

# INSTRUCTIONS



BALANCED  
UNIT

## RADIO

### BABY GRAND MODEL 20 MODEL 20-A

The Philco Baby Grand, Models 20 and 20-A, are complete A.C. Electric Screen Grid Radio Receivers, using Philco Electro-Dynamic Speakers. The Model 20 is for use only on an alternating current (A.C.) supply of 50 or 60 cycles, 100 to 130 volts. The Model 20-A is for use on an alternating current (A.C.) supply of 25 to 60 cycles, 100 to 130 volts.

**WARNING** Do not connect to a direct current (D.C.) supply such as is used in some hotels, apartments, stores and houses in large cities, or the receiver will be ruined.

The Receiver is shipped with the tubes installed in their respective sockets. Before inserting the attachment plug of the Receiver in the A.C. line outlet, see that all the tubes are seated in their sockets and that the speaker plug is connected to the Receiver (see Fig. 1). The terminals on the three leads must be connected to the terminals on the top of the screen grid tubes. The tube shield must be in place over the tubes as shown in Fig. 1 and fastened with the screws on the back edge of the chassis.

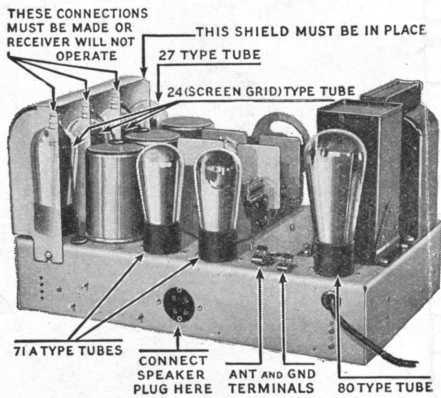


Fig. 1

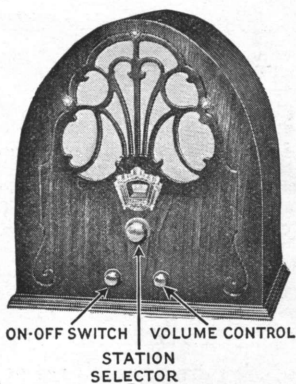


Fig. 2

Seven tubes are required as shown in Fig. 1. They are:

- 3 Type 24 screen grid tubes
- 1 Type 27 amplifier tube
- 2 Type 71-A power amplifier tubes
- 1 Type 80 rectifier tube

Best results will be obtained when the Receiver is equipped with all Philco tubes.

## ANTENNA

An outdoor antenna, consisting of a single, stranded copper or bronze wire 75 to 100 feet long, usually gives best results. However, where there are no powerful broadcasting stations within 50 miles, a longer antenna may be used which will bring in far-away stations with somewhat greater volume. The antenna lead-in must be connected to the antenna terminal (see Fig. 1).

## GROUND

A suitable ground clamp and lead must be securely attached to a radiator pipe or water pipe and the bare wire end connected to the "GND" terminal (see Fig. 1).

## OPERATING THE RECEIVER

After all connections have been made, turn the on-off switch (left-hand knob, Fig. 2) clockwise. Wait about a minute for the tubes to heat up, then turn the volume control (right-hand knob, Fig. 2) clockwise about one-half the total range of movement. Turn the station selector (center knob, Fig. 2) and different stations will be tuned in at various points on the scale.

The figures on the Philco scale represent channel numbers which, by the addition of a cipher, correspond with the station broadcast frequencies in kilocycles as listed in newspapers and other station logs. For example: 85 on the scale represents channel 85 and a frequency of 850 kilocycles.

Tune the desired station accurately to the point where it is clearest, and reduce or increase the volume with the volume control—never by detuning, as detuning will spoil the tone quality.

### 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.*

PHILADELPHIA STORAGE BATTERY CO

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