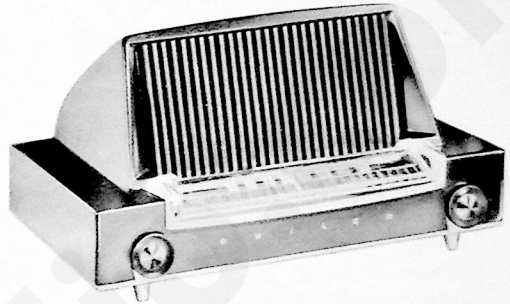


PHILCO RADIO MODEL 52-548

SPECIFICATIONS

| | |
|------------------------------|--|
| CABINET | Molded plastic, maroon |
| CIRCUIT | Four-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 |
| INTERMEDIATE FREQUENCY | 455 kc. |
| AERIAL | Magnecor high-impedance loop; provision for connecting external aerial |
| PHILCO TUBES | 7A8 converter, 7B7 i-f amplifier, 7C6 2nd det., avc., 1st audio, 50C5 output, 35W4 rectifier |



MODEL 52-548

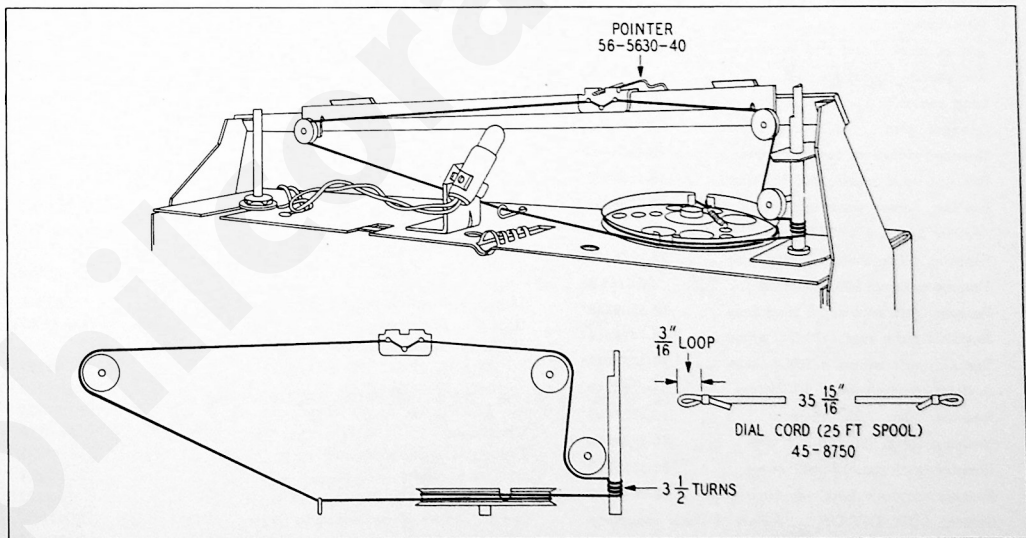


Figure 1. Drive-Cord Installation Details

TPI-1839

ALIGNMENT PROCEDURE

DIAL POINTER—Turn tuning condenser to full-mesh position. Set dial pointer to index mark, located to the left of "55".

CONTROLS—Set volume control to maximum, and tuning control as indicated in chart.

OUTPUT METER—Connect across voice-coil terminals.

SIGNAL GENERATOR—Ground lead to B—, output lead as indicated in chart.

OUTPUT LEVEL—During alignment, attenuate signal-generator output to hold output-meter indication below 1.25 volts.

| STEP | SIGNAL GENERATOR | | RADIO | | ADJUST TRIMMER |
|------|---|--------------|------------------|---|--|
| | CONNECTION TO RADIO | DIAL SETTING | DIAL SETTING | SPECIAL INSTRUCTIONS | |
| 1 | Through a .01- μ f. condenser to pin 6 of 7A8 converter tube. | 455 kc. | Gang fully open. | Adjust, in order given, for maximum output. TC1 and TC4 are located at top of transformers. | TC4—2nd i-f sec. TC3—2nd i-f pri. TC2—1st i-f sec. TC1—1st i-f pri. |
| 2 | Radiating loop (see note below). | 1600 kc. | 1600 kc. | Adjust for maximum. | C1B—osc. trimmer |
| 3 | Same as step 2. | 1500 kc. | 1500 kc. | Adjust for maximum. | C1A—ant. trimmer |

RADIATING LOOP: Make up a 6—8-turn, 8-inch-diameter loop from insulated wire, connect to signal generator output leads, and place near radio loop.

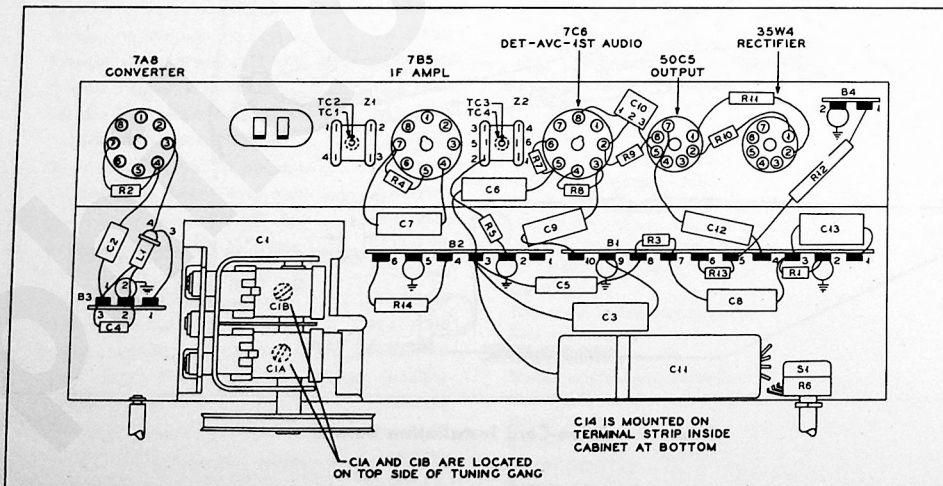


Figure 2. Base View, Showing Parts Placement and Alignment Points

TPI-1840

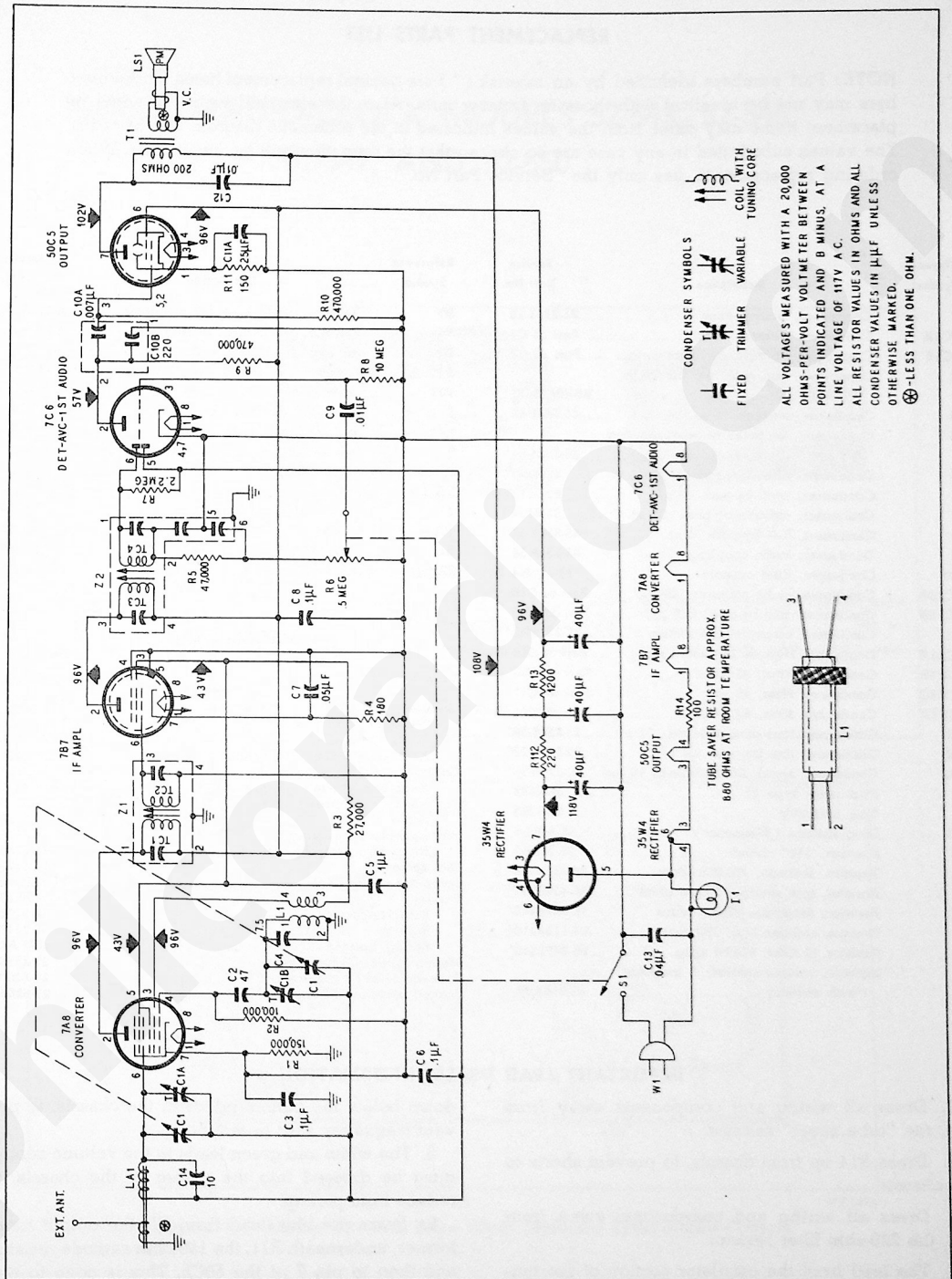


Figure 3. Philco Radio Model 52-548, Schematic Diagram

REPLACEMENT PARTS LIST

NOTE: Part numbers identified by an asterisk (*) are general replacement items. These numbers may not be identical with those on factory parts. Also, the electrical values of some replacement items may differ from the values indicated in the schematic diagram and parts list. The values substituted in any case are so chosen that the operation will be unchanged. When ordering replacements, use only the "Service Part No."

| Reference Symbol | Description | Service Part No. | Reference Symbol | Description | Service Part No. |
|------------------|--|------------------|--------------------------------|--|------------------|
| C1 | Condenser, tuning gang | 31-2751-10 | R7 | Resistor, diode load, 2.2 megohms | 66-5228340* |
| C1A | Condenser, trimmer, aerial | Part of C1 | R8 | Resistor, grid return, 10 megohms | 66-6108340* |
| C1B | Condenser, trimmer, oscillator | Part of C1 | R9 | Resistor, plate load, 470,000 ohms | 66-4478340* |
| C2 | Condenser, osc. grid, d-c blocking, 47 μ f. | 60-00475417* | R10 | Resistor, grid return, 470,000 ohms | 66-4478340* |
| C3 | Condenser, leakage, .1 μ f. | 45-3505-47 | R11 | Resistor, cathode bias, 150 ohms | 66-1154340* |
| C4 | Condenser, temperature compensating, 7.5 μ f. | 30-1224-65* | R12 | Resistor, filter, 220 ohms, 2 watts | 66-1225340* |
| C5 | Condenser, screen by-pass, .1 μ f. | 61-0113* | R13 | Resistor, filter, 1200 ohms | 66-2128340* |
| C6 | Condenser, a-v-c by-pass, .1 μ f. | 61-0113* | R14 | Resistor, surge limiting, 880 ohms cold, 100 ohms hot | 33-1343-3 |
| C7 | Condenser, cathode by-pass, .05 μ f. | 61-0122* | S1 | Switch, off-on | Part of R6 |
| C8 | Condenser, B+ by-pass, .1 μ f. | 45-3505-47* | T1 | Transformer, output | 32-8384* |
| C9 | Condenser, audio coupling, .01 μ f. | 45-3505-58* | W1 | Line cord | L2183 |
| C10 | Condenser, dual ceramic | 30-1239-4 | Z1 | Transformer, 1st i-f | 32-4160A |
| C10A | Condenser, audio coupling, .007 μ f. | Part of C10 | Z2 | Transformer, 2nd i-f | 32-4240A |
| C10B | Condenser, grid by-pass, 220 μ f. | Part of C10 | MISCELLANEOUS | | |
| C11 | Condenser, electrolytic, 4-section | 30-2575-32* | Description | Service Part No. | |
| C11A | Condenser, cathode by-pass, 25 μ f. | Part of C11 | Cabinet | 10887 | |
| C11B | Condenser, filter, 40 μ f. | Part of C11 | Fastener (5 required) | W2235-1FA9 | |
| C11C | Condenser, filter, 40 μ f. | Part of C11 | Knob (2 required) | 54-4774-9 | |
| C11D | Condenser, filter, 40 μ f. | Part of C11 | Knob escutcheon (2 required) | 54-4927 | |
| C12 | Condenser, tone compensation, .01 μ f. | 45-3505-58* | Cabinet, ivory | 10887-3 | |
| C13 | Condenser, line by-pass, .04 μ f. | 30-1226-17* | Knob escutcheon (2 required) | 54-4927 | |
| C14 | Condenser, aerial, fixed trimmer, 10 μ f. | 30-1224-26* | Knob (2 required) | 54-4774-10 | |
| I1 | Pilot lamp, type 47 | 34-2068 | Scale | 54-5128 | |
| L1 | Coil, oscillator | 32-4263 | Dial backplate assembly | 76-7056 | |
| LA1 | Loop antenna (Magnecor) | 32-4455-6 | Drive cord, 25-foot spool | 45-8750 | |
| LS1 | Speaker, 5 1/4" round | 36-1639-9 | Dial scale | 54-5128 | |
| R1 | Resistor, leakage, 150,000 ohms | 66-4158340* | Lamp assembly, pilot | 27-6233-18 | |
| R2 | Resistor, grid return, 100,000 ohms | 66-4108340* | Pointer | 56-5630-40 | |
| R3 | Resistor, dropping, 27,000 ohms | 66-3278340* | Shaft, tuning | 56-9272 | |
| R4 | Resistor, cathode bias, 180 ohms | 66-1188340* | Spring | 56-2617 | |
| R5 | Resistor, i-f filter, 47,000 ohms | 66-3478340* | Spring, hairpin | 57-1468FA3 | |
| R6 | Resistor, volume control, .5 megohm (with switch) | 33-5566-36 | Mount, rubber (3 required) | 27-4596 | |
| | | | Socket, Loktal (3 required) | 27-6207 | |
| | | | Socket, miniature (2 required) | 27-6265 | |

IMPORTANT LEAD DRESS INFORMATION

1. Dress all wiring and components away from R14, the "tube saver" resistor.

2. Dress R14 up from chassis, to prevent shorts to the chassis.

3. Dress all wiring and components away from R12, the 220-ohm filter resistor.

4. The lead from the oscillator section of the tuning condenser to the wiring panel must be dressed

down below the bottom edges of the chassis, to prevent frequency shift in mounting.

5. The white and green leads to the volume control must be dressed into the corner of the chassis, to reduce hum pickup.

6. Dress the blue lead from T1, the output transformer, underneath R11, the 150-ohm cathode resistor, and then to pin 7 of the 50C5. This is done to prevent audio oscillation.