

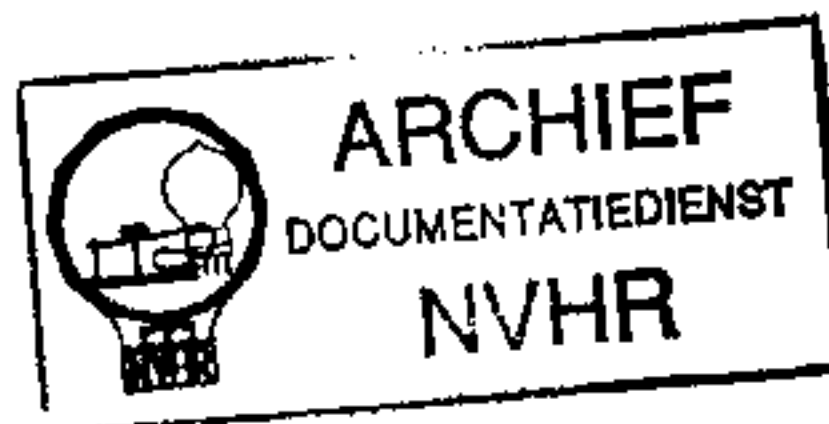
PHOTOFACT® Folder

with **CIRCUTRACE®**

REALTONE MODEL TR-1820



Ned. Ver. v. Historie v/d Radio



Met dank aan Jef Bos



TRADE NAME	Realtone Model TR-1820		
SUPPLIER	Realtone Electronics, 71 Fifth Ave., New York 3, N. Y.		
TYPE SET	Battery Operated 8 Transistor Portable AM Receiver		
POWER SUPPLY	9 Volts DC	RATING	8MA @ 9 Volts DC (No Signal, Min. Volume)
TUNING RANGE - BROADCAST	540 - 1620KC		10MA @ 9 Volts DC (Signal, Normal Volume)

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use only enough generator output to provide a usable indication.

Suggested Alignment Tools:

- A1 thru A4, A6..... GENERAL CEMENT #5000, 5003, 5066, 8271, 8272, 8276, 8277, 8290, 8609, 8722, 9150, 9298
WALSCO #2515, 2516, 2518, 2519, 2525, 2541
- A5..... GENERAL CEMENT #8282, 8606, 8606-L, 9091
WALSCO #2526, 2541, 2542, 2543, 2544

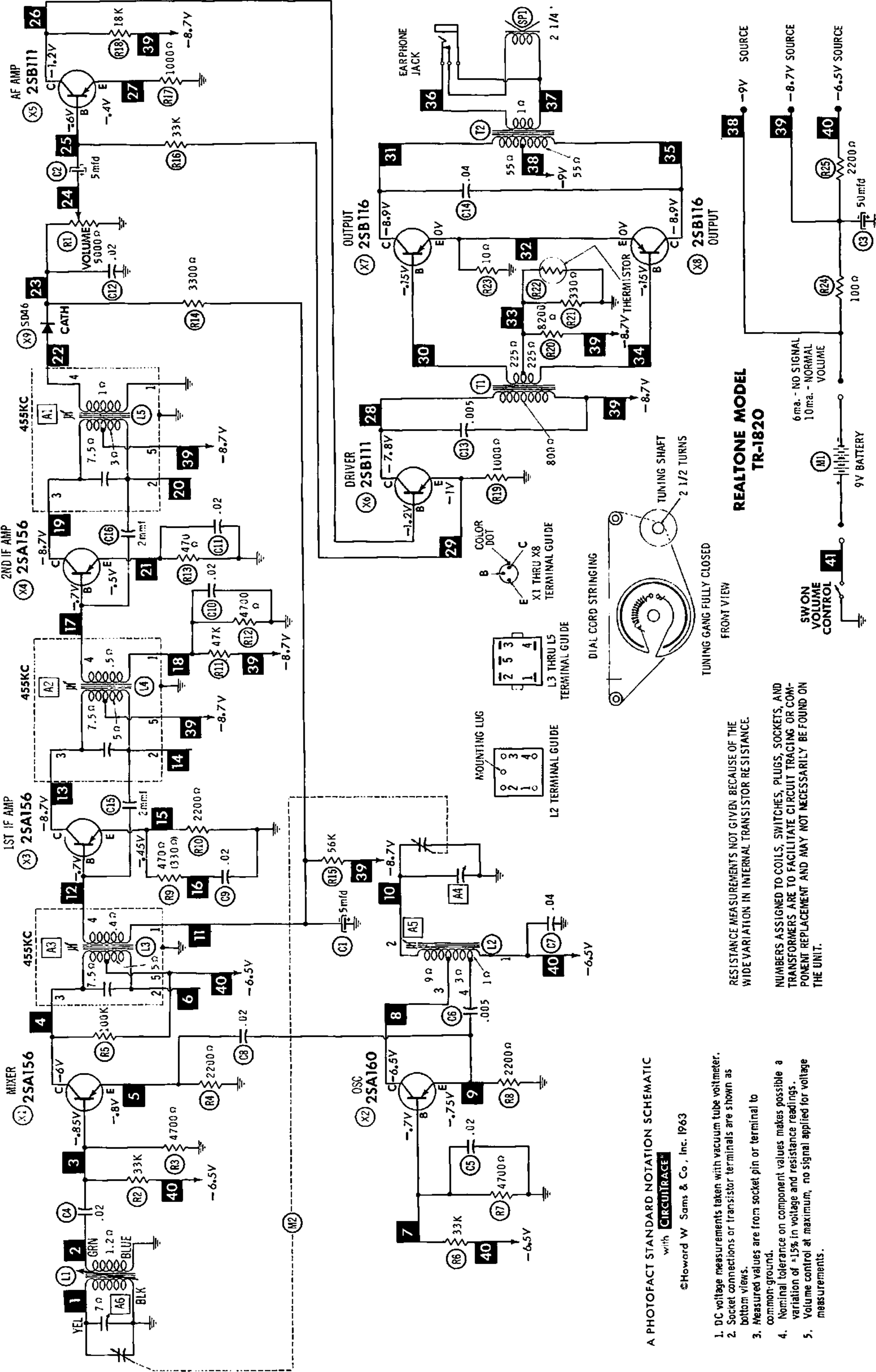
	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455KC (Unmod.)	Tuning gang fully open.	DC VTVM across Volume Control.	A1, A2, A3	Adjust for maximum deflection.
2.	"	1620KC	"	"	A4	"
3.	"	540KC	Tuning gang fully closed.	"	A5	"
4.	"	1400KC	1400KC	"	A6	"

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 the particular type of replacement LF613

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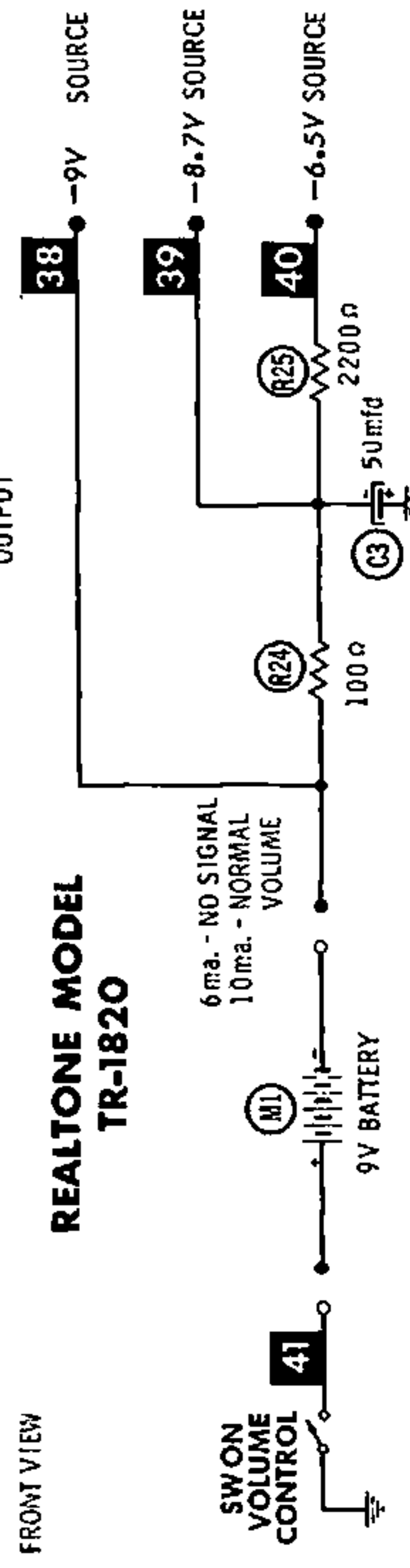
A PHOTOFAC STANDARD NOTATION SCHEMATIC
with **CIRCUITRACE**
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1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections or transistor terminals are shown as bottom views.
3. Measured values are from socket pin or terminal to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

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.

REALTONE MODEL TR-1820



FRONT VIEW

TUNING GANG FULLY CLOSED

DIAL CORD STRINGING

TUNING SHAFT
2 1/2 TURNS

MOUNTING LUG



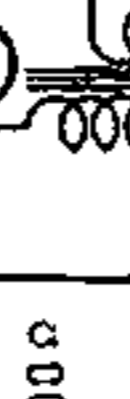
L2 TERMINAL GUIDE

COLOR DOT



X1 THRU X8
TERMINAL GUIDE

EARPHONE JACK



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37

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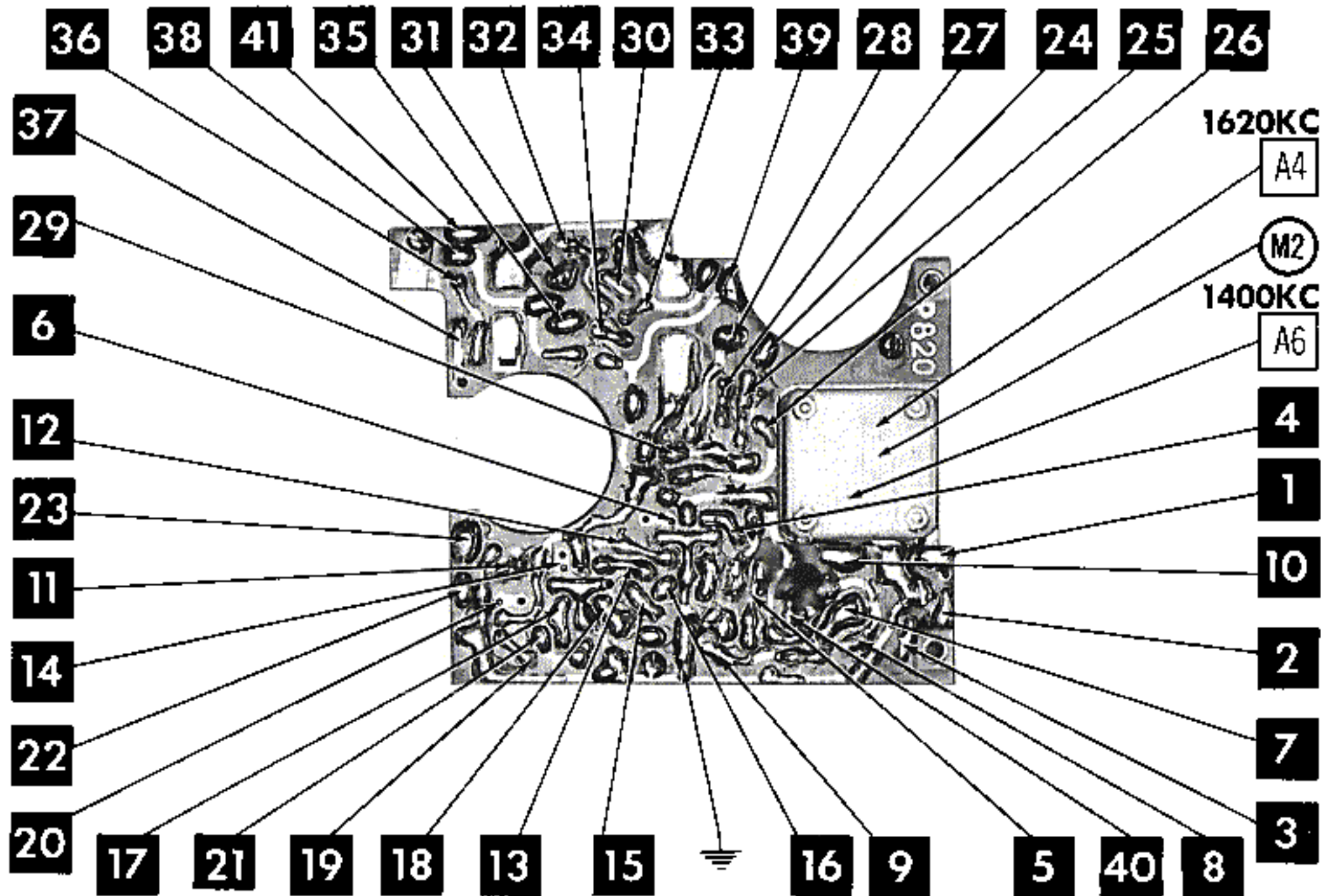
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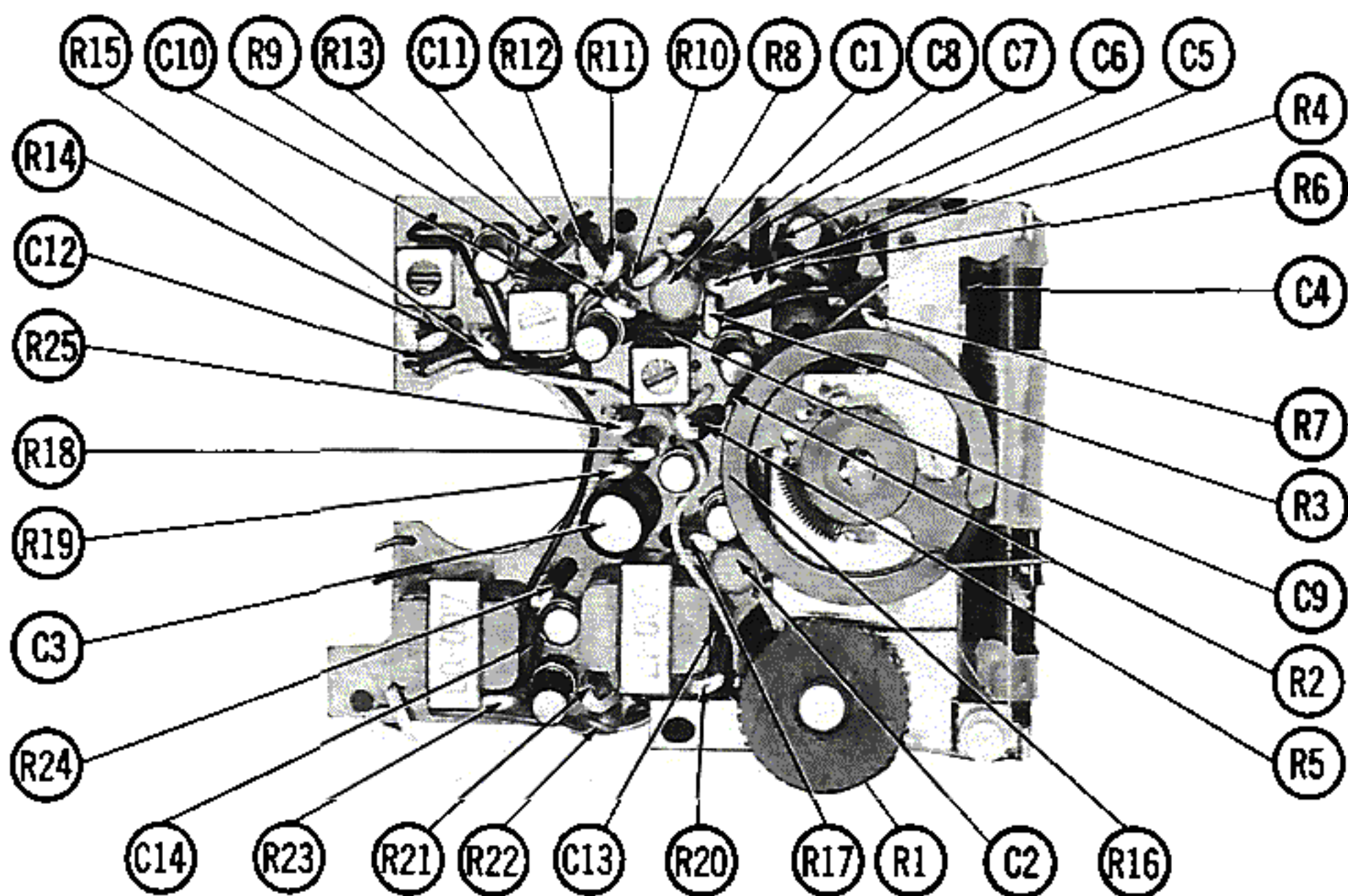
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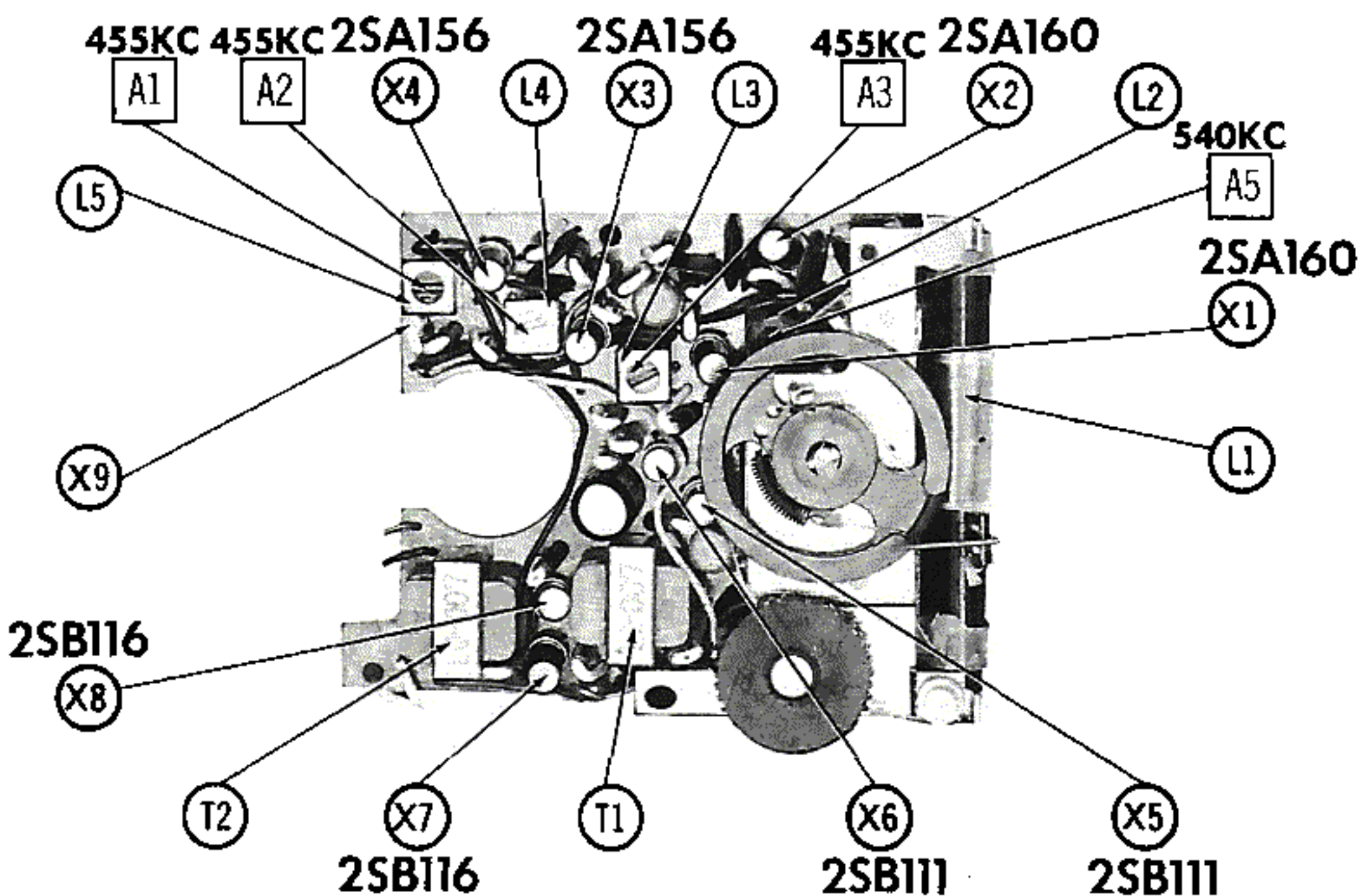
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CHASSIS TOP VIEW-CAPACITOR & RESISTOR IDENT.



CHASSIS TOP VIEW-ALIGNMENT, INDUCTOR & TRANSISTOR IDENT.

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid 22AWG)	Available
	8524 (Stranded 22AWG)	in
	8570 (Stranded 26AWG)	12 Colors

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2SA156	Mixer	DS25	GE-1		PNP
X2	2SA160	Oscillator	DS25	GE-1		PNP
X3	2SA156	1st IF Amplifier	DS25	GE-1		PNP
X4	2SA156	2nd IF Amplifier	DS25	GE-1		PNP
X5	2SB111	AF Amplifier	DS26	GE-2	2N406	PNP
X6	2SB111	Driver	DS26	GE-2	2N406	PNP
X7	2SB116	Output	DS26	GE-2	2N408	PNP
X8	2SB116	Output	DS26	GE-2	2N408	PNP

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	CURRENT RATING (Measured)	ORIGINAL Part or Type No.	RECTIFIERS		DIODES	NOTES
			RCA PART No.	SARKES TARZIAN PART No.		
X9		SD46				Detector

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	REALTONE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	5	6		CRE304					TE-1084
C2	5	6		CRE304					TE-1084
C3	50	10							

ND DESCRIPTION

FIXED 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.
C4	.02		TTD-02	DA-203	H05S2	CCD-502	TA-120	TG-S20
C5	.02		TTD-02	DA-203	H05S2		TA-120	TG-S20
C6	.005		TTD-005	DM-502	H05D5		TA-250	TG-D50
C7	.04							
C8	.02		TTD-02	DA-203	H05S2		TA-120	TG-S20
C9	.02		TTD-02	DA-203	H05S2		TA-120	TG-S20
C10	.02		TTD-02	DA-203	H05S2		TA-120	TG-S20
C11	.02		TTD-02	DA-203	H05S2		TA-120	TG-S20
C12	.02		TTD-02	DA-203	H05S2		TA-120	TG-S20
C13	.005		TTD-005	DM-502	H05D5		TA-250	TG-D50
C14	.04							

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			REALTONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	5000Ω	RV-085				

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 PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R2	33K				R14	3300Ω			
R3	4700Ω				R15	56K			
R4	2200Ω				R16	33K			
R5	100K				R17	1000Ω			
R6	33K				R18	18K			
R7	4700Ω				R19	1000Ω			
R8	2200Ω				R20	8200Ω			
R9	470Ω			(330Ω)*	R21	330Ω			
R10	2200Ω				R22	200Ω Cold			
R11	47K				R23	10Ω			
R12	4700Ω				R24	100Ω			
R13	470Ω				R25	2200Ω			

* Alternate Value.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		REALTONE PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman PART No.	
L1	Loopbar	HA-082					
L2	Osc.	HO-082					
L3	1st IF	HI-043					
L4	2nd IF	HI-053					
L5	3rd IF	HI-063					

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.	REALTONE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	1.3	1	LI-007					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	REALTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	900 Ω CT	6-8 Ω	LO-007					

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	REALTONE PART No.	QUAM PART No.	
SP1	2 1/4"	PM	6-8 Ω	AS-031		

DESCRIPTION (CONTINUED)

BATTERIES

ITEM No.	VOLTAGE	REALTONE PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V			2U6		216		M-1604	

MISCELLANEOUS

ITEM No.	PART NAME	REALTONE PART No.	NOTES
M2	Tuning Cap.	CV-061	2 Gang (PVC-2X)

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Cabinet	C-1820	Complete with Metal Trim