PHILCO TRANSITONE SERVICE BROADCAST

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STUDEBAKER MODEL S-1616 SINGLE UNIT CUSTOM CAR RADIO

MODEL S-1616 SCHEMATIC

File in Philco Section of Auto Radio Manual

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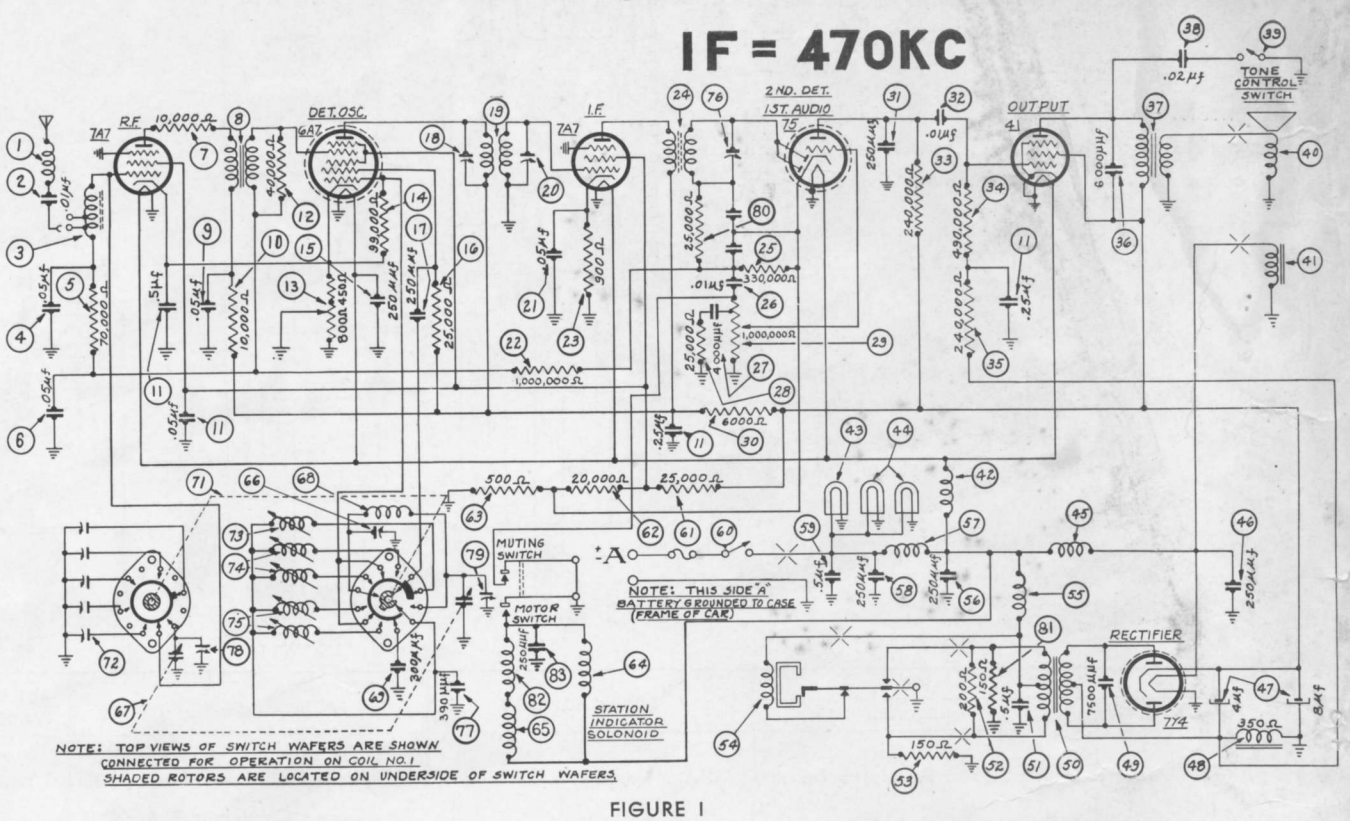

FIGURE 1

PARTS LIST

No.	Description	Part No.
1	Antenna Choke	65-0062
2	Condenser (.01 mfd.)	61-0014
3	Antenna Transformer	65-0047
4	Condenser (.05 mfd.)	30-4444
5	Resistor (70,000 ohms)	33-370337
6	Condenser (.05 mfd.)	30-4444
7	Resistor (10,000 ohms)	33-310337
8	R. F. Transformer	65-0009
9	Condenser (.05 mfd.)	30-4123
10	Resistor (10,000 ohms)	33-310337
11	Condenser (.05-.25-.25-.5 mfd.)	61-0016
12	Resistor (40,000 ohms)	33-340137
13	Sensitivity Control	33-5264
14	Resistor (99,000 ohms)	33-399337
15	Condenser (250 mmfd.)	61-0033
16	Resistor (25,000 ohms)	33-325337
17	Condenser (250 mmfd.)	30-1038
18	Padder (Pri. 1st I. F. Trans.)	
19	First I. F. Transformer	65-0044
20	Padder (Sec. 1st I. F. Trans.)	
21	Condenser (.05 mfd.)	30-4444
22	Resistor (1,000,000 ohms)	33-510337
23	Resistor (900 ohms)	33-190438
24	Second I. F. Transformer	65-0045
25	Resistor (330,000 ohms)	33-433337
26	Condenser (.01 mfd.)	61-0014
27	Condenser (4,000 mmfd.)	61-0020
28	Resistor (25,000 ohms)	33-325337
29	Volume Control & Switch (1,000,000 ohms)	67-0014-1 opt. 67-0014-2
30	Resistor (6,000 ohms)	33-260337
31	Condenser (250 mmfd.)	61-0033
32	Condenser (.01 mfd.)	30-4169
33	Resistor (240,000 ohms)	33-424337
34	Resistor (240,000 ohms)	33-424337
35	Condenser (6,000 mmfd.)	30-4024
36	Output Transformer	65-0048
37	Condenser (.02 mfd.)	30-4495
38	Tone Control Switch	42-1140
39	Cone & Voice Coil Kit	91-0047
40	Field Coil	Not Replaceable
41	Filament Choke	65-0057
42	Pilot Lamp	34-2040
43	Pilot Lamp	34-2040
44	Choke	32-1374
45	Condenser (250 mmfd.)	61-0033
46	Filter Condenser (4-8 mfd.)	61-0018
47	Filter Choke	32-7959
48	Condenser (7,500 mmfd.)	30-4567
49	Power Transformer	65-0046
50	Condenser (.5 mfd.)	30-4565
51	Resistor (200 ohms)	33-120337
52	Resistor (150 ohms)	In Vibrator
53	Vibrator	41-3398
54	Vibrator Choke	32-2537
55	Condenser (250 mmfd.)	61-0033
56	"A" Choke	65-0057
57	Condenser (250 mmfd.)	61-0033
58	Condenser (.5 mfd.)	30-4474
59	On-Off Switch and Volume Control opt.	67-0014-1 67-0014-2
60	Resistor (25,000 ohms)	33-325437
61	Resistor (20,000 ohms)	33-320337
62	Resistor (500 ohms)	33-150438
63	Solenoid	77-0227
64	Impulse Motor	77-0259
65	Low Frequency Padder	31-6230
66	Tuning Condenser	63-0011
67	Oscillator Transformer	65-0058
68	Silver Cap Condenser (300 mmfd.)	61-0003
69	Selector Switch	77-0198
70	Antenna Padder Assembly	77-0126
71	Oscillator Transformer (High Freq.)	65-0049
72	Oscillator Transformer (Med. Freq.)	65-0050
73	Oscillator Transformer (Low Freq.)	65-0051
74	Padder (Sec. 2nd I. F. Trans.)	
75	Silver Cap Condenser (390 mmfd.)	61-0031
76	First Padder (on Tun. Cond.)	Part of Ant. Padder Assy.
77	Second Padder (on Tun. Cond.)	
78	Resistor (25,000 ohms)	33-325337
79	Resistor (150 ohms)	33-115337
80	Choke	32-1644
81	Condenser (250 mmfd.)	61-0033
82	Dial Assembly	85-0079
	Tone Control and Automatic Drum	415-1009
	Automatic Push Button (Commander)	55-0100
	Automatic Push Button (President)	55-0172
	Tuning and Volume Knob (President)	27-4689
	Tuning and Volume Knob (Commander)	55-0102
	Flexible Shaft	57-0467

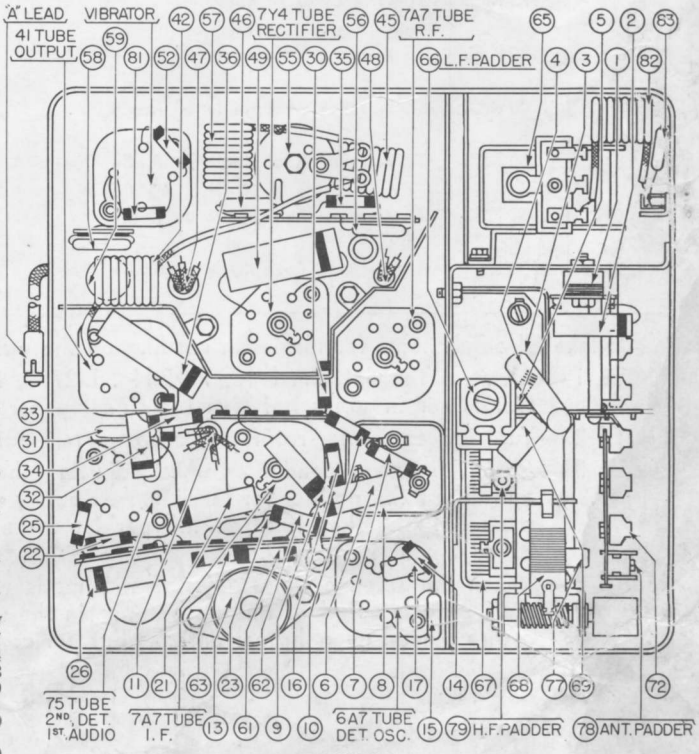

FIGURE 2

No.	Description	Part No.
	Call Letter Kit	81-0052
	Condenser and Lug Assy.	30-1087
	Interference Condenser	30-4007
	Distributor Resistor	32-2250
	"T" Bolt (Rec. Mtg.)	28-6161
	Nut (Rec. Mtg.)	W518
	Automatic Cable	95-0030
	Tone and Volume Cable	95-0076

MODEL S-1616

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, 077A or 177 Philco Set Tester, 27-7159 Padding screw driver.

General — The output meter must be connected by means of an adapter to the plate of the type 41 output tube and to the Radio chassis.

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 output 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.

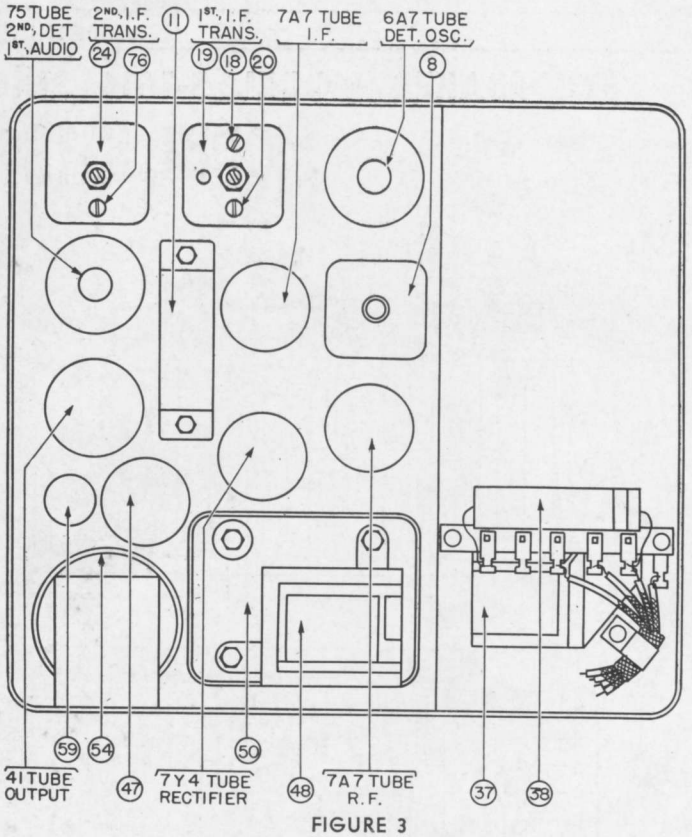

FIGURE 3

OPERATION	SIGNAL GENERATOR FREQUENCY	SIGNAL GENERATOR CONNECTION	DUMMY CAPACITY	SPECIAL INSTRUCTIONS	ADJUST PADDER
1	Press the Automatic Station Selector button until "DIAL" appears in the window and stations can be tuned in by Manual Tuning.				
2	470 K.C.	To Grid of 6A7 Tube	.1 Mfd.	Turn Tuning Condenser Plates Out of Mesh as Far as They Will Go.	(76) (20) (18)
3	1580 K.C.	To Antenna Receptacle on Radio	20 Mmfd. See Note 1	Note 2	(79)
4	1400 K.C.	To Antenna Receptacle on Radio	20 Mmfd. See Note 1	Set Tuning Condenser at 1400 K.C.	(78) Note 4
5	580 K.C.	To Antenna Receptacle on Radio	20 Mmfd. See Note 1	Set Tuning Condenser at 580 K.C.	(66) Note 3
6	1580 K.C.	To Antenna Receptacle on Radio	20 Mmfd. See Note 1	Note 2	(79)
7	1400 K.C.	To Antenna Receptacle on Radio	20 Mmfd. See Note 1	Set Tuning Condenser at 1400 K.C.	(78) Note 4

Make all adjustments for maximum reading on the output meter.

NOTE 1 — Connect the antenna lead, Part No. L-2765, to the antenna receptacle in the radio. Connect a 20 Mmfd. Condenser in series between the signal generator and the antenna 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 antenna stage adjustment is made with the Radio installed in the car, the Radio antenna lead must be connected to the car antenna in the usual manner. Connect the signal generator output lead to a wire placed near the car antenna but not connected to it.

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