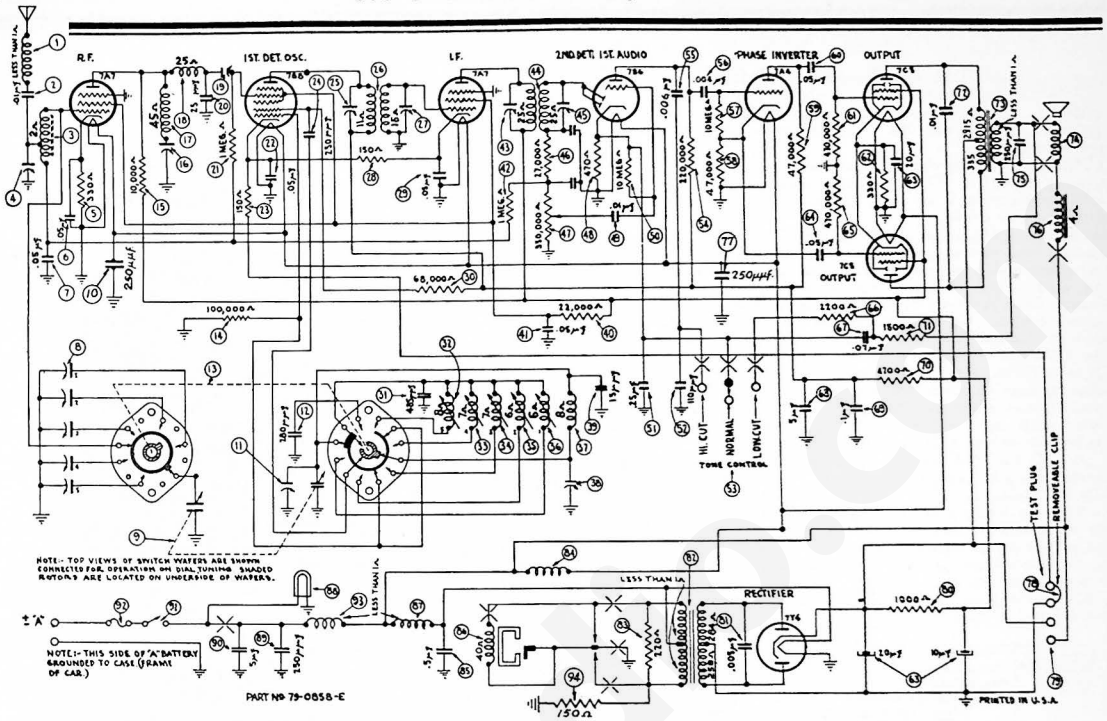
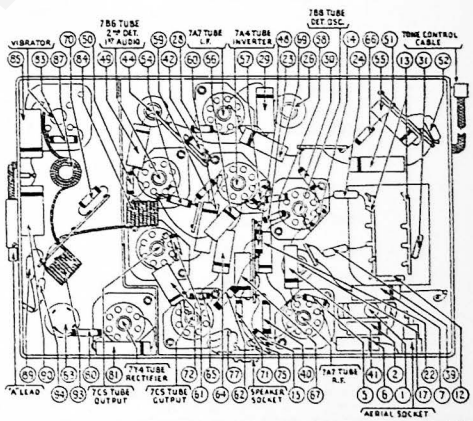
MODEL AR-75



No.	Description	Part No.
①	Antenna Choke	65-0102
②	Condenser (.01 Mfd.)	61-0014
③	Antenna Transformer	65-0323
④	Aerial Compensator	Part of ⑧
⑤	Resistor (330 ohms)	33-133336
⑥	Condenser (.05 Mfd.)	61-0111
⑦	Condenser (.05 Mfd.)	61-0101
⑧	Antenna Padder Assembly	77-0512
⑨	Tuning Condenser	63-0047
⑩	Oscillator Padder (on Tun. Cond.)	
⑪	Silver Mica Condenser (280 Mmfd.)	61-0043
⑫	Wafer Switch Assembly	77-0506
⑬	Resistor (100,000 ohms)	33-410154
⑭	Resistor (10,000 ohms)	33-310334
⑮	I. F. Wave Trap Padder	Part of ⑰
⑯	R. F. Transformer	65-0321
⑰	Coil	Part of ⑰
⑱	Padder	Part of ⑰
⑲	Condenser (25 Mmfd.)	30-1067
⑳	Resistor (1,000,000 ohms)	33-510154
㉑	Condenser (.05 Mfd.)	61-0101
㉒	Resistor (150 ohms)	33-115336
㉓	Condenser (250 Mmfd.)	60-125157
㉔	Padder (Pri. 1st I. F. Trans.)	
㉕	First I. F. Transformer	65-0319
㉖	Padder (Sec. 1st I. F. Trans.)	
㉗	Resistor (150 ohms)	33-115336
㉘	Condenser (.05 Mfd.)	61-0111
㉙	Resistor (68,000 ohms)	33-368334
㉚	Silver Mica Condenser (485 Mmfd.)	61-0144
㉛	Oscillator Transformer (550-1065 K.C.)	65-0173
㉜	Oscillator Transformer (600-1165 K.C.)	65-0172
㉝	Oscillator Transformer (660-1240 K.C.)	65-0171
㉞	Oscillator Transformer (750-1410 K.C.)	65-0170
㉟	Oscillator Transformer (855-1580 K.C.)	65-0169
㊱	Manual Oscillator Transformer	65-0420
㊲	Low Frequency Padder	63-0048
㊳	Condenser (15 Mmfd.)	61-015327
㊴	Resistor (22,000 ohms)	33-322434
㊵	Condenser (.05 Mfd.)	61-0101
㊶	Resistor (1,000,000 ohms)	33-510154
㊷	Padder (Pri. 2nd I. F. Trans.)	
㊸	Second I. F. Transformer	65-0320
㊹	Padder (Sec. 2nd I. F. Trans.)	
㊺	Resistor (27,000 ohms)	33-327154
㊻	Volume Control (350,000 ohms)	67-0043
㊼	Resistor (470 ohms)	33-147336
㊽	Condenser (.01 Mfd.)	61-0110
㊾	Resistor (10,000,000 ohms)	33-610154
㊿	Condenser (.25 Mfd.)	61-0112
(51)	Condenser (100 Mmfd.)	60-110154
(52)	Tone Control Switch	77-0733
(53)	Resistor (220,000 ohms)	33-422334
(54)	Condenser (6,000 Mmfd.)	61-006211
(55)	Condenser (4,000 Mmfd.)	61-0129
(56)	Resistor (10,000,000 ohms)	33-610154
(57)	Resistor (47,000 ohms)	33-347334
(58)	Resistor (47,000 ohms)	33-347334
(59)	Condenser (.05 Mfd.)	61-0122
(60)	Resistor (470,000 ohms)	33-447154
(61)	Resistor (330 ohms)	33-133436
(62)	Filter Condenser (5-10-20-20 Mfd.)	61-0150
(63)	Condenser (.05 Mfd.)	61-0101
(64)	Resistor (470,000 ohms)	33-447154
(65)	Resistor (2,200 ohms)	33-222334
(66)	Condenser (.07 Mfd.)	61-0152
(67)	Condenser (.1 Mfd.)	61-0113
(68)	Resistor (4,700 ohms)	33-247334
(69)	Resistor (1,500 ohms)	33-215334
(70)	Condenser (.01 Mfd.)	61-0124
(71)	Output Transformer	65-0402
(72)	Cone and Voice Coil (For 73-0056-2 Speaker)	91-0167
	(For 73-0056-4 Speaker)	91-0168
	(For Instrument Board Speaker 73-0064-3)	91-0165
(73)	Cond. (250 Mmfd.)	60-125157
(74)	Field Coil	Not Replaceable
(75)	Cond. (250 Mmfd.)	60-125157
(76)	Test Plug Link	57-1121
(77)	Test Socket	55-1118
(78)	Resistor (1,000 ohms)	33-210434
(79)	Cond. (5,000 Mmfd.)	61-0153
(80)	Power Transformer	65-0403
(81)	Resistor (220 ohms)	33-122334
(82)	Filament Choke	65-0451
(83)	Condenser (.5 Mfd.)	61-0134
(84)	Vibrator	83-0025
(85)	Vibrator Choke	65-0075
(86)	Pilot Lamp	34-2039
(87)	Condenser (.5 Mfd.)	61-0134
(88)	On-Off Switch	85-0112
(89)	Fuse	45-2559
(90)	"A" Choke	65-0037
(91)	Cond. (250 Mmfd.)	60-125157
	Housing	77-0094FC54
	Control Assembly	83-0129
	Dial	33-1194
	Cord	33-0935
	Tuning Shaft	37-1385
	Volume Shaft	37-1384
	Push Button Shaft	37-1386



No.	Description	Part No.
	Pointer	57-1889
	Station Indicator Drum Assembly	77-0755
	Tone Control Lead (Receiver End)	95-0176
	Tone Control Lead (Control End)	95-0175
	Hook Bolt (Radio Mtg.)	57-1340FA3
	Lockwasher (Radio Mtg.)	W166SFE7
	Nut (Radio Mtg.)	W98FA3
	Interference Condenser	30-4007
	Distributor Resistor	33-1198
	Tube Side Cover	318-2326
	Wiring Side Cover	57-1863FC54
	Padder Cover	318-2325
	Speaker Socket	55-1117
	Loktal Socket	55-0575
	Vibrator Socket	27-6153
	Screw & Core Assembly	57-1363
	Brass Coil Cups	W-2032
	The following parts are used for instrument board speaker mounting:	
	Speaker Unit	73-0064
	Cardboard Baffle	55-0957

No.	Description	Part No.
	Rubber Gasket and Screen	55-1320
	"U" Bracket	57-2162FA3
	Side Brackets	57-1461FA3
	Bolt (Bracket Mtg.)	97-0120FA3
	Cardboard Spacers	55-0449
	Nut (Speaker Mtg.)	W124FA3
	Screw (Speaker Mtg.)	W1582FA4
	Lockwasher (Speaker Mtg.)	W291
	Lockwasher (Speaker Mtg.)	W286
	Carriage Bolt	97-0061FA3
	Carriage Bolt Nut	W98FA3
	The following parts are used for dash speaker mounting:	
	Speaker & Housing Complete	77-0748
	Speaker Unit	73-0056
	Speaker Housing	57-0642FC54
	Stud (Speaker Mtg.)	6122
	Washer (Speaker Mtg.)	4486
	Washer (Speaker Mtg.)	W679
	Nut (Speaker Mtg.)	W55A
	Back Cover	77-0220
	Screen & Cloth Assembly	77-0749
	Ornament	57-0607FA8
	Speaker Cable	95-0171

MODEL AR-75 — 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.

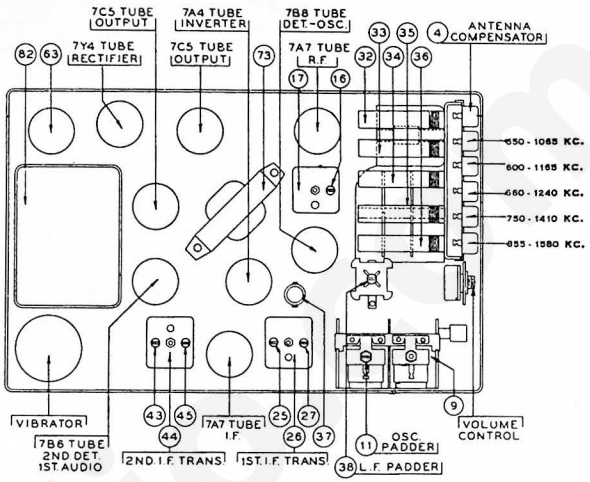
EQUIPMENT — Fully charged heavy duty storage battery or 6 volt power pack, 070 or 177 Philco Signal generator, 027 Philco Vacuum tube voltmeter and set tester or audio output meter, 45-2610 Padding screw driver.

GENERAL — VACUUM TUBE VOLTMETER. The model 027 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. Connect the "AC" cord to a 110 volt AC socket. Press the VTVM button and the 10 volt button. Turn the "Set Zero Ohms — VTVM" control clockwise until a click is heard. Allow the tubes to heat up for a few minutes. Short the 150 meg. VTVM terminals and adjust the "Set Zero ohms VTVM" control until the meter reads zero on the 0-10 range scale (green scale). The needle will deflect from right to left.

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 FREQUENCY	SIGNAL GENERATOR CONNECTION	DUMMY CAPACITY	SPECIAL INSTRUCTIONS	ADJUST PADDER
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 ④ TWO TURNS FROM TIGHT.				
2	455 K.C.	To Aerial Receptacle on Radio	.1 Mfd.	Note 2	㊺㊸㉗㉕ ㊺㊸㉗㉕
3	455 K.C.	To Aerial Receptacle on Radio	.1 Mfd.	Note 2	⑩ For Minimum Signal
4	1580 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	⑪ ⑩ Note 4
5	1400 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	㊳ Note 3
6	580 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 580 K.C.	⑪ ⑩ Note 4
7	1580 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	㊳ Note 3
8	1400 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 1400 K.C.	④
9	580 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Condenser at 580 K.C.	
10	1200 to 1400 K.C.	Note 5	Note 5	Note 5	

Make all adjustments for maximum reading on the output meter.

NOTE 1 — Connect the aerial lead, Part No. 95-0185, 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. Remove the plug button on the end of the radio and adjust the aerial compensator ④ (See Figure 3) for maximum signal.

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:

855 KC to 1580 KC	750 KC to 1410 KC	660 KC to 1240 KC	660 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 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.