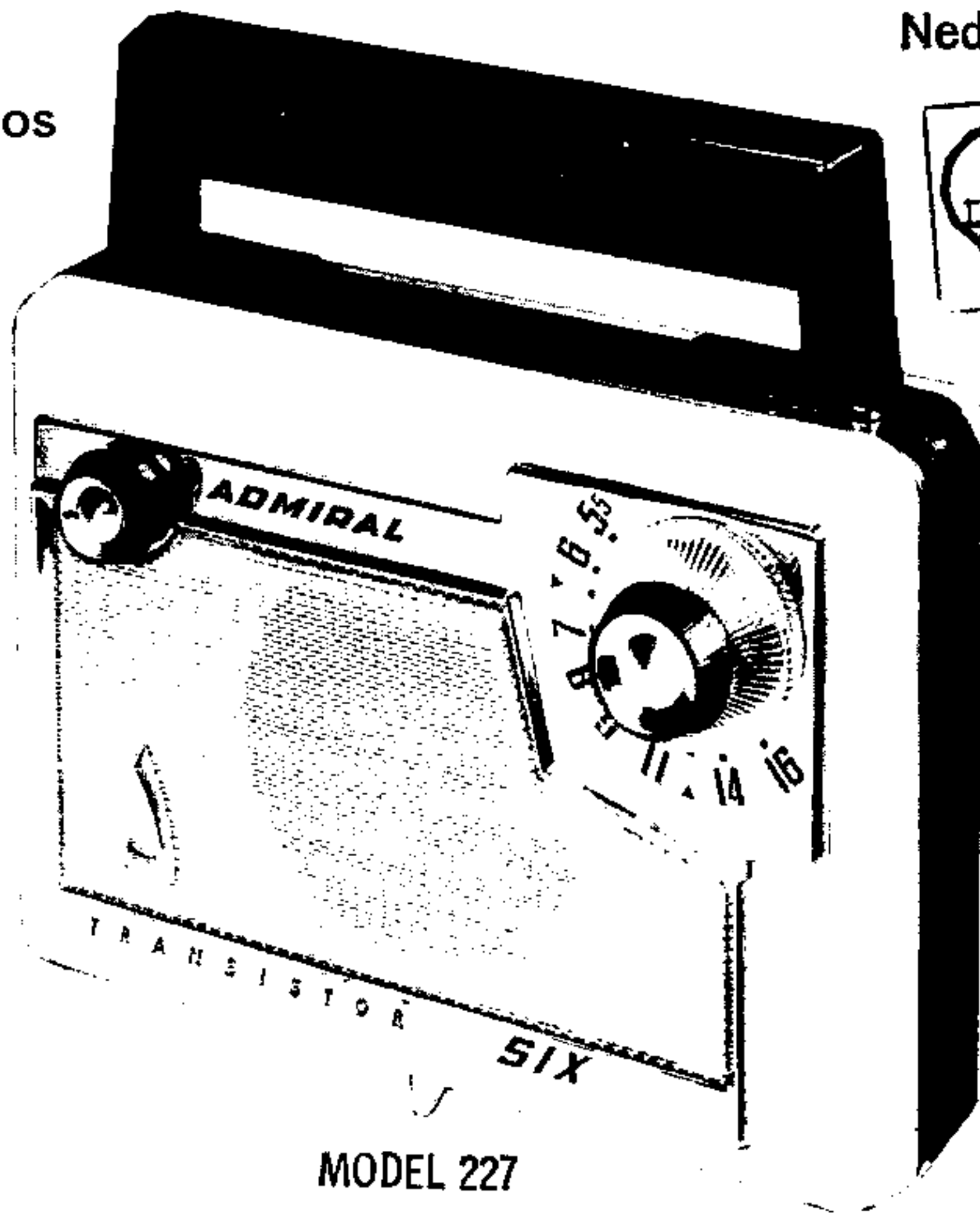
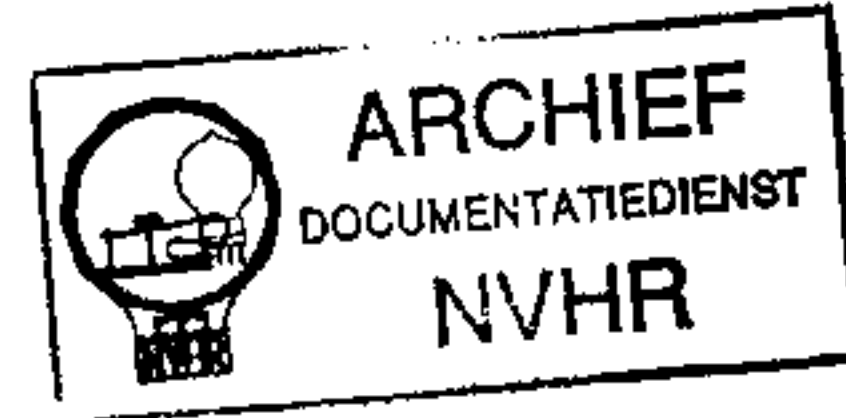




Ned. Ver. v. Historie v/

Met dank aan Jef Bos



MODEL 227

TRADE NAME Admiral Models 221, 227, 228 (Ch. 6S2)
 MANUFACTURER Admiral Corp., 3800 W. Cortland St., Chicago 47, Illinois
 TYPE SET Battery Operated Portable AM Transistorized Receiver

POWER SUPPLY 12 Volts DC
 TUNING RANGE—BROADCAST 535 - 1620KC
 RATING 7.7MA @ 12 Volts DC (No signal, Min. volume)
 8.5MA @ 12 Volts DC (Signal, Normal volume)

DISASSEMBLY

1. Open rear cover and remove battery case.
2. Remove two push-on type control knobs.
3. Loosen two Phillips head screws on front of cabinet near tuning shaft.
4. Loosen hex nut holding volume control shaft to front of case.
5. Hold printed board and remove the two screws and hex nut.
6. Carefully remove printed board from case.

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Loop	455KC (400% Mod)	Tuning gang fully open	Across voice coil	A1, A2, A3	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
2.	"	1620KC	"	"	A4	"
3.	"	1400KC	Tune to 1400KC signal	"	A5	"
4.	"	600KC	Tune to 600KC signal	"	A6	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output. Repeat steps 2 and 3.

HOWARD W. SAMS & CO., INC. • Indianapolis 5, 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 E557

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PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			CBS PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N252	Converter			2N485		
X2	2N309	IF Amplifier					
X3	R83	AVC		2N405	2N363		
X4	R56	Driver		2N407	2N363		
X5	R56	Output		2N109	2N361		
X6	R56	Output		2N109	2N361		

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	ADMIRAL PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	
C1	100	12	67B32-6	SRE12V100	EC317	TT15X100			TE-1162
C2	100	12	67B32-6	SRE12V100	EC317	TT15X100			TE-1162
C3	3	3	67B32-14 ①	PWE3003	NL3-6		ML4-6		TE-1082
C4	10	3	67B35-6	PWE3010	NL10-3	TT3X10	ML10-6		TE-1053
C5	90	3	67B32-10	PWE3100	NL100-6	TT6X100	ML100-3		TE-1102

① Early versions may use 25mfd. Replace with 3mfd.

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		REPLACEMENT DATA					NOTES	
	CAP.	VOLT	ADMIRAL PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.		SPRAGUE PART No.
C6	10000		65D10-41	BPD-01	DD-103	BYA6S1	DC511	5HK-S1	NPO NPO
C7	5000		65D10-152	BPD-005	DD-502	BYA10D5	DC525	5HK-D5	
C8	8.2		65D10-131						
C9	3.3		65D6-89	NPO-D1 3.3	DTZ-3R3	C10V33C	ZT-5533	5TCCB-V33	
C10	50000		65B45-6	BPD-05				TG-S50	
C11	50000		65B45-6	BPD-05				TG-S50	
C12	50000		65B45-6	BPD-05				TG-S50	
C13	.56		65B45-12						
C14	50000		65B45-6	BPD-05				TG-S50	
C15	50000		65B45-6	BPD-05				TG-S50	
C16	2000		65D10-125	BPD-002	DD-202	BYA10D2	DC522	5HK-D2	
C17	20000		65D10-137	BPD-02	DD-203	BYB6S2		5HK-S2	

CONTROLS

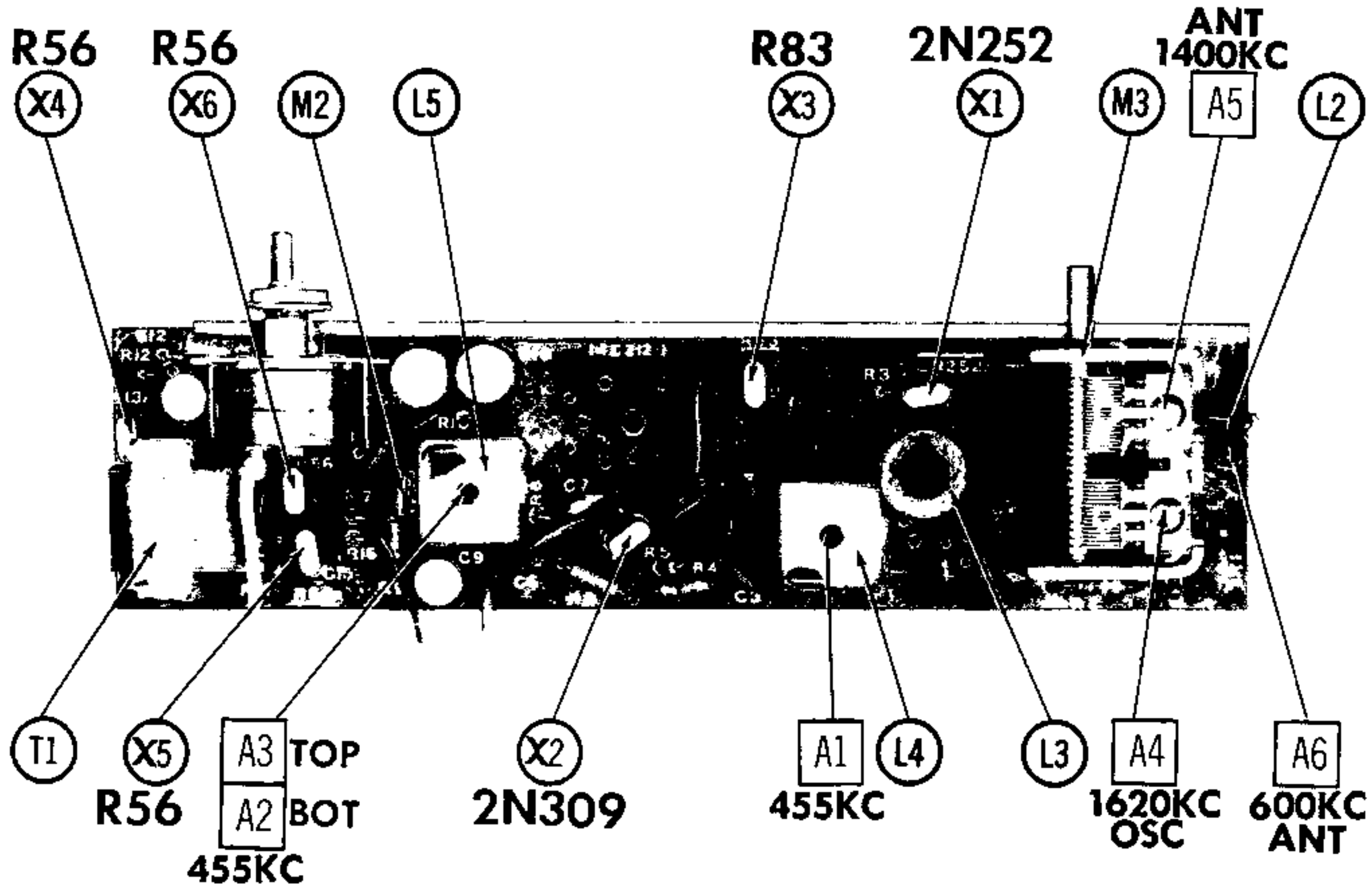
ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	ADMIRAL PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.		MALLORY PART No.
R1	2500Ω	½	75C25-9					Volume and Switch

RESISTORS

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

ITEM No.	RATING		ADMIRAL PART No.	NOTES	ITEM No.	RATING		ADMIRAL PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R2	8200Ω		60B8-822		R11	24K	5%	60B7-243	
R3	56K		60B8-563		R12	5600Ω		60B8-562	
R4	3300Ω		60B8-332		R13	1000Ω		60B8-102	
R5	12K	5%	60B7-123		R14	7500Ω	5%	60B7-752	
R6	2700Ω		60B8-272		R15	100Ω		60B8-101	
R7	180Ω		60B8-181		R16	10Ω		60B8-100	
R8	1000Ω		60B8-102		R17	10Ω		60B8-100	
R9	150K		60B8-154		R18	100Ω		60B8-101	
R10	2700Ω		60B8-272						

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ADMIRAL PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Loop Stick	69B225-1					
L2	Antenna Coil	69B224-1					
L3	Osc. Coil	69B223-1					
L4	Input IF	72C189-2					
L5	Output IF	72C190-3					

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO	REPLACEMENT DATA						NOTES
		ADMIRAL PART No.	Holldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	
	PRI. SEC.							
T1	1.2 :1	79B76-2						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES	
	PRI.	SEC.	ADMIRAL PART No.	Holldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
T2	794Ω CT	3-4Ω	Part of SP1							

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	ADMIRAL PART No.	QUAM PART No.	
SP1	4"	PM	3-4Ω	78B133-3 ①	4A07 ②	① Includes T2 ② Slot mounting holes for tabs in cabinet.

BATTERIES

ITEM No.	VOLTAGE	ADMIRAL PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	1.5V			1		835		M-14	Eight used.

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		ADMIRAL PART No.	CBS PART No.	SYLVANIA PART No.	
M2	1N295		1N60	1N60	Detector (Pigtail)

MISCELLANEOUS

ITEM No.	PART NAME	ADMIRAL PART No.	NOTES
M3	Tuning Cap. Printed Board	68B66-3 14E212-1	2 Gang (Ant. 21-303mmφ)

CABINETS & CABINET PARTS

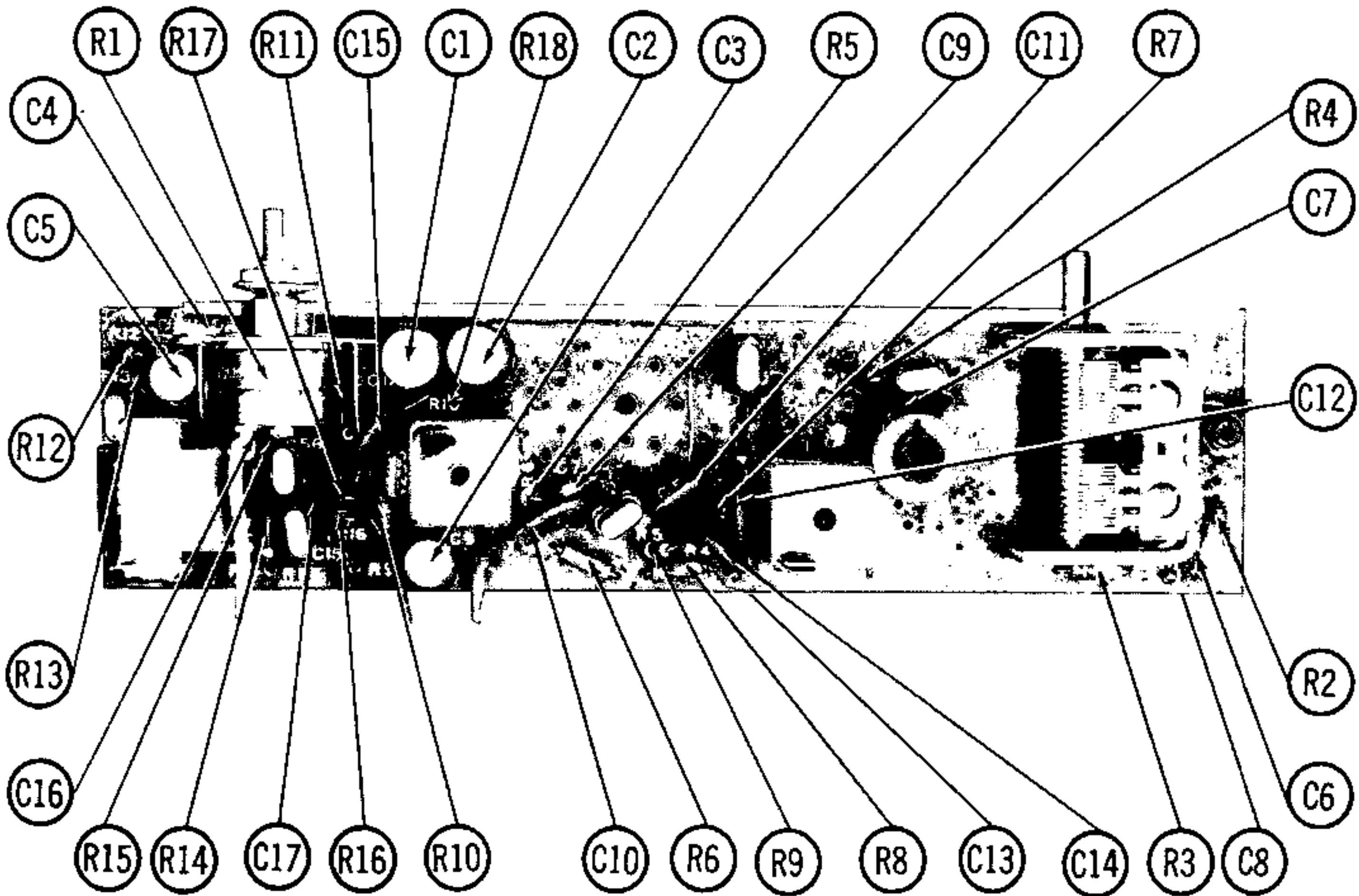
(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

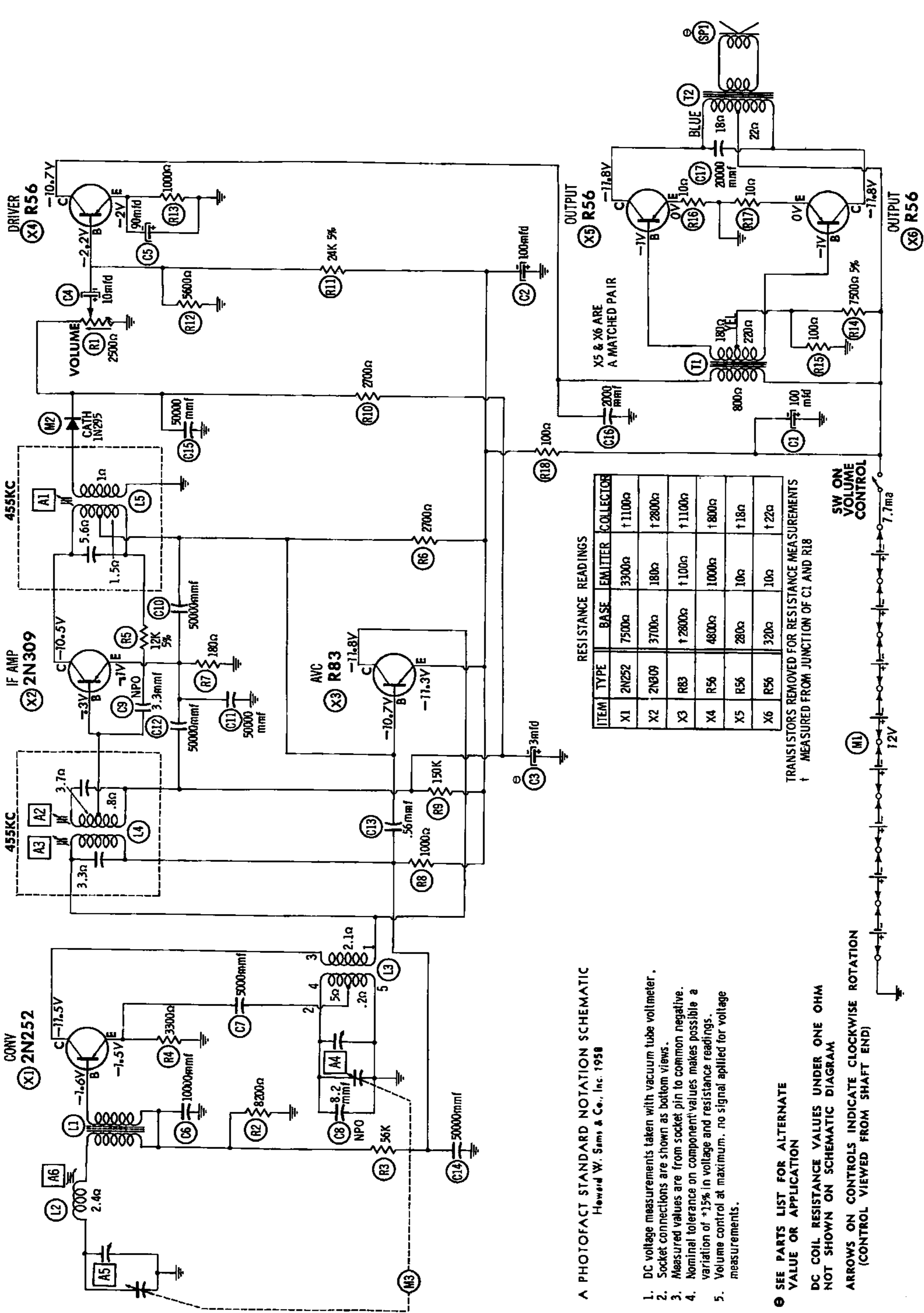
NAME	PART NO.	DESCRIPTION
Knob	33C232-3	Tuning, Black and Clear
Knob	33C232-6	Tuning, Brown and Clear
Knob	33C232-1	Volume, Black
Knob	33C232-4	Volume, Brown
Cabinet	34E124-2	Tan, Model 227, Less Handle, Escutcheon and Grille
Cabinet	34E124-1	Black Model 221, Less Handle, Escutcheon and Grille
Cabinet	34E124-3	Turquoise, Model 228, Escutcheon and Grille

WIRING DATA

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

CHASSIS—TOP VIEW





A PHOTOFAC STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1958

1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
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.

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	TYPE	BASE	EMITTER	COLLECTOR
X1	2N252	7500Ω	3300Ω	†1100Ω
X2	2N309	3700Ω	180Ω	†2800Ω
X3	R83	†2800Ω	†100Ω	†1100Ω
X4	R56	4800Ω	1000Ω	†800Ω
X5	R56	280Ω	10Ω	†18Ω
X6	R56	320Ω	10Ω	†22Ω

TRANSISTORS REMOVED FOR RESISTANCE MEASUREMENTS
† MEASURED FROM JUNCTION OF C1 AND R18

(M1)

12V

7.7ma

SW ON VOLUME CONTROL