

Philco Radio & Television Corp.

Model: 39-6

Chassis:

Year: Pre August 1939

Power:

Circuit:

IF:

Tubes:

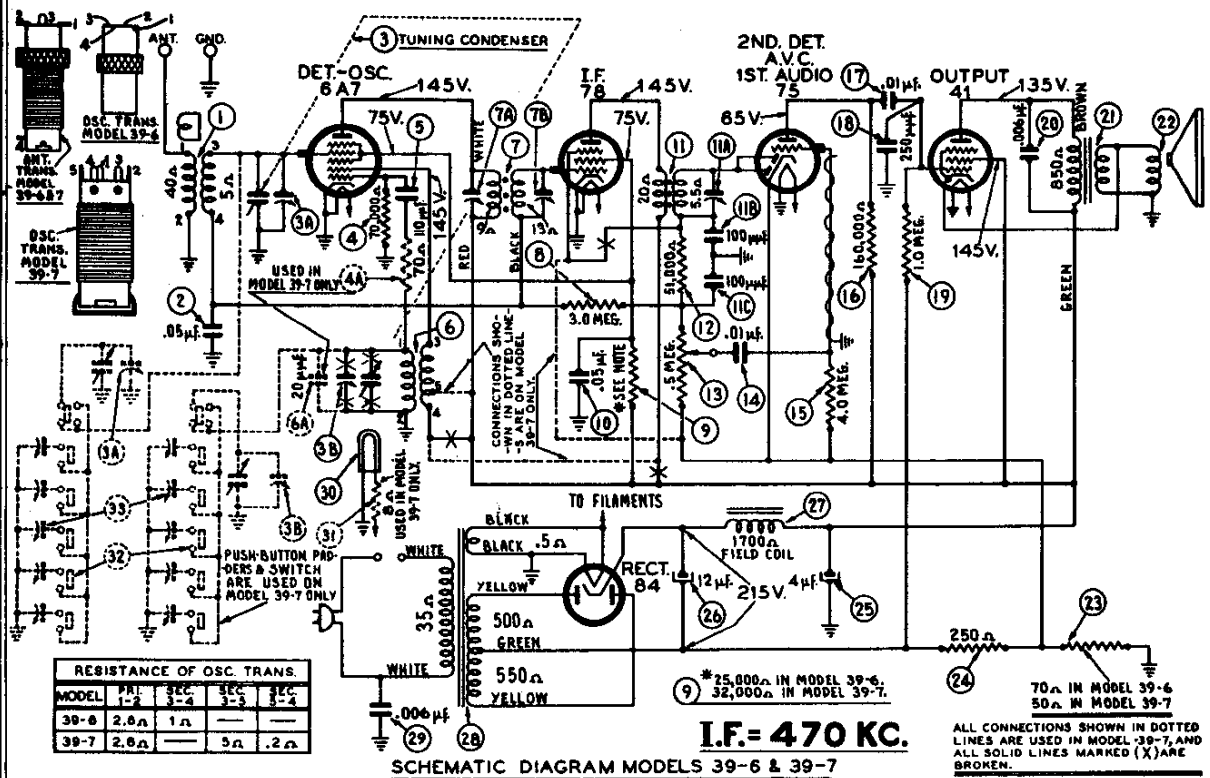
Bands:

Resources

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PHILCO RADIO & TELEV. CORP. Schematic, Voltage
 MODELS 39-6, 39-7, Code 121
 Socket, Trimmers



Models 39-6, 39-7, Code 121

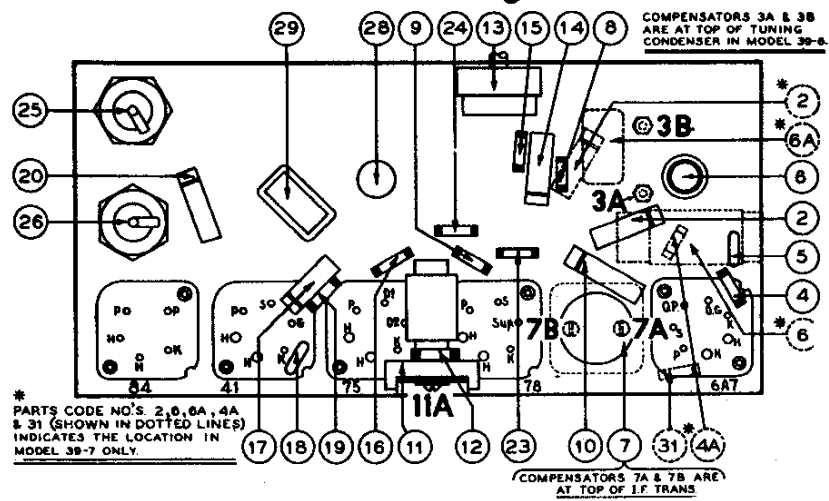


Fig. 2. Part Locations, Underside of Chassis

FREQUENCY RANGE: 530 to 1720 K.C.
INTERMEDIATE FREQUENCY: 470 K.C.
PHILCO TUBES USED: 6A7, First Detector Oscillator; 78, I.F. Amplifier; 75, Second Detector, A.V.C., First Audio; 41, Audio Output and 84, Rectifier.

POWER SUPPLY: 115 V., 50 to 60 cycle A.C.
 Power Transformers are available for operation on 115 V., 25 to 40 cycles A.C.
POWER CONSUMPTION: 30 watts.
AUDIO OUTPUT: One (1) watt.

MODELS 39-6, 39-7, Code 121
Alignment, Parts

PHILCO RADIO & TELEV. CORP.

Alignment of Compensators

EQUIPMENT REQUIRED:

- (1) Signal Generator; Philco Model 077 Signal Generator which has a fundamental frequency range from 115 to 36,000 K.C. is the correct instrument for this purpose.
- (2) Output Meter, Philco Model 027 Circuit Tester, incorporates a sensitive output meter and is recommended.
- (3) Philco Fiber Handle Screw Driver, Part No. 27-7059, and Fiber Wrench, Part No. 3164.

OUTPUT METER: The Philco 027 Output Meter is connected to the plate and screen terminals of the type 41 tube and adjusted for the 0 to 30 V.A.C. scale. After connecting the output meter, adjust the compensators in the order as shown in the tabulation below. Locations of the compensators are shown on Fig. 2. If the output meter pointer goes off scale when adjusting the compensators, reduce the strength of the signal from the generator.

Schem. No.	Description	Part No.	Schem. No.	Description	Part No.
6A*	Silver Mica Cond. (20 mfd.) (39-7)	30-1123	1	Ant. Trans. (39-6)	32-2583
7	1st I.F. Trans. Assy. (39-6)	32-3120	1	Ant. Trans. (39-7)	32-3039
	1st I.F. Trans. Assy. (39-7)	32-3121	2	Tubular Cond. (.05 mfd.)	30-4519
8	Resistor (3.0 meg., ½ watt)	33-450339	3	Tuning Cond. (39-6)	31-2335
9	Resistor (25,000 ohms, ½ watt) (39-6)	33-325339	3	Tuning Cond. (39-7)	31-2338
	Resistor (32,000 ohms, ½ watt) (39-7)	33-323339	4	Resistor (70,000 ohms, ½ watt)	33-370339
	Resistor (.05 mfd.)	30-4444	4A*	Resistor (70 ohms, ½ watt) (39-7)	33-070339
10	Tubular Cond. (.05 mfd.)	30-4444	5	Mica Cond. (110 mfd.)	30-1031
11	2nd I.F. Trans. Assy.	32-2674	6	Oscillator Trans. (39-6)	32-3021
	Resistor (51,000 ohms, ½ watt)	33-351339		Oscillator Trans. (39-7)	32-2122
12	Volume Control (.5 meg.)	33-5254	29	Condenser (.006, moulded)	30-4423
13	Tubular Cond. (.01 mfd.)	30-4479	30	Pilot Lamp	34-2064
14	Resistor (4.0 meg., ½ watt)	33-540339	31*	Pilot Lamp Resistor (8 ohms, ½ watt)	33-980331
15	Resistor (160,000 ohms, ½ watt)	33-416339	32*	Push-Button Switch	42-1477
16	Tubular Cond. (.01 mfd.)	30-4169	33*	Padder Strip Assy.	31-6290
17	Tubular Cond. (.01 mfd.) (39-7)	30-4572		* Indicates parts used on Model 39-7 only.	
18	Mica Cond. (250 mmfd.)	30-1032			
19	Resistor (1.0 meg., ½ watt)	33-510339			
20	Tubular Cond. (.006 mfd.)	30-4125			
21	Output Trans. (Speaker 36-1461)				
22	Cone and Voice Coil Assy. (Speaker 36-1461)	36-4095			
23	Resistor (70 ohms, ½ watt), Model 39-6	33-070339			
	Resistor (50 ohms, ½ watt), Model 39-7	33-050339			
24	Resistor (250 ohms, ½ watt)	33-125339			
25	Electrolytic Cond. (4 mfd., 300 V.)	30-3327			
26	Electrolytic Cond. (12 mfd., 300 V.)	30-2328			
27	Field Coil (Replace Speaker 36-1461)				
28	Power Trans. (115 V., 50 to 60 cycles)	32-7979			

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TYPE OF CIRCUIT: Models 39-6, code 121; and 39-7, code 121, employ a five-tube A.C. operated superheterodyne circuit, covering standard broadcast frequencies; Automatic Volume Control, and Pentode Audio Output. In general the two models are similar but differ in their tuning mechanisms and cabinets.

Model 39-6 is manually tuned and is assembled in cabinet type C.

Model 39-7, code 121, in addition to being manually tuned, is equipped with six Electric Automatic Push-Buttons. Five push-buttons are used for selecting any one of five stations in the standard broadcast range, and one push-button for changing to manual tuning. The procedure for adjusting the push-buttons for reception of stations will be found in the instructions supplied with each set.

Opera- tion in Order	SIGNAL GENERATOR			RECEIVER			Special Instruc- tions
	Output Connections to Receiver	Dummy Antenna Note A	Dial Setting	Control Setting	Adjust Compensators in Order	Special Instruc- tions	
1	6A7	.1 mf.	470 K.C.	Vol. Cont. Max.	11A, 7B, 7A	Adjust for max. output	
2	Ant. Lead	100 mf.	1550 K.C.	Vol. Cont. Max.	3B, 3A	Adjust for max. output Note A, B	

NOTE A—The "Dummy Antenna" consists of a condenser connected in series with the signal generator output lead (high side). Use the capacity as specified in each step of the above procedure.

NOTE B—DIAL CALIBRATION: With the tuning condenser in "maximum capacity" position (plates fully meshed), set the dial pointer between the two horizontal lines at the low frequency end of the scale (550 K.C.).