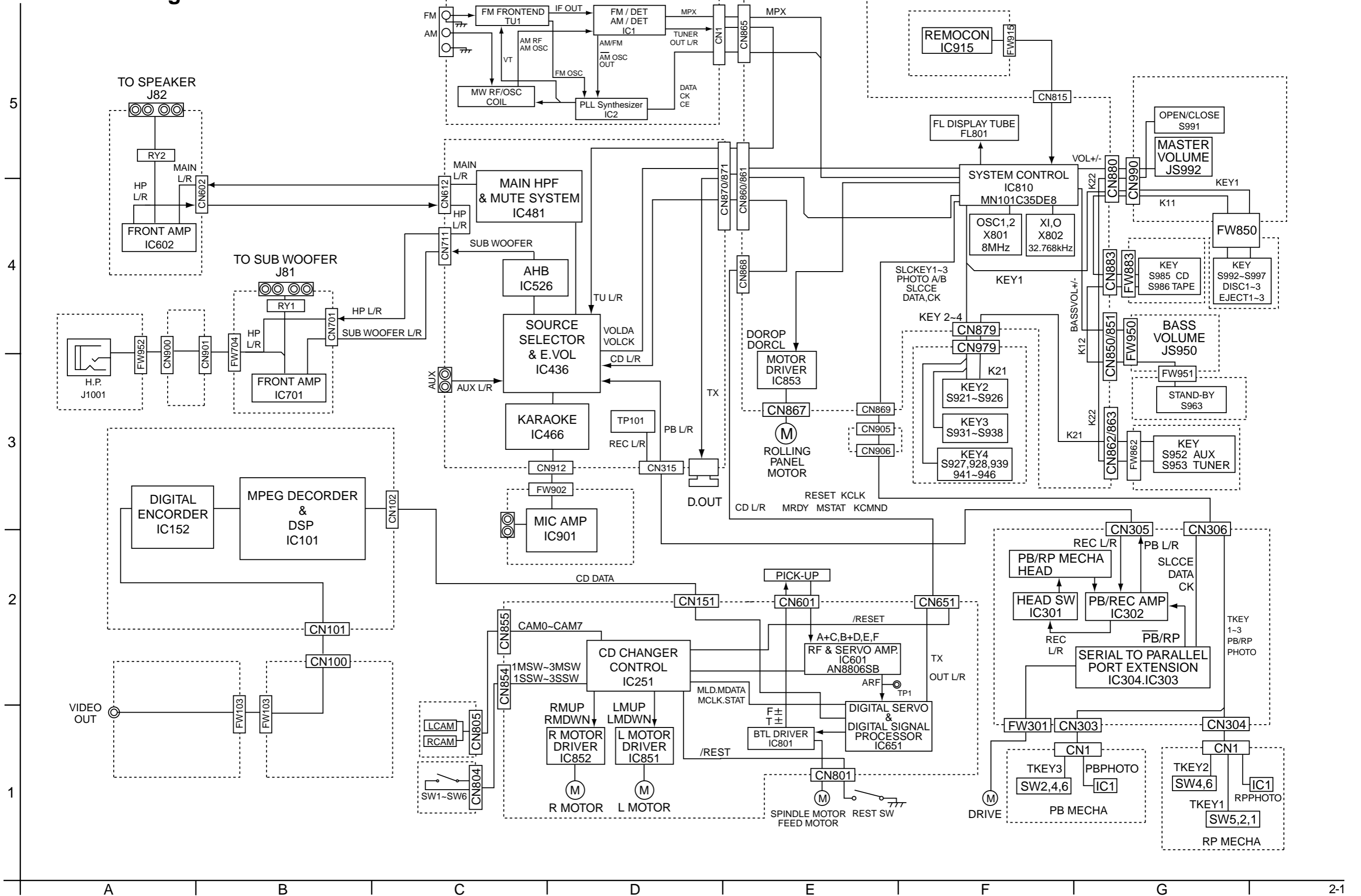


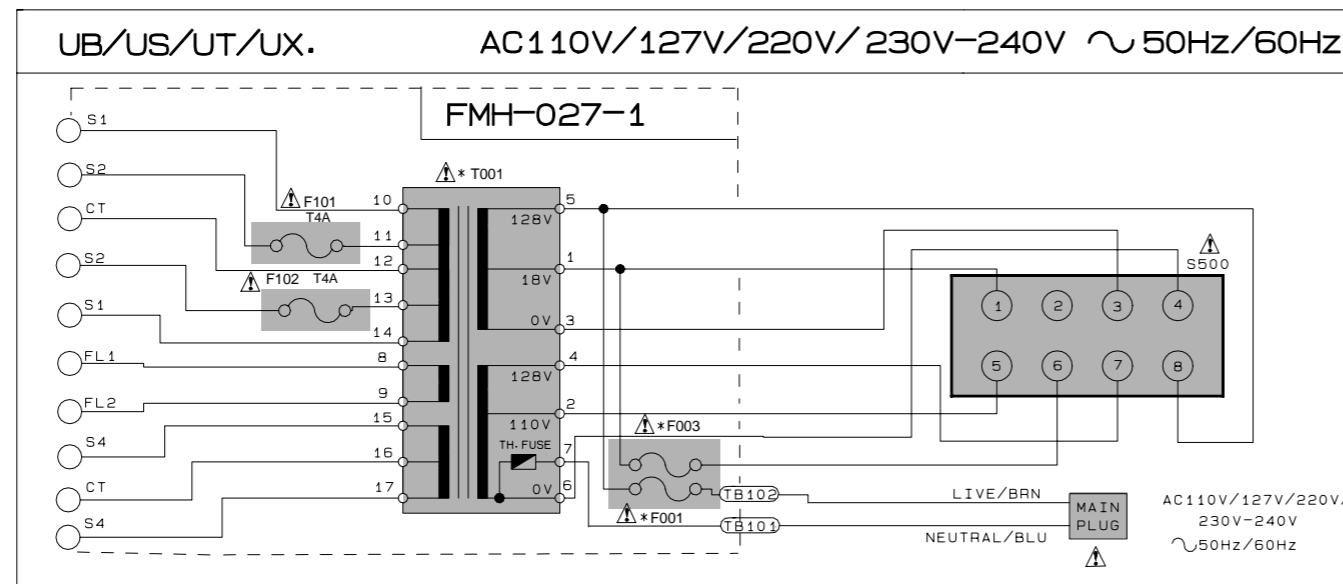
Block diagram



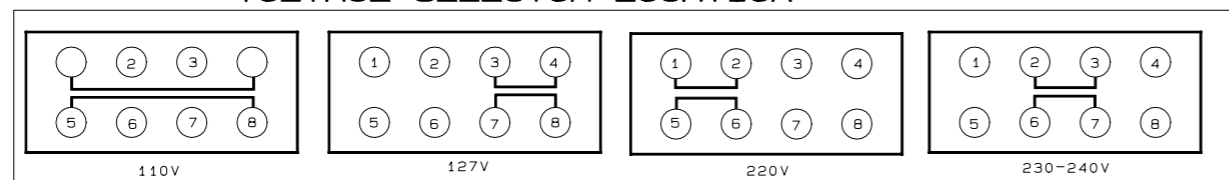
Standard schematic diagrams

Power transformer section

POWER SUPPLY BLOCK



VOLTAGE SELECTOR LOCATION



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

VERSION CODES

UB : HONG KONG
 UT : TAIWAN
 UX : SAUDI ARABIA
 US : SINGAPORE AND UNIVERSAL EXCEPT ALL OF ABOVE

EXPLANATION OF OVERALL SCHEMATICS

MODEL CA-MXJ770V/CA-MXJ880V
 CA-MXJ970V/CA-MXJ980V

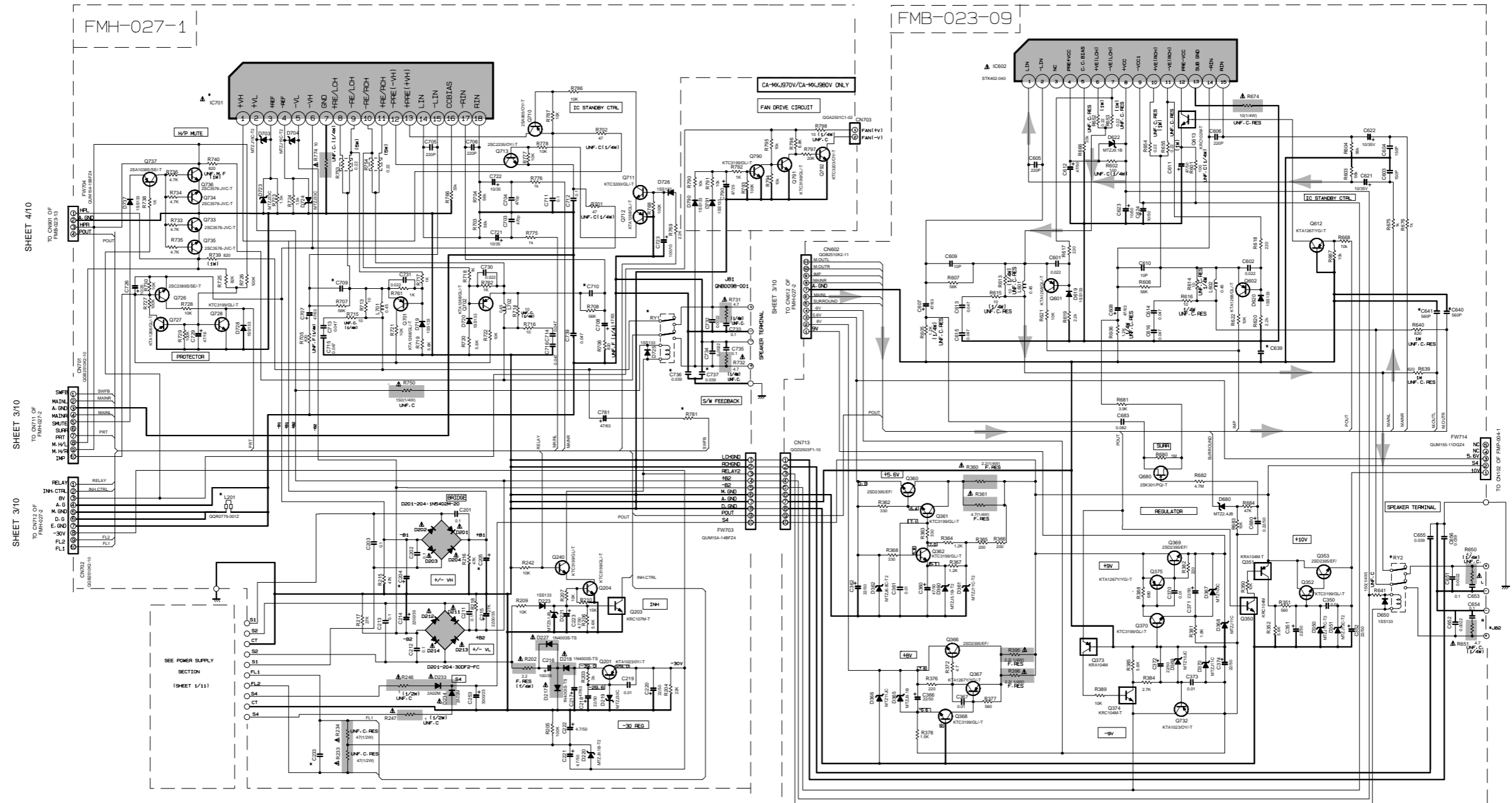
SHEET NUMBER	CIRCUITS DESCRIPTION
1/10	. PRIMARY WITH MAINS TRANSFORMER
2/10	. DC REGULATORS/AUDIO OUTPUT
3/10	. EXTERNAL INPUT, SOURCE SELECTOR SWITCH
4/10	. FL DISPLAY, SYSTEM CONTROL LSI, USER CONTROL KEYS
5/10	. MIC AMP, ECHO CIRCUIT
6/10	. SVCD SERVO AND SVCD SYSTEM CONTROL . SVCD CHANGER MECHANISM CONTROL
7/10	. TAPE DECK MECHANISM CONTROL . TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
8/10	. TUNER RF/IF/FM MULTIPLEX
9/10	. SVCD REGULATORS
10/10	. SUPER VCD CONTROL CIRCUIT

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

* MARK

REF NAME/MODEL	CA-MXJ770V/ CA-MXJ880V.	CA-MXJ970V/ CA-MXJ980V.
F001	T3.15A	T4A
F003	T1.6A	T2A
T001	QQT0277-004	QQT0278-004

Power amplifier & regulator section



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

#MARK

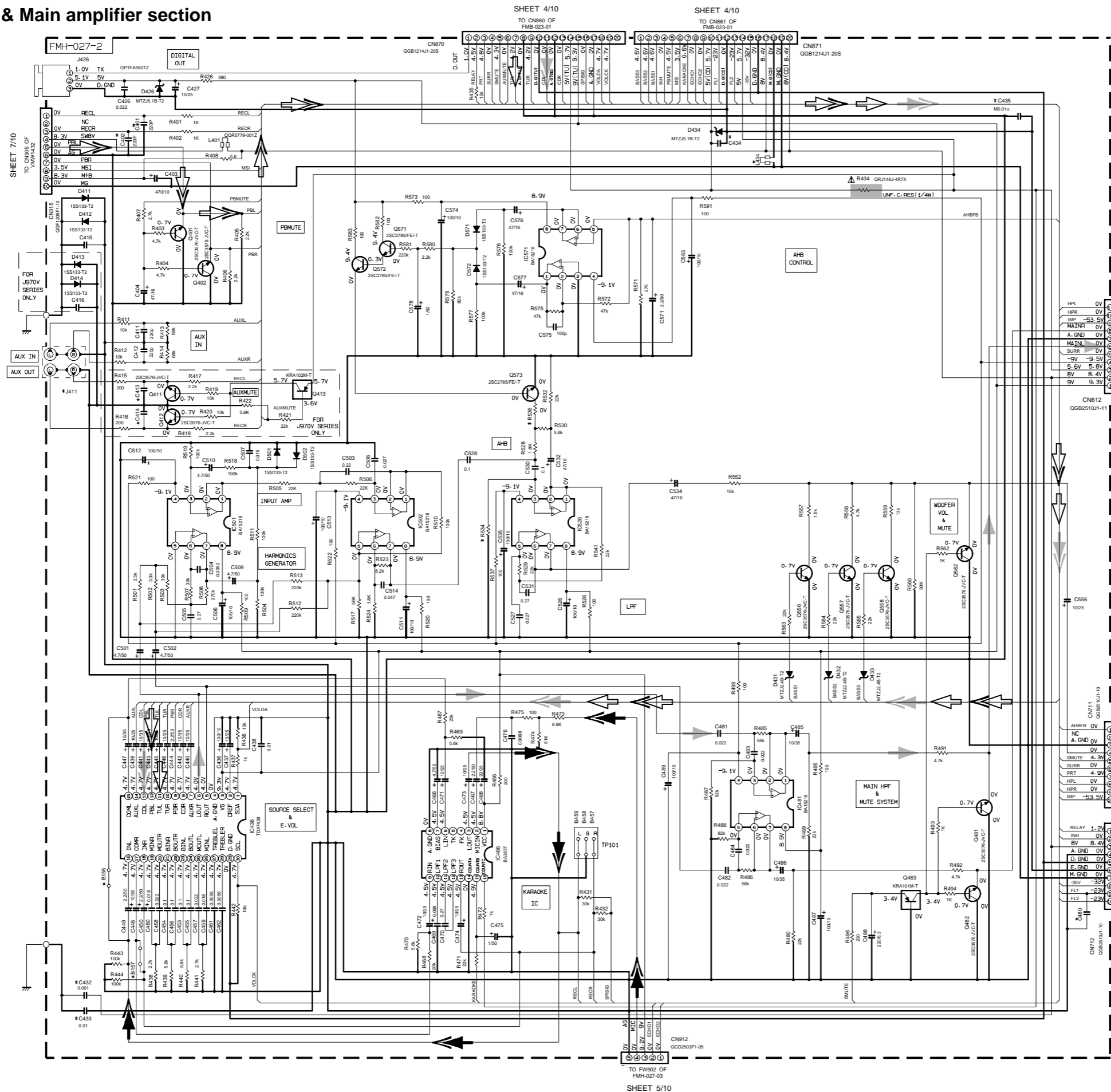
REF. NAME	VERSION	CA-MXJ770V UB. US-UX	CA-MXJ880V US	CA-MXJ880V UF. UT	CA-MXJ970V UB. US-UX	CA-MXJ980V US	CA-MXJ980V UF. UT
L201		SHORT (B112)	SHORT (B112)	USE	SHORT (B112)	SHORT (B112)	USE
IC701		STK412-000	STK412-000	STK412-000	STK412-010	STK412-010	STK412-010
C233		0.22	0.22	0.01	0.22	0.22	0.01
RY1, RY2		QSK0109-001	QSK0109-001	QSK0109-001	QSK0057-001	QSK0057-001	QSK0057-001
C204/C205		4700/50	4700/50	4700/50	4700/63	4700/63	4700/63
C640/C641 C736/C737		NONE	NONE	USED	NONE	NONE	USED
R781		4.7K	4.7K	4.7K	5.6K	5.6K	5.6K
C709/C710		10p	10p	4.7p	10p	10p	4.7p
J82		QNB0097-001	QNB0097-001	QNB0097-002	QNB0097-001	QNB0097-001	QNB0097-002
C639		0.01u	0.01u	0.047u	0.01u	0.01u	0.047u

NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION — AUX MODE, VOL. MEN. BASS OFF.
2. VALUES OTHERWISE SPECIFIED
RESISTORS ARE 1/4W 1% CHINA RESISTOR.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN PFD(PF).
ALL INDUCTANCE VALUES ARE IN MH(MHMM).
ALL ELECTROLYTIC CAPACITORS ARE IN THE FORM OF CAPACITANCE (µF)/RATED VOLTAGE (V).
ALL DIODES ARE 1S8133

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

➔ MAIN signal

Function & Main amplifier section



MARK	CA-MXJ770V		CA-MXJ880V		CA-MXJ970V		CA-MXJ980V	
	VERSION	UB- US- UX	UF- UT	US	UB- US- UX	UF- UT	US	US
EMC	C401	NONE	USED	NONE	NONE	USED	NONE	NONE
	C402	NONE	USED	NONE	NONE	USED	NONE	NONE
	C415	1000p	0.0022	1000p	1000p	0.0022	1000p	1000p
	C416	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022
	C432	NONE	USED	NONE	NONE	USED	NONE	NONE
	C433	NONE	USED	NONE	NONE	USED	NONE	NONE
L401	SHORT	USED	SHORT	SHORT	USED	SHORT	SHORT	SHORT
	L434	SHORT	0.00779-0012	SHORT	SHORT	0.00779-0012	SHORT	SHORT
C434, C435	NONE	0.01u	NONE	NONE	0.01u	NONE	NONE	NONE
	C480							
OTHERS	J411	GND117-001		GND132-001				
	R534	180k		220k				
	R536	15k		12k				

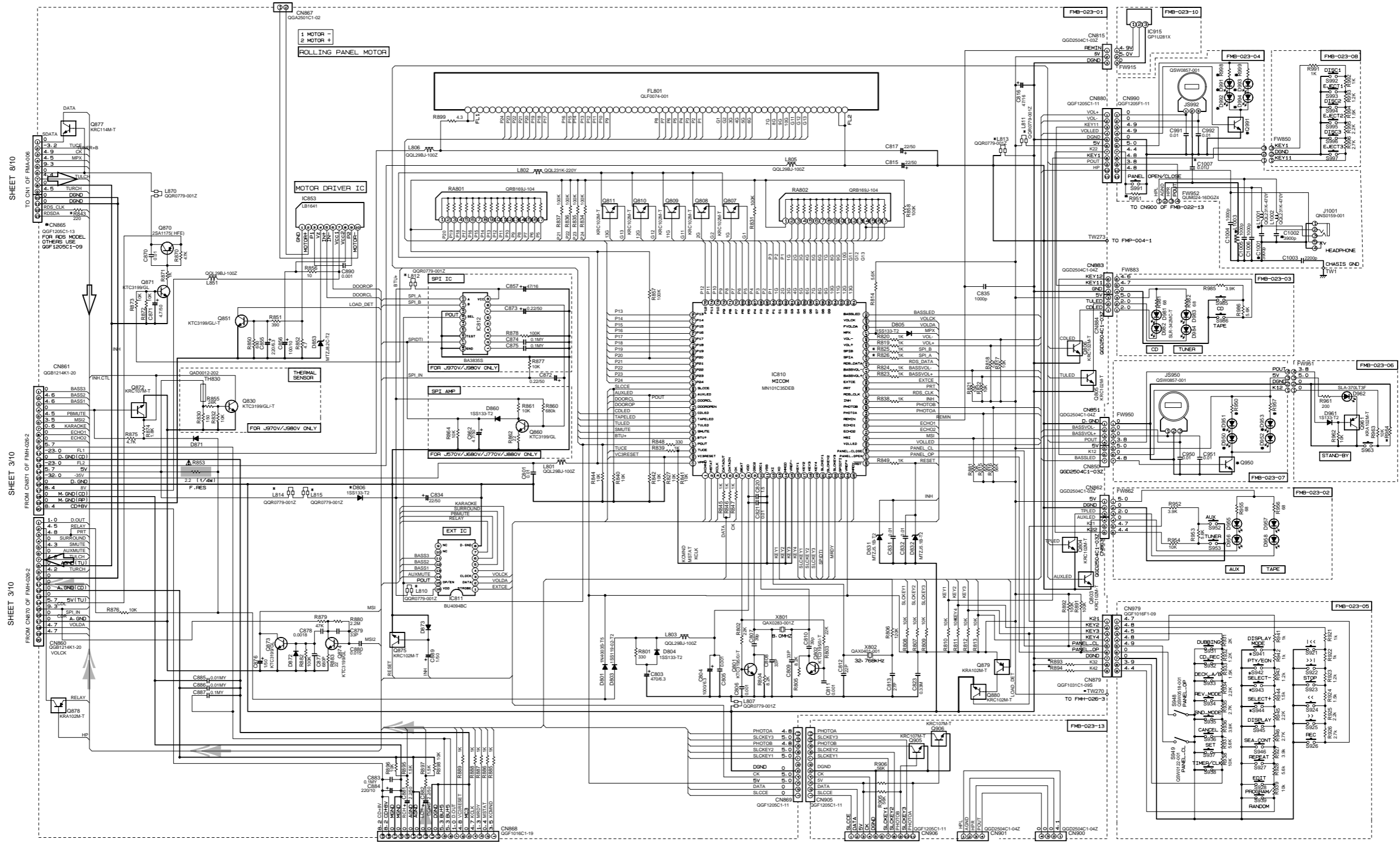
NOTE: MARK (*) IS TO SHOW DEVIATION IN VERSIONS
DETAILS ARE EXPLAINED BY MARK.

FROM CN870 OF FMH-027-1 SHEET 2/10
FROM CN871 OF FMH-027-1 SHEET 2/10
FROM CN872 OF FMH-027-1 SHEET 2/10
FROM CN812 OF GDB2510J1-11 SHEET 2/10
FROM CN172 OF GDB2510J1-10 SHEET 2/10

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION — AUX MODE, VOL MIN, SUBWOOFER VOL. 1.
 2. UNLESS OTHERWISE SPECIFIED:
RESISTORS ARE 1/4W 1% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM (Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN #F(PHF).
ALL INDUCTANCE VALUES ARE IN #H(MMH).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
ALL DIODES ARE 1S5133

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

FL Display & system controller section



* MARK

MARK	MX-J570V	MX-J570V	MX-J680V	MX-J680V	CA-MXJ770V	CA-MXJ880V	CA-MXJ970V	CA-MXJ980V
D906	SHORT	1S5133-T2	SHORT	1S5133-T2	SHORT	SHORT	SHORT	1S5133-T2
R805-R806	NONE	NONE	NONE	NONE	NONE	NONE	NONE	1K
R804	330K	330K	330K	330K	75K	75K	18K	18K
R801	18K	18K	18K	18K	18K	18K	18K	18K
R803	75K (LX=18K)	75K	75K	75K	75K (LX=18K)	75K	75K (LX=18K)	75K
R804	330K (LX=18K)	330K	330K	330K	330K (LX=18K)	330K	330K (LX=18K)	330K
D950-D952 D954-D991	NONE	NONE	NONE	NONE	NONE	NONE	SLA-570JT3F	SLA-570JT3F
D953-D994 D955-D993	NONE	NONE	NONE	NONE	NONE	NONE	SLA-570JT3F	SLA-570JT3F
R950-R957 R998-R999	NONE	NONE	NONE	NONE	NONE	NONE	75	75
Q950-Q951	NONE	NONE	NONE	NONE	NONE	NONE	KRC-102M-T	KRC-102M-T
TW270-TW273	NONE	USE	NONE	USE	NONE	USE	NONE	USE
L1001-L1002	SHORT	QGL231K-470Y	SHORT	QGL231K-470Y	SHORT	SHORT	SHORT	QGL231K-470Y
C1001-C1002	NONE	0.001u	NONE	0.001u	NONE	0.001u	0.001u	0.001u
L1003	QGL231K-2R2Y	SHORT	QGL231K-2R2Y	SHORT	QGL231K-2R2Y	SHORT	QGL231K-2R2Y	SHORT
R953	2.2 F. RES	2.2 F. RES	2.2 F. RES	2.2 F. RES	2.2 F. RES	2.2 F. RES	2.2 F. RES	2.2 F. RES
C1004	USE	USE	USE	USE	USE	USE	USE	USE
L810-L811-L812-L813	SHORT	QGR0779-001Z	SHORT	QGR0779-001Z	SHORT	SHORT	SHORT	QGR0779-001Z
L814-L815	SHORT	0.01u	SHORT	0.01u	SHORT	SHORT	SHORT	0.01u
C1007	NONE	0.01u	NONE	0.01u	NONE	NONE	NONE	0.01u

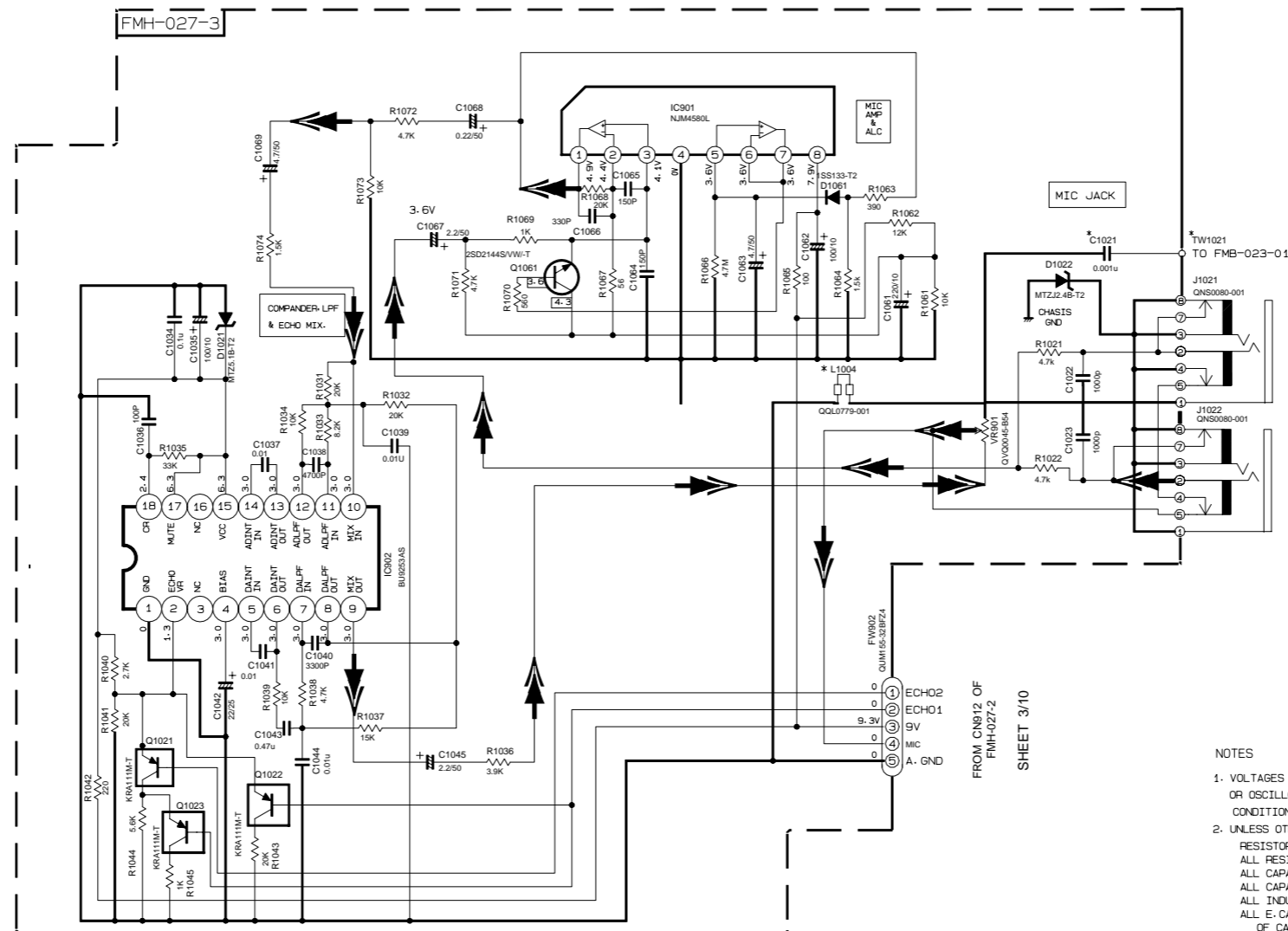
NOTE: MARK (*) IS TO SHOW DEVIATION IN VERSIONS
 DETAILS ARE EXPLAINED BY MARK.

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

→ CD signal
 ⇨ TUNER signal

NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
 CONNECTION - 4W MAX. VS. 50W MAX. OFF
 2. UNLESS OTHERWISE SPECIFIED
 RESISTORS ARE 1/4W ±5% CARBON RESISTOR.
 ALL RESISTANCE VALUES ARE IN OHMS.
 ALL CAPACITANCE VALUES ARE IN P.F. (P.F. = P.F.).
 ALL INDUCTANCE VALUES ARE IN H (H=HMH).
 ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (PF)/RATED VOLTAGE (V).
 ALL DIMENSIONS ARE IN MM.

Microphone amplifier section



* NOTE

	MX-J570V	MX-J680V	CA-MXJ770V	CA-MXJ880V	CA-MXJ970V	CA-MXJ980V
UB·US·UX	UT	US	UF·UT	UB·US·UX	US	UF·UT
L1004	SHORT	USE	SHORT	USE	SHORT	USE
C1021	NONE	USE	NONE	USE	NONE	NONE
TW1021						USE

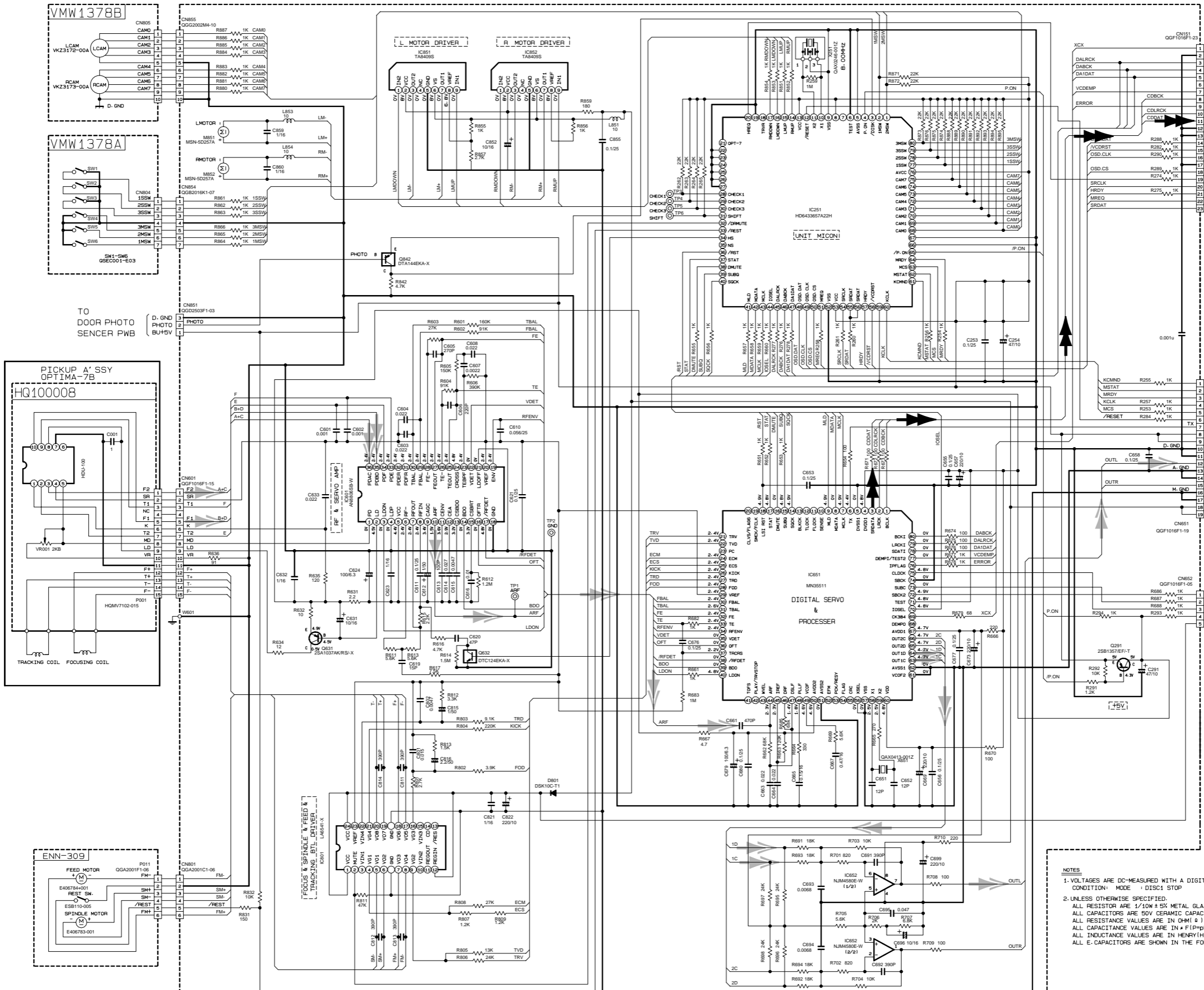
- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION — AUX MODE, ECHO OFF
 - UNLESS OTHERWISE SPECIFIED
RESISTORS ARE 1/4W ±5% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN #F(=pF).
ALL INDUCTANCE VALUES ARE IN #H(=mH).
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
ALL DIODES ARE 1SS133

➔➔ MIC signal

FROM CN812 OF FMH-027-2
SHEET 3/10

CD Servo & CD Mechanism control section

5
4
3
2
1



TO CN102 OF VMW1496 SHEET 10/10

TO CN868 OF FMB-022-01 SHEET 4/10

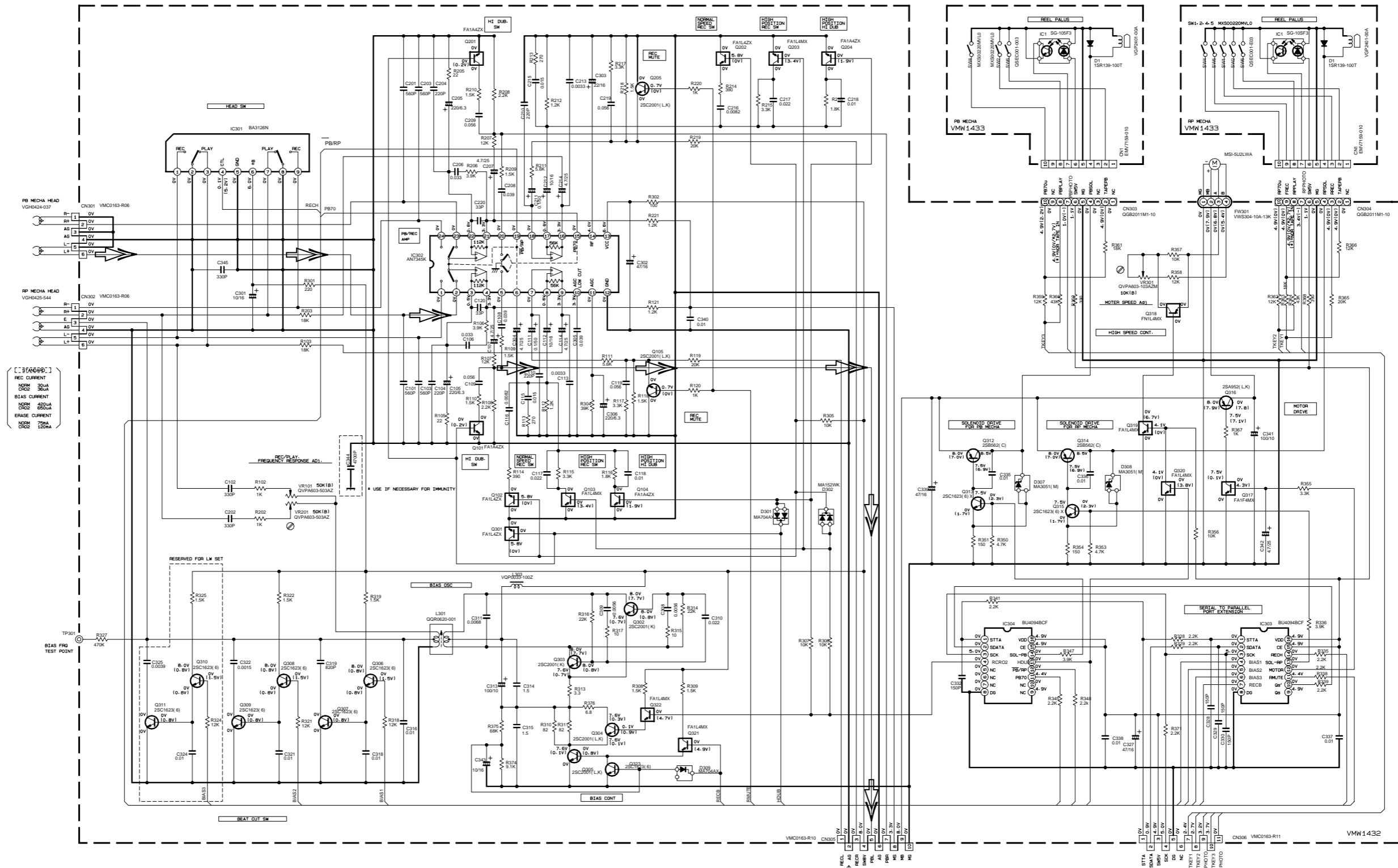
TO CN101 OF FMP-004-1 SHEET 9/10

⇒ CD signal
 ⇒ VIDEO signal

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

VMW1493

Head amplifier & mechanism control section



- [STANDARD]
 REC CURRENT 300A
 CHD 360A
 BIAS CURRENT 450A
 CHD 650A
 ERASE CURRENT 750A
 CHD 1500A

NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. () IS INVERT MODE
 2. UNLESS OTHERWISE SPECIFIED
 ALL RESISTANCE VALUES ARE IN OHM(S).
 ALL CAPACITORS ARE CERAMIC CAPACITOR.
 ALL CAPACITANCE VALUES ARE IN #F(P#P#F).
 ALL INDUCTANCE VALUES ARE IN #H(M#P#H).
 ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
 PLYPROPYLENE CAPACITOR

TABLE 1. DIGITAL TR LIST

PART. NO	CONSTRUCTION	REF. NO
FN14M		Q318
FA14Z		Q101/Q201
FA14Z		Q104/Q204
FA14Z		Q102/Q202
		Q301
		Q103/Q203
		Q319
		Q320/Q321/Q322

FROM PRE-AMP CIRCUIT
 FROM CN315 OF FMH-026-2
 SHEET 3/10

FROM MICON CIRCUIT
 FROM CN906 OF FMH-022-13
 SHEET 4/10

TAPE P.B. signal

5
4
3
2
1

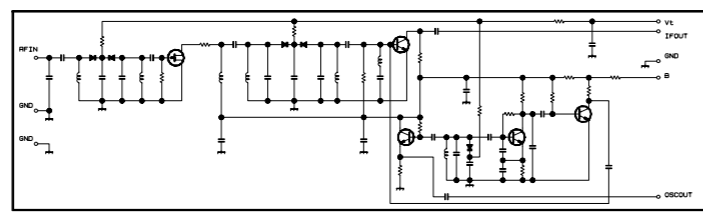
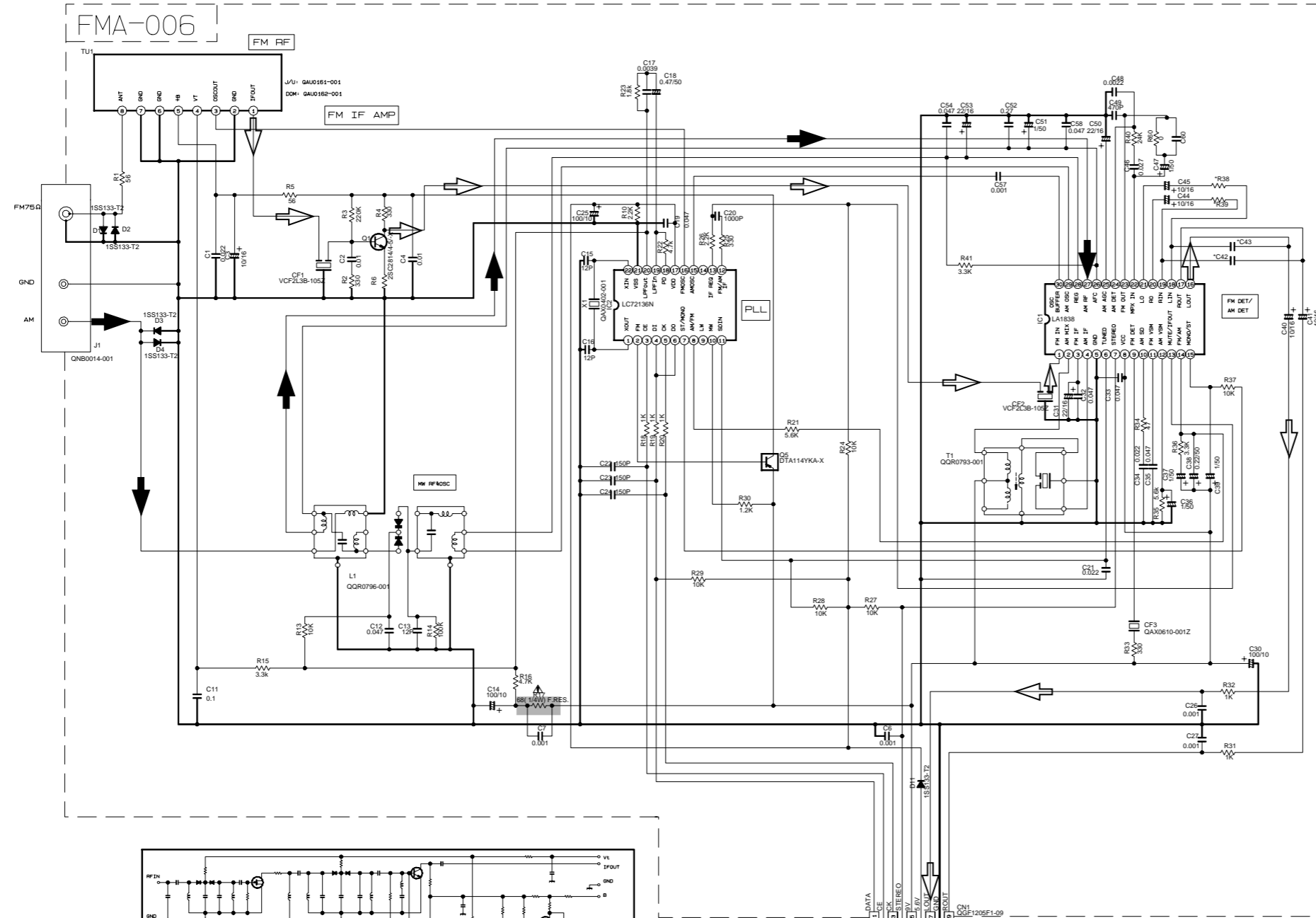
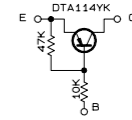
A B C 2-8 D E F G H

■ 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 CAPASITORS 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 DTA114YK-X

B. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS:



	VERSION		
	J/C	User's	SHI
R38	563	563	563
R39	563	563	563
C42	0.0022	0.0015	0.0015
C43	0.0022	0.0015	0.0015
R4	331	331	221
R5	560	560	270
R6	240	240	270

FROM CN865 OF FME-023-01
SHEET 4/10

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		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
IC1 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	3.6	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	1.8	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	B	
PIN NO.	E	C	B	E
FM 87.5MHz NO SIGNAL	0	7.1	0.85	8.9
AM 522kHz NO SIGNAL	0	0	0	9.0

Tr. NO.	Q2	Q3	Q4	B
PIN NO.	E	C	B	E
AM 522kHz NO SIGNAL	0	0	0.7	0
AM 144kHz NO SIGNAL	0	0	0.3	0

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

▷ FM / TUNER signal
➡ AM signal

5

4

3

2

1

A

B

C

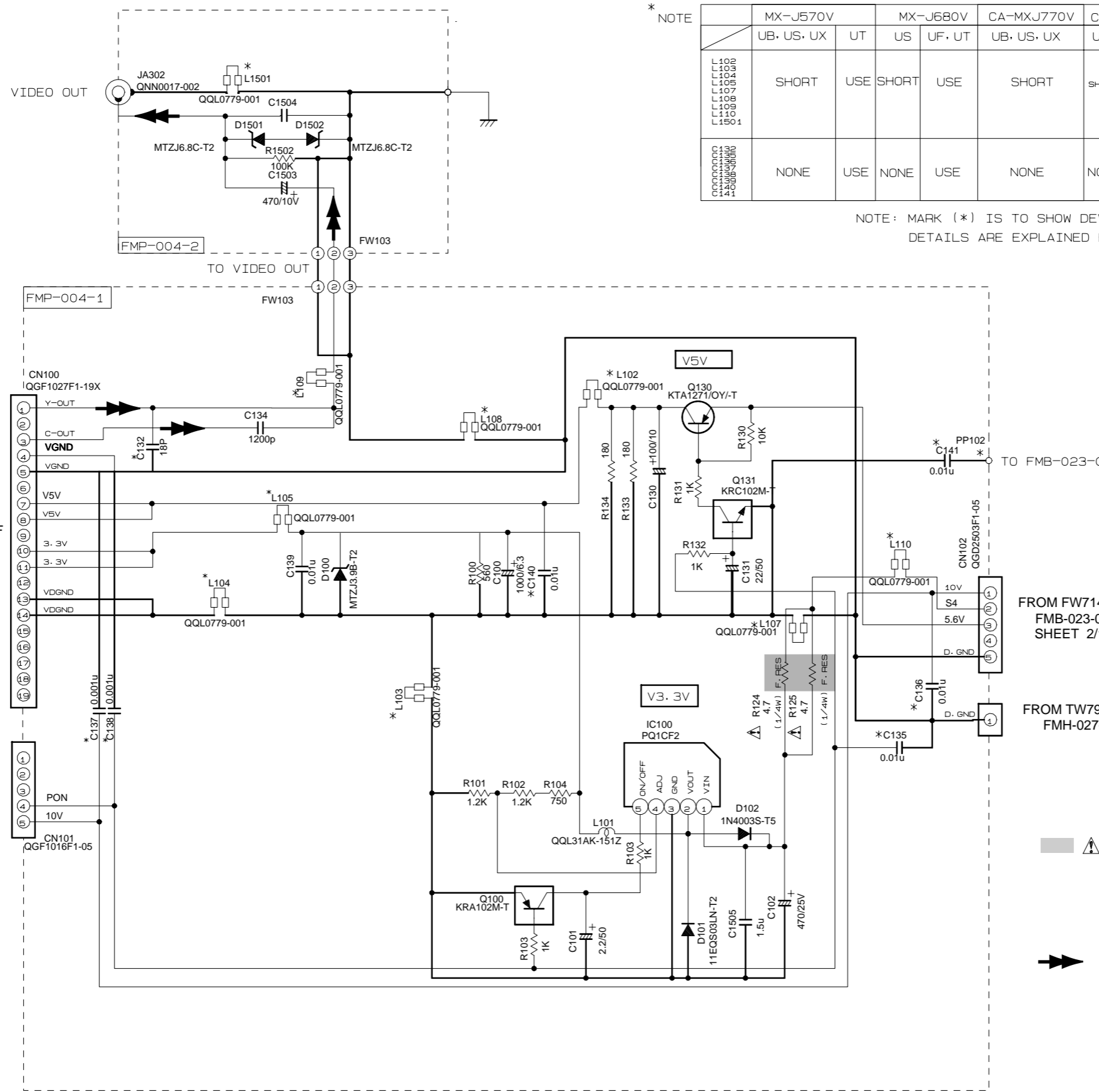
D

E

F

G

Video CD regulator section



* NOTE

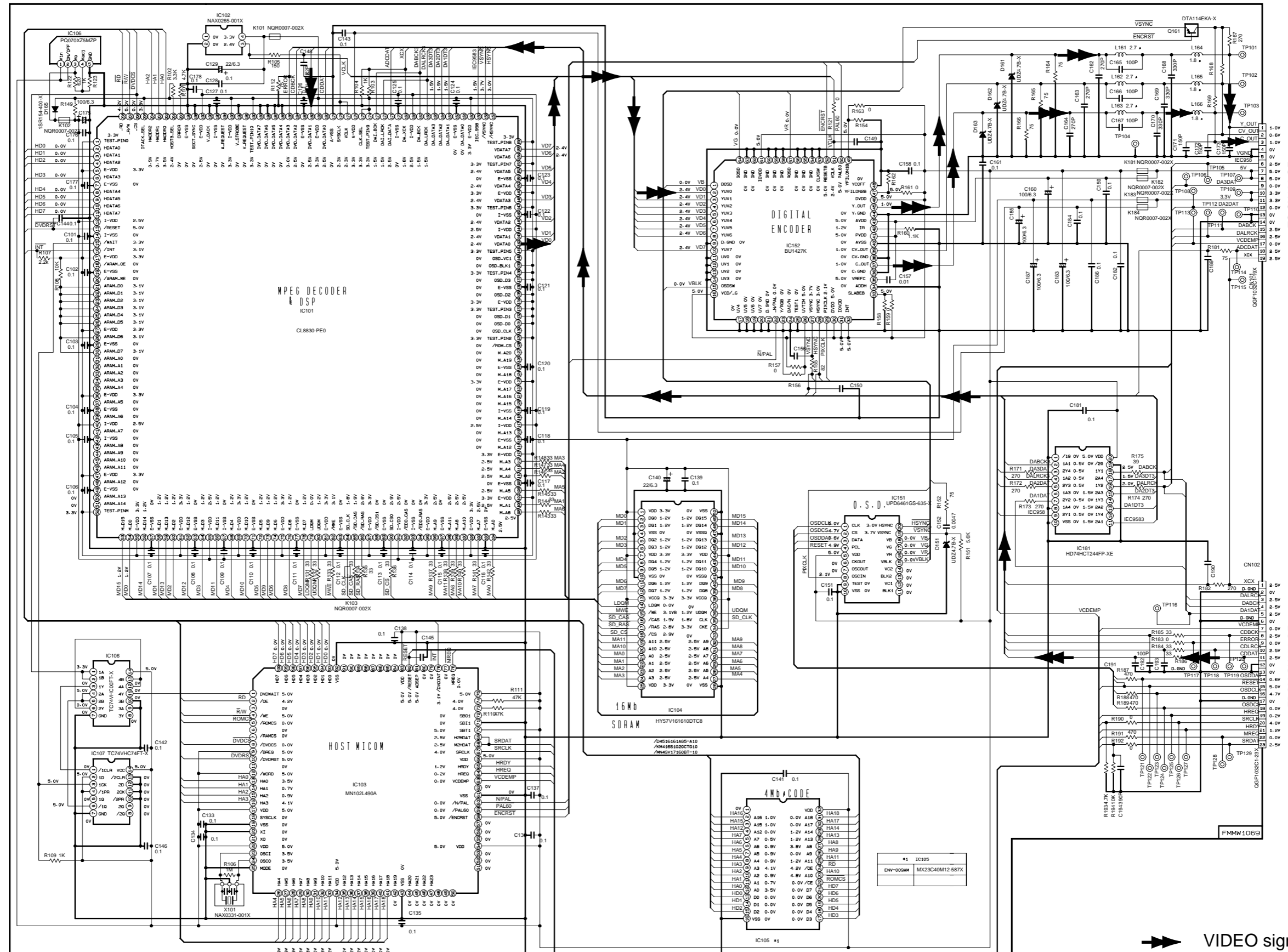
	MX-J570V	MX-J680V	CA-MXJ770V	CA-MXJ880V	CA-MXJ970V	CA-MXJ980V	
	UB, US, UX	UT	US	UF, UT	UB, US, UX	US	UF, UT
L1102							
L1103							
L1104							
L1105							
L1106							
L1107	SHORT	USE	SHORT	USE	SHORT	USE	
L1108							
L1109							
L1110							
L11501							
C11503	NONE	USE	NONE	USE	NONE	NONE	USE

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

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

VIDEO signal

■ Super Video CD control section



➔ VIDEO signal

TO CN100 OF FMP-004-1 SHEET 9/10

FROM CN151 OF VMW1493 SHEET 6/10

Printed circuit boards

■ Main & pre-amp board

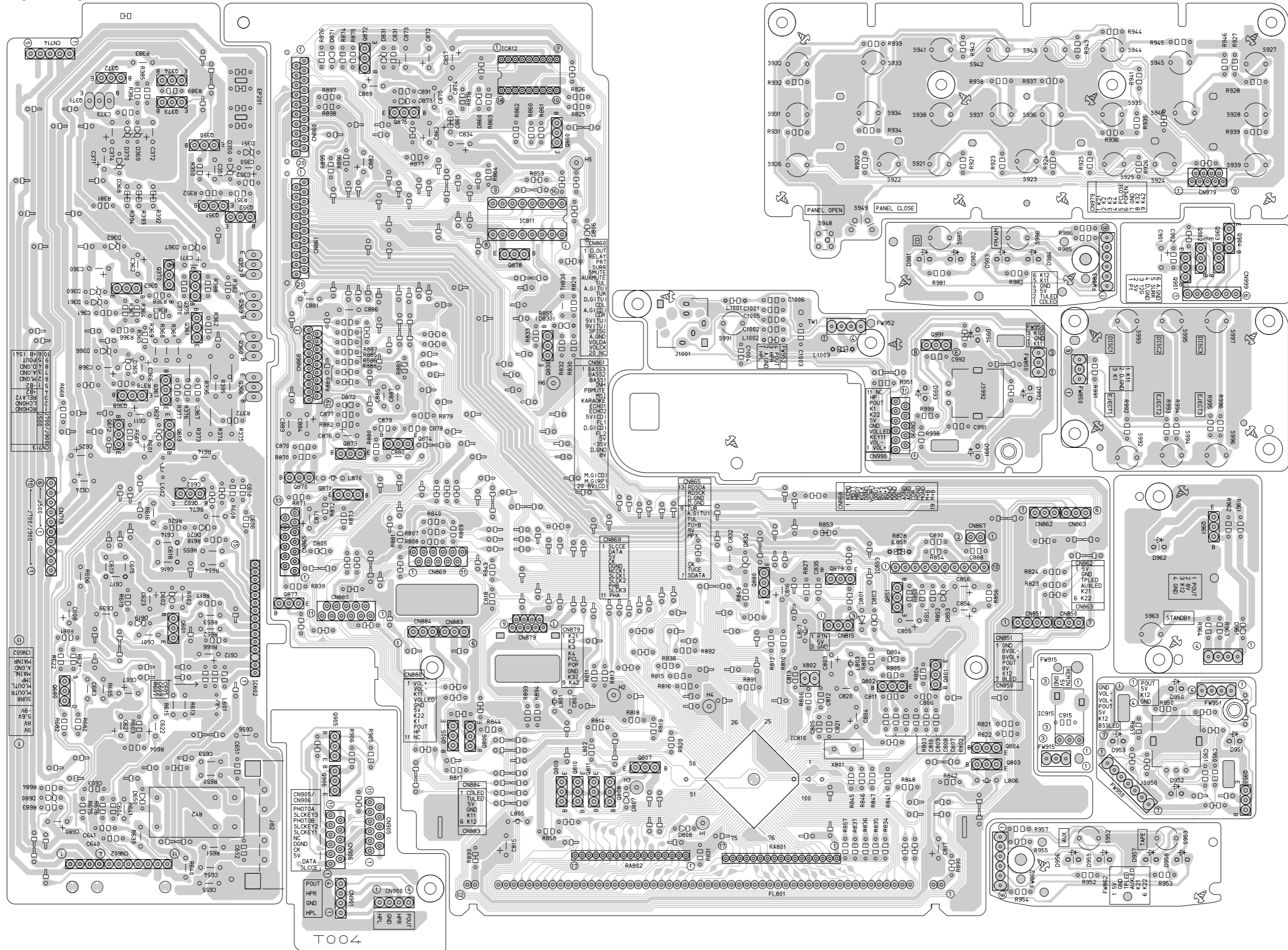
5

4

3

2

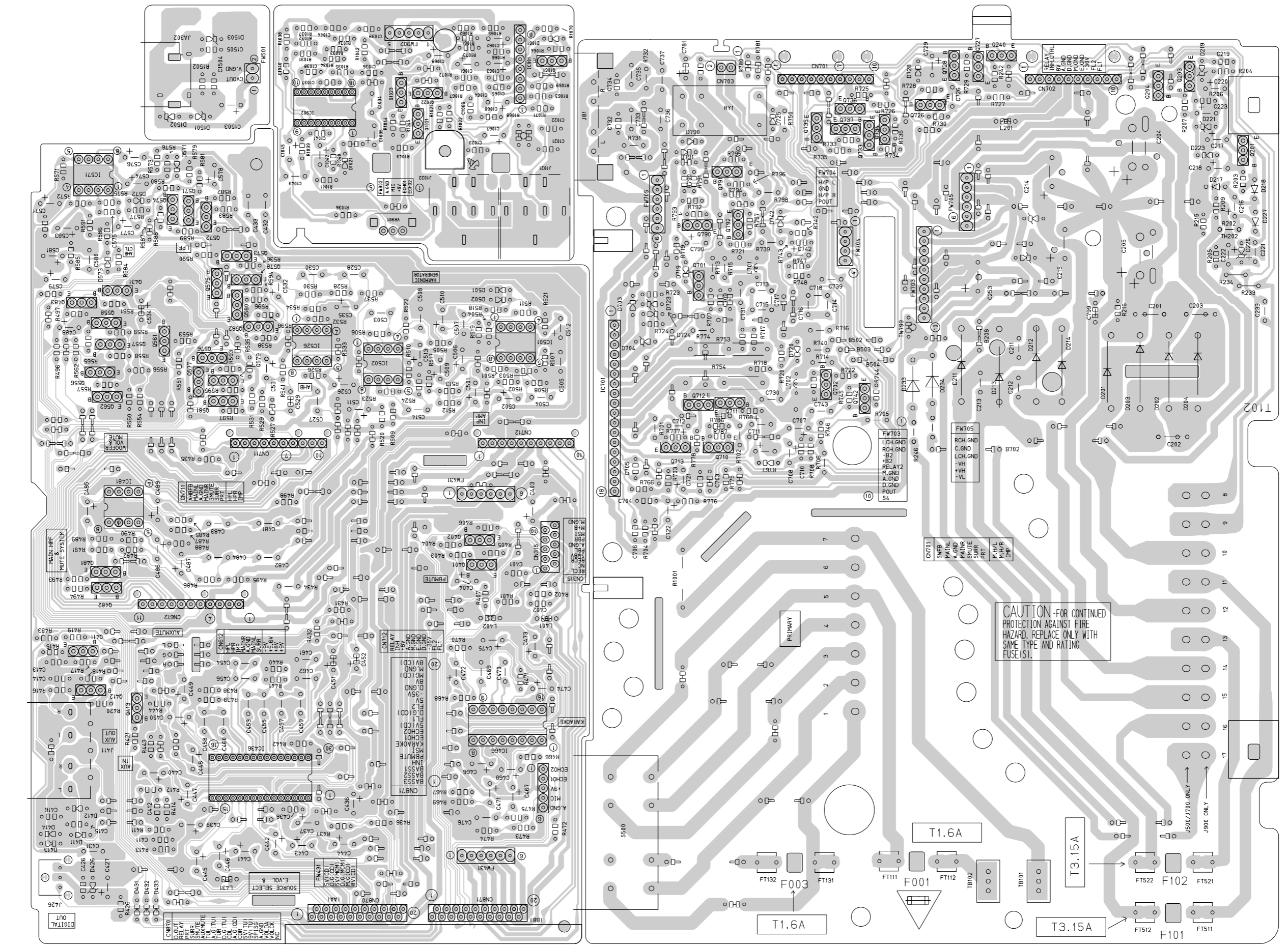
1



A | B | C | 2-12 | D | E | F | G | H

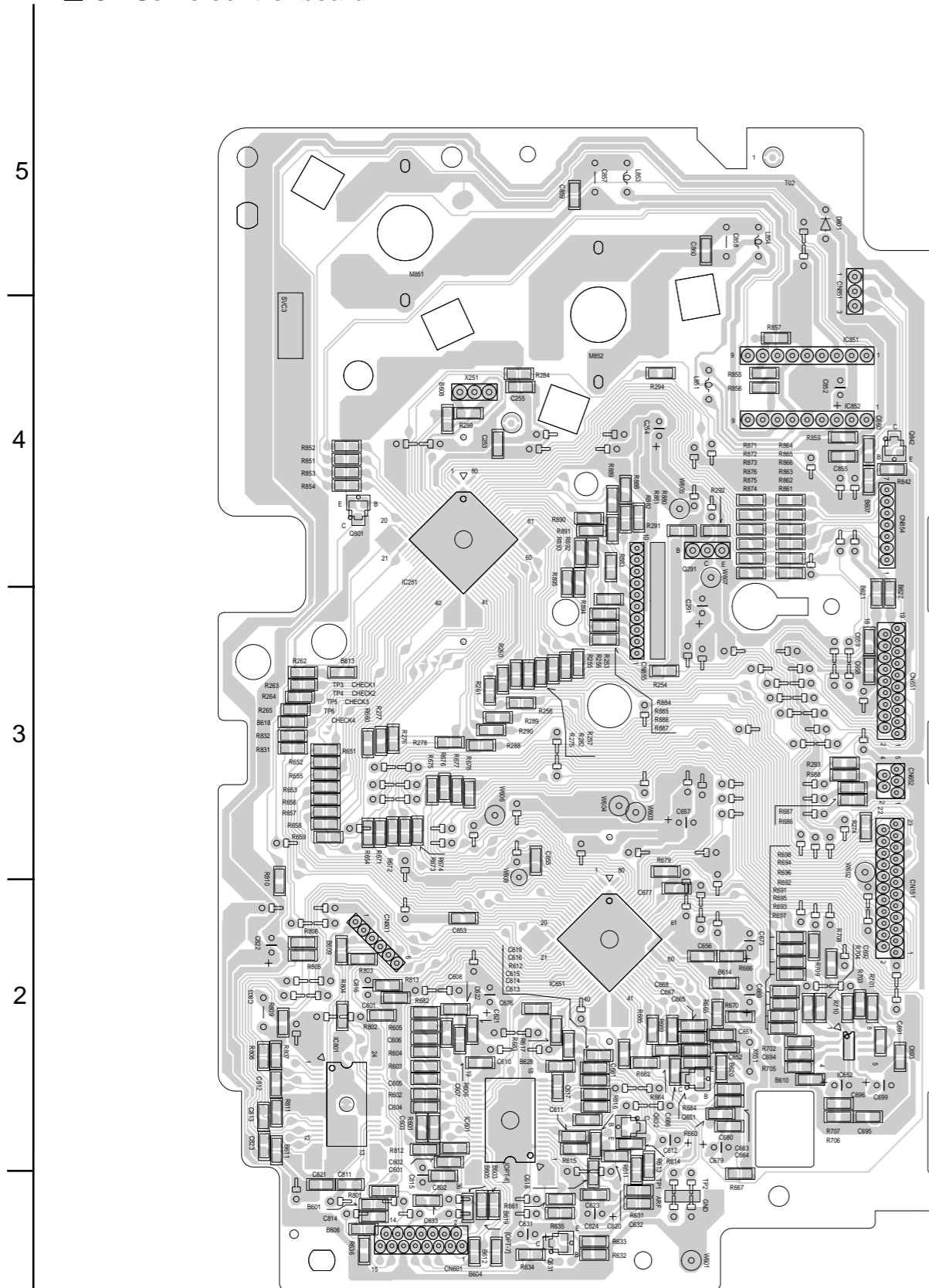
■ Power supply & input/output board

5
4
3
2
1

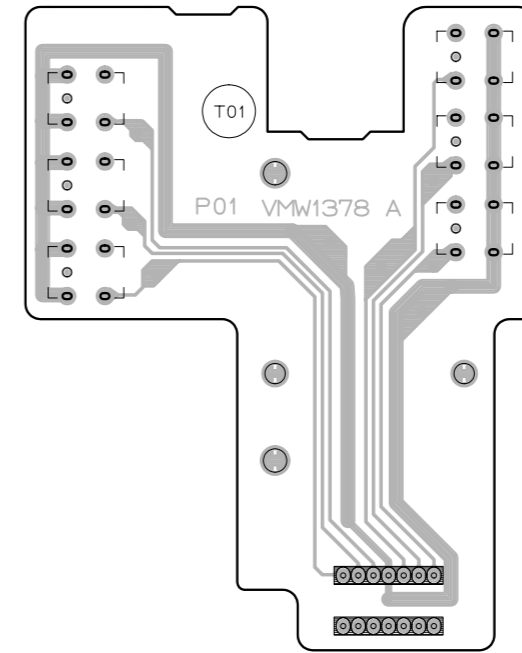


A B C D E F G

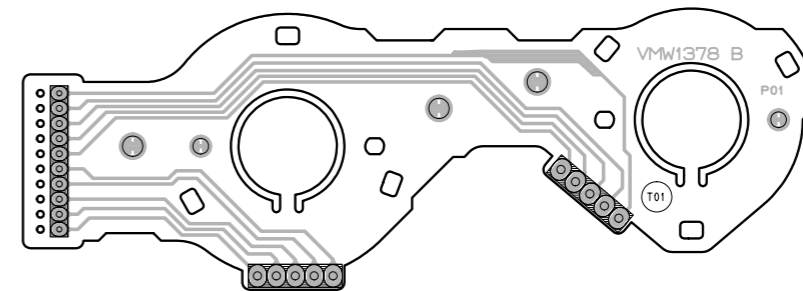
■ CD Servo control board



■ CD Tray section switch board



■ Cam switch board



5
4
3
2
1

A | B | C | 2-14 | D | E | F | G | H

■ Cassette mechanism board

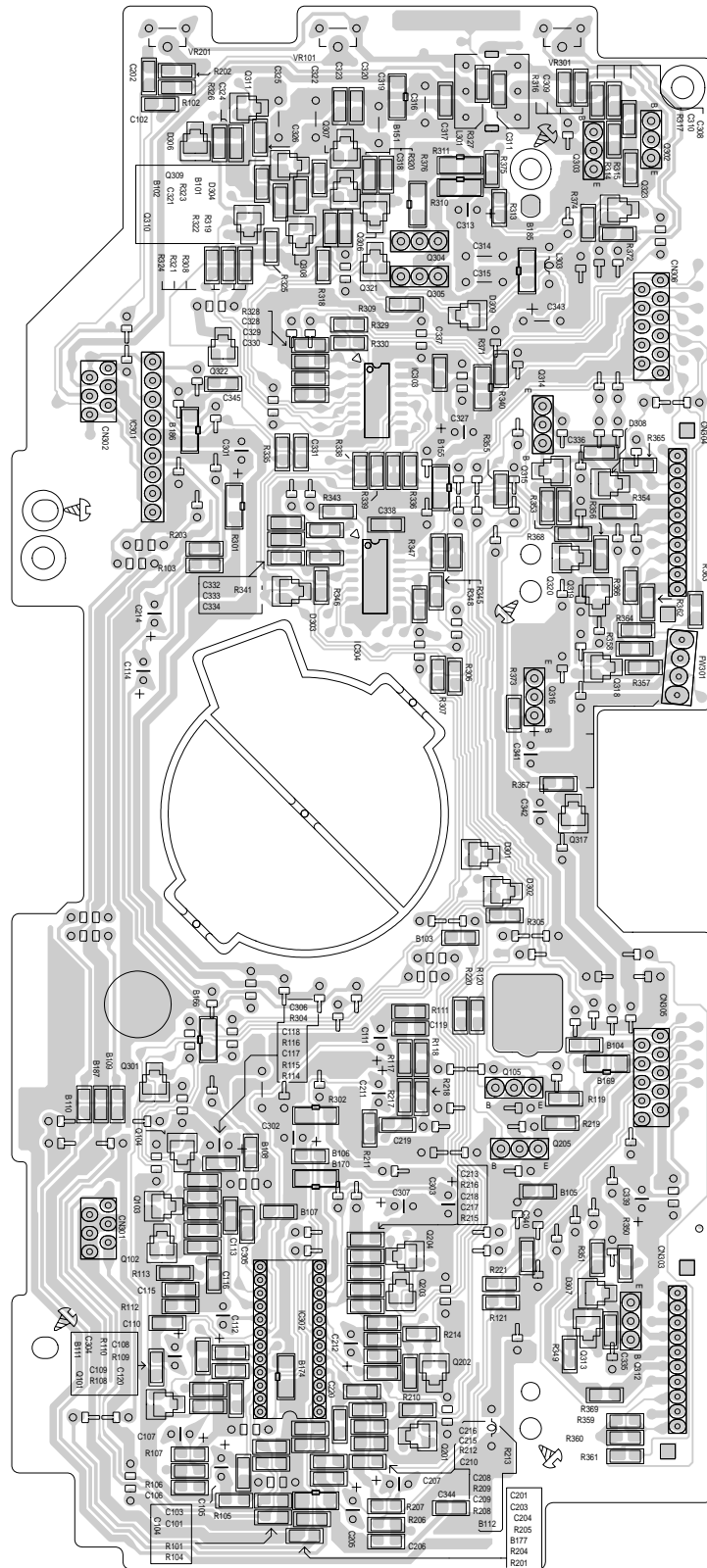
5

4

3

2

1

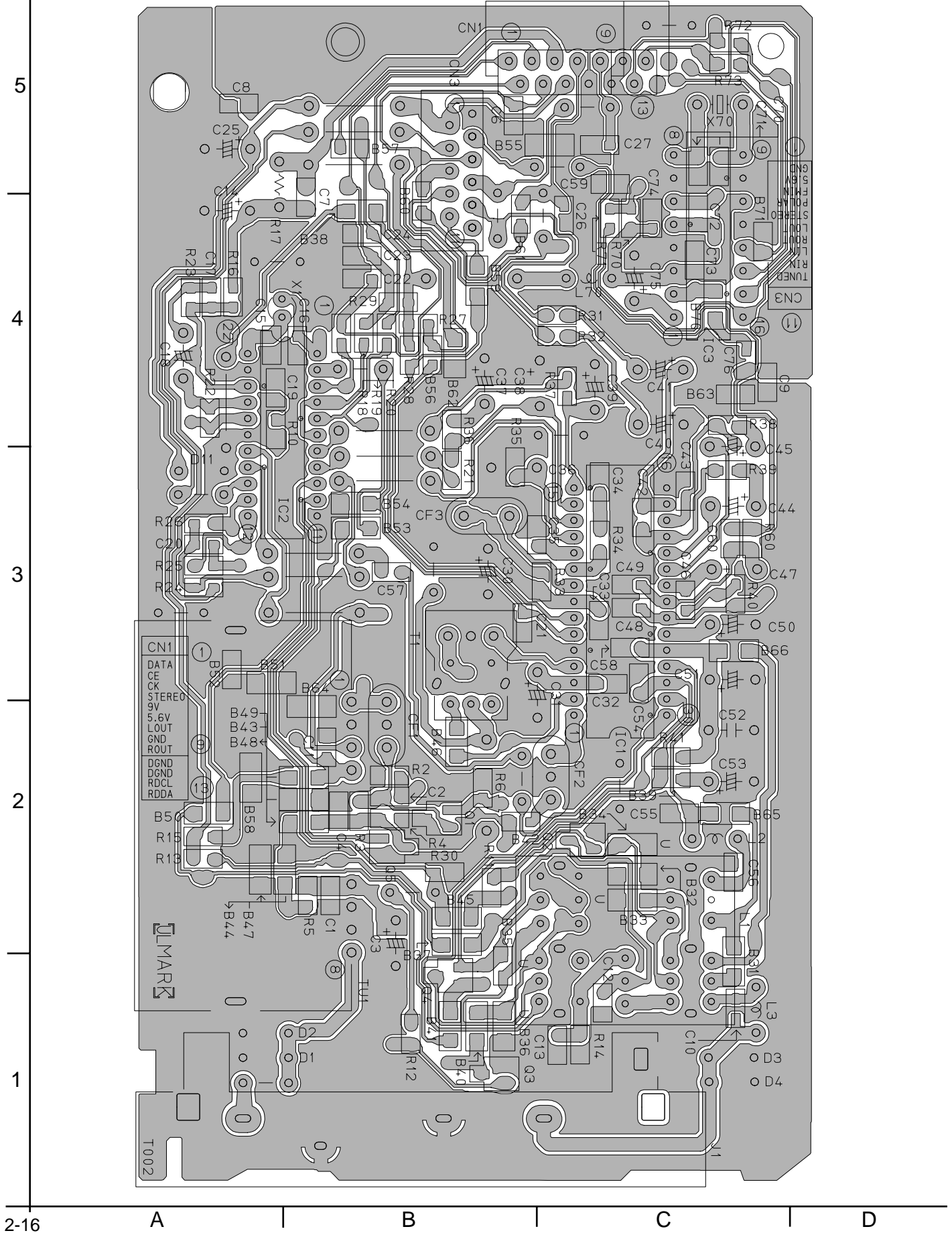


A

B

C

■ Tuner board



■ Video CD regulator board

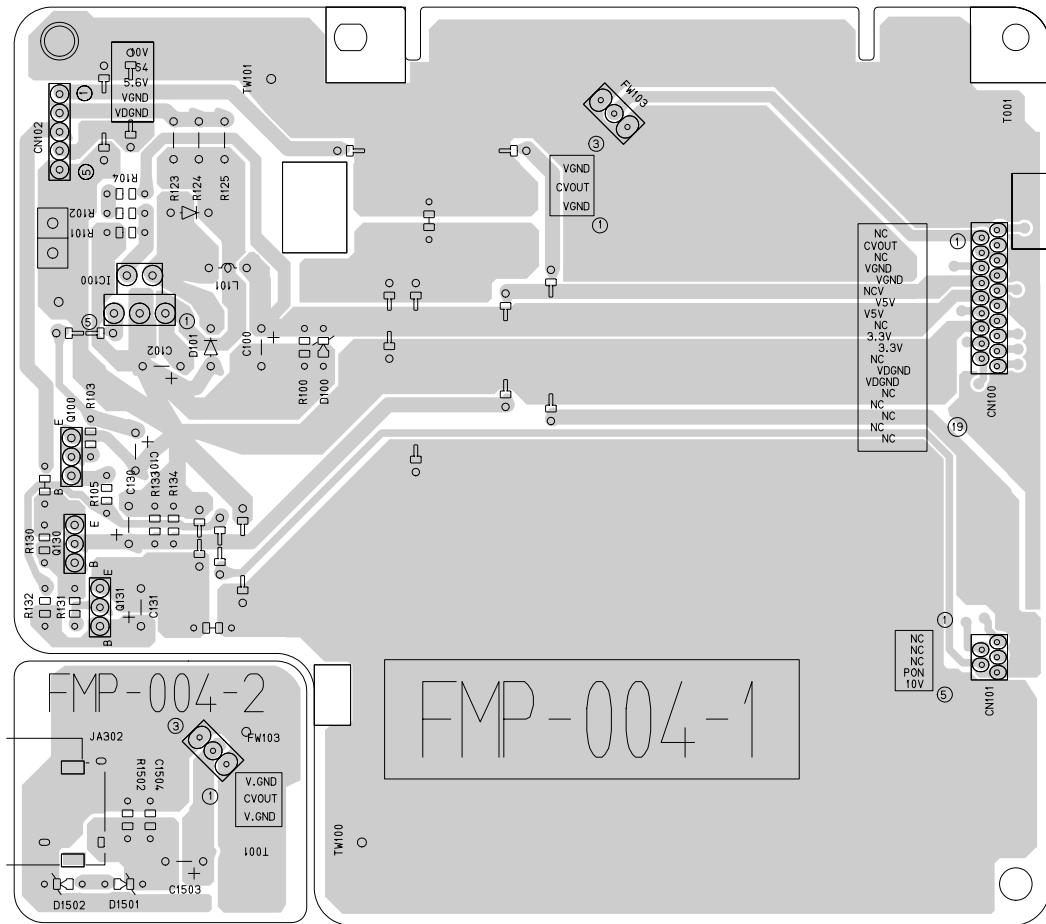
5

4

3

2

1



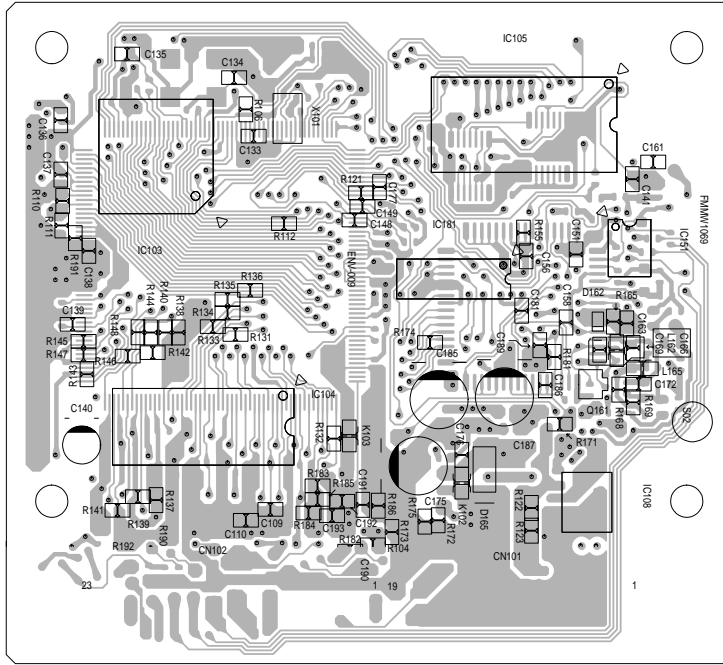
A

B

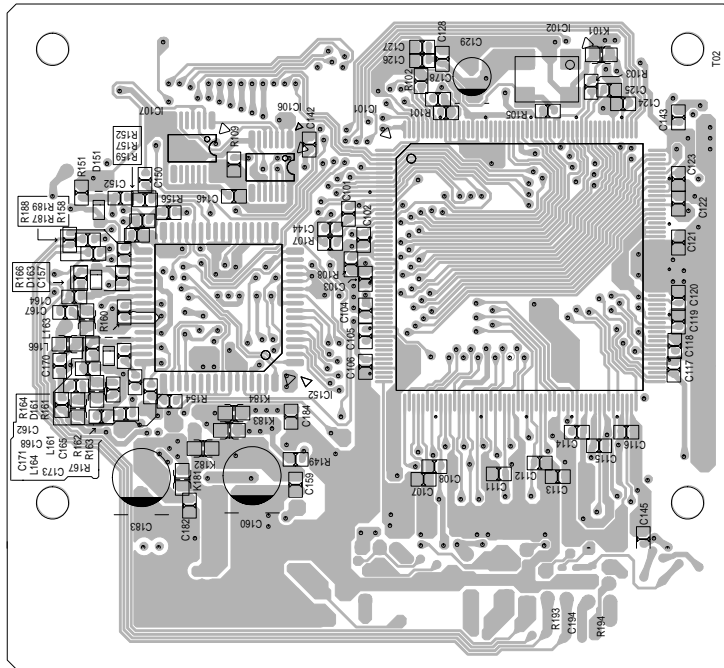
C

■ Super VCD board

(Forward side)



(Reverse side)



5

4

3

2

1

2-18

A

B

C

D