to-peak ranges

OHMMETER:

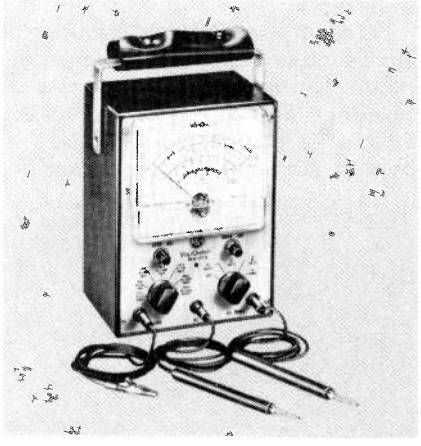
- Ranges—0 ohm to 1000 megohms (7 overlapping ranges)
- Center Scale Values—10 ohms; 100 ohms; 1000 ohms; 10,000 ohms; 100,000 ohms; 1.0 megohm; 10 megohms

POWER SUPPLY:

- 105-125 volts, 50-60 cps, 5 watts input (approx.)

TUBE AND BATTERY COMPLEMENT:

- (1) RCA-6AL5, (1) RCA-12AU7-A, (1) RCA-VS035



RCA BECOMES FIRST MAJOR ELECTRONICS MANUFACTURER TO MERCHANDISE ALL-NEW AND FACTORY-REBUILT TV PICTURE TUBES

Two distinct lines of television picture tubes for black-and-white sets—an all-new premium line and an economy-priced factory-rebuilt line—will be marketed by the RCA Electron Tube Division in January, 1959, D. Y. Smith, Vice President and General Manager, announced at press time.

RCA is the first major electronics manufacturer to merchandise a dual line of all-new and rebuilt television picture tubes on a national brand basis.

"The premium line of picture tubes," Mr. Smith explained, "will be constructed from all-new materials. Each tube will use all-new glass, an all-new screen, and all-new components.

"RCA's rebuilt picture tube, manufactured under strict factory supervision and control, will be an economy-priced, quality product for the replacement market.

"Marketing policies for the dual line are now being completed. These policies will be announced during the week of January 5 when the sales force of the Tube Division's Distributor Products activity will conduct regional meetings with RCA tube distributors across the country."

Commenting on RCA's decision to launch a rebuilt line, Mr. Smith said:

"We believe that the public will appreciate RCA's introduction of two picture tube lines. For the first time, new and rebuilt tubes will be clearly defined and segregated.

"All-new premium tubes, made entirely from new parts, will be labeled, priced, and sold as new products. Rebuilt picture tubes will be identified, merchandised, priced, and sold as rebuilt products for the first time."

by RCA with Commercial Announcement of Diffused-Junction Types 1N1763 and 1N1764

of up to 140 volts. It is intended for application in black-and-white TV sets, radios, phonographs, and other electronic equipment operating direct from a power line.

The 1N1764 has a maximum dc forward current rating of 500 milliamperes and peak inverse voltage rating of 500 volts. It is designed for use with ac supplies of up to 175 volts, as in color TV receivers, radios, phonographs, and other electronic equipment operating from the power line through a step-up transformer.

Forerunners of a broad line for the entertainment, industrial, and military markets, the initial RCA units offer:

- Low cost—specifically priced for entertainment applications.
- Electrical uniformity—precision controlled diffusion process forms superior junctions.
- Welded hermetic seal—each unit individually pressure-tested to provide complete protection against moisture and contamination.
- Rugged construction—metal case with axial leads for soldering-in applications; may also be mounted in fuse clip.

Three New RCA Batteries: VS165, VS300A, VS323

Battery types VS165, VS300A, and VS323 have been added to RCA's line and are now available from your local battery distributor.

The VS165 is a 6.5-volt mercury battery used in conjunction with the new RCA Color Television "Wireless Wizard." It is interchangeable with the Mallory TR165R.

A replacement for the VS300 and the VS314, the metal-encased VS300A has characteristics similar to those of the VS300, but is offered at a lower price. This new type is interchangeable with the Eveready #226, the Burgess #P6M, and the NEDA 1600.

The VS323 is a 9-volt type used in many of today's popular transistor radios. It is interchangeable with the Eveready #216, the Burgess #2U6, and the NEDA 1604.

* * *

List prices (optional) are: VS165, $2.45; VS300A, $1.35; VS323, $1.35.

RCA Sound Tape Cartridge Features Instant Loading

Here's news of a sensational new product to boom your sales and profits in the expanding "hi-fi" market. The RCA magazine-loaded sound tape cartridge—an outstanding addition to RCA's comprehensive line of magnetic recording sound tape and tape accessories—is now yours for the ordering from your local RCA distributor.

Monaural or stereophonic, RCA's compact sound tape cartridge for the new quick-load cartridge tape recorder is sure to prove an immediate favorite of professional and amateur recording enthusiasts. Small wonder. The RCA cartridge is the most practical development in sound tape yet devised. It's completely self-contained and prethreaded for instant loading. Your customer merely has to insert the sound tape cartridge and he's ready to record up to two hours of playing time on four tracks.

Audiophiles will be pleased also with the RCA sound tape cartridge's special safeguards. Its durable plastic case protects the tape from the effects of dust and continuous handling. A special feature of the cartridge prevents accidental erasure. And the new metal brake release at the base of the cartridge automatically locks the tape when the cartridge is removed. Therefore, there is no chance for spilling or breaking. Windows in the cartridge show the amount of tape left.

As expected from the world leader in the business of sound, the convenience-designed RCA cartridge contains uniformly high-quality sound tape for "picture clear" sound reproduction. Advanced manufacturing techniques and strict controls result in fine and equal dispersion of millions of small oxide particles for high level recording with low distortion. The oxide coating is impregnated with dimethyl silicone to provide a built-in dry lubricant for the life of the tape to reduce wear of the recorder head.

New Promotion Driv

You've got to tell 'em if you want to sell 'em! So, "sound off" for RCA magnetic recording sound tape!

That's the theme of RCA's latest sound tape promotion campaign—prepared to help you merchandise the exciting new RCA magazine-loaded sound tape cartridge (discussed at left) as well as the complete line of RCA magnetic recording sound tape in 3", 5", 7", and 10½" reels.

See your local RCA sound tape distributor right away about these dramatic business-builders:

(1) RCA Sound Tape Cartridge Counter Merchandiser (Form 4F654)—an eye-catching unit specially designed to draw your customers to the newest member of the RCA sound tape family. Holding 24 RCA sound tape cartridges, this colorful brass finished stand will stimulate impulse purchases by "hi-fi" enthusiasts.

(2) RCA Sound Tape Reel Counter Merchandiser (Form 4F642)—a perfect counter partner to the cartridge merchandiser. This compact stand holds a total of 24 reels (5" and 7") and features an attention-getting message.

RCA Counter Display Card (Form 4F649)

Punching Information Service Technicians Can Use to Prepare Specia

Tube Type	Hole Locations	Notes
5DH8 Triode Unit	D1 G2 C3 A4 B5 M10 N9 M4 N1 L1 J1 K6 L6 L7	—
5DH8 Pentode Unit	C3 A4 B5 G6 E7 C8 D9 M10 N9 M4 N1 L1 J1 I7 I10 K7 K8 L6 L8	—
6CK4	D1 A2 G5 B7 C8 M10 N9 M4 N2 L1 J10 I6 I10 K6 K7 L6 L7	—
6CY7 Triode Unit 1	A4 B5 G6 D7 C8 M10 N9 M3 N1 L1 J2 I6 I10 K7	For gas test, see instructions
5703	G1 A3 B4 D5 C6 M10 N9 M5 N2 L1 J1 I9 I10 K5 K6 L6 L7	—

Tube Type	Hole
6CY7 Triode Unit 2	G1 D3 A4 B5 C9 M10 N9 M
6R8 Triode Unit	A4 B5 C7 D8 G9 M10 N9 M
6R8 Diode Unit	H1 F2 C3 A4 B5 G6 C7 M L6 L8
8CY7 Triode Unit 1	A4 B5 G6 D7 C8 M10 N9 M
5915	D1 C2 A3 B4 G5 E6 C7 M10

e Geared to Build Dealer Sales of RCA Sound Tape

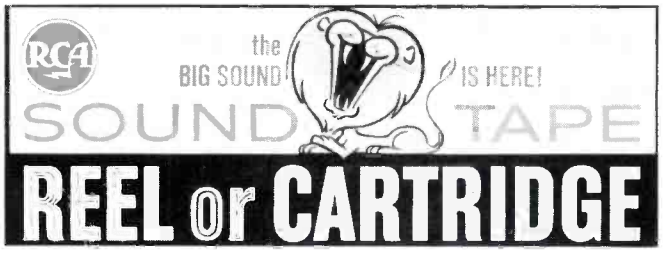
(3) RCA Sound Tape Counter Display Card (Form 4F649)—a clever promoter that briefly alerts your customers to the fact that you carry both RCA sound tape cartridges and reels. This counter card features a special pocket that holds 20 informative RCA sound tape line folders.

(4) RCA Cartridge Flyer (Form 4F647)—just what you need to spread the good word about the RCA magazine-loaded cartridge. Hand this flyer out across the counter. Mail it to every recording enthusiast on your list. This flyer not only announces RCA's new sound tape innovation; it also contains many valuable pointers on editing and preventing accidental erasure.

(5) RCA Sound Tape Window Streamer (Form 4F650)—an appealing traffic-stopper that repeats the brief message featured on the counter display card. It informs passersby that your store is a headquarters for RCA sound tape reels and cartridges.

(6) RCA Sound Tape Cross Reference Guide (Form 4F653)—an excellent directory to practically all types of sound tape. Just a glance will tell you the RCA tape that covers any type requested.

(7) RCA Sound Tape Line Folder (Form 4F648)—a bright new flyer that outlines the complete line of RCA sound tape. Tailored for use as a counter giveaway or as a self-mailer, this folder will instruct your customers on how to achieve quality recordings with RCA sound tape.



RCA Sound Tape Window Streamer (Form 4F650)

RCA Sound Tape Reel Counter Merchandiser (Form 4F642)

RCA Sound Tape Cartridge Counter Merchandiser (Form 4F654)

l Cards for RCA's Portable WT-110A Automatic Electron-Tube Tester

Locations	Notes
3 N1 L1 J9 K6 L6 L7	For gas test, see instructions
5 N2 L1 J3 I6 I10 K5	Test P1, P2, P3; reject if below 3
0 N9 M5 N2 L3 I6 I10 K7	Test P1, P2, P3; reject if below 3
5 N3 L1 J2 I6 I10 K7	For gas test, see instructions
N9 M5 N2 L1 J6 I6 I10 K5 K6	—

Tube Type	Hole Locations	Notes
8CY7 Triode Unit 2	G1 D3 A4 B5 C9 M10 N9 M5 N3 L1 J9 K6 L6 L7	For gas test, see instructions
11CY7 Triode Unit 1	A4 B5 G6 D7 C8 M10 N9 M1 N2 L1 J2 I6 I10 K7	For gas test, see instructions
11CY7 Triode Unit 2	G1 D3 A4 B5 C9 M10 N9 M1 N2 L1 J9 K6 L6 L7	For gas test, see instructions
5702	G1 E2 A3 B4 C5 C6 D7 M10 N9 M5 N2 L1 J1 I7 I8 K5 K6 L6 L7	—

Additional card-punching information will appear in subsequent issues.

PART 5 OF A SERIES OF SPECIALLY PREPARED ARTICLES

Electronics Servicing is Big Business

by R. B. Sampson
Manager, Market Research
RCA Electron Tube Division

As a service-dealer, you will agree that electronics servicing is a technical business in which specialized knowledge, skills, and experience are basic requirements. As a businessman, you should also agree that the manner in which your technical ability is used to produce sales and profits certainly can spell the difference between your business success or failure. To state it plainly and bluntly: it is one thing to be technically perfect in diagnosing and correcting a circuitry or component failure; it is quite another to manage the varied and complex operations of a service dealership in a manner which will provide a satisfactory return for your efforts. That is service management—and I shall direct my remarks specifically to that phase of your business in this column.

Now some readers may say, why all this concern about service management? We're making a good living. We're paying our bills regularly. We're discounting with our suppliers. We don't have a receivable problem. We can hire all the technicians we want—and we can keep them happy. Isn't that good service management?

You know what? You are absolutely right. I'll not quibble one minute with the service-dealer who can characterize his business in that manner. He has learned the techniques of service management, whether by acident or design. Now his problem is seemingly only that of applying his management skill to keeping the business on a firm and well charted path.

But I wonder? How many dealers can say that they have completely mastered the techniques of operating a full-fledged electronics servicing business in all its ramifications? Is there assurance that the business is earning a proper return on the amount of effort and capital employed? Those questions cannot be answered until every facet of the business has been examined and sales- and profit-performance measured in relationship to the local market. And, perhaps, even then we may not come up with firm answers because electronics servicing is a youthful business and, as is often the case in a young industry, what is good practice today may be greatly changed by the experience and events of tomorrow.

We cannot stand still in this electronics business for, if we do, we are liable to find ourselves pushed aside by the alert, aggressive, and enterprising fellow who is on the go.

I am reminded in that respect of an experience which I had a few years ago when I visited a well-established, veteran parts distributor. I asked him, of course, what plans he had for coping with the expanding electronics industry and how he expected to increase his sales penetration in the area he served. I was told in no uncertain terms that he was satisfied with the way things were, and that it was his intention to hold his present sales volume and let somebody else take care of the expansion. Unfortunately, he got pushed aside—involuntary bankruptcy proceedings were filed against the company last year. Today, that once well-established distributing business exists only as a statistic in the files of Dun & Bradstreet.

Since we cannot tread water in this electronics industry, we must continually analyze our performance in that segment of the industry in which we have chosen to operate. In your case, as an electronics servicing dealer.

Obviously, we cannot herein review *all* of the operating areas of a servicing business. But, in this issue and next, let's talk about a few of the more pertinent cost factors that influence the profits which you hope to realize from your investment of time and capital.

Visualize, if you will, a profit statement for an average service-dealer. The first item, of course, is "income" or "sales"—whichever term you prefer.

Now I no longer believe that the maintenance of a satisfactory sales volume is a current problem for dealers as a whole. There are exceptions, of course, but many dealers with whom I have talked have convinced me that getting business is not the problem. The real problem is how to handle it within the limitations of a serious shortage of technicians, and with the limited facilities and capital usually employed by the average dealer.

Dealers have said so often, "I've got all the business I can handle. I can't handle any more without hiring more help, and trained, skilled technicians are hard to find."

That may sound like an odd situation, but I believe that it is rather typical of the servicing industry at the present. How long it will last is anyone's guess. What to do about it is an industry-wide problem requiring not only your interest but also your active participation in its solution.

I will not attempt to dwell on the steps being taken, or that should be taken on an industry basis, to improve this situation. But I suggest that you as a dealer should do all in your power to attract the competent apprentice and senior technicians that you need to round out your organization.

What must be done to attract competent service technicians? Well, as I have indicated, it is not a simple matter; but certainly your wage scale and general working conditions should

0Z4 Test Adapter Offered

A new accessory adapter for use with RCA's portable WT-110A *Automatic* Electron-Tube Tester is now being offered by your local RCA test equipment distributor. This adapter—identified as the WG-324A—comes complete with the necessary card-punching information thereby enabling WT-110A owners to set up and test 0Z4 tubes as well as voltage regulator tube types 0A2, 0A3, 0B2, 0C2, 0C3, and 0D3.

User price (optional) of the WG-324A is $2.95.

RCA Expands List of Test

As previously reported in RADIO AND TELEVISION SERVICE NEWS, RCA has set up local test equipment repair depots across the country, as well as a national repair station, to speed up the company's overall repair service to television and radio technicians. While the Sunshine Scientific Instrument Company, 1810 Grant Ave., Philadelphia 15, Pa., continues as the national test equipment repair station, RCA has expanded its list of local repair depots to include the following independent companies:

- Douglas Instrument Labs., 176 Norfolk Ave., Boston 19, Mass.
- Electro-Tech Equipment Co., 690 Murphy Ave., S.W., Atlanta, Ga.
- Electro-Tech Equipment Co., 308 Canal St., New York 13, N. Y.

parallel, as closely as possible, those of the larger firms which offer the principal competition.

In brief, here are some of the factors that influence people in their decisions regarding prospective employment:

(1) The starting wage. Is it in line with prevailing rates for your location?

(2) The salary range. Have you established minimum and maximum rates? Is there assurance of wage adjustments for merit, length of service, etc.?

(3) What, if any, are the opportunities for advancement?

(4) Steady employment. Have you successfully coped with the problem of seasonal employment?

(5) Fringe benefits. Do you have firm plans regarding vacations, group insurance, hospitalization, etc.?

(6) Working conditions (i.e., hours, overtime, rules and regulations, etc.). Are they in line with local practices?

A large firm will have clear-cut answers for each of these basic factors. The small firm must also have fixed personnel policies and practices if it is to attract adequate numbers of qualified technical help. Looseness in personnel matters can only lead to a constant struggle to maintain an organization which is probably already suffering from inefficiency, low productivity, and frequent turnover. These are just a few of the cost factors that eat into your profits and destroy customer goodwill.

Can the small firm compete with the large company for available technicians? Probably not on an equal basis, for the man who is big-company minded probably never will be happy in any other environment. By the same token, however, there are those who find the rigid rules and regulations and the general atmosphere of the large company not to their liking. It is these persons, then, who can be attracted to your organization when you provide opportunities and working conditions which parallel those of the larger firms.

For the small business firm, the quality not quantity of its personnel is of the utmost importance. This means, of course, selective screening, a probable higher wage scale, incentive wage plans, and good working conditions. Both the large and small dealer should have the best possible employee representation. I know of no business where this requirement is of greater importance than in the electronics servicing industry.

If you have solved the problem of building an effective organization structure, then sales in sufficient volume must be developed to keep the organization intact. But, it is not a one way street. You can't have sales on the one hand without an organization to handle them. By the same token, your organization must collectively and individually do everything possible to develop sales to the maximum level consistent with the numbers and facilities employed.

What are the sources of sales income for the electronics servicing dealer? First, there is income derived wholly from the sale of productive labor. Then there is the allied income derived, of course, from the tubes, transistors, batteries, parts, and accessories used in the repair process. And, lastly, there is the income from sales of radios, record players, etc. Your daily sales reports and monthly profit statement should reflect the income from each of these sources.

It is a mistake to lump the three sources together under one heading of "Income." Why? Because it is important that your selling efforts be directed toward full realization of all the sources of revenue that are available to you as a servicing dealer.

There you have the entire sales picture. It is from these sources that sufficient volume must be developed to absorb not only the costs of labor, material, and expense but to provide a satisfactory amount of profit and build a reserve to weather the rough spots that lie ahead.

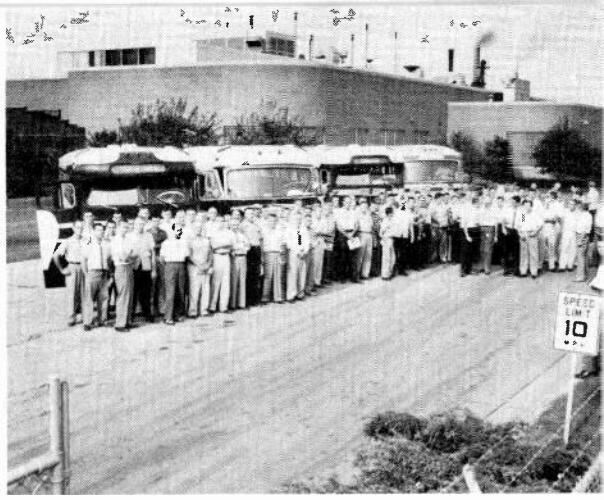
* * *

[In the next issue, Mr. Sampson will continue his discussion on the monthly profit statement. Watch for it! He will emphasize the ratio of expenses (such as parts and materials, salaries and wages, transportation, and advertising) to gross income from service and parts sales.]

Equipment Repair Depots

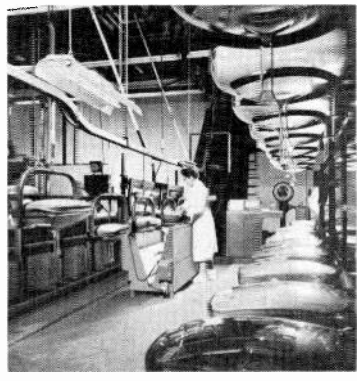
- Industrial Certification Corp., 28212 Beach Drive S., Box 57, Redondo, Wash.
- Insco Company, Inc., 4947 Colorado Blvd., Denver 16, Colo.
- Otto's Instrument Service, Ontario International Airport, Ontario, Calif.
- Speed Instrument Co., 2718 E. Rothgeb Drive, Raleigh, N. C.
- Weshler Electric Co., 4250 W. 130 St., Cleveland, Ohio.

You are advised to send your RCA test equipment in need of repair to the test equipment repair branch or shop nearest you. The only exception to this rule-of-thumb applies to the RCA WT-110A Electron-Tube Tester. If your WT-110A needs service work, send it to: RCA WT-110A Repair Service, Main and Cotton Sts., Philadelphia.

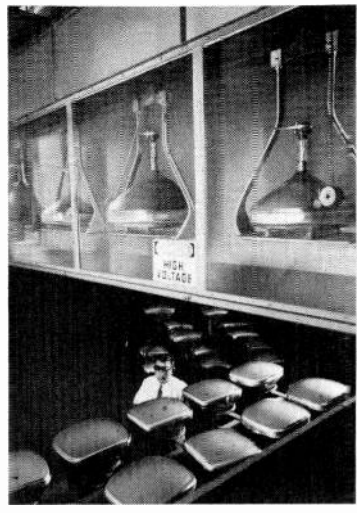


Dealers Tour Marion Plant

RCA's picture tube manufacturing plant in Marion, Ind., is periodically toured by groups of dealers and service technicians whose distributors are anxious for them to see for themselves why the popular Silverama® line deserves its reputation for superior quality. Such a group is the one shown above. It is composed of 140 service-dealers, all customers of York Radio & TV Corporation of Decatur, Ill. They recently came by the bus-load from Kankakee, Decatur, and Springfield, Ill., and saw, among other scenes, the extreme care taken by RCA to release for commercial sale only those tubes that meet the company's rigid requirements.



In the manufacture of Silverama picture tubes at RCA's Marion plant, it is an absolute necessity that the phosphor-viewing screens be free of holes, dirt, foreign materials, and uneven phosphor coating. At the bulb inspection station pictured at right, any production which has these defects is eliminated.



To insure optimum stability during its operating life, each Silverama tube is further processed on an overhead conveyor. For the first part of the conveyor cycle, up to 30,000 volts are applied to the internal tube elements to burn off electrically any possible sources of electrical arcing or field emission. For the second part of the cycle, the tube is operated under voltage conditions to stabilize the electron-emitting material of the cathode.

COLOR TV PICT-O-GUIDE A VITAL SERVICE AID

Sales of color television receivers are definitely on the upswing—and climbing fast. But before you stand up and cheer your ever-increasing servicing opportunities, check yourself on just how adequately you are equipped with the technical information that you need at your fingertips to help you deftly, quickly, and surely localize and repair color troubles.

First off, is there an RCA Color Television Pict-O-Guide on your service shop shelf? If your answer is "no," you had best waste no time in ordering your copy from your local RCA distributor while this vital book is still in supply. You will find this volume of illustrated, step-by-step instructions an invaluable aid when you're called upon to install, adjust, and service color sets.

Developed and written by John R. Meagher, RCA's nationally recognized authority on television servicing, the Color Pict-O-Guide features practical information with a minimum of theory. It includes many full-color photographs taken from the screen of an operating color-TV receiver. These color prints are supplemented with monochrome illustrations and circuit diagrams that further clarify the easy-to-read text. A sturdy multiple-ring binder holds the pages flat for easy reference during service work.

The scores of photographs throughout the Color Pict-O-Guide speed color-TV service work by showing the actual, visual indication of troubles in the color circuits and the effects of purity and convergence adjustments, as well as the effects of color saturation and hue adjustments. By referring to the pictures, you can observe the effects of interference and improve your use of the color-bar generator patterns and the "green-stripe" color test signals. The illustrated step-by-step instructions make it possible for you to learn the proper adjustment and trouble-shooting procedures without personal instruction.

Included in the pages of the Color Pict-O-Guide are many waveform photographs which illustrate signal-tracing methods for localizing troubles in the color circuits. Through the use of this RCA book, you should be able to adjust and troubleshoot color receivers as proficiently as you perform these functions on black-and-white receivers.

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