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RCA MODEL CRM-P2B-5
(MI-555528, MI-555529)



TRADE NAME	RCA Model CRM-P2B-5 (MI-555528, 6 Volt) (MI-555529, 12 Volt)
MANUFACTURER	Radio Corp. of America, Communication Products Dept., Radiomarine Marketing, Camden, N. J.
TYPE SET	AC - Battery Operated 7 Tube Crystal Controlled Citizens Band Transmitter-Receiver
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles (or) 12 Volt Storage Battery (some versions operate on 110-120 volts AC, 60 cycles (or) 6 volt storage battery)
RATING	52 Watts, .5 Amp. @117 Volts AC (or) 3.2 Amp. @12.6 Volts DC
FREQ. RANGE	Any one of Citizens Band Channels 1 thru 23 (Receiver is tunable if crystal is removed)

NOTICE

ONLY THOSE PERSONS PROPERLY LICENSED BY FCC ARE PERMITTED TO MAKE CRYSTAL SUBSTITUTION OR EFFECT REPAIRS ON THE TRANSMITTER PORTION OF THIS UNIT.

RCA MODEL CRM-P2B-5
(MI-555528, MI-555529)

ALIGNMENT INSTRUCTIONS

RECEIVER

Turn squelch control to maximum counter-clockwise position.

1. Connect DC probe of VTVM to point \diamond , common to chassis.

Connect high side of Signal Generator (1650KC, 400v Mod.) thru .001mfd to pin 7 of V2, low side to chassis. Adjust A1, A2, A3, A4, A5 and A6 for maximum deflection.

2. Connect high side of Signal Generator to antenna socket, low side to chassis. Adjust for proper channel frequency (400v Mod.). Adjust A7 for maximum deflection.

Remove receiver oscillator crystal.

3. Set Signal Generator to channel 1 (26.965mc). Set tuning capacitor (M7) for maximum capacitance. Adjust A8 for maximum deflection. Check to see if

the tuning range covers all 22 channels, if not, make compromise adjustment of A8.

TRANSMITTER

1. Connect DC probe of VTVM through 100K to point \diamond , low side to chassis. With the antenna disconnected, adjust A9 for maximum deflection.

Adjust A10 for minimum plate current.

Adjust A11 to approximately 3/4 of maximum capacity.

The voltage at point \diamond should be noted when A10 is tuned through resonance. Adjust A12 for minimum variation in grid voltage with the tuning of A10. When properly neutralized, the variation should not cause the grid voltage to be less than -5 volts.

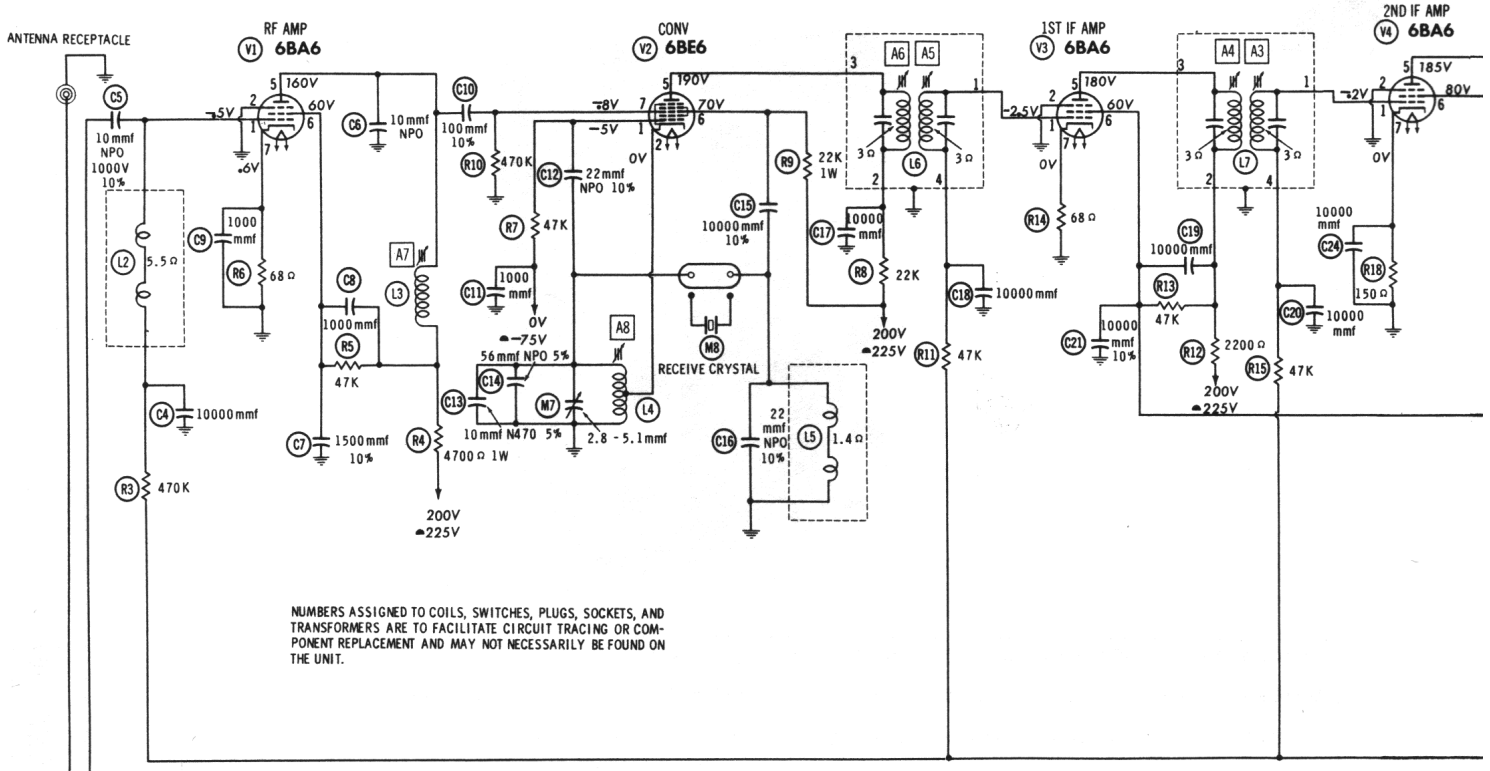
Connect antenna, readjust A10 for minimum plate current. Readjust A9 to set transmitter exactly on frequency.

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

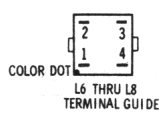
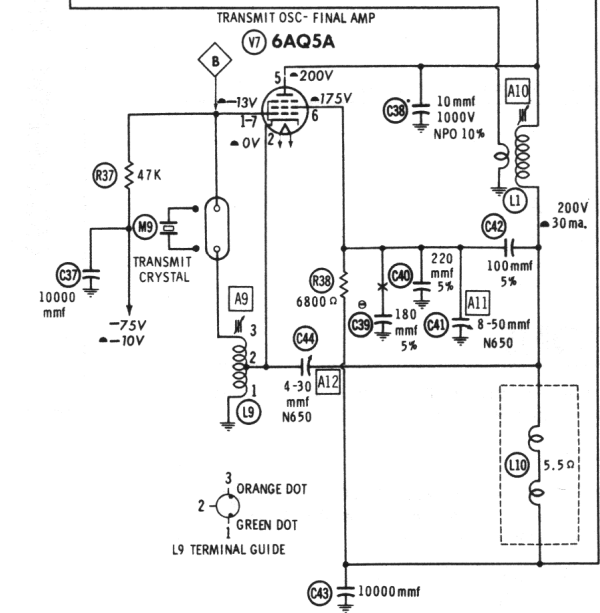


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of KZ546

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NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BA6	3 meg	0 Ω	0 Ω	.1 Ω	†5900 Ω	†53K	68 Ω		
V2	6BE6	47K	0 Ω	0 Ω	.1 Ω	†23K	†23K	470K		
V3	6BA6	2.7 meg	0 Ω	0 Ω	.1 Ω	†3400 Ω	†50K	68 Ω		
V4	6BA6	2.7 meg	0 Ω	0 Ω	.1 Ω	†3400 Ω	†50K	150 Ω		
V5	6T8A	500K	240K	NC	.1 Ω	.1 Ω	1.3 meg	0 Ω	9.5 meg	†470K
V6	6AQ5A	NC	330 Ω	.1 Ω	.1 Ω	†400 Ω	†1200 Ω	470K		
V7	6AQ5A	≈70K	.1 Ω	.1 Ω	.1 Ω	†1400 Ω	†7800 Ω	NC		

ALL MEASUREMENTS MADE IN "RECEIVE" POSITION UNLESS OTHERWISE DESIGNATED.
 † MEASURED IN "TRANSMIT" POSITION.
 ‡ MEASURED FROM OUTPUT OF M2.

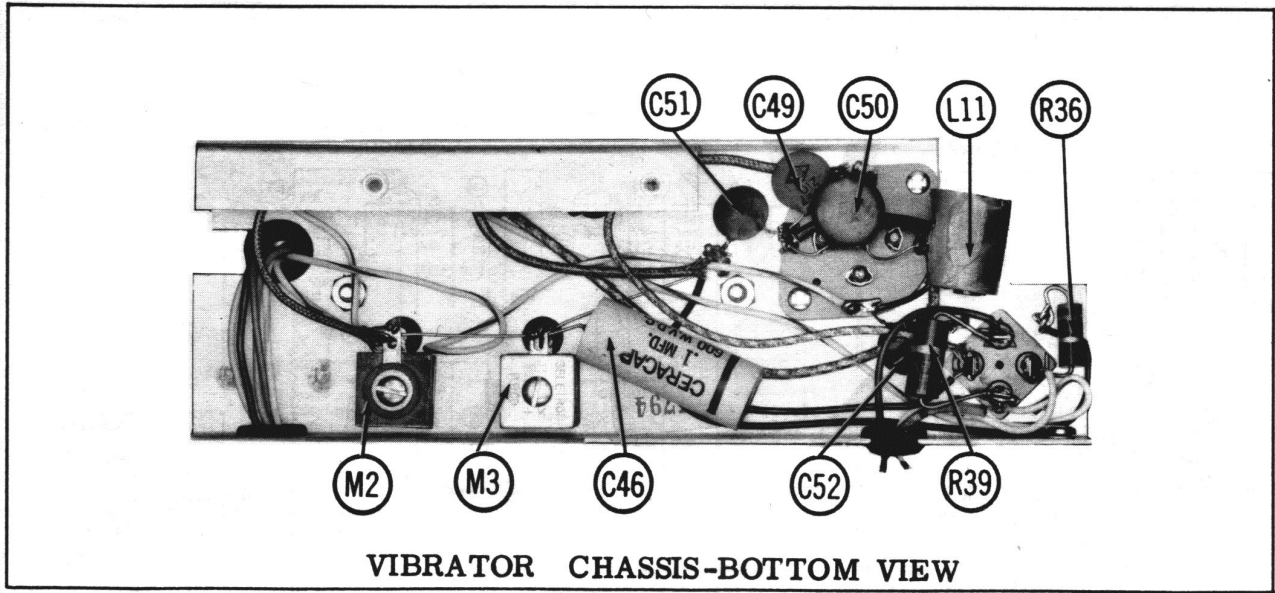
NC NO CONNECTION

- DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured with 1000 ohm per volt voltmeter.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common ground.
- 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.

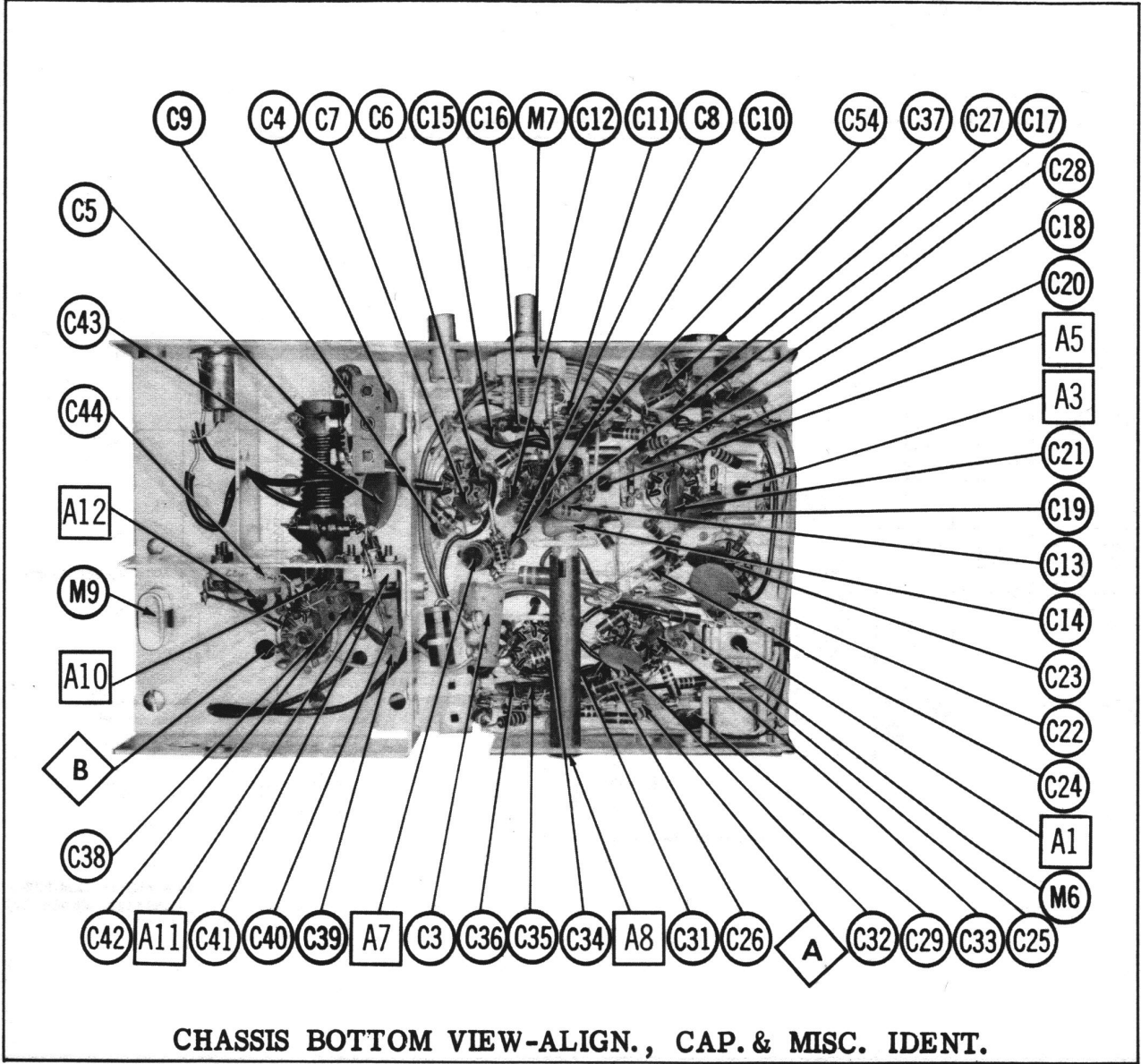
SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

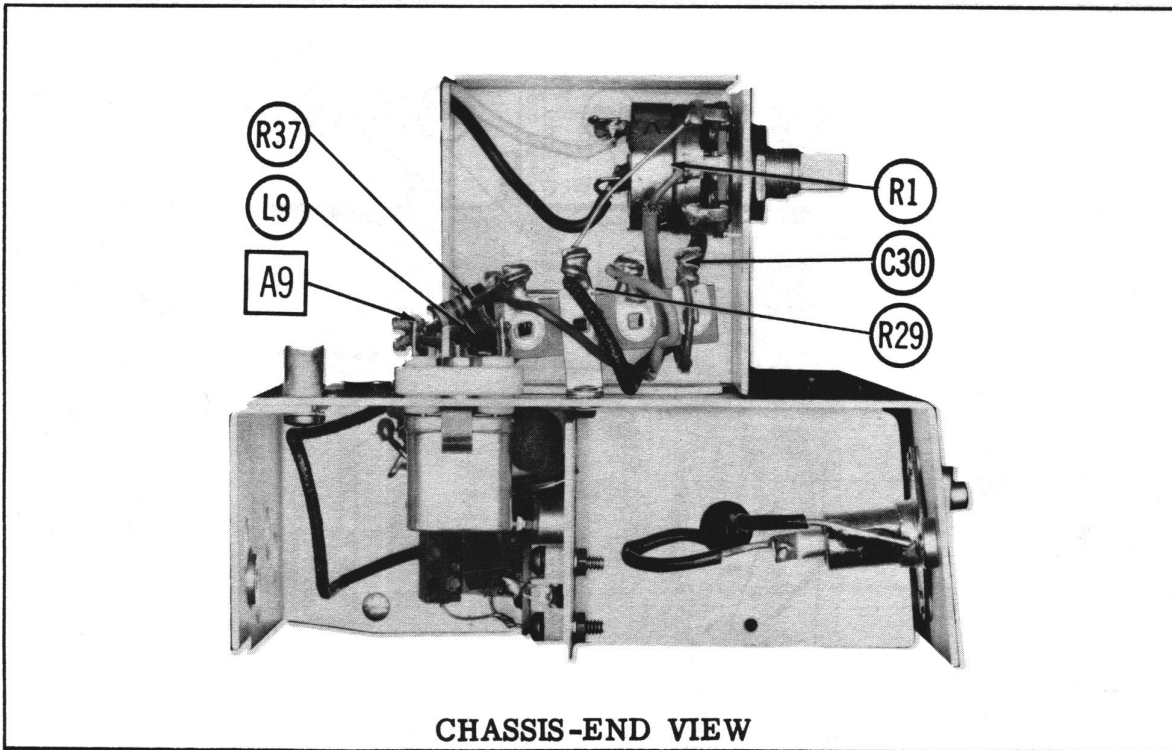
ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)



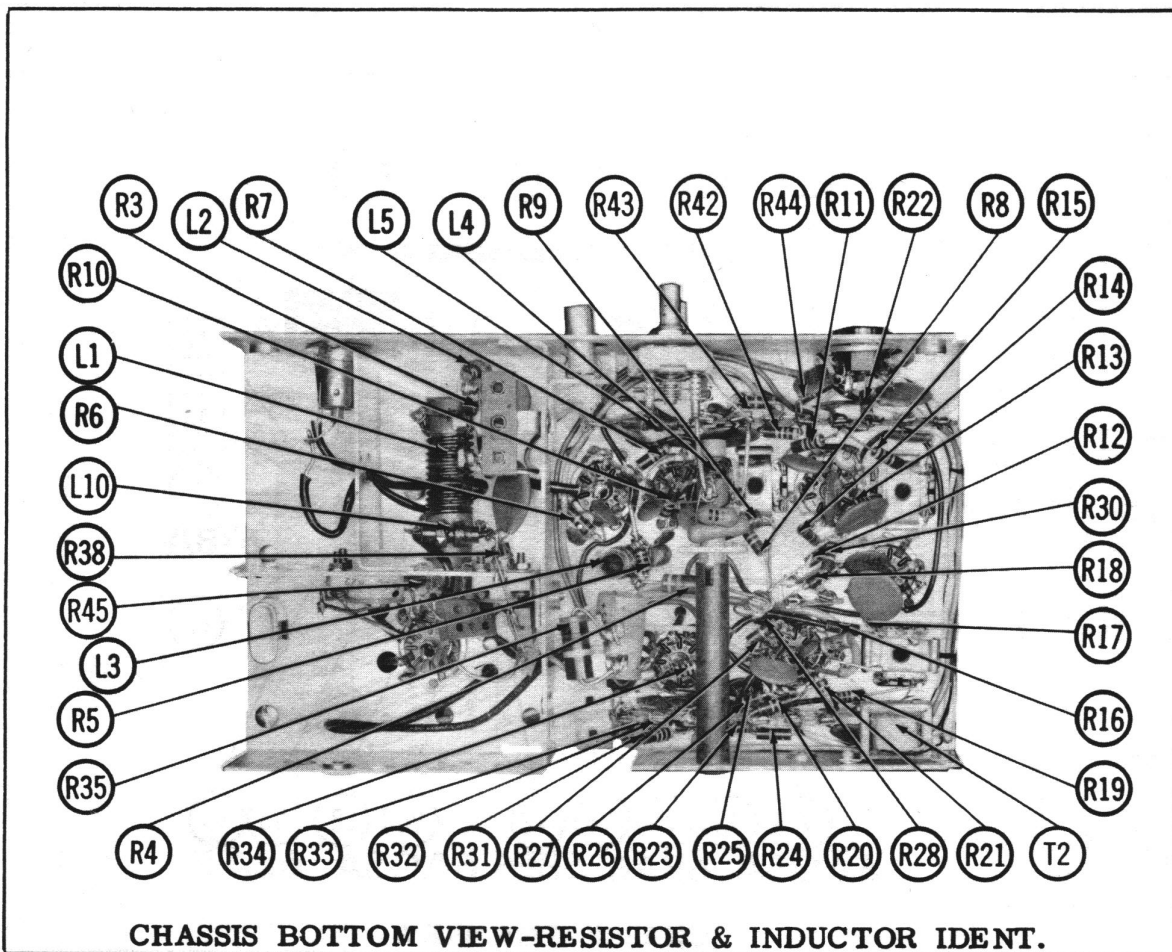
VIBRATOR CHASSIS-BOTTOM VIEW



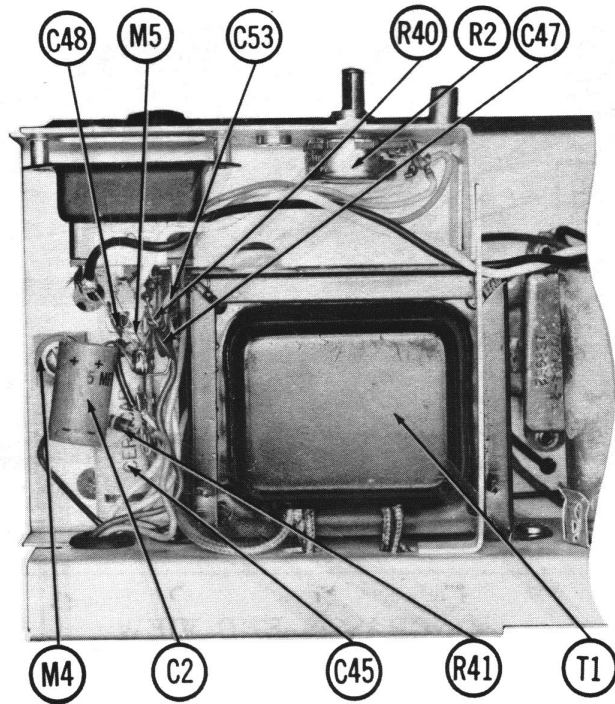
CHASSIS BOTTOM VIEW-ALIGN., CAP. & MISC. IDENT.



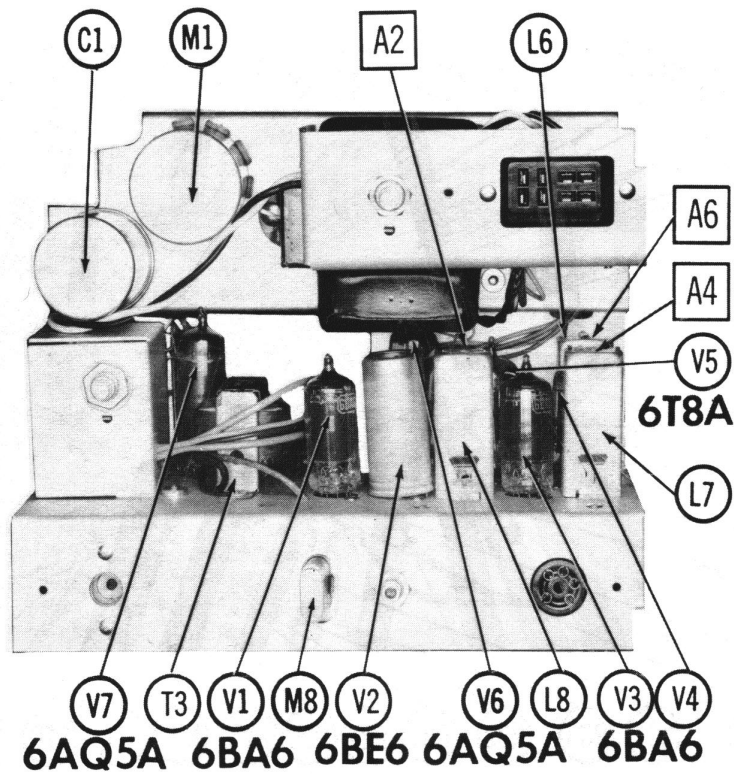
CHASSIS-END VIEW



CHASSIS BOTTOM VIEW-RESISTOR & INDUCTOR IDENT.



POWER CHASSIS-BOTTOM VIEW



CHASSIS-TOP VIEW

PARTS LIST AND DESCRIPTIONS

TUBES

GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	RF Amplifier	6BA6	V5	Det.-Squelch-A F Amp. - Noise Limiter	6T9A
V2	Converter	6BE6	V6	Rec. Output-Modulator	6AQ8A
V3	1st IF Amplifier	6BA6	V7	Trans. Osc. - Final Amp.	6AQ8A
V4	2nd IF Amplifier	6BA6			

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	CAP.	VOLT.	CORNELL-DUBILIER PART No.	MALLOY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1A	20	350	D0082	AFH4-04	TMQ-4295	TVL-4635	
B	40	350					
C	20	350					
D	10	350					
C2	5	150					
C3	5	150					

FIXED CAPACITORS

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

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				SPRAGUE PART No.
			AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLOY PART No.	EMENCO PART No.	
C4	10000		BPD-01	BYA10S1	DD-103	CCD-103	5HK-D10
C5	10 1000V 10% NPO		NPO-D1 10	C10QIC	DTZ-10	CCO-100	10TCC-Q10
C6	10 NPO		D1-1500	C10QIC	DTZ-10	CCO-100	10TCC-Q10
C7	1500 10%		BPD-01	3RSD15	DB-152	CCD-152	10TS-D15
C8	1000		BPD-01	BYA10S1	DB-102	CCD-102	5HK-D10
C9	1000 10%		BPD-01	BYA10S1	DB-102	CCD-102	5HK-D10
C10	1000 10%		BPD-01	BYA10S1	DB-102	CCD-102	5HK-D10
C11	1000 10%		BPD-01	BYA10S1	DB-102	CCD-102	5HK-D10
C12	22 NPO 10%		NPO-D1 22	C10Q22C	DTZ-22	CCO-220	10TCC-Q22
C13	10 N470 5%						
C14	56 NPO 5%						
C15	10000 10%						
C16	22 NPO 10%						
C17	10000						
C18	10000						
C19	10000						
C20	10000						
C21	10000 10%						
C22	10000						
C23	2700 10%						
C24	10000						
C25	100 10%						
C26	100 10%						
C27	50000						
C28	10000						
C29	10000						
C30	1000						
C31	3000 10%						
C32	10000						
C33	100 10%						
C34	1000 10%						
C35	47 10%						
C36	680 10%						
C37	10000						
C38	10 1000V NPO 10%						
C39	180 5%						
C40	220 5%						
C41	8-50 N650						
C42	100 5%						
C43	10000						
C44	4-30 N650						
C45	.1 400V						
C46	.1 600V						

FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				MALLYORY PART No.	SPRAGUE PART No.
			AEROVOX PART No.	CORNELL-DUBILIER PART No.	EMENCO PART No.	MALLOY PART No.		
C47	1000		BPD-01	BYA10D1	CCD-102	B-210	5HK-D10	
C48	1000		BPD-01	BYA10D1	CCD-102	B-210	5HK-D10	
C49	10000		BPD-01	BYA10S1	CCD-103	B-110	5HK-S10	
C50	100000		BPD-01	H-05P1	IDP-2-104	TA-010	TG-P10	
C51	20000		BPD-02	BYB6S2	CCD-203	B-120	5HK-S20	
C52	20000		BPD-02	BYB6S2	CCD-203	B-120	5HK-S20	
C53	100000		BPD-02	H-05P1	IDP-2-104	TA-010	TG-P10	
C54	100000		BPD-02	H-05P1	IDP-2-104	TA-010	TG-P10	

Note 1. Not used in some versions.
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

CONTROLS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				INSTALLATION NOTES
			RCA PART No.	CLEARSTAT PART No.	CTS-IRC PART No.	MALLOY PART No.	
R1A	2meg	Shaft	B-76	A47-2meg-Z	Q13-139	U55	Volume
B	3meg	Switch	Not Req.	SWE-12	Not Req.	Not Req.	Power Off-On
C	3meg	Switch	Not Req.	A47-3meg-S	78-1	U59	Squelch
R2A	3 Shaft		B-84	Not Req.	Q11-140	Not Req.	

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS	REPLACEMENT DATA		RATING	REPLACEMENT DATA	
			IRC PART No.	WORKMAN PART No.		IRC PART No.	WORKMAN PART No.
R3	470K				10meg		
R4	470K				8.2meg		
R5	47K				470K		
R6	68K				470K		
R7	47K				470K		
R8	22K	1W			680K		
R9	22K				220K		
R10	470K				220K		
R11	47K				220K		
R12	22000K				470K		
R13	47K				3000K 2W		
R14	68K				500K 1W		
R15	47K				470K		
R16	22000K				6800K		
R17	47K				470K		
R18	15K				12000K 2W		
R19	47K				470K		
R20	220K				470K		
R21	240K				Imeg		
R22	10K				400K		
R23	680K				400K 3W		
R24	2.2meg						5W-SQ-40

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			NOTES
		RCA PART No.	Merit PART No.	Stancor PART No.	
L1	Ant.				
L2	RF Choke (100uh)		6112	RTC-8574	T905
L3	RF Rec. Osc.				
L4	RF Choke (10uh)		4612	RTC-8522	T980
L5	1st IF				
L6	2nd IF				
L7					

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF) (cont)

ITEM No.	USE	REPLACEMENT DATA				Workman TV PART No.	NOTES
		RCA PART No.	Merit PART No.	Miller PART No.	Stancor PART No.		
L8	3rd IF Trans. Osc.						
L9	RF Choke (100uh)		612	RF-C-9574		T305	
L11	Hash Choke (27uh)		5220	RF-C-9182		T980	

POWER RECTIFIERS

ITEM No.	RATING CURRENT (Measured)	RCA PART No.	REPLACEMENT DATA		NOTES
			SARKES TARZIAN PART No.	SYLVANIA PART No.	
M2	.060A	IN1783 *	65 †	SR200 *	* Silicon
M3	.060A	IN1783 *	65 †	SR200 *	† Selenium
M4	.001A		Model 10 †		

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA				Triod PART No.	NOTES
		RCA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.		
T1	PRI. SEC. 1 117V @ 1.2A SEC. 2 12.6VCT @ 1.2A 12.6VCT @ 2A (DC Only)						

TRANSFORMER (MIC)

ITEM No.	TURNS RATIO	REPLACEMENT DATA			NOTES
		RCA PART No.	Merit PART No.	Thordarson PART No.	
T2	1 : 37				

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA			NOTES
		RCA PART No.	Merit PART No.	Thordarson PART No.	
T3	15K Tap @ 7300Ω				

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		RCA PART No.	QUAM PART No.	
SP1	FIELD V. C. IMP. 3-4Ω PM 3-4Ω	8702750-1	25A07	Auxiliary Speakers: Bulkhead Mounting Re-entrant Part #MI-6317-D4 Adjustable Mounting Re-entrant 6 3/8" Part #MI-14659-4 Adjustable Mounting Re-entrant 6 3/8" Part #MI-555504 Universal Mounting Mobile Part #MI-17462

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS/FREQUENCY	REPLACEMENT DATA		NOTES
			RCA PART No.	MALLORY PART No.	
M1	Interrupter	12.6 115%	6801	6801	12V Versions
	Interrupter	6.3 115%	5901	5901	6 V Versions

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA		BUSSE PART No.
			RCA PART No.	LITTELFUSE PART No.	
M5	2" Length of #28 Wire				
	3AG 10A *		313010	HOLDER	FUSE
	3AG 250V		(3AG 10A 250V)		AGC 10
	3AG 5A †		313005		AGC 5
	3AG 5A 250V				

* 6 V Versions. † 12 V Versions.

SIGNAL DIODES

ITEM No.	ORG. TYPE	REPLACEMENT DATA			NOTES
		RCA PART No.	GENERAL ELECTRIC PART No.	SYLVANIA PART No.	
M6					ANL Detector

MISCELLANEOUS

ITEM No.	PART NAME	RCA PART No.	NOTES
M8	Crystal		Receiver (Order Desired F. Frequency)
M9	Crystal		Transmit (Order Desired F. Frequency)
M10	Switch		Push-to-talk (Part of Mike)

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
 8524 (Stranded) Available in Ten Colors
 Power Cord Use BELDEN No. 1765-B (6 Ft. Length)
 1725-K (7 1/2 Ft. Length)