



**PHOTOFACT<sup>®</sup> with**

**CIRCUITRACE<sup>®</sup>**

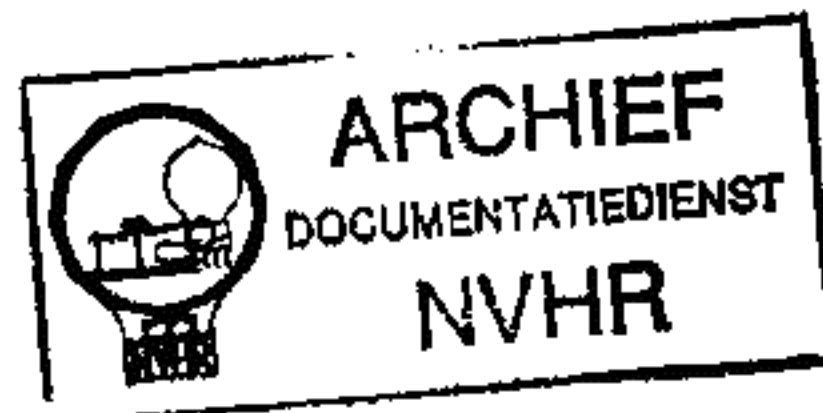


Met dank aan Jef Bos

TRADE NAME : Toshiba Model 8TH-428R  
 SUPPLIER : Transistor World Corp.  
 513 W. 24th Street, New York 11, N. Y.  
 TYPE SET : 8 Transistor BC-SW Receiver  
 POWER SUPPLY : 6 Volts DC  
 RATING : 18MA @ 6VDC (No Signal, Min. Volume)  
 40MA @ 6VDC (Signal, Normal Volume)  
 TUNING RANGE : BROADCAST 540 - 1620KC  
 SHORT WAVE 1 2.5-7.5MC  
 SHORT WAVE 2 7.5-22MC

Ned. Ver. v. Historie v/c

**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, A4, A6, A7, A9, A10, A12... GENERAL CEMENT #5000, 5066, 8290... WALSCO #2512, 2525, 2528  
 A5, A8, A11..... GENERAL CEMENT #8603..... WALSCO #2505

**BC ALIGNMENT - SELECTOR IN BC POSITION**

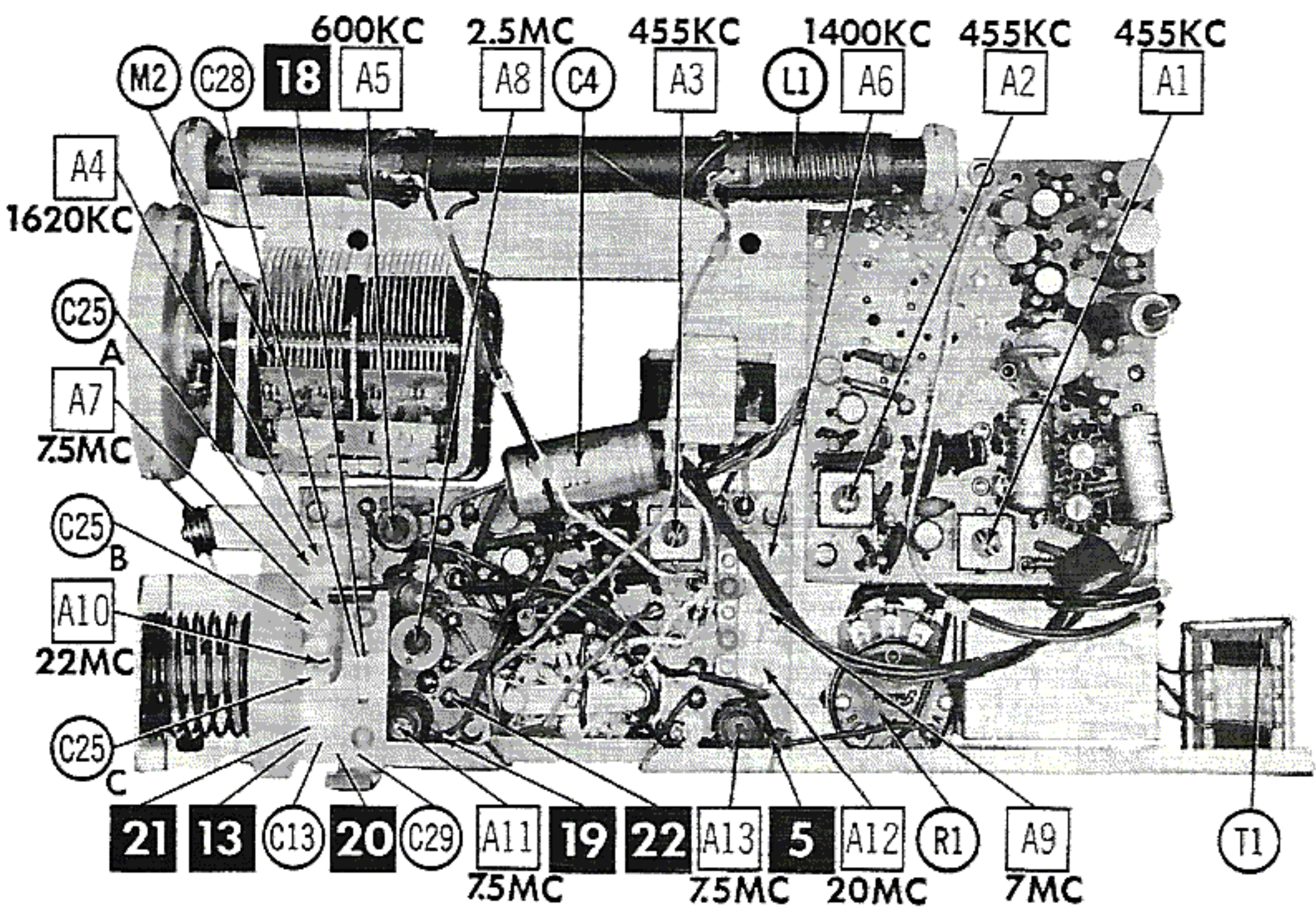
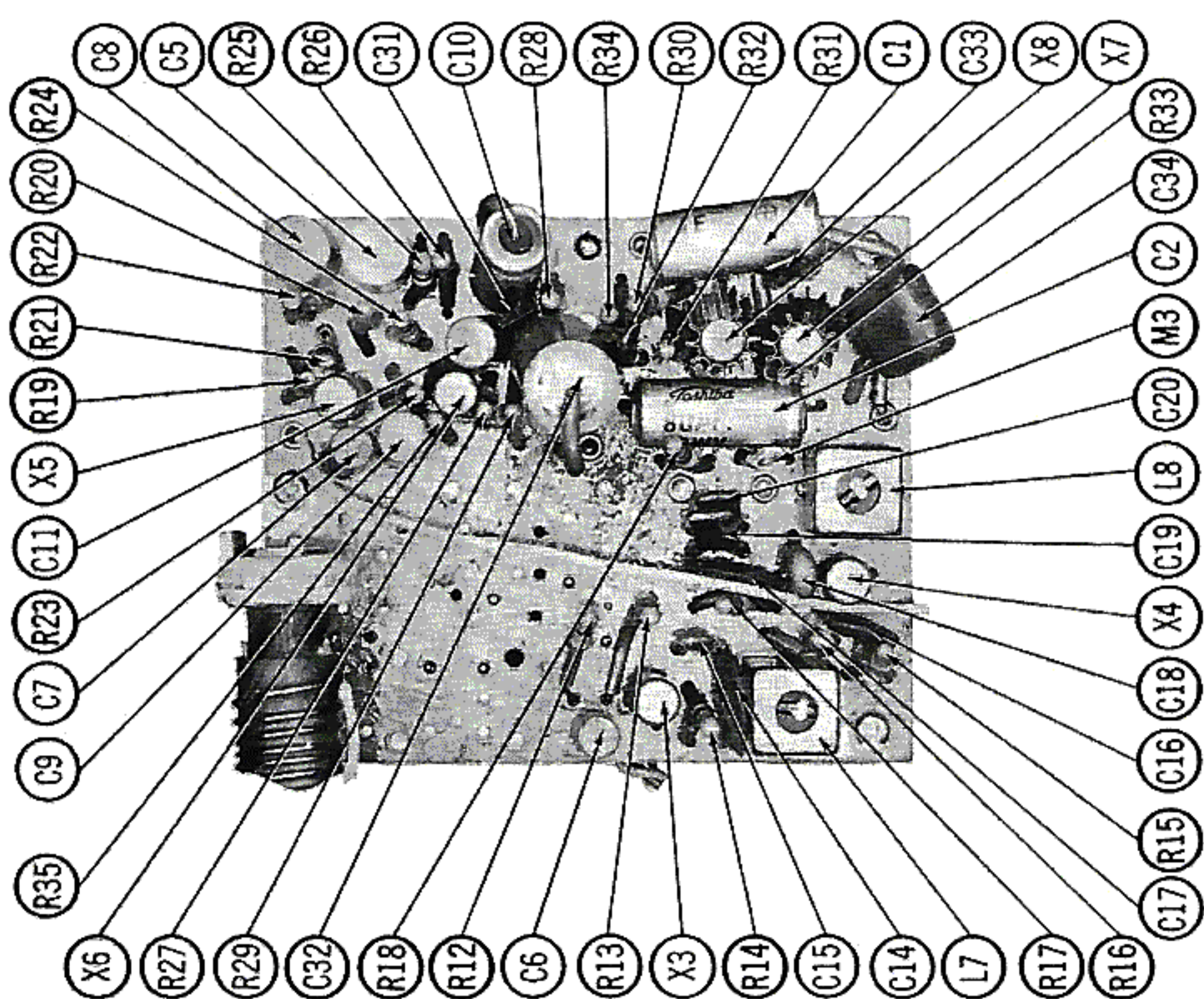
	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	455KC (400v Mod.)	Tuning gang fully open.	Output Meter across voice coil.	A1, A2, A3	Adjust for maximum. Repeat as required.
2.	1620KC	"	"	A4	Adjust for maximum.
3.	600KC	Tune to Signal.	"	A5	Rock tuning gang and adjust for maximum.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

**SW ALIGNMENT - SELECTOR IN SW POSITION**

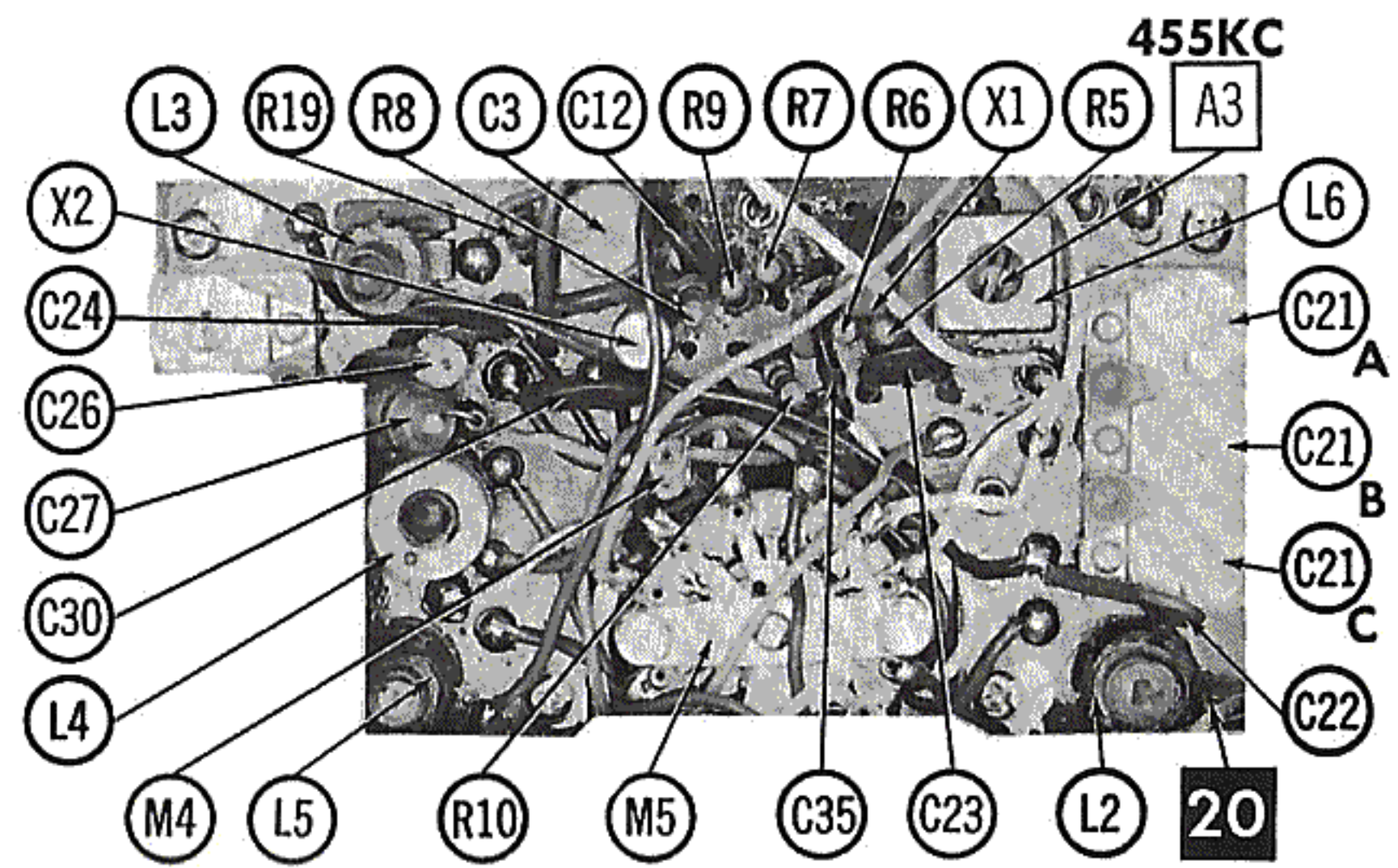
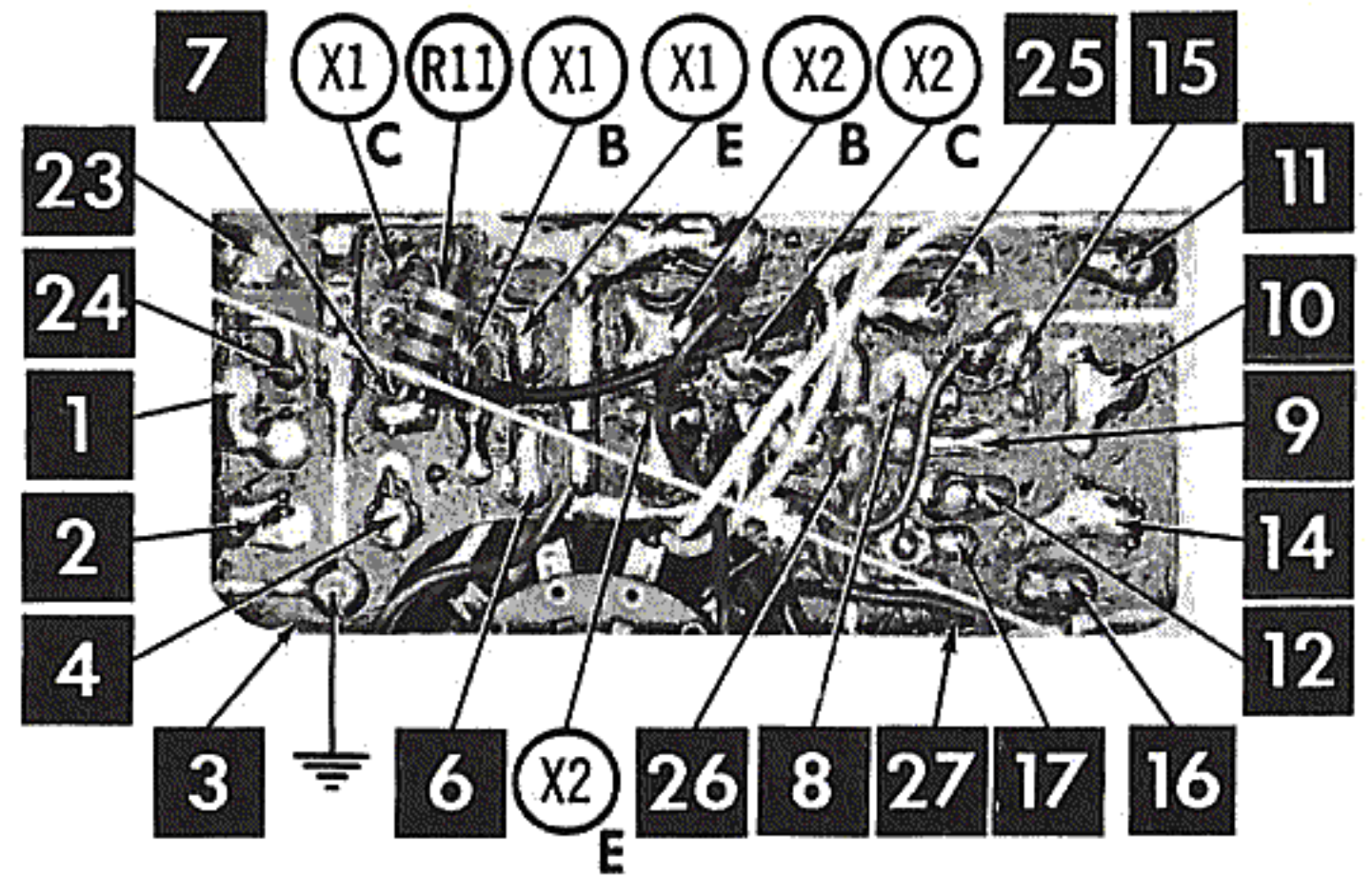
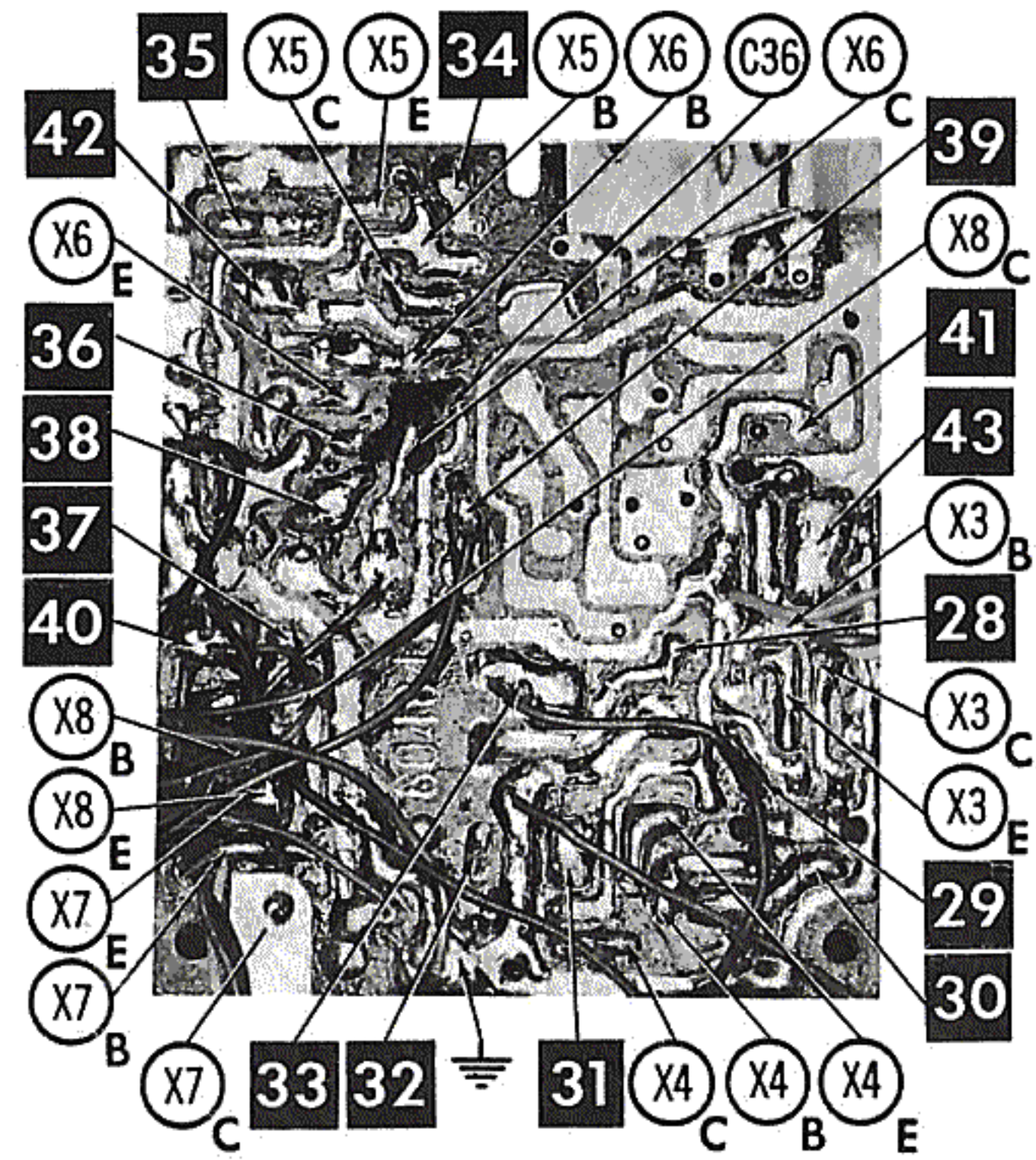
5.	7.5MC	7.5MC	"	A7	Adjust for maximum.
6.	2.5MC	2.5MC	"	A8	"
7.	7MC	7MC	"	A9	"
8.	22MC	22MC	"	A10	"
9.	7.5MC	7.5MC	"	A11	"
10.	20MC	20MC	"	A12	"
11.	7.5MC	7.5MC	"	A13	"

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

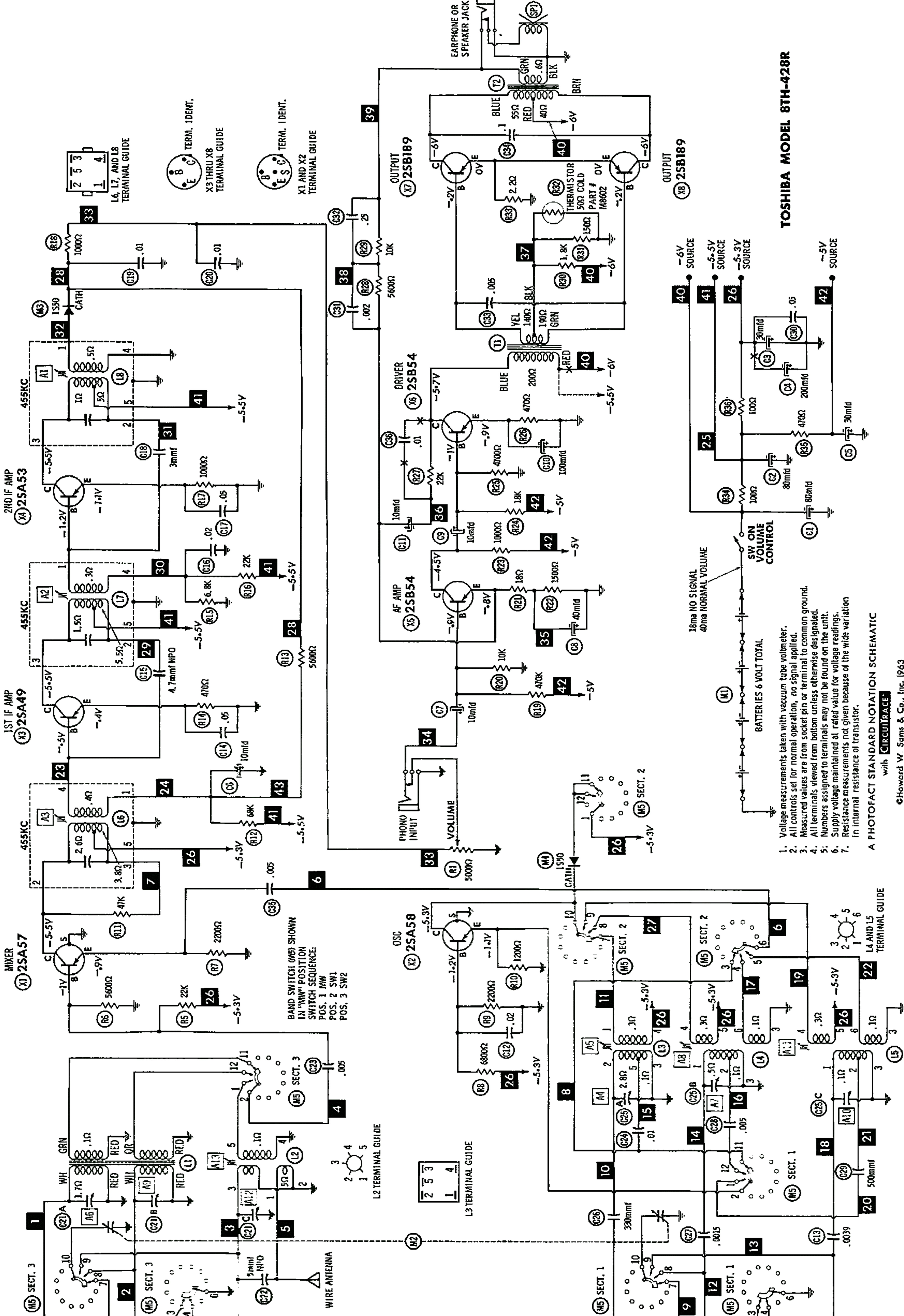












**TOSHIBA MODEL 8TH-428R**

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 PHOTOFACT STANDARD NOTATION SCHEMATIC with CIRCUITACE



# PARTS LIST AND DESCRIPTION

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2SA57	Mixer	DS-25	GE-1		PNP
X2	2SA58	Osc.	DS-25	GE-1		PNP
X3	2SA49	1st IF Amp.	DS-25	GE-1	2N410	PNP
X4	2SA53	2nd IF Amp.	DS-25	GE-1	2N410	PNP
X5	2SB54	AF Amp.	DS-26	GE-2	2N406	PNP
X6	2SB54	Driver	DS-26	GE-2	2N406	PNP
X7	2SB189	Output	DS-26	GE-2	2N408	PNP
X8	2SB189	Output	DS-26	GE-2	2N408	PNP

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		TOSHIBA PART No.	REPLACEMENT DATA					
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	80	6		CRE320A	NLW75-10	MT1-18	BL1620	TT6X80	TE-1102
C2	80	6		CRE320A	NLW75-10	MT1-18	BL1620	TT6X80	TE-1102
C3	30	6		BCD6025	ECPB412	MT1-13	MLV30-6	TT6X30	VL-1092
C4	200	6		PTT31	NLW200-12	MT1-23	MLV200-6	TT6X200	TE-1104
C5	30	6		BCD6025	ECPB412	MT1-13	MLV30-6	TT6X30	VL-1092
C6	10	3		BCD3010	ECPB408	MT1-5	MLV10-3	PET1340	VL-1083
C7	10	3		BCD3010	ECPB408	MT1-5	MLV10-3	PET1340	VL-1083
C8	40	3		BCD3035	ECPB414	MT1-15	MLV40-3	PET140	VL-1045
C9	10	10		BCD10010	ECPB408	MT1-5	MLV10-10	PET1340	VL-1127
C10	100	3		PTT13	NLW100-12	MT1-22	MLV100-3	TT6X100	TE-1059, 5
C11	10	10		BCD10010	ECPB408	MT1-5	MLV10-10	PET1340	VL-1127

## 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.
C12	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C13	.0039							
C14	.05		TTD-05	CK-503	H5		TA-150	TG-S50
C15	4.7 NPO		NPO-DI 4.7	DTZ-4R7	C10V47C	CCTO-4R7	CNO-547	10TCC-V47
C16	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C17	.05		TTD-05	CK-503	H5		TA-150	TG-S50
C18	3		NPO-DI 3.0	DTZ-3R3	C10V3C	CCTO-3R3	CNO-533	10TCC-V30
C19	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C20	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C21A								
C21B								
C21C								
C22	5 NPO		NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C23	.005		TTD-005	CK-502	H1		TA-250	TG-D50
C24	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C25A								
C25B								
C25C								
C26	330		SI 330	D6-301	LA10T33	CCD-331	GP333	10TS-T33
C27	.0015		SI 1500	D6-152	BYA10D15	CCD-152	GP215	10TS-D15
C28	.005		TTD-005	CK-502	H1		TA-250	TG-D50
C29	500		SI 500	D6-501	LA10T5	CCD-501	GP350	10TS-V50
C30	.05		TTD-05	CK-503	H5		TA-150	TG-S50
C31	.002			DM-202				
C32	.25 150V		BE2P25		CUB2P25	2DP-4-254	GEM-2025	2TM-P25
C33	.005		TTD-005	CK-502	H1		TA-250	TG-D50
C34	.1		TTD-1	CK-104	H6		TA-010	TG-P10
C35	.005		TTD-005	CK-502	H1		TA-250	TG-D50
C36	.01		TTD-01	CK-103	H2		TA-110	TG-S10

## 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	41244 (36.05T)				

## 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	BC-SW1 Loopstick						
L2	SW 2 Ant.						
L3	BC Osc.						
L4	SW1 Osc.						
L5	SW2 Osc.						
L6	1st IF		BC-574	2066	RTC-9266		
L7	2nd IF		BC-575	2067	RTC-9267		
L8	3rd IF		BC-576	2068	RTC-9268		

## 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	1.2	1						

# PARTS LIST AND DESCRIPTION (CONTINUED)

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			TOSHIBA PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.						
T2	100Ω CT	3-4Ω						

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		TOSHIBA PART No.	QUAM PART No.	
SP1	4" PM 3-4Ω	50140	4A1	

## BATTERIES

ITEM No.	VOLTAGE	TOSHIBA PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M1	6V	UM-1	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	Detector (1S50)		
M4	Limiter (1S50)		
M5	Switch-Function		

## 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

