VIKING SERVICE INFORMATION FOR MODEL

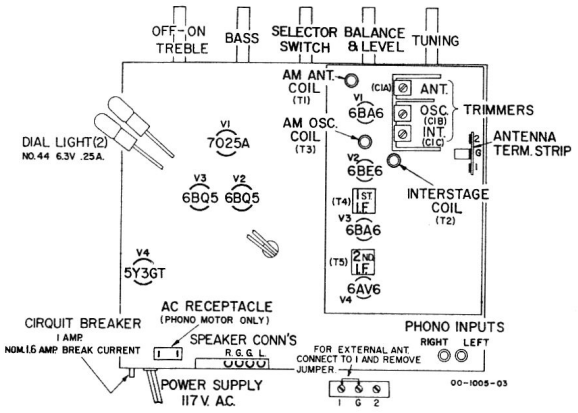
RCS-454
RCS-455

12 TUBE AM-FM, & 8 TUBE AM RADIO PHONOGRAPH

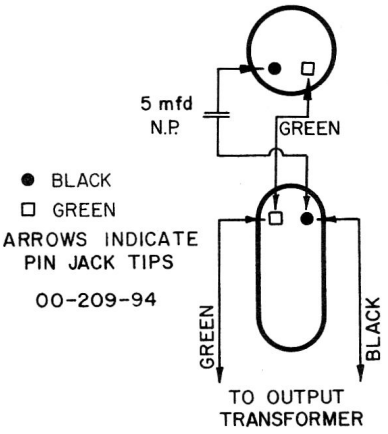
FOR OPERATION ON 110-120V. A.C., CYCLE AS MARKED

When writing for Service Information or Parts, please quote Model Number, Serial Number, Cycle and Finish of Cabinet.

CHASSIS LAYOUT RCS-455



SPEAKER CONNECTIONS



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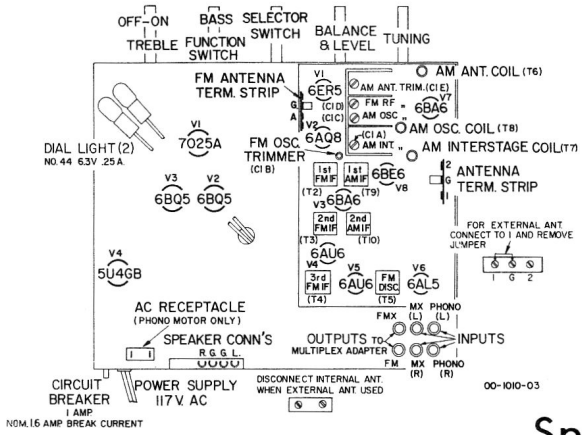
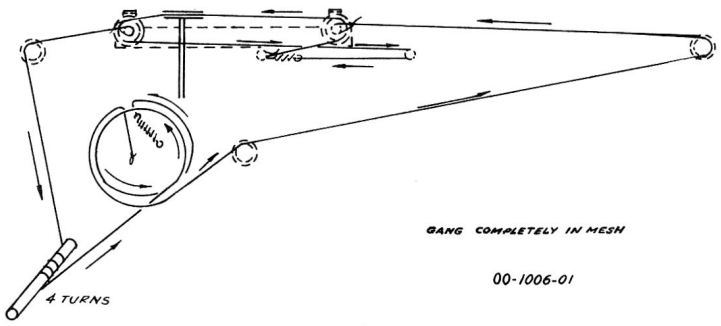


STRINGING DETAIL



Specifications

AM & AM-FM TUNER

Standard Broadcast Range ..... 535 to 1605 Kc.

Frequency Modulation Range ..... 88 to 108 Mc.

I.F. Frequency ..... AM–455 Kc.; FM–10.7 Mc.

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

Frequency Response .....150 cps to 15,000 cps.

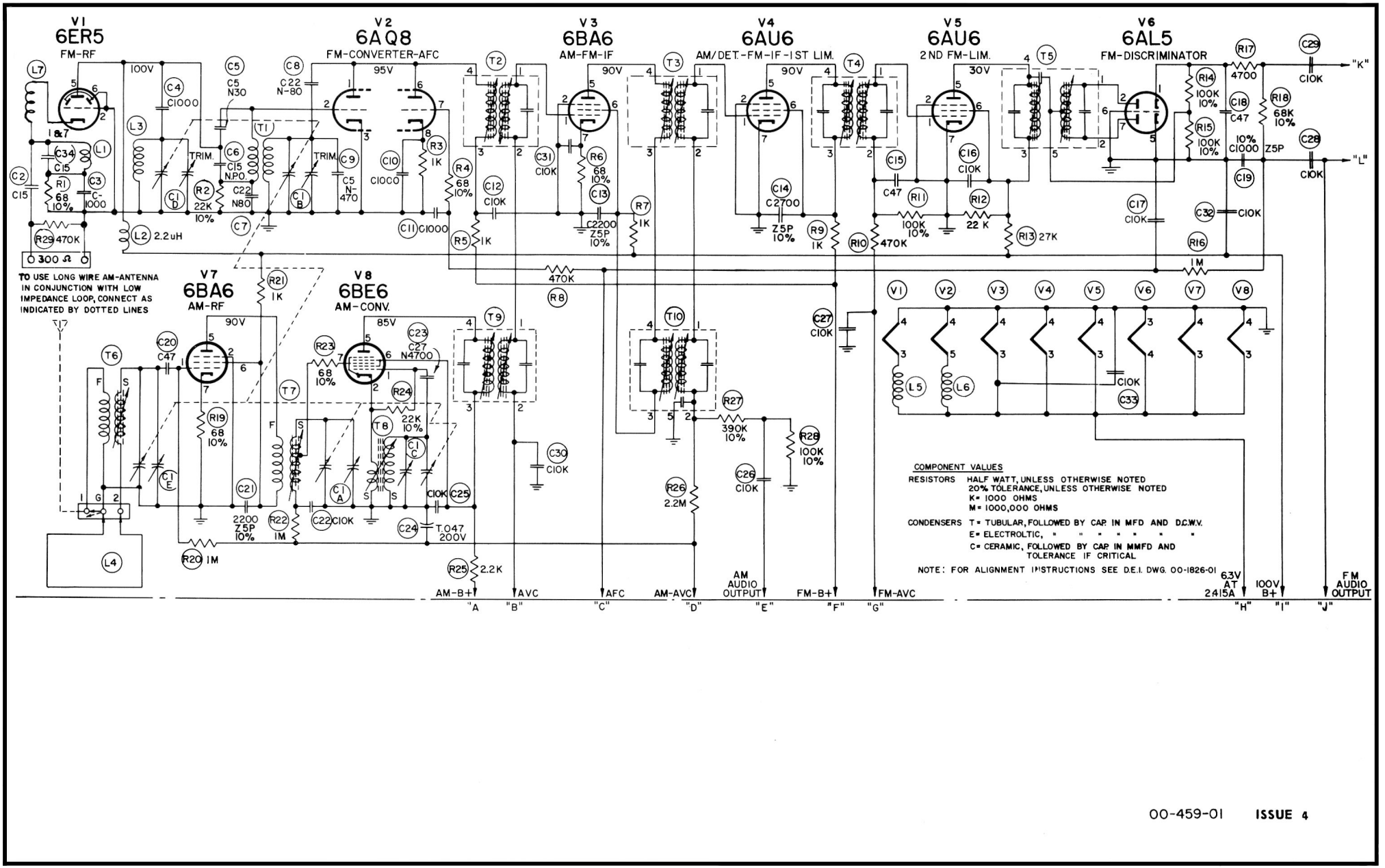
Power Output ..... 6 watts Peak (3 watts per channel)

All information printed in this leaflet is up to date as of June 7, 1960 Subsequent changes are covered by bulletin.

THE T. EATON Co LIMITED
CANADA

54-1383-01 750 7/60 D.E.I. PRINTED IN CANADA

AM-FM TUNER



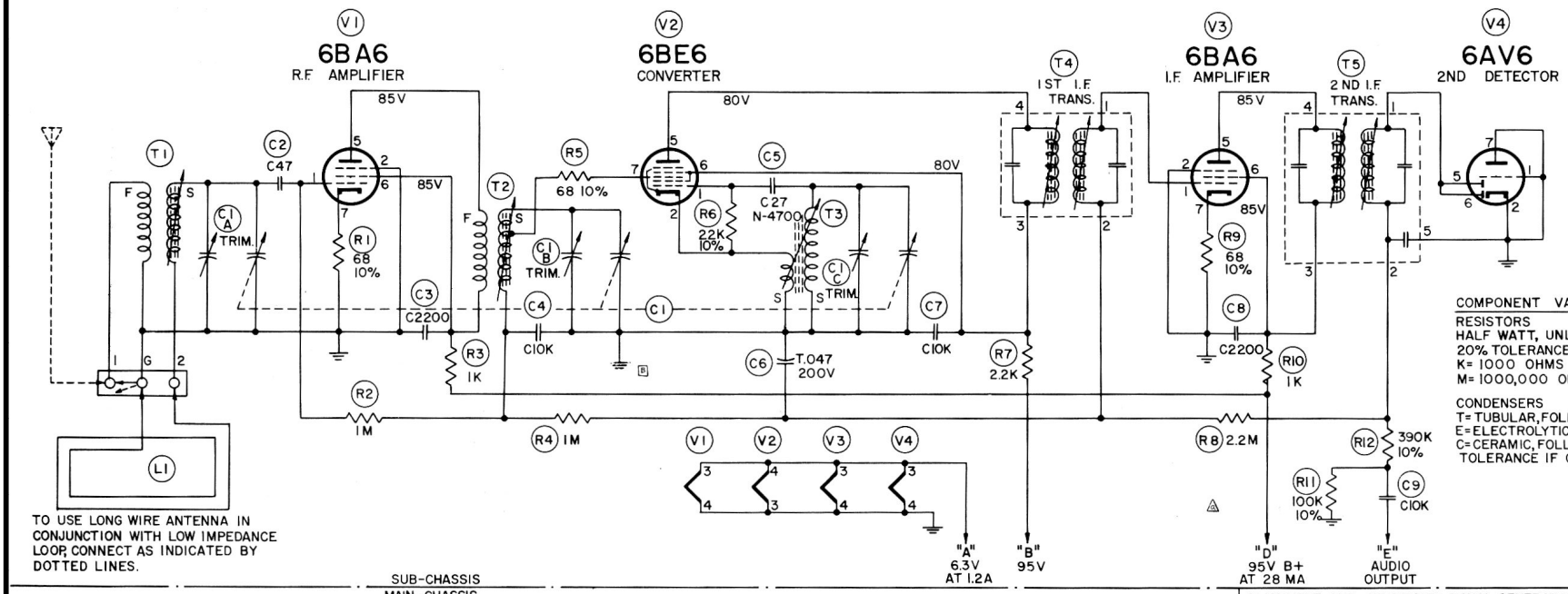
00-459-01 **ISSUE 4**

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 # 1 V3 6BA6	455 Kc/s	400 c.p.s. AM at 30%	AM	600 Kc/s	AC-VTVM To Point "E"	T10 2nd. AM-IF	Adjust for maximum output.	5000 uv for 20 mv output
2	.05 uf	Pin # 7 V8 6BE6	455 Kc/s	400 c.p.s. AM at 30%	AM	600 Kc/s	AC-VTVM To Point "E"	T9 1st. AM-IF	Adjust for maximum output.	350 uv for 20 mv output
3	200 uuf	AM Ant. Term. Strip # 1	600 Kc/s	400 c.p.s. AM at 30%	AM	600 Kc/s	AC-VTVM To Point "E"	T6, T7 and T8	Connect for long wire antenna, adjust for maximum output.	3.5 mv for 20 mv output
4	200 uuf	AM Ant. Term. Strip # 1	1460 Kc/s	400 c.p.s. AM at 30%	AM	1460 Kc/s	AC-VTVM To Point "E"	C1E, C1A and C1C Trimmers	Connect for long wire antenna, adjust for maximum output.	2.5 mv for 20 mv output
5	Repeat steps 3 and 4, check for band coverage at 535 Kc/s - 1650 Kc/s and for tracking at 950 Kc/s.									
6	-	Pin # 1 V4 6AU6	10.7 Mc/s	-	FM	Point of no interference	DC-VTVM To Point "G"	T4 3rd. FM-IF	Adjust for maximum meter deflection.	15000 uv for 1V output
7	-	Pin # 1 V3 6BA6	10.7 Mc/s	-	FM	Point of no interference	DC-VTVM To Point "G"	T3 2nd. FM-IF	Adjust for maximum meter deflection.	250 uv for 1V output
8	-	C1D FM Gang	10.7 Mc/s	-	FM	Point of no interference	DC-VTVM To Point "G"	T2 1st. FM-IF	Adjust for maximum meter deflection.	-
9	-	Pin # 1 V4 6AU6	10.7 Mc/s	-	FM	Point of no interference	DC-VTVM To Pin # 5 of T5	T5 FM Discriminator Primary	Adjust for maximum meter deflection.	10000 uv for 3V output
10	-	Pin # 1 V4 6AU6	10.7 Mc/s	-	FM AFC	Point of no interference	DC-VTVM To Point "C"	T5 FM Discriminator Secondary	Adjust for zero voltage.	-
11	270 ohms	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 "J"	Expand or compress L3 and T1	Adjust for maximum output.	3 uv for 100 mv output
12	270 ohms	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 "J"	C1B and C1D Trimmers	Adjust for maximum output.	2.5 uv for 100 mv output
13	Repeat steps 11 and 12 until output drops at least 20 db. when mod. is turned off.									3.5 uv

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

AM TUNER



COMPONENT VALUES

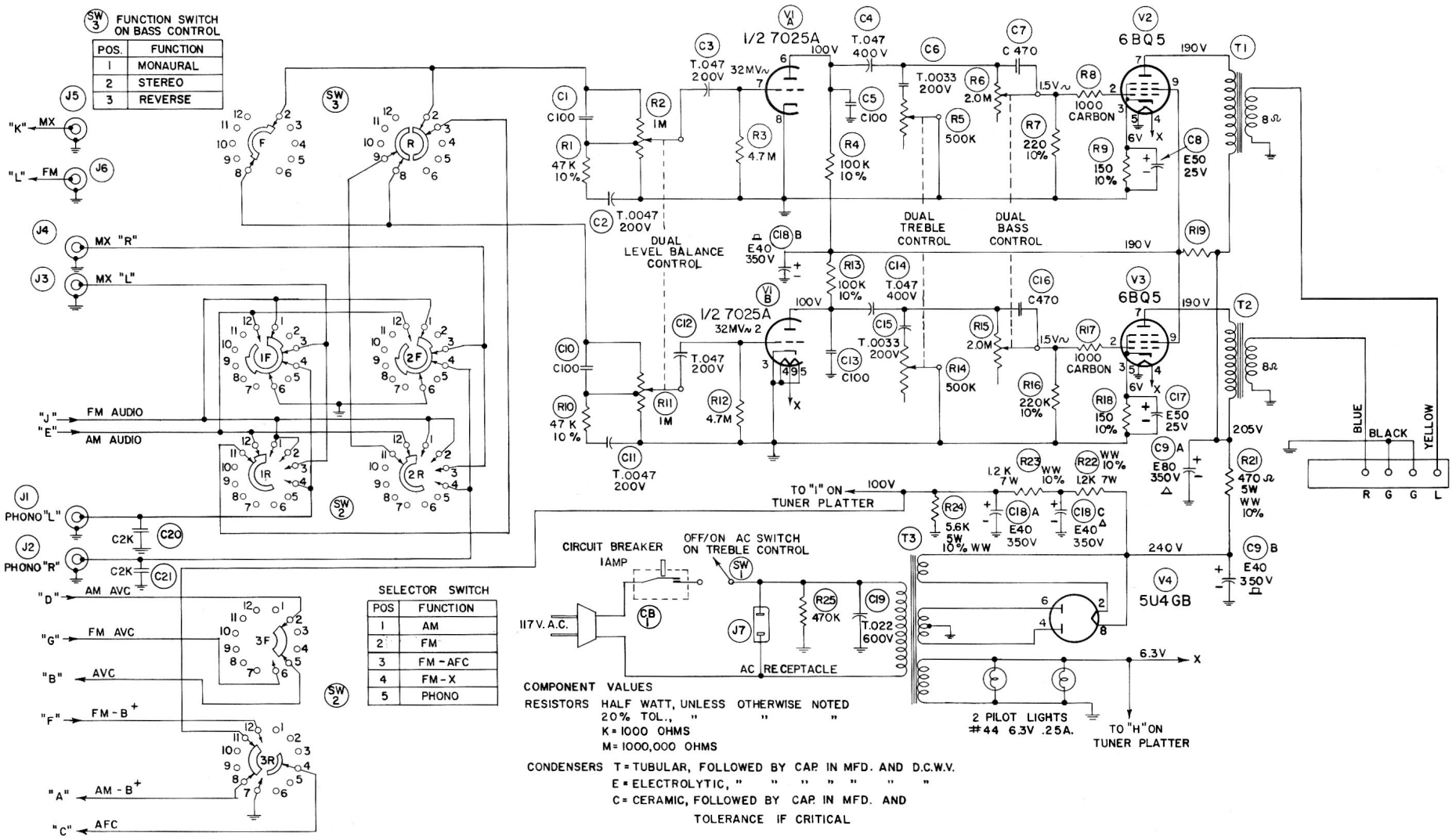
RESISTORS
HALF WATT, UNLESS OTHERWISE NOTED
20% TOLERANCE, UNLESS OTHERWISE NOTED
K= 1000 OHMS
M= 1000,000 OHMS

CONDENSERS
T= TUBULAR, FOLLOWED BY CAP IN MFD AND D.C.W.V.
E= ELECTROLYTIC, " " " " " " "
C= CERAMIC, FOLLOWED BY CAP IN MMFD AND TOLERANCE IF CRITICAL

ALIGNMENT AND SENSITIVITY SIGNAL GENERATOR MODULATED 30% AT 400 CYCLES
*100 MILLIVOLTS ACROSS DIODE LOAD OR 20MV AT AUDIO TAKE OFF POINT ("E")

STEP	APPLY SIGNAL AT KC	APPLY SIGNAL TO	THRU SERIES DUMMY	SET GANG AT K.C	ADJUST FOR MAX. OUTPUT	* NOMINAL SENSITIVITY
1	455	PIN #1-V3 6BA6	.05	MIN CAP	SLUGS T5	6000 uv
2	455	PIN 7 V2 6BE6	.05	MIN CAP	SLUGS T4 AND REPEAT STEP 1	300 uv
3	1460	EXT. ANT CONN.	200 uufd	1460 KC	C1A, C1B AND C1C TRIMMERS	1.8 uv
4	600	EXT. ANT CONN.	200 uufd	600 KC	SLUGS T1, T2 & T3 REPEAT STEPS 3 & 4	2.0 uv
5	535 950 & 1605	EXT. ANT CONN	200 uufd	TUNE THRU	CHECK ONLY	—

AM-FM AMPLIFIER



COMPONENT VALUES

RESISTORS HALF WATT, UNLESS OTHERWISE NOTED
20% TOL., " " "
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CONDENSERS T = TUBULAR, FOLLOWED BY CAP. IN MFD. AND D.C.W.V.
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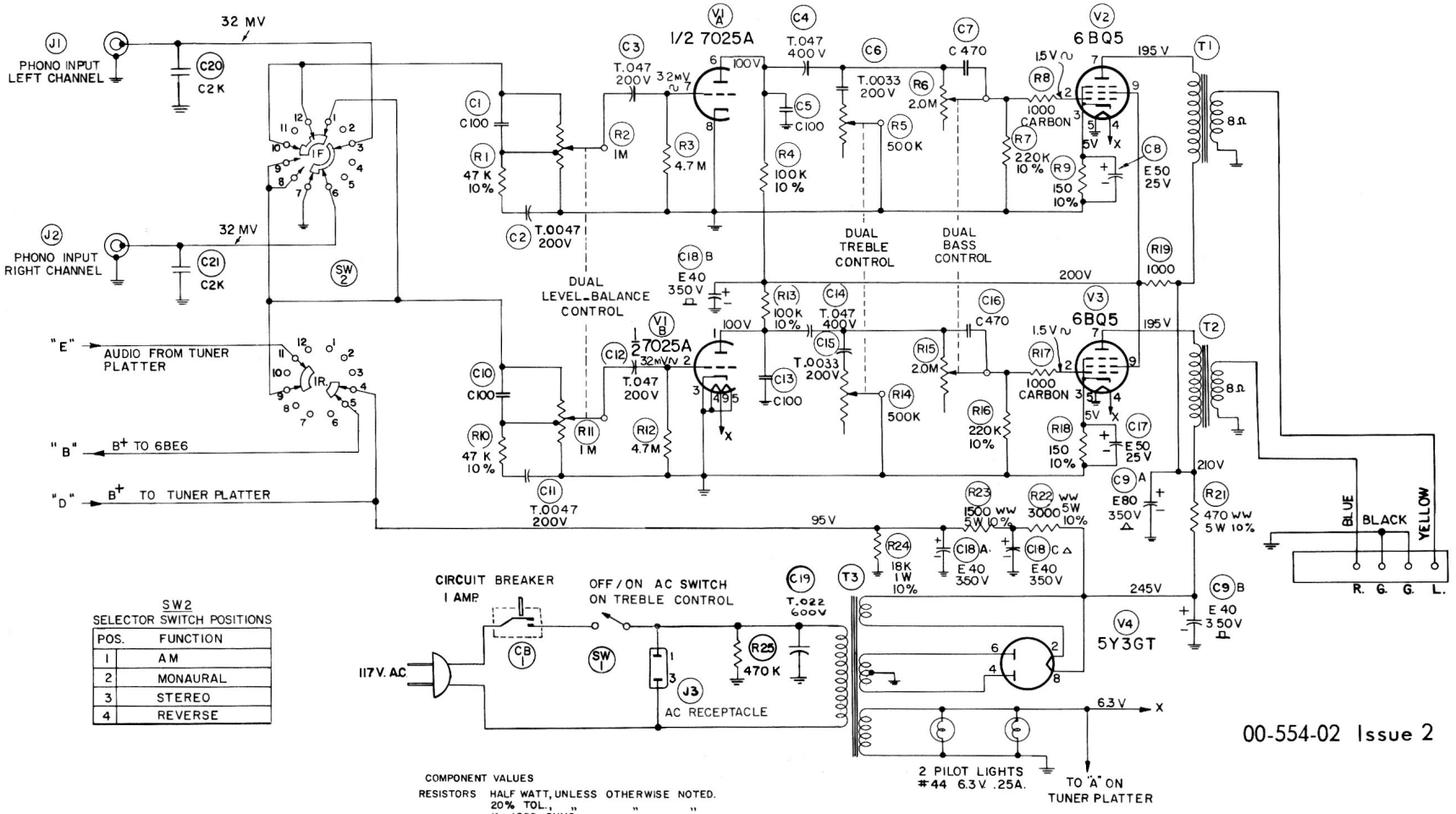
AM AMPLIFIER



SW2
SELECTOR SWITCH POSITIONS

POS.	FUNCTION
1	AM
2	MONAURAL
3	STEREO
4	REVERSE

COMPONENT VALUES

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C = CERAMIC, FOLLOWED BY CAP. IN MMFD AND TOLERANCE IF CRITICAL.

00-554-02 Issue 2

REPLACEMENT PARTS LIST
RCS-454,455

TUNER PLATTER CHASSIS - AM

Part No.	Description
21-410-01	B.C. Ant. Coil
21-421-01	B.C. Osc. Coil
21-428-01	B.C. Int. Coil
21-432-01	AM IF Trans. - 1st.
21-432-03	AM IF Trans. - 2nd.
45-41-01	AM Gang Condenser

TUNER PLATTER CHASSIS - AM-FM

Part No.	Description
21-300-01	Coil
21-300-02	R.F. Heater Choke & Peaking Coil
21-439-02	R.F. Choke 2.2 uh
21-410-01	B.C. Ant. Coil
21-455-01	Discriminator Trans. - FM
21-421-01	B.C. Osc. Coil
21-428-01	B.C. Int. Coil
21-432-01	AM IF Trans. - 1st.
21-432-03	AM IF Trans. - 2nd.
21-433-01	FM IF Trans.
21-433-02	FM IF Trans.
21-433-03	FM IF Trans.
21-458-01	FM RF Coil
21-457-01	FM Osc. Coil
21-445-02	FM Feedback Coil
45-31-01	AM-FM Gang Condenser
45-36-01	FM Trimmer

AMPLIFIER

Part No.	Description
24-10064-01	Power Trans. - 60 cy. AM-FM
24-10043-02	Power Trans. - 60 cy. AM
24-80035-03	Output Trans. - 8 ohm V.C.
26-65-02	Circuit Breaker
35-602-01	Pointer Carriage
35-519-01	Drive Shaft
42-1-09	W.W. Resistor 5600 ohm ± 10% AM-FM 5W.
42-1-46	W.W. Resistor 470 ohm ± 10% 5W.
42-1-59	W.W. Resistor 3000 ohm ± 10% AM 5W.
42-1-27	W.W. Resistor 1500 ohm ± 10% AM 5W.
42-1-61	W.W. Resistor 1200 ohm ± 10% AM-FM 7W.
44-40-04	Electrolytic - Tub. 50 ufd x 25 V.
44-113-01	Electrolytic - Dual 80,40 ufd x 350 V.
44-118-01	Electrolytic - Triple 40,40,40 ufd x 350 V.
34-150-03	Triple Phono Socket AM-FM
34-150-02	Dual Phono Socket AM

FINAL ASSEMBLY

Part No.	Description
16-90017-01	BSRUA10 Changer with TC8S Cart. & Mtg.
16-250013-01	BSR-TC8S Replacement Cartridge
16-120036-01	Replacement L.P. Stylus Type BSR-TC8RS
16-120017-02	Replacement 78 Stylus Type BSR-TC8G
19-70011-01	6'' x 9'' P.M. Speaker 8 ohm
30-158-01	Backing Plate, Printed AM-FM
30-157-01	Backing Plate, Printed AM
30-159-02	Control Panel Glass AM-FM
30-159-01	Control Panel Glass AM
35-459-01	Sliding Pointer
53-490-01	Knob - Tuning
53-489-03	Glass Retaining Strip
53-490-06	Knob Treble, Off-On, Selector
53-490-07	Knob Balance, Level
53-485-04	Switch Knob Level, Bal., Mon., Stereo, Reverse