

PHOTOFACT* Folder

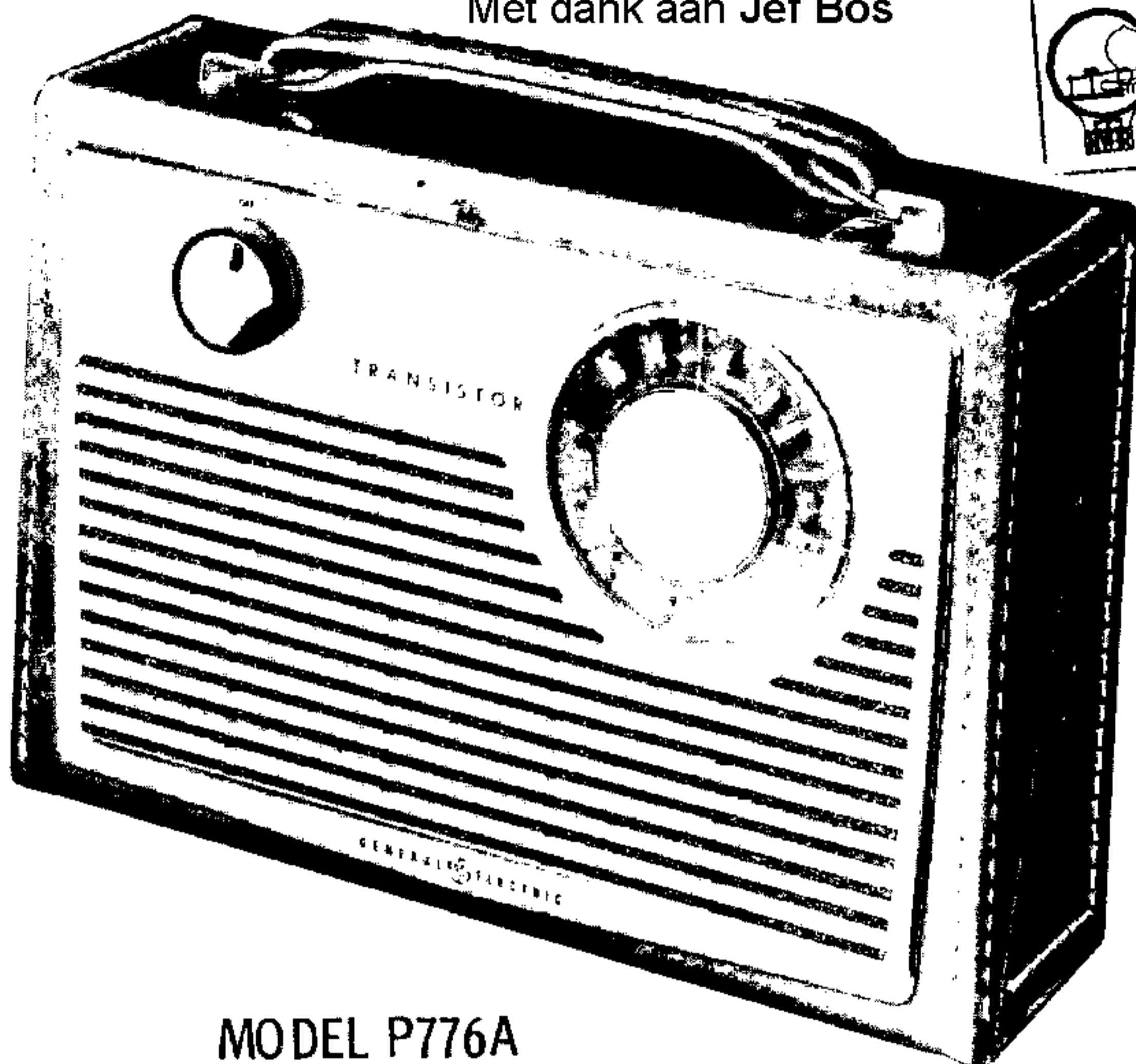


GENERAL ELECTRIC MODELS
P770A, P771A, P776A

Ned. Ver. v. Histo

with CIRCUITRACE*

Met dank aan Jef Bos



MODEL P776A

TRADE NAME	General Electric Models P770A, P771A, P776A		
MANUFACTURER	General Electric Co., Products Service, Radio Receiver Dept., 869 Broad Street, Utica, N. Y.		
TYPE SET	Battery Operated Portable Transistorized AM Receiver		
POWER SUPPLY	4.5 Volts DC	RATING	23MA @ 4.5Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	535 - 1620KC		26MA @ 4.5Volts 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.

Suggested Alignment Tools: A1, A2, A3 GENERAL CEMENT #9440
A4, A5 GENERAL CEMENT #5004, 5008, 5009
WALSCO #2520

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.		Loop	455KC (400% 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 while rocking tuning gang.

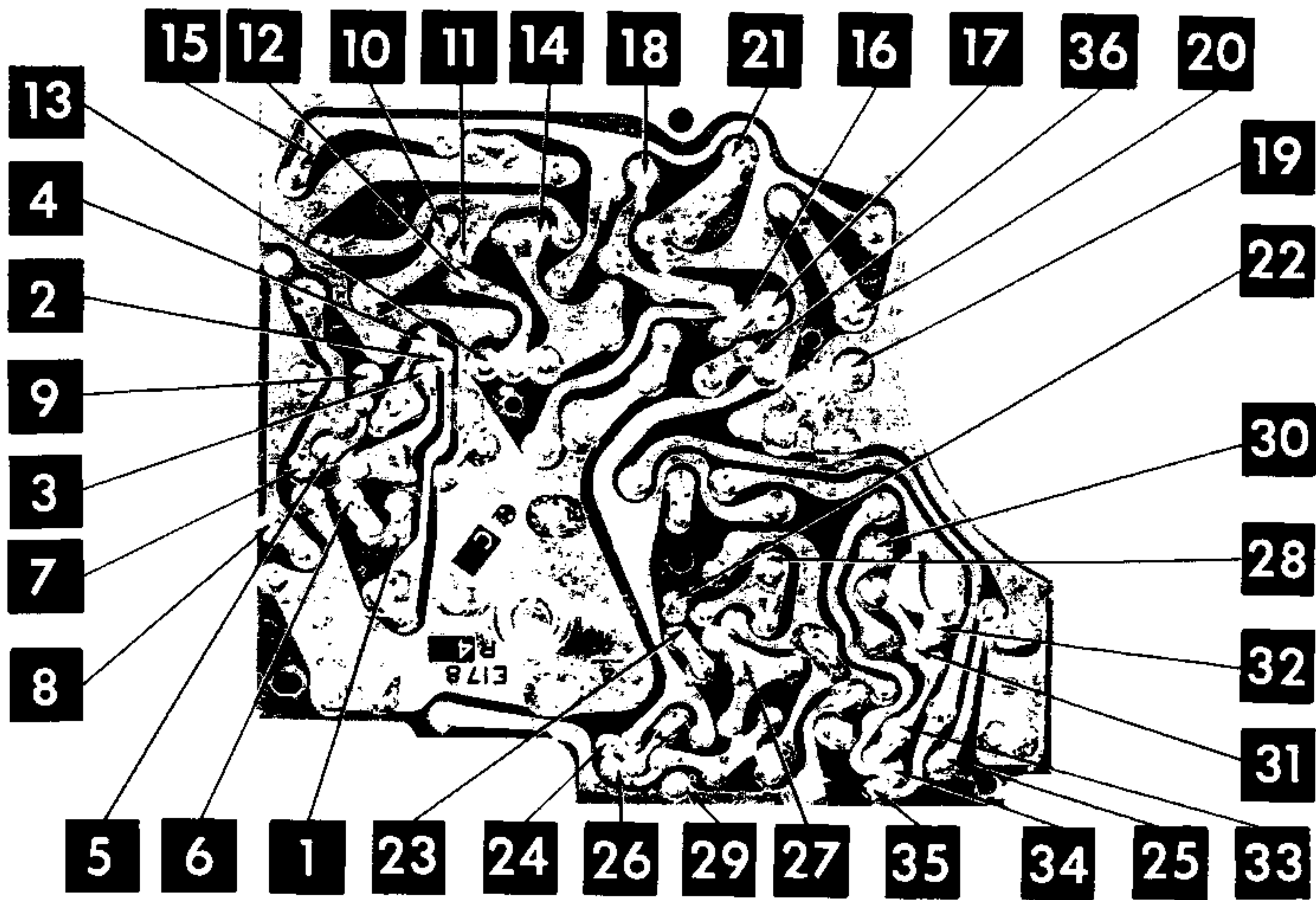
DISASSEMBLY

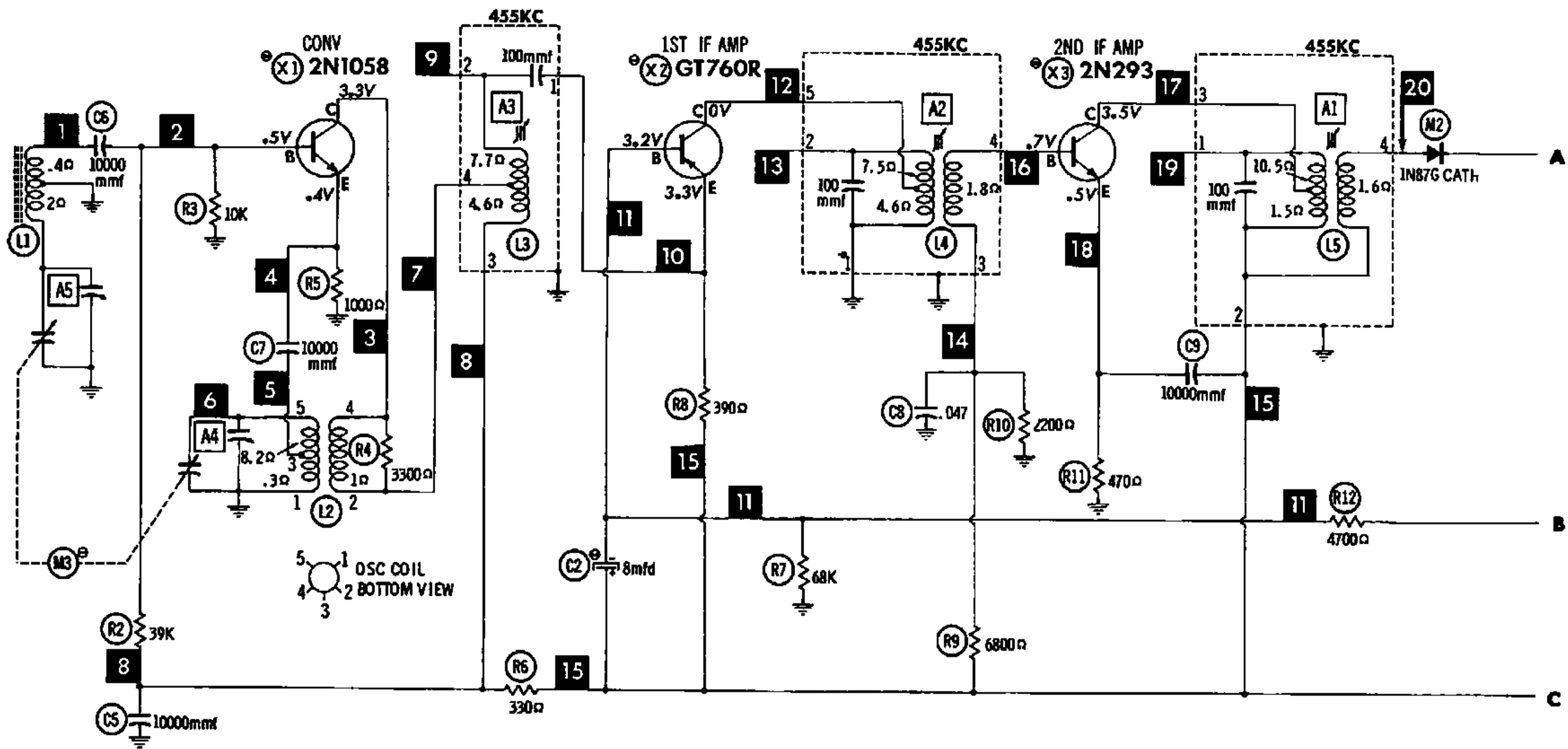
1. Remove knobs.
2. Remove batteries.
3. Remove screw from center of battery compartment.
4. Separate cabinet.
5. Unsolder speaker leads.
6. Remove hex-head screws holding printed board and control bracket to cabinet.
7. Lift printed board slightly and unsolder dial light lead.
8. Remove printed board.

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

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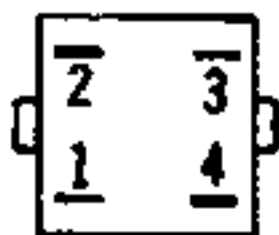




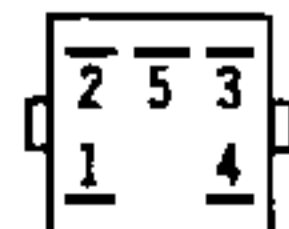
⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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 $\pm 15\%$ in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.



L3 & L5 BOTTOM VIEW

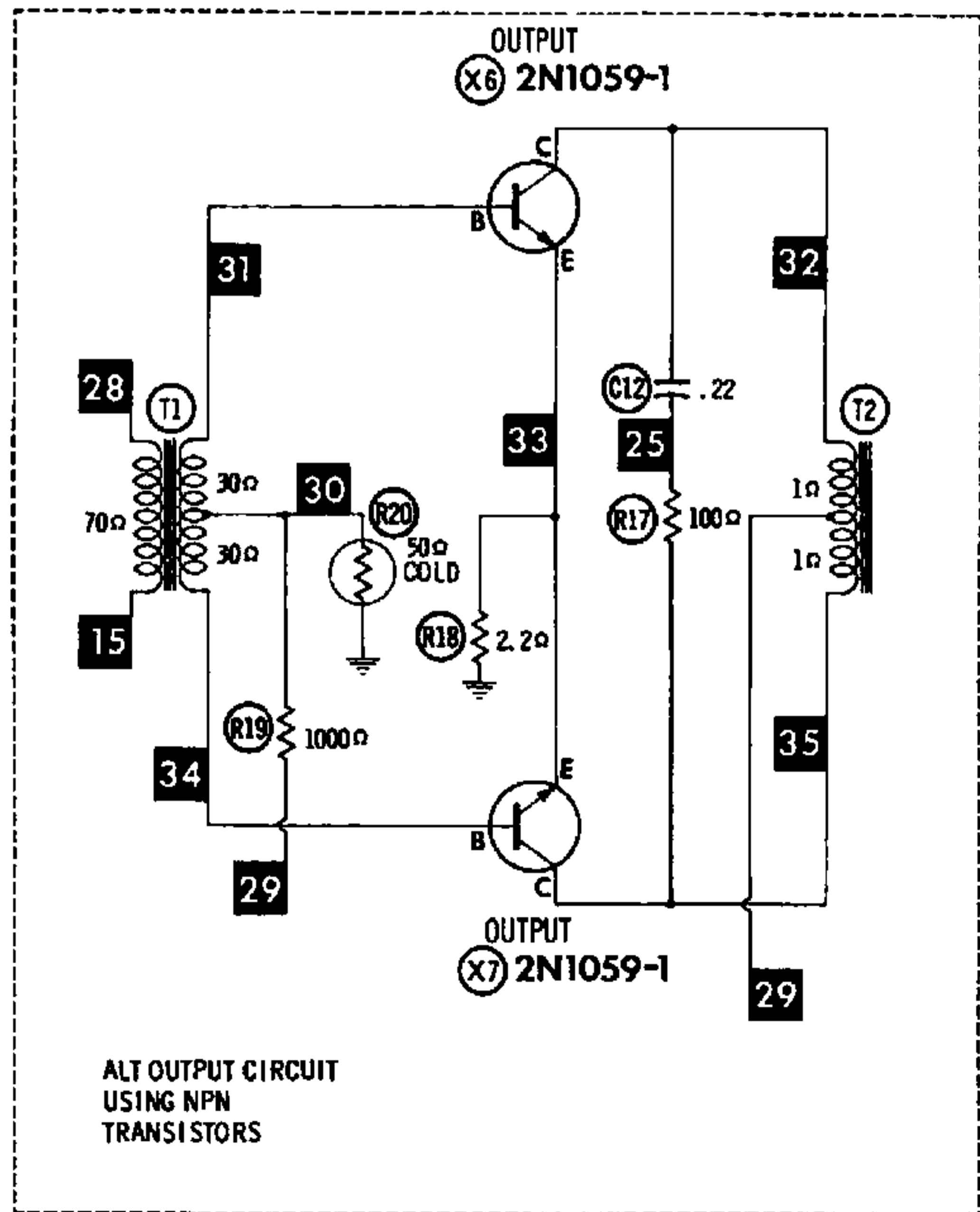
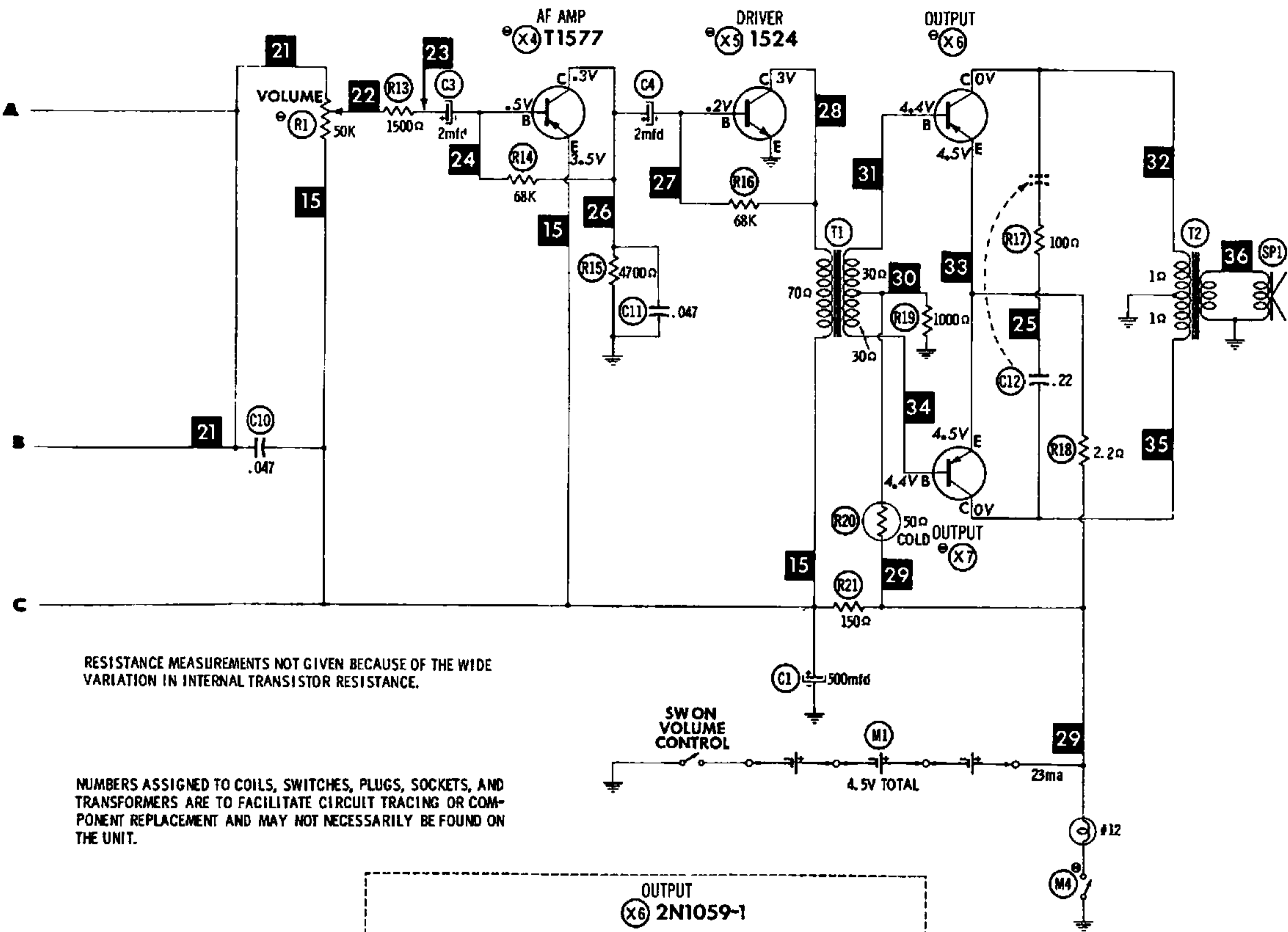


L4 BOTTOM VIEW



TRANSISTORS BOTTOM VIEW

A PHOTOFACIT STANDARD NOTATION SCHEMATIC with CIRCUITRACE



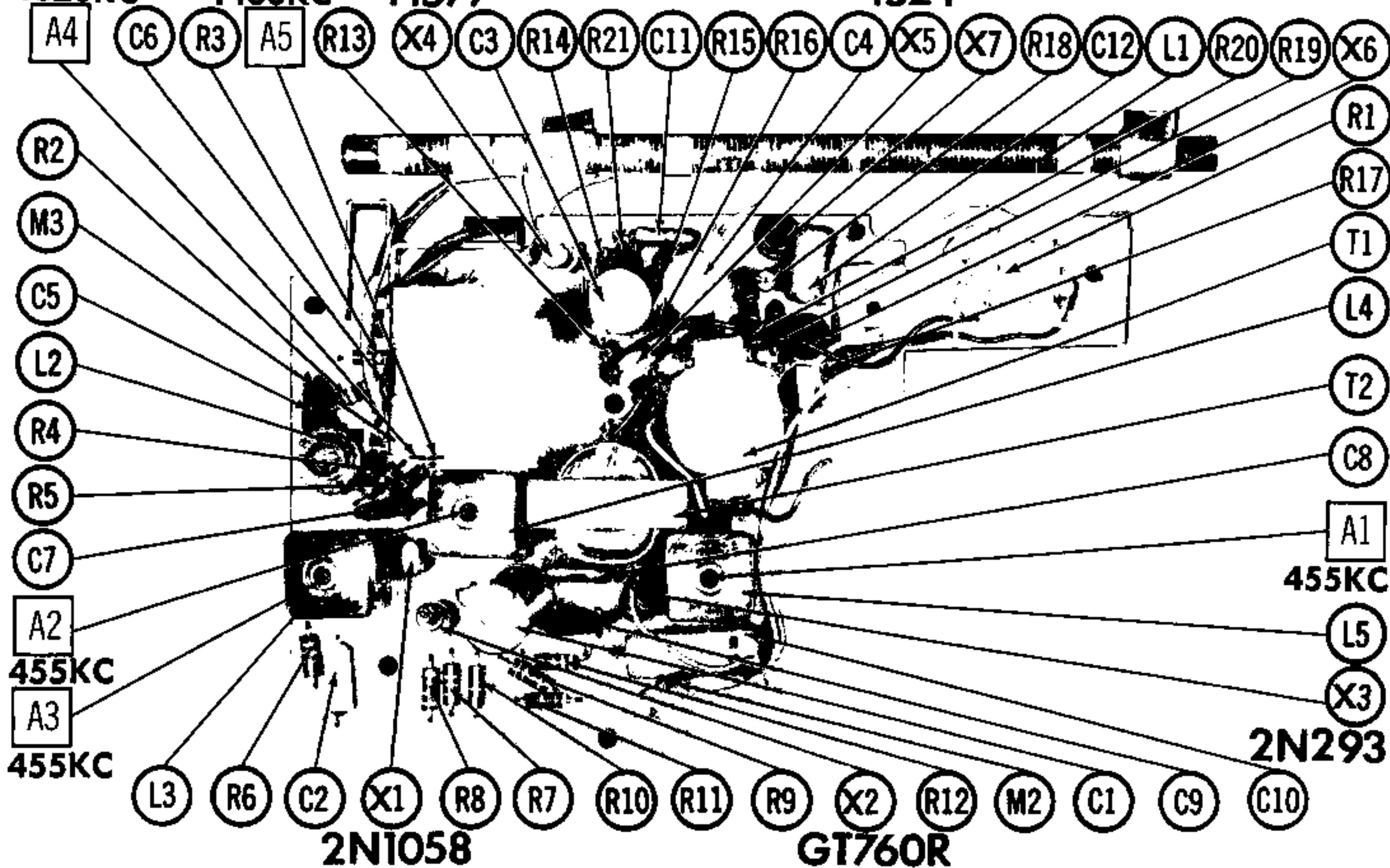
**GENERAL ELECTRIC MODELS
P770A, P771A, P776A**

OSC TOP
1620KC

ANT BOT
1400KC

T1577

1524



CHASSIS TOP VIEW

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			CBS PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N1058 ①	Converter				2N1058	NPN
X2	GT760R ②	1st IF Amplifier		2N410	2N483	2N410	PNP
X3	2N293 ③	2nd IF Amplifier					NPN
X4	T1577 ④	AF Amplifier			2N362		PNP
X5	1524 ⑤	Driver				2N1059-1	NPN
X6	4JX1E850 ⑥	Output					PNP
X7	4JX1E850 ⑥	Output					PNP

① Alternate Type Sylvania 1297.

② Alternate Type 2N410 or 4JX1A813.

③ Alternate Type 2N314.

④ Alternate Type 2N191 or 4JX1E821. Note difference in basing.

⑤ Alternate Type 2N1059-1, 4JX2A816 or 4JX1E825.

⑥ Alternate PNP Type 4JX1E850A. NPN Type 2N1059-1 may be used. Check schematic for alternate wiring.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	G. E. PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1	500	8	RS-1980	PRS1120	BR500-8	TC805	TD-500-6	TVA-1103	Note 1
C2	8	10		PWE10008	NLW8-12	TT25X8	ML8-15	TE-1127.3	
C3	2	10	RS-1959	XPP-10002	BBR2-50	TT12X2	ML2-15	TE-1121	
C4	2	10	RS-1959	XPP-10002	BBR2-50	TT12X2	ML2-15	TE-1121	

Note 1. Some versions may use 8mfd @ 15V in this application (Part #RS-1592).

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	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C5	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C6	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C7	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C8	.047 50V		P288N-047	DF-503	CUB2S47	IDP-2-473	GEM-4147	2TM-S47
C9	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C10	.047 200V		P288N-047	DF-503	CUB2S47	4DP-3-473	GEM-4147	2TM-S47
C11	.047 50V		P288N-047	DF-503	CUB2S47	IDP-2-473	GEM-4147	2TM-S47
C12	.22 50V		P288N-22		CUB2P22	IDP-3-224	GEM-2022	2TM-P22

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES	
	RESISTANCE	WATTS	G. E. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.		
RIA	50K	$\frac{1}{2}$	RS-1957	B-32	A47-50K-Z	Q13-123	U33	Volume	Note 1
B	Shaft			Not Req.	FS-3	Not Req.	Not Req.		
C	Switch			KR-1	SWE-12	76-1	US-26	Off-On	

DESCRIPTIONS

RESISTORS

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R2	39K		R9	8800Ω		R16	68K	
R3	10K		R10	2200Ω		R17	100Ω	
R4	3300Ω		R11	470Ω		R18	2.2Ω	
R5	1000Ω		R12	4700Ω		R19	1000Ω	
R6	330Ω		R13	1500Ω		R20	50Ω Cold	#RS-1355
R7	68K		R14	68K		R21	150Ω	
R8	390Ω		R15	4700Ω				

G. E. Part Number.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		G. E. PART No.	Gramer PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	
L1	Loopstick	RS-1963					
L2	Osc. Coil	RS-1964					
L3	1st IF Trans.	RS-1424					
L4	2nd IF Trans.	RS-1965					
L5	3rd IF Trans.	RS-1966					

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			G. E. PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
	PRI.	SEC.						
T1	1	1	RS-1961					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
			G. E. PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	
	PRI.	SEC.							
T2	80Ω CT	3-4Ω	RS-1962						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				G. E. PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	4"	PM	3-4Ω	RB-1057	4A1	

PARTS LIST AND DESCRIPTIONS (Continued)

BATTERIES

ITEM No.	VOLTAGE	G. E. PART No.	REPLACEMENT DATA				NOTES
			BURGESS		EVEREADY		
			"A"	"B"	"A"	"B"	
M1	4.5V		230 ①	AI00 ①	M-13R ①		① 3 Required.

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		G. E. PART No.	CBS PART No.	SYLVANIA PART No.	
M2	1N87G	RS-1811	1N60	1N60	Detector (Pigtail)

MISCELLANEOUS

ITEM No.	PART NAME	G. E. PART No.	NOTES
M3	Tuning Cap.	RS-1958	2 Gang, Model P776A (Ant. 26-207mmf, Osc. 21-93mmf)
M4	Tuning Cap.	RS-2029	2 Gang, Model P770A, P771A
	Switch Contact	RS-1950	Dial Lamp Power, Model P776A
	Switch Contact	RS-2019	Dial Lamp Power, Models P770A, P771A

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	RS-1946	Tuning, Model P776A
Knob	RS-2006	Tuning, Model P770A, P771A
Knob	RS-1947	Volume, Model P776A
Knob	RS-2007	Volume, Model P770A
Knob	RS-2008	Volume, Model P771A
Cabinet	RB-1087	Model P776A
Cabinet Front	RB-1102	Model P770A (Includes Dial Window, Insert and Grille Assembly)
Cabinet Front	RB-1103	Model P771A (Includes Dial Window, Insert and Grille Assembly)
Cabinet Back	RB-1104	Model P770A
Cabinet Back	RB-1105	Model P771A
Handle	RS-2003	Model P770A
Handle	RS-2004	Model P771A

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors