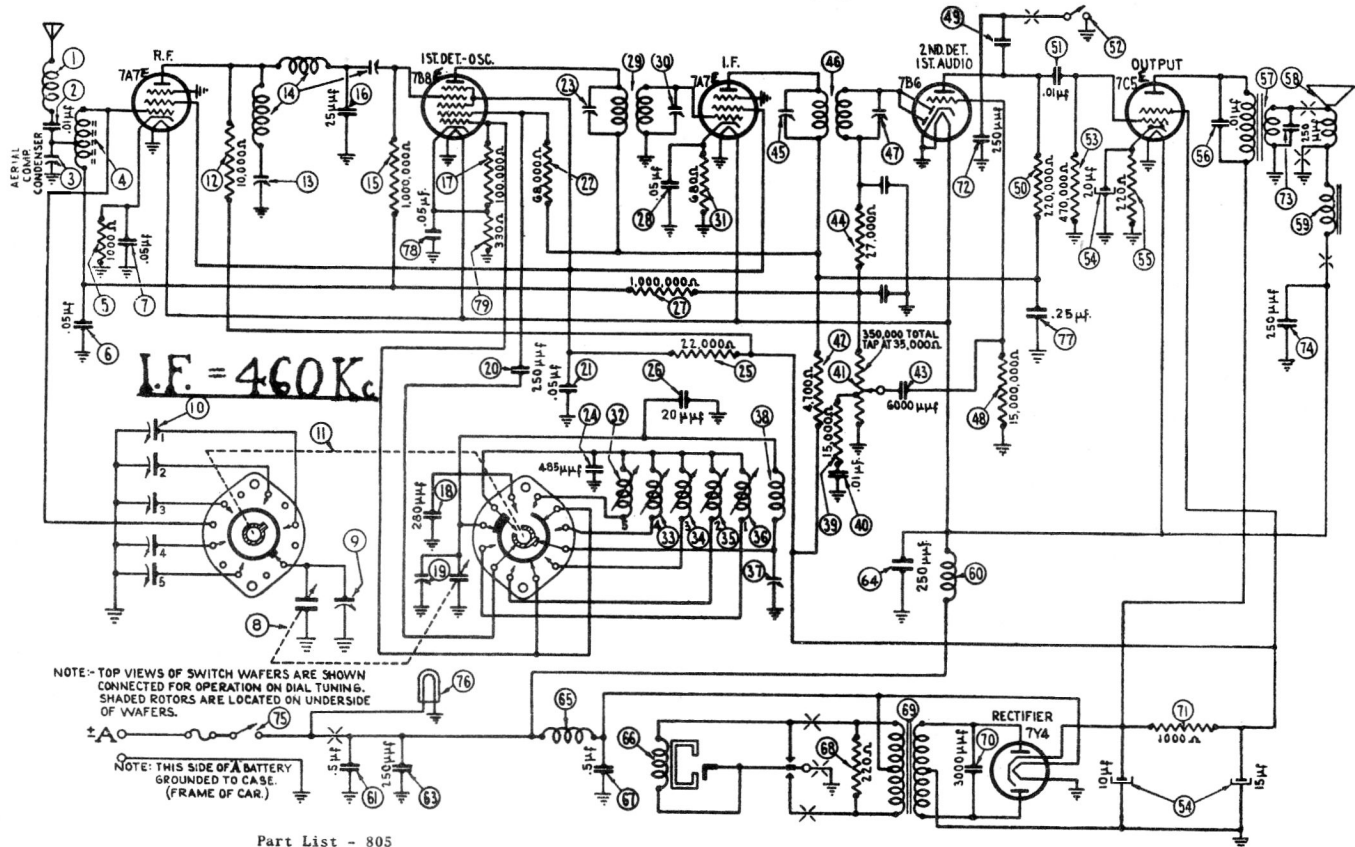




PHILCO AUTO RADIO

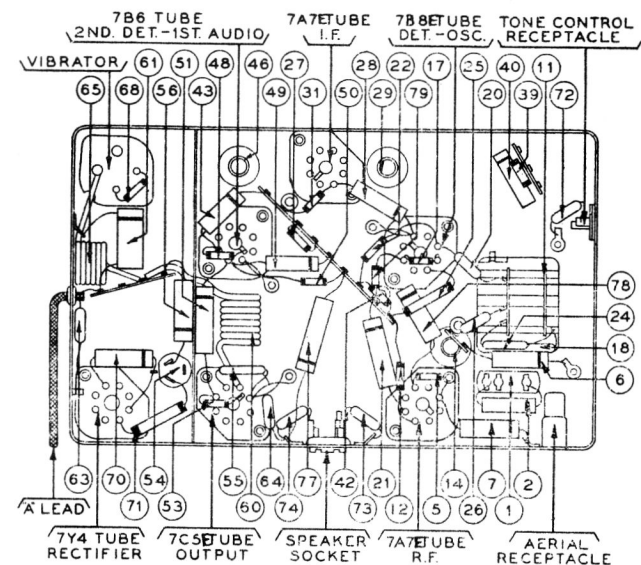
PHILCO MODEL 805

MODEL 805 SCHEMATIC



Part List - 805

No.	Description	Part No.	No.	Description	Part No.
1	Antenna Choke.....	65-0168	48	Resistor (15,000,000 ohms).....	33-615344
2	Condenser (.01 Mfd.).....	61-0114	49	Condenser (3,000 Mmfd.).....	61-0109
3	Aerial Compensator.....Part of (10)		50	Resistor (220,000 ohms).....	33-422344
4	Antenna Transformer.....	65-0323	51	Condenser (.01 Mfd.).....	61-0100
5	Resistor (1,000 ohms).....	33-210336	52	Tone Control Switch.....	85-0111
6	Condenser (.05 Mfd.).....	61-0101	53	Resistor (470,000 ohms).....	33-447344
7	Condenser (.05 Mfd.).....	61-0111	54	Filter Condenser (10-15-20 Mfd.).....	61-0089
8	Tuning Condenser.....	63-0047	55	Resistor (220 ohms).....	33-122436
9	Antenna Padder (on Tun. Cond.).....		56	Condenser (.01 Mfd.).....	61-0124
10	Antenna Padder Assembly.....	77-0512	57	Output Transformer.....	65-0317
11	Wafer Switch.....	77-0506	58	Replacement Cone (For 73-0045-2 Speaker).....	91-0086
12	Resistor (10,000 ohms).....	33-310344		(For 73-0045-3 Speaker).....	91-0126
13	I.F. Wave Trap Padder.....			(For 73-0047-2 Speaker).....	91-0086
14	R.F. Transformer.....	65-0321		(For 73-0047-3 Speaker).....	91-0126
15	Resistor (1,000,000 ohms).....	33-510344	59	Field Coil.....	Not Replaceable
16	Condenser (.25 Mmfd.).....	30-1067	60	Filament Choke.....	32-1604
17	Resistor (100,000 ohms).....	33-410344	61	Condenser (.5 Mfd.).....	61-0106
18	Silver Mica Condenser (280 Mmfd.).....	61-0043	62	Condenser (250 Mmfd.).....	61-0033
19	Oscillator Padder (on Tun. Cond.).....		63	Condenser (250 Mmfd.).....	61-0033
20	Condenser (.250 Mmfd.).....	61-0033	64	Vibrator Choke.....	65-0075
21	Condenser (.05 Mfd.).....	61-0101	65	Vibrator.....	83-0025
22	Resistor (68,000 ohms).....	33-368344	66	Condenser (.05 Mfd.).....	61-0137
23	Padder (Pri. 1st I.F. Trans.).....		67	Resistor (220 ohms).....	33-122434
24	Silver Mica Condenser (.485 Mmfd.).....	61-0144	68	Power Transformer.....	65-0318
25	Resistor (22,000 ohms).....	33-322444	69	Condenser (3,000 Mmfd.).....	61-0115
26	Condenser (15 Mmfd.).....	61-0039	70	Resistor (1,000 ohms).....	33-210444
27	Resistor (1,000,000 ohms).....	33-510344	71	Condenser (250 Mmfd.).....	61-0033
28	Condenser (.05 Mfd.).....	61-0101	72	Condenser (250 Mmfd.).....	61-0033
29	First I.F. Transformer.....	65-0319	73	Condenser (250 Mmfd.).....	61-0033
30	Padder (Sec. 1st I.F. Trans.).....		74	On-Off Switch.....	85-0112
31	Resistor (680 ohms).....	33-168336	75	Pilot Lamp.....	34-2039
32	Oscillator Transformer (550 to 1065 KC).....	65-0173	76	Condenser (.25 Mfd.).....	61-0125
33	Oscillator Transformer (600 to 1165 KC).....	65-0172	77	Condenser (.05 Mfd.).....	61-0101
34	Oscillator Transformer (660 to 1240 KC).....	65-0171	78	Resistor (330 ohms).....	33-133336
35	Oscillator Transformer (750 to 1410 KC).....	65-0170		Hook Bolts (Radio Mtg.).....	57-1340FA3
36	Oscillator Transformer (855 to 1580 KC).....	65-0169		Nut (Radio Mtg.).....	W98FA3
37	Low Frequency Padder.....	63-0048		Tube Side Cover.....	318-1997
38	Manual Oscillator Transformer.....	65-0345		Wiring Side Cover.....	57-1345FC45
39	Resistor (15,000 ohms).....	33-315344		4 Prong Socket.....	27-6044
40	Condenser (.01 Mfd.).....	61-0114		Loktal Socket.....	55-0575
41	Volume Control (350,000 ohms).....	65-0032-1		Speaker Socket.....	55-0443
42	Resistor (4,700 ohms).....	33-247344		Housing.....	77-0509FC45
43	Condenser (6,000 Mmfd.).....	61-0103		Control Mounting Bracket.....	57-1300FC46
44	Resistor (27,000 ohms).....	33-327344		Bracket.....	57-1301FC46
45	Padder (Pri. 2nd I.F. Trans.).....			Cable Clamp.....	57-1429
46	Second I.F. Transformer.....	65-0320		Screw (Bracket Mtg.).....	W179FA24
47	Padder (Sec. 2nd I.F. Trans.).....			Control.....	85-0113
				Cord (Dial).....	55-0935
				Tuning & Volume Knob.....	55-0936
				Tuning & Volume Spring.....	57-1425
				Drive Cord Spring.....	57-1384
				Volume Shaft.....	57-1384
				Tuning Shaft.....	57-1385



No.	Description	Part No.	No.	Description	Part No.
	Station Indicator Shaft.....	57-1386		Aerial Rod (48 3/4").....	57-1248
	Pointer.....	57-1403FA3		Aerial Rod (66").....	57-1249
	Dial & Cover Assembly.....	318-1991		Aerial Rod (94").....	57-1247
	Station Indicator.....	77-0514		Aerial Lead.....	95-0124
	Upper Aerial Stanchion Kit.....	45-1438		All Aerial Parts used in Part Nos. 91-0109, 91-0110 & 91-0111 Cowl Aerials.	
	Lower Aerial Stanchion Kit.....	45-1437			

MODEL 805 - ADJUSTMENTS

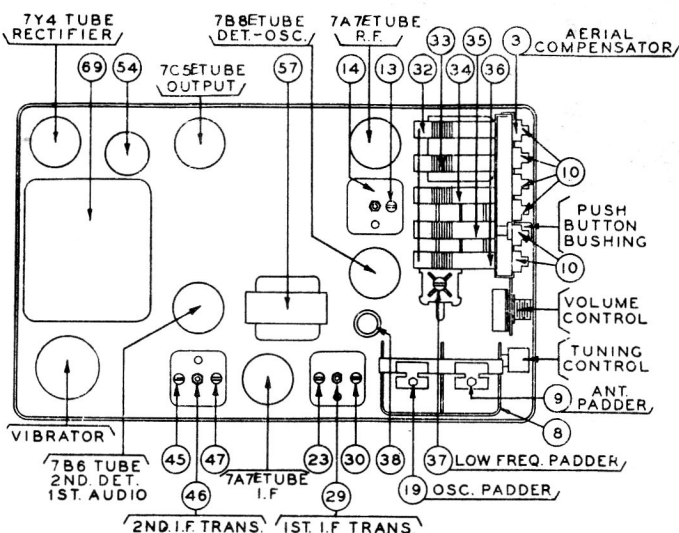
All padding adjustments are carefully made at the factory and ordinarily no readjustments are necessary. However, when readjustments are required, the procedure given below must be followed in detail.

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.

OPERATION	SIGNAL GENERATOR		DUMMY CAPACITY	SPECIAL INSTRUCTIONS	ADJUST PADDER
	FREQUENCY	CONNECTION			
1	PUSH IN THE RIGHT KNOB ON THE CONTROL UNTIL "D" APPEARS IN THE STATION INDICATOR WINDOW AND STATIONS CAN BE TUNED IN BY MANUAL TUNING. ADJUST THE AERIAL COMPENSATOR ③ TWO TURNS FROM TIGHT.				
2	460 K.C.	To Aerial Receptacle on Radio	.1 Mfd.	Note 2	④⑦④⑤③②③ ④⑦④⑤③②③
3	455 K.C.	To Aerial Receptacle on Radio	.1 Mfd.	Note 2	⑬ Min.
4	1580 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	⑬
5	1400 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	⑨ Note 4
6	580 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 580 K.C.	②⑦ Note 3
7	1580 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	⑬
8	1400 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	⑨ Note 4
9	580 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 580 K.C.	②⑦ Note 3
10	1200 to 1400 K.C.	Note 5	Note 5	Note 5	③

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

INSTRUCTIONS FOR SETTING UP THE AUTOMATIC PUSH BUTTON TUNING

Turn on the radio and allow it to operate for twenty minutes or longer if possible. During this time, proceed as follows:

1. Remove the plate on the end of the radio which covers the adjusting screws. This is held by two screws.

2. Select five popular local stations whose frequencies come within the ranges of the five automatic tuning circuits, and list them on the Owner's Reference Label. List the highest frequency station as 1, and so on down to the lowest frequency station, which should be 5. The range of each automatic tuning circuit is given below:

850 KC to 1580 KC	750 KC to 1410 KC	660 KC to 1240 KC	600 KC to 1165 KC	550 KC to 1065 KC
1	2	3	4	5

3. Push in the right knob until "D" appears in the station indicator window. This adjusts the Radio so that it can be tuned with the tuning control knob in the conventional manner.

4. Tune in with the dial tuning control knob, the station having the highest frequency, and note the program. Now push in the

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. Remove the plug button on the end of the radio and adjust the aerial compensator ③ (See Figure 3) for maximum signal.

right hand knob until No. 1 appears in the station indicator window.

With a small screw driver, turn the bottom adjusting screw (number one) in the left column to the right or left until the same station is tuned in. Then adjust the corresponding screw in the right column, turning right or left until maximum volume is obtained. If in doubt as to the station, push the right hand knob until "D" appears and recheck. The adjustment on strong signals can be made best inside a shielded area such as in a reinforced steel building, or under a viaduct.

Continue the above procedure for the stations selected for Nos. 2, 3, 4 and 5 position in the given order, working from left to right, and adjusting each pair of corresponding adjusting screws from bottom to top until all five stations are set up. It is advisable to repeat the entire adjustment procedure to be sure the settings are correct.

The automatic tuning adjustments may be made before installing the radio in the car, but FINAL adjustments must be made with the radio installed and operating on the aerial in the car.

PHILCO PRODUCTS LIMITED

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