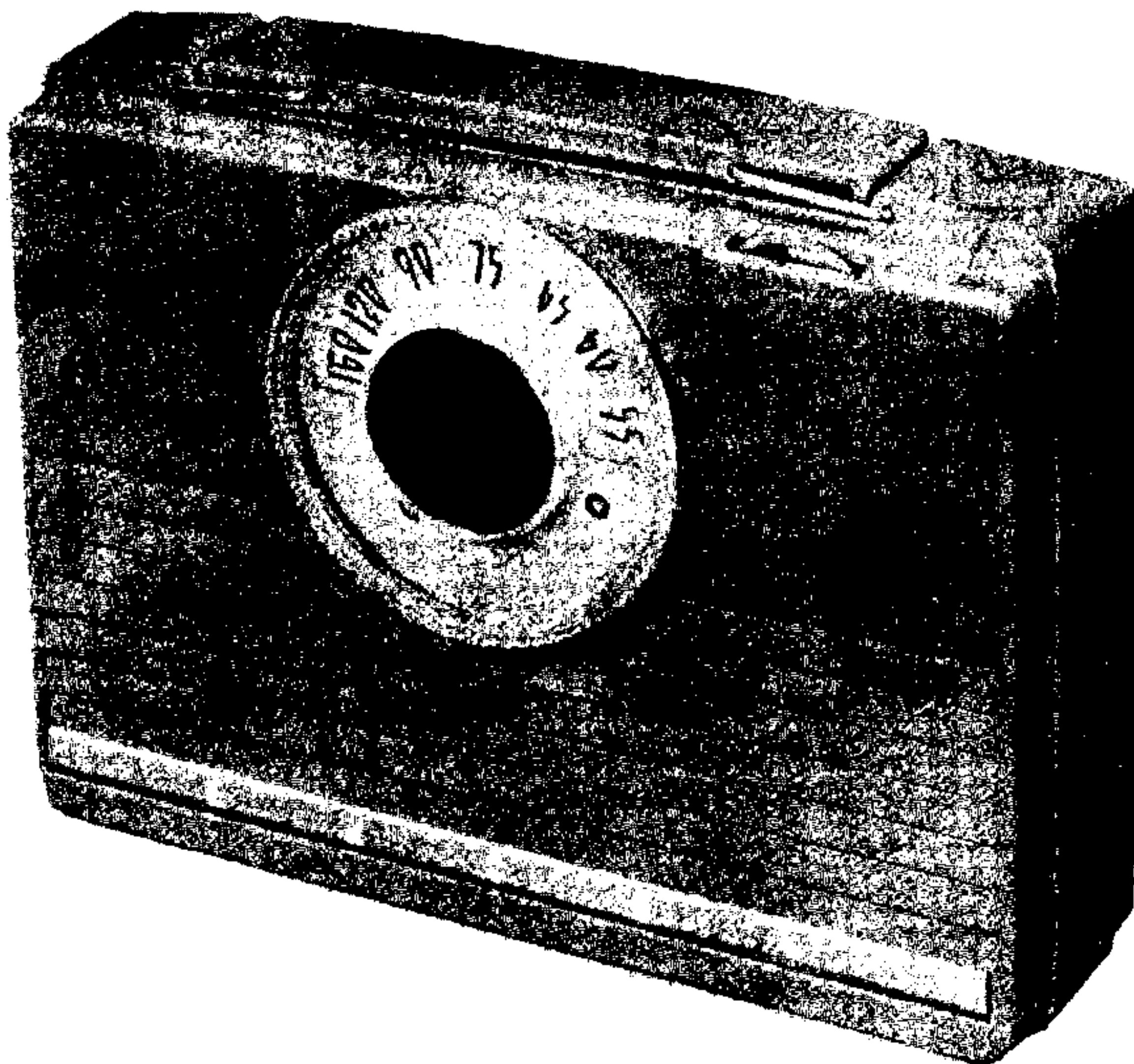


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EXCEL MODEL  
XL-45

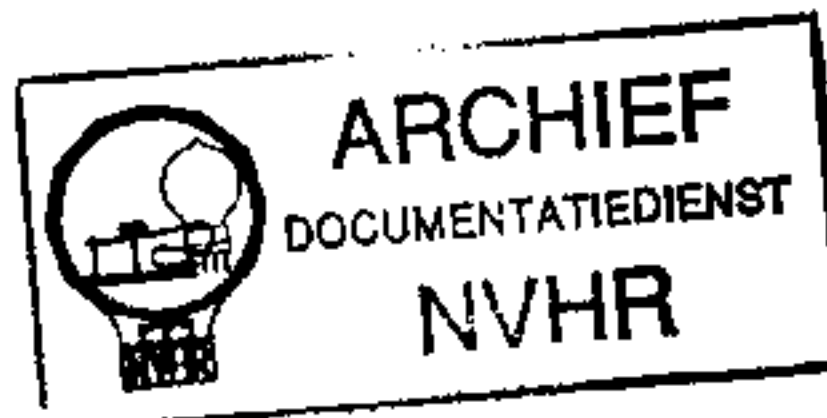


XL-45

TRADE NAME Excel Model XL-45  
 IMPORTER Excel Corp. of America, 9 Rockefeller Plaza, New York 20, N. Y.  
 TYPE SET Battery Operated 4 Tube Portable AM Receiver

POWER SUPPLY 1.5 Volts DC "A" Supply & 87.5 Volts DC "B" Supply  
 RATING 115MA @ 1.5 Volts DC & 11.3MA @ 87.5 Volts DC  
 TUNING RANGE—BROADCAST 595KC - 1605KC

Ned. Ver. v. Historie v/d Ra



## 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 #8271, 8273, 8275, 8276, 8721, 8722, 9150, 9298, 5003

A5, A7..... WALSCO #2516, 2519  
 GENERAL CEMENT #5000, 5003, 5014, 5015, 5016, 8278, 8290  
 WALSCO #2512, 2515, 2522, 2523, 2525, 2537

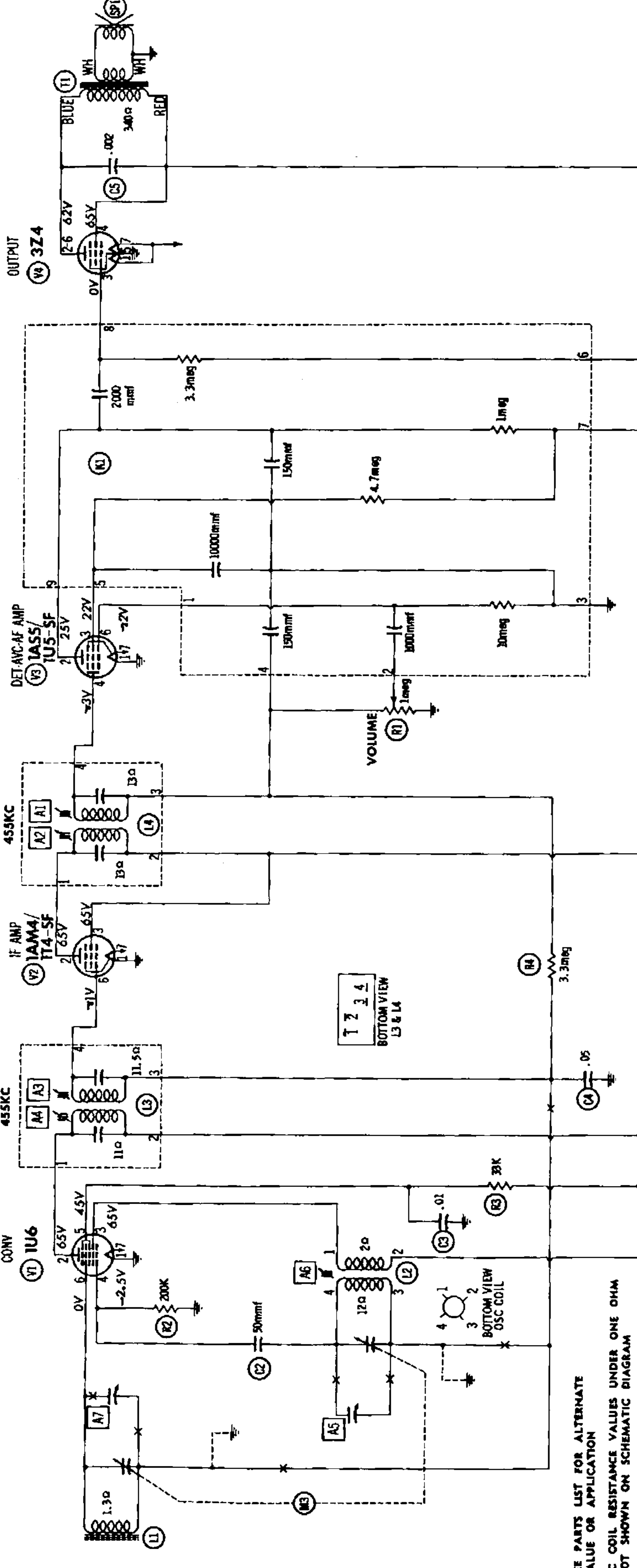
	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	.1mfd	High side to antenna lug of tuning gang. Low side to chassis.	455KC (400v Mod.)	Tuning gang fully open	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output.
2.	"	"	1605KC	"	"	A5	"
3.		Loop	800KC	"	"	A6	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
4.		"	1400KC	"	"	A7	Adjust for maximum output.

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

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**EXCEL MODEL  
XL-45**



**RESISTANCE READINGS**

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	1U6	*	† 110	† 200K	† 33K	4.3meg	*	*
V2	1A1A 1T4SF	*	† 130	100	NC	4.3meg	*	*
V3	1A55 1U5SF	*	† 1meg	† 4.7meg	1meg	TP	10meg	*
V4	6Z4	*	† 340Ω	3.3meg	† 0	† 340Ω	*	*

\* DO NOT USE OHMMETER TO MEASURE FILAMENT RESISTANCE.  
 † MEASURED FROM POSITIVE TERMINAL OF C1.  
 NC NO CONNECTION  
 TP TIE POINT

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION  
 DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

1. DC voltage measurements taken with vacuum tube voltmeter
  2. Socket connections are shown as bottom views.
  3. Measured values are from socket pin to common negative.
  4. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
  5. Volume control at maximum, no signal applied for voltage measurements.
- 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.
- A PHOTOFACT STANDARD NOTATION SCHEMATIC  
 © Howard W. Sams & Co., Inc. 1959

# PARTS LIST AND DESCRIPTIONS

## TUBES ( GENERAL ELECTRIC, SYLVANIA )

ITEM No.	USE	TYPE	NOTES
V1 V2	Converter IF Amplifier	1U6 1AM4/ 1T4-SF	

ITEM No.	USE	TYPE	NOTES
V3	Det. -AVC-AF Amp.	1A85/ 1U5-SF	
V4	Output	3Z4	

## 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.	
C1	7	150	①	SRE150V10	NLW10-150	TC41	TD-10-150	TE-1507	

① Some versions may use 10mfd in this application.

## 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.	
C2	50				SI 50	D6-500	L10Q5	UC-545	5GA-Q5	
C3	.01	250			P485N-01	DD-103	STM481	GTM411	4EP-810	
C4	.05	250			P485N-05	DF-503	STM485	GTM415	4EP-850	
C5	.002	200			P285N-002	DD-202	STM4D22	GTM222	65P20253	

## 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	↓						Volume & Switch

## RESISTORS

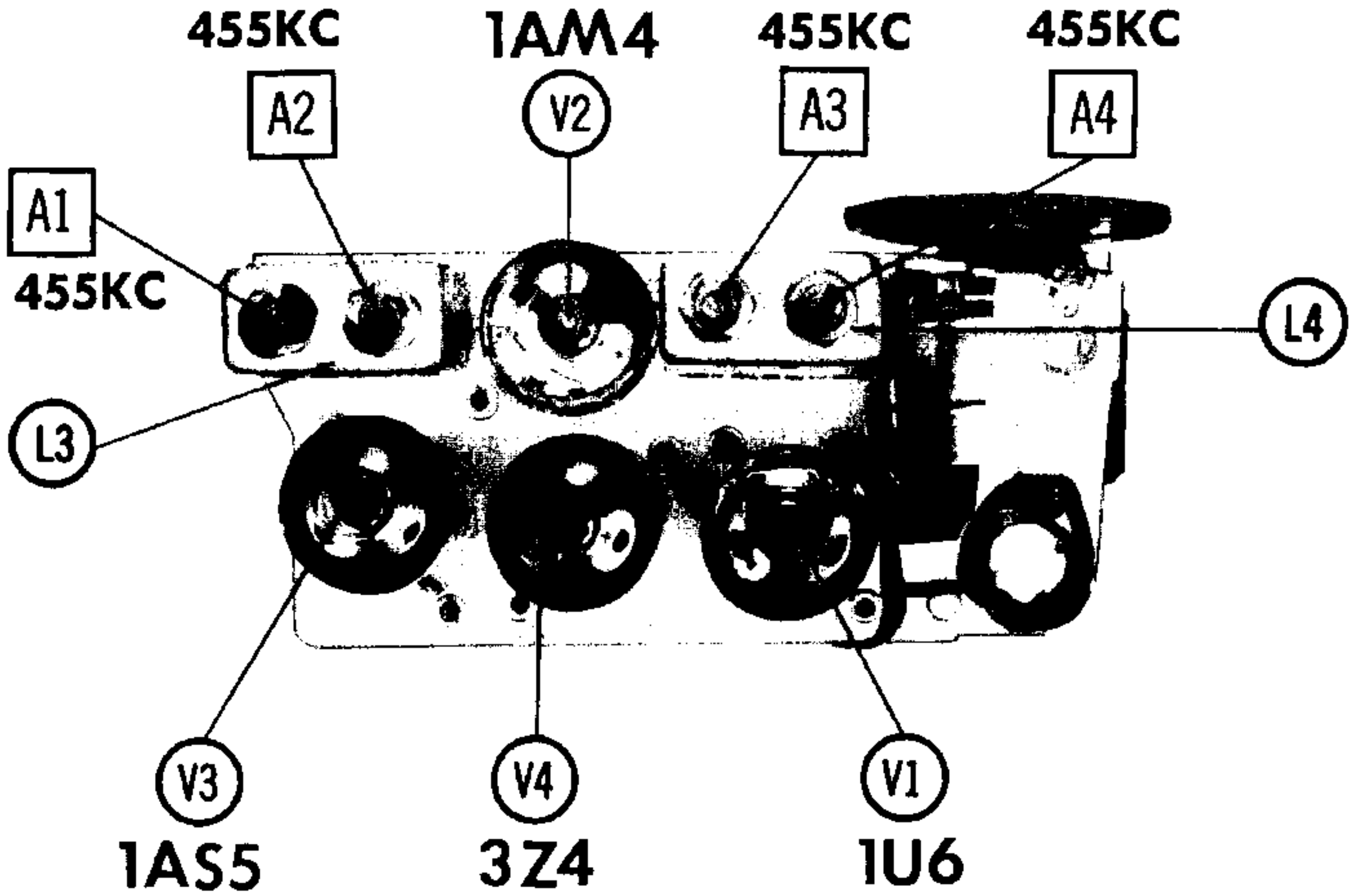
All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING		EXCEL PART No.	NOTES	ITEM No.	RATING		EXCEL PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R2	200K				R4	3.3meg			
R3	33K				R5	500Ω			

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	EXCEL PART No.	REPLACEMENT DATA
K1	Audio Couplete	150mmf, 150mmf, 1000mmf, 2000mmf, 10000mmf, 1meg, 3.3meg, 4.7meg, 10meg	KCR-1183	

**CHASSIS—TOP VIEW**



# PARTS LIST AND DESCRIPTIONS (Continued)

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		EXCEL PART No.	Gramer PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1 L2 L3 L4	Loopstick Osc. Coil Input IF Output IF		14-1074	14-1074				

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES	
	PRI.	SEC.	EXCEL PART No.	Halderson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
T1	8000Ω	13Ω								

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	EXCEL PART No.	QUAM PART No.	

## BATTERIES

ITEM No.	VOLTAGE	EXCEL PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1 M2	67.5V 1.5V			XX45	950	467	M15M	M200	

## MISCELLANEOUS

ITEM No.	PART NAME	EXCEL PART No.	NOTES
M3	Tuning Cap		2 Gang (Ant. 11-255mmf, Osc. 13-120mmf)

## 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

**CHASSIS BOTTOM VIEW**

