

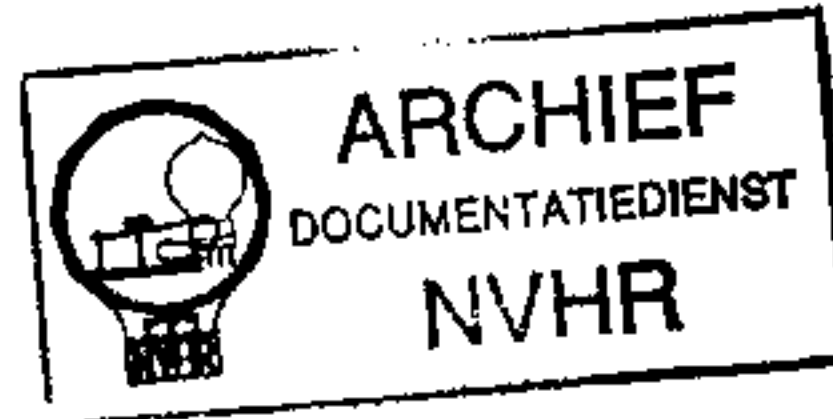
PHOTOFACT® Folder

with **CIRCUITRACE™**

**ADMIRAL MODELS Y2091,
Y2093, Y2098 (Ch. 8A2)**

Ned. Ver. v. Historie v/d Radio

Met dank aan Jef Bos



MODEL Y2091

TRADE NAME	Admiral Models Y2091, Y2093, Y2098 (Ch. 8A2)		
MANUFACTURER	Admiral Sales Corp., Service Div., 903 Morrissey Drive, P. O. Box 845, Bloomington, Illinois		
TYPE SET	Battery Operated Transistorized Portable AM Receiver		
POWER SUPPLY	6 Volts DC	RATING	9MA @ 6 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	535 - 1620KC		20MA @ 6 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 **exact reading.**

Suggested Alignment Tools: A1, A2, A3, A5, GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
 WALSCO #2515, 2531, 2532
 A4, A6, GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988, 8989, 9291
 WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
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.
"	1620KC	"	"	A4	"
"	595KC	Tuning gang fully closed.	"	A5	"
"	1400KC	1400KC Signal.	"	A6	Adjust for maximum output. Repeat Steps 2, 3 and 4.

DISASSEMBLY

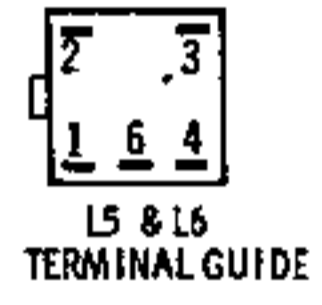
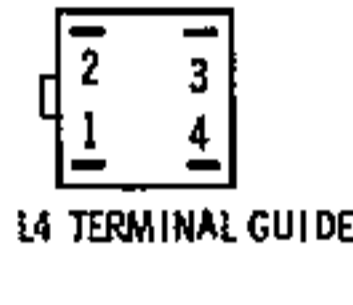
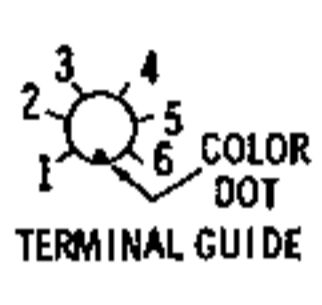
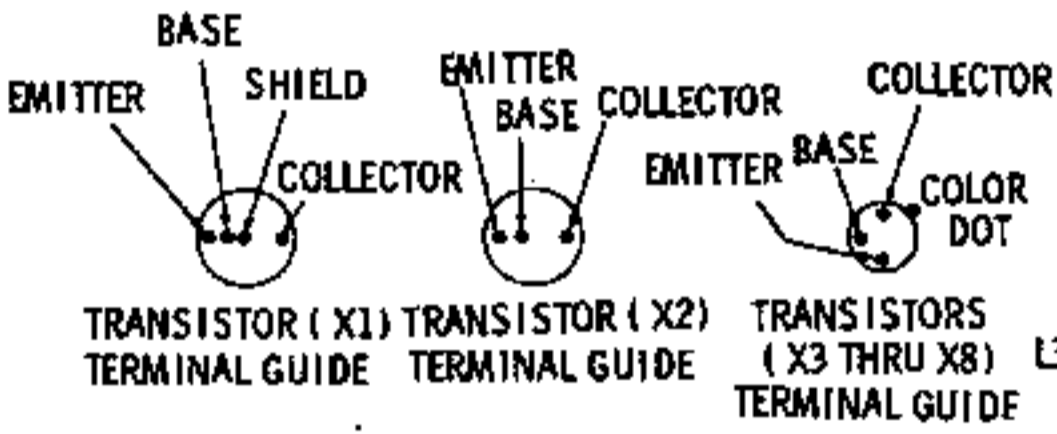
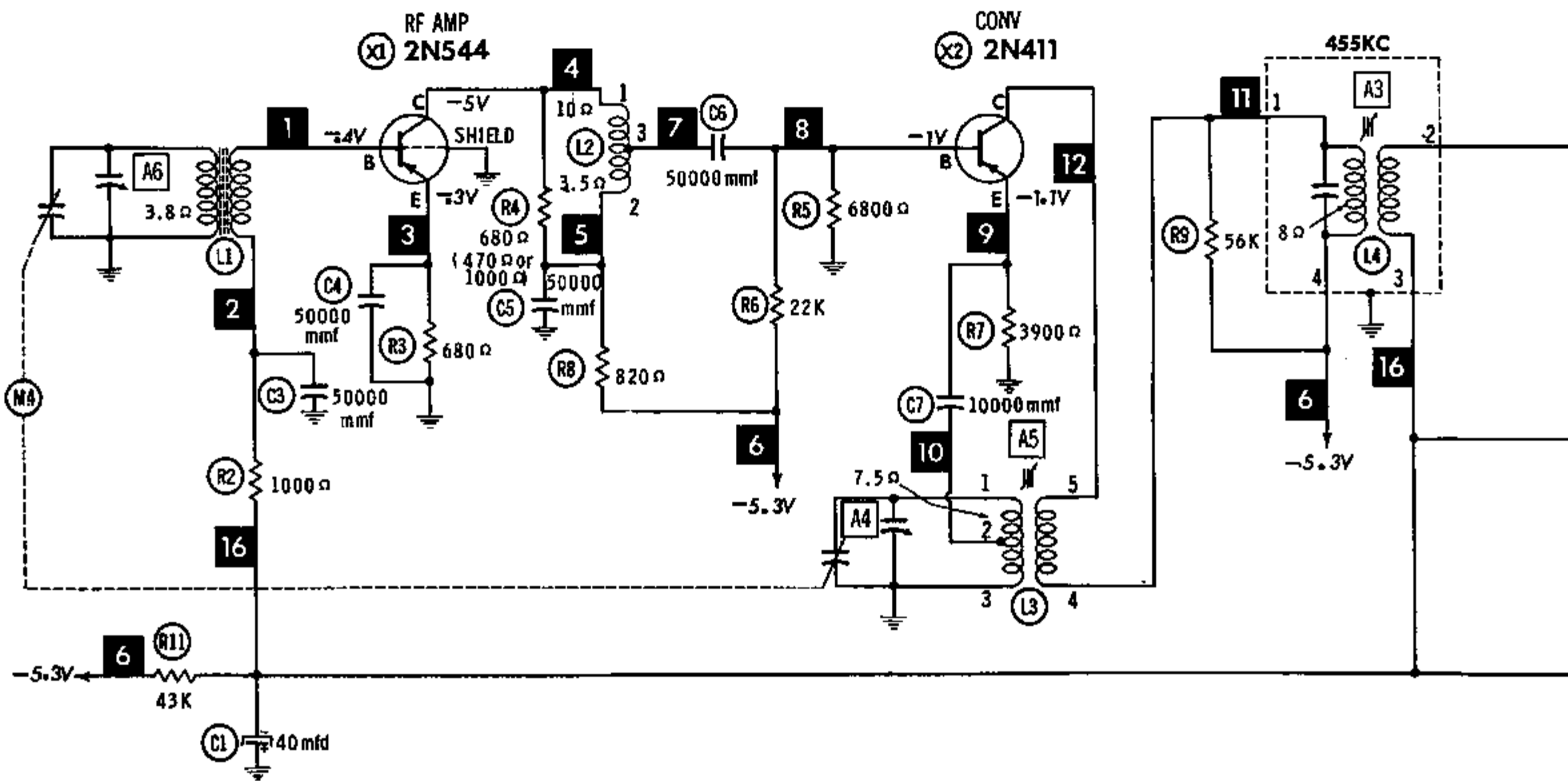
1. Remove cabinet back by inserting coin in slot on bottom edge and twisting.
2. Remove knobs by pulling off.
3. Remove screw holding battery holder to speaker.
4. Remove 3 Phillips screws near outside center of board. Keep the 3 spacers to replace on the screws when reassembling (Do not remove the 4 screws located away from the edges).
5. Remove Chassis and battery holder from case.

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

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guarantee 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

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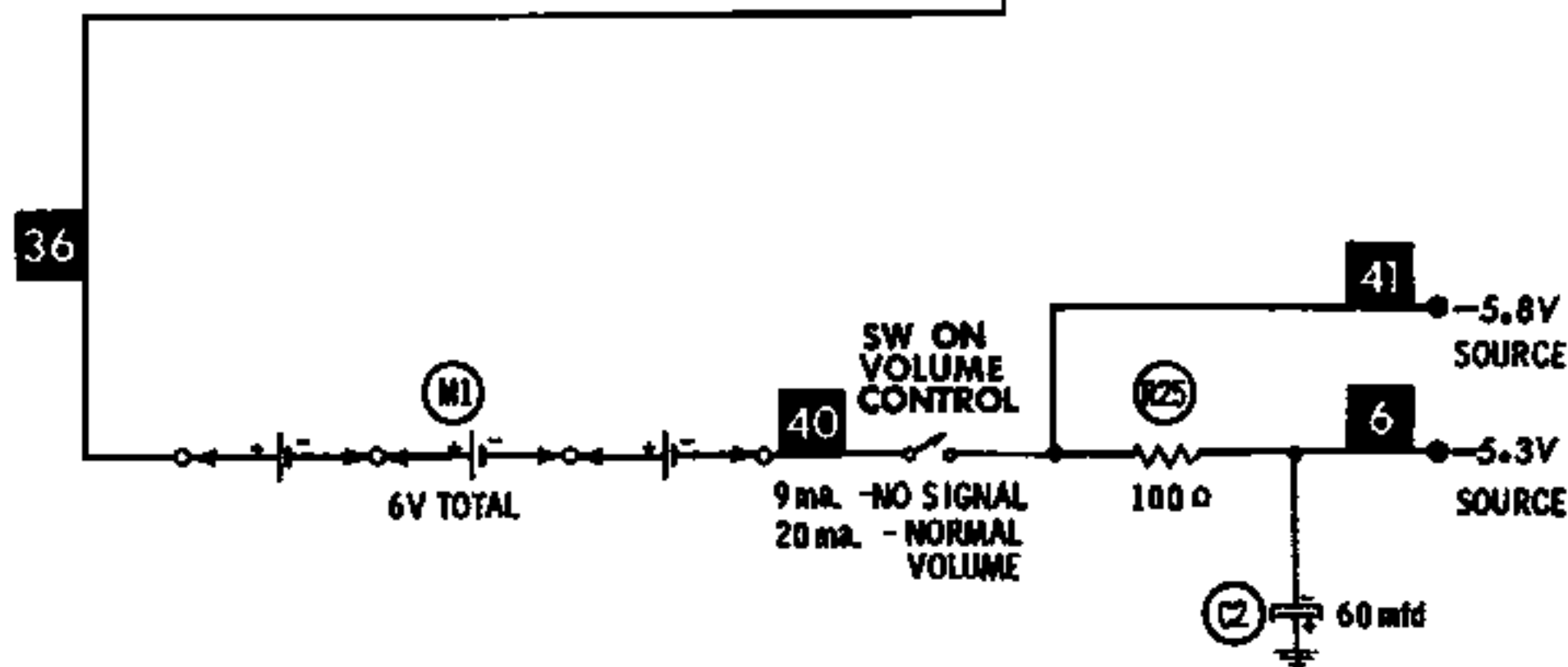
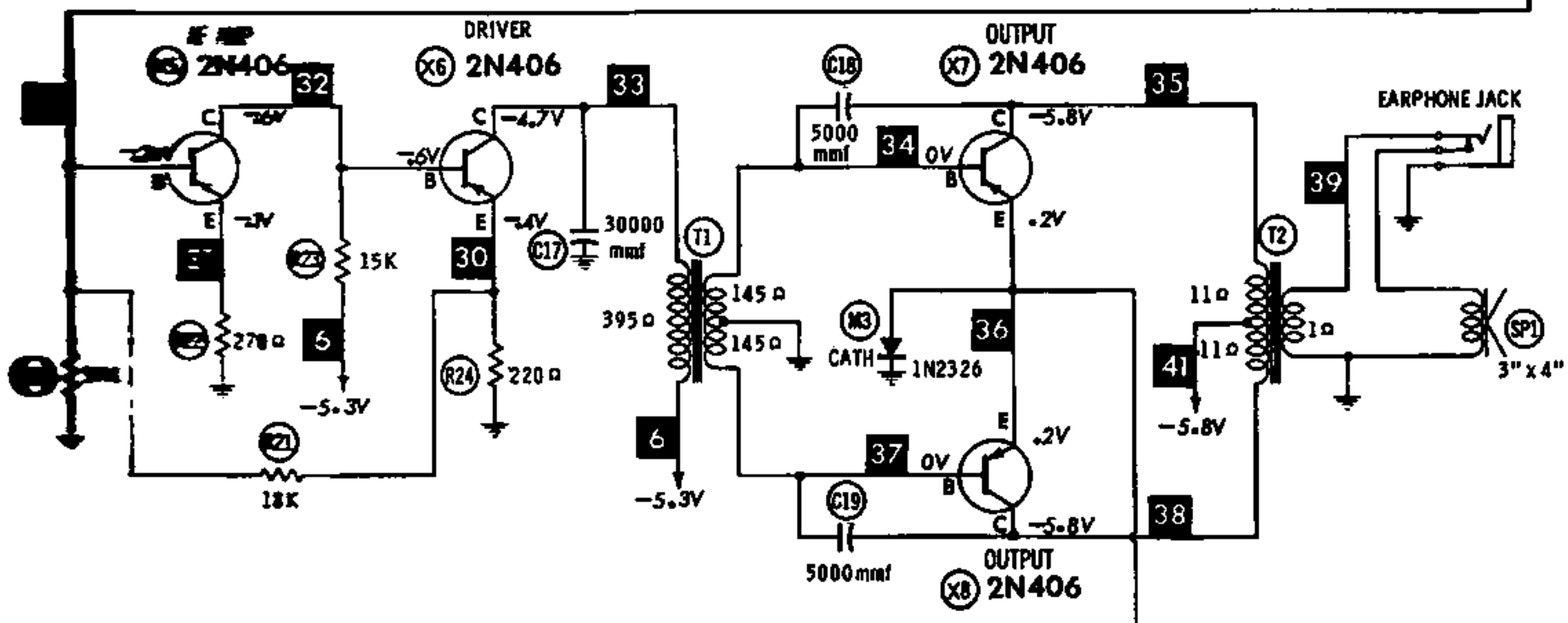
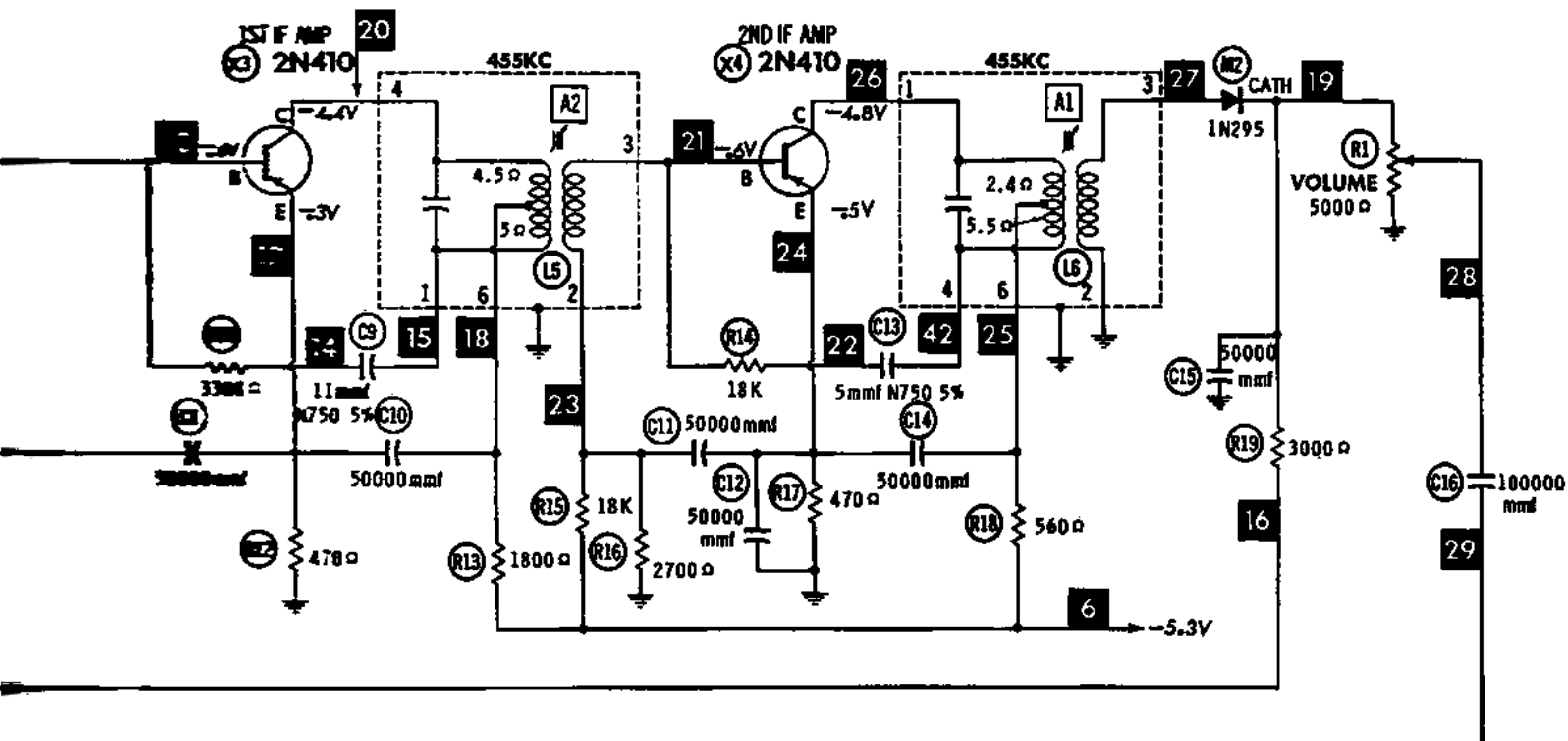


1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections or transistor terminals are shown as bottom views.
3. Measured values are from socket pin or terminal to common ground.
4. Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.

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.

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

RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

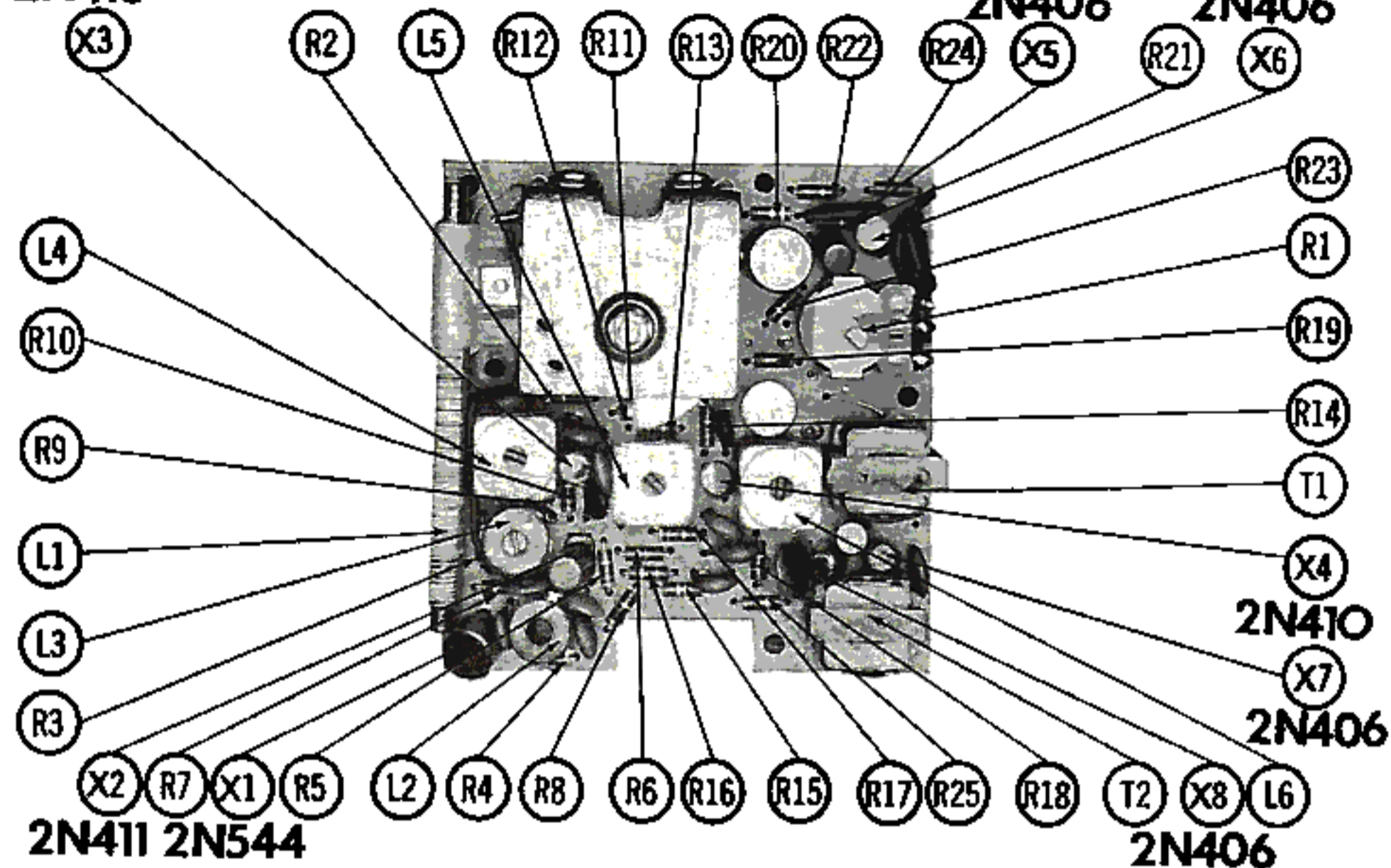


ADMIRAL MODELS Y2091,
Y2093, Y2098 (Ch. 8A2)

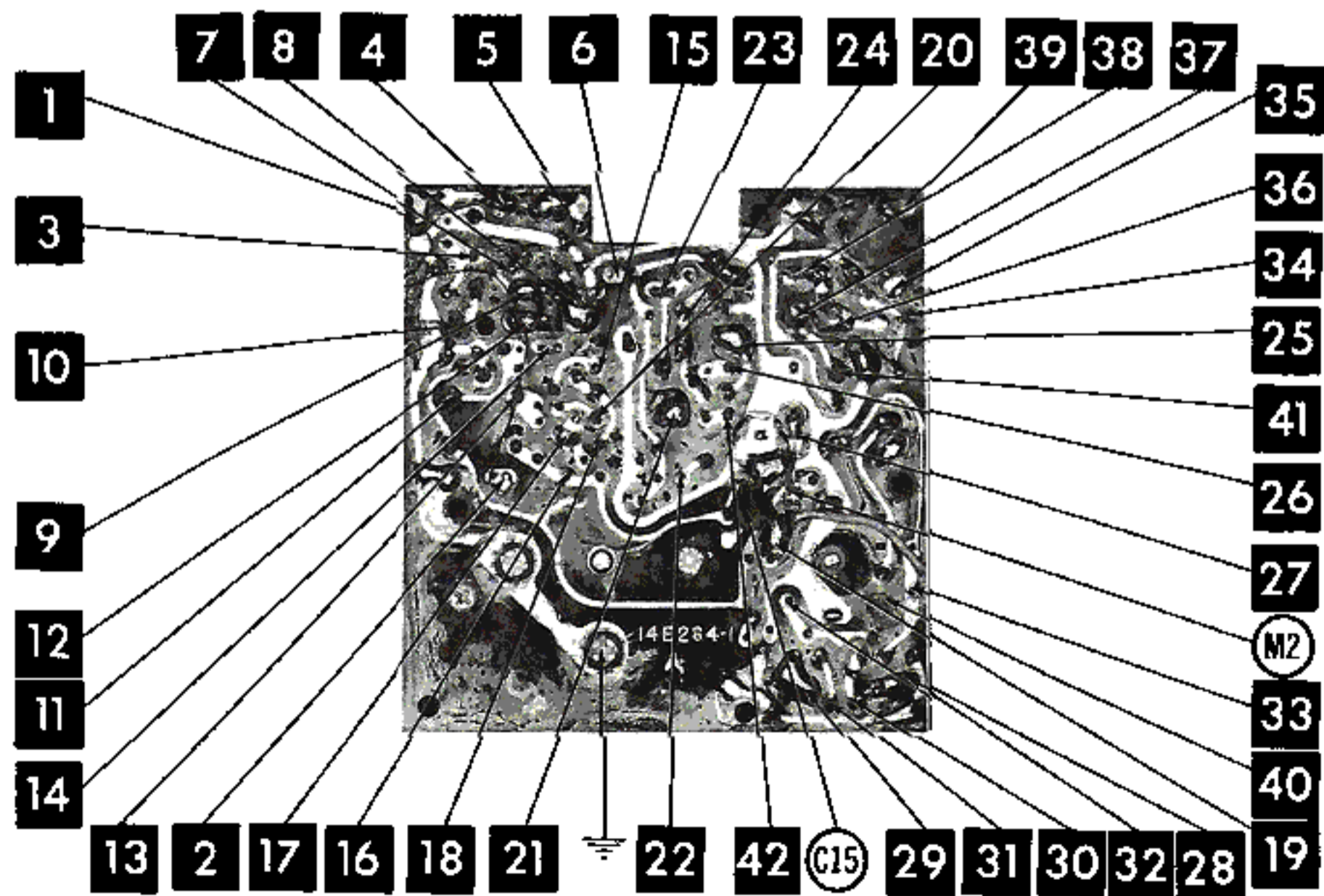
2N410

2N406

2N406



CHASSIS TOP VIEW



PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N544	RF Amplifier			2N544	PNP
X2	2N411	Converter	2N411	2N486	2N411	PNP
X3	2N410	1st IF Amplifier	2N410	2N483	2N410	PNP
X4	2N410	2nd IF Amplifier	2N410	2N483	2N410	PNP
X5	2N406	AF Amplifier	2N406	2N382	2N406	PNP
X6	2N406	Driver	2N406	2N382	2N406	PNP
X7	2N406	Output	2N406	2N382	2N406	PNP } Matched
X8	2N406	Output	2N406	2N382	2N406	PNP } Pair

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	CAP.	VOLT.	ADMIRAL PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C1	40	3	67B32-9	BCD3035	ECPB114	PET140	MLV40-3	VL-1045
C2	60	6	67B32-8	BCD6075	ECPB116	PET1260	MLV50-6	VL-1097

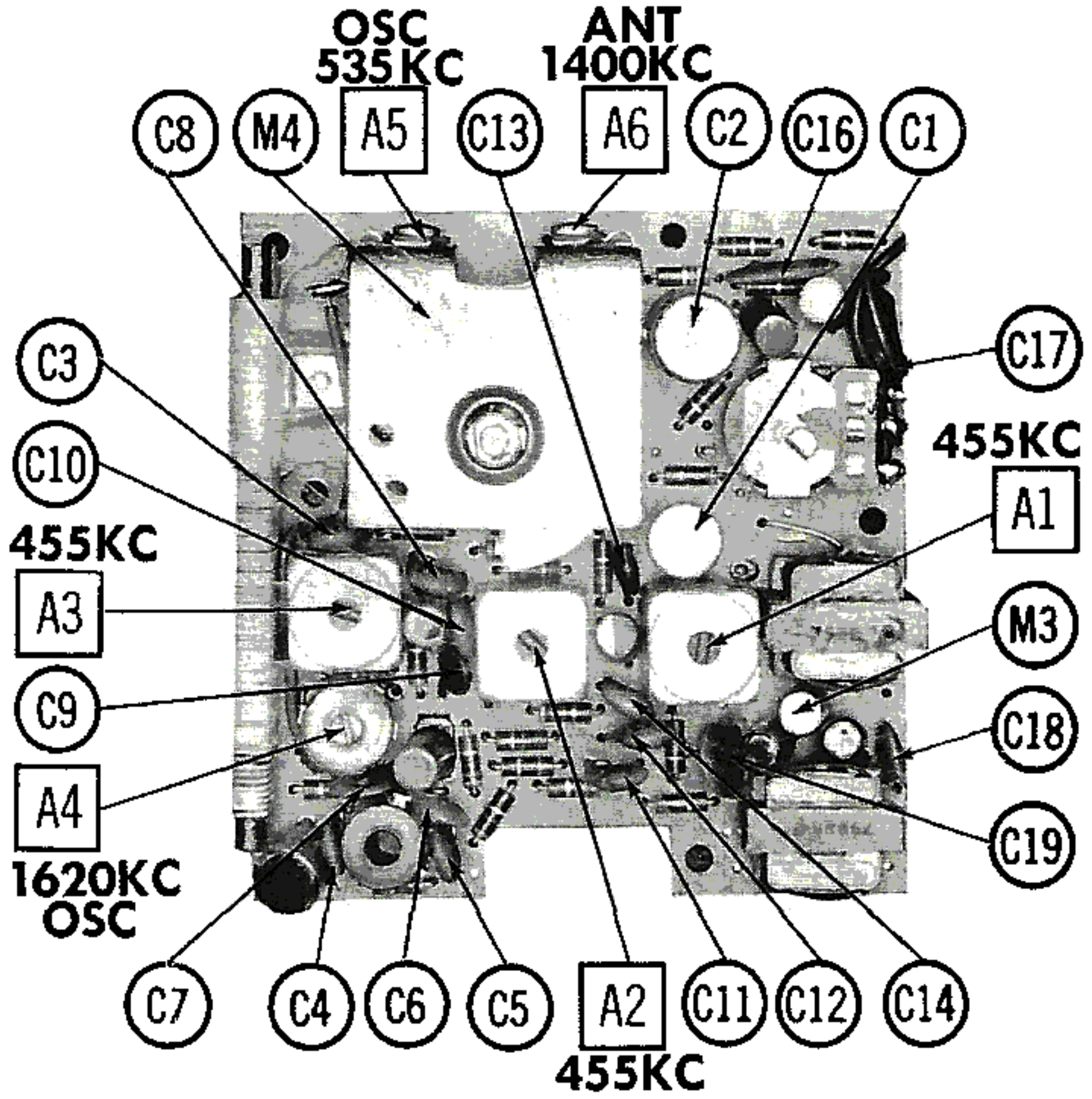
FIXED CAPACITORS

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.
C3	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C4	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C5	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C6	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C7	10000		C80V103AM	DM-103	H-05S1		TA-S10	TG-S10
C8	50000		C80V503AM	DDA-503	H-05S5		TA-S50	TG-S50
C9	11 N750 5%		N750-DI 10	DTN-10	C10Q1U	CCTN-100	CN7-410	10TCU-Q10
C10	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C11	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C12	50000		C80V503AM	DDA-503	H-05S5		TA-150	TG-S50
C13	5 N750 5%			DTN-5	C10V5U	CCTN-050	CN7-550	10TCU-V50
C14	50000		C80V503AM	DD-503	H-05S5		TA-150	TG-S50
C15	50000		C80V503AM	DD-503	H-05S5		TA-150	TG-S50
C16	100000		C80V104AM	DDA-104	H-05P1		TA-010	TG-P10
C17	30000	#65B45-8						
C18	5000		C80V502AM	DM-502	H-05D5	CCD-502	TA-250	TG-D50
C19	5000		C80V502AM	DM-502	H-05D5	CCD-502	TA-250	TG-D50

Admiral Part Number

CHASSIS—TOP VIEW



PARTS LIST AND DES

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	ADMIRAL PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.		MALLORY PART No.
R1	5000Ω	1/4	75C69-2					Volume & Switch

RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R2	1000Ω			(470Ω, 1000Ω) *	R14	18K			
R3	680Ω				R15	18K			
R4	680Ω				R16	2700Ω			
R5	6800Ω				R17	470Ω			
R6	22K				R18	560Ω			
R7	3900Ω				R19	3000Ω			
R8	820Ω				R20	39K			
R9	56K				R21	18K			
R10	3300Ω				R22	270Ω			
R11	43K				R23	15K			
R12	470Ω				R24	220Ω			
R13	1800Ω				R25	100Ω			

* Alternate Value.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ADMIRAL PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L1	Loopstick	69C218-13					
L2	RF	69B247-1					
L3	Osc.	69B246-3					
L4	1st IF	72C182-13					
L5	2nd IF	72C182-11					
L6	3rd IF	72C182-13					

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.	ADMIRAL PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	1.3	1	79B84-2					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	ADMIRAL PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	200Ω CT	10-12Ω	79B85-2				TR-15 ①	① Remove Frame

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	ADMIRAL PART No.	QUAM PART No.	
SP1	3"x 4"	PM	10-12Ω	78C103-1		

DESCRIPTIONS (Continued)

BATTERIES

ITEM No.	VOLTAGE	ADMIRAL PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	1.5V			930 *		1015 *		M-15R*	* 4 Required

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		ADMIRAL PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	1N295	57C1-2		1N295	1N295	Detector (Pigtail) Output Bias Regulator
M3	1N2326	57C1-29				

MISCELLANEOUS

ITEM No.	PART NAME	ADMIRAL PART No.	NOTES
M4	Tuning Cap. Earphone	68C82-2 ES201	2 Gang (Ant. 123mmf Max., Osc. 78mmf Max.)

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Dial Knob	21B135-1	Knob
Knob	23B392-2	Tuning, Black
Knob	33B392-1	Volume, Black
Cabinet Back	34E158-3	Black, Model Y2091
Cabinet Back	34E158-7	White, Model Y2093
Cabinet Back	34E158-5	Green, Model Y2098
Cabinet Front	A7777	Black, Model Y2091
Cabinet Front	A7778	White, Model Y2093
Cabinet Front	A7779	Green, Model Y2098
Handle	37B193-3	Carrying

WIRING DATA

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