CROSLEY SERVICE SUPPLEMENT

JULY, 1937 **CHASSIS MODEL 817** **No. 169**

This model Crosley radio is an 8-tube AC receiver designed for American and Foreign broadcast reception.

The tuning range is from 540 kilocycles to 22 megacycles and is divided into three bands as follows:

540-1850 Kilocycles or 555-162 Metres (American Broadcast Band)
1.9- 6.6 Megacycles or 158-45.5 Metres (Police & Amateur Band)
6.4- 22 Megacycles or 47-13.5 Metres (High Frequency or Foreign Band)

Circuit Description.

Eight octal base glass tubes are employed in a superheterodyne circuit which consists of separate oscillator and modulator tubes, two stages of I-F amplification—the second of which is resistance coupled, a combination AVC and diode detector and 1st A-F amplifier tube, push pull output and power supply. The speaker field is located in the negative leg of the power supply. The bias for all tubes except the output is developed across a 40 ohm resistor, item 39, located between the speaker field and ground. Phase inversion is obtained in the output circuit by the voltage developed across a 3000 ohm resistor, item 42A, located in the screen circuit of one of the output tubes, item 45B.

SOCKET VOLTAGES

The tube socket voltages are measured from the tube socket contacts to the chassis with a 1000 ohm per volt, 500-volt D. C. voltmeter (except filaments) with receiver in operating condition and no signal input. The filament voltages should be measured with an accurate low range A. C. voltmeter (approximately 0-10 volts). Readings may vary plus or minus 10% of values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	G	K	Go	Ga
6A8G	Modulator	6.3	240	85	Neg	0	Neg	85
6K6G	Oscillator	6.3	145	145	Neg	0	—	—
6U7G	1st I-F Amp	6.3	240	85	Neg	0	- -	—
6U7G	2nd I-F Amp	6.3	210	85	Neg	0	- -	—
6Q7G	Det., AVC & 1st A-F Amp	6.3	120	—	Neg	0	—	—
6K6G	Output	6.3	235	230	0	18.5	—	—
6K6G	Output	6.3	235	230	0	18.5	—	—
5Y3G	Rectifier	5.0	—	—	—	240	—	—

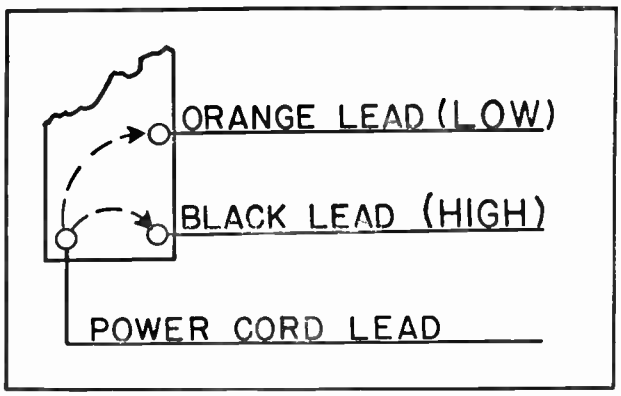
Power output approximately 5.5 watts.
Power consumption approximately 70 watts at 117.5 volts
Voltage drop across speaker field 80 volts

50 CYCLE POWER TRANSFORMER ADJUSTMENT

Receivers equipped with a 50 cycle power transformer have a "high" and "low" voltage tap on the under side of the chassis. The "high" voltage lead (BLACK) and the "low" voltage lead (ORANGE) are connected to a terminal strip near the transformer.

The voltage range of the "low" tap of the 95-130 volt transformer is from 95 to 112½ volts and of the "high" tap is from 112½ to 130 volts. The range of the "low" tap of the 190-260 volt transformer is from 190 to 225 volts and of the "high" tap is from 225 to 260 volts.

The accompanying illustration shows the connections



for changing from high to low or low to high line voltage. Note the "jumper" wire which is attached to the terminal at which one side of the power cord is attached. The other end of this jumper wire should be connected to the ORANGE or BLACK lead of the transformer primary, according to the line voltage the receiver is to be used on.

NOTE: Any change made in the power supply circuit of the receiver should be plainly stamped or otherwise permanently recorded on the rear of the chassis.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits may be properly aligned with the use of a modulated signal generator and an output meter.

CONNECTING OUTPUT METER

Connect the output meter to the plates of the two 6K6G Output tubes. Be certain that the meter is protected from D. C. by connecting a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning I-F Amplifier to 455 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd. condenser to the top cap of the 6A8G tube, leaving the tube's grid lead in place. Connect the ground lead from the signal generator to the ground terminal of the receiver. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the tuning condenser plates are completely out of mesh. Turn the volume control knob to the right (ON) and turn the tone control knob to the left (TREBLE).

(c) Turn the band selector switch to the High Frequency Band.

(d) Set the signal generator to 455 kilocycles.

(e) Adjust both trimmers located on top of the 2nd I-F assm. for maximum output. (Item 9, Fig. 2)

(f) Adjust both trimmers located on top of the 1st I-F assm. for maximum output. (Item 8, Fig. 2)

(g) Check operations (e) and (f) for more accurate adjustment.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE OUTPUT METER READING.

Aligning R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the "ANT" terminal of the receiver. For the Broadcast and Police Bands a .00025 mfd. condenser should be connected in series with the output lead of the signal generator and for the High Frequency band a 400 ohm carbon resistor should be used in place of the condenser.

Each band should first be shunt aligned and then series aligned where provision is made for series alignment (Broadcast Band). The band selector switch should be set for the band being aligned and the station selector and signal generator should be set to the frequency indicated for each adjustment, paragraph (c) below.

(a) Adjust the "OSC" and "ANT" shunt trimmers in the order given for maximum output. Readjust the station selector slightly so that the generator signal is tuned-in with maximum output and then check the adjustment of the "ANT" trimmer. DO NOT READJUST THE "OSC" TRIMMER.

NOTE: When shunt aligning the Police and High Frequency Bands care must be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator ten times, or more, to try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

(b) To align the B. C. OSC. series trimmer (Fig 2), set the signal generator to the frequency indicated below and then tune-in this signal with the station selector for maximum output. To obtain the best adjustment for the series trimmer, it will be necessary to rotate the station selector back and forth slightly while adjusting the trimmer for maximum output.

(C) SIGNAL INPUT FREQUENCIES

	Shunt Alignment	Series Align.
American Broadcast Band	1700 Kilocycles	600 Kilocycles
Police & Amateur Band	6000 "	———
Foreign Band	18 Megacycles	———

WAVE TRAP

Some chassis of this model are equipped with a wave trap for the purpose of eliminating interference from code stations which operate on a frequency of approximately 455 kilocycles. This assembly is located on the underneath side of the chassis and consists of a coil, a fixed condenser and a trimmer condenser as illustrated by dotted lines in the Wiring Diagram (item 60).

The wave trap should not be adjusted until all other adjustments have been made. To make the adjustment, feed a 455 kilocycle signal from the signal generator through a .00025 mfd. condenser into the antenna terminal of the receiver. With the band selector switch turned to the Broadcast Band position, the gang condenser open and the volume control full on, adjust the trimmer condenser on the wave trap for minimum output.

Should the interfering station be operating on a frequency of slightly more or less than 455 kilocycles, the exact frequency should be determined with the aid of the signal generator. Then, instead of feeding a 455 kilocycle signal into the receiver the exact frequency of the interfering signal should be used. If it is not possible to determine the exact frequency of the interfering signal the antenna may be attached to the receiver and the receiver tuned to the position where the interfering signal is most noticeable. Then adjust the wave trap for minimum interference.

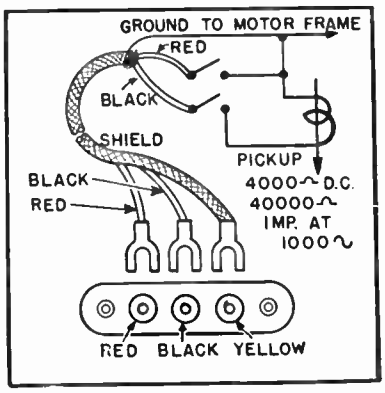


Fig. 4 Phonograph Pickup

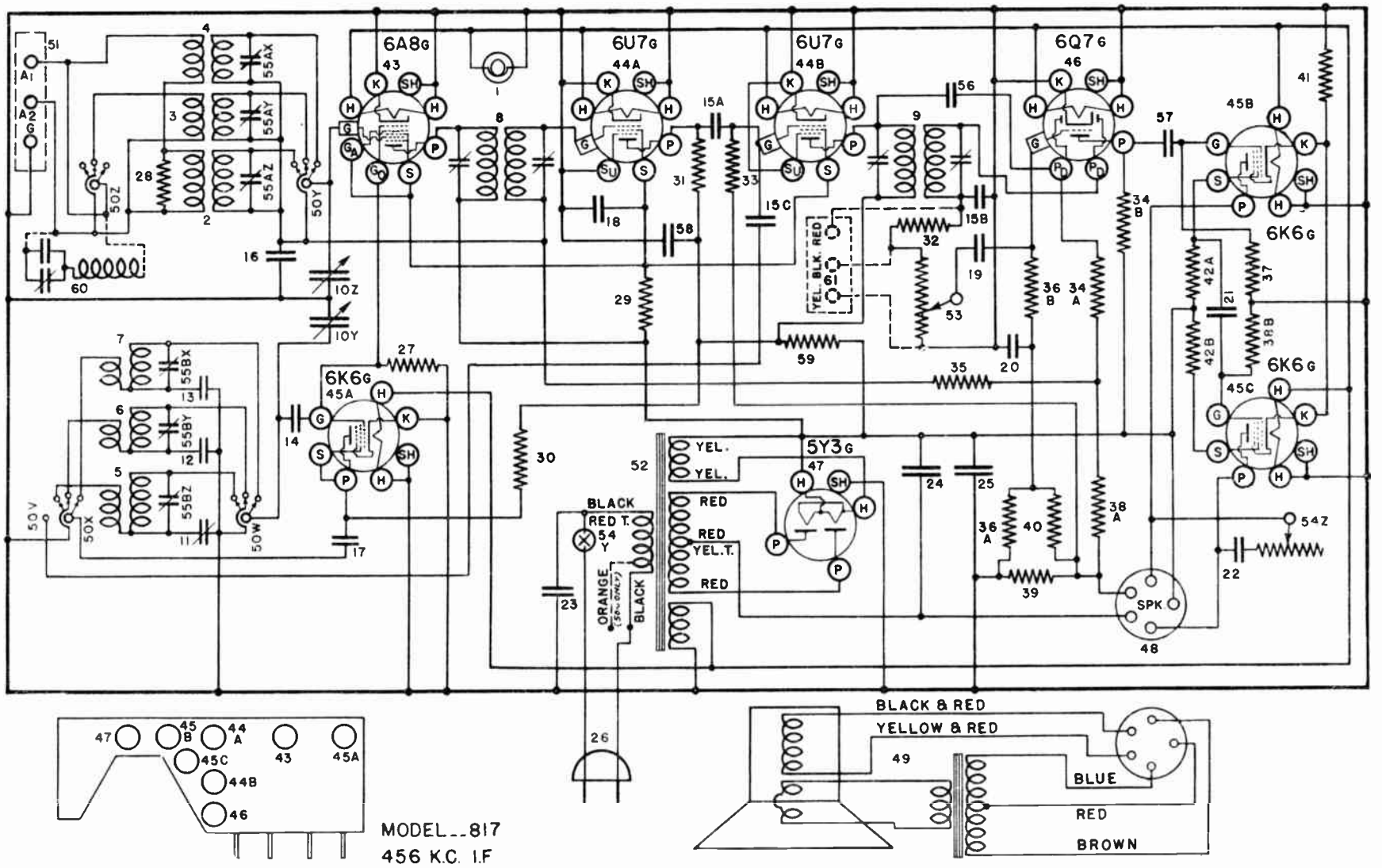


FIG. 1—WIRING DIAGRAM—MODEL 817

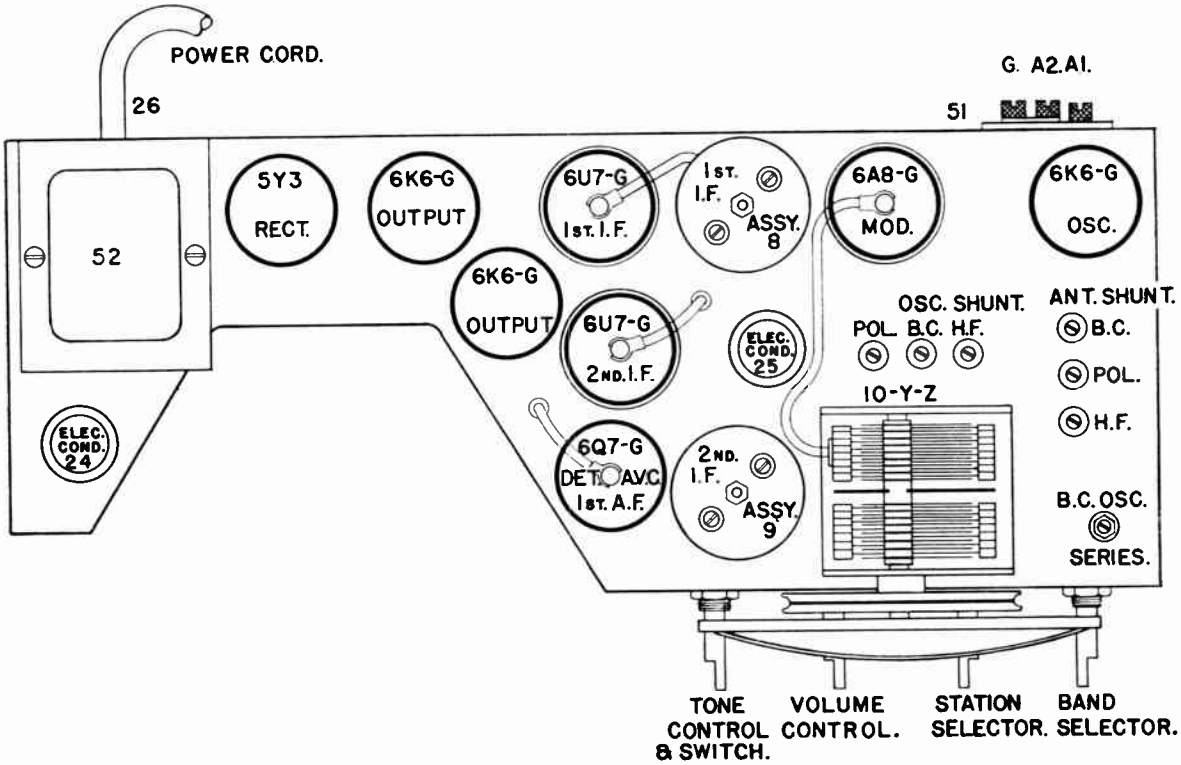


Fig. 2 Top View Model 817

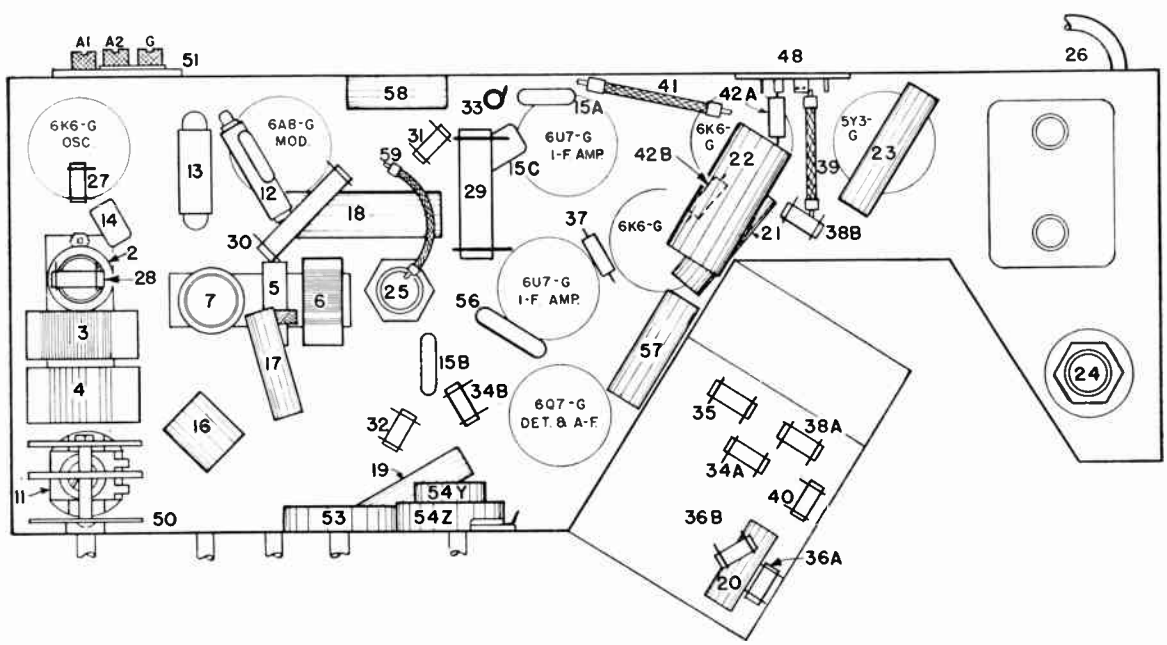


Fig. 3 Bottom View Model 817

PARTS LIST—MODEL 817

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Name Function
1	W —43567	Bulb, Dial Light, 6-8 V.
	W —44364	Bracket, for Dial Light
2	G139—32000	Ant. Coil, 535-1850 Kc.
3	G138—32000	Ant. Coil, 1900-6600 Kc.
4	G140—32000	Ant. Coil, 6.5-22 Mc.
5	G139—32002	Osc. Coil, 535-1850 Kc.
6	G138—32002	Osc. Coil, 1900-6600 Kc.
7	G140—32002	Osc. Coil, 6.5-22 Mc.
8	G153—32004	1st 1-F Assy.
9	G154—32004	2nd 1-F Assy.
10ZY	G41 —33001	2 Section Gang Cond.
	D —44080	Glass Dial Face
	W —44085B	Dial Mask (Paper)
	W —44084	Dial Support Ring
	C —44082	Support Brkt., Dial Glass
	G1 —43564	Pulley and Hub Assy.
	—41582	Drive Cord (11½ in. Req.)
	W —44134	Drive Shaft
	W —43549	Shaft Ret. Ring
	W —43542B	Brkt. for Drive Shaft
	W —43561	Drive Spring
	W —44299	Dial Hand
	W —40486	Pointer Mtg. Screw
11	—40769	B-C. Osc. Series Trimmer
12	G23 —34000	Condenser, 1560 Mmf.
13	G20 —34000	Condenser, 4910 Mmf.
14	G13 —34002	Condenser, 35 Mmf.
15ABC	G2 —34002	Condenser, 100 Mmf.
16	W —35936	Condenser, .05 Mf. 200 V.
17	W —35139	Condenser, .004 Mf. 400 V.
18	W —22688	Condenser, .1 Mf. 400 V.
19	W —27652	Condenser, .003 Mf. 200 V.
20	W —28621	Condenser, .02 Mf. 200 V.
21	W —30188	Condenser, .02 Mf. 400 V.
22	W —23615	Condenser, .05 Mf. 400 V.
23	W —30805	Condenser, .01 Mf. 400 V.
24	W —44054	Condenser, 30 Mf. 350 V.
25	W —36057	Condenser, 40 Mf. 300 V.
26	B —33906A	Power Cord and Plug
27	—21237A	Resistor, 60,000 Ohm. ¼W.
28	—22196	Resistor, 20,000 Ohm. ¼W.
29	—44008	Resistor, 10,000 Ohm. 2W.
30	—23616	Resistor, 15,000 Ohm, 1W.
31	—31093	Resistor, 2,700 Ohm. ¼W.
32	—35600	Resistor, 100,000 Ohm. ¼W.
33	—21875	Resistor, 100,000 Ohm. ¼W.

Item No.	Part No.	Name Function
34AB	—21455C	Resistor, 300,000 Ohm. ¼W.
35	—21151	Resistor, 1 Megohm ¼W.
36AB	—26577	Resistor, 3 Megohm ¼W.
37	—36322C	Resistor, 500,000 Ohm. ¼W.
38AB	—23785	Resistor, 500,000 Ohm. ¼W.
39	W —23012A	Resistor, 40 Ohm. ¾W. Flex.
40	—34883	Resistor, 2 Megohm ¼W.
41	W —21965	Resistor, 375 Ohm. 1W. Flex.
42AB	—44009	Resistor, 3,000 Ohm. ¼W.
43	G156—36400	Socket, Type 6A8
44AB	G171—36400	Socket, Type 6U7
45ABC	G172—36400	Socket, Type 6K6
46	G160—36400	Socket, Type 6Q7
47	G173—36400	Socket, Type 5Y3
48	G103—28807	Socket, Type Speaker
	W —40911	Tube Shield
	W —27981A	Base, Tube Shield
49	465BP—12"M"	Speaker Spec., 1-D-1049 "M"
	—44272	V. C. and Cone Assy. for 465BP12"M" Spkr.
	—44273	Field Coil for 465BP12"M" Spkr.
	—44274	Output Trans. for 465BP12"M" Spkr.
	W —43552	Spk. Plug Clamp
50	—44049	Band Selector Switch
51	G27 —26719	A1-A2-G. Terminal Assy.
52	—44057	Power Trans., 110 V. 60 Cy.
	—44058	Power Trans., 110 V. 50 Cy.
	—44059	Power Trans., 220 V. 50 Cy.
	—44060	Power Trans., 110 V. 25 Cy.
	—44061	Power Trans., 220 V. 25 Cy.
53	—44081	Volume Control, 1 Meg.
54Z, 54Y	—44021	Tone Control, 100,000 Ohm. Line Switch
55	W —35951	3 Sect. Shunt Trimmer Assy.
56	G3 —34002	Condenser, 500 Mmf.
57	W —34647	Condenser, .006 Mf. 400 V.
58	W —32378	Condenser, .01 Mf. 400 V.
59	W —23013	Resistor, 2,000 Ohm. 1¼W. Flex.
	W —44088	Knob
	W —50164A	Knob
	W —43553	Rubber Mtg. Foot
	W —44225	Grille Bar (2)
	—44092	Grille Cloth
	—7C	Cabinet
	B —44226B	Escutcheon
60	G165—32004	Wave Trap

CROSLEY SERVICE SUPPLEMENT

JULY, 1937 | CHASSIS MODEL 1117 | NO. 170

This model Crosley radio is an AC receiver designed for American and Foreign broadcast reception. The tuning range is from 540 kilocycles to 22 megacycles and is divided into three bands as follows:

540-1850 Kilocycles or 555-162 Metres (American Broadcast Band)
1.9- 6.6 Megacycles or 158-45.5 Metres (Police & Amateur Band)
6.4- 22 Megacycles or 47-13.5 Metres (High Frequency or Foreign Band)

Circuit Description

Eleven tubes are employed in a superheterodyne circuit. The 6G5 electron ray tube is used for indicating exact tuning and is designated IRIS TUNING INDICATOR. When a station is tuned-in, the greenish glow on each side of the tube increases in width, forming a narrow shadow at the bottom of the window. Only strong signals, however, will reduce the shadow to a narrow line.

The circuit consists of separate oscillator and modulator tubes, two stages of I-F amplification—the second of which is resistance coupled, separate AVC and detector diodes, two stages of audio amplification and power supply. The speaker field is located in the negative leg of the power supply. The bias for all tubes except the output is developed across a 32 ohm resistor, item 40, located between the speaker field and ground. Phase inversion is obtained in the output circuit by the voltage developed across a 3000 ohm resistor, item 27A, located in the screen circuit of one of the output tubes, item 42B.

SOCKET VOLTAGES

The tube socket voltages are measured from the tube socket contacts to the chassis with 1000 ohm per volt, 500 volt D. C. voltmeter (except filaments) with the receiver in operating condition and no signal input. The volume control should be turned full on, the tone control should be turned to the TREBLE position (counter-clockwise) and the tuning condenser should be turned to the minimum capacity position. The filament voltages should be measured with an accurate low range A. C. voltmeter (approximately 0-10 volts). Readings may vary plus or minus 10% of values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	G	K	Go	Ga
6K6G	Oscillator	6.3	147	147	-36	0	—	—
6A8G	Modulator	6.3	224	110	—	0	-36	110
6U7G	1st I-F Amplifier	6.3	174	110	—	0	—	—
6U7G	2nd I-F Amplifier	6.3	270	110	—	0	—	—
6C5G	Diode Detector	6.3	0	—	—	0	—	—
6C5G	AVC Diode	6.3	0	—	—	0	—	—
6K5G	1st A-F Amplifier	6.3	190	—	—	0	—	—
6K6G	Output	6.3	263	259	0	22	—	—
6K6G	Output	6.3	263	279	0	22	—	—
5Y3G	Rectifier	5.0	—	—	—	279	—	—
6G5	Tuning Indicator	6.3	Variable					

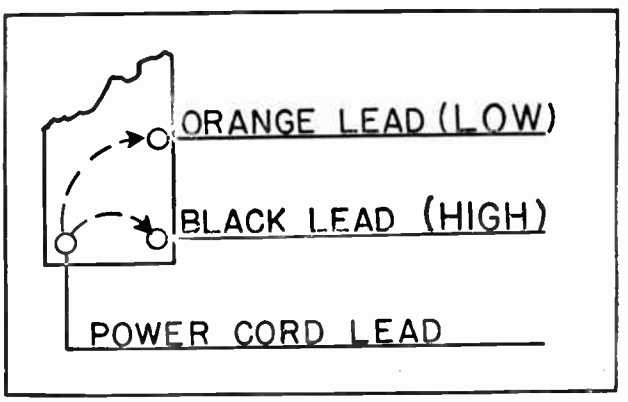
Power consumption approximately 90 watts at 117.5 volts.
Power output approximately 10 watts.
Voltage drop across speaker field 60 volts.

50 CYCLE POWER TRANSFORMER ADJUSTMENT

Receivers equipped with a 50 cycle power transformer have a "high" and "low" voltage tap on the under side of the chassis. The "high" voltage lead (BLACK) and the "low" voltage lead (ORANGE) are connected to a terminal strip near the transformer.

The voltage range of the "low" tap of the 95-130 volt transformer is from 95 to 112½ volts and of the "high" tap is from 112½ to 130 volts. The range of the "low" tap of the 190-260 volt transformer is from 190 to 225 volts and of the "high" tap is from 225 to 260 volts.

The accompanying illustration shows the connections for changing from high to low or low to high line voltage. Note the "jumper" wire which is attached to the terminal at which one side of the power cord is attached. The other end of this jumper wire should be connected to the ORANGE or BLACK lead of the transformer



primary, according to the line voltage the receiver is to be used on.

NOTE: Any change made in the power supply circuit

of the receiver should be plainly stamped or otherwise permanently recorded on the rear of the chassis.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits may be properly aligned with the use of a modulated signal generator and an output meter.

CONNECTING OUTPUT METER

Connect the output meter to the plates of the two 6K6G output tubes. Be certain that the meter is protected from D. C. by a condenser (.1 mfd. or larger—not electroyltic) in series with one of the leads.

Tuning The I-F Amplifier To 455 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd. condenser to the top cap of the 6A8G tube, leaving the tube's grid clip in place. Connect the ground lead from the signal generator to the ground terminal of the receiver. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the tuning condenser plates are completely out of mesh. Turn the volume control knob to the right (ON) and turn the tone control knob to the left (TREBLE).

(c) Set the band selector switch on the Broadcast Band.

(d) Set the signal generator to 455 kilocycles.

(e) Adjust both trimmers located on top of the 2nd I-F transformer for maximum output.

(f) Adjust both trimmers located on top of the 1st I-F transformer for maximum output.

(g) Check operations (e) and (f) for more accurate adjustment.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE OUTPUT METER READING.

Aligning The R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the "ANT" terminal of the receiver. For the Broadcast Band a .00025 mfd. condenser should be connected in series with the output lead of the signal generator and for the High Frequency and Police Bands a 400 ohm carbon resistor should be used in place of the condenser.

Each band should first be SHUNT ALIGNED and then SERIES ALIGNED where provision is made for series alignment (Broadcast Band). The band selector switch should be set for the band being aligned and the signal generator should be set to the frequency indicated for each adjustment, pp (d) below.

(a) With the station selector adjusted so that the tuning condenser plates are completely out of mesh, adjust the "OSC" shunt trimmer until the MINIMUM CAPACITY SIGNAL (d) is heard (it is not necessary that the receiver tune through this signal).

(b) Adjust the station selector so that the SHUNT ALIGNMENT SIGNAL (d) is tuned-in with maximum output. Then adjust the "ANT" shunt trimmer for maximum output. Readjust the station selector slightly so that the generator signal is tuned-in with maximum output and check the adjustment of the "ANT" trimmer. DO NOT READJUST THE OSCILLATOR TRIMMER.

NOTE: When shunt aligning the Police and High Frequency Bands care must be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator ten times, or more, and try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

(c) To align the series trimmer (See Fig. 2), set the signal generator to the frequency indicated below (d) and then tune-in this signal with the station selector for maximum output. To obtain the best adjustment for the series trimmer, it will be necessary to rotate the station selector back and forth slightly while adjusting the trimmer for maximum output. Minor tolerance variations in series alignment at 2500 kilocycles in the Police Band and at 7000 kilocycles in the High Frequency Band may be compensated for by slight repositioning of the grid lead of the antenna coil in the Band affected.

(D) SIGNAL INPUT FREQUENCIES

	Min. Cap. Signal	Shunt Align.	Series Align.
American Broadcast Band	1850 Kilocycles	1700 Kilocycles	600 Kilocycles
Police & Amateur Band	6600 "	6000 "	
High Frequency Band	22 Megacycles	18 Megacycles	

WAVE TRAP

Some chassis of this model are equipped with a wave trap for the purpose of eliminating interference from code stations which operate on a frequency of approximately 455 kilocycles. This assembly is located on the underneath side of the chassis and consists of a coil, a fixed condenser and a trimmer condenser as illustrated by dotted lines in the Wiring Diagram. Item 63, Fig. 1A.

The wave trap should not be adjusted until all other adjustments have been made. To make the adjustment, feed a 455 kilocycle signal from the signal generator through a .00025 mfd. condenser into the antenna terminal of the receiver. With the band selector switch turned to the Broadcast Band position, the gang condenser open and the volume control full on, adjust the trimmer condenser on the wave trap for minimum output.

Should the interfering station be operating on a frequency of slightly more or less than 455 kilocycles, the exact frequency should be determined with the aid of the signal generator. Then, instead of feeding a 455 kilocycle signal into the receiver the exact frequency of the interfering signal should be used. If it is not possible to determine the exact frequency of the interfering signal the antenna may be attached to the receiver and the receiver tuned to the position where the interfering signal is most noticeable. Then adjust the wave trap for minimum interference.

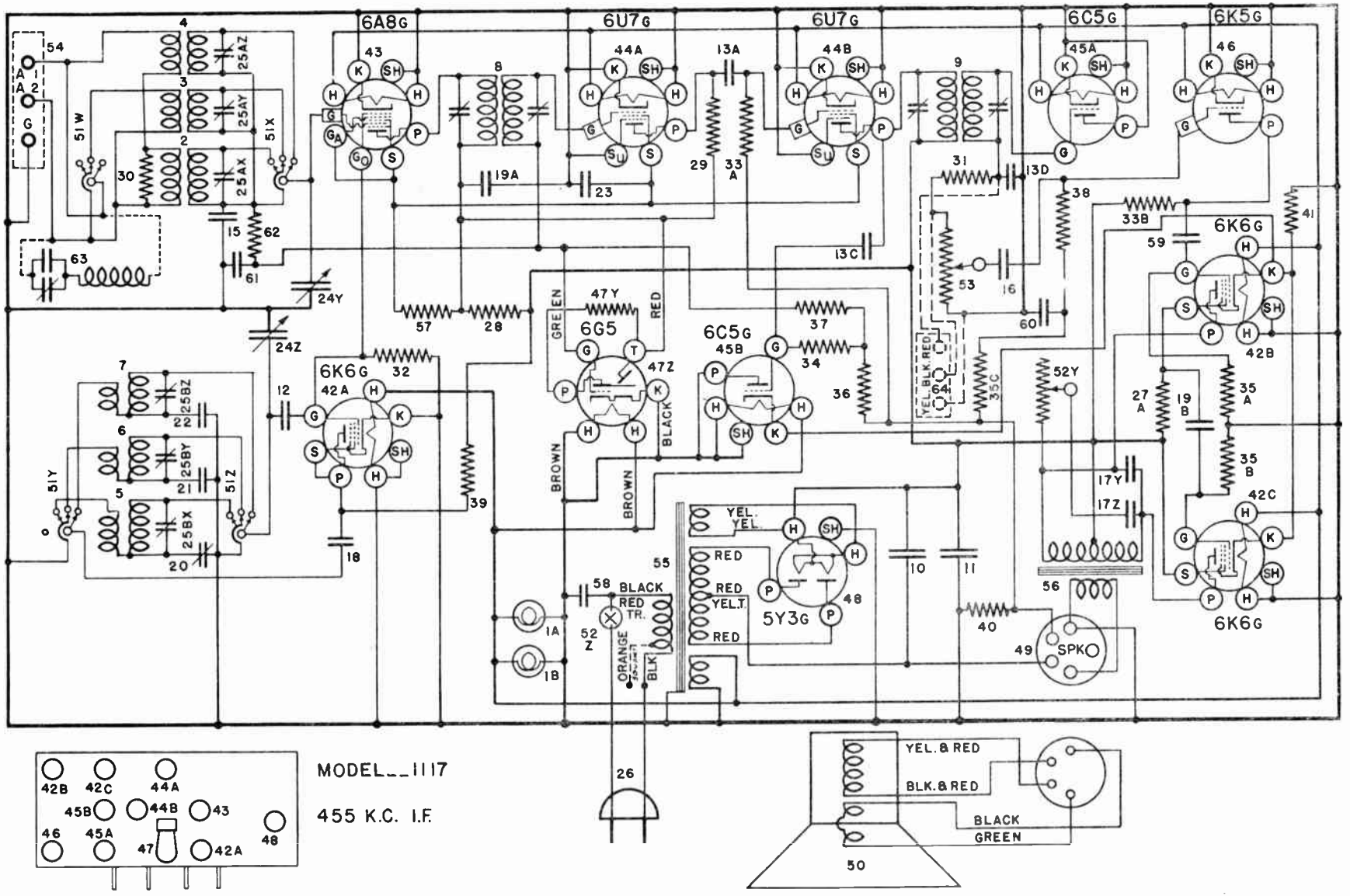


FIG. 1-A—WIRING DIAGRAM—MODEL 1117 SERIES 2

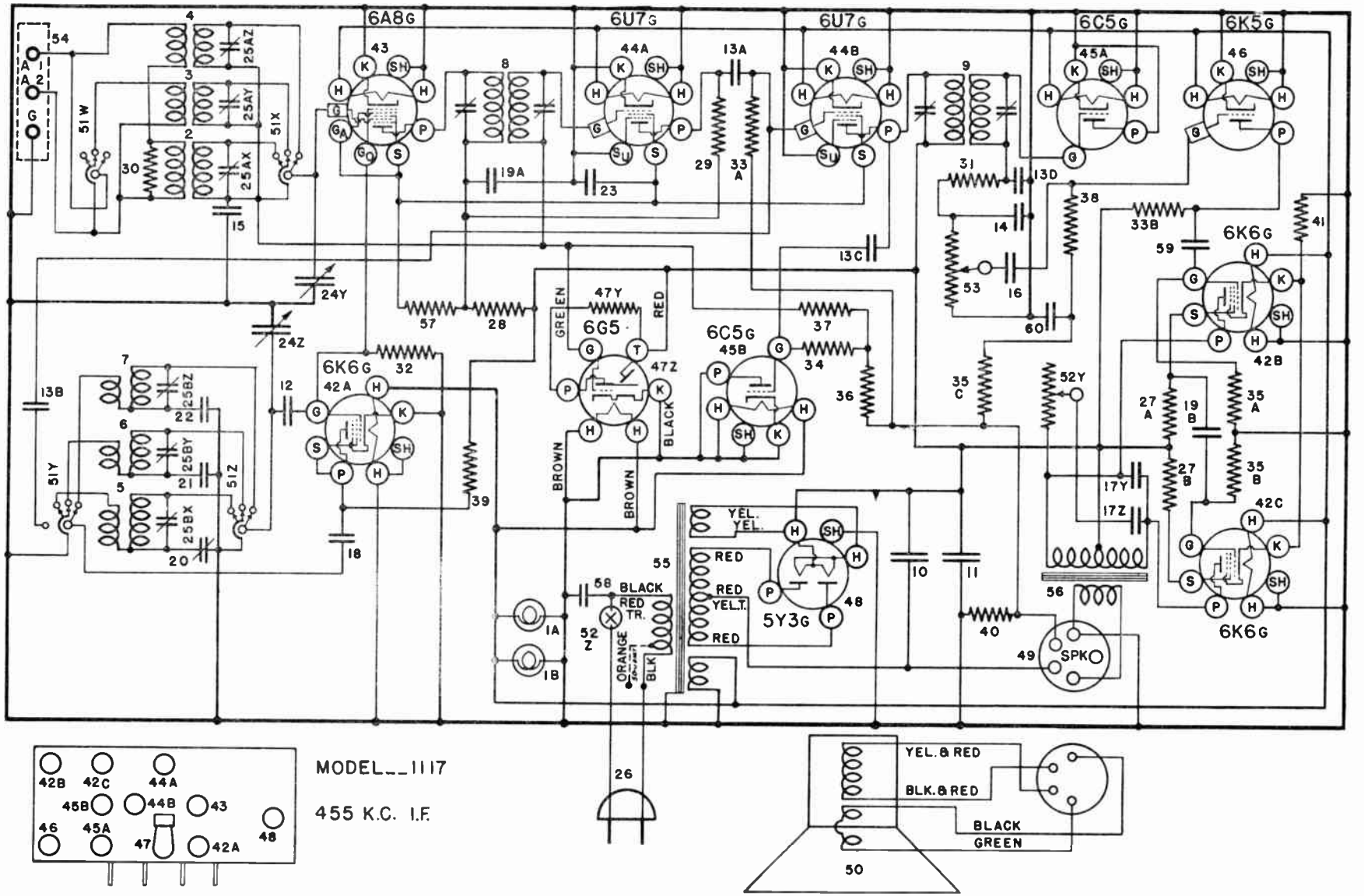


FIG. 1-B—WIRING DIAGRAM—MODEL 1117 SERIES 1

CIRCUIT CHANGES

Fig. 1-A is a revised Wiring Diagram, showing the following circuit changes after serial No. 1343902:

Item 13B Part No. G2-34002, 100 mmf. cond. deleted.
" 14 Part No. G1-34002, 250 mmf. cond. deleted.
" 27B Part No. 44009, 3000 ohm ¼-w resistor deleted.
" 41 Part No. W-21965, 375 ohm 1 W resistor superseded by Part No. 22873.
" 61 Part No. W-28621 added.
" 62 Part No. 35600 added.

In the later series a shielded lead between items 16 and 53 was found to reduce audio degeneration and thus materially improve the tone quality.

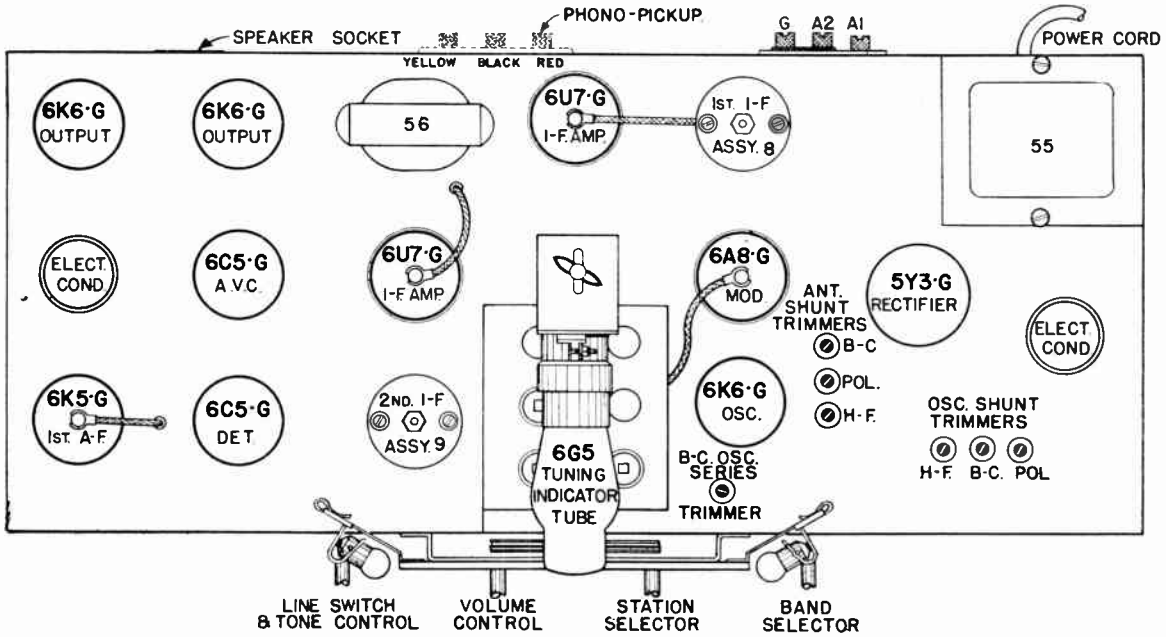


Fig. 2 Top View Model 1117

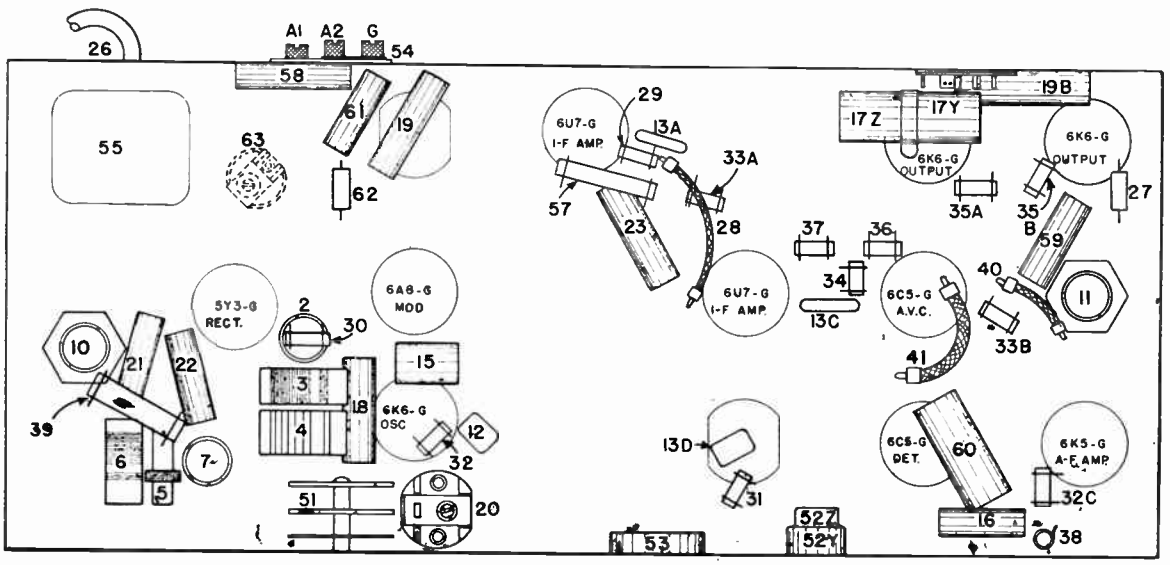


Fig. 3 Bottom View Model 1117

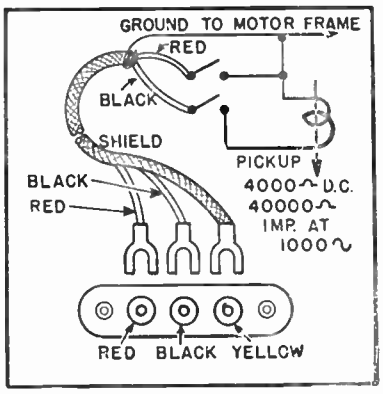


Fig. 4 Phonograph Pickup

PARTS LIST—MODEL 1117

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Description
1AB	W —43567	Dial Light Bulb
	G3 —44363	Dial Light Socket Assy.
2	G139—32000	Ant. Coil—535—1850 Kc.
3	G138—32000	Ant. Coil—1850—6600 Kc.
4	G141—32000	Ant. Coil—6.2—22 Mc.
5	G139—32002	Osc. Coil—535—1850 Kc.
6	G138—32002	Osc. Coil—1850—6600 Kc.
7	G141—32002	Osc. Coil—6.2—22 Mc.
8	G162—32004	1st 1-F Assembly—455 Kc.
9	G155—32004	2nd 1-F Assembly—455 Kc.
10	W —44054	Condenser, 30 Mf. 350 V.
11	W —36057B	Condenser, 40 Mf. 300 V.
12	G13 —34002	Condenser, .000035 Mf. Molded
13ACD	G2 —34002	Condenser, .0001 Mf. Molded
14		NONE
15	W —35936	Condenser, .05 Mf. 200 V.
16	W —41461	Condenser, .0014 Mf. 200 V.
17Z, 17Y	W —31052	Condenser, .05 Mf. 400 V. / Condenser, .004 Mf. 400 V.
18	W —35139	Condenser, .004 Mf. 400 V.
19AB	W —23615	Condenser, .05 Mf. 400 V.
20	—40769	B-C. Osc. Series Trimmer (520 Mmf.)
21	G23 —34000	Pol. Osc. Series Cond. (1560 Mmf.)
22	G20 —34000	H-F. Osc. Series Cond. (4910 Mmf.)
23	W —22688	Condenser, .1 Mf. 400 V.
24	G40 —33001	2 Section Var. Tuning Condenser
	MG14—44099	Cond. Mounting Bracket
	D —44143B	Dial Face (Glass)
	W —44146A	Dial Mask
	C —44110B	Dial Support Brkt.
	W —44127	Dial Hand (Pointer)
	W —40486	Hand Mtg. Screw
	W —44262	Dial Glass Support Ring
	W —44263	Dial Glass Support Arc
	—41582	Drive Cord - 20 Inches
	W —44134	Drive Shaft
	W —43549	Shaft Retaining Ring
	W —43542B	Shaft Bracket
	W —44500	Shaft Bearing
	G1 —43564	Drive Pulley Assy.
25	W —35951	3 Section Shunt Trimmer Assy.
26	B —33906A	Power Cord and Plug
27	—44009	Resistor, 3,000 Ohm ¼W. Carb.
28	W —23013	Resistor, 2,000 Ohm 1½W. Flex.
29	—44165	Resistor, 5,000 Ohm ½W. Carb.
30	—22196	Resistor, 20,000 Ohm ½W. Carb.
31	—36320	Resistor, 120,000 Ohm ¼W. Carb.
32	—21237A	Resistor, 60,000 Ohm ¼W. Carb.
33AB	—21875	Resistor, 100,000 Ohm ¼W. Carb.
34	—34020	Resistor, 250,000 Ohm ¼W. Carb.
35ABC	—23785	Resistor, 500,000 Ohm ¼W. Carb.
36	—37590	Resistor, 750,000 Ohm ¼W. Carb.
37	—21454	Resistor, 1 Megohm ¼W. Carb.
38	—26577	Resistor, 3 Megohm ¼W. Carb.
39	—44008	Resistor, 10,000 Ohm 2W. Carb.
40	W —37631	Resistor, 32 Ohm ½W. Flex.
41	W —22873	Resistor, 220 Ohm 1½W. Flex.
42ABC	G172—36400	Socket, Type 6K6
43	G156—36400	Socket, Type 6A8
44AB	G171—36400	Socket, Type 6U7
45AB	G152—36400	Socket, Type 6C5
46	G9 —43900	Socket, Type 6K5
47Z, 47Y	W —44121	Socket, Type 6G5 / 1 Meg. Resistor in Socket
48	G173—36400	Socket, Type 5Y3
49	G103—28807	Socket for Speaker
	W —27981A	Tube Shield Base
	W —40911	Tube Shield
	MG17—44099	Bracket Assy. with 6G5 Socket
	W —44137	Bracket for MG17-44099
	W —23880A	Thumb Screw
50	566BP18 "M"	Speaker, Spec. No. 1-D-1052
	—44275	V. C. and Cone Assy. for 566BP18 "M" Spkr.
	—44276	Field Coil Assy. for 566BP1 "M" Spkr.
51	—44049	Band Selector Switch
52Z, 52Y	—44024	Line Switch / Tone Control (100,000 Ohm)
53	—44081	Volume Control—1 Meg.
54	G27 —26719	Ant. and Gnd. Term. Assy.
55	—44101	Power Trans., 110 V. 60 Cy.
	—44104	Power Trans., 110 V. 50 Cy.
	—44105	Power Trans., 220 V. 50 Cy.
	—44102	Power Trans., 110 V. 25 Cy.
	—44103	Power Trans., 220 V. 25 Cy.
56	G77 —21628	Output Transformer
57	—4921C	Resistor, 10,000 Ohm 1W.
58	W —30805	Condenser, .01 Mf. 400 V.
59	W —30488	Condenser, .02 Mf. 400 V.
60	W —34712	Condenser, .25 Mf. 160 V.
61	W —28621	Condenser, .02 Mf. 200 V.
62	—35600	Resistor, 100,000 Ohm ¼W.
63	G164—32004	Wave Trap
	W —43553	Rubber Mtg. Foot
	W —44380	Knob (2)
	W —44426	Knob (2) (Pointer
	W —43552	Spkr. Plug Clamp
	B —44207A	Escutcheon—Dial
	W —44208B	Escutcheon—Tun. Indic. Tube
	— 7W	Cabinet

CROSLEY SERVICE SUPPLEMENT

JULY, 1937 CHASSIS MODEL 557 NO. 171

This model Crosley Radio is a five-tube, 2-band superheterodyne receiver. It is primarily designed for operation from a 2-volt "A" battery. However, it may be used with a 3-volt "A" battery if a Crosley W-44118 ballast tube is used in the socket provided, or it may be operated from a six-volt storage battery in conjunction with the Crosley Model 117 power supply unit. No "B" or "C" batteries are required if the six-volt battery and power supply unit are used.

The frequency ranges covered are from 540 to 1725 kilocycles in the American Broadcast Band and from 5900 to 15000 kilocycles in the High Frequency or Foreign Band.

Circuit Description

Five octal base glass tubes are employed in a superheterodyne circuit which consists of a combination oscillator-modulator tube, two stages of I-F amplification —the second transformer of which is single tuned, and two stages of audio amplification. The 1F7G tube serves as the 2nd I-F amplifier and detector and supplies delayed AVC voltage to the 1C7G and 1D5G tubes. The two flexible resistors, items 38 and 39A, supply bias voltage to the 1C7G, 1D5G and 1F7G tubes and also serve to reduce the "C" battery drain in proportion to the drop in "B" voltage caused by usage.

Battery Connections

If the receiver is to be operated from individual "A", "B" and "C" batteries, the "A" battery may be an air cell type, a two-volt storage battery or a three-volt dry "A" battery. Three plug-in type 45-volt "B" batteries and one plug-in type 4½-volt "C" battery are required.

CAUTION: Do not connect or disconnect batteries or insert or remove ballast tube with the "ON-OFF" switch in the "ON" position.

Fig. 2 shows the proper method of connecting the battery cable to the batteries. The YELLOW lead should be connected to the positive (+) terminal and the BLACK lead to the negative (—) terminal of the "A" battery. The resistor supplied on the YELLOW lead is to be used only if the "A" battery is an air cell type. The plug having two small pins and one large pin should be inserted in the 4½-volt "C" battery and the three plugs having three small pins are to be inserted in the "B" batteries.

If a three-volt battery is to be used, a Crosley W-44118 ballast tube should be used in the ballast tube socket on the receiver chassis. It will be necessary to pry the connector out of the ballast tube socket before the tube can be inserted. THE AIR CELL RESISTOR SHOULD NOT BE USED with three-volt "A" battery and ballast tube, nor with a two-volt storage battery.

Six-Volt Power Supply Unit

The Crosley Model 117 Power Supply Unit, Fig. 4, is designed to permit the Model 557 receiver to operate from a six-volt storage battery without the use of "B" and "C" batteries. It cannot be used with any other type 2-volt receiver without redesigning the receiver.

Dial Light

If it becomes necessary to replace the dial light bulb, use only part No. W-37188 which is rated at 6/100 ampere. Dial lights which use more current than this will reduce the life of the "A" battery.

TUBES AND VOLTAGE LIMITS

The following table gives the functions of the tubes used, together with the voltage readings between the tube socket contacts and the negative side of the "A" battery circuit. Voltage readings should be taken with a 1000 ohm per volt, 250 volt voltmeter (except filaments) with receiver in operating condition and the volume control full on and no signal input. The filament voltages should be measured with an accurate low range D-C voltmeter (approximately 0-10 volts). Voltage limits may vary plus or minus 10% of values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	Go	Ga
1C7G	Oscillator-Modulator	2.0	120	54	Neg	84
1D5G	1st I-F Amplifier	2.0	120	54	—	—
1F7G	2nd I-F Amplifier, AVC and Detector	2.0	135	54	—	—
1H4G	1st A-F Amplifier	2.0	72	—	—	—
1F5G	Output	2.0	130	135	—	—

Power output approximately .5 watt.
"A" battery drain approximately .42 ampere—less dial light current.
"B" battery drain approximately 24 mils.
Power Supply Unit drain approximately 1.15 amperes at 4 volts.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits can best be properly aligned with the use of a modulated signal generator and an output meter.

CONNECTING OUTPUT METER

Connect one terminal of the output meter to the plate and the other terminal to the screen of the 1F5G output tube. Be certain that the meter is protected from D. C. by connecting a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning The I-F Amplifier To 455 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd., or larger, condenser to the top cap of the 1C7G oscillator-modulator tube, leaving the tube's grid clip in place. Connect the ground lead from the signal generator to the ground (G) terminal of the receiver. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the tuning condenser plates are completely out of mesh. Turn the volume control to the right (ON).

(c) Turn the band selector switch to the left (Broadcast Band).

(d) Set the signal generator to 455 kilocycles.

(e) Adjust both trimmers located on top of the 3rd I-F assembly for maximum output. (See Fig. 2 item 8).

(f) Adjust the 2nd I-F trimmer condenser, Fig. 2 item 11, for maximum output.

(g) Adjust both trimmers located on top of the 1st I-F assembly, item 6, for maximum output.

(h) Check operations (e), (f) and (g) for more accurate adjustments.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE OUTPUT METER READING.

Aligning The R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the antenna (A) terminal of the receiver. For the Broadcast Band a .00025 mfd. condenser should be connected in series with the output lead of the signal generator and for the High Frequency Band a 400 ohm carbon resistor should be used in place of the condenser.

(a) With the station selector adjusted so that the tuning condenser plates are completely out of mesh and the band selector switch set for the band being aligned, adjust the "OSC" shunt trimmer so that the MINIMUM CAPACITY SIGNAL (c) is heard (it is not necessary that the receiver tune through this signal).

(b) Adjust the station selector so that the SHUNT ALIGNMENT signal is tuned-in with maximum output. Then adjust the "ANT" shunt trimmer for maximum output. Readjust the station selector slightly so that the generator signal is tuned-in with maximum output and check the adjustment of the "ANT" trimmer. DO NOT READJUST THE OSCILLATOR TRIMMER.

NOTE: When shunt aligning the High Frequency Band care should be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator 10 times, or more, and try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

(C) SIGNAL INPUT FREQUENCIES

	Minimum Capacity Signal	Shunt Alignment Signal
American Broadcast Band	1725 Kilocycles	1400 Kilocycles
High Frequency Band	15500 Kilocycles	15000 Kilocycles

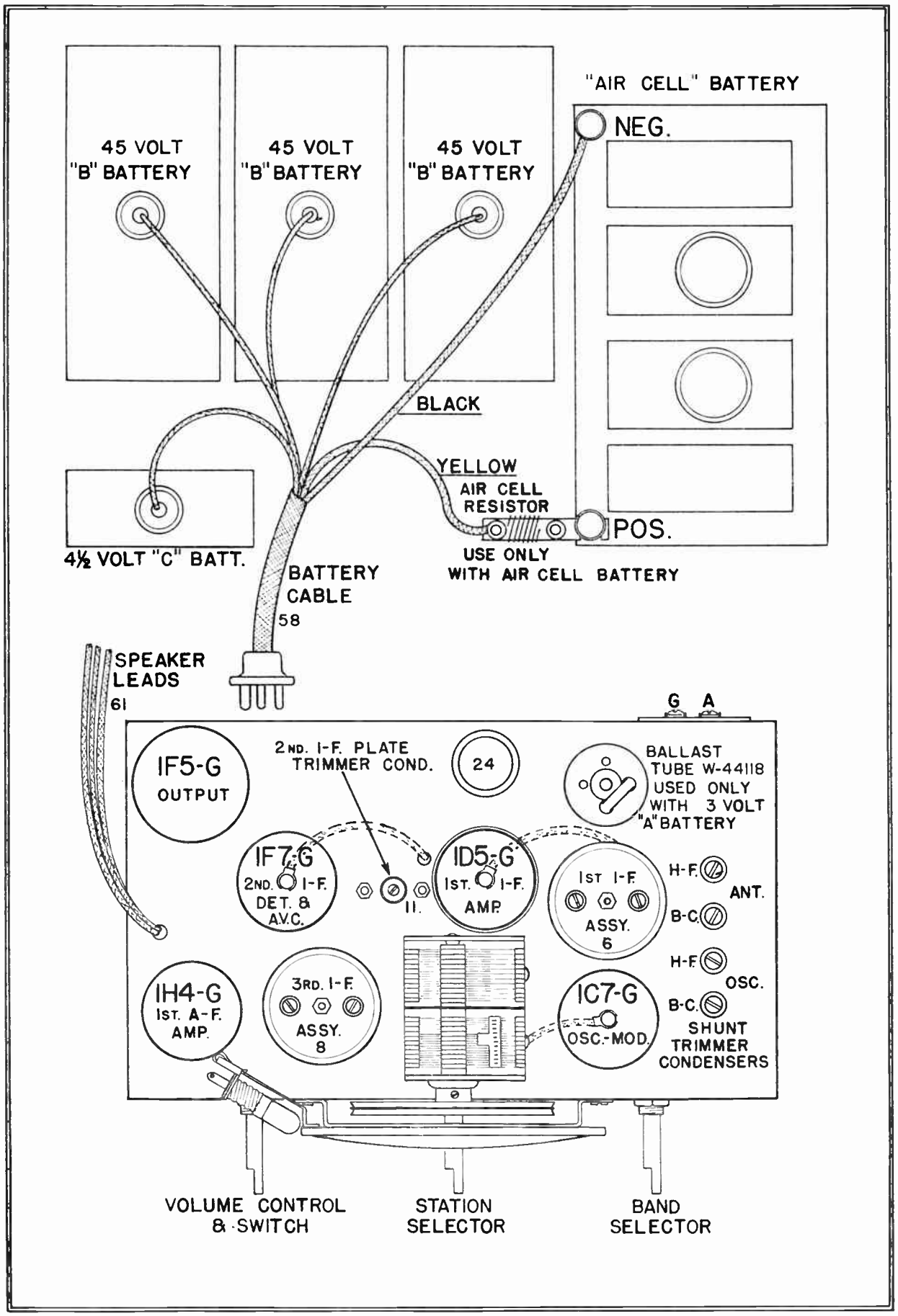


Fig. 2 Top View Model 557

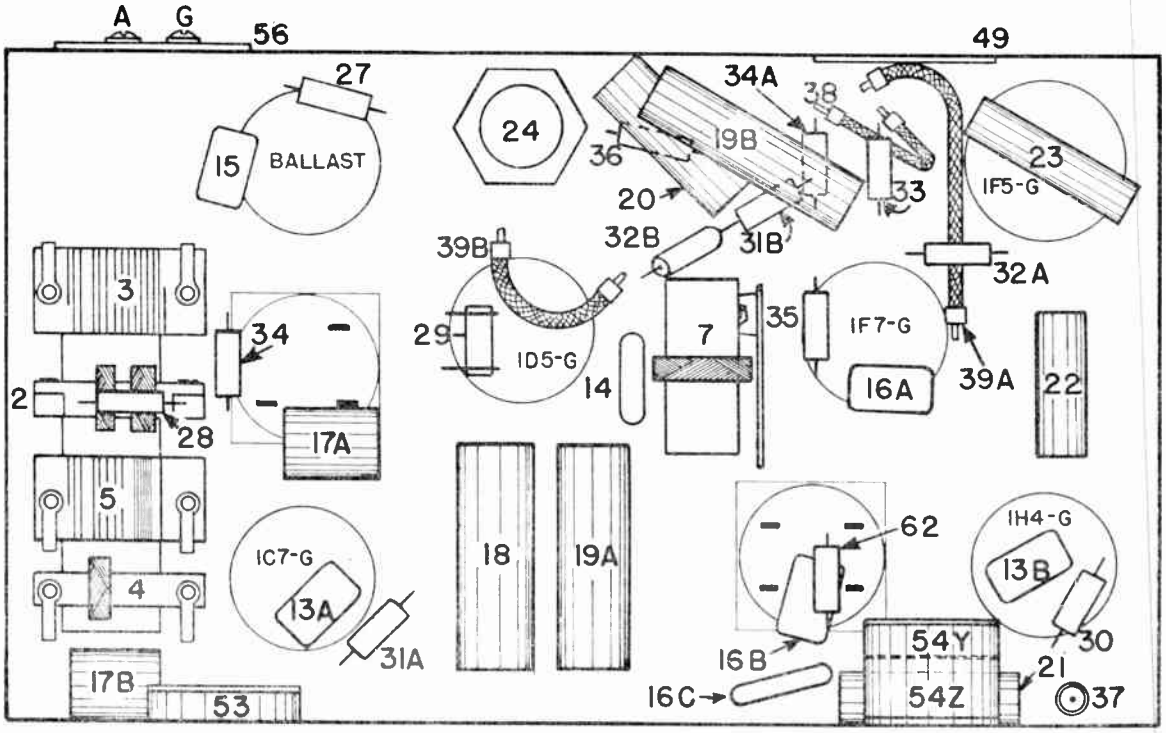


Fig. 3 Bottom View Model 557

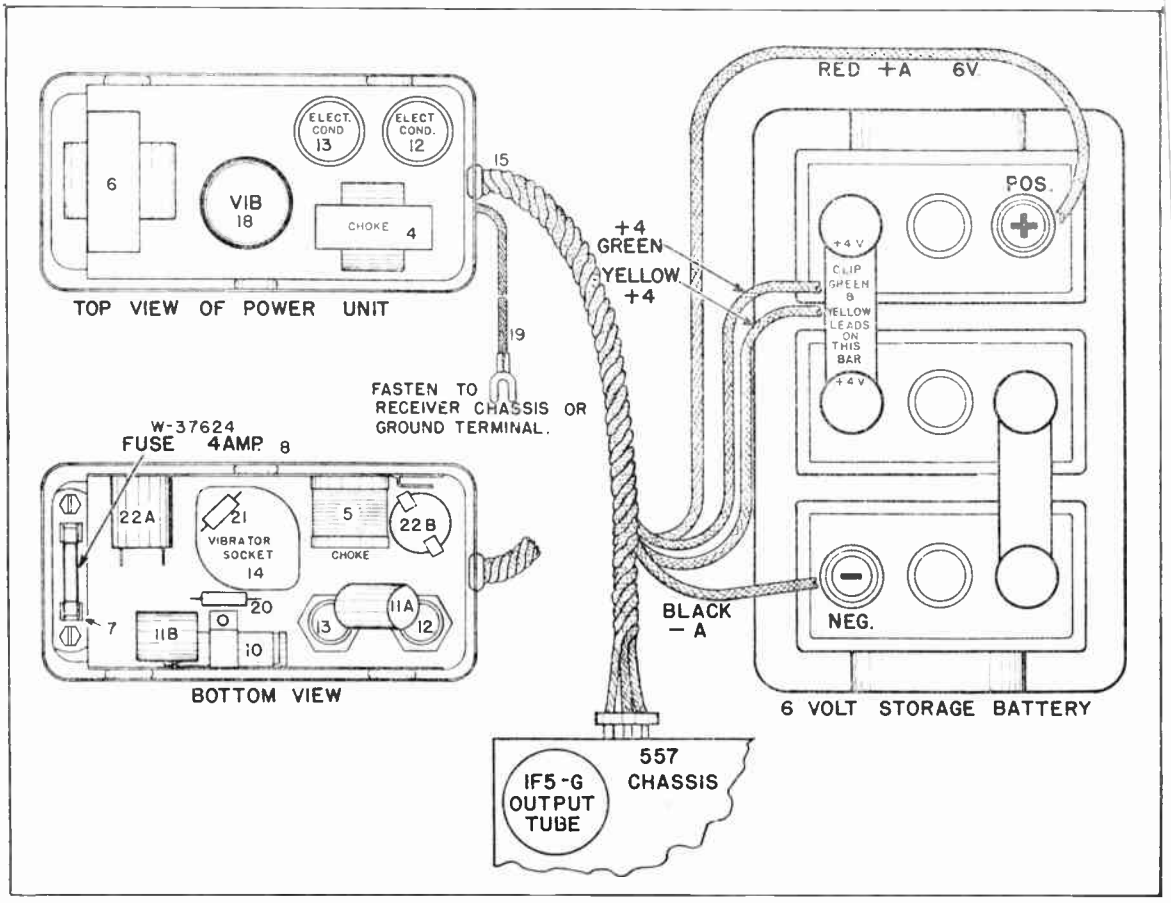


Fig. 4 Model 117 Six Volt Power Supply

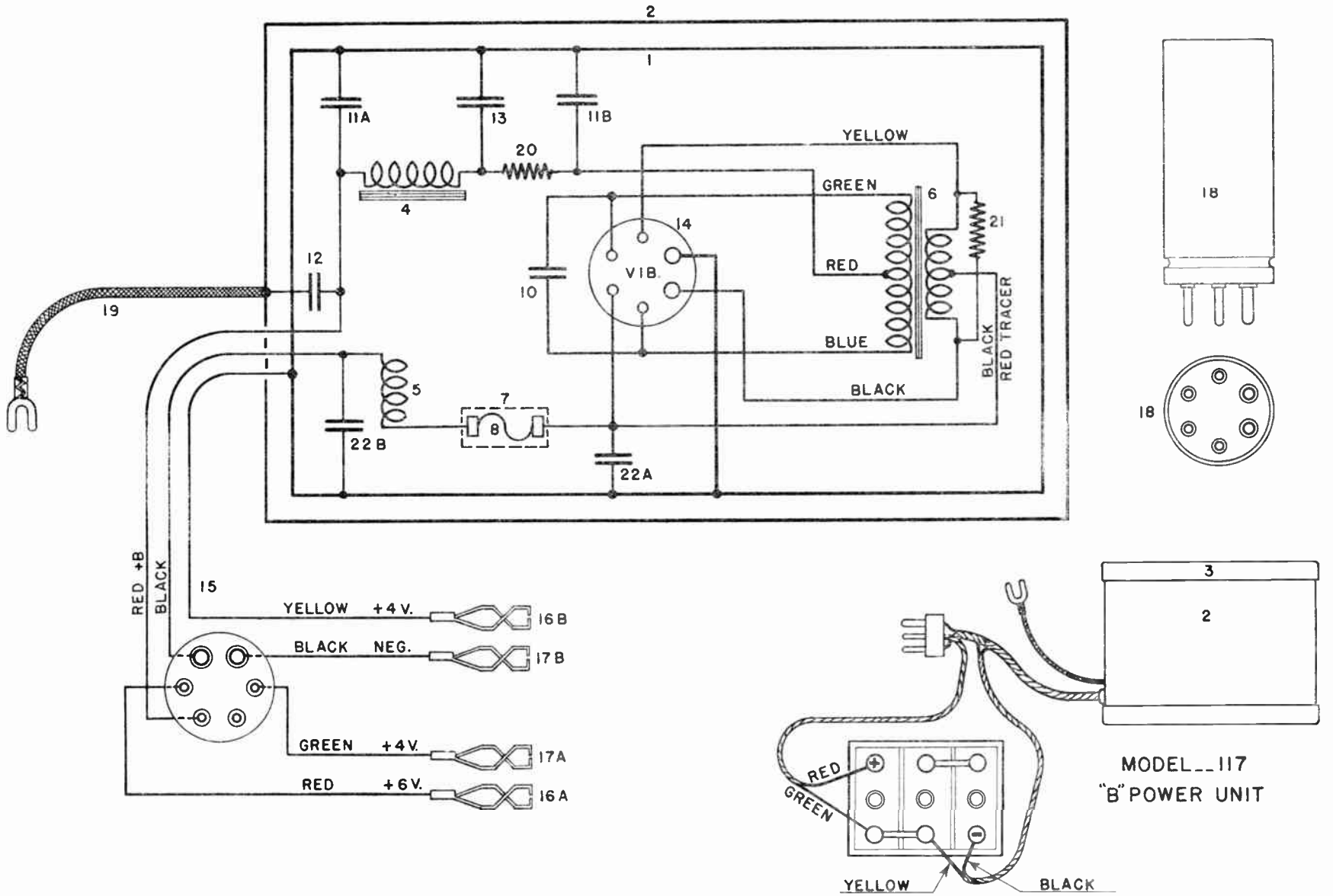


Fig. 5 Wiring Diagram—Model 117

PARTS LIST—MODEL 557

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Description
1	W —37188	Dial Light Bulb, 2 V. .06 Amp.
	G6 —27134	Light Brkt. Assy.
2	G132—32000	Ant. Coil, B. C.
3	G133—32000	Ant. Coil, H. F.
4	G132—32002	Osc. Coil, B. C.
5	G133—32002	Osc. Coil, H. F.
6	G151—32004	1st I-F Assy., 455 Kc.
7	G150—32004	2nd I-F Plate Coil Assy., 455 Kc.
8	G160—32004	3rd I-F Assy., 455 Kc.
9		NONE
10		NONE
11	W —44142A	2nd I-F Trimmer Condenser
12	W —41247A	4 Section Trimmer Condenser
13AB	G1 —34002	Condenser, .00025 Mf. Molded
14	G3 —34002	Condenser, .0005 Mf. Molded
15	G12 —34002	Condenser, .0005 Mf. Molded
16ABC	G2 —34002	Condenser, .0001 Mf. Molded
17AB	W —36541	Condenser, .02 Mf. 160 V.
18	W —29910A	Condenser, .25 Mf. 200 V.
19AB	W —37732	Condenser, .3 Mf. 160 V.
20	W —24049C	Condenser, .1 Mf. 200 V.
21	W —28621	Condenser, .02 Mf. 200 V.
22	W —27216	Condenser, .05 Mf. 200 V.
23	W —25435	Condenser, .003 Mf. 400 V.
24	W —44012	Condenser, 16 Mf. 250 V.
25	G37 —33001	2 Section Var. Tun. Cond.
	W —44414B	Glass Dial Face
	W —44285	Dial Mask (Paper)
	W —44267	Dial Mask (Metal Disc)
	W —44001A	Dial Support Ring
	B —44150A	Dial Support Bracket
	W —43550	Dial Pointer
	G1 —43564	Pulley Assy.
	W —44130	Drive Shaft
	W —43561	Cable Tension Spring
	—41582	Drive Cable - 17½ Inches
	W —40486	Pointer Mounting Screw
26		NONE
27	—36317	Resistor, 10,000 Ohm ¼W.
28	—36760	Resistor, 20,000 Ohm ¼W.
29	—33390	Resistor, 30,000 Ohm ¼W.
30	—36761	Resistor, 40,000 Ohm ¼W.
31AB	—35928	Resistor, 60,000 Ohm ¼W.
32AB	—36319	Resistor, 75,000 Ohm ¼W.
33	—35600	Resistor, 100,000 Ohm ¼W.
34AB	—35601	Resistor, 300,000 Ohm ¼W.
35	—36322	Resistor, 500,000 Ohm ¼W.
36	—35602	Resistor, 1 Megohm ¼W.
37	—35927	Resistor, 2 Megohm ¼W.
38	W —27503	Resistor, 1,400 Ohm ¾W. Flex.
39AB	W —23013	Resistor, 2,000 Ohm 1¼W. Flex.
40	G7 —23300	Resistor, .70 Ohm (Air Cell Series)
43	G1 —43900	Socket, Type 1C7
44	G2 —43900	Socket, Type 1D5
45	G7 —43900	Socket, Type 1F7
46	G4 —43900	Socket, Type 1H4
47	G6 —43900	Socket, Type 1F5
48	G95 —28807	Socket Ballast
	W —40911	Tube Shield
49	G21 —28807	Socket (Power Cable)
50		NONE
51		NONE
52	MG12—44140	Dial Light Switch and Brkt. Assy.
53	W —43448A	Band Selector Switch
54Z, 54Y	—43854A	Volume Control (1 Meg.) Batt. Switch
55	31PJ3 "A"	Speaker, Spec. No. R-6000, C8 and D2, 6"
	—41434	V. C. and Cone Assy. for 31PJ3 "A" Spkr.
	—41453	Output Trans. for 31PJ3 "A" Spkr.
	—41458	Cone Mounting Ring for 31PJ3 "A" Spkr.
	41PJ3 "A"	Speaker, Spec. No. R-8000, B2, 8"
	—41452	V. C. and Cone Assy. for 41PJ3 "A" Spkr.
	—41459	Cone Mounting Ring for 41PJ3 "A" Spkr.
	—41457	Output Trans. for 41PJ3 "A" Spkr.
56	G1 —26719	Ant. and Gnd. Terminal Assy.
57		NONE
58	C —44149A	Battery Cable
59	W —419681B	Ballast Sock. Jumper Wire
60	W —44118	Ballast Tube
61	W —44854	Speaker Cable
62	—35930	Resistor, 200,000 Ohm ¼W.
	— 7D	Cabinet—Table
	— 7MA	Cabinet—Console
	W —44197	Knob—Lower—Dial Light Switch
	W —41221	Knob—Upper—Station Selector
	W —41605	Knob—V. C. and Band Switch
	W —43553	Rubber Mtg. Foot
	—44268A	Escutcheon
	—44195	Grille—for 7D Cab.
	—43932	Grille—for 7MA Cab.

Parts List For 117 Convertor

Item No.	Part No.	Description
1	C —44133	Chassis Pan
2	C —44138	Case Body
3	W —44132A	Cover
4	G76 —24628	"B" Filter Choke
5	G23 —28067	"A" Filter Choke
6	G16 —32769	Power Transformer
7	G4 —33339	Fuse Panel Assy.
8	W —37624	Fuse (4 Amp.)
9		NONE
10	W —31632A	Condenser, .01 Mf. 1,000 V.
11AB	W —35936	Condenser, .05 Mf. 200 V.
12	W —44131B	Condenser, 20 Mf. 150 V.
13	W —44217	Condenser, 16 Mf. 200 V.
14	G92 —28807	Socket for Vibrator
15	C —44139	Cable and Plug
16AB	—34903	Batt. Clip—Pos.
17AB	—34904	Batt. Clip—Neg.
18	W —44145	Vibrator—4 Volt
	W —44446	Gnd. Clip—Vibrator
19	G122—34403	Bonded Lead
	W —3328	Grommet
20	—38915	Resistor, 100 Ohm ½W.
21	—38977	Resistor, 220 Ohm ½W.
22AB	W —50161	Condenser, .5 Mf. 120 V.
	W —44186	Cushion Strap
	W —44264	End Plate 1¼" x ⅜" (2)

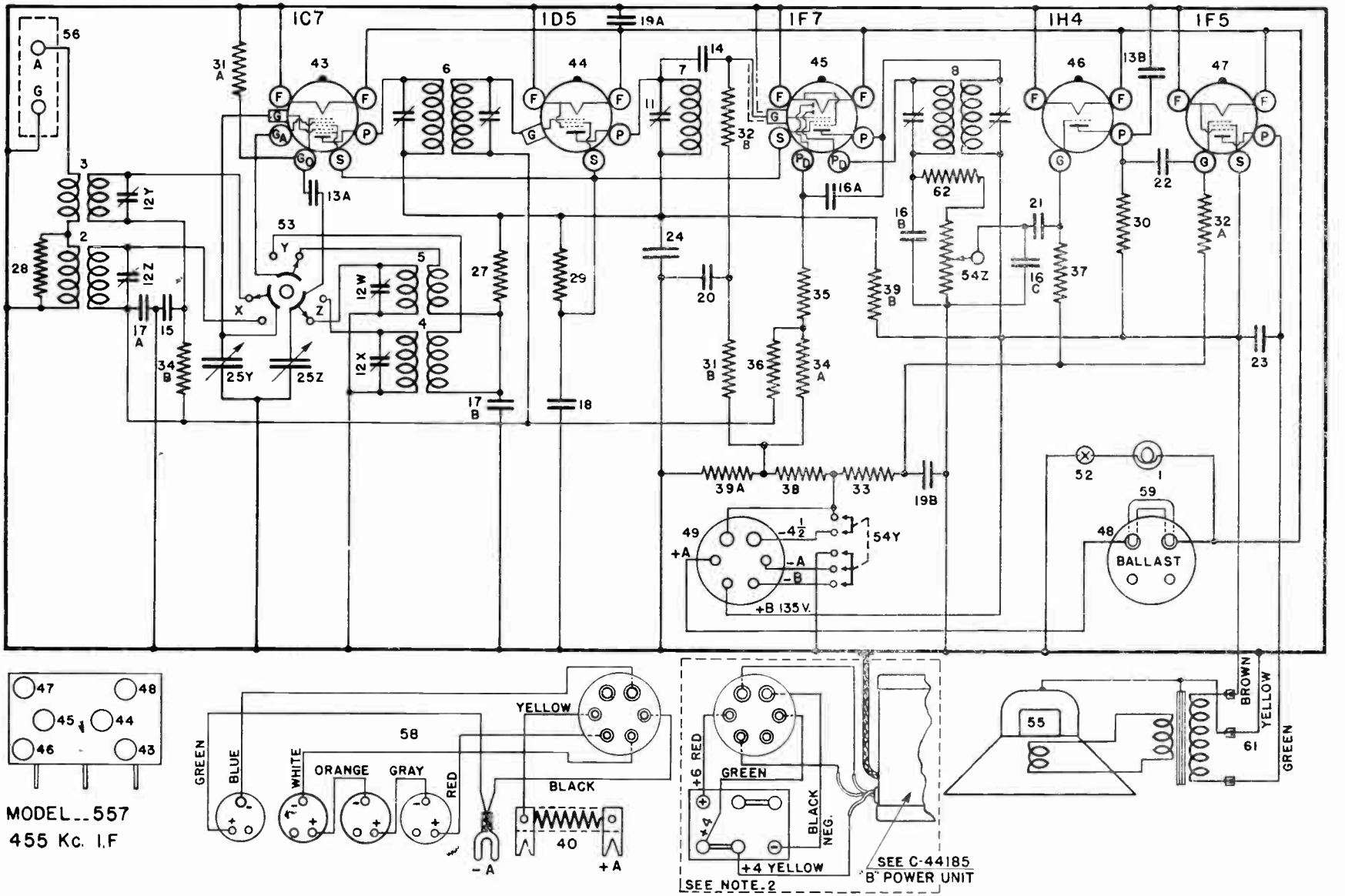


FIG. 1—WIRING DIAGRAM—MODEL 557

CROSLEY SERVICE SUPPLEMENT

JULY, 1937 **Chassis No. 567** **No. 172**

This model Crosley radio is an AC receiver designed for American and Foreign broadcast reception. The tuning range is divided into two bands as follows:

540-1725 Kilocycles or 555-173 Metres (American Broadcast Band)
5.9- 15.3 Megacycles or 51- 18 Metres (High Frequency or Foreign Band)

CIRCUIT DESCRIPTION

Five octal base glass tubes are employed in a superheterodyne circuit which consists of a combination oscillator-modulator tube, I-F amplifier, detector, audio amplifier and power supply. The 6Q7G tube serves as detector and 1st audio amplifier and supplies AVC voltage to the grids of the 6A8G and 6U7G tubes. The AVC voltage is taken from the A-F diode plate. The speaker field is located in the negative leg of the power supply. The starting bias for the 6A8G and 6U7G tubes is developed across a 75 ohm resistor, item 25. The bias voltage for the 6Q7G tube is developed across a 40 ohm resistor, item 24, and the bias voltage for the 6K6G output tube is developed across a 275 ohm resistor, item 23. Items 23, 24 and 25 are located between the speaker field and ground.

SOCKET VOLTAGES

The tube socket voltages are measured from the tube socket contacts to the chassis with a 1000 ohm per volt 500 volt d. c. voltmeter (except filaments) with the receiver in operating condition and no signal input. The filament voltages should be measured with an accurate low range a. c. voltmeter (approximately 0-10 volts). Readings may vary plus or minus 10% of values given.

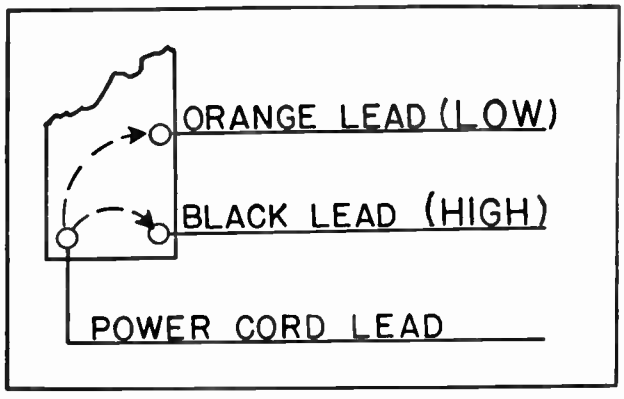
TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	K	G	Ga
6A8G	Oscillator-Modulator	6.3	160	115	0	-1.2	160
6U7G	I-F Amplifier	6.3	160	115	0	-1.2	—
6Q7G	Diode Detector & A-F Amplifier	6.3	80	—	2.5	-2.5	—
6K6G	Output	6.3	160	160	0	-5.0	—
5Y3G	Rectifier	5.0	—	—	225	—	—

Power output approximately 2 watts.
Power consumption approximately 40 watts at 117.5 volts.
Voltage drop across speaker field 35 volts.

50 CYCLE POWER TRANSFORMER ADJUSTMENT

Receivers equipped with a 50 cycle power transformer have a "high" and "low" voltage tap on the under side



of the chassis. The "high" voltage lead (BLACK) and the "low" voltage lead (ORANGE) are connected to a terminal strip near the transformer.

The voltage range of the "low" tap of the 95-130 volt transformer is from 95 to 112½ volts and of the "high" tap is from 112½ to 130 volts. The range of the "low" tap of the 190-260 volt transformer is from 190 to 225 volts and of the "high" tap is from 225 to 260 volts.

The accompanying illustration shows the connections for changing from high to low or low to high line voltage. Note the "jumper" wire which is attached to the terminal at which one side of the power cord is attached. The other end of this jumper wire should be connected to the ORANGE or BLACK lead of the transformer primary, according to the line voltage the receiver is to be used on.

NOTE: Any change made in the power supply circuit of the receiver should be plainly stamped or otherwise permanently recorded on the rear of the chassis.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits can best be properly aligned with the use of a modulated signal generator and output meter.

CONNECTING OUTPUT METER

Connect the output meter to P and S of the 6K6G output tube. Be certain that the meter is protected from d. c. by connecting a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning I-F Amplifier To 455 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd. condenser to the top cap of the 6A8G tube, leaving the tube's grid clip in place. Connect the ground lead from the signal generator to the

"GND" terminal of the receiver. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the tuning condenser plates are completely out of mesh and turn the volume control knob to the right (ON).

(c) Turn the band selector switch to the left (Broadcast Band).

(d) Set the signal generator to 455 kilocycles.

(e) Adjust both trimmers located on top of the 2nd I-F transformer for maximum output. See Fig. 2.

(f) Adjust both trimmers located on the top of the 1st I-F transformer for maximum output.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE READING ON THE OUTPUT METER.

Aligning The R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the antenna (A) terminal of the receiver. For the Broadcast Band a .00025 mfd. condenser should be connected in series with the output lead of the signal generator and for the High Frequency Band a 400 ohm carbon resistor should be used in place of the condenser.

(a) With the station selector adjusted so that the tuning condenser plates are completely out of mesh and the band selector switch set for the band being aligned, adjust the "OSC" shunt trimmer so that the MINIMUM CAPACITY SIGNAL (C), is heard. It is not necessary that the receiver tune through this signal.

(b) Adjust the station selector so that the SHUNT ALIGNMENT signal is tuned-in with maximum output. Then adjust the "ANT" shunt trimmer for maximum output. Readjust the station selector slightly so that the generaor signal is tuned-in with maximum output and check the adjustment of the "ANT" trimmer. DO NOT READJUST THE "OSC" TRIMMER.

NOTE 1: When shunt aligning the High Frequency Band care should be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator 10 times, or more, and try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

NOTE 2: If at any time the H-F coils are replaced, it may be necessary to vary the inductance of the "OSC" coil by moving the cross-over turn of wire at the gap to make the set track at the 6 megacycle end. Moving the turn toward the short end of the coil will decrease the inductance and moving it toward the long end will increase the inductance. If the signal is weak at 6 megacycles, a similar slight change in the inductance of the "ANT" coil should bring up the signal strength. THIS IS A CRITICAL OPERATION AND SHOULD NOT BE DONE ON ANY SET UNLESS CHANGING COILS MAKES IT NECESSARY.

(C) SIGNAL INPUT FREQUENCIES

	Minimum Capacity	Shunt Alignment
American Broadcast Band	1725 Kilocycles	1400 Kilocycles
High Frequency Band	15400 Kilocycles	15000 Kilocycles

WAVE TRAP

Some chassis of this model are equipped with a wave trap for the purpose of eliminating interference from code stations which operate on a frequency of approximatly 455 kilocycles. This assembly is located on the underneath side of the chassis and consists of a coil, a fixed condenser and a trimmer condenser as illustrated by dotted lines in the Wiring diagram.

The wave trap should not be adjusted until all other adjustments have been made. To make the adjustment, feed a 455 kilocycle signal from the signal generator through a .00025 mfd. condenser into the antenna terminal of the receiver. With the band selector switch turned to the Broadcast Band position, the gang condenser open and the volume control full on, adjust the trimmer condenser on the wave trap for minimum output.

Should the interfering station be operating on a frequency of slightly more or less than 455 kilocycles, the exact frequency should be determined with the aid of the signal generator. Then, instead of feeding a 455 kilocycle signal into the receiver the exact frequency of the interfering signal should be used. If it is not possible to determine the exact frequency of the interfering signal the antenna may be attached to the receiver and the receiver tuned to the position where the interfering signal is most noticeable. Then adjust the wave trap for minimum interference.

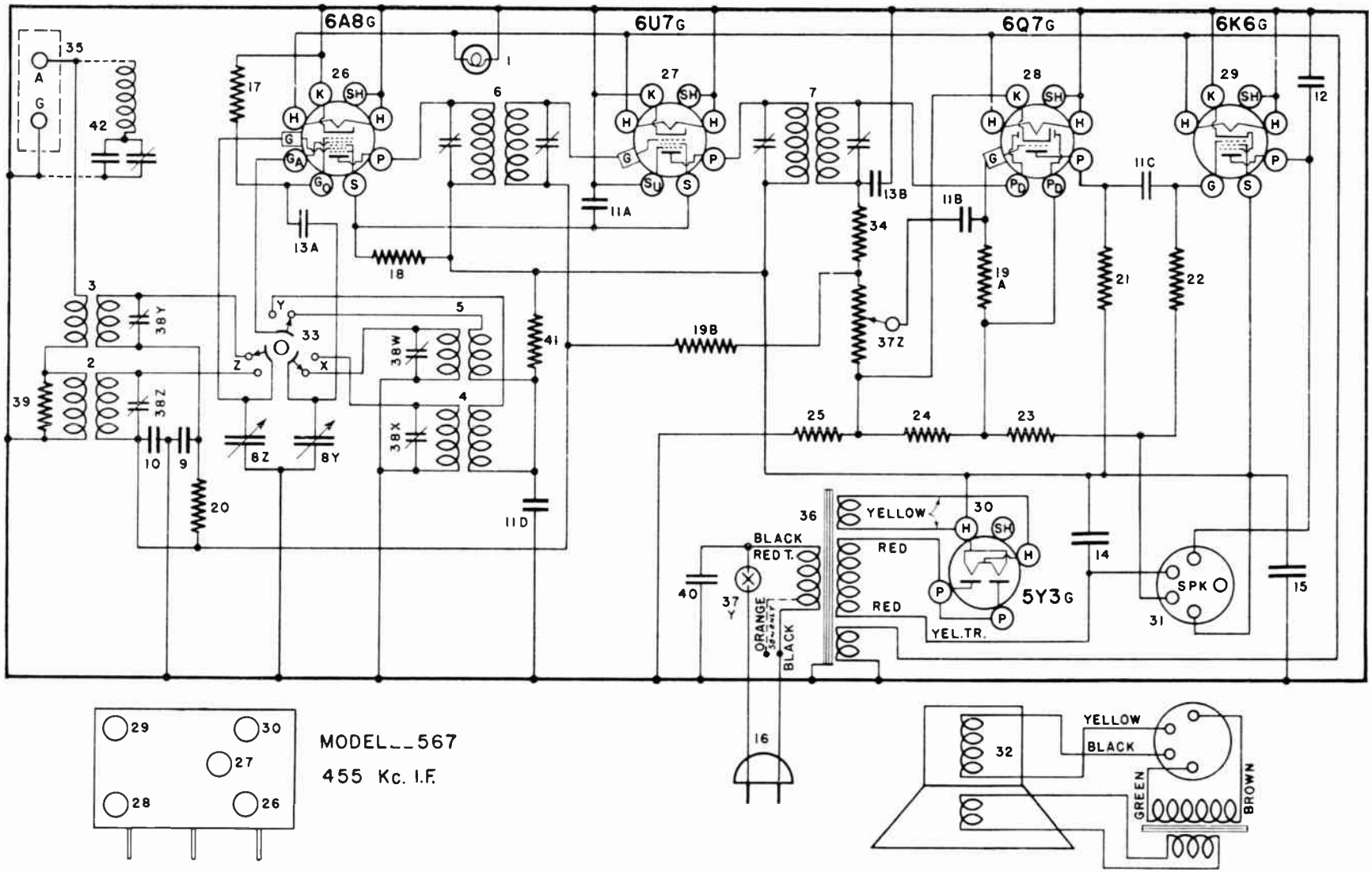


FIG. 1—WIRING DIAGRAM—MODEL 567

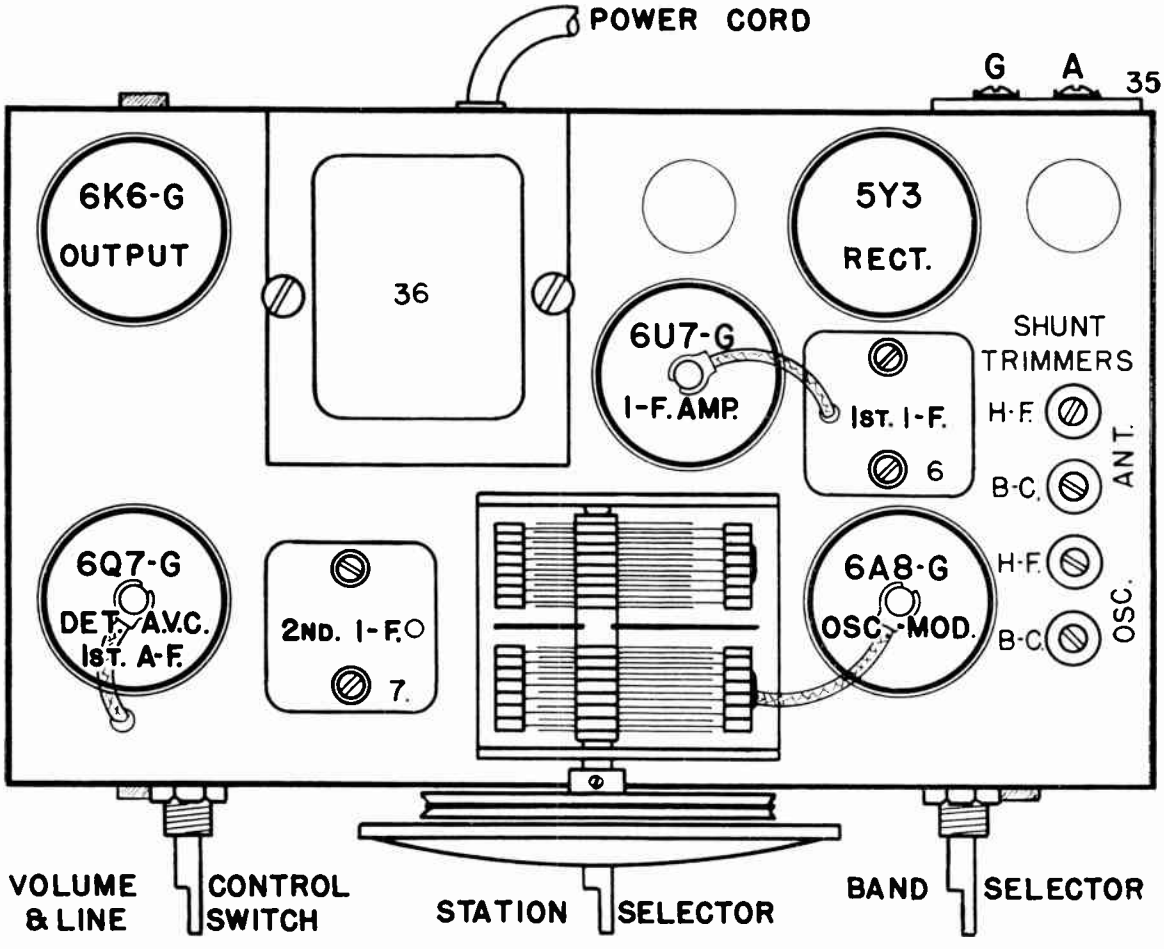


Fig. 2 Top View Model 567

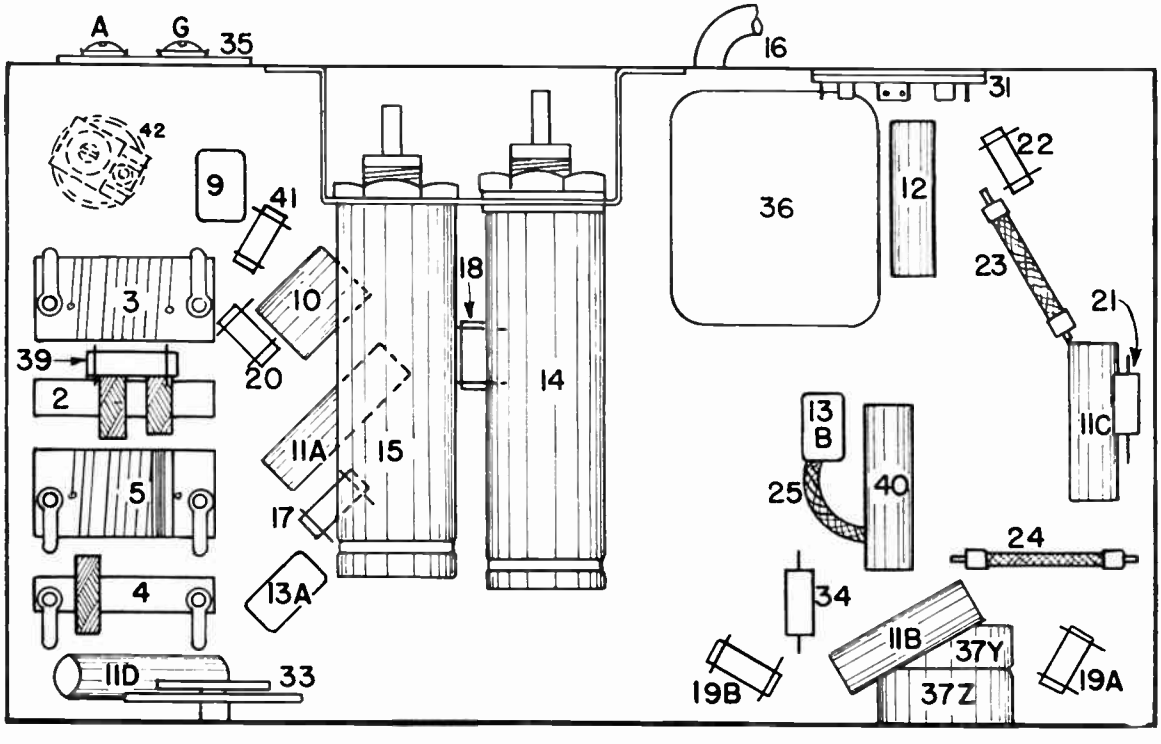


Fig. 3 Bottom View Model 567

PARTS LIST—MODEL 567

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Description
1	W —43567	Dial Light, 6-8 V.
	G2 —44252	Socket Assy. Dial Light
2	G132—32000	Ant. Coil, B. C.
3	G133—32000	Ant. Coil, H-F.
4	G132—32002	Osc. Coil, B. C.
5	G133—32002	Osc. Coil, H-F.
6	G138—32004	1st I-F Assy.
7	G139—32004	2nd I-F Assy.
	W —36139A	Dual I-F Trimmer
8	G37 —33001	2 Section Gang Cond.
	B —44286C	Dial Face (Glass)
	—44267	Dial Mask (Metal)
	W —44285	Dial Mask (Paper)
	B —43544D	Support—Dial Glass
	W —43550A	Pointer
	W —40486	Screw—Pointer Mtg.
	W —44403	Ring—Dial Glass Support
	G1 —43564	Pulley and Hub Assy.
	W —43542B	Bracket—Drive Shaft
	W —44134	Drive Shaft
	W —43549	Retaining Spring (Shaft)
	—41582	Drive Cord
	W —43561	Spring—Cord Tension
9	G12 —34002	Condenser, 500 Mmf. Molded
10	W —36541	Condenser, .02 Mf. 160 V.
11A	W —28621	Condenser, .02 Mf. 200 V.
11B	W —28621	Condenser, .02 Mf. 200 V.
11C	W —28621	Condenser, .02 Mf. 200 V.
11D	W —28621	Condenser, .02 Mf. 200 V.
12	W —34647	Condenser, .006 Mf. 400 V.
13A	G1 —34002	Condenser, 250 Mmf. Molded
13B	G1 —34002	Condenser, 250 Mmf. Molded
14	W —44012	Condenser, 16 Mf. 250 V.
15	W —44013	Condenser, 16 Mf. 200 V.
16	B —44004	Cord and Plug
17	—33390	Resistor, 30,000 Ohm ¼W.
18	—24990	Resistor, 25,000 Ohm ¼W.
19A	—26577	Resistor, 3 Megohm ¼W.
19B	—26577	Resistor, 3 Megohm ¼W.
20	—21455	Resistor, 300,000 Ohm ¼W.
21	—35601	Resistor, 300,000 Ohm ¼W.
22	—23785	Resistor, 500,000 Ohm ¼W.
23	W —25937	Resistor, 275 Ohm ½W.
24	W —23012A	Resistor, 40 Ohm ½W.
25	W —25357	Resistor, 75 Ohm ¾W.
26	G156—36400	Socket, Type 6A8
27	G171—36400	Socket, Type 6U7
28	G160—36400	Socket, Type 6Q7
29	G172—36400	Socket, Type 6K6
30	G173—36400	Socket, Type 5Y3
31	G103—28807	Socket Speaker
	W —40911	Tube Shield
32	257BP11"U"	Speaker, Spec. 5-B-5
	—44537	V. C. and Cone Assy.—257BP11"U"
	—44538	Output Trans.—257BP11"U"
	257BP11"B"	Speaker, Spec. 51-A-5
	—42927	V. C. and Cone Assy.—257BP11"B"
	—41473	Output Trans.—257BP11"B"
	—44681	Speaker Plug
33	W —43448A	Band Switch
34	—35600	Resistor, 100,000 Ohm ¼W.
35	G1 —26719	Ant. and Gnd. Terminal Assy.
36	—43479	Power Trans., 110 V. 60 Cy.
	—43569A	Power Trans., 110 V. 50 Cy.
	—43570A	Power Trans., 220 V. 50 Cy.
	—43480A	Power Trans., 110 V. 25 Cy.
	—43481A	Power Trans., 220 V. 25 Cy.
37	—43449A	Vol. Cont. (1 Meg.) and Switch
38	W —41247A	4 Section Shunt Trimmer Assy.
39	—22196	Resistor, 20,000 Ohm ¼W.
40	W —30805	Condenser, .01 Mf. 400 V.
41	—30137	Resistor, 3,500 Ohm ¼W.
	—7BB	Cabinet (Black Body)
	—7BC	Cabinet (Brown Body)
	—7BD	Cabinet (Wood Grain Body)
	—44106B	Cover (Used on 7BC and 7BD) Black
	W—44044A-FS1	Foot—Black
	—44045C	Cover (Used on 7BB) Red
	W—44044A-FS46	Foot—Red
	—44552	Knob (Black)
	—44268A	Escutcheon
	W —44436	Felt Pad (Escutcheon) (4 Req.)
	W —44015A	Chassis Support Brkt. (Upper)
	W —44016	Chassis Support Brkt. (Lower)
	W —44041A	Sound Baffle
	MG44—44026	Grille Cloth Assy.—7BB
	MG43—44026	Baffle Assy.—7BB
	MG42—44026	Grille Cloth Assy.—7BC and 7BD
	MG41—44026	Baffle Assy.—7BC and 7BD
42	G164—32004	Wave Trap

CROSLEY SERVICE SUPPLEMENT

AUGUST, 1937 **CHASSIS MODEL 637** **No. 173**

SPECIFICATIONS

This model Crosley radio is a 6-tube AC receiver designed for American and Foreign broadcast reception. The tuning range is divided into two bands as follows:

535-1725 Kilocycles or 550-173 Metres (American Broadcast Band)
5.8- 18.3 Megacycles or 52-16.3 Metres (High Frequency or Foreign Band)

Circuit Description.

Six octal base glass tubes are employed in a superheterodyne circuit which consists of a combination oscillator-modulator tube, 455 kilocycle I-F amplifier, push pull pentode output and power supply. The 6Q7G tube serves as the detector and 1st A-F amplifier and supplies AVC voltage to the grids of the 6A8G and 6U7G tubes. The speaker field is located in the negative leg of the power supply. The bias voltage for the 6A8G and 6U7G tubes is obtained across a 40 ohm resistor, item 30, the bias for the 6Q7G tube is obtained across a 32 ohm resistor, item 31, and the bias for the output tubes is obtained across a 375 ohm resistor, item 29. Items 30 and 31 are located between the speaker field and ground. Phase inversion is obtained in the output circuit by the voltage developed across a 3000 ohm resistor, item 27.

SOCKET VOLTAGES

The tube socket voltages are measured from the tube socket contacts to the chassis with a 1000 ohm per volt, 500-volt D. C. voltmeter (except filaments) with receiver in operating condition and no signal input. The filament voltages should be measured with an accurate low range A. C. voltmeter (approximately 0-10 volts). Readings may vary plus or minus 10% of values given.

TUBE SOCKET VOLTAGE READINGS

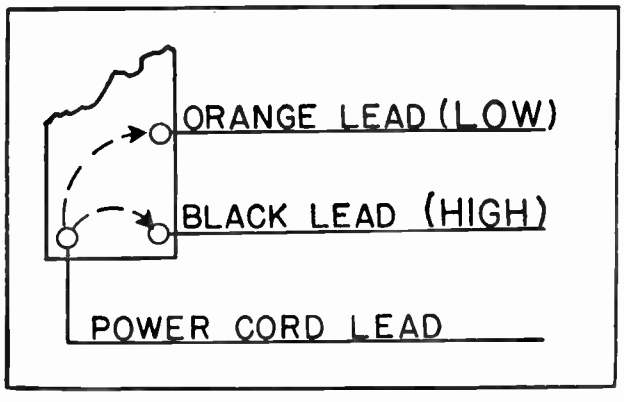
Tube	Function	H	P	S	K	Go	Ga
6A8G	Oscillator-Modulator	6.3	210	120	0	–15	190
6U7G	I-F Amplifier	6.3	210	120	0	—	—
6Q7G	Det, AVC & A-F Amp.	6.3	90	—	–3	—	—
6K6G	(2) Output	6.3	205	210	20	—	—
5Y3G	Rectifier	5.0	—	—	215	—	—

Power output approximately 4.5 watts.
Power consumption approximately 60 watts at 11.5 volts.
Voltage drop across speaker field 60 volts.

50 CYCLE POWER TRANSFORMER ADJUSTMENT

Receivers equipped with a 50 cycle power transformer have a "high" and "low" voltage tap on the under side of the chassis. The "high" voltage lead (BLACK) and the "low" voltage lead (ORANGE) are connected to a terminal strip near the transformer.

The voltage range of the "low" tap of the 95-130 volt transformer is from 95 to 112½ volts and of the "high" tap is from 112½ to 130 volts. The range of the "low" tap of the 190-260 volt transformer is from 190 to 225 volts and of the "high" tap is from 225 to 260 volts.



The accompanying illustration shows the connections for changing from high to low or low to high line voltage. Note the "jumper" wire which is attached to the terminal at which one side of the power cord is attached. The other end of this jumper wire should be connected to the ORANGE or BLACK lead of the transformer primary, according to the line voltage the receiver is to be used on.

NOTE: Any change made in the power supply circuit of the receiver should be plainly stamped or otherwise permanently recorded on the rear of the chassis.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits may be properly aligned with the use of a modulated signal generator and an output meter.

CONNECTING OUTPUT METER

Connect the output meter to the plates of the two 6K6G Output tubes. Be certain that the meter is protected from D. C. by connecting a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning I-F Amplifier to 455 Kilocycles.

(a) Connect the output of the signal generator

through a .02 mfd. condenser to the top cap of the 6A8G tube, leaving the tube's grid lead in place. Connect the ground lead from the signal generator to the ground terminal of the receiver. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the tuning condenser plates are completely out of mesh. Turn the volume control knob to the right (ON) and turn the tone control knob to the left (TREBLE).

(c) Turn the band selector switch to the Broadcast Band.

(d) Set the signal generator to 455 kilocycles.

(e) Adjust both trimmers located on top of the 2nd I-F transformer for maximum output. (Item 6, Fig. 2).

(f) Adjust both trimmers located on top of the 1st I-F transformer for maximum output. (Item 5, Fig. 2).

(g) Check operations (e) and (f) for more accurate adjustment.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE READING ON THE OUTPUT METER.

Aligning The R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the antenna (A) terminal of the receiver. For the Broadcast Band a 100 mmf. condenser should be connected in series with the output lead of the signal generator and for the High Frequency Band a 400 ohm carbon resistor should be used in place of the condenser.

(a) With the station selector adjusted so that the tuning condenser plates are completely out of mesh and the band selector switch set for the band being aligned, adjust the "OSC" shunt trimmer so that the MINIMUM CAPACITY SIGNAL (C) is heard (it is not necessary that the receiver tune through this signal).

(b) Adjust the station selector so that the SHUNT ALIGNMENT signal is tuned-in with maximum output. Then adjust the "ANT" shunt trimmer for maximum output. Readjust the station selector slightly so that the generator signal is tuned-in with maximum output and check the adjustment of the "ANT" trimmer. DO NOT READJUST THE OSCILLATOR TRIMMER.

NOTE: When shunt aligning the High Frequency Band care should be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator 10 times, or more, and try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

(C) SIGNAL INPUT FREQUENCIES

	Minimum Capacity Signal	Shunt Alignment Signal
American Broadcast Band	1,725 Kilocycles	1,400 Kilocycles
High Frequency Band	18,300 Kilocycles	18,000 Kilocycles

WAVE TRAP

Some chassis of this model are equipped with a wave trap for the purpose of eliminating interference from code stations which operate on a frequency of approximately 455 kilocycles. This assembly is located on the underneath side of the chassis and consists of a coil, a fixed condenser and a trimmer condenser as illustrated by dotted lines in the Wiring Diagram (item 47).

The wave trap should not be adjusted until all other adjustments have been made. To make the adjustment, feed a 455 kilocycle signal from the signal generator through a 100 mmf. condenser into the antenna terminal of the receiver. With the band selector switch turned to the Broadcast Band position, the gang condenser open and the volume control full on, adjust the trimmer condenser on the wave trap for MINIMUM output.

Should the interfering station be operating on a frequency of slightly more or less than 455 kilocycles, the exact frequency should be determined with the aid of the signal generator. Then, instead of feeding a 455 kilocycle signal into the receiver the exact frequency of the interfering signal should be used. If it is not possible to determine the exact frequency of the interfering signal the antenna may be attached to the receiver and the receiver tuned to the position where the interfering signal is most noticeable. Then adjust the wave trap for minimum interference.

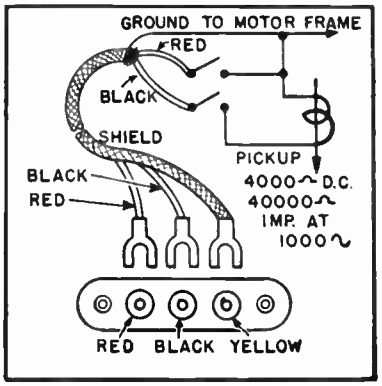


Fig. 4 Phonograph Pickup

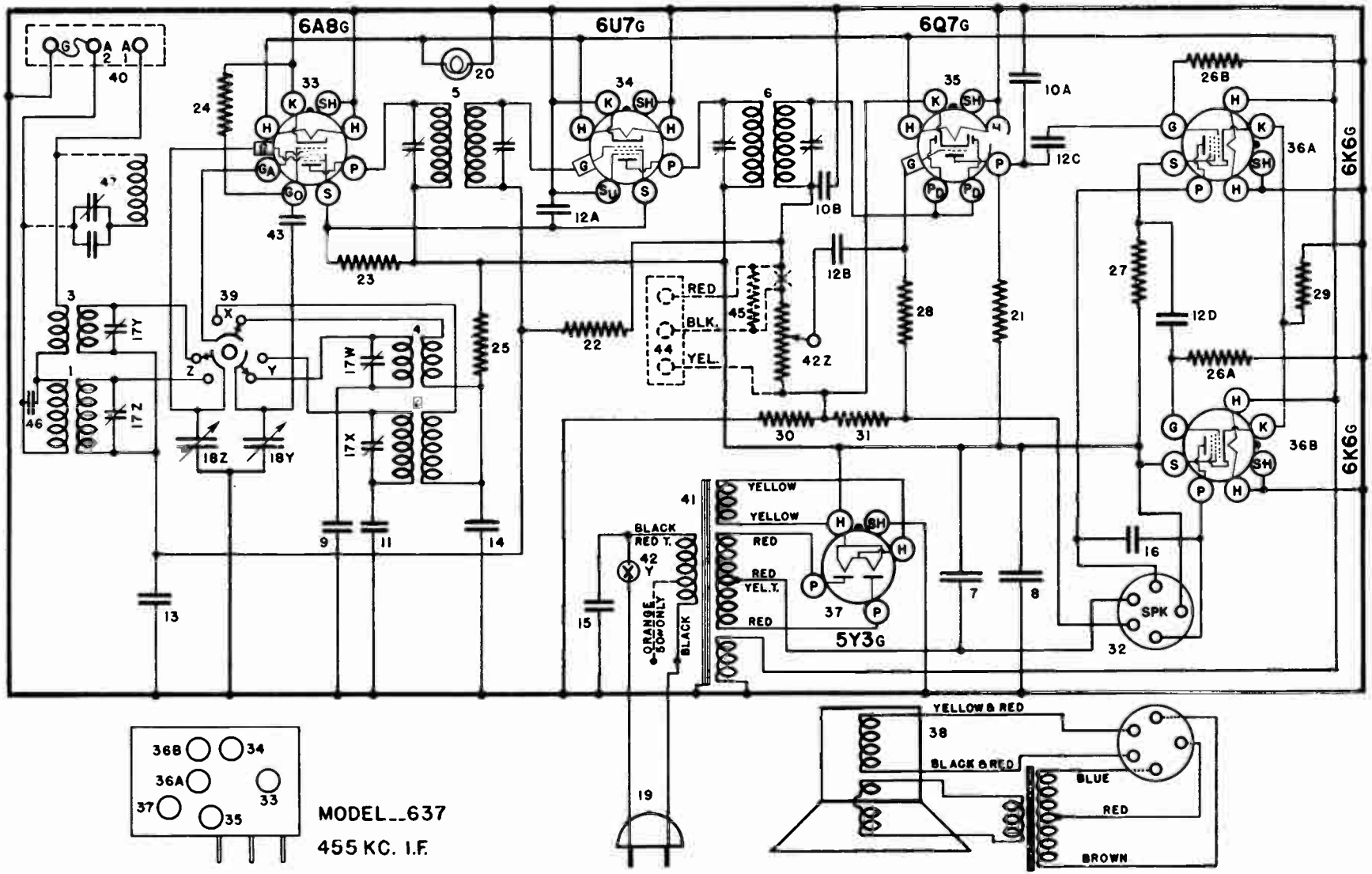


FIG. 1—WIRING DIAGRAM—MODEL 637

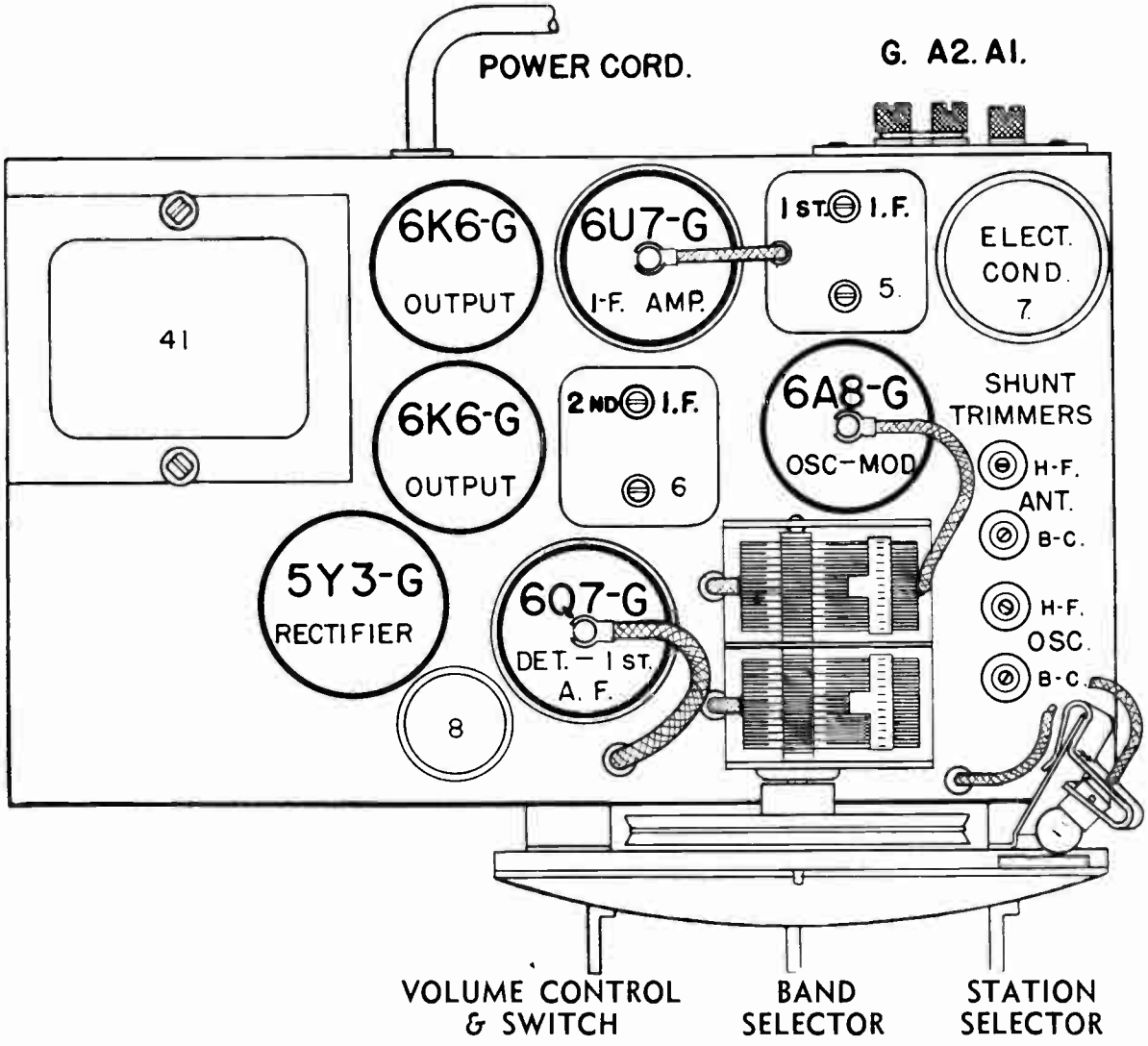


Fig. 2 Top View—Model 637

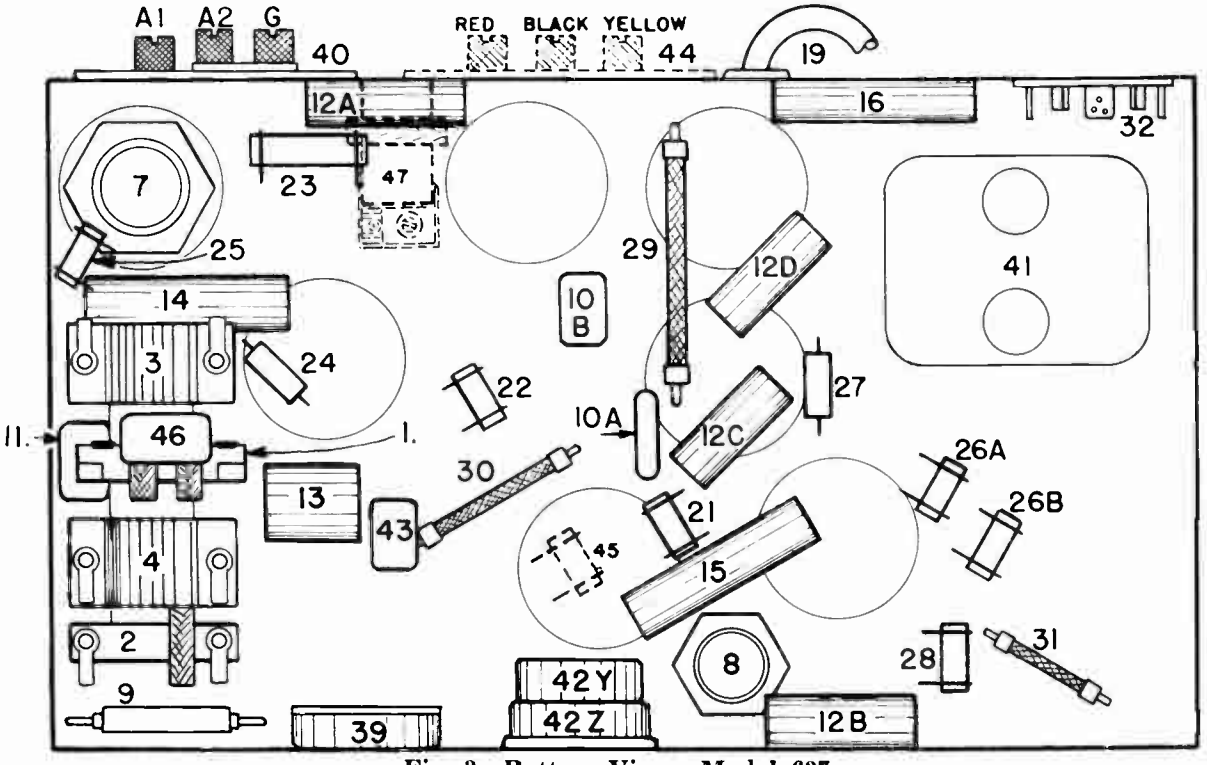


Fig. 3 Bottom View—Model 637

PARTS LIST—MODEL 637

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Description
1	G143—32000	Ant. Coil, B-C.
2	G145—32002	Osc. Coil, B-C.
3	G142—32000	Ant. Coil, H-F.
4	G144—32002	Osc. Coil, H-F.
5	G156—32004	1st I-F. Assy.
6	G157—32004	2nd I-F. Assy.
7	W —36057B	Condenser, 40 Mf. 300 V.
8	W —41081	Condenser, 16 Mf. 250 V.
9	G16 —34000	Condenser, 3,800 Mmf. (H-F. Osc. Series)
10A	G1 —34002	Condenser, .00025 Mf. Molded
10B	G1 —34002	Condenser, .00025 Mf. Molded
11	G14 —34002	Condenser, .0004 Mf. (B-C. Osc. Series)
12A	W —28621	Condenser, .02 Mf. 200 V.
12B	W —28621	Condenser, .02 Mf. 200 V.
12C	W —28621	Condenser, .02 Mf. 200 V.
12D	W —28621	Condenser, .02 Mf. 200 V.
13	W —36541	Condenser, .02 Mf. 160 V.
14	W —23615	Condenser, .05 Mf. 400 V.
15	W —30805	Condenser, .01 Mf. 400 V.
16	W —28619	Condenser, .006 Mf. 200 V.
17	W —41247A	4 Sect. Shunt Trimmer Assy.
18	G42 —33001	2 Sect. Gang. Cond.
	—44343D	Dial Face (Glass)
	W —44085B	Dial Mask
	C —44379A	Support Brkt. (Dial Glass)
	W —44084A	Support Ring (Dial Glass)
	W —43542B	Drive Shaft Bracket
	W —44134	Drive Shaft
	W —43549	Retaining Ring (Shaft)
	G1 —43564	Pulley and Hub Assy.
	W —44299	Pointer
	W —40486	Screw FS 20 (Pointer Mtg.)
	W —43561	Tension Spring
	—41582	Drive Cord (18¼")
19	B —44004	Pwr. Cord and Plug
20	W —43567	Dial Light, 6-8 V.
	G5 —44363	Light Socket Assy.
21	—21455	Resistor, 300,000 Ohm ¼W. Carbon
22	—26577	Resistor, 3 Megohm ¼W. Carbon
23	—37485	Resistor, 15,000 Ohm ½W. Carbon
24	—35928	Resistor, 60,000 Ohm ¼W. Ins.
25	—30137	Resistor, 3,500 Ohm ⅓W. Carbon
26A	—33344	Resistor, 400,000 Ohm ¼W. Carbon
26B	—33344	Resistor, 400,000 Ohm ¼W. Carbon
27	—44009	Resistor, 3,000 Ohm ¼W. Ins.
28	—34883	Resistor, 2 Megohm ⅓W. Carbon
29	W —43462	Resistor, 375 Ohm 2½W. Flex.
30	W —23012A	Resistor, 40 Ohm ¾W. Flex.
31	W —37631	Resistor, 32 Ohm ½W. Flex.
32	G103—28807	Socket—Speaker
33	G156—36400	Socket, Type 6A8
34	G171—36400	Socket, Type 6U7
35	G160—36400	Socket, Type 6Q7
36AB	G172—36400	Socket, Type 6K6
37	G173—36400	Socket, Type 5Y3
	W —40911	Tube Shield
	W —43552	Spk. Plug Clamp
38	365BP12"M"	Speaker—Spec. 1-D-1089
	—44542	V. C. and Cone Assy. } Used
	—44273	Field Coil } on
	—44274	Output Trans. } 365BP12"M"
	—43672	Cardboard Ring } Spk.
39	W —43448A	Band Switch
40	G27 —26719	Ant. and Gnd. Terminal
41	—44356	Pwr. Trans., 60 Cy.—110 V.
	—44359	Pwr. Trans., 50 Cy.—110 V.
	—44360	Pwr. Trans., 50 Cy.—220 V.
	—44357	Pwr. Trans., 25 Cy.—110 V.
	—44358	Pwr. Trans., 25 Cy.—220 V.
42	—43449A	Vol. Cont. (½ Meg.) and Switch
43	G13 —34002	Cond., .000035 Mf. Molded
44	G37 —26719	Phono-Terminal Board
45	—21875	Res., 100,000 Ohm ⅓W. Used only on Sets with Phono-Terminals
46	G5 —34002	Cond., .00005 Mf. Molded
47	G165—32004	Wave Trap Assy. (460 Kc.)
	7E	Cabinet
	B —44226B	Escutcheon
	W —44381B	Knob (3 Req.)
	W —43553	Rubber Mtg. Foot

CROSLEY SERVICE SUPPLEMENT

AUGUST, 1937 MODEL A-267 No. 174

SPECIFICATIONS

The Crosley Model A-267 auto radio is a single unit, six-tube superheterodyne receiver. The power supply unit is built into a completely shielded compartment and is an integral part of the receiver chassis. The tuning range is from 540 to 1530 Kc.

TUBES AND VOLTAGE LIMITS

The following table gives the functions of the tubes used, together with the voltage readings between the tube socket contacts and the receiver chassis. Voltage readings taken with a 1000 ohm per volt, 500 volt voltmeter (except filaments) with receiver in operating condition and no signal input. The filament voltages should be measured with an accurate low range D-C voltmeter (approximately 0 to 10 volts). Voltage limits may vary plus or minus 10% of values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	K	Go	Ga
6K7G	R-F Amplifier	6.0	235	85	0	—	—
6A8G	Oscillator-Modulator	6.0	235	85	0	0	85
6K7G	I-F Amplifier	6.0	235	85	0	—	—
6Q7G	Det, AVC & A-F Amplifier	6.0	145	—	-3.5	—	—
6K6G	Output	6.0	235	235	0	—	—
OZ4	Rectifier	—	—	—	250	—	—

Power output approximately 5 watts.
Battery drain approximately 6.3 amperes at 6 volts.
Speaker field current approximately 1.0 amperes.

NOTE: The negative bias applied to the first three tubes is -3.5 volts, measured across a 75 ohm resistor (Item 31). The 6Q7G tube has a negative bias of -1.9 volts measured across a 40 ohm resistor (Item 30). The 6K6G output tube has a negative bias of -20 volts applied to the grid and is measured from the high side of the "B" filter choke (Item 8) to chassis.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits can best be properly aligned with the use of a modulated signal generator and an output meter.

CONNECTING OUTPUT METER

Connect the output meter to P and S of the 6K6G Output tube. Be sure the meter is protected from D. C. by connecting a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

NOTE: The receiver chassis should be in its case and a speaker similar to one used with the receiver must be connected to the chassis before making adjustments. It is advisable to use a spare control unit for making adjustments of the volume control and tuning condenser. A standard control unit with short cables (6" to 8") makes a very convenient and useful tool. If it is desired to shorten a pair of long cables it will be absolutely necessary to heavily tin the cables before cutting them.

1. Tuning I-F Amplifier to 262 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd., or larger, condenser to the top cap of the 6A8G Osc-Mod. tube, leaving the tube's grid clip in place. Connect the ground lead from the signal generator to the receiver chassis frame. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Adjust the station selector so that the rotor plates of the tuning condenser are completely in mesh, and turn the volume control full (ON).

(c) Set the signal generator to 262 kilocycles.

(d) Adjust both trimmers located on the 2nd I-F transformer for maximum output. (Fig. 2).

(e) Adjust both trimmers located on the 1st I-F transformer for maximum output.

(f) Repeat operations (d) and (e) for more accurate adjustments.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE OUTPUT METER READING.

2. Aligning R-F Amplifier.

(a) Connect the output lead from the signal generator through a .00025 mfd. condenser to the "ANT" connection of the receiver.

(b) Set the signal generator to 1530 kilocycles.

(c) With the condenser gang all the way open, adjust the "OSC" trimmer condenser so that the 1530 kilocycle signal is heard. It is not necessary that the receiver tune through this signal.

(d) Set the signal generator to 1400 kilocycles.

(e) Tune-in the 1400 kilocycle signal with the station selector (approximately 140 on the dial) for maximum reading on the output meter.

(f) Adjust the "R-F" trimmer condenser for maximum output.

(g) Adjust the "ANT" trimmer condenser for maximum output.

DO NOT READJUST THE "OSC" TRIMMER CONDENSER.

(h) Repeat operations (e), (f) and (g) for more accurate adjustments.

3. Adjusting Antenna Compensating Condenser.

(a) Set the signal generator to 600 kilocycles.

(b) Tune-in the 600 kilocycle signal with the station selector for maximum output.

(c) Adjust the antenna compensating condenser,

Item No. 11, Fig. 3, for maximum output.

(d) Repeat operations (b) and (c) alternately until no further improvement can be obtained.

(e) Set the signal generator to 1400 kilocycles again.

(f) Tune-in the 1400 kilocycle signal with the station selector for maximum output.

(g) Readjust the trimmer on the "ANT" section of the tuning condenser for maximum output.

It will be necessary to adjust the antenna compensating condenser to the car antenna after the receiver has been installed in the car.

(a) After the installation is complete, tune-in a WEAK station between 55 and 65 on the dial.

(b) Adjust the antenna compensating condenser for maximum volume in the speaker.

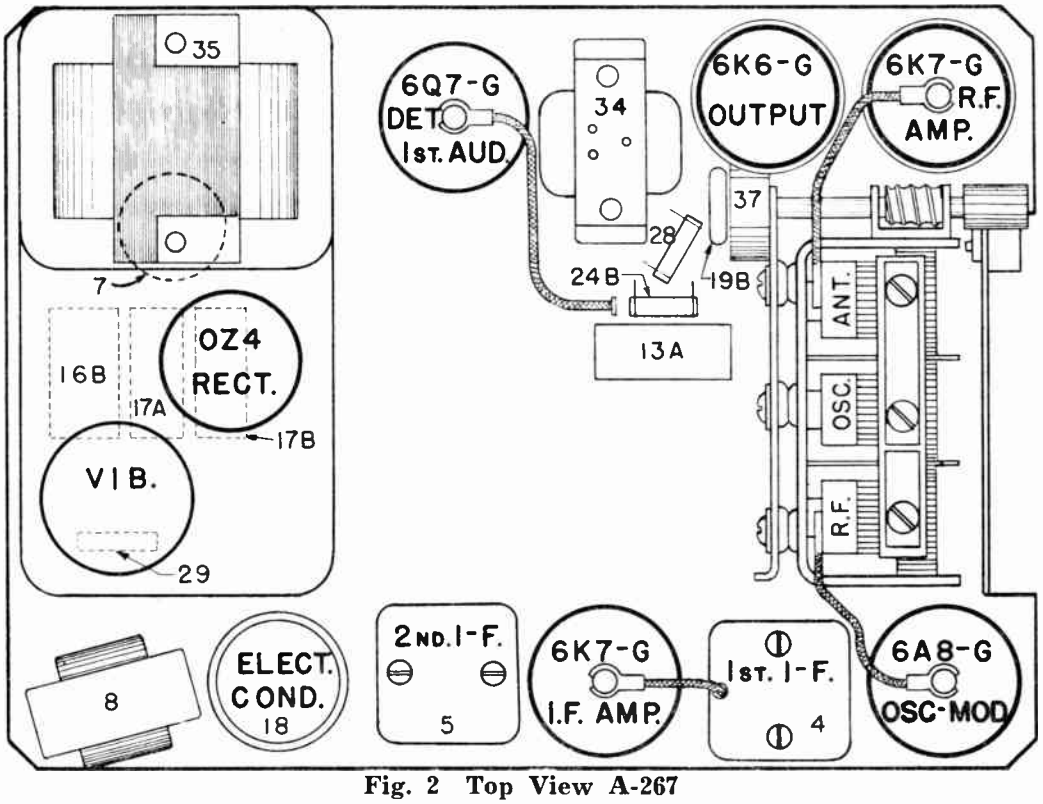


Fig. 2 Top View A-267

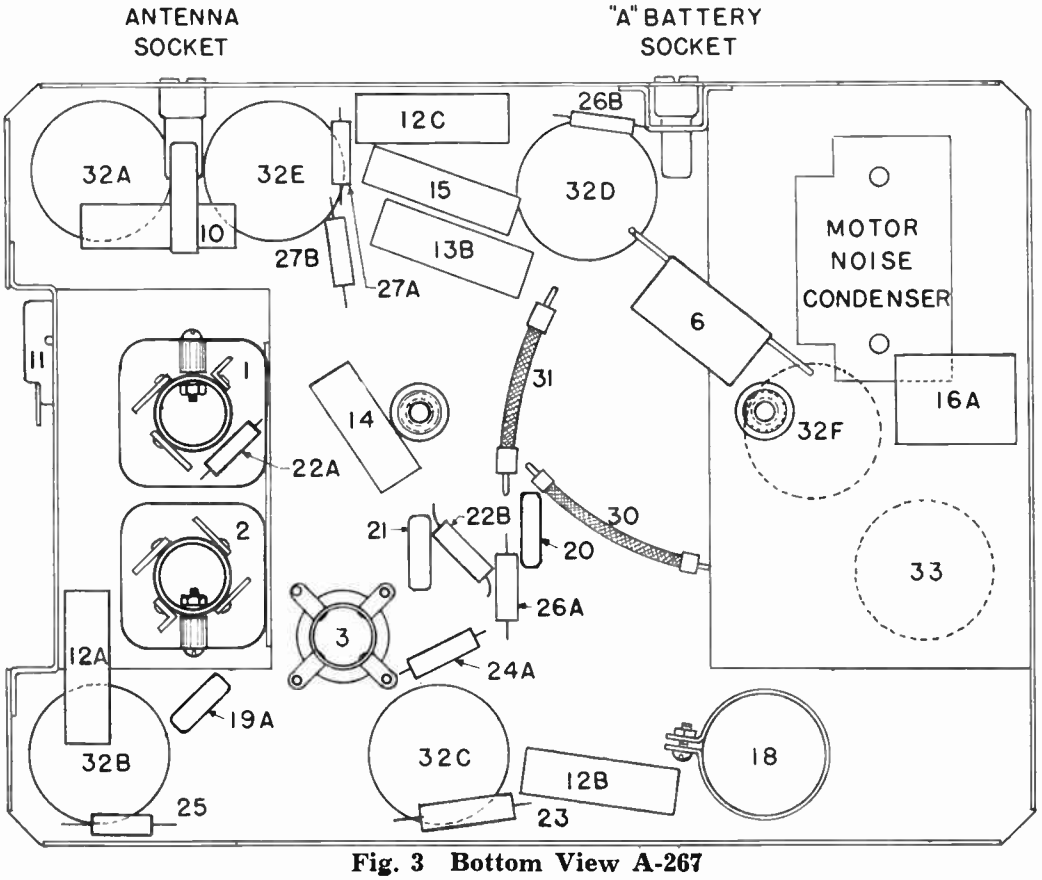


Fig. 3 Bottom View A-267

PARTS LIST—MODEL A-267

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Description
1	G134—32000	Ant. Coil
2	G93 —32001	R-F. Coil
	MG23—50000	Shield and Brkt. Assy.
	W —32912	Wood-Coil Spacer
3	G143—32002	Osc. Coil
4	G40 —32005	1st I-F. Assy.
5	G41 —32005	2nd I-F. Assy.
6	G17 —32977	Motor Noise Choke
7	G24 —28067	"A" Filter Choke
8	G79 —24628	"B" Filter Choke
9ZYX	G57 —33002	3 Sect. Var. Tuning Condenser
10	W —50039B	Condenser, .003 Mf. 160 V.
11	W —50054A	Condenser, Ant. Compensating
12A	W —32380	Condenser, .05 Mf. 200 V.
12B	W —32380	Condenser, .05 Mf. 200 V.
12C	W —32380	Condenser, .05 Mf. 200 V.
13A	W —24049C	Condenser, .1 Mf. 200 V.
13B	W —24049C	Condenser, .1 Mf. 200 V.
14	W —50084	Condenser, .003 Mf. 160 V.
15	W —50043	Condenser, .006 Mf. 600 V.
16A	W —50161	Condenser, .5 Mf. 120 V.
16B	W —50161	Condenser, .5 Mf. 120 V.
17A	W —50185	Condenser, .01 Mf. 500 V.
17B	W —50185	Condenser, .01 Mf. 500 V.
18YZ	W —50194	Condenser, Dual 6. Mf. 350 V.
19A	G1 —34002	Condenser, .00025 Mf. Mica
19B	G1 —34002	Condenser, .00025 Mf. Mica
20	G3 —34002	Condenser, .0005 Mf. Mica
21	G2 —34002	Condenser, .0001 Mf. Mica
22A	—35601	Resistor, 300,000 Ohm ¼W. Ins.
22B	—35601	Resistor, 300,000 Ohm ¼W. Ins.
23	—37377	Resistor, 20,000 Ohm 1W. Ins.
24A	—35602	Resistor, 1. Megohm ¼W. Ins.
24B	—35602	Resistor, 1. Megohm ¼W. Ins.
25	—35928	Resistor, 60,000 Ohm ¼W. Ins.
26A	—35600	Resistor, 100,000 Ohm ¼W. Ins.
26B	—35600	Resistor, 100,000 Ohm ¼W. Ins.
27A	—38976	Resistor, 250,000 Ohm ¼W. Ins.
27B	—38976	Resistor, 250,000 Ohm ¼W. Ins.
28	—40757	Resistor, 50,000 Ohm ¼W. Ins.
29	—38977	Resistor, 220 Ohm ½W. Ins.
30	W —23012A	Resistor, 40 Ohm ¾W. Flex.
31	W —25357	Resistor, 75 Ohm ¾W. Flex.
32	G178—36400	Socket—8-Prong
	W —50021	Tube Shield (Grid Lead Cut) (1)
	W —50022	Tube Shield (Plain) (1)
	W —50023	Tube Shield (6K6-G) (2)
	W —31210	Tube Shield Ring
	W —50174	Tube Shield Base
33	G105—28807	Socket-Vibrator
	W —50123	Vib. Ground Clip
34	G78 —24628	Output Transformer
	W —38991A	Speaker Socket, Part of G1-43619 Assy.
35	G17 —32769	Power Transformer
36	456BP9"M"	Speaker, Spec. No. 1-D-1075
	—44548	V. C. and Cone Assy.
	—44549	Field Coil
	—43676	Cone Mtg. Ring
37	—50056	Volume Control (2 Meg. Tap 1 Meg.)
	W —38455A	Case Mtg. Spacer
	—6213	Mtg. Nut (2)
	W —32957	Mtg. Washer (2)
	—32783A	24" Ant. Lead
	W —38038D	Distributor Suppressor
	W —29754C	Generator Condenser
	W —32956A	Mtg. Studs
	B —38985C	Remote Cont. Head and Cables
	—43849	Vol. Cont. Head and Cable Assy.
	—50103	Vol. Cont. Head and Switch
	W —43567	Dial Light
	—50100	Light Socket and Lead
	—50099	"A" Lead to Set
	—50097	"A" Lead—Head to Fuse
	—50098	"A" Lead—Fuse to Ammeter
	—50095	Vol. Cont. Flex. Drive Cable
	—50101	Drive Control Head
	—50206	Celluloid Gear Assy.
	—50096	Cond. Flex. Drive Cable
	—50357	Fuse, 15 Amp.
	G10 —38000	Vibrator
	MG2 —50267	Top Cover Assy. (Spk., etc.)
	W —50180A	Ground Strip (Short)
	W —50181A	Ground Strip (Long)
	B —50187	Speaker Escutcheon
	B —50188	Speaker Screen
	B —50189A	Speaker Grille Cloth
	W —50069A	Speaker Cable Clamp
	W —31393A	"A" Connector on Chassis
	W —31303A	Bushing and Ferrule Used in "A" and Ant. Connections
	W —31301	Spring—Used in Ant. Socket

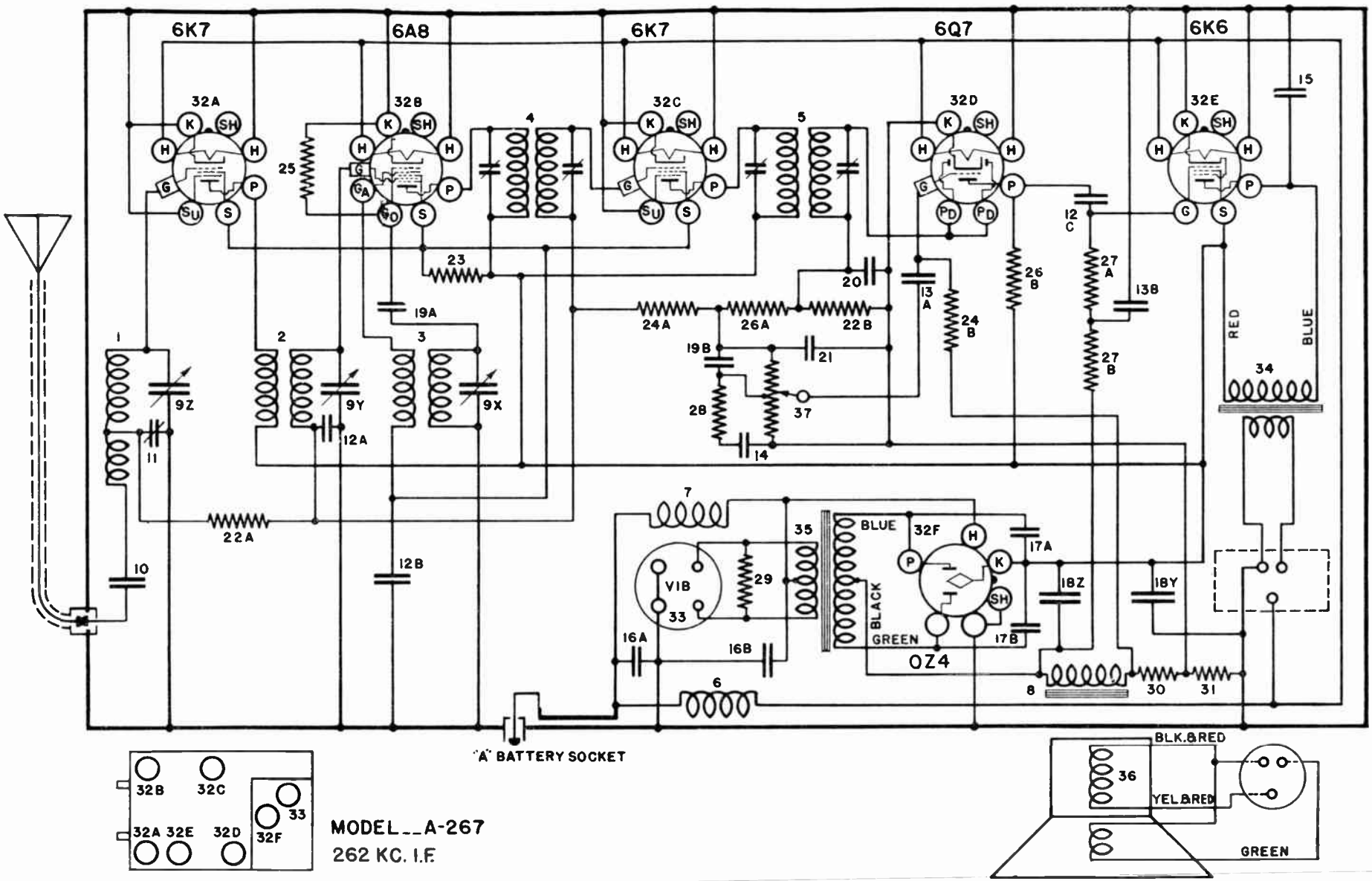


FIG. 1—WIRING DIAGRAM—MODEL A-267

CROSLEY SERVICE SUPPLEMENT

AUG. 1937 | Chassis Model 647 | No. 175

SPECIFICATIONS

This model Crosley radio is an AC-DC receiver designed for 100 to 125 volt operation. The tuning range is divided into two bands as follows:

535-1725 Kilocycles or 550-173 Metres (American Broadcast Band)
5.8-18.3 Megacycles or 52-16.3 Metres (High Frequency or Foreign Band).

CIRCUIT DESCRIPTION

Six octal base glass tubes are employed in a superheterodyne circuit which consists of a combination oscillator-modulator tube, 455 kilocycle I-F amplifier, detector, pentode output and power supply. The 6Q7G tube serves as a detector and 1st audio amplifier and supplies AVC voltage to the grids of the 6A8G and 6U7G tubes. A ballast tube, part No. W-44338, is used in the power supply circuit. The bias voltage for the 6A8G and 6U7G tubes is developed across a 20 ohm resistor, item 33, and the bias voltage for the 6Q7G and 25A6G tubes is developed across a 375 ohm resistor, item 34. The two resistors, items 30 and 31, serve as a voltage divider for the 6Q7G tube. The speaker field is connected across the "B" power supply. A .01 mfd. condenser, item 17, is connected across the power supply leads to reduce electrical interference from that source.

AC-DC SWITCH

A switch is located on the rear of the chassis for the purpose of adapting the receiver to either an AC or DC power supply. To change the position on the switch, remove the screw in the locking bracket and move the end of the bracket to the other position as marked on the chassis. Lock the switch in position by replacing the screw. DO NOT OPERATE THE RECEIVER ON A DC POWER SUPPLY WITH THE SWITCH IN THE "AC" POSITION NOR ON AN AC POWER SUPPLY WITH THE SWITCH IN THE "DC" POSITION AS IT WILL CAUSE DAMAGE TO THE RECEIVER PARTS.

SOCKET VOLTAGES

The following table gives the functions of the tubes used, together with the voltage readings between the tube socket contacts and the frame of the condenser gang. Voltage readings should be taken with a 1000 ohm per volt, 250 volt voltmeter (except filaments) with the volume control full "ON" and no signal input. The filament voltages should be measured with an accurate low range voltmeter. Voltage limits may vary plus or minus 10% of the values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	K	Go	Ga
6A8G	Oscillator-Modulator	6.3	145	85	0	−10	135
6U7G	I-F Amplifier	6.3	145	85	0	—	—
6Q7G	AVC, Detector & A. F. Amplifier	6.3	70	—	−2	—	—
25A6G	Output	25.0	130	145	0	—	—
25Z6G	Rectifier	25.0	110 (P1)	—	145 (K1)	—	—
W-44338	Ballast			Variable			

Power output approximately 2.5 watts.
Power consumption approximately 55 watts at 117.5 volts AC or 45 watts at 117.5 volts DC.
Voltage drop across speaker field 50 volts.
All voltage readings given above except filaments will be approximately 40% less if set is measured on 117.5 volt DC power supply.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits can best be properly aligned with the use of a modulated signal generator and an output meter.

CONNECTING OUTPUT METER

Connect one terminal of the output meter to the plate and the other terminal to the screen of the 25A6G output tube. Be certain that the meter is protected from DC by connecting a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning I-F Amplifier to 455 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd. condenser to the antenna terminal "A1" on the rear of the chassis. Connect the ground lead from the signal generator to the GROUND TERMINAL "G" on the receiver chassis. DO NOT CONNECT THE GROUND LEAD FROM THE SIGNAL GENERATOR DIRECTLY TO THE RECEIVER CHASSIS. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the plates of the condenser gang are completely out of mesh, turn the band selector switch to the left (American Broadcast Band) and turn the volume control to the right "ON."

(c) Set the signal generator to 455 kilocycles.

(d) Adjust both trimmer condensers located on top of the 2nd I-F transformer (Fig. 2) for maximum reading on the output meter.

(e) Adjust both trimmer condensers located on top of the 1st I-F transformer for maximum output.

(f) Check operations (d) and (e) for more accurate adjustments.

ALWAYS USE THE LOWEST SIGNAL GENERA-

TOR OUTPUT THAT WILL GIVE A REASONABLE READING ON THE OUTPUT METER.

Aligning R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the antenna (A) terminal of the receiver. For the Broadcast Band a 100 mmf. condenser should be connected in series with the output lead of the signal generator and for the High Frequency Band a 400 ohm carbon resistor should be used in place of the condenser.

(a) With the station selector adjusted so that the tuning condenser plates are completely out of mesh and the band selector switch is set for the band being aligned, adjust the "OSC" shunt trimmer so that the MINIMUM CAPACITY SIGNAL ¶ (C), is heard. It is not necessary that the receiver tune through this signal.

(b) Adjust the station selector so that the SHUNT ALIGNMENT signal is tuned-in with maximum output. Then adjust the "ANT" shunt trimmer for maximum output. Readjust the station selector slightly so that the generator signal is tuned-in with maximum output and check the adjustment of the "ANT" trimmer. DO NOT READJUST THE "OSC" TRIMMER.

NOTE 1: When shunt aligning the High Frequency Band care should be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator 10 times, or more, and try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

NOTE 2: If at any time the H-F coils are replaced, it may be necessary to vary the inductance of the "OSC" coil by moving the cross-over turn of wire at the gap to make the set track at the 6 megacycle end. Moving the turn toward the short end of the coil will decrease the inductance and moving it toward the long end will increase the inductance. If the signal is weak at 6 megacycles, a similar slight change in the inductance of the "ANT" coil should bring up the signal strength. THIS IS A CRITICAL OPERATION AND SHOULD NOT BE DONE ON ANY SET UNLESS CHANGING COILS MAKES IT NECESSARY.

(C) SIGNAL INPUT FREQUENCIES

	Minimum Capacity	Shunt Alignment
American Broadcast Band	1,725 Kilocycles	1,400 Kilocycles
High Frequency Band	18,300 Kilocycles	18,000 Kilocycles

WAVE TRAP

Some chassis of this model are equipped with a wave trap for the purpose of eliminating interference from code stations which operate on a frequency of approximately 455 kilocycles. This assembly is located on the underneath side of the chassis and consists of a coil, a fixed condenser and a trimmer condenser as illustrated by dotted lines in the Wiring diagram.

The wave trap should not be adjusted until all other adjustments have been made. To make the adjustment, feed a 455 kilocycle signal from the signal generator through a 100 mmf. condenser into the antenna terminal of the receiver. With the band selector switch turned to the Broadcast Band position, the gang condenser open and the volume control full on, adjust the trimmer condenser on the wave trap for MINIMUM output.

Should the interfering station be operating on a frequency of slightly more or less than 455 kilocycles, the exact frequency should be determined with the aid of the signal generator. Then, instead of feeding a 455 kilocycle signal into the receiver the exact frequency of the interfering signal should be used. If it is not possible to determine the exact frequency of the interfering signal the antenna may be attached to the receiver and the receiver tuned to the position where the interfering signal is most noticeable. Then adjust the wave trap for minimum interference.

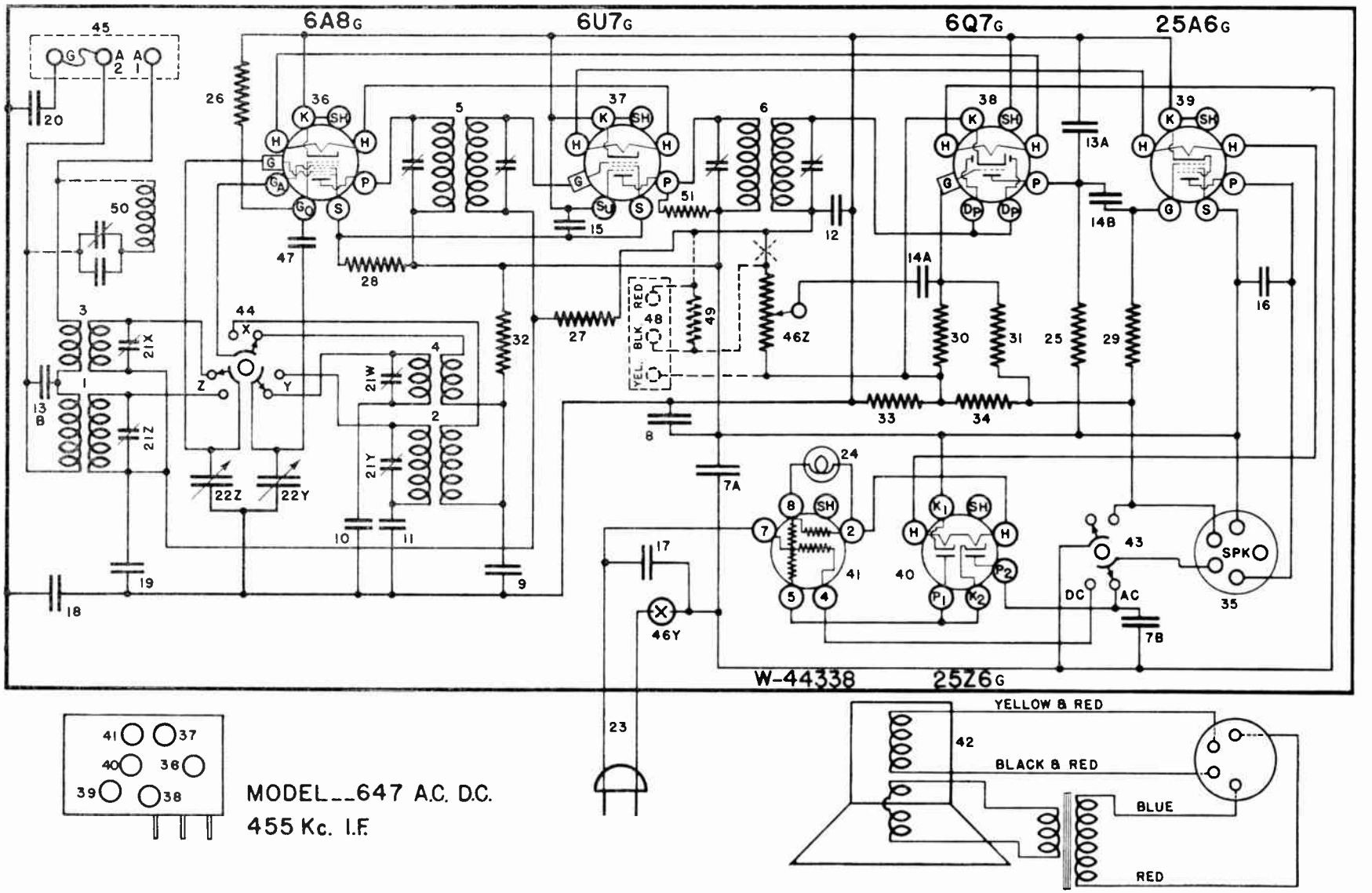


FIG. 1—WIRING DIAGRAM—MODEL 647

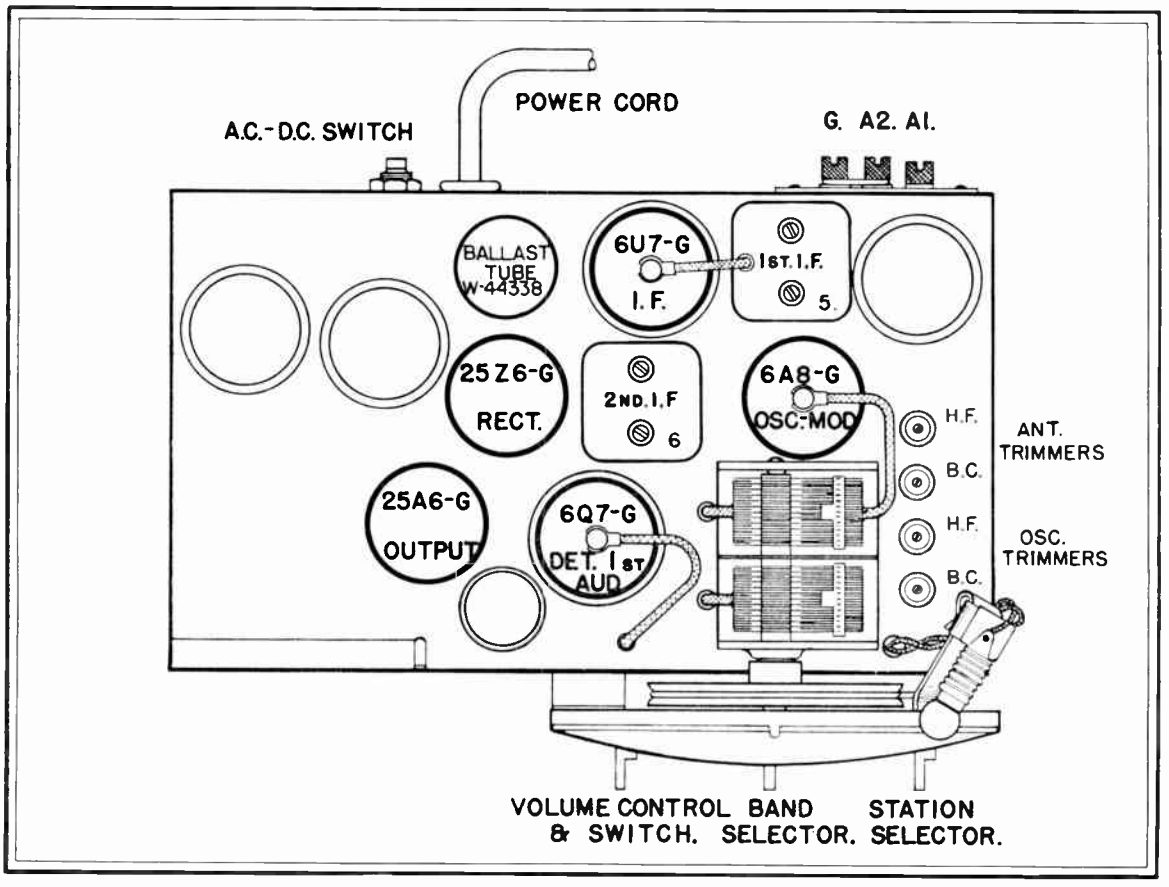


Fig. 2 Top View Model 647

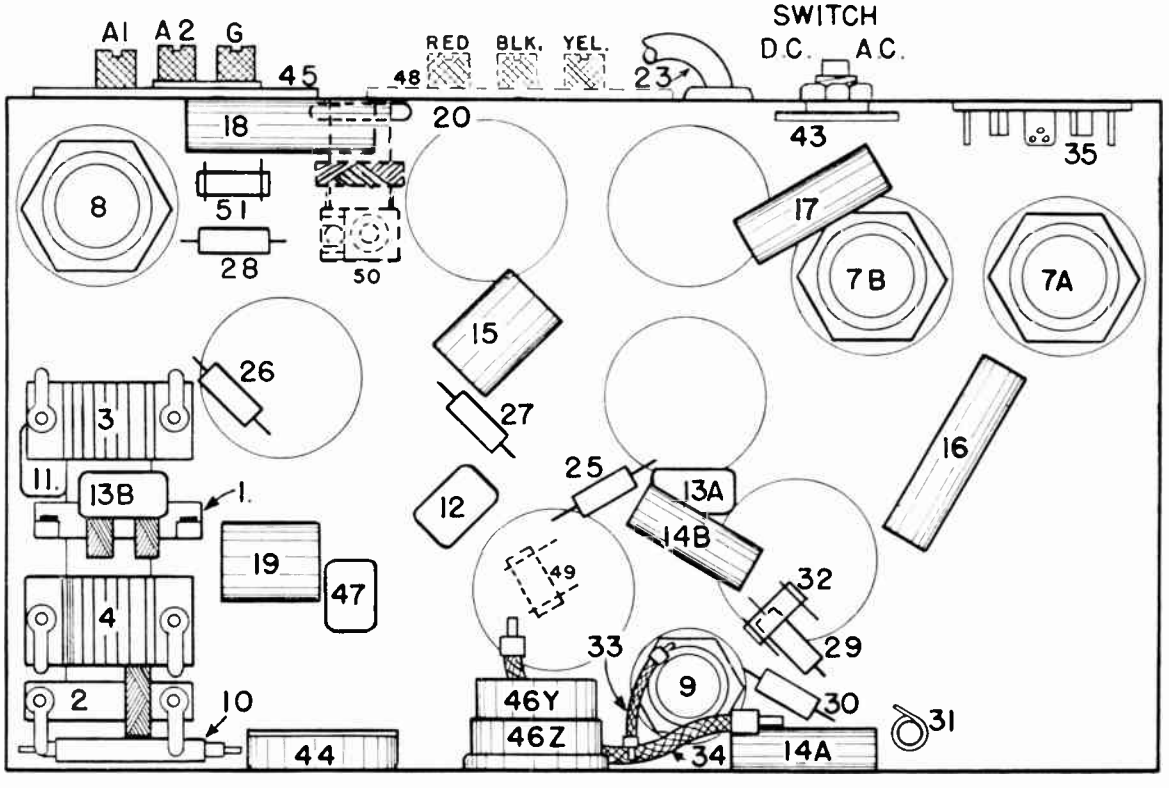


Fig. 3 Bottom View Model 647

PARTS LIST — MODEL 647

Figures in first column refer to parts in Diagrams.

Item	Part No.	Description
1	G143-32000	Ant. Coil B. C.
2	G145-32002	Osc. Coil B. C.
3	G142-32000	Ant. Coil H. B.
4	G144-32002	Osc. Coil H. F.
5	G156-32004	1st I-F Assy.
6	G157-32004	2nd I-F Assy.
7A	W -40325	Condenser 50 Mf. 150 V.
7B	W -40325	Condenser 50 Mf. 150 V.
8	W -36057B	Condenser 40 Mf. 300 V.
9	W -41081	Condenser 16 Mf. 250V.
10	G16 -34000	Condenser 3800 Mmf.
11	G14 -34002	Condenser .0004 Mf.
12	G1 -34002	Condenser .00025 Mf.
13A	G2 -34002	Condenser .0001 Mf.
13B	G2 -34002	Condenser .0001 Mf.
14A	W -28621	Condenser .02 Mf. 200 V.
14B	W -28621	Condenser .02 Mf. 200 V.
15	W -35936	Condenser .05 Mf. 200 V.
16	W -30323	Condenser .01 Mf. 200 V.
17	W -23191A	Condenser .01 Mf. 400 V.
18	W -24049C	Condenser .1 Mf. 200 V.
19	W -36541	Condenser .02 Mf. 160 V.
20	G3 -34002	Condenser .0005 Mf.
21	W -41247A	4 Sect. Shunt Trim. Assy
22	G42 -33001	2 Sect. Var. Tuning Cond.
	-44679A	Dial Face (Glass)
	C -44293	Support Brkt. (Dial Glass)
	W -44084A	Support Ring (Dial)
	W -43542B	Bracket—Drive Shaft
	W -43549	Retaining Ring (Dr. Shaft)
	W -44134A	Drive Shaft
	G1 -43564	Pulley & Hub. Assy.
	W -44299	Pointer
	W -40486	Screw FS20 (Pointer Mtg.)
	W -43561	Tension Spring
	W -44085B	Dial Mask
	-41582	Drive Cord
	W -42666	Insulating Bushing (Shaft)
23	B -44004	Cord & Plug
24	W -44337	Dial Light 6-8 V.
	G6 -27134	Dial Light Socket
25	-34018	Resistor 200,000 Ohm 1/3 W. Carb.
26	-35928	Resistor 60,000 Ohm ¼ W. Ins.
27	-26577	Resistor 3 Megohm 1/3 W. Carb.
28	-22831	Resistor 15,000 Ohm 1/3 W. Carb.
29	-33344	Resistor 400,000 Ohm 1/3 W. Carb.
30	-37590	Resistor 750,000 Ohm 1/3 W. Carb.
31	-37584	Resistor 11 Megohm 1/3 W. Carb.
32	-31093	Resistor 2700 Ohm 1/3 W. Carb.
33	W -37267	Resistor 20 Ohm ½ W. Flex.
34	W -43462	Resistor 375 Ohm 2½ W. Flex.
35	G103-28807	Socket Speaker
36	G156-36400	Socket Type 6A8
37	G171-36400	Socket Type 6U7
38	G160-36400	Socket Type 6Q7
39	G161-36400	Socket Type 25A6
40	G162-36400	Socket Type 25Z6
41	G180-36400	Socket W-44338 Ballast
	W -40911	Tube Shield
42	346BP12"M"	Speaker Spec. No. 1-D-1088
	-44543	V. C. & Lone Assy. (Used on 346BP12"M" Spk.)
	-44544	Field Coil (Used on 346BP12"M" Spk.)
	-44545	Output Trans. (Used on 346BP12"M" Spk.)
	-43672	Cone Mtg. Ring (Used on 346BP12"M" Spk.)
	W -43552	Spk. Plug Clamp
43	W -43468	A.C.-D.C. Switch
	W -42709	Lock Brkt (AC-DC Switch)
44	W -43448A	Band Switch
45	G27 -26719	Ant. & Gnd. Term. Assy.
45Z, 46Y	-43449A	Volume Cont. 500,000 Ohm Line Switch
47	G13 -34002	Condenser .000035 Mf.
48	G37 -26719	Phono. Terminal Assy.
49	-21875	Resistor 100,000 Ohm 1/3 W.
	B -44226B	Escutcheon
	W -44381B	Knob—(3 Req.)
	W -43553	Rubber Mtg. Foot
	7EA	Cabinet
	B -44375B	Back—Cabinet
50	G165-32004	Wave Trap
51	-23785	Resistor 500,000 Ohm 1/3 W. Carb.

CROSLEY SERVICE SUPPLEMENT

AUGUST, 1937 CHASSIS NO. 577 NO. 176

SPECIFICATIONS

This model Crosley radio is designed for operation on 100 to 125 volt electric circuits, either AC or DC. The tuning range is from 535 to 1725 kilocycles (550 to 173 metres).

CIRCUIT DESCRIPTION

Five octal base glass tubes are employed in a superheterodyne circuit which consists of a combination oscillator-modulator tube. 455 kilocycle I-F amplifier, pentode output and power supply. The 6Q7G tube serves as the detector and 1st A-F amplifier and supplies AVC voltage to the grid of the 6A8G tube. The bias voltage for the 6A8G and 6U7G tubes is obtained across a 165 ohm resistor, item 28. The bias for the 6Q7G and 25A6G tubes is obtained across the "B" filter choke, item 2, before serial No. 1417951 and across the speaker field after this number. A resistance type power supply cord is used to provide the proper heater voltage to the tubes. The filaments of the tubes are wired in series. A .05 mfd. condenser, item 12, is connected across the power supply leads to reduce electrical interference from that source.

TUBES AND VOLTAGE LIMITS

The following table gives the functions of the tubes used, together with the voltage readings between the tube socket contacts and chassis. Voltage readings should be taken with a 100 ohm per volt, 250 volt voltmeter (except filaments) with the volume control full "ON" and no signal input. The filament voltages should be measured with an accurate low range voltmeter. When measured on a 117.5 volt AC line voltage limits may vary plus or minus 10% of the values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	Su	K	Go	Ga
6A8G	Oscillator-Modulator	6.3	105	60	—	3	–12	105
6U7G	I-F Amplifier	6.3	105	105	3	3	—	—
6Q7G	Det, AVC, A-F Amplifier	6.3	105	—	—	0	—	—
25A6G	Output	25.0	100	105	—	0	—	—
25Z6G	Rectifier	25.0	117.5	—	—	110	—	—

Power output approximately 1 watt.
Power consumption approximately 60 watts.
Voltage drop across speaker field 110 volts.
All voltages except filaments will be approximately 10% lower if measured on 117.5 volts DC power supply.

ALIGNMENT PROCEDURE

The chassis of this receiver is connected to one side of the power supply and for this reason all test equipment should be thoroughly insulated in order that the power supply will not become short circuited while aligning the receiver.

CONNECTING OUTPUT METER

Connect one terminal of the output meter to the plate and the other terminal to the screen of the 25A6G output tube. Be certain that the meter is protected from DC by connecting a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning the I-F Amplifier to 455 Kilocycles.

(a) Disconnect the antenna roll from the receiver and connect the output of the signal generator through a 50 mmf. condenser to the antenna connection on the receiver. Do not use a ground return from the signal generator unless it is found to be absolutely necessary. If it is found to be necessary, a small condenser (approximately .001 mfd.) should be connected in series with the ground terminal of the signal generator and the receiver chassis. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the plates of the condenser gang are completely out of mesh and turn the volume control to the right (ON).

(c) Set the signal generator to 455 kilocycles.

(d) Adjust the 2nd I-F trimmer condenser, Item 17, located at the rear of the chassis, for maximum reading on the output meter.

(e) Adjust the trimmer condensers located on the 1st I-F transformer for maximum output.

(f) Repeat operations (d) and (e) for more accurate adjustments.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE READING ON THE OUTPUT METER.

Aligning the R-F Amplifier.

(a) Set the signal generator to 1725 kilocycles.

(b) With the condenser gang turned to the minimum capacity position, adjust the trimmer condenser on the "OSC" section of the gang so that the 1725 kilocycle signal is heard. It is not necessary that the receiver tune through this signal.

(c) Set the signal generator to 1400 kilocycles.

(d) Tune-in the 1400 kilocycle signal in the region of 140 on the dial for maximum output.

(e) Adjust the trimmer condenser located on the "ANT" section of the gang for maximum output.

Note: Do not readjust the "OSC" trimmer.

(f) Repeat operations (d) and (e) for more accurate adjustments.

WAVE TRAP

Some chassis of this model are equipped with a wave trap for the purpose of eliminating interference from code stations which operate on a frequency of approximately 455 kilocycles. This assembly is located on the underneath side of the chassis and consists of a coil, a

fixed condenser and a trimmer condenser as illustrated by dotted lines in the Wiring diagram.

The wave trap should not be adjusted until all other adjustments have been made. To make the adjustment, feed a 455 kilocycle signal from the signal generator through a 50 mmf. condenser into the antenna terminal of the receiver. With the band selector switch turned to the Broadcast Band position, the gang condenser open and the volume control full on, adjust the trimmer condenser on the wave trap for MINIMUM output.

Should the interfering station be operating on a frequency of slightly more or less than 455 kilocycles, the exact frequency should be determined with the aid of the signal generator. Then, instead of feeding a 455 kilocycle signal into the receiver the exact frequency of the interfering signal should be used. If it is not possible to determine the exact frequency of the interfering signal the antenna may be attached to the receiver and the receiver tuned to the position where the interfering signal is most noticeable. Then adjust the wave trap for minimum interference.

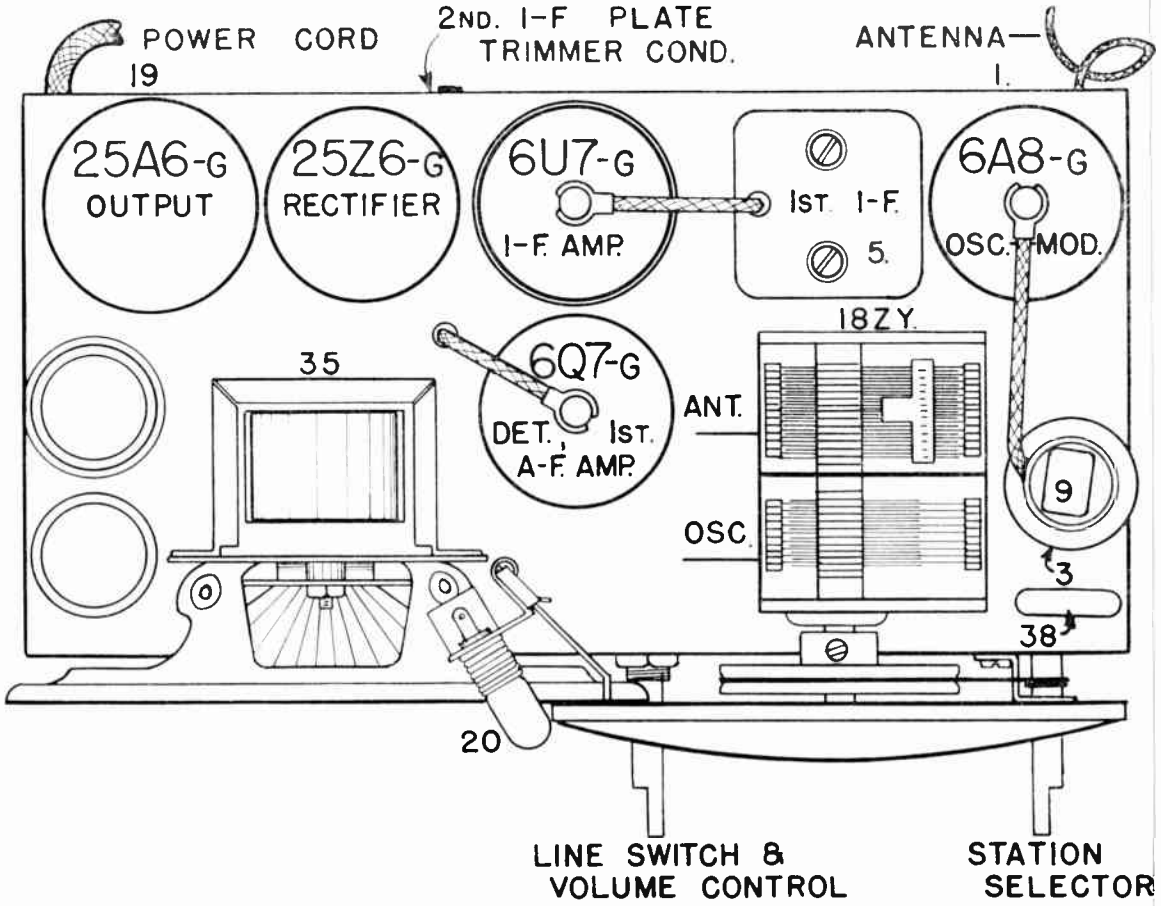


Fig. 2—Top View Model 577

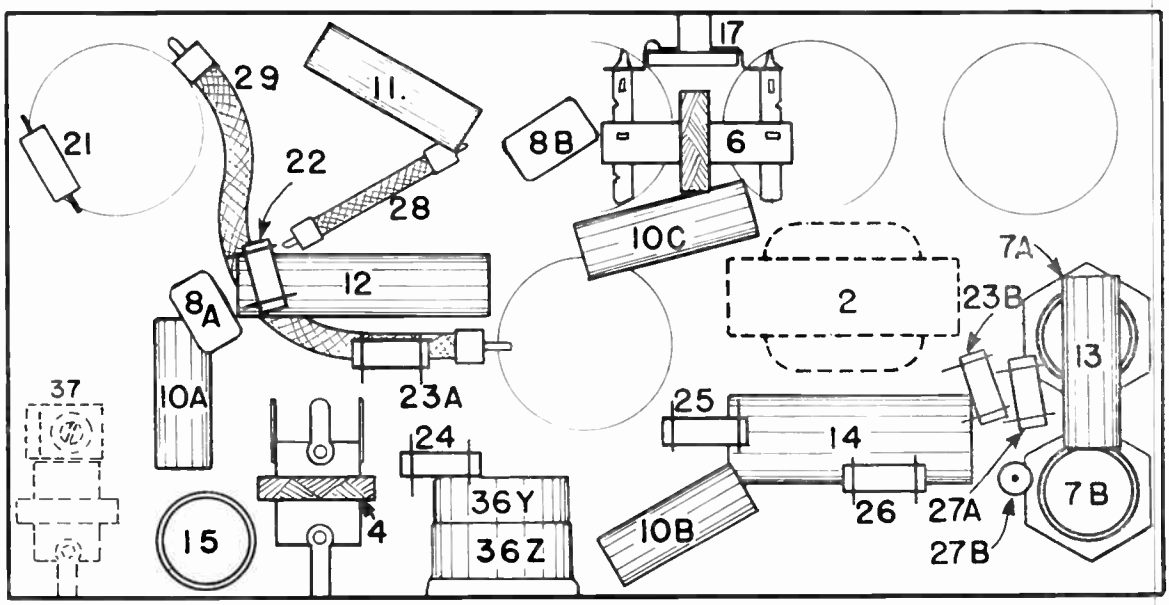


Fig. 3 Bottom View Model 577

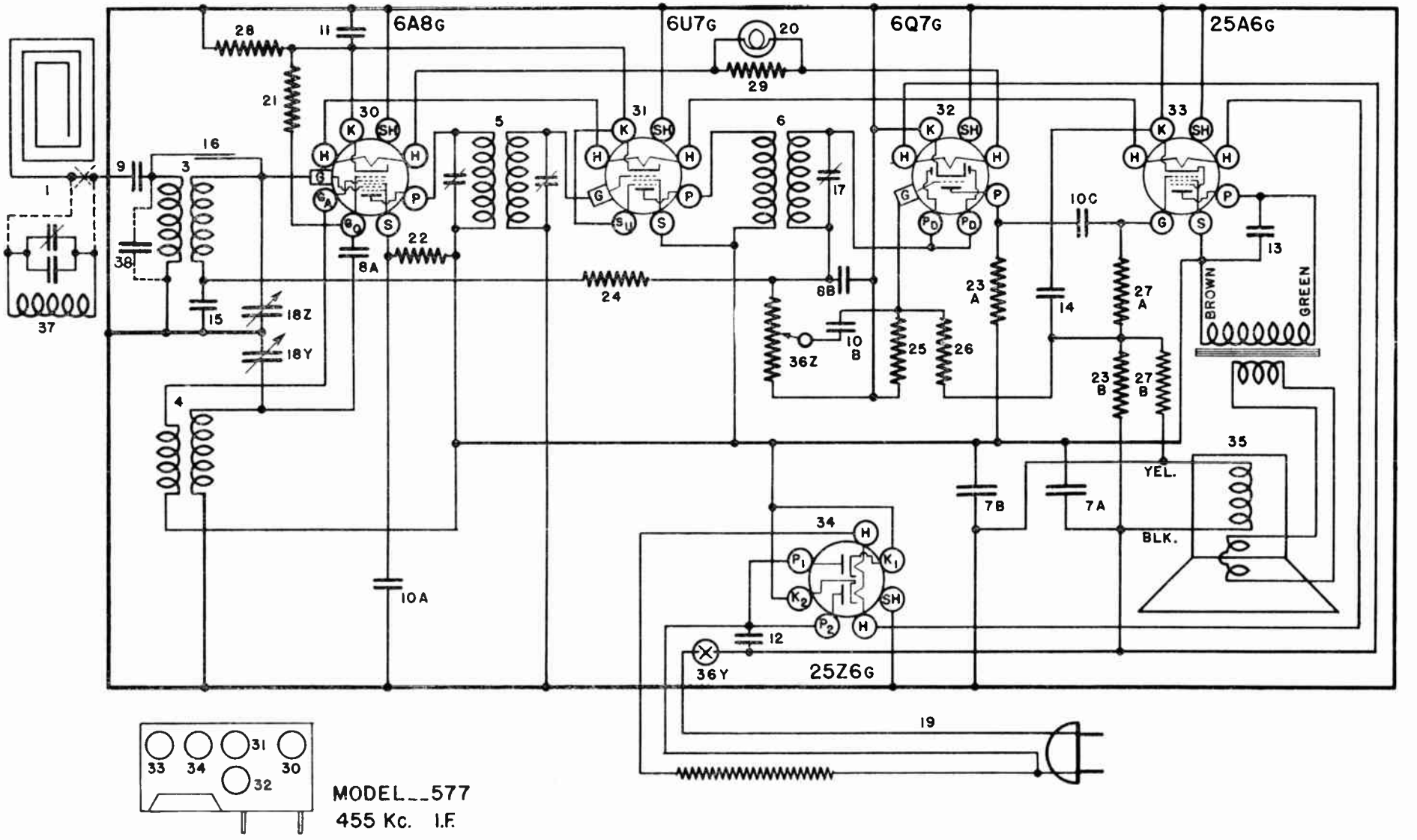


FIG. 1B—WIRING DIAGRAM—MODEL 577—Serial numbers above 1417950

PARTS LIST—MODEL 577

Figures in first column refer to parts in Diagrams.

Item	Part No.	Description
1	W —31765B	Antenna Roll
2	G 16—29535	"B" Filter Choke (Before Serial No. 1417951)
3	G144—32000	Ant. Coil
4	G147—32002	Osc. Coil
5	G158—32004	1st I-F Assy.
6	G159—32004	2nd I-F Coil Assy.
7A	W —43280	Condenser 25 Mf. 150 V.
7B	W —43280	Condenser 25 Mf. 150 V.
8A	G 1—34002	Condenser .00025 Mf. Molded
8B	G 1—34002	Condenser .00025 Mf. Molded
9	G 3—34002	Condenser .0005 Mf. Molded
10A	W —28621	Condenser .02 Mf. 200 V.
10B	W —28621	Condenser .02 Mf. 200 V.
10C	W —28621	Condenser .02 Mf. 200 V.
11	W —32380	Condenser .05 Mf. 200 V.
12	W —23615	Condenser .05 Mf. 400 V.
13	W —30323	Condenser .01 Mf. 200 V.
14	W —34712	Condenser .25 Mf. 160 V.
15	W —35936	Condenser .05 Mf. 160 V.
16		
17	W —44142	2nd I-F Trimmer
	W —28129	Spacer (Mtg. W-44142)
18	G 43—33001	2 Sect. Var. Tuning Cond.
	B —44400C	Dial Face (Glass)
	B —44307A	Dial Glass Brkt.
	W —44285	Dial Mask (Paper)
	—44267	Dial Mask (Metal)
	W —44001A	Dial Support Ring
	W —44306	Drive Shaft Bracket
	W —44918	Drive Shaft
	W —43549	Ret. Ring (Shaft)
	G 3—43564	Pulley & Hub Assy.
	—41582	Drive Cord
	W —43561	Drive Cord Spring
	W —43550A	Pointer
	W —40486	Screw FS20 Pointer Mtg.
19	B —44192	Power Cord & Plug
	B —30772B	Power Cord & Plug for adapting set to 220 V. Power Sup.
20	W —44337	Dial Light 6-8 V.
	G 6—27134	Socket Assy. Dial L.

Item	Part No.	Description
21	—35928	Resistor 60.00 Ohm ¼ W.
22	—21453	Resistor 40,000 Ohm 1/3 W.
23A	—21455	Resistor 300,000 Ohm 1/3 W.
23B	—21455	Resistor 300,000 Ohm 1/3 W.
24	—34883	Resistor 2 Megohm 1/3 W.
25	—21454	Resistor 1. Megohm 1/3 W.
26	—33490	Resistor 10. Megohm 1/3 W.
27A	—23785	Resistor 500,000 Ohm 1/3 W.
27B	—23785	Resistor 500,000 Ohm 1/3 W. (After Serial No. 1417950)
28	W —21964	Resistor 165 Ohm ½ W. Flex.
29	W —44396	Resistor 40 Ohm 3½ W. Flex.
30	G156—36400	Socket Type 6A8
31	G171—36400	Socket Type 6U7
32	G160—36400	Socket Type 6Q7
33	G161—36400	Socket Type 25A6
34	G162—36400	Socket Type 25Z6
	W —40911	Tube Shield
35	—255BL6"Q"	Speaker Spe. No. 23393 (2000 Ohm Field) Used Before Serial No. 1417951.
	—43464	V. C. & Cone Assy. (Used On 255BL6
	—43465	Output Transformer
	—43466	Cone Mtg. Ring (273BL6 'Q' Only
	B —44374A	Baffle Board
	—273BL6"Q"	Speaker Spec. No. 26253 (525 Ohm Field) Used After Serial No. 1417950
36Z, 36Y	—43449	Vol. Control ½ Meg. / On-Off Switch
37	G169—32004	Wave Trap Assy.
38	G 5—34002	Condenser .00005 Mf. Molded
	—7 DC	Cabinet
	—44330	Grille Cloth
	—44268A	Escutcheon
	W —44381B	Knob
	B —44373A	Cabinet Back

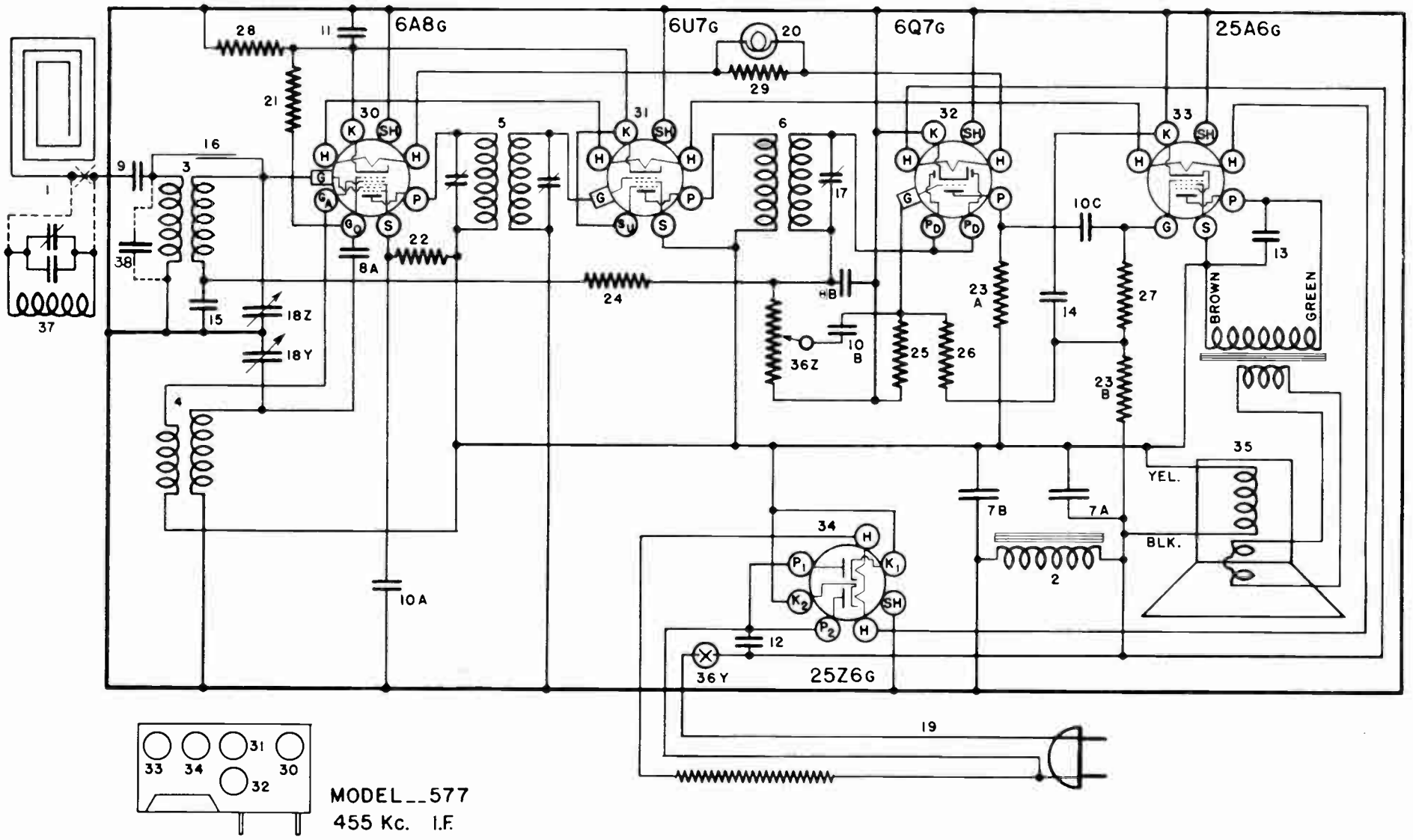


FIG. 1A—WIRING DIAGRAM—MODEL 577

CROSLEY SERVICE SUPPLEMENT

SEPTEMBER, 1937 **CHASSIS MODEL 1127** **NO. 177**

This model Crosley radio is an AC receiver designed for American and Foreign broadcast reception. Electric tuning is accomplished in this model by means of the Dynatrol motor which is a vibrating type. Other features include electron ray tuning indicator, automatic volume control, Local-Distance switch and parallel pentode output. The tuning range is from 540 kilocycles to 22 megacycles and is divided into three bands as follows:

540-1850 Kilocycles or 555 162 Metres (American Broadcast Band)
1.9- 6.6 Megacycles or 158-45.5 Metres (Police and Amateur Band)
6.4- 22 Megacycles or 47-13.5 Metres (High Frequency or Short Wave Band).

Circuit Description

Eleven tubes are employed in a superheterodyne circuit. The 6T5 electron ray tube is used for indicating exact tuning and is designated "IRIS TUNING INDICATOR." When a station is tuned-in the greenish glow in the tube increases in width, forming a small circular shadow around the center disc. Only strong signals, however, will reduce the shadow to a very small circle.

The circuit consists of separate oscillator and modulator tubes, two stages of I-F amplification—the second of which is resistance coupled, separate AVC and detector diodes, two stages of audio amplification and power supply. The 1st I-F transformer is a triple-tuned unit, which in conjunction with the Local-Distance switch, controls the selectivity of the receiver. The speaker field is located in the negative leg of the power supply. The bias for all tubes except the output and AVC diode is developed across a 32 ohm resistor, item 40, located between the speaker field and ground.

SOCKET VOLTAGES

The tube socket voltages are measured from the tube socket contacts to the chassis with 1000 ohm per volt, 500 volt D. C. voltmeter (except filaments) with the receiver in operating condition and no signal input. The volume control should be turned full on, the tone control should be turned to the TREBLE position (counter-clockwise) and the tuning condenser should be turned to the minimum capacity position. The filament voltages should be measured with an accurate low range A. C. voltmeter (approximately 0-10 volts). Readings may vary plus or minus 10% of values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	G	K	Go	Ga
6K6G	Oscillator	6.3	147	147	-36	0	—	—
6A8G	Modulator	6.3	224	110	—	0	-36	110
6U7G	1st I-F Amplifier	6.3	174	110	—	0	—	—
6U7G	2nd I-F Amplifier	6.3	270	110	—	0	—	—
6C5G	Diode Detector	6.3	0	—	—	0	—	—
6C5G	AVC Diode	6.3	0	—	—	0	—	—
6K5G	1st A-F Amplifier	6.3	190	—	—	0	—	—
6K6G	Output	6.3	263	250	0	22	—	—
6K6G	Output	6.3	263	250	0	22	—	—
5Y3G	Rectifier	5.0	—	—	—	270	—	—
6T5	Tuning Indicator	6.3	Variable					

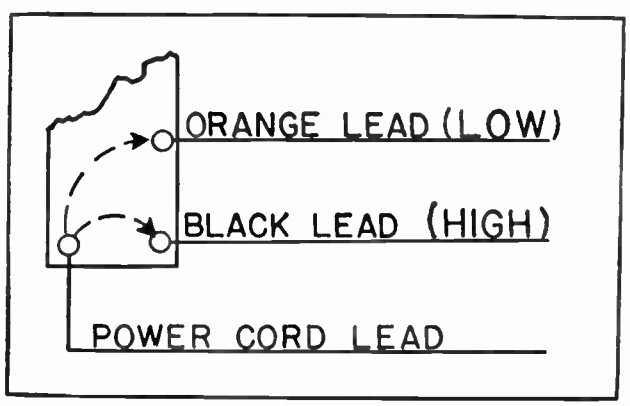
Power consumption approximately 90 watts at 117.5 volts. (Tuning Motor 50 Watts Additional)
Power output approximately 10 watts.
Voltage drop across speaker field 60 volts.

SPECIAL POWER TRANSFORMER ADJUSTMENT

In localities where the voltage variation on 50 or 60 cycle power supply lines is greater than customary commercial limits, special 50-60 cycle power transformers are available. These transformers have a "high" and "low" voltage tap on the underside of the chassis. The "high" voltage lead (BLACK) and the "low" voltage lead (ORANGE) are connected to a terminal strip near the transformer.

The voltage range of the "low" tap of the 95-130 volt transformer is from 95 to 112½ volts and the "high" tap is from 112½ to 130 volts. The range of the "low" tap of the 190-260 volt transformer is from 190 to 225 volts and of the "high" tap is from 225 to 260 volts.

The accompanying illustration shows the connections for changing from high to low or low to high line voltage. Note the "jumper" wire which is attached to the terminal at which one side of the power cord is attached. The other end of this jumper wire should be connected to the ORANGE or BLACK lead of the transformer



primary, according to the line voltage the receiver is to be used on.

NOTE: Any change made in the power supply circuit of the receiver should be plainly stamped or otherwise permanently recorded on the rear of the chassis.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits may be properly aligned with the use of a modulated signal generator and an output meter.

CONNECTING OUTPUT METER

Connect the output meter to the plates of the two 6K6G output tubes. Be certain that the meter is protected from D. C. by a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning The I-F Amplifier To 455 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd. condenser to the top cap of the 6U7G 1st I-F Amp. tube, leaving the tube's grid clip in place. Connect the ground lead from the signal generator to the ground terminal of the receiver. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the tuning condenser plates are completely out of mesh. Turn the volume control knob to the right (ON) and turn the tone control knob to the left (TREBLE).

(c) Set the band selector switch on the Broadcast Band.

(d) Turn the Local-Distance switch to the "Distance" position.

(e) Set the signal generator to 455 kilocycles.

(f) Adjust both trimmer condensers located on top of the 2nd I-F transformer for maximum output. DO NOT ADJUST THE TRIMMER CONDENSERS LOCATED ON THE 2ND I-F TRANSFORMER WITH THE SIGNAL GENERATOR LEAD CONNECTED TO THE 6A8G TUBE.

(g) Transfer the signal generator lead to the top cap of the 6A8G tube, leaving the tube's grid clip in place.

(h) Close the middle trimmer of the 1st I-F transformer. (Do not force adjustment screw).

(i) Adjust the top and then the bottom trimmers of the 1st I-F transformer for maximum output.

(j) Adjust the middle trimmer of the 1st I-F transformer for maximum output.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE OUTPUT METER READING.

Aligning The R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the "ANT" terminal of the receiver. For the Broadcast Band a 200 mmf. condenser should be connected in series with the output lead of the signal generator and for the High Frequency and Police Bands a 400 ohm carbon resistor should be used in place of the condenser.

Each band should first be SHUNT ALIGNED and then SERIES ALIGNED where provision is made for series alignment (Broadcast Band). The band selector switch should be set for the band being aligned and the signal generator should be set to the frequency indicated for each adjustment, ¶ (D) below.

(a) With the station selector adjusted so that the tuning condenser plates are completely out of mesh, adjust the "OSC" shunt trimmer until the MINIMUM CAPACITY SIGNAL (D) is heard (it is not necessary that the receiver tune through this signal).

(b) Adjust the station selector so that the SHUNT ALIGNMENT SIGNAL (D) is tuned-in with maximum output. Then adjust the "ANT" shunt trimmer for maximum output. Readjust the station selector slightly so that the generator signal is tuned-in with maximum output and check the adjustment of the "Ant" trimmer. DO NOT READJUST THE OSCILLATOR TRIMMER.

NOTE: When shunt aligning the Police and High Frequency Bands, care must be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator ten times or more, and try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

(c) To align the series trimmer (See Fig. 2), set the signal generator to the frequency indicated below (D) and then tune-in this signal with the station selector for maximum output. To obtain the best adjustment for the series trimmer, it will be necessary to rotate the station selector back and forth slightly while adjusting the trimmer for maximum output. Minor tolerance variations in series alignment at 2500 kilocycles in the Police Band and at 7,000 kilocycles in the High Frequency Band may be compensated for by slight repositioning of the grid lead of the antenna coil in the Band affected.

(D) SIGNAL INPUT FREQUENCIES

	Min. Cap. Signal	Shunt Align.	Series Align.
American Broadcast Band	1850 Kilocycles	1700 Kilocycles	600 Kilocycles
Police & Amateur Band	6600 Kilocycles	6000 Kilocycles	
High Frequency Band	22 Megacycles	18 Megacycles	

WAVE TRAP

Some chassis of this model are equipped with a wave trap for the purpose of eliminating interference from code stations which operate on a frequency of approximately 455 kilocycles. This assembly is located on the underneath side of the chassis and consists of a coil, a fixed condenser and a trimmer condenser as illustrated by dotted lines in the Wiring Diagram. Item 61, Fig. 1.

The wave trap should not be adjusted until all other adjustments have been made. To make the adjustment, feed a 455 kilocycle signal from the signal generator through a 200 mmf. condenser into the antenna terminal of the receiver. With the band selector switch turned to the Broadcast Band position, the gang condenser open and the volume control full on, adjust the trimmer condenser on the wave trap for minimum output.

Should the interfering station be operating on a frequency of slightly more or less than 455 kilocycles, the exact frequency should be determined with the aid of the signal generator. Then, instead of feeding a 455 kilocycle signal into the receiver the exact frequency of the interfering signal should be used. If it is not possible to determine the exact frequency of the interfering

PARTS LIST—MODEL 1127

Figures in first column refer to parts in Diagrams.

Item	Part No.	Description
1AB	W —43567	Dial Light 6-8 V.
2	G139 —32000	Ant. Coil B. C.
3	G138 —32000	Ant. Coil Pol.
4	G156 —32000	Ant. Coil H. F.
5	G139 —32002	Osc. Coil B. C.
6	G138 —32002	Osc. Coil Pol.
7	G160 —32002	Osc. Coil H. F.
8	G161 —32004	1st I-F Assy.
9	G154 —32004	2nd I-F Assy.
10	W —44054	Condenser 30 Mf. 350 V.
11	W —36057B	Condenser 40 Mf. 300 C.
12	G13 —34002	Condenser .000035 Mf. Molded
13A	G2 —34002	Condenser .0001 Mf. Molded
13B	G2 —34002	Condenser .0001 Mf. Molded
13C	G2 —34002	Condenser .0001 Mf. Molded
14	W —41598	Condenser 50 Mf. 25 V.
15	W —35936	Condenser .05 Mf. 200 V.
16	W —41461	Condenser .0014 Mf. 200 V.
17	W —28619	Condenser .006 Mf. 200 V.
18A	W —35139	Condenser .004 Mf. 400 V.
18B	W —35139	Condenser .004 Mf. 400 V.
19	W —23615	Condenser .05 Mf. 400 V.
20	—40769	Trimmer B. C. Osc. Series
21	G23 —34000	Condenser .001560 Mf.
21	G20 —34000	Condenser .004910 Mf.
23A	W —22688	Condenser .1 Mf. 400 V.
23B	W —22688	Condenser .1 Mf. 400 V.
23C	W —22688	Condenser .1 Mf. 400 V.
24	G40 —33001	2 Sect. Var. Tuning Cond.
	—44475A	Dial Face (Glass)
	W —44127	Pointer
	W —40486	Screw (Pointer Mtg.)
	W —44146A	Dial Mask (Metal Disc.)
	— 2045	(Pointer) Shakeproof Washer
	C —44110C	Dial Glass Support Brkt.
	W —44479	Drive Shaft Bracket
	W —44480A	Drive Shaft Sleeve
	MG21—44464	Drive Shaft & Coupling
	G1 —43564	Pulley & Hub Assy.
	—41582	Drive Cord
	W —43561	Spring Cord Tension
	G1 —44470	Switch Arm & Hub Assy.
	W —44262A	Dial Support Ring
	W —44263A	Dial Support Arc.
25	W —35951A	3 Sect. Trimmer Assy.
26	B —33906A	Power Cord & Plug
27	—42401B	Resistor 99 Ohm ¼ W. Ins.
28	W —23013	Resistor 2.000 Ohm 1¼ W. Flex.
29	—44165	Resistor 5.000 Ohm ½ W. Carb.
30	—22196	Resistor 20.000 Ohm 1/3 W. Carb.
31	—36320	Resistor 120.000 Ohm ¼ W. Ins.
32	—21237A	Resistor 60.000 Ohm 1/3 W. Carb.
33A	—21875	Resistor. 100.000 Ohm 1/3 W. Carb.
33B	—21875	Resistor. 100.000 Ohm 1/3 W. Carb.
34	—34020	Resistor 250.000 Ohm 1/3 W. Carb.
35	—23785	Resistor 500.000 Ohm 1/3 W. Carb.
36	—37590	Resistor 750.000 Ohm 1/3 W. Carb.
37	—21454	Resistor 1. Megohm 1/3 W. Carb.
38	—26577	Resistor 3. Megohm 1/3 W. Carb.
39	—44008	Resistor 10.000 Ohm 2 W. Carb.
40	W —37631	Resistor 32 Ohm ½ W. Flex.
41	W —22873	Resistor 220 Ohm 2½ W. Flex.
42ABC	G172 —36400	Socket Type 6K6
43	G156 —36400	Socket Type 6A8
44AB	G171 —36400	Socket Type 6U7
45AB	G152 —36400	Socket Type 6C5
46	G9 —43900	Socket Type 6K5
47Z, 47Y	W —44121	Socket Type 6T5 / Resistor 1 Meg in Socket
48	G173 —36400	Socket Type 5Y3
49	G103 —28807	Socket Speaker
	W —40911	Tube Shield
	MG17—44099	Indic. Tube Bracket (Clamp Assy.)
	W —44137	Indic. Tube Mtg. Brkt.
	W —23880A	Thumb Screw
50	—571BP18"M"	Speaker Spec. No. 1-D-1128
	—44677	V. C. & Cone Assy.
	—44276	Field Coil
	—44678	Output Transformer
	—43678	Cone Mtg. Ring (Card board)
	W —43552	Spk. Plug Clamp
51	—44049A	Band Selector Switch
52Z, 52Y	—44024B	Tone Control (100,000 Ohm) / Line Switch
53	—44674	Volume Control (1 Meg.)
54	G27 —26719	Ant. & Gnd. Term. Assy.
55	—44511	Power Trans. 110 V. 60 Cy.
	—44731	Power Trans. 110 V. 50 Cy.
	—44732	Power Trans. 220 V. 50 Cy.
	—44729	Power Trans. 110 V. 25 Cy.
	—44730	Power Trans. 220 V. 25 Cy.
56	— 4921C	Resistor 10,000 Ohm 1 W. Carb
57	W —30805	Condenser .01 Mf. 400 V.
58	W —34712	Condenser .25 Mf. 160 V.
59	W —28621	Condenser .02 Mf. 200 V.
60	—35600	Resistor 100.000 Ohm ¼ W. Ins.
61	G164 —32004	Wave Trap
62	—44796	Switch (Local-Distance)
	G2 —44470	Toggle L.-D. Sw. (Female)
	G3 —44470	Toggle L.-D. Sw. (Male)
63	G1 —44416	Dynatrol Motor
	B —44317	Pulley
	W — 4012	Set Screw (Pulley)
	W —44382	Friction Spring (Shaft)
	W —43622	Felt Washer (Shaft)
	—44493	Shaft (Motor)
	W —44319	Belt Anchor (Hook)
	W —44701	Grommet (Anchor Hook)
	W —44976A	Guide Brkt. (Belt)
	W —24074	Stop Nut (Anchor Ret.)
	— 7578	Tubing 1¾" (Anchor Hook)
	W —44384A	Shock Pad
	W —45218	Vibrator Drive Unit (Right or Left)
64	G1 —44476	Motor Switch Assembly.
65	G37 —26719	Phono. Term. Board
66	—21875	Resistor 100.000 Ohm 1/3 W. Carb.
67	—34018	Resistor 200.000 Ohm 1/3 W. Carb.
	B —44207B	Escutcheon (Dial)
	W —44208C	Escutcheon (Tun. Indic. Tube)
	W —43553	Rubber Mtg. Foot
	—45067	Call Letter Sheet
	—44386B	Knob (2) (Vol. Cont. & Station Select.)
	—44387B	Knob (Motor Control)
	W —44381B	Knob (Line Sw. & Tone Con.)
	W —44432	Knob (Band Select. Sw.)
	W —45062	Knob (Local Distance Sw.)
	—7 S	Cabinet
	—44510	Grille Cloth (7S Cab.)
	W —44865A	Call Letter Clip
	W —44866	Call Letter Mag. Lens
	G13 —44363	D. L. Socket Assy.

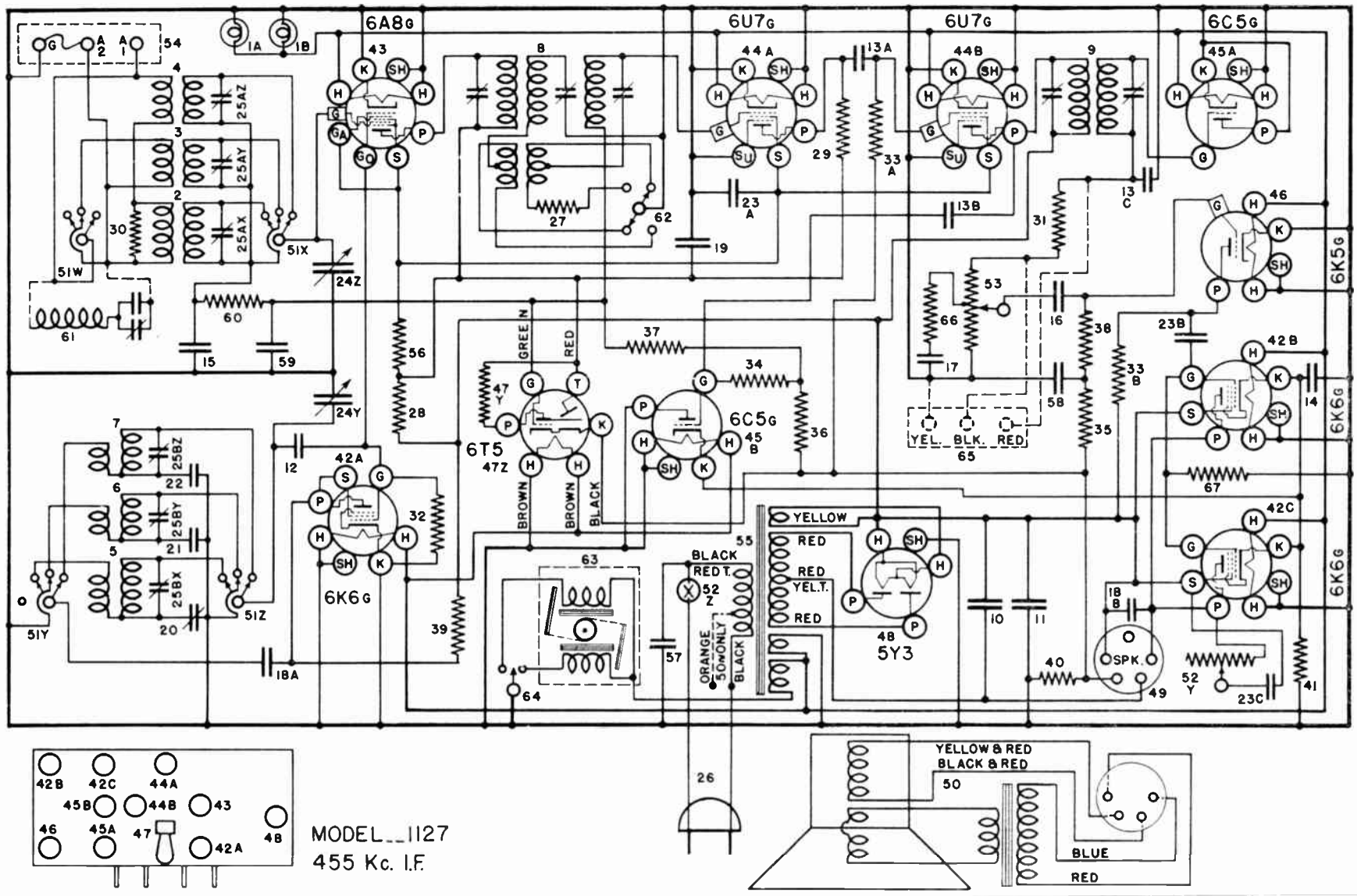


FIG. 1—WIRING DIAGRAM—MODEL 1127

signal the antenna may be attached to the receiver and the receiver tuned to the position where the interfering signal is most noticeable. Then adjust the wave trap for minimum interference.

DYNATROL MOTOR

Should either vibrator unit of the Dynatrol motor need readjustment, the following procedure should be followed:

(a) Loosen adjusting nut until the gap between the armature and "E" laminations is approximately 3/16". The belt should be just loose enough that the drive shaft can be rotated freely between the thumb and forefinger.

(b) With the motor running, tighten the adjusting nut until chatter stops. Care should be taken, however, not to tighten this adjustment too tight as an unstable condition will be reached wherein a slight change may result in a locked motor.

(c) Check the time required for the dial pointer to travel from each end of the dial to the other. The adjusting screws should be set so that approximately eight seconds are required in each direction.

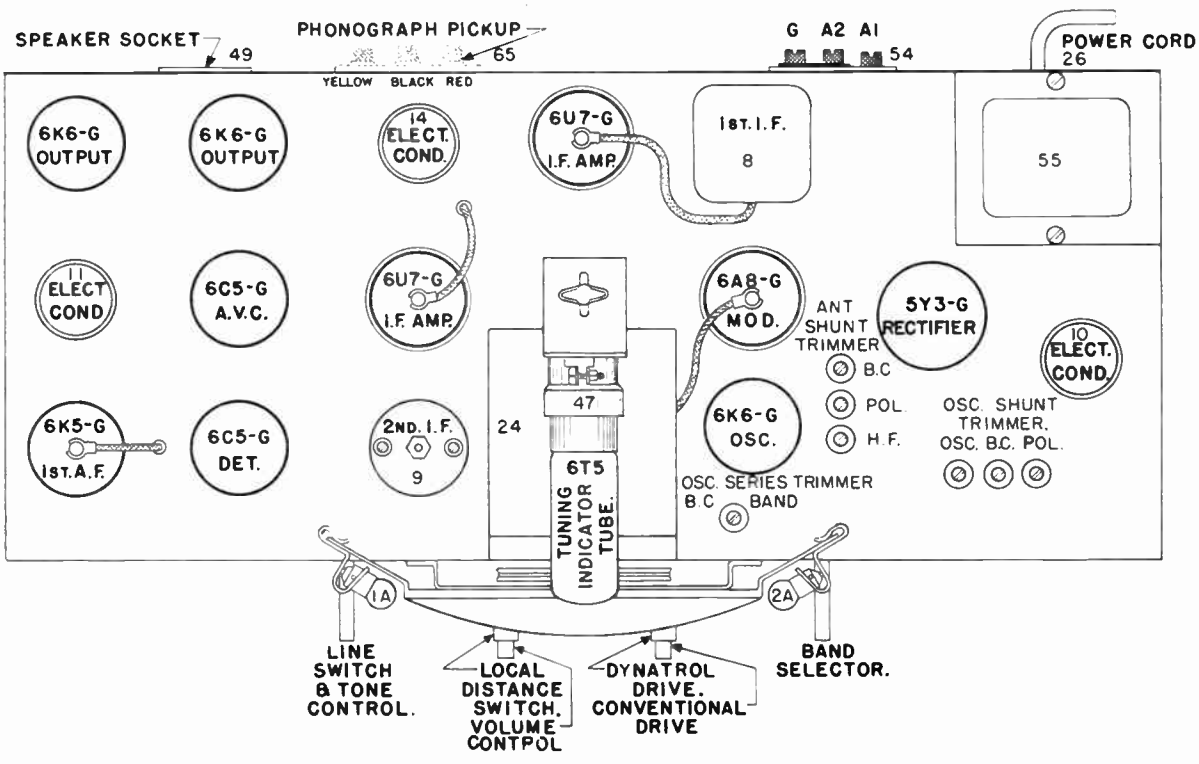


Fig. 2—Top View Model 1127

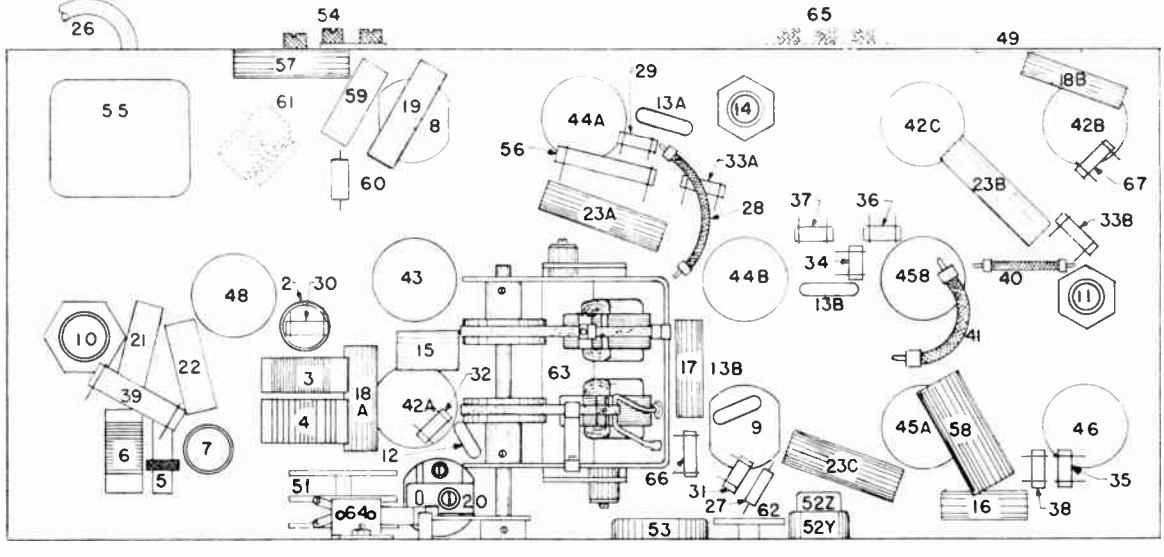


Fig. 3—Bottom View Model 1127

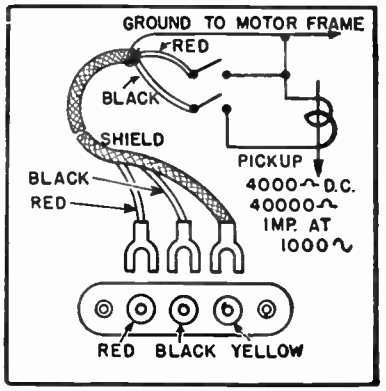


Fig 4—Phonograph Pickup

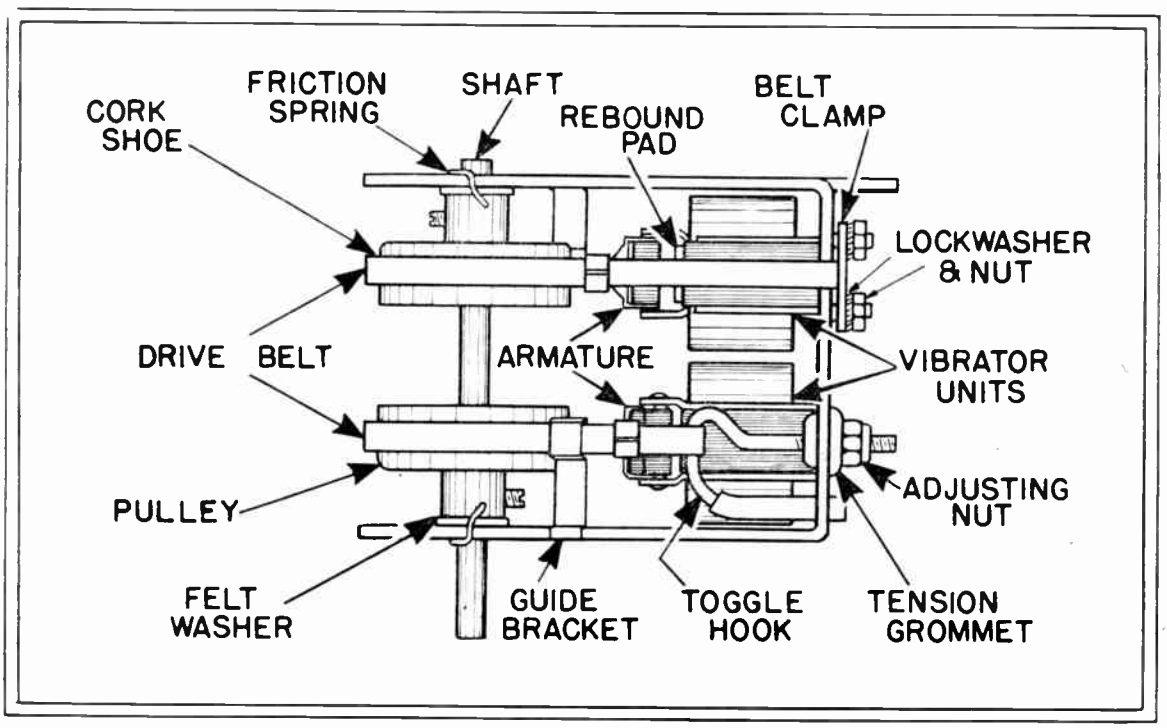


Fig. 5—Dynatrol Motor

CROSLEY SERVICE SUPPLEMENT

SEPTEMBER, 1937 **CHASSIS MODEL 1137** **NO. 178**

This model Crosley radio is an 11-tube AC receiver designed for American and Foreign broadcast reception. It incorporates such features as push-button electric tuning, automatic volume control, Local-Distance switch and parallel pentode output. The tuning range is from 540 kilocycles to 22 megacycles and is divided into three bands as follows:

540-1850 Kilocycles or 555-162 Metres (American Broadcast Band)
1.9- 6.6 Megacycles or 158-45.5 Metres (Police & Amateur Band)
6.4- 22 Megacycles or 47-13.5 Metres (High Frequency or Foreign Band)

CIRCUIT DESCRIPTION

Eleven tubes are employed in a superheterodyne circuit which consists of separate oscillator and modulator tubes, 455 kilocycle I-F amplifier—one stage of which is resistance coupled, separate AVC and detector diodes, two stages of audio amplification and power supply. The 1st I-F transformer is a triple-tuned unit, which in conjunction with the Local-Distance switch, controls the selectivity of the receiver. Inter-station noise suppression is accomplished while tuning by means of the push buttons due to the action of the 6C5-G "squelch" tube. When a push button is depressed, this tube supplies sufficient voltage to the cathodes of the output tubes to bias them beyond "cut-off." It also supplies voltage to the AVC circuit through a 250,000 ohm resistor, item 38. The speaker field is located in the negative leg of the power supply. The bias for all tubes except the three type 6C5-G and the two output tubes is developed across a 32 ohm resistor, item 46, located between the speaker field and ground. The bias for the output tubes is developed across a 220 ohm resistor, item 47.

SOCKET VOLTAGES

The tube socket voltages are measured from the tube socket contacts to the chassis with a 1000 ohm per volt, 500 volt D. C. voltmeter (except filaments) with the receiver in operating condition and no signal input. The volume control should be turned full "ON", the tone control should be turned to the "TREBLE" position (counter-clockwise), the Local-Distance switch should be turned to the "Distance" position and the condenser gang should be rotated to the minimum capacity position. The filament voltages should be measured with an accurate low range A. C. voltmeter (approximately 0-10 volts). Readings may vary plus or minus 10% of values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	G	K	Go	Ga
6K6G	Oscillator	6.3	147	147	-26	0	—	—
6A8G	Modulator	6.3	224	110	—	0	-36	110
6U7G	1st I-F Amplifier	6.3	174	110	—	0	—	—
6U7G	2nd I-F Amplifier	6.3	270	110	—	0	—	—
6C5G	Diode Detector	6.3	0	—	—	0	—	—
6C5G	AVC Diode	6.3	0	—	—	0	—	—
6K5G	1st A-F Amplifier	6.3	190	—	—	0	—	—
6K6G	Output	6.3	263	250	0	22	—	—
6K6G	Output	6.3	263	270	0	22	—	—
6C5G	"Squelch"	6.3	0	—	—	0	—	—
5Y3G	Rectifier	5.0	—	—	—	270	—	—

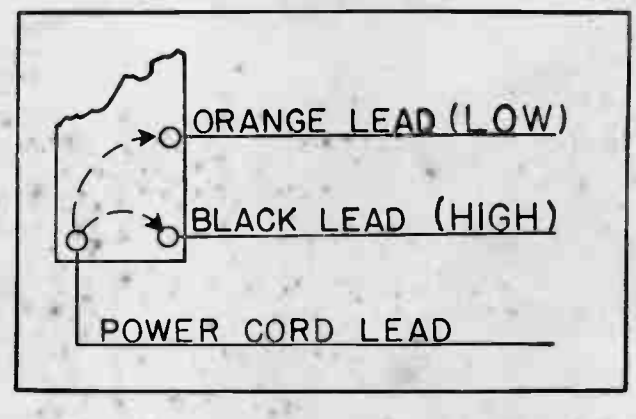
Power consumption approximately 90 watts at 117.5 volts.
Power output approximately 10 watts.
Voltage drop across speaker field 60 volts.

SPECIAL POWER TRANSFORMER ADJUSTMENT

In localities where the voltage variation on 50 or 60 cycle power supply lines is greater than customary commercial limits, special 50-60 cycle power transformers are available. These transformers have a "high" and "low" voltage tap on the under side of the chassis. The "high" voltage lead (BLACK) and the "low" voltage lead (ORANGE) are connected to a terminal strip near the transformer.

The voltage range of the "low" tap of the 95-130 volt transformer is from 95 to 112½ volts and of the "high" tap is from 112½ to 130 volts. The range of the "low" tap of the 190-260 volt transformer is from 190 to 225 volts and of the "high" tap is from 225 to 260 volts.

The accompanying illustration shows the connections for changing from high to low or low to high line voltage. Note the "jumper" wire which is attached to the terminal at which one side of the power cord is attached.



The other end of this jumper wire should be connected to the ORANGE or BLACK lead of the transformer primary, according to the line voltage the receiver is to be used on.

NOTE: Any change made in the power supply circuit of the receiver should be plainly stamped or otherwise permanently recorded on the rear of the chassis.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits may be properly aligned with the use of a modulated signal generator and an output meter.

Connecting Output Meter

Connect the output meter to the plates of the two 6K6G output tubes. Be certain that the meter is protected from D. C. by a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning The I-F Amplifier To 455 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd. condenser to the top cap of the 6U7G 1st I-F Amp. tube, leaving the tube's grid clip in place. Connect the ground lead from the signal generator to the ground terminal of the receiver. KEEP THE GENERATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the tuning condenser plates are completely out of mesh. Turn the volume control knob to the right (ON) and turn the tone control knob to the left (TREBLE).

(c) Set the band selector switch on the Broadcast Band.

(d) Turn the Local-Distance Switch to the "Distance" position.

(e) Set the signal generator to 455 kilocycles.

(f) Adjust both trimmer condensers located on top of the 2nd I-F transformer for maximum output. DO NOT ADJUST THE TRIMMER CONDENSERS LOCATED ON THE 2ND I-F TRANSFORMER WITH THE SIGNAL GENERATOR LEAD CONNECTED TO THE 6A8G TUBE.

(g) Transfer the signal generator lead to the top cap of the 6A8G tube, leaving the tube's grid clip in place.

(h) Close the middle trimmer of the 1st I-F transformer. (Do not force adjustment screw).

(i) Adjust the top and then the bottom trimmers of the 1st I-F transformer for maximum output.

(j) Adjust the middle trimmer of the 1st I-F transformer for maximum output.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE OUTPUT METER READING.

Aligning The R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the "ANT" terminal of the receiver. For the Broadcast Band a 200 mmf. condenser should be connected in series with the output lead of the signal generator and for the High Frequency and Police Bands a 400 ohm carbon resistor should be used in place of the condenser.

Each band should first be SHUNT ALIGNED and then SERIES ALIGNED where provision is made for series alignment (Broadcast Band). The band selector switch should be set for the band being aligned and the signal generator should be set to the frequency indicated for each adjustment, ¶ (D) below.

(a) With the station selector adjusted so that the tuning condenser plates are completely out of mesh, adjust the "OSC" shunt trimmer until the MINIMUM CAPACITY SIGNAL (D) is heard (it is not necessary that the receiver tune through this signal).

(b) Adjust the station selector so that the SHUNT ALIGNMENT SIGNAL (D) is tuned-in with maximum output. Then adjust the "R-F" and "ANT" shunt trimmers for maximum ouput. Readjust the station selector slightly so that the generator signal is tuned-in with maximum output and check the adjustment of the "R-F" and "ANT" trimmers. DO NOT READJUST THE OSCILLATOR TRIMMER.

NOTE: When shunt aligning the Police and High Frequency Bands care must be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator ten times, or more, and try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequpency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

(c) To align the series trimmer (See Fig. 2), set the signal generator to the frequency indicated below (D) and then tune-in this signal with the station selector for maximum output. To obtain the best adjustment for the series trimmer, it will be necessary to rotate the station selector back and forth slightly while adjusting the trimmer for maximum output. Minor tolerance variations in series alignment at 2500 kilocycles in the Police Band and at 7000 kilocycles in the High Frequency Band may be compensated for by slight repositioning of the grid lead of the antenna coil in the Band affected.

(D) SIGNAL INPUT FREQUENCIES

	Min. Cap. Signal	Shunt Align.	Series Align.
American Broadcast Band	1850 Kilocycles	1700 Kilocycles	600 Kilocycles
Police & Amateur Band	6600 Kilocycles	6000 Kilocycles	
High Frequency Band	22 Megacycles	18 Megacycles	

PUSH BUTTON TUNING SYSTEM

The push button electric tuning system employed in this receiver incorporates eight push buttons, a selector switch and a dynatrol motor. The discriminator switch, item 59 — also Figs. 6 and 7, incorporates eight metallic discs, each of which operates in conjunction with a different push button to tune-in some favorite station. That is, the 1st push button on the left as you face the front of the cabinet works with No. 1 disc. and the 2nd push button works with No. 2 disc, etc.

SETTING PUSH BUTTONS

To set the electric tuning system, turn the receiver "ON" and hold No. 1 push button in the depressed position until the dial pointer stops. The key slot in No. 1 disc on the selector switch will now be in the "UP" position. Remove the key from its mounting and place it (knob up) through No. 1 hole in the disc identification bracket. If it does not drop into the slot in the disc, push it in with the fingers.

Turn the Local-Distance switch to the "Distance" position. By means of the station selector knob, tune-in

AS ACCURATELY AS POSSIBLE, the station whose call letters have been placed in No. 1 push button. Then remove the key.

The electric tuning system is now correctly set for the 1st station. Follow through with this same procedure until the proper adjustments have been made for all eight of the favorite stations. When tuning the receiver by means of the push buttons, the Local-Distance switch should be turned to the "Local" position.

Dynatrol Motor

Should either vibrator unit of the Dynatrol motor need readjustment the following procedure should be carefully followed:

(a) Loosen the adjustment nut until the belt is loose on the pulley. The gap between the armature and "E" laminations should be approximately 3/16".

(b) With the motor running, tighten the adjustment nut until chatter stops. Care should be taken, however, not to tighten this adjustment too tight as an unstable condition will be reached wherein a slight change may result in a locked motor. On the other hand, the adjustment should not be so loose that the armature actually hits the rebound pad.

(c) Check the time required for the dial pointer to travel between two points on the dial. The adjustment nuts should be set so that approximately eight or nine seconds are required for the pointer to travel from one end of the dial to the other in either direction. If it is only convenient to check the speed of the pointer over a portion of the dial, the time required will be in direct proportion to the length of the dial scale traversed. That is, approximately 6 seconds will be required to travel two-thirds of the scale, etc.

Selector Switch

Should the selector switch become inoperative in the field, it should not be dissembled for repair, but should be returned to the factory via an authorized Crosley Distributor.

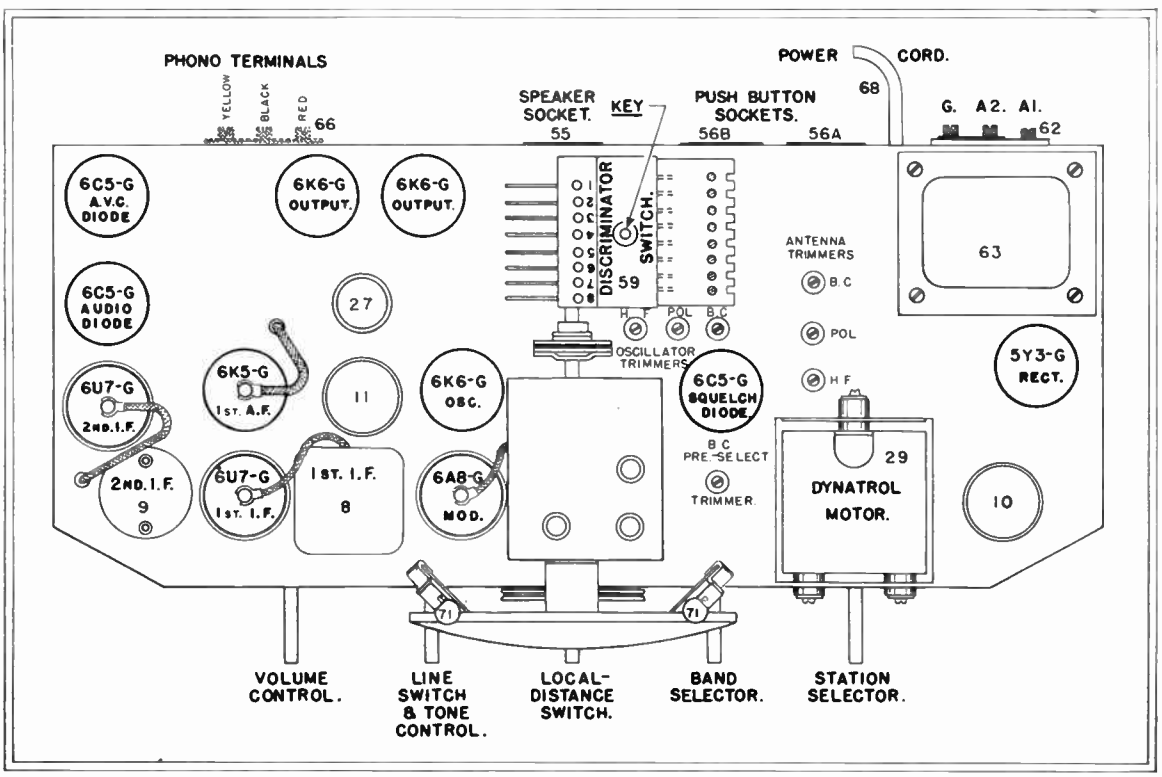


Fig. 2 Top View Model 1137

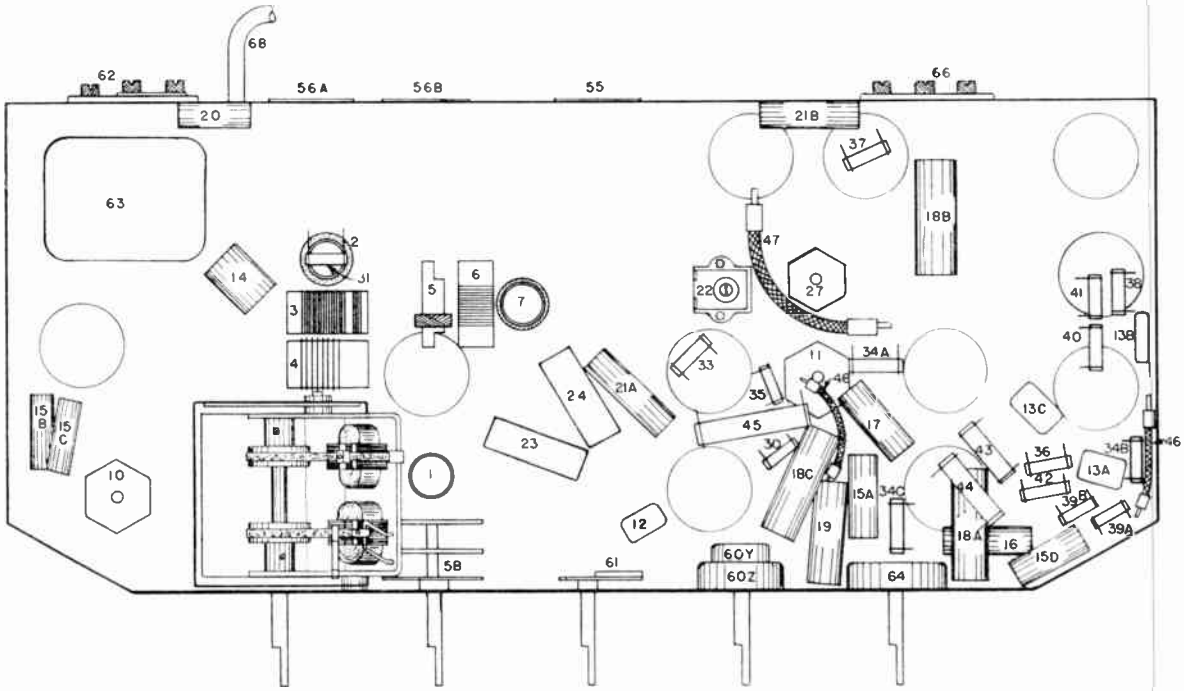


Fig. 3 Bottom View Model 1137

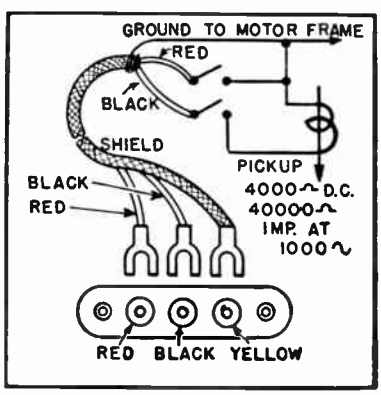


Fig. 4 Phonograph Pickup

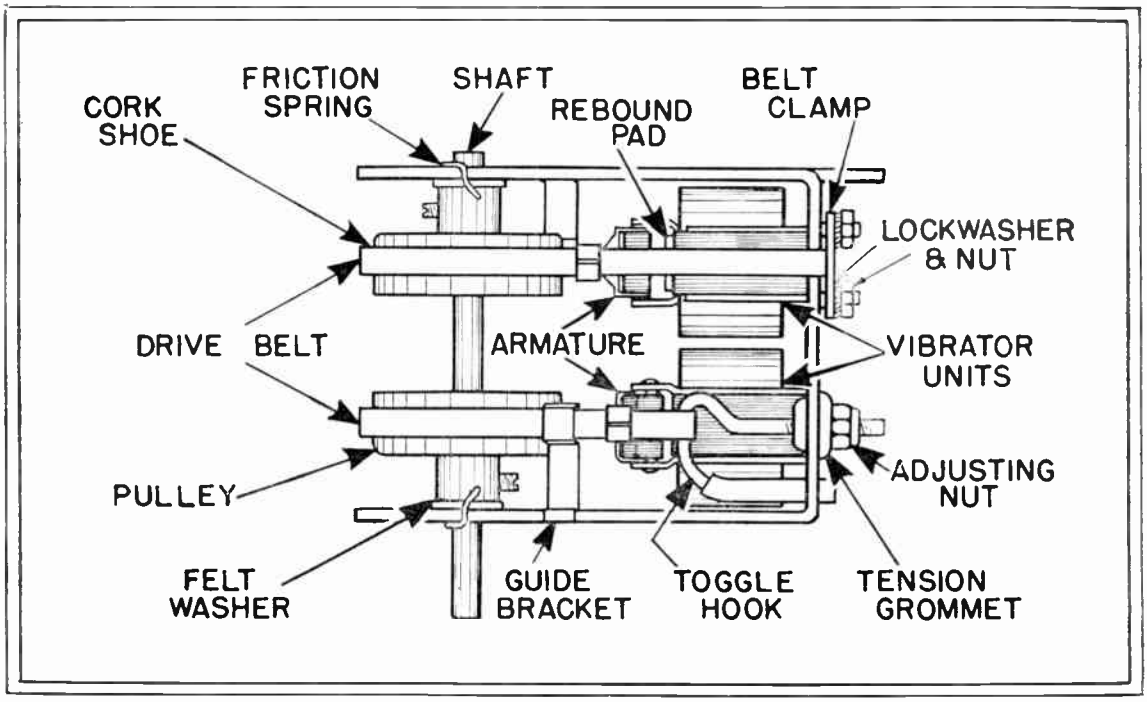


Fig. 5

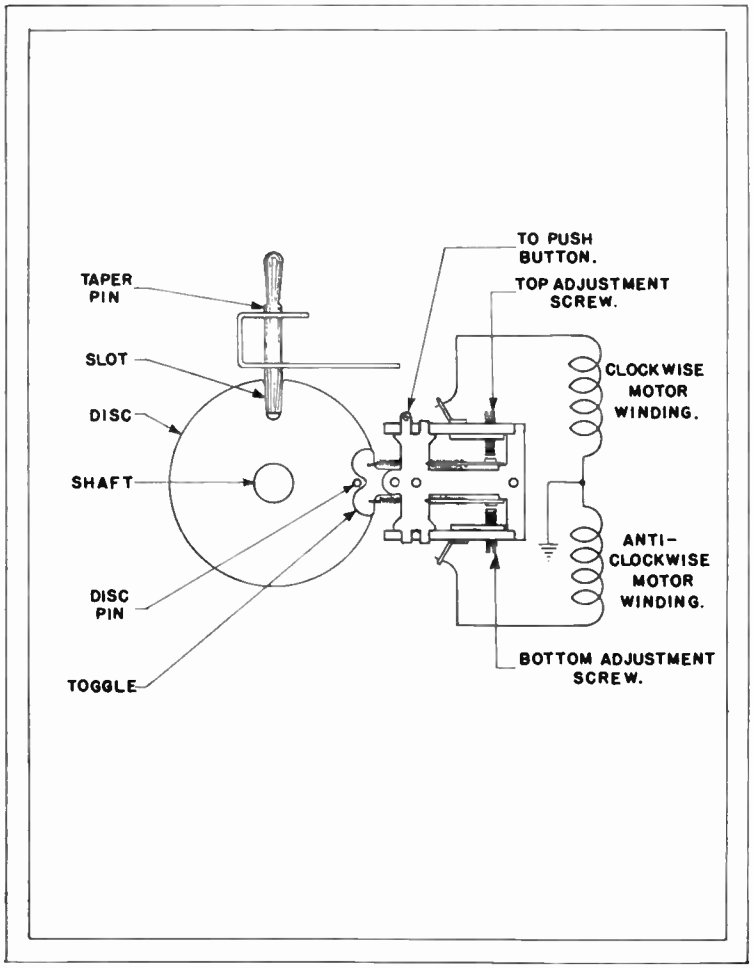


Fig. 6

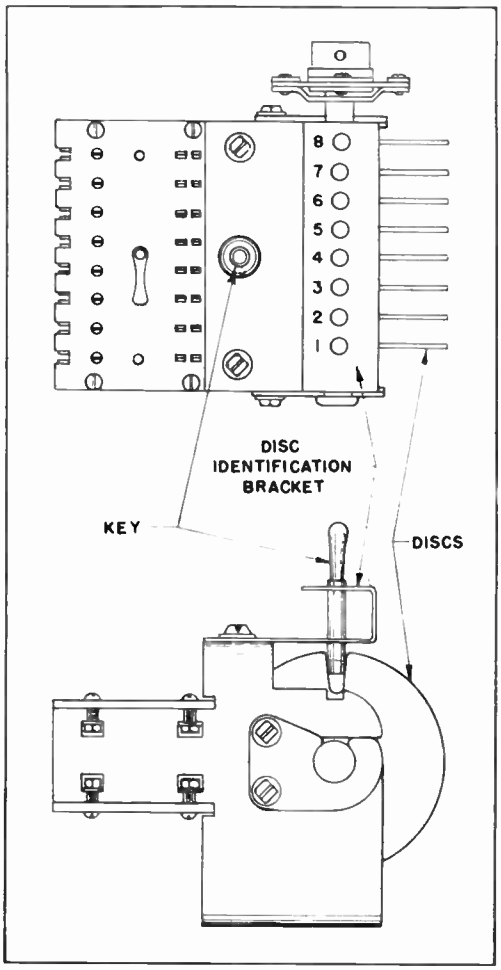


Fig. 7

PARTS LIST—MODEL 1137

Figures in first column refer to parts in Diagrams.

Item	Part No.	Description
1	G97 —32001	Pre-Selector Coil B-C.
2	G138—32000	Ant. Coil B-C.
3	G151—32000	Ant. Coil Pol.
4	G150—32000	Ant. Coil H-F.
5	G139—32002	Osc. Coil B-C.
6	G154—32002	Osc. Coil Pol.
7	G153—32002	Osc. Coil H-F.
8	G161—32004	1st I-F 455 Kc.
9	G154—32004	3rd I-F 455 Kc.
10	W —44054	Condenser 30 Mf. 350 V.
11	W —36057B	Condenser 40 Mf. 300 V.
12	G1 —44886	Condenser Bimetal Temp. Control
13A	G2 —34002	Condenser .0001 Mf. Molded
13B	G2 —34002	Condenser .0001 Mf. Molded
13C	G2 —34002	Condenser .0001 Mf. Molded
14	W —35936	Condenser .05 Mf. 200 V.
15A	W —28621	Condenser .02 Mf. 200 V.
15B	W —28621	Condenser .02 Mf. 200 V.
15C	W —28621	Condenser .02 Mf. 200 V.
15D	W —28621	Condenser .02 Mf. 200 V.
16	W —41461	Condenser .0014 Mf. 200 V.
17	W —28619	Condenser .006 Mf. 200 V.
18A	W —22688	Condenser .1 Mf. 400 V.
18B	W —22688	Condenser .1 Mf. 400 V.
18C	W —22688	Condenser .1 Mf. 400 V.
19	W —23615	Condenser .05 Mf. 400 V.
20	W —30805	Condenser .01 Mf. 400 V.
21A	W —35139	Condenser .004 Mf. 400 V.
21B	W —35139	Condenser .004 Mf. 400 V.
22	—40769	Condenser B. C. Osc. Series Trimmer
23	G23 —34000	Condenser .001560 Mf. Pol. Osc. Fixed Trimmer
24	G20 —34000	Condenser .004910 Mf. H-F. Osc. Fixed Trimmer
25	W —35951A	3 Sec. Shunt Trimmer Assy.
26	G60 —33002	3 Sec. Var. Tuning Cond.
	—44891B	Dial Face (Glass)
	W —44146A	Mask (Polished Metal)
	C —44110C	Support Brkt. (Dial Glass)
	W —44262	Ring (Glass Support)
	W —44263	Arc (Glass Support)
	W —44127	Pointer
	W —40486	Screw—Pointer Mtg.
	G5 —43564	Pulley & Hub Assy.
	—41582	Drive Cord
	W —44813	Drive Belt
	W —44907A	Idler Pulley
	W —44908	Idler Mtg. Stud
27	W —41598	Condenser 50 Mf. 25 V.
28	—44516	Condenser Pre-Select. Shunt
29	G4 —44416	Vibrator Motor Assy. (50-60 Cy.)
	W —45218	Vibrator Drive Unit (Left or Right)
	W —44317A	Pulley (Vib. Motor)
	W —43622	Felt Washer (Shaft)
	W —44382	Friction Spring (Shaft)
	W —44319	Toggle Hook (Belt)
	— 7593	Tubing 7/8" (For Hook)
	W —44701C	Grommet (Tension)
	W —24074	Nut—Adjusting
	W —44384A	Rubber Pad (Rebound)
	W —44745	Clamp Plate (Belt)
30	—42401A	Resistor 99 Ohm ¼ W. Ins.
31	—22196	Resistor 20.000 Ohm 1/3 W. Carb.
32		
33	—21237A	Resistor 60,000 Ohm 1/3 W. Carb.
34A	—21875	Resistor 100,000 Ohm 1/3 W Carb.
34B	—21875	Resistor 100,000 Ohm 1/3 W. Carb.
34C	—21875	Resistor 100,000 Ohm 1/3 W. Carb.
35	—35600	Resistor 100,000 Ohm ¼ W. Ins.
36	—36320	Resistor 120,000 Ohm ¼ W. Ins.
37	—34018	Resistor 200,000 Ohm 1/3 W. Carb.
38	—34020	Resistor 250,000 Ohm 1/3 W. Carb.
39A	—23785	Resistor 500,000 Ohm 1/3 W. Carb.
39B	—23785	Resistor 500,000 Ohm 1/3 W. Carb.
40	—37590	Resistor 750,000 Ohm 1/3 W. Carb.
41	—21454	Resistor 1 Megohm 1/3 W. Carb.
42	—26577	Resistor 3 Megohm 1/3 W. Carb.
43	—44165	Resistor 5,000 Ohm ½ W. Carb.
44	— 4921C	Resistor 10,000 Ohm 1 W. Carb.
45	—44008	Resistor 10,000 Ohm 2 W. Carb.
46	W —37631	Resistor 32 Ohm ½ W. Flex.
47	W —22873	Resistor 220 Ohm 2½ W. Flex.
48	W —23013	Resistor 2,000 Ohn 1¼ W. Flex.
49	G172—36400	Socket Type 6K6
50	G156—36400	Socket Type 6A8
51	G171—36400	Socket Type 6U7
52	G152—36400	Socket Type 6C5
53	G9 —43900	Socket Type 6K5
54	G173—36400	Socket Type 5Y3
55	G103—28807	Socket Speaker
56	G16 —28807	Socket Push Button Cable
	W —41007	Cable Clamp, P. B. Cable
57	—671BP18"M"	Speaker Spec. No. 1-D-1180
	—45184	V. C. & Cone Assem.
	—45185	Field Coil
	—44678	Output Transformer
	—43680	Cone Mtg. Ring
58	—44049	Band Selector Switch
59	G1 —44628	Switch Discriminator Assy. Complete
	G2 —44628	Flex. Coupling
60	—44024B	Tone Control (300,000 Ohm) & Line Switch
61	—44665A	Switch Local-Distance
62	G27 —26719	Ant. & Gnd. Terminal Assy.
63	—44910	Power Trans 110 V. 60 Cy.
	—44915	Power Trans. 110 V. 50 Cy.
	—44913	Power Trans. 110 V. 25 Cy.
	—44916	Power Trans. 220 V. 50 Cy.
	—44914	Power Trans. 220 V. 25 Cy.
64	—44702	Volume Cont. 1 Meg. Tapped
65A	W —44877A	Push Button—Cable & Plug Assy.
65B	W —44877A	Push Button—Cable & Plug Assy.
66	G37 —26719	Phono. Terminal Assy.
67		
68	B —33906A	Line Cord & Plug
69		
70		
71	W —43567	Dial Light Bulb 6-8 V.
	G12 —44363	Dial L. Socket Assy.
	— 7P	Cabinet
	W —43552	Clamp—Spk. Plug
	W —43553	Rubber Mtg. Foot
	W —44380B	Knob (2)
	W —44426A	Knob (3
	C —44883B	Escutcheon (Dial)
	G1 —45228	Push Button & Cable Assy.
	W —44871A	Push Button (Bakelite)
	B —44876A	Switch (Push Button) Only
	W —44875	Celluloid Cover (Button)
	—44902	Call Letter Sheet
	B —44873B	Escutcheon, Push Button
	W —40911	Tube Shield

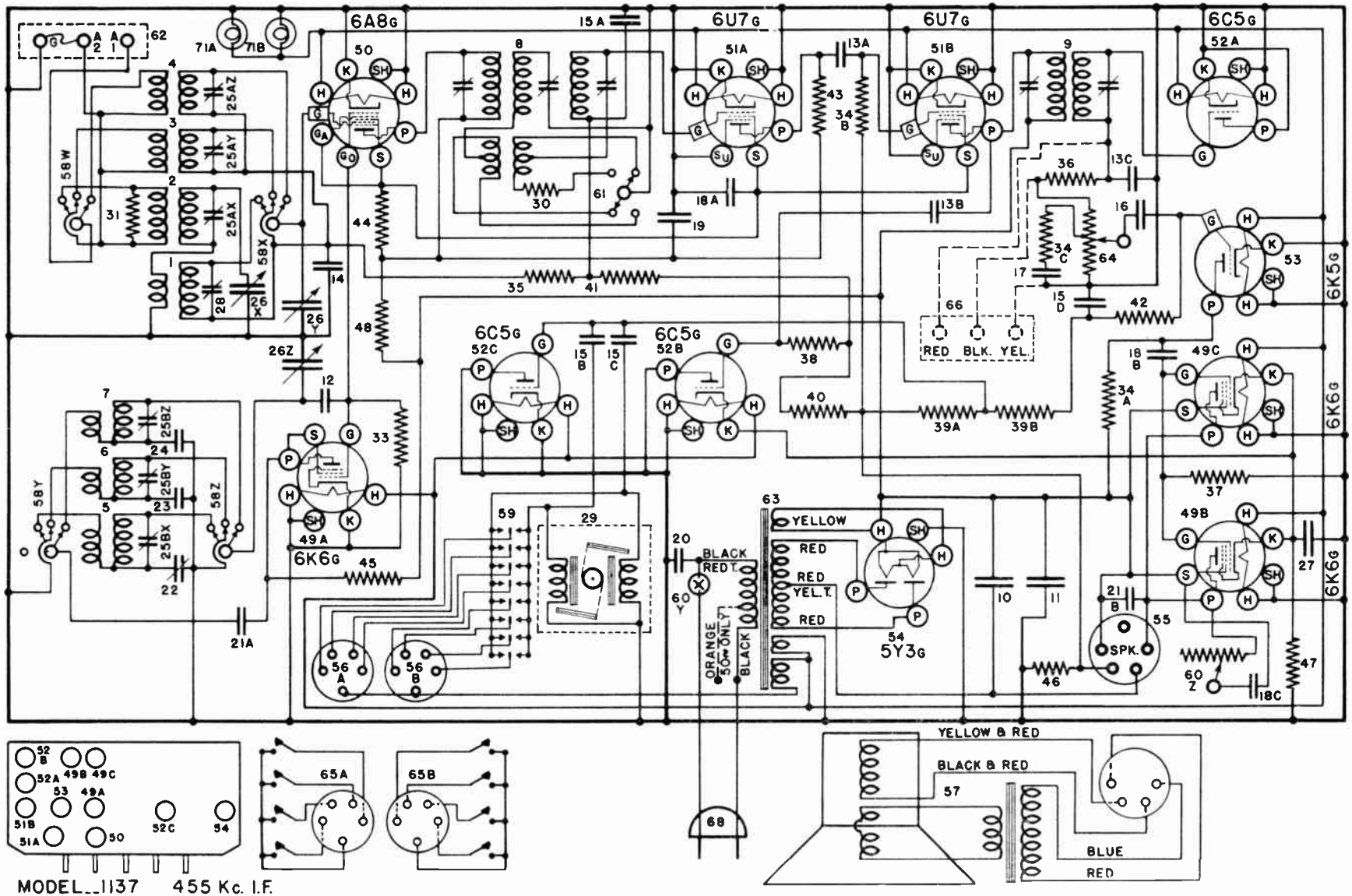


FIG. 1—WIRING DIAGRAM—MODEL 1137

CROSLEY SERVICE SUPPLEMENT

SEPTEMBER, 1937 CHASSIS MODEL 617 NO. 179

SPECIFICATIONS

This model Crosley radio is a 6-tube AC receiver designed for American and Foreign broadcast reception. Electric tuning is accomplished in this model by means of the Dynatrol motor which is a vibrating type. Other features include automatic volume control, Local-Distance switch and push pull pentode output. The tuning range is divided into two bands as follows:

535-1725 Kilocycles or 550-173 Metres (American Broadcast Band)
5.8-18.3 Megacycles or 52-16.3 Metres (High Frequency or Foreign Band)

CIRCUIT DESCRIPTION

Six octal base glass tubes are employed in a superheterodyne circuit which consists of a combination oscillator-modulator tube, 455 kilocycle I-F amplifier, push pull pentode output and power supply. The 6Q7G tube serves as the detector and 1st A-F amplifier and supplies AVC voltage to the grids of the 6A8G and 6U7G tubes. The speaker field is located in the negative leg of the power supply. Phase inversion is obtained in the output circuit by the voltage developed across a 3000 ohm resistor, item 32.

SOCKET VOLTAGES

The tube socket voltages are measured from the tube socket contacts to the chassis with a 1000 ohm per volt, 500-volt D. C. voltmeter (except filaments) with receiver in operating condition and no signal input. The filament voltages should be measured with an accurate low range A. C. voltmeter (approximately 0-10 volts). Readings may vary plus or minus 10% of values given.

TUBE SOCKET VOLTAGE READINGS

Tube	Function	H	P	S	K	Go	Ga
6A8G	Oscillator-Modulator	6.3	220	100	3.	–15	156
6U7G	I-F Amplifier	6.3	206	100	2.5	—	—
6Q7G	Det, AVC & AF Amp.	6.3	68	—	1.5	—	—
6K6G	(2) Output	6.3	216	214	18.	—	—
5Y3G	Rectifier	5.0	—	—	280	—	—

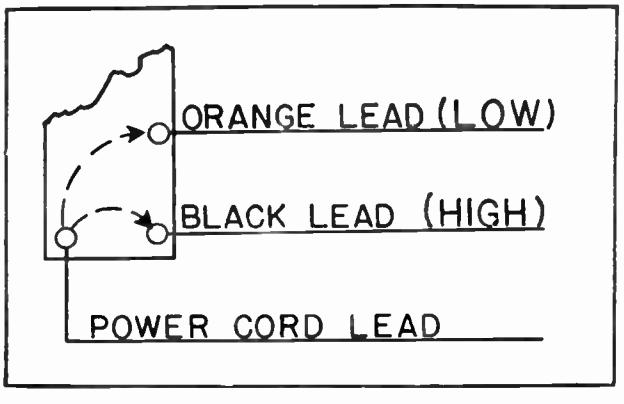
Power output approximately 4.5 watts.
Power consumption approximately 55 watts at 117.5 volts.
Voltage drop across speaker field 60 volts.

SPECIAL POWER TRANSFORMER ADJUSTMENT

In localities where the voltage variation on 50 or 60 cycle power supply lines is greater than customary commercial limits, special 50-60 cycle power transformers are available. These transformers have a "high" and "low" voltage tap on the under side of the chassis. The "high" voltage lead (BLACK) and the "low" voltage lead (ORANGE) are connected to a terminal strip near the transformer.

The voltage range of the "low" tap of the 95-130 volt transformer is from 95 to 112½ volts and of the "high" tap is from 112½ to 130 volts. The range of the "low" tap of the 190-260 volt transformer is from 190 to 225 volts and of the "high" tap is from 225 to 260 volts.

The accompanying illustration shows the connections for changing from high to low or low to high line voltage. Note the "jumper" wire which is attached to the terminal at which one side of the power cord is attached. The other end of this jumper wire should be connected to the ORANGE or BLACK lead of the transformer primary, according to the line voltage the receiver is to be used on.



NOTE: Any change made in the power supply circuit of the receiver should be plainly stamped or otherwise permanently recorded on the rear of the chassis.

ALIGNMENT PROCEDURE

All the circuits in this receiver are very accurately adjusted at the factory and normally should need no further adjustment. However, if it is definitely known that an adjustment is necessary the circuits may be properly aligned with the use of a modulated signal generator and an output meter.

CONNECTING OUTPUT METER

Connect the output meter to the plates of the two 6K6G output tubes. Be certain that the meter is protected from D. C. by connecting a condenser (.1 mfd. or larger—not electrolytic) in series with one of the leads.

Tuning The I-F Amplifier To 455 Kilocycles.

(a) Connect the output of the signal generator through a .02 mfd. condenser to the top cap of the 6U7G tube, leaving the tube's grid lead in place. Connect the ground lead from the signal generator to the ground terminal of the receiver. KEEP THE GENER-

ATOR LEADS AS FAR AS POSSIBLE FROM THE GRID LEADS OF THE OTHER SCREEN GRID TUBES.

(b) Set the station selector so that the tuning condenser plates are completely out of mesh. Turn the volume control knob to the right (ON) and turn the tone control knob to the left (TREBLE).

(c) Turn the band selector switch to the Broadcast Band.

(d) Turn the Local-Distance switch to the "Distance" position.

(e) Set the signal generator to 455 kilocycles.

(f) Adjust both trimmer condensers located on top of the 2nd I-F transformer for maximum output. DO NOT ADJUST THE TRIMMER CONDENSERS LOCATED ON THE 2ND I-F TRANSFORMER WITH THE SIGNAL GENERATOR LEAD CONNECTED TO THE 6A8G TUBE.

(g) Transfer the signal generator lead to the top cap of the 6A8G tube, leaving the tube's grid clip in place.

(h) Close the middle trimmer of the 1st I-F transformer. Do not force adjustment screw.

(i) Adjust the top and then the bottom trimmers of the 1st I-F transformer for maximum output.

(j) Adjust the middle trimmer of the 1st I-F transformer for maximum output.

ALWAYS USE THE LOWEST SIGNAL GENERATOR OUTPUT THAT WILL GIVE A REASONABLE READING ON THE OUTPUT METER.

Aligning The R-F Amplifier.

When aligning the R-F amplifier the output lead from the signal generator is connected to the antenna (A) terminal of the receiver. For the Broadcast Band a 200 mmf. condenser should be connected in series with the output lead of the signal generator and for the High Frequency Band a 250 ohm carbon resistor should be used in place of the condenser.

(a) With the station selector adjusted so that the tuning condenser plates are completely out of mesh and the band selector switch set for the band being aligned. adjust the "OSC" shunt trimmer so that the MINIMUM CAPACITY SIGNAL ¶ (C) is heard (it is not necessary that the receiver tune through this signal).

(b) Adjust the station selector so that the SHUNT ALIGNMENT signal is tuned-in with maximum output. Then adjust the "ANT" shunt trimmer for maximum output. Readjust the station selector slightly so that the generator signal is tuned-in with maximum output and check the adjustment of the "ANT" trimmer. DO NOT READJUST THE OSCILLATOR TRIMMER.

NOTE: When shunt aligning the High Frequency Band care should be exercised so that the circuits will be aligned on the correct frequency rather than on the image frequency which is approximately 910 kilocycles less than the fundamental. To check on this, increase the output of the signal generator 10 times, or more. and try to tune-in the signal both at the generator frequency as indicated on the station selector dial and at approximately 910 kilocycles less than the correct frequency. If the circuits have been properly aligned the signal can be tuned-in at both positions but much stronger at the correct frequency.

(C) SIGNAL INPUT FREQUENCIES

	Minimum Capacity Signal	Shunt Alignment Signal
American Broadcast Band	1,725 Kilocycles	1,400 Kilocycles
High Frequency Band	18,500 Kilocycles	18,000 Kilocycles

WAVE TRAP

Some chassis of this model are equipped with a wave trap for the purpose of eliminating interference from code stations which operate on a frequency of approximately 455 kilocycles. This assembly is located on the underneath side of the chassis and consists of a coil, a fixed condenser and a trimmer condenser as illustrated by dotted lines in the Wiring Diagram (item 53).

The wave trap should not be adjusted until all other adjustments have been made. To make the adjustment. feed a 455 kilocycle signal from the signal generator through a 200 mmf. condenser into the antenna terminal of the receiver. With the band selector switch turned to the Broadcast Band position. the gang condenser open and the volume control full on. adjust the trimmer condenser on the wave trap for MINIMUM output.

Should the interfering station be operating on a frequency of slightly more or less than 455 kilocycles. the exact frequency should be determined with the aid of the signal generator. Then, instead of feeding a 455 kilocycle signal into the receiver the exact frequency of the interfering signal should be used. If it is not possible to determine the exact frequency of the interfering signal the antenna may be attached to the receiver and the receiver tuned to the position where the interfering signal is most noticeable. Then adjust the wave trap for minimum interference.

DYNATROL MOTOR

Should either vibrator unit of the Dynatrol motor need readjustment, the following procedure should be followed:

(a) Loosen the adjusting nut until the drive shaft can be rotated freely between the thumb and forefinger. The gap between the armature and "E" laminations should be approximately 3/16".

(b) With the motor running, tighten the adjusting nut until chatter stops. Care should be taken, however, not to tighten this adjustment too tight as an unstable condition will be reached wherein a slight change may result in a locked motor.

(c) Check the time required for the dial pointer to travel from each end of the dial to the other. The adjusting screws should be set so that approximately eight seconds are required in each direction.

PARTS LIST—MODEL 617

Figures in first column refer to parts in Diagrams.

Item	Part No.	Description
1	W —43567	Dial Light Bulb
	G6 —44363	D. L. Socket Assy.
2	G148 —32000	Ant. Coil B-C.
3	G142 —32000	Ant. Coil H-F.
4	G145 —32002	Osc. Coil B-C.
5	G144 —32002	Osc. Coil H-F.
6	G161 —32004	1st I-F Trans. 455 Kc.
7	G166 —32004	2nd I-F Trans. 455 Kc.
8	W —44438A	Condenser 40 Mf. 300 V.
9	W —44012	Condenser 16 Mf. 250 V.
10	G16 —34000	Condenser 3800 Mmf. H-F. Osc. Series
11	G14 —34002	Condenser 400 Mmf. B-C. Osc. Series
12A	G2 —34002	Condenser .0001 Mf. Molded
12B	G2 —34002	Condenser .0001 Mf. Molded
13A	G13 —34002	Condenser .000035 Mf. Molded
13B	G13 —34002	Condenser .000035 Mf. Molded
14A	W —23142	Condenser .02 Mf. 400 V.
14B	W —23142	Condenser .02 Mf. 400 V.
15A	W —28621	Condenser .02 Mf. 200 V.
15B	W —28621	Condenser .02 Mf. 200 V.
15C	W —28621	Condenser .02 Mf. 200 V.
16A	W —36541	Condenser .02 Mf. 160 V.
16B	W —36541	Condenser .02 Mf. 160 V.
16C	W —36541	Condenser .02 Mf. 160 V.
16D	W —36541	Condenser .02 Mf. 160 V.
17	W —30805	Condenser .01 Mf. 400 V.
18	W —30323	Condenser .01 Mf. 200 V.
19	W —23615	Condenser .05 Mf. 400 V.
20	W —34712	Condenser .25 Mf. 160 V.
21	G42 —33001	2 Section Var. Tuning Cond.
	—44790	Dial Face (Glass)
	W —44085B	Dial Mask
	W —44299	Dial Hand (Pointer)
	W —40486	Pointer Mtg. Screw
	C —44687A	Support—Dial Glass
	W —44084A	Ring—Glass Support
	—41582	Drive Cord
	W —43561	Tension Spring
	G1 —43564	Pulley & Hub Assy.
	MG19—44575	Shaft & Coupling Assy.
	W —44479A	Bracket—Drive Shaft
	W —44480A	Sleeve. Drive Shaft
22	B —44004	Line Cord & Plug
23A	—23785	Resistor 500,000 Ohm 1/3 W. Carb.
23B	—23785	Resistor 500,000 Ohm 1/3 W. Carb.
24A	—33344C	Resistor 400,000 Ohm 1/3 W. Carb.
24B	—33344C	Resistor 400,000 Ohm 1/3 W. Carb.
24C	—33344C	Resistor 400,000 Ohm 1/3 W. Carb.
25	—24990	Resistor 25,000 Ohm 1/3 W. Carb.
26A	—24814	Resistor 7,000 Ohm 1/3 W. Carb.
26B	—24814	Resistor 7,000 Ohm 1/3 W. Carb.
27	—21876	Resistor 10,000 Ohm 1/3 W. Carb.
28A	—26577	Resistor 3 Megohm 1/3 W. Carb.
28B	—26577	Resistor 3 Megohm 1/3 W. Carb.
29A	—33474	Resistor 120,000 Ohm 1/3 W. Carb.
29B	—33474	Resistor 120,000 Ohm 1/3 W. Carb.
30	—42401B	Resistor 99 Ohm ¼ W. Ins.
31	—21237A	Resistor 60,000 Ohm 1/3 W. Carb.
32	—44009	Resistor 3,000 Ohm ¼ W. Ins.
33A	W —25937	Resistor 275 Ohm ½ W. Flex.
33B	W —25937	Resistor 275 Ohm ½ W. Flex.
34	W —23013	Resistor 2,000 Ohm 1¼ W. Flex.
35	W —21965	Resistor 375 Ohm 1 W. Flex.
36	G103 —28807	Socket Speaker
37	G156 —36400	Socket Type 6A8
38	G171 —36400	Socket Type 6U7
39	G160 —36400	Socket Type 6Q7
40A	G172 —36400	Socket Type 6K6
40B	G172 —36400	Socket Type 6K6
	W —40911	Tube Shield
41	—465BP15"M"	Speaker M'f'g. Spec. 1-D-1197
	—45186	V. C. & Cone Assy.
	—45187	Field Coil (750 Ohm)
	—45188	Output Transformer
	—44681	Spk. Plug
42	—44955	Band Selector Switch
43	G2 —44476	Dynatrol Switch
	G5 —44470	Toggle Arm (Dynatrol Sw.)
44	—44796	Local-Distance Switch
	G4 —44470	Toggle Arm & Clamp Assem.
45	—44024B	Tone Control & Line Switch
46	—44467	Volume Control (1 Meg.)
47	—44695	Power Trans. 110 V. 60 Cy.
	—44697	Power Trans. 110 V. 50 Cy.
	—44696	Power Trans. 110 V. 25 Cy.
	—44698	Power Trans. 220 V. 50 Cy.
	—44694	Power Trans. 220 V. 25 Cy.
48	W —41247A	4 Sect. Shunt Trimmer Assy.
49	G27 —26719	Ant.-Gnd. Terminal Assy.
50	G3 —34002	Condenser .0005 Mf. Molded
51	G173 —36400	Socket Type 5Y3
52	G39 —26719	Phono. Terminal Assy.
53	G170 —32004	Wave Trap Assy.
54	G3 —44416	Dynatrol Motor
	W —45218	Vibrator Drive Unit (Left or Right)
	W —44317A	Pulley (Dyn. Motor)
	W —43622	Felt Washer
	W —44382	Friction Spring (Shaft)
	W —44319	Toggle Hook (Belt)
	— 7593	Tubing ⅞" (For Hook)
	W —44701C	Grommet (Tension)
	W —24074	Adjusting Nut
	W —44384A	Rubber Pad (Rebound)
	W —44745	Clamp Plate (Belt)
	W —43552	Clamp Spk. Plug
	— 7N	Cabinet
	W —44685A	Call Letter Clip
	W —44866	Call Letter Magn. Lens
	—45264	Call Letter List
	W —44431	Knob Local-Distance
	—44387B	Knob Dynatrol Motor
	—44386	Knob Sta. Select.-Vol. Cont.
	W —44432	Knob Band Select.—T. C. & Line Switch
	B —44869A	Escutcheon
	C —44972A	Cabinet Back
	—44819	Grille Cloth

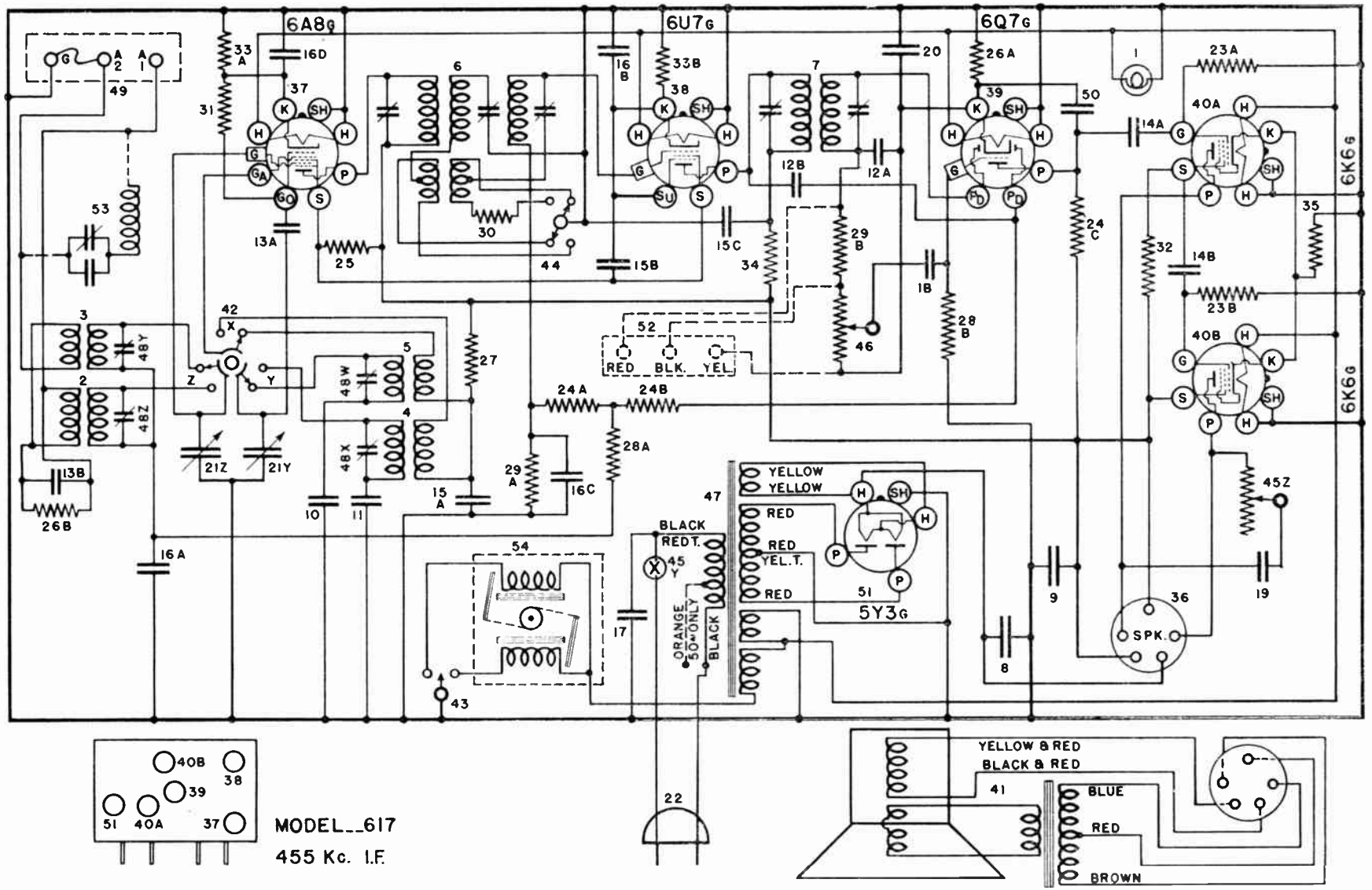


FIG. 1—WIRING DIAGRAM—MODEL 617

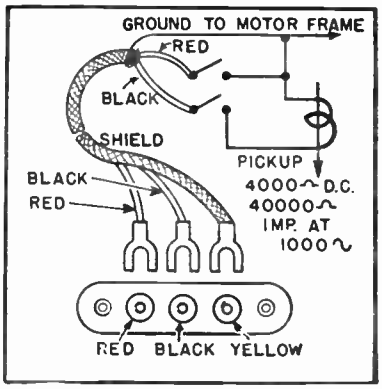


Fig. 4 **Phonograph Pickup**

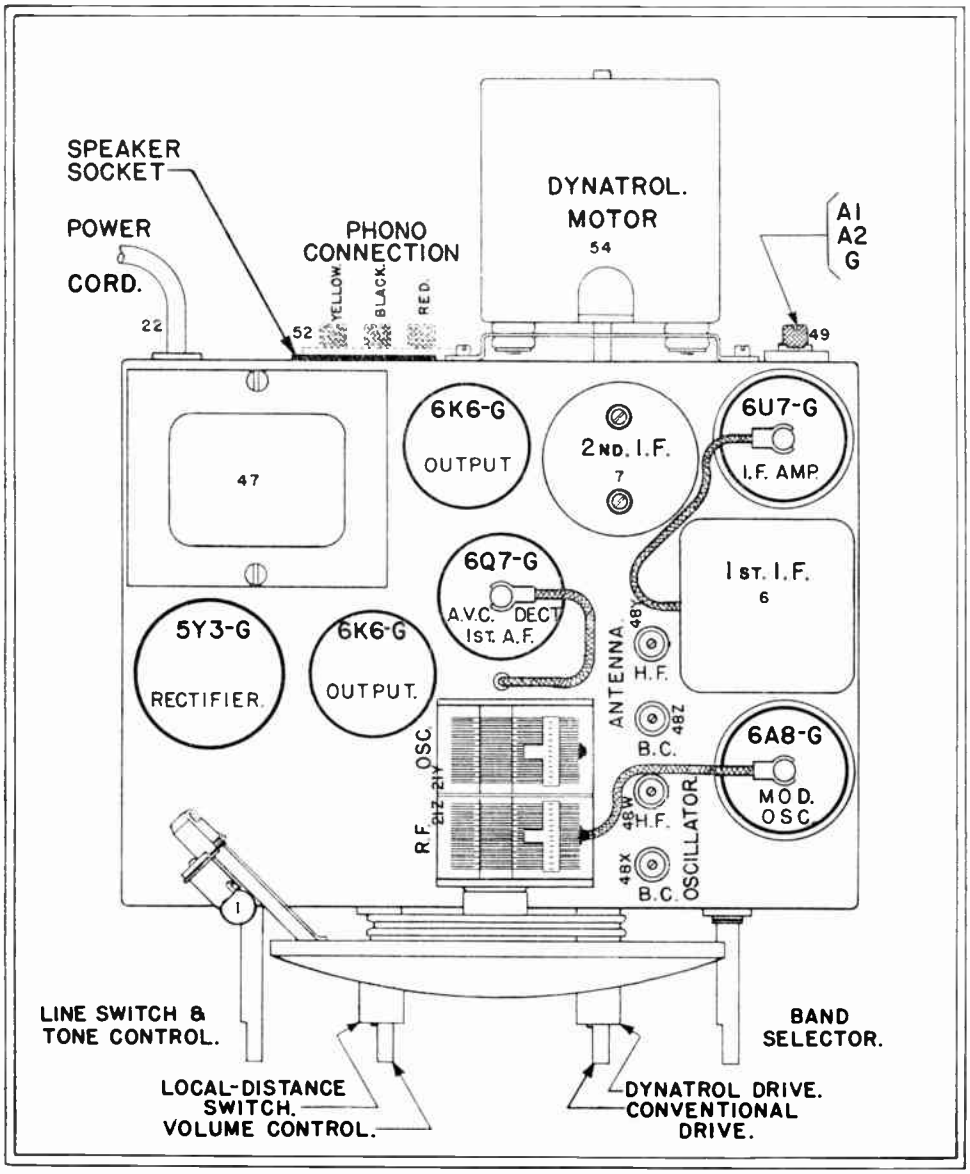


Fig. 2 **Top View Model 617**

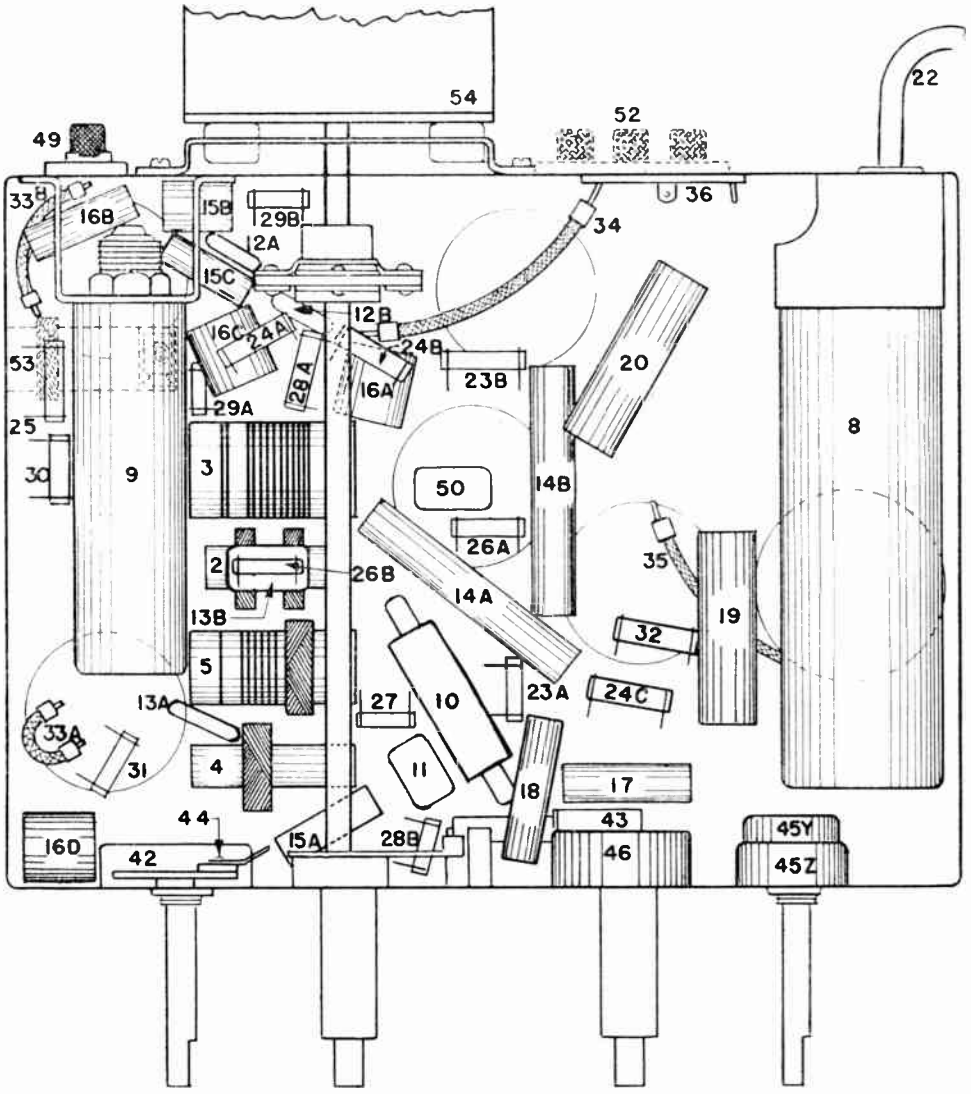


Fig. 3 Bottom View Model 617

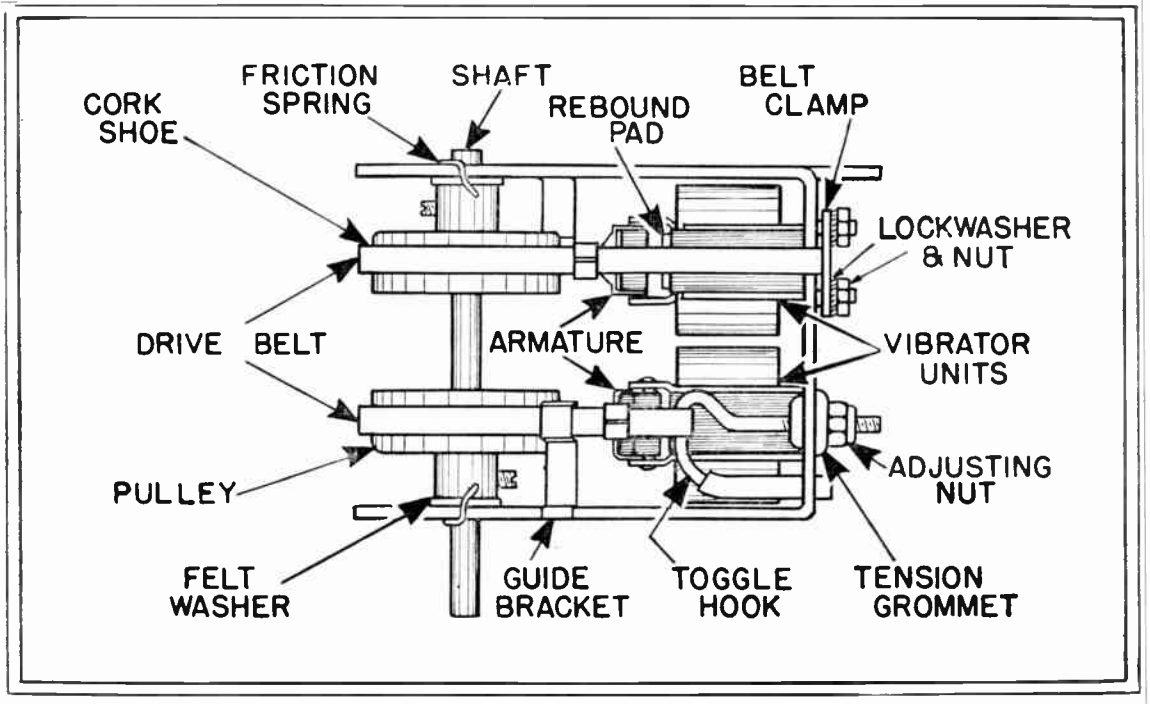


Fig. 5