

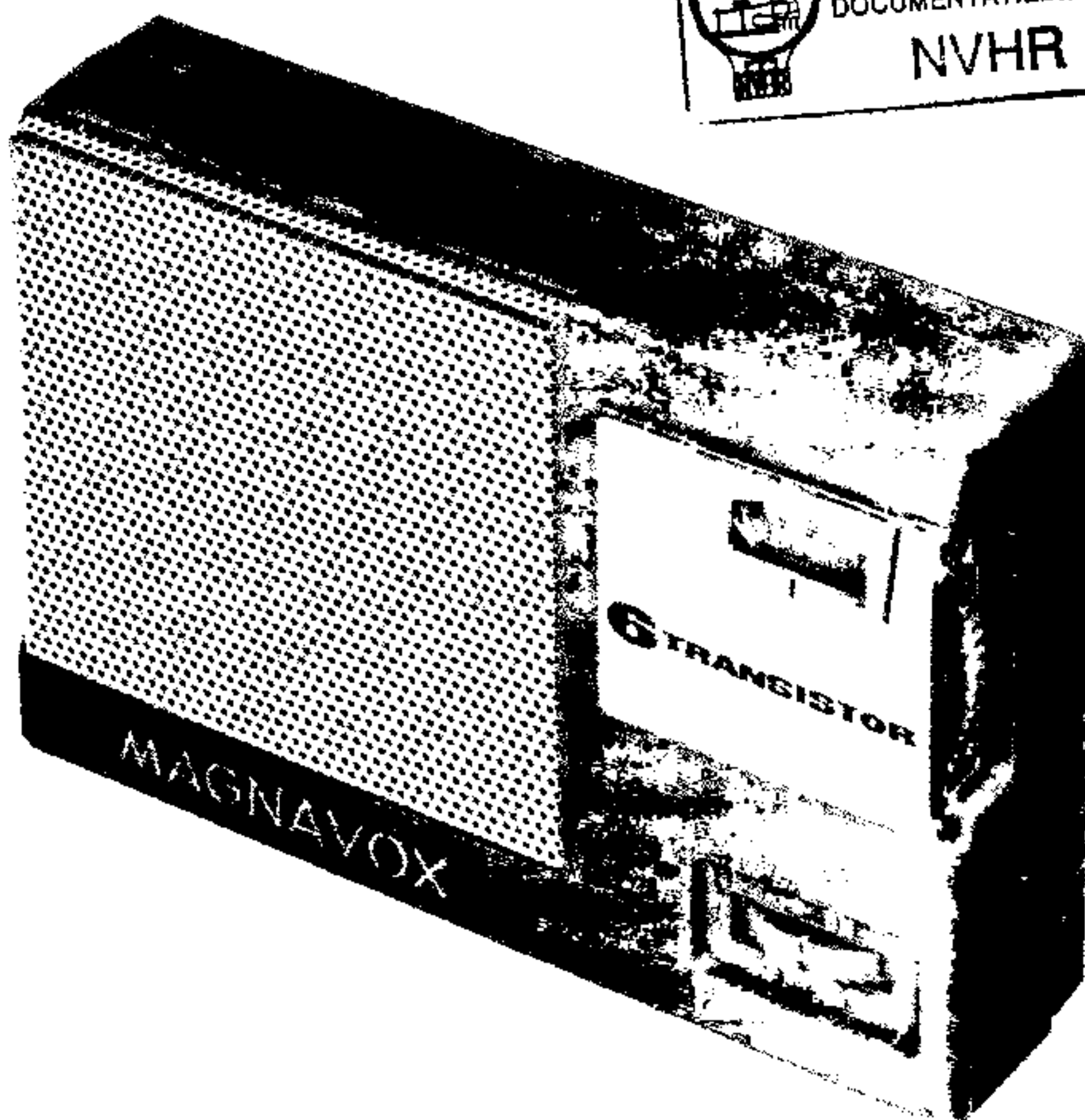
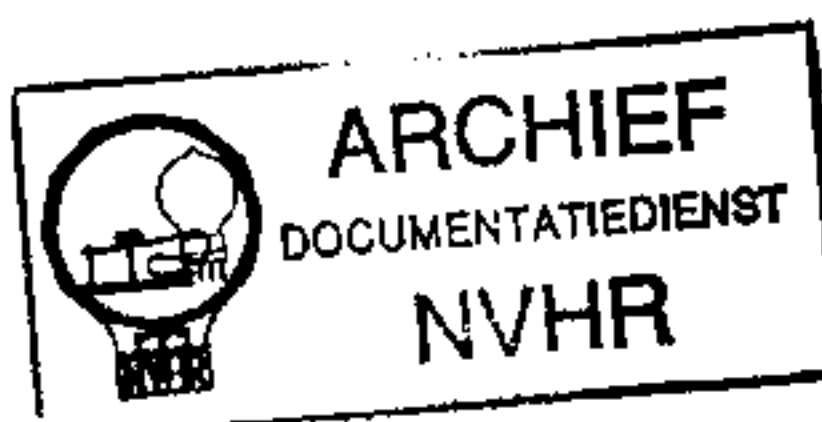
**PHOTOFACT® Folder**

with **CIRCUITRACE®**

**MAGNAVOX  
MODEL AM-22**

Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



TRADE NAME	Magnavox Model AM-22		
MANUFACTURER	The Magnavox Co., 2131 Bueter Road, Fort Wayne 4, Indiana		
TYPE SET	Battery Operated Transistorized Portable AM Receiver		
POWER SUPPLY	9 Volts DC	RATING	5MA@9 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	540 — 1600KC		15MA@9 Volts DC (Signal, Normal 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.

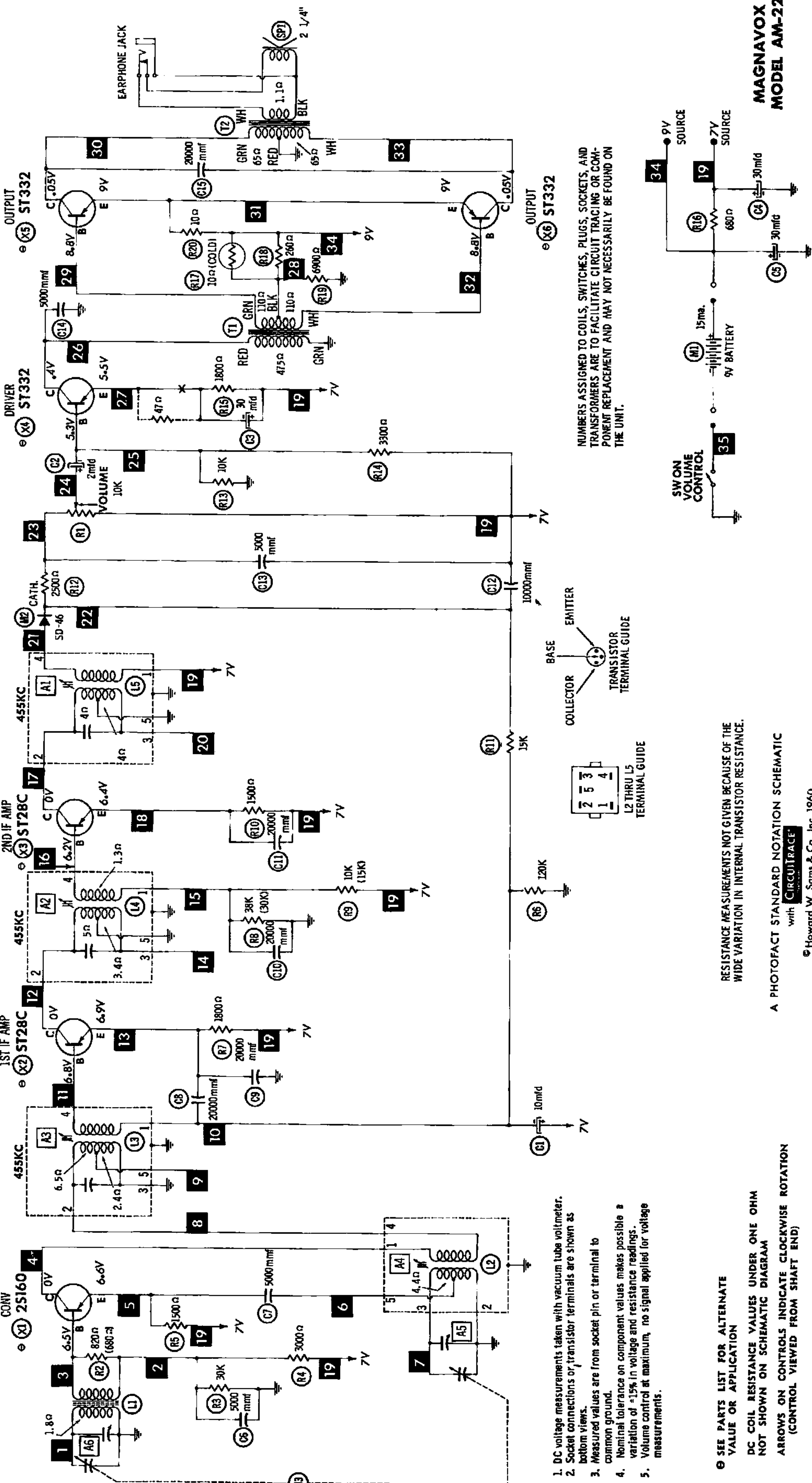
Suggested Alignment Tools: A1, A2, A3, A4... GENERAL CEMENT #5009, 8195, 8274, 8275, 8278, 8729, 8987, 8988, 8989  
WALSCO #2515, 2531, 2532  
A5, A6... GENERAL CEMENT #5000, 5003, 5066, 8271, 8272, 8276, 8277, 8290,  
8609, 8722, 9150, 9298  
WALSCO #2515, 2516, 2518, 2519, 2525, 2541

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Loop	455KC (400v Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
2.	"	535KC	Tuning gang fully closed.	"	A3, A4	"
3.	"	1600KC	1600KC	"	A5, A6	Adjust for maximum output. Recheck Step 2.

### 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 KF143

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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  $\pm 15\%$  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)

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.

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

A PHOTOFACIT STANDARD NOTATION SCHEMATIC with CIRCUITRACE

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# PARTS LIST AND DESCRIPTIONS

## WIRING DATA

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

### TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2S160①	Converter		2N485	2N140	PNP
X2	ST28C②	1st IF Amplifier		2N483	2N139	PNP
X3	ST28C②	2nd IF Amplifier		2N483	2N139	PNP
X4	ST332③	Driver	2N406	2N362	2N109	PNP
X5	ST332③	Output	2N408	2N632	2N109	PNP } Matched
X6	ST332③	Output	2N408	2N632	2N109	PNP } Pair

- ① Alternate Type #2N252 may be used.
- ② Alternate Type #2N308 may be used.
- ③ Alternate Type #2N77 may be used.

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	MAGNAVOX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1	10	3	270052-1	XPP-3010	NLW10-3	TT3X10	ML10-6	TE-1053	
C2	2	12	270051-1	XPP-12002	NLW5-15	TT12X2	ML2-15	TE-1121	
C3	30	6	270053-1	PWE6030	NLW30-6	TT6X30	ML30-6	TE-1092	
C4	30	6	270053-1	PWE6030	NLW30-6	TT6X30	ML30-6	TE-1092	
C5	30	6	270053-1	PWE6030	NLW30-6	TT6X30	ML30-6	TE-1092	

### 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	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C6	5000		C80V502AM	DDM-502	H-05D5	CCD-502	TA-250	TG-D50
C7	5000		C80V502AM	DDM-502	H-05D5	CCD-502	TA-250	TG-D50
C8	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C9	20000		C80V203AM	DDM-205	H-05S2		TA-120	TG-S20
C10	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C11	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C12	10000		C80V103AM	DDM-103	H-05S1		TA-110	TG-S10
C13	5000		C80V502AM	DDM-502	H-05D5	CCD-502	TA-250	TG-D50
C14	5000		C80V502AM	DDM-502	H-05D5	CCD-502	TA-250	TG-D50
C15	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20

### CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	MAGNAVOX PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1	10K	1/4	220162-1	B16-216				Volume & Switch

### RESISTORS (IRC or EQUIVALENT)

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

ITEM No.	RATING	REMARKS
R2	820Ω	(880Ω) *
R3	30K	
R4	3000Ω	
R5	1500Ω	
R6	120K	
R7	1800Ω	
R8	38K	(30K) *

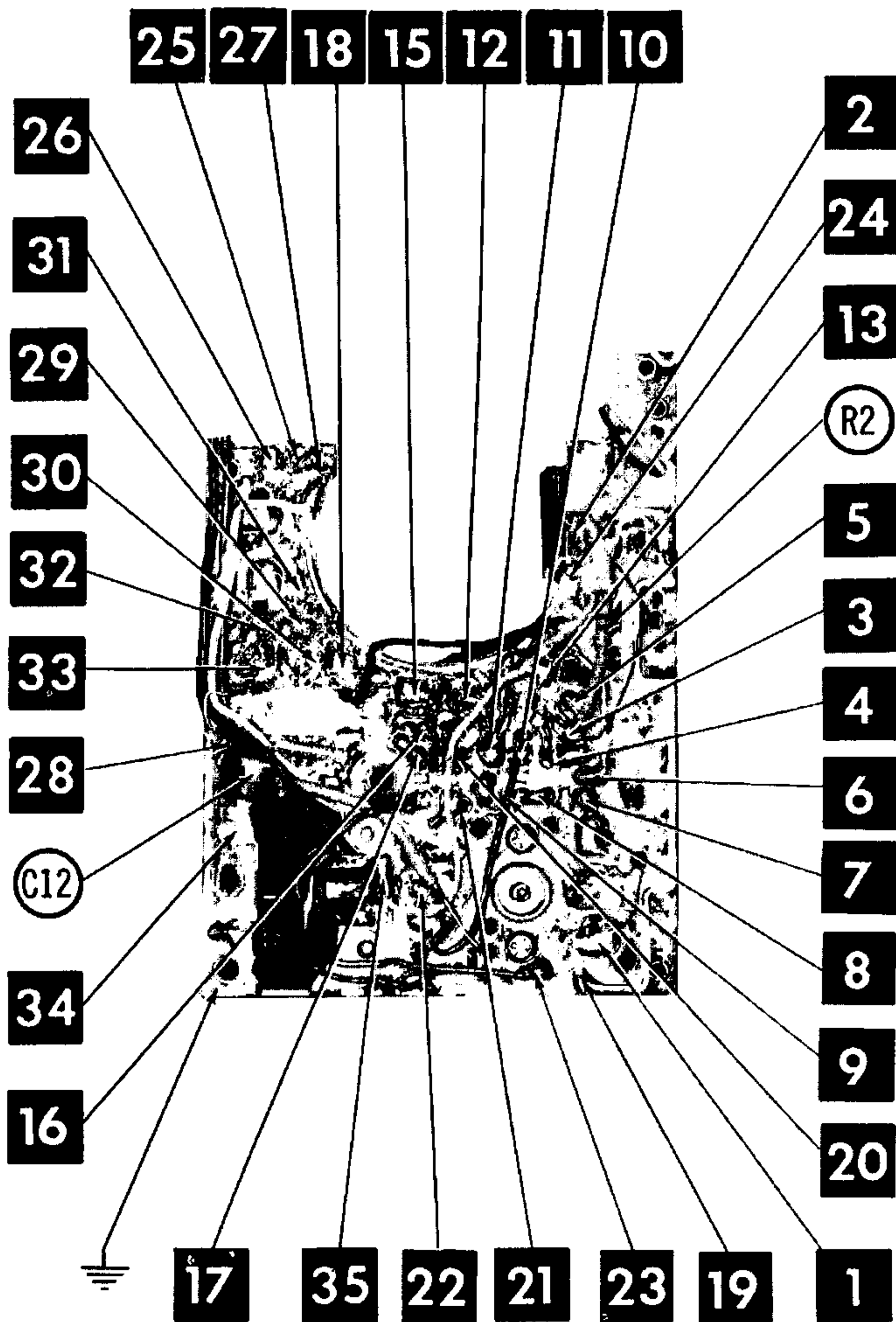
ITEM No.	RATING	REMARKS
R9	10K	(15K) *
R10	1500Ω	
R11	15K	
R12	2500Ω	
R13	10K	
R14	3300Ω	
R15	1800Ω	

ITEM No.	RATING	REMARKS
R16	680Ω	
R17	10Ω Cold	#230192-1
R18	260Ω	
R19	6900Ω	
R20	10Ω	

- \* Alternate Value.
- # Magnavox Part Number.

# PRINTED BOARD

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# PARTS LIST AND DESCRIPTIONS (Continued)

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MAGNAVOX PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Loopstick	360832-1				
L2	Osc. Coil	360831-1				
L3	1st IF Trans.	360835-1				
L4	2nd IF Trans.	360835-2				
L5	3rd IF Trans.	360835-3				

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO	REPLACEMENT DATA					NOTES
		MAGNAVOX PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI. SEC.						
T1	1 1	360834-1					

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES	
	PRI.	SEC.	MAGNAVOX PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
T2	2000 CT	6-8Ω	320088-1						

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MAGNAVOX PART No.	QUAM PART No.	
SP1	2 1/4"	PM	6-8Ω	580066-1		

## BATTERIES

ITEM No.	VOLTAGE	MAGNAVOX PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V			2U8		218		M-1604	

## CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		MAGNAVOX PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	9D-46		1N60	1N60	Detector (Pigtail)

## MISCELLANEOUS

ITEM No.	PART NAME	MAGNAVOX PART No.	NOTES
M3	Tuning Cap. Printed Board	280158-1 210060-1	2 Gang Less Components

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	140398-1	Tuning
Knob	140399-1	Volume
Cabinet	140397-2	Red, Includes Back
Cabinet	140397-1	Black, Includes Back
Cabinet Back	140402-1	Black
Cabinet Back	140402-2	Red
Carrying Case	400299-1	Leather



**CHASSIS—TOP VIEW**

