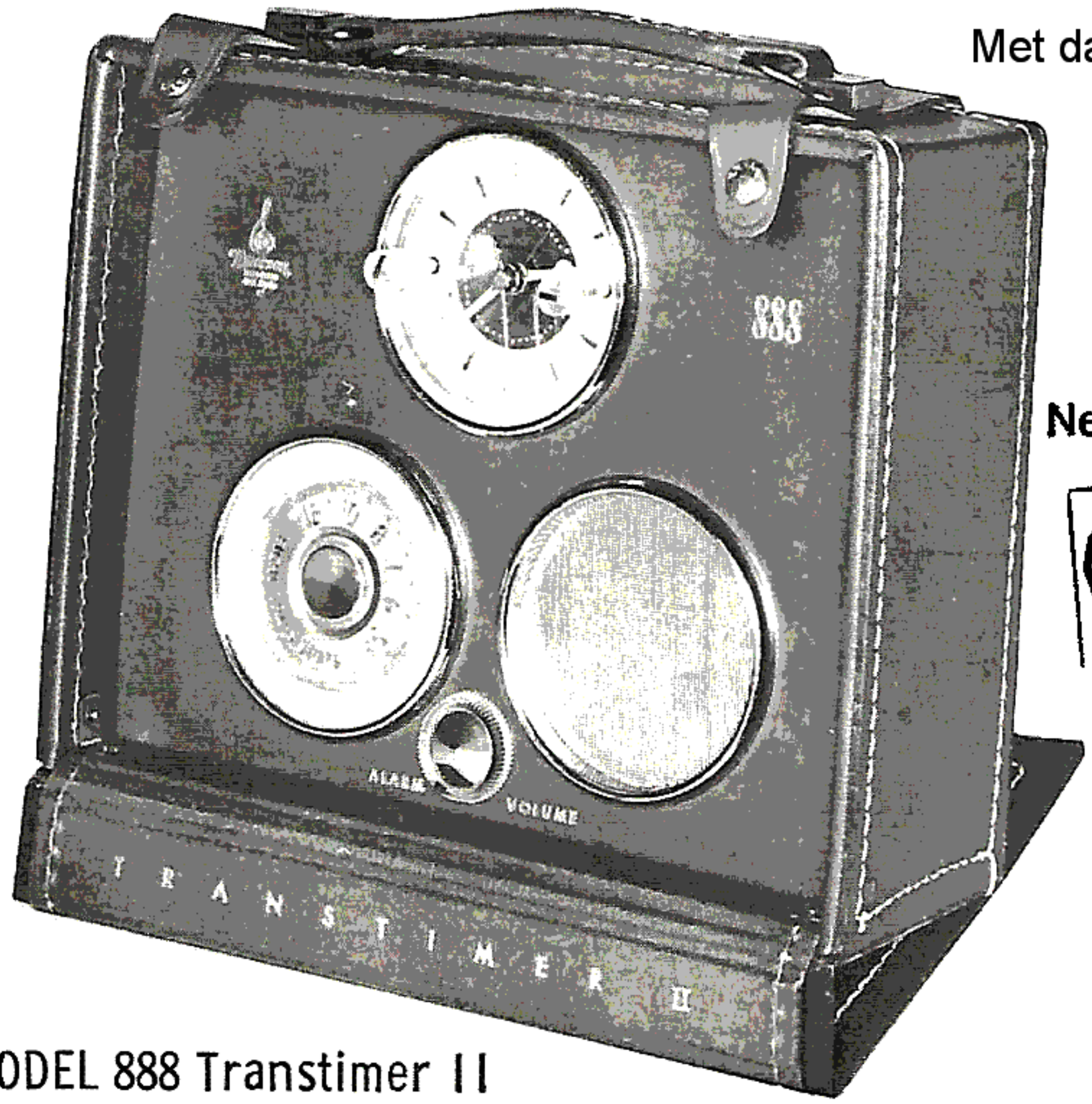
EMERSON MODELS 888 Transtimer, 888 Transtimer II (Ch. 120416, 120472)



MODEL 888 Transtimer II

TRADE NAME	Emerson Models 888 Transtimer (Ch. 120416), 888 Transtimer II (Ch. 120472)
MANUFACTURER	Emerson Radio & Phono Corp., 524 W. 23rd Street, New York 11, N. Y.
TYPE SET	Battery Operated Transistorized Portable AM Receiver With Clock
POWER SUPPLY	6 Volts DC (Radio)
	1.5 Volts DC (Clock)
RATING	8MA @ 6 Volts DC (No Signal, Min. Volume)
	15MA @ 6 Volts DC (Signal, Normal Volume)
TUNING RANGE—BROADCAST	540 — 1650KC

ALIGNMENT INSTRUCTIONS

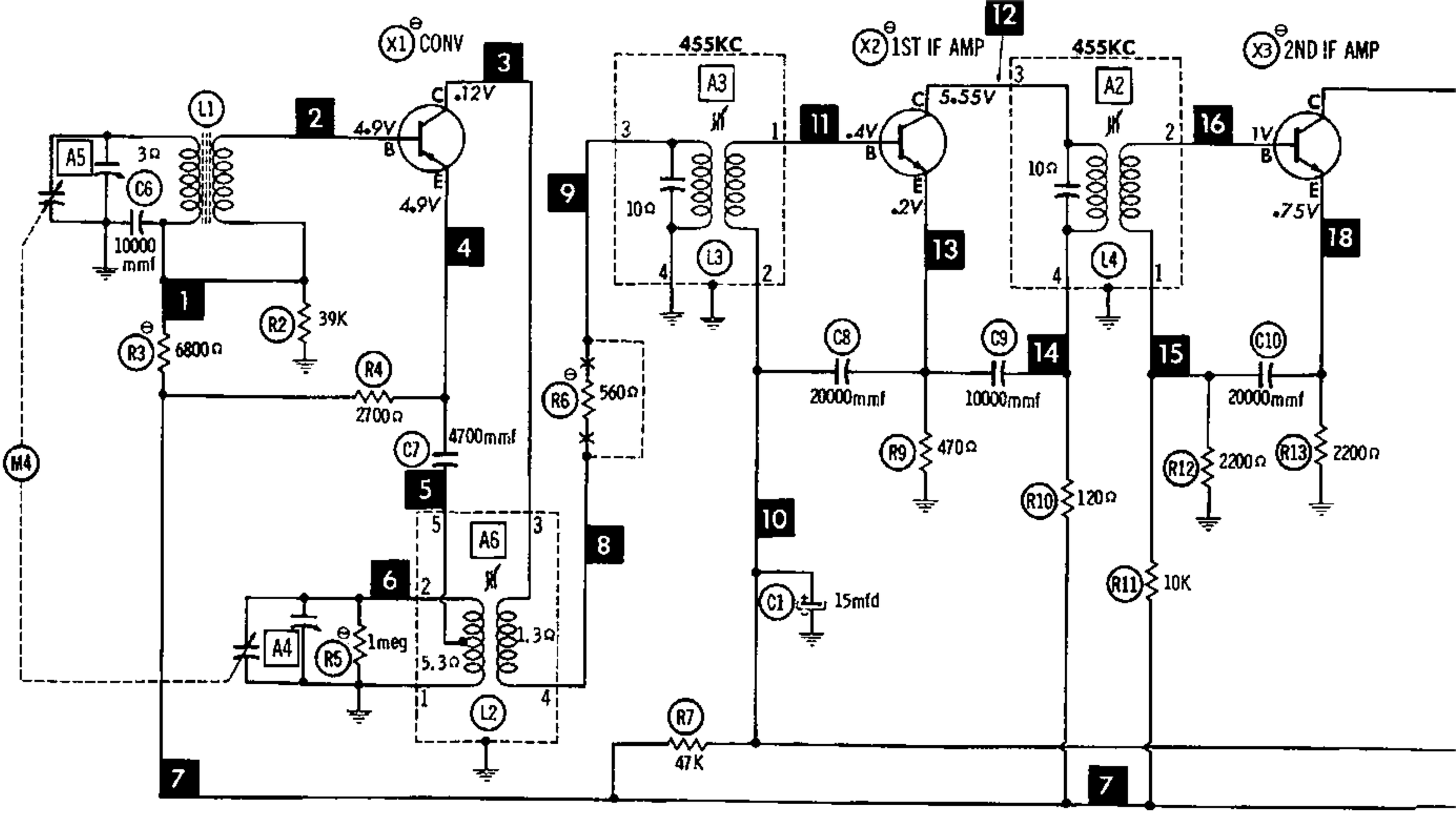
ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

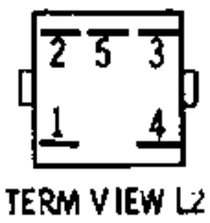
Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading.

Suggested Alignment Tools: A1, A2, A3, A6...GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
WALSCO #2515, 2531, 2532
A4, A5.....GENERAL CEMENT #5004, 5008, 5009
WALSCO #2520

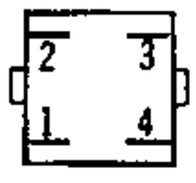
	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	High side thru .1mfd to antenna stator lug of tuning gang. Low side to chassis.	455KC (400~ Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
2.	Loop	1650KC	"	"	A4	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1400KC	1400KC Signal.	"	A5	"
4.	"	600KC	600KC	"	A6	Adjust for maximum output while rocking tuning gang. Repeat Steps 3 and 4.

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

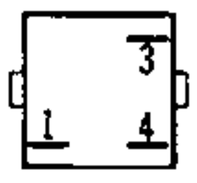




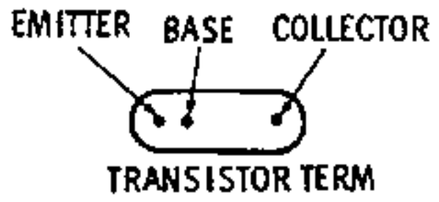
TERM VIEW L2



TERM VIEW L3 & L4



TERM VIEW L5



TRANSISTOR TERM GUIDE

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.

Θ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

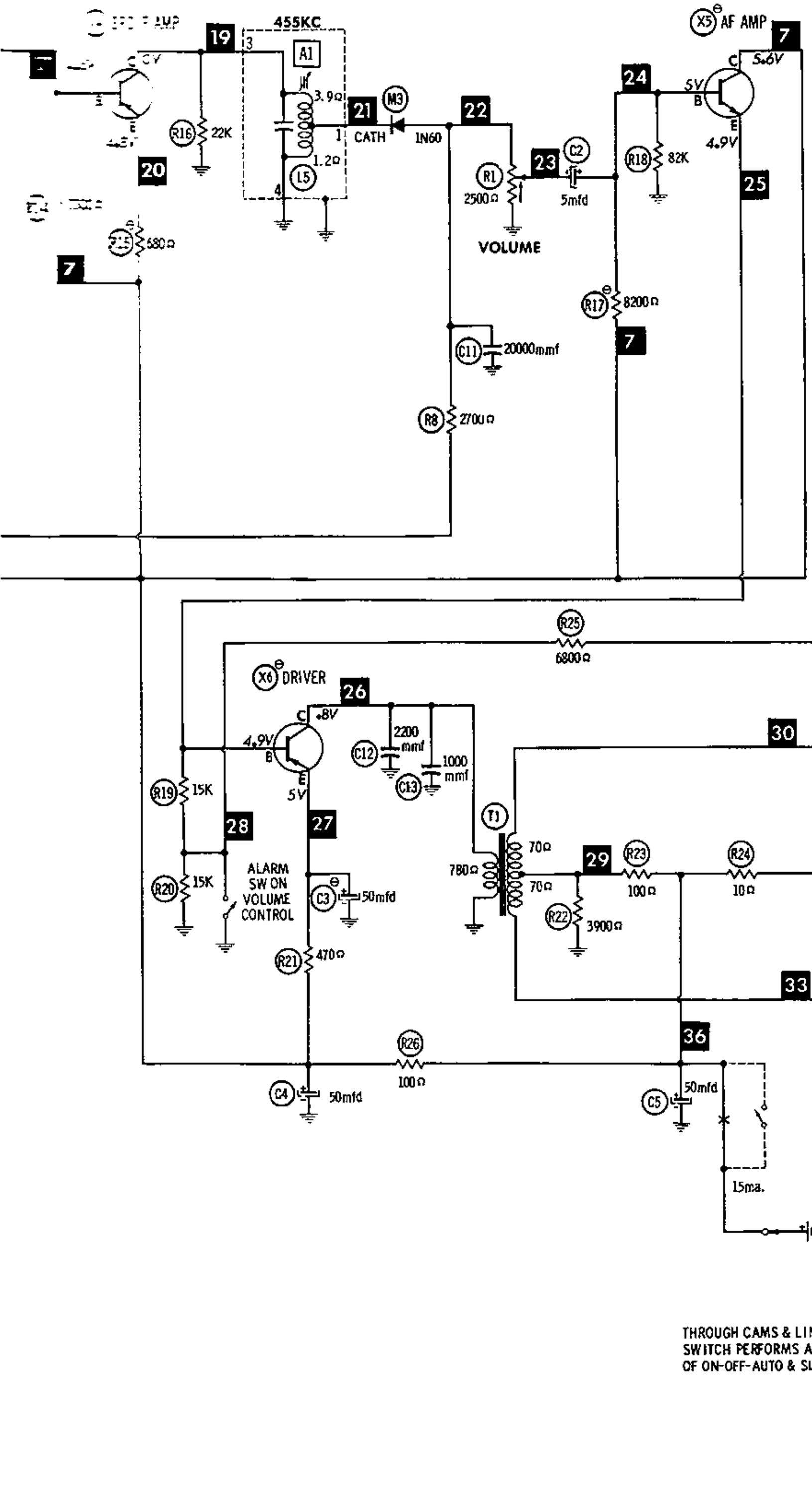
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

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

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

A PHOTOFACT STANDARD NOTATION SCHEMATIC
with CIRCUITRACE®



EMERSON MODELS 888 Transtimer, 888 Transtimer II (Ch. 120416, 120472)

DISASSEMBLY

RADIO

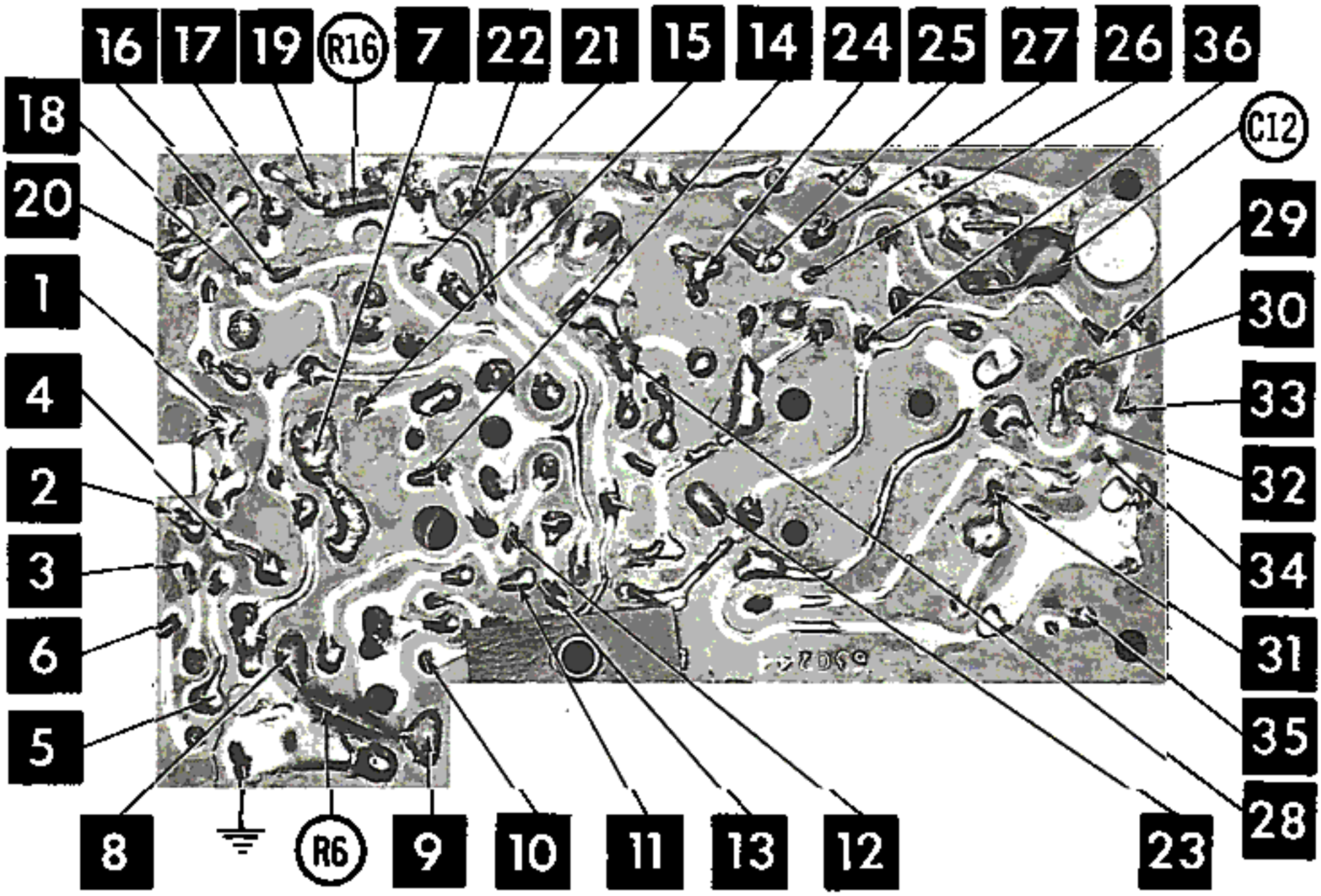
1. Open front flap.
2. Remove screw holding tuning knob. Remove knob.
3. Remove Phillips screw from left of tuning shaft.
4. Remove volume control knob.
5. Remove 2 screws from rear flap. Open flap.
6. Remove 2 hex nuts. Remove chassis.

CLOCK (Chassis 120416)

1. Remove clock battery.
2. Unsolder 2 leads from battery clip terminals.
3. Remove speednut from stud.
4. Remove clock. (Push gently toward front of case.)
5. To remove crystal, press down on back edges of bezel. Remove bezel and crystal.

CLOCK (Chassis 120472)

1. Remove receiver chassis.
2. Remove 2 Tinnerman nuts holding face and bezel.
3. Remove 4 palnuts holding clock to cabinet.
4. Remove clock.



A Howard W. Sams CIRCUITRACE Photo

PRINTED BOARD

TRANSISTORS

ITEM No.	MFGR. PART NO.	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	815025A ①	Converter		2N486		PNP
X2	815045D ②	1st IF Amplifier		2N1367		NPN
X3	815045D ③	2nd IF Amplifier		2N1367		NPN
X4	815027	3rd IF Amplifier		2N482		PNP
X5	815029 ④	AF Amplifier	2N649	2N363		NPN
X6	815034 ⑤	Driver	2N408	2N363		PNP
X7	815030	Output	2N408	2N633		PNP) Matched
X8	815030	Output	2N408	2N633		PNP) Pair

① Emerson Part #815025 may be used in this application.
② Emerson Part #815045, C; 815026, A, B, C, D, F may be used in this application.
③ Emerson Part #815045, B, E; 815026, A, B, D, E, F may be used in this application.
④ Emerson Part #815034, 815032, 815033, 815035, 815031, 815028 may be used in this application.
⑤ Emerson Part #815029 may be used in this application.

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.	SPRAGUE PART No.	NOTES
C1	15	3	925419	PTT-3015	NLW15-6	TT6X15	ML15-25	TE-1053.5	
C2	5	10	925420	PTT-10005	NLW5-15	TT12X5	ML5-15	TE-1127	
C3	50	10	925422	XPP-10050	NLW50-10	TT10X50	ML50-15	TE-1119	①
C4	50	10	925422	XPP-10050	NLW50-10	TT10X50	ML50-15	TE-1119	
C5	50	10	925422	XPP-10050	NLW50-10	TT10X50	ML50-15	TE-1119	

① Some versions may use 45mfd in this application (Part #925421).

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.
C6	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C7	4700		BPD-0047	DD-472	BYA10D47M	CCD-472	B-247	5HK-D47
C8	20000		BPD-02	DD-203	BYB6S2	CCD-203	B-120	5HK-S20
C9	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C10	20000		BPD-02	DD-203	BYB6S2	CCD-203	B-120	5HK-S20
C11	20000		BPD-02	DD-203	BYB6S2	CCD-203	B-120	5HK-S20
C12	2200		BPD-0022	DD-222	BYA10D2	CCD-222	B-222	5HK-D22
C13	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C14	.1 200V		P288N-1	DF-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10

ID DESCRIPTIONS

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESIST-ANCE	WATTS	EMERSON PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1A B	2500Ω Switch	½	390494					Volume Alarm Switch

RESISTORS (IRC or EQUIVALENT)

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

ITEM No.	RATING	REMARKS
R2	39K	
R3	6800Ω	Note 1
R4	2700Ω	
R5	1meg	Note 2
R6	560Ω	Note 5
R7	47K	
R8	2700Ω	
R9	470Ω	
R10	120Ω	

ITEM No.	RATING	REMARKS
R11	10K	
R12	2200Ω	
R13	2200Ω	
R14	3300Ω	
R15	680Ω	Note 3
R16	22K	
R17	8200Ω	Note 4
R18	82K	
R19	15K	

ITEM No.	RATING	REMARKS
R20	15K	
R21	470Ω	
R22	3900Ω	
R23	100Ω	
R24	10Ω	
R25	6800Ω	
R26	100Ω	

Note 1. R3 is 8200Ω when X1 is Part #815025.

Note 2. R5 is 680K when X1 is Part #815025, and R6 is omitted.

Note 3. R15 is 330Ω when X2 & X3 are Part #815026C.

Note 4. R17 is 4700Ω when X5 is Part #815032.
R17 is 6800Ω when X5 is Part #815033.
R17 is 10K when X5 is Part #815035.

Note 5. Not used in some versions.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		EMERSON PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Loopstick	700139				
L2	Osc. Coil	716118				
L3	1st IF Trans.	720302				
L4	2nd IF Trans.	720302				
L5	3rd IF Trans.	720303				

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.	EMERSON PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	2.2	1	734157				T-51X①	① Use Original Mounting Frame.

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	EMERSON PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	240Ω CT	3-4Ω	734158				TY-57X ①	① Use Original Mounting Frame

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	EMERSON PART No.	QUAM PART No.	
SP1	3½"	PM	3-4Ω	180175		

BATTERIES

ITEM No.	VOLTAGE	EMERSON PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1 M2	1½V 1½V			130 *		635 * E9 †		M-14R* ZM-9 †	* 4 Required (Radio) † 1 Required, Mercury (Clock)

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		EMERSON PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M3	1N60	817069	1N60	1N60	Detector

MISCELLANEOUS

ITEM No.	PART NAME	EMERSON PART No.	NOTES
M4	Tuning Cap.	900172	2 Gang
M5	Clock	471163	Model 888II, Ch. 120472 (Include Switch)
	Clock	471088	Model 888, Ch. 120416 (Include Switch)
	Printed Board	630225	Less All Components.

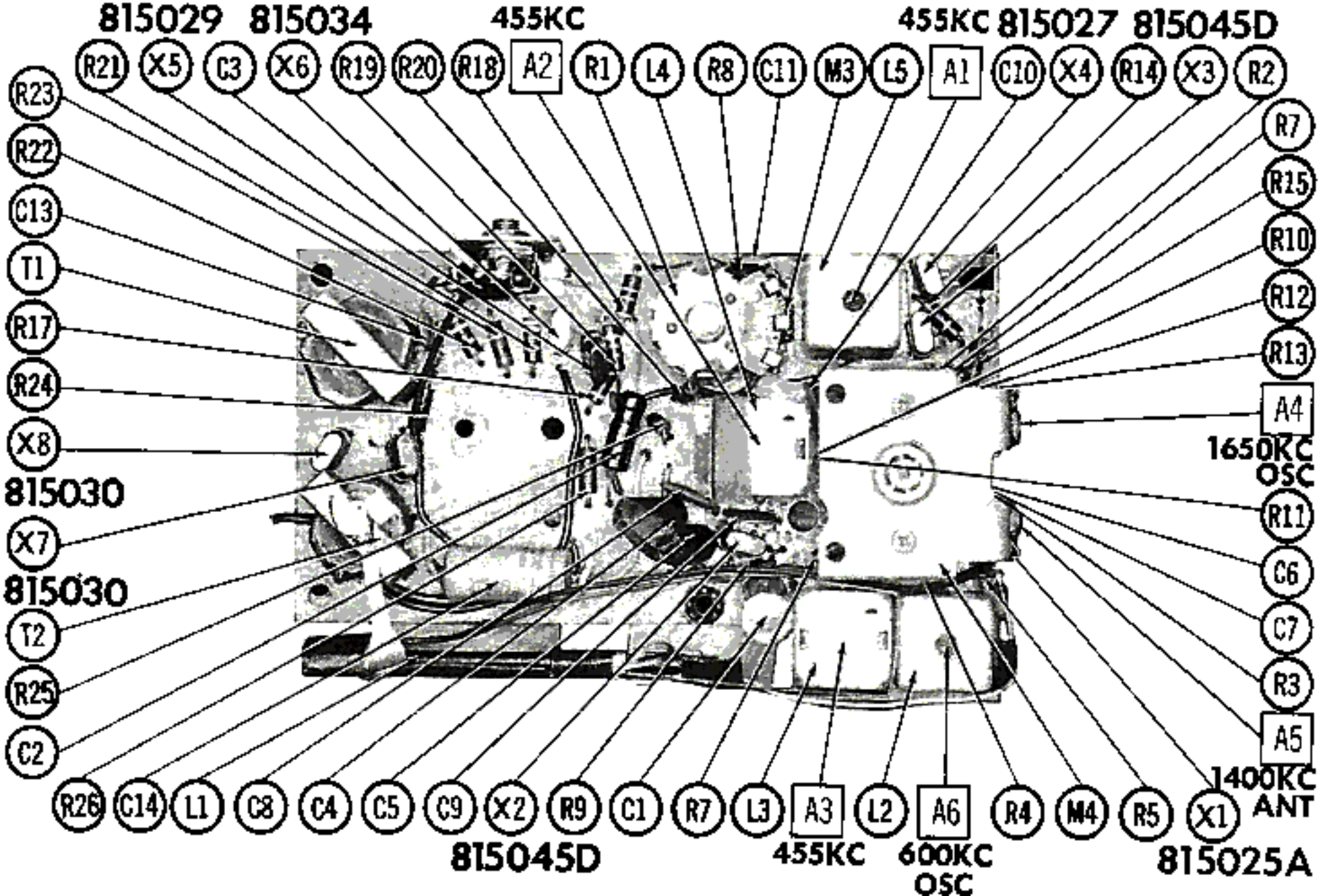
CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	461026	Tuning
Knob	461146	Volume (Transtimer II)
Knob	461031	Volume (Transtimer)
Knob	461136	Clock
Crystal	520281	Clock (Transtimer II)
Crystal	962322	Clock (Transtimer)
Cabinet	141022	Leather, Black (Transtimer II)
Cabinet	141022A	Leather, Tan (Transtimer II)

WIRING DATA

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


CHASSIS—TOP VIEW
815029
815034
455KC
455KC
815027
815045D
R21
X5
C3
X6
R19
R20
R18
A2
R1
L4
R8
C11
M3
L5
A1
C10
X4
R14
X3
R2
R23
R22
C13
T1
R17
R24
X8
815030
X7
815030
T2
R25
C2
R7
R15
R10
R12
R13
A4
1650KC
OSC
R11
C6
C7
R3
A5
1400KC
ANT
R26
C14
L1
C8
C4
C5
C9
X2
R9
C1
R7
L3
A3
L2
A6
R4
M4
R5
X1
815045D
455KC
600KC
OSC
815025A