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MODEL CB-12

**NOTICE**

ONLY THOSE PERSONS PROPERLY LICENSED ARE PERMITTED TO MAKE REPAIRS OR ADJUSTMENTS WHICH MAY RESULT IN ILLEGAL OPERATION. (REFER TO FCC RULES & REGULATIONS PART 19, SUBPART D, SECTION 19.71).

TRADE NAME	Bendix Models CB-6, CB-12
MANUFACTURER	Bendix Marine, 8211 Lankershim Blvd., North Hollywood, California
TYPE SET	AC or Battery Operated Crystal Controlled 8 Tube Citizens Band Transmitter-Receiver
POWER SUPPLY	CB-6: 110-120 Volts AC, 60 Cycles (or) 6 Volt Storage Battery CB-12: 110-120 Volts AC, 60 Cycles (or) 12 Volt Storage Battery
RATING	50 Watts, .5 Amp. @117 Volts AC (or) 7.6 Amp. @6.3 Volts DC (or) 3.8 Amp. @12.6 Volts DC
FREQUENCY RANGE	Any 4 of Citizens Band Channels 1 thru 22

**ALIGNMENT INSTRUCTIONS**

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use only enough generator output to provide a usable indication.

Suggested Alignment Tools:

- A1 thru A7, A9. . GENERAL CEMENT #9296, 9297  
WALSCO #2546, 2547
- A8, A10. . . . . GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089  
WALSCO #2512, 2525, 2528
- All. . . . . GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988, 8989, 9291  
WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538

RECEIVER ALIGNMENT

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	High side thru .001mfd to pin 2 (grid) of Mixer. Low side to chassis.	1650KC	Not Used.	DC probe to point $\diamond$ . Common to chassis.	A1, A2, A3, A4, A5, A6	Adjust for maximum deflection on first peak as slug enters coil.
2.	Adjust A7 for maximum background noise.					

TRANSMITTER ADJUSTMENT

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	SPECIAL INSTRUCTIONS	INDICATOR	ADJUST	REMARKS
1.	Connect a 52 $\Omega$ dummy load to antenna jack.	Frequency meter.	A8	Adjust to frequency indicated on crystal (within 100%).
2.		Connect VTVM between point B (pin 7, V8) and chassis.	A9	Adjust for maximum deflection.
3.	Set A10 for maximum capacity.	Indicator Lamp.	A10, A11	Adjust alternately for maximum lamp brightness, ending with A11.

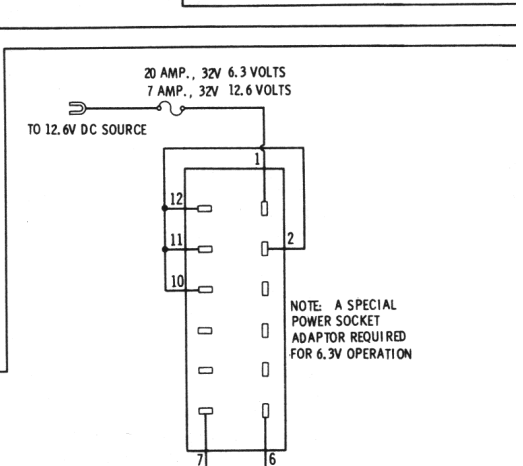
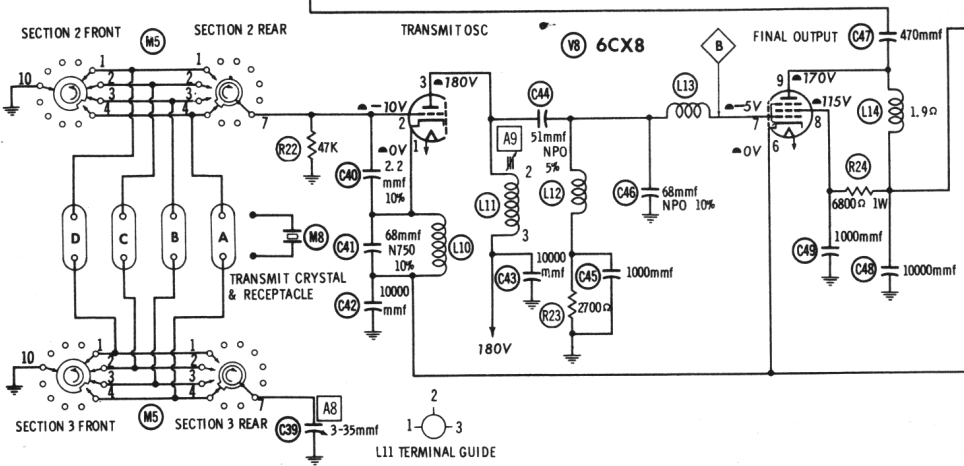
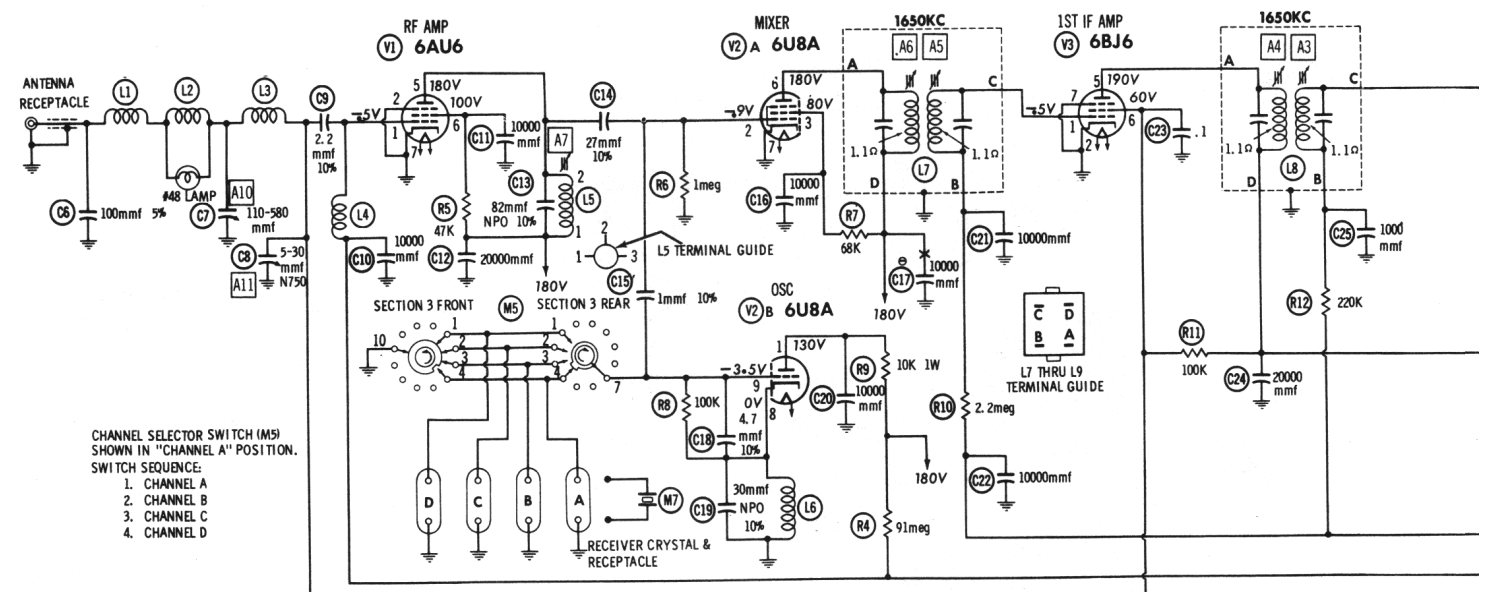
**HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana**



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 KZ429R

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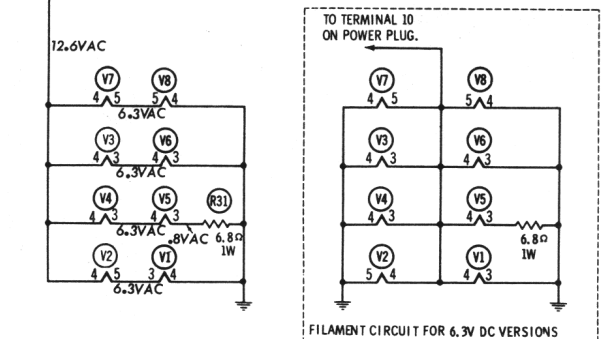
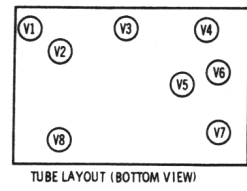
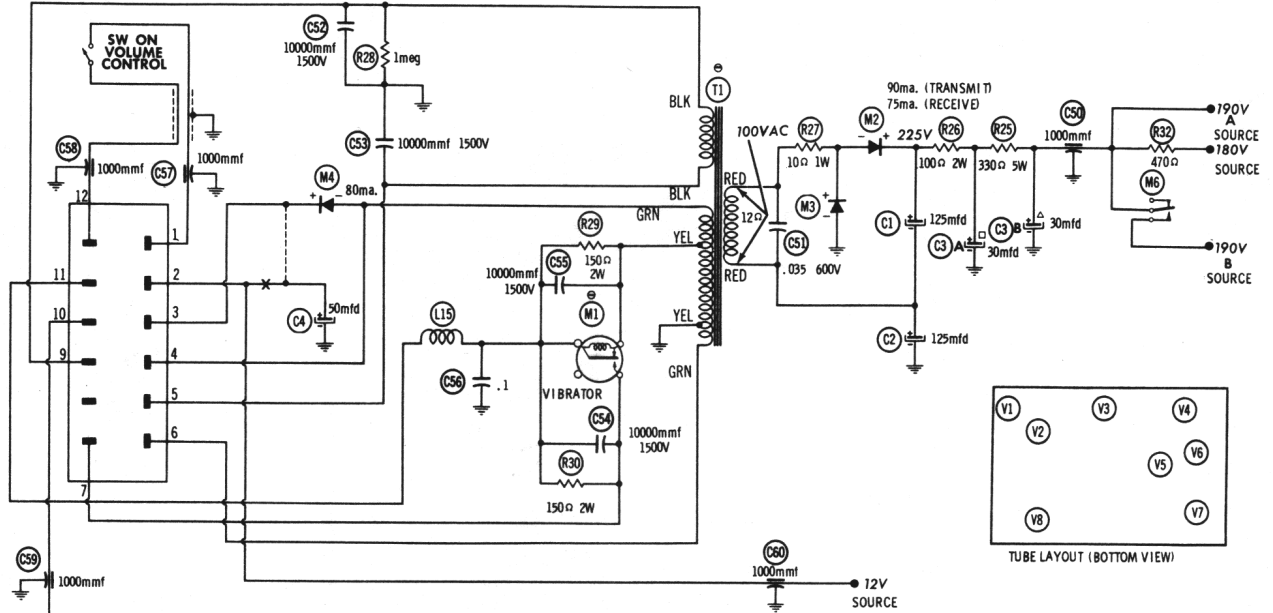
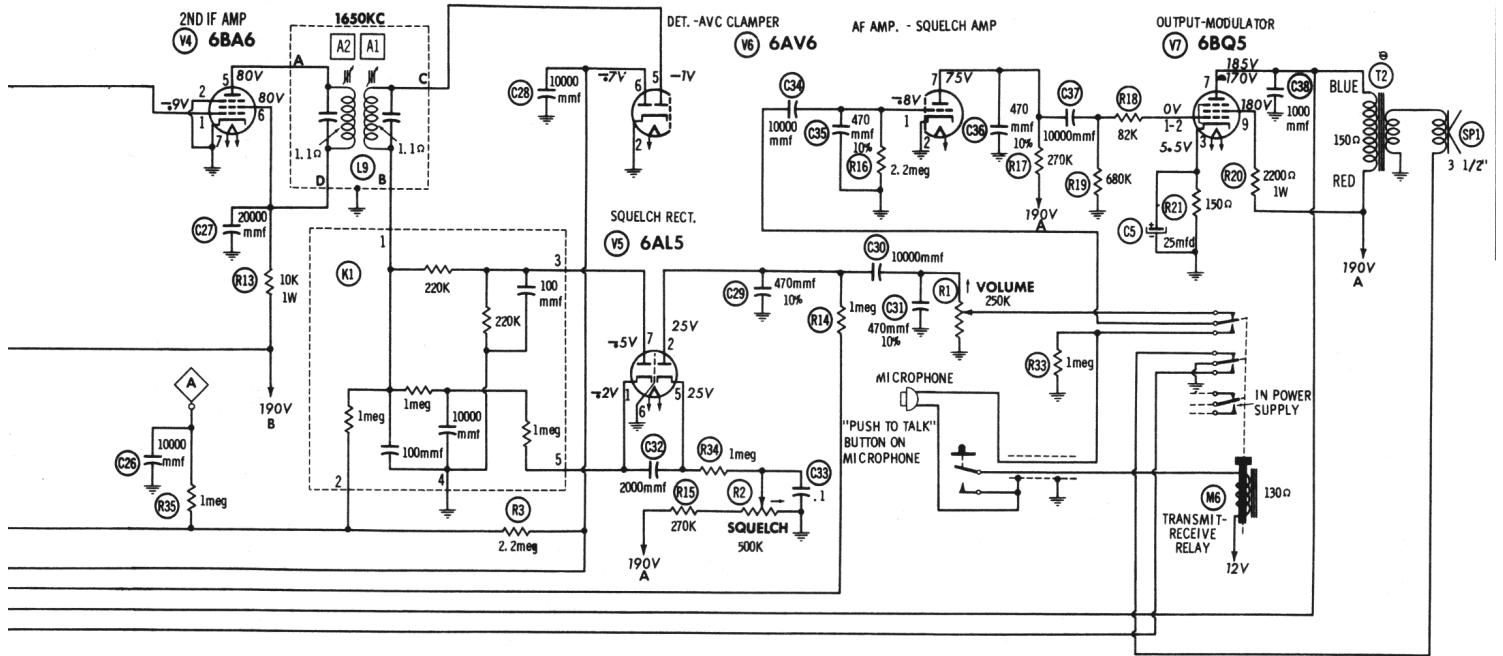
**BENDIX MODELS  
CB-6, CB-12**



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6AU6	3.6meg	0Ω	.2Ω	0Ω	†900Ω	†48K	0Ω		
V2	6U8A	†11K	1meg	†68K	.5Ω	.2Ω	†900Ω	0Ω	0Ω	100K
V3	6BJ6	3.6meg	0Ω	.2Ω	.5Ω	†430Ω	†100K	0Ω		
V4	6BA6	1.6meg	0Ω	.2Ω	.5Ω	†10K	†10K	0Ω		
V5	6AL5	2.4meg	†1.1meg	3Ω	.2Ω	1.1meg	0Ω	220K		
V6	6AV6	2.2meg	0Ω	0Ω	.2Ω	440K	3.6meg	†270K		
V7	6BQ5	NC	760K	150Ω	.5Ω	.2Ω	NC	†580Ω	NC	†2600Ω
V8	6CX8	Δ.5Ω	47K	†900Ω	0Ω	.2Ω	Δ0Ω	2700Ω	†7300Ω	†600Ω

ALL MEASUREMENTS MADE IN "RECEIVE" POSITION UNLESS OTHERWISE DESIGNATED.  
 ▲ MEASURED IN "TRANSMIT" POSITION.  
 † MEASURED FROM OUTPUT OF M1.  
 NC NO CONNECTION



● SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

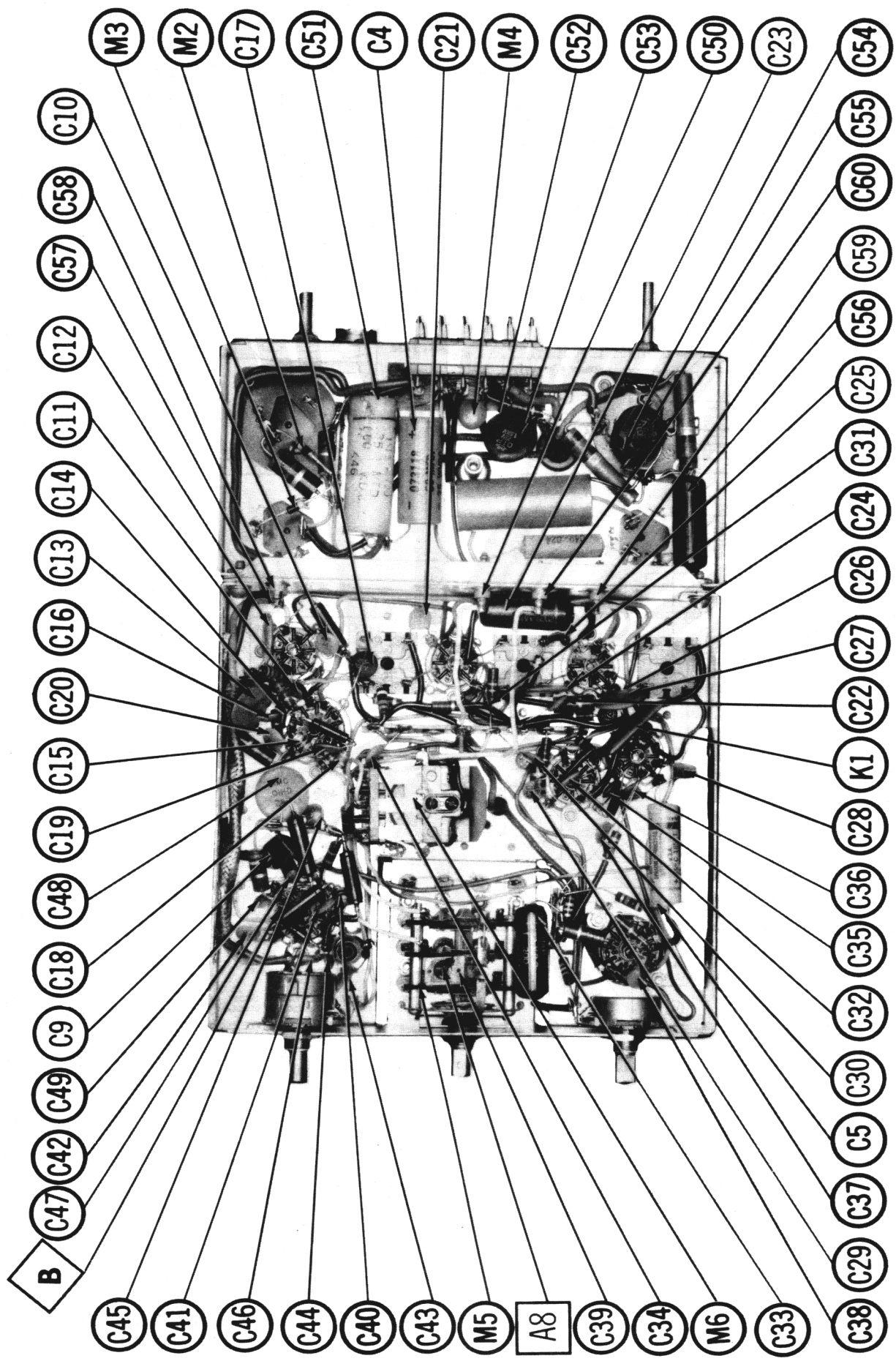
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

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

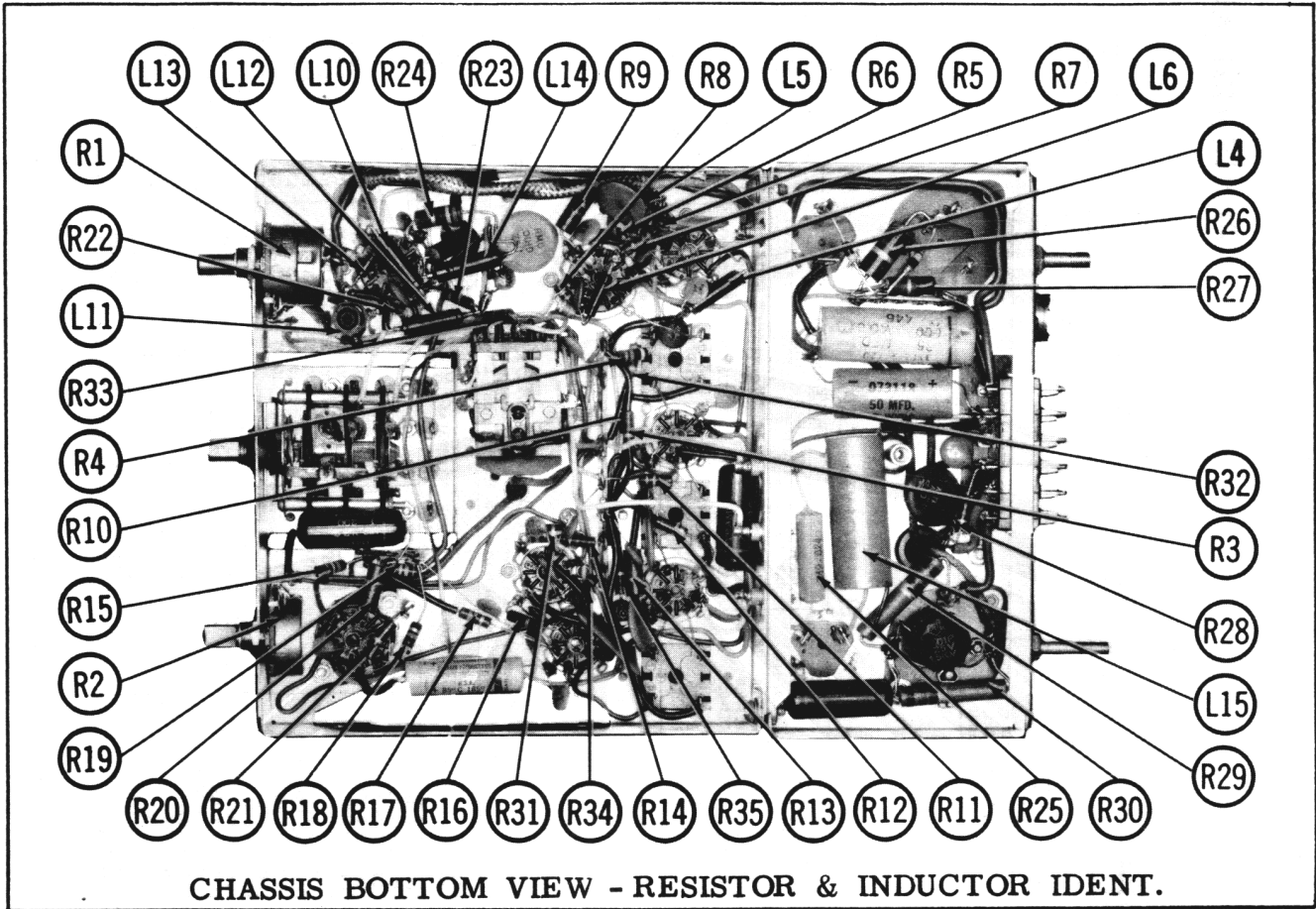
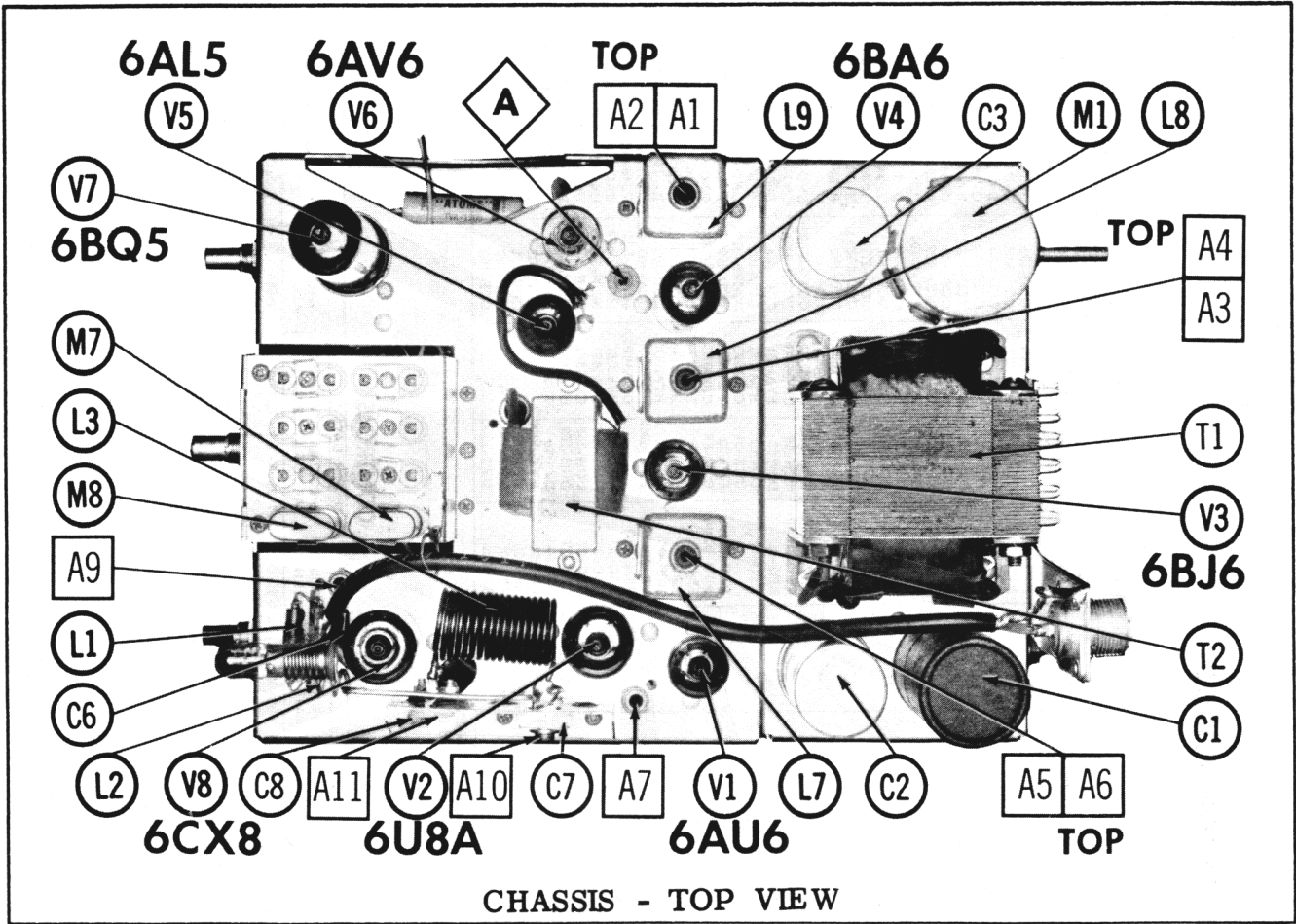
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

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 of component values makes possible a variation of ±15% in voltage and resistance readings.
6. All controls at minimum, proper output load connected.

## BENDIX MODELS CB-6, CB-12



CHASSIS BOTTOM VIEW - ALIGNMENT, CAPACITOR & MISC. IDENT.



# PARTS LIST AND DESCRIPTIONS

## TUBES

GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
ITEM No.	USE	TYPE	USE	TYPE	
V1	RF Amplifier	6AU6	Det. -A VC Clamper-	6A V6	
V2	Mixer-Osc.	6UBA	AF Amp. -Speech Amp.	6BQ5	
V3	1st IF Amplifier	6BUB	AF Output-Modulator	6CX8	
V4	2nd IF Amplifier	6BA6	Trans. Osc. -Final Amp.		
V5	Squelch Rectifier	6AL5			

## ELECTROLYTIC CAPACITORS

RATING		REPLACEMENT DATA						
ITEM No.	CAP. VOLT.	BENDIX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLOY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	125 200	073-018	AFHSL-22	B0310	XC1-14	FP122	TMS-1250	TVLS-1470*
C2	125 200	073-019	AFHSL-22		XC1-14	FP122	TMS-1250	TVLS-1470*
C3A	30 350	073-026	AFH2-39		XC2-24	FP227.3	TMD-2385	TVL-2628
C4	50 25	073-118	PRSI265		QTI-15	TC29	TD-50-25	TVA-1206
C5	25 25	073-002	PRSI260		QTI-11	TC28	TD-25-25	TVA-1205

\* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

## FIXED CAPACITORS

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

RATING		REPLACEMENT DATA						
ITEM No.	CAP. VOLT.	BENDIX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLOY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C6	100 5%	#089-024	1469-0001	TCZ-100	22R5T1	CM-19B-101J	MCE235	MS-31
C7	110-580	#089-033						
C8	6-30 N750							
C9	2, 2 10%							
C10	10000		NPO-SI 2.2	TCZ-2R2	C10V22C	CCTO-2R2	CNO-522	10TCC-V22
C11	10000		BPD-01	DD-103	BYA10S1	CD-103	B-110	5HK-S10
C12	20000		BPD-02	DD-203	BY96S2	CD-203	B-120	5HK-S20
C13	82 NPO 10%			DTZ-82	C10Q82C	CCTO-820	CNO-482	10TCC-Q82
C14	27 10%			DD-270	L10Q27	CCD-270	GR27	10TCC-Q27
C15	1 10%		NPO-SI 1.0	TCZ-50	BYA10S1	CD-103	CNO-510	10TCC-V10
C16	10000		BPD-01	DD-103	BYA10S1	CD-103	B-110	5HK-S10
C17	10000		NFO-SI 4.7	TCZ-4R7	C10V47C	CCTO-4R7	CNO-4R7	10TCC-V47
C18	4.7 10%			TCZ-50	C10Q30C	CCTO-300	CNO-433	10TCC-Q30
C19	30 NPO 10%			DD-103	BYA10S1	CD-103	B-110	5HK-S10
C20	10000		BPD-01	DD-103	BYA10S1	CD-103	B-110	5HK-S10
C21	10000		BPD-01	DD-103	BYA10S1	CD-103	B-110	5HK-S10
C22	10000		P286N-1	DF-104	BYA10S1	CD-103	GEM-201	2TM-P10
C23	.1 200V			DD-203	BY96S2	CCD-203	B-120	5HK-S20
C24	20000			DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C25	1000							

## FIXED CAPACITORS (cont)

RATING		REPLACEMENT DATA					
ITEM No.	CAP. VOLT.	REMARKS	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLOY PART No.	SPRAGUE PART No.
C26	10000		BPD-01	DD-103	BYA10S1	CD-103	5HK-S10
C27	20000		BPD-02	DD-203	BY96S2	CCD-203	5HK-S20
C28	10000		BPD-01	DD-103	BYA10S1	CD-103	5HK-S10
C29	470 10%		DI-470	DD-471	5R5T47	CCD-471	10TS-T47
C30	10000		BPD-01	DD-103	BYA10S1	CD-103	5HK-S10
C31	470 10%		DI-470	DD-471	5R5T47	CCD-471	10TS-T47
C32	2000		BPD-002	DD-202	BYA10D2	CCD-202	5HK-D20
C33	.1 200V		P286N-1	DF-104	CUB2PI	2DP-3-104	2TM-P10
C34	10000		BPD-01	DD-103	BYA10S1	CD-103	5HK-S10
C35	470 10%		DI-470	DD-471	5R5T47	CCD-471	10TS-T47
C36	470 10%		DI-470	DD-471	5R5T47	CCD-471	10TS-T47
C37	10000		BPD-01	DD-103	BYA10S1	CD-103	5HK-S10
C38	1000		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10
C39	3-35	#089-006				403	
C40	2, 2 10%		NPO-SI 2.2	TCZ-2R2	C10V22C	CCTO-2R2	10TCC-V22
C41	68 N750 10%		N750-D1 68	TCN-68	C10Q68U	CCTN-680	10TCU-Q68
C42	10000		BPD-01	DD-103	BYA10S1	CD-103	5HK-S10
C43	10000		BPD-01	DD-103	BYA10S1	CD-103	5HK-S10
C44	51 NPO 5%			TCZ-51	C10Q51C	CCD-103	5HK-S10
C45	1000 10%		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10
C46	68 NPO 10%		SI 470	DD-471	BYA10T47	CCD-471	10TS-T47
C47	470			DD-103	BYA10S1	CD-103	5HK-S10
C48	10000		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10
C49	1000		BPD-001	DD-102	BYA10D1	CCD-102	5HK-D10
C50	1000		EF-001	MFT-1000		CCF-102	CT280A
C51	.35 600V		P688N-33	DAZ-27	DPMS6P33	6DP-6-334	GEM-6033
C52	10000 1500V			DD16-103	HVE18S1	18DP-3-103	UAC-110
C53	10000 1500V			DD16-103	HVE18S1	18DP-3-103	UAC-110
C54	10000 1500V			DD16-103	HVE18S1	18DP-3-103	UAC-110
C55	10000 1500V			DD16-103	HVE18S1	18DP-3-103	UAC-110
C56	.1 200V		P286N-1	DF-104	CUB2PI	2DP-3-104	GEM-201
C57	1000		EF-001	MFT-1000		CCF-102	CT280A
C58	1000		EF-001	MFT-1000		CCF-102	CT280A
C59	1000		EF-001	MFT-1000		CCF-102	CT280A
C60	1000		EF-001	MFT-1000		CCF-102	CT280A

# Bendix Part Number  
Note 1. Not used in some versions.

## CONTROLS

RATING		REPLACEMENT DATA					
ITEM No.	RESISTANCE	WATTS	BENDIX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLOY PART No.	SPRAGUE PART No.
RIA	250K	1/2	052-081	B-51	A47-250K-Z	Q13-130	U44
B	Shaft			Not Req.	FS-3	Not Req.	Not Req.
C	Switch			KR-1	SWF-12	70-1	US-26
R2A	500K	1/2	052-082	B-59	A47-500K-S	Q1-133	U30
B	Shaft			Not Req.	FS-3	Not Req.	Not Req.

Volume  
Power Off-On  
Squelch

# PARTS LIST AND DESCRIPTIONS (Continued)

## RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		IRC PART No.	WORKMAN TV PART No.			REMARKS	REMARKS
R3	2.2meg			R20	22000 1W		
R4	51meg			R21	150K		
R5	47K			R22	47K		
R6	1meg			R23	27000		
R7	68K			R24	68000 1W		
R8	100K 1W			R25	3300 5W	PW5-330	5W -5Q-330
R9	10K 1W			R26	100K 2W		
R10	2.2meg			R27	100 1W		
R11	100K			R28	1meg		
R12	220K			R29	150K 2W		
R13	10K 1W			R30	150K 2W		
R14	1meg			R31	6.8K 1W		
R15	270K			R32	470K		
R16	2.2meg			R33	1meg		
R17	270K			R34	1meg		
R18	82K			R35	1meg		
R19	680K						

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	BENDIX PART No.	REPLACEMENT DATA
K1	Noise Clipper Network	(2) 100mmf, 10000mmf, (3) 220K, (3) 1 meg	089-003	

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			NOTES
		BENDIX PART No.	Merit Miller PART No.	Stencor PART No.	
L1	RF Choke (.56uh)	027-077	BC-560	4588	
L2	Output Indicator	011-118			
L3	RF Choke	027-028	BC-565	4609	
L4	RF Choke (5.6uh)	012-414	6171-A		
L5	RF Choke (5.4uh)	027-004	SW-631	4609	
L6	1st IF	014-030			
L7	2nd IF	014-030			
L8	3rd IF	027-028			
L9	RF Choke (5.6uh)	012-415	6171-A		
L10	Osc. Plate	027-028			
L11	RF Choke (5.6uh)	027-073	BC-565	4588	
L12	RF Choke (5.4uh)	027-032	BC-565	4624	
L13	RF Choke (5uh)	027-010		5219	
L14	Hash Choke (4uh)				
L15					

## TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA			NOTES
		BENDIX PART No.	Merit Stencor PART No.	Thordarson PART No.	
		PRI.	SEC. 1	SEC. 2	
T1	117V @ 100V @ .5A (AC Only)	271-068 ①			① Part #271-071 used in 6-volt DC versions. * AC operation filament supply. Part of primary when used for DC operation.

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA			NOTES
		BENDIX PART No.	Merit Stencor PART No.	Thordarson PART No.	
T2	2700Ω	272-004 ①			① Alternate Part #272-034.

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		BENDIX PART No.	QUAM PART No.	
SP1	3 1/2" PM	152-016	3A070T	

## VIBRATOR

ITEM No.	TYPE	INPUT VOLTS/FREQUENCY	REPLACEMENT DATA		NOTES
			BENDIX PART No.	MALLOY CORNELL-DUBILIER PART No.	
M1	Interrupter	12V 115%	117-003	6301	12 Volt Versions
	Interrupter	6V 115%	117-008	1601	6 Volt Versions

## POWER RECTIFIERS

ITEM No.	RATING CURRENT (Measured)	REPLACEMENT DATA			NOTES
		BENDIX PART No.	RCA PART No.	SYLVANIA PART No.	
M2	.090A	474-012	IN1763 *	SR500 *	* Silicon Type
M3	.090A	474-012	IN1763 *	SR500 *	
M4	.070A	474-004	IN1763 *	SR500 *	

## MISCELLANEOUS

ITEM No.	PART NAME	BENDIX PART No.	NOTES
M5	Switch	171-086	
M6	Relay	III-019	Channel Selector (Rotary Wafer Type)
M7	Microphone	III-082	AC-12VDC Versions
M8	Crystal	III-015	AC-6VDC Versions
	Crystal		Receive
	Transmit		

## FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA		
			BENDIX PART No.	HOLDER	FUSE
	3AG	1A ①			AGC 1
		250V			
	3AG	1A ①			AGC 1
		250V			
		7A			SFE 7
		32V ②			SFE 20
		32V ③			

① 117 VAC Operation. ② 12VDC Operation. ③ 6VDC Operation.

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	3000798	Channel Selector
Knob	3000799	Volume, Squelch
Cabinet	465-066	

## WIRING DATA

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