## PHILCO RADIO & TELEVISION CORP.

MODEL 14,91 (126-226) Chassis Speaker Voltage

The Philco Radio of the 91 and 14 series is a nine-tube superheterodyne receiver combining standard broadcast, police and airplane reception and employs the high efficiency 6.3 volt filament tubes, automatic volume control, bass compensating tone control, shadow tuning, and push-pull pentode output. The chassis is made in two different types, one known as the 126 type, employing a single dynamic speaker, and the other known as the 226 type, employing twin dynamic speakers. These type numbers appear on the radio chassis as a part of the model number. Chassis of one type are not interchangeable with those of another. The intermediate frequency used in adjusting the superheterodyne circuit of the 91 and 14 series is 260 kilocycles. The power consumption of the various models is as follows: Single Speaker models, 90 watts; Twin Speaker models, 95 watts.

## Table 1—Tube Socket Data\* Power Line Voltage 115 Volts

| Circuit                     | R. F.   | Det. Osc.  | I. F.      | Det. Rect. | Det. Amp. | Audio | Output   | Output     | Rect. |
|-----------------------------|---------|------------|------------|------------|-----------|-------|----------|------------|-------|
| Type Tube                   | 44      | 36         | 44         | 37         | 37        | 37    | 42       | 42         | 80    |
| Filament Volts-F to P.      | 6 3     | 6 3<br>250 | 6.3<br>250 | 63         | 6 3<br>60 |       |          | 6 3<br>240 |       |
| Screen Grid Volts-          | 50      | 80         | 85         |            |           |       | 250      | 250        |       |
| Control Grid Volts— CG to K | 6<br>25 | 10<br>10   | 5          | 2          | 2         | 0 2   | 15<br>15 | 15<br>15   |       |

of the above readings were taken from the underside of the chassis, using test prods and leads, with a suitable A. C. voltmeter for filament voltages and a high resistance multi-range D. C. voltmeter for all other readings. Volume control at maximum and station selector turned to low frequency end. Readings taken with a radio set tester and plug in adapter will not be satisfactory.

Table 2—Power Transformer Data

| Terminal A.C. Volts |            | Circuit               | Color                  |  |  |
|---------------------|------------|-----------------------|------------------------|--|--|
| 1-2                 | 105 to 125 | Primary<br>Filament   | White<br>Black         |  |  |
| 6-7<br>8-10         | 50         | Filament 80           | Blue                   |  |  |
| 8-10                | 670        | Plates of 80          | Yellow                 |  |  |
| 4                   |            | Center Tap of         | Black-Yellow<br>Tracer |  |  |
| 9                   |            | Center tap of<br>8-10 | Yellow-Green           |  |  |

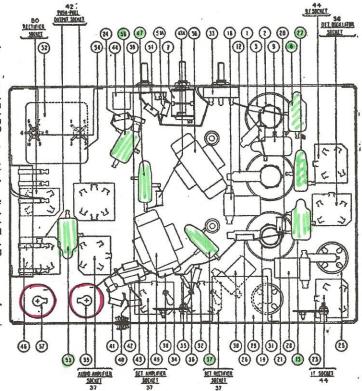


Fig. 1-Parts Diagram



44 and 36 Sockets



37 Sockets



42 Sockets



80 Sockets

Terminal Arrangement of Tube Soulets Viewed from Under Side of Chassis

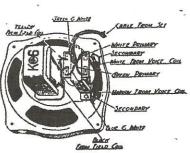


Fig. 2-Speaker Connections-126 Code

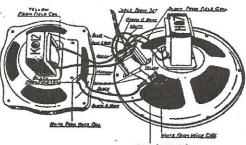


Fig. 3-Speaker Connections-226 Code

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In run number 1, the (15,000 ohm) resistor ® part number 6208 was changed to new resistor (10,000 ohms) part number 4412. Condenser ® part number 3615AM was changed to new condenser part number 3615AF. A terminal block part number 03103 was added. This terminal block was mounted on the condenser ® part number 4989K or 4989T.