

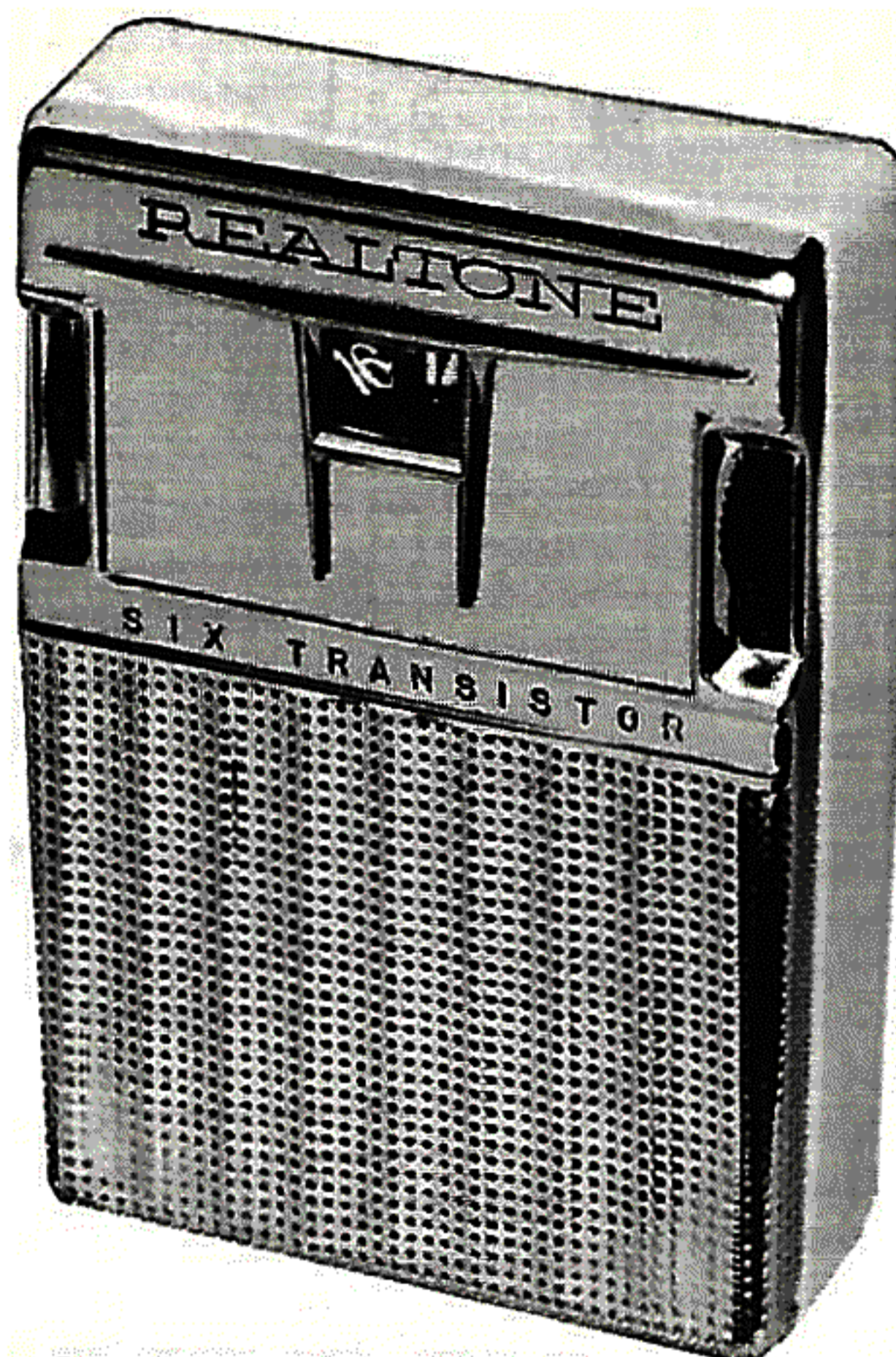
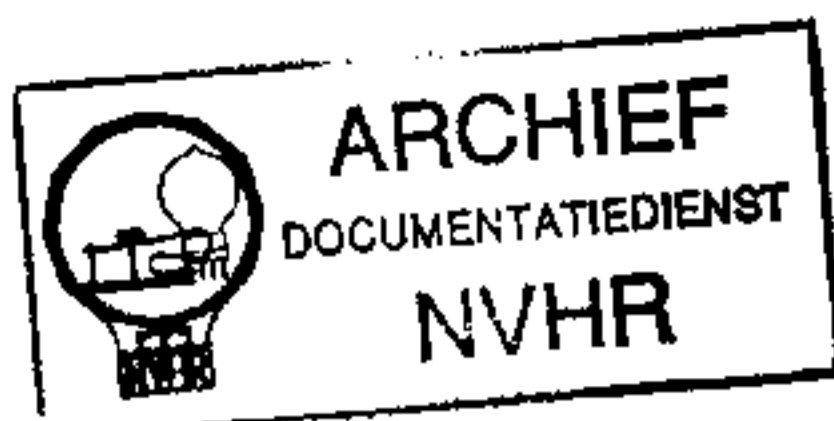
PHOTOFACT® Folder

with CIRCUITRACE®

REALTONE MODELS
TR-803, TR-804-2

Met dank aan Jef Bos

Ned. Ver. v. Historie v/



MODEL TR-804-2

TRADE NAME	Realtone Models TR-803, TR-804-2		
IMPORTER	Realtone Electronics, 71 Fifth Ave., New York 3, N. Y.		
TYPE SET	Battery Operated Transistorized Portable AM Receiver		
POWER SUPPLY	9 Volts DC	RATING	7MA@9 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	535 - 1605KC		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:

A4, A6.....GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528

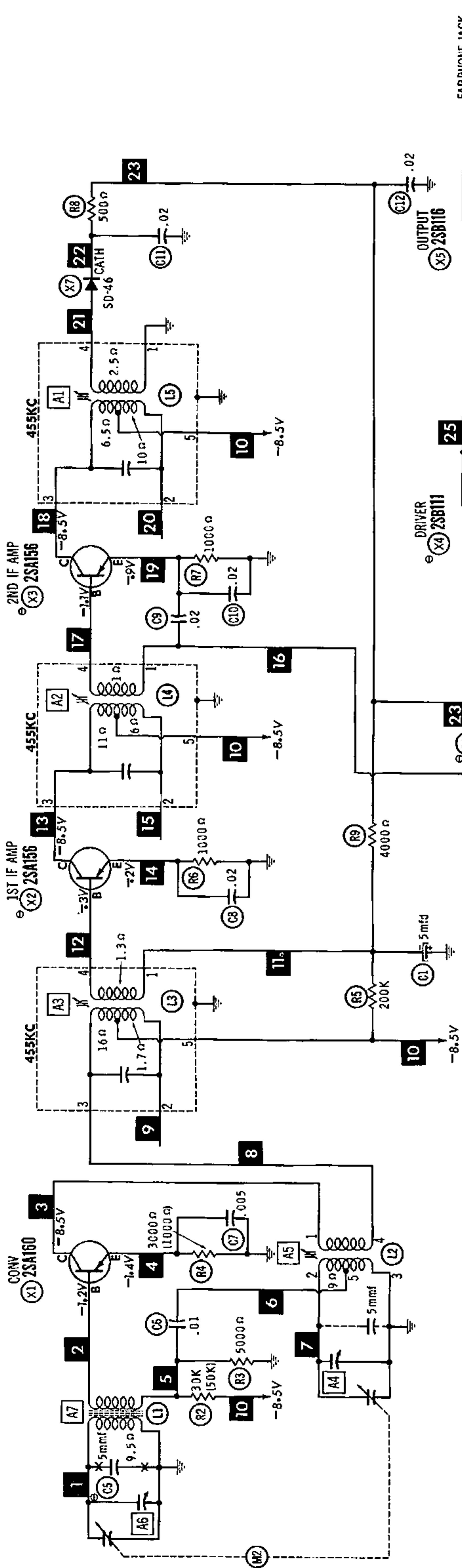
	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455KC (400% Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
2.	"	1605KC	1605KC	"	A4	"
3.	"	535KC	535KC	"	A5	Adjust for maximum output while rocking tuning gang.
4.	"	1400KC	1400KC	"	A6	Adjust for maximum output.
5.	"	600KC	600KC	"	A7	Adjust for maximum output by moving antenna coil turns along ferrite core. Repeat steps 2 thru 5.

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 KF922

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SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

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

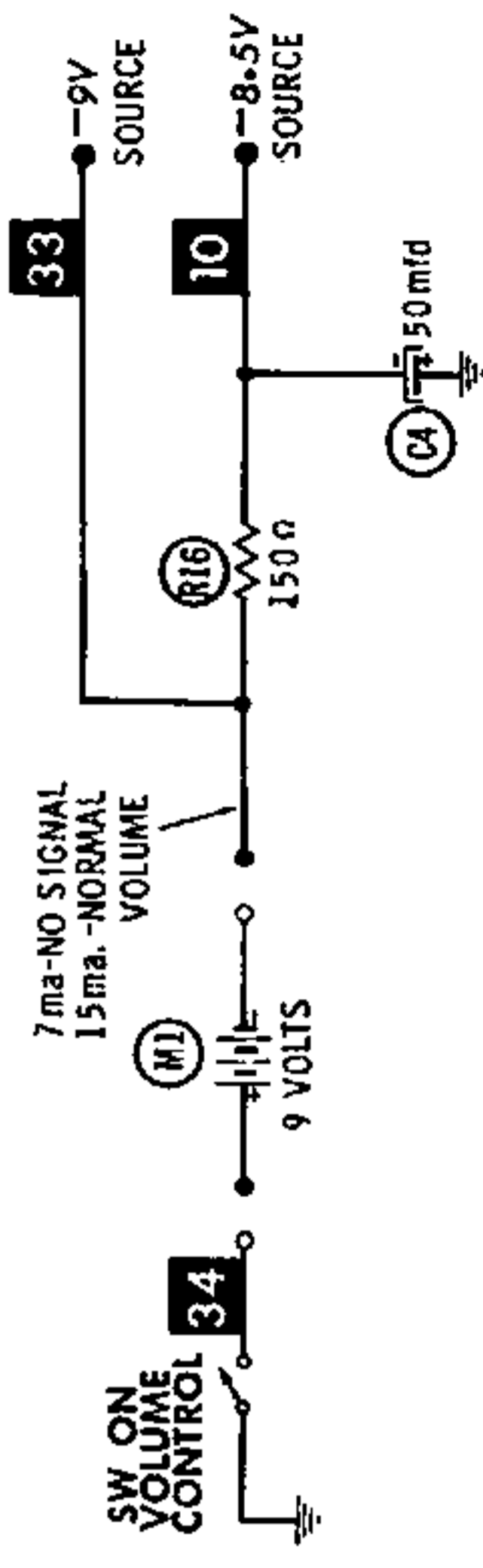
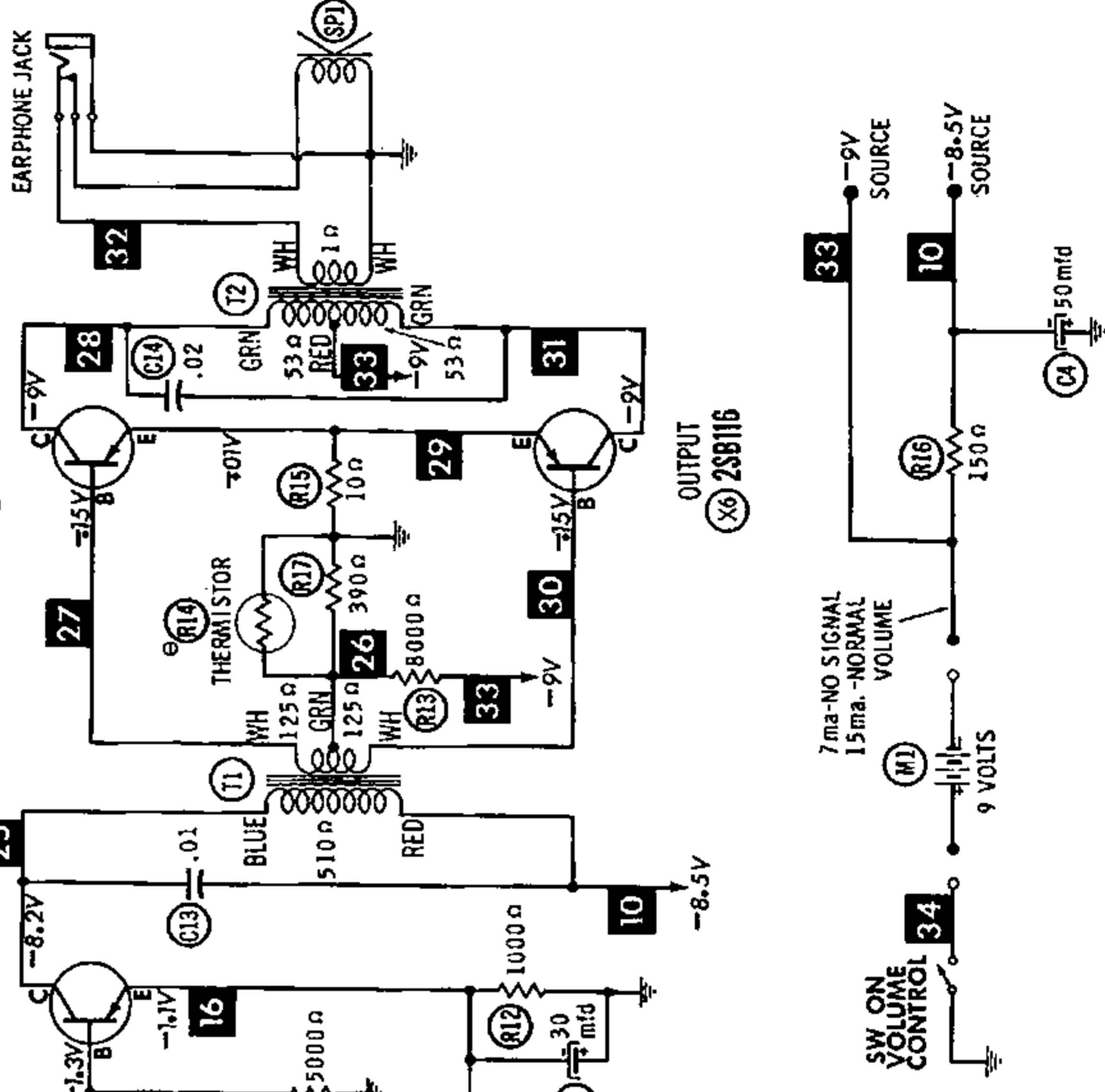
A PHOTOFAC STANDARD NOTATION SCHEMATIC with CIRCUITRACU

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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 MODELS TR-803, TR-804-2



PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	2SA160	Converter	2N412		PNP
X2	2SA156	1st IF Amplifier	2N410		PNP
X3	2SA49*	1st IF Amplifier			PNP
	2SA156	2nd IF Amplifier	2N410		PNP
X4	2SA53*	2nd IF Amplifier			PNP
	2SB111	Driver	2N408		PNP
X5	2SB54*	Driver			PNP
	2SB116	Output	2N408		PNP
X6	2SB116	Output	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.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	
X7		SD-46				1N60	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	804-2-C3	PTT21	NLW5-15	MT1-3	TT6X5	MLV5-6	TE-1084
C2	6	6	804-2-C9	PTT21	NLW5-15	MT1-3	TT6X5	MLV5-6	TE-1084
C3	30	6	804-2-C10		NLW30-6	MT1-13	TT6X30	MLV30-6	TE-1092
C4	50	10	804-2-C13	BCD10050	NLW50-10	MT1-16	TT10X50	MLV50-10	TE-1119

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.	
C5	5	Note 1	NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50	
C6	.01		C80V103AM	DM-103	H-05S1		TA-110	TG-S10	
C7	.005		C80V502AM	DM-502	H-05D5	CCD-502	TA-250	TG-D50	
C8	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20	
C9	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20	
C10	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20	
C11	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20	
C12	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20	
C13	.01		C80V103AM	DM-103	H-05S1		TA-110	TG-S10	
C14	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20	

Note 1. Not used in some versions.

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	804-2 VR①	B16-214			

① Model TR-803 uses Part #803C-VR.

RESISTORS

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

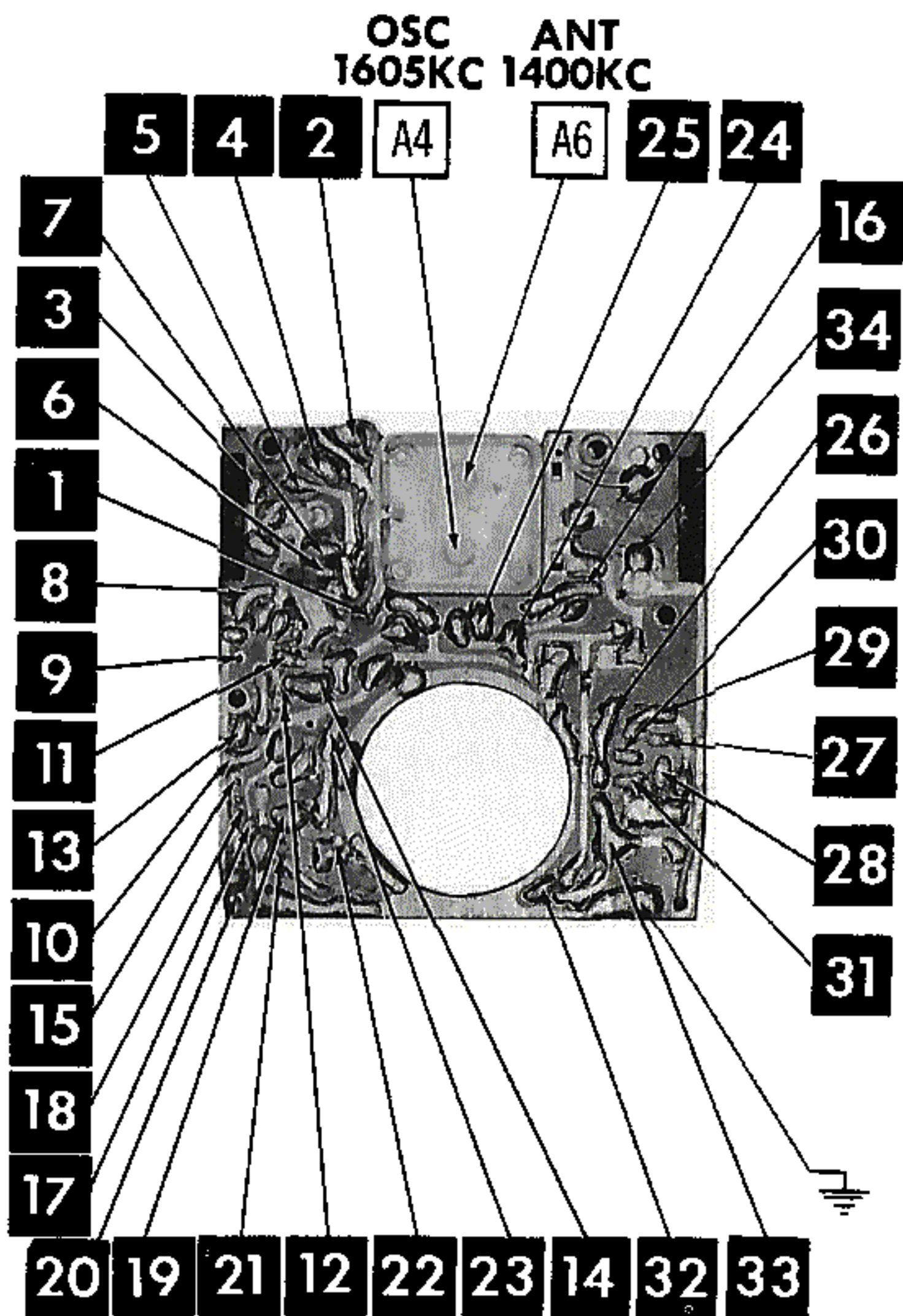
ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R2	30K			(50K)*	R11	5000Ω			Note 1
R3	5000Ω			(1000Ω)*	R12	1000Ω			
R4	3000Ω				R13	8000Ω			
R5	200K			R14	Thermistor				
R6	1000Ω			R15	10Ω				
R7	1000Ω			R16	150Ω				
R8	500Ω			R17	390Ω				
R9	4000Ω								
R10	30K								

Note 1. Some versions may use a bias diode in this application.

* Alternate Value.

PRINTED BOARD

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PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		REALTONE PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L1 L2 L3 L4 L5	Loopstick Osc. 1st IF 2nd IF 3rd IF						

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA				NOTES
	PRI.	SEC.	REALTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T1	1, 2	1	M-101				

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES
	PRI.	SEC.	REALTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T2	1200Ω CT	6-8Ω	M-134				

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	REALTONE PART No.	QUAM PART No.	
SP1	2"	PM	6-8Ω	JD5248		

BATTERIES

ITEM No.	VOLTAGE	REALTONE PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V	MV-06P							

MISCELLANEOUS

ITEM No.	PART NAME	REALTONE PART No.	NOTES
M2	Tuning Cap. Tuning Cap.	804-2VC 803C-2VC	2 Gang (Ant. 5-128mmf, Osc. 5-58mmf) Model TR-804-2 2 Gang (Ant. 5-128mmf, Osc. 5-58mmf) Model TR-803

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Dial Lens	804-2105	Model TR-804-2
Dial Lens	803C-106	Model TR-803
Dial	804-2109	Model TR-804-2
Dial	803C-112	Model TR-803
Knob	804-2103	Tuning, Model TR-804-2
Knob	803C-103	Tuning, Model TR-803
Knob	804-2104	Volume, Model TR-804-2
Knob	803C-104	Volume, Model TR-803
Cabinet Back	804-2102	Model TR-804-2
Cabinet Back	803C-102	Model TR-803
Cabinet Front	803C-101	Model TR-803
Cabinet Front	804-2101	Model TR-804-2

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

