



PHOTOFACT[®] with CIRCUITRACE[®]

TRADE NAME : Zenith Models Royal 91Y, Royal 955Y, R91Y, R955Y (Ch. 9NT44Z8)
SUPPLIER : For Current Address, See Annual Index
TYPE SET : 9-Transistor AM-SW Receiver
POWER SUPPLY : 12 Volts DC
RATING : 20ma @ 12VDC (No Signal, Min. Volume)
 35ma @ 12VDC (Signal, Normal Volume)
TUNING RANGE: BROADCAST 540 - 1620KC
 SHORT WAVE 1 1.6 - 3.8MC
 SHORT WAVE 2 3.8 - 8.8MC
 SHORT WAVE 3 8.8 - 18MC



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 thru A6.....GENERAL CEMENT #9296, 9297, 9300
 WALSCO #2510, 2546, 2547
 A7, A8, A9, A12, A13, A14, A18, A19, A20,
 A24, A25.....GENERAL CEMENT #8868, 9089
 WALSCO #2541, 2587
 A10, A11, A15, A16, A17, A21, A22, A23,
 A27, A28, A29.....GENERAL CEMENT #8606, 8869, 9295
 WALSCO #2543, 2544, 2588

SELECTOR IN AM

	GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	455KC (400v Mod.)	Tuning gang fully open.	Output Meter across Voice coll.	A1 thru A6	Adjust for maximum. Repeat until no further improvement can be made.
2.	1620KC	"	"	A7	Adjust for maximum.
3.	1400KC	Tune to signal.	"	A8, A9	Adjust for maximum.
4.	600KC	"	"	A10, A11	Rock tuning gang and adjust for maximum. Repeat steps 2 thru 4 until no further improvement can be made.

SELECTOR IN SW 1

5.	3.8MC	3.8MC	Output Meter across Voice coil.	A12, A13, A14	Adjust for maximum.
6.	1.6MC	1.6MC	"	A15, A16, A17	Adjust for maximum. Repeat Steps 5 & 6 until no further improvement can be made.

SELECTOR IN SW 2

7.	8.8MC	8.8MC	"	A18, A19, A20	Adjust for maximum.
8.	3.8MC	3.8MC	"	A21, A22, A23	Adjust for maximum. Repeat steps 7 & 8 until no further improvement can be made.

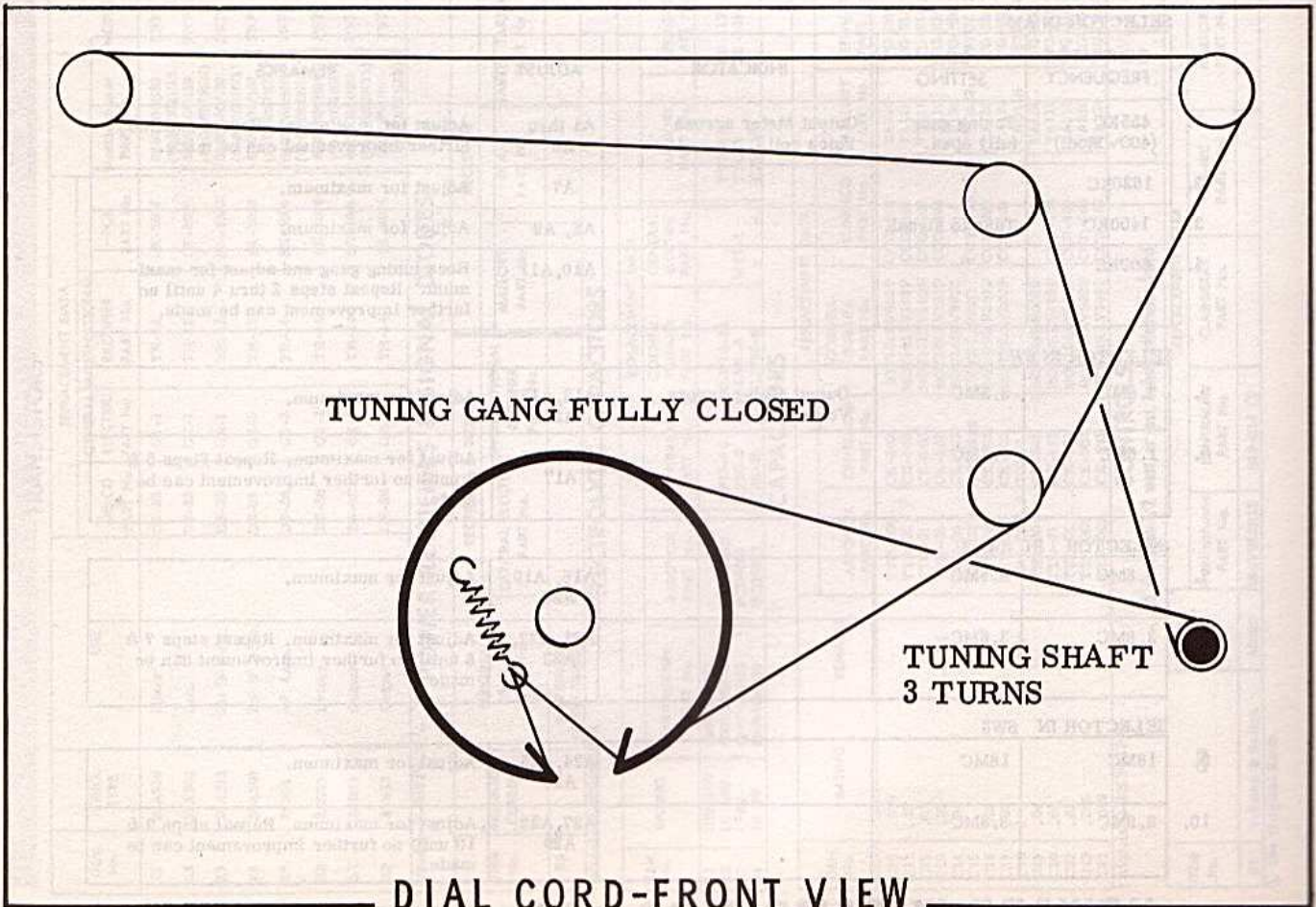
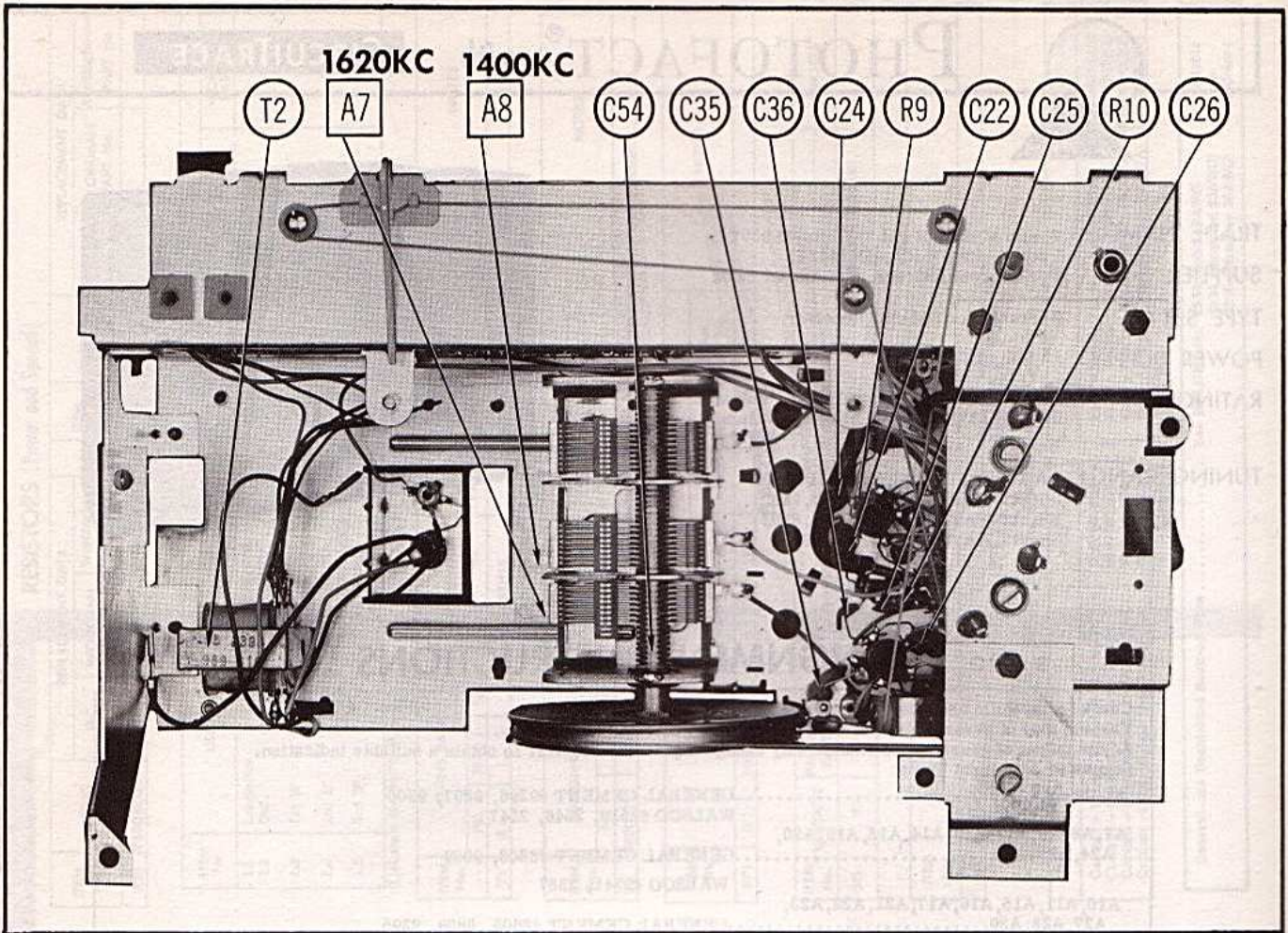
SELECTOR IN SW3

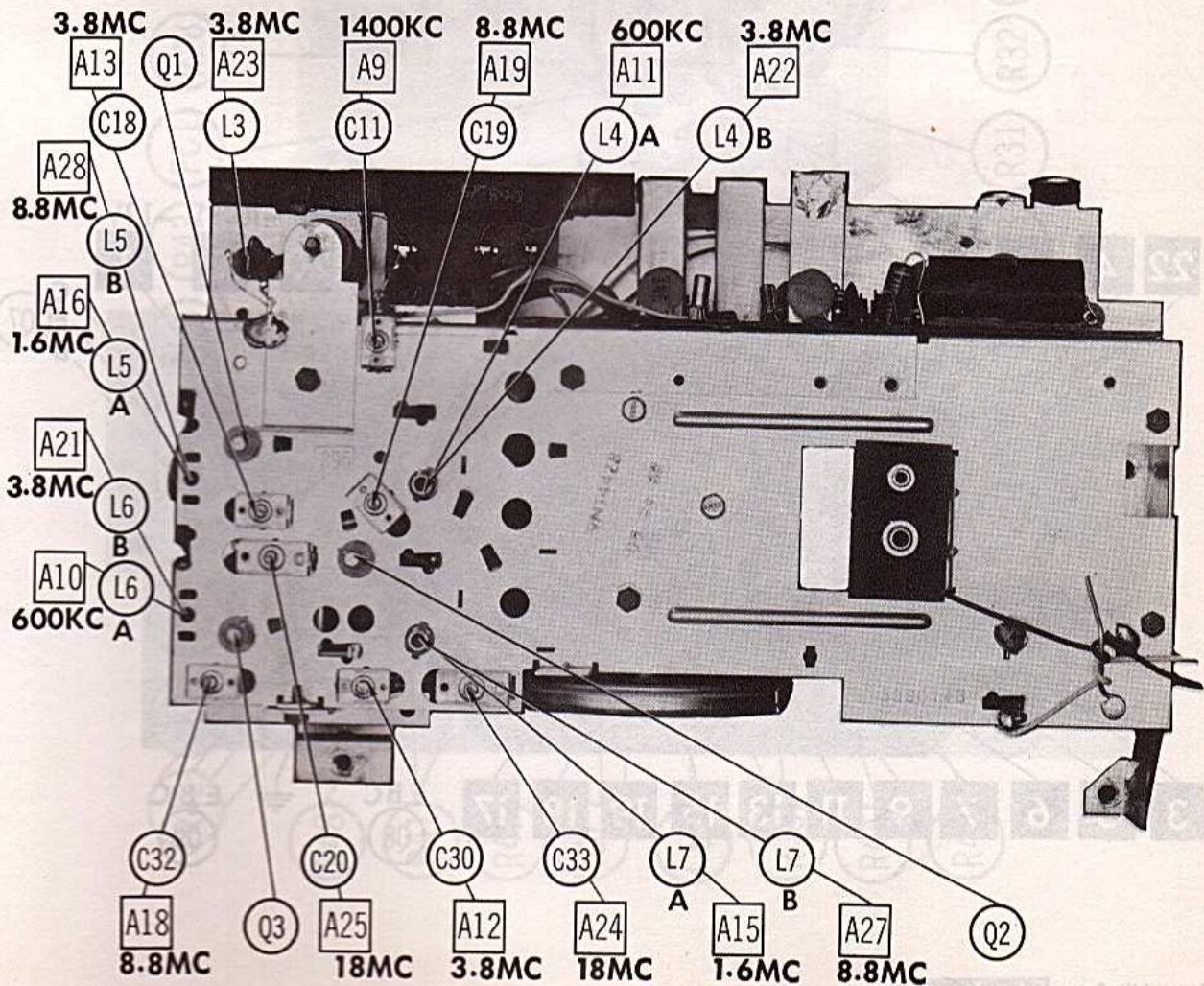
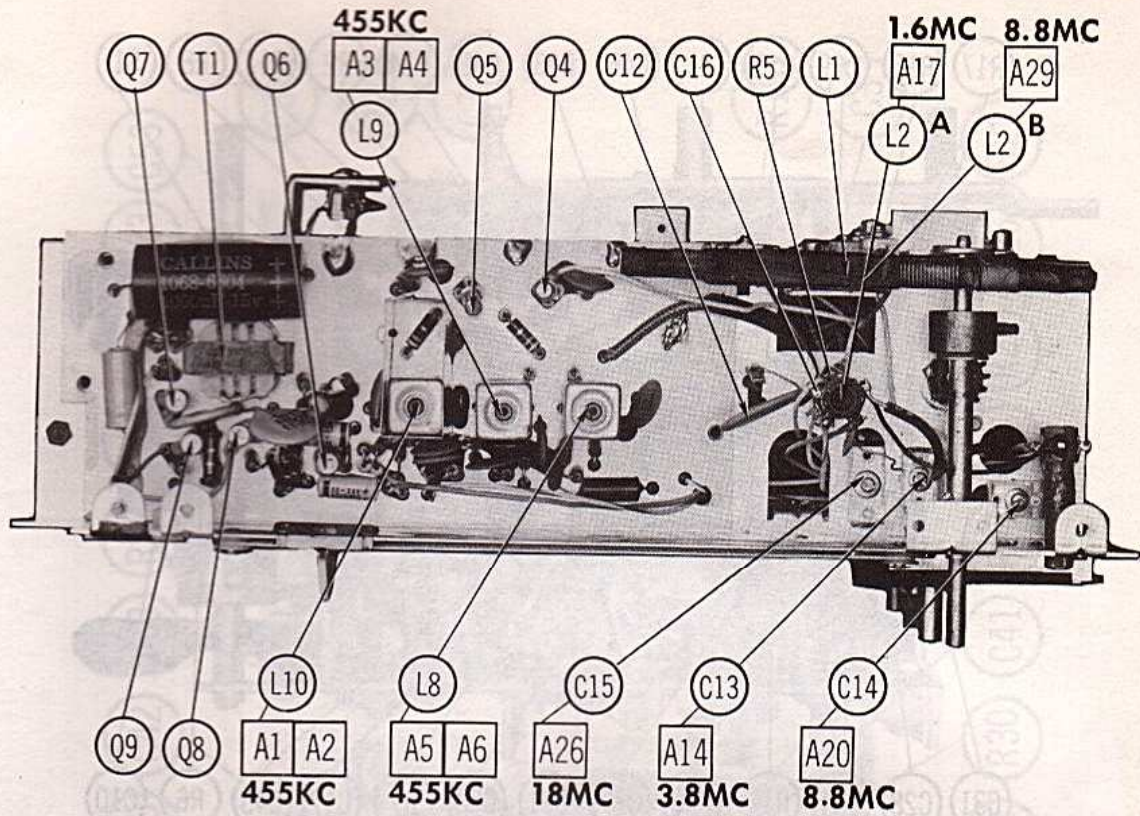
9.	18MC	18MC	"	A24, A25, A26	Adjust for maximum.
10.	8.8MC	8.8MC	"	A27, A28, A29	Adjust for maximum. Repeat steps 9 & 10 until no further improvement can be made.

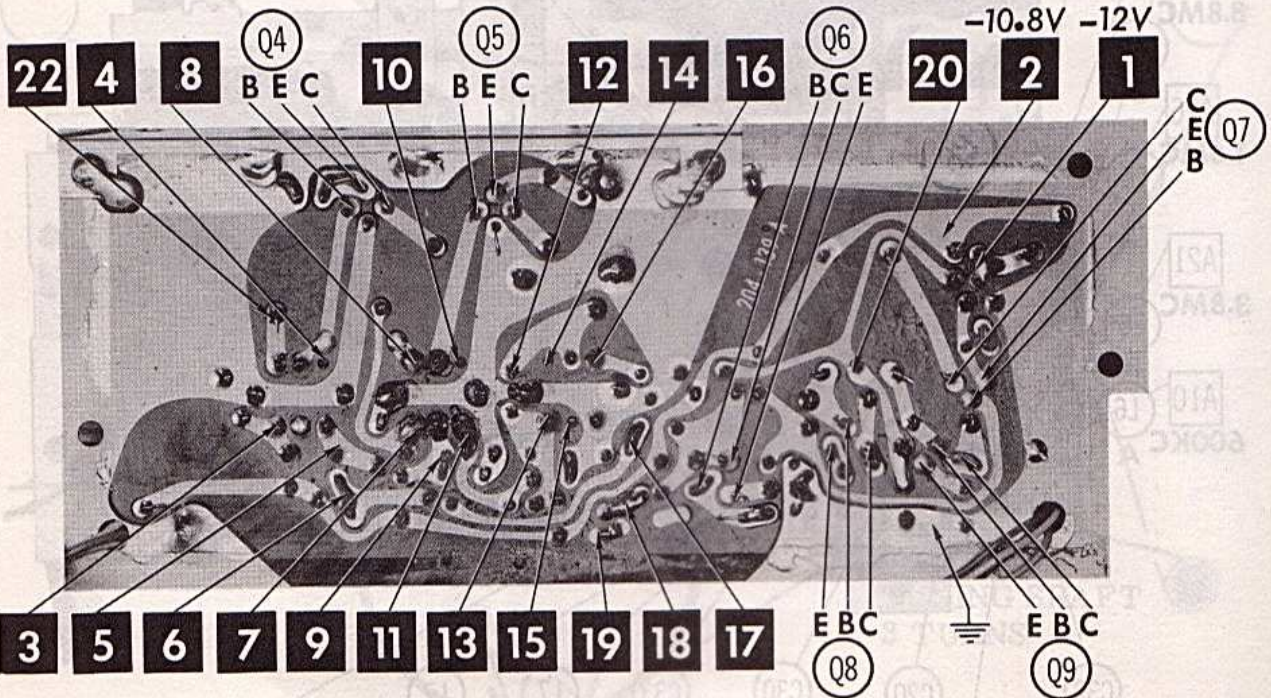
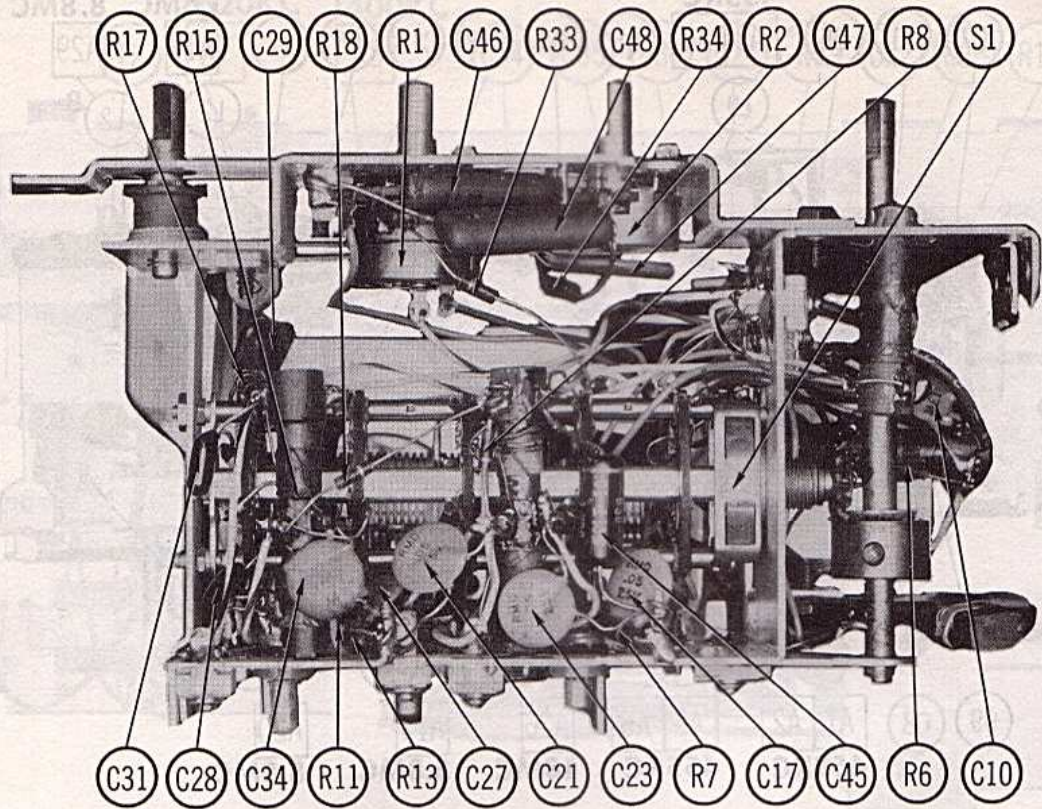
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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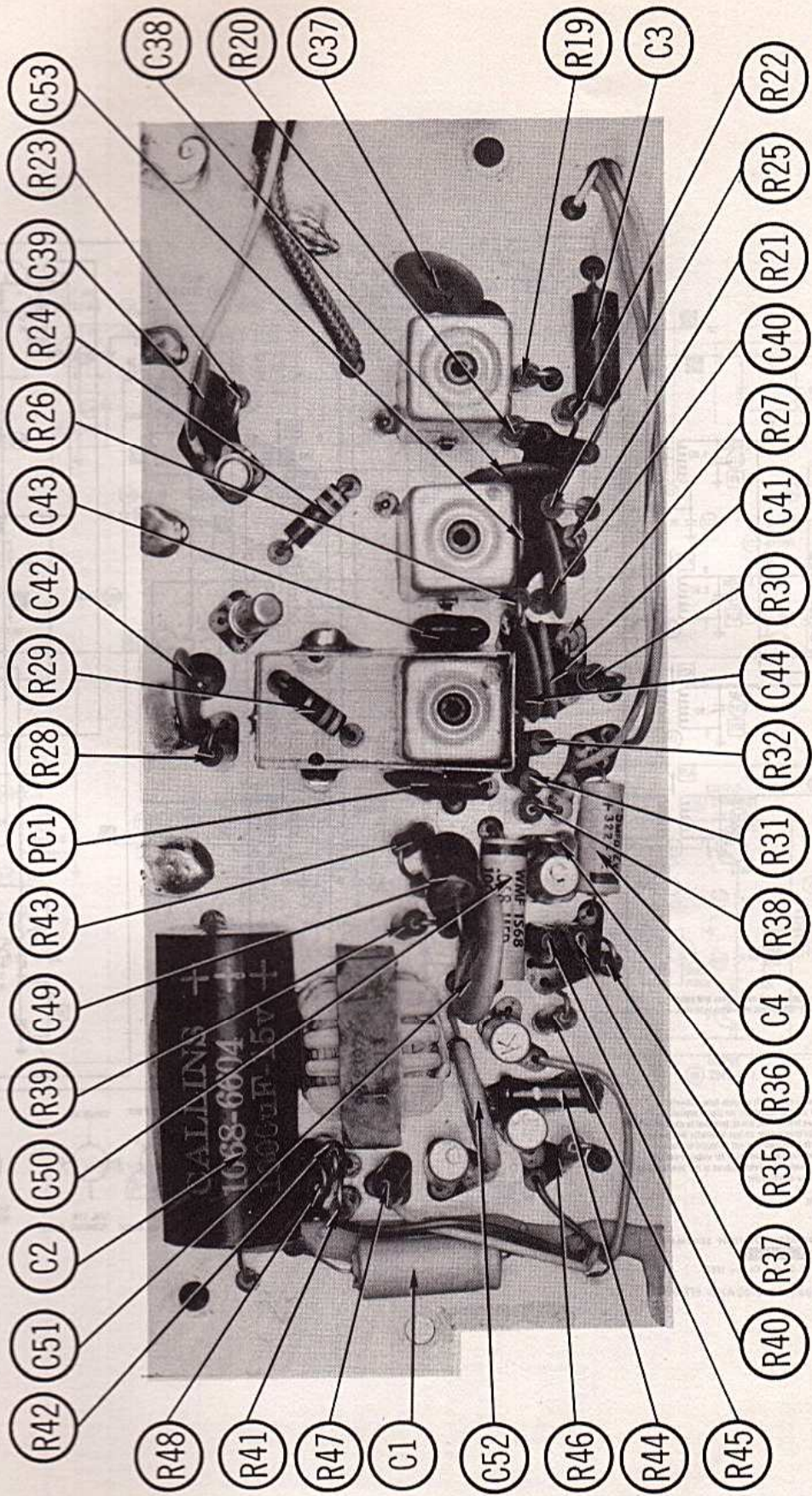
ZENITH CHASSIS 9NT44Z8

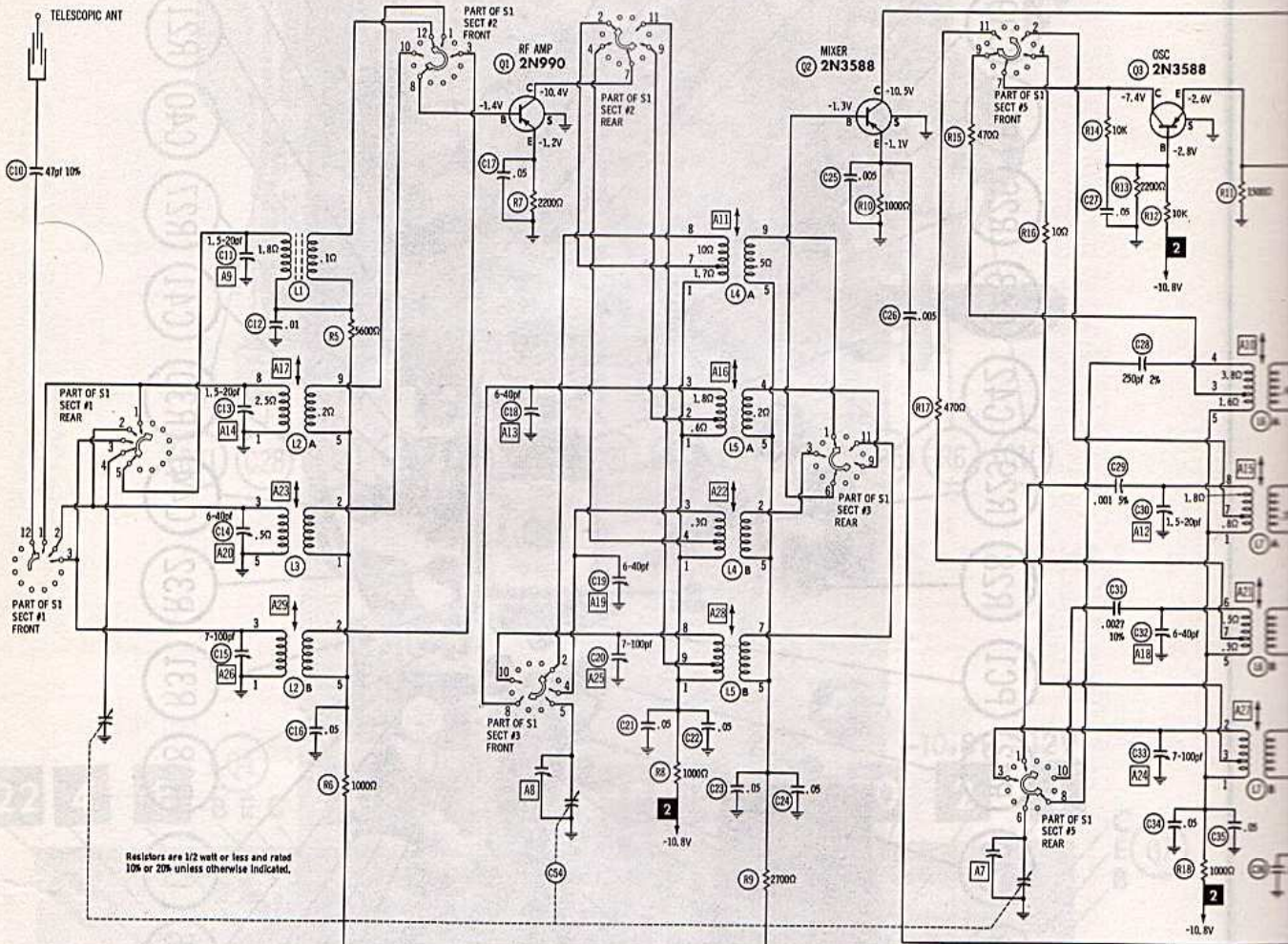






A Howard W. Sams **CIRCUITRACE** Photo

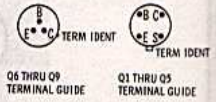
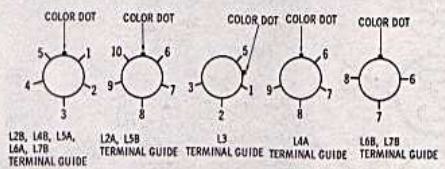




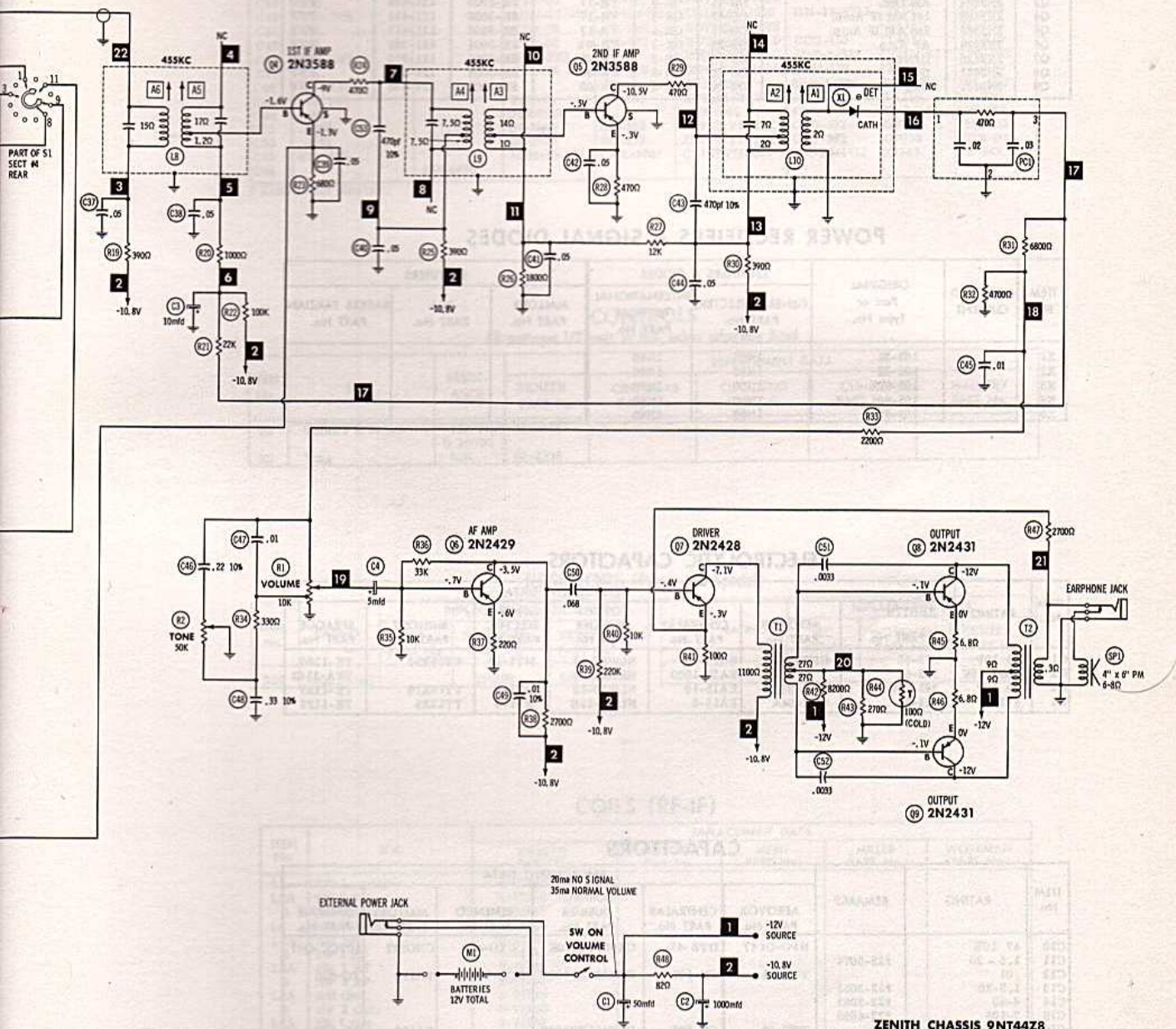
- © See parts list.
 1. Voltage measurements taken with vacuum tube voltmeter.
 2. All controls set for normal operation, no signal applied.
 3. Measured values are from socket pin or terminal to common ground.
 4. All terminals viewed from bottom unless otherwise designated.
 5. Numbers assigned to 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.

NC NO CONNECTION

S1 SELECTOR SWITCH SEQUENCE:
 1. AM
 2. SW1
 3. SW2
 4. SW3
 SHOWN IN "AM"



A PHOTOFAC STANDARD NOTATION SCHEMATIC
 with **CIRCUITRACE**
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ZENITH CHASSIS 9NT44Z8

PARTS LIST AND DESCRIPTION

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

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				ZENITH PART No.	NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.		
Q1	2N990	AM-RF Amp.	DS-41		TR-17	SK-3006	121-427	PNP
Q2	2N3588	AM Mixer	DS-41		TR-17	SK-3006	121-426	PNP
Q3	2N3588	AM Osc.	DS-41	GE-9	TR-17	SK-3006	121-429	PNP
Q4	2N3588	1st AM IF Amp.	DS-41	GE-9	TR-17	SK-3006	121-414	PNP
Q5	2N3588	2nd AM IF Amp.	DS-41	GE-9	TR-17	SK-3006	121-415	PNP
Q6	2N2429	AF Amp.	DS-26	GE-2	TR-05	SK-3004	121-309	PNP
Q7	2N2428	Driver	DS-26	GE-2	TR-05	SK-3004	121-310	PNP
Q8	2N2431	Output	DS-26	GE-2	TR-05	SK-3004	121-425	PNP
Q9	2N2431	Output	DS-26	GE-2	TR-05	SK-3004	121-425	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.	RCA PART No.	SARKES TARZIAN PART No.
X1		103-39	1N60	1N60			
X2		103-22	1N60	1N60			
X3		103-90	1N60	1N60			
X4		103-90	1N60	1N60			
X5		103-22	1N60	1N60			

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		ZENITH PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	50 15V	322-55	CRE467A	EA15-50	NLW50-15	MT1-16	TT15X50	TE-1160
C2	1000 15V	322-61		EA30-1000	BR1000-15			TVA-1163
C3	10 15V	322-108	CRE457A	EA15-10	NLW10-15	MT1-5	TT15X10	TE-1155
C4	5 12V	322-22	CRE404A	EA15-5	NLW5-15B	MT1-3	TT12X5	TE-1122

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	47 10%		NPO-D147	DTZ-47	CX601CG470K	CCTO-470	CNO447	10TCC-Q47
C11	1.5 - 20	#22-5074						
C12	.01		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C13	1.5-20	#22-3082						
C14	6-40	#22-3083						
C15	7-100	#22-4655						
C16	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C17	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C18	6-40	#22-3083						
C19	6-40	#22-3083						
C20	7-100	#22-4465						
C21	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C22	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C23	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C24	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C25	.005		TTD-005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C26	.005		TTD-005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C27	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C28	250 2%		ADM-15-251		CD10E251J500	DM-15-251		MS-325
C29	.001 5%		ADM-20-102	CPR-1000J	CD19F102J500	DM-19-102J	SX210	MS-21
C30	1.5-20	#22-3082						
C31	.0027 10%		ADM-20-222	CPR-2200J	CD19F222J500	DM-19-222J	SX222	MS-222
C32	6-40	#22-3083						
C33	7-100	#22-4655						
C34	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C35	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C36	.001		DI-1000	DM-102	JBS601YPI02K	CCD-102	SM210	5GAB-D10
C37	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

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.
C38	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C39	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C40	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C41	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C42	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C43	470 10%		ADM-15-471	CPR-470J	CD15F471J500	DM-16-471J	SX347	MS-347
C44	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C45	.01		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C46	.22 10%		DBE4P22		DMF4P22	4DP-5-224	PVC4022	4PS-P22
C47	.01		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C48	.33 10%				DMF2P33	2DP-5-334	PVC2033	2PS-P33
C49	.01 10%		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C50	.068		DBE4S68		DMF4S68	4DP-3-683	PVC6168	4PS-S68
C51	.0033		DI-3300	DD-332	JBV601YP332K	CCD-332	GP233	10TS-D33
C52	.0033		DI-3300	DD-332	JBV601YP332K	CCD-332	GP233	10TS-D33
C53	470 10%		ADM-15-471	CPR-470J	CD15F471J500	DM-16-471J	SX347	MS-347
C54		#22-4663						

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.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	10K Tap @ 3000Ω	63-6834				
R2	Tone	50K	63-6835				

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	ZENITH PART No.			IRC PART No.	WORKMAN PART No.	ZENITH PART No.
R61	100Ω (Cold)		GM100	363-8					

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				
		ZENITH PART No.	MEISSNER Part No.	MERIT PART No.	MILLER PART No.	WORKMAN PART No.
L1	AM Loopstick	S-71890				
L2A	SW 1 Ant.	S-72152				
B	SW 3 Ant.	S-72152				
L4	SW 2 Ant.	S-72156				
L4A	AM RF	S-72155				
B	SW 2 RF	S-72155				
L5A	SW 1 RF	S-72153				
B	SW 3 RF	S-72153				
L6A	AM Osc.	S-72150				
B	SW 2 Osc.	S-72150				
L7A	SW 1 Osc.	S-72154				
B	SW 3 Osc.	S-72154				
L8	1st AM IF	95-2249				
L9	2nd AM IF	95-2250				
L10	3rd AM IF	95-2251				

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
				ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC. 1	SEC. 2						
T1	3,3	1		95-2397					

ZENITH CHASSIS 9NT44Z8

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.						
T2	100Ω CT	4Ω	95-2398					

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		ZENITH PART No.	JENSEN PART No.	QUAM PART No.	
SP1	4" x 6" PM 3-4Ω	49-1105	4X6K7 ①	46A07U	①Fabricate Mounting

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	ZENITH PART NO.	REPLACEMENT DATA
PC1	Det. Filter	470Ω, .02mfd, .03mfd	105-49	Centralab PC-457

BATTERIES

ITEM No.	VOLTAGE	ZENITH PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M1	12V		230 or AL-2	1050 or E95	M13 R or MN1300	8 Required

MISCELLANEOUS

ITEM No.	PART NAME	ZENITH PART No.	NOTES
S1	Switch, Selector AC Adapter AC Adapter	85-905 S-64352 S-65074	120 Volts AC 115-230 Volts AC

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
Cabinet - Front	14-7360	Knob - Tone	S-72757
Cabinet - Back	14-7353	Knob - Volume	S-72757
Cabinet - Handle	36-478	Knob - Tuning	S-72756
Knob - Selector	S-72724	Telescopic Antenna	1-12

WIRING DATA

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