

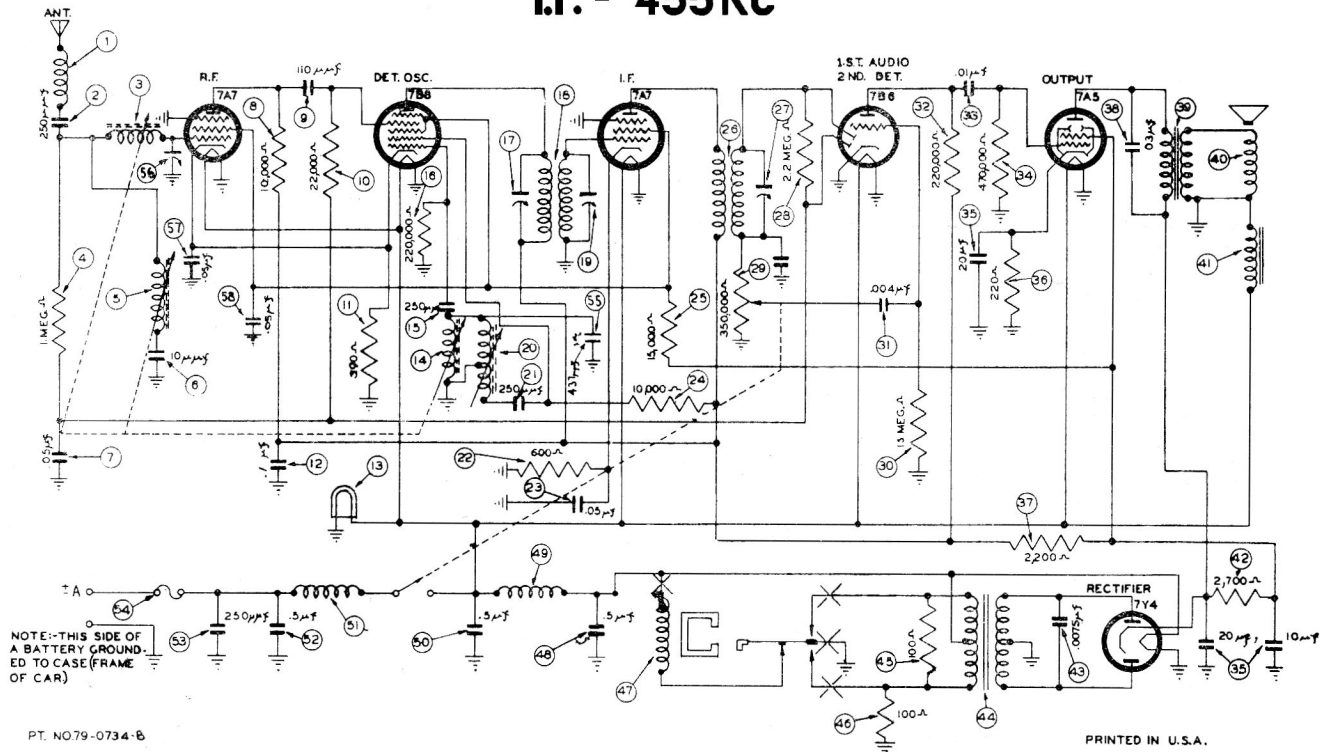


PHILCO AUTO RADIO

STUDEBAKER MODEL S-1824 CUSTOM AUTO RADIO

MODEL S-1824 SCHEMATIC

I.F. = 455KC

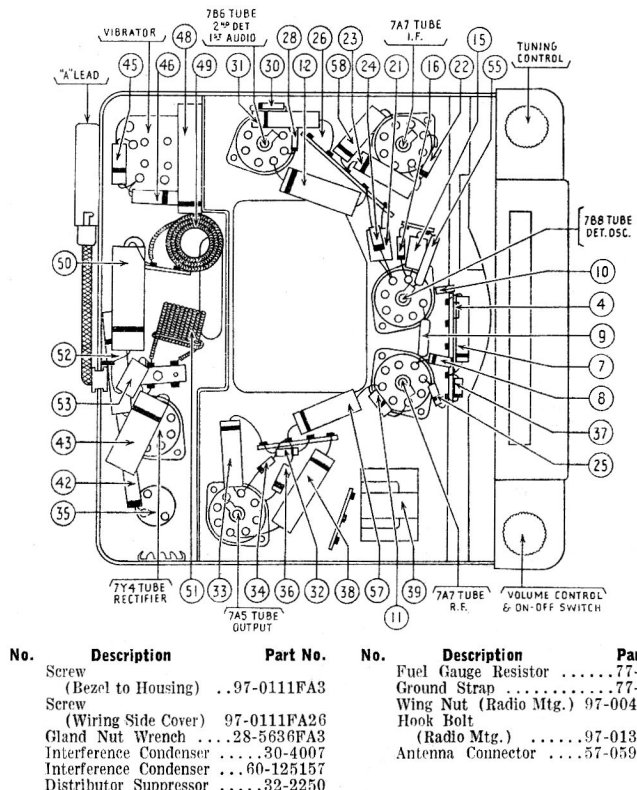


PT. NO. 79-0734-B

PRINTED IN U.S.A.

PARTS LIST — S-1824

No.	Description	Part No.	No.	Description	Part No.
1	Antenna Choke	65-0378	41	Field Coil (Not Replaceable)	
2	Condenser (250 Mmfd.)	60-125157	42	Resistor (2,700 ohms)	33-227434
3	Inductive Tuning Unit	77-0709	43	Condenser (7,500 Mmfd.)	61-007512
4	Resistor		44	Power Transformer	65-0404
	(1,000,000 ohms)	33-510154	45	Resistor (100 ohms)	33-110434
5	Image Trap Coil (Part of 3)		46	Resistor (100 ohms)	33-110434
6	Condenser (10 Mmfd.) (Part of 3)		47	Vibrator	33-0027
7	Condenser (.05 Mfd.)	61-0111	48	Condenser (.5 Mfd.)	61-500013
8	Resistor (10,000 ohms)	33-310334	49	Vibrator Choke	65-0151
9	Condenser (110 Mmfd.)	60-110157	50	Condenser (.5 Mfd.)	61-0106
10	Resistor (22,000 ohms)	33-322154	51	"A" Choke	32-1644
11	Resistor (390 ohms)	33-139336	52	Condenser (.5 Mfd.)	61-500013
12	Condenser (.1 Mfd.)	61-0104	53	Condenser (250 Mmfd.)	60-125157
13	Pilot Lamp	34-2064	54	Fuse	45-2559
14	Oscillator Coil (Part of 3)		55	Silver Mica Condenser	
15	Condenser (250 Mmfd.) (Part of 3)			(437 Mmfd.)	61-0071
16	Resistor (220,000 ohms)	33-422154	56	Aerial Padder	63-0064
17	Padder (Pri. 1st I. F. Trans.)		57	Condenser (.05 Mfd.)	61-0101
18	First I. F. Transformer	65-0399	58	Condenser (.05 Mfd.)	61-0111
19	Padder (Sec. 1st I. F. Trans.)		59	Housing	77-0690FC54
20	Oscillator Tracking Coil	65-0401	60	Tube Side Cover	57-1547FC54
21	Condenser (250 Mmfd.)	60-125157	61	Speaker Cover	57-1548FC54
22	Resistor (600 ohms)	33-160336	62	Vibrator Socket	27-6153
23	Condenser (.05 Mfd.)	61-0111	63	Loktal Socket	27-6151
24	Resistor (10,000 ohms)	33-310334	64	Volume Control Cable	95-0154
25	Resistor (15,000 ohms)	33-315334	65	Speaker Cable	95-0161
26	Second I. F. Transformer	65-0400	66	"A" Switch Cable	95-0155
27	Padder (Sec. 2nd I. F. Trans.)		67	"A" Lead	77-0638
28	Resistor		68	Fuse Lead	77-0052
	(2,200,000 ohms)	33-522154	69	Volume Control Nut	W684FA3
29	Volume Control (350,000 ohms)		70	Speaker Unit	73-0054
30	& On-Off Switch	67-0037	71	Speaker Gasket	55-1045
31	Resistor		72	Nuts (Speaker Mtg.)	W124FA3
	(15,000,000 ohms)	33-615154	73	Bolts (Speaker Mtg.)	W1582FA26
32	Condenser (4,000 Mmfd.)	61-004311	74	Lockwashers	
33	Resistor (220,000 ohms)	33-422334		(Speaker Mtg.)	W291FE7
34	Condenser (.01 Mfd.)	61-010311	75	Dial Background Plate	55-1159
35	Resistor (470,000 ohms)	33-447154	76	Dial	55-1151
36	Filter Condenser		77	Gland Nuts	
	(10-20-20 Mfd.)	61-0072		(Radio Mtg.)	28-6558FA8
37	Resistor (220 ohms)	33-122336	78	Drive Cord	55-1158
38	Resistor (2,200 ohms)	33-222334	79	Pointer Spring	57-1425FA3
39	Condenser (.03 Mfd.)	61-0119	80	Pointer	57-1797FCP
40	Output Transformer	65-0395	81	Bezel	57-1801FA8
	(For 73-0054-2)	91-0166	82	Tuning & Volume Knob	77-0633



No.	Description	Part No.	No.	Description	Part No.
	Screw		83	Fuel Gauge Resistor	77-0769
	(Bezel to Housing)	97-0111FA3	84	Ground Strap	77-0336
	Screw		85	Wing Nut (Radio Mtg.)	97-0048FA3
	(Wiring Side Cover)	97-0111FA26	86	Hook Bolt	
	Gland Nut Wrench	28-5636FA3	87	(Radio Mtg.)	97-0135FA3
	Interference Condenser	30-4007	88	Antenna Connector	57-0591FA3
	Interference Condenser	60-125157			
	Distributor Suppressor	32-2250			

MODEL S-1824 — 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.

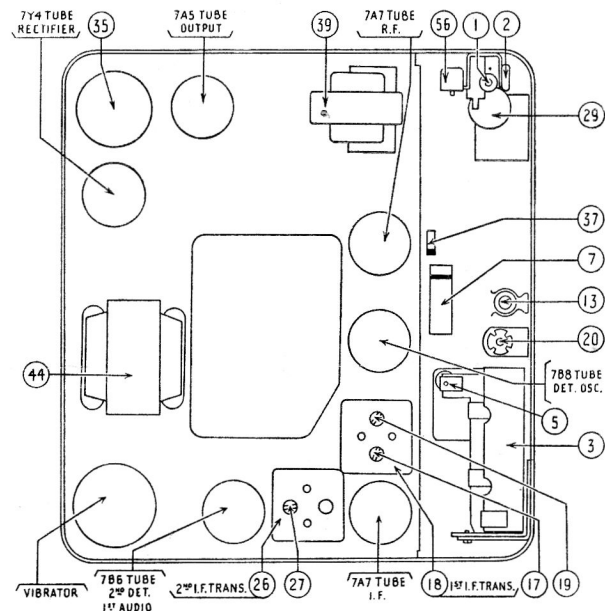
EQUIPMENT — Fully charged heavy duty storage battery or 6 volt power pack, 077 or 177 Philco Signal generator, 027 Philco Vacuum tube voltmeter and set tester or audio output meter, 45-2610 Padding screw driver.

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 150 meg." control until the meter reads zero on the 0-10 range scale (bottom scale). The needle will deflect from left to right.

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	455 K.C.	To Aerial Receptacle on Radio	See Note 1	Note 2	27 19 17 27 19 17
2	1360 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 1360 K.C.	56
3	590 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 590 K.C.	20 Note 3
4	1360 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 1360 K.C.	56
5	1200 to 1400 K.C.	Note 5	Note 5	Note 5	56 Note 4

Make all adjustments for maximum reading on the meter.

NOTE 1 — Connect the aerial lead, Part No. 95-0111, to the aerial receptacle in the radio. Connect a 35 Mmfd. Condenser in series between the signal generator and the aerial lead.

NOTE 2 — Turn the tuning control 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 control scale. Remove the plug button on the end of the radio and adjust the aerial compensator 56 (see Figure 3) for maximum signal.

PHILCO RADIO & TELEVISION CORP.

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Parts and Service Division
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