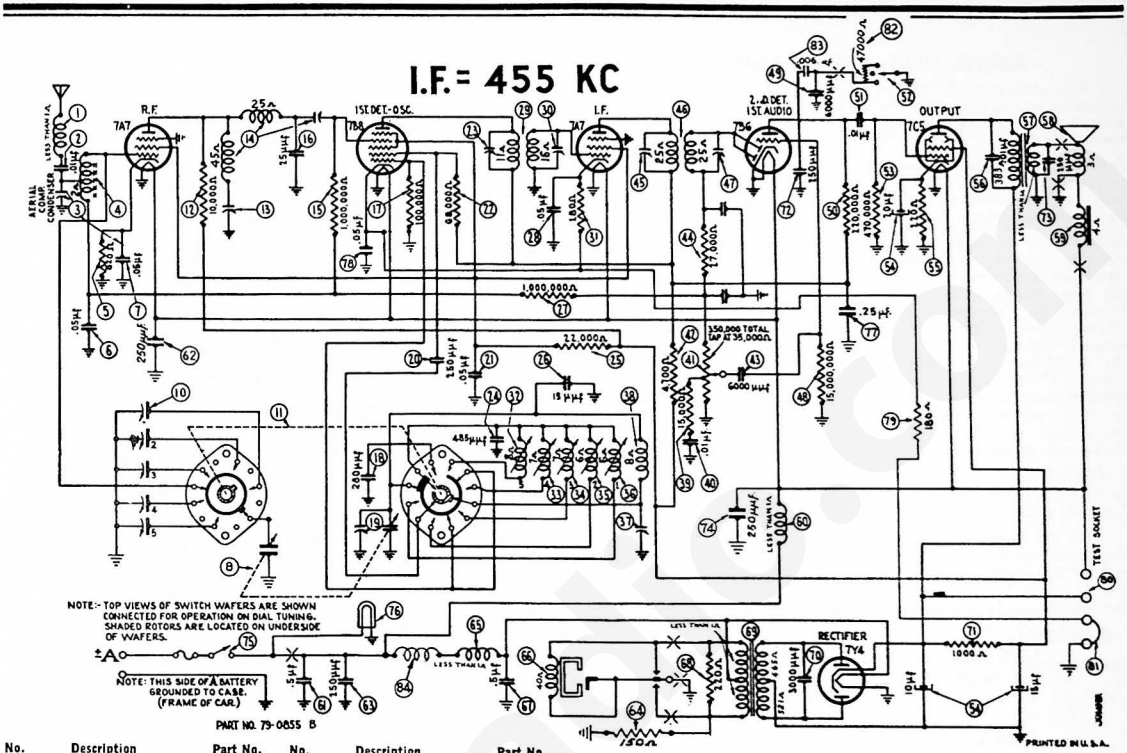
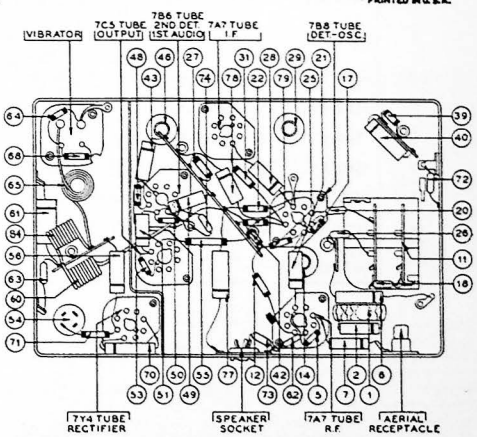
MODEL AR-55



No.	Description	Part No.
1	Antenna Choke	65-0102
2	Condenser (.01 Mfd.)	61-0114
3	Aerial Compensator	Part of 18
4	Antenna Transformer	65-0323
5	Resistor (820 ohms)	33-182336
6	Condenser (.05 Mfd.)	61-0101
7	Condenser (.05 Mfd.)	61-0101
8	Tuning Condenser	63-0047
10	Antenna Padder Assembly (For Push Buttons)	77-0512
11	Wafer Switch	77-0506
12	Resistor (10,000 ohms)	33-310334
13	Wave Trap Padder	Part of 14
14	R. F. Transformer	65-0321
15	Resistor (1,000,000 ohms)	33-510154
16	Condenser (25 Mmfd.)	30-1067
17	Resistor (100,000 ohms)	33-410154
18	Condenser (280 Mmfd.)	61-0043
19	High Frequency Padder (on Tun. Cond.)	
20	Condenser (250 Mmfd.)	60-125157
21	Condenser (.05 Mfd.)	61-0101
22	Resistor (68,000 ohms)	33-368334
23	Padder (Prl. 1st I. F. Trans.)	
24	Condenser (485 Mmfd.)	61-0144
25	Resistor (22,000 ohms)	33-322434
26	Condenser (15 Mmfd.)	60-015327
27	Resistor (1,000,000 ohms)	33-510154
28	Condenser (.05 Mfd.)	61-0101
29	First I. F. Transformer	65-0319
30	Padder (Sec. 1st I. F. Trans.)	
31	Resistor (180 ohms)	33-118336
32	Oscillator Transformer (550-1065 KC)	65-0173
33	Oscillator Transformer (600-1165 KC)	65-0172
34	Oscillator Transformer (660-1240 KC)	65-0171
35	Oscillator Transformer (750-1410 KC)	65-0170
36	Oscillator Transformer (855-1580 KC)	65-0169
37	Low Frequency Padder	63-0048
38	Manual Oscillator Trans.	65-0420
39	Resistor (15,000 ohms)	33-315154
40	Condenser (.01 Mfd.)	61-0114
41	Volume Control (350,000 ohms)	67-0032
42	Resistor (4,700 ohms)	33-247334
43	Condenser (6,000 Mmfd.)	61-0155
44	Resistor (27,000 ohms)	33-327154
45	Padder (Prl. 2nd I. F. Trans.)	
46	Second I. F. Transformer	65-0320
47	Padder (Sec. 2nd I. F. Trans.)	
48	Resistor (15,000,000 ohms)	33-615154
49	Condenser (6,000 Mmfd.)	61-0155
50	Resistor (220,000 ohms)	33-422334
51	Condenser (.01 Mfd.)	61-0120
52	Tone Control Switch Wafer	77-0733
53	Resistor (470,000 ohms)	33-447154
54	Filter Condenser (10-15-20 Mfd.)	61-0089
55	Resistor (220 ohms)	33-122436
56	Condenser (.01 Mfd.)	61-0124
57	Output Transformer	65-0408
58	Replacement Cone (For 73-0047-2 Speaker)	91-0086
	(For 73-0047-3 Speaker)	91-0126
	(For 73-0058-2 Speaker)	91-0086
	(For 73-0058-3 Speaker)	91-0126
59	Field Coil Assembly .Not Replaceable	
60	Filament Choke	65-0452
61	Condenser (.5 Mfd.)	61-0106
62	Condenser (250 Mmfd.)	60-125157
63	Condenser (250 Mmfd.)	60-125157
64	Resistor (150 ohms)	33-115334
65	Vibrator Choke	65-0075
66	Vibrator	83-0025
67	Condenser (.5 Mfd.)	61-0137
68	Resistor (220 ohms)	33-122334
69	Power Transformer	65-0318
70	Condenser (3,000 Mmfd.)	61-0115
71	Resistor (1,000 ohms)	33-210434
72	Condenser (250 Mmfd.)	60-125157
73	Condenser (250 Mmfd.)	60-125157
74	Condenser (250 Mmfd.)	60-125157
75	"On-Off" Switch	85-0112
76	Pilot Lamp	34-2039
77	Condenser (.25 Mfd.)	61-0125
78	Condenser (.05 Mfd.)	61-0101
79	Resistor (180 ohms)	33-118336
80	Test Socket	55-1118
81	Test Link	57-1121
82	Resistor (47,000 ohms)	33-347334
83	Condenser (6,000 Mmfd.)	61-0155
84	"A" Choke	65-0037
	Receiver Housing	77-0604FC39
	Control Assembly	85-0133
	Dial	53-1184
	Drive Cord	55-0933
	Drive Cord Spring	57-1425FA3
	Tuning Shaft	57-1385
	Volume Shaft	57-1384
	Push Button Shaft	57-1386
	Pointer	57-1389FCP
	Station Indicator Drum	77-0755
	Tone Control Lead	95-0135



No.	Description	Part No.
	Hook Bolt (Receiver Mtg.)	57-1340FA3
	Lockwasher (Receiver Mtg.)	W166SFE7
	Nut (Receiver Mtg.)	W9SFA3
	Cable Clamps	57-1429FA3S
	Interference Condenser	30-4007
	Distributor Resistor	33-1196
	Tube Side Cover	318-2382
	Wiring Side Cover	57-1345FC59
	Padder Cover	57-1348FC59
	Speaker Socket	55-0443
	Loktal Socket	55-1075
	Vibrator Socket	27-6153
	Screw & Core Assembly	57-1363
	Coil Cups (Brass)	W-2032
	Volume Control Nut	W684FA3
	Tone Control Switch Shaft	57-1839FA3

The following parts are for the Dash Speaker:

Speaker & Housing Complete	318-2393
Speaker Unit	73-0058
Stud (Speaker Mtg.)	57-0892
Washer (Speaker Mtg.)	2703FA3
Lockwasher (Speaker Mtg.)	W338
Nut (Speaker Mtg.)	W55FA3
Wood Spacer (Speaker Mtg.)	55-0642

The following parts are for the Instrument Board Speaker:

Speaker	73-0047
"U" Bracket	57-0720FA3
Rubber Gasket & Screen	55-0958
Side Brackets	57-1461
Cardboard Baffle	55-0957
Cardboard Spacers	55-0449
Nuts (Speaker Mtg.)	W124FA3
Screw (Speaker Mtg.)	W1582FA4
Lockwasher (Speaker Mtg.)	W291
Lockwasher (Speaker Mtg.)	W286
Carriage Bolt	97-0081FA3
Carriage Bolt Nut	W98FA3
Bolt (Bracket Mtg.)	97-0120FA34

MODEL AR-55 — 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.

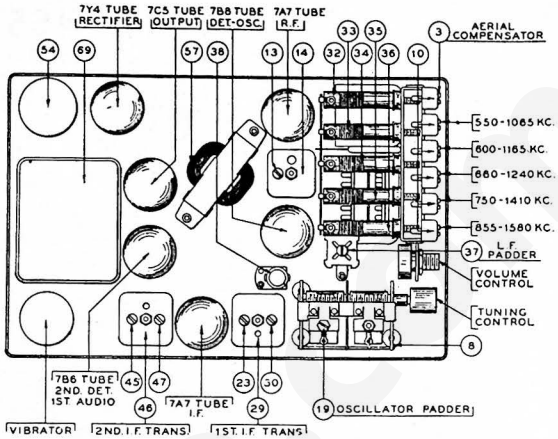
EQUIPMENT — Fully charged heavy duty storage battery or 6 volt power pack, 077 or 177 Philco Signal generator, 027 Philco Vacuum tube voltmeter and set tester or audio output meter, 45-2610 Padding screw driver.

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 ③ TWO TURNS FROM TIGHT.				
2	455 K.C.	To Aerial Receptacle on Radio	.1 Mfd.	Note 2	㊼㊺㉚㉓ ㊼㊺㉚㉓
3	455 K.C.	To Aerial Receptacle on Radio	.1 Mfd.	Note 2	⑱ For Minimum Signal
4	1580 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	⑲
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.	㊲ Note 3
7	1580 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	⑲
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.	㊲ 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. 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 ③ (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.