



PHOTOFACT[®] with

CIRCUITRACE[®]

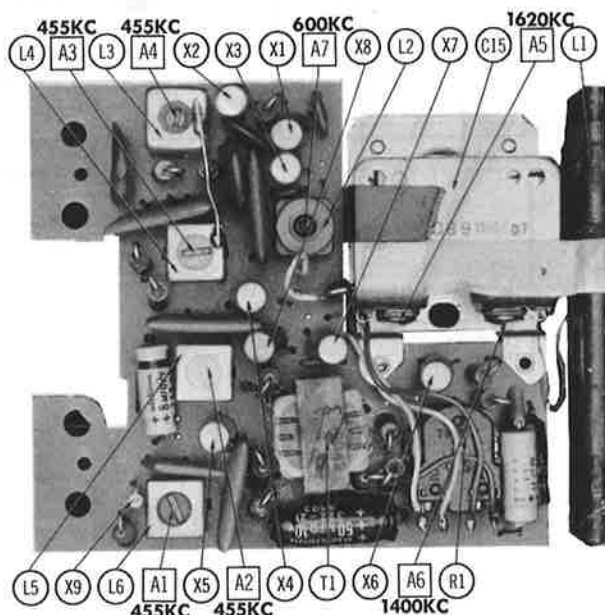
TRADE NAME: Zenith Model Royal 280Y (Ch. 8MT40Z2)
 SUPPLIER: For Current Address, see Annual Index
 TYPE SET: 8-Transistor AM Receiver
 POWER SUPPLY: 6 Volts DC
 RATING: 8ma @ 6VDC (No Signal, Min. Volume)
 20ma @ 6VDC (Signal, Normal Volume)
 TUNING RANGE: BROADCAST 540 — 1620KC



ALIGNMENT INSTRUCTIONS

Check for specified source voltage. Set Volume control at maximum.
 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..... GENERAL CEMENT #9087..... WALSCO #2528
 A4, A7..... GENERAL CEMENT #8606L, 9440..... WALSCO #2501, 2544
 A5, A6..... GENERAL CEMENT #8868, 9089..... WALSCO #2541, 2587

	GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	455KC (400v Mod.)	Tuning gang fully open.	Output meter across voice coil.	A1, A2, A3	Adjust for maximum.
2.	"	"	"	A4	Adjust for MINIMUM.
3.	1620KC	Tune to signal.	"	A5	Adjust for maximum.
4.	1400KC	"	"	A6	Adjust for maximum.
5.	600KC	"	"	A7	Rock tuning gang and adjust for maximum. Repeat steps 3 thru 5 until no further improvement can be made.

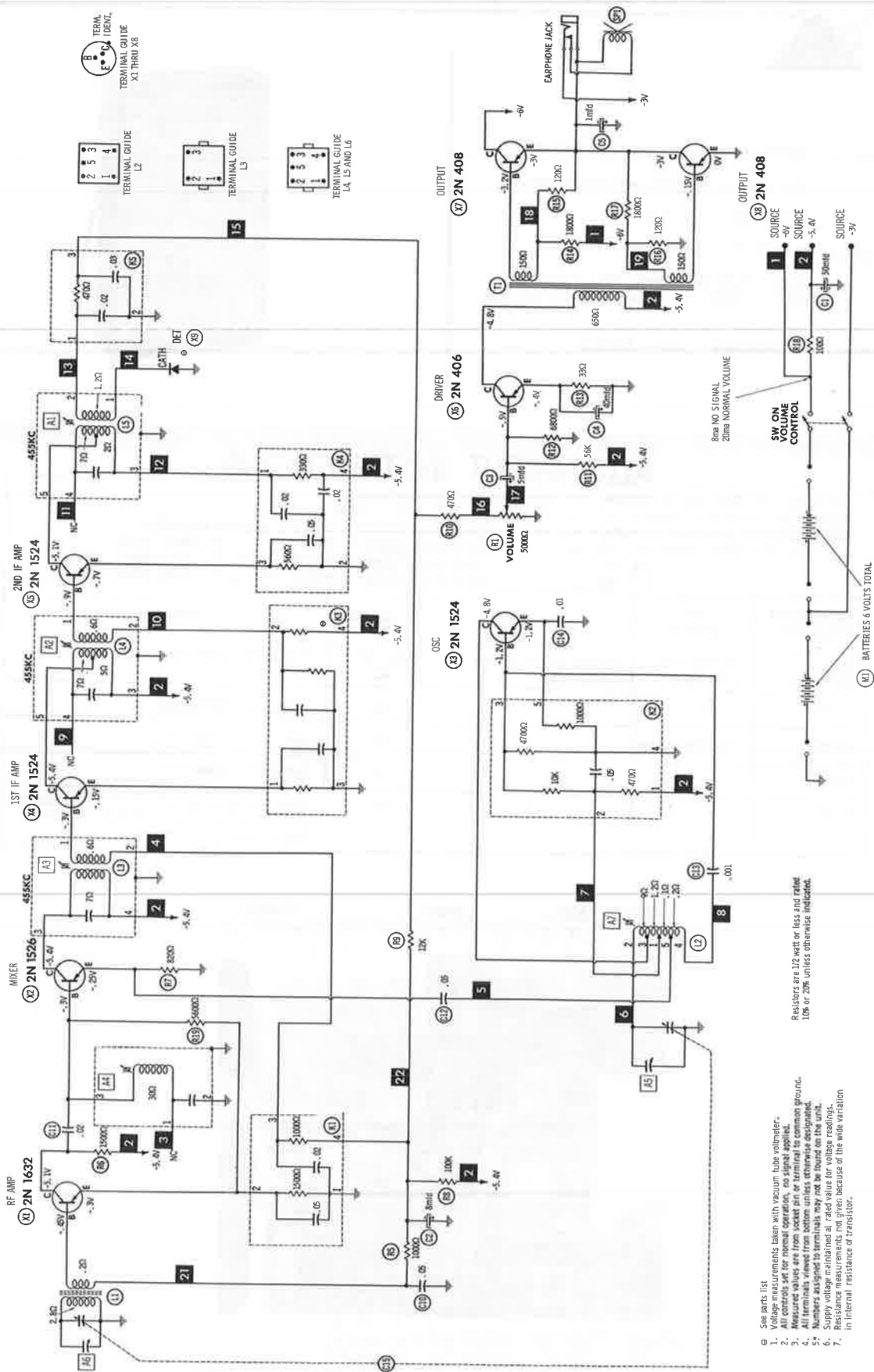


ZENITH MODEL ROYAL 280Y (Ch. 8MT40Z2)

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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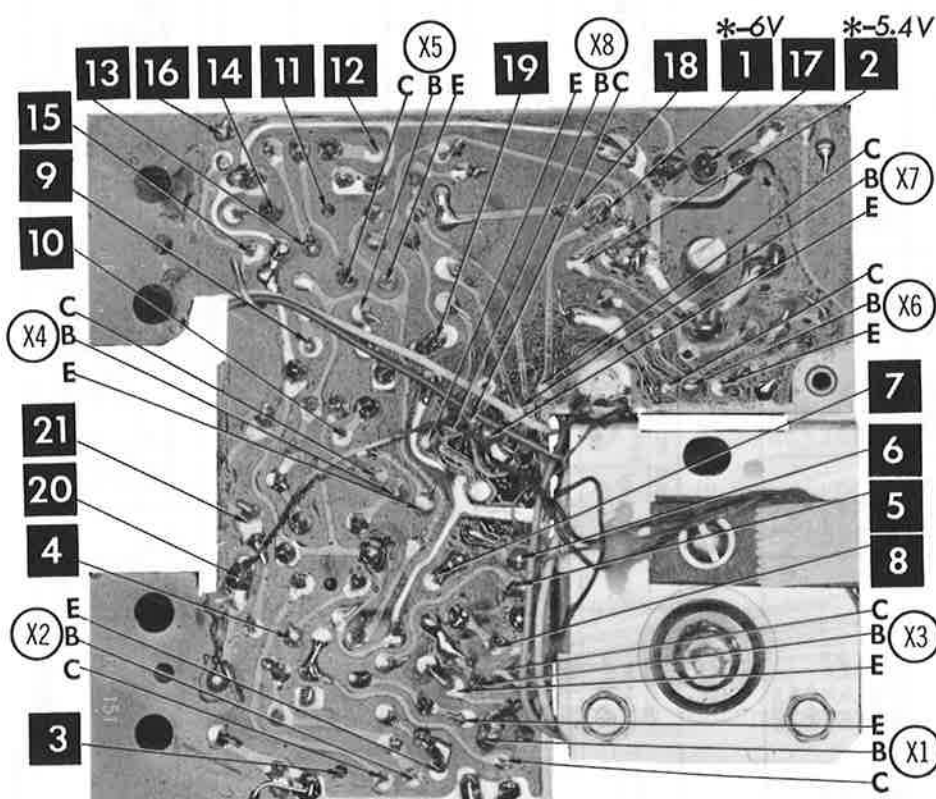
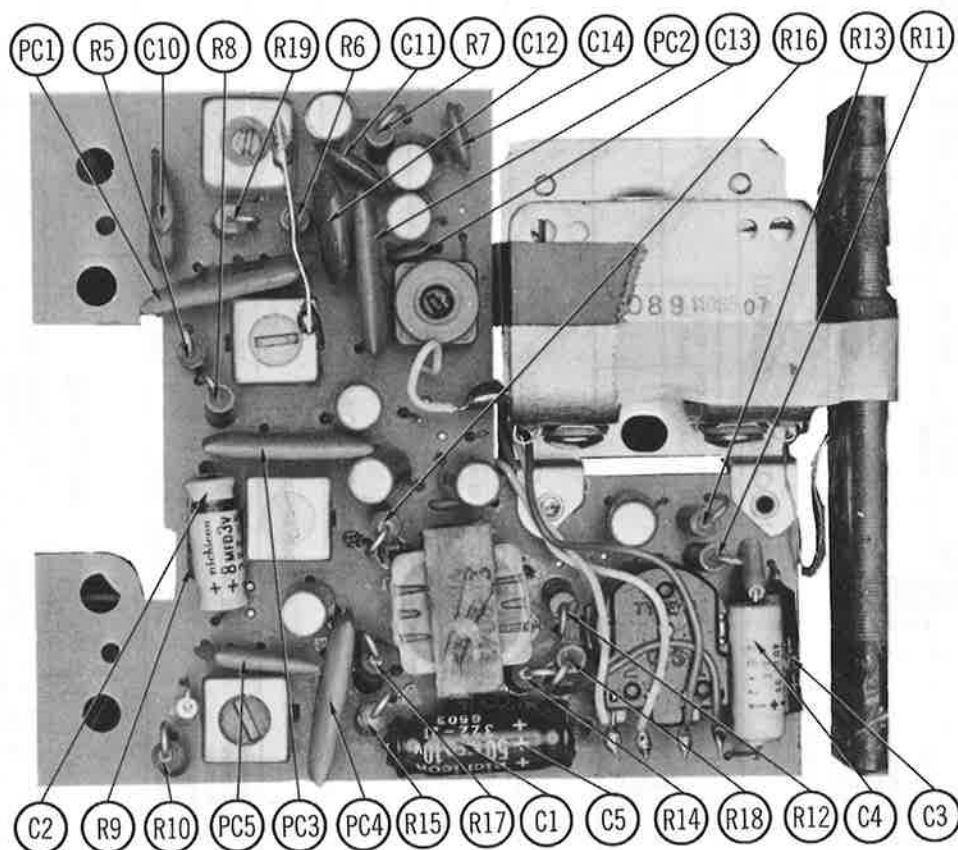
RF477



A PHOTOFACT STANDARD NOTATION SCHEMATIC
with **Circuit**

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ZENITH MODEL ROYAL 280Y (Ch. 8MT40Z2)



*VOLTAGE SOURCE

PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2N1632	RF Amp.	DS-25	GE-1	SK-3008	PNP
X2	2N1526	Mixer	DS-25	GE-1	SK-3008	PNP
X3	2N1524	Osc.	DS-25	GE-1	SK-3008	PNP
X4	2N1524	1st IF Amp.	DS-25	GE-1	SK-3008	PNP
X5	2N1524	2nd IF Amp.	DS-25	GE-1	SK-3008	PNP
X6	2N405	Driver	DS-26	GE-2	SK-3003	PNP
X7	2N408	Output	DS-26	GE-2	SK-3003	PNP
X8	2N408	Output	DS-26	GE-2	SK-3003	PNP

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES			RECTIFIERS
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	
X9		103-19 or 103-44	1N34AS	1N34		SARKES TARZIAN PART No.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	VOLTS	ZENITH PART No.	REPLACEMENT DATA		
				AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.
C1	50	10	22-2726	CRE417A	NLW50-10	MTI-16
C2	8	3		CRE206A	NLW8-10	MTI-15
C3	5	12	22-2864	PTT51	NLW5-15	MTI-3
C4	40	3	22-2725	PTT11	NLW40-3	MTI-15
C5	1	6	22-3857	CRE300A	NLW1-6	MTI-1

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELWENCO PART No.	MALLORY PART No.
C10	.05		TTD-05	CK-503	HOV101ZV503Z		TAI150
C11	.02		TTD-02	CK-203	HOV101ZV203P		TAI120
C12	.05		TTD-05	CK-503	HOV101ZV503Z		TAI150
C13	.001			DM-102	EYZ601ZU102M		SM210
C14	.01		TTD-01	CK-103	HOV101ZV103P		TAI110
C15		#22-3209					TG-S10

Zenith Part Number.

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA		
			ZENITH PART No.	CENTRALAB PART No.	CLAROSTAT PART No.
R1	Volume & Switch	5000Ω	63-5121		CTS-IRC PART No.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		ZENITH PART No.	MEISSNER PART No.	MERIT PART No.	STANCOR PART No.
L1	Loopstick	S-48794	14-9028	2008	
L2	95-2090				
L3	95-2089				
L4	1st IF	95-2088		8504 ①	
L5	2nd IF	95-2087		8504	
L6	3rd IF	95-2088		8504	

① Cut off Pin 5.

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO	REPLACEMENT DATA				NOTES
		ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T1	2.5	95-2043				
	SEC 1					
	SEC 2					
	1					

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		ZENITH PART No.	QUAM PART No.	
SP1	2 3/4" PM 45-50Ω	49-988		

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	ZENITH PART No.	REPLACEMENT DATA
K1	Bias Network	.05mfd, 1500Ω, .02mfd, 1000Ω	105-68	
K2	Bias Network	10K, 4700Ω, 1000Ω, 470Ω	105-59	
K3	Bias Network	560Ω, 330Ω, .02mfd, .05mfd, .05mfd	105-69	
K4	Bias Network	470Ω, .02mfd, .03mfd	105-55	
K5	Bias Network		105-49	CENTRALAB PC-410

BATTERIES

ITEM No.	VOLTAGE	ZENITH PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M1	6V		930 or A1.9 or Hg9	1015 or E91 or E9	M15R or M1500 or ZM9	4 Required

WIRING DATA

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