

# PHILCO RADIO MODEL 49-906, CODE 122

This Model differs electrically from the 49-906, as given in the Service Manual PR-1568, in the following respects:

- (1) The 1st and 2nd FM i-f transformers have been changed to ones of higher gain.
 

Z-300 Transformer, 1st FM i-f .....	32-4372A
Z-302 Transformer, 2nd FM i-f .....	32-4372-1A
- (2) A bass compensation circuit has been added as shown in Figure 1:

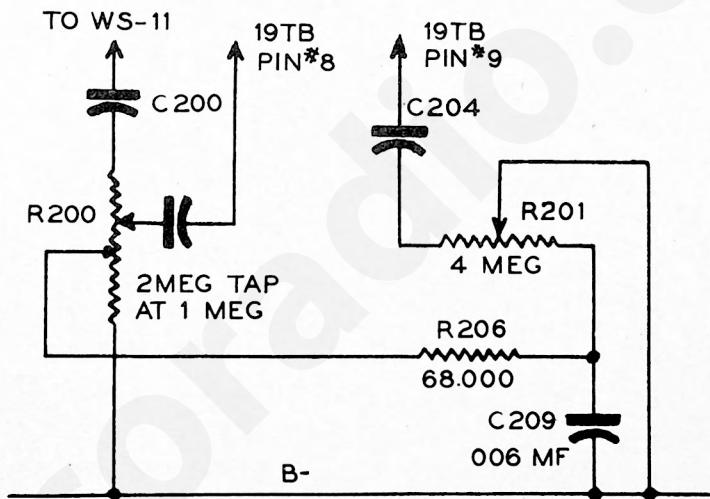


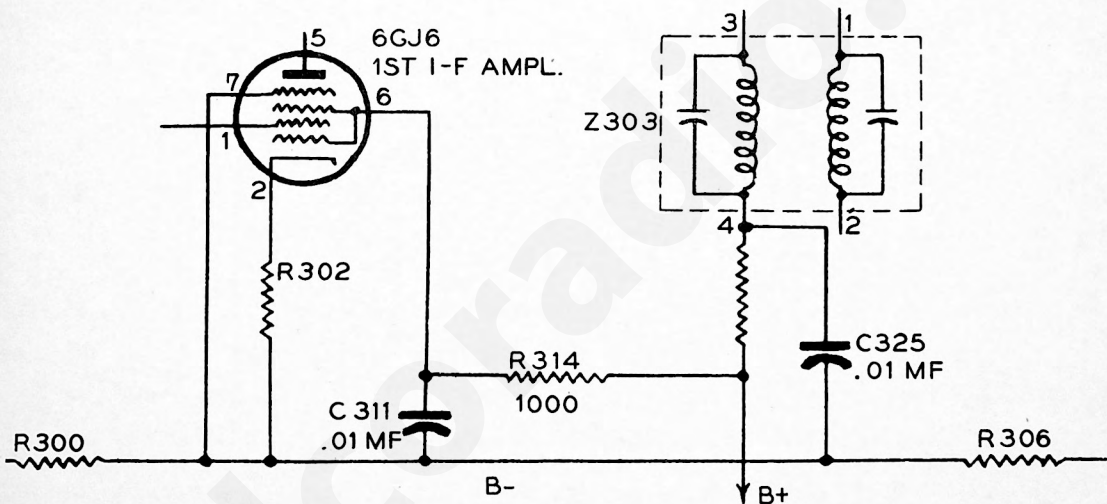
FIGURE 1

- |   |             |
|---|-------------|
| C-204 Condenser, Tone compensation, .006 mf .....   | 45-3500-7*  |
| C-209 Condenser, bass compensation, .006 mf .....   | 45-3500-7*  |
| R-200 Volume Control, 2 Meg, tapped at 1 Meg .....  | 33-5535-25  |
| R-201 Tone control, 4 Meg .....                     | 33-5566-5   |
| R206 Resistor, bass compensation, 68,000 ohms ..... | 66-3688340* |
- (3) To increase audio output the 50A5 cathode bias resistor has been lowered in value.
 

R-204 Resistor, cathode bias, 120 ohms .....	66-1124340*
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  - (4) C-323 Condenser, i-f by-pass, .03 mf .....
  - L-306 Coil, r-f choke .....

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- (5) C-324 Condenser, r-f by-pass, 100 mmf ..... Removed
- (6) R-412 Resistor, r-f decoupling, 68 ohms ..... Removed
- (7) A 100 mmf Condenser, Part Number 62-110009001\*, has been added as an i-f filter from lug #12 of the wafer switch to ground.
- (8) A 100 mmf Condenser, Part Number 62-110009001\*, has been added as an r-f filter from B+ of Z-305, lug #4, to ground.
- (9) The screen and plate supply of the 6BJ6, 1st i-f amplifier has been revised as shown in Figure 2:



**FIGURE 2**

- C-311 Condenser, screen by-pass, .01 mf ..... 61-0120\*
- C-235 Condenser, plate by-pass, .01 mf ..... 61-0120\*
- R-314 Resistor, screen decoupling, 1000 ohms ..... 66-2108340\*
- (10) R-405 Cathode bia., 1500 ohms ..... 66-2158340\*
- (11) R-407 Resistor, plate decoupling, 33,000 ohms ..... 66-3338340\*
- (12) R-413 Resistor, plate decoupling, 33,000 ohms ..... 66-3338340\*
- (13) C-405 Condenser, cathode by-pass, 100 mmf ..... 62-110009001\*
- (14) The external BC antenna lead that is connected to lug #3 of J-400, the FM aerial panel, should be shown returning to lug #1 of L-400.

- (15) C-313, .01 mf, a-v-c filter condenser, returns to the power supply B- instead of between R-300 and R-306 as shown in the Manual.

**Low Level Audio Distortion**

Occasionally, a condition of audio distortion may be experienced at very low settings of the volume control. This may be eliminated by dressing the AM diode lead as far as possible from the 19T8 grid, pin #8. This lead dress, as shown in Figure 3, removes the possibility of any 455KC signal being fed to the 19T8 grid and being plate detected. This detected signal, being out of phase with the designed signal, caused the distortion.

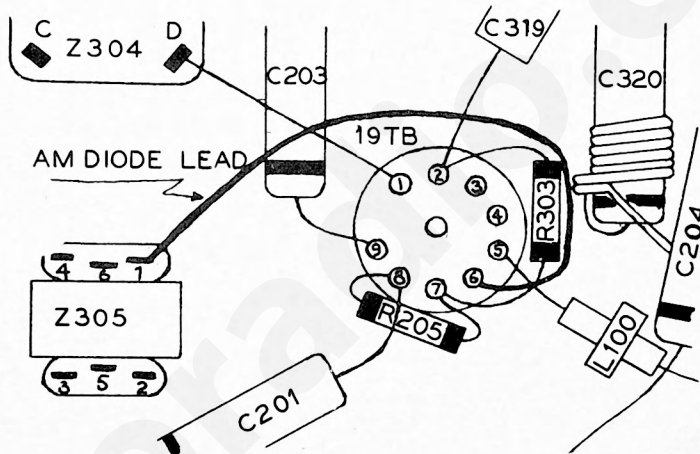


FIGURE 3

*Part Number Changes*

LS-200 Speaker, 4" x 6" oval, PM .....	36-1615-11
Back .....	54-7792
Baffle and Cloth assembly .....	40-7539-1
Cabinet .....	10715-1
Dial Scale .....	54-5013-1
Knob (4) .....	54-4557
Plug-and-wire assembly (FM) .....	41-3791-1
Socket assembly, pilot lamp .....	27-6233-39
Spring, pointer .....	56-3167

**Run #2**

To improve AM i-f sensitivity a .03 mf condenser, Part Number 45-3500-1, has been added from B- to ground in parallel with C-321.