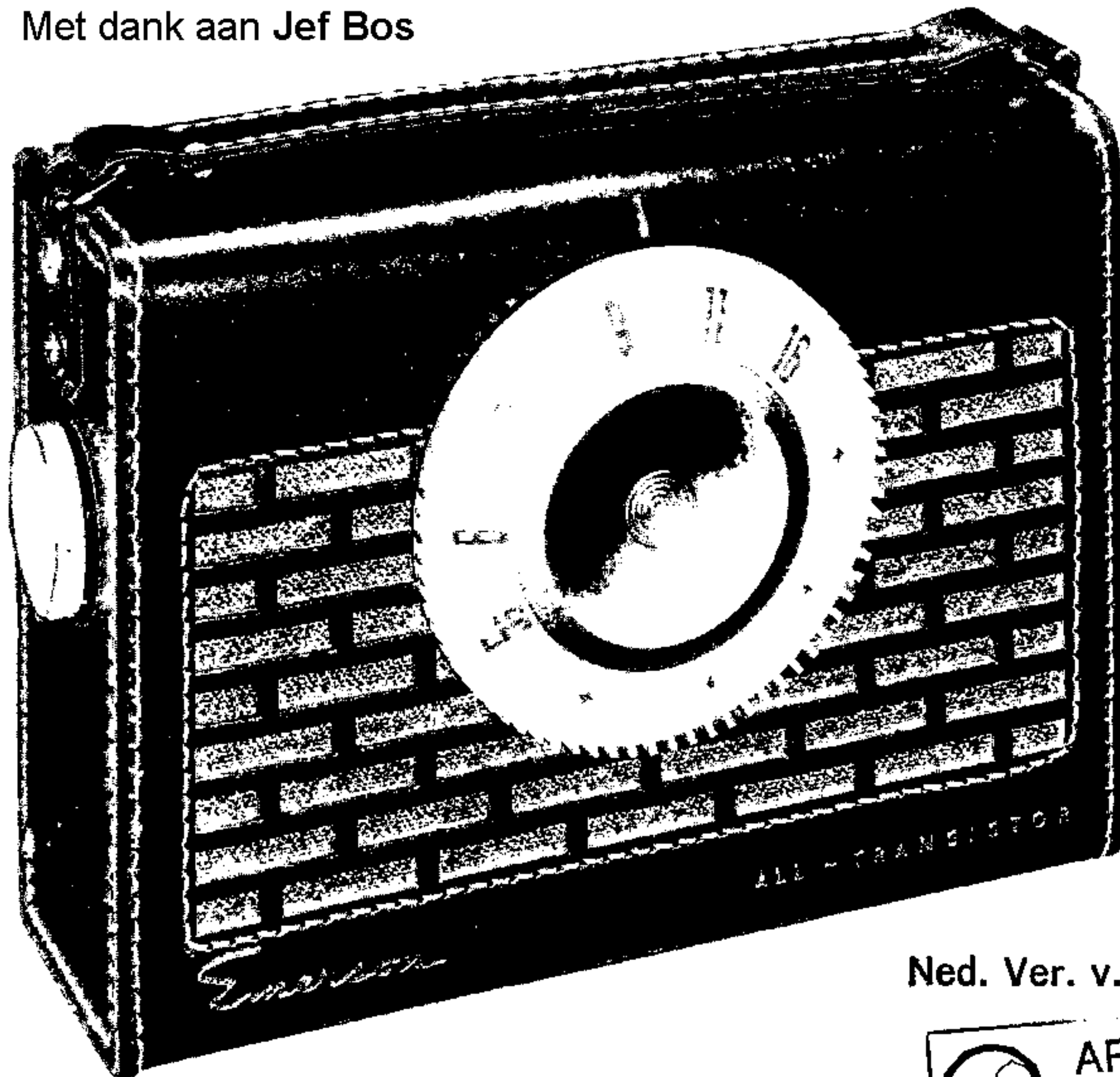




Met dank aan Jef Bos



Ned. Ver. v. Historie



TRADE NAME Emerson Model 842
 MANUFACTURER Emerson Radio & Phono Corp., 14th & Coles Streets, Jersey City 2, N. J.
 TYPE SET Battery Operated Portable Transistor AM Superheterodyne Receiver

POWER SUPPLY 9 Volts "A" Supply RATING 11 MA @ 9 Volts DC
 TUNING RANGE—BROADCAST 540KC - 1650KC

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. .1MFD	High side to junction of L1 and C5. Low	455KC (400v mod)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
2.	Loop	1650KC	"	"	A4	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1400KC	Tune to 1400KC signal.	"	A5	"
4.	"	600KC	Tune to 600KC signal.	"	A6	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output. Rock tuning gang while adjusting for maximum output. Repeat steps 2, 3 & 4 until no further improvement is obtained.

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

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G546

PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	USE	TYPE	NOTES	ITEM No.	USE	TYPE	NOTES
X1	Converter	830		X4	AF Amplifier	961592	
X2	1st IF Amplifier	961588	Note 1	X5	Output	961590	Note 2
X3	2nd IF Amplifier	961588	Note 1	X6	Output	961590	Note 2

Note #1. 2N145 or 2N147 may be used in some versions. Replace with original type.

Note #2. X5 and X6 are a matched pair.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	EMERSON PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	100	15	961572	SRE15V100	BBR100-15		TD-100-15		TVA-1160
C2	10	5	961573	SRE25V10	BBR10-25	TAP25-10	TD-10-25	MMT-0210	TE-1087
C3	10	5	961574	SRE25V10	BBR10-25	TAP25-10	TD-10-25	MMT-0210	TE-1087
C4	50	3	961575	SRE3V50	BBR50-3		TD-50-6	MMT-350	TVA-1100

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	EMERSON PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C5	10000			BPD-01	DD-103	K082	811-01	DC511	5HK-S1	Note #1.
C6	10000			BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C7	10000			BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C8	10000			BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C9	10000			BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C10	10000			BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C11	1.5			NPO-S11.5	TCZ-1R5	TZ03	NPOA-1R5	ZT-5515	5TCCB-V15	
C12	10000			BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C13	10000			BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C14	5000			BPD-005	DD-502	K080	811-005	DC525	5HK-D5	
C15	.05	200		BPD-05	DF-503	CUB285		PT415	2TM-S5	

Note #1. Not Used In Some Versions.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	EMERSON PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
RIA	5000Ω	½	V310-2	AB-11		Q13-114	U12	Volume Attach to RIA Attach to RIA
B	Shaft		Not Req.	AK-4		Not Req.	Not Req.	
C	Switch		Not Req.	KB-1		76-1	US-26	

RESISTORS

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

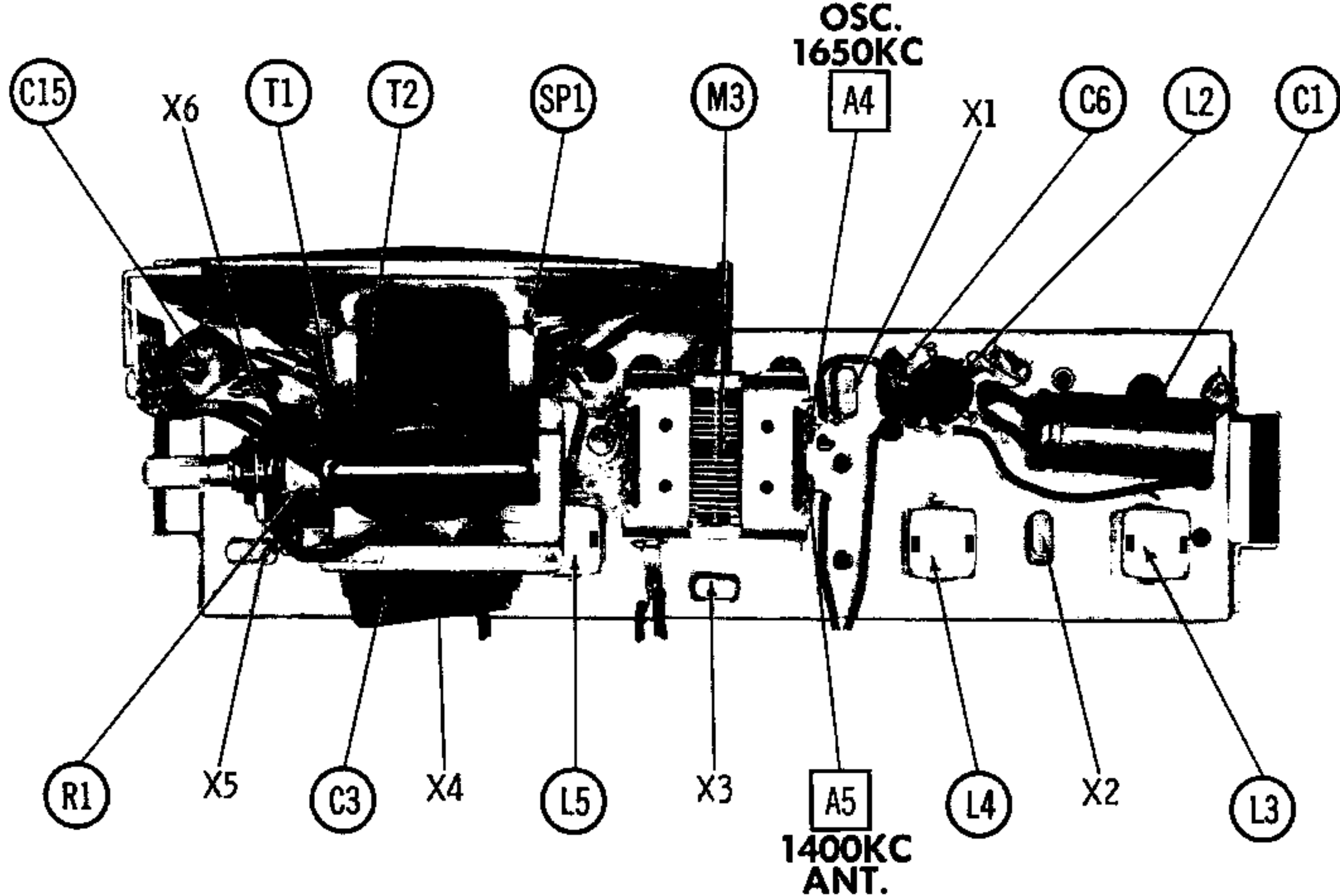
ITEM No.	RATING		REPLACEMENT DATA		NOTES	ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	EMERSON PART No.	IRC PART No.			OHMS	WATT	EMERSON PART No.	IRC PART No.	
R2	100K			BTS-100K		R11	100K			BTS-100K	Note 1
R3	470Ω			BTS-470		R12	2200Ω			BTS-2200	
R4	2200Ω			BTS-2200		R13	6800Ω			BTS-6800	
R5	4700Ω			BTS-4700		R14	33K			BTS-33K	
R6	330Ω			BTS-330		R15	1000Ω			BTS-1000	
R7	47K			BTS-47K		R16	100Ω			BTS-100	
R8	6800Ω			BTS-6800		R17	82Ω			BTS-82	
R9	220Ω			BTS-220		R18	4700Ω			BTS-4700	
R10	470Ω			BTS-470		R19	10Ω			BTS-10	

Note 1. Some versions use 68Ω in this application.

TRANSFORMER (AUDIO INPUT)

ITEM No.	RESISTANCE		REPLACEMENT DATA					NOTES	
	PRI.	SEC.	EMERSON PART No.	Halldorson PART No.	Marit PART No.	Stancor PART No.	Thordarson PART No.		Tried PART No.
	Turns Ratio								
T1	310Ω	168Ω	961583						
	CT								
	2:1								

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	EMERSON PART No.	Halderson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T2	800Ω	3-4Ω	961584					

SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C. IMP.	EMERSON PART No.	QUAM PART No.	RCA TYPE No.	
SP1	4"	PM	3-4Ω	961585	4A07	223S1	

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
		PRI.	SEC.	EMERSON PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Loop Stick	.1Ω	1.1Ω	961579				*Tapped @ .2Ω ■ Tapped @ 2.5Ω ■ Tapped @ 2.5Ω ▲ Tapped @ 2.1Ω
L2	Osc. Coil	1.9Ω	*3.9Ω	961581				
L3	1st IF	■ 9.2Ω	.4Ω	961582				
L4	2nd IF	■ 9.2Ω	.4Ω	961582				
L5	3rd IF	▲ 9Ω	.8Ω	961583				

BATTERIES

ITEM No.	VOLTAGE	EMERSON PART No.	REPLACEMENT DATA						INSTALLATION NOTES	
			EVEREADY			BURGESS				
			"A"	"B"	"A-B"	"A"	"B"	"A-B"		
M1	9V			276				D6		Connect 2 in parallel.

CRYSTAL DIODES

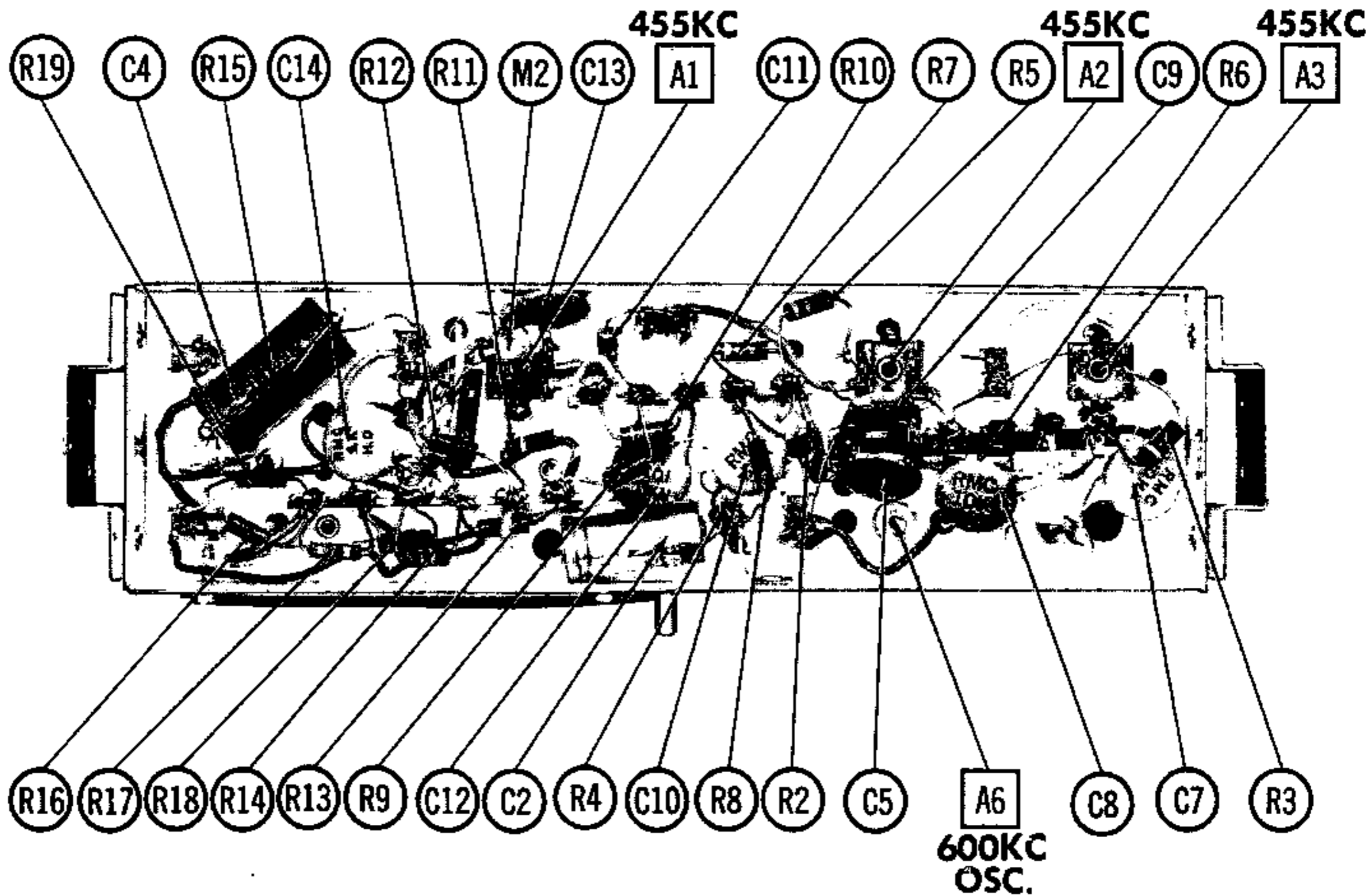
ITEM No.	ORIG. TYPE	REPLACEMENT DATA		NOTES
		EMERSON PART No.	SYLVANIA PART No.	
M2	1N60*	961591	1N60	Audio Det. (Pigtail)

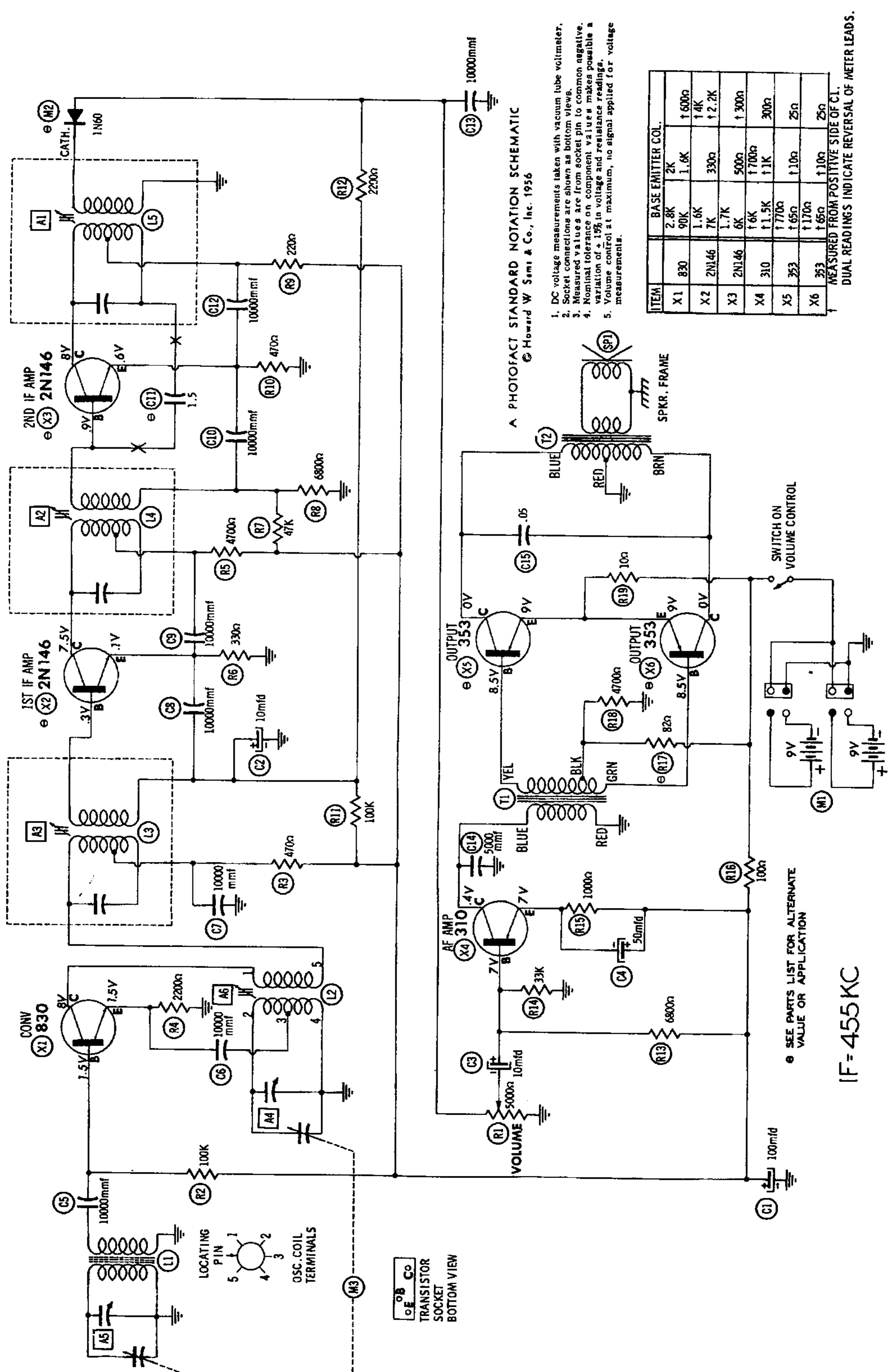
*Some Versions May Use Crystal Diode Type 1N295 Or 1N64 In This Application.

MISCELLANEOUS

ITEM No.	PART NAME	EMERSON PART No.	NOTES
M3	Tuning Cap. Cabinet Knob Knob	961593 961586 460720 460588	2 Gang (16-220MMF, 22-120MMF.) Tuning On-Off-Volume

CHASSIS—BOTTOM VIEW





A PHOTOFACT STANDARD NOTATION SCHEMATIC
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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 value makes possible a variation of +15% in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.

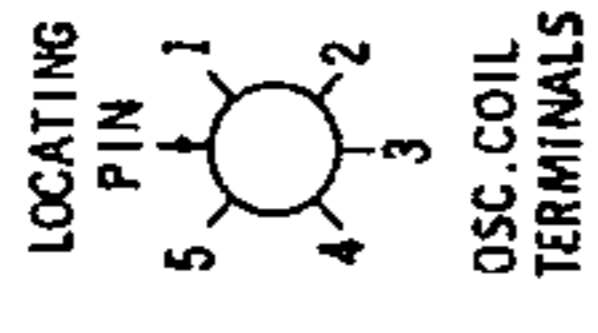
ITEM	BASE EMITTER COL.
X1	2.8K 2K 1.6K 1.600Ω
X2	90K 1.6K 330Ω 1.4K 1.4K 1.2.2K
X3	2N146 1.7K 6K 500Ω 1.300Ω
X4	310 1.6K 1.700Ω 1.1K 300Ω
X5	353 1.65Ω 1.10Ω 25Ω
X6	353 1.170Ω 1.10Ω 25Ω

MEASURED FROM POSITIVE SIDE OF C1.
DUAL READINGS INDICATE REVERSAL OF METER LEADS.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

f = 455 KC

TRANSISTOR SOCKET BOTTOM VIEW



LOCATING PIN
OSC. COIL TERMINALS

100mfd

10000mfd

100mfd

10000mfd