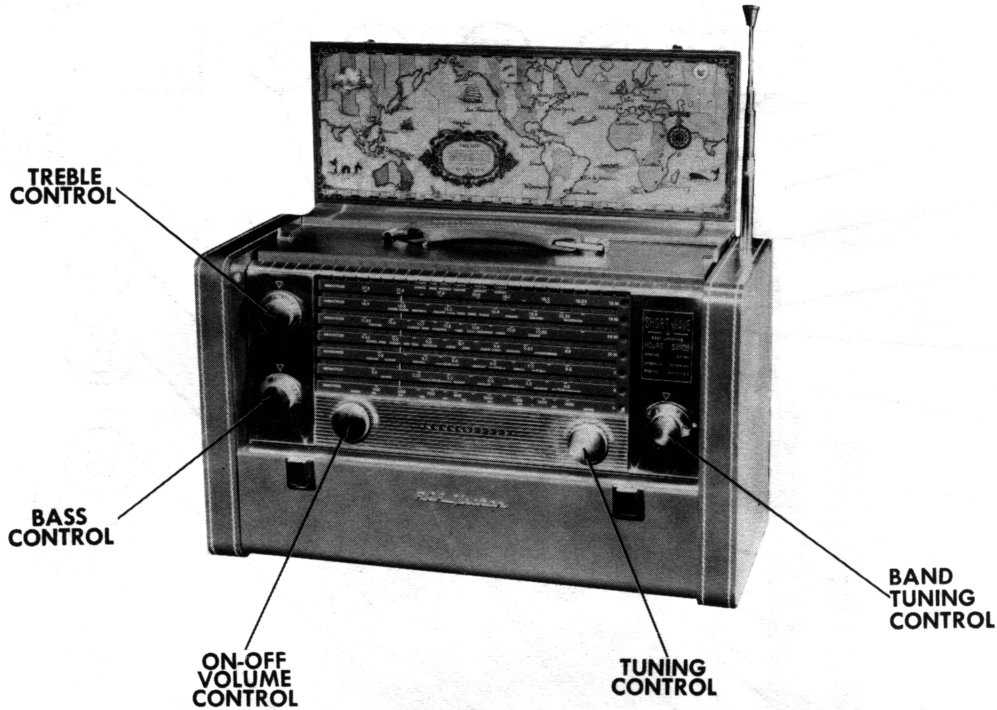


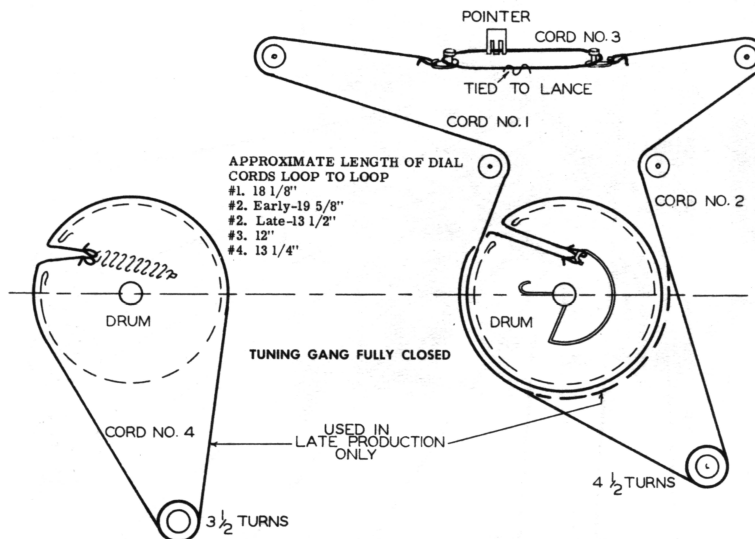


RCA VICTOR
MODEL 3-BX-671 (Ch. RC-1125)



RCA VICTOR
MODEL 3-BX-671 (Ch. RC-1125)

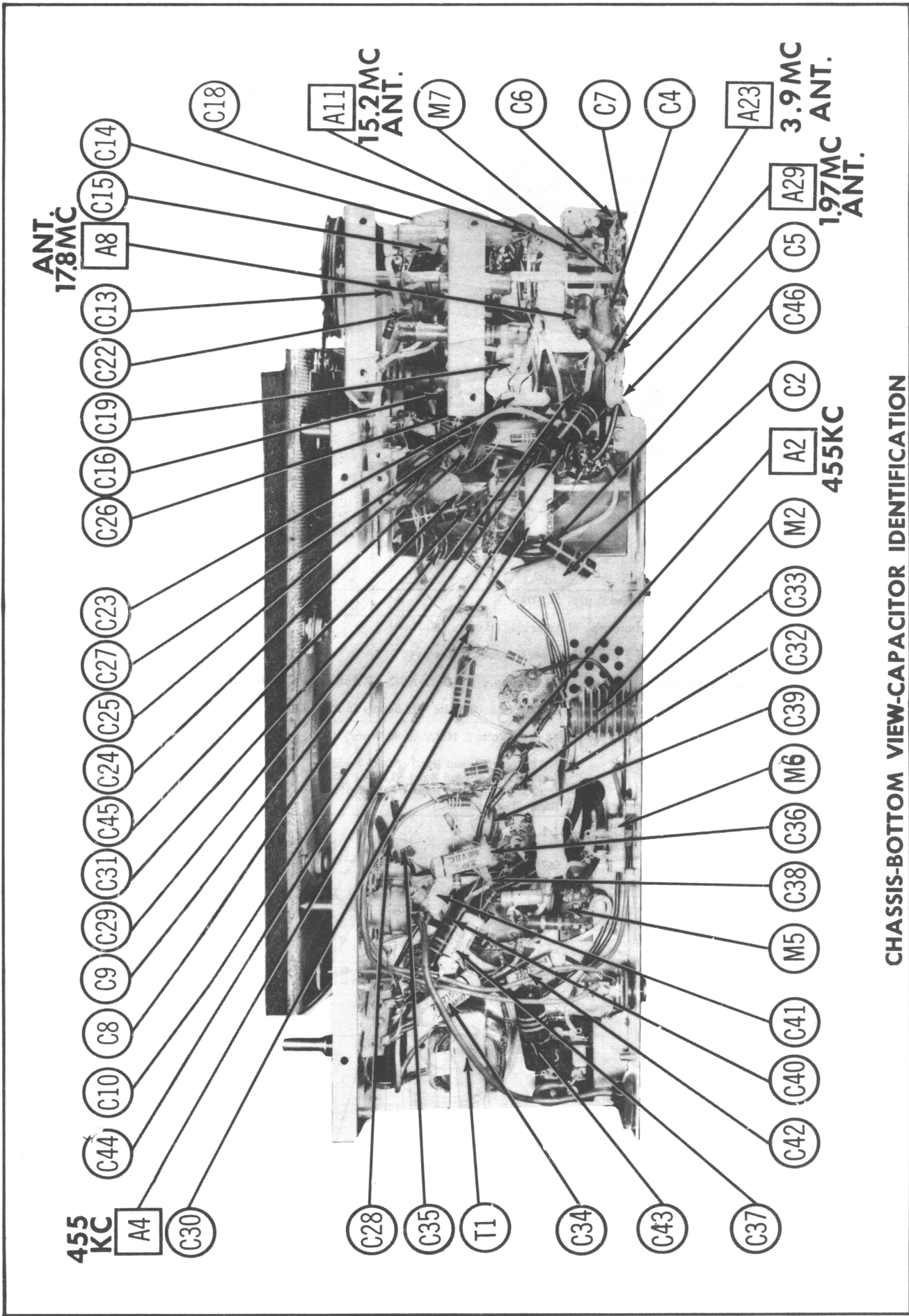
TRADE NAME	RCA Victor Model 3-BX-671 (Ch. RC-1125)	
MANUFACTURER	RCA Victor Div., Radio Corp. of America, Camden, N.J.	
TYPE SET	Three Power Portable 7 Band AM Superheterodyne Receiver	
TUBES (Five)	Types 1U4 RF Amp., 1L6 Conv., 1U4 IF Amp., 1U5 Det.-AVC-AF Amp., 3V4 Audio Output	
POWER SUPPLY	110-120 Volts AC-DC (or) 9 Volts "A" Supply & 90 Volts "B" Supply in Pack Form	
RATING	.110 Amp. @ 117 Volts AC (or) 56MA @ 9 Volts & 14MA @ 90 Volts DC	
TUNING RANGE	"A" Band (540-1600KC)	31 Meter Spread Band (9.45-9.85MC)
	"B" Band (2.0-4.0MC)	25 Meter Spread Band (11.55-12.05MC)
	"C" Band (4.0-8.0MC)	19 Meter Spread Band (14.9-15.55MC)
	16 Meter Spread Band (17.5-18.2MC)	



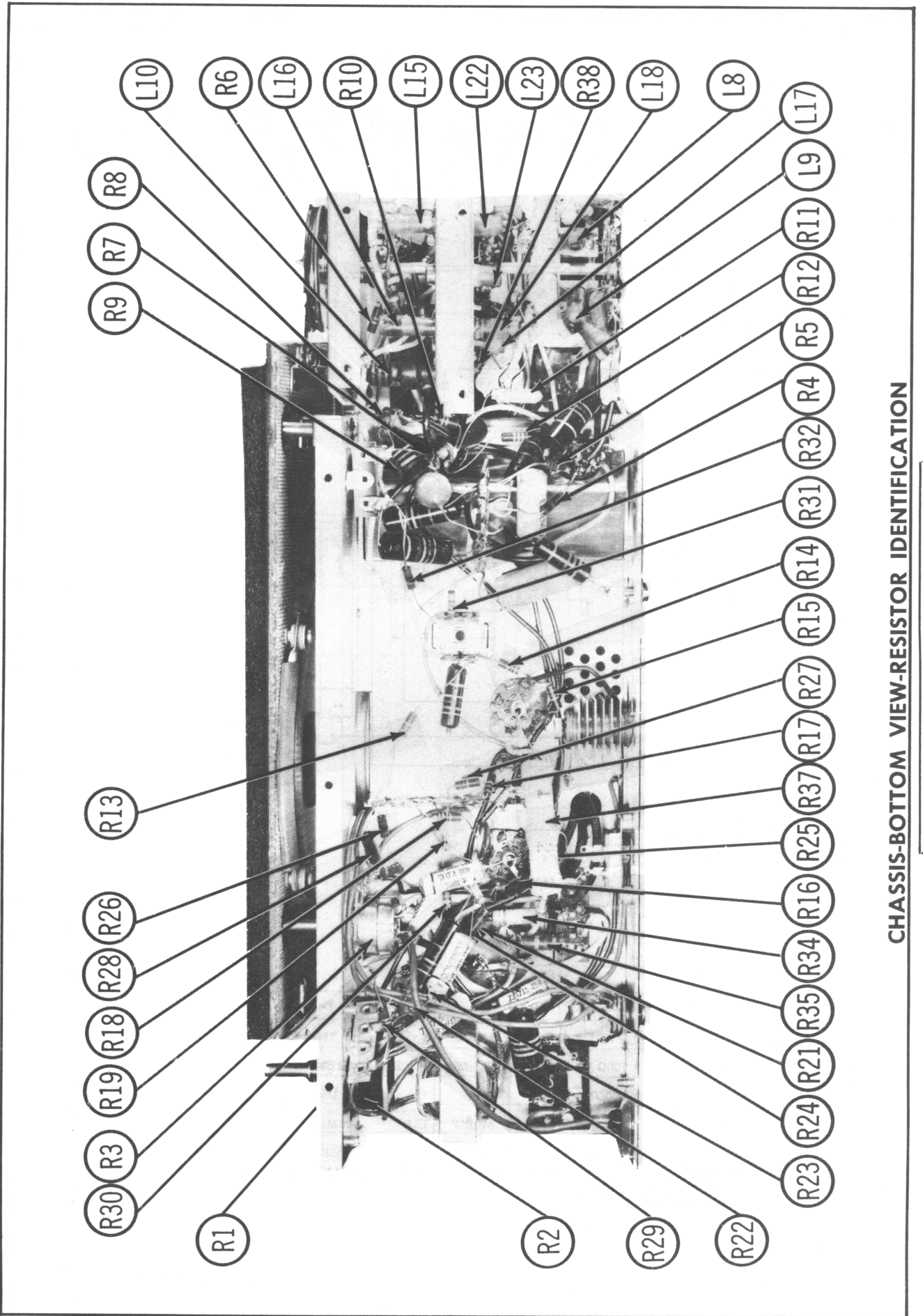
HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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CHASSIS-BOTTOM VIEW-CAPACITOR IDENTIFICATION



CHASSIS-BOTTOM VIEW-RESISTOR IDENTIFICATION

RCA VICTOR
 MODEL 3-BX-671 (Ch. RC-1125)

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Receiver alignment with battery operation is preferable.
 Use isolation transformer, if available. If not, connect a .1MF capacitor in series with low side of signal generator and chassis.
 Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.
 Turn treble tone control fully clockwise and bass tone control fully counter clockwise.
 With tuning gang fully closed set pointer at red index mark just below "17.5" on the 16 meter spread band scale.
 Attenuate generator to maintain as low an output as possible to avoid AVC action.

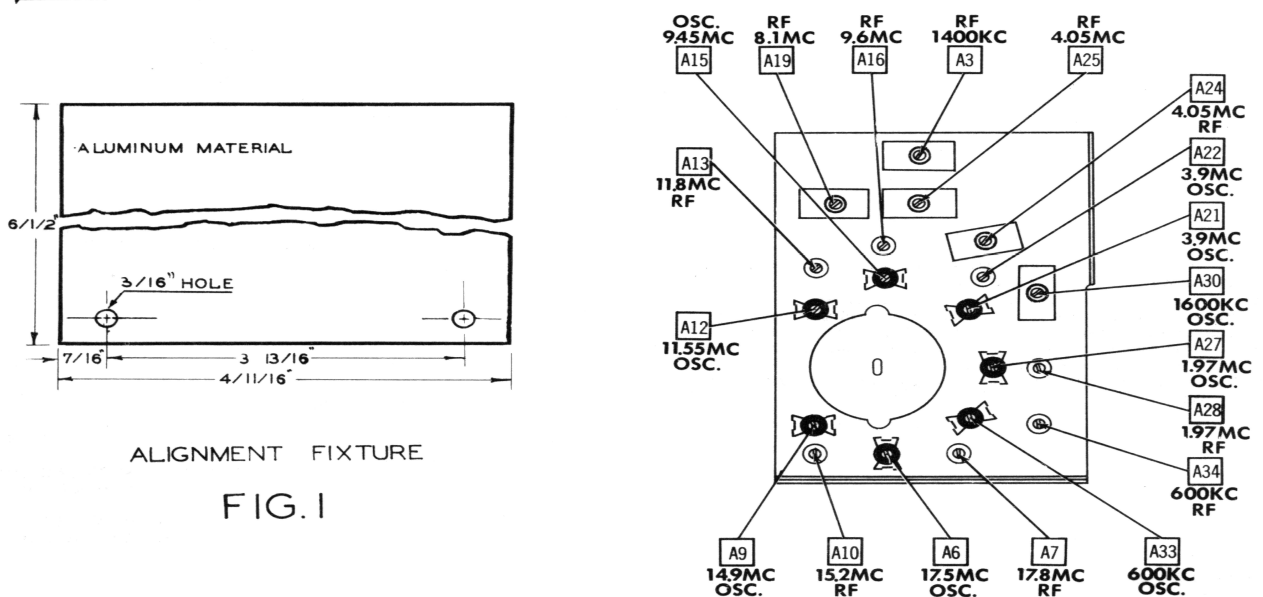
IF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .01MF	High side to pin 6 (grid) of IU4 (V3). Low side to chassis.	455KC (400%Mod)	"A"	Quiet point near 1600KC	Across voice coil	A1, A2	Adjust for maximum output. If AC power is used without an isolation transformer, reduce dummy antenna to 200MMF to reduce hum modulation.
2. "	High side to pin 6 (grid) of 1L6 (V2). Low side to chassis.	"	"	"	"	A3, A4	"

OSCILLATOR AND RF ALIGNMENT

Replace bottom cover.
 Secure the alignment fixture (Fig.1) to the tuner side of the chassis to simulate the effect of the case. Temporary use of sheet metal clips and hardware on the dust cover base may be used to mount fixture to chassis. Use of the fixture helps obtain maximum sensitivity during alignment.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
3. 24MMF in series with 22Ω resistor	High side thru dummy to junction of C4 and terminal #9 of M7 section 4. Low side to chassis.	18.25MC (400%Mod)	16 meter band	Tuning gang fully open	Across voice coil	A5	Adjust for maximum output. If AC power is used without an isolation transformer, reduce dummy antenna to 200MMF to reduce hum modulation.
4. "	"	17.5MC	"	Tuning gang fully closed	"	A6	Adjust for maximum deflection.
5. "	"	17.8MC	"	Tune to 17.8MC signal	"	A7, A8	Adjust for maximum deflection while rocking tuning gang thru 17.8MC signal.
6. "	"	14.9MC	19 meter band	Tuning gang fully closed	"	A9	Adjust for maximum deflection.
7. "	"	15.2MC	"	Tune to 15.2MC signal	"	A10, A11	Adjust for maximum deflection while rocking tuning gang thru 15.2MC signal
8. "	"	11.55MC	25 meter band	Tuning gang fully closed	"	A12	Adjust for maximum deflection.
9. "	"	11.8MC	"	Tune to 11.8MC signal	"	A13, A14	Adjust for maximum deflection while rocking tuning gang thru 11.8MC signal
10. "	"	9.45MC	31 meter band	Tuning gang fully closed	"	A15	Adjust for maximum deflection.
11. "	"	9.6MC	"	Tune to 9.6MC signal	"	A16, A17	Adjust for maximum deflection while rocking tuning gang thru 9.6MC signal.
12. "	"	8.1MC	"C" band	tuning gang fully open	"	A18, A19, A20	Adjust for maximum deflection in order given The tuning range and dial calibration of the succeeding bands depend upon the accuracy of the adjustment of A18. Avoid aligning on image.
13. "	"	3.9MC	"	Tuning gang fully closed	"	A21, A22, A23	Adjust for maximum deflection. Repeat steps 12 and 13 until maximum deflection is obtained.
14. "	"	4.05MC	"B" band	Tuning gang fully open	"	A24, A25, A26	Adjust for maximum deflection.
15. "	"	1.97MC	"	Tuning gang fully closed	"	A27, A28, A29	Adjust for maximum deflection. Repeat steps 14 and 15 until maximum deflection is obtained.
16.	Remove alignment fixture and install chassis in cabinet. Plug in loop cable.						
17. Short length of wire near receiver	High side to dummy. Low side to chassis.	1620KC	"A" band	Tuning gang fully open	Across voice coil	A30	Adjust for maximum deflection.
18. "	"	1400KC	"	Tune to 1400KC signal	"	A31, A32	Adjust for maximum deflection.
19. "	"	600KC	"	Tune to 600KC signal	"	A33, A34	Adjust for maximum deflection while rocking tuning gang thru 600KC signal. Repeat steps 17, 18 and 19. Replace loop antenna with ferrite rod antenna and extend cable to maximum.
20. "	"	1400KC	"	Tune to 1400KC signal	"	A35	Adjust for maximum deflection.



ALIGNMENT FIXTURE

FIG. 1

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA, GENERAL ELECTRIC or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		RCA Victor PART No.	STANDARD REPLACEMENT		
V1	RF Amplifier	IU4	IU4	6AR	
V2	Converter	IL6	IL6	7DC	
V3	IF Amplifier	IU4	IU4	6AR	
V4	Det-AVC-AF Amp.	IU5	IU5	6BW	
V5	Audio Output	3V4	3V4	6BX	

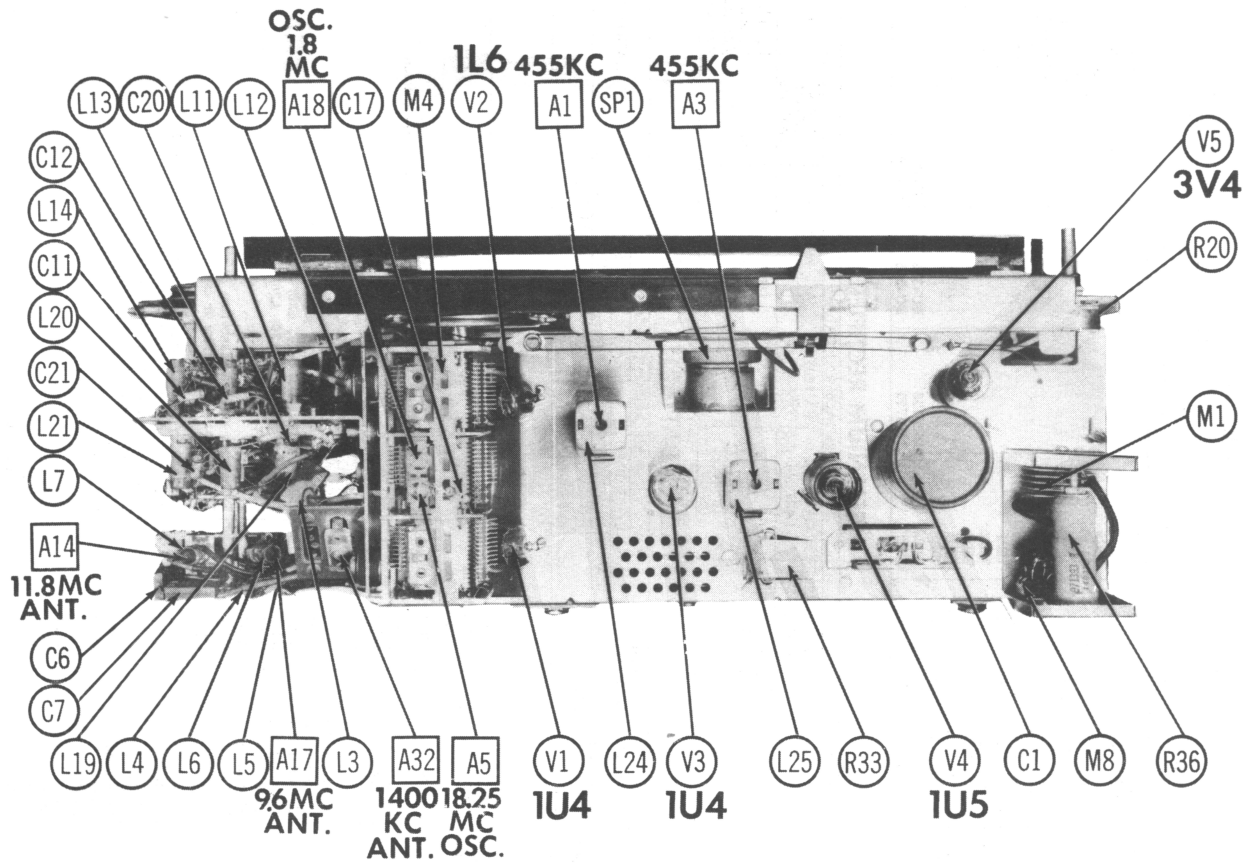
CAPACITORS

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				NOTES
		RCA Victor PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	
C1A	.60	78095				
C1B	.30					
C1C	.150					
C1D	.075					
C2	.10	PR5150/12			BR1015	
C3	.01					
C4	.470					
C5	.120					
C6	.820					
C7	.100					
C8	.047					
C9	.10000					
C10	.047					
C11	.27					
C12	.33					
C13	.18					
C14	.1000					
C15	.820					
C16	.180					
C17	.22					
C18	.500					
C19	.470					
C20	.22					
C21	.27					
C22	.180					
C23	.82					
C24	.51					
C25	.047					
C26	.047					
C27	.10000					
C28	.10000					
C29	.047					
C30	.0033					
C31	.047					
C32	.10000					
C33	.120					
C34	.018					
C35	.180					
C36	.01					
C37	.001					
C38	.120					
C39	.10000					
C40	.047					
C41	.001					
C42	.0018					
C43	.047					
C44	.033					
C45	.10000					
C46	.0047					

* Includes C23 and R11 in one unit.

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES
	RESISTANCE	WATTS	RCA Victor PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	MALLOY PART No.	
R1A	1Meg	1/2	78093	AG-63-Z	B-70	U53	Treble
R2A	2Meg	1/2	78094	AG-83-S	B-75	Not Req.	Attach to R1A
R3A	1Meg	1/2	78092	Q3-137X	BT-72-S	U56	Bass
B	Shaft	1/2	Not Req.	FS-3	Not Req.	UT440	Volume
R3B	1Meg	1/2	Not Req.	AK-98	Not Req.	Not Req.	Attach to R3A
C	Switch	1/2	Not Req.	SWB-2	Not Req.	US-27	Attach to R3A

RESISTORS

ITEM No.	RATING	REPLACEMENT DATA		NOTES
		RCA Victor PART No.	IRC PART No.	
R4	1Meg	503510	BTS-1Meg	
R5	150K	503115	BTS-150	
R6	150K	503315	BTS-15K	
R7	1Meg	503510	BTS-1Meg	
R8	2 Meg	503522	BTS-2 Meg	
R9	100K	503110	BTS-100	
R10	100K	503410	BTS-100K	
R11	12K	78146	BTS-12	Note 1
R12	56K	503356	BTS-56K	
R13	5.6Meg	503556	BTS-5.6Meg	
R14	4.7Meg	503547	BTS-4.7Meg	
R15	120K	503210	BTS-120	
R16	100K	503312	BTS-100	
R17	68K	503368	BTS-68K	
R18	3.9Meg	503539	BTS-3.9Meg	
R19	1Meg	503510	BTS-1Meg	
R20	470K	503447	BTS-470K	
R21	1Meg	503510	BTS-1Meg	
R22	270K	503327	BTS-270	
R23	100K	503310	BTS-100K	
R24	15K	503315	BTS-15K	

Note 1. Items R11, C23 are combined in one unit.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		RCA Victor PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
T1	10K Ω 3.3K 500 Ω .5K	78100	A-3879 ①	A-2932 ①	RO-16 ①	① Bend mounting tabs down, file out slots. Mount on original mounting bracket

SPEAKER

ITEM No.	RATINGS	REPLACEMENT DATA		NOTES
		RCA Victor PART No.	JENSEN PART No.	
SP1	SIZE 5 1/4" PM 3.3K	78147	ST-803 Mod P525	

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA			NOTES
		PRI.	SEC.	RCA Victor PART No.	MEISSNER PART No.	MILLER PART No.	
L1	BC Loop Ant.	10		78187			Includes .01MFD cap. and Lid.
L2	BC Ant. Coil	.6K		78196			
L3	Ant. Loading Coil	1K		78129	19-3125	6153	115 Microhenries
L4	SW Ant. Coil	.4K		78123			"B" band (2-4MC)
L5	SW Ant. Coil	.3K		78124			"C" band (4-8MC)
L6	SW Ant. Coil	.3K		78125			31 Meter band
L7	SW Ant. Coil	.3K		78126			25 Meter band
L8	SW Ant. Coil	.1K		78127			19 Meter band
L9	SW Ant. Coil	.1K		78128			16 Meter band
L10	BC RF Coil	33K	6K				"A" band

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA			NOTES
		PRI.	SEC.	PART No.	MEISSNER PART No.	MILLER PART No.	
L11	SW RF Coil	.4K		78117			"B" band
L12	SW RF Coil	.2K		78118			"C" band
L13	SW RF Coil	.2K		78119			31 Meter band
L14	SW RF Coil	.2K		78120			25 Meter band
L15	SW RF Coil	.0K		78121			19 Meter band
L16	SW RF Coil	.0K		78122			16 Meter band
L17	BC Osc. Coil	5.5K		78109			"A" band
L18	SW Osc. Coil	.2K		78110			"B" band
L19	SW Osc. Coil	.2K		78111			"C" band
L20	SW Osc. Coil	.1K		78112			31 Meter band
L21	SW Osc. Coil	.1K		78113			25 Meter band
L22	SW Osc. Coil	.1K		78114			19 Meter band
L23	SW Osc. Coil	.1K		78115			16 Meter band
L24	Input IF	12K	12K	74919	16-6758	BC-382	
L25	Output IF	15K	16K	73037	10-6770	BC-385	12-C1 12-C6

SELENIUM RECTIFIER

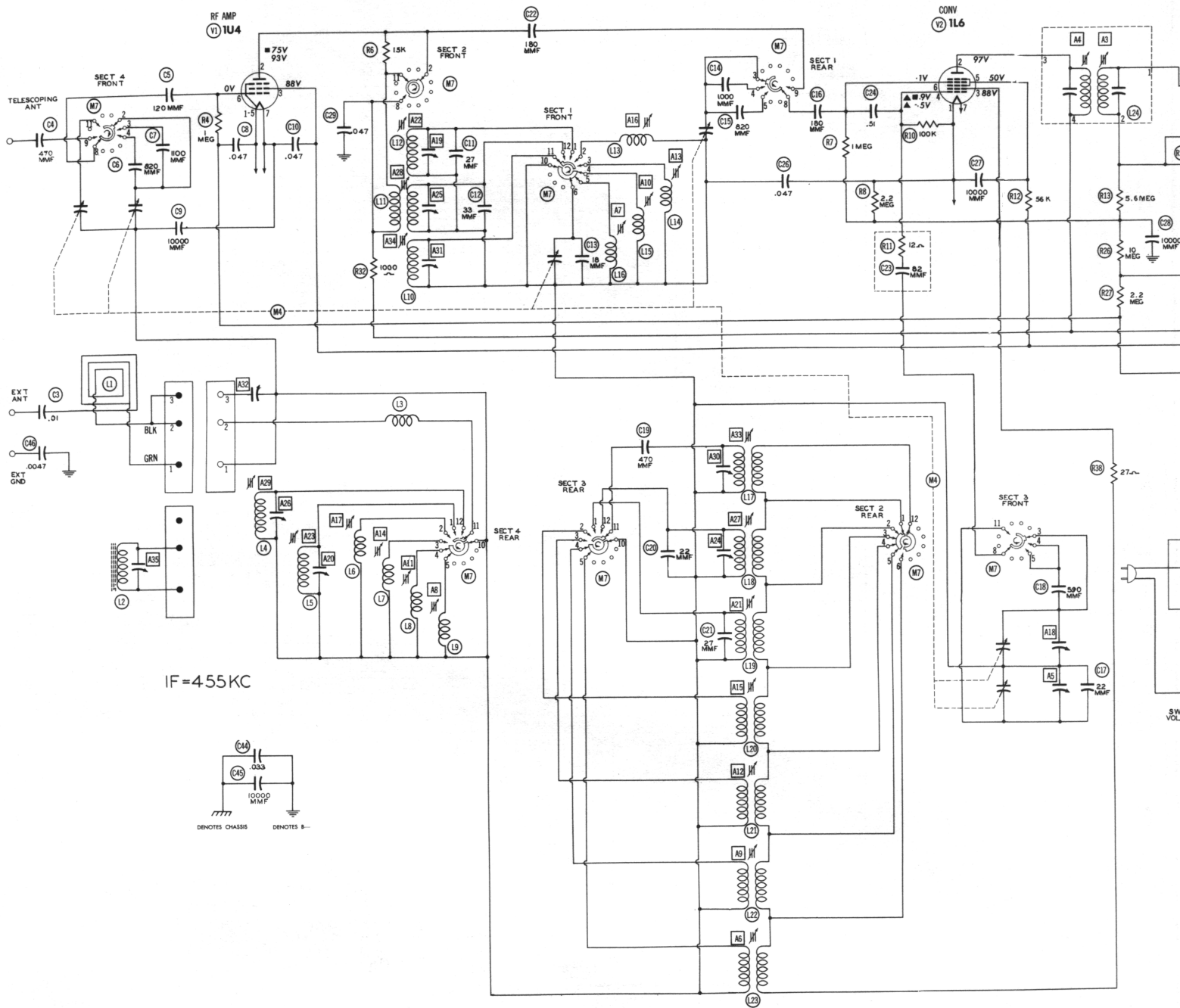
ITEM No.	RATING	REPLACEMENT DATA			NOTES
		RCA Victor PART No.	FEDERAL PART No.	MALLOY PART No.	
M1	.065A	78101	1003	6875	① Rectifier (M2) is used with rect. (M1) for 220V operation.
M2		77958 ①	1002	6875	

BATTERIES

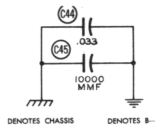
ITEM No.	VOLTAGE	REPLACEMENT DATA			INSTALLATION NOTES
		RCA Victor PART No.	EVEREADY	BURGESS	
M3	9V "A"	V8047	"A"	"A"	
	9V "B"		"B"	"B"	
			752	"A-B"	
				"A-B"	G6B60

MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES	
			EVEREADY	BURGESS
M4	Tuning Cap.	78108		
M5	Switch	71039		
M6	Switch	78096		
M7	Switch	78106		
M8	Trimmer Cap.	75967		
	Trimmer Cap.	78130		
	Trimmer Cap.	78131		
	Trimmer Cap.	78132		
	Back Cover	78184		
	Antenna	78197		
	Button	78166		
	Cap	78185		
	Case	78190		
	Case	78193		
	Cover	78195		
	Cup	78191		
	Dial Scale	78181		
	Escutcheon	78182		
	Foot	78169		
	Handle	78173		
	Knob	78148		
	Knob	78149		
	Knob	78150		
	Knob	78151		
	Map	78414		
	Case side	77974		
	Case side	77975		



IF=455KC



DENOTES CHASSIS DENOTES B-

BAND SWITCH SHOWN IN "A" BAND POSITION
BAND SWITCH SEQUENCE:

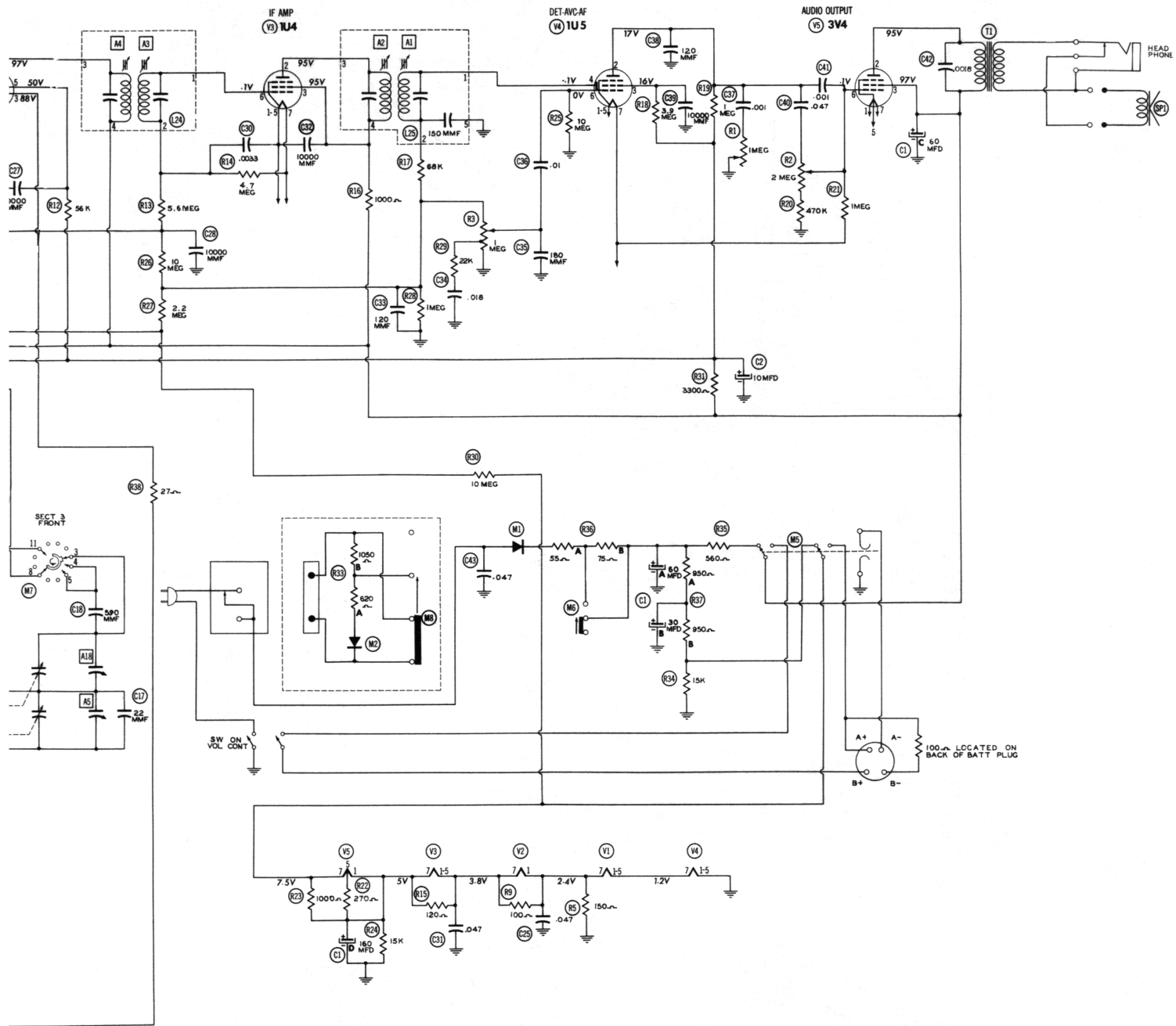
1. "A" BAND
2. "B" BAND
3. "C" BAND
4. 31 METER
5. 25 METER
6. 19 METER
7. 16 METER

NOTE:

SWITCH SHOE OF SECTION 1 FRONT IS INNER-CONNECTED TO THE SMALL SHOE OF SECTION 1 REAR

SWITCH SHOE OF SECTION 3 FRONT IS INNER-CONNECTED TO THE SMALL SHOE OF SECTION 3 REAR

SWITCH SHOE OF SECTION 4 FRONT IS INNER-CONNECTED TO THE SMALL SHOE OF SECTION 4 REAR

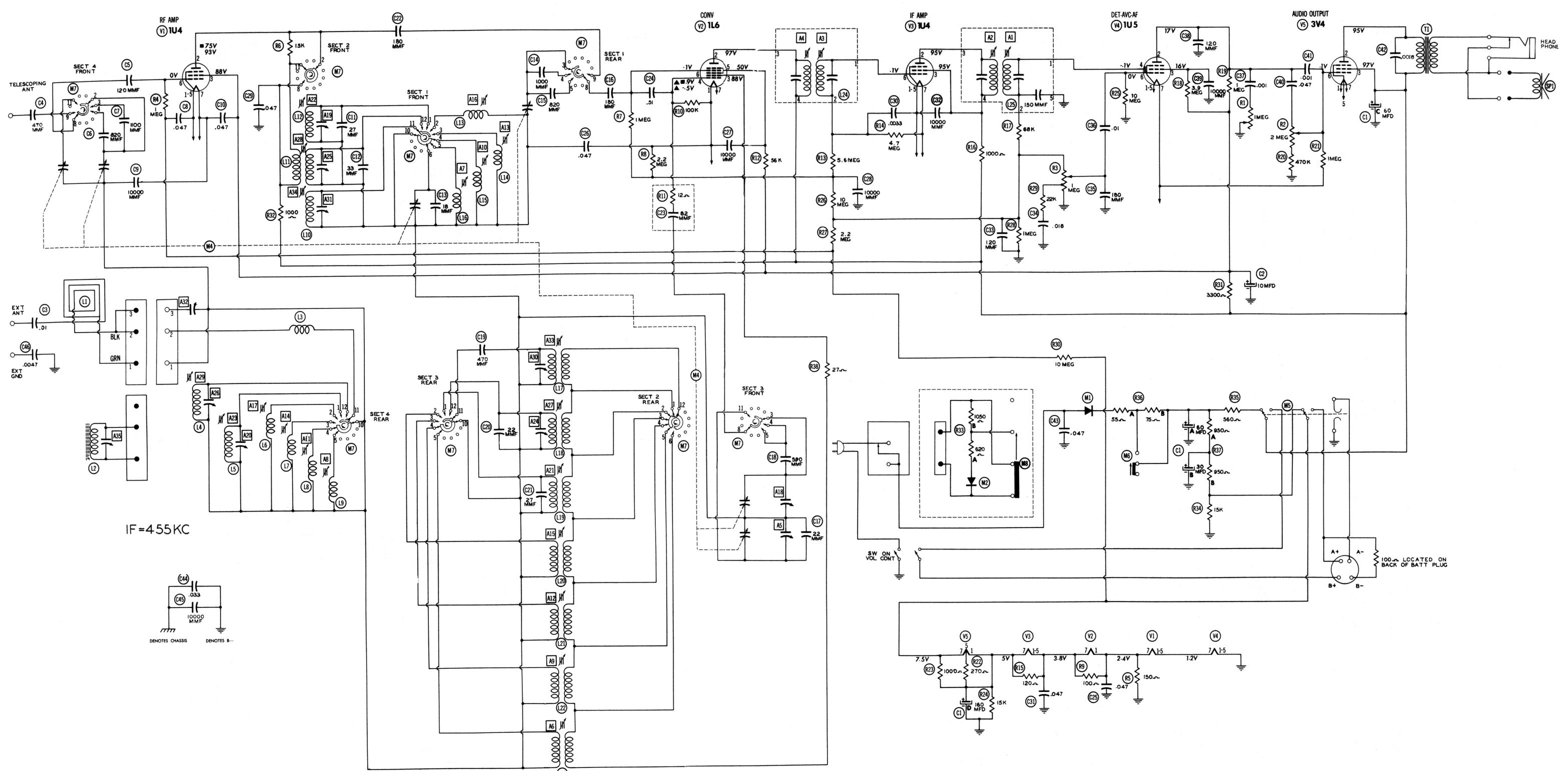


RESISTANCE READINGS

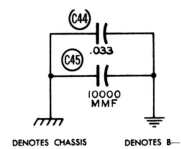
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V 1	1U4	*	† 17KΩ † 1.7KΩ	† 4KΩ	† 4KΩ	*	3.7Meg	*
V 2	1L6	*	† 700Ω	† 4KΩ	13.8Meg	† 60KΩ	11.5Meg	*
V 3	1U4	*	† 1.7KΩ	† 1.7KΩ	INF	*	3 Meg	*
V 4	1U5	0Ω	† 1 Meg	† 3.9Meg	570KΩ	INF	10Meg	*
V 5	3V4	*	† 1.2KΩ	† 700Ω	INF	*	750KΩ	*

■ READING IN SHORT WAVE POSITIONS-ALL OTHERS ON STANDARD BC.
 * TAKEN WITH VACUUM TUBE VOLTMETER
 † MEASURED FROM OUTPUT OF M1.

R-CONNECTED TO THE
 R-CONNECTED TO THE
 R-CONNECTED TO THE



IF = 455 KC



- 1- DC voltage measurements are at 20,000 ohms per volt, AC voltages measured at 1000 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 $\pm 15\%$ in voltage and resistance readings.
- 6- Volume control at maximum, no signal applied for voltage measurements.

BAND SWITCH SHOWN IN "A" BAND POSITION
BAND SWITCH SEQUENCE:

1. "A" BAND
2. "B" BAND
3. "C" BAND
4. 31 METER
5. 25 METER
6. 19 METER
7. 16 METER

NOTE:
SWITCH SHOE OF SECTION 1 FRONT IS INNR-CONNECTED TO THE SMALL SHOE OF SECTION 1 REAR
SWITCH SHOE OF SECTION 3 FRONT IS INNR-CONNECTED TO THE SMALL SHOE OF SECTION 3 REAR
SWITCH SHOE OF SECTION 4 FRONT IS INNR-CONNECTED TO THE SMALL SHOE OF SECTION 4 REAR

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V 1	1U4	*	† 1.7KΩ	† 4KΩ	† 4KΩ	*	3.7Meg	*
V 2	1L6	*	† 700Ω	† 4KΩ	13.8Meg	† 60KΩ	11.5Meg	*
V 3	1U4	*	† 1.7KΩ	† 1.7KΩ	INF	*	3 Meg	*
V 4	1U5	0Ω	† 1 Meg	† 3.9Meg	570KΩ	INF	10Meg	*
V 5	3V4	*	† 1.2KΩ	† 700Ω	INF	*	750KΩ	*

■ READING IN SHORT WAVE POSITIONS-ALL OTHERS ON STANDARD BC.
* TAKEN WITH VACUUM TUBE VOLTMETER
† MEASURED FROM OUTPUT OF M1.