

PHOTOFACT® Folder

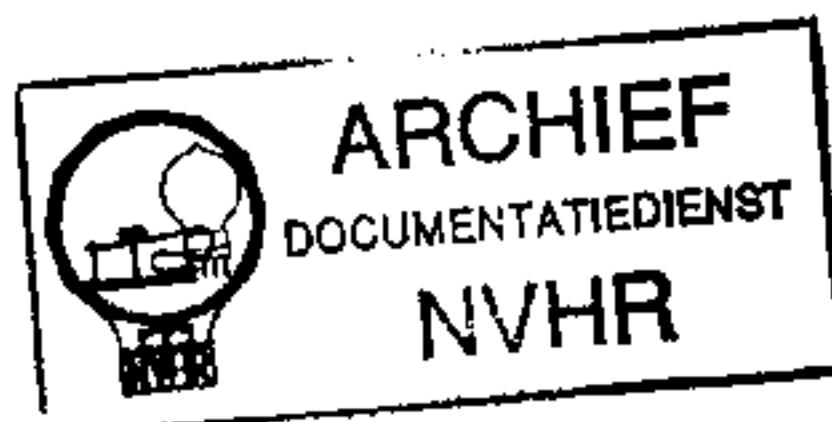
with CIRCUITRACE®

REALTONE
MODEL TR-861



Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



TRADE NAME	Realtone Model TR-861 (Pioneer)		
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	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:

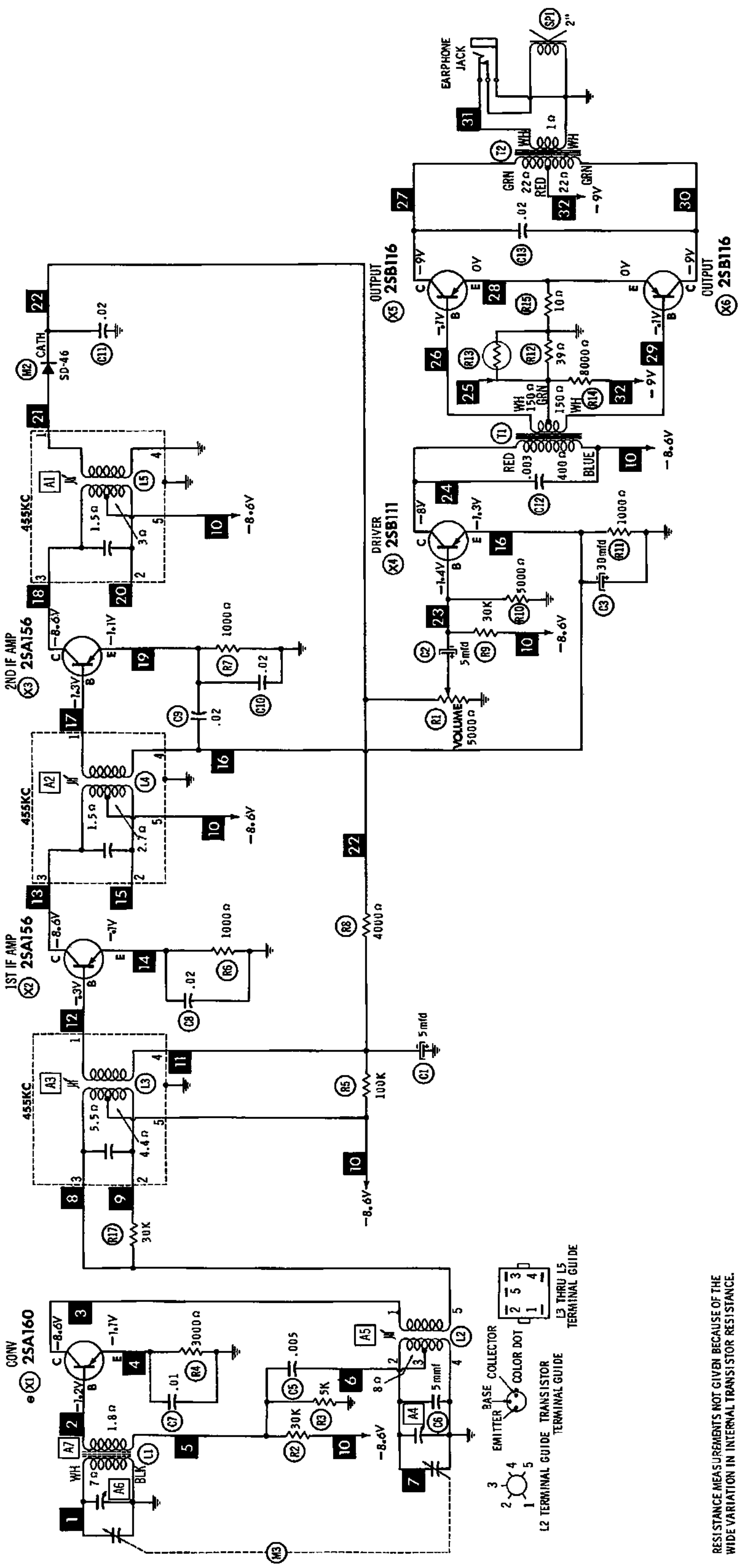
- A1, A2..... GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988, 8989, 9291
WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538
- A3..... GENERAL CEMENT #9440
- A4, A6..... GENERAL CEMENT #5000, 5003, 5086, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528
- A5..... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
WALSCO #2515, 2531, 2532

	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	"
4.	"	1400KC	1400KC Signal.	"	A6	"
5.	"	600KC	600KC Signal.	"	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 KF887

the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. ©1962 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



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

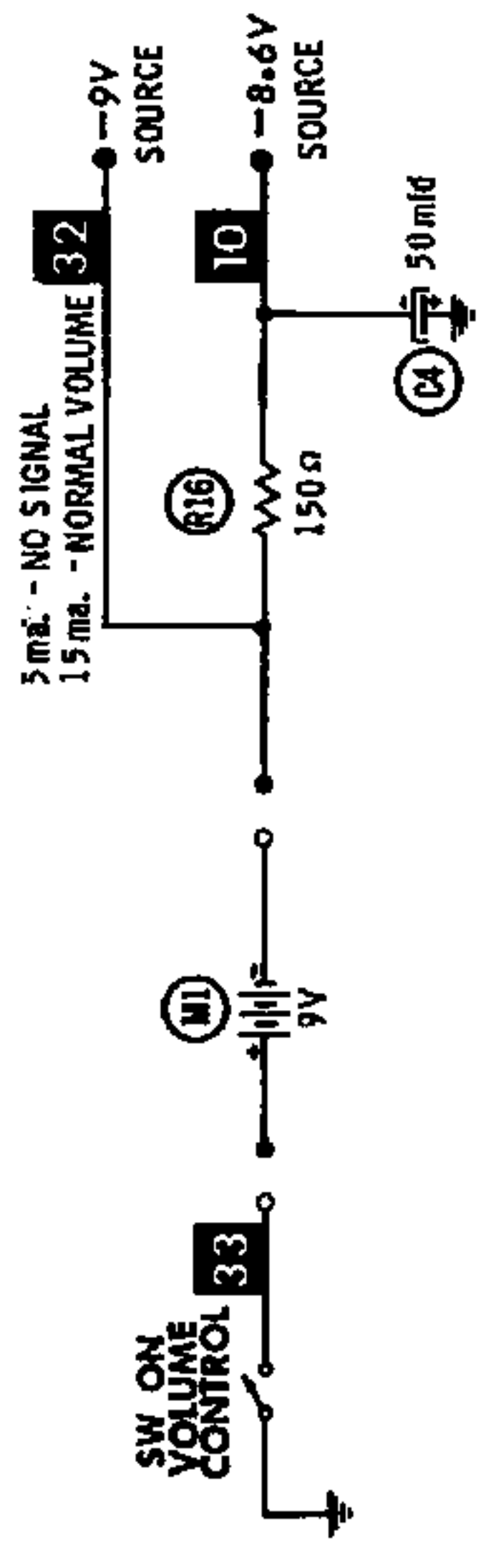
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

REALTONE MODEL TR-861

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.

A PHOTOFACIT STANDARD NOTATION SCHEMATIC
with **CIRCUITRACE**

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PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	2SA160 2SA159*	Converter Converter	2N412		PNP PNP
X2	2SA156	1st IF Amplifier	2N410		PNP
X3	2SA156	2nd IF Amplifier	2N410		PNP
X4	2SB111	Driver	2N408		PNP
X5	2SB116	Output	2N408		PNP
X6	2SB116	Output	2N408		PNP

* Alternate

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		PTT21	NLW5-15	MT1-3	TT6X5	MLV5-6	TE-1084
C2	5	6		PTT21	NLW5-15	MT1-3	TT6X5	MLV5-6	TE-1084
C3	30	6		PTT27	NLW30-6	MT1-13	TT6X30	MLV30-6	TE-1092
C4	50	10		PTT45	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	.005		C80V602AM	DM-502	H-05D5	CCD-502	TA-250	TG-D50
C6	5		NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-550	10TCC-V50
C7	.01		C80V103AM	DM-103	H-05S1		TA-110	TG-S10
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	.003		DI-3000	DD-302	BYA10D3	CCD-302	GP230	10TS-D30
C13	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	REALTONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1	5000Ω	1/10	881B-VR	B18-214				Volume & Switch

RESISTORS

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

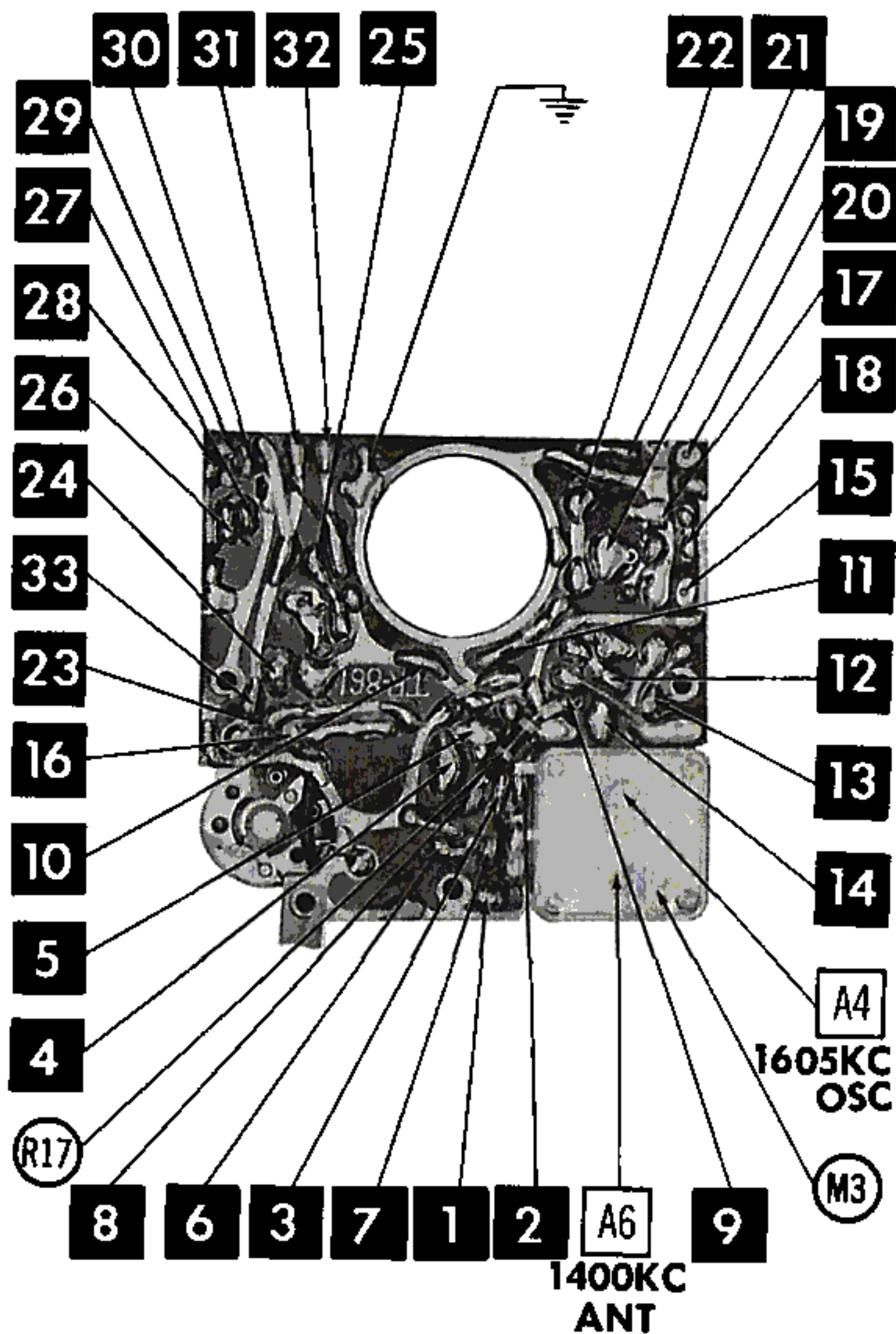
ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R2	30K				R10	5000Ω			
R3	5000Ω				R11	1000Ω			
R4	3000Ω				R12	39Ω			
R5	100K				R13	Thermistor			
R6	1000Ω				R14	8000Ω			
R7	1000Ω				R15	10Ω			
R8	4000Ω				R16	150Ω			
R9	30K				R17	30K			

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	Loopstick	881B-A1					
L2	Osc.	881B-01					
L3	1st IF	881B-IFT1					
L4	2nd IF	881B-IFT2					
L5	3rd IF	881B-IFT3					

PRINTED BOARD

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PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			REALTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.						
T1	1.5	1	861B-IT1 (M-1220)			TR-38		

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			REALTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.						
T2	5000 CT	6-8Ω	861B-OT1 (M-1221)			TR-49		

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				REALTONE PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	2"	PM	6-8Ω	861B-SP1		

BATTERIES

ITEM No.	VOLTAGE	REALTONE PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V	1701		2U6		216		M-1604	

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		REALTONE PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	
M2	SD-46	861B-D1		1N60	Detector

MISCELLANEOUS

ITEM No.	PART NAME	REALTONE PART No.	NOTES
M3	Tuning Cap.	861B-2VC	2 Gang

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Dial Plate	861B-106	Plastic Tuning Volume
Dial Lens	861B-109	
Knob	861B-104	
Knob	861B-103	
Cabinet Back	861B-102	
Cabinet Front	861B-101	

WIRING DATA

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

