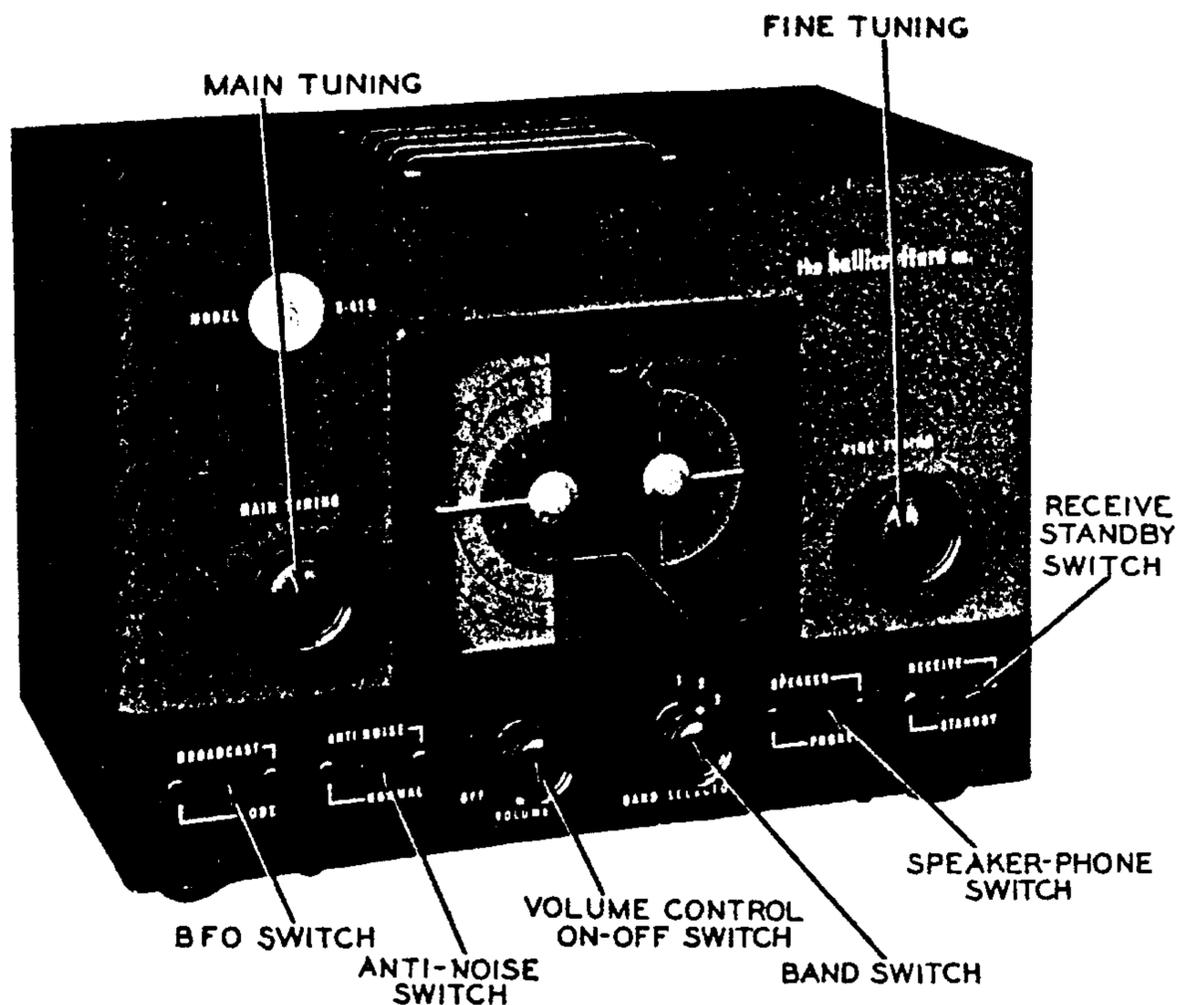


HALLICRAFTERS
MODELS S-41-G, S-41-W



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 RATING .250 Amp. @ 117 Volts AC
 TUNING RANGE—BROADCAST 550-2100KC. 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

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PARTS LIST AND DESCRIPTIONS

TUBES

CHASSIS—TOP VIEW

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	INSTALLATION NOTES
		HALLIDAY 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	HALLIDAY 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	DT432	Line Filter
9	.25	200		S-4-25	TC-2	484-.25	DT4125	Cabinet Isolation
10	.02	600		S-6-02	TC-12	684-02	DT452	Output Plate bypass
11	.01	400		S-4-01	TC-11	484-01	DT451	Audio Coupling
12	.005	600		S-6-005	TC-25	684-005	DT6D5	" "
13	.05	200		S-4-05	TC-15	484-05	DT455	IF Cath. bypass
14	.02	400		S-4-02	TC-12	484-02	DT452	AVC Filter
15	.25	200		S-4-25	TC-2	484-.25	DT4P25	RF Bypass Pwr. Supp.
16	.05	200		S-4-05	TC-15	484-05	DT455	RF Screen bypass
17	.01	400		S-4-01	TC-11	484-01	DT451	Ext. Ground Isolation
18	250	500		MO.5-325	1FM-325	1468-00025	5W5T25	IF bypass Diode
19	200	500		MO.5-32	1FM-32	1468-0002	5W5T2	bF Osc. grid
20	25							RF Coupling Cer.
21	50	500		MO.5-45	1FM-45	1468-00005	5W5Q5	Osc. Grid Capacitor
22	240	500		MO.5-325	1FM-325	1468-00025	5W5T25	Audio Plate bypass*
23	500	500		MO.5-35	1FM-35	1468-0005	5W5T5	Fixed Trimmer*

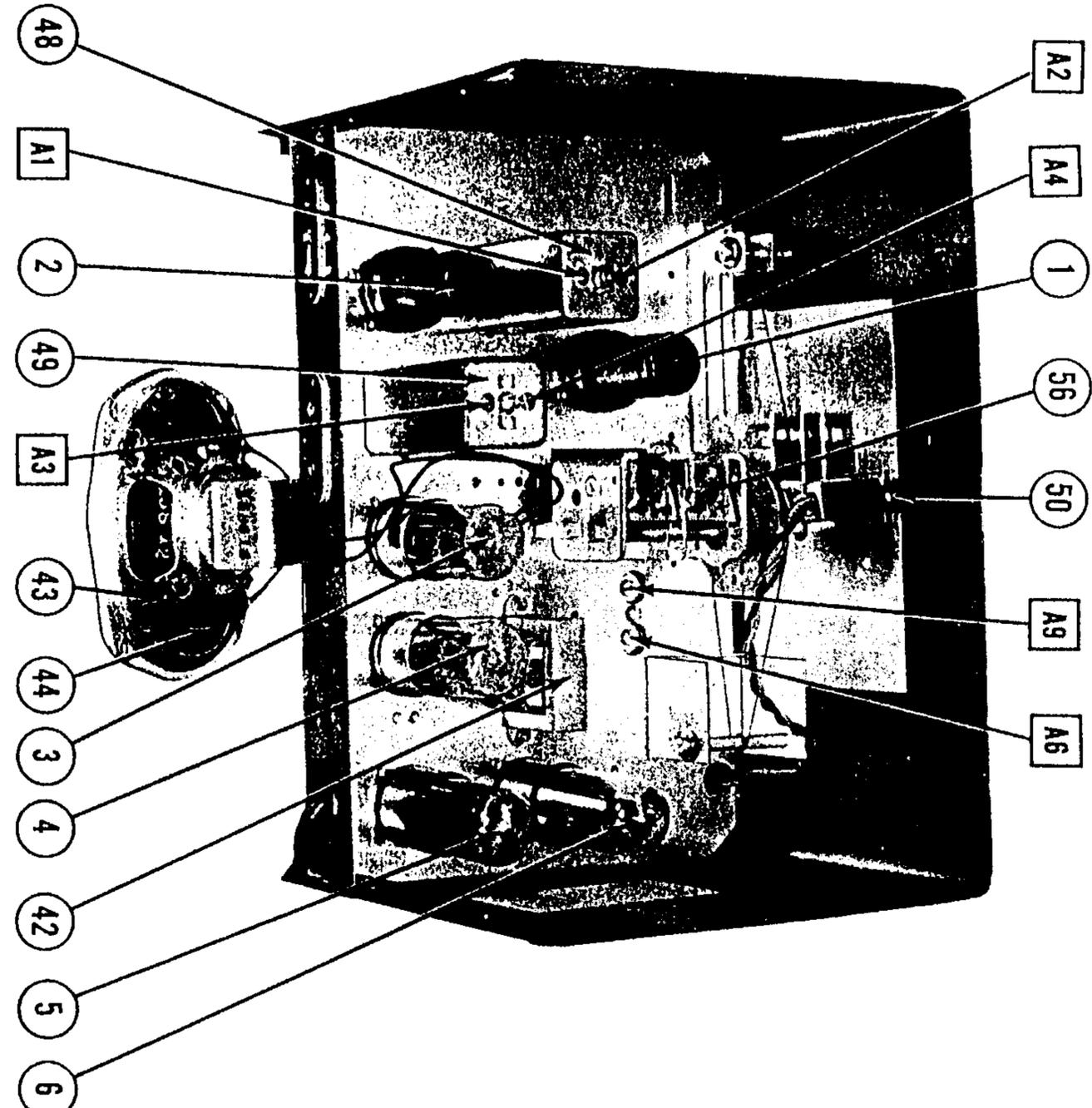
*Not used in all models.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA			INSTALLATION NOTES	
	RESISTANCE	WATTS	HALLIDAY PART No.	MALLORY PART No.	IRC PART No.		CLAROSTAT PART No.
24A	500KΩ	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	HALLIDAY PART No.	IRC PART No.	
25	100KΩ			BTS-100K	Br.-blk.-Yl. Converter Grid
26	47Ω			BW-1/2-47	Yl.-Vl.-Blk. Parasitic Suppressor
27	20KΩ			BTS-22K	Red-blk.-Or. Oscillator Grid
28	300Ω			BW-1/2-330	Or.-blk.-br. IF Cathode
29	2 Meg.			BTS-2.2 Meg.	Red-Blk.-Grn. AVC Network
30	47KΩ			BTS-47K	Yl.-Vl.-Or. RF Filter
31	10 Meg.			BTS-10 Meg.	Er.-Blk.-Blue 1st AF Grid
32	240KΩ			BTS-220K	Red-Yl.-Yl. " " Plate Load
33	470KΩ			BTS-470K	Yl.-Vl.-Yl. Output Grid
34	150Ω			BW-1/2-150	Br.-Grn.-br. " Cathode
35	15Ω			BW-1/2-15	Br.-Grn.-Blk. Head Phone Shunt
36	470Ω			BTS-470	Yl.-Vl.-br. bFO Plate Load
37	47KΩ			BTS-47K	Yl.-Vl.-Or. " Grid
38	390Ω			BW-1/2-390	Or.-White-br. Pilot Light Shunt
39	27Ω			BW-1/2-27	Red-Vl.-blk. Surge Limiter
40	750Ω			BTS-680	Vl.-Grn.-br. Filter
41	1000Ω			BTS-1000	br.-blk.-Red "



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA			INSTALLATION NOTES
	IMPEDANCE		DC RES.		HALLICRAFTERS	STANCOR	THORDAR'N	
	PRI.	SEC.	PRI.	SEC.	PART No.	PART No.	PART No.	
42	2200Ω	3.3Ω	160Ω	.56Ω	Part of 85C033	A-3576	T22S45	

SPEAKER

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

R F COILS

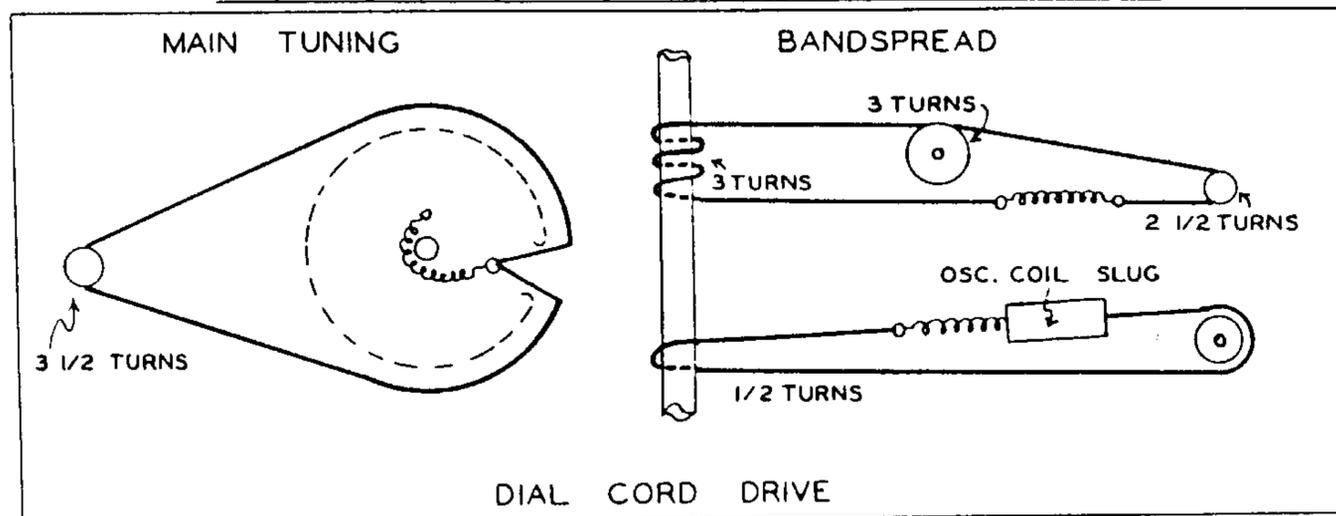
ITEM No.	USE	DC RES.		REPLACEMENT DATA		INSTALLATION NOTES
		PRI.	SEC.	HALLICRAFTERS	MEISSNER	
				PART No.	PART No.	
45A	Ant. Coil BC	28Ω	3.5Ω			Items 45A, 45B, 45C wound on same form
45B	" " Band 2	1Ω	.5Ω			
45C	Ant. Coil Band 3	1Ω	0Ω			
46A	Osc. Coil BC	2Ω				Items 46A, 46B, 46C wound on same form
46B	" " b2	.6Ω				
46C	" " b3	0Ω				
47	BFO Coil	5Ω				
48	Input IF	24Ω	23Ω	E50-163	16-6658	
49	Output IF	21Ω	21.5Ω	J5CC164	16-6660	

DIAL LIGHT

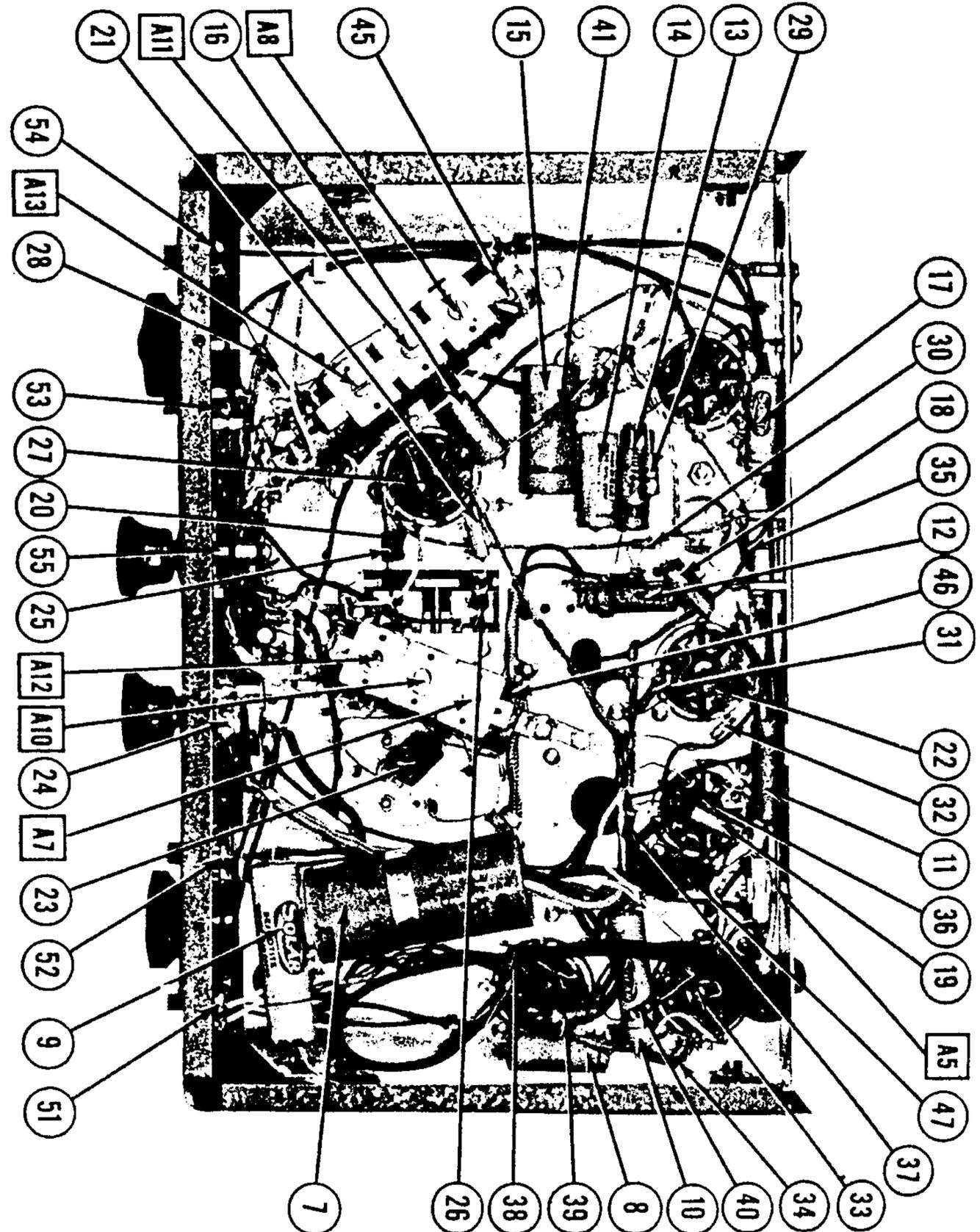
ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		INSTALLATION NOTES
					HALLICRAFTERS		
					PART No.		
50	Bayonet	6-8	0.15	Brown			Type 47

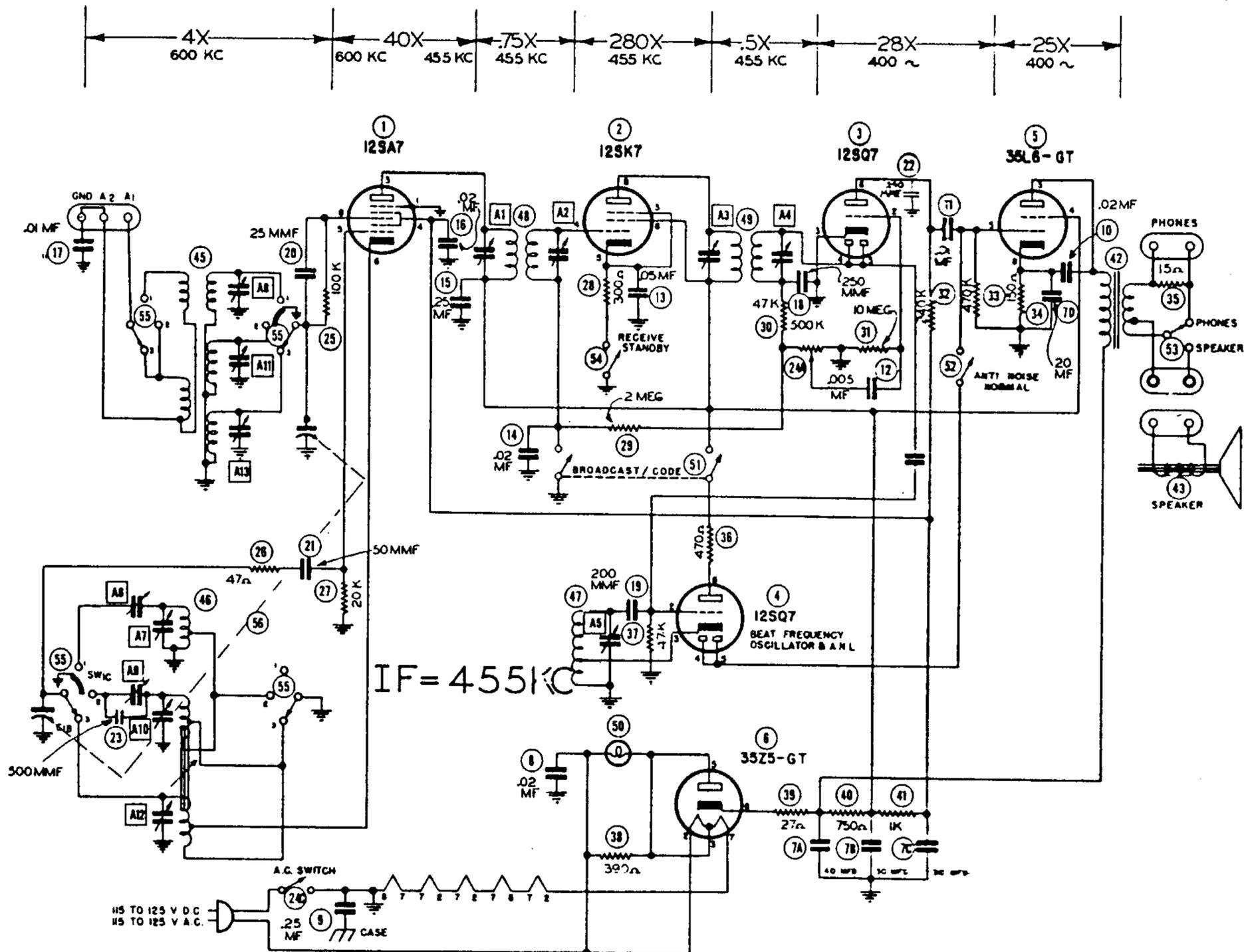
MISCELLANEOUS

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-Band Var. Cap.	46C161	



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	0V.	24V.AC	97V.DC	87V.DC	-3V.DC	0V.	11V.AC	-45V.DC
2	12SK7	0V.	36V.AC	3.2V.DC	0V.	3.2V.DC	97V.DC	24V.AC	97V.DC
3	12SQ7GT	0V.	-5V.DC	0V.	-5V.DC	-5V.DC	64V.DC	11V.AC	0V.
4	12SQ7GT	0V.	1V.DC	0V.	1V.DC	1V.DC	95V.DC	38V.AC	46.5V.AC
5	35L6GT	0V.	46.5V.AC	107V.DC	97V.DC	0V.	0V.	86V.AC	5.8V.DC
6	35Z5GT	0V.	117V.AC	113V.AC	0V.	113V.AC	113V.DC	86V.AC	116V.DC

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	12SA7	0Ω	21Ω	30KΩ	30KΩ	21KΩ	5Ω	11Ω	114KΩ
2	12SK7	0Ω	31Ω	300Ω	2.4MEG	300Ω	30KΩ	21Ω	30KΩ
3	12SQ7GT	0Ω	10MEG	0Ω	40KΩ	40KΩ	270KΩ	11Ω	0Ω
4	12SQ7GT	0Ω	45KΩ	15Ω	460KΩ	460KΩ	30KΩ	31Ω	41Ω
5	35L6GT	0Ω	41Ω	30KΩ	30KΩ	460KΩ	INF	72Ω	120Ω
6	35Z5GT	INF	97Ω	94Ω	INF	94Ω	30KΩ	72Ω	30KΩ

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.