



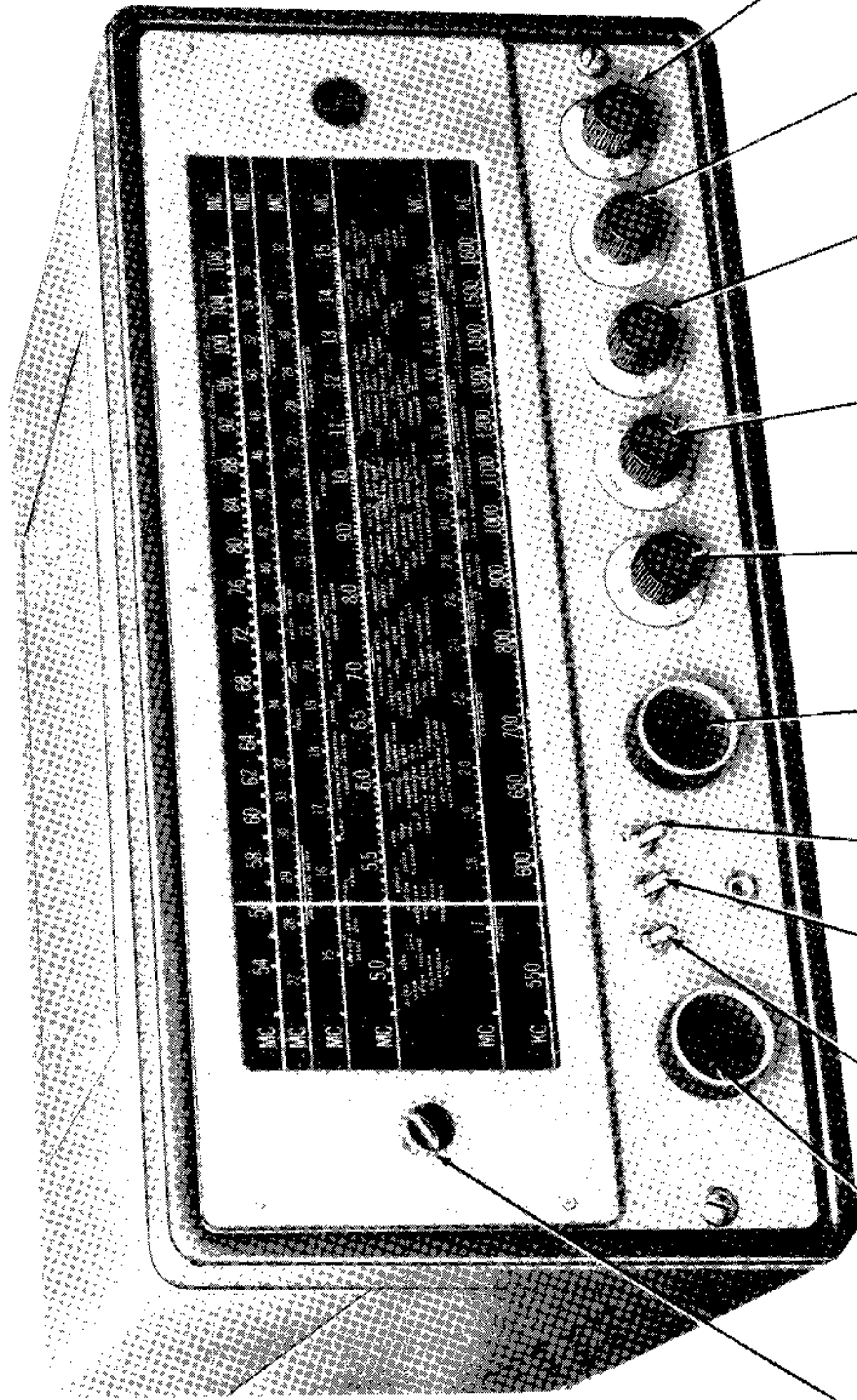
communications

**OPERATING and SERVICE
INSTRUCTIONS**



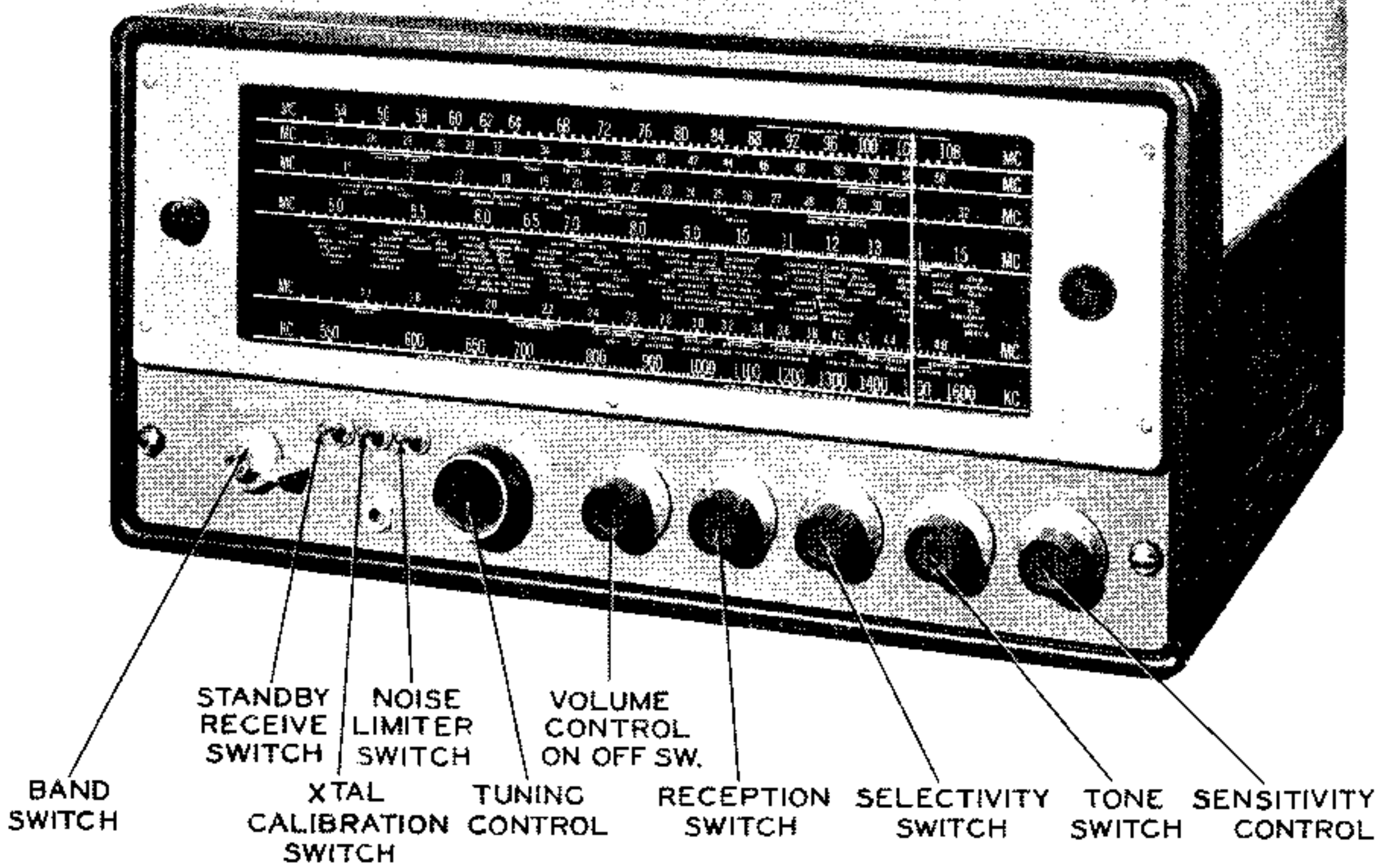
the hallicrafters co.

MANUFACTURERS OF PHOTO AND ELECTRONIC EQUIPMENT, CHICAGO 24, U.S.A.



BAND SELECTOR SWITCH
 RECEIVE-STANDBY SWITCH
 NOISE LIMITER SWITCH
 XTAL. CONTROL SWITCH
 TUNING CONTROL SWITCH
 VOLUME CONTROL SWITCH
 RECEPTION CONTROL SWITCH
 SELECTIVITY CONTROL
 SENSITIVITY CONTROL
 TONE CONTROL

Fig. 1. Radio Receiver Model SX-62/62U



HALLICRAFTERS
MODEL SX-62

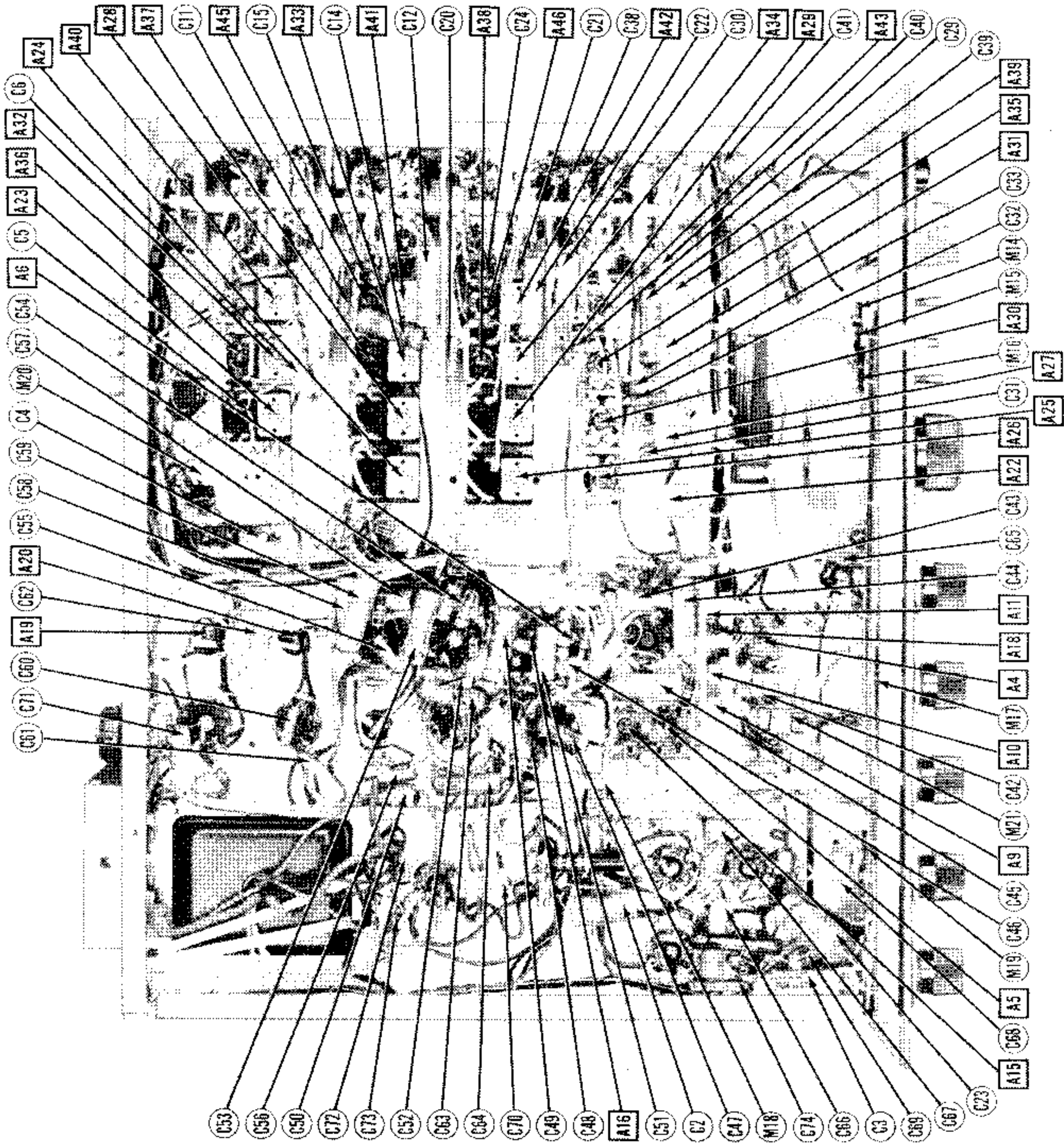
HALLICRAFTERS MODEL SX-62

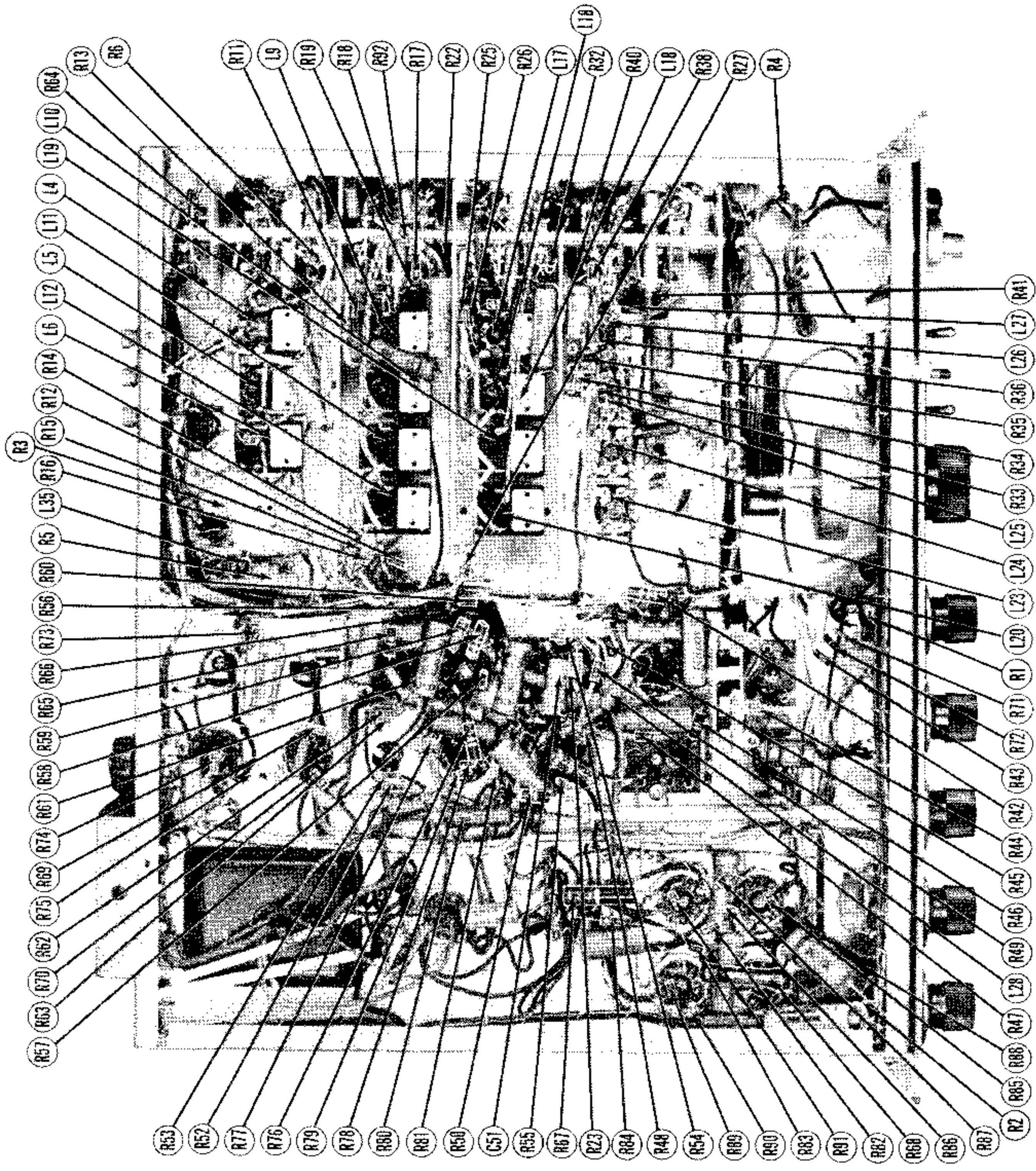
TRADE NAME Hallcrafters, Model SX-62
 MANUFACTURER The Hallcrafters Co., 5th & Kostner Avenues, Chicago 24, Illinois
 TYPE SET AC Operated Multi-Band AM-FM Superheterodyne Receiver
 TUBES(SIXTEEN) Types 6C4 XTAL Calib. Osc., 6AG5 1st RF Amp., 6AC5 2nd RF Amp., 7F8 Converter, 6SK7 1st IF Amp., 6SG7 2nd IF Amp., 7H7 3rd IF Amp., 7H7 4th FM IF Amp.-AM DET-AVC, 6H6 Discriminator, 7A4 CW Beat Osc. 6H6 Noise Limiter, 6SL7GT AF-Phase Inv. (2) 6V6GT Power Output, CD3/VR-150 Voltage Regulator, 5U4G Rectifier
 POWER SUPPLY 105-125 Volts AC RATING .98 Amp., @ 117 Volts AC
 TUNING RANGE Band #1 550-1620KC, Band#2 1.62-1.9MC, Band#3 4.9-15MC, Band#4 15-32MC, Band#5 27-56MC AM-FM, Band#6 54-109MC AM-FM.

HOWARD W. SAMS & CO., INC. • Indianapolis Indiana

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**HALLICRAFTERS
MODEL SX-62**

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

ITEM No.	RATING	REPLACEMENT DATA		IDENTIFICATION CODES
		HALLICRAFTERS PART No.	IRC PART No.	
R27	1200Ω	RC20AE122K	RTS-1200	2nd RF Decoupling
R28	150Ω	RC20AE150V		RF Coil Shunt
R29	2.2 Meg.	RC20AE22M	RTS-2.2 Meg.	Converter Grid
R30	1000Ω	RC20AE100K	RTS-1000	Parasitic Suppressor
R31	47Ω	RC20AE470M		2nd RF Decoupling
R32	2200Ω	RC20AE22M	RTS-2200	Osc. Coil Shunt
R33	56Ω	RC20AE56K		Osc. Grid
R34	4700Ω	RC20AE472K	RTS-4700	Osc. Coil Shunt
R35	4700Ω	RC20AE472K	RTS-4700	Osc. Coil Shunt
R36	33Ω	RC20AE330M		"
R37	15Ω	RC20AE150M		"
R38	15Ω	RC20AE150M		Osc. Grid
R39	10KΩ	RC20AE10K		Osc. Plate
R40	5600Ω	RC20AE562K	RTS-5600	Osc. Plate Decoupling
R41	470Ω	RC20AE471M	RTS-470	Mixer Decoupling
R42	68KΩ	RC20AE68K	RTS-68K	AVC Network
R43	1000Ω	RC20AE100K	RTS-1000	"
R44	1 Meg.	RC20AE100M	RTS-1 Meg.	1st IF Cathode
R45	270Ω	RC20AE270K	RTS-270	1st IF Screen Decoupling
R46	56KΩ	RC20AE56K	RTS-56K	1st IF Decoupling
R47	1000Ω	RC20AE100K	RTS-1000	2nd IF Cathode
R48	1.2 Meg.	RC20AE12M	RTS-1.2 Meg.	2nd IF Screen Decoupling
R49	500Ω	RC20AE500K	RTS-500	AVC Network
R50	68KΩ	RC20AE68K	RTS-68K	"
R51	2.2 Meg.	RC20AE22M	RTS-2.2 Meg.	3rd IF Coil Shunt
R52	1000Ω	RC20AE100K	RTS-1000	3rd IF Grid
R53	220KΩ	RC20AE22K	RTS-220K	3rd IF Screen Decoupling
R54	1 Meg.	RC20AE100M	RTS-1 Meg.	3rd IF Cathode
R55	68KΩ	RC20AE68K	RTS-68K	3rd IF Screen Decoupling
R56	47KΩ	RC20AE47K	RTS-47K	3rd IF Plate
R57	10KΩ	RC20AE10K	RTS-10K	3rd IF Decoupling
R58	1000Ω	RC20AE100K	RTS-1000	Limiter Grid
R59	47KΩ	RC20AE47K	RTS-47K	"
R60	47KΩ	RC20AE47K	RTS-47K	3rd IF Cathode
R61	47KΩ	RC20AE47K	RTS-47K	3rd IF Screen Decoupling
R62	47KΩ	RC20AE47K	RTS-47K	3rd IF Decoupling
R63	220KΩ	RC20AE22K	RTS-220K	"
R64	100Ω	RC20AE100K	RTS-100	3rd IF Cathode
R65	56KΩ	RC20AE56K	RTS-56K	Limiter Plate Decoupling
R66	330Ω	RC20AE330K	RTS-330	Output Cathode
R67	220Ω	RC20AE220K	RTS-220	Filter
R68	200Ω	RC20AE200K	RTS-200	Miss. Coil Shunt
R69	47KΩ	RC20AE47K	RTS-47K	De-emphasizer
R70	1500Ω	RC20AE150K	RTS-1500	AF Load
R71	1.5 Meg.	RC20AE15M	RTS-1.5 Meg.	AVC Shunt
R72	120Ω	RC20AE120K	RTS-120	Beal. Osc. Plate Decoupling
R73	120Ω	RC20AE120K	RTS-120	Beal. Osc. Cathode
R74	5100Ω	RC20AE510K	RTS-5100	Beal. Osc. Grid
R75	47KΩ	RC20AE47K	RTS-47K	Noise Limiter Filament
R76	6.8Ω	RC20AE680K	RTS-6.8	Noise Limiter Load
R77	2.2 Meg.	RC20AE22M	RTS-2.2 Meg.	Voltage Divider
R78	100KΩ	RC20AE100K	RTS-100K	Voltage Divider
R79	330KΩ	RC20AE330K	RTS-330K	Voltage Divider
R80	1 Meg.	RC20AE100M	RTS-1 Meg.	Noise Limiter Load
R81	470KΩ	RC20AE470K	RTS-470K	AF Cathode
R82	200Ω	RC20AE200K	RTS-200	Feedback Network
R83	56Ω	RC20AE56K	RTS-56	Phase Inverter Cathode
R84	10KΩ	RC20AE10K	RTS-10K	47 Plate
R85	1200Ω	RC20AE120K	RTS-1200	Phase Inverter Plate
R86	220KΩ	RC20AE220K	RTS-220K	Feedback Network
R87	220KΩ	RC20AE220K	RTS-220K	Phase Inverter Grid
R88	1000Ω	RC20AE100K	RTS-1000	Output Grid
R89	5200Ω	RC20AE520K	RTS-5200	"
R90	220KΩ	RC20AE220K	RTS-220K	"
R91	220KΩ	RC20AE220K	RTS-220K	"
R92	1000Ω	RC20AE100K	RTS-1000	3rd IF Coil Shunt See Note 1

Note. Some models use two 47K resistors in parallel. Note 1. Not used in all models.

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		NOTES
		HALLICRAFTERS PART No.	STANDARD REPLACEMENT	
V1	XTAL. Calib. Osc.	6C4		
V2	1st RF Amp.	6AG5		
V3	2nd RF Amp.	6AG5		
V4	Converter	7F8		
V5	1st IF Amp.	6SK7		
V6	2nd IF Amp.	6SK7		
V7	3rd IF Amp.	7L7		
V8	4th IF Amp.	7L7		
V9	AVC-DET-AVC	6H6		
V10	Discriminator	7A4		
V11	CW Beat. Sec.	6X5		
V12	Noise Limiter	6SL7GT		
V13	AF-Phase Inv.	6V6GT		
V14	Power Output	6V6GT		
V15	Voltage Regula- tor	6X5/VR-150		
V16	Rectifier	5U4G		

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 CAP. VOLT	REPLACEMENT DATA				IDENTIFICATION AND INSTALLATION NOTES
		HALLICRAFTERS PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	SPRAGUE PART No.	
C1A	30	45A0415	AF444J4A	UP4445C	MS-330	Filter
C1B	20				MS-330	Output Cath. Bypass
C1C	20				MS-330	AF Cath. Bypass
C2	10				7A-10	1st IF Screen Bypass
C3	100				UHC-102	Cathode Bypass
C4	0.1				88P33	XTAL. Cal. Plate Bypass
C5	2				88P34	HP Coupling
C6	0.05				88P16	AVC Filter
C7	5				MS-5-55	Fixed Trimmer
C8	7				88P16	1st RF Cath. Bypass
C9	0.05				88P33	1st IF Screen Bypass
C10	0.1				88P34	1st IF Plate Decoupling
C11	0.02				88P34	"
C12	0.02				88P34	"
C13	5000				1FM-26	AVC Filter
C14	0.05				88P16	RF Coupling
C15	2				MS-415	Fixed Trimmer
C16	15				88P16	2nd IF Cath. Bypass
C17	7				88P33	2nd IF Screen Bypass
C18	0.5				88P34	2nd IF Plate Decoupling
C19	0.1				1FM-26	"
C20	0.02				88P34	"
C21	5000				88P34	"
C22	0.02				88P34	Cathode Bypass
C23	0.02				88P34	HP Coupling
C24	2				88P34	Fixed Trimmer
C25	15				MS-415	Fixed Trimmer
C26	7				88P34	Fixed Padder
C27	47				1FM-45	"
C28	0.1				88P33	"
C29	0.1				88P33	"
C30	0.1				88P33	"
C31	470				MS-3-215	"
C32	1500				MS-3-215	"
C33	4700				MS-3-215	"
C34	7				MS-3-215	"
C35	6				MS-3-215	"
C36	220				MS-3-215	"
C37	10				MS-3-215	"
C38	10				MS-3-215	"
C39	0.02				MS-3-215	"
C40	15				MS-3-215	"
C41	0.05				MS-3-215	"
C42	0.02				MS-3-215	"
C43	0.05				MS-3-215	"

PARTS LIST AND DESCRIPTIONS (Continued)

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA			IDENTIFICATION CODES AND INSTALLATION NOTES
		HALLICRAFT. PART No.	AEROVOX PART No.	DUBNELL-CORNIELL PART No.	
C44	.02	46AY203J	P688-02	ST-6-02	1st IF Screen Bypass
C45	.05	46AY203J	P688-05	ST-6-05	1st IF Plate Decoup.
C46	.01	46AY203J	P688-01	ST-6-01	AVC Filter
C47	.05	46AY203J	P688-05	ST-6-05	2nd IF Cath. Bypass
C48	.05	46AY203J	P688-05	ST-6-05	2nd IF Screen Bypass
C49	.02	46AY203J	P688-02	ST-6-02	2nd IF Plate Decoup.
C50	.01	46AY203J	P688-01	ST-6-01	AVC Filter
C51	.01	46AY203J	P688-01	ST-6-01	3rd IF Grid Filter
C52	.01	46AY203J	P688-01	ST-6-01	3rd IF Cath. Bypass
C53	.02	46AY203J	P688-02	ST-6-02	3rd IF Screen Bypass
C54	.02	46AY203J	P688-02	ST-6-02	3rd IF Plate Decoup.
C55	.180	46AY203J	P688-02	ST-6-02	Plate Filter
C56	.180	46AY203J	P688-02	ST-6-02	Plate Filter
C57	.02	46AY203J	P688-02	ST-6-02	1st IF Screen Bypass
C58	.01	46AY203J	P688-01	ST-6-01	1st IF Plate Decoup.
C59	.02	46AY203J	P688-02	ST-6-02	Decoupling
C60	.47	46AY203J	P688-05	ST-6-05	RF Bypass
C61	.05	46AY203J	P688-05	ST-6-05	De-emphasis
C62	.05	46AY203J	P688-05	ST-6-05	2nd Beat Usc. Plate Dec.
C63	.05	46AY203J	P688-05	ST-6-05	Audio Coupling
C64	.05	46AY203J	P688-05	ST-6-05	Audio Coupling
C65	.01	46AY203J	P688-01	ST-6-01	"
C66	.02	46AY203J	P688-02	ST-6-02	"
C67	.02	46AY203J	P688-02	ST-6-02	"
C68	.05	46AY203J	P688-05	ST-6-05	Tone Comp.
C69	.05	46AY203J	P688-05	ST-6-05	RF Bypass
C70	.01	46AY203J	P688-01	ST-6-01	Switch Bypass
C71	.01	46AY203J	P688-01	ST-6-01	Line Filter
C72	.01	46AY203J	P688-01	ST-6-01	Line Filter
C73	.01	46AY203J	P688-01	ST-6-01	Line Filter
C74	.01	46AY203J	P688-01	ST-6-01	Output Grid Bypass

§ Two 10KFD sections connected in parallel.
Note: Not used in all models.

CONTROLS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA			INSTALLATION NOTES
		IRIC PART No.	CLAROSTAT PART No.	IRIC PART No.	
R1A	1 Meg. Shaft Switch	25A549 Not Req.	M-63-2 Not Req.	M-63-2	Volume control
R2	10KΩ	25A549 Not Req.	M-27-B	M-27-B	Attach to R1A Per Instructions Sensitivity control

RESISTORS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA			IDENTIFICATION CODES
		HALLICRAFTERS PART No.	IRIC PART No.	IRIC PART No.	
R3	4.7 Meg.	RC20AE175K	BTS-4.7 Meg.	BTS-4.7 Meg.	Crystal Oscillator Grid
R4	470KΩ	RC20AE174M	BTS-470K	BTS-470K	Crystal Oscillator Voltage Dropping
R5	27KΩ	RC40AE275K	ST-2-27K	ST-2-27K	Crystal Oscillator Plate Decoup.
R6	100KΩ	RC20AE104M	3MS-100K	3MS-100K	Ant. Coil Shunt
R7	15Ω	RC20AE150M			Parasitic Suppressor
R8	15Ω	RC20AE150M			1st RF Cathode
R9	150Ω	RC20AE150M			RF Coil Shunt
R10	15Ω	RC20AE150M			1st RF Decoupling
R11	220Ω	RC20AE220M	BTS-220	BTS-220	1st RF Decoupling
R12	120Ω	RC20AE120K	3MS-1200	3MS-1200	Parasitic Suppressor
R13	330Ω	RC20AE330M			AVC Network
R14	2.2 Meg.	RC20AE225K	BTS-2.2 Meg.	BTS-2.2 Meg.	"
R15	5.6 Meg.	RC20AE565K	BTS-5.6 Meg.	BTS-5.6 Meg.	RF Coil Shunt
R16	470KΩ	RC20AE474M	BTS-470K	BTS-470K	1st RF Decoupling
R17	100KΩ	RC20AE104M	BTS-100K	BTS-100K	2nd RF Decoupling
R18	15Ω	RC20AE150M	HT6-100K	HT6-100K	2nd RF Cathode
R19	220Ω	RC20AE220M	HT6-2200	HT6-2200	2nd RF Decoupling
R20	150Ω	RC20AE150M			Parasitic Suppressor
R21	15Ω	RC20AE150M			1st RF Decoupling
R22	47KΩ	RC30AE475K	BTA-47K	BTA-47K	2nd RF Decoupling
R23	100KΩ	RC20AE104K	BTA-100K	BTA-100K	Voltage Divider
R24	1000Ω	RC20AE102M	BTS-1000	BTS-1000	1st RF Plate Decoupling
R25	330Ω	RC20AE330M			Parasitic Suppressor
R26	2200Ω	RC20AE222M	BTS-2200	BTS-2200	2nd RF Decoupling

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA		
	PRI.	SEC. 1	SEC. 2	HALLICRAFTERS PART No.	STANCOR PART No.	CHICAGO PART No.
T1A	117VAC 3.98A 1.45A	300VAC 3A	0.3VAC 4.7A	520141	P-6314 *	FH-200 *
B	115/230 VAC 25/80 Cycle/leg			520131		

* Add series resistor to reduce plate voltage.

TRANSFORMER (OUTPUT)

ITEM No.	RATING			REPLACEMENT DATA			INSTALLATION NOTES
	IMPEDANCE	DC RES.	SEC.	HALLICRAFTERS PART No.	STANCOR PART No.	CHICAGO PART No.	
T2	6000Ω TAP @ CT	480Ω TAP @ CT	270Ω TAP @ CT	55B077			

FILTER CHOKE

ITEM No.	RATINGS		REPLACEMENT DATA			INSTALLATION NOTES	
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE @ 1000 CPS	HALLICRAFTERS PART No.	STANCOR PART No.		CHICAGO PART No.
L1	.080A	290Ω	175	56B067	C-1709	R-3120†	C-2990‡ ‡ Drill one new mounting hole.

R F COILS

ITEM No.	USE	DC RES.		REPLACEMENT DATA		INSTALLATION NOTES
		PRI.	SEC.	FALLICRAFTERS PART No.	MEISSNER PART No.	
L2	Ant. Coil	0Ω	0Ω	51B829		Band 6
L3	Ant. Coil	0Ω	0Ω	51B828		Band 4
L4	Ant. Coil	0Ω	0Ω	51B990		Band 3
L5	Ant. Coil	0Ω	0Ω	51B826		Band 1
L6	Ant. Coil	32Ω	0Ω	51B823		Band 6
L7	1st RF Coil	0Ω	0Ω	51B833		Band 6
L8	1st RF Coil	0Ω	0Ω	51B882		Band 4
L9	1st RF Coil	1.5Ω	0Ω	51B989		Band 3
L10	1st RF Coil	1.2Ω	0Ω	51B987		Band 2
L11	Ant. Coil	0Ω	0Ω	51B825		Band 1
L12	1st RF Coil	0Ω	0Ω	51B824		Wound on 330Ω res.
L13	RF Screen	0Ω	0Ω	37A117		Wound on 330Ω res.
L14	RF Screen	0Ω	0Ω	37A117		Wound on 330Ω res.
L15	2nd RF Coil	0Ω	0Ω	51B833		Band 6
L16	2nd RF Coil	0Ω	0Ω	51B844		Band 5
L17	2nd RF Coil	0Ω	0Ω	51B899		Band 4
L18	2nd RF Coil	0Ω	0Ω	51B988		Band 3
L19	1st RF Coil	0Ω	0Ω	51B986		Band 2
L20	2nd RF Coil	0Ω	0Ω	51B985		Band 1
L21	Osc. Coil	0Ω	0Ω	51B839		Band 6
L22	Osc. Coil	0Ω	0Ω	51B838		Band 5
L23	Osc. Coil	0Ω	0Ω	51B691		Band 4
L24	Osc. Coil	0Ω	0Ω	51B836		Band 3
L25	Osc. Coil	0Ω	0Ω	51B835		Band 2
L26	Osc. Coil	0Ω	1.5Ω	51B834		Band 1
L27	RF Plate	Chk.	2Ω	53B008		
L28	FM 1st IF	Chk.	.2Ω	53A009		
L29	FM 2nd IF	Chk.	.8Ω	50C198		
L30A	FM 2nd IF	Chk.	1.2Ω	50C190		
L31A	FM 3rd IF	Chk.	1.2Ω	50C573		
L32	IF Coupling	Chk.	1.0Ω	53B104		
L33	IF Coupling	Chk.	.2Ω	50C191		
L34	RF Plate	Chk.	25Ω	54C032		
L35	RF Plate	Chk.	25Ω	53A139		

† Include AM Pri. winding
‡ Secondary winding .5Ω

‡ Includes FM Pri. winding

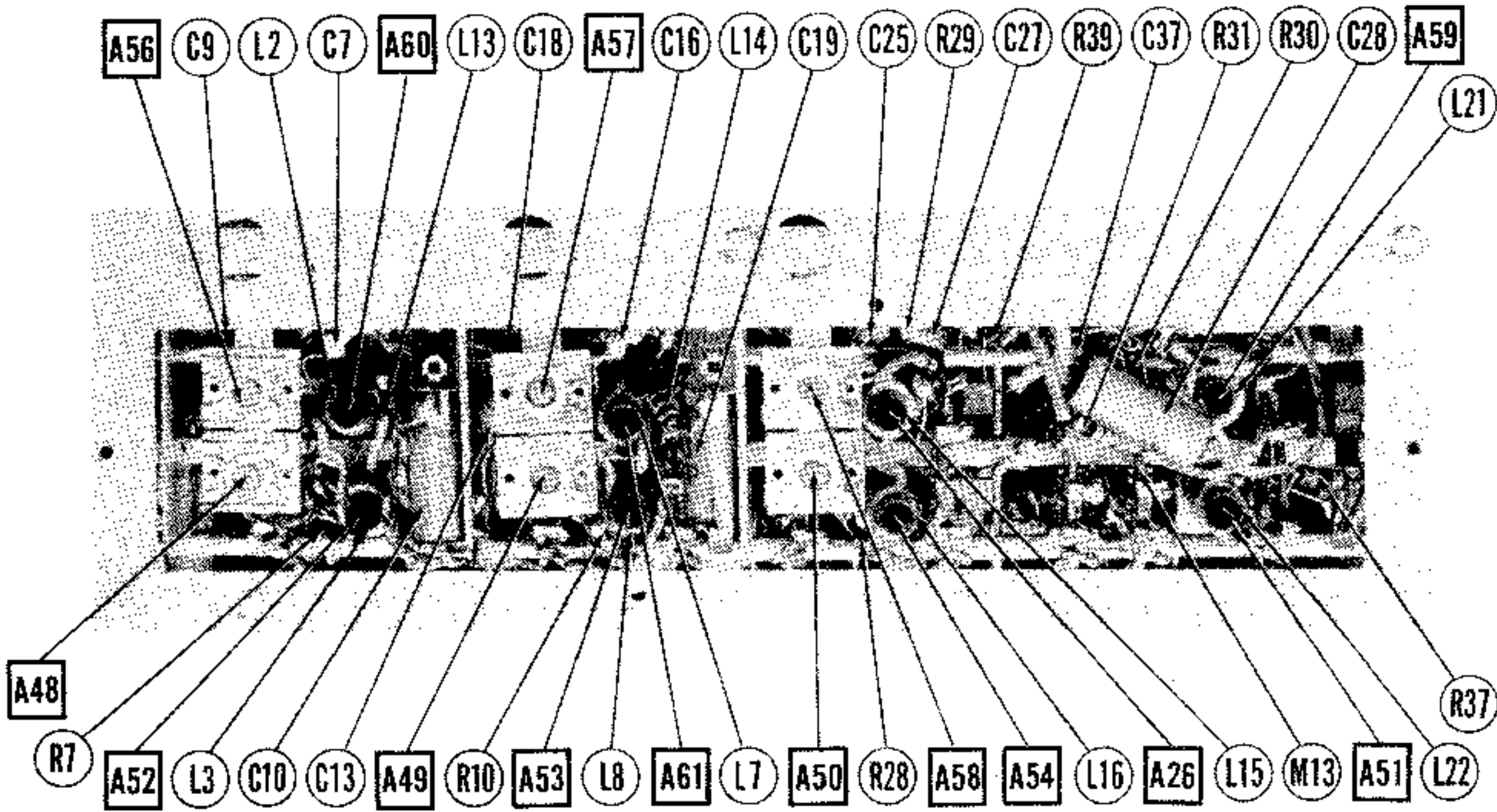
PARTS LIST AND DESCRIPTIONS (Continued)

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					HALF-CHARACTERS PART No.	CHARACTERS PART No.	
M1	Bayonet	6-8V	C. 85A	Blue			Type #44
M2							
M12							

MISCELLANEOUS

ITEM No.	PART NAME	HALF-CHARACTERS PART No.	CHARACTERS PART No.	NOTES
M3	Switch	603829		Selector
M4	"	604133		Standby
M5	"	604138		KTAL, Call
M6	"	604138		Noise Limiter
M7	"	600330		Receiver
M8	"	604334		Selectivity
M9	"	605236		Tone
M10	"	9A723		450K
M11	Crystal	1841211		600K
M12	Tuning Gang	480204		
M13	Trimmer	44A073		A8, A17, A35
M14	"	44B164		A9, A10, A11
M15	"	44A076		A22
M16	"	44A047		A27, A31
M17	"	44A347		A36
M18	"	44B155		(A45, A56), (A49, A57), (A50, A58)
M19	Dial Trimmers	22721		
M20	Dial Scale	67R833		Band Selector
M21	Dial Pointer	15A038-2		Receiver
M22	Apogee	15A040		Selectivity
	"	15A063		Tone
	"	15A082		Selectivity
	"	15A084		Sensitivity
	"	15A047		Tuning
	"	15A074-1		Pointer Defect
	"	15A087		Volume



ALIGNMENT INSTRUCTIONS

IF ALIGNMENT

Pre-set the front panel controls as follows:							
	Receive/standby	Receive					
	Calib. Xtal	Off					
	Noise Limiter	Off					
	Volume	Near Maximum					
	Reception	AM					
	Selectivity	Normal/Sharp					
	Sensitivity	Near Maximum					
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .1MFD	High side to Pin 1 (Grid) 7F8 (V4). Low side to chassis	455KC	Band 1	1000KC	Across voice coil	A1, A2 A3, A4 A5, A6	Adjust for maximum output.
2.	Set reception switch at "CW" and adjust A7 for 100% note.						
	Set selectivity control to crystal/broad. Turn A4 slowly in one direction across the resonant setting obtained above and "rock" the signal generator observing the dip in the output meter reading. The correct setting of A4 is in center of the observed dip. Set the signal generator at the weaker of the two peaks obtained on either side of zero beat and adjust A8 (crystal phasing trimmer) for the null.						
4.	Set selectivity control to crystal/sharp and A9 near minimum capacity. Slowly increase its capacity while "rocking" the signal generator and adjust for maximum output. It may be necessary to reduce the signal generator input and the receiver sensitivity to prevent overloading. After peaking A9, turn it in until a 2 db. drop in output occurs.						
5.	Tune signal generator to the exact crystal frequency and note output meter reading. Set selectivity control to crystal/broad position and note the drop in output reading. Switch to crystal/medium position and with A10 pre-set near minimum capacity, slowly increase its capacity, while "rocking" the signal generator, until output meter reads half way between output readings obtained in the sharp crystal and broad crystal positions.						
6.	Set reception switch to "AM" and the selectivity control to crystal/sharp and set signal generator to the exact crystal frequency. Switch to normal/sharp position and reset A1, A2, A3, A5, A6, and A11 for maximum output.						
7.	Set reception switch to "CW" and adjust A7 for zero beat.						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
8. .1MFD	High side to Pin 1 (Grid) 7F8 (V4). Low side to chassis.	10.7MC (AM) (400% MOD)	Band 3	Mid Scale	Across voice coil	A12, A13, A14, A15, A16	Adjust for maximum output.
9. .1MFD	"	"	"	"	"	A17, A18	Adjust for maximum output. Do not readjust A12 thru A16.
10.	Remove 400% modulation and set reception control to "CW". Adjust A19 for zero beat.						
11.	Add 400% modulation, turn reception control to "FM" and adjust A20 for maximum output.						
12.	Adjust A21 for the null or minimum indication on the output meter. Slowly tune signal generator thru 10.7MC and note the two maximum readings on the output meter. If the peaks are equal, the discriminator transformer is properly aligned. If not, it may be necessary to readjust A20 until reasonable balance is obtained.						

Connect signal generator high side thru RMA dummy to A-1 on antenna terminal strip and place a jumper across the "A-2" and "GND" terminals. Use only enough signal from generator to give a 500 milliwatt output reading for best results.
The RMA dummy antenna consists of a 200MMF capacitor in series with a 200H. RF choke which is shunted by a 400MMF capacitor in series with a 400Ω carbon resistor.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
13. RMA Dummy	High side to "A1" on Ant. terminal strip. Low side to chassis.	1500KC	Band 1	1500KC	Across voice coil	A22, A23, A24, A25	Adjust for maximum output.
14. RMA Dummy	"	800KC	"	800KC	"	A26	" " " "
15. RMA Dummy	"	4.5MC	Band 2	4.5MC	"	A27, A28, A29	" " " "
16. RMA Dummy	"	2.0MC	"	2.0MC	"	A30	" " " "
17. RMA Dummy	"	14.0MC	Band 3	14.0MC	"	A31, A32, A33, A34	" " " "
18. RMA Dummy	"	7.0MC	"	7.0MC	"	A35, A36, A37, A38	" " " "
19. RMA Dummy	"	28.0MC	Band 4	28.0MC	"	A39, A40, A41, A42	" " " "
20. RMA Dummy	"	18.0MC	"	18.0MC	"	A43, A44, A45, A46	" " " "
21. 300Ω carbon res.	High side thru 300Ω to "A1". Low side to chassis.	50.0MC	Band 5	50.0MC	"	A47, A48, A49, A50	" " " "
22. 300Ω carbon res.	"	30.0MC	"	30.0MC	"	A51, A52, A53, A54	" " " "
23. 300Ω carbon res.	"	105MC	Band 6	105MC	"	A55, A56, A57, A58	" " " "
24. 300Ω carbon res.	"	60MC	"	60MC	"	A59, A60, A61, A62	" " " "

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	6C4	23VDC	0V	0V	6.3VAC	23VDC	-1.4VDC	0V	
2	6AG5	0V	1.6VDC	0V	6.3VAC	235VDC	165VDC	1.6VDC	
3	6AG5	-1VDC	1.6VDC	0V	6.3VAC	240VDC	175VDC	1.6VDC	
4	7B2	-2VDC	0V	85VDC	1VDC	0V	125VDC	6.3VAC	-2.4VDC
5	6SK7	0V	6.3VAC	0V	0V	3.2VDC	100VDC	0V	240VDC
6	6SQ7	0V	6.3VAC	2.8VDC	0V	2.8VDC	140VDC	0V	240VDC
7	7H7	0V	225VDC	200VDC	0V	0V	0V	7.6VDC	6.3VAC
8	7H7	0V	50VDC	50VDC	0V	0V	-5VDC	0V	6.3VAC
9	6B6	0V	0V	-5.7VDC	1.8VDC	-1.8VDC	0V	6.3VAC	0V
10	7A4	0V	150VDC	0V	0V	0V	16.5VDC	28VDC	6.3VAC
11	6B6	0V	0V	-1.1VDC	-1.1VDC	0V	-2VDC	4.3VAC	0V
12	6SL7GT	0V	65VDC	8VDC	0V	85VDC	9VDC	6.3VAC	0V
13	6V6GT	0V	0V	270VDC	240VDC	0V	0V	6.3VAC	14.5VDC
14	6V6GT	0V	0V	270VDC	240VDC	0V	0V	6.3VAC	14.5VDC
15	OD3/VR-100	155VDC	0V	155VDC	0V	155VDC	0V	1.5VDC	0V
16	6U4G	0V	200VDC	0V	270VAC	0V	270VAC	250VDC	280VDC

‡ TAKEN WITH VACUUM TUBE VOLTMETER.

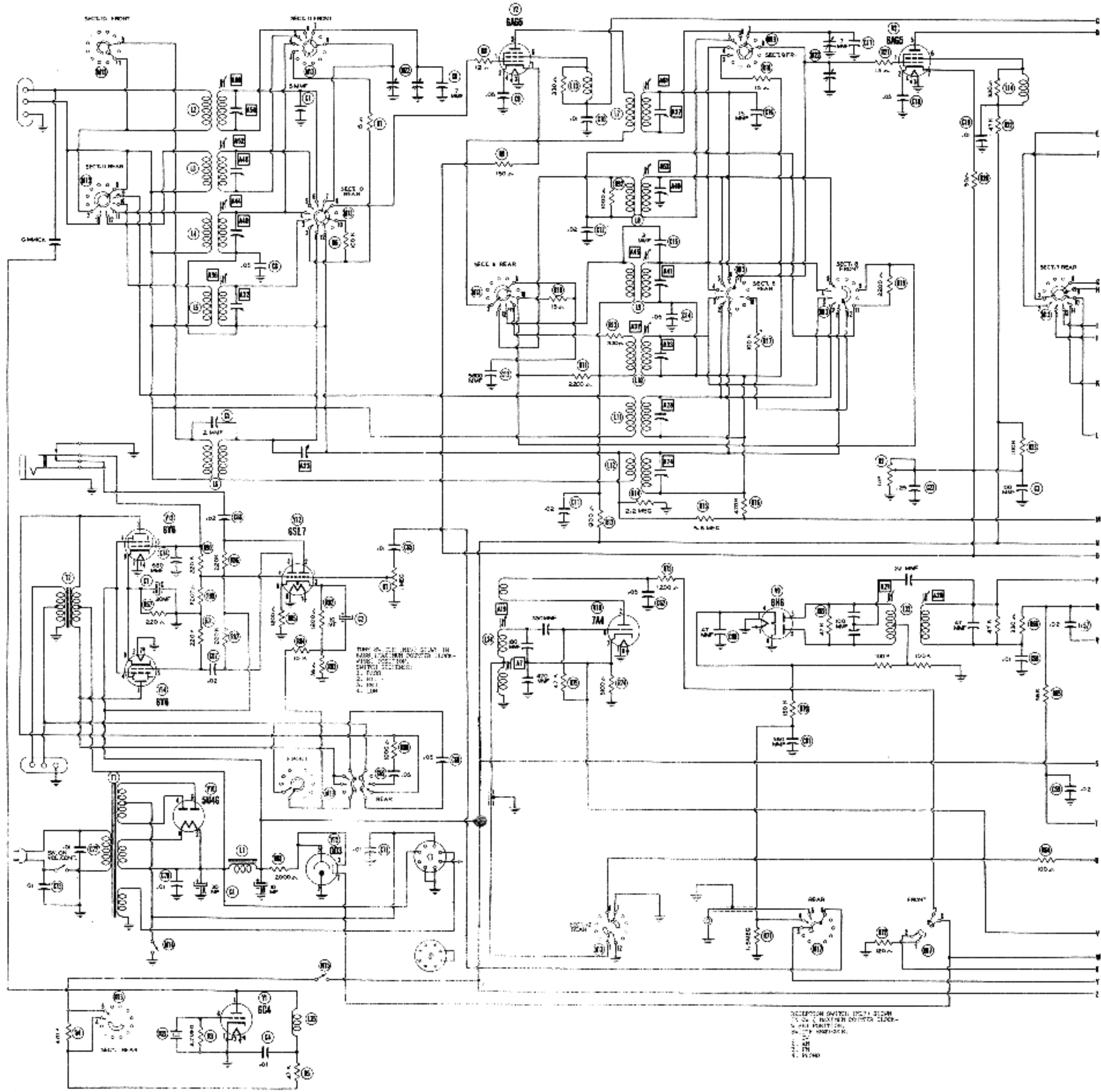
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	6C4	*500KΩ	0Ω	0Ω	.2Ω	*500KΩ	4.7 Meg.	0Ω	
2	6AG5	2. Meg.	Inf.	0Ω	.2Ω	*3.5KΩ	*3.5KΩ	170Ω	
3	6AG5	1.8 Meg.	Inf.	0Ω	.2Ω	*1.2KΩ	*47KΩ	170Ω	
4	7B2	2.2 Meg.	0Ω	*20KΩ	1000Ω	0Ω	*9KΩ	.2Ω	10KΩ
5	6SK7	0Ω	.2Ω	0Ω	2.2 Meg.	270Ω	*60KΩ	0Ω	*1.5KΩ
6	6SQ7	0Ω	.2Ω	330Ω	2.5 Meg.	530Ω	60KΩ	0Ω	*1.5KΩ
7	7H7	0Ω	*11KΩ	*50KΩ	0Ω	0Ω	2.2 Meg.	1.8KΩ	.2Ω
8	7H7	0Ω	*50 KΩ	*50KΩ	0Ω	0Ω	240KΩ	0Ω	.2Ω
9	6B6	0Ω	0Ω	180KΩ	200KΩ	120KΩ	Inf.	.2Ω	0Ω
10	7A4	0Ω	*100KΩ	10Ω	Inf.	Inf.	0KΩ	5KΩ	.2Ω
11	6B6	0Ω	0Ω	2.2Meg.	1.7 Meg.	Inf.	150KΩ	2.2Ω	Inf.
12	6SL7GT	1 Meg.	*220KΩ	1.3KΩ	8.2KΩ	*220KΩ	1.2KΩ	.2Ω	0Ω
13	6V6GT	0Ω	0Ω	*200Ω	*250Ω	220KΩ	10KΩ	.2Ω	220Ω
14	6V6GT	0Ω	0Ω	*250Ω	*290Ω	220KΩ	50Ω	.2Ω	220Ω
15	OD3/VR-100	*2.2KΩ	0Ω	*2.2KΩ	220KΩ	*2.2KΩ	Inf.	*2.2KΩ	Inf.
16	6U4G	Inf.	80KΩ	Inf.	60Ω	Inf.	30Ω	45KΩ	60KΩ

‡ VOLTAGE AND RESISTANCE READINGS TAKEN IN FM POSITION.

* Measured from pin 8 of V16 (6U4G)
 † Taken in band 2 position.

- DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 ohms.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.



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VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	6C4	23VDC	0V	0V	6.3VAC	23VDC	-1.4VDC	0V	
2	6AG5	0V	1.6VDC	0V	6.3VAC	235VDC	165VDC	1.6VDC	
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6	6SQ7	0V	6.3VAC	2.8VDC	0V	2.8VDC	140VDC	0V	240VDC
7	7H7	0V	225VDC	200VDC	0V	0V	0V	7.6VDC	6.3VAC
8	7H7	0V	50VDC	50VDC	0V	0V	-5VDC	0V	6.3VAC
9	6B6	0V	0V	-5.7VDC	1.8VDC	-1.8VDC	0V	6.3VAC	0V
10	7A4	0V	150VDC	0V	0V	0V	16.5VDC	28VDC	6.3VAC
11	6B6	0V	0V	-1.1VDC	-1.1VDC	0V	-2VDC	4.3VAC	0V
12	6SL7GT	0V	65VDC	8VDC	0V	85VDC	9VDC	6.3VAC	0V
13	6V6GT	0V	0V	270VDC	240VDC	0V	0V	6.3VAC	14.5VDC
14	6V6GT	0V	0V	270VDC	240VDC	0V	0V	6.3VAC	14.5VDC
15	OD3/VR-100	155VDC	0V	155VDC	0V	155VDC	0V	155VDC	0V
16	6U4G	0V	200VDC	0V	270VAC	0V	270VAC	250VDC	280VDC

‡ TAKEN WITH VACUUM TUBE VOLTMETER.

RESISTANCE READINGS

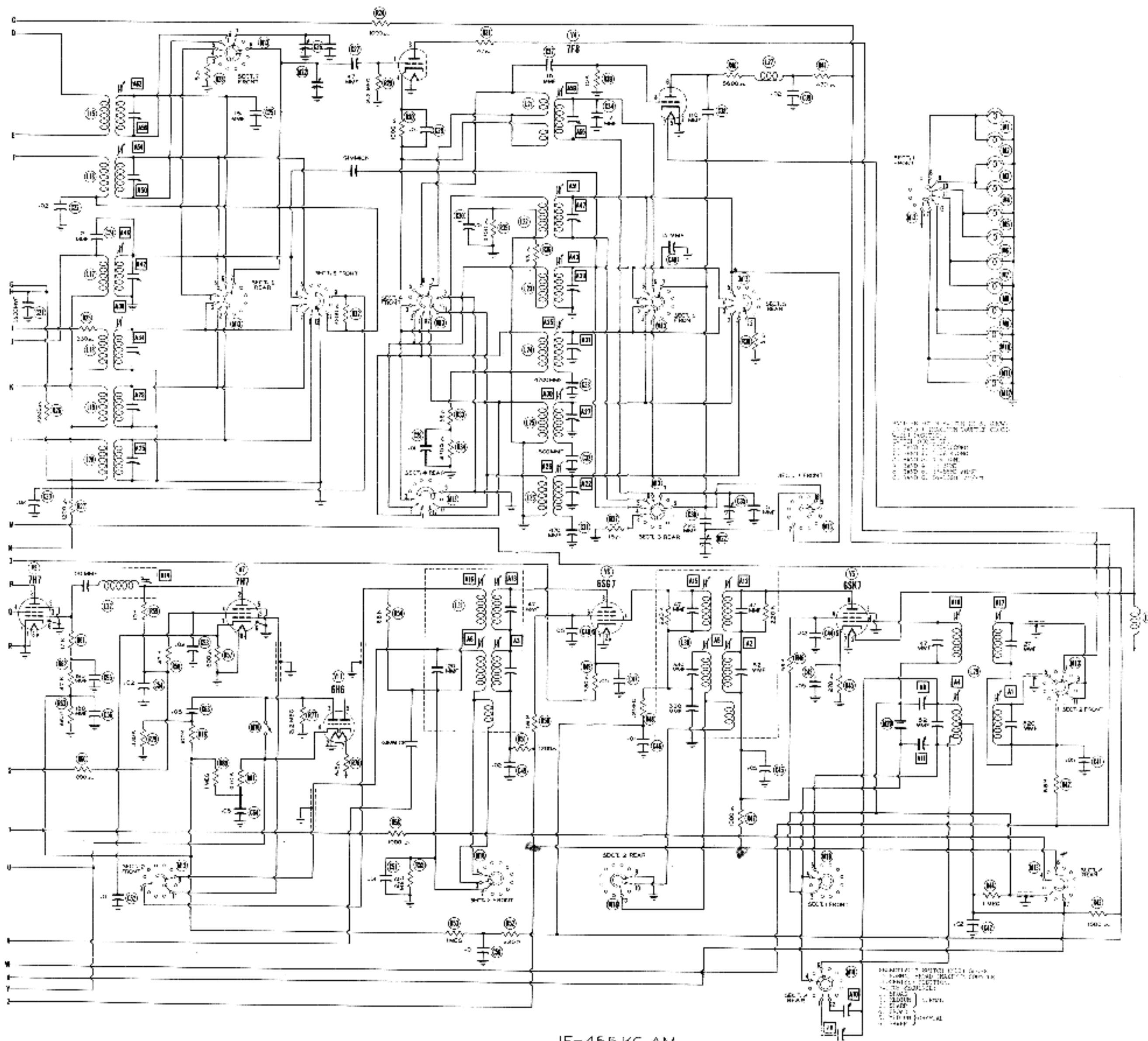
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	6C4	*500KΩ	0Ω	0Ω	.2Ω	*500KΩ	4.7 Meg.	0Ω	
2	6AG5	2. Meg.	Inf.	0Ω	.2Ω	*3.5KΩ	*3.5KΩ	170Ω	
3	6AG5	1.8 Meg.	Inf.	0Ω	.2Ω	*1.2KΩ	*47KΩ	170Ω	
4	7B2	2.2 Meg.	0Ω	*20KΩ	1000Ω	0Ω	*9KΩ	.2Ω	10KΩ
5	6SK7	0Ω	.2Ω	0Ω	2.2 Meg.	270Ω	*60KΩ	0Ω	*1.5KΩ
6	6SQ7	0Ω	.2Ω	330Ω	2.5 Meg.	530Ω	60KΩ	0Ω	*1.5KΩ
7	7H7	0Ω	*11KΩ	*50KΩ	0Ω	0Ω	2.2 Meg.	1.8KΩ	.2Ω
8	7H7	0Ω	*50 KΩ	*50KΩ	0Ω	0Ω	240KΩ	0Ω	.2Ω
9	6B6	0Ω	0Ω	180KΩ	200KΩ	120KΩ	Inf.	.2Ω	0Ω
10	7A4	0Ω	*100KΩ	10Ω	Inf.	Inf.	0KΩ	5KΩ	.2Ω
11	6B6	0Ω	0Ω	2.2Meg.	1.7 Meg.	Inf.	150KΩ	2.2Ω	Inf.
12	6SL7GT	1 Meg.	*220KΩ	1.5KΩ	8.2KΩ	*20KΩ	1.2KΩ	.2Ω	0Ω
13	6V6GT	0Ω	0Ω	*200Ω	*250Ω	220KΩ	10KΩ	.2Ω	220Ω
14	6V6GT	0Ω	0Ω	*250Ω	*290Ω	220KΩ	5Ω	.2Ω	220Ω
15	OD3/VR-100	*2.2KΩ	0Ω	*2.2KΩ	220KΩ	*2.2KΩ	Inf.	*2.2KΩ	Inf.
16	6U4G	Inf.	80KΩ	Inf.	60Ω	Inf.	30Ω	45KΩ	60KΩ

‡ VOLTAGE AND RESISTANCE READINGS TAKEN IN FM POSITION.

* Measured from pin 8 of V16 (6U4G)

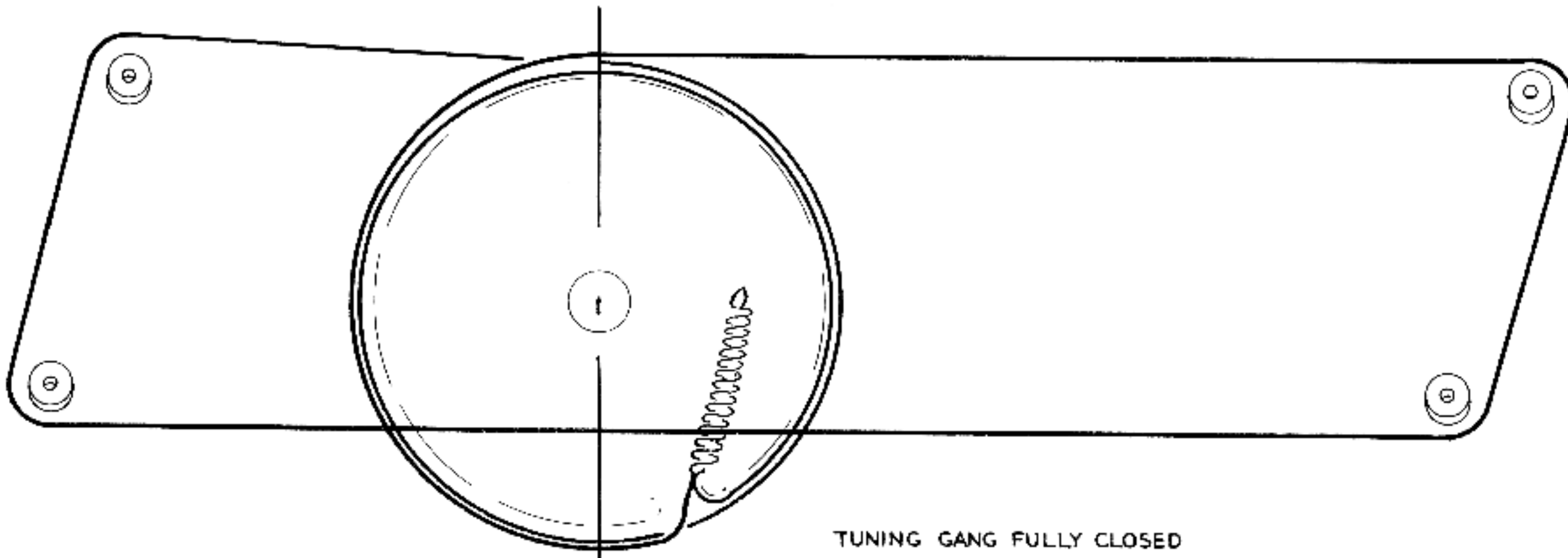
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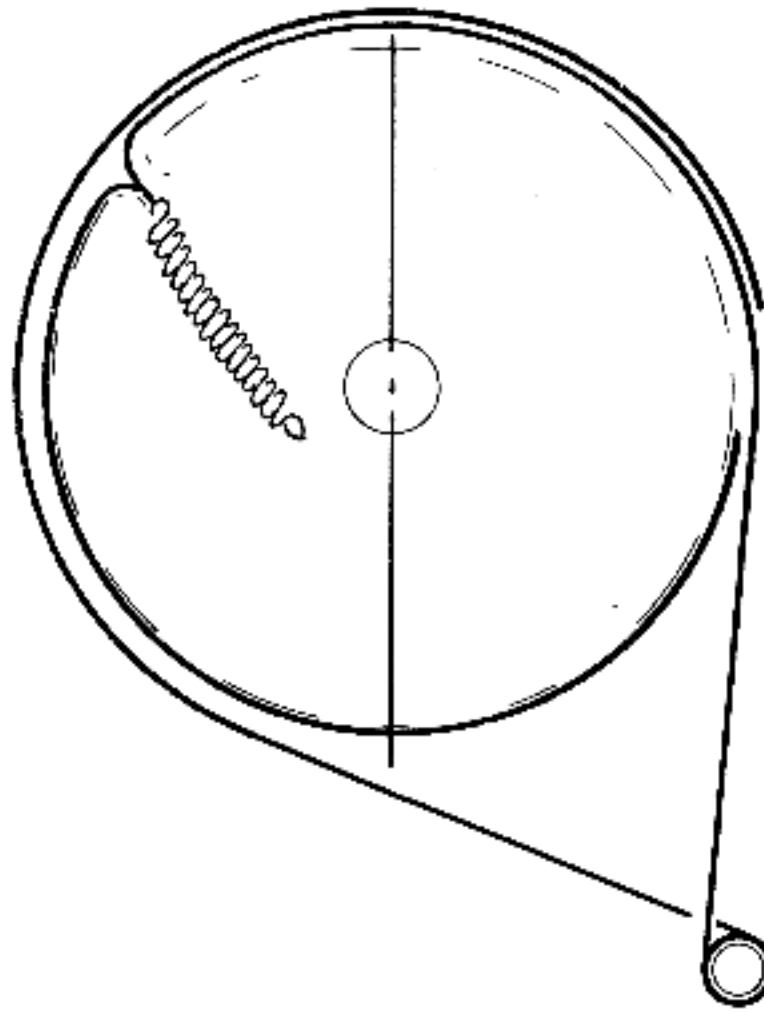


IF=455 KC AM
IF=10.7 MC FM

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TURNS

DIAL CORD DRIVE