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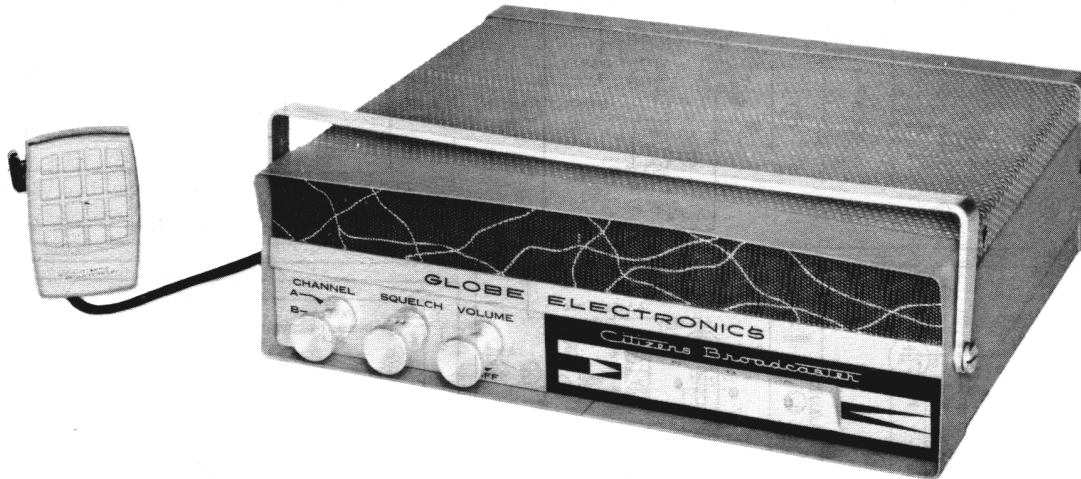
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PHOTOFACT® Folder



GLOBE
MODEL CB-100



GLOBE
MODEL CB-100

TRADE NAME	Globe Model CB-100
MANUFACTURER	Globe Electronics, A Div. of Textron Electronics, Inc., 22-30 S. 34th St., Council Bluffs, Iowa
TYPE SET	AC (or) Battery Operated 10 Tube Crystal Controlled Citizens Band Transmitter-Receiver
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles (or) 12 Volt Storage Battery (Versions for 6 volt Storage Battery Operation are also available.)
RATING	72 Watts, .8 Amp. @117 Volts AC (or) 5 Amp. @12.6 Volts DC (or) 10 Amp. @6.3 Volts DC
TUNING RANGE	Any 3 of Citizens Band Channels 1 thru 22

NOTICE

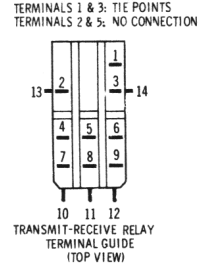
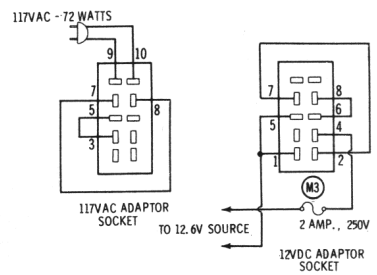
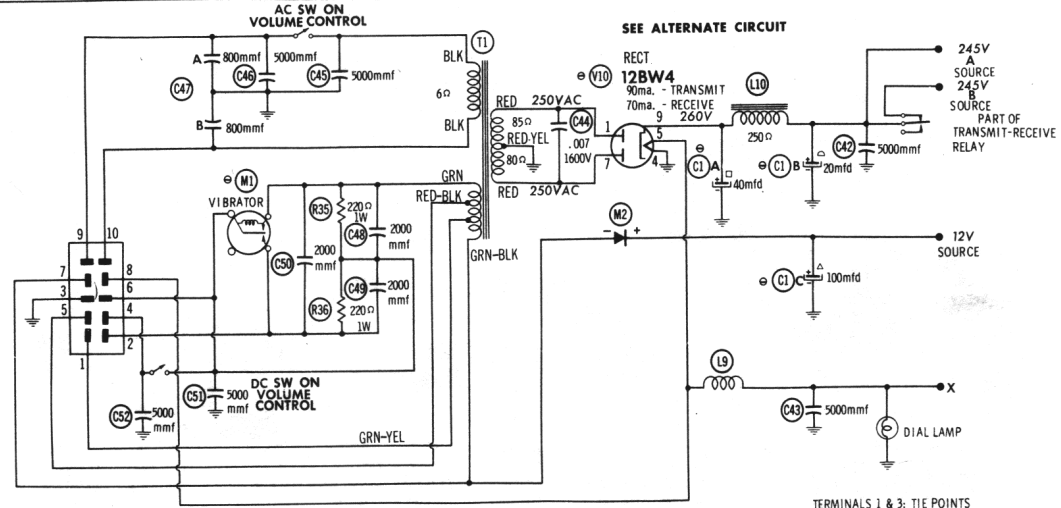
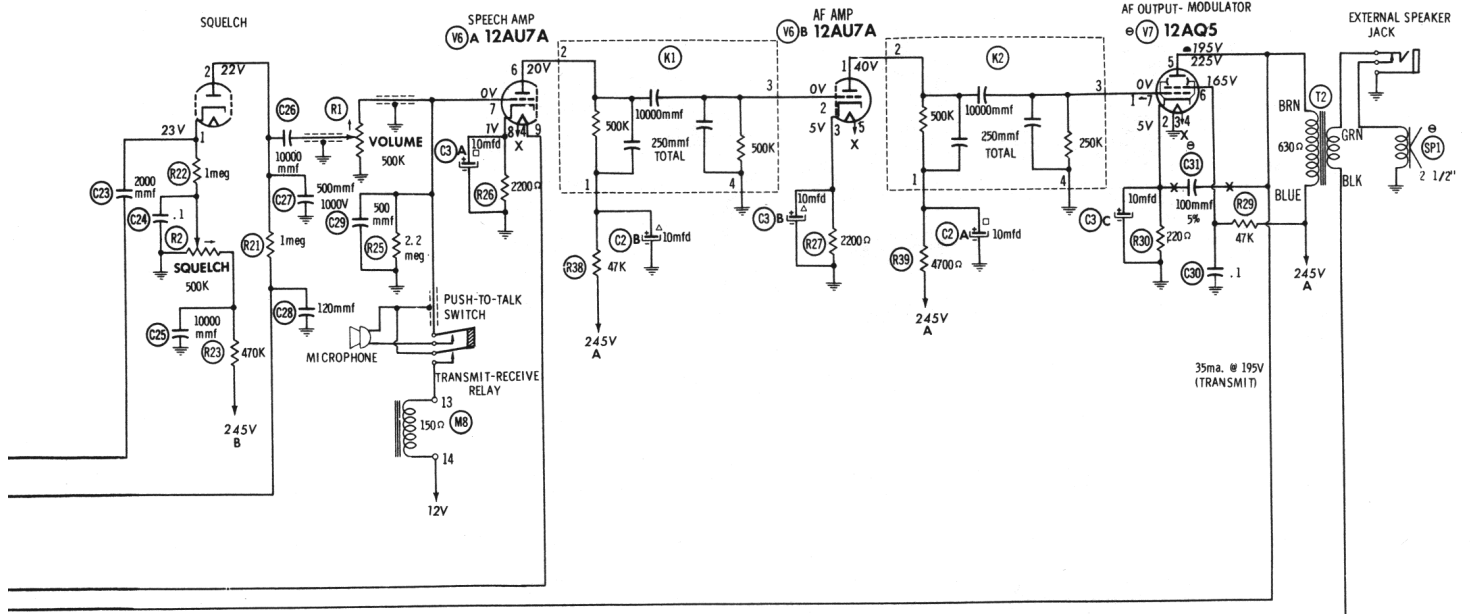
ONLY THOSE PERSONS PROPERLY LICENSED BY FCC ARE PERMITTED TO MAKE CRYSTAL SUBSTITUTION OR EFFECT REPAIRS ON THE TRANSMITTER PORTION OF THIS UNIT.

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 KZ406

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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.

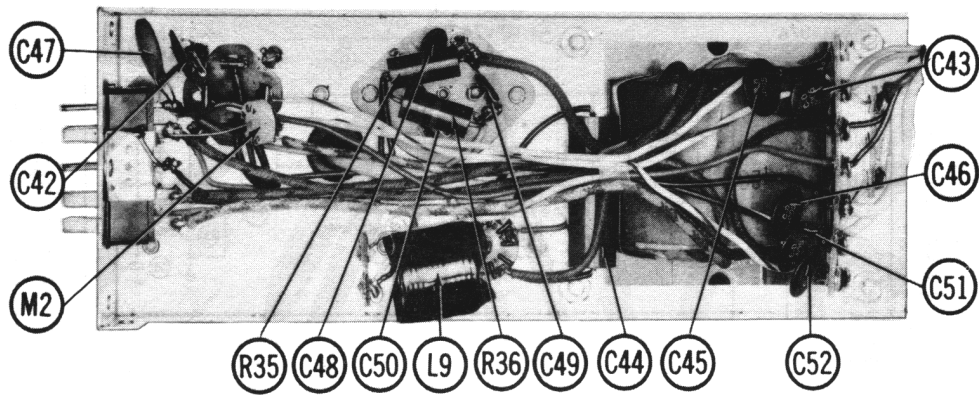
1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured with 1000 ohm per volt voltmeter.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common ground.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance 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

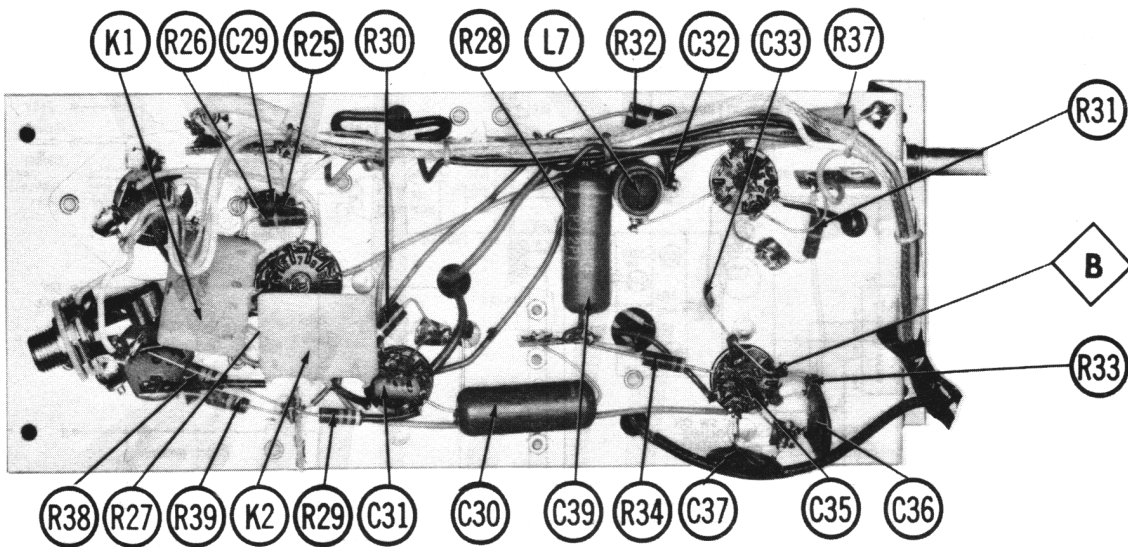
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

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

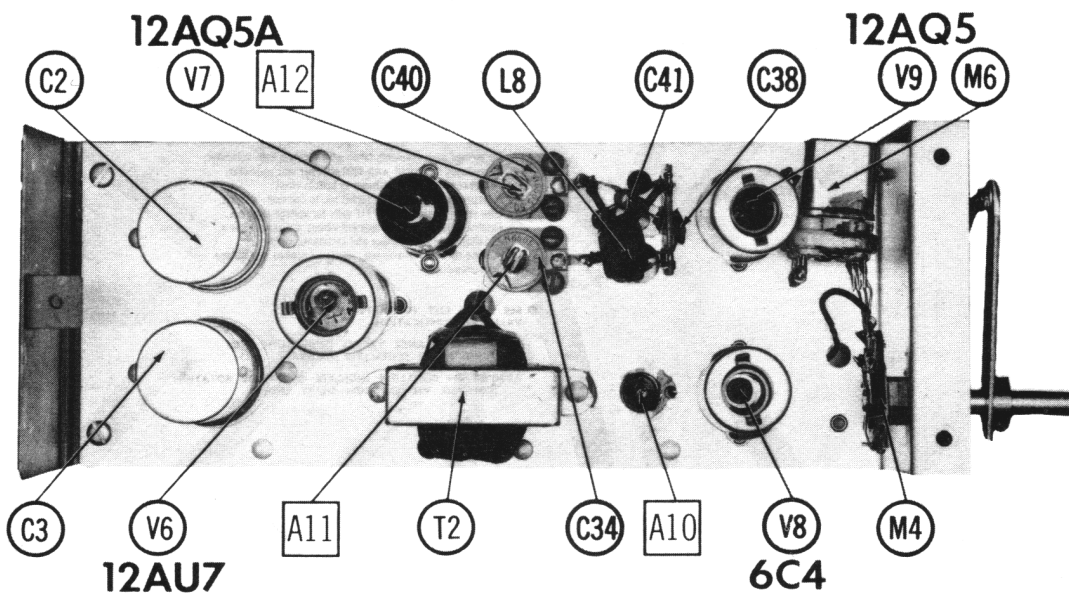
**GLOBE
MODEL CB-100**



POWER CHASSIS - BOTTOM VIEW



TRANSMITTER CHASSIS-BOTTOM VIEW



TRANSMITTER CHASSIS-TOP VIEW

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Suggested Alignment Tools: A1 thru A6.....GENERAL CEMENT #8282, 8606, 8606-L, 9295, 9440
 WALSCO #2526, 2543, 2544, 2545
 A7, A8, A9, A10.....GENERAL CEMENT #8721, 8722
 WALSCO #2519
 A11, A12.....GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
 WALSCO #2512, 2525, 2528

RECEIVER ALIGNMENT

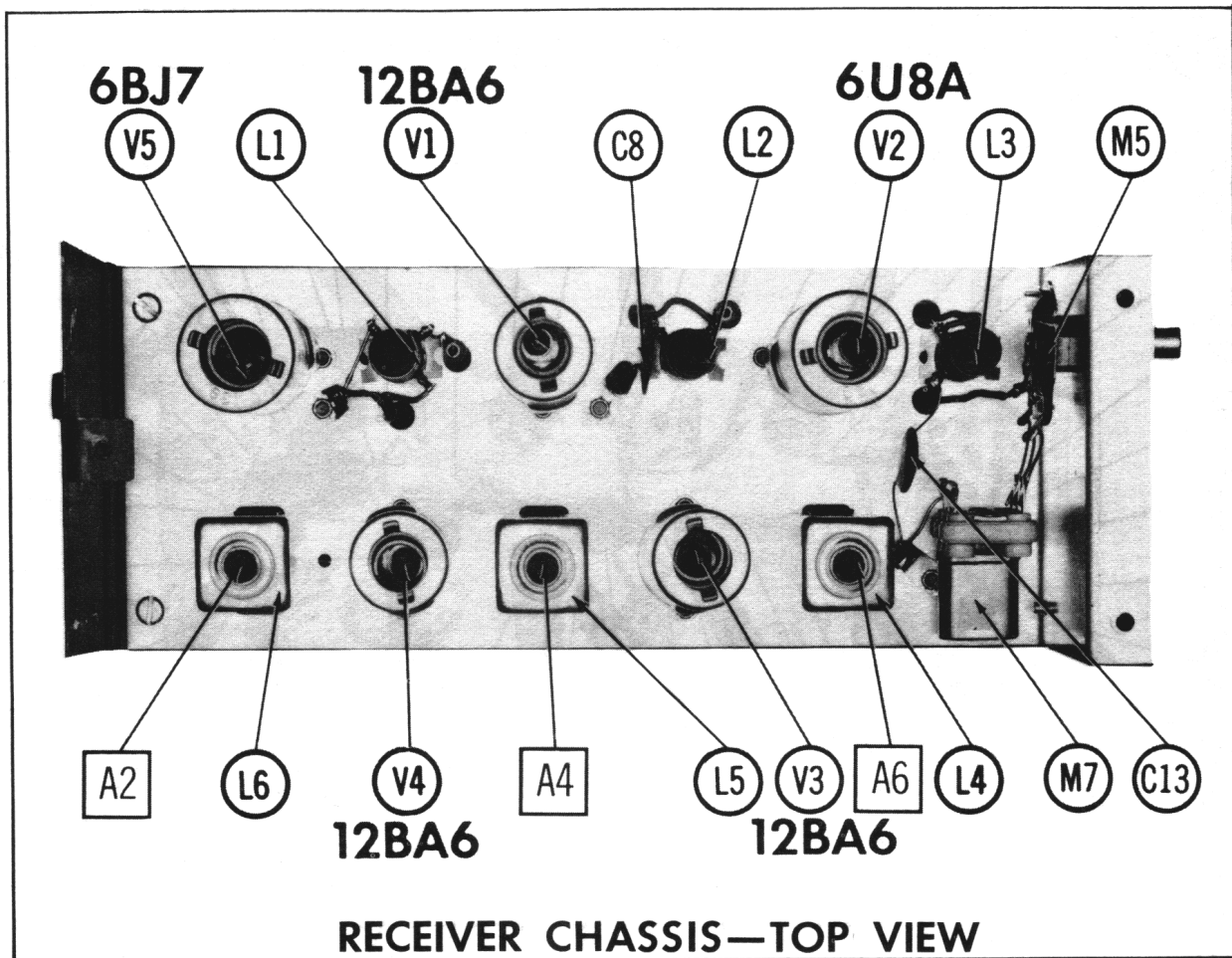
Set Squelch Control (R2) to maximum counterclockwise.

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	High side thru .001mfd to pin 2 (grid) of V2 (mixer). Low side to chassis.	1680KC (400v Mod.)		DC probe to point Δ . Common to chassis.	A1, A2, A3, A4, A5, A6, A7	Adjust for maximum deflection. Adjust A7 from maximum inductance toward minimum inductance for abrupt meter rise.
Disconnect VTVM and tune oscillator signal on an accurately calibrated receiver. (Signal will be 1680KC above the Channel Frequency in use.) If more than one channel is to be used, it may be necessary to "average" the oscillator adjustment (A7) to keep crystals within operating frequency limits ($\pm 1000v$).						
2.	High side to antenna jack, common to chassis.	Channel Desired		DC probe to point Δ . Common to chassis.	A8, A9	Adjust for maximum deflection. If signal injected is excessive, disconnect generator and couple loosely to jack.

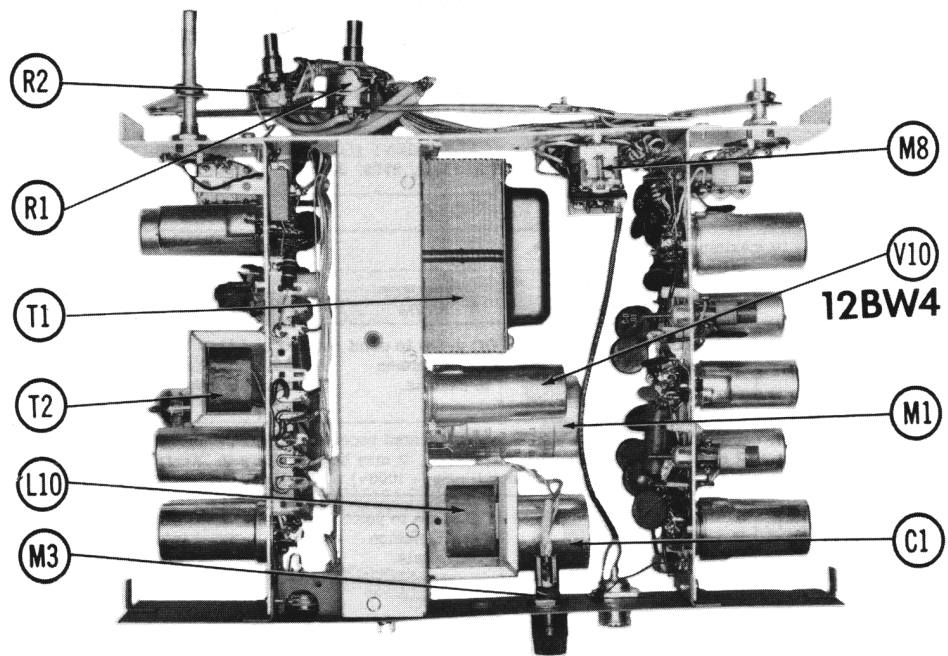
TRANSMITTER ALIGNMENT

Connect DC probe of VTVM to point Δ , common to chassis. Adjust A10 for maximum deflection.

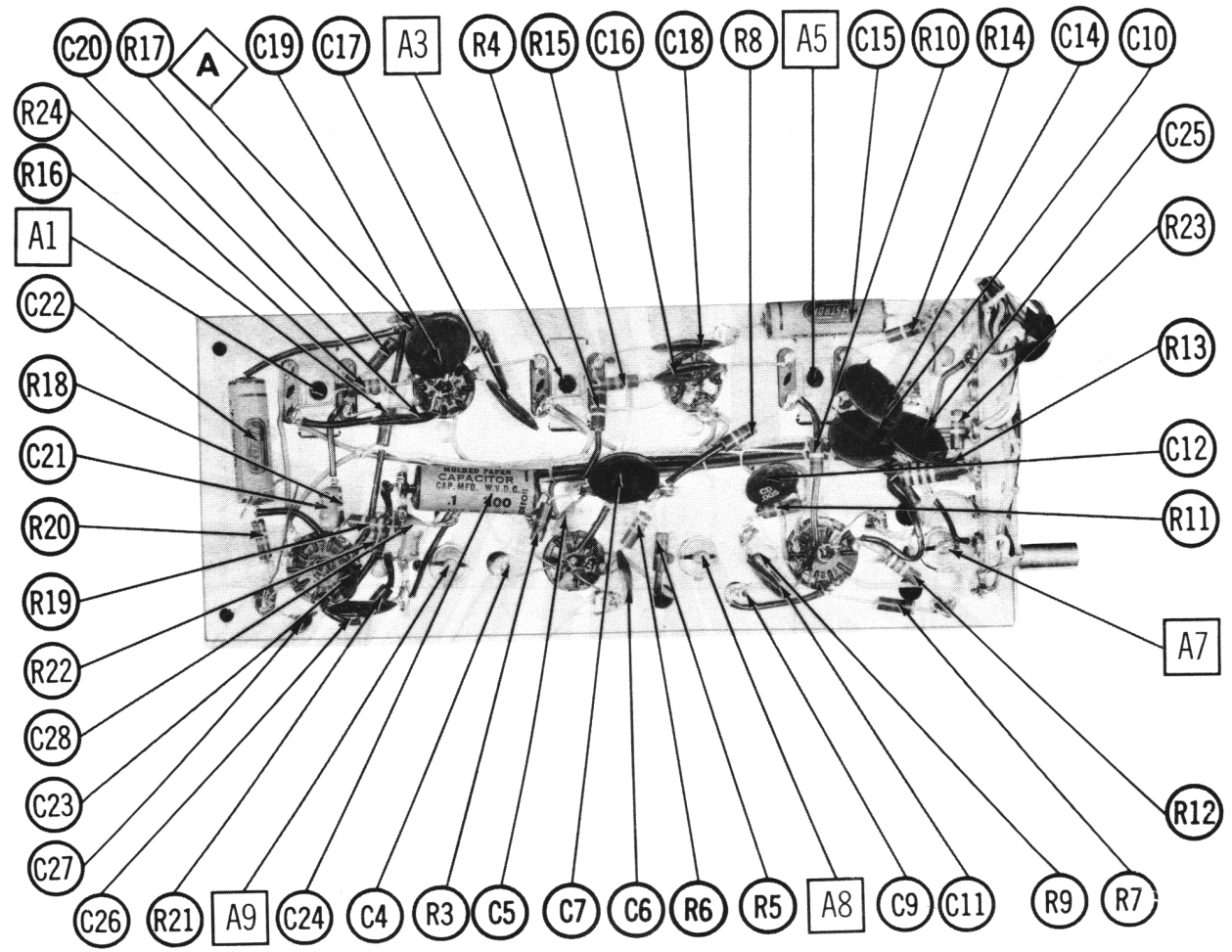
Remove VTVM and connect a 50 Ω dummy load to antenna jack. Adjust A11 and A12 for maximum output. After antenna is connected, retouch A11 and A12 for maximum output.



RECEIVER CHASSIS—TOP VIEW



COMPLETE ASSEMBLY-TOP VIEW



RECEIVER CHASSIS-TOP VIEW

PARTS LIST AND DESCRIPTIONS

TUBES

GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
ITEM No.	USE	ITEM No.	USE	ITEM No.	TYPE
V1	RF Amplifier	V6	AF Amp.-Squeech Amp.	12A7A	12A7A
V2	Mixer-Osc.	V7	AF Output-Modulator	12AQ5 *	12AQ5 *
V3	1st IF Amplifier	V8	Trans. Osc.	6C4	6C4
V4	2nd IF Amplifier	V9	Trans. Output	12AQ5 *	12AQ5 *
V5	Det.-AVC-Noise Lim-Squelch	V10	Rectifier	12BW4 *	12BW4 *

* Equivalent 6V Filament Tubes used in 6 Volt Versions.

ELECTROLYTIC CAPACITORS

REPLACEMENT DATA					
ITEM No.	RATING	GLOBE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	NOTES
C1A	40	1106-023	AFH3-139-50C1080	FP367	Pyramid TMT-3685
C2A	25	1106-022	AFH2-47	FP231	TMD-2610
C3A	25	1106-021	AFH3-22	FP330.5	TMT-3292

.Note 1. In some versions CIA and C1B may be one unit (Part #1106-020) and C1C may be a separate unit (Part #1106-019).

FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLOY PART No.	SPRAGUE PART No.
C41	15		ST15	D6-150	LI0Q15	CCD-150	GP415	10T5-Q15
C42	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C43	5000		PF684CM-007	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C44	007 1600V		PF684CM-007	DD-502	BYA10D5	CCD-502	GEM-1627	5HK-D50
C45	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C46	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C47A	800		BPD-0008	DD-801	BYA10T82	CCD-801	B-362	10T5-T80
C48	800		BPD-0008	DD-801	BYA10T82	CCD-801	B-362	10T5-T80
C49	2000		BPD-002	DD-202	BYA10D2	CCD-202	B-220	5HK-D20
C50	2000		BPD-002	DD-202	BYA10D2	CCD-202	B-220	5HK-D20
C51	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C52	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50

.Note 1. Not used in some versions.
Globe Part Number.

CONTROLS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLOY PART No.	SPRAGUE PART No.
R1A	500K		B-60-S	CLAROSTAT	CTS-IRC	MALLOY		INSTALLATION NOTES
B	Switch		Not Req.	RS-2	Not Req.	U48		Volume
C	Switch		Not Req.	SWE-20	76-2	US-27		Power Off-On
R2	500K							Squelch

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.	ELMENDO PART No.	MALLOY PART No.	SPRAGUE PART No.
C4	50		DI-50	DD-500	LI0Q5	CCD-500	GP450	10T5-Q50
C5	50		DI-50	DD-500	LI0Q5	CCD-500	GP450	10T5-Q50
C6	5000 1000V		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C7	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C8	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C9	50		SI 50	D6-500	LI0Q5	CCD-500	GP450	10T5-Q50
C10	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C11	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C12	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C13	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C14	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C15	.05 200V		P288N-05	DD-503	CUB285	4DP-3-503	GEM-415	2TM-S50
C16	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C17	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C18	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C19	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C20	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C21	120		SI 120	D6-121	LI0T12	CCD-121	GP312	10T5-T12
C22	.05 200V		P288N-05	DD-503	CUB285	4DP-3-503	GEM-415	2TM-S50
C23	2000		BPD-002	DD-202	BYA10D2	CCD-202	B-220	5HK-D20
C24	.1 200V		P288N-1	DD-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C25	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C26	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C27	500 1000V		BPD-0005	DD-500	BYA10T5	CCD-501	B-110	5HK-S10
C28	500		BPD-0005	DD-500	BYA10T5	CCD-501	B-110	5HK-S10
C29	500		BPD-0005	DD-500	BYA10T5	CCD-501	B-110	5HK-S10
C30	.1 200V		P288N-1	DD-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C31	100 5%		BPD-002	DD-202	BYA10D2	CCD-202	MCE235	5HK-D20
C32	2000		DI-50	DD-500	LI0Q50	CCD-500	GP450	10T5-Q50
C33	50			822-CN				
C34	4.5-25 N650		BPD-002	DD-202	BYA10D2	CCD-202	B-220	5HK-D20
C35	2000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C36	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C37	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C38	2000		BPD-002	DD-202	BYA10D2	CCD-202	B-220	5HK-D20
C39	.1 200V		P288N-1	DD-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C40	4.5-25 N650			822-CN				

RESISTORS

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

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLOY PART No.	SPRAGUE PART No.
R3	Imeg							
R4	100K							
R5	5000K							
R6	47K							
R7	Imeg							
R8	1000K							
R9	100K							
R10	100K							
R11	6800K							
R12	47K							
R13	68K 1W							
R14	100K							
R15	220K							
R16	Imeg							
R17	Imeg							
R18	470K							
R19	470K							
R20	6800K							
R21	Imeg							

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	GLOBE PART No.	REPLACEMENT DATA
K1	Audio Coupling	250mmf, 10000mmf, 500K, 500K	1109-005	Aerovox Centralab Sprague PA-112-3 PC-80
K2	Audio Coupling	250mmf, 10000mmf, 250K, 500K	1109-001	Aerovox Centralab Sprague PA-112-4 PC-81 T-2

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		GLOBE PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Ant.	1400-104	TV-118	6950	RTC-8668	Workman TV T232A
L2	RF	1400-105	TV-118	6171-A	RTC-8809	T216
L3	1st IF	1400-103	TV-118	6171-A	RTC-8809	T216
L4	Osc. Plate	1205-001				
L5	2nd IF	1205-001				
L6	3rd IF	1205-001				
L7	Osc. Plate	1400-106	TV-118	6171-A	RTC-8809	T216
L8	Output Final	1400-107				
L9	F.I.L. Choke	1300-018	BC-537	5219	RTC-9181	

FILTER CHOKE

ITEM No.	CURRENT (Measured)	RATINGS DC RES.	INDUCTANCE (1000 μ H)	REPLACEMENT DATA				NOTES
				GLOBE PART No.	Merit PART No.	Stancor PART No.	Thorndarson PART No.	
L10	.090A	250 Ω	5.4 HY	1300-017			Triad PART No.	

TRANSFORMER (POWER)

ITEM No.	RATING PRI. SEC.	REPLACEMENT DATA				NOTES
		GLOBE PART No.	Merit PART No.	Stancor PART No.	Thorndarson PART No.	
T1	117V @ 500VCT @ .090A (AC Operation)	1200-018	12.6V @ 2A			

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE PRI. SEC.	REPLACEMENT DATA				NOTES
		GLOBE PART No.	Merit PART No.	Stancor PART No.	Thorndarson PART No.	
T2	17K 3-4 Ω	1203-011				

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		GLOBE PART No.	QUAM PART No.	
SP1	2 1/2" PM	4002-001A *	25A07	* Alternate Part #4002-001

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA			NOTES
				GLOBE PART No.	CORNELL-DUBIER PART No.	MALLORY PART No.	
M1	Interrupter	12	115 ϕ	4001-001	G5801	G1601	RADIART PART No. G8801
	Interrupter	6	115 ϕ		5301 *	1601	5301 *

* 6 Volt Versions.

POWER RECTIFIERS

ITEM No.	RATING CURRENT (Measured)	REPLACEMENT DATA				NOTES
		GLOBE PART No.	RCA PART No.	SARKES TAZIAN PART No.	SYLVANIA PART No.	
M2	3700-014 *	1N1763 *	2F4 *	SR200 *		* Silicon

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA			
			GLOBE PART No.	LITTELFUSE PART No.	FUSE HOLDER	FUSE HOLDER
M3	3AG	2A 250V	1500-011	312002 (3AG 2A 250V)	342001	FUSE AGC 2 HOLDER HKP

MISCELLANEOUS

ITEM No.	PART NAME	GLOBE PART No.	NOTES
M4	Switch	2100-027	Transmitter Crystal (Rotary, Water Type) Receiver Crystal (Rotary, Water Type) Transmitter Receiver
M5	Switch	2100-028	
M6	Crystal		
M7	Crystal		
M8	Relay	3500-015	
	Microphone	4000-003	

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in Ten Colors
Shielded Hook-up Wire	Use BELDEN No. 8524 (Stranded) Available in Ten Colors
Bonding Strap	Use BELDEN No. 8885
Power Cord	Use BELDEN No. 8661
	Use BELDEN No. 1765-B (6 Ft. Length)
	Use BELDEN No. 1725-K (7 1/2 Ft. Length)