

Balanced-Unit
RADIO
Operating
Instructions

for

Model 95

Screen Grid Plus Receiver

PHILADELPHIA STORAGE BATTERY CO.

Ontario and C Streets
Philadelphia, Pa., U. S. A.

PHILCO RADIO INSTRUCTIONS

The Philco Model 95 Screen Grid Plus Receiver is to be used only on an alternating current supply of 50 or 60 cycles, 100 to 135 volts. If connected to a direct current supply such as is used in some hotels, apartments, stores and houses in large cities, the Receiver will be damaged.

Do not insert the attachment plug in the house socket until connections are made and the speaker plug and all tubes are in the sockets.

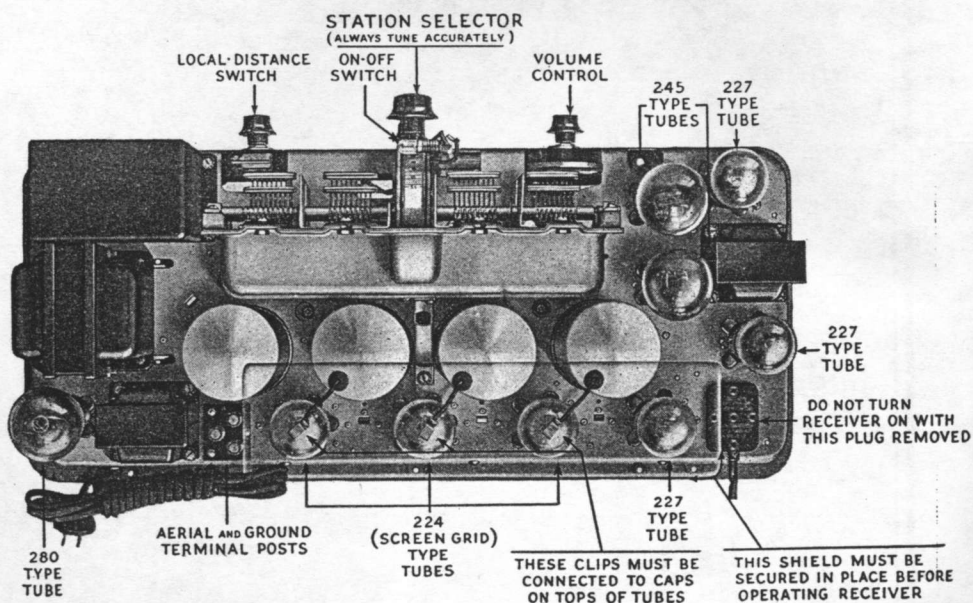


Fig. 1

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Tubes

Nine tubes are required, as follows:

3 UY224 Screen Grid Tubes, or equivalent

3 UY227 Tubes, or equivalent

2 UX245 Power Amplifier Tubes, or equivalent

1 UX280 Rectifier Tube, or equivalent

Remove the large tube shield across the back of the Receiver by loosening the five screws along the bottom and lifting straight up on the shield.

Place the tubes in the correct sockets as shown in Figure 1.

After inserting the screen grid tubes (UY224), the clips attached to the wires coming from the round shields must be pressed down over the terminal caps on top of the tubes.

Replace the tube shield over the four tubes at the back of the Receiver and tighten the five screws to hold it in place.

Speaker

The Philco Electro-Dynamic Speaker is built to work with the Philco Receiver. It is connected by inserting the Speaker plug in the special socket at the back left-hand corner of the Receiver. This socket is shown in Figure 1.

Never turn on the Receiver unless the Speaker plug is in place in the socket.

Aerial or Antenna

The Receiver is equipped with a terminal post marked "LOC" which, when connected by a short wire to the post marked "ANT," provides a built-in aerial. This aerial connec-

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tion will be found very satisfactory for the reception of local and in many cases distant broadcasting. If it is desired to use an external aerial, do not use the wire link but connect the aerial wire to the "ANT" terminal post, leaving the "LOC" post disconnected.

An outdoor aerial, consisting of a single copper wire 50 to 80 feet long, usually gives the best results. However, where there is no powerful broadcasting station within 50 miles, a longer aerial may be used and will bring in far-away stations with somewhat greater volume. The lead-in wire is an active part of the aerial and the aerial length should always be measured from the Receiver to the insulator at the far end. The outer end of the aerial should be as high as possible and the entire aerial should be spaced well away from trees and buildings and supported by glass or porcelain insulators.

Good results can also be obtained with an indoor aerial 25 feet or more in length. A shorter aerial usually will not be satisfactory. If the walls are constructed with metal lath the "LOC" post connection, described above, will usually give better results than a short indoor aerial.

Ground

A suitable ground clamp must be securely attached to a radiator valve or water pipe and the bare wire end inserted in the "GND" terminal post of the Receiver.

Never operate the Receiver without a good ground connection.

Use separate insulated wires rather than a two-wire cord for the aerial and ground connections.

Operating the Receiver

After making the aerial and ground connections, placing all tubes in the sockets and inserting the Speaker plug in its special socket, the attachment plug on the cord should be inserted into a convenient wall receptacle. Turn on the Receiver by rotating the On-Off switch in a clockwise direction. The pilot lamp should light, indicating that the power is turned on. (When the On-Off switch is turned off, no power is used and the attachment plug need not be withdrawn.)

Wait about a minute after turning on the Receiver for the tubes to become heated, then turn the volume control (left-hand knob) clockwise about one-half the total range of movement. Also turn the "local-distance" switch (right-hand knob) clockwise, that is, to the "distance" position. Then turn the station selector (center knob) and different stations will be tuned in at various points on the scale.

Tune the wanted station accurately to the point where it is clearest and reduce or increase the volume as desired with the volume control and the "local-distance" switch. Never reduce the volume of a station by detuning with the station selector as this will spoil the tone quality and bring in static noise.

If an unpleasant amount of static noise is heard between stations, due to electrical disturbances in the locality or to atmospheric conditions, it may be reduced by keeping the "local-distance" switch (right-hand knob) in the "local" position (turned left) while tuning, changing it to the "distance" position only when this is necessary to bring up the volume of a weak or distant station.

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Always regulate the volume by means of the "volume control" and the "local-distance" switch — never by detuning.

The automatic volume control incorporated in this Receiver tends to equalize the volume of all stations at the sound level for which the manual volume control has been set. This prevents the blaring of strong stations during tuning and reduces the fading of distant stations. With the volume control in a given position, the reproduction will not vary greatly in volume, even if the tuning is changed from a weak station to a strong one or vice versa.

When using the "LOC" post connection instead of an external aerial, try the attachment plug in both positions in the wall receptacle. Leave it in the position that gives the stronger and clearer reception of distant or weak stations.

Standard Warranty

We warrant each new Radio Receiver and Speaker manufactured by us to be free from defects in material and workmanship under normal use and service, our obligation under this warranty being limited to making good at our factory or factory depots any part or parts thereof which shall, within ninety (90) days after delivery of such Receiver to the original purchaser, be returned to us with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on our part, and we neither assume nor authorize any representative or other person to assume for us any other liability in connection with the sale of our Receivers or Speakers.

This warranty shall not apply to any Receiver or Speaker which shall have been repaired or altered outside of our factory

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or factory depots in any way so as, in our judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence, or accident, nor which has had the serial number altered, effaced, or removed. Neither shall this warranty apply to any Receiver or Speaker which has been connected otherwise than in accordance with the instructions furnished by us.

We make no warranty whatever in respect to tubes, inasmuch as they are usually warranted by their respective manufacturers.

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Philco Station Log

This chart shows, in the center column, the tuning scale used on this Philco Radio Receiver. The scale is numbered from 55 to 150. The figures represent channel numbers which by the addition of a cipher correspond with the station frequencies in kilocycles as listed in the newspapers and other station lists. For example, 85 on the scale represents channel number 85 and a frequency of 850 kilocycles. In the outer columns are given the frequency and wave-length figures that correspond to the main divisions on the tuning scale. A number of key stations are listed to show the approximate tuning of the Receiver to bring them in. Additional station call letters can be marked in the blank column. Variations in local conditions may change this reading slightly one way or the other. Do not go by the exact scale number shown here but tune each station accurately to the point where the static noise is reduced to a minimum and the station is heard most clearly.

KILO-CYCLES	STATIONS	PHILCO SCALE CHANNEL NUMBERS	STATIONS	METERS
550	WGR	55		545
	WFI-WLIT			
	WKAQ			
	KHQ			
600	WIP	60		499
	KGW			
	WOS			
	KFI			
650	WSM	65		461
	WEAF			
	WMAQ			
	WPTF-KPO			
	CANADA			
700	WLW	70		428
	WOR			
	CANADA			
	WSB			
750	WJR-WCX	75		400
	WJZ			
	WBBM-WJBT			
800	KGO-WGY	80		375
	KTHS-WBAP			
	KOA			
	CANADA			
850	WABC	85		353
	WENR-WLS			
	CANADA			
900	KHJ	90		333
	KOMO			
	KOIN-KGU			
950	KLDS-WRC	95		316
	CANADA			
	KDKA			
	WBZ			
1000	KYW-KFKX	100		300
	CANADA			
	WFAA-KRLD			
1050	KNX	105		285
	WBT			
1100	WPG	110		273
	KSL			
1150	WCAU	115		261
	WOAI			
1200	KYA	120		250
	WIOD			
1250	KXL	125		240
	KOIL			
	WCAM			
1300		130		231
1350	KGB	135		222
	KOW			
1400		140		214
1450	WJSV	145		207
1500	WLAC	150		200