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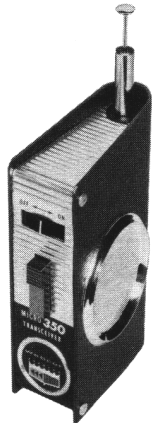
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with CIRCUITRACE®

WEBCOR MODEL  
ET-350



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	Webcor Model ET-350		
MANUFACTURER	Webcor Inc., 912 W. North Ave., Chicago 22, Illinois		
TYPE SET	Battery Operated Transistorized Portable Single Channel Citizens Band Transmitter-Receiver		
POWER SUPPLY	9 Volts DC	RATING	15 MA @ 9 Volts DC (Receive) 20 MA @ 9 Volts DC (Transmit)
TUNING RANGE	Any one of Citizens Band Channels 1 thru 23.		

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Best results will be obtained when adjusting A5, A7 and A8 if the antenna normally used is connected to the unit and the unit is as nearly in the cabinet as possible.

Suggested Alignment Tools: GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089  
WALSCO #2512, 2525, 2528

RECEIVER ALIGNMENT

Connect DC probe of VTVM to Point  $\Delta$ , common to chassis. Use only enough generator output to provide a usable indication.

	SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
1.	High side to base of X1 (Mixer), Low side to chassis. Tune to 455KC (unmod.)		A1, A2, A3	Remove receiver crystal to disable oscillator. Adjust for maximum deflection. Reinsert crystal.
2.	High side to antenna receptacle, low side to chassis. Tune to channel frequency.	Channel Freq. Used	A4	Turn A4 clockwise until oscillator stops, then turn counterclockwise for maximum deflection. Continue turning counterclockwise 1/2 turn.
3.	Connect 3-foot length of wire to generator. Radiate signal into extended antenna.	"	A5	Adjust for maximum output.

TRANSMITTER ALIGNMENT

Output Frequency should be checked by an accurately calibrated secondary frequency standard to be sure frequency is within .005%.

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	SPECIAL INSTRUCTIONS	INDICATOR	ADJUST	REMARKS
4.	Connect dummy load or antenna to antenna receptacle.	DC probe to point $\Delta$ .	A6	Adjust for maximum deflection while rocking A6. Note rate of drop-off on each side of peak and set just below peak on side of gradual drop-off.
5.	"	RF Wattmeter or field strength meter.	A7, A8	Adjust for maximum output. Repeat adjustments until no further improvement is noted.

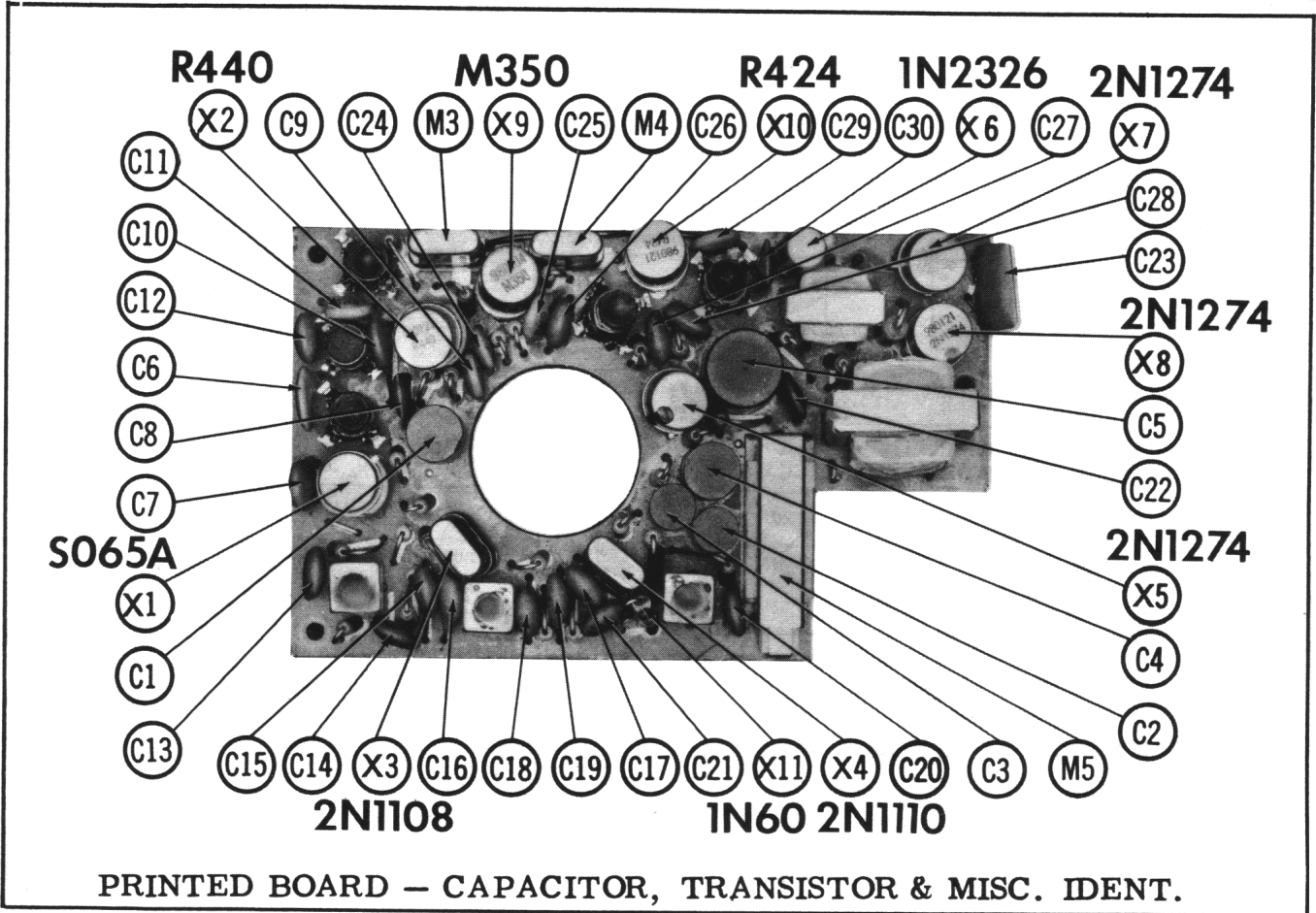
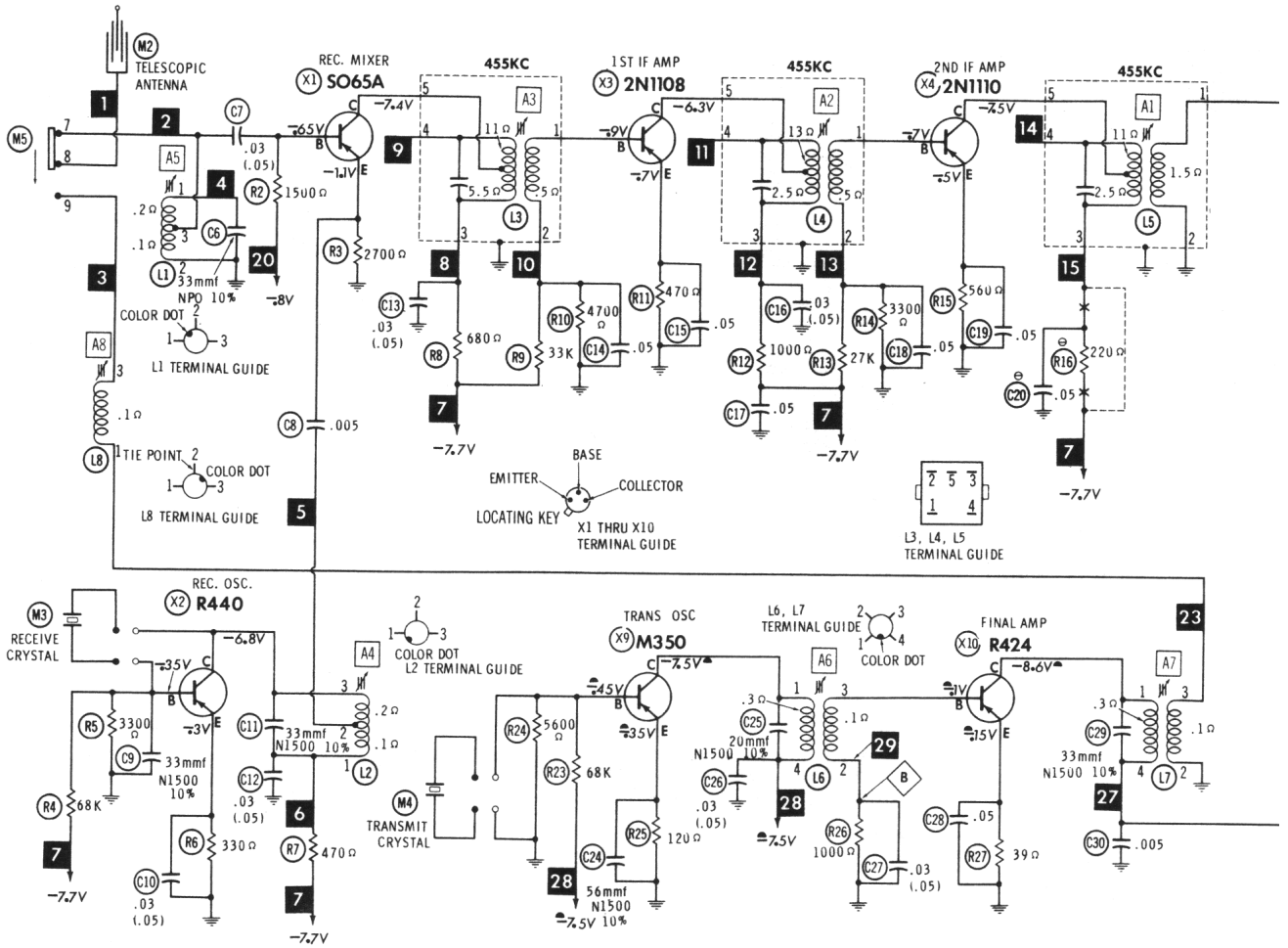
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

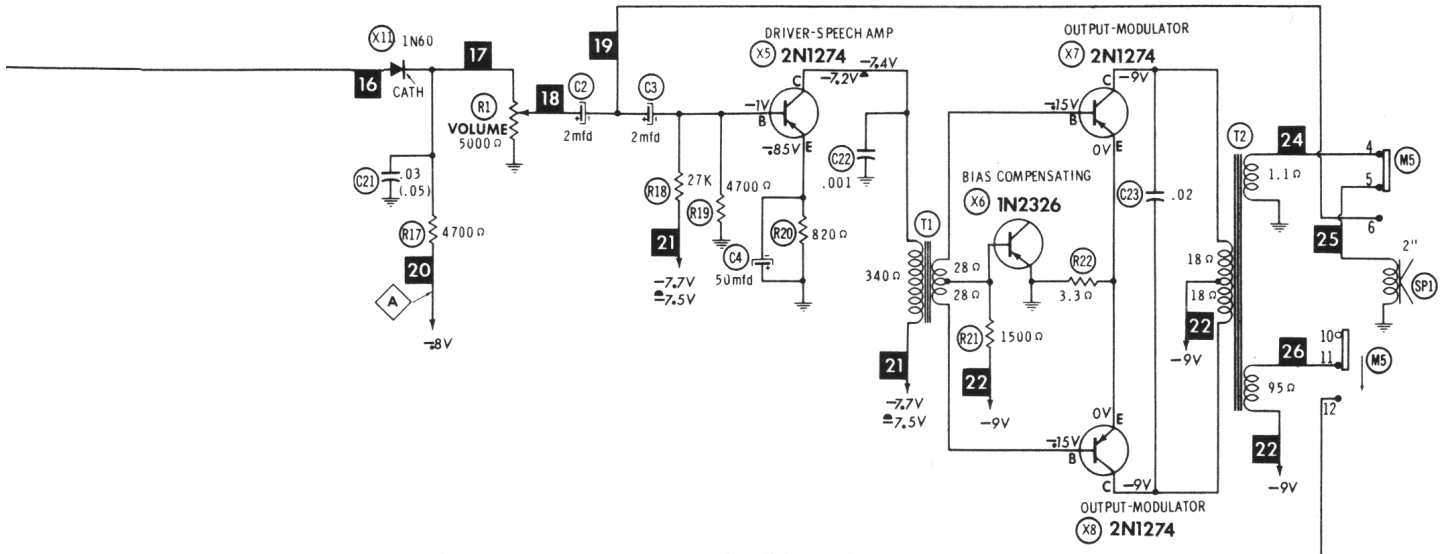


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of LY213

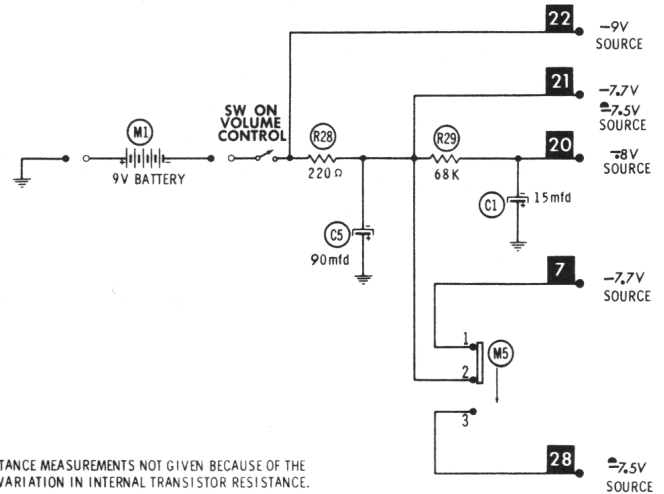
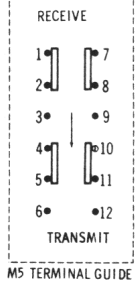
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WEBCOR MODEL  
ET-350





RECEIVE-TRANSMIT SW  
(M5) SHOWN IN  
"RECEIVE" POSITION.



RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

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.

ALL MEASUREMENTS MADE IN "RECEIVE" POSITION UNLESS OTHERWISE DESIGNATED.  
▲ MEASURED IN "TRANSMIT" POSITION.

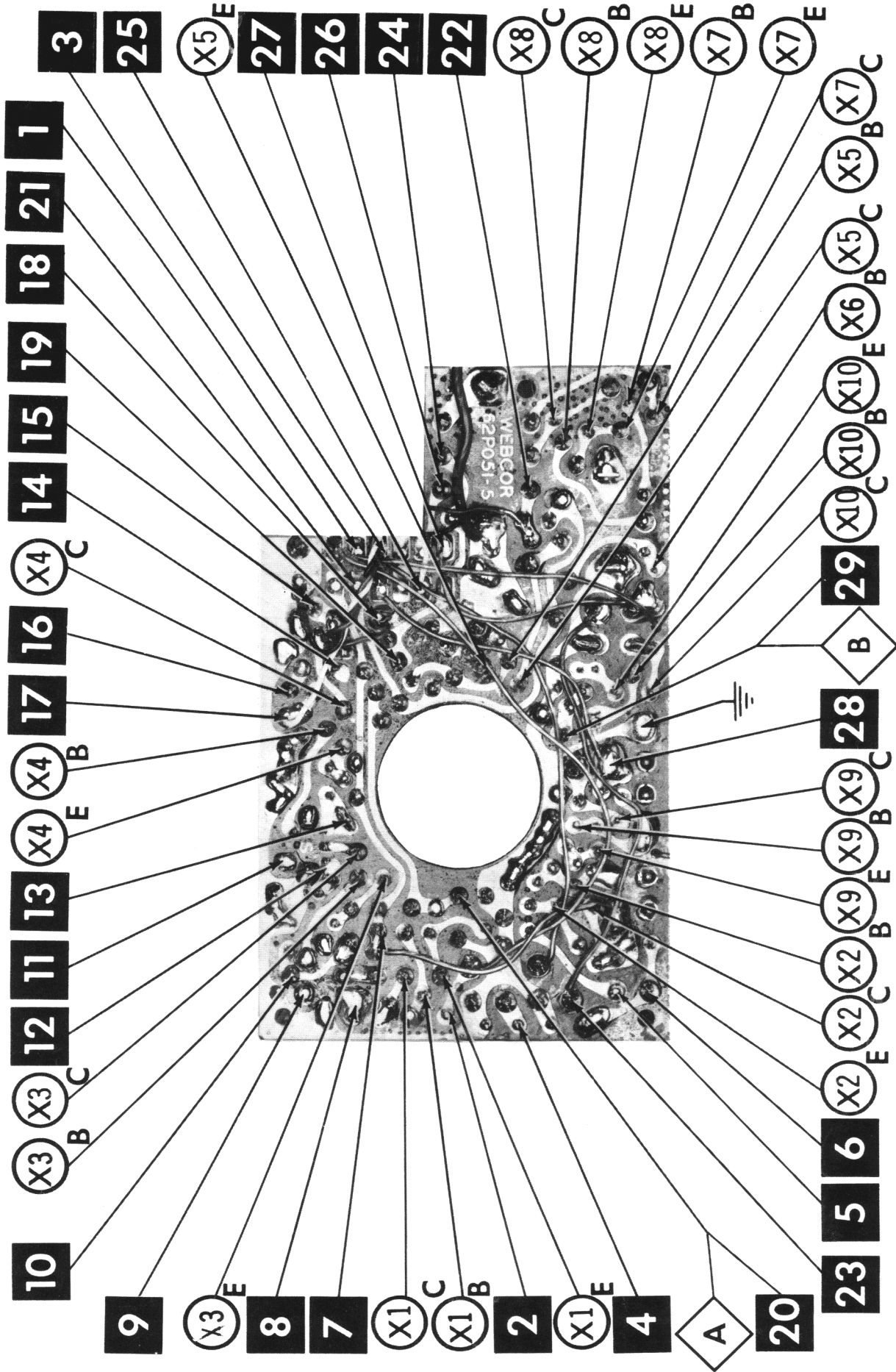
● SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections or transistor terminals are shown as bottom views.
3. Measured values are from socket pin or terminal to common ground.
4. Nominal tolerance on component values makes possible a variation of \*15% in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFAC STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**

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**WEBCOR MODEL ET-350**



B-BASE E-EMITTER C-COLLECTOR  
 PRINTED BOARD

# PARTS LIST AND DESCRIPTIONS

## WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8530 (Solid 28AWG) Available in 12 Colors  
 8524 (Stranded 28AWG)  
 8570 (Stranded 28AWG)

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	SO85A	Rec. Mixer	2N1179	PNP	
X2	R440	Rec. Osc.	2N1178	PNP	
X3	2N1108	1st IF Amplifier	2N1425	PNP	
X4	2N1110	2nd IF Amplifier	2N1425	PNP	
X5	2N1274	Driver-Speech Amp.	2N406	PNP	
X6	1N2326	Bias Compensating	1N2326	PNP	
X7	2N1274	Output-Modulator	2N408	PNP	
X8	2N1274	Output-Modulator	2N408	PNP	
X9	M350	Trans. Osc.	2N1178	PNP	
X10	R494	Final Amp.	2N1177	PNP	

## POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	CURRENT RATING (Measured)	ORIGINAL Part or Type No.	RECTIFIERS		NOTES
			RCA PART No.	SARKES TARZIAN PART No.	
X11		IN60		IN60	Detector

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP. VOLT.	WEBCOR PART No.	REPLACEMENT DATA				SPRAGUE PART No.	
			AEROVOX PART No.	CORNELL DUBIERRE PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.		PYRAMID PART No.
C1	15	30P437	BCD12015	ECPB409	MTI-10	TT0X15	MLV15-10	TE-1116
C2	2	30P434	BCD12002	ECPB402	MTI-1	PET1880	MLV2-12	TE-1121
C3	2	30P434	BCD12002	ECPB402	MTI-1	PET1880	MLV2-12	TE-1121
C4	50	30P435	BCD3050	ECPB15		TT0X50	MLV50-3	TE-1058
C5	90	30P446						

## CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA			
			WEBCOR PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.
R1	Volume & Switch	5000Ω	31P201			MALLORY PART No.

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				SPRAGUE PART No.
			AEROVOX PART No.	CORNELL DUBIERRE PART No.	ELWENCO PART No.	MALLORY PART No.	
C6	33 NPO 10%		NPO-D1 33	C10033C	CCTO-330	CNO-433	10TCC-Q33
C7	.03 10V	(.05) †	C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C8	.005 50V	#30P439	C80V502AM	DM-502	H-05D5	TA-250	TG-D50
C9	33 N1500 10%	(.05) †			*		
C10	.03 10V	#30P439					
C11	33 N1500 10%	(.05) †	C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C12	.03 10V	(.05) †			*		
C13	.03 10V		C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C14	.05 10V		C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C15	.05 10V		C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C16	.03 10V	(.05) †	C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C17	.05 10V		C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C18	.05 10V		C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C19	.05 10V		C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C20	.05 10V	Note 1	C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C21	.03 10V	(.05) †	C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C22	.001 500V		EPD-001	BYA10D1		B-210	5HK-D10
C23	.002 50V		C80V203AM	DA-203	H-08S2	TA-120	TG-S20
C24	56 N1500 10%	#30P441			*		
C25	20 N1500 10%	#30P438			*		
C26	.03 10V	(.06) †	C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C27	.03 10V	(.05) †	C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C28	.05 10V		C80V503AM	UK10-503	H-08S5	TA-150	TG-850
C29	33 N1500 10%	#30P439			*		
C30	.005 50V		C80V502AM	DM-502	H-05D5	TA-250	TG-D50

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

# Webcor Part Number.

† Alternate Value.

## RESISTORS

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

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				REMARKS
			IRC PART No.	WORKMAN PART No.	ITEM No.	RATING	
R2	1500Ω				R16	220Ω	
R3	2700Ω				R17	4700Ω	
R4	68K				R18	27K	
R5	3300Ω				R19	4700Ω	
R6	330Ω				R20	820Ω	
R7	470Ω				R21	1500Ω	
R8	680Ω				R22	3.3K	
R9	33K				R23	68K	
R10	4700Ω				R24	5600Ω	
R11	470Ω				R25	120Ω	
R12	1000Ω				R26	1000Ω	
R13	27K				R27	39Ω	
R14	3300Ω				R28	220Ω	
R15	560Ω				R29	68K	

Note 1. Not used in some versions.

# PARTS LIST AND DESCRIPTIONS (Continued)

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		WEBCOR PART No.	Miller PART No.	Stancor PART No.	Workman PART No.	
L1	Receiver Ant.	65P176				
L2	Receiver Osc.	65P177				
L3	1st IF	69P023-D				
L4	2nd IF	69P024-D				
L5	3rd IF	69P025-D				
L6	Transmitter Osc.	65P179				
L7	Final	65P179				
L8	Transmitter Ant.	65P175				

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO	REPLACEMENT DATA				NOTES
		WEBCOR PART No.	Miller PART No.	Thorndarson PART No.	Triad PART No.	
T1	2.4 1	67P089				

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA				NOTES
		WEBCOR PART No.	Miller PART No.	Thorndarson PART No.	Triad PART No.	
T2	5000 CT	67P088				
	SEC. 1					
	SEC. 2					
	5000					

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		WEBCOR PART No.	QUAM PART No.	
SP1	2" PM	76P118	4A07Z8	

## BATTERIES

ITEM No.	VOLTAGE	WEBCOR PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M1	9V	A2969	"A" 2U8	"B" 2I6	"B" M-1804	

## MISCELLANEOUS

ITEM No.	PART NAME	WEBCOR PART No.	NOTES
M2	Antenna	65P178	Telescopic Receiver (Replace * with Channel Number Desired) Transmitter (Replace * with Channel Number Desired) With Return Spring (Early Versions) Crystal (Fits over Crystal Pins)
M3	Crystal	65P181-RR	
M4	Crystal	65P180-RT	
M5	Switch	32P189	
	Insulator	32P191	

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	49P381	On-Off Volume Talk-Listen Wrap-a-round
Button	48P106	
Cover Ass'y.	11K2565	
Escutcheon	78P903	

# CHASSIS—TOP VIEW

