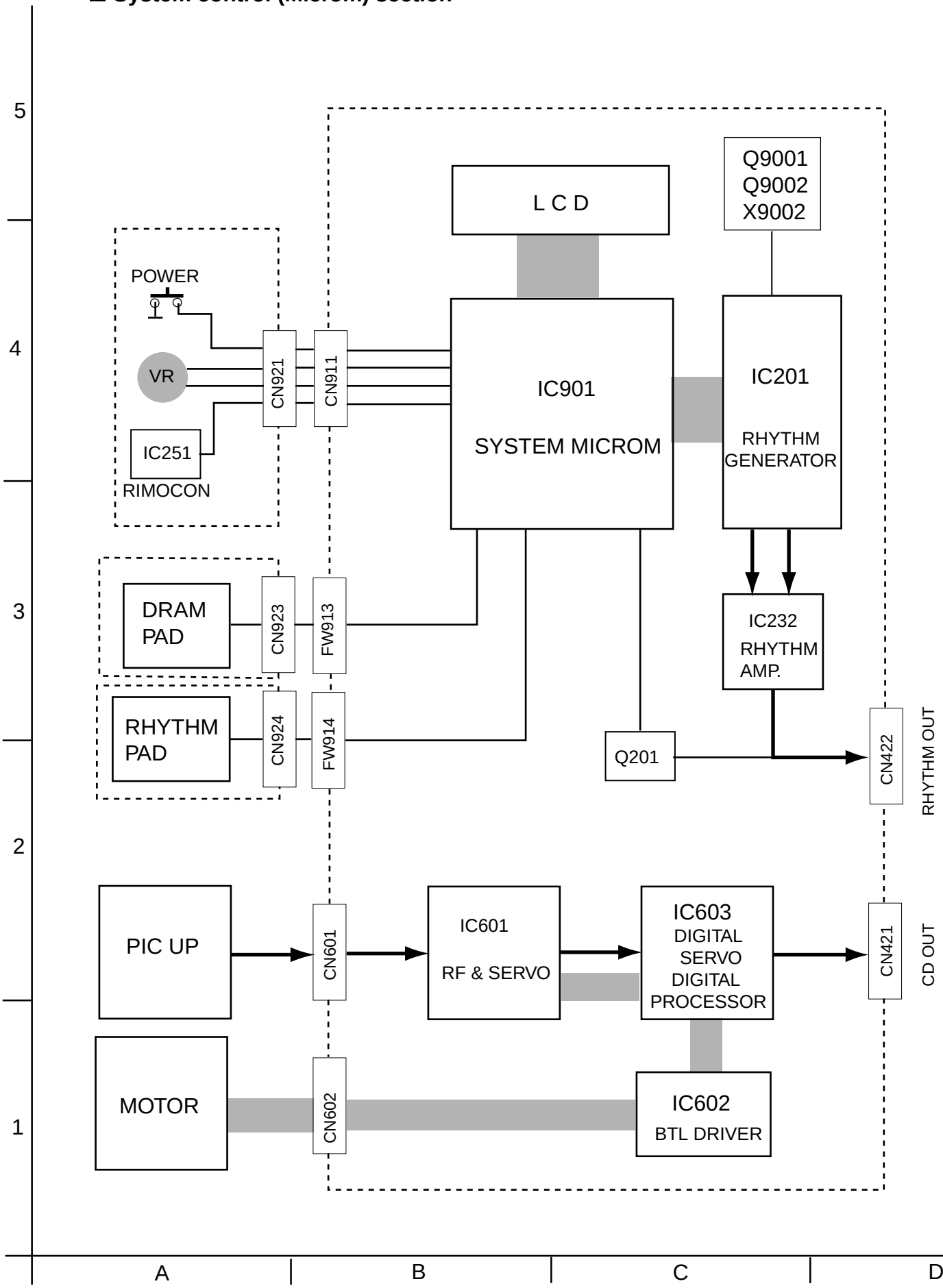
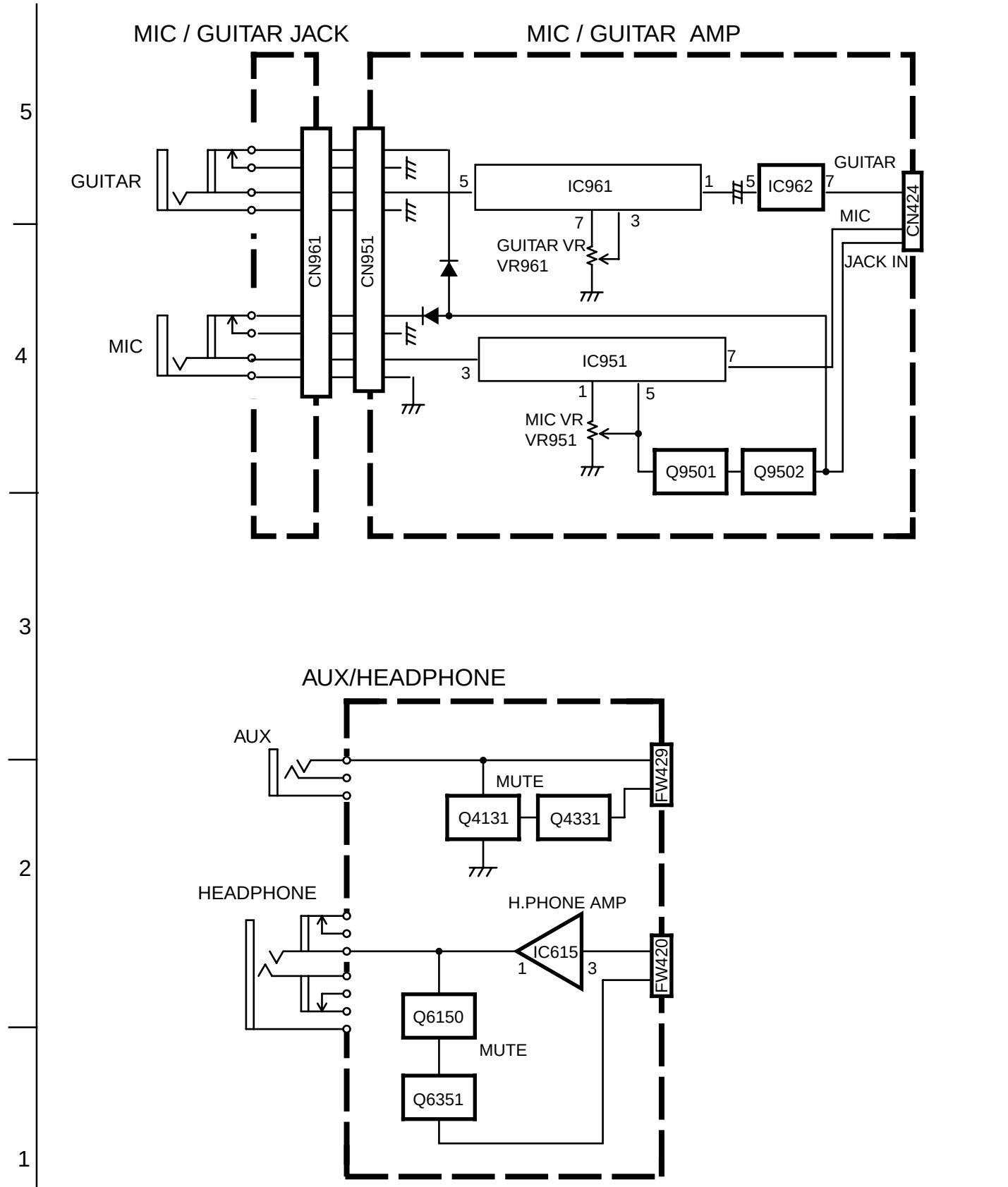
Block diagrams

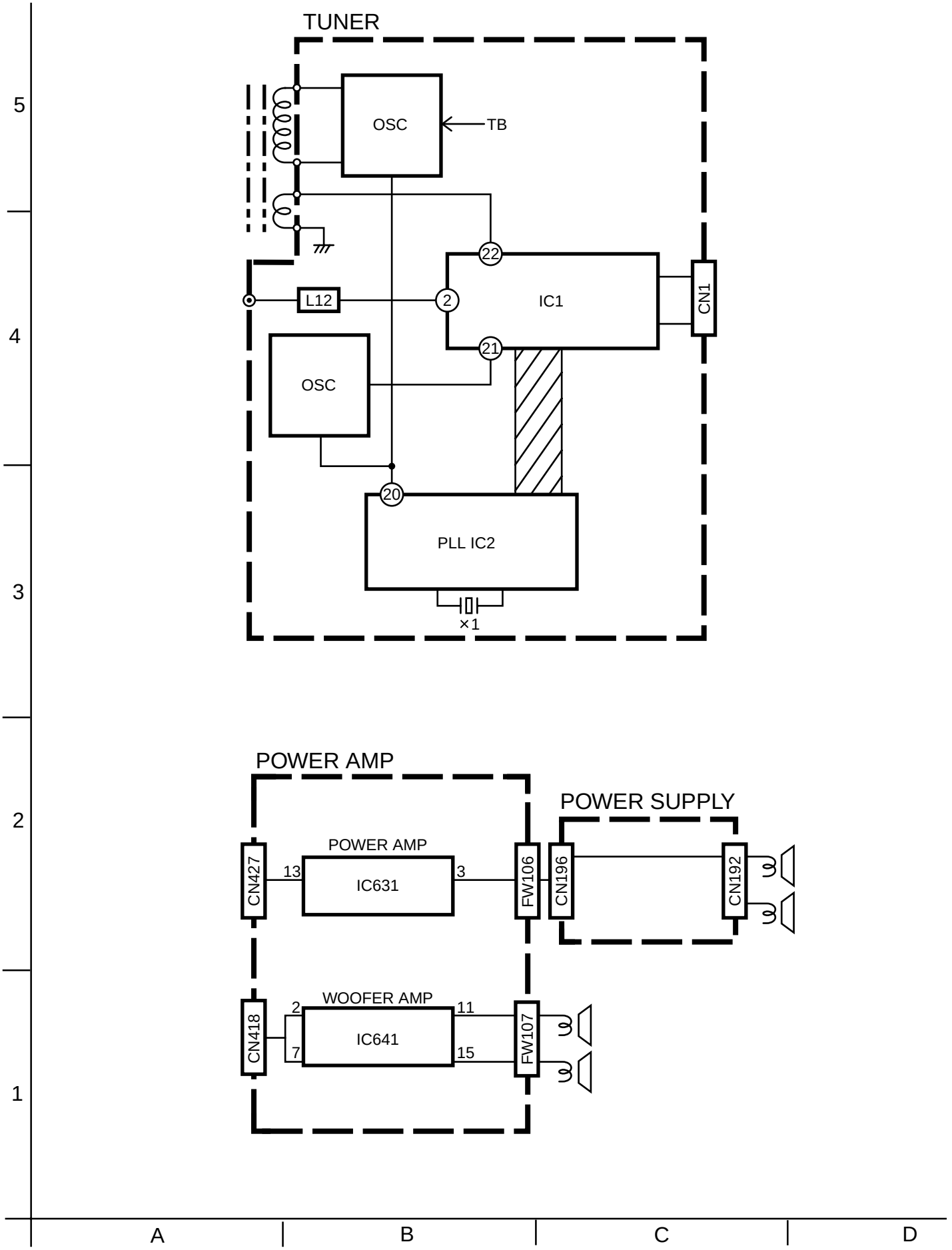
■ System control (Microm) section



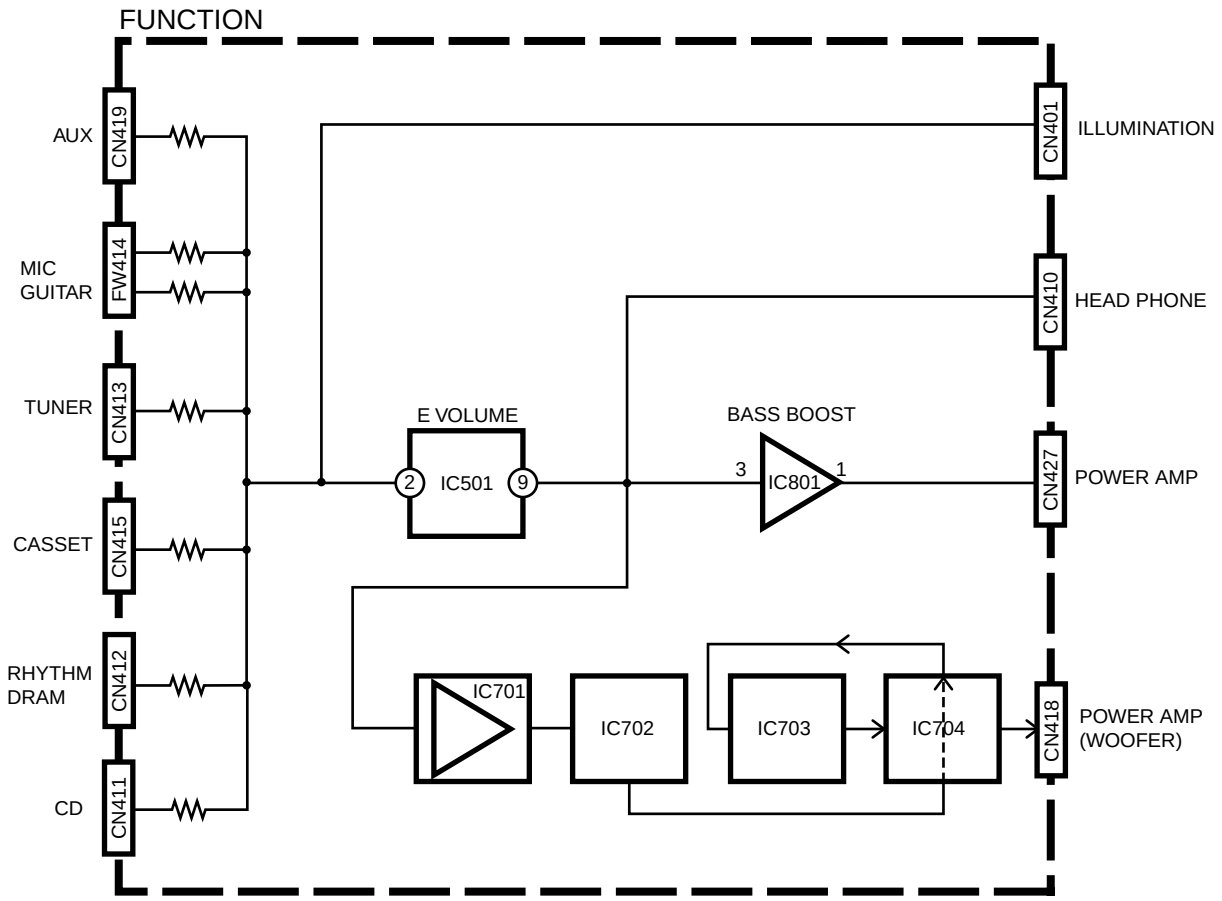
■ Mic/Guitar and AUX/Headphone section



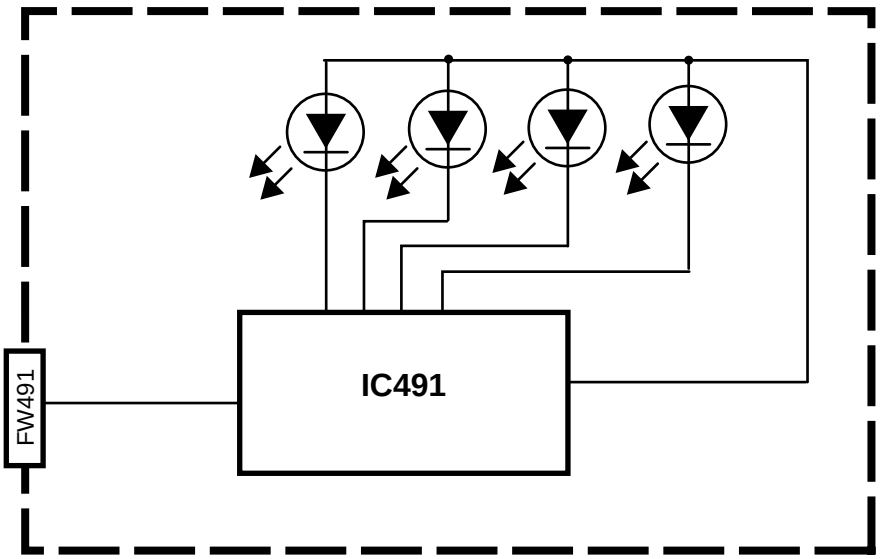
■Tuner / Power section



■ Function section

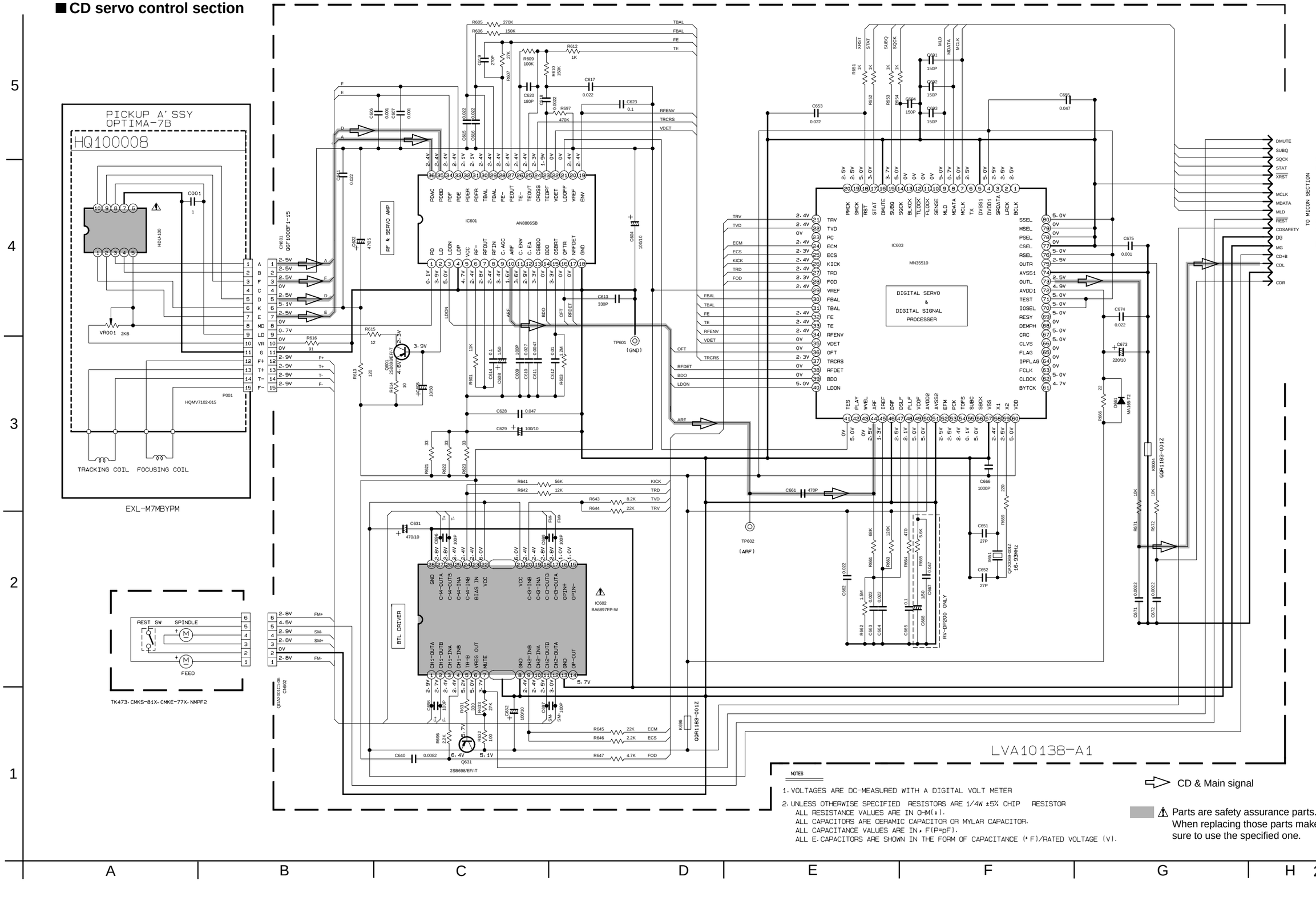


■ LED section



Standard schematic diagrams

■ CD servo control section



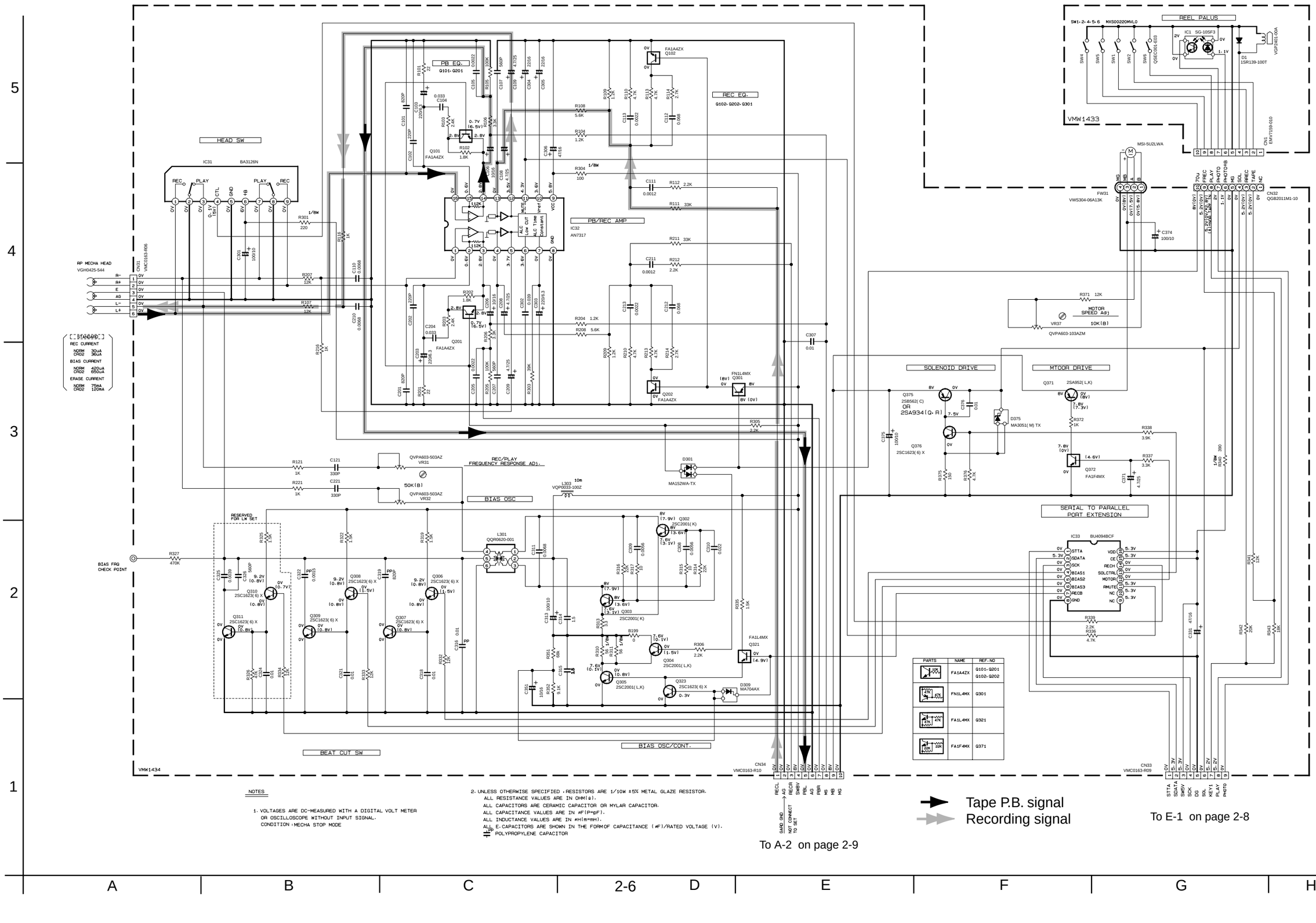
NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
2. UNLESS OTHERWISE SPECIFIED RESISTORS ARE 1/4W ±5% CHIP RESISTOR
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).

CD & Main signal

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

■ Cassette amplifier section



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION : MECHA STOP MODE

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

To A-2 on page 2-9

To E-1 on page 2-8

■ Tuner section

	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
IC1	FM NO SIGNAL 88MHz	0	0.8	0	3.6	4	3.5	4	0	0.6	3.2	1.2	1.2	3.4	3.3	0.7	1.4	1.2	0	3.9	4	4.1	4	4	4
	FM 88MHz 60dB STEREO	0	0.8	0.2	3.8	4.1	3.9	4.1	0	0	3.3	1.2	1.2	3.3	3.4	0.7	1.1	1.4	0.7	4	4.1	4.1	4.1	4.1	4.1
	AM 531KHz NO SIGNAL	0	0	1	4.2	4.3	3.6	4.3	0	0.1	3.7	1.2	1.2	0	0	0.7	1.1	0.9	0.7	4.1	4.2	4.3	4.3	4.3	4.3

	PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
IC2	FM NO SIGNAL	2.5	0	0	5.1	5.1	5.1	3.5	3.2	3.9	2.5	4.1	0	1.4	1.7	0	2.4	0	0.9	0.9	1.5	0	2

	TR NO	Q1			Q2			Q3			Q4			Q5			Q6			Q14		
	PIN NO	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
	AM 1440KHz NO SIGNAL	3.3	4.2	4.1	0	0	0.1	0	0	0.1	4.1	4.1	3.6	0	0	0.8	0	0	0.7	4.1	4.1	0
	AM 144KHz NO SIGNAL	3.4	4.3	4.2	0	0	0.8	0	0	0.7	4.3	4.3	4.3	0	0	0.1	0	0	0.1	4.3	4.3	4.3

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
2. ALL RESISTORS ARE 1/6W 5% CARBON RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM(Ω).
4. ALL CAPACITANCE VALUES ARE IN μF(P=pF).
5. ALL E-CAPS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
6. ALL INDUCTANCE VALUES ARE IN μH(m=mH)
7. S1. DIODES(▶|) ARE ALL MA165 THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS 1SS254 OR HSS104TJ OR 1SS133.
8. PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.
   Q1·2·3·5·6 2SC2668/O/ OR 2SC1923/O/
   Q4 2SA1175/HFE/
   Q14 DTA114YS or BN1A4P
9. INSIDE OF DIGITAL TRANSISTOR IS SHOWN AS FOLLOWS.

DTA114YSA-T or BN1A4P

10. LAST COMPONENT NO.
    R : 64
    C : 77
    Q : 14
    D : 13
    L : 12

11. BLANK COMPONENT NO.
    R : 4-6·8·10·11·22-27·29·38·39·42·43·49·50·53·58·62·63
    C : 1·2·4·5·8·10-12·14·15·17-20·29·30·34·38·39·46·53-55·57-59·72-76
    Q : 1·7-13
    D : 3-7·9·11
    L : 8-11

LVA10139-02B

TC2 QAT3725-200Z
TC3 QAT3725-300Z

Q2~6·14 MW/LW SW

(FM RF) (FM OSC) (MW OSC) (LW OSC) (FM IF) (AM IF)

IC1 TA2104AN — FM RF/IF/DET/MPX AM RF/IF/DET

IC2 LC72136N — PLL

To A-3 on page 2-9

AM signal
FM / RADIO signal

A B C D E F G H 2-7

■ System control section

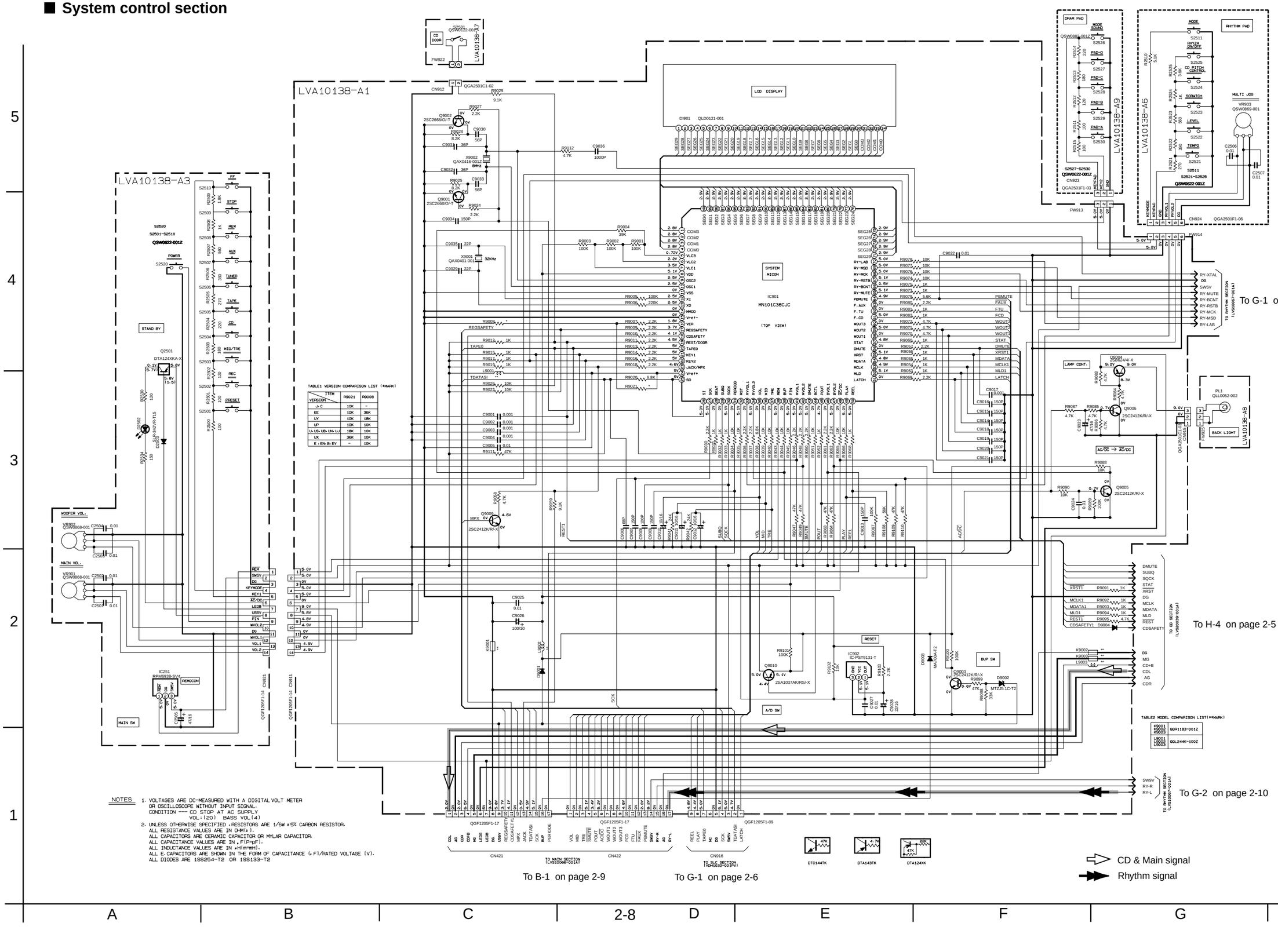


TABLE1 VERSION COMPARISON LIST (*MARK)

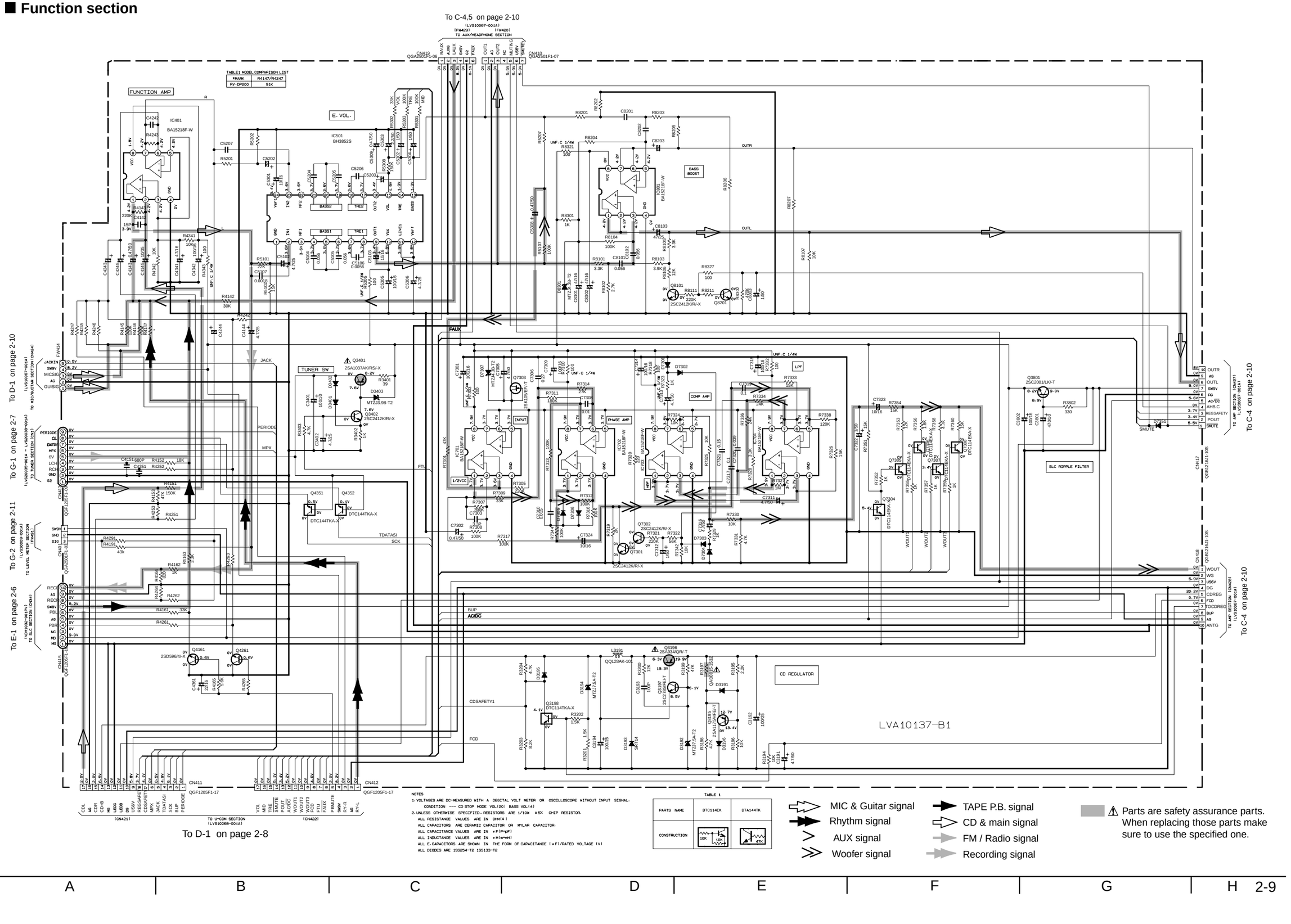
ITEM / VERSION	R9021	R9008
J-C	10K	-
EE	10K	36K
UY	10K	18K
UP	10K	10K
U-US-UB-UN-UJ	18K	10K
UX	36K	10K
E-EN-B-EV	-	10K

TABLE2 MODEL COMPARISON LIST(*MARK)

K9001 K9002 K9003	QGR1183-001Z
L9001 L9002 L9003	QGL244K-100Z

NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION ---- CD STOP AT AC SUPPLY
   VOL:(20) BASS VOL(4)
2. UNLESS OTHERWISE SPECIFIED ・RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN ・F(P=pF).
   ALL INDUCTANCE VALUES ARE IN ・H(m=mH).
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (・F)/RATED VOLTAGE (V).
   ALL DIODES ARE 1SS254-T2 OR 1SS133-T2

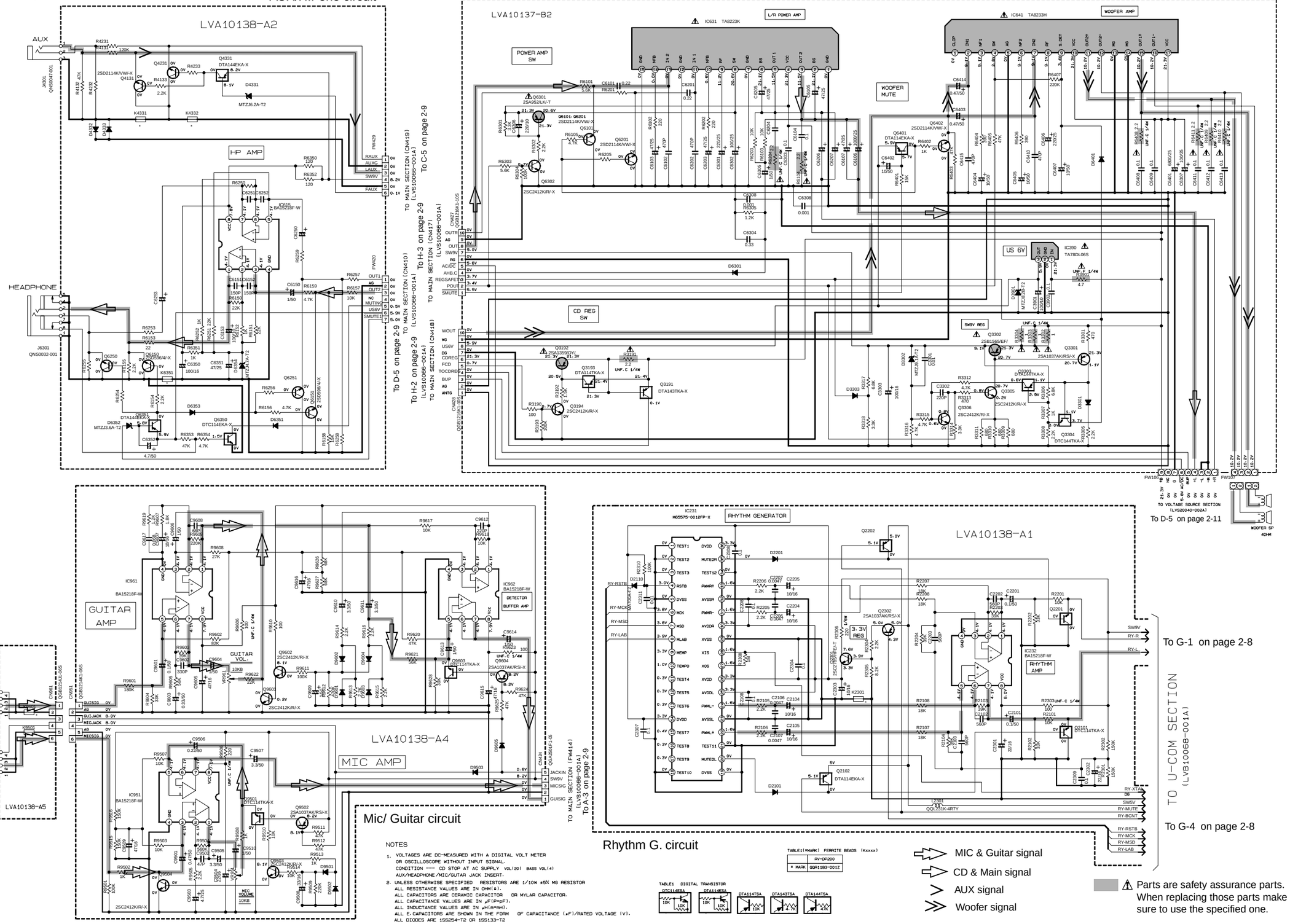
■ Function section



■ Power amplifier section

AUX/H.Pone circuit

Power amplifier circuit



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION ··· CD STOP AT AC SUPPLY VOL(20) BASS VOL(4) AUX/HEADPHONE/MIC/GUITAR JACK INSERT.
2. UNLESS OTHERWISE SPECIFIED RESISTORS ARE 1/10W ±5% MG RESISTOR
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
   ALL DIODES ARE 1SS254-T2 OR 1SS133-T2

TABLE1 DIGITAL TRANSISTOR

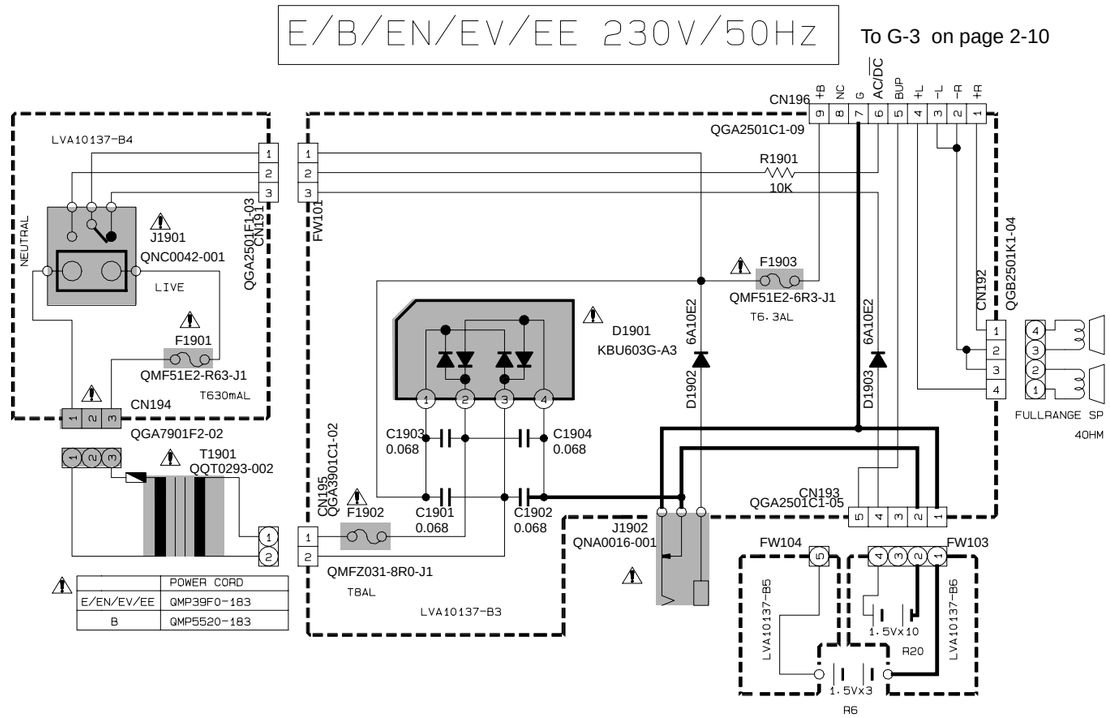
TABLE(*MARK) FERRITE BEADS (Kxxxx)

	RV-DP200
* MARK	QGR11B3-001Z

MIC & Guitar signal
CD & Main signal
AUX signal
Woofer signal

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

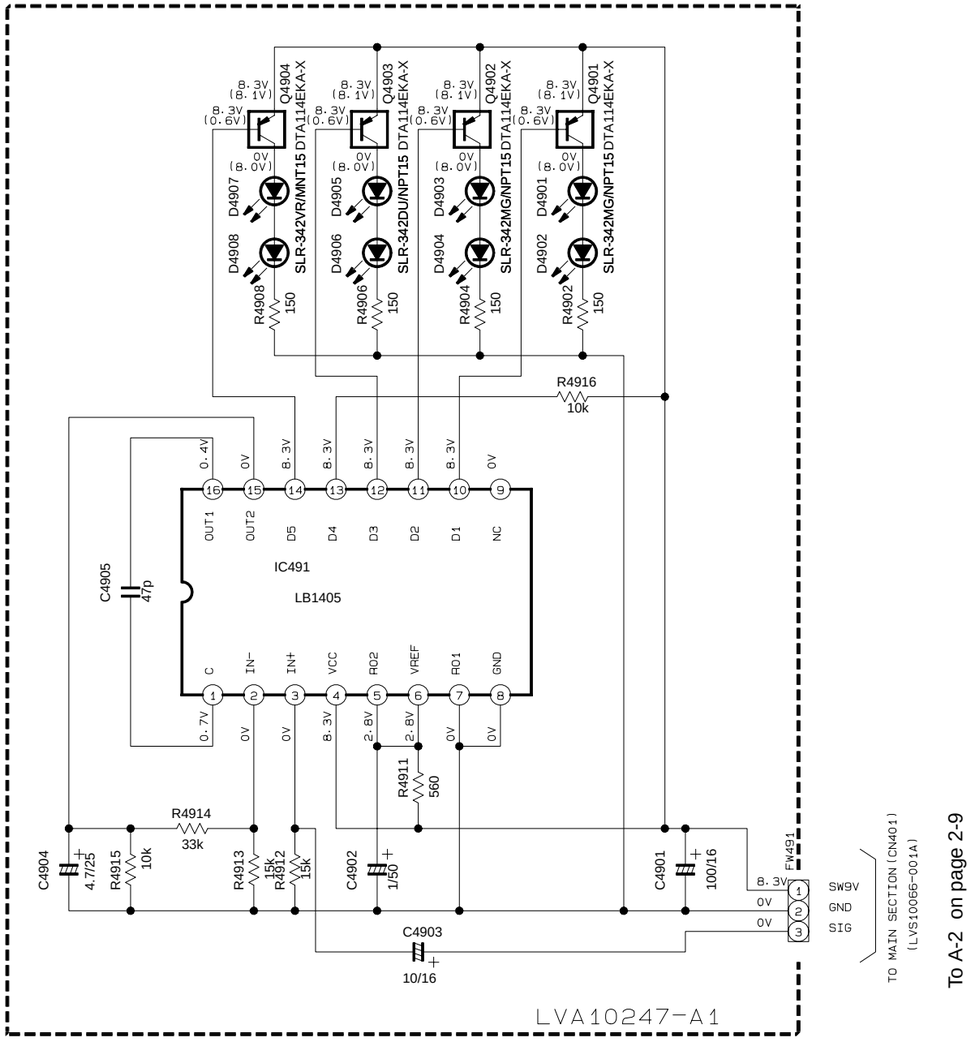
■ Power supply section



NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION --- CD STOP MODE
2. UNLESS OTHERWISE SPECIFIED RESISTORS ARE 1/4W ±5% CARBON RESISTOR. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN μF(P=pF).

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

■ LED section



NOTES

VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION --- CD STOP AT AC SUPPLY

UNLESS OTHERWISE SPECIFIED RESISTORS ARE 1/10W ±5% MG RESISTORS.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR .
ALL CAPACITANCE VALUES ARE IN μF(P=pF).
ALL INDUCTANCE VALUES ARE IN μH(m=mH).
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).

TABLE1 DIGITAL TR LIST

PARTS NAME	DTA114EKA-X
CONSTRUCTION	10K 10K

Printed circuit boards

■ Main board

Main board

Power amp. board

Battery board 1

Battery board 2

Regulator board

AC input board

5 4 3 2 1

A B C 2-12 D E F G H

■ Micon board

Drum key board

Key switch board

MIC & guitar jack board

Scratch & rhythm board

P. lamp board

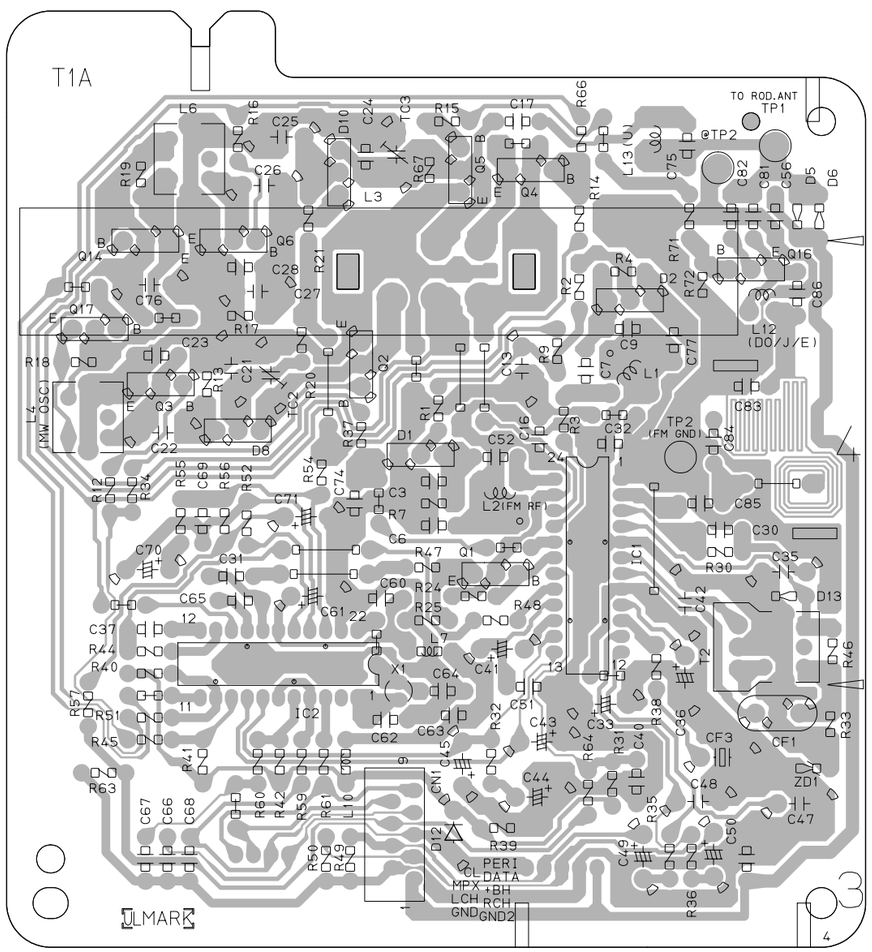
Micon. board

Head phone / AUX board

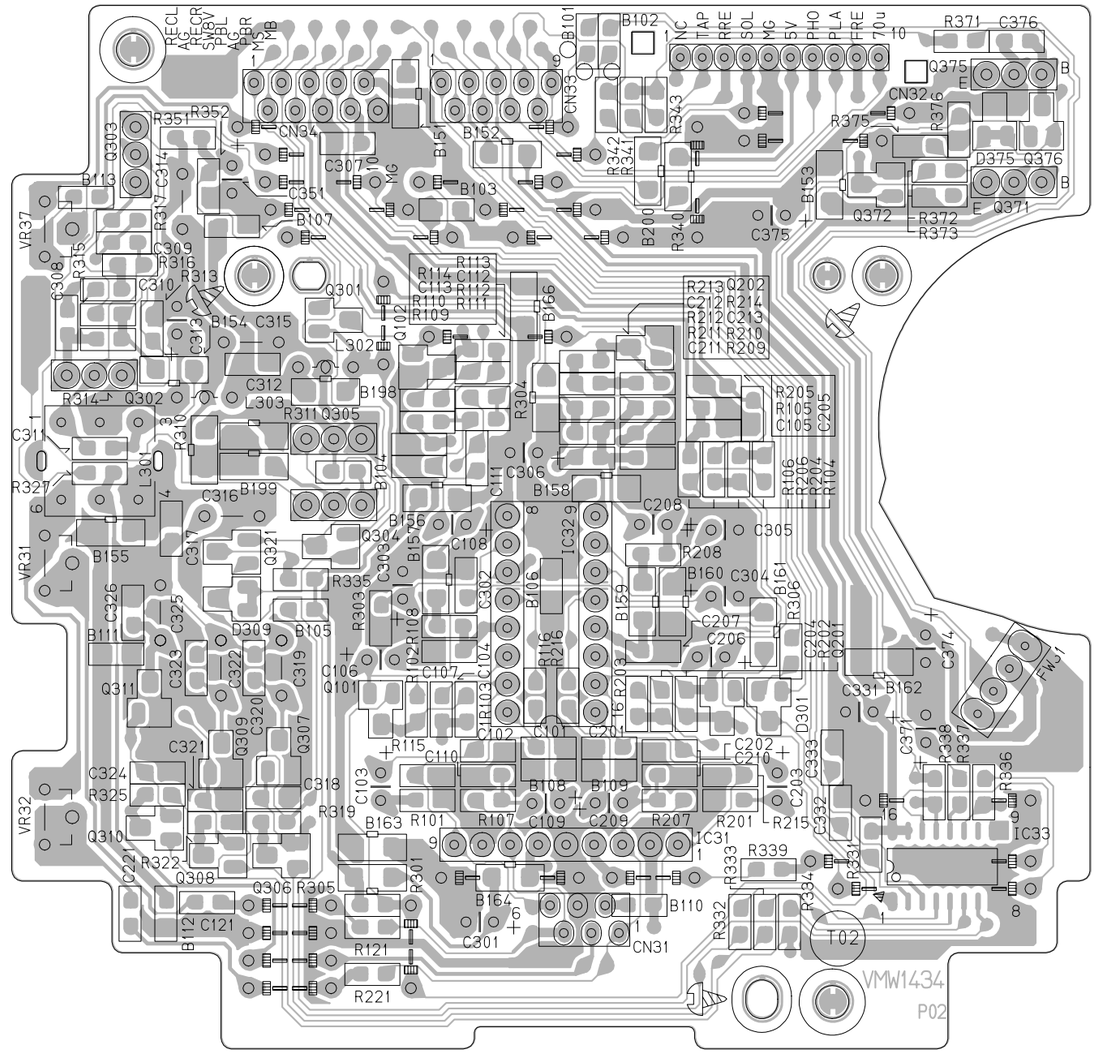
CD door switch board

MIC & guitar volume board

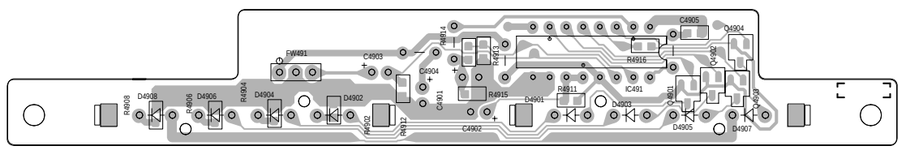
■ Tuner board



■ Head amplifier & Mechanism board



■ LED board



■ Cassette switch board