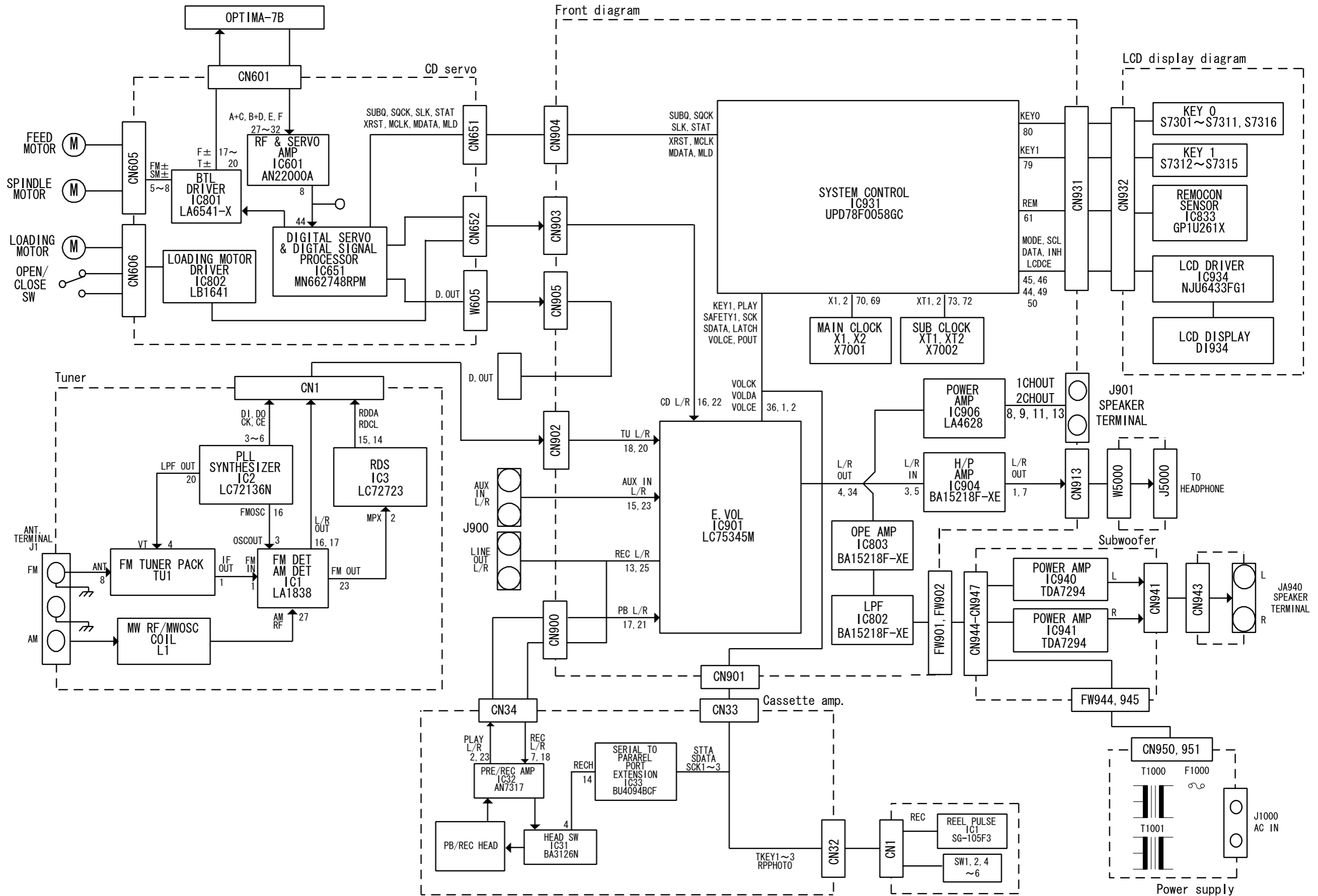
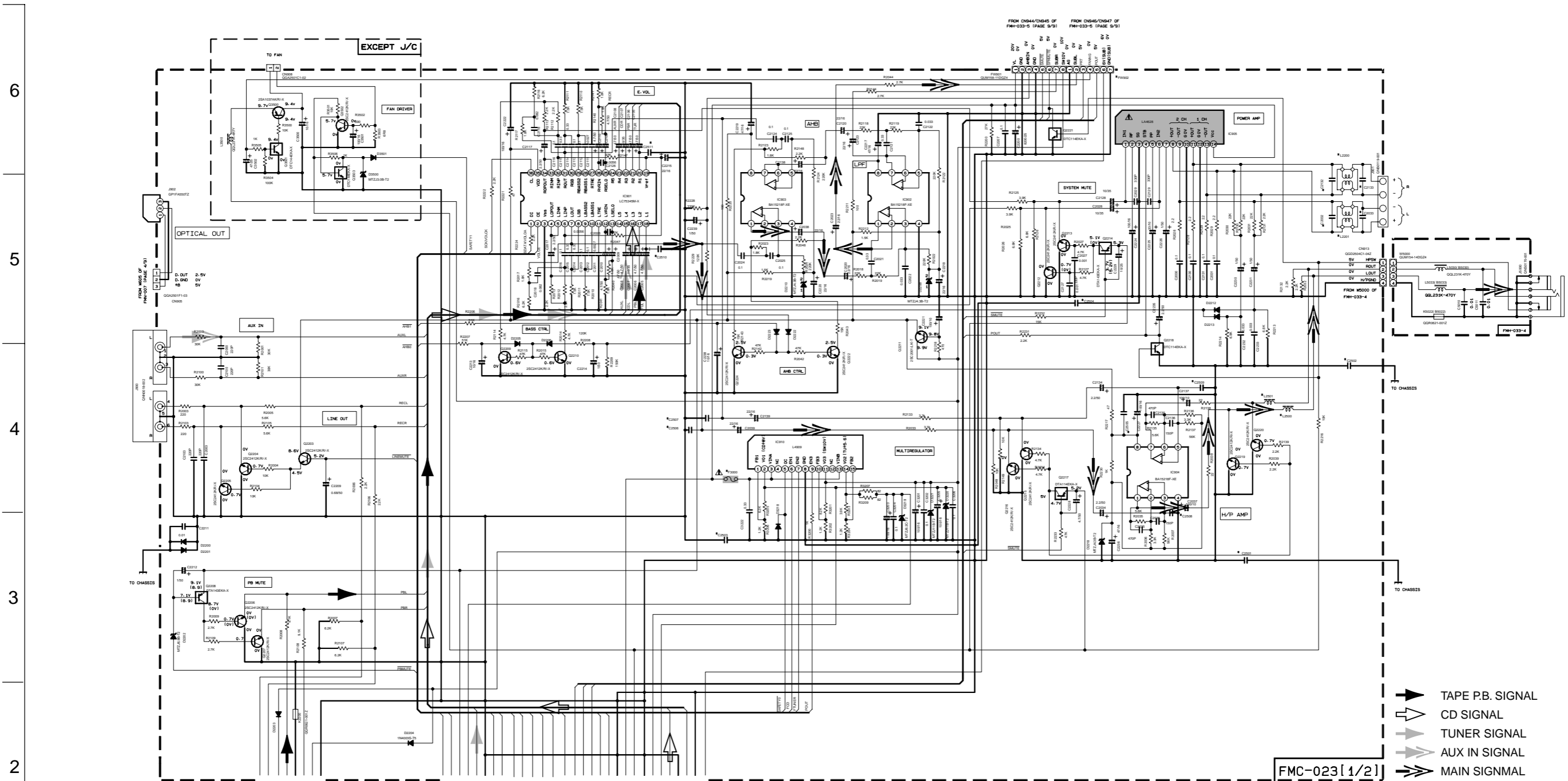


# Block diagram





Main circuit



- ▶ TAPE P.B. SIGNAL
- ◀ CD SIGNAL
- ▶ TUNER SIGNAL
- ▶ AUX IN SIGNAL
- ▶ MAIN SIGNAL

FMC-023 [1/2]

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

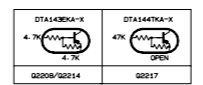
1. ALL VALUES ARE MEASURED IN VOLTS --- CD STOP MODE.

| IC    | 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  | 31  | 32  | 33  | 34  | 35  | 36 |  |
|-------|---------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|
| IC901 | 5.2     | 0.4 | 0    | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7  | 3.7  | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 7.4 | 0  |  |
| IC902 | 4.1     | 4.1 | 4.1  | 0   | 4.1 | 4.1 | 4.1 | 8   |     |     |     |     |      |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |  |
| IC903 | 4.1     | 4.1 | 4.1  | 0   | 4.1 | 4.1 | 4.1 | 8   |     |     |     |     |      |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |  |
| IC904 | 4.1     | 4.1 | 4.1  | 0   | 4.1 | 4.1 | 4.1 | 8   |     |     |     |     |      |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |  |
| IC905 | 1.2     | 9.4 | 0    | 2.9 | 2   | 1.2 | 1.4 | 9   | 9.2 | 0   | 9   | 0   | 9.2  | 20.2 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |  |
| IC910 | 1.3     | 7.8 | 19.8 | 0   | 5.2 | 0.4 | 5.1 | 0   | 5.2 | 1.3 | 9.9 | 0   | 19.8 | 5.3  | 1.3 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |  |

2. UNLESS OTHERWISE SPECIFIED.  
 ALL RESISTORS ARE 1/10W ±5% METAL GLAZE RESISTOR.  
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
 ALL RESISTANCE VALUES ARE IN OHM(Ω).  
 ALL CAPACITANCE VALUES ARE IN #F(P=pF).  
 ALL INDUCTANCE VALUES ARE IN #H(mH).  
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).  
 ALL DIODES ARE IN 1SS133-T2 UNLESS SPECIFIED.

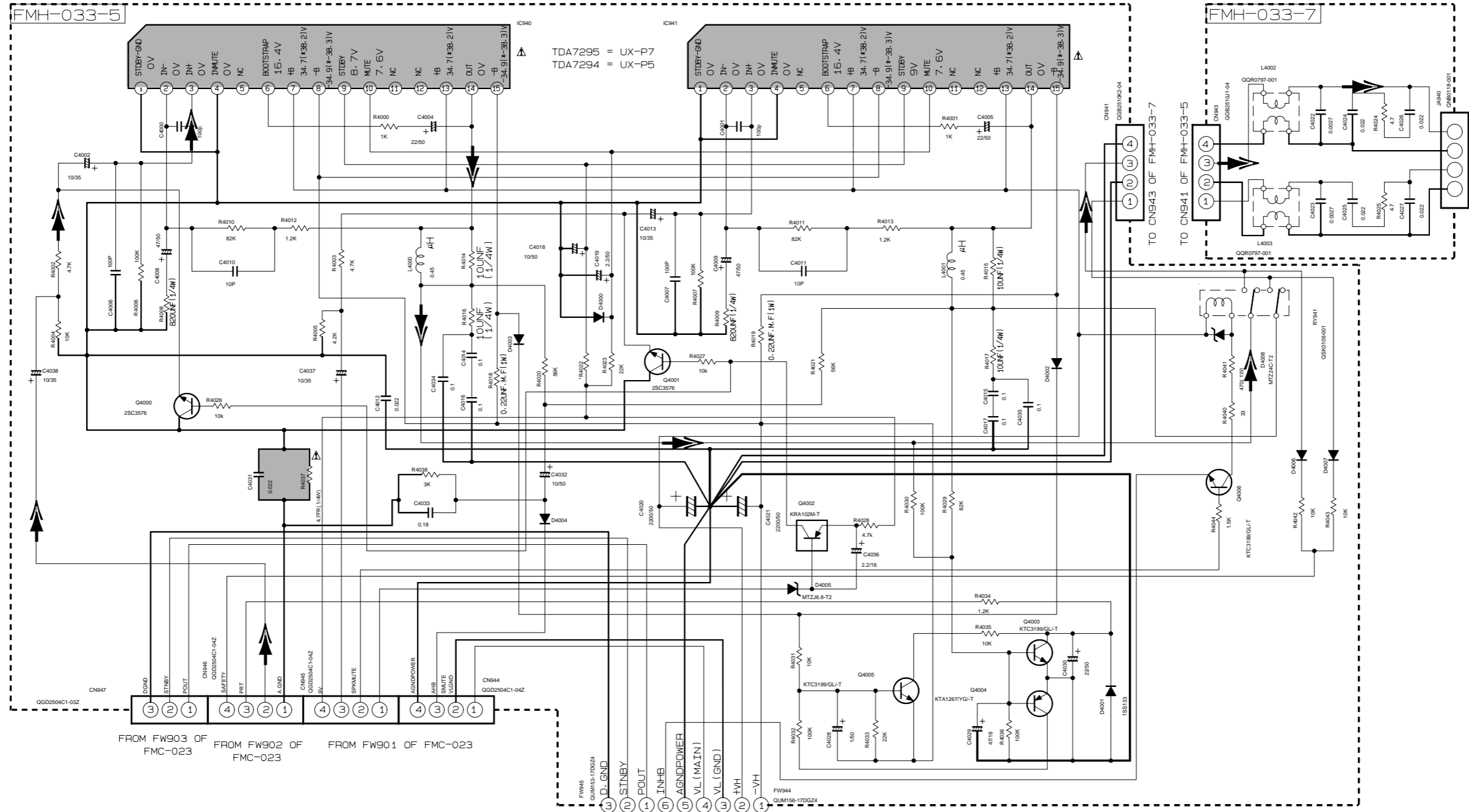
\* PART LIST

| VERSION       | PART | C2030/C2130 | L2000/L2001 | C2033/C2133   | FW002   | F3000   | C2006/C2007 | L2000/L2001 | C2008/C2009 | C2003 | C2005 | C2001  | C2010  | C2011 | C2002 | C2004 |
|---------------|------|-------------|-------------|---------------|---------|---------|-------------|-------------|-------------|-------|-------|--------|--------|-------|-------|-------|
| J/C           | NONE | N/A         | NONE        | NONE          | NONE    | 1A-125V | ---         | ---         | ---         | ---   | ---   | ---    | ---    | ---   | ---   | ---   |
| B/E/RE/TV/EV  | 0.1u | GG9797-001  | 0.0033u     | NONE          | T1AL    | 470P    | GL231K-560Y | 330P        | 0.001       | 0.01  | 0.01  | 0.0002 | 0.0002 | 0.001 | 0.001 |       |
| A/D/F/2/3/5/7 | 0.1u | GG9797-001  | 0.0033u     | NONE          | T1AL    | 470P    | GL231K-560Y | 330P        | 0.001       | 0.01  | 0.01  | 0.0002 | 0.0002 | 0.001 | 0.001 |       |
| LP            | 0.1u | GG9797-001  | 0.0033u     | NONE          | 1A-250V | 470P    | GL231K-560Y | 330P        | 0.001       | 0.01  | 0.01  | 0.0002 | 0.0002 | 0.001 | 0.001 |       |
| UB            | 0.1u | GG9797-001  | 0.0033u     | 0UM107-110024 | T1AL    | 470P    | GL231K-560Y | 330P        | 0.001       | 0.01  | 0.01  | 0.0002 | 0.0002 | 0.001 | 0.001 |       |



A B C D E F G H I

Subwoofer circuit



| VERSION                     | FW945 | CN947 | R4022 | C4034 | C4035 | L4002 | L4003 | C4022 | C4023 | C4024 | C4025 | R4024 | R4025 | C4026 | C4027 | C4014 | C4015 | C4016 | C4017 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| J                           | X     | X     | 10K   | 0     | 0     | X     | X     | X     | X     | X     | X     | X     | X     | X     | X     | X     | X     | X     | X     |
| UF/UN/UP/US/<br>UT/UW/UX/UY | X     | X     | 1K    | X     | X     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| B/E/EN/EV/EE/UB             | 0     | 0     | 1K    | X     | X     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |

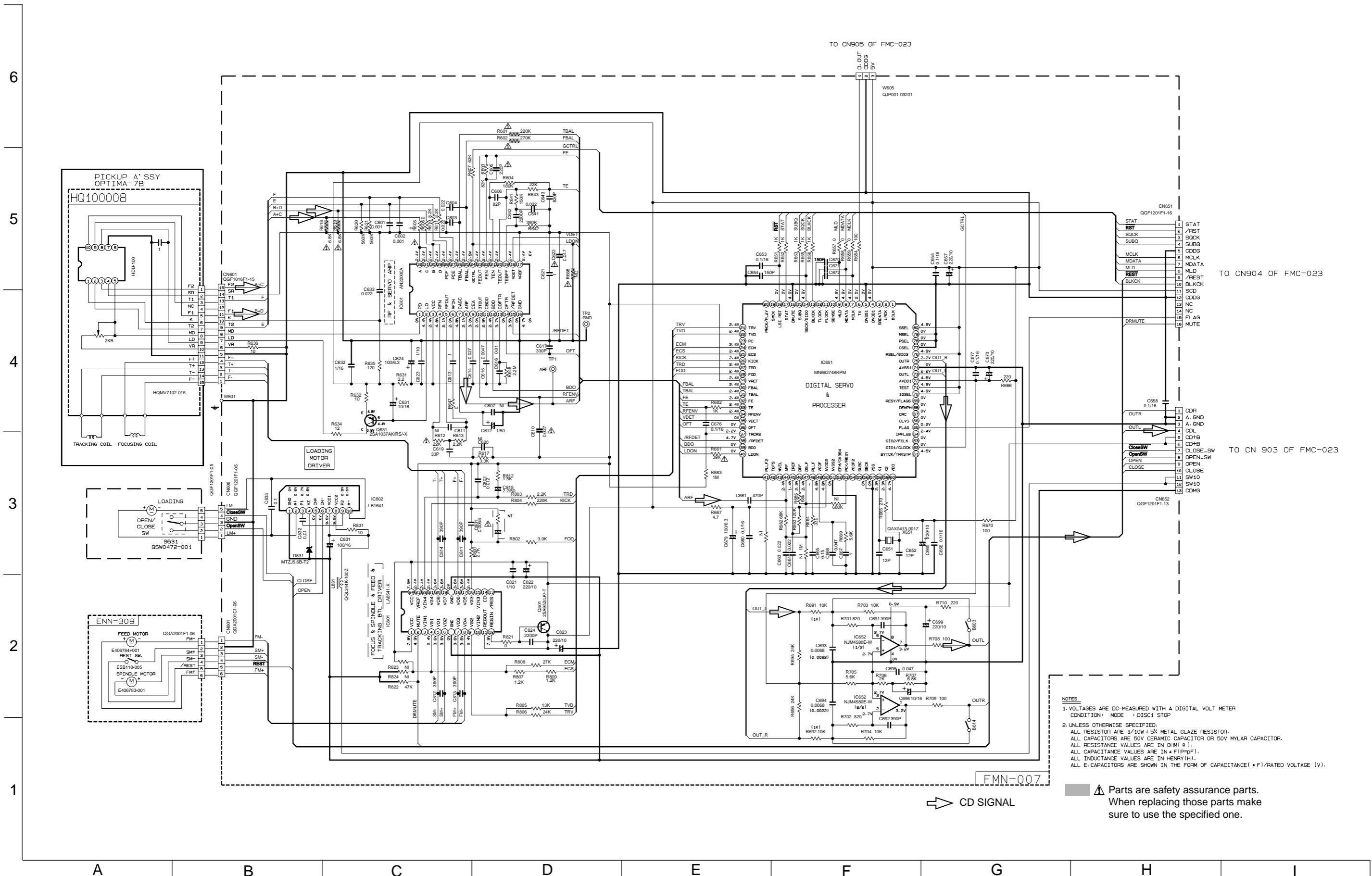
0 = USED  
X = NOT USED

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

- NOTES
- VOLTAGES ARE DC-MEASURED USING A DIGITAL VOLTMETER OR AN OSCILLOSCOPE WITHOUT INPUT SIGNAL CONDITION
  - UNLESS OTHERWISE SPECIFIED ALL RESISTORS ARE 1/6W ± 5% CARBON RESISTOR. ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITANCE VALUES ARE IN μF(P=PF). ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V). ALL DIODES ARE 1SS133-T7 TYPE UNLESS SPECIFIED. POLYPROPYLENE CAPACITOR 50V ± 5% MYLAR CAPACITOR OR 50V ± 5% THIN FILM CAPACITOR
  - THOSE PART WITH BRACKET IS NOT USED. FOR RESISTOR, IT WOULD BE A SHORT. FOR CAPACITOR, IT WOULD BE AN OPEN.

MAIN SIGNAL

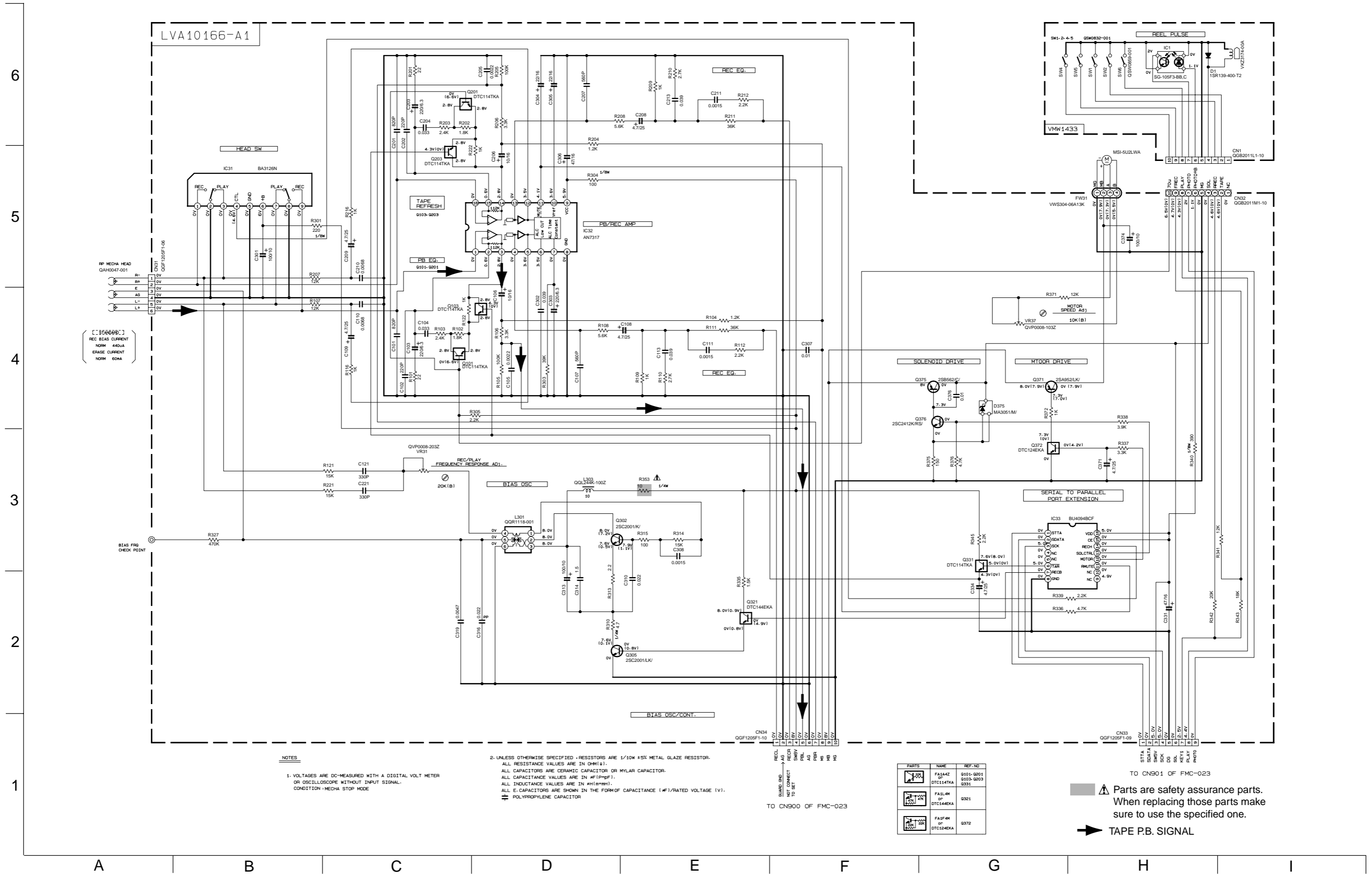
CD servo circuit



**NOTES**  
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER  
 CONDITION: MODE : DISC1 STOP  
 2. UNLESS OTHERWISE SPECIFIED:  
 ALL RESISTOR ARE 1/10W ± 5% METAL GLAZE RESISTOR.  
 ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.  
 ALL RESISTANCE VALUES ARE IN OHM (Ω).  
 ALL CAPACITANCE VALUES ARE IN PICO (p).  
 ALL INDUCTANCE VALUES ARE IN HENRY (H).  
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).

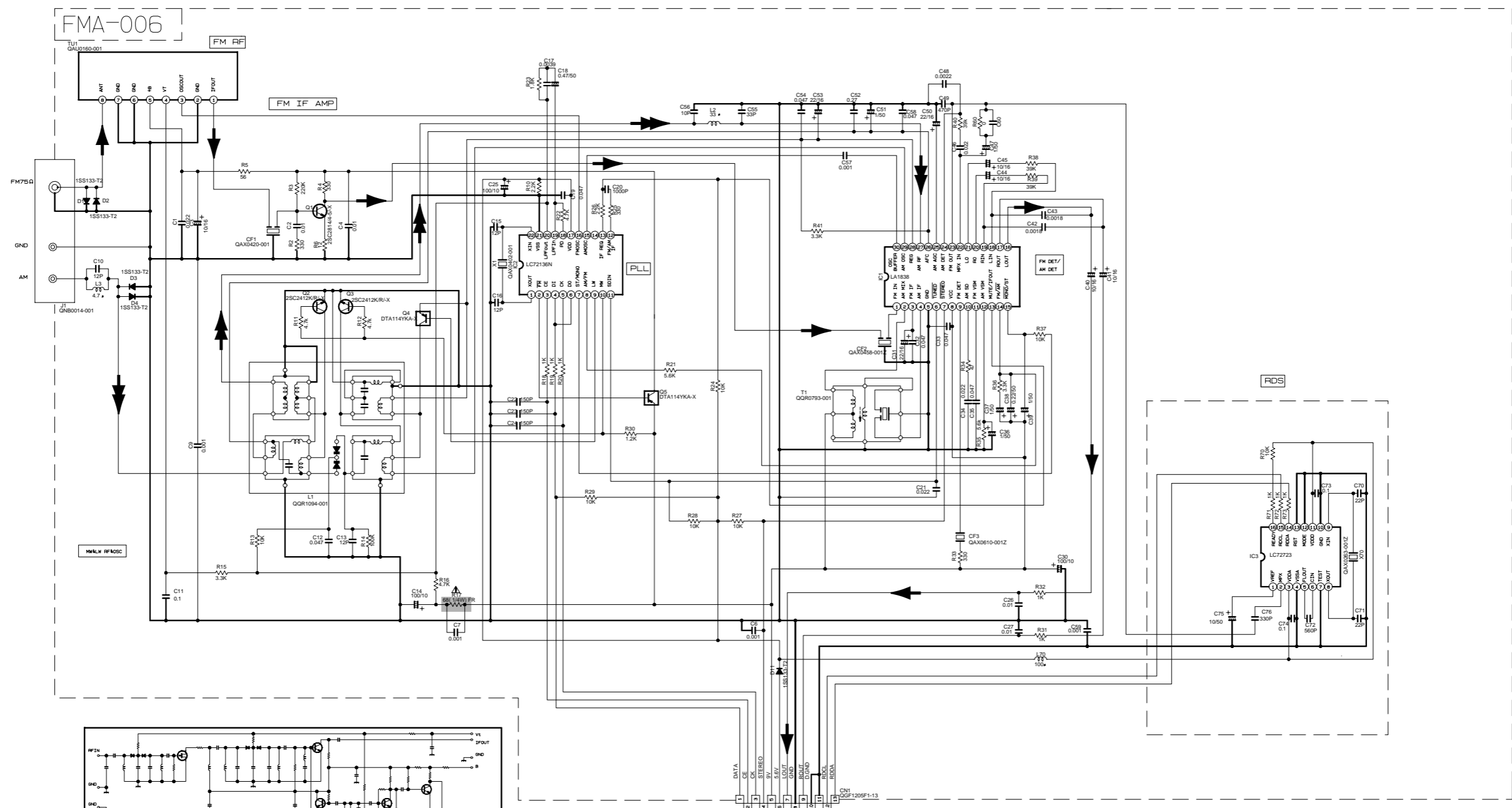
▲ Parts are safety assurance parts.  
 When replacing those parts make  
 sure to use the specified one.

■ Cassette amplifier circuit

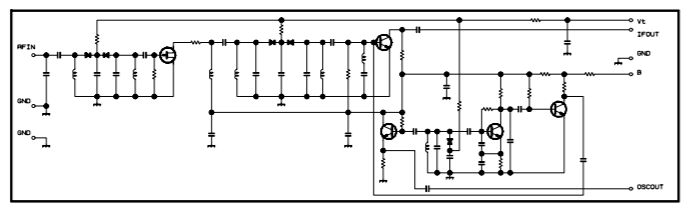
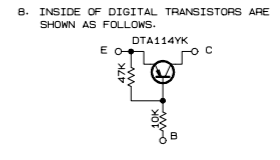


■ Tuner circuit (E)

6  
5  
4  
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- 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 (D1-D4) ARE ALL 1SS133-T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA16S OR HSS104J.
  7. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.  
 Q1 2SC2814/4-5/-X Q2-Q3 2SC2412K/R/-X  
 Q4-Q5 DTA114YKA-X



| 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  |
|-----------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| IC1       | FM NO SIGNAL   | 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 | 3.6 | 8.9 | 3.6 | 3.6 | 0   | 5.0 | 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   | 3.5 | 3.5 | 3.6 | 3.6 | 2.7 |
|           | AM NO SIGNAL   | 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 | 3.3 | 3.2 | 2.8 | ust | 0.7 | 0.7 | 3.6 | 3.6 | 3.6 | 3.6 | 2.1 |     |
| IC2       | FM NO SIGNAL   | 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.              | G1 |     |      |     | G5  |     |   |   |   |
|----------------------|----|-----|------|-----|-----|-----|---|---|---|
| PIN NO.              | E  | C   | B    | 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.             | G2 |   |     | G3 |     |     | G4  |     |     |
|---------------------|----|---|-----|----|-----|-----|-----|-----|-----|
| 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 144KHz NO SIGNAL | 0  | 0 | 0.3 | 0  | 0.3 | 0.3 | 3.6 | 3.6 | 3.6 |

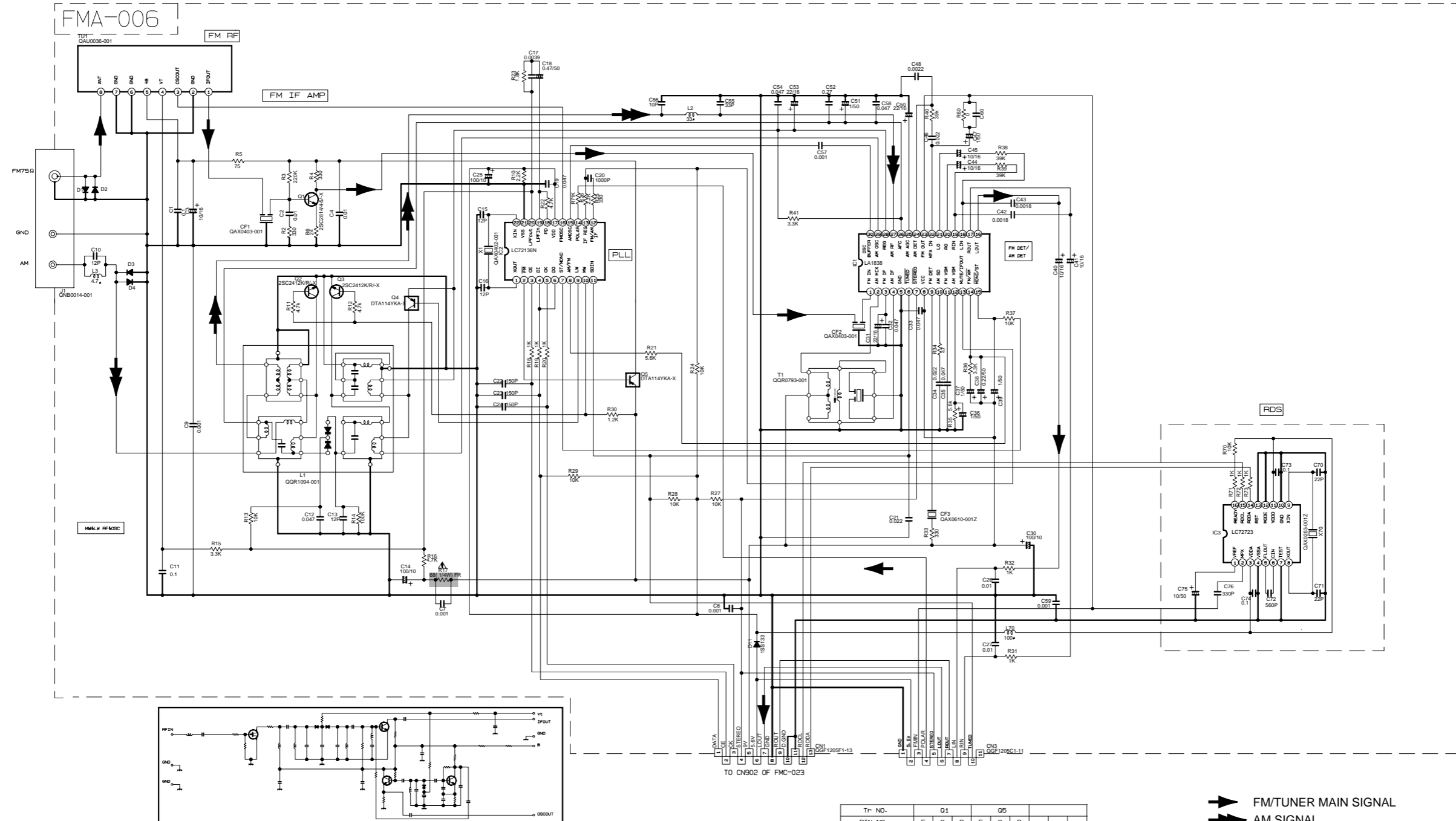
➡ FM/TUNER MAIN SIGNAL  
 ➡ AM SIGNAL

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

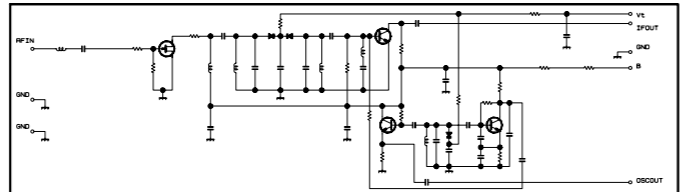
A B C D E F G H I

Tuner circuit (EE)

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- 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 CAPACITANCE VALUES ARE IN nF(P=pF).
  5. ALL E. CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (nF)/RATED VOLTAGE (V).
  6. SI DIODES (D) 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.
- 



| 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  |
|-----------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| IC1       | FM NO SIGNAL   | 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   | 3.6 | 3.6 | 3.6 | 3.6 | 2.7 |
|           | FM 60dB STEREO | 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   | 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 | ust | 0.7 | 0.7 | 3.6 | 3.6 | 3.6 | 3.6 | 2.1 |
| IC2       | FM NO SIGNAL   | 2.5 | 0   | 0   | 5.0 | 4.9 | 5.0 | 7.9 | 7.8 | 3.6 | 6.1 | 5.1 | 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 144KHz NO SIGNAL | 0  | 0 | 0.3 | 0  | 0.3 | 0.3 | 3.6 | 3.6 | 3.6 |

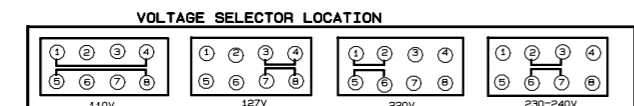
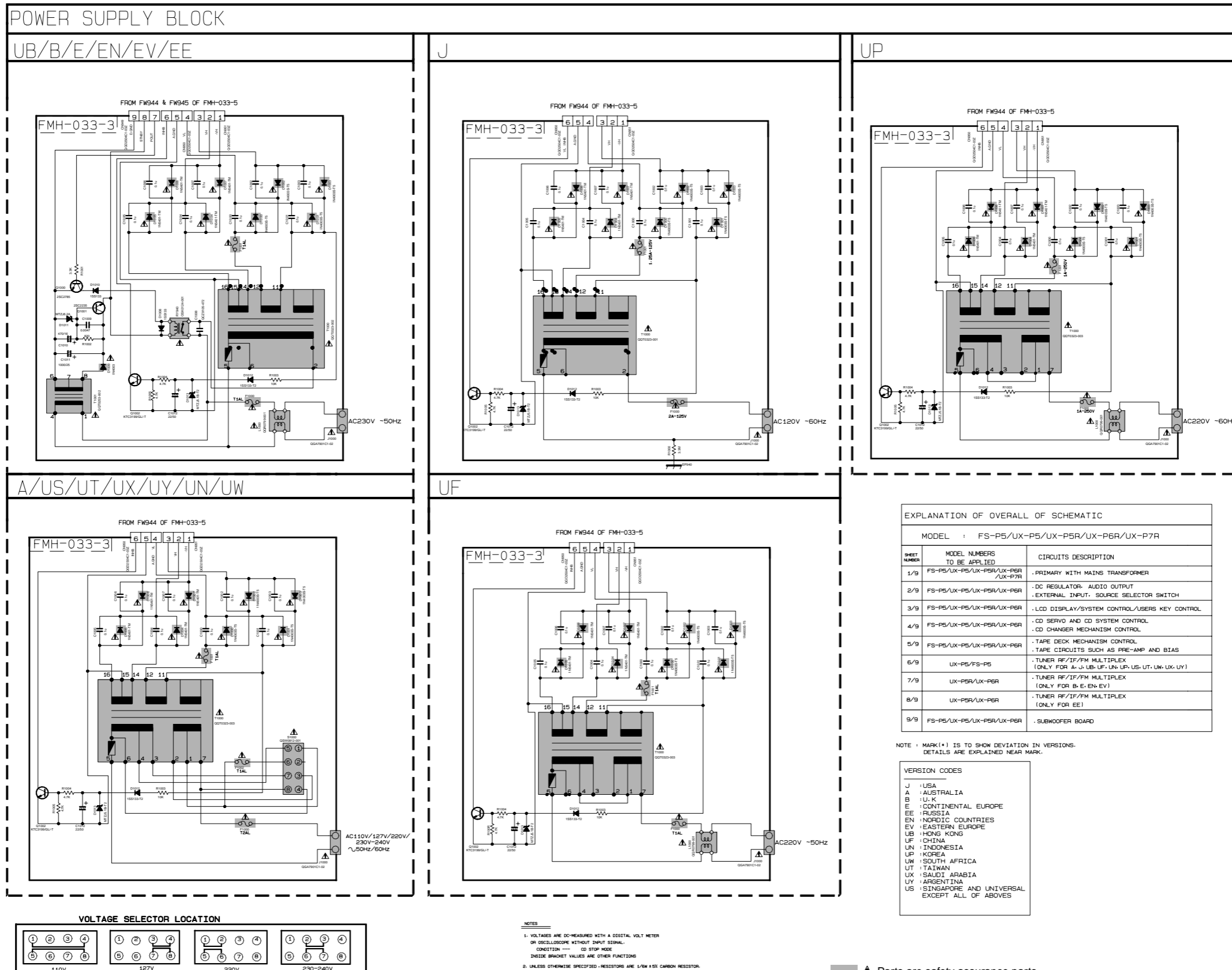
FM/TUNER MAIN SIGNAL  
 AM SIGNAL

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

A B C D E F G H I



Power supply circuit



EXPLANATION OF OVERALL OF SCHEMATIC

MODEL : FS-P5/UX-P5/UX-P5R/UX-P6R/UX-P7R

| SHEET NUMBER | MODEL NUMBERS TO BE APPLIED      | CIRCUITS DESCRIPTION   |
|--------------|----------------------------------|--|
| 1/9          | FS-P5/UX-P5/UX-P5R/UX-P6R/UX-P7R | . PRIMARY WITH MAINS TRANSFORMER   |
| 2/9          | FS-P5/UX-P5/UX-P5R/UX-P6R        | . DC REGULATOR, AUDIO OUTPUT, EXTERNAL INPUT, SOURCE SELECTOR SWITCH           |
| 3/9          | FS-P5/UX-P5/UX-P5R/UX-P6R        | . LCD DISPLAY/SYSTEM CONTROL/USERS KEY CONTROL                                 |
| 4/9          | FS-P5/UX-P5/UX-P5R/UX-P6R        | . CD SERVO AND CD SYSTEM CONTROL, CD CHANGER MECHANISM CONTROL                 |
| 5/9          | FS-P5/UX-P5/UX-P5R/UX-P6R        | . TAPE DECK MECHANISM CONTROL, TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS          |
| 6/9          | UX-P5/FS-P5                      | . TUNER RF/IF/FM MULTIPLEX (ONLY FOR A, J, UB, UF, UN, UP, US, UT, UW, UX, UY) |
| 7/9          | UX-P5R/UX-P6R                    | . TUNER RF/IF/FM MULTIPLEX (ONLY FOR B, E, EN, EV)                             |
| 8/9          | UX-P5R/UX-P6R                    | . TUNER RF/IF/FM MULTIPLEX (ONLY FOR EE)                                       |
| 9/9          | FS-P5/UX-P5/UX-P5R/UX-P6R        | . SUBWOOFER BOARD  |

NOTE : MARK (\*) IS TO SHOW DEVIATION IN VERSIONS. DETAILS ARE EXPLAINED NEAR MARK.

VERSION CODES

|    |   |
|----|---|
| J  | : USA   |
| A  | : AUSTRALIA                                   |
| B  | : U.K.  |
| E  | : CONTINENTAL EUROPE                          |
| EE | : RUSSIA                                      |
| EN | : INDRIC COUNTRIES                            |
| EV | : EASTERN EUROPE                              |
| UB | : HONG KONG                                   |
| UF | : CHINA                                       |
| UN | : INDONESIA                                   |
| UP | : KOREA                                       |
| UW | : SOUTH AFRICA                                |
| UT | : TAIWAN                                      |
| UX | : SAUDI ARABIA                                |
| UY | : ARGENTINA                                   |
| US | : SINGAPORE AND UNIVERSAL EXCEPT ALL OF ABOVE |

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION — (O) STOP MODE. INSIDE BRACKET VALUES ARE OTHER FUNCTIONS.

2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/8W ±5% CARBON RESISTOR. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITORS ARE CERAMIC CAPACITOR OR POLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN pF(pF). ALL INDUCTANCE VALUES ARE IN mH(mH). ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V). ALL DIODES(DiV) : Nsm 155133-T2.

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

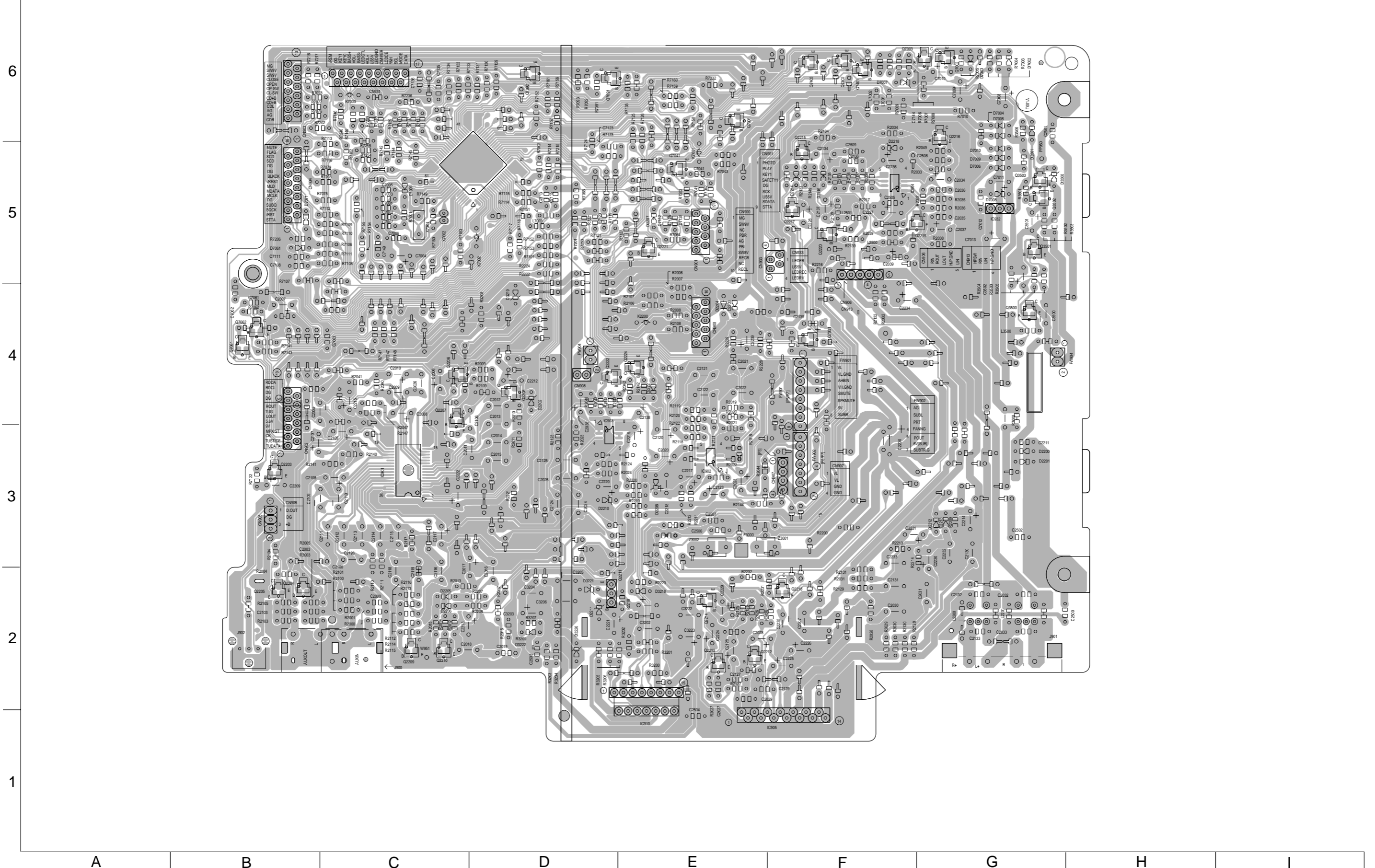
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A B C D E F G H I

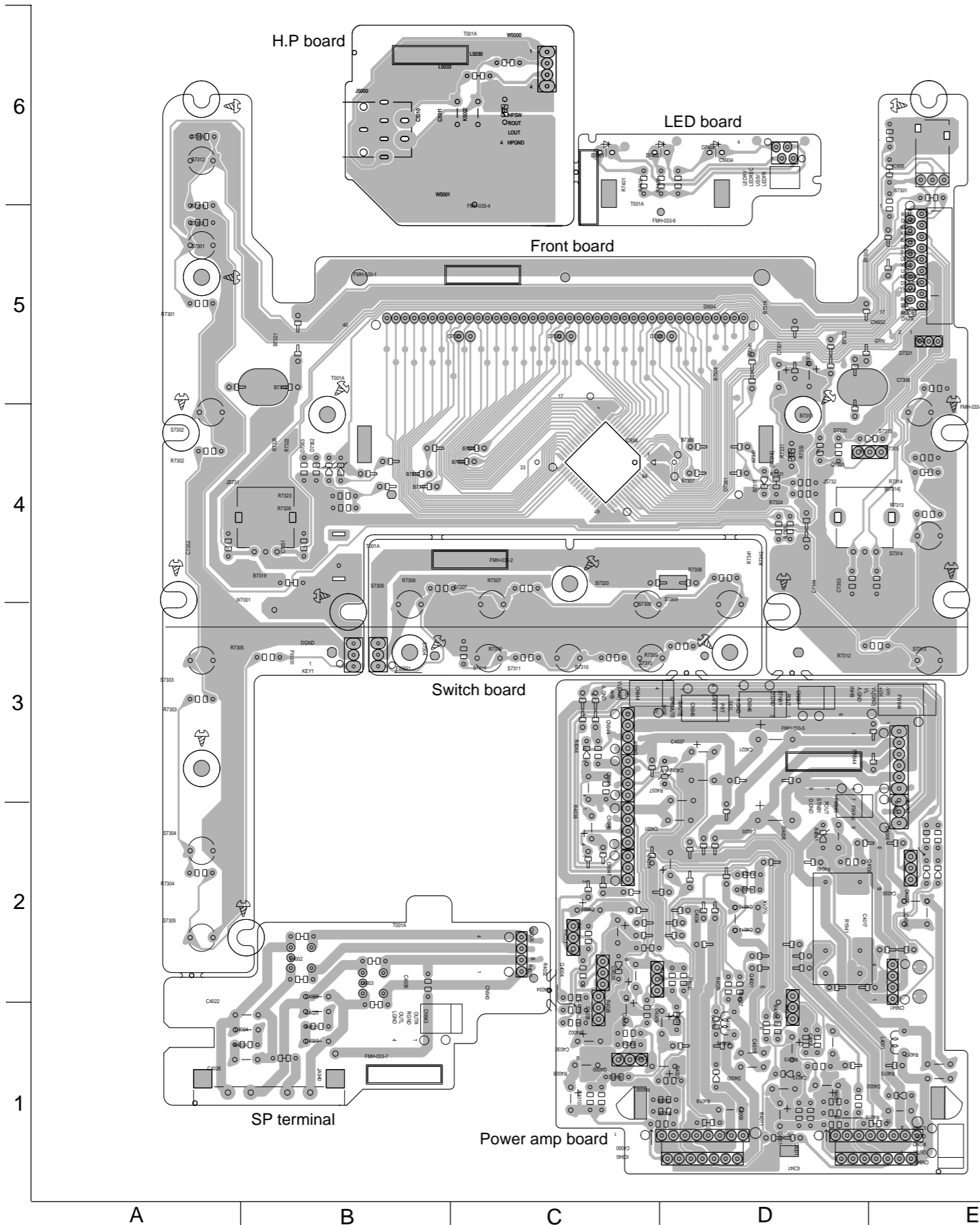
# Printed circuit boards

■ Main board

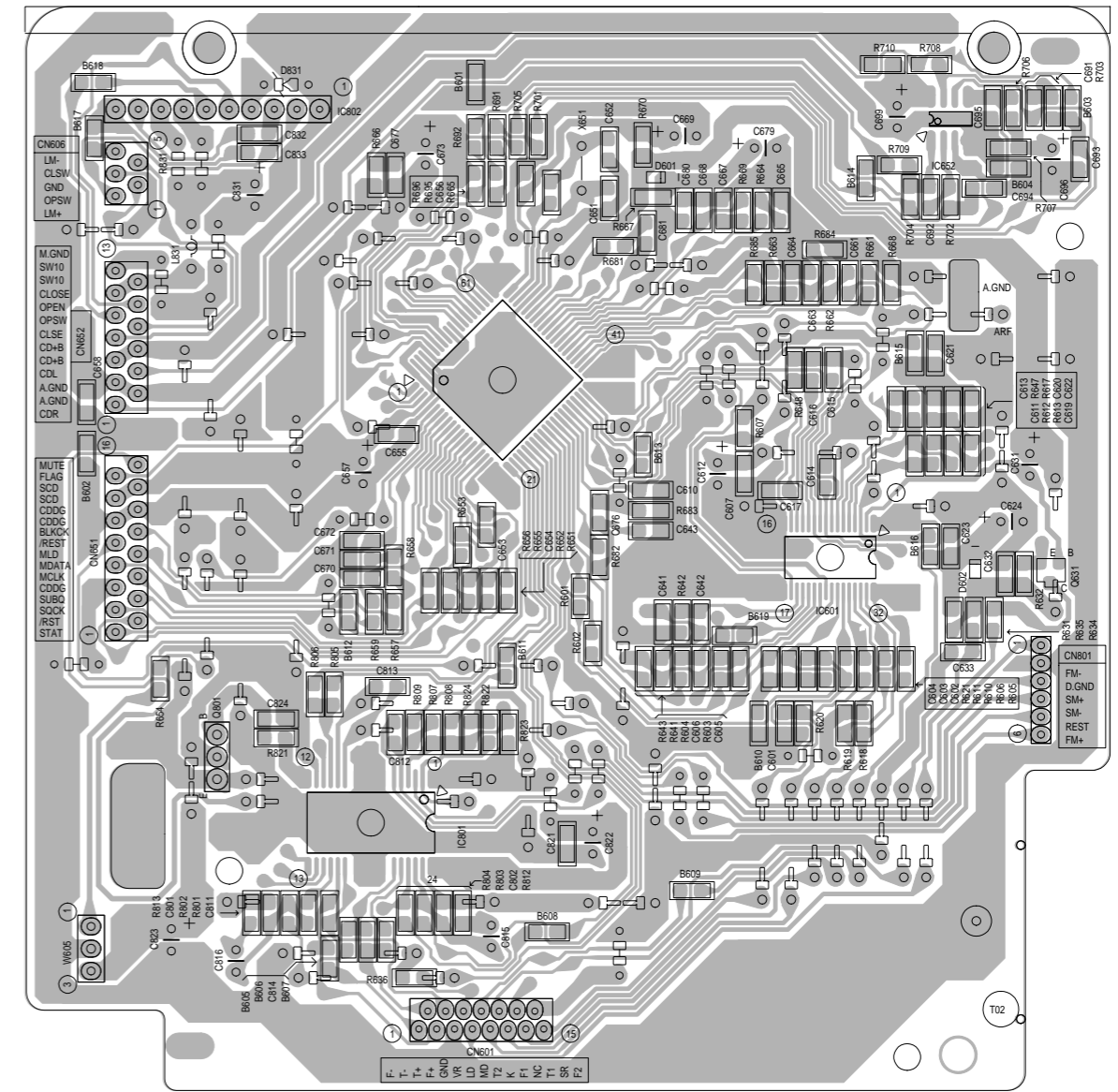
Block No. 01



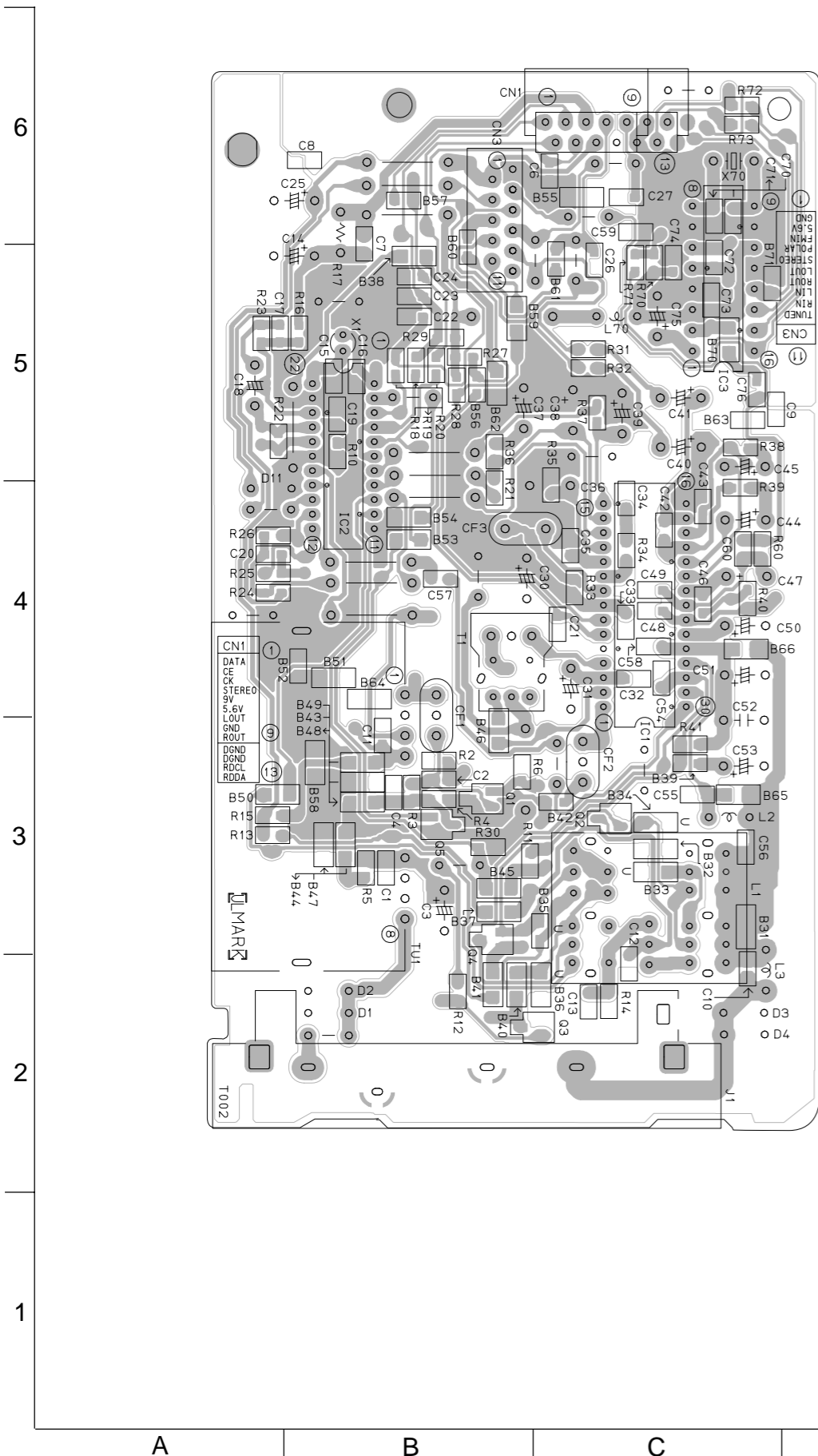
■ Front board Block No. 02



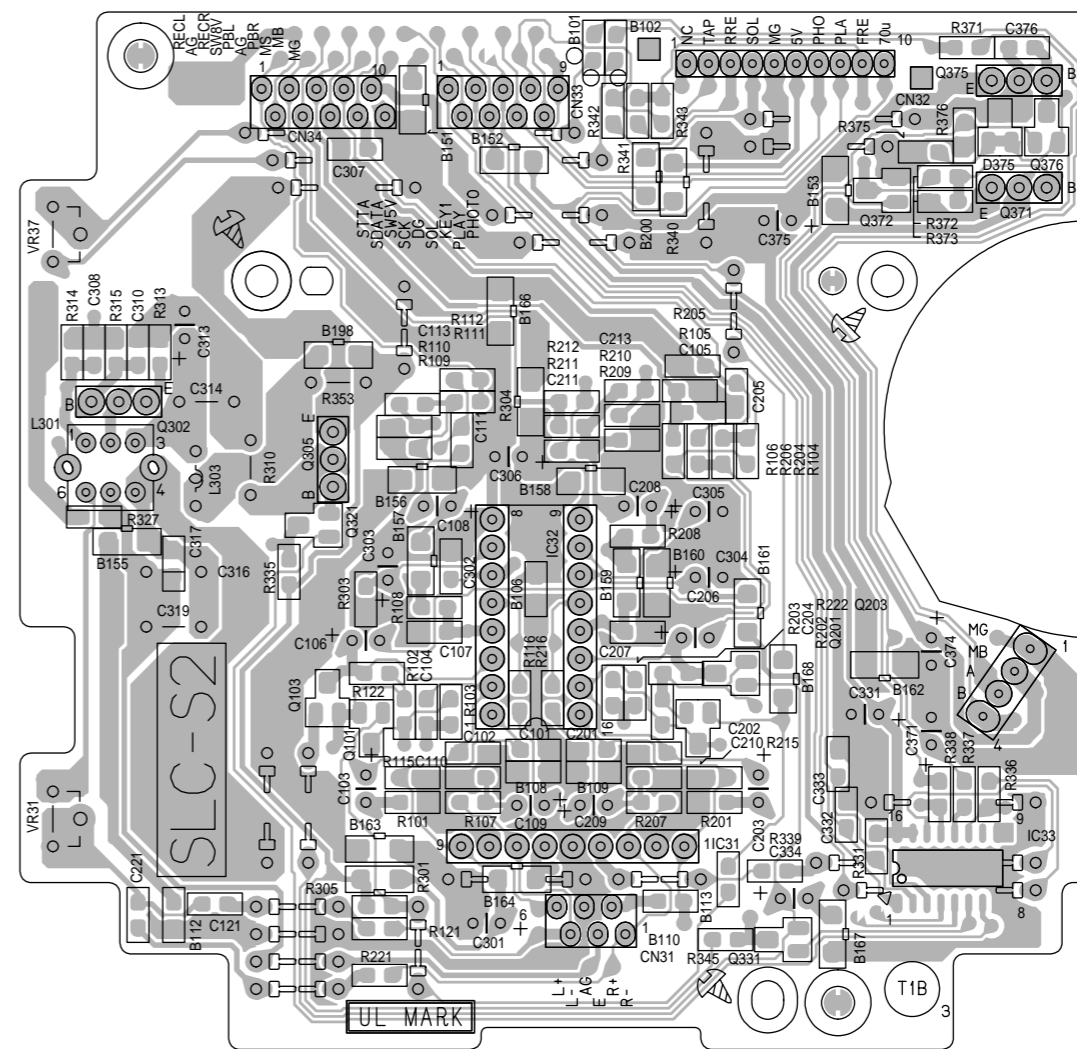
■ CD servo board Block No. 03



■ Tuner board Block No. 04



■ Head amplifier board Block No. 05



■ Cassette switch board Block No. 06

