VIKING SERVICE INFORMATION FOR MODEL RM-544

9 TUBE AM-FM MANTEL RADIO

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 October 8, 1962. Subsequent changes are covered by bulletin.

Specifications

Standard Broadcast Range ..... 535 to 1650 Kc/s
Frequency Modulation Range ..... 88 to 109 Kc/s

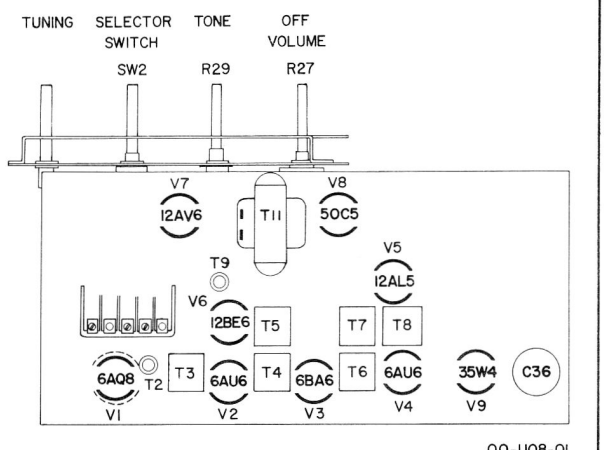
Sensitivity - AM - 14 uv for 100 mv output at detector
14 uv for 40 mv at audio take-off point
FM - 2 uv for 20 db. quieting
4 uv for 30 db. quieting

I.F. Selectivity - AM - 10 Kc/s at 2X down
18 Kc/s at 10X down
FM - 250 Kc/s at 10X down

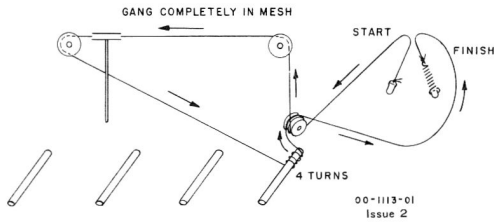
I.F. Frequency - AM - 455 Kc/s
FM - 10.7 Mc/s

Power Output ..... 2 watts maximum

CHASSIS LAYOUT



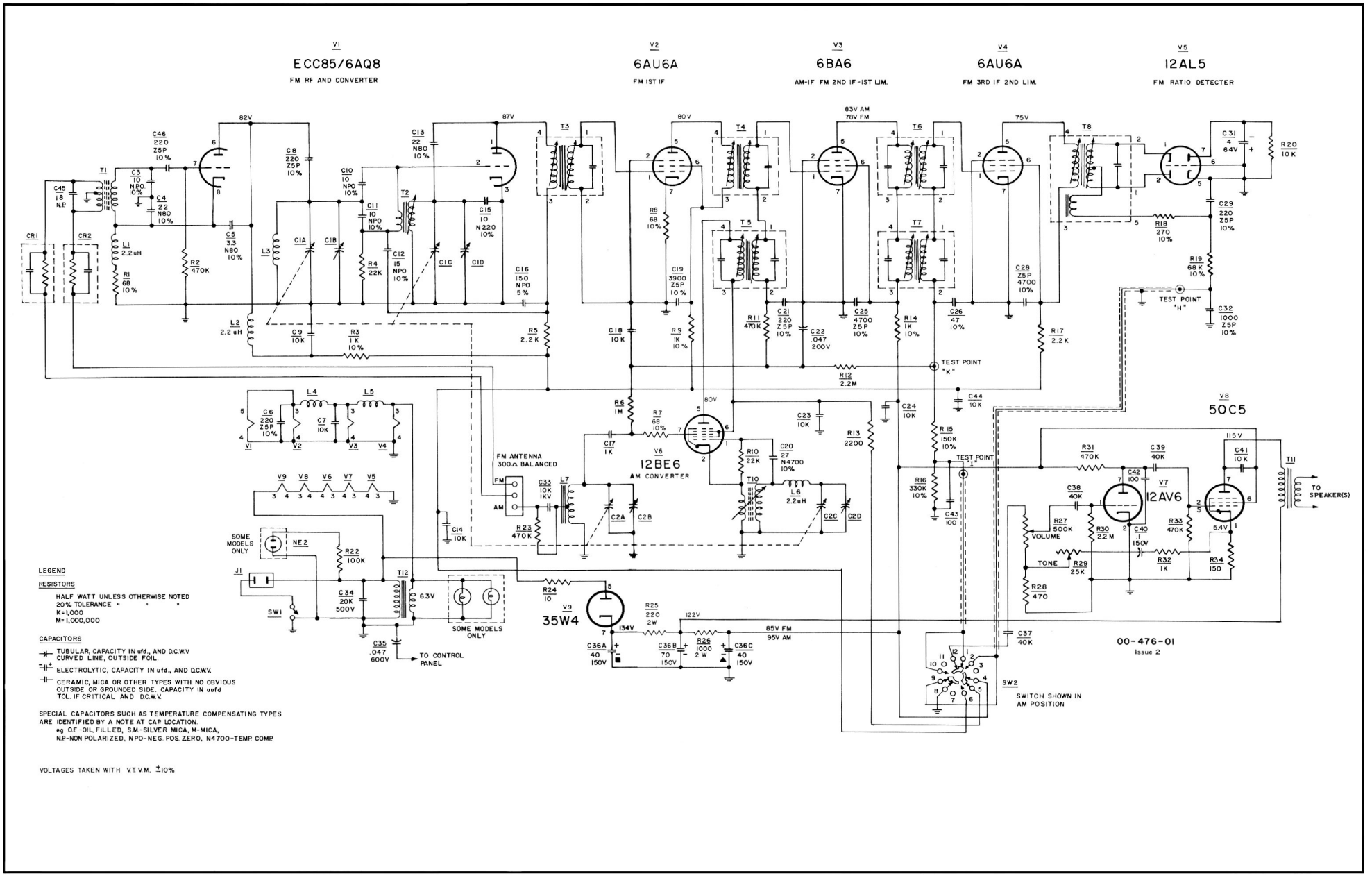
STRINGING DETAIL



THE T. EATON Co LIMITED
CANADA

54-1456-01 500 10/62 D.E.I. PRINTED IN CANADA

AMPLIFIER SCHEMATIC



AM-FM TUNER ALIGNMENT INSTRUCTIONS

STEP	DUMMY ANTENNA	SIGNAL APPLIED TO	FREQ.	MODULATION	BAND SWITCH SETTING	DIAL POINTER SETTING	INDICATING METER	ADJUST	REMARKS	NOMINAL SENSITIVITY
1	.05 uf	Pin #1 V3 6BA6	455 Kc/s	400 C.P.S. AM at 30%	AM	600 Kc/s	AC-VTVM To Point "I"	T7 2nd AM-IF	Adjust for maximum output	3000 uv for 70 Mv. output
2	.05 uf	Pin #7 V6 12BE6	455 Kc/s	400 C.P.S. AM at 30%	AM	600 Kc/s	AC-VTVM To Point "I"	T5 1st AM-IF	Adjust for maximum output	100 uv for 70 Mv. output
3	390 ohms	AM Ant. Term. Strip	1400 Kc/s	400 C.P.S. AM at 30%	AM	1400 Kc/s	AC-VTVM To Point "I"	C2D and C2B Trimmers		20 uv for 70 Mv. output
4	390 ohms	AM Ant. Term. Strip	600 Kc/s	400 C.P.S. AM at 30%	AM	600 Kc/s	AC-VTVM To Point "I"	T10 AM-Osc.		Check for tracking.
5	Repeat steps 3 and 4, check band coverage at 535 Kc/s - 1650 Kc/s and for tracking at 950 Kc/s.									
6	-	Pin #1 V3 6BA6	10.7 Mc/s	Nil	FM	Point of no Interference	DC-VTVM To Point "K"	T6, 3rd. FM-IF	Adjust for maximum meter deflection	10000 uv for 1V output
7	-	Pin #1 V3 6BA6	10.7 Mc/s	Nil	FM	Point of no Interference	DC-VTVM To MX output	T8 FM Ratio Det. Primary (Bot)	Adjust for maximum meter deflection	1250 uv for 1V output
8	-	Pin #1 V3 6BA6	10.7 Mc/s	Nil	FM	Point of no Interference	DC-VTVM To MX output	T5 FM Discriminator Second. (Top)	Adjust for zero voltage. NOTE **	----------
9	-	Pin #1 V2 6AU6A	10.7 Mc/s	Nil	FM	Point of no Interference	DC-VTVM To Point "K"	T4 2nd FM-IF	Adjust for maximum meter deflection	160 uv for 1V output
10	-	C1A FM Gang	10.7 Mc/s	Nil	FM	Point of no Interference	DC-VTVM To Point "K"	T3 1st FM-IF	Adjust for maximum meter deflection	----------
11	NOTE *	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 "H"	T2 Slug and L3 Coil	Adjust for maximum output	3 uv for 200 Mv. output
12	NOTE *	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 "H"	C1D and C1B Trimmers	Adjust for maximum output	3 uv for 200 Mv. output
13	Repeat steps 11 and 12 until output drops at least 20 db. when mod. is turned off.									3.0 uv

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

NOTES:

* For FM dummy antenna connect one 150 ohm carbon resistor from grounded side of sig. gen. to antenna terminal and one 120 ohm carbon resistor from hot side of signal generator to antenna terminal.
NOTE: Input to set is one half, output reading of signal generator.

** With ground lead of DC-VTVM connected to junction of two 100 K resistors. To be temporarily connected in series across C31 (4 ufd CAP).

NOTE: THE CHASSIS IS DIRECTLY CONNECTED TO THE LINE AND AN ISOLATION TRANSFORMER MUST BE USED FOR ALIGNING AND TESTING.

00-1958-02
ISSUE 1

SERVICE REPLACEMENT PARTS LIST

RM-544

FINAL ASSEMBLY

Part No.	Description
19-60006-01	Speaker - 6'' P.M. 8 ohm V.C.
53-621-05	Knob - Selector
53-621-06	Knob - Volume, Tone, Tuning
53-642-01	Plastic Crystal
53-650-01	Viking Trim Strip

CHASSIS ASSEMBLY

Symbol	Part No.	Description
L4,L5	21-300-01	Heater Choke
T10	21-421-01	B.C. Oscillator Coil
T5,T7	21-432-02	AM IF Transformer
T4	21-433-02	FM IF Transformer - 2nd
T6	21-433-03	FM IF Transformer - 3rd
T3	21-433-04	FM IF Transformer - 1st
L1,L2,L6	21-439-02	RF Choke 2.2 uh
T1	21-471-01	FM Antenna Matching Transformer
T8	21-485-01	Ratio Detector
T2	21-486-01	FM Oscillator Coil
L3	21-487-01	FM RF Coil
T11	24-80032-03	Audio Output Transformer
T12	24-50004-01	Filament Transformer 6.3V @ 1.5A
SW2	26-108-01	Rotary Switch - 2 Position
NE2	27-11-01	Neon Bulb
	30-260-02	Dial Scale
R27	41-48-06	Volume Control and AC Switch
R29	41-15-02	Tone Control - 25K
C31	44-88-01	Electrolytic - Single - Tubular - 4 ufd x 64V
C36	44-149-01	Electrolytic Triple - 40, 70, 40 ufd x 150V
C2	45-36-01	FM Trimmer
C1,C2	45-52-05	AM-FM Gang Condenser
CR1,CR2	49-5-01	Capristor
	51-40-01	Rod Loop Antenna