

# PHILCO AUTO RADIO Model 937

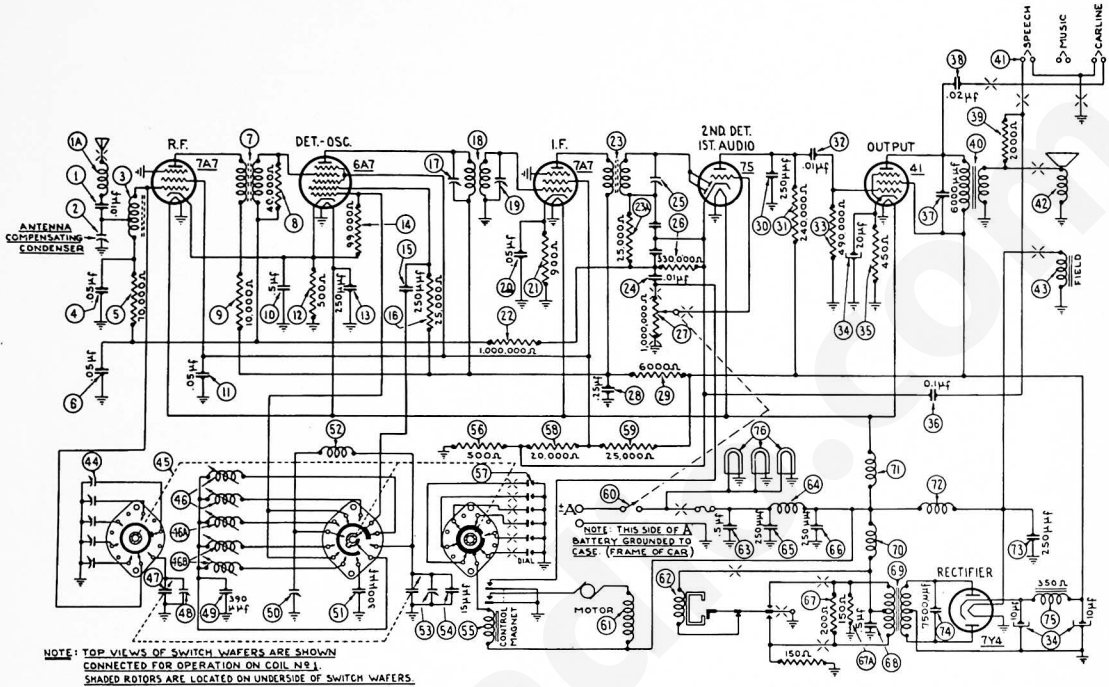


FIGURE 1

## MODEL 937 PARTS LIST

No.	Description	Part No.	No.	Description	Part No.
①	Capacitor (.01 mfd.)	30-4479	69	Output Transformer	65-0048
②	Antenna Choke	77-0161	70	Reception and Push Button Control	77-0179
③	Antenna Compensating Capacitor	Part of ④	71	Cone Kit	91-0028
④	Antenna Transformer	65-0085	72	Field Coil (Not Replaceable)	
⑤	Capacitor (.05 mfd.)	30-4444	73	Antenna Padder Assembly	77-0172
⑥	Resistor (70,000 ohms)	33-32037	74	Wafer Switch	77-0180
⑦	Capacitor (.05 mfd.)	30-4444	75	Oscillator Transformer (High Freq.)	65-0088
⑧	R. F. Transformer	65-0009	76a	Oscillator Transformer (Med. Freq.)	65-0089
⑨	Resistor (40,000 ohms)	33-339137	77b	Oscillator Transformer (Low Freq.)	65-0090
⑩	Resistor (10,000 ohms)	33-310337	78	Tuning Condenser	63-0016
⑪	Capacitor (.5 mfd.)	30-4565	79	First Padder (on Tun. Cond.)	
⑫	Capacitor (.05 mfd.)	30-4569	80	Silver Cap Capacitor (300 mmfd.)	61-0031
⑬	Resistor (500 ohms)	33-150438	81	Low Frequency Padder (350 mmfd.)	31-6230
⑭	Capacitor (250 mmfd.)	61-0033	82	Silver Cap Capacitor	61-0003
⑮	Resistor (99,000 ohms)	33-339337	83	Oscillator Transformer (350 mmfd.)	65-0092
⑯	Capacitor (250 mmfd.)	61-0033	84	Second Padder (on Tun. Cond.)	
⑰	Resistor (25,000 ohms)	33-325337	85	Capacitor (15 mfd.)	61-0038
⑱	Padder (Pri. 1st I. F. Trans.)	65-0044	86	Motor and Relay Assembly	77-0178
⑲	Padder (Sec. 1st I. F. Trans.)		87	Resistor (500 ohms)	33-150438
⑳	Capacitor (.05 mfd.)	30-4444	88	Push Button and Control	77-0179
㉑	Resistor (900 ohms)	33-190438	89	Reception Control Assembly	77-0179
㉒	Resistor (1,000,000 ohms)	33-510257	90	Resistor (20,000 ohms)	33-320337
㉓	Second I. F. Transformer	65-0045	91	Resistor (25,000 ohms)	33-325437
㉔	Resistor (25,000 ohms)	33-325337	92	On-Off Switch and Volume Control (1,000,000 ohms)	33-5268
㉕	Capacitor (.01 mfd.)	61-0014	93	Vibrator	83-0001
㉖	Padder (Sec. 2nd I. F. Trans.)	33-433337	94	Capacitor (.5 mfd.)	30-4474
㉗	Resistor (330,000 ohms)	33-433337	95	"A" Choke	65-0057
㉘	Vol. Control (1,000,000 ohms) and On-Off Switch	33-5268	96	Capacitor (250 mmfd.)	61-0033
㉙	Capacitor (.25 mfd.)	30-4448	97	Capacitor (250 mmfd.)	61-0033
㉚	Resistor (6,000 ohms)	33-260337	98	Resistor (200 ohms)	33-120347
㉛	Capacitor (250 mmfd.)	30-1032	99	Resistor (150 ohms)	33-115347
㉜	Resistor (240,000 ohms)	33-424337	100	Capacitor (4.5 mfd.)	30-4505
㉝	Capacitor (.01 mfd.)	30-4501	101	Power Transformer	65-0046
㉞	Filter Capacitor (400,000 ohms)	33-449337	102	Vibrator Choke	32-2483
㉟	Filter Capacitor (10-10-20 mfd.)	61-0028	103	Filament Choke	65-0057
100	Resistor (450 ohms)	33-145337	104	Choke	32-1374
101	Capacitor (.1 mfd.)	30-4499	105	Capacitor (250 mmfd.)	61-0033
102	Capacitor (6,000 mmfd.)	30-4024			
103	Capacitor (.02 mfd.)	30-4495			
104	Resistor (2,000 ohms)	33-220417			

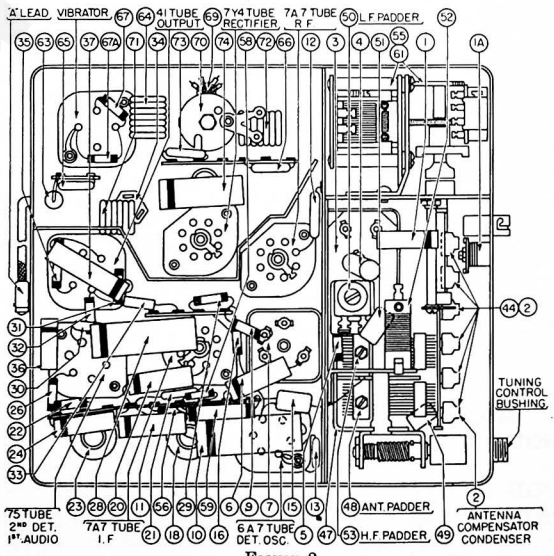


FIGURE 2

No.	Description	Part No.	No.	Description	Part No.
105	Capacitor (7,500 mmfd.)	30-4567	106	Bracket (Automatic Control Mtg.)	57-0038
106	Filter Choke (350 ohms)	32-7950	107	Distributor Resistor	33-1106
107	Pilot Lamp	34-2040	108	Interference Condenser	30-4007
108	Call Letter Kit	81-0088	109	Dial	55-0304
109	Choke	85-0060	110	Tuning and Volume Knob	27-4689

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## 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** — Storage Battery (fully charged) or a 6 volt power pack. Signal Generator such as Philco Models 077 or 177. Vacuum Tube Voltmeter and Circuit Tester, Philco Model 027. In addition a padding screw driver, Philco part No. 45-2610.

**General** — The output meter must be connected by means of an adapter to the plate of the type #1 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.

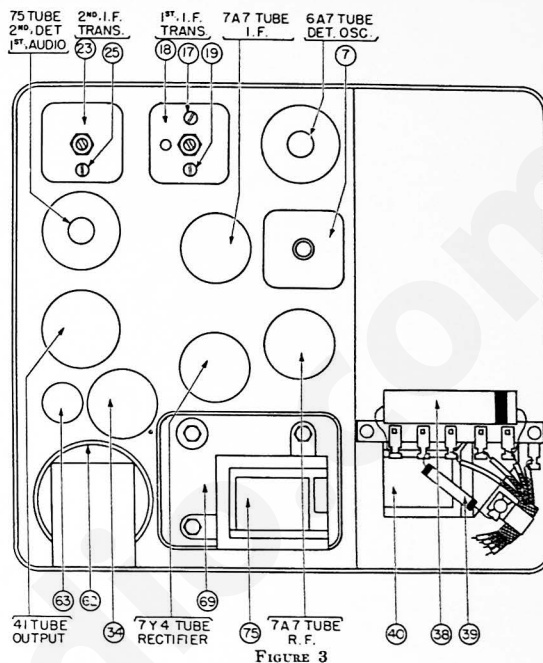


FIGURE 3

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.	②③ ①⑥ ①⑦
3	1580 K.C.	To Antenna Receptacle on Radio	See Note 1	Note 2	②③
4	1400 K.C.	To Antenna Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	①⑧ Note 4
5	580 K.C.	To Antenna Receptacle on Radio	See Note 1	Set Tuning Condenser at 580 K.C.	②④ Note 3
6	1580 K.C.	To Antenna Receptacle on Radio	See Note 1	Note 2	②③
7	1400 K.C.	To Antenna Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	①⑧ 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.