

VIKING SERVICE INFORMATION FOR MODEL

RCS-492
RCS-507
RCS-508
RCS-509

For Operation on 110-120 Volts A.C. Cycle as Marked.

When writing for Service Information or Parts please quote Model Number, Serial Number and finish of cabinet. All information printed in this leaflet is up to date as of July 4, 1961. Subsequent changes are covered by bulletin.

SPECIFICATIONS

Standard Broadcast Range 535 to 1650 Kc.

Frequency Modulation Range 88 to 108 Mc.

Band Width	AM	10 Kc.	Band Width at 2X Down
		19 Kc.	Band Width at 10X Down
	AM Hi-Fi	22.5 Kc.	Band Width at 2X Down
		35 Kc.	Band Width at 10X Down
	FM	350 Kc.	Band Width at 10X Down

Sensitivity ... AM—2.5 uv for 100 mv at Detector
2.5 uv for 20 mv at Audio Take Off Point.
FM—1.75 uv for 20 db quieting
3.5 uv for 30 db quieting

AMPLIFIER (Specifications per channel)

Frequency Response - 20 cps. to 50,000 cps. \pm 2db
POWER OUTPUT - 20 watts peak \pm 1db

LEVEL BALANCE CONTROL DUAL ELEMENT FRICTION CLUTCH TYPE

Designed to provide 10 db lift at 30 cps. when control is 60° removed from CCW position with reference to response at 1000 cps, and at the same time provide 7 db lift at 15,000 cps.

BASS TONE CONTROL DUAL ELEMENT

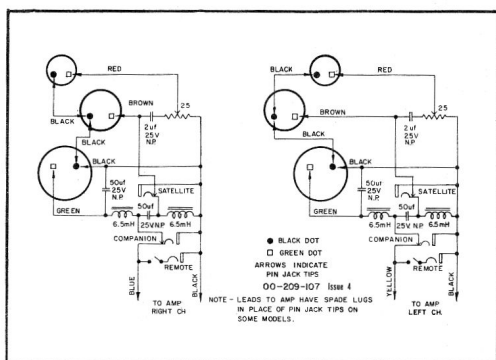
Designed to provide 10 to 15 db cut and lift at 50 cps. Covers sound spectrum from 20-1000 cps.

TREBLE TONE CONTROL DUAL ELEMENT

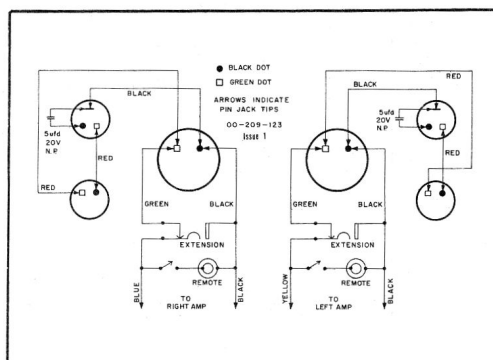
Designed to provide 10 to 15 db cut and lift at 10,000 cps. Covers sound spectrum from 1000 to 15,000 cps.

Measurements with tone controls in flat position, level control fully clockwise.

SPEAKER CONNECTIONS



RCS-509 ONLY

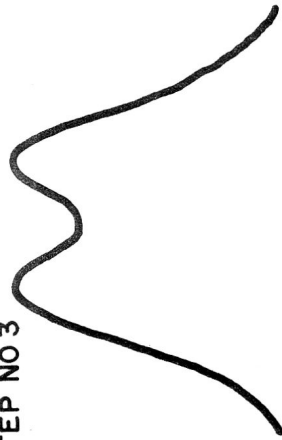


RCS-492, 507, 508 ONLY

THE T. EATON CO. LIMITED
CANADA

AM-FM TUNER ALIGNMENT

STEP NO 3



435 445 455 465 475 KC/S

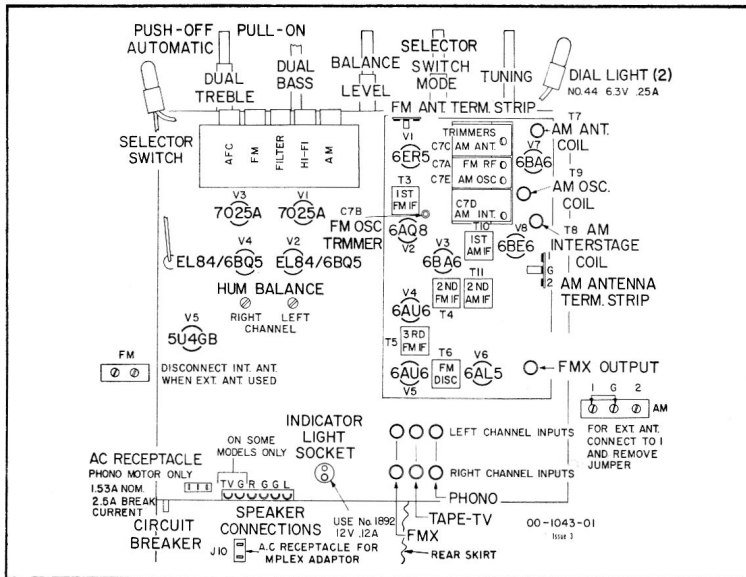
* For FM dummy antenna connect one 150 Ω carbon resistor from grounded side of sig. gen. to ant. term. and one 120 Ω carbon resistor from hot side of sig. gen. to ant. term.

STEP	DUMMY ANTENNA	SIGNAL APPLIED TO	FREQ.	MODULATION	BAND SWITCH SETTING	DIAL POINTER SETTING	INDICATING METER	ADJUST	REMARKS	NOMINAL SENSITIVITY
1	.05 uf	Pin No. 1 V3 6BA6	455 Kc/s	400 c.p.s. AM at 30%	AM	600 Kc/s	AC-VTVM To Point 'F'	T11 2nd. AM-IF	Adjust for maximum output.	4000 uv for 20 mv output
2	.05 uf	Pin No. 7 V8 6BE6	455 Kc/s	400 c.p.s. AM at 30%	AM	600 Kc/s	AC-VTVM To Point 'F'	T10 1st. AM-IF	Adjust for maximum output.	300 uv for 20 mv output
3	Change Band Switch Setting to (AM HI-FI). Tune Signal Generator across 440-470 Kc/s. Frequency Range and check for approx. response curve as shown. This test should preferably be made with a proper sweep generator and scope.									
4	200 uuf	AM Ant. Term. Strip No. 1	600 Kc/s	400 c.p.s. AM at 30%	AM	600 Kc/s	AC-VTVM To Point 'F'	T7, T8, and T9	Connect for long wire antenna, adjust for maximum output.	2.5 uv for 20 mv output
5	200 uuf	AM Ant. Term. Strip No. 1	1400 Kc/s	400 c.p.s. AM at 30%	AM	1400 Kc/s	AC-VTVM To Point 'E'	C1C, C1D, and C1E Trimners	Connect for long wire antenna, adjust for maximum output.	1.8 uv for 20 mv output
6	Repeat steps 4 and 5, check for band coverage at 535 Kc/s - 1650 Kc/s and for tracking at 950 Kc/s.									
7	-	Pin No. 1 V4 6AU6	10.7 Mc/s	-	FM	Point of no Interference	DC-VTVM To Point 'H'	T5 3rd. FM-IF	Adjust for maximum meter deflection.	15000 uv for 1V output
8	-	Pin No. 1 V4 6AU6	10.7 Mc/s	-	FM	Point of no Interference	DC-VTVM To Pin No.5 of T6	T6 FM Discriminator Primary	Adjust for maximum meter deflection.	10000 uv for 3V output
9	-	Pin No. 1 V4 6AU6	10.7 Mc/s	-	FM AFC	Point of no Interference	DC-VTVM To Point 'D'	T5 FM Discriminator Secondary	Adjust for zero voltage	-
10	-	Pin No. 1 V3 6BA6	10.7 Mc/s	-	FM	Point of no Interference	DC-VTVM To Point 'H'	T4 2nd FM-IF	Adjust for maximum meter deflection	250 uv for 1V output
11	-	C1A FM Gang	10.7 Mc/s	-	FM	Point of no Interference	DC-VTVM To Point 'H'	T3 1st FM-IF	Adjust for maximum meter deflection.	-
12	*	FM Ant. Term. Strip	90 Mc/s	400 c.p.s. FM 22.5 Kc/s Deviation	FM	90 Mc/s	AC-VTVM To Point 'K'	Expand or compress L3 and T2	Adjust for maximum output.	3 uv for 100 mv output
13	*	FM Ant. Term. Strip	106 Mc/s	400 c.p.s. FM 22.5 Kc/s Deviation	FM	106 Mc/s	AC-VTVM To Point 'K'	C1B and C1A Trimners	Adjust for maximum output.	3 uv for 100 mv output
14	Repeat steps 12 and 13 until output drops at least 20 db. when mod. is turned off.									

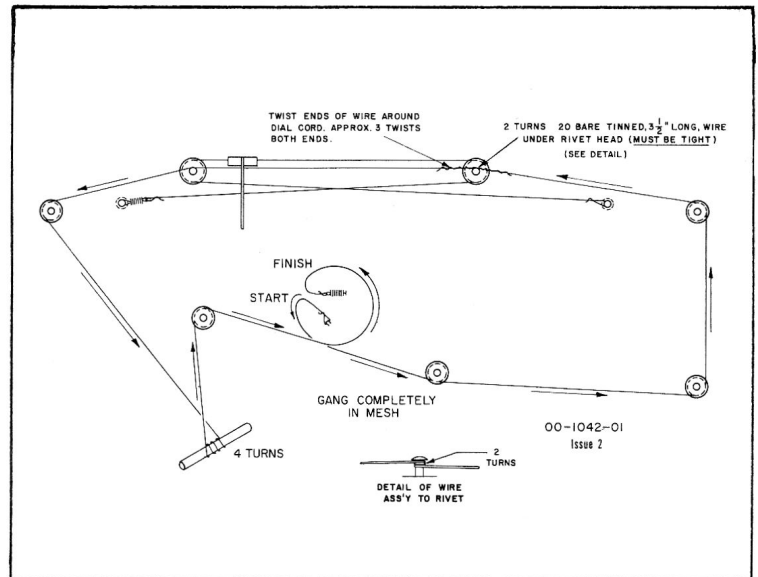
00-1909-01
ISSUE 2

NOTE: To achieve more accurate alignment of FM IF's and Discriminator it is preferable to use a proper sweep generator and oscilloscope.

AM-FM TUNER & PREAMPLIFIER



Amplifier



Stringing Detail

REPLACEMENT PARTS LIST

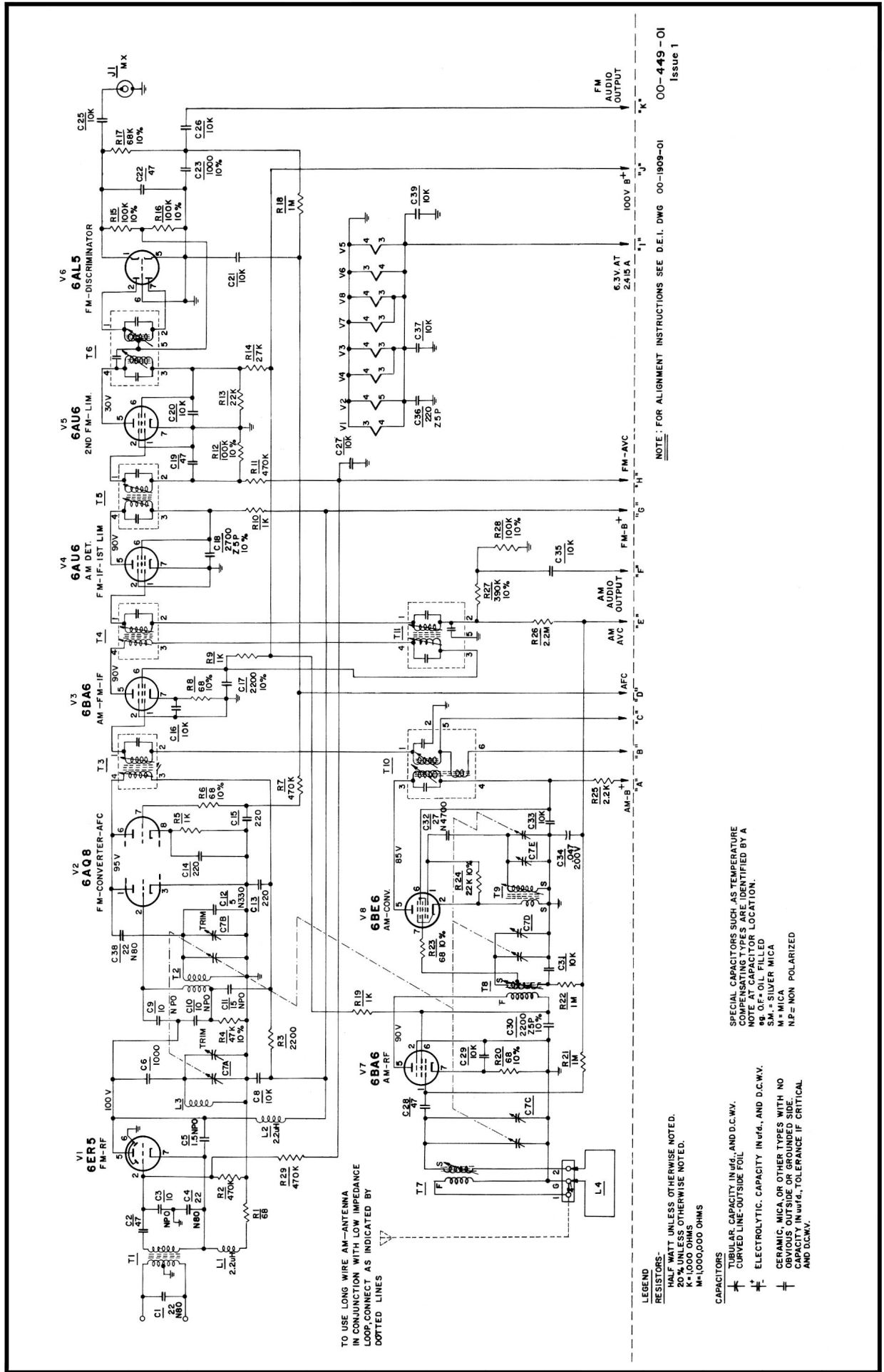
AMPLIFIER CHASSIS ASSEMBLY

Symbol	Part No.	Description
T3	24-10033-01	Power Transformer 60 cycle
T3	24-20033-01	Power Transformer 25 cycle (25 cycle models only)
T1, T2	24-80042-01	Audio Output Transformer 8 ohm
CB1	26-65-03	Circuit Breaker 2.5 amp.
SW2	26-82-01	Pushbutton Switch
SW1	26-86-01	Selector & Mode Switch
	30-193-01	Dial Scale
	27-1-01	Pilot Lamp 6-8V No.44 .25A
	34-138-08	Line Cord & Plug Assembly 8'
R7, R23	41-100-07	Control - Dual Bass 2 meg.
R2, R18	41-122-06	Control - Dual Level-Balance 1 meg.
R5, R21, SW3	41-170-02	Control - Dual Treble & P.P. Switch
R36, R37	42-21-50	Resistor W.W. 1200 ohm $\pm 10\%$ 7W
R38	42-21-62	Resistor W.W. 100 ohm $\pm 10\%$ 5W
R35	42-21-55	Resistor W.W. 2500 ohm $\pm 10\%$ 7W
C22	44-112-01	Electrolytic - Triple 40,80,40 ufd. x 350V
C19	44-118-01	Electrolytic - Triple 40,40,40 ufd. x 350V
C26	47-GM-1035	Condenser - Mica 100 uufd. $\pm 5\%$
C27	47-253915-20	Condenser - Mica 390 uufd. $\pm 5\%$
C25	47-GM-5135	Condenser - Mica 510 uufd. $\pm 5\%$
R40, R41	41-6-01	Potentiometer 100 ohm 2W

TUNER PLATTER ASSEMBLY

T7	21-410-04	BC Antenna Coil
T9	21-421-01	BC Oscillator Coil
T8	21-428-03	BC Interstage Coil
T10	21-431-01	AM IF Transformer 1st.
T11	21-432-04	AM IF Transformer 2nd.
T3	21-433-04	FM IF Transformer
T4	21-433-02	FM IF Transformer
T5	21-433-03	FM IF Transformer
L2, L1	21-439-02	RF Choke 2.2 uh.
T2	21-445-02	FM Feedback Coil
T6	21-455-01	Discriminator Transformer - FM
T2, L3	21-461-01	FM Oscillator & FM RF Coil
T1	21-471-01	FM Antenna Matching Transformer
C7	45-50-01	AM-FM Gang Condenser
C7B	45-36-01	FM Trimmer

AM-FM TUNER SCHEMATIC



OO-449-OI
Issue 1

NOTE: FOR ALIGNMENT INSTRUCTIONS SEE D.E.I. DWG 00-1909-OI

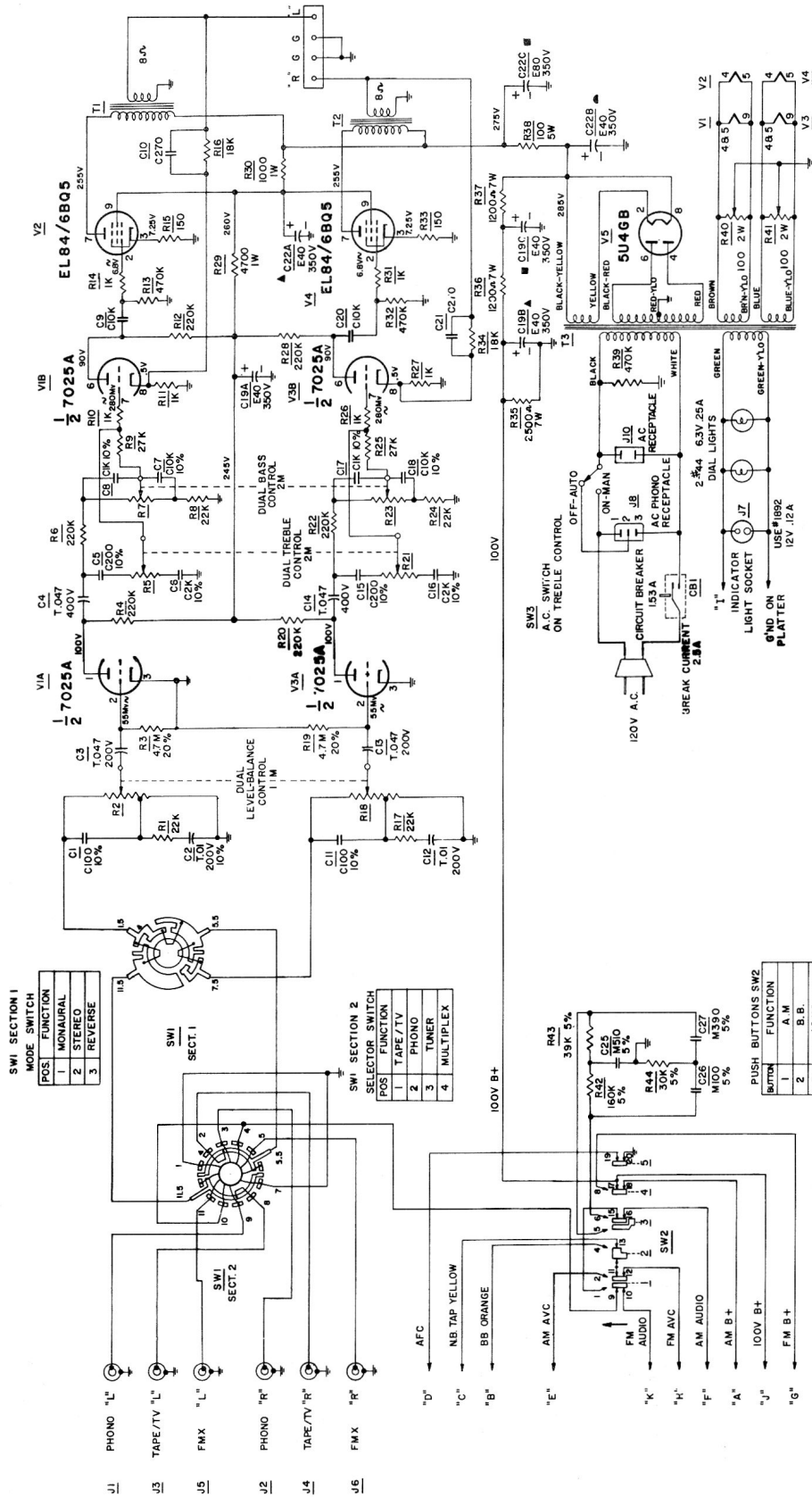
SPECIAL CAPACITORS SUCH AS TEMPERATURE COMPENSATING TYPES ARE IDENTIFIED BY A NOTE AT CAPACITOR LOCATION.
eg. OF = OIL FILLED
SM = SILVER MICA
M = MICA
NPZ = NON POLARIZED

TUBULAR CAPACITY IN μ D., AND D.C.W.V.
CURVED LINE-OUTSIDE FOIL
ELECTROLYTIC CAPACITY IN μ D., AND D.C.W.V.
CERAMIC, MICA, OR OTHER TYPES WITH NO CAPACITY IN μ D., TOLERANCE IF CRITICAL AND D.C.W.V.

LEGEND
RESISTORS-
HALF WATT UNLESS OTHERWISE NOTED.
20% UNLESS OTHERWISE NOTED.
K=1000 OHMS
M=1000,000 OHMS

CAPACITORS
TUBULAR CAPACITY IN μ D., AND D.C.W.V.
CURVED LINE-OUTSIDE FOIL
ELECTROLYTIC CAPACITY IN μ D., AND D.C.W.V.
CERAMIC, MICA, OR OTHER TYPES WITH NO CAPACITY IN μ D., TOLERANCE IF CRITICAL AND D.C.W.V.

AMPLIFIER SCHEMATIC



SW1 SECTION 1

MODE SWITCH	POS.	FUNCTION
1	MONAURAL	1
2	STEREO	2
3	REVERSE	3

SW2 SECTION 2

SELECTOR SWITCH	POS.	FUNCTION
1	TAPE/TV	1
2	PHONO	2
3	TUNER	3
4	MULTIPLY	4

PUSH BUTTONS SW3

BUTTON	FUNCTION
1	A.M.
2	B.B.
3	10KC
4	FM
5	AFC

NOTE
 ROTARY SWITCHES SHOWN IN FULL C.G.W. POSITION
 PUSH BUTTON SWITCH SHOWN WITH ALL BUTTONS OUT
 "L" INDICATES LEFT CHANNEL.
 "R" INDICATES RIGHT CHANNEL.

COMPONENT VALUES -
 RESISTORS -
 HALF WATT UNLESS OTHERWISE SPECIFIED.
 10% TOLERANCE UNLESS OTHERWISE SPECIFIED.
 K=1,000 OHMS.
 M=1,000,000 OHMS.

00-572-01
 ISSUE 7

HUM BALANCE PROCEDURE.
 SET MODE SWITCH TO STEREO AND BASS AND LEVEL CONTROLS FULL C.W.
 ADJUST R40 FOR MINIMUM HUM IN LEFT CHANNEL.
 ADJUST R41 FOR MINIMUM HUM IN RIGHT CHANNEL.

CONDENSERS -
 T=TUBULAR FOLLOWED BY CAP IN MFD AND D.C.W.V.
 E=ELECTROLYTIC, FOLLOWED BY CAP IN MFD AND D.C.W.V.
 C=CERAMIC, FOLLOWED BY CAP IN MMFD AND TOL. IF CRITICAL.
 M=MICA, FOLLOWED BY CAP IN MMFD AND TOL. IF CRITICAL.

REPLACEMENT PARTS LIST

RCS-492, RCS-507, RCS-508, RCS-509

FINAL ASSEMBLY

Part No.	Description
16-120004-01	45 RPM Spindle (RCS509)
16-120047-01	45 RPM Inserts (RCS 492, RCS 507, RCS 508)
16-120048-01	Turntable (RCS 509)
16-120049-01	Rubber Mat (RCS 509)
16-120050-01	50 cycle Hub (RCS 507)
16-90017-05	BSR UA10 Changer less cartridge
16-90018-01	Garrard 210 Changer
16-220002-01	Phono Motor Alliance (25 cycle models only)
16-250018-01	Astatic 17D Stereo Cartridge
16-90020-02	Garrard Type A Changer & Mounting Hardware
16-120022-12	Plug-in Pick-up Case and Hardware
16-120028-07	Replacement Stylus - Astatic N41SD
19-10004-03	Speaker - Horn Tweeter 15 ohm (RCS 509)
19-30003-04	Speaker - Tweeter 3½" 3.2 ohm (RCS 492, RCS 507, RCS 508)
19-60004-02	Speaker - Midrange 6" PM 8 ohm (RCS 509)
19-120003-04	Speaker - Woofer 12" 8 ohm (RCS 509)
19-100006-02	Speaker - Woofer 10" 8 ohm (RCS 492, RCS 507, RCS 508)
27-7-03	Pilot Lamp 12V No.1892 .12A
53-142-01	Viking Ship Medallion (RCS 492)
53-485-03	Switch Knob (Mode, Selector, Level-Balance)
53-503-01	Control Panel Retaining Strip
53-507-01	Knob - Tuning
53-507-02	Knob - Bass, Treble
53-507-03	Knob - Selector, Level-Balance
53-508-01	Plastic Pushbutton

CROSSOVER NETWORK ASSEMBLY

Part No.	Description
24-130002-02	Inductance 6.5 uh
41-116-02	Tweeter Level Control
44-5-05	Electrolytic 5 ufd. x 25V DC (RCS 509)
44-5-07	Electrolytic 2 ufd. x 25V DC (RCS 509)
26-2-07	Slider Switch - SPDT