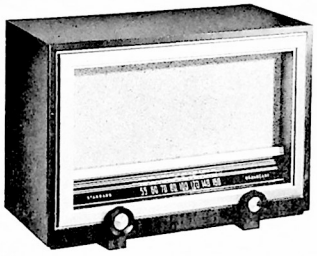
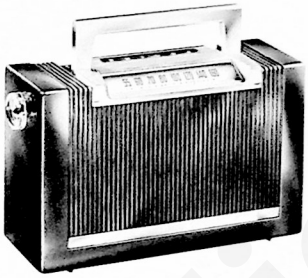
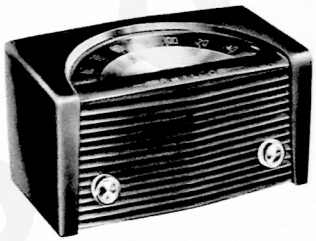
PHILCO RADIO MODELS 52-549, 52-642 AND 52-939



MODEL 52-549



MODEL 52-642



MODEL 52-939

SPECIFICATIONS

MODEL 52-549

CABINET	Wood
CIRCUIT	4-tube superheterodyne (plus rectifier)
FREQUENCY RANGE	540-1630 kc.
AUDIO OUTPUT	1.2 watts
OPERATING VOLTAGE	105-125 volts, a.c. or d.c.
POWER CONSUMPTION	30 watts
AERIAL	High-impedance loop; connector for external aerial
INTERMEDIATE FREQUENCY	455 kc.
PHILCO TUBES (4 plus rectifier)	7A8, 12BA6, 12AV6, 35L6GT, 35Z5GT

MODEL 52-642

CABINET	Plastic, portable
CIRCUIT	4-tube superheterodyne (plus selenium rectifier)
FREQUENCY RANGE	540-1620 kc.
AUDIO OUTPUT	
A-c or d-c operation	150 milliwatts
Battery operation	75 milliwatts
OPERATING VOLTAGES	117 volts, a.c. or d.c.; 1.5-volt "A" and 67.5-volt "B" battery
POWER CONSUMPTION	
A-c or d-c operation	11 watts
Battery operation	9.5 ma. from 67.5-volt "B" battery; 250 ma. from 1.5-volt "A" battery
AERIAL	Magnecor high-impedance loop; provision for connecting external aerial
INTERMEDIATE FREQUENCY	455 kc.
PHILCO TUBES (4)	1R5, 1U4, 1U5, and 3V4
BATTERY TYPE	P-67 "B" battery TYPE D "A" battery

MODEL 52-939

CABINET	Molded plastic
CIRCUIT	5-tube superheterodyne (plus rectifier)
FREQUENCY RANGE	540-1620 kc.
AUDIO OUTPUT	1 watt
OPERATING VOLTAGE	105-120 volts, a.c. or d.c.
POWER CONSUMPTION	30 watts
AERIAL	High-impedance loop; provision for connecting external aerial
INTERMEDIATE FREQUENCY	455 kc.
PHILCO TUBES (5 plus rectifier)	7B7(2), 7AB, 14B6, 35L6GT, 35Z5GT

ALIGNMENT PROCEDURE

The alignment procedures for the receivers covered by this manual are given in the service manuals listed below.

Model 52-549	same as	Model 52-541, page 2
Model 52-642	same as	Model 52-640, page 20
Model 52-939	same as	Model 52-940, page 32

SCHEMATIC DIAGRAMS

The schematic diagrams for the models in this manual are given in the service manuals listed above. Models 52-549 and 52-642 differ from the basic circuit only as described below.

MODEL 52-549 CIRCUIT

The circuit for this set differs from that of Model 52-541 only in the audio section. See figure 1 and page 3. These changes are as follows, and are in addition to component part number changes given in the parts list in this service manual.

A condenser, C12, 220 $\mu\mu$f., Part No. 62-122001011, is connected between the high side and the center arm of the volume control, R8. Condenser C12 is used for high-frequency compensation.

The tone-compensation condenser, C8, was changed from .05 μf. to .03 μf., Part No. 30-4517.

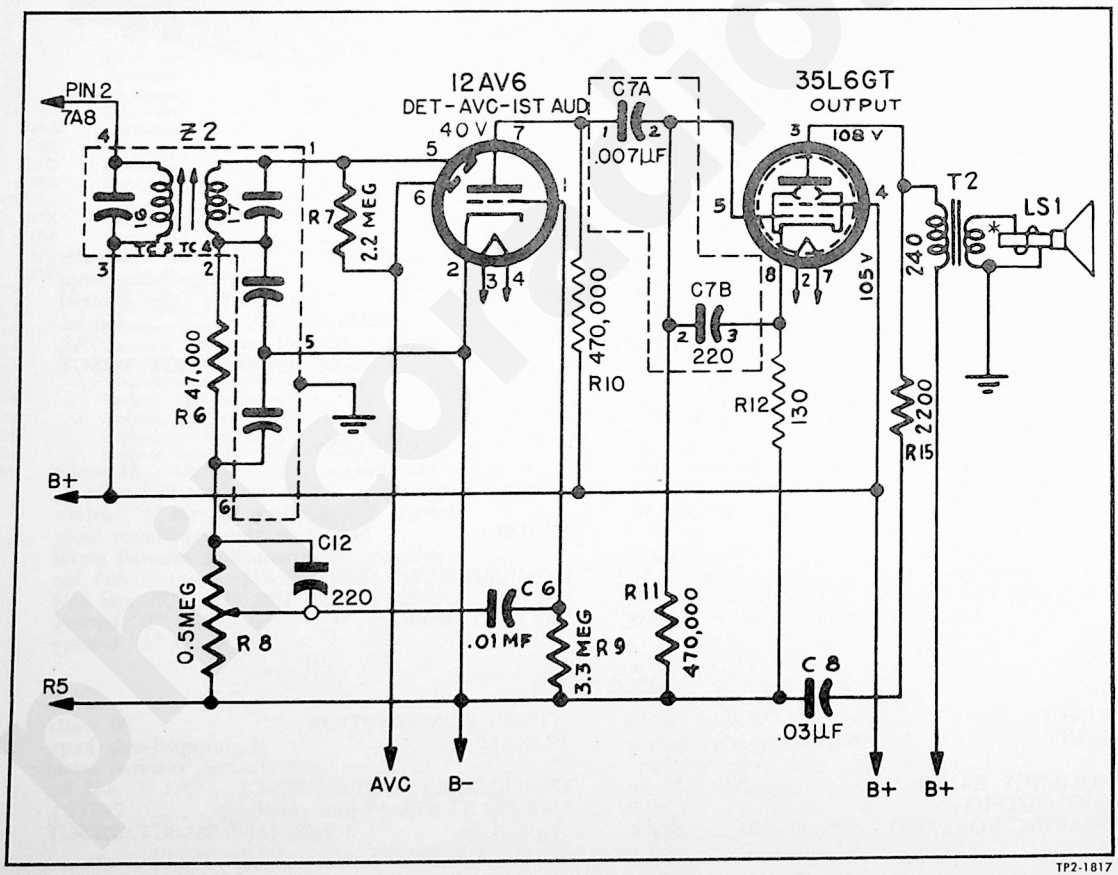


Figure 1. Model 52-549, Second Detector and Audio Amplifier Circuits

MODEL 52-642 CIRCUIT

The circuit for this set differs from that of Model 52-640 in that it includes a Private Listening Unit receptacle. See figure 2 and page 21. The Private Listening Unit receptacle, J3, Part No. 42-1975-2, is wired into the circuit as shown in figure 2. A shunt resistor, R19, Part No. 66-0108340, reduces volume to the correct level for Private Listening. R19, a 10-ohm resistor, is wired from J3 to chassis ground.

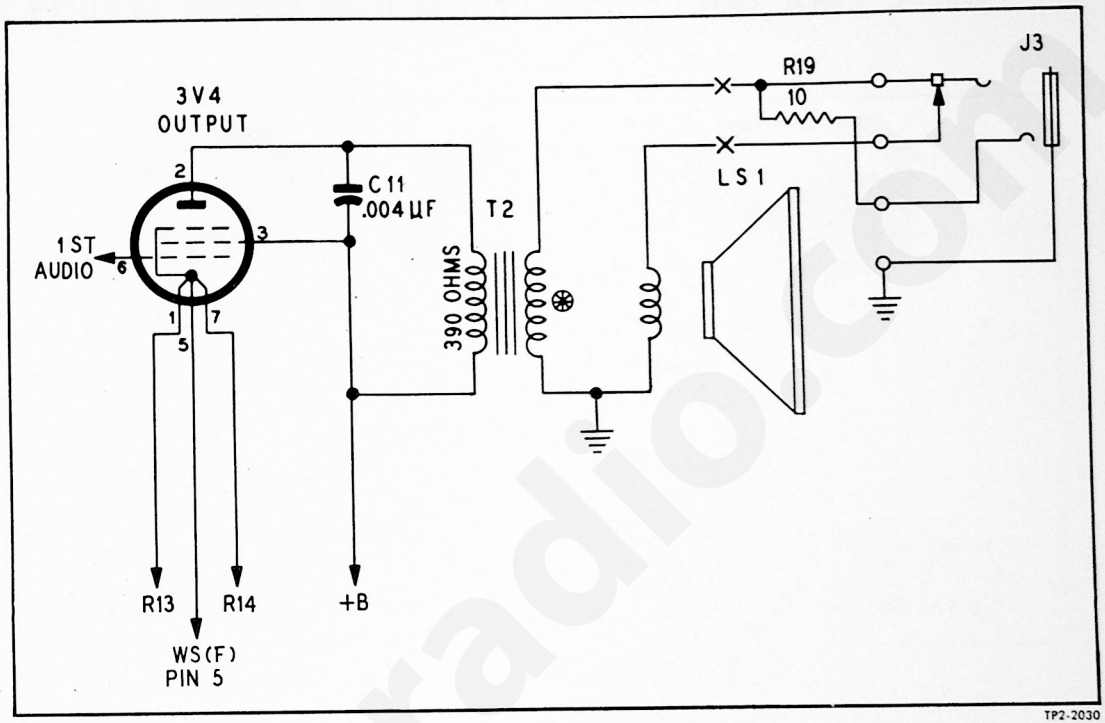


Figure 2. Model 52-642, Output Circuit Showing the Connections for a Private Listening Unit

REPLACEMENT PARTS LIST

MODEL 52-549

Reference Symbol	Description	Service Part No.
Il	Pilot-lamp assembly	76-1179-7
LA1	Loop aerial	32-4052-65
LS1	Speaker, 6-inch, p.m.	36-1641-1
T2	Transformer, output	32-8384-2

MISCELLANEOUS

MODEL 52-549

Description	Service Part No.
Cabinet, mahogany	10910
Knob (2)	54-4774-9
Scale	54-5141
Cabinet, light (blond)	10910-1
Knob (2)	54-4774-10
Scale	54-5141-1
Cabinet, ebony	10910-2
Knob (2)	54-4774-18
Scale	54-5141
Back, cabinet (all models)	54-8640
Pointer (all models)	56-8774-2

MISCELLANEOUS (Cont.)

MODEL 52-642

Description	Service Part No.
Cabinet	
Teal green	10799-13
Maroon	10799-14
Swedish red	10799-15
Caribbean blue	10799-16
Nile green	10799-17
Arabian sand	10799-18
Ebony	10799-19
Knob (2) (all models)	54-4773
Pointer (all models)	56-7973-1
Scale (all models)	54-5087

MODEL 52-939

Cabinet, ebony	76-7541
Back	318-3289
Knob (2)	54-4718-36
Pointer assembly	76-5341-4
Scale	54-5071-2