



Met dank aan Jef Bos



Ver. v. Historie v/d Radio

ARCHIEF  
DOCUMENTATIEDIENST  
NVHR

TRADE NAME Magnavox Chassis CR-744AA  
MANUFACTURER Magnavox Co., 2131 Bueter Road, Fort Wayne 4, Indiana  
TYPE SET Battery Operated Portable AM Transistorized Receiver

POWER SUPPLY 4 Volts DC  
TUNING RANGE—BROADCAST 535-1620KC  
RATING 5.2MA @ 4 Volts DC (No Signal, MIN. Volume)  
22MA @ 4 Volts DC (Signal, Max. Volume)

## 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. .5mfd	High side to Base of XI. Low side to chassis.	455KC (400% Mod)	Tuning, Gang fully open.	Across Voice Coil	A1, A2, A3	Adjust for maximum output.
2.	Loop	1620KC	1620KC	"	A4	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	535KC	535KC	"	A5	"
4.	"	1400KC	1400KC	"	A6	"

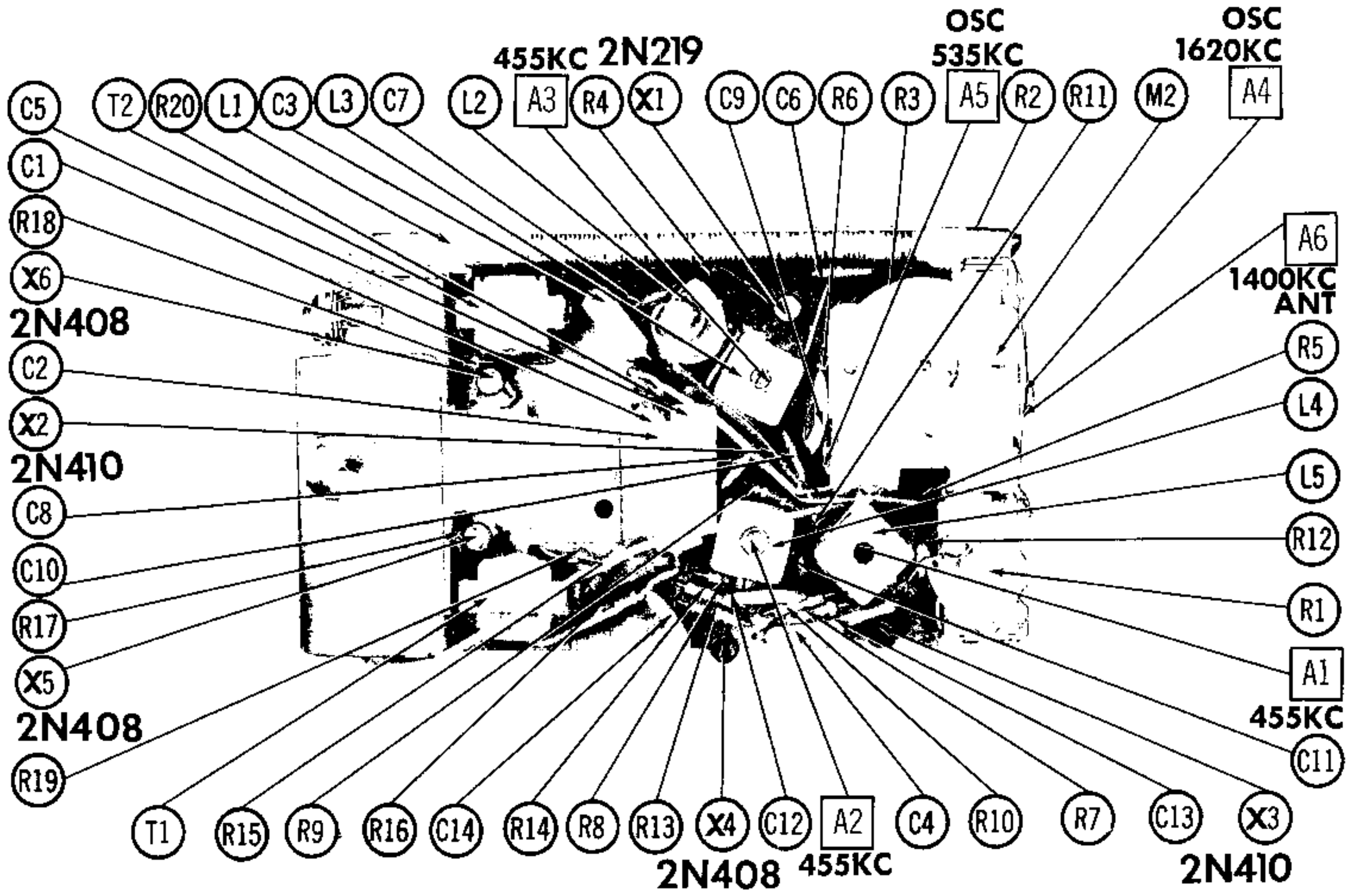
### DISASSEMBLY

1. Unscrew tuning dial brass button. Remove dial.
2. Remove 2 screws under dial.
3. Apply pressure at slot in cabinet top and separate cabinet back from front.
4. Remove battery. Remove screw from center of battery compartment.
5. Remove chassis.

### HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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CHASSIS TOP VIEW

# 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	2N219	Converter		2N219	2N486		Alternate 2N218 Alternate 2N218 Alternate 2N217 Alternate 2N217 Alternate 2N217
X2	2N410	1st IF Amplifier		2N218	2N483		
X3	2N410	2nd IF Amplifier		2N218	2N483		
X4	2N408	AF Amplifier		2N217	CK872/ 2N362	2N34	
X5	2N408	Output		2N217	CK878/ 2N359	2N34	
X6	2N408	Output		2N217	CK878/ 2N359	2N34	

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	Magnavox PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	50	10	270559-5	PWE10050	NL50-10	TT10X50	ML50-15		TE-1160
C2	50	10	270559-5	PWE10050	NL50-10	TT10X50	ML50-15		TE-1160
C3	10	10	270559-6	XPP-10010	NL10-10	TT12X10	ML10-15		TE-1114
C4	4	6	270559-7	XPP-6004	NL4-6	TT6X5	ML4-6		TE-1083
C5	50	10	270559-5	PWE10050	NL50-10	TT10X50	ML50-15		TE-1160

## 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.	Magnavox PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.		SPRAGUE PART No.
C6	100000				DA-104				①
C7	10000		250175-6	BPD-01	DM-103	BYA10S1	DC511	5HK-S1	①
C8	110		250175-56		TCN-110	CI0T11U			N750 10%
C9	50000		250758-3	BPD-05	DA-503			5HK-S5	
C10	50000		250758-3	BPD-05	DA-503			5HK-S5	
C11	39		250175-20		TCN-39	CI0Q39U			N750
C12	50000		250758-3	BPD-05	DA-503			5HK-S5	
C13	100000				DA-104				①
C14	20000		250758-4	BPD-02	DD-203	BYB6S2		5HK-S2	②

① Some versions may use 50000mmf in this application (Part #250758-3)

② Some versions may use 10000mmf in this application (Part #250175-6)

## CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	Magnavox PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.		MALLORY PART No.
R1	5000Ω	½	220662-1					Volume & Switch

## RESISTORS

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

ITEM No.	RATING		Magnavox PART No.	NOTES	ITEM No.	RATING		Magnavox PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R2	10K		230702-132		R12	1500Ω		230702-123	
R3	47K		230702-139		R13	10K		230702-132	
R4	820Ω		230702-121		R14	27K		230702-136	
R5	27K		230702-136		R15	1000Ω		230702-122	
R6	330Ω		230702-116		R16	100Ω		230702-110	
R7	4700Ω		230702-128		R17	15K		230702-133	
R8	22K		230702-135		R18	15K		230702-133	
R9	330Ω		230702-116		R19	4.7Ω	1	230109-3	
R10	330Ω		230702-116		R20	100Ω		230702-110	
R11	1200Ω	5%	230702-152						

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA						NOTES	
	PRI.	SEC.	Magnavox PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
T1	1.5	:1CT	320817-1						TR3	

# PARTS LIST AND DESCRIPTIONS (Continued)

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
			Magnavox PART No.	Holldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	
	PRI.	SEC.							
T2	117Ω CT	13Ω	320818-1						

### SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				Magnavox PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	2 3/4"	PM	13Ω	580352-1		

### COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		Magnavox PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Loop Stick	461512-2					Includes Resistor, Crystal and 2 Caps.
L2	Osc. Coil	361229-1					
L3	1st IF	360710-1					
L4	2nd IF	360711-1					
L5	3rd IF	360712-1					

### BATTERIES

ITEM No.	VOLTAGE	Magnavox PART No.	REPLACEMENT DATA								NOTES
			BURGESS		EVEREADY		MALLORY		RAY-O-VAC		
			"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"	
M1	4	530043-1				E233		TR-233R			

### MISCELLANEOUS

ITEM No.	PART NAME	Magnavox PART No.	NOTES
M2	Tuning Cap. Printed Board Earphone	260606-2 T-210552-4A 580043-1	2 Gang, (Ant. 23-218mmf, Osc. 21-120mmf)

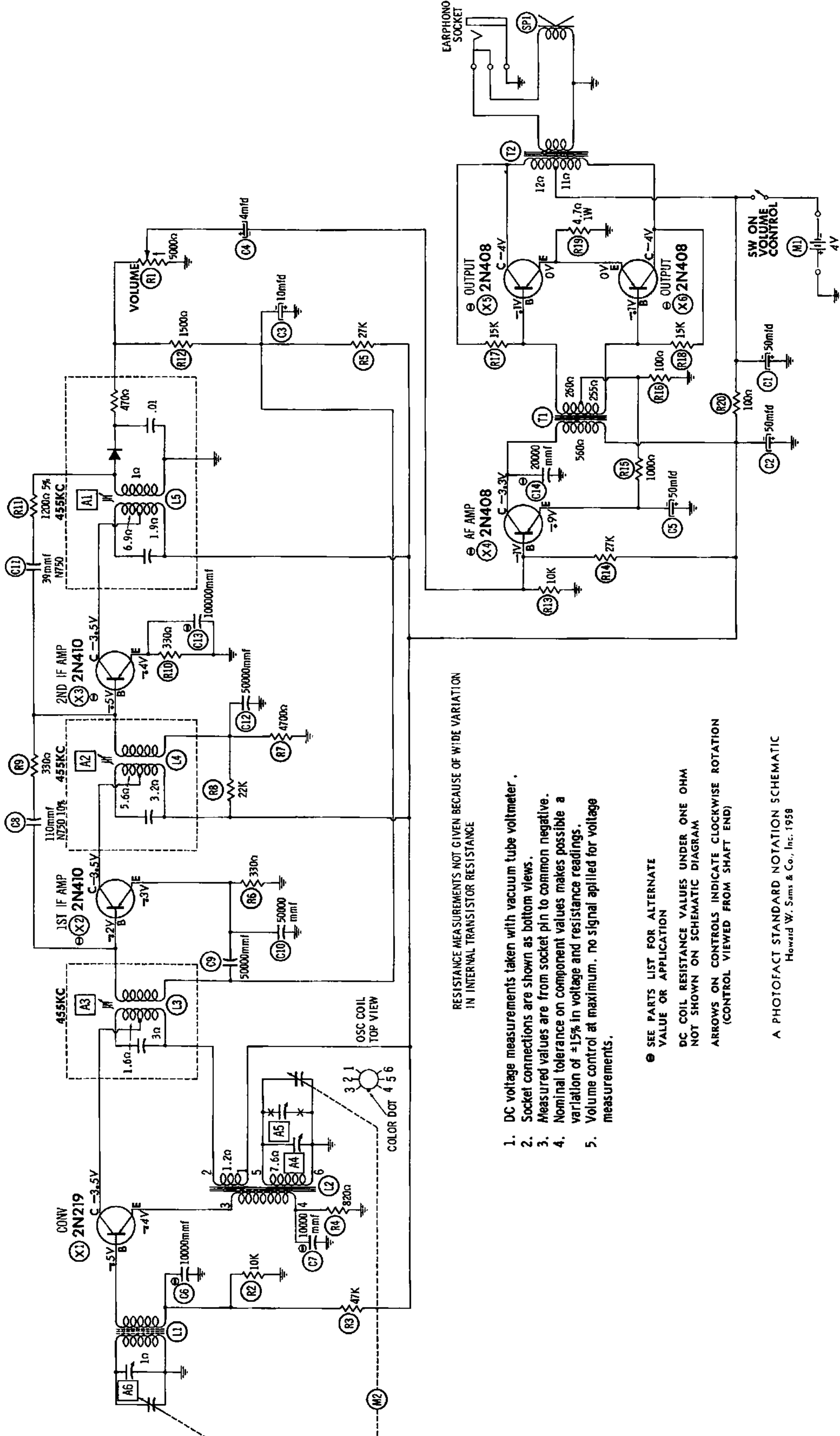
### CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	140773-2	Volume
Knob	140772-2	Tuning
Button	106268-2	Brass, Tuning Knob
Cabinet	884270-22	Front Ass'y, Black
Cabinet	884270-23	Front Ass'y, Ivory
Cabinet	884270-24	Front Ass'y, Forrest Green
Cabinet	884270-25	Front Ass'y, Spring Green
Cabinet	884270-26	Front Ass'y, Turquoise
Cabinet	884270-27	Front Ass'y, Coral
Cabinet	884270-28	Front Ass'y, Red
Cabinet	441573-3	Back, Black
Cabinet	441573-2	Back, Ivory
Cabinet	441573-4	Back, Forrest Green
Cabinet	441573-5	Back, Spring Green
Cabinet	441573-6	Back, Turquoise
Cabinet	441573-7	Back, Coral

### WIRING DATA

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



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

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  $\pm 15\%$  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)

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