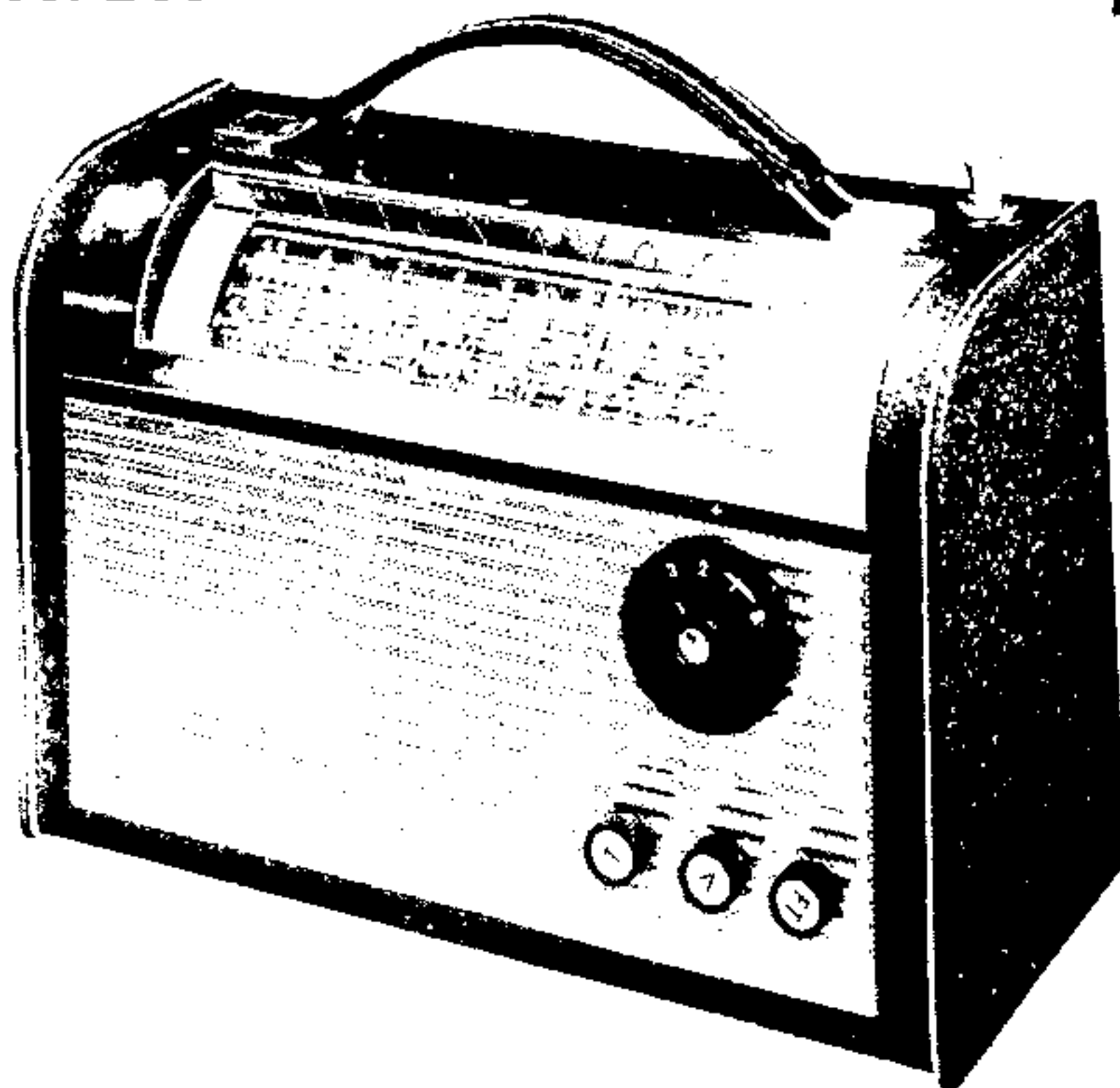
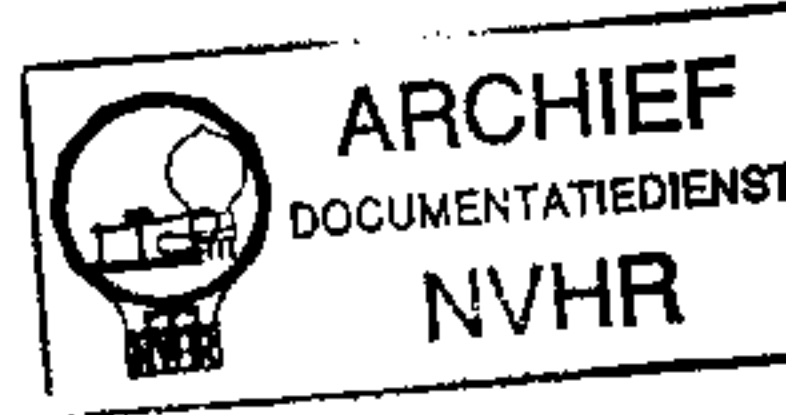




Met dank aan Jef Bos

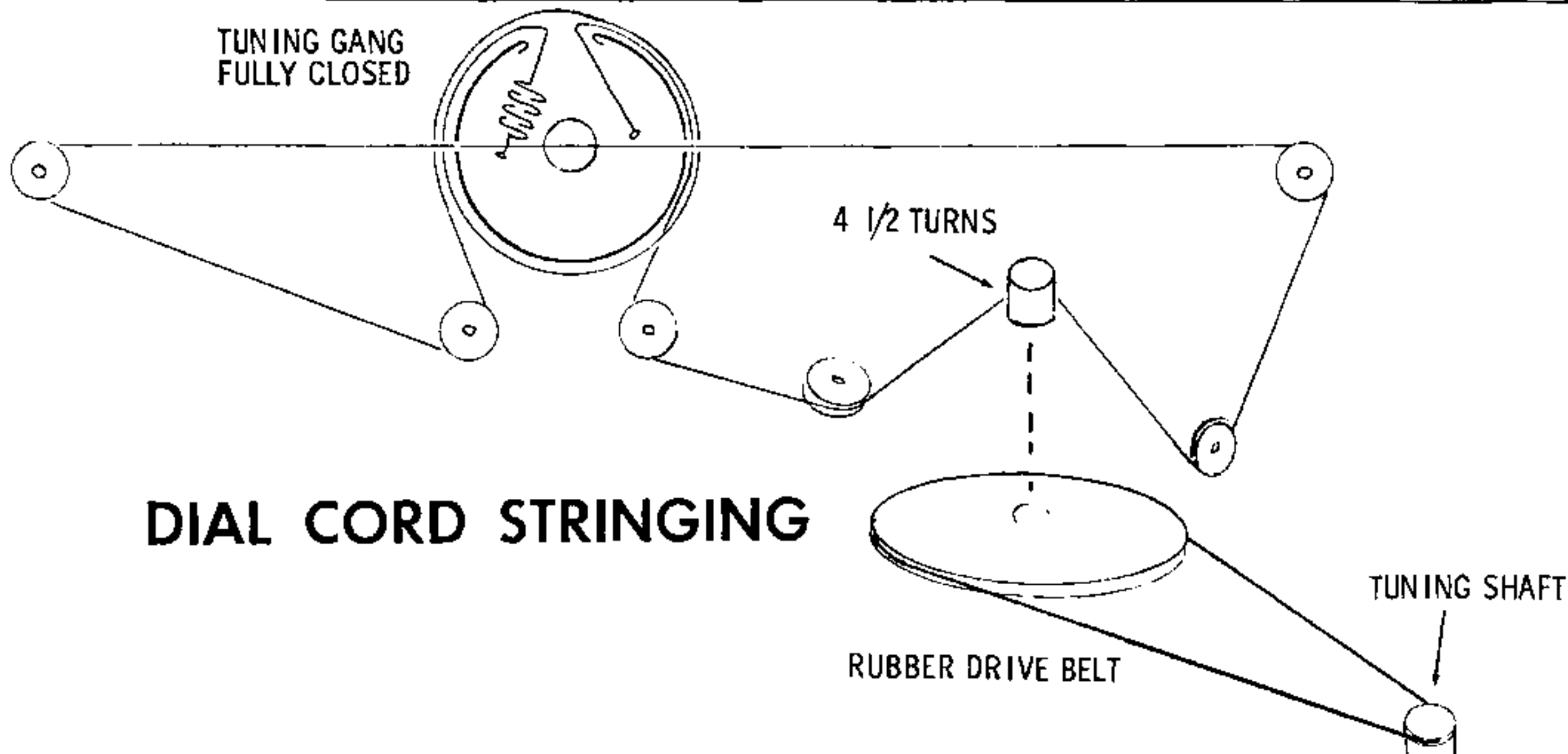
Ned. Ver. v. Historie



TRADE NAME	Magnavox Chassis R-50-01AA		
MANUFACTURER	Magnavox Co., 2131 Bueter Road, Fort Wayne 4, Indiana		
TYPE SET	Battery Operated Portable BC-SW Transistorized Receiver		
POWER SUPPLY	9 Volts DC	RATING	13MA @ 9 Volts DC
TUNING RANGES	BROADCAST 535-1620KC SHORT WAVE I 1.7-4.6MC	SHORT WAVE II	4.75-12MC
		SHORT WAVE III	12.5-22MC

DISASSEMBLY

1. Remove knobs.
2. Turn two screws on cabinet back 90°. Remove back.
3. Remove battery.
4. Unscrew top of telescoping antenna. Unplug antenna. Remove antenna mounting screw from bottom of cabinet. Remove antenna.
5. Remove four chassis mounting screws, two from bottom of cabinet, and two from the top corners of cabinet.
6. Remove chassis.

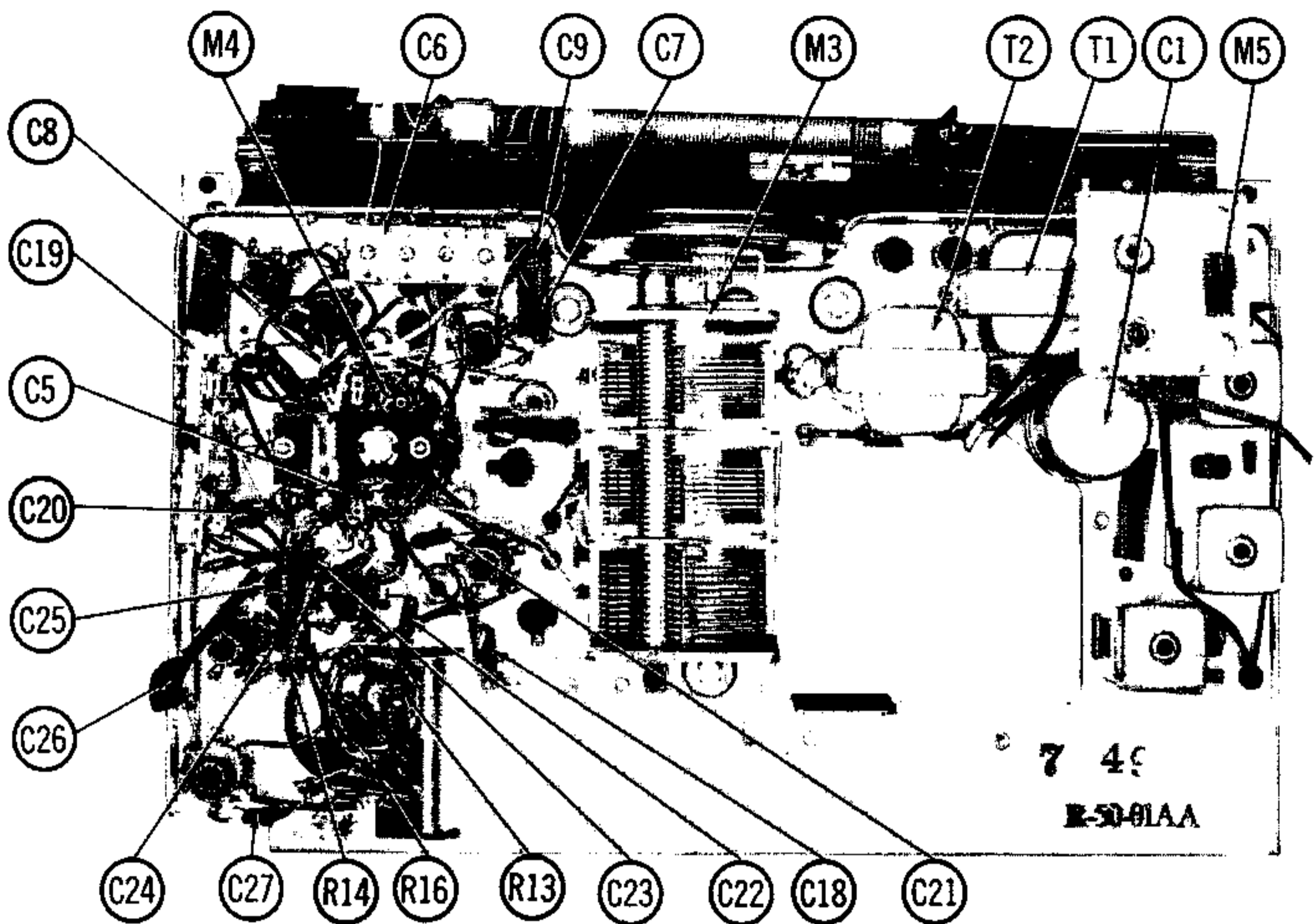


DIAL CORD STRINGING

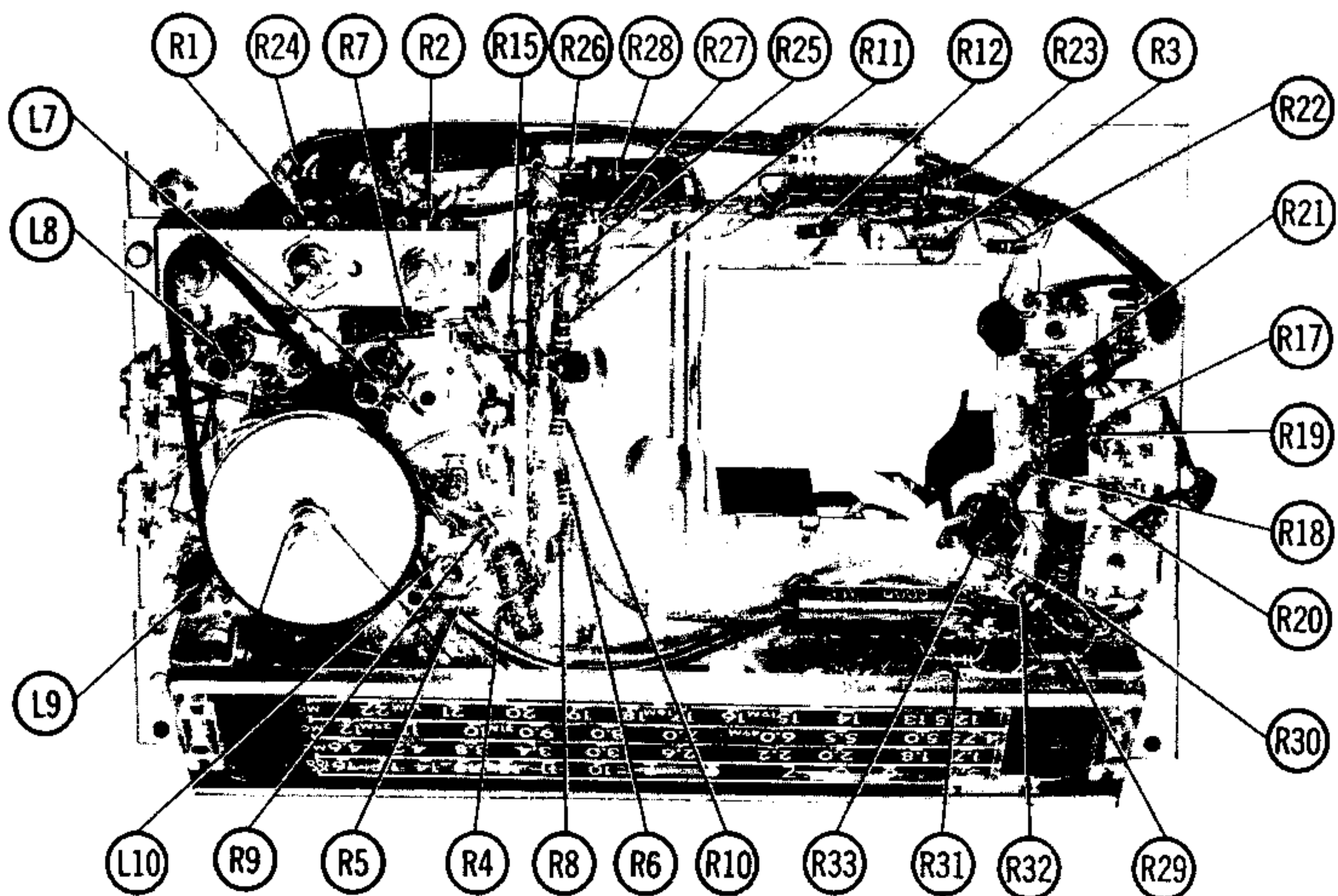
HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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 H564

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CHASSIS TOP VIEW - CAPACITOR, RESISTOR & MISC. IDENT.



CHASSIS BOTTOM VIEW - RESISTOR & INDUCTOR IDENT.

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

To set pointer, turn tuning capacitor fully closed and set pointer to last reference mark at low frequency end of dial. Check condition of batteries before attempting alignment. If necessary replace with new batteries.

IF ALIGNMENT

Attenuate signal generator to maintain .1 volt peak to peak amplitude on scope. Two peaks may be found when adjusting the coil slugs. The correct peak is the first peak "In" starting with the slug at fully "Out". Fabricate alignment tool by tapering a square bakelite rod almost to a point. Point should measure .060" square. Set volume control to minimum.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
1. .01mfd & 10K Carbon Resistor in series	High side to base of X4. Low side to chassis.	455KC (400% Mod.)	B	Tuning gang fully open	Vert. Amp. to high side of R1. Low side to chassis.	A1, A2, A3	Adjust for maximum amplitude of 400% signal.
2. "	"	"	"	"	"	A4	Adjust for MINIMUM amplitude.

RF ALIGNMENT

Disconnect Rod antenna. After each oscillator adjustment, (steps 3 thru 10), tune signal generator 910KC higher and check for image. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
3.	High side to ext. antenna terminal. Low side to chassis.	1400KC (400% Mod.)	B	1400KC	Vert. Amp. to high side of R1. Low side to chassis.	A5	Adjust for maximum amplitude of 400% signal.
4.	"	4.2MC	1	4.2MC	"	A6	"
5.	"	11MC	2	11MC	"	A7	"
6.	"	22MC	3	22MC	"	A8	"
7.	"	600KC	B	600KC	"	A9	"
8.	"	1.8MC	1	1.8MC	"	A10	"
9.	"	5MC	2	5MC	"	A11	"
10.	"	13MC	3	13MC	"	A12	"

Repeat steps 3 thru 10 until no further improvement can be obtained.

11.	High side to ext. antenna terminal. Low side to chassis.	1400KC (1MC Swp.)	B	1400KC	Vert. Amp. to high side of R1. Low side to chassis.	A13, A14	Adjust for maximum amplitude of response curve similar to Fig. 1.
12.	"	4.2MC	1	4.2MC	"	A15, A16	"
13.	"	11MC	2	11MC	"	A17, A18	"
14.	"	22MC	3	22MC	"	A19, A20	"
15.	High side to antenna screw type terminal. Low side to chassis.	600KC (1MC Swp.)	B	600KC	Vert. Amp. to high side of R1. Low side to chassis.	A21, A22	Adjust for maximum amplitude. (See Fig. 1.)
16.	"	1.8MC	1	1.8MC	"	A23, A24	"
17.	"	5MC	2	5MC	"	A25, A26	"
18.	"	13MC	3	13MC	"	A27, A28	"

ALTERNATE RF ALIGNMENT

11.	High side to ext. antenna terminal. Low side to chassis.	1400KC (400% Mod.)	B	1400KC	Vert. Amp. to high side of R1. Low side to chassis.	A13, A14	Adjust for maximum amplitude while rocking signal generator thru signal.
12.	"	4.2MC	1	4.2MC	"	A15, A16	"
13.	"	11MC	2	11MC	"	A17, A18	"
14.	"	22MC	3	22MC	"	A19, A20	"
15.	"	600KC	B	600KC	"	A21, A22	"
16.	"	1.8MC	1	1.8MC	"	A23, A24	"
17.	"	5MC	2	5MC	"	A25, A26	"
18.	"	13MC	3	13MC	"	A27, A28	"

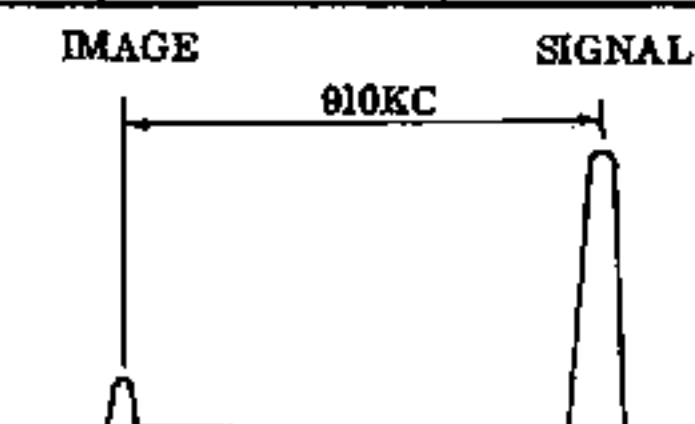
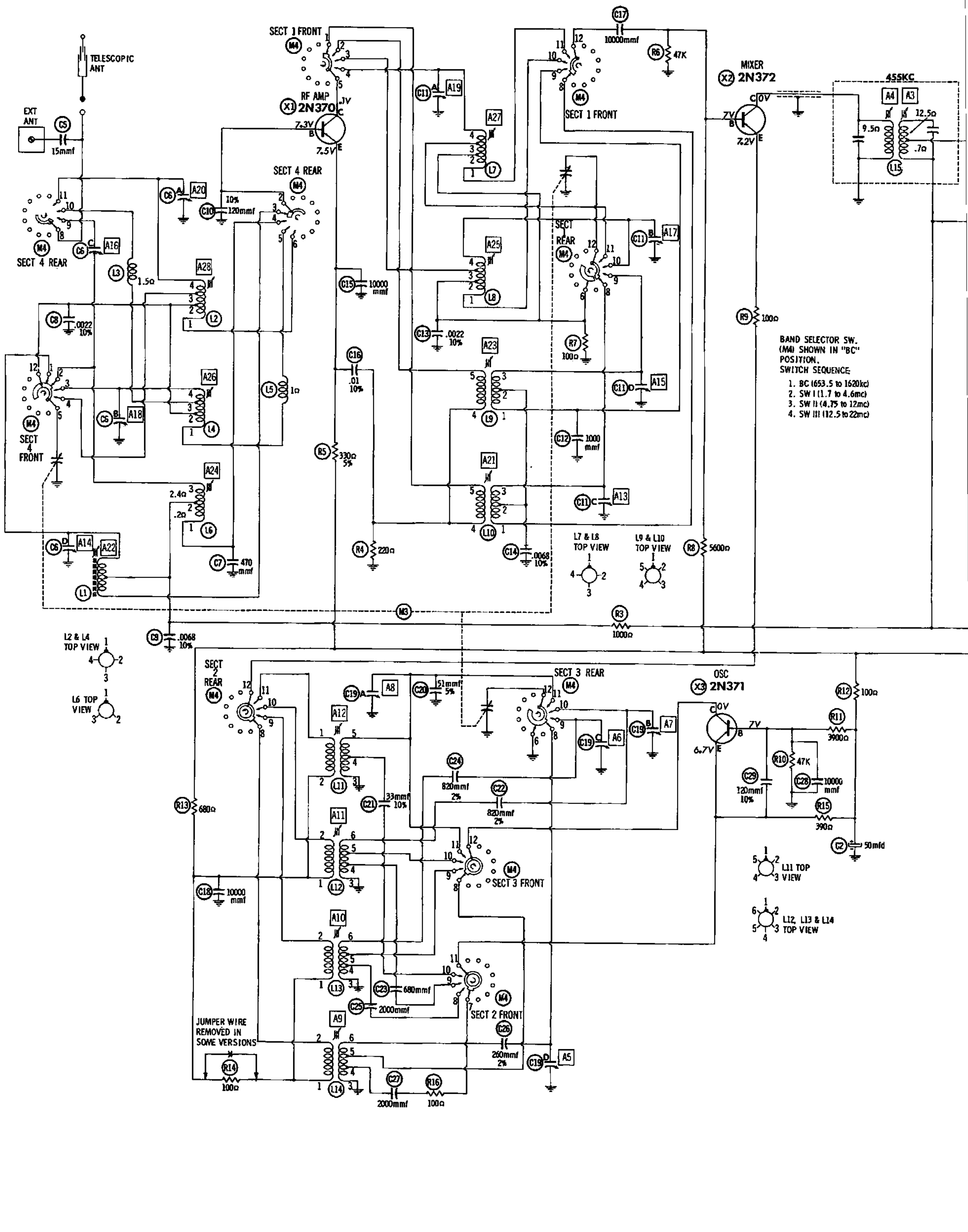


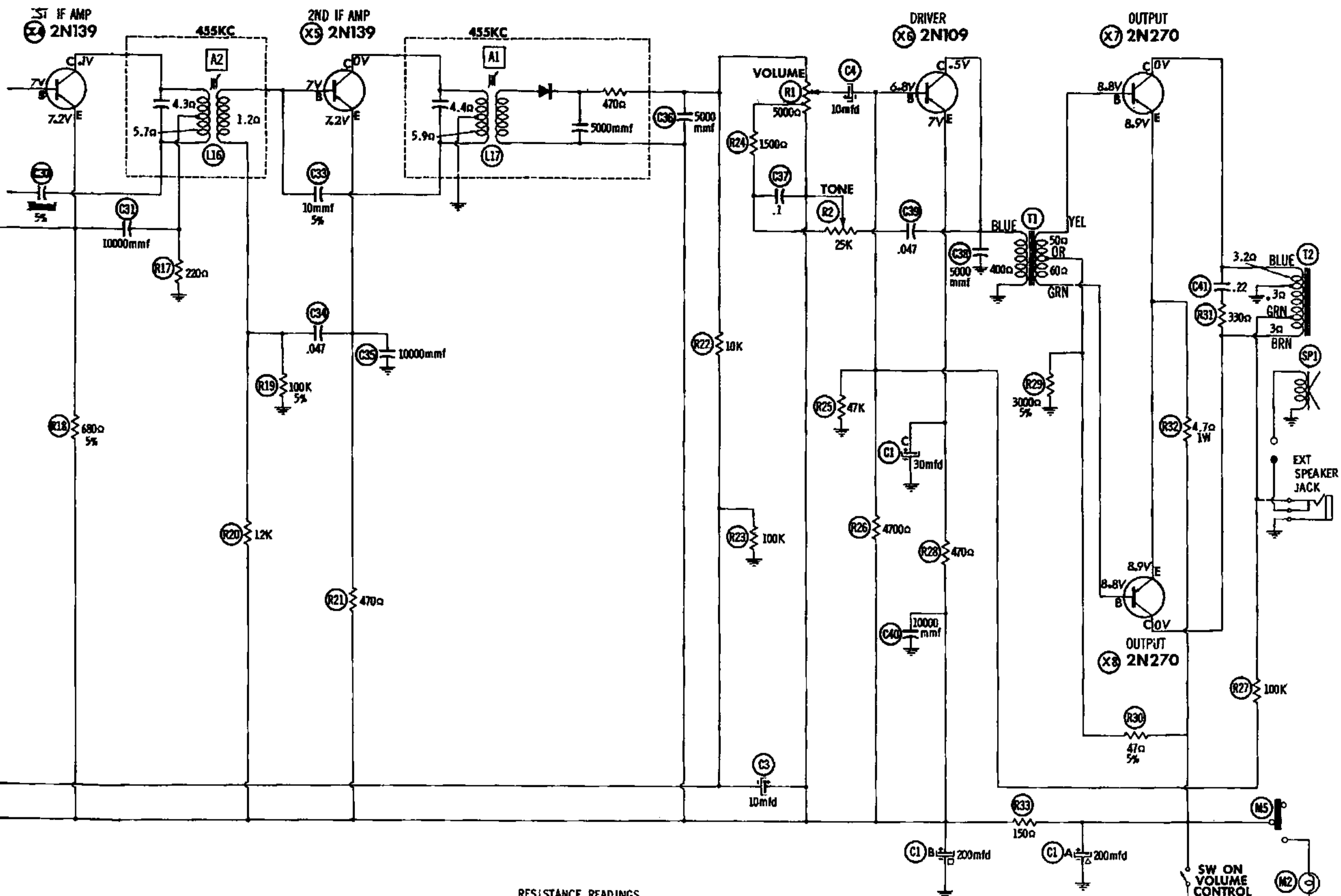
FIG. 1



BAND SELECTOR SW. (M4) SHOWN IN "BC" POSITION. SWITCH SEQUENCE

1. BC (653.5 to 1620kc)
2. SW I (1.7 to 4.6mc)
3. SW II (4.75 to 12mc)
4. SW III (12.5 to 22mc)

JUMPER WIRE REMOVED IN SOME VERSIONS



RESISTANCE READINGS

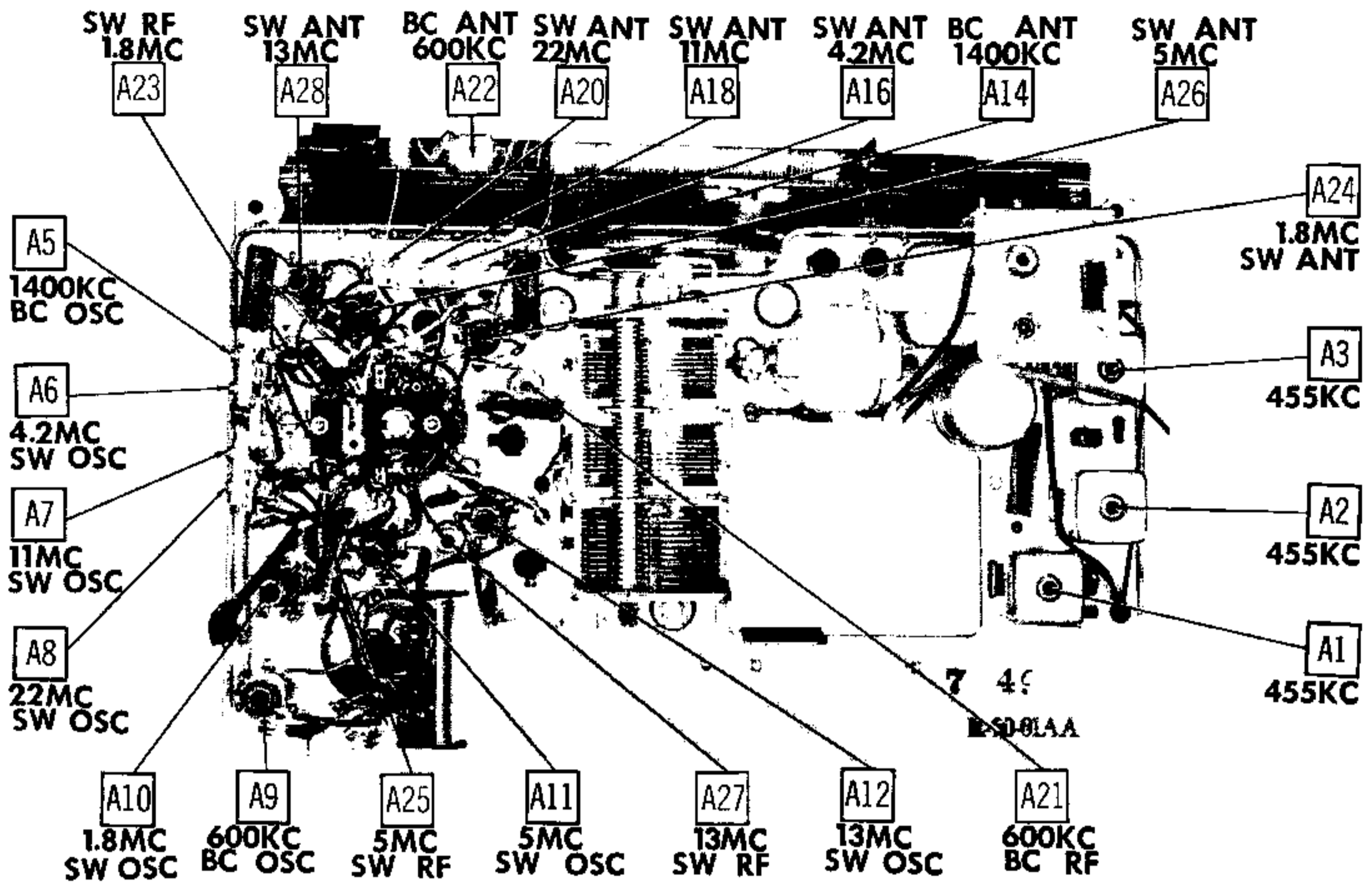
ITEM	TYPE	BASE	EMITTER	COLLECTOR
X1	2N370	3500 Ω	† 430 Ω	220 Ω
X2	2N372	† 4800 Ω	† 880 Ω	9.5 Ω
X3	2N371	† 3900 Ω	† 750 Ω	1.4 Ω
X4	2N139	11K	† 830 Ω	220 Ω
X5	2N139	† 10K	† 630 Ω	4.4 Ω
X6	2N109	† 4200 Ω	† 630 Ω	400 Ω
X7	2N270	† 97 Ω	† 4.7 Ω	3.2 Ω
X8	2N270	† 107 Ω	† 4.7 Ω	3 Ω

TRANSISTORS REMOVED FOR RESISTANCE MEASUREMENTS
 † MEASURED FROM POSITIVE TERMINAL OF C1A

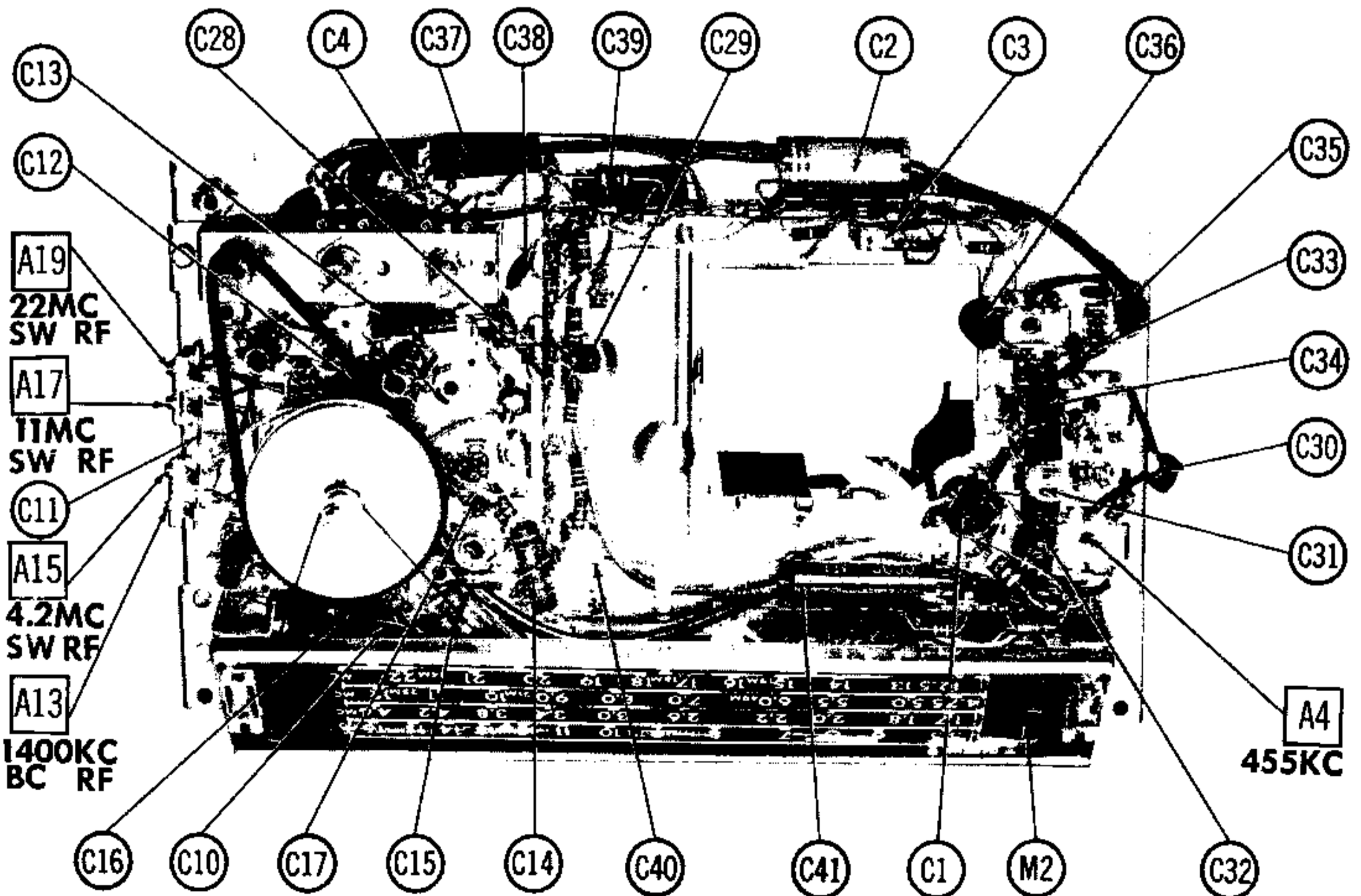
SEE PARTS LIST FOR ALTERNATE
 VALUE OR APPLICATION

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.



CHASSIS TOP VIEW - ALIGNMENT IDENT.



CHASSIS BOTTOM VIEW - ALIGN., CAPACITOR & MISC. IDENT.

PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			CBS PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N370	RF Amplifier		2N370		2N370	
X2	2N372	Mixer		2N372		2N372	
X3	2N371	Oscillator		2N371		2N371	
X4	2N139	1st IF Amplifier		2N139	2N483		
X5	2N139	2nd IF Amplifier		2N139	2N483		
X6	2N109	Driver		2N109	2N632		
X7	2N270	Output	CBS2N180	2N270	2N361	2N270	
X8	2N270	Output	CBS2N180	2N270	2N361	2N270	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	MAGNAVOX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▲ 200	10	270023-29						R2678 *
B	■ 200	10							
C	30	10							
C2	50	10	270027-31	PRS25V50	BER50-25	TC29	TD-50-25	MT-0250	TVA-1206
C3	10	15	270559-8	XPP-15010	NL10-15	TT15X10	ML10-15		TE-1155
C4	10	15	270559-8	XPP-15010	NL10-15	TT15X10	ML10-15		TE-1155

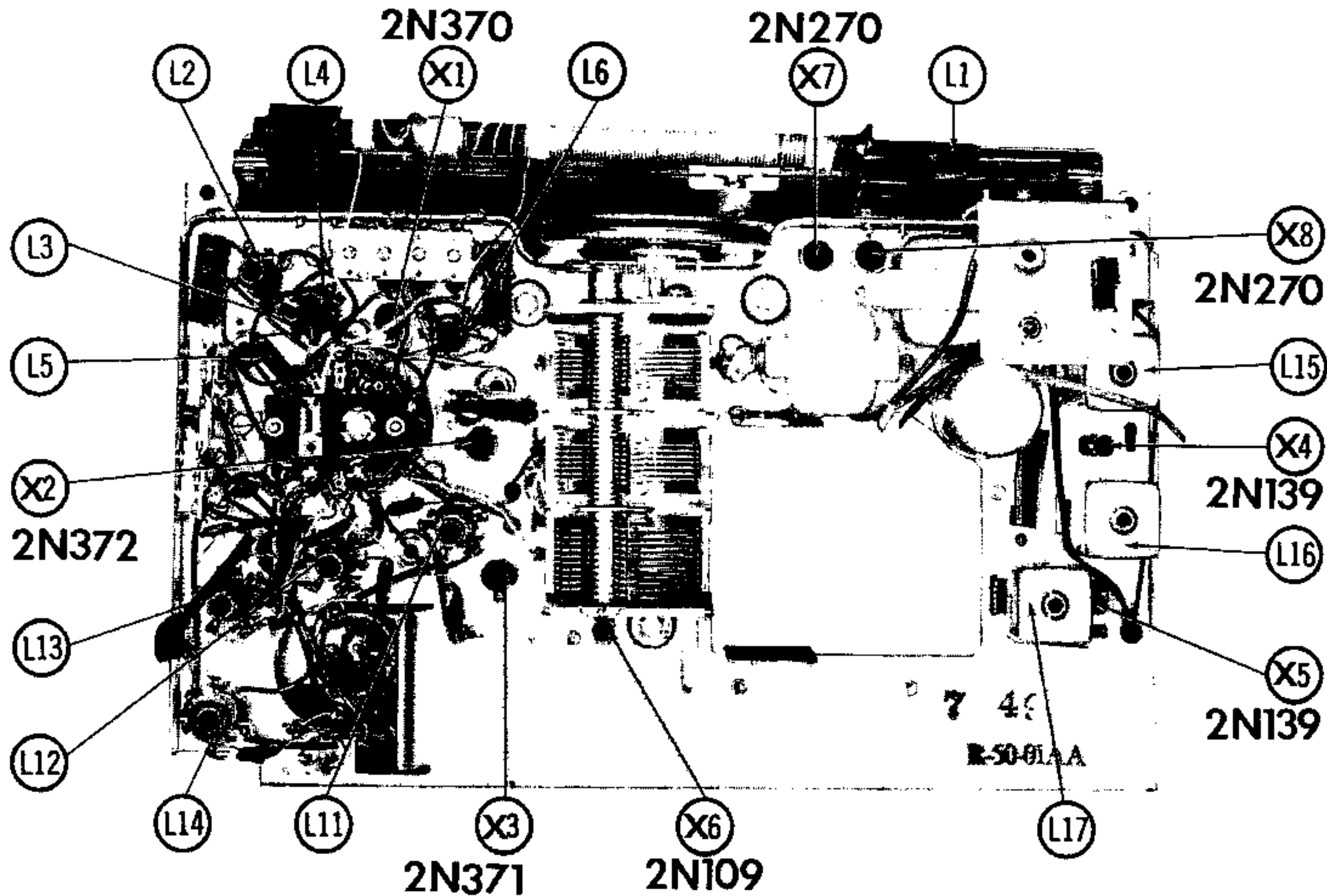
* Non-Catalog Item.

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		REPLACEMENT DATA						NOTES
	CAP.	VOLT	MAGNAVOX PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C5	15		250218-29	BPD-000015	DD-150	L10Q15	UC-5415	5GA-Q15	
C6A									
B			260142-1						
C									
D									
C7	470		250218-6	BPD-00047	DD-471	BYA10T47	UC-5347	5GA-T47	
C8	.0022	100	250261-105						10%
C9	.0068	100	250261-111				GEM-16268		10%
C10	120		250224-432	1469-00012	DD-121	22R5T12		MS-312	10%
C11A									
B			260143-1						
C									
D									
C12	1000		250218-28	BPD-001	DD-102	BYA6D1	DC521	5HK-D1	
C13	.0022	100	250261-105						10%
C14	.0068	100	250261-111				GEM-16268		10%
C15	10000		250218-19	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	
C16	.01	100	250218-19				GEM-1611		10%
C17	10000		250218-19	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	
C18	10000		250218-19	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	
C19A									
B			260143-1						
C									
D									
C20	51		250218-16	1469-000051		22R5Q51		MS-451	5%
C21	33		250224-418	1469-000033	DD-330	22R5Q33		MS-433	10%
C22	820		250226-358						2%
C23	680		250175-81	BPD-00068	DD-681	BYA10T68	UC-5368	5GA-T68	
C24	820		250226-152						2%
C25	2000		250218-16	BPD-002	DD-202	BYA10D2	DC522	5HK-D2	
C26	280		250226-169						2%
C27	2000		250218-16	BPD-002	DD-202	BYA10D2	DC522	5HK-D2	
C28	10000		250218-19	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	
C29	120		250224-432	1469-00012	DD-121	22R5T12		MS-312	10%
C30	10		250224-309	1469-00001		22R5Q1	MCE215	MS-41	5%

CHASSIS—TOP VIEW



PARTS LIST AND DES

CAPACITORS (cont)

ITEM No.	RATING		REPLACEMENT DATA					NOTES	
	CAP.	VOLT	MAGNAVOX PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.		SPRAGUE PART No.
C81	10000		250218-19	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	5%
C32	.047	100	250261-21	P288N-047	DF-503	CUB2S47	GEM-4147	2TM-S47	
C33	10		250224-308	1489-00001		22R5Q1	MCE215	MS-41	
C34	.047	100	250261-21	P288N-047	DF-503	CUB2S47	GEM-4147	2TM-S47	
C35	10000		250218-19	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	
C36	5000		250175-30	BPD-005	DD-502	BYA10D5	DC525	5HK-D5	
C37	.1	100	250261-25	P288N-1	DF-104	CUB2P1	GEM-201	2TM-P1	
C38	5000		250175-30	BPD-005	DD-502	BYA10D5	DC525	5HK-D5	
C39	.047	100	250261-21	P288N-047	DF-503	CUB2S47	GEM-4147	2TM-S47	
C40	10000		250218-19	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	
C41	.22	100	250261-29	P288N-22		CUB2P22	GEM-2022	2TM-P22	

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	MAGNAVOX PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.		MALLORY PART No.
R1A	5000Ω	½	220074-13					Volume, Tap @ 2000Ω Power On-Off Tone
B	Switch	½	220126-87	B-26	A47-25K-S	Q11-120	U29	
R2A	25K	½		Not Req.	FS-3	Not Req.	Not Req.	
B	Shaft							

RESISTORS

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

ITEM No.	RATING		MAGNAVOX PART No.	NOTES	ITEM No.	RATING		MAGNAVOX PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R3	1000Ω		230104-62		R19	100K	5%	230094-207	
R4	220Ω		230104-54		R20	12K		230104-75	
R5	330Ω	5%	230094-147		R21	470Ω		230104-58	
R6	47K		230104-82		R22	10K		230104-74	
R7	100Ω		230104-50		R23	100K		230104-86	
R8	5600Ω		230104-71		R24	1500Ω		230104-84	
R9	100Ω		230104-50		R25	47K		230104-82	
R10	47K		230104-82		R26	4700Ω		230104-70	
R11	3900Ω		230104-69		R27	100K		230104-86	
R12	100Ω		230104-50		R28	470Ω		230104-58	
R13	680Ω		230104-60		R29	3000Ω	5%	230094-170	
R14	100Ω		230104-50		R30	47Ω	5%	230094-127	
R15	390Ω		230104-57		R31	330Ω		230104-56	
R16	100Ω		230104-50		R32	4.7Ω		230107-1	
R17	220Ω		230104-54		R33	150Ω		230104-52	
R18	680Ω	5%	230094-155						

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MAGNAVOX PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	
L1	Loop Stick	360725-1				
L2	SW Ant. Coil	360724-1				
L3	RF Choke	360601-9	19-1000	BC-561	4602	1 Microhenry
L4	SW Ant. Coil	360723-1				
L5	RF Choke	360601-10	19-1007	BC-560	4690	.68 Microhenry
L6	SW Ant. Coil	360722-1				
L7	SW RF Coil	360721-1				
L8	SW RF Coil	360735-1				
L9	SW RF Coil	360734-1				
L10	BC RF Coil	360733-1				
L11	SW Osc. Coil	360732-1				
L12	SW Osc. Coil	360731-1				
L13	SW Osc. Coil	360730-1				
L14	BC Osc. Coil	360729-1				
L15	1st IF	360728-1				
L16	2nd IF	360727-1				
L17	3rd IF	360728-1				

DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA						NOTES	
			MAGNAVOX PART No.	Holldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
	PRI.	SEC.								
T1	1.5	: 1	320282-1							

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA						NOTES		
		MAGNAVOX PART No.	Holldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.	
	PRI.									
T2	207 Ω CT, 3-4 Ω Tap from CT	320283-1								

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				MAGNAVOX PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	5" X 7"	PM	3-4 Ω	583869-1	57A21	

BATTERIES

ITEM No.	VOLTAGE	MAGNAVOX PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V			D6P1		2506			

MISCELLANEOUS

ITEM No.	PART NAME	MAGNAVOX PART No.	NOTES
M2	Lamp		#53 (Alternate Type #23, Part #180161-18)
M3	Tuning Cap.	260141-1	3 Gang (Ant. 10-250mmf, RF 8-235mmf, Osc. 8-235mmf)
M4	Switch	160281-1	Band, Rotary Wafer Type
M5	Switch	160280-1	Pilot Lamp, Slide Type, Spring Return

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	140270-2	Tan, Tuning
Knob	140270-3	Black, Tuning
Knob	140271-6	Tan, Fine Tuning
Knob	140271-9	Black, Fine Tuning
Knob	140289-2	Tan, Band Selector
Knob	140289-3	Black, Band Selector
Knob	140271-5	Tan, On-Off-Volume
Knob	140271-8	Black, On-Off-Volume
Knob	140271-4	Tan, Tone
Knob	140271-7	Black, Tone
Dial Pointer	835723-1	
Dial Scale	150511-1	
Dial Glass	441911-1	
Handle	120580-2	Tan
Handle	120580-1	Black
Antenna	700632-1	Telescoping

WIRING DATA

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