



ZENITH MODEL
L600 (Ch. 6L40)



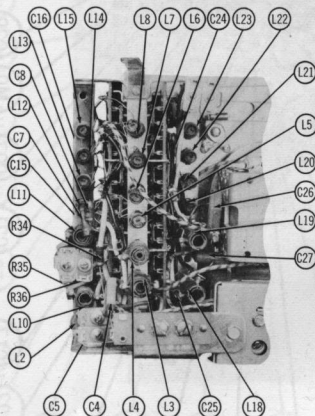
VOLUME
CONTROL
ON-OFF
SWITCH

TO NE
SWITCH

TUNING
CONTROL

TRADE NAME	Zenith Model L600 (Ch. 6L40)		
MANUFACTURER	Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill.		
TYPE SET	Three Power Portable Multi-Band Superheterodyne Receiver		
TUBES (Five)	Types 1U4 RF Amp., 1L6 Conv., 1U4 IF Amp., 1U5 Det.-AVC-AF Amp., 3V4 Audio Output		
POWER SUPPLY	110-120 Volts AC-DC (or) 9 Volts "A" Supply & 90 Volts "B" Supply In Pack Form		
RATING	.13 Amp. @ 117 Volts AC (or) 75MA @ 9 Volts DC & 21MA @ 90 Volts DC		
TUNING RANGE	Band #1 (540-1600KC	Band #4 (17.4-18.2MC)	Band #7 (9.4-9.8MC)
	Band #2 (4-8MC)	Band #5 (14.8-15.6MC)	
	Band #3 (2-4MC)	Band #6 (11.5-12.1MC)	

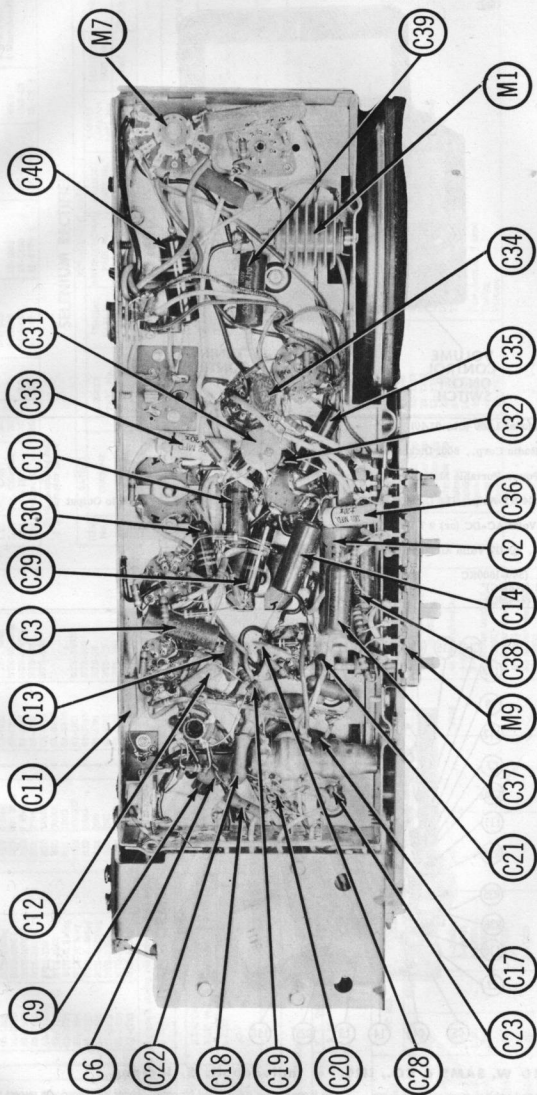
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L600 (Ch. 6L40)



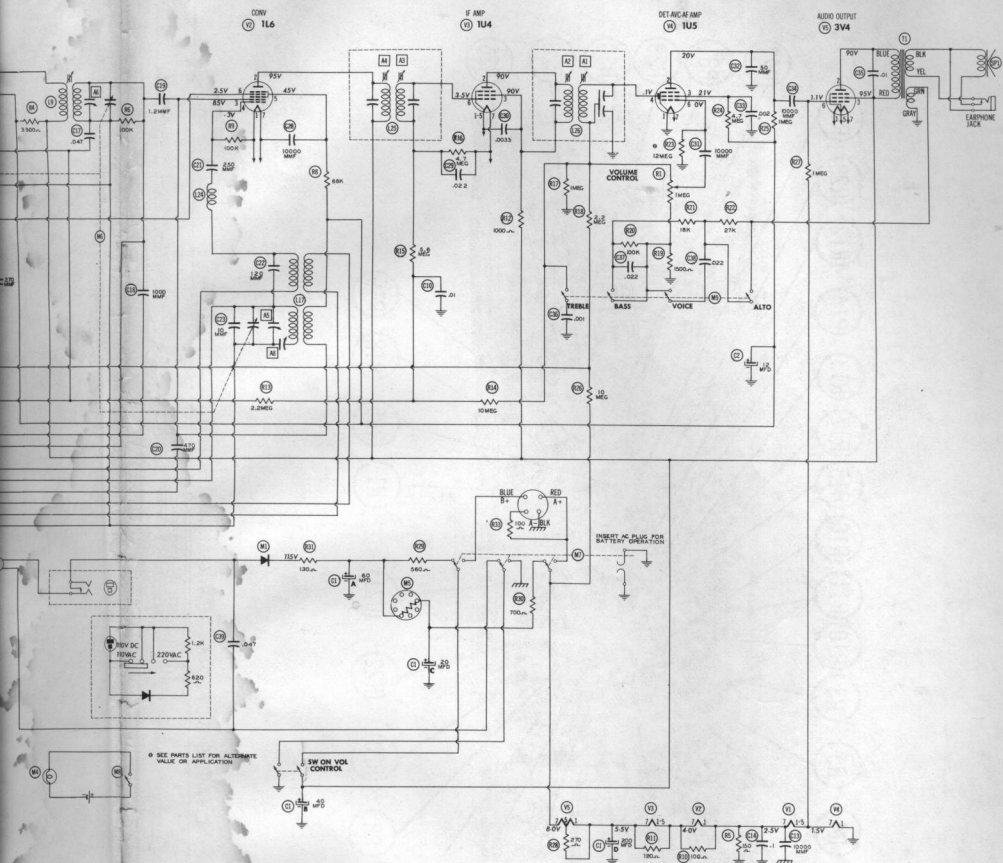
HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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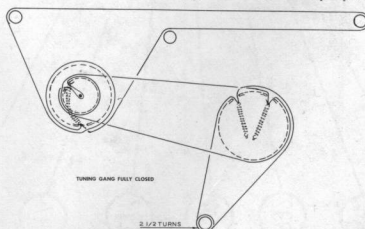
CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION



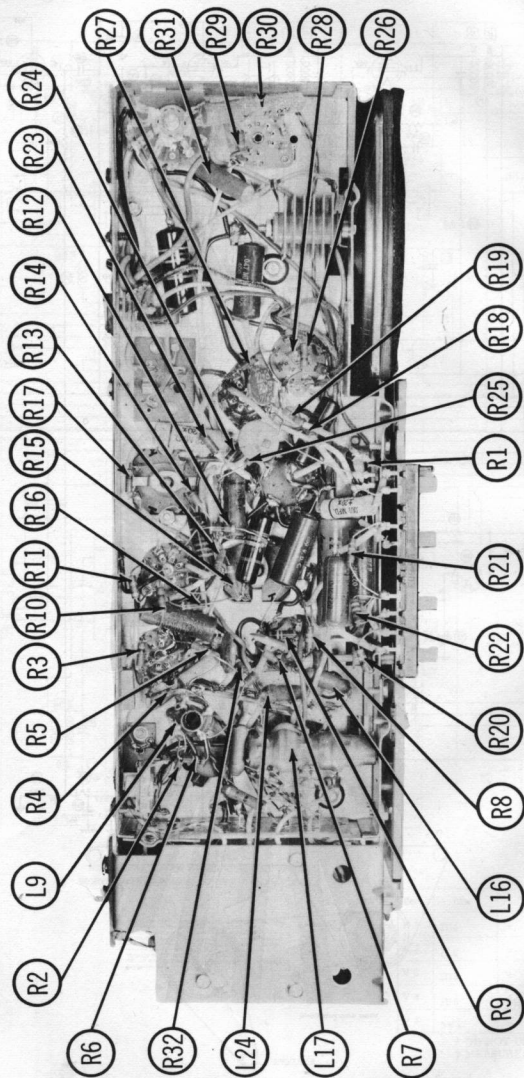
RESISTANCE READINGS

Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
14KΩ	3.2Meg	*	4.2Meg	*
14KΩ	100KΩ	172KΩ	4.2Meg	*
1.7KΩ	150Ω	*	2.5Meg	*
14.7Meg	1Meg	INF	12Meg	*
1700Ω	3.2Meg	*	1Meg	*

TO MEASURE FILAMENT RESISTANCE
OF M1



DRIVE CORD STRINGING



CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

ZENITH
MODEL L600 (Ch. 6L40)

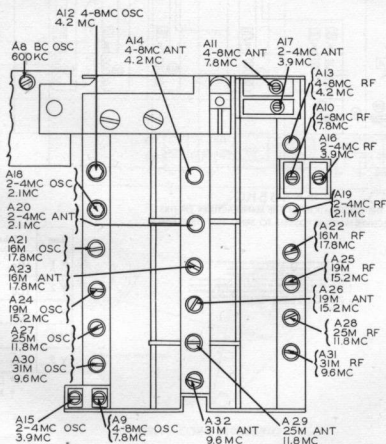
ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

During alignment the chassis should be placed over a metal plate approximately the same distance that the battery pack would be from the bottom of the chassis when the chassis is in the cabinet.
Zenith alignment wrench #68-19, or equivalent, should be used to adjust the IF transformer cores.
With tuning gang fully closed set the dial pointer to "0" on the logging scale (top dial scale).
Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use un-labeled alignment screwdriver for adjusting.
Use battery power, if possible. If AC power is used, use an isolation transformer when available. If not, connect a .1MFD capacitor in series with low side of the signal generator and B-.

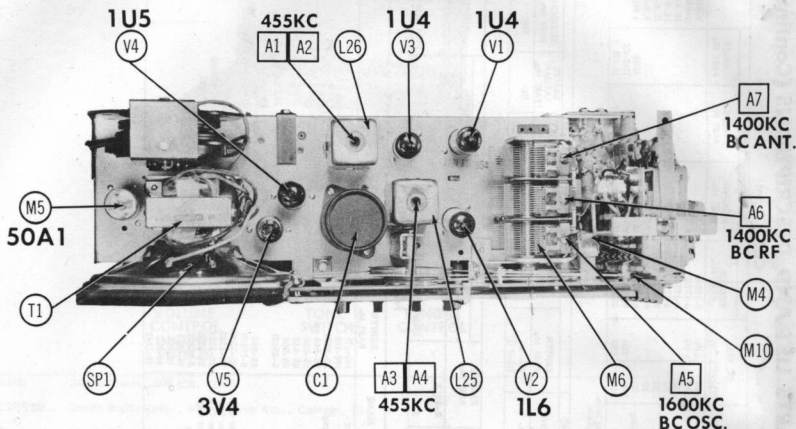
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .1MFD	High side to pin 6 (grid) of 1L6 (V2). Low side to pin 1 (negative side of filament).	455KC (400-Mod)	Broad-cast	600KC	Across voice coil	A1, A2, A3, A4	Adjust for maximum output. If AC power is used without an isolation transformer, reduce dummy antenna to 200MMF to reduce hum modulation.
2.	Loop	1600KC	"	1600KC	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1400KC	"	1400KC	"	A6, A7	"
4.	"	600KC	"	600KC	"	A8	Adjust for maximum output while rocking tuning gang thru 600KC signal.
5.	High side to 3 foot length of wire placed one foot from extended wave rod.	7.8MC (400-Mod)	4-8MC	7.8MC	"	A9, A10, A11	Adjust for maximum deflection.
6.	"	4.2MC	"	4.2MC	"	A12	Adjust for maximum output while rocking tuning gang thru 4.2MC signal.
7.	"	"	"	"	"	A13, A14	Adjust for maximum output. Repeat steps 6 and 7.
8.	"	3.9MC	2-4MC	3.9MC	"	A15, A16, A17	Adjust for maximum output.
9.	"	2.1MC	"	2.1MC	"	A18	Adjust for maximum output while rocking tuning gang thru 2.1MC signal.
10.	"	"	"	"	"	A19, A20	Adjust for maximum output. Repeat steps 9 and 10.
11.	High side to 3 foot length of wire placed one foot from extended whip ant.	17.8MC (400-Mod)	16 meters	17.8MC	Across voice coil	A21, A22, A23	Adjust for maximum output while rocking tuning gang thru 17.8MC signal.
12.	"	15.2MC	19 meters	15.2MC	"	A24, A25, A26	Adjust for maximum output while rocking tuning gang thru 15.2MC signal.
13.	"	11.8MC	25 meters	11.8MC	"	A27, A28, A29	Adjust for maximum output while rocking tuning gang thru 11.8MC signal.
14.	"	9.6MC	31 meters	9.6MC	"	A30, A31, A32	Adjust for maximum output while rocking tuning gang thru 9.6MC signal.

NOTE: After reinstalling chassis in cabinet, switch to the broadcast band and tune in a weak station near 1400KC and retouch A7 for maximum volume.



ALIGNMENT POINTS

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS TUBES (SYLVANIA, GENERAL ELECTRIC, WESTINGHOUSE)

ITEM No.	USE	REPLACEMENT DATA		NOTES
		STANDARD REPLACEMENT	REFMA BASE TYPE	
V1	RF Amplifier Converter	1U4	6AR	
V2	IF Amplifier	1U4	TDC	
V3	IF Amplifier	1U4	6AR	
V4	Audio Output	1U4	6BX	
V5	Audio Output	3V4	6BX	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		AEROVOX CENTRALAB	DUBIER	EBE PART No.	MALLOY PART No.	
C1	.05	AFH4-23	D030		FP408	
C2	.05					
C3	.05					
C4	.05					
C5	.05					
C6	.05					
C7	.05					
C8	.05					
C9	.05					
C10	.05					
C11	.05					
C12	.05					
C13	.05					
C14	.05					
C15	.05					
C16	.05					
C17	.05					
C18	.05					
C19	.05					
C20	.05					
C21	.05					
C22	.05					
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C24	.05					
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C27	.05					
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C29	.05					
C30	.05					
C31	.05					
C32	.05					
C33	.05					
C34	.05					
C35	.05					
C36	.05					
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C39	.05					
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C86	.05					
C87	.05					
C88	.05					
C89	.05					
C90	.05					
C91	.05					
C92	.05					
C93	.05					
C94	.05					
C95	.05					
C96	.05					
C97	.05					
C98	.05					
C99	.05					
C100	.05					

CONTROLS

ITEM No.	RATING	REPLACEMENT DATA						INSTALLATION NOTES
		RESIST. WATTS	GENCO	IRV	CLAROSTAT PART No.	CENTRALAB PART No.	MALLOY PART No.	
RLA 1 Meg	1	1	63-2276	Q1-137	A47-1Meg-3	AB-69	U-54	Volume
RLB 1/2 Batt	1		Not Req.	Not Req.	KSS-3	AK-4	Not Req.	Attach to RIA
RLC 1 Switch	1		Not Req.	Not Req.	76-2	KB-2	US-27	Attach to RIA

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

ITEM No.	RATING	EPOCHMENT DATA			NOTES
		ZENITH	PART No.	IRC PART No.	
		CHMS	WATT		
R2	23000	63-1800		FTS-2200	
R3	1 Meg	63-182		FTS-1	
R4	3000	63-1807		FTS-140	
R5	10000	63-1808		FTS-140	
R6	10000	63-1869		FTS-100K	
R7	1 Meg	63-182		FTS-1 Meg	
R8	10000	63-182		FTS-100K	
R9	10000	63-1869		FTS-100K	
R10	1000	63-1743		FTS-10	
R11	10000	63-1785		FTS-100	
R12	2,246g	63-1828		FTS-2, 246g	
R13	1000	63-1854		FTS-10 Meg	
R14	1000	63-1854		FTS-10 Meg	
R15	4,746g	63-1840		FTS-4, 746g	
R16	1 Meg	63-182		FTS-1 Meg	
R17	1000	63-182		FTS-100	
R18	1000	63-182		FTS-100	
R19	1000	63-182		FTS-100	
R20	1000	63-182		FTS-100	
R21	1000	63-182		FTS-100K	
R22	1000	63-1838		FTS-18K	
R23	1000	63-1845		FTS-18K	
R24	4,746g	63-1840		FTS-4, 746g	
R25	1 Meg	63-182		FTS-1 Meg	
R26	1000	63-184		FTS-10	
R27	1 Meg	63-182		FTS-1 Meg	
R28	1000	63-1780		FTS-270	
R29	1000	63-1781		FTS-270	
R30	1000	63-1829		FTS-500	
R31	1000	63-2839		FTS-500K	
R32	1000	63-1845		FTS-100	
R33	1000	63-1701		FTS-10	
R34	1000	63-1701		FTS-10	
R35	1000	63-1701		FTS-10	
R36	1000	63-1754		FTS-10	

Note 1. Some models may use a 15Meg resistor in this application.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA							NOTES
	PRI	SEC1	ZENITH PART No.	Stancor PART No.	Merit PART No.	Triad PART No.	Hallidison PART No.	Thordarson PART No.		
T1	9.8KΩ	3.5Ω	95-1369							
		SEC2								
		14.2Ω								

SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C. IMP.	ZENTH	JENSEN	QUAM	
				PART No.	PART No.	PART No.	
SP1	5 1/4"	PM	3.50	49-728	ST-803 Mod. P393-V	52A1	

COILS (R)

ITEM No.	USE	DC RES.		ZENITH PART No.	REPLACEMENT DATA		MILLER PART No.	NOTES
		PR	SEC.		MESSNER PART No.	PART No.		
L1	Ant. Coil	* 90		S-20833	15-7047	4058	Standard broadcast (540-1060KC)	
L2	Ant. Loading	1. 60		S-20820			40 Microhenr (ea.)	
L3	Coil	1. 60		S-20820			2-AMC	
L13	Coil	1. 320		S-10814			10 Meter band 117.4-12.2MC	
L4	Ant. Coil	* 221		S-17718			19 Meter band (14.8-15.0MC)	
L5	Ant. Coil	* 30		S-17719			19 Meter band (14.8-15.0MC)	
L6	Ant. Coil	* 30		S-17720			12-2MC band (11.4-12.2MC)	
L7	Ant. Coil	* 321		S-17721			31 Meter band (8.3-12.2MC)	
L8	RF Coil	4G	61	S-20844	14-1072	72-RF *	540-1060KC	
L9	RF Coil	1. 320		S-10853			2-AMC	
L10	RF Coil	1. 320		S-17714			11.4-11.5 MC	
L11	RF Coil	* 221		S-17714			11.4-11.5 MC	
L12	RF Coil	* 221		S-17714			11.4-11.5 MC	
L13	RF Coil	* 441		S-17717			9.2-9.5 MC	
L14	RF Coil	* 441		S-17717			9.2-9.5 MC	
L15	RF Coil	* 441		S-17717			9.2-9.5 MC	
L16	RF Coasting	Sec. 1		S-17720	15-1022	4056	Standard broadcast (540-1060KC)	
L17	5000 C. Coil	3. 50		S-322				
L18	P. 2-50	1. 60		S-322				
L19	P. 2-50	1. 60		S-322				

COILS (cont)

[illegible]

SELENIUM RECTIFIER

ITEM No.	RATING CURRENT	REPLACEMENT DATA					NOTES
		ZENITH PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	MALLOY PART No.	SARIES TARZAN PART No.	
MI	.071A	212-13	1101A	RS100	68100	100	584A ① Alternate

BATTERIES

ITEM	VOLTAGE	ZENITH PART No.	REPLACEMENT DATA				INSTALLATION NOTES
			EVEREADY		BURGESS		
			"A"	"B"	"A"	"B"	
M2	3V "A", 6V "B"	Z-691X			712		GG800
M3	1.5V	Z-1	1032P		8R		Pilot 11: battery

MISCELLANEOUS

ITEM No.	PART NAME	ZENTH		NOTES
		PART No.	QTY	
M5	Dia light	100-182	4	228 screw base
M6	Tuning cap	100-185	3	sections at 16-40MMF each
M7	Switch	22-2520		Power changer
M8	Switch	85-542		Momentary contact (dia light)
M9	Switch	85-544		Push button
M10	Switch	22-2521		Push button band selector including bracket & coil assembly
		85-569		Assembly
		85-570		Assembly
		22-2282		Bandwidth mounting bracket & terminals part of 2-2021
	Trimmer Cap	22-2283		Single section (AM osc. coil adjust)
	Trimmer Cap	22-2284		Single section (4-40MC osc. coil adjust)
	Trimmer Cap	22-2285		Dual section (2-4, 4-40MC osc. RF coil adjust)
	Atenuator	1-1102		Dual section (2-4, 4-40MC ant. coil adjust)
	Variable Resistor	46-813		*Teletyping assembly
	Knob	46-812		Push button, 7 used
	Knob	46-815		Tuning

IF = 455 KC

THE COOPERATION OF THE MANUFACTURER OF THIS
RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

1. DC voltage measurements taken with vacuum tube voltmeter;
AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a
variation of $\pm 15\%$ in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage
measurements.

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V 1	1U4	*	†700Ω	†4KΩ	3.2Meg	*	4.2Meg	*
V 2	1L6	*	†700Ω	†4KΩ	100KΩ	†72KΩ	4.2Meg	*
V 3	1U4	*	†1.7KΩ	†1.7KΩ	150Ω	*	2.5Meg	*
V 4	1U5	0Ω	†1Meg	†4.7Meg	1Meg	INF	12Meg	*
V 5	3V4	*	†1KΩ	†700Ω	3.2Meg	*	1Meg	*

* DO NOT USED OHMMETER TO MEASURE FILAMENT RESISTANCE

† MEASURED FROM OUTPUT OF M1