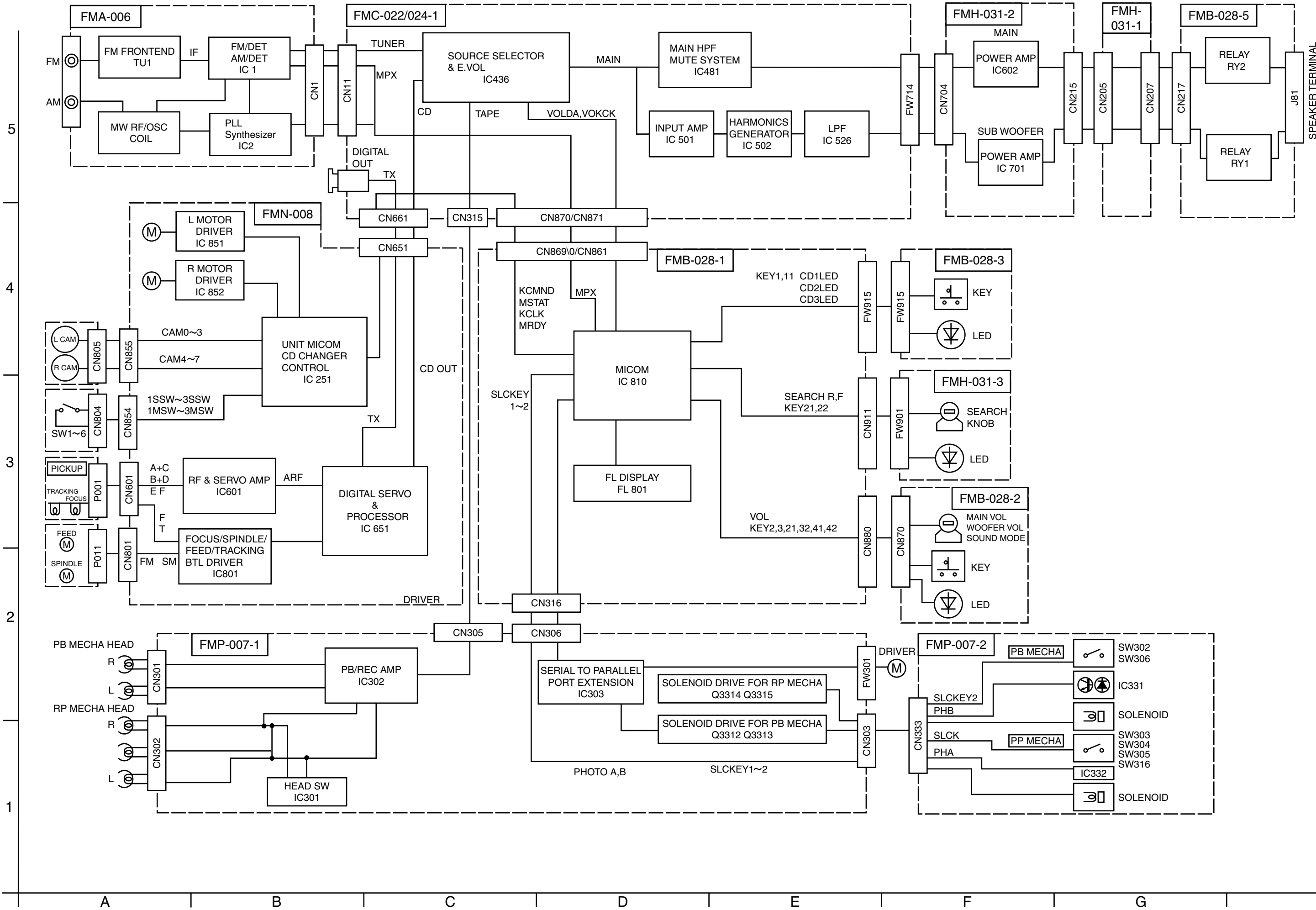
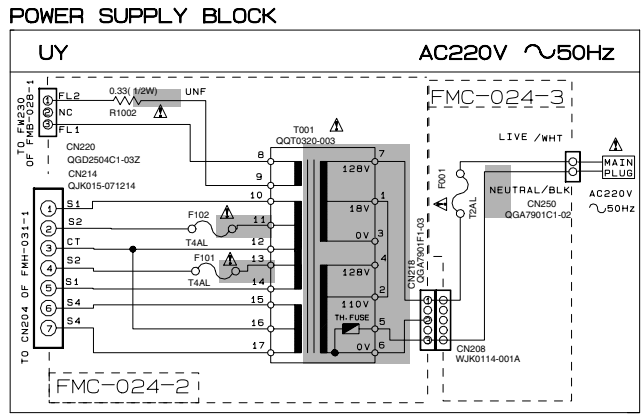
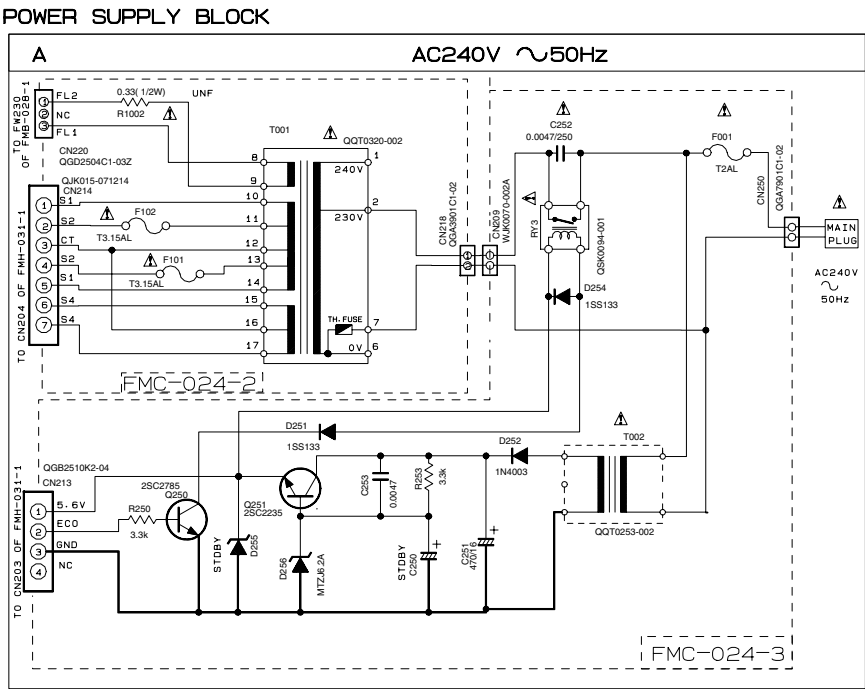
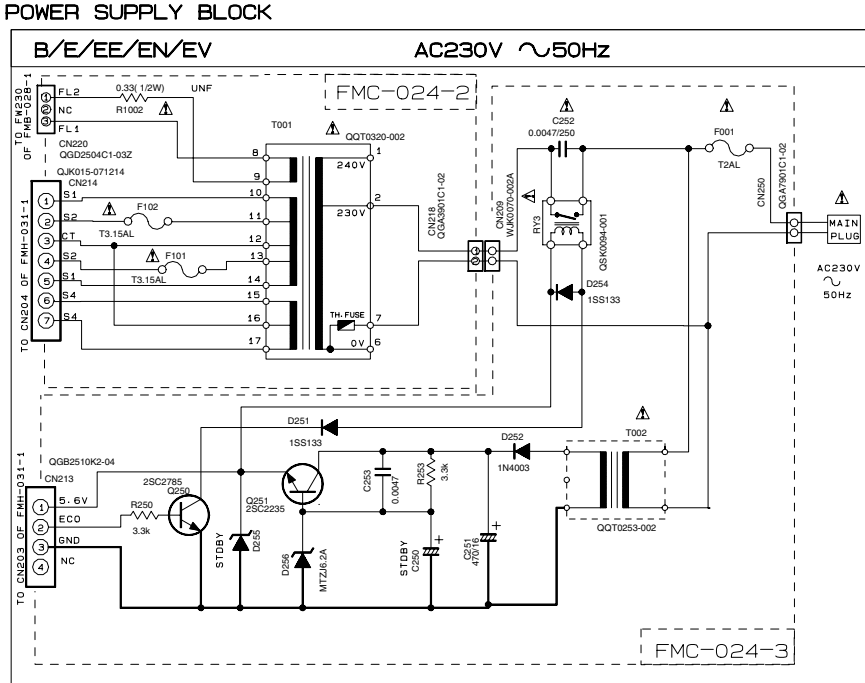
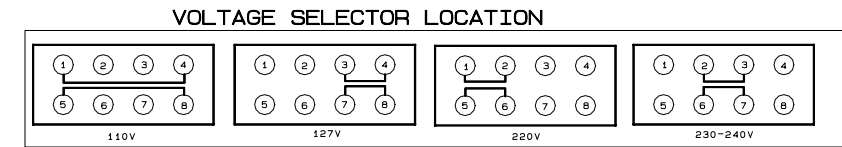
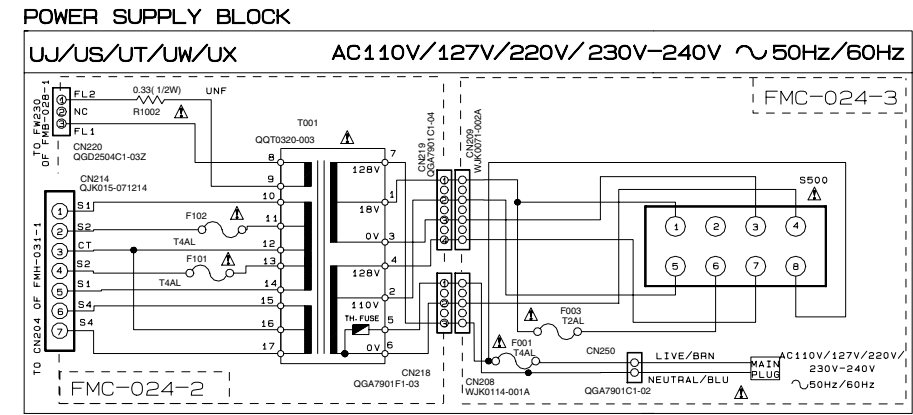
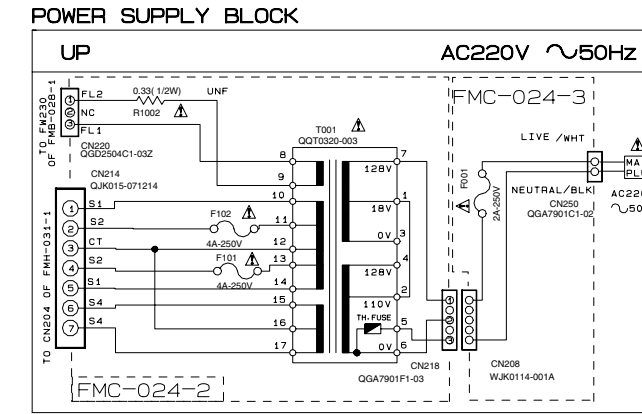
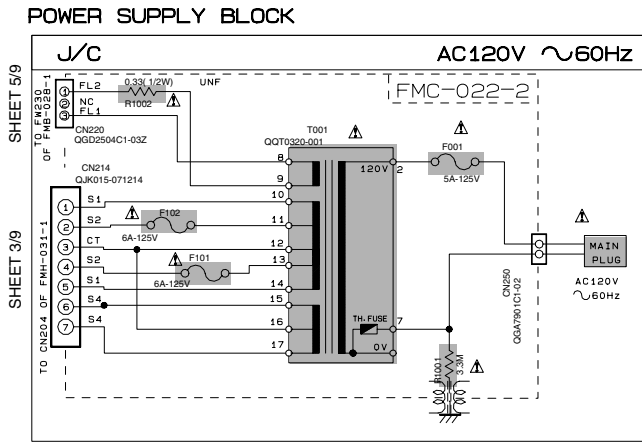


BLOCK DIAGRAM



Standard schematic diagrams

■ Power supply section (MX-GT80)



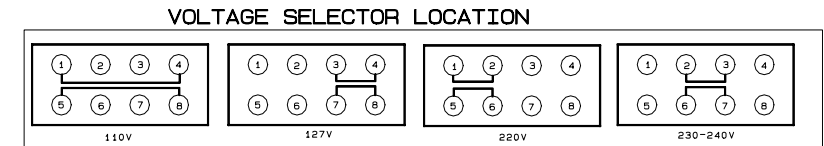
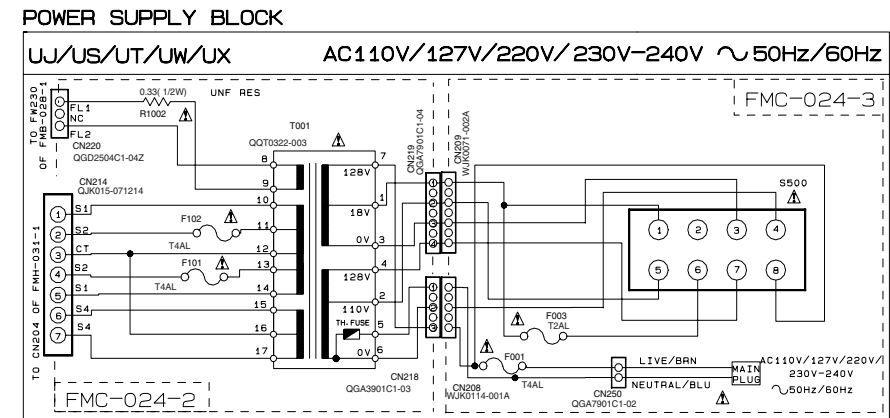
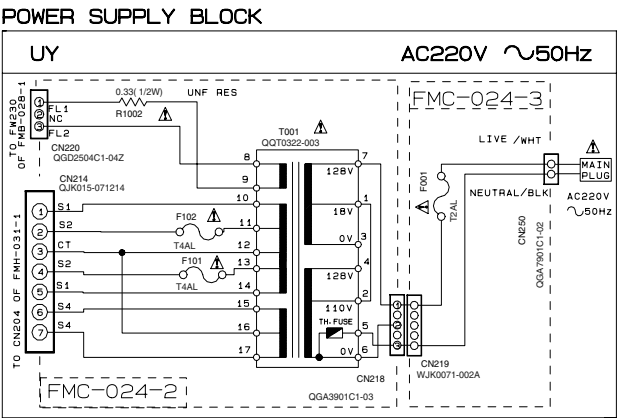
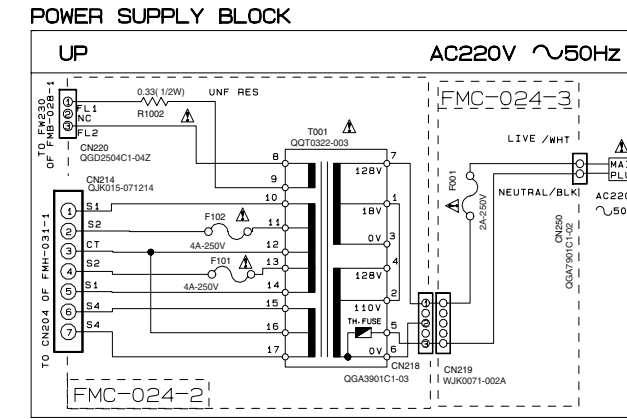
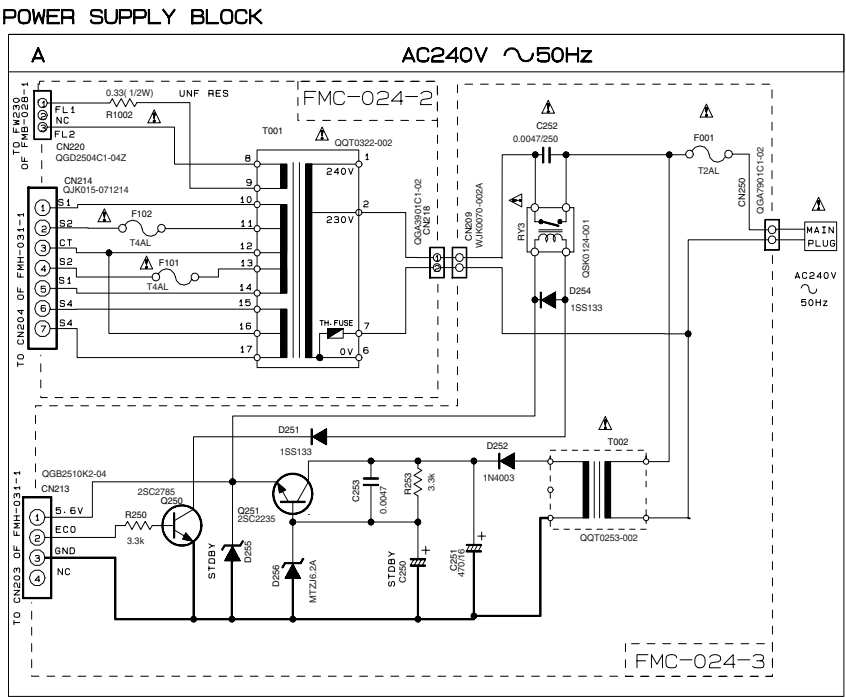
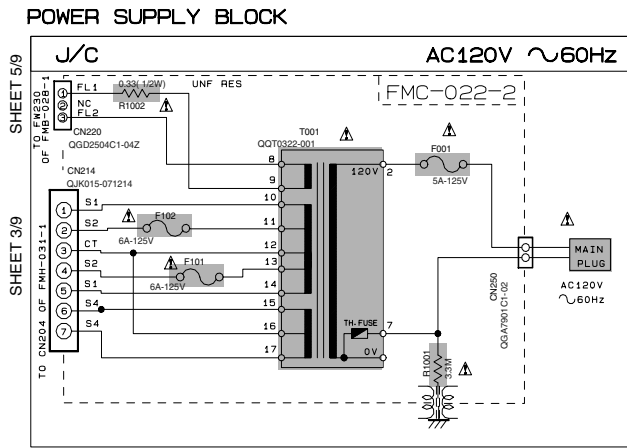
EXPLANATION OF OVERALL OF SCHEMA.

| SHEET NUMBER | MODEL NUMBERS TO BE APPLIED | CIRCUITS DESCRIPTION |
|--------------|-----------------------------|---|
| 1/9 | MX-GT80 | PRIMARY WITH MAINS TRANSFORMER |
| 2/9 | MX-GT90 | PRIMARY WITH MAINS TRANSFORMER |
| 3/9 | MX-GT80/MX-GT90 | DC REGULATORS/AUDIO OUTPUT |
| 4/9 | MX-GT80/MX-GT90 | EXTERNAL INPUT, SOURCE SELECTOR SWITCH |
| 5/9 | MX-GT80/MX-GT90 | FL DISPLAYS, SYSTEM CONTROL LSI |
| 6/9 | MX-GT80/MX-GT90 | USER CONTROL KEYS, MIC AMP |
| 7/9 | MX-GT80/MX-GT90 | CD SERVO AND CD SYSTEM CONTROL, CD CHANGER MECHANISM CONTROL |
| 8/9 | MX-GT80/MX-GT90 | TAPE DECK MECHANISM CONTROL, TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS |
| 9/9 | MX-GT80/MX-GT90 | TUNER RF/IF/FM MULTIPLEX |

| VERSION CODES |
|--|
| J : U.S.A. |
| C : CANADA |
| B : U.K. |
| E : CONTINENTAL EUROPE |
| EE : RUSSIA |
| EN : NORDIC COUNTRIES |
| EV : EASTERN EUROPE |
| A : AUSTRALIA |
| UJ : MILITARY |
| UP : KOREA |
| UT : TAIWAN |
| UX : SAUDI ARABIA |
| UY : ARGENTINA |
| UW : SOUTH AMERICA EXCEPT ARGENTINA |
| US : SINGAPORE AND UNIVERSAL EXCEPT ALL OF ABOVE |

Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

■ Power supply section (MX-GT90)

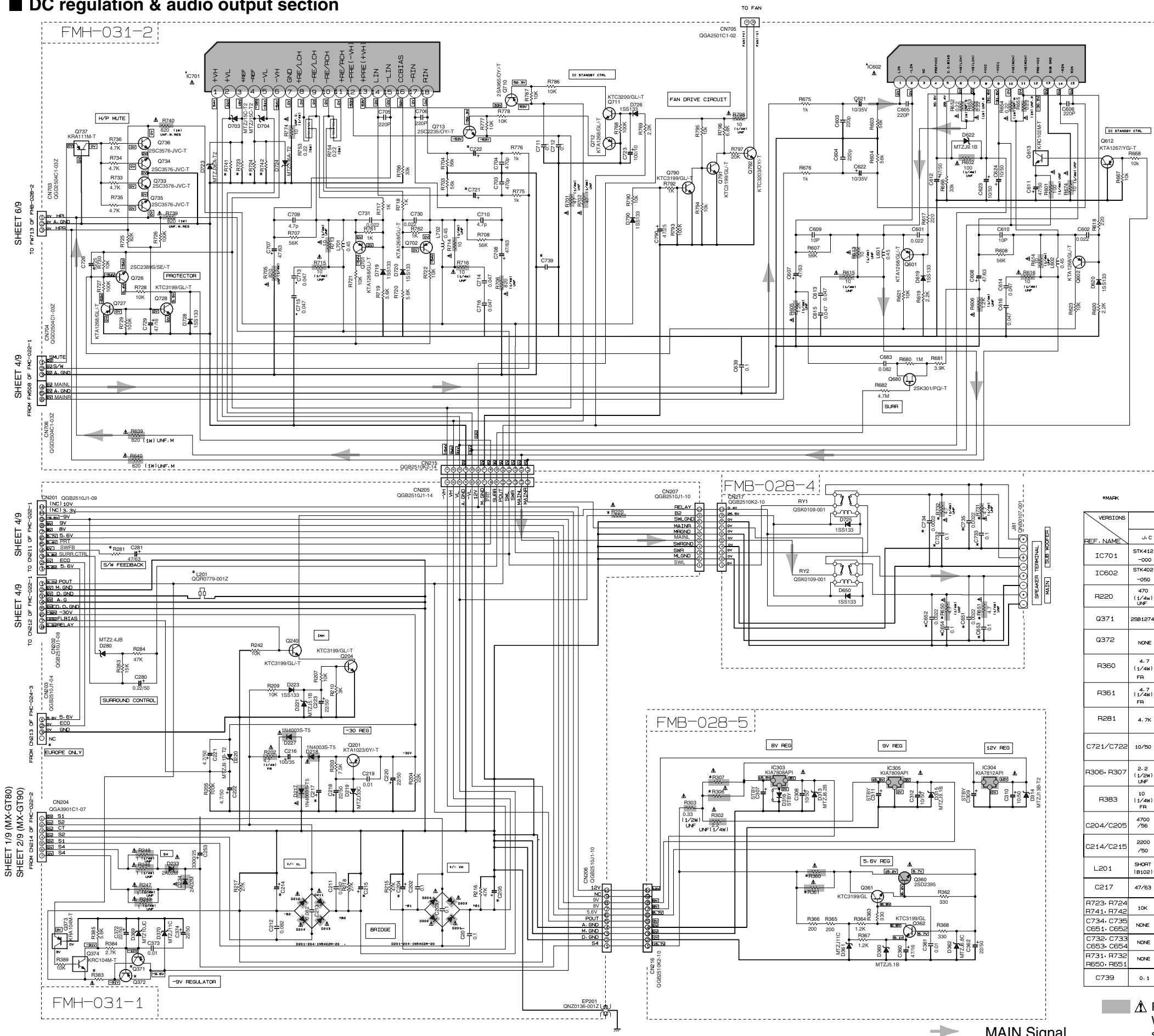


⚠ Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

SHEET 2/9


| VERSION CODES | |
|---------------|---|
| J | U.S.A. |
| C | CANADA |
| A | AUSTRALIA |
| UJ | MILITARY |
| UP | KOREA |
| UT | TAIWAN |
| UX | SAUDI ARABIA |
| UY | ARGENTINA |
| UW | SOUTH AMERICA EXCEPT ARGENTINA |
| US | SINGAPORE AND UNIVERSAL EXCEPT ALL OF ABOVE |

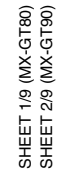
■ DC regulation & audio output section



- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL CONDITION. AUK MODE: VOL. MIN- BASS OFF
 2. UNLESS OTHERWISE SPECIFIED:
RESISTORS ARE 1/4W ±5% CARBON RESISTOR:
ALL RESISTANCE VALUES ARE IN OHM (R).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN #F(PF).
ALL INDUCTANCE VALUES ARE IN #H(MH).
ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
ALL DIODES ARE 1N5183

| *MARK | | | | | | | | | | | | | |
|--------------------------|-------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| VERSIONS | | MX-G70 | | | | MX-GT80 | | | | MX-GT90 | | | |
| | | J-C | A-E | U | UT | J-C | A-E | U | UT | J-C | A-E | U | UT |
| REF. NAME | | STK412 | STK412 | STK412 | STK412 | STK412 | STK412 | STK412 | STK412 | STK412 | STK412 | STK412 | STK412 |
| IC701 | | -000 | -000 | -090 | -090 | -010 | -010 | -000 | -000 | -020 | -010 | -010 | -010 |
| IC602 | | STK402 | STK402 | STK402 | STK402 | STK402 | STK402 | STK402 | STK402 | STK402 | STK402 | STK402 | STK402 |
| | | -050 | -030 | -030 | -030 | -050 | -030 | -030 | -030 | -070 | -050 | -050 | -050 |
| R220 | | 470 (1/4w) UNF | 150 (1/4w) UNF | 150 (1/4w) UNF | 150 (1/4w) UNF | 470 (1/4w) UNF | 150 (1/4w) UNF | 150 (1/4w) UNF | 150 (1/4w) UNF | 470 (1/4w) UNF | 150 (1/4w) UNF | 150 (1/4w) UNF | 150 (1/4w) UNF |
| Q371 | 25B1274 | NONE | NONE | NONE | NONE | 25B1274 | NONE | NONE | NONE | 25B1274 | NONE | NONE | NONE |
| Q372 | | NONE | KT A1023 | KT A1023 | KT A1023 | NONE | KT A1023 | KT A1023 | KT A1023 | NONE | KT A1023 | KT A1023 | KT A1023 |
| R360 | | 2.2 (1/4w) FR | 2.2 (1/4w) FR | 2.2 (1/4w) FR | 2.2 (1/4w) FR | 4.7 (1/4w) FR | 2.2 (1/4w) FR | 2.2 (1/4w) FR | 2.2 (1/4w) FR | 4.7 (1/4w) FR | 2.2 (1/4w) FR | 2.2 (1/4w) FR | 2.2 (1/4w) FR |
| R361 | | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR | 4.7 (1/4w) FR |
| R281 | | 4.7K | 4.7K | 4.7K | 4.7K | 7.5K | 5.6K | 5.6K | 5.6K | 8.2K | 5.6K | 5.6K | 5.6K |
| C721/C722 | 10/50 | 10/50 | 10/50 | 10/50 | 10/50 | 10/50 | 10/50 | 10/50 | 10/50 | 10/35 | 10/35 | 10/35 | 10/35 |
| R306, R307 | | 2.2 (1/2w) UNF | SHORT | SHORT | SHORT | 2.2 (1/2w) UNF | SHORT | SHORT | SHORT | 2.2 (1/2w) UNF | SHORT | SHORT | SHORT |
| R383 | | 10 (1/4w) FR | SHORT (B123) | SHORT (B123) | SHORT (B123) | 10 (1/4w) FR | SHORT (B123) | SHORT (B123) | SHORT (B123) | 10 (1/4w) FR | SHORT (B123) | SHORT (B123) | SHORT (B123) |
| C204/C205 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 | 4700 /56 |
| C214/C215 | 2200 /50 | 2200 /35 | 2200 /35 | 2200 /35 | 2200 /50 | 2200 /35 | 2200 /35 | 2200 /35 | 2200 /35 | 2200 /50 | 2200 /50 | 2200 /50 | 2200 /50 |
| L201 | | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) | SHORT (B102) |
| C217 | | 47/63 | 47/63 | 47/63 | 47/63 | 47/63 | 47/63 | 47/63 | 47/63 | 47/100 | 47/100 | 47/100 | 47/100 |
| R723, R724 R741, R742 | 10K | 6.8K | 6.8K | 6.8K | 10K | 6.8K | 6.8K | 6.8K | 6.8K | 10K | 6.8K | 6.8K | 6.8K |
| C734, C735 C651, C652 | NONE | USE | NONE | NONE | NONE | USE | NONE | NONE | NONE | USE | NONE | NONE | NONE |
| C732, C733 C653, C654 | NONE | USE | NONE | NONE | NONE | USE | NONE | NONE | NONE | USE | NONE | NONE | NONE |
| R731, R732 R650, R651 | NONE | USE | NONE | NONE | NONE | USE | NONE | NONE | NONE | USE | NONE | NONE | NONE |
| C739 | 0.1 | 1/50 | 1/50 | 1/50 | 1/50 | 0.1 | 1/50 | 1/50 | 1/50 | 0.1 | 1/50 | 1/50 | 1/50 |

 Parts are safety assurance parts. When replacing those parts make sure to use the specified one.



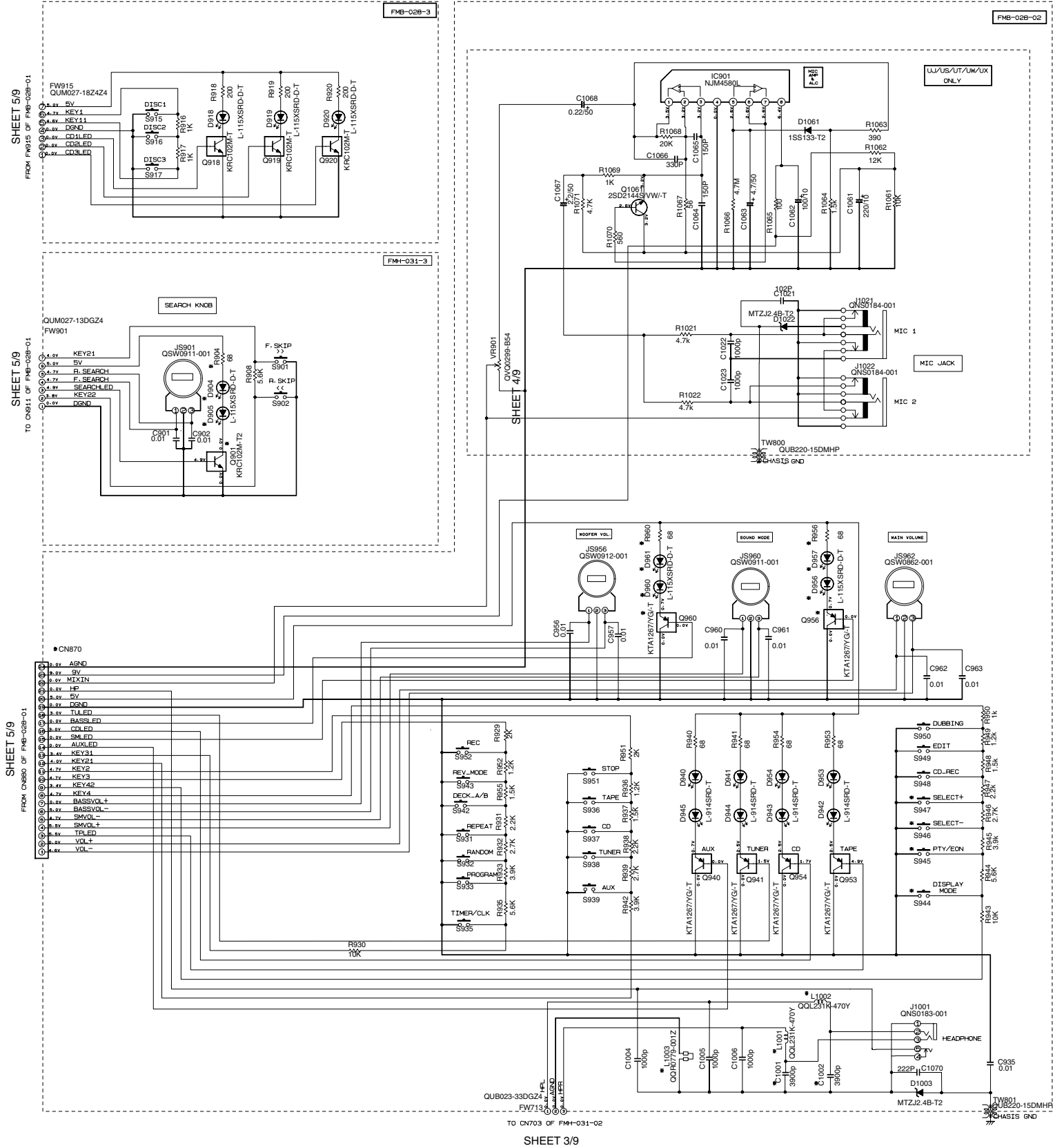
NOTES

1. VOLTAGES ARE DO-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION — AUX MODE. VOL. MIN. BASS LEVEL 1
2. ALL OTHERS OTHERWISE SPECIFIED

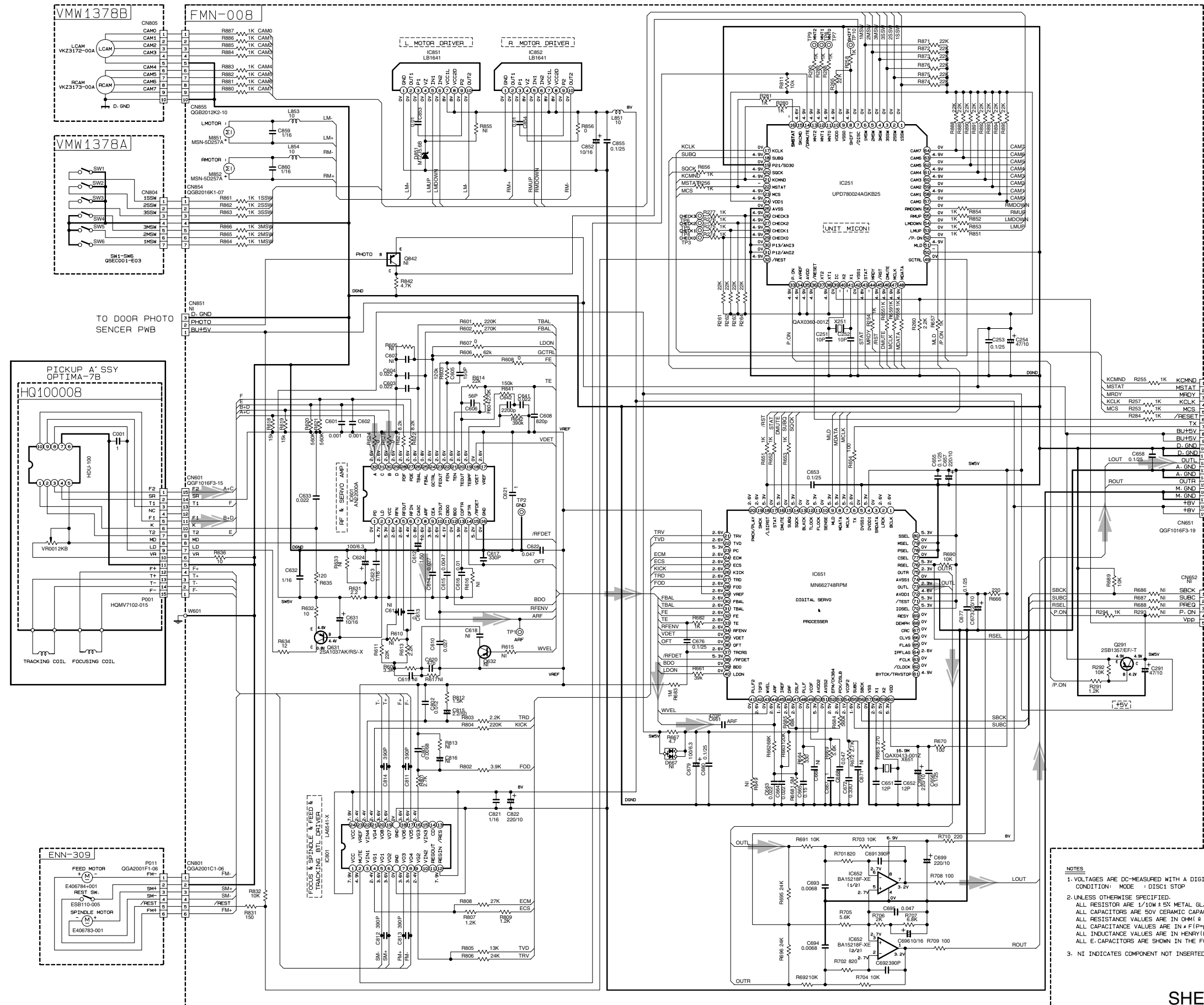
RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN μF (pF).
ALL INDUCTANCE VALUES ARE IN mH (mF).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
ALL COILS ARE 150133

SHEET 5/9

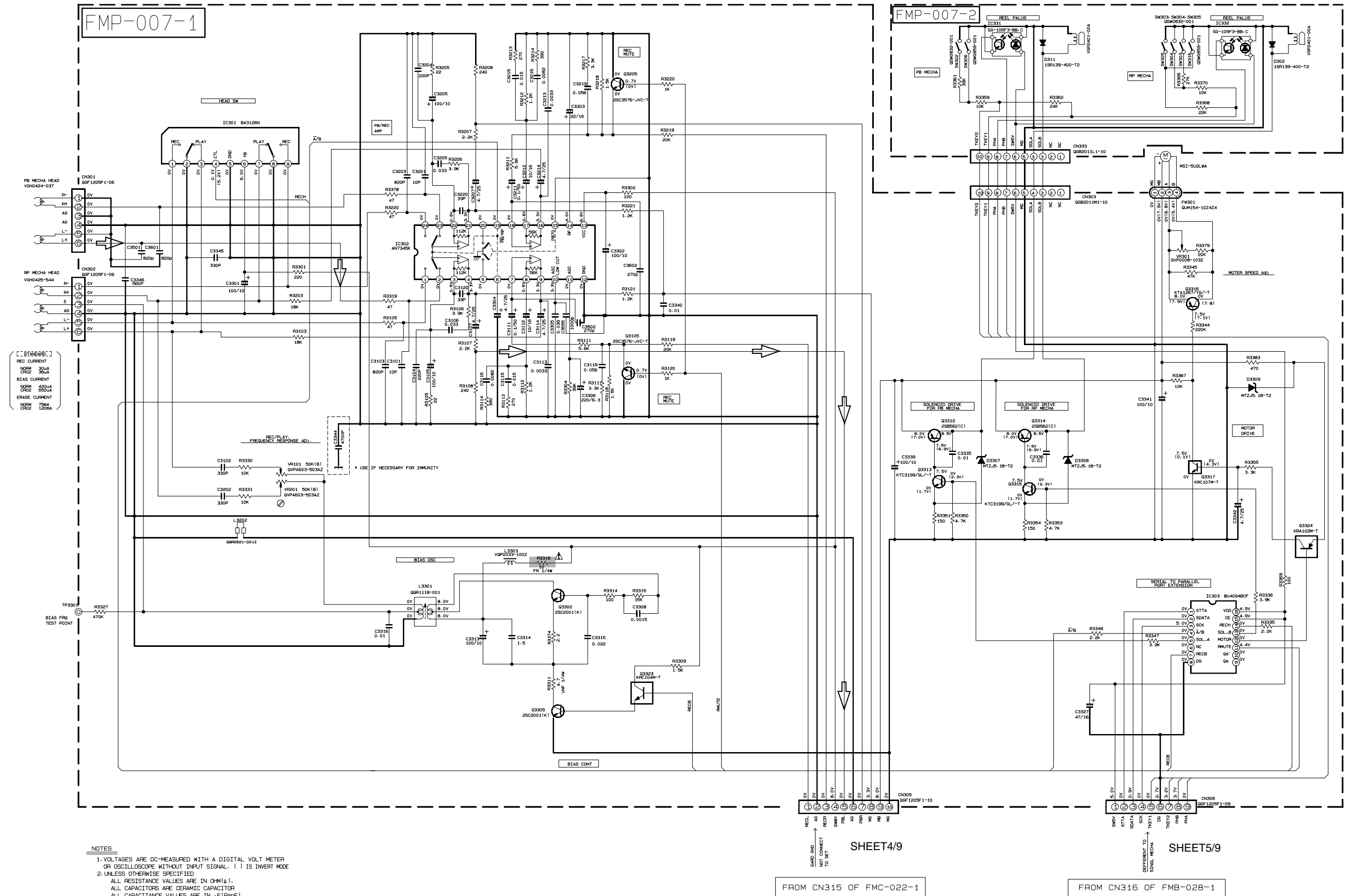
Front section




CD serbo section



■ Head amplifier section



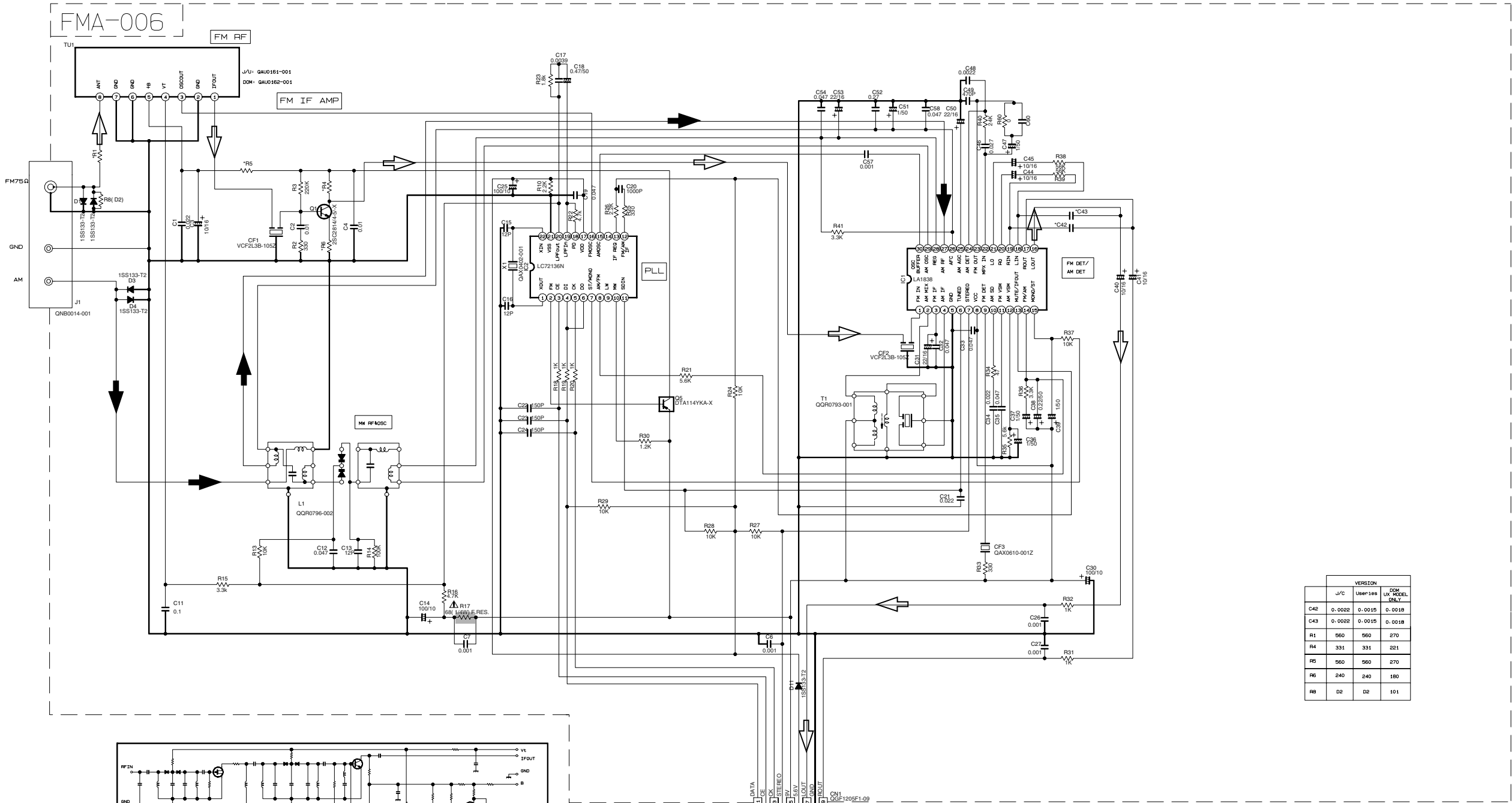
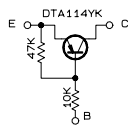
 Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

➡ TAPE P.B. signal
SHEET 8/9

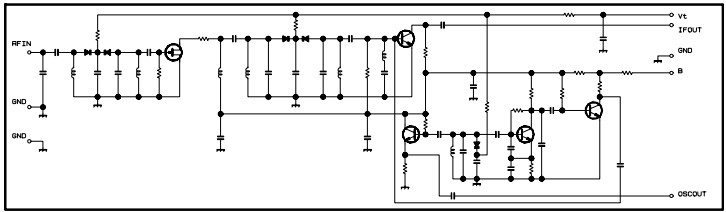
Tuner section

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
 2. ALL RESISTORS ARE 1/8W ±5% METAL GLAZE RESISTOR.
 3. ALL RESISTANCE VALUES ARE IN OHM(Ω).
 4. ALL CAPASITANCE VALUES ARE IN #F(P=pF).
 5. ALL E-CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (#F)/RATED VOLTAGE (V).
 6. SI DIODES (▶) ARE ALL 1SS133-T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104J.
 7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS:
Q1 2SC2814/4-5/-X Q2, Q3 2SC2412K/R/-X
Q4, Q5 DTA114YKA-X

B. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS:



| VERSION | | | |
|---------|--------|--------|--------------------------|
| | J/C | UMF108 | CGM J/C MODEL DATE |
| C42 | 0.0022 | 0.0015 | 0.0018 |
| C43 | 0.0022 | 0.0015 | 0.0018 |
| R1 | 560 | 560 | 270 |
| R4 | 331 | 331 | 221 |
| R5 | 560 | 560 | 270 |
| R6 | 240 | 240 | 180 |
| R8 | D2 | D2 | 101 |



FROM CN732 OF FMB-012-1
SHEET 4/9

| CONDITION | PIN NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|----------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| FM NO SIGNAL | IC1 | 3.6 | 8.9 | 3.6 | 3.6 | 0 | 5.0 | 5.0 | 8.9 | 8.9 | 1.3 | 0.1 | 0 | 0.9 | 7.8 | 7.8 | 4.3 | 4.3 | 4.3 | 4.3 | 3.4 | 3.4 | 2.8 | 3.4 | 0 | 0 | 3.5 | 3.5 | 3.6 | 3.6 | 2.7 |
| FM 60dB STEREO | IC1 | 3.6 | 8.9 | 3.6 | 3.6 | 0 | 0 | 5.0 | 8.9 | 8.9 | 1.3 | 4.3 | 0 | 0.9 | 7.8 | 7.8 | 4.3 | 4.3 | 4.3 | 4.3 | 3.4 | 3.4 | 2.8 | 3.4 | 0 | 0 | 3.6 | 3.6 | 3.6 | 3.6 | 2.7 |
| AM NO SIGNAL | IC2 | 3.5 | 9.0 | 3.5 | 3.5 | 0 | 5.0 | 5.1 | 9.0 | 2.6 | 1.3 | 0 | 0 | 0.9 | 4.7 | 5.5 | 4.3 | 4.3 | 4.3 | 4.3 | 3.3 | 3.2 | 2.8 | 4.8 | 0.7 | 0.7 | 3.6 | 3.6 | 3.6 | 3.6 | 2.1 |
| FM NO SIGNAL | IC2 | 2.5 | 0 | 0 | 5.0 | 4.9 | 5.0 | 7.9 | 7.8 | 3.6 | 6.1 | 5.1 | 0 | 0 | 0 | 0 | 2.5 | 5.1 | 0.9 | 0.9 | 3.8 | 0 | 2.3 | | | | | | | | |

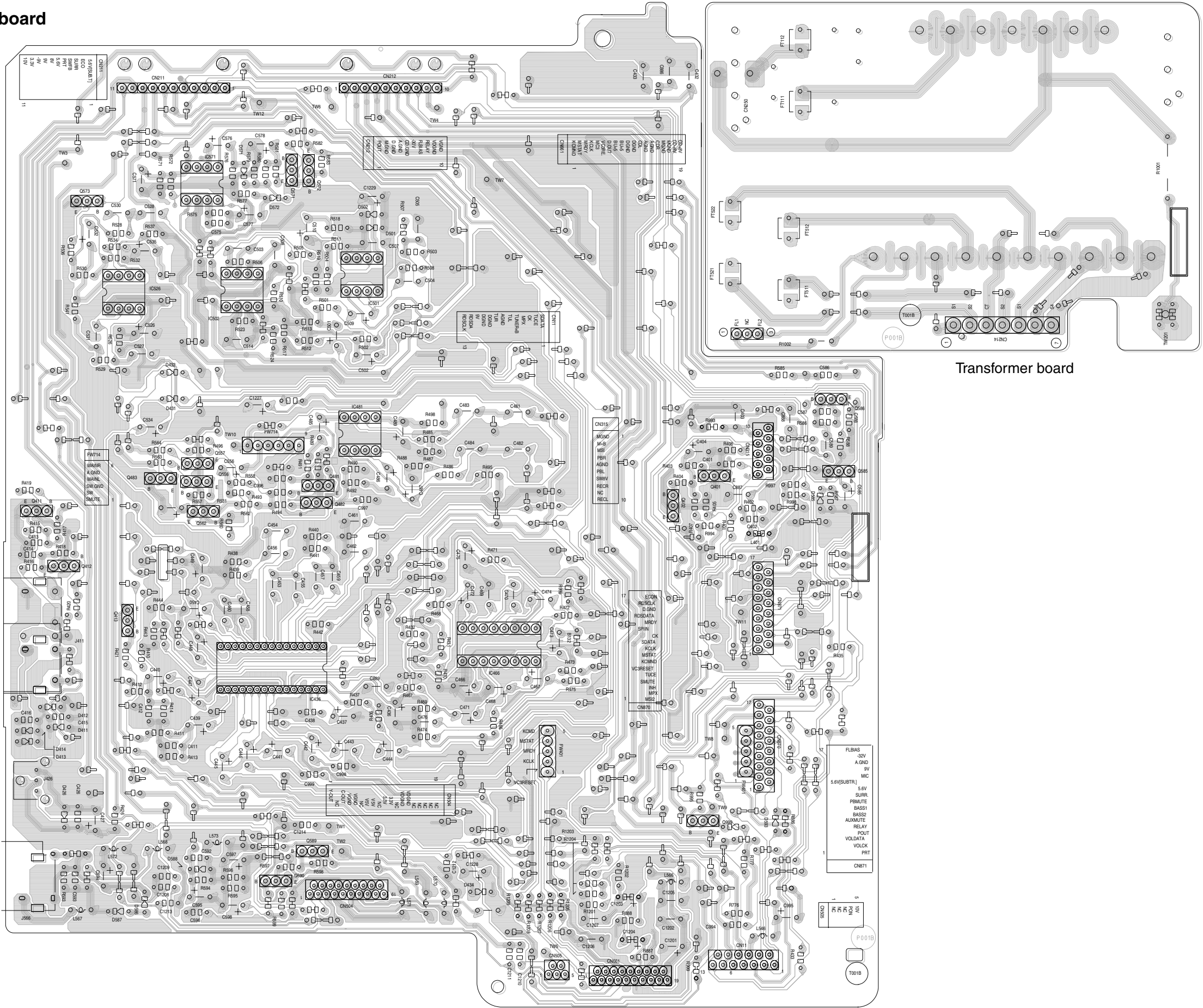
| Tr NO. | | Q1 | | | Q5 | | | | | |
|----------------------|--|----|-----|------|-----|-----|-----|-----|-----|-----|
| PIN NO. | | E | C | B | E | C | B | | | |
| FM 87.5MHz NO SIGNAL | | 0 | 7.1 | 0.85 | 8.9 | 8.8 | 0 | | | |
| AM 52KHz NO SIGNAL | | 0 | 0 | 0 | 9.0 | 0 | 8.9 | | | |
| Tr NO. | | Q2 | | | Q3 | | | Q4 | | |
| PIN NO. | | E | C | B | E | C | B | E | C | B |
| AM 52KHz NO SIGNAL | | 0 | 0 | 0.7 | 0 | 0 | 0.7 | 0 | 3.6 | 0.7 |
| AM 14KHz NO SIGNAL | | 0 | 0 | 0.3 | 0 | 0.3 | 0.3 | 3.6 | 3.6 | 3.6 |

Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

FM/TUNER signal
AM signal

Printed circuit boards

■ Main board



Transformer board

■ Regulation & amplifier board

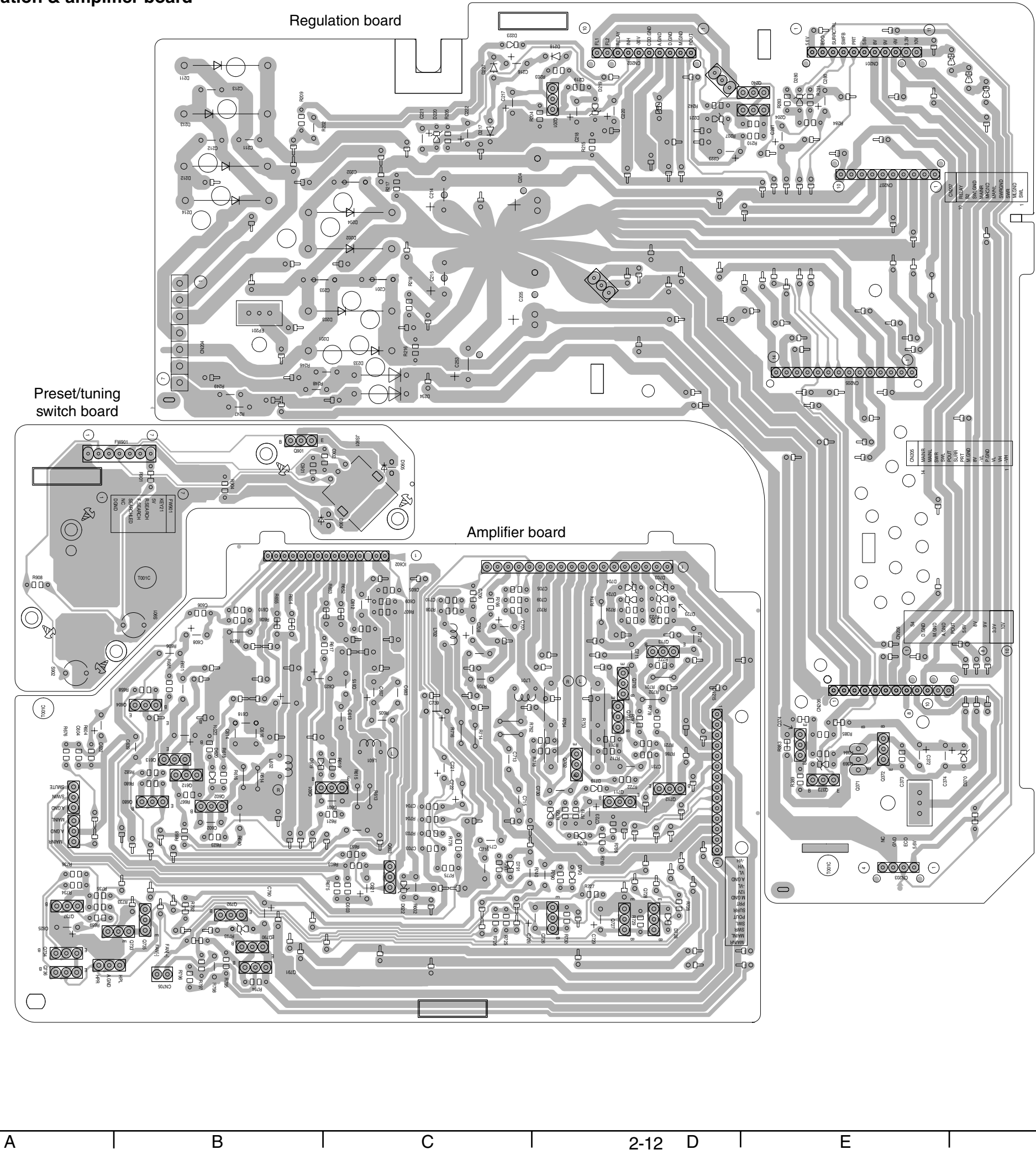
5

4

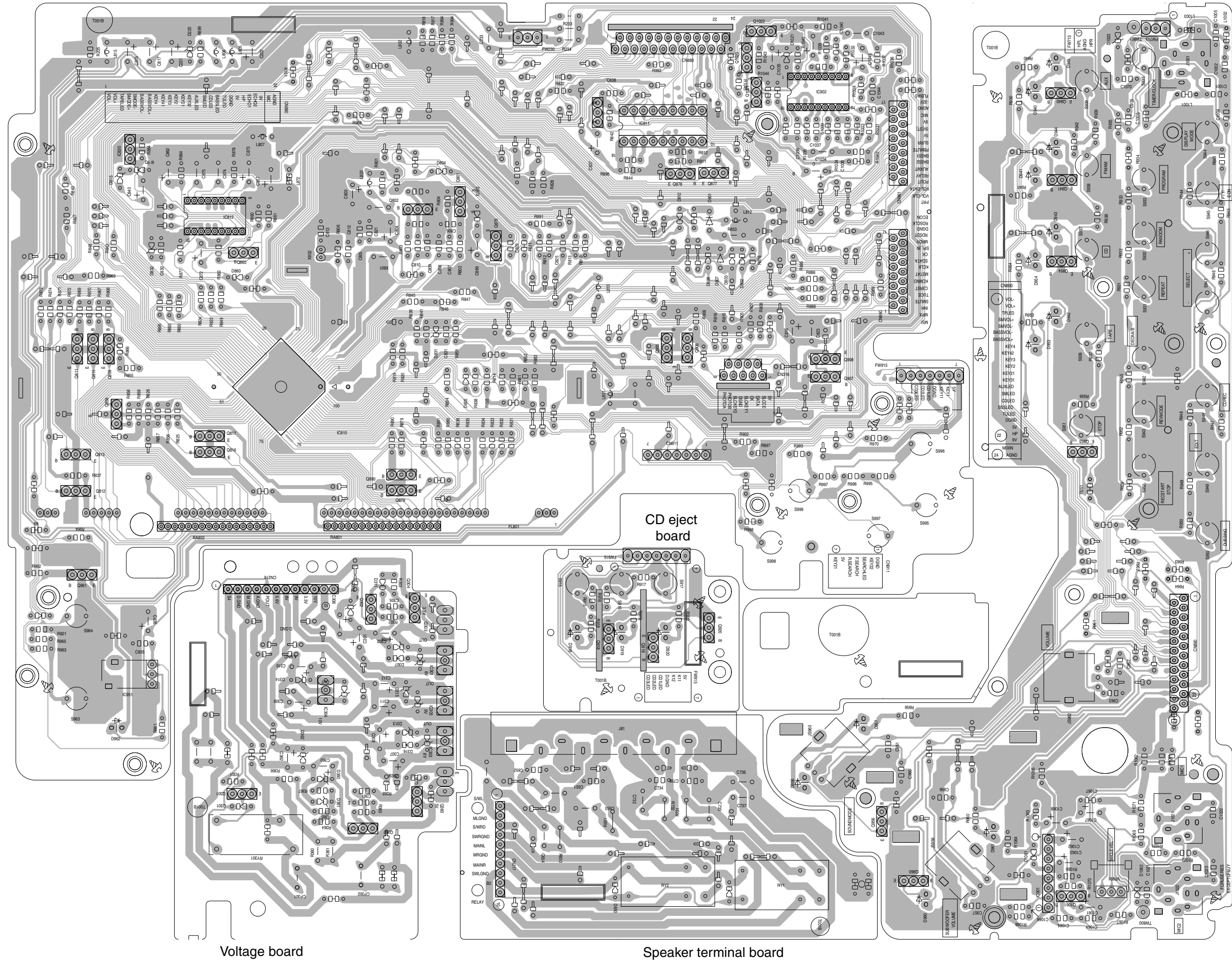
3

2

1



Operation swicth board

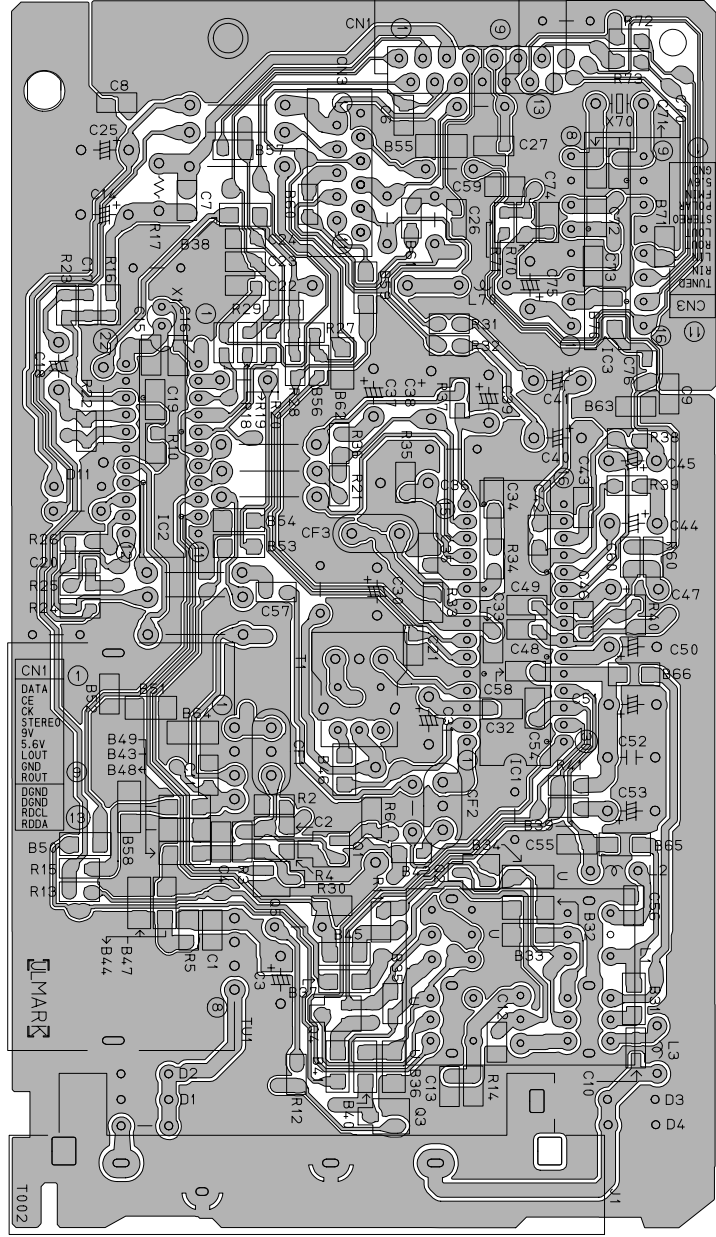
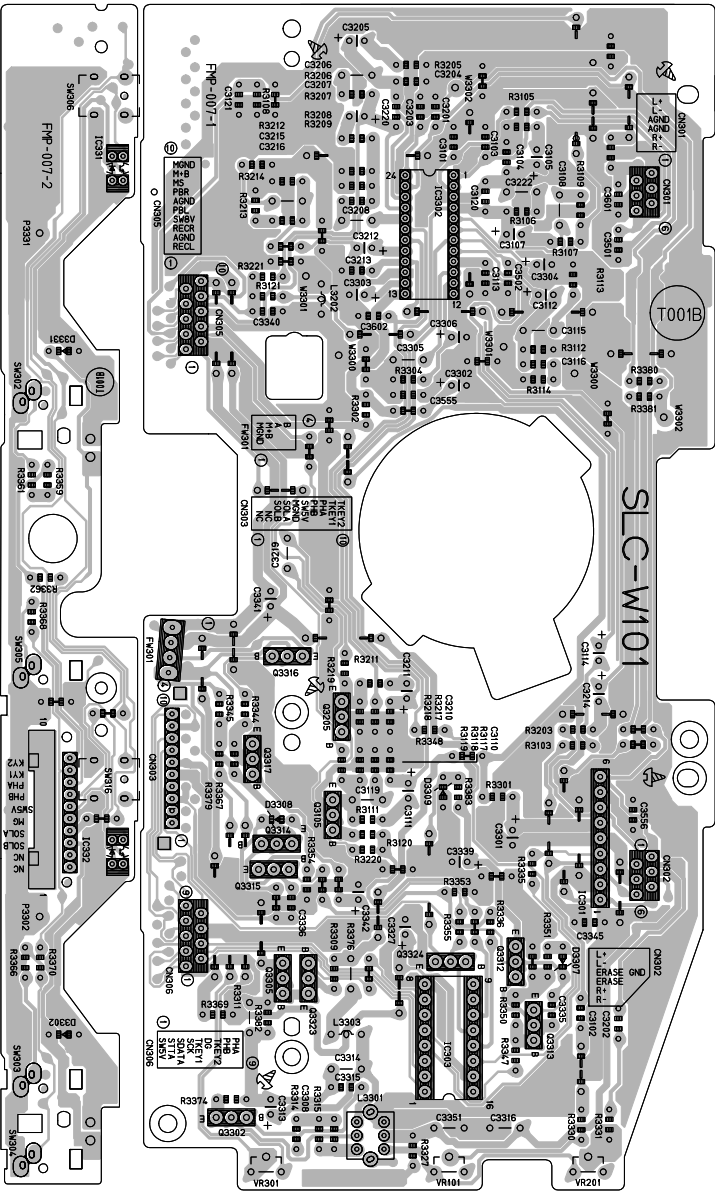
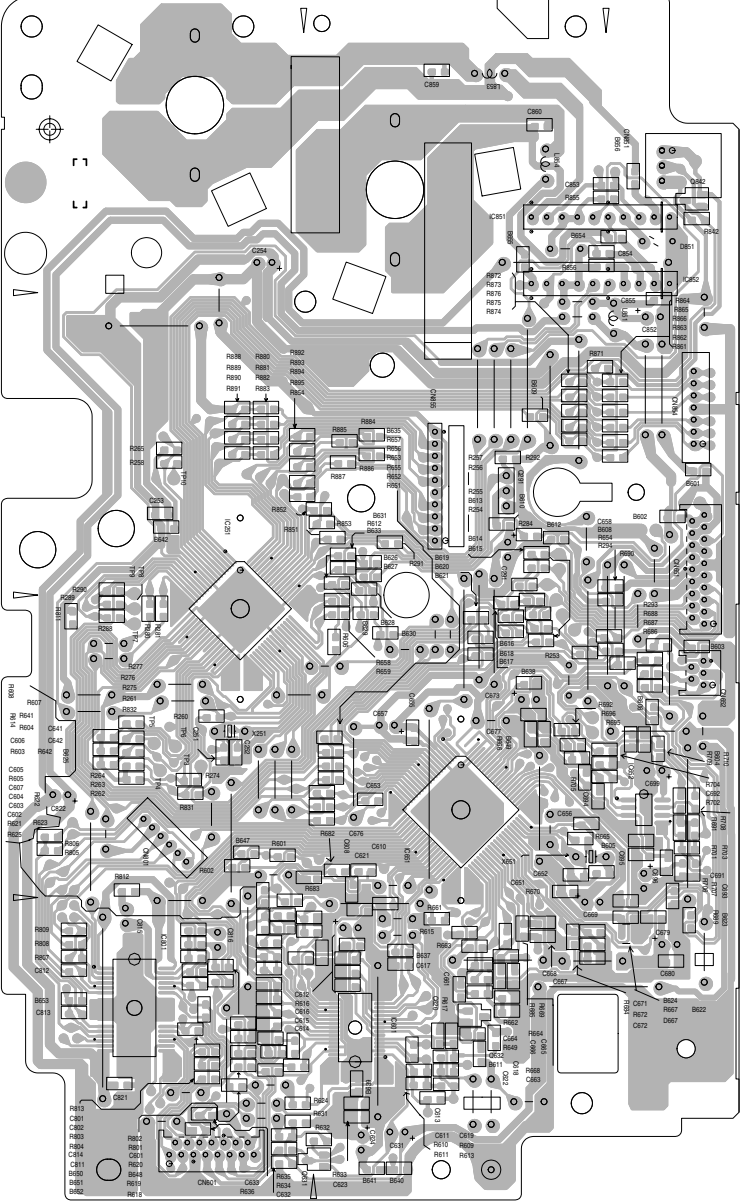


■ CD servo control board

■ Head amplifier & mechanism control board

■ Tuner board

5
4
3
2
1



A

B

C

2-14 D

E

F

G

H