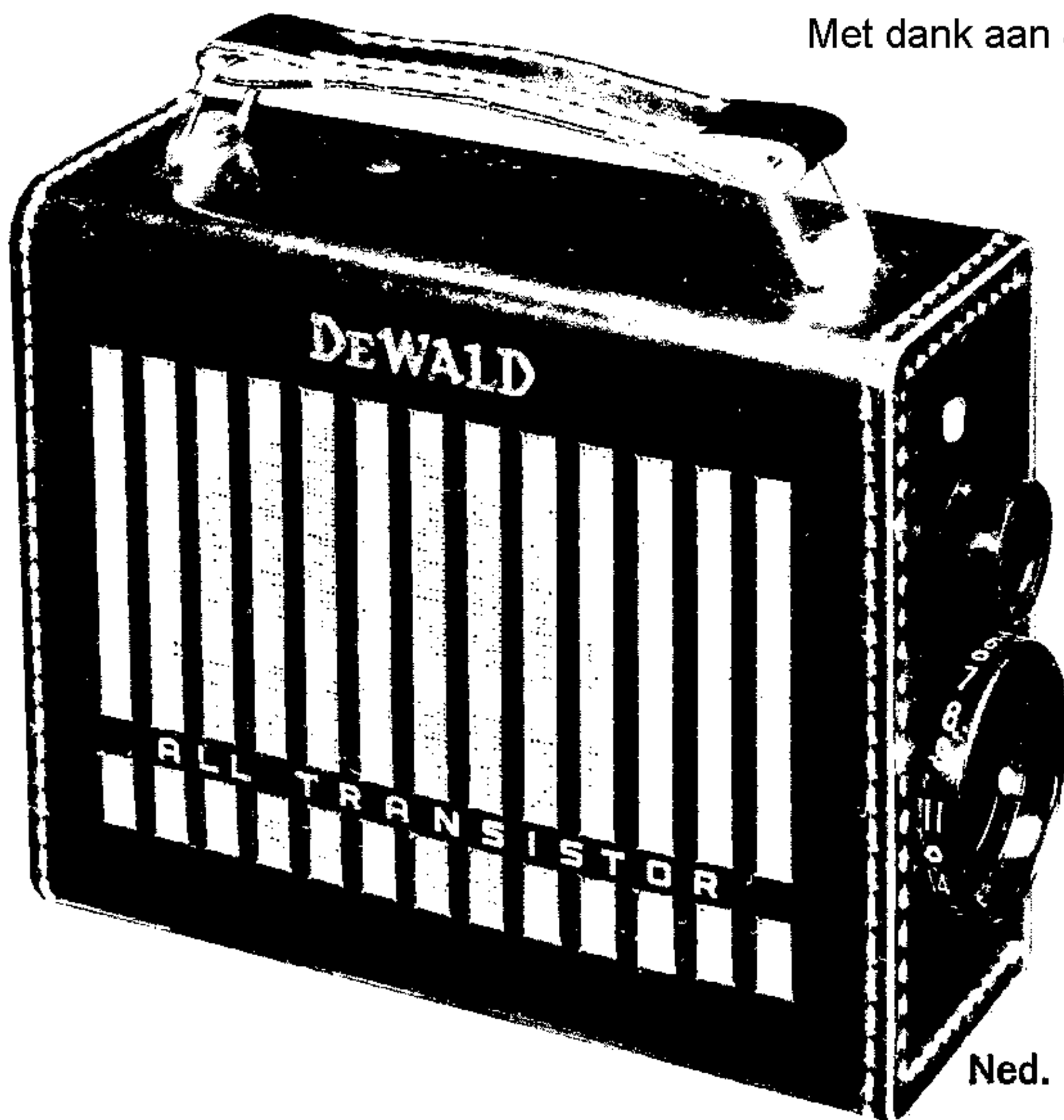




Met dank aan Jef Bos



Ned. Ver. v. Hist

TRADE NAME DeWald Model L-414
 MANUFACTURER DeWald Radio Mfg. Corp., 35-15 37th Ave., Long Island City 1, N. Y.
 TYPE SET Battery Operated Portable AM Transistorized Receiver



POWER SUPPLY 9 Volts DC
 TUNING RANGE—BROADCAST 540 - 1650KC
 RATING 17MA @ 9 Volts DC (No signal, Min. Volume)
 19MA @ 9 Volts DC (Signal, Normal Volume)

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. Use an insulated alignment screwdriver for adjusting.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Loop	455KC (400v Mod.)	Tuning gang fully open	Across voice coil	A1, A2	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
2.	"	1650KC	"	"	A3	"
3.	"	600KC	600KC	"	A4	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output while rocking tuning gang. Repeat steps 2 and 3.
4.	"	1400KC	Tune to 600KC signal	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.

HOWARD W. SAMS & CO., INC. • Indianapolis 5, 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 H663

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. © 1958 Howard W. Sams & Co., Inc., Indianapolis 5, Indiana. Printed in U.S. of America

PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			CBS PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N168A	Converter Reflex IF Amplifier Output	CBS-2N439			2N212	NPN NPN PNP
X2	2N168A					2N212	
X3	2N241A		CBS-2N180	2N270	2N362	2N241A	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DEWALD PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	50	7	E-221	PWE10050	NL50-10	TT10X50	ML50-15	MQ-0650	TE-1160

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	DEWALD PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2	.02	200		P288N-02	DD-203	CUB2S2	GEM-412	2TM-S2	
C3	10000			BPD-01	DD-103	BYA6S1	DC511	5HK-S1	
C4	10000			BPD-01	DD-103	BYA6S1	DC511	5HK-S1	
C5	10000			BPD-01	DD-103	BYA6S1	DC511	5HK-S1	
C6	2000			BPD-002	DD-202	BYA10D2	UC-522	5GA-D2	
C7	.02	200		P288N-02	DD-203	CUB2S2	GEM-412	2TM-S2	

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DEWALD PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
RIA B	20000Ω Switch	$\frac{1}{2}$	V-317			Q13-111 76-1		Volume

RESISTORS

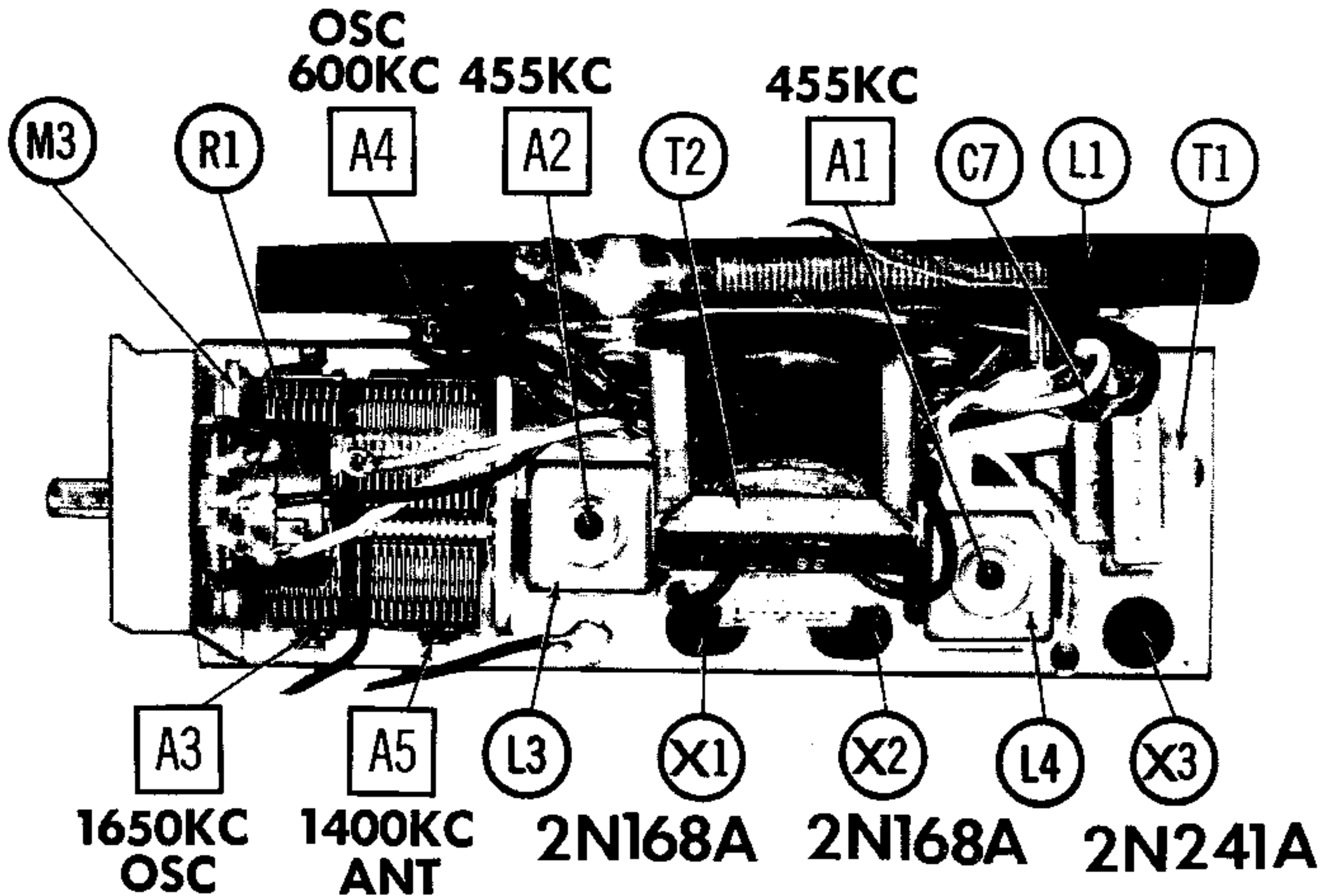
All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING		DEWALD PART No.	NOTES	ITEM No.	RATING		DEWALD PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R2	47K				R6	56K			
R3	10K				R7	1000Ω			
R4	1500Ω				R8	4700Ω			
R5	270Ω				R9	100Ω			

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		DEWALD PART No.	Moissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Loop Stick	L-101-1					
L2	Osc. Coil	Q-159-1	14-9010	BC-403	2022		
L3	Input IF	I-102-1					
L4	Output IF	I-102-1					

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES	
			DEWALD PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
	PRI.	SEC.							
T1	4.5	: 1	T-160-1						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES	
			DEWALD PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.		Thordarson PART No.
	PRI.	SEC.							
T2	588Ω	3-4Ω	38H13						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				DEWALD PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	4"	PM	3-4Ω	S-716-1	4A07	

BATTERIES

ITEM No.	VOLTAGE	DEWALD PART No.	REPLACEMENT DATA				NOTES		
			BURGESS		EVEREADY			MALLORY	
			"A"	"B"	"A"	"B"		"A"	"B"
M1	9V			M6		266		M1605	

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		DEWALD PART No.	CBS PART No.	SYLVANIA PART No.	
M2	1N60		1N64	1N295	Detector (Pigtall)

MISCELLANEOUS

ITEM No.	PART NAME	DEWALD PART No.	NOTES
M3	Tuning Cap.	V-217-4	2 Gang (Ant. 37-400mmf, Osc. 20-110mmf)

CABINETS & CABINET PARTS

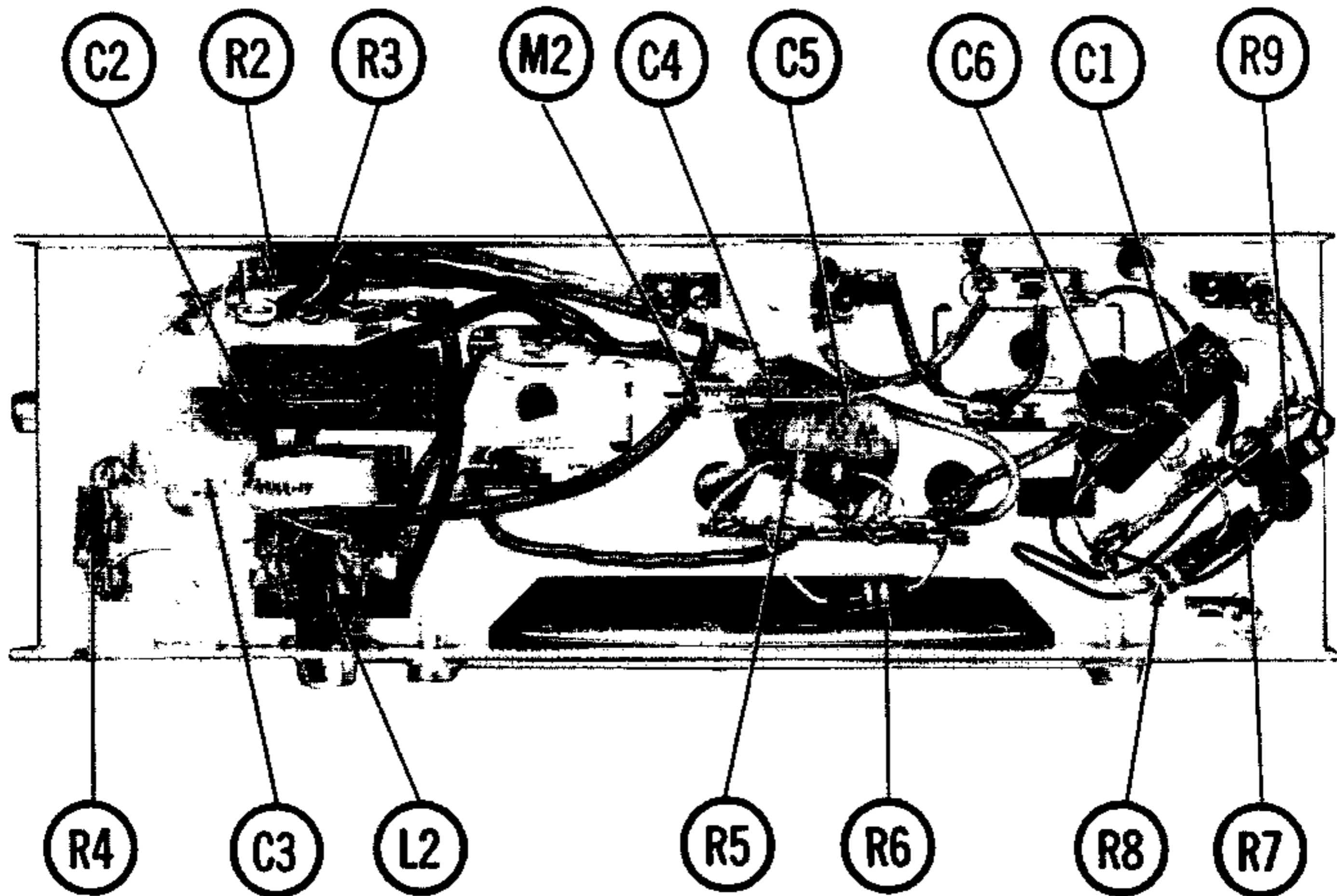
(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

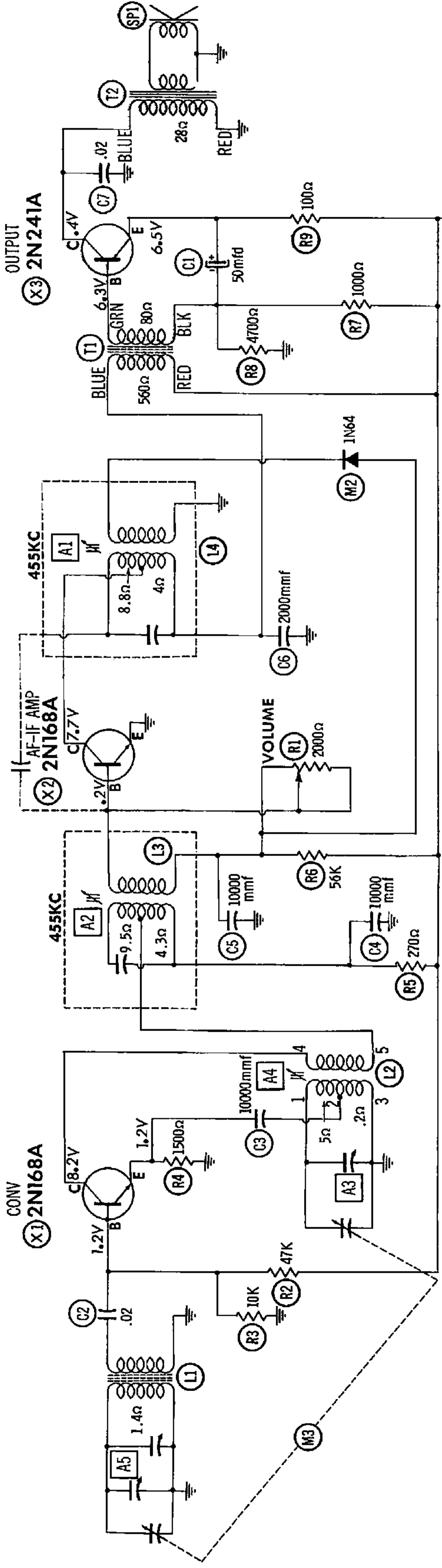
NAME	PART NO.	DESCRIPTION
Knob	K-467	Tuning On-Off-Volume
Knob	K-405	
Cabinet	C-478	

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

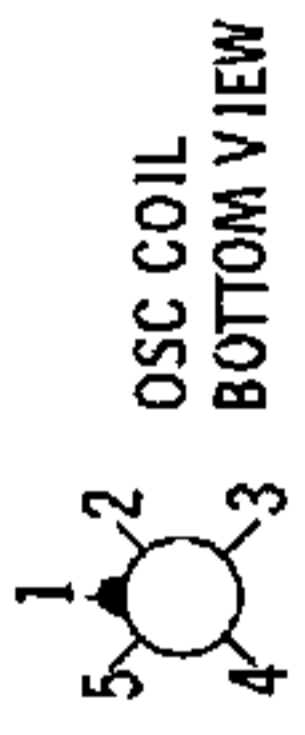




RESISTANCE READINGS

ITEM	TYPE	BASE	EMITTER	COLLECTOR
X1	2N168A	800Ω	1500Ω	† 270Ω
X2	2N168A	† 45K	0Ω	† 560Ω
X3	2N241A	† 1000Ω	† 100Ω	28Ω

TRANSISTORS REMOVED FOR RESISTANCE MEASUREMENTS.
 † MEASURED FROM JUNCTION OF R7 AND



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.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

A PHOTOFACT STANDARD NOTATION SCHEMATIC DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM