



Balanced-Unit

RADIO

Operating
Instructions

for

Model 76

Screen Grid Receiver

Philadelphia Storage Battery Company
Ontario and C Streets
Philadelphia, Pa., U. S. A.

PHILCO RADIO INSTRUCTIONS

The Philco Model 76 Screen Grid 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 all other connections are made and the speaker plug and all tubes are in the sockets.

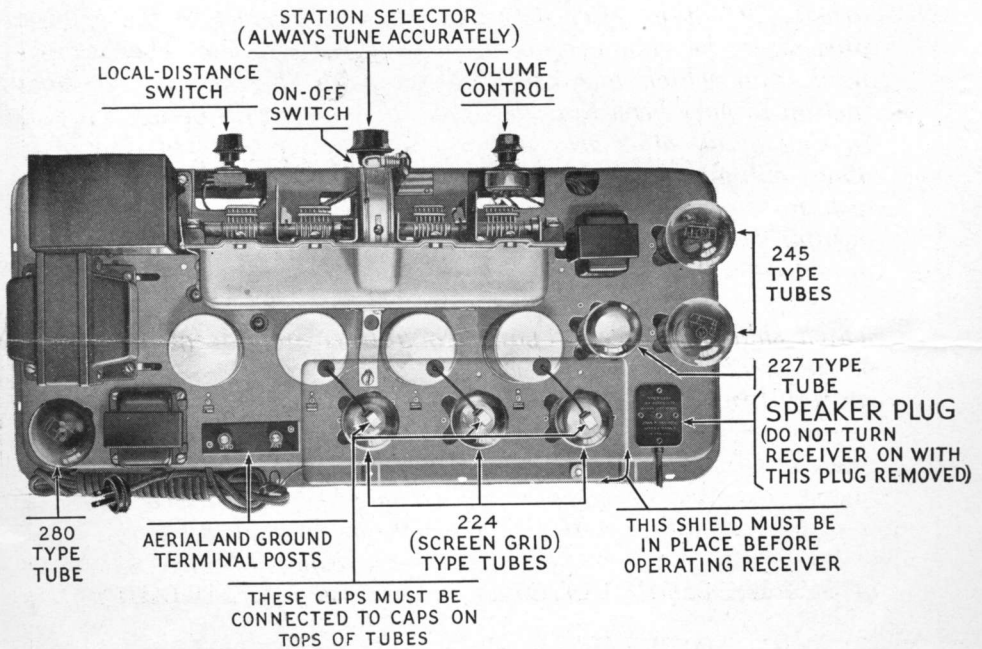


Fig. 1

PHILCO

Model 76

Tubes

Seven tubes are required, as follows:

- 3 UY224 Screen Grid Tubes, or equivalent
- 1 UY227 Audio Amplifier Tube, 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 four 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 three tubes at the back of the Receiver and tighten the four 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

An outdoor aerial, consisting of a single copper wire 50 to 100 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.

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Good results can also be obtained with an indoor aerial 25 feet or more in length. A shorter aerial usually will not be satisfactory.

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.

The "local-distance" switch should be used in the "distance" position at all times except when listening to a strong nearby broadcasting station. On extremely strong signals better tone quality will usually be had with this switch in the "local" position. Distant stations will not be heard with the switch in the "local" position.

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

Undistorted reproduction will be obtained up to the full output of the two 245 power tubes as the volume control is turned up. Turning the volume control further may reduce rather than increase the volume or even cut off the station so that nothing will be heard. The volume control is designed to operate in this way on strong 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 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.

PHILADELPHIA STORAGE BATTERY CO.

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

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 station is heard most clearly.

KILO-CYCLES	STATIONS	PHILCO SCALE CHANNEL NUMBERS	STATIONS	METERS
550	WGR-WEAN WIOD WFI-WLIT WMCA-WMC WIBO-WWNC WKAQ	55		545
600	KHQ-WOW WEEI KFSB WIP-WFAN KGW-WTMJ WOS	60		499
650	KFI WSM WEAF WMAQ WPTF-KPO CANADA	65		461
700	WLW WGR WGN CANADA WSB	70		428
750	WJR-WCX WJZ WBBM-WJBT WMC KGO-WGY	75		400
800	WBAP-WFAA WCCO WHAS KOA CANADA	80		375
850	WABC-CMC WENR-WLS CANADA	85		353
900	KHJ KOMO	90		333
950	KOIN-KGU KLDS-WRC CANADA KJR	95		316
1000	KDKA WBZ-WBZA KYW-KFKX CANADA	100		300
1050	KTHS-KRLD KNX WBAL-WTIC WBT-WTAM	105		285
1100	KMOX-KFOA WPG-WLWL KSOO-WRVA KSL-WJJD	110		273
1150	WHAM WOWO-WWVA WCAU	115		261
1200	WOAI KYA-WNAC	120		250
1250	KXL KOIL-WJAX WCAM	125		240
1300	KDYL WADC	130		231
1350	KGB	135		222
1400	KLRA-KUOA KGRS	140		214
1450	KTBS WJSV-KSTP WORD-WCKY	145		207
1500	WLAC-WTNT	150		200