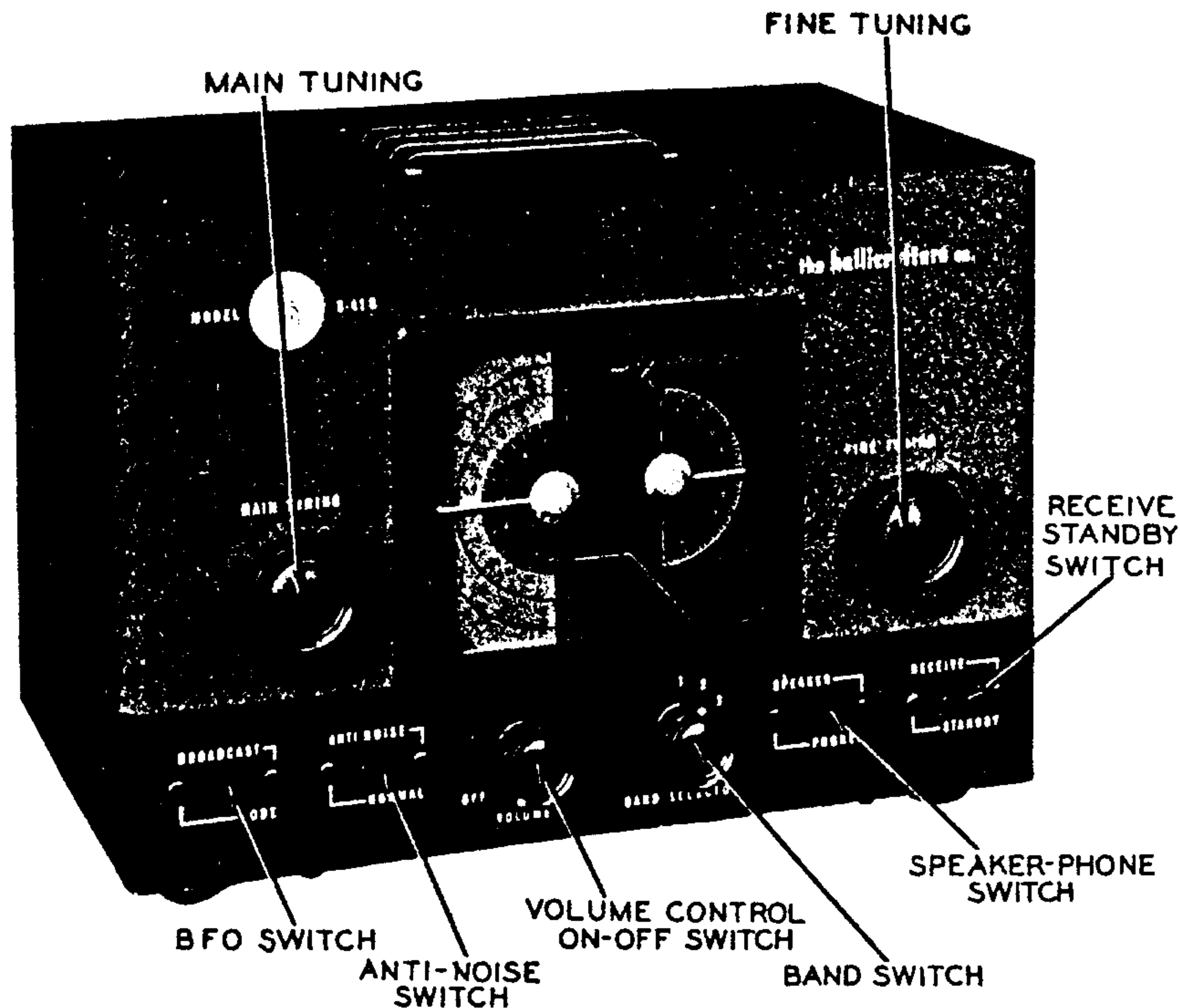


HALLICRAFTERS
MODELS S-41-G, S-41-W



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

CHASSIS—TOP VIEW

TUBES

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	INSTALLATION NOTES
		HALLIGRAPHERS 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	6rD	

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

CAPACITORS

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
		HALLIGRAPHERS PART No.	SOLAR PART No.	SPRAGUE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	
7A	150	45B087	DSB-403020-150	EL-443	FRS-150-40-30/25-20	E243315C	Filter - Red
B	150				125-20		" - Yellow
C	150				PRS150-30		"
D	25						"
8	400		M-25-25	TC-12	404-02	DT422	Cath. Bypass - blue
9	200		S-4-25	TC-2	404-25	DT425	Line Filter
10	600		S-6-02	TC-12	604-02	DT452	Cabinet Isolation
11	400		S-4-01	TC-11	404-01	DT451	Output Plate bypass
12	600		S-6-005	TC-25	604-005	DT605	Audio Coupling
13	200		S-4-05	TC-15	404-05	DT455	IF Cath. bypass
14	400		S-4-02	TC-12	404-02	DT452	AVC Filter
15	200		S-4-25	TC-2	404-25	DT425	RF bypass Pwr. Supp.
16	200		S-4-05	TC-15	404-05	DT455	RF Screen bypass
17	400		S-4-01	TC-11	404-01	DT451	Ext. Ground Isolation
18	500		MO.5-325	1FM-325	1468-00025	5W525	IF bypass Diode
19	200		MO.5-32	1FM-32	1468-0002	5W512	LF Osc. Grid
20	500						RF Coupling Cer.
21	500		MO.5-45	1F1-45	1468-00005	5W5Q5	Osc. Grid Capacitor
22	240		MO.5-325	1F1-325	1468-00025	5W525	Audio Plate bypass*
23	500		MO.5-35	1F1-35	1468-0005	5W5T5	Fixed Trimmer*

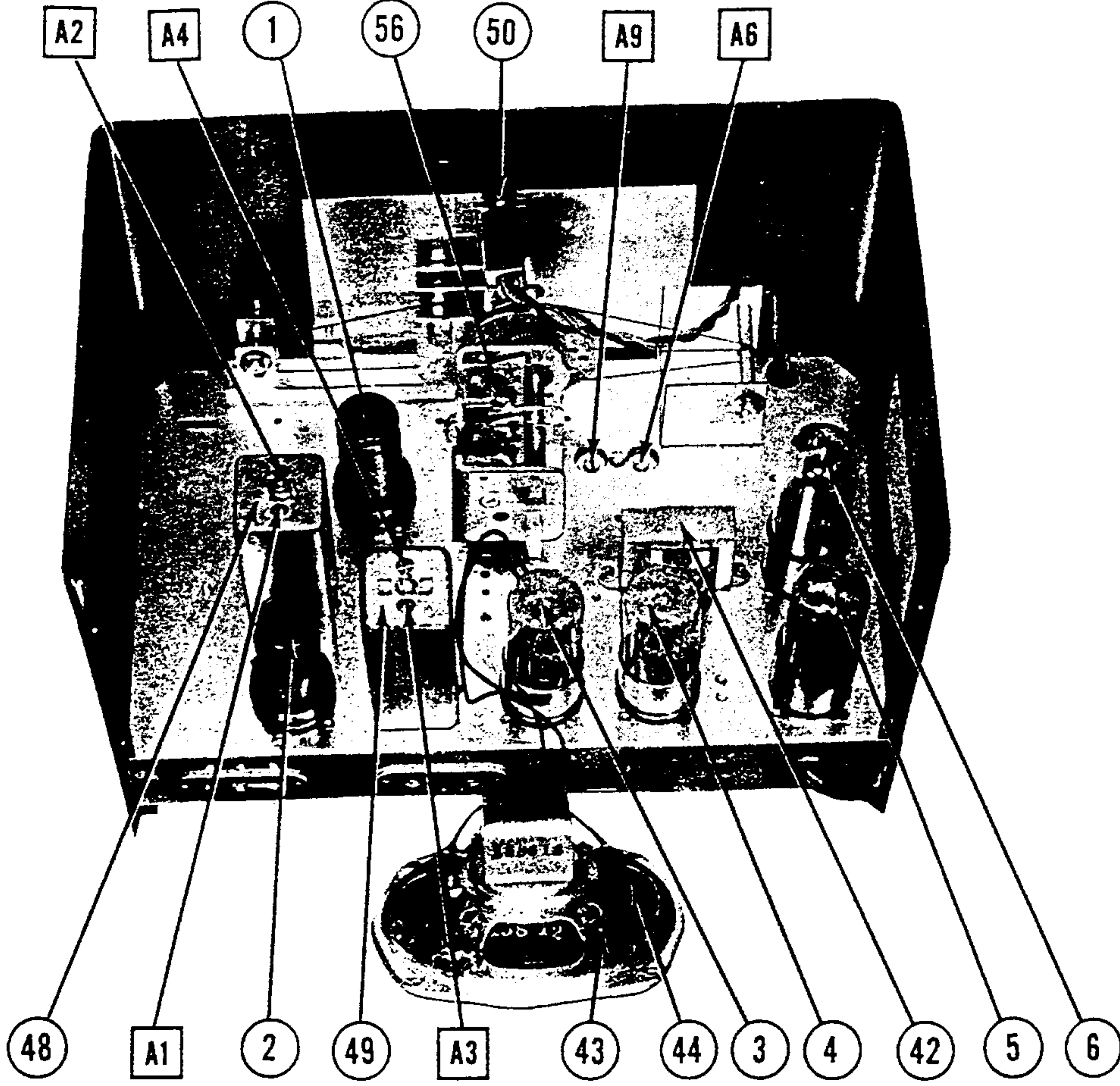
*Not used in all models.

CONTROLS

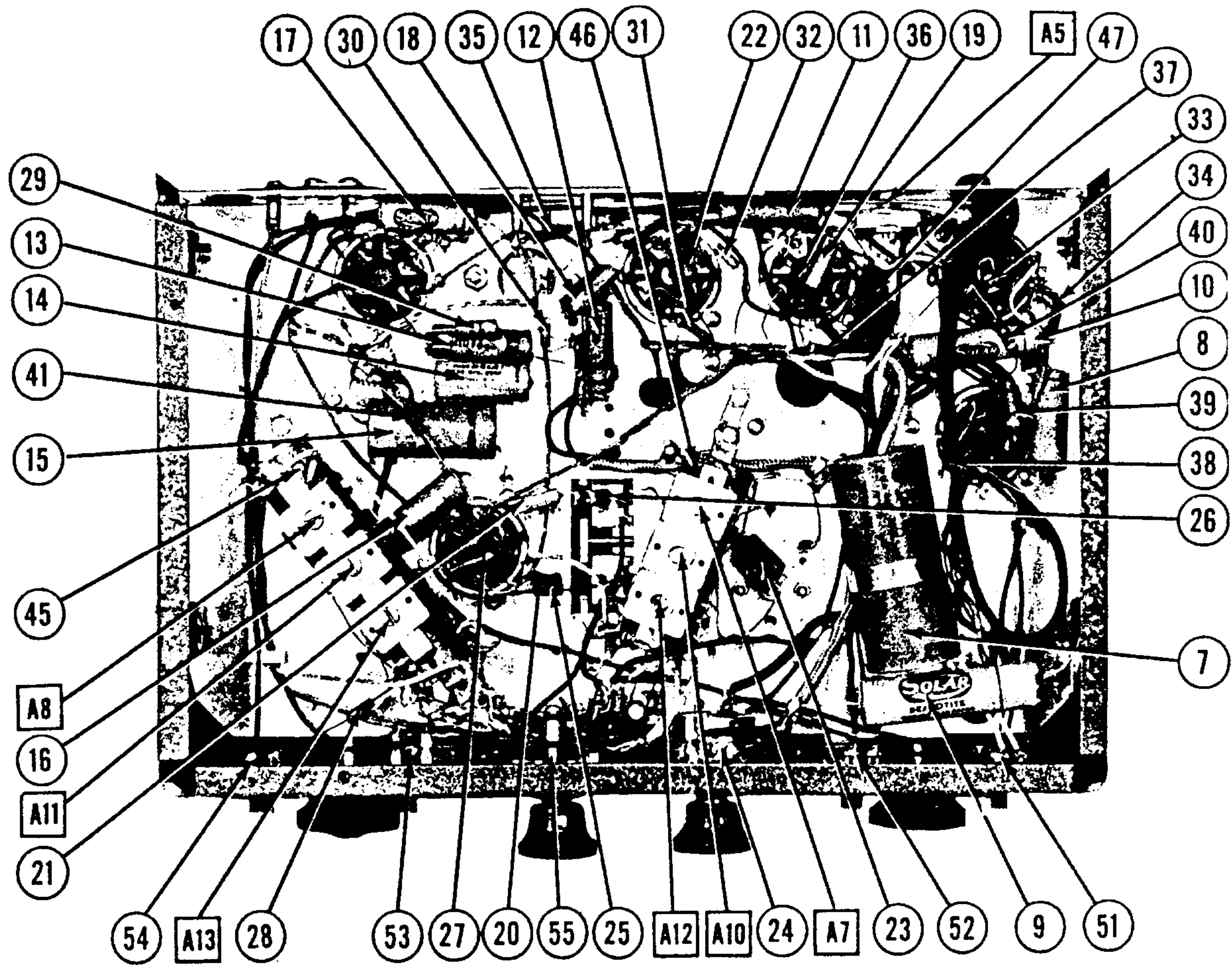
ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA				INSTALLATION NOTES
		HALLIGRAPHERS PART No.	MALLOY PART No.	IRC PART No.	CLAROSTAT PART No.	
24A	500KΩ		MR48	D11-133	M-58-S	Volume Control.
B	Switch		Not Req.	A	Not Req.	Attach to 24A per instructions
C	Switch		M26	41	SW-A	" " " " " "

RESISTORS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA		IDENTIFICATION CODES
		HALLIGRAPHERS PART No.	IRC PART No.	
25	100KΩ		BTS-100K	Hr.-blk.-Yl. Converter Grid
26	47KΩ		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.	Br.-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 " "



CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)
TRANSFORMER (OUTPUT)

ITEM No.	RATING		DC RES.		REPLACEMENT DATA		INSTALLATION NOTES
	IMPEDANCE PRI. SEC.	3.3Ω 16Ω	3.3Ω .55Ω	HALLICRAFTERS PART No.	THORDARN PART No.		
42	2200Ω	3.3Ω 16Ω	.55Ω	Part of 85C033	T22845		

SPEAKER

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

R F COILS

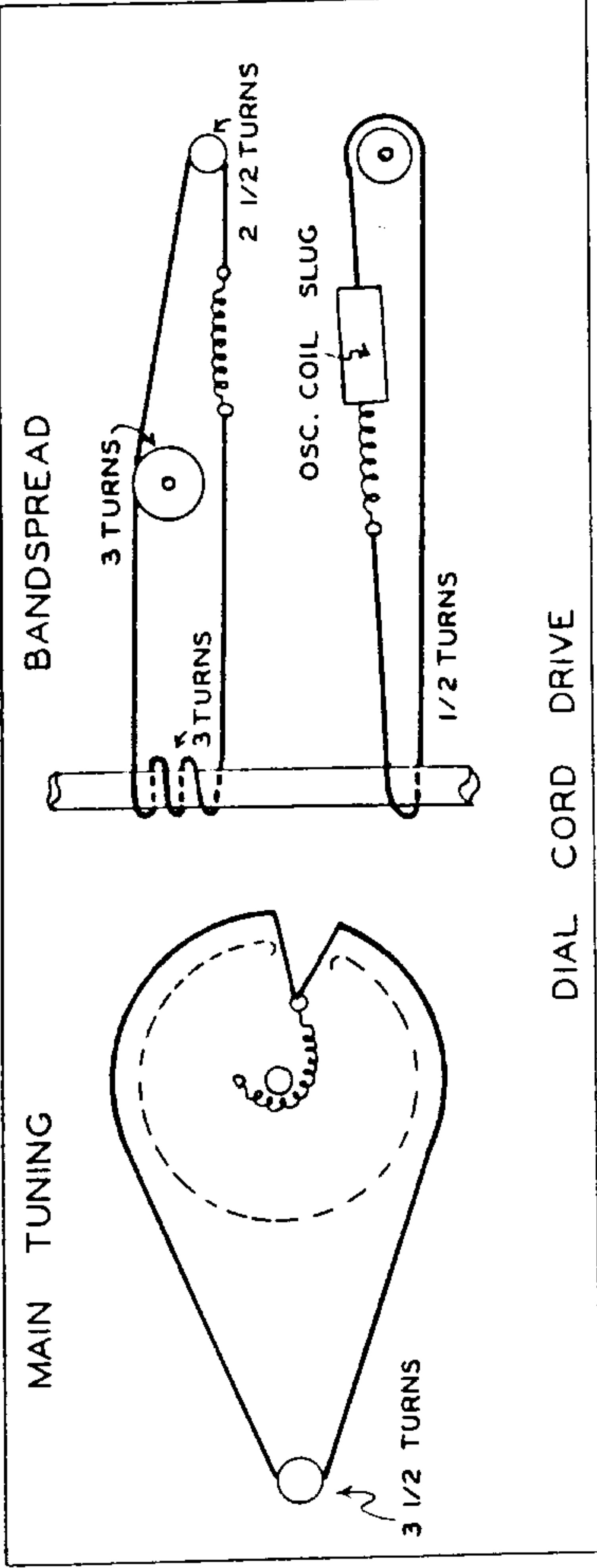
ITEM No.	USE	DC RES.		REPLACEMENT DATA		INSTALLATION NOTES
		PRI.	SEC.	HALLICRAFTERS PART No.	MEISSNER PART No.	
45A	Ant. Coil BC	28Ω	3.5Ω			Items 45A, 45B, 45C wound on same form
45B	" Band 2	1Ω	.5Ω			
45C	Ant. Coil	1Ω	0Ω			Items 46A, 46B, 46C wound on same form
46A	Osc. Coil BC	2Ω				
46B	" " b2	.5Ω				
46C	" " b3	0Ω				
47	RFU Coil	24Ω	25Ω	250-183	16-0858	
48	Input IF	21Ω	21.5Ω	35C184	16-0860	
49	Output IF	21Ω	21.5Ω	35C184	16-0860	

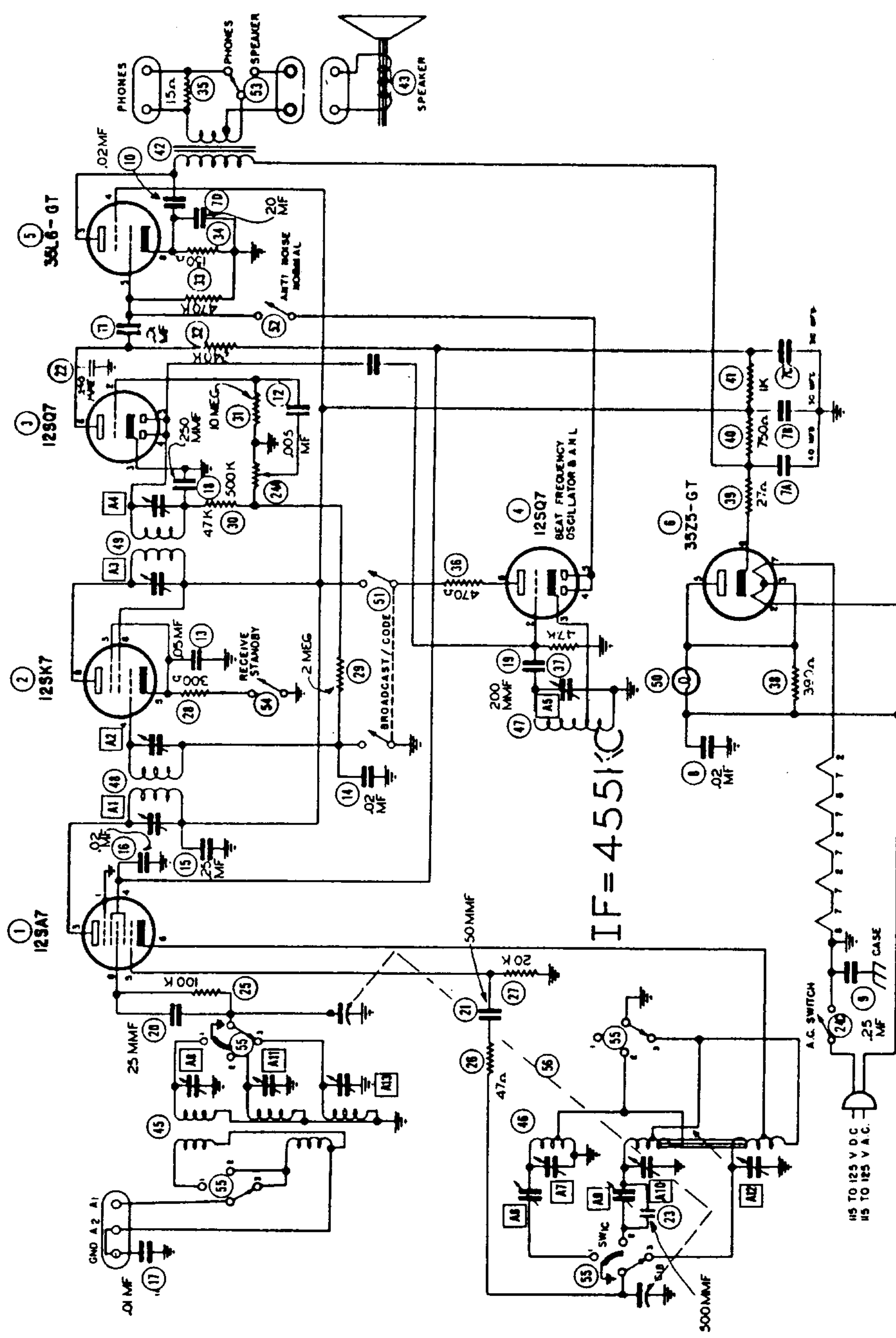
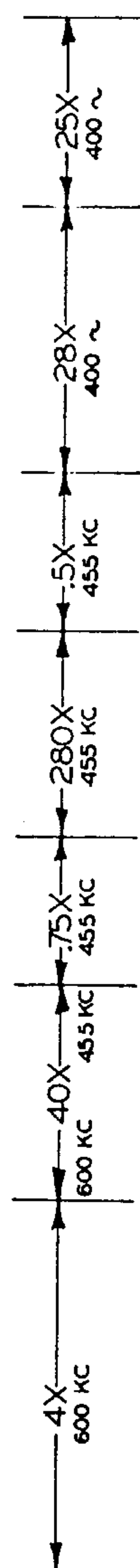
DIAL LIGHT

ITEM No.	BASE TYPE	VOLTS	AMPS.	READ COLOR	REPLACEMENT DATA		INSTALLATION NOTES
					HALLICRAFTERS PART No.	MEISSNER PART No.	
50	Bayonet	6-8	0.15	Brown			Type #7

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.	46C151	





(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	0V	64V DC	11V AC	0V
4	12SQ7GT	0V	1V DC	0V	1V DC	0V	95V DC	36V AC	46.5V AC
5	35L6GT	0V	46.5V AC	107V DC	97V DC	0V	86V AC	86V AC	5.8V DC
6	35Z5GT	0V	113V AC	0V	113V AC	0V	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	460KΩ	460KΩ	11Ω	72Ω	120Ω
6	35Z5GT	11Ω	97Ω	94Ω	11Ω	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 ± 10% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.