VIKING SERVICE INFORMATION FOR MODEL RCS-580MR

13 TUBE AM-FM STEREO RADIO-PHONO COMBINATION WITH 2 TUBE FM STEREO RADIO ADAPTER

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

When writing for Service information and/or parts, please quote Model and Serial Number as found on the license label. Always order service parts by part number. Part numbers are positive identification which ensures fast service and avoids unnecessary delays.

All information printed in this leaflet is up to date as of February 5, 1963. Subsequent changes are covered by bulletin.

Specifications

AM-FM TUNER

Standard Broadcast Range..... 535 to 1650 Kc.
Frequency Modulation Range..... 88 to 109 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---2.0 uv for 100 mv at Detector
2.0 uv for 20 mv at Audio Take Off Point.
FM---1.75 uv for 20 db quieting
3.5 uv for 30 db quieting

I.F. Frequency - AM - 455 Kc/s
- FM - 10.7 Mc/s

AMPLIFIER

Frequency Response - 20 cps. to 80,000 cps. ± 2 db
MUSIC POWER OUTPUT 40 watts peak ± 1 db (20 watts peak per channel)

LOUDNESS CONTROL DUAL ELEMENT -
Designed to provide bass and treble lift as follows:
35° rotation from CCW position - 25 db. lift at 30 cps.
35° rotation from CCW position - 6 db. lift at 15K cps.
65° rotation from CCW position - 7 db. lift at 30 cps.
65° rotation from CCW position - 4 db. lift at 15K cps.
with reference to 1000 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.

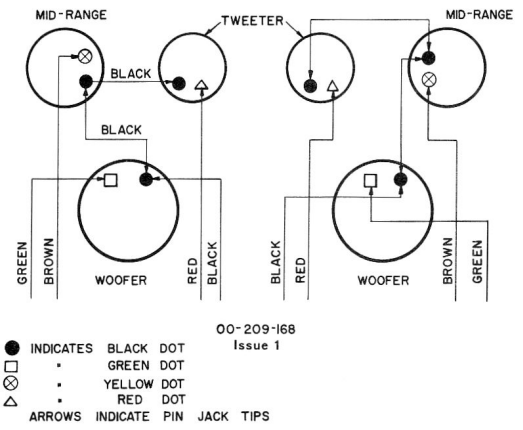
TREBLE TONE CONTROL DUAL ELEMENT -
Designed to provide 10 to 15 db. cut and lift at 10,000 cps. Covers sound spectrum from 1000 to 15,000 cps.

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

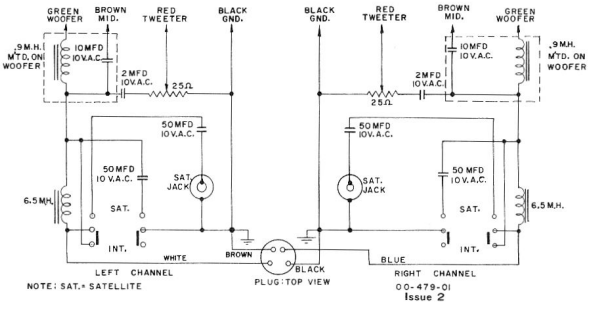
BALANCE CONTROL -
Designed to provide equal output from both channels.

LEVEL SWITCH -
Three step level switch designed to decrease level, approximately 9 db. per step. Used in conjunction with Loudness control.

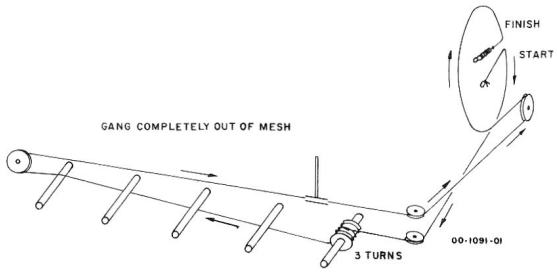
SPEAKER CONNECTIONS



CROSSOVER SCHEMATIC



STRINGING DETAIL



For Service Information for the FM Stereo Radio Adapter see 54-1467-02.

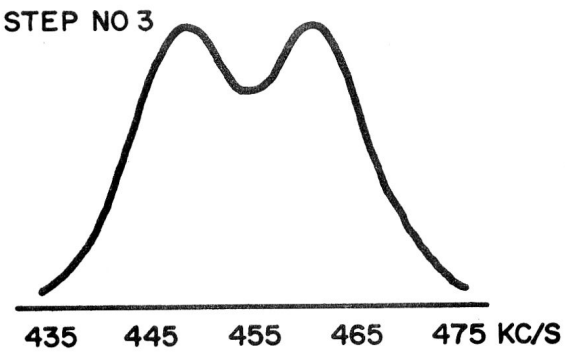
THE T. EATON Co LIMITED
CANADA

54-1458-02 500 2/63 D.E.I. PRINTED IN CANADA

AM-FM TUNER ALIGNMENT

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 Trimmers	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 Trimmers	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.									2.0 uv

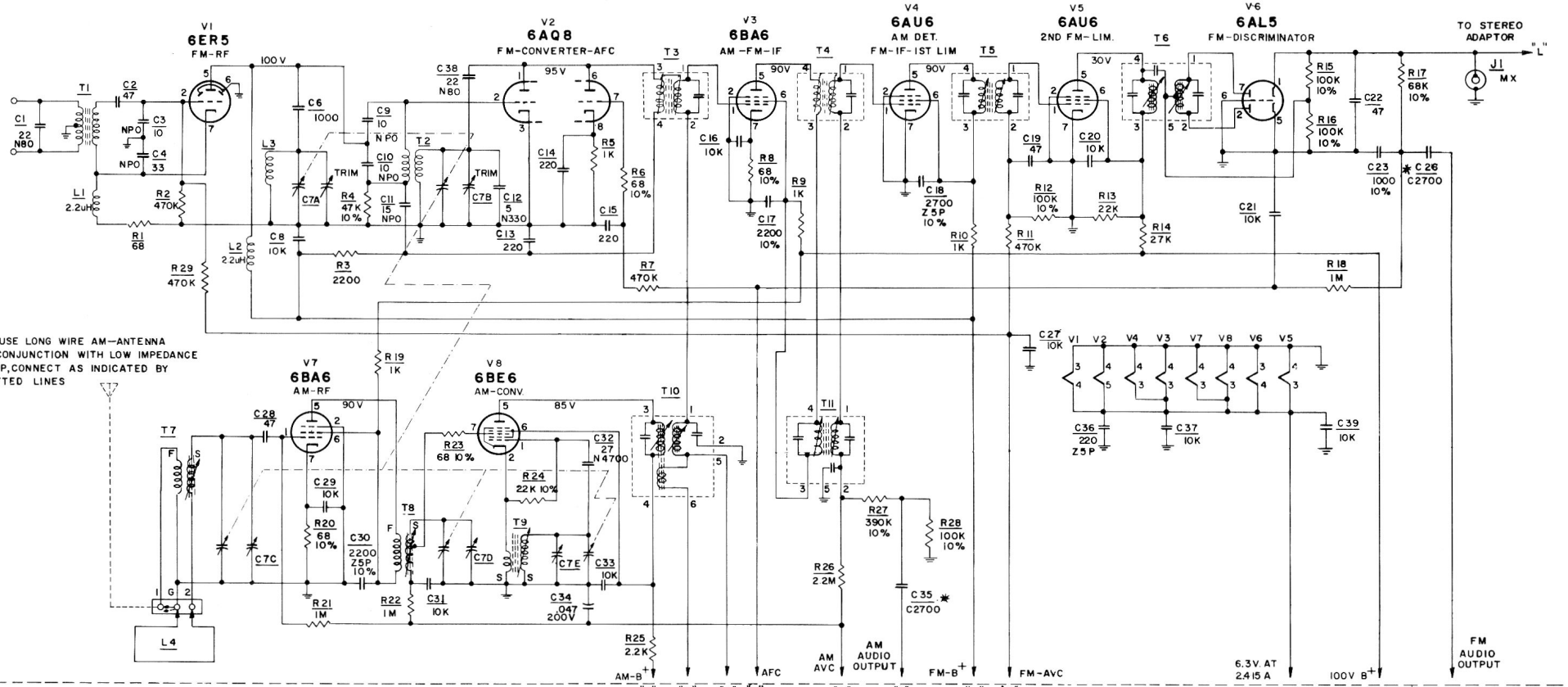
NOTE: To achieve more accurate alignment of FM IF's and Discriminator it is preferable to use a proper sweep generator and oscilloscope.



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

00-1909-01
Issue 2

AM-FM TUNER SCHEMATIC



LEGEND

RESISTORS-

HALF WATT UNLESS OTHERWISE NOTED.
20% UNLESS OTHERWISE NOTED.
K = 1,000 OHMS
M = 1,000,000 OHMS

CAPACITORS

TUBULAR. CAPACITY IN ufd., AND D.C.W.V. CURVED LINE-OUTSIDE FOIL

ELECTROLYTIC. CAPACITY IN ufd., AND D.C.W.V.

CERAMIC, MICA, OR OTHER TYPES WITH NO OBVIOUS OUTSIDE OR GROUNDED SIDE. CAPACITY IN uufd., TOLERANCE IF CRITICAL AND D.C.W.V.

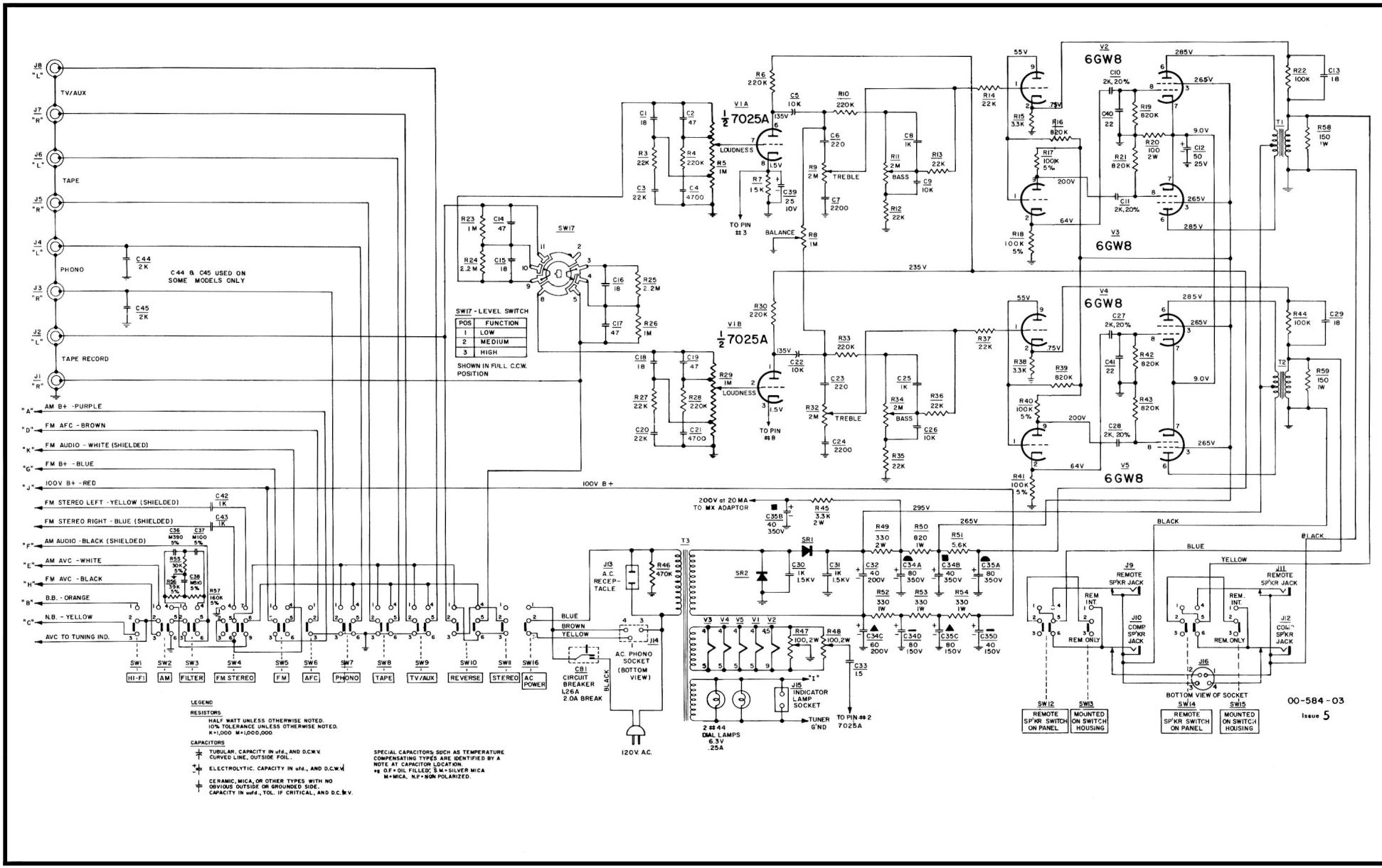
SPECIAL CAPACITORS SUCH AS TEMPERATURE COMPENSATING TYPES ARE IDENTIFIED BY A NOTE AT CAPACITOR LOCATION.
eg. O.F = OIL FILLED
S.M. = SILVER MICA
M = MICA
N.P. = NON POLARIZED

NOTE 1-FOR ALIGNMENT INSTRUCTIONS SEE D.E.I. DWG 00-1909-01

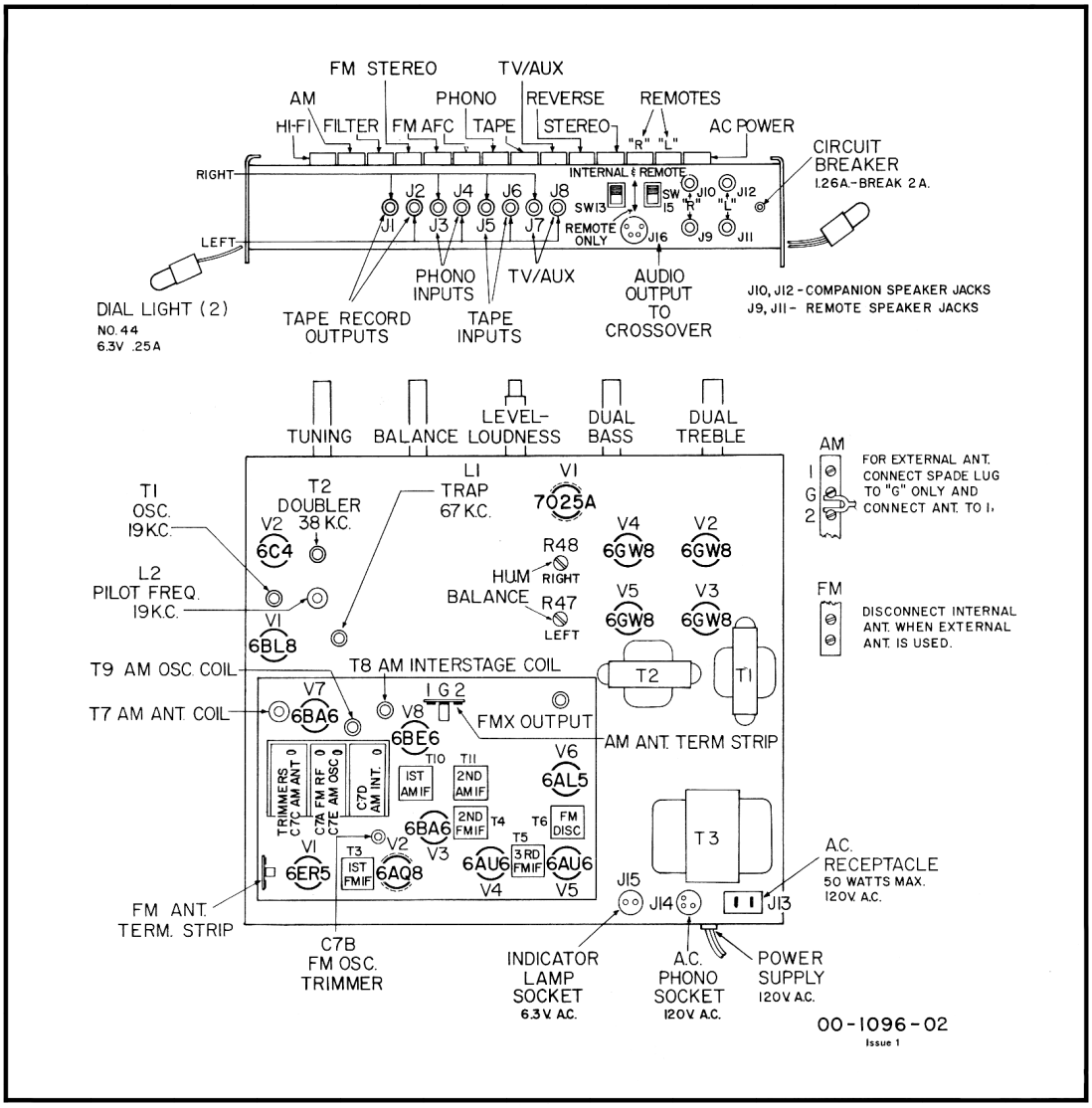
* NOTE 2- 10K ON ALL 6 WATT MODELS.

00-449-01
Issue 5

AMPLIFIER SCHEMATIC



CHASSIS LAYOUT



SERVICE REPLACEMENT PARTS LIST

RCS-580MR

FINAL ASSEMBLY

Part No.	Description
16-120004-01	45 R.P.M. Spindle
16-120048-01	Turntable
16-120049-01	Turntable Mat
19-10004-03	Horn Tweeter - 16 ohm V.C.
19-60004-01	6" P.M. Speaker - 8 ohm V.C.
19-120009-03	12" P.M. Speaker - 8 ohm V.C.
27-7-03	Pilot Lamp - 12V .12A No. 1892
30-233-02	Control Panel
53-591-01	Retaining Strip
53-507-11	Knob - Tuning
53-507-12	Knob - Bass, Treble, Balance
53-507-13	Knob - Level Loudness
53-617-01	Switch Knob

SERVICE REPLACEMENT PARTS LIST (Continued)

CHASSIS ASSEMBLY

Symbol	Part No.	Description
CB1	26-65-08	Circuit Breaker
	27-1-01	Pilot Lamp - 6-8V No. 44 .25A
	30-235-01	Dial Scale
T3	24-10080-02	Power Transformer - 60 cycle
T1,T2	24-80063-01	Output Transformer - 8 ohm V.C.
SR1,SR2	28-6-01	Silicon Rectifier - 50 ma
R11,R34	41-100-13	Control - Bass
R9,R32	41-100-12	Control - Treble
R5,R29	41-198-01	Control - Loudness and Level Switch
R8	41-200-01	Control - Balance
C32	44-140-01	Electrolytic - Single Insulated 40 ufd x 200V
C34	44-141-01	Electrolytic - Quadruple - Can 80, 40 ufd x 350V; 80 ufd x 150V; 60 ufd x 200V
C35	44-142-01	Electrolytic - Quadruple - Can 80, 40 ufd x 350V; 80, 40 ufd x 150V
C12	44-40-04	Electrolytic - Single - 50 ufd x 25V
C39	44-88-05	Electrolytic - Single - 25 ufd x 10V
R47	41-6-01	Potentiometer - 100 ohm 2W Hum Balance
R48	41-199-01	Potentiometer - 100 ohm 2W Hum Balance
	53-606-01	Logging Scale
	53-600-01	Pushbutton Assembly

TUNER PLATTER CHASSIS ASSEMBLY

Symbol	Part No.	Description
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 - first
T11	21-432-04	AM IF Transformer - second
T3	21-433-04	FM IF Transformer
T4	21-433-02	FM IF Transformer
T5	21-433-03	FM IF Transformer
L1,L2	21-439-02	R.F. Choke 2.2 uh
T2	21-445-02	FM Feedback Coil
T6	21-455-01	Discriminator Transformer
T2,L3	21-461-01	FM Oscillator and FM RF Coil
T1	21-471-01	FM Antenna matching Transformer
C7	45-50-02	AM-FM Gang Condenser
C7B	45-36-01	FM Trimmer

CHANGER ASSEMBLY

Part No.	Description
16-90020-02	Garrard Type A Changer
16-120022-12	Plug-in Pick-up Case
16-250018-01	Astatic 17D Cartridge
16-120028-07	Replacement Styli - Astatic N41SD