

PHILCO

SERVICE and ACCESSORY

Merchandiser



VOL. 1

MARCH, 1949

NO. 8

MARCH PROMOTION FEATURES AUTO RADIO SERVICE

HERE'S HOW YOU CAN GET THIS PROFITABLE BUSINESS!

YOUR PHILCO DISTRIBUTOR IS READY WITH A RED HOT PROMOTION AND SPECIAL SALES HELPS YOU NEED TO ATTRACT ALL THIS TRAFFIC TO YOUR DOOR. THOUSANDS OF CARS NEED REPLACEMENT PARTS AND ACCESSORIES LIKE THESE:

- PHILCO VIBRATORS (Only Four Types Cover over 1,000 Auto Radio Models)
- PHILCO AERIALS (A Superior Performing Long Life Aerial for Every Replacement)
- PHILCO REAR SEAT SPEAKER

With Every 3 Purchased You Get ONE Additional at NO EXTRA CHARGE!

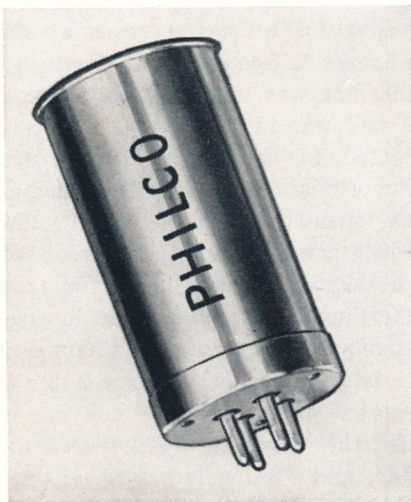
SEE YOUR PHILCO DISTRIBUTOR TODAY!



Philco Auto Aerials on Display—Perform better, sell better.

Terrific Plus Profits Offered In Philco Accessory 'Gold Rush'

March is officially the beginning of spring, and spring is the beginning of the nation's automobile driving activity. In every part of the country thousands upon thousands of car owners will be checking their vehicles this month, making certain they're ready for pleasure and business driving.



Philco Vibrator—4 types cover over 1000 auto radio models.

Don't Wait

This activity will mean business for you. But there is no reason why you must sit and wait for this business to come calling on you. Because the Philco Accessory "Gold Rush" promotion for March will make the motoring public drive right up to your door.

Get Those Nuggets

Yes, a gold rush promotion that includes more rich "nuggets" for you in the form of plus profits. For more auto radios than ever before now need service to put them in operating condition for the motoring months ahead.

Your Philco distributor is ready with the promotional material and
(Continued on page 7)



Philco Rear Seat Speaker Kits—Make driving and auto radio listening reach new highs in travelling pleasure. Easy to install, profitable.

See the new feature PHILCO FACTS on page 3.

Speaker Cone Warp Fix Suggested

From Portland, Oregon, comes a suggestion for fixing speaker cone warp caused by natural "drying out" of the cone. This method is suggested by Steve Beinberg, who says it may be used when the serviceman is primarily interested in *repairing*, rather than replacing the cone.

Center Cone

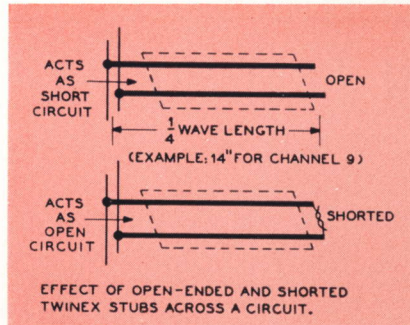
First, center the cone by "shimming," or placing shims between the pole piece and the voice coil. Then spray luke-warm water over the complete cone. This can be done with an ordinary atomizer or cheap spray gun.

Material Pliant

When dampened moderately in such a manner, the cone material becomes very pliant and, because of the equal pressure maintained by the shims, the cone reassumes its original shape. This method will generally remove all warp from the speaker cone, thereby eliminating the poor tone and rattle which might be caused by this condition.

UHF Principles Learned In Radar Help Chicago Serviceman Fix TV

Radar principles explain some television reception troubles, and recently a service report from Chicago brought one such interesting principle to light.



Because radar uses very high frequencies, short connections between terminals may have a resonant length; that is, the physical length of a conductor or pair of conductors may be a quarter wave length at the operating frequency.

If this occurs, certain peculiar things happen. For instance, an open-circuit stub (pair of parallel wires) appears shorted, while a shorted stub

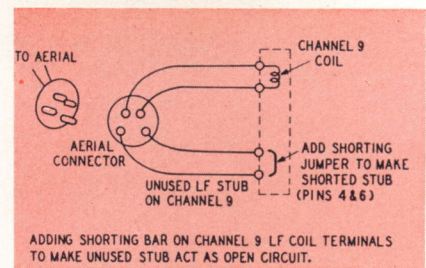
(far end shorted) appears at the connection end as open.

Theory Applied

This knowledge enabled an alert serviceman to locate the cause of the peculiar performance of a Model 48-1000 in Chicago. The performance on Channel 9 was very poor, yet the set operated normally on all other channels. The aerial consisted of a single dipole and leadin with jumpers connected across the aerial input terminal to allow operation on the high and low bands with the same aerial. It was noted that when the jumpers were removed from the low-band terminals, the performance on Channel 9 was normal.

Stub Action Revealed

Inspection of the input circuit revealed that the low-frequency line



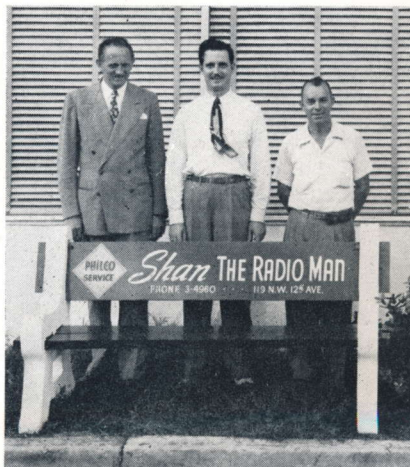
'BENCH WARRANTS' GET BUSINESS, NOT LAW, FOR PHILCO MEMBER

Florida is supposed to be a place for people to rest.

But there's no rest for the busy Philco dealers and servicemen who supply this area with famous Philco products and service.

The first to place his ad on public benches located at major bus stops and transfer points is "Shan, the Radio Man," who, with the help of his Philco Distributor, is using this effective idea for advertising himself and PHILCO SERVICE.

Many promotional ideas like this can be used profitably by yourself. See your Philco Distributor—he can help you.

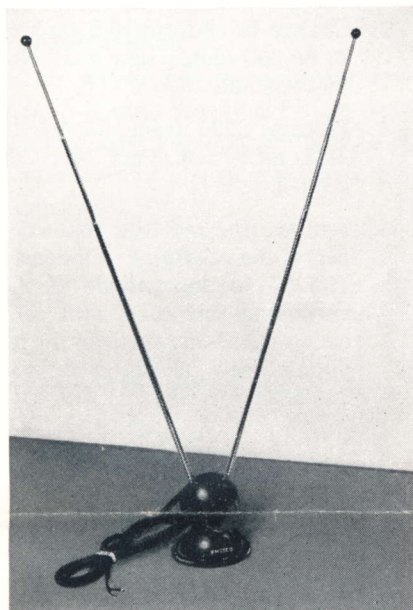


Shan Desjardines stands at the right, behind a bench promoting his name and PHILCO SERVICE.

from the aerial jack to the turret assembly was approximately the correct length for a quarter wave at the Channel 9 frequency. Even though this line was unused when Channel 9 coil was in position, it was connected to the leadin through the jumpers, and was evidently acting as an open-ended quarter-wave stub, which acts as a short, thus reducing the signal strength. By adding a shorting jumper across the low-frequency contacts of the Channel 9 aerial coil, the quarter-wave stub was shorted when Channel 9 coil was in use, thus reversing the action of the line, and making it act as an open circuit across the aerial-plug terminals.

Indoor 'V' Aerial Excellent for TV

A new indoor aerial for television receivers has just been made available by Philco. It's a new V-Type adjustable aerial which follows the style of adjustable auto aerials.



Heavily chrome-plated elements make for an extremely attractive appearance in any home. A black plastic base contains the knob for adjusting the angle of the "V."

Parallel pair transmission line with a pair of connection lugs are included to enable connection to the television receiver from any convenient location in the viewing room.

A large knob at the base locks the arms in any positioned angle from the horizontal. Variations in angle from 0 to 90 degrees are possible, to take advantage of any polarity changes of the television waves, and also for attractive, modernistic appearance as a furniture item.

They're excellent for use in strong signal areas. Order them by Part No. 45-9538 at your Philco Distributor.

New Auto Aerial Peaks New Car Radio Performance

Here's the latest in aerial improvements for the new and old automobiles—a powerful signal-puller for owners who want maximum signal strength and station coverage for their car radios.

It's the new Philco Long Distance Disappearing Fender and Top Cowl aerial, especially designed for the newest cars.

A special installation feature allows quick and convenient mounting. When extended, the heavily chromed aerial, constructed of admiralty heavy-duty brass tubing, reaches a full length of 100 inches.

The new aerial, Part No. 45-3032, comes complete with ultra-low-loss leadin and instructions.



'A Hot Promotion Makes PLUS Profits' Say 6 Dealers

One of the most successful dealer promotions we've heard of recently was pushed simultaneously by six dealers in different parts of Pennsylvania.

It all began when these dealers, all on their own initiative, felt that they would like to run a red-hot promotion, and dropped in at their Philco Distributor with the promotion thought in mind.

The Philco Distributor suggested running ads offering a free bottle of Philco refrigerator polish to every customer who came in.

"A terrific idea," said the dealers, and went ahead with the plan, assisted by their Philco Distributor in every phase of the promotion.



(Continued on page 7)

PHILCO FACTS

BUT I ONLY DROP IT ON

PLANT #3
ASSEMBLY LINE 12
NO SMOKING

MORE THAN 60 TONS OF SOLDER ARE USED EACH YEAR IN PHILCO MANUFACTURING OPERATIONS.

TWO AUTOMOBILES USED BY H.M. GUSTAV V, THE KING OF SWEDEN, ARE EQUIPPED WITH PHILCO AUTO RADIOS, MODEL CR-2.

EQUIPPED WITH TV

CAPITOL AIR LINES

AW, I JUST WANTED TO SEE THE FIGHTS!

RECENT SUCCESSFUL TESTS WITH STANDARD PHILCO TV RECEIVERS ON CAPITOL AIR LINES FLIGHTS HAVE RESULTED IN PLANS FOR MAKING TELEVISION A REGULAR AIR-TRAVEL FEATURE.

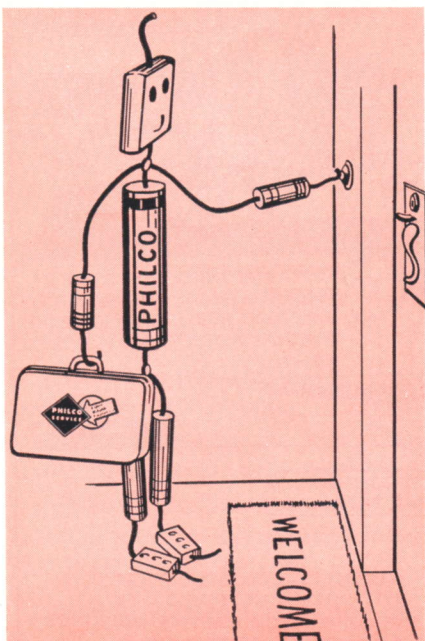
Home Recording Disc Sales Up

A renewed interest in home recording is putting Philco recording blanks on the "desired" list again.



It appears that the after effects of the war effort have calmed down enough for many people to begin a new interest in celebrating birthdays and holidays—and a new interest in

MIKE FARAD Sez:



"Promptness is nice—it's good business, too!"

Minor Changes Improve Linearity When TV Conditions Difficult

Servicemen in some areas have been troubled by erratic field conditions, such as low line voltages affecting vertical linearity on Philco Television Models 49-1040, Code 123, and 49-1240, Code 124.

Linearity-Height Balanced

Actually, the vertical linearity of these receivers is satisfactory for practically every viewer. Although the linearity can be improved by a few minor sweep-circuit changes, the engineered design contains components which yield the best vertical linearity consistent with sufficient height.

If desired, modification consists of four changes: increasing the value of the grid limiting resistor, R538; increasing the value of the charging condenser, C525; adding a resistor

making recordings of the goings-on.

Also, the present period is seeing an increase in the rate of family growth, and recording of child advancement on records is again gaining favor.

Philco recording blanks are especially designed for home recording. Unbreakable and fireproof, they're approved by Underwriters Laboratories.

See your Philco Parts and Accessories Catalog for complete information on the Philco recording blanks, along with the precision-made Philco recording needles.

INTERESTED

We're interested in receiving articles and photographs showing the activities of local servicemen's organizations throughout the country.

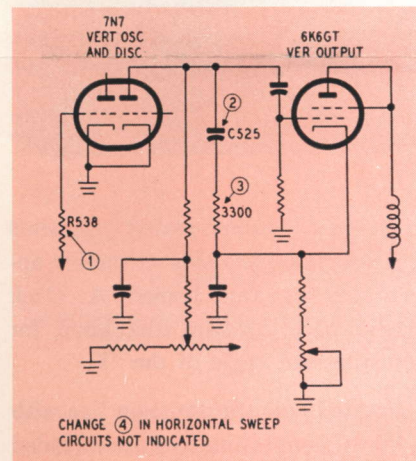
If you're a member of a service group, why not write and tell us about your plans, activities, and if possible, send a photograph of a meeting. We'd like to print it in the Philco Service and Accessory Merchandiser.

between C525 and the cathode of the vertical-output tube; and increasing the voltage on the vertical-discharge tube.

Changes Simple

These changes are made by the following steps:

1. Change R538 from 10,000 ohms to 68,000 ohms; new Part No. 66-3688340.
2. Change C525 from .05 mf. to .082 mf.; new Part No. 30-4651-3.
3. Remove the red lead that connects the charging condenser (C525) to the cathode of the vertical-output tube, and connect a 3300-ohm resistor in its place; new Part No. 66-2338340.



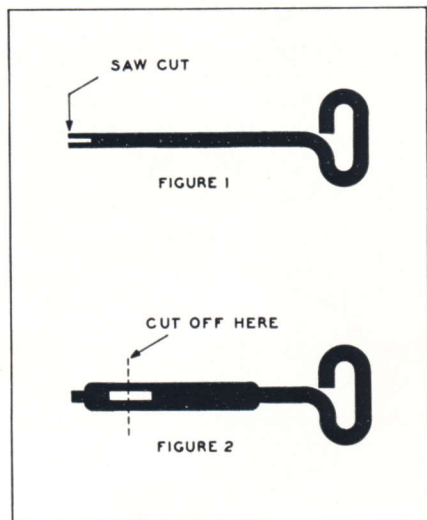
CHANGE ④ IN HORIZONTAL SWEEP CIRCUITS NOT INDICATED

4. Locate the red lead connecting the height control to the junction of R333 and R413. Cut this lead at the junction, and connect it to the terminal of the horizontal linearity control where the orange lead is connected. Locate the red lead connecting the height control to the junction of C521 and R513. Cut this lead at the height control, and connect it to the junction of R333 and R413.

After these changes are made, re-adjust the vertical height control and vertical linearity control.

Lowly Sardine Earns Serviceman \$10 Idea Check

It is said that some ideas are beautiful in their simplicity. And here's an idea which fits that description, sent in by David Gnessin of Columbus, Ohio, who is receiving a \$10.00 check in the mail for his letter.



Bending Tool.

"Here is my service kink, useful for those tricky all-wave receivers. It's a bending tool for band-switch contacts. Take an ordinary opener for sardine or coffee cans, place it in the vise, end up, then saw a quarter-inch slot in the end. Or you might take an opener with a slot already cut through the shaft, and cut off the end, giving the same effect. Either technique will provide you with a good bending tool.

"Whenever you find a band switch making less than positive contact, slip the notch of the tool about the loose contact and twist in the proper direction. The enormous leverage provided by the tool should now make an easy task out of what before was a gigantic task of forcing a needle-nose plier jaw into a space too small for it.

"I prefer as long a shaft as possible, bending it, if necessary in extreme cases, to fit the space available in the crowded switch assembly.

"Figure 1 shows the cut to be made in the wire to form the tool. Figure 2 shows the operation on a vacuum coffee-can opener. No dimensions are shown. Use what you have."

Idea May Hang on Wall 20 Years, But Grandfather's Clock Not Needed

Energetic dealers and servicemen—men with ideas—earn respect for themselves and the company they represent.

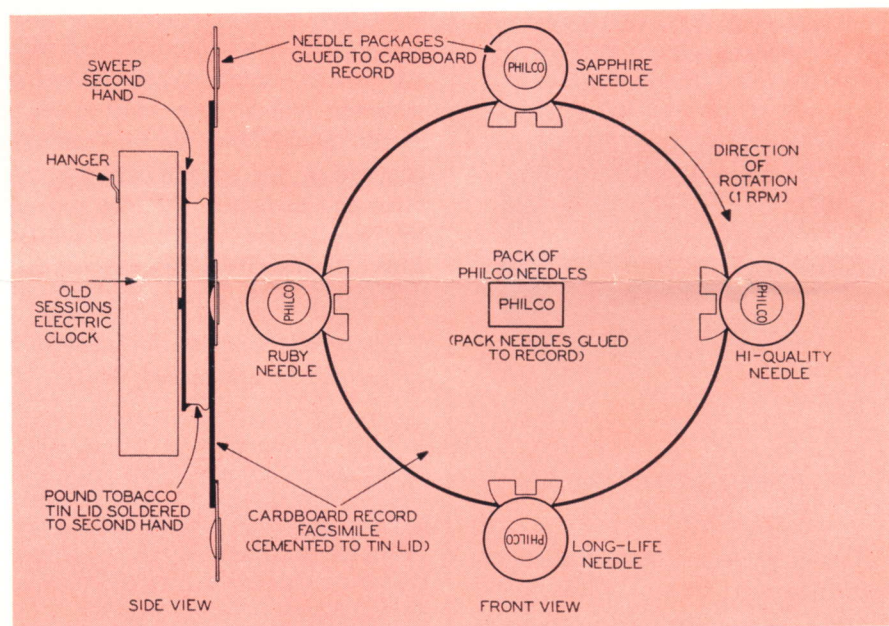
And their ideas earn not only respect, but increased profits.

Dealer Energetic

One idea which is typical of the energy and imagination of its originator, was sent in by Thomas F. Shamback, Jr., of Middleburg, Pa. He writes:

"I am a franchised Philco full-line and Columbia Record dealer, and

(my favorite brand, Half and Half) tin to the sweep second hand. On the outer edge of the metal lid I cemented (Philco Speaker Cement) a twelve-inch cardboard disk (facsimile of Columbia phono record). Around the outer edge of the cardboard disk, I cemented 1 each of Philco Hi-Quality, Long-Life, Ruby, and Sapphire phono needles. Then I pushed the second hand back onto its shaft in the clock, hung it very conspicuously amid my record racks, and I have a swell eye-catching display that rotates at one r.p.m., draws



believe me, the Philco phono owners hereabouts play plenty of Columbia records on their turntables. I also display the plexiglass Philco Phono Needle Case, and all four types of Philco needles, directly above our store record player. Above this needle display I installed the following display:

Removed Clock Face

"I removed the glass face, second hand, and the hour and minute hands from an old Sessions electric clock which still operated, but was noisy. After discarding all but the second hand and the clock proper, I soldered the lid from a metal pound tobacco

much attention to the needles, and costs about ten cents a year to operate.

Visitors Welcome

In case you cannot visualize this contrivance you are welcome to visit our store and see for yourself, but you cannot have my display, as it sells too many needles and records. Bring your own clock, and I will show you how to make one."

Full-Line Dealer

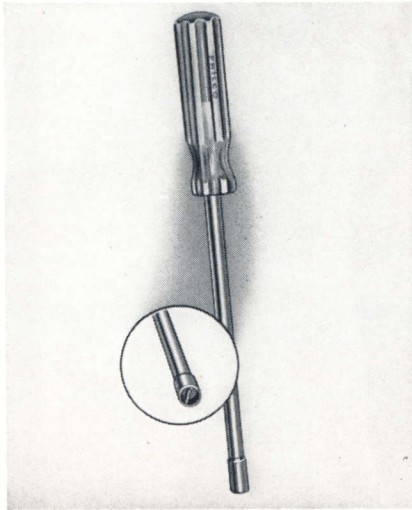
About himself, he adds:

"Have been a franchised Philco full-line dealer, through Joe Good of Electric Appliance in Williamsport,

(Continued on page 7)

New Non-Skid Tool For TV Osc. Tuning

Many servicemen have requested Philco to help them obtain special tools to expedite their work.



And Philco, working right along with you men in the field, again comes through, this time with a new screwdriver wrench to be used when adjusting the oscillator coil core on television sets.

Ordinary screwdrivers have apparently been unsatisfactory, because of the blade slipping out of the slot on the coil screw.

This new Philco screwdriver wrench, Part No. 45-6506, is available at your Philco Distributor. Get one today.

Terrific Profits . . .

(Continued from page 1)

special sales helps you need to pull this traffic to your door.

Your March Bonanza

For your *plus* profits, be sure to see your Philco distributor, whose March "Gold Rush" promotion includes parts and accessories which millions of cars need: Philco Vibrators—only four types cover over 1,000 auto radio models; Philco Aerials—thoroughly dependable and easily installed; and Philco tubes—of finest materials to make any auto radio perform better.

All of these items are included in the tremendous March Philco Accessory "Gold Rush" promotion. See your Philco distributor today.

PHILCO

**MAKES HISTORY
IN TELEVISION
TEST EQUIPMENT**

For the Radio and Television Serviceman — for the Experimenter — for the Amateur — for the Radio-Electronics Engineer

PHILCO 7008 VISUAL ALIGNMENT GENERATOR

The only completely self-contained and moderately priced instrument for aligning television and FM receivers. Includes 5 different signal generators with their associated controls; a complete oscilloscope with centering, gain, focus, intensity, phasing and blanking controls, and power supplies; separate RF probe for measurements of sensitive high frequency circuits. Removable crosshatch screen for ultra-short 3" cathode-ray tube. Compartment for cables and RF probe.

WRITE FOR TECHNICAL LITERATURE

Philco Corporation, Philadelphia 34, Pa.

- No. 7008 Philco Visual Alignment Generator
- No. 7001 Philco Electronic Circuit Master
- No. 7170 Philco RF Signal Generator
- No. 5072 Philco Crosshatch Generator
- No. 7030 Philco Dynamic Tester
- No. 7019 Philco Junior Scope

PHILCO TEST EQUIPMENT SERVES MANY INDUSTRIAL & COMMUNICATIONS NEEDS

Today's wide use of electronic devices in industrial plants, laboratories and communications services requires new precision instruments for radio measurements, in compact, portable, inexpensive form. Here, Philco has long been a leader—providing equipment for radio's best informed group of service technicians, the 25,000 members of Philco Service. For fast, accurate work experience-wise servicemen choose Philco Test Equipment. Know the reasons why Philco is preferred, by writing for technical literature.

PHILCO CORPORATION • Philadelphia 34, Pa.

Watch for this ad. in: **COMMUNICATIONS—February, 1949**
ELECTRONICS—March, 1949

Idea . . .

(Continued from page 6)

since 1938, and have earned a comfortable living ever since. Have been a member of PHILCO SERVICE, and can say nothing but good for it. The service manuals are invaluable. Own a Hi-Hat ring which I was awarded in 1940. Hope to continue to profitably promote sales and service with Philco, and am looking forward to Television as an added source of revenue."

Thanks a lot, Mr. Shamback, for a very good idea and a swell letter.

A Hot Promotion . . .

(Continued from page 3)

And now, if you ask the Dimmig Electric Co., or Walter Olszta, or Dave Kravitz, or Morris Davis, or Elwood Wood, or John Garchinsky (the dealers involved) about the promotion, you'll hear them say, "Marvelous. Floor traffic was tremendous, and so were sales and new customers."

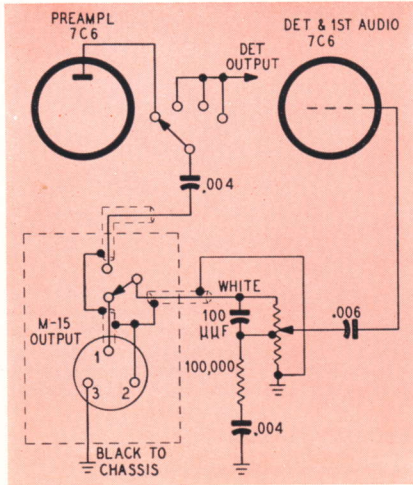
And if you want to run a red-hot promotion with the same results, see your Philco Distributor. Draw on his experience and resources to increase your business.

M-15 Player...

(Continued from page 5)

tion. The shielded output lead carries the signal from the adapter to the audio amplifier.

The pre-amplifier is put into the switching circuit by disconnecting the coupling condenser from the high side of the volume control and wiring the



M-15 Adapter Connections when installed with Beam of Light Record Player.

M-15 slide switch and the M-15 input plug, parts of kit Part No. 45-1594, between the coupling condenser and the high side of the volume control.

Place Shields Carefully

When wiring this circuit into the radio, precautions should be taken in the placement of the input and output wire shields. These shields should be grounded as close to the regular phonograph shield ground as possible, which is usually close to the low side of the volume control.

M-15 Operation Unaffected

When the illustrated method of installation is used, both the 7C6 phonograph preamplifier tube and the 7B5 light-beam oscillator are operating. This will have no effect upon the reproduction of the M-15, because the output of the 7C6 is automatically grounded when the switch is in the M-15 position.

Questions and Answers

- Q. What is the cause of low line voltage at the wall receptacle to which an air conditioner is connected, although the voltage is OK with the air conditioner disconnected?
- A. If the wiring to the receptacle from the house line source is inadequate, the air conditioner load may cause a great voltage drop. Ordinary appliance cord should not be used to furnish power for the air conditioner, because the wires within this type of cord are too small. Electrical circuit lines supplying power to the air conditioner receptacle should have conductor wires at least as large as No. 12-gauge wire. Actually, this is a requirement of the National Underwriters Electrical Code.
- Q. The lock on my window cannot be used, now that an air conditioner has been installed. Is there any other means of locking the window?
- A. Yes. Because many air conditioners are installed on ground floors, it is particularly necessary to make provision for preventing the window from being opened from the outside. Philco Window Locks are recommended when such security is desired. These locks may be ordered by Part No. ISD-379, and can be installed quickly on the inside sash. This lock enables locking the sash rigidly at any height above the sill.
- Q. In Philco Service Manual PR-1667, on Models 49-1002 and 49-1040, I notice you have resistor R536 connected to pin 6 of the picture-tube socket. Is this correct?
- A. No, the schematic is incorrect. Thank you for calling our attention to it. Actually R536 is a screen dropping resistor, and should be connected to the junction of the red lead of the vertical output transformer and the lead from pin 3 of the picture-tube socket.
- Q. What is the cause of hum in the Model 49-1040, Code 123? The trouble has been localized to the sound detector circuit.
- A. Although hum is usually caused by a bad filter condenser or rectifier, if the sound detector circuit is suspected, one of the factors which should be checked is the possibility of heater-to-cathode leakage in the 6AL5 sound detector tube. Considerable hum may result from such leakage. This hum may be effectively reduced by inserting a 4.7-ohm resistor in series with the heater lead of the 6AL5. This resistor may be mounted between pin 3 of the 6AL5 socket and an adjacent ground terminal. This change reduces the filament voltage to the tube to about 5 volts, but does not affect the operation of the detector.

PHILCO CORPORATION
P. O. BOX 6738
PHILADELPHIA 32, PA.
RETURN POSTAGE GUARANTEED

FOR:

R. W. Turner
3928 68th St
Des Moines, Iowa

Sec. 562, P. L. & R.
U. S. POSTAGE
PAID
PHILADELPHIA, PA.
Permit No. 655

93

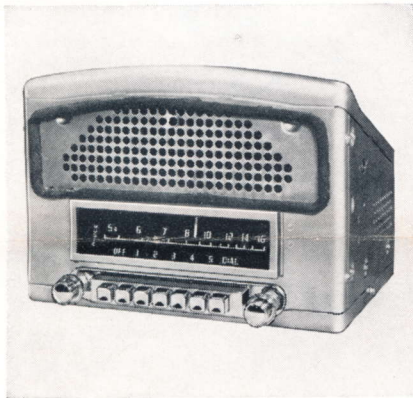
POSTMASTER: If addressee has moved, notify sender on Form 3547, postage for which is guaranteed. When Form 3547 is sent, abandon this mailing. Return only if no correct address is available.

NEW SERVICE MANUALS RELEASED ON 1949 CHRYSLER AUTO RADIOS

Along with the release of two new auto radios for 1949 Chrysler Corporation automobiles comes news of the PHILCO SERVICE manuals just off the press, containing complete information on these new radios.

Manuals Mailed

One manual supplies complete servicing procedures on the Philco Auto Radio Model PD4908, to be used in Plymouth and Dodge cars as Mopar Model 803.



Philco Model PD4908

The other manual has complete information on Philco Auto Radio Model C4908, to be used in Chrysler cars as Mopar Model 805. Both manuals have been mailed to members of PHILCO SERVICE receiving this type of material regularly.

Contain Newest Developments

With the development of new cars, combining new levels of beauty and ease of handling, come the companion Philco auto radios, which incorporate the latest advances in tube and circuit design.

Certain Features Noted

Certain features in the new Model PD4908 should be noted. There are two "A" leads, one of which has a new type of hash-filter condenser known as a "feed through" type.

This condenser looks as if it is connected in series with the "A" lead, but actually it is a continuous plate. If replacement is ever necessary, be certain to replace it with the same type.

Miniature Tubes Used

Model PD4908 uses miniature tubes throughout, as do most of the latest type of auto radios. The tubes are operated at conservative ratings for long life.

A good tube-puller, conveniently made from a hollow alignment wrench and a piece of vinylite insulated wire (#22), is excellent for removing miniature tubes from hard-to-reach places. Simply loop the wire through one end of the wrench and use the other end to tighten the loop around the tube as close to the base as possible. Remove the tube as shown below with a slight side-to-side motion.

Additional manuals for new auto radios will be announced shortly.

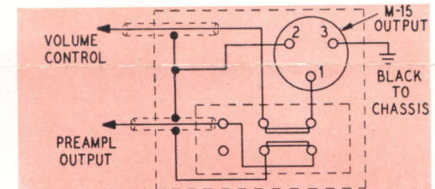


M-15 Player Skips 'Beam of Light' Preamplifier Stage

A preamplifier is used in every model of Philco radio having the Beam-of-Light record player. The output voltage of the low noise Beam of Light reproducer is considerably lower than that of a crystal-type pickup. Therefore, when a Philco Model M-15 Album Length Record Player is connected for use with a radio-phonograph having the Beam of Light player, the output of the M-15 should be fed into the stage following the preamplifier.

Develops .75 Volt

Since the pickup of the M-15 develops an output voltage of approxi-



M-15 adapter.

mately .75 volt, this stronger output would overload the preamplifier and severe distortion would result.

Philco Adapter Kit Part No. 45-1594, simplifies connecting the M-15 to all types of radios. This kit consists of a three-prong receptacle, a slide switch, a shielded input lead, a shielded output lead, and a ground lead, all assembled on a small bracket suitable for mounting in a radio cabinet or on a radio chassis. These parts are all that are necessary for the proper installation of the M-15 to any radio. The three-prong receptacle serves as the pickup connector for the M-15 record player, while the shielded input lead (input No. 1) takes either the output of the detector stage of the radio or the output of the standard phonograph, in the case of a radio-phonograph installa-

(Continued on page 8)