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REGENCY MODELS
CB-27, CBM-27-6, CBM-27-12



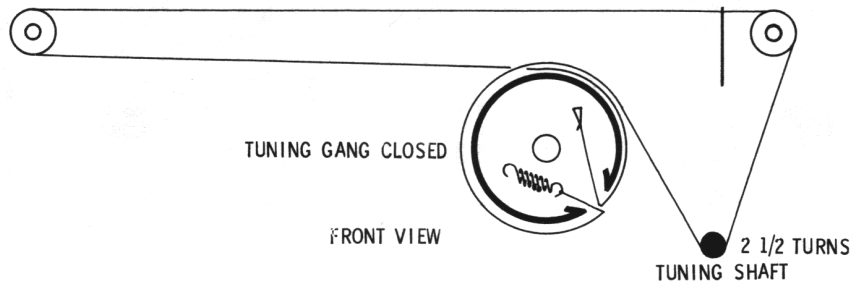
REGENCY MODELS
CB-27, CBM-27-6, CBM-27-12

TRADE NAME	Regency Models CB-27, CBM-27-6, CBM-27-12
MANUFACTURER	Regency, I. D. E. A., 7900 Pendleton Pike, Indianapolis, Indiana
TYPE SET	AC (or Battery) Operated 9 Tube Crystal Controlled Citizens Band Transmitter-Receiver
POWER SUPPLY	Model CB-27: 110-120 Volts AC Model CBM-27-6: 6Volts DC Model CBM-27-12: 12Volts DC
RATING	50 Watts, .45 Amp. @117 Volts AC (Receive) 55 Watts, .5 Amp. @117 Volts AC (Transmit)
TUNING RANGE	Any one of Citizens Band Channels 1 thru 22

NOTICE

ONLY THOSE PERSONS PROPERLY LICENSED BY FCC ARE PERMITTED TO EFFECT REPAIRS OR MAKE CRYSTAL SUBSTITUTION ON THIS TYPE EQUIPMENT.

DIAL CORD STRINGING

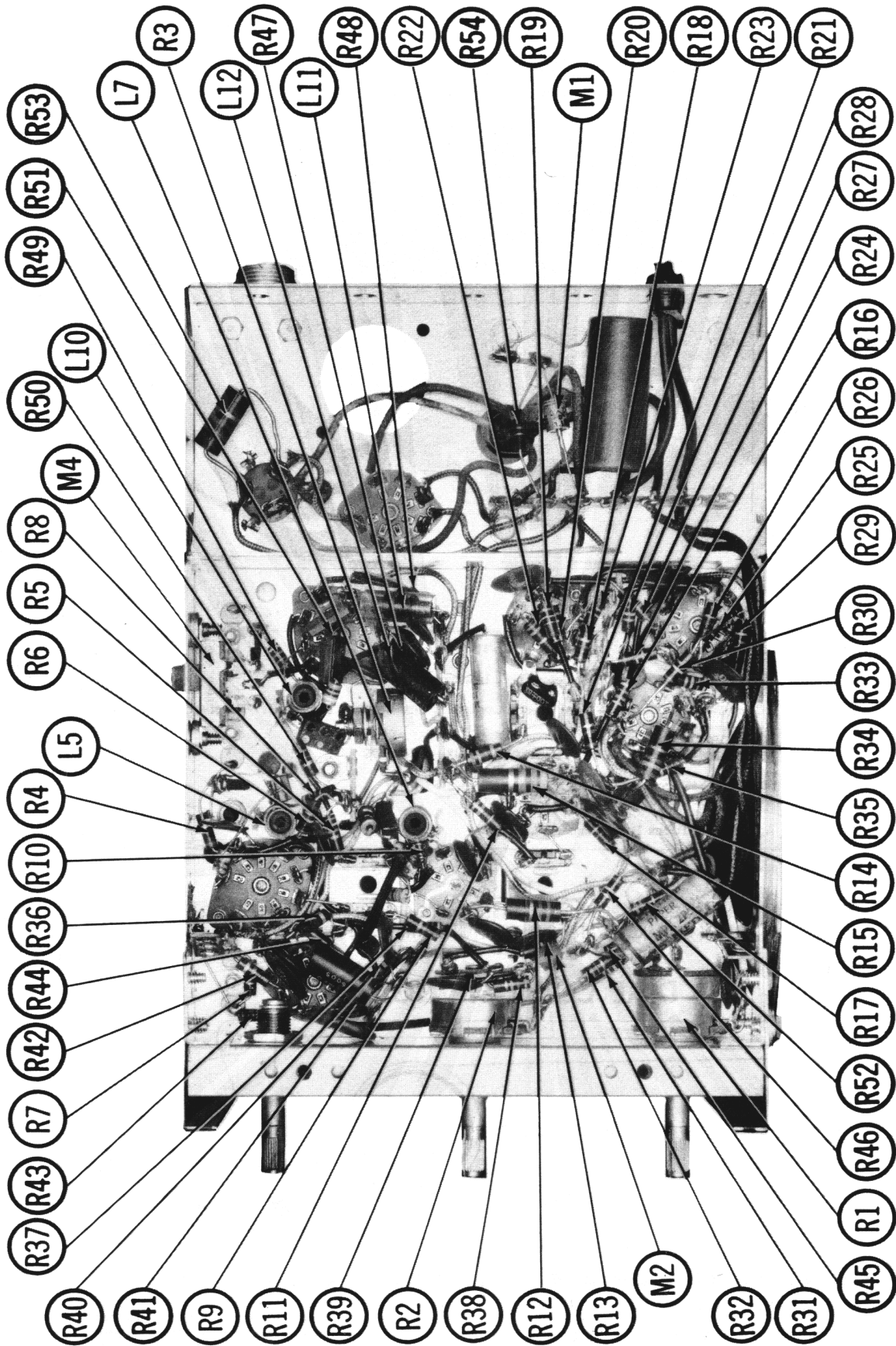


HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

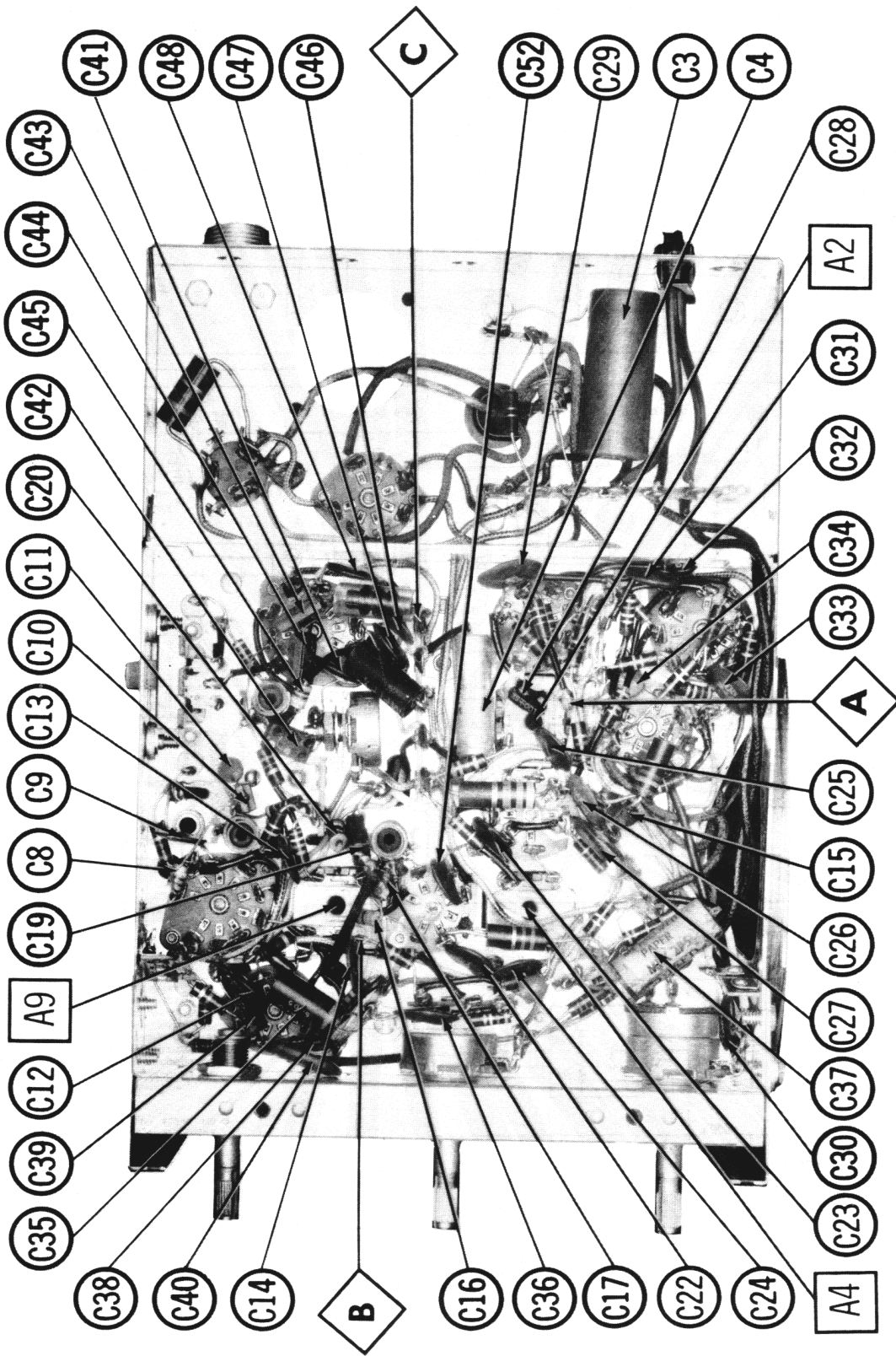


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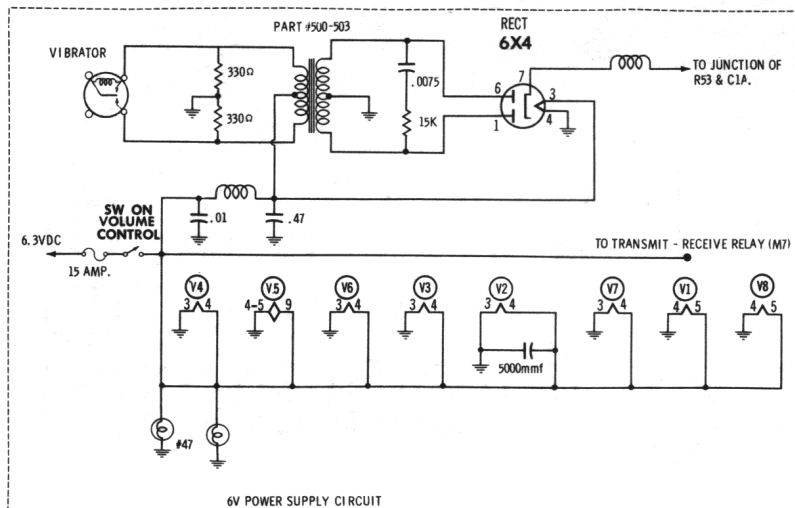
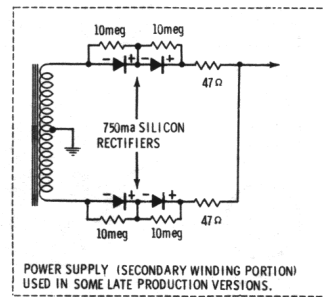
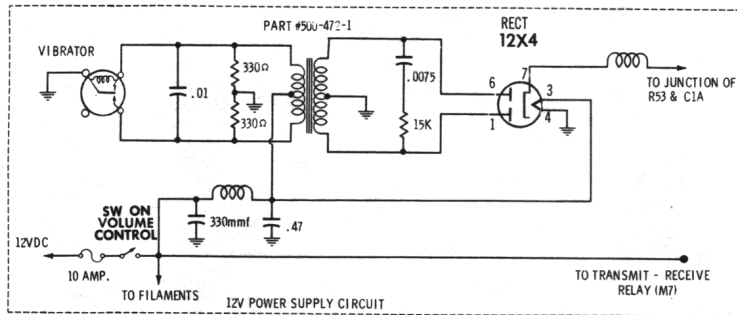
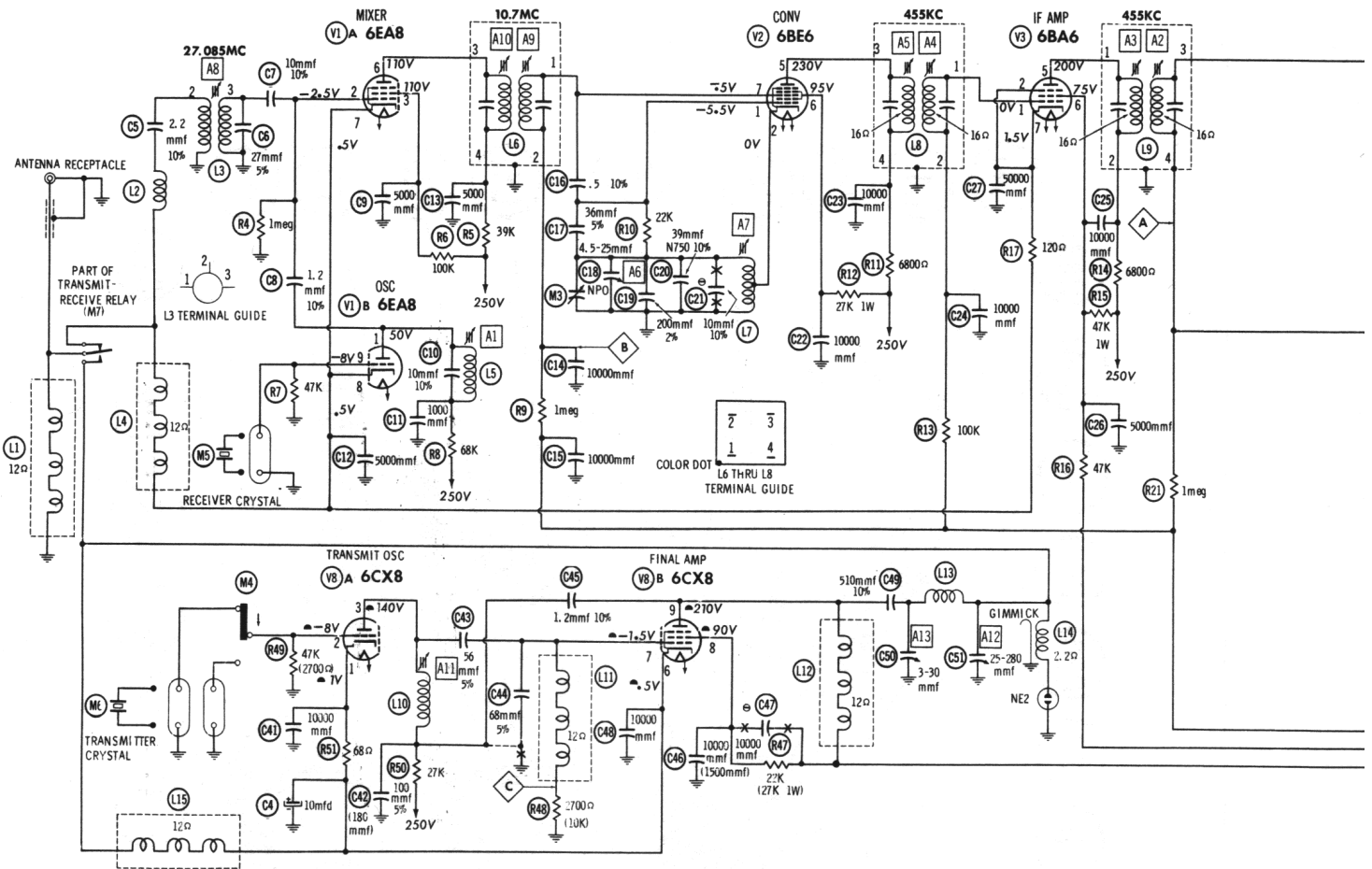
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CHASSIS BOTTOM VIEW-RESISTOR, INDUCTOR & MISC. IDENTIFICATION



CHASSIS BOTTOM VIEW - ALIGNMENT & CAPACITOR IDENTIFICATION

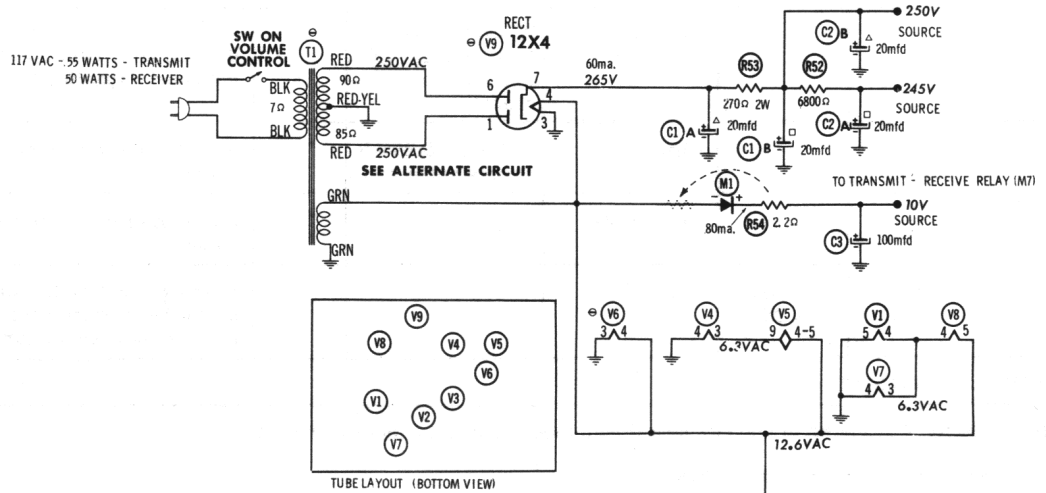
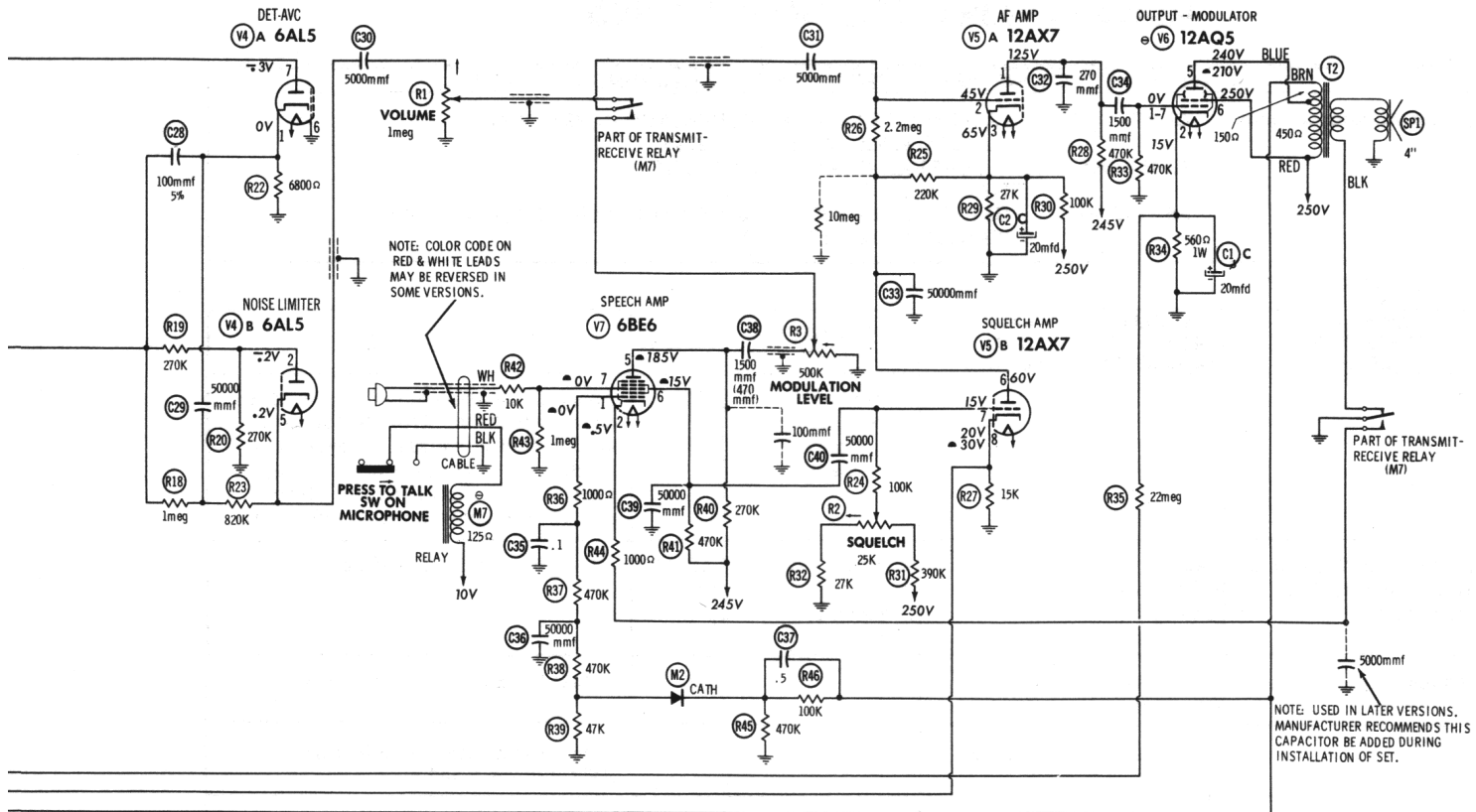


1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured with 1000 ohm per volt voltmeter.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common ground.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of +15% in voltage and resistance readings.
6. 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)



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6E8	+68K	1meg	+100K	1Ω	0Ω	+39K	30Ω	30Ω	47K
V2	6BE6	22K	0Ω	0Ω	1Ω	+6800Ω	+27K	2.5meg		
V3	6BA6	1.6meg	120Ω	1Ω	1Ω	+6800Ω	+47K	120Ω		
V4	6AL5	6800Ω	270K	1Ω	0Ω	2.3meg	0Ω	550K		
V5	12AX7	+470K	2.4meg	25K	.1Ω	.1Ω	250K	140K	15K	1Ω
V6	12AQ5	470K	560Ω	0Ω	.1Ω	+720Ω	270Ω	NC		
V7	6BE6	1meg	+1000Ω	1Ω	0Ω	+280K	+470K	1meg		
V8	6CX8	+100Ω	47K	+27K	1Ω	.1Ω	+30Ω	2700Ω	+23K	+870Ω
V9	12X4	85Ω	NC	0Ω	.1Ω	NC	80Ω	Ω		

ALL MEASUREMENTS MADE IN "RECEIVE" POSITION UNLESS OTHERWISE DESIGNATED.
 † THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 † MADE IN "TRANSMIT" POSITION.
 † MEASURED FROM PIN 7 OF V9.

NC NO CONNECTION

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.

REGENCY MODELS
CB-27, CBM-27-6, CBM-27-12

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Suggested Alignment Tools: A1, A7, A8, A11. . . . GENERAL CEMENT #8282, 8606, 8606-L, 9295, 9440
 WALSCO #2526, 2543, 2544, 2545
 A2 thru A5, A9, A10. GENERAL CEMENT #5097, 8727
 WALSCO #2515
 A6, A12, A13. . . . GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
 WALSCO #2512, 2525, 2528

RECEIVER ALIGNMENT

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.				DC probe to pin 3 (screen) of Mixer (V1). Common to chassis.	A1	Adjust for maximum deflection. Turn counterclockwise (from bottom) for abrupt drop in voltage. Slowly turn clockwise for abrupt rise in voltage. Turn an additional 1/4 turn. Meter should read approximately +100 Volts.
2.	High side to pin 7 (grid) of 2nd IF Converter. Low side to chassis.	455KC (400% AM Mod.)		DC probe thru 1meg to point \diamond A. Common to chassis.	A2, A3, A4, A5	Adjust for maximum deflection.
3.	Across antenna receptacle.	26.965MC (Channel 1)	Channel 1.	"	A6	Adjust for maximum deflection.
4.	"	27.225MC (Channel 2)	Channel 22.	"	A7	Adjust for maximum deflection. Repeat Steps 3 and 4.
5.	"	27.085MC (Channel 11)	Channel 11 Signal.	"	A8, A9, A10	Adjust for maximum deflection. Repeat Step 1.
6.			Channel 11.	DC probe thru 1meg to point \diamond B. Common to chassis.		Adjust Capacitor C16 for maximum deflection by twisting leads. (Do not short capacitor).
7.			Channel 1.	OUTPUT METER across voice coil.		Adjust A10 for maximum noise output.
8.			Channel 22	"		Adjust A9 for maximum noise output.
9.	Across antenna receptacle.	27.085MC (400% Mod.)	Channel 11.	"		Adjust Capacitor C5 for maximum output by twisting capacitor leads. (Do not short capacitor).

TRANSMITTER ALIGNMENT

1. Connect a 50 Ω RF Wattmeter to antenna jack thru 3 feet of coaxial cable (RG8 or RG58).
2. Set up transmitter for Channel 22 (27.225MC).
3. Connect DC probe of VTVM to point \diamond C, common to chassis.
4. Adjust All counterclockwise for maximum deflection. Continue turning all counterclockwise for an abrupt drop in meter deflection. Turn All slowly clockwise for an abrupt rise in meter deflection. Continue turning All clockwise 1/4 turn. (Meter should indicate approximately -3V).
5. Adjust A12 and A13 for maximum output on RF Wattmeter (2 Watts minimum).

PARTS LIST AND DESCRIPTIONS TUBES

GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
ITEM No.	USE	ITEM No.	USE	ITEM No.	TYPE
V1	Mixer-Oscillator	6EA8	Output - Modulator	12AQ5	(6AQ5) *
V2	IF Conv.	6BE6	Speech Amplifier	6BE6	6BE6
V3	IF Amplifier	6BA6	Trans. Osc. - Final Amp.	6CX8	6CX8
V4	Det. -AVC-Noise Limiter	6AL5	Rectifier	12X4	(6X4) *
V5	AF Amp. - Squelch Amp.	12AX7			

* Used in 6 Volt versions.

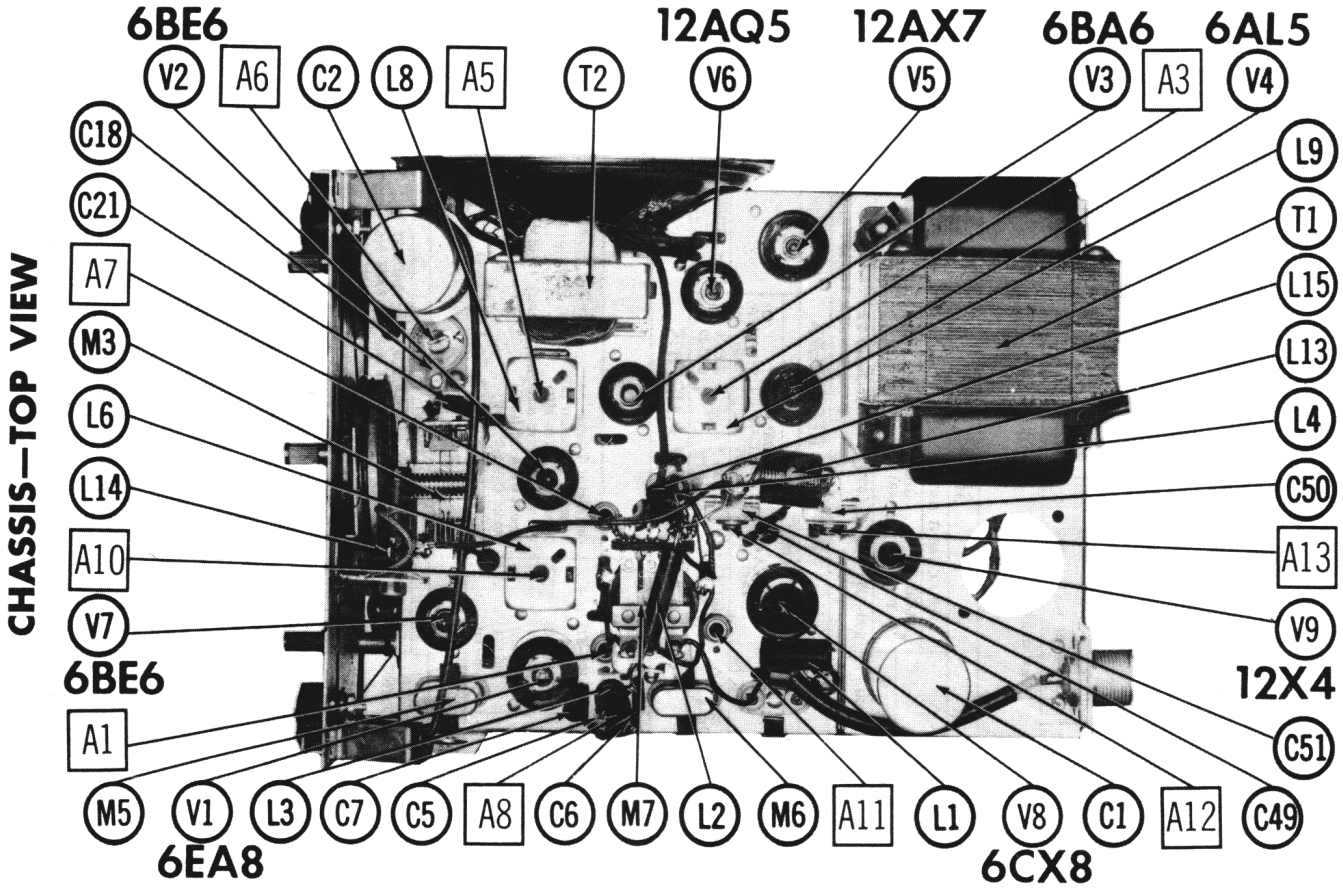
ELECTROLYTIC CAPACITORS

ITEM No.	CAP.	VOLTS	REPLACEMENT DATA				NOTES		
			REGENCY PART No.	AEROVOX PART No.	CORNELL DUBILIER PART No.	MALLORY PART No.		PYRAMID PART No.	SPRAGUE PART No.
C1A	.20	350	300-773-2	AFH3-28-30	B0300	FP227	TMT-3432	TVL-3639, 8	
C1B	.20	350			BBR20-150	TT50X20			
C1C	.20	50			B0300	FP227	TMT-3432	TVL-3639, 8	
C2A	.20	350	300-773-2	AFH3-28-30	BBR20-150	TT50X20			
C2B	.20	350			B0300	FP227			
C2C	.20	50			BBR20-150	TT50X20			
C3	100	25	300-718-5	PR51270	BBR100-25	TC2501	TD-100-25	TVA-1207	
C4	10	150	300-718-6	SRE150V10	NLW10-150	TT150X10	MLV10-150	TE-1507	

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									
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	ELEMCO PART No.	MALLORY PART No.	SPRAGUE PART No.				
C5	2.2 10%		NPO-S1 2.2	TCZ-2R2	TCZ-2R2	C10V22C	CCTO-2R2	CNO-522	10TCC-V22			
C6	27 5%		1469-000027	TCZ-27	TCZ-27	22R5Q27	CCM-19B-270J	CNO-427	MS-427			
C7	10 10%		1469-00001	TCZ-10	TCZ-10	22R5Q1	CNO-19B-100K	MCE215	MS-410			
C8	1.2 10%		NPO-S1 1.5	TCZ-1R5	TCZ-1R5	C10V15C	CNO-515	10TCC-V12				
C9	5000		BPD-005	DD-502	DD-502	BYA10D5	CCD-502	B-250	5HK-D50			
C10	10 10%		1469-00001	TCZ-10	TCZ-10	22R5Q1	CM-19B-100K	MCE215	MS-410			
C11	1000		BPD-001	DD-102	DD-102	BYA10D1	CCD-102	B-210	5HK-D10			
C12	5000		BPD-005	DD-502	DD-502	BYA10D5	CCD-502	B-250	5HK-D50			
C13	5000		BPD-005	DD-502	DD-502	BYA10D5	CCD-502	B-250	5HK-D50			
C14	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C15	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C16	5 10%		NPO-S1 5	TCZ-5	TCZ-5	22R5Q5	CCD-103	B-110	5HK-S10			
C17	36 5%		1469-000036	TCZ-36	TCZ-36	22R5Q36	CM-19B-360J	MS-436				
C18	4.5-25	NPO		82Z-AZ								
C19	200 2%											
C20	39 N750 10%		N750-S1 39	TCN-39	TCN-39	C10Q39U	VCM-20-201G	MCE237				
C21	100 10%		1469-00001	TCZ-100	TCZ-100	22R5T1	CCTN-390	CN7-439	10TCU-Q39			
C22	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C23	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C24	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C25	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C26	5000		BPD-005	DD-502	DD-502	BYA10D5	CCD-502	B-250	5HK-D50			
C27	50000		BPD-005	DD-503	DD-503	CUB4S5	4DP-3-503	GP150	5HK-S50			
C28	100 5%		1469-00001	TCZ-100	TCZ-100	22R5T1	CM-19B-101J	MCE235	MS-31			
C29	50000		BPD-005	DD-503	DD-503	CUB4S5	4DP-3-503	GP150	5HK-S50			
C30	5000		BPD-005	DD-502	DD-502	BYA10D5	CCD-502	B-250	5HK-D50			
C31	5000		BPD-005	DD-502	DD-502	BYA10D5	CCD-502	B-250	5HK-D50			
C32	270			DL-270	DL-270	LJ0T27	CCD-271	B-327	10TS-T27			
C33	50000		BPD-005	DD-503	DD-503	CUB4S5	4DP-3-503	GP150	5HK-S50			
C34	1500		BPD-0015	DD-152	DD-152	BYA10D15	CCD-152	B-215	5HK-D15			
C35	1 200V		P288N-1	DF-104	DF-104	CUEP21	2DP-3-104	GEM-201	2TMM-P10			
C36	50000		BPD-05	DD-503	DD-503	CUEP25	2DP-3-503	GP150	5HK-S50			
C37	1500		BPD-0015	DD-152	DD-152	BYA10D15	CCD-152	B-215	5HK-D15			
C38	50000		BPD-005	DD-503	DD-503	CUB4S5	4DP-3-503	GP150	5HK-S50			
C39	50000		BPD-005	DD-503	DD-503	CUB4S5	4DP-3-503	GP150	5HK-S50			
C40	50000		BPD-005	DD-503	DD-503	CUB4S5	4DP-3-503	GP150	5HK-S50			
C41	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C42	100 5%		1469-00001	TCZ-100	TCZ-100	22R5T1	CM-19B-101J	MCE235	MS-31			
C43	36 5%		1469-000036	TCZ-36	TCZ-36	22R5Q36	CM-19B-360J	CNO-456	MS-468			
C44	68 5%		1469-000068	TCZ-68	TCZ-68	22R5Q68	CM-19B-680J	CNO-468	MS-468			
C45	1.2 10%		NPO-S1 1.5	TCZ-1R5	TCZ-1R5	C10V15C	CCD-103	B-110	10TCC-V12			
C46	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C47	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			
C48	10000		BPD-01	DD-103	DD-103	BYA10S1	CCD-103	B-110	5HK-S10			



CHASSIS—TOP VIEW

PARTS LIST AND DESCRIPTIONS (Continued)

FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	ELEMCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C48	510 10 μ		1469-000510		5R5T51	CM-19B-511K 461	MCB245	MS-351
C50	3-30					464		
C51	25-280					CCD-502	B-250	5HK-D50
C52	5000		BPD-005	DD-502	BYA10D5			

Note 1. Not used in some versions.
† Alternate Value.

CONTROLS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				INSTALLATION NOTES	
			REGENCY PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.		MALLORY PART No.
RLA	1meg	Shunt	100-093-8	B-70-S Not Req.	A47-1meg-Z K5S-3	Q13-137 Not Req.	U53 Not Req.	Volume
RC	25K	Switch	100-093-9	B-27 Not Req.	SWF-12	70-1	U5-26	Power Off-On
R2A	25K	Switch	100-596-1	JL-504	K5S-3	44-500K-W	MLCN65A	Squelch
R3	500K							Modulation Level

RESISTORS

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

ITEM No.	RATING	REMARKS	REPLACEMENT DATA			
			IRC PART No.	WORKMAN TV PART No.	ITEM No.	RATING
R4	1meg				R30	100K
R5	39K				R31	390K
R6	100K				R32	27K
R7	47K				R33	470K
R8	68K				R34	560 Ω 1W
R9	1meg				R35	22meg
R10	22K				R36	100 Ω
R11	6800 Ω				R37	470K
R12	27K 1W				R38	470K
R13	100K				R39	47K
R14	6800 Ω				R40	270K
R15	47K 1W				R41	470K
R16	47K				R42	10K
R17	120 Ω				R43	1meg
R18	1meg				R44	100 Ω
R19	270K				R45	470K
R20	270K				R46	100K
R21	1meg				R47	22K
R22	6800 Ω				R48	2700 Ω
R23	620K				R49	47K
R24	100K				R50	27K
R25	220K				R51	68 Ω
R26	2.2meg				R52	6800 Ω
R27	15K				R53	2700 2W
R28	470K				R54	2.23
R29	27K					

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		REGENCY PART No.	Miller PART No.	Stancor PART No.		
L1	RF Choke(209uh)	101-379-1	6154	RTC-8586		
L2	RF Choke (10uh)	300-303-1	4612	RTC-8522		
L3	Ant.	101-378				
L4	RF Choke(209uh)	101-379-1	6154	RTC-8586		
L5	1st Receiver Osc.	300-882	6171-A	RTC-8609		
L6	1st IF (40.7MC)	607-6	1463	RTC-8599		
L7	2nd Receiver Osc.	300-881				
L8	1st IF (455KC)	655-6				
L9	2nd IF (455KC)	12-C1				
L10	Trans. Osc.	BC-353				
L11	RF Choke(209uh)	101-379-1	6154	RTC-8633		
L12	RF Choke(209uh)	101-379-1	6154	RTC-8609		
L13	Final Output	101-380				
L14	RF Choke	101-379-1				
L15	RF Choke(209uh)	101-379-1	6154	RTC-8586		

† Alternate Value.

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		REGENCY PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T1	SEC. 1 500VCT 12.6V @ 0.075A 1.8A DC	500-470①				

① Alternate Part #500-470-1. Part #500-472-1 used in Model CBM-27 (12V). Part #500-503 used in Model CBM-27 (6V).

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA				NOTES
		REGENCY PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T2	75000 Tap @ 5000 Ω	(Part of SP1)				

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		REGENCY PART No.	QUAM PART No.	
SP1	4" PM	500-467 *	4A07 †	* Includes T2 † Cut Mounting Tab to Fit.

POWER RECTIFIERS

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		REGENCY PART No.	RCA PART No.	SAIKES FAZIAN PART No.	SYLVANIA PART No.	
M1	.080A Signal	SD-91 *	IN1763 *	2F4 *	SR200 *	* Silicon Type
M2		F-6 *	IN1763 *	F6 *	SR500 *	

MISCELLANEOUS

ITEM No.	PART NAME	REGENCY PART No.	REPLACEMENT DATA				NOTES
			REGENCY PART No.	MALLORY PART No.	RADIART PART No.		
M3	Tuning Cap.	300-876					
M4	Switch	SS-32					
M5	Crystal	300-888					
M6	Crystal	300-887					
M7	Relay	101-436					
	Microphone	101-514					
		101-391					

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				REGENCY PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
	Interrupter	6	115 ϕ	5301	1801	5301	5301	Model CBM-27 (6V)
	Interrupter	12	115 ϕ	6301	G1601	6301	6301	Model CBM-27 (12V)

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION	
Glass Knob	300-883	Dial	
Knob	101-375-1	Tuning	
Knob	101-375-2	Volume	
Pointer	100-823	Squelch	
		Dial	

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)