



PHOTOFACT[®]

TRADE NAME: Hammarlund Model CB-Six
SUPPLIER: For Current Address, see Master Index
TYPE SET: 9 Tube Citizens Band Transceiver
POWER SUPPLY: 110 — 120 Volts AC, 60 Cycles (or)
 12 Volts DC
RATING: 68 Watts, .65 Amp. @ 117VAC (Receive)
 79 Watts, .72 Amp. @ 117VAC (Transmit)
 5.2 Amp. @ 12.6VDC (Receive)
 6.0 Amp. @ 12.6VDC (Transmit)
TUNING RANGE: Any 6 of Citizens Band Channels 1 thru 22
 Receiver may be continuously tuned



ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

A1 thru A11.....GENERAL CEMENT #8606, 8606L, 8869.....WALSCO #2543, 2544, 2588
 A13 thru A14.....GENERAL CEMENT #8606, 8606L, 8869.....WALSCO #2543, 2544, 2588
 A12 and A15.....GENERAL CEMENT #8868, 9087, 9089.....WALSCO #2528, 2541, 2587

RECEIVER ALIGNMENT

Connect a DC VTVM from Point **A** to ground. Set to indicate negative voltage. Output of signal generator should be no higher than necessary to obtain a suitable indication.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru .01mfd to pin 7 (grid) of V3 (2nd Conv.), low side to ground. Tune to 262KC.	Any	A1 thru A6	Adjust for maximum.
High side thru .01mfd to pin 7 (grid) of V2 (1st Conv.), low side to ground. Tune to 1650KC.	Any	A7, A8, A9	Set the fine tuning control to mid-range. Adjust for maximum.
High side to antenna receptacle, Low side to ground. Tune to channel frequency.	11 (27.085MC)	A10, A11	Adjust for maximum.

TRANSMITTER ALIGNMENT

ONLY THOSE PERSONS PROPERLY LICENSED ARE PERMITTED TO MAKE REPAIRS OR ADJUSTMENTS WHICH MAY RESULT IN ILLEGAL OPERATION. (REFER TO FCC RULES AND REGULATIONS PART 95, SUBPART D, SECTION 95.95).

The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

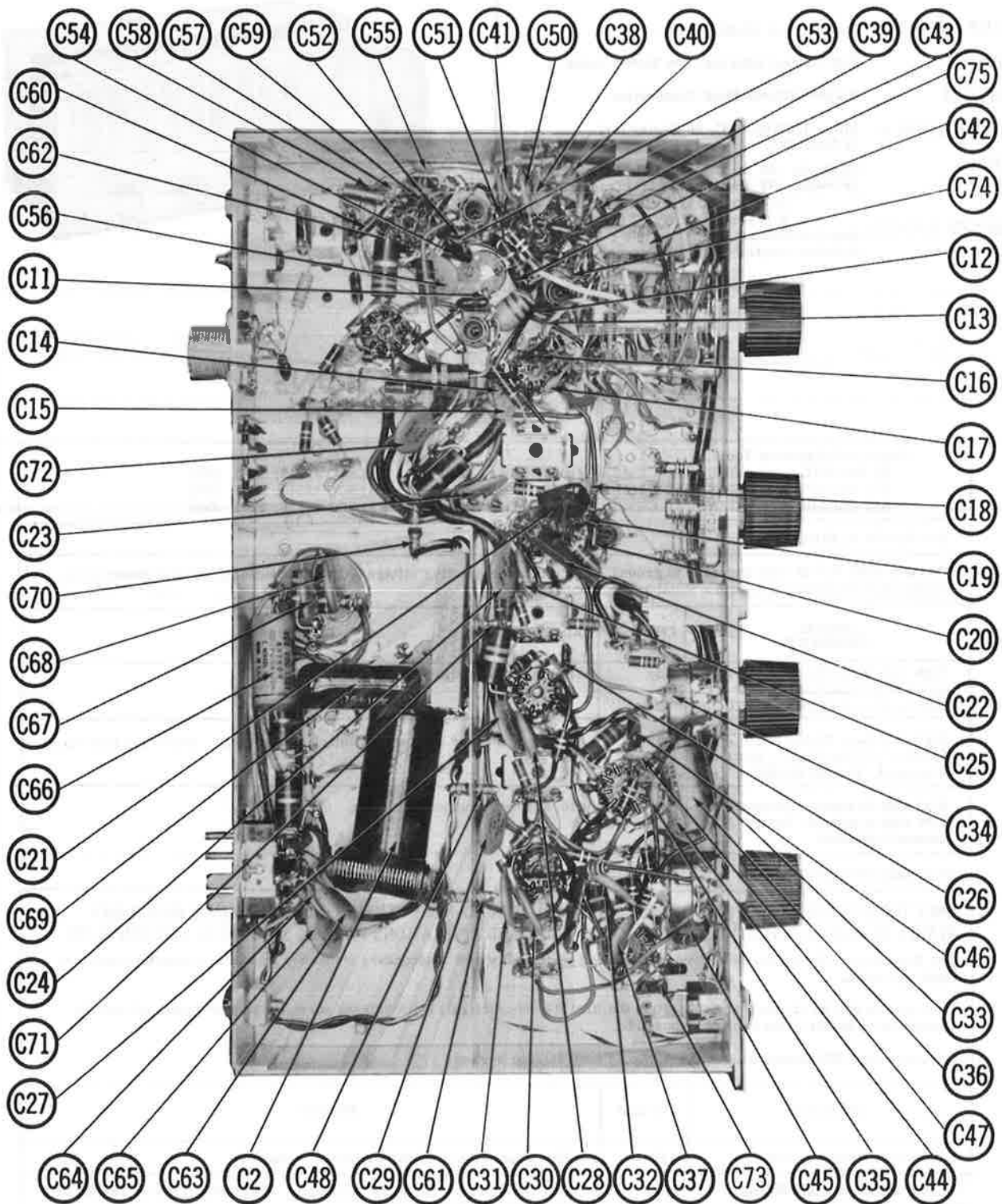
Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

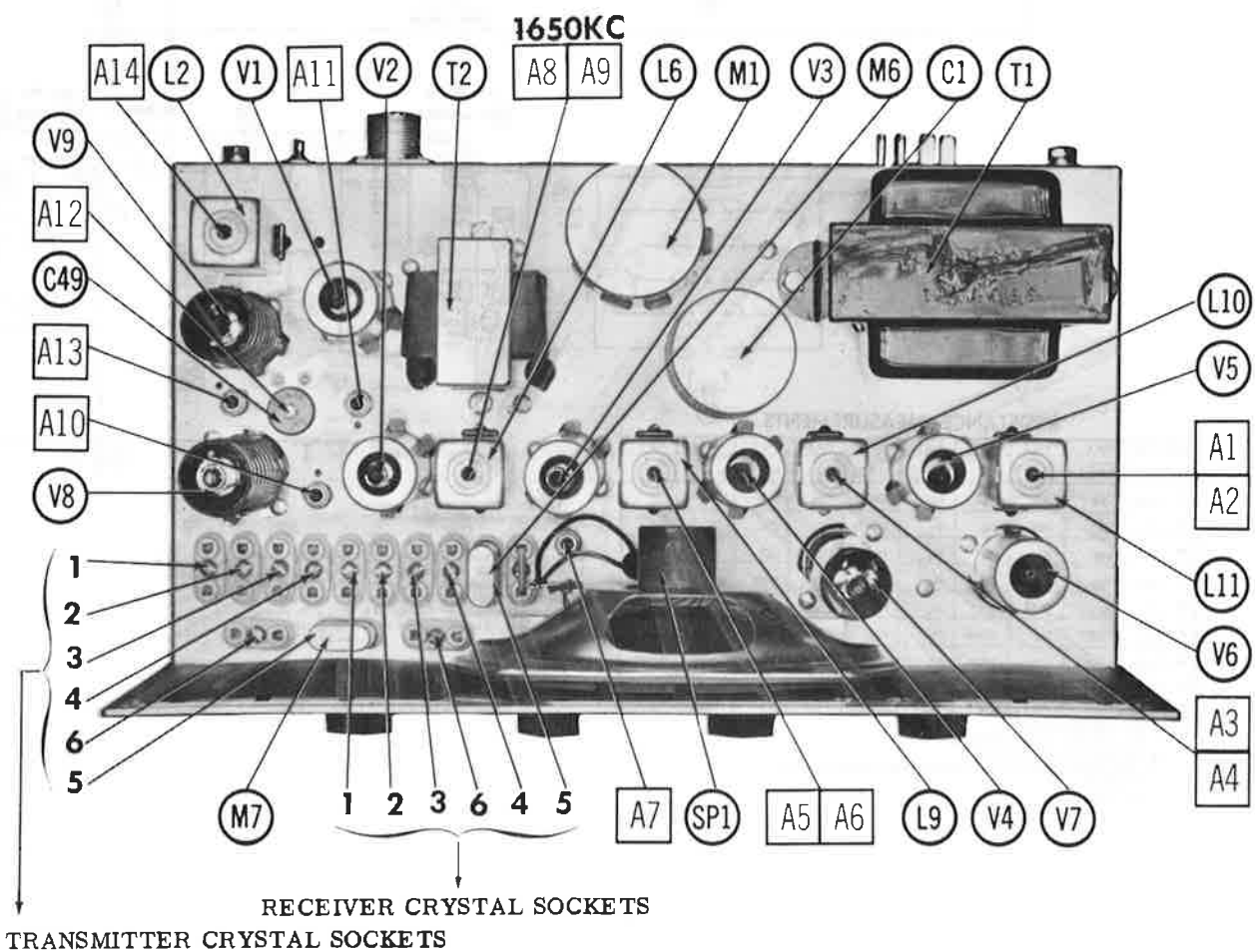
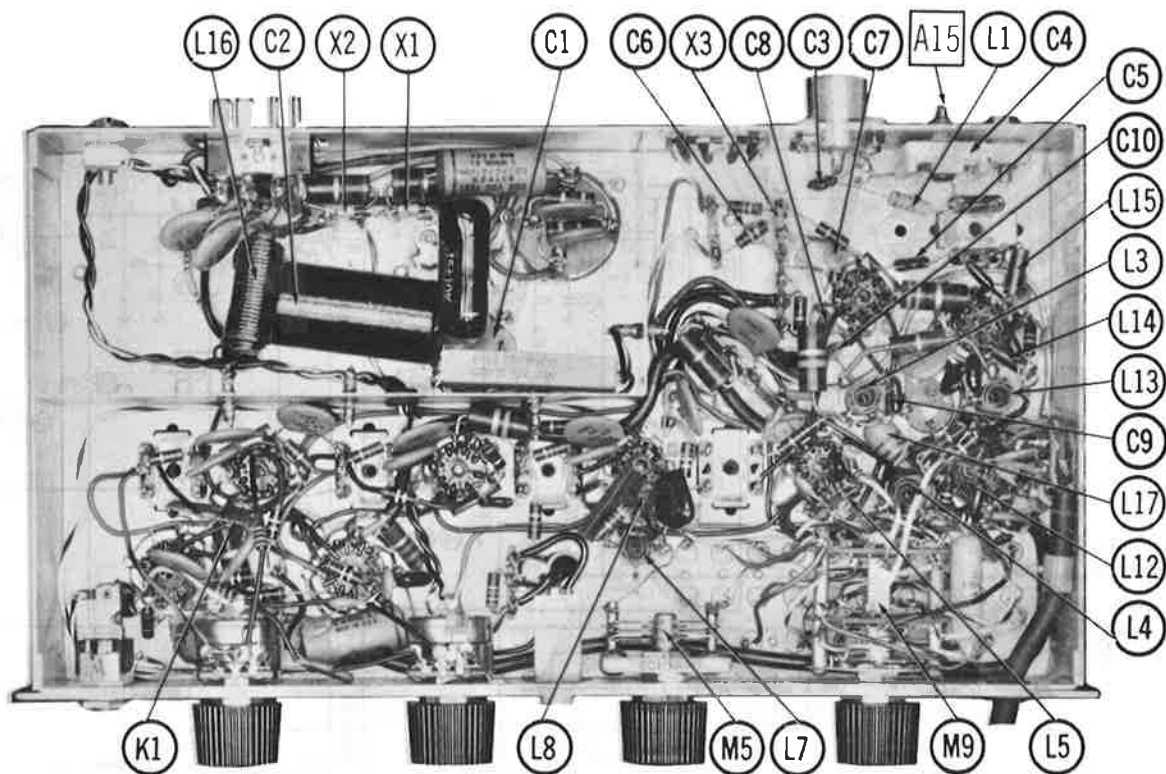
Connect either 50Ω dummy load or the normally used antenna system.

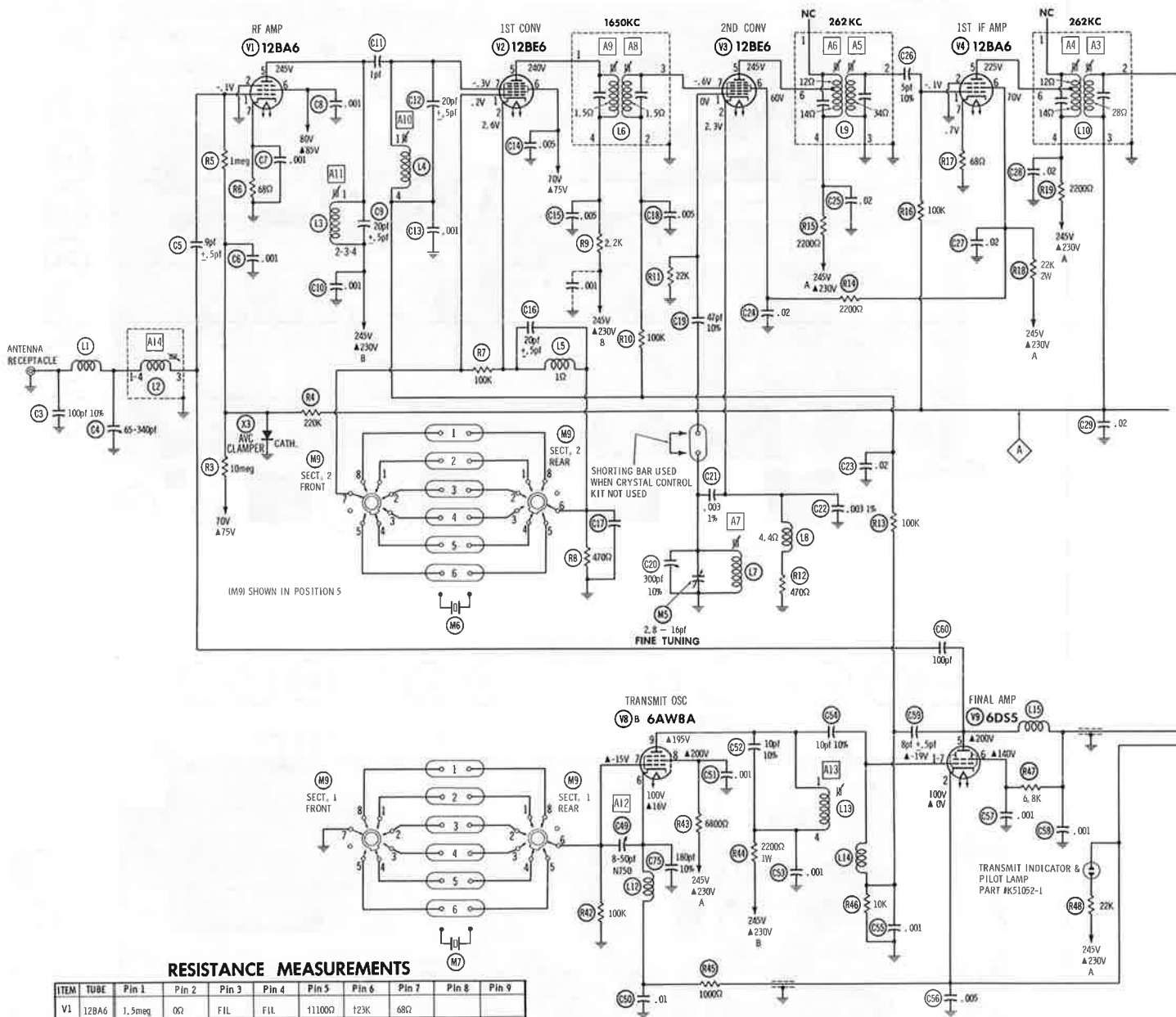
INDICATOR	ADJUST	REMARKS
An accurate frequency meter.	A12	Key transmitter. Adjust for crystal frequency.
RF Wattmeter or Field Strength meter.	A13	Key transmitter. Adjust for maximum, then back off one or two turns to insure stable oscillation.
RF Wattmeter or Field Strength meter.	A14, A15	Key transmitter. Adjust for maximum.

HAMMARLUND MODELS CB-SIX (CB-6)

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







RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	1.5meg	0Ω	FIL	FIL	11100Ω	123K	68Ω		
V2	12BE6	100K	470Ω	FIL	FIL	13300Ω	126K	110K		
V3	12BE6	22K	470Ω	FIL	FIL	13300Ω	126K	210K		
V4	12BA6	600K	0Ω	FIL	FIL	13300Ω	123K	68Ω		
V5	12BA6	480K	0Ω	FIL	FIL	13300Ω	1185K	150Ω		
V6	6BJ7	0Ω	180K	0Ω	FIL	FIL	11300K	55K	*1meg	*2.2meg
V7	6CW8	11800K	56K	11100Ω	FIL	FIL	1280Ω	180Ω	220K	1220K
V8	6AW8A	2200Ω	2.2meg	1250K	FIL	FIL	11000Ω	100K	17800Ω	13200Ω
V9	6D5S	10K	0Ω	FIL	FIL	11800Ω	18600Ω	10K		
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

† MEASURED FROM CATHODE X2

* MEASURED WITH SQUELCH CONTROL MAX., CW

Δ MEASURED IN TRANSMIT POSITION

ALL MEASUREMENTS MADE IN RECEIVE POSITION UNLESS OTHERWISE NOTED.

TP TIE POINT

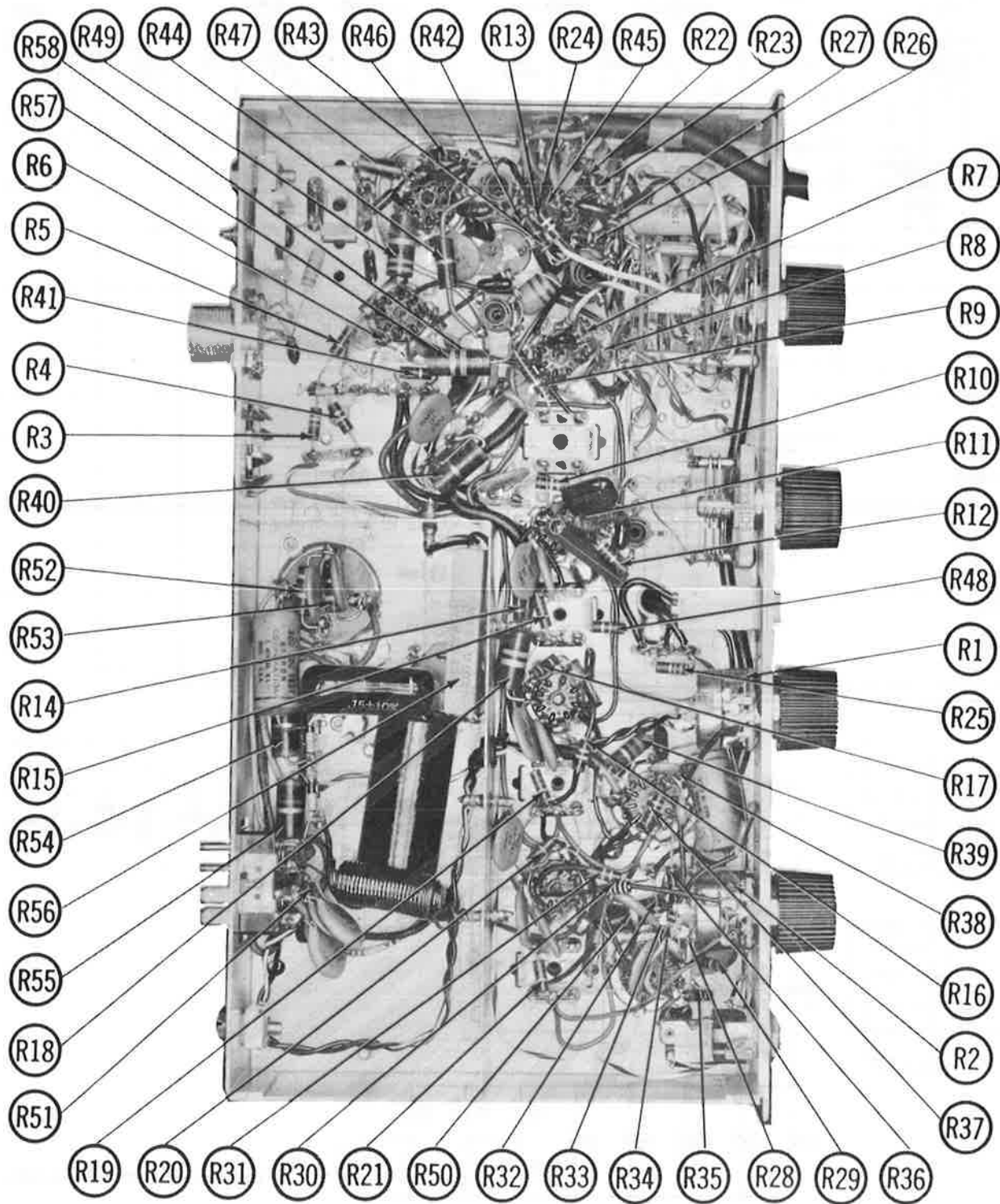
NC NO CONNECTION

Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.

- ⊗ See parts list for alternate value or application.
- 1. Voltage measurements taken with vacuum tube voltmeter.
- 2. All controls set for normal operation, no signal applied.
- 3. Measured values are from socket pin or terminal to common ground.
- 4. All terminals viewed from bottom unless otherwise designated.
- 5. Numbers assigned to terminals may not be found on the unit.
- 6. Supply voltage maintained at rated value for voltage readings.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
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PARTS LIST AND DESCRIPTION

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Shielded Antenna Lead	Use BELDEN No. 8524 (Stranded) Available in 12 Colors
Coiled Microphone Cable	Use BELDEN No. 8497 3 Conductor - 1 Shielded for Press-to-Talk (Neoprene)
Ignition Noise Suppression	Use BELDEN No. 7300 Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661 (3/8 In.)

TUBES

ITEM No.	USE	GENERAL ELECTRIC	AMPEREX	RCA	SYLVANIA	USE	ITEM No.	TYPE
V1	RF Amp.	12BA6				Det.-AFC Noise Limiter - Squelch Clamper	V6	6BJ7
V2	1st Converter	12BE6				AF Amp. - Output-Modulator	V7	6GW8/ECL86
V3	2nd Converter	12BA6				Speech Amp. - Transmit Osc.	V8	6AW8A
V4	1st IF Amp.	12BA6				Final Amp.	V9	6DS5
V5	2nd IF Amp.	12BA6						

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	RECTIFIERS	RCA PART No.	SARKIS TARTAN PART No.	DIODES
X1	110MA (Trans)	M41223-2	GE504	1N1096 or 1N2071		1N2884	F-4	GENERAL ELECTRIC PART No.
X2	110MA (Trans.)	M41223-2	GE504	1N1096 or 1N2071		1N2884	F-4	
X3		M41223-3						

① X1 and X2 may be replaced with one VB600.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	Hammarlund PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	REPLACEMENT DATA	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	40 350	K15504-73	AFH4-57-75	XC4-83				
C1B	40 350							
C1C	40 100							
C2	40 350	K23073-83	PRS1670	BR40-350	QTT1-14	TD-40-350	TC67	IVA-1611

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C3	100 10%	#K23935-1	ADM-15-101	CPR-100J	CD15F101K	DM-15-101K	MS-31
C4	65-340	#K235006-21					
C5	9 +.5pf						
C6	.001		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10
C7	.001		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10
C8	.001		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10
C9	20 +.5pf		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10
C10	.001		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10

FIXED CAPACITORS(cont)

ITEM No.	RATING	REMARKS	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C11	1pf 10%	#K23941-1	BPD-001	TCZ-20	CCD-102	B210	5HK-D10
C12	20 +.5pf	#K23006-17	BPD-005	DD-102	CCD-502	B250	5HK-D50
C13	.001		BPD-005	DD-102	CCD-502	B250	5HK-D50
C14	.005		BPD-005	DD-102	CCD-502	B250	5HK-D50
C15	20 +.5pf	#K23006-17	BPD-001	TCZ-20	CCD-102	B210	5HK-D10
C16	.001		BPD-005	DD-102	CCD-502	B250	5HK-D50
C17	.005		BPD-005	DD-102	CCD-502	B250	5HK-D50
C18	47 10%		ADM-15-470	CPR-471	DM-15-470K	CNO447	MS-447
C19	300 10%	#K23027-28	ADM-15-301	CPR-300J	DM-15-301K	JF333	MS-33
C20	.003 1%	#K23942-1			DM-15-302F		
C21	.003 1%		BPD-02	DD-203	CCD-203	B120	5HK-S20
C22	.003 1%		BPD-02	DD-203	CCD-203	B120	5HK-S20
C23	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C24	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C25	5 10%	#K23006-5	ADM-15-050	DD-203	CCD-203	CNO447	MS-447
C26	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C27	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C28	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C29	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C30	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C31	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C32	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C33	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C34	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C35	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C36	1.0mfd 200V		BPD-002	DD-202	CCD-202	B210	5HK-D20
C37	.02		BPD-02	DD-203	CCD-203	PVC11	2WTF-M1
C38	.001		ADM-15-001	DD-102	CCD-102	B210	5HK-S20
C39	300 10%		BPD-001	CPR-300J	DM-15-301K	JF333	MS-33
C40	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C41	.005		BPD-005	DD-502	CCD-502	B250	5HK-D50
C42	1 400V		PA68N-1	DF-104	DM-15-301K	GE401	47M-P10
C43	300 10%		ADM-15-301	CPR-300J	DM-15-301K	JF333	MS-33
C44	.005		BPD-005	DD-502	CCD-502	B250	5HK-D50
C45	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C46	300 10%		ADM-15-301	CPR-300J	DM-15-301K	JF333	MS-33
C47	.002		BPD-002	DD-202	CCD-202	B210	5HK-D20
C48	.001		EF-001	MFT-1000	CCF-102	CT280A	
C49	8-50 N750	#K23038-5					
C50	.01		BPD-01	DD-103	CCD-103	B110	5HK-S10
C51	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C52	10 10%		ADM-15-100	DTZ-10	DM-10-100K	CNO410	MS-41
C53	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C54	10 10%		ADM-15-100	DTZ-10	DM-10-100K	CNO410	MS-41
C55	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C56	.005		BPD-005	DD-502	CCD-502	B250	5HK-D50
C57	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C58	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C59	8 +.5pf	#K23006-73	ADM-15-101	CPR-100J	DM-15-101K	CNO310	MS-31
C60	100 10%		EF-001	MFT-1000	CCF-102	CT280A	
C61	.001		EF-001	MFT-1000	CCF-102	CT280A	
C62	.001		EF-001	MFT-1000	CCF-102	CT280A	
C63	.001		EF-001	MFT-1000	CCF-102	CT280A	
C64	.001		EF-001	MFT-1000	CCF-102	CT280A	
C65	.001		EF-001	MFT-1000	CCF-102	CT280A	
C66	.001		EF-001	MFT-1000	CCF-102	CT280A	
C67	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C68	.02		BPD-02	DD-203	CCD-203	B120	5HK-S20
C69	.15 600V 10%		BPD-01	DD-102	CCD-102	B210	5HK-D10
C70	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C71	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C72	.01		BPD-01	DD-103	CCD-103	B110	5HK-S10
C73	300 10%		ADM-15-301	CPR-300J	DM-15-181K	JF333	MS-33
C74	.001		BPD-001	DD-102	CCD-102	B210	5HK-D10
C75	180 10%		ADM-15-181	CPR-180J	DM-15-181K	CNO318	MS-318

Hammarlund Part Number.

PARTS LIST AND DESCRIPTION (CONTINUED)

CONTROLS

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

ITEM No.	USE	REPLACEMENT DATA			
		RESISTANCE	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.
R1	Volume & Power Switch	1meg	K15382-11	F2-1meg, SF012, KR-1 or (B-70, KR-1)	A47-1meg-Z, FS-3, SWE-12 SS14, GC)*
R2	Squelch & ANL Switch	150K	K15382-12	F1-150K, SF012, KR-3† or (B-43, KR-3 †)	A47-150K-S, FS-3, SWE-21†

* "SNAPTROL"

† Use switch terminals that have continuity in extreme counterwise position.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS	ITEM No.	RATING	REMARKS
R56	1000Ω 10W 10%		PW10-1000	10W-SQ-1000			

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		Hammarlund PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	Ant. Choke(.56uh)	K40064-2	TV-239	RTC-8513	T802	
L2	Final Plate	M39137-1				
L3	RF Plate	K39308-1				
L4	1st Conv. Grid	K39308-1				
L5	1st Conv. RF Choke (2.2uh)	K42356-21	BC-563	RTC-8517	T813	
L6	1st IF (1650KC)	M39305-1				
L7	2nd Conv. Grid	K39307-1				
L8	2nd Conv. RF Choke (100uh)	K42356-22	TV-194	RTC-8574	T974	
L9	2nd IF (262KC)	M39170-1				
L10	3rd IF (262KC)	M39170-1				
L11	4th IF (262KC)	M39170-1				
L12	Trans. Osc. Choke (25uh)	K42356-21	BC-662	74F225A1	T953	
L13	Trans. Osc. Plate	K39308-1				
L14	Final Grid Choke (21uh)	K39161-1	TV-192	RTC-8584	T300	
L15	Final Plate Choke (21uh)	K39161-1	TV-192	RTC-8584	T300	
L16	Filament Choke (90uh)	K39409-1				
L17	RF Choke (2.5mh)	K26779-1	4537			

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		Hammarlund PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T1	PRI. 1 117VAC ①. 72A SEC. 2 12.2VAC ②. 2.4A					
	PRI. 2 12.6VDC ③. 6.0A SEC. 1 110MA					
	PRI. 3 110VAC ④. 110MA					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA				NOTES
		Hammarlund PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T2	6650Ω Tapped @ 150Ω					

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		Hammarlund PART No.	QUAM PART No.	
SP1	3" x 5" PM 3-8Ω	M39306-1	35A05Z8	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	Hammarlund PART No.	REPLACEMENT DATA
K1	Detector RF -AVC- Noise Limiter Filter		K38885-1	

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS/QUENCY	REPLACEMENT DATA		NOTES
			Hammarlund PART No.	CORNELL-DUBILIER PART No.	
M1	Interrupter	12.6 VDC	K51038-1	6372	G1501

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA		BUSS PART No.
			Hammarlund PART No.	LITTELFUSE PART No.	
M2	3AG	1 Amp 125V S/B	K15888-5	313001	MDL1
M3	3AG	1 Amp 125V S/B	K15888-5	313001	MDL1
M4	3AG	6.1/4A 125V S/B	K51010-1	3136-25	MDX 6 1/4

① Fuse Mounts in AC Power Plug.

MISCELLANEOUS

ITEM No.	PART NAME	Hammarlund PART No.	NOTES
M5	Fine Tune Cap.	K11033-G106	2.8mmf - 16mmf
M6	Receiver Crystals	M39335	Add Channel Number after dash in Part Number
M7	Transmit Crystals	M39336	Add Channel Number after dash in Part Number
M8	Microphone Assembly	F39190-2	Ceramic
M9	Channel Switch	M39294-G1	6-Position Water Switch

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM		ITEM	
PART No.		PART No.	
Knob		K39164-2	