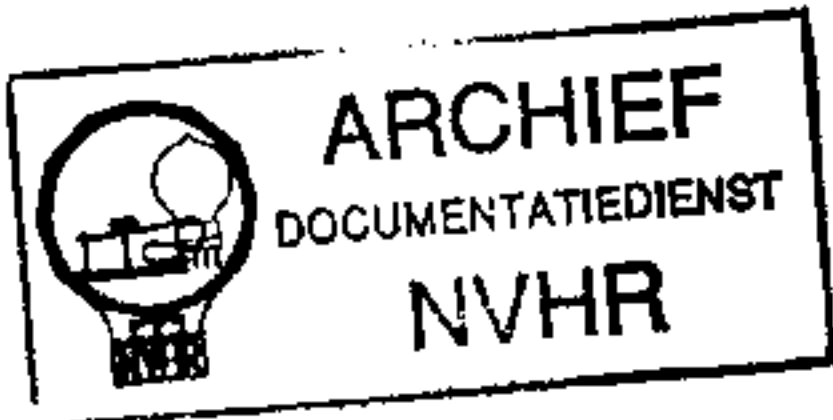


Ned. Ver. v. Historie v/d Radio



TRADE NAME	Excel Model XL-3
IMPORTER	Excel Corp. of America., 9 Rockefeller Plaza, New York 20, N. Y.
TYPE SET	AC-DC Battery Operated 4 Tube Portable AM Receiver
POWER SUPPLY	110-120 Volts AC (or) 1.5 Volts DC "A" Supply & 67.5 Volts DC "B" Supply
RATING	11 Watts, .17 Amp. @ 117 Volts AC (or) 260MA @ 1.5 Volts DC & 14MA @ 67.5 Volts DC
TUNING RANGE—BROADCAST	535KC-1805KC

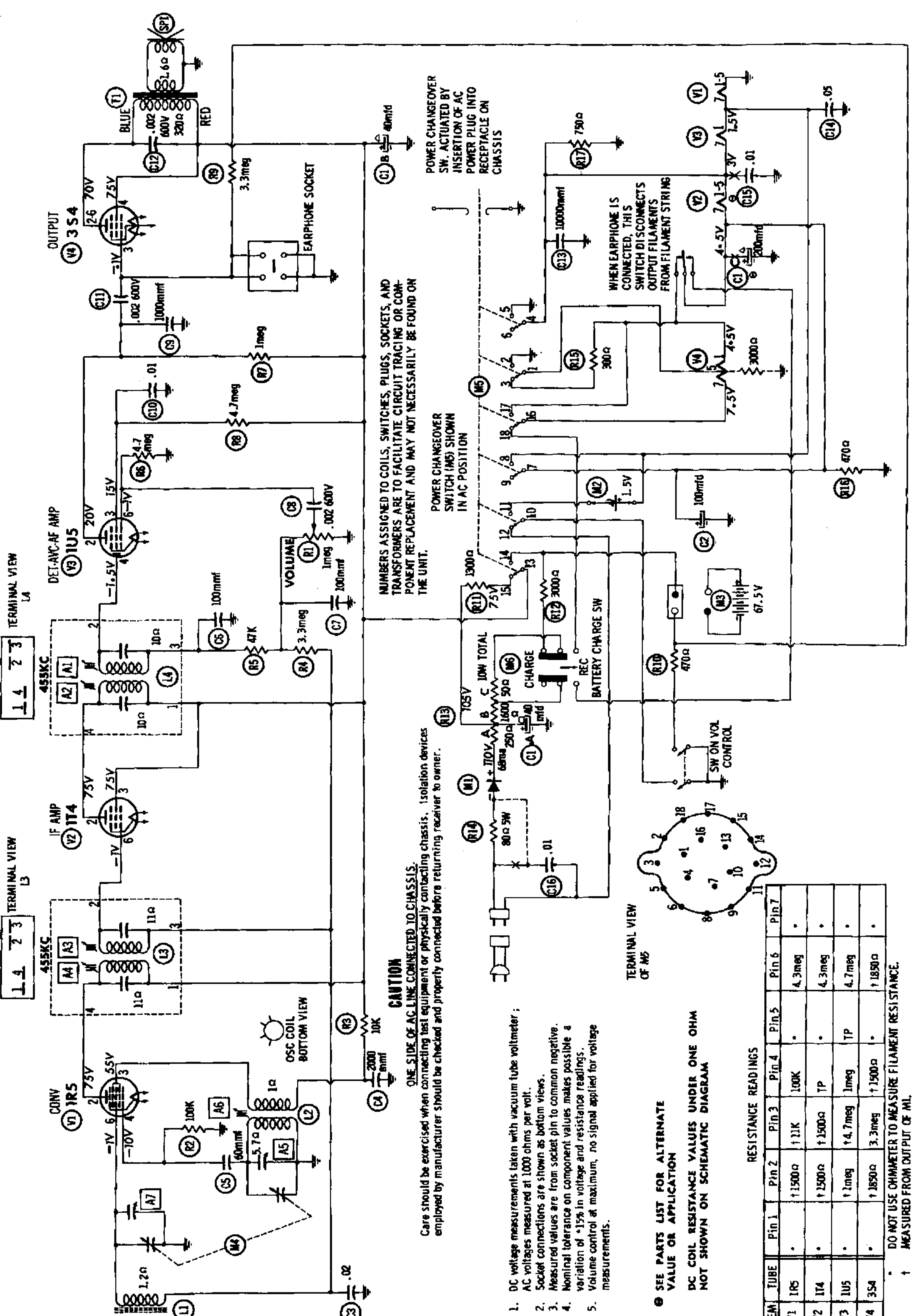
ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT						
Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading.						
Suggested Alignment Tools: A1, A2, A3, A4, A6... GENERAL CEMENT #8721, 8722 WALSCO #2519						
A5, A7... GENERAL CEMENT #5000, 5003, 8276, 8290 WALSCO #2512, 2525						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .1mf	High side to antenna lug at tuning gang. Low side to chassis.	455KC (400% Mod)	Tuning gang fully open	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2. "	"	1805KC	"	"	A5	"
3. "	"	600KC	"	"	A6	"
4.	Loop	1400KC	"	"	A7	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.

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

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of JF151

the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1959 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



CAUTION
ONE SIDE OF AC LINE CONNECTED TO CHASSIS.
Care should be exercised when connecting test equipment or physically contacting chassis. Isolation devices employed by manufacturer should be checked and properly connected before returning receiver to owner.

NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.
POWER CHANGEOVER SWITCH (M5) SHOWN IN AC POSITION

POWER CHANGEOVER SW. ACTUATED BY INSERTION OF AC POWER PLUG INTO RECEPTACLE ON CHASSIS

WHEN EARPHONE IS CONNECTED, THIS SWITCH DISCONNECTS OUTPUT FILAMENTS FROM FILAMENT STRING

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	1R5	.	↑ 1500 Ω	↑ 21K	100K	.	4.3meg	.
V2	1T4	.	↑ 2500 Ω	↑ 1500 Ω	TP	.	4.3meg	.
V3	1U5	.	↑ 1meg	↑ 4.7meg	1meg	TP	4.7meg	.
V4	3S4	.	↑ 1850 Ω	3.3meg	↑ 1500 Ω	.	↑ 1850 Ω	.

DO NOT USE OHMMETER TO MEASURE FILAMENT RESISTANCE.

↑ MEASURED FROM OUTPUT OF M1 TP TIE POINT.

- DC voltage measurements taken with vacuum tube voltmeter;
- AC voltages measured at 1000 ohms per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	Converter	1R5	
V2	IF Amplifier	1T4	

ITEM No.	USE	TYPE	NOTES
V3	Det. -AVC-AF Amp.	1U5	
V4	Output	3B4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					NOTES	
	CAP.	VOLT.	EXCEL PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.		SPRAGUE PART No.
C1A	.40	150							
B	.40	150							
C	.200	25							①
C2	100	10		PR512V100	BBR100-15	TT15X100	TD-100-15	TVA-1130	

① Not used in some versions.

FIXED CAPACITORS

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

ITEM No.	RATING			REPLACEMENT DATA					NOTES	
	CAP.	VOLT	TOL	EXCEL PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.		SPRAGUE PART No.
C3	.02	400			P485N-02	DD-203	BYB662	GTM-412	4EP-S20	
C4	2000				BPD-002	DD-202	BYA10D2	B-220	5HK-D2	
C5	80				SI 56	D6-580	L10Q56	UC-5458	5GA-Q56	
C6	100				SI 100	D6-101	L10T1	UC-310	5GA-T1	
C7	100				SI 100	D6-101	L10T1	UC-310	5GA-T1	
C8	.002	800			P685N-002	DD-202	BYA10D2	GTM-622	6EP-D20	
C9	1000				SI 1000	D6-102	BYA10D1	UC-210	5HK-D1	
C10	.01	400			P485N-01	DD-103	BYA10S1	GTM-411	4EP-S1	
C11	.002	600			P685N-002	DD-202	BYA10D2	GTM-622	6EP-D2	
C12	.002	600			P685N-002	DD-202	BYA10D2	GTM-622	6EP-D2	
C13	10000				BPD-01	DD-103	BYA10S1	B-110	5HK-S1	
C14	.05	400			P485N-05	DF-503	STM4847	GTM-415	4EP-S5	
C15	.01	400			P485N-01	DD-103	BYA10S1	GTM-411	4EP-S1	①
C16	.01	400			P485N-01	DD-103	BYA10S1	GTM-411	4EP-S1	

① Not used in some versions.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	EXCEL PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1	1meg	$\frac{1}{2}$						Volume & Switch

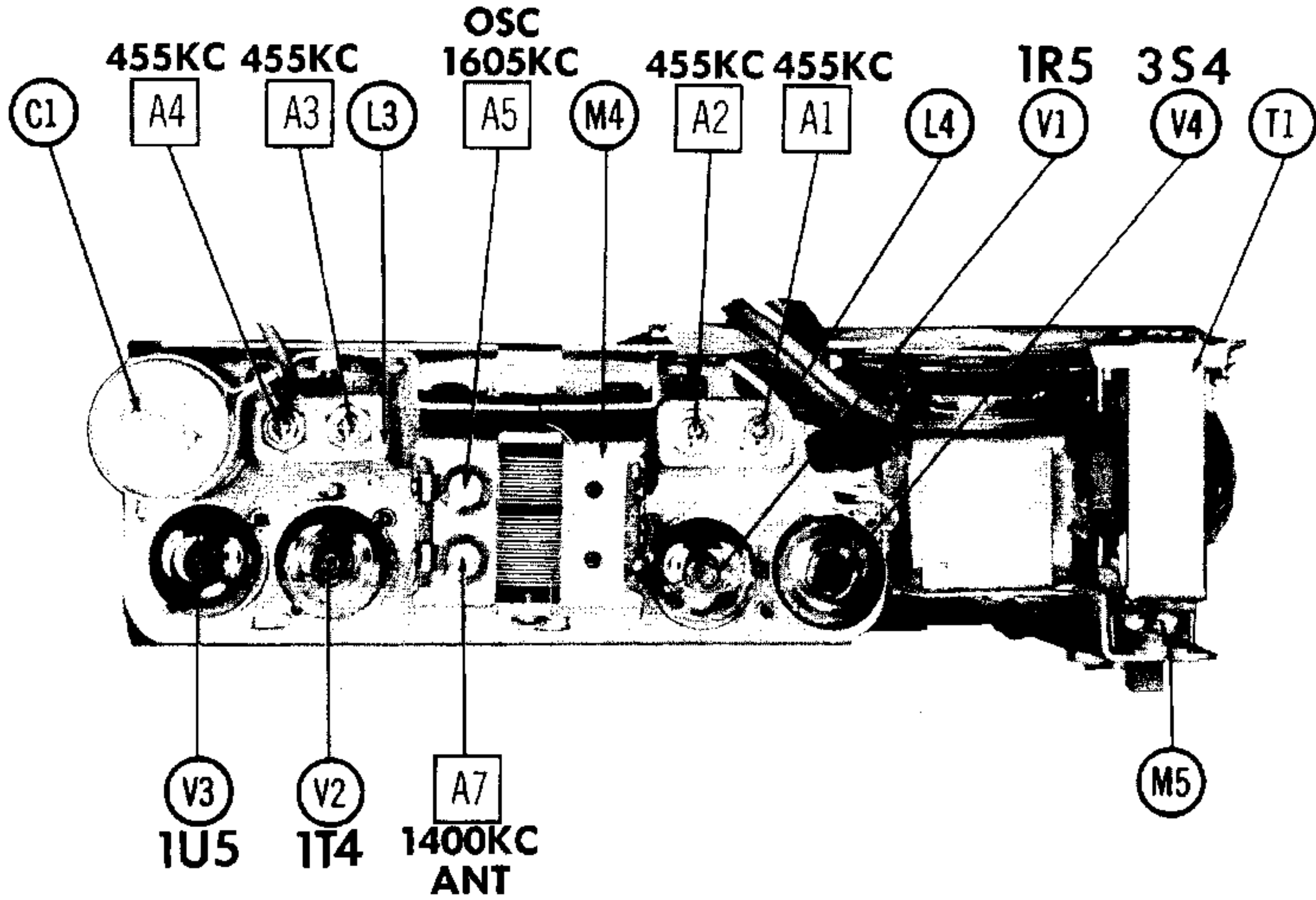
RESISTORS

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

ITEM No.	RATING		EXCEL PART No.	NOTES
	OHMS	WATT		
R2	100K			
R3	10K			
R4	3.3meg			
R5	47K			
R6	4.7meg			
R7	1meg			
R8	4.7meg			
R9	3.3meg			
R10	470Ω			

ITEM No.	RATING		EXCEL PART No.	NOTES
	OHMS	WATT		
R11	1300Ω			
R12	3000Ω			
R13A	250Ω	10		
B	1800Ω			
C	50Ω			
R14	80Ω	5		
R15	300Ω			
R16	470Ω			
R17	750Ω			

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		EXCEL PART No.	Gromer PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Loopstick							
L2	Osc. Coil							
L3	Input IF							
L4	Output IF							

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES	
	PRI.	SEC.	EXCEL PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
T1	8200Ω	12-14 Ω								

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	EXCEL PART No.	QUAM PART No.	
SP1	2½"	PM	12-13Ω		25A07Z18	

RECTIFIERS

ITEM No.	RATING	REPLACEMENT DATA					NOTES
	CURRENT (Measured)	EXCEL PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	SARKES TARZIAN PART No.	SYLVANIA PART No.	
M1	.068A ①						① Selenium Type.

BATTERIES

ITEM No.	VOLTAGE	EXCEL PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M2	1.5V		2		950		M13M		
M3	67.5V			XX45		467		M200	

MISCELLANEOUS

ITEM No.	PART NAME	EXCEL PART No.	NOTES
M4	Tuning Cap.		2 Gang (Ant. 13-223mmf, Osc. 12-108mmf) Changeover Battery Charger
M5	Switch		
M6	Switch		

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in Ten Colors 8524 (Stranded) Available in Ten Colors
Power Cord	Use BELDEN No. 1765-B (6 Ft. Length) 1725-K (7½ Ft. Length)

CHASSIS BOTTOM VIEW

