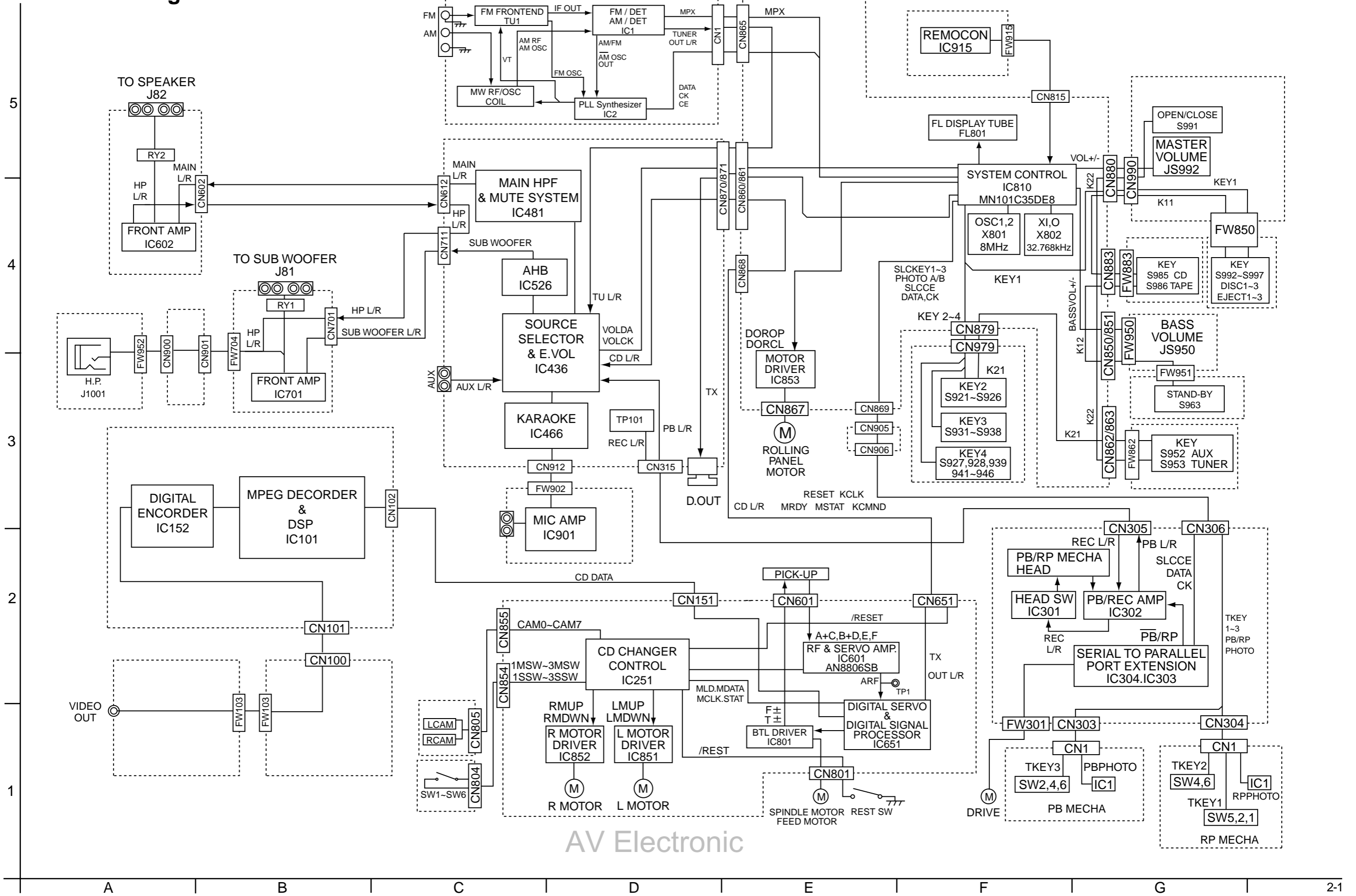


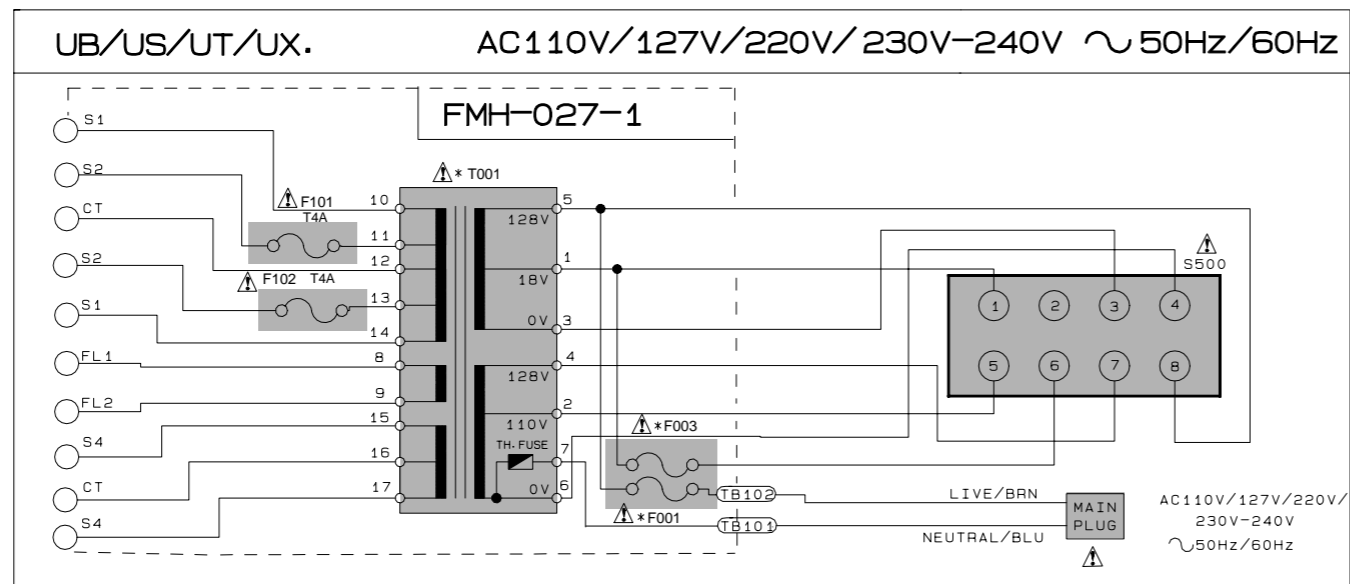
# Block diagram



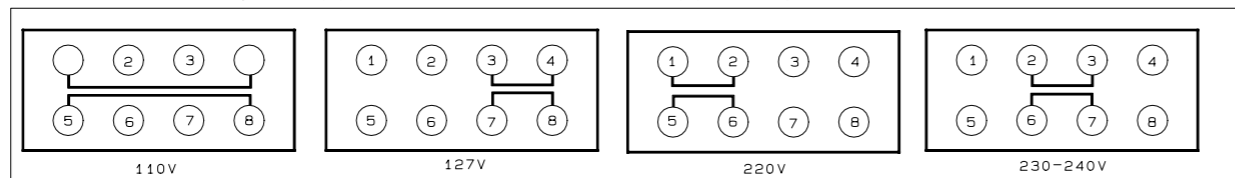
# Standard schematic diagrams

■ 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

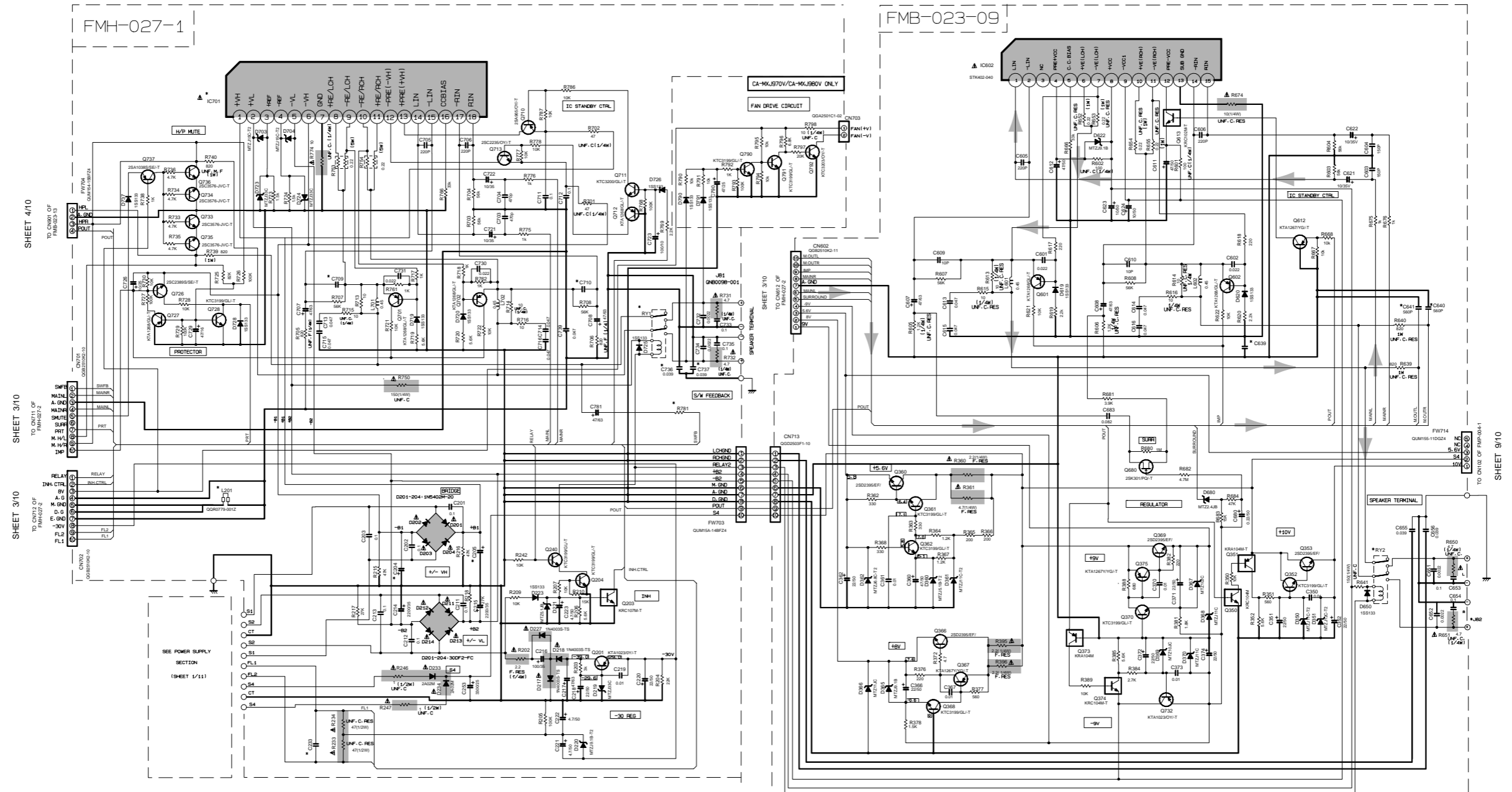
SHEET NUMBER	CIRCUITS DESCRIPTION
1/10	. PRIMARY WITH MAINS TRANSFORMER
2/10	. DC REGULATORS/AUDIO OUTPUT
3/10	. EXTERNAL INPUT, SOURCE SELECTOR SWITCH
4/10	. FL DISPLAY, SYSTEM CONTROL LSI, USER CONTROL KEYS
5/10	. MIC AMP, ECHO CIRCUIT
6/10	. SVCD SERVO AND SVCD SYSTEM CONTROL . SVCD CHANGER MECHANISM 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

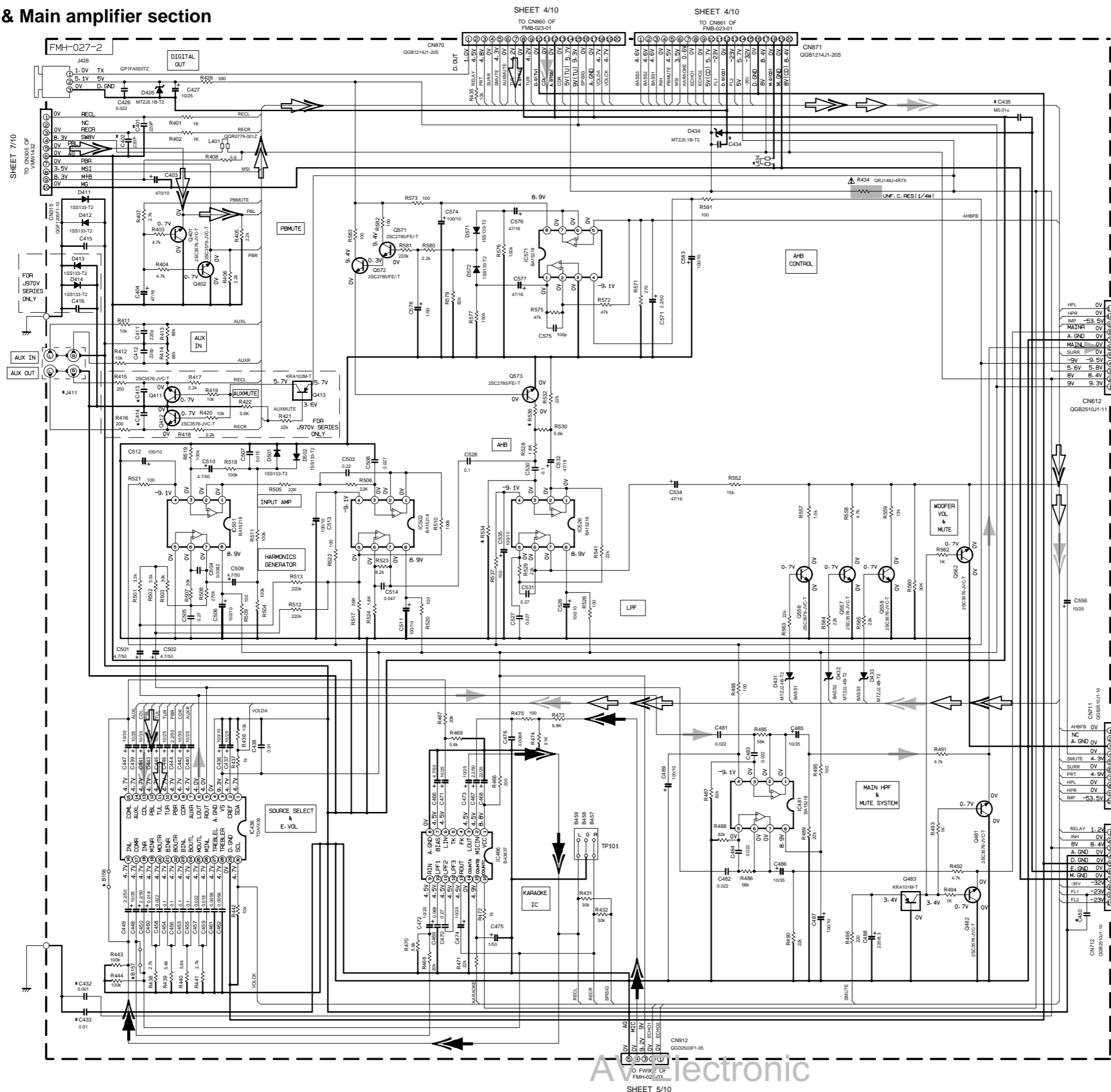
REF NAME	VERSION	CA-MXJ770V UB-US-UX	CA-MXJ880V US	CA-MXJ880V UF-UT	CA-MXJ970V UB-US-UX	CA-MXJ980V US	CA-MXJ980V UF-UT
L201		SHORT (B112)	SHORT (B112)	USE	SHORT (B112)	SHORT (B112)	USE
IC701		STK412-000	STK412-000	STK412-000	STK412-010	STK412-010	STK412-010
C233		0.22	0.22	0.01	0.22	0.22	0.01
RY1, RY2		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. UNLESS OTHERWISE SPECIFIED  
RESISTORS ARE 1/4W 1% CHURN RESISTOR.  
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN pF(PPM).  
ALL INDUCTANCE VALUES ARE IN mH(PPM).  
ALL ELECTROLYTIC CAPACITORS ARE 100V.  
ALL ELECTROLYTIC CAPACITORS ARE 100V.  
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	
	L434	SHORT	0.00779-0012	SHORT	SHORT	0.00779-0012	SHORT	
C434, C435	NONE	0.01u	NONE	NONE	0.01u	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 CN003 OF FMB-023-01

SHEET 2/10

FROM CN011 OF FMB-027-1

SHEET 2/10

FROM CN025 OF FMB-027-1

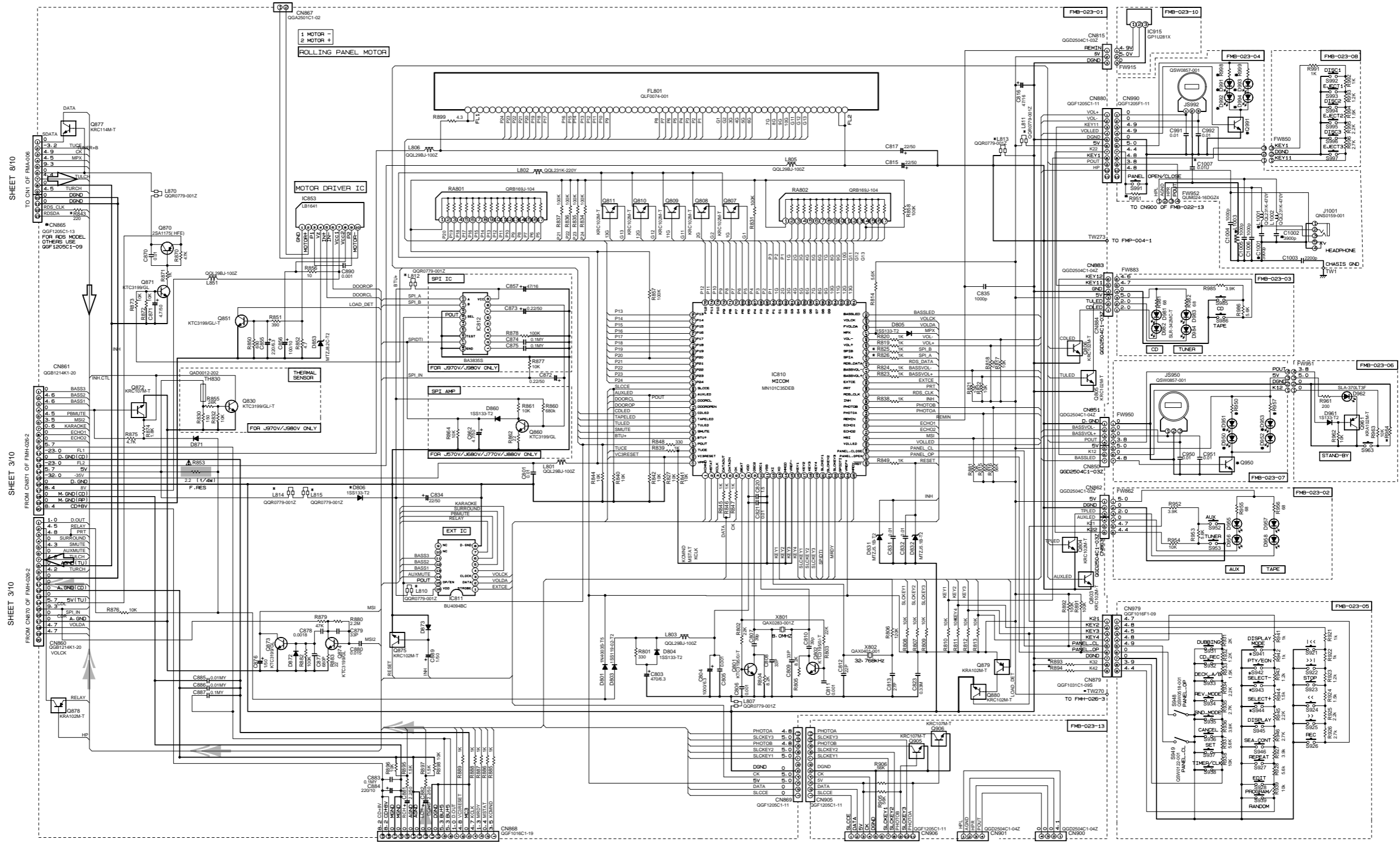
SHEET 2/10

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 1SS133.

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
R825, R826	NONE	NONE	NONE	NONE	NONE	NONE	NONE	1K
R844	330K	330K	330K	330K	75K	75K	18K	18K
R851	18K	18K	18K	18K	18K	18K	18K	18K
R853	75K (LX*18K)	75K	75K	75K	75K (LX*18K)	75K	75K (LX*18K)	75K
R854	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
D955, D994, D993, D993	NONE	NONE	NONE	NONE	NONE	NONE	SLA-570JT3F	SLA-570JT3F
R950, R957, R998, R999	NONE	NONE	NONE	NONE	NONE	NONE	75	75
D950, D951	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	0.01u	SHORT	0.01u	SHORT	SHORT	SHORT	0.01u
C1001, C1002	NONE	0.001u	NONE	0.001u	NONE	SHORT	SHORT	0.001u
L1003	0.22F, RES	0.22F, RES	0.22F, RES	0.22F, RES	0.22F, RES	0.22F, RES	0.22F, RES	0.22F, RES
R853	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, 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

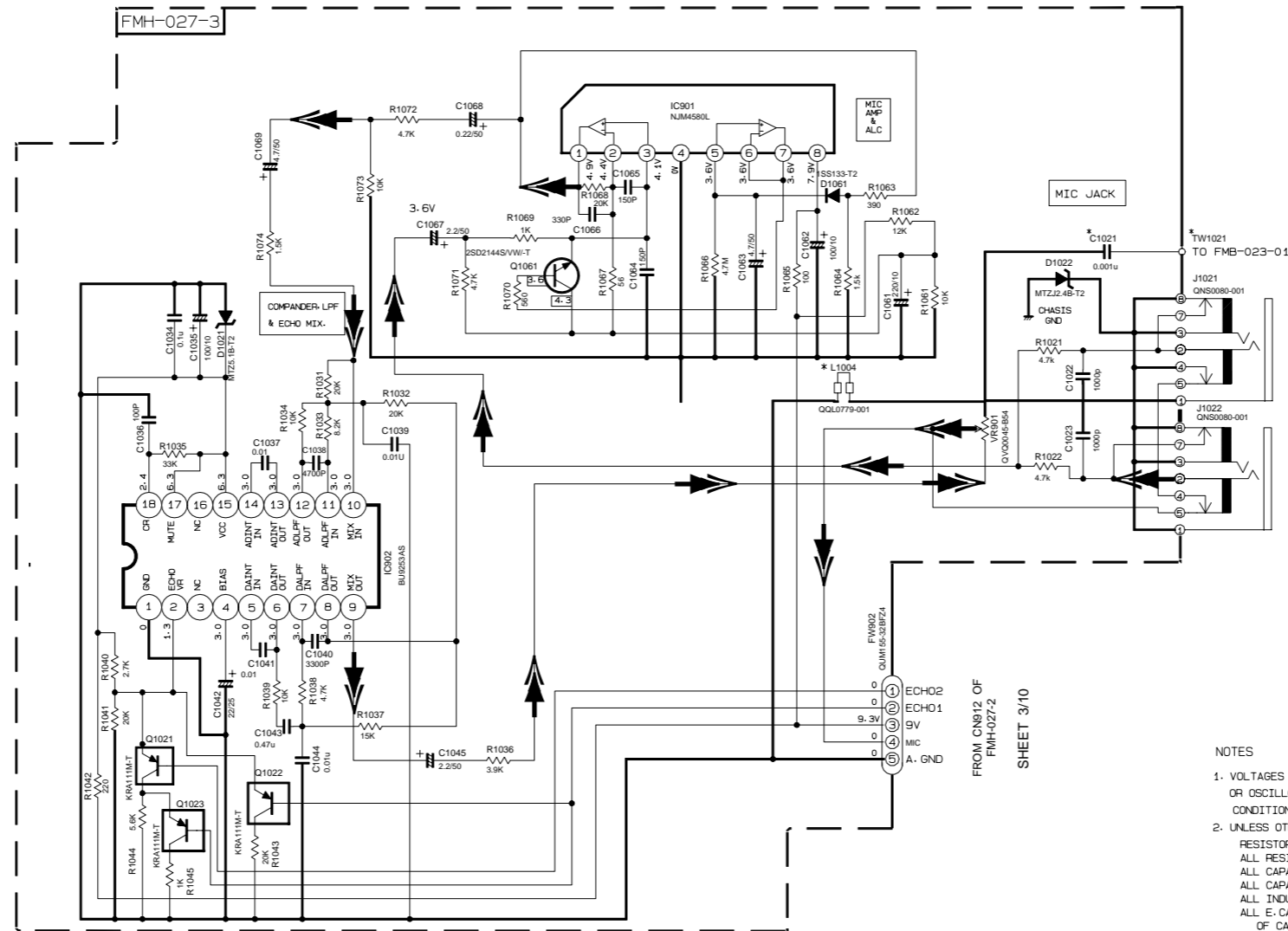
NOTE: MARK (\*) IS TO SHOW DEVIATION IN VERSIONS  
DETAILS ARE EXPLAINED BY MARK.

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.  
CONVERSION: 1000 = 1K, 10000 = 10K, 100000 = 100K, 1000000 = 1M, 10000000 = 10M, 100000000 = 100M, 1000000000 = 1G.  
2. UNLESS OTHERWISE SPECIFIED  
RESISTORS ARE 1/4W ±5% CARBON RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHMS.  
ALL CAPACITANCE VALUES ARE IN P.F.  
ALL INDUCTANCE VALUES ARE IN HENRY.  
ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/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						

- 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(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 1SS133

➡ MIC signal

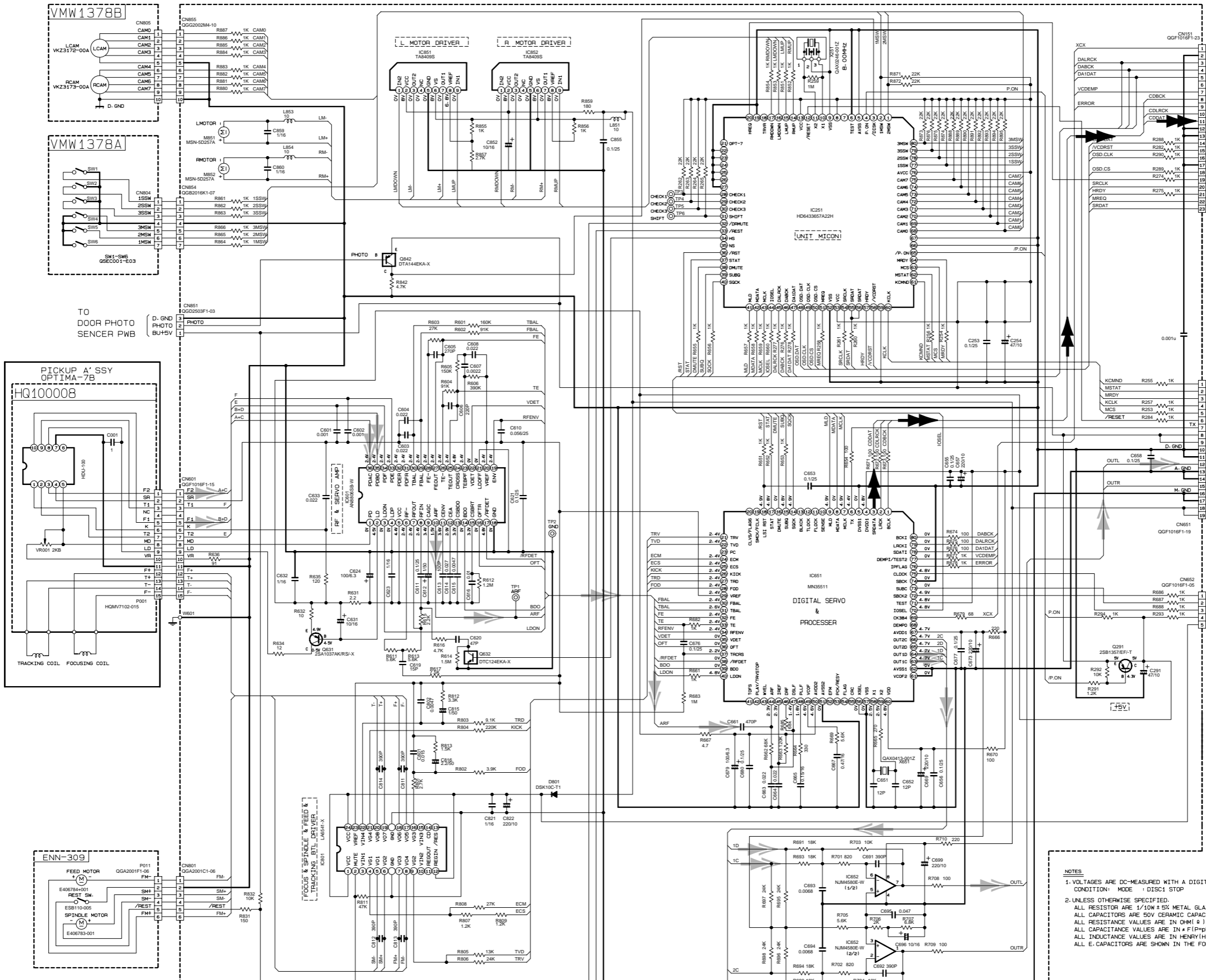
FROM CN812 OF FMH-027-2 SHEET 3/10

5  
4  
3  
2  
1

A | B | C | 2-6 | D | E | F | G | H

CD Servo & CD Mechanism control section

5  
4  
3  
2  
1



TO CN102 OF VMW1496 SHEET 10/10

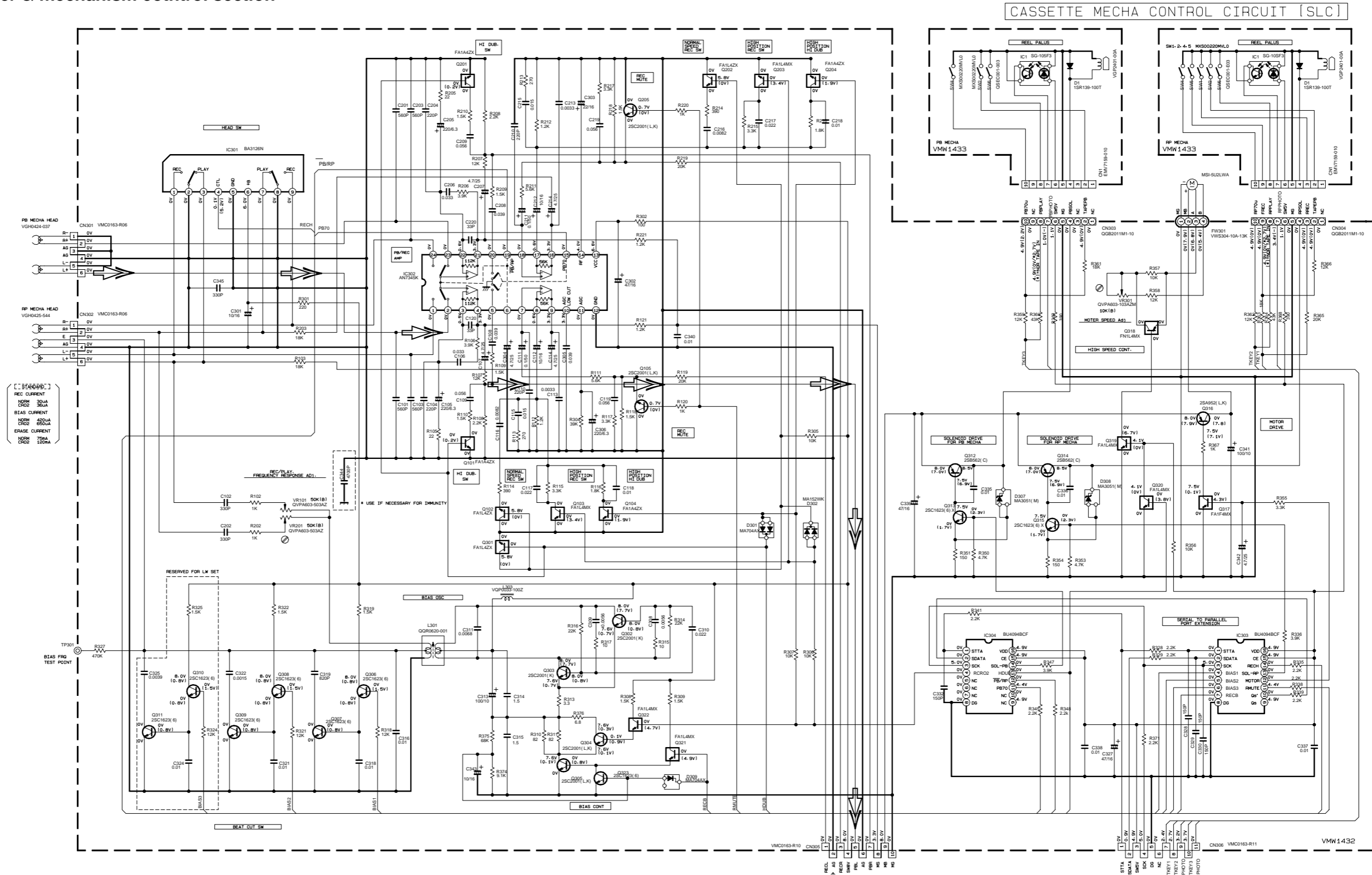
TO CN868 OF FMB-022-01 SHEET 4/10

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

➡ CD signal  
 ➡ VIDEO signal

- NOTES**
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 CAPA CITOR.  
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).

Head amplifier & mechanism control section



- [ STANDARD ]
- REC CURRENT 300A
- CHD 360A
- BIAS CURRENT 4500A
- CHD 6500A
- 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 OHMS (Ω).
- ALL CAPACITORS ARE CERAMIC CAPACITOR.
- ALL CAPACITANCE VALUES ARE IN pF (pF).
- ALL INDUCTANCE VALUES ARE IN μH (μH).
- ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
- PP POLYPROPYLENE CAPACITOR

**TABLE 1. DIGITAL TR LIST**

PART. NO	CONSTRUCTION	REF. NO	PART. NO	CONSTRUCTION	REF. NO
FN14M		Q318	FA14M		Q317
FA14Z		G101/G201	FA14M		G103/G203
FA14Z		G104/G204			G310/G311
FA14Z		G102/G202			G302/G303
		Q301			

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 D E F G H

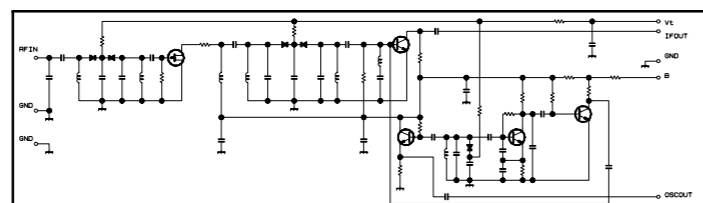
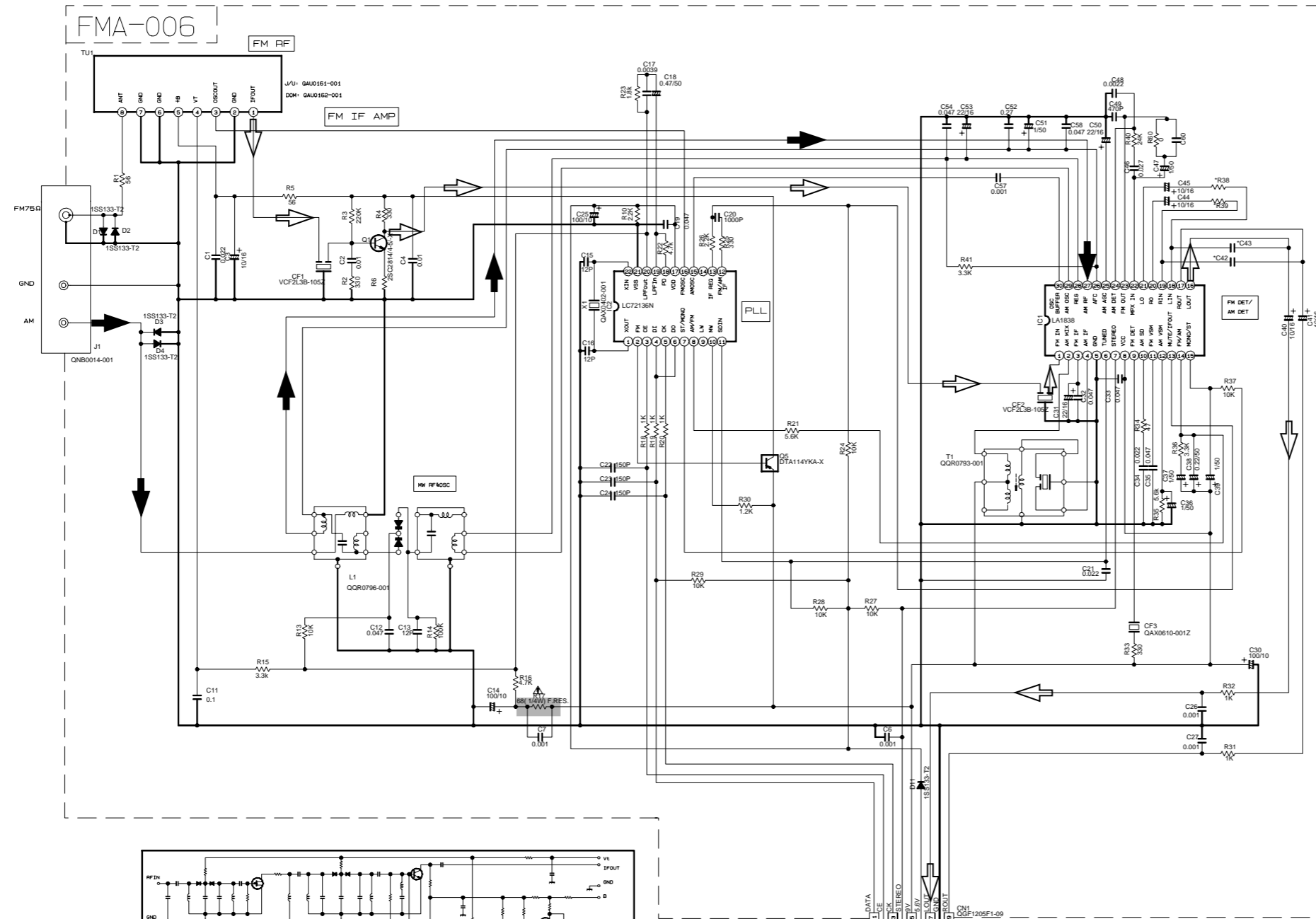
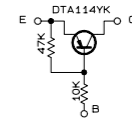


■ Tuner section

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-A-X

B. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS:



	VERSION		
	J/C	User's	SHI UX MODEL
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
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
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	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	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			

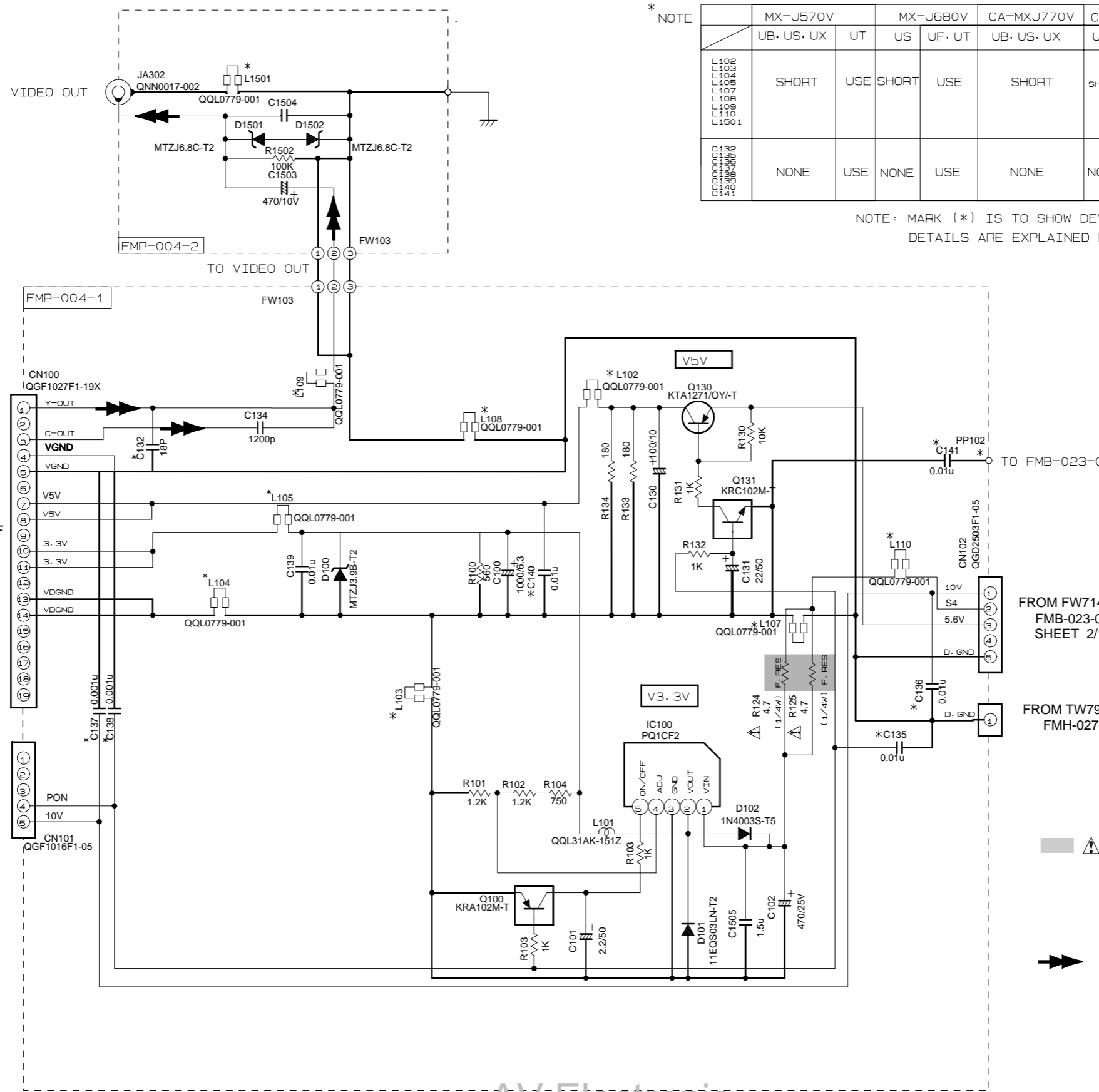
  

Tr. NO.	Q2				Q3				Q4			
PIN NO.	E	C	B	E	C	B	E	C	B	E	C	B
AM 52KHz NO SIGNAL	0	0	0.7	0	0	0.7	0	3.6	0.7	0	3.6	0.7
AM 144KHz NO SIGNAL	0	0	0.3	0	0.3	0.3	3.6	3.6	3.6	3.6	3.6	3.6

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

▷ FM / TUNER signal  
➡ AM signal

Video CD regulator section



\* NOTE

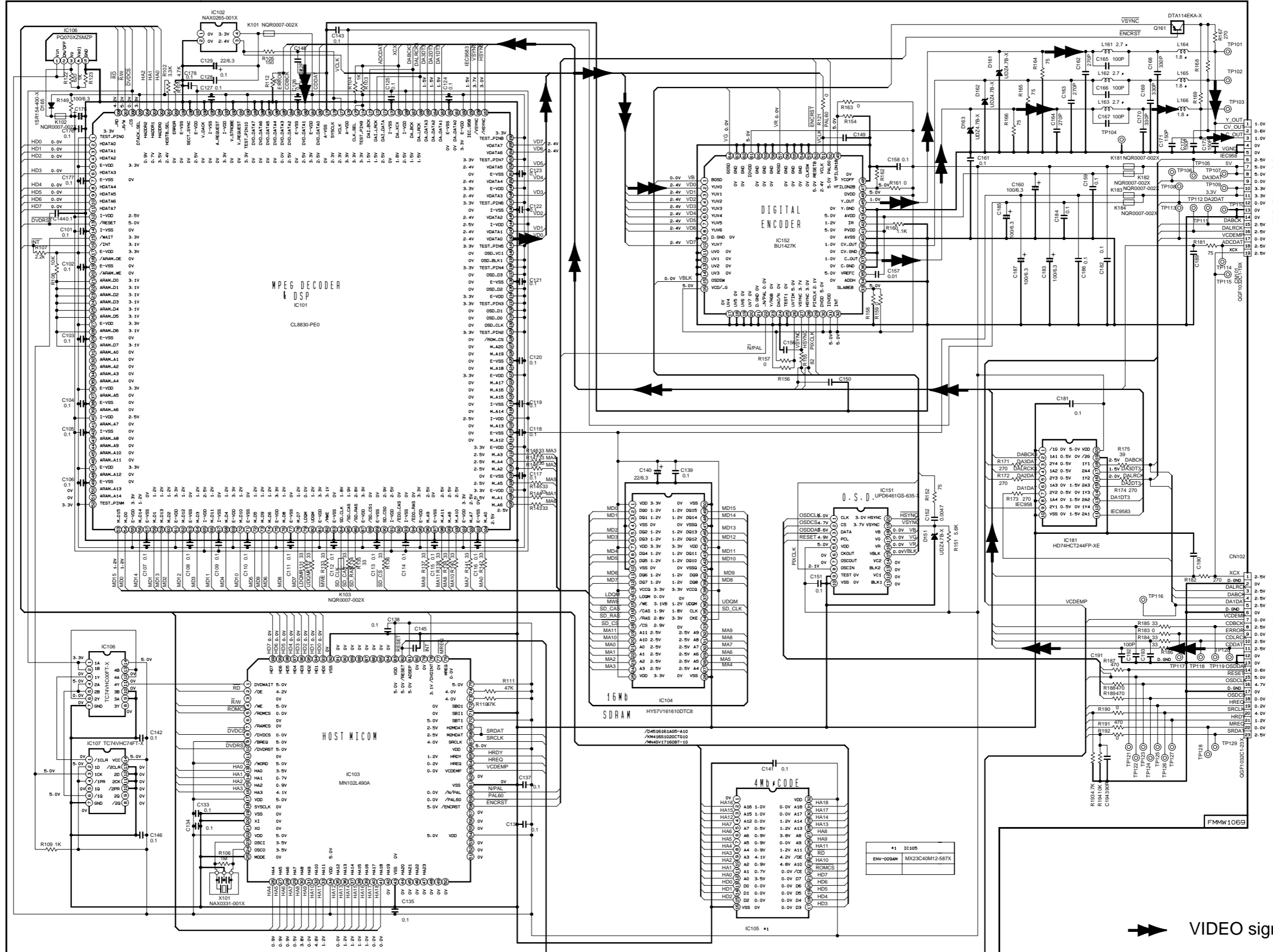
	MX-J570V	MX-J680V	CA-MXJ770V	CA-MXJ880V	CA-MXJ970V	CA-MXJ980V	
	UB, US, UX	UT	US	UF, UT	UB, US, UX	US	UF, UT
L101							
L102							
L103							
L104							
L105							
L106							
L107							
L108							
L1501							
C101							
C102							
C103							
C104							
C105							
C106							
C107							
C108							
C109							
C110							
C111							
C112							
C113							
C114							
C115							
C116							
C117							
C118							
C119							
C120							
C121							
C122							
C123							
C124							
C125							
C126							
C127							
C128							
C129							
C130							
C131							
C132							
C133							
C134							
C135							
C136							
C137							
C138							
C139							
C140							
C141							
D101							
D102							
D103							
D104							
D105							
D106							
D107							
D108							
D109							
D110							
D111							
D112							
D113							
D114							
D115							
D116							
D117							
D118							
D119							
D120							
D121							
D122							
D123							
D124							
D125							
D126							
D127							
D128							
D129							
D130							
D131							
D132							
D133							
D134							
D135							
D136							
D137							
D138							
D139							
D140							
D141							
D142							
D143							
D144							
D145							
D146							
D147							
D148							
D149							
D150							
D151							
D152							
D153							
D154							
D155							
D156							
D157							
D158							
D159							
D160							
D161							
D162							
D163							
D164							
D165							
D166							
D167							
D168							
D169							
D170							
D171							
D172							
D173							
D174							
D175							
D176							
D177							
D178							
D179							
D180							
D181							
D182							
D183							
D184							
D185							
D186							
D187							
D188							
D189							
D190							
D191							
D192							
D193							
D194							
D195							
D196							
D197							
D198							
D199							
D200							

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