



# PHOTOFACT<sup>®</sup> with

# CIRCUITRACE<sup>®</sup>

TRADE NAME : Zenith Models Royal 500GH-1/WH-1/YH-1  
(Chassis 8LT40Z1)

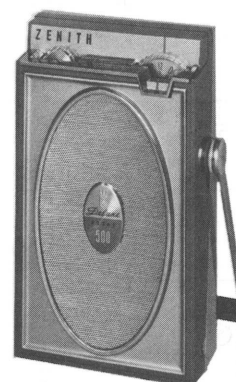
SUPPLIER : Zenith Sales Corp.,  
6001 Dickens Ave., Chicago 39, Illinois

TYPE SET : 8 Transistor AM Receiver

POWER SUPPLY : 6 Volts DC

RATING : 8MA @ 6VDC (No Signal, Min. Volume)  
14MA @ 6VDC (Signal, Normal Volume)

TUNING RANGE : BROADCAST 540 — 1620KC

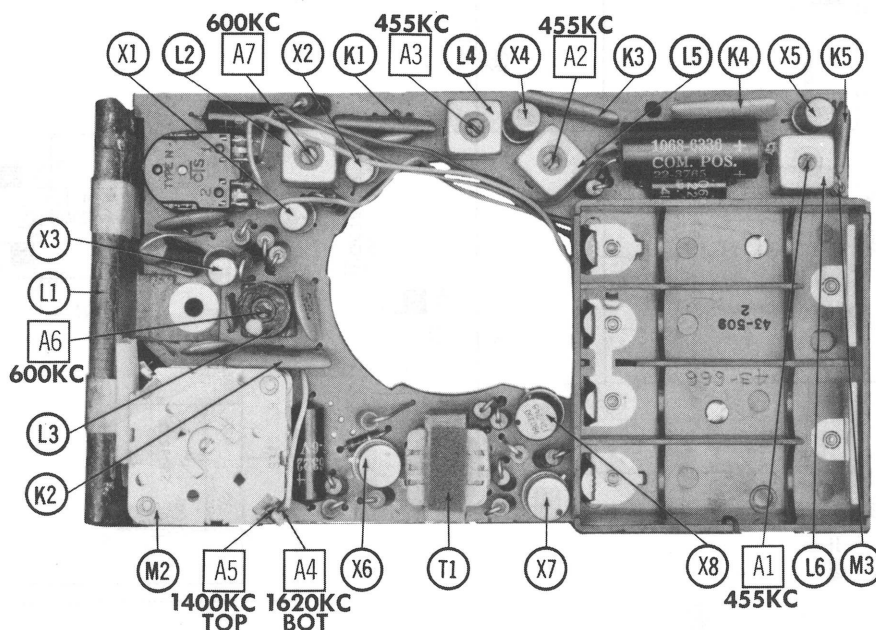


## ALIGNMENT INSTRUCTIONS

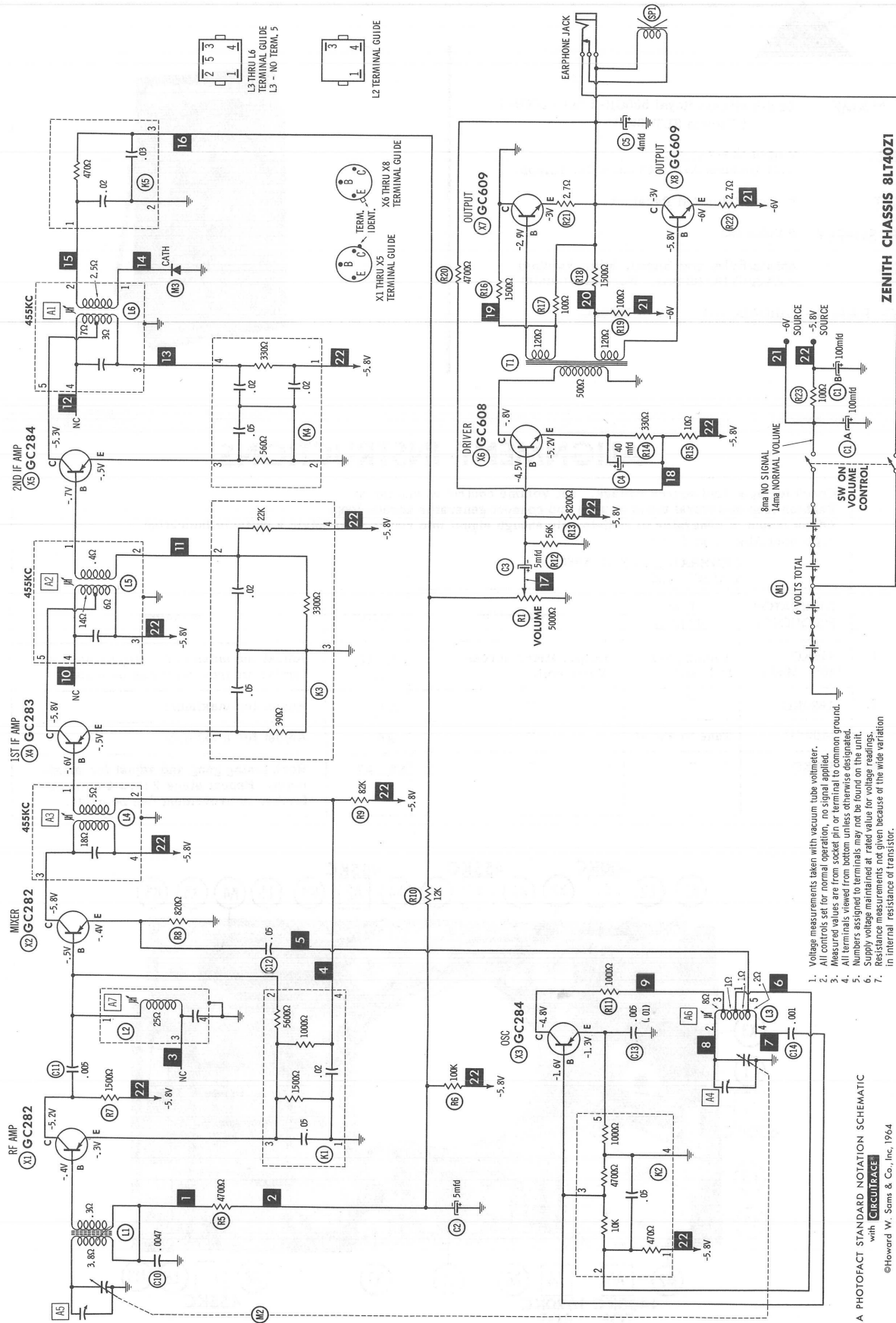
Check for specified source voltage. Set Volume control at maximum.  
Fashion loop of several turns of wire and connect generator across loop.  
Adjust output of generator to radiate only enough signal into receiver to obtain a suitable indication.  
Suggested Alignment Tools:

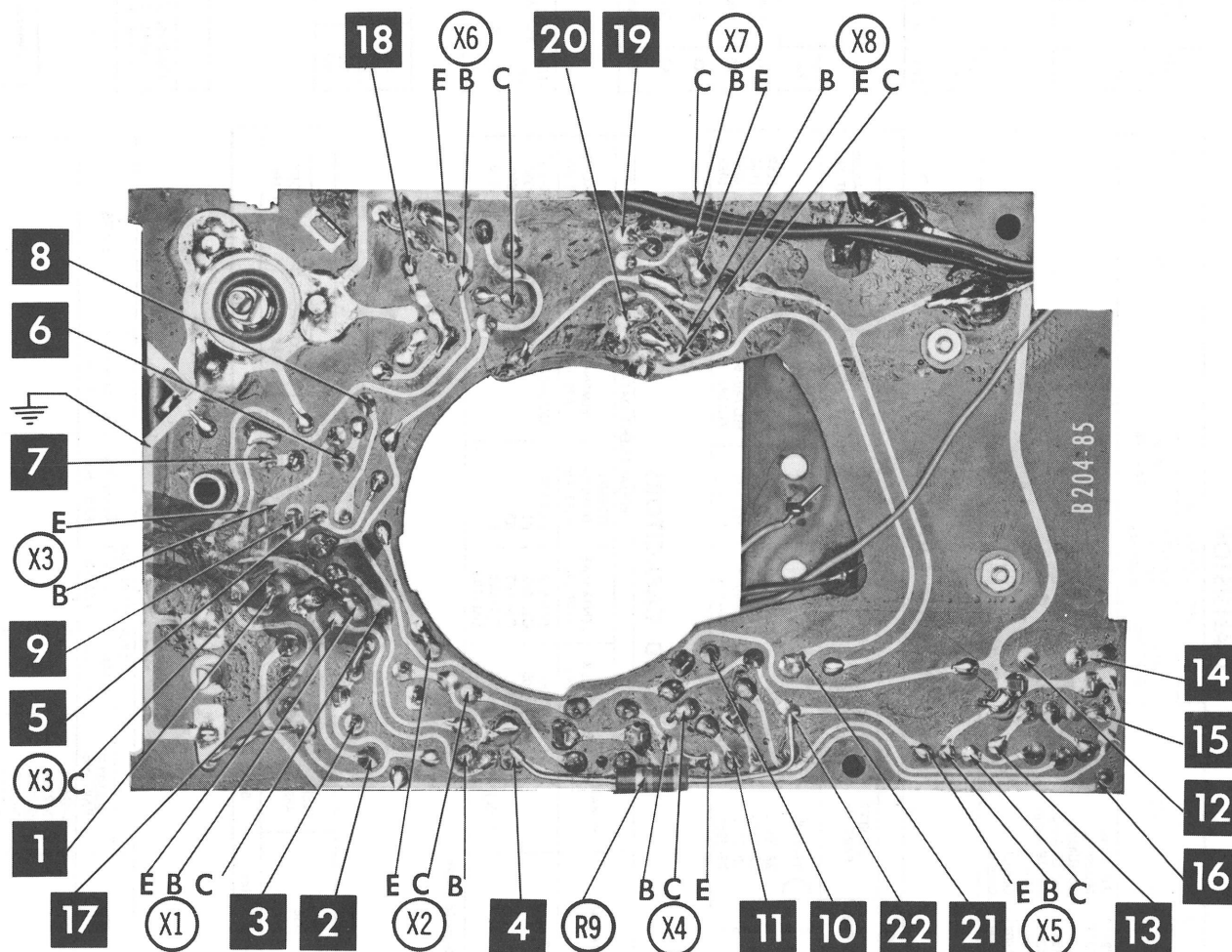
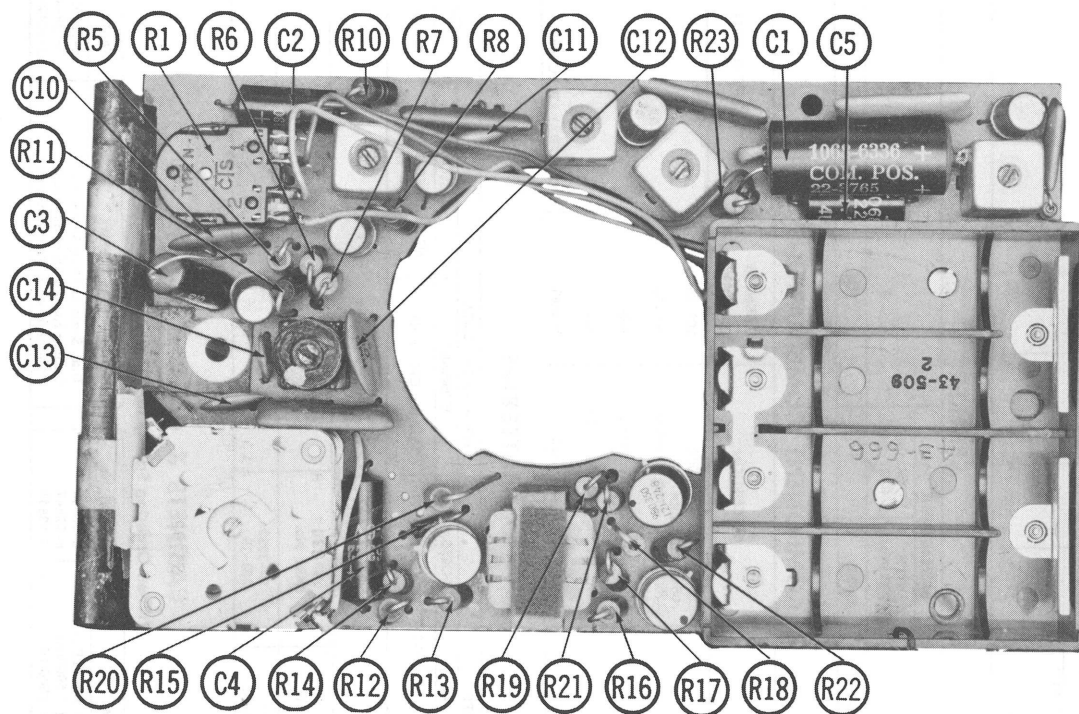
GENERAL CEMENT #8605  
WALSCO #2505

	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. Repeat until no further improvement can be made.
2.	1620KC	"	"	A4	Adjust for maximum.
3.	1400KC	Tune to signal.	"	A5	Adjust for maximum.
4.	600KC	"	"	A6, A7	Rock tuning gang and adjust for maxi- mum. Repeat steps 2 thru 4 until no further improvement can be made.



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





# PARTS LIST AND DESCRIPTION

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	GC282	RF Amp.	DS-25	GE-1		PNP
X2	GC282	Mixer	DS-25	GE-1		PNP
X3	GC284	Oscillator	DS-25	GE-1		PNP
X4	GC283	1st IF Amp.	DS-25	GE-1		PNP
X5	GC284	2nd IF Amp.	DS-25	GE-1		PNP
X6	GC608	Driver	DS-44	GE-8	2N649	NPN
X7	GC609	Output	DS-44	GE-8	2N649	NPN
X8	GC609	Output	DS-44	GE-8	2N649	NPN

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING	CAP.	VOLT.	REPLACEMENT DATA					SPRAGUE PART No.
				AEROVOX PART No.	ZENITH PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	
C1A	100	6	22-3765	CRE454A	MT1-3	NLW5-15	MT1-3	MLV5-15	TL-1152
C2	5	15	22-2884	CRE454A	MT1-3	NLW5-15	MT1-3	MLV5-15	TL-1152
C3	5	15	22-2884	CRE315A	MT1-15	NLW40-6	MT1-15	MLV40-6	TE-1095
C4	40	6	22-3732	CRE303A	MT1-3	NLW4-6	MT1-3	BL1030	TL-1083
C5	4	6	22-3952						

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					SPRAGUE PART No.
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELWENCO PART No.	MALLORY PART No.	
C10	.0047		DI-4700	DD-472	LA10D47	CCD-472	JF247	10TS-D47
C11	.005		TTD-005	CK-502	H1		TA-250	TG-D50
C12	.05		TTD-05	CK-503	H5		TA-150	TG-S50
C13	.005		TTD-005	CK-502	H1		TA-250	TG-D50
C14	.001	(.01) †		DM-102				

† Alternate Value.

## CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				MALLORY PART No.
			ZENITH PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	
R1	Volume & Switch	5000Ω	63-5202				

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		ZENITH PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	
L1	Loopstick	S-62664				
L2	RF	95-2128				
L3	Osc.	95-2055				
L4	1st IF	95-2125				
L5	2nd IF	95-2126				
L6	3rd IF	95-2127				

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO	REPLACEMENT DATA				NOTES
		ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T1	3	95-2043				
	SEC.1	1				
	SEC.2	1				

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		ZENITH PART No.	QUAM PART No.	
SP1	3" x 5" PM 16-18Ω	49-993		

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	ZENITH PART No.	REPLACEMENT DATA
K1	Bias Network	1500Ω, 1000Ω, 5600Ω, .05mfd, .02mfd	105-68	
K2	Bias Network	470Ω, 10K, 4700Ω, 1000Ω, .05mfd, 3300Ω, 22K, .05mfd, .02mfd	105-59	
K3	Bias Network	390Ω, 3300Ω, 22K, .05mfd, .02mfd	105-71	
K4	Bias Network	560Ω, 330Ω, .05mfd, .02mfd	105-55	
K5	Detector Filter	470Ω, .02mfd, .03mfd	105-49	CENTRALAB PC-457

## BATTERIES

ITEM No.	VOLTAGE	ZENITH PART No.	REPLACEMENT DATA		NOTES
			BURGESS	EVEREADY	
M1	6V	Z-8	930 (or AL-9 or Hg-9)	1015 (or E91 or E9)	M15R (or MN1500 or ZM-9)

## MISCELLANEOUS

ITEM No.	PART NAME	ZENITH PART No.	NOTES
M2	Tuning Gang	22-3523	
M3	Detector Diode	103-19	

## CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM No.	ITEM	PART No.	ITEM	PART No.
	Cabinet, Front (Model R500YH1)	S-52846		
	Cabinet, Front (Model R500WH1)	S-52847		
	Cabinet, Front (Model R500GHI)	S-52848		
	Dial Scale & Ring Assembly			S-52902
	Tuning Knob & Ring Assembly			S-52844
	Volume Knob & Ring Assembly			S-52845

## WIRING DATA

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