

PHILCO AUTO RADIO

STUDEBAKER MODEL S-1924 CUSTOM AUTO RADIO

MODEL S-1924 — 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.

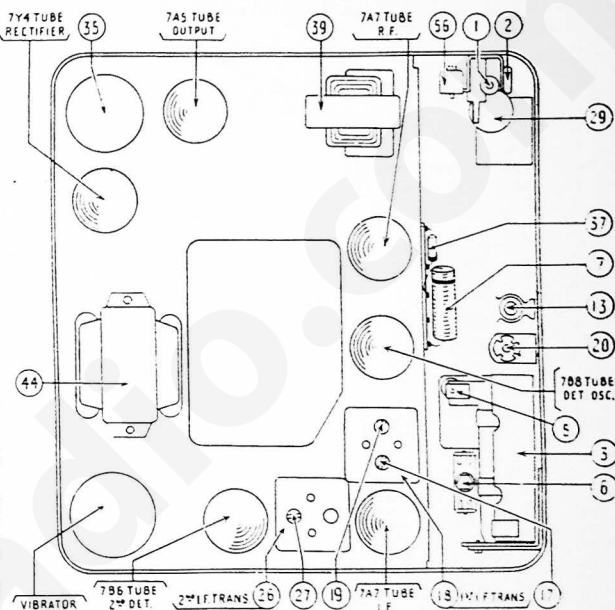


FIGURE 1

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	Ⓐ Ⓑ Ⓒ Ⓓ
2	1360 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 1360 K.C.	Ⓔ
3	590 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 590 K.C.	Ⓙ
4	1360 K.C.	To Aerial Receptacle on Radio	See Note 1	Set Tuning Control at 1360 K.C.	Ⓔ
5	1200 to 1400 K.C.	Note 5	Note 5	Note 5	Ⓔ 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.

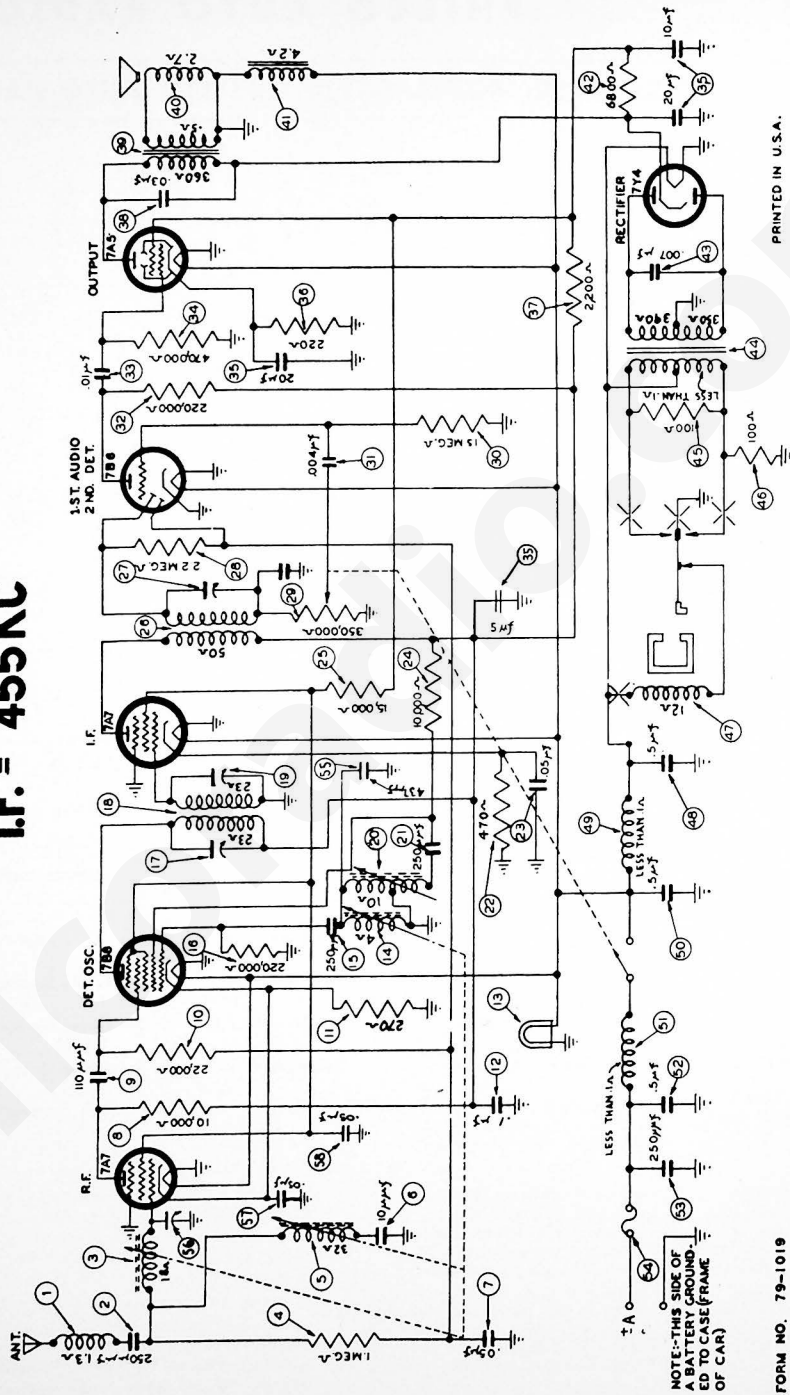
NOTE 3 — Rock the tuning control while adjusting the low frequency screw. Tune the control to the signal and adjust the screw for maximum output. Rotate the tuning control back and forth slightly for maximum output. Then readjust the screw for maximum output. Repeat this procedure until no further improvement 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 Ⓔ (see Figure 1) for maximum signal.

MODEL S-1924 SCHEMATIC

I.F. = 455 KC



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FIGURE 2

FORM NO. 79-1019

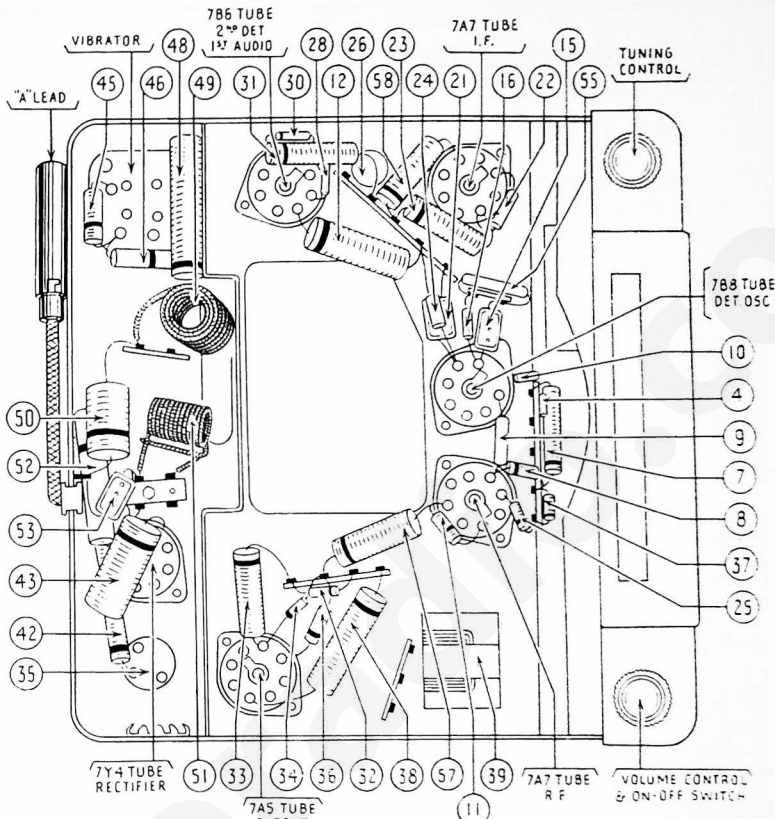


FIGURE 3

PARTS LIST — S-1924

No.	Description	Part No.	No.	Description	Part No.	No.	Description	Part No.
(1)	Antenna Choke	65-0378	(27)	Padder (Sec. 2nd I. F. Trans.)	61-0106	(50)	Condenser (.5 Mfd.)	32-1644
(2)	Condenser (250 Mmfd.)	60-125157	(28)	Resistor (220,000 ohms)	33-522154	(51)	"A" Choke	61-0137
(3)	Inductive Tuning Knob	77-0709	(29)	Volume Control (350,000 ohms) & On-Off Switch	67-0037	(52)	Condenser (.5 Mfd.)	60-125157
(4)	Resistor (1,000,000 ohms)	33-510154	(30)	Resistor (15,000,000 ohms)	33-615154	(53)	Condenser (250 Mmfd.)	60-125157
(5)	Image Trap Coil (Part of 3)	60-125157	(31)	Condenser (4000 Mmfd.)	61-0129	(54)	Fuse	45-2359
(6)	Condenser (10 Mmfd.)	63-0071	(32)	Resistor (220,000 ohms)	33-422334	(55)	Condenser (.437 Mmfd.)	61-0071
(7)	Condenser (.05 Mfd.)	61-0111	(33)	Condenser (.01 Mfd.)	61-0120	(56)	Aerial Padder	63-0064
(8)	Resistor (10,000 ohms)	33-310334	(34)	Resistor (470,000 ohms)	33-447134	(57)	Condenser (.5 Mfd.)	61-0101
(9)	Condenser (.110 Mmfd.)	60-110157	(35)	Filter Condenser (10-20-20 Mfd.)	61-0150	(58)	Condenser (.05 Mfd.)	61-0111
(10)	Resistor (22,000 ohms)	33-322134	(36)	Resistor (220 ohms)	33-122336		Housing	77-0699PC59
(11)	Resistor (270 ohms)	33-127336	(37)	Resistor (2200 ohms)	33-222334		Tube Slide Cover	57-1547PC39
(12)	Condenser (.1 Mfd.)	61-0104	(38)	Condenser (.03 Mfd.)	61-0119		Speaker Cover	57-1548FC39
(13)	Pilot Lamp	34-2064	(39)	Output Transformer	65-0395		Speaker Cable	95-0181
(14)	Oscillator Coil (Part of 3)	60-125157	(40)	Cone & Voice Coil (For 73-0068-2 Speaker)	91-0238		Speaker Gasket	55-1045
(15)	Resistor (220,000 ohms)	33-422154	(41)	Field Coil (Not Replaceable)	33-268434		Speaker Unit	73-0058
(16)	Padder (Pri. 1st I. F. Trans.)	65-0399	(42)	Resistor (6800 ohms)	61-0127		Nut (Speaker Mtg.)	W-124FA3
(17)	First I. F. Transformer	65-0400	(43)	Power Transformer	65-0404		Bolt (Speaker Mtg.)	W-1582FA3
(18)	Padder (Sec. 1st I. F. Trans.)	65-0401	(44)	Resistor (100 ohms)	33-110434		Lockwasher (Speaker Mtg.)	W291FE7
(19)	Oscillator Tracking Coil	65-0401	(45)	Resistor (100 ohms)	33-110434		Vibrator Socket	27-6153
(20)	Condenser (250 Mmfd.)	60-125157	(46)	Vibrator	83-0036		Lock Socket	27-6151
(21)	Resistor (470 ohms)	33-147336	(47)	Condenser (.5 Mfd.)	61-0137		Volume Control Cable	95-0222
(22)	Condenser (.05 Mfd.)	61-0111	(48)	Vibrator Choke	65-0151		"A" Switch Cable	95-0155
(23)	Resistor (10,000 ohms)	33-310334					"A" Lead	77-0638
(24)	Resistor (10,000 ohms)	33-310334					Fuse Lead	77-0052
(25)	Resistor (15,000 ohms)	33-315334					Volume Control Nut	W681FA3
(26)	Second I. F. Transformer	65-0400						