PHILCO AUTO RADIO

MODEL F-1942 FORD AND MERCURY ADJUST-O-MATIC

MODEL F-1942 — 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.

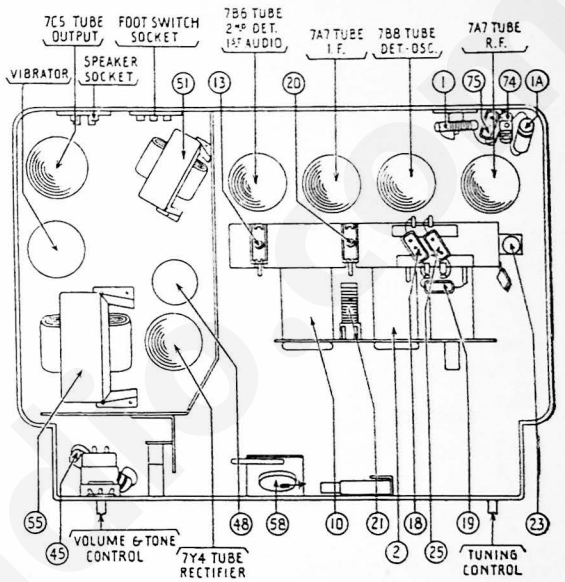
EQUIPMENT — Fully charged heavy duty storage battery or 6 volt power pack, 077 or 070 Philco Signal generator, 027 Philco Vacuum tube voltmeter and set tester or audio output meter, 45-2610 Padding screw driver.

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 0-10 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	PRESS THE TOUCH BAR AND RELEASE UNTIL THE WORD "DIAL" IN THE CENTER OF THE DIAL SCALE LIGHTS UP				
2	265 K.C.	To Aerial Receptacle on Radio	.1 Mfd.	Note 2	30A 30B 30A 30B 30A 30B 30A 30B
3	1600 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 1600 K.C.	30
4	1400 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 1400 K.C.	6 25 Note 4
5	590 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 590 K.C.	25 Note 3
6	1600 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 1600 K.C.	30
7	1400 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 1400 K.C.	6 Note 4
8	1200 to 1400 K.C.	Note 5	Note 5	Note 5	6 Note 5

Make all adjustments for maximum reading on the meter.

NOTE 1 — Connect the aerial lead, Part No. 95-0236, to the aerial receptacle in the radio. Connect a 30 Mmfd. Condenser in series between the signal generator and the aerial lead.

NOTE 2 — Turn the tuning control counter-clockwise as far as it will go.

NOTE 3 — Rock the tuning control while adjusting the low frequency screw. Tune the control to the signal and adjust the screw for maximum output. Rotate the tuning control back and forth slightly for maximum output. Then readjust the screw 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 dial. Adjust the aerial compensator 6 (see Figure 3) for maximum signal.

SCHEMATIC MODEL F-1942
I.F. = 265 KC.

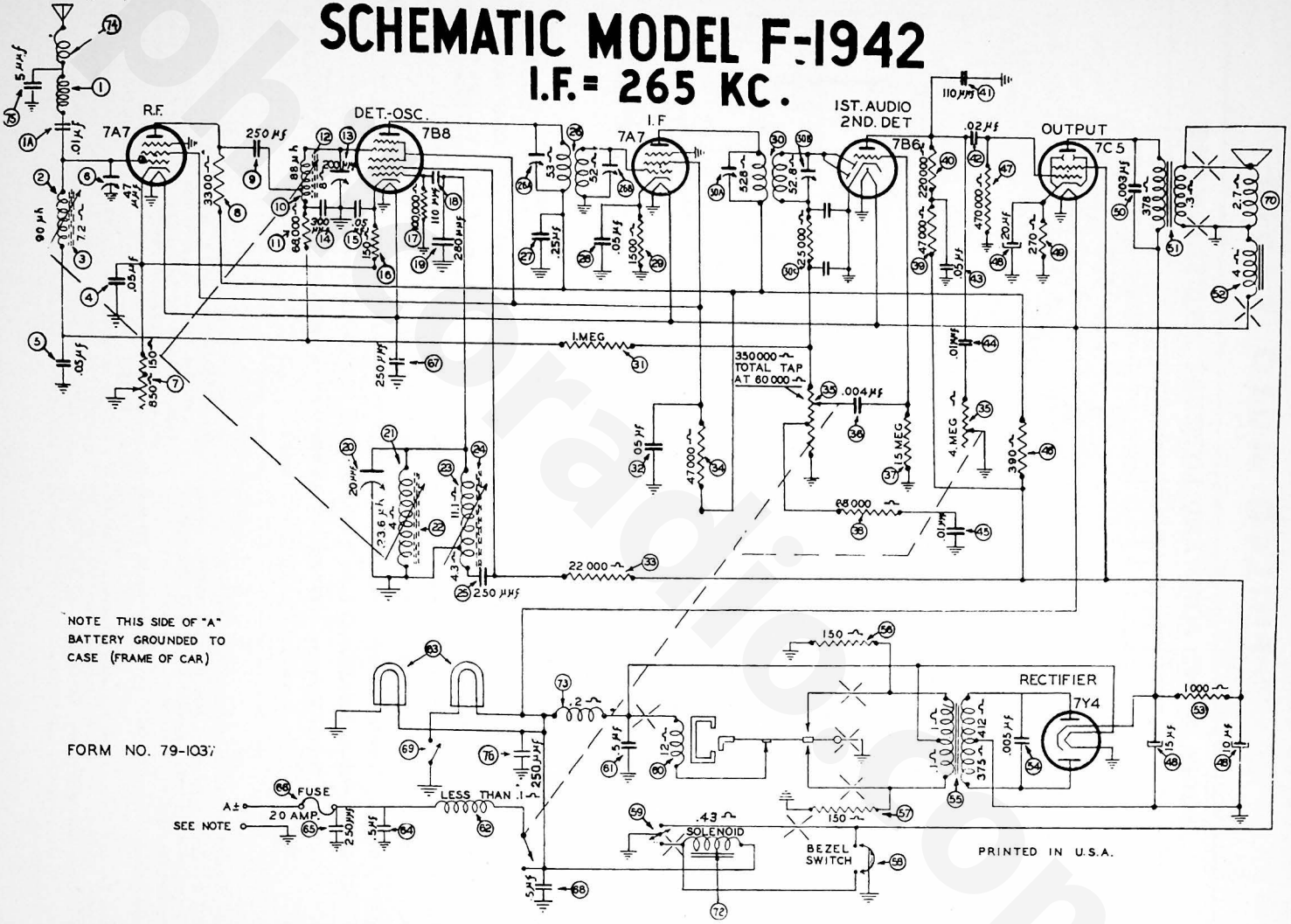


FIG. 2

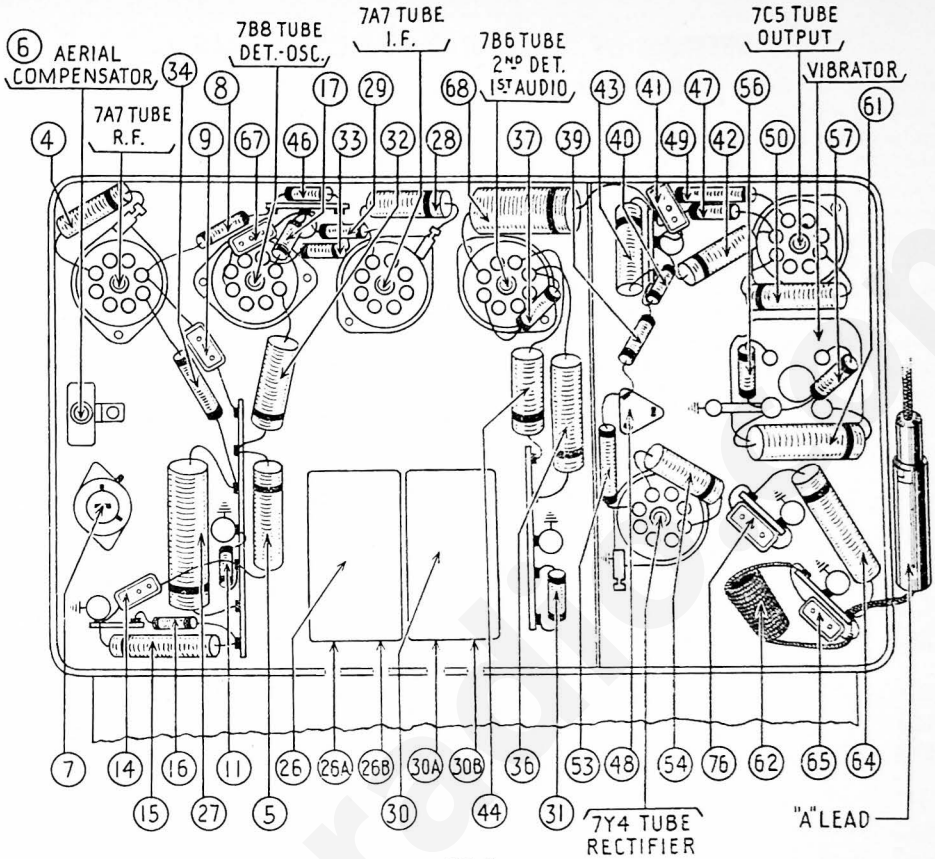


FIG. 3

PARTS LIST — F-1942

No.	Description	Part No.
(1)	Antenna Choke	65-0102
(1a)	Condenser (.01 Mfd.)	61-0114
(2)	Antenna Transformer	65-0443
(3)	Antenna Transformer Core	57-2334
(4)	Condenser (.05 Mfd.)	61-0111
(5)	Condenser (.05 Mfd.)	61-0111
(6)	Antenna Padder	63-0079
(7)	Sensitivity Control	67-0025
(8)	Resistor (3300 ohms)	33-233334
(9)	Condenser (250 Mmfd.)	60-125157
(10)	R. F. Transformer	65-0444
(11)	Resistor (68,000 ohms)	33-368154
(12)	R. F. Transformer Core	57-2334
(13)	R. F. Padder	63-0080
(14)	Condenser (300 Mmfd.)	60-130127
(15)	Condenser (.05 Mfd.)	61-0111
(16)	Resistor (150 ohms)	33-115331
(17)	Resistor (100,000 ohms)	33-410154
(18)	Condenser (110 Mmfd.)	60-110157
(19)	Condenser (280 Mmfd.)	61-3043
(20)	Oscillator Padder	63-0082
(21)	Oscillator Transformer	65-0463
(22)	Oscillator Transformer Core	57-2633
(23)	Oscillator Tracking Transformer	65-0441
(24)	Oscillator Tracking Transformer Core	57-2325
(25)	Condenser (250 Mmfd.)	60-125157
(26)	First I. F. Transformer	65-0460
(26a)	Padder (Pri. 1st I. F. Trans.)	
(26b)	Padder (Sec. 1st I. F. Trans.)	
(27)	Condenser (.25 Mfd.)	61-0125
(28)	Condenser (.05 Mfd.)	61-0101
(29)	Resistor (1500 ohms)	33-215334
(30)	Second I. F. Transformer	65-0461
(30a)	Padder (Pri. 2nd I. F. Trans.)	
(30b)	Padder (Sec. 2nd I. F. Trans.)	
(30c)	Resistor (25,000 ohms)	33-325154
(31)	Resistor (1,000,000 ohms)	33-510154
(32)	Condenser (.05 Mfd.)	61-0101
(33)	Resistor (22,000 ohms)	33-322334
(34)	Resistor (47,000 ohms)	33-347434
(35)	Volume Control (350,000 ohms) Tone Control (4,000,000 ohms) & On-Off Switch	67-0060
(36)	Condenser (4000 Mmfd.)	61-0179
(37)	Resistor (15,000,000 ohms)	33-615154
(38)	Resistor (68,000 ohms)	33-368154
(39)	Resistor (47,000 ohms)	33-347334
(40)	Resistor (220,000 ohms)	33-422334
(41)	Condenser (110 Mmfd.)	60-110157
(42)	Condenser (.02 Mfd.)	61-0116
(43)	Condenser (.05 Mfd.)	61-0122
(44)	Condenser (.01 Mfd.)	61-0176
(45)	Condenser (.01 Mfd.)	61-0114
(46)	Resistor (390 ohms)	33-139334
(47)	Resistor (470,000 ohms)	33-447154
(48)	Filter Condenser (10-15-20 Mfd.)	61-0089
(49)	Resistor (270 ohms)	33-127431
(50)	Condenser (3000 Mmfd.)	61-0115
(51)	Output Transformer	65-0454
(52)	Field Coil	(Not Replaceable)
(53)	Resistor (1000 ohms)	33-210434
(54)	Condenser (5000 Mmfd.)	61-0153
(55)	Power Transformer	65-0455
(56)	Resistor (150 ohms)	33-115334
(57)	Resistor (150 ohms)	33-115334
(58)	Bezel Switch	85-0152
(59)	Foot Switch Kit	81-0395
(60)	Vibrator	83-0026
(61)	Condenser (.5 Mfd.)	61-0134
(62)	"A" Choke	32-1644
(63)	Pilot Lamp	34-2064
(64)	Condenser (.5 Mfd.)	61-0137
(65)	Condenser (250 Mmfd.)	60-125157
(66)	Fuse	45-2659
(67)	Condenser (250 Mmfd.)	60-125157
(68)	Condenser (.5 Mfd.)	61-3106
(69)	Dial Light Contact (Part of Turret)	
(70)	Replacement Cone (For 73-0071-2)	91-0239
	(For 73-0071-4)	91-0240
(72)	Solenoid	(Not Replaceable)
(73)	Vibrator Choke	65-0465
(74)	Antenna Choke	65-0378
(75)	Condenser (5 Mmfd.)	60-005137
(76)	Condenser (25 Mmfd.) "A" Lead	77-1086
	Condenser (Volt Reg. & "A" Line)	61-0162
	Condenser (Oil Gauge)	61-0182
	Condenser (Coil)	61-0181
	Distributor Resistor	67-0062
	Ground Lead (Voltage Regulator)	77-0810
	Tube Socket	27-8151
	Vibrator Socket	27-6153
	Housing	77-1119
	Wiring Side Cover	57-2392FC71
	Tube Side Cover	77-1071FC71
	Screw (Bezel Mtg. Top)	97-0275FA1
	Screw (Bezel Mtg. Bottom)	97-0276FA1
	Bezel	57-2476FCP
	Dial	55-1465
	Dial Mtg. Clip	57-2464FE7
	Dial Mtg. Clip	57-2465FE7
	Dial Mtg. Screw	97-0257FA3
	Dial Mtg. Screw	97-0255FA3
	Rubber Bumper	55-1474
	Key Bar Assembly	77-1073
	Tuning & Volume Knob	77-1081
	Knob Backing Ring	57-2472FA8
	Tone Knob	57-2467FA8
	Spring (Tuning Shaft)	57-2727FA38
	Spring Retainer (Tuning Shaft)	57-2469FA3
	Nut (Vol. Control Mtg.)	W684FA3
	Aerial Lead	95-0236
	Support Bracket	57-2474FA3
	Hook Bolt (Receiver Mtg.)	57-2468FA3
	Bolt (Receiver Mtg.)	W763FA3
	Wing Nut (Receiver Mtg.)	97-0103FA3
	Speaker	73-0071
	Nut (Speaker Mtg.)	97-0252FA3
	*Aerial (Closed Car)	91-0236
	*Aerial (Open Car)	91-0237

*** NOTE — 1942 Ford Aerials are now available through Philco and may be ordered from Authorized Philco Warranty Service Stations or Philco distributors.**

SETTING UP "ADJUST-O-MATIC" TUNING

Turn the radio on and allow it to operate for at least 20 minutes, or longer if possible.

Press the touch bar and release; repeat this operation until the word "DIAL" in the center of the dial scale lights up, then press once more. This leaves the tuner in the first automatic position.

Press the right hand knob and tune the desired station by rotating the knob. The pointer moves as the knob is rotated, indicating the frequency to which the radio is tuned in the automatic position.

Press the touch bar again. This releases the knob and advances the tuner to the second automatic position.

Repeat the above procedure for the remaining four automatic positions.

Any of the automatic positions may be reset at any time and any position can be adjusted to receive any station in the broadcast band within the range of the set.

The automatic positions may be set to stations in any sequence desired. However, for convenience in remembering the stations, it is recommended that the automatic positions be set up in the same order that the stations appear across the dial.

NOTE — These adjustments must be carefully made, exactly in tune with the stations. It will be found that precision in these adjustments is easy when at a distance from the station or in a shielded building, under a viaduct or in any location where the strength of the signal from the station is considerably reduced.

NOTES