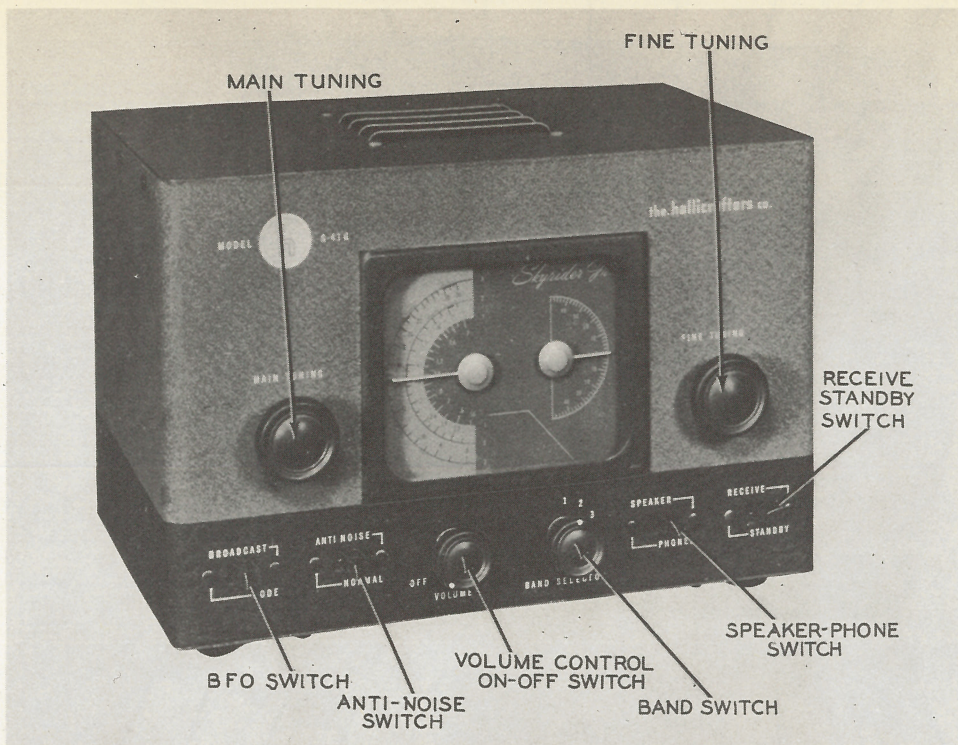


HALLICRAFTERS
MODELS S-41-G, S-41-W



HALLICRAFTERS MODEL S-41G

HALLICRAFTERS
MODELS S-41-G, S-41-W

TRADE NAME Hallicrafters, Models S-41G, S-41W
MANUFACTURER The Hallicrafters Co., 2611 S. Indiana Ave., Chicago, Ill.
TYPE SET AC-DC Operated 3-Band Superheterodyne Communications Receiver
TUBES (SIX) Types 12SA7 Converter, 12SK7 IF Amp., 12SQ7GT Det.-AVC-AF, 12SQ7GT BFO-ANL, 35L6GT Power Output, 35Z5GT Rectifier

POWER SUPPLY 105-125 Volts AC-DC
TUNING RANGE—BROADCAST 550-2100KC.

RATING .250 Amp. @ 117 Volts AC
SHORT WAVE 2.1-7.7 MC, 7.7-30.0 MC

ALIGNMENT INSTRUCTIONS

To set pointer, turn variable fully closed and set pointer at the extreme low freq. end of the dial. Use isolation transformer if available. If not, connect capacitor in series with the low side of the signal generator and chassis. Set volume control at maximum volume and keep input from signal generator no higher than is necessary to obtain output reading. Keep bandspread pointer at "0" while making all adjustments. Have BFO switch "on" only while adjusting A5. Use insulated alignment screwdriver for adjusting.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
Direct.	High side to pin #8 of 6SA7. Low side to chassis.	455KC	Band 1	High freq. end.	Across voice coil.	A1,A2, A3,A4.	Adjust for maximum output. If isolation trans. is not used use .001 MFD. capacitor as dummy Ant. to reduce hum modulation.
Direct.	"	"	"	"	"	A5	Adjust for zero beat.
330Ω	High side to Ant. terminal. Low side to ground terminal.	600KC	"	600KC	"	A6	Adjust for maximum output.
330Ω	"	1800KC	"	1800KC	"	A7	"
330Ω	"	"	"	Tune for maximum output.	"	A8	"
330Ω	"	2.4MC	Band 2	2.4MC	"	A9	"
330Ω	"	7.0MC	"	7.0MC	"	A10	"
330Ω	"	"	"	Tune for maximum output.	"	A11	Rock variable and adjust for maximum output.
330Ω	"	28.0MC	Band 3	28.0MC	"	A12	Adjust for maximum output.
330Ω	"	28.0MC	"	Tune for maximum output.	"	A13	Rock variable and adjust for maximum output.

HOWARD W. SAMS & CO., INC. • 2924 East Washington Street • Indianapolis 6, Indiana

"The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed."
 "Reproduction or use, without express permission, of editorial or pictorial con-

tent, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. Copyright 1946 by Howard W. Sams & Co., Inc., Indianapolis, Indiana, U. S. A. Copyright under International Copyright Union. All rights reserved under Inter-American Copyright Union (1910) by Howard W. Sams & Co., Inc."

PARTS LIST AND DESCRIPTIONS
TUBES

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	INSTALLATION NOTES
		HALLICRAFTERS PART No.	STANDARD REPLACEMENT		
1	Converter	12SA7	12SA7	8R	
2	IF Amp.	12SK7	12SK7	8N	
3	Det.-AVC-AF	12SQ7GT	12SQ7GT	8Q	
4	BFO-A.N.L.	12SQ7GT	12SQ7GT	8Q	
5	Power Output	35L6GT	35L6GT	7AC	
6	Rectifier	35Z5GT	35Z5GT	6AD	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	HALLICRAFTERS PART No.	SOLAR PART No.	SPRAGUE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	
7A	40	150	45B087	DSB-403020-150	EL-443	PRS150-40-30/25-20	EZ43315C	Filter - Red
B	30	150				125-20		" - Yellow
C	30	150				PRS150-30		" - "
D	20	25		M-25-25				Cath. Bypass - Blue
8	.02	400		S-4-02	TC-12	484-02	DT4S2	Line Filter
9	.25	200		S-4-25	TC-2	484-.25	DT4P25	TP430
10	.02	600		S-6-02	TC-12	684-02	DT4S2	TP412
11	.01	400		S-4-01	TC-11	484-01	DT4S1	TP421
12	.005	600		S-6-005	TC-25	684-005	DT6D5	TP408
13	.05	200		S-4-05	TC-15	484-05	DT4S5	TP426
14	.02	400		S-4-02	TC-12	484-02	DT4S2	TP423
15	.25	200		S-4-25	TC-2	484-.25	DT4P25	TP430
16	.05	200		S-4-05	TC-15	484-05	DT4S5	TP426
17	.01	400		S-4-01	TC-11	484-01	DT4S1	TP421
18	250	500		MO.5-325	LFM-325	1468-00025	5W5T25	MC240
19	200	500		MO.5-32	LFM-32	1468-0002	5W5T2	MC237
20	25							RF Coupling Cer.
21	50	500		MO.5-45	LFM-45	1468-00005	5W5C5	MC225
22	240	500		MO.5-325	LFM-325	1468-00025	5W5T25	MC240
23	500	500		MO.5-35	LFM-35	1468-0005	5W5T5	MC245

*Not used in all models.

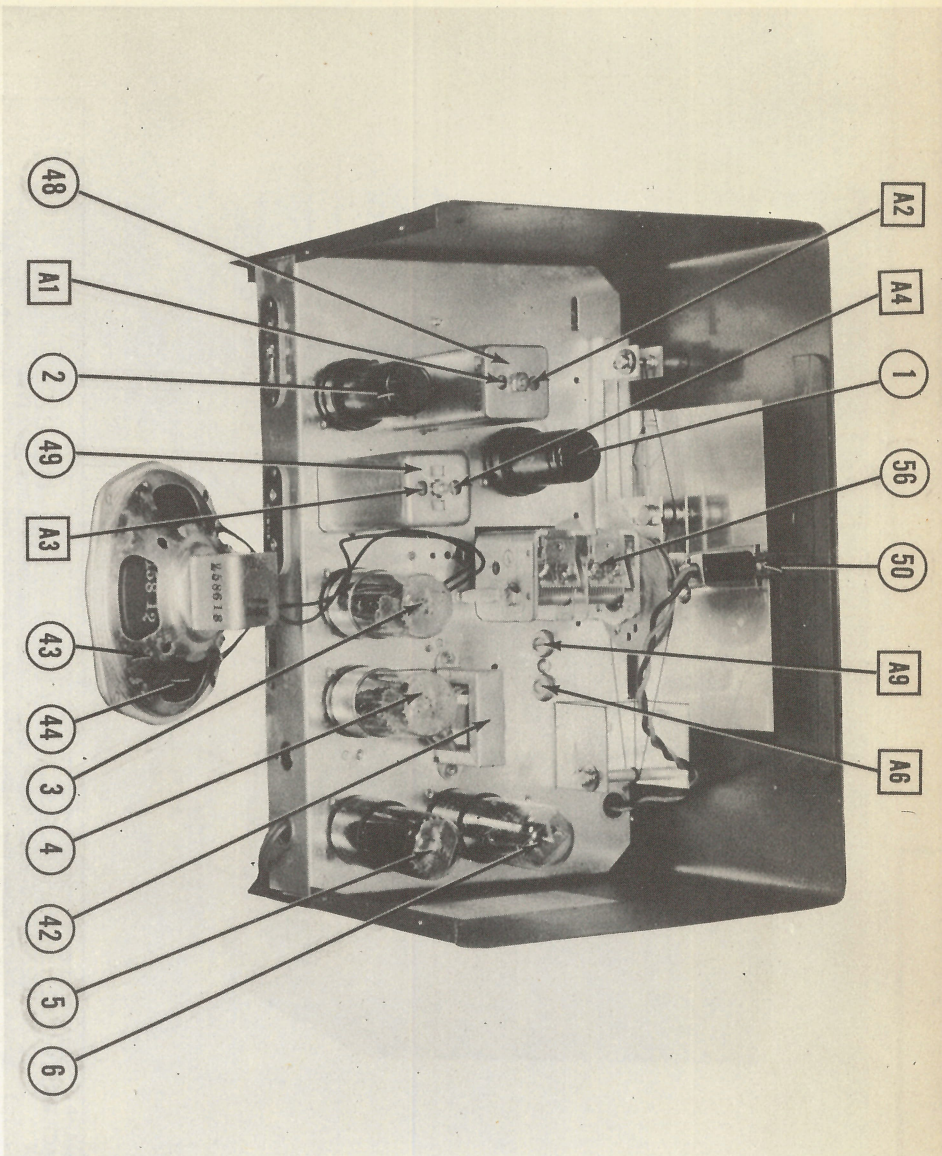
CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES
	RESISTANCE	WATTS	HALLICRAFTERS PART No.	MALLORY PART No.	IRC PART No.	CLAROSTAT PART No.	
24A	500K Ω	1		MR48	D11-133	M-58-S	Volume Control.
B	Shaft			Not Req.	A	Not Req.	Attach to 24A per instructions
C	Switch			M26	41	SW-A	" " " " " "

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	HALLICRAFTERS PART No.	IRC PART No.	
25	100K Ω			BTS-100K	Br.-Blk.-Yl. Converter Grid
26	47 Ω			BW- $\frac{1}{2}$ -47	Yl.-Vl.-Blk. Parasitic Suppressor
27	20K Ω			BTS-22K	Red-Blk.-Or. Oscillator Grid
28	300 Ω			BW- $\frac{1}{2}$ -330	Or.-blk.-br. IF Cathode
29	2 Meg.			BTS-2.2 Meg.	Red-Blk.-Grn. AVC Network
30	47K Ω			BTS-47K	Yl.-Vl.-Or. RF Filter
31	10 Meg.			BTS-10 Meg.	Br.-Blk.-Blue 1st AF Grid
32	240K Ω			BTS-220K	Red-Yl.-Yl. " " Plate Load
33	470K Ω			BTS-470K	Yl.-Vl.-Yl. Output Grid
34	150 Ω			BW- $\frac{1}{2}$ -150	Br.-Grn.-br. " Cathode
35	15 Ω			BW- $\frac{1}{2}$ -15	Br.-Grn.-Blk. Head Phone Shunt
36	470 Ω			BTS-470	Yl.-Vl.-br. BFO Plate Load
37	47K Ω			BTS-47K	Yl.-Vl.-Or. " Grid
38	390 Ω			BW- $\frac{1}{2}$ -390	Or.-White-Br. Pilot Light Shunt
39	27 Ω			BW- $\frac{1}{2}$ -27	Red-Vl.-blk. Surge Limiter
40	750 Ω			BTS-880	Vl.-Grn.-br. Filter
41	1000 Ω			BTS-1000	Br.-Blk.-Red " "

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)
TRANSFORMER (OUTPUT)

ITEM No.	RATING		REPLACEMENT DATA		INSTALLATION NOTES
	IMPEDANCE	DC RES.	HALLICRAFTERS PART No.	STANCOR PART No.	
42	2200 Ω	3.3 Ω	160 Ω	.55 Ω	Part of 85C033

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA		INSTALLATION NOTES
	FIELD	VC IMP.	HALLICRAFTERS PART No.	JENSEN PART No.	
43	PM	3.3 Ω	85C033	ST-105	
44	CONE DIA.	VC DIA.		Mod. P5-X	
	4 $\frac{1}{2}$ "	$\frac{1}{2}$ "	NOT READILY REPLACEABLE—USE COMPLETE SPEAKER UNIT.		

R F COILS

ITEM No.	USE	DC RES.		REPLACEMENT DATA		INSTALLATION NOTES
		PRI.	SEC.	HALLICRAFTERS PART No.	MEISSNER PART No.	
45A	Ant. Coil BC	28 Ω	3.5 Ω			Items 45A, 45B, 45C wound on same form
45B	" " Band 2	1 Ω	.5 Ω			
45C	Ant. Coil Band 3	1 Ω	0 Ω			Items 46A, 46B, 46C wound on same form
46A	Osc. Coil BC	2 Ω				
46B	" " B2	.6 Ω				
46C	" " B3	0 Ω				
47	BFO Coil	5 Ω				
48	Input IF	24 Ω	23 Ω	E50-183	16-8658	
49	Output IF	21 Ω	21.5 Ω	G50C184	16-8660	

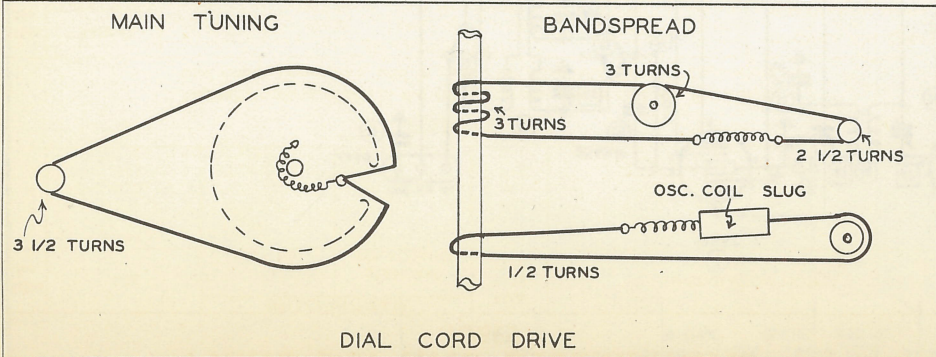
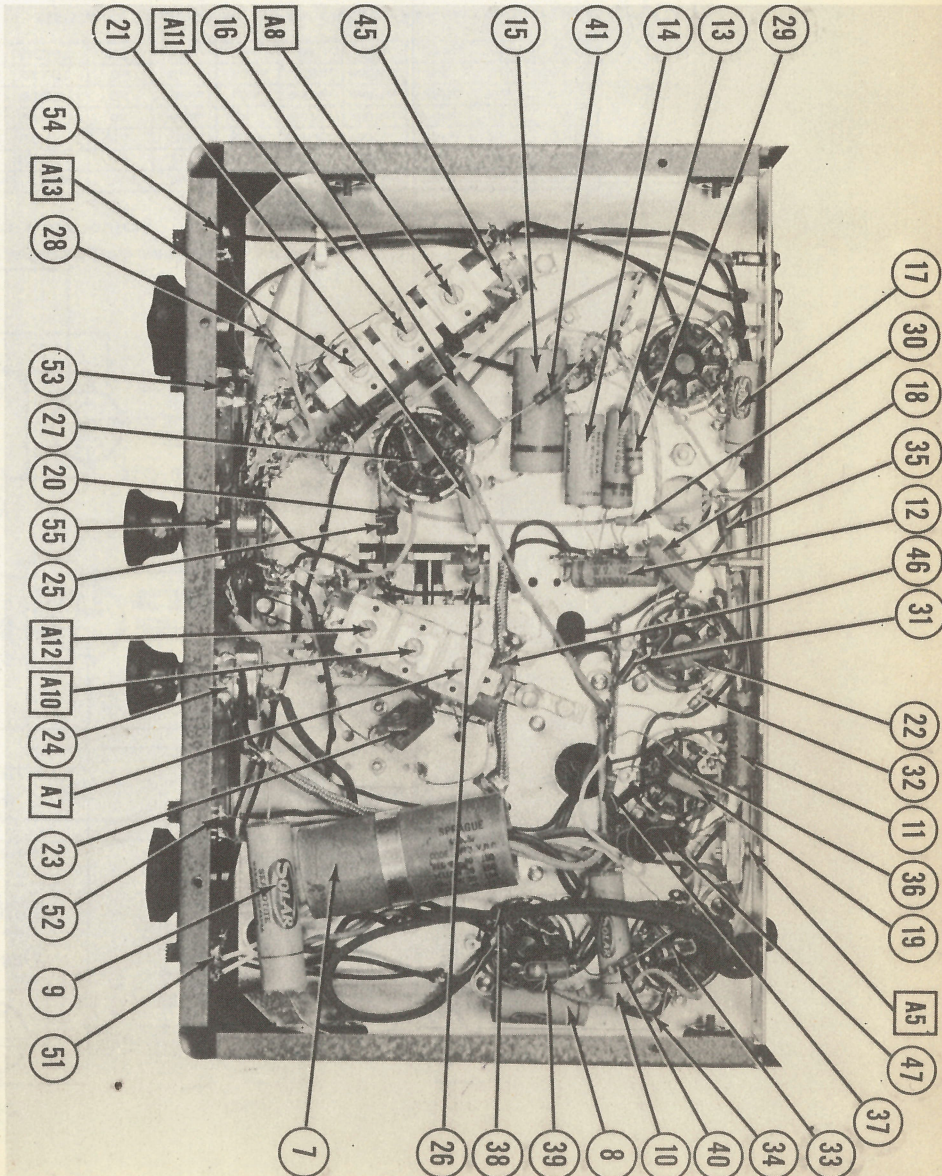
DIAL LIGHT

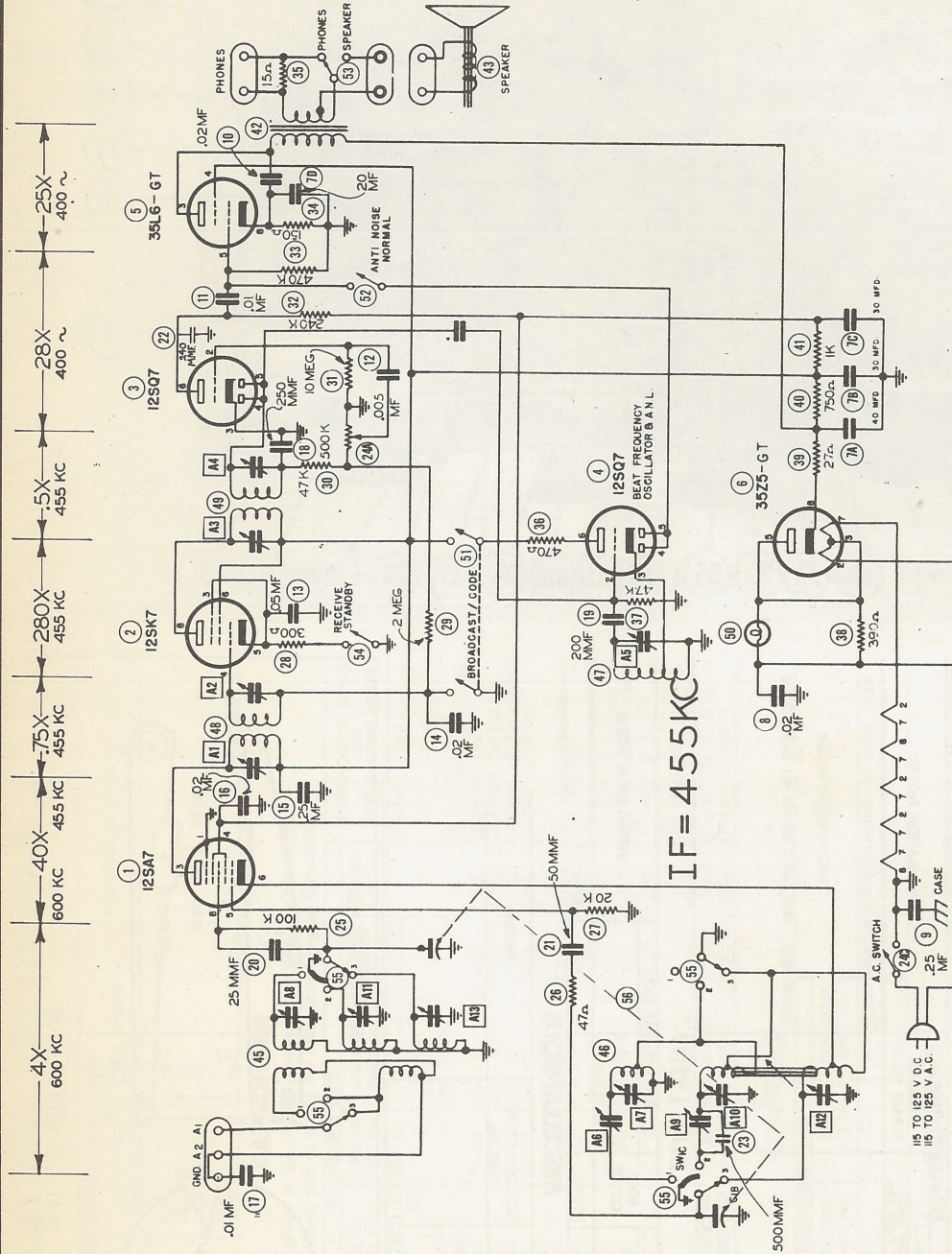
ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA	INSTALLATION NOTES
					HALLICRAFTERS PART No.	
50	Bayonet	6-8	0.15	brown		Type 47

MISCELLANEOUS

ITEM No.	PART NAME	HALLICRAFTERS PART No.	NOTES
51	BFO Switch		
52	Anti-Noise SW.		
53	Spkr.-Phones SW.		
54	Stand-by SW		
55	band Switch		
56	2-Gang Var. Cap.	48C161	

CHASSIS—BOTTOM VIEW





(1) CONTROLS SET AS FOLLOWS: BROADCAST, ANTI-NOISE, BAND SWITCH ON NO. 1, SPEAKER AND RECEIVE.
(2) READINGS ON BFO TUBE TAKEN WITH SWITCH IN CODE POSITION.

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	12SA7	OV	24VAC	97VDC	87VDC	-3VDC	OV	11VAC	-45VDC
2	12SK7	OV	36VAC	3.2VDC	97VDC	97VDC	24VAC	97VDC	97VDC
3	12SQ7GT	OV	-5VDC	OV	-5VDC	64VDC	11VAC	OV	OV
4	12SQ7GT	OV	1VDC	OV	1VDC	95VDC	36VAC	46.5VAC	46.5VAC
5	35L6GT	OV	46.5VAC	107VDC	97VDC	OV	OV	86VAC	5.8VDC
6	35L6GT	OV	117VAC	113VAC	OV	113VAC	113VAC	86VAC	116VDC

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	12SA7	OV	OV	21K Ω	21K Ω	21K Ω	5 Ω	11 Ω	114K Ω
2	12SK7	OV	30 Ω	30 Ω	2.4MEG Ω	300 Ω	30K Ω	21 Ω	30K Ω
3	12SQ7GT	OV	10MEG Ω	OV	410K Ω	410K Ω	270K Ω	11 Ω	OV
4	12SQ7GT	OV	45K Ω	OV	460K Ω	460K Ω	30K Ω	31 Ω	41 Ω
5	35L6GT	OV	OV	30K Ω	30K Ω	460K Ω	INF	72 Ω	120 Ω
6	35L6GT	OV	97 Ω	94 Ω	94 Ω	94 Ω	30K Ω	72 Ω	30K Ω

THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

RESISTANCE READINGS IN THE B+ CIRCUITS MAY VARY WIDELY ACCORDING TO THE CONDITION OF THE FILTER CAPACITORS

4610-19

The stage gain measured values listed above are approximate values for an average operative stage, rather than an absolute value. It should be borne in mind that it is possible to introduce so many variables into the measurement operation, such as, type of equipment used for measuring, handling and placement of probes, the accuracy of alignment, etc., that an absolute reading is impractical. AVC is made inoperative and 3-volt battery bias substituted for measurement.

1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of $\pm 10\%$ in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.