

PHILCO TRANSITONE SERVICE BROADCAST

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PHILCO MODEL 937

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SCHEMATIC MODEL 937

I.F. = 470 KC

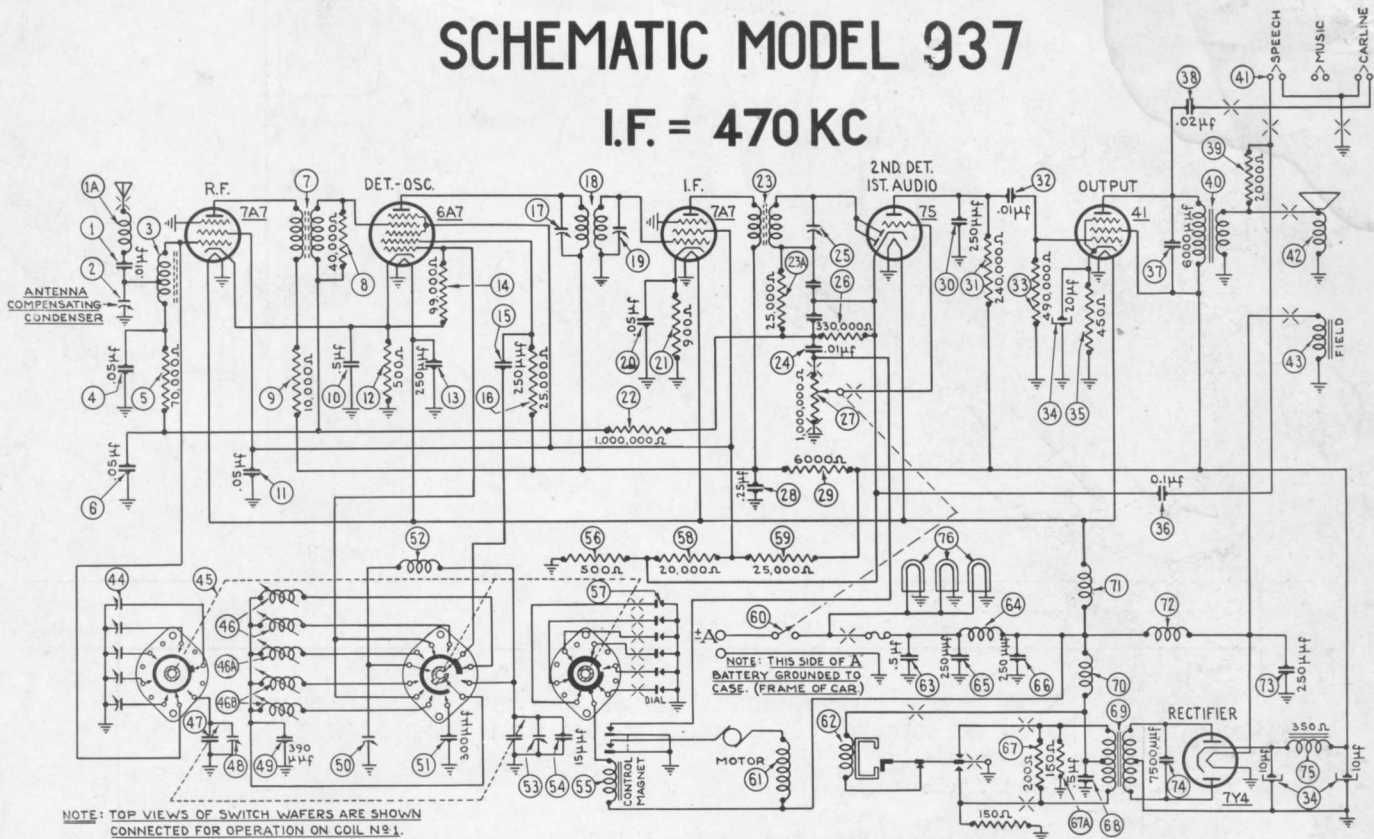


FIGURE 1

MODEL 937 PARTS LIST

No.	Description	Part No.	No.	Description	Part No.
1	Capacitor (.01 mfd.)	30-4479	40	Output Transformer	65-0048
1a	Antenna Choke	77-0161	41	Reception and Push Button	
2	Antenna Compensating Capacitor	Part of 44	42	Control	77-0179
3	Antenna Transformer	65-0085	43	Cone Kit	91-0028
4	Capacitor (.05 mfd.)	30-4444	44	Field Coil	Not Replaceable
5	Resistor (70,000 ohms)	33-370257	45	Antenna Padder Assembly	77-0172
6	Capacitor (.05 mfd.)	30-4444	46	Wafer Switch	77-0180
7	R. F. Transformer	65-0009	47	Oscillator Transformer (High Freq.)	65-0088
8	Resistor (40,000 ohms)	33-339137	48a	Oscillator Transformer (Med. Freq.)	65-0089
9	Resistor (10,000 ohms)	33-310337	48b	Oscillator Transformer (Low Freq.)	65-0090
10	Capacitor (.5 mfd.)	30-4565	47	Tuning Capacitor	63-0016
11	Capacitor (.05 mfd.)	30-4569	48	First Padder (on Tun. Cond.)	
12	Resistor (500 ohms)	33-150438	49	Silver Cap Capacitor (390 mfd.)	61-0031
13	Capacitor (250 mfd.)	61-0033	50	Low Frequency Padder	31-6230
14	Resistor (99,000 ohms)	33-399337	51	Silver Cap Capacitor (330 mfd.)	61-0003
15	Capacitor (250 mfd.)	61-0033	52	Oscillator Transformer	65-0052
16	Resistor (25,000 ohms)	33-325337	53	Second Padder (on Tun. Cond.)	
17	Padder (Pri. 1st I. F. Trans.)		54	Capacitor (15 mfd.)	61-0038
18	First I. F. Transformer	65-0044	55	Motor and Relay Assembly	77-0178
19	Padder (Sec. 1st I. F. Trans.)		56	Resistor (500 ohms)	33-150438
20	Capacitor (.05 mfd.)	30-4444	57	Push Button and Reception Control Assembly	77-0179
21	Resistor (900 ohms)	33-190438	58	Resistor (20,000 ohms)	33-320337
22	Resistor (1,000,000 ohms)	33-510257	59	Resistor (25,000 ohms)	33-325437
23	Second I. F. Transformer	65-0045	60	On-Off Switch and Volume Control (1,000,000 ohms)	33-5268
24a	Resistor (25,000 ohms)	33-325337	61	Motor	83-0001
24b	Capacitor (.01 mfd.)	61-0014	62	Vibrator	41-3398
25	Padder (Sec. 2nd I. F. Trans.)		63	Capacitor (.5 mfd.)	30-4474
26	Resistor (330,000 ohms)	33-433337	64	"A" Choke	65-0057
27	Vol. Control (1,000,000 ohms) and On-Off Switch	33-5268	65	Capacitor (250 mfd.)	61-0033
28	Capacitor (.25 mfd.)	30-4448	66	Capacitor (250 mfd.)	61-0033
29	Resistor (6,000 ohms)	33-260337	67a	Resistor (200 ohms)	33-120347
30	Capacitor (250 mfd.)	30-1032	67b	Resistor (150 ohms)	33-115347
31	Resistor (240,000 ohms)	33-424337	68	Capacitor (.5 mfd.)	30-4565
32	Capacitor (.01 mfd.)	30-4501	69	Power Transformer	65-0046
33	Resistor (490,000 ohms)	33-449337	70	Vibrator Choke	32-2483
34	Filter Capacitor (10-10-20 mfd.)	61-0028	71	Filament Choke	65-0057
35	Resistor (450 ohms)	33-145337	72	Choke	32-1374
36	Capacitor (.1 mfd.)	30-4499	73	Capacitor (250 mfd.)	61-0033
37	Capacitor (6,000 mfd.)	30-4024			
38	Capacitor (.02 mfd.)	30-4495			
39	Resistor (2,000 ohms)	33-220447			

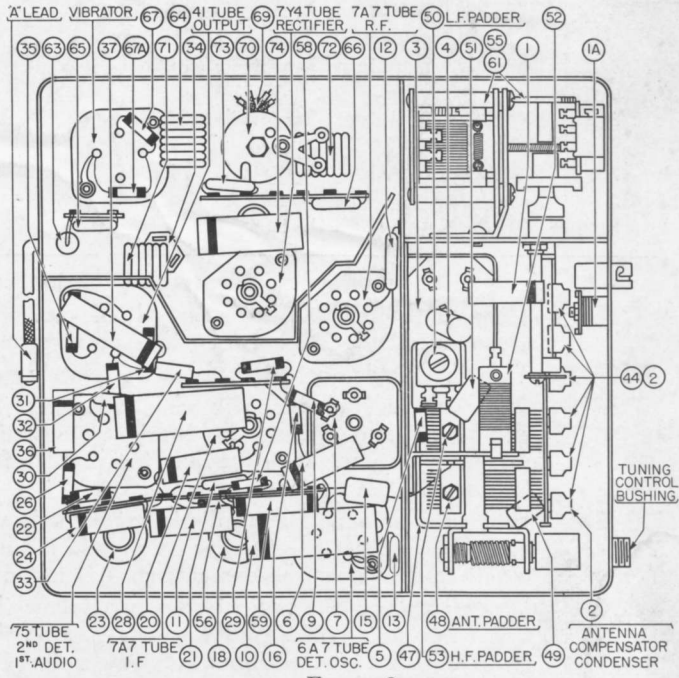


FIGURE 2

No.	Description	Part No.	No.	Description	Part No.
35	Capacitor (7,500 mfd.)	30-4567	75	Bracket (Automatic Control Mtg.)	57-0638
36	Filter Choke (350 ohms)	32-7959	76	Distributor Resistor	33-1196
37	Pilot Lamp	34-2040	77	Interference Capacitor	30-4007
38	Call Letter Kit	81-0088	78	Dial	55-0304
	Tuning Control (Manual)	85-0060	79	Tuning and Volume Knob	27-4689

MODEL 937 — ADJUSTMENTS

All padding adjustments are carefully made at the factory and ordinarily no readjustments are necessary. However, when readjustments are required, the procedure given below must be followed in detail.

Equipment — Fully charged heavy duty storage battery or 6 volt power pack, 077 or 177 Philco Set Tester, 27-7159 Padding screw driver.

General — The output meter must be connected by means of an adapter to the plate of the type 41 output tube and to the Radio chassis.

With the Radio and signal generator set up for operation at the prescribed frequency, turn the Radio volume control on full and set the signal generator attenuator so that a half scale reading is obtained on the output meter. The signal in the speaker should be audible but not loud.

The shielding on the generator output lead must be connected to the Radio housing.

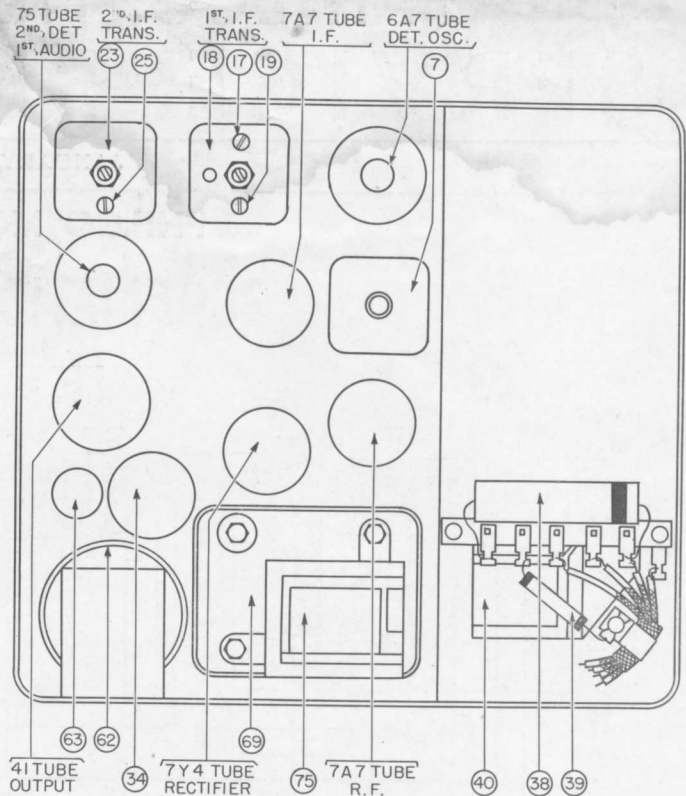


FIGURE 3

OPERATION	SIGNAL GENERATOR		DUMMY CAPACITY	SPECIAL INSTRUCTIONS	ADJUST PADDER
	FREQUENCY	CONNECTION			
1	PRESS THE RETURN TO DIAL BUTTON UNTIL STATIONS CAN BE TUNED IN BY MANUAL TUNING. ADJUST THE ANTENNA COMPENSATOR ② TWO TURNS FROM TIGHT				
2	470 K.C.	To Grid of 6A7 Tube	.1 Mfd.	Turn Tuning Condenser Plates Out of Mesh as Far as They Will Go.	25 19 17
3	1580 K.C.	To Antenna Receptacle on Radio	See Note 1	Note 2	53
4	1400 K.C.	To Antenna Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	48 Note 4
5	580 K.C.	To Antenna Receptacle on Radio	See Note 1	Set Tuning Condenser at 580 K.C.	50 Note 3
6	1580 K.C.	To Antenna Receptacle on Radio	See Note 1	Note 2	53
7	1400 K.C.	To Antenna Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	48 Note 4
8	1200 to 1400 K.C.	Note 5	Note 5	Note 5	②

Make all adjustments for maximum reading on the output meter.

NOTE 1 — Connect the antenna lead, Part No. 41-3191, to the antenna receptacle in the radio. Connect a 50 Mmfd. Condenser in series between the signal generator and the antenna lead.

NOTE 2 — Turn the condenser rotor plates completely out of mesh as far as they will go.

NOTE 3 — Rock the tuning condenser while adjusting the low frequency padder. Tune the condenser to the signal and adjust the padder for maximum output. Rotate the tuning condenser back and forth slightly for maximum output. Then readjust the padder for maximum output. Repeat this procedure until no further improvement is noticed.

NOTE 4 — When the antenna stage adjustment is made with the Radio installed in the car, the Radio antenna lead must be connected to the car antenna in the usual manner. Connect the signal generator output lead to a wire placed near the car antenna but not connected to it.

NOTE 5 — When installing the radio in the car, follow the installation instructions carefully. Tune in a weak broadcast signal between 1200 and 1400 Kilocycles on the control scale. Remove the plug button on the end of the radio and adjust the antenna compensator ② (See Figure 2) for maximum signal.

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