

PHILCO SERVICEMAN

• RADIO • MANUFACTURERS SERVICE • NEWS •

FEBRUARY, 1934

What the Servicemen Think of Radio Manufacturers Service

EVERY DAY letters are received at the Philco factory from members of Radio Manufacturers Service advising Philco how much Radio Manufacturers Service has meant to the serviceman.

Radio servicemen in all parts of the country, wherever Radio Manufacturers Service has been established, have agreed that the plan is the finest idea yet developed for the assistance of the serviceman and for the establishment of a higher quality of radio service work. We reproduce on this page three letters which have been received from men in three different territories. We want to hear from those of you readers who are members of Radio Manufacturers Service and to know just how you feel about Radio Manufacturers Service.

IRA HARPER
ALL KINDS OF RADIO AND ELECTRICAL WORK
HURLOCK, MARYLAND
December 31, 1933

Philco Radio & Television Corporation
Philadelphia, Pa.

Dear Sirs:

Just a letter to let you know what I think of your "Radio Manufacturers Service".

If I wrote all day I could not tell you what it has meant to me. Before you put this service into effect it was very hard for me to get any parts for your radios. Now since the plan has been put into effect I find it very easy to get parts which mean quicker service to the owner of the radio and a much better satisfied customer. There is one thing I have found out. That is, that you must give service to a customer if you want him to continue to bring his work to you also if you do this he will recommend other people to bring their work to be repaired. By putting into effect this plan I find that it has greatly helped me in this effect. May I ask that you continue this plan for many years to come not only for your advantage but also for the radio industry as a whole.

Yours truly,
Ira Harper

EXHIBIT 8347

Albert M. Haas
Radio Engineers
INSTALLATION REPAIRING SERVICE
2254 MARKET STREET
PHILADELPHIA, PA.

January 15, 1934.

Philco Radio & Television Corp.
Tioga & 30th Streets
Philadelphia, Penna.

Gentlemen:-

I wish to take this opportunity of thanking you for the fine work you are doing for the radio service men through the Radio Manufacturers Service Plan.

Since joining this organization we have secured a considerable amount of service work which we gotten entirely through your efforts and the splendid co-operation of the Motor Parts Co., your distributor for this territory.

We are convinced that this organization will further the interest in better radio reception and will promote better and more reliable service work and repair and most important, establish uniform rates for labor and service.

Again thanking you for your service date and wishing you continued success, I remain,

Yours truly,
Albert M. Haas
ALBERT M. HAAS

AMH:EM

PHILCO RADIO & TELEVISION CORPORATION
PHILADELPHIA, PENNSYLVANIA

Harley Tobin Co.
FURNITURE, FLOOR COVERINGS
CLOTHING, JEWELRY
RADIO
TRENTON, N. J.

January 16, 1934.

Philco Radio & Television Co.,
Philadelphia, Pa.
-Attention Mr. Jackson-

Gentlemen:

We are writing to you expressing our appreciation of your innovation of the Radio Manufacturers Service.

We are enclosing our service ad of January 6th and are prouding these ads widely in the Trenton Times Newspaper. Since the introduction of the Radio Manufacturers Service we have experienced an increase in service work and found our competition much clearer. The fact that we have had to add an extra service man is sufficient proof.

In regards to your Philco replacement parts and tubes, we are recommending them highly, due to our past satisfaction with them.

We firmly believe that within the next year the public will demand this service, due to the constant plugging of Moose Carter, plus national and local advertising.

In closing, let us say again that the results of the above have been very gratifying and the future, we believe, holds much greater profit for us all.

Yours very truly,
Robert L. Kelly
RADIO MANAGER

ELK:ED
Enclosure

R. M. S. Members Install Philco 3-Purpose Antenna Systems

IMPROVES PERFORMANCE • • • REAL PROFITS

Poor Aerials Ruin Reception

THERE are thousands of radio sets in your locality operating, or trying to operate, under the handicap of an antiquated, corroded, hastily erected or makeshift antenna. Many antennas put up years ago have not been touched and are little better than no antenna at all. Other fine new radios are handicapped by using either an old corroded aerial or no antenna, but a small piece of wire.

The Philco 3-Purpose Antenna System installed in a home where such an aerial has been used improves reception so much that the customer really hears the difference.

Poor Aerials Lose as Much as 40% of Signal

Many dealers when they sell sets tell their customers that because it is a new set it does not need an aerial, or tell them to hang a piece of wire from the antenna post, and sets are operating today with this kind of equipment on them. Even in those places where the owner had an aerial, the lead-in wire loses as much as 40% of the signal which is picked up by the aerial. This loss results in poor sensitivity and very poor performance from the radio. The reason for these losses is that an ordinary lead-in at high impedance quickly loses the signal to surrounding materials. These losses in the lead-in are eliminated in a 3-Purpose Antenna installation.

Man-Made Static Ruins Reception

In thousands of cases where an apparently satisfactory antenna is used, reception is utterly spoiled by the presence of excessive interference noise caused

by the operation of electric appliances, flashing signs, motors, trolley cars, etc., in the neighborhood. The wonderfully improved broadcasts now available are ruined. Result, the owner loses interest in radio, stops using his set, and will not spend money on it or on any other.

A Philco 3-Purpose Antenna System would eliminate this interference and renew his interest.

Radio Owners Can Have Up to Four Sets Operating on a Single 3-Purpose Antenna

Outlets upstairs, downstairs, in the dining room or in different apartments of an apartment house can be made on a single antenna system. Up to four outlets work satisfactorily.

You Can Use as Much as 500 Feet of Transmission Line on a 3-Purpose Lead-in Without Loss of Signal Strength

Philco transmission line may be neatly fastened against the wall, using nail-on knobs and tacked down securely against the baseboard inside the house. In most installations it is best to run the transmission line through the cellar and up into the house at the point desired.

Philco 3-Purpose Is a Complete Aerial System

The kit includes antenna and set transformers, 50 feet of transmission line and a complete aerial, including aerial wire, insulators, lightning arrester, ground clamp, ground wire, porcelain tube, nail-on knobs and window lead-in strip.

YOUR COST \$3.60, INSTALLED PRICE \$10.00 UP

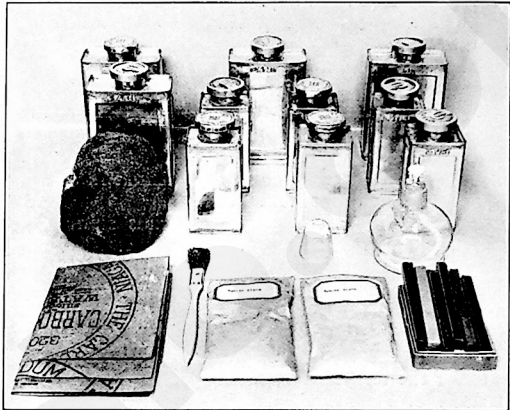
Depending on materials (poles, etc.) supplied by serviceman

Every Radio Owner In Your Locality Is A Prospect

A New Furniture Touch-up Kit

AT THE request of many dealers and servicemen, Philco has prepared a new cabinet touch-up kit containing all of the necessary materials for retouching and refinishing radio cabinets. In the kit are such items as lacquer, sealer, touch-up wax and the various materials that are required to do a good touch-up job on any radio cabinet. The quantities are sufficient to last the average dealer at least a year, and any items in the kit which require replacement can be readily obtained from your Philco distributor. The kit is known as part 45-1033, and sells at a net dealer price of \$10.35. Every dealer and serviceman who has occasion to do furniture refinishing of any kind

should have one of these complete Philco kits. Order from your Philco distributor now.



Parts Standards, Quality and Tolerances

TO THE experienced manufacturer, high quality and close tolerance mean a better product, but to the inexperienced they mean higher costs. The standards by which the quality of every Philco part is judged are established and maintained in production by the Philco Engineering Department. The tremendous quantity production of Philco permits the manufacture and sale of these high quality parts at prices which are no higher than ordinary parts.

The phenomenal success of Philco Radio is due largely to Philco's policy of using high-quality materials, holding to close engineering tolerances and making operating ratings conservative. A Philco condenser which may be rated at 400 volts operating voltage, for example, is actually tested for a long period at 800 volts, and will probably operate indefinitely at 600 volts. Many of the Philco R. F. and oscillator coils are held to tolerances within a half turn in fifty. You can be assured that the per-

formance of the set is going to be better because of these close standards. Average commercial tolerances of wire-wound resistor values in radio sets vary from two per cent to twenty per cent, depending upon the use in the circuit, but never in Philco resistors will values be found anywhere near the maximum variations.

Philco parts that are sold for general replacement work are held to the same rigid inspection standards as all other Philco parts. When you use Philco parts you can believe the label and can depend upon the quality.

A CORRECTION

In the first Radio Manufacturers Service lesson—"Complete Instructions for Adjusting All Philco Receivers"—there is a typographical error on page 27 under No. 2. The figure 18.8 megacycles should be changed to 10.8 megacycles.

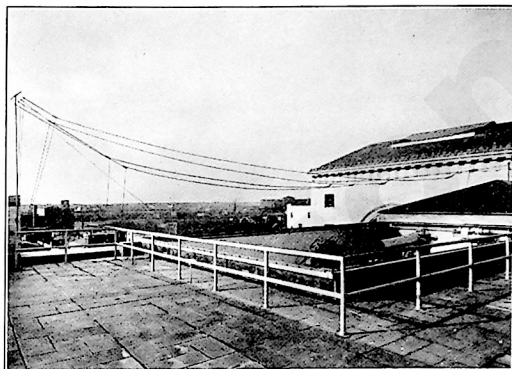
Also on pages 2 and 20, the I. F. of Model 90 (with 1-47 tube) is wrongly listed as 260 K. C. This should be 175 K. C.

Franklin Institute Has Philco Antenna Installation

AN EXTREMELY interesting antenna installation has just been completed by Philco engineers in the newly opened headquarters in Philadelphia of the Franklin Institute, the oldest scientific organization in the country.

The Philco Three-Purpose Antenna System and the Philco Short-Wave Antenna System have been installed after careful consideration on the part of Franklin Institute engineers. The illustration on this page shows the arrangement of five different antennas, which are in constant use for the various radio activities of the Institute. It will be noted that there are three short-wave antennae and two Philco Three-Purpose Antennae.

The method of supporting the aerials is unusual, since the entire aerial structure is suspended from only three points. An eyelet on the far end of the building is used for supporting the various wires running from this point over to the opposite sides of the building. One aerial is used for a short-wave receiver in the astronomical section of the Institute for the reception of time signals. Aerials No. 2 and No. 3 are used in the electrical communication section for special demonstrations of standard broadcast reception. Aerials No. 4 and No. 5 are used in similar demonstrations in the museum



Aerial Installation at Franklin Institute, Philadelphia.

for short-wave receivers. The ends of the wires at the mast are supported on a three-foot spreader. Because of the wide angle at which these wires radiate from this position, it was possible to obtain sufficient spacing between the wires beyond the points at which the insulators were placed to prevent interference from adjacent wires.

Questions and Answers

1 Q. What is the best recommended length of antenna for use with the short-wave models?

A. Height rather than length is much more important for short-wave reception. In most cases it is found that a horizontal aerial twenty-five feet in length will give just as good performance on short waves as an aerial one hundred feet long. If the aerial is high, the shorter length would give excellent performance. It is also essential that the lead-in wire be as short and direct as possible. The lead-in which passes near a number of grounded water pipes or electrical wiring will give a loss in signal strength.

2 Q. What are the possible causes of microphonic noise in the short-wave models?

A. The most common reason for this trouble is failure to loosen the chassis hold-down bolts. It is much more essential with a short-wave receiver than with a broadcast receiver to have the chassis floating entirely on rubber. There must be no contact between the shafts and the cabinet or

between any part of the chassis and the cabinet. The tuning condenser must likewise be floating on rubber in the chassis. Any direct contact between the tuning condenser and the chassis may produce microphonic howl. The second most common reason for this trouble is a microphonic tube. It will usually be found either in the oscillator, the first detector or the first audio. The high-frequency grid wiring from the wave change switch can produce microphonic noise due to vibrations producing small capacity changes in the circuit. Ordinarily, a small change in the position of these wires will affect the amount of noise in such a way that the offending wire can easily be located. It is important that these wires be moved only a small amount, for otherwise the sensitivity of the receiver may be effected. Vibration in the compensating condensers will cause a microphonic noise. Occasionally one of these condensers is found with a slightly loose, movable plate. This plate will vibrate in such a manner as to produce the small capacity changes which effect the microphonic noise.

JAS. S. REMICK CO., INC.

909 Twelfth Street

Sacramento, Cal.