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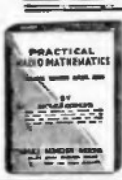

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	TV-19	Early 1962
	TV-18	1961
	TV-17	1960
	TV-16	Late 1959
	TV-15	Early 1959
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	18	1958
	17	1957
	16	1956
	15	1955
	14	1954
	13	1953
	12	1952
	11	1951
	10	1950
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	5	1942
	4	1941
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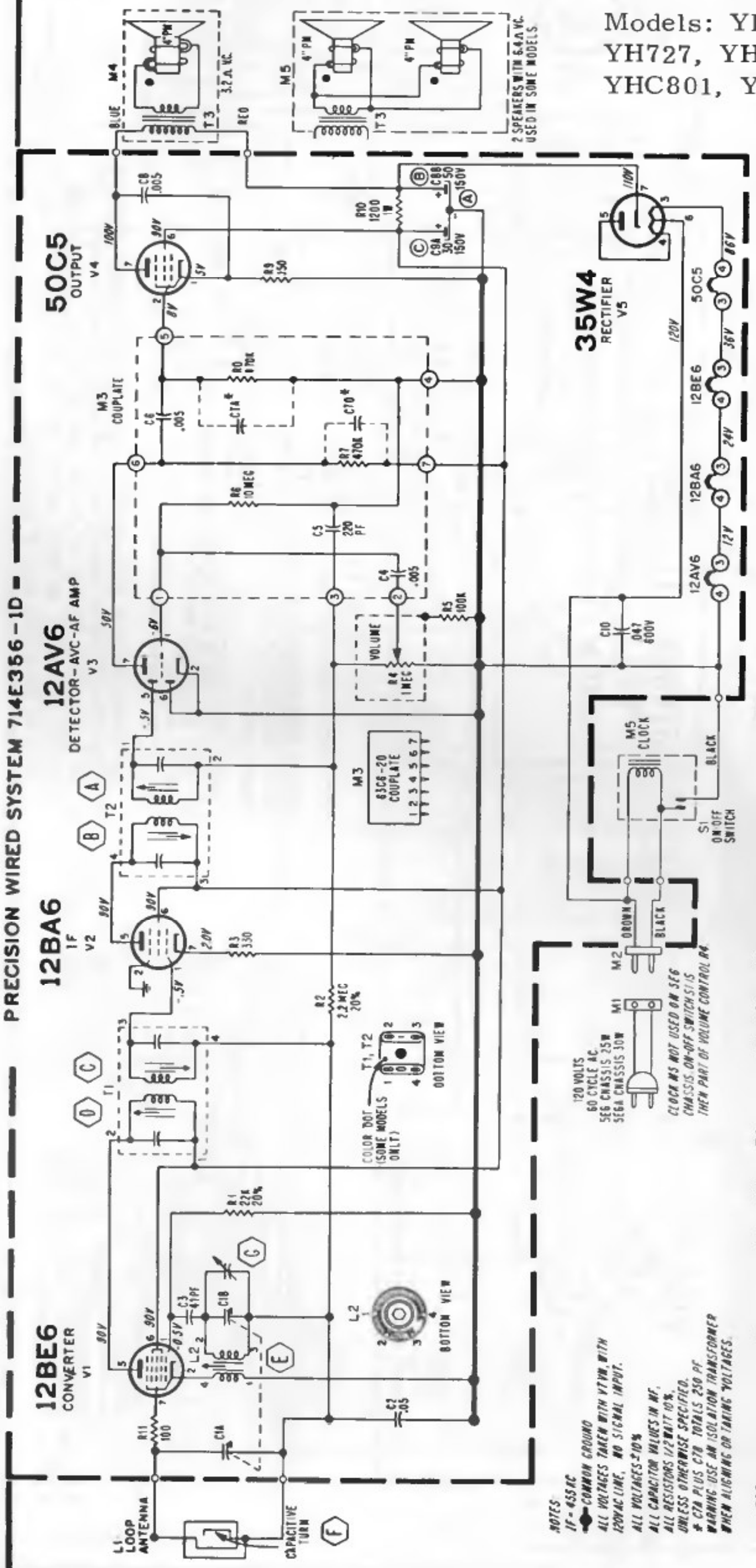
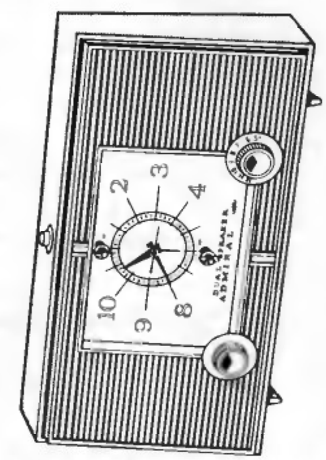
5E6 & 5E6A

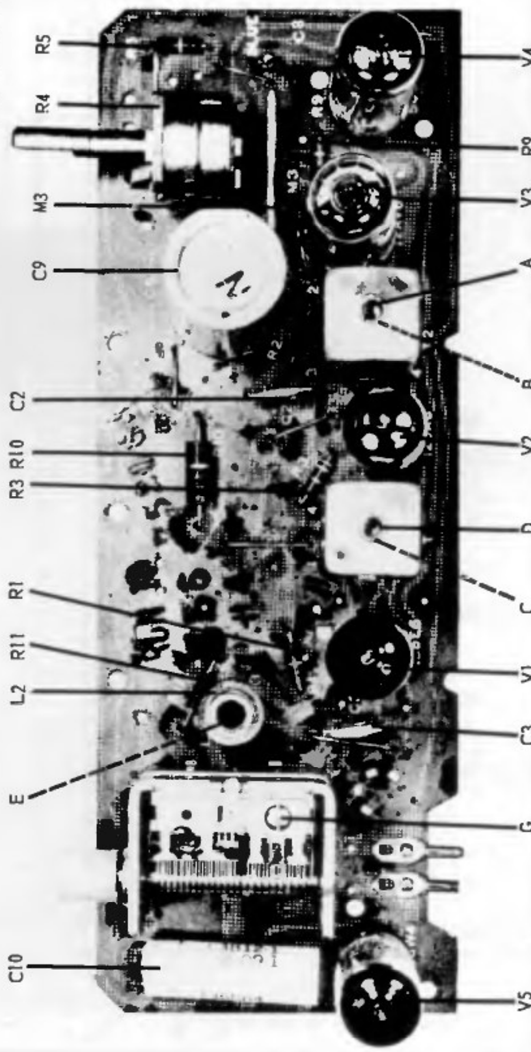
CHASSIS

Models: YR503, YH713, YH717, YH723, YH727, YH731, YHC777, YHC793, YHC799, YHC801, YK803.





YHC793, 99



TOP VIEW OF CHASSIS SHOWING COMPONENTS AND ALIGNMENT POINTS

Note: Dashed (- - - -) lines indicate slug nearest chassis.

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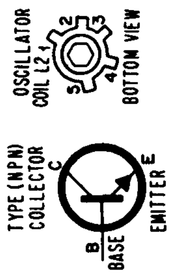
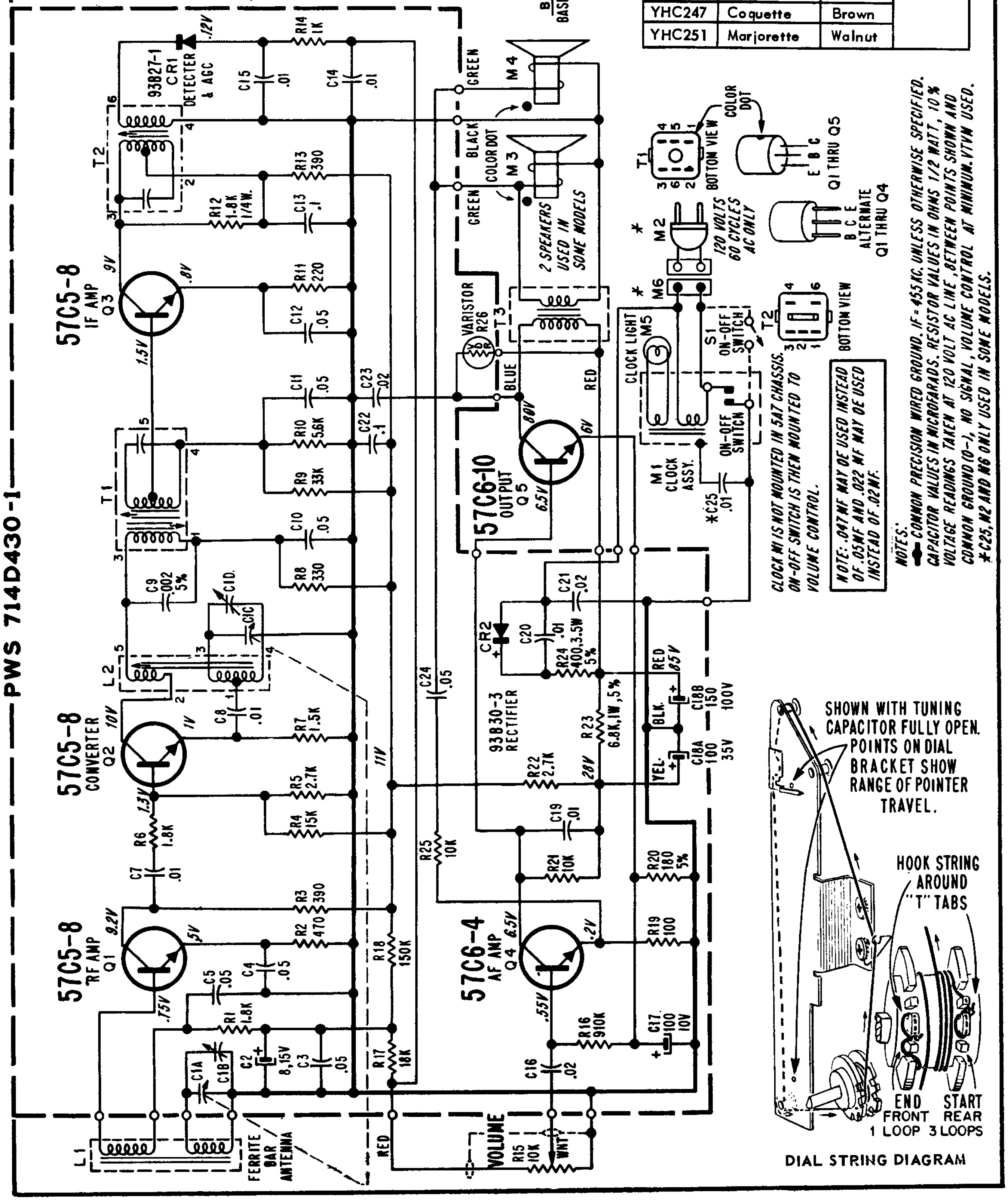
CORPORATION



MODEL CHART			
MODEL	NAME	COLOR	CHASSIS
YH203	Varsity	White	5A7
YH207	Varsity	Beige	
YH211	Musicale	Walnut	
YHC223	Mount Clair	White	5A7A
YHC237	Zephyr	Beige	
YHC243	Coquette	White	
YHC247	Coquette	Brown	
YHC251	Marjorette	Walnut	



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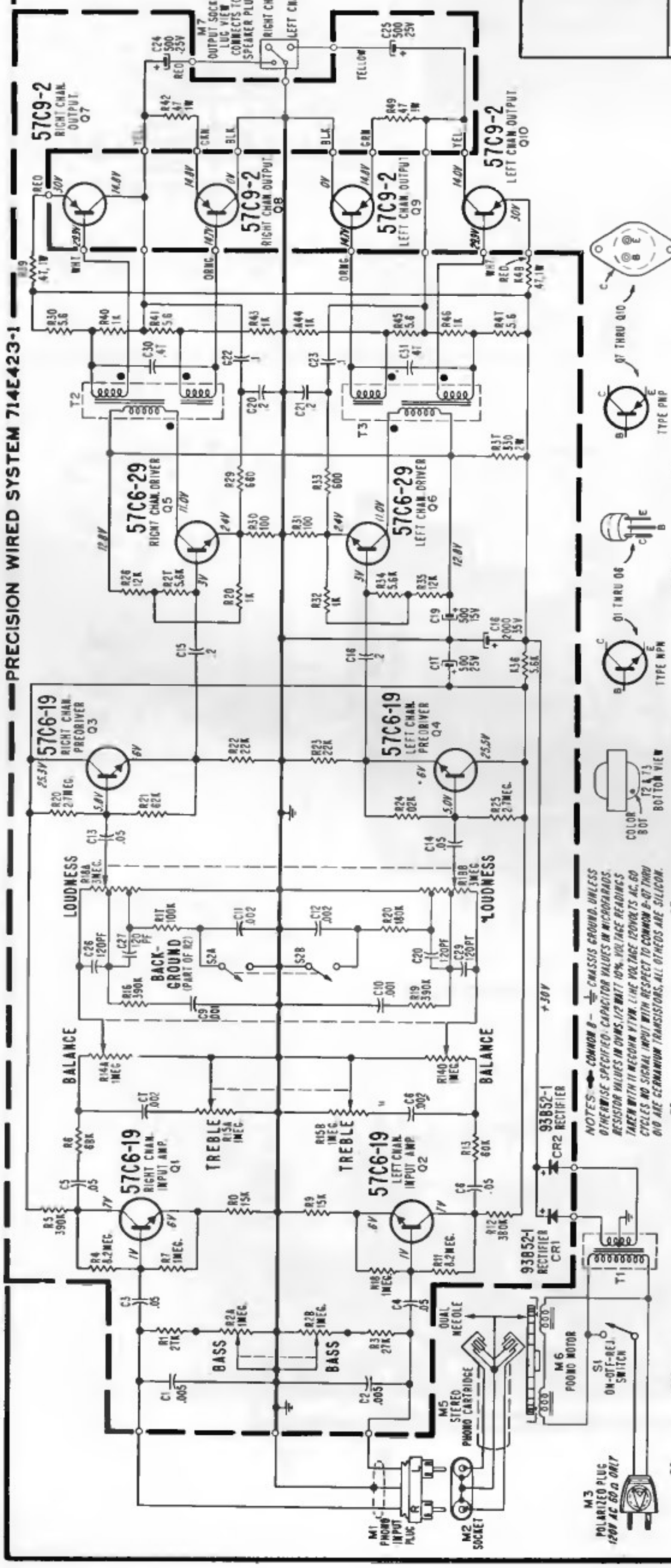
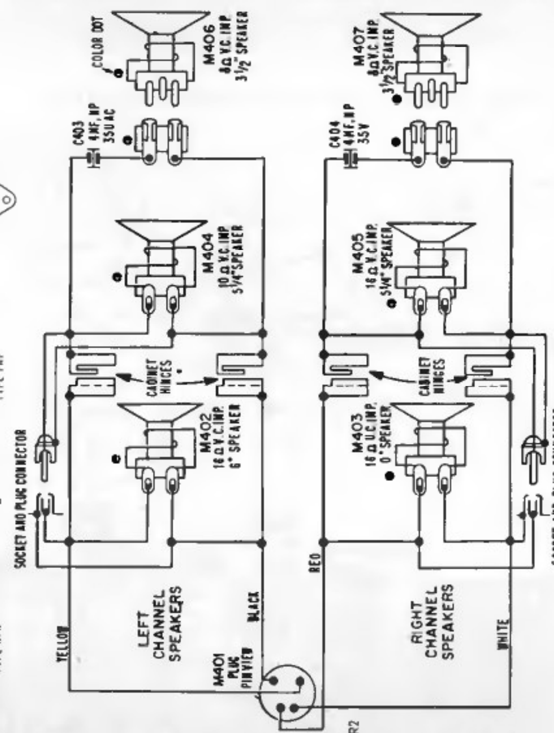
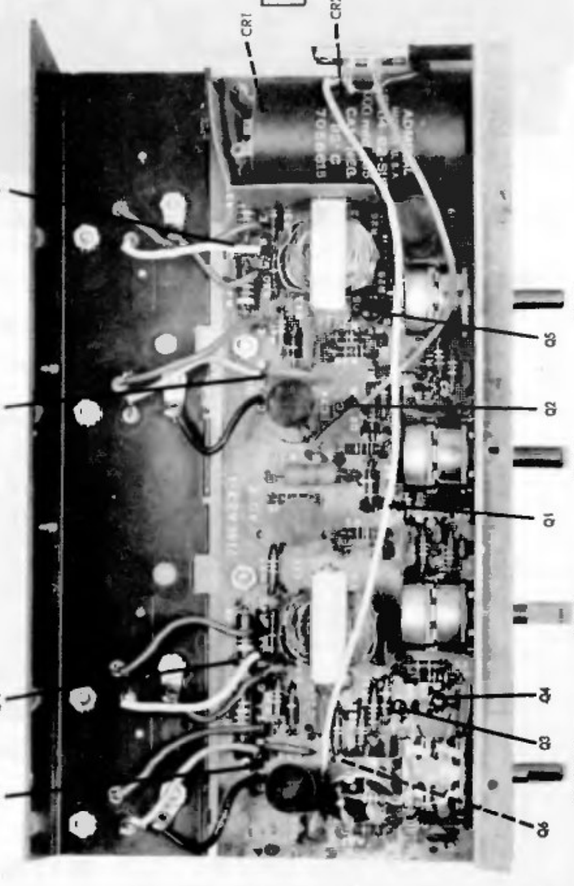
MODEL CHART				
MODEL	NAME	COLOR	CHANGER	CHASSIS
YHS1741	Minstrel	Black	RC7W5S-67BB	8M3
YHS1771C	Virtuoso	Black	RC7W5S-67BB or RC7W5W-67BB	



PRECISION WIRED SYSTEM 714E423-1



YHS 1741 SPEAKER WIRING



TOP VIEW OF CHASSIS OPENED FOR SERVICING

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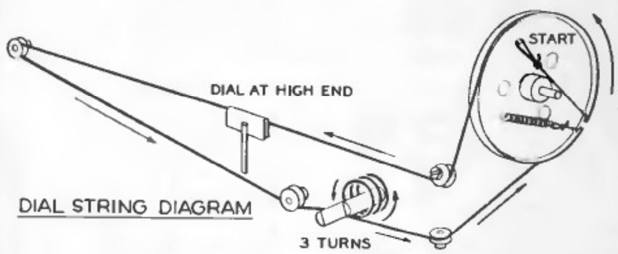
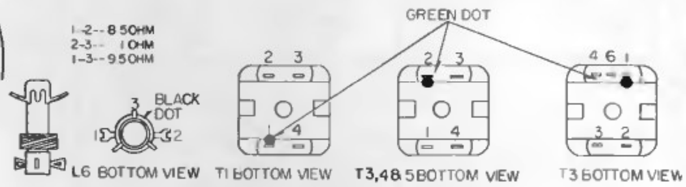
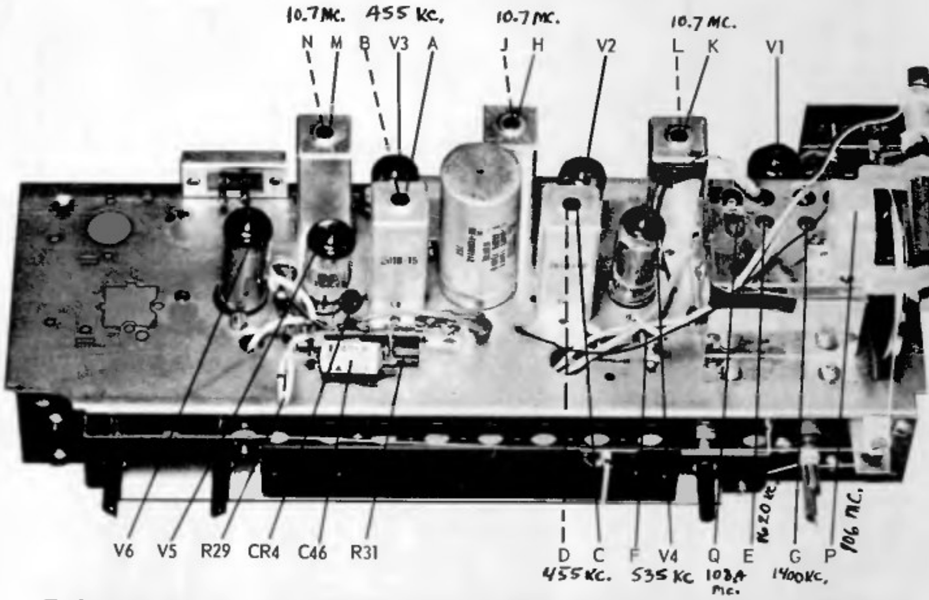
MODEL CHART			
MODEL	NAME	COLOR	CHASSIS
YH601	Celestial	Black	6M4
YH607	Celestial	Brown	
YH611	Melodist	Walnut	
YH619	Polonaise	Cherry	
YHC621	Concerto	Black	6M4A
YHC627	Concerto	Brown	
YHC631	Caprice	Walnut	
YHC641	Reverie	Walnut	
YHC649	Lullaby	Cherry	

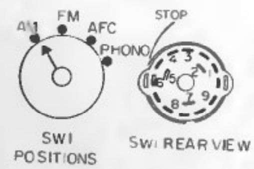
(See page 7 for schematic diagram.)

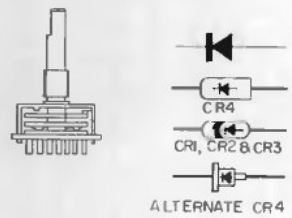


DIAL STRING DIAGRAM



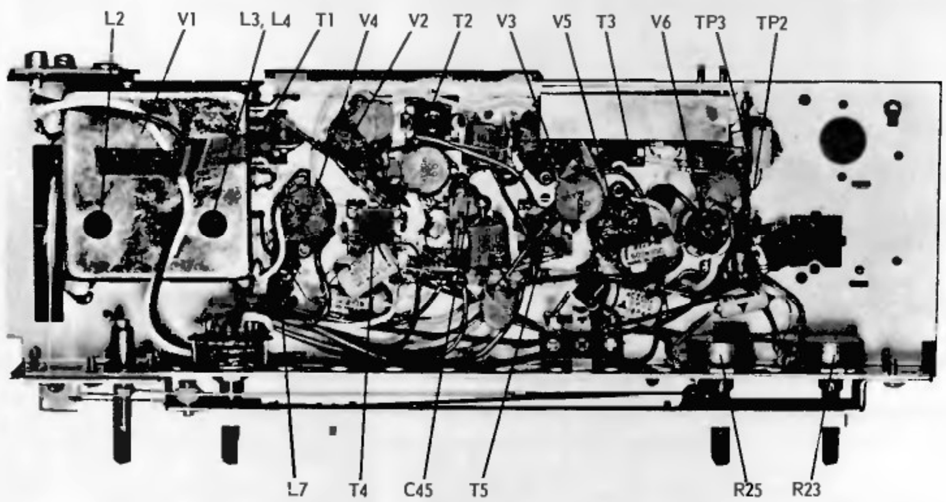






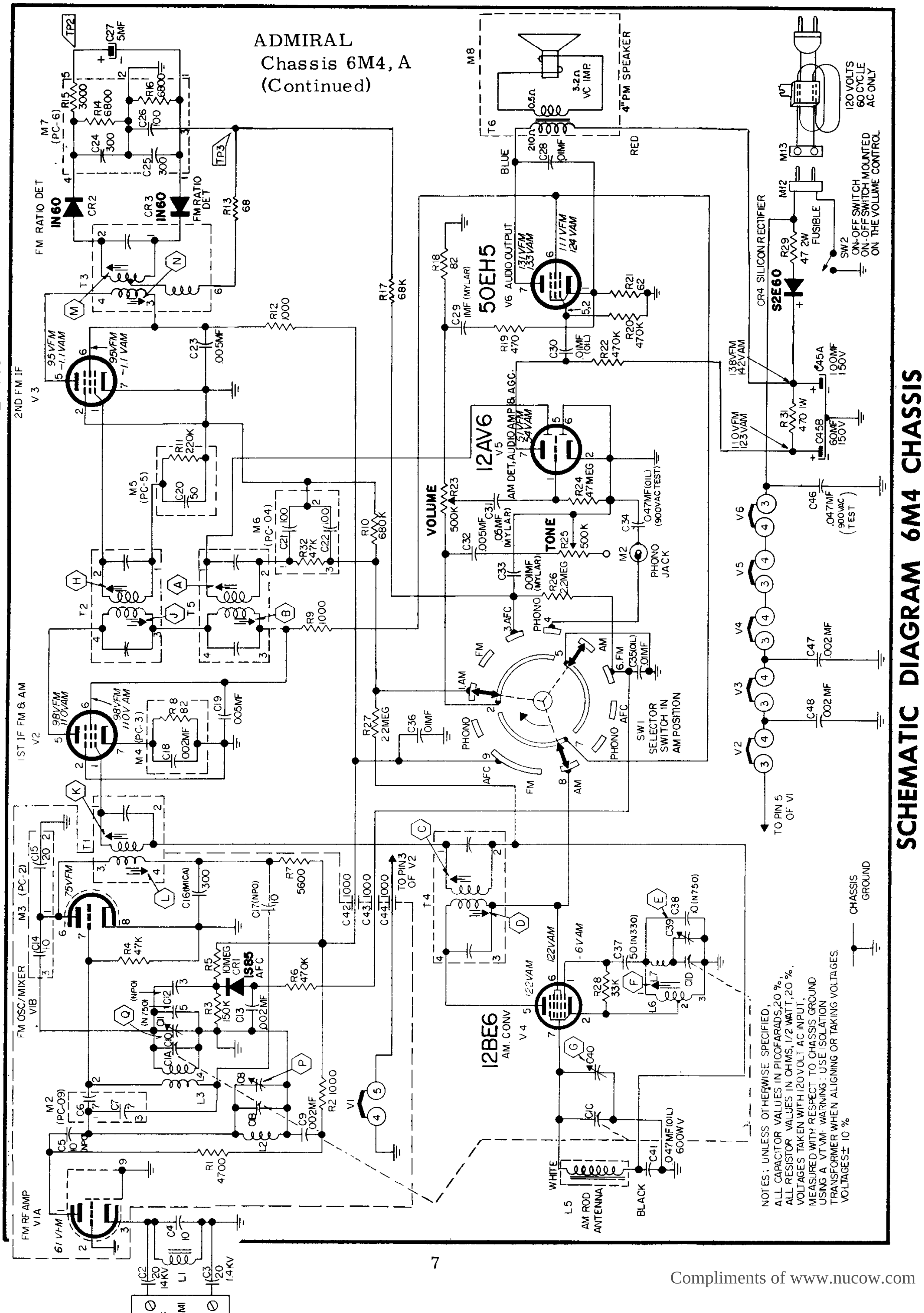
TOP VIEW OF CHASSIS SHOWING ALIGNMENT POINTS AND COMPONENTS

Note: Dashed (— — — —) lines indicate slug nearest chassis.



BOTTOM VIEW OF CHASSIS

ADMIRAL
Chassis 6M4, A
(Continued)



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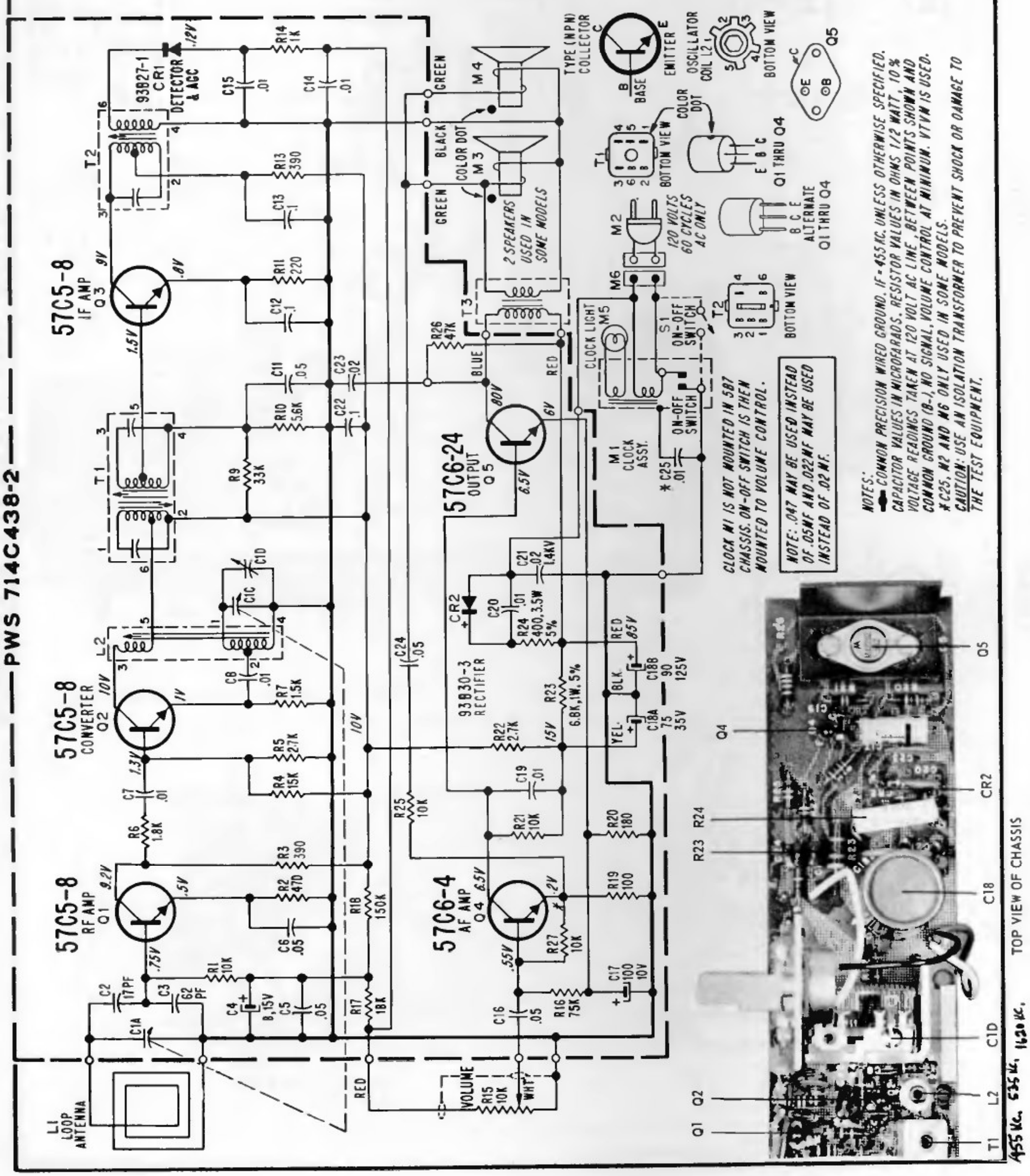
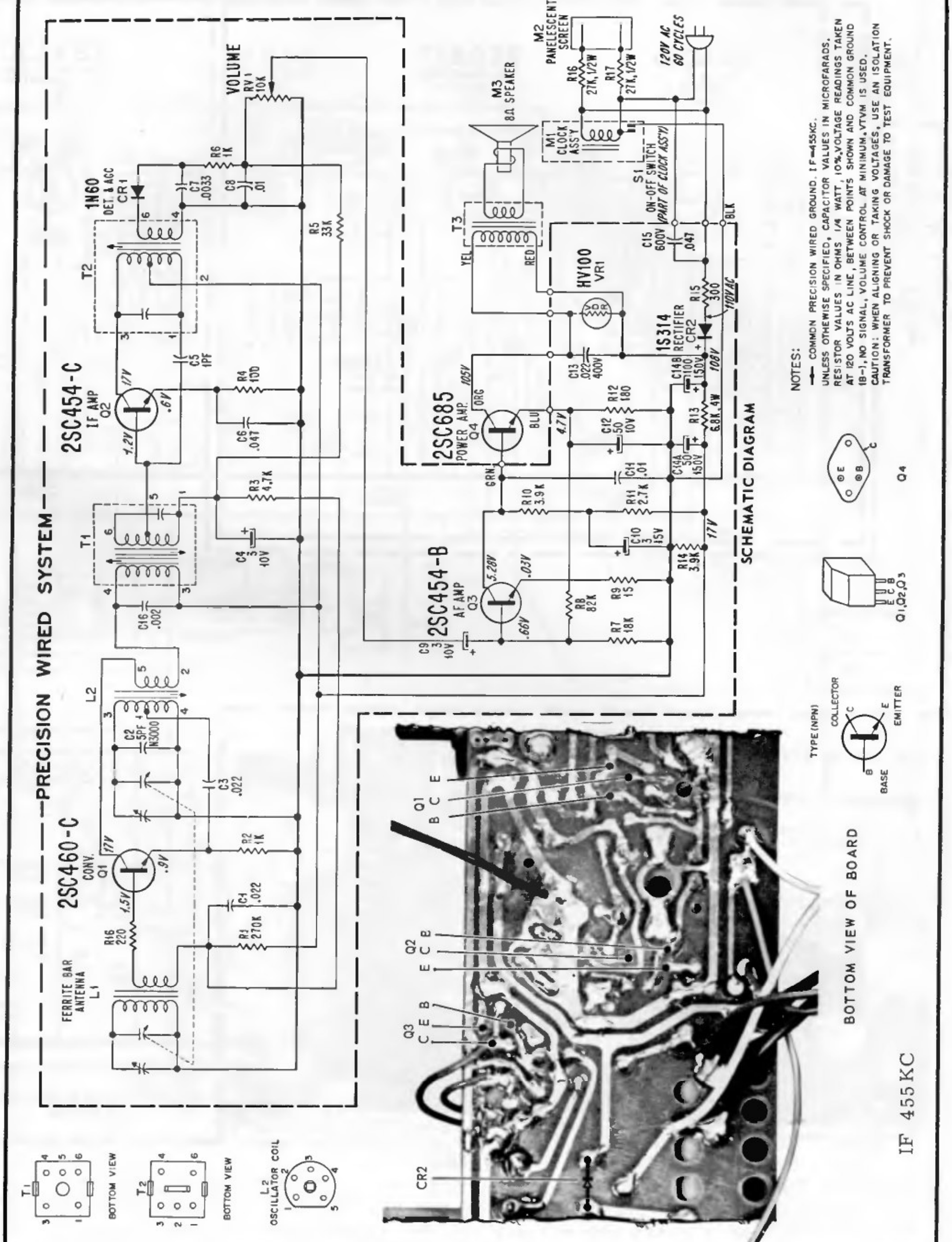
Chassis 5B7, Models: YK103, YK117, YK118, YK121
Chassis 5B7A, Models: YKC133, YKC147, YKC148, YKC151

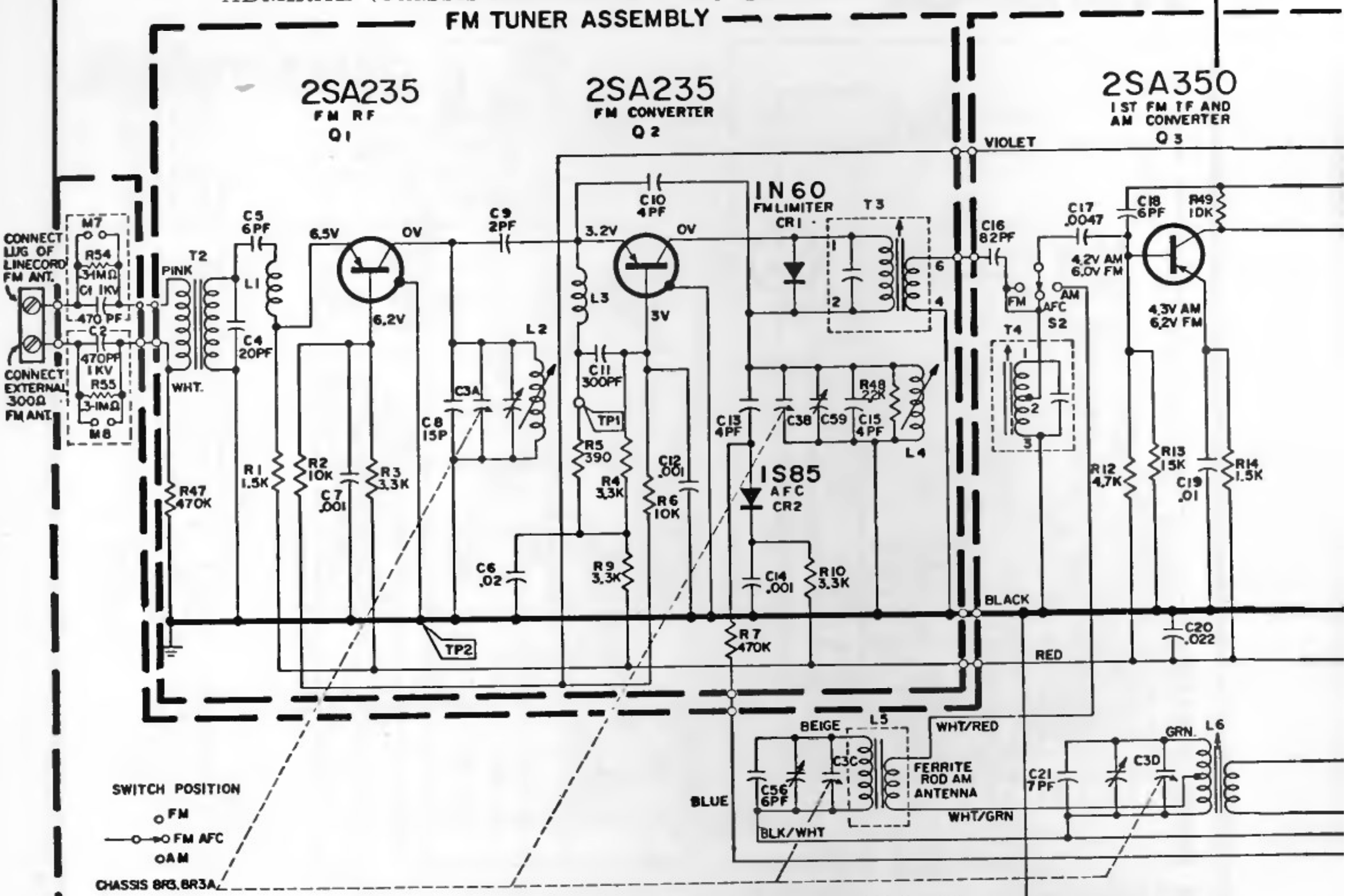


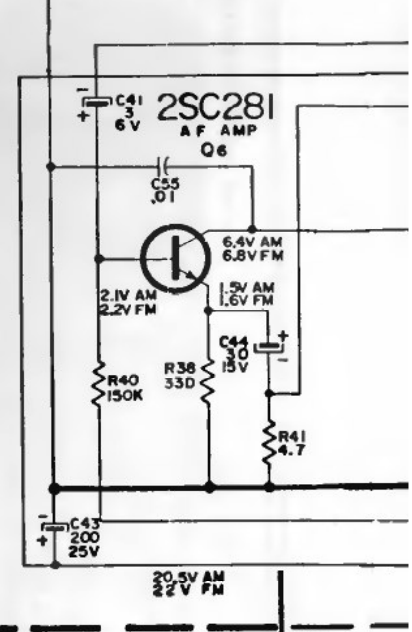
Admiral® Chassis 4R4, Model 4C253R4



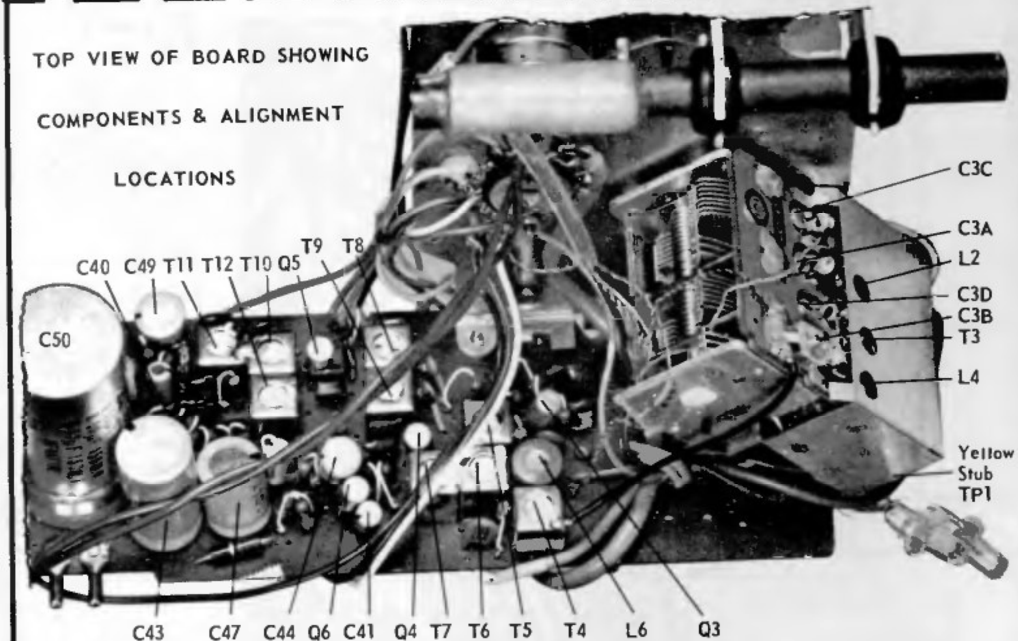
To Q4

ADMIRAL (Chassis numbers on next page, model numbers below.)





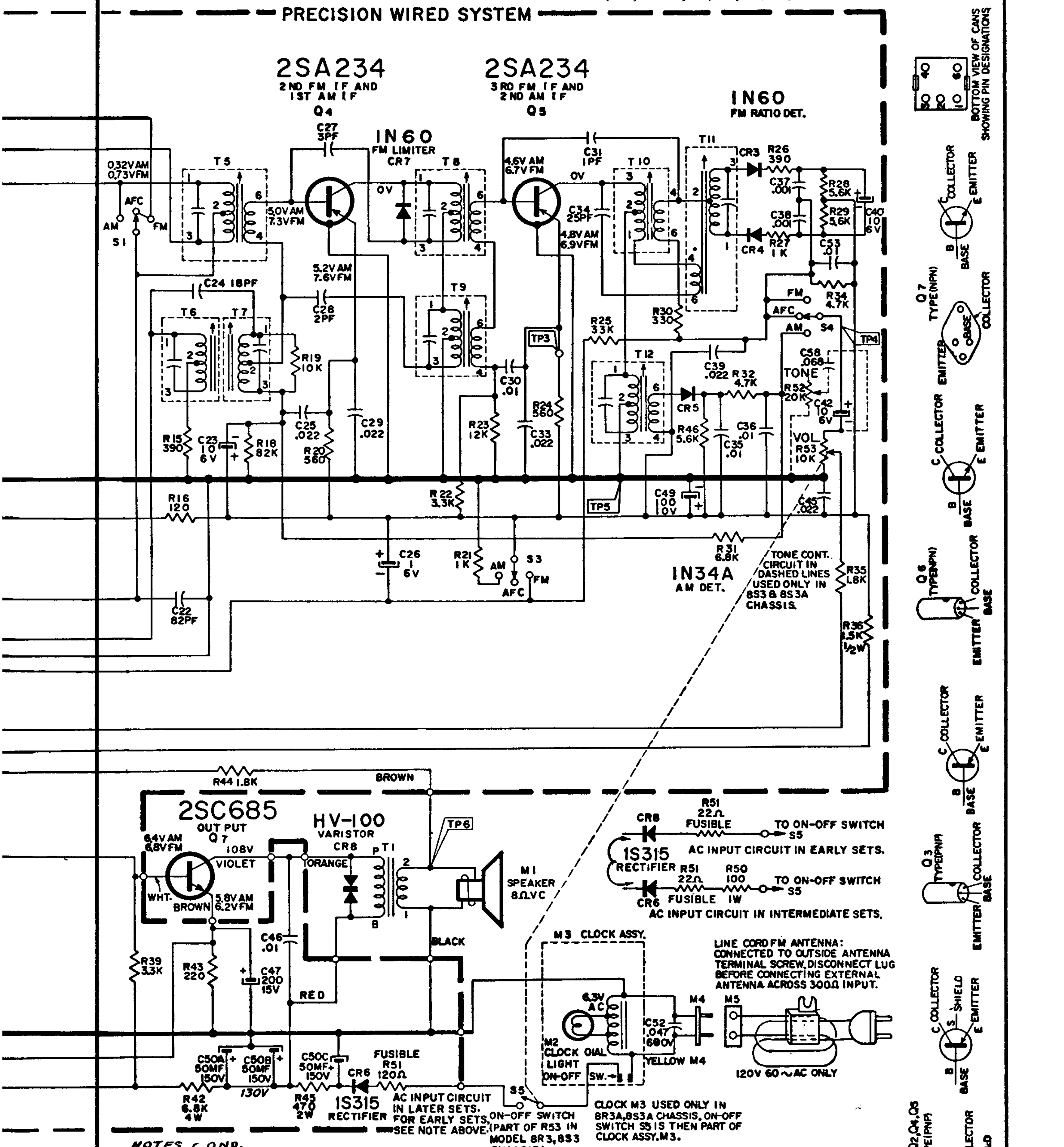
TOP VIEW OF BOARD SHOWING COMPONENTS & ALIGNMENT LOCATIONS



Models: Y441RA YC521, 531, 541, 551, 561RA
Y421RA Y461RA YR407, 703, 717, 718, 721, 731, 733, 741, 743
Y431RA Y471RA YRC417, 803, 817, 818, 821, 831, 833, 841, 843

Notes:
FM IF 10.7 MC
AM IF 455 KC

ADMIRAL Chassis numbers 8R3, A; 8S3, A, D, E, F, G; 8Y3



NOTES CONT.

VOLTAGE TAKEN WITH VTVM MEASURED WITH RESPECT TO COMMON GROUND. VOLUME CONTROL AT MINIMUM.

WARNING: USE AN ISOLATION TRANSFORMER WHEN ALIGNING OR TAKING VOLTAGES.

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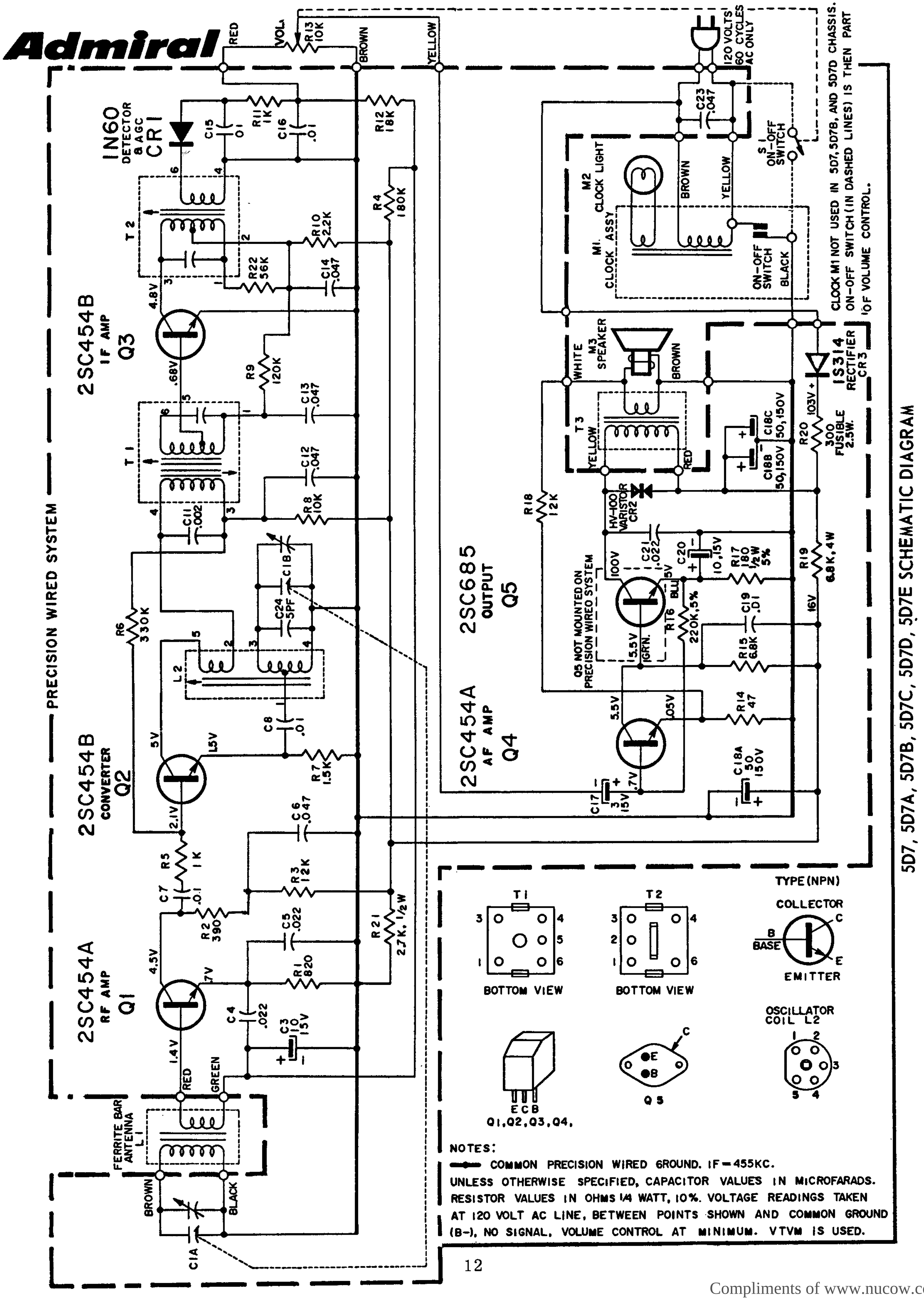

NOTES:

COMMON PRECISION WIRED GROUND. IF = 455KC.

UNLESS OTHERWISE SPECIFIED, CAPACITOR VALUES IN MICROFARADS. RESISTOR VALUES IN OHMS 1/4 WATT, 10%. VOLTAGE READINGS TAKEN AT 120 VOLT AC LINE, BETWEEN POINTS SHOWN AND COMMON GROUND (B-), NO SIGNAL, VOLUME CONTROL AT MINIMUM. VTVM IS USED.

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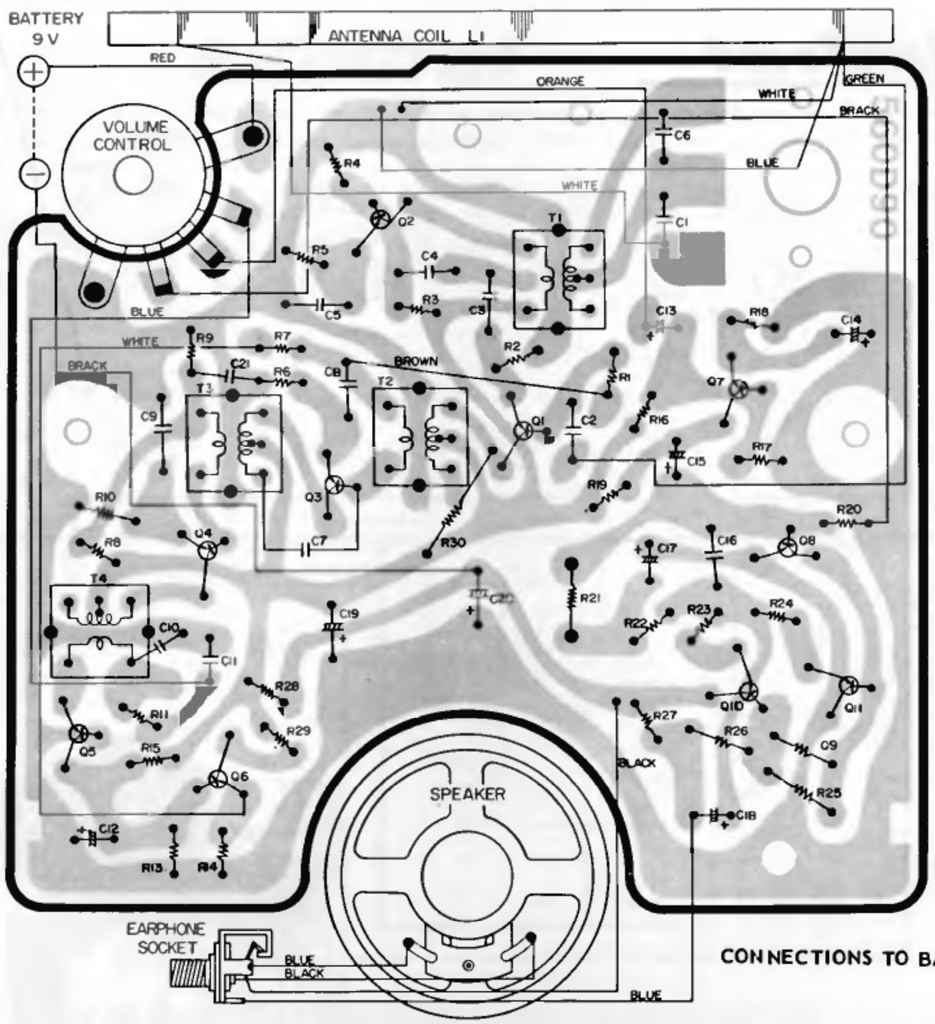
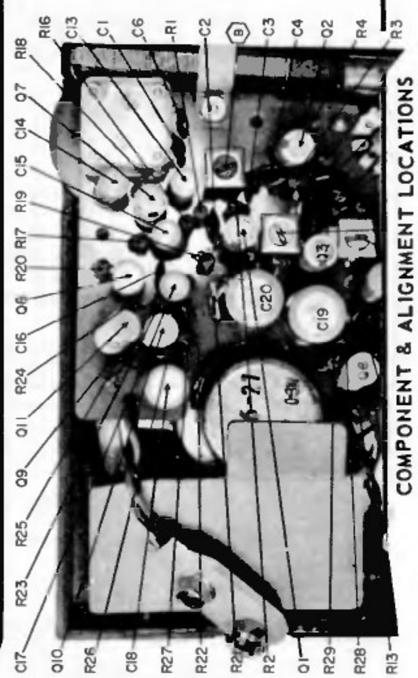
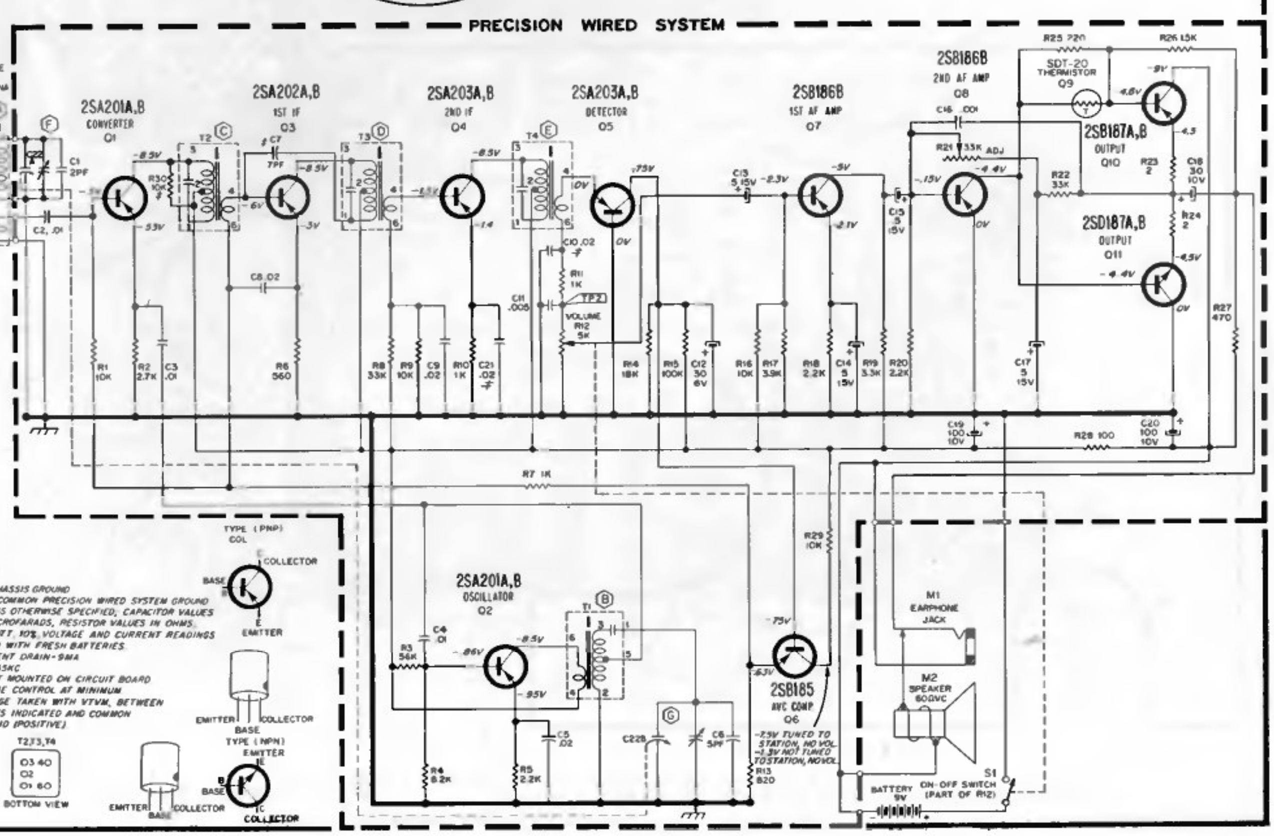
Chassis 10A3
Models: YK211GP,
YK212GP



CONNECTIONS TO BACK OF BOARD & WIRING





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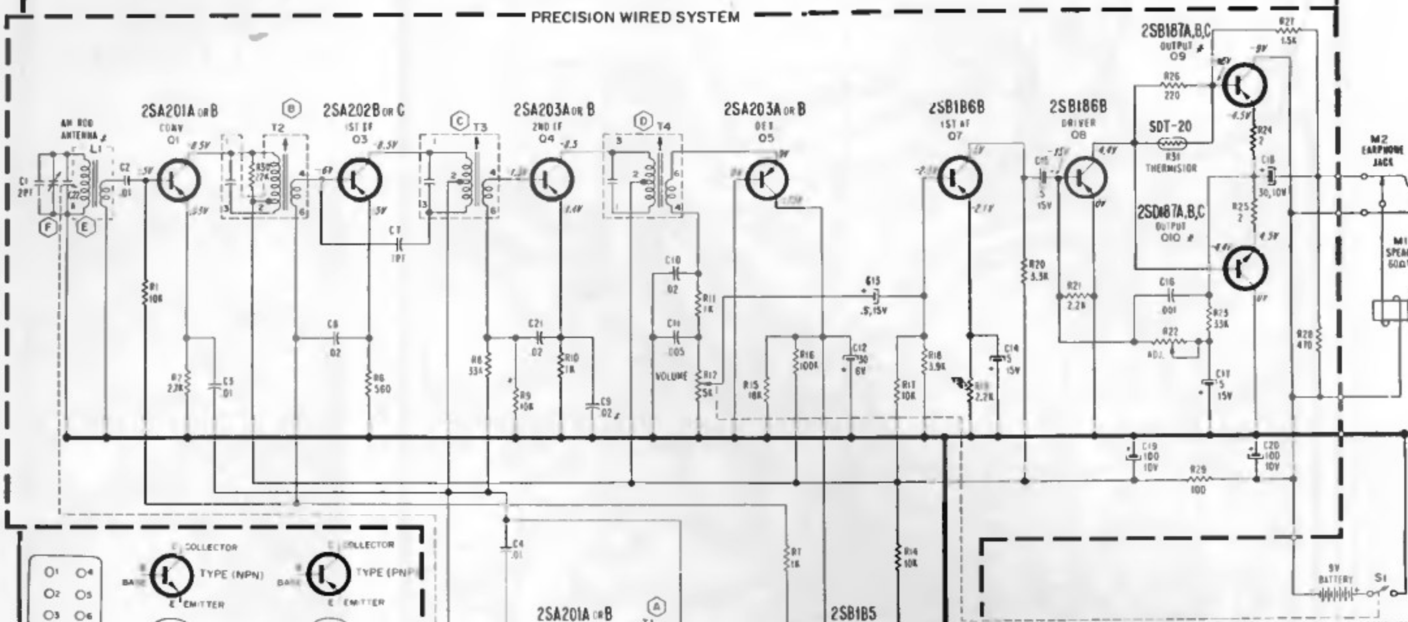
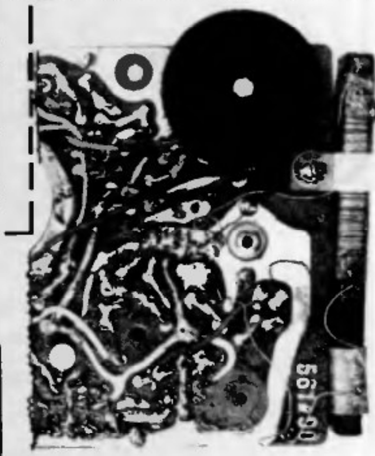
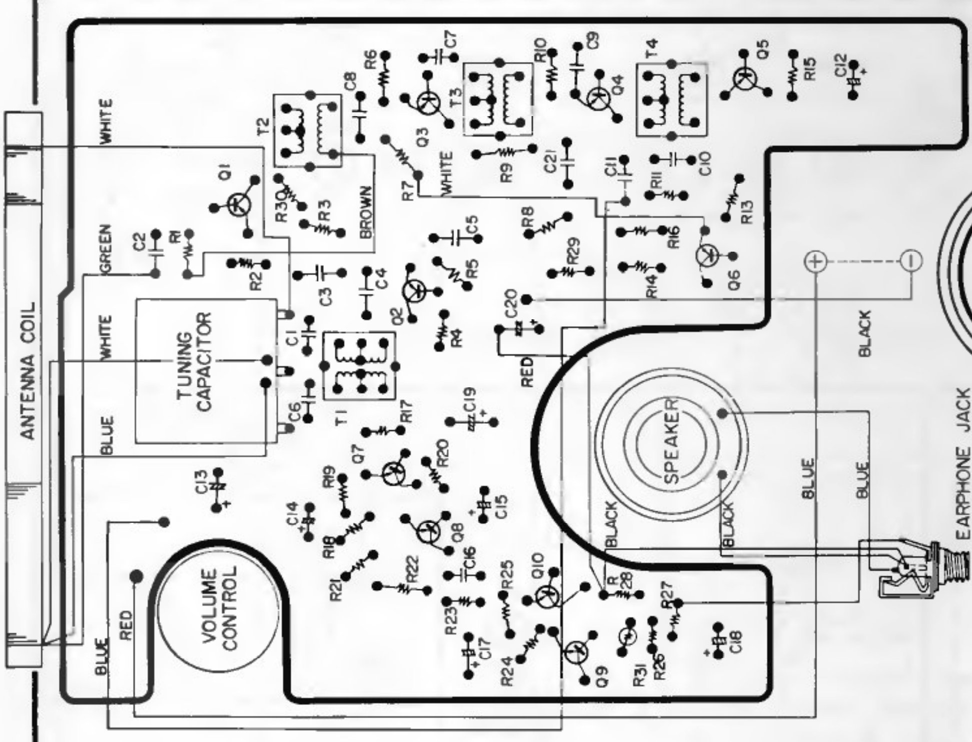
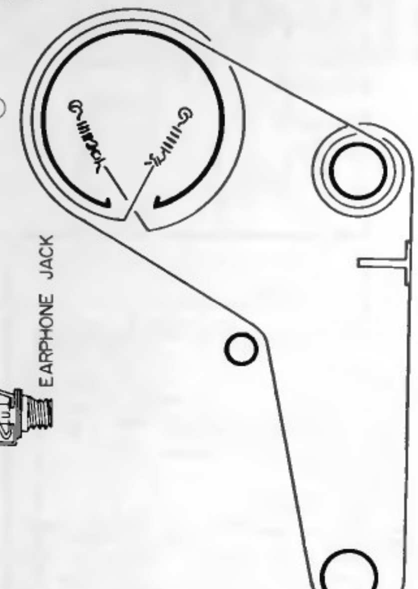
MODEL: YK220
CHASSIS: 10B3







COMPONENT CONNECTIONS TO BACK OF BOARD & WIRING



DIAL STRINGING DIAGRAM

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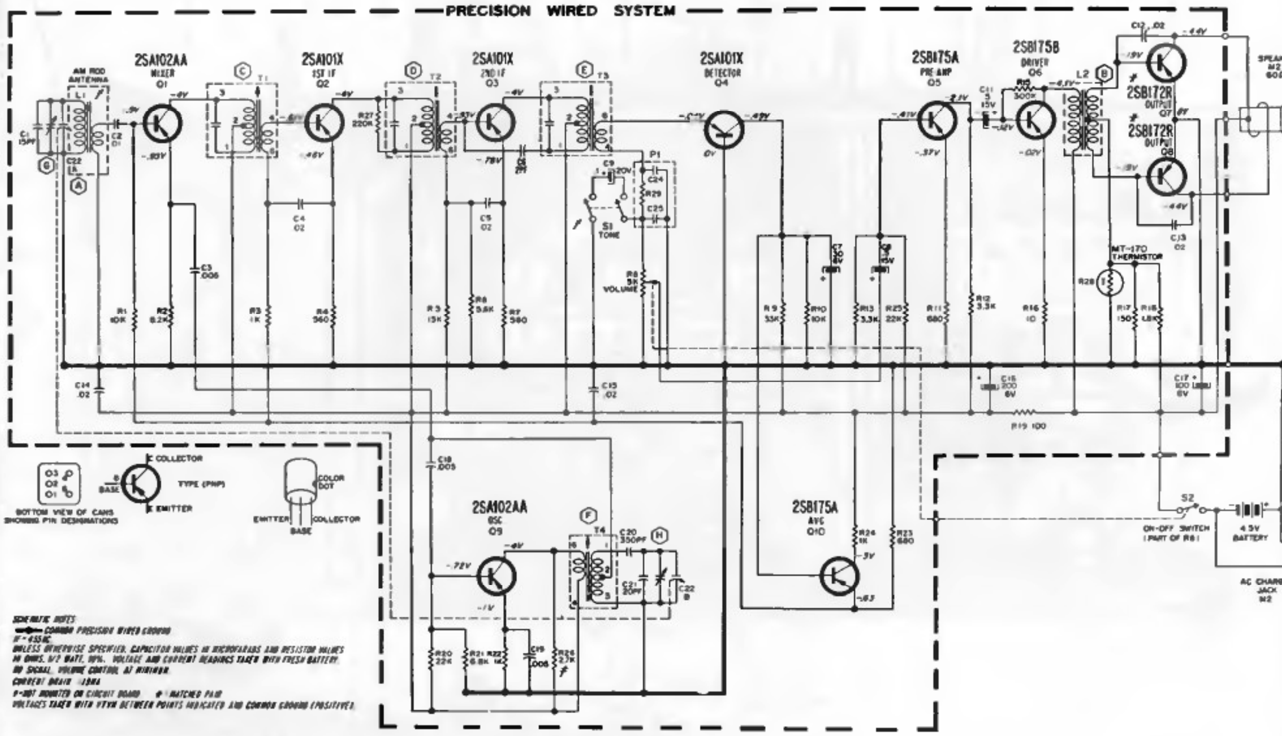
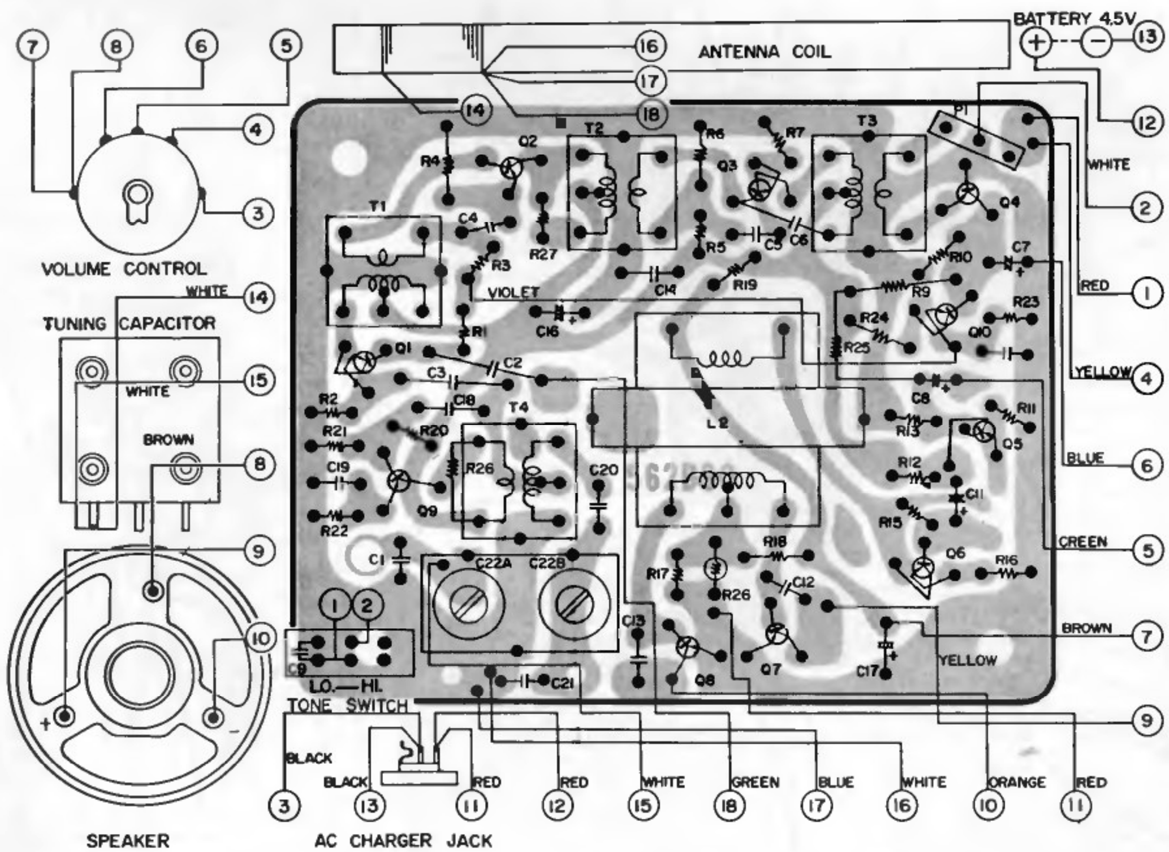
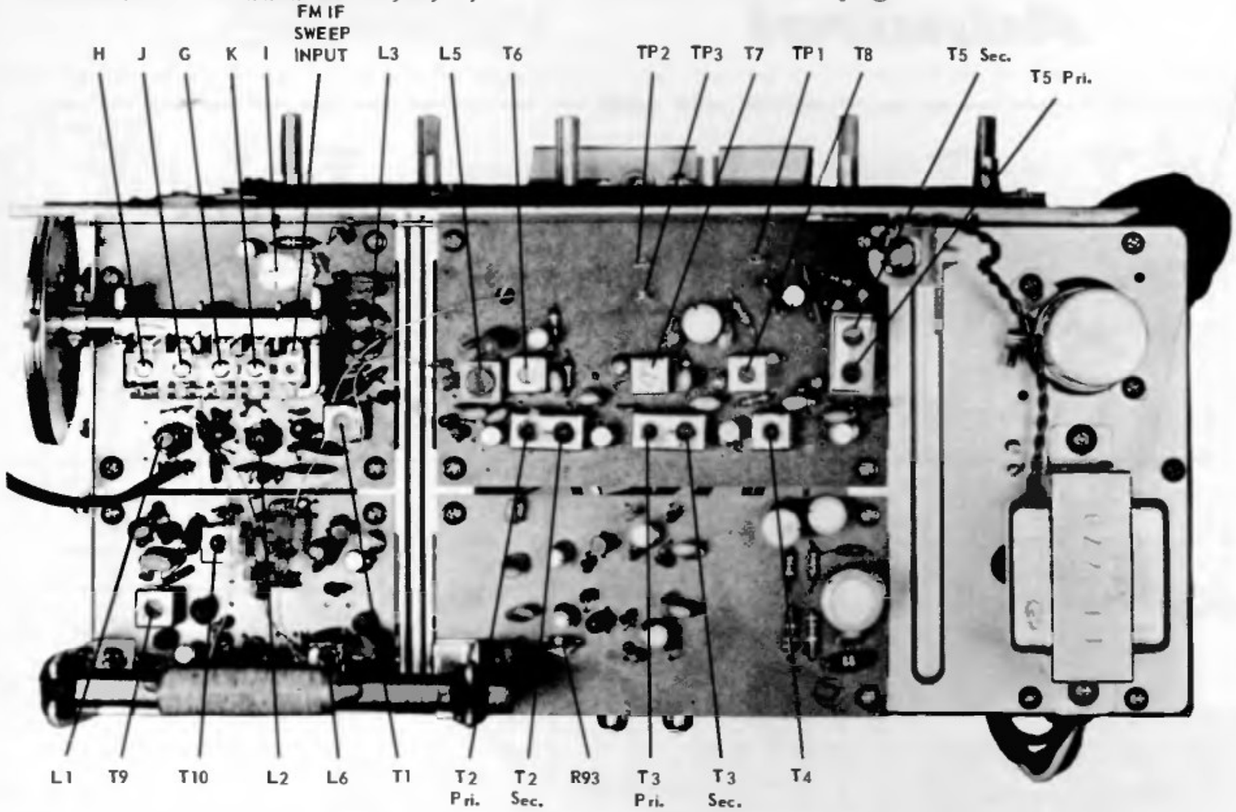
MODEL: YK237
CHASSIS: 10C3



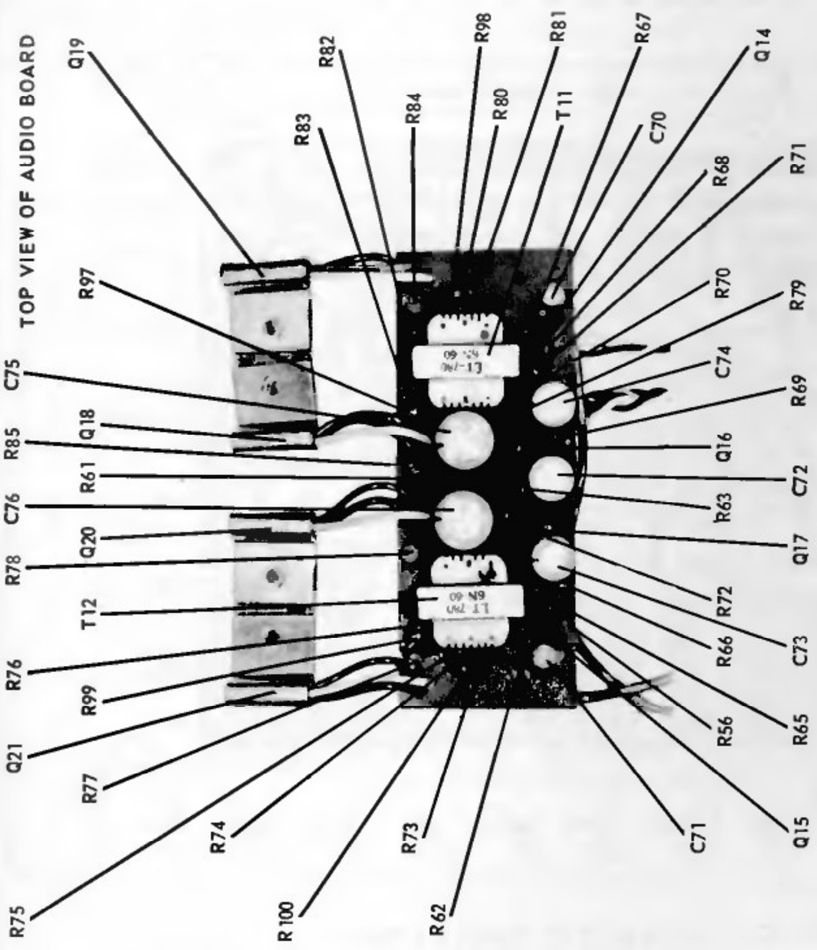


COMPONENT CONNECTIONS TO BACK OF BOARD & WIRING

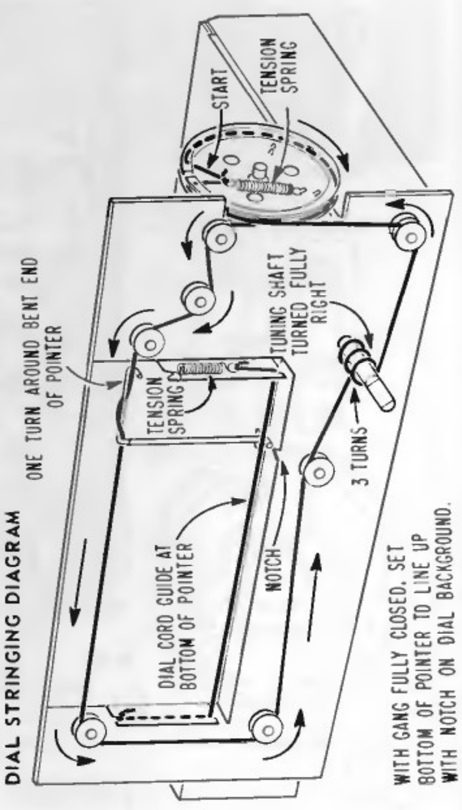
ADMIRAL Chassis 20A6, A, B, C (Continued on next page.)



TOP VIEW OF AUDIO BOARD

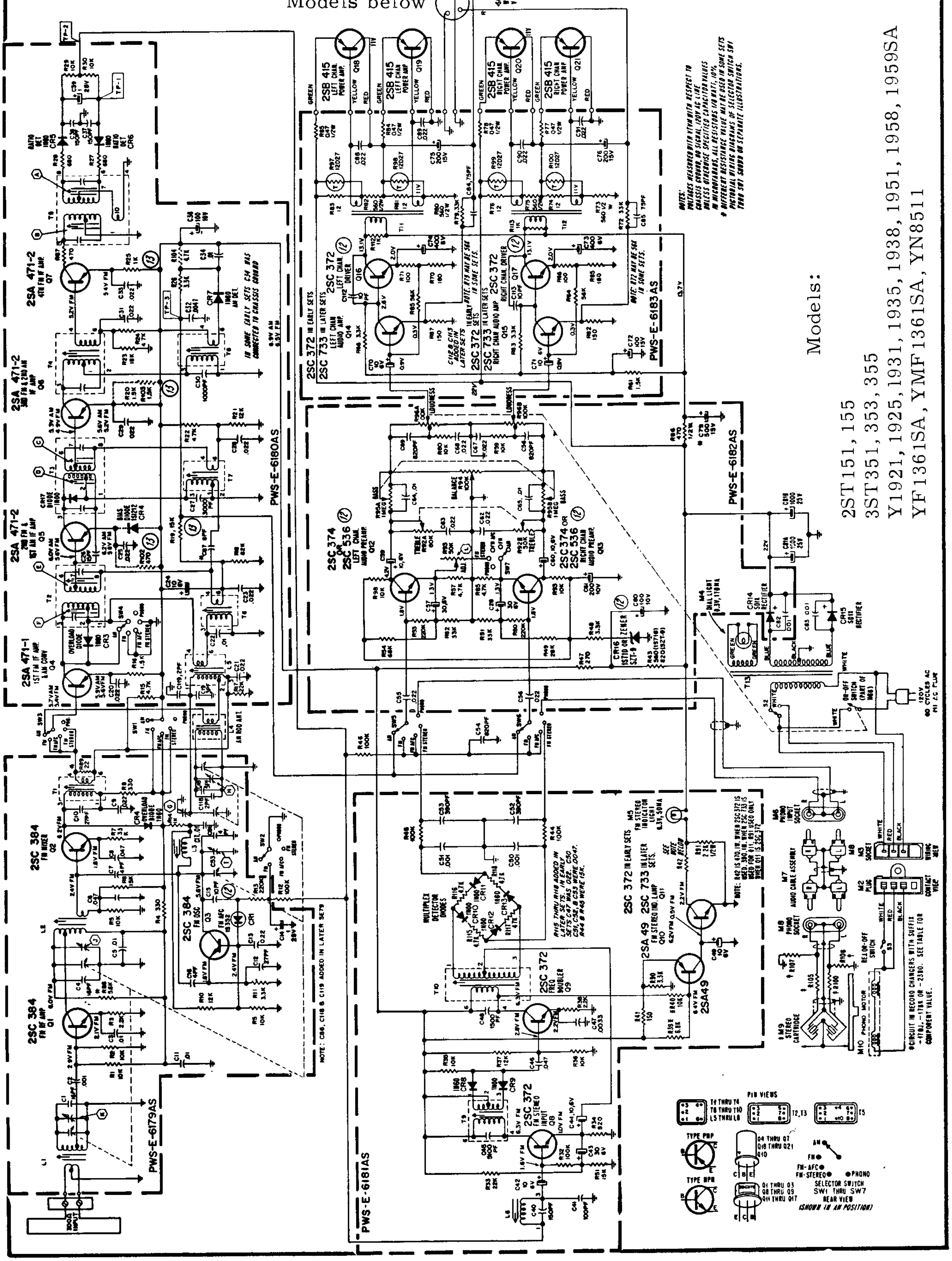


DIAL STRINGING DIAGRAM



ADMIRAL Chassis 20A6, A, B, C;
Models below

Continued from preceding page.



Models:

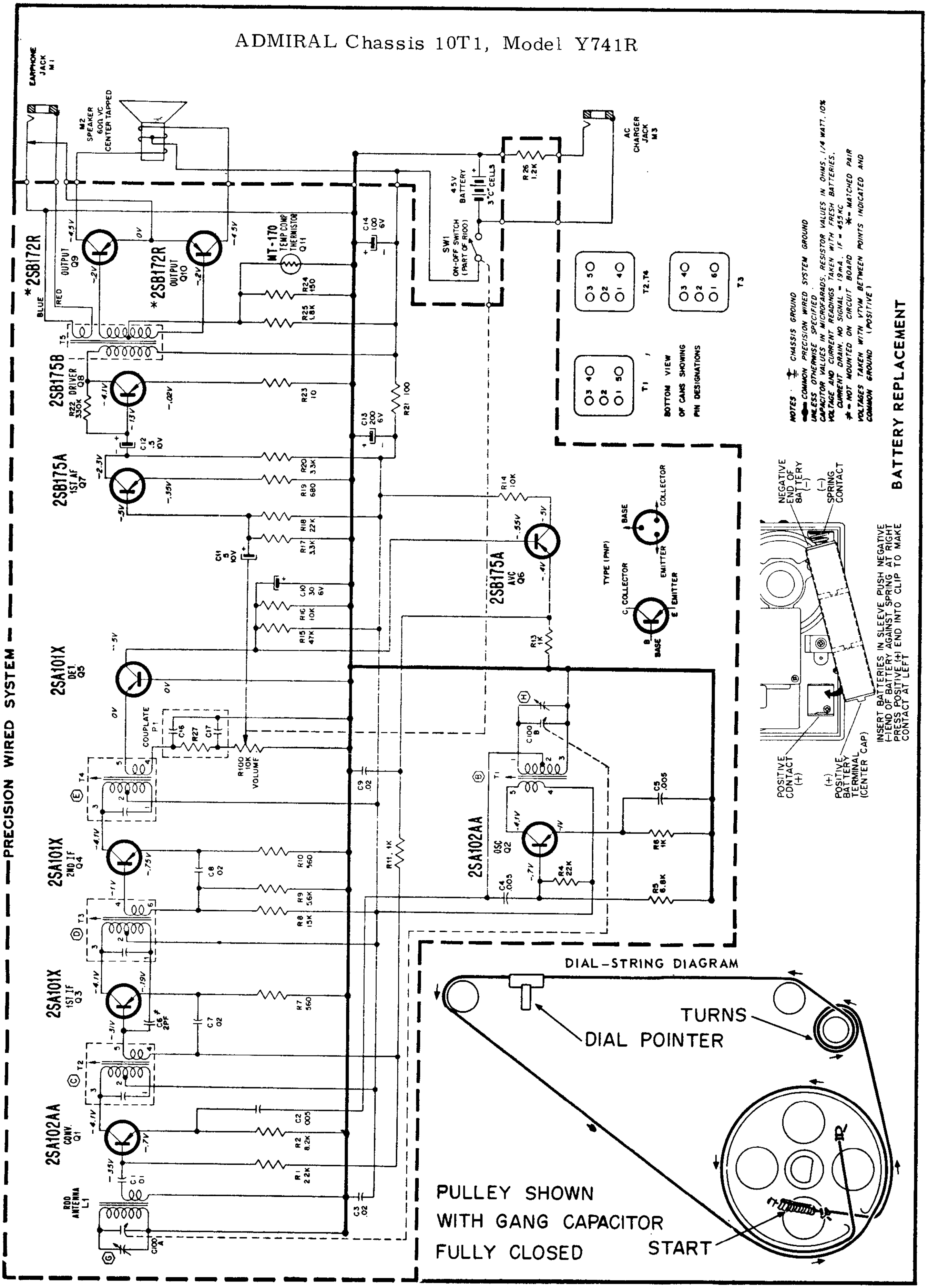
2ST151, 155

3ST351, 353, 355

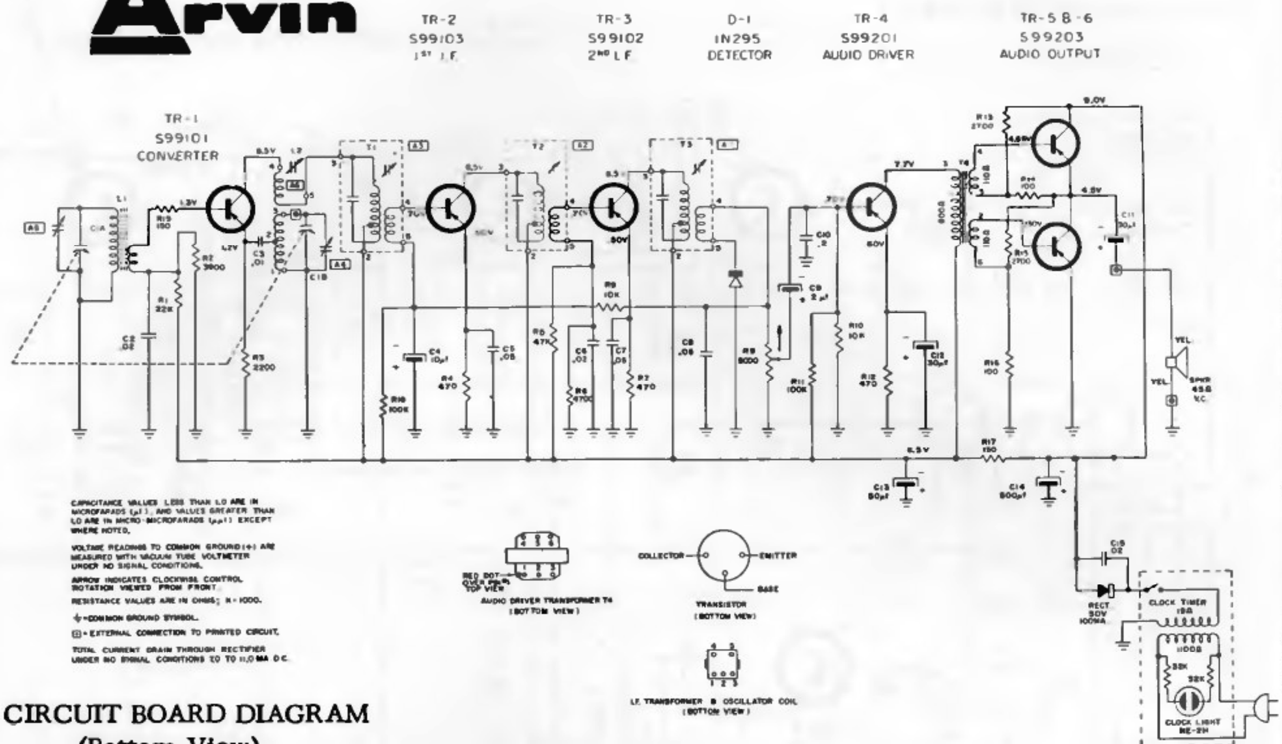
Y1921, 1925, 1931, 1935, 1938, 1951, 1958, 1959SA

YF1361SA, YMF1361SA, YN8511

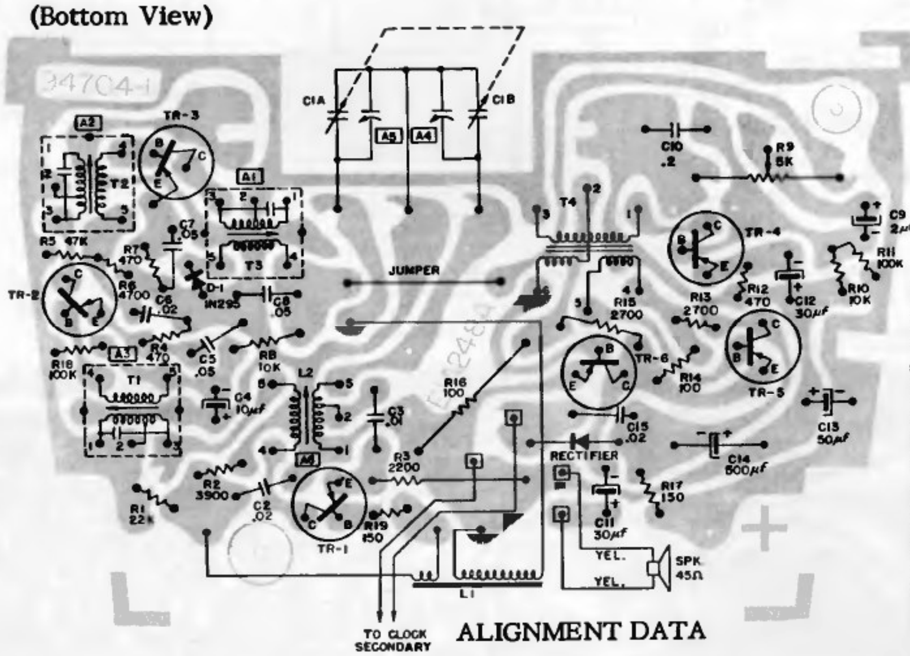
ADMIRAL Chassis 10T1, Model Y741R



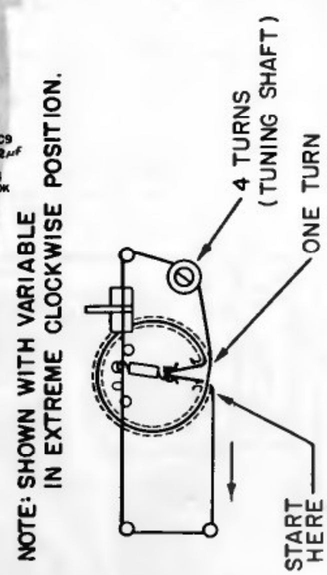
Models 57R72, 57R75, 57R78



CIRCUIT BOARD DIAGRAM
(Bottom View)



IF. . . . 455 Kc

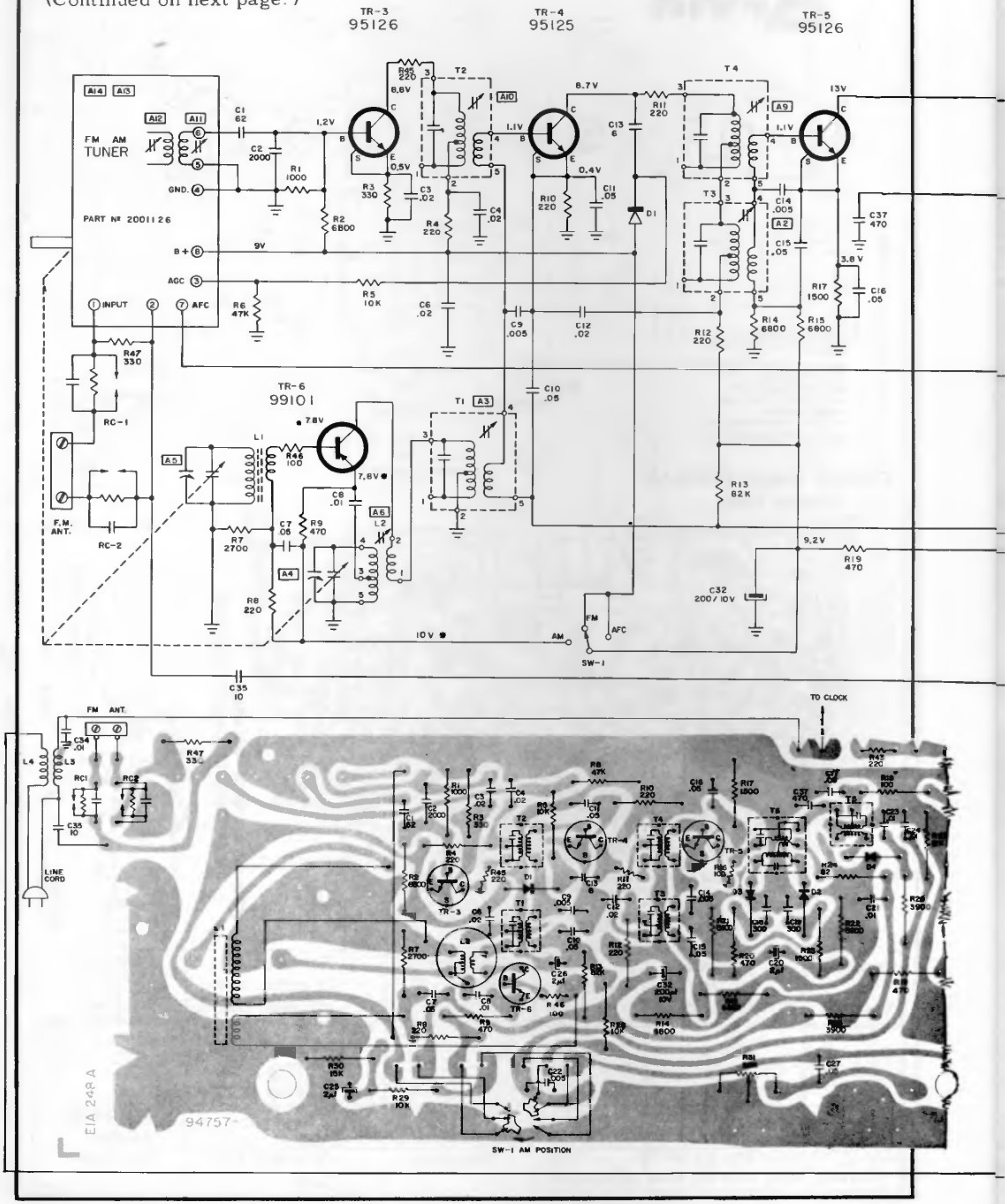


ALIGNMENT DATA

Position of Variable	Frequency of Generator	Dummy Antenna	Generator Output Connection	Trimmer Adj. in order shown for Max. Output	Functions of Trimmer
Open	455 Kc	.05 mf.	C1A	A1 (Top of T3) A2 (Top of T2) A3 (Top of T1)	I. F. I. F.
Open	1640 Kc		Test Loop	A4	Oscillator
1400 Kc	1400 Kc		Test Loop	A5	Antenna
600 Kc	600 Kc		Test Loop	A6 Check Point	Oscillator
Recheck A4 at 1640 Kc after adjustment of A6.				(LZ)	

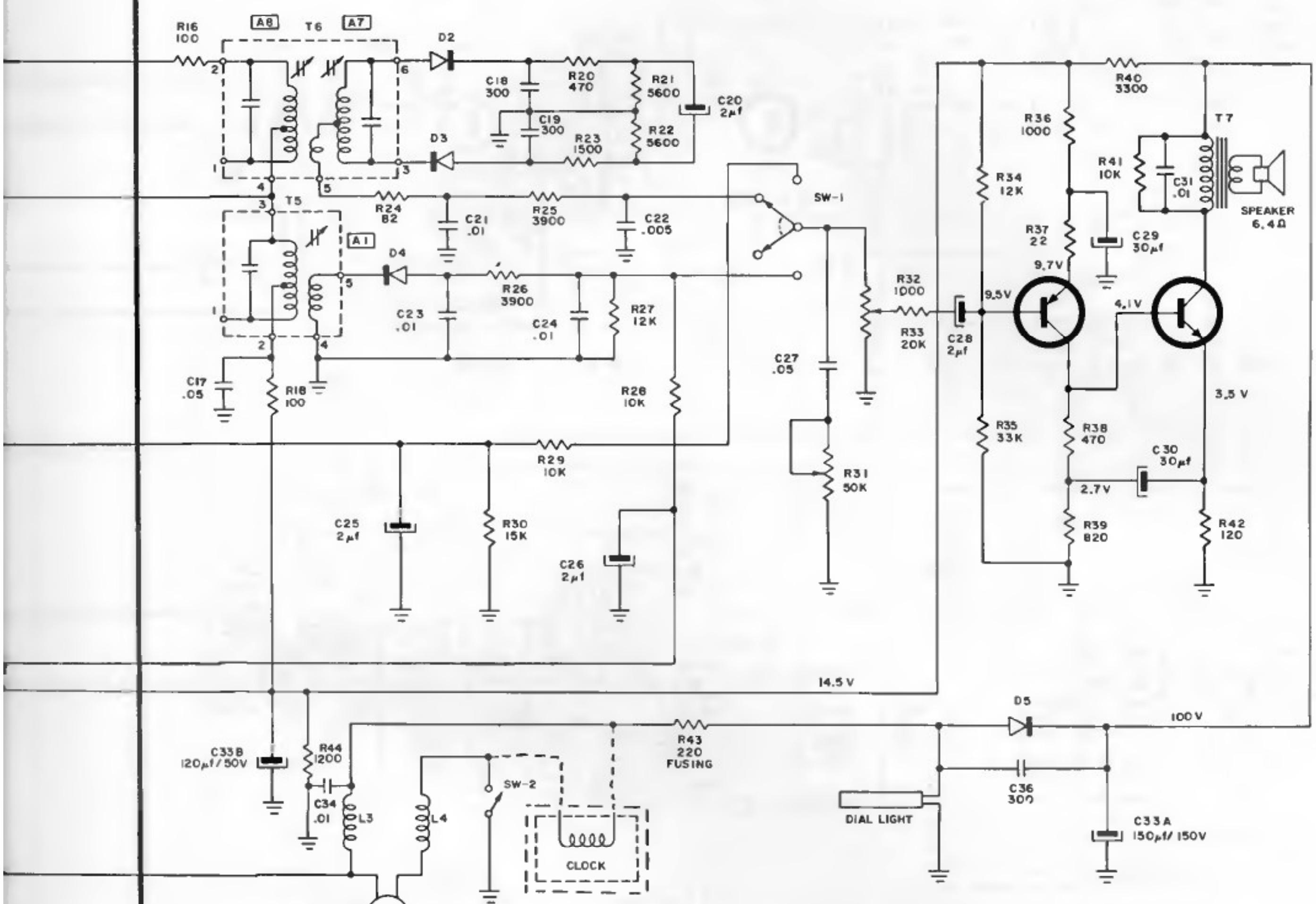
ARVIN Models 37R28, 37R29, 37R38, 47R28, 47R29, 47R38

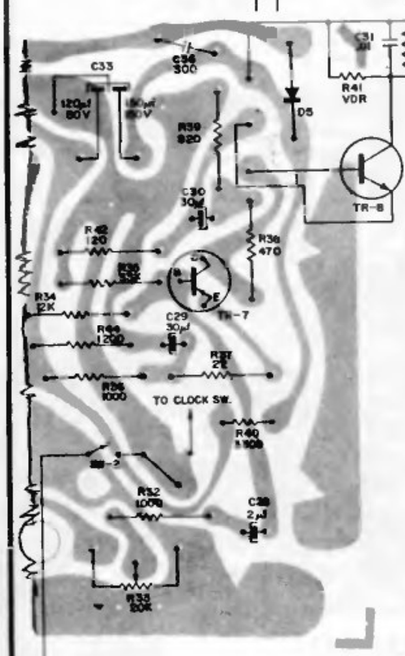
(Continued on next page.)



ARVIN Models 37R28, 37R29, 37R38, 47R28, 47R29, 47R38

(Continued from preceding page.)





ALL VOLTAGES MEASURED WITH SW-1 IN FM POSITION SHOWN EXCEPT, TR-6 ✱ VOLTAGES, WHICH ARE MEASURED IN AM POSITION.

CAPACITANCE VALUES LESS THAN 1.0 ARE IN MICROFARDS (µf), AND VALUES GREATER THAN 1.0 ARE IN PICO-FARADS (pf) EXCEPT WHERE NOTED.

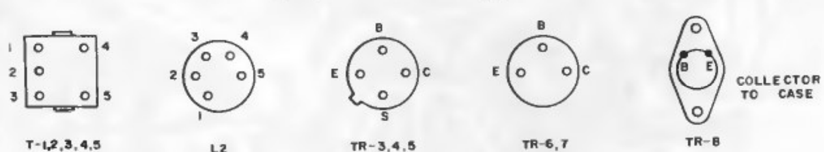
VOLTAGE READINGS TO COMMON GROUND (+) ARE MEASURED WITH VACUUM TUBE VOLTMETER UNDER NO SIGNAL CONDITIONS.

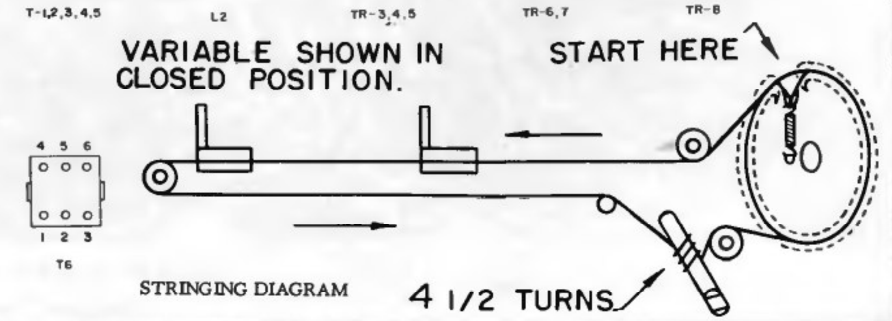
RESISTANCE VALUES ARE IN OHMS, K = 1000

⏚ = COMMON GROUND SYMBOL.

⊡ = EXTERNAL CONNECTION TO PRINTED CIRCUIT.

Transistor basing, bottom view.



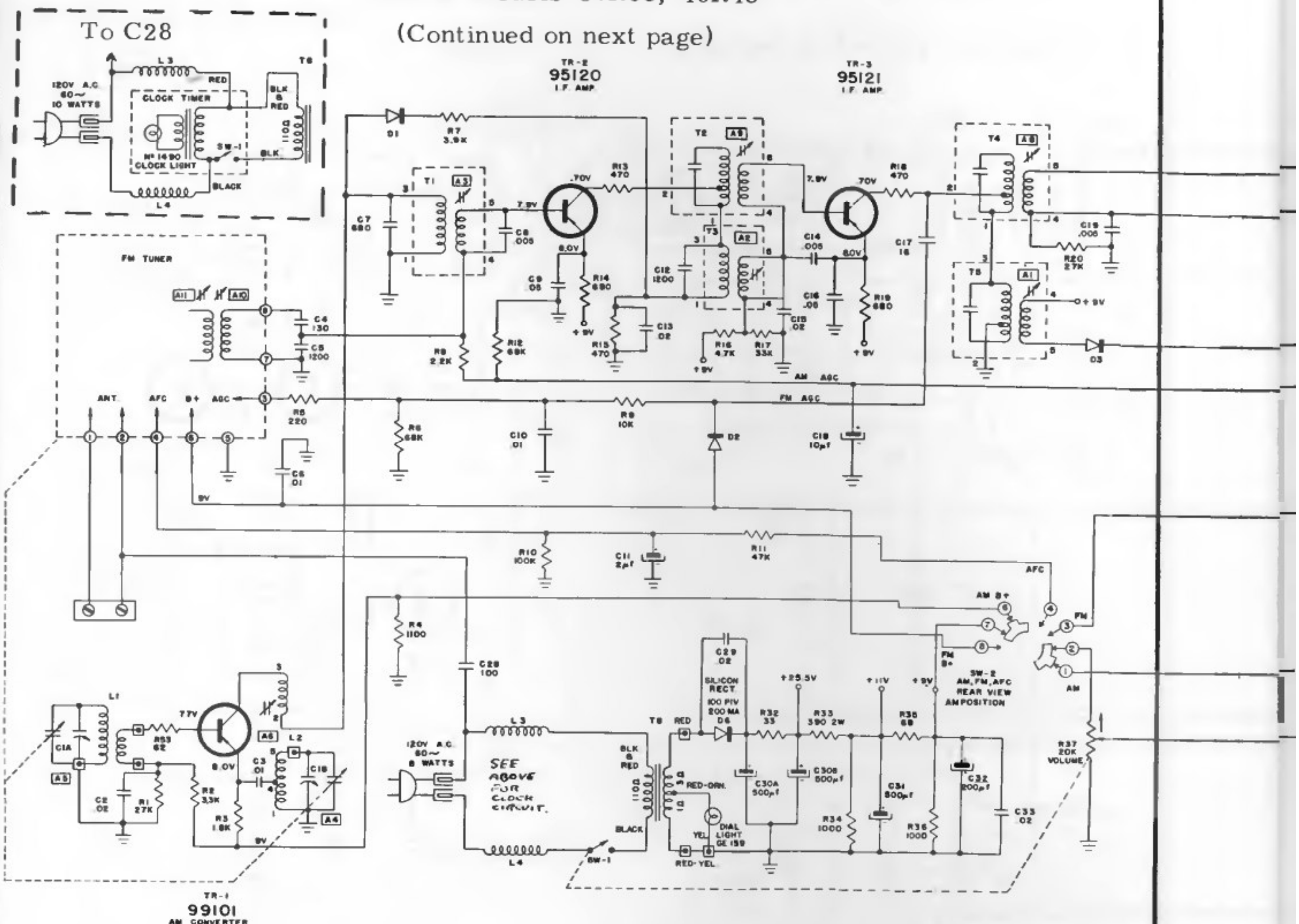


STRINGING DIAGRAM

(Continued from preceding page)

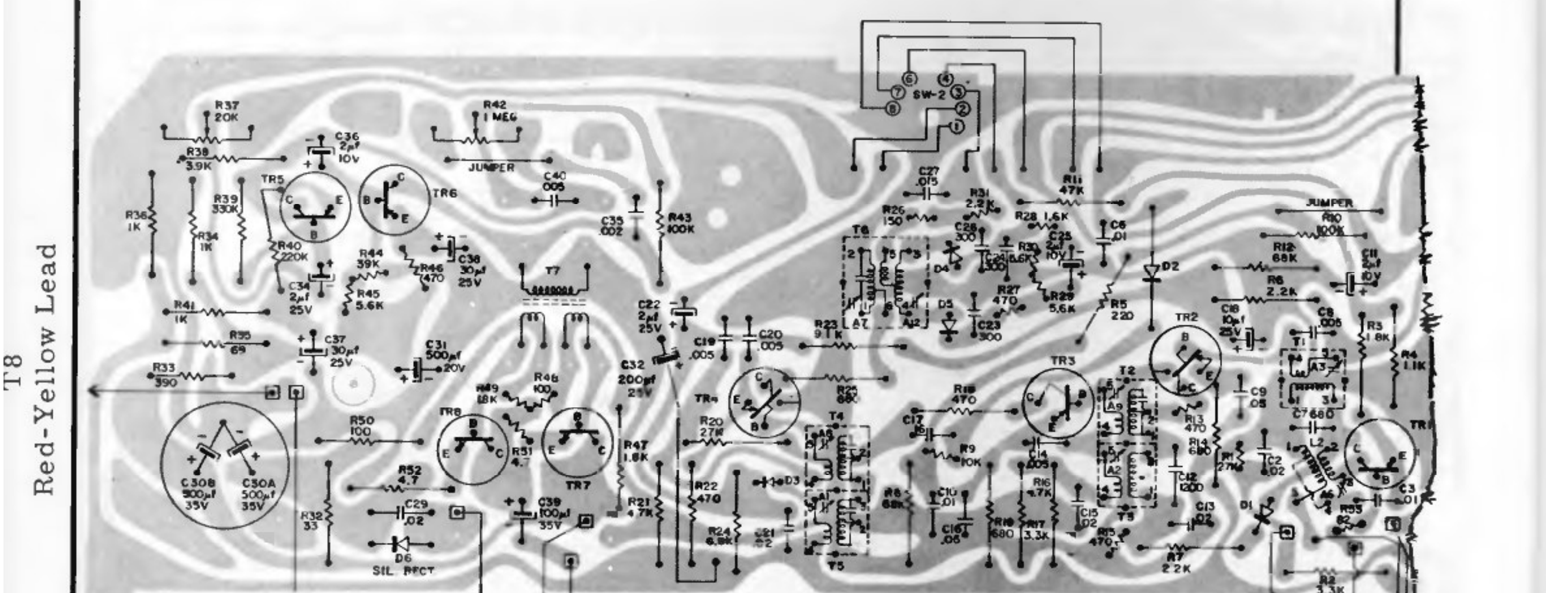
ARVIN Models 37R68, 46R48

(Continued on next page)



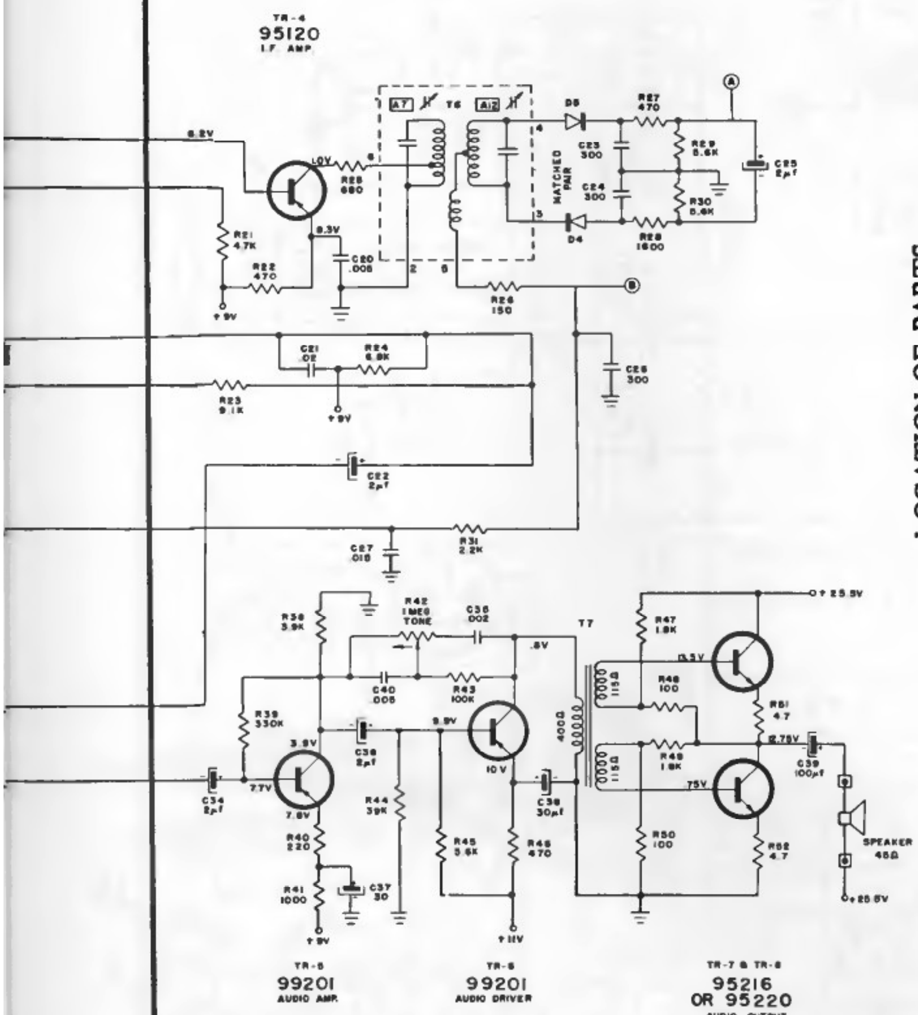
IF Frequency AM 455 kc.

FM 10.7 mc.

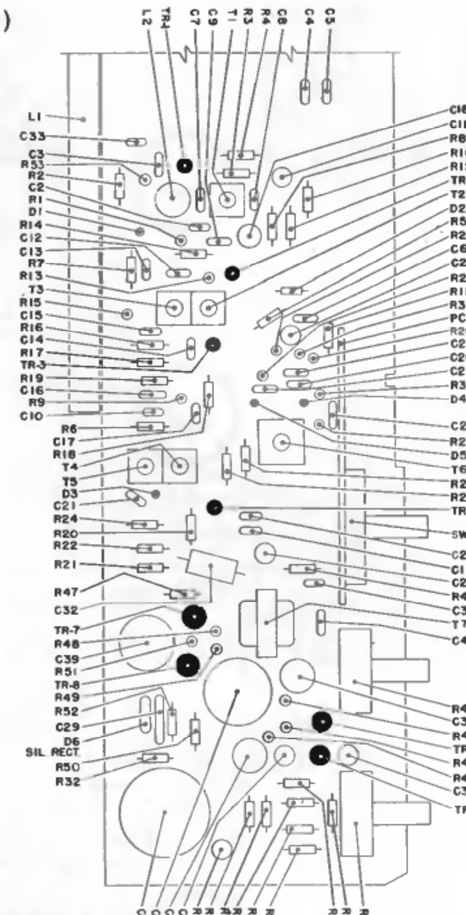


CIRCUIT BOARD DIAGRAM
(Bottom View)

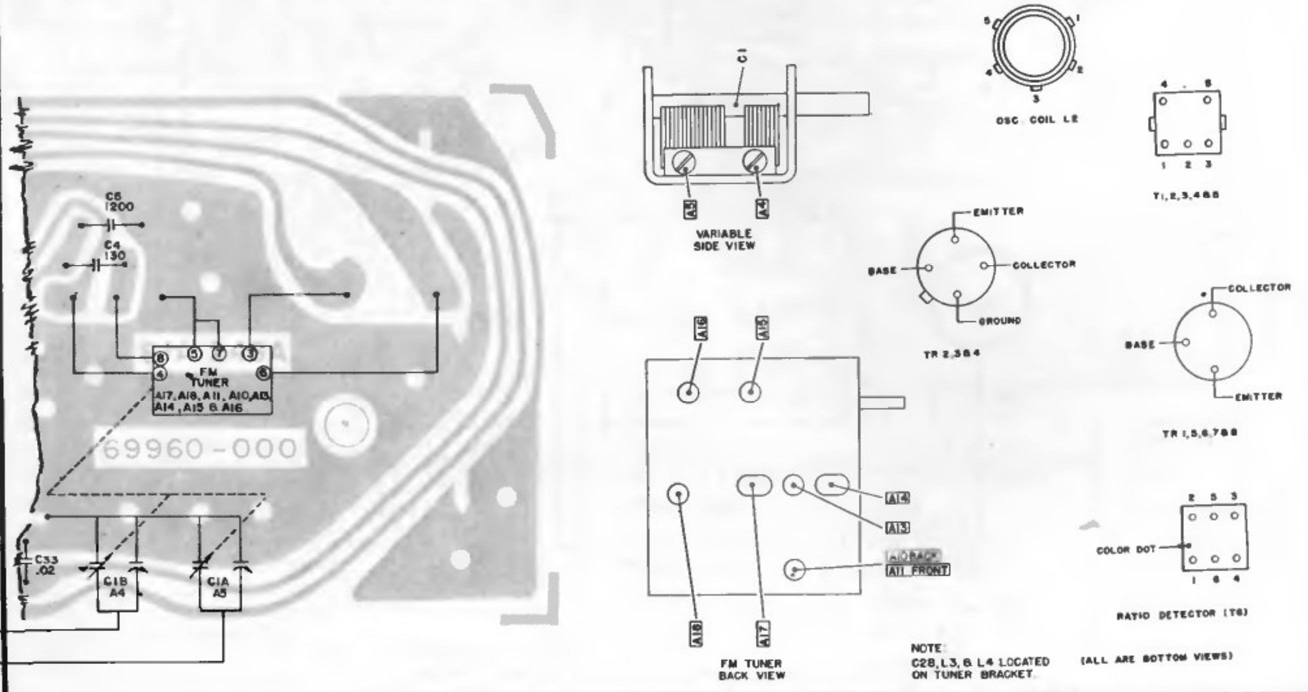
ARVIN Models 37R68, 46R48
(Continued from preceding page)



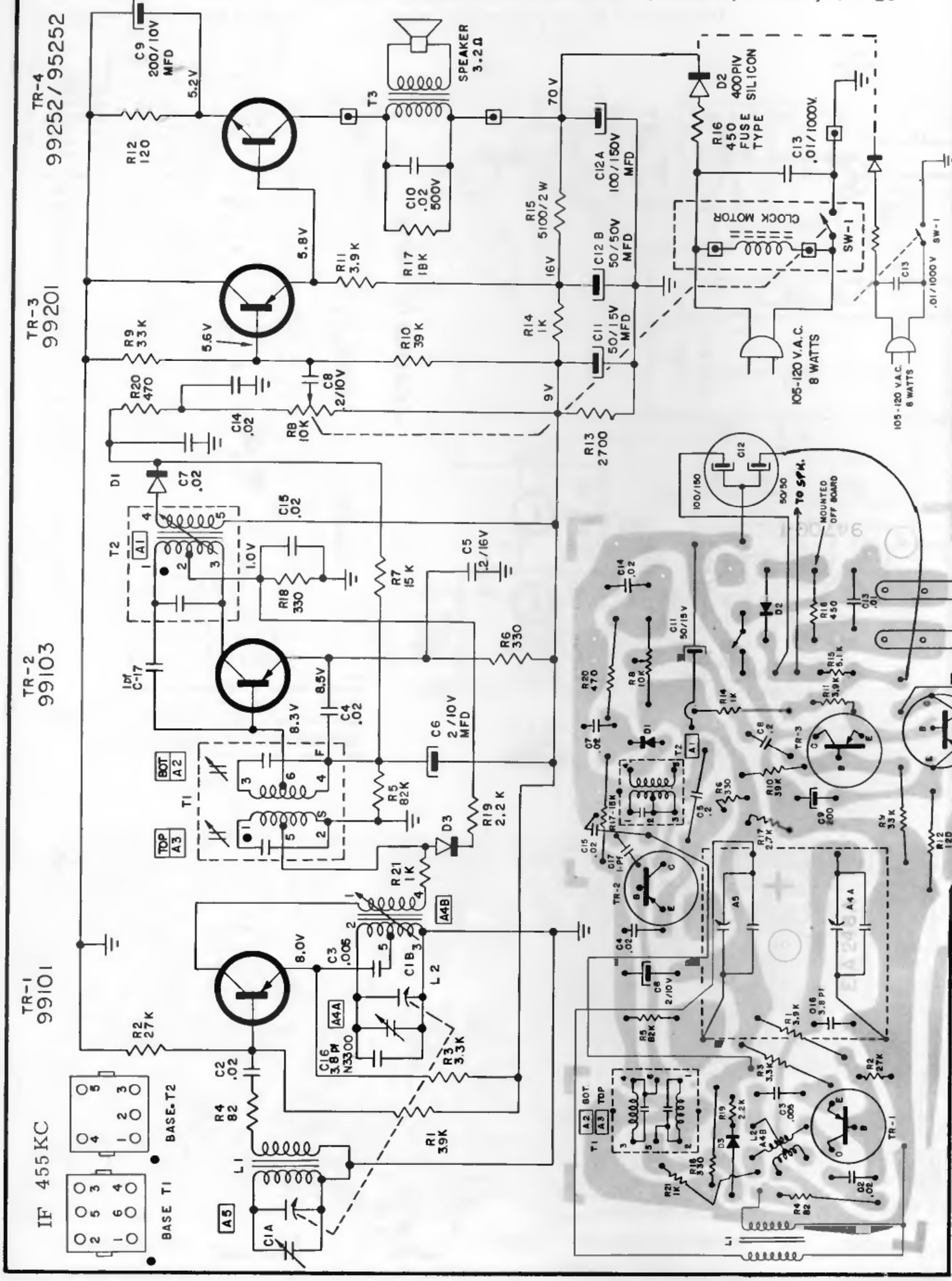
LOCATION OF PARTS



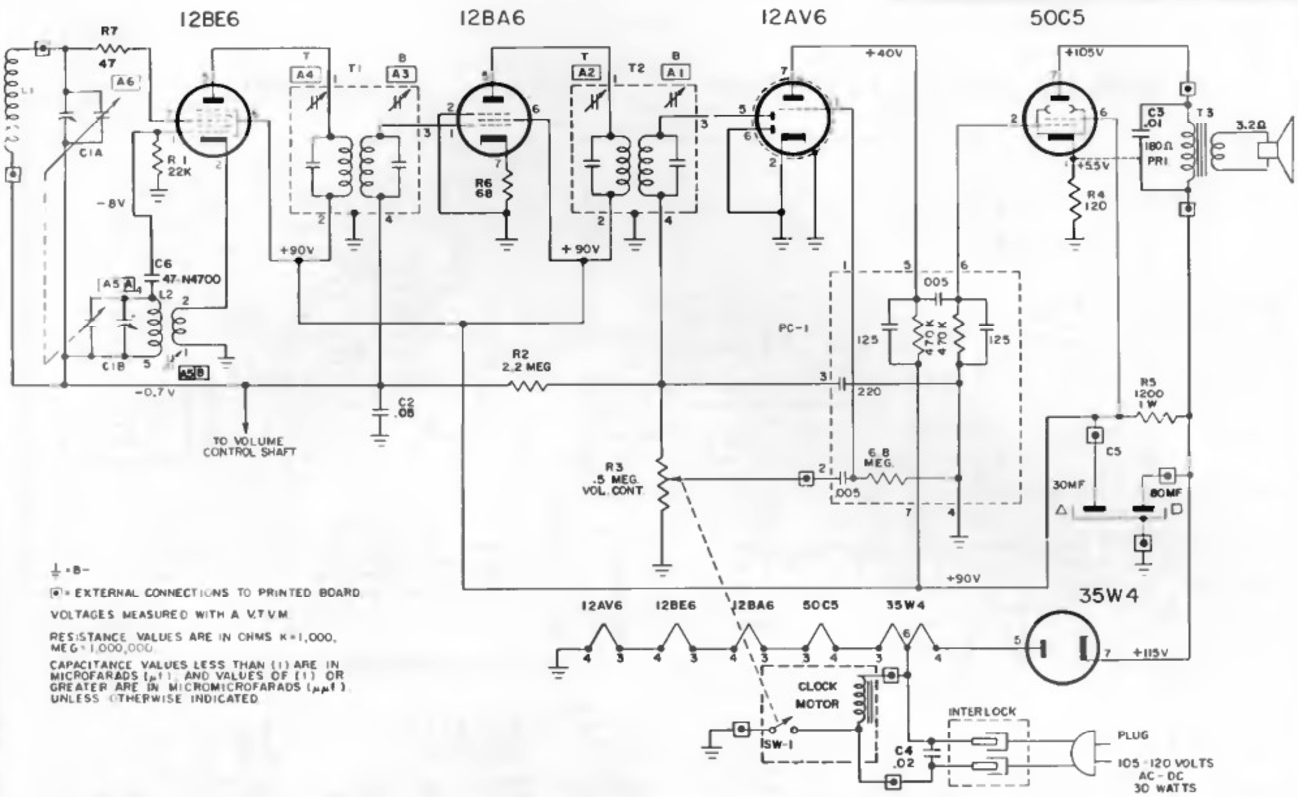
NOTES:
RESISTANCE VALUES ARE IN OHMS, K=1000, MEG =1,000,000.
=EXTERNAL CONNECTIONS TO PRINTED CIRCUIT.
CAPACITANCE VALUES LESS THAN 1.0 ARE IN MICROFARADS (µf) AND VALUES GREATER THAN 1.0 ARE IN MICRO-MICROFARADS (µµf) EXCEPT WHERE NOTED.
VOLTAGE READINGS TO COMMON GROUND (-) ARE MEASURED WITH VACUUM TUBE VOLTMETER UNDER NO SIGNAL CONDITIONS.
ARROW INDICATES CLOCKWISE CONTROL ROTATION VIEWED FROM FRONT.

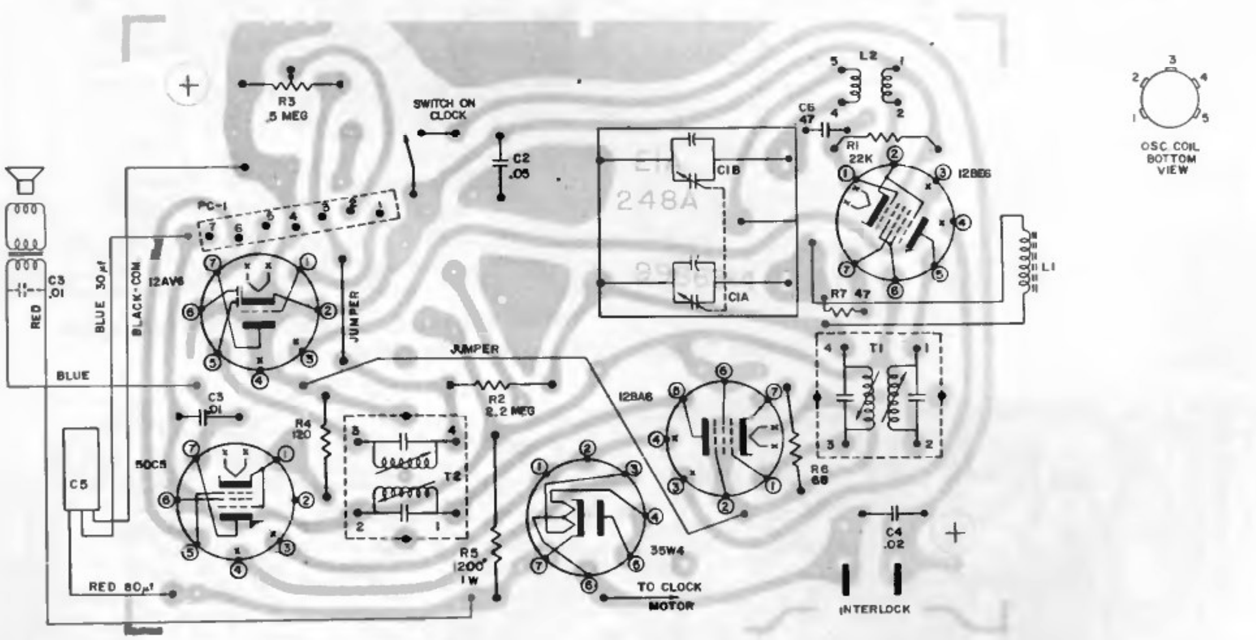


ARVIN Models 17R17, 17R18, 57R07, 57R08, 57R17, 57R18, 57R25, 57R28



ARVIN Models 55R77, 55R87



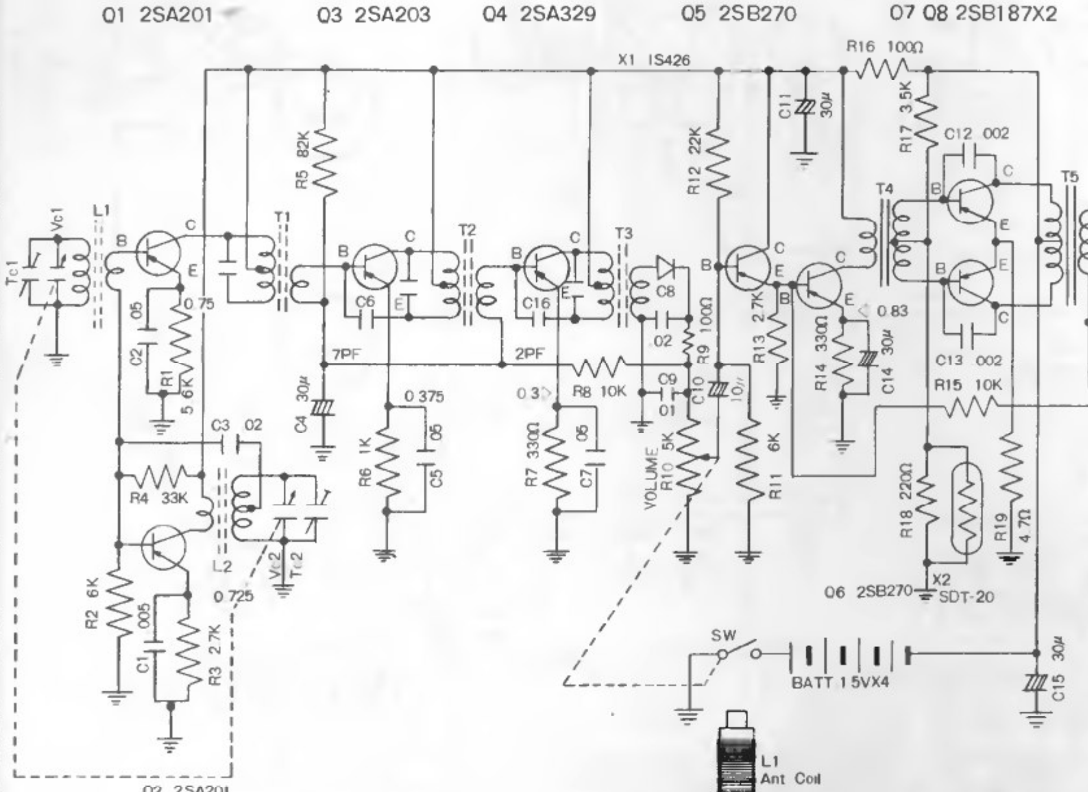


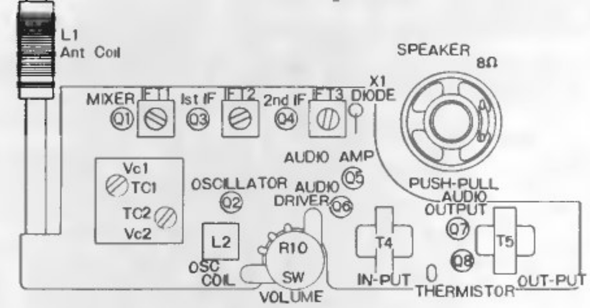
Position of Variable	Frequency of Generator	Dummy Antenna	Generator Output Connection	Adj. Trimmer for Max. Output	Trimmer Function
Open	455 Kc	.05 mfd.	Pin 7 of 12BE6	A1, A2, A3, A4	I. F.
Open	1620 Kc		*Test Loop	A5A	Oscillator
1400 Kc	1400 Kc		*Test Loop	A6	Antenna
600 Kc	600 Kc		*Test Loop	Check Point	
Closed	530 Kc		*Test Loop	A5B	Oscillator

Recheck A5A (1620 kc) after adjustment of A5B.
*Three (3) turns of wire 6" in diameter placed about one foot from the receiver antenna.

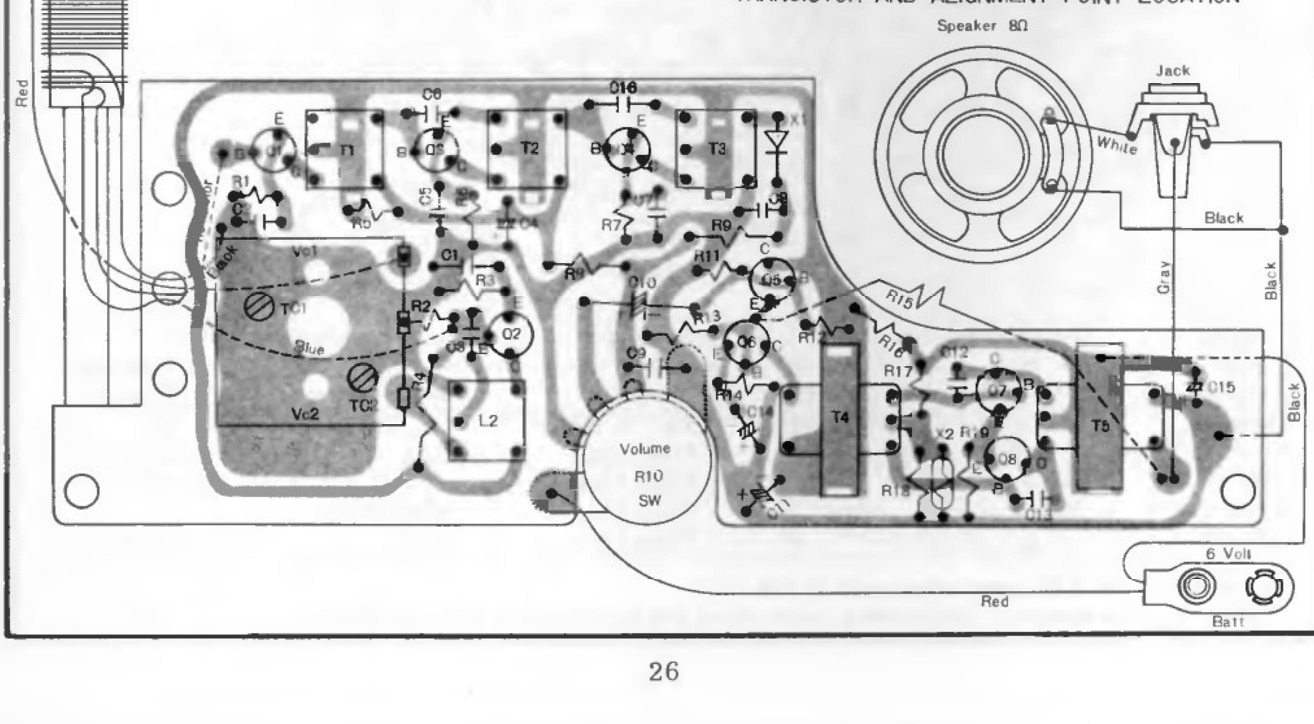
Emerson Radio INC

Models 31P57, 31P58

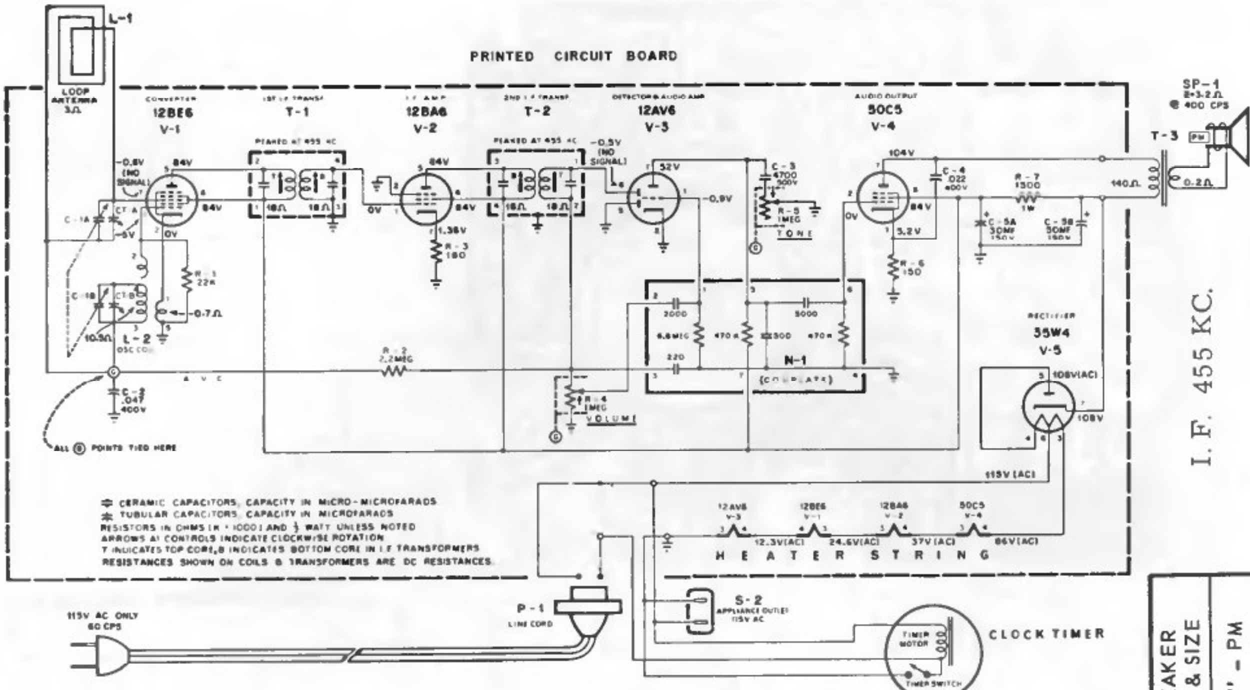




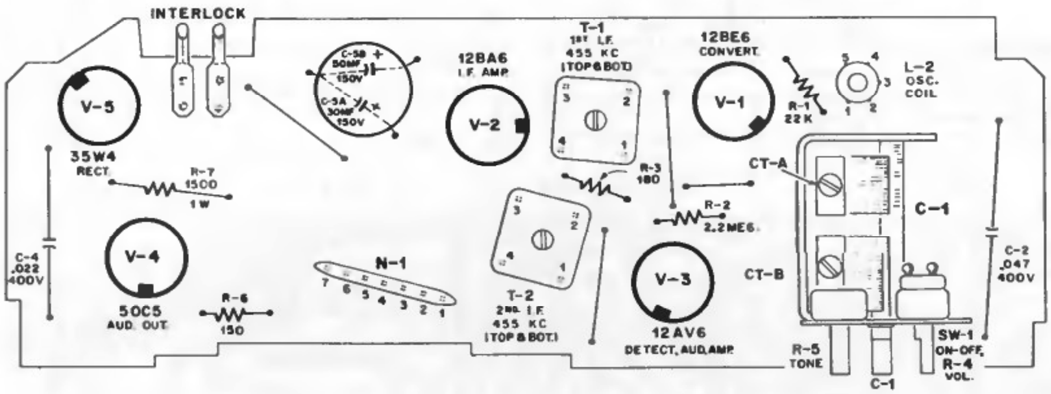
TRANSISTOR AND ALIGNMENT POINT LOCATION



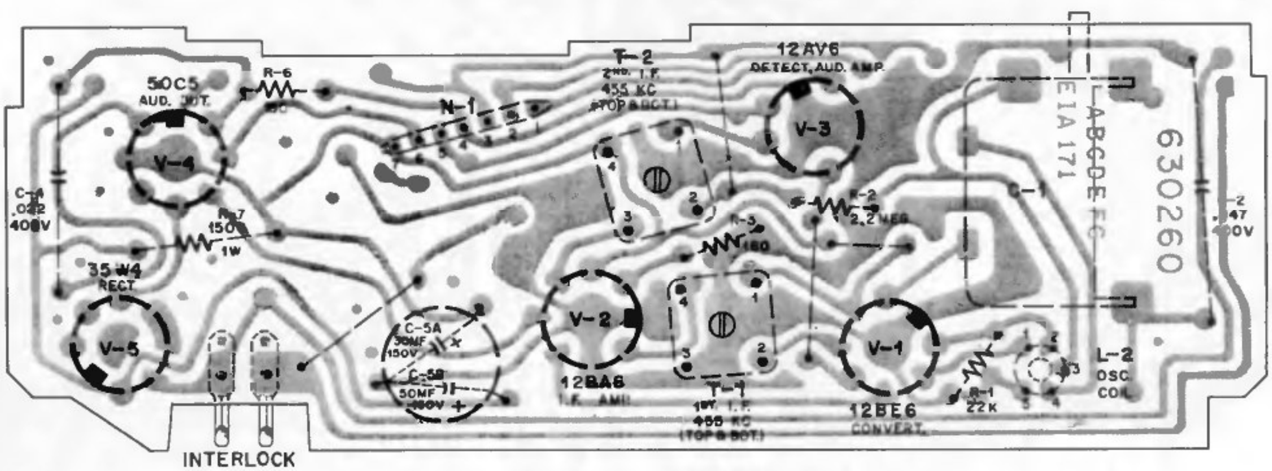
EMERSON Model 31L18, Chassis 120583



I. F. 455 KC.

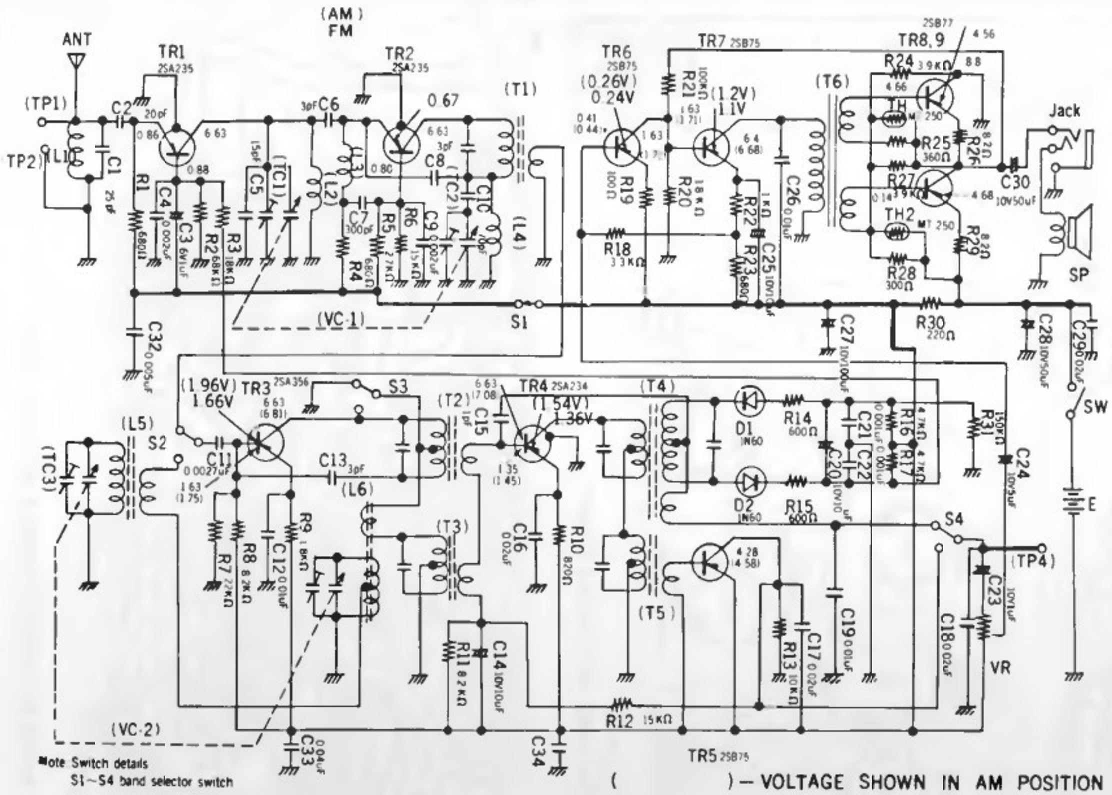


TUBE LOCATIONS AND ALIGNMENT POINTS



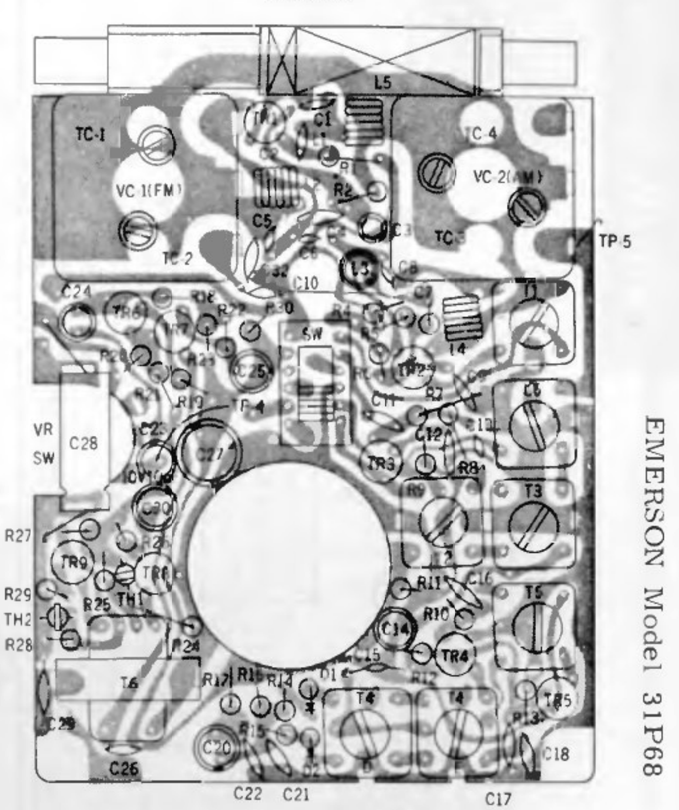
ETCHED PRINTED CIRCUIT CHASSIS (BOTTOM VIEW)

MODEL NO.	CHASSIS NO.	TIMER PART NO.	SPEAKER TYPE & SIZE
31L18	120583	471329	6 x 4" - PM



( ) — VOLTAGE SHOWN IN AM POSITION

TOP VIEW

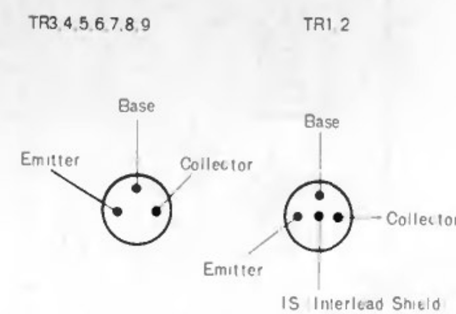


VOLTAGE AND CURRENT AT ELEMENT OF TRANSISTOR

Symbol No.	TRANSISTOR	AM				FM			
		Ve(V)	Vb(V)	Vc(V)	Ie(mA)	Ve(V)	Vb(V)	Vc(V)	Ie(mA)
TR1	2SA235					0.86	0.88	6.63	1.27
TR2	2SA234					0.67	0.80	6.63	1.0
TR3	2SA350	1.96	1.75	6.81	1.09	1.66	1.63	6.63	0.92
TR4	2SA234	1.54	1.45	7.08	1.88	1.36	1.35	6.63	1.66
TR5	2SB75			4.58				4.28	
TR6	2SB75	0.26	0.44	1.71	2.6	0.24	0.41	1.64	2.4
TR7	2SB75	1.2	1.71	6.68	1.2	1.1	1.63	6.4	1.1
TR8	2SB77	(VBE)0.15				(VBE)0.15	4.66	8.8	
TR9	2SB77	(VBE)0.15				(VBE)0.15	0.14	4.68	

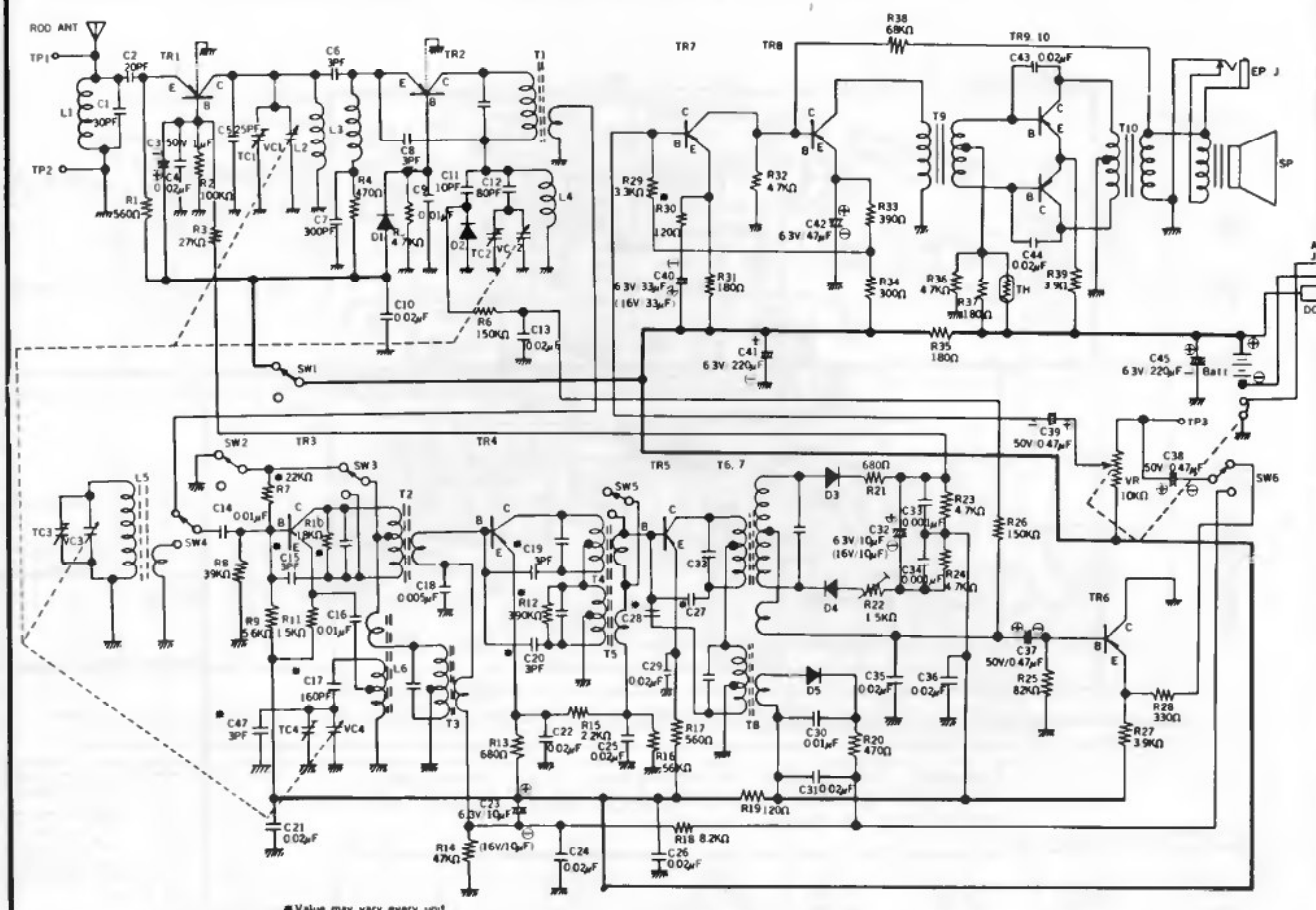
LOCAL OSCILLATOR VOLTAGES

SECTION	OSCILLATOR FREQ.	Min. Vosc(mV)	Max. Vosc(mV)
AM	975 - 2105 KC	150	180
FM	96.7 - 120.7 MC	193	235



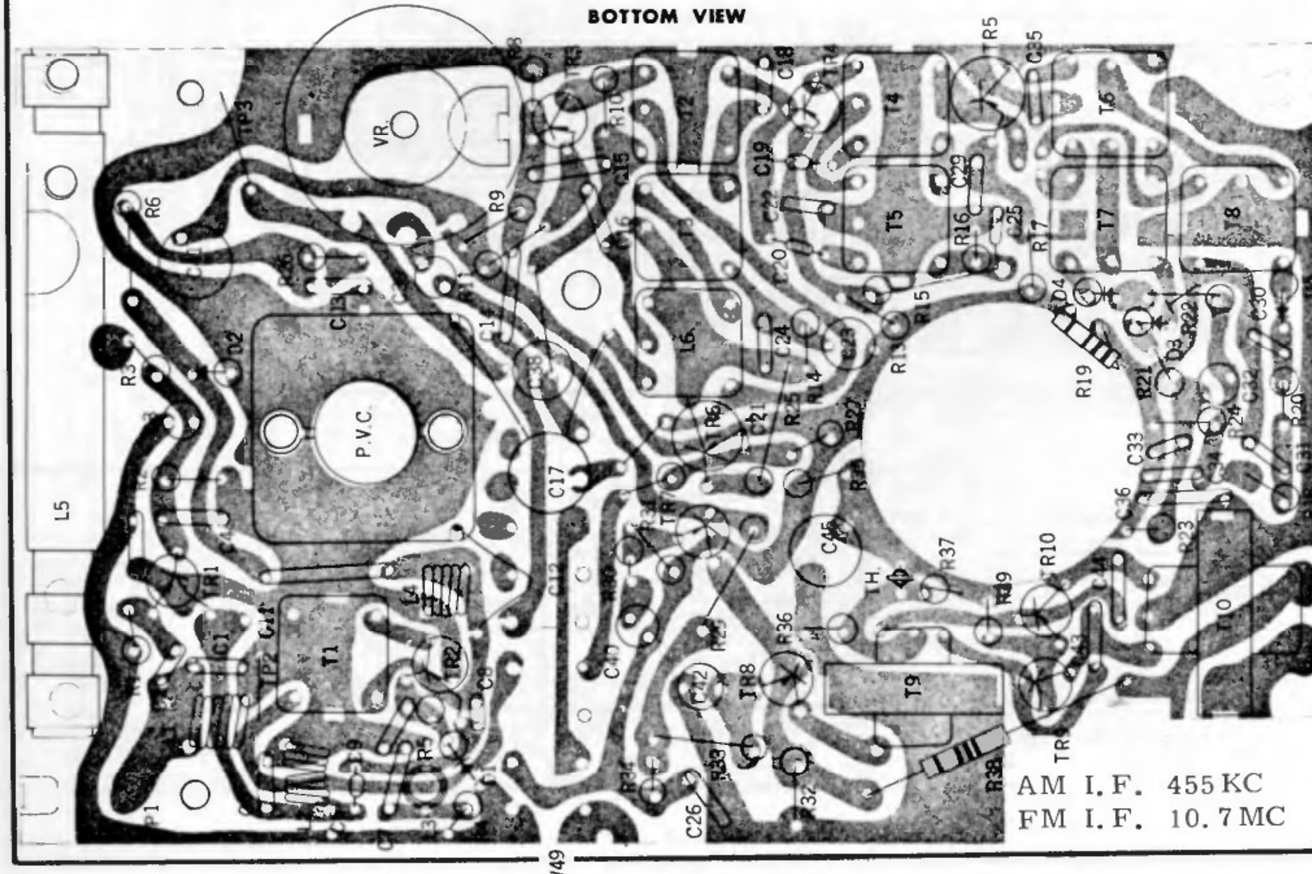
BOTTOM VIEW OF TRANSISTOR

EMERSON Model 31P64



■ Value may vary every unit.

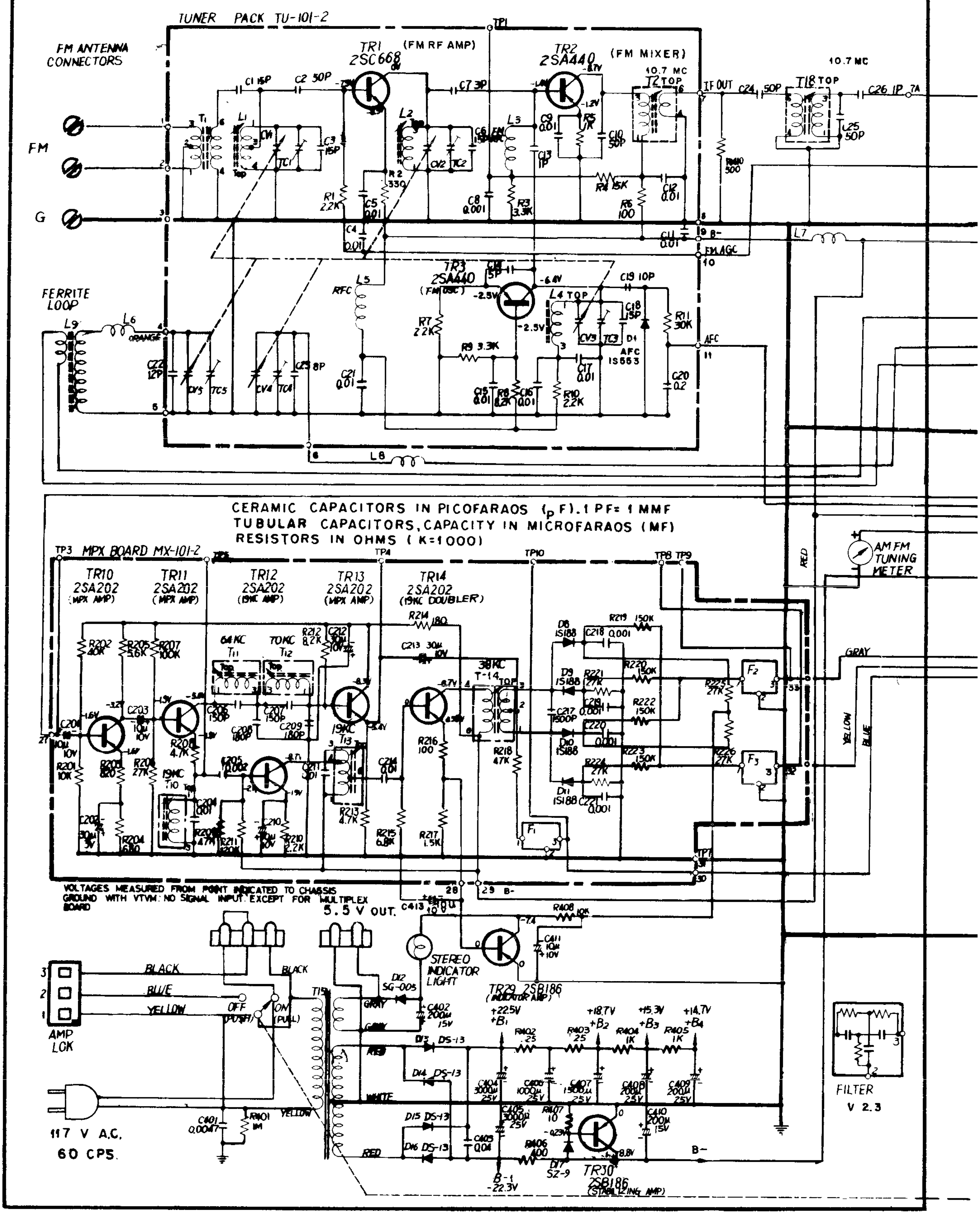
BOTTOM VIEW



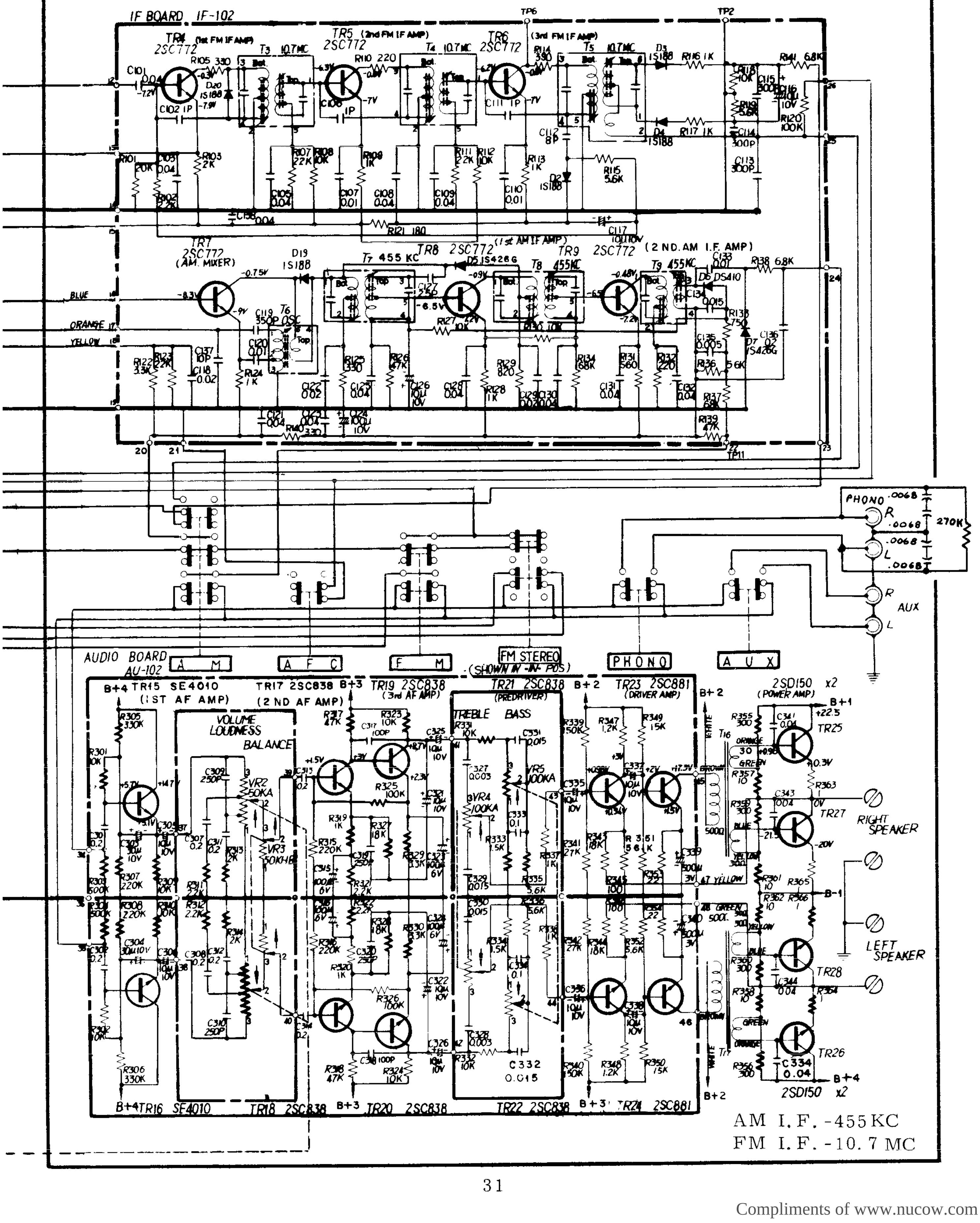
AM I.F. 455KC
FM I.F. 10.7MC

W49

EMERSON Models 33C28, 29, 30; Chassis 121004 (Continued on next page.)

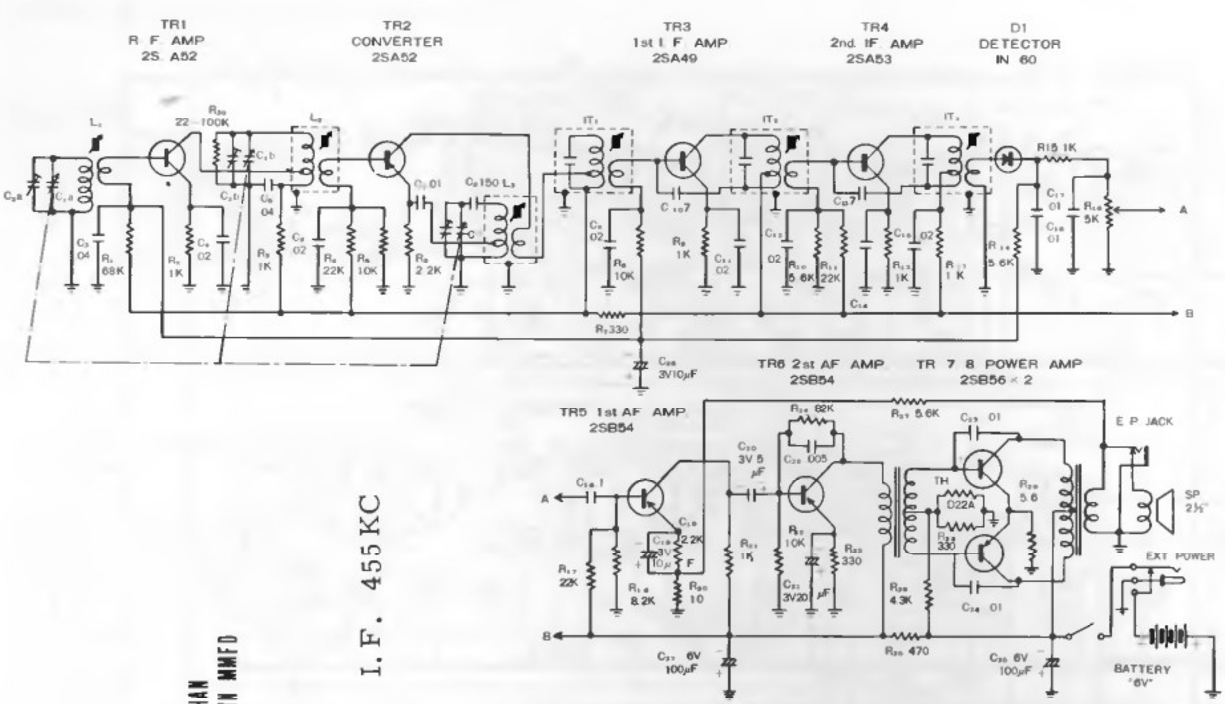


(Continued from preceding page.)



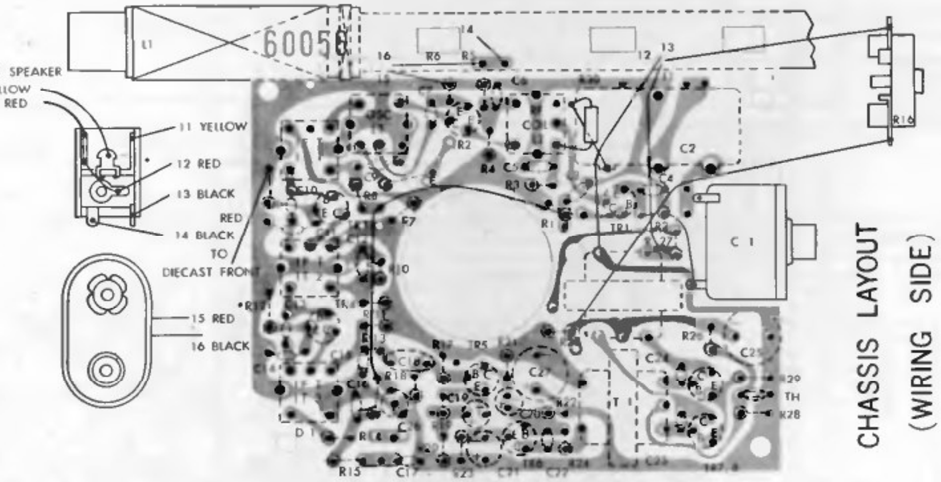
AM I.F. - 455 KC
FM I.F. - 10.7 MC

EMERSON Model 31P66

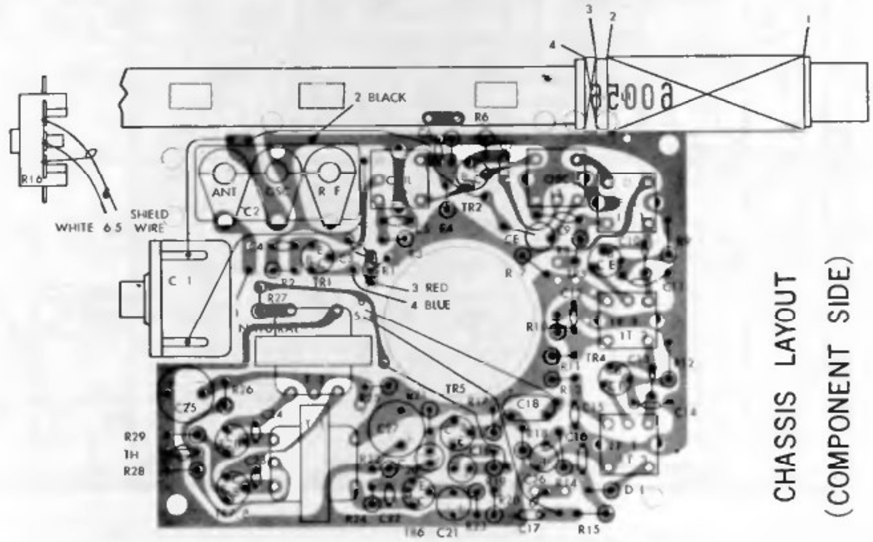


I. F. 455 KC

ALL RESISTANCE VALUES IN OHMS
ALL CAPACITANCE VALUES LESS THAN
1.0 IN MFD; VALUES ABOVE 1.0 IN MMFD
UNLESS OTHERWISE INDICATED

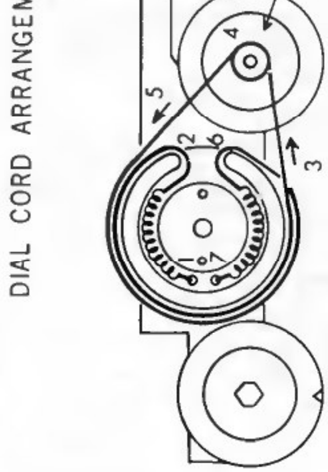


CHASSIS LAYOUT
(WIRING SIDE)

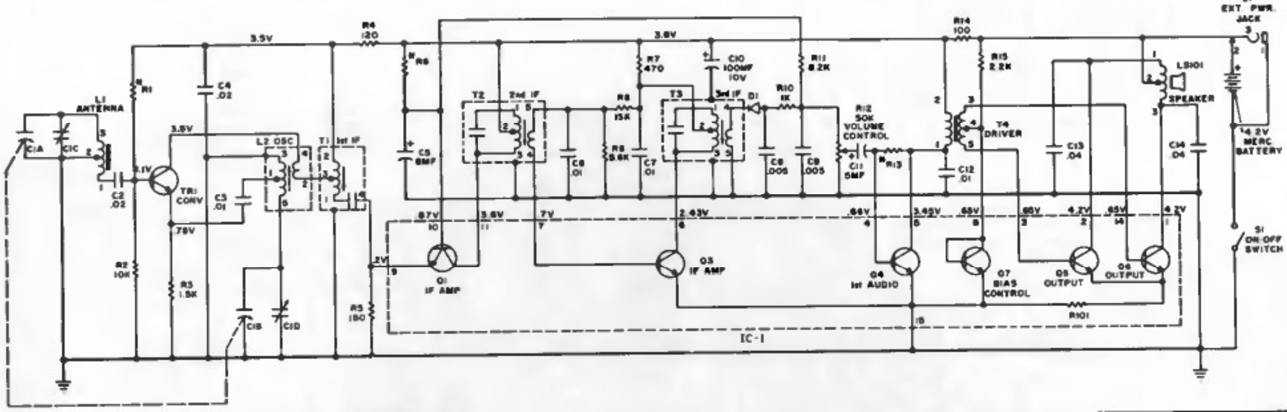


CHASSIS LAYOUT
(COMPONENT SIDE)

DIAL CORD ARRANGEMENT



GENERAL ELECTRIC T1170A;T1171A;T1172A



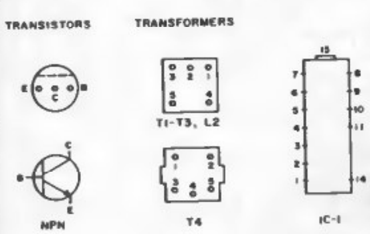
NOTES

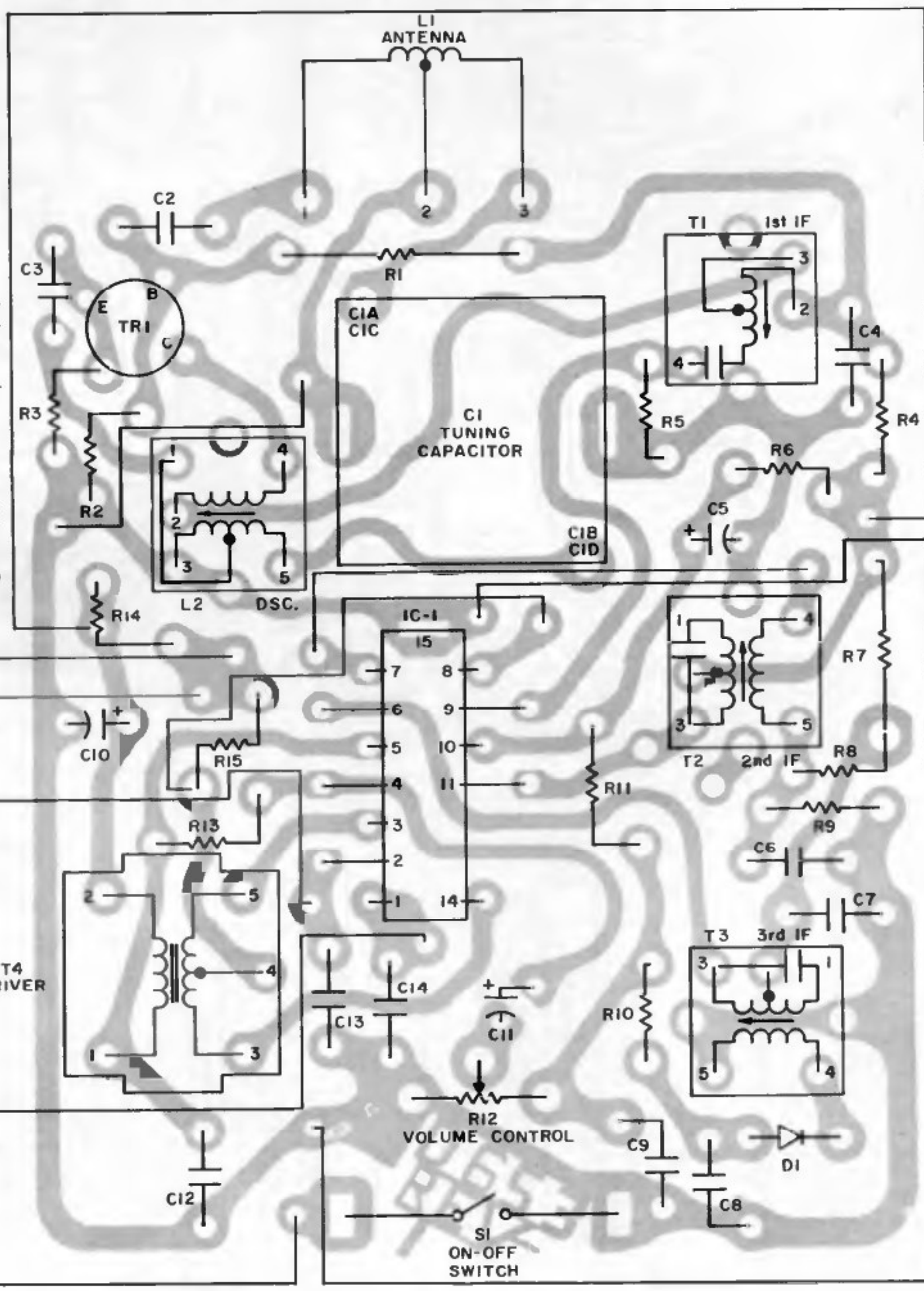
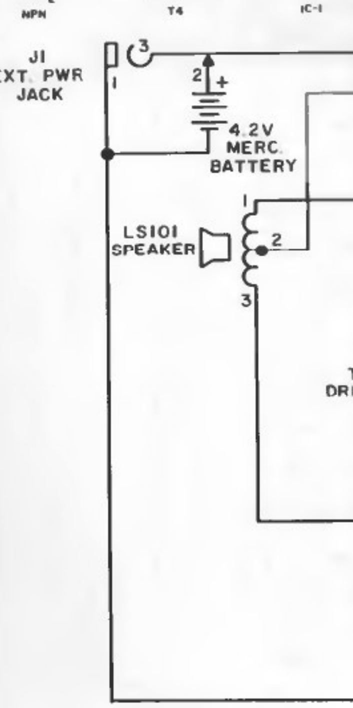
1. UNLESS OTHERWISE NOTED
CAPACITORS MORE THAN 1 = MMF
CAPACITORS LESS THAN 1 = MF
RESISTORS ARE 1/2 WATT, K = 1000
2. VOLTAGES ARE POSITIVE WITH RESPECT TO GROUND UNDER NO SIGNAL CONDITIONS AND VOLUME CONTROL MINIMUM.
N 3. SEE TRANSISTOR SUBSTITUTION CHART.
4. KHz = KC

ALIGNMENT

1. SET VOLUME CONTROL AT MAX. CONNECT OUTPUT METER OR SCOPE ACROSS SPEAKER. INDUCTIVELY COUPLE SIGNAL GENERATOR TO RECEIVER.
2. ADJUST T1, T2 AND T3 FOR MAX. 455KHz SIGNAL.
3. ADJUST C1D FOR MAX. 1630KHz WITH GANG OPEN.
4. ADJUST C1C FOR MAX. 1400KHz WHILE ROCKING GANG.
5. ADJUST L2 FOR MAX. 580KHz WHILE ROCKING GANG.
6. REPEAT STEPS 3, 4 AND 5 FOR MAX. SENSITIVITY.

BOTTOM VIEW OF COMPONENTS



WIRING DIAGRAM (BOTTOM VIEW)

GENERAL ELECTRIC Models C550G, T1130B, T1151B, T1153B, T1175B, C1432C, C1460B, C1479B, C1480B, C1483C, C2415A, C2416A, C4403A, C4405A, C4410A.

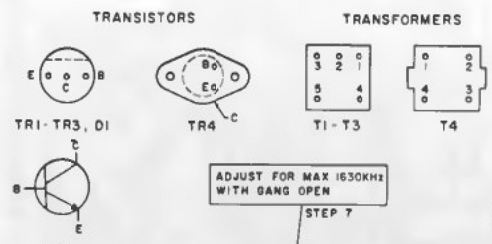
CHART									
MODEL	A	B	C	D	E	F	G	H	J
C550G	USE	USE	OMIT	USE	OMIT	OMIT	OMIT	OMIT	OMIT
C4403A, C4410A, C1460B	USE	OMIT	OMIT	OMIT	OMIT	OMIT	OMIT	OMIT	OMIT
C4405A, C1479B, C1432C	USE	USE	OMIT	OMIT	OMIT	OMIT	OMIT	OMIT	OMIT
C1480B, C1483	USE	USE	OMIT	OMIT	USE	USE	OMIT	OMIT	OMIT
T1130B, T1151B, T1153B, T1175B	OMIT	OMIT	USE	OMIT	OMIT	OMIT	OMIT	OMIT	OMIT

C2415A, C2416A, LIKE C4403A ABOVE

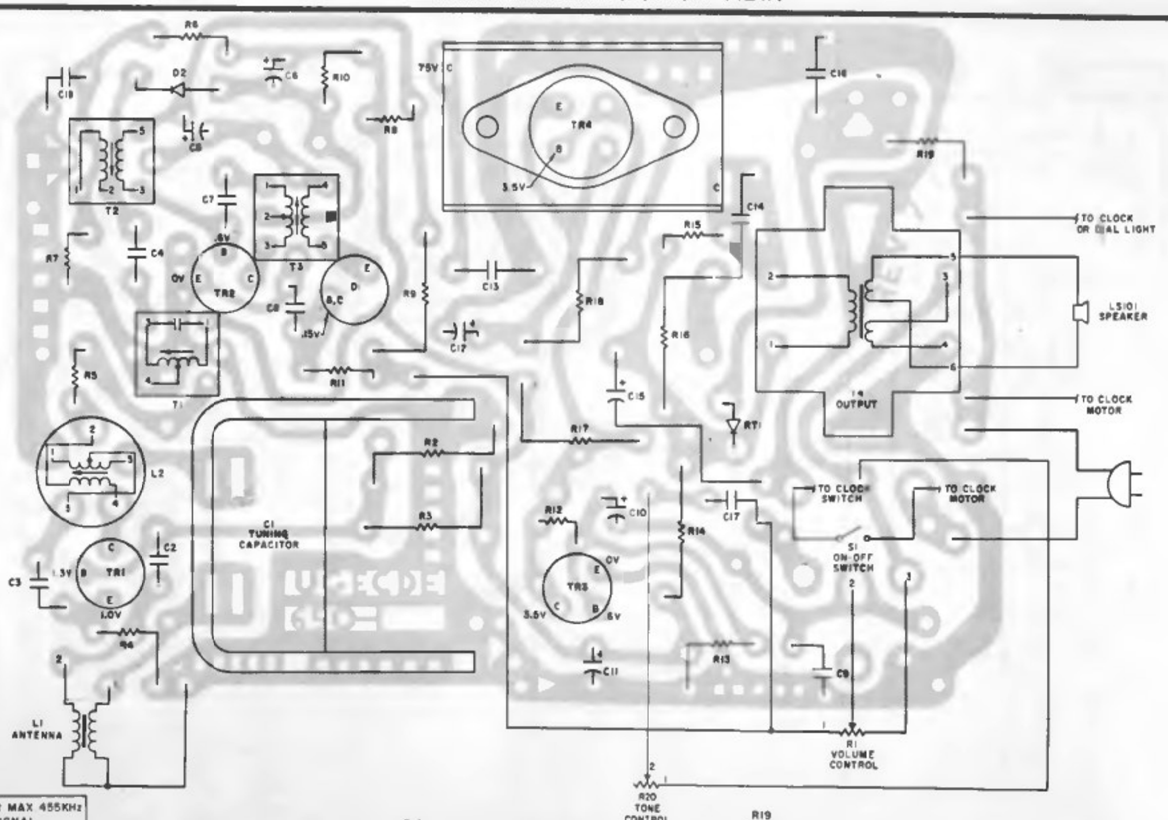
NOTES

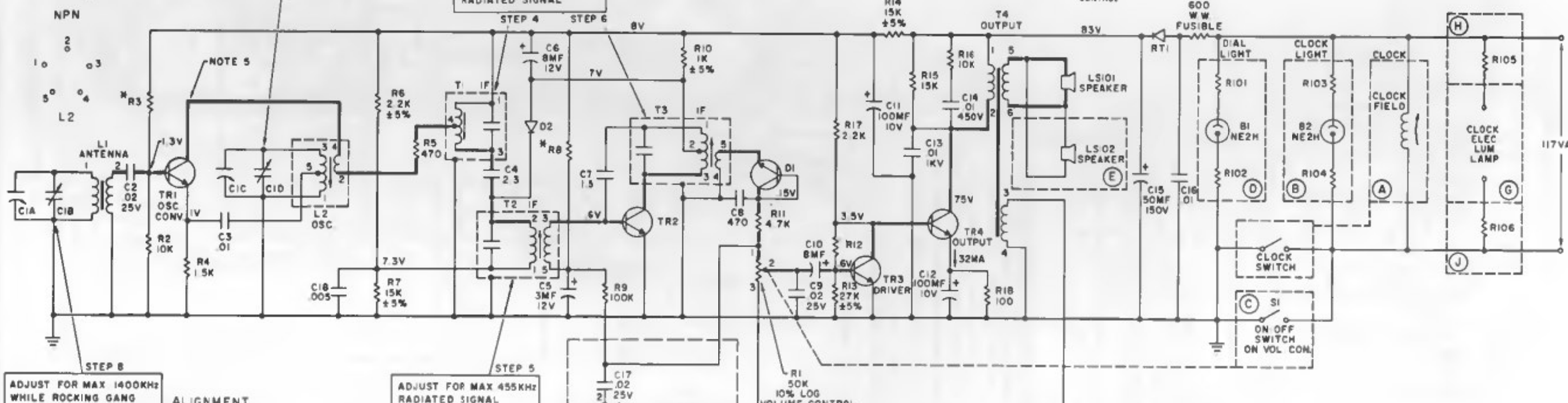
1. UNLESS OTHERWISE NOTED
   CAPACITORS LESS THAN 1 = MF
   CAPACITORS MORE THAN 1 = PF
   RESISTORS IN OHMS, K=1000
   M=1,000,000
2. ALL LETTERS IN CIRCLES REFER TO CHART
3. VOLTAGES ARE POSITIVE WITH RESPECT TO GROUND TAKEN WITH A 20K/V METER
4. HEAVY LINE IS SIGNAL PATH FROM ANTENNA TO SPEAKER

BOTTOM VIEW OF COMPONENTS



WIRING DIAGRAM (BOTTOM VIEW)





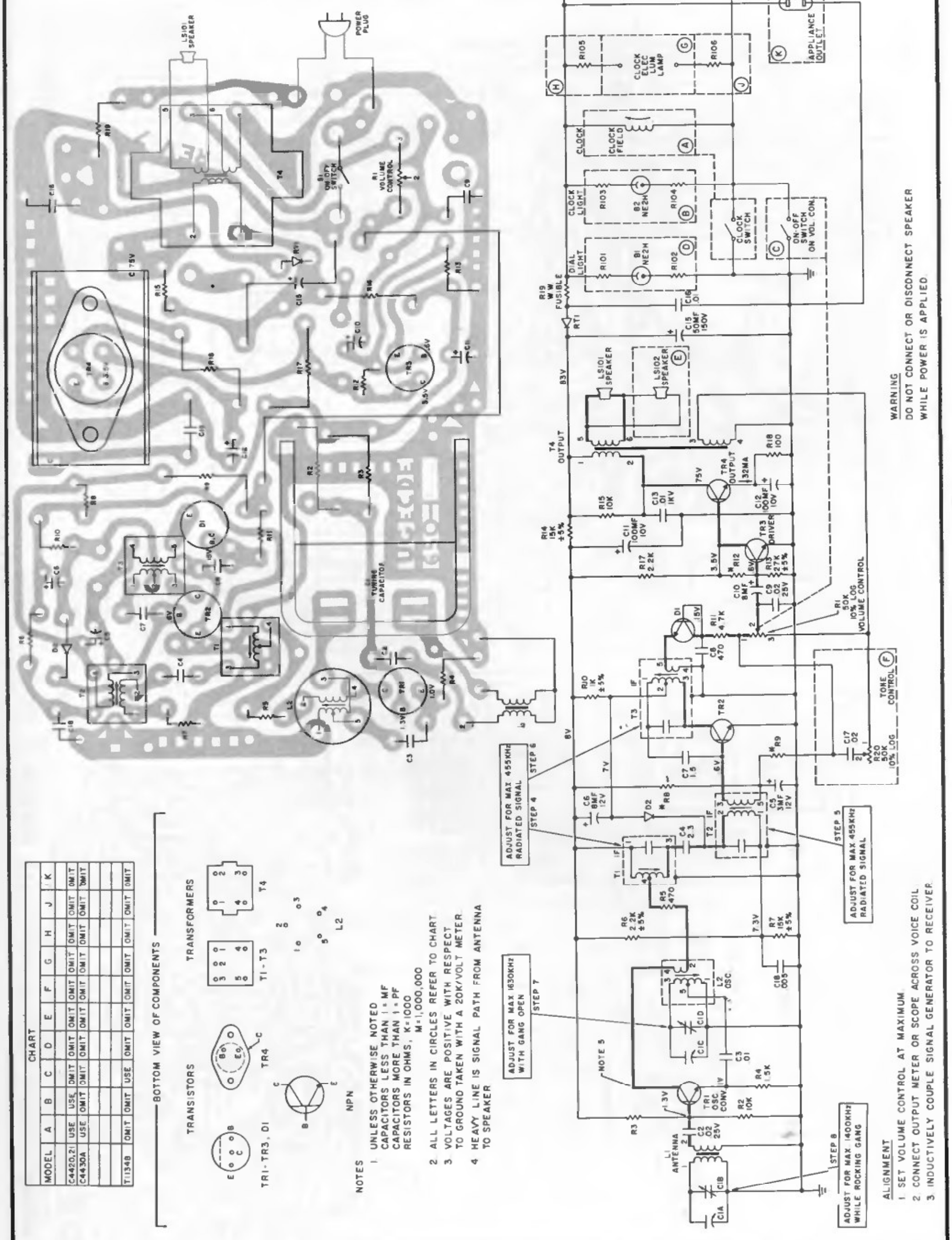
ALIGNMENT

1. SET VOLUME CONTROL AT MAXIMUM
2. CONNECT OUTPUT METER OR SCOPE ACROSS VOICE COIL
3. INDUCTIVELY COUPLE SIGNAL GENERATOR TO RECEIVER

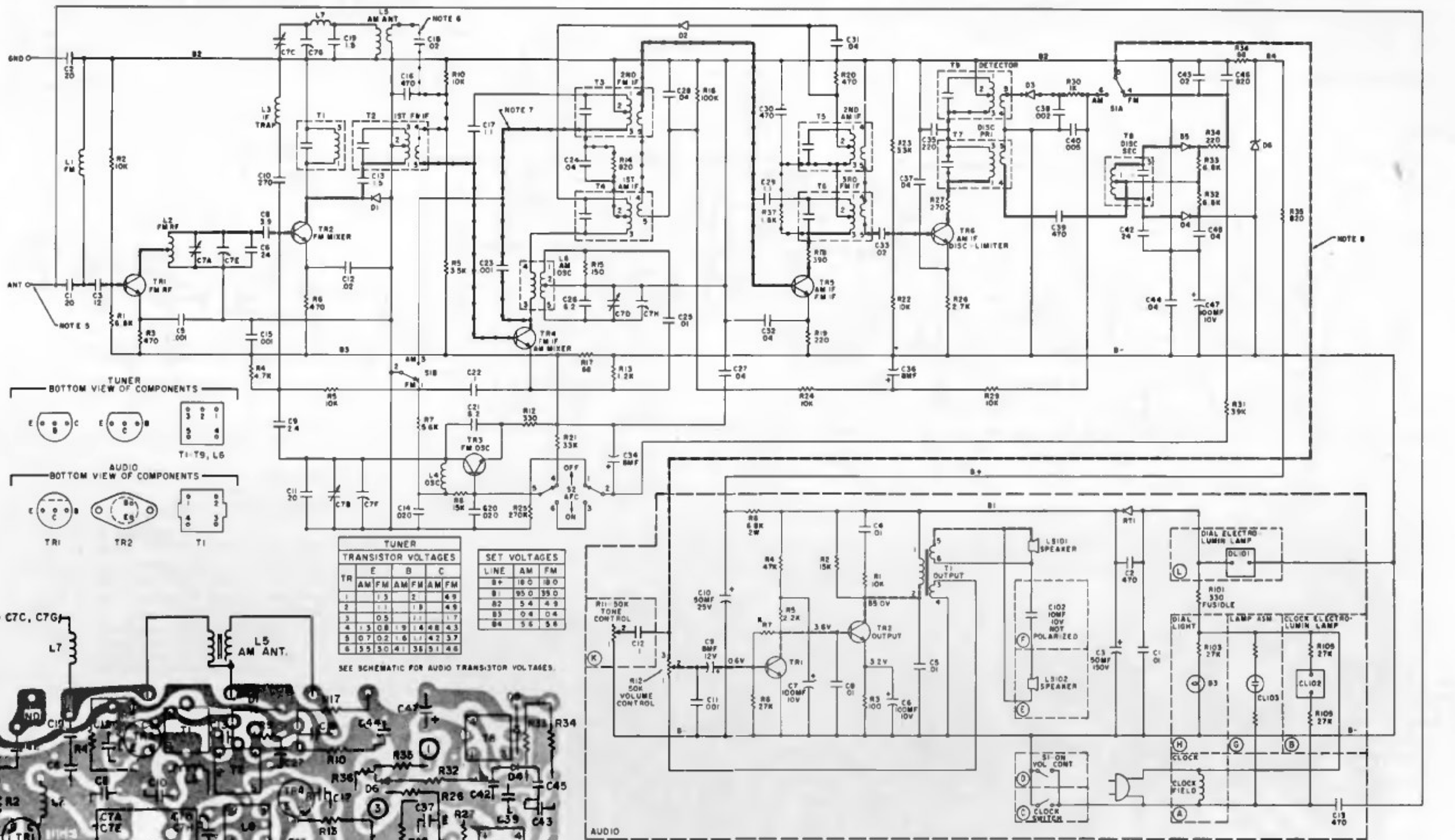
WARNING

DO NOT CONNECT OR DISCONNECT SPEAKER WHILE POWER IS APPLIED

GENERAL ELECTRIC Models T1134B, C4420A, C4421A, and C4430A.



GENERAL ELECTRIC (For list of models see chart at right)



TUNER						
TRANSISTOR VOLTAGES						
TR	E		B		C	
	AM	FM	AM	FM	AM	FM
1		1.3		2.1		4.9
2		1.1		1.9		4.9
3		0.5		1.1		1.7
4	1.5	0.8	1.9	1.4	4.8	4.3
5	0.7	0.2	1.6	1.1	4.2	3.7
6	5.5	3.0	4.1	3.5	5.1	4.6

SET VOLTAGES		
LINE	AM	FM
B+	18.0	18.0
B1	9.50	3.50
B2	5.4	4.9
B3	0.4	0.4
B4	5.6	5.6

SEE SCHEMATIC FOR AUDIO TRANSISTOR VOLTAGES.

SCHEMATIC DIAGRAM (LATE VERSION)

NOTES

1 UNLESS OTHERWISE NOTED CAPACITORS LESS THAN 1 = MF CAPACITORS MORE THAN 1 = MMF RESISTORS IN OHMS, K=1000

2 VOLTAGES ARE POSITIVE WITH RESPECT TO B- UNDER NO SIGNAL CONDITIONS AND VOLUME CONTROL MINIMUM (CONNECT NEGATIVE LEAD OF METER TO B-)

* 3 REFER TO TRANSISTOR SUBSTITUTION CHART

4 S1 SHOWN IN FM POSITION

5 LINE SHOWN (▬) IS FM SIGNAL PATH FROM FM ANTENNA TO S1A

6 LINE SHOWN (-•-) IS AM SIGNAL PATH FROM AM ANTENNA TO S1A

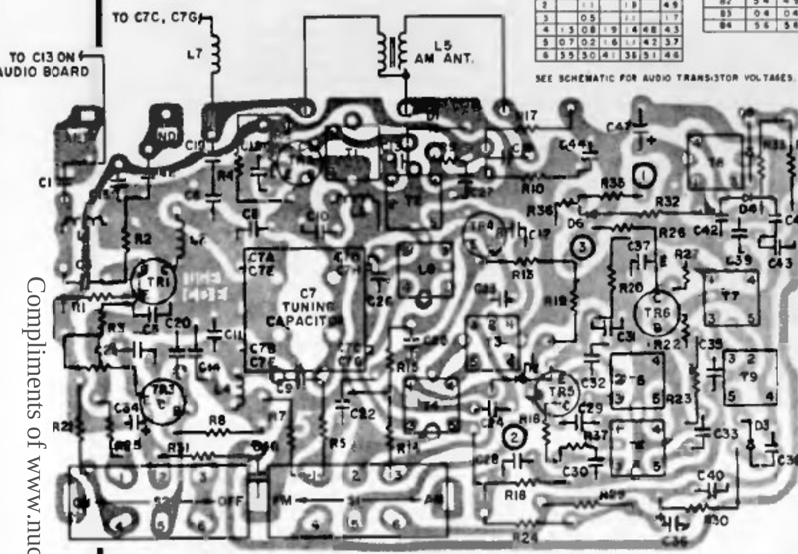
7 AM-FM SIGNALS SUPERIMPOSED IN SOME AREAS (▬)

8 LINE SHOWN (▬) IS COMMON AUDIO PATH FROM S1A TO SPEAKER

9 "X" IN MODEL CHART DESIGNATES PART USAGE OF DOTTED BLOCKS ON SCHEMATIC. CIRCLED LETTERS IN DOTTED BLOCKS REFER TO MODEL CHART

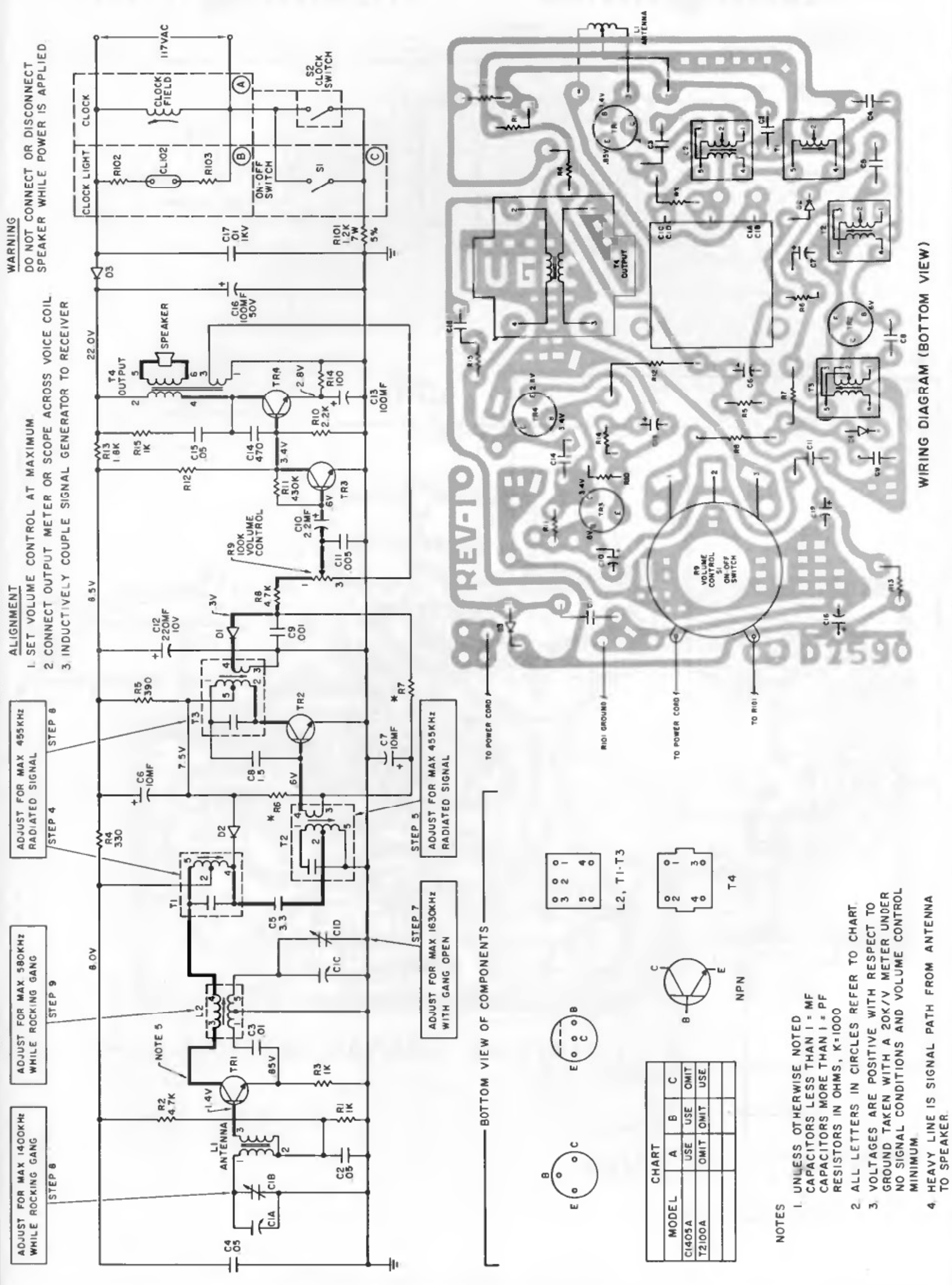
10 DO NOT CONNECT OR DISCONNECT SPEAKER WHILE POWER IS APPLIED. DO NOT APPLY POWER WITHOUT CONNECTING B+ AND B- WIRES TO TUNER

MODEL CHART										
MODEL	A	B	C	D	E	F	G	H	K	L
T1265, 1280				X	X	X			X	X
T1270, 1284, 2235				X					X	
T2220, 2245				X	X				X	
T2231				X						
T2240, 2250				X	X	X			X	
T2260				X	X			X	X	
C1565, 1580	X		X						X	X
C1570, 1574	X		X				X		X	X
C2510, 2511, 2585	X		X							
C2520, 2545	X		X		X		X		X	
C2530, 2535, 2578, 2689	X		X						X	
C2550	X		X				X		X	
C2560	X		X		X		X	X	X	
C2579	X		X		X				X	
C4550	X	X	X		X				X	

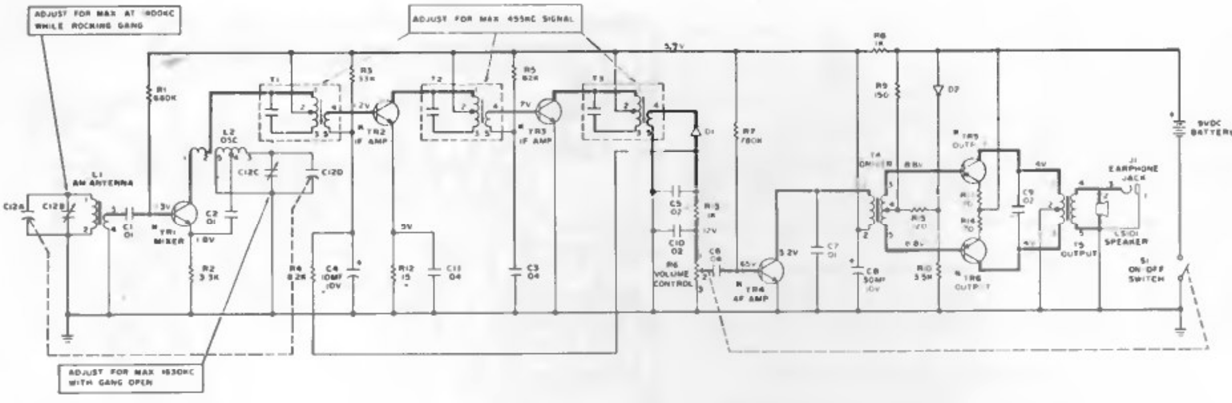


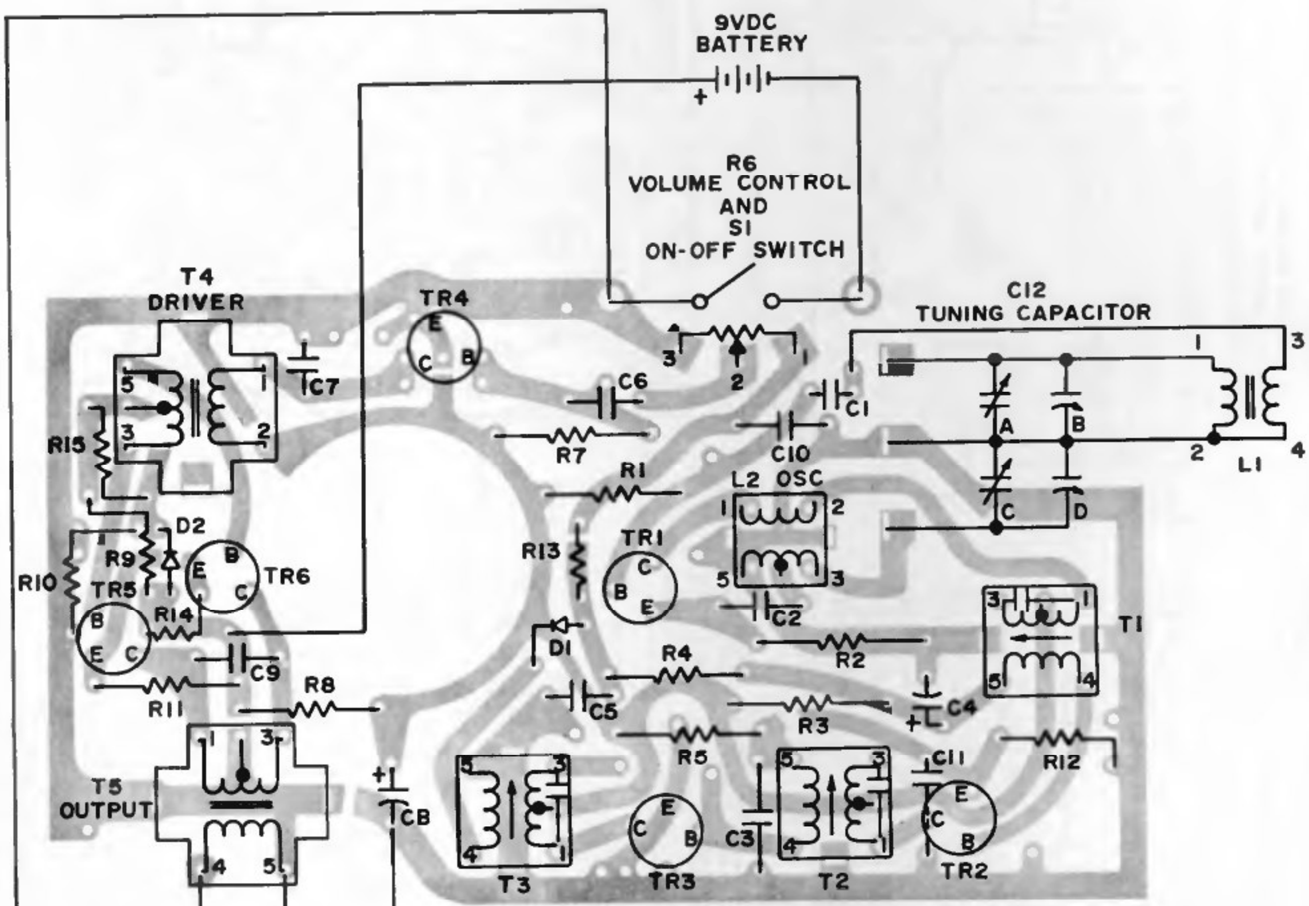
WIRING DIAGRAM (BOTTOM VIEW), LATE VERSION

GENERAL ELECTRIC Models C1405A and T2100A

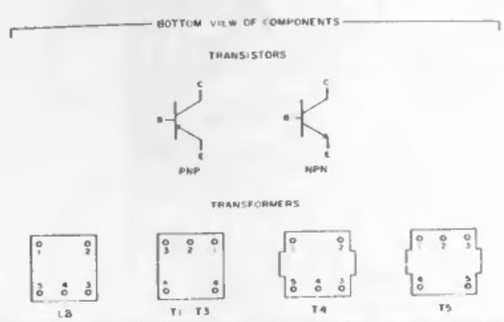


GENERAL ELECTRIC P1735A; P1739A





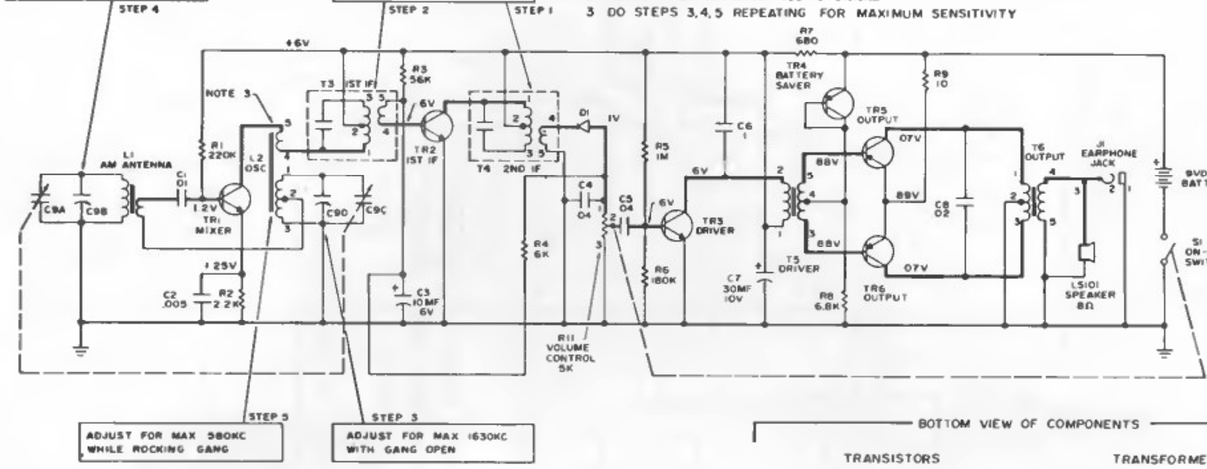
WIRING DIAGRAM (BOTTOM VIEW)



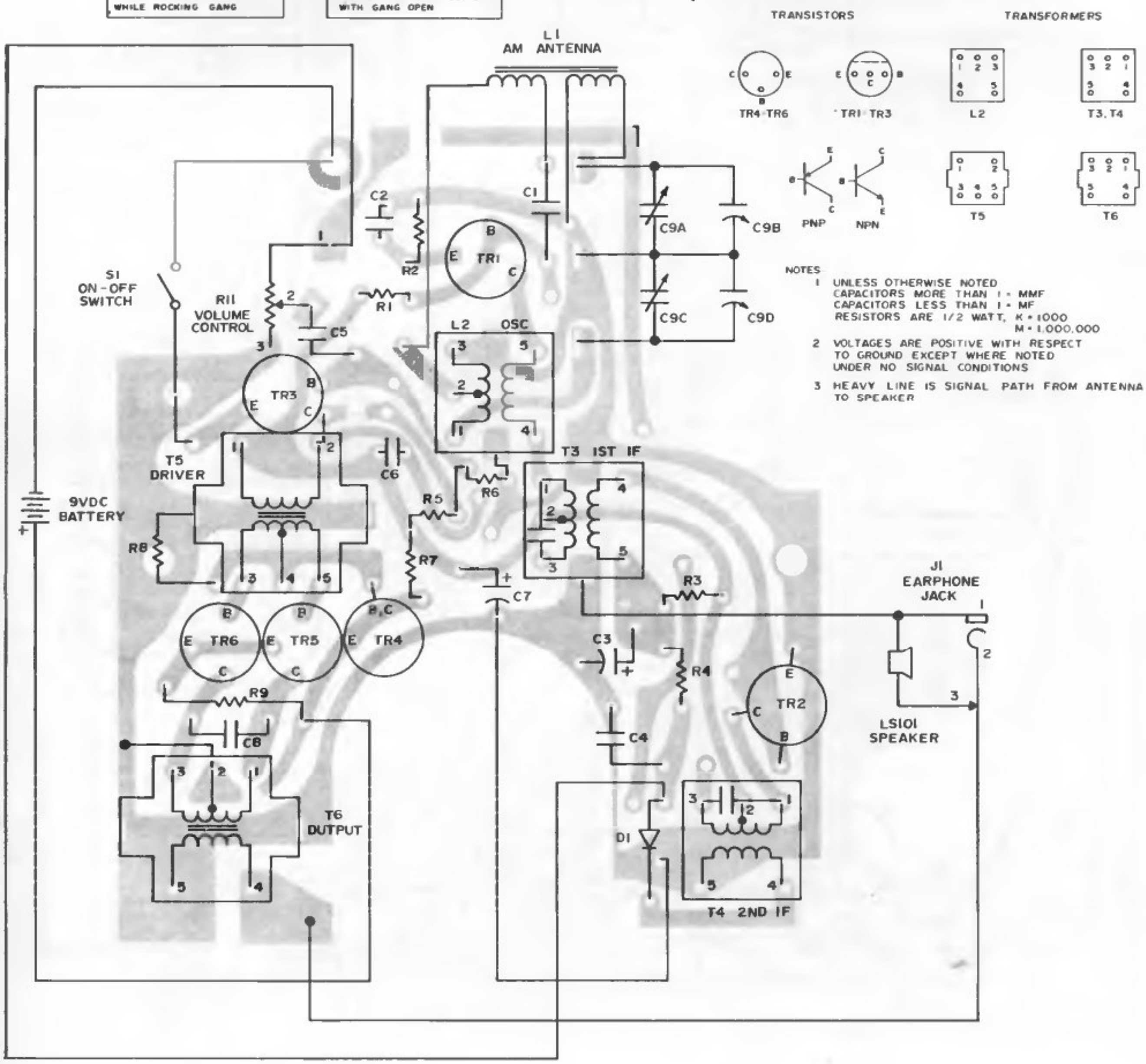
GENERAL ELECTRIC P1755A

ALIGNMENT

1. SET VOLUME CONTROL AT MAXIMUM. CONNECT OUTPUT METER OR SCOPE ACROSS SPEAKER. INDUCTIVELY COUPLE SIGNAL GENERATOR TO RECEIVER.
2. ADJUST FOR MAXIMUM 455 KC SIGNAL.
3. DO STEPS 3,4,5 REPEATING FOR MAXIMUM SENSITIVITY.



BOTTOM VIEW OF COMPONENTS



NOTES

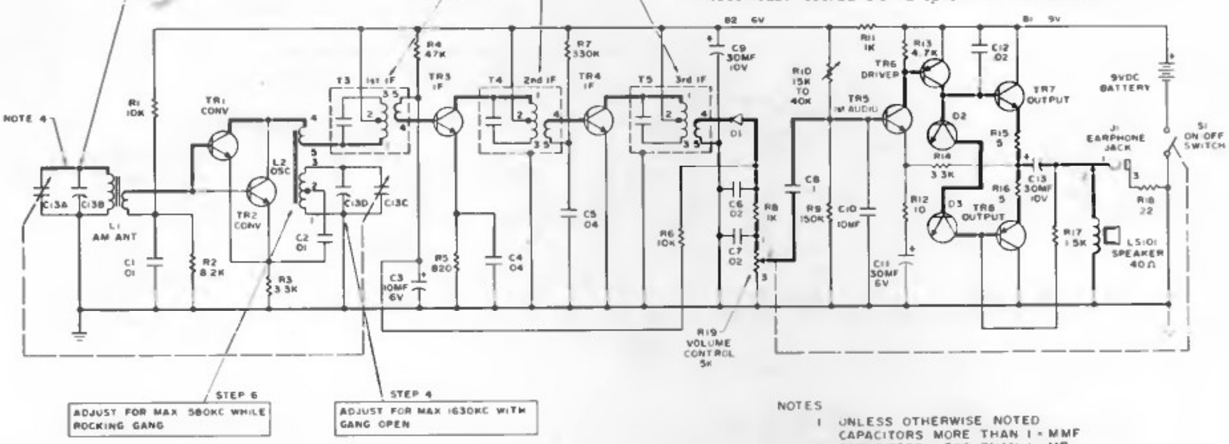
1. UNLESS OTHERWISE NOTED CAPACITORS MORE THAN 1 = MMF, CAPACITORS LESS THAN 1 = MF, RESISTORS ARE 1/2 WATT, K = 1000, M = 1,000,000
2. VOLTAGES ARE POSITIVE WITH RESPECT TO GROUND EXCEPT WHERE NOTED UNDER NO SIGNAL CONDITIONS
3. HEAVY LINE IS SIGNAL PATH FROM ANTENNA TO SPEAKER

WIRING DIAGRAM (BOTTOM VIEW)

GENERAL ELECTRIC

P1760A;P1761A

ALIGNMENT
SET VOLUME CONTROL AT MAXIMUM
CONNECT OUTPUT METER OR SCOPE ACROSS VOICE COIL
INDUCTIVELY COUPLE SIGNAL GENERATOR TO RECEIVER



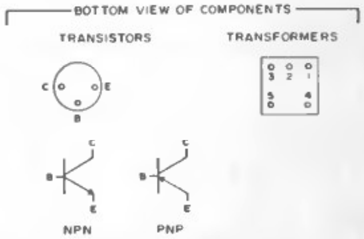
NOTES

1. UNLESS OTHERWISE NOTED
   CAPACITORS MORE THAN 1 = MMF
   CAPACITORS LESS THAN 1 = MF
   RESISTORS ARE IN OHMS, K = 1000
2. VOLTAGES ARE POSITIVE WITH RESPECT TO GROUND UNDER NO SIGNAL CONDITIONS AND VOLUME CONTROL MINIMUM

TRANSISTOR VOLTAGES

TR	C	B	E
1	6	2 7	2 15
2	6	2 7	2 15
3	6	1 0	33
4	6	7	0
5	8 4	5 4	4 9
6	4 8	8 4	9
7	9	4 8	4 3
8	0	3 5	4 2

BOTTOM VIEW OF COMPONENTS



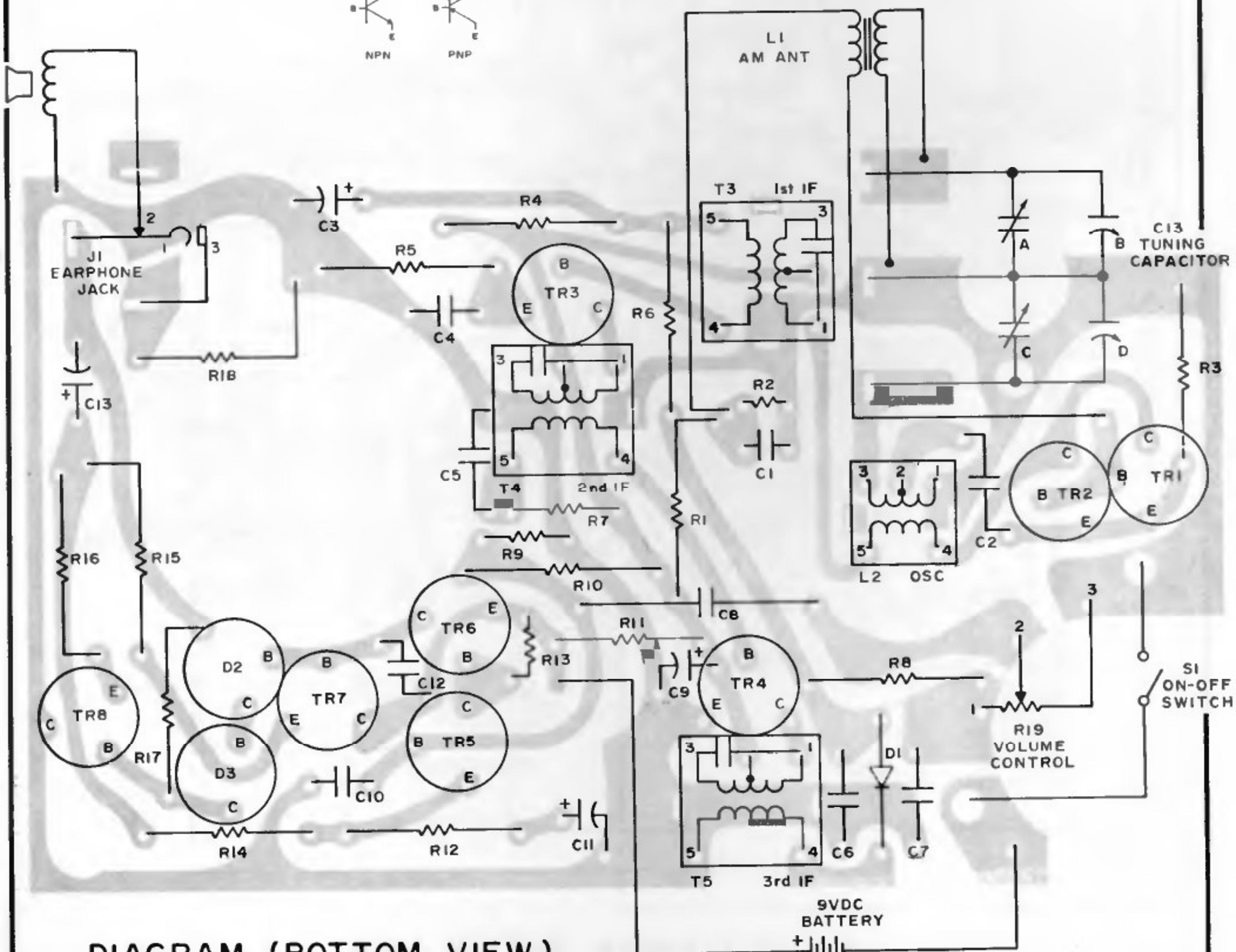


DIAGRAM (BOTTOM VIEW)

GENERAL ELECTRIC

MODELS P1780, P1781, P1782

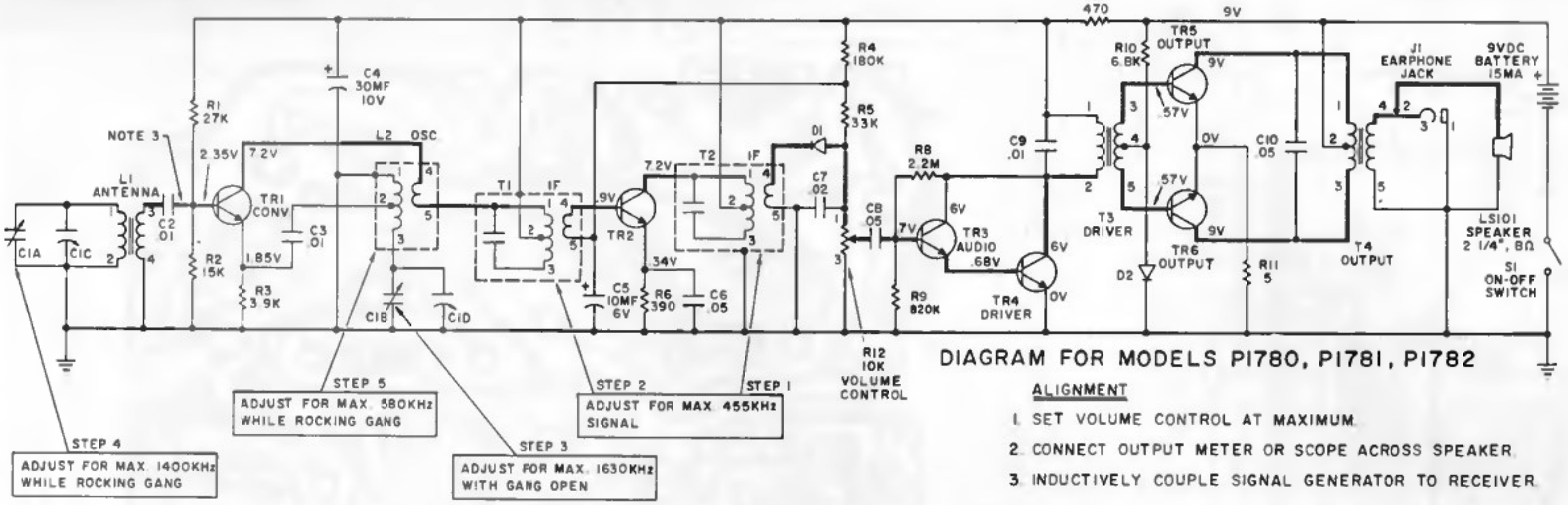
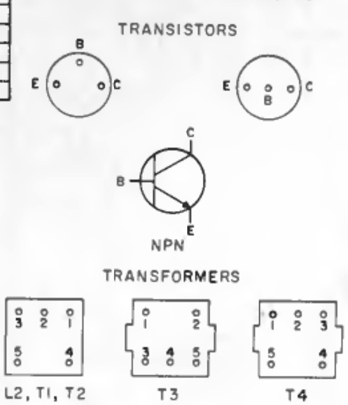


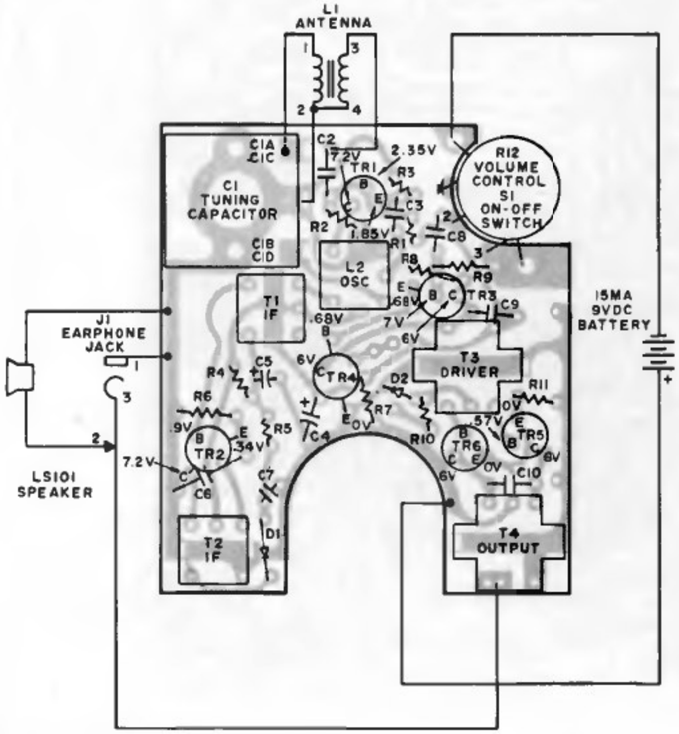
DIAGRAM FOR MODELS P1780, P1781, P1782

ALIGNMENT

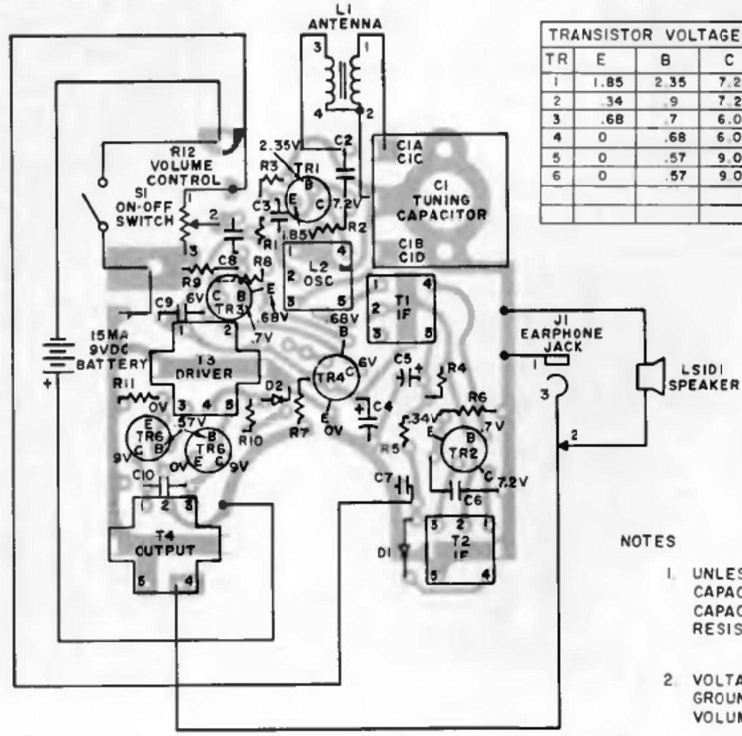
1. SET VOLUME CONTROL AT MAXIMUM.
2. CONNECT OUTPUT METER OR SCOPE ACROSS SPEAKER.
3. INDUCTIVELY COUPLE SIGNAL GENERATOR TO RECEIVER.

TRANSISTOR VOLTAGES			
TR	E	B	C
1	1.85	2.35	7.2
2	.34	.9	7.2
3	.68	.7	6.0
4	0	.68	6.0
5	0	.57	9.0
6	0	.57	9.0





COMPONENT LAYOUT (TOP VIEW)

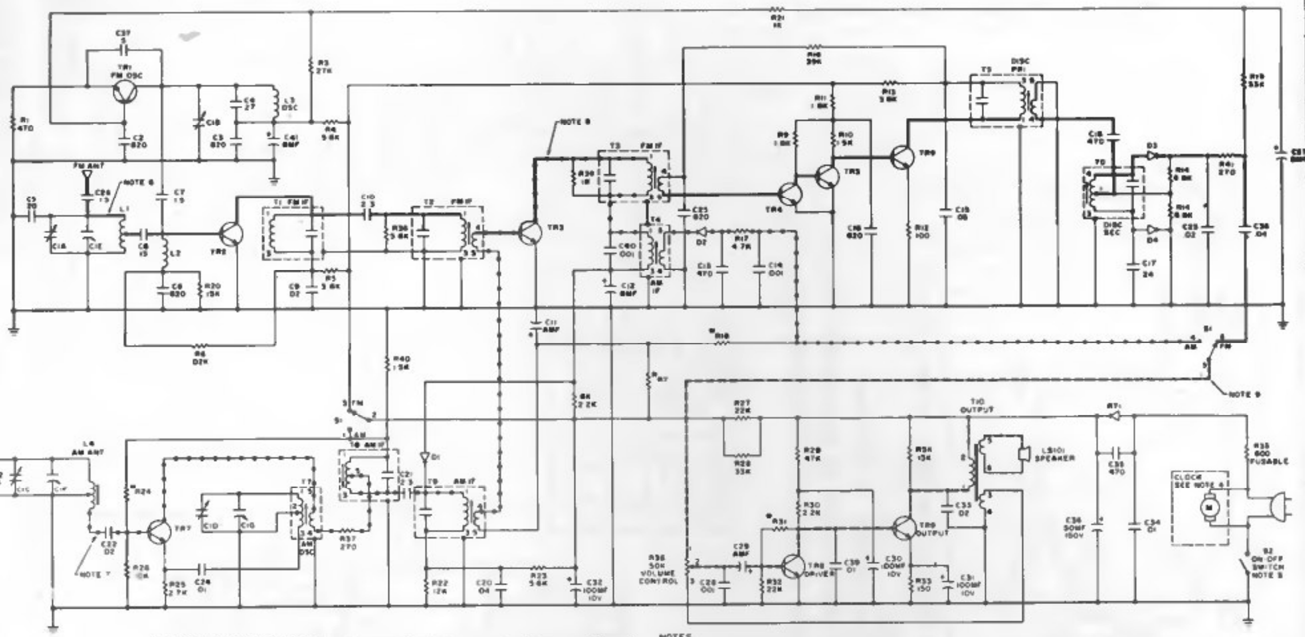


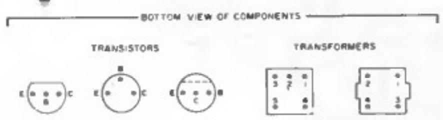
WIRING DIAGRAM (BOTTOM VIEW)

NOTES

1. UNLESS OTHERWISE NOTED CAPACITORS LESS THAN 1 = MF CAPACITORS MORE THAN 1 = PF RESISTORS IN OHMS, K=1000 M=1,000,000
2. VOLTAGES ARE POSITIVE WITH RESPECT TO GROUND UNDER NO SIGNAL CONDITIONS AND VOLUME CONTROL MINIMUM.
3. HEAVY LINE IS SIGNAL PATH FROM ANTENNA TO SPEAKER.

GENERAL ELECTRIC T2205A;T2208A





TRANSISTOR VOLTAGES						
TR	E		B		C	
	FM	AM	FM	AM	FM	AM
1	51	0	67	0	2 44	0
2	0	0	67	0	5 26	0
3	0	0	73	72	3 70	3 60
4	0	0	73	0	7	0
5	0	0	7	0	61	0
6	1	0	61	0	2 53	0
7	0	1 20	0	1 53	0	6 11
8	0	0	58	38	4 38	4 19
9	3 86	3 85	4 36	4 35	6 3	6 3

NOTES

1 UNLESS OTHERWISE NOTED
CAPACITORS LESS THAN 1 = MF
CAPACITORS MORE THAN 1 = MMF
RESISTORS IN OHMS, K=1000

2 VOLTAGES ARE POSITIVE WITH RESPECT TO GROUND UNDER NO SIGNAL CONDITIONS AND VOLUME CONTROL MINIMUM

* 3 REFER TO TRANSISTOR SUBSTITUTION CHART

4 USED ON CLOCK SETS ONLY

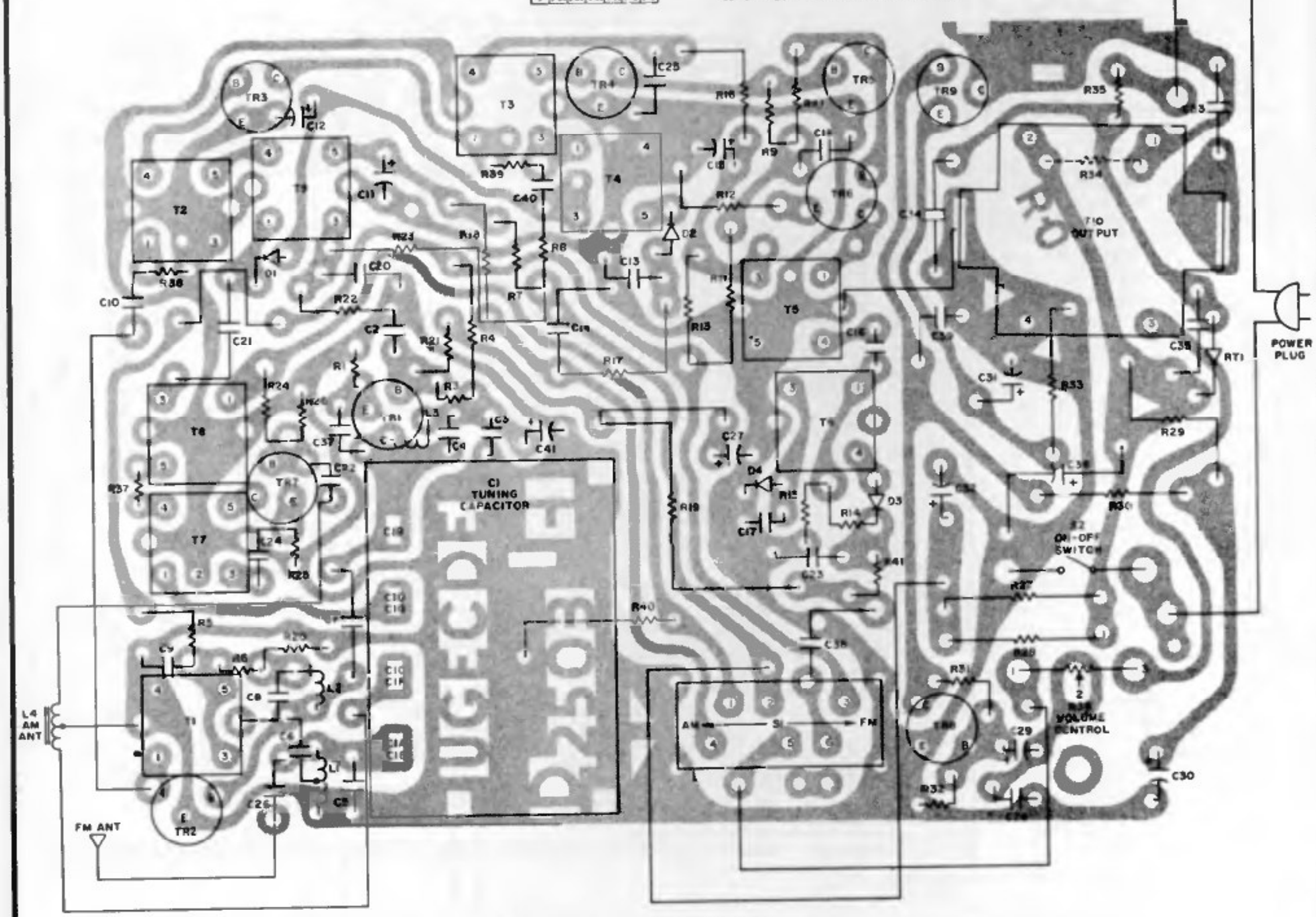
5 S2 IS INTEGRAL WITH CLOCK ON CLOCK SETS
S2 IS INTEGRAL WITH R36 ON TABLE SETS

6 LINE SHOWN (▬) IS FM SIGNAL PATH FROM FM ANTENNA TO S1-6

7 LINE SHOWN (-•-) IS AM SIGNAL PATH FROM AM ANTENNA TO S1-4

8 SIGNAL PATHS SUPERIMPOSED IN SOME AREAS (▬)

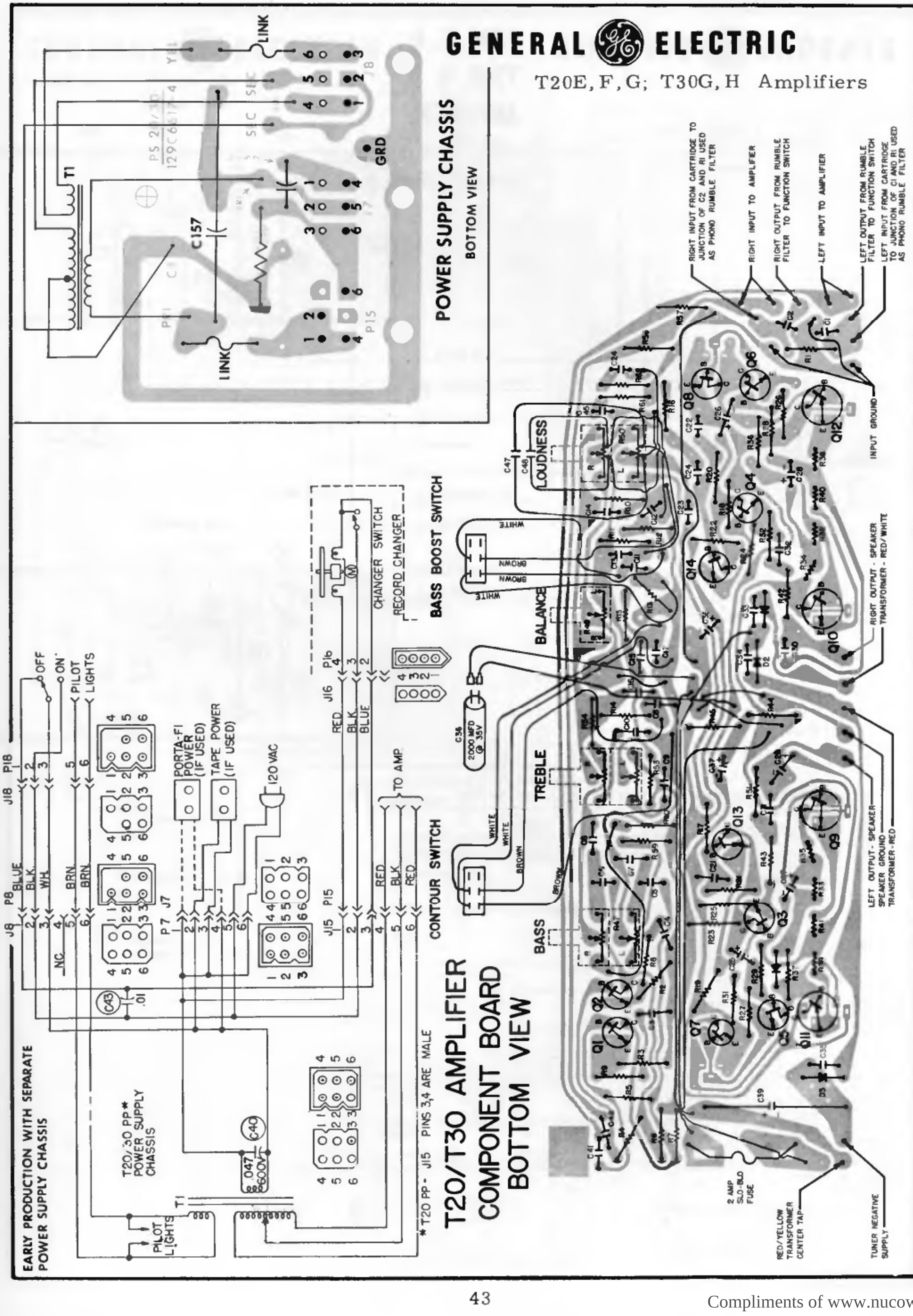
9 LINE SHOWN (-••-) IS COMMON AUDIO PATH FROM S1-5 TO SPEAKER



WIRING DIAGRAM (BOTTOM VIEW)

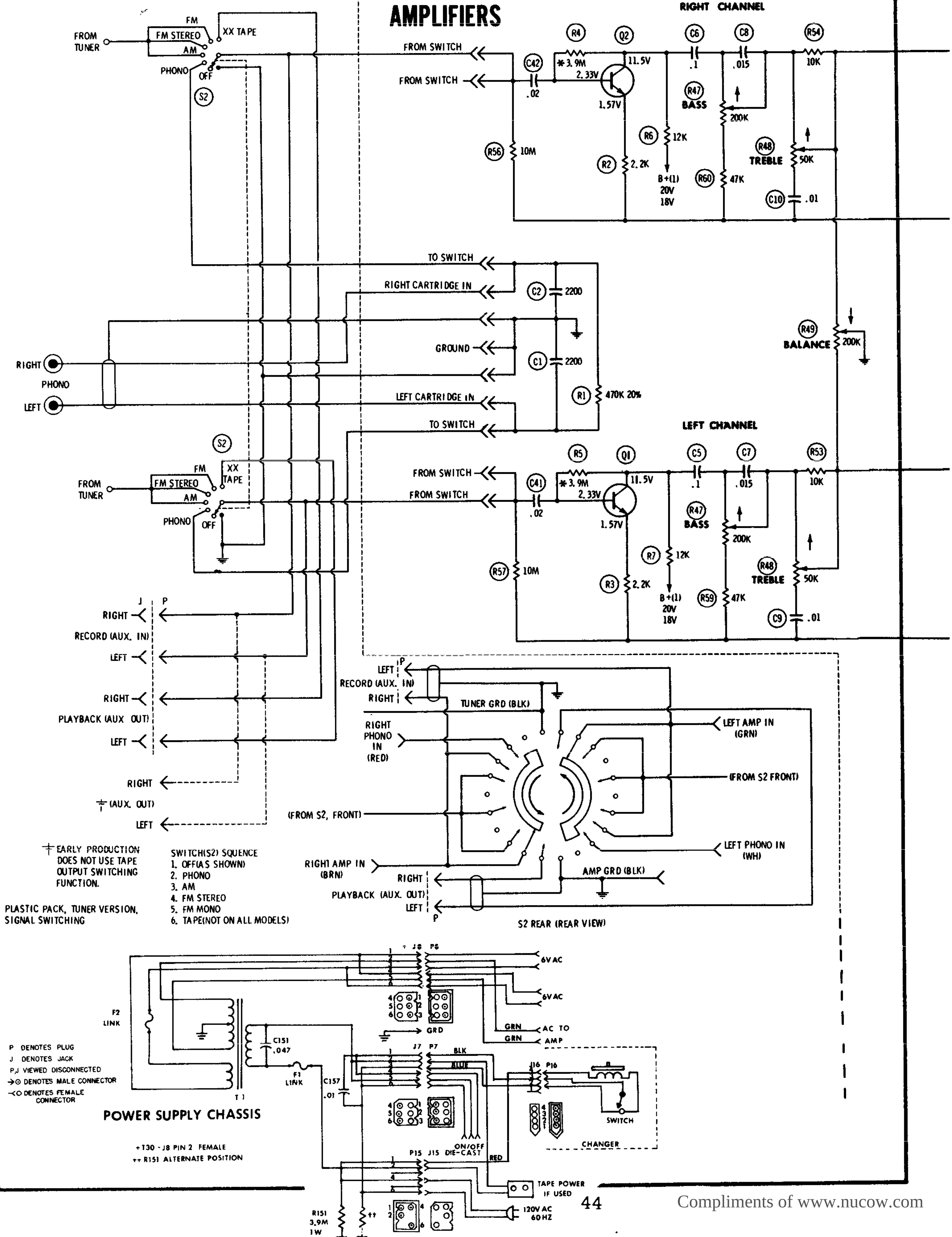
GENERAL ELECTRIC

T20E, F, G; T30G, H Amplifiers



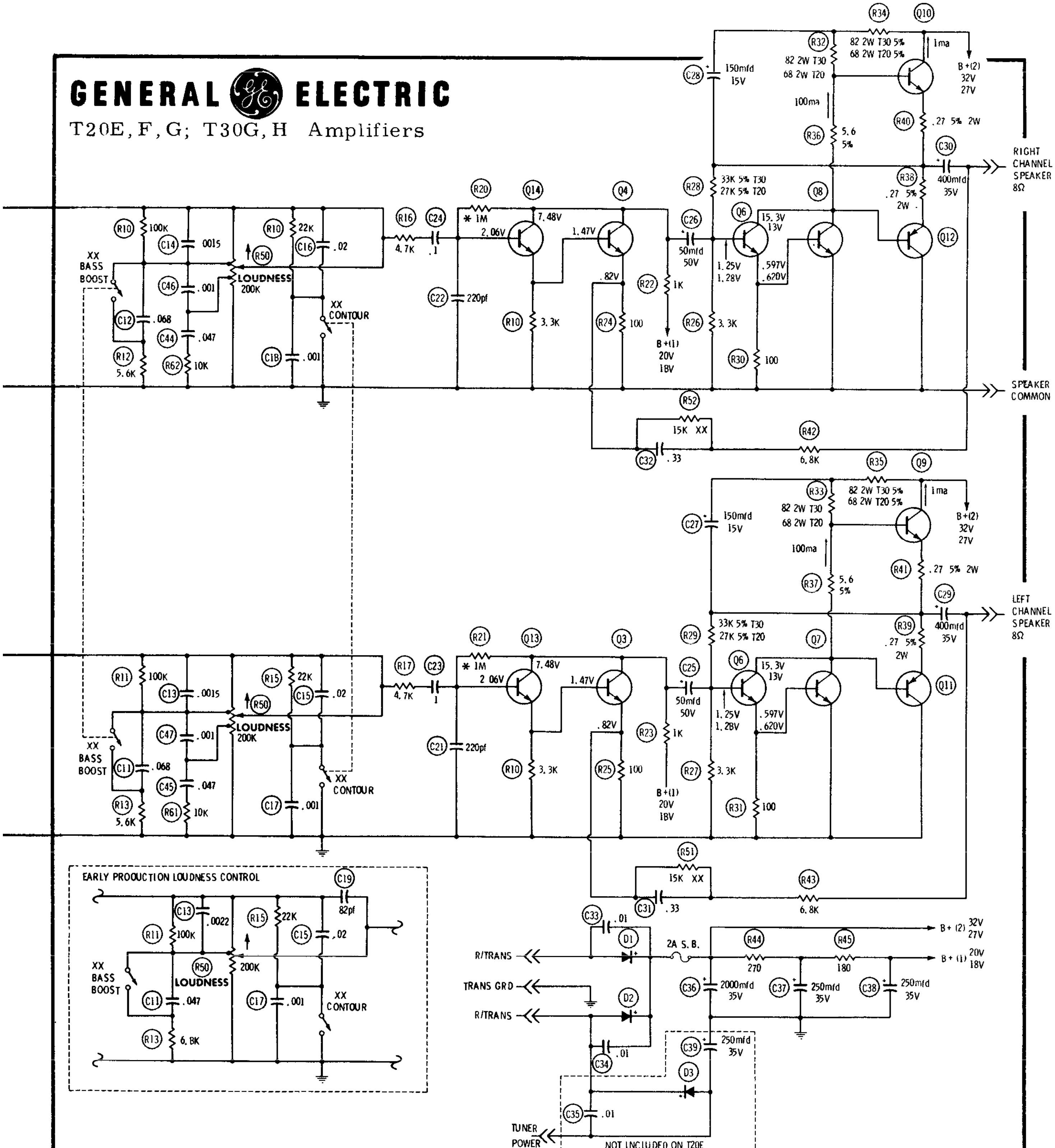
GENERAL ELECTRIC

T20E, F, G
T30G, H
AMPLIFIERS



GENERAL ELECTRIC

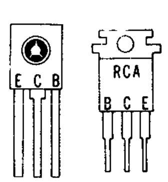
T20E, F, G; T30G, H Amplifiers



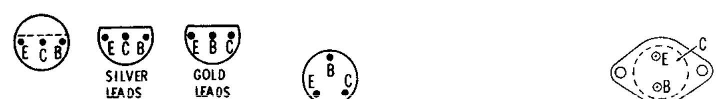
UNLESS OTHERWISE NOTED:

RESISTORS SHOWN ARE 1/2 WATT, 10%; K = 1000Ω; M = 1 MEGOHM.
CAPACITOR VALUES LESS THAN 1 IN mfd, MORE THAN 1 IN pf.
* DENOTES LOW NOISE TYPE RESISTOR.
P DENOTES PLUGS.
WHERE TWO VOLTAGES ARE SHOWN, THE UPPER READINGS ARE T30, LOWER READINGS ARE T20.
J DENOTES JACKS
MEASUREMENTS SHOWN MAY DEVIATE 10%.
ARROWS ON POTENTIOMETERS INDICATE CLOCKWISE ROTATION.

ALL VOLTAGES AND CURRENTS SHOWN ARE TYPICAL WITH NO SIGNAL APPLIED TO CIRCUIT.
DC VOLTAGES MEASURED WITH 10 MEGOHM ELECTRONIC DC VOLTMETER.
LINE VOLTAGE MAINTAINED AT 120 VAC, 60 CYCLES.
XX DENOTES OMISSION ON SOME MODELS.
ARROW DENOTES TYPICAL NO SIGNAL CURRENT.
→ DENOTES MALE CONNECTOR.
≺ DENOTES FEMALE CONNECTOR



Q9, Q10



Q1 THRU Q6, Q13 AND Q14 — Q7, Q8 — Q11, Q12

GENERAL ELECTRIC TU200, TU205 AND TU210

SPECIFICATIONS

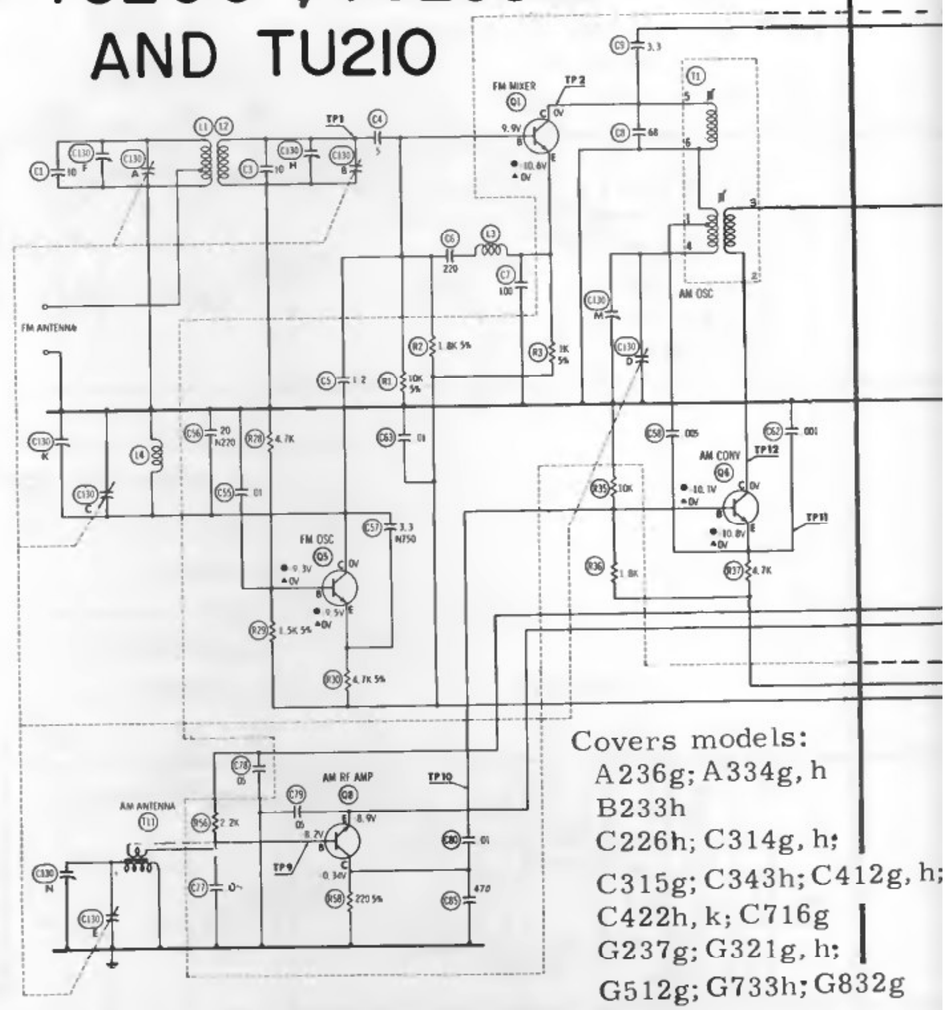
INPUT VOLTAGE RATING:	-22 Volts to -35 Volts @ 50ma
TUNING RANGE:	AM - 530 KC to 1630 KC FM - 88 MC to 108 MC
INTERMEDIATE FREQUENCIES:	AM - 455 KC FM - 10.7 MC
DIODES:	D1 - FM AGC D2,D3 - Discriminator D4 - AM Detector D5 - Voltage Regulator Zener D8,D9,D10,D11 - Stereo Detector
FM STEREO SEPARATION:	25db Minimum @ 1 KC
FM STEREO FREQUENCY:	50 cps to 15 KC

SENSITIVITY:

AM - 250 uv/m
FM - 7 uv Antenna Voltage for 30db quieting

TRANSISTOR COMPLIMENT:

SYMBOL	DESCRIPTION
Q1	FM Mixer
Q2	1st FM IF, 1st AM IF
Q3	2nd FM IF, 2nd AM IF
Q4	3rd FM IF
Q5	FM Oscillator
Q6	AM Convertor
Q8	AM RF Amplifier
Q9,10	Voltage Regulator
Q11	Stereo Indicator Amp.
Q12	38 KC Doubler
Q13	19 KC Pilot Amplifier
Q14	Composite Stereo Amp.

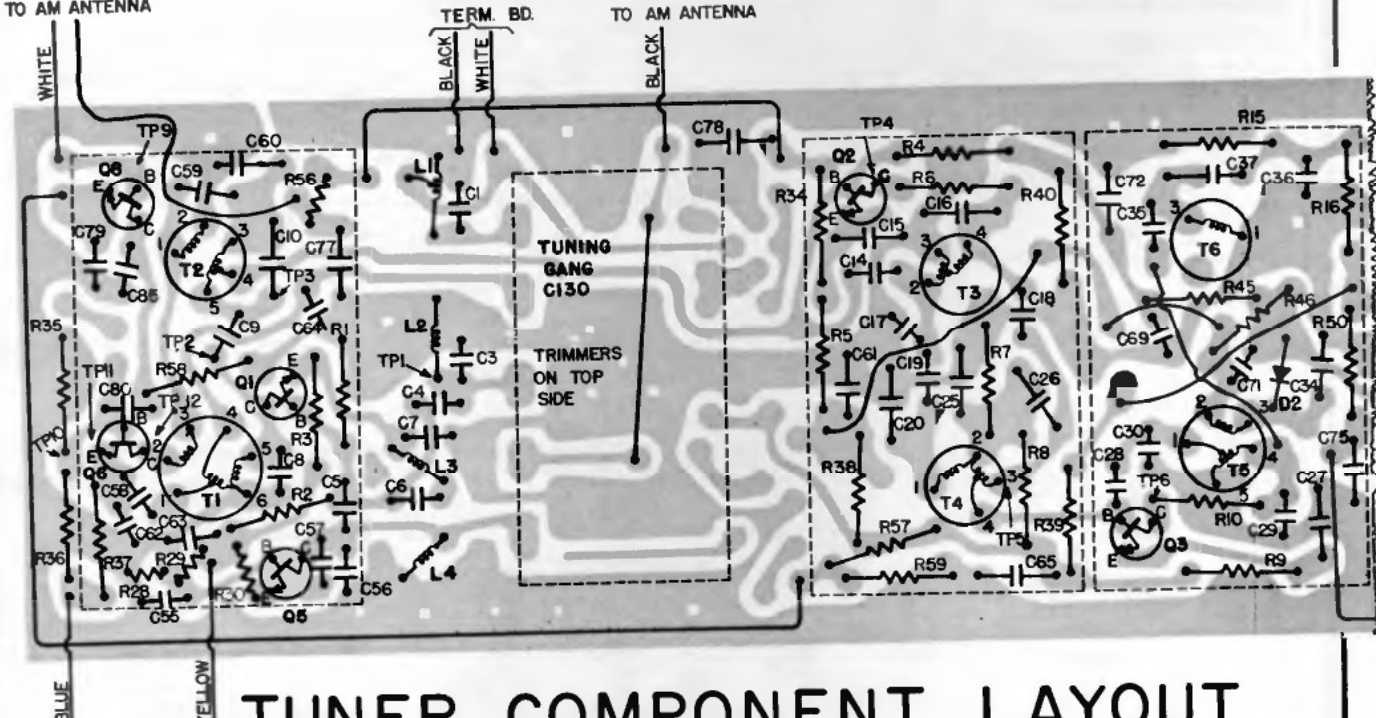


Covers models:
A236g; A334g, h
B233h
C226h; C314g, h;
C315g; C343h; C412g, h;
C422h, k; C716g
G237g; G321g, h;
G512g; G733h; G832g

TO AM ANTENNA

TO FM ANTENNA TERM. BD.

TO AM ANTENNA



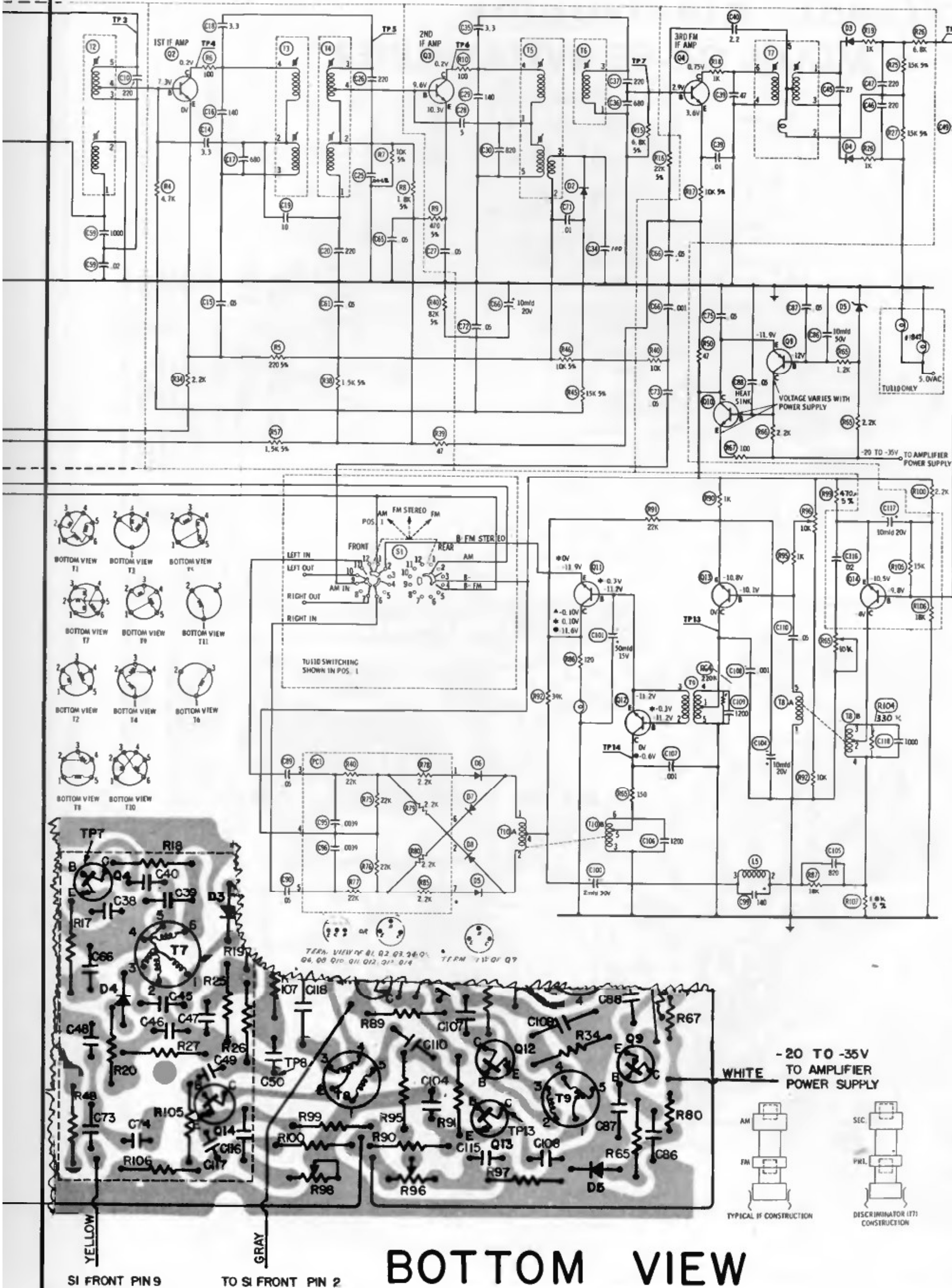
TUNER COMPONENT LAYOUT

TO SI REAR PIN 1

TO SI REAR PIN 4

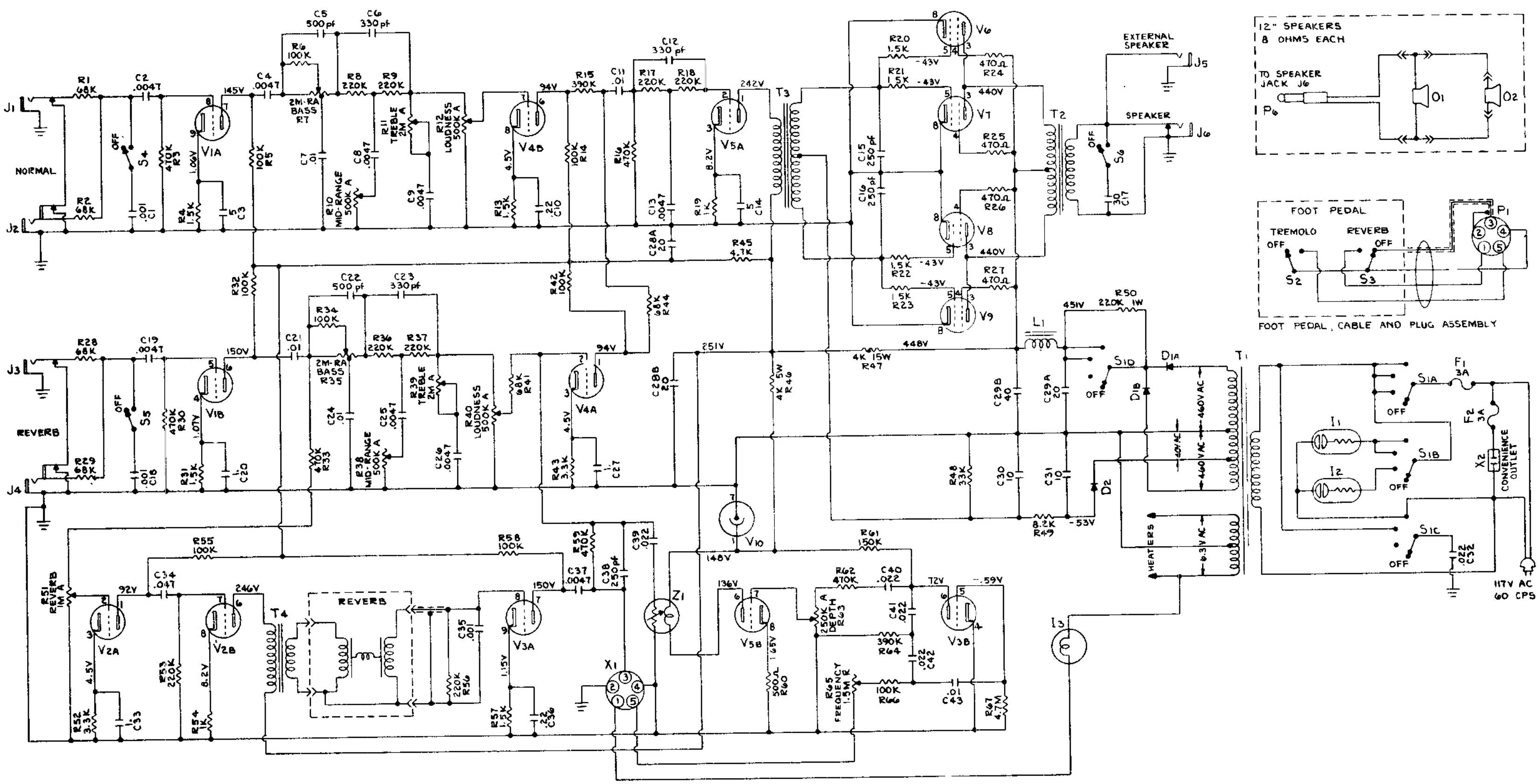
GENERAL ELECTRIC

TU200, TU205 AND TU210 TUNER



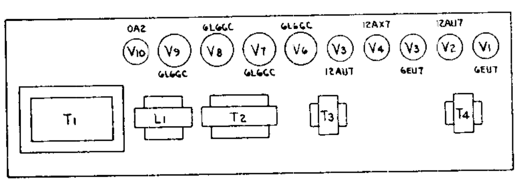
Gibson Electronics

MODEL GA-95 RVT AMPLIFIER

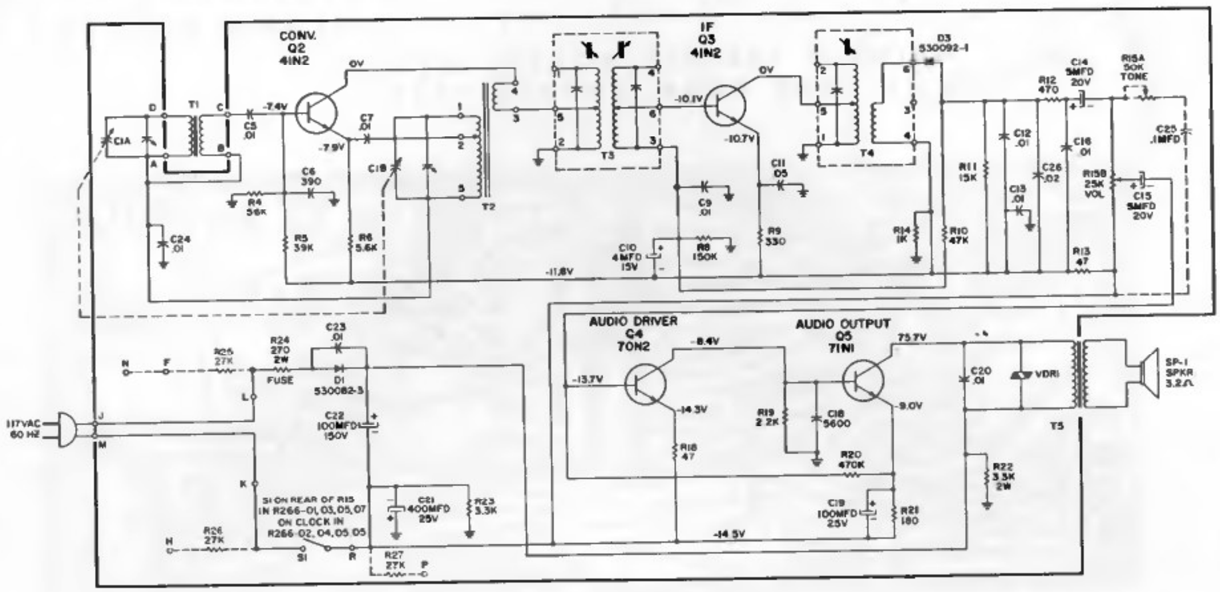


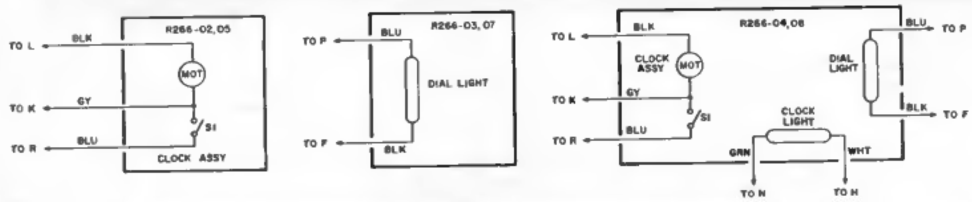
Parts list:

T1	Power Transformer	TF-103P	D1A D1B	Diode - 1200 PIV	DI-57
T2	Output Transformer	TF-503-0	D2	Diode - 200 PIV	DI-405
T3	PP Driver Transformer	TF-1001D	X1	Foot Pedal Socket	CN-78PCO-5
T4	Reverb Transformer	TF-R6400	X2	Convenience Outlet	CN-303
L1	Filter Choke	TF-1002C	R39	Control - 2 meg audio w/switch	CBA-4005-1
S1A,B,C,D	Switch	SW-78A-1	R10,R12,R38,R40	Control - 500K audio	CBA-4007
S2	Switch SPST	SW-82403	R43	Control - 250K audio	CBA-4008
S3	Switch SPDT	SW-82422	R11	Control - 2 meg, audio	CBA-811-3702-1
R4,S5	Switches DPDT Slide	SW-129	R51	Control - 1 meg, audio	CBA-811-3709-1
I1	Pilot Light (Red)	PL-37R	R65	Control - 1.5 meg, RA	CBA-811-3711-1
I2	Pilot Light (Amber)	PL-38A	R7,R35	Control - 2 meg, RA	CBA-813-222-1
I3	Pilot Light (Red) w/clip	PL-34R	O1,O2	Speakers - 12" 8 ohms each	S-20011



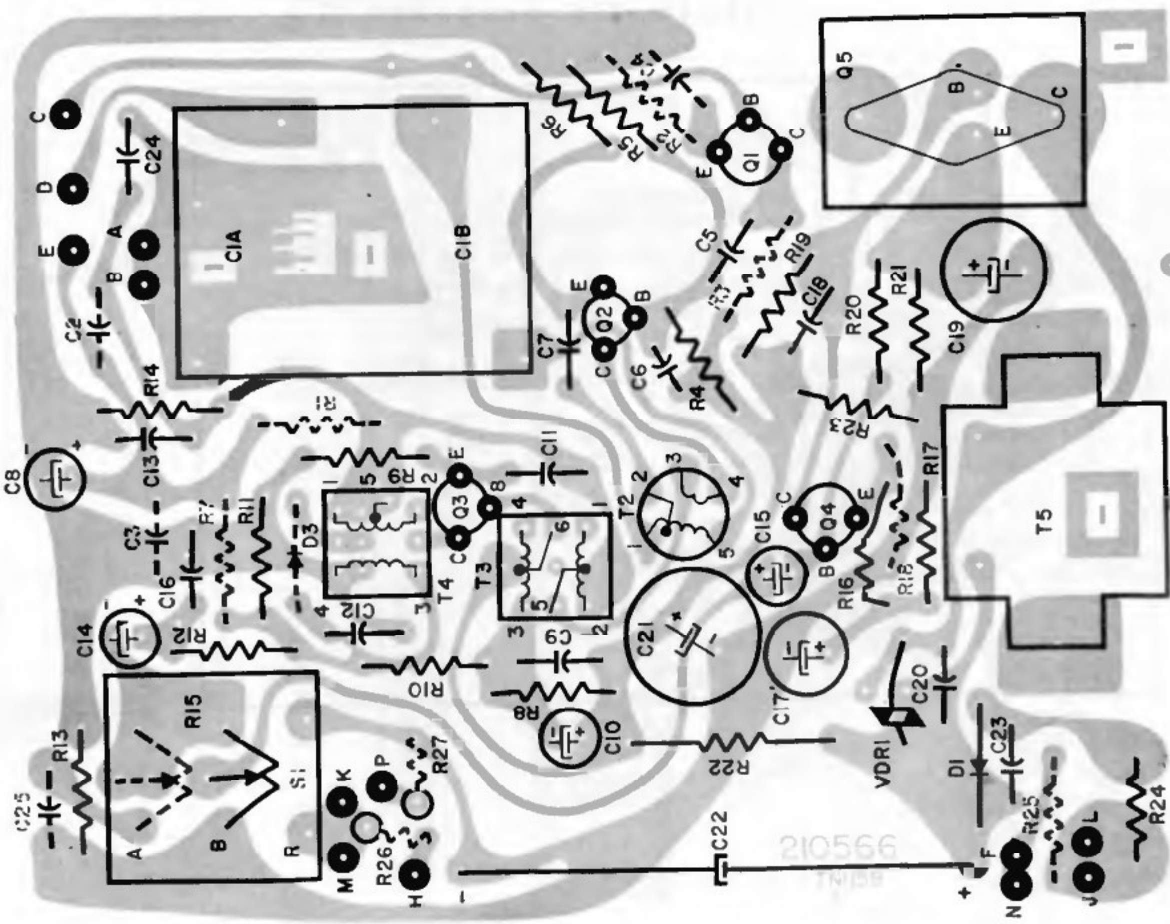
Magnavox R266 SERIES AM RADIO CHASSIS





NOTES:
UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS ARE 1/2W, 10%.
2. CAPACITANCE VALUES OF 1 AND LESS ARE IN MICROFARADS.
3. CAPACITANCE VALUES GREATER THAN 1 ARE IN PICOFARADS.
4. DC VOLTAGES ARE MEASURED WITH A HIGH IMPEDANCE VTVM, NO RF INPUT, AND A LINE VOLTAGE OF 117 VAC.

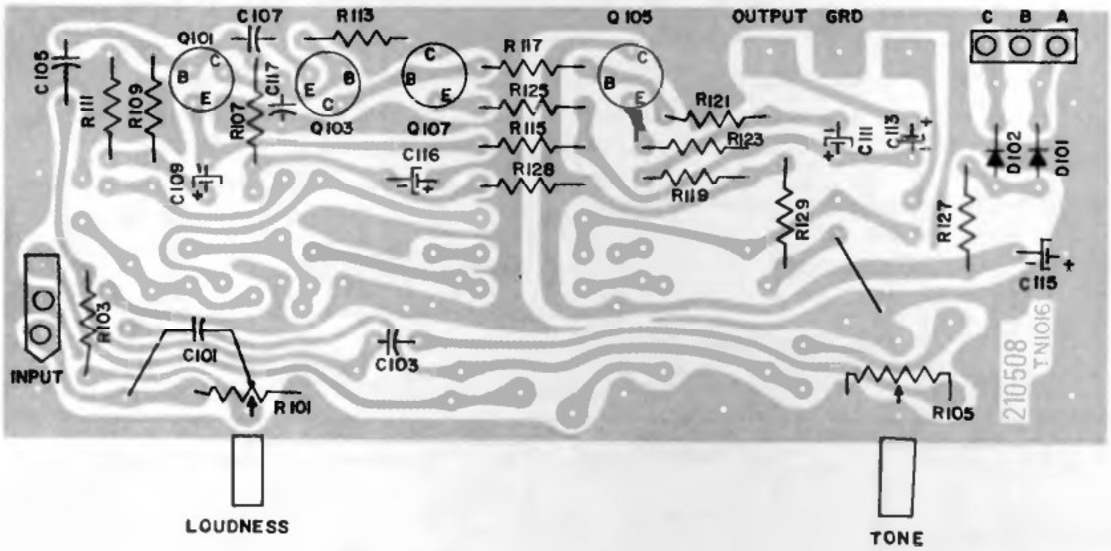
CIRCUIT BOARD LAYOUT (VIEWED FROM COPPER SIDE)



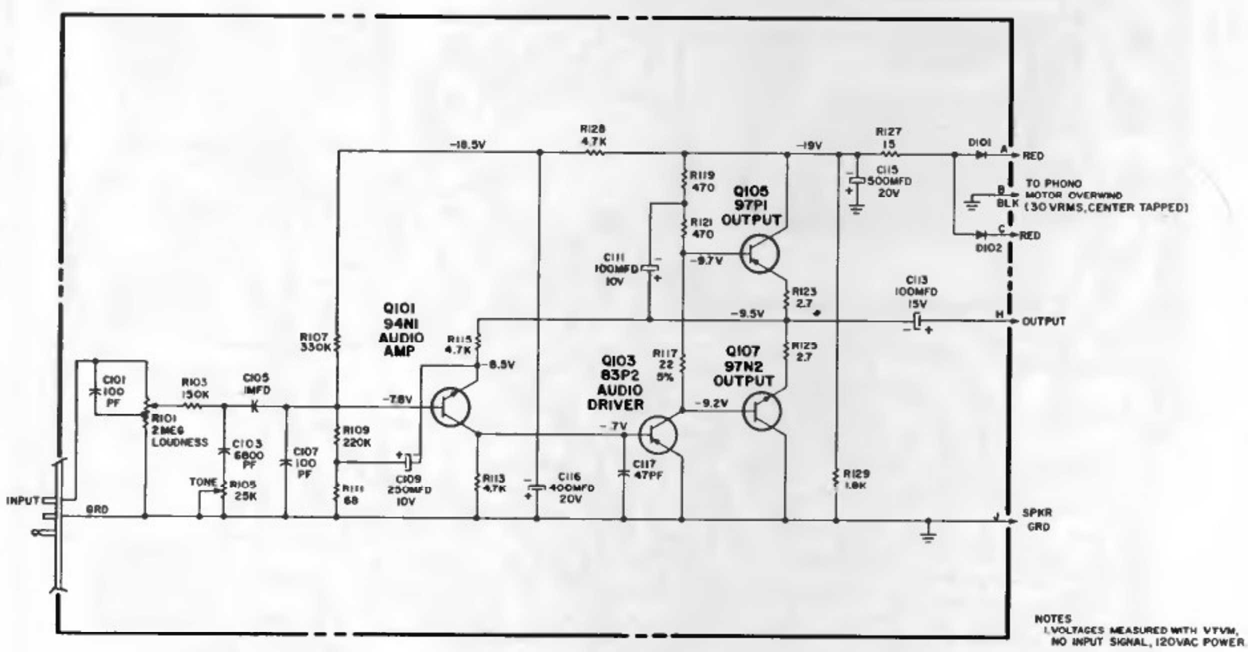
Intermediate Frequency 455 KHz

Magnavox Model 1P205; Amplifier Chassis A508

PRINTED CIRCUIT BOARD LAYOUT
(VIEWED FROM COPPER SIDE)



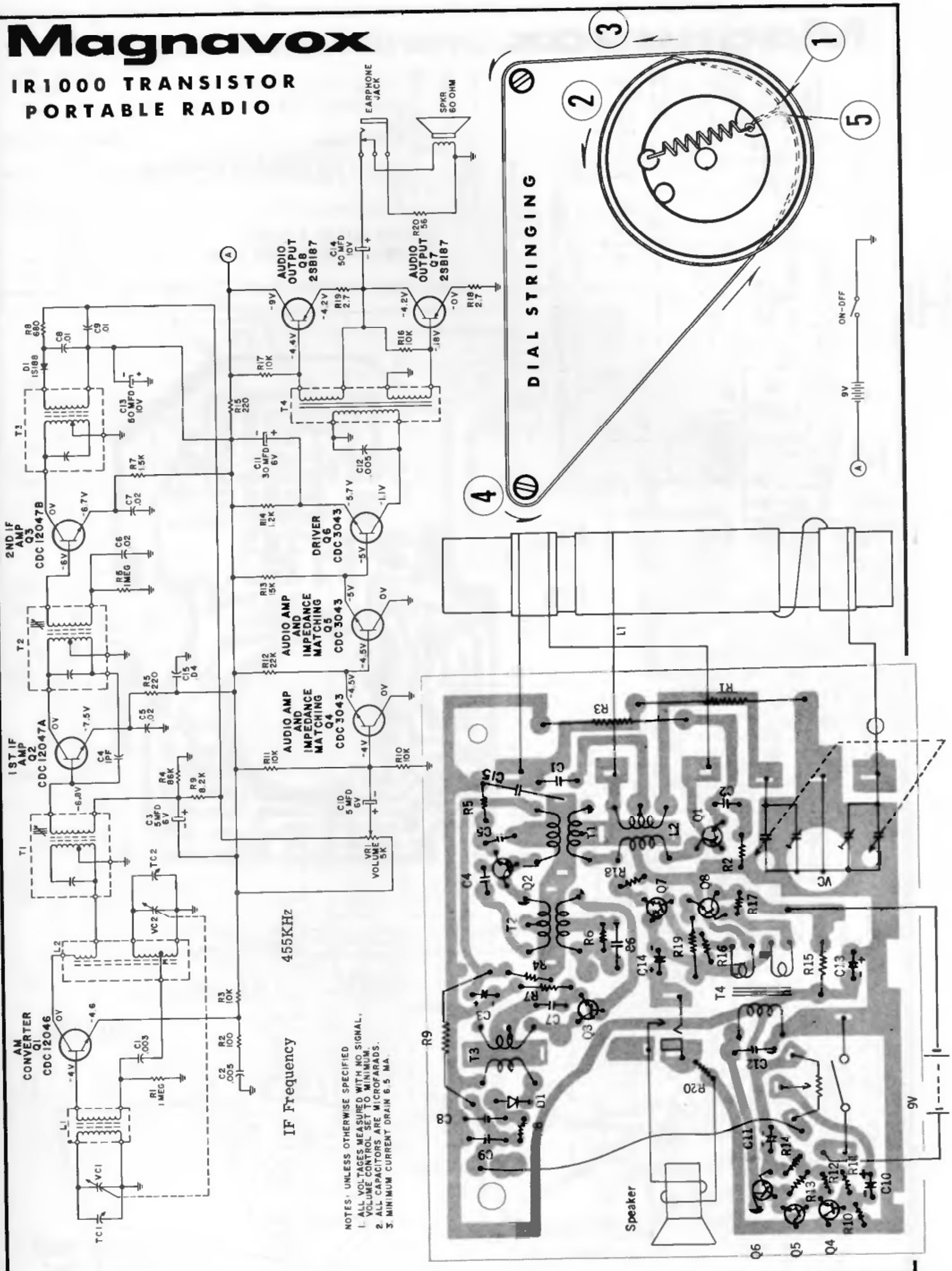
SCHEMATIC DIAGRAM



NOTES
1. VOLTAGES MEASURED WITH VTVM, NO INPUT SIGNAL, 120VAC POWER.

Magnavox

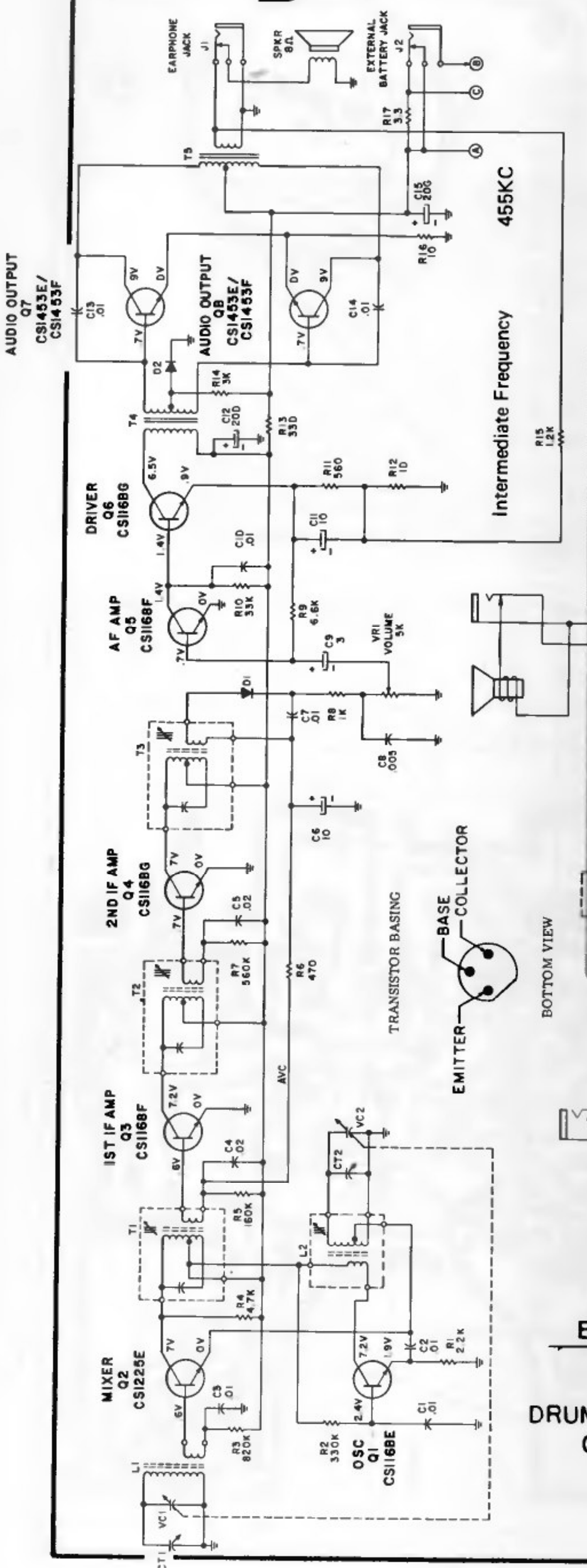
IR1000 TRANSISTOR PORTABLE RADIO



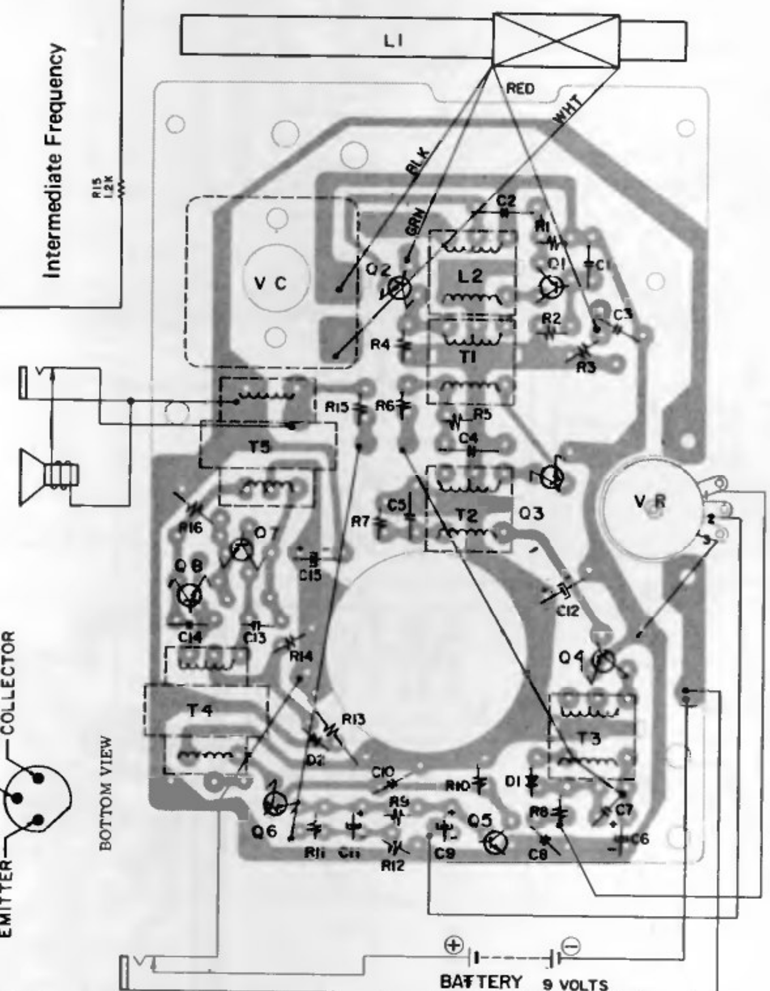
Magnavox

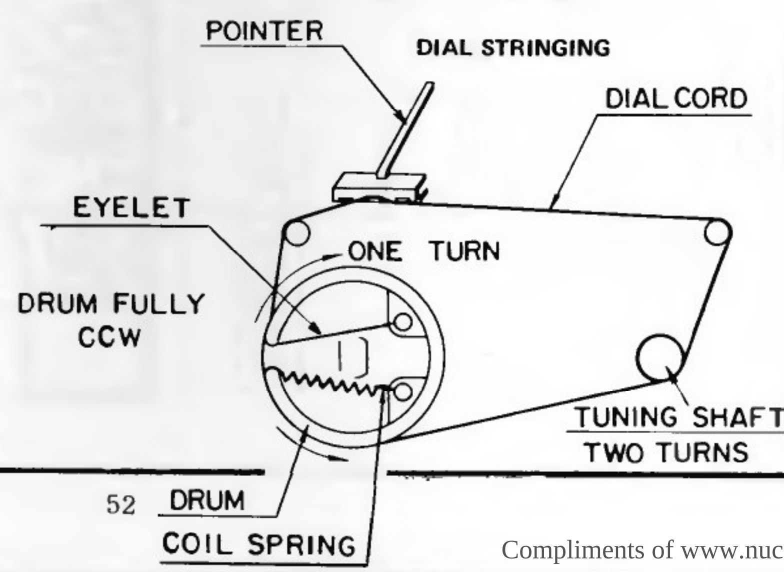
1R1002 AM SOLID-STATE RADIO

NOTES:
UNLESS OTHERWISE SPECIFIED
1. ALL CAPACITANCE VALUES ARE IN MFD'S.
2. ALL VOLTAGES POSITIVE WITH RESPECT TO GROUND.
3. MINIMUM CURRENT DRAIN 13.5MA.



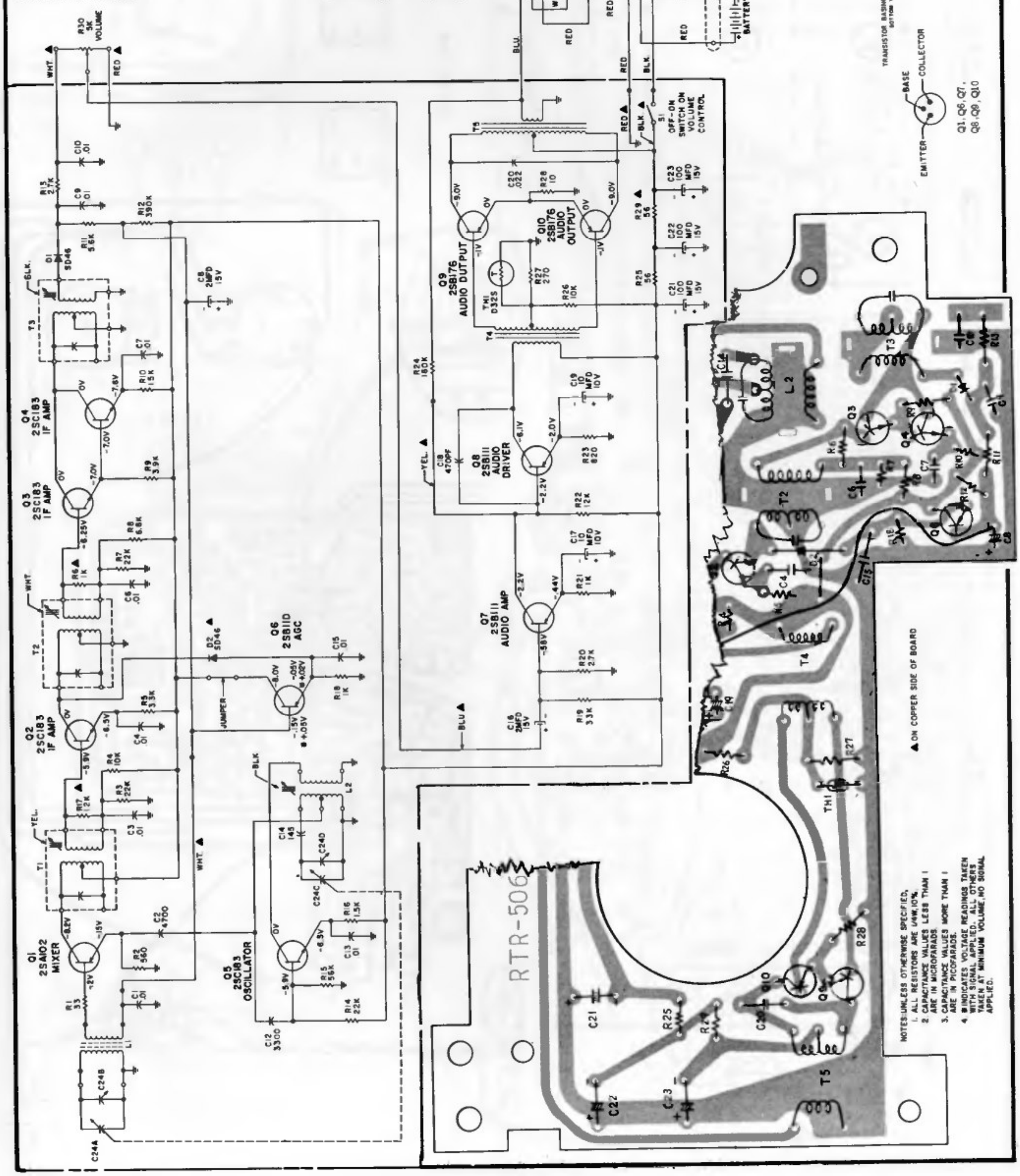
CIRCUIT BOARD LAYOUT
(VIEWED FROM COPPER SIDE)





Magnavox 1R1003 AM PORTABLE RADIO

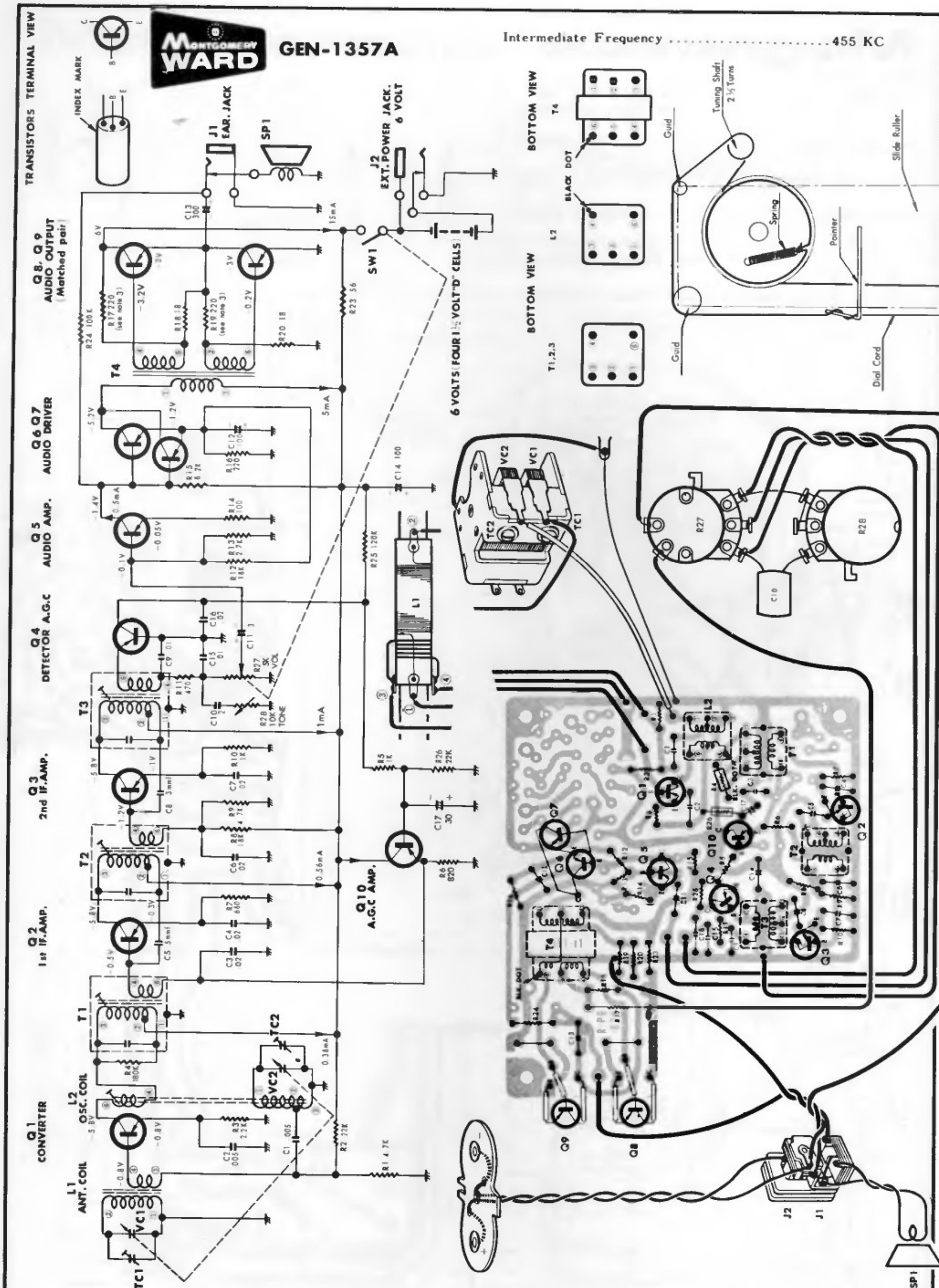
Power Source	
Battery	Eveready 216 or equiv.
AC	W/External Adaptor
Frequency Range	540-1600KC
Intermediate Frequency	455KC
Current Drain	8.2MA (no signal)



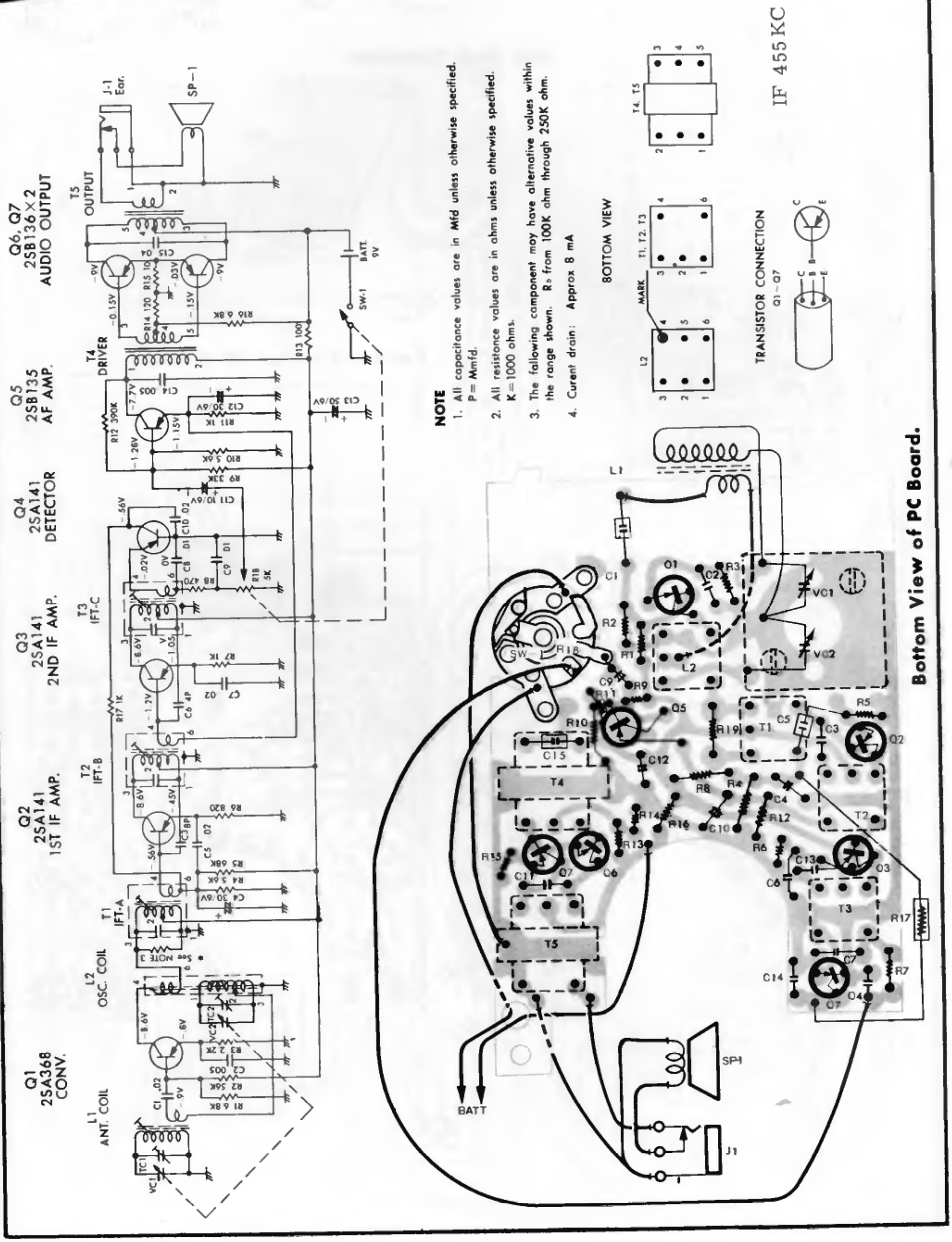
MONTGOMERY WARD

GEN-1357A

Intermediate Frequency .... 455 KC



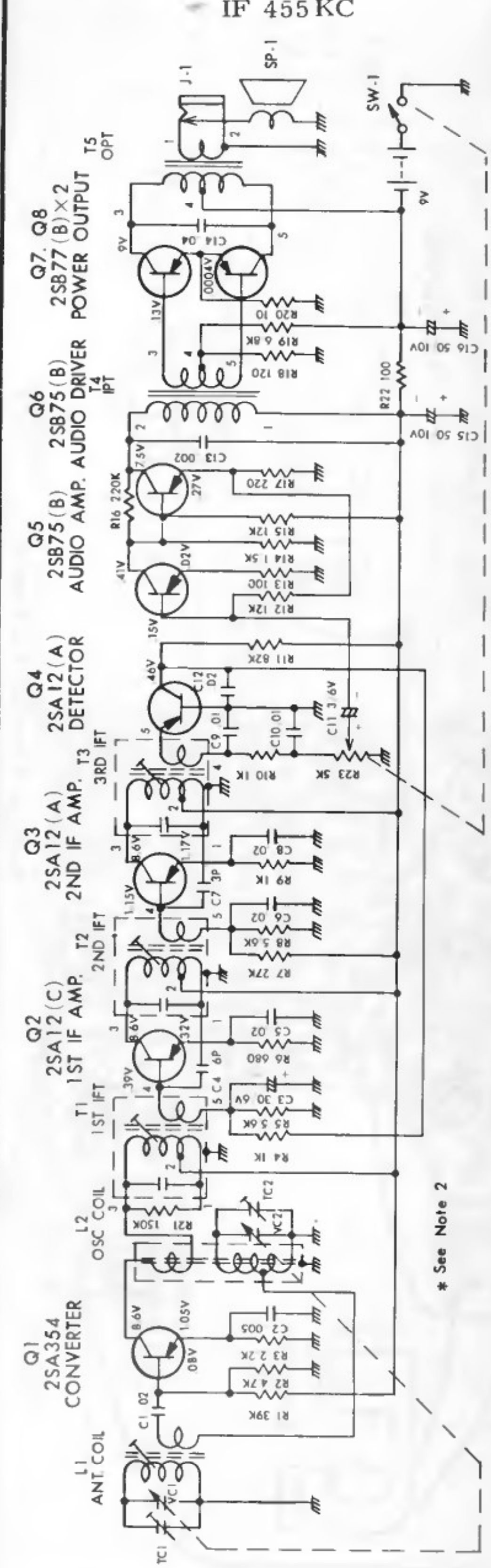
MODEL GEN-1119A



MONTGOMERY WARD

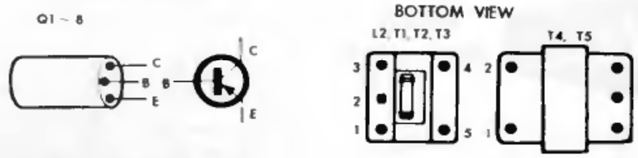
Model: GEN-1129A

IF 455KC

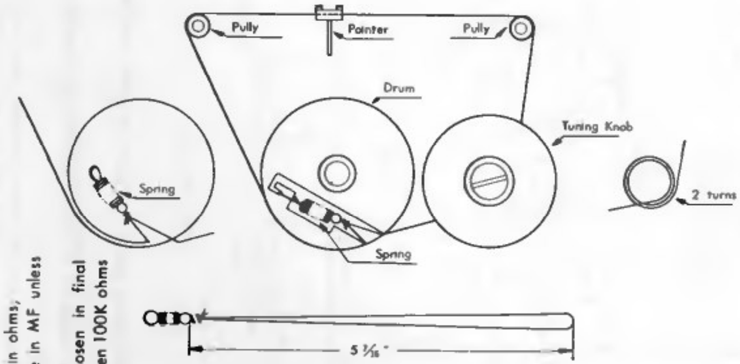


NOTES
1) All resistance values are in ohms; all capacitance values are in MF unless otherwise specified.
2) The value of R21 is chosen in final test and may vary between 100K ohms and 330K ohms.

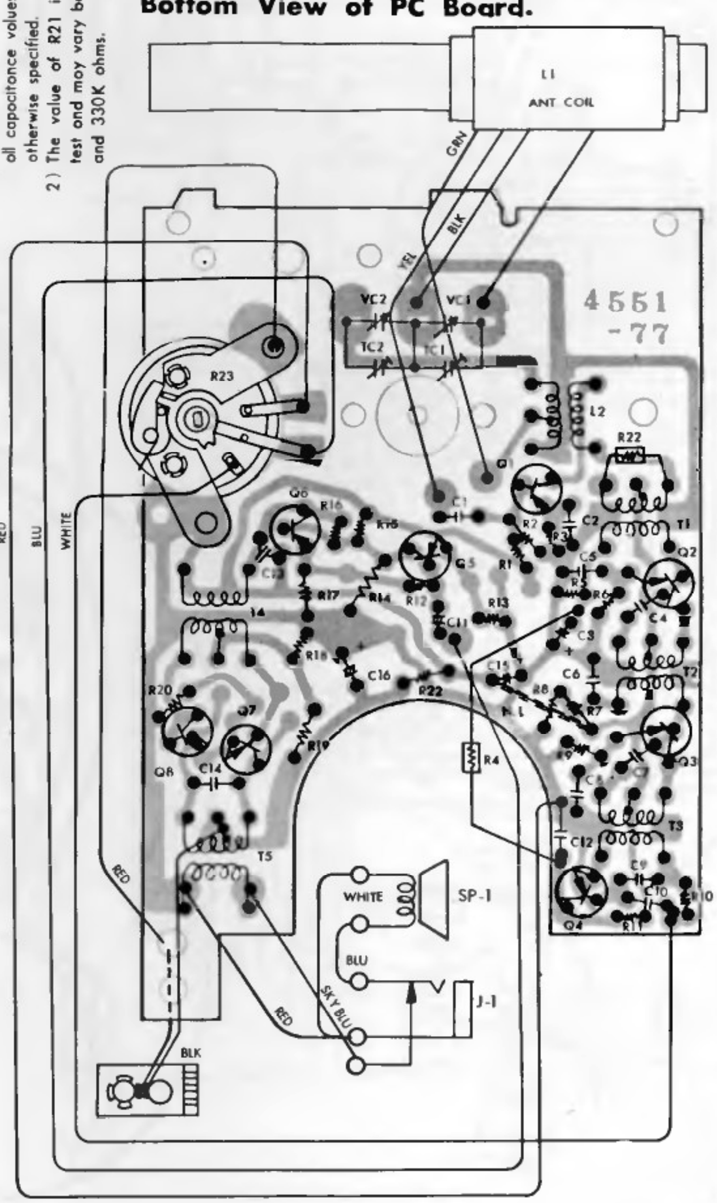
TRANSISTOR CONNECTION



Dial Cord Stringing.

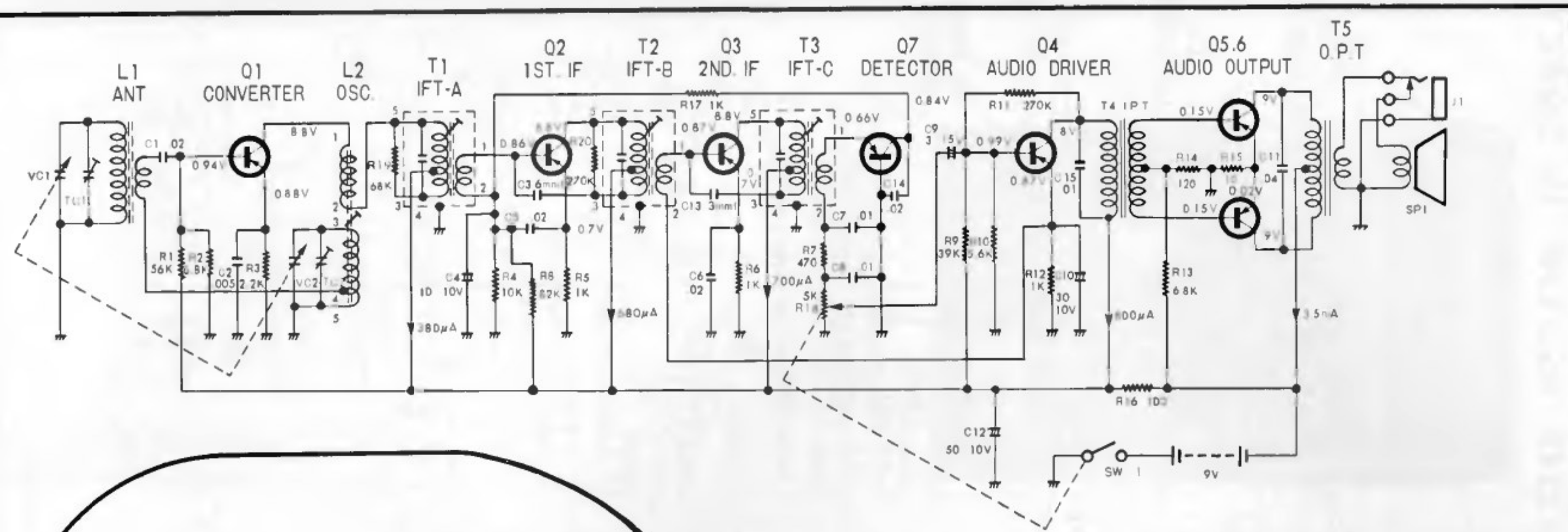


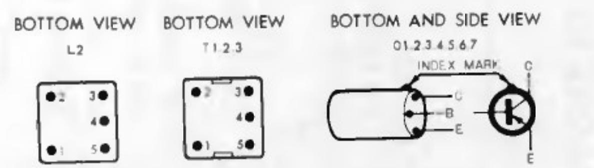
Bottom View of PC Board.



MONTGOMERY WARD

MODELS
GEN-1158A GEN-1158B
GEN-1158C



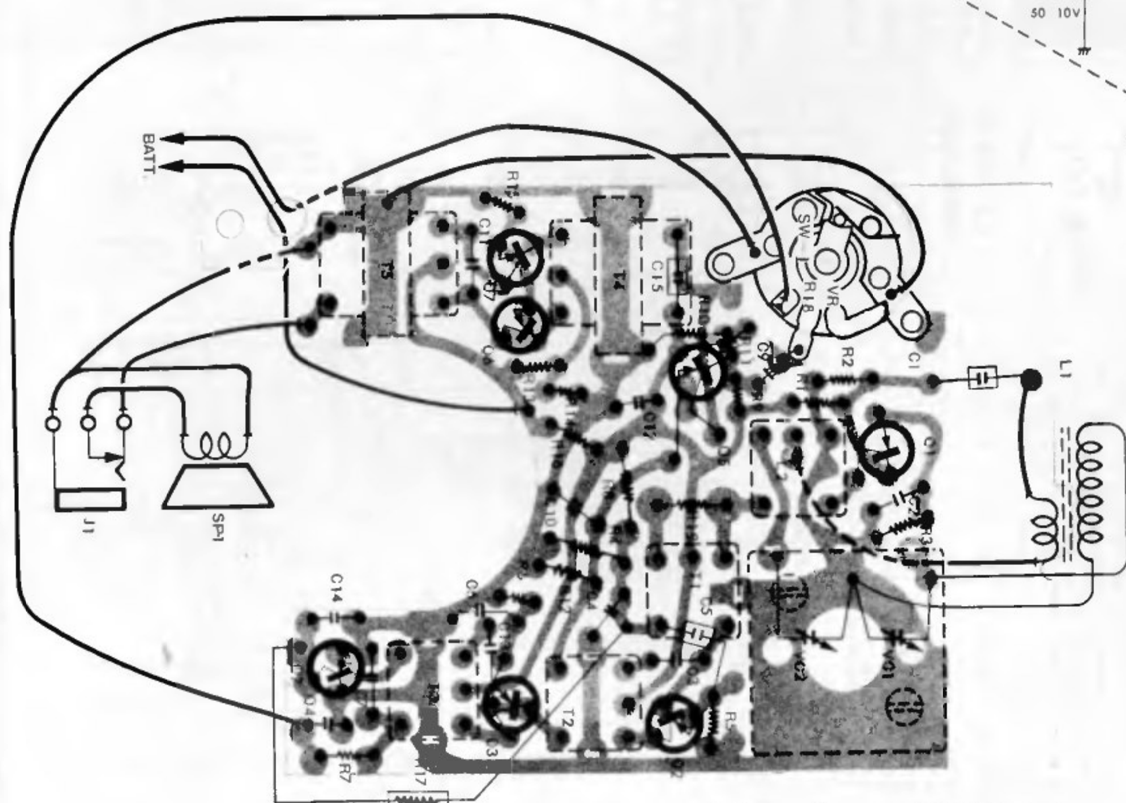


NOTES:

1) All resistance values are in ohms, all capacitance values are in MF unless otherwise specified.
2) Voltage measurements made with V.T.V.M. from indicated points to ground and with volume control at minimum, no signal input. Current measurement made at indicated points under the same conditions.
3) The following components may have alternate values within the ranges shown.

R1 : from 47K ohm to 56K ohm
R13 : from 6.8K ohm to 12K ohm
R19 : from 82K ohm to 270K ohm
R20 : from 180K ohm to ohm

IF 455KC

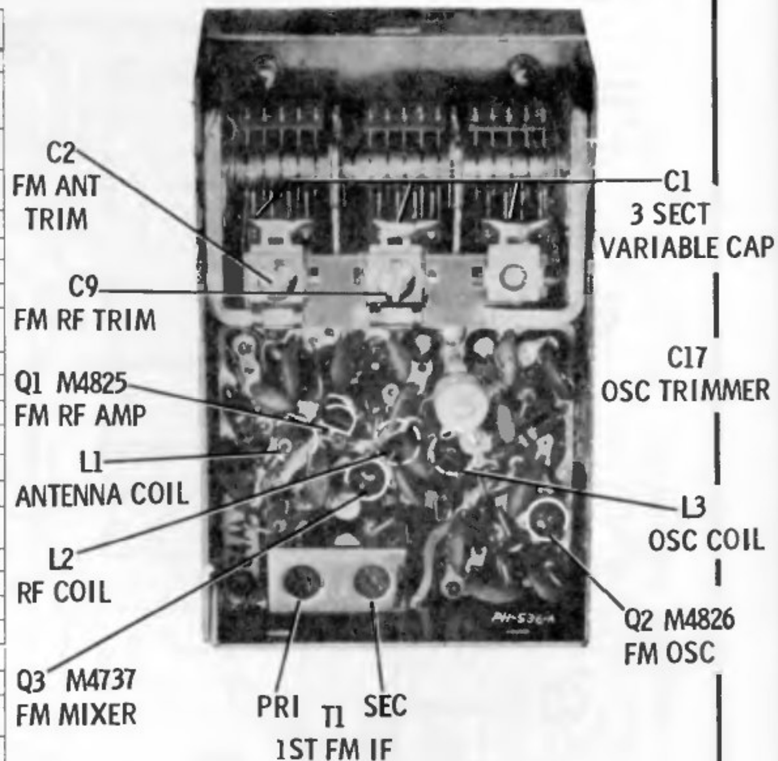


Bottom View of PC Board.

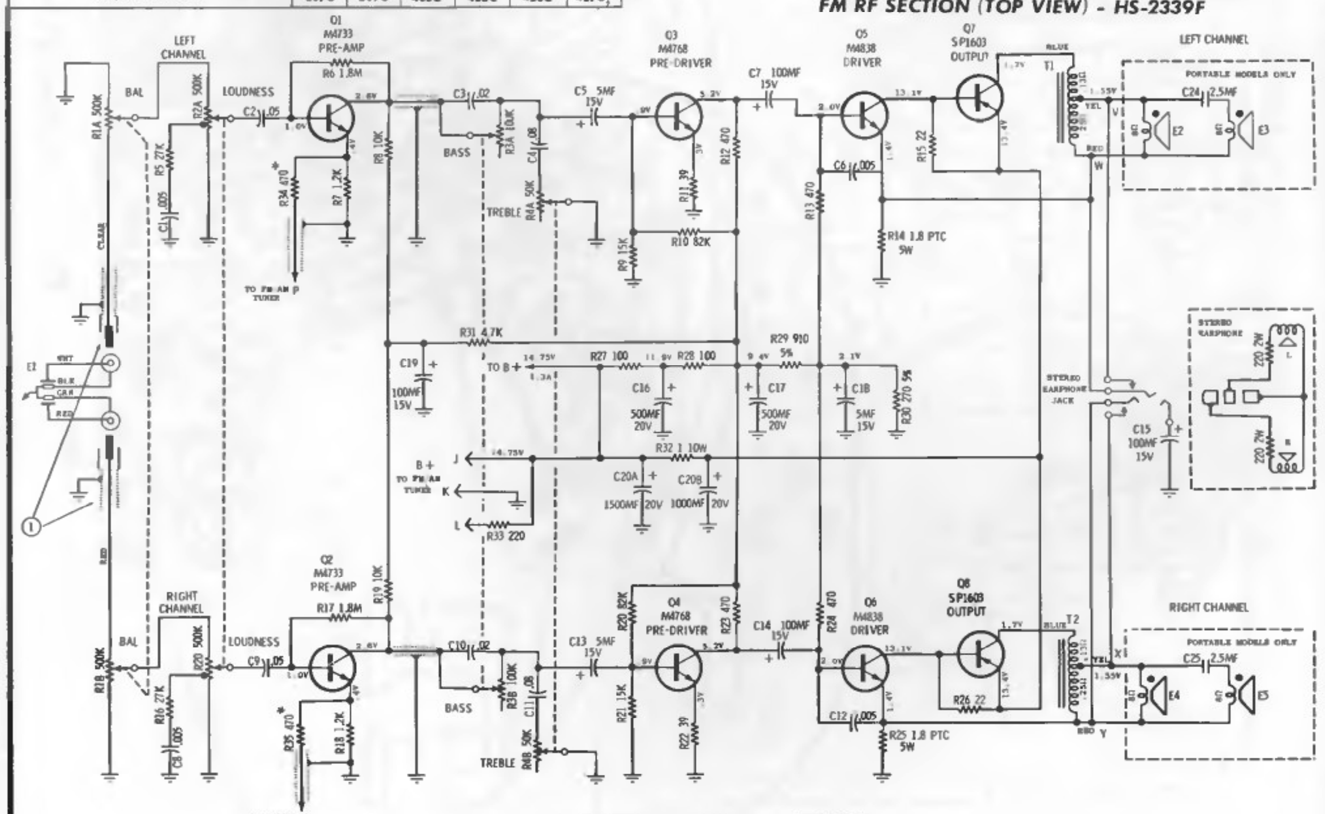
MOTOROLA MODELS PP207C, PP209C, PK403C, SK455C, SK456C, SK457C
CHASSIS HS-2334A, HS-2339F, HS-2349C

(Continued on next two pages.)

MODEL NUMBER	PP 207C	PP 209C	PK 403C	SK 455C	SK 456C	SK 457C
CHANNELS	2	2	2	2	2	2
WATTS-MUSIC POWER OUTPUT	5	5	5	5	5	5
MOTOROLA 4-SPEED AUTOMATIC RECORD CHANGER	M 113RC	M 114RC	VM 124RC	VM 124RC	VM 119RC	VM 119RC
CARTRIDGE	Cer.	Cer.	Cer.	Cer.	Cer.	Cer.
STYLII	Saph.	Dia.	Dia.	Dia.	Dia.	Dia.
CHANGER COMPARTMENT LIGHT						
RECORD STORAGE			Yes	Yes	Yes	Yes
OUTPUT STAGE	S.E.	S.E.	S.E.	S.E.	S.E.	S.E.
LOUDNESS CONTROL	Yes	Yes	Yes	Yes	Yes	Yes
TONE CONTROL						
BASS AND TREBLE CONTROL	Yes	Yes	Yes	Yes	Yes	Yes
BALANCE CONTROL	Yes	Yes	Yes	Yes	Yes	Yes
TRANSFORMER POWER SUPPLY	Yes	Yes	Yes	Yes	Yes	Yes
ON-OFF INDICATOR				Yes	Yes	Yes
STEREO HEADPHONE JACK			Yes	Yes	Yes	Yes
TAPE INPUT AND OUTPUT JACKS				Yes	Yes	Yes
NOISE FILTER						
LOC/DIST. SWITCH				Yes	Yes	Yes
EXTENDED BASS						
FM MUTE						
NUMBER OF TRANSISTORS	8	8	8	21	21	21
45 R.P.M. SPINDLE AND STORAGE	Yes	Yes	Yes	Yes	Yes	Yes
TUNER CHASSIS				HS 2339F	HS 2339F	HS 2339F
AMPLIFIER CHASSIS	HS 2349C	HS 2349C	HS 2234	HS 2334	HS 2334	HS 2334
MODEL NUMBER	PP 207C	PP 209C	PK 403C	SK 455C	SK 456C	SK 457C



FM RF SECTION (TOP VIEW) - HS-2339F



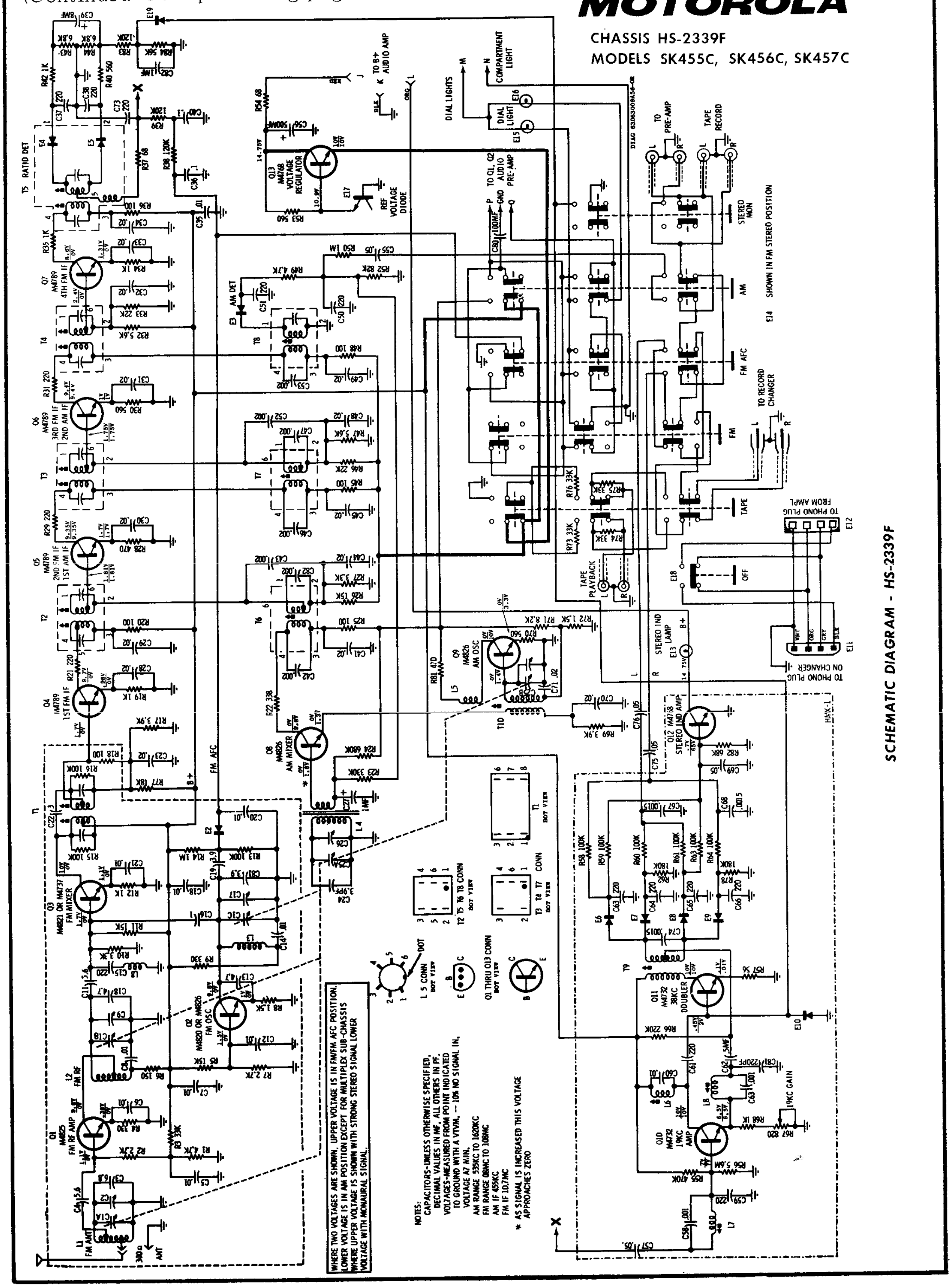
SCHEMATIC DIAGRAM - HS-2334A

(Continued from preceding page and on next page.)

MOTOROLA

CHASSIS HS-2339F

MODELS SK455C, SK456C, SK457C

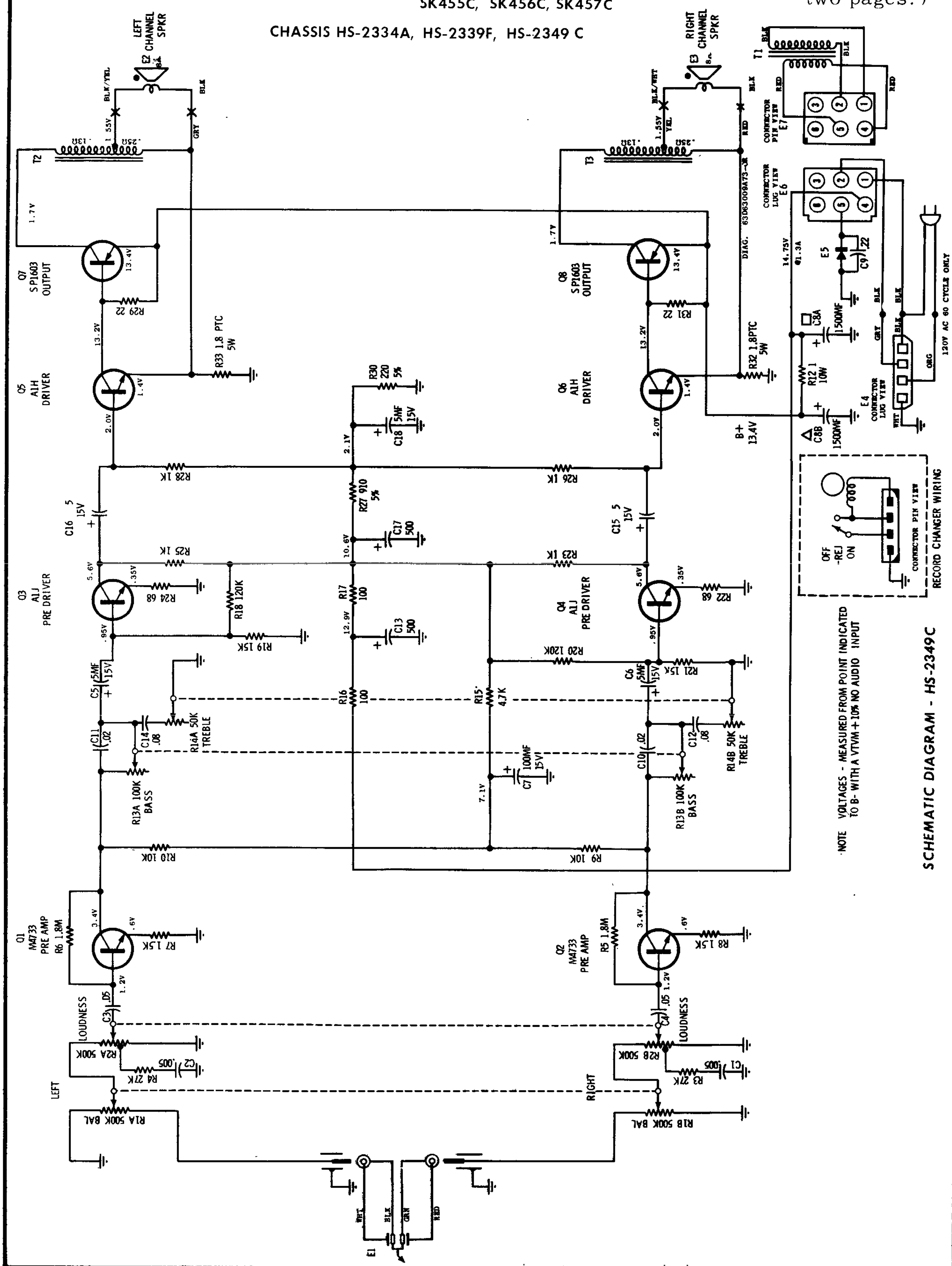


MOTOROLA

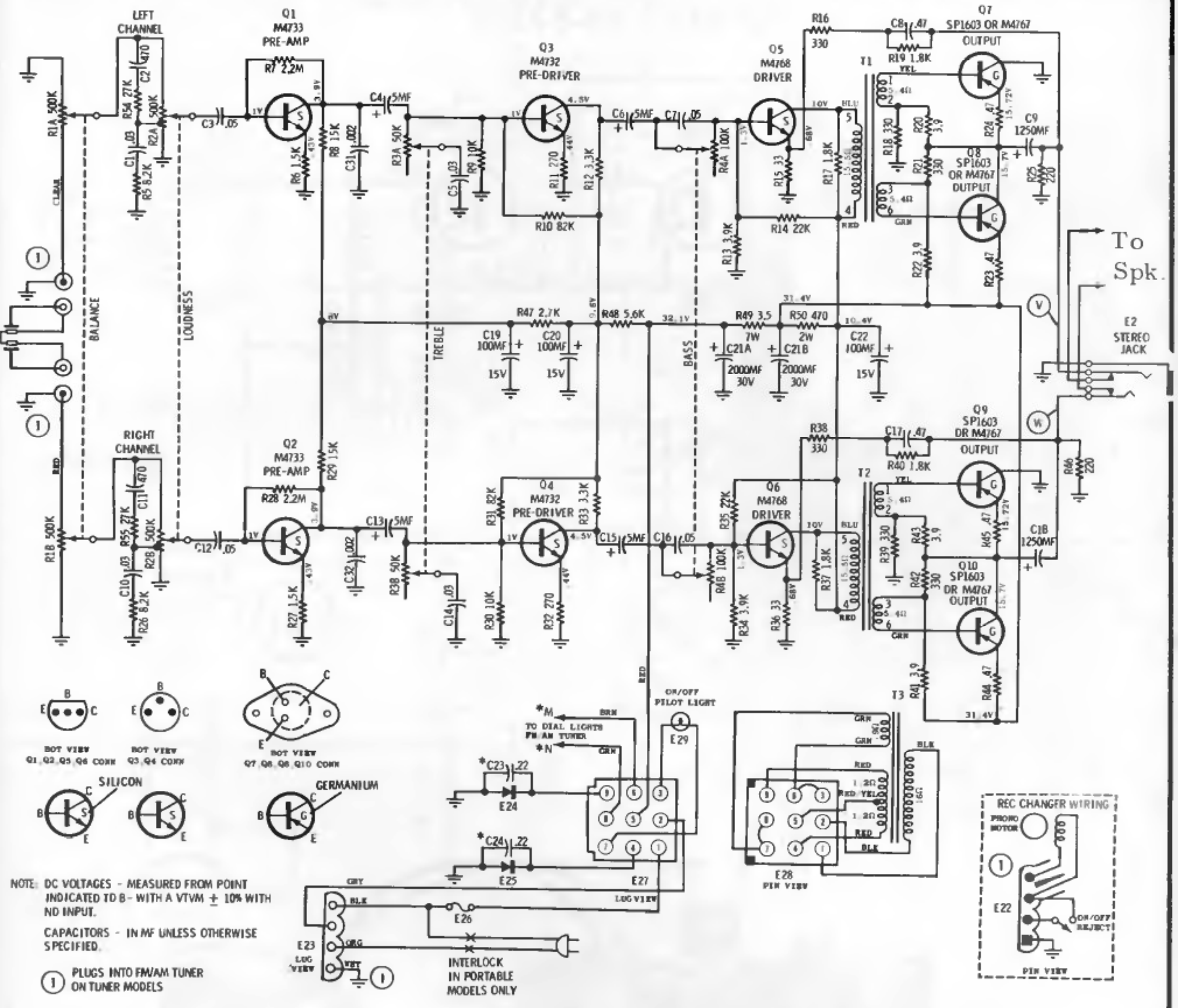
MODELS PP207C, PP209C, PK403C, SK455C, SK456C, SK457C

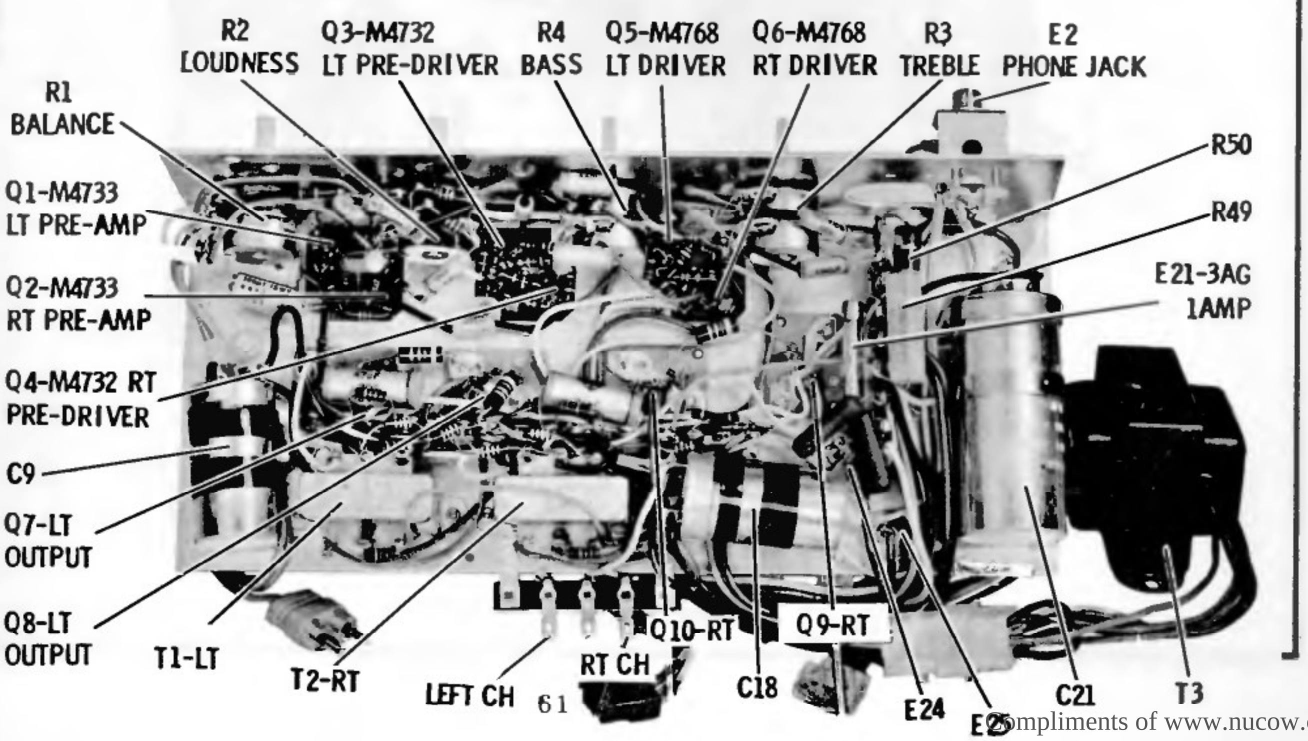
CHASSIS HS-2334A, HS-2339F, HS-2349 C

(Continued from the preceding two pages.)



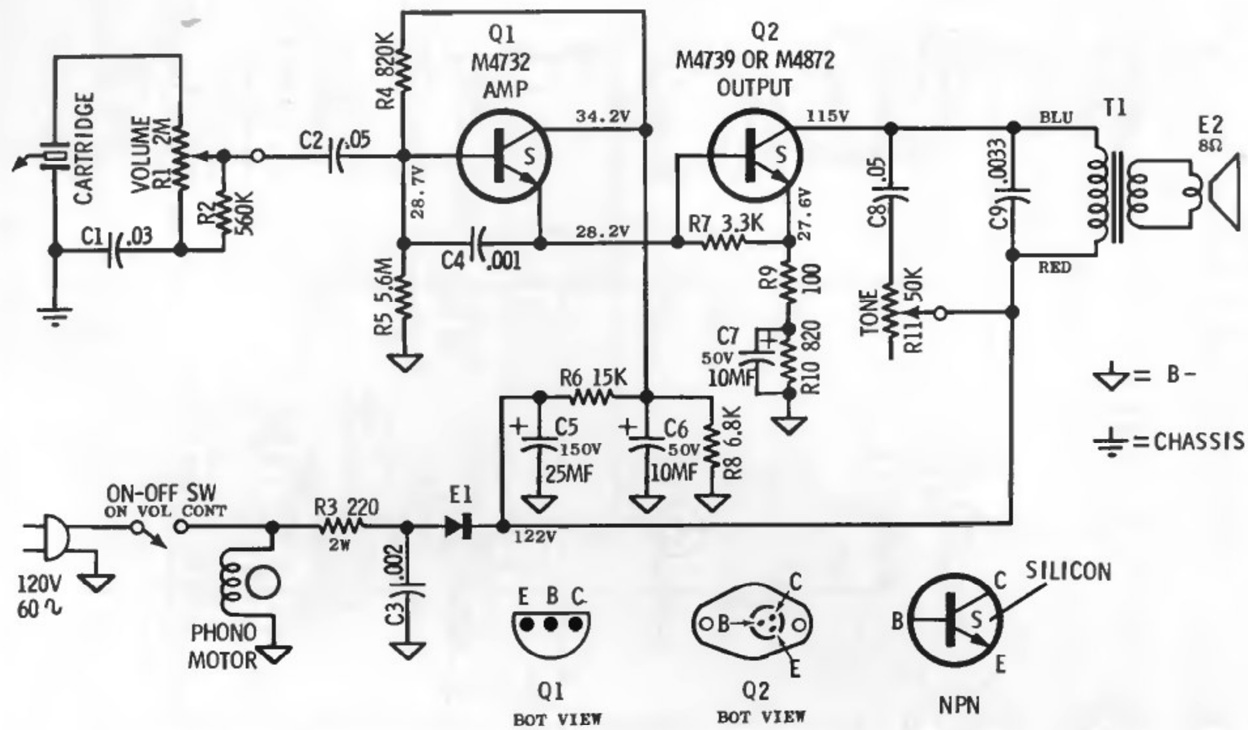
MOTOROLA CHASSIS HS-62250; MODEL PK15C

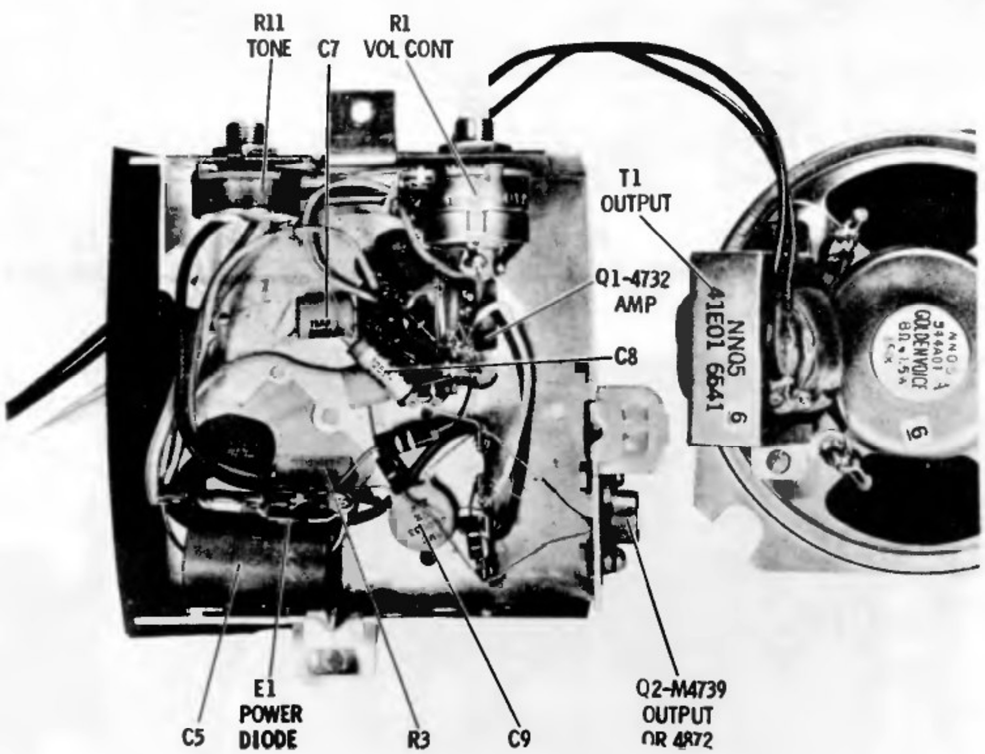




MOTOROLA MODEL MP10C

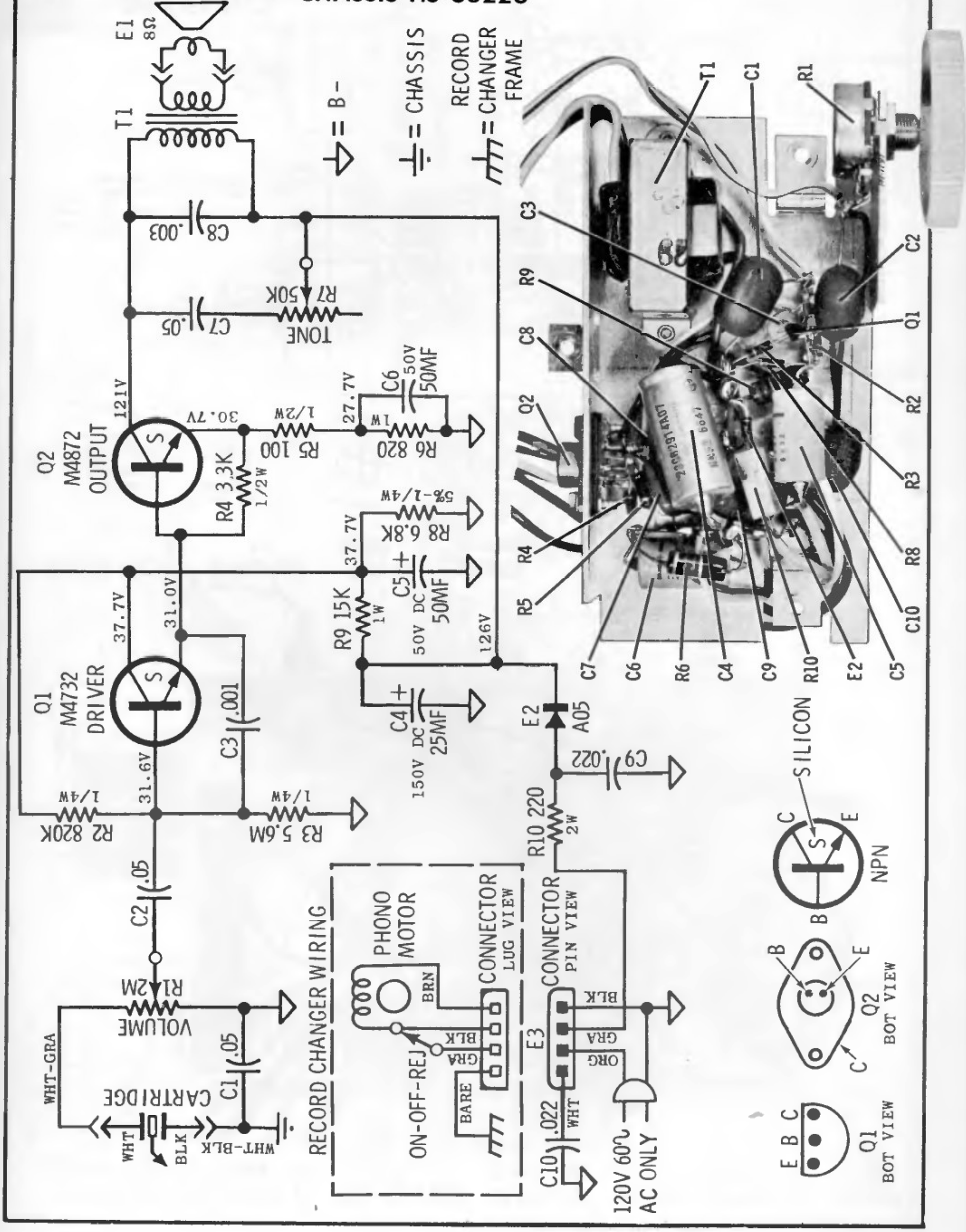
CHASSIS HS-63213





PARTS LOCATION

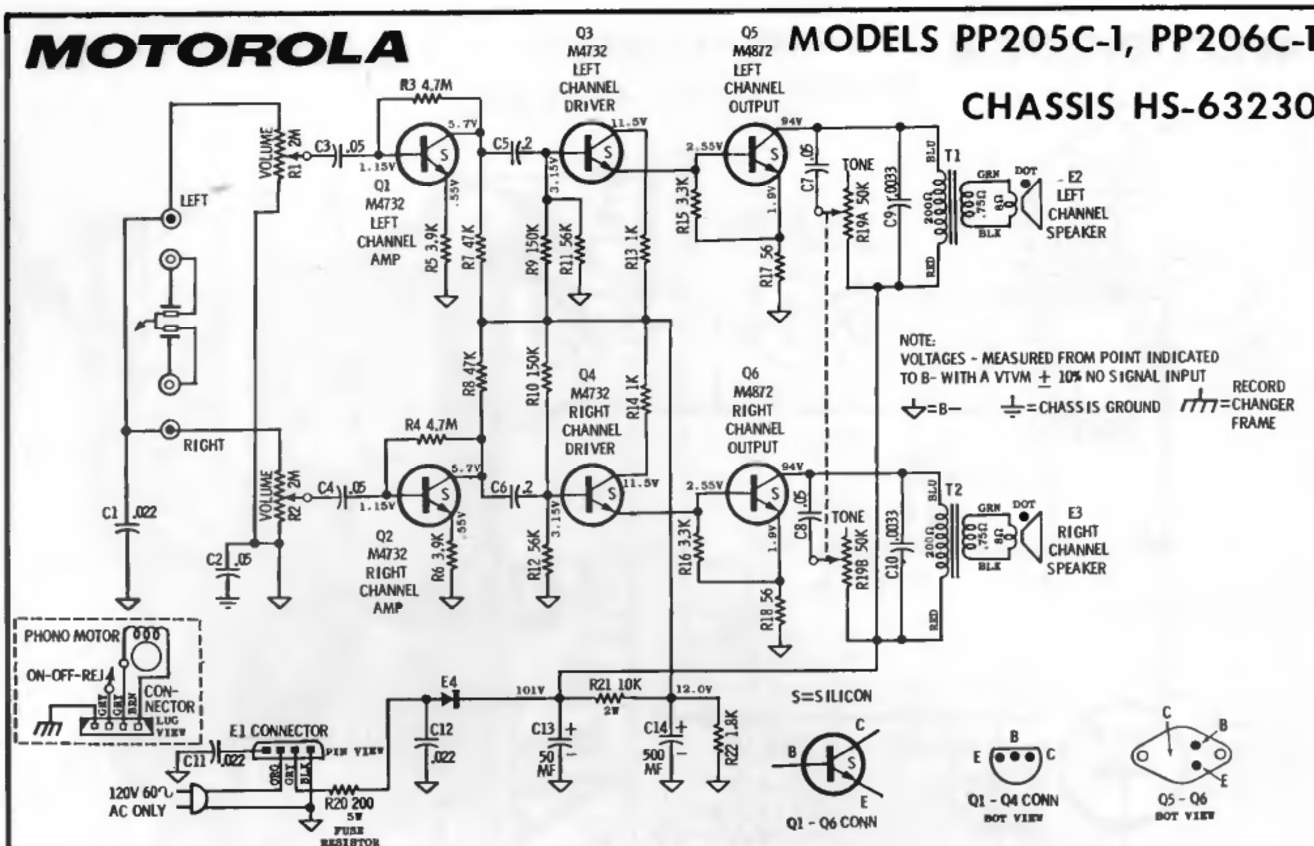
MOTOROLA MODEL MP102C
CHASSIS HS-63226

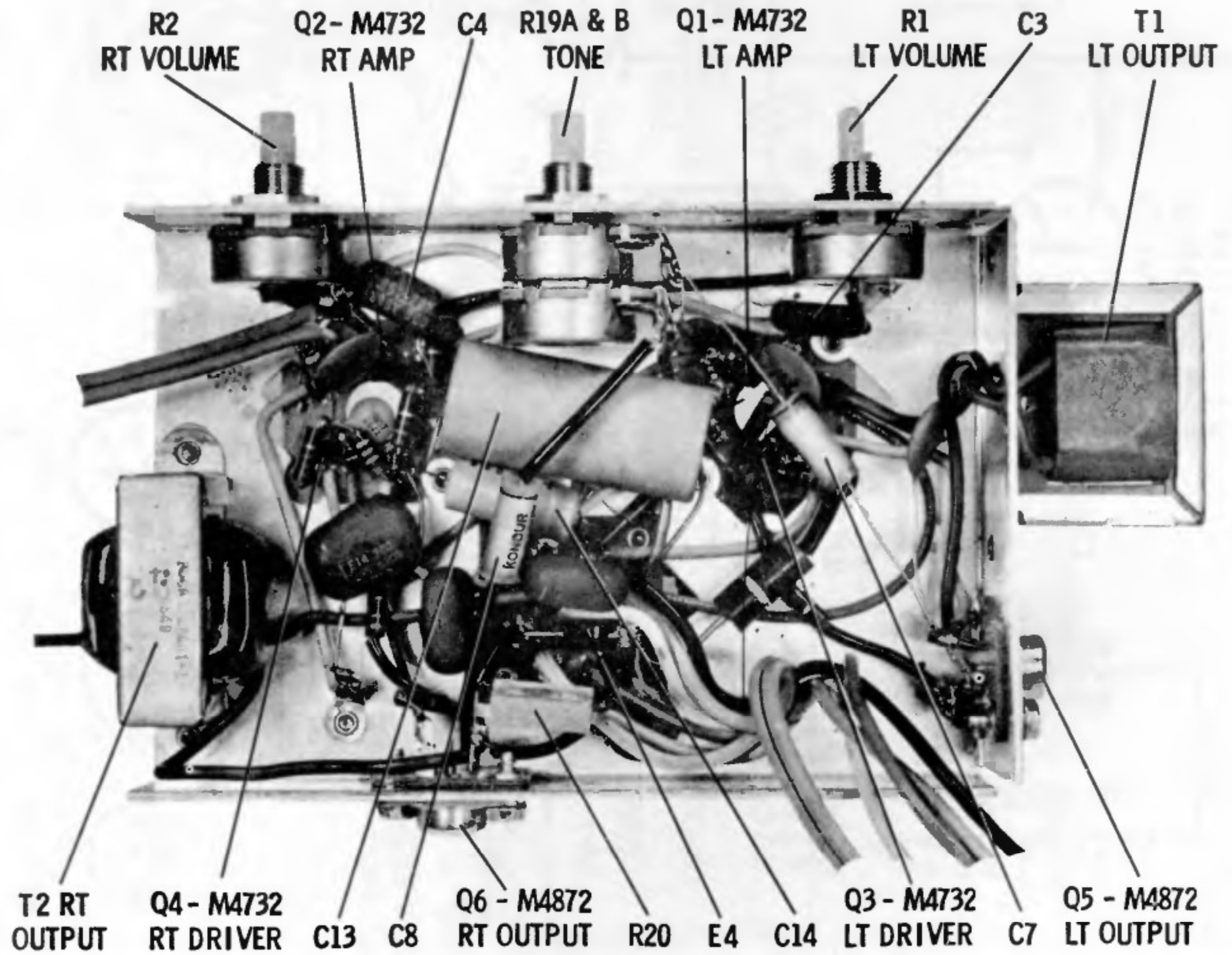


MOTOROLA

MODELS PP205C-1, PP206C-1

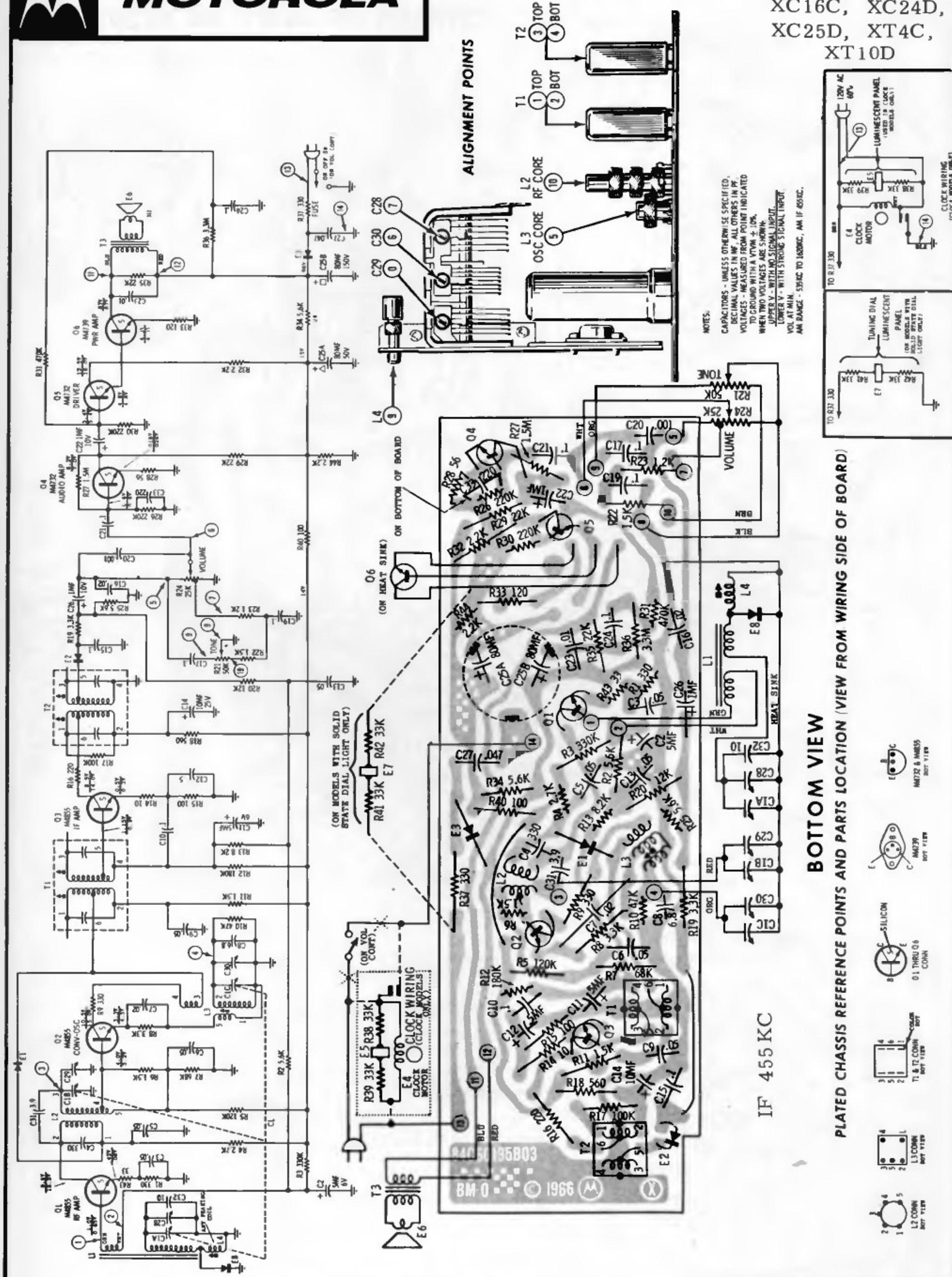
CHASSIS HS-63230





MOTOROLA

CHASSIS HS-67216 MODELS: XC15C, XC16C, XC24D, XC25D, XT4C, XT10D

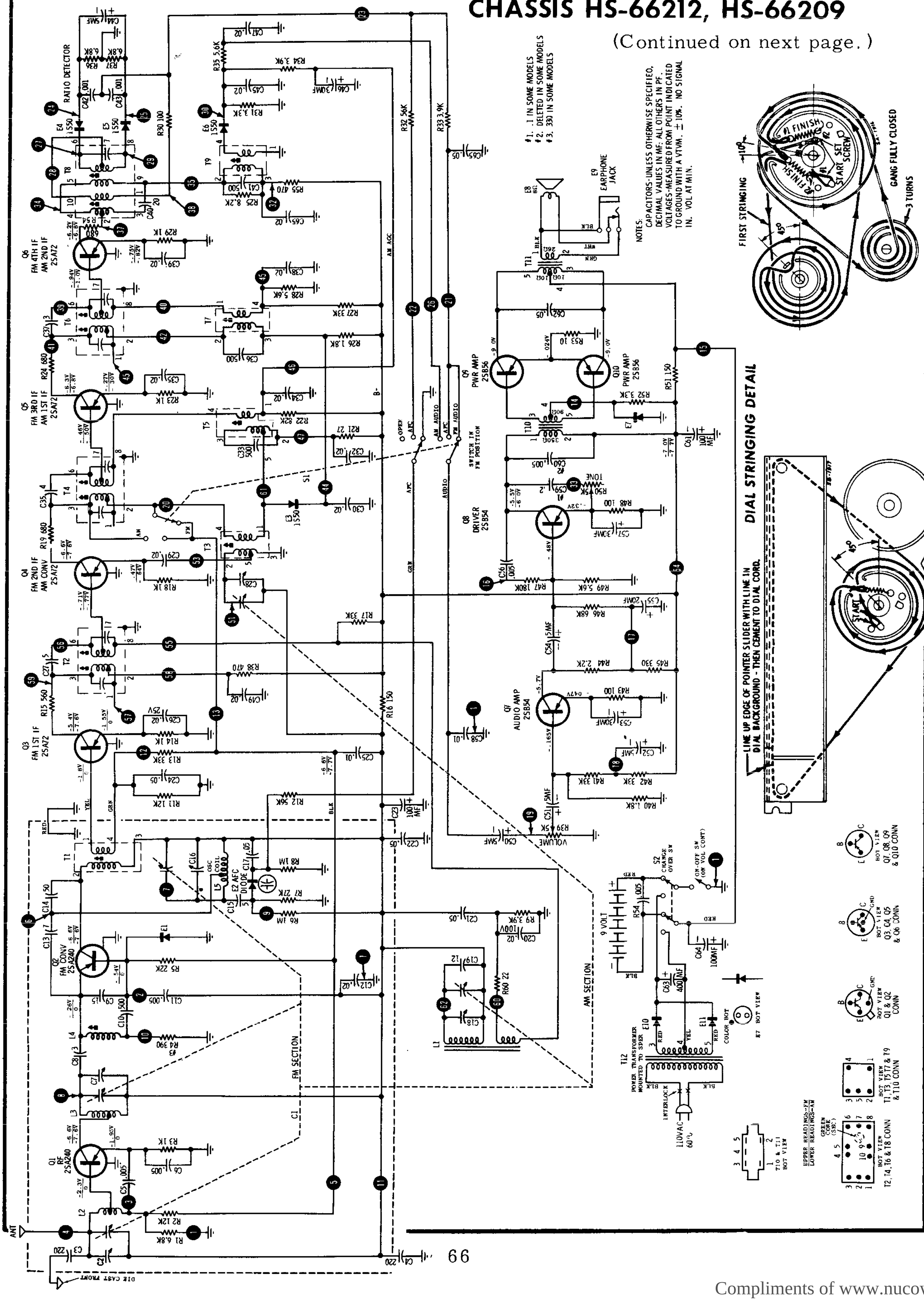


MOTOROLA

MODELS TP11C & TP12C

CHASSIS HS-66212, HS-66209

(Continued on next page.)



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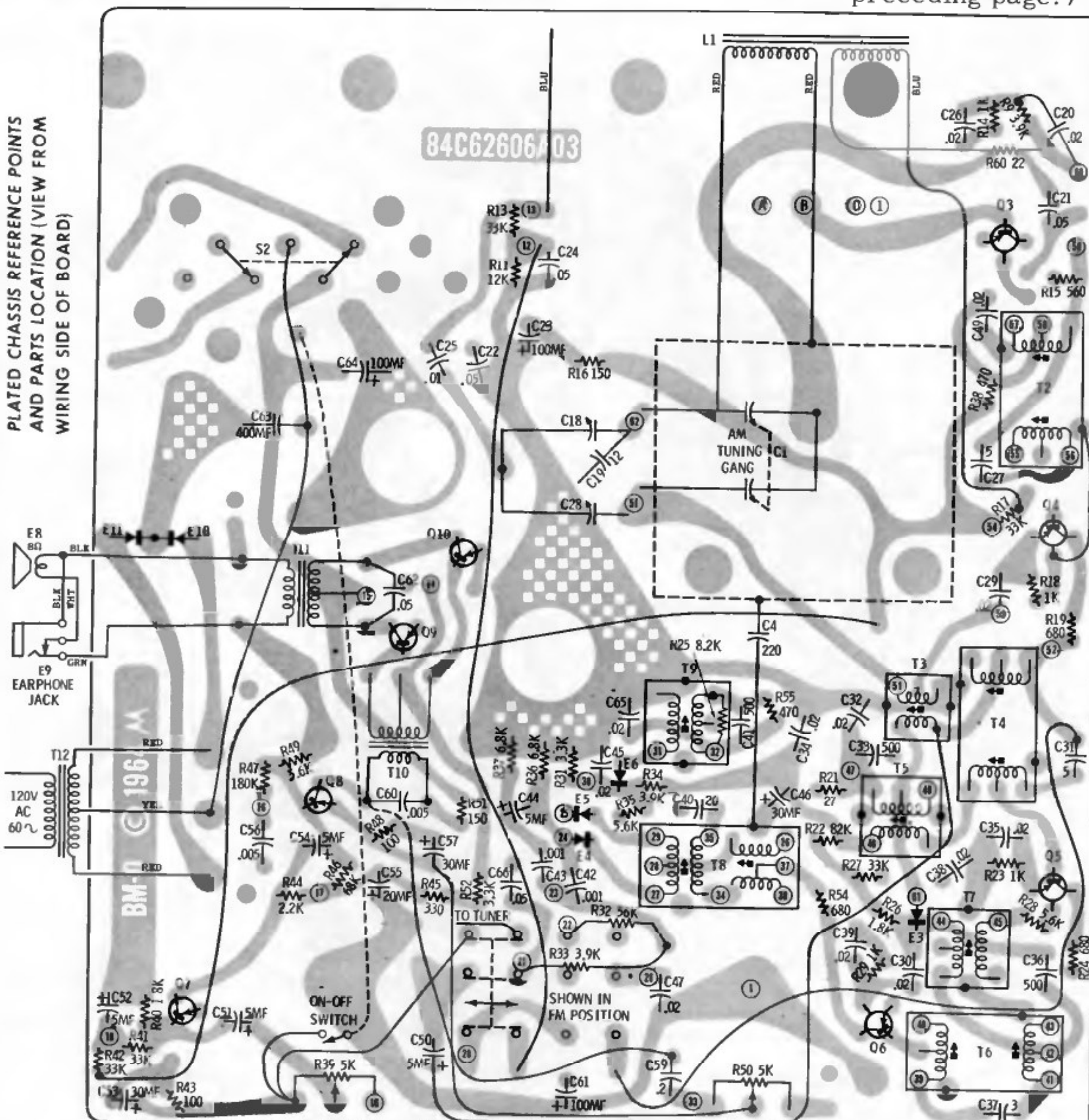
MODELS TP11C & TP12C

BOTTOM VIEW

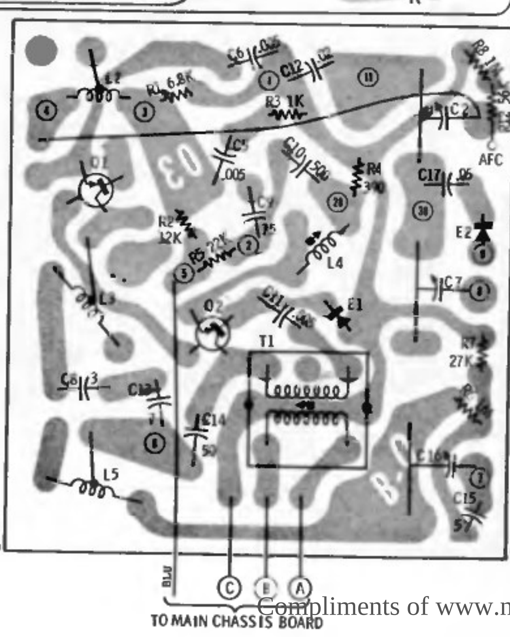
PLATED CHASSIS REFERENCE POINTS AND PARTS LOCATION (VIEW FROM WIRING SIDE OF BOARD)



ALIGNMENT POINTS

(1) (2) RATIO DET 10.7MC	(13) ANT TRIM 106MC
(3) (4) IF 10.7MC	(14) RF COIL (PRI) 90MC
(5) (6) IF 10.7MC	(15) ANT COIL 90MC
(7) (8) IF 10.7MC	(16) RF CORE (SEC) 98MC
(9) IF 10.7MC	(17) IF 455KC
(10) OSC TRIM 108.5MC	(18) IF 455KC
(11) OSC COIL 87.5MC	(19) IF 455KC
(12) RF TRIM 106MC	(20) OSC TRIM 1620KC
	(21) ANT TRIM 1400KC
	(22) OSC CORE 532KC

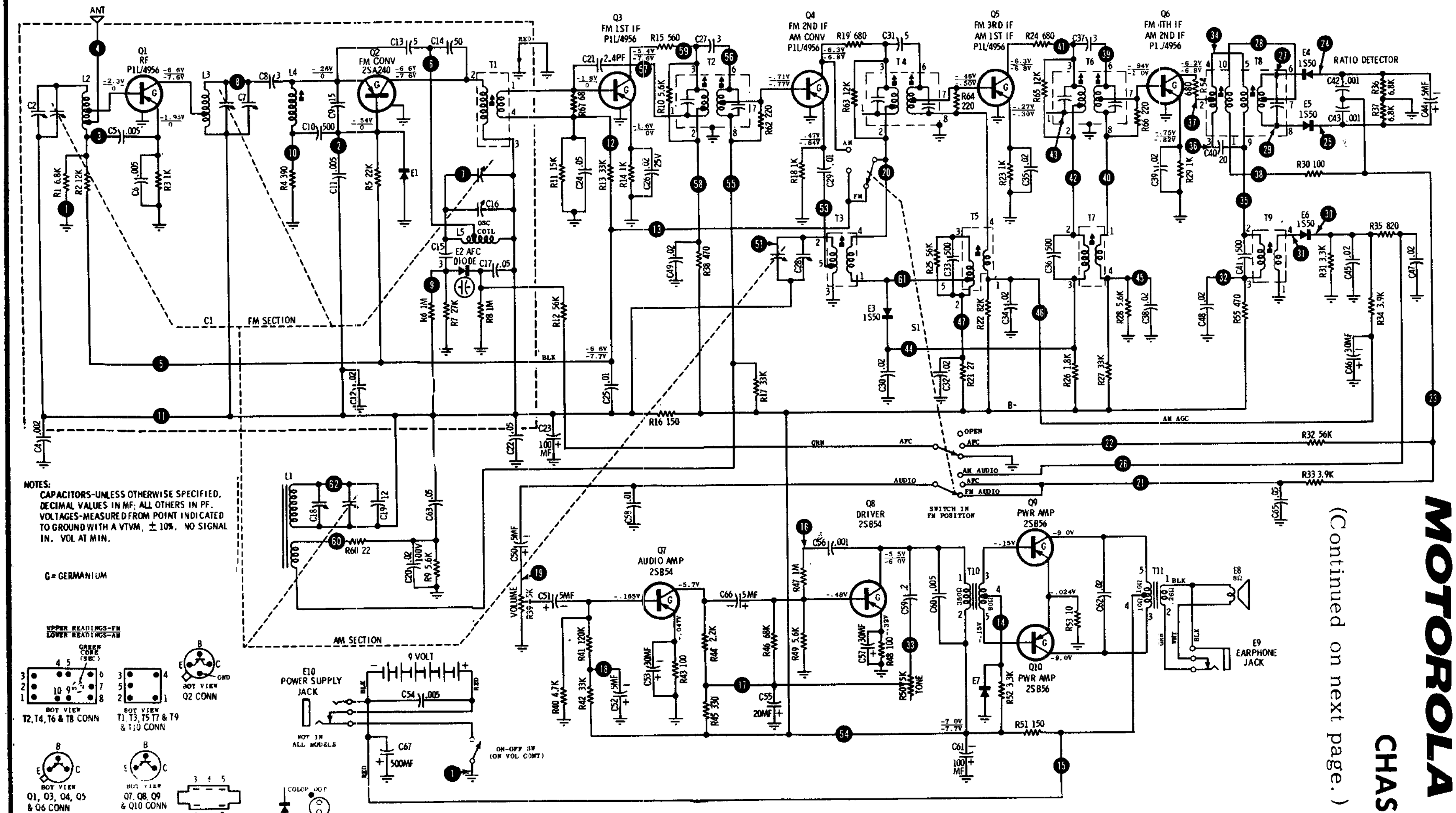
FM TUNER BOARD REFERENCE POINTS BOTTOM VIEW



MOTOROLA MODEL TP10D

CHASSIS HS-66227

(Continued on next page.)



CHASSIS REMOVAL

1. Remove 3 cabinet back mounting screws; 2 are located at top of cabinet (under carrying handle), the other screw is located on bottom of cabinet.

2. Remove the earphone jack mounting nut (a special tool is available - order Part Number 66A646211).

3. Separate cabinet back from front escutcheon far enough to gain access to chassis, then unsolder yellow lead from monopole FM antenna.

4. To remove chassis completely, first remove control knobs from front of radio.

5. Remove 6 chassis and 1 dial background mounting screws.

6. If necessary, unsolder speaker leads, then remove chassis from escutcheon.

TUNING RANGE

FM - 88 to 108Mc (FM IF - 10.7Mc).

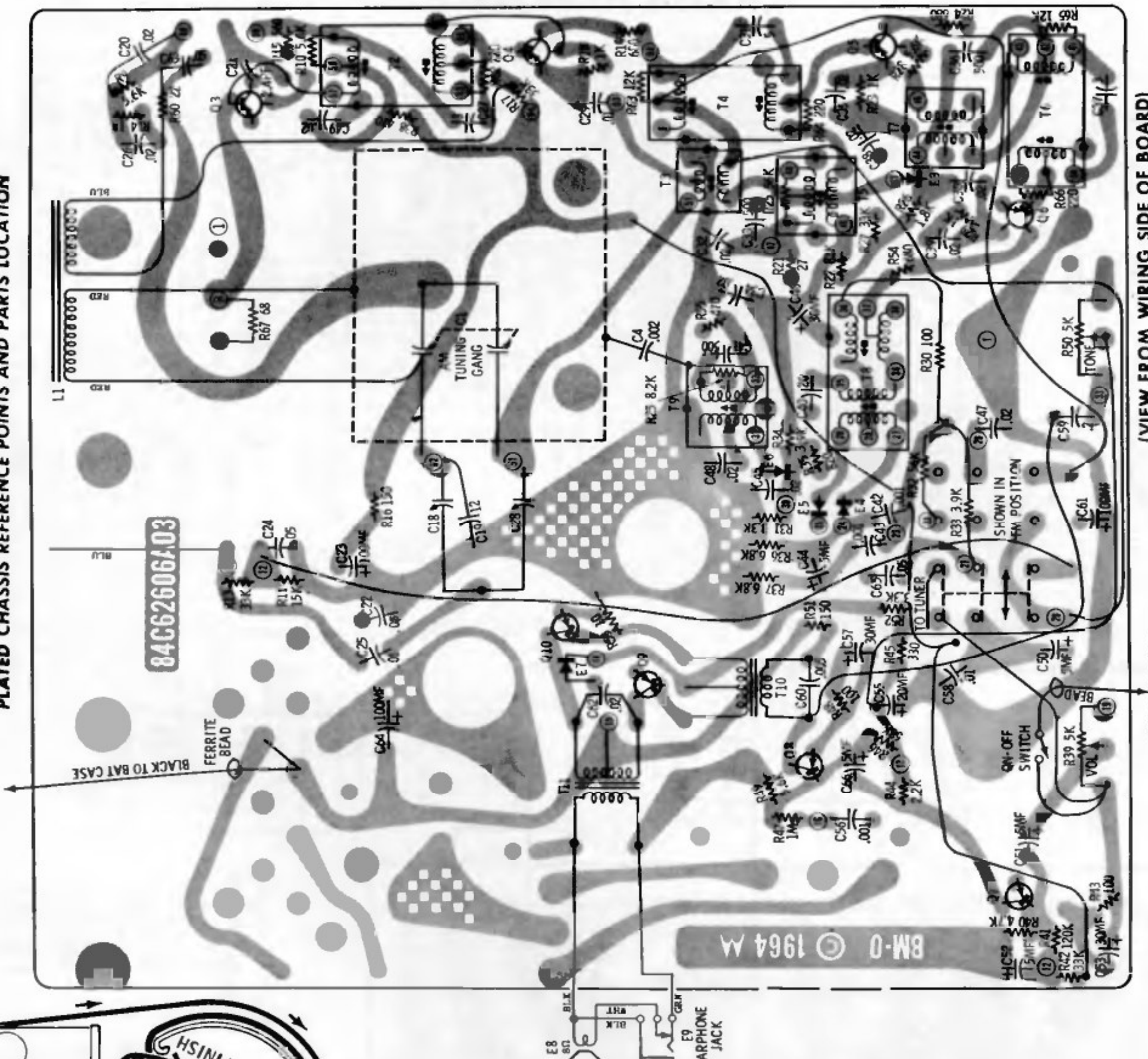
AM - 535 to 1620Kc (AM IF - 455Kc).

MOTOROLA MODEL TP10D CHASSIS HS-66227

(Continued from preceding page.)

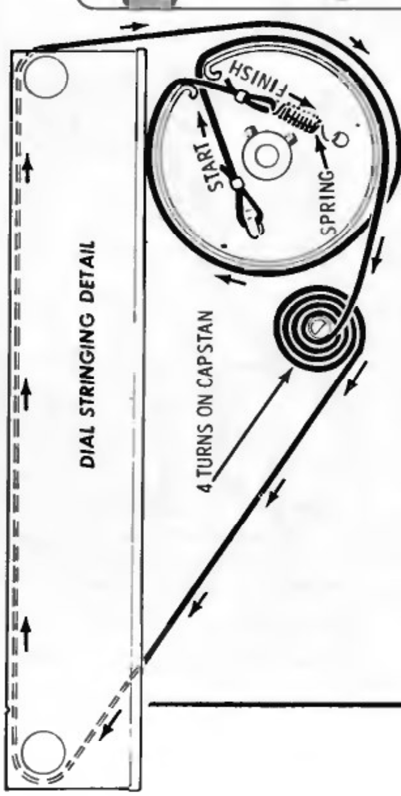
BOTTOM VIEW

PLATED CHASSIS REFERENCE POINTS AND PARTS LOCATION



(VIEW FROM WIRING SIDE OF BOARD)

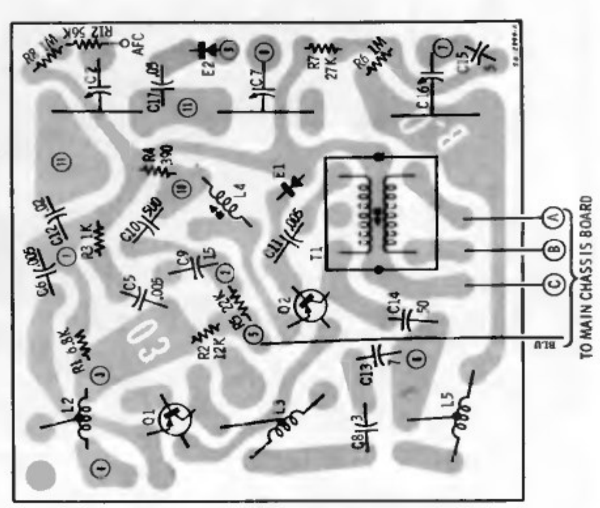
DIAL STRINGING DETAIL



1. GANG FULLY OPEN (LARGE PULLEY CW). INSTALL STRING.
2. CLOSE GANG (LARGE PULLEY CCW) AND FASTEN POINTER SLIDE TO STRING WITH POINTER DIRECTLY OVER ZERO (0) ON LOG SCALE.

BOTTOM VIEW

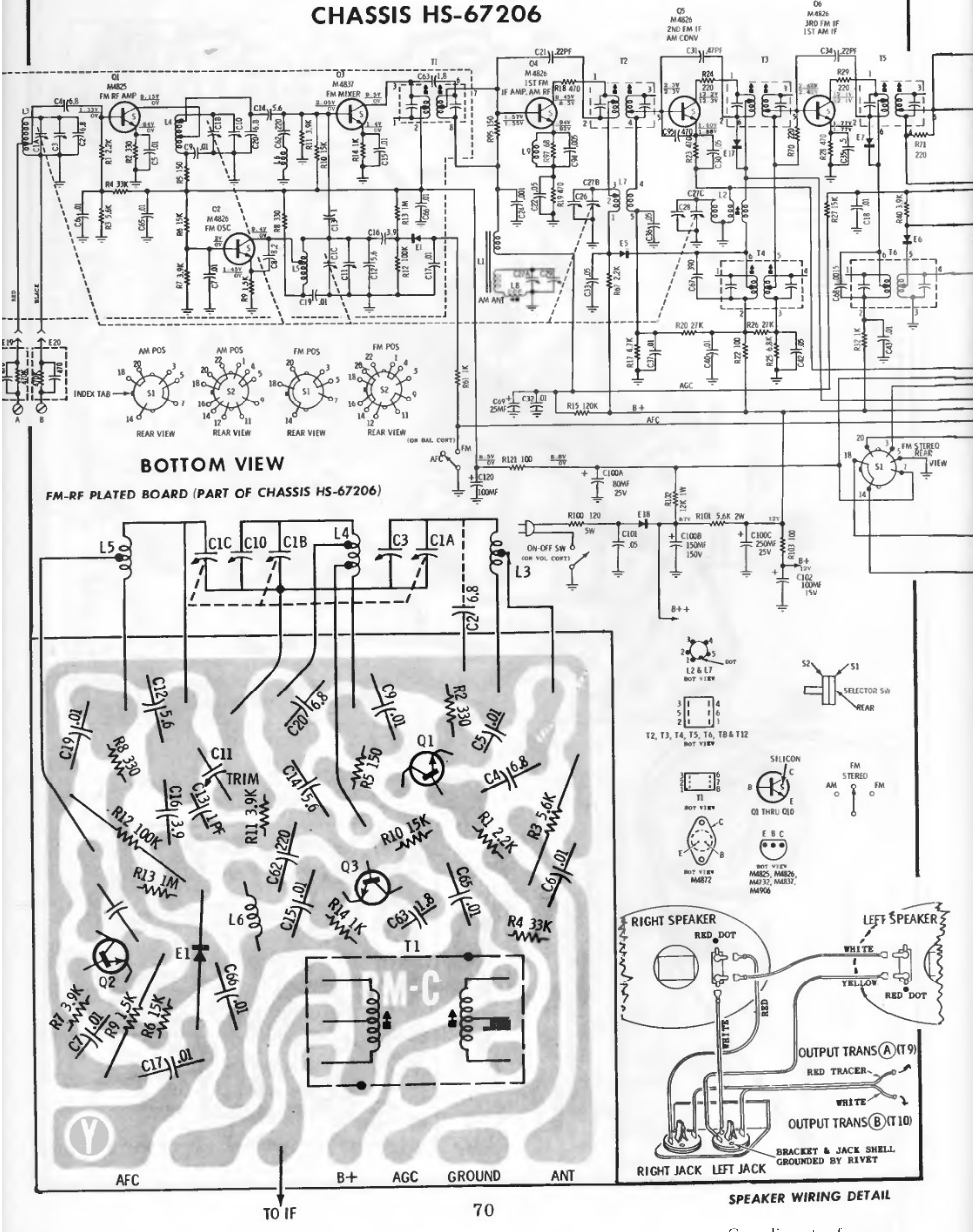
PARTS LOCATION - FM TUNER



MOTOROLA MODEL TT22C

(Continued on next page.)

CHASSIS HS-67206



BOTTOM VIEW

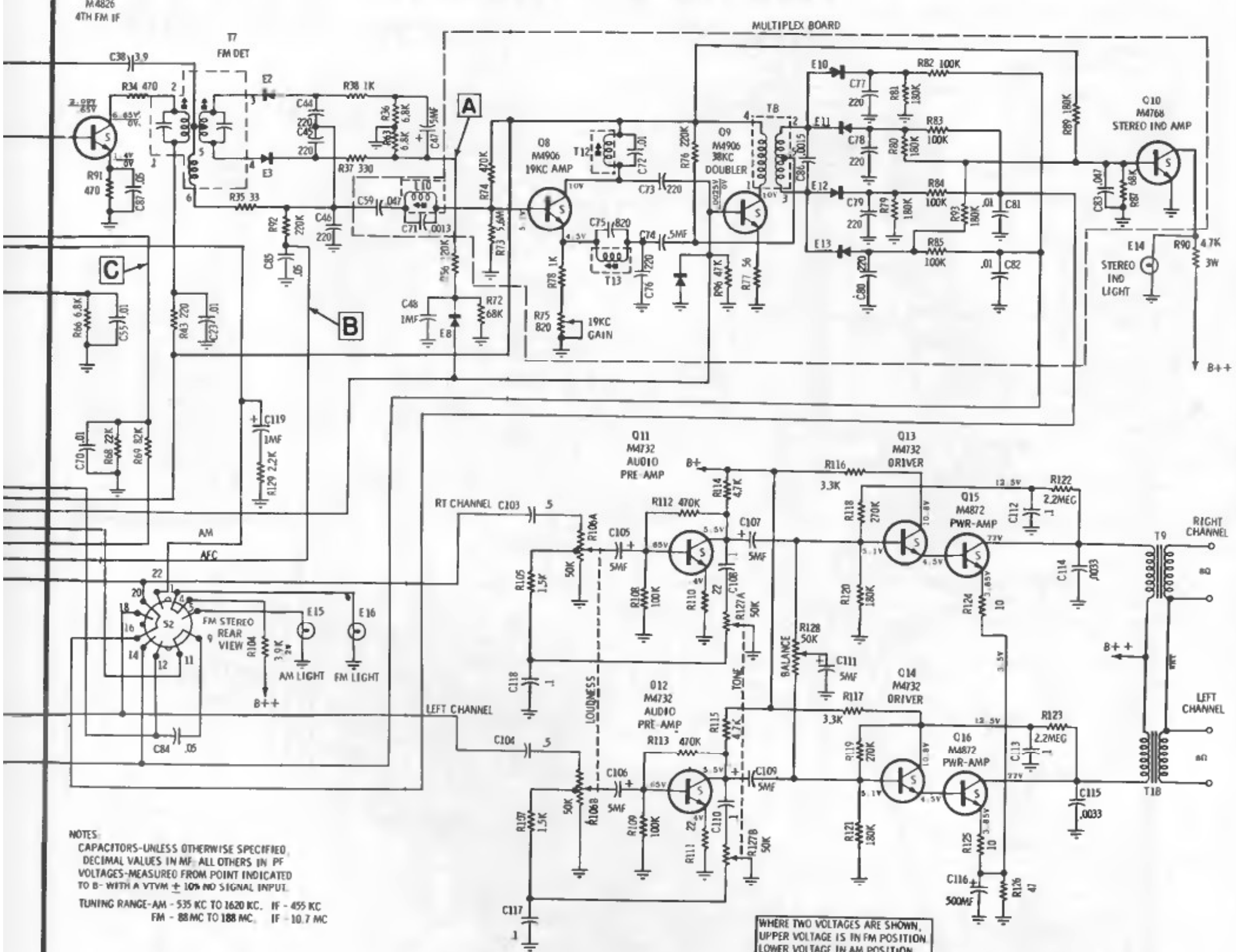
FM-RF PLATED BOARD (PART OF CHASSIS HS-67206)

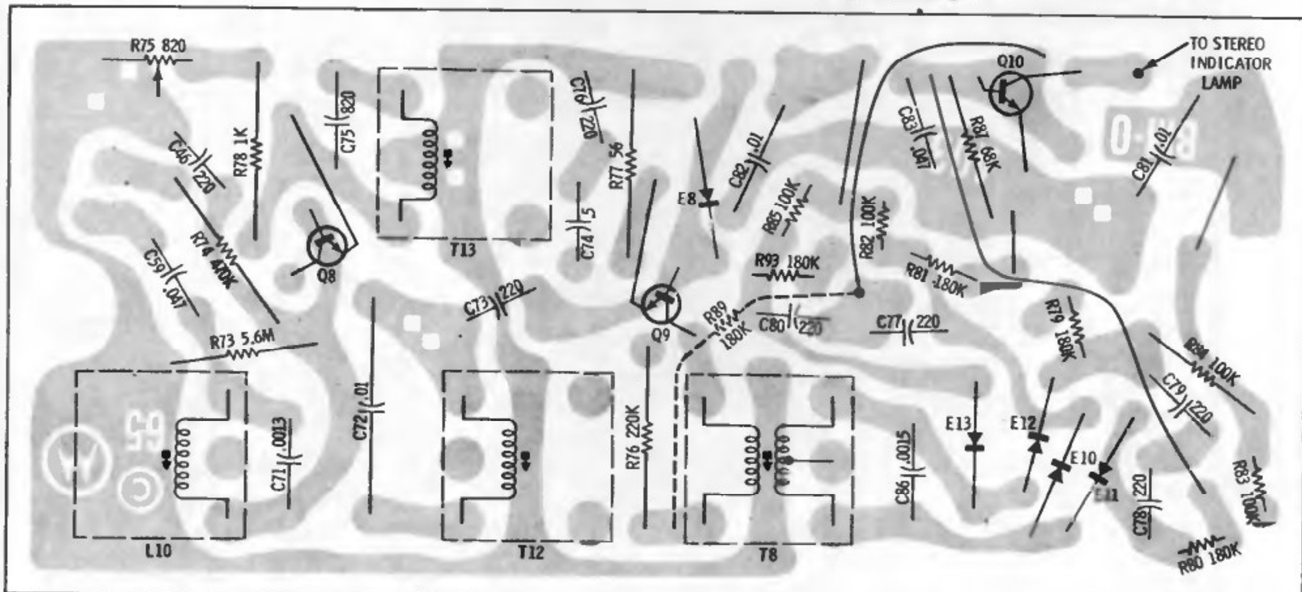
SPEAKER WIRING DETAIL

MOTOROLA

MODEL TT22C
CHASSIS HS-67206

(Continued from preceding page.)





BOTTOM VIEW

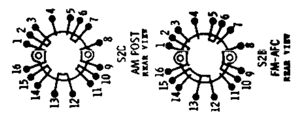
MULTIPLEX CIRCUIT BOARD (PART OF HS-67206)

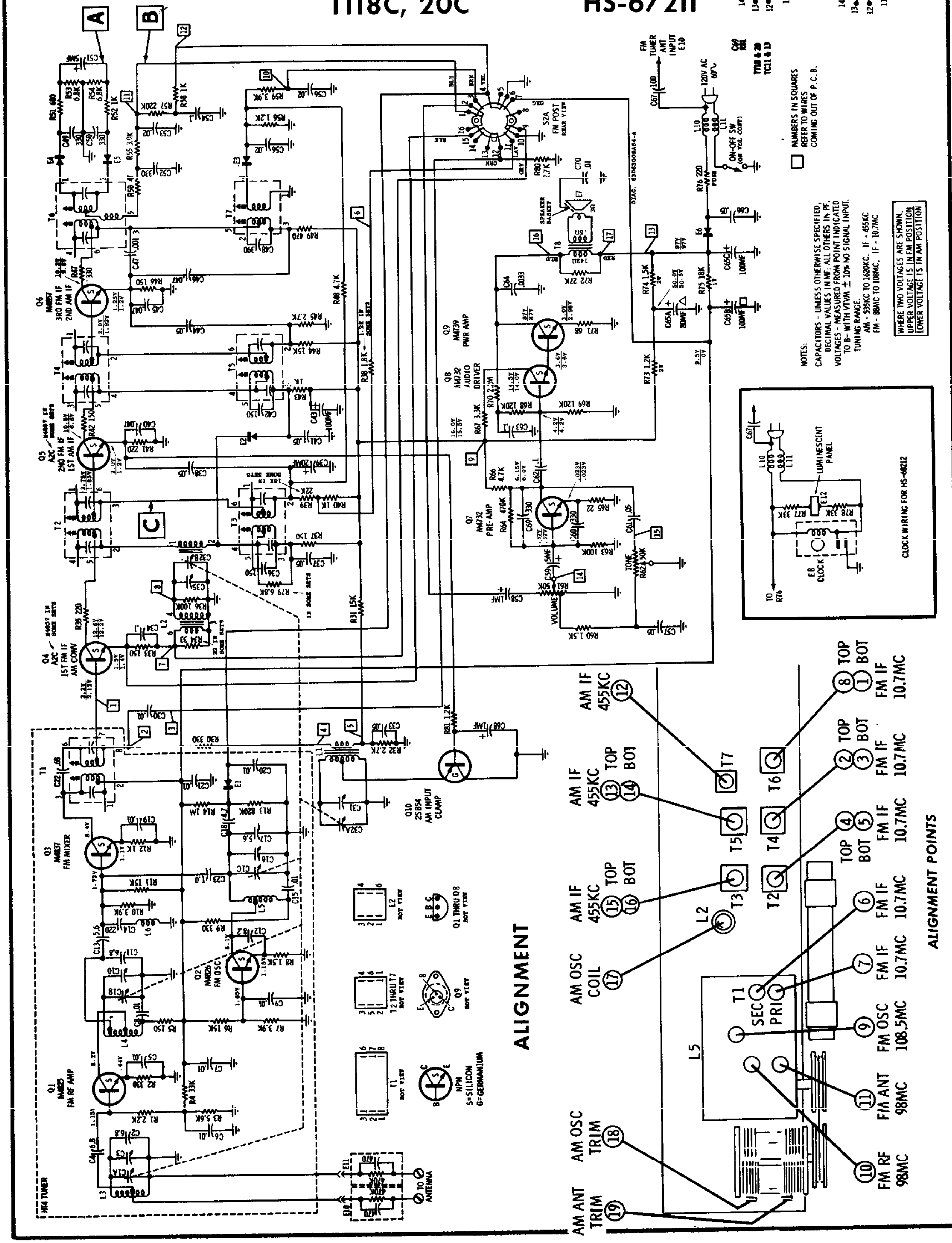
MOTOROLA

(Continued on next page.)

MODELS TC11C, 13C TT18C, 20C

CHASSIS HS-68212 HS-67211





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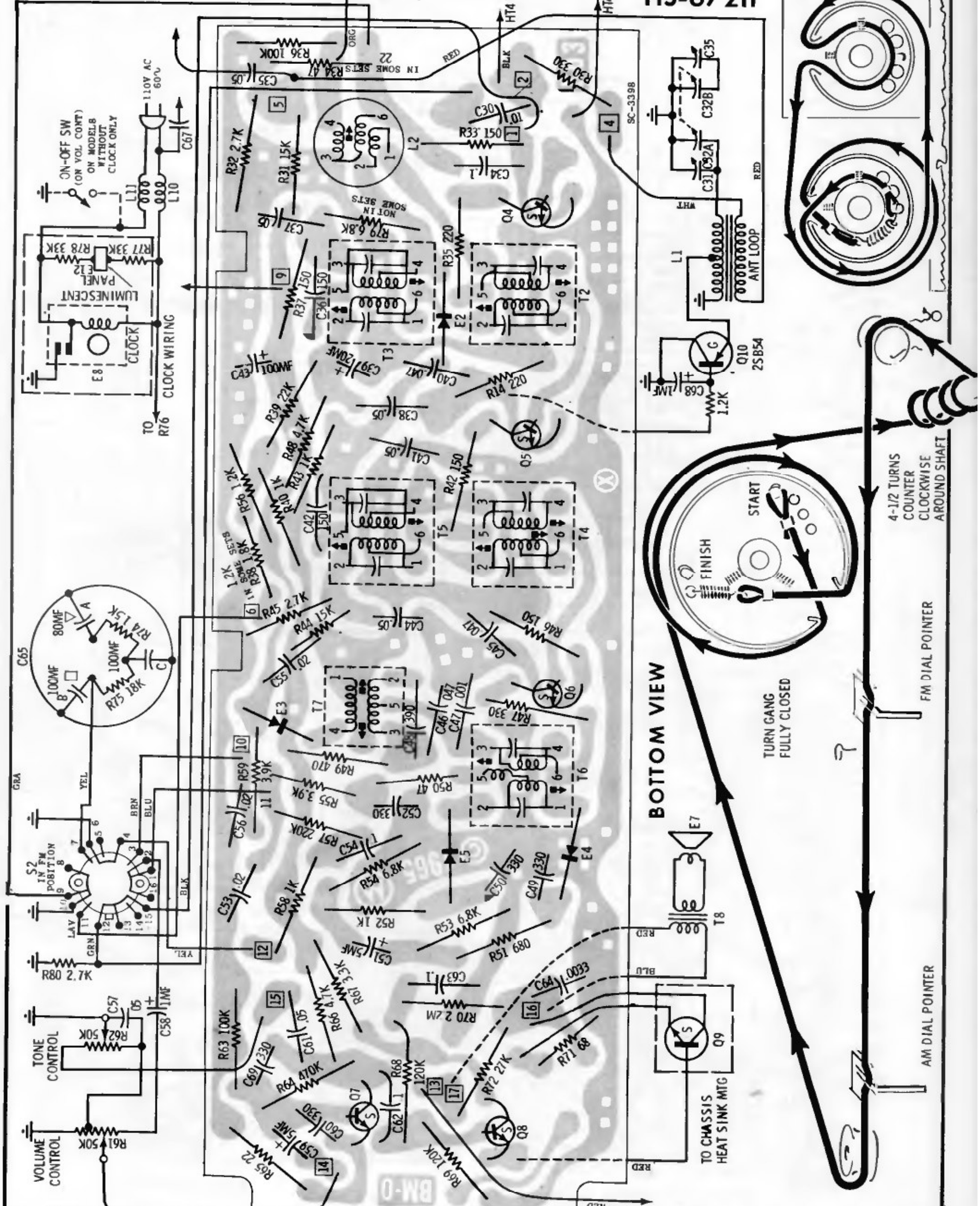
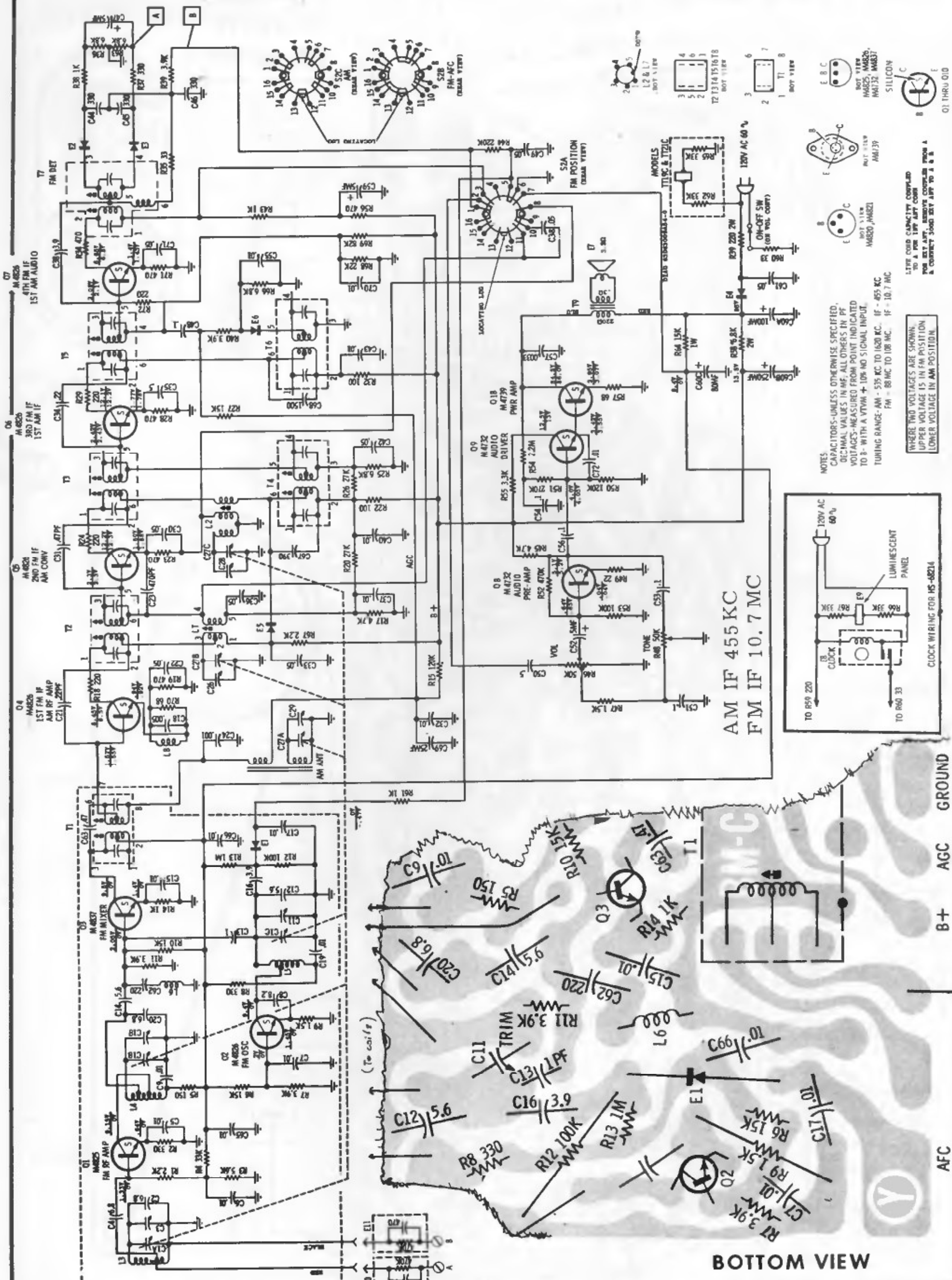
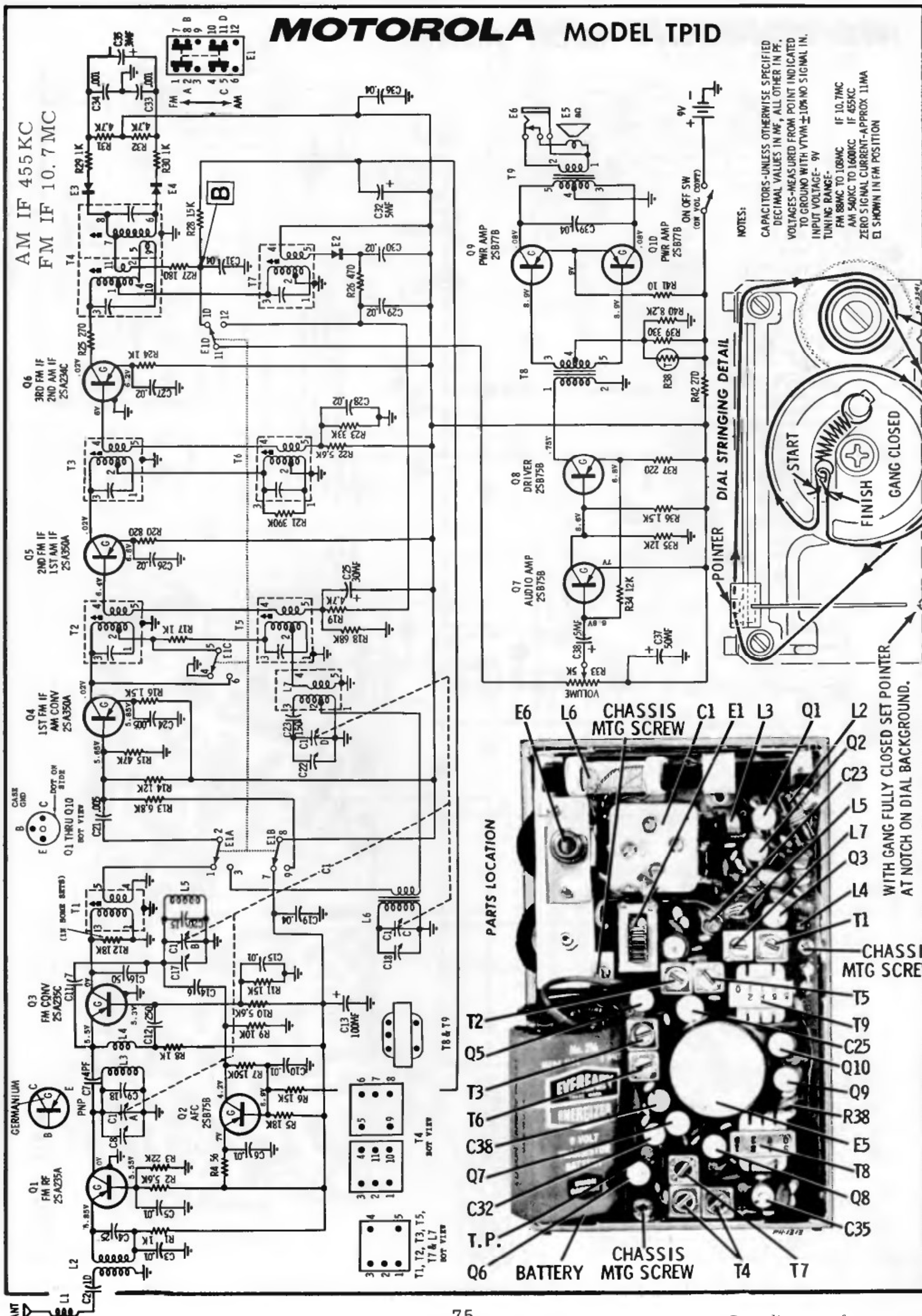
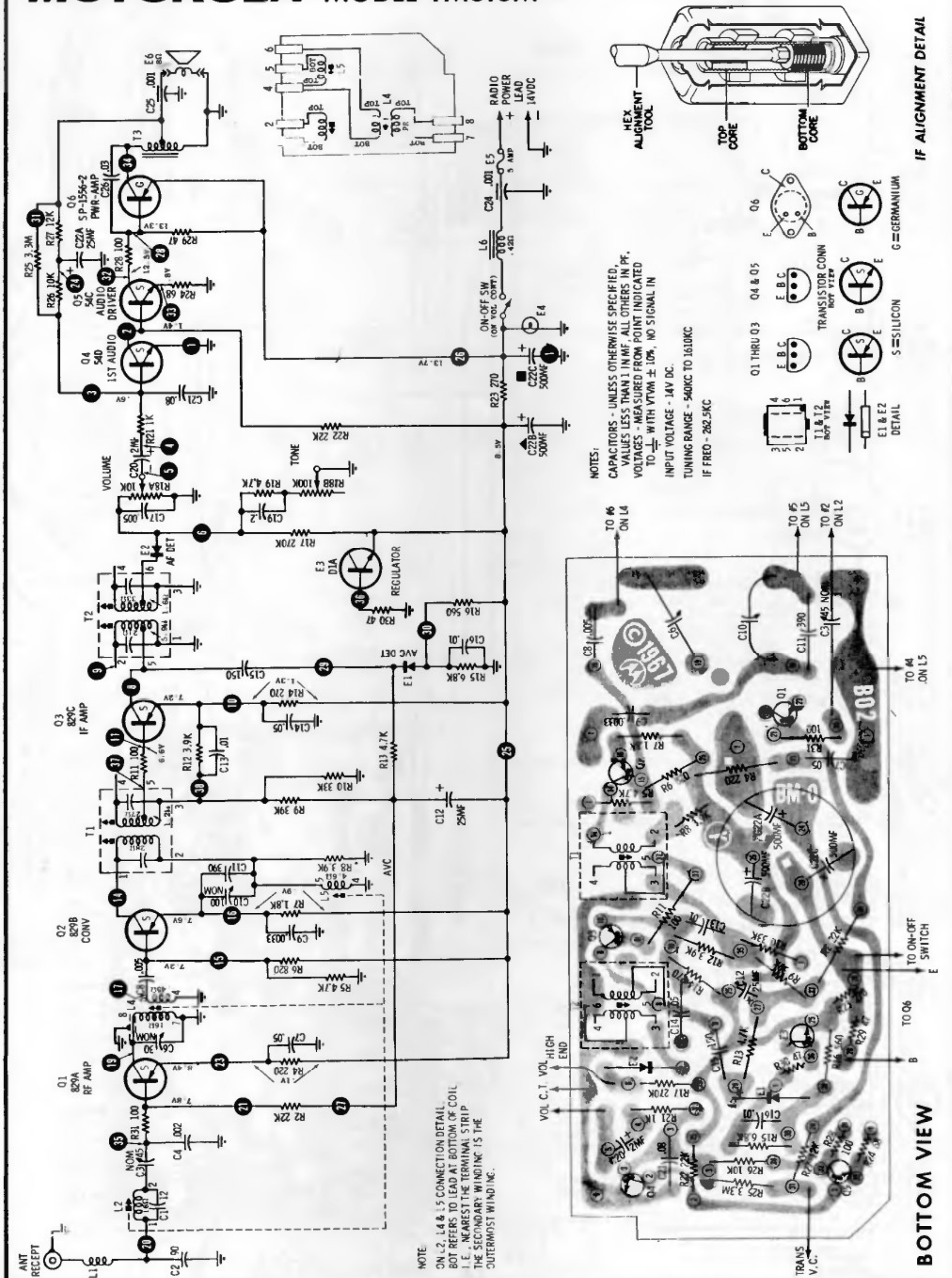


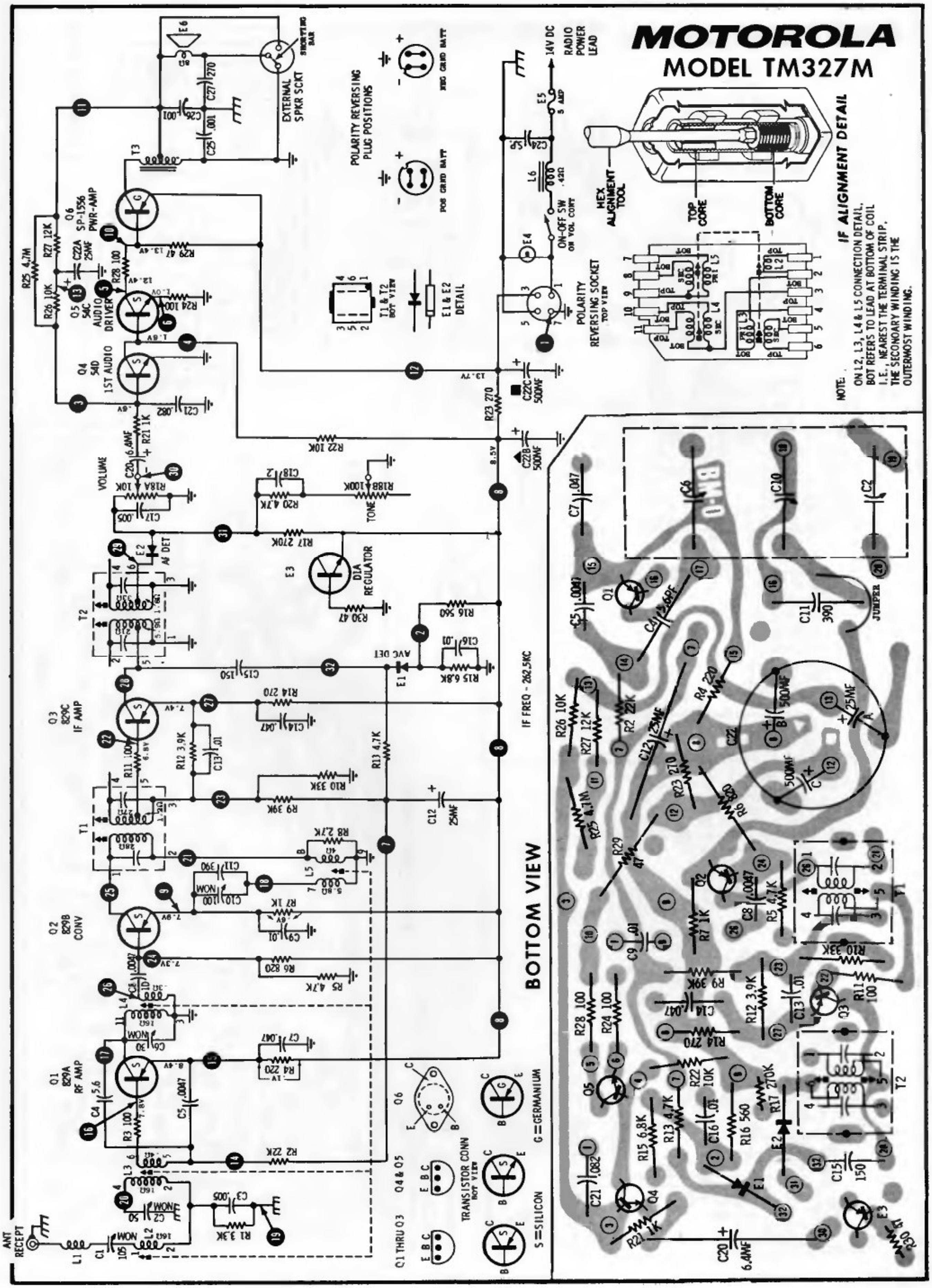
MOTOROLA Chassis HS-68214, HS-67214; Models TC12C, TC14C, TT19C, TT21C



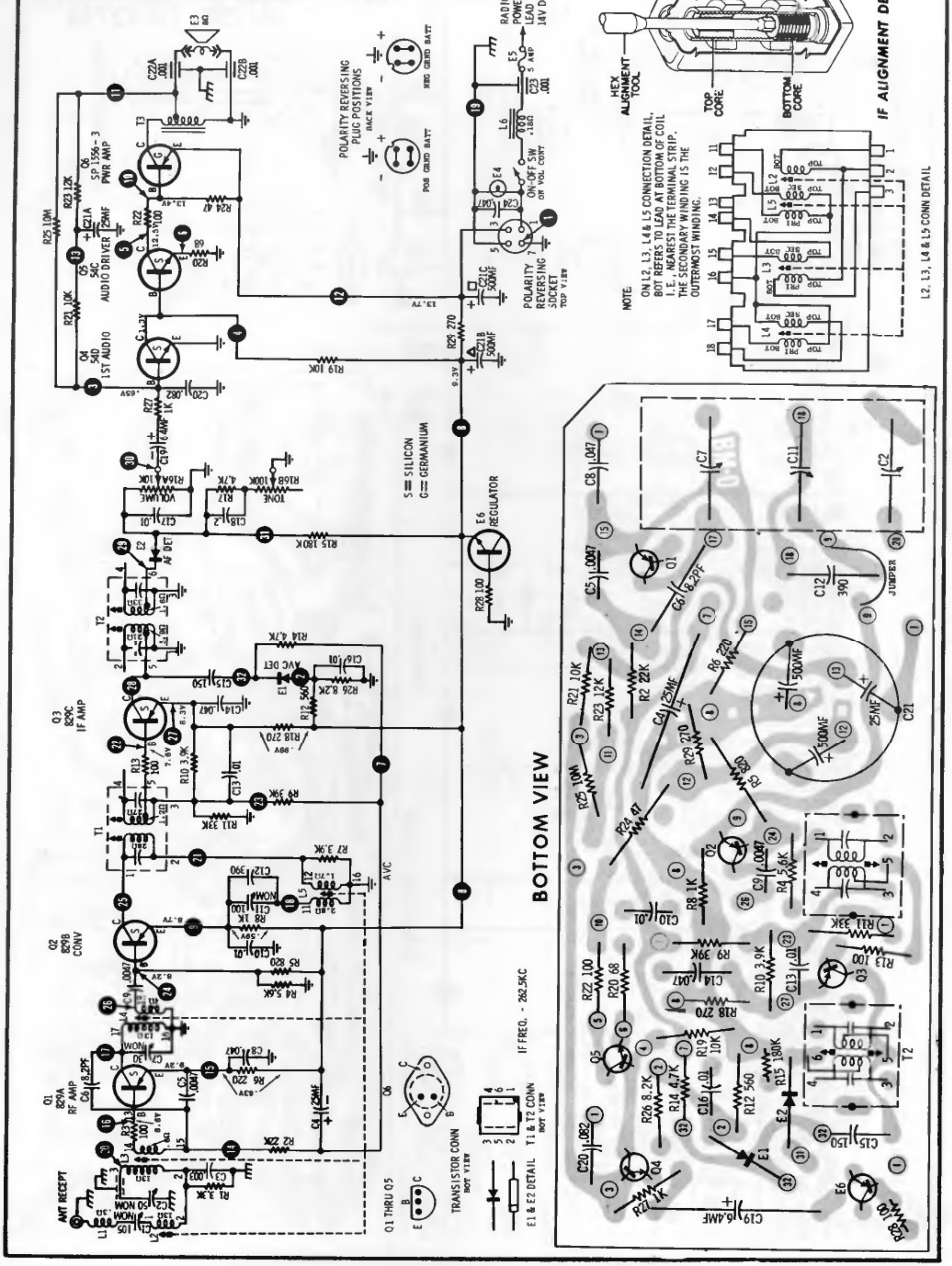

MOTOROLA MODEL TP1D
AM IF 455KC
FM IF 10.7MC
NOTES:
CAPACITORS-UNLESS OTHERWISE SPECIFIED DECIMAL VALUES IN MF, ALL OTHER IN PF.
VOLTAGES-MEASURED FROM POINT INDICATED TO GROUND WITH VTVM ±10% NO SIGNAL IN.
INPUT VOLTAGE- 9V
TUNING RANGE-
FM 88MC TO 108MC IF 10.7MC
AM 540KC TO 1600KC IF 455KC
ZERO SIGNAL CURRENT-APPROX 11MA
E1 SHOWN IN FM POSITION
DIAL STRINGING DETAIL
2 TURNS
START
FINISH
GANG CLOSED
POINTER
WITH GANG FULLY CLOSED SET POINTER AT NOTCH ON DIAL BACKGROUND.
NOTE: REMOVE DIAL BACKGROUND BEFORE RESTRINGING.
PARTS LOCATION
CHASSIS MTG SCREW
BATTERY
T.P.

MOTOROLA MODEL TM318M

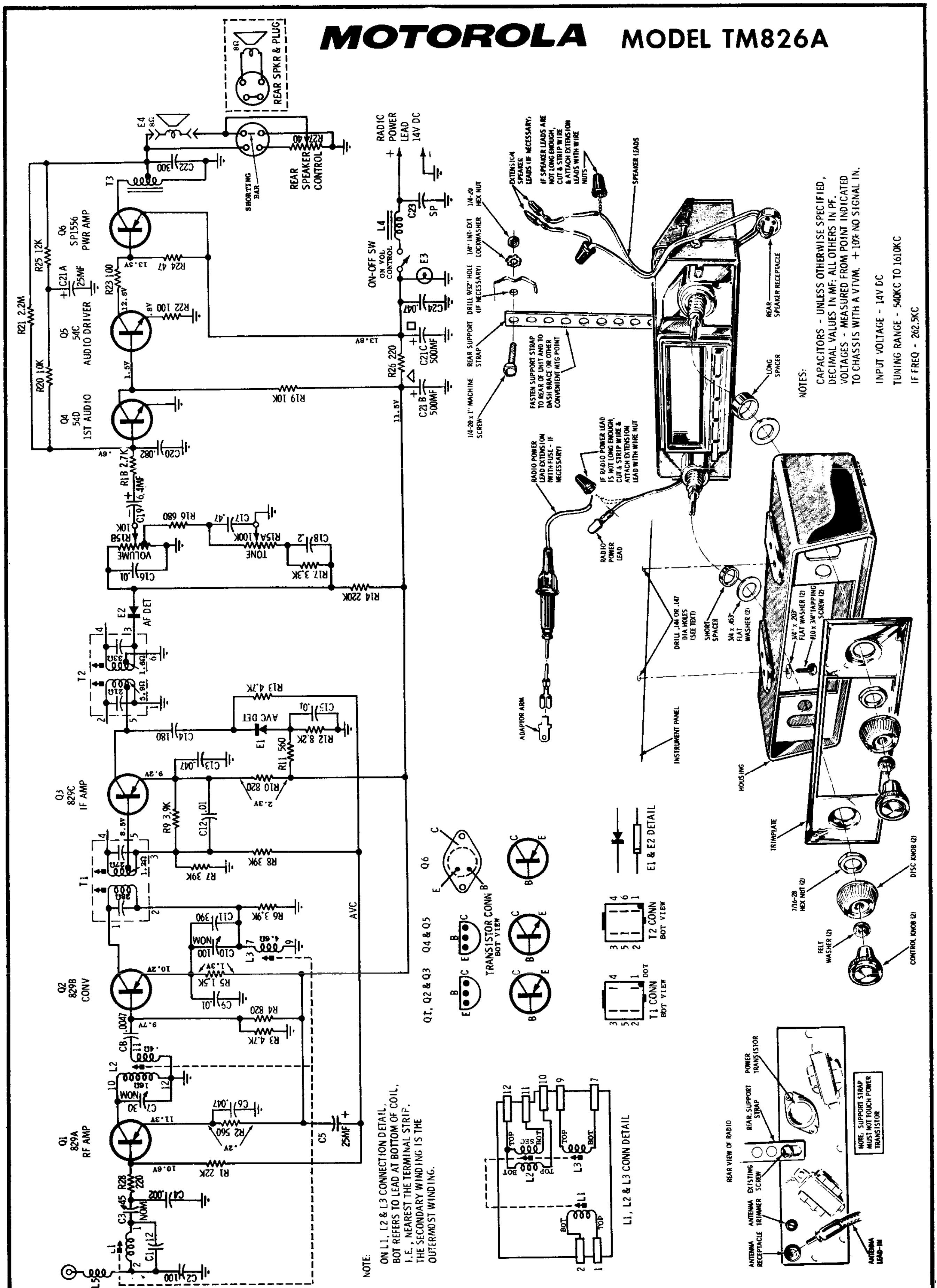



MOTOROLA
MODEL TM327M
IF ALIGNMENT DETAIL
HEX ALIGNMENT TOOL
TOP CORE
BOTTOM CORE
NOTE: ON L2, L3, L4 & L5 CONNECTION DETAIL, BOT REFERS TO LEAD AT BOTTOM OF COIL I.E., NEAREST THE TERMINAL STRIP. THE SECONDARY WINDING IS THE OUTERMOST WINDING.
POLARITY REVERSING SOCKET
POLARITY REVERSING PLUG POSITIONS
EXTERNAL SPKR SCKT
14V DC RADIO POWER LEAD
ON-OFF SW
IF FREQ - 262.5KC
BOTTOM VIEW
Q1 829A RF AMP
Q2 829B CONV
Q3 829C IF AMP
Q4 54D 1ST AUDIO
Q5 54C AUDIO DRIVER
Q6 SP-1556 PWR-AMP
E3 DIA REGULATOR
AVC DET
AF DET
VOLUME
TONE
TRANSISTOR CONN
S = SILICON
G = GERMANIUM

MOTOROLA MODEL TM527A

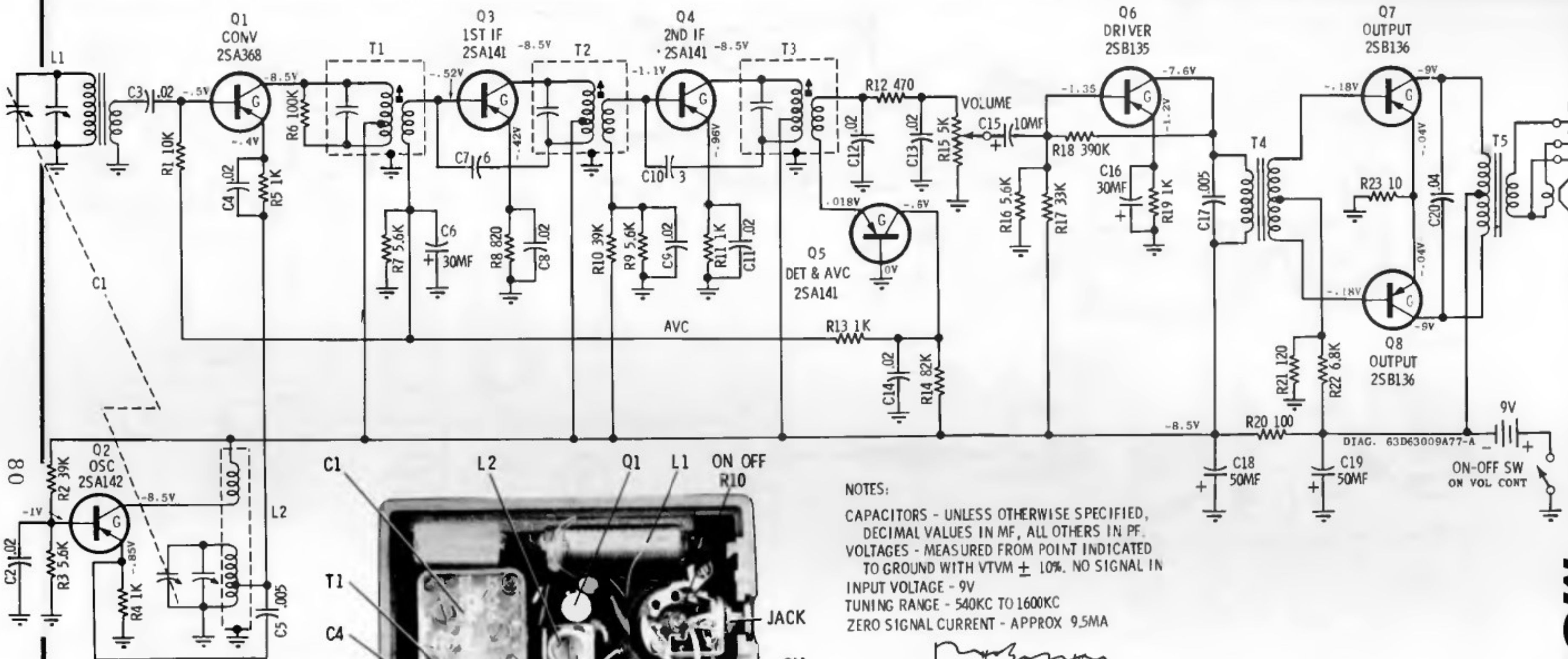


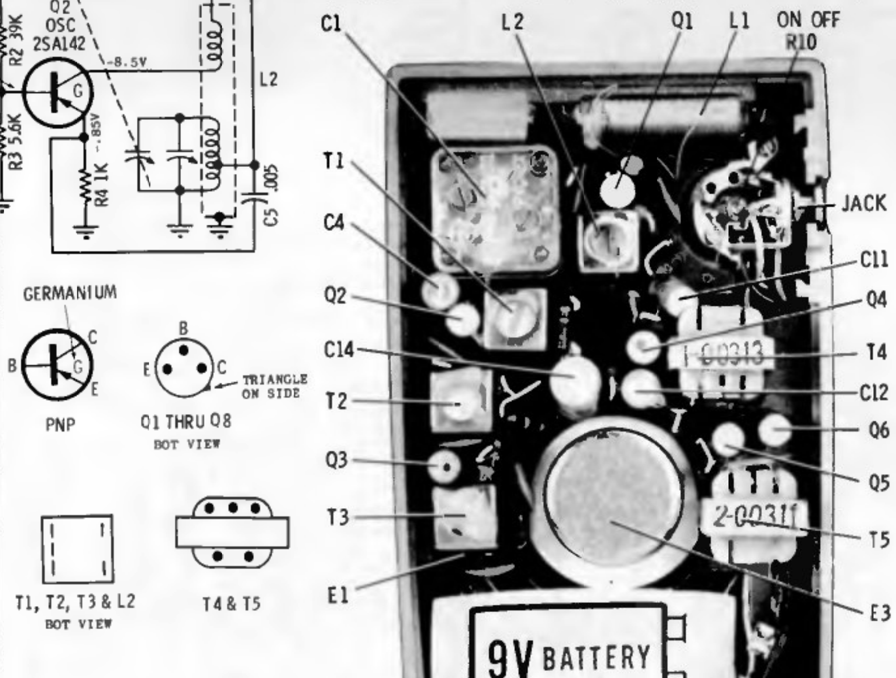
MOTOROLA MODEL TM826A



MOTOROLA

MODELS XP19D, XP20D





Parts Location - Model XP20D

Parts Location - Model XP19D

NOTES:

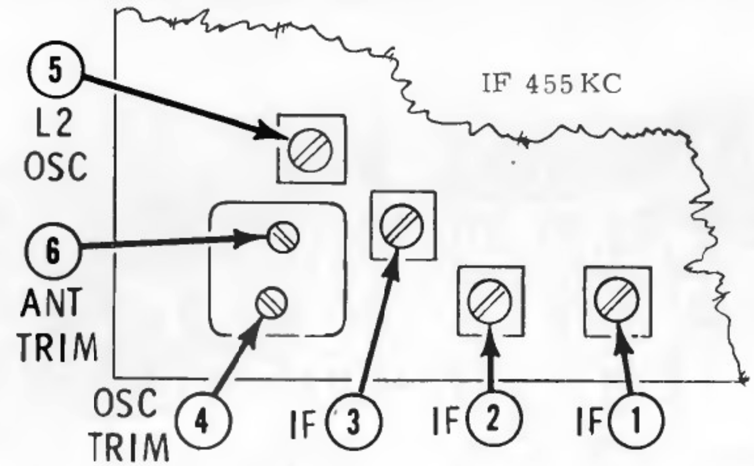
CAPACITORS - UNLESS OTHERWISE SPECIFIED, DECIMAL VALUES IN MF, ALL OTHERS IN PF.

VOLTAGES - MEASURED FROM POINT INDICATED TO GROUND WITH VTVM ± 10%. NO SIGNAL IN

INPUT VOLTAGE - 9V

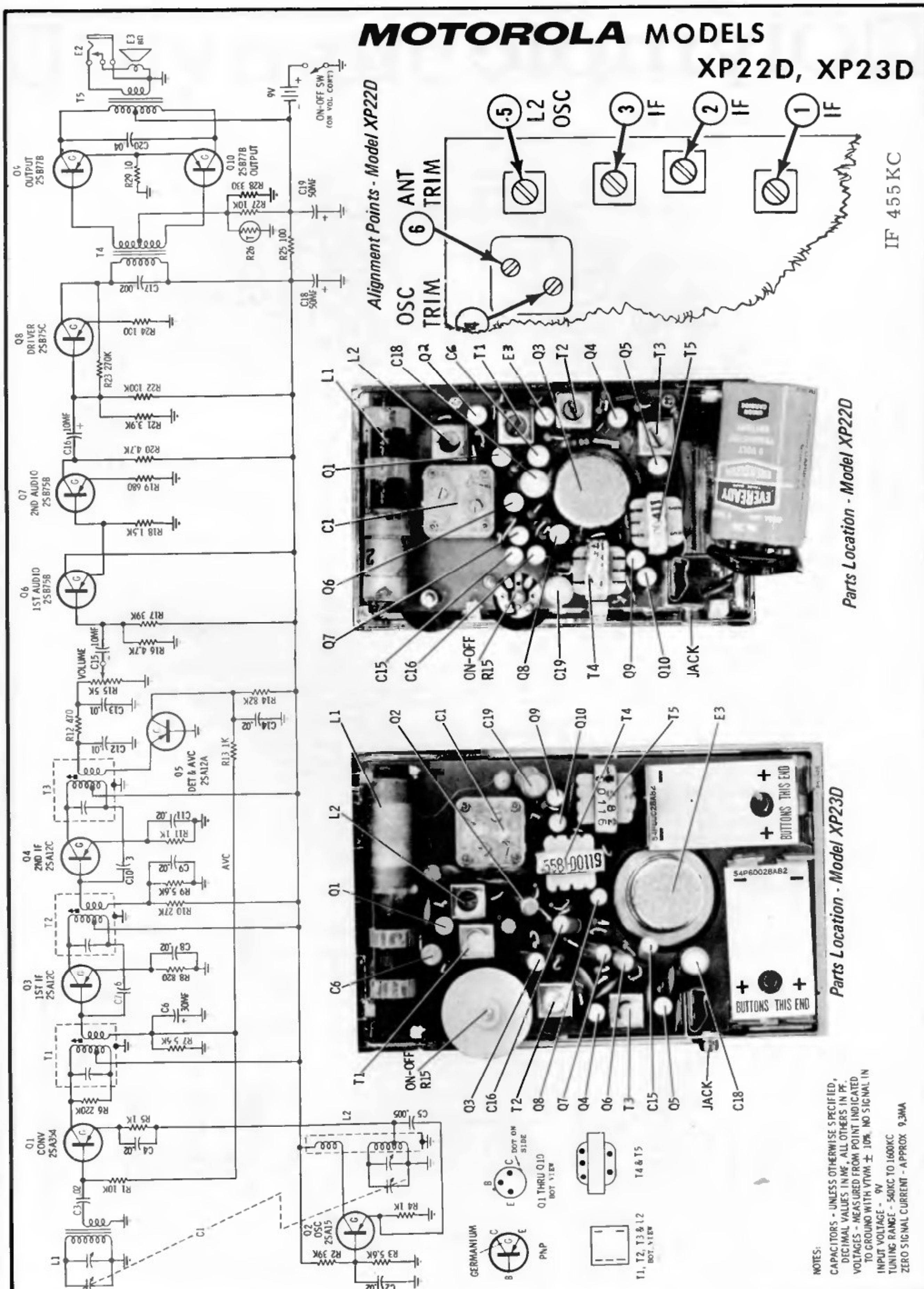
TUNING RANGE - 540KC TO 1600KC

ZERO SIGNAL CURRENT - APPROX 9.5MA



Alignment Points - Models XP19D & XP20D

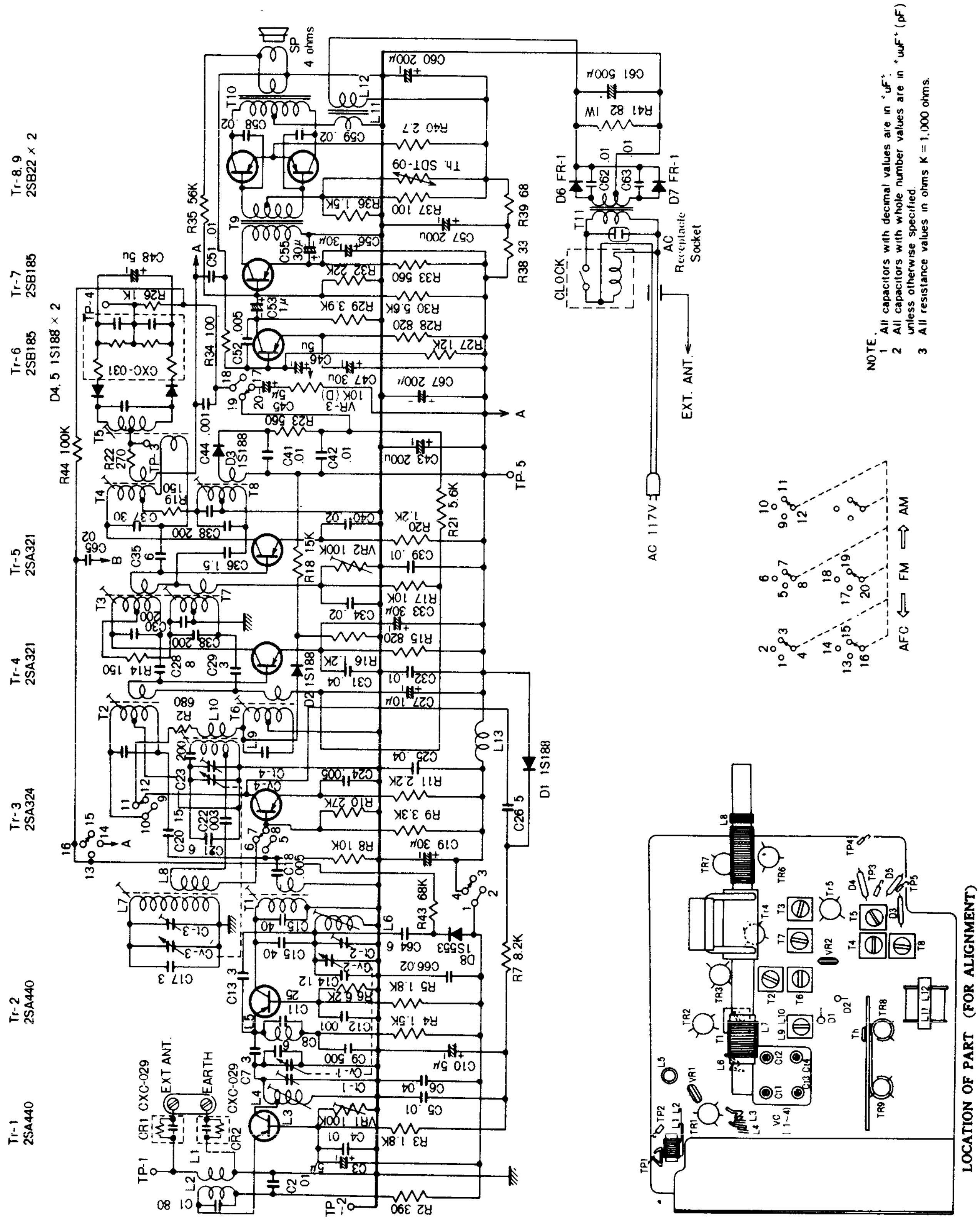
MOTOROLA MODELS
XP22D, XP23D



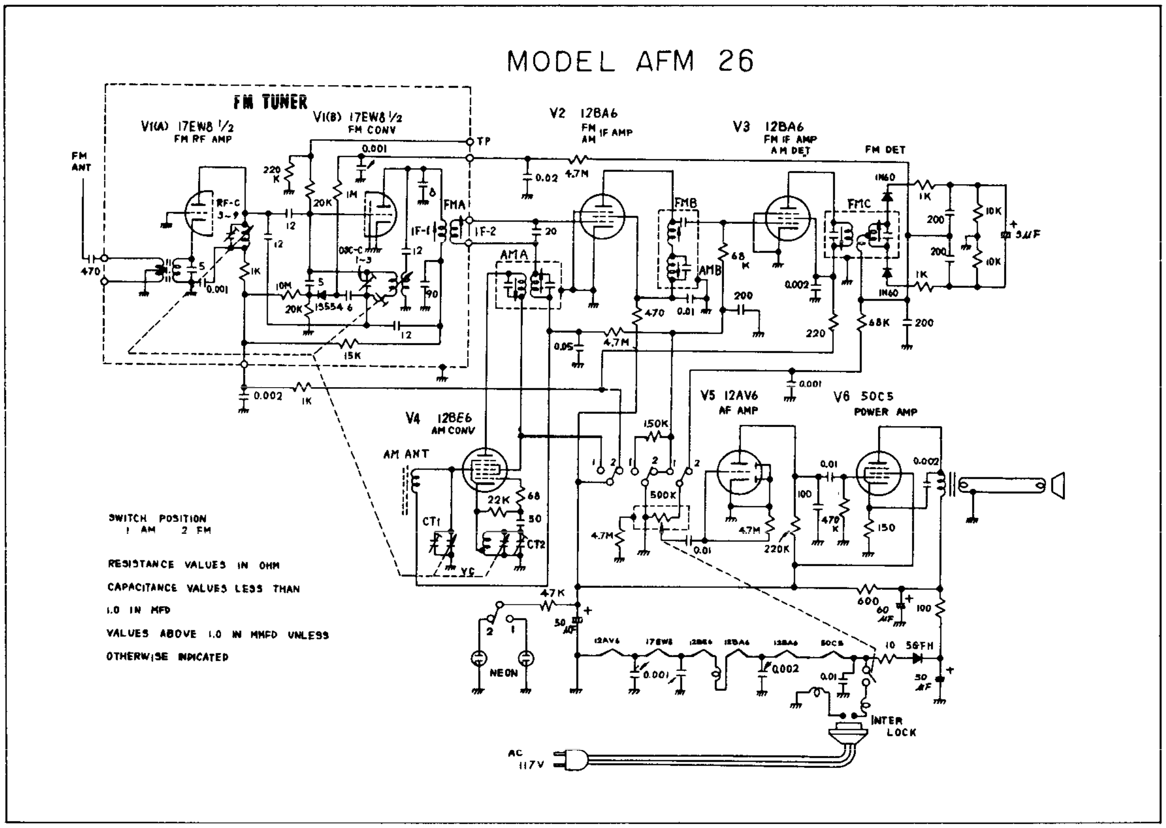
Olympic

Models:
AFM 32, 33
CF 34, 35

AM IF 455KC
FM IF 10.7MC



Olympic MODEL AFM 26

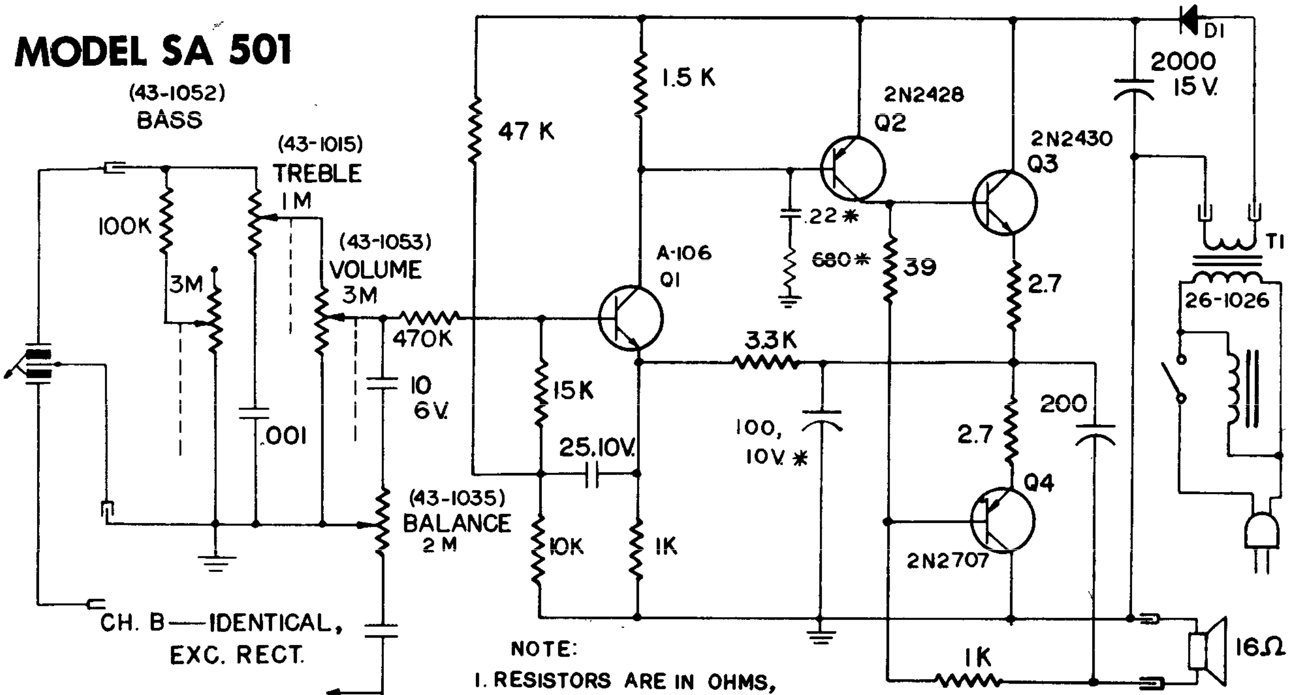


	STEP	Connect high side signal generator to	Set signal generator to	Turn pointer to	Read output on	Adjust the following (keep signal from signal generator as low as possible)
		Before aligning close variable cendenser fully counter-clockwise (plates fully closed) and adjust pointer to coincide with the beginning of dial scale				
AM	1	R. F. Section of variable condenser or pin 7 of the 12BE6	455 KC	Extreme right hand position (condenser fully open)	Output meter across speaker voice-coil	AMA (Slug on top of chassis. Slug on underside of chassis for maximum reading)
	2	Tube in series with a 0.1 MFD., 400 volt condenser				AMB (Slug on underside of chassis for maximum reading)
	3	Use radiated signal (connect both sides of signal generator to radiation loop)	1400 KC	1400 KC on dial		CT2 (Oscillator trimmer for maximum output)
	4					CT1 (Antenna trimmer for maximum output)
	5		600 KC	600 KC on dial		Check that 600KC resonanec corresponds with 600KC point on dial
FM	1	R.F. section of the "TP" on FM Tuner	10.7 MC	Extreme right hand position (condenser fully open)	Connect oscilloscope across condenser (200MMFD) of FM DET maximum view of S curve	FMA (Slug on IF-1 of tuner. Slug on IF-2 of tuner for maximum)
	2	"TP" in series with a 0.1 MFD 1400 volt condenser				FMB (Slug on top of chassis for maximum)
	3					FMC (Slug on top of chassis. Slug on underside of chassis for maximum reading)
	4	**Connect high side signal generator to Antenna screw.**	108 MC	108 MC	Output meter across speaker voice-coil	OSC-C (oscillator trimer for maximum output)
	5		98 MC	98 MC		RF-C (FM.RF. Amp trimmer for maximum output)
	6		90 MC	90 MC		Check that 90MC resonance corresponds with 90MC point on dial.

NOTE : This Chassis is connected to one side of the power line. On AC operation an isolation transformer should be used to prevent shock hazard. To protect the signal generator, if no isolation transformer available or if the radio is operated on DC, connect a 0.1 μF capacitor between the high side of the signal generator and the radio. The output of the signal generator be no higher than necessary to obtain a usable output reading. Connect signal generator ground to chassis.

Olympic

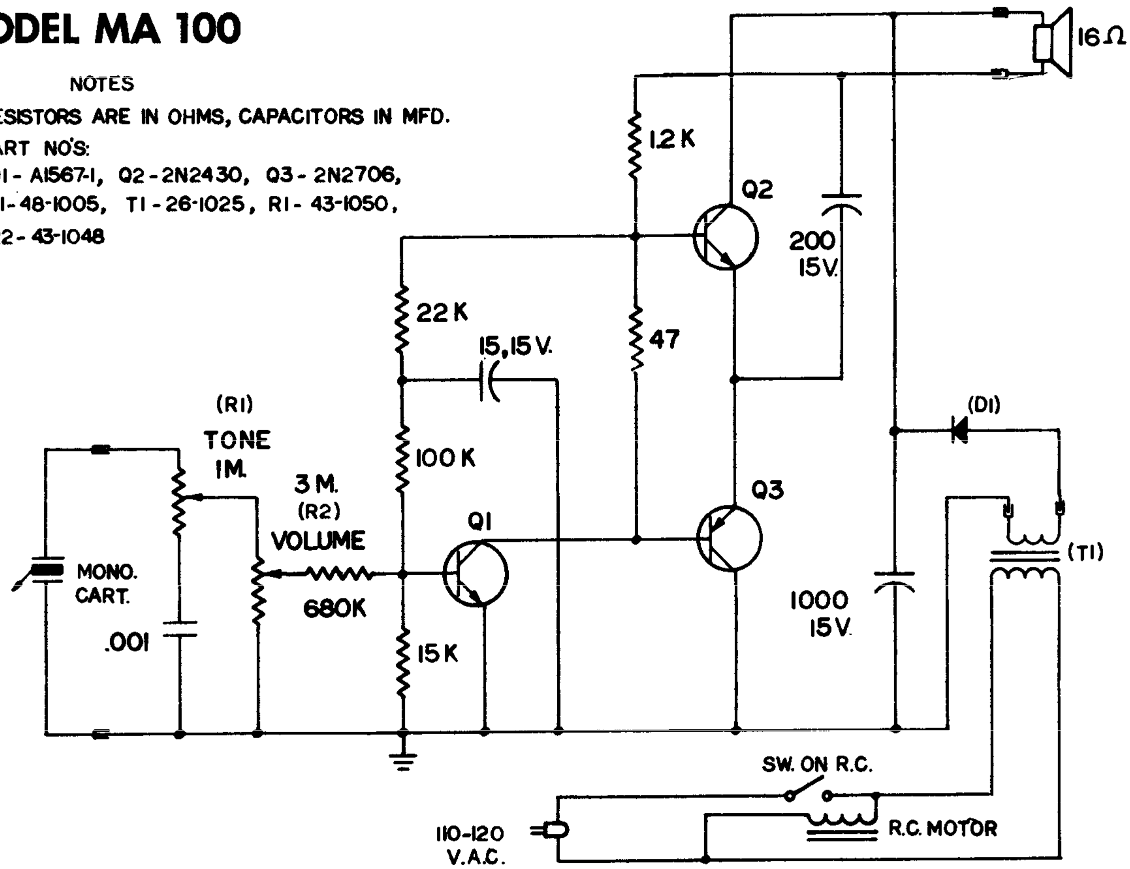
MODEL SA 501



NOTE:
1. RESISTORS ARE IN OHMS, CAP'S. IN MFD
2. PARTS MARKED WITH ✱ NOT PRESENT IN ALL MODELS.

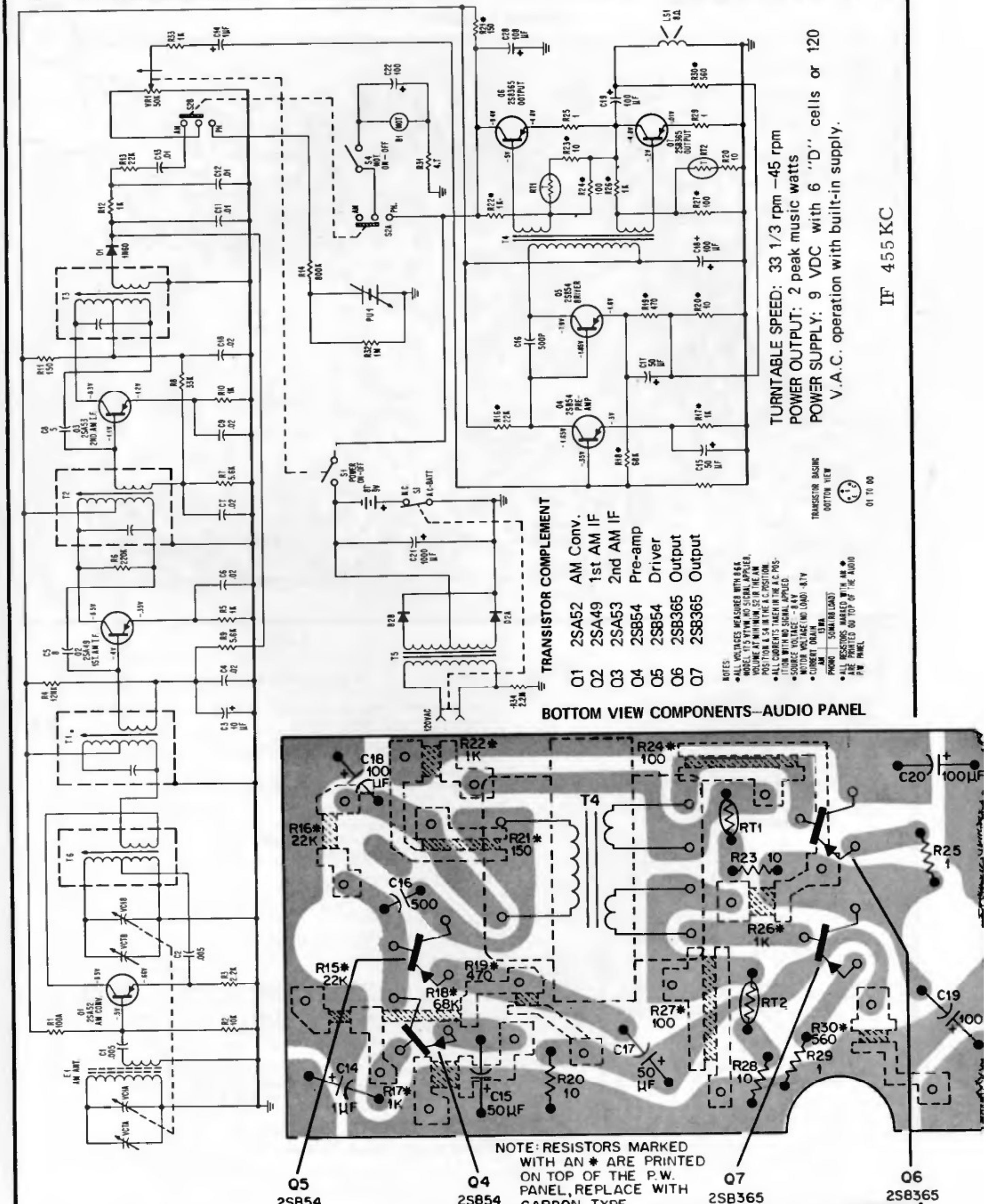
MODEL MA 100

NOTES
1. RESISTORS ARE IN OHMS, CAPACITORS IN MFD.
2. PART NO'S:
Q1 - A1567-1, Q2 - 2N2430, Q3 - 2N2706, D1- 48-1005, T1 - 26-1025, R1- 43-1050, R2- 43-1048



PHILCO

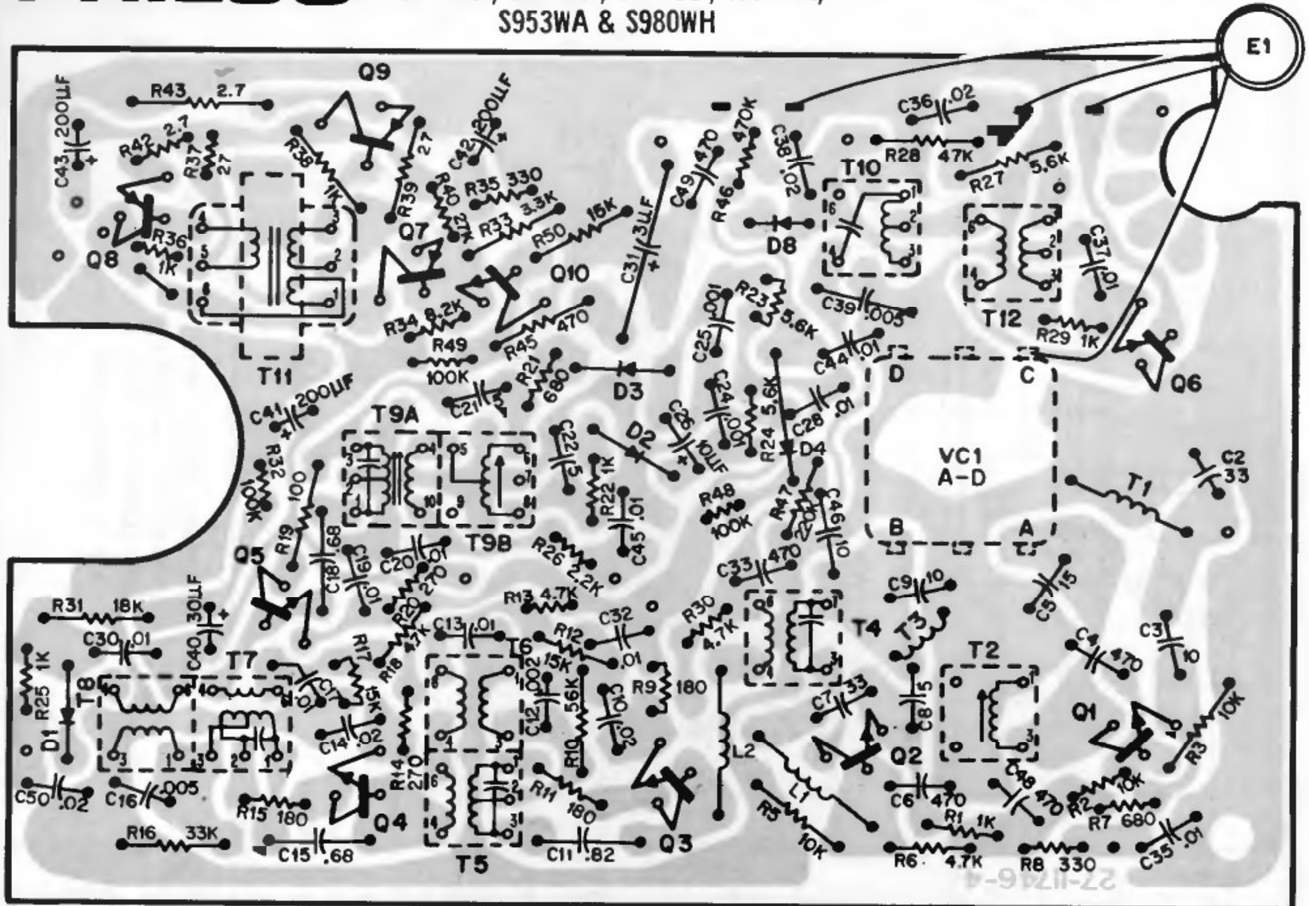
MODEL P670TBE



PHILCO

AM-FM TRANSISTOR RADIO MODELS S771WH, S772WH, S773CB, S774WA, S953WA & S980WH

(Continued on next page.)



AM ALIGNMENT

	SIGNAL GENERATOR		RADIO		
STEP	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	ADJUST
1	RADIATING LOOP (SEE NOTE 1)	455 KHZ	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT IN ORDER GIVEN.	T8, T6 & T10
2	SAME AS STEP 1	1650 KHZ	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT.	C1D AM OSC.
3	SAME AS STEP 1	1400 KHZ	1400 KHZ	ADJUST FOR MAX. OUTPUT.	C1C ANT. TRIM.
4	SAME AS STEP 1	600 KHZ	600 KHZ	ADJUST FOR MAX. OUTPUT. ROCK TUNING GANG DURING ADJUSTMENT.	T12 AM OSC.
5	REPEAT STEPS 2, 3 & 4 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				

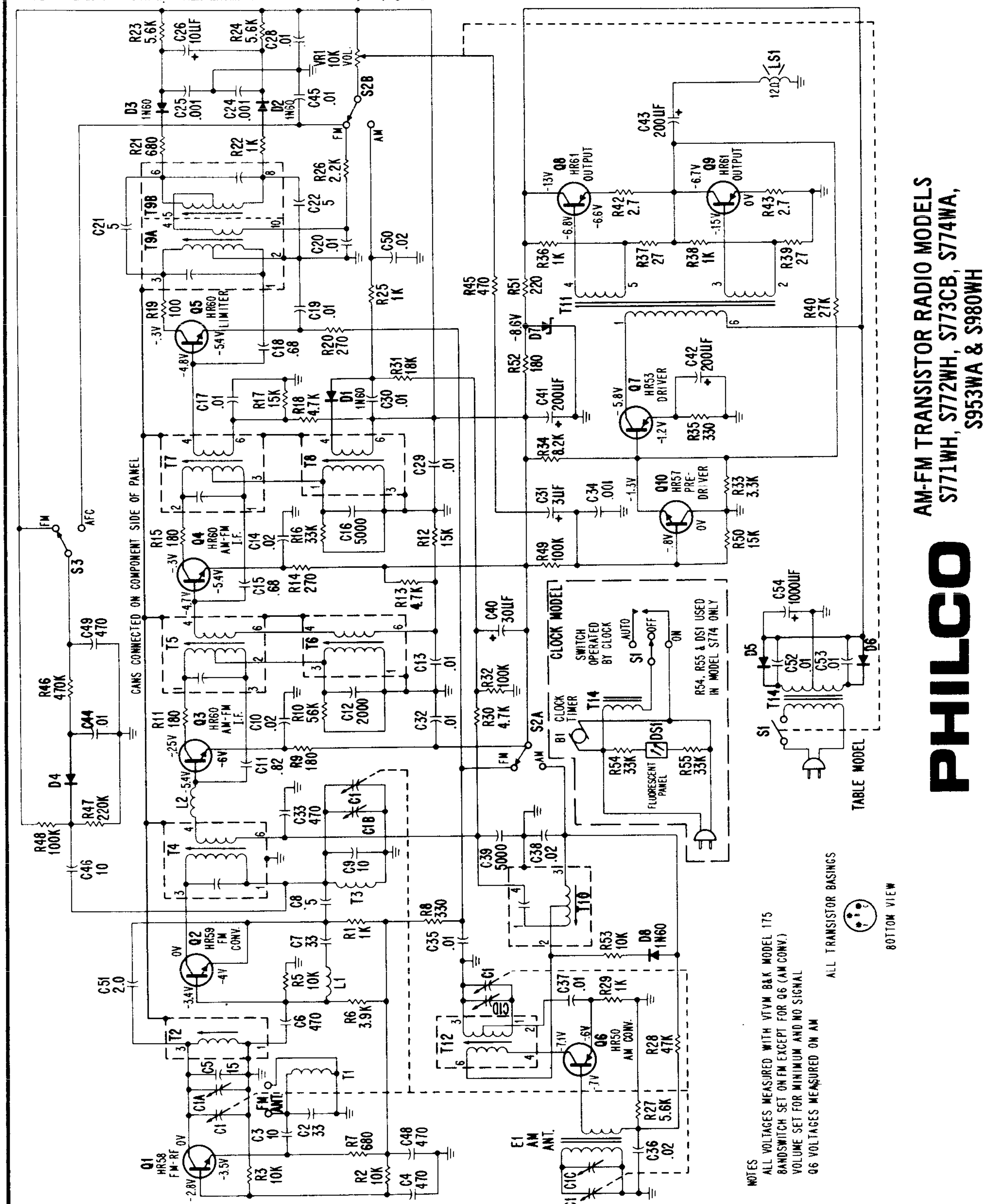
FM ALIGNMENT

	SIGNAL GENERATOR		RADIO		
STEP	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	ADJUST
1	COLLECTOR OF Q1 THRU .01 MF CAPACITOR	10.7 MHZ ±75 KHZ SWEEP	TUNING GANG FULLY OPEN	ADJUST FOR MAXIMUM OUTPUT IN ORDER GIVEN. REDUCE GENERATOR OUTPUT AS NECESS.	T9A, T7, T5 & T4
2	SAME AS STEP 1	10.7 MHZ 30% AM	TUNING GANG FULLY OPEN	ADJUST FOR MINIMUM OUTPUT (A NULL BETWEEN TWO PEAKS)	T9B
3	REPEAT STEPS 1 AND 2 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				
4	CONNECT TO ANTENNA TERMINAL THRU 47 OHM RESISTOR	87.5 MHZ ±75 KHZ	TUNING GANG FULLY CLOSED	ADJUST FOR MAX. OUTPUT.	T3 (SEE NOTE "A") FM OSC.
5	SAME AS STEP 4	108.5 MHZ ±75 KHZ	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT.	C1B FM OSC.

(FM Alignment continued on next page.)

(FM Alignment continued.)

6	REPEAT STEPS 4 AND 5 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				
7	SAME AS STEP 4	90 MHZ ±75 KHZ	90 MHZ	ADJUST FOR MAX. OUTPUT.	T2
8	SAME AS STEP 4	105 MHZ ±75 KHZ	105 MHZ	ADJUST FOR MAX. OUTPUT.	C1A
9	REPEAT STEPS 7 AND 8 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				



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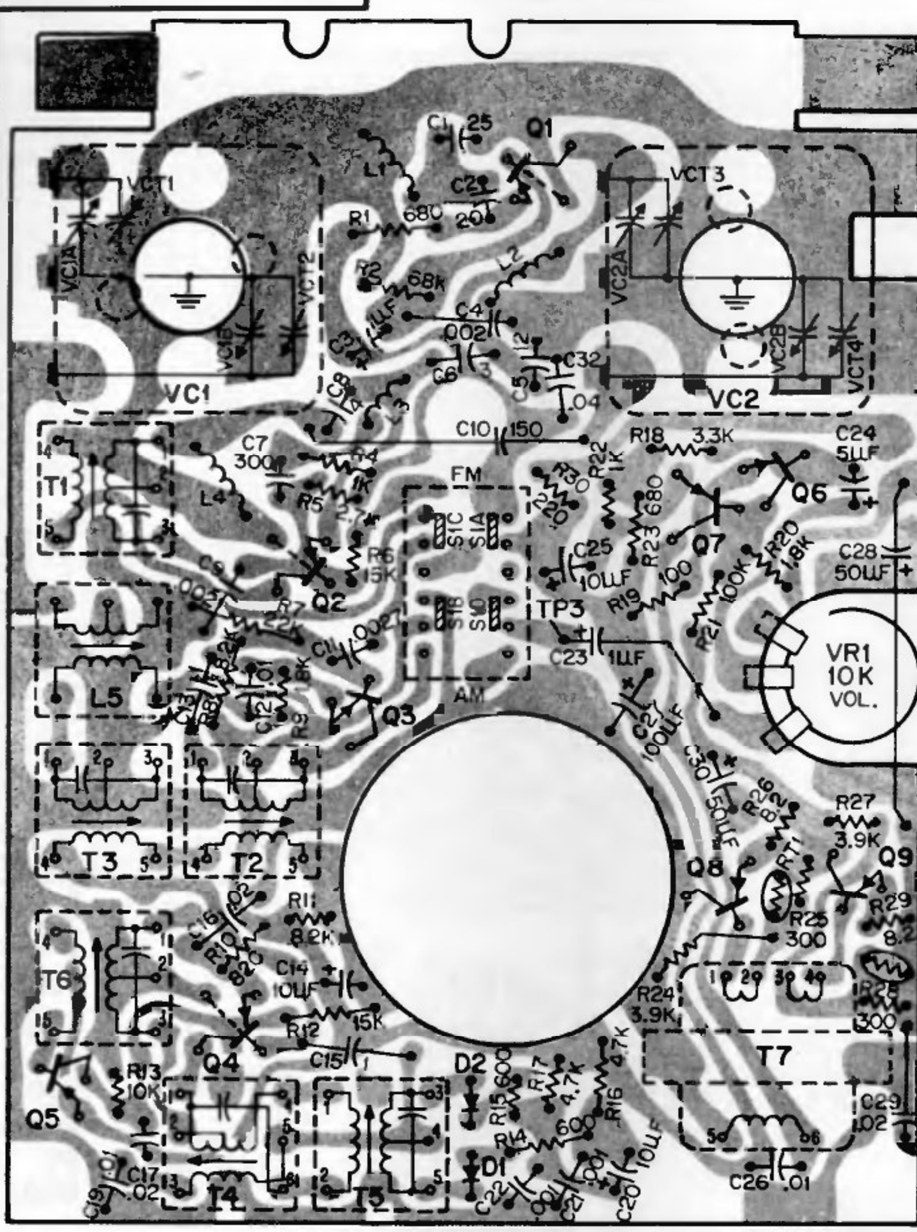
PHILCO AM-FM TRANSISTOR PORTABLE RADIO MODEL ST-919

(Continued on next page.)



Bottom View Perma Circuit for Components–Model ST-919

FM Alignment

STEP	SIGNAL GENERATOR: CONNECTION TO RADIO	SIGNAL GENERATOR: DIAL SETTING	RADIO: DIAL SETTING	RADIO: SPECIAL INSTRUCTIONS	RADIO: ADJUST
1	TP1 (RF INPUT) INPUT IMP. 75Ω	10.7MHZ ± 75KHZ SWEEP	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT AND BEST SYMMETERY IN ORDER GIVEN.	T1, T2, T4, T5
2	SAME AS STEP 1	86MHZ 400HZ @ 75KHZ DEV.	TUNING GANG FULLY CLOSED	ADJUST FOR MAX. OUTPUT.	L4
3	SAME AS STEP 1	110MHZ 400HZ @ 75KHZ	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT.	VCT4

AM ALIGNMENT

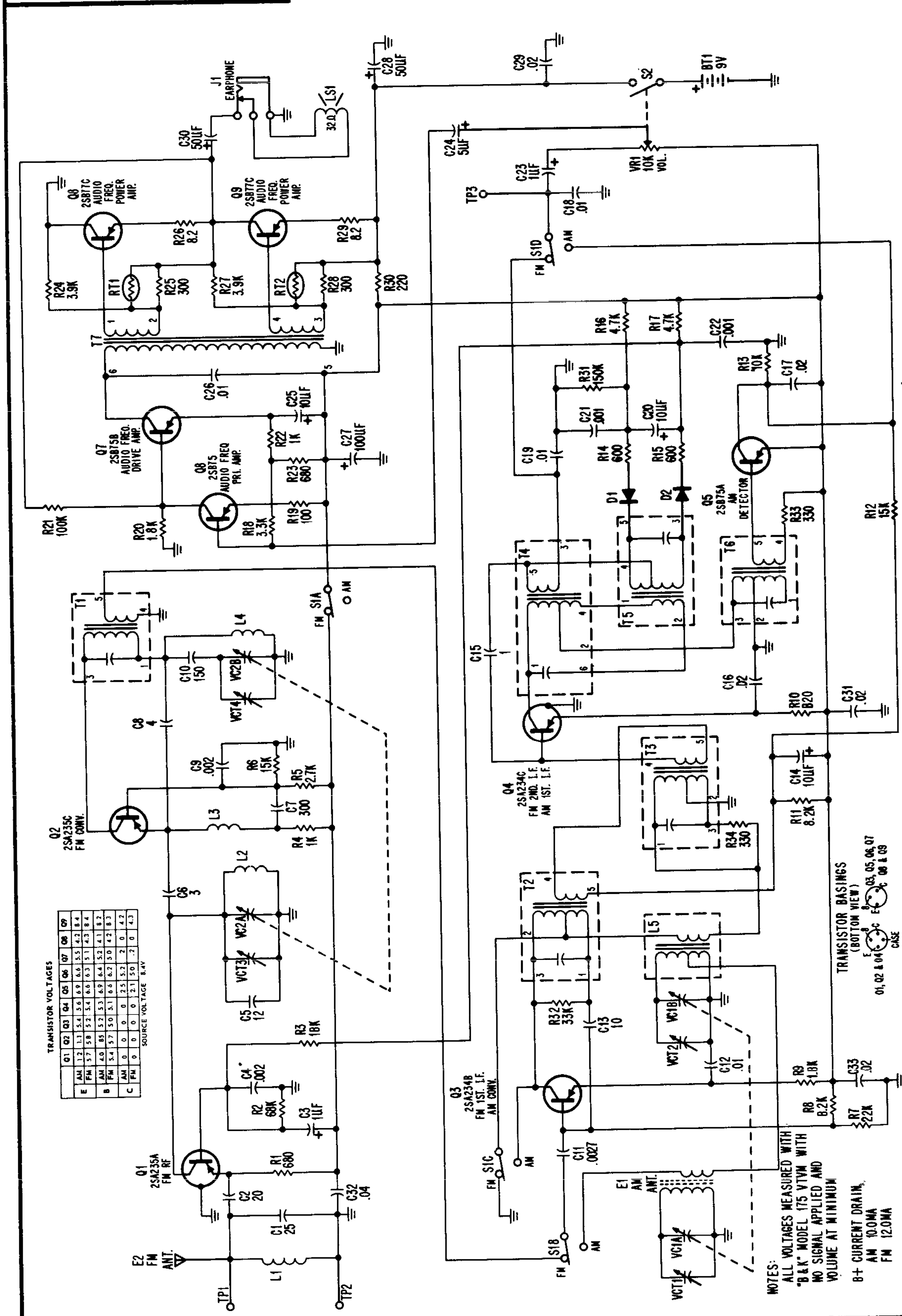
	SIGNAL GENERATOR		RADIO		
STEP	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	ADJUST
1	TEST LOOP – LOOSE COUPLED	455KHZ 400HZ @ 30% MOD.	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT IN ORDER GIVEN.	T3–1ST IF T6–2ND IF
2	SAME AS STEP 1	525KHZ 400HZ @ 30% MOD.	TUNING GANG FULLY CLOSED	ADJUST FOR MAX. OUTPUT.	L5–OSC. COIL
3	SAME AS STEP 1	1650KHZ 400HZ @ 30% MOD.	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT.	VCT2
4	SAME AS STEP 1	600KHZ 400HZ @ 30% MOD.	600KHZ	ADJUST FOR MAX. OUTPUT (MOVE COIL ON CORE)	E1–ANT. COIL
5	SAME AS STEP 1		1400KHZ	ADJUST FOR MAX. OUTPUT	VCT1

FM Alignment continued

PHILCO

AM-FM TRANSISTOR PORTABLE RADIO MODEL ST-919

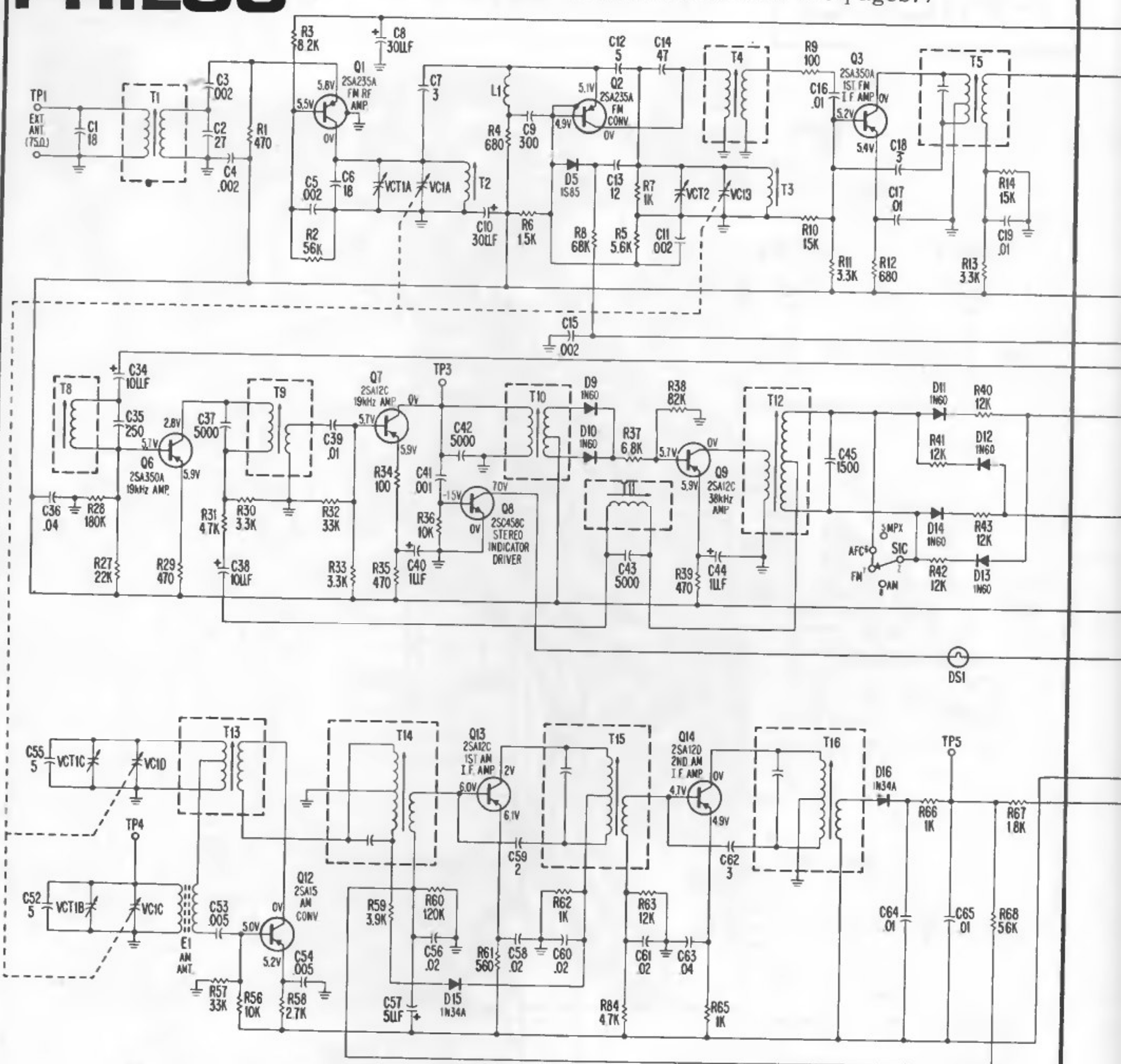
(Continued from preceding page.)

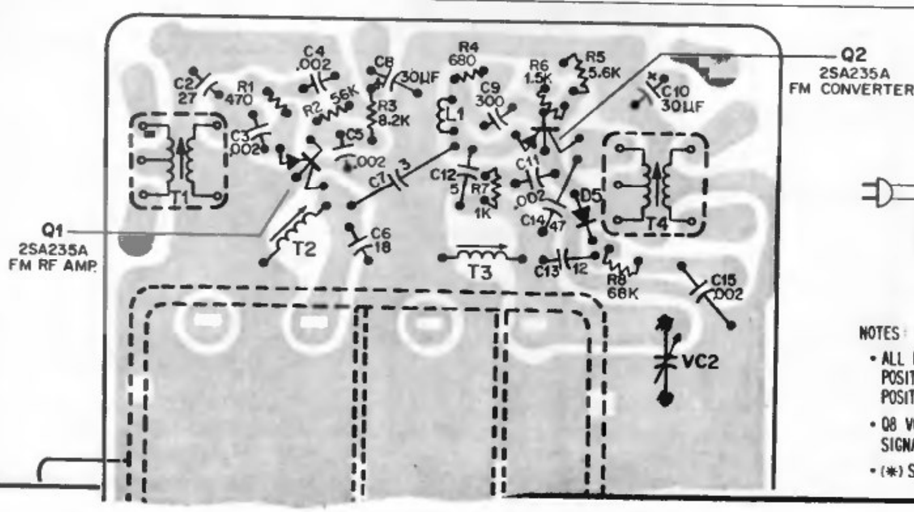


← FM Alignment Cont.

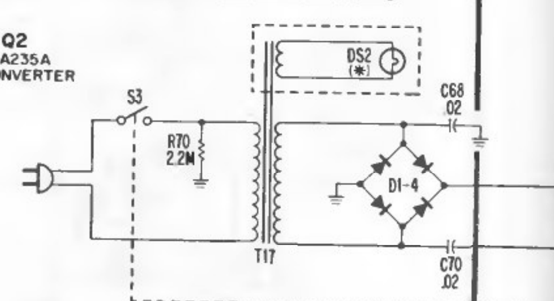
4	REPEAT 2 & 3 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				
5	SAME AS STEP 1	90MHZ 400HZ @ 75KHZ DEV.	90MHZ	L2	ADJUST FOR MAX. OUTPUT.
6	SAME AS STEP 1	106MHZ	106MHZ	VCT3	ADJUST FOR MAX. OUTPUT.

PHILCO MODELS ST958 & ST959 (Continued on next two pages.)





Bottom View—FM Tuner—ST958 and ST959



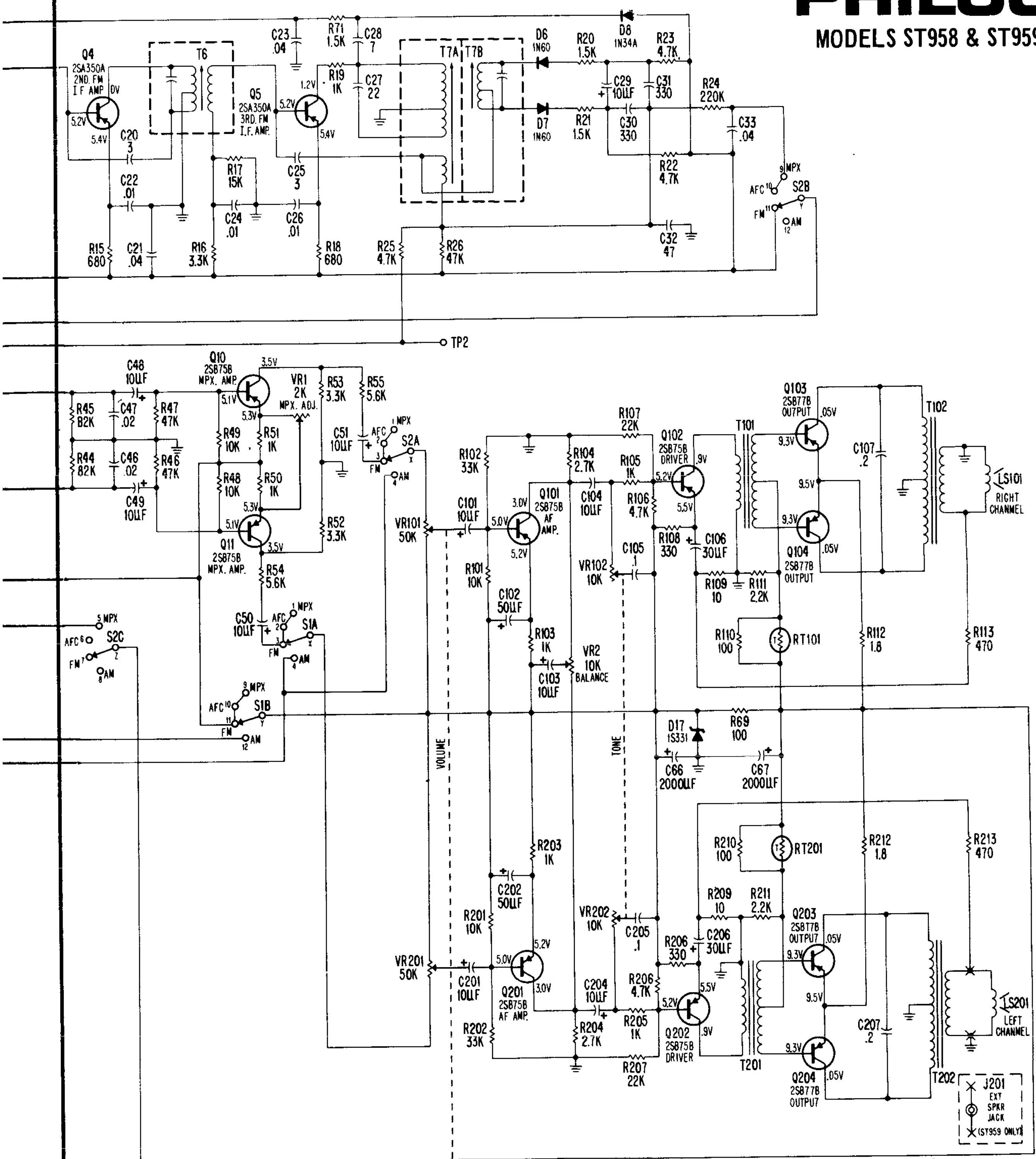
NOTES:

- ALL MEASUREMENTS TAKEN IN FM STEREO POSITION EXCEPT Q12, Q13, Q14 TAKEN IN AM POSITION.
- Q8 VOLTAGE TAKEN WITH FM STEREO SIGNAL APPLIED.
- (*) S959 ONLY.

(Continued on next page and from preceding page.)

PHILCO

MODELS ST958 & ST959



ANTENNA: AM: Self contained magnecore
FM: AC drive cord antenna with provision for external antenna connections.

CIRCUIT: 22 transistors, 13 diodes and 2 thermistors in a superheterodyne FM-AM receiver.

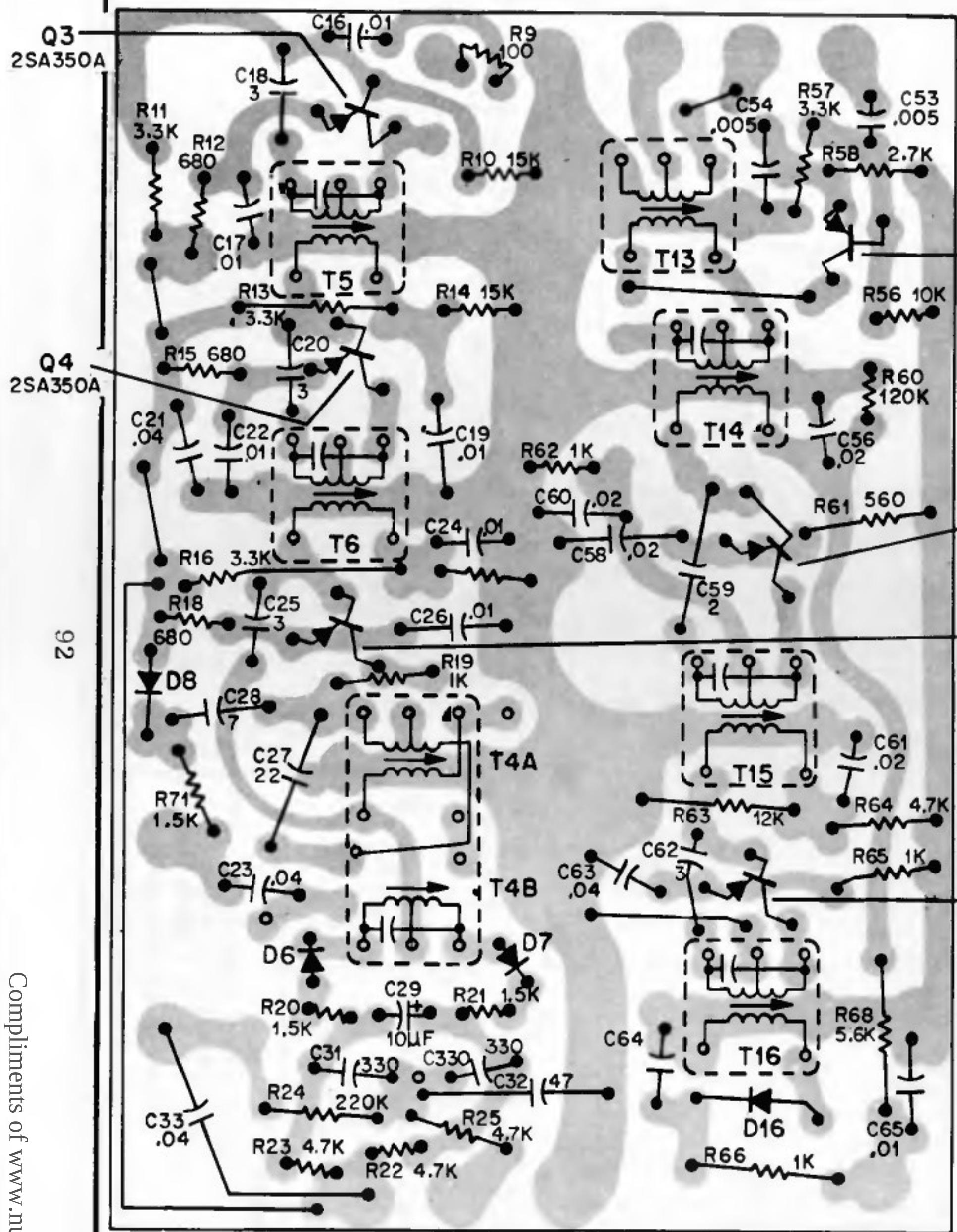
FREQUENCY COVERAGE: FM-88MHz to 108MHz
AM-540MHz to 1620MHz
LW-150KHz to 350KHz

INTERMEDIATE FREQUENCY: AM - 455KHz
FM - 10.7MHz

SPEAKERS:
ST958: Two 4'' round, 8 ohms, contained in cabinet.
ST959: Two 4 x 6, 8 ohms, one in cabinet, one extension speaker

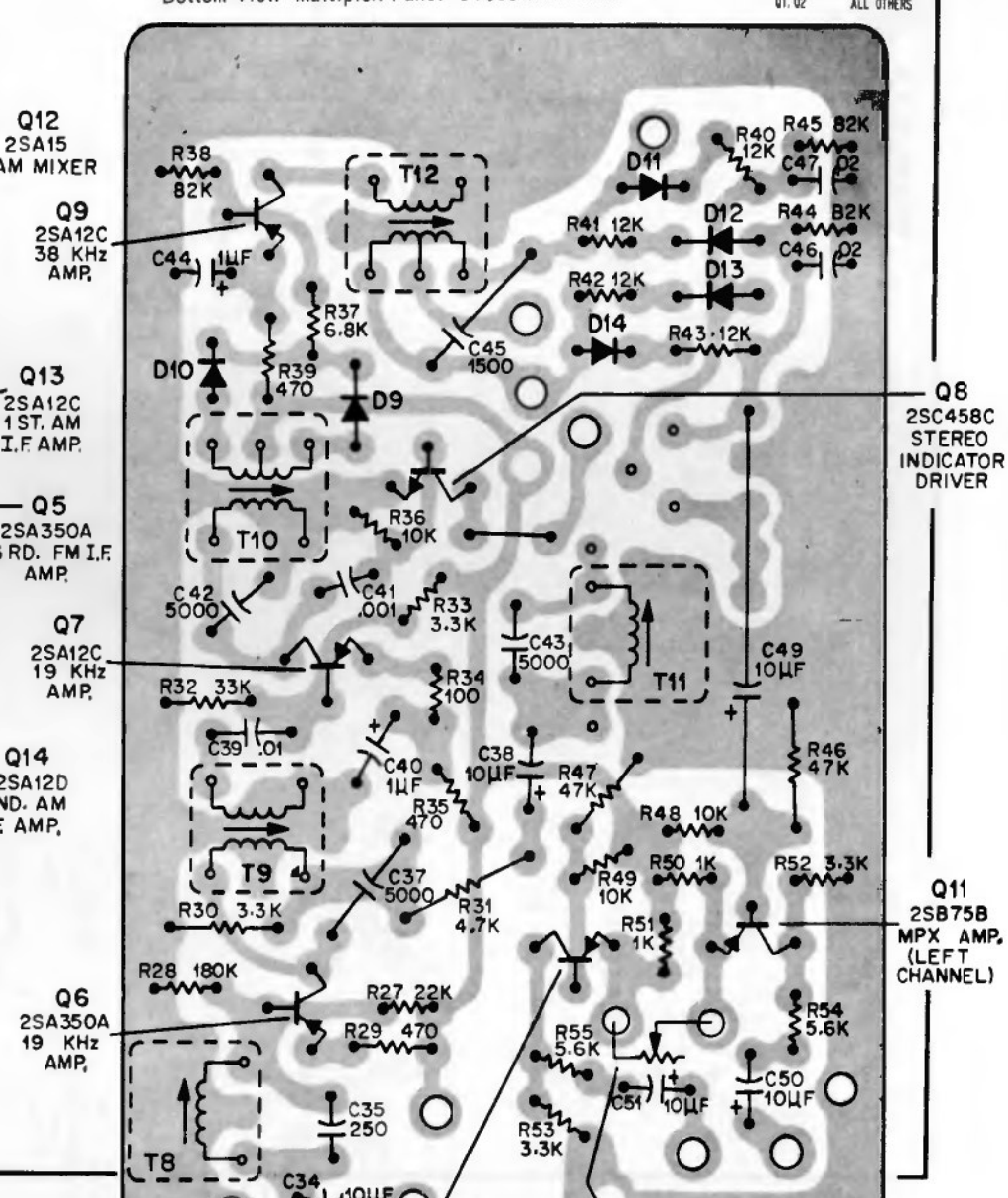
POWER: 120 volts alternating current (AC) only.

PHILCO Models ST958 & ST959
(Continued from preceding two pages.)

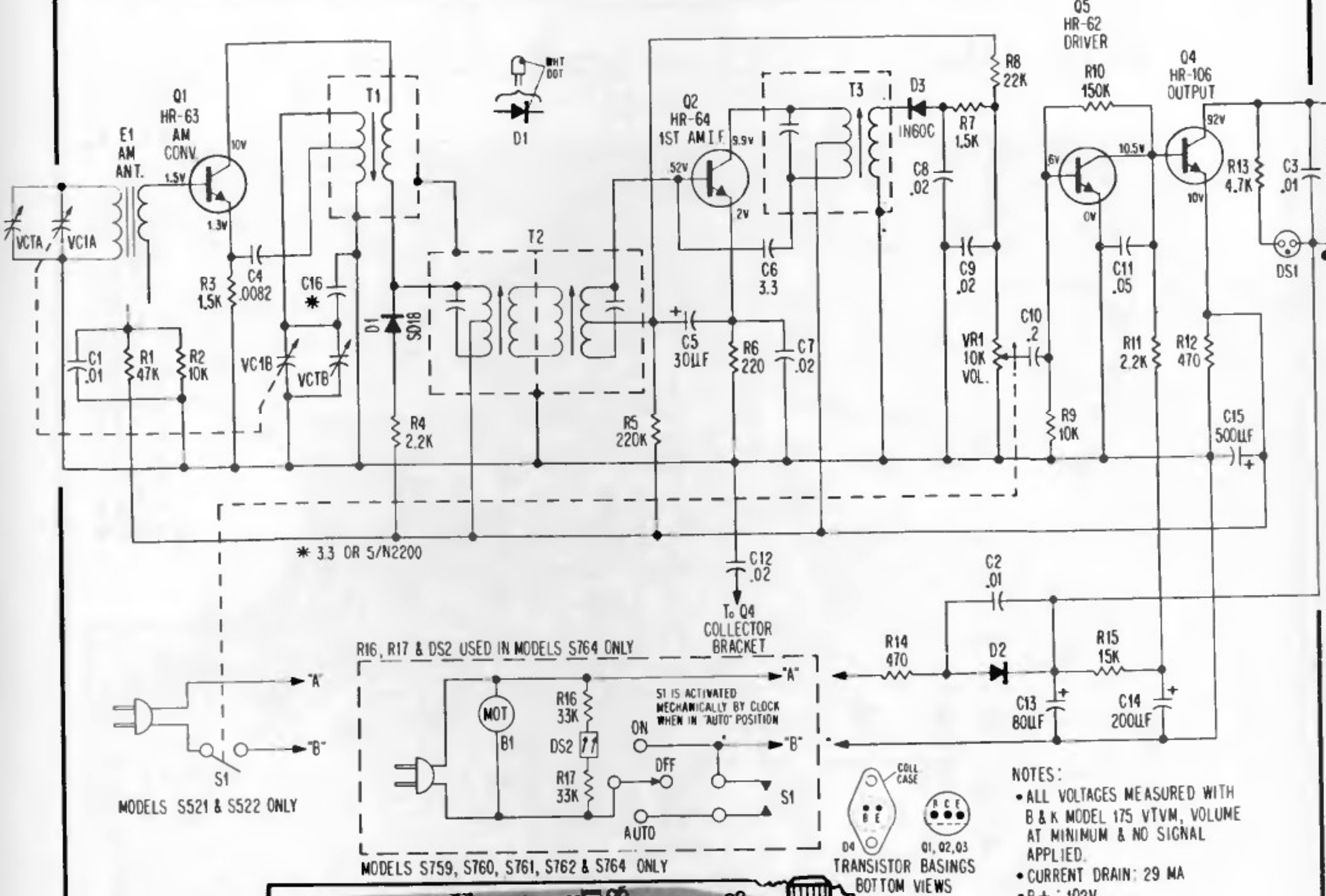


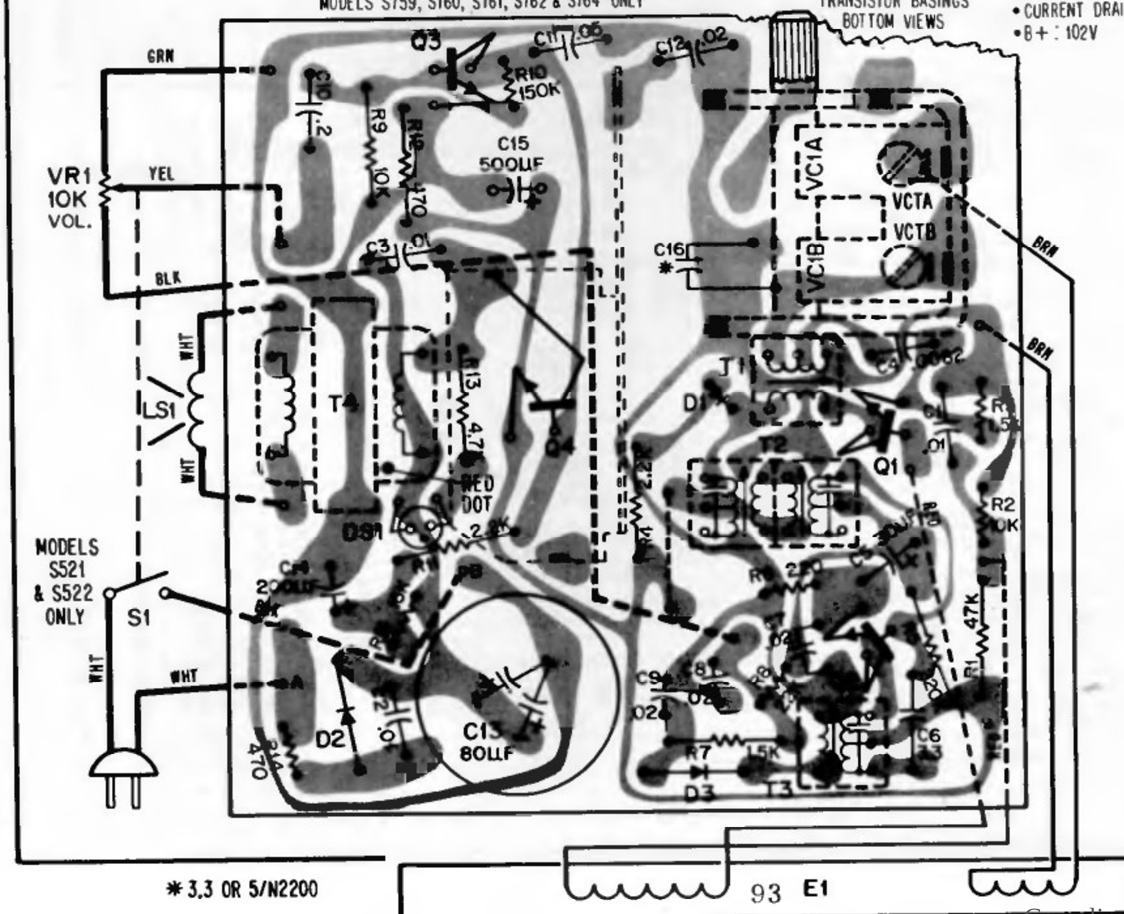
Bottom View–IF Panel–ST958 and ST959

Bottom View–Multiplex Panel–ST958 and ST959



PHILCO CLOCK/TABLE AM TRANSISTOR RADIO
MODELS S521, S522, S759, S760, S761, S762, & S764

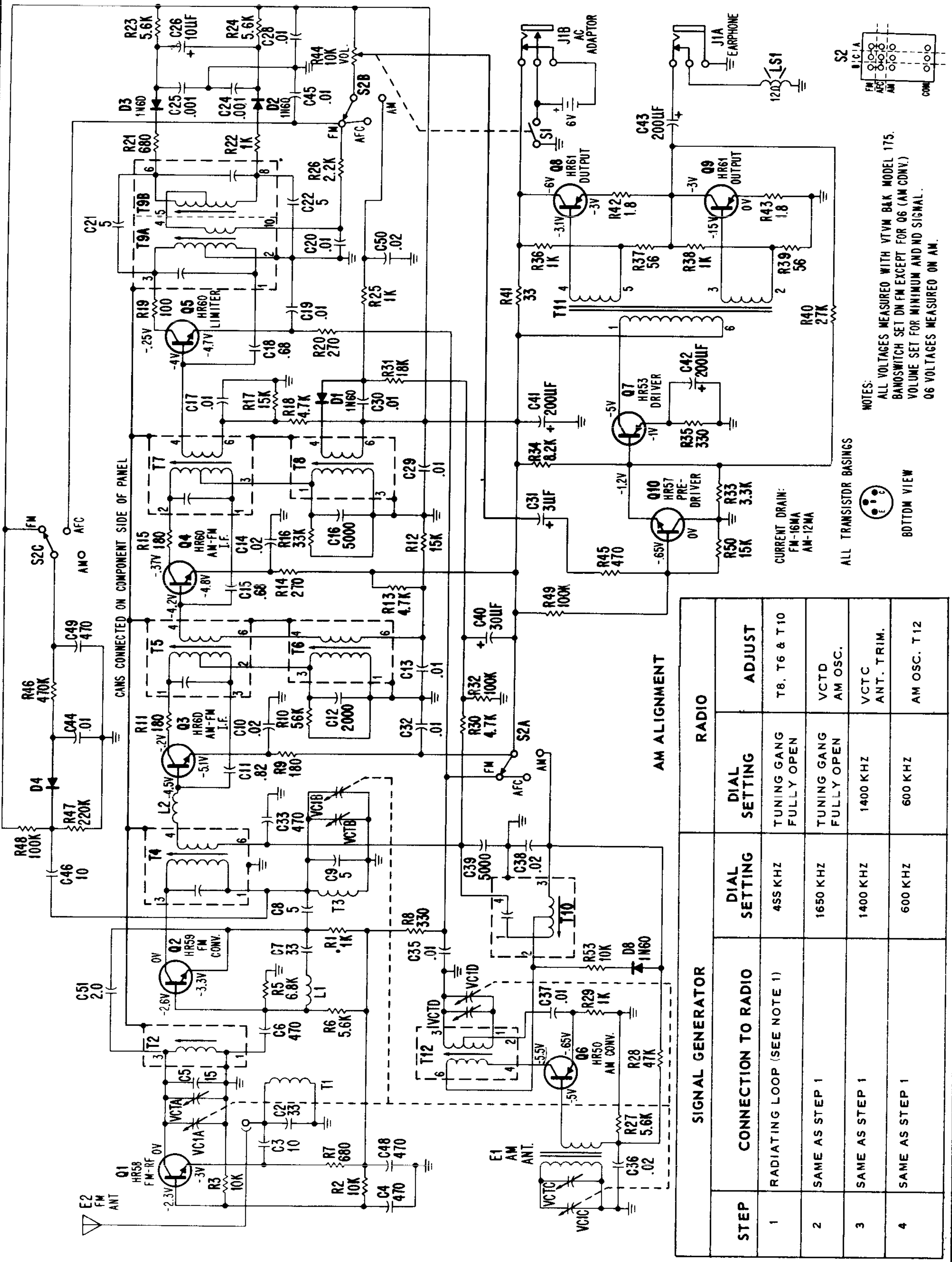




CIRCUIT: Four transistor superheterodyne.
FREQUENCY COVERAGE: 535 KC to 1605 KC
INTERMEDIATE FREQUENCY: 455 KC
ANTENNA: Self contained magnecore.
POWER OUTPUT: 1.4 watts max.
SPEAKER: 4 inches, 8 ohms
POWER: 120 Volts alternating current (AC) only.

PHILCO MODEL ST984

(Continued on next page.)

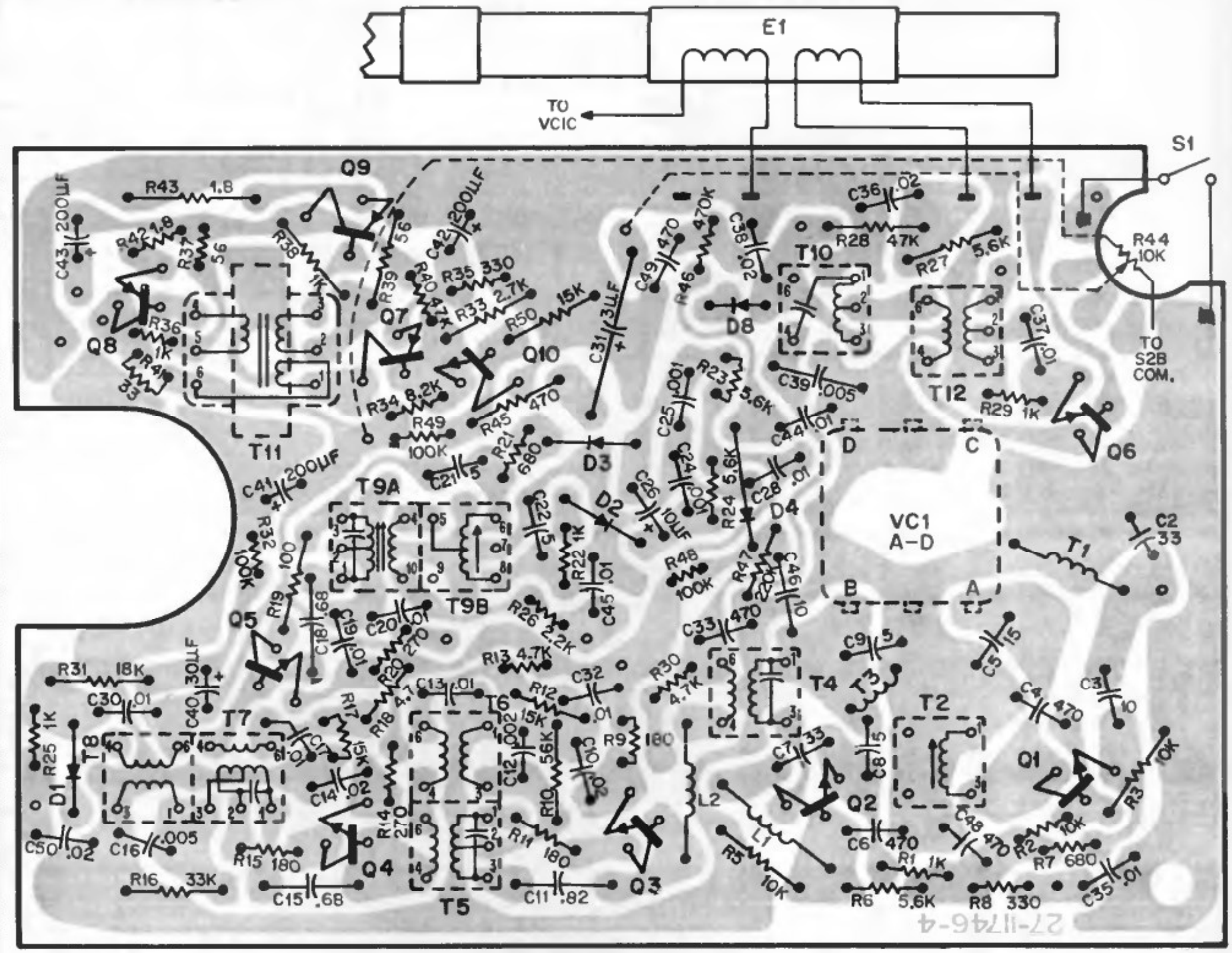


AM ALIGNMENT

STEP	SIGNAL GENERATOR		RADIO	
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	ADJUST
1	RADIATING LOOP (SEE NOTE 1)	455 KHZ	TUNING GANG FULLY OPEN	T8, T6 & T10
2	SAME AS STEP 1	1650 KHZ	TUNING GANG FULLY OPEN	VCTD AM OSC.
3	SAME AS STEP 1	1400 KHZ	1400 KHZ	VCTC ANT. TRIM.
4	SAME AS STEP 1	600 KHZ	600 KHZ	AM OSC. T12

PHILCO MODEL ST984

(Continued from preceding page.)



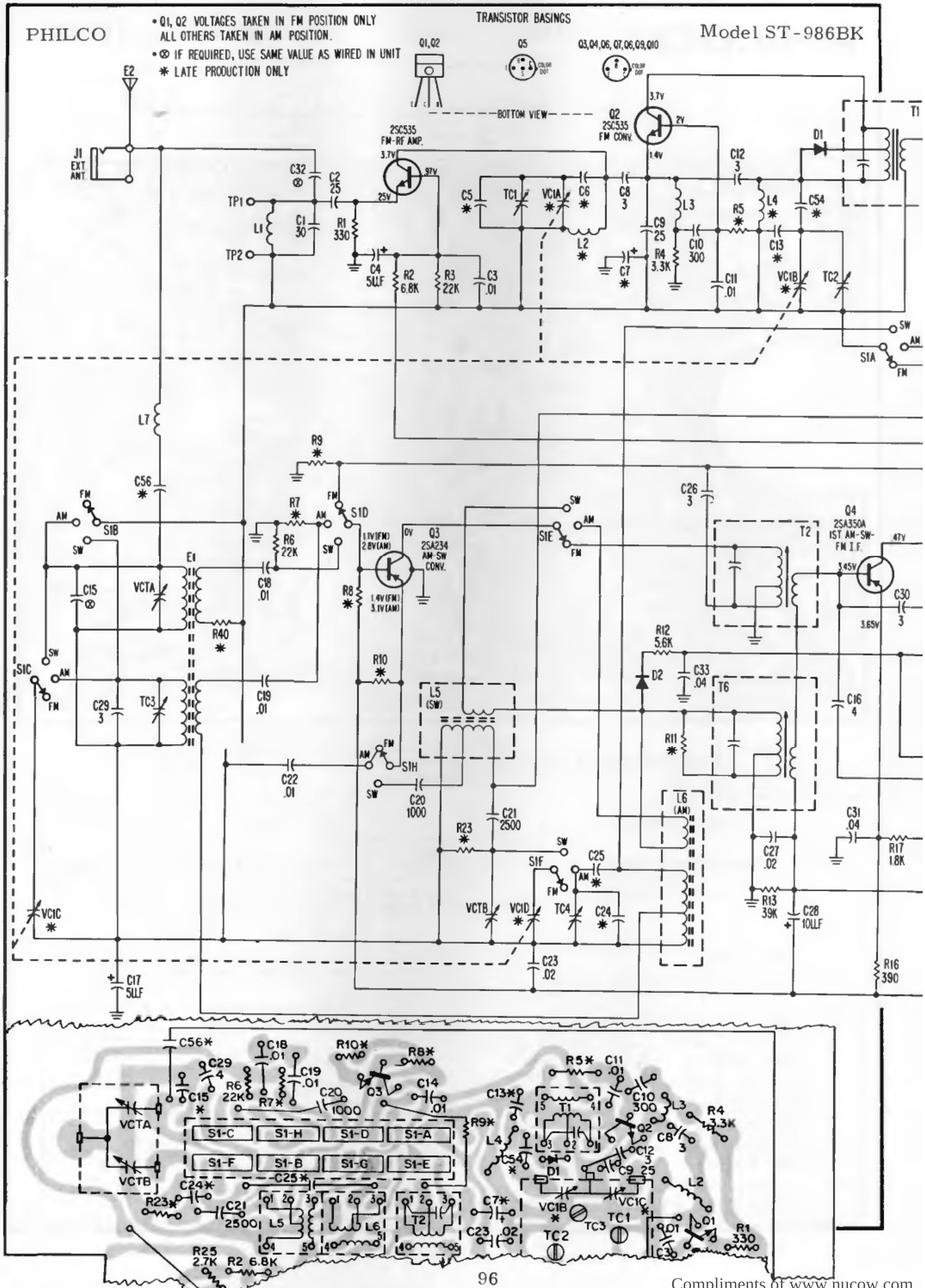
Bottom View–Perma Circuit Panel Component Layout–Model ST984

INTERMEDIATE FREQUENCY: AM, 455 KHz
FM, 10.7 MHz

FM ALIGNMENT

SIGNAL GENERATOR			RADIO		
STEP	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	ADJUST
1	COLLECTOR OF Q1 THRU .01 MF CAPACITOR	10.7 MHZ ±75 KHZ SWEEP	TUNING GANG FULLY OPEN	ADJUST FOR MAXIMUM OUTPUT IN ORDER GIVEN. REDUCE GENERATOR OUTPUT AS NECESS.	T9A, T7, T5 & T4
2	SAME AS STEP 1	10.7 MHZ 30% AM	TUNING GANG FULLY OPEN	ADJUST FOR MINIMUM OUTPUT (A NULL BETWEEN TWO PEAKS)	T9B
3	REPEAT STEPS 1 AND 2 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				
4	CONNECT TO ANTENNA TERMINAL THRU 47 OHM RESISTOR	87.5 MHZ ±75 KHZ	TUNING GANG FULLY CLOSED	ADJUST FOR MAX. OUTPUT.	T3 (SEE NOTE "A") FM OSC.
5	SAME AS STEP 4	108.5 MHZ ±75 KHZ	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT.	VCTB FC OSC.
6	REPEAT STEPS 4 AND 5 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				
7	SAME AS STEP 4	90 MHZ ±75 KHZ	90 MHZ	ADJUST FOR MAX. OUTPUT.	T2
8	SAME AS STEP 4	105 MHZ ±75 KHZ	105 MHZ	ADJUST FOR MAX. OUTPUT.	VCTA
9	REPEAT STEPS 7 AND 8 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				

(Continued on next page.)



PHILCO MODEL ST-986BK

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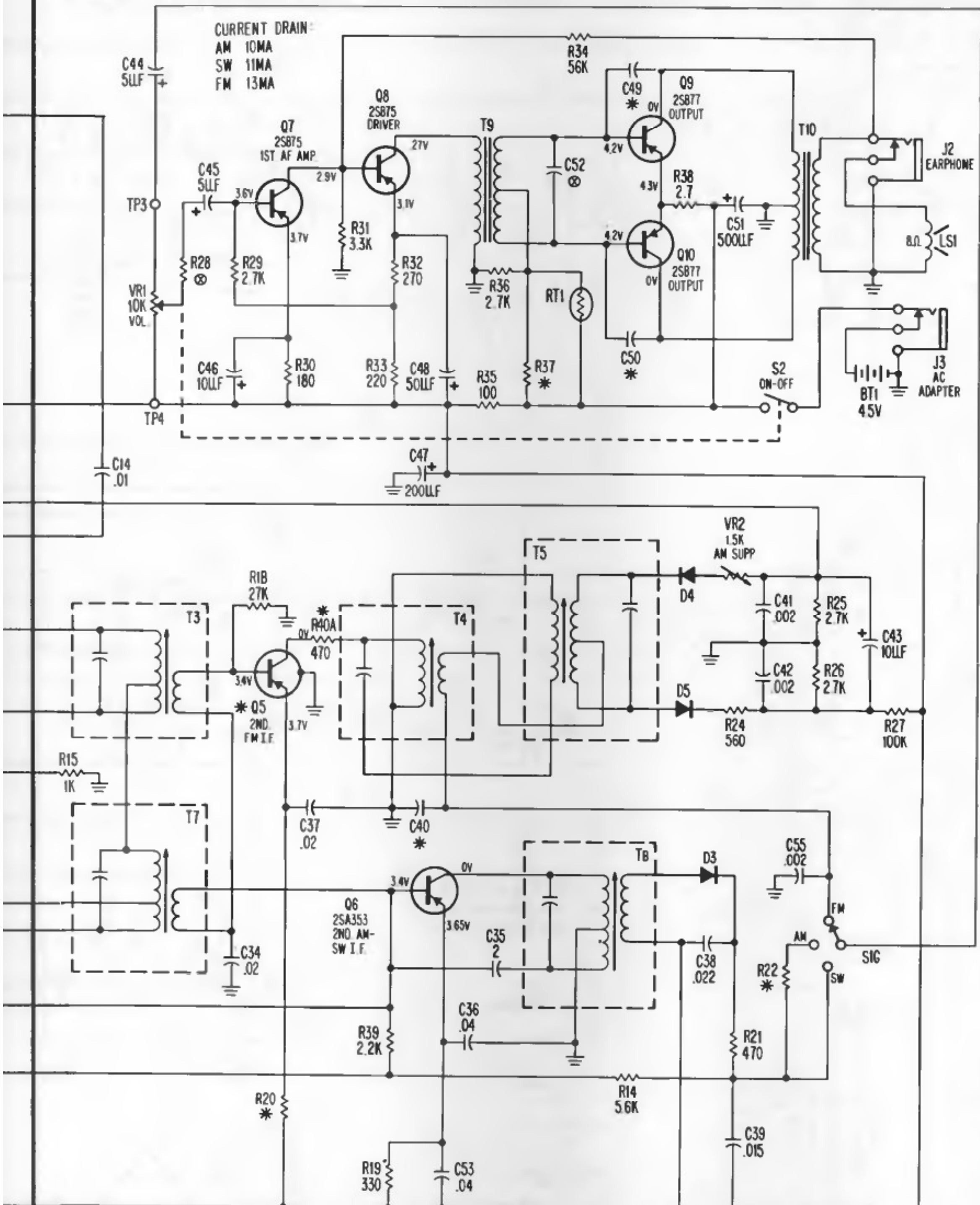
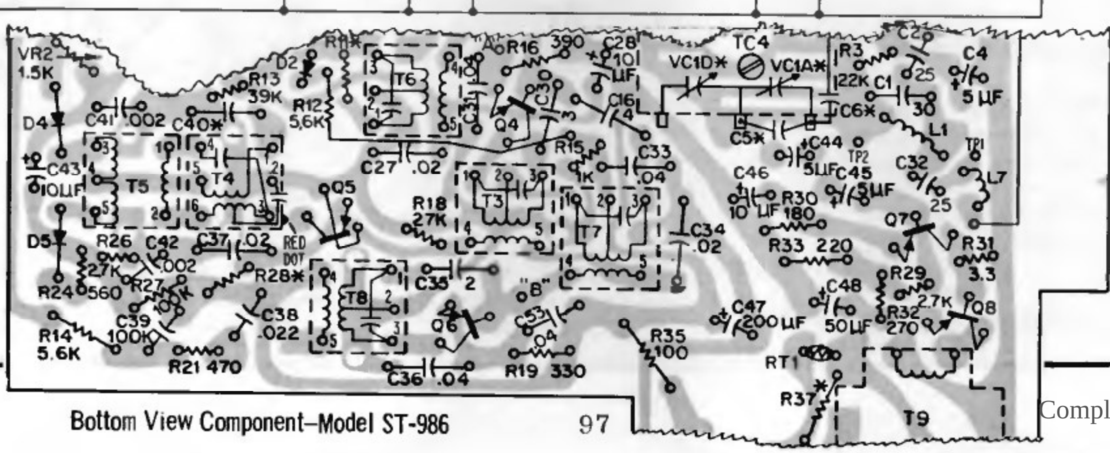




Bottom View Component–Model ST-986

CIRCUIT: 10 transistors, 5 diodes and 1 thermistor in a superheterodyne FM-AM-SW receiver covering 3 bands.

SPEAKER: 3½ inch 8 ohms voice coil, jack provided for optional private listening unit (Part number 429-0919-19).

ANTENNA: AM-SW, self-contained magnecore. FM-SW, telescopic adjustable monopole. External antenna jack provided for use with an antenna other than the monopole.

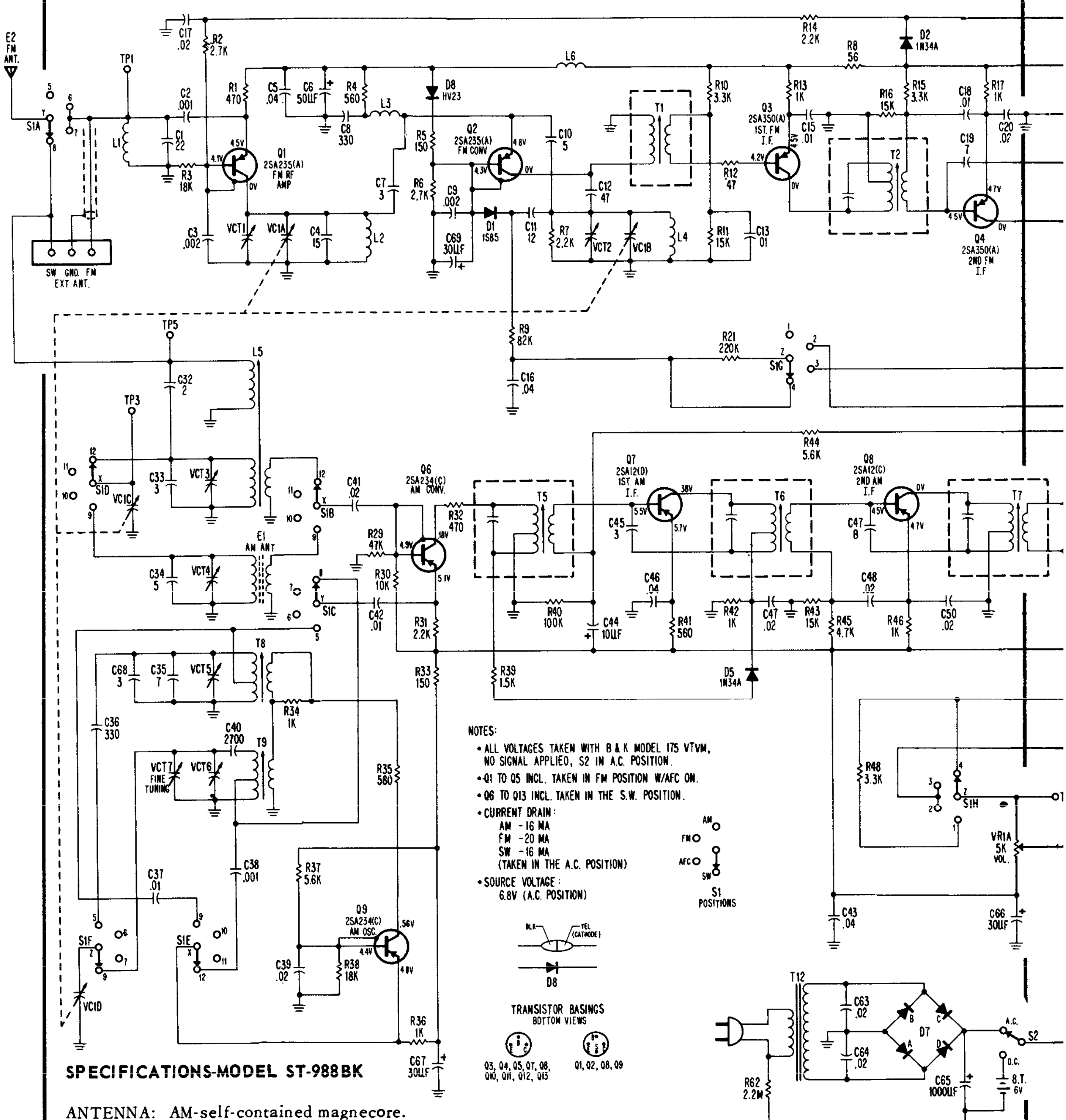
BATTERY: 3 ''D'' cells provide a 4.5-volt supply with a jack provided for optional external power supply (Philco part no. 423-1009-4).

FREQUENCY RANGE: FM, 88MHz to 108MHz
SW, 4,5MHz to 12MHz
AM, 540KHz to 1600KHz

INTERMEDIATE FREQUENCY: FM, 10.7MHz
SW, 460KHz
AM, 460KHz

PHILCO MODEL ST-988BK

(Continued on next page.)



SPECIFICATIONS-MODEL ST-988BK

ANTENNA: AM-self-contained magnecore.
FM, SW-telescopic adjustable monopole.
Terminal panel provided for FM and SW antennas.

CIRCUIT: 13 transistors, 8 diodes and 1 thermistor in a superheterodyne FM-AM-SW receiver.

FREQUENCY COVERAGE: FM-88MHz to 108MHz
AM-540KHz to 1620KHz
SW-6MHz to 18MHz

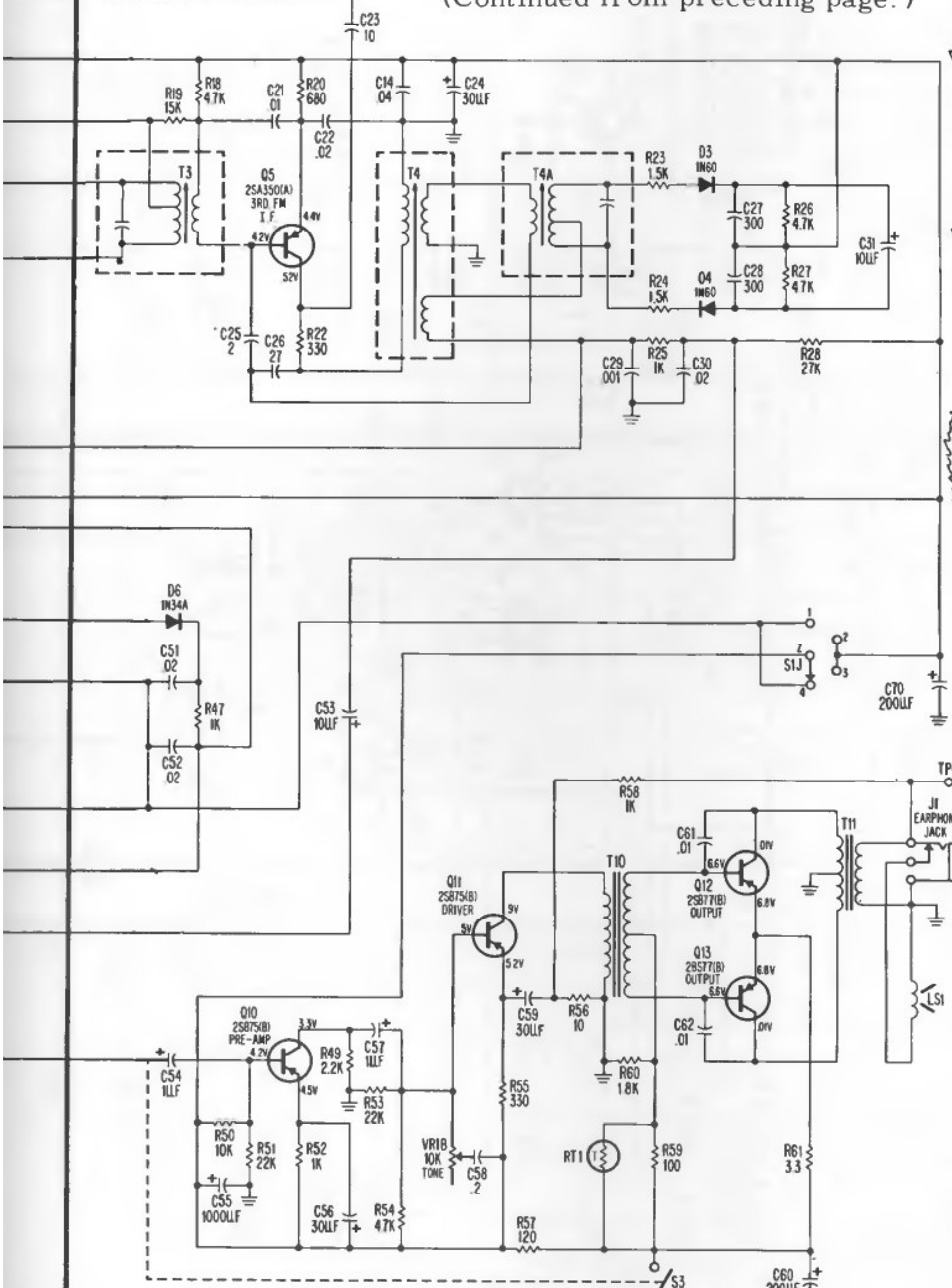
INTERMEDIATE FREQUENCY: AM-455KHz
FM-10.7MHz

POWER SUPPLY: 4 "C" cells in a 6 volt supply with a built-in A.C. power supply for optional A.C. operation.

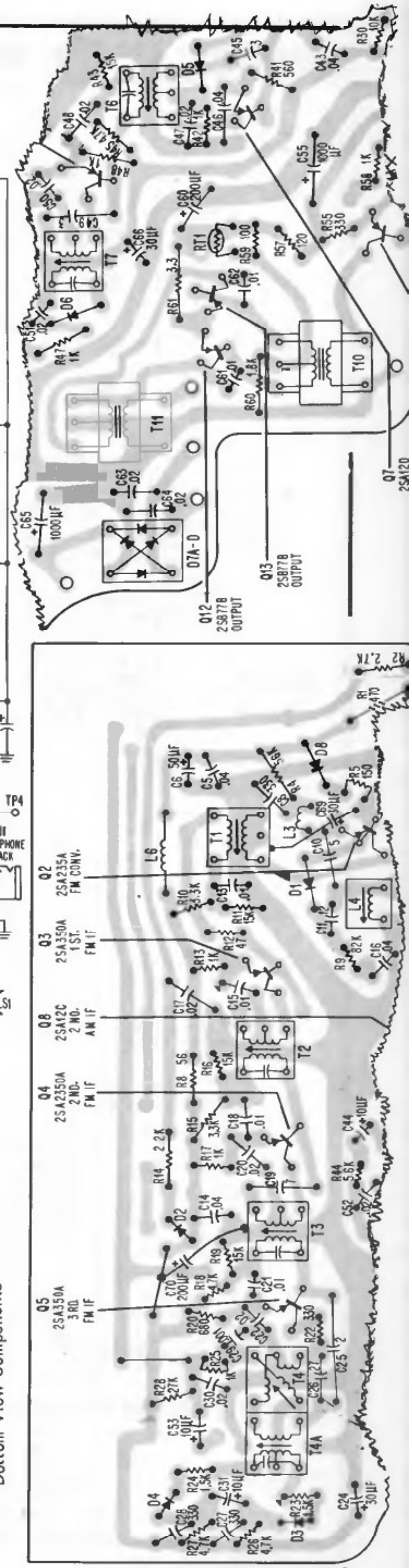
SPEAKER: 4 inches, 8 ohms, jack provided for optional private listening unit (Philco Part No. 326-8007-1).

PHILCO MODEL ST-988BK

(Continued from preceding page.)



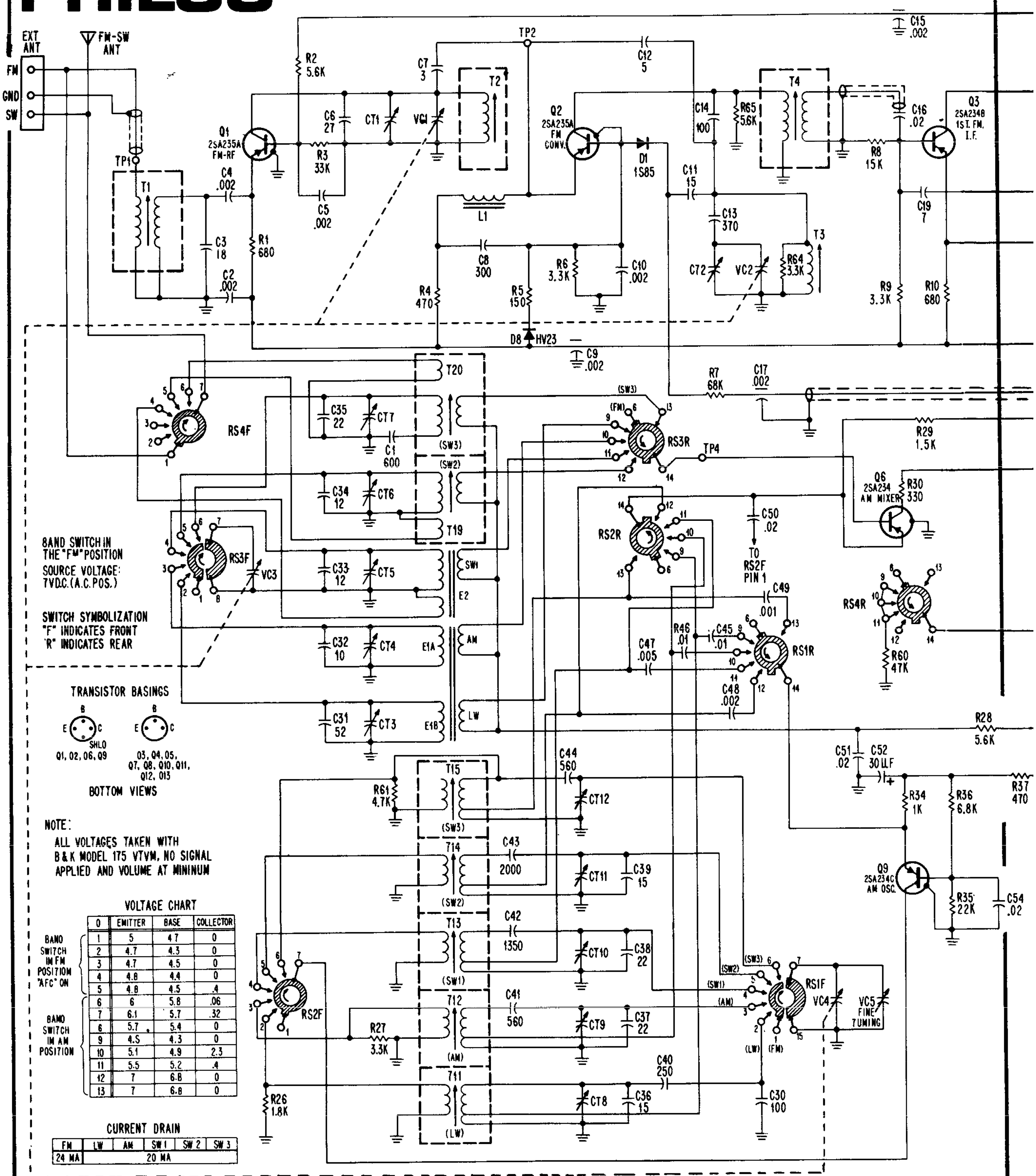
ALL VOLTAGES TAKEN WITH B&K MODEL 175 VTVM,
NO SIGNAL APPLIED AND VOLUME AT MINIMUM.



Bottom View Components

PHILCO MODEL ST989BK

(Continued on next two pages.)



VOLTAGE CHART

	Q	EMITTER	BASE	COLLECTOR
BAND SWITCH IN FM POSITION "AFC" ON	1	5	4.7	0
	2	4.7	4.3	0
	3	4.7	4.5	0
	4	4.8	4.4	0
	5	4.8	4.5	.4
BAND SWITCH IN AM POSITION	6	6	5.8	.06
	7	6.1	5.7	.32
	8	5.7	5.4	0
	9	4.5	4.3	0
	10	5.1	4.9	2.3
	11	5.5	5.2	.4
	12	7	6.8	0
	13	7	6.8	0

CURRENT DRAIN

FM	LW	AM	SW 1	SW 2	SW 3
24 MA	20 MA				

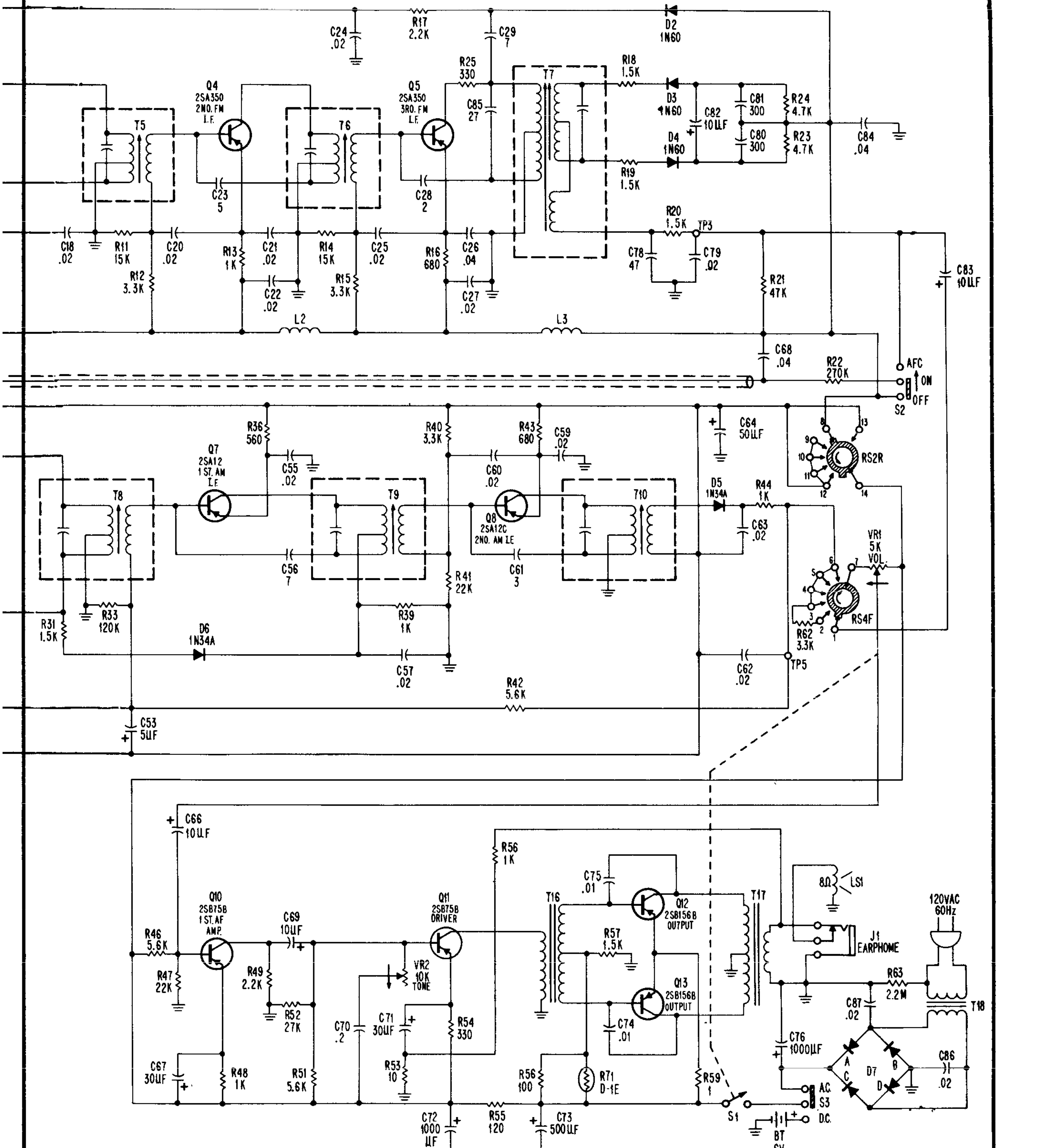
FREQUENCY COVERAGE: FM-88MHz to 108MHz
AM-540KHz to 1620KHz
LW-150KHz to 350KHz
SW1-1.5MHz to 4.5MHz
SW2-3MHz to 9MHz
SW3-9MHz to 22MHz

INTERMEDIATE FREQUENCY: AM - 455KHz
FM - 10.7MHz

DISASSEMBLY INSTRUCTIONS

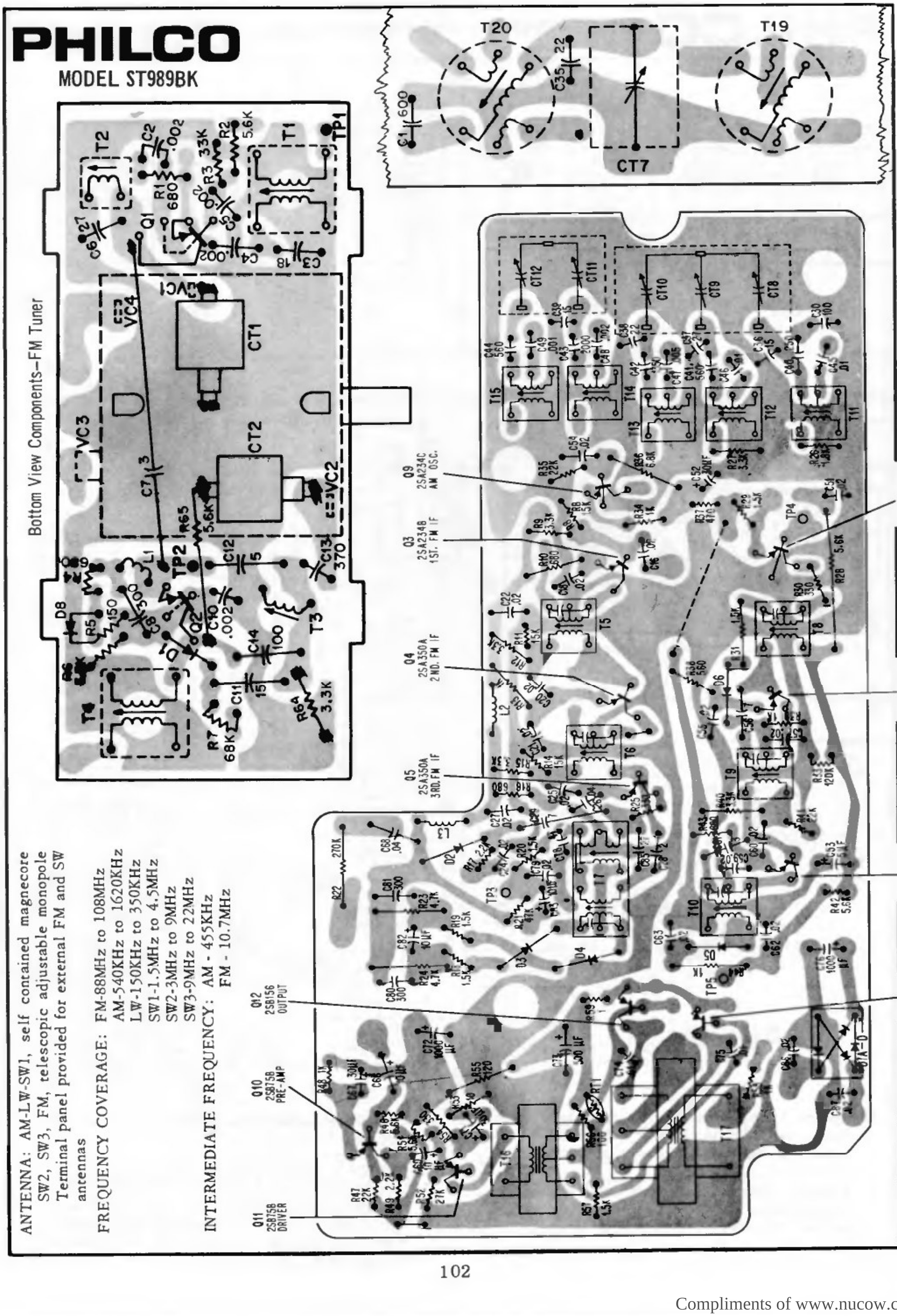
1. Remove 2 cross-recess screws from the rear of the cabinet and unsnap the battery compartment lid.
2. Carefully pull the line cord box out of the unit. Also remove the battery case.

PHILCO MODEL ST989BK Continued on next page and from preceding page



3. Remove 1 cross-recess screw from the chassis next to the power transformer and 1 cross-recess screw from the front of the tuner mounting bracket.
4. Remove 3 nuts, 2 on the left hand side of the chassis and 1 between the rotary switch bracket and the P.W. Panel.
5. Loosen the screw on the AFC knob and pull the knob off.
6. Remove J1 and S3 from the jack panel on the right-hand side. Do not remove the panel itself.
7. Lift the chassis on the right side slightly and pull to the right to clear the rotary switch shaft from the side of cabinet. Lift the chassis straight up to clear cabinet.

(Continued from preceding two pages.)



ANTENNA: AM-LW-SW1, self contained magnecore SW2, SW3, FM, telescopic adjustable monopole Terminal panel provided for external FM and SW antennas

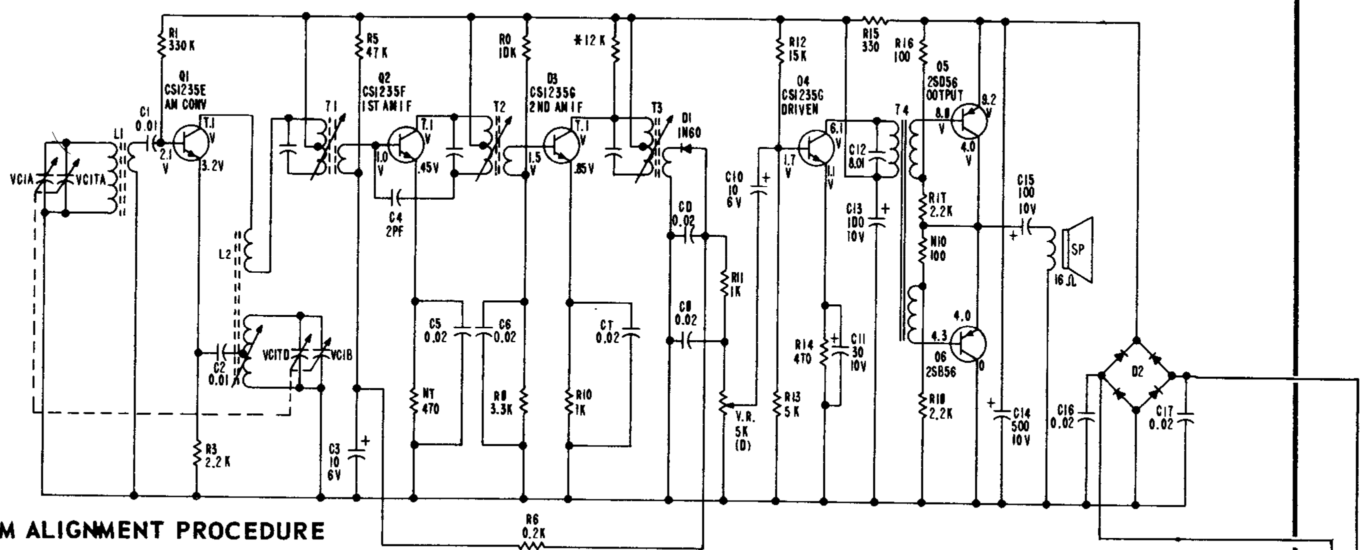
FREQUENCY COVERAGE: FM-88MHz to 108MHz
AM-540KHz to 1620KHz
LW-150KHz to 350KHz
SW1-1.5MHz to 4.5MHz
SW2-3MHz to 9MHz
SW3-9MHz to 22MHz

INTERMEDIATE FREQUENCY: AM - 455KHz
FM - 10.7MHz

PHILCO

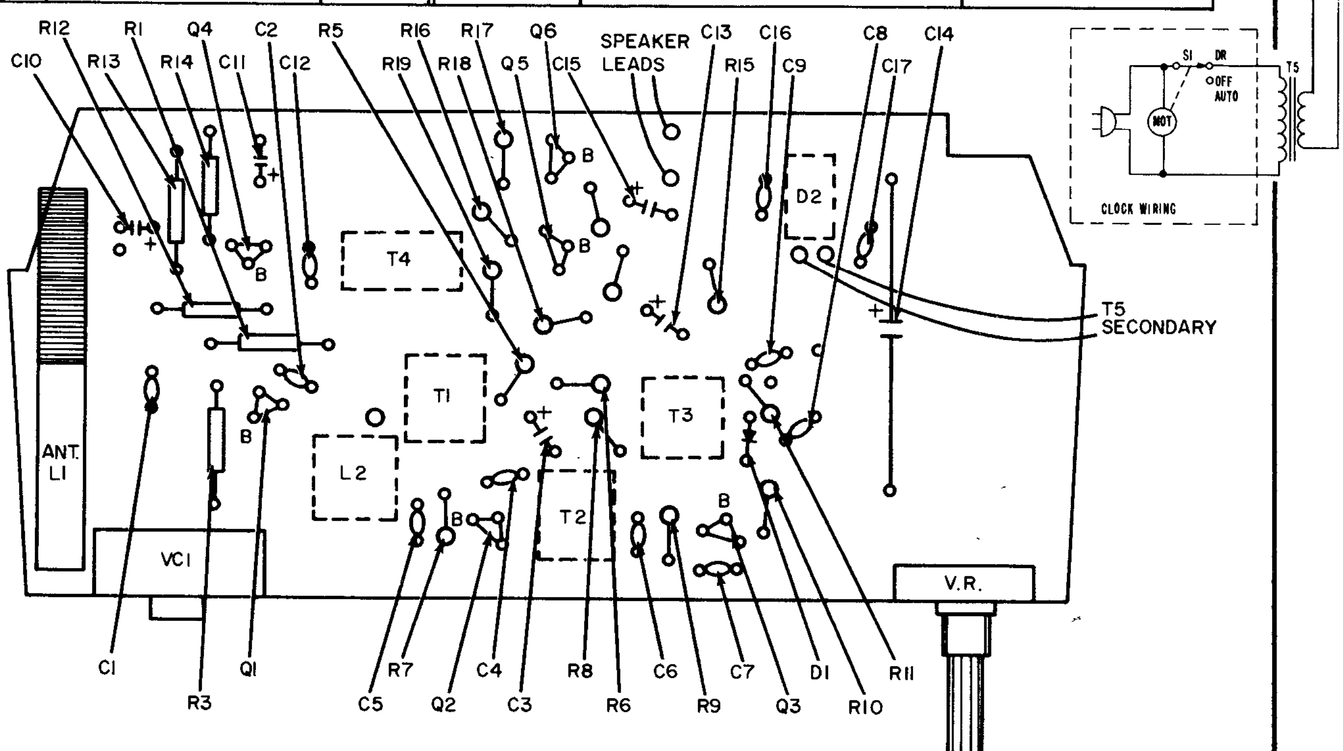
TABLE/CLOCK AM RADIO MODEL S-790BR

NOTES:
1. ALL VOLTAGES MEASURED WITH B+K MODEL 175 VTVM, VOLUME AT MINIMUM AND NO SIGNAL APPLIED.
2. CURRENT DRAIN 8.5 MA.
3. B+ 8.2 VDC
* USED AS REQUIRED



AM ALIGNMENT PROCEDURE

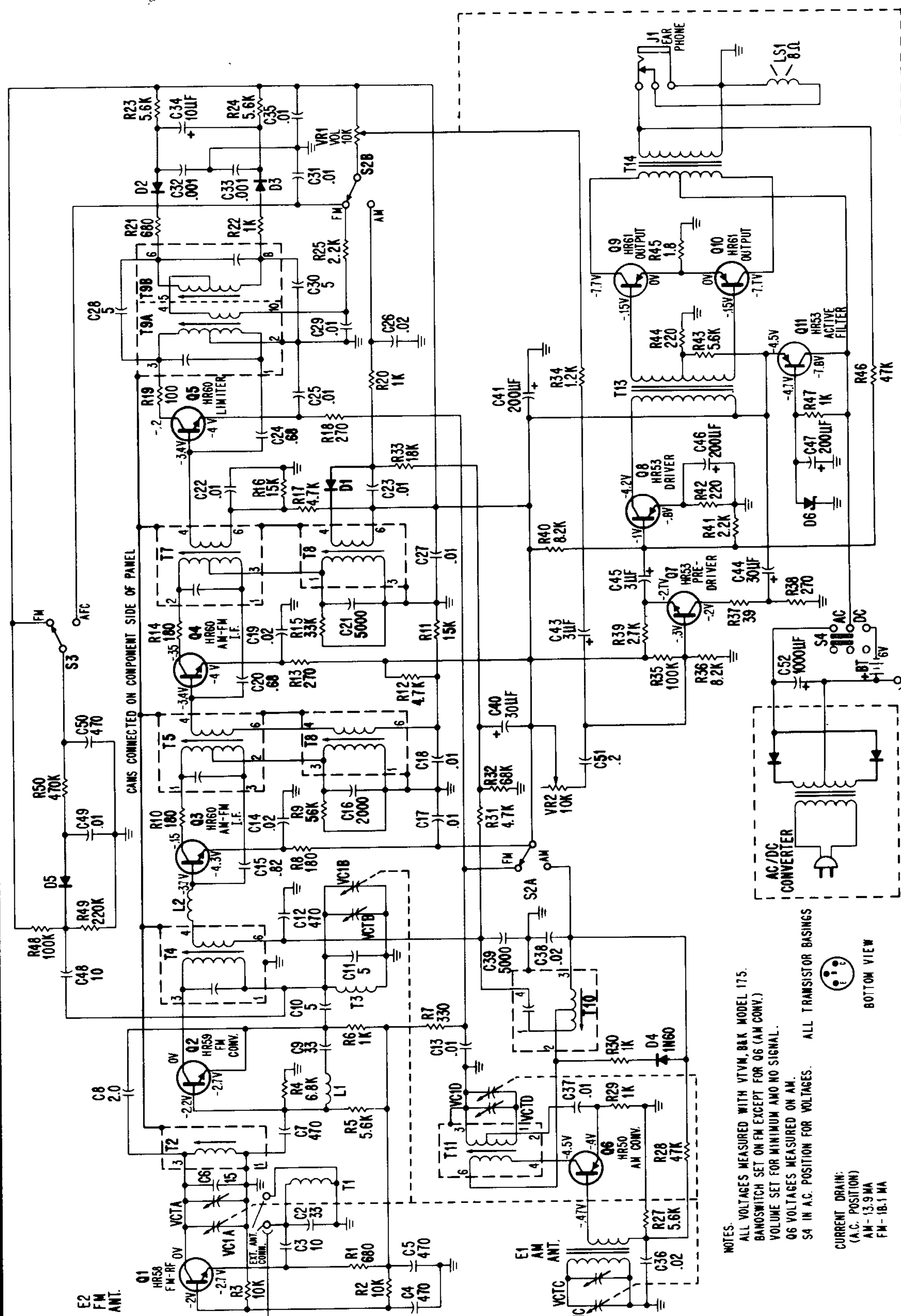
SIGNAL GENERATOR			RADIO		
STEP	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	ADJUST
1	USE RADIATING LOOP (SEE NOTE BELOW)	455KHz	GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT IN ORDER GIVEN.	T1 1ST IF T2 2ND IF T3 3RD IF
2	SAME AS STEP 1	1620KHz	GANG OPEN	ADJUST FOR MAX. OUTPUT.	VC1TB OSC. TRIMMER
3	SAME AS STEP 1	1400KHz	1400KHz	ADJUST FOR MAX. OUTPUT.	VC1TA ANT. TRIMMER
4	SAME AS STEP 1	580KHz	580KHz	ADJUST FOR MAX. OUTPUT. ROCK GANG WHILE MAKING ADJUSTMENT	L2 OSC. COIL



Top View–Perma Circuit Panel Components

PHILCO AM/FM RADIO MODELS ST997 AND ST998

(Continued on next page.)



CIRCUIT: 11 transistors, 6 diodes in an AM-FM superheterodyne circuit.

FREQUENCY COVERAGE: AM, 520 KHz to 1620 KHz
FM, 88 MHz to 108 MHz

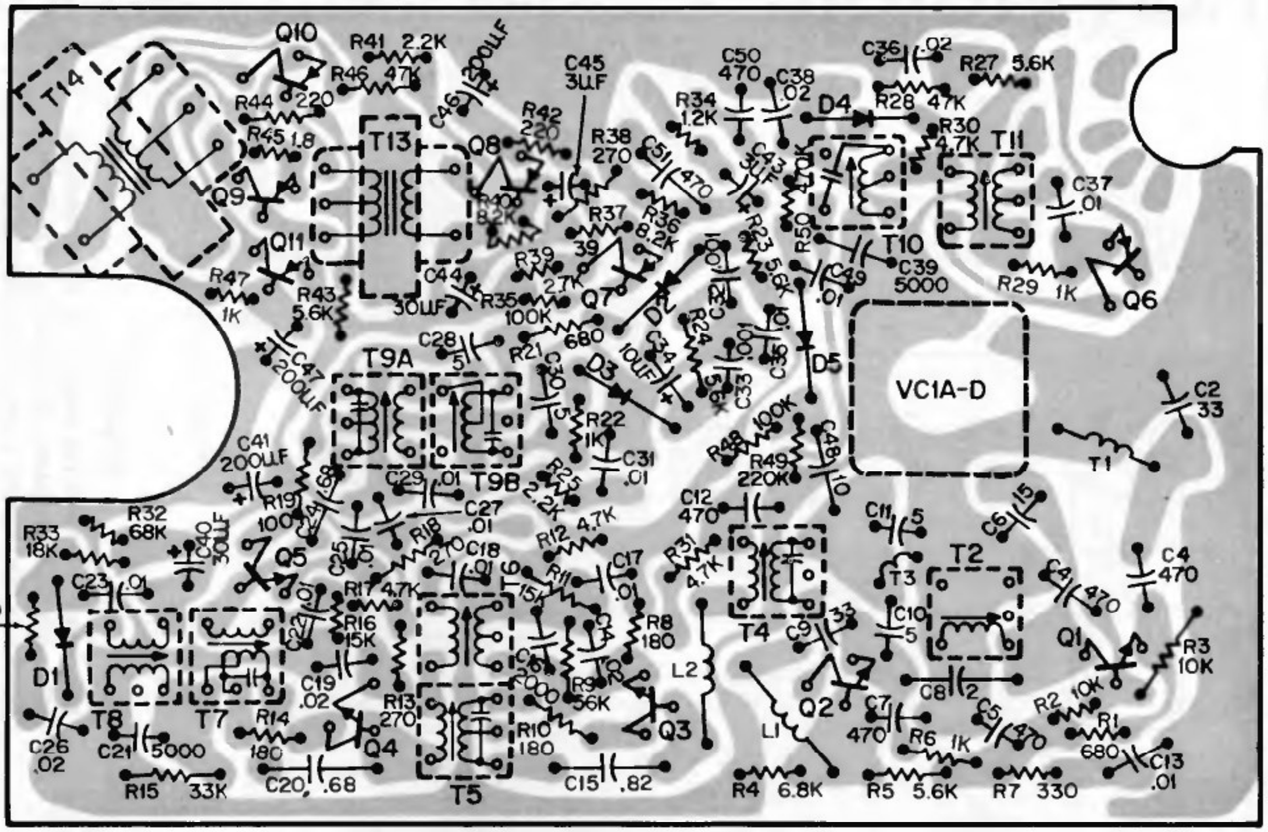
INTERMEDIATE FREQUENCY: AM, 455 KHz
FM, 10.7 MHz

POWER: AC, 117 volts, 60Hz through AC/DC converter, part no. 76-14128-1.

DC, ST998-4 type "D" cells (Eveready types 920 or 1050) in a 6-volt supply.
ST997-4 type "C" cells (Eveready type 1035) in a 6-volt supply.

(Continued from preceding page.)

Bottom View–Perma-Circuit Panel–Models ST997 and ST998

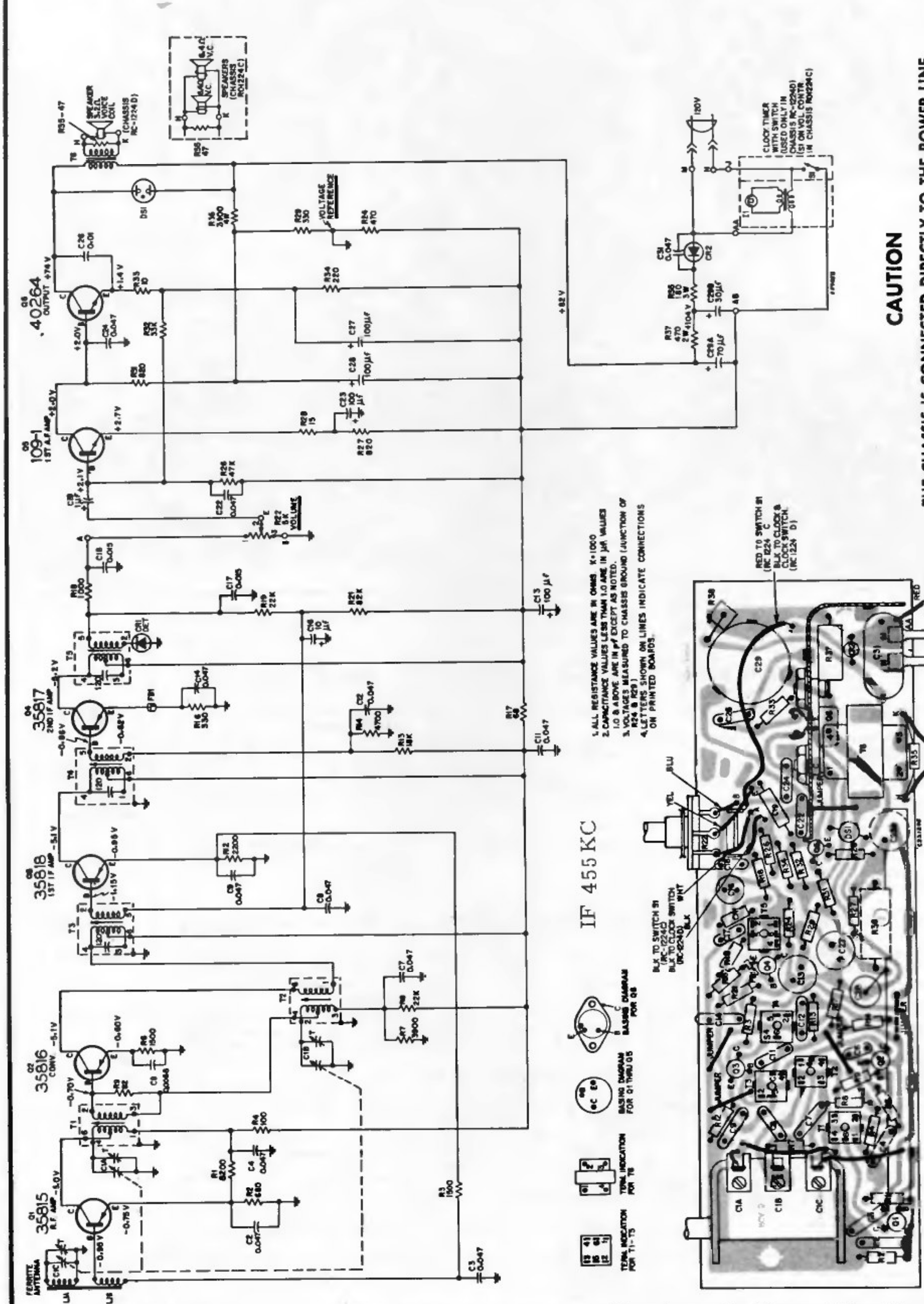


	SIGNAL GENERATOR		RADIO		
AM ALIGNMENT					
STEP	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	ADJUST
1	RADIATING LOOP (SEE NOTE 1)	455 KHZ	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT IN ORDER GIVEN.	T8, T6 & T10
2	SAME AS STEP 1	1650 KHZ	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT.	VCTD AM OSC.
3	SAME AS STEP 1	1400 KHZ	1400 KHZ	ADJUST FOR MAX. OUTPUT.	VCTC ANT. TRIM.
4	SAME AS STEP 1	600 KHZ	600 KHZ	ADJUST FOR MAX. OUTPUT. ROCK TUNING GANG DURING ADJUSTMENT.	T11 AM OSC.
FM ALIGNMENT					
STEP	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	ADJUST
1	COLLECTOR OF Q1 THRU .01 MF CAPACITOR	10.7 MHZ ±75 KHZ SWEEP	TUNING GANG FULLY OPEN	ADJUST FOR MAXIMUM OUTPUT IN ORDER GIVEN. REDUCE GENERATOR OUTPUT AS NECESS.	T9A, T7, T5 & T4
2	SAME AS STEP 1	10.7 MHZ 30% AM	TUNING GANG FULLY OPEN	ADJUST FOR MINIMUM OUTPUT (A NULL BETWEEN TWO PEAKS)	T9B
3	REPEAT STEPS 1 AND 2 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				
4	CONNECT TO ANTENNA TERMINAL THRU 47 OHM RESISTOR	87.5 MHZ ±75 KHZ	TUNING GANG FULLY CLOSED	ADJUST FOR MAX. OUTPUT.	T3 (SEE NOTE "A") FM OSC.
5	SAME AS STEP 4	108.5 MHZ ±75 KHZ	TUNING GANG FULLY OPEN	ADJUST FOR MAX. OUTPUT.	VCTB FM OSC.
6	REPEAT STEPS 4 AND 5 UNTIL NO FURTHER IMPROVEMENT IS OBTAINED.				
7	SAME AS STEP 4	90 MHZ ±75 KHZ	90 MHZ	ADJUST FOR MAX. OUTPUT.	T2
8	SAME AS STEP 4	105 MHZ ±75 KHZ	105 MHZ	ADJUST FOR MAX. OUTPUT.	VCTA

RCA VICTOR

RJA 35 Chassis RC-1224C

RJD 39 Chassis RC-1224D



1. ALL RESISTANCE VALUES ARE IN OHMS. K=1000
2. CAPACITANCE VALUES LESS THAN 1.0 ARE IN μf. VALUES 1.0 & ABOVE ARE IN pf EXCEPT AS NOTED.
3. VOLTAGES MEASURED TO CHASSIS GROUND (JUNCTION OF R24 & R29)
4. LETTERS SHOWN ON LINES INDICATE CONNECTIONS ON PRINTED BOARDS.

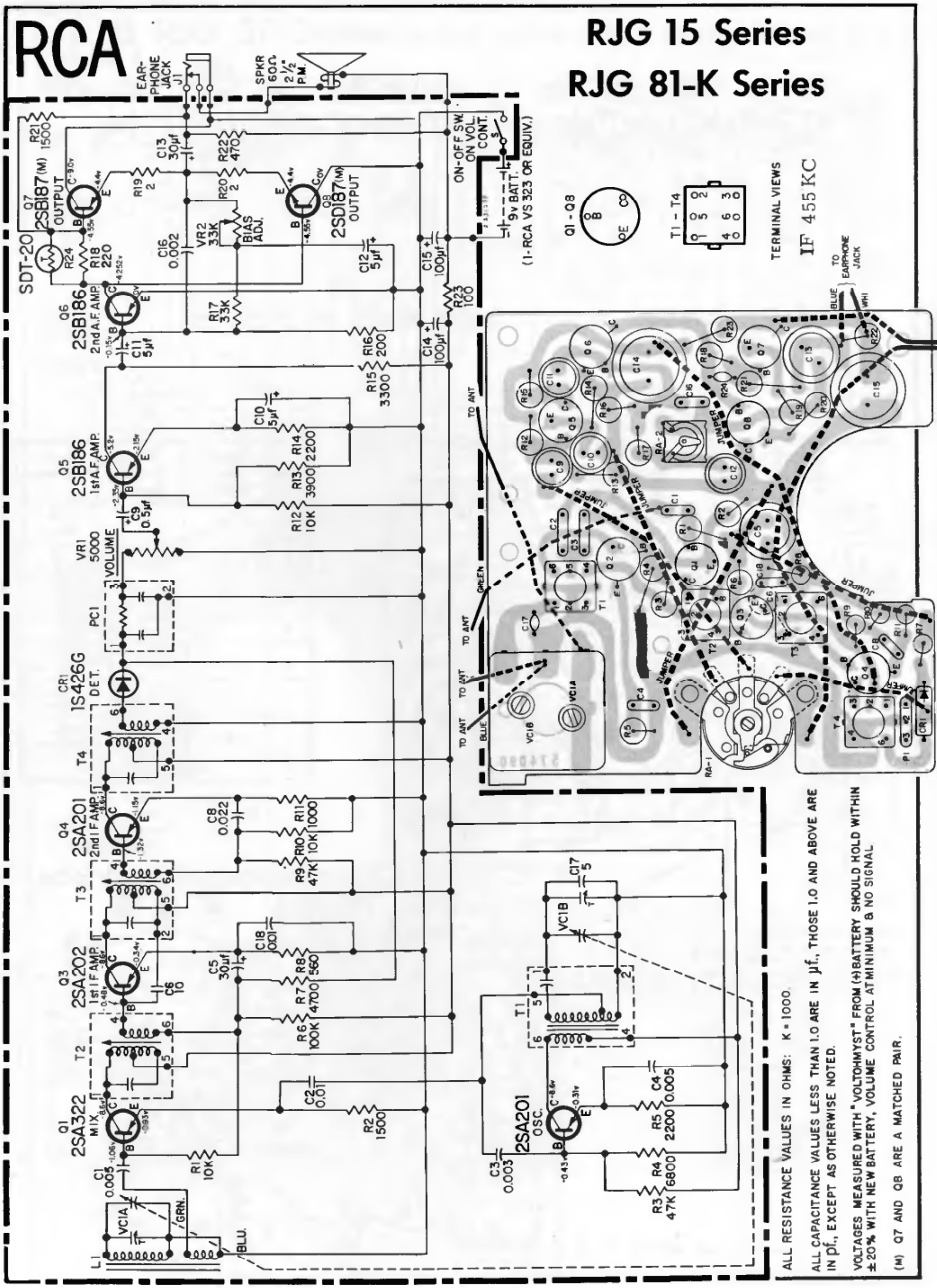
Chassis Layout (Component Side)

CAUTION

THE CHASSIS IS CONNECTED DIRECTLY TO THE POWER LINE. TO AVOID SHOCK HAZARD, AN ISOLATION TRANSFORMER SHOULD BE USED DURING SERVICE WORK ON THE CHASSIS.

RCA

RJG 15 Series
RJG 81-K Series



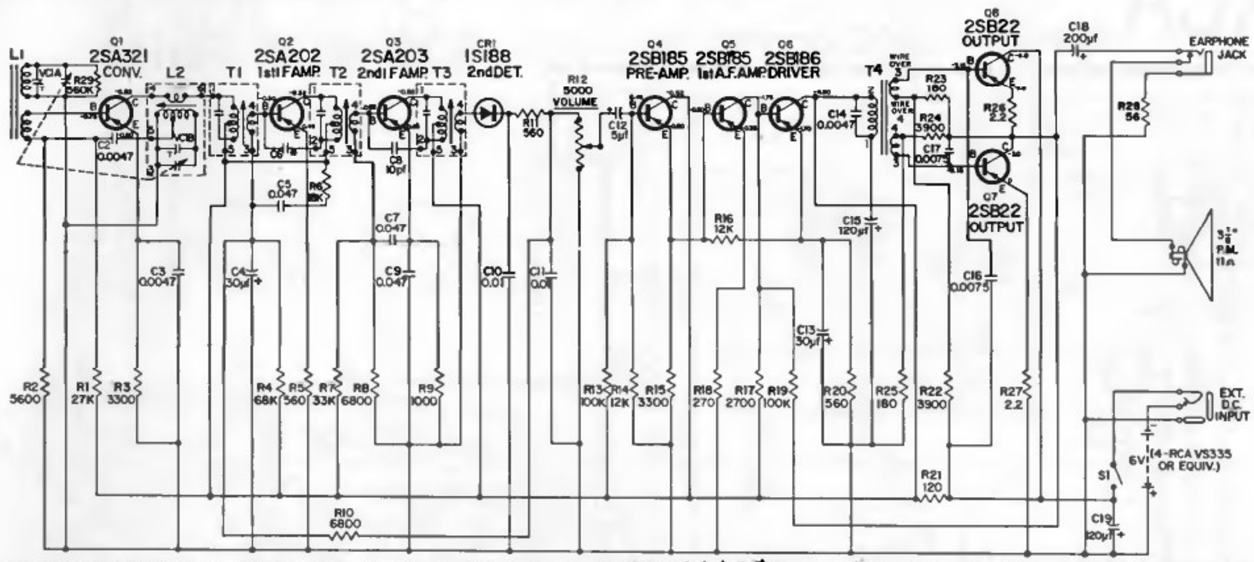
ALL RESISTANCE VALUES IN OHMS: K = 1000.

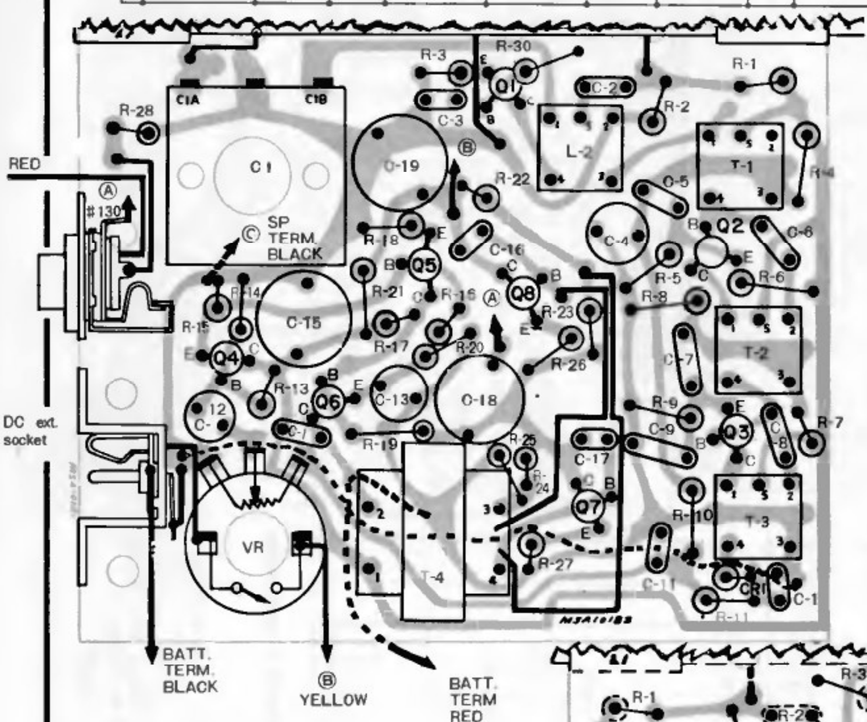
ALL CAPACITANCE VALUES LESS THAN 1.0 ARE IN μf., THOSE 1.0 AND ABOVE ARE IN pf., EXCEPT AS OTHERWISE NOTED.

VOLTAGES MEASURED WITH "VOLTOHMYST" FROM (+) BATTERY SHOULD HOLD WITHIN ±20% WITH NEW BATTERY, VOLUME CONTROL AT MINIMUM & NO SIGNAL

(M) Q7 AND Q8 ARE A MATCHED PAIR.

RCA VICTOR Models RJG 25 Series, RJG 86 Series

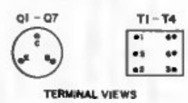




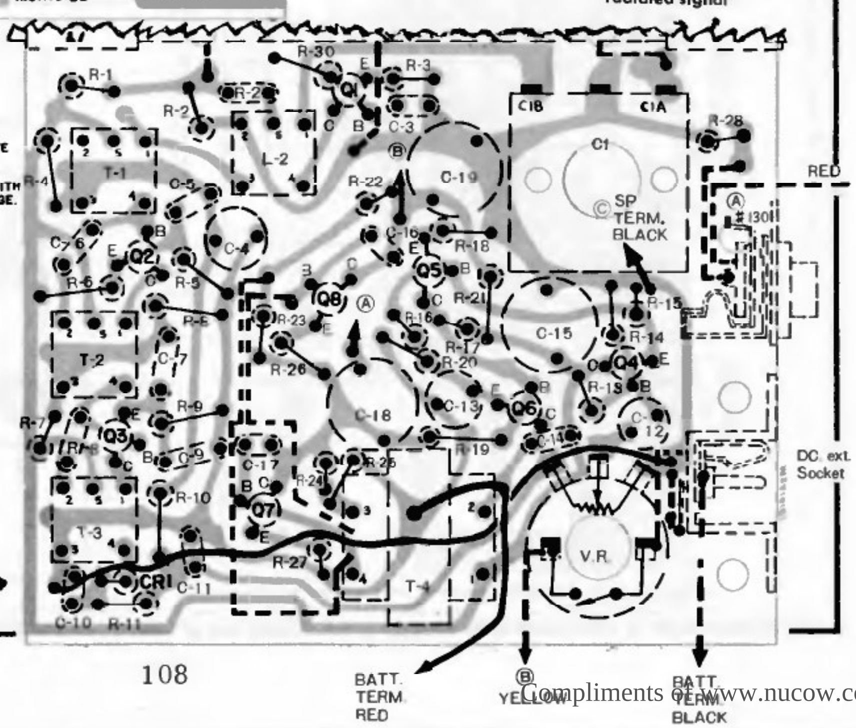
Step	Signal Gen. Output	Dial Pointer Setting	Adjust for Max. Output
1			T3 (3rd IF)
2	455 kc	Gang open	T2 (2nd IF)
3			T1 (1st IF)
4	Repeat Steps 1, 2, and 3		
5	520 kc	Gang closed	L2 (Osc. coil)
6	1650 kc	Gang open	CIB-T (Osc. trim.)
7	1400 kc	1400 kc (rock gang)	CIA-T (Ant. trim.)
8	Repeat Steps 5, 6, and 7		

Connect Signal Generator to—	Loop of wire placed near antenna for radiated signal

1. RESISTANCE VALUES ARE IN OHMS: K = 1000.
2. CAPACITANCE VALUES LESS THAN 1.0 ARE IN μf., VALUES 1.0 AND ABOVE ARE IN pf., EXCEPT AS OTHERWISE NOTED.
3. VOLTAGES ARE MEASURED WITH A "VOLTOHMYST" TO CHASSIS GROUND WITH NO SIGNAL AND SHOULD HOLD WITHIN ± 20% AT RATED SUPPLY VOLTAGE.

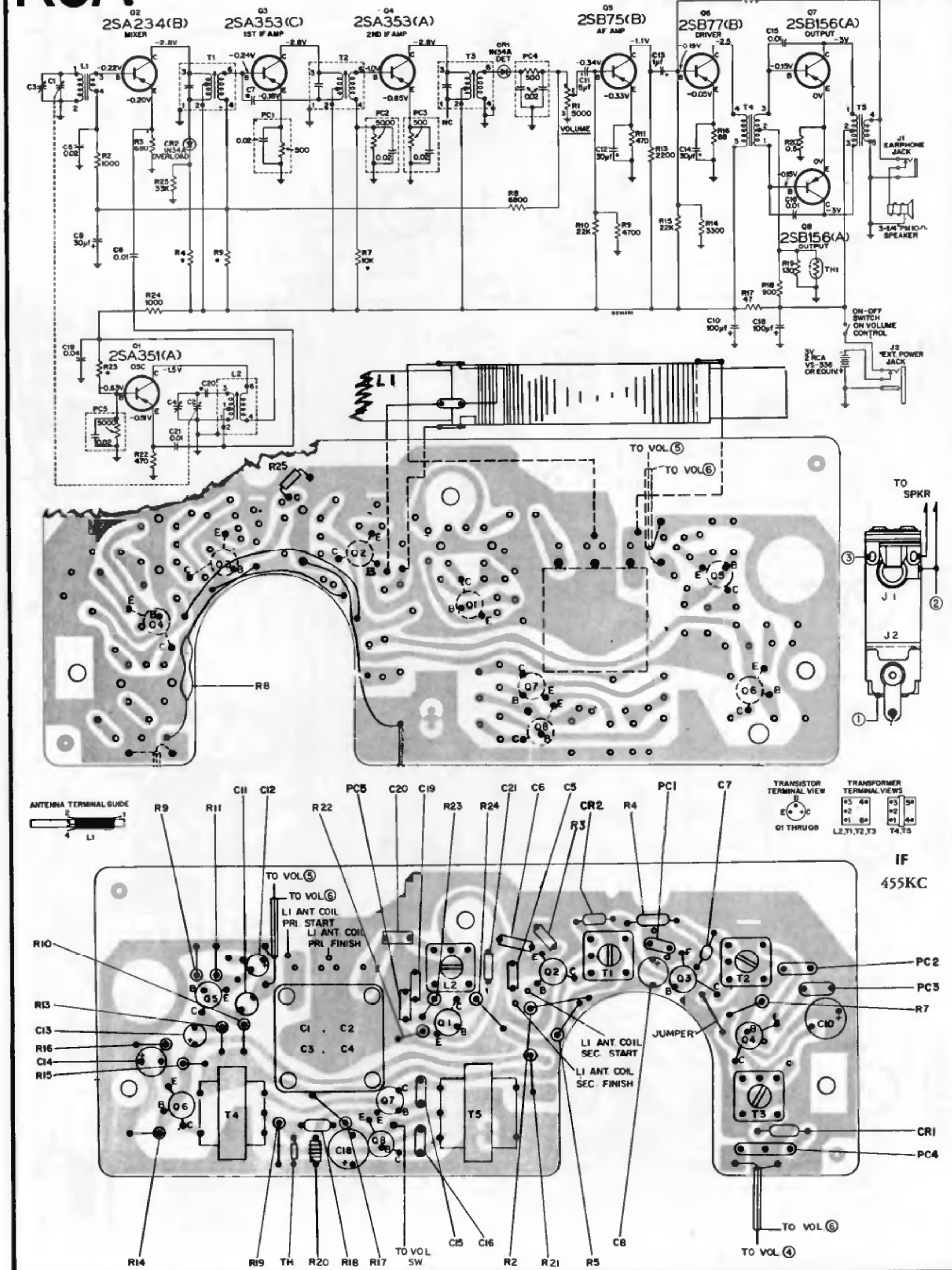


TERMINAL VIEWS

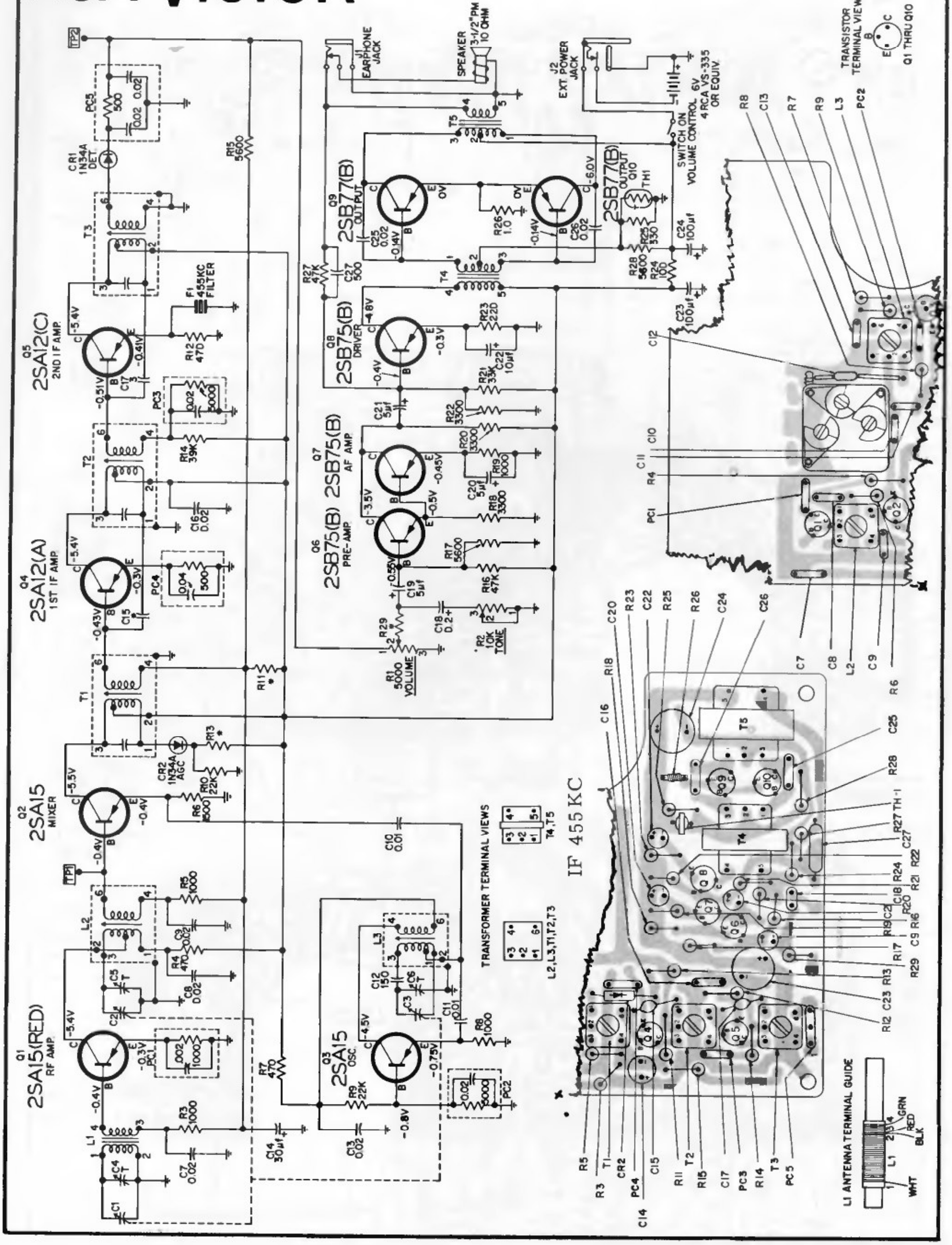


Chassis Layout—Wiring Side →

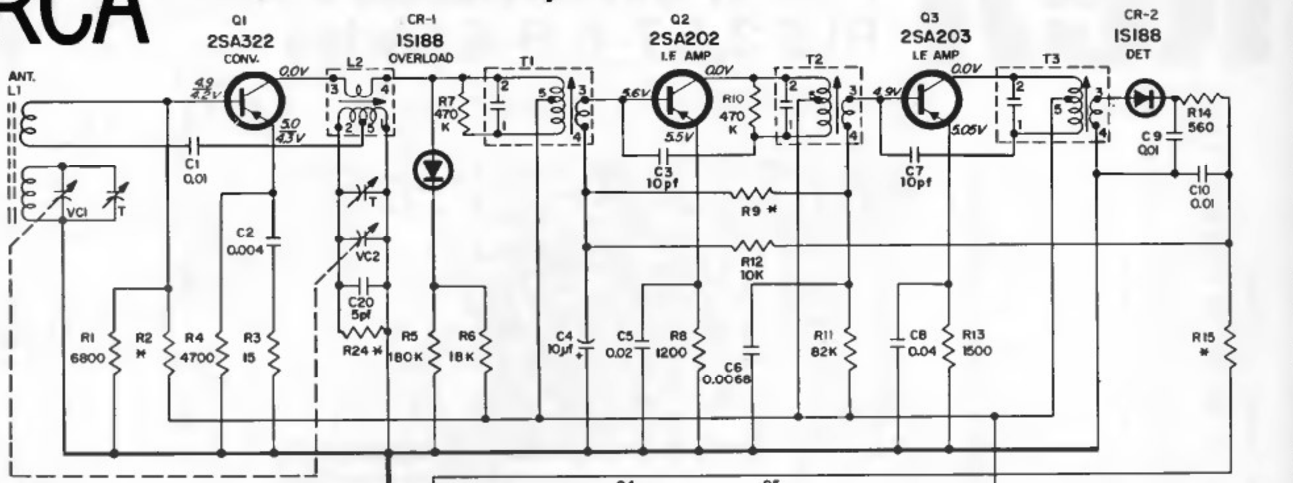
RCA RJG 37 Series

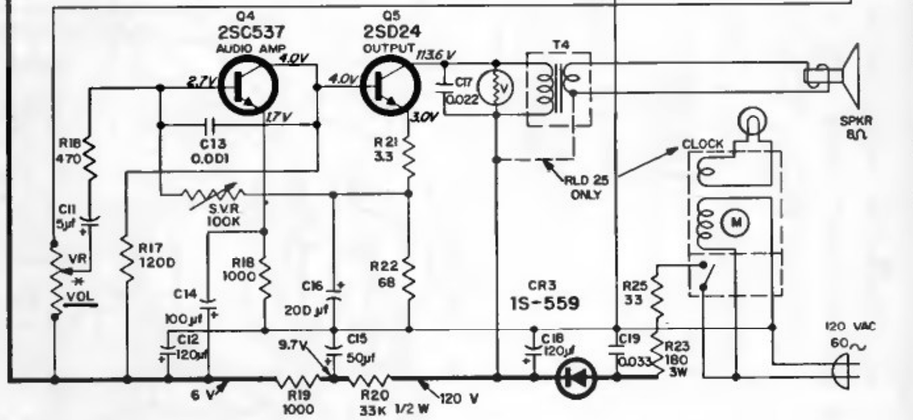


RCA VICTOR RJG 42 Series



RCA Models RLA19, RLD 25





NOTES:

ALL RESISTANCES ARE ±10%, 1/4 WATT, UNLESS NOTED OTHERWISE. VALUES ARE IN OHMS. K=1000

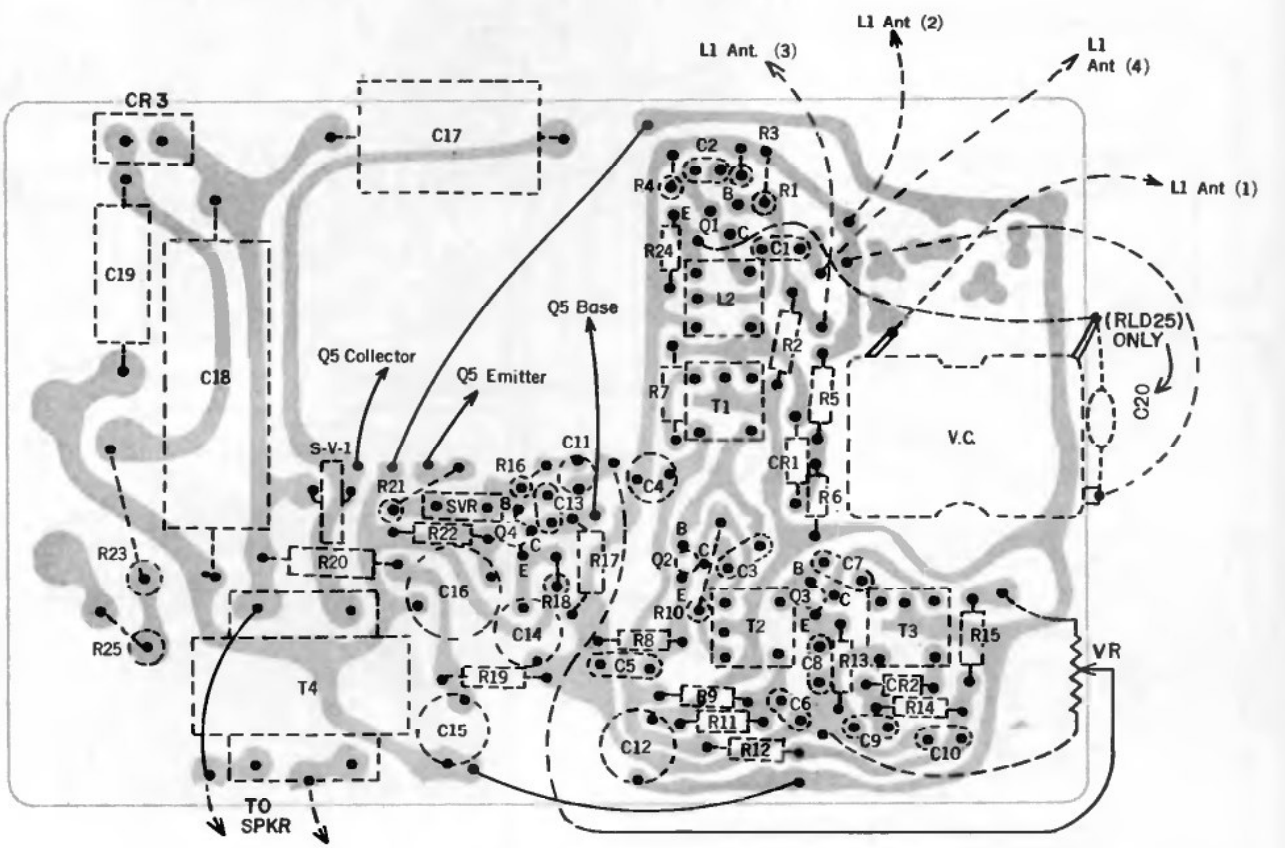
ALL CAPACITANCE VALUES BELOW 1.0 ARE IN µf, THOSE 1.0 AND ABOVE ARE IN pf, UNLESS NOTED OTHERWISE.

VOLTAGES ARE MEASURED WITH A "VOLTOHMYST" TO NEGATIVE (-) BUS AND SHOULD HOLD WITHIN ±20% WITH RATED LINE VOLTAGE AND NO SIGNAL.

* VOLTAGES ABOVE LINE = RLA 19
VOLTAGES BELOW LINE = RLD 25

*	RLA - 19	RLD - 25
R2	33K	18K
R9	10K	12K
R15	1000	2200
R24	—	820K
VR	10K	5000

IF 455 KC

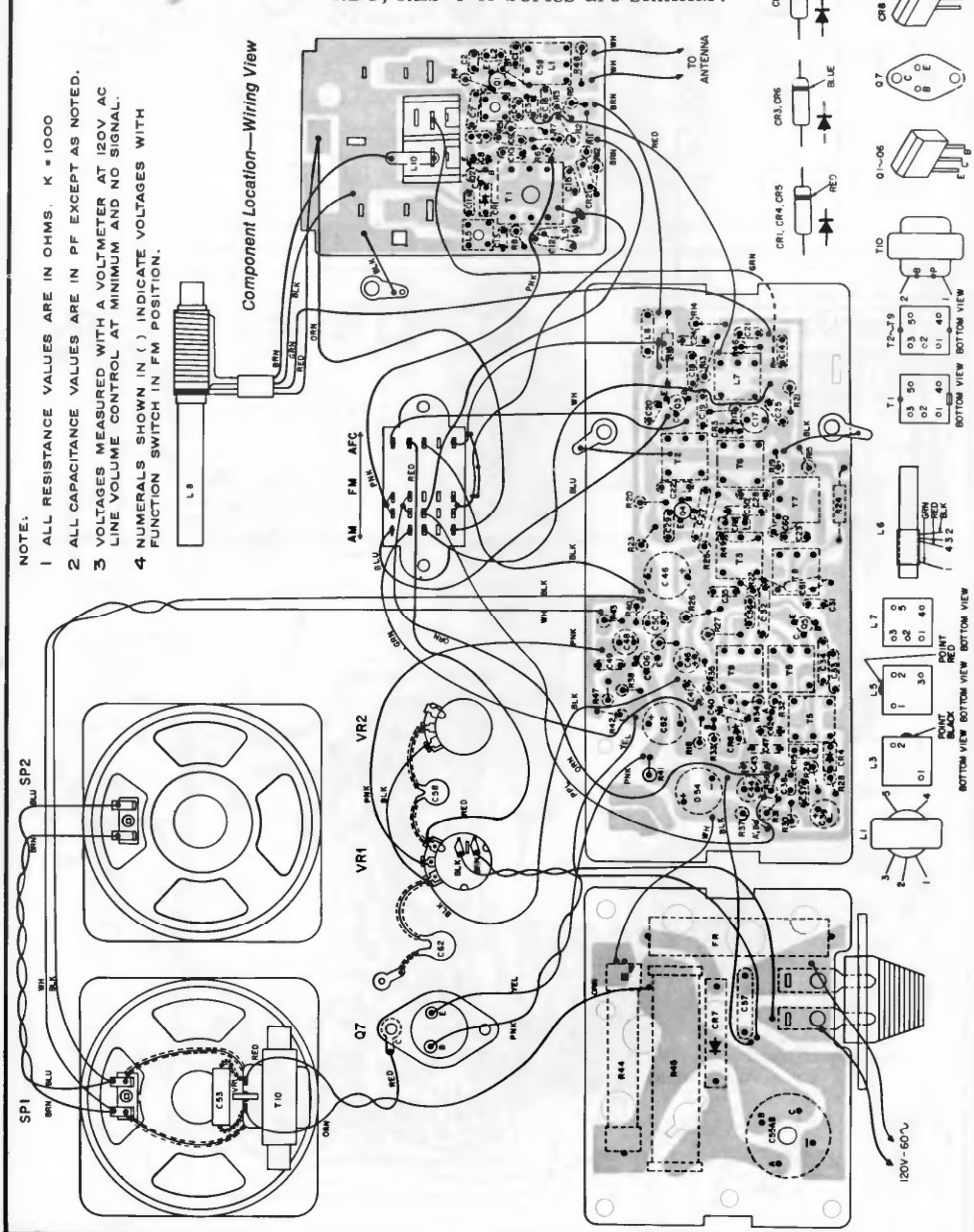


RLC 2,4,5,8-K Series
RLS 3,5,7-K,8-K Series

(Continued on next page.)

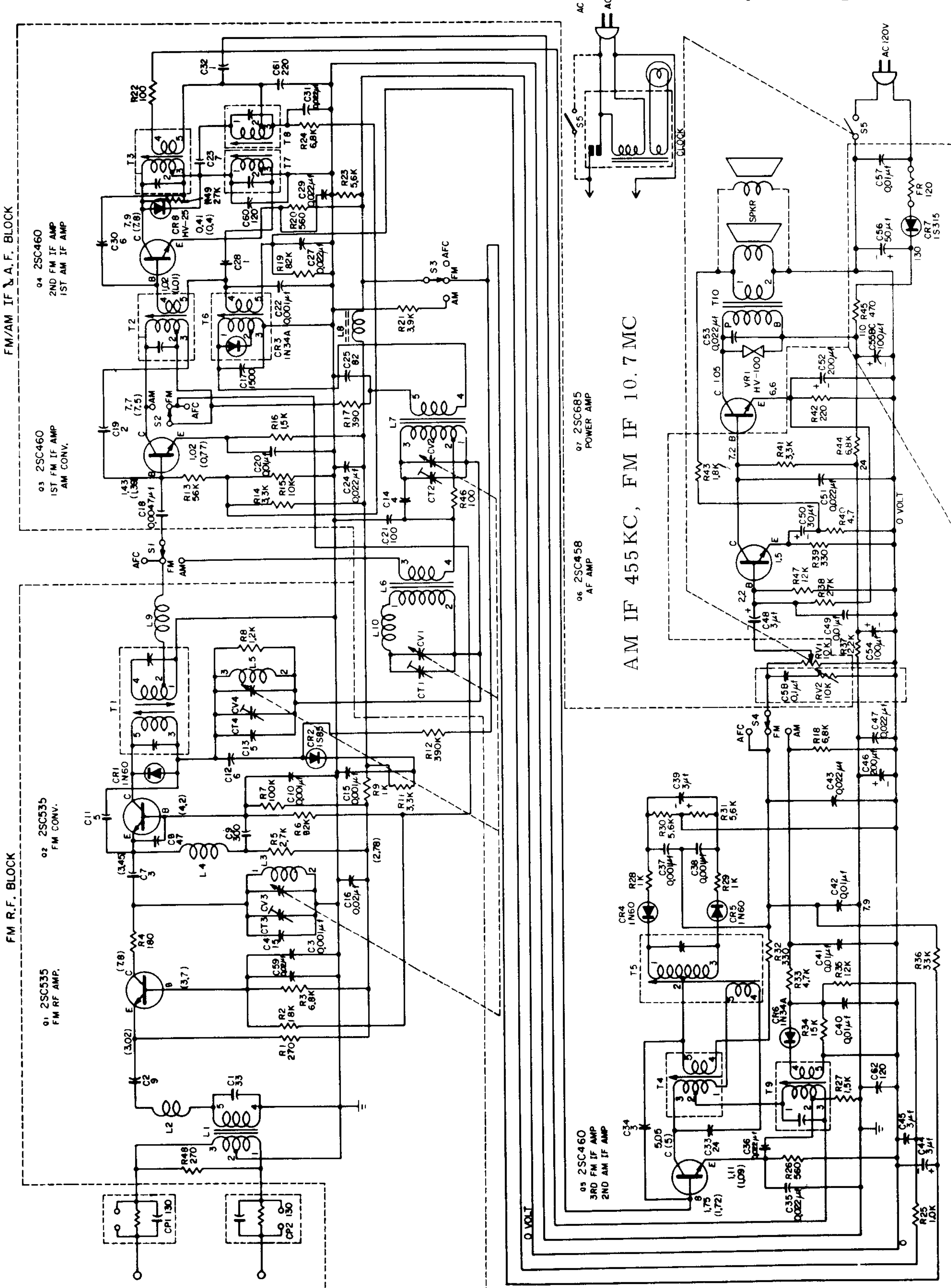
RZC, RZS 9-K Series are similiar.

NOTE:
1. ALL RESISTANCE VALUES ARE IN OHMS. K = 1000
2. ALL CAPACITANCE VALUES ARE IN PF EXCEPT AS NOTED.
3. VOLTAGES MEASURED WITH A VOLTMETER AT 120V AC LINE VOLUME CONTROL AT MINIMUM AND NO SIGNAL.
4. NUMERALS SHOWN IN ( ) INDICATE VOLTAGES WITH FUNCTION SWITCH IN FM POSITION.

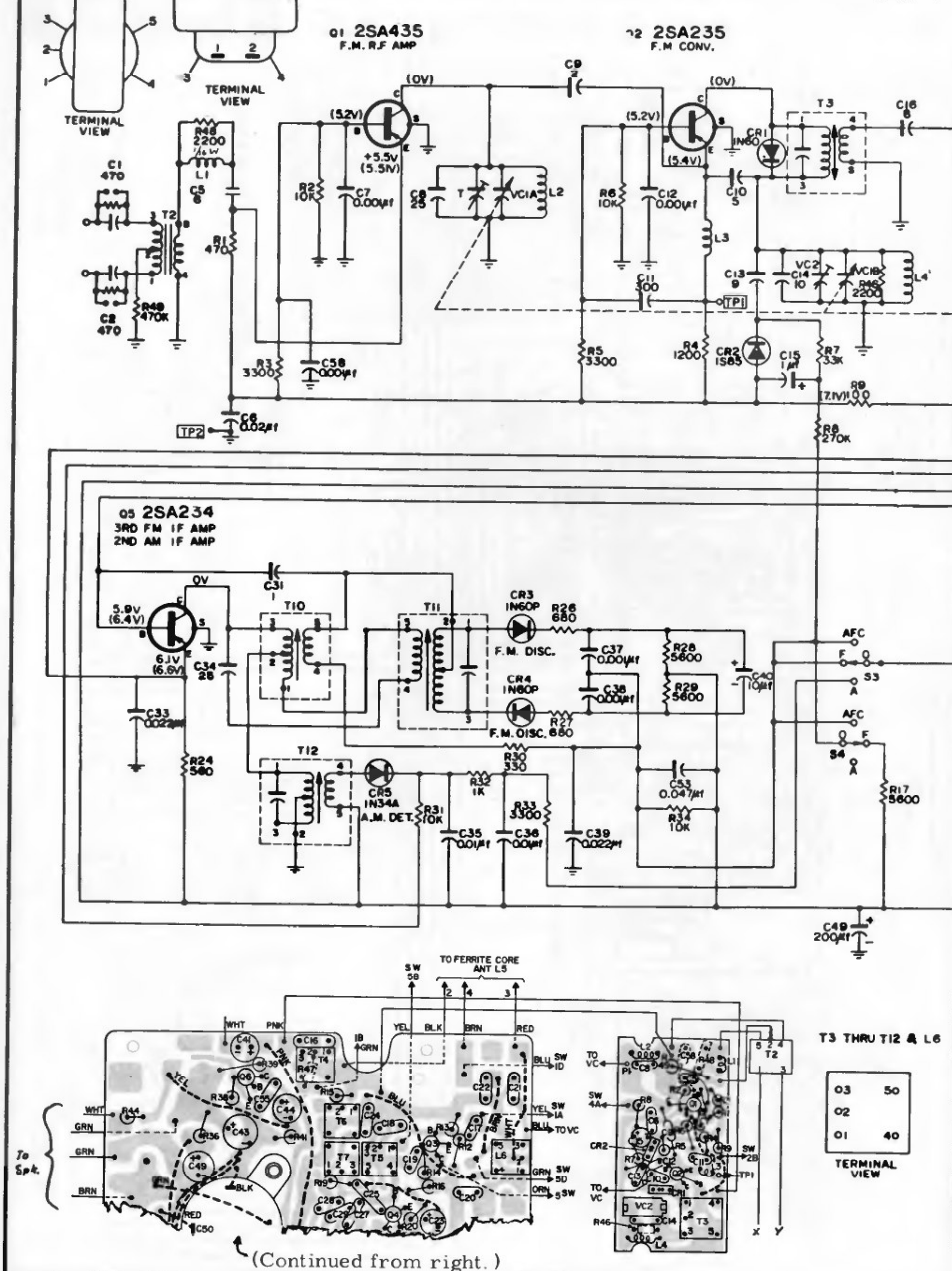


RCA Models RLC 2, 4, 5, 8-K Series
RLS 3, 5, 7-K, 8-K Series

(Continued from preceding page.)

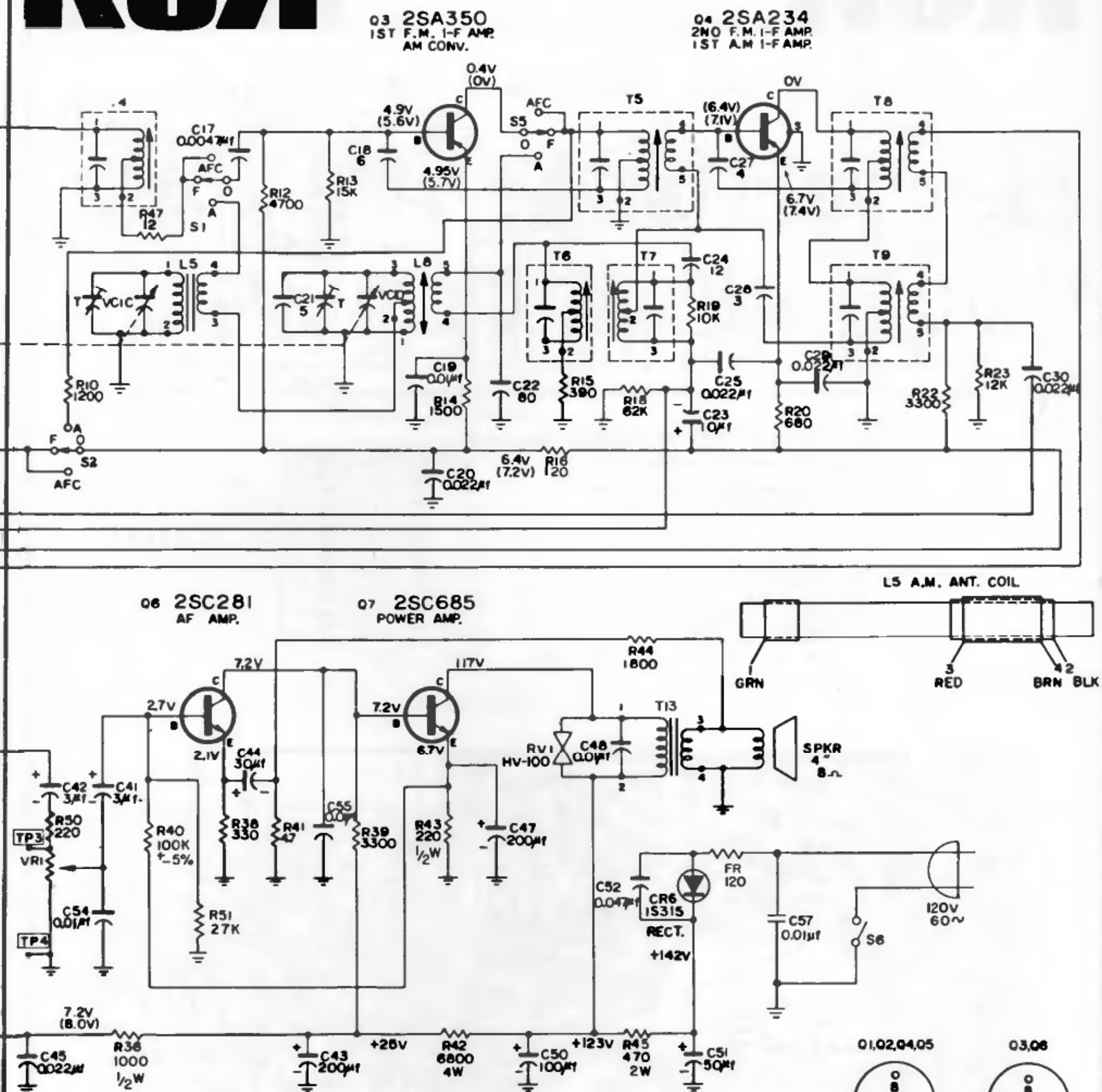


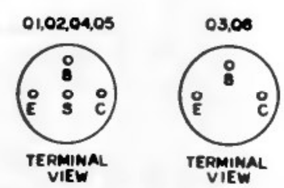
RCA VICTOR Model RLC 22 (Continued on next page.)



RCA Model RLC 22

(Continued from preceding page.)





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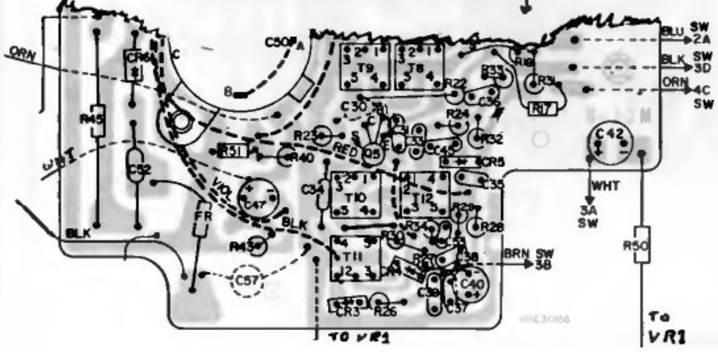
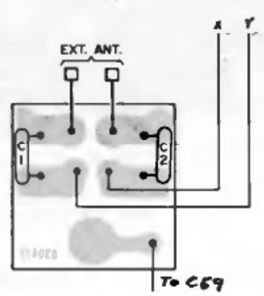
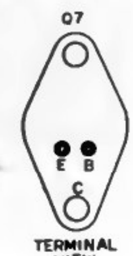
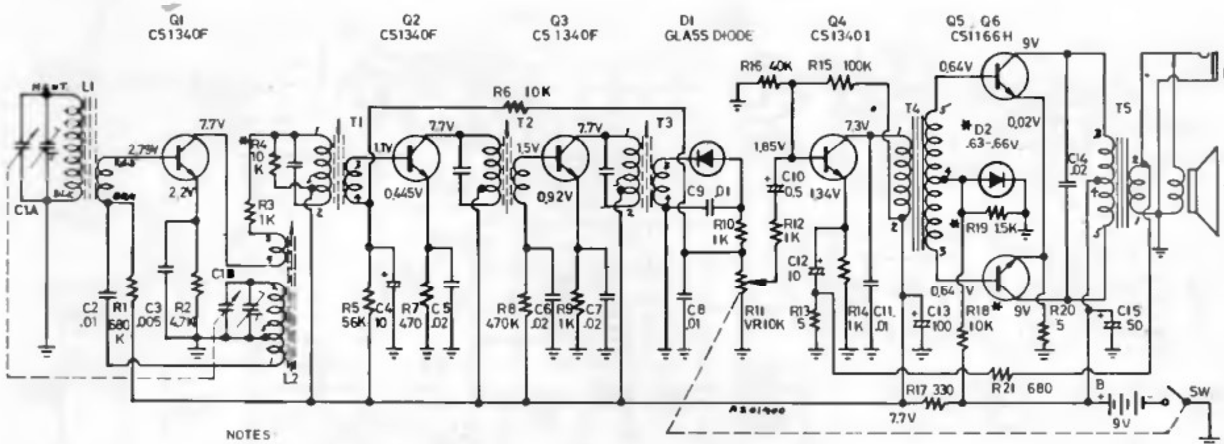


AM IF 455KC
FM IF 10.7MC





Model RLG 11



NOTES:

ALL RESISTANCES ARE ±10%, 1/4 WATT, UNLESS NOTED OTHERWISE. VALUES ARE IN OHMS. K=1000

ALL CAPACITANCE VALUES ARE IN uf, UNLESS NOTED OTHERWISE

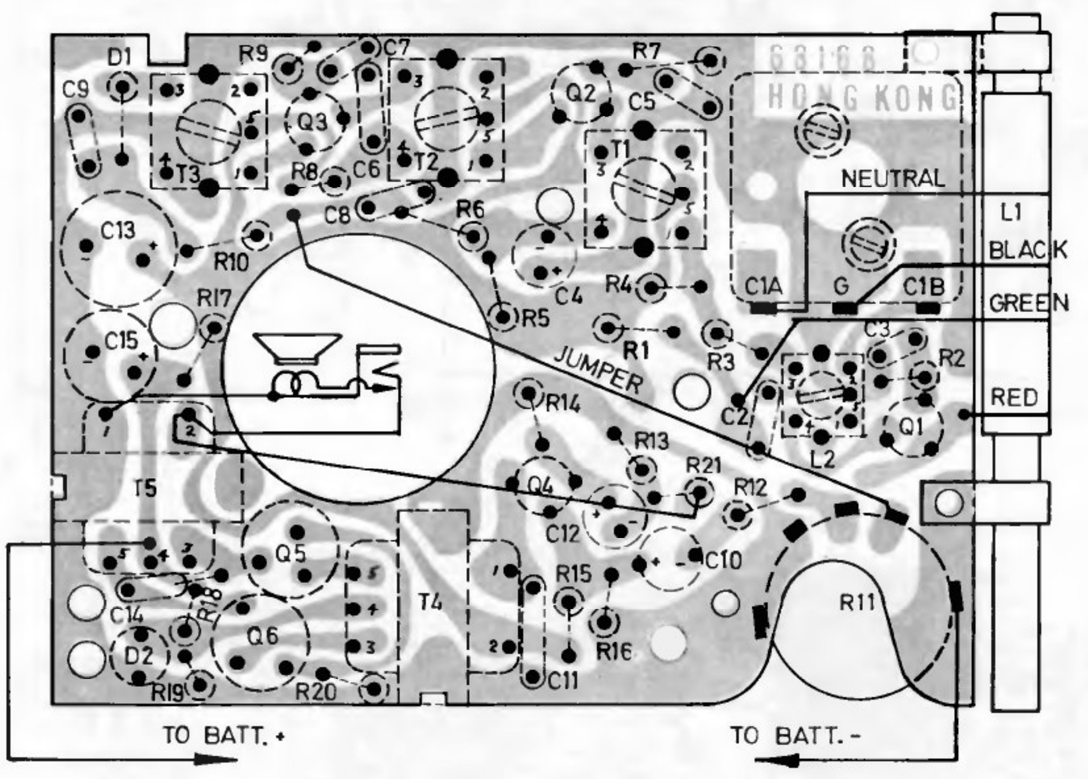
VOTAGES ARE MEASURED WITH A "TRIPLETT" FROM (–) BATTERY AND SHOULD HOLD WITHIN ±20% WITH A NEW BATTERY, VOLUME CONTROL AT MINIMUM AND NO SIGNAL.

*R4, R18, R19 AND D2 MAY CHANGE TO FOLLOWING VALUES ON SOME SETS.

- R4: 10K, 6K, OR 4.7K
- R18: 10K OR 6K
- R19: 1.5K, 1K, OR NONE
- D2: 0.6–0.63 VOLTS, TYPE 6063, OR 0.63–0.66 VOLTS, TYPE 6366, OR 0.66–0.70 VOLTS, TYPE 6670.

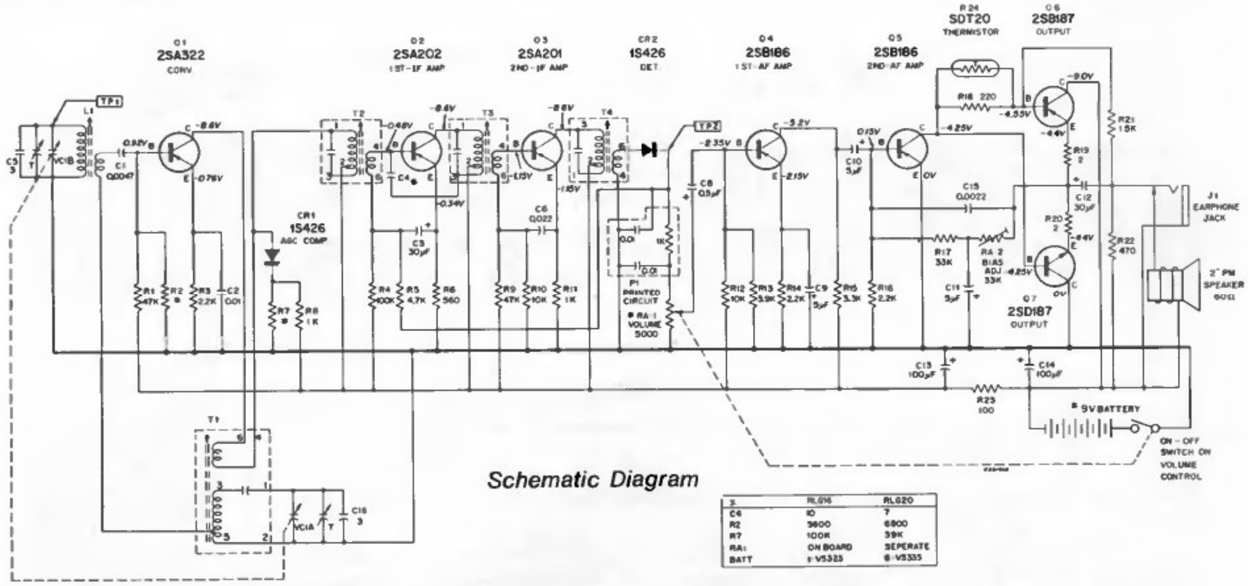
POWER OUTPUT Vs CURRENT	
mW	mA
0	8
25	19
50	24.2
75	29
100	32.5
125	36
150	39
175	42
200	45
250	48.5
300	56

IF 455 KC



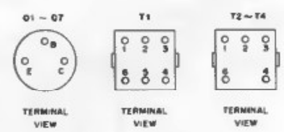
Chassis Layout

RLG 16 Series, RLG 20 Series



Schematic Diagram

Σ	RLG16	RLG20
C4	10	7
R2	5600	6800
R7	100K	39K
RA1	ON BOARD	SEPERATE
BATT	1-VS323	6-VS335

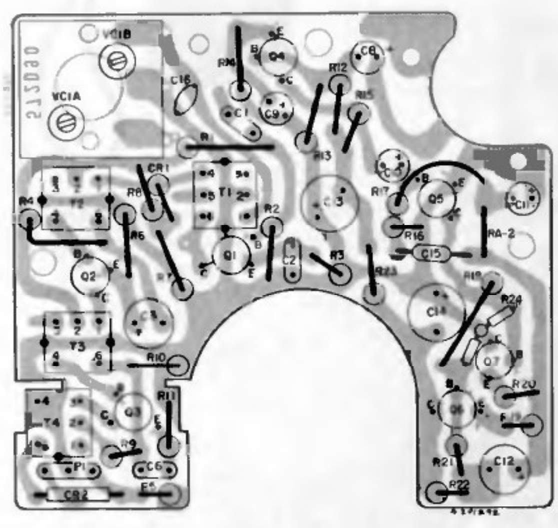


IF 455 KC

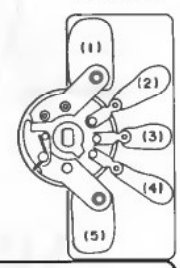
*VOLTAGES MEASURED WITH "VOLTOHMYST" FROM (+) BATTERY. SHOULD HOLD WITHIN ± 20% WITH NEW BATTERY, VOLUME CONTROL AT MINIMUM AND NO SIGNAL

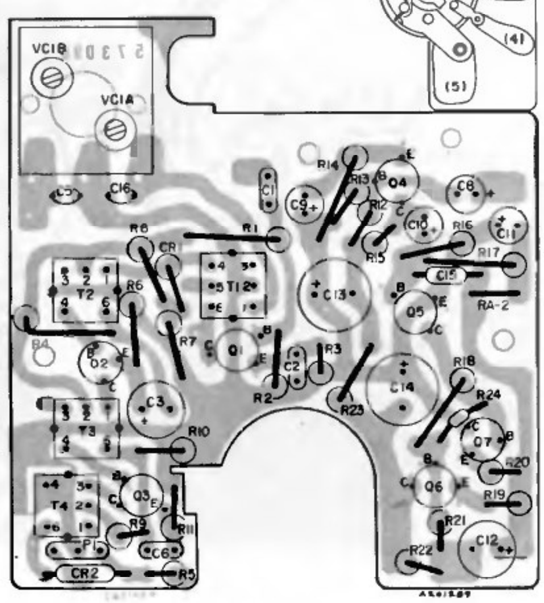
ALL RESISTANCE VALUES IN OHMS K = 1000
ALL CAPACITANCE VALUES LESS THAN 1.0 ARE IN μF, THOSE ABOVE 1.0 ARE IN pF EXCEPT AS NOTED

Q6 AND Q7 ARE A MATCHED PAIR



RLG 16

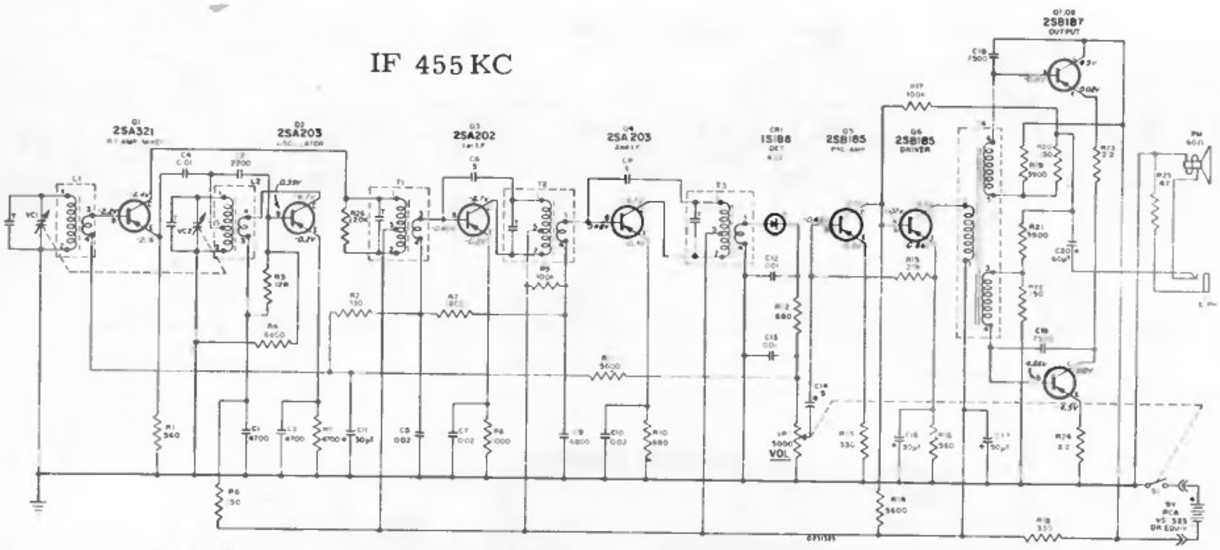




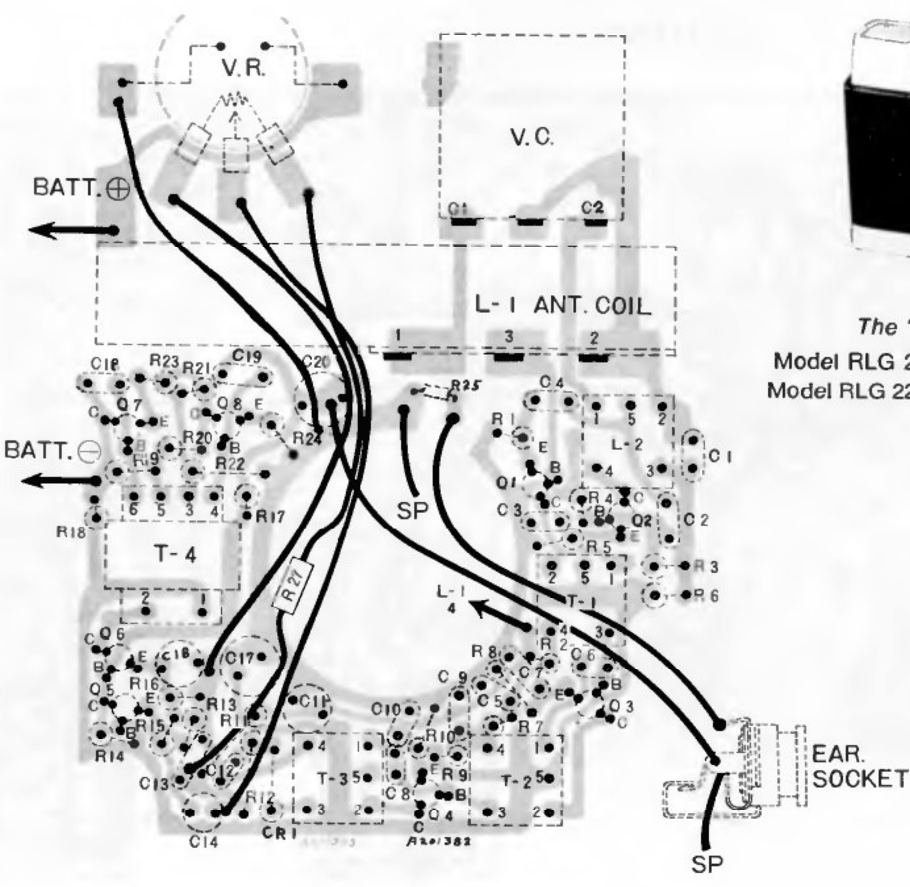
RLG 20

Component Location

RLG 22 Series



Schematic Diagram



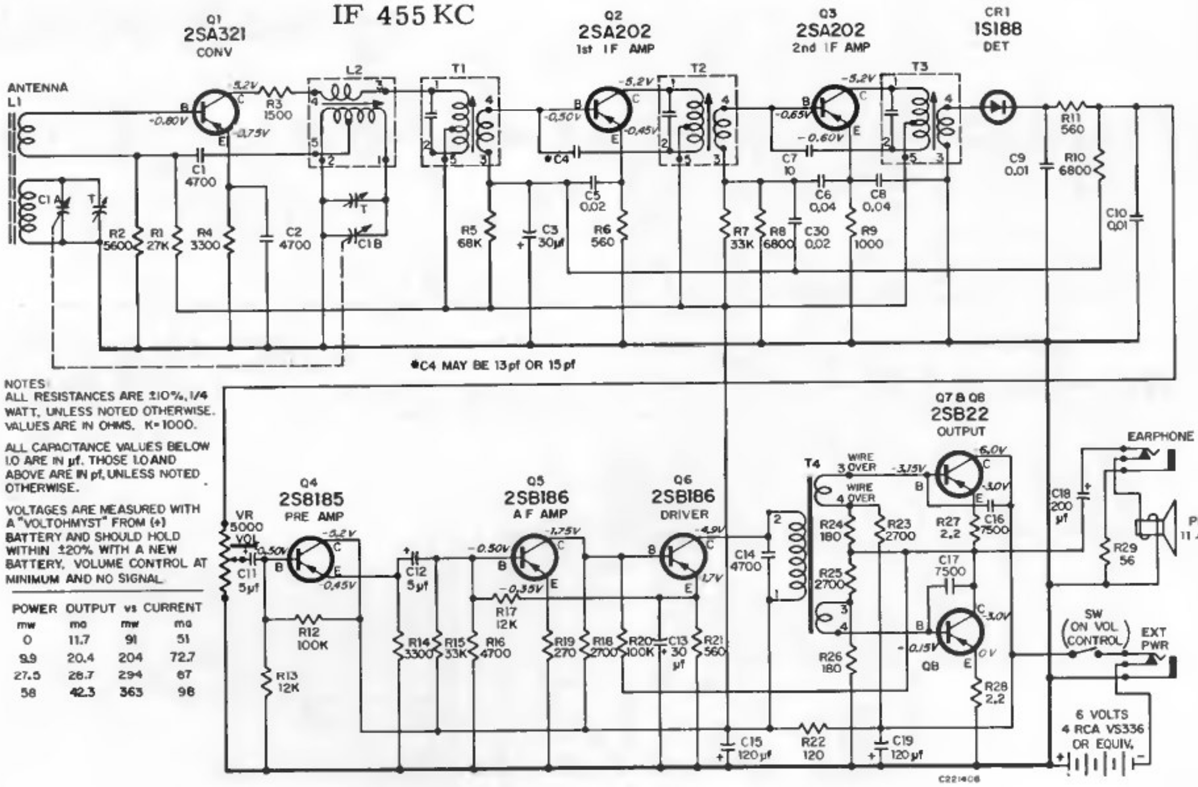
Component Location (Wiring View)

The "Rogue"

Model RLG 22A—Blue/White

Model RLG 22N—Maple/White

RLG 23 Series



NOTES:
ALL RESISTANCES ARE ±10%, 1/4 WATT, UNLESS NOTED OTHERWISE. VALUES ARE IN OHMS. K=1000.

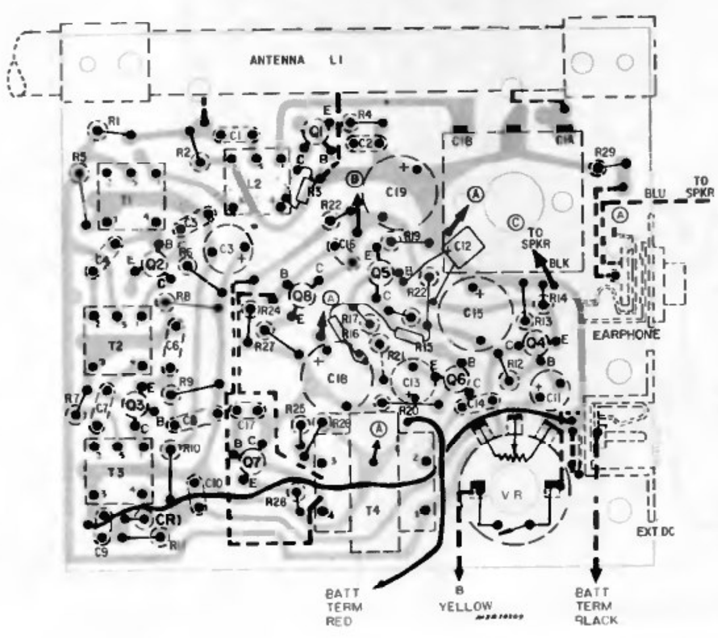
ALL CAPACITANCE VALUES BELOW 1.0 ARE IN µf. THOSE 1.0 AND ABOVE ARE IN pf, UNLESS NOTED OTHERWISE.

VOLTAGES ARE MEASURED WITH A "VOLTOHMYST" FROM (+) BATTERY AND SHOULD HOLD WITHIN ±20% WITH A NEW BATTERY, VOLUME CONTROL AT MINIMUM AND NO SIGNAL.

POWER OUTPUT vs CURRENT

mw	ma	mw	ma
0	11.7	91	51
9.9	20.4	204	72.7
27.5	28.7	294	87
58	42.3	363	98

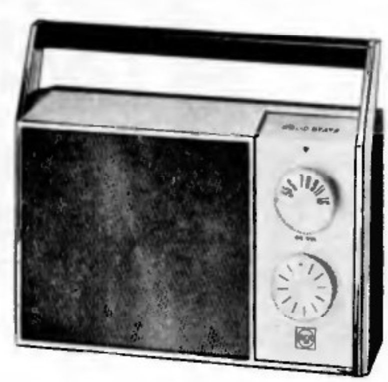
Schematic Diagram



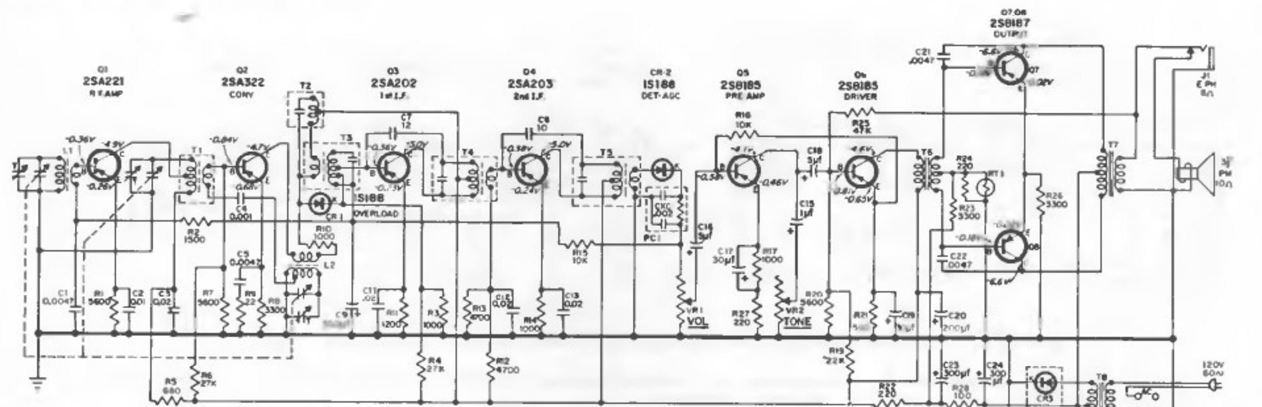
Component Locations (Wiring View)

The "Herald"

Model RLG 23A—Blue



RCA Model RLG 34



NOTES

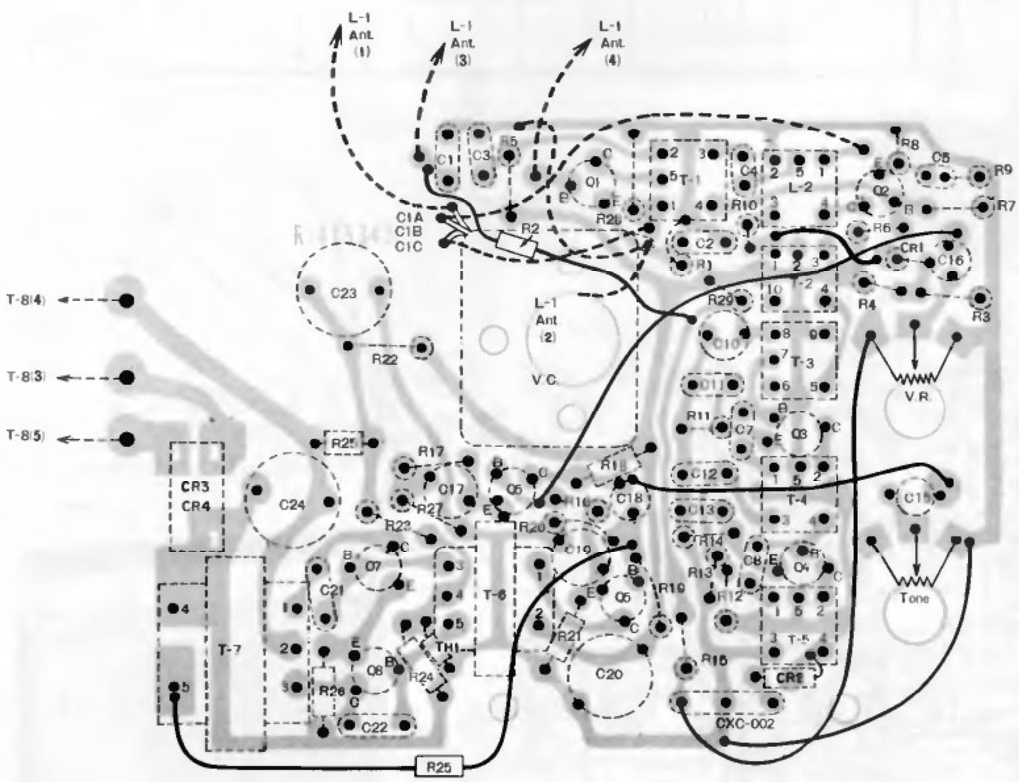
1. ALL RESISTANCES ARE ±10% 1/4 WATT, UNLESS NOTED OTHERWISE. VALUES ARE IN OHMS. K = 1000.

2. ALL CAPACITANCE VALUES BELOW 1.0 ARE IN µf. THOSE 1.0 AND ABOVE ARE IN pf, UNLESS NOTED OTHERWISE.

3. VOLTAGES ARE MEASURED WITH A "VOLTOHMYST" FROM (+) BATTERY AND SHOULD HOLD WITHIN ± 20% WITH A NEW BATTERY. VOLUME CONTROL AT MINIMUM AND NO SIGNAL.

Schematic Diagram

IF 455 KC

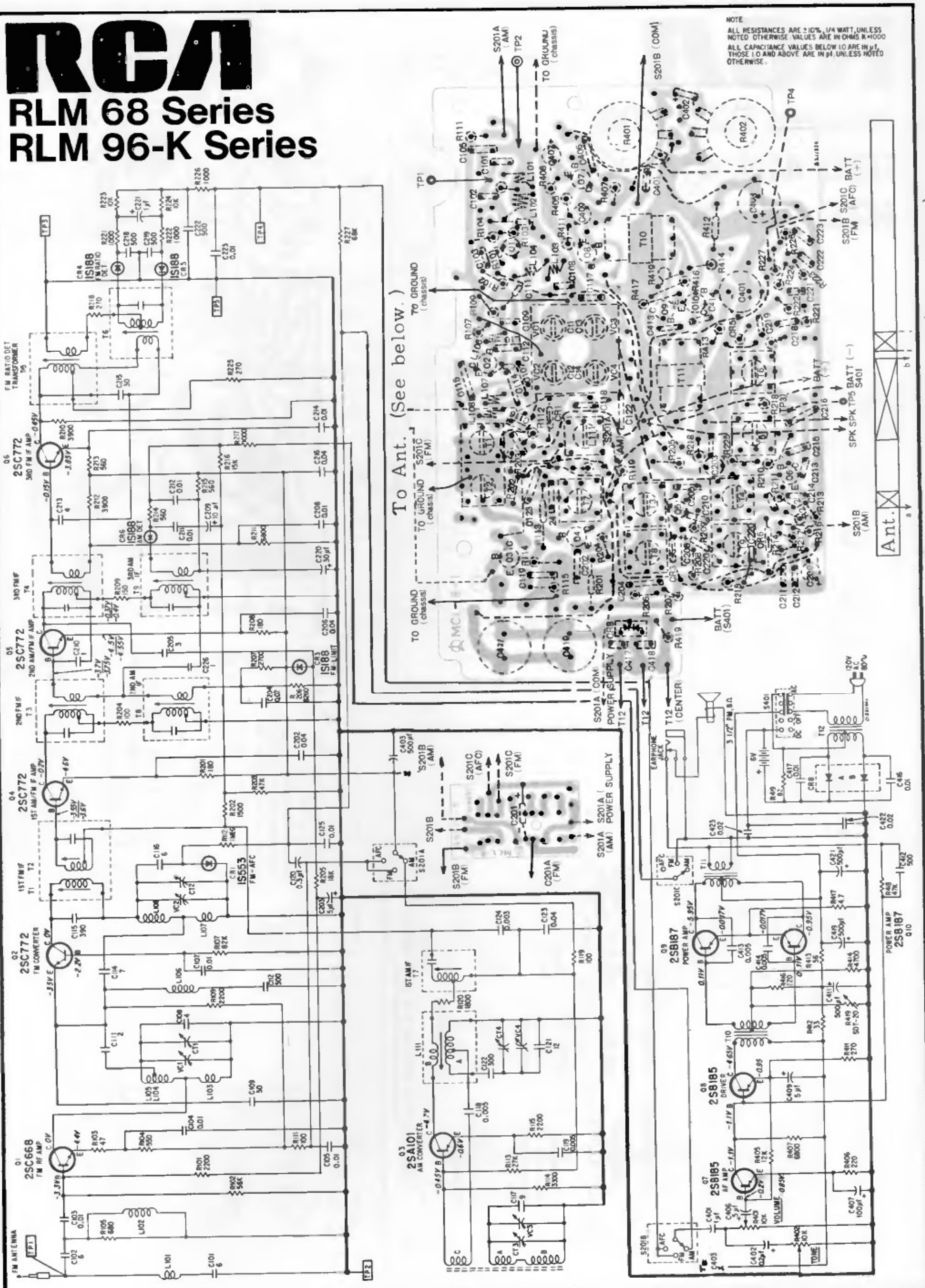


Circuit Board (Wiring Side)

RCA

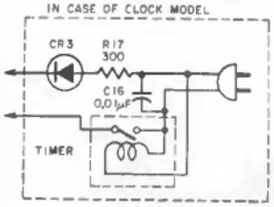
RLM 68 Series
RLM 96-K Series

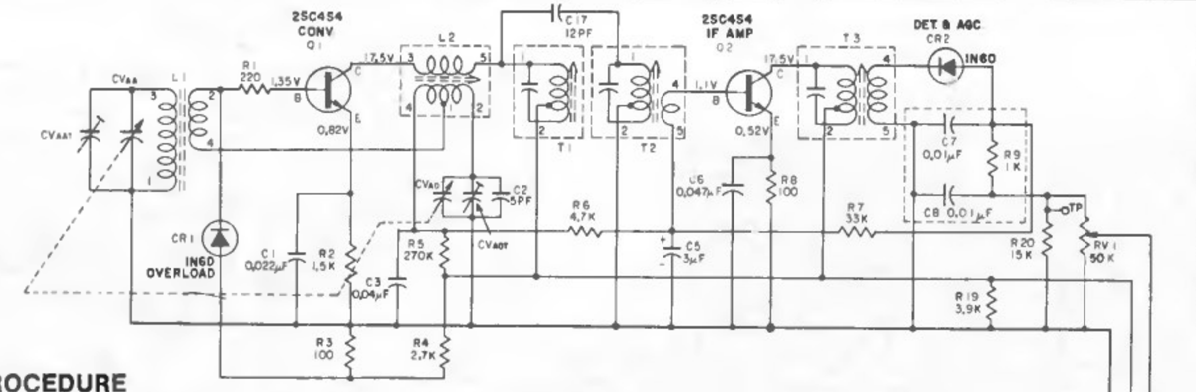
NOTE
ALL RESISTANCES ARE ±10%, 1/4 WATT, UNLESS NOTED OTHERWISE. VALUES ARE IN OHMS K=1000
ALL CAPACITANCE VALUES BELOW 1.0 ARE IN μf, THOSE 1.0 AND ABOVE ARE IN pf, UNLESS NOTED OTHERWISE.

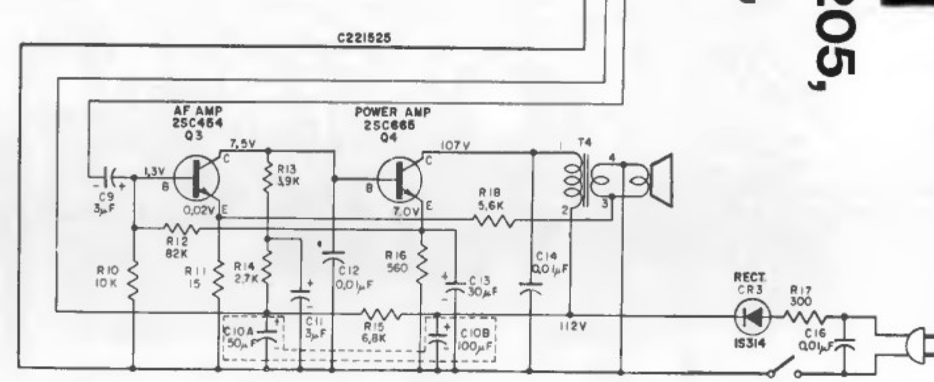


RCA

Models RZA 205, RZD 410, 415, RZD 943-K

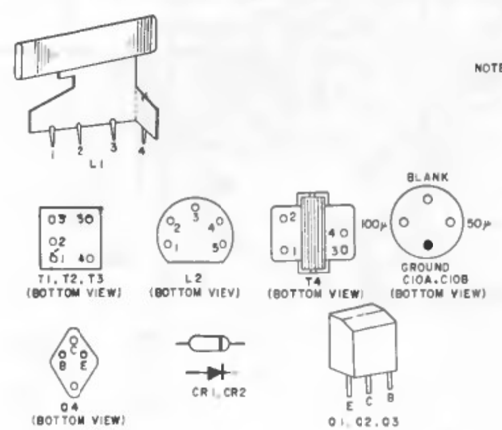






ALIGNMENT PROCEDURE

Step	Instrument Connections	Set Signal	Set Dial	Adjust for Max.
1	RF generator to loop or short piece of wire near antenna	455 kc (modulated)	Gang open	T1, T2, T3
2		1650 kc (modulated)		CVAO
3	Output Meter across speaker voice coil	525 kc (modulated)	Gang Closed	L2
4		1400 kc (modulated)	1400 kc	(Rock Gang) CVAA
5	Repeat steps as necessary to obtain maximum sensitivity and selectivity.			

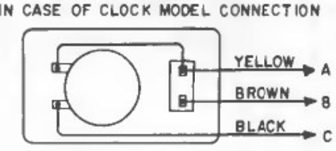


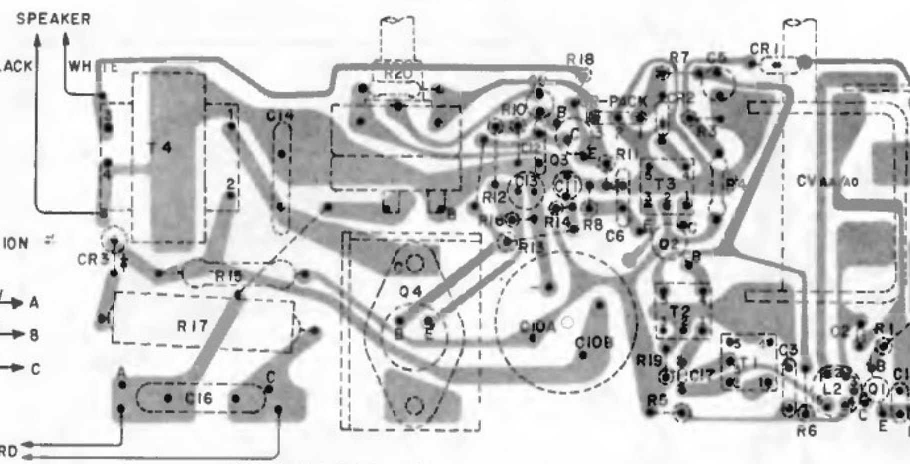
NOTES

ALL RESISTANCE VALUES IN OHM (K = 1000)

VOLTAGE MEASURED WITH VOLTOHMIST FROM GROUND LINE AT 120V AC (VOLUME CONTROL AT MINIMUM NO SIGNAL)

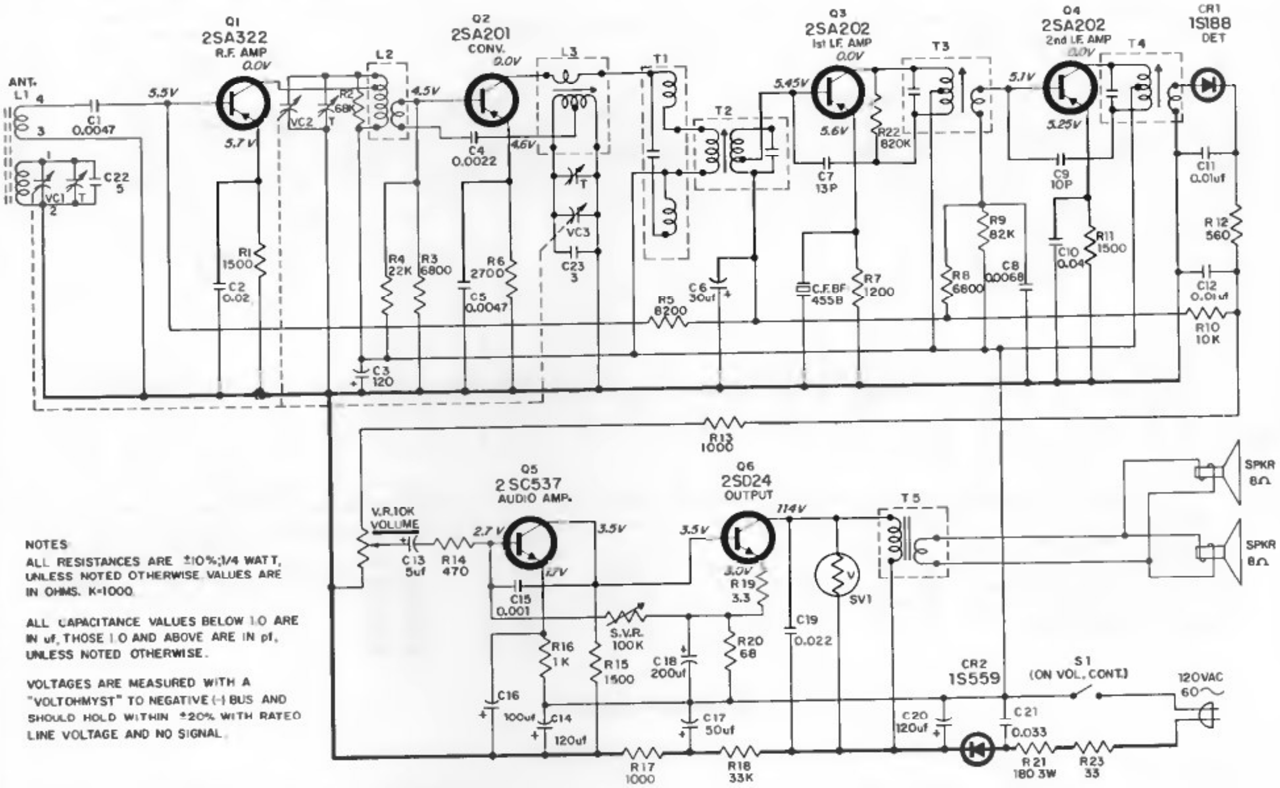
IN CASE OF CLOCK MODEL CONNECTION





Component Locations

RCA Model RZA 215

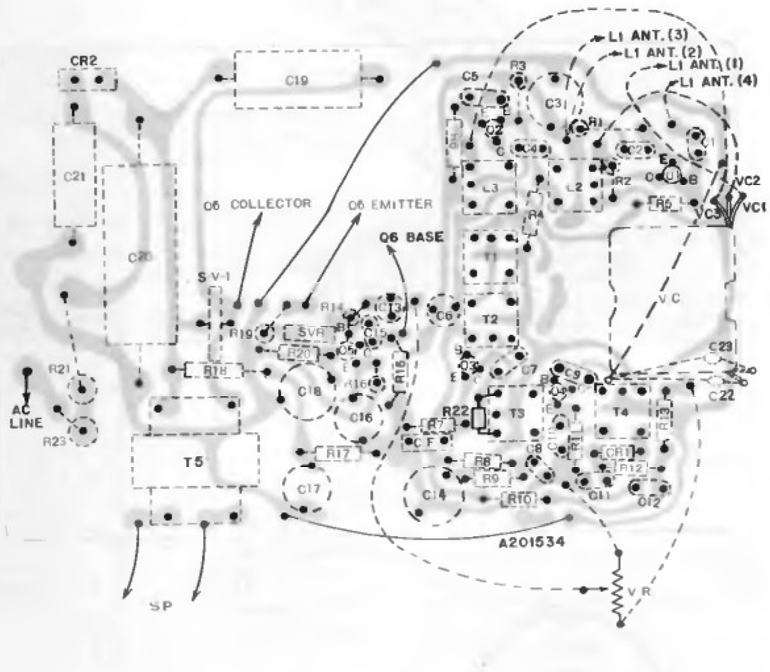


NOTES
ALL RESISTANCES ARE ±10%;1/4 WATT, UNLESS NOTED OTHERWISE. VALUES ARE IN OHMS. K=1000.

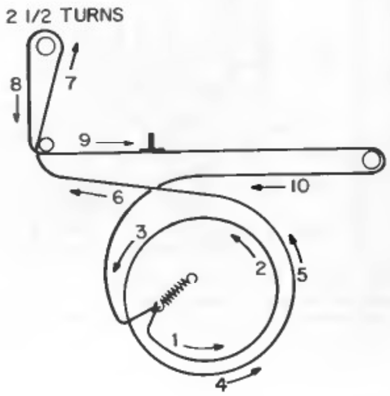
ALL CAPACITANCE VALUES BELOW 1.0 ARE IN uf, THOSE 1.0 AND ABOVE ARE IN pf, UNLESS NOTED OTHERWISE.

VOLTAGES ARE MEASURED WITH A "VOLTOHMYST" TO NEGATIVE (-) BUS AND SHOULD HOLD WITHIN ±20% WITH RATED LINE VOLTAGE AND NO SIGNAL.

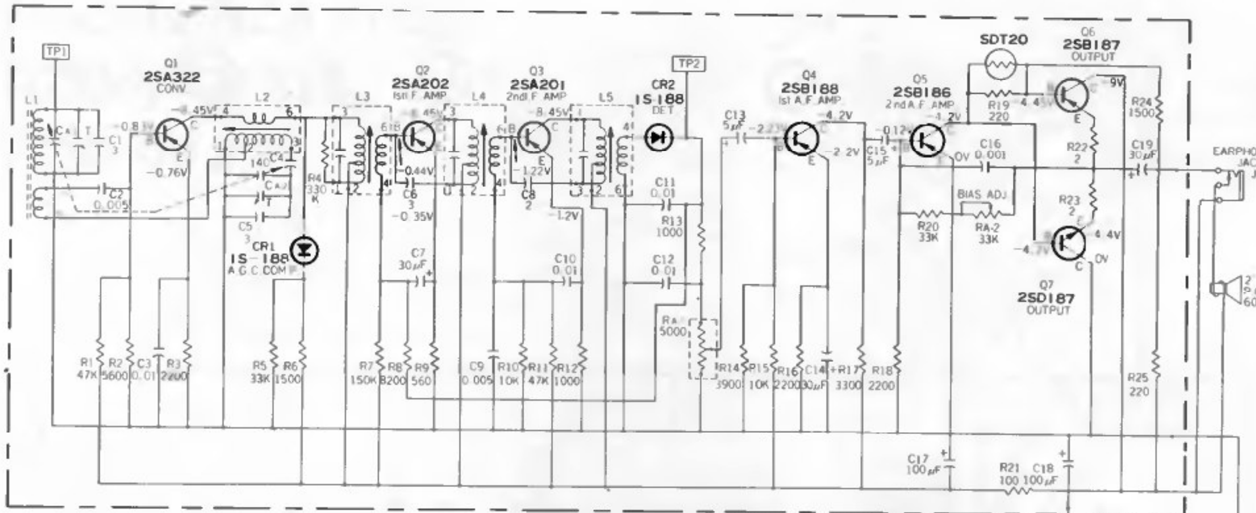
Step	Instrument Connections	Set Signal	Set Dial	Adjust for Max.
1	RF Generator to loop or short piece of wire near antenna. Output meter across speaker voice coil.	455 kc (Modulated)	Gang Open	T3, T2, T1 (IF's)
2		520 kc (Modulated)	Gang Closed	L3 (Osc. Coil)
3		1650 kc (Modulated)	Gang Open	VC3-T (Osc. Trim)
4		600 kc	600 kc	L2 (RF Coil)
5		1400 kc (Modulated)	1400 kc (Rock Gang)	VC1-T (Ant. Trim)
6				VC2-T (RF Trim)
7	Repeat above as necessary to obtain maximum sensitivity and selectivity.			



Component Location (Wiring View)



Models RZG 111, 120



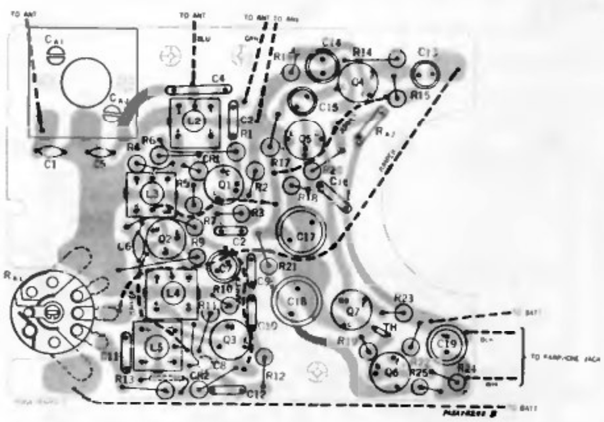
ALL RESISTANCE VALUES IN OHMS K = 1000.
ALL CAPACITANCE VALUES LESS THAN 1.0ARE IN μF, THOSE 1.0 ABOVE ARE IN PF EXCEPT AS NOTED.
VOLTAGES ARE MEASURED WITH "VOTOHMYST" TO (+) BATTERY AND SHOULD HOLD WITHIN ±20% WITH NEW BATTERY, VOLUME CONTROL AT MINIMUM AND NO SIGNAL.
Q6 AND Q7 ARE A MATCHED PAIR.

TERMINAL VIEWS

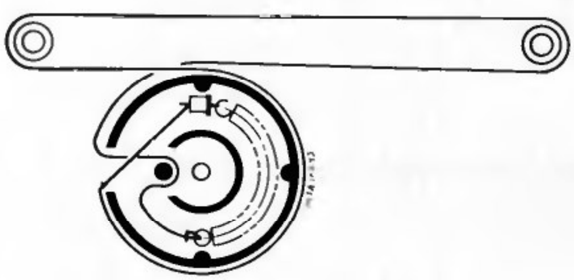
CURRENT DRAIN VS POWER OUTPUT

ma	mw	ma	mw
8.4	0	35.0	150
18.0	25	37.7	175
22.8	50	39.2	200
26.5	75	41.1	225
29.7	100	42.6	250
32.5	125	43.2	260

Schematic Diagram



Chassis Layout
(Component View)



Dial Cord Arrangement—RZG 120

ALIGNMENT PROCEDURE

Instruments Required

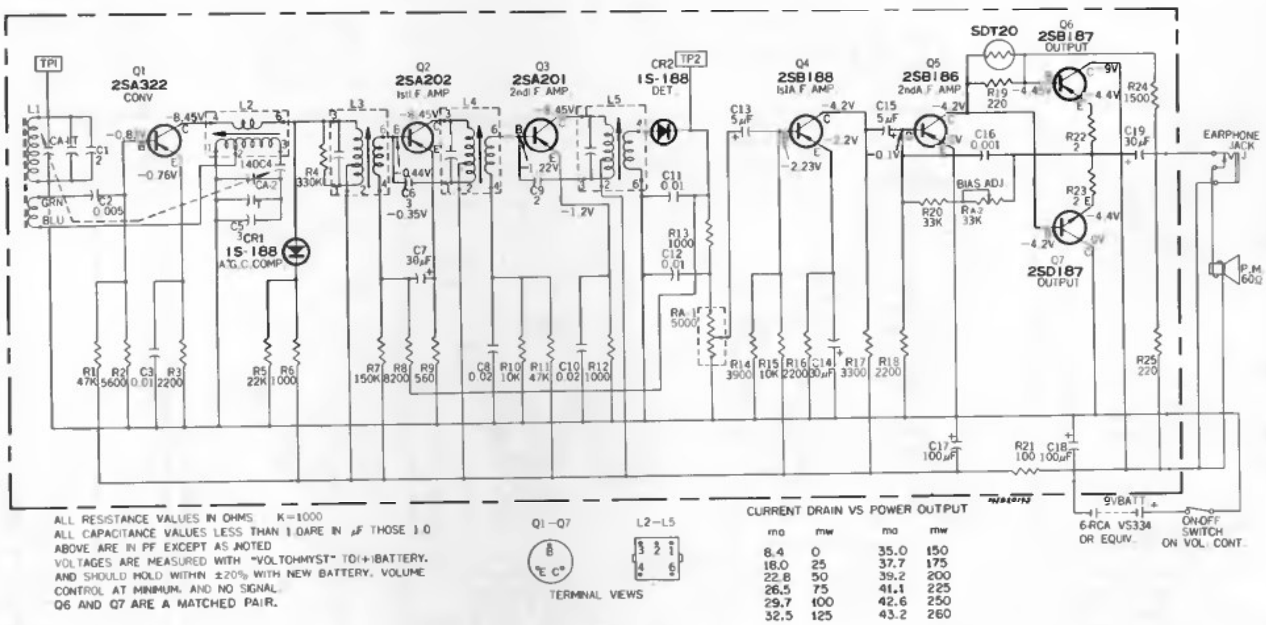
1. RF Signal Generator (RCA WR-50B or equivalent)
2. Electronic Voltmeter (RCA WV-500A or equivalent)

General

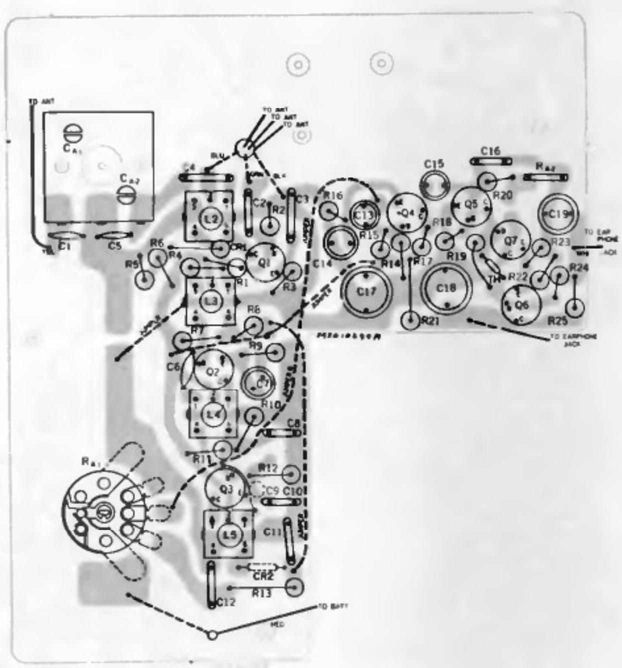
1. Signal input must be as low as possible to avoid overload and clipping. (Use highest sensitivity of output indicator.)
2. Loudness control at maximum.
3. Standard modulation is 400 cycles at 30% amplitude.

Step	Instrument Connections	Set Signal	Set Dial	Adjust for Max.
1	RF Generator—Connected to TP1 or short piece of wire near antenna	455 kc	Gang Closed	L3 (1st IF)
2				L4 (2nd IF)
3				L5 (3rd IF)
4		Repeat Steps 1 through 3 to obtain maximum sensitivity		
5	E.V.M.—connected to TP 2	525 kc	Gang Closed	L2 (Osc. coil)
6		1650 kc	Gang Open	CA 2 T (Osc. trim)
7		1400 kc	1400 kc Rock gang	CA 1 T (Ant. trim)
8	Repeat Steps 5 through 8 to obtain best tracking and selectivity			

Model RZG 125



Schematic Diagram



Component Locations
(Component View)

ALIGNMENT PROCEDURE

Instruments Required

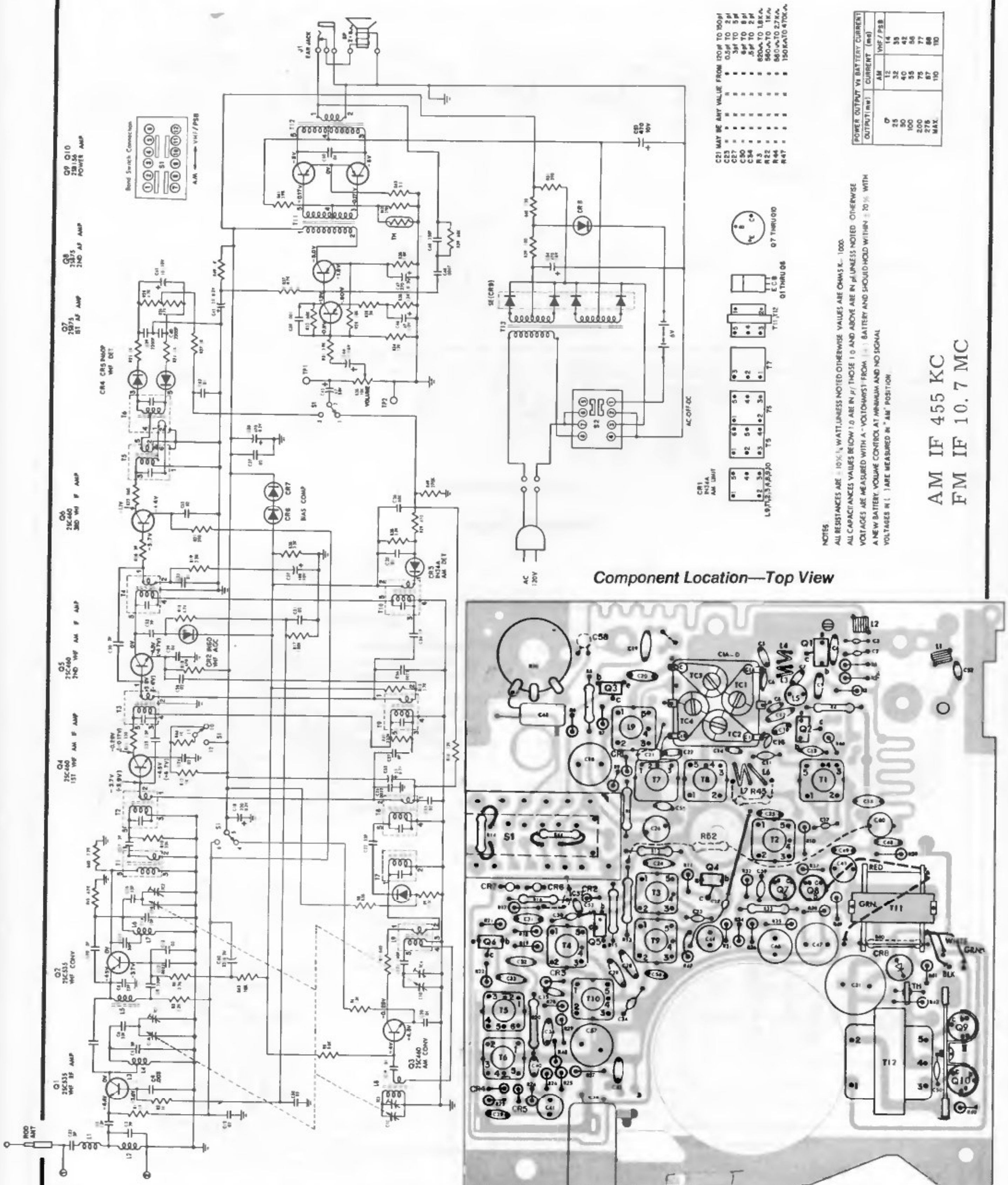
1. RF Signal Generator (RCA WR-50B or equivalent)
2. Electronic Voltmeter (RCA WV-500A or equivalent)

General

1. Signal input must be as low as possible to avoid overload and clipping. (Use highest sensitivity of output indicator.)
2. Loudness control at maximum.
3. Standard modulation is 400 cycles at 30% amplitude.

Step	Instrument Connections	Set Signal	Set Dial	Adjust for Max.
1	RF Generator—Connected to TP1 or short piece of wire near antenna; E.V.M.—connected to TP 2	455 kc	Gang Closed	L3 (1st IF)
2				L4 (2nd IF)
3				L5 (3rd IF)
4		Repeat Steps 1 through 3 to obtain maximum sensitivity		
5		525 kc	Gang Closed	L2 (Osc. coil)
6		1650 kc	Gang Open	CA 2 T (Osc. trim)
7		1400 kc	1400 kc Rocg gang	CA 1 T (Ant. trim)
8	Repeat Steps 5 through 8 to obtain best tracking and selectivity			

RCA Model RZM 990-K

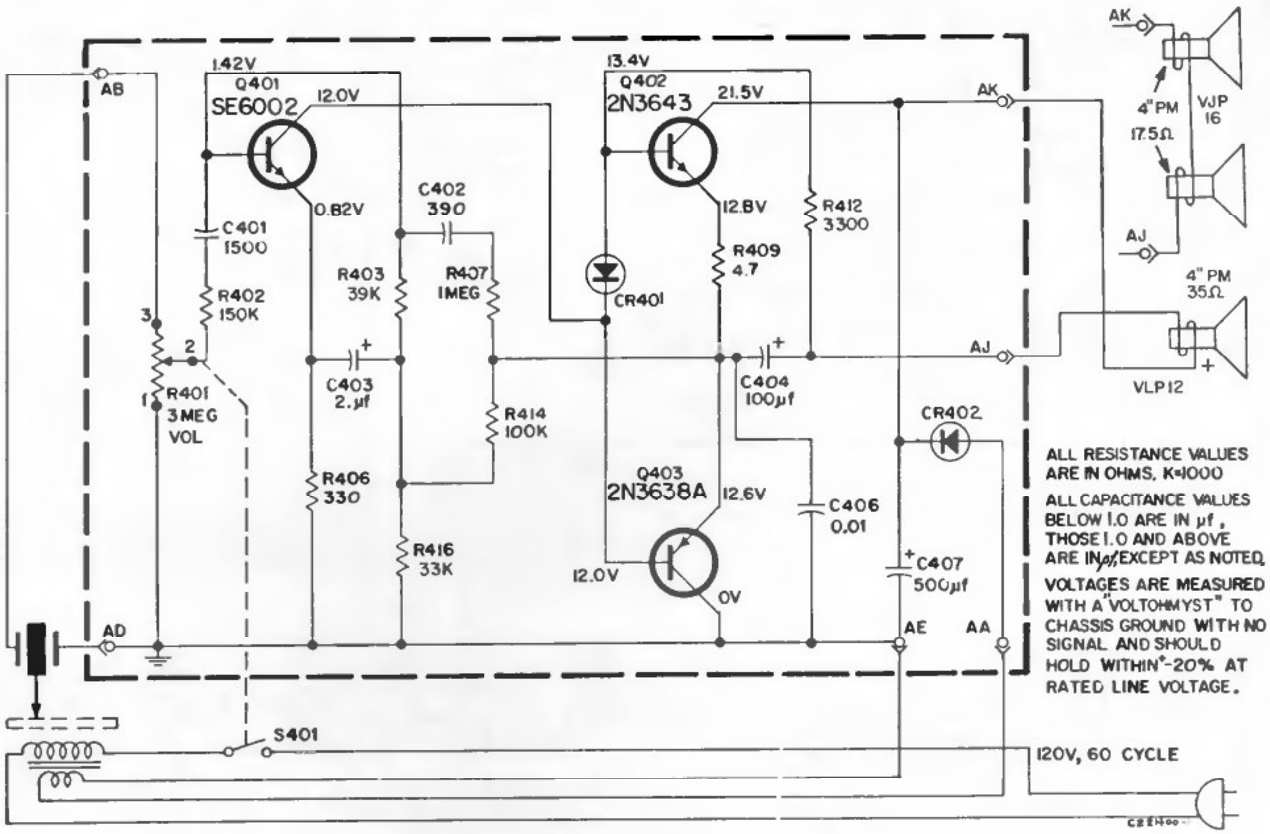


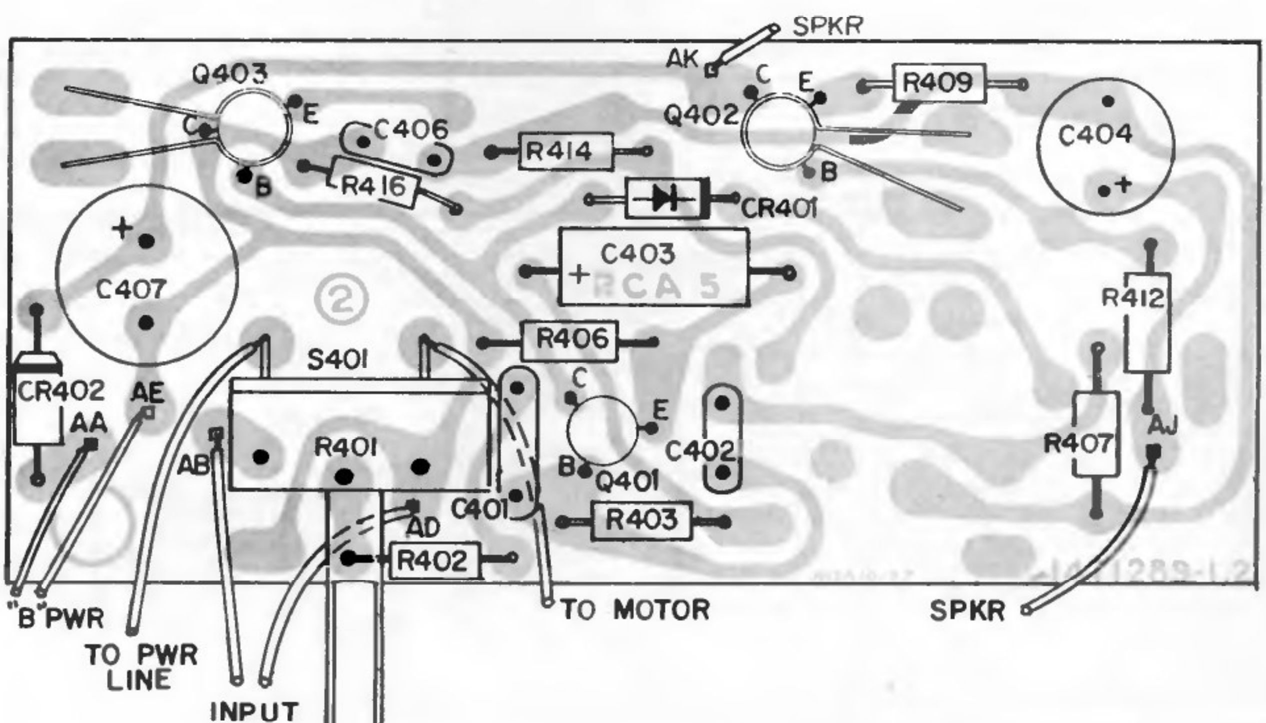
Component Location—Top View

RCA Models

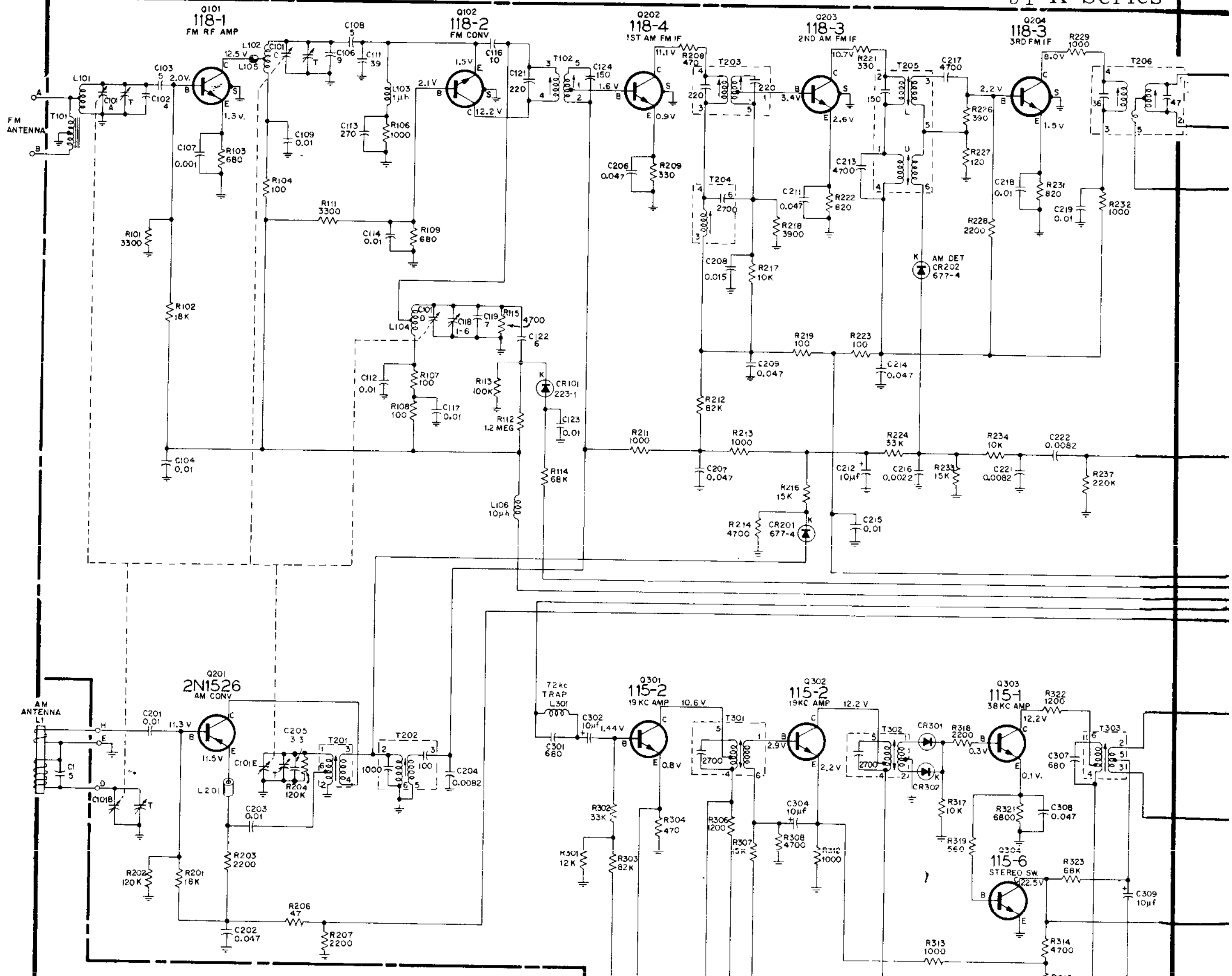
VJP 12 Series,
VJP 16 Series,
VJP 88-K Series,
VLP 12 Series,
VMP 12 Series

Chassis RS-225B,
RS-250A

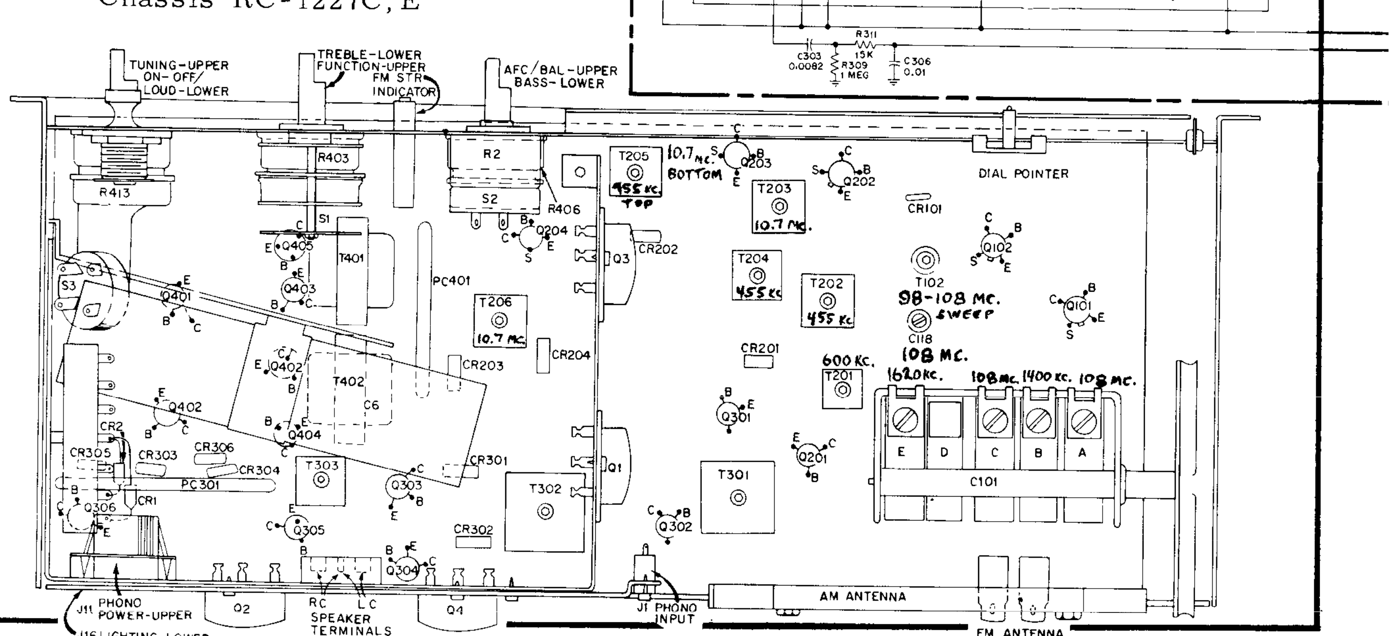




RCA Models VJT 16, 18, 23, 24, 25, 29, 30, 31, 33, 35, 37, 84-K, 85-K, 89-K, 90-K, 91-K Series

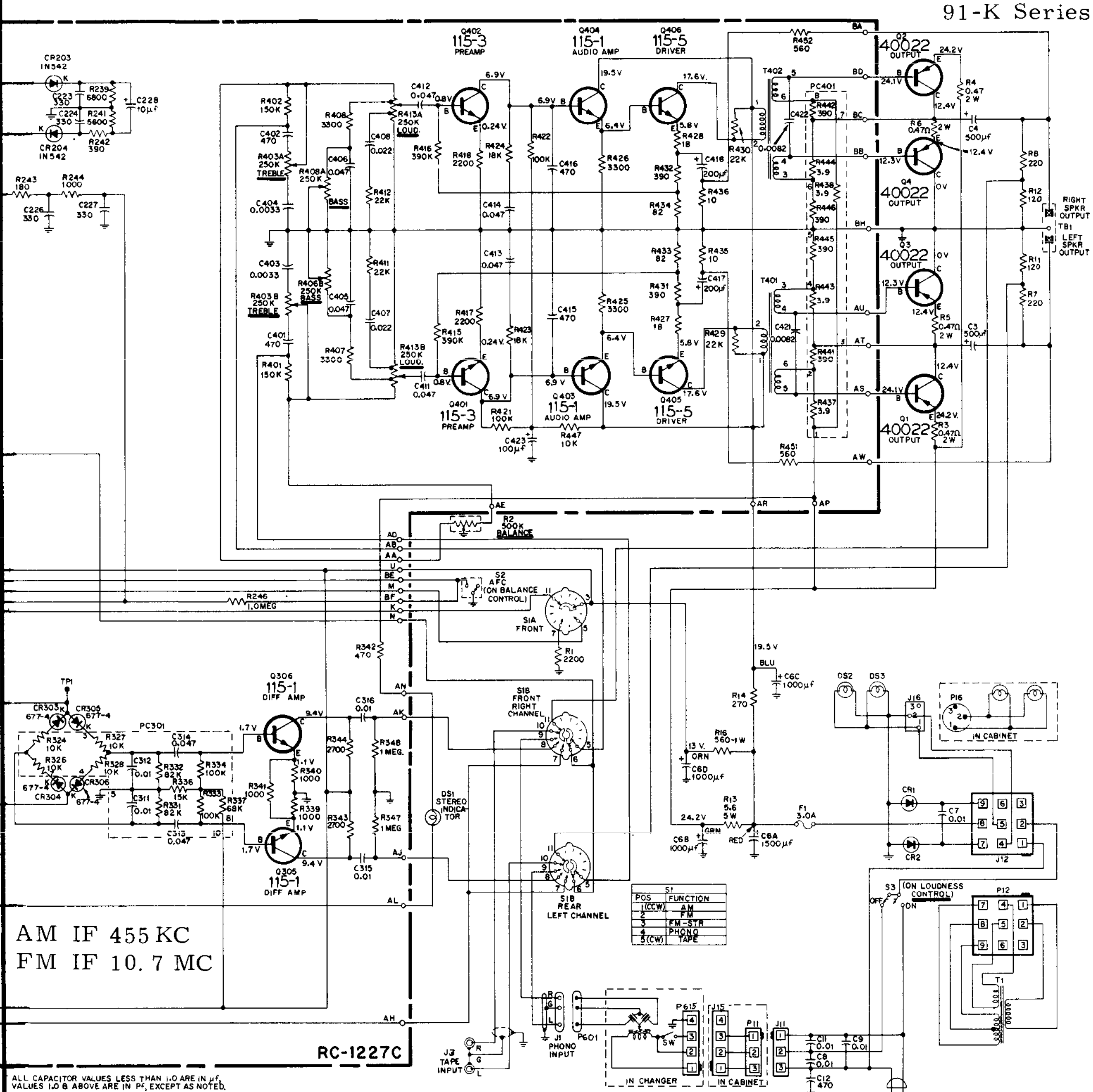


Chassis RC-1227C, E



(Continued on next page.)

RCA Models VJT 16, 18, 23, 24, 25, 29, 30, 31, 33, 35, 37, 84-K, 85-K, 89-K, 90-K, 91-K Series



POS	S1 FUNCTION
1(CCW)	AM
2	FM
3	FM-STR
4	PHONO
5(CW)	TAPE

ALL CAPACITOR VALUES LESS THAN 1.0 ARE IN µf. VALUES 1.0 & ABOVE ARE IN Pf, EXCEPT AS NOTED.

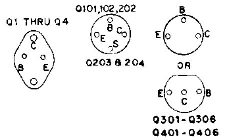
ALL RESISTORS VALUES IN OHMS. K= 1000

ALL CONNECTORS SHOWN FROM WIRING SIDE.

CONNECTOR PIN NUMBERS FOR REF ONLY

ALL SECTIONS OF SWITCH "S1" ARE VIEWED FROM FRONT, WITH SWITCH IN EXTREME CCW POSITION

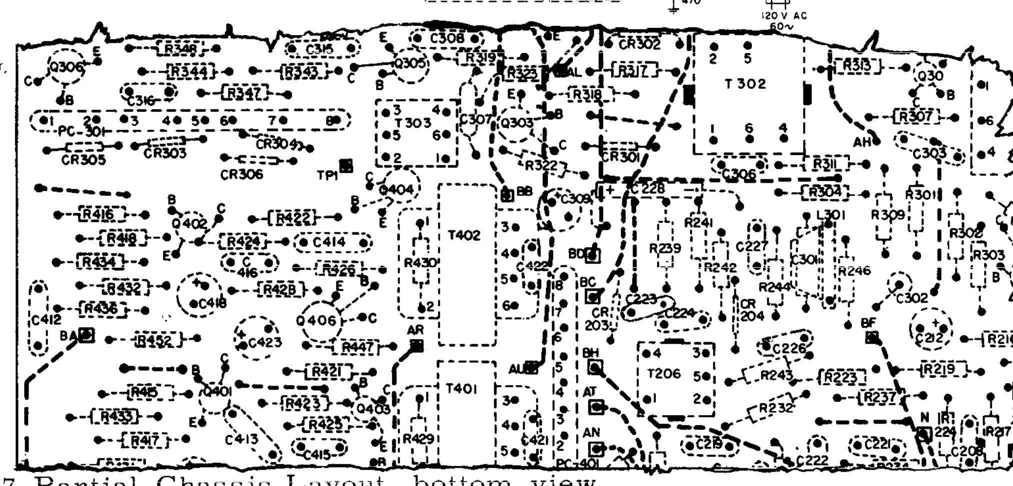
ALL VOLTAGES MEASURED WITH A "VOLTOHMYST" TO CHASSIS GROUND (B-) WITH NO SIGNAL APPLIED & SHOULD HOLD WITHIN ± 20% AT RATED LINE VOLTAGE.



FOR RC-1227E

THE SCHEMATIC FOR RC-1227E IS THE SAME AS RC-1227C EXCEPT AS NOTED

C411 & C412 = 0027
R14 = 100
R16 = 390
R316 = 2200
R342 = 330

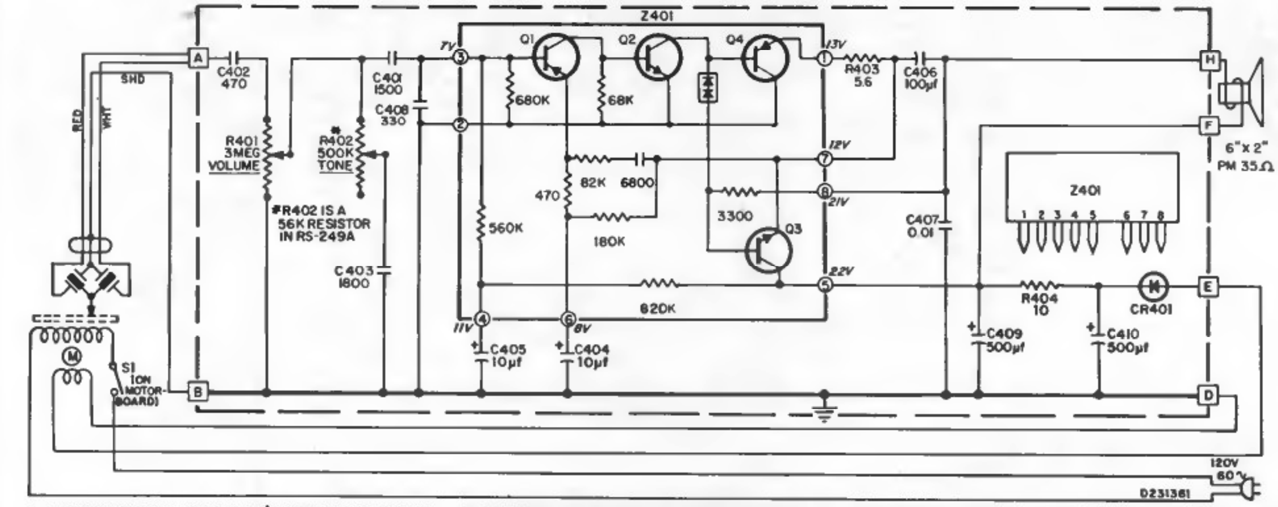


RC-1227 Partial Chassis Layout, bottom view.

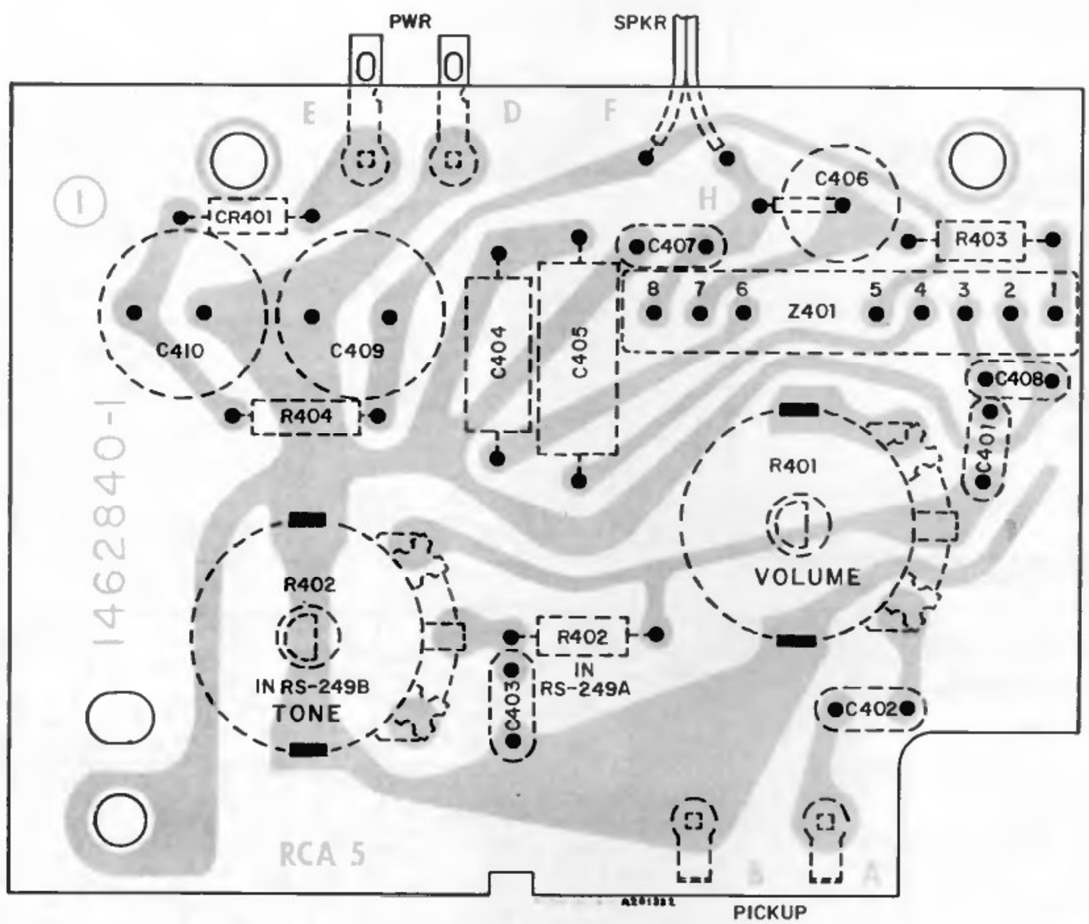
(Continued from preceding page.)

RCA VLP 20 Series VMP 20 Series

Amplifier Chassis RS-249A



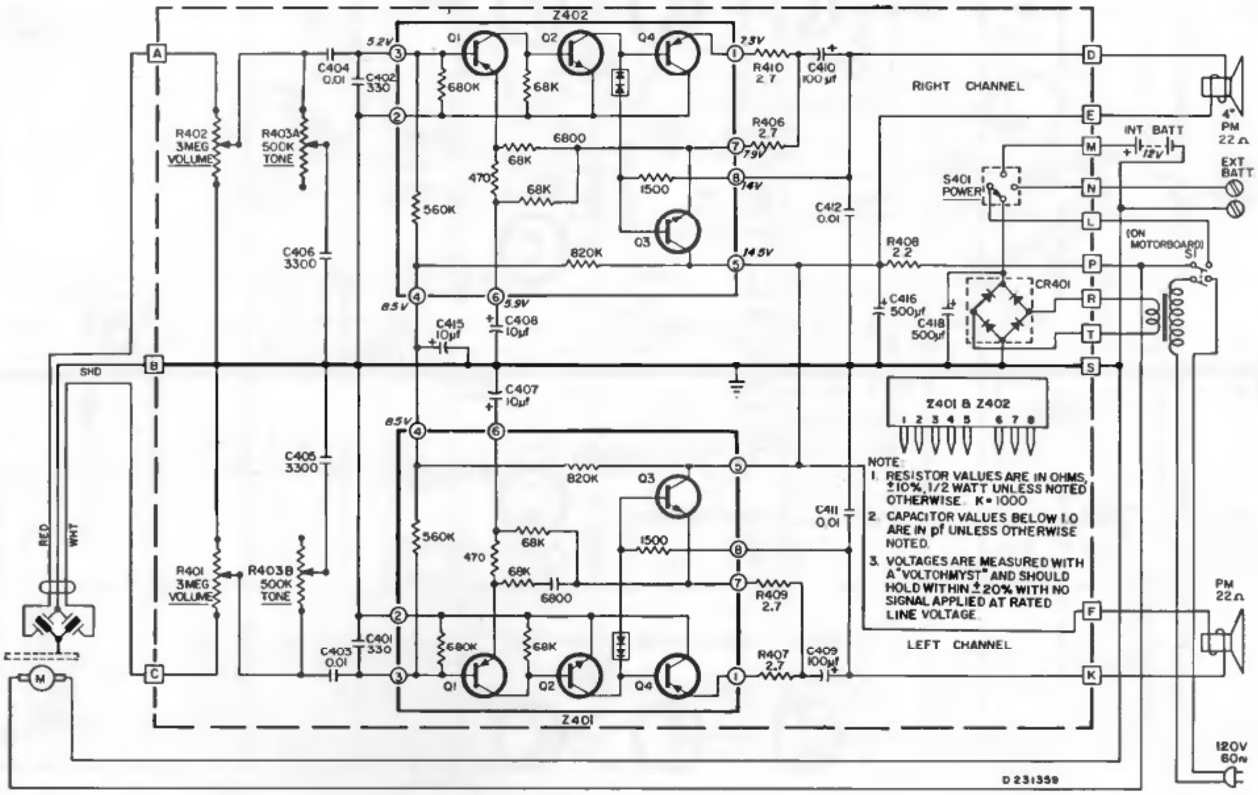
1. RESISTOR VALUES ARE IN OHMS, ±10%, 1/2 WATT UNLESS NOTED OTHERWISE. K = 1000
2. CAPACITOR VALUE BELOW 1.0 ARE IN μf, THOSE 1.0 AND ABOVE ARE IN pf UNLESS OTHERWISE NOTED
3. VOLTAGES ARE MEASURED WITH A "VOLTOHMYST" AND SHOULD HOLD WITHIN ± 20% WITH NO SIGNAL APPLIED AT RATED LINE VOLTAGE

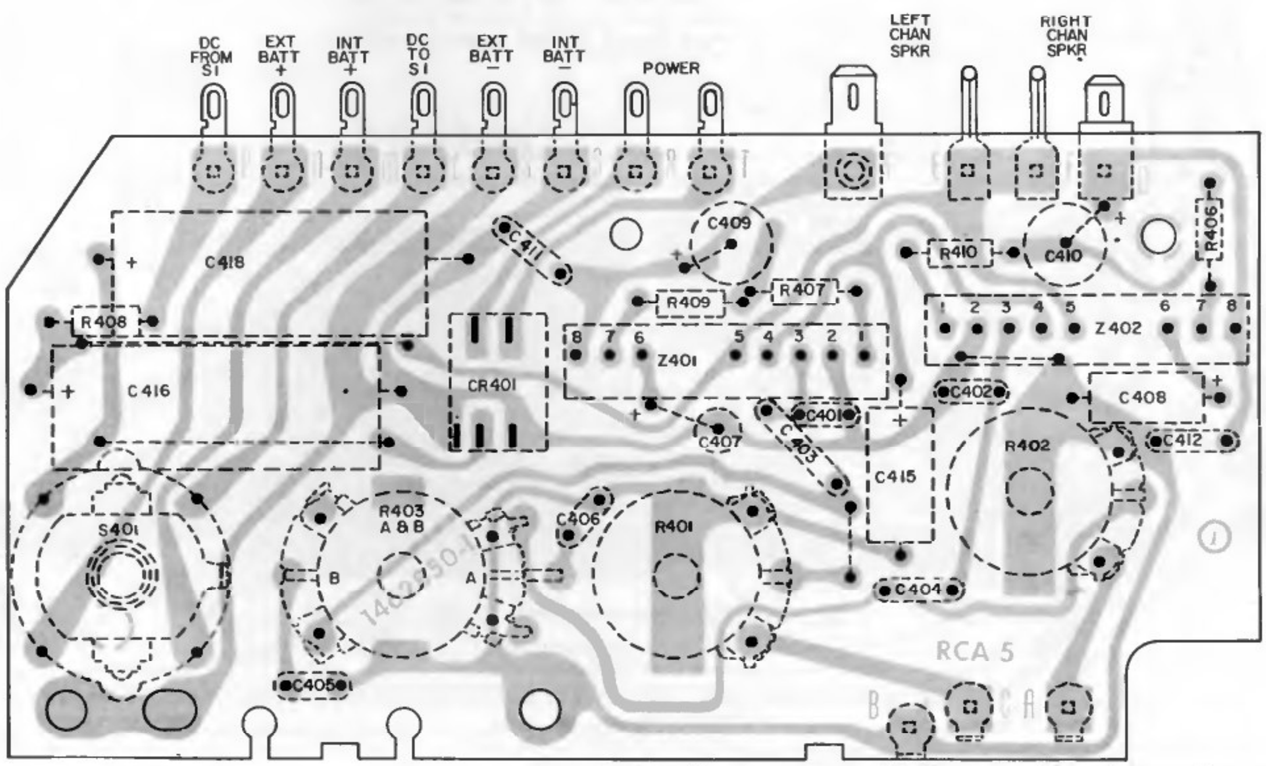


Component Locations (Wiring Side)

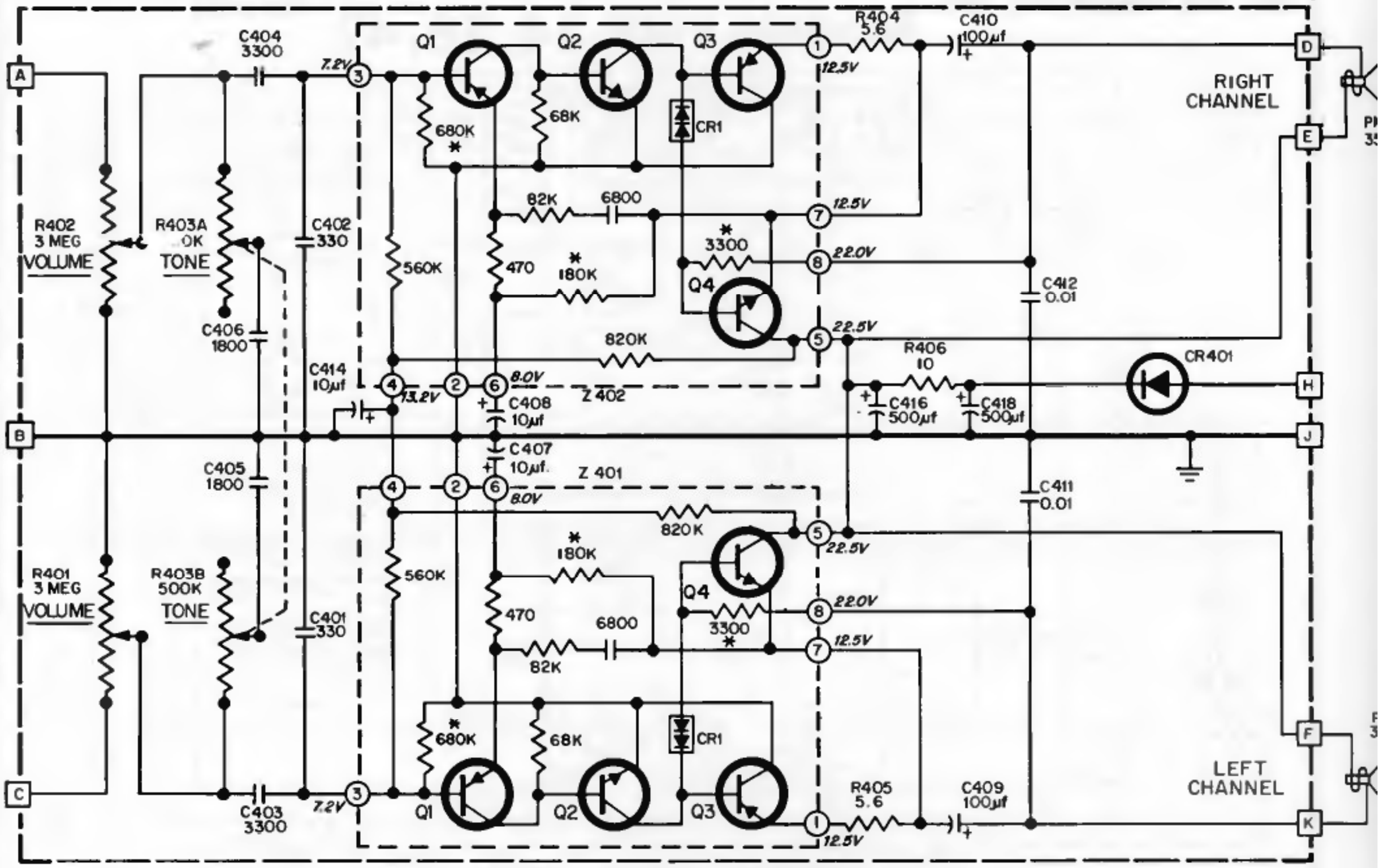
Models VLP 34, 36, 39
Models VMP 34, 38, 47

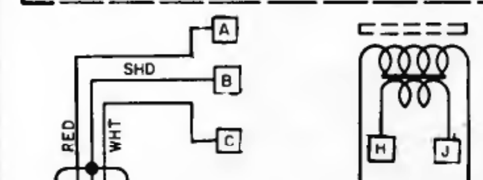
Amplifier Chassis
RS-243A
RS-245A





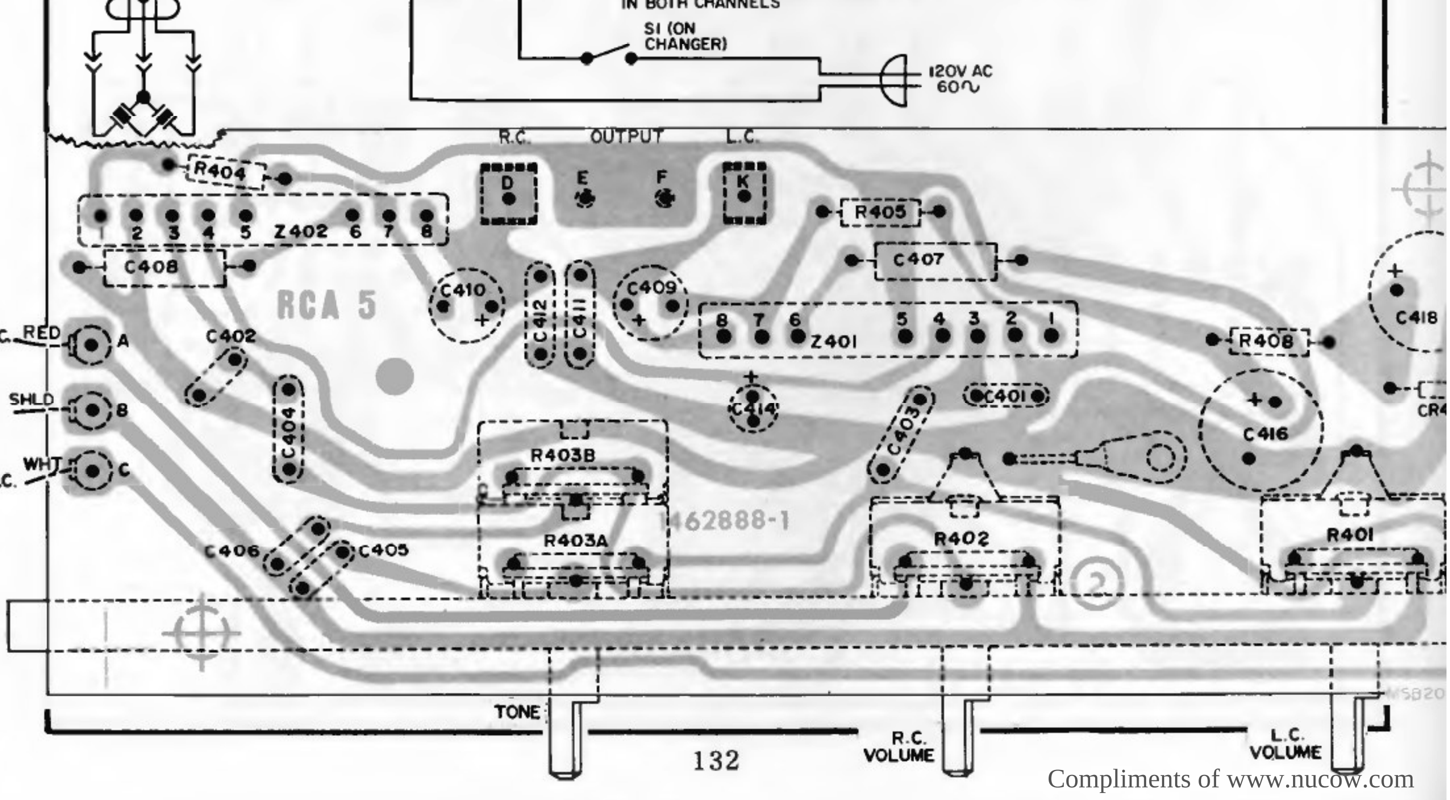
RCA # Models VME 11, 12 **Amplifier Chassis RS-256A**



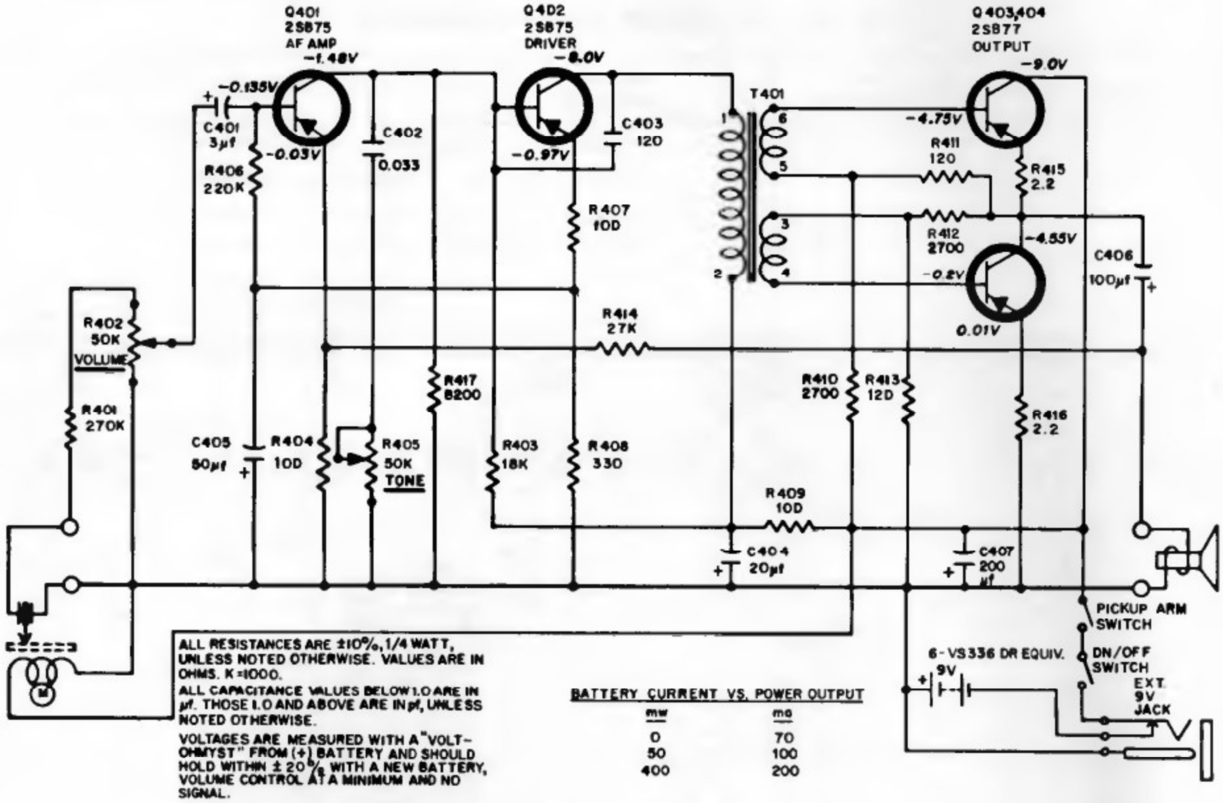


NOTES:
1. ALL RESISTOR VALUES ARE IN OHMS AND ARE ± 10%, 1/2 WATT UNLESS OTHERWISE SPECIFIED. K= 1000
2. ALL CAPACITOR VALUES LESS THAN 1.0 ARE µf, THOSE 1.0 AND GREATER ARE pf UNLESS OTHERWISE SPECIFIED.
3. VOLTAGES ARE MEASURED WITH A "VOLTOHMYST" TO CHASSIS GROUND (-) WITH NO SIGNAL AND SHOULD HOLD WITHIN ± 20% AT RATED LINE VOLTAGE.

PEC'S BEARING THE SAME NUMBER MUST BE USED IN BOTH CHANNELS



Model VMP 14



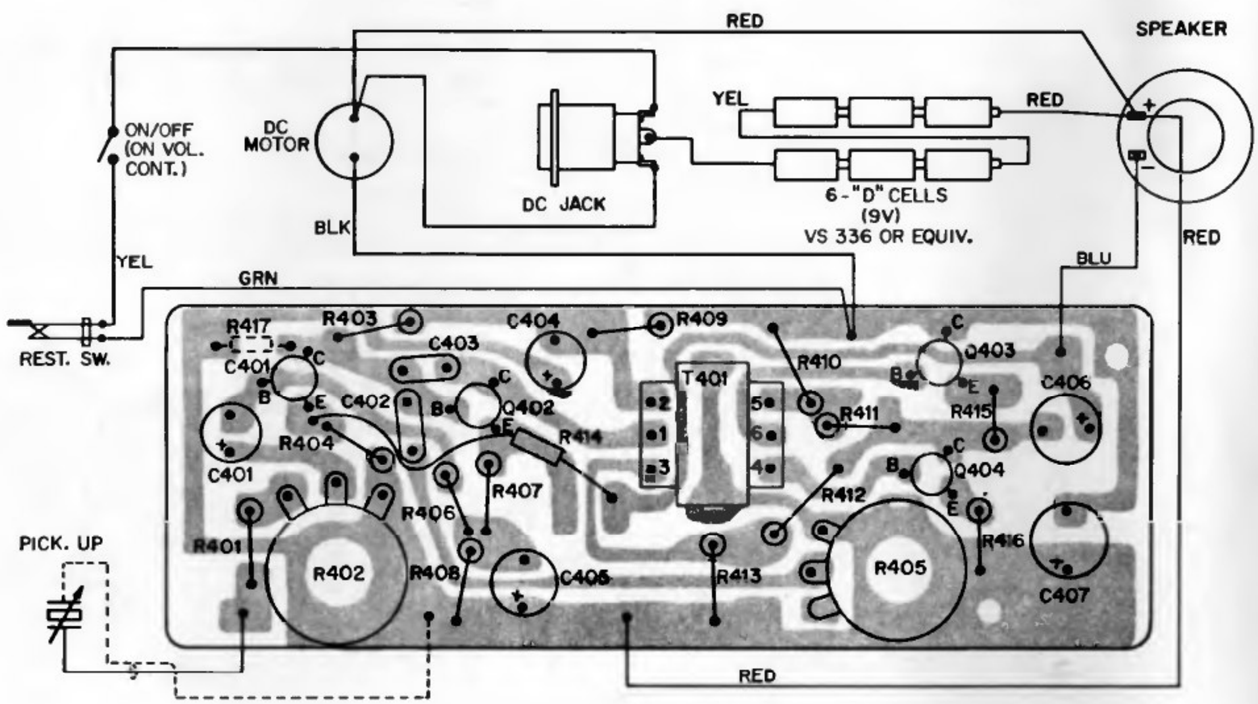
ALL RESISTANCES ARE ±10%, 1/4 WATT, UNLESS NOTED OTHERWISE. VALUES ARE IN OHMS. K=1000.

ALL CAPACITANCE VALUES BELOW 1.0 ARE IN μf. THOSE 1.0 AND ABOVE ARE IN pf, UNLESS NOTED OTHERWISE.

VOLTAGES ARE MEASURED WITH A "VOLT-OHMYST" FROM (+) BATTERY AND SHOULD HOLD WITHIN ± 20% WITH A NEW BATTERY, VOLUME CONTROL AT A MINIMUM AND NO SIGNAL.

BATTERY CURRENT VS. POWER OUTPUT

mw	ma
0	70
50	100
400	200



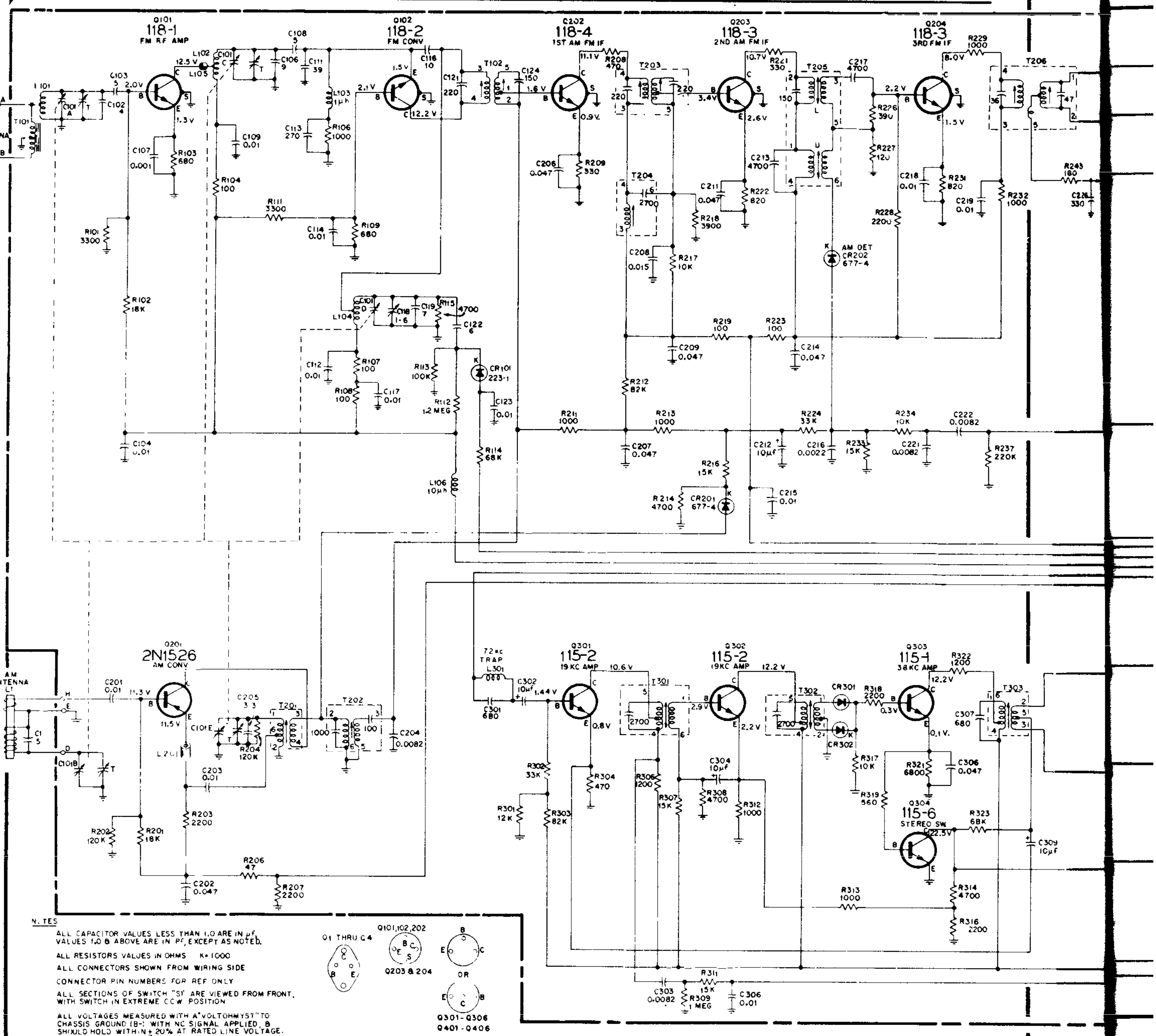
Chassis Layout

RCA Models VMT 1, 2 Series

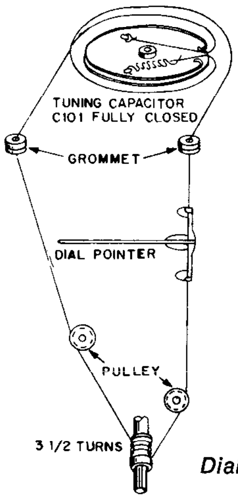
Radio Chassis RC-1227K

MODEL TO CHASSIS CROSS REFERENCE

MODEL	TUNER, AMPLIFIER	RECORD CHANGER	Speakers
VMT 10	RC1227K	RP-232-5	2— 9" x 6", 2—3½" Tweeters
VMT 13	RC1227K	RP-232-5	2— 9" x 6", 2—3½" Tweeters
VMT 14	RC1227K	RP-232-5	2— 9" x 6", 2—3½" Tweeters
VMT 15	RC1227K	RP-232-5	2— 9" x 6", 2—3½" Tweeters
VMT 25	RC1227K	RP-232-9	2—12" x 8", 2—3½" Middlers, 2—3½" Tweeters
VMT 27	RC1227K	RP-232-9	2—12" x 8", 2—3½" Middlers, 2—3½" Tweeters



(Continued on next two pages.)



Dial Cord Arrangement

RCA Models VMT 1, 2 Series

Chassis RC-1227K

AUDIO FREQUENCY RESPONSE

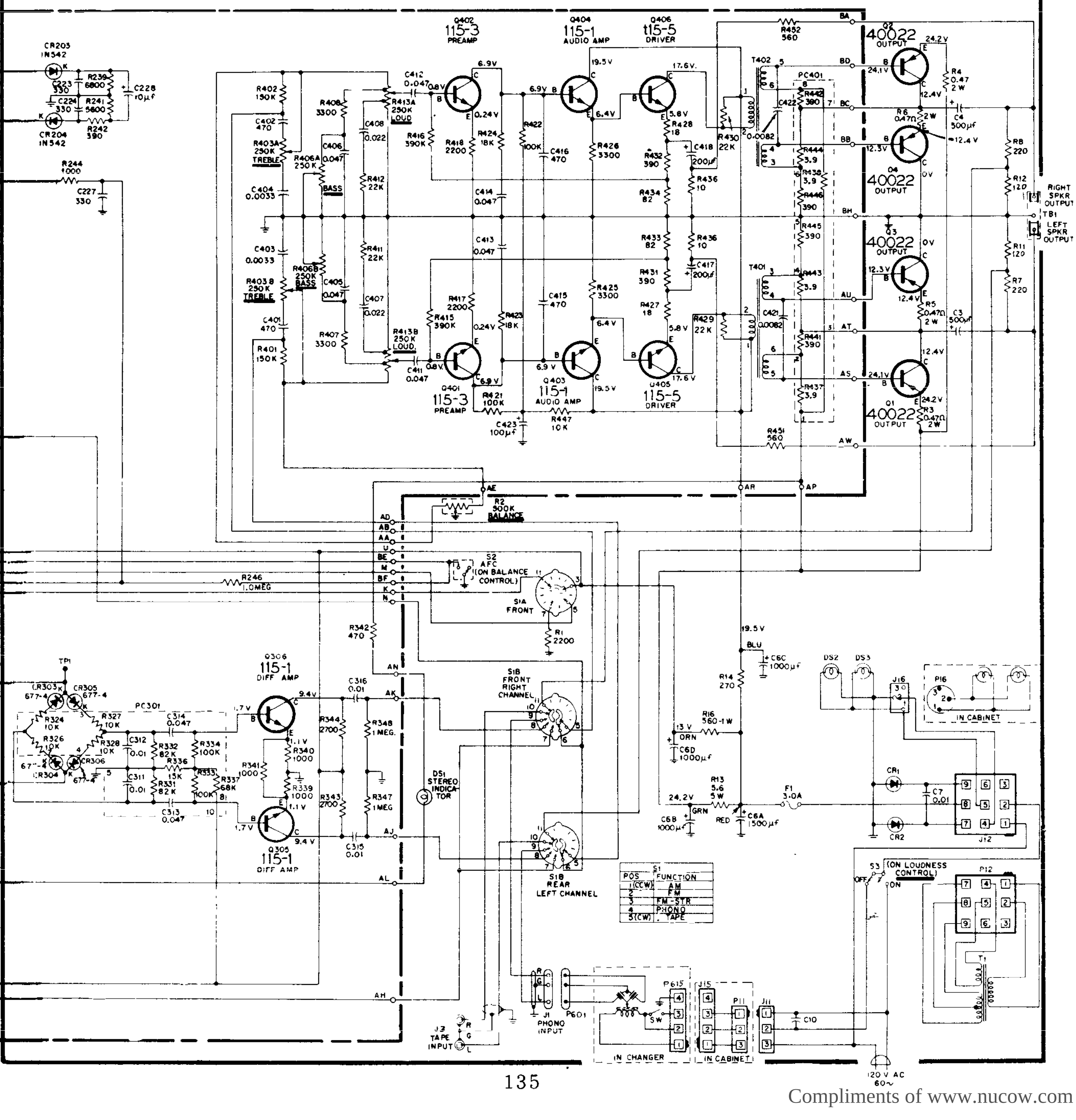
VMT 10, 13, 14, 15 ....60-20,000 cycles/sec
VMT 25, 27 ....50-20,000 cycles/sec

POWER SUPPLY RATING

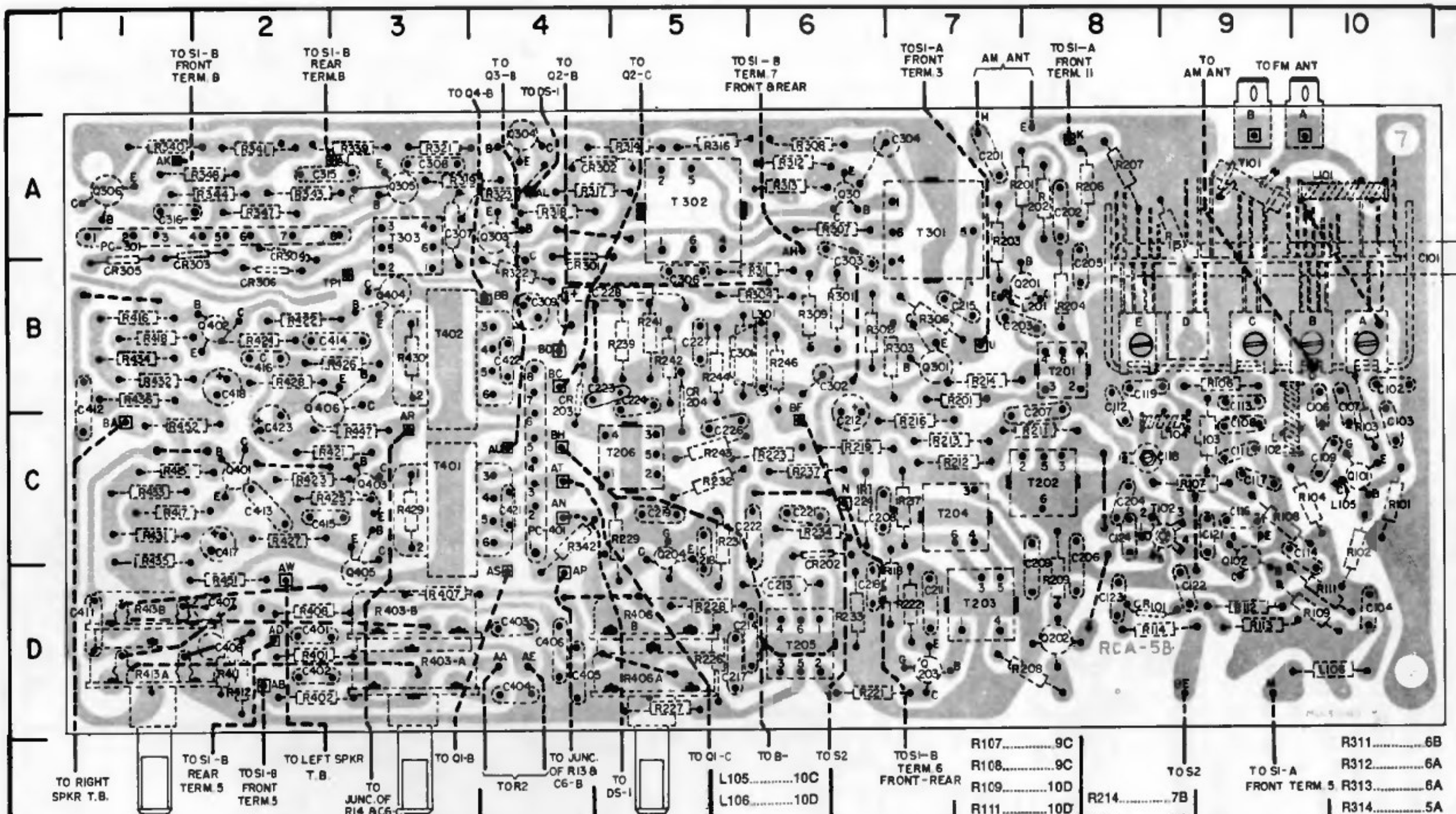
VMT 10, 13, 14, 15, 25, 27 ....12 volts, 60 cycles
Power Consumption ....55 watts

FREQUENCIES	Tuning	IF
AM	540-1620 kc/s	455 kc/s
FM	88-108 mc/s	10.7 mc/s

(Continued from preceding page and on next page.)



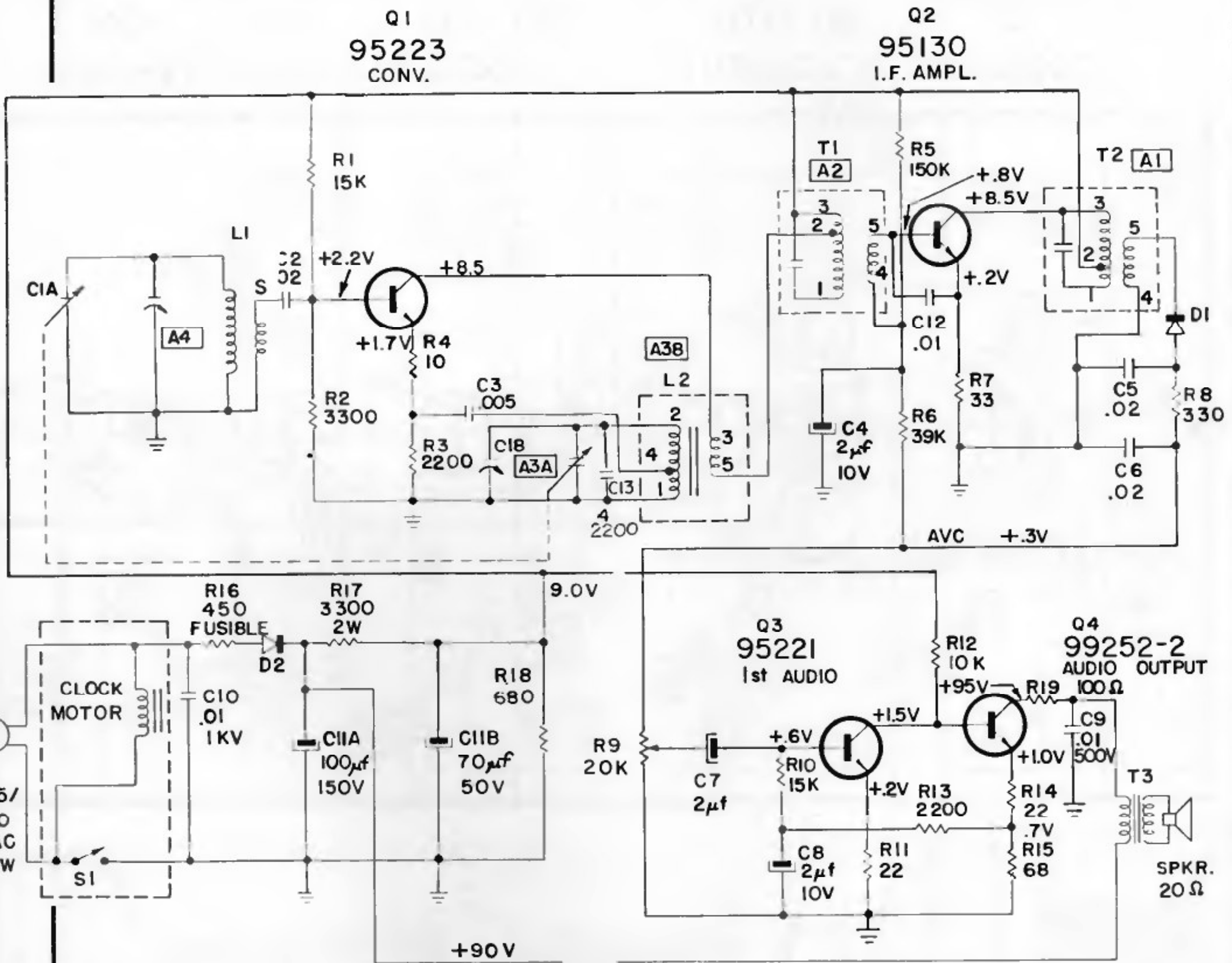
POS	S1 FUNCTION
1(CCW)	AM
2	FM
3	FM-STR
4	PHONO
5(CW)	TAPE

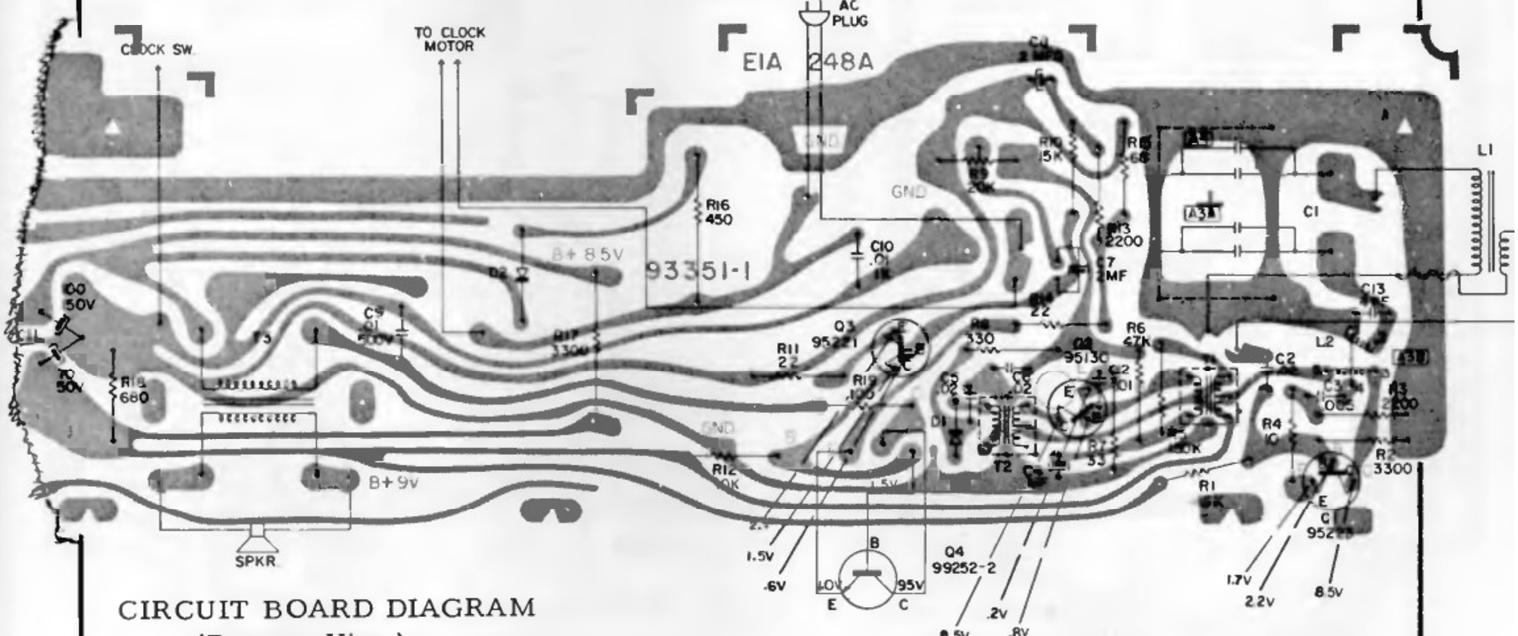


Component Location Guide

C101	9B
C102	10B
C103	10C
C104	10D
C106	10B
C107	10B
C108	9C
C109	10C
C111	9C
C112	8C
C113	9B
C114	9C
C116	9C
C117	9C
C118	8C
C119	8B
C121	9C
C122	9D
C123	8D
C124	8C
C201	7A
C202	6A
C203	7B
C204	8C
C206	8B
C206	8C
C207	8C
C208	6C
C209	8D
C211	7D
C212	6C
C213	6D
C214	5D
C215	7B
C216	6D
C217	5D
C218	5C
C219	5C
C221	6C
C222	5C
C223	4B
C224	5B
C226	5C
C227	5B
C228	5B
C301	5B
C302	6B
C303	6B
C304	6A
C306	5B
C307	3A
C308	3A
C309	4B
C315	2A
C316	1A
C401	2D
C402	2D
C403	4D
C404	4D
C405	4D
C408	4D
C407	2D
C403	2D
C411	1D
C412	1B
C413	2C
C414	2B
C415	2C
C41B	2B
C417	2C
C41B	2B
C421	4C
C422	4B
C423	2C
CR101	8D
CR201	7B
CR202	6C
CR203	4B
CR204	5B
CR301	4A
CR302	4A
CR303	1A
CR304	2A
CR305	1B
CR306	2B
L101	10A
L102	9C
L103	9C
L104	8C
L105	10C
L106	10D
L201	7B
L301	6B
PC301	2A
PC401	4C
Q101	10C
Q102	9C
Q201	7B
Q202	6D
Q203	7D
Q204	5C
Q301	7B
Q302	6A
Q303	4A
Q304	4A
Q305	3A
Q306	1A
Q401	2C
Q402	2B
Q403	3C
Q404	3B
Q405	3D
Q406	2B
R101	10C
R102	10C
R103	10C
R104	10C
R106	9B
R107	9C
R108	9C
R109	10D
R111	10D
R112	9D
R113	9D
R114	8D
R115	9A
R201	7B
R202	6A
R203	7A
R204	8B
R206	6A
R207	6A
R208	7D
R209	8D
R211	8C
R212	7C
R213	7C
R214	7B
R216	7C
R217	7C
R218	6D
R219	6C
R221	6D
R222	7D
R223	6C
R224	8C
R226	5D
R227	5D
R228	5D
R229	4C
R231	5C
R232	5C
R233	6D
R234	6C
R237	6C
R239	5B
R241	5B
R242	5B
R243	5C
R244	5B
R246	6B
R301	6B
R302	6B
R303	6B
R304	6B
R306	7B
R307	6A
R308	6A
R309	6B
R311	6B
R312	6A
R313	6A
R314	5A
R316	5A
R317	4A
R318	4A
R319	3A
R321	3A
R322	4B
R323	4A
R339	3A
R340	1A
R341	2A
R342	4C
R343	2A
R344	2A
R347	2A
R348	2A
R401	2D
R402	2D
R403	3D
R406	5D
R407	3D
R406	2D
R411	2D
R412	2D
R413	1D
R415	1C
R416	1B
R417	1C
R416	1B
R421	2C
R422	2B
R423	2C
R424	2B
R425	2C
R426	3B
R427	2C
R428	2B
R429	3C
R430	3B
R431	1C
R432	1B
R433	1C
R434	1B
R435	1C
R436	1B
R447	2C
R451	2D
R452	1C
T101	9A
T102	8C
T201	8B
T202	8C
T203	7D
T204	7C
T205	6D
T206	5C
T301	7A
T302	5A
T303	3A
T401	3C
T402	3B
Terminals	
A	9A
B	9A
D	10B
E	6A
H	7A
K	8A
M	9D
N	6C
U	7B
AA	4D
AB	2D
AD	2D
AE	4D
AH	6B
AJ	2A
AK	1A
AL	4A
AN	4C
AP	4D
AR	3C
AS	4D
AT	4C
AU	4C
AW	2D
BA	1C
BB	4B
BC	4B
BD	4B
BE	9D
BF	6C
BH	4C
TP1	3B

SEARS | Silvertone CHASSIS 132.42701
MODEL 2063, 2064, 2065

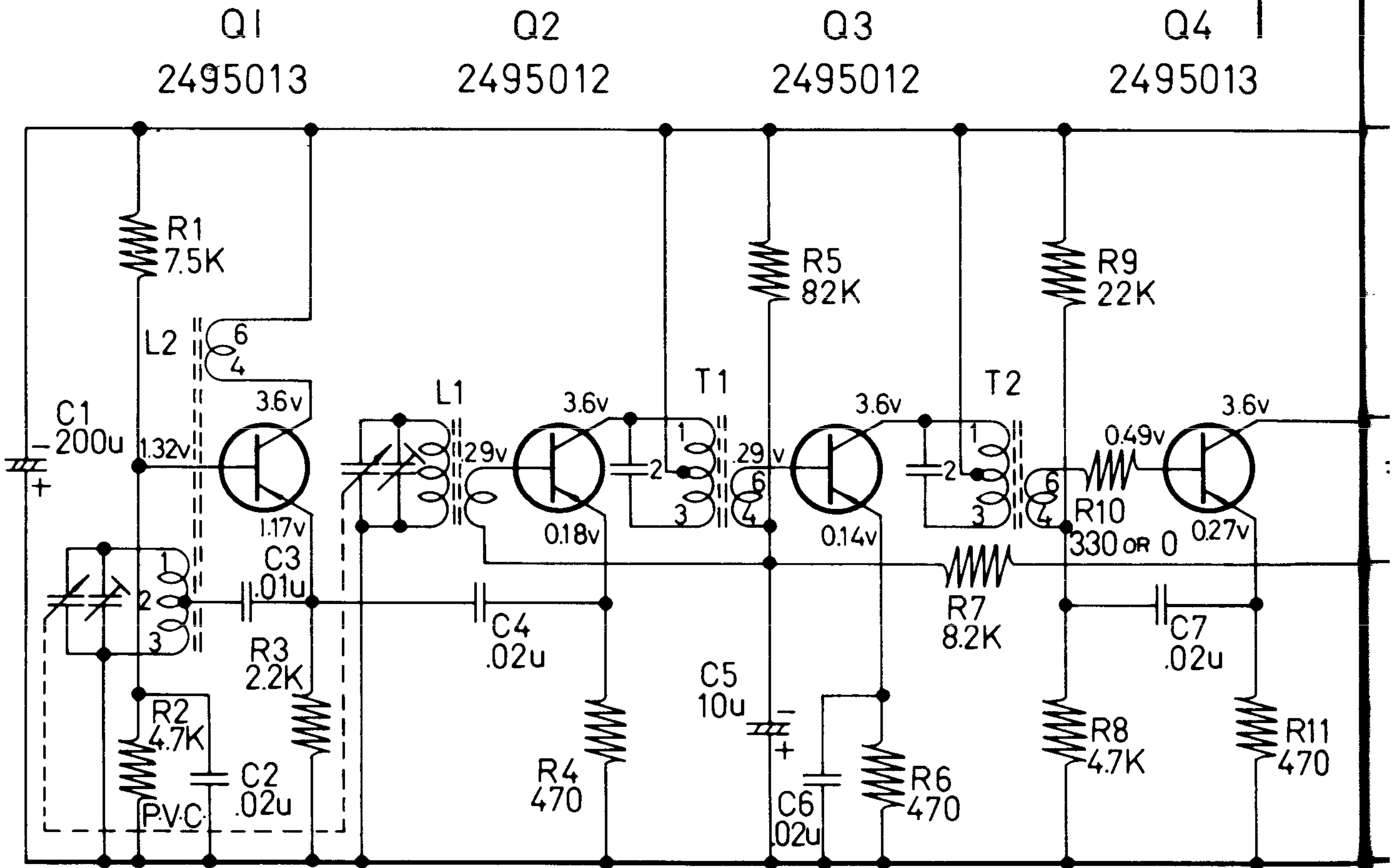


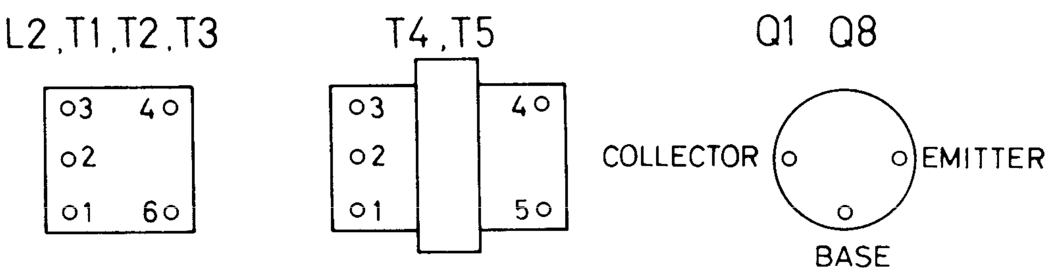


CIRCUIT BOARD DIAGRAM
(Bottom View)

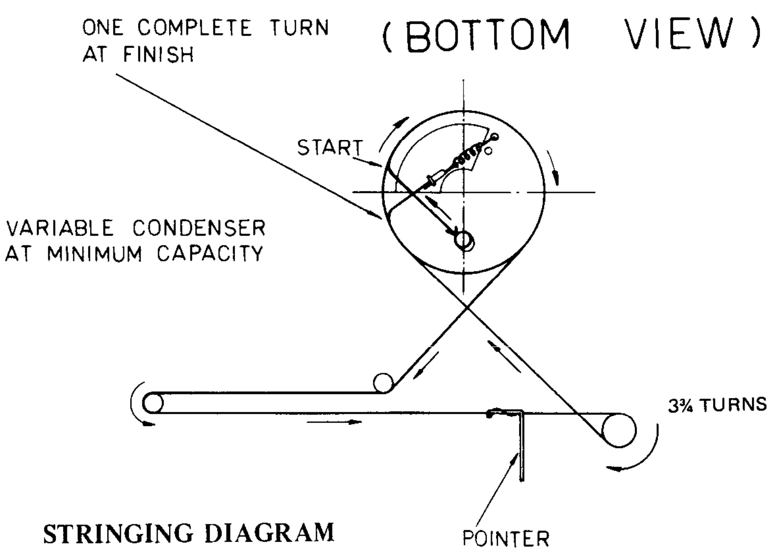
SEARS CHASSIS 132.41501
MODELS 2230, 2231, 2232

(Continued on next page.)





(BOTTOM VIEW)



STRINGING DIAGRAM

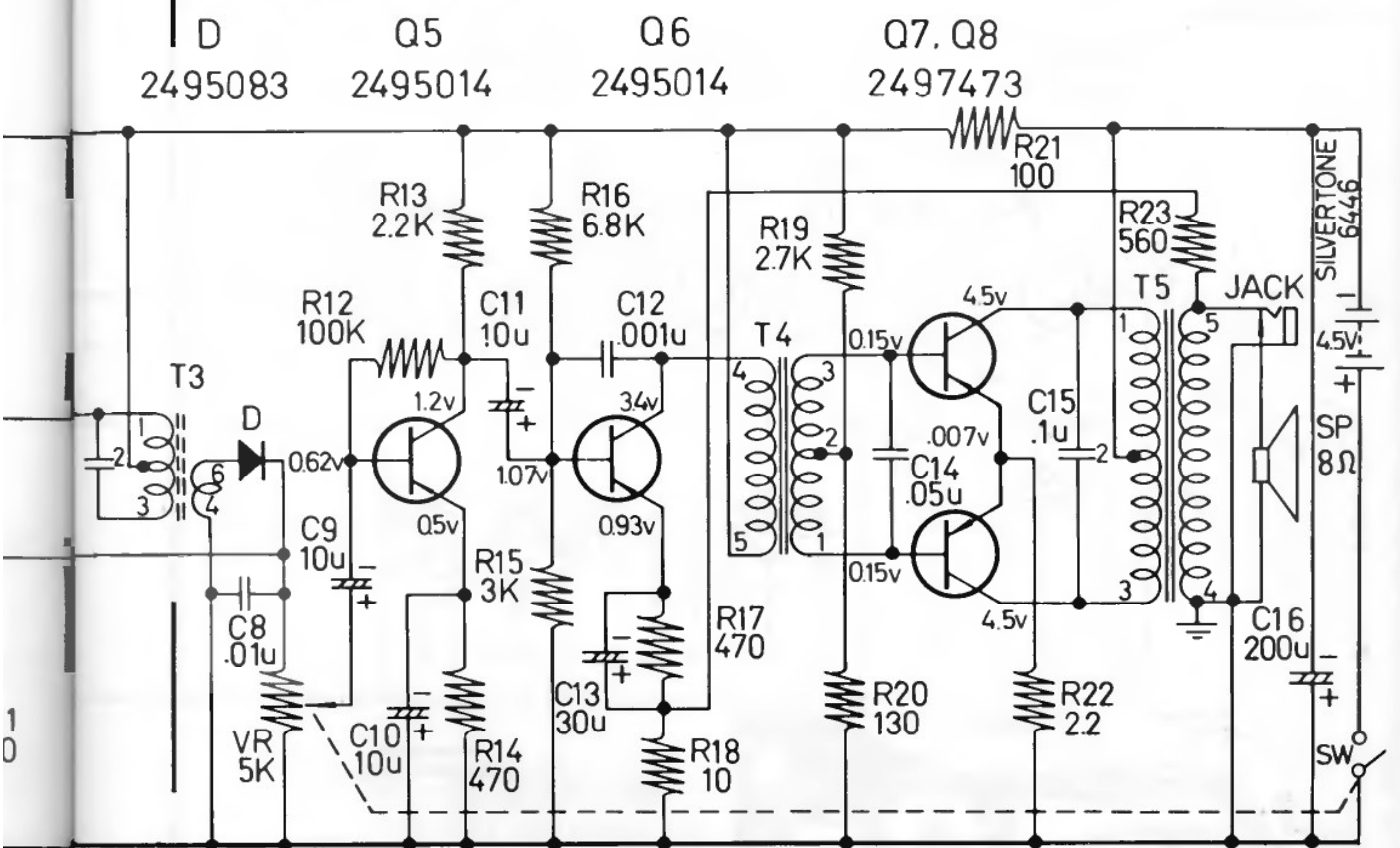
IF 455 KC

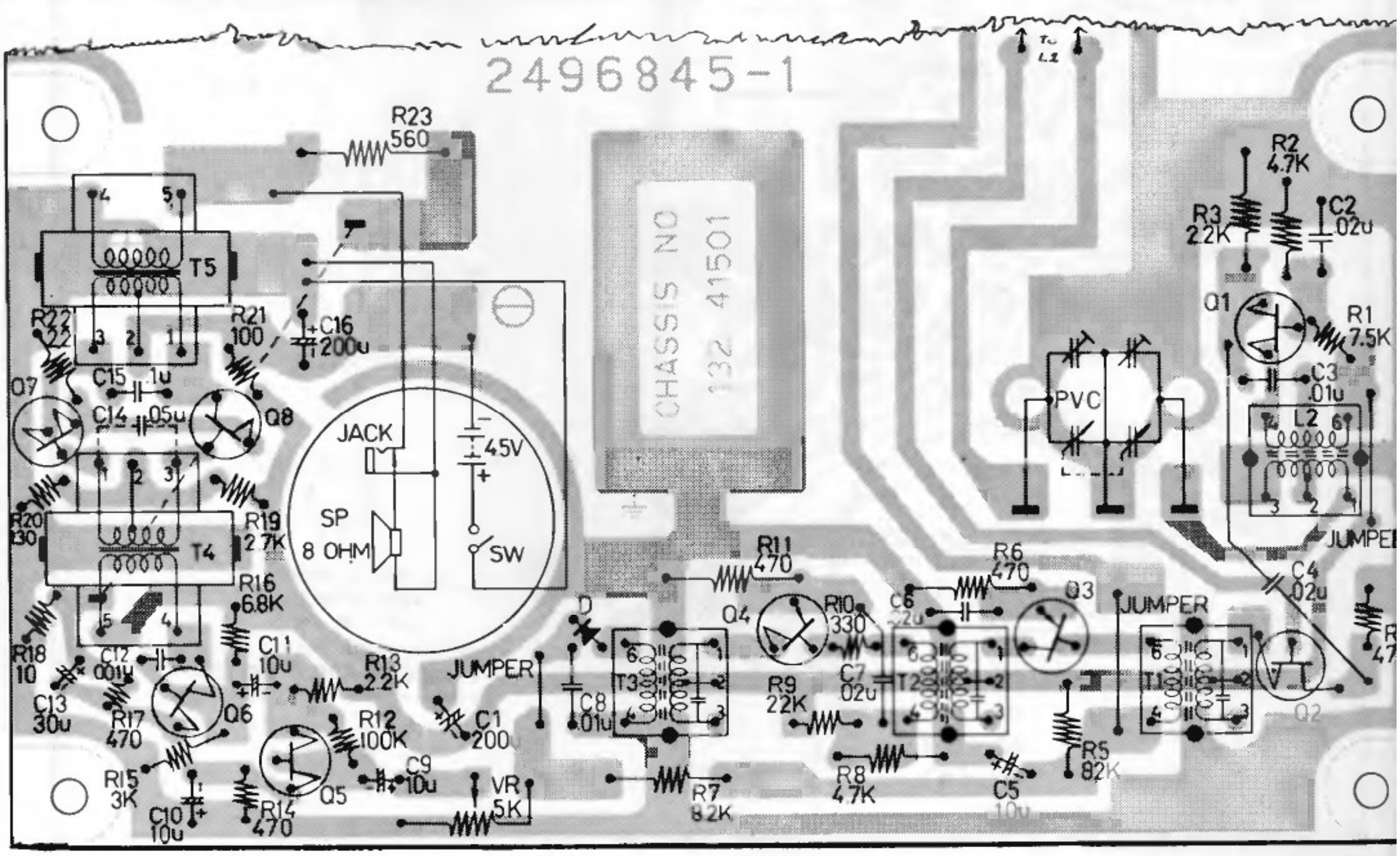
Silvertone

RADIO CHASSIS NO. 132.41501

USED IN RADIO MODEL
2230
2231
2232

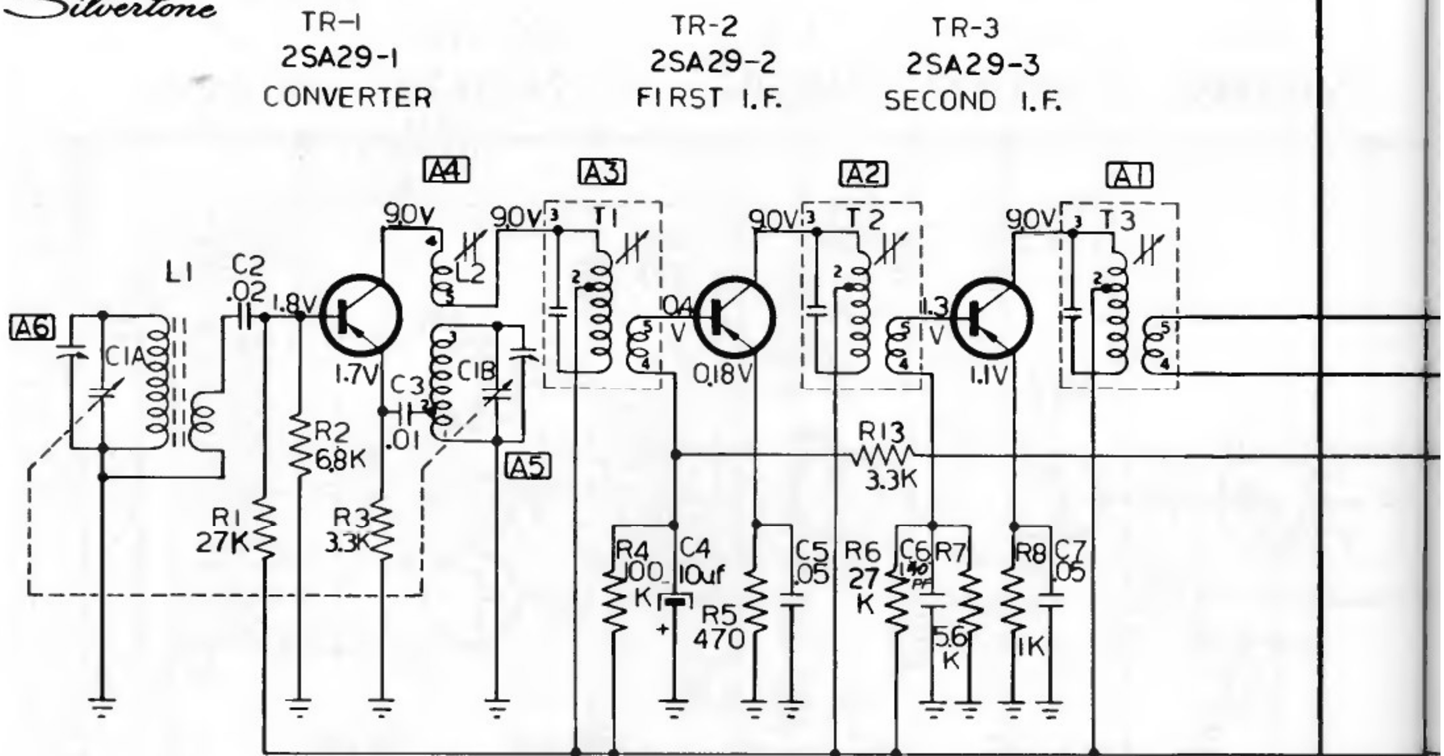
SEARS CHASSIS 132.41501 MODELS 2230, 2231, 2232 (Continued from preceding page.)

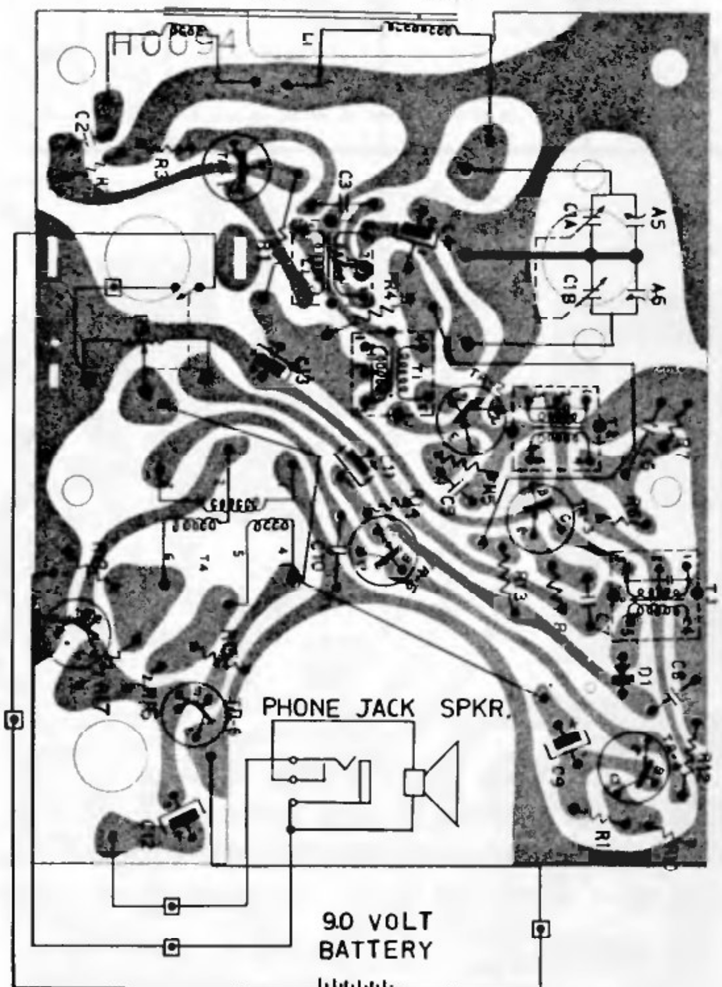




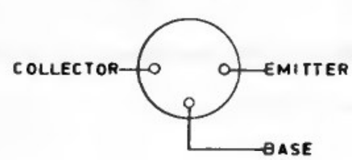
CIRCUIT BOARD DIAGRAM (Bottom View)

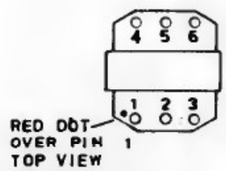
SEARS Silvertone RADIO CHASSIS NO. **132.42301** (Continued on next page.)



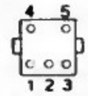


TRANSISTOR
(BOTTOM VIEW)





AUDIO DRIVER TRANSFORMER T4
(BOTTOM VIEW)

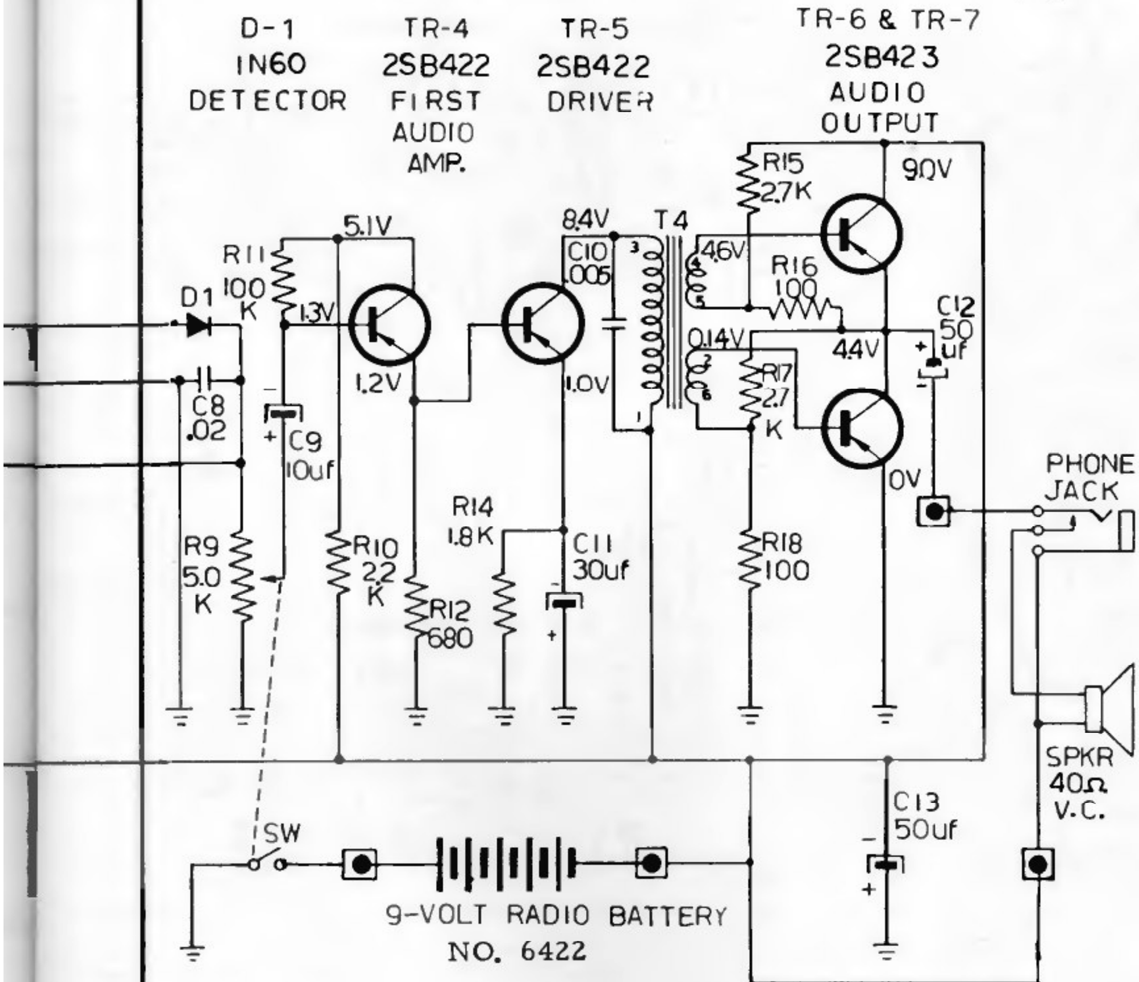


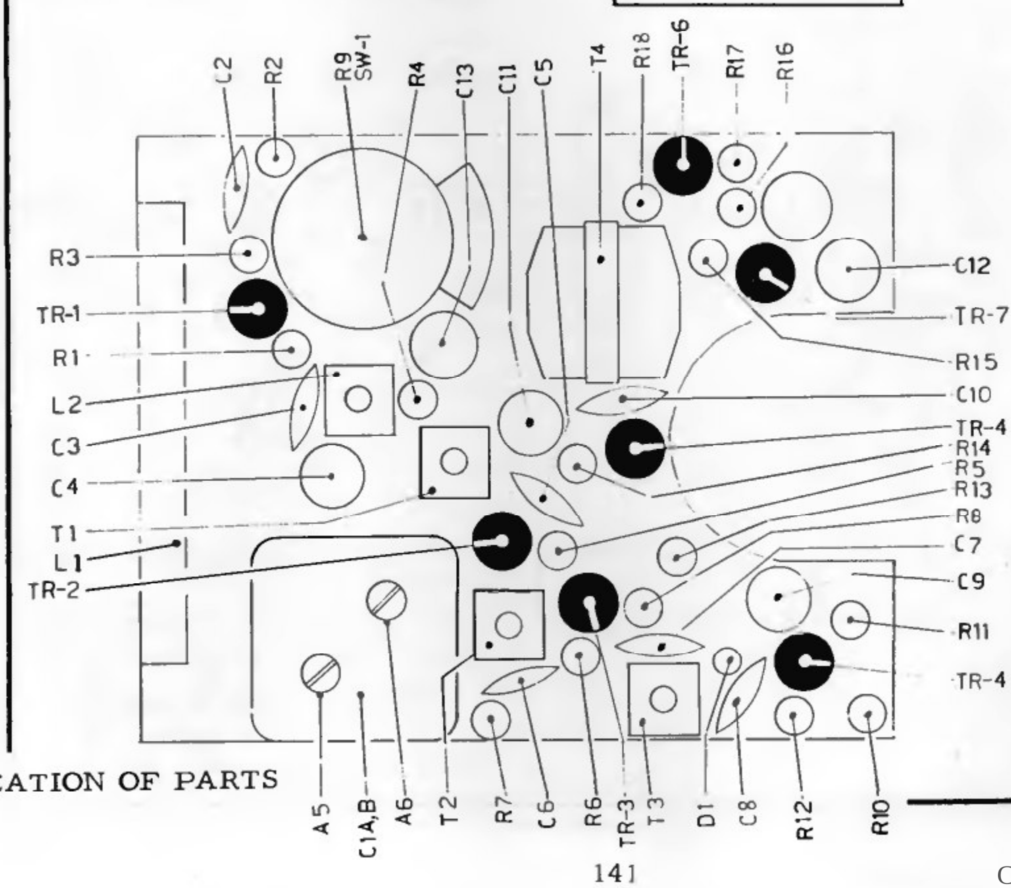
I. F. TRANSFORMER &
OSCILLATOR COIL
(BOTTOM VIEW)

USED IN RADIO MODEL
2203

CIRCUIT BOARD DIAGRAM (BOTTOM VIEW)

SEARS CHASSIS 132.42301 (Continued from preceding page.)
MODEL 2203



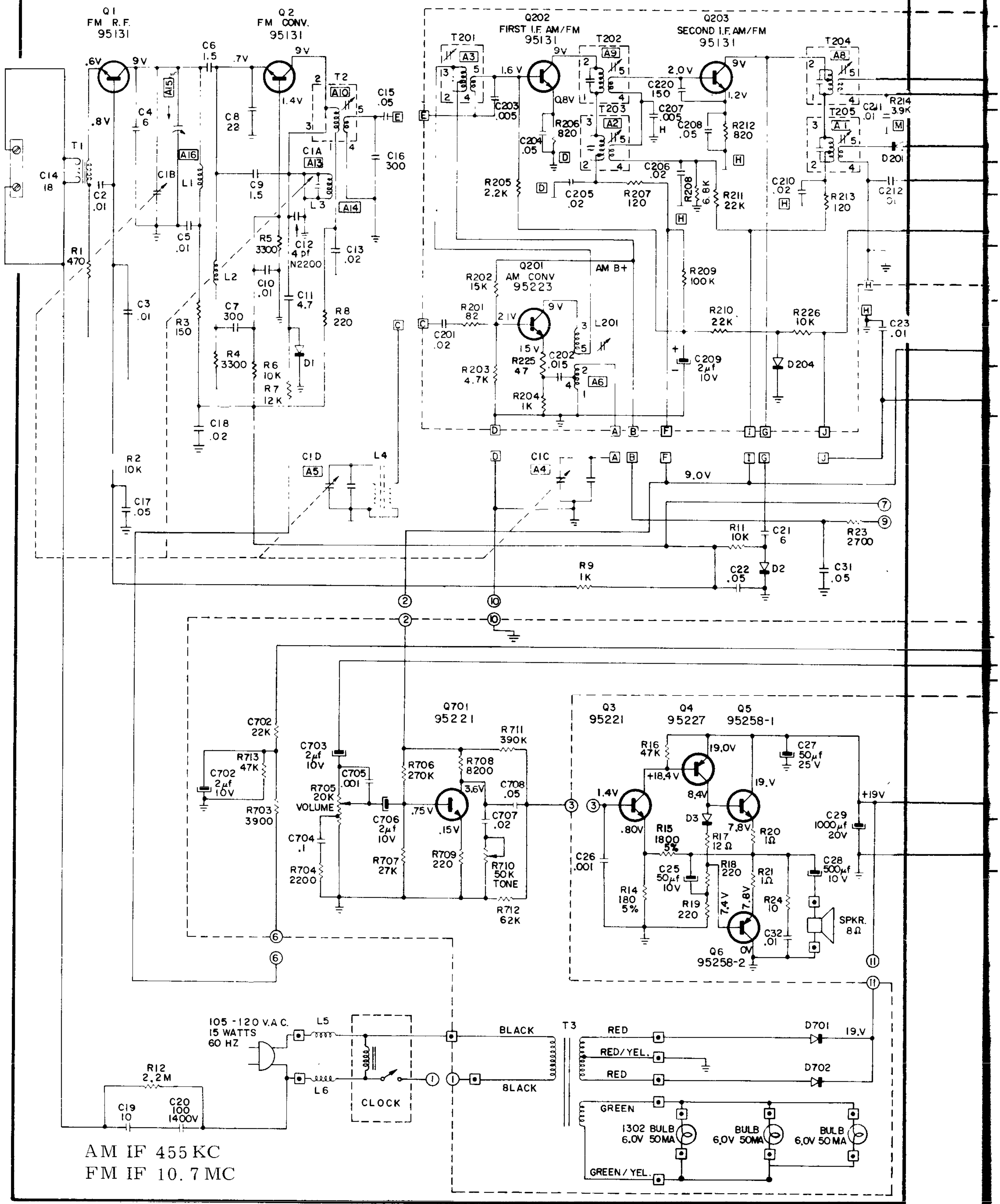


LOCATION OF PARTS

Position of Variable	Frequency of Generator	Dummy Antenna
Open	455 kHz	.05 mf.
Closed	530 kHz	
Open	1640 kHz	
1400 kHz	1400 kHz	
600 kHz	600 kHz	

⏚ = COMMON GROUND SYMBOL.
▣ = EXTERNAL CONNECTION TO PRINTED CIRCUIT.
RESISTANCE VALUES ARE IN OHMS: K=1000.
CAPACITANCE VALUES LESS THAN 1.0 ARE MICROFARADS (uf), AND VALUES GREATER THAN 1.0 ARE IN MICRO-MICROFARADS (pF) EXCEPT WHERE NOTED.
VOLTAGE READINGS TO COMMON GROUND ARE MEASURED WITH VACUUM TUBE VOLTMETER UNDER NO SIGNAL CONDITIONS WITH TUNING CAPACITOR CLOSED AND VOLUME CONTROL AT MINIMUM VOLUME POSITION. TOTAL BATTERY CURRENT DRAIN UNDER NO SIGNAL CONDITIONS, 8 TO 15 MA.

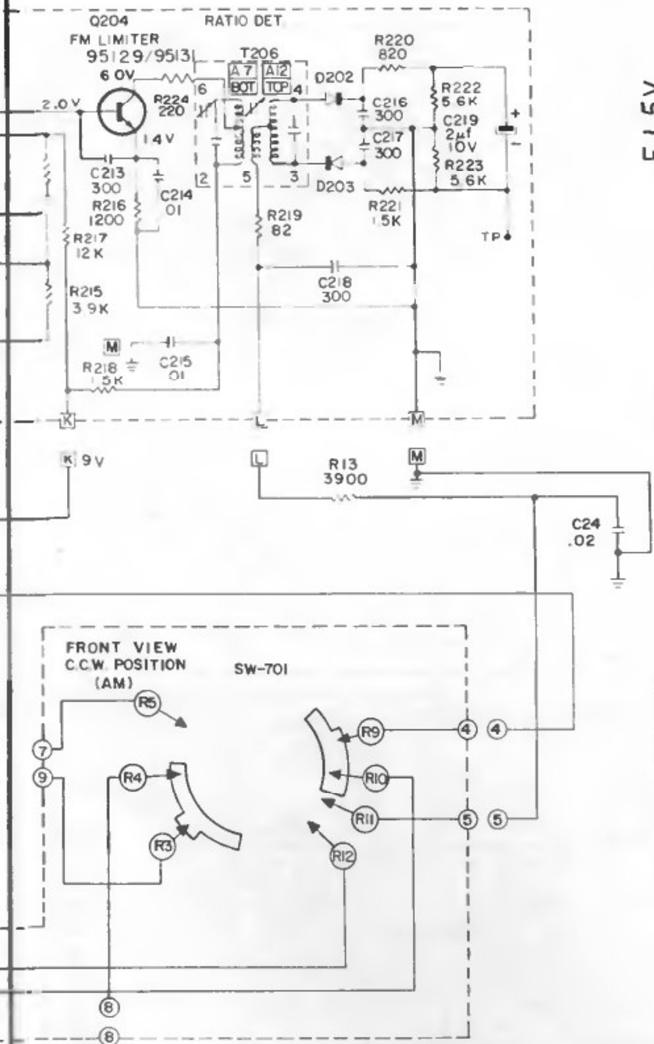
SEARS | Silvertone RADIO CHASSIS NO. 132.53701 MODEL 2097

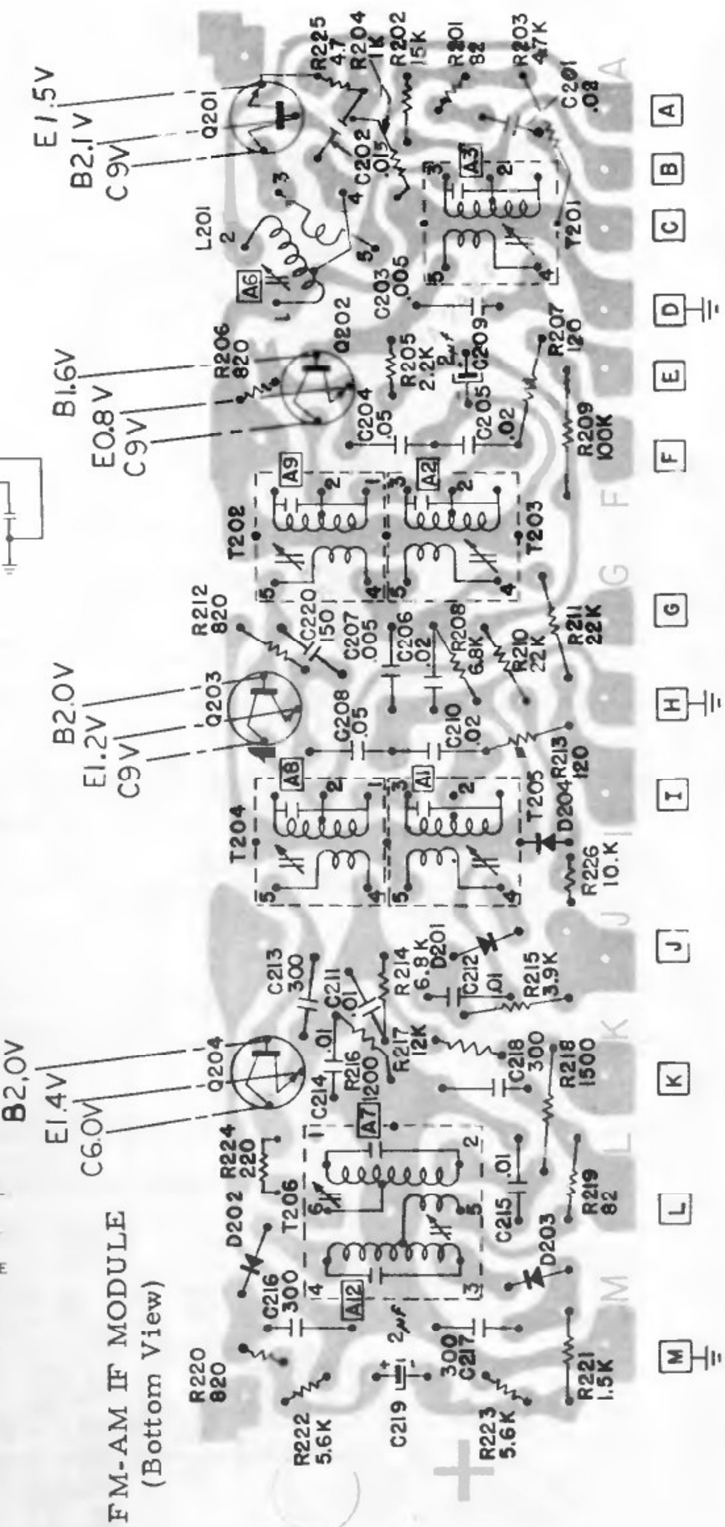


AM IF 455 KC
FM IF 10.7 MC

(Continued on next page.)

(Continued from preceding page.)

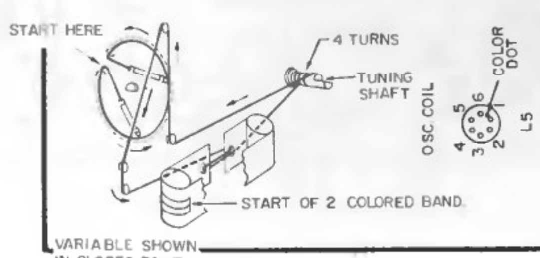




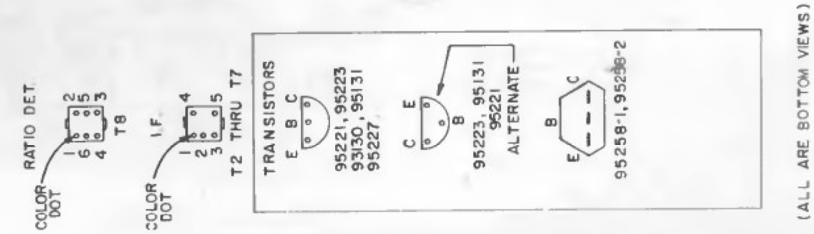
FM-AM IF MODULE (Bottom View)

NOTES

1. RESISTANCE VALUES ARE IN OHMS K = 1000, M = MEG.
2. ALL RESISTORS 10% AND 1/2 WATT UNLESS OTHERWISE SPECIFIED.
3. ALL VOLTAGES MEASURED WITH A V.T.V.M. WITH NO SIGNAL.
4. ALL VOLTAGES MEASURED FROM B− GROUND ⏚
5. ALL CAPACITORS 25 VOLTS UNLESS OTHERWISE SPECIFIED.
6. CAPACITANCE VALUES LISTED IN DECIMALS ARE IN MICROFARADS (μf) AND VALUES GREATER THAN 1.0 ARE PICOFARADS (pF) UNLESS OTHERWISE SPECIFIED.
7. ⏚ = COMMON GROUND SYMBOL.
8. [A] = I F MODULE BOARD TO CARRIER BOARD CONNECTION.
9. (1) = CONTROL BOARD CONNECTION TO CARRIER BOARD.
10. △ = TERMINAL STRIP CONNECTION.
11. ⊐ = OFF BOARD CONNECTIONS.
12. COMPONENT NUMBERS 1 TO 99 ARE LOCATED ON CARRIER BOARD.
13. COMPONENT NUMBERS 201 TO 299 ARE LOCATED ON I.F. MODULE.
14. COMPONENT NUMBERS 701 TO 799 ARE LOCATED ON CONTROL BOARD.

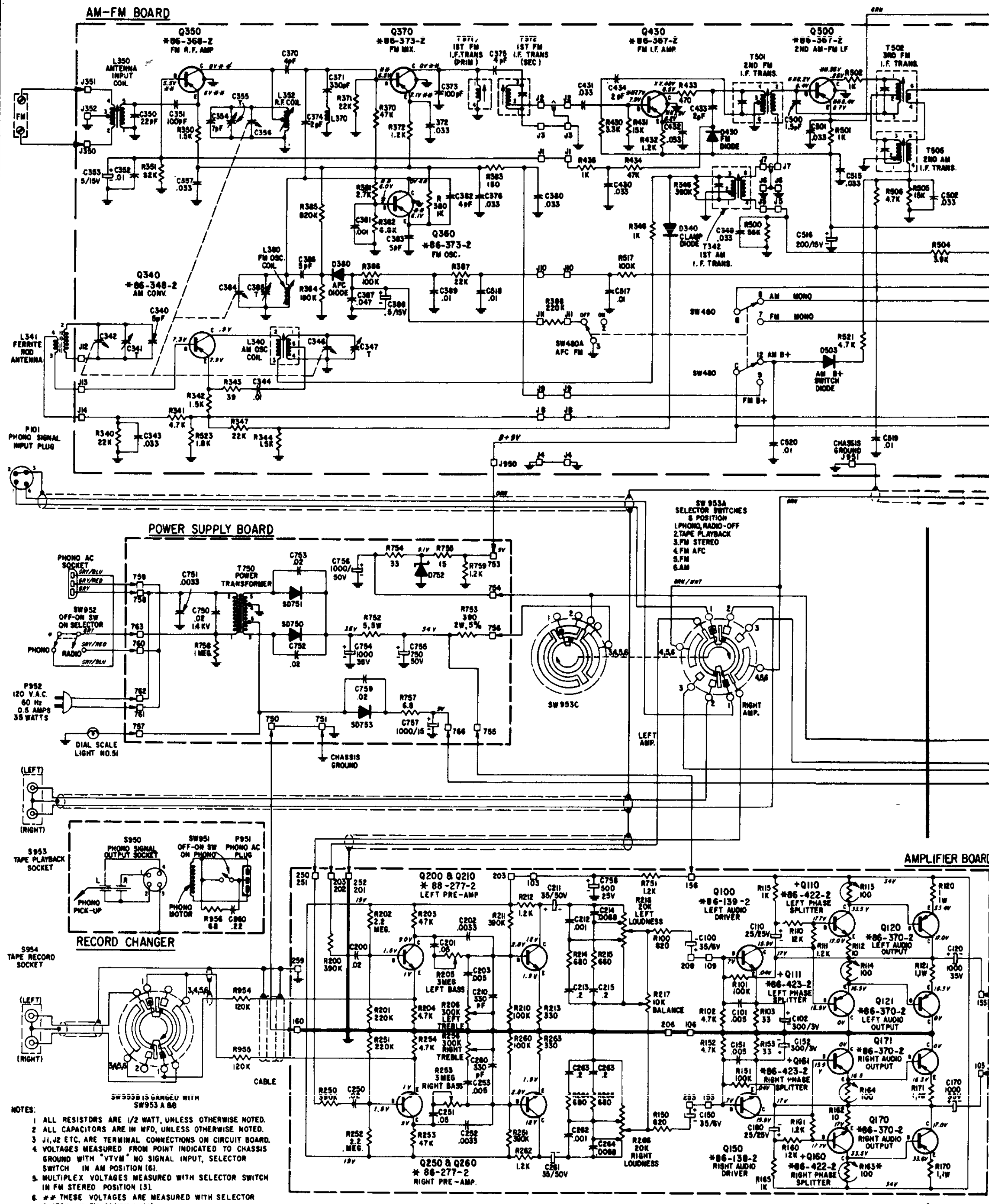


STRINGING DIAGRAM



(ALL ARE BOTTOM VIEWS)

SEARS, ROEBUCK and CO. **CHASSIS NO. 528.64330** Models: 3060, 3061, 3062



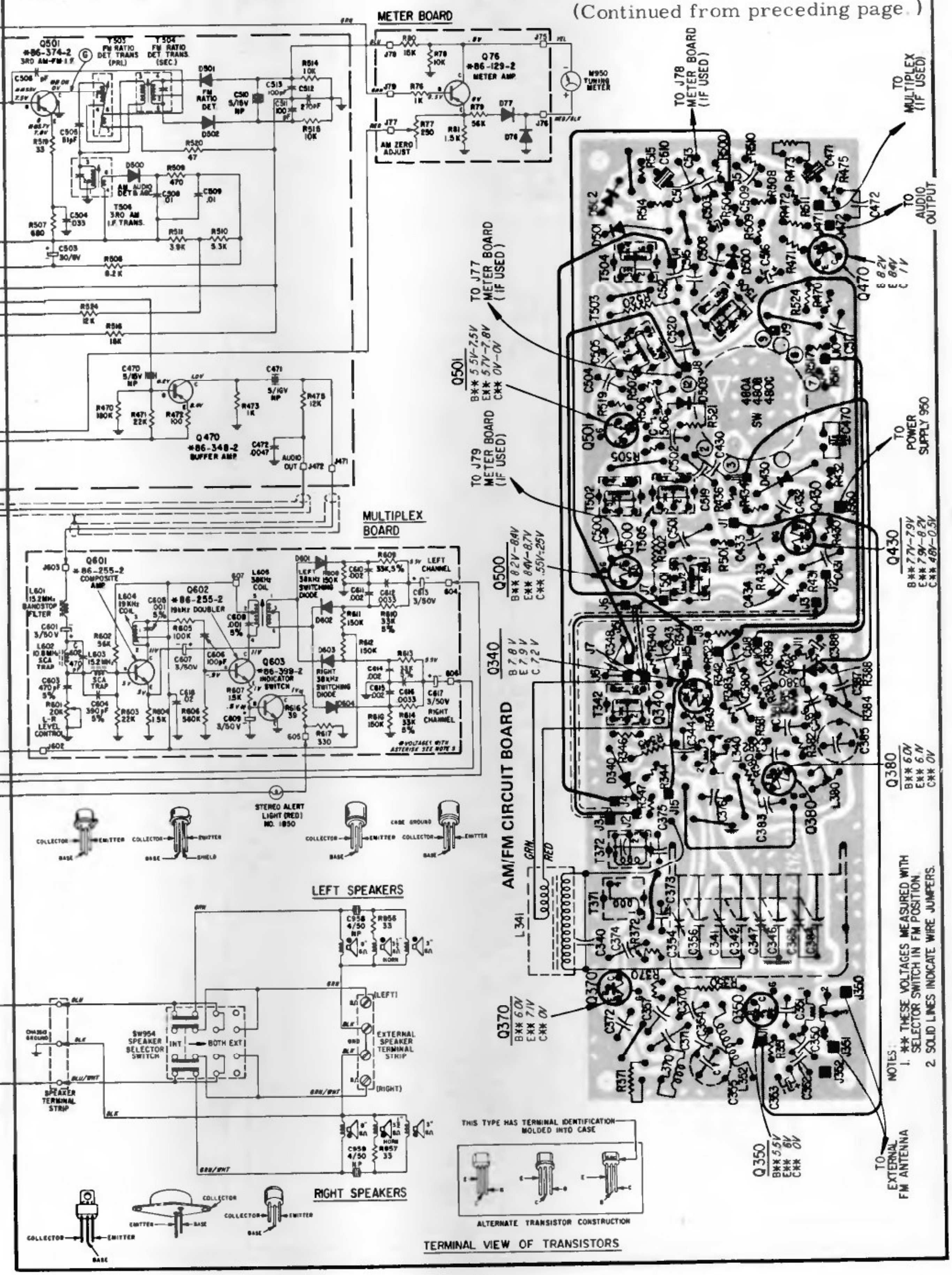
NOTES:

1. ALL RESISTORS ARE 1/2 WATT, UNLESS OTHERWISE NOTED.
2. ALL CAPACITORS ARE IN MFD, UNLESS OTHERWISE NOTED.
3. J1, J2 ETC, ARE TERMINAL CONNECTIONS ON CIRCUIT BOARD.
4. VOLTAGES MEASURED FROM POINT INDICATED TO CHASSIS GROUND WITH "VTVM" NO SIGNAL INPUT, SELECTOR SWITCH IN AM POSITION (6).
5. MULTIPLEX VOLTAGES MEASURED WITH SELECTOR SWITCH IN FM STEREO POSITION (3).
6. ## THESE VOLTAGES ARE MEASURED WITH SELECTOR SWITCH IN FM POSITION (4)
7. VOLTAGE TOLERANCES MAY VARY ±10%
8. DOT ON SPEAKER INDICATES POLARITY.
9. SW 480, SW953 SELECTOR SWITCHES SHOWN IN PHONO, RADIO-OFF POSITION (1), AND ARE MECHANICALLY GANGED.

(Continued on next page.)

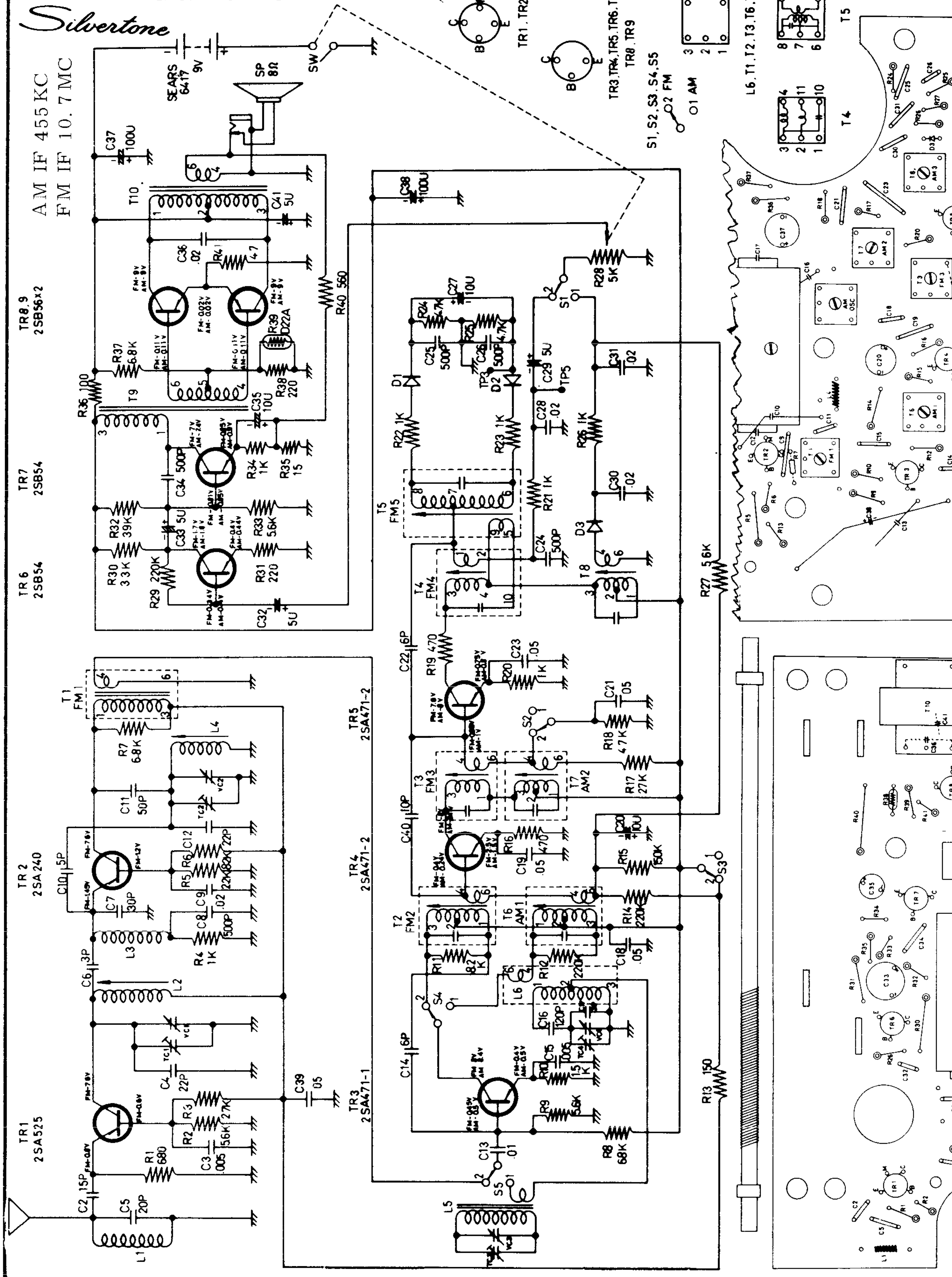
SEARS, ROEBUCK and CO. CHASSIS NO. 528.64330 **MODELS:** 3060, 3061, 3062

(Continued from preceding page.)



SEARS CHASSIS 132.41801
MODEL 2263

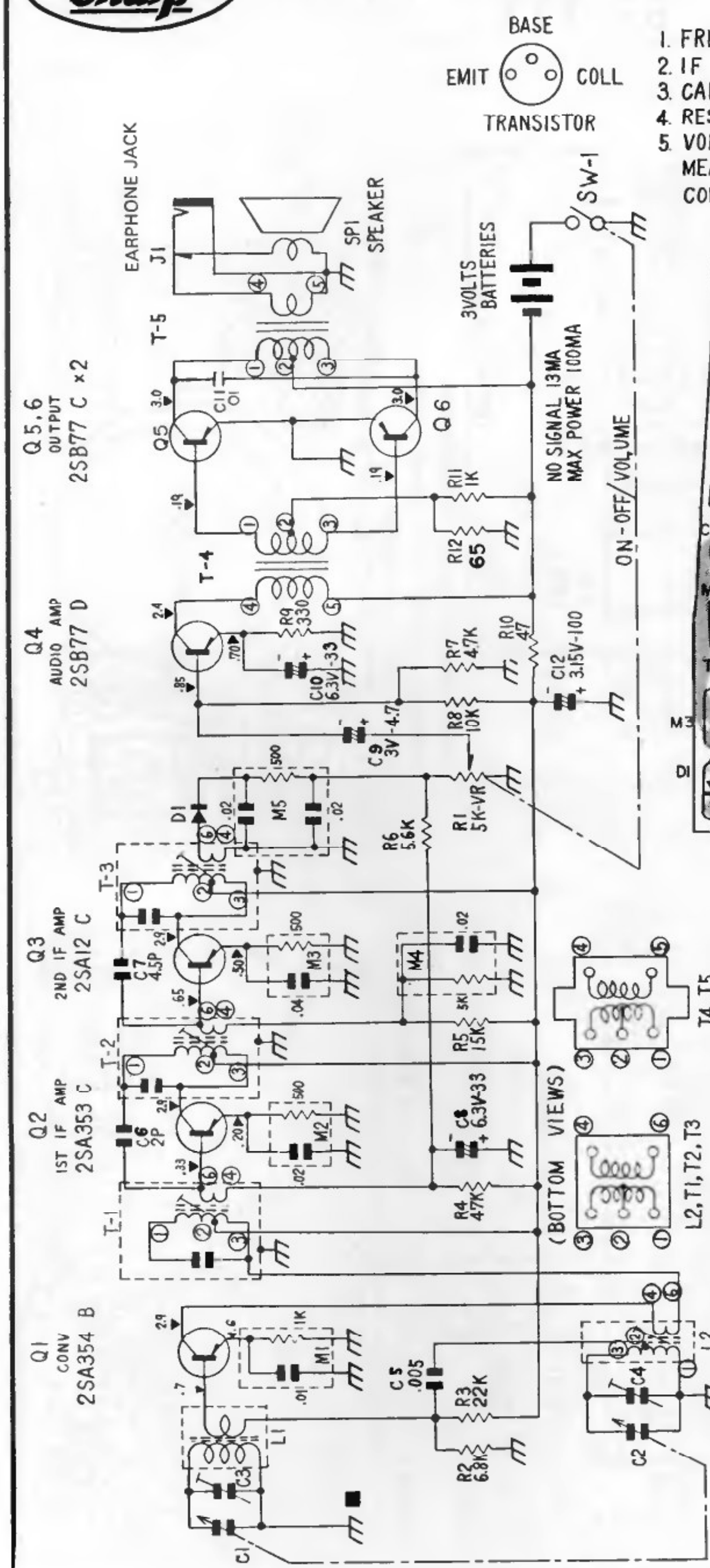
Silvertone

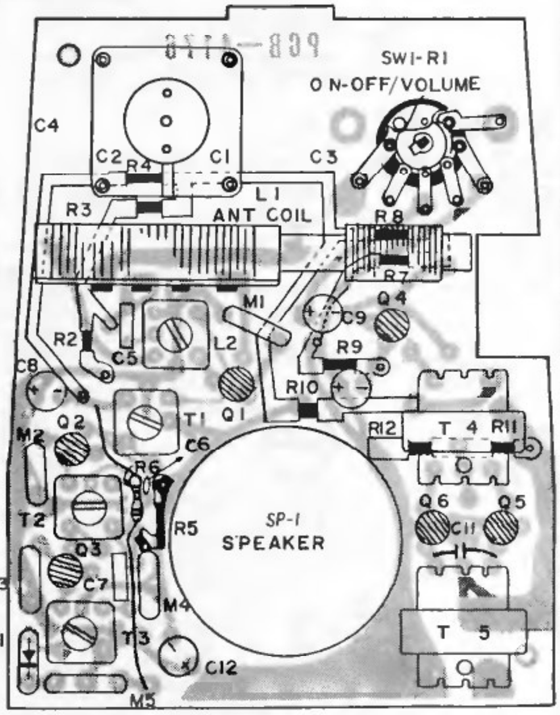


Sharp MODEL BP-110

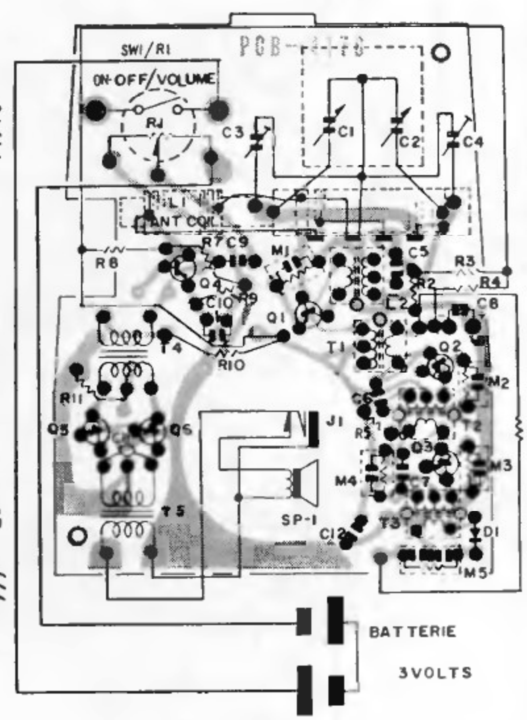
NOTES

1. FREQ. RANGE MW 520-1650kHz
2. IF 455kHz
3. CAPACITANCE VALUES ARE IN MFD P:MMFD
4. RESISTANCE VALUES ARE IN OHMS K:1000
5. VOLTAGE READINGS TO COMMON GROUND(+) ARE MEASURED WITH V·T·V·M UNDER NO SIGNAL CONDITIONS



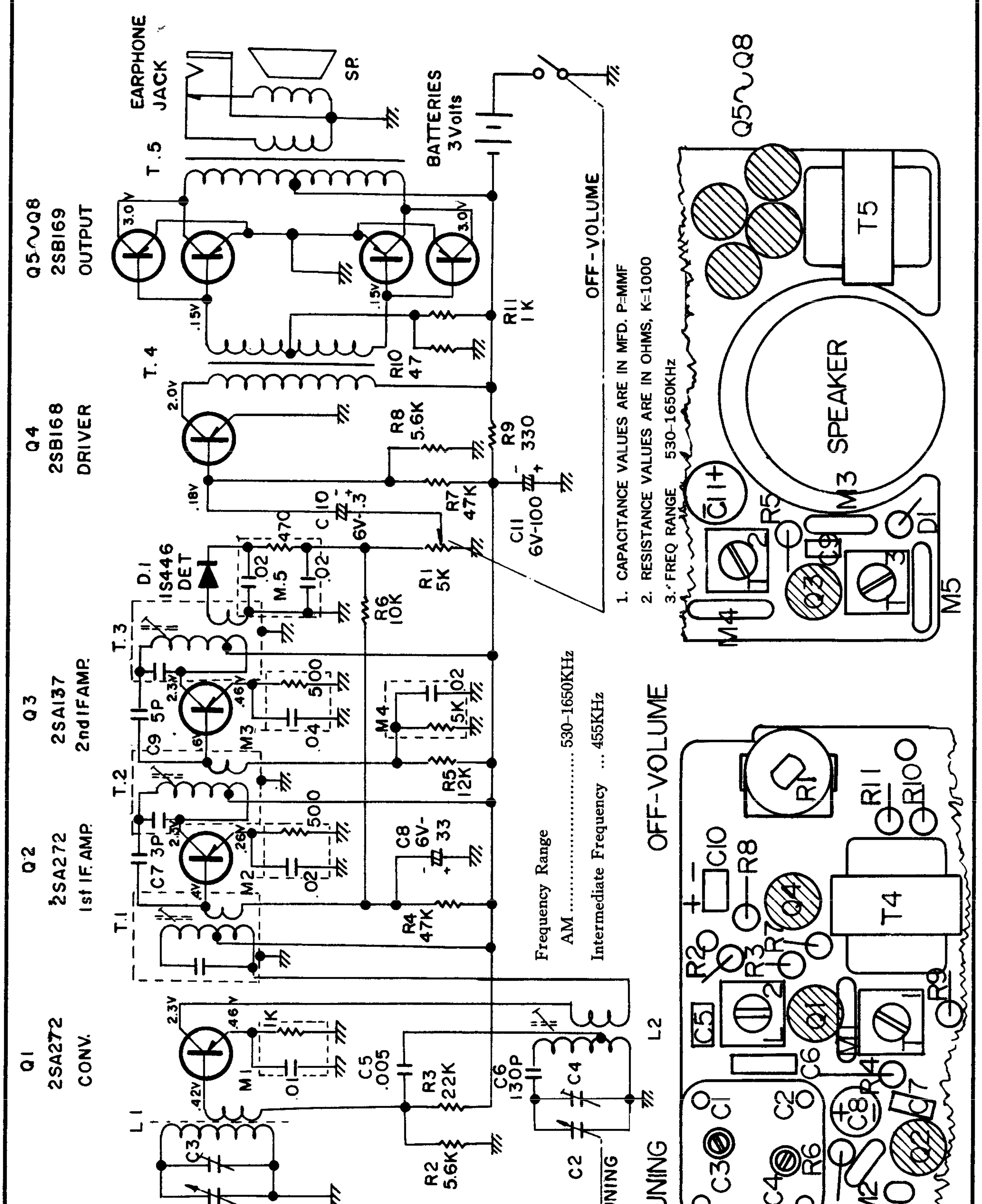


Component Side of Printed Circuit Board

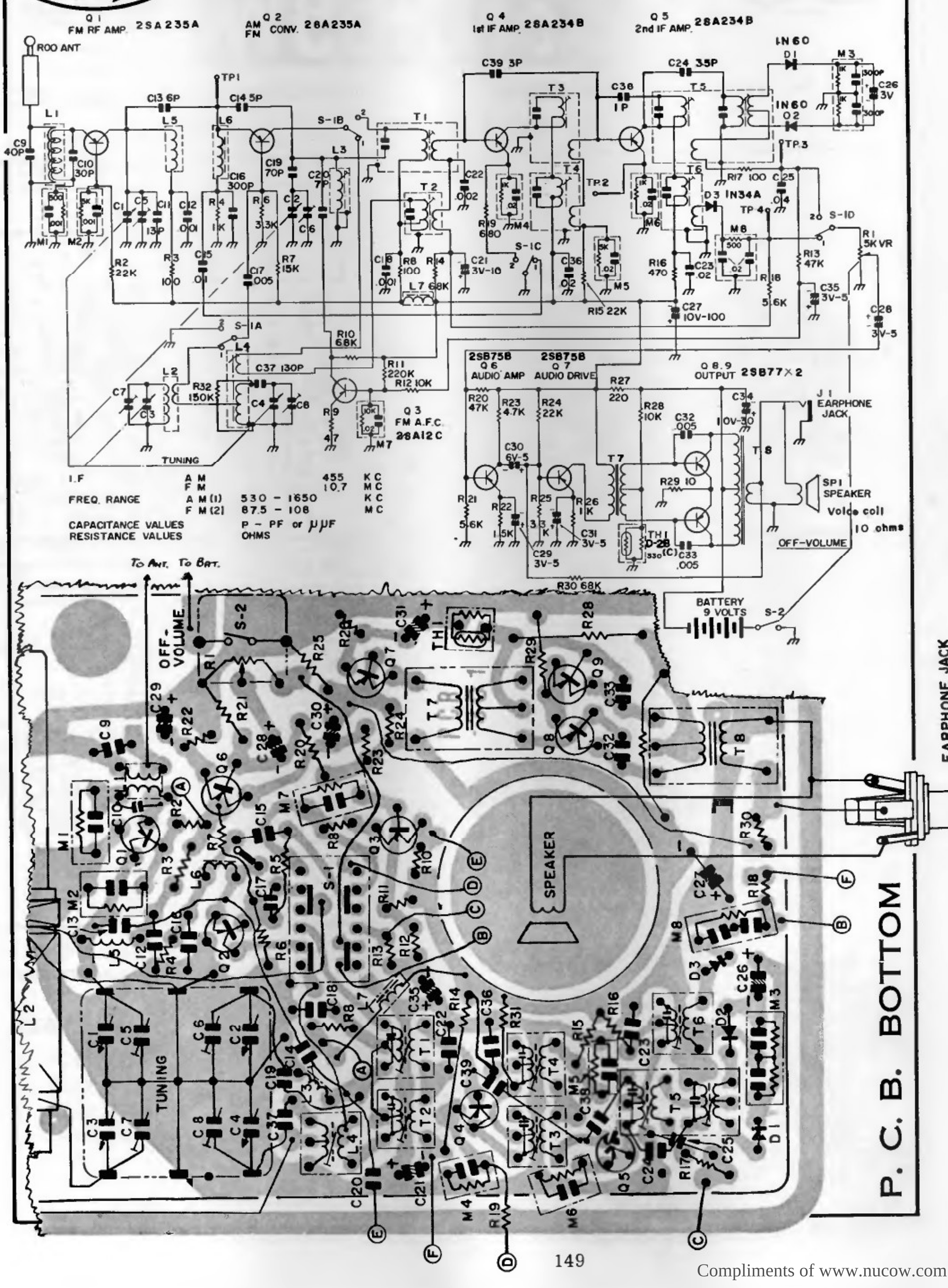


Wiring Side of Printed Circuit Board

Sharp MODEL BP-111



Sharp MODEL FX-111A

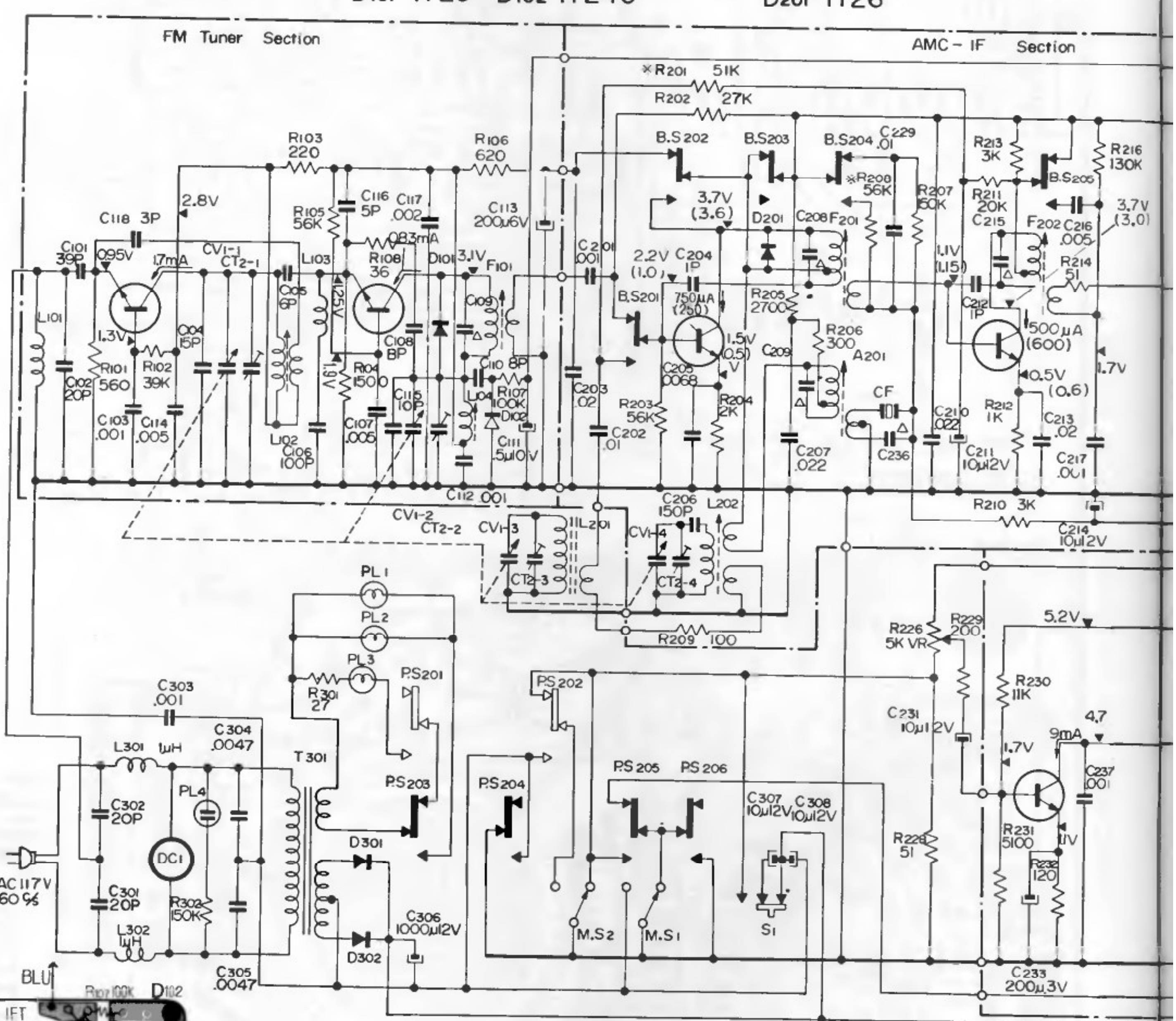


SONY 8FC-69W

(Continued on next page.)

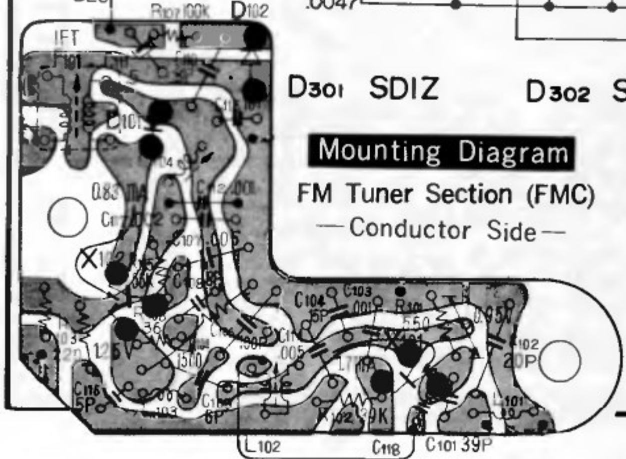
X101 2SC629 X102 2SC629 X201 2SC403A X202 2SC403A

D101 IT26 D102 IT240 D201 IT26



D301 SDIZ D302 SDIZ

X204 2SC633

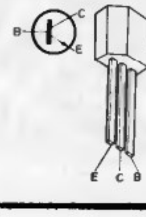


Mounting Diagram

FM Tuner Section (FMC)

—Conductor Side—

X101 2SC629
X102 2SC629



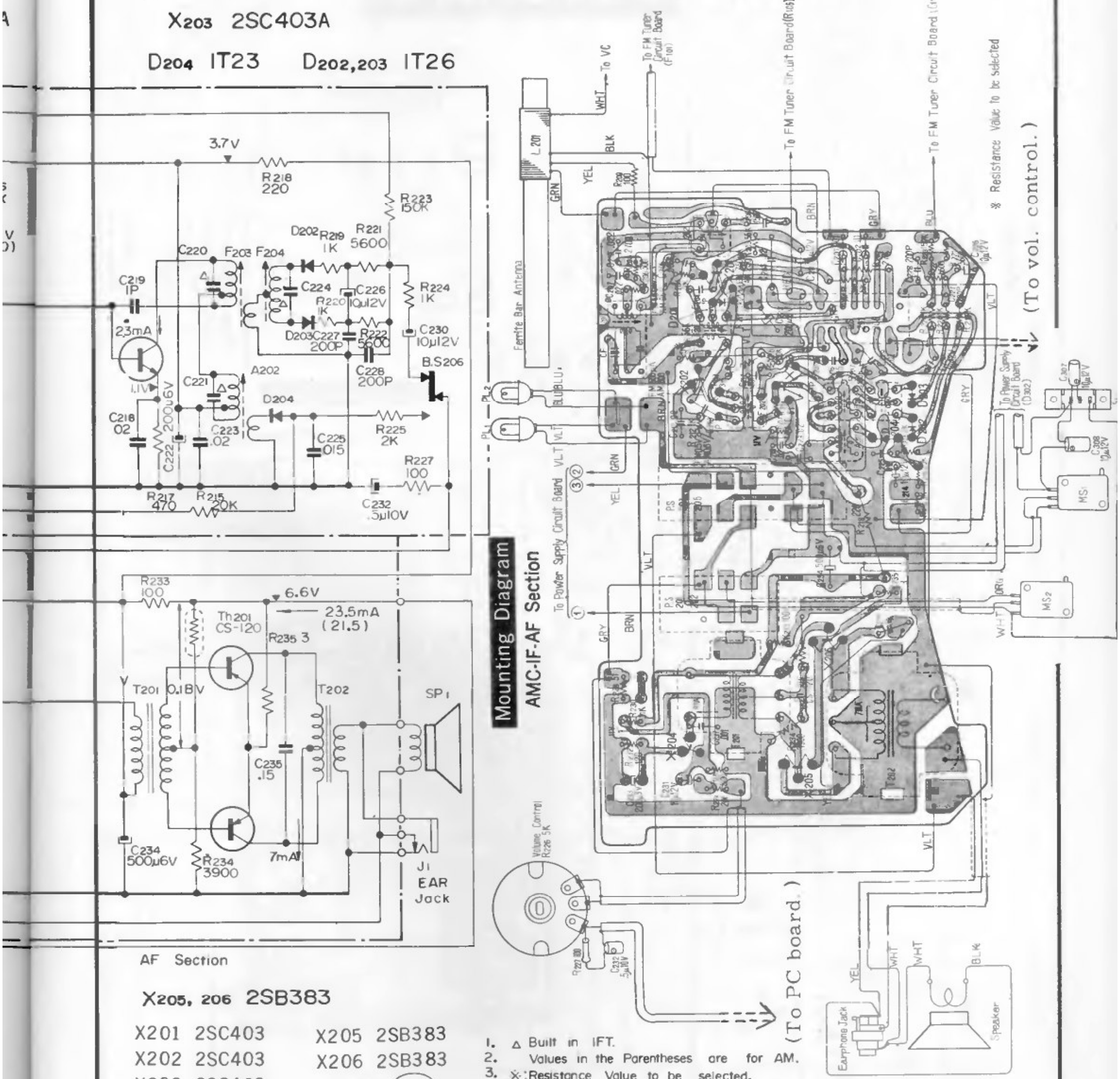
D102 IT−240

SONY 8FC-69W

(Continued from preceding page.)

X203 2SC403A

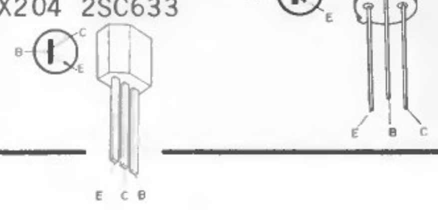
D204 IT23 D202,203 IT26



X205, 206 2SB383

X201 2SC403
X202 2SC403
X203 2SC403
X204 2SC633

X205 2SB383
X206 2SB383

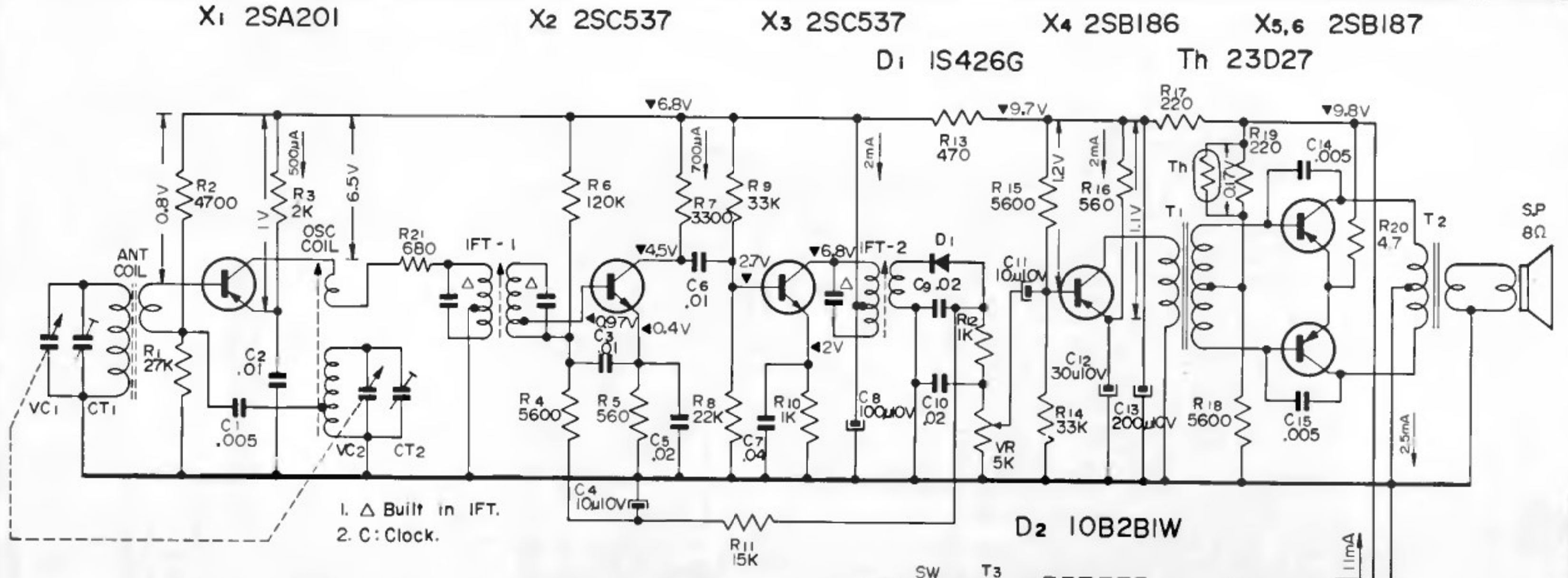


1. △ Built in IFT.
2. Values in the Parentheses are for AM.
3. ※:Resistance Value to be selected.
4. B.S 201-206 : Band Setting Switch.
5. FM Band Setting Switch shown is set to FM position.

   AM ▶
6. P.S 201-202 : Automatic Switch.
7. P.S 203-206 : Manual Switch.

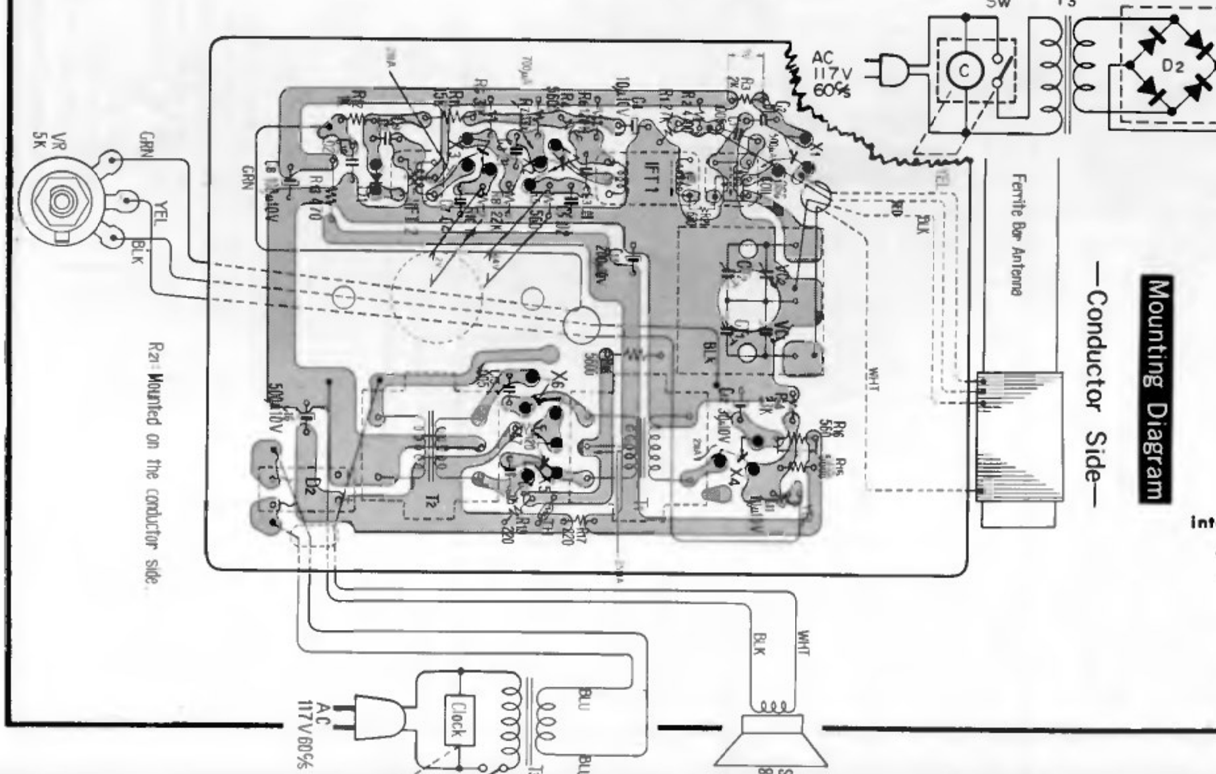
Intermediate Frequency: FM 10.7 Mc AM 455 Kc

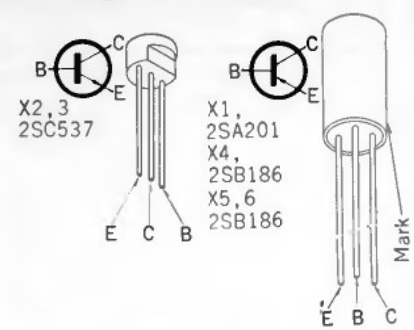
SONY 6RC-23



Mounting Diagram

—Conductor Side—

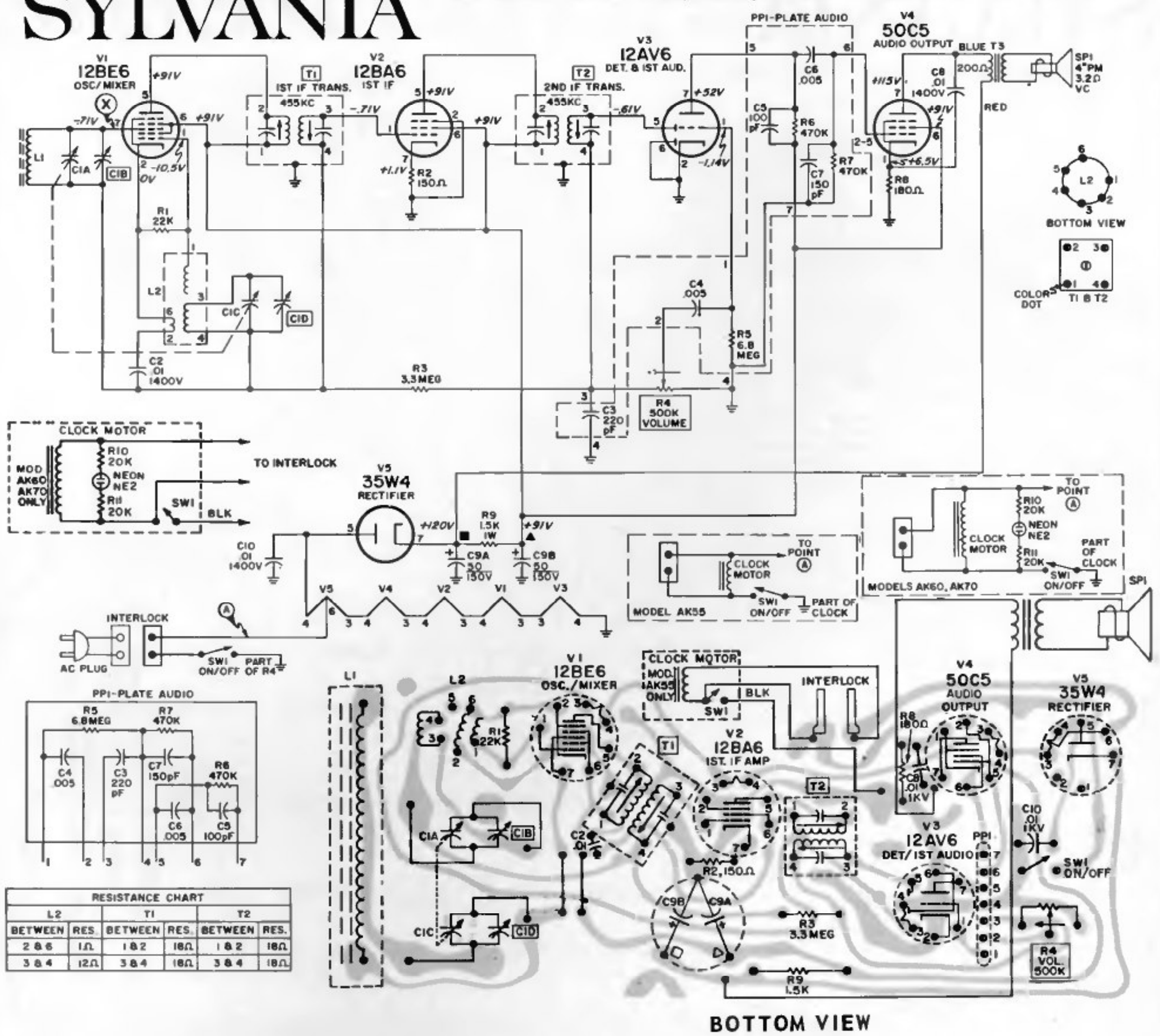




Antenna System: Built-in Ferrite Bar Antenna
Intermediate Frequency: 455 Kc
Maximum Sensitivity: 100 μV/m
(at 50mW output)
Selectivity: 20 dB at 10 Kc off resonance, at 1,400 Kc
Power Output: 300 mW (undistorted)
450 mW (maximum)
Speaker: 2½" (60mm) PM dynamic, impedance 8Ω
Power Requirement: AC 110~120V, 60 c/s, 5 W

SYLVANIA

MODELS: AK55, AK60, AK70, AT50 Chassis U50-3, 4, 6



RESISTANCE CHART

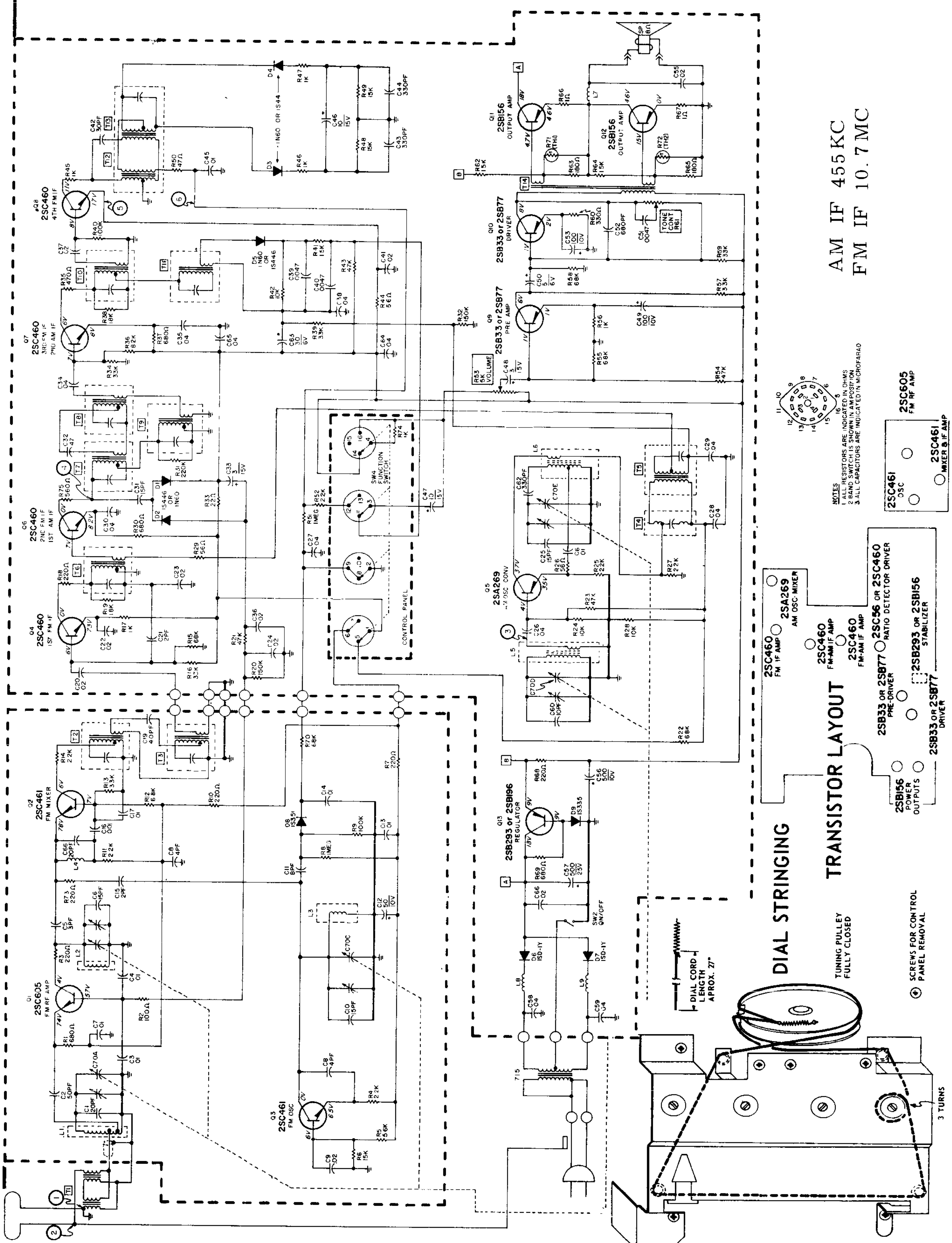
L2 BETWEEN	L2 RES.	T1 BETWEEN	T1 RES.	T2 BETWEEN	T2 RES.
2 & 6	1Ω	1 & 2	18Ω	1 & 2	18Ω
3 & 4	12Ω	3 & 4	18Ω	3 & 4	18Ω

BOTTOM VIEW

STEP	TUNING CAPACITOR SETTING	TEST EQUIPMENT HOOK-UP	GENERATOR FREQUENCY	ADJUSTMENT POINT	ADJUST FOR
1	Fully open	SIGNAL GENERATOR - "Hot" lead thru a 200pF capacitor to test point X. Ground lead to chassis AC VOLTMETER - Across speaker voice coil.	455 KC 400 CPS 30% MOD.	T2 Bottom Core T2 Top Core T1 Bottom Core T1 Top Core	Maximum Meter Reading
2	Same as Step 1	SIGNAL GENERATOR - Radiate signal to receiver thru a loop of several turns of wire. AC VOLTMETER - Same as Step 1.	1625 KC 400 CPS. 30% MOD.	C1D Trimmer	Maximum Meter Reading
3	1400 KC	Same as Step 2	Set generator to a frequency corresponding to receiver tuning capacitor setting (until signal is heard thru receiver speaker).	C1B Trimmer	Maximum Meter Reading

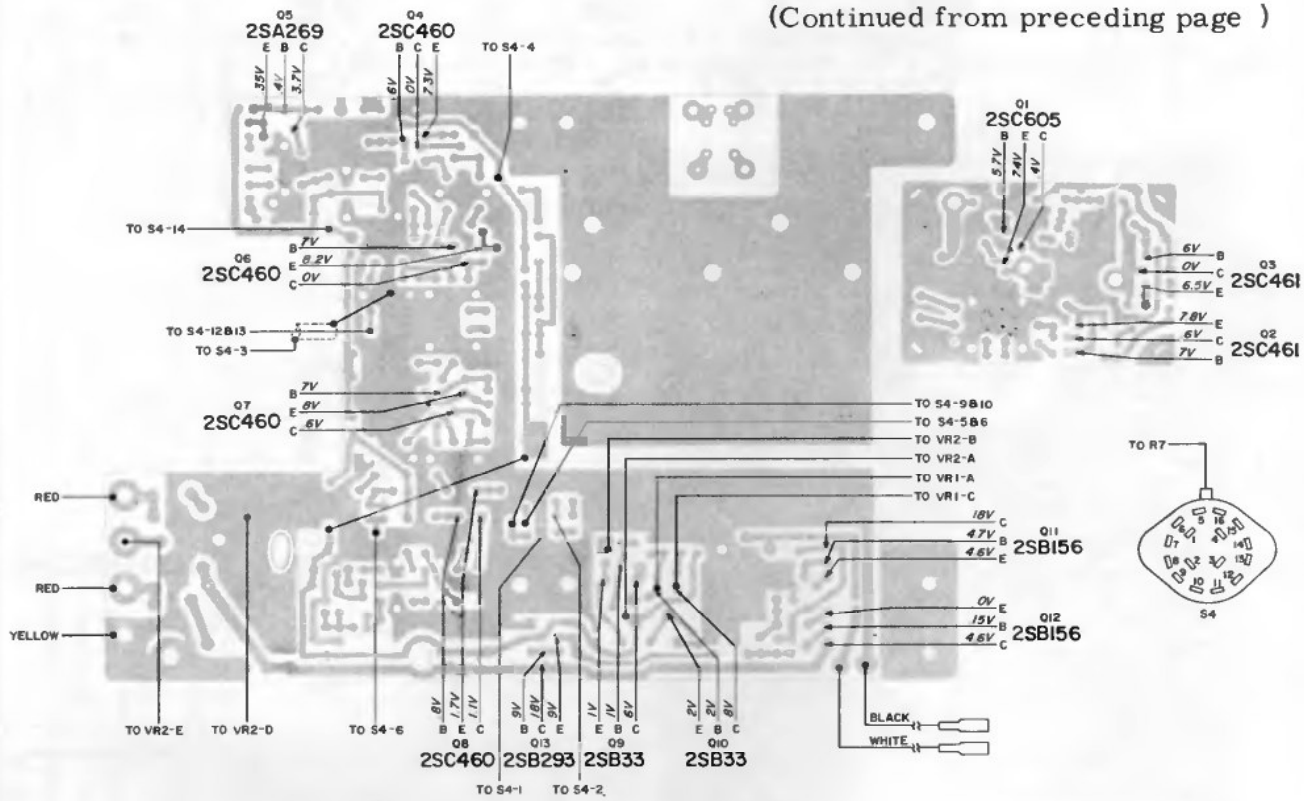
SYLVANIA

MODELS: BT44, BT46, BK54, BK56 (Continued on next page.)

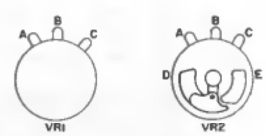


SYLVANIA MODELS: BT44, BT46, BK54, BK56

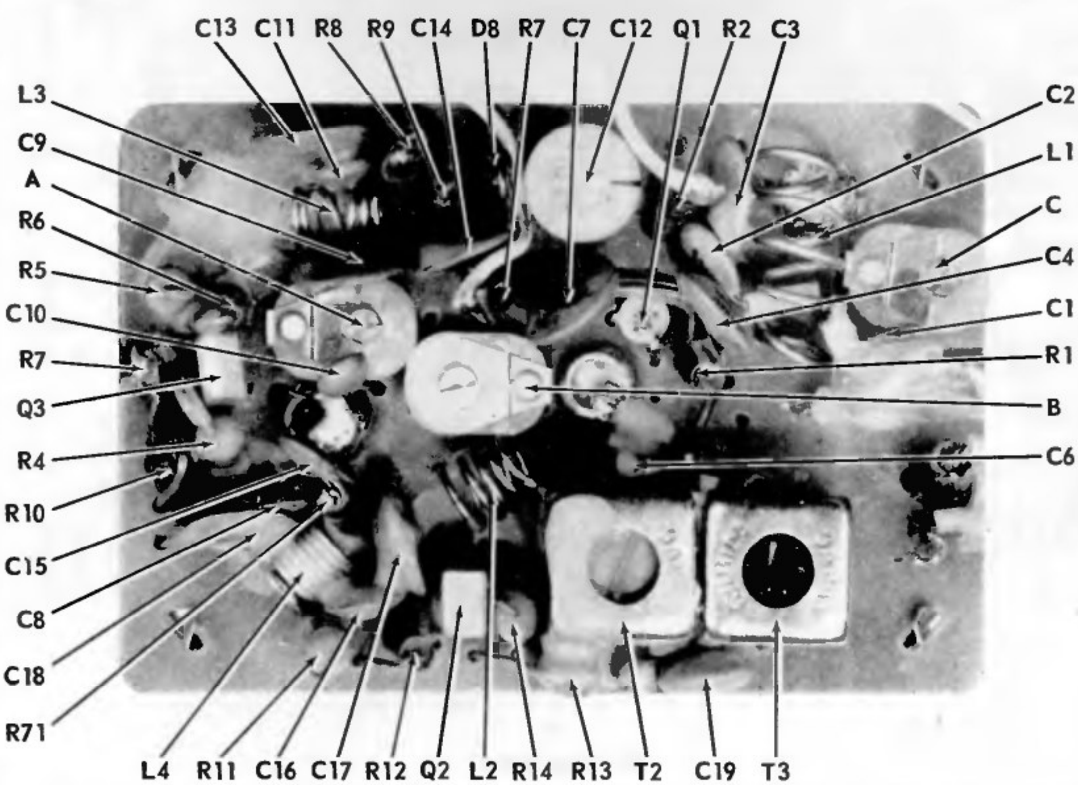
(Continued from preceding page)



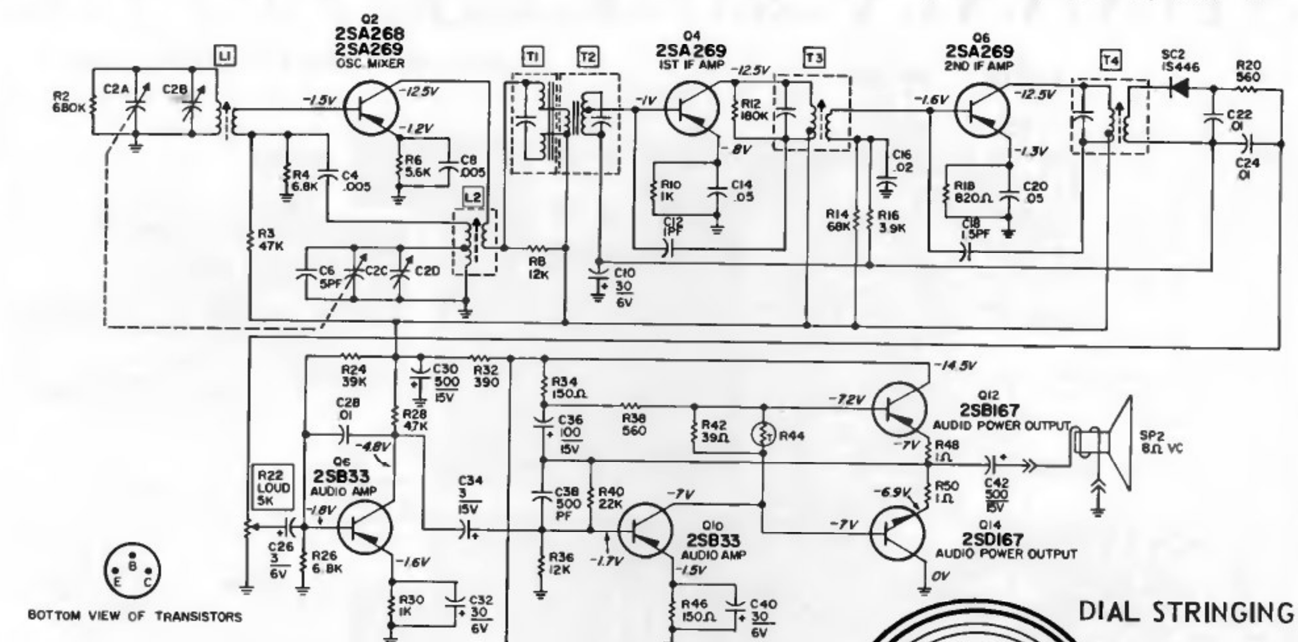
PRINTED PANEL ASSEMBLY BOTTOM VIEW

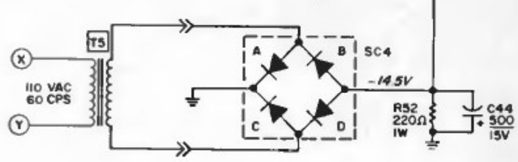


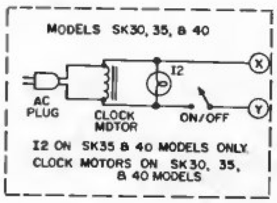
TOP PARTS LAYOUT - RF BOARD



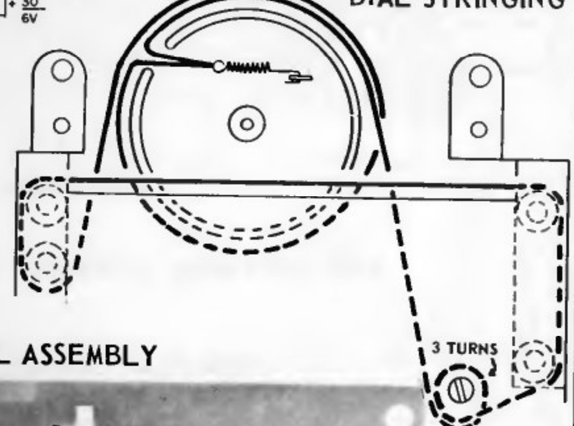
SYLVANIA Models SK30, SK35, SK40, ST10; Chassis 354-1, 355-1, 358-1, 359-1



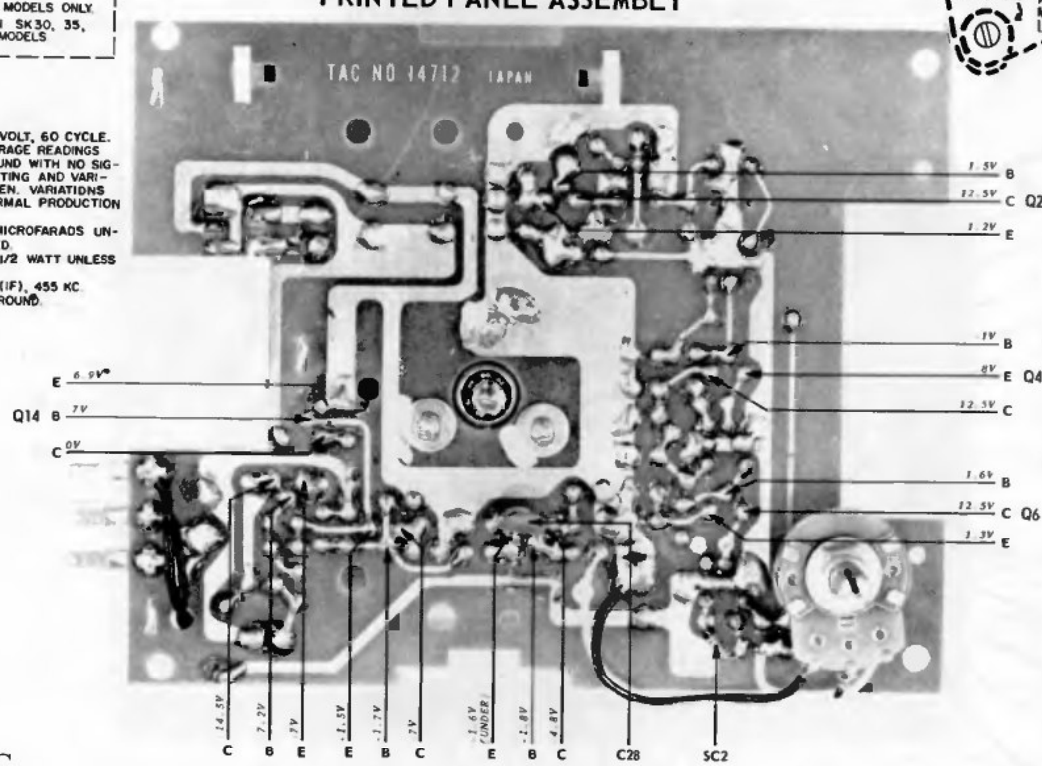




DIAL STRINGING



PRINTED PANEL ASSEMBLY



BOTTOM VIEW

SCHEMATIC NOTES

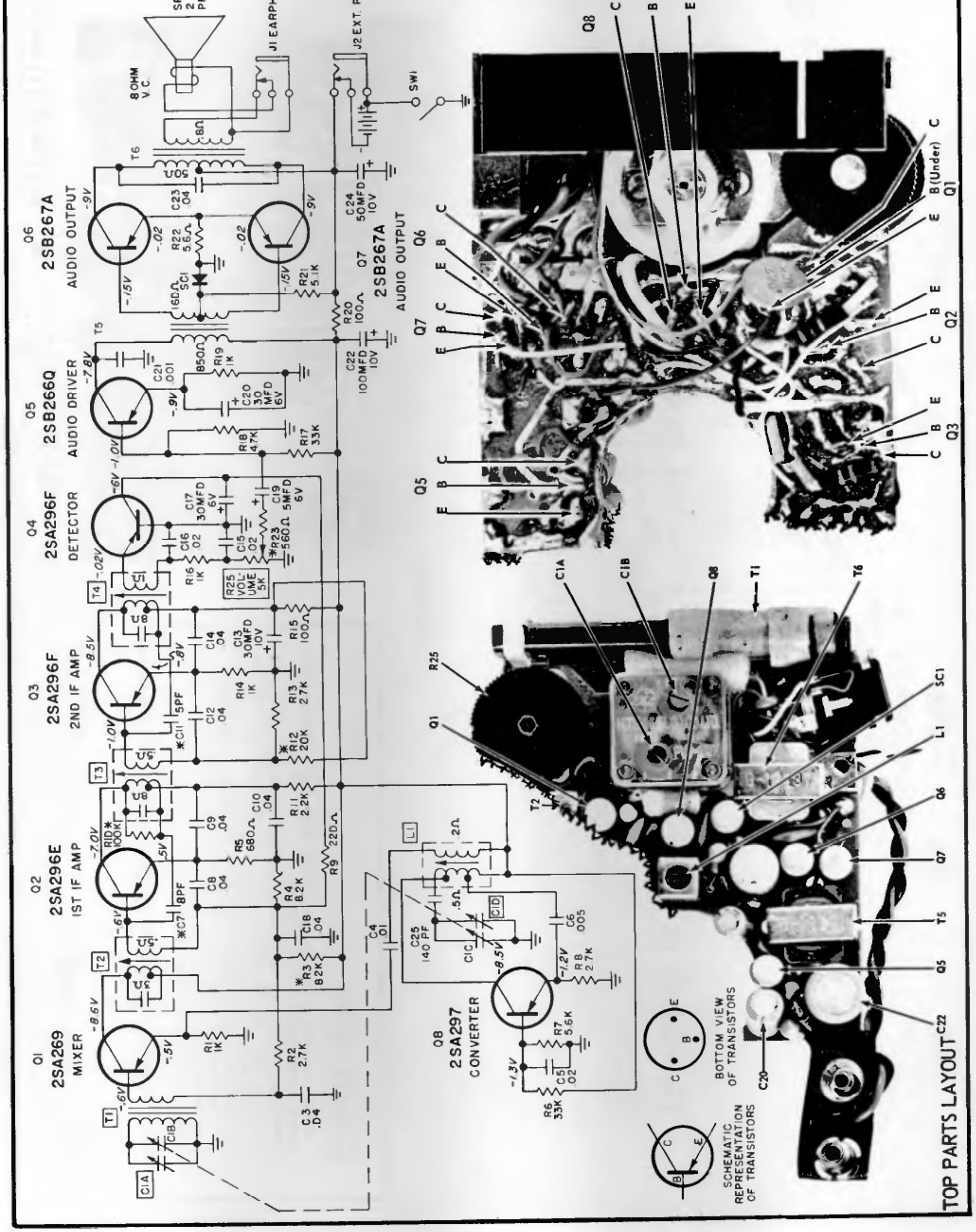
1. LINE VOLTAGE SET AT 120 VOLT, 60 CYCLE.
2. VOLTAGES SHOWN ARE AVERAGE READINGS MEASURED TO CHASSIS GROUND WITH NO SIGNAL, MINIMUM VOLUME SETTING AND VARIABLE CAPACITOR FULLY OPEN. VARIATIONS MAY BE NOTED DUE TO NORMAL PRODUCTION TOLERANCES.
3. ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
4. ALL RESISTORS ARE 10%, 1/2 WATT UNLESS OTHERWISE SPECIFIED.
5. INTERMEDIATE FREQUENCY (IF), 455 KC.
6. ⏚ DESIGNATES CHASSIS GROUND.

IF 455 KC

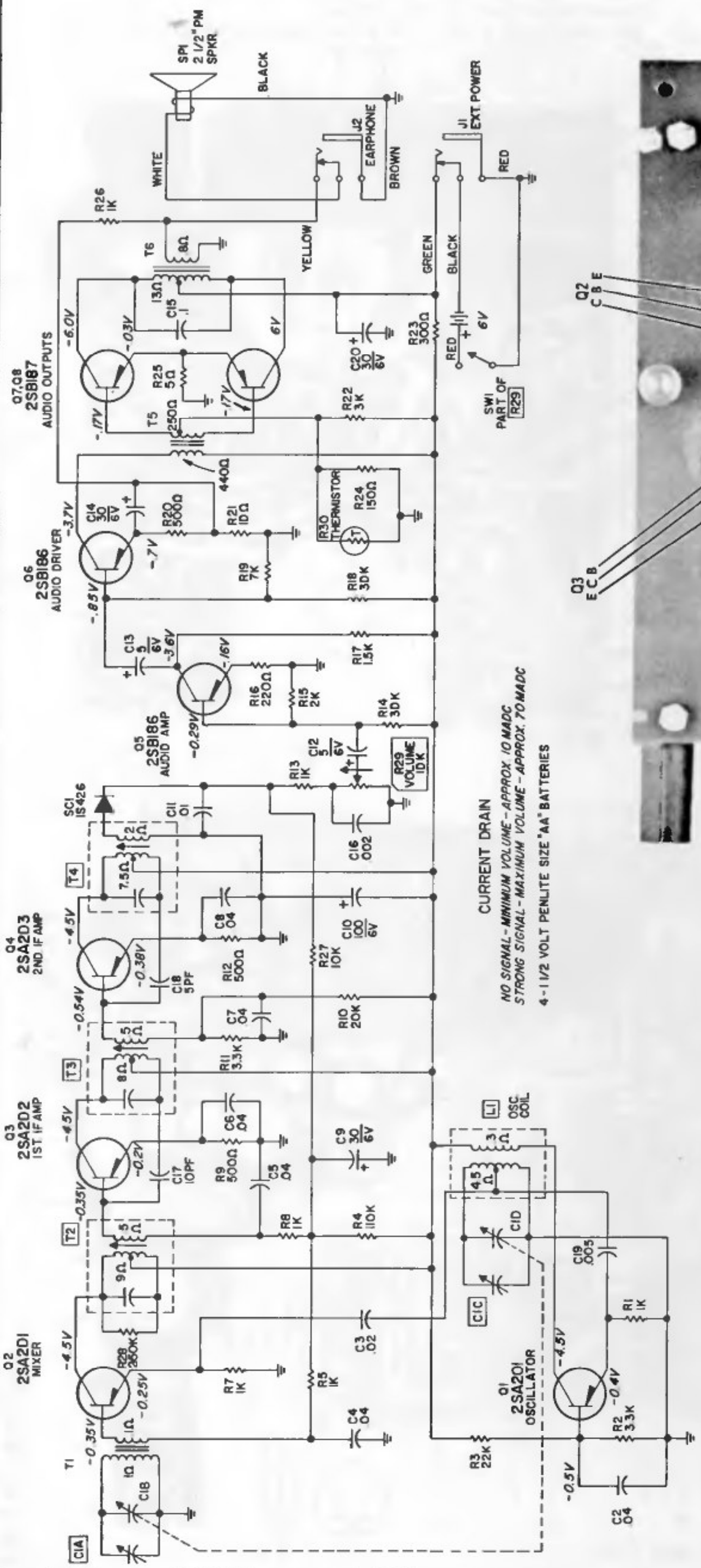
SYLVANIA

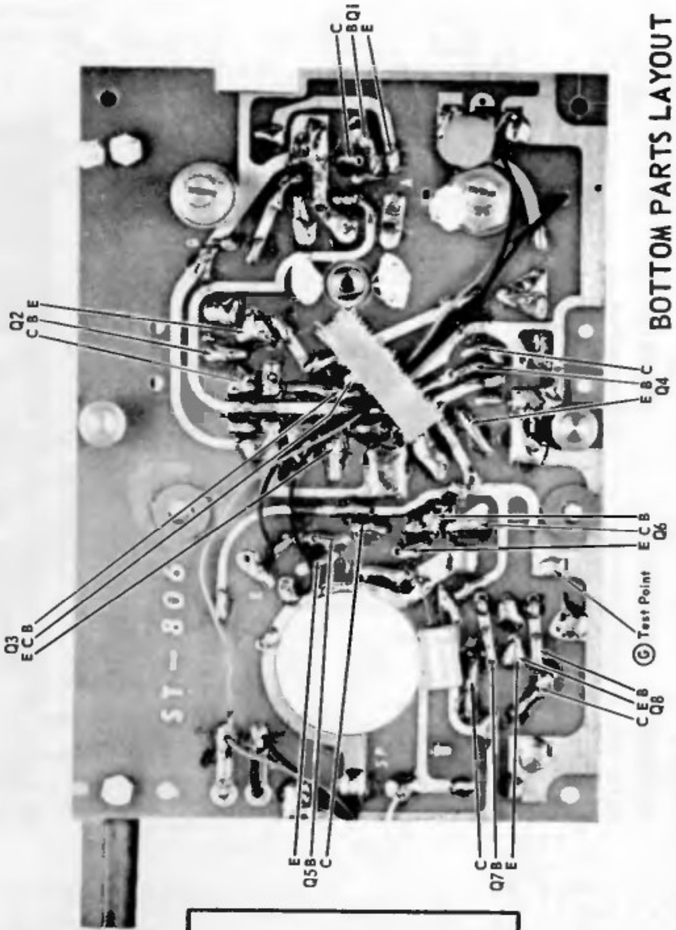
Model TR74; Chassis 328-2

All capacitors in microfarads unless otherwise specified.
Intermediate frequency (IF), 455 KC.
All resistors are 1/4W - 10% unless otherwise specified.



SYLVANIA Model TR106





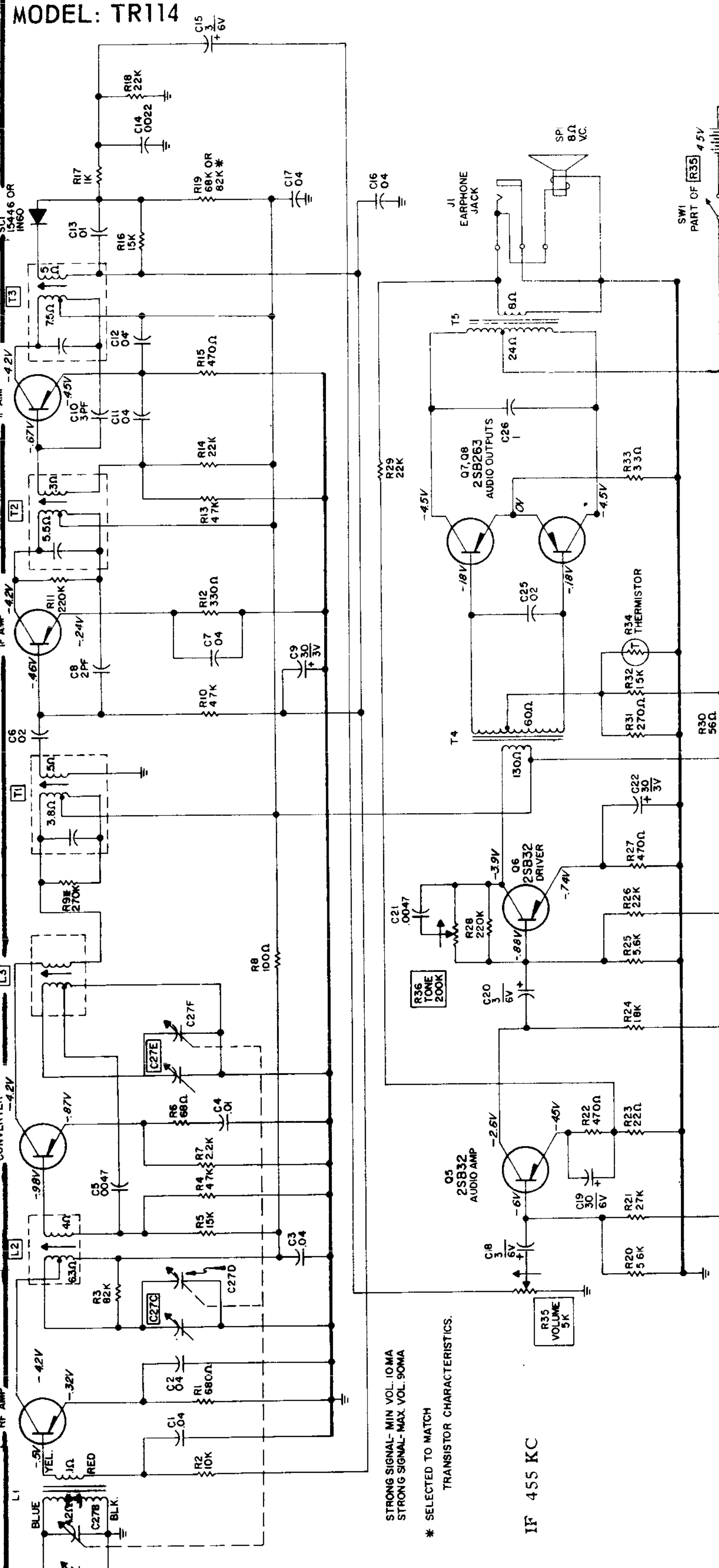
SCHEMATIC NOTES

1. Voltage measured to chassis ground, test point (G), with receiver tuned to off station and full volume.
2. Operating voltage must be 6 volts DC. (Employ battery eliminator).
3. Voltages shown are average readings. Variations may be noted due to normal production tolerance (±10%).
4. All voltage readings taken with RCA Volt-Ohmyst (WV - 97A).
5. All capacitors in microfarads unless otherwise specified.
6. Intermediate frequency (IF), 455 KC.
7. Resistance readings taken with components in circuit.

IF 455 KC

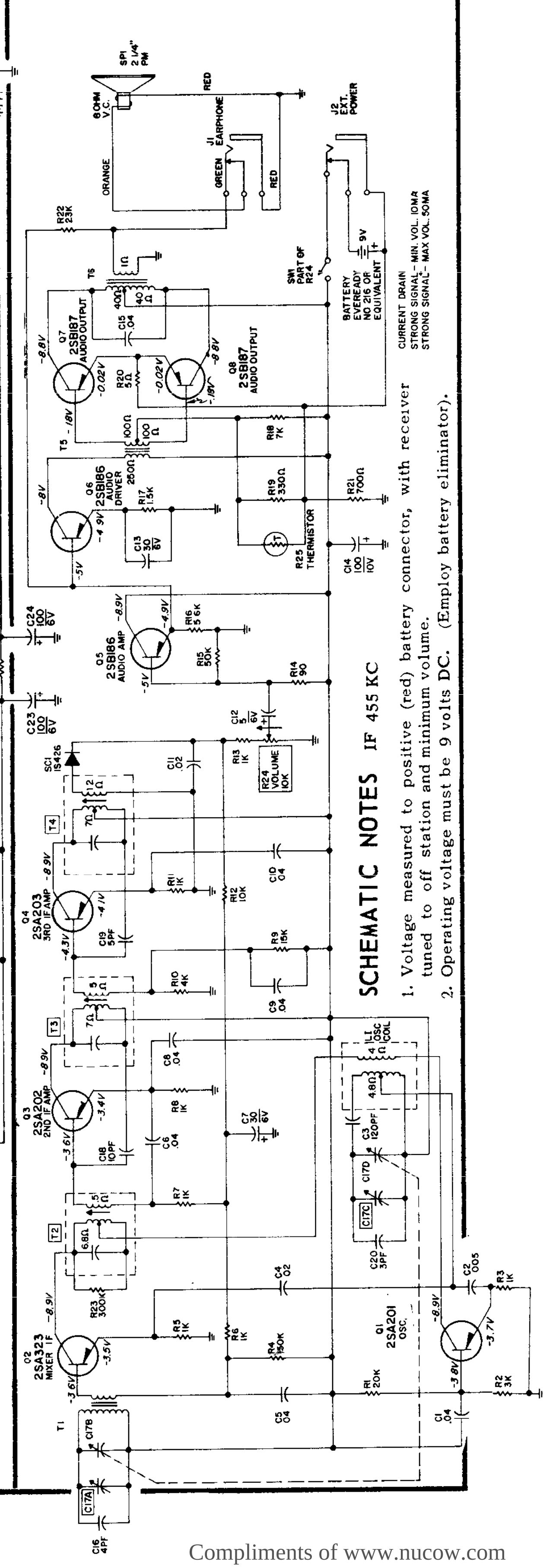
SYLVANIA

MODEL: TR114



SYLVANIA

MODEL: TR102

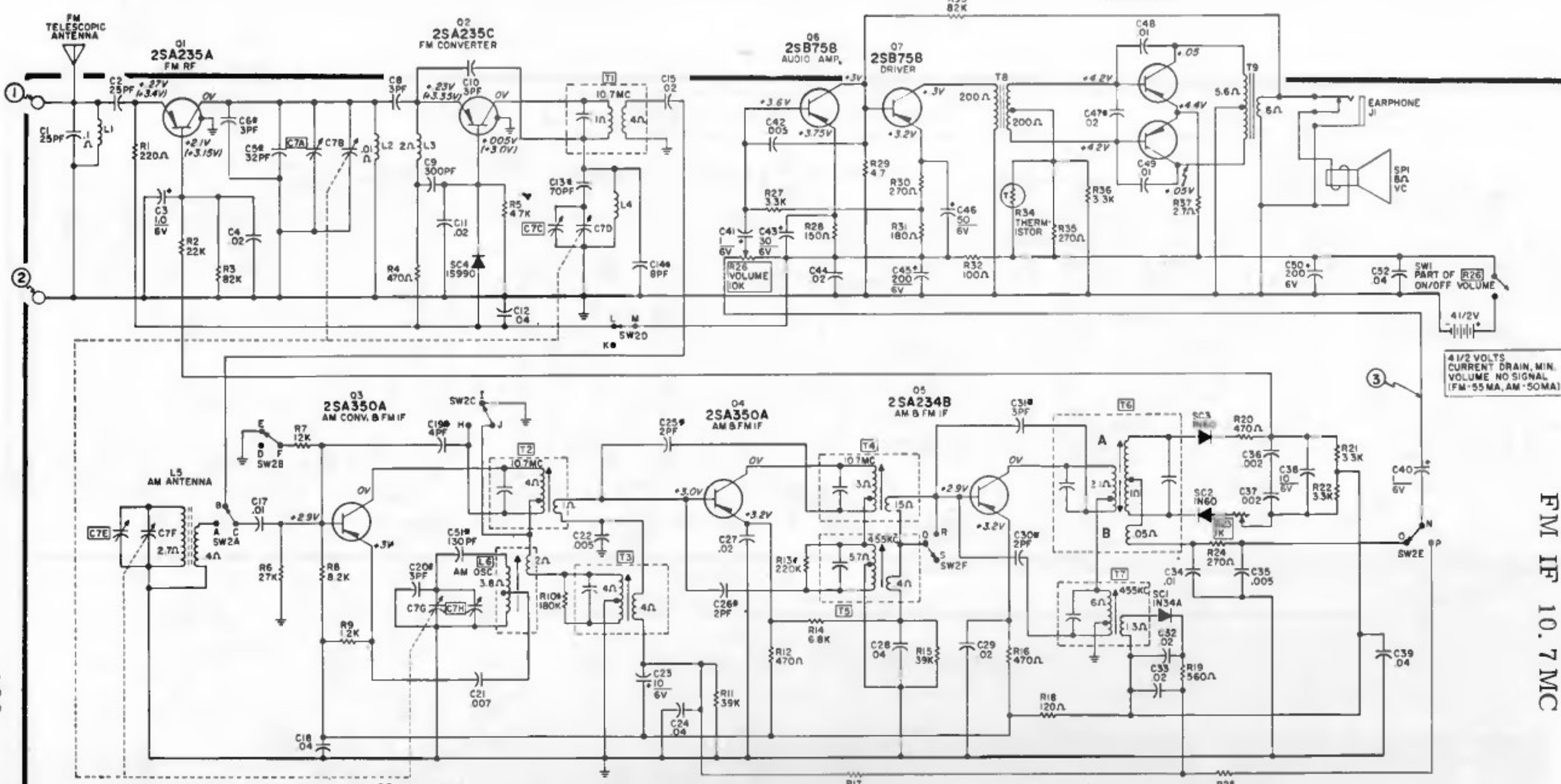


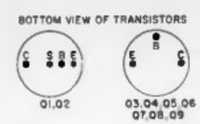
SCHEMATIC NOTES IF 455 KC

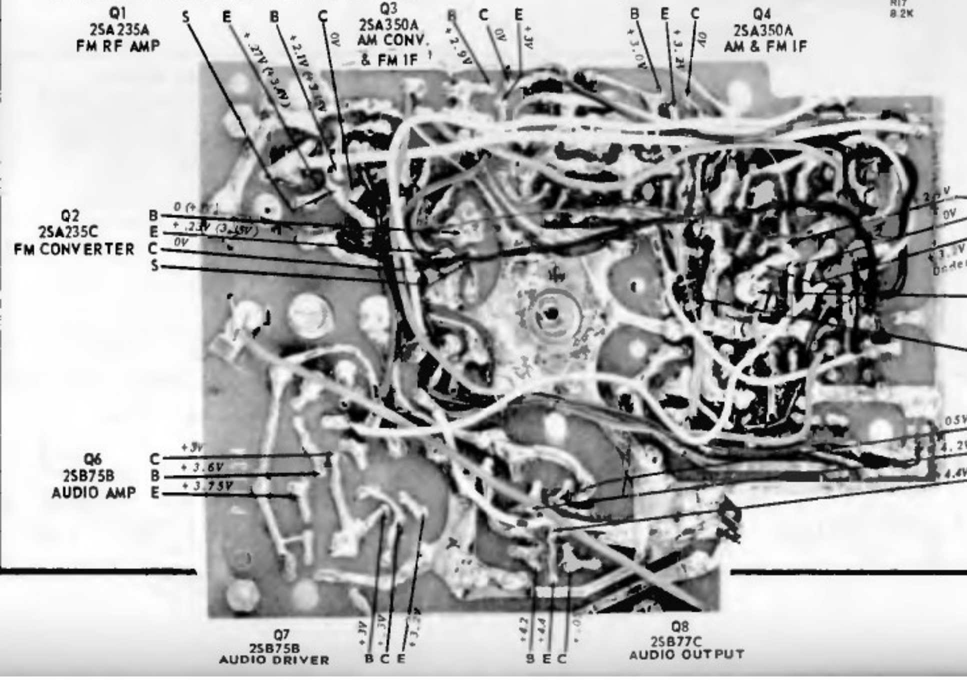
1. Voltage measured to positive (red) battery connector, with receiver tuned to off station and minimum volume.
2. Operating voltage must be 9 volts DC. (Employ battery eliminator).

SYLVANIA MODEL: TR122

AM IF 455KC
FM IF 10.7MC





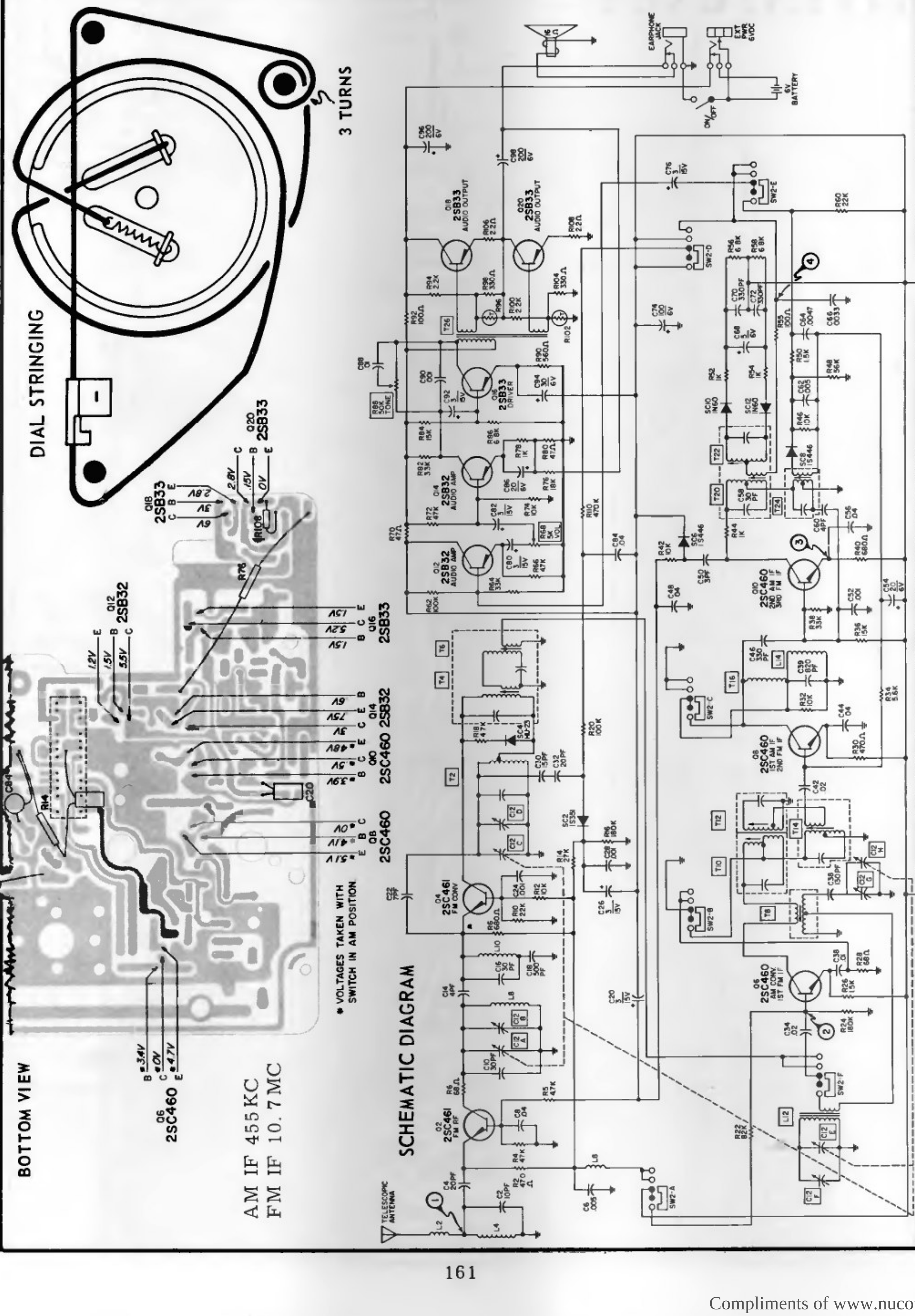


SCHEMATIC NOTES

1. Voltages measured to chassis ground, test point (2), with receiver turned to off station and minimum volume.
2. Operating voltage must be 4.5 volts DC. (Employ battery eliminator).
3. Voltages shown are average readings. Voltages in brackets are measured with switch in FM position.
4. Switch SW2 is shown in the FM position.
5. All capacitors in microfarads unless otherwise specified.
6. All resistors are 1/4W - 10% unless otherwise specified.
7. Resistance readings taken with components in circuit.

*8. Values selected to match transistor characteristics.

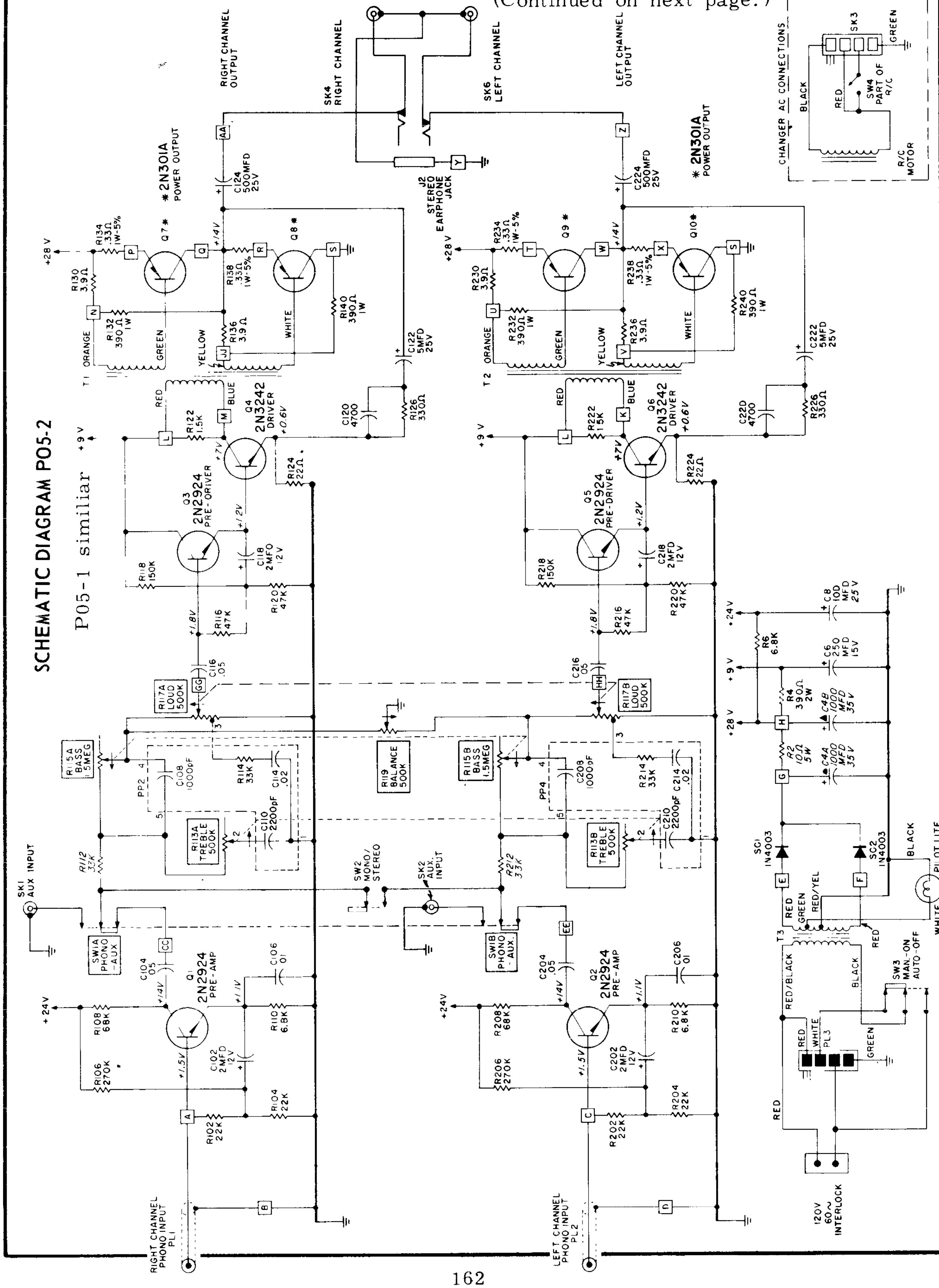
SYLVANIA Model TR125; Chassis 350-1



SYLVANIA

Models: Exponent 4/20, 4/30 Series; Chassis P05-1, -2

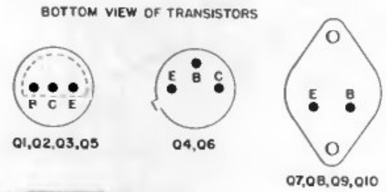
(Continued on next page.)



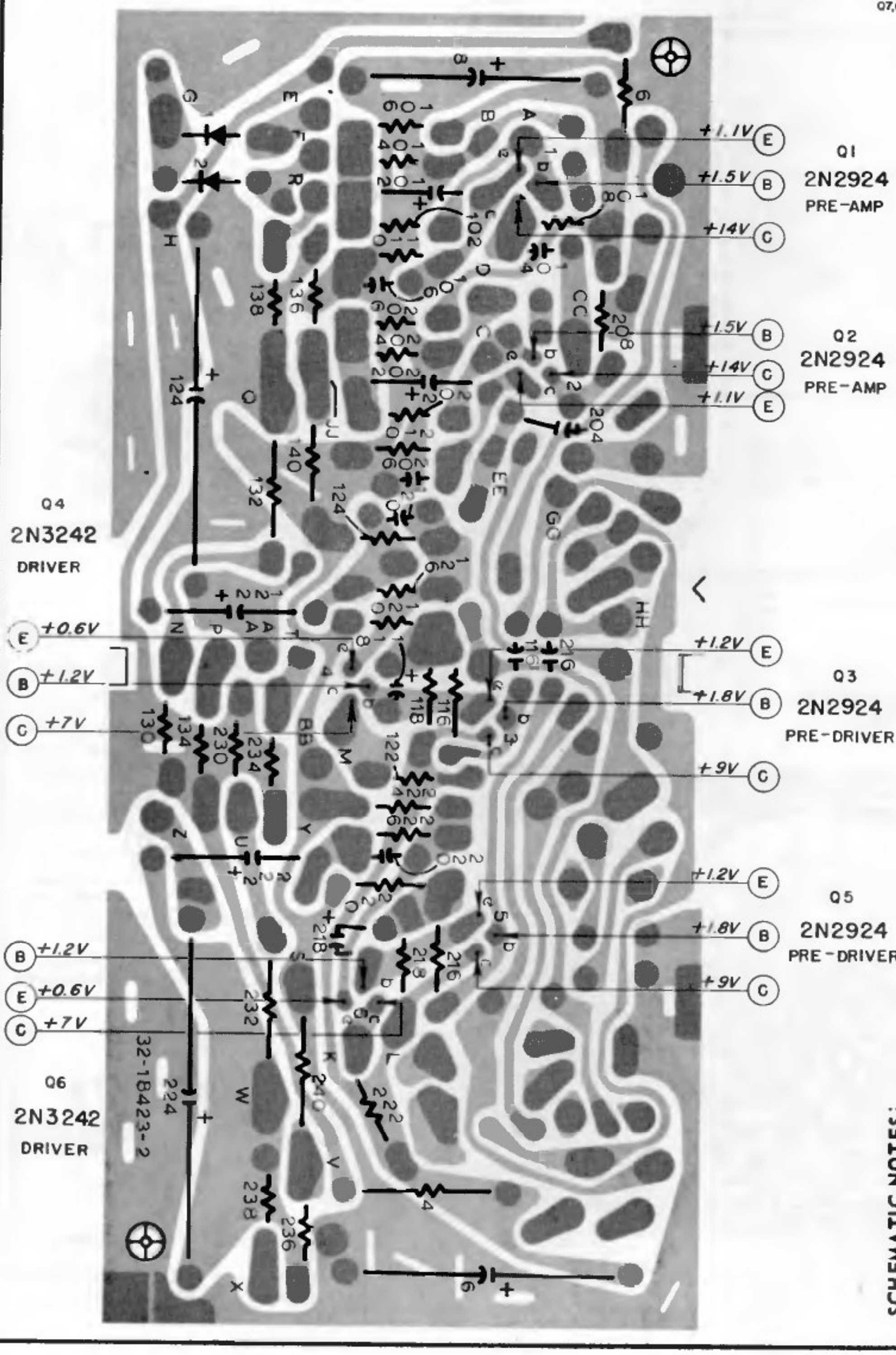
(Continued from preceding page.)

NOTE:

1. Voltage measurements are average readings measured to chassis ground with no signal input. Variations may be noted due to normal production tolerances.
2. See schematic diagram on page 5 for voltage readings on power output transistors (Q7,Q8,Q9,Q10).



PRINTED BOARD PARTS LAYOUT

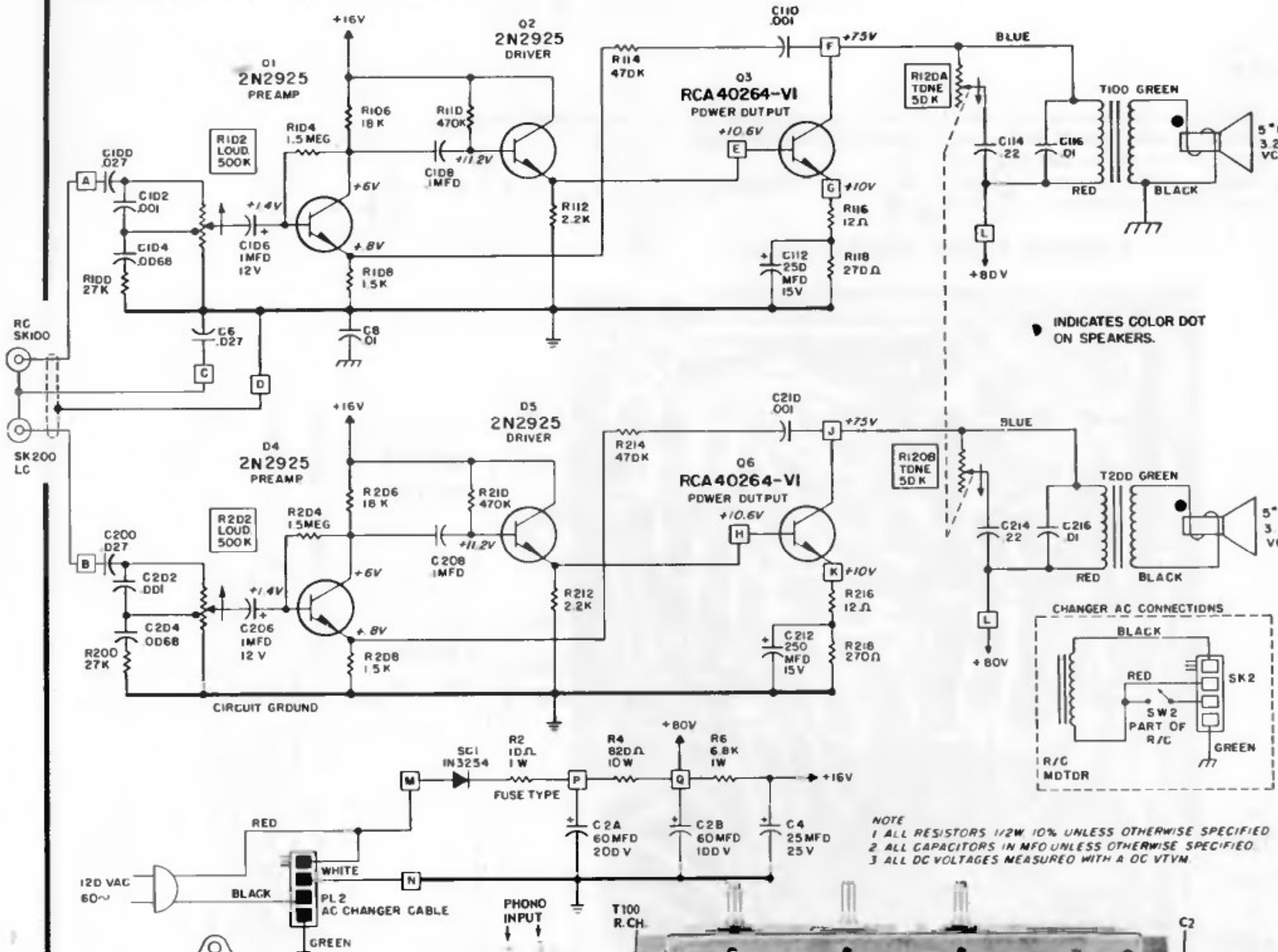


SCHEMATIC NOTES:

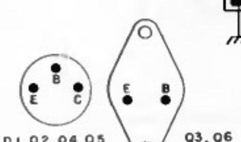
1. Voltage measurements are average reading measured to chassis with no signal input. Variations may be noted due to normal production tolerances.
2. AC power source 120 volt, 60 cycle.
3. Capacitance in MFD unless otherwise specified.
4. Resistors and capacitors not on printed circuit board are shown in italics.
5. All resistors are 1/2W, 10% unless otherwise specified.
6. ⏚ Designates chassis ground.
7. ● Indicates color dot on speakers for correct phasing.
8. $\boxed{R113}$, $\boxed{R115}$, $\boxed{R117}$ are dual ganged controls.
9. ✱ Indicates replace in matched pairs.
10. Arrows on controls indicates clockwise rotation.

SYLVANIA

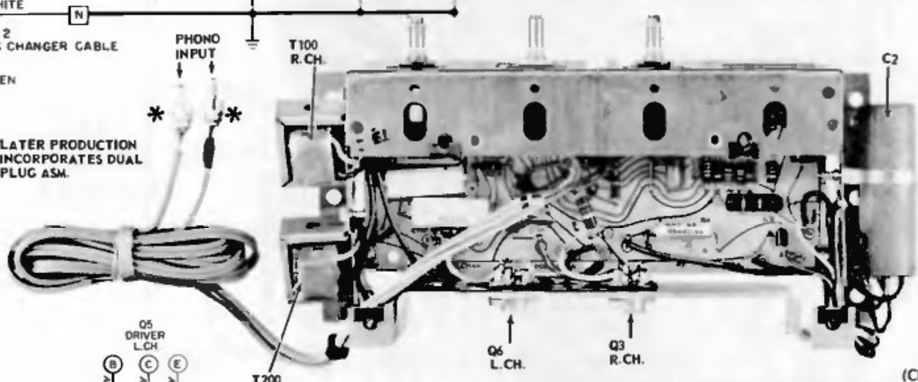
MODEL: 45P80
CHASSIS: P02-5



NOTE
1 ALL RESISTORS 1/2W 10% UNLESS OTHERWISE SPECIFIED
2 ALL CAPACITORS IN MFD UNLESS OTHERWISE SPECIFIED
3 ALL DC VOLTAGES MEASURED WITH A DC VTVM



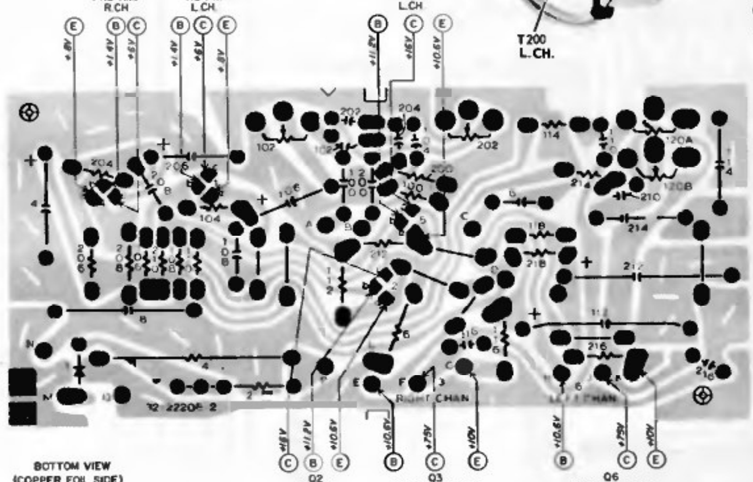
BOTTOM VIEW OF TRANSISTORS



* LATER PRODUCTION INCORPORATES DUAL PLUG ASM.

TOP VIEW
(CHASSIS ASM.)

PRINTED BOARD

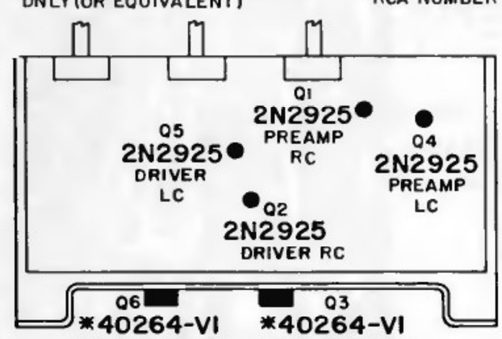


BOTTOM VIEW
(COPPER FOIL SIDE)

TRANSISTOR LAYOUT

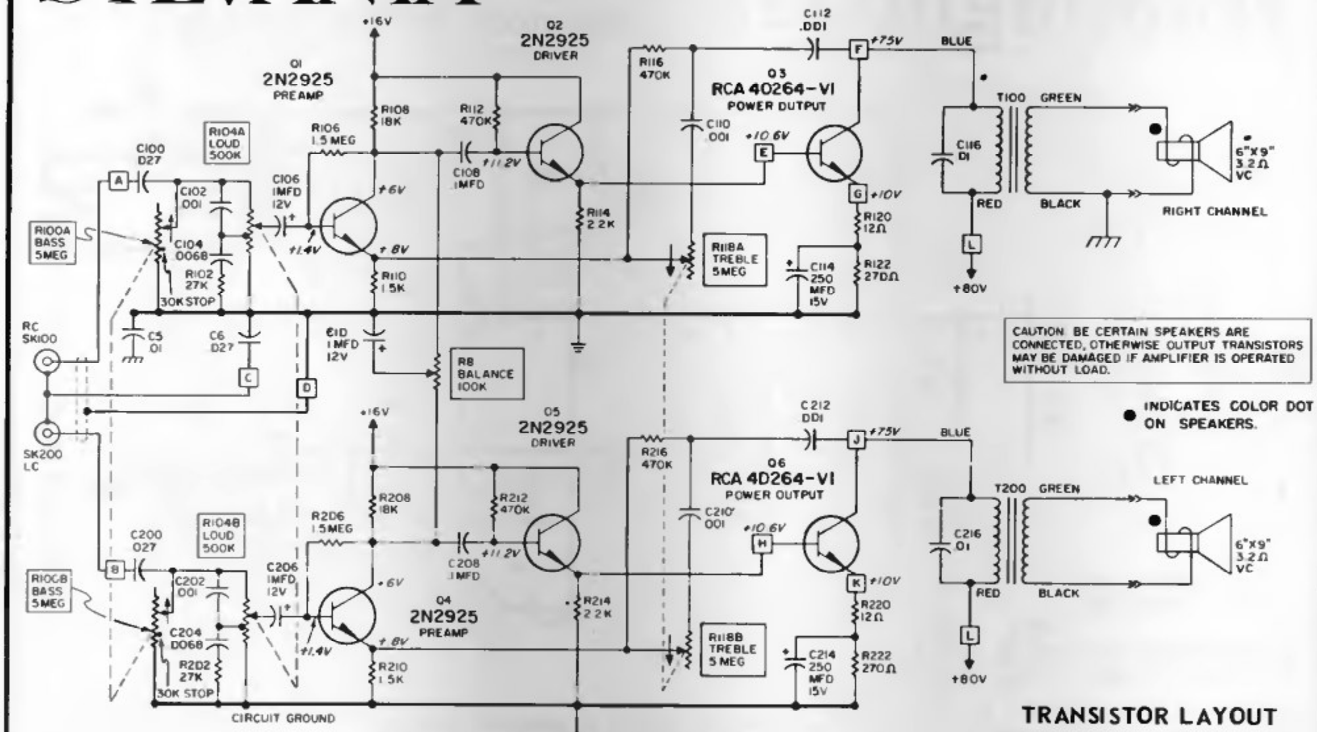
NOTE: REPLACE WITH ORIGINAL TYPE TRANSISTORS ONLY (OR EQUIVALENT)

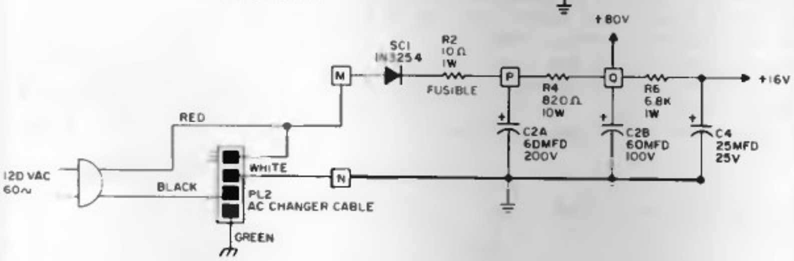
✱ DENOTES RCA NUMBER



SYLVANIA

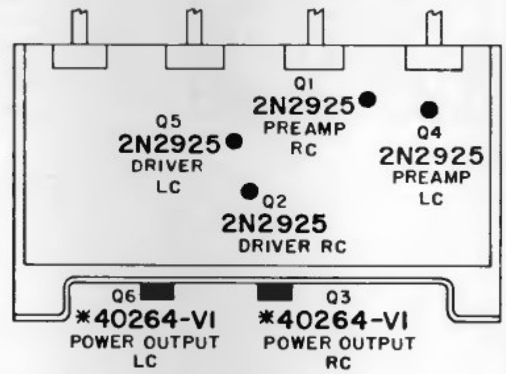
MODEL: 45P84
CHASSIS: P03-5





NOTE
1. ALL RESISTORS 1/2W 10% UNLESS OTHERWISE SPECIFIED
2. ALL CAPACITORS IN MFD UNLESS OTHERWISE SPECIFIED
3. ALL DC VOLTAGES MEASURED WITH A DC VTVM.

TRANSISTOR LAYOUT

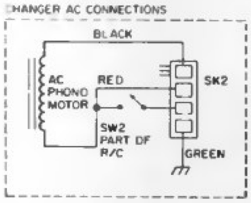


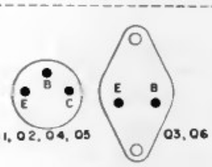
*DENOTES RCA NUMBER

NOTE:

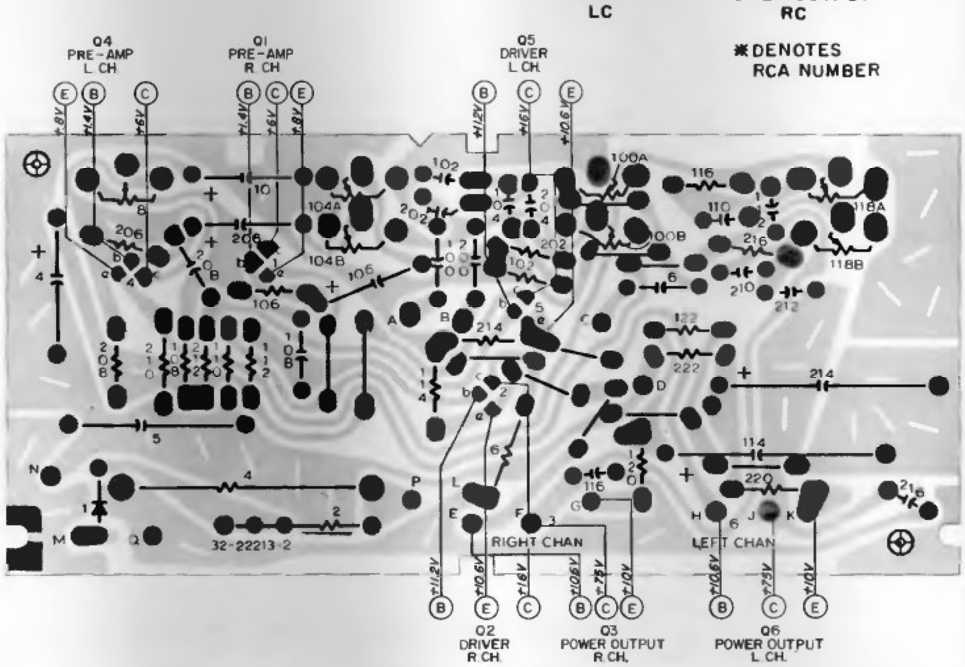
Voltage measurements are average readings to circuit ground with no signal input. Variations may be noted due to normal production tolerances.

CHANGER AC CONNECTIONS





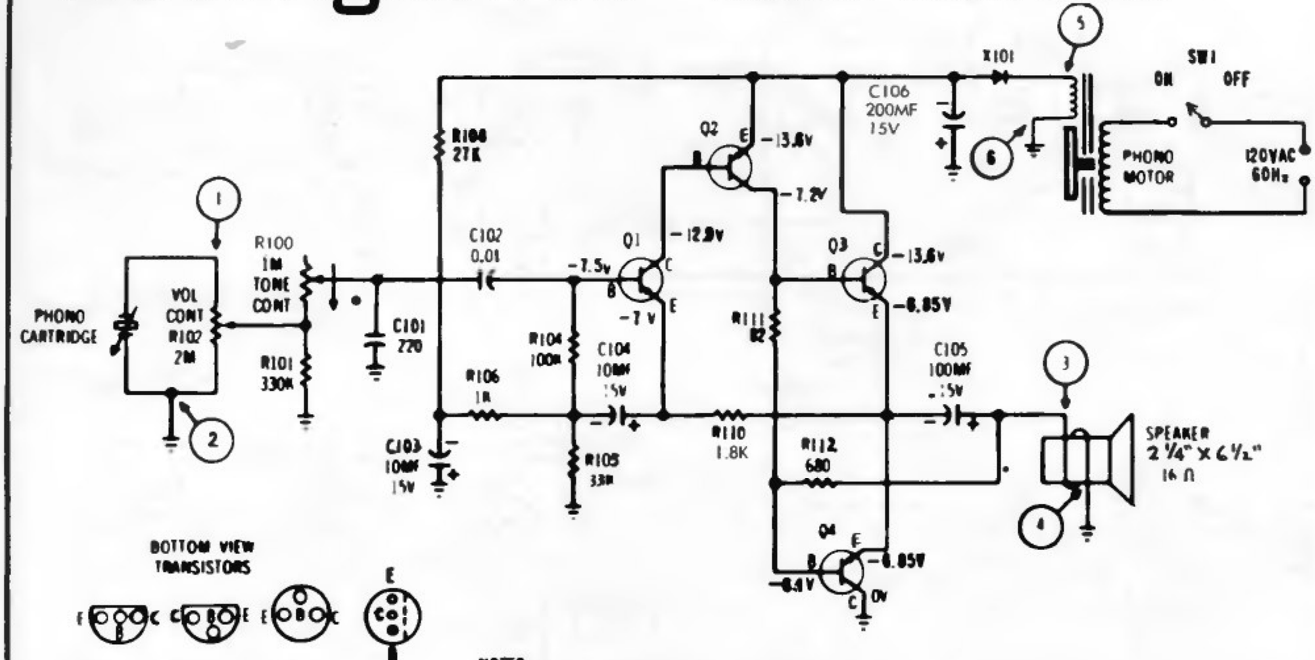
BOTTOM VIEW OF TRANSISTORS



BOTTOM VIEW (COPPER FOIL SIDE)

Westinghouse

PAM 7000A CHASSIS V4005C01



TRANSISTOR COMPLEMENT			
	FUNCTION	TYPE	W PART NO.
Q1	INPUT	PNP	297V083C01
Q2	DRIVER	NPN	297V083C02
Q3	OUTPUT	PNP	297V083C03
Q4	OUTPUT	NPN	297V083C04

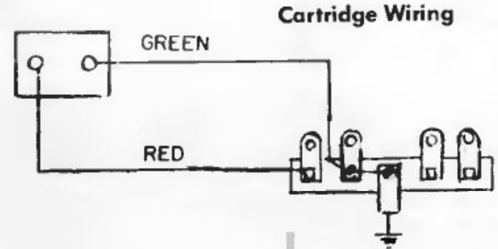
NOTES:

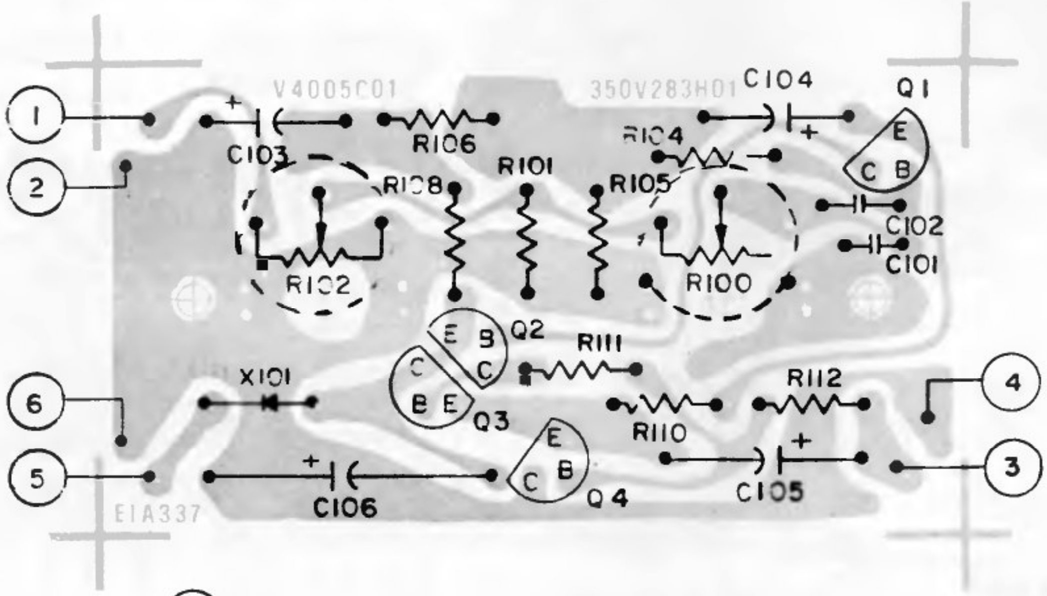
1. UNLESS OTHERWISE INDICATED ALL CAPACITANCE VALUES LESS THAN 1 ARE IN MF AND VALUES GREATER THAN 1 ARE IN PF, ALL RESISTANCE VALUES ARE IN OHMS, 1/2 WATT.
2. VOLTAGE MEASUREMENTS MADE WITH A VTVM FROM POINTS INDICATED TO GROUND. VOLUME CONTROL AT MINIMUM, LINE VOLTAGE AT 120VAC.

* DIRECTION OF ARROW INDICATES MAXIMUM TREBLE.

○ DENOTES CONNECTIONS ON PC BOARD.

Cartridge Wiring



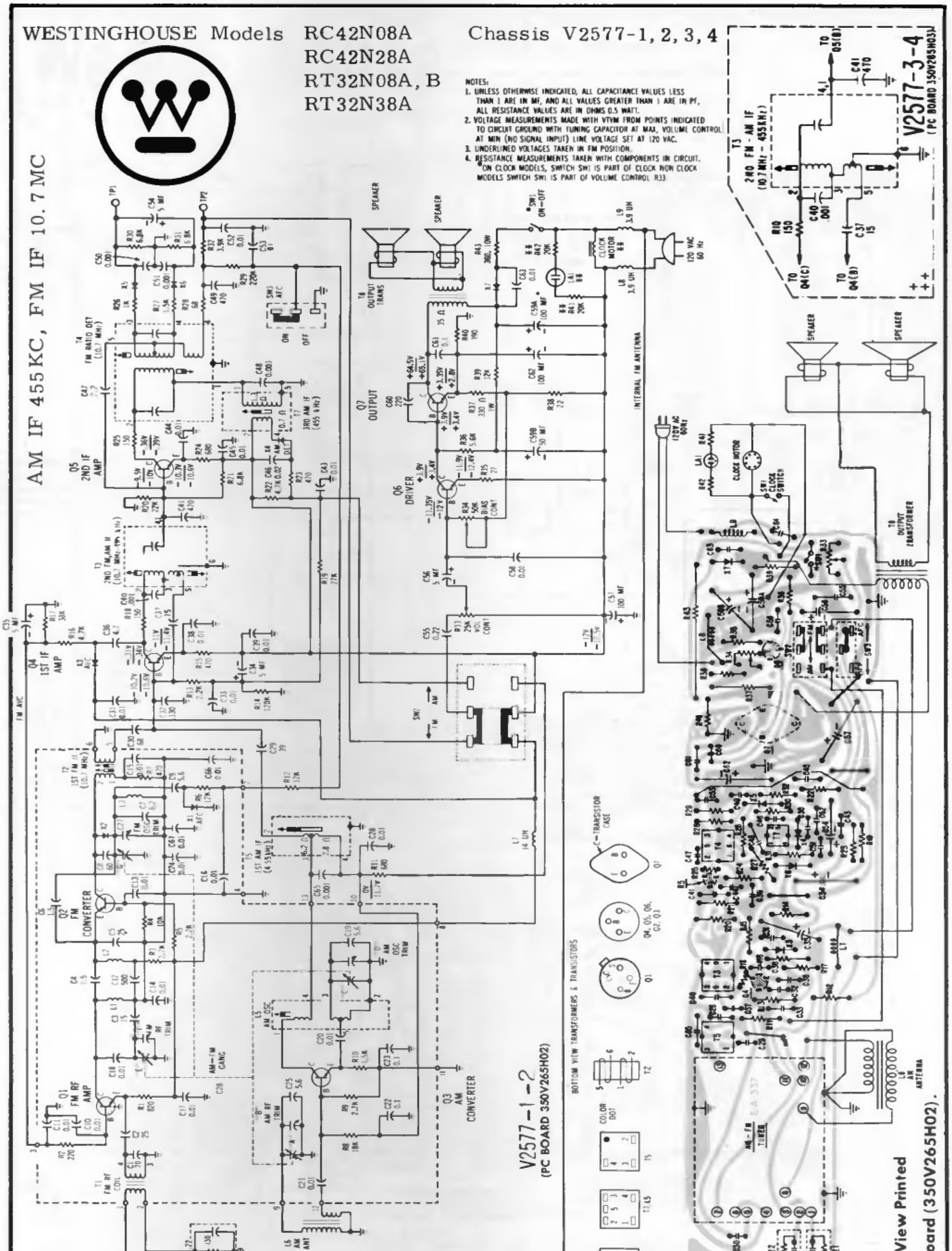


○ DENOTES CONNECTIONS ON SCHEMATIC

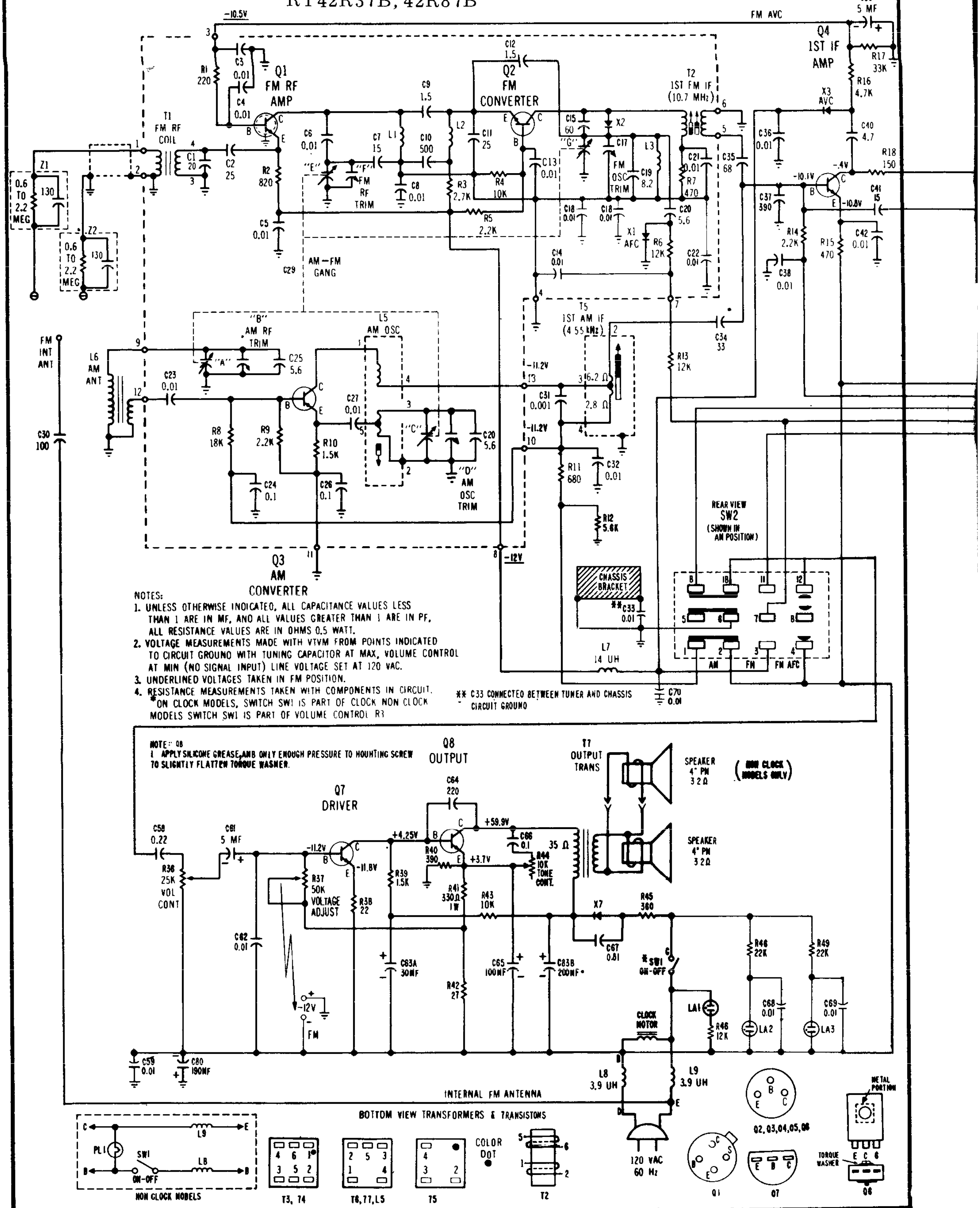
WESTINGHOUSE Models RC42N08A
RC42N28A
RT32N08A, B
RT32N38A

Chassis V2577-1, 2, 3, 4

NOTES:
1. UNLESS OTHERWISE INDICATED, ALL CAPACITANCE VALUES LESS THAN 1 ARE IN MF, AND ALL VALUES GREATER THAN 1 ARE IN PF, ALL RESISTANCE VALUES ARE IN OHMS 0.5 WATT.
2. VOLTAGE MEASUREMENTS MADE WITH VTVM FROM POINTS INDICATED TO CIRCUIT GROUND WITH TUNING CAPACITOR AT MAX, VOLUME CONTROL AT MIN (NO SIGNAL INPUT) LINE VOLTAGE SET AT 120 VAC.
3. UNDERLINED VOLTAGES TAKEN IN FM POSITION.
4. RESISTANCE MEASUREMENTS TAKEN WITH COMPONENTS IN CIRCUIT.
** ON CLOCK MODELS, SWITCH SW1 IS PART OF CLOCK NON CLOCK MODELS SWITCH SW1 IS PART OF VOLUME CONTROL R33



WESTINGHOUSE Models: RC42R67B, 42R87B, 52R07B, RT42R37B, 42R87B   Chassis: V3004CO1, 2, 3, 4



NOTES:

1. UNLESS OTHERWISE INDICATED, ALL CAPACITANCE VALUES LESS THAN 1 ARE IN MF, AND ALL VALUES GREATER THAN 1 ARE IN PF, ALL RESISTANCE VALUES ARE IN OHMS 0.5 WATT.
2. VOLTAGE MEASUREMENTS MADE WITH VTVM FROM POINTS INDICATED TO CIRCUIT GROUND WITH TUNING CAPACITOR AT MAX, VOLUME CONTROL AT MIN (NO SIGNAL INPUT) LINE VOLTAGE SET AT 120 VAC.
3. UNDERLINED VOLTAGES TAKEN IN FM POSITION.
4. RESISTANCE MEASUREMENTS TAKEN WITH COMPONENTS IN CIRCUIT.

*ON CLOCK MODELS, SWITCH SW1 IS PART OF CLOCK NON CLOCK MODELS SWITCH SW1 IS PART OF VOLUME CONTROL R3

** C33 CONNECTED BETWEEN TUNER AND CHASSIS CIRCUIT GROUND

NOTE: Q8
1 APPLY SILICONE GREASE AND ONLY ENOUGH PRESSURE TO MOUNTING SCREW TO SLIGHTLY FLATTEN TORQUE WASHER.

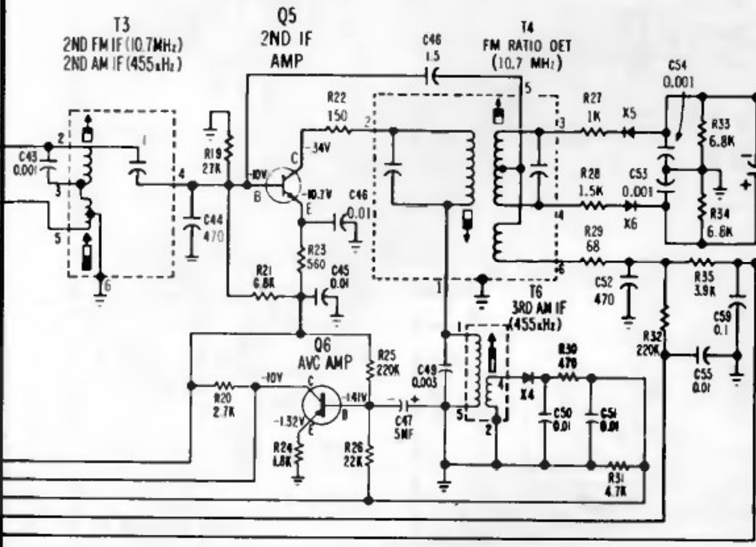
(Continued on next page.)

Westinghouse

Models: RC42R67B, 42R87B, 52R07B, RT42R37B, 42R87B;

Chassis V3004C01, 2, 3, 4

(Continued from preceding page.)



AM IF 455 KC
FM IF 10.7MC

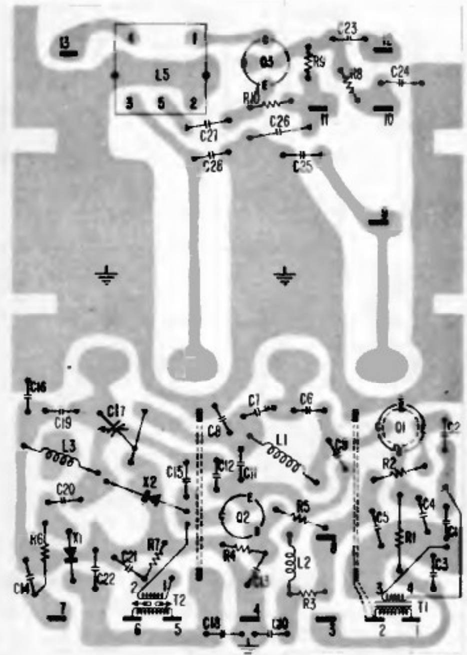


Figure 7 — Bottom View Tuner

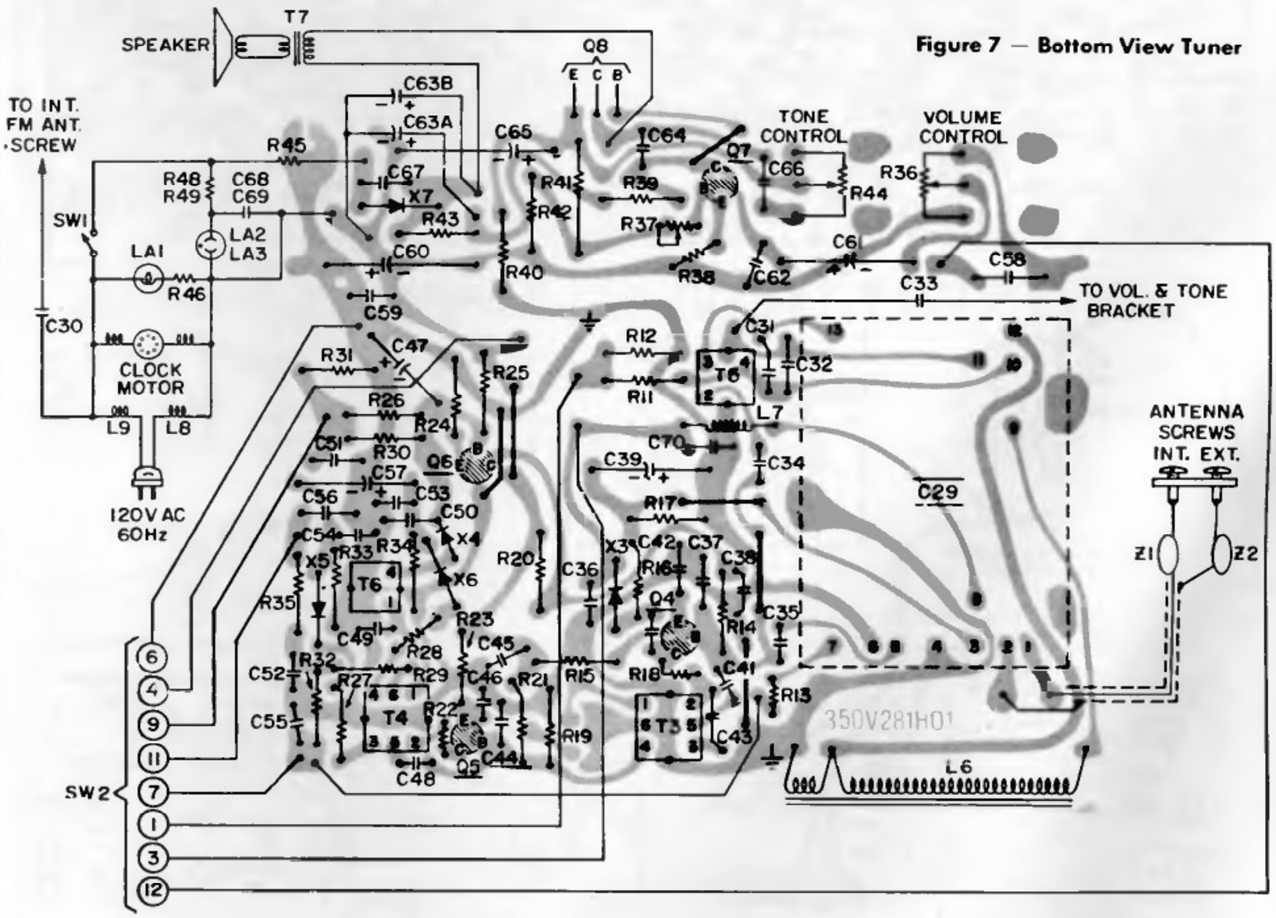
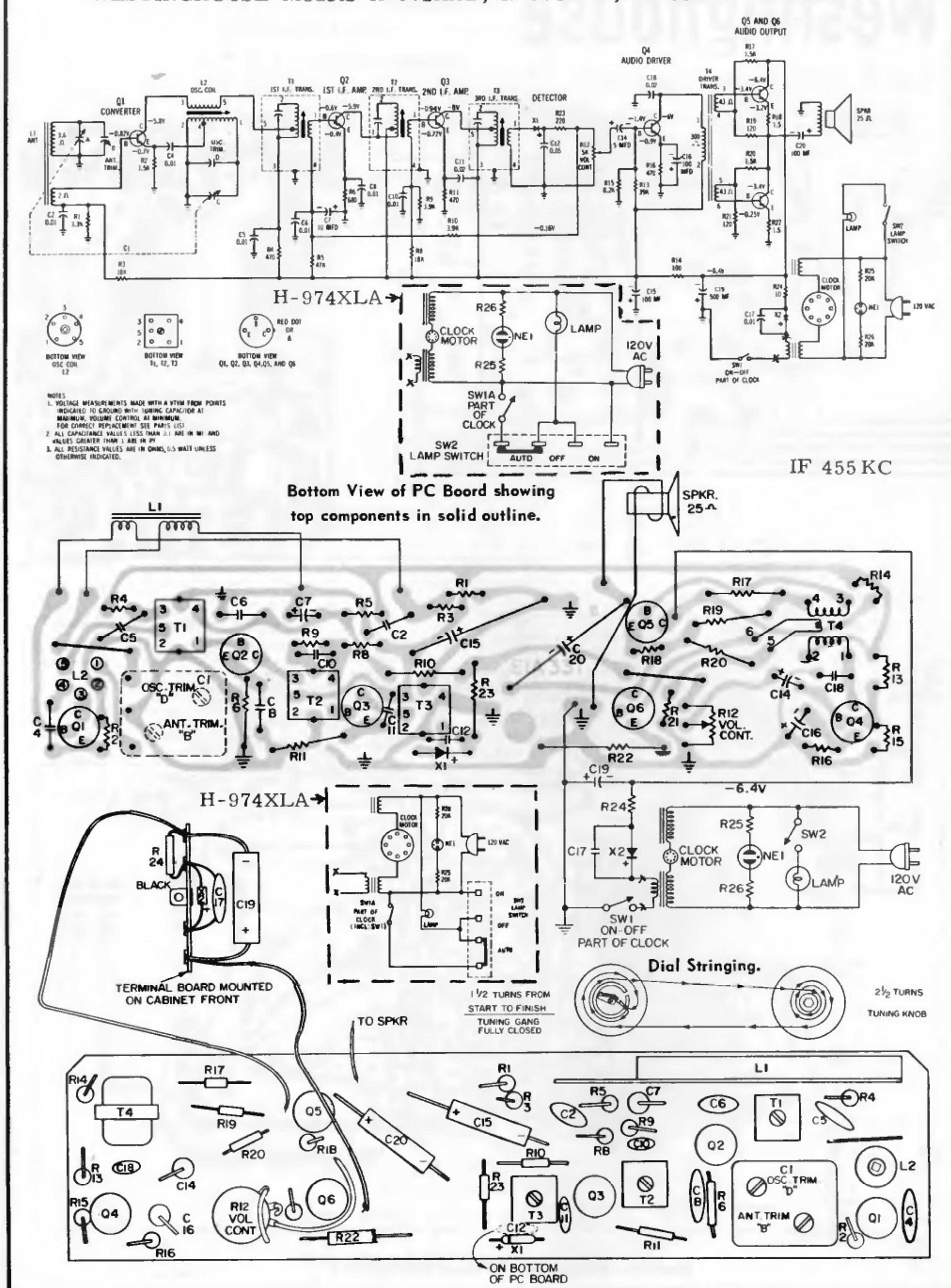
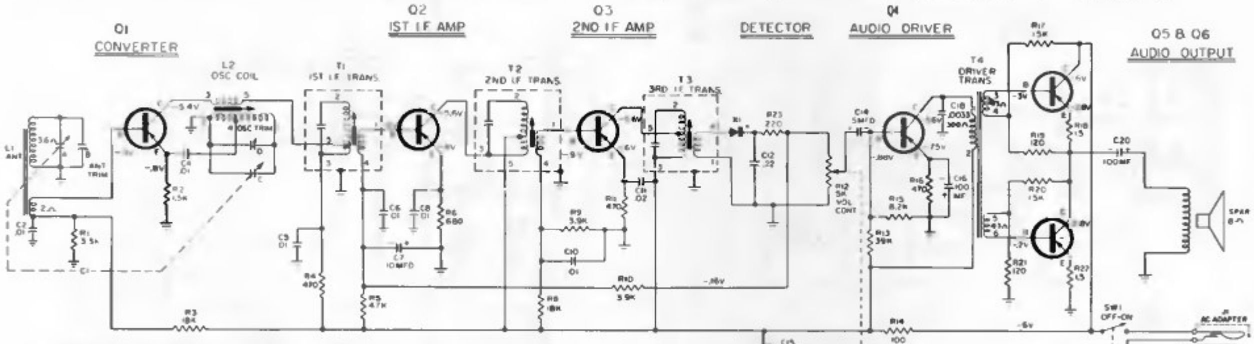


Figure 9 — Bottom View PC Board 350V281H01

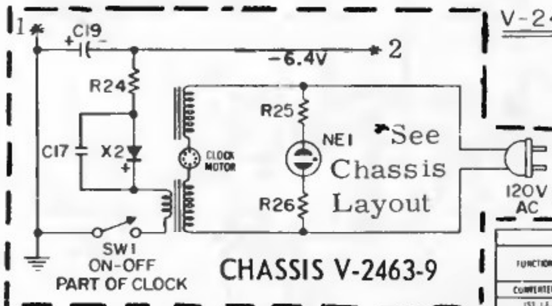
WESTINGHOUSE Models H-972XLB, H-974XLA; Chassis V-2463-5



WESTINGHOUSE Models RLA1160A, 1161A; Chassis V-2463-9
Models RS31M08A, M38A, M78A; Chassis V-2463-8



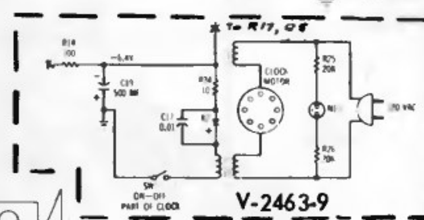
V-2463-8

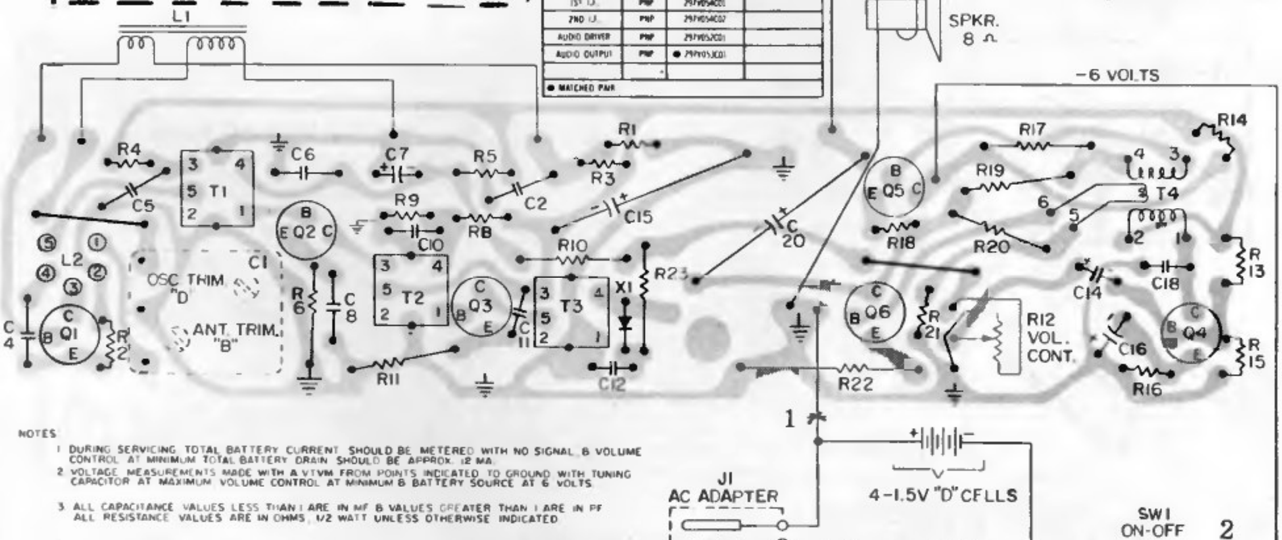


TRANSISTOR COMPLEMENT			
FUNCTION	TYPE	W PART NO	ALTERNATE
CONVERTER	PNP	297V055H01	
1ST IF	PNP	297V054H01	
2ND IF	PNP	297V054H02	
AUDIO DRIVER	PNP	297V052H01	
AUDIO OUTPUT	PNP	297V053H01 ●	
●MATCHED PAIR			

V-2463-9

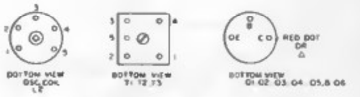
TRANSISTOR COMPLEMENT			
FUNCTION	TYPE	V-2463-9 W PART NO	
CONVERTER	PNP	297V055C01	
1ST I.F.	PNP	297V054C01	
2ND I.F.	PNP	297V054C02	
AUDIO DRIVER	PNP	297V052C01	
AUDIO OUTPUT	PNP	● 297V053C01	
● MATCHED PAIR			

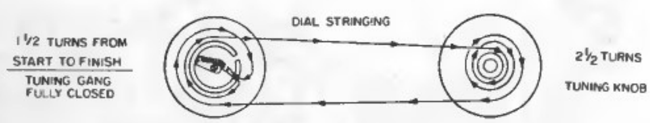




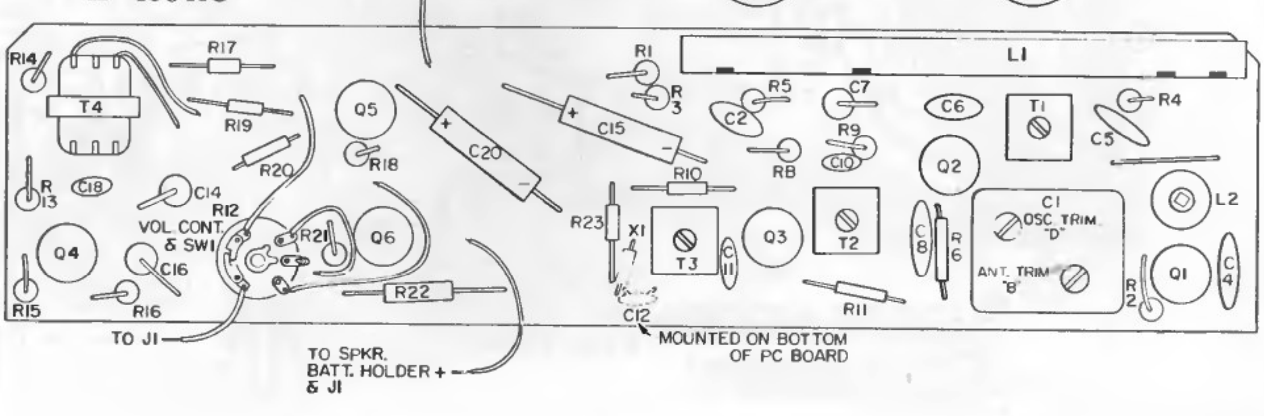
NOTES

1. DURING SERVICING TOTAL BATTERY CURRENT SHOULD BE METERED WITH NO SIGNAL & VOLUME CONTROL AT MINIMUM TOTAL BATTERY DRAIN SHOULD BE APPROX. 12 MA.
2. VOLTAGE MEASUREMENTS MADE WITH A VTVM FROM POINTS INDICATED TO GROUND WITH TUNING CAPACITOR AT MAXIMUM VOLUME CONTROL AT MINIMUM & BATTERY SOURCE AT 6 VOLTS.
3. ALL CAPACITANCE VALUES LESS THAN 1 ARE IN MF & VALUES GREATER THAN 1 ARE IN PF. ALL RESISTANCE VALUES ARE IN OHMS, 1/2 WATT UNLESS OTHERWISE INDICATED.

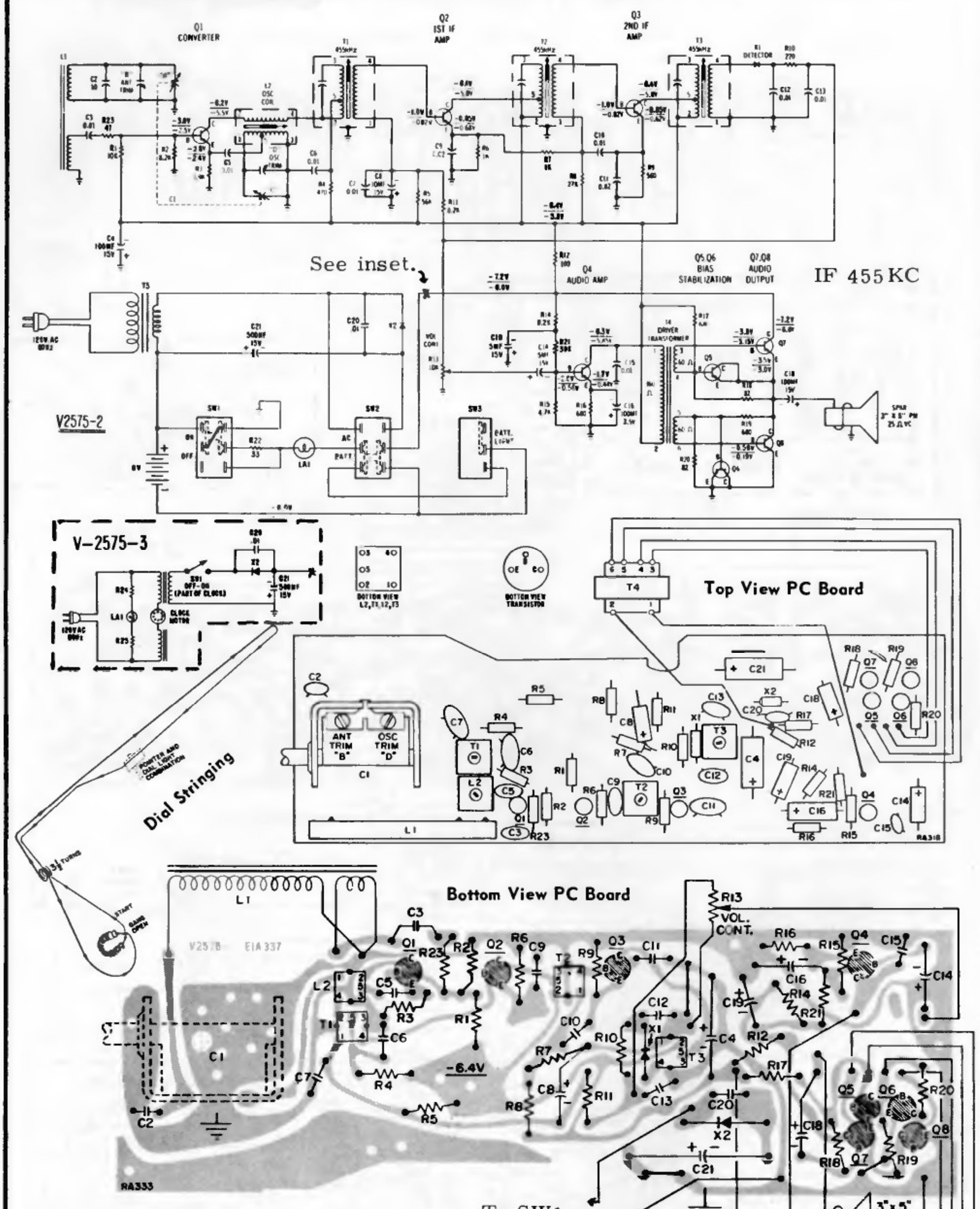




IF 455 KC

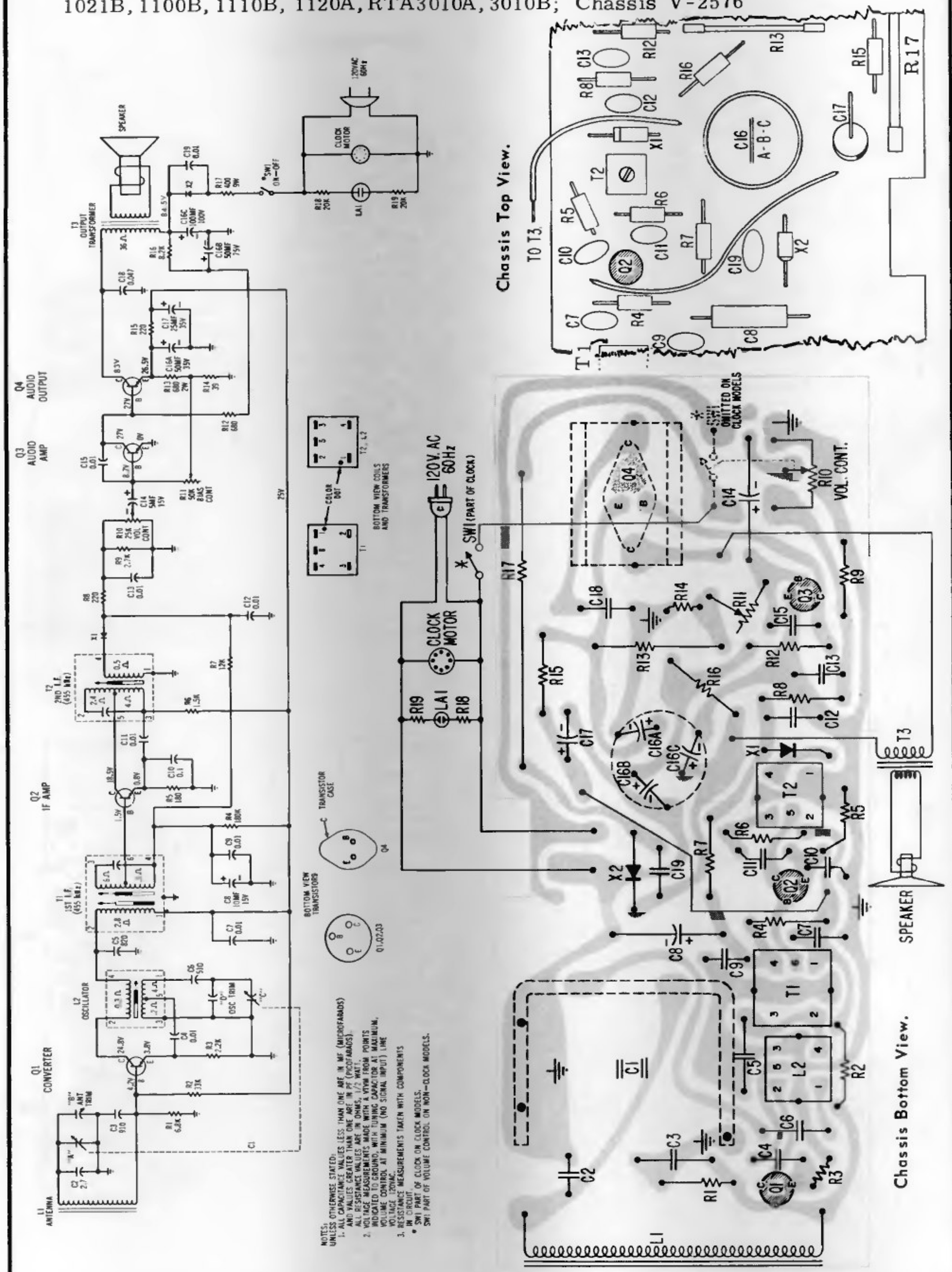


WESTINGHOUSE Models RC31P78A, RT41P58A; Chassis V-2575-3, V-2575-2

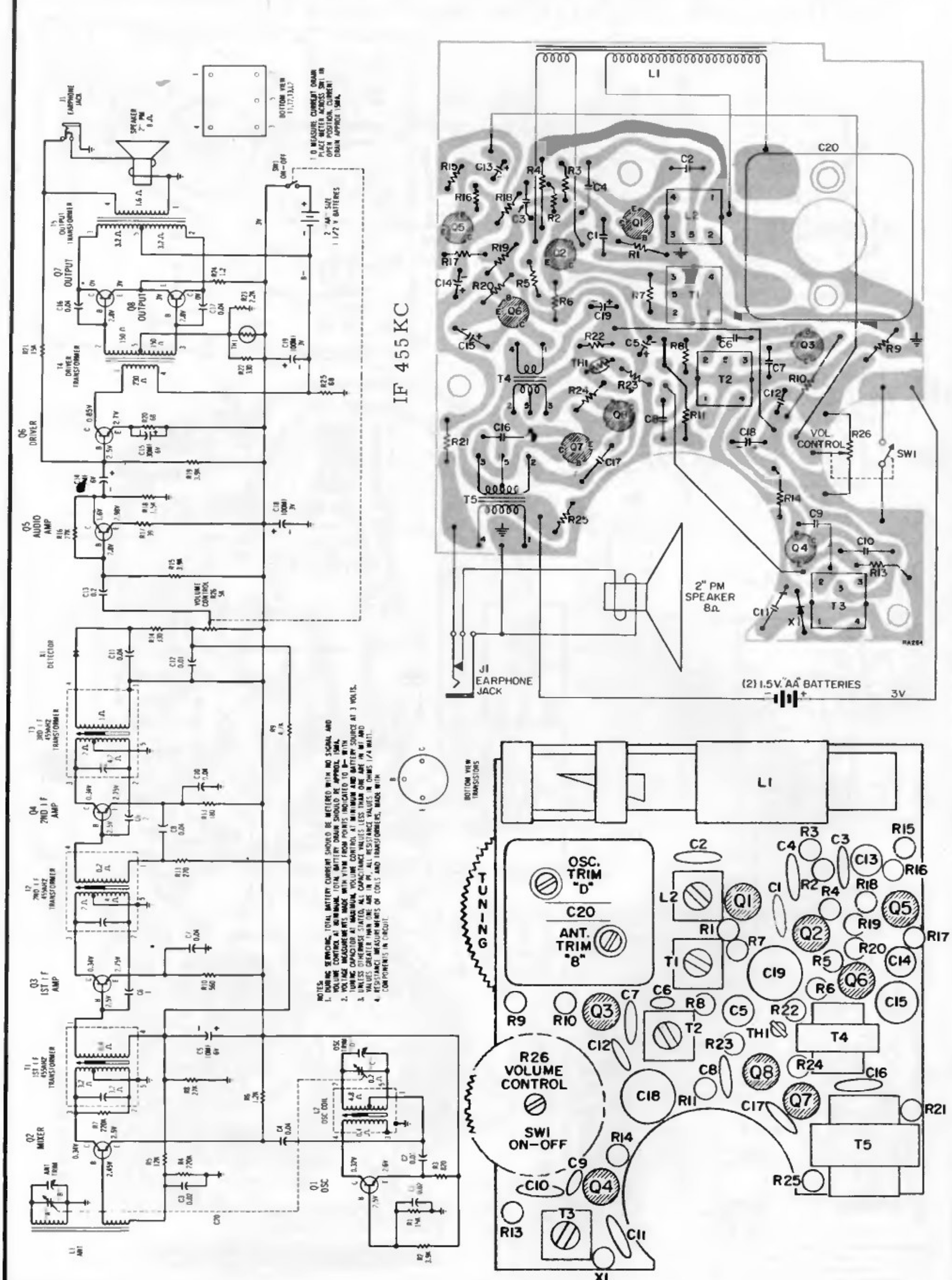


NOTES:
1. DURING SERVICING, BATTERY DRAIN SHOULD BE METERED WITH NO SIGNAL INPUT, VOLUME CONTROL AT MINIMUM. CURRENT DRAIN SHOULD BE APPROX 15MA.
2. ALL CAPACITANCE VALUES LESS THAN 1 ARE IN MF, AND VALUES GREATER THAN 1 ARE IN PF. ALL RESISTANCE VALUES ARE IN OHMS 0.5 WATT, UNLESS OTHERWISE INDICATED.
3. VOLTAGE MEASUREMENTS MADE WITH V.T.V.M. FROM POINTS INDICATED TO GROUND, WITH TUNING CAPACITOR AT MAXIMUM, VOLUME CONTROL AT MINIMUM (NO SIGNAL INPUT). VOLTAGE SOURCE AT 6 VOLTS.
4. UNDERLINED VOLTAGES TAKEN WITH SW2 IN AC POSITION.
5. SWITCHES VIEWED FROM REAR.

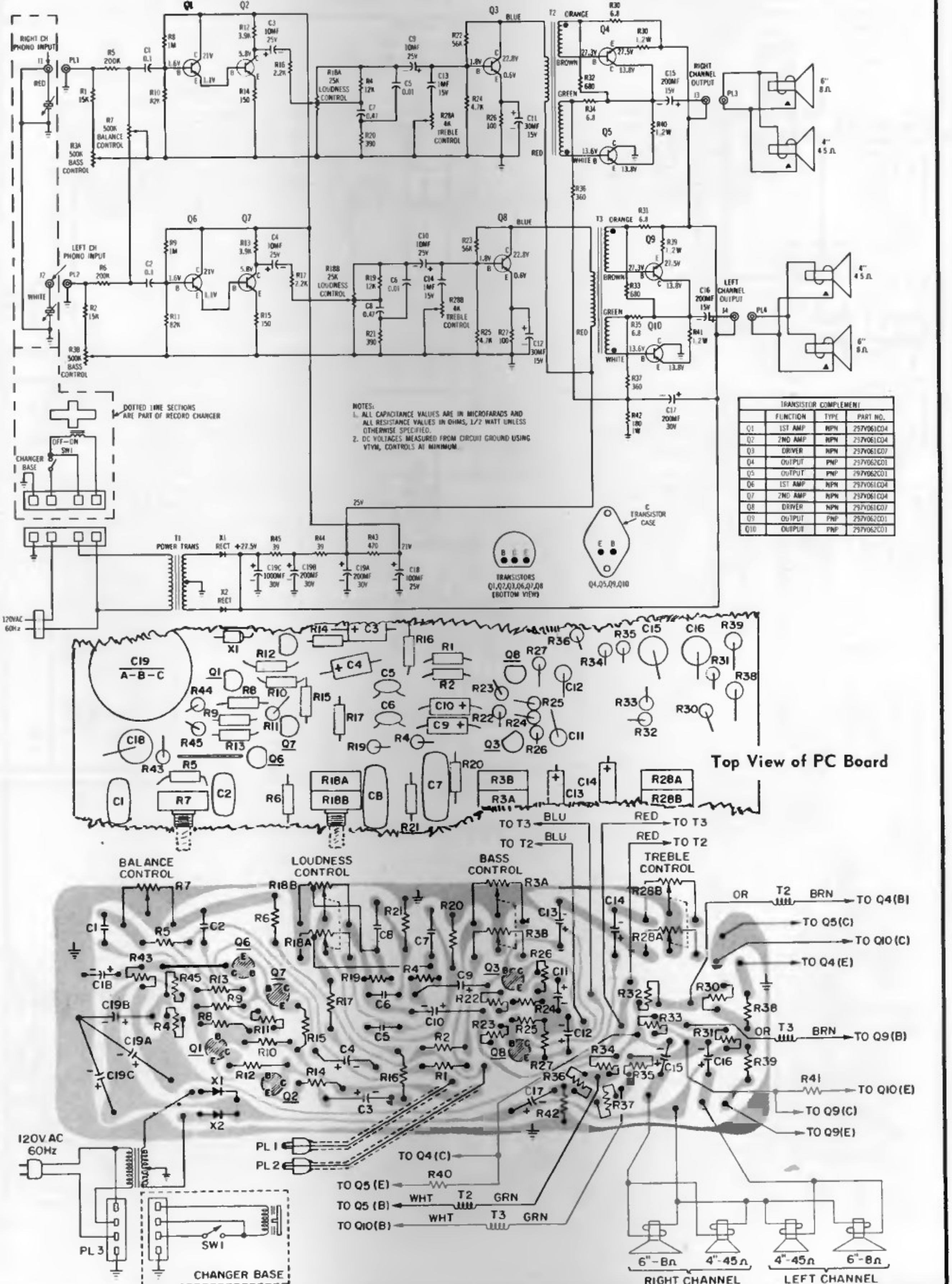
WESTINGHOUSE Models RLA1010A, 1010B, 1011A, 1011B, 1020A, 1020B, 1021A, 1021B, 1100B, 1110B, 1120A, RTA3010A, 3010B; Chassis V-2576



WESTINGHOUSE Model H-926P8GPA; Chassis V-2584-2



WESTINGHOUSE Model PS70E170; Chassis V-2684-1



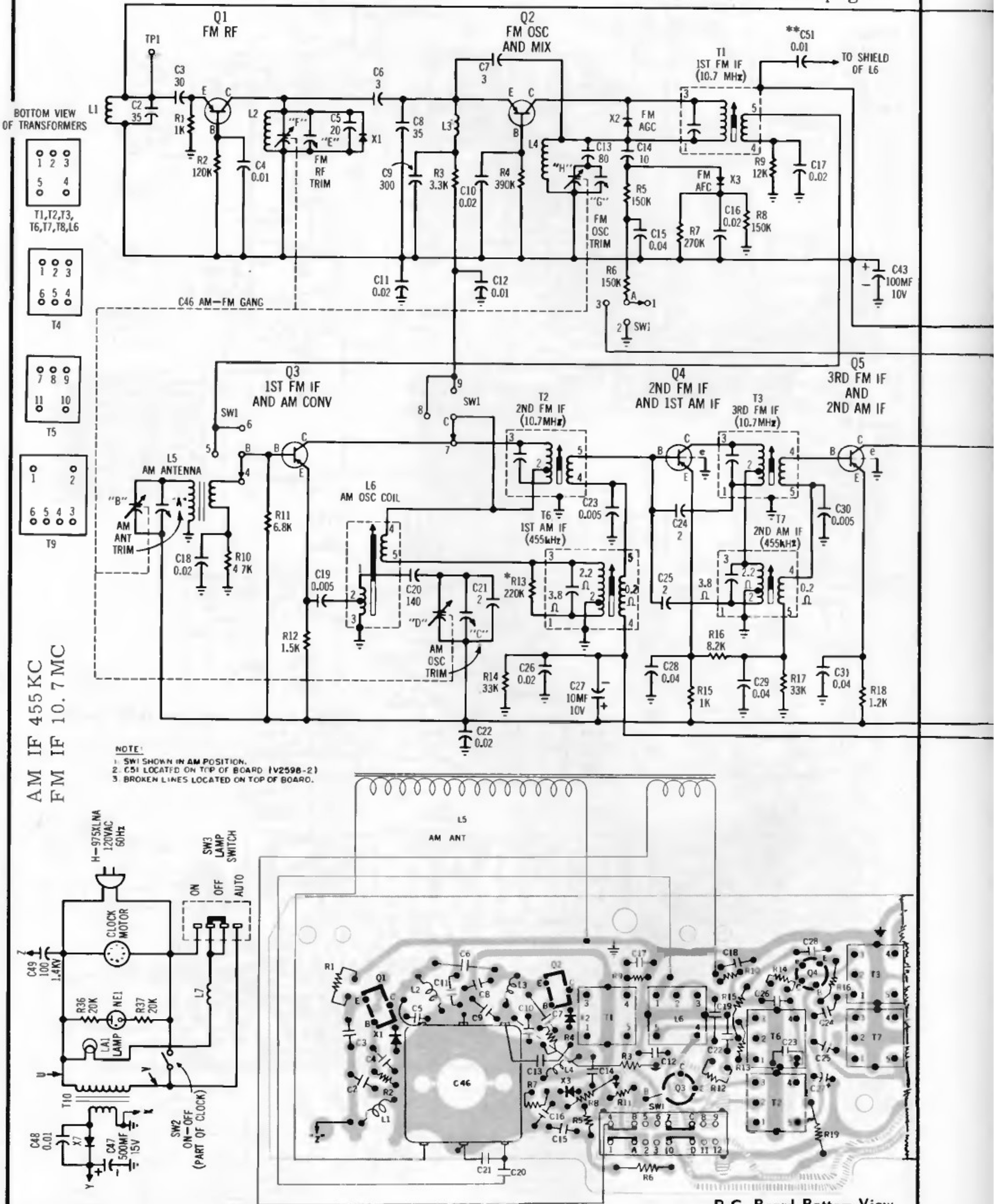
NOTES:
1. ALL CAPACITANCE VALUES ARE IN MICROFARADS AND ALL RESISTANCE VALUES IN OHMS, 1/2 WATT UNLESS OTHERWISE SPECIFIED.
2. DC VOLTAGES MEASURED FROM CIRCUIT GROUND USING VTVM, CONTROLS AT MINIMUM.

TRANSISTOR COMPLEMENT

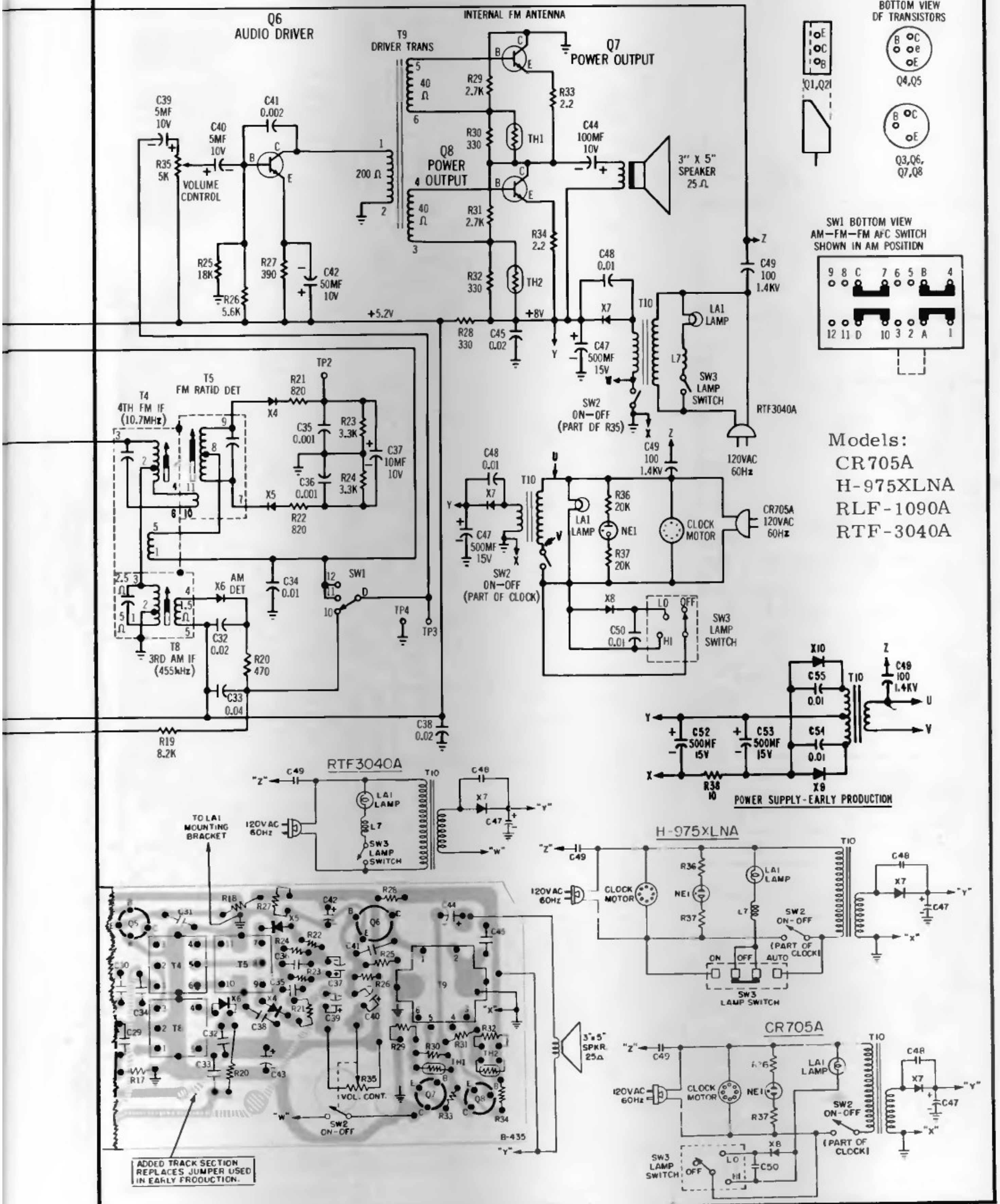
	FUNCTION	TYPE	PART NO.
Q1	1ST AMP	NPN	297V061C04
Q2	2ND AMP	NPN	297V061C04
Q3	DRIVER	NPN	297V061C07
Q4	OUTPUT	PNP	297V062C01
Q5	OUTPUT	PNP	297V062C01
Q6	1ST AMP	NPN	297V061C04
Q7	2ND AMP	NPN	297V061C04
Q8	DRIVER	NPN	297V061C07
Q9	OUTPUT	PNP	297V062C01
Q10	OUTPUT	PNP	297V062C01

WESTINGHOUSE Models CR705A, H-975XLNA, RLF-1090A, RTF-3040A;
Chassis V-2598-1, 2, 3

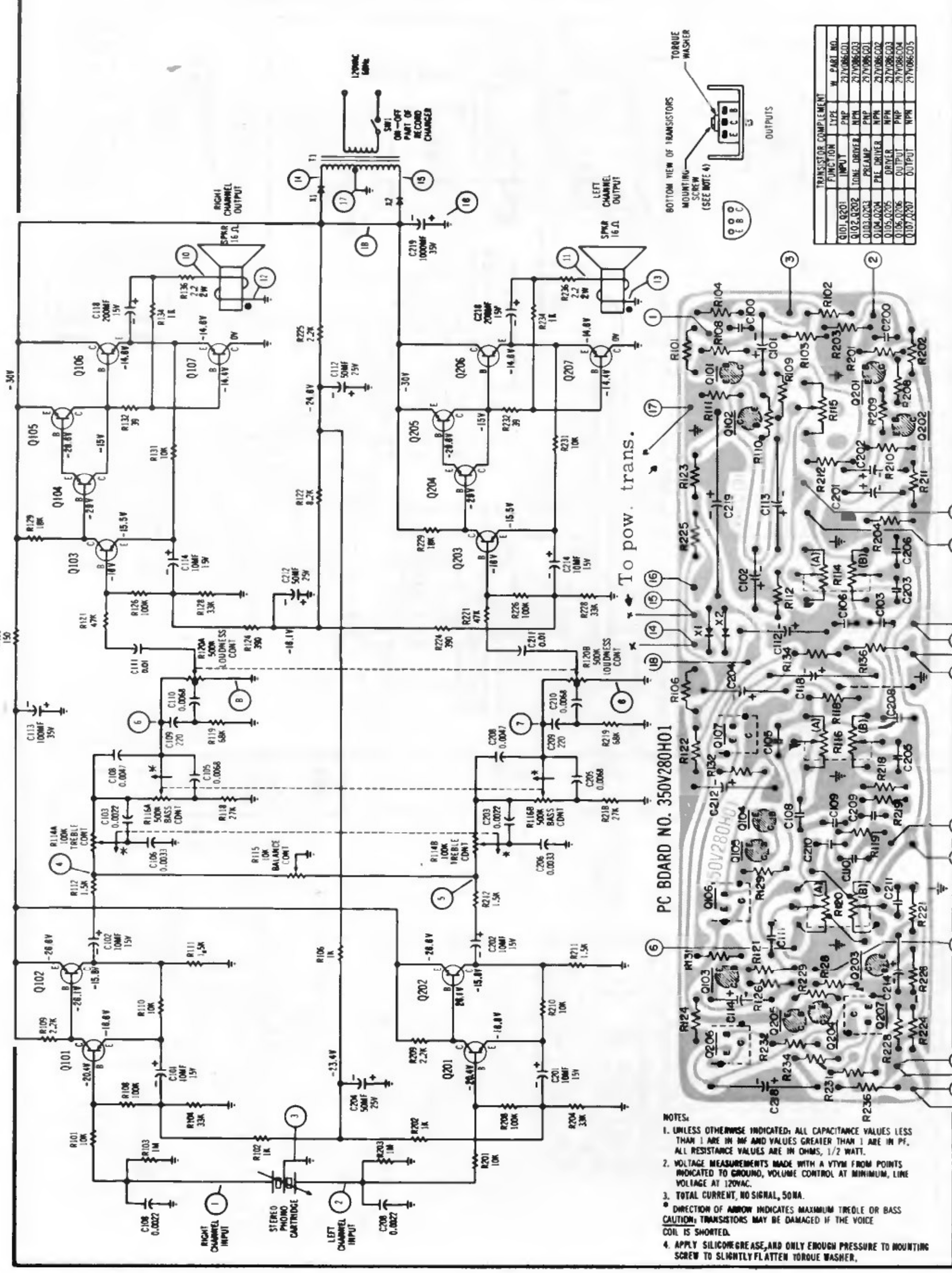
(Continued on next page.)



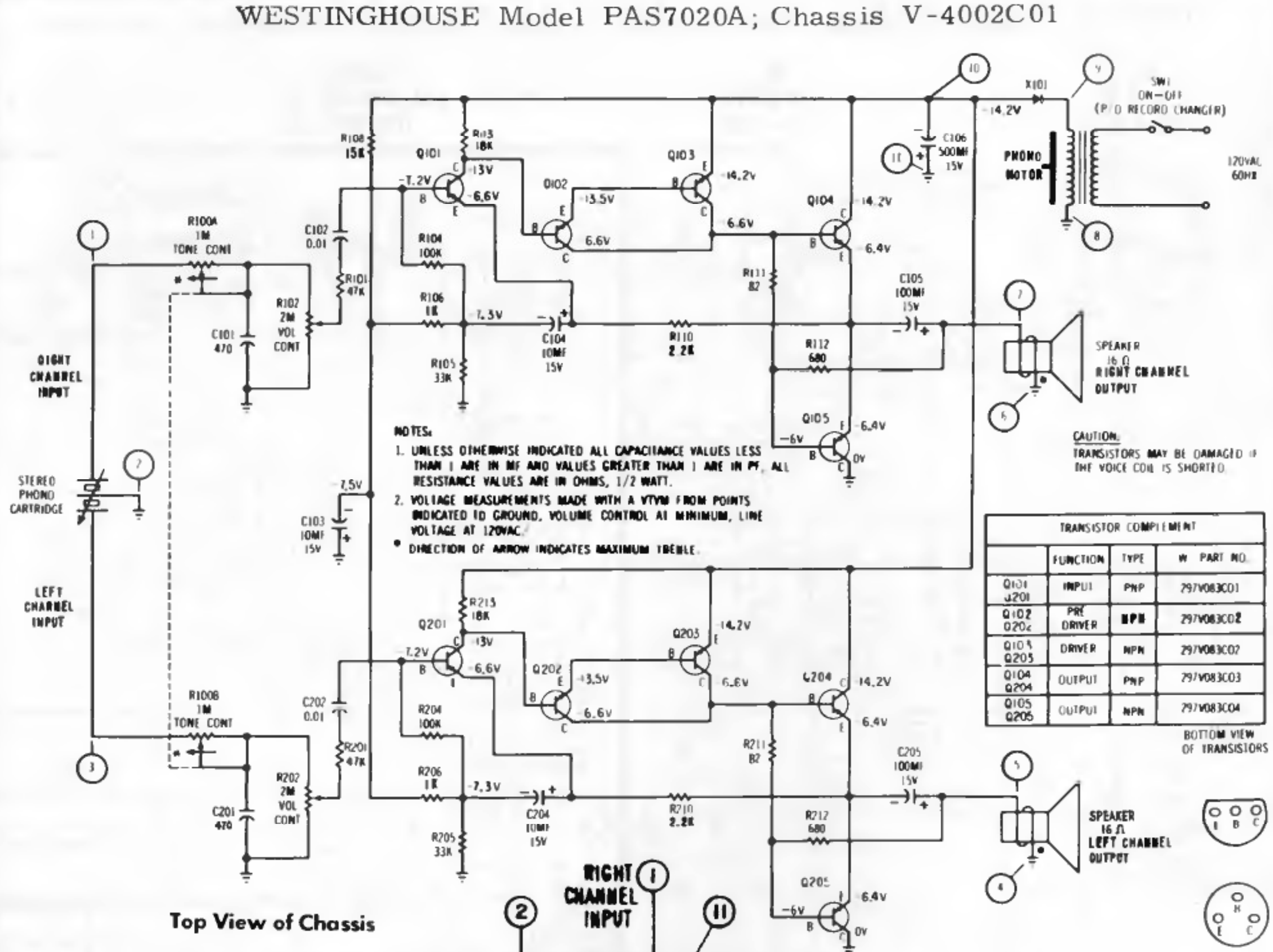
WESTINGHOUSE Models CR705A, H-975XLNA, RLF-1090A, RTF-3040A;
Chassis V-2598-1, 2, 3 (Continued from preceding page.)



WESTINGHOUSE Model PAS7080A; Chassis V-4003C01



WESTINGHOUSE Model PAS7020A; Chassis V-4002C01



NOTES:

1. UNLESS OTHERWISE INDICATED ALL CAPACITANCE VALUES LESS THAN 1 ARE IN MF AND VALUES GREATER THAN 1 ARE IN PF, ALL RESISTANCE VALUES ARE IN OHMS, 1/2 WATT.
2. VOLTAGE MEASUREMENTS MADE WITH A VTVM FROM POINTS INDICATED TO GROUND, VOLUME CONTROL AT MINIMUM, LINE VOLTAGE AT 120VAC.

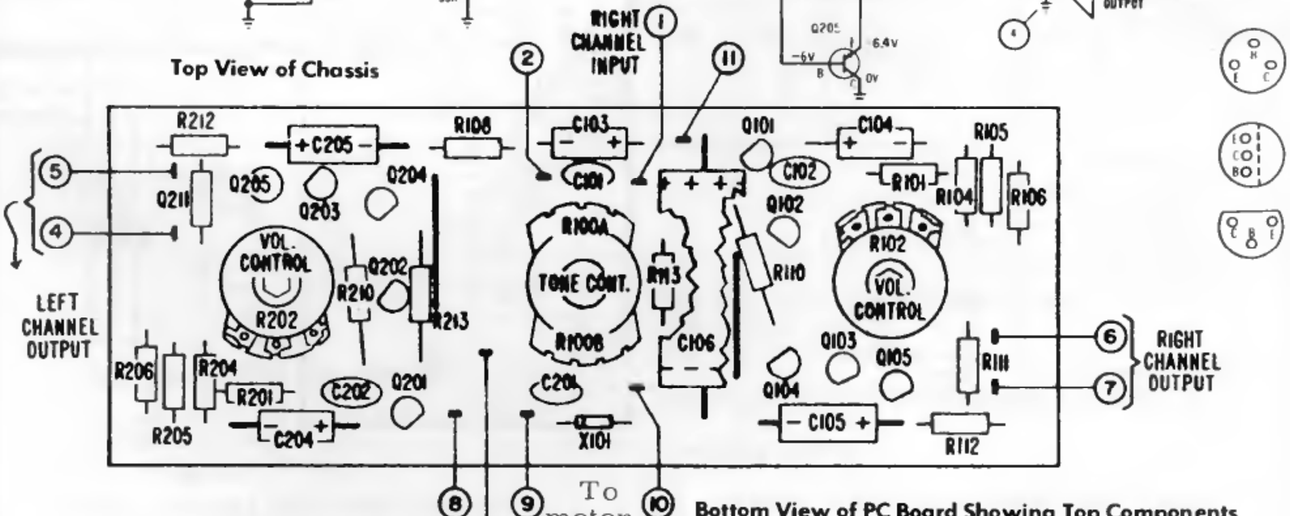
• DIRECTION OF ARROW INDICATES MAXIMUM TREBLE.

CAUTION:
TRANSISTORS MAY BE DAMAGED IF THE VOICE COIL IS SHORTED.

TRANSISTOR COMPLEMENT			
	FUNCTION	TYPE	W PART NO.
Q101 Q201	INPUT	PNP	297V083C01
Q102 Q202	PRE DRIVER	NPN	297V083C02
Q103 Q203	DRIVER	NPN	297V083C07
Q104 Q204	OUTPUT	PNP	297V083C03
Q105 Q205	OUTPUT	NPN	297V083C04

BOTTOM VIEW OF TRANSISTORS

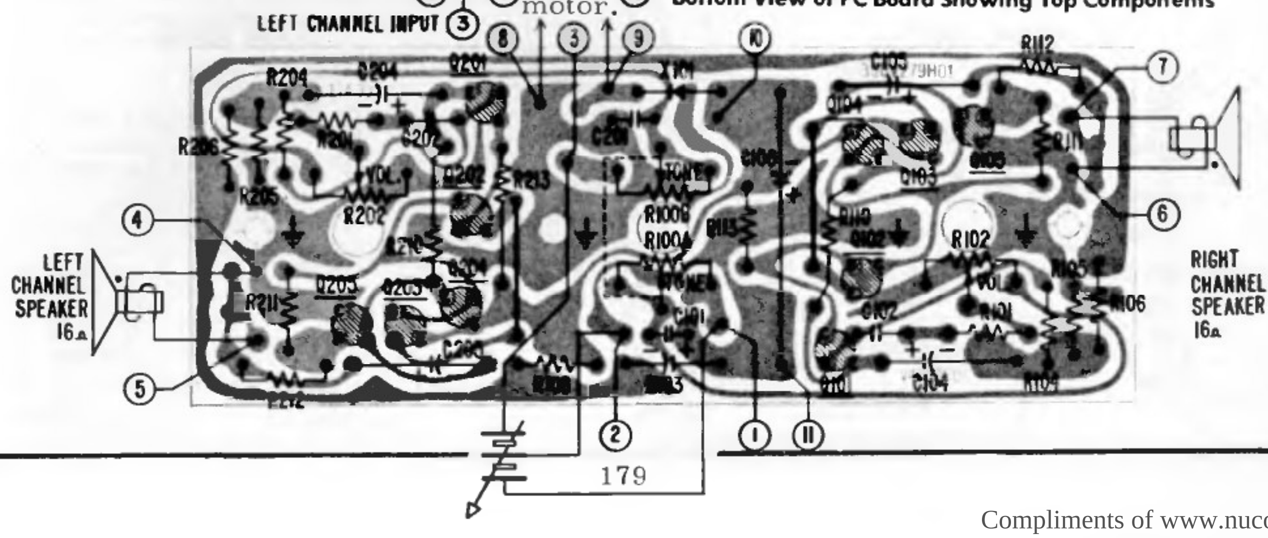
Top View of Chassis



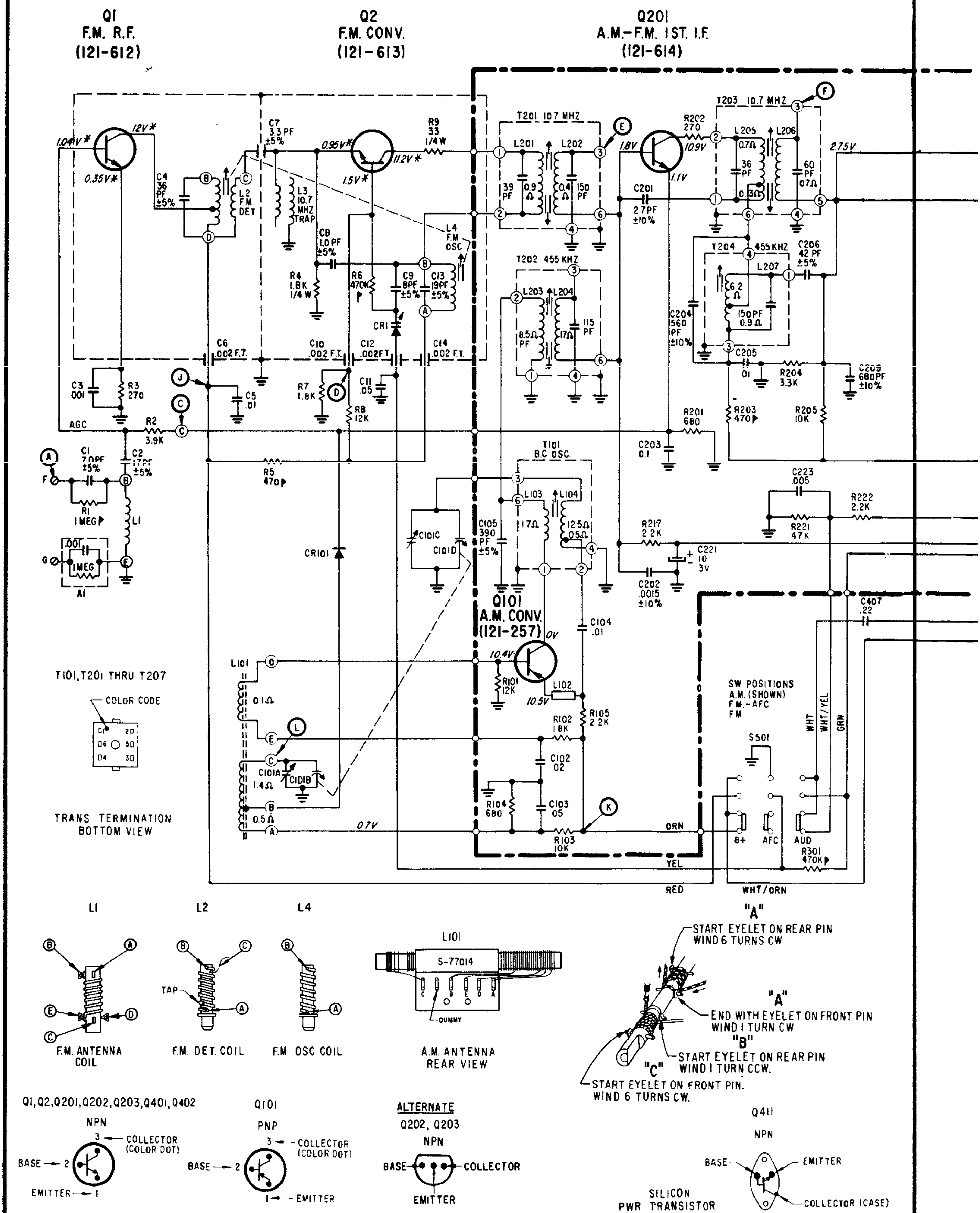
LEFT CHANNEL INPUT

To motor.

Bottom View of PC Board Showing Top Components

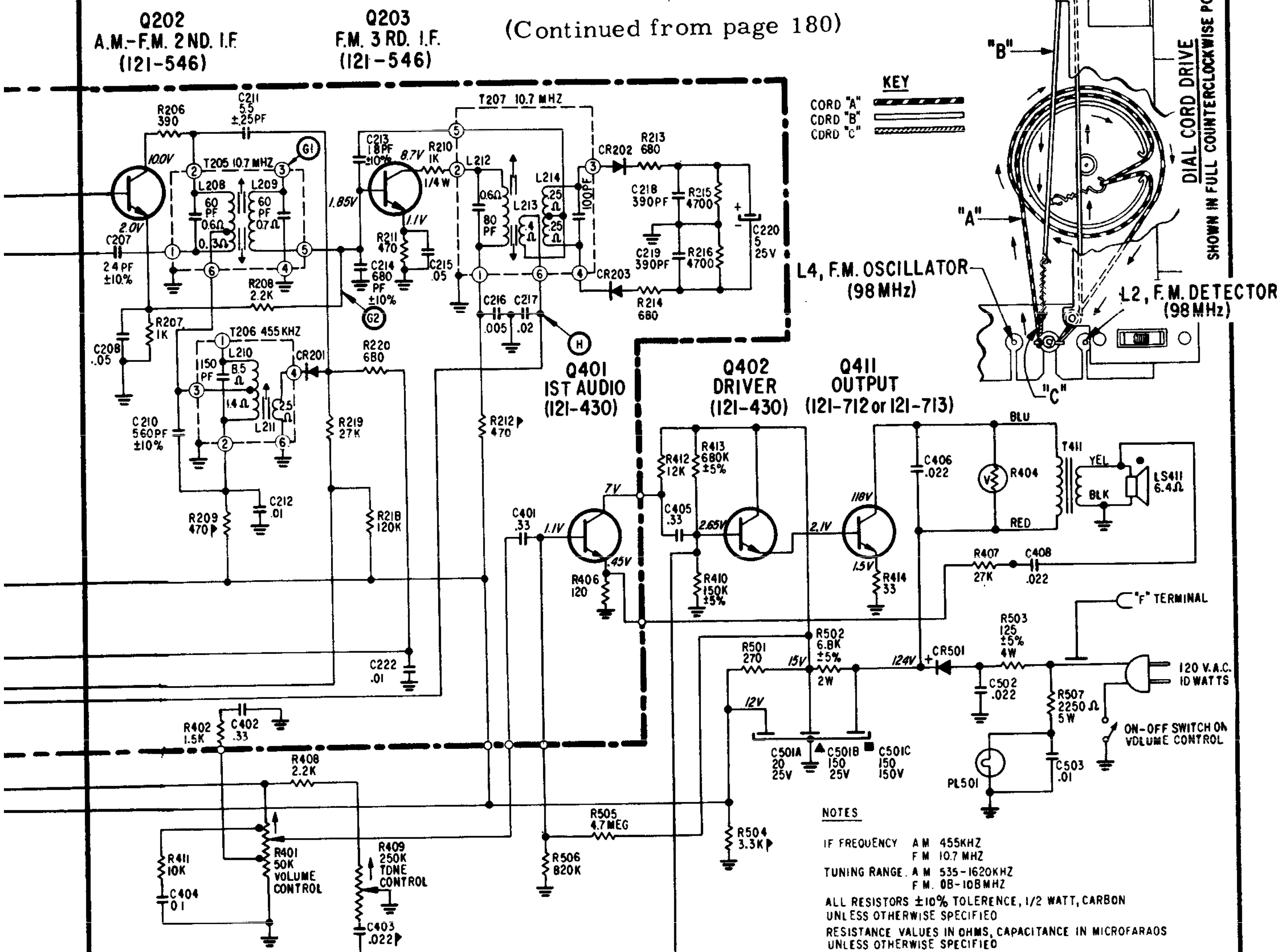


ZENITH Chassis 9ZT15, Models Z430, Z434, T2546 (Continued across page)



ZENITH Chassis 9ZT15, Models Z430, Z434, T2546

(Continued from page 180)



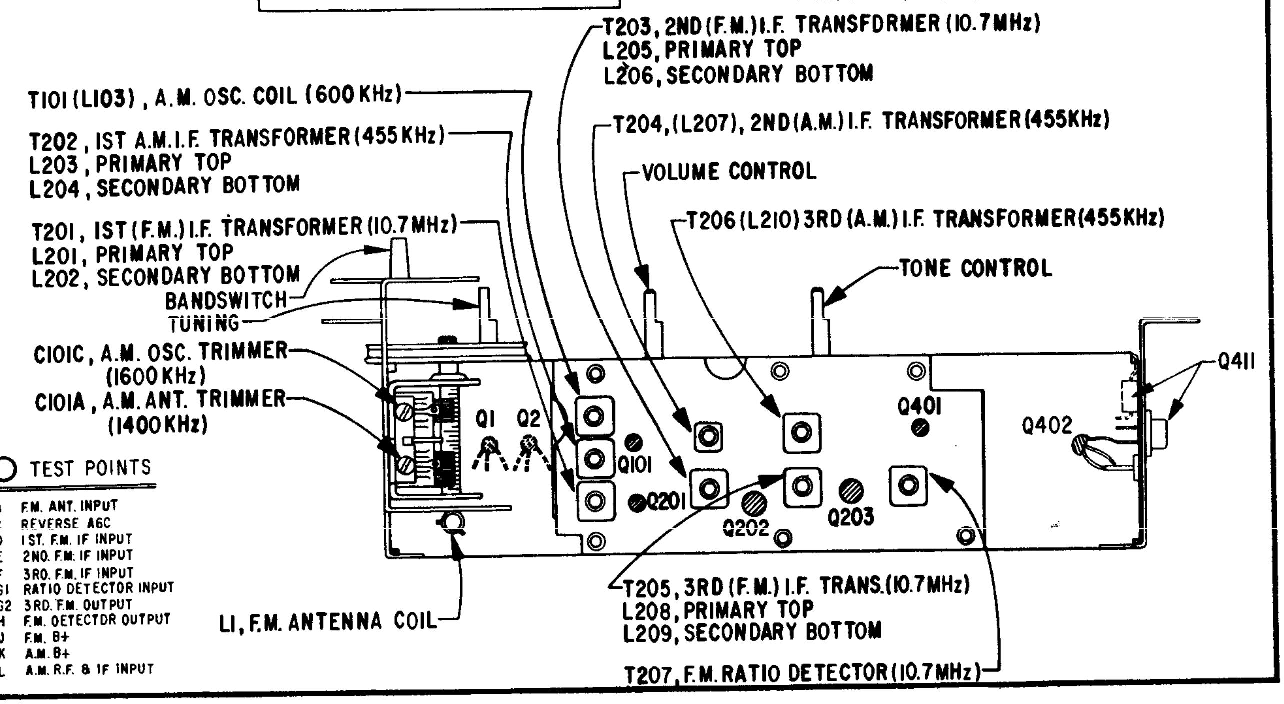
NOTES

IF FREQUENCY A.M. 455KHZ
F.M. 10.7 MHZ

TUNING RANGE. A.M. 535-1620KHZ
F.M. 88-108MHZ

ALL RESISTORS ±10% TOLERENCE, 1/2 WATT, CARBON UNLESS OTHERWISE SPECIFIED

RESISTANCE VALUES IN OHMS, CAPACITANCE IN MICROFARADS UNLESS OTHERWISE SPECIFIED



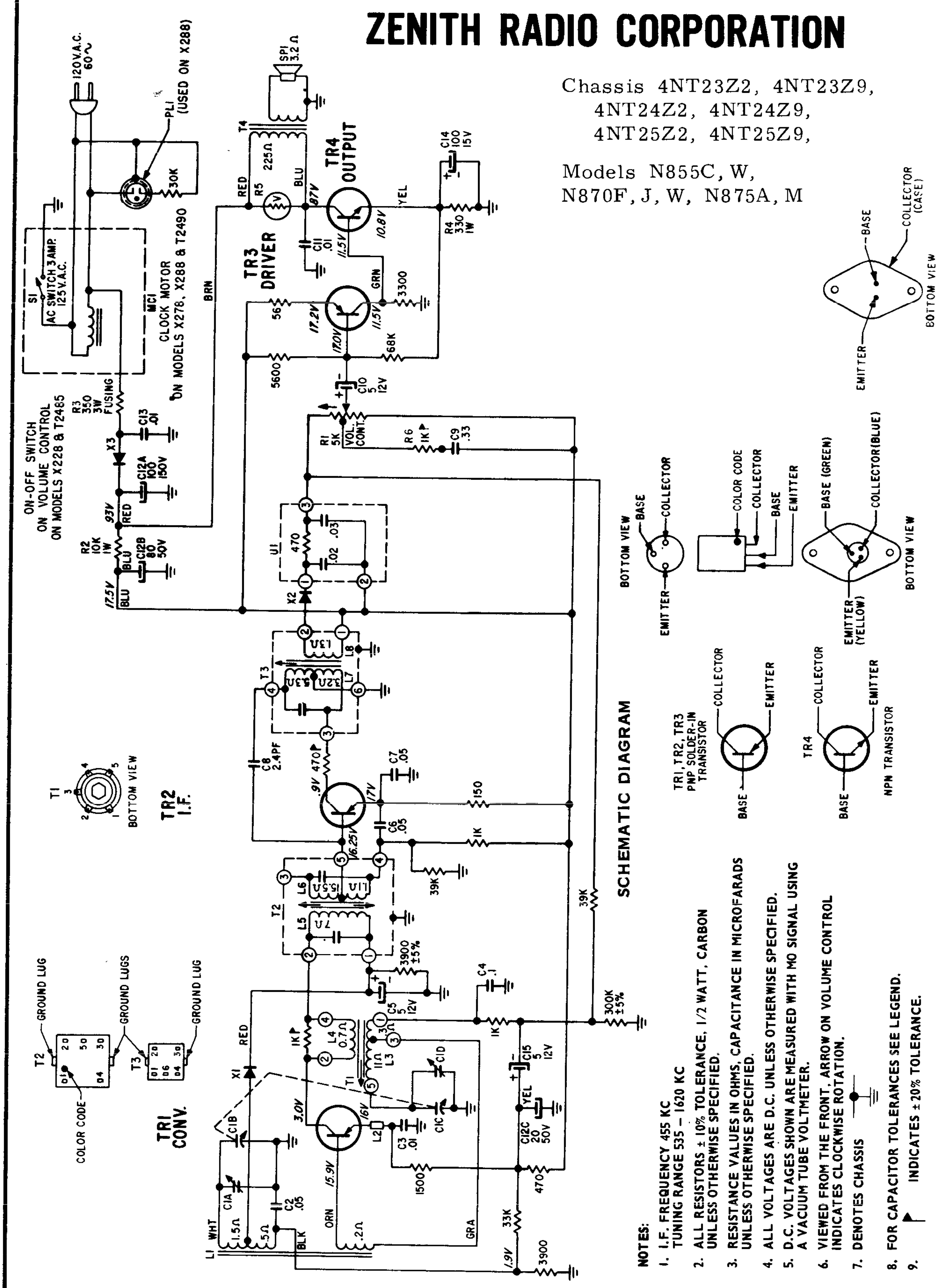
TEST POINTS

- A F.M. ANT. INPUT
- C REVERSE AGC
- D 1ST. F.M. IF INPUT
- E 2ND. F.M. IF INPUT
- F 3RD. F.M. IF INPUT
- G1 RATIO DETECTOR INPUT
- G2 3RD. F.M. OUTPUT
- H F.M. DETECTOR OUTPUT
- J F.M. B+
- K A.M. B+
- L A.M. R.F. & IF INPUT

ZENITH RADIO CORPORATION

Chassis 4NT23Z2, 4NT23Z9,
4NT24Z2, 4NT24Z9,
4NT25Z2, 4NT25Z9,

Models N855C, W,
N870F, J, W, N875A, M



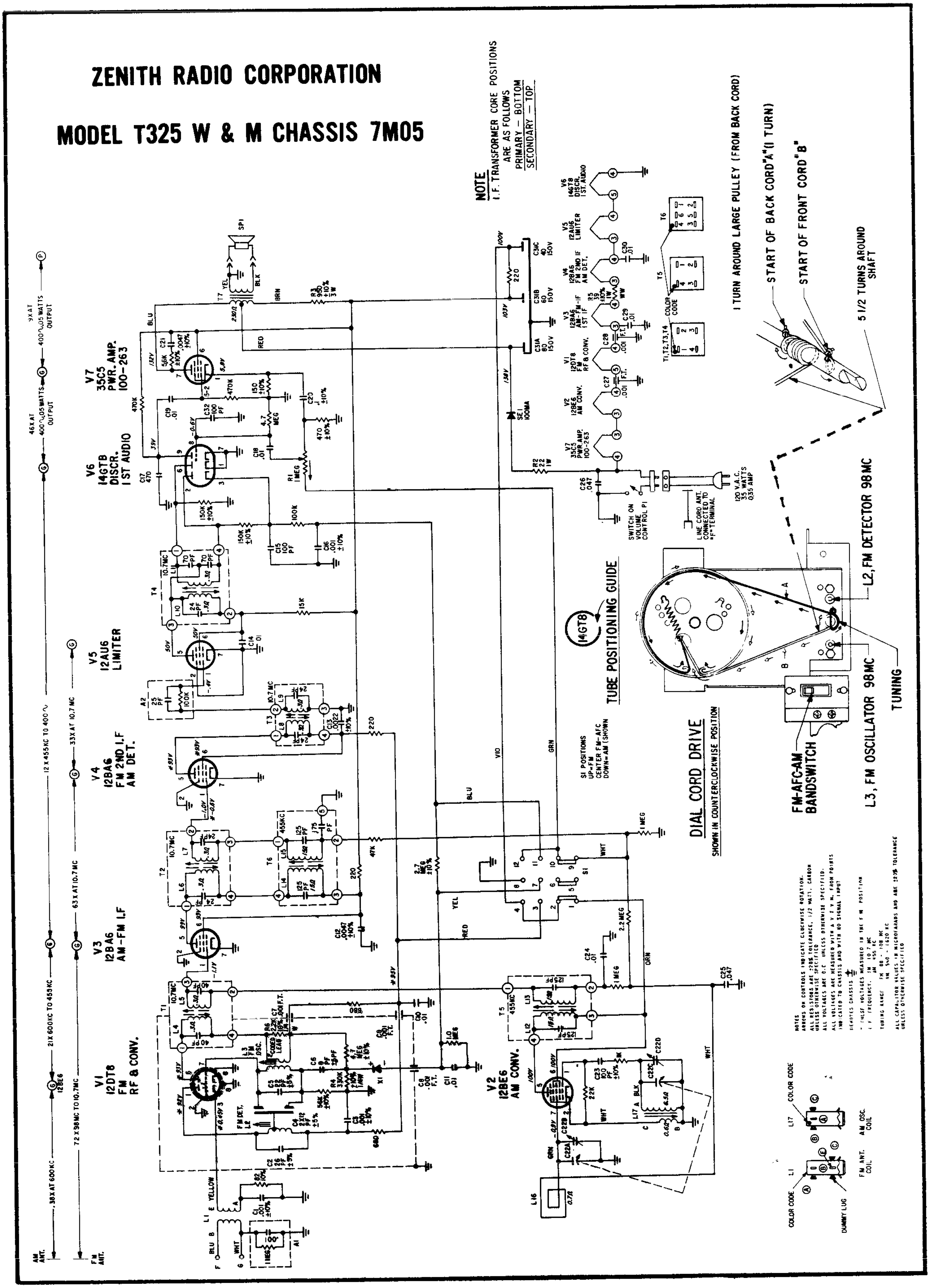
SCHEMATIC DIAGRAM

NOTES:

1. I.F. FREQUENCY 455 KC
   TUNING RANGE 535 – 1620 KC
2. ALL RESISTORS ± 10% TOLERANCE, 1/2 WATT, CARBON UNLESS OTHERWISE SPECIFIED.
3. RESISTANCE VALUES IN OHMS, CAPACITANCE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
4. ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.
5. D.C. VOLTAGES SHOWN ARE MEASURED WITH MO SIGNAL USING A VACUUM TUBE VOLTMETER.
6. VIEWED FROM THE FRONT, ARROW ON VOLUME CONTROL INDICATES CLOCKWISE ROTATION.
7. DENOTES CHASSIS
8. FOR CAPACITOR TOLERANCES SEE LEGEND.
9. INDICATES ± 20% TOLERANCE.

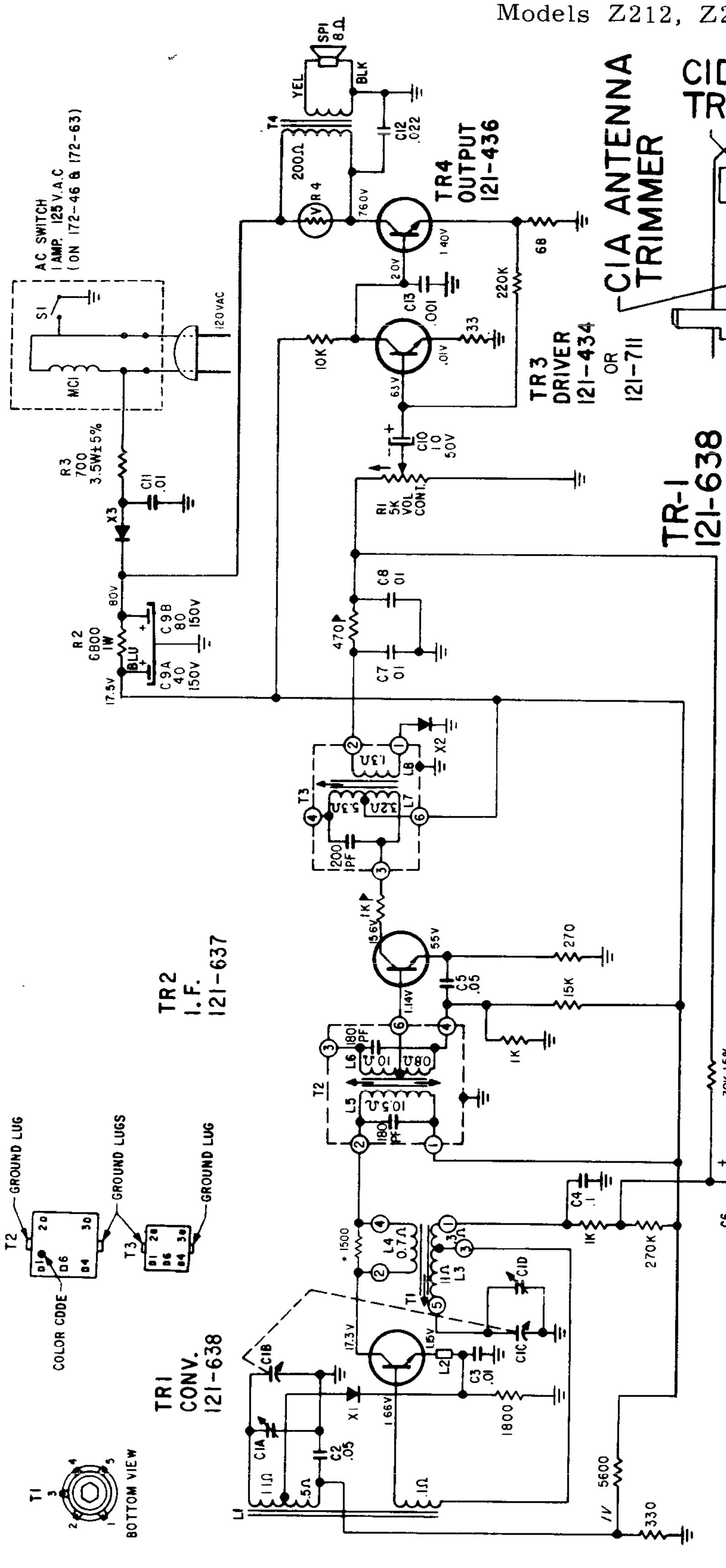
ZENITH RADIO CORPORATION

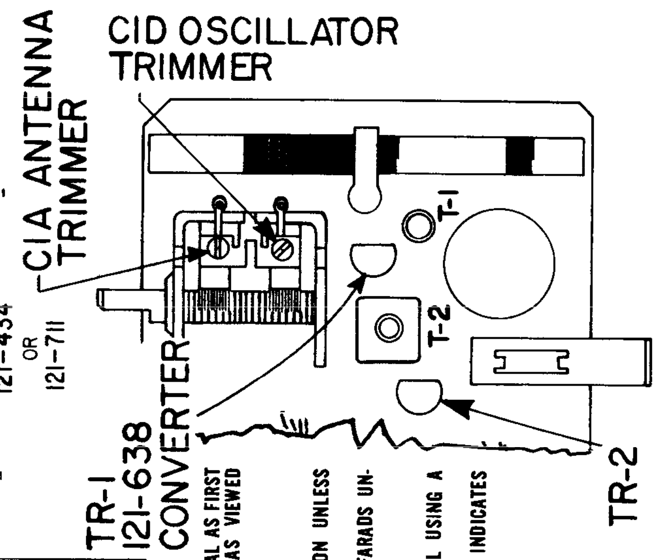
MODEL T325 W & M CHASSIS 7M05



ZENITH RADIO CORPORATION

Chassis 4ZT28, 4ZT29,
Models Z212, Z214, Z260, Z265, T2504, T2511

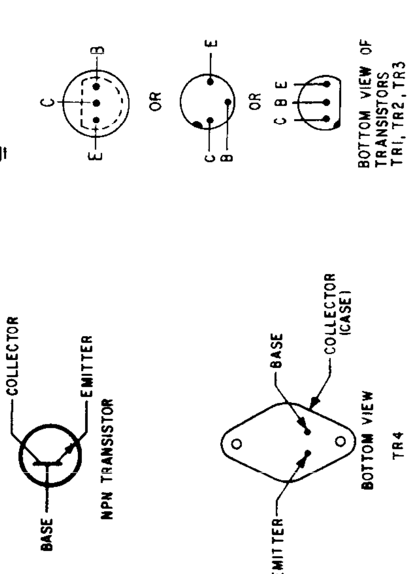




NOTES:

1. I.F. TRANSFORMER NUMBERING STARTS WITH #1 TERMINAL AS FIRST TERMINAL CLOCKWISE FROM MARKER CODE TERMINAL AS VIEWED FROM BOTTOM OF CHASSIS.
2. I.F. FREQUENCY 455 KHz. TUNING RANGE 535-1620 KHz.
3. ALL RESISTORS ± 10% TOLERANCE. ½ WATT. CARBON UNLESS OTHERWISE SPECIFIED.
4. RESISTANCE VALUES IN OHMS. CAPACITANCE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
5. ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.
6. D.C. VOLTAGES SHOWN ARE MEASURED WITH NO SIGNAL USING A VACUUM TUBE VOLTMETER.
7. VIEWED FROM THE FRONT, ARROW ON VOLUME CONTROL INDICATES CLOCKWISE ROTATION.

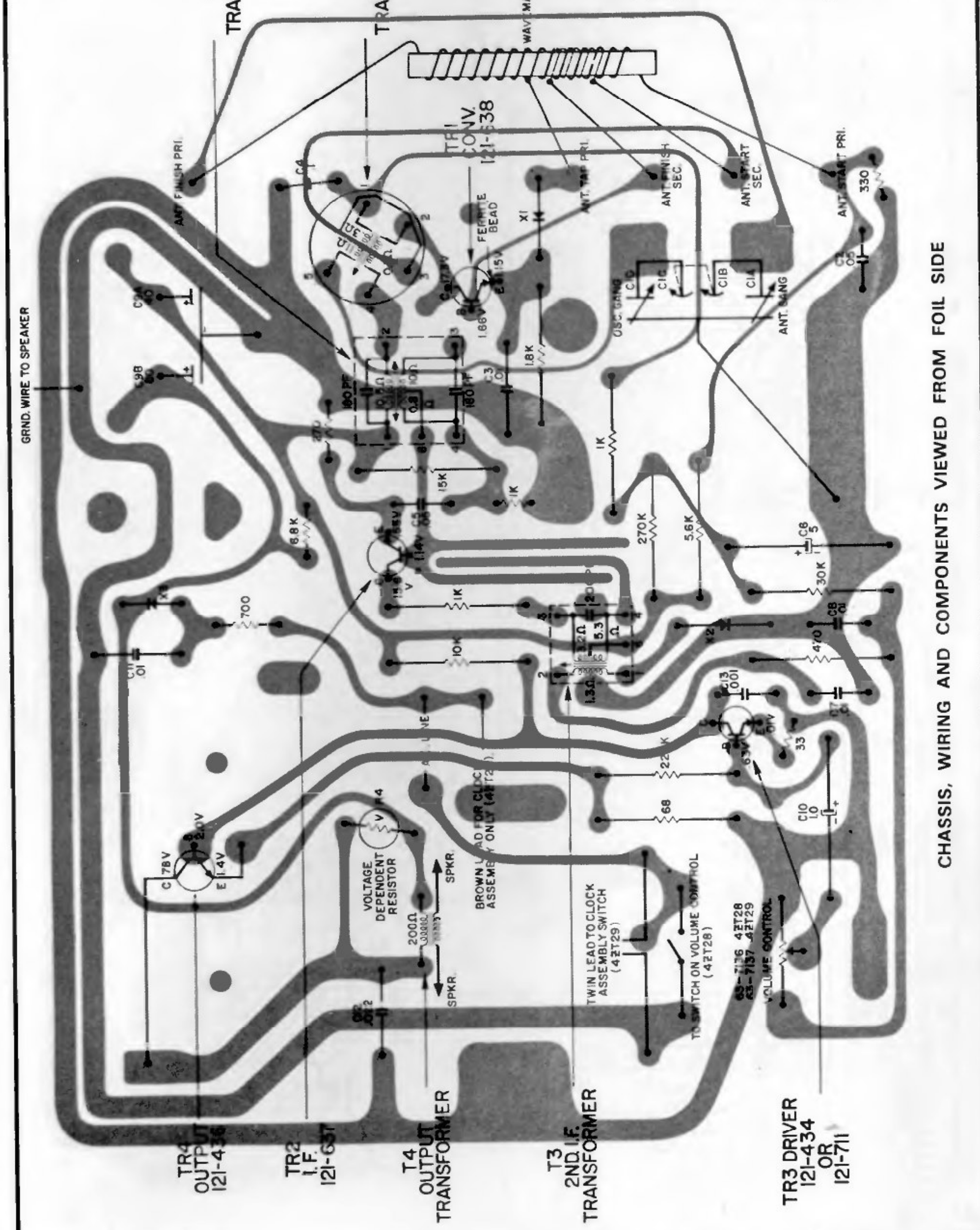
INDICATES ± 20% TOLERANCE
• INDICATES COLLECTOR OF TRANSISTOR
DENOTES CHASSIS
* ADDED IN LATER PRODUCTION



(Continued on page 185)

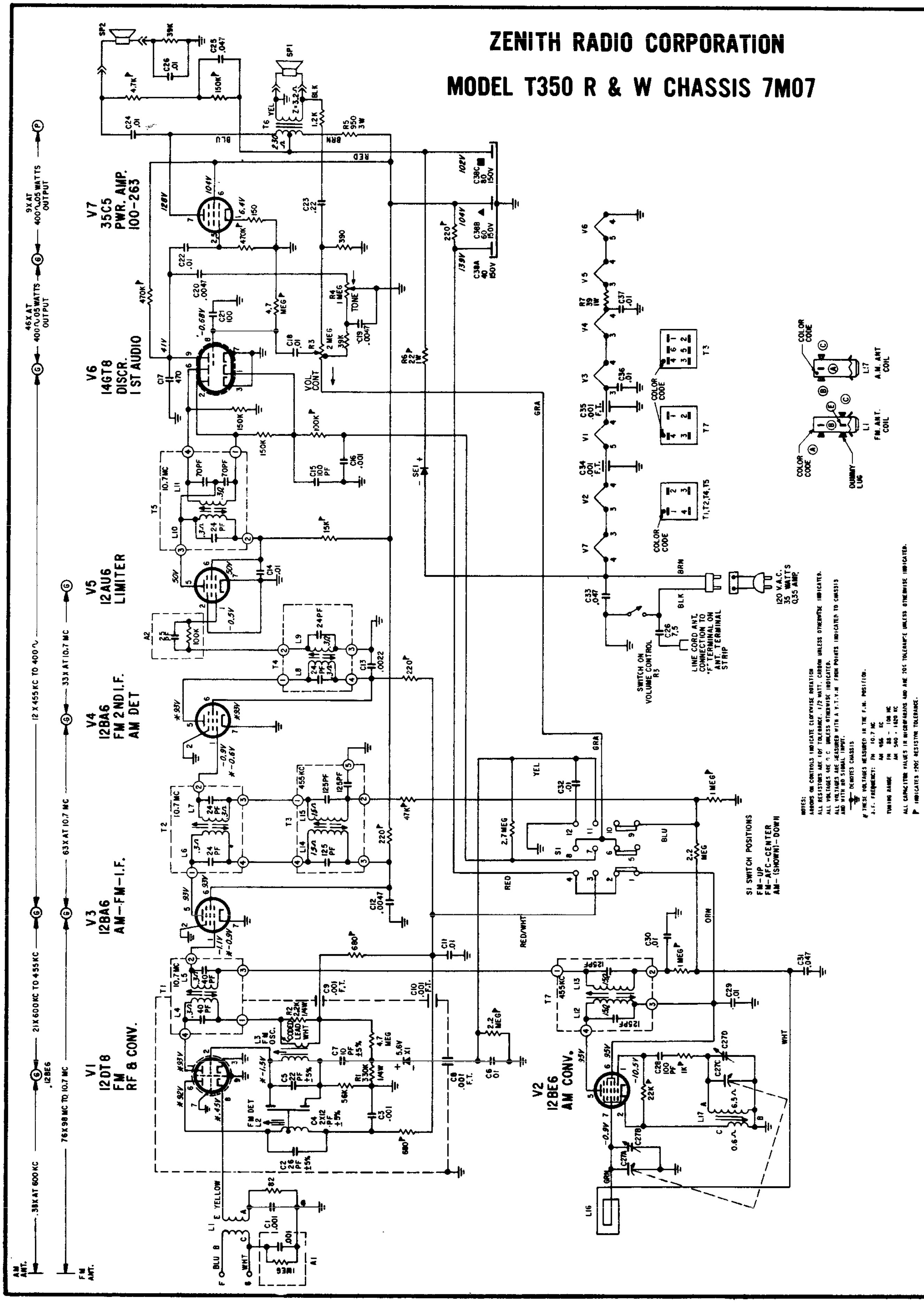
ZENITH RADIO CORPORATION

Chassis 4ZT28, 4ZT29, Continued
(See page 184 for diagram)

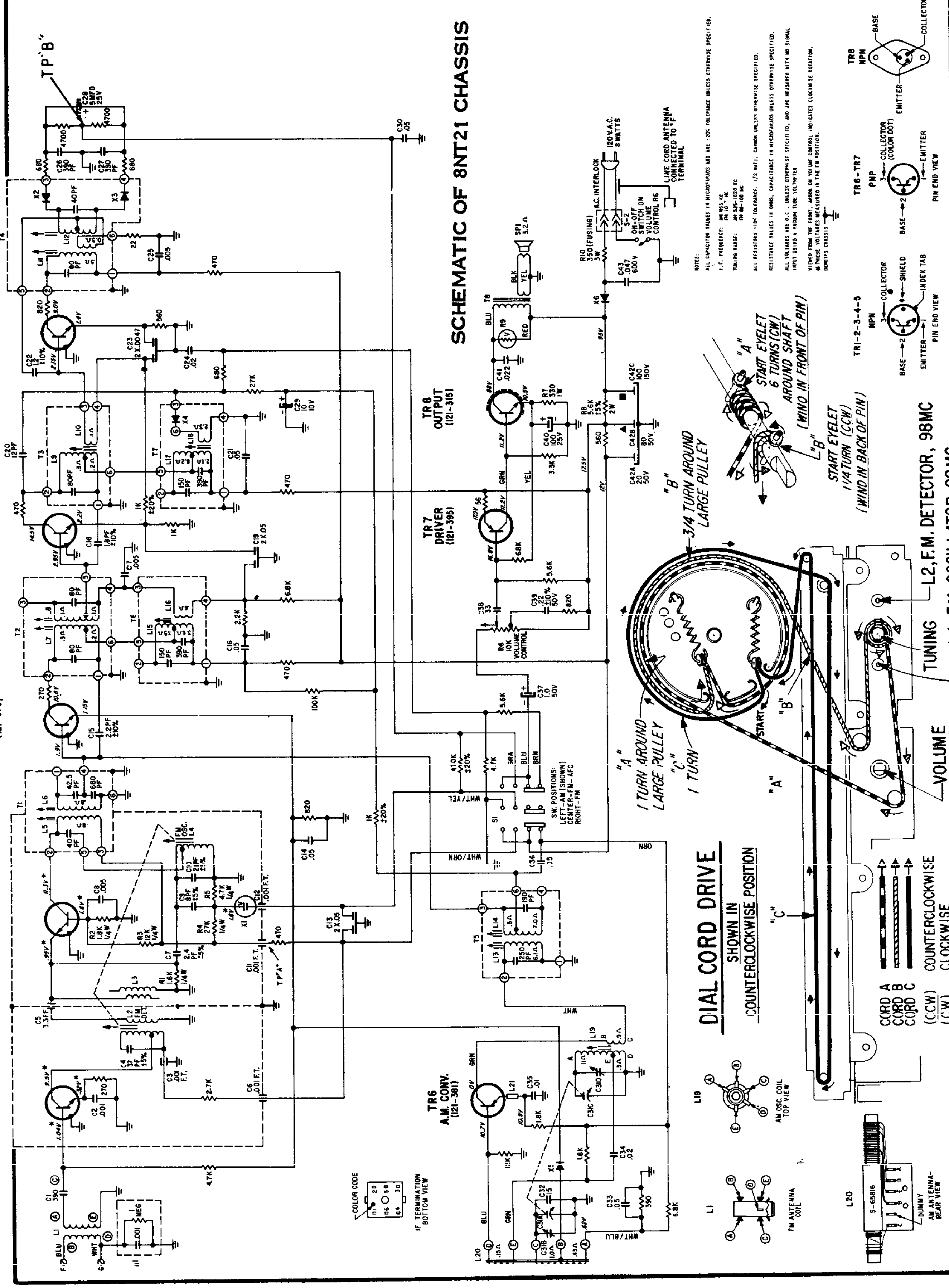


ZENITH RADIO CORPORATION

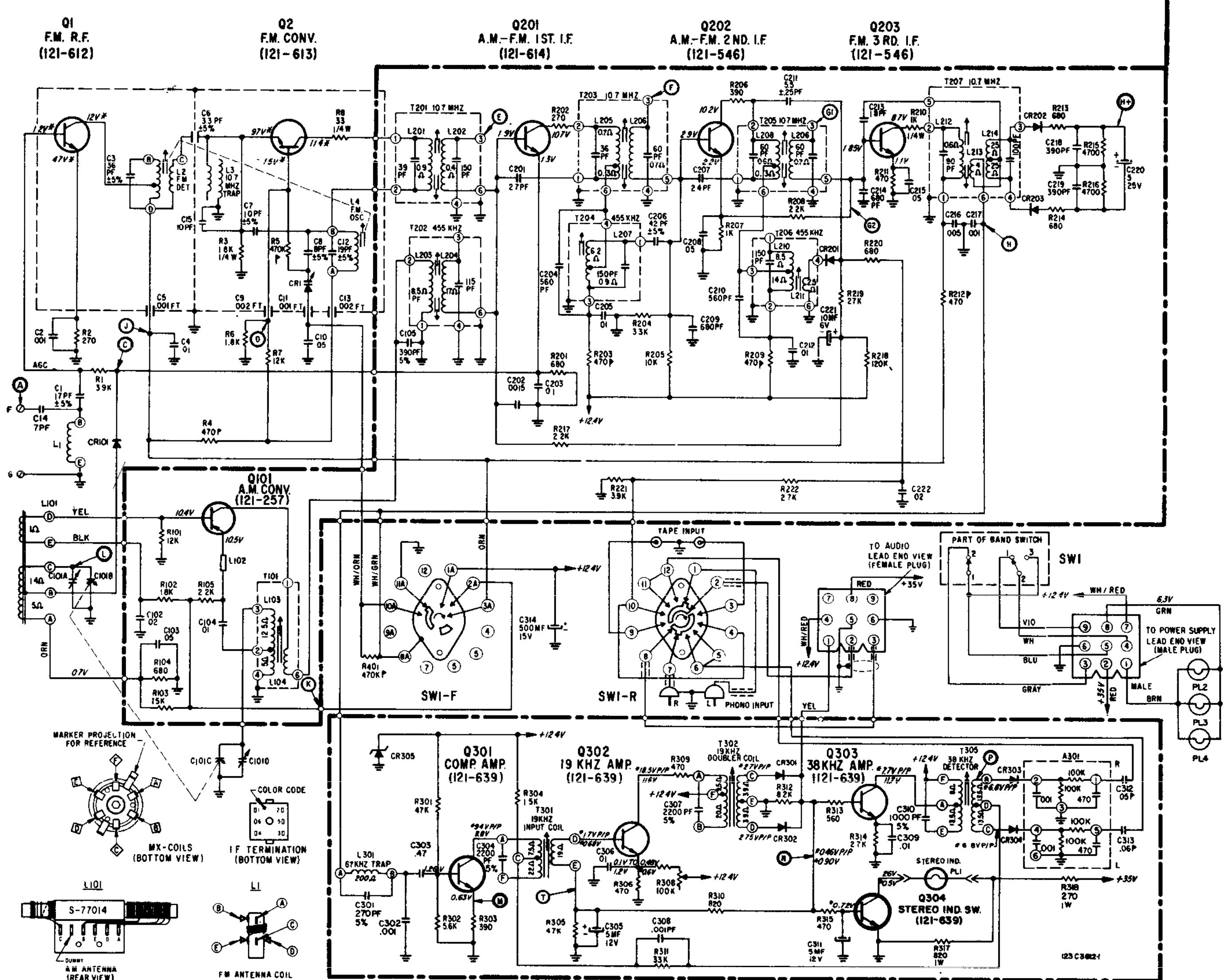
MODEL T350 R & W CHASSIS 7M07



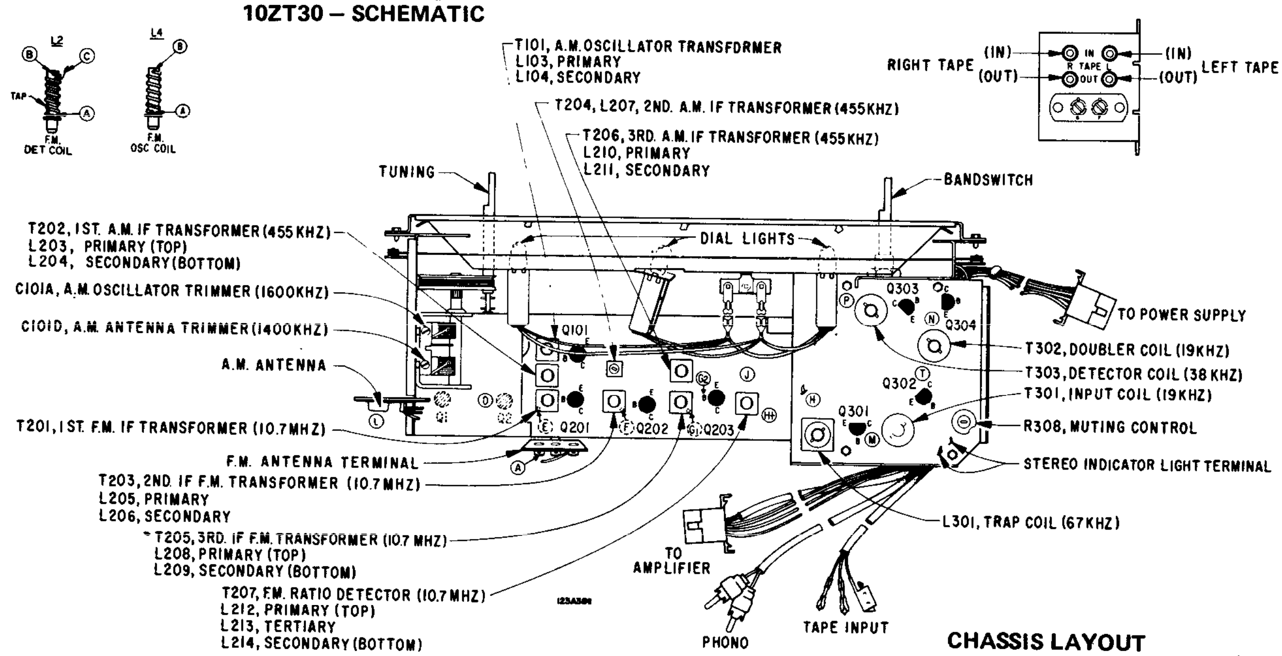
ZENITH Chassis 8NT21, Model N890



ZENITH Chassis 10ZT30 (Continued on page 189)

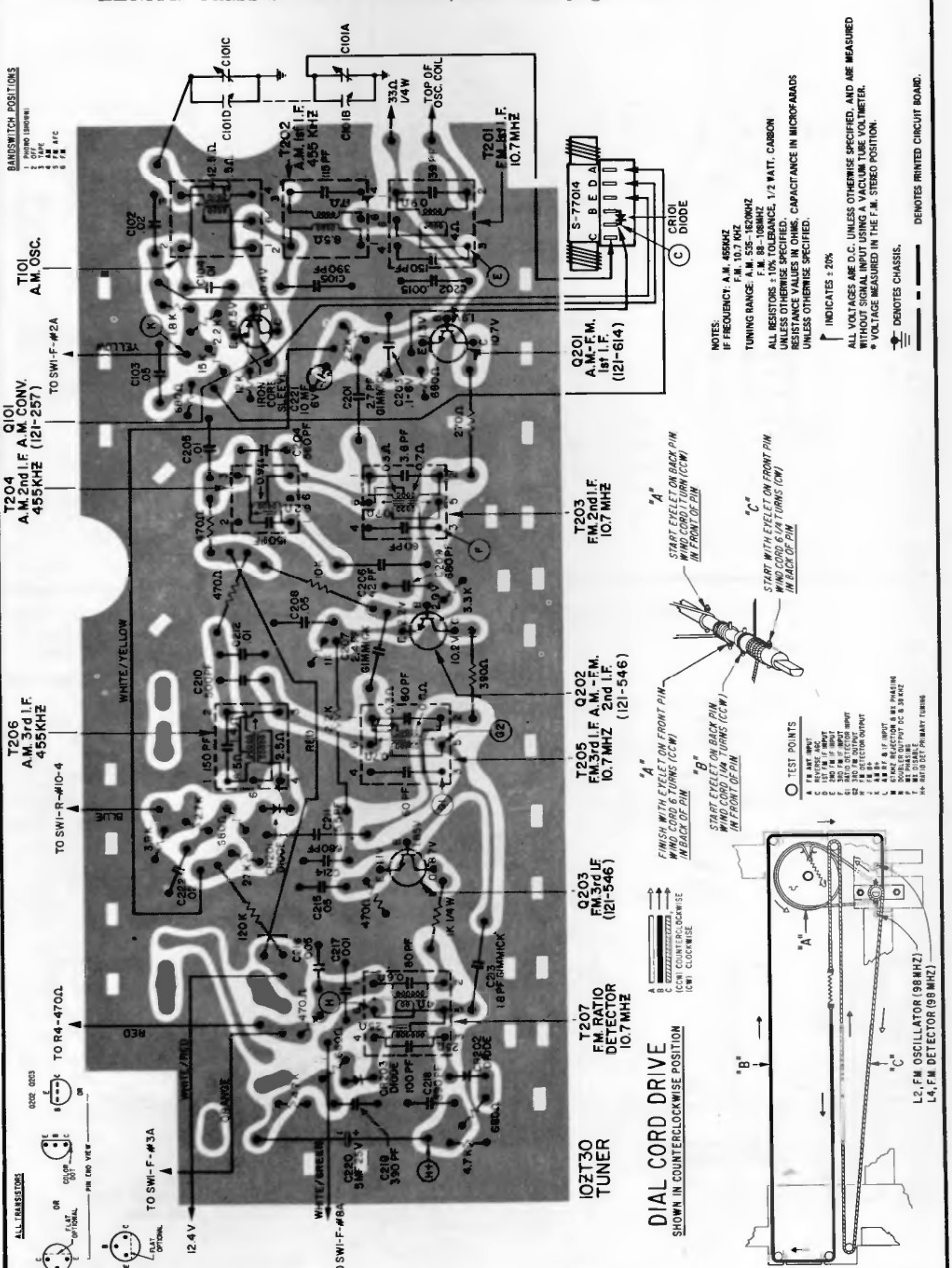


10ZT30 – SCHEMATIC

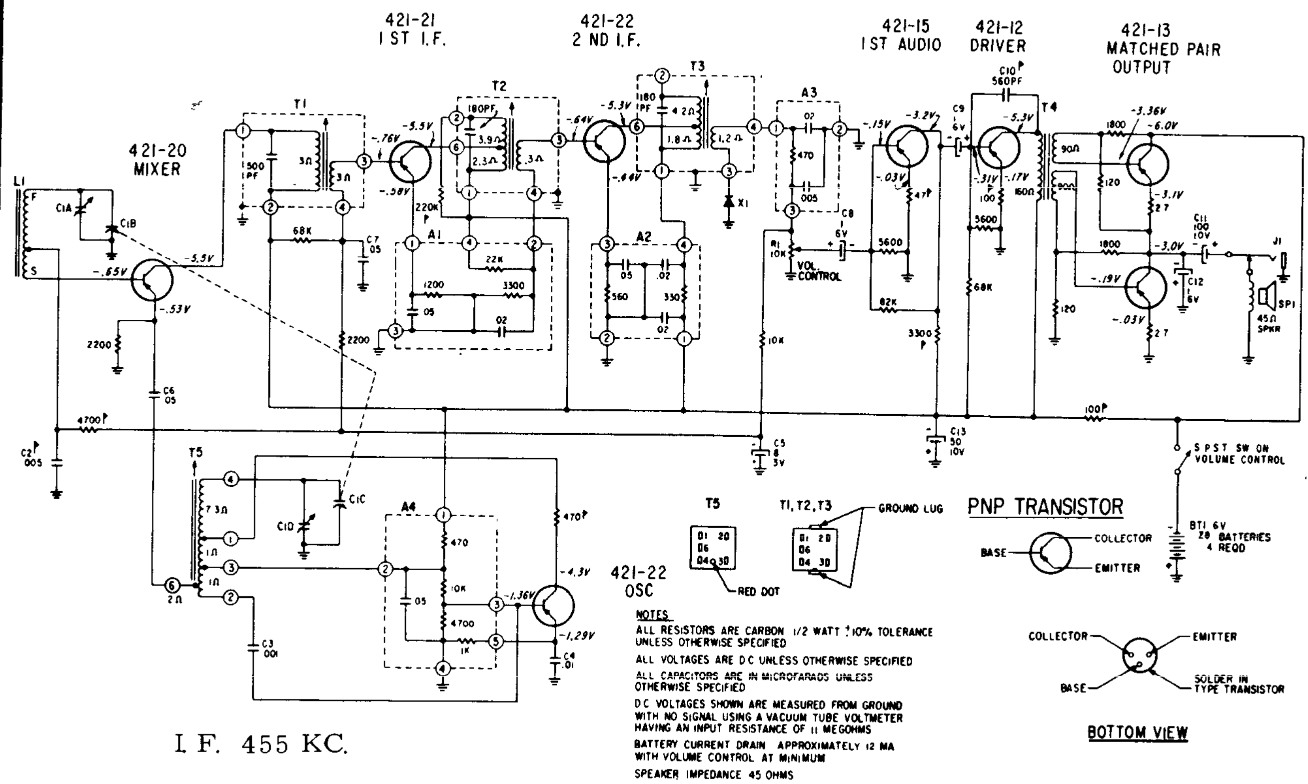


CHASSIS LAYOUT

 (Continued from page 188)

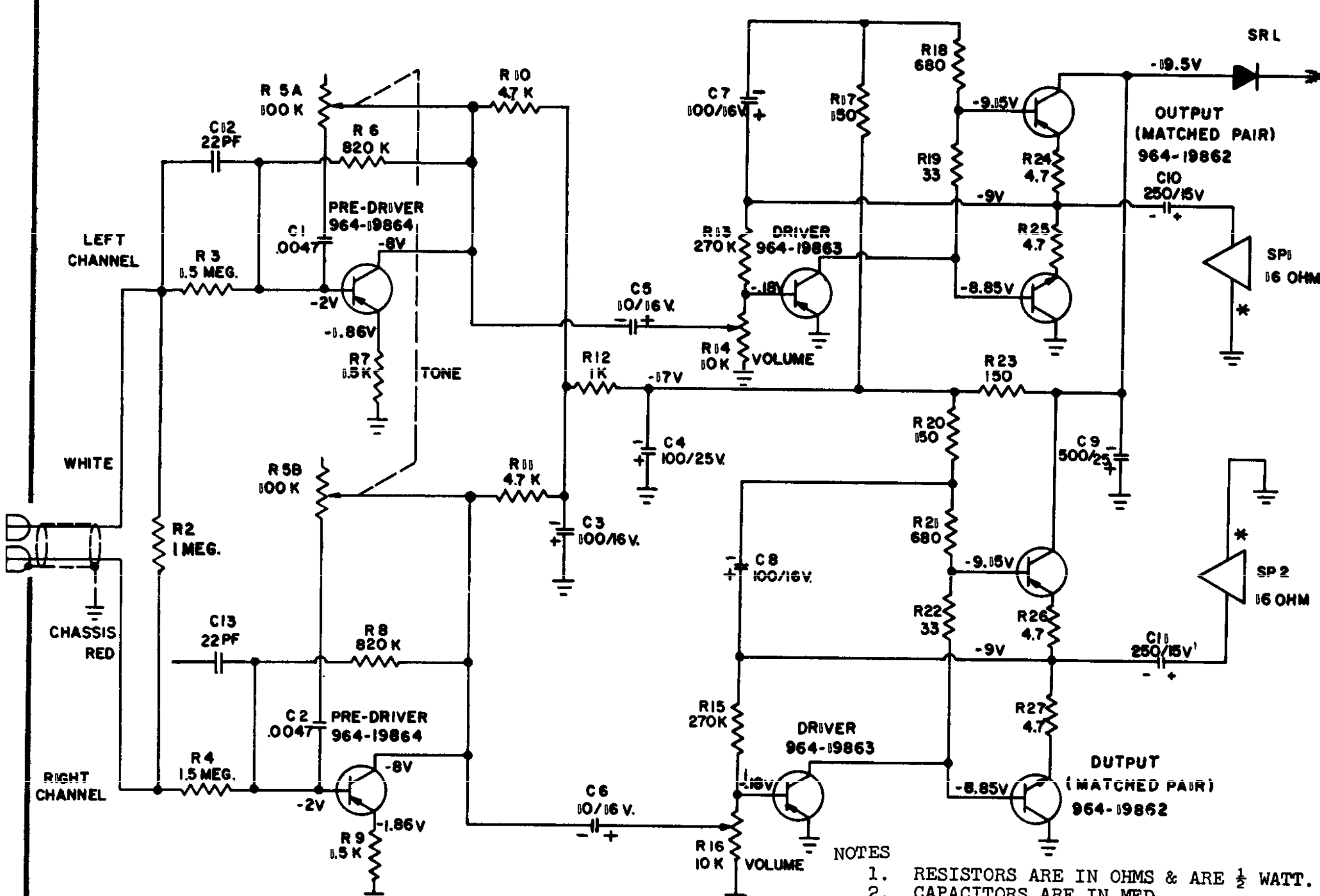


ZENITH Chassis 8NT46Z9, Models "Royal 270"



I. F. 455 KC.

ZENITH Models X540G-1, 540L-1, X547P-1, 547X-1



To PWR. TRANS

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