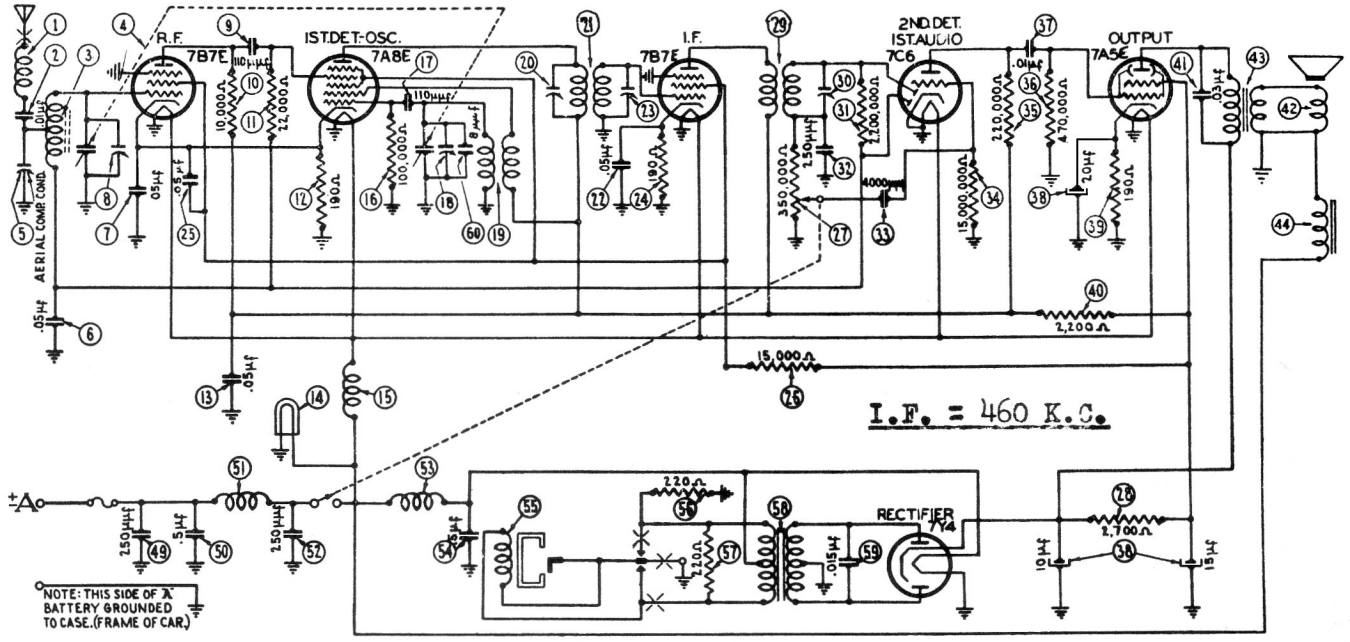
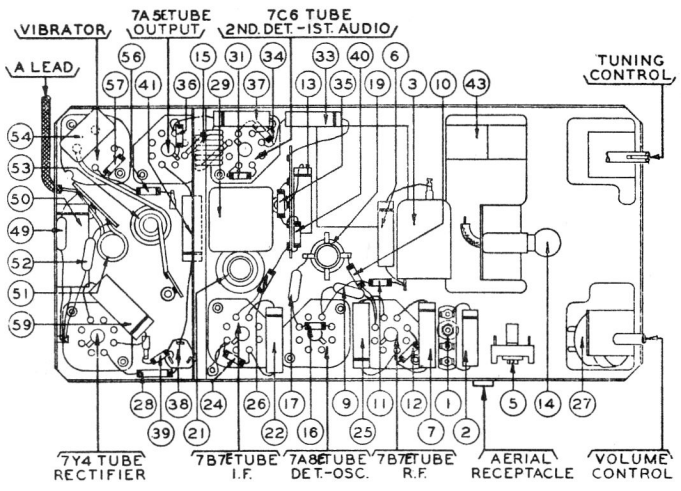
PHILCO . . . . RADIO SERVICE BULLETIN No. 330

PHILCO AUTO RADIO

PHILCO MODEL 801

MODEL 801 SCHEMATIC





PARTS LIST

No.	Description	Part No.
1.	Antenna Choke	65-0168
2.	Condenser (.01 mfd.)	61-0114
3.	Antenna Transformer	65-0196
4.	Tuning Condenser	63-0028
5.	Aerial Compensator	63-0030
6.	Condenser (.05 mfd.)	61-0101
7.	Condenser (.05 mfd.)	61-0111
8.	First Padder (on Tun. Cond.)	
9.	Condenser (110 mmfd.)	30-1031
10.	Resistor (10,000 ohms)	33-310344
11.	Resistor (22,000 ohms)	33-322344
12.	Resistor (190 ohms)	33-119336
13.	Condenser (.05 mfd.)	61-0111
14.	Pilot Lamp	69-0004
15.	Filament Choke	65-0158
16.	Resistor (100,000 ohms)	33-410344
17.	Condenser (110 mmfd)	30-1031
18.	Second Padder (on Tun. Cond.)	
19.	Oscillator Transformer	65-0194
20.	Padder (Pri. 1st I.F. Trans.)	
21.	First I.F. Transformer	65-0191
22.	Condenser (.05 mfd.)	61-0111
23.	Padder (Sec. 1st I.F. Trans.)	
24.	Resistor (190 ohms)	33-119336
25.	Condenser (.05 mfd.)	61-0111
26.	Resistor (15,000 ohms)	33-315344
27.	Volume Control 350,000 ohms) and On-Off Switch	67-0020
28.	Resistor (2700 ohms)	33-227444
29.	Second I.F. Transformer	65-0192
30.	Padder (Sec. 2nd I.F. Trans.)	
31.	Resistor (2,200,000 ohms)	33-522344
32.	Condenser (250 mmfd.) Part of (29)	
33.	Condenser (4000 mmfd.)	61-0128
34.	Resistor (15,000,000 ohms)	33-615344
35.	Resistor (220,000 ohms)	33-422344
36.	Resistor (470,000 ohms)	33-447344
37.	Condenser (.01 mfd.)	61-0114
38.	Filter Condenser (10-15-20 mfd.)	61-0068
39.	Resistor (190 ohms)	33-119336
40.	Resistor (2200 ohms)	33-222344
41.	Condenser (.03 mfd.)	61-0119
42.	Cone and Voice Coil (For 73-0027-1)	91-0076
	(For 73-0027-2)	91-0077
43.	Output Transformer	32-8119
44.	Field Coil .... not replaceable	
49.	Condenser (250 mmfd.)	61-0033
50.	Condenser (.5 mfd.)	61-0106
51.	"A" Choke	32-1644
52.	Condenser (250 mmfd.)	61-0033
53.	Vibrator Choke	65-0204
54.	Condenser (.5 mfd.)	61-0106
55.	Vibrator	83-0025
56.	Resistor (220 ohms)	33-122344
57.	Resistor (220 ohms)	33-122344
58.	Power Transformer	65-0185
59.	Condenser (.015 mfd.)	61-0138
60.	Condenser (8 mmfd.)	30-1106

No.	Description	Part No.
	Drive Cord (16½")	55-0588
	Drive Cord (5¾")	55-0589
	Drive Cord (13¾")	55-0652
	Drive Cord (7⅝")	55-0653
	Tuning Shaft	57-0802FA3
	Speaker	73-0027
	Tube Side Cover	318-1964
	Wiring Side Cover	318-1963
	Pointer	57-1421
	Dial	77-0526
	Tuning and Vol. Knob	55-0547
	Window Crystal	55-0501
	Back Strap (Radio Mtg.)	28-5998FA3
	Mounting Bracket (Radio Mtg.)	57-0812FC45
	Interference Condenser	30-4007
	Distributor Resistor	33-1196
	Nut (Radio Mtg.)	W98FA3
	Bolt (Radio Mtg.)	W1318FA3
	Nut (Radio Mtg.)	W1532FA3
	Screw (Radio Mtg.)	97-0082FA3
	Upper Aerial Stanchion Kit	45-1438
	Lower Aerial Stanchion Kit	45-1437
	Aerial Rod (48¾")	57-1248
	Aerial Rod (66")	57-1249
	Aerial Rod (94")	57-1247
	All Aerial Parts Used in Parts Nos. 91-0109, 91-0110 and 91-0111 Cowl Aerial.	

MODEL 801 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.

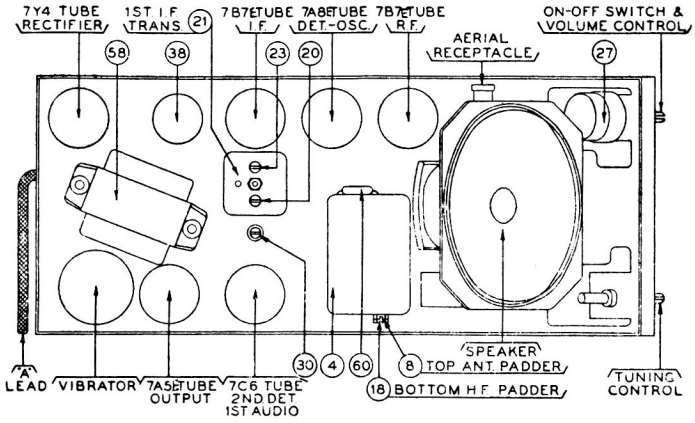
EQUIPMENT—Fully charged heavy duty storage battery or 6 volt power pack, 177 Philco Signal generator, 028 Philco Vacuum tube voltmeter and set tester or audio output meter, 45-2610. Padding screw driver.

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.



OPERATIONS	SIGNAL GENERATOR		DUMMY CAPACITY	SPECIAL INSTRUCTIONS	ADJUST PADDER
	FREQUENCY	CONNECTION			
1		ADJUST THE AERIAL COMPENSATOR ⑤ TWO TURNS FROM TIGHT			
2	460 K.C.	To Aerial Receptacle on Radio	.1 mfd.	Note 1	㉚ ㉓ ⑳ ㉚ ㉓ ⑳
3	1580 K.C.	To Aerial Receptacle on Radio	30 mmfd. See Note 2	Note 1	⑱
4	1400 K.C.	To Aerial Receptacle on Radio	30 mmfd. See Note 2	Set tuning condenser at 1400 K.C.	⑧ Note 3
5	1200 to 1400 K.C.	Note 4	Note 4	Note 4	⑤

Make all adjustments for maximum reading on the output meter.

NOTE 1 — Turn the condenser rotor plates completely out of mesh as far as they will go.

NOTE 2 — Connect the aerial lead, Part No. 41-3191, to the aerial receptacle in the radio. Connect a 30 mmfd. Condenser in series between the signal generator and the aerial lead.

NOTE 3 — 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 4 — When installing the radio in the car, follow the instructions carefully. Tune in a weak broadcast signal between 1200 and 1400 K.C. on the control scale. Remove the plug button on the side of the radio and adjust the aerial compensator ⑤ for maximum signal.