

PHILCO SERVICEMAN



RADIO • MANUFACTURERS • SERVICE • NEWS



OCTOBER, 1934

FROM R. M. S. HEADQUARTERS

RADIO MANUFACTURERS SERVICE— A DEFINITE PROGRAM TO HELP SERVICEMEN COMPETE WITH “TWENTY-FIVE-CENT” SERVICE ADS—

R. M. S. gives YOU the opportunity to make a profit in the service business in spite of “cut-price” service ads that still appear in newspapers all over the country.

First—PHILCO is co-operating with servicemen to get them *more service jobs*.

Second—Every purchaser of a PHILCO radio set is told about R. M. S. in the Receiver Instructions.

Third—National PHILCO advertising tells the public about R. M. S.—for all make radios.

Fourth—Boake Carter has begun a series of broadcasts to interest radio owners in better radio performance—obtainable through competent servicemen—R. M. S. members.

Fifth—R. M. S. stationery—available to members at cost through PHILCO distributors—has been sent into hundreds of thousands of radio owners' homes.

Sixth—R. M. S. lessons, combining technical information with sound merchandising suggestions, offer you methods to get new business.

Seventh—PHILCO Parts help you sell *Quality Service*. R. M. S. members using PHILCO Parts sell *known quality*, which is constantly kept before the public by PHILCO advertising. Your profits on PHILCO Parts are far greater than on many inferior parts which have no nationally known name for quality. Millions of PHILCO owners know the quality built into PHILCO, and countless millions more have heard those PHILCOS—have seen and heard about PHILCO daily for years. The public will pay for *quality workmanship*—both of your service and the PHILCO Parts you supply.

Eighth—R. M. S. 1934 Fall Campaign for *More Service Jobs*—combines PHILCO national advertising, Boake Carter on the air and PHILCO distributor—R. M. S. member co-operative local campaign—brings service jobs from customers you otherwise could not reach. Join this campaign now. For details see your local PHILCO distributor.

Ninth—R. M. S. Standard Labor Charge Sheet increases your profits!

If the customer refers you to the cut-price 25-cent ads, use your Standard Labor Charge Sheet. Show the customer that quality service is worth

more, according to your R. M. S. PHILCO Labor Charge Sheet, which *helps you raise the price of your labor from 25 or 50 cents to as much as three or four dollars!*

Tenth—R. M. S. is getting reliable servicemen more service jobs—getting you more money for those jobs, raising the standard of service work by means of R. M. S. lessons, campaigns and advertising and promoting better ethics in the service business by making it possible for reliable men to earn a profitable income in the service profession.

Service Hints Which Make a Profit

OWNERS of the PHILCO Model 20 can be made happy by selling them a new cone job. The new type cone puts life into the tone which the solid center cone could not give. It is easy to sell this job. Use Cone No. 02996, list price 90c.

Some of the friction drives of Models 70 and 90 have a tendency to slip after about two years' use. To correct this condition, install a complete new dial and friction assembly.

	Part Number	List Price
Models 70 and 90 Dial	03031	75c
Models 70 and 90 Friction Assembly	03011	35c

Incidentally, if the job happens to be a Model 90 with a single 47 tube, it is a smart thing to change the three audio coupling condensers while you have it in the shop, using the new bakelite condensers having *stranded* connecting leads. The job requires:

	Part Number	List Price
2 Condensers	3903M	25c ea.
1 Condenser	3903P	25c

The installation of extra speakers is also good. The Model PR permanent magnet dynamic type used in the Model 53 is excellent where space must be conserved. Use such speakers in the breakfast room or as an extra speaker for the automobile. The type KR is larger. The PR has a D. C. resistance of 200 ohms, the KR 450 ohms.

	List Price
Type PR speaker	\$8.50
Type KR speaker	10.00

For public address work and sets of high output, the PHILCO auditorium speaker is meeting with wide reception. This unit requires a field exciter. The speaker is obtainable at only \$9.00 net.

	List Price
Type U speaker, field resistance 650 ohms	\$15.00
Exciter for use with the PHILCO Type U auditorium speaker, complete with tubes	17.00

Many older sets not having the tone control can be greatly improved by making this addition. Use PHILCO Control No. 04787, list price 75c.

Centering Speaker Cones

MANY servicemen try to rely upon the cone to center itself automatically when a replacement is being made. In some cases this practice will be satisfactory, but there is always some element of doubt as to whether or not the cone is exactly centered.

The more desirable method is to use strips of paper or cardboard placed around the diameter of the cone in such a way that the narrow strips will act as spacers between the outer diameter of the voice coil and the speaker field assembly. Spacers of the exact thickness as used in the PHILCO factory for

centering speaker cones are available to servicemen.

The spacers for the U speaker are 6 inches long, $\frac{1}{8}$ inch wide and .015 inch thick, part No. 27-7441; the K, B and P spacers are 6 inches long, $\frac{1}{4}$ inch wide and .008 inch thick, part No. 27-7443; the spacers for the H speaker are $4\frac{1}{2}$ inches long, $\frac{1}{4}$ inch wide and .008 inch thick. Four spacers are used each time a cone is centered. The spacers are available in a package of twelve (four each of three different types) in limited quantities without cost.

A Service Guarantee Form

EVERY radio serviceman wants to guarantee the work which he does, and if he thinks about it he will tell the customer that his work is guaranteed.

A printed guarantee blank, however, would be extremely effective with the customer and would show him in a more convincing way the fact that he is dealing with a reliable serviceman and will also serve as a permanent reminder of the quality work done by the man. This is one of the best forms of advertising that you can possibly leave with your service customers, because they will keep the guarantee blank when they might throw away your business card. We reproduce on this page a guarantee blank which is being used by Mr. Elwood S. Fauls, a member of Radio Manufacturers Service in Oneida, N. Y.

The blanks are printed for Mr. Fauls by

a local printer and are supplied in a book form, with a stub record for each blank. Mr. Fauls says that the information on these stubs has enabled him to keep an accurate check on his service work and to follow up these customers at a later date when he thinks they might be interested in additional service or in a special installation of some kind. This is just a suggestion, for the proper type will vary with local legal conditions.

Oneida, N. Y. _____ 193_	
FEB 23 1934	
<p>This is to certify that the materials used in the repair of your radio on the above date are equal or of superior quality to those used by the manufacturer. All repair work has been done in accordance with the "NATIONAL ELECTRIC CODE" and the rulings of the UNDERWRITERS' LABORATORIES. This repair-work is guaranteed for a period of NINETY DAYS from date, and will be repaired without charge if a defect should develop within this period.</p>	
(Signed).....	
Name	ELWOOD S. FAULS
Make of radio	RADIO SERVICE ENGINEER
Charges \$.....	323 Carpenter Street
	Oneida, New York
Member Radio Manufacturers Service	

RADIO MANUFACTURERS SERVICE



Philadelphia, Pa.

October 2, 1934

TO ALL MEMBERS OF RADIO MANUFACTURERS SERVICE

During the month of September many thousand Radio Manufacturers Service members attended meetings held at headquarters in their community.

We believe that these meetings were very helpful explaining the aims and purposes of Radio Manufacturers Service. Also, the description of High Fidelity Radio was of great interest to everyone in attendance.

These meetings certainly proved one thing to us and that is, the radio service men who are members of Radio Manufacturers Service are in general just as high a type of business man as those in any profession you might compare them with.

There has been a lot of talk and magazine articles about servicemen not doing satisfactory work and not caring whether the repair was permanent or not. Many claims have been made that if a repair job lasts three or four months it is good enough to satisfy the service man.

After talking to thousands of Radio Manufacturers Service members, we are convinced that they, at least, do not feel that way.

We are worried however, about the situation in connection with replacement parts. It is extremely difficult for anyone without very elaborate equipment to pick out or distinguish between high quality parts and low quality parts. For instance, two electrolytic condensers might look exactly the same and both might be used in a radio set and make that radio play satisfactorily. The Philco condenser which, perhaps, costs you \$.75 will have from two to three times as long life as the other condenser that you were able to buy for as low as \$.60.

The statement made above is an actual fact. We believe that quality in the parts used on a service job is just as important as careful work by the man using those parts. We know from the results of a tremendous amount of engineering experience and tests that cheap parts, even though they check the same when new, will not give the same life as quality parts.

You can raise the standard of your work and, therefore, of your reputation by using Philco parts for all your service work, and advertising this fact to the public. If you do this they will have more confidence in you and in your work and, therefore, you will get more work and make more money.

Don't forget that the slogan of Radio Manufacturers Service is, "More Service Jobs and More Profit."

Yours very truly,

PHILCO RADIO & TELEVISION CORPORATION

Robert F. Herr

R. F. HERR: MW

SALES ENGINEER

Philco's Condensers Are Built for Long Service

THE PHILCO Engineering Department recently received some samples of a competitive tubular paper condenser of a type and manufacture which is being sold to a fairly large extent on the Pacific Coast. These condensers are rated at 600-volt operating voltage.

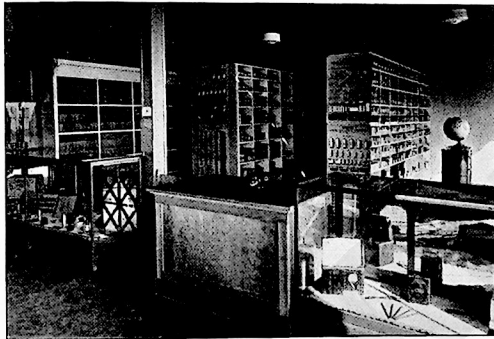
Three condensers were placed on the standard PHILCO life test for 600-volt condensers, which is 800 volts D. C. The .05 mfd. condenser broke down after two hours on test, the .25 mfd. condenser lasted 19 hours, and the .10 mfd. condenser failed after being on test for 45 hours. We

quote from the PHILCO Engineering Department report on this test:

"Conclusion: The condensers are very much overrated, as shown by the above tests. A good 600-volt paper condenser will stand at least 8,000 hours at 800 volts D. C."

PHILCO condensers, like all other PHILCO parts, are made of quality materials and are conservatively rated. We tell you about this test merely to show that an ordinary condenser does not begin to come up to PHILCO quality standards. Remember when you use a PHILCO condenser you can be assured of trouble-free operation.

R. M. S. Meetings a Big Success



Parts Store, Philco Northwest Distributors, R. M. S. Headquarters, Seattle, Wash.

THE month of September was service school month for practically every PHILCO distributor in the country. Members of Radio Manufacturers Service heard about the fall plans for advertising and about PHILCO'S big campaign to sell the services of the serviceman. There was every indication from the men in attendance at these meetings that more good was done this year than ever before in the past. The new Model 200X circuit description was given at the meetings and to those in attendance a free booklet was also given describing the complete 200X circuit, the method of adjusting the circuit, and a number of hints on the use of test equipment.

One of the points where interest ran high in Radio Manufacturers Service was in Seattle, where the Philco Northwest Distributors conducted a highly successful service meeting. On this page is reproduced a photograph of the Parts Department of the Philco Northwest Distributors in Seattle. We congratulate Seattle for their fine-looking Radio Manufacturers Service headquarters.

A Complete Line of Philco Wire for the Serviceman

HAVE you seen the new wire display board at your PHILCO distributor's?

There is a large board on display containing samples of every size and type of wire used by servicemen. A complete description of the wire is given on the board, and your distributor has all prices, which have recently been reduced.

This is not just another wire assortment, but it represents the results of PHILCO'S years of engineering work in developing a complete line of wire for use in PHILCO sets for all climates and weather conditions. All of this wire is now available for the first time in convenient form to all servicemen for use on all types of radio receivers.

Don't fail to see PHILCO'S complete wire line and to take advantage now of the new low prices.

PHILCO WIRE SIZES AND TYPES	
LISTED BY PHILCO Research Laboratories in Their Radio Engineering Department Under the Direction of Dr. Wm. C. Coker, Director, Seattle, Wash., U. S. A.	
Group 1 - ANTENNA WIRE	...
Group 2 - LEAD-IN and TRANSMISSION WIRE	...
Group 3 - INSULATED CONNECTING WIRE - SINGLE CONDUCTOR	...
Group 4 - INSULATED CONNECTING WIRE - STRANDED	...
Group 5 - Tinned COPPER BUNA WIRE	...
Group 6 - BARE COPPER WIRE - STRANDED - BREAD BOARD TYPE	...
Group 7 - STRANDED COPPER WIRE - SINGLE	...
Group 8 - FIVE AND FOUR CONDUCTOR WIRE - SHIELDED CABLE	...

PHILCO WIRE DISPLAY BOARD

Radio Manufacturers Service Members:

DO YOU KNOW . . .

that the fall advertising and sales campaign of Radio Manufacturers Service is producing a marvelous return for the advertising serviceman?

. . . that Boake Carter is telling the radio public and your customers to call upon Radio Manufacturers Service members for competent advice and service?

. . . any other organization that is nationally advertising for the serviceman?

. . . that Radio Manufacturers Service is the largest radio service organization in the world?

. . . that your business will be definitely improved by your identifying yourself as a member of Radio Manufacturers Service?

Questions and Answers

1 Q. What is the quickest way to test for shorts or leakage in compensating condensers?

A. The high-voltage secondary winding of the power transformer can be connected in series with a 25-watt lamp and equipped with a pair of well-insulated test prods. When the power is turned on, the prods can be touched against the terminals of the compensating condensers. In many cases dust is present between the plates. The high voltage will usually burn off the dust. In some cases minute particles of metal get in between the plates of the condensers at the edges and cause intermittent shorting. High voltage will eliminate these troublesome particles. The high-voltage test can also be applied to tuning condensers and serves as a quick and positive method of removing particles between the plates of the condenser. Great care, of course, must be exercised when making this test not to come in contact with the high-voltage terminals.

2 Q. Have there been any recent improvements in the volume control construction of the new PHILCO models?

A. Yes. The small spring washer inside the control which serves to make constant pressure between the rotating arm and the carbon element has been improved. The later type controls can be identified by the code number on the outside of the volume-control case. Everything above code number 4200 is of the improved type, which affords a

constant trouble-free contact between the rotor and the carbon.

3 Q. What is the effect of reversing the "A" battery connections in the PHILCO battery receivers?

A. This reversal causes a big increase in "B" battery current drain. The normal "B" battery current of the PHILCO Model 38 is approximately 11 milliamperes. When the "A" battery connections are reversed the "B" battery current goes up to 17 milliamperes. Great care should be exercised at all times when connecting battery sets to be sure that the polarity of the "A" battery is correct.

4 Q. Can the Model 89 be improved in performance by changing the type of detector oscillator tube?

A. Yes. More stable performance can often be obtained, particularly in humid climates, by changing the type 36 detector oscillator tube to a type 77 tube. The change necessitates the use of a six-prong socket instead of the five-prong socket. It is necessary to redrill the two mounting holes in the chassis in order to take the six-prong socket. The only circuit changes which are necessary are the cathode resistor of the detector oscillator circuit, No. 10 in the wiring diagram of Service Bulletin No. 146. This is changed to 8,000 ohms, PHILCO Part No. 31-1114; and a by-pass condenser, No. 8 in the wiring diagram (.09 and .0007 mfd.), changed to Part No. 8322-B (.09 and .0014).

JAS. S. REMICK CO., INC.

909 Twelfth Street

Sacramento, Cal.