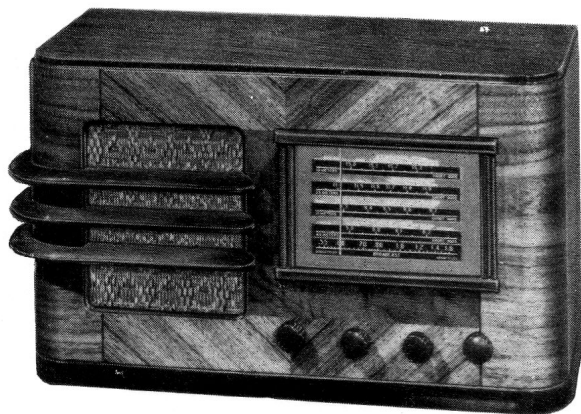


Models B-558 and B-559

Battery-Operated Superheterodyne

Radio Receiver



Specifications

Frequency Range:

- Five: (1) Broadcast .535 to 1.62 M.C.
(2) S.W. 49 M. 5.82 to 6.27 M.C.
(3) S.W. 31 M. 9.22 to 9.75 M.C.
(4) S.W. 25 M. 11.3 to 12.0 M.C.
(5) S.W. 19 M. 14.9 to 15.4 M.C.

I.F.:

470 Kilocycles

Tubes:

Type	Position
1A7G	Converter
1N5GT	1st I-F Amplifier
1N5G	2nd I-F Amplifier
1H5G	2nd Detector, AVC and 1st Audio Amplifier
1T5GT	Output

Batteries Required:

Filament 1.5 volts

Plate Supply 90 volts

(See Instruction Folder accompanying receiver
for battery recommendations)

Power Output:

125 milliwatts

Battery Consumption:

"A" 250 mils

"B" 10 mils

A.V.C.:

Applied to 1A7G and 1st 1N5GT I-F

Audio System:

First A-F section of 1H5G resistance-capacitance coupled to type 1T5GT beam power output tube.

Antenna:

Built-in loop on rear cover for Broadcast. Special antenna mounted above chassis for Short Wave. Provision is also made for use of external antenna.

Controls:

(Four) Left to Right
1st — Tone
2nd — Volume and Switch
3rd — Band
4th — Tuning

Loudspeaker:

Model B-558—6" PM

Model B-559—8" PM

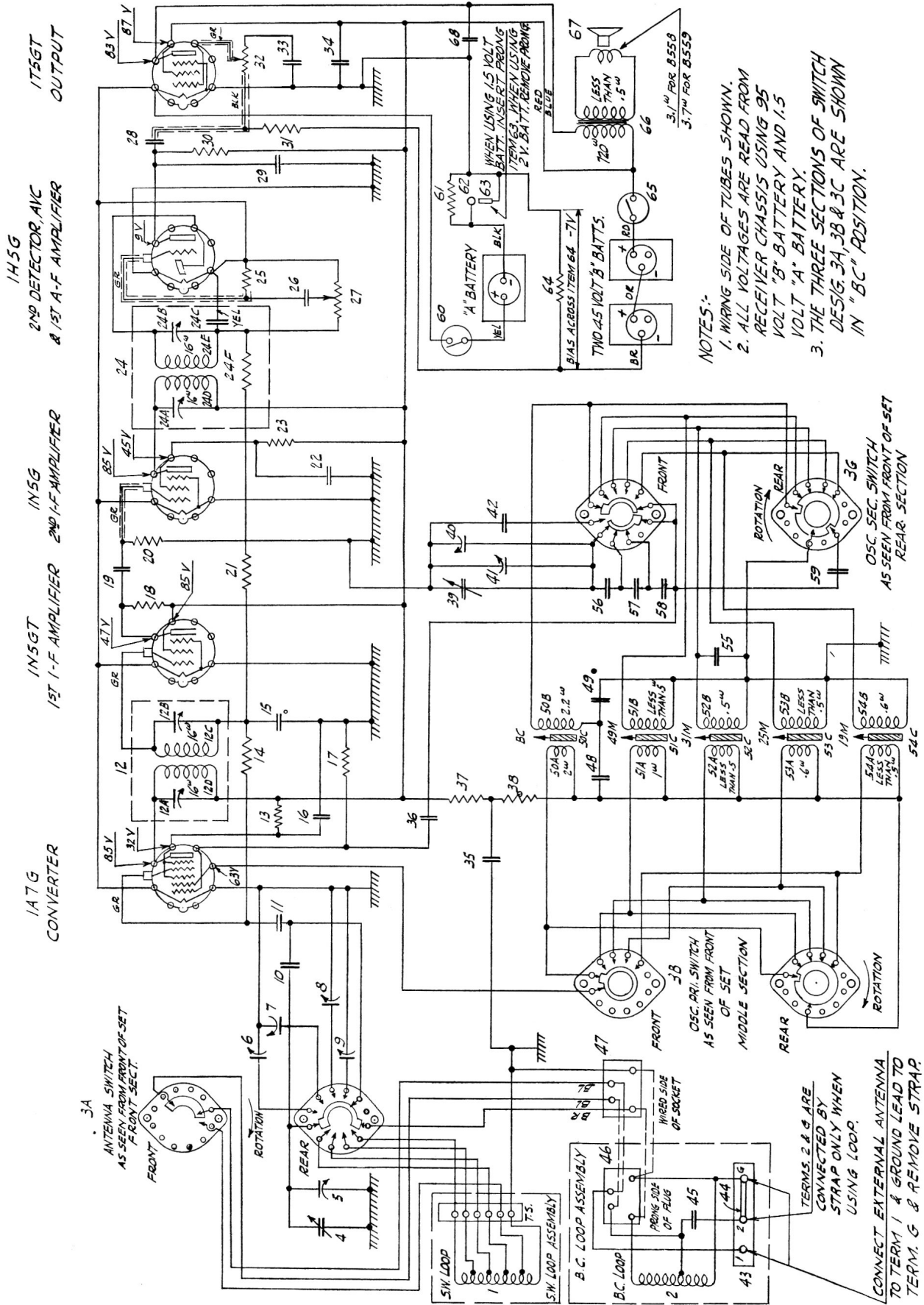
Dimensions:

Chassis: B-558 and B-559; 13" long, 4 $\frac{7}{8}$ " wide and 3 $\frac{1}{8}$ " high.

Cabinet: B-558; 19" long, 8 $\frac{3}{8}$ " wide and 11 $\frac{1}{8}$ " high.

Cabinet: B-559; 38" high, 25" wide and 12" deep.

MODELS B-558 AND B-559 BATTERY OPERATED RADIO RECEIVERS



- NOTES:-
1. WIRING SIDE OF TUBES SHOWN.
 2. ALL VOLTAGES ARE READ FROM RECEIVER CHASSIS USING 95 VOLT "B" BATTERY AND 1.5 VOLT "A" BATTERY.
 3. THE THREE SECTIONS OF SWITCH DESIG. 3A, 3B & 3C ARE SHOWN IN "BC" POSITION.

SCHEMATIC DIAGRAM
MODELS 558-559 BATTERY OPERATED
RADIO RECEIVERS

REPLACEMENT PARTS LIST

Item	Description	Part No.	Item	Description	Part No.
1	Short Wave Loop (13.5 ft. long)	K-2313-20	41	Trimmer (on gang) 1.5-20 mmf. Pt. Of	K-4439-5
2	Broadcast Loop.	K-5572-6	42	Capacitor, mica; 250 mmf.	K-1611-14
3A	Antenna Switch	Complete Assy. K-5625	43	Terminal Strip (Ant. & Gnd.)	K-5547-1
3B	Oscillator Primary Switch		44	Metal Strap.	K-3291-1
3C	Oscillator Secondary " "		45	Capacitor, mica: 100 mmf.	K-1611-2
4	Tuning Gang: Ant. 530 mmf. Pt. Of.	K-4439-5	46	Plug (4 prong)	K-5540-2
5	Trimmer (on gang) 1.5-20 mmf Pt Of	K-4439-5	47	Socket (4 prong)	K-5540-1
6	Trimmer: 3-25 mmf.	K-1458-6	48	Capacitor: .002 mf. 400 Volt.	K-2228-2
7	Trimmer: 10-55 mmf.	K-1458-3	49	Capacitor, mica: 550 mmf.	K-1611-43
8	Trimmer: 10-55 mmf.	K-1458-3	50A	B.C. Osc. Coil Primary	Complete Assembly K-5626
9	Trimmer: 3-25 mmf.	K-1458-6	50B	B.C. Osc. Coil Second	
10	Capacitor, mica: 20 mmf.	K-1611-29	50C	B.C. Osc. Coil Core	
11	Capacitor, mica: 1000 mmf.	K-1611-23	51A	49 M. Osc. coil Pri.	Complete Assembly K-5627
12	1st I-F trans. assy, complete.	K-4738-1	51B	49 M. Osc. coil Sec.	
12A	1st I-F trimmers only.	K-2134-1	51C	49 M. Osc. Coil Core	
12B			52A	31 M. Osc. coil Pri.	Complete Assembly K-5628
12C	1st I-F coils only.	K-4739	52B	31 M. Osc. coil Sec.	
12D			52C	31 M. Osc. coil Core	
13	Resistor: 75,000 ohms, 1/2 watt.	K-2226-27	53A	25 M. Osc. coil Pri.	Complete Assembly K-5629
14	Resistor: 2 meg. 1/2 watt	K-2226-1	53B	25 M. Osc. Coil Sec.	
15	Capacitor: .05 mf. 200 volt.	K-2227-8	53C	25 M. Osc. Coil Core	
16	Capacitor: .1 mf. 200 volt.	K-2227-9	54A	19 M. Osc. Coil Pri.	Complete Assembly K-5630
17	Resistor: 200,000 ohms, 1/2 Watt	K-2226-67	54B	19 M. Osc. Coil Sec.	
18	Resistor: 25,000 ohms, 1/2 Watt.	K-2226-7	54C	19 M. Osc. Coil Core	
19	Capacitor: mica, 1000 mmf.	K-1611-23	55	Capacitor, mica: 50 mmf.	K-1611-1
20	Resistor: 1/2 meg. 1/2 watt.	K-2226-3	56	Capacitor, mica: 70 mmf.	K-1611-42
21	Resistor: 2 meg. 1/2 watt.	K-2226-1	57	Capacitor, mica: 100 mmf.	K-1611-25
22	Capacitor: .1 mf. 200 volt.	K-2227-9	58	Capacitor, mica: 120 mmf.	K-1611-41
23	Resistor: 75,000 ohm, 1/2 watt.	K-2226-27	59	Capacitor, mica: 15 mmf.	K-1611-45
24	2nd I-F Trans. Assy. Complete.	K-4545-1	60	Battery On-Off Switch Part. Of.	K-4754-4
24A	2nd I-F trimmers only.	K-2932-1	61	Resistor: 2.7 ohm. 1/2 Watt.	K-2252-2
24B			62	Female Plug.	K-5739-1
24C			63	Prong.	K-5739-2
24D	2nd I-F coils only.	K-4585	64	Resistor: 800 ohm. 1/2 watt.	K-2226-76
24E			65	Battery On-Off Switch Part. Of.	K-4754-4
24F	Resistor, 50,000 ohm, 1/2 watt.	K-2226-6	66	Output Transformer Assy.	K-5638
	(Part of K-4545-1 Assembly)		67	(Loudspeaker Assy. (B-558)	K-5637
25	Resistor: 10 meg. 1/2 watt.	K-2226-74		(Loudspeaker Assy. (B-559)	K-5699
26	Capacitor .02 mf. 200 volt.	K-2227-7	68	Capacitor: .002 mf. 400 volt.	K-2228-2
27	Volume Control (with Sw.) .5 meg.	K-4754-4	MISCELLANEOUS		
28	Capacitor: .02 mf. 200 volt.	K-2227-7		Sockets.	K-1924-1
29	Capacitor, mica: 100 mmf.	K-1611-2		Dial Scale.	K-5614
30	Resistor: 1 meg. 1/2 watt.	K-2226-2		Dial Indicator.	K-4908-4
31	Resistor: 2 meg. 1/2 watt.	K-2226-1		Dial Cord 60" long (order by ft.)	K-4636
32	Tone Control, 2 meg.	K-5689		Dial Cover (Celluloid) (B-558 only)	K-5632-2
33	Capacitor: mica, 300 mmf.	K-1611-4		Escutcheon Dial (includes celluloid dial cover) (B-559 only)	K-5631
34	Electrolytic: 16 mf. 150 volt.	K-4698-1		Spring (dial pulley)	K-3923
35	Electrolytic: 16 mf. 150 volt.	K-4698-1		Tuning Drive Shaft.	K-4489-11
36	Capacitor, mica: 100 mmf.	K-1611-2		Knob (plain)	K-5176-1
37	Resistor: 5,000 ohms, 1/2 W.	K-2226-12		Knob (with indicator)	K-5176-3
38	Resistor: 10,000 ohms, 1/2 W.	K-2226-10		Standoff (3 terminals)	K-2348
39	Tuning Gang: Osc. 530 mmf. Pt. Of	K-4439-5		"B" Battery Plug.	K-4780-1
40	Trimmer (on gang) 1.5-20 mmf. Pt. Of	K-4439-5		"A" Battery Plug.	K-4781-1

REALIGNING DETAILS

I.F. ALIGNMENT:

Connect the generator to the 1A7G grid through a 0.1-mf. capacitor. Ground the low side of the signal generator. Set the generator at 470 kilocycles and align items 12A, 12B, 25A and 24B for maximum output.

R.F. ALIGNMENT:

Note: All coils and trimmers are referred to as seen from front of set.

- (a) **B.C.** Connect the high signal generator lead through a 100-mm.f. capacitor to the antenna terminal (#1) on rear cover of receiver (with strap removed from between terminals 2 and G). Set the generator and receiver at 1400 k.c. and adjust oscillator trimmers, items 40 and 41 (located on rear section of gang). Adjust antenna trimmer item 5 (located on front section of gang) for maximum output, rocking the gang while doing so. Set the generator at 600 K.C. and tune in the signal. Adjust iron core (item 50C) of B.C. oscillator coil (Rt. hand end, top row, front coil) for maximum output, rocking the gang while doing so. Recheck at 1400 kilocycles.
- (b) **S.W. 49 M. Band:** Connect generator through a 400-ohm resistor to antenna and ground terminals (1 & G) of receiver. Set generator and receiver at 6.05 M.C. and adjust iron core (item 51C) of 49 M. coil (coil mounted on top of chassis base near centre) for maximum signal. **(See Note 1 below)** Adjust antenna trimmer item 6 (1st trimmer from left on front of chassis) for maximum signal, rocking the gang while doing so.
- (c) **S.W. 31 M. Band:** Connect generator through a 400-ohm resistor to antenna and ground terminals (1 & G) of receiver. Set generator and receiver at 9.5 M.C. and adjust iron core (item 52C) of 41 M coil (right hand end, top row, centre coil) for maximum signal. **(See**

Note 1 below). Adjust antenna trimmer item 7 (centre trimmer on front of chassis) for maximum signal, rocking the gang while doing so.

- (d) **S.W. 25 M. Band:** Connect generator through a 400-ohm resistor to antenna and ground terminals (1 & G) of receiver. Set generator and receiver at 11.7 M.C. and adjust iron core (item 53C) of 25 M. coil (right hand end, top row, rear coil) for maximum signal. **(See Note 1 below).** Adjust antenna trimmer item 8 (trimmer on right hand end of chassis), for maximum signal, rocking the gang while doing so.
- (e) **S.W. 19 M. Band:** Connect generator through a 400-ohm resistor to antenna and ground terminals (1 & G) of receiver. Set generator and receiver at 15.25 M.C. and adjust iron core (item 54C) of 19 M coil (right hand end, bottom row) for maximum signal. **(See Note 1 Below.)** Adjust antenna trimmer item 9 (right hand trimmer on front of chassis), for maximum signal, rocking the gang while doing so.

NOTE 1

Check carefully for the correct peak. To do this adjust to aligned frequency for each band as described above, then turn generator to the approximate frequency as shown in table below and increase input. At this point a signal will be heard if the oscillator setting is correct. If no signal is heard, return to aligned frequency and turn the iron core adjusting screw counter-clockwise until a second peak is reached. Recheck for image at proper frequency per table below.

Band	Image Frequency
49 M.	6.99 M.C.
31 M.	10.44 M.C.
25 M.	12.64 M.C.
19 M.	16.19 M.C.