

The Harman Kardon Model Citation 23

Manual 114B

DIGITAL SYNTHESIZED QUARTZ-LOCK TUNER

Technical Manual



SUPPLEMENTARY MANUAL 1

MODIFICATIONS WERE MADE AT SERIAL NUMBER S103-01001, S103-05801 AND S103-06251 TO IMPROVE PERFORMANCE. EXCEPT FOR THE CHANGES AS NOTED IN THIS SUPPLEMENT, REFER TO MANUAL 114A FOR ALL OTHER PARTS AND SERVICE INFORMATION.

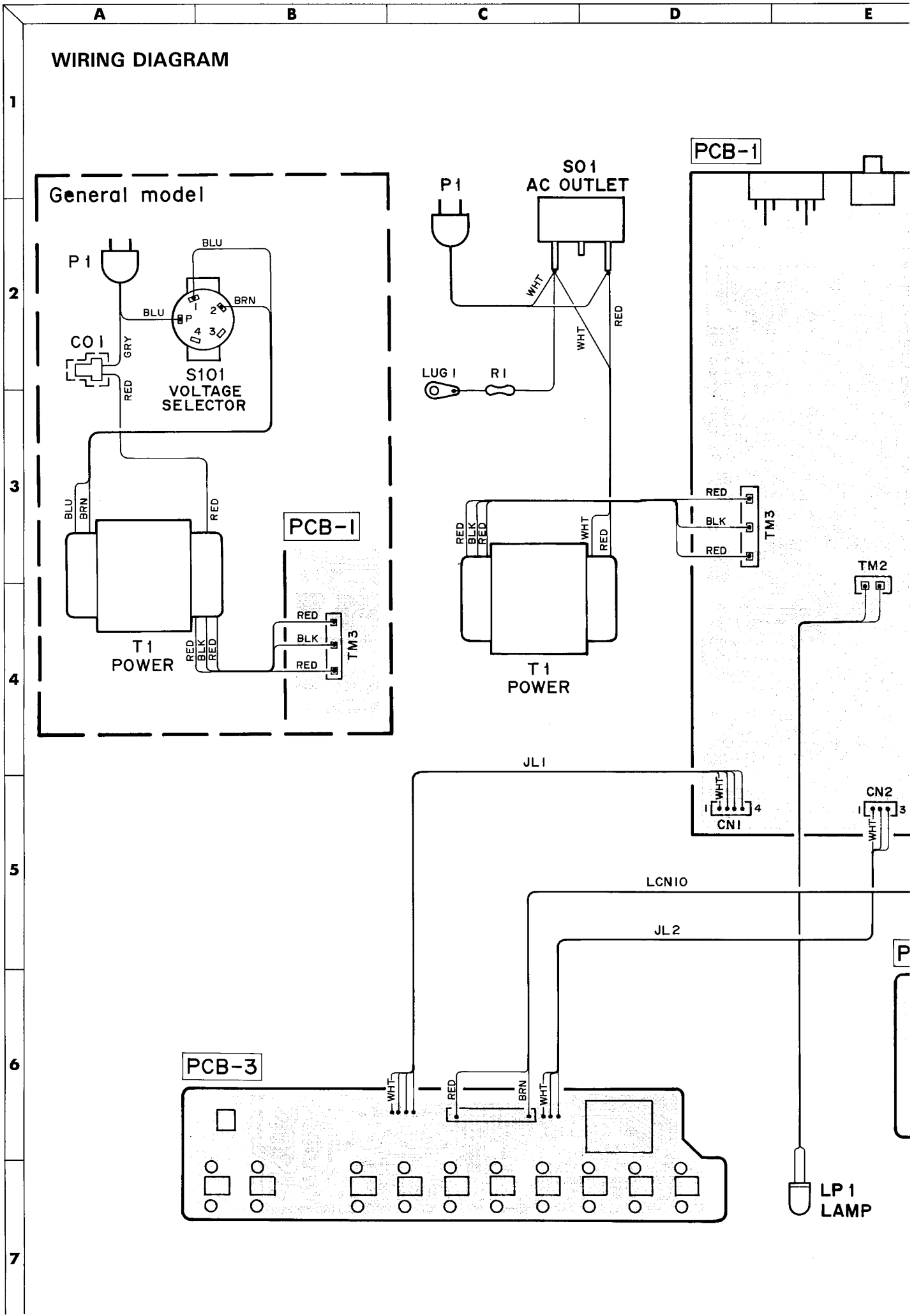
The following marks found in the parts list of this manual identify the models as follows.

- **UA** : North America area model
- **G** : General model
- **N** : Japan model

harman/kardon

240 Crossways Park West, Woodbury, N.Y. 11797
1112-3152114B8 P-089010 1500 Printed in Japan

WIRING DIAGRAM



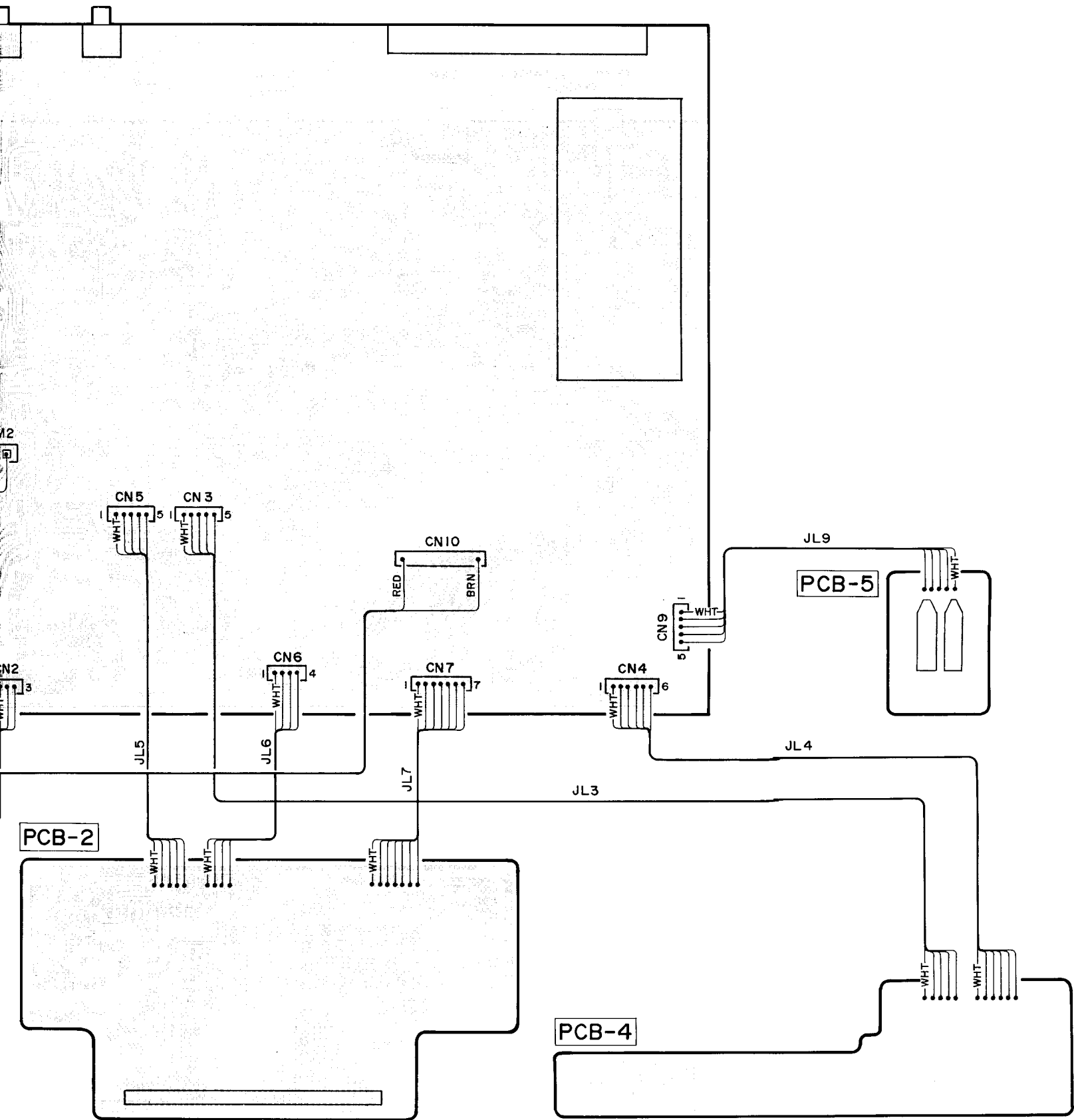
F

G

H

I

J

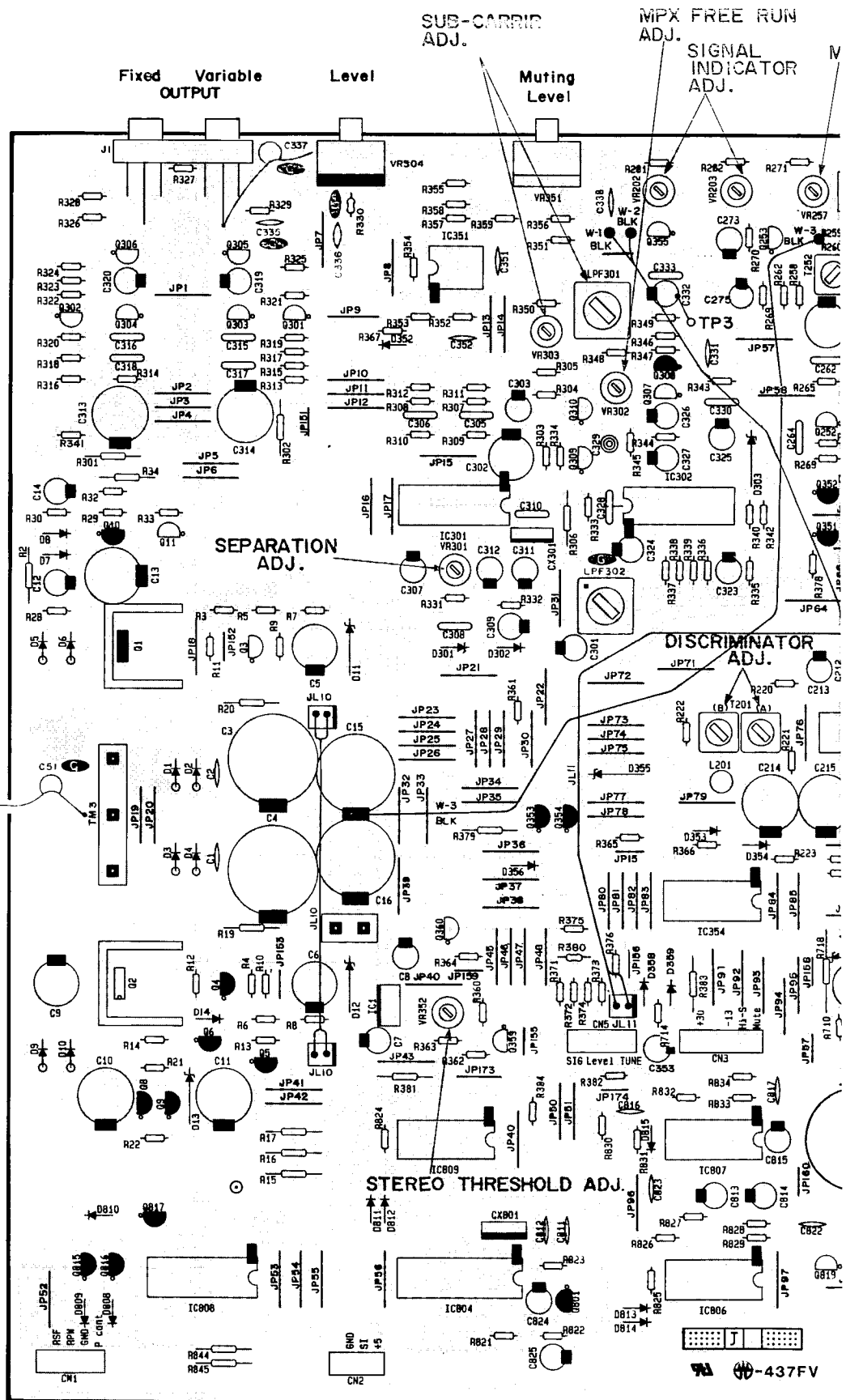


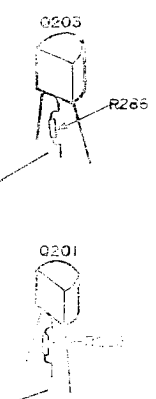
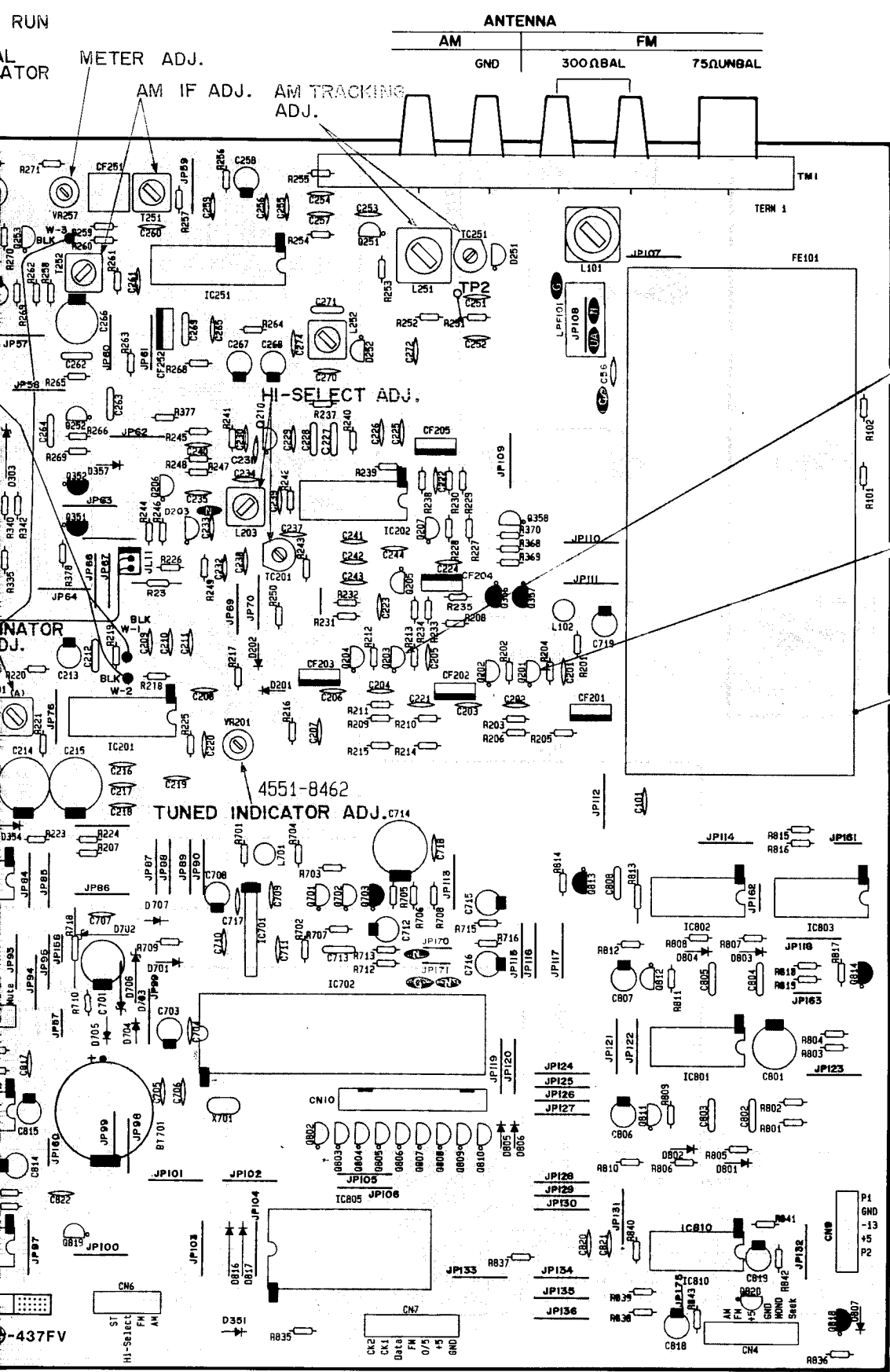
WIRE COLOR ABBREVIATIONS

Red	: RED	YEL	: Yellow
ORG	: Orange	PUP	: Purple
BLU	: Blue	PIK	: Pink
WHT	: White	GRY	: Gray
GRN	: Green	BRN	: Brown
BLK	: Black		

P. C. BOARDS

PCB-1 Main P. C. Board

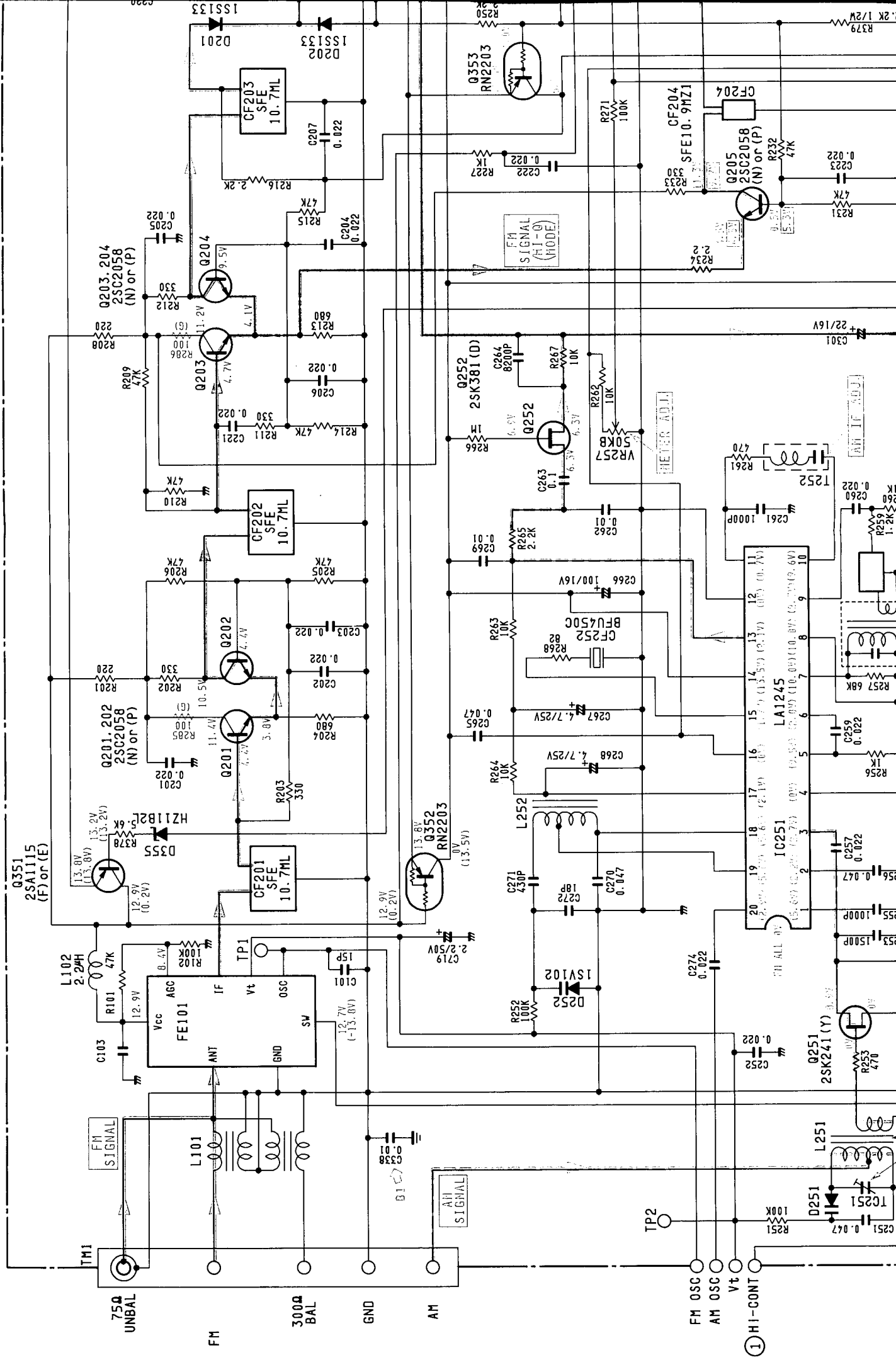




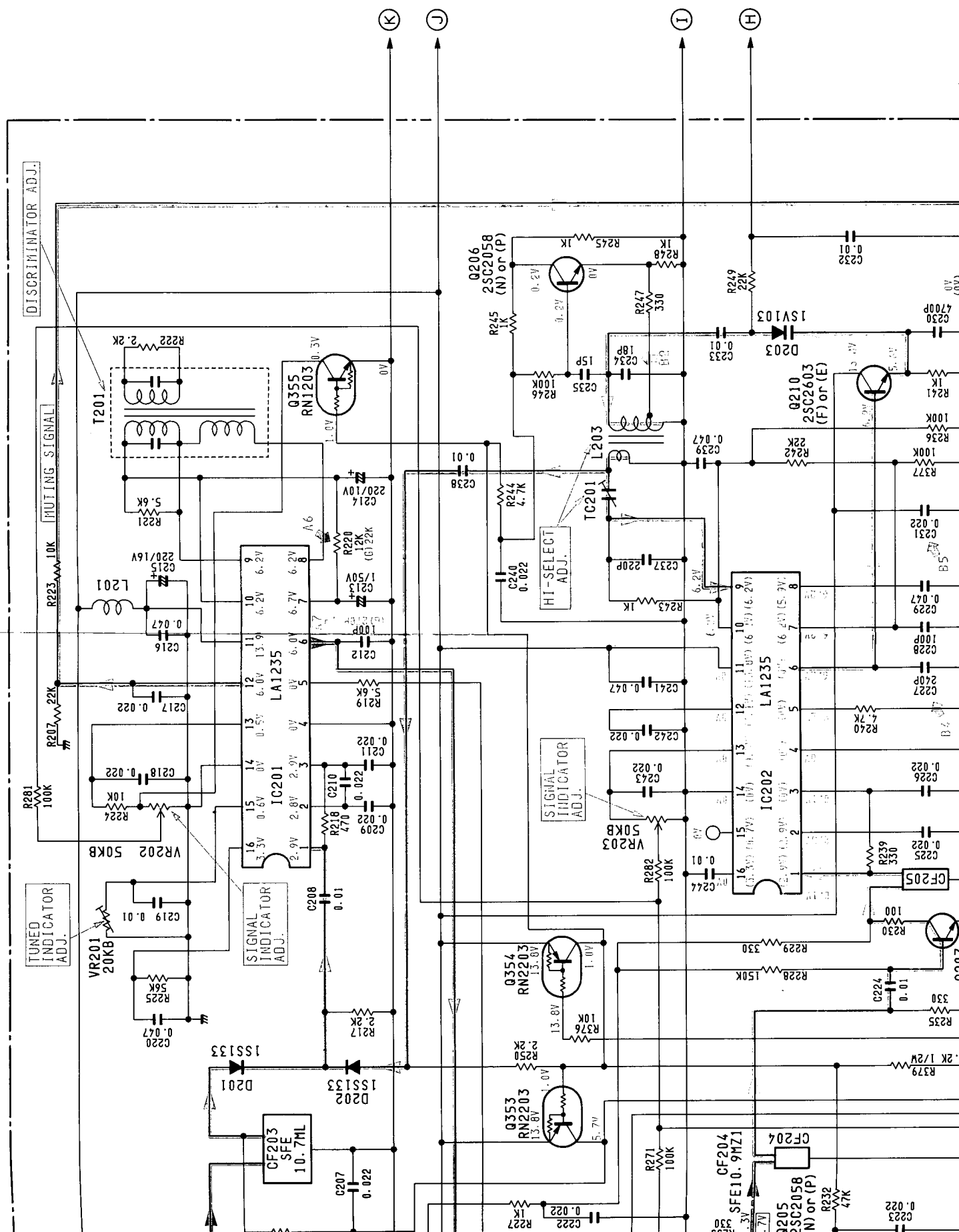
-437FV
 HI-Select
 ST
 FN
 AH

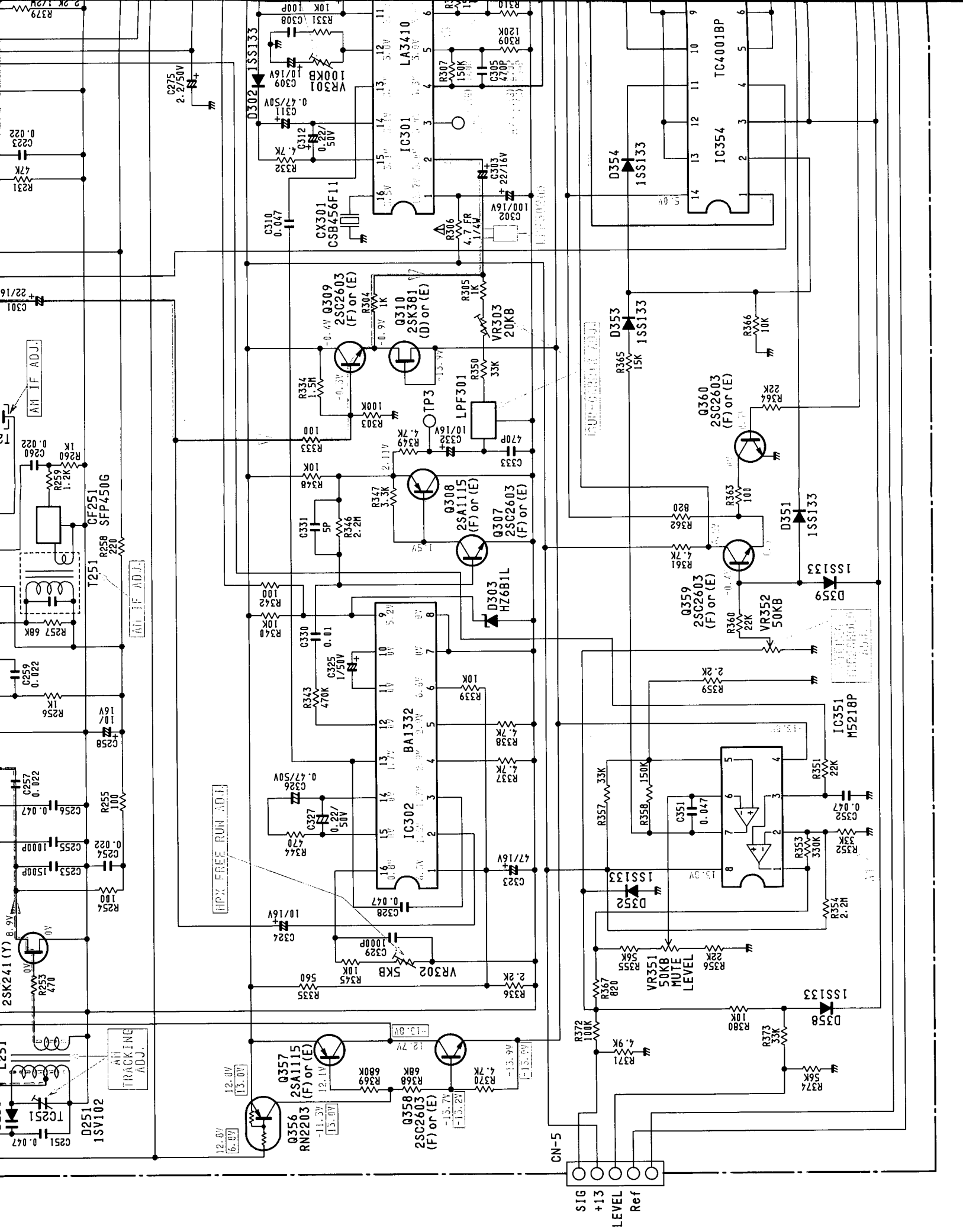
A B C D E F G

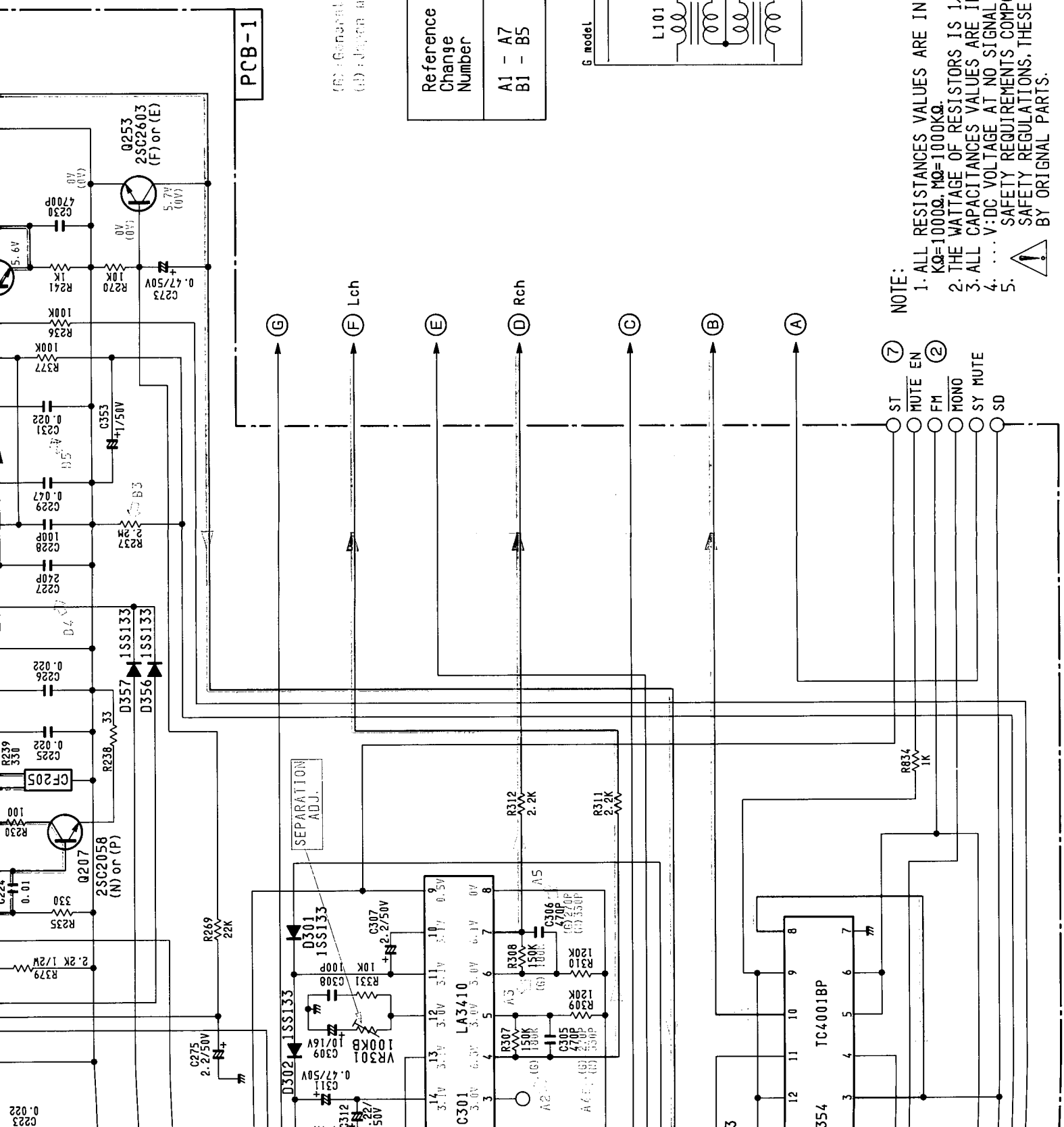
SCHEMATIC DIAGRAM



H I J K L M N



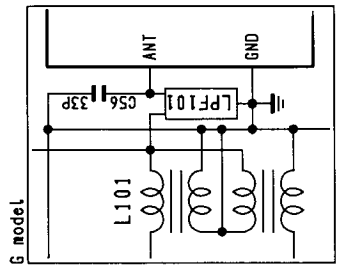




PCB-1

(A) General model
(B) Japan model

Reference Change Number	After Serial No.
A1 - A7	S103-01001
B1 - B5	S103-05801



NOTE:

1. ALL RESISTANCE VALUES ARE IN Ω .
 $K\Omega=1000\Omega$, $M\Omega=1000K\Omega$.
2. THE WATTAGE OF RESISTORS IS 1/6W UNLESS OTHERWISE NOTED.
3. ALL CAPACITANCE VALUES ARE IN μF UNLESS OTHERWISE NOTED. P=# μF .
4. ... V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
5. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.



SEPARATION
ADJ.

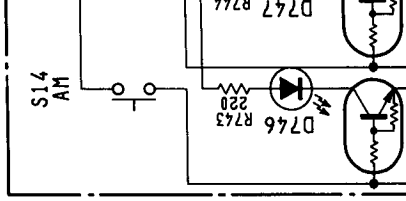
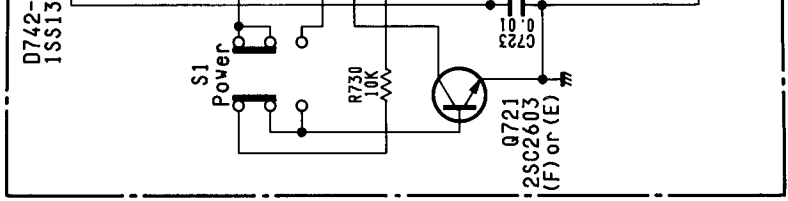
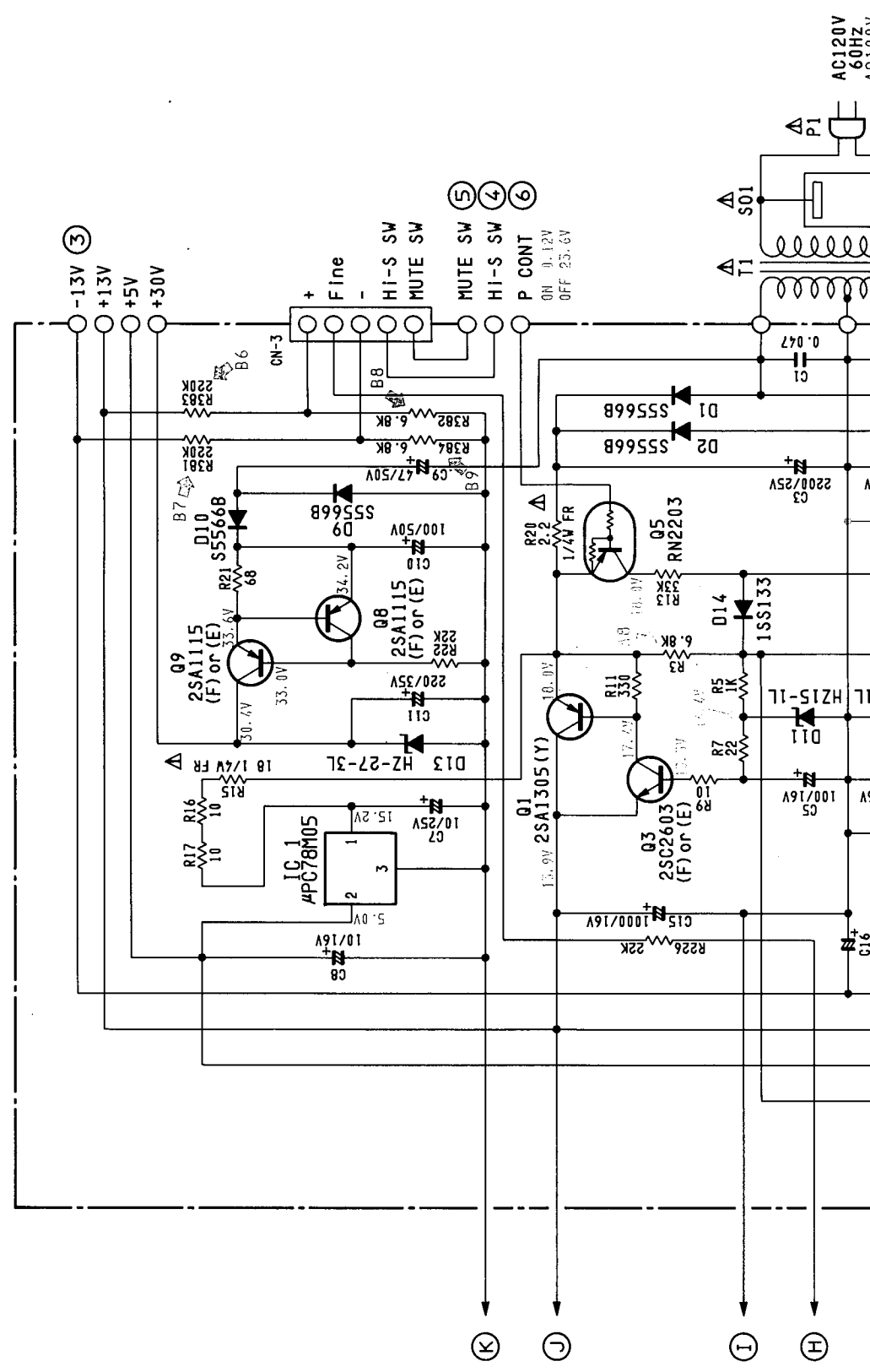
TC4001BP

354

- ⑦ ST
- ② MUTE EN
- ② FM
- MONO
- SY MUTE
- SD

SCHEMATIC DIAGRAM

Reference Change Number	After Serial No.
A8 - B9, B13	S103-01001 S103-05801

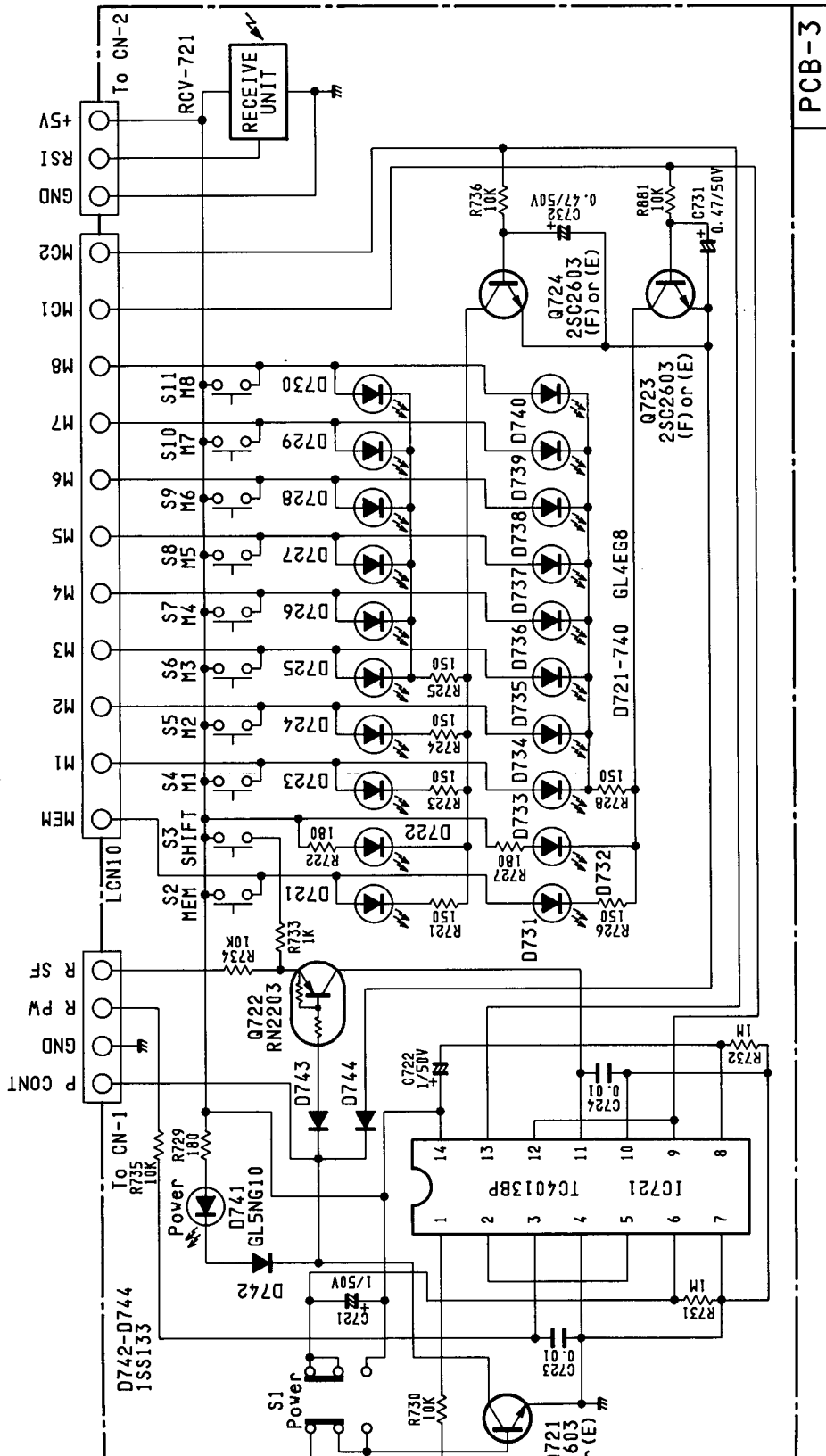


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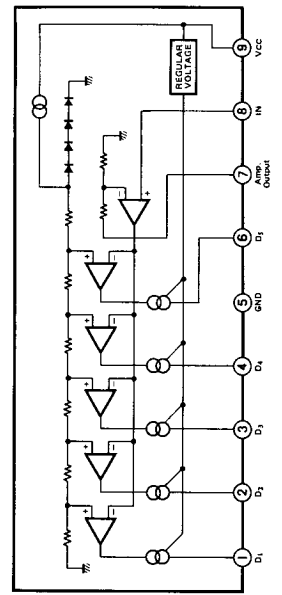
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4

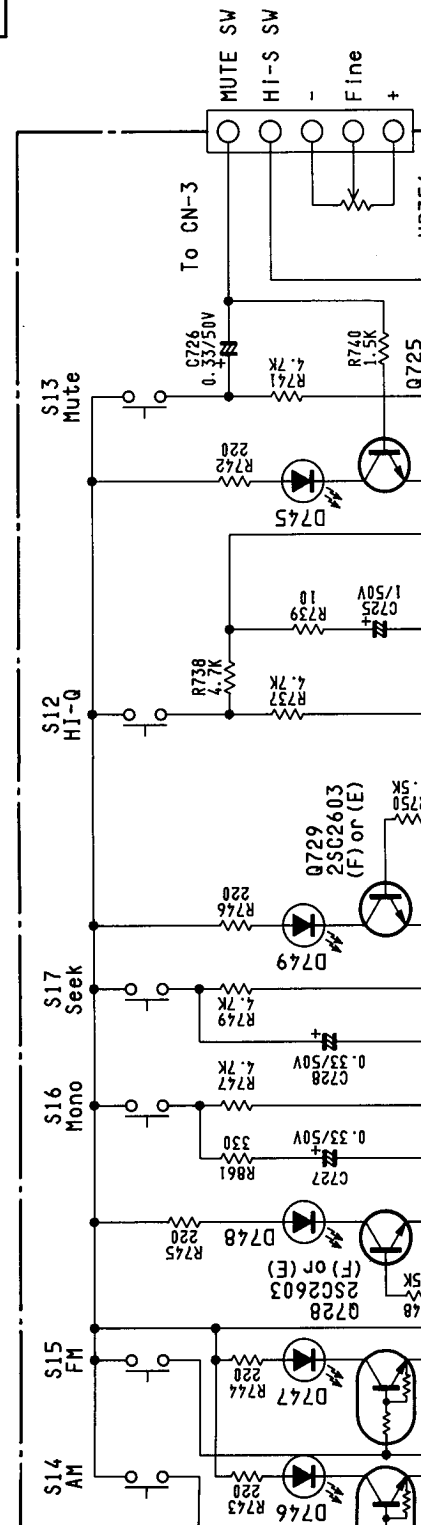
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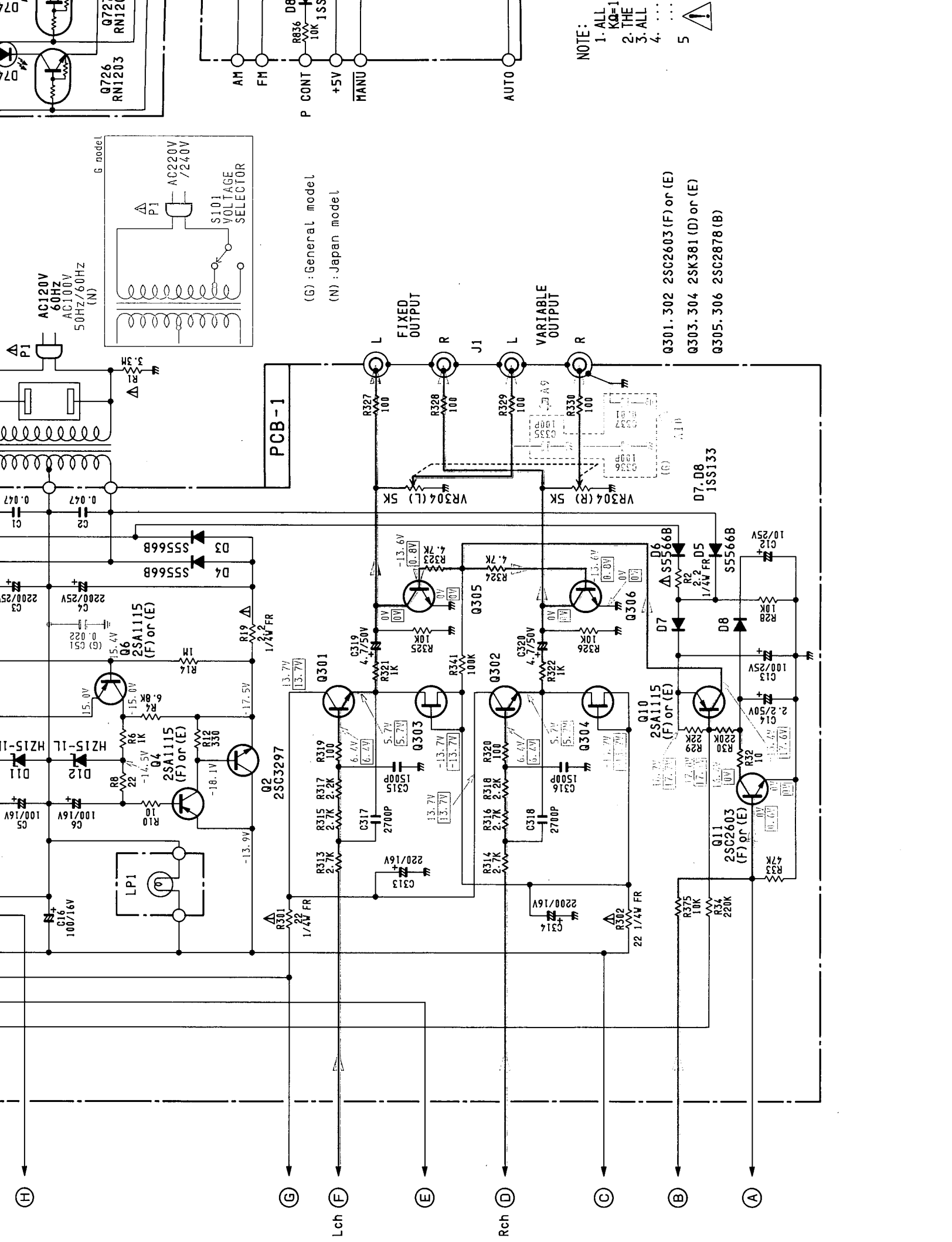


BA6124 : IC352 LEVEL METER DRIVER



BA695 : IC353 LEVEL METER DRIVER





H
G
F
E
D
C
B
A

6
7
8
9
10

Lch
Rch

PCB-1

AC120V 60Hz AC100V 50Hz/60Hz (N)

Q726 RN1203
Q72 RN1203

AM FM P CONT +5V MANU AUTO

D8 R836 10K 1SS

AC220V /240V S101 VOLTAGE SELECTOR

(G) : General model (N) : Japan model

FIXED OUTPUT VARIABLE OUTPUT

VR304(L) 5K VR304(R) 5K

Q301 Q302 Q303 Q304 Q305 Q306

Q10 Q11 2SA1115 (F) or (E) 2SC2603 (F) or (E)

D5 D6 D7 D8 S5566B

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12

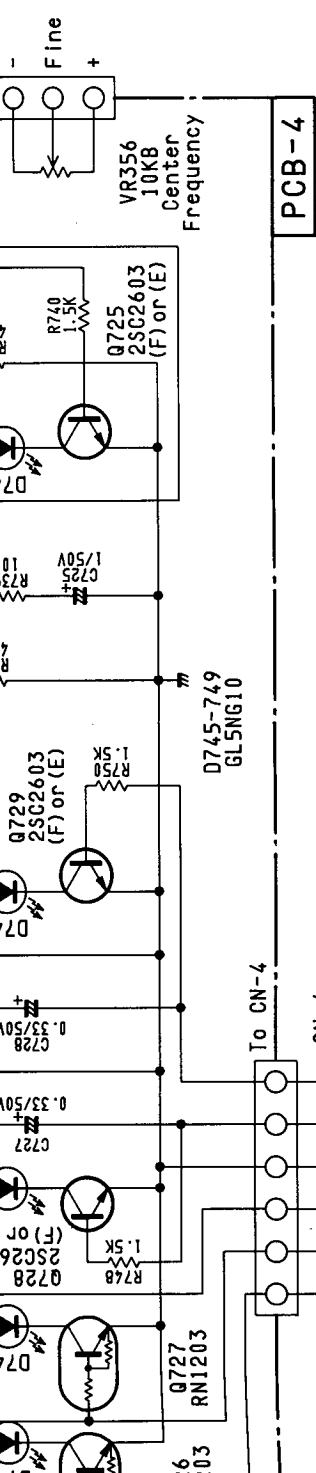
R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37

J1

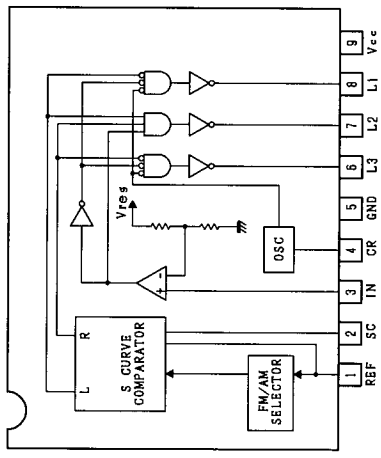
Q301.302 2SC2603 (F) or (E) Q303.304 2SK381 (D) or (E) Q305.306 2SC2878 (B)

NOTE:
1. ALL KQ=1
2. THE
3. ALL
4. ...
5

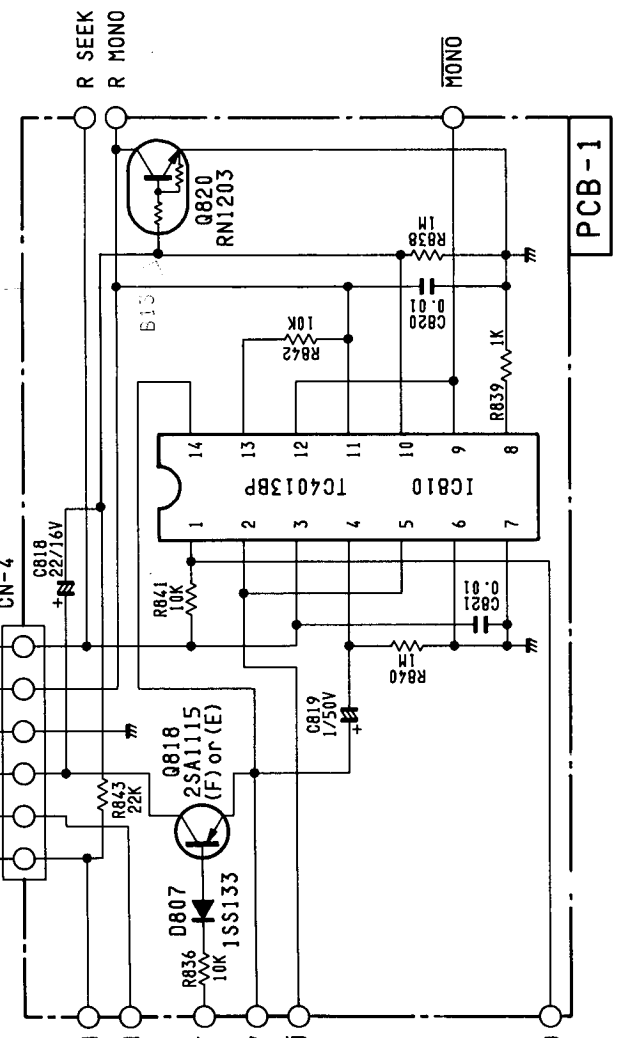
24B



BA695 : IC353 LEVEL METER DRIVER

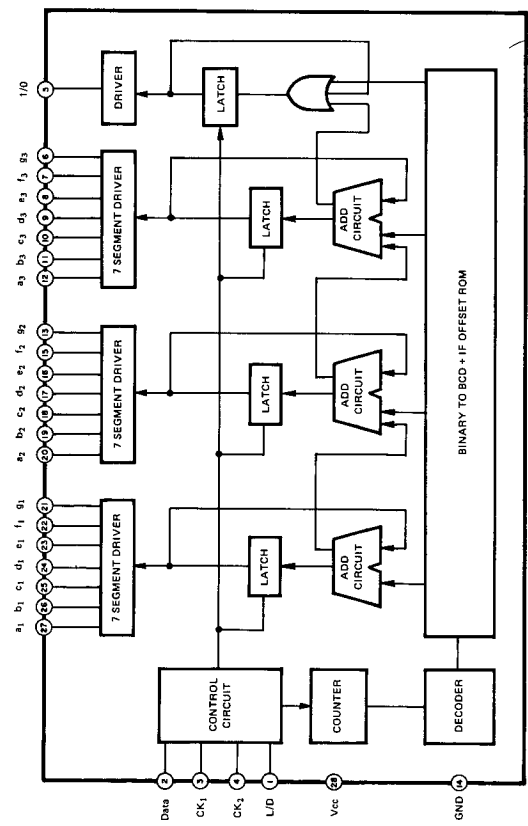


PCB-4

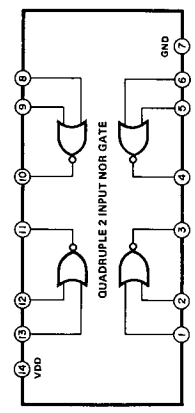


PCB-1

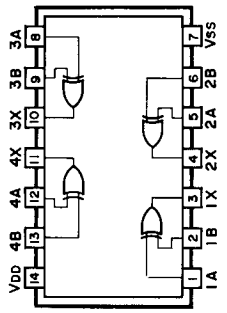
TD6301AP : IC751 FREQUENCY DISPLAY DRIVER



TC4001BP : IC752 QUAD 2 INPUT NOR GATE



TC4030BP : IC753, IC754, IC755, IC756 QUAD EXCLUSIVE OR GATE



- NOTE:
1. ALL RESISTANCE VALUES ARE IN Ω .
 $K\Omega=1000\Omega$, $M\Omega=1000K\Omega$.
 2. THE WATTAGE OF RESISTORS IS 1/6W UNLESS OTHERWISE NOTED.
 3. ALL CAPACITANCE VALUES ARE IN μF UNLESS OTHERWISE NOTED. $P=\mu MF$.
 4. ... V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
 ... V:FM POSITION (...V):AM POSITION (...V):V:FM HI-Q POSITION
 5. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.

A

B

C

D

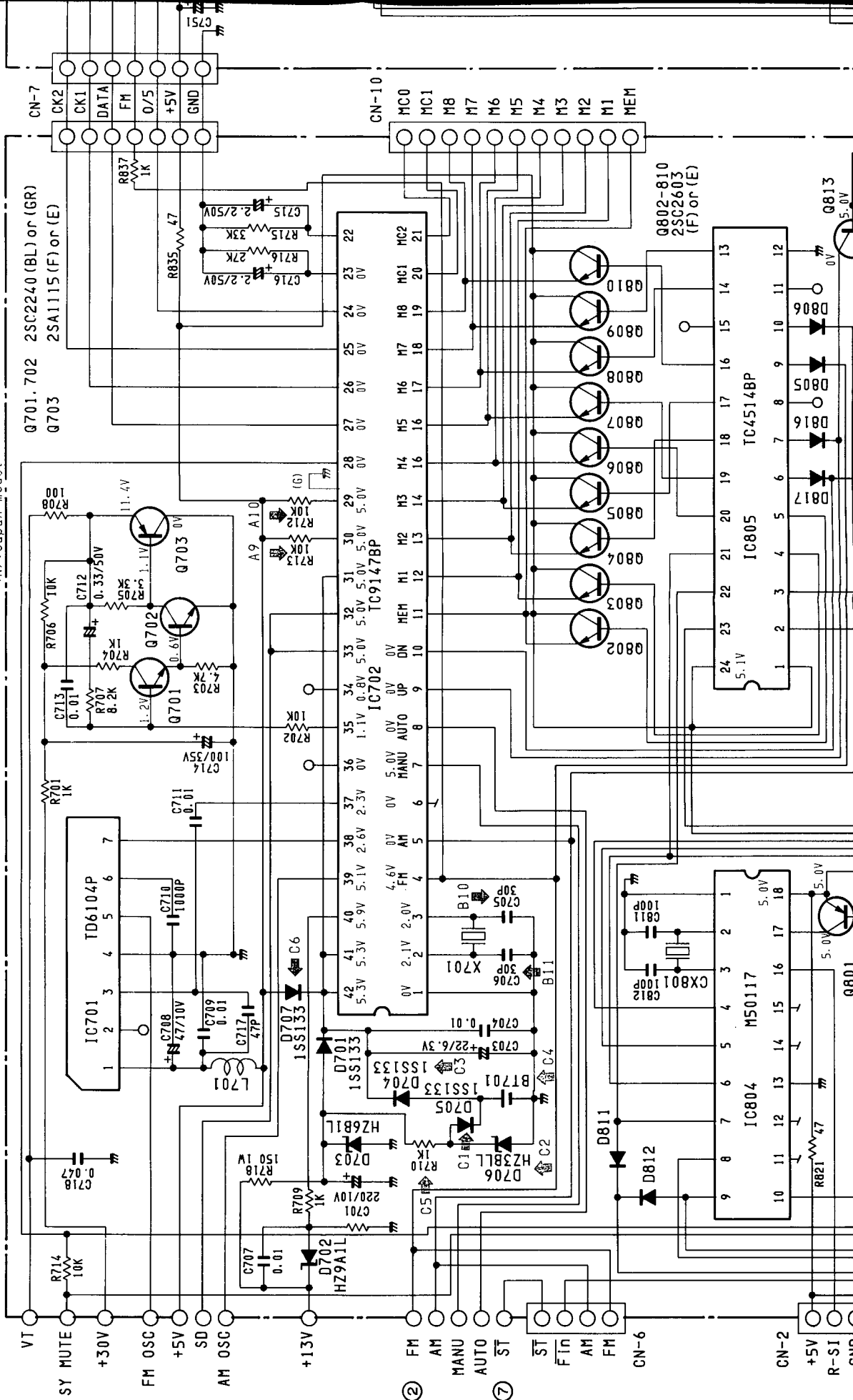
E

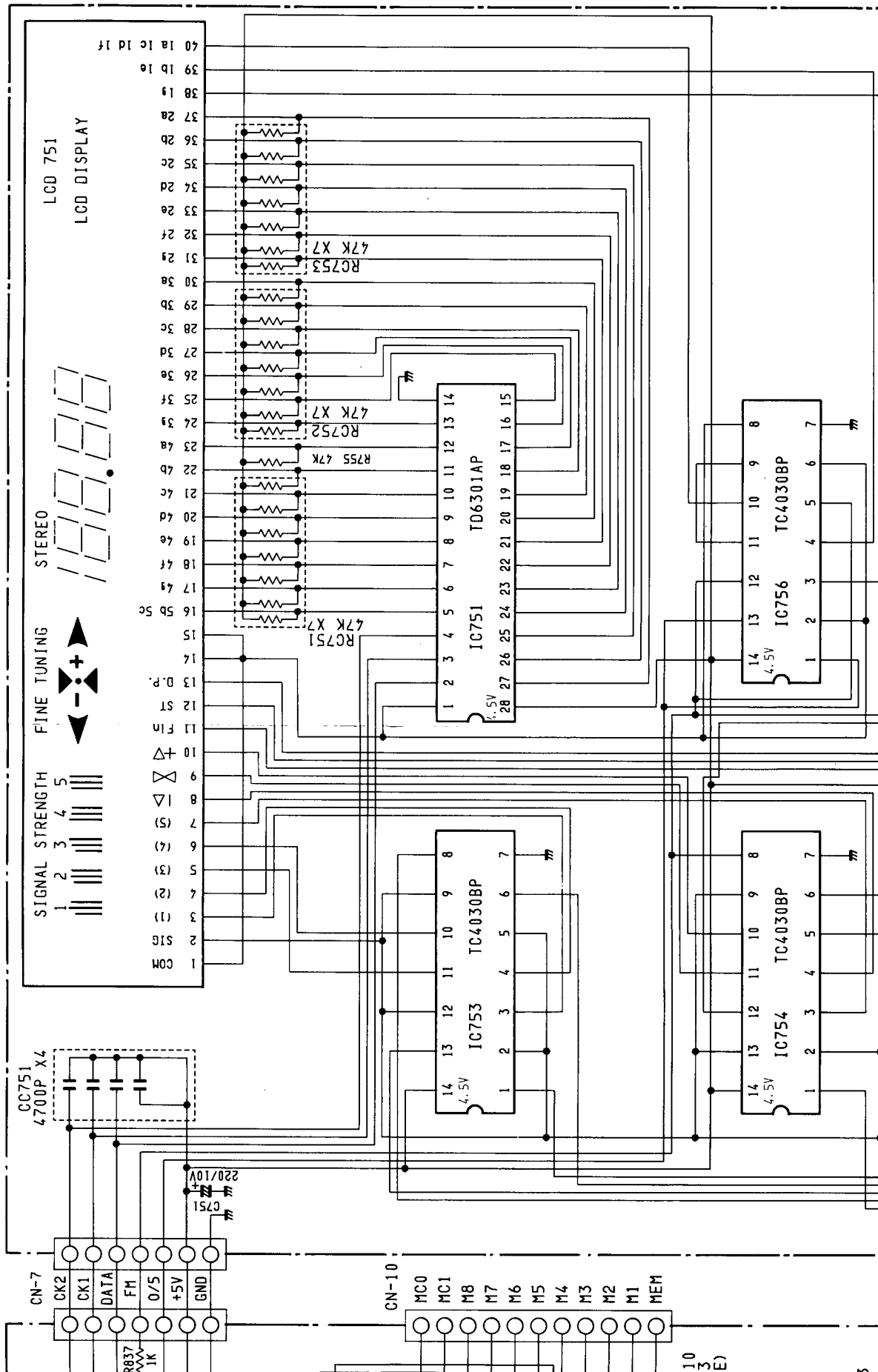
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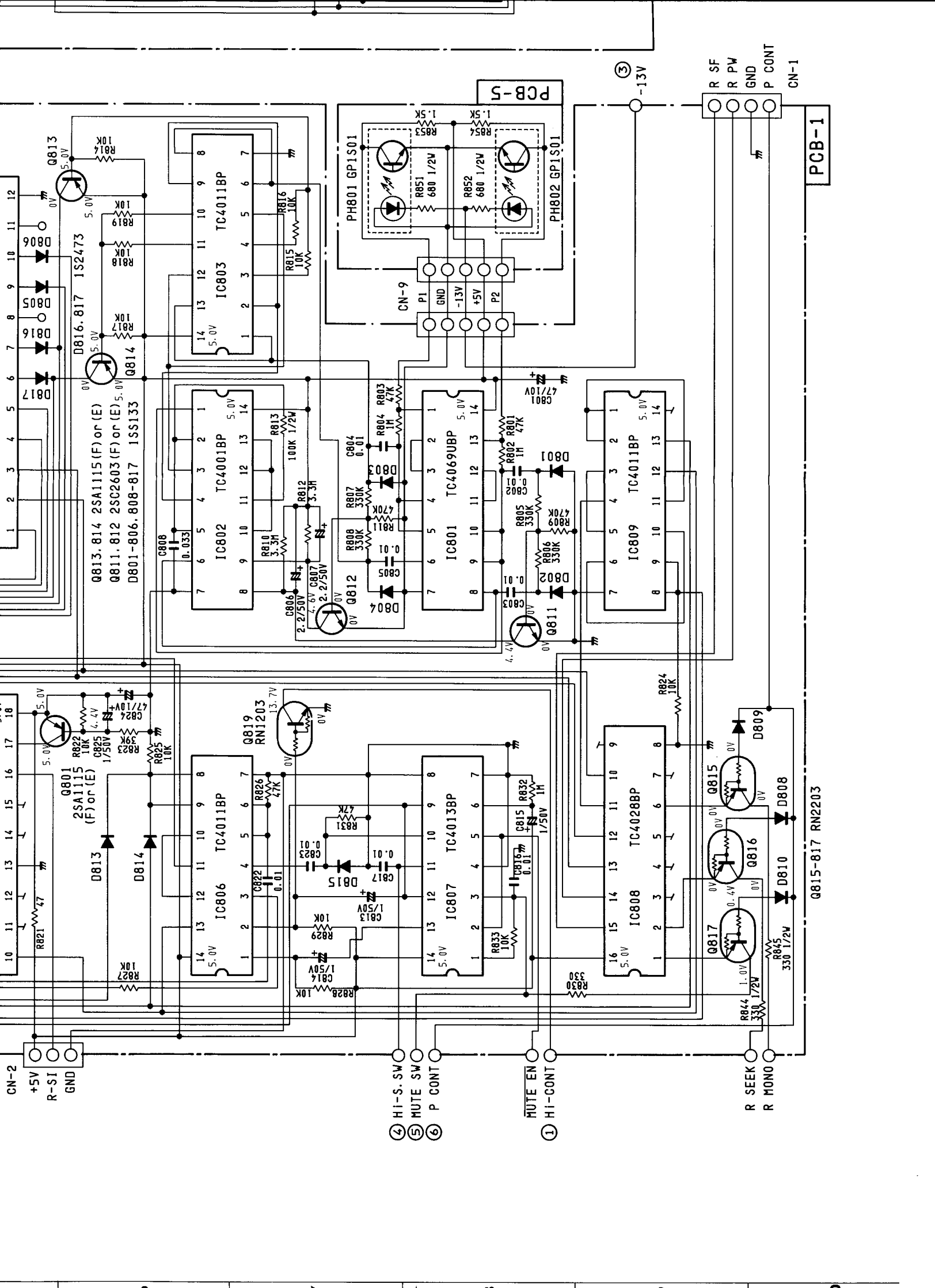
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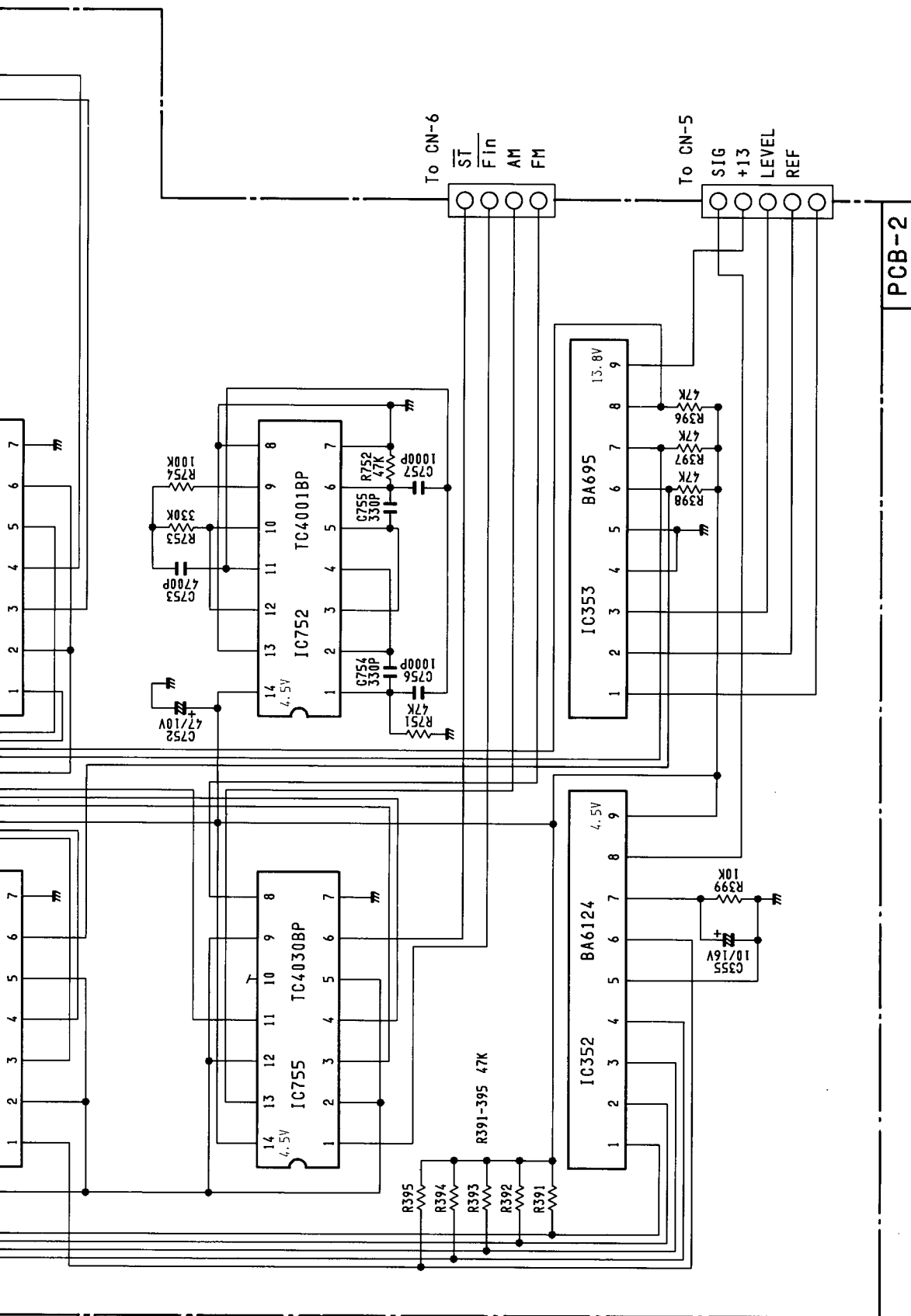
SCHEMATIC DIAGRAM

(G) : General model
(N) : Japan model









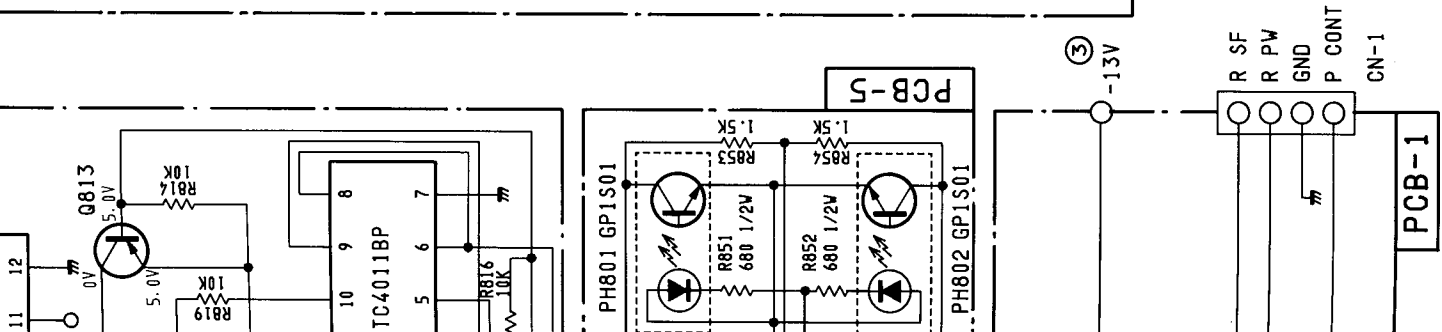
PCB-2

NOTE:

1. ALL RESISTANCES VALUES ARE IN Ω .
K Ω =1000 Ω , M Ω =1000K Ω .
2. THE WATTAGE OF RESISTORS IS 1/6W UNLESS OTHERWISE NOTED.
3. ALL CAPACITANCES VALUES ARE IN μ F UNLESS OTHERWISE NOTED. P= μ F.
4. ... V: DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
5. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.



Reference Change Number	After Serial No.
A9 - A10	S103-01001
B10 - B11	S103-05801
C1 - C6	S103-06251



PCB-5

PCB-1

-13V

