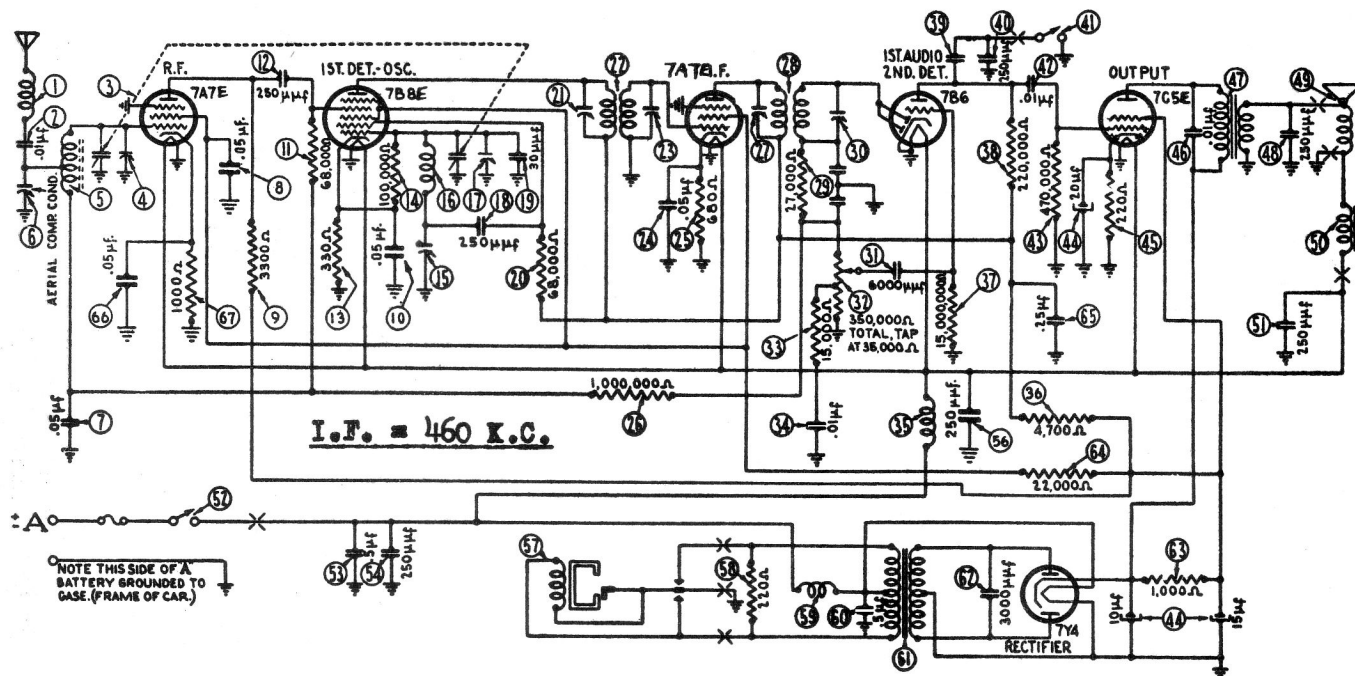




PHILCO AUTO RADIO

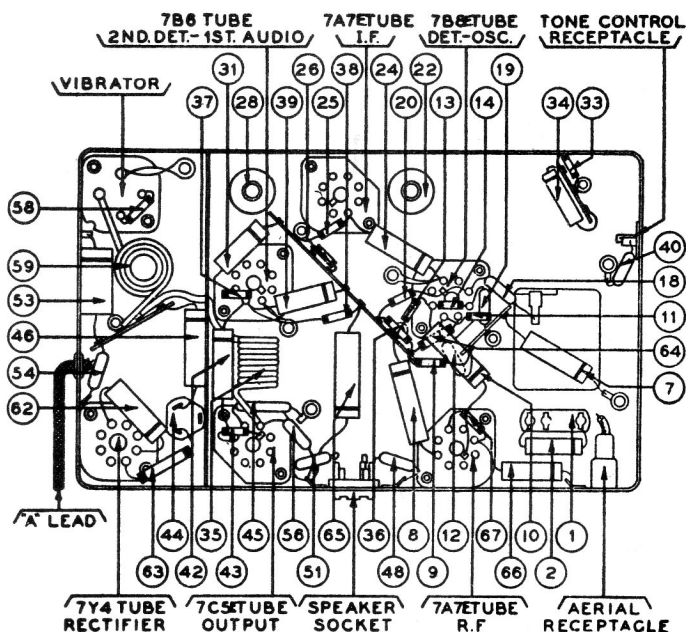
PHILCO MODEL 804

MODEL 804 SCHEMATIC



Part List - 804

No.	Description	Part No.	No.	Description	Part No.
1	Antenna Choke.....	65-0168	49	Replacement Cone (For 73-0045-2 Spkr.).....	91-0086
2	Condenser (.01 Mfd.).....	61-0014		(For 73-0045-3 Spkr.).....	91-0126
3	Tuning Condenser.....	63-0047		(For 73-0047-2 Spkr.).....	91-0086
4	Antenna Padder (on Tun. Cond.).....	61-0101		(For 73-0047-3 Spkr.).....	91-0126
5	Antenna Transformer.....	65-0323	50	Field Coil.....	Not replaceable
6	Aerial Compensator.....	77-0545	51	Condenser (250 Mmfd.).....	61-0033
7	Condenser (.05 Mfd.).....	61-0101	52	On-Off Switch.....	85-0112
8	Condenser (.05 Mfd.).....	61-0101	53	Condenser (.5 Mfd.).....	61-0106
9	Resistor (3,300 ohms).....	33-233344	54	Condenser (250 Mmfd.).....	61-0033
10	Condenser (.05 Mfd.).....	61-0101	56	Condenser (250 Mmfd.).....	61-0033
11	Resistor (68,000 ohms).....	33-368344	57	Vibrator.....	83-0025
12	Condenser (250 Mmfd.).....	61-0033	58	Resistor (220 ohms).....	33-122344
13	Resistor (330 ohms).....	33-133336	59	Vibrator Choke.....	65-0075
14	Resistor (100,000 ohms).....	33-410344	60	Condenser (.5 Mfd.).....	61-0137
15	Low Frequency Padder.....	63-0048	61	Power Transformer.....	65-0318
16	Oscillator Transformer.....	65-0345	62	Condenser (3,000 Mmfd.).....	61-0115
17	Oscillator Padder (on Tun. Cond.).....	61-0101	63	Resistor (1,000 ohms).....	33-210444
18	Condenser (250 Mmfd.).....	61-0033	64	Condenser (22,000 ohms).....	33-322444
19	Condenser (30 Mmfd.).....	60-030377	65	Condenser (.25 Mfd.).....	61-0125
20	Resistor (68,000 ohms).....	33-368344	66	Condenser (.05 Mfd.).....	61-0111
21	Padder (Pri. 1st I.F. Trans.).....	65-0319	67	Resistor (1,000 ohms).....	33-210336
22	First I.F. Transformer.....	65-0319		Interference Condenser.....	30-4007
23	Padder (Sec. 1st I.F. Trans.).....	61-0101		Distributor Resistor.....	33-1196
24	Condenser (.05 Mfd.).....	61-0101		Fuse.....	45-2559
25	Resistor (680 ohms).....	33-168336		Hook Bolt (Radio Mtg.).....	W1340FA3
26	Resistor (1,000,000 ohms).....	33-510344		Nut (Radio Mtg.).....	W98FA3
27	Padder (Pri. 2nd I.F. Trans.).....	65-0320		Bracket (Control Mtg.).....	57-1300FC46
28	Second I.F. Transformer.....	65-0320		Bracket (Control Mtg.).....	57-1301FC46
29	Resistor (27,000 ohms).....	33-327344		Nut (Control Mtg.).....	W124FA3
30	Padder (Sec. 2nd I.F. Trans.).....	61-0103		Screw (Control Mtg.).....	W161FA3
31	Condenser (6,000 Mmfd.).....	61-0103		Screw (Control Mtg.).....	W1794FA24
32	Volume Control (350,000 ohms).....	67-0032-1		Cable Clamp.....	57-1463
33	Resistor (15,000 ohms).....	33-315344		Control Assembly.....	85-0115
34	Condenser (.01 Mfd.).....	61-0114		Tube Slide Cover.....	318-1997
35	Filament Choke.....	32-1604		Wiring Side Cover.....	57-1345PC45
36	Resistor (4,700 ohms).....	33-247344		Vibrator Socket.....	27-6044
37	Resistor (15,000,000 ohms).....	33-615344		Speaker Socket.....	55-0443
38	Resistor (220,000 ohms).....	33-422344		Loktal Socket.....	55-0575
39	Condenser (3,000 Mmfd.).....	61-0109		Housing.....	77-0522PC45
40	Condenser (250 Mmfd.).....	61-0124		Drive Cord.....	55-0935
41	Tone Control Switch.....	85-0111		Tuning & Volume Knob.....	55-0936
42	Condenser (.01 Mfd.).....	61-0100		Drive Cord Spring.....	57-1425
43	Resistor (470,000 ohms).....	33-447344		Flexible Shaft (Volume).....	57-1384
44	Filter Condenser (10-15-20 Mfd.).....	61-0089		Flexible Shaft (Tuning).....	57-1385
45	Resistor (220 ohms).....	33-122436		Pointer.....	57-1403FA3
46	Condenser (.01 Mfd.).....	61-0124		Pilot Lamp.....	34-2039
47	Output Transformer.....	65-0317		Tone Control Lead.....	95-0135
48	Condenser (250 Mmfd.).....	61-0033		Dial & Cover Assembly.....	318-2011
				Upper Aerial Stanchion Kit.....	45-1438
				Lower Aerial Stanchion Kit.....	45-1437



No.	Description	Part No.	No.	Description	Part No.
	Aerial Rod (48").....	57-1248		All Aerial Parts used in Part Nos. 91-0109, 91-0110 and 91-0111	
	Aerial Rod (66").....	57-1249		Cowl Aerial.....	
	Aerial Rod (94").....	57-1247			

MODEL 804 — 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, 177 Philco Signal generator, 028 Philco Vacuum tube voltmeter and set tester or audio output meter, 45-2610 Padding screw driver.

General — **VACUUM TUBE VOLTMETER.** The Model 028 Vacuum tube voltmeter is an extremely sensitive and accurate test instrument and is recommended for use when aligning and adjusting auto radios. Connect the negative (—) terminal of the Vacuum Tube Voltmeter to the high side (ungrounded side) of the volume control. Connect the positive (+) terminal to the radio housing.

AUDIO OUTPUT METER. If an audio output meter is used, connect the leads across the voice coil of the speaker. Use the 0-30 volt scale.

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 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.

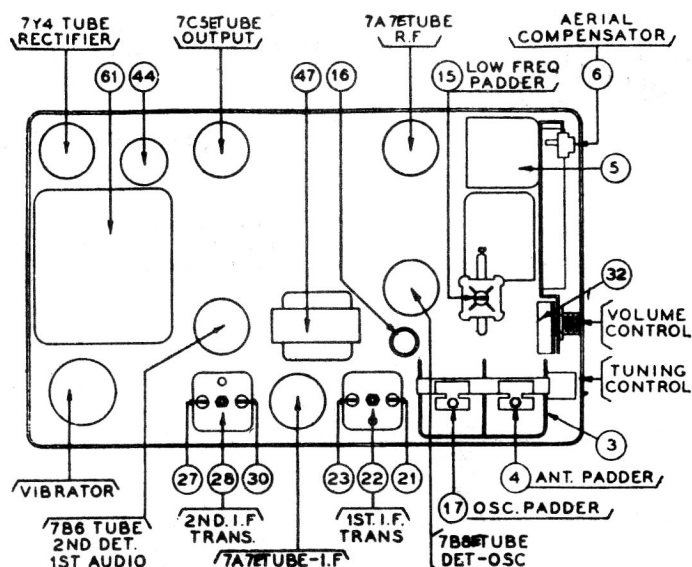


FIGURE 3

OPERATION	SIGNAL GENERATOR		DUMMY CAPACITY	SPECIAL INSTRUCTIONS	ADJUST PADDER
	FREQUENCY	CONNECTION			
1	ADJUST THE AERIAL COMPENSATOR ⑥ TWO TURNS FROM TIGHT				
2	460 K.C.	To Aerial Receptacle on Radio	.1 Mfd.	Note 2	30 27 23 21 39 27 23 21
3	1580 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	17
4	1400 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	④ Note 4
5	580 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 580 K.C.	15 Note 3
6	1580 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	17
7	1400 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	④ Note 4
8	580 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 580 K.C.	15 Note 3
9	1200 to 1400 K.C.	Note 5	Note 5	Note 5	⑥

Make all adjustments for maximum reading on the output meter.

NOTE 1 — Connect the aerial lead, Part No. 41-3191, to the aerial receptacle in the radio. Connect a 10 Mmfd. Condenser in series between the signal generator and the aerial 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 aerial stage adjustment is made with the Radio installed in the car, the Radio aerial lead must be connected to the car aerial in the usual manner. Connect the signal generator output lead to a wire placed near the car aerial 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. Adjust the aerial compensator ⑥ for maximum signal.