

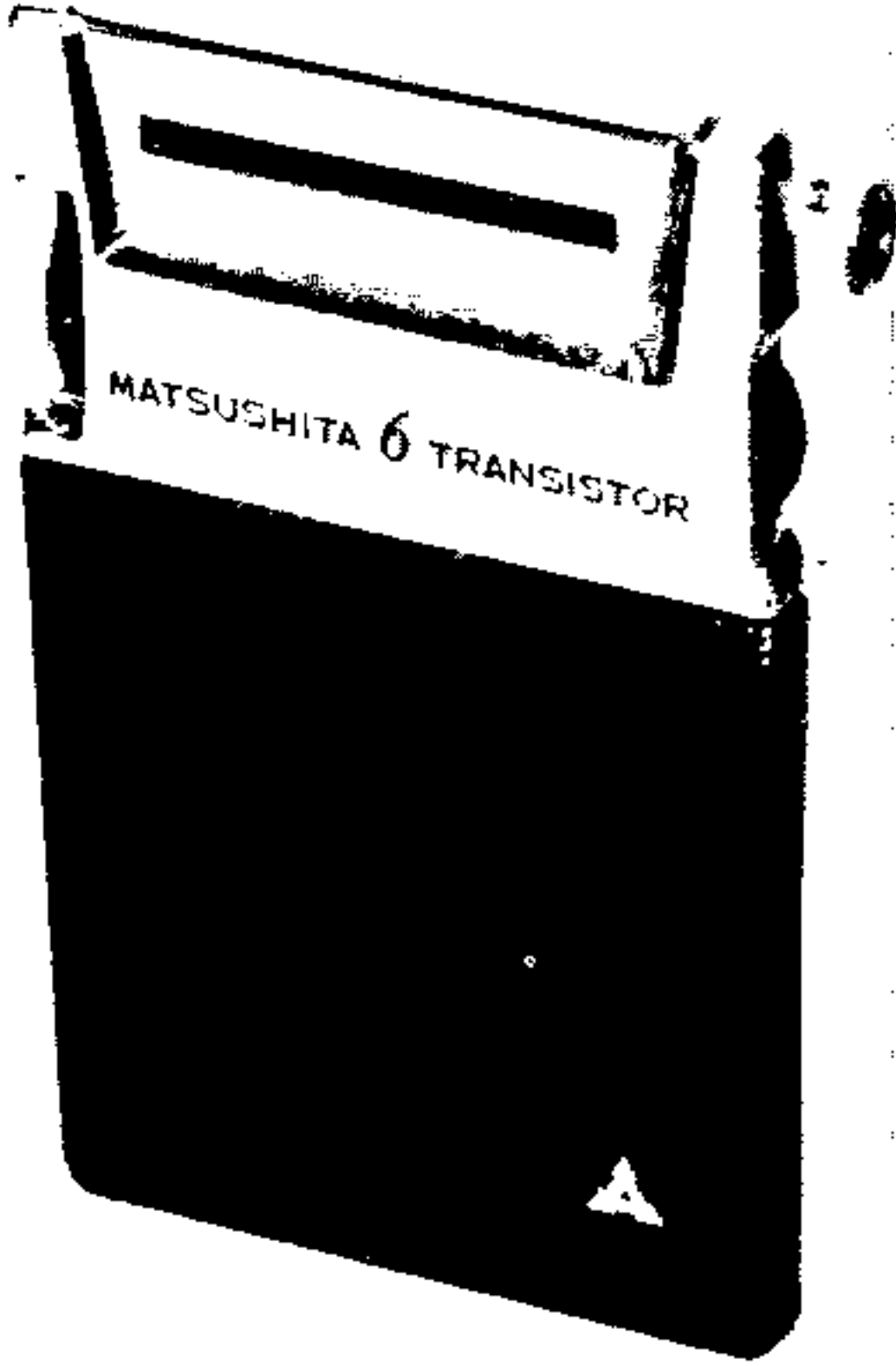
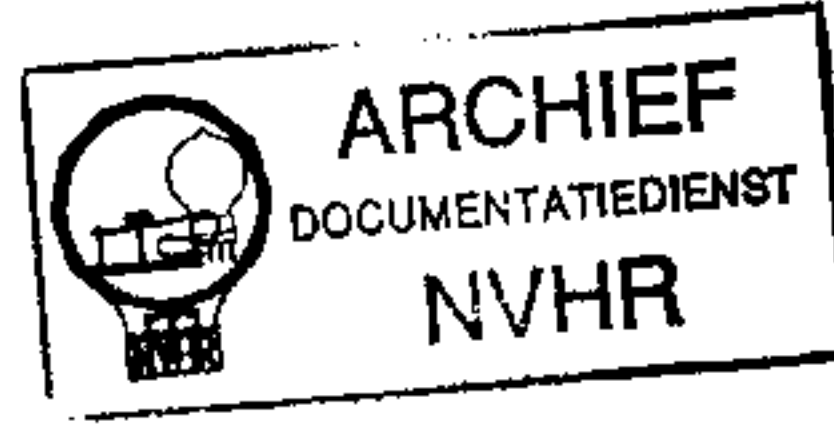
TOFACT® Folder

with CIRCUITRACE®
TRADE MARK

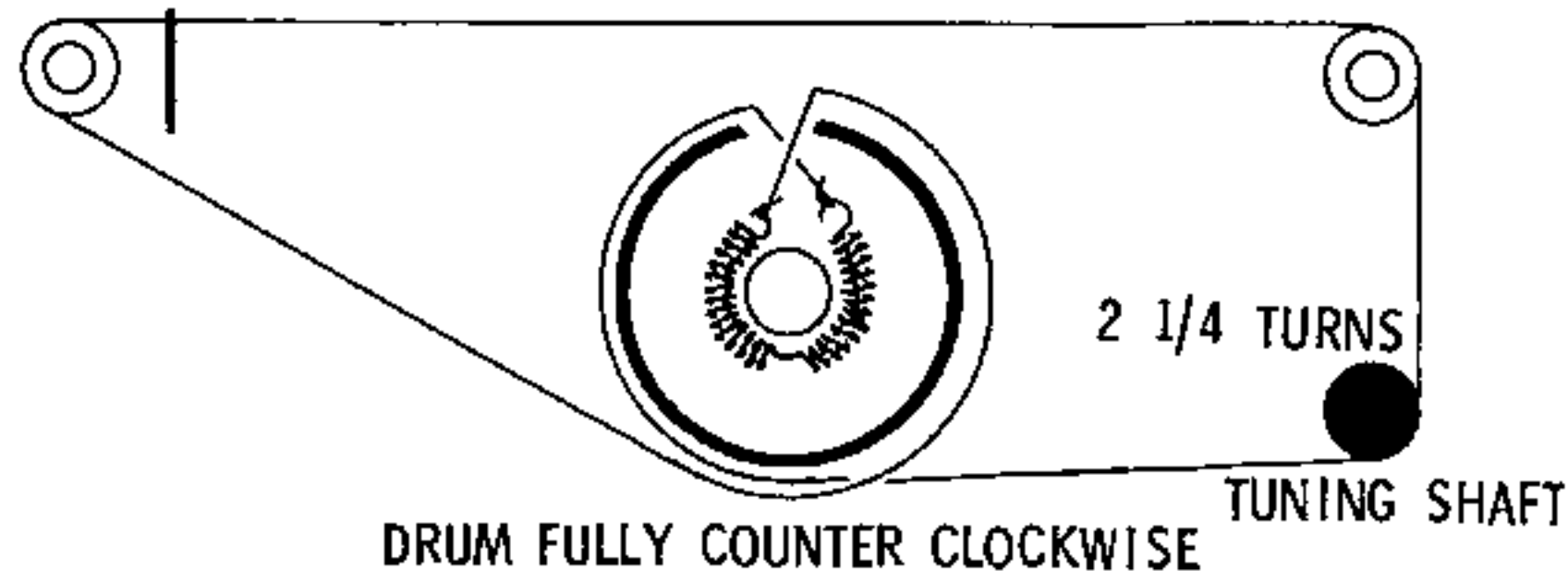
MATSUSHITA or PANASONIC
MODEL T13

Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



DIAL CORD STRINGING



TRADE NAME	Matsushita or Panasonic Model T-13		
IMPORTER	Matsushita Electric Corp. of America, 41 E. 42nd Street, New York 17, 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	525—1650KC		11MA @ 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:

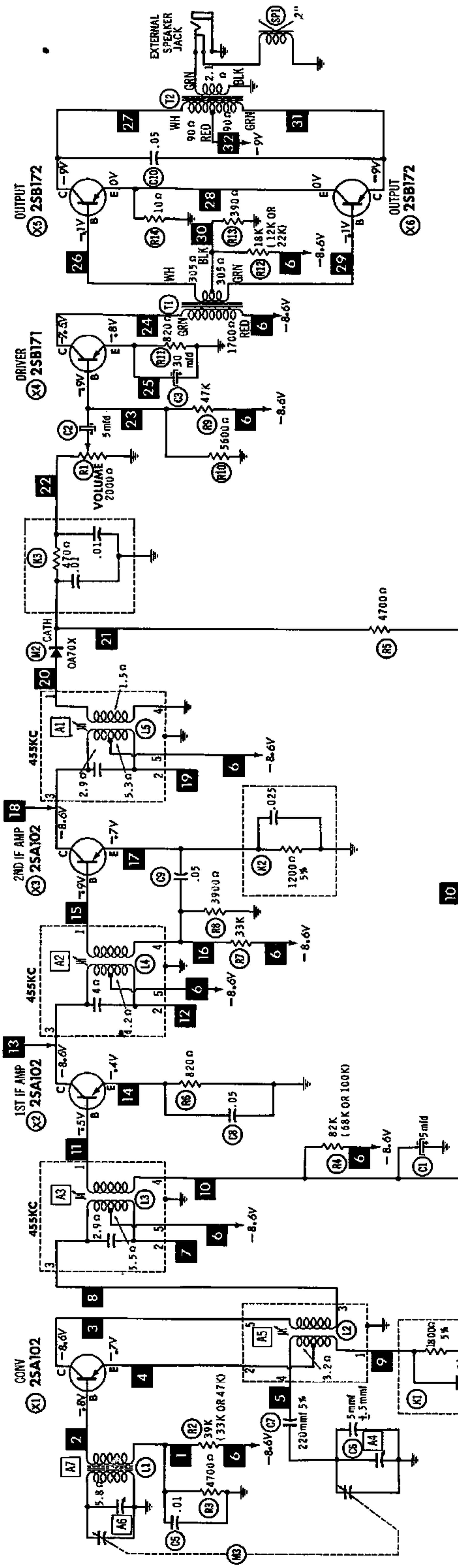
- A1, A2, A3, A5..... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
WALSCO #2515, 2531, 2532
- A4, A6..... GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
Fashion loop of several turns of wire and radiate square into loop of receiver.	455KC (400% Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
"	1650KC	"	"	A4	"
"	525KC	Tuning gang fully closed.	"	A5	"
"	1400KC	1400KC Signal.	"	A6	"
"	600KC	600KC Signal.	"	A7	Adjust for maximum output by moving coil turns along ferrite core. Repeat steps 2 thru 5.

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

Listing of any available replacement part herein does not constitute in any case a recommendation, warranty or liability by Howard W. Sams & Co., Inc., as to the quality or suitability of such replacement part. The numbers of parts have been compiled from information furnished by Howard W. Sams & Co., Inc., by the manufacturers of

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

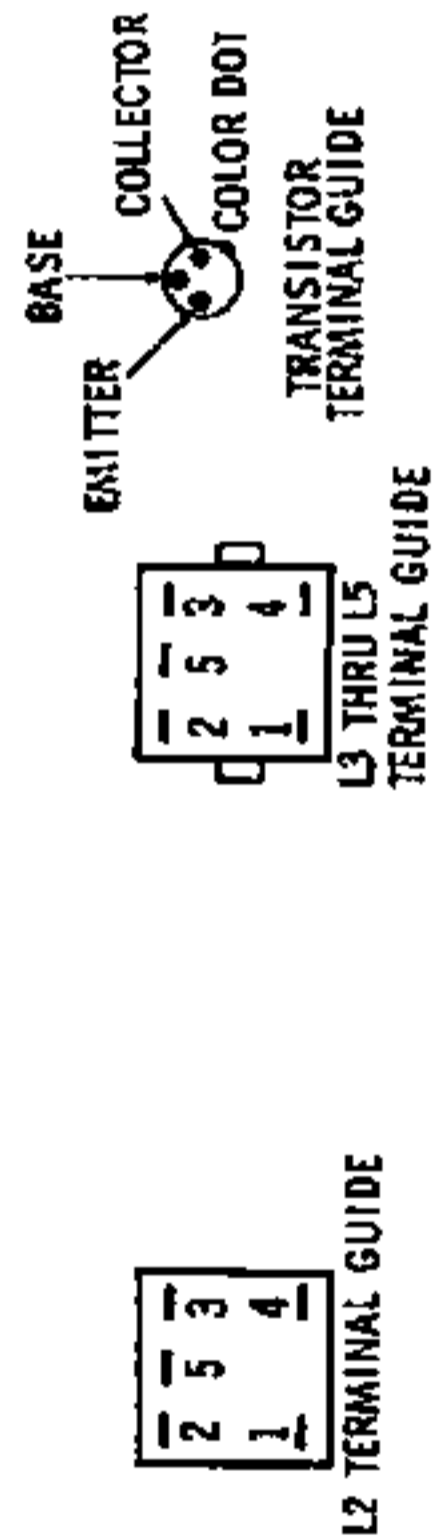


**MATSUSHITA or PANASONIC
MODEL T13**

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

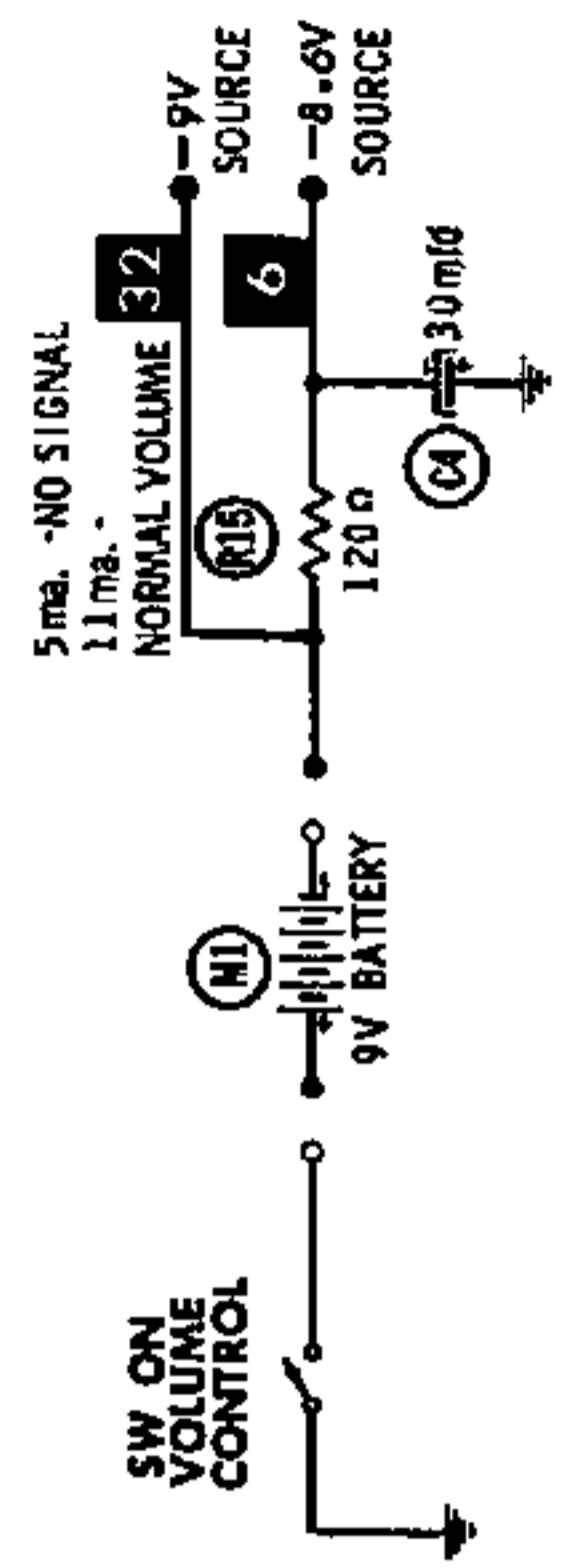
RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

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.



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



PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	28A102	Converter	2N1527		PNP
X2	28A102	1st IF Amplifier	2N1525		PNP
X3	28A102	2nd IF Amplifier	2N1525		PNP
X4	28B171	Driver	2N406		PNP
X5	28B172	Output	2N403		PNP
X6	28B172	Output	2N408		PNP

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	MATSUSHITA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	5	3	NPA3V5		NLW5-15	MT1-3	TT6X5		
C2	5	3	NPA3V5		NLW5-15	MT1-3			
C3	30	3	NTC3V30		NLW30-8	MT1-13			
C4	30	10	NPA10V30		NLW30-15				

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	.01			DM-103	H-0581		TA-110	TG-810
C6	5 +.5mmf		NPO-SI 5	TCZ-4R7	C10V5C	CCTO-4R7	CNO-547	10TCC-V50
C7	220 5%			TCZ-220			CNO-322	10TCC-T22
C8	.05			DA-503	H-0585		TA-150	TG-850
C9	.05			DA-503	H-0585		TA-160	TG-850
C10	.05			DA-503	H-0585		TA-160	TG-850

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			MATSUSHITA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	2000Ω	SNV16T1.2				

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	39K			(33K, 47K)*	R9	47K			
R3	4700Ω				R10	5600Ω			
R4	82K			(68K, 100K)*	R11	820Ω			
R5	4700Ω				R12	18K			(12K, 22K)*
R6	820Ω				R13	390Ω			
R7	33K				R14	10Ω			
R8	3900Ω				R15	120Ω			

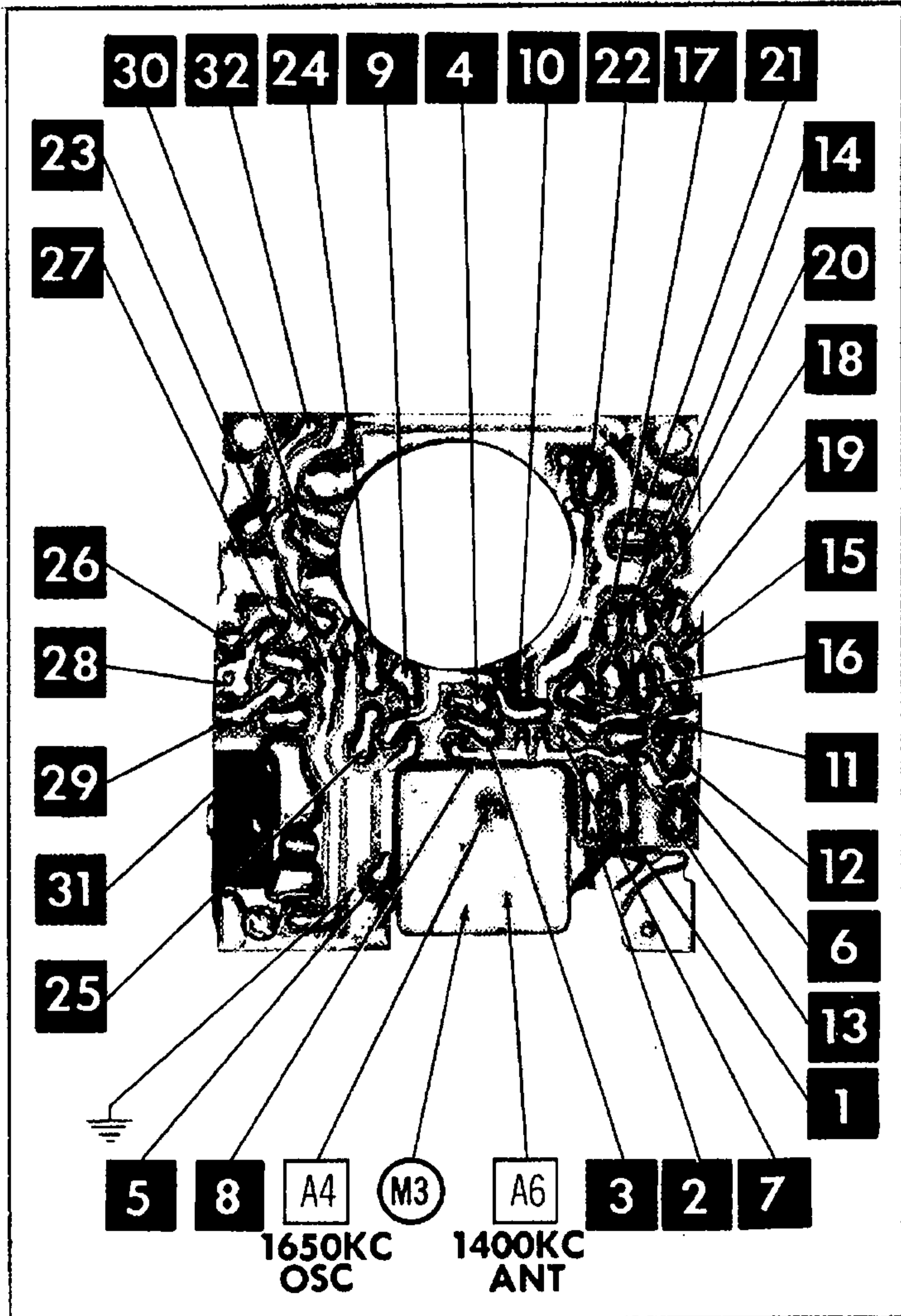
* Alternate Value.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MATSUSHITA PART No.	REPLACEMENT DATA
K1	Converter Emitter Bias	.01mfd, 1800Ω, 5%	CR-21M 1.8KΩ	
K2	2nd IF Emitter Bias	.025mfd, 1200Ω, 5%	CR-22P 1.2KΩ	
K3	Diode RF Filter	.01mfd, .01mfd, 470Ω	CR-31P 470Ω	

PRINTED BOARD

A Howard W. Sams **CIRCUITRACE** Photo



PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		MATSUSHITA 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	AM-1850-C AOP ₄ -Y TI-S ₁ B TI-S ₂ B TI-S ₃					

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO	REPLACEMENT DATA					NOTES
		MATSUSHITA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI. SEC.						
T1	1.6 1	TIP-2A					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	MATSUSHITA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	600Ω CT	10-12Ω	TT-202					

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MATSUSHITA PART No.	QUAM PART No.	
SP1	2"	PM	10-12Ω	P-2208		

BATTERIES

ITEM No.	VOLTAGE	MATSUSHITA PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V	008-P		2U6		216		M-1604	

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		MATSUSHITA PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	
M2	0A70X			1N60	Detector

MISCELLANEOUS

ITEM No.	PART NAME	MATSUSHITA PART No.	NOTES
M3	Tuning Cap.	2ZB-20	2 Gang

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Dial Scale	T-13	(Mention Name and Part Number)
Dial Pointer	T-13	" " " " "
Knob, Tuning	T-18T	" " " " "
Knob, Volume	T-19V	" " " " "
Cabinet	T-13 Meca	" " " " "

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

