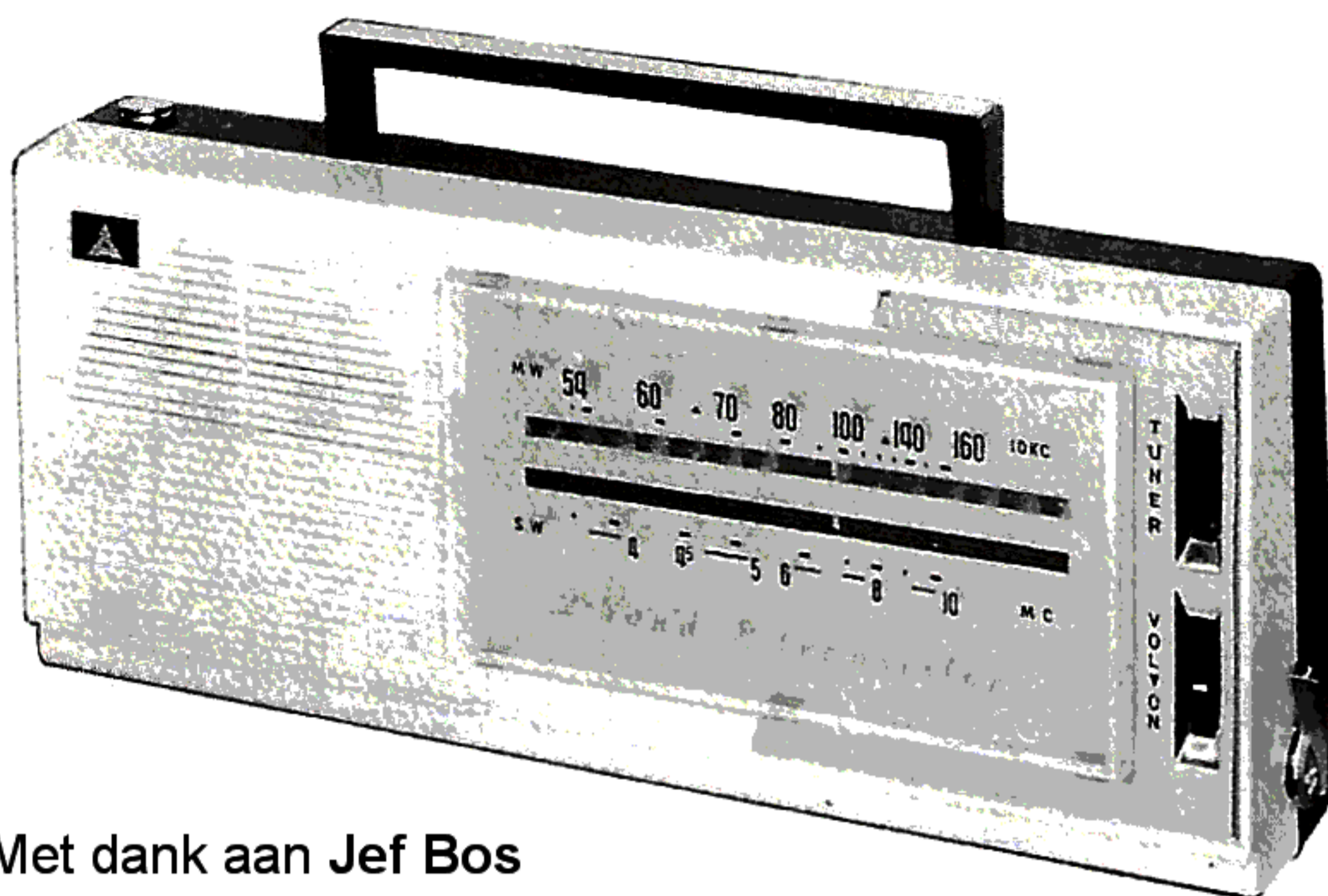


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with CIRCUITRACE®

MATSUSHITA or PANASONIC
MODEL T-70U

Ned. Ver. v. Hi



Met dank aan Jef Bos

TRADE NAME	Matsushita or Panasonic Model T-70U
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
	RATING 10MA@6 Volts DC (No Signal, Min. Volume)
	40MA@6 Volts DC (Signal, Normal Volume)
TUNING RANGE—BROADCAST	540 - 1600KC
SHORT WAVE	3.9 - 10MC

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:

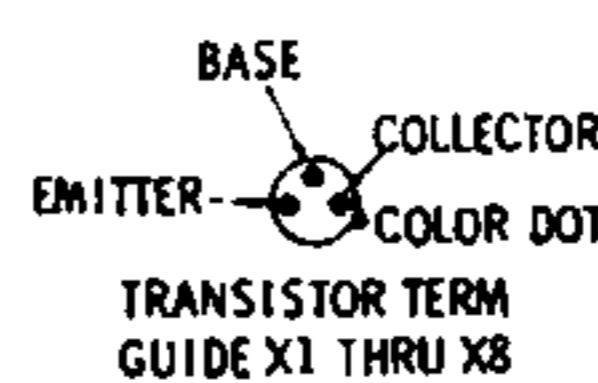
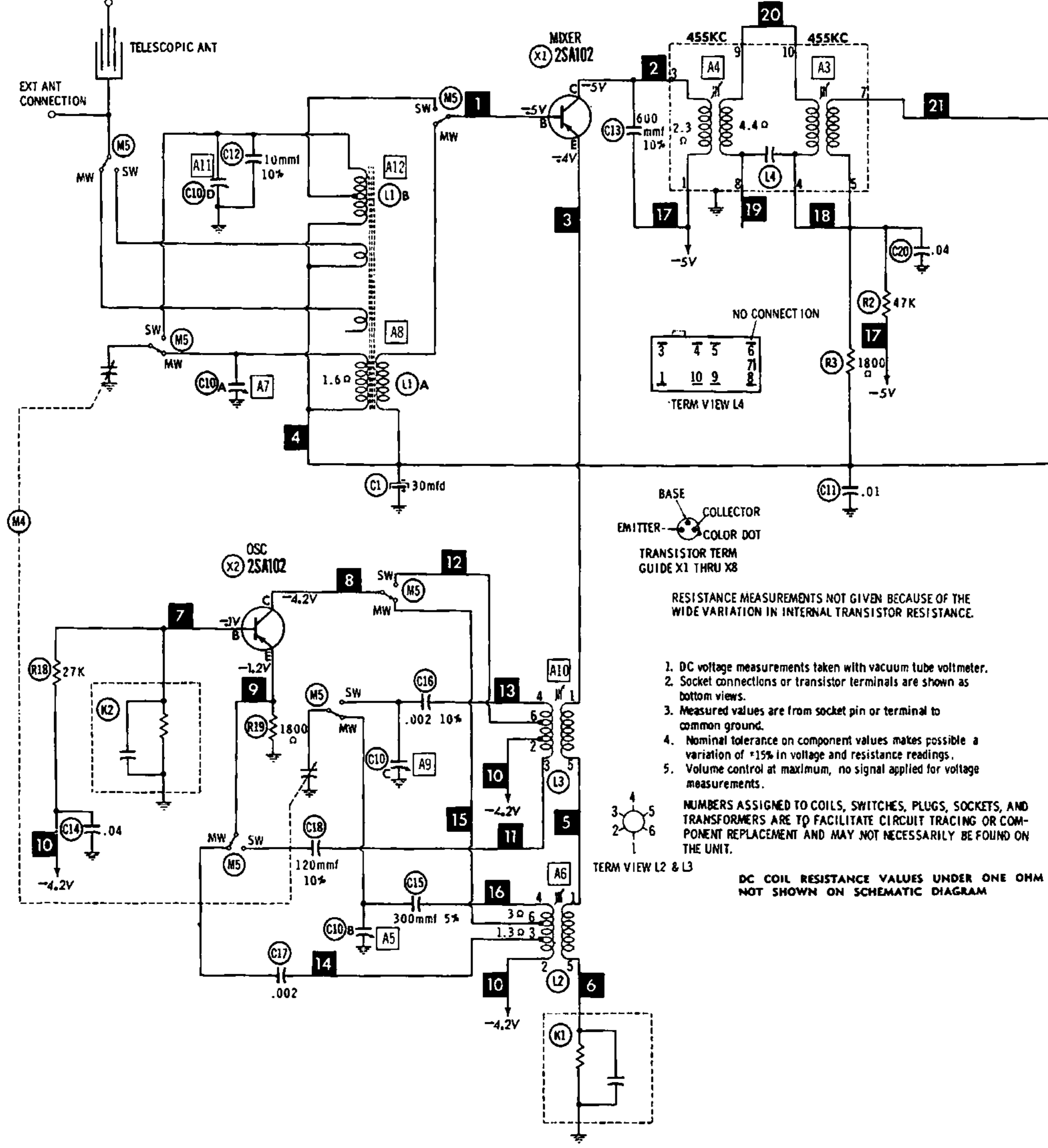
- A1 thru A4..... GENERAL CEMENT #8607, 9291, 9294
WALSCO #2520, 2522, 2523, 2524, 2534, 2537
- A5, A7, A9, A11..... GENERAL CEMENT #5000, 5003, 5068, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528
- A6, A10..... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
WALSCO #2515, 2531, 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.)	(MW) Tuning gang fully closed.	Across voice coll.	A1, A2, A3, A4	Adjust for maximum output.
2.	"	1600KC	1600KC	"	A5	"
3.	"	600KC	600KC	"	A6	Adjust for maximum output while rocking tuning gang.
4.	"	1400KC	1400KC Signal.	"	A7	Adjust for maximum output.
5.	"	600KC	600KC Signal.	"	A8	Adjust for maximum output by moving antenna coil turns along ferrite core. Repeat steps 2 thru 5.
6.	"	10MC	(SW) 10MC	"	A9	Adjust for maximum output.
7.	"	4MC	4MC	"	A10	Adjust for maximum output while rocking tuning gang.
8.	"	10MC	10MC Signal.	"	A11	Adjust for maximum output.
9.	"	4MC	4MC Signal.	"	A12	Adjust for maximum output by moving antenna coil turns along ferrite core. Repeat steps 6 thru 9.

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 LF133

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

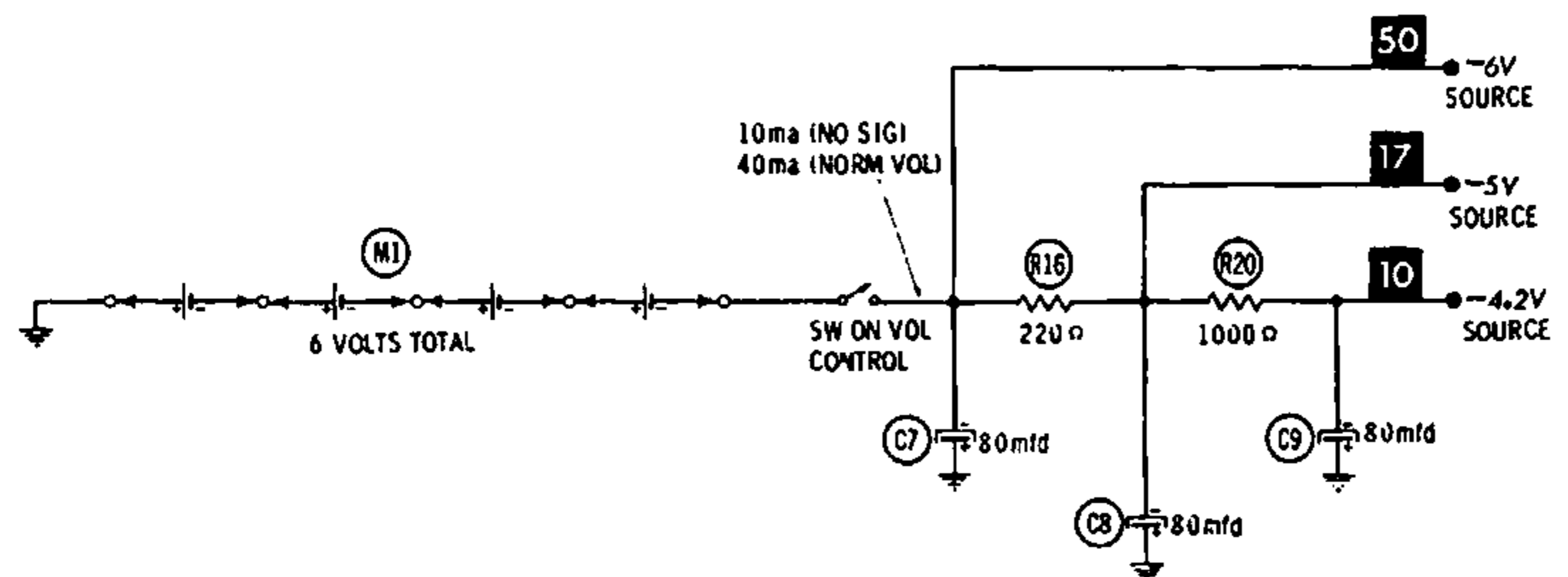


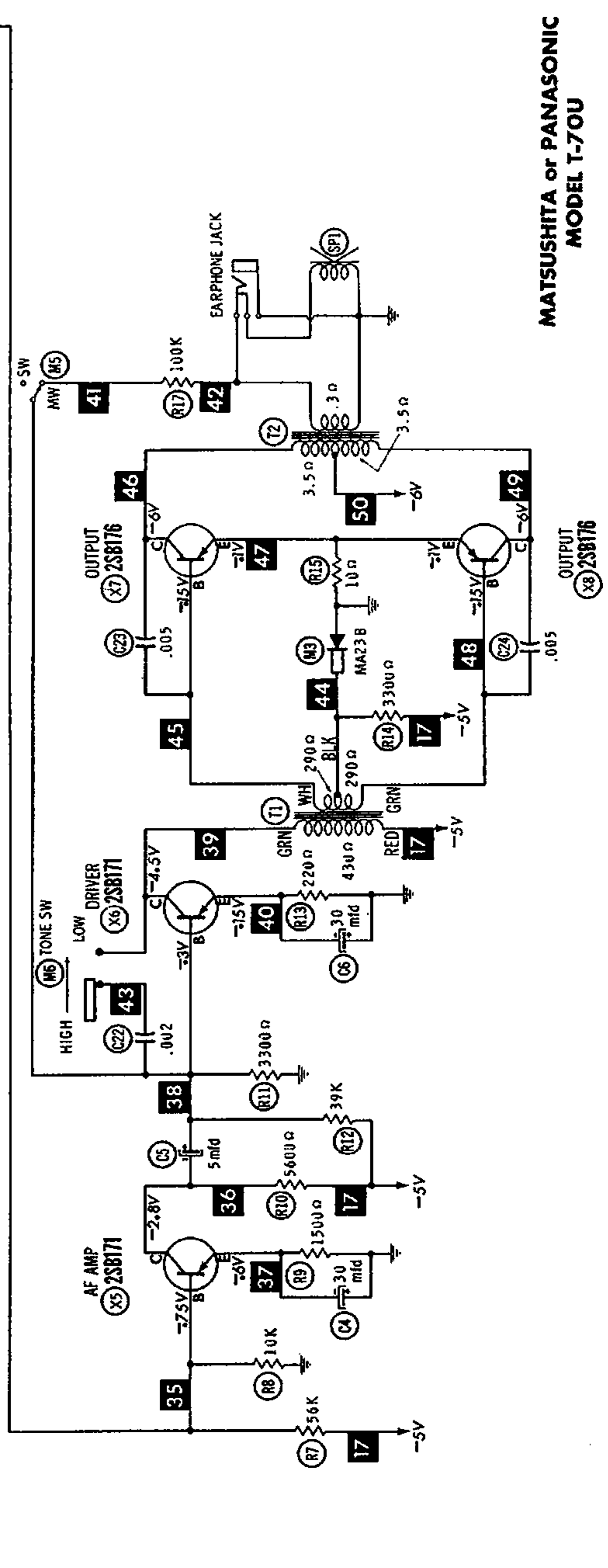
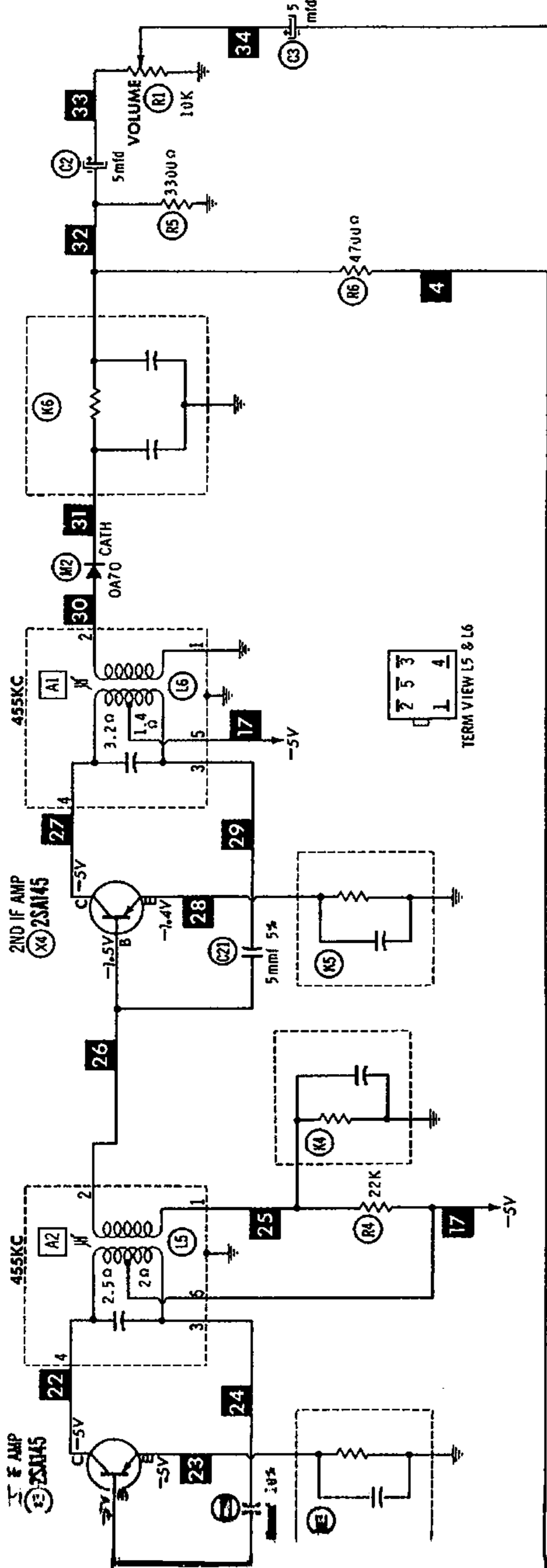
RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

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.

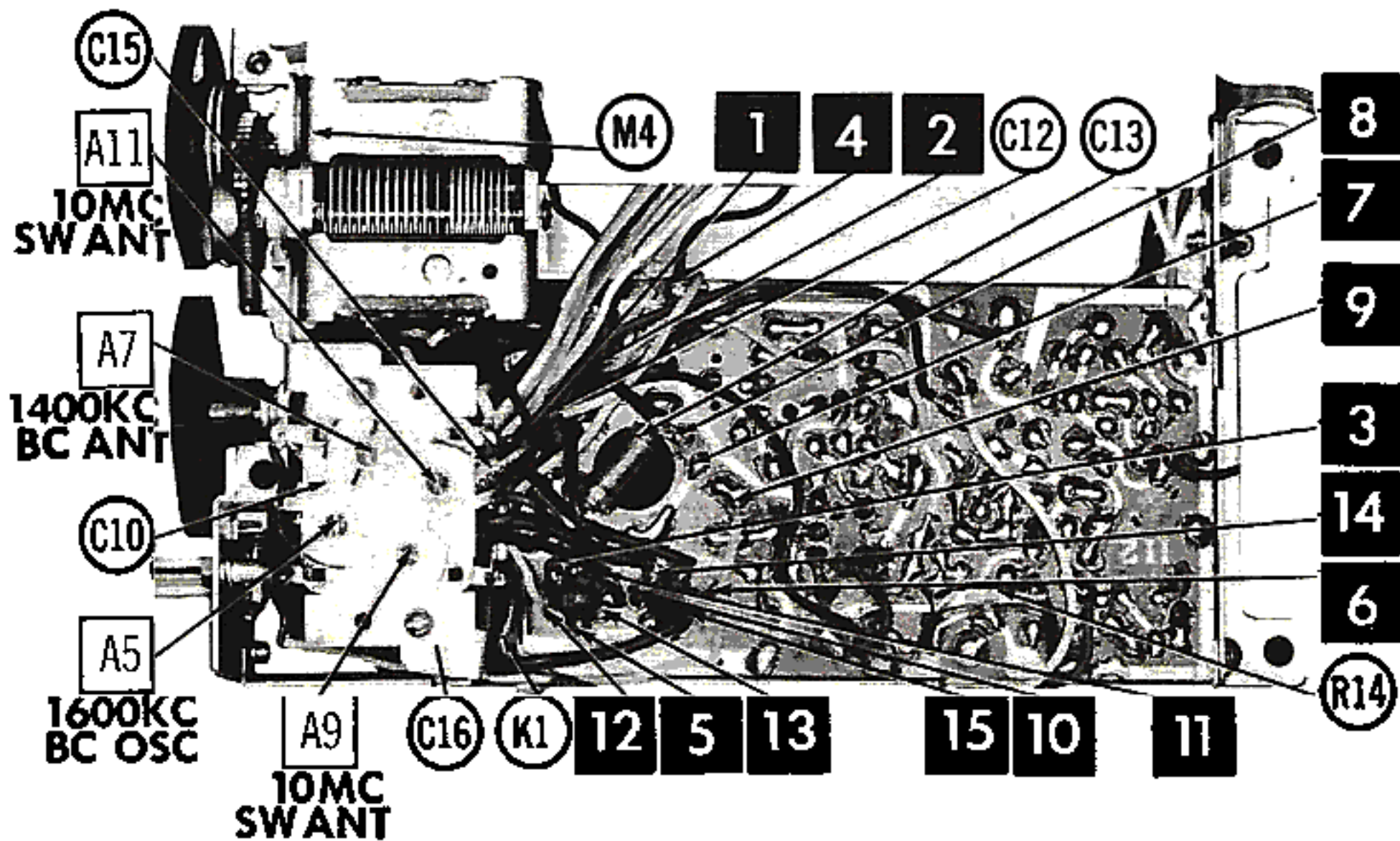
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

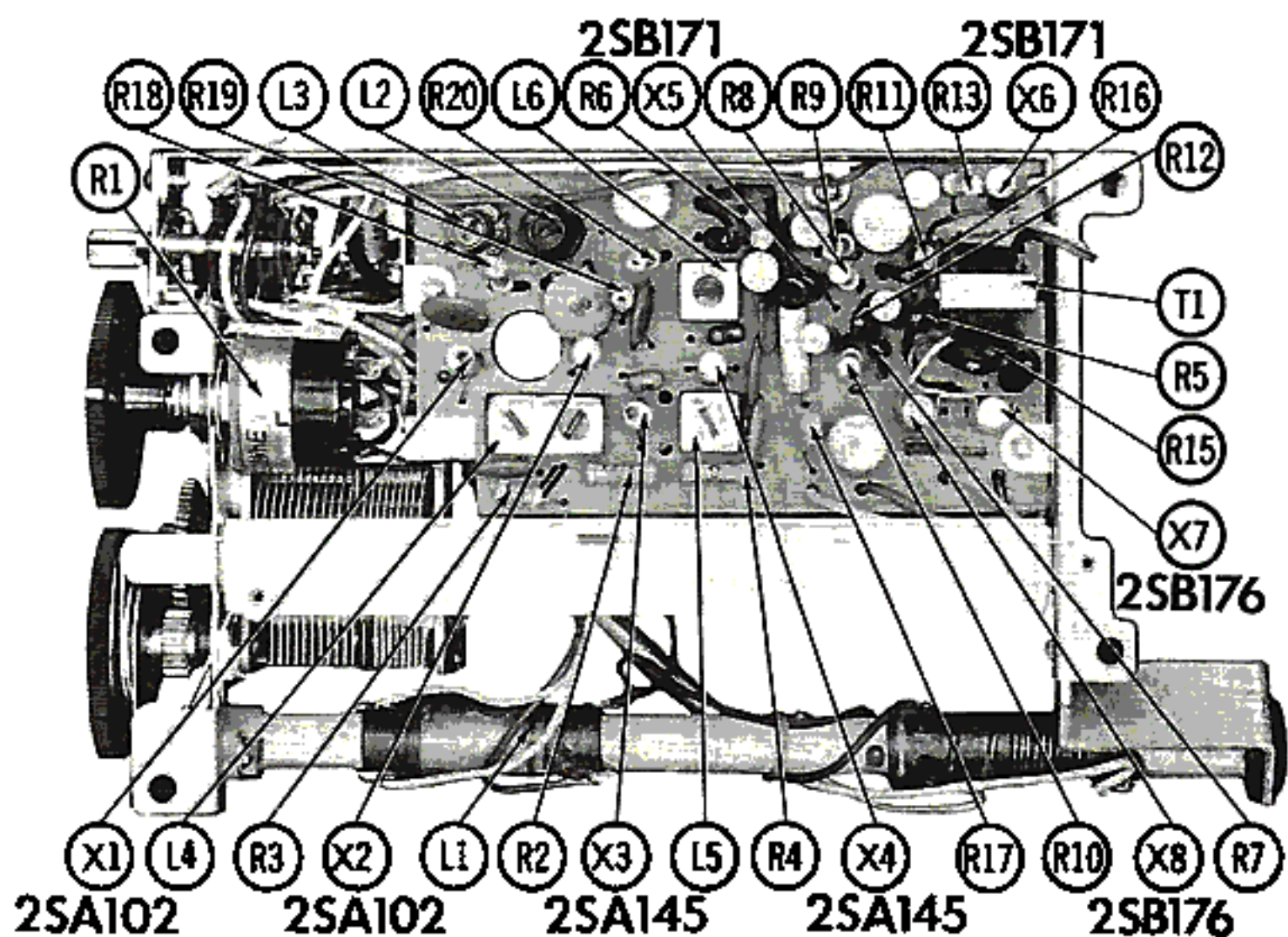
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM



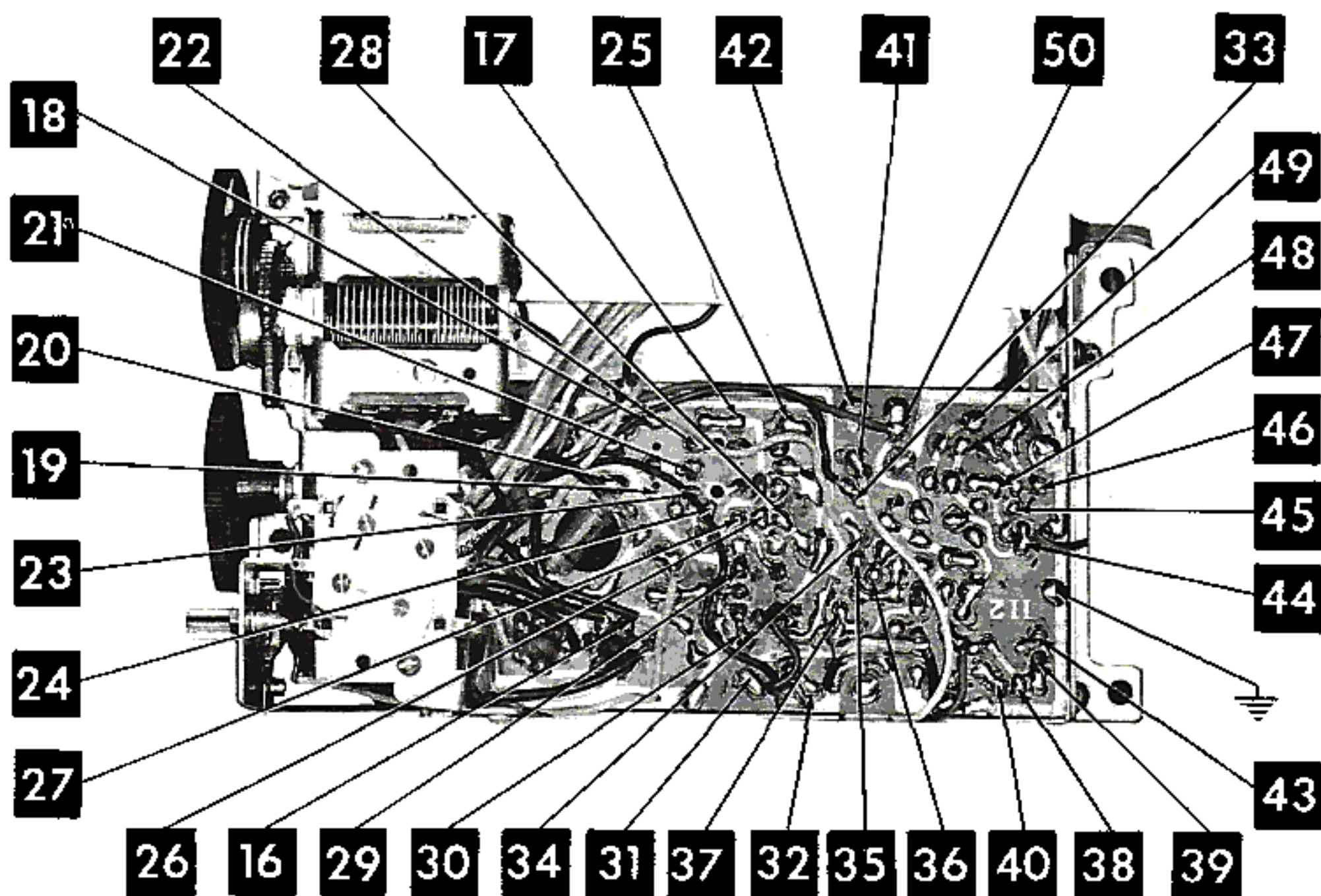


MATSUSHITA or PANASONIC
 MODEL T-70U





CHASSIS TOP VIEW - RESISTOR, INDUCTOR & TRANSISTOR IDENT.



TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	28A102	Mixer	2N1527		PNP
X2	28A102	Oscillator	2N1527		PNP
X3	28A145	1st IF Amplifier			PNP
X4	28A145	2nd IF Amplifier			PNP
X5	2SB171	AF Amplifier	2N406		PNP
X6	2SB171	Driver	2N406		PNP
X7	2SB176	Output	2N408		PNP
X8	2SB176	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	30	3	NPA-3V30	BCD3025	ECPB412	MT1-13	PET130	MLV30-6	VL-1092
C2	5	3	NCT-3V5	PTT4	NLW5-15	MT1-3	TT6X5	MLV5-3	TE-1052.2
C3	5	6	NPA-6V5	BCD6005	ECPB405	MT1-3	PET1535	MLV5-6	VL-1084
C4	30	3	NPA-3V30	BCD3025	ECPB412	MT1-13	PET130	MLV30-6	VL-1092
C5	5	6	NPA-6V5	BCD6005	ECPB405	MT1-3	PET1535	MLV5-6	VL-1084
C6	30	3	NPA-3V30	BCD3025	ECPB412	MT1-13	PET130	MLV30-6	VL-1092
C7	80	6	NPA-6V80	BCD10080	NLW75-10	MT1-18	TT6X80	MLV100-6	TE-1102
C8	80	6	NPA-6V80	BCD10080	NLW75-10	MT1-18	TT6X80	MLV100-6	TE-1102
C9	80	6	NPA-6V80	BCD10080	NLW75-10	MT1-18	TT6X80	MLV100-6	TE-1102

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.
C10A B C D		}						
C11	.01			DDM-103	H-05S1		TA-110	TG-S10
C12	10 10%		NPO-SI 10	TCZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C13	600 10%			D6-601			GP360	10TS-T60
C14	.04			DA-503	H-05S5		TA-150	TG-S50
C15	300 5%			TCZ-300				10TCC-T30
C16	.002 10%					CCD-202	GP220	10TS-D20
C17	.002		BPD-002	DD-202	BYA10D2	CCD-202	GP220	5HK-D20
C18	120 10%		NPO-SI 120	D6-121	L10T12	CCD-121	GP312	10TS-T12
C19	10 10%		NPO-SI 10	TCZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C20	.04			DA-503	H-05S5		TA-150	TG-S50
C21	5 5%		NPO-SI 5	TCZ-4R7	C10V5C		CNO-547	10TCC-V50
C22	.002		BPD-002	DD-202	BYA10D2	CCD-202	GP220	5HK-D20
C23	.005		BPD-005	DM-502	H-05D5	CCD-502	TA-250	TG-D50
C24	.005		BPD-005	DM-502	H-05D5	CCD-502	TA-250	TG-D50

DESCRIPTIONS

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			MATSUBHITA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	10K	BNVK-24H				

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	47K				R12	39K			
R3	1800Ω				R13	220Ω			
R4	22K				R14	3300Ω			
R5	3300Ω				R15	10Ω			
R6	4700Ω				R16	220Ω			
R7	56K				R17	100KΩ			
R8	10K				R18	27K			
R9	1500Ω				R19	1800Ω			
R10	5600Ω				R20	1000Ω			
R11	3300Ω								

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MATSUSHITA PART No.	REPLACEMENT DATA
K1	Mixer Emitter		CR-22PK122	
K2	Osc. Base		CR-22PK103	
K3	IF Emitter		CR-22PJ122	
K4	IF Base		CR-22PJ103	
K5	IF Emitter		CR-22PJ122	
K6	Diode RF Filter		CR-31PM471	

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.	
L1A B	MW Loopstick SW Loopstick	AGM-1018-I					
L2	MW Osc.	AO06-A					
L3	SW Osc.	GO06-C					
L4	1st IF	TRI-10D-2A					
L5	2nd IF	TRI-10-11B					
L6	3rd IF	TRI-10-11D					

PARTS LIST AND DESCRIPTIONS (Continued)

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, 2	1	TIP-21A					

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	3-4Ω	OT-482					

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				MATSUSHITA PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	4"	PM	3-4Ω	P-409RE *	4A07	* Includes T2

BATTERIES

ITEM No.	VOLTAGE	MATSUSHITA PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	1 1/2V	UM-2		130		635		M-14R	4 Required

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		MATSUSHITA PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	
M2 M3	OA70 MA23B			1N60	Detector Output Bias

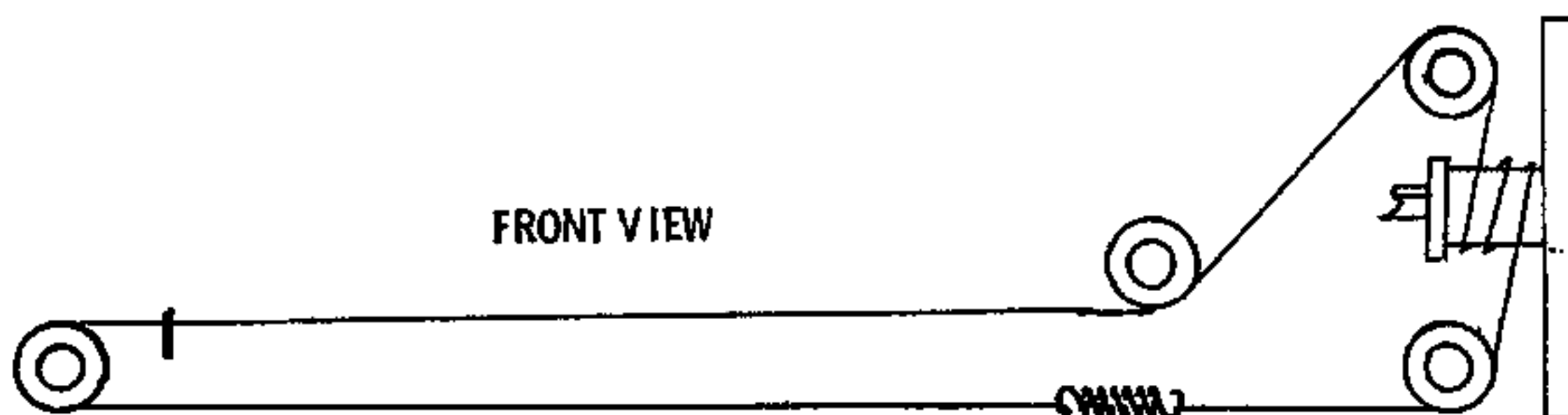
MISCELLANEOUS

ITEM No.	PART NAME	MATSUSHITA PART No.	NOTES
M4 M5 M6	Tuning Cap. Switch Switch		2 Gang Band Selector (Rotary-Wafer) Tone, Hi-Lo (SPDT)

WIRING DATA

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

TUNING KNOB FULLY CLOCKWISE



CHASSIS—TOP VIEW

