

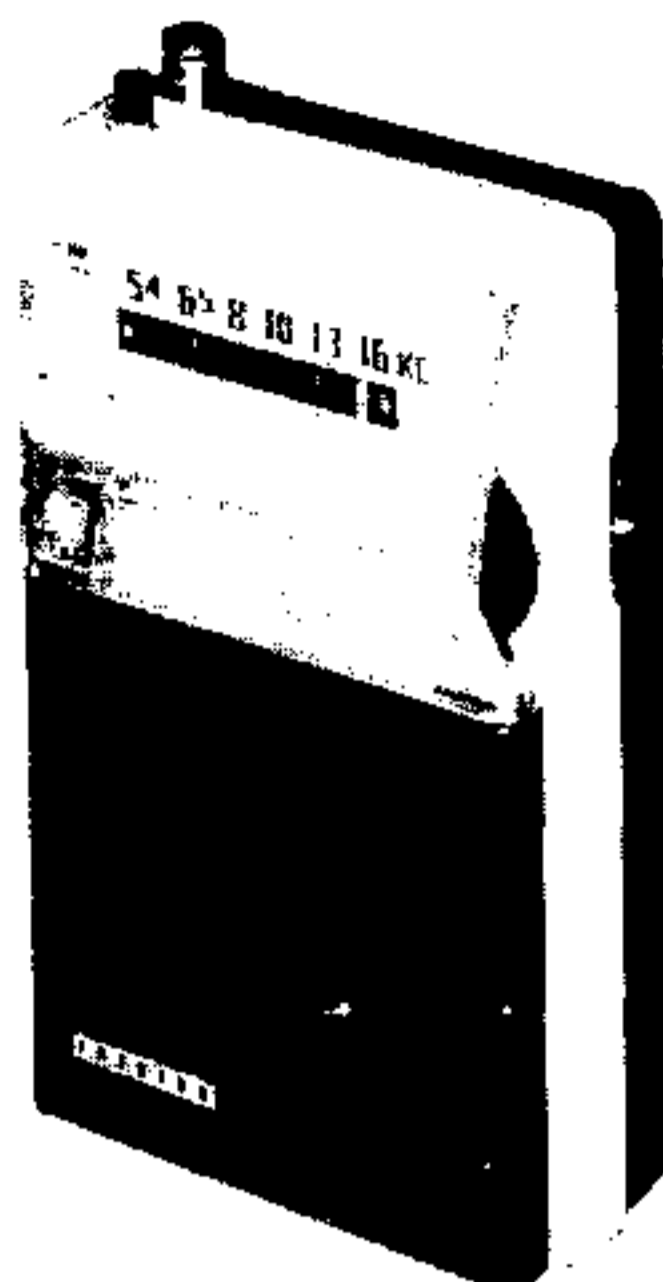
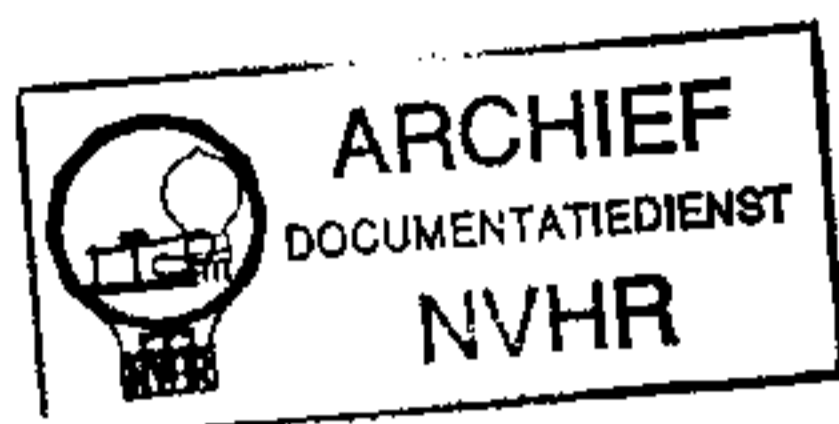
PHOTOFACT® Folder

with CIRCUITRACE®

TOSHIBA  
MODEL 7TP-352S



Ned. Ver. v. Historie v/d Radio



Met dank aan Jef Bos

TRADE NAME	Toshiba Model 7TP-352S		
IMPORTER	Transistor World Corp., 52 Broadway, New York 4, N. Y.		
TYPE SET	Battery Operated Transistorized Portable BC-SW Receiver		
POWER SUPPLY	9 Volts DC	RATING	8MA @ 9 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	530 — 1700KC		10MA @ 9 Volts DC (Signal, Normal Volume)
		SHORT WAVE	3.8 — 12.5 MC

## 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... GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988, 8989, 9291  
 WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538  
 A4..... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989  
 WALSCO #2515, 2531, 2532  
 A5, A7..... GENERAL CEMENT #5000, 5003, 5066, 8271, 8272, 8276, 8277, 8290, 8609, 8722, 9150, 9298  
 WALSCO #2515, 2516, 2518, 2519, 2525, 2541

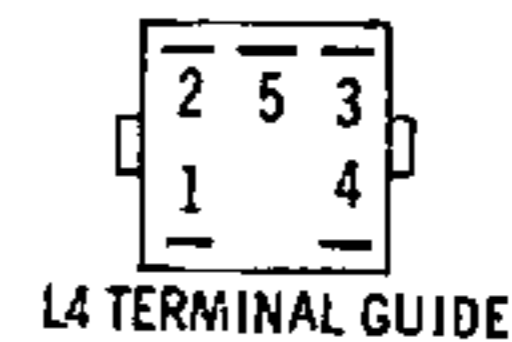
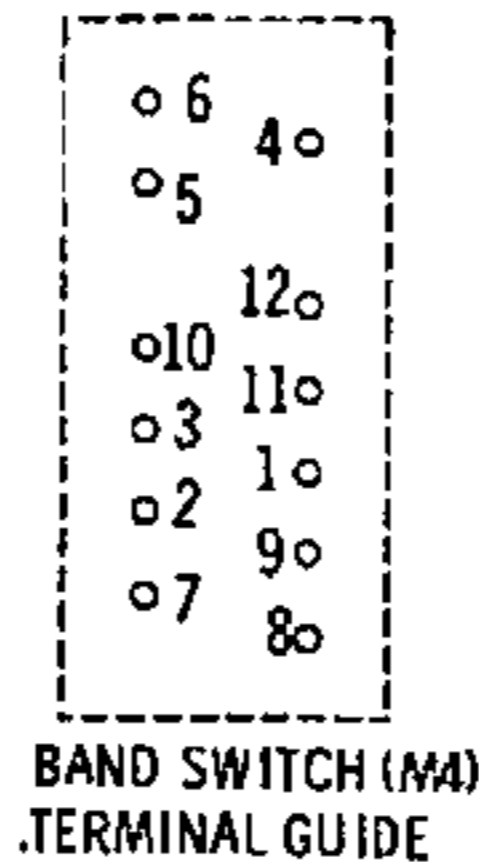
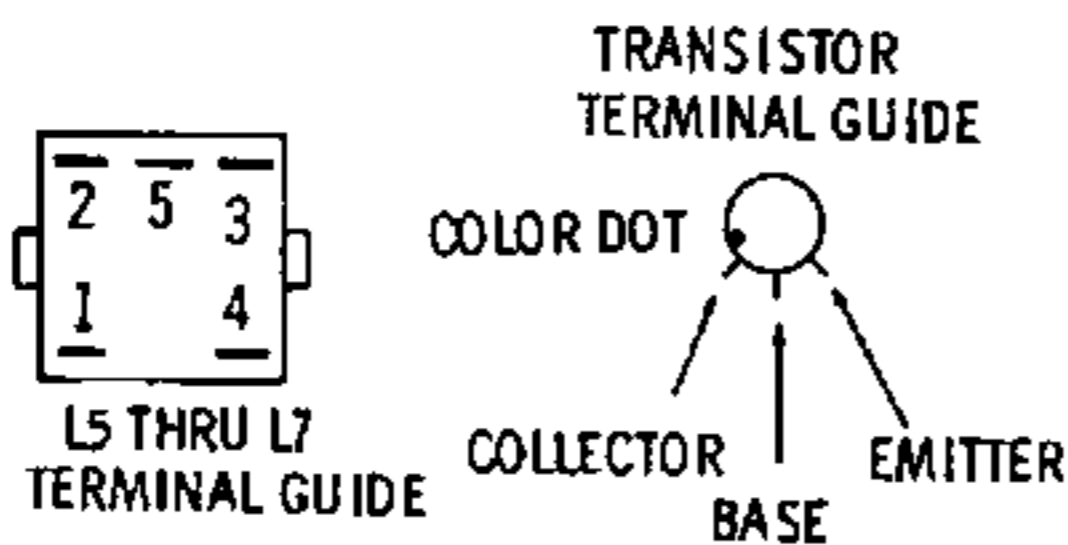
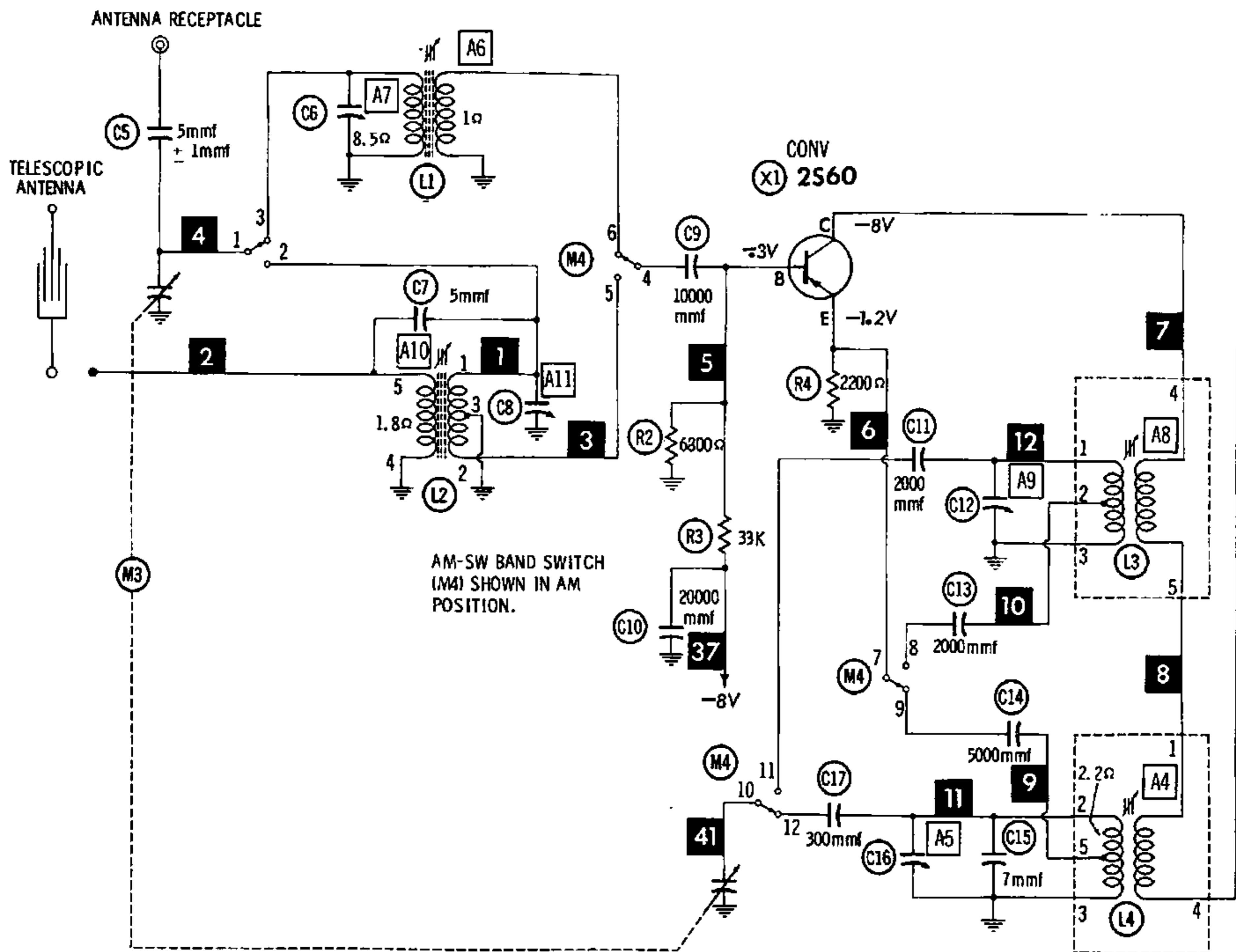
	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Loop	455KC (400% Mod.)	(MW) Tuning gang fully closed.	Across voice coil.	A1, A2, A3	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
2.	"	530KC	"	"	A4	"
3.	"	1700KC	(MW) Tuning gang fully open.	"	A5	Adjust for maximum output. Repeat Steps 2 and 3.
4.	"	600KC	(MW) 600KC Signal.	"	A6	Adjust for maximum output.
5.	"	1400KC	(MW) 1400KC Signal.	"	A7	"
6.	"	3.8MC	(SW) Tuning gang fully closed.	"	A8	"
7.	"	12.5MC	(SW) Tuning gang fully open.	"	A9	Adjust for maximum output. Repeat Steps 6 and 7.
8.	"	4 MC	(SW) 4 MC Signal.	"	A10	Adjust for maximum output.
9.	"	1 MC	(SW) 1 MC Signal.	"	A11	"

HOWARD W. SAM'S & CO., INC. Indianapolis 6, Indiana

The listing of any replacement part does not constitute in any case a 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 furnished for information only to Howard W. Sams & Co., Inc. by the manufacturers of KF089

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. © 1960 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America





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.

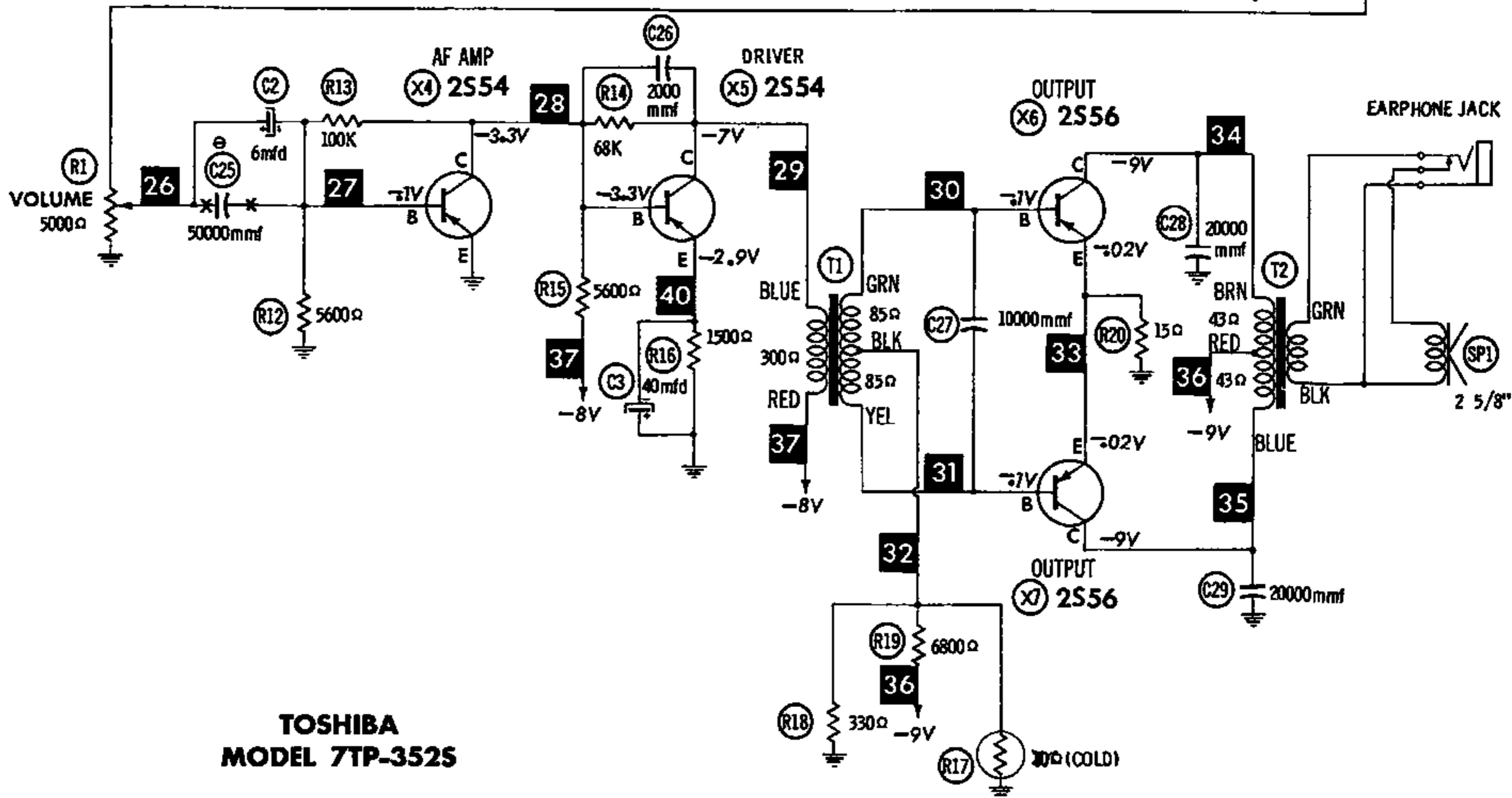
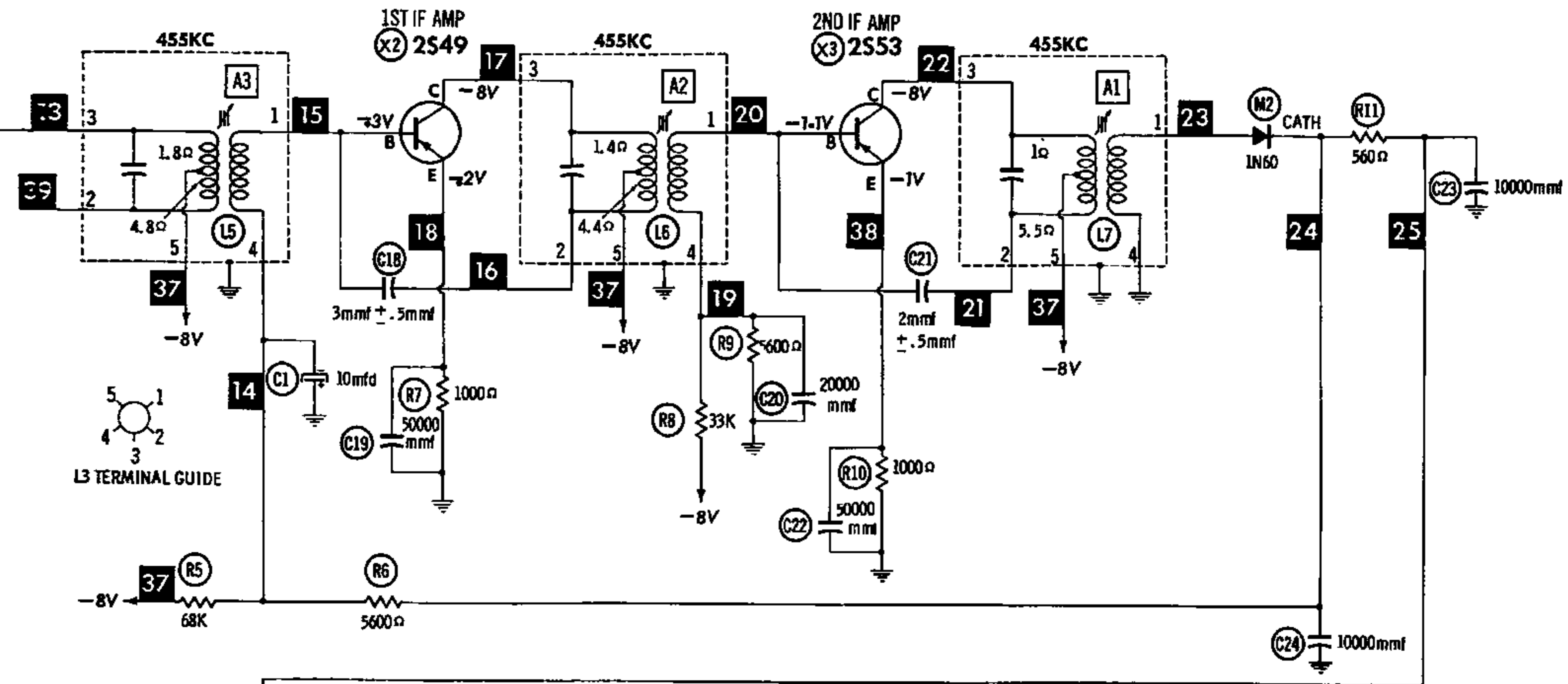
1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections or transistor terminals are shown as bottom views.
3. Measured values are from socket pin or terminal to common ground.
4. Nominal tolerance on component values makes possible a variation of  $\pm 15\%$  in voltage and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

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

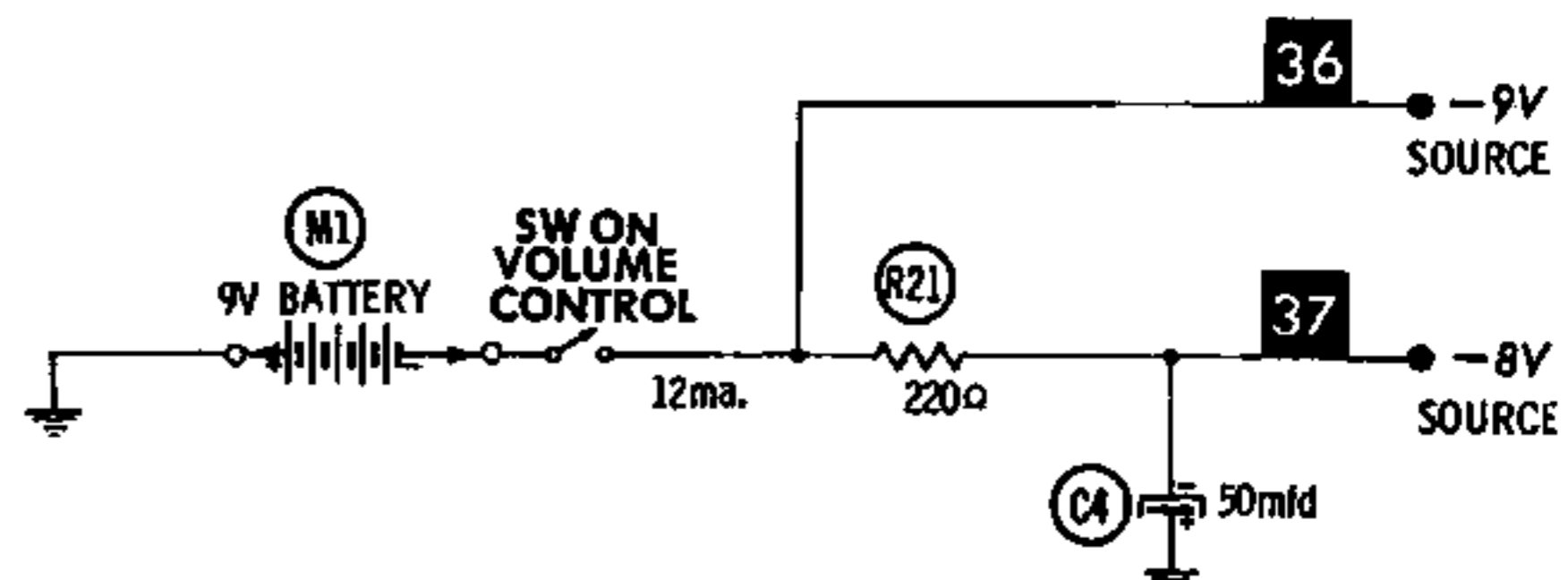
SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

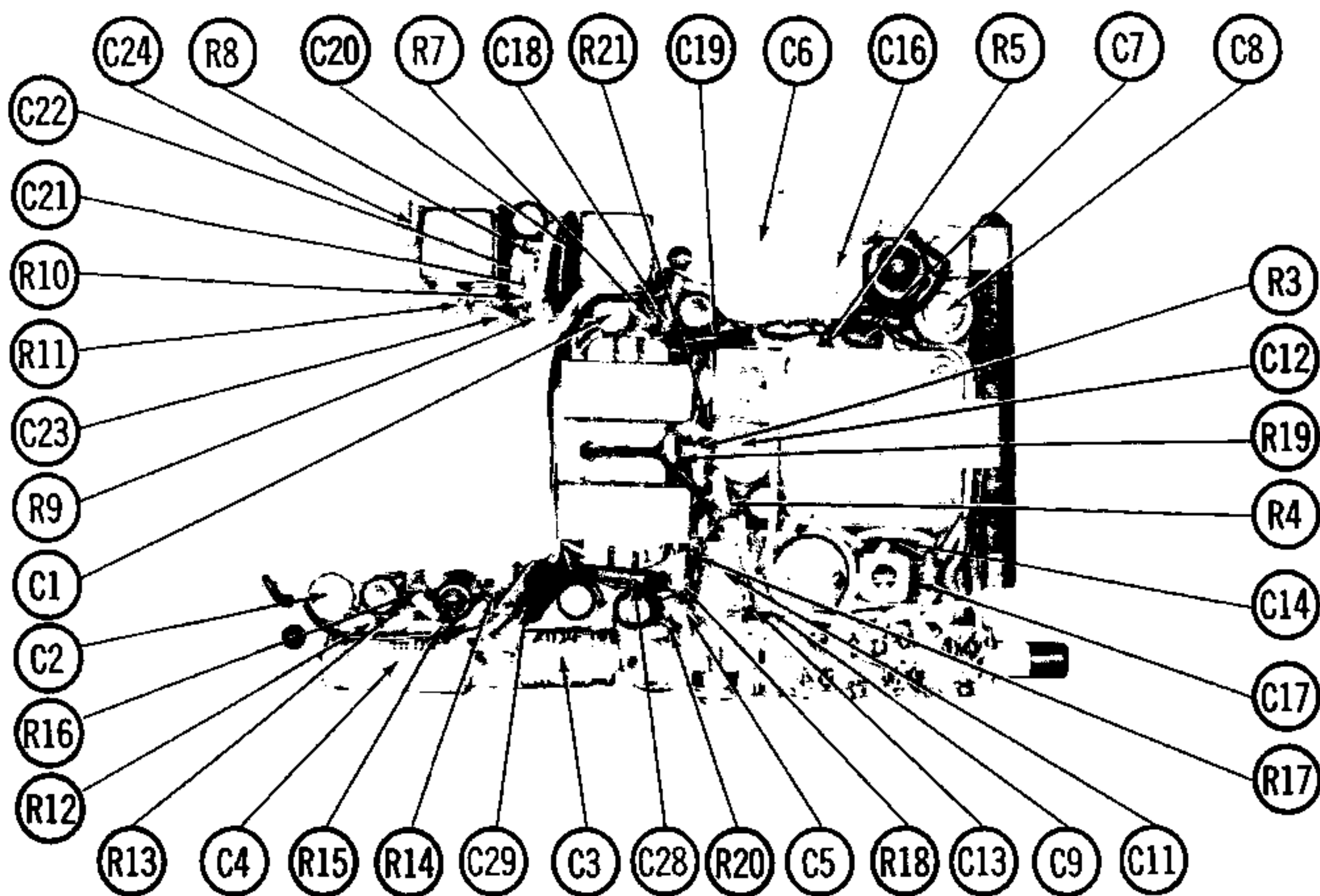
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

A PHOTOFACIT STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**

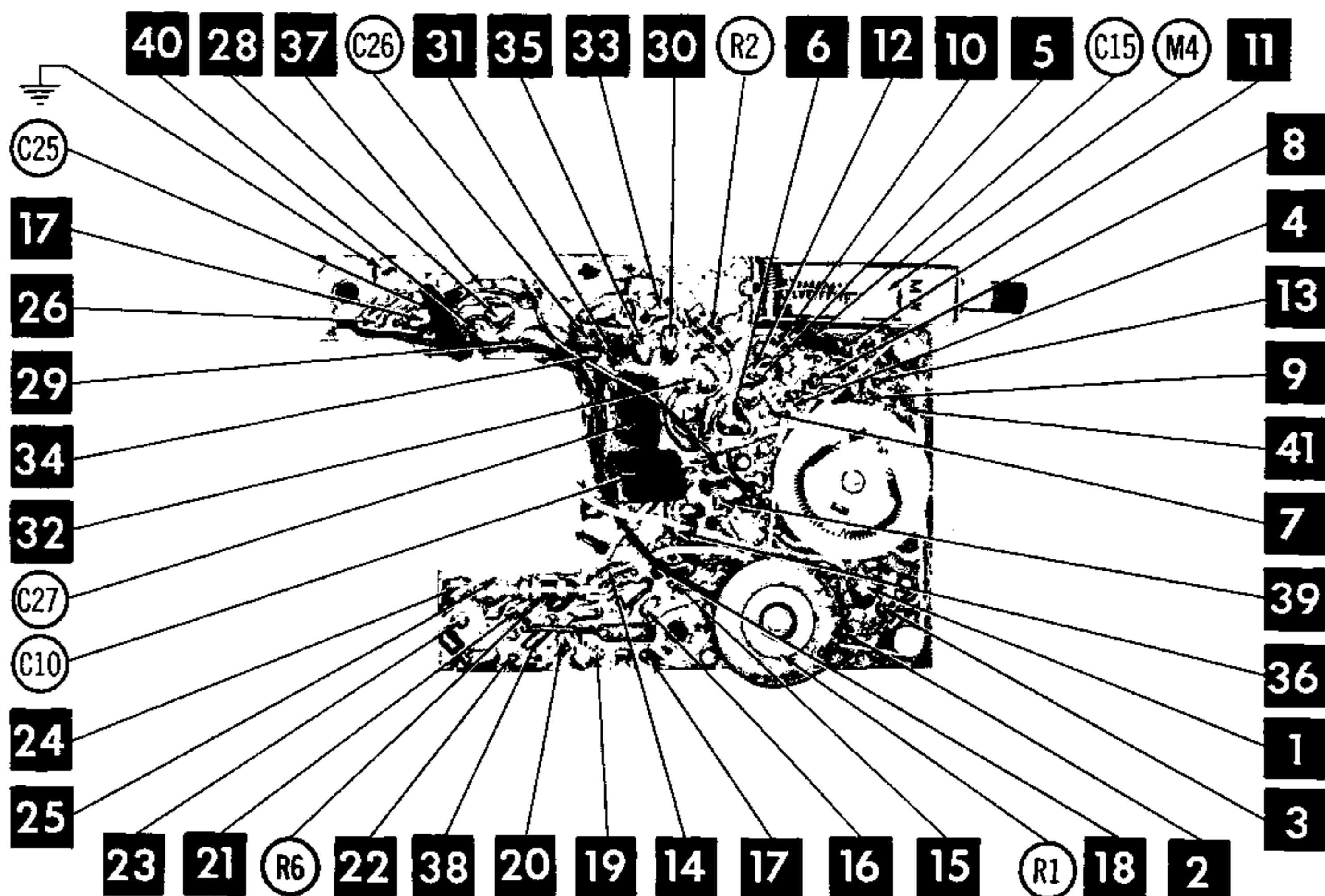


**TOSHIBA  
MODEL 7TP-3525**





CHASSIS TOP VIEW-CAPACITOR AND RESISTOR IDENTIFICATION



PRINTED BOARD

## TRANSISTORS

ITEM No	ORIG TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N410	Converter				PNP
X2	2N410	1st IF Amplifier			2N410	PNP
X3	2N410	2nd IF Amplifier	2N410	2N483	2N410	PNP
X4	2N408	AF Amp.	2N408	2N362	2N408	PNP
X5	2N408	Driver	2N408	2N362	2N408	PNP
X6	2N408	Output	2N408	2N632	2N408	PNP } Matched
X7	2N408	Output	2N408	2N632	2N408	PNP } Pair

## ELECTROLYTIC CAPACITORS

ITEM No	RATING		REPLACEMENT DATA					NOTES
	CAP.	VOLT.	TOSHIBA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C1	10	3		XPP-3010	NLW10-3	TT3X10	ML10-6	TE-1053
C2	6	3		XPP-3006	NLW8-6	TT10X6	ML6-6	TE-1052.3
C3	40	3	3M40E	XPP-3040	NLW40-3	TT3X40	ML40-6	TE-1057
C4	50	10	10M50E	XPP-10050	NLW50-10	TT10X50	ML50-15	TE-1119

## FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic 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 ± 1mmf		NPO-DI 5	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C6								
C7	5		NPO-DI 5	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C8								
C9	10000		C80V103AM	DDM-103	H-05S1		TA-110	TG-S10
C10	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C11	2000		SI 2000	DM-202	BYA10D2	CCD-202	B-220	5HK-D20
C12								
C13	2000		SI 2000	DM-202	BYA10D2	CCD-202	B-220	5HK-D20
C14	5000		C80V502AM	DDM-502	H-05D5	CCD-502	TA-250	TG-D50
C15	7		NPO-DI 6.8	DTZ-6R8	C10V7C	CCTO-6R8	CNO-568	10TCC-V6.8
C16								
C17	300		SI 300	DM-301	L10T3	CCD-301	GP330	10TS-T30
C18	3 + .5mmf		NPO-DI 3.3	DTZ-3R3	C10V3C	CCTO-3R3	CNO-533	10TCC-V33
C19	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-150
C20	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-120
C21	2 + .5mmf		NPO-DI 2.2	DTZ-2R2	C10V2C	CCTO-2R2	CNO-522	10TCC-V22
C22	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C23	10000		C80V103AM	DDM-103	H-05S1		TA-110	TG-S10
C24	10000		C80V103AM	DDM-103	H-05S1		TA-110	TG-S10
C25	50000	Note 1	C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C26	2000		BPD-002	DM-202	BYA10D2	CCD-202	B-220	5HK-D20

# D DESCRIPTIONS

## FIXED CAPACITORS (cont)

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.
C27	10000		C80V103AM	DDM-103	H-05S1		TA-110	TG-S10
C28	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C29	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20

Note 1. Not used in some versions.

## CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	TOSHIBA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.		MALLORY PART No.
R1	5000Ω	1/4	4057IT	B16-214				Volume & Switch

## RESISTORS (IRC or EQUIVALENT)

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R2	6800Ω		R9	5600Ω		R16	1500Ω	#M-8601
R3	33K		R10	1000Ω		R17	10Ω Cold	
R4	2200Ω		R11	560Ω		R18	330Ω	
R5	68K		R12	5600Ω		R19	6800Ω	
R6	5600Ω		R13	100K		R20	15Ω	
R7	1000Ω		R14	68K		R21	220Ω	
R8	33K		R15	5600Ω				

# Toshiba Part Number.

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		TOSHIBA PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	SW Ant. Trans.	LH-211				
L2	Loopstick	LH-212				
L3	SW Osc. Coil	LH-158				
L4	BC Osc. Coil	LH-153				
L5	1st IF Trans.	IT-1038				
L6	2nd IF Trans.	IT-1039				
L7	3rd IF Trans.	IT-1040				

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.	TOSHIBA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	1.7	1	DT-0617					

# PARTS LIST AND DESCRIPTIONS (Continued)

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES	
			TOSHIBA PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordorson PART No.		Triad PART No.
	PRI.	SEC.							
T2	250Ω CT	8-10Ω	MT-0679						

### SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				TOSHIBA PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	2 5/8"	PM	8-10Ω			

### BATTERIES

ITEM No.	VOLTAGE	TOSHIBA PART No.	REPLACEMENT DATA				NOTES		
			BURGESS		EVEREADY			MALLORY	
			"A"	"B"	"A"	"B"		"A"	"B"
M1	9V	R008	P-6						

### CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		TOSHIBA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	1N60		1N60	1N60	Detector (Pigtail)

### MISCELLANEOUS

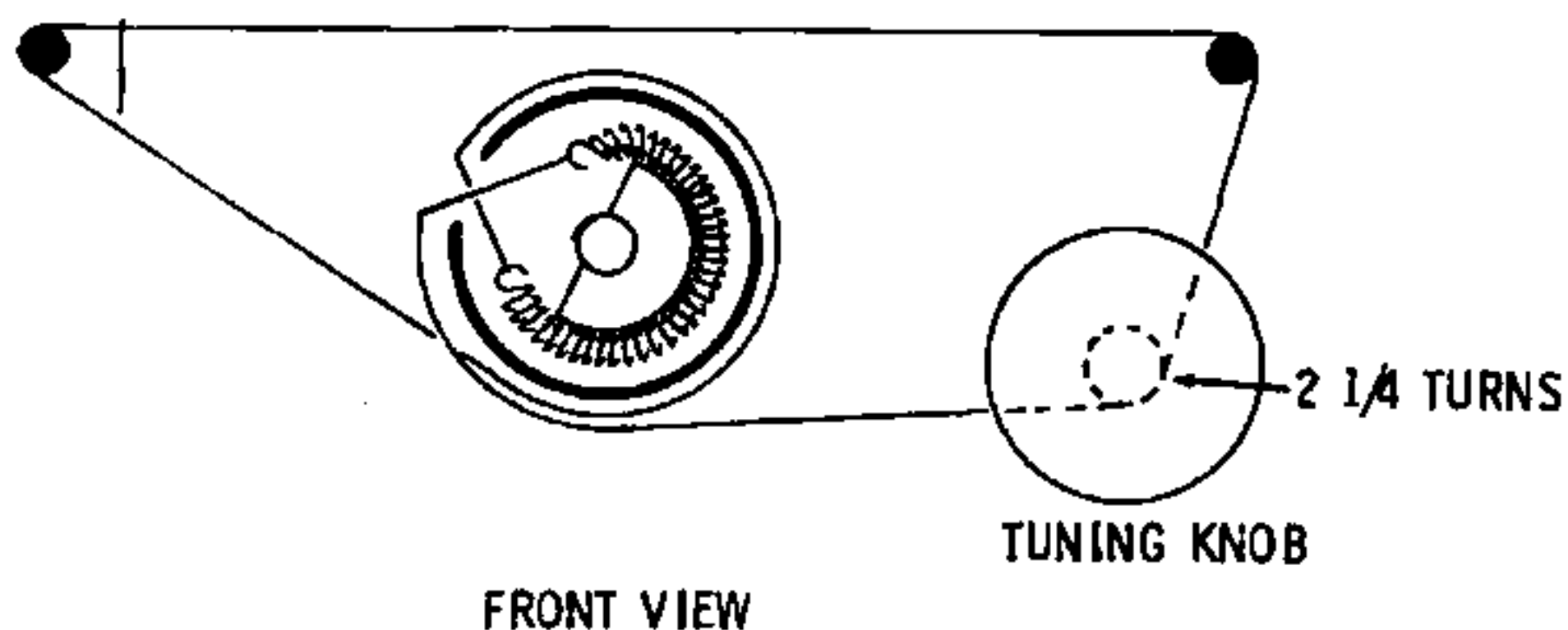
ITEM No.	PART NAME	TOSHIBA PART No.	NOTES
M3 M4	Tuning Cap. Switch		2 Gang Band

### WIRING DATA

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

## DIAL CORD STRINGING

TUNING GANG FULLY COUNTER CLOCKWISE



**CHASSIS—TOP VIEW**

