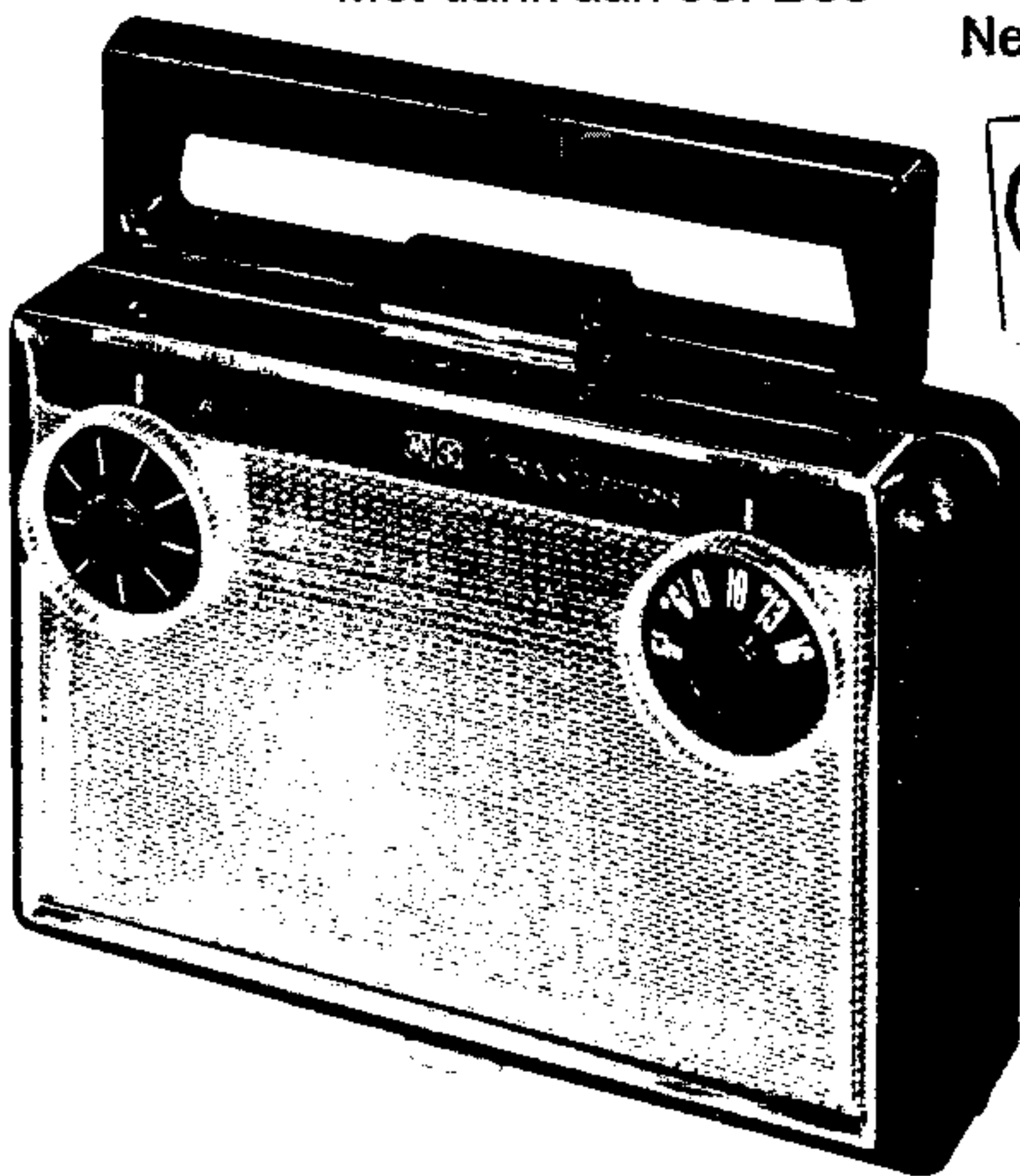
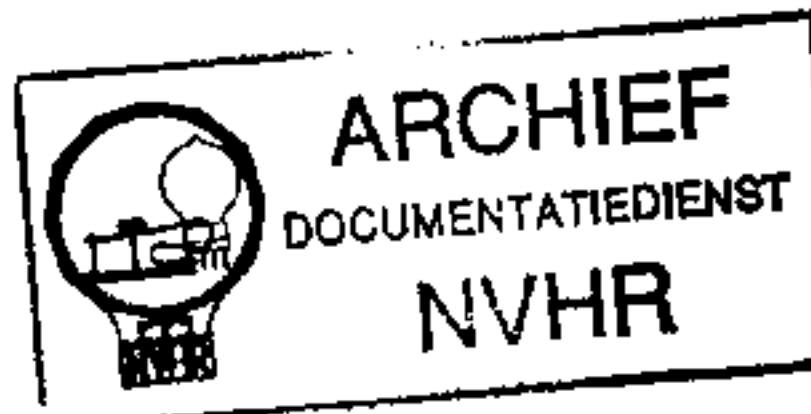




Met dank aan Jef Bos

Ned. Ver. v. Historie v



MODEL 76T1

TRADE NAME	Motorola Models 76T1, 76T2 (Ch. HS-507)		
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Ill.		
TYPE SET	Battery Operated Portable AM Transistorized Receiver		
POWER SUPPLY	9 Volts DC	RATING	7MA @ 9 Volts DC
TUNING RANGE—BROADCAST	530KC - 1620KC		

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. Loop should be maintained in the same relative position to chassis as when the receiver is in cabinet.

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, A3	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
2.	"	1620KC	"	"	A4	"
3.	"	1400KC	Tune to 1400KC signal.	"	A5	Adjust for maximum output with chassis in cabinet.

The following steps should be performed if the oscillator coil has been tampered with or replaced and does not track properly.

4.	Loop	1620KC	Tuning gang fully open.	Across voice coil.	A4	Adjust for maximum output.
5.	"	532KC	Tuning gang fully closed.	"	A6	Adjust for maximum output. Repeat steps 4 & 5 until oscillator covers required range making step 4 the last adjustment.
6.	"	1400KC	Tune to 1400KC signal.	"	A5	Adjust for maximum output with chassis in cabinet.
7.	"	600KC	Tune to 600KC signal.	"	A7	Adjust for maximum output with chassis in cabinet. Repeat steps 6 & 7 until no farther increase is obtained. Make step 7 the last adjustment.

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 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. Copyright 1957 by Howard W. Sams & Co., Inc., Indianapolis 5, Indiana, U. S. of America. Copyright under international Copyright Union. All rights reserved under Inter-American Copyright Union (1910) by Howard W. Sams & Co., Inc." Printed in U. S. of America

G930

# PARTS LIST AND DESCRIPTIONS

## TRANSISTORS

MOT  
MODEL 76T

ITEM No.	USE	MOTOROLA PART NO.	NOTES	ITEM No.	USE	MOTOROLA PART NO.	NOTES
X1	Converter (2N140)	48C124255		X5	Driver (2N109)	48C124258	Note 1
X2	1st IF Amp. (2N139)	48C124256		X6	Output (2N109)	48K124276	Note 1, 2
X3	2nd IF Amp. (2N139)	48C124256		X7	Output (2N109)	48K124276	Note 1, 2
X4	AF Amp. (2N109)	48C124258	Note 1				

Note 1: X4, X5, X6 and X7 (Type 2N109) may be Motorola part no.  
 48C124258 (Green code)  
 48K124276 (Red code)  
 48K124259 (White code)  
 48K124275 (Yellow code)

Note 2: X6 and X7 must be a matched pair.

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	25	6	23K636454 (Note 1)	XPP10V25	NL25-6	TAP6-30	ML30-6		TE-1091
C2	10	10	23K636453	XPP12V10	NL10-10	TAP25-10	ML10-15		TE-1114
C3	55	10	23K636455	XPP10V50	NL50-10	TT10X60			R2378*
C4	10	10	23K636453	XPP12V10	NL10-10	TAP25-10	ML10-15		TE-1114
C5	3	10	23B636452	XPP10V3	NL3-10	TAP75-3M	ML4-15		TE-1127
C6	10	10	23K636453	XPP12V10	NL10-10	TAP25-10	ML10-15		TE-1114
C7	55	10	23K636455	XPP10V50	NL50-10	TT10X60			R2378*
C8	55	10	23K636455	XPP10V50	NL50-10	TT10X60			R2378*

Note 1: Some versions may use 10MFD in this application. When replacing, use 25MFD.

\* Non catalog item.

## 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		MOTOROLA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
	CAP.	VOLT								
C9	.01	400	3K125413	BPD-01	DF-103	BC6SIJ	ED-01	ACE611	4SE-S1	
C10	10000		21K533472	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C11	.05	200	8B120842	BPD-05	DF-503	BC2S47J		ACE615	2SE-S5	
C12	.1	200	8K124831		DF-104	BC2PIJ		ACE601	2SE-P1	
C13	.25	100	8K122249			BC2P22J		ACE6022	2SE-P25	
C14	.75		21K124830							
C15	.33		21K124829	NP0-S1 33	TCZ-33	C10Q33C	TCO-33	ZT-5433	5TCC-Q33	
C16	.05	200	8B120842	BPD-05	DF-503	BC2S47J		ACE615	2SE-S5	
C17	.05	200	8B120842	BPD-05	DF-503	BC2S47J		ACE615	2SE-S5	
C18	.1	200	8R121573		DF-104	BC2PIJ		ACE601	2SE-P1	
C19	.1	200	8K124831		DF-104	BC2PIJ		ACE601	2SE-P1	

## CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1	2000Ω	1/2	18B636450					Volume & Switch

## RESISTORS

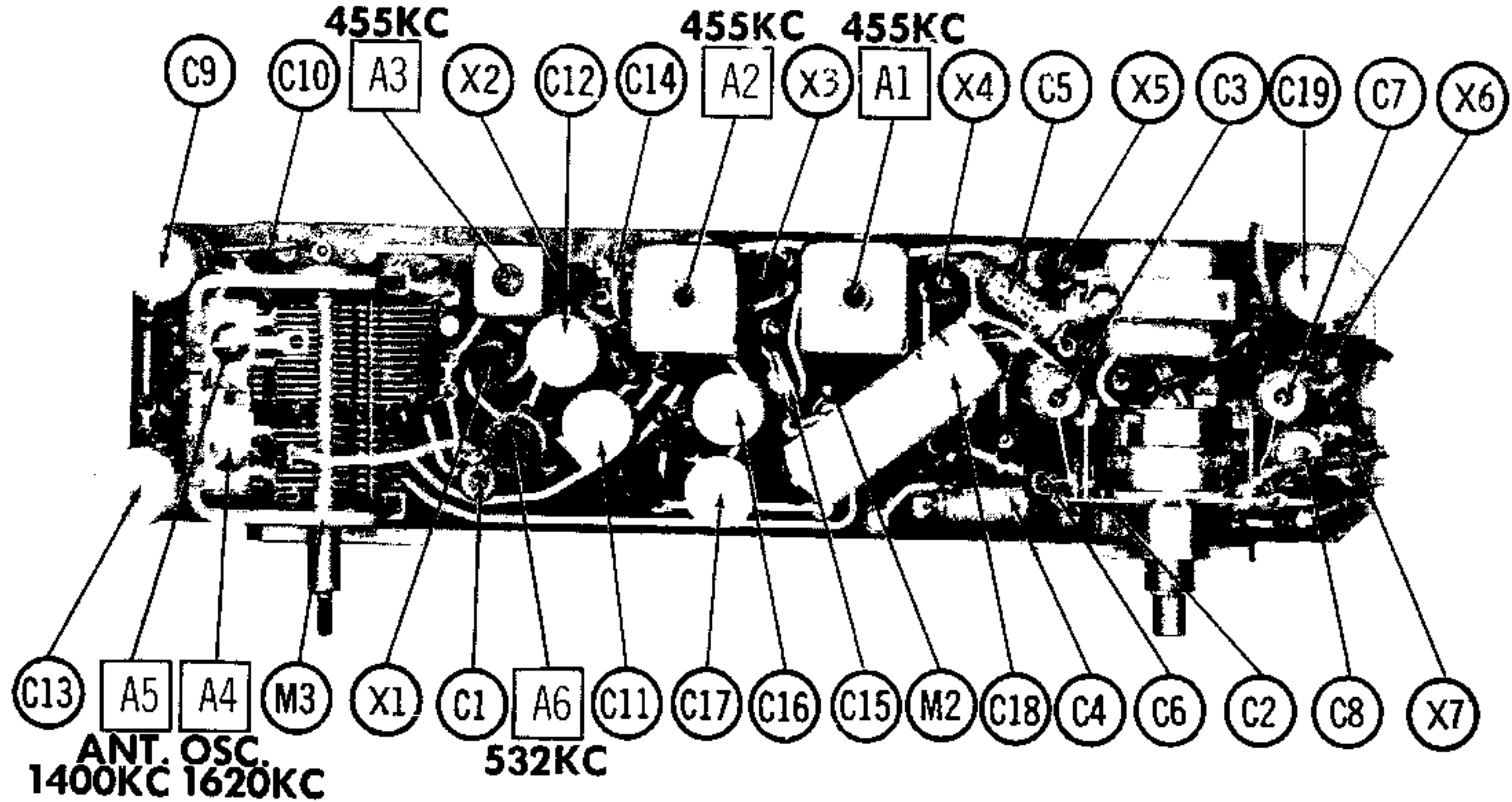
All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING		REPLACEMENT DATA			ITEM No.	RATING		REPLACEMENT DATA		
	OHMS	WATT	MOTOROLA PART No.	IRC PART No.	NOTES		OHMS	WATT	MOTOROLA PART No.	IRC PART No.	NOTES
R2	1200Ω		6R6393	BTS-1200		R16	68K		6R6074	BTS-68K	
R3	10K		6R6320	BTS-10K		R17	4700Ω		6R6080	BTS-4700	
R4	560Ω		6R6291	BTS-560		R18	10K		6R6320	BTS-10K	
R5	82K		6R5644	BTS-82K		R19	1200Ω		6R6393	BTS-1200	
R6	3900Ω		6R5659	BTS-3900		R20	1000Ω		6R6229	BTS-1000	
R7	47K		6R6048	BTS-47K		R21	56Ω		6R5614	BTS-56	
R8	100Ω		6R6326	BTS-100		R22	2200Ω		6R6069	BTS-2200	
R9	820Ω		6R6269	BTS-820		R23	10Ω		6R5021	BTS-10	
R10	47K		6R6048	BTS-47K		R24	12K		6R6394	BTS-12K	
R11	2200Ω		6R6069	BTS-2200		R25	1500Ω		6R6038	BTS-1500	
R12	470Ω		6R6090	BTS-470		R26	195Ω		6A636448		Note 1
R13	1500Ω		6R6038	BTS-1500	Note 2	R27	3.3Ω		6K124921		Note 2
R14	47K		6R6048	BTS-47K		R28	18Ω		6K122847	BTS-18	Note 2
R15	2700Ω		6R5577	BTS-2700							

Note 1: A special resistor 195Ω @ 25°C.

Note 2: Not used in some versions.

**CHASSIS—TOP VIEW**



# PARTS LIST AND DESCRIPTIONS (Continued)

## TRANSFORMER (DRIVER)

ITEM No.	Turns Ratio		REPLACEMENT DATA					NOTES
			MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T1	L 4 : 1		25B636462				TA-3 ①	① Tape center tap on primary winding; use original mtg. frame and terminal board.

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T2	540Ω CT	3-4Ω	25B636828				TR-27	

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				MOTOROLA PART No.	QUAM PART No.	
SP1	4"	PM	3-4Ω	50C636827 ①	4A07 ③	① Motorola part # includes T2. ② Not used in some versions. ③ Cut slots for mounting tabs to match original.
	4"	PM	40Ω	50C636472 ①		

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MOTOROLA PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1A	Loop Stick	1V636658*				Includes complete handle ass'y.
B	Ant. Coll					
L2	Osc. Coll	24B636666				
L3	1st IF Trans.	24K636460				
L4	RF Coll	24A636456				
L5	2nd IF Trans.	24K636459				
L6	3rd IF Trans.	24C636458				

\* Part #1V636659 used in model 76T2.

## BATTERIES

ITEM No.	VOLTAGE	MOTOROLA PART No.	REPLACEMENT DATA								
			BURGESS			EVEREADY			MALLORY		
			"A"	"B"	"A-B"	"A"	"B"	"A-B"	"A"	"B"	"A-B"
M1	9V			D6*			276*			M-1603*	

\* Connect two in parallel.

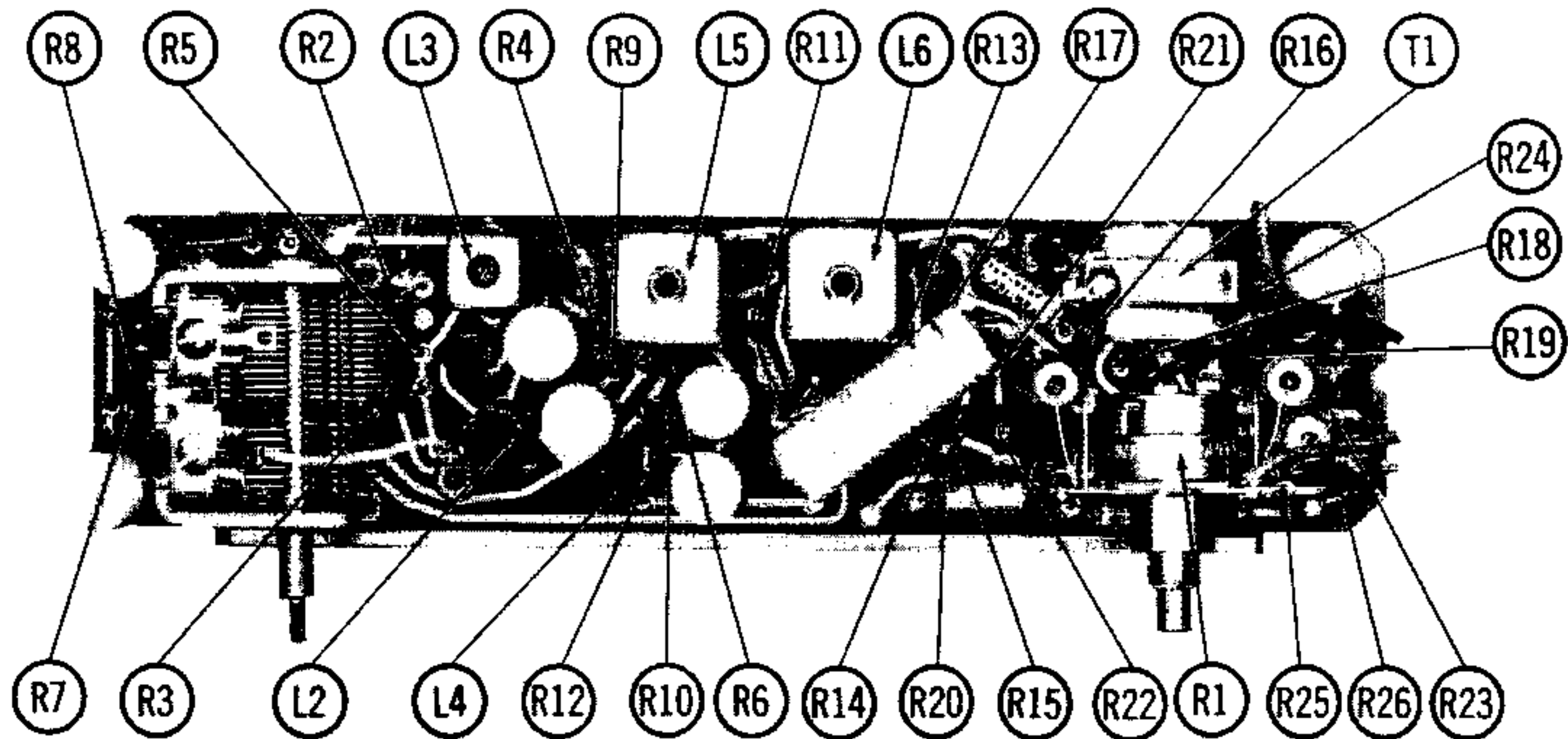
## CRYSTAL DIODES

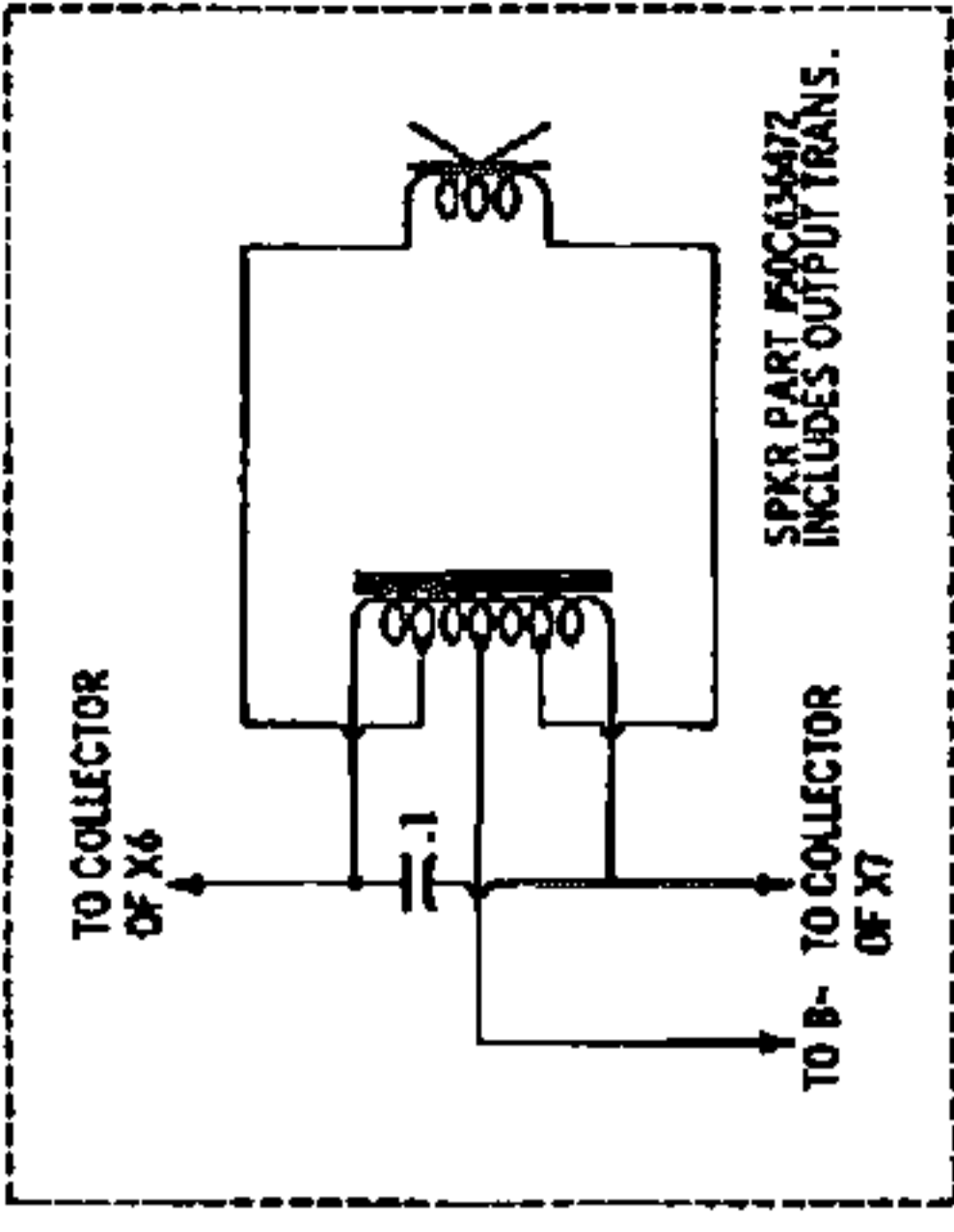
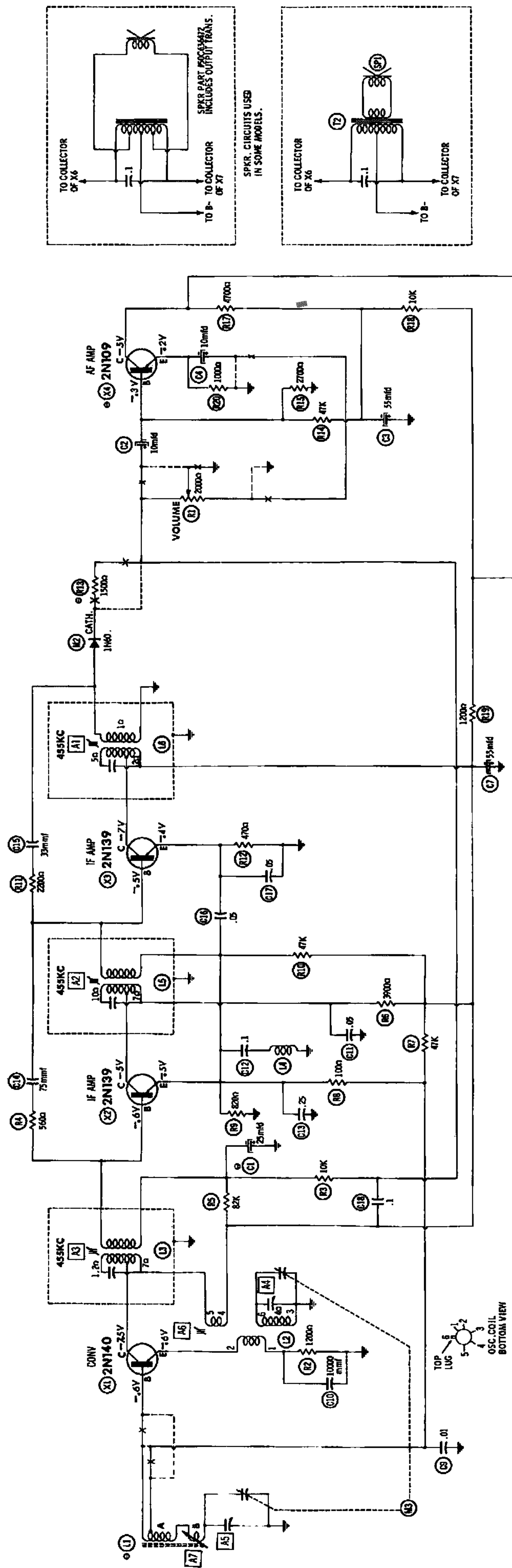
ITEM No.	ORIG. TYPE	REPLACEMENT DATA		NOTES
		MOTOROLA PART No.	SYLVANIA PART No.	
M2		48K733204	1N60	Audio Detector (Pigtall)

## MISCELLANEOUS

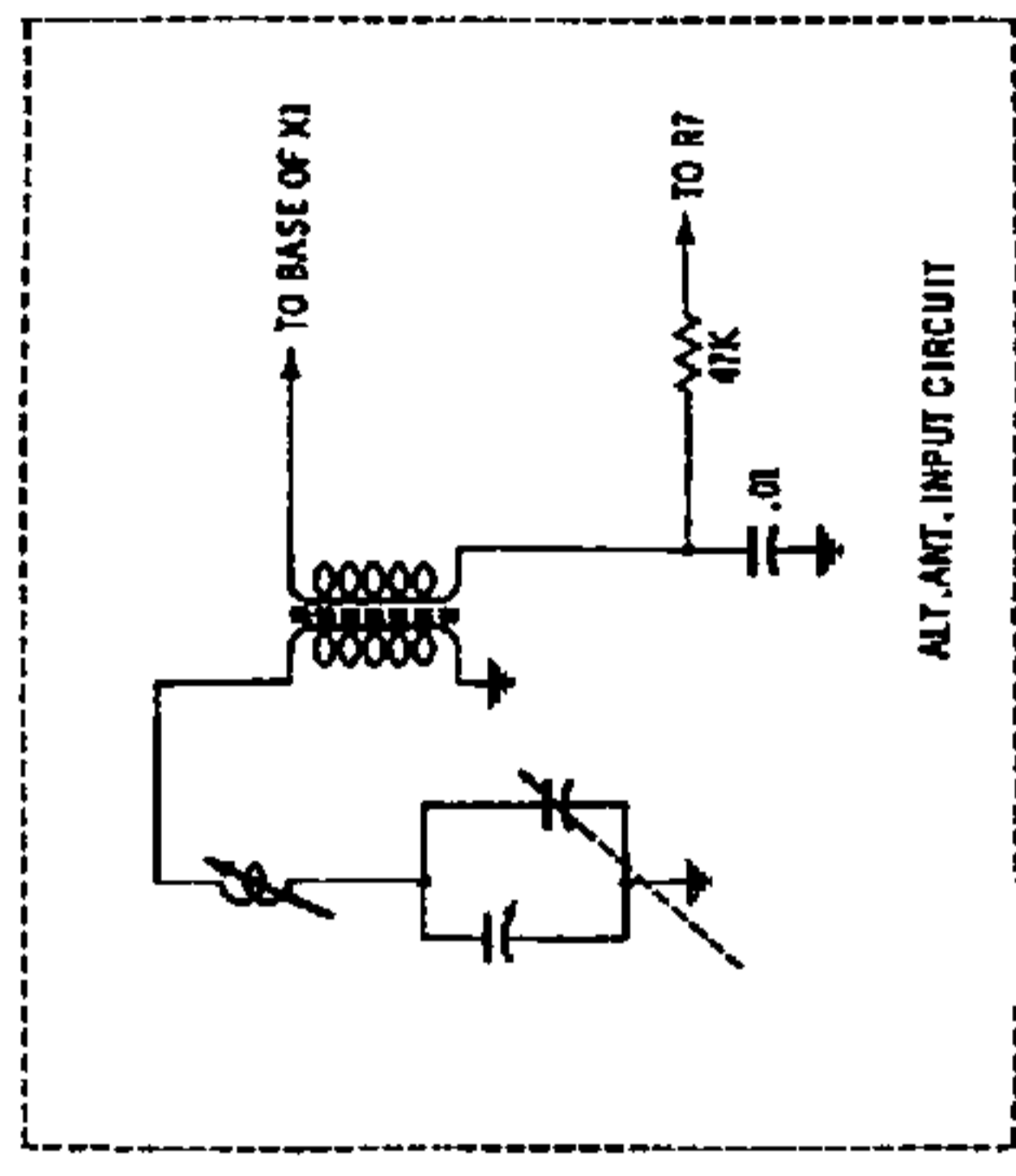
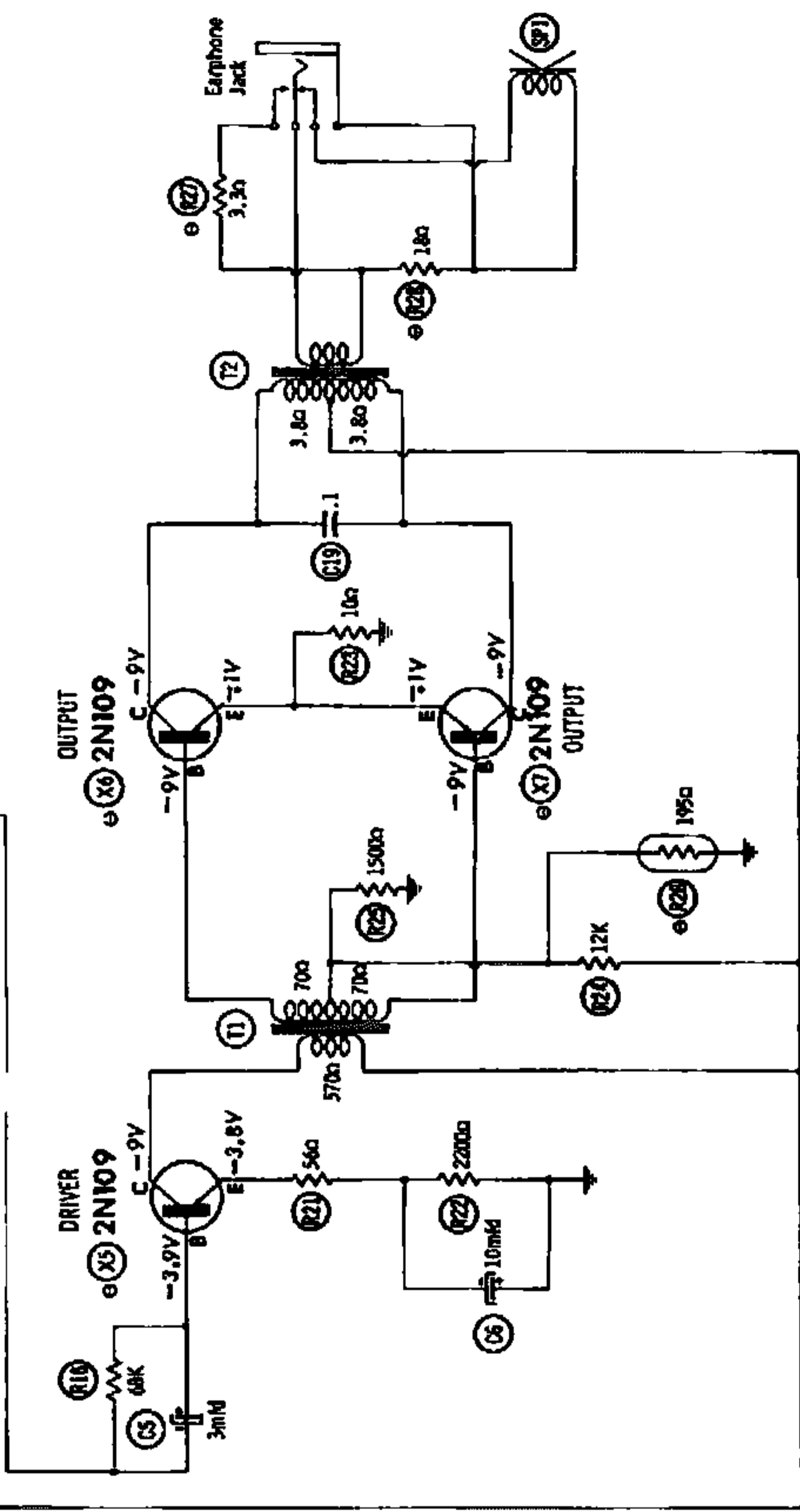
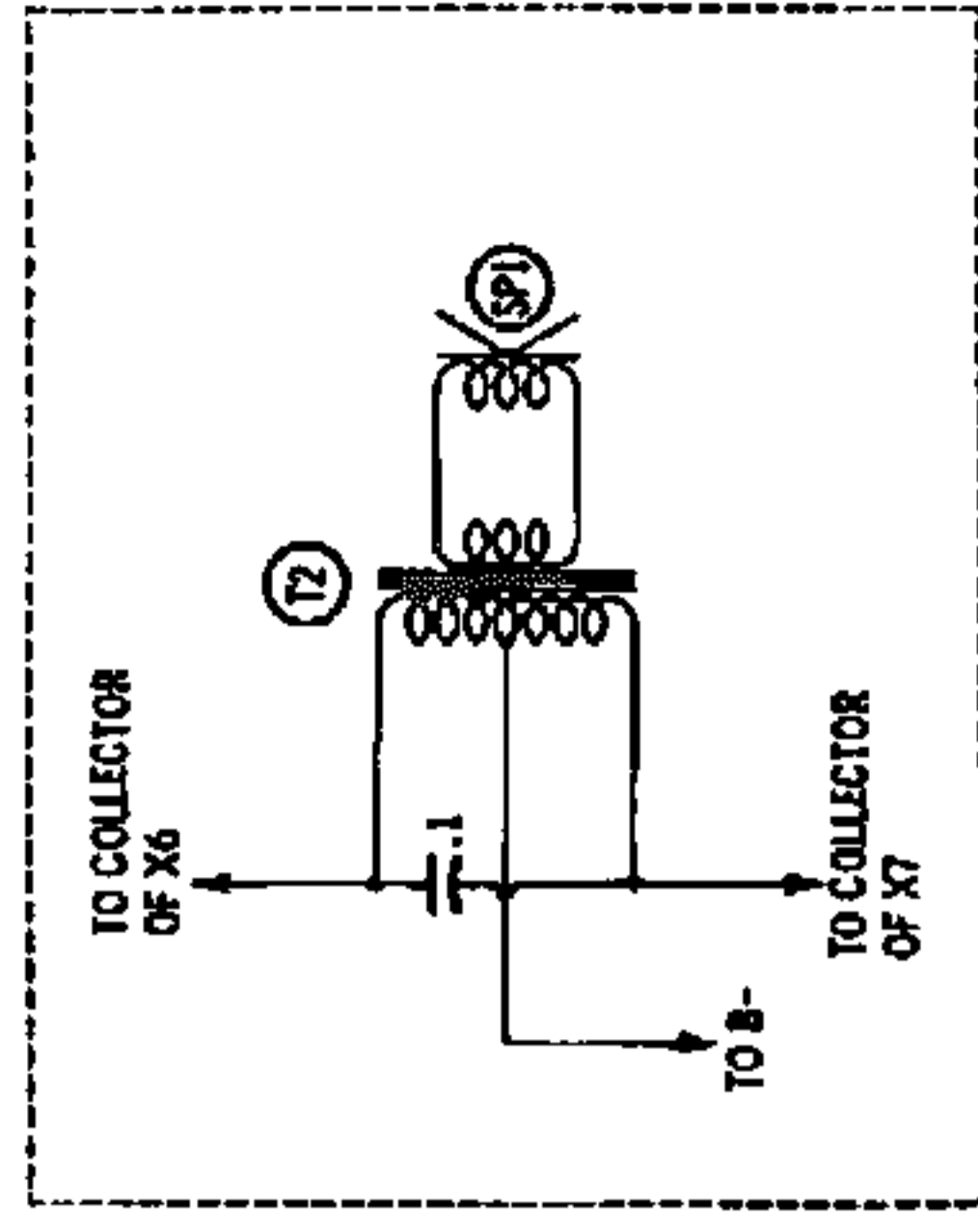
ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M3	Tuning Cap. Printed Board Cabinet Grill Handle Handle Knob Knob Knob Cabinet Cabinet	19K636451 84B636810-B 35C636266 1V636658 1V636659 36C636224 36C636225 36C636226 1V636632 1V636633	Two Gang (30-365MMF, 20-110MMF)  Black, Model 76T1, Includes L1. Brown, Model 76T2, Includes L1. Charcoal, Dial Scale. Clear, Tuning Charcoal, On-Off-Volume. Charcoal, Model 76T1, Less Escutcheon and Grill. Brown, Model 76T2, Less Escutcheon and Grill.

**CHASSIS—TOP VIEW**





SPKR. CIRCUITS USED IN SOME MODELS.



ITEM	TYPE	BASE	EMITTER	COLL.
X1	2N140	920Ω	1200Ω	1.120Ω
X2	2N139	10K	800Ω	1.210Ω
X3	2N139	800Ω	470Ω	1.120Ω
X4	2N139	2100Ω	1000Ω	1.15K
X5	2N109	1.80K	2000Ω	1.270Ω
X6	2N109	220Ω	10Ω	1.3.8Ω
X7	2N109	220Ω	10Ω	1.3.8Ω

TRANSISTORS REMOVED FOR RESISTANCE MEASUREMENTS. † MEASURED FROM NEGATIVE TERMINAL OF C1.

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. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±1% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC © Hewlett W. Sans & Co., Inc. 1957

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

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

