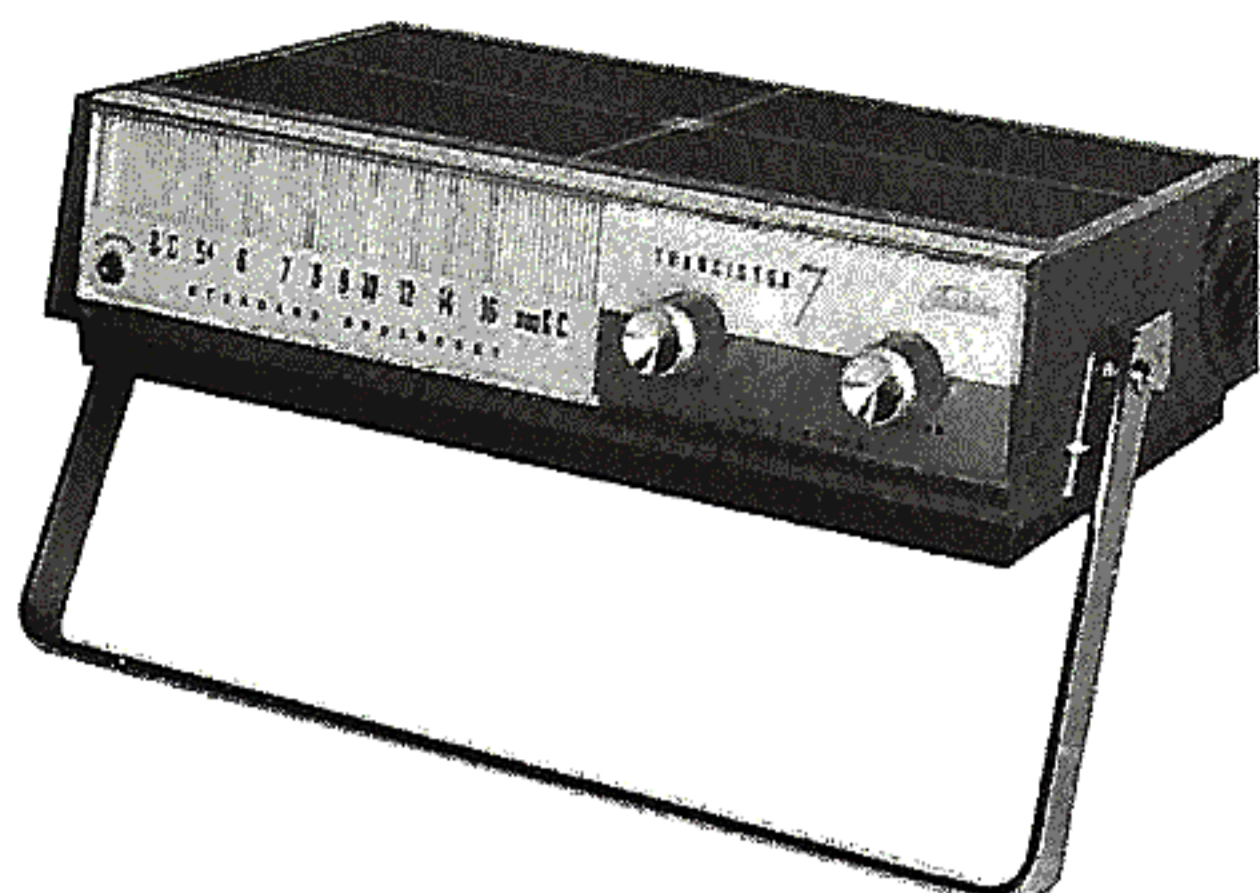




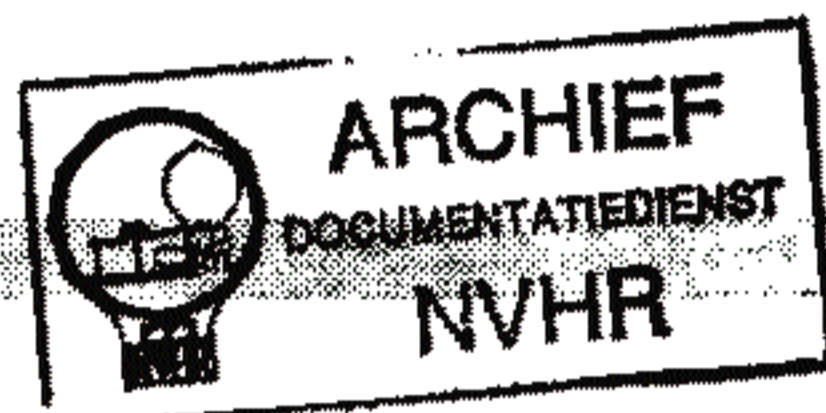
PHOTOFACT® with

CIRCUITRACE®



TRADE NAME : Toshiba Model 7TH-513A
 SUPPLIER : Transistor World Corp.
 513 W. 24th Street, New York 11, N. Y.
 TYPE SET : 7 Transistor AM Receiver
 POWER SUPPLY : 6 Volts DC
 RATING : 10MA @ 6VDC (No Signal, Min. Volume)
 30MA @ 6VDC (Signal, Normal Volume)
 TUNING RANGE : BROADCAST 540 - 1620KC

Ned. Ver. v. Historie v/d

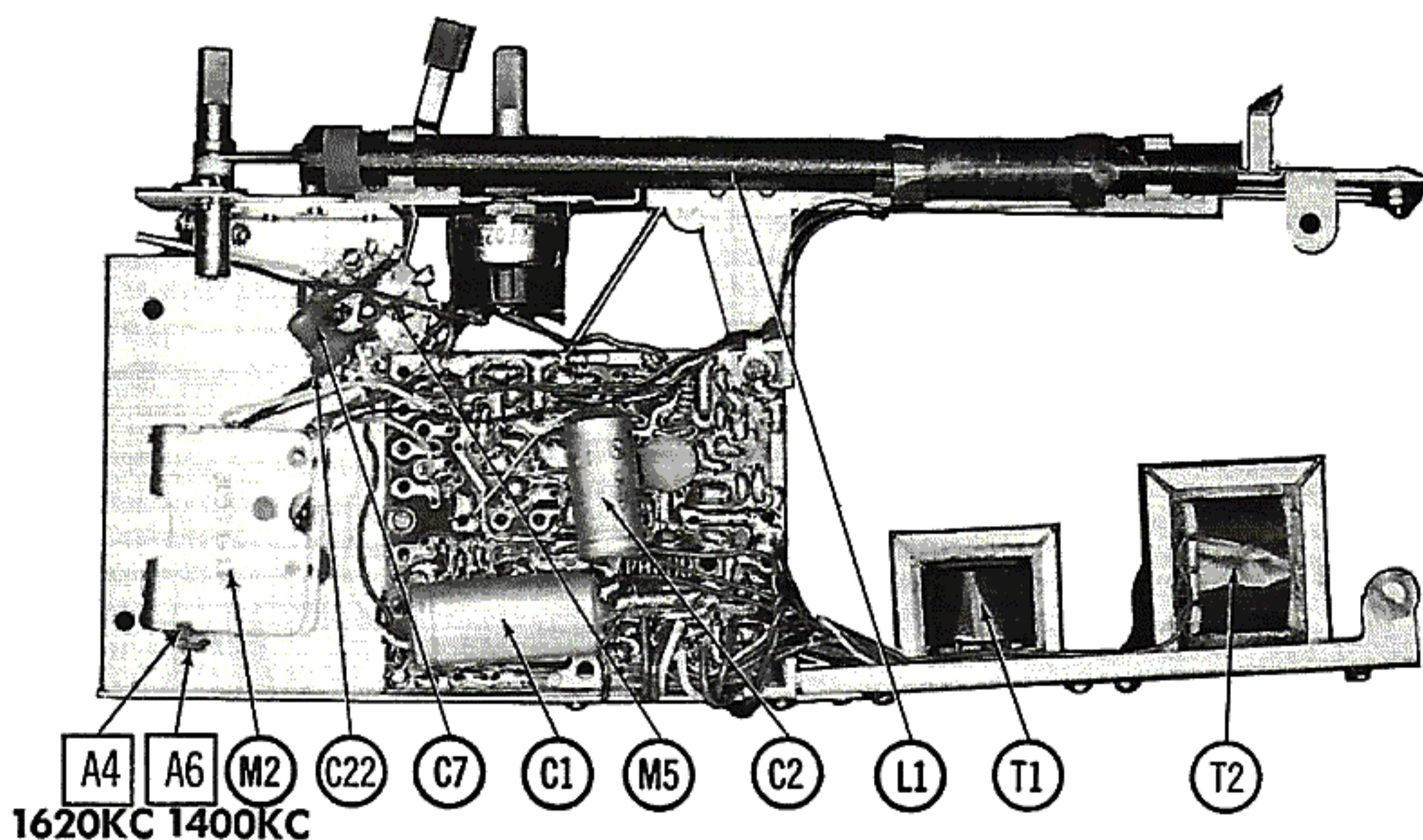


ALIGNMENT INSTRUCTIONS

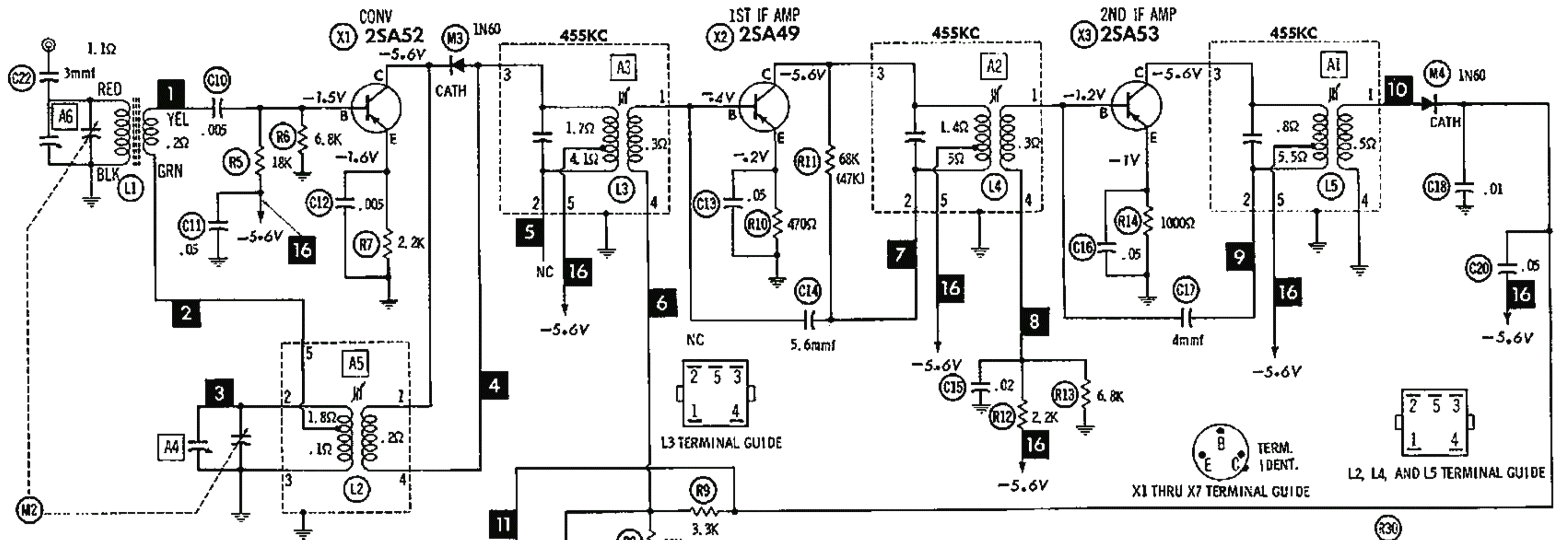
Check for specified source voltage.
 Fashion loop of several turns of wire and connect generator across loop.
 Adjust output of generator to radiate only enough signal into receiver to obtain a suitable indication.
 Suggested Alignment Tools:

- A1, A2, A3, A5.....GENERAL CEMENT #8275, 8282
 WALSCO #2526
- A4, A6.....GENERAL CEMENT #5000, 5066, 8290
 WALSCO #2512, 2525, 2528

SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1. 455KC (400% Mod.)	Tuning gang fully open.	Output Meter across voice coil.	A1, A2, A3	Adjust for maximum. Repeat as required.
2. 1620KC	"	"	A4	Adjust for maximum.
3. 600KC	Tune to Signal.	"	A5	Rock tuning gang and adjust for maximum. Repeat steps 2 and 3.
4. 1400KC	"	"	A6	Adjust for maximum.

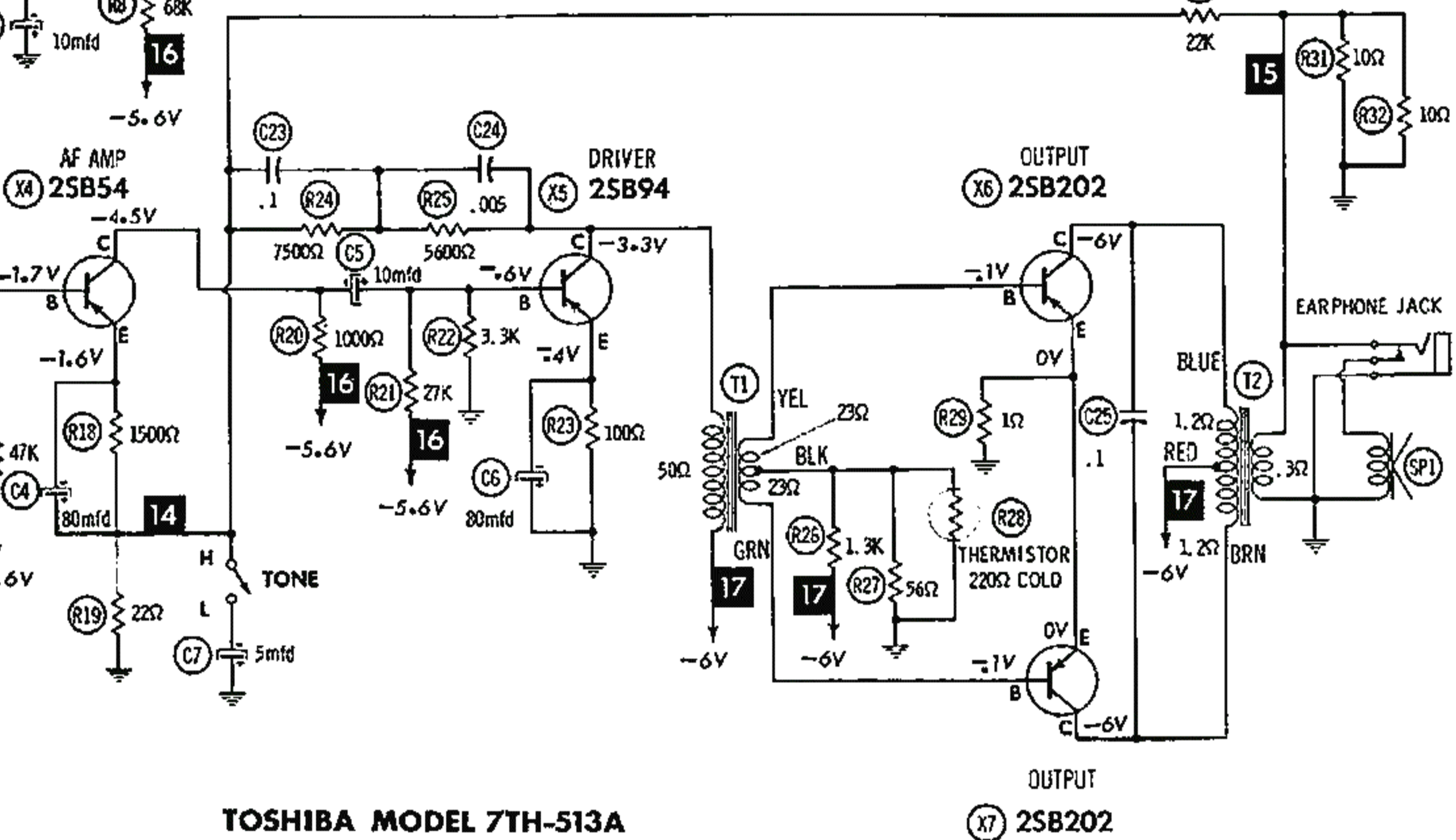
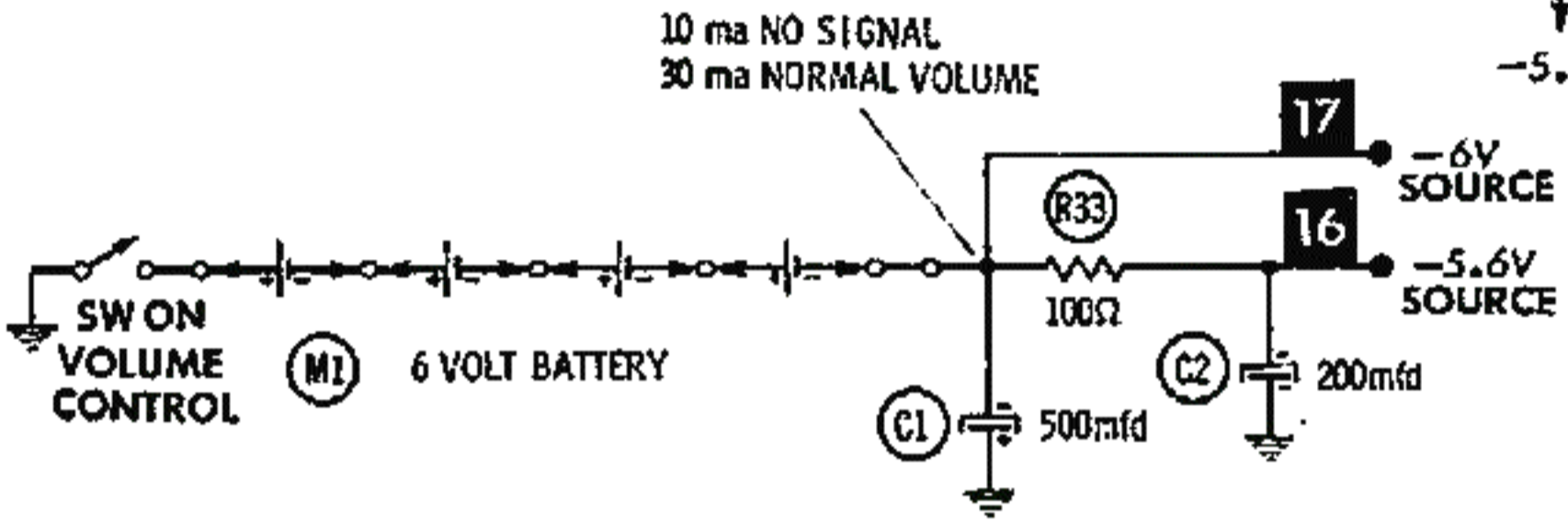


HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



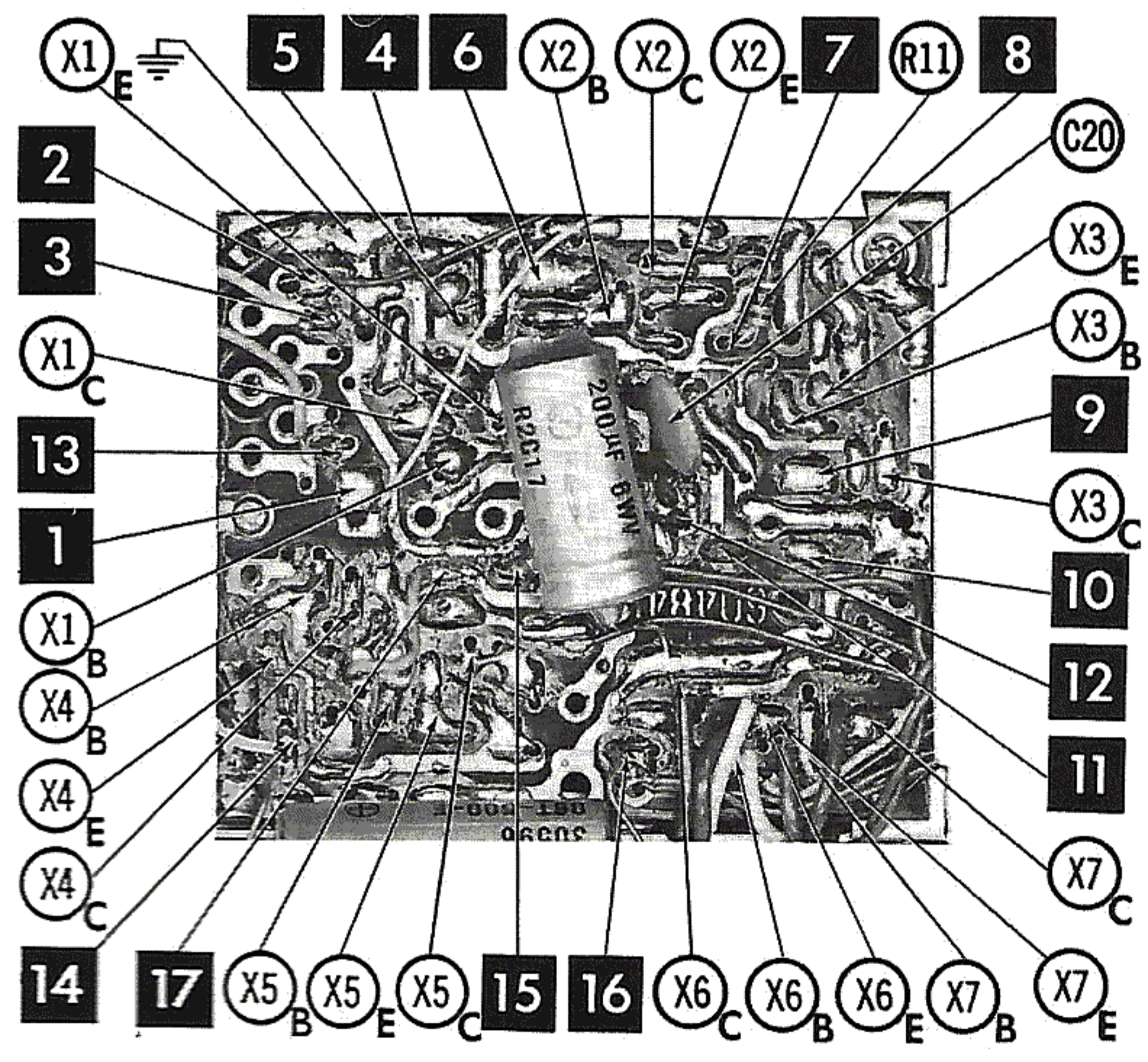
- ⊖ See parts list for alternate value or application.
- 1. Voltage measurements taken with vacuum tube voltmeter.
- 2. All controls set for normal operation, no signal applied.
- 3. Measured values are from socket pin or terminal to common ground.
- 4. All terminals viewed from bottom unless otherwise designated.
- 5. Numbers assigned to terminals may not be found on the unit.
- 6. Supply voltage maintained at rated value for voltage readings.
- 7. Resistance measurements not given because of the wide variation in internal resistance of transistor.

A PHOTOFAC STANDARD NOTATION SCHEMATIC with CIRCUITRACE
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TOSHIBA MODEL 7TH-513A

OUTPUT X7 2SB202



TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2SA52	Converter	DS-25	GE-1	2N412	PNP
X2	2SA49	1st IF Amplifier	DS-25	GE-1	2N410	PNP
X3	2SA53	2nd IF Amplifier	DS-25	GE-1	2N410	PNP
X4	2SB54	AF Amplifier	DS-26	GE-2	2N408	PNP
X5	2SB94	Driver	DS-26	GE-2	2N408	PNP
X6	2SB202	Output	DS-26	GE-2	2N408	PNP
X7	2SB202	Output	DS-26	GE-2	2N408	PNP

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	TOSHIBA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	500	6	06T-500-E	PRS1120	BR500-6	QT1-30	TD-500-8	TC805	TVA-1103
C2	200	6	06T-200-E	CRE331A	NLW200-12	MT1-24	MLV200-6	TT6X200	TE-1104
C3	10	3		BCD3010	ECPB408	MT1-5		TT3X10	TE-1053
C4	80	3		BCD3075					
C5	10	10		BCD10010	ECPB408	MT1-5		PET1340	TE-1114
C6	80	3		BCD3075					
C7	5	6		CRE304A	NLW5-15	MT1-3	MLV5-6	TT6X5	TE-1084

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.
C10	.005	(.01) †	TTD-005	CK-502	H1	CCTO-050	TA-250	TG-D50
C11	.05		TTD-05	CK-503	H5		TA-150	TG-S50
C12	.005		TTD-005	CK-502	H1		TA-250	TG-D50
C13	.05		TTD-05	CK-503	H5		TA-150	TG-S50
C14	5.6							10TCC-V58
C15	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C16	.05		TTD-05	CK-503	H5		TA-150	TG-S50
C17	4							10TCC-V39
C18	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C19	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C20	.05		TTD-05	CK-503	H5	TA-150	TG-S50	
C21	.25					WFM1P22	192P22492	
C22	3		NPO-DI 3	DTZ-3R3	C10V33C	1DP-3-254	10TCC-V30	
C23	.1		TTD-1	CK-104	H6	CCTO-3R3	CNO-533	
C24	.005		TTD-005	CK-502	H1	TA-010	TG-P10	
C25	.1		TTD-1	CK-104	H6	TA-250	TG-D50	
						TA-010	TG-P10	

† Alternate Value.

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	37.02T	B-11, KR-1 or (F2-5000, KR-1, SU204)		Q13-111, 76-1	UA53A, SL3500, US41 or (U-12, US26 or (RU53A, US42, SL3500)

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		BC-374	2066	RTC-9266		
L4	2nd IF		BC-575	2067	RTC-9267		
L5	3rd IF		BC-576	2068	RTC-9268		

D DESCRIPTION

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	1.3	1				TR-66 ①	TY-35X ①	① Drill New Mounting Holes

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	TOSHIBA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	36Ω	3-4Ω		A-2745 ①	TA-56 ①	TR-161 ①	TY-64X ①	① Drill Mounting Holes

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		TOSHIBA PART No.	QUAM PART No.	
SP1	4" x 6" PM 3-4Ω		46A1	

BATTERIES

ITEM No.	VOLTAGE	TOSHIBA PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M1	6V		230 (or AL-2)	A100 (or E95)	M-13R (or MN1300)	4 Required

MISCELLANEOUS

ITEM No.	PART NAME	TOSHIBA PART No.	NOTES
M2	Tuning Cap		
M3	Overload (1N60)		
M4	Detector (1N60)		

WIRING DATA

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

DIAL CORD STRINGING

