

# PHILCO SERVICEMAN



Service News For Philco Servicemen



VOL. I

NOVEMBER, 1950

NO. 1

EDITORIAL . . .

## Philco Service Expanding Membership

The present political and economic unrest throughout the world is creating a condition of vital interest to every serviceman.

Notwithstanding recent defense production and manpower demands for the Armed Forces, record breaking television receiver production has created a vital need for more and more highly trained radio and television servicemen. This condition creates a personal problem for those Philco Servicemen who remain at home to service Philco consumer products. Without relaxing the high standards of membership that have made PHILCO SERVICE tops in the industry, the burden falls upon those of us who remain at home to help recruit new members. If PHILCO SERVICE is to maintain its enviable record of quality servicing at reasonable prices, new, qualified members must be channeled into our organization to fill in the gaps created by those who have been assigned to new duties because of these recent developments.

Membership in PHILCO SERVICE carries with it the distinction and prestige of an organization world-renowned in the electrical appliance field.

A PHILCO SERVICE membership provides the serviceman with the most up-to-date technical manuals, training literature, and timely trade topics available. On-the-job training and assistance whenever a tough problem arises, is also available at the LOCAL PHILCO SERVICE HEADQUARTERS maintained by Philco Distributors. Service classes and meetings conducted regularly by the Distributor's Service Manager also help to keep members informed of current developments in the industry. In addition to this unequalled service training, the Philco Serviceman is solidly backed by a tremendous advertising and mer-

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## FASTER SERVICE WITH EXTENSION CABLES

The advent of Philco's new dual chassis television receiver has further emphasized the need for both flexibility and mobility on the television service bench. The use of extension cables to facilitate time-saving troubleshooting, has been proven time and time again in many a well equipped service shop. For your advantage the following stock items are available and may be secured through your local distributor to permit easy assembly of extension cables.

1. Deflection Plug and Cable Assembly ..... 41-3860  
2—Octal Socket and Cable Assemblies ..... 41-3777
2. Chassis Connection Cable Assembly ..... 41-3975
3. Picture Tube Cable and Socket Assembly ..... 41-3772  
Picture Tube Base Plug ..... 54-4571-1
4. 2—High Voltage Cable Assemblies ..... 41-3777-11

(See Figure 1)

The Picture Tube Cable is about 28" long. If a longer cable is desired it will be necessary to splice in lengths of wire of the desired length. The Octal Socket and Cable, Part No. 41-

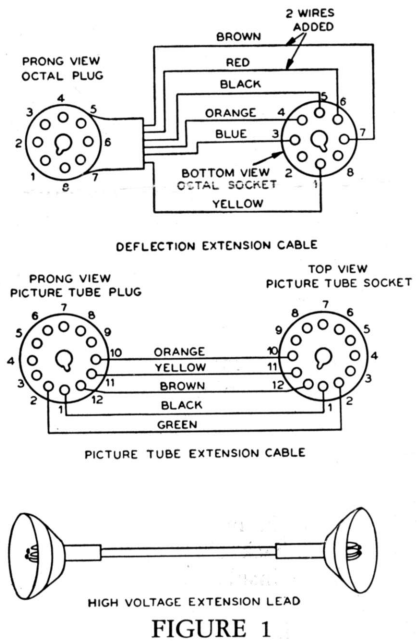


FIGURE 1

3777 is supplied only with 4 wires connected to the socket. It is necessary to rewire this socket so that pins 1, 3, 4, and 5 have connecting wires on them. It is also necessary to add 2 lengths of wire to pins 6 and 7 to

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### An Old Friend Returns

## REVIVAL ISSUE of the PHILCO SERVICEMAN

*Do You Remember?*

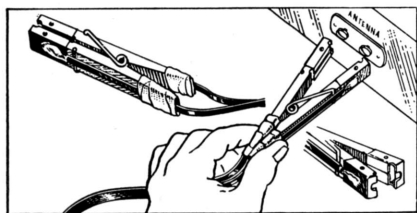
Philco first introduced this publication, designed exclusively for servicemen, in February, 1932. In July of 1933, Philco announced the formation of the first World Wide organization of appliance servicemen the RMS (Radio Manufacturer's Service).

This information packed publication was sent to every member of RMS every month until World War II brought about the curtailment of appliance production as well as a great many changes of address for RMS members.

Since the war, PHILCO SERVICE has succeeded RMS, but a great many old timers *did* remember and have repeatedly asked us to bring back the PHILCO SERVICEMAN.

OK, fellows, it's back . . . back to stay! We hope you will enjoy every page every month. It's all yours . . . so let's hear from you on just what you would like to have it contain.

## QUICK ANTENNA CONNECTOR CAPTURES \$10 AWARD



There's a \$10 check Ohio-bound that will come in mighty handy around Christmas time for Karl G. Rau of 507 N. Broadway, Medina, Ohio. Karl rates this month's award for his handy antenna connector for temporarily connecting an antenna line to the antenna terminal strip of a television set.

Karl's antenna connector is easily constructed by taking an ordinary spring type clothespin and nailing pieces of sheet metal to each side of the head of the pin. Be sure to drill the holes before inserting nails to prevent splitting the clothespin. Notch the inside of the metal tips as illustrated. Then split a length of twinex wire about six inches down the middle. Skin back about 3/8ths of an inch of the insulation on each tip of the separated twinex. Fit the wire on the clothespin so that the skinned back edge is lying flat on the outside of the metal tips. Now solder the bare wires to each side of the metal, making sure that the exposed wires do not touch the metal clothespin spring. Tape the separated twinex to each side of the opposite end of the clothespin.

That's all there is to it! And, in addition, from PHILCO SERVICE Television Headquarters comes this further use for the antenna connector: "by adding notches on the side of the metal pieces, connections can be made with the clips vertical as well as horizontal."

Now, why not start the new year

### NOTICE

If you have a suggestion for the \$10.00 Philco Idea Award, a question for the Question and Answer Department, or some ideas, opinions or comments concerning our publication, please continue writing to us at:

Philco Corporation,  
P. O. Box 6738,  
Philadelphia 32, Pa.

off right by sending in your service short cuts. You'll be doing yourself a financial favor as well as helping your fellow Philco members. There are plenty of \$10 checks waiting for you!



### Glad to Have You Aboard

This month we welcome many new members of PHILCO SERVICE in the electric range category. For those of you who have taken advantage of this new service opportunity, you will find in your envelope this month the complete service and parts information on our great 1950 line of Philco Ranges, which we are sure you will find very useful. We hope that those of you who have not as yet signed up with your local Philco Distributor's Service Manager for this new category will see fit to do so in the near future and thereby increase your versatility by becoming an all-product Philco Service Member.

### Faster Service

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make a total of 6 wires connected to pins 1, 3, 4, 5, 6 and 7. Splice the ends of the wires from the Octal Socket assembly to the ends of the wires from the Deflection Plug and Cable Assembly. It is suggested that an ohmmeter be used to check for correct pin-to-pin wiring before connecting the cables to the plugs and sockets. To make the interconnecting chassis cable to be used with the dual chassis receiver it is necessary to wire in 4 additional lengths of wire to the octal socket so that all pins have connecting wires. To make up the High Voltage Extension Cable unsolder one of the connectors from a high voltage cable and resolder to the end of the other cable. By expanding the spring fingers the connector can now be made to lock on to the lead from the chassis under test, making a simple, safe connection. The extension cables when fabricated from the above items can be used to help service any of the Philco Television Receivers made in 1949, 1950, and 1951, and those receivers made in 1948 which use an eight-pin deflection yoke socket.

## Warranty Means Security

The word "security" is an important word to all people in all walks of life. To your customers, when applied to a product purchased, the term used denoting security is "warranty"—assurance that a product or labor purchased is as represented.

Some dealers and service people have looked upon "in warranty service work" as a necessary evil in their business. Nothing could be farther from the truth. *Free* service rendered to your customers during the warranty period is "making your word as good as your bond". This establishes a confidence in you with the customer that is not easily shaken and future business is almost positively assured. Giving good service graciously is one of your best business builders, as the kind of service rendered on any product is always a subject for discussion wherever and whenever people gather.

We at Philco, through many years of careful study, have written our warranties based on what we know to be actual failure time on electronic and mechanical devices due to inherent defects in components.

For devices such as radio receivers, television receivers, and allied elec-

tronic products, carefully kept records show that failures in electrical components (due to defects) usually occur within a few hours after the product is put into operation. Very rarely does a defect failure occur after 30 days. To fully protect the customer and the service trade, we add 60 days to this and warrant these items against defects for 90 days. It is possible, after this period of time, for carelessness, normal wear, or electrical abuse to begin to take their toll of parts and tubes used in such devices and, consequently, the service trade must be protected against giving away parts and labor on which they are rightfully entitled to a profit.

Devices such as refrigerators, freezers, air conditioners, and ranges are primarily mechanical. They do not contain the electronic components in quantities as outlined under radio and television. Extended studies again show that defects, as such, occur in the first few hours of operation; however, these devices are not as susceptible to failure from neglect, normal wear, or electrical abuse as their electronic running mates, and the protec-

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## Visual Alignment of FM Receivers

At the Philco Convention in Atlantic City, six new AM-FM receivers were introduced to Philco Dealers and Distributors.

By this time all Radio Service Members have received their copies of these manuals and will note that the alignment procedure given in the manuals is slightly different from the type of information contained in previous manuals. Earlier FM alignment procedure outlined an AM method due to a shortage of FM generators and oscilloscopes following the war. We now believe that all Servicemen should have available an FM generator and oscilloscope in their shop. Those of you who handle television will find the Model 7008 alignment generator that you use for TV will be ideal for FM alignment. To servicemen who have not had FM alignment experience, a fuller explanation of the discriminator curve as shown on the oscilloscope may be in order.

Figure 2 shows a picture of the FM discriminator curve that you will

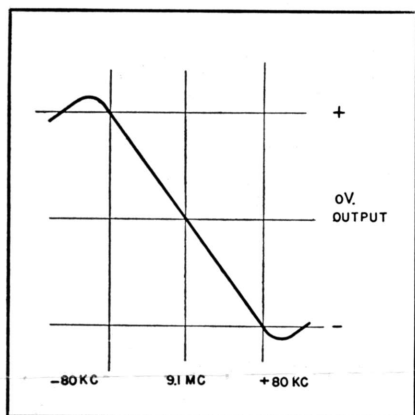


FIGURE 2

obtain on your oscilloscope when the FM receiver is properly aligned. In order to obtain this picture, you should inject a signal of 9.1 mc. with a deviation of plus or minus 80 kc. in the grid of the converter tube as directed in the service manual. The oscilloscope should be connected between ground or B- and the FM test jack. First, the discriminator secondary is adjusted for proper crossover. The proper crossover point is that point where the sloping portion of the discriminator curve crosses the sweep line at the center of the oscilloscope screen.

The next adjustment is for maximum, equal, and symmetrical peaks

## Philco and the Serviceman

Seventeen years ago, Philco announced "A New Deal for the Radio Serviceman—The Greatest Service Organization Ever Known—Radio Manufacturers' Service, A Philco Service Plan". That month the PHILCO SERVICEMAN carried an editorial entitled "Philco and the Serviceman". Quoting again, this editorial stated that "Philco has always been a friend of the serviceman and has tried in every way possible to assist him". "It is Philco's intention to continue its policy of active support and assistance to the serviceman."

Seventeen years ago, the problems confronting the industry involved unfair competition of "gyp" repair men who offered cut price repairs to secure business. The public had lost confidence in poor workmanship which was the result of low prices and inadequate technical help from manufacturers.

For seventeen years, Philco has carried out a consistent year-round program dedicated to the needs of the service industry. Since that time Philco has adhered to its original and consistent objectives. These are:

1. Recognition of the service profession as a major element in the industries we serve.

2. Promotion of, and encouragement to, all dealers in the trade to provide service for the products that they sell, either through their own service department, or by arrangement with authorized members of PHILCO SERVICE.

3. Continuing and constant training and technical help for the daily work on the products being serviced.

4. Full utilization of all of the trained manpower available by direct encouragement and guidance to retailers who decide to set up their own service departments. A similar and equally strong program to secure fair and equitable dealings between dealers and independent servicemen and contractors who engage in dealer service on a yearly, monthly, weekly or by-the-job basis.

These are the principles that have carried PHILCO SERVICE to its present consumer-accepted position. They are the principles Philco will continue to apply for the benefit of our service members and their stake in the future of the electrical appliance field.

on each side of center and is attained by adjusting the discriminator primary. You should then work backwards towards the converter, adjusting first the secondary and then the primary of each successive IF for maximum and equal peaks. Care should be taken during the FM alignment not to overload the stages as an erroneous indication will be given. This may easily be checked by attenuating the signal generator output and noting the action of the curve. If the curve breaks up or in any way changes form rather than in size, the stage has been overloaded and should be realigned with a lower signal input.

Reference to the Service Bulletin will show that the RF alignment is accomplished by the usual AM method, however, it is of interest to note that all Philco FM receivers are now designed so that the oscillator is on the high side of the signal in order to reduce television interference problems. We think you will see from the information given above that this new method of aligning FM receivers is easier and more practical than the complete AM alignment which we had to use in the early days of FM.

## WARRANTY MEANS SECURITY

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tion for the service trade is not needed until after one year.

Philco warrants these products for one year from date of purchase to the original owner with an additional four years on sealed units, as used with refrigerated devices. This one year does not work a hardship on the service trade, dealer, distributor, or factory and is an additional selling aid for sales people.

It is a privilege to handle your warranty obligation. It gives your customer confidence. It enables you to display your prowess at handling a problem where it can do the most good for you. It allows you to enter your customer's home where you can make a real friend for yourself or for your company. Treat these obligations as privileges and you will reap the benefits in the form of more business in the future.

## Good Habits In Refrigerator Installation

So that Philco customers may enjoy good results from their refrigerators, we believe the following information will be very beneficial to those concerned with the installation and service of Philco Refrigerators.

It is very easy to lose sight of a refrigerator, which has just been delivered and left to the whim of the customer to install. Careful installation by servicemen can reduce callbacks, nuisance calls, general complaints of poor performance and much customer dissatisfaction to a minimum. After uncrating, careful delivery to the customer's home is essential. Prior to moving the refrigerator into the customer's kitchen a survey to determine the proper location should be made. During this survey there are a few very important points to remember. It should be borne in mind that the refrigerator should be kept away from an uninsulated stove. It should not be placed in an alcove where air circulation around the refrigerator would be greatly restricted. Having decided on the correct location, the next step should be the proper leveling of the refrigerator. All "E" line Philco refrigerators come equipped with four leveling feet, which can be easily adjusted up or down to get the refrigerator cabinet on the floor. A simple check to see if the cabinet is leveled can be made by opening the refrigerator door. If it will stay in any position from partially closed to fully open without swinging, of its own accord, the refrigerator is leveled. Proper leveling of the refrigerator facilitates operation of the food compartment door letting it remain at any position so desired by the user. Another important factor is door seal, and this should be checked very thoroughly at the time of installation. An easy, on-the-spot method of checking this is to put a short piece of paper between the gasket and cabinet flange. Shut the door and a slight resistance will be felt in trying to remove the paper.

Another important phase of the installation is to make sure the customer thoroughly understands the operating procedures for her new Philco refrigerator. Give her the new instruction book that is furnished with each Philco refrigerator and which shows in detail all the customer should know to fully understand and satisfactorily operate this product.

## PHILCO AUTO RADIO FOR 1950

The three new auto radios announced by Philco recently have some new interesting features that we would like to tell you about. First, the identity of the sets are as follows:

Model 501—a six tube, single unit, universal type set with built-in speaker—manual tuning only.

Model 503—a six tube, manual tuning set, with separate speaker and adaptable to custom installation with suitable mounting plate.

Model 505—a six tube, manual or push button tuning (1 manual and 4 preset buttons), separate speaker, custom installation like the model 503.

All of these sets have unusually small dimensions and can be mounted in several positions due to a versatile dial so as to make for easy installation even in today's lack of space in the automobile. Speaker and bezel kits for the particular car have the necessary mounting hardware for that particular car.

Circuit-wise, a new item is used on all three sets—a three gang permeability tuning unit. This is a sealed unit which should result in a minimum of trouble and is so constructed that it is easy to replace if necessary. This type of tuning results in excellent sensitivity and selectivity so desirable in an auto radio.

We have a couple of suggestions to offer on the installation of the model 503 or 505 in the Chevrolet car in addition to the information in the installation manual. Due to variation in the space between the instrument panel and the firewall, some interference may result with the windshield wiper motor. Even in the tightest cases, we have found that the motor will clear if care is taken to push the front bezel *up* as far as it will go before tightening the set mounting nuts. Also, the back mounting strap can be pulled down slightly to improve the clearance.

The back mounting strap does not have to have a hole drilled for it, if a self-threading screw is removed from the steering column plate (engine side) at this point. Use a bolt nut and lockwasher to secure the strap at that point.

## QUESTIONS and ANSWERS

Starting with the December issue of the Philco Serviceman, this department will become a permanent feature.

If you have any questions on service that are troubling you, write to us c/o Philco Corporation, P. O. Box 6738, Philadelphia 32, Pa., and we will make every effort to publish the answers to your questions, or answer them by mail.

## Philco Service Expanding Membership

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chandising program each year, as well as by proved advertising aids prepared for use at the local level.

Requirements for PHILCO SERVICE membership are rigidly enforced, but are fair and within reason. The serviceman must display sufficient technical knowledge and experience to do quality work on the Philco products which he elects to service. He must have adequate facilities, including test equipment, to perform the quality service for which our members are famous. He must use original manufacturer's genuine replacement parts and guarantee both parts and labor for at least 90 days. And, he must charge fair and equitable prices for his work in accordance with local practices.

We know the story you have just read is a familiar one. As PHILCO SERVICE members you have lived that story, some of you for as long as seventeen years, and have benefited by Philco's far-sighted service program. And, as PHILCO SERVICE members you are best qualified to tell that story to potentially qualified servicemen in your territory. By telling your service friends of the advantages accruing from PHILCO SERVICE, you do them a favor as well as yourself. As the organization grows stronger and more widely known, so will your personal prestige grow. Tell your friends about PHILCO SERVICE and help increase membership in the biggest and best service organization the industry has ever seen!