



ZENITH MODEL
L600 (Ch. 6L40)



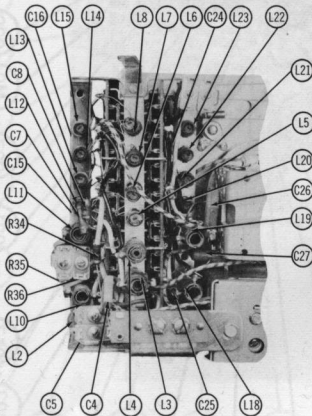
VOLUME
CONTROL
ON-OFF
SWITCH

STONE
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)	

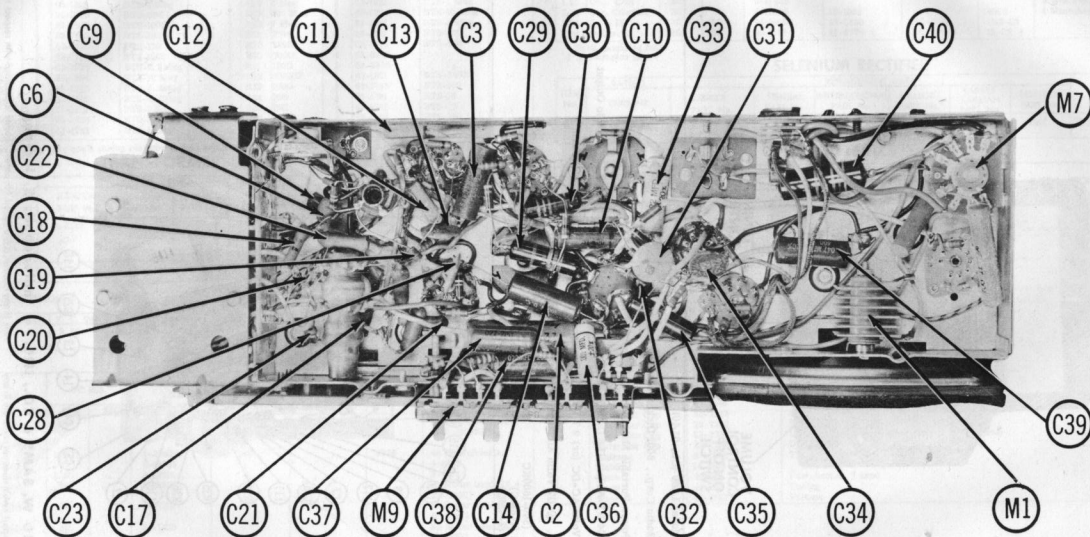
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L600 (Ch. 6L40)



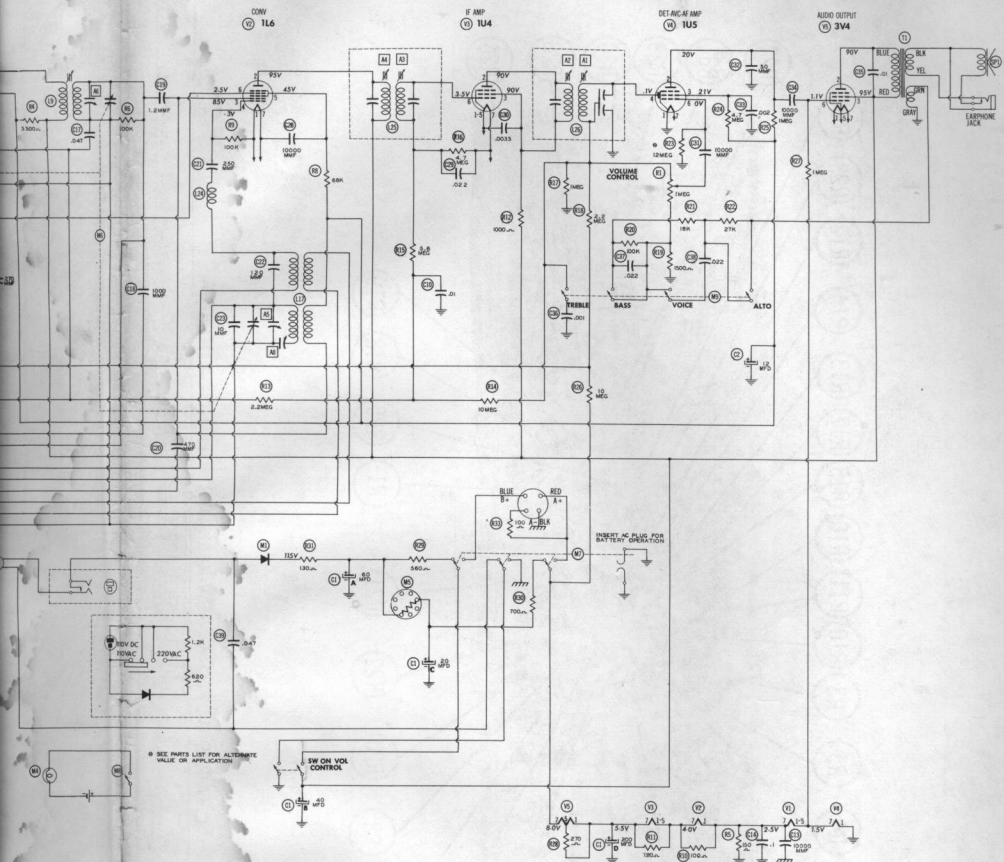
HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION



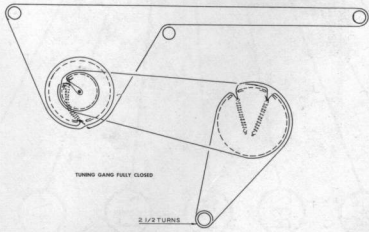
SEE PARTS LIST FOR ALTERNATE VALUE OR REPLACEMENT

SW ON VOL CONTROL

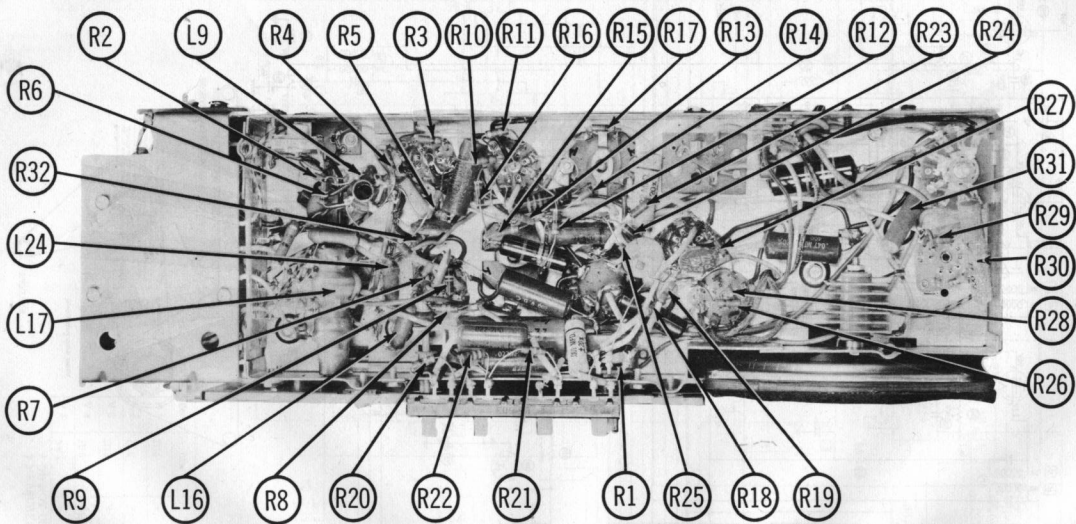
RESISTANCE READINGS

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
PT 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.

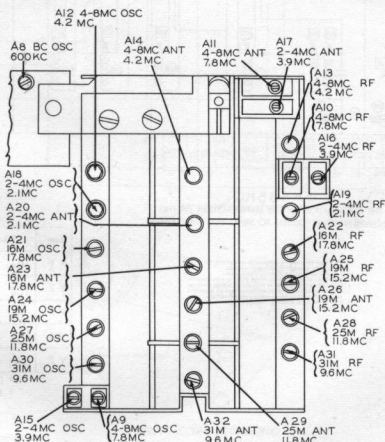
With tuning gang fully closed set the dial pointer to "0" on the logging scale (top dial scale).

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.	High side to pin 8 (grid) of 1L6 (V3). 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

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA, GENERAL ELECTRIC, WESTINGHOUSE)

ITEM No.	USE	REPLACEMENT DATA			RETA BASE TYPE	NOTES
		ZENITH PART No.	STANDARD REPLACEMENT			
V1	RF Amplifier	1U4	1U4	6AR		
V2	Converter	1L6	1L6	7DC		
V3	IF Amplifier	1U4	1U4	6AR		
V4	Det.-AVC AF Amp	1U5	1U5	6BW		
V5	Audio Output	3V4	3V4	6BX		

CAPACITORS

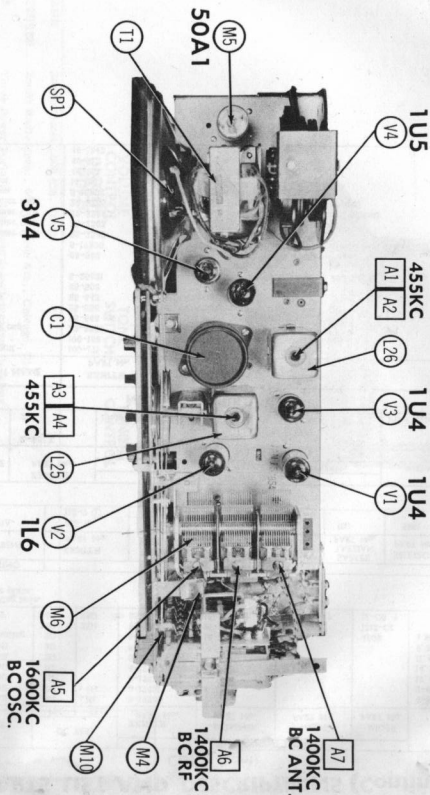
Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA						NOTES	
		ZENITH PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBIER PART No.	ERIE PART No.	MALLORY PART No.		SPRAGUE PART No.
C1A	.60 150	22-1741	AFH4-23		D030		FP408	R1079	
B	.40 150								
C	.20 150								
D	200 10								
C2	12 150	22-2056	PR150/12		RR1215	TC43		TYA-1407	
C3	.047 200	22-1778	P288-.047	DF-503	PJ2847	PT4147	MCE245	2TM-847	
C4	.470 500	22-1390			TP1	UC-5415	MS-35	5GA-Q15	
C5	15	22-2329	S1U5	D6-150	TP1	GPIK-150	DC-524	5HK-D4	
C6	4000	22-4	BFD-.004	DD-402	K078	801-004	MC240	MS-33	
C7	25	22-1392	S1E5	D6-150	TP25	GPIK-250	UC-5425	5GA-Q25	
C8	50	22-1761	S1S0	D6-150	TP30	GPIK-500	UC-5450	5GA-Q50	
C9	.01 400	22-1784	P488-.01	D6-103	CUB481	GP2-333-103	PT411	4TM-81	
C10	.01 400	22-1846	P488-.01	D6-103	CUB481	GP2-333-103	PT411	4TM-81	
C11	270 500	22-2058			SR2727		MCE240	MS-31	
C12	270 500	22-2058			SR2727		MCE240	MS-33	
C13	10000	22-3	BPD-.01	D6-103	K062	801-01	DC-511	5HK-81	
C14	.1 200	22-1777	P288-.1	DF-104	PJ2P1		DC-511	5HK-81	
C15	10000	22-3	BPD-.01	D6-103	K062	811-01	DC-511	5HK-81	
C16	.001 600	22-2127	P488-.001	D6-102	CUB6D1	GP2L-102	PT415	4TM-85	
C17	.047 400	22-1775	P488-.047	DF-503	CUB4847	GP2L-102	PT415	4TM-85	
C18	1000	22-1886	S1U000	D6-102	TP52		UC-521	5HK-D1	
C19	1.2	22-1765							
C20	470 500	22-1390			SR2747		MCE245	MS-35	
C21	250	22-2126	SR260	D6-251	TP40	GPIK-251	UC-5325	5GA-T25	
C22	100	22-2179	S1D0NP0	TCZ-121	TP42	NPK-121		5TC-712	
C23	10	22-1953	S1D	D6-100	TP99	NPK-100	UC-541	5TC-41	
C24	220	22-2279	S1D20	D6-121	TP95	GPIK-121	UC-5312	5GA-T12	
C25	120	22-2350	S1D20	D6-121	TP95	GPIK-121	UC-5312	5GA-T12	
C26	3000 500	22-2281			IR123		MCE461	MS-23	
C27	270 500	22-1433			RS227	811-01	MC8460		
C28	10000	22-3	BPD-.01	DD-103	K062	811-01	DC-511	5HK-81	
C29	.022 200	22-2071	P288-.022	D6-332	CUB6D33	PJ2822	PT4122	2TM-822	
C30	.0033 400	22-1780	P488-.0033	D6-102	CUB6D33	GP2-333-332	PT6233	9TM-103	
C31	10000	22-3	BPD-.01	D6-102	TP23	811-01	DC-511	5HK-81	
C32	50	22-1874	S1D0NP0	TCZ-120	TP23	NPK-500	PT4122	4TM-Q25	
C33	.022 400	22-2072	P488-.022	D6-103	CUB4822		PT4122	4TM-Q25	
C34	10000	22-3	BPD-.01	D6-103	K062	811-01	DC-511	5HK-81	
C35	.01 600	22-1779	P488-.01	D6-103	CUB681	GP2-333-103	PT611	8TM-81	
C36	.001 600	22-2127	P488-.001	D6-102	CUB6D1	GP2L-102	PT621	8TM-D1	
C37	.022 200	22-2071	P288-.022	D6-102	PJ2822		PT4122	2TM-822	
C38	.022 200	22-2071	P288-.022	D6-102	PJ2822		PT4122	2TM-822	
C39	.047 600	22-1844	SR62X-.047	DF-503	CUB6847	GP2L-102	PT647	8TM-847	
C40	.047 400	22-1775	P488-.047	DF-503	CUB6847	GP2L-102	PT647	8TM-847	

CONTROLS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA				INSTALLATION NOTES	
		ZENITH PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.		MALLORY PART No.
RIA	A Meg	63-2276	Q11-137	A47-1Meg-3	AB-69	U-54	Volume Attach to RIA
B	Shaft	Not Req.	Not Req.	KSS-3	AK-4	Not Req.	
C	Switch	Not Req.	Not Req.	SWE-20	KR-2	US-27	Attach to RIA

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

ITEM No.	RATING	REPLACEMENT DATA		NOTES	ITEM No.	RATING	REPLACEMENT DATA		NOTES
		ZENITH PART No.					M.C. PART No.		
		OHMS	WATT				OHMS	WATT	
R2	2500Ω	63-1800	B7S-2200		R20	100KΩ	63-1869	B7S-100K	
R3	1 Meg	63-1912	B7S-1 Meg		R21	18KΩ	63-1838	B7S-18K	
R4	3300Ω	63-1807	B7S-3300		R22	27KΩ	63-1845	B7S-27K	
R5	150Ω	63-1750	B7S-150		R23	12 Meg	63-1850	B7S-12 Meg	Note 1
R6	100KΩ	63-1869	B7S-100K		R24	4.7 Meg	63-1840	B7S-4.7 Meg	
R7	1 Meg	63-1912	B7S-1 Meg		R25	1 Meg	63-1923	B7S-1 Meg	
R8	680Ω	63-1863	B7S-680		R26	10 Meg	63-1954	B7S-10 Meg	
R9	100KΩ	63-1869	B7S-100K		R27	1 Meg	63-1912	B7S-1 Meg	
R10	100Ω	63-1743	B7S-100		R28	270Ω	63-1761	B7S-270	
R11	120Ω	63-1747	B7S-120		R29	560Ω	63-1775	B7S-560	
R12	1000Ω	63-1785	B7S-1000		R30	700Ω	63-2290	B7S-700	
R13	10 Meg	63-1926	B7S-2.2Meg		R31	120Ω	63-2339	B7S-120	
R14	2 Meg	63-1954	B7S-2 Meg		R32	330KΩ	63-1891	B7S-330K	
R15	5.6Meg	63-1943	B7S-5.6Meg		R33	100Ω	63-1743	B7S-100	
R16	4.7Meg	63-1943	B7S-4.7Meg		R34	100	63-1701	B7S-100	
R17	1 Meg	63-1926	B7S-1 Meg		R35	10Ω	63-1701	B7S-10	
R18	2.2Meg	63-1862	B7S-2.2Meg		R36	180Ω	63-1754	B7S-180	
R19	1500Ω	63-1752	B7S-1500						

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

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA						NOTES
		ZENITH PART No.		Stancor PART No.	Merit PART No.	Triod PART No.	Thordarson PART No.	
		PRI.	SEC.1					
T1	8, 8KΩ 3.5Ω 14, 2Ω Res.	95-1359						

SPEAKER

ITEM No.	RATINGS	REPLACEMENT DATA			NOTES
		ZENITH PART No.	JENSEN PART No.	QUAM PART No.	
		SIZE	FIELD	V. C. IMP.	
SP1	5 1/4" PM 3.5Ω	49-728	ST-803 Mod. P255-V	52A1	

COILS (RF-IF)

ITEM No.	USE	DC RES.	REPLACEMENT DATA				NOTES
			ZENITH PART No.		MEISSNER PART No.	MILLER PART No.	
			PRI.	SEC.			
L1	Ant. Coil	.9Ω	S-20813				
L2	Ant. Loading Coil	1.6Ω	S-20820	19-7047	4628	48 Microhenries (540-1600K)	
L3	Ant. Coil	.1Ω	S-18735				
L4	Ant. Coil	.2Ω	S-18614				
L5	Ant. Coil	.2Ω	S-17718				
L6	Ant. Coil	.2Ω	S-17719				
L7	Ant. Coil	.2Ω	S-17720				
L8	Ant. Coil	.3Ω	S-17721				
L9	RF Coil	.4Ω 6Ω	S-20844	14-1072	BC-382 *	72-RF *	
L10	RF Coil	.1Ω	S-18615			540-160K	
L11	RF Coil	1.2Ω	S-18614			4-3MC	
L12	RF Coil	.3Ω	S-17716			2-4MC	
L13	RF Coil	.3Ω	S-17716			17, 4-18, 2MC	
L14	RF Coil	.3Ω	S-17716			14, 3M Ω , 6MC	
L15	RF Coil	.4Ω	S-17717			11, 4-12, 2MC	
L16	RF Coil	.2Ω	S-20843	19-1002		9, 2-9, 9MC	
L17	RF Coupling Osc. Coil	Pri. 1-3.5Ω Sec. 1-3.5Ω Pri. 2-8Ω Sec. 2-8Ω	S-17709			3 Microhenries 540-160K Ω	

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (cont)

ITEM No.	USE	DC RES.	REPLACEMENT DATA					NOTES
			ZENITH PART No.		MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
			PRI.	SEC.				
L18	Osc. Coil	.8Ω	.1Ω	S-17730			4-8MC	
L19	Osc. Coil	.7Ω	.4Ω	S-17731			2-4MC	
L20	Osc. Coil	.1Ω		S-17726			17, 4-18, 2MC	
L21	Osc. Coil	.1Ω		S-17727			14, 8-15, 6MC	
L22	Osc. Coil	.2Ω		S-17728			11, 4-12, 2MC	
L23	Osc. Coil	.3Ω		S-17729			3, 3-9, 9MC	
L24	Osc. Coupling	.2Ω		S-14403	19-1003		4 Microhenries	
L25	Input IF	27Ω	25Ω	95-1148	18-6066	BC-368	4608 1312-C1	
L26	Output IF	24Ω	23Ω	95-1449	18-6778	BC-355	12-C2	

* Drill mounting hole.
* Use adaptor plate.

SELENIUM RECTIFIER

ITEM No.	RATING	REPLACEMENT DATA						NOTES	
		CURRENT	ZENITH PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	MALLOY PART No.	SARKES TARZIAN PART No.		SELETRON PART No.
M1	.07A	212-13	212-7	1101A	RS100	68100	100	5M4	① Alternate

BATTERIES

ITEM No.	VOLTAGE	ZENITH PART No.	REPLACEMENT DATA					INSTALLATION NOTES
			EVEREADY		BURGESS		"A-B"	
			"A"	"B"	"A-B"	"B"		
M2	9V "A"	Z-985X			752		GG690	
M3	1.5V	Z-1	1052P	8R				Pilot light battery

MISCELLANEOUS

ITEM No.	PART NAME	ZENITH PART No.	NOTES
M4	Dial light	100-171	# 222 screw base
M5	Tube	100-162	Ballast 50A1
M6	Tuning cap	22-2520	3 sections at 16-462MMF each
M7	Switch	85-543 or 85-520	Power changerover
M8	Switch	85-543	Momentary contact (dial light)
M9	Switch	85-503	Tone-4 used
M10	Switch	S-20821	Push button band selector including bracket & coil assembly
		85-502	Push switch only-part of S-20821 - 7 used
		S-17906	Bandwidth mounting bracket & terminals part of S-20821
	Trimmer Cap	22-2262	Single section (AM osc. coil adjust)
	Trimmer Cap	22-2263	Dual section (2-4, 4-8MC osc. coil adjust)
	Trimmer Cap	22-2264	Dual section (2-4, 4-8MC osc. coil adjust)
	Trimmer Cap	22-2265	Dual section (2-4, 4-8MC ant. coil adjust)
	Antenna Cabinet	S-18002	Telescoping assembly
	Knob	14-1633	
	Knob	46-012	Push button, 7 used
	Knob	46-013	Tuning
	Knob	46-1242	Volume

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 $\pm 19\%$ 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