

## Electrical Specifications

**Type of Circuit:** Superheterodyne, with pentode audio output Circuit.

<b>Power Supply:</b>	Voltage	Frequency	Connection
	115	50 to 60 cycles	60 watts
	115	25 to 40 cycles	60 watts

**Intermediate Frequency:** 470 K. C.

**Undistorted Output:** 3 watts.

**Philco Tubes Used:** Five; one 6A8G, one 6F6G, one 6K7G, one 5Y4G, one 6Q7G.

**Tuning Ranges:** Two; Range 1—530 to 1720 K. C. Range 2—2.3 to 2.5 M. C.

**Speaker:** S-7.

## Alignment of Compensators

**Equipment Required:** (1) Signal Generator; Philco Model 088 (fundamental frequency 110 to 20000 K. C.) is the correct instrument for this purpose; (2) output meter. **Philco Model (025) Circuit Tester** incorporates a Sensitive output meter and is recommended; (3) Fibre handle screwdriver (Philco Part No. 27-7059); (4) Fibre wrench Part No. 3164.

**Dial Calibration:** Set the tuning condenser at the maximum capacity position. Loosen the set screw of the dial hub and set dial, with the glowing indicator centered between the first and second index lines, at the low frequency end of the broadcast scale. Tighten set screw in this position.

**Output Meter:** The 025 Output Meter is connected to the plate and cathode terminals of the (6F6G) tube. Adjust the meter to use the (0-30) Volt Scale.

## INTERMEDIATE FREQUENCY CIRCUIT

1. Set controls as follows:

- Volume control maximum
- Receiver Dial 580 K. C.
- Signal generator 470 K. C.
- Range Switch Broadcast position

2. Connect the signal generator output lead through a .1 mfd. condenser to the 6A8G Grid and adjust the Compensators as follows for maximum output (17S), (17P), (12S), and (12P).

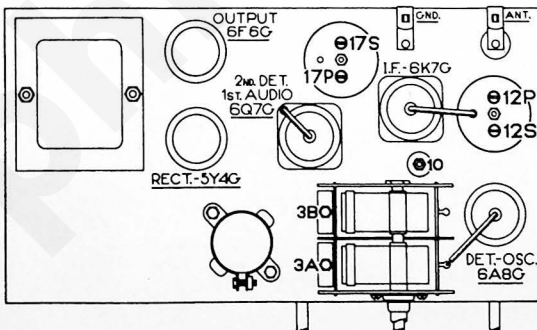


Fig. 2. Locations of R. F. & I. F. Compensators

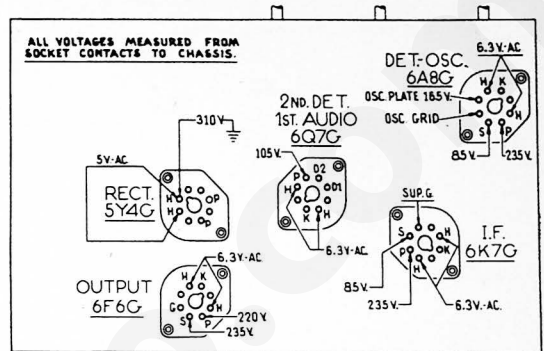


Fig. 1. View of Sockets from Underside Chassis

The voltages indicated by arrows were measured with a Philco 025 Circuit Tester which contains a voltmeter having a resistance of 1000 ohms per volt. Volume Control at minimum, range switch in broadcast position, line voltage 115 A. C.

## RADIO FREQUENCY CIRCUIT

**Tuning Range:** 520 to 1720 K. C.

1. Connect the signal generator output lead through a 200 mmfd. condenser to the ant. terminal of the receiver and the generator ground to the chassis. Set the range switch in the broadcast position.

2. Adjust compensators as follows for maximum output.

Signal generator	Receiver dial	Compensators in order
1600 K. C.	1600 K. C.	(3B), (3A)
580 K. C.	580 K. C.	(10) Note A
1600 K. C.	1600 K. C.	(3B), (3A)

No adjustments are required for Range 2 as Range 1 adjustments compensate for this circuit.

**Note A**—First tune compensator (10) for maximum output, then vary the tuning condenser of the receiver for maximum output about the 580 K. C. dial mark. Now turn compensator (10) slightly to the right or left and vary the receiver tuning condenser for maximum output. If the out reading increases, turn compensator (10) in the same direction a trifle more, and again vary the tuning condenser for maximum output. If the output decreases, set the compensator in the opposite direction. This procedure of first setting the compensator and then varying the tuning condenser is continued until there is no further gain in output reading.

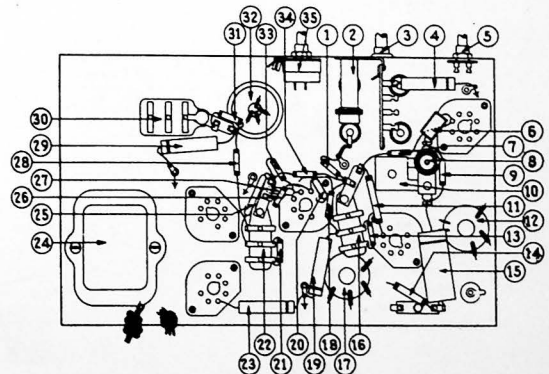


Fig. 3. Parts locations, Underside of chassis view

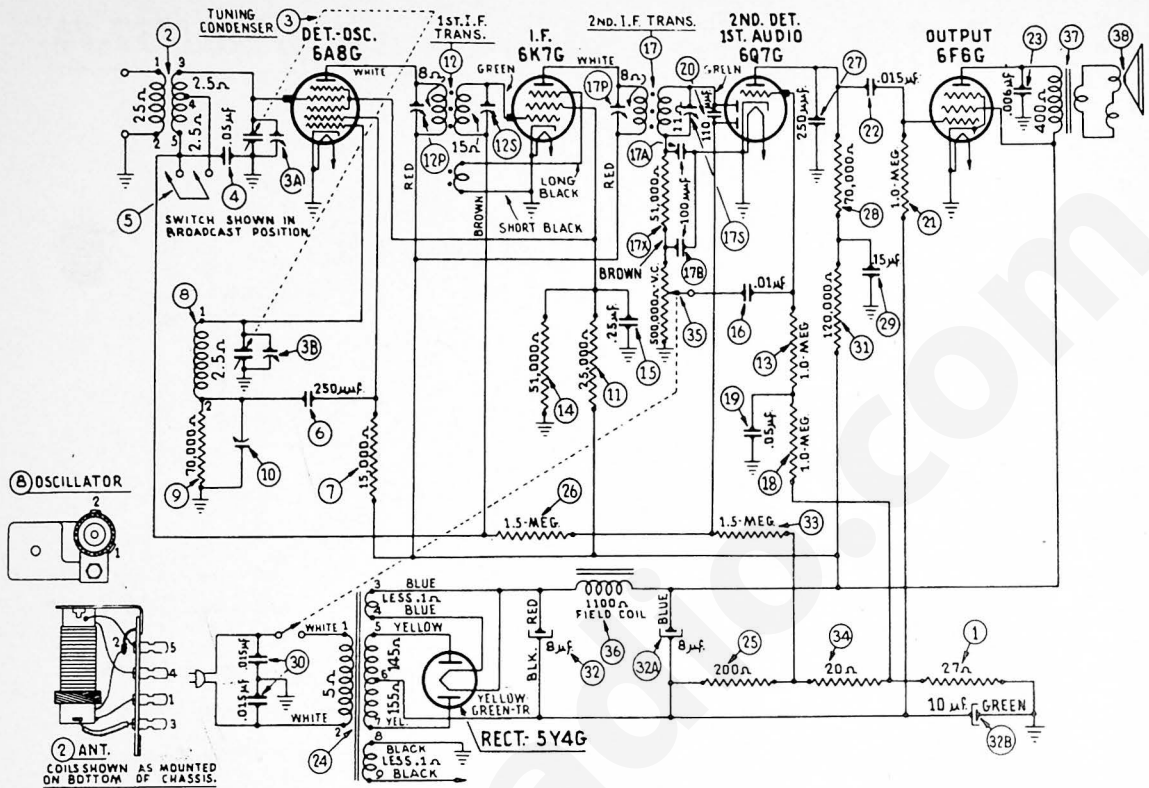


Fig. 4. Schematic Diagram—Model 37-62

### Replacement Parts—Model 37-62

Schem. No.	Description	Part No.	List Price	Schem. No.	Description	Part No.	List Price	Schem. No.	Description	Part No.	List Price
1	Resistor (27 ohms ½ watt)	33-027339	\$0.20	24	Power Transformer (115 volts, 60 cycle)	32-7626	\$4.25		Cover Speaker Terminals	36-3025	\$0.08
2	Ant. Transformer	32-2446			Power Transformer (115 volts, 25 to 40 cycle)	32-7627	5.50		Cord (AC)	L-2183	.40
3	Tuning Condenser	31-1989			Power Transformer (110/220 A. C. 50 to 60 cycle)	32-7628	5.25		Knob	27-4321	.10
4	Condenser (.05 mfd. Tubular)	30-4020	.20	25	Resistor (200 ohms ½ watt)	33-1210	.20		Knob	27-4322	.10
5	Range Switch	42-1299	.60	26	Resistor (1.5 megohm ½ watt)	33-515339	.20		Mtg. Rubber (Chassis, 4 required)	27-4116	.08
6	Condenser (250 mmfd. mica)	30-1032	.25	27	Condenser (250 mmfd. mica)	30-1032	.25		Mtg. Fibre Plate (Chassis, 4 required)	27-7497	.01
7	Resistor (15000 ohms ½ watt)	33-315339	.20	28	Resistor (70000 ohms ½ watt)	33-370339	.20		Mtg. Washer (Chassis, 4 required)	28-2089	1.50 C
8	Osc. Transformer	32-2330		29	Condenser (.015 mfd. Tubular)	30-4505	.20		Mtg. Bolt (Chassis, 4 required)	W-1358	2.60 C
9	Resistor (70000 ohms ½ watt)	33-370339	.20	30	Condenser (.015 mfd. Dual Bakelite)	3793DG	.40		Mtg. Rubber (Chassis, 4 required)	5189	.03
10	Compensator (Osc. series)	31-6150		31	Resistor (15 mfd. Tubular)	33-412339	.20		Panel (Ant. Coil)	38-8533	
11	Resistor (25000 ohms 1 watt)	33-325439	.20	32	Resistor (120000 ohms ½ watt)	33-412339	.20		Pilot Lamp Assembly	38-8534	.30
12	1st I. F. Trans.	32-2311	1.80	33	Resistor (20000 ohms ½ watt)	33-412339	.20		Shield (Tube)	28-2726	.10
13	Resistor (1 megohm ½ watt)	33-510339	.20	34	Elect. Condenser (8, 8, 10 mfd.)	30-2192	1.80		Socket (8 Prong)	27-6058	.11
14	Resistor (51000 ohms 1 watt)	33-351439	.25	35	Resistor (1.5 megohms ½ watt)	33-515339	.20		Socket (7 Prong)	27-6057	.11
15	Condenser (.25 mfd. Tubular)	30-4134	.25	36	Resistor (20 ohms ½ watt)	33-020339	.20		Spacer Mtg. Ant. Coil	27-8228	.01
16	Condenser (.01 mfd. Bakelite)	3903SU	.25	37	Volume Control and A. C. Switch	33-5198			Screw Mtg. Ant. Coil	W-1635	.30 C
17*	2nd I. F. Trans.	32-2460		38	Field Coil Assembly	36-3039	2.75		Speaker	36-1009	5.75
17X	Resistor (51000 ohms ½ watt, in I. F. Transformer)	33-351339	.20	39	Output Transformer	32-7019	.90		Vernier Drive Kit	45-2426	
18	Resistor (1 megohm ½ watt)	33-510339	.20	37	Speaker Cone Assembly	36-3157	1.00				
19	Condenser (.05 mfd. Tubular)	30-4020	.20		Dial	27-5287	.40		<b>CABINET PARTS</b>		
20	Condenser (.10 mfd. mica)	30-1031	.20		Hub	28-7152	.10		Baffle & Silk	40-8090	.30
21	Resistor (1 megohm ½ watt)	33-510339	.20		Clamp	28-2837	.10		Bezel	28-3899	.25
22	Condenser (.015 mfd. Bakelite)	3793SU	.35		Clamp	38-8382	.30		Screw (Bezel)	W-1664	.50 C
23	Condenser (.006 mfd. Tubular)	30-4504			Dial Screen Assembly	38-8382	.10		Screw (Speaker Mtg.)	W-1604	.50 C
					Cable (Speaker)	L-2633	.20				

\*Two condensers 17A and 17B are part of Padder inside of I. F. Transformer 17.

## PHILCO RADIO AND TELEVISION CORPORATION

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Philadelphia, Pa.