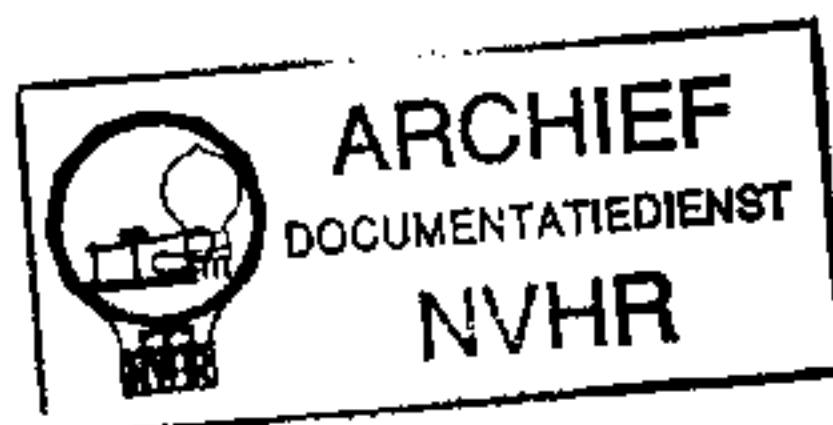


PHOTOFACT® Folder

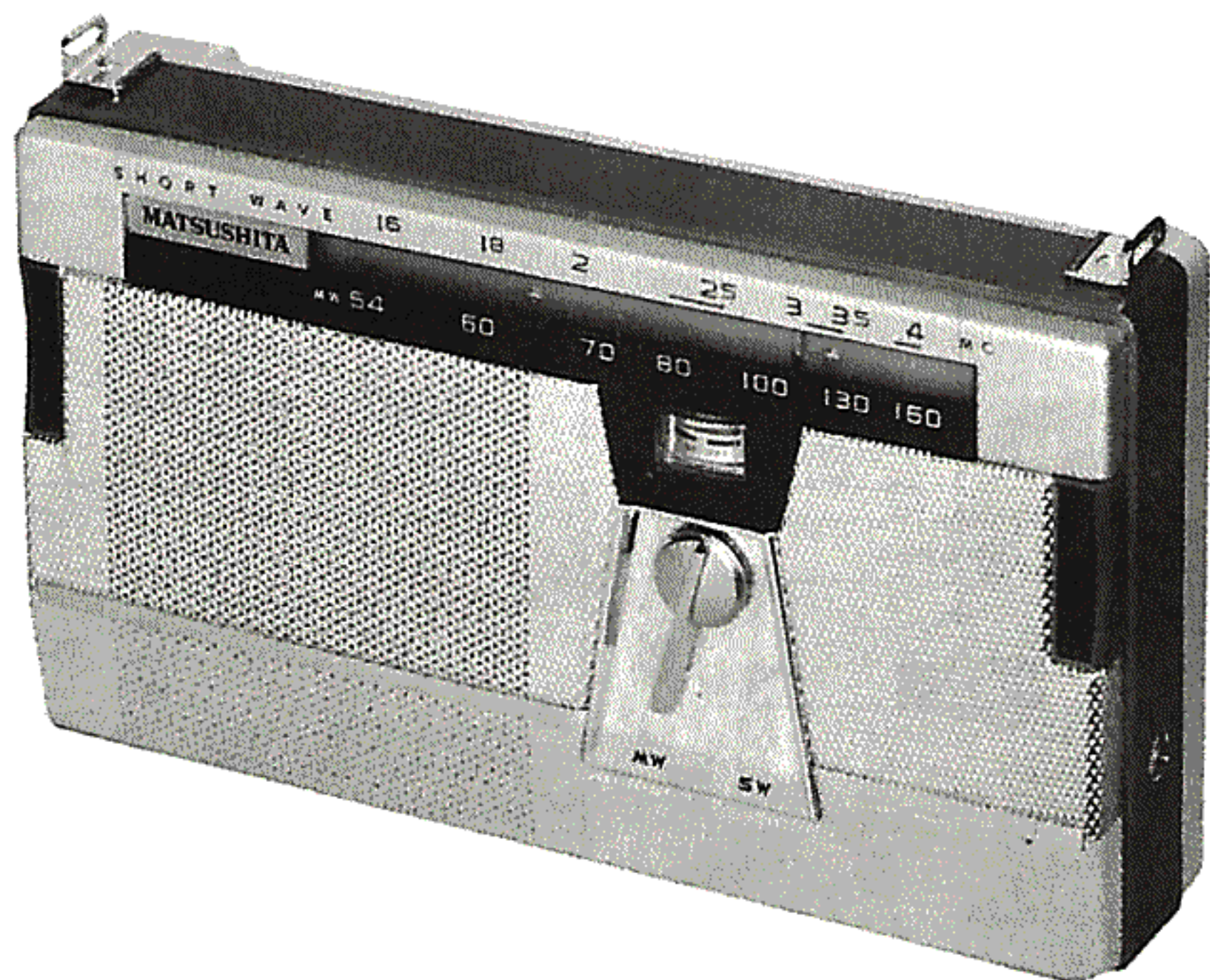
with CIRCUITRACE®

MATSUSHITA or PANASONIC  
MODEL T-22M

Ned. Ver. v. Historie v/d Radio

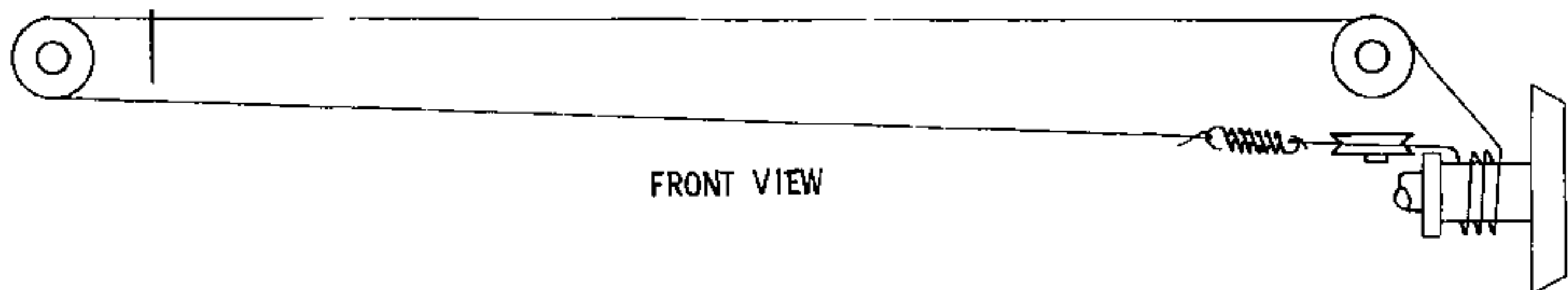


Met dank aan Jef Bos



TRADE NAME	Matsushita or Panasonic Model T-22M
IMPORTER	Matsushita Electric Corp. of America, 41 E. 42nd Street, New York 17, N. Y.
TYPE SET	Battery Operated Transistorized Portable BC-SW Receiver
POWER SUPPLY	6 Volts DC
TUNING RANGE	BROADCAST 530 - 1650KC
	RATING 8MA @ 6 Volts DC (No Signal, Min. Volume)
	30MA @ 6 Volts DC (Signal, Normal Volume)
	SHORT WAVE 1.6 - 4MC

### DIAL CORD STRINGING



FRONT VIEW

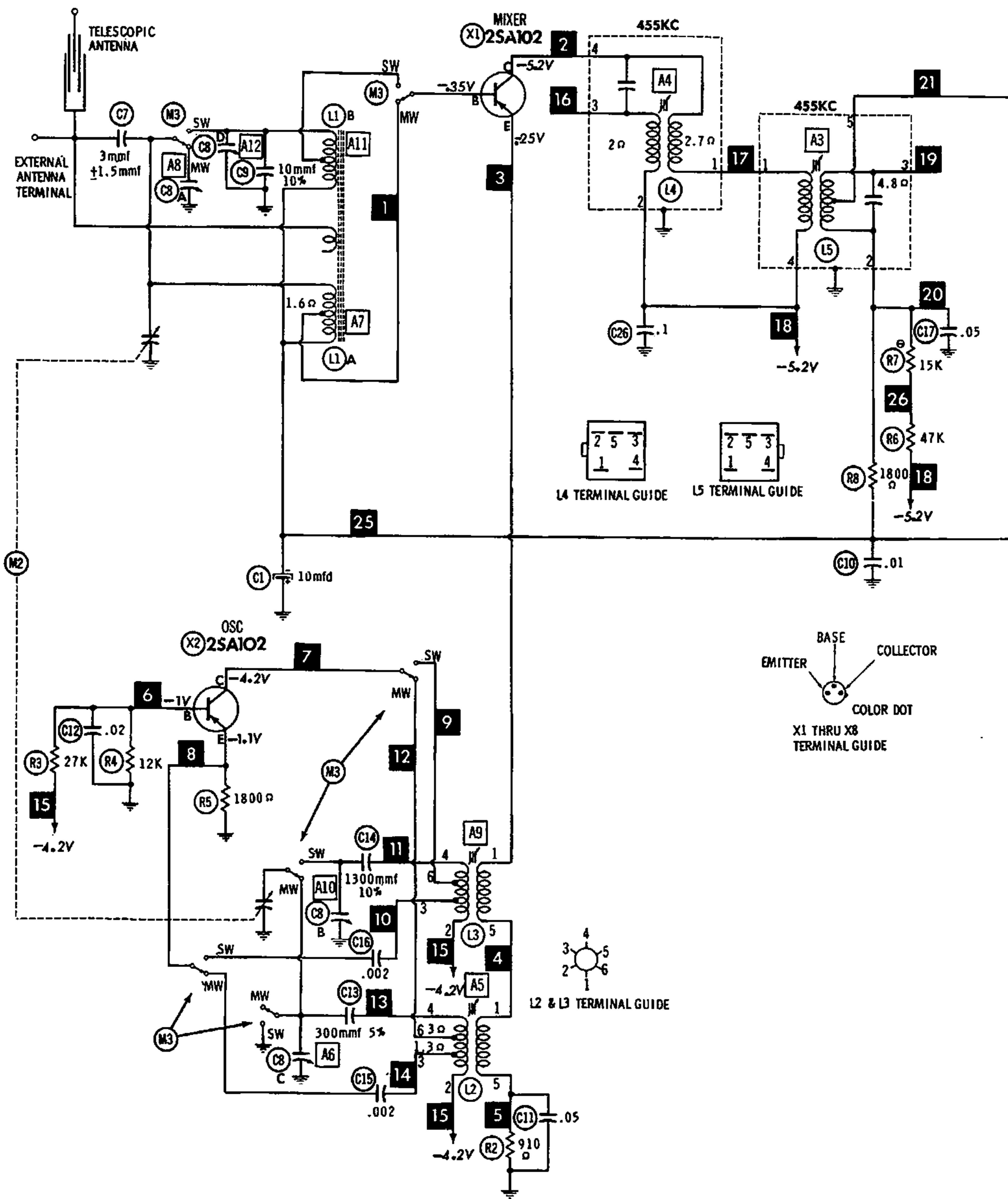
TUNING KNOB FULLY CLOCKWISE

**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 LF132

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.

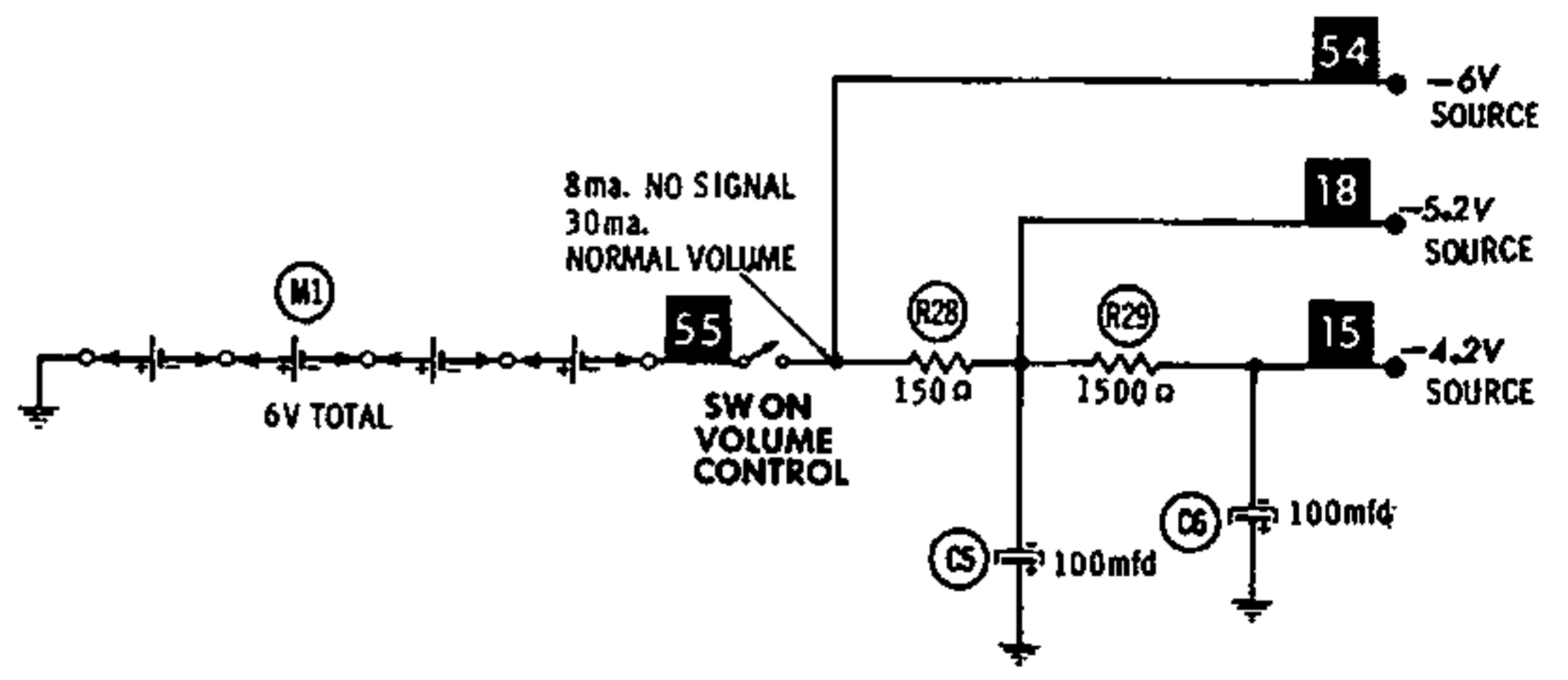
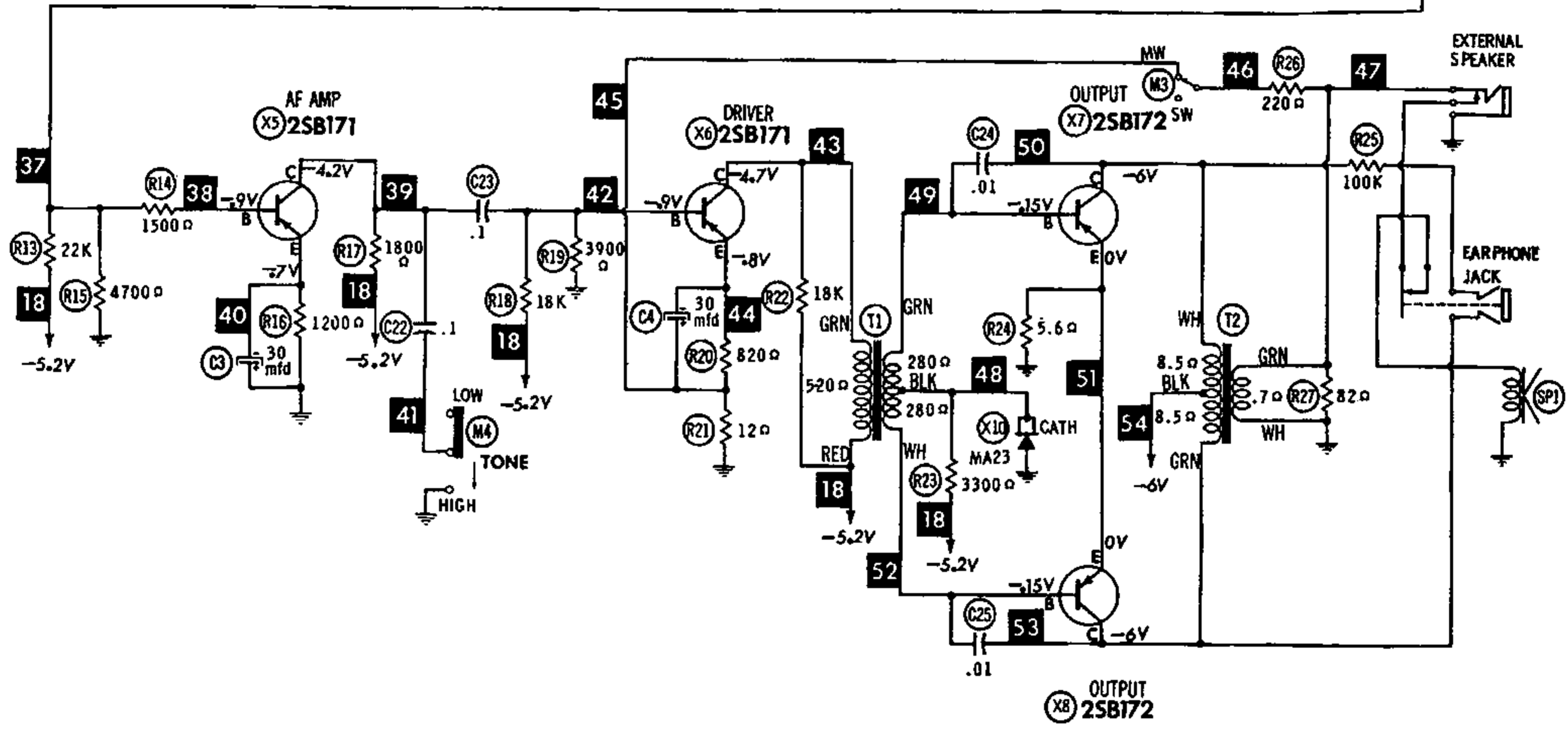
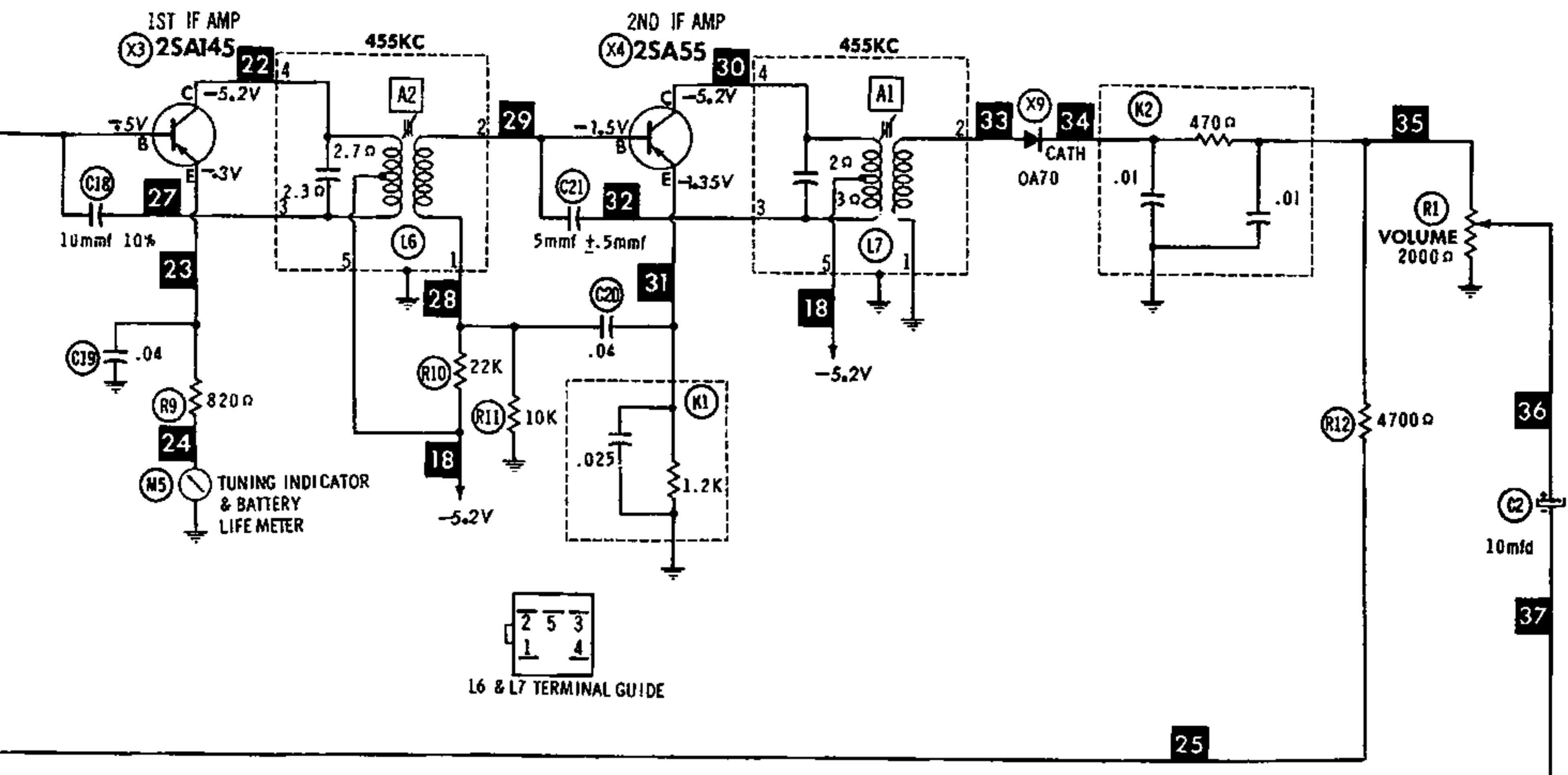
⊕ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

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.

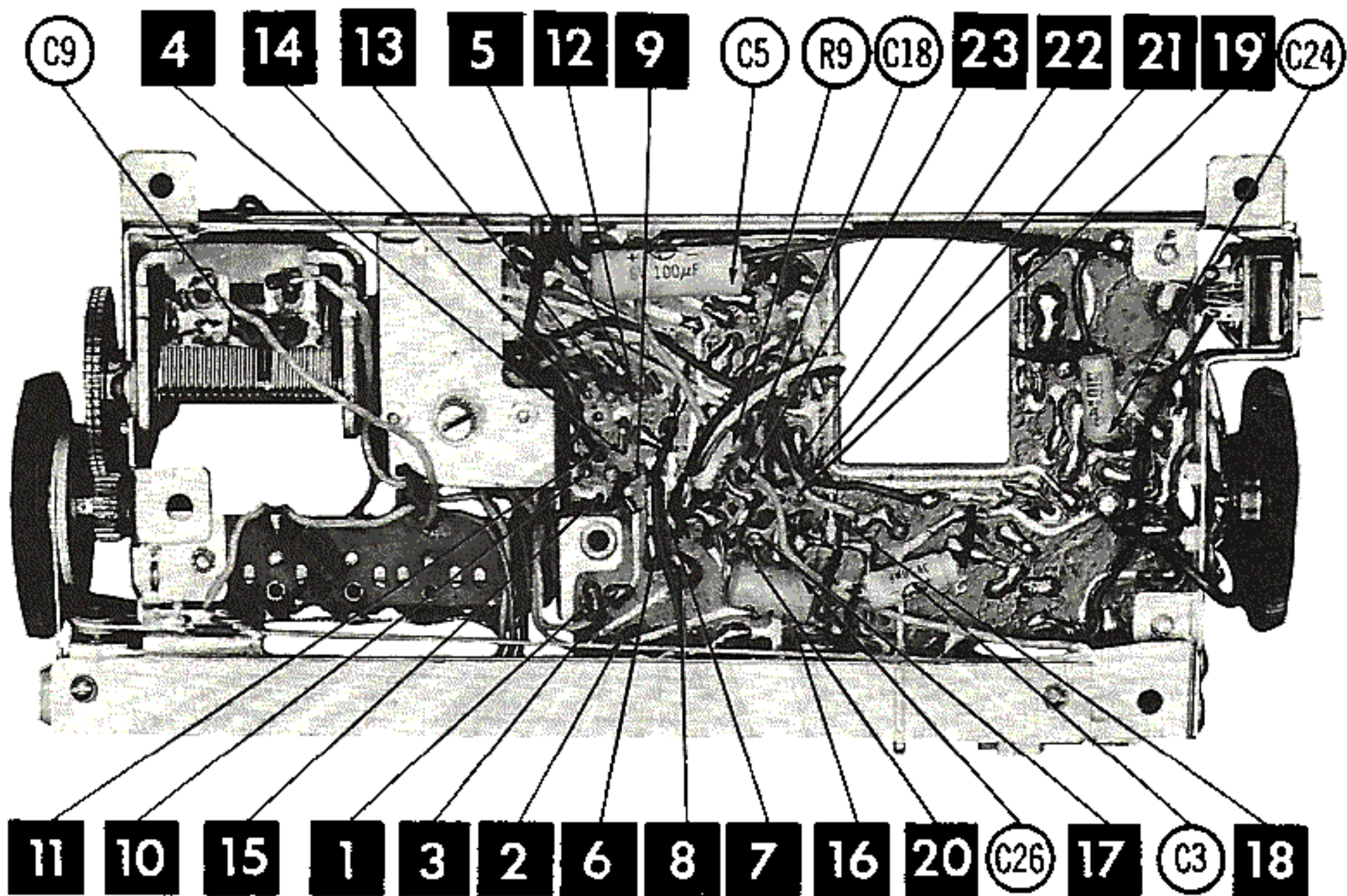
A PHOTOFAC STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**





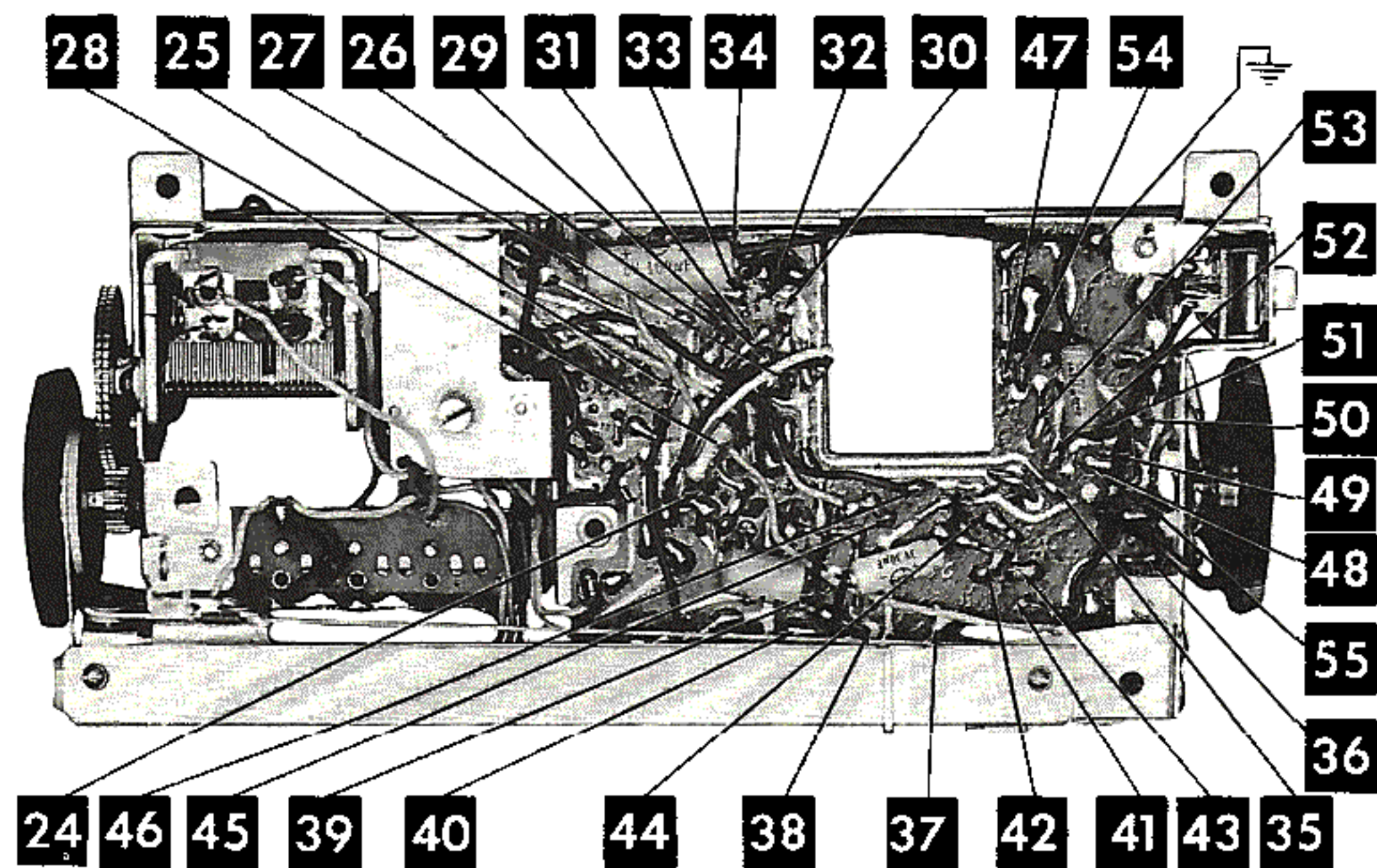
MATSUSHITA or PANASONIC  
MODEL T-22M





A Howard W. Sams CIRCUITRACE® Photo

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# PARTS LIST AND DESCRIPTIONS

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	2SA102	Mixer	2N1527		PNP
X2	2SA102	Oscillator	2N1527		PNP
X3	2SA145	1st IF Amplifier			PNP
X4	2SA55	2nd IF Amplifier			PNP
X5	2SB171	AF Amplifier	2N408		PNP
X6	2SB171	Driver	2N408		PNP
X7	2SB172	Output	2N270	2N360	PNP
X8	2SB172	Output	2N270	2N360	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.	
X9 X10		OA70X MA23B				1N60	Detector Output Bias

## ELECTROLYTIC CAPACITORS

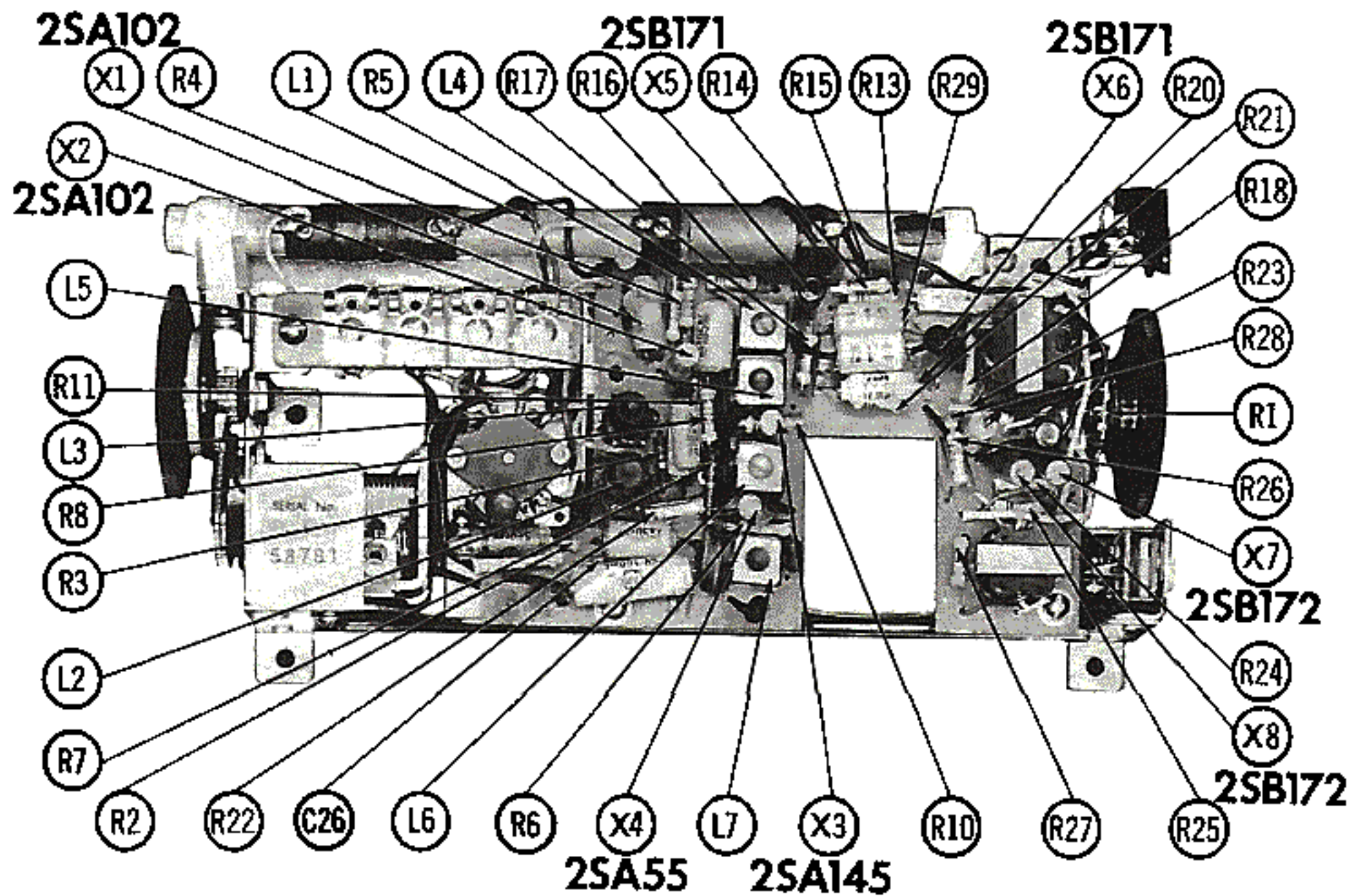
ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	MATSUSHITA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	10	3	NCT-3V10	PTT6	NLW10-6	MT1-5	TT3X10	MLV10-3	TE-1053
C2	10	3	NCT-3V10	PTT6	NLW10-6	MT1-5	TT3X10	MLV10-3	TE-1053
C3	30	3	NCT-3V30	PTT10	NLW30-6	MT1-13	TT6X30	MLV30-6	TE-1092
C4	30	3	NCT-3V30	PTT10	NLW30-6	MT1-13	TT6X30	MLV30-6	TE-1092
C5	100	6	NCT-6V100	PTT30	NLW100-12	MT1-18	TT6X100	MLV100-6	TE-1102
C6	100	6	NCT-6V100	PTT30	NLW100-12	MT1-18	TT6X100	MLV100-6	TE-1102

## FIXED CAPACITORS

ITEM No.	RATING		REMARKS	REPLACEMENT DATA					
	CAP.	VOLT.		AEROVOX PART No.	CENTRAL LAB PART No.	CORNELL-DUBILIER PART No.	ELMenco PART No.	MALLORY PART No.	SPRAGUE PART No.
C7 C8A B C D	3	±1.5mmf	} #2214D-N	NPO-SI 3.0	TCZ-3R3	C10V3C	CCTO-3R3	CNO-533	10TCC-V33
C9	10	10%		NPO-SI 10	TCZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C10	.01	250V		V84C-4S1		PM4S1			2WF-S10
C11	.05	250V		V84C-4S47		PM4S5			2WF-S47
C12	.02	250V		V84C-4S22		PM4S2			2WF-S22
C13	300	5%							
C14	1300	10%							
C15	.002	50V		BPD-002	DD-202	BYA10D2	CCD-202	GP220	5HK-D20
C16	.002	50V		BPD-002	DD-202	BYA10D2	CCD-202	GP220	5HK-D20
C17	.05	250V		V84C-4S47		PM4S5			2WF-S47
C18	10	10%		NPO-SI 10	TCZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C19	.04				DA-503	H-05S5		TA-150	TG-S50
C20	.04				DA-503	H-05S5		TA-150	TG-S50
C21	5	±.5mmf		NPO-SI 5.0	TCZ-4R7	C10Q5C	CCTO-050	CNO-547	10TCC-V50
C22	.1	150V		V84C-2P1		PM2P1			2WF-P10
C23	.1	150V		V84C-2P1		PM2P1			2WF-P10
C24	.01	250V		V84C-4S1		PM4S1			2WF-S10
C25	.01	250V		V84C-4S1		PM4S1			2WF-S10
C26	.1	150V		V84C-2P1		PM2P1			2WF-P10



**CHASSIS—TOP VIEW**





# PARTS LIST AND DES

## 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 and Switch	2000Ω	8NV-16T1.2				

## 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	910Ω			Note 1	R16	1200Ω			
R3	27K				R17	1800Ω			
R4	12K				R18	18K			
R5	1800Ω				R19	3900Ω			
R6	47K				R20	820Ω			
R7	15K				R21	12Ω			
R8	1800Ω				R22	18K			
R9	820Ω				R23	3300Ω			
R10	22K				R24	5.6Ω			
R11	10K				R25	100K			
R12	4700Ω				R26	220Ω			
R13	22K				R27	82Ω			
R14	1500Ω				R28	150Ω			
R15	4700Ω				R29	1500Ω			

Note 1. Value may be 2200Ω, 4700Ω, 6800Ω, 10K, 15K, 18K, 22K, 27K.  
Value selected so that meter pointer indicates "F" with 6 volts input.

## 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.	
LLA B	MW Loopstick SW Loopstick	AEM-1018-B					
L2	MW Osc.	AO06-A					
L3	SW Osc.	EO08-C					
L4	1st IF Primary	TI-Z0PB					
L5	1st IF Secondary	TI-Z0SB					
L6	2nd IF	TI-Z2B					
L7	3rd IF	TI-Z3B					

## 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	1	BT-5C1			TR-2		

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			MATSUSHITA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.						
T2	200Ω CT	8-8Ω	BT-6EA			TR-15		

# DESCRIPTIONS (Continued)

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MATSUSHITA PART No.	QUAM PART No.	
SP1	3½"	PM	6-8Ω	P-307S		

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MATSUSHITA PART No.	REPLACEMENT DATA
K1 K2	Emitter Bypass Diode RF Filter	.025mfd, 1200Ω (2) .01mfd, 470Ω	CR-22P1. 2KΩJ CR-31P470ΩK	

## BATTERIES

ITEM No.	VOLTAGE	MATSUSHITA PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	1½V	UM-2		130		635		M-14R	4 Required

## MISCELLANEOUS

ITEM No.	PART NAME	MATSUSHITA PART No.	NOTES
M2 M3 M4 M5	Tuning Cap. Switch Switch Meter Antenna Earphone	2KC-31B-13 PY-AG138 SW-C  170-7 EPC1	2 Gang Band Selector Tone (DPDT Slide Type) Tuning Indicator and Battery Life Telescopic, Whip Crystal

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Dial Scale Dial Scale Knob Knob Knob Cabinet	T-22 Dial Panel A T-22 Dial Panel B AT-210T AT-210V T-22B T-22 Cabinet	SW MW Tuning Volume Selector With Back Cover

## WIRING DATA

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