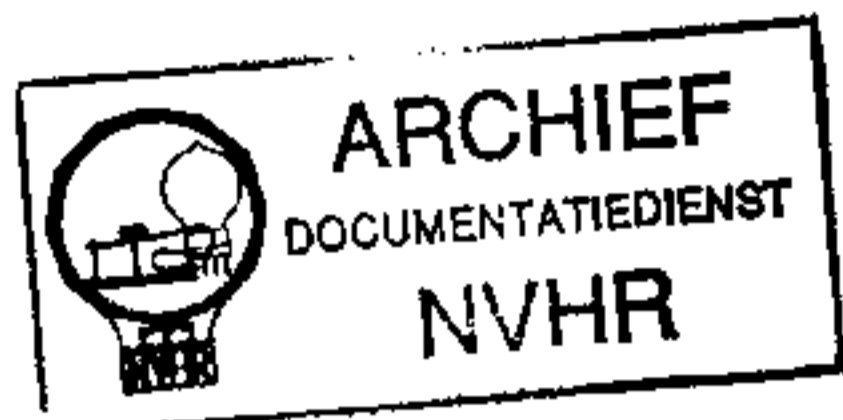
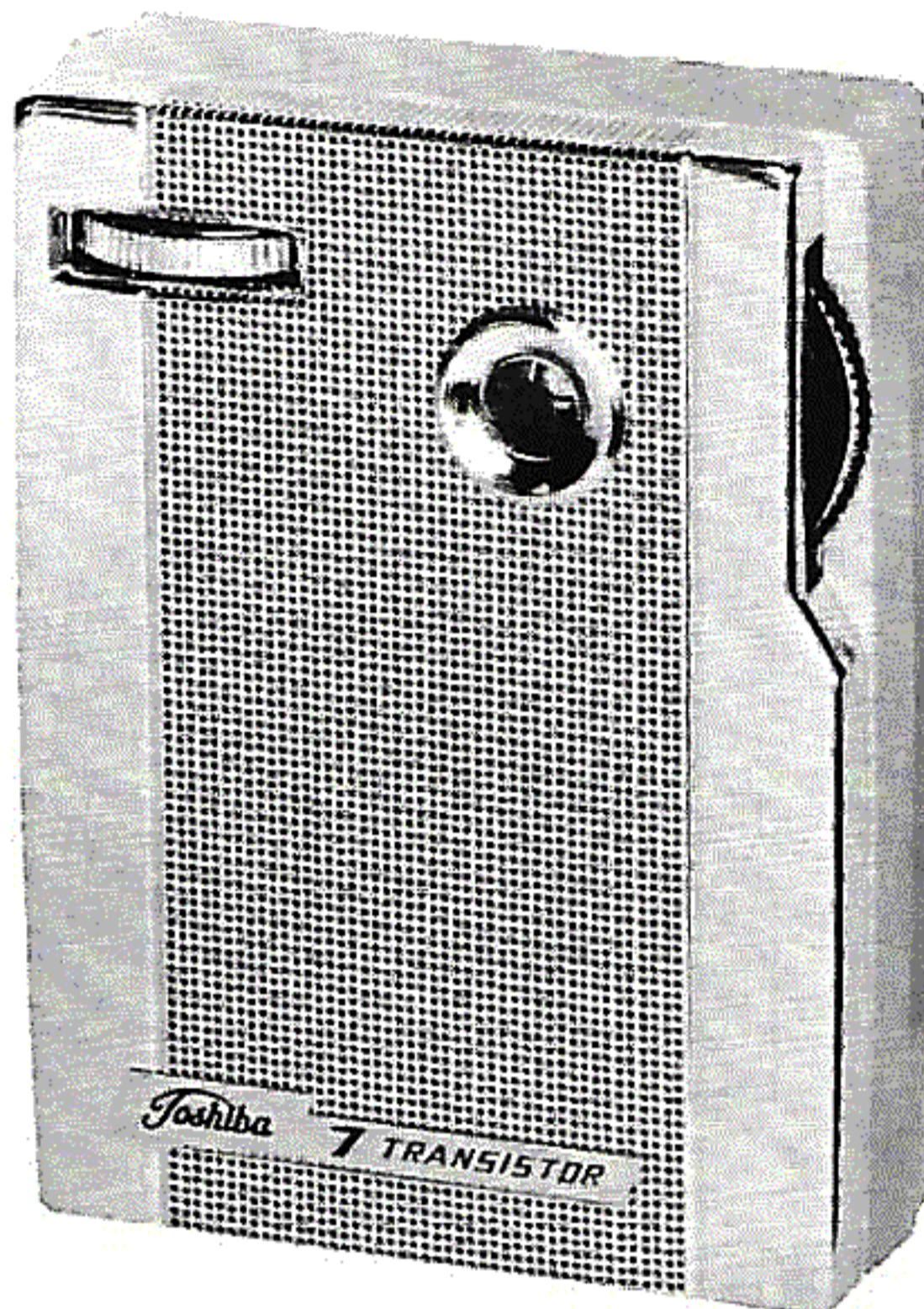




Ned. Ver. v. Historie v/d Radio



Met dank aan Jef Bos



TRADE NAME	Toshiba Model 7TP-21		
IMPORTER	Transistor World Corp., 513 W. 24th Street, New York 11, N. Y.		
TYPE SET	DC Operated 7 Transistor Portable AM Receiver		
POWER SUPPLY	3 Volt DC	RATING	10MA @ 3 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	540 — 1600KC		18MA @ 3 Volts DC (Signal, Normal Volume)

## ALIGNMENT INSTRUCTIONS

### ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use only enough generator output to provide a usable indication.

Suggested Alignment Tools:

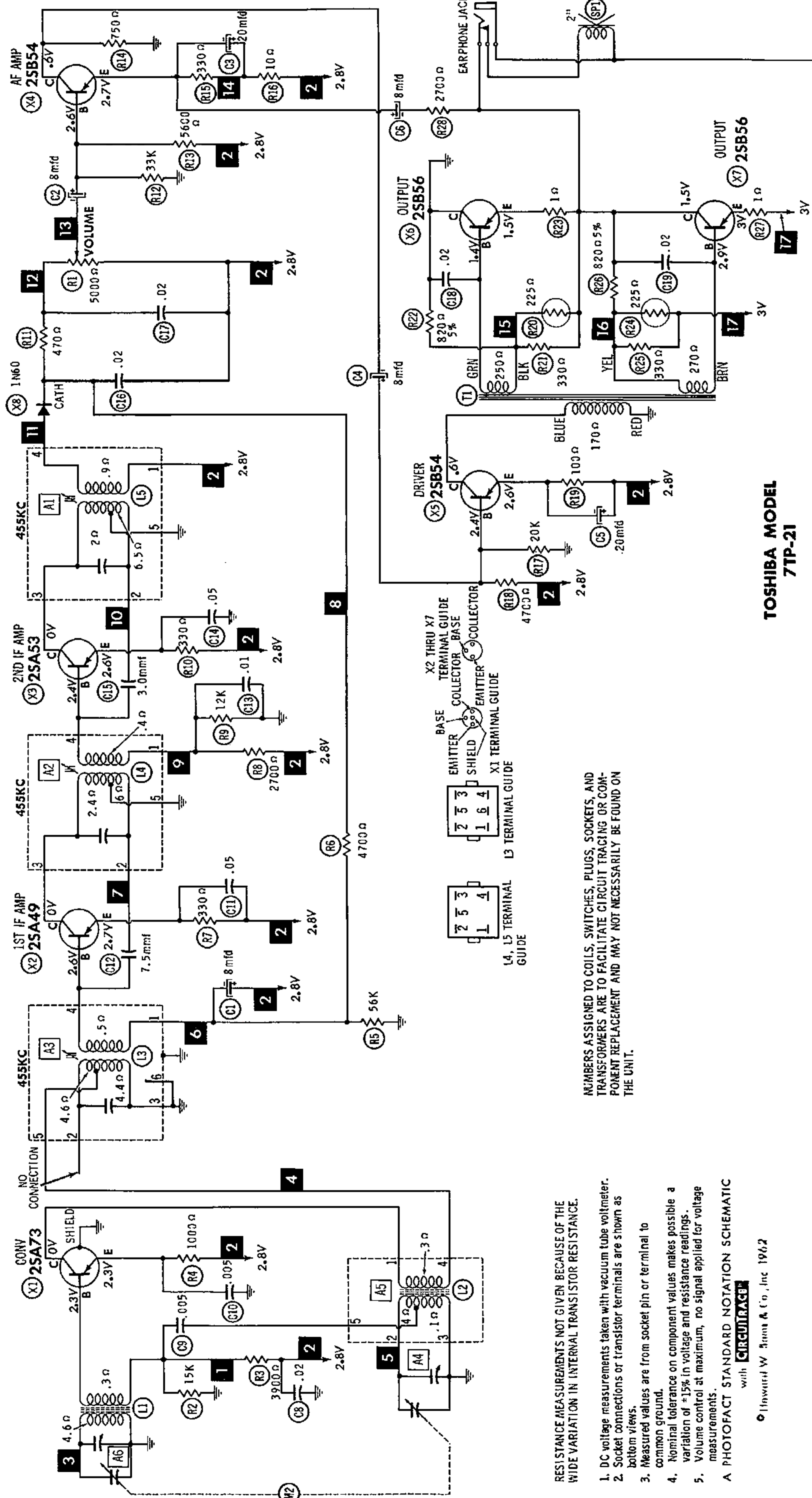
- A1, A2, A3, A5..... GENERAL CEMENT #8282, 8606, 8606-L, 9091  
WALSCO #2526, 2541, 2542, 2543, 2544
- A4, A6..... GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089  
WALSCO #2512, 2525, 2528

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455KC (Unmod.)	Tuning gang fully open.	DC VTVM across volume control.	A1, A2, A3	Adjust for maximum deflection.
2.	"	1800KC	"	"	A4	"
3.	"	540KC	Tuning gang fully closed.	"	A5	Adjust for maximum deflection while rocking tuning gang. Repeat Steps 2 & 3.
4.	"	1500KC	1500KC	"	A6	Adjust for maximum deflection.

### 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 LF600

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



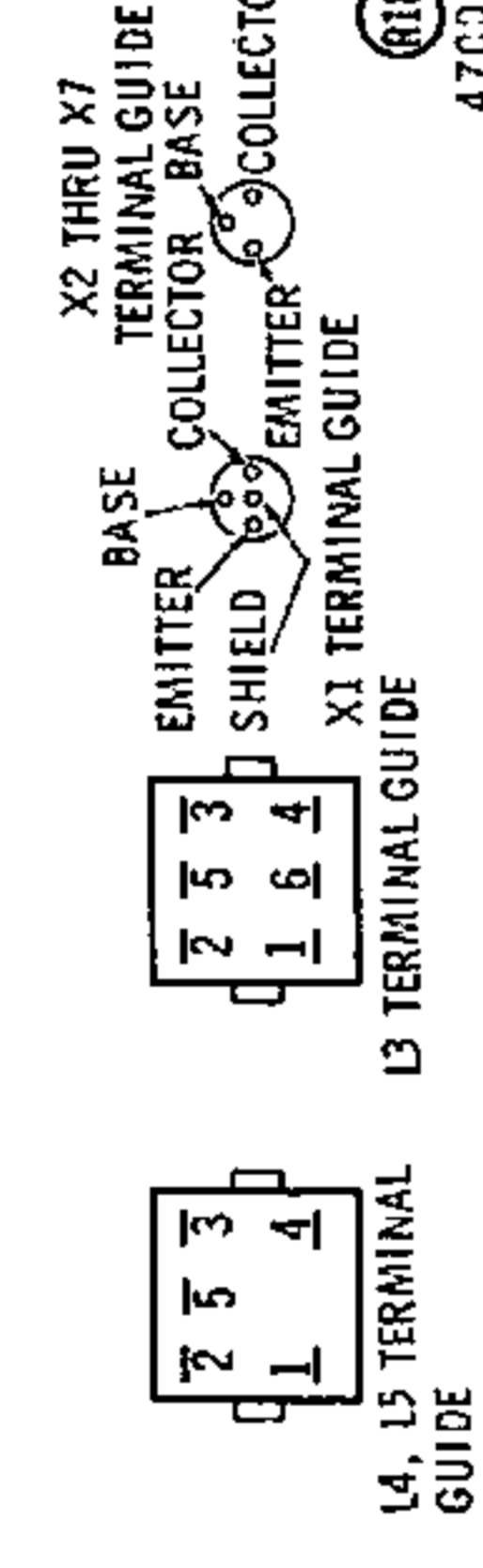
**TOSHIBA MODEL 7TP-21**

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

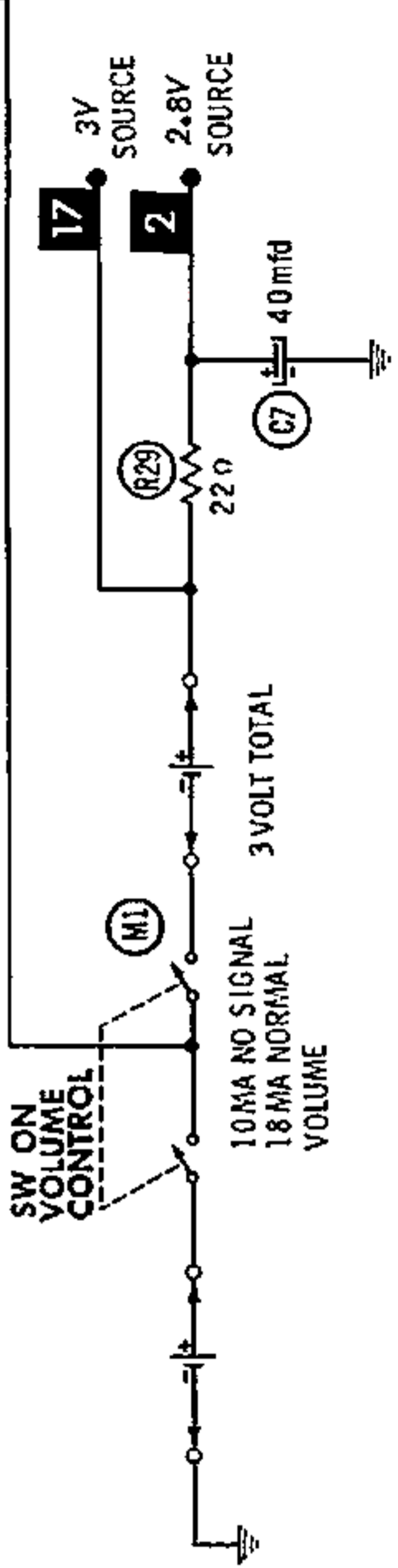
1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections or transistor terminals are shown as bottom views.
3. Measured values are from socket pin or terminal to common ground.
4. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance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

A PHOTOFAC STANDARD NOTATION SCHEMATIC with **CIRCUITAGE**

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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.



# PARTS LIST AND DESCRIPTIONS

## WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8530 (Solid 22AWG) Available in 12 Colors  
 8524 (Stranded 22AWG)  
 8570 (Stranded 28AWG)

### TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			GENERAL ELECTRIC PART No.	RCA PART No.	RAYTHEON PART No.	
X1	2SA73	Converter	GE-1		2N486	PNP
X2	2SA49	1st IF Amplifier	GE-1		2N483	PNP
X3	2SA53	2nd IF Amplifier	GE-1		2N483	PNP
X4	2SB54	AF Amplifier	GE-2	2N406	2N362	PNP
X5	2SB54	Driver	GE-2		2N362	PNP
X6	2SB56	Output	GE-2	2N408	2N632	PNP
X7	2SB56	Output	GE-2	2N408	2N632	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.	RAYTHEON PART No.	
X8		1N80			1N60	Detector

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	TOSHIBA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	8	3		CRE206			TT3X10		TE-1052.5
C2	8	3		CRE208			TT3X10		TE-1052.5
C3	20	3		CRE211					
C4	8	3		CRE208			TT3X10		TE-1052.5
C5	20	3		CRE211					
C6	8	3		CRE208			TT3X10		TE-1052.5
C7	40	3							

### 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.
C8	.02		C80V203AM	DDM-203	H-05S2	CCD-203	TA-120	TG-S20
C9	.005		C80V502AM	DM-502	H-05D5	CCD-502	TA-250	TG-D50
C10	.005		C80V502AM	DM-502	H-05D5	CCD-502	TA-250	TG-D50
C11	.05		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C12	7.5			DD-7R5				10TS-V75
C13	.01		C80V103AM	DM-103	H-05SI	CCD-103	TA-110	TG-S10
C14	.05		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C15	3.0		DI-3.3	DD-3R3	L10V33	CCTO-3R3	GP533	10TS-V33
C16	.02		C80V203AM	DDM-203	H-05S2	CCD-203	TA-120	TG-S20
C17	.02		C80V203AM	DDM-203	H-05S2	CCD-203	TA-120	TG-S20
C18	.02		C80V203AM	DDM-203	H-05S2	CCD-203	TA-120	TG-S20
C19	.02		C80V203AM	DDM-203	H-05S2	CCD-203	TA-120	TG-S20

### CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			TOSHIBA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	5000Ω					



# PARTS LIST AND DESCRIPTIONS (Continued)

## 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 PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R2	15K				R16	10Ω			
R3	3900Ω				R17	20K			
R4	1000Ω				R18	4700Ω			
R5	56K				R19	100Ω			
R6	4700Ω				R20	225Ω			Thermistor
R7	330Ω				R21	330Ω			
R8	2700Ω				R22	820Ω 5%			
R9	12K				R23	1Ω			
R10	330Ω				R24	225Ω			Thermistor
R11	470Ω				R25	330Ω 5%			
R12	33K				R26	820Ω 5%			
R13	5600Ω				R27	1Ω			
R14	750Ω				R28	2700Ω			
R15	330Ω				R29	22Ω			

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		TOSHIBA PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman PART No.	
L1	Loopstick						
L2	Oscillator						
L3	1st IF						
L4	2nd IF						
L5	3rd IF		BC-571				

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.1	TOSHIBA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
		SEC.2						
TI	1	1.5						
		1.5						

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	TOSHIBA PART No.	QUAM PART No.	
SP1	2"	PM	8-8Ω	2002A		

## BATTERIES

ITEM No.	VOLTAGE	TOSHIBA PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
MI	1½V	UM-3		930		1015		M-15R	2 Required

## MISCELLANEOUS

ITEM No.	PART NAME	TOSHIBA PART No.	NOTES
MI	Loopstick		

**CHASSIS—TOP VIEW**

