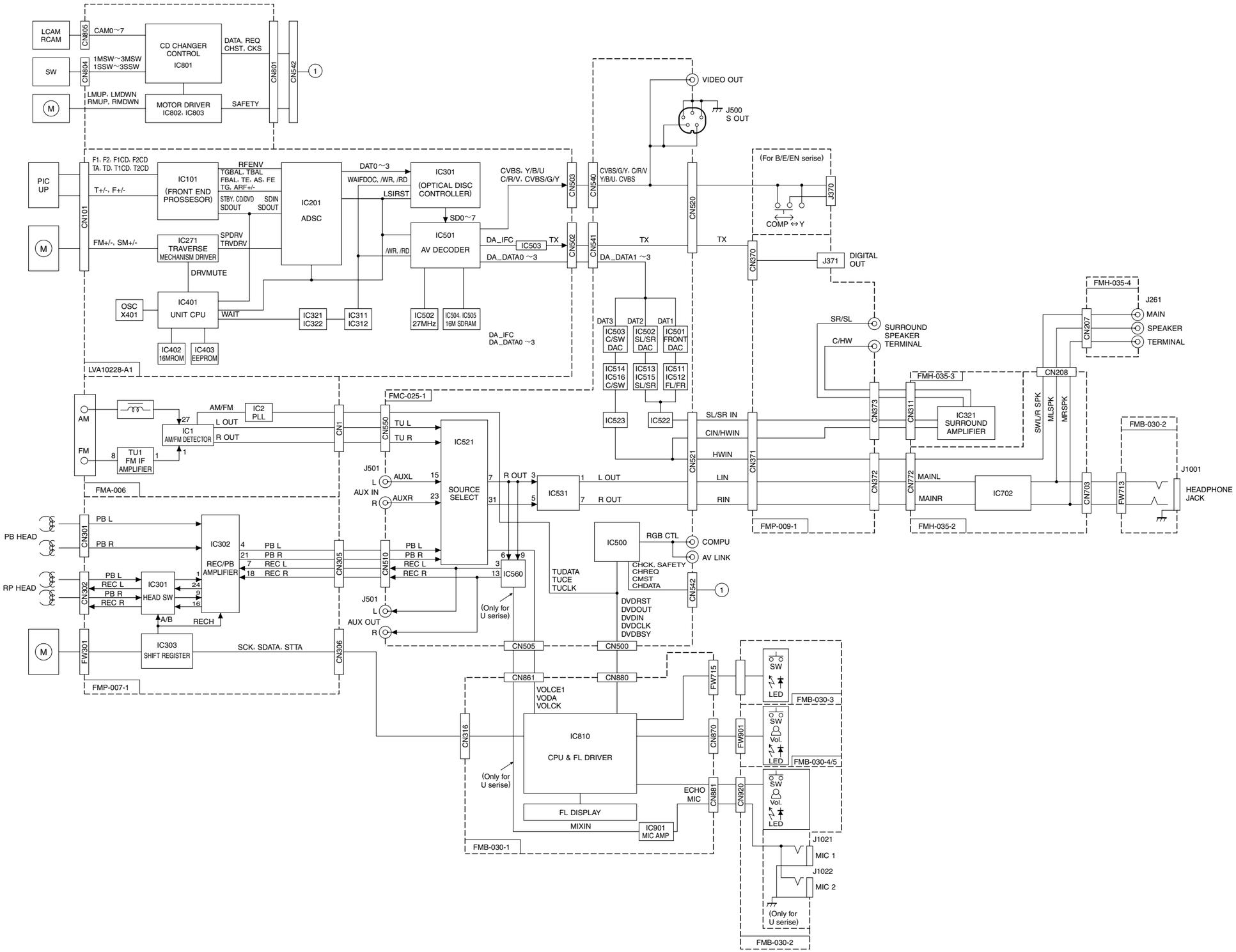
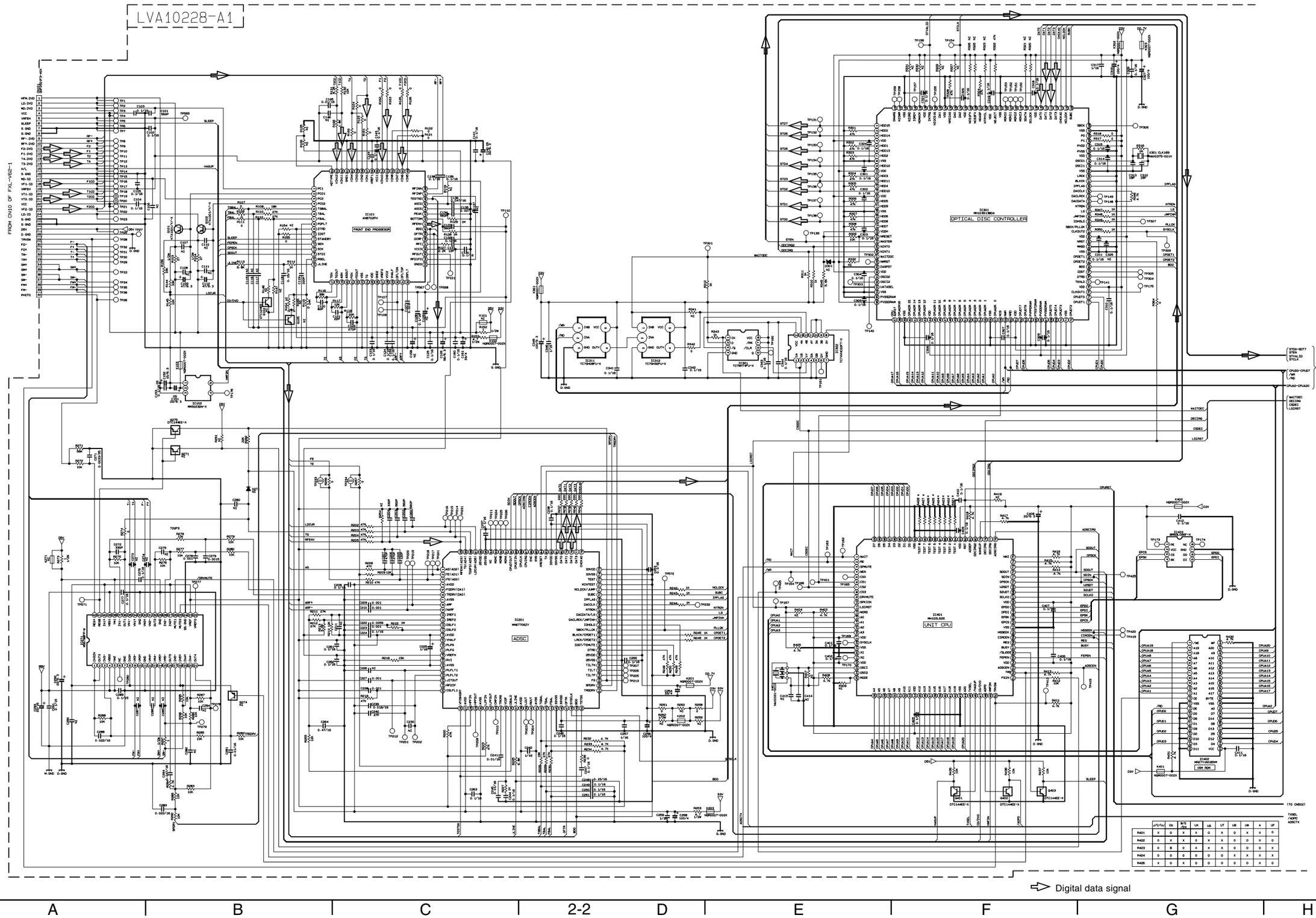
Block diagram

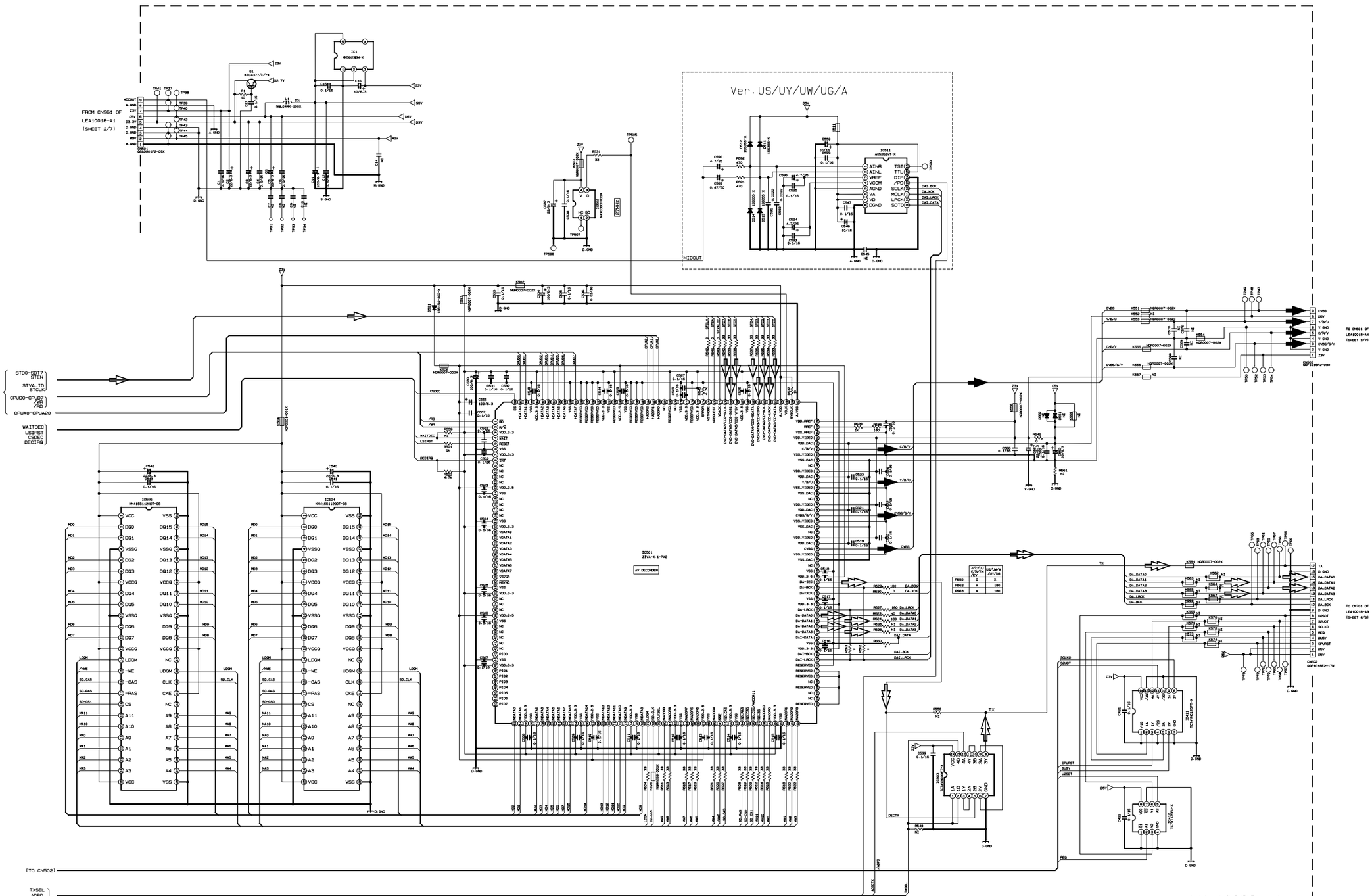


Standard schematic diagrams

■ DVD servo section (Sheet 1)



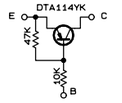
■ DVD servo section (Sheet 2)

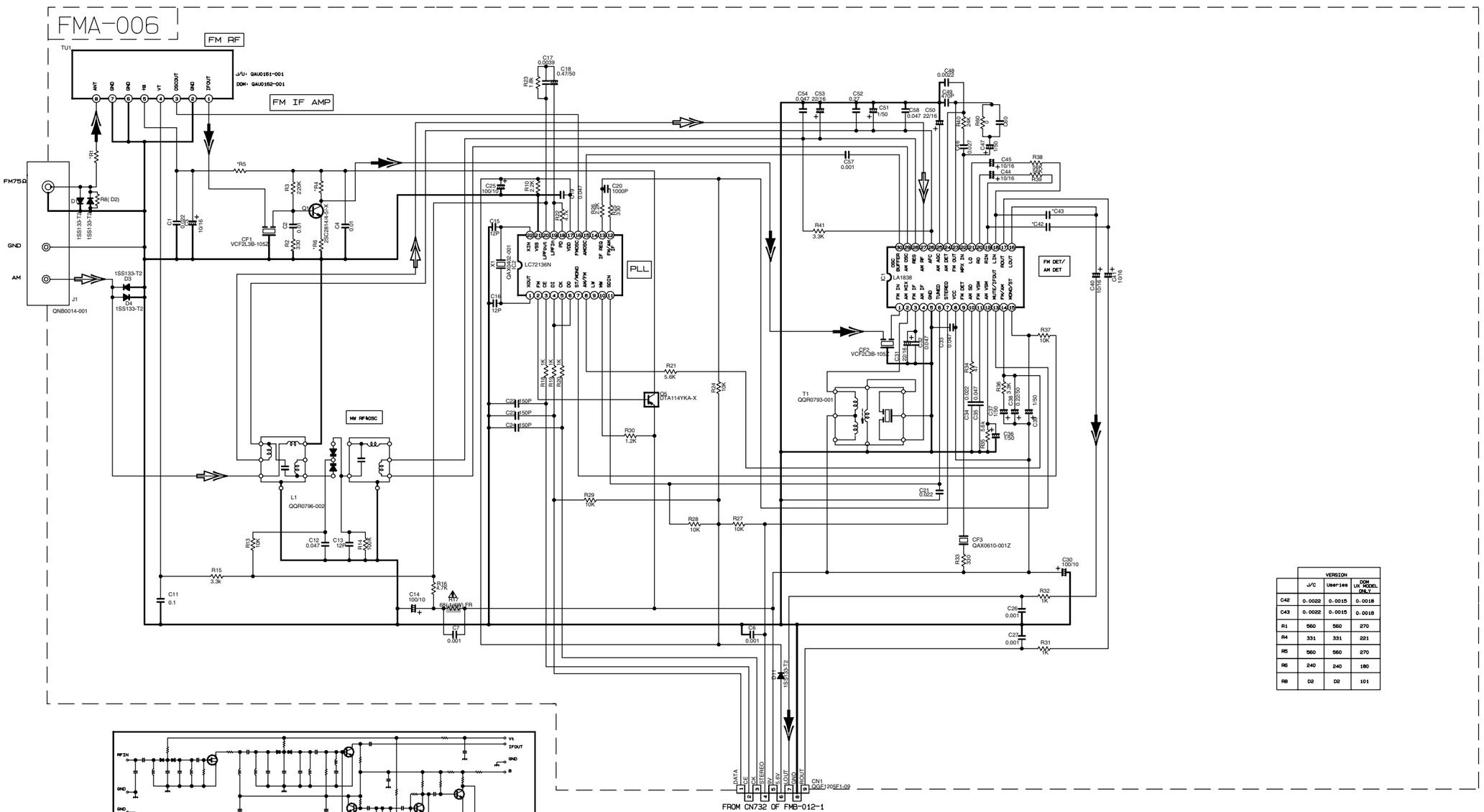


■ Tuner section(U series version)

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 μF(P=pF).
5. ALL E.CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (μF)/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
8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.





	VERSION		
	J/C	Usa+Can	OIRT MODEL ONLY
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

	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	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	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 522KHz 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 522KHz 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

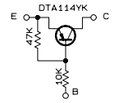
FM/Tuner signal
AM signal

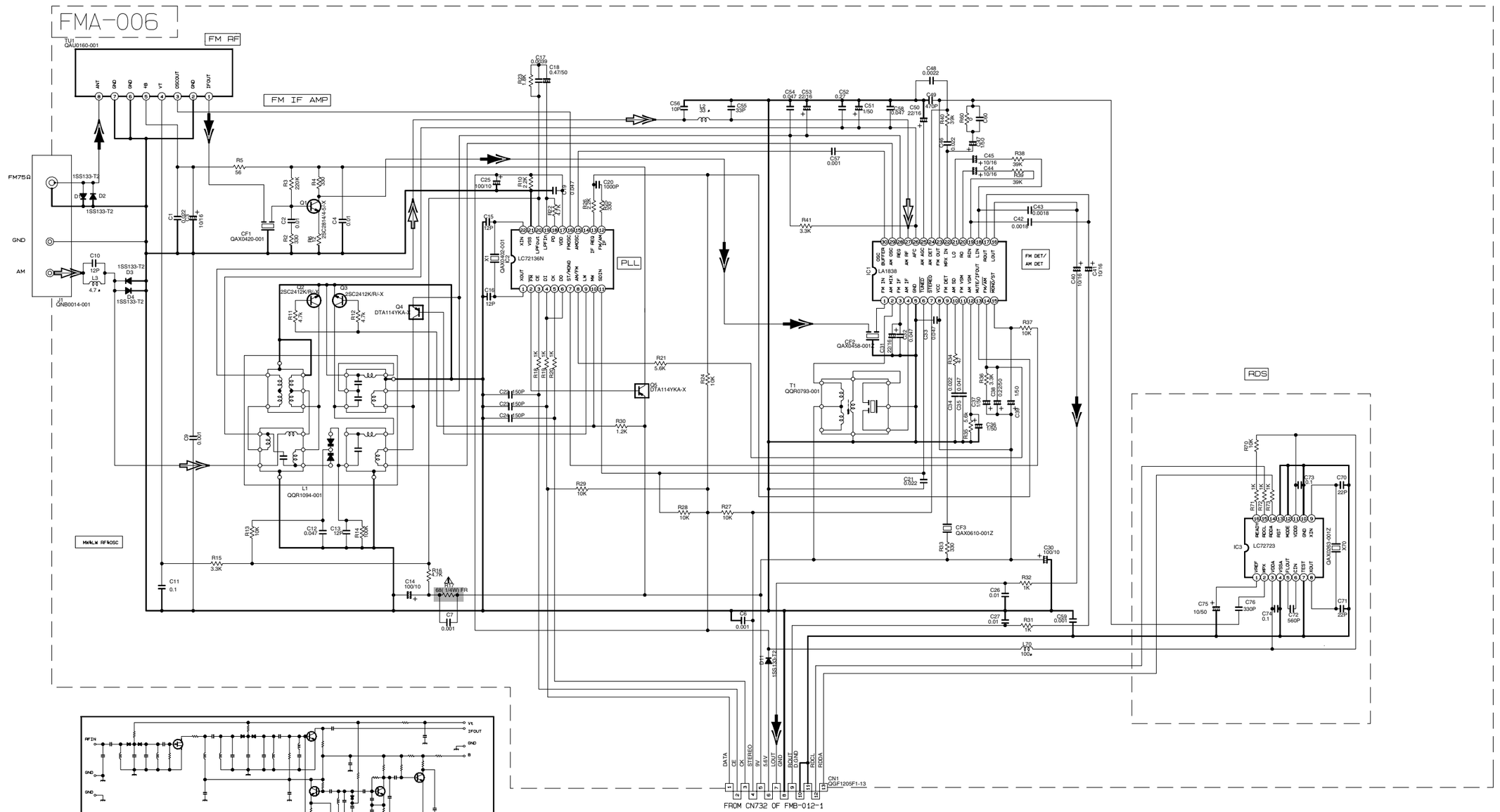
⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

■ Tuner section(A/B/EN version)

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 μF(P=pF).
5. ALL E.CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (μF)/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
8. 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	3.5	3.5	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	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 522KHz 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 522KHz 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 signal

AM signal

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

■ CD changer control section

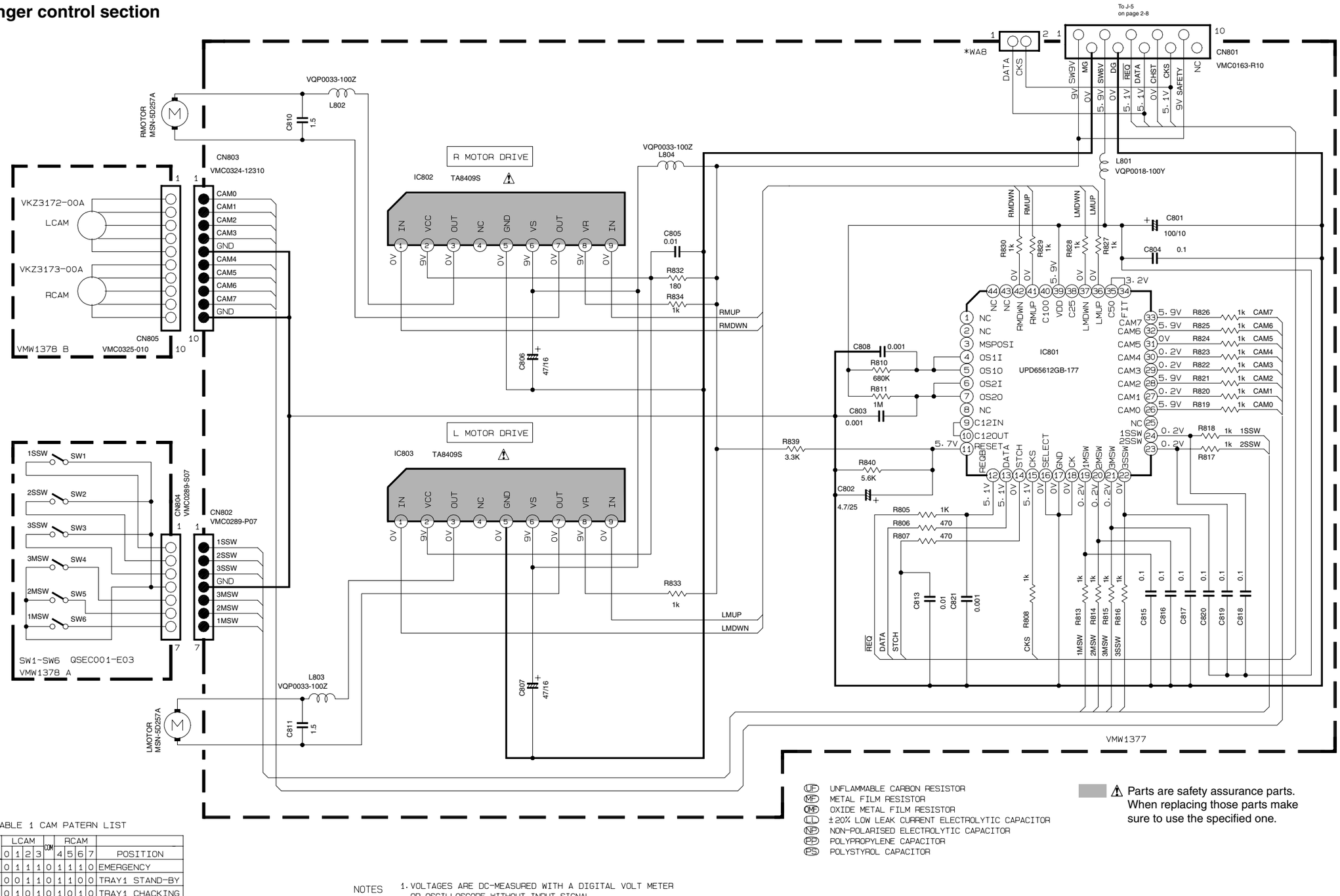


TABLE 1 CAM PATERN LIST

CAM NO. / POSITION	LCAM 0	1	2	3	COM	RCAM 4	5	6	7	POSITION
MAIN TRAY1	0	1	1	1	0	1	1	1	0	EMERGENCY
SUB TRAY1	0	0	1	1	0	1	1	0	0	TRAY1 STAND-BY
CAMR 1	0	1	0	1	0	1	0	1	0	TRAY1 CHACKING
MAIN TRAY2	1	0	0	1	0	1	0	0	1	TRAY2 STAND-BY
SUB TRAY2	1	1	1	0	0	0	1	1	1	TRAY2 CHACKING
CAMR 2	1	0	1	0	0	0	1	0	1	TRAY3 STAND-BY
MAIN TRAY3	1	1	0	0	0	0	0	1	1	TRAY3 CHACKING
SUB TRAY3	1	0	0	0	0					
OFF	1	1	1	1	0	1	1	1	1	OFF

0=0V
1=5V

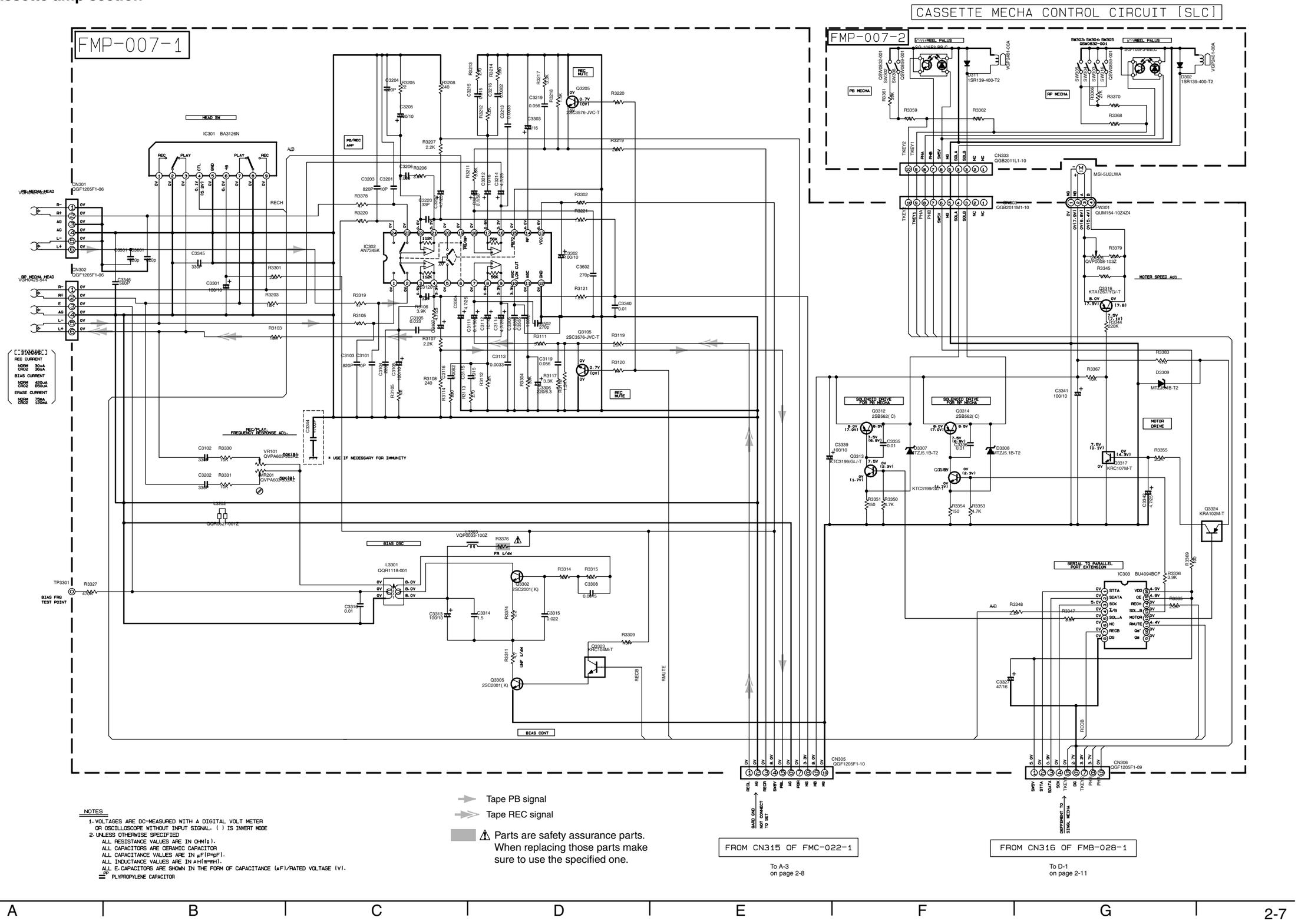
(UF) UNFLAMMABLE CARBON RESISTOR
(MF) METAL FILM RESISTOR
(OMF) OXIDE METAL FILM RESISTOR
(CL) ±20% LOW LEAK CURRENT ELECTROLYTIC CAPACITOR
(NP) NON-POLARISED ELECTROLYTIC CAPACITOR
(PP) POLYPROPYLENE CAPACITOR
(PS) POLYSTYROL CAPACITOR

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

NOTES

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

■ Cassette amp section



■AV decoder section

MX-DVA9/MX-DVA9R

MX-DVA9/MX-DVA9R

FMC-025-1

FMC-025-1

* MARK

MODEL / REF NUMBER	MX-DVA9/CA-MXDVA9R				
	J/C/UJ	B/E/EN/EE	A	U(EXCEPT UT)/UJ	UT
J500	USE	NONE	USE	USE	USE
CN520	NONE	USE	NONE	NONE	NONE
R530	NONE	USE	NONE	NONE	NONE
C537/C538/C539/ C540/C529/C530/	NONE	USE	USE	NONE	USE
KARAOKE	NONE	NONE	NONE	USE	USE
R1400	NONE	USE	USE	USE	USE
R1401	USE	NONE	NONE	NONE	NONE
C1410/11/12	UJ(47p)	NONE	47p	47p	47p

MODEL / REF NUMBER	MX-DVA9/CA-MXDVA9R				
	J/C/UJ	B/E/EN/EE	A	U(EXCEPT UT)/UJ	UT
D1400	NONE	USE	USE	NONE	NONE
R628	82K	82K	82K	68K	68K
R629	2.2K	2.2K	2.2K	10K	10K
C526	0.033(UJ-0.022)	0.022M	0.022M	0.022M	0.022M
C535/C536	100P(UJ-2200P)	2200P	2200P	2200P	2200P
R500,C500 R505,C504 R510,C508	USE	NONE	USE	USE	USE
B603	UJ(USED)	USE	USE	USE	USE

MODEL / REF NUMBER	MX-DVA9/CA-MXDVA9R				
	J/C/UJ	B/E/EN/EE	A	U(EXCEPT UT)/UJ	UT
K426-K427	UJ(NONE)	NONE	NONE	NONE	NONE
B497	2.2uH(UJ-7.5mm)	QUY158-075Y	QUY158-075Y	2.2uH	2.2uH
B548	2.2uH(UJ-10mm)	QUY158-100Y	QUY158-100Y	2.2uH	2.2uH

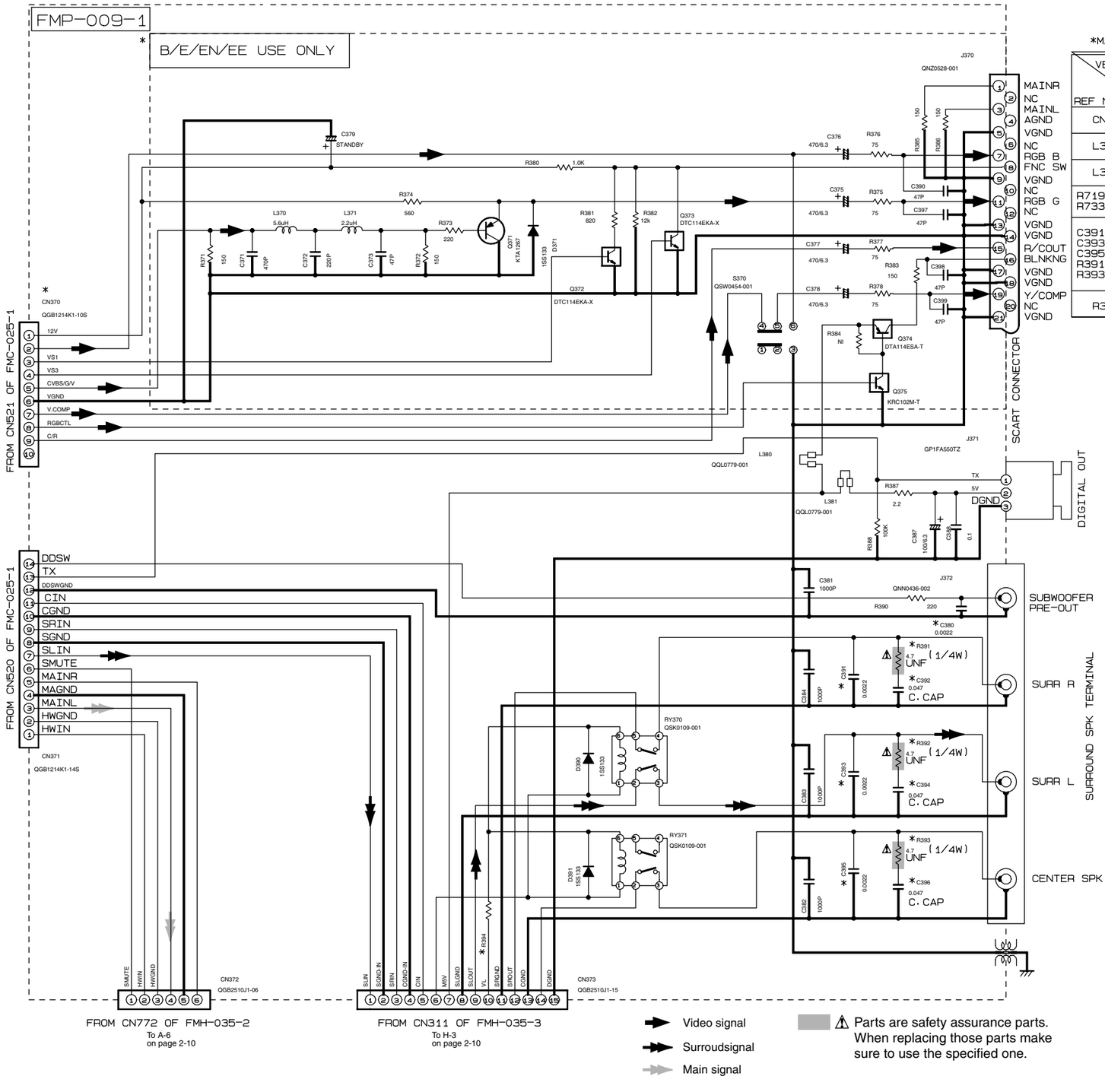
- Digital audio signal
- Video signal
- Tuner signal
- Tape PB signal
- Tape REC signal
- Aux input signal
- Aux output signal
- Surroud signal
- Main signal

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION —— AUX MODE- VOL MIN- BASS OFF
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 MFD(uF).
   ALL INDUCTANCE VALUES ARE IN MILLIHENRY(mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (uF)/RATED VOLTAGE (V).
   ALL DIODES ARE 1SS133

FMC-025-1

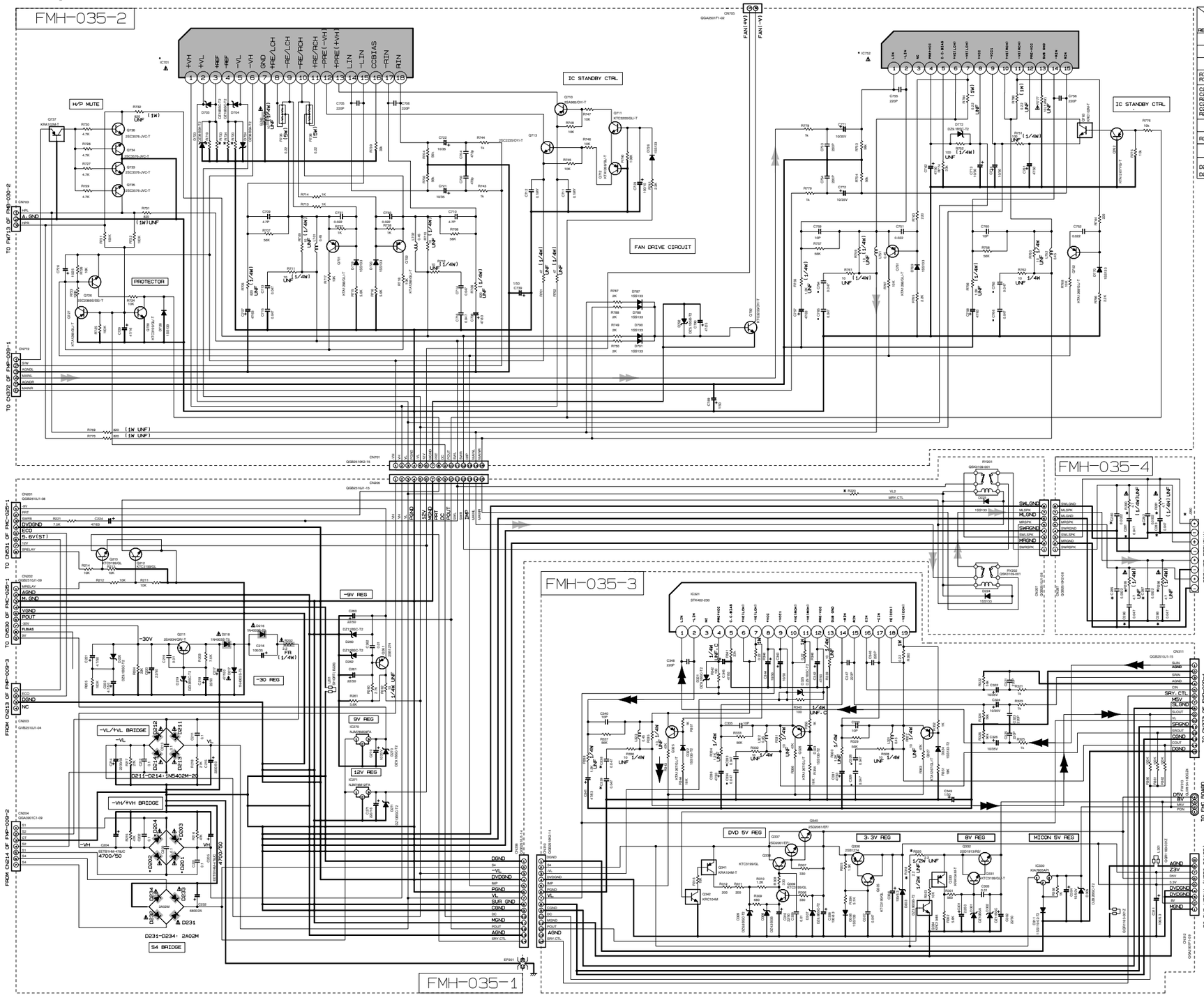
■ AV output section



*MARK

VERSION / REF NAME	CA-MXDVA9/CA-MXDVA9R/MX-DVA9			
	J/C	B/E/EN/EE	U(EXCEPT UT)	UT/A
CN370	NOT USED	USED	NOT USED	NOT USED
L380	NOT USED	USED	NOT USED	NOT USED
L381	NOT USED	USED	NOT USED	USED
R719, R720, R733, R734.	10K	6.8K	6.8K	6.8K
C391, C392, C393, C394, C395, C396, R391, R392, R393, C380.	NOT USE	USE	NOT USE	UT=NOT USED A =USED
R394	QRK126J-181X	QRK126J-121X	QRK126J-121X	QRK126J-121X

■ Power amp section



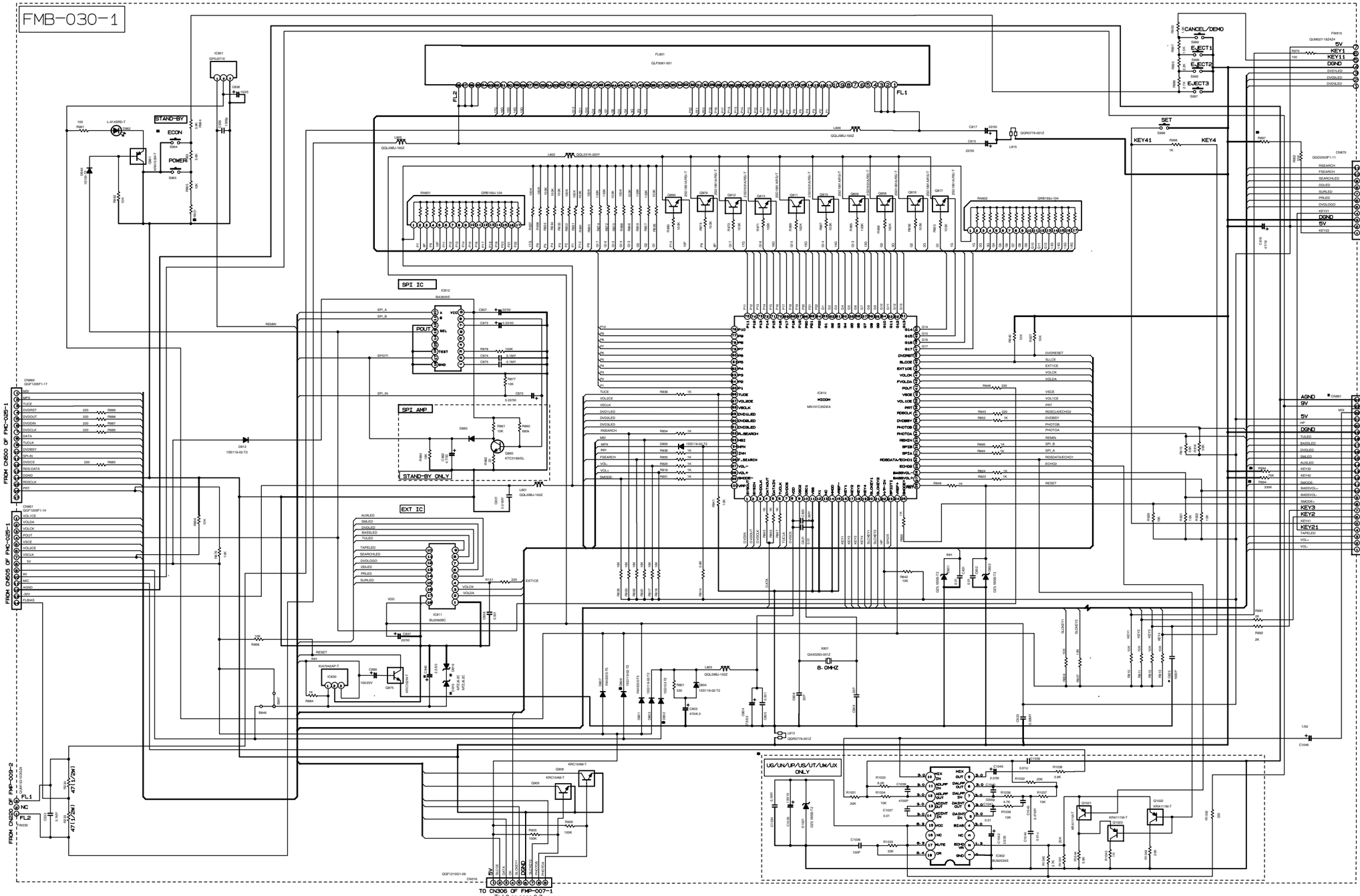
*MARK

VERSION	CA-MXVDA9/CA-MXDVA9R/MX-DVA9			
REF NAME	J/C	A/B/E/EN/EE	UG/LJ/UN/UP UG/UN/UX	UT
IC701	STK412-000	STK412-090	STK412-090	STK412-090
IC752	STK402-050	STK402-040	STK402-040	STK402-040
R220	GRK126J-181X	GRK126J-121X	GRK126J-121X	GRK126J-121X
R719- R720- R733- R734.	10K	6.8K	6.8K	6.8K
C280- C281- C283- C283- R281 C285- C286- C287- C288- R285- R286	NOT USE	USE	NOT USE	USE
R262	GRZ9005-100X	B227	B227	B227
R318- R320	USE	NOT USE	NOT USE	NOT USE
J280	GNB0107-002	GNB0107-001	GNB0107-001	GNB0107-001
D201- D202 D203- D204	30DF2-FC	1N5402M-20	1N5402M-20	1N5402M-20

Surroud signal
Main signal

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

■ System control section



* MARK

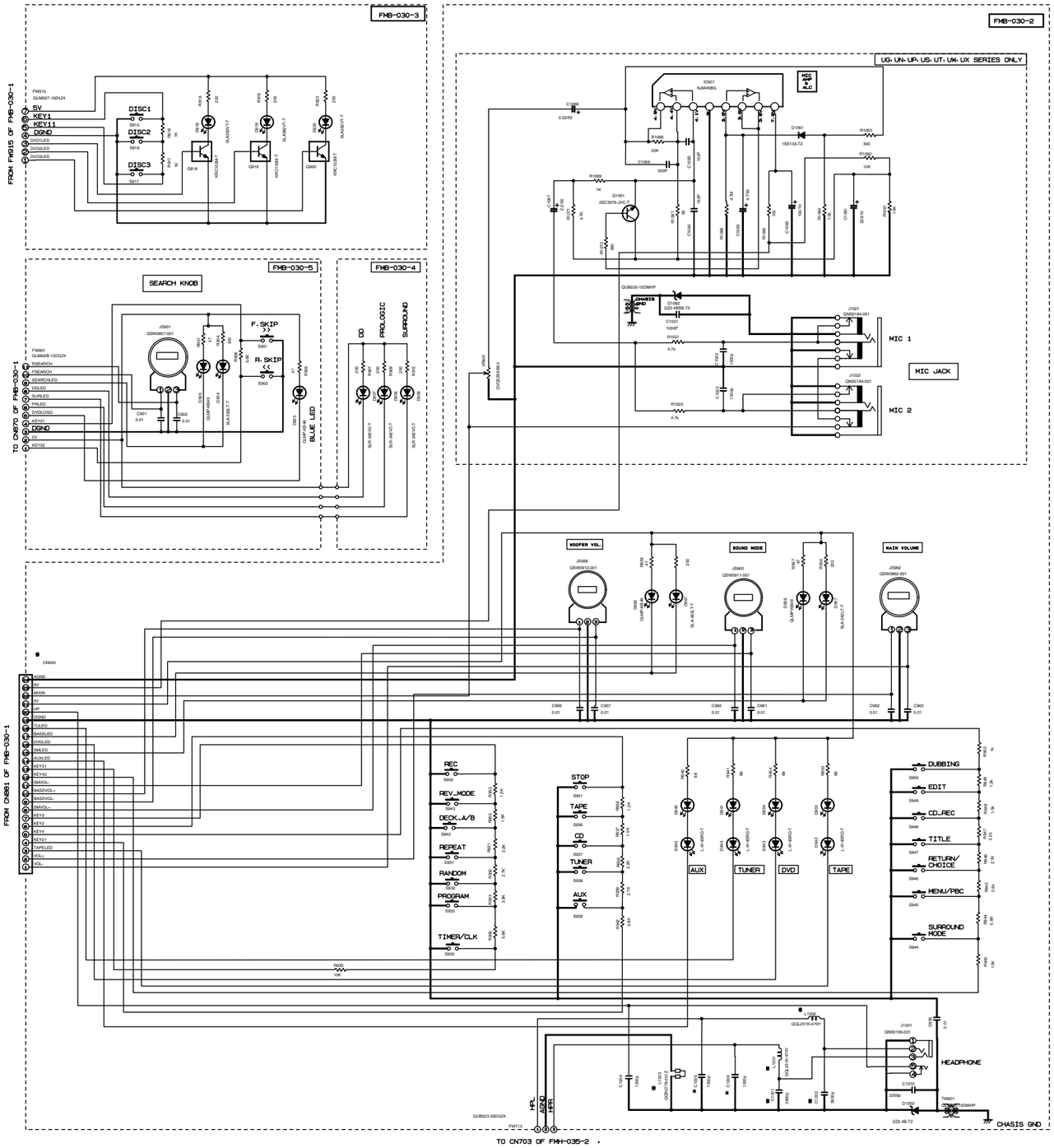
REF NUMBER \ MODEL	MX-DVA9/CA-MXDVA9/CA-MXDVA9R									
	J/C	B/E/EN	EE	A	US/UN/UP	UG	UJ	UT	UW	UX
R921	330K	330K	330K	330K	330K	330K	330K	330K	330K	330K
R897	75K	330K	330K	330K	75K	75K	75K	75K	75K	75K
R894	75K	75K	330K	75K	75K	330K	75K	18K	330K	18K
R894	75K	330K	75K	75K	330K	75K	18K	75K	330K	18K
B846/B847	B847	B846	B846	B846	B847	B847	B847	B847	B847	B847
S964	NONE	QSW0674-001Z	QSW0674-001Z	QSW0674-001Z	NONE	NONE	NONE	NONE	NONE	NONE
C825	NONE	USE	USE	USE	NONE	NONE	NONE	USE	NONE	NONE
D802/D806	NONE	USE	USE	USE	NONE	NONE	NONE	NONE	NONE	NONE
C840/D815/D816	NONE	USE	USE	USE	NONE	NONE	NONE	USE	NONE	NONE
CN881	QGF1210G1-22	QGF1210G1-22	QGF1210G1-22	QGF1210G1-22	QGF1210G1-24	QGF1210G1-24	QGF1210G1-22	QGF1210G1-24	QGF1210G1-24	QGF1210G1-24

NOTES

1- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION —— AUX MODE- VOL MIN- BASS OFF

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 #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

■ Key input section



* MARK

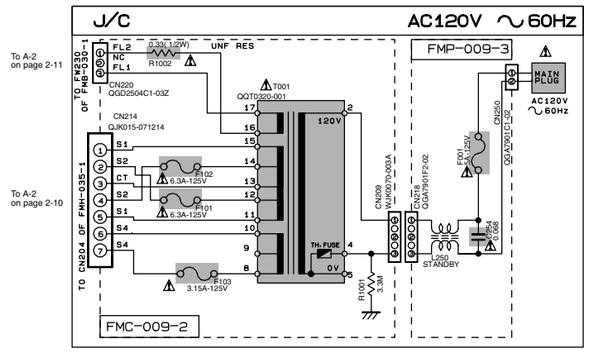
MODEL	MX-DVA9	MX-DVA9R	CA-MXDVA9R	CA-MXDVA9			
REF NUMBER	J/C	EE	B/E/EN	A	UG/UN/UP US/UW/UX	UJ	UT
L1001/L1002	B940/B941	USE	USE	USE	B940/B941	B940/B941	USE
C1001/C1002	NONE	USE	USE	USE	NONE	NONE	USE
C1005/C1006	USE	NONE	NONE	NONE	USE	USE	NONE
L1003	QQL231K-2R2Y	QQA0779-001	QQA0779-001	QQA0779-001	QQL231K-2R2Y	QQL231K-2R2Y	QQA0779-001
CN920	QGF1205F1-22	QGF1205F1-22	QGF1205F1-22	QGF1205F1-22	QGF1205F1-24	QGF1205F1-22	QGF1205F1-24

NOTES

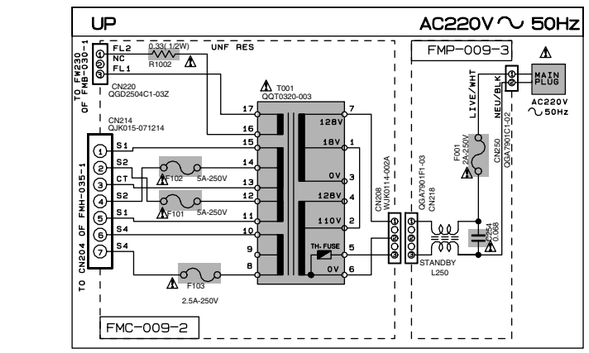
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION —— AUX MODE· VOL MIN· BASS OFF
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHMS(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN #F(PmF).
   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

■ Trans all section

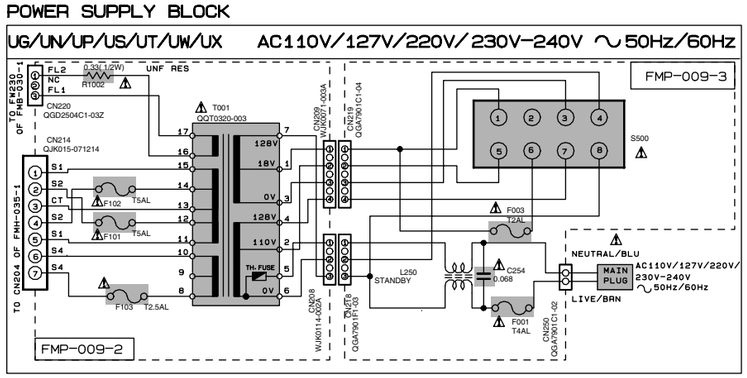
POWER SUPPLY BLOCK



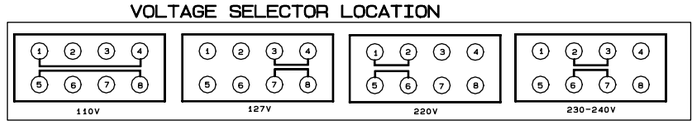
POWER SUPPLY BLOCK



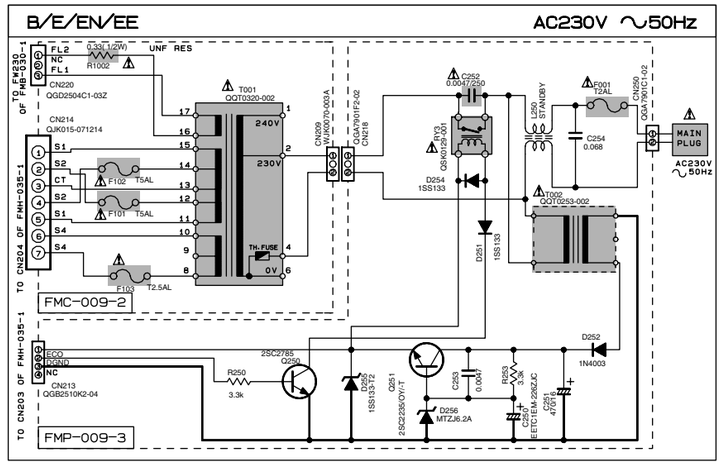
POWER SUPPLY BLOCK



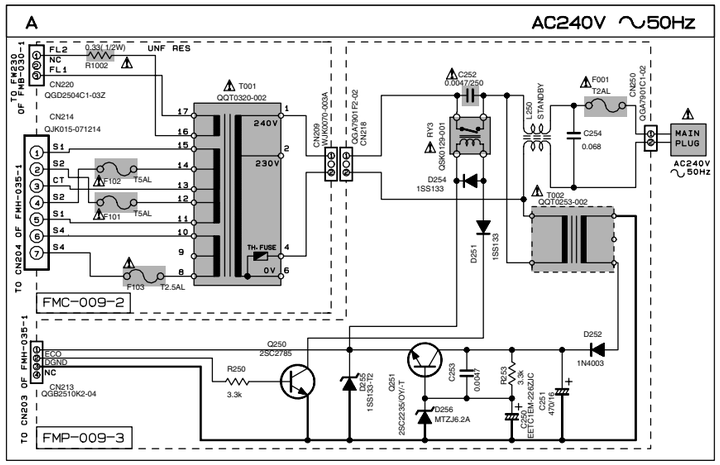
VOLTAGE SELECTOR LOCATION



POWER SUPPLY BLOCK



POWER SUPPLY BLOCK



EXPLANATION OF OVERALL OF SCHEMA.		
MODEL MX-DVA9/MX-DVA9R		
SHEET NUMBER	MODEL NUMBERS TO BE APPLIED	CIRCUITS DESCRIPTION
1/13	MX-DVA9/MX-DVA9R	.PRIMARY WITH MAINS TRANSFORMER
2/12	MX-DVA9/MX-DVA9R	.DC REGULATORS/AUDIO OUTPUT
3/13	MX-DVA9/MX-DVA9R	.AUDIO SIGNAL FLOW AND PROCESSING
4/13	MX-DVA9/MX-DVA9R	.FL DISPLAYS.SYSTEM CONTROL LSI
5/13	MX-DVA9/MX-DVA9R	.USER CONTROL KEYS. MIC AMP
6/13	MX-DVA9/MX-DVA9R	.CONNECTION BOARD FOR SIGNAL AND FAN HOLDER
7/13	MX-DVA9/MX-DVA9R	.TAPE DECK MECHANISM CONTROL .TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
8/13	MX-DVA9R	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR A.B.E.EN.EV)
9/13	MX-DVA9R	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR EE)
10/13	MX-DVA9	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR C.J.UP.UJ.US.UT.UW.UX.UY)
11/13	MX-DVA9/MX-DVA9R	.DVD MECHA SYSTEM CONTROL AND SERVO SYSTEM
12/13	MX-DVA9/MX-DVA9R	.MPEG BOARD SYSTEM MICON AND OPT DISC CTRL
13/13	MX-DVA9/MX-DVA9R	.MPEG BOARD AV DECORDER

VERSION CODES

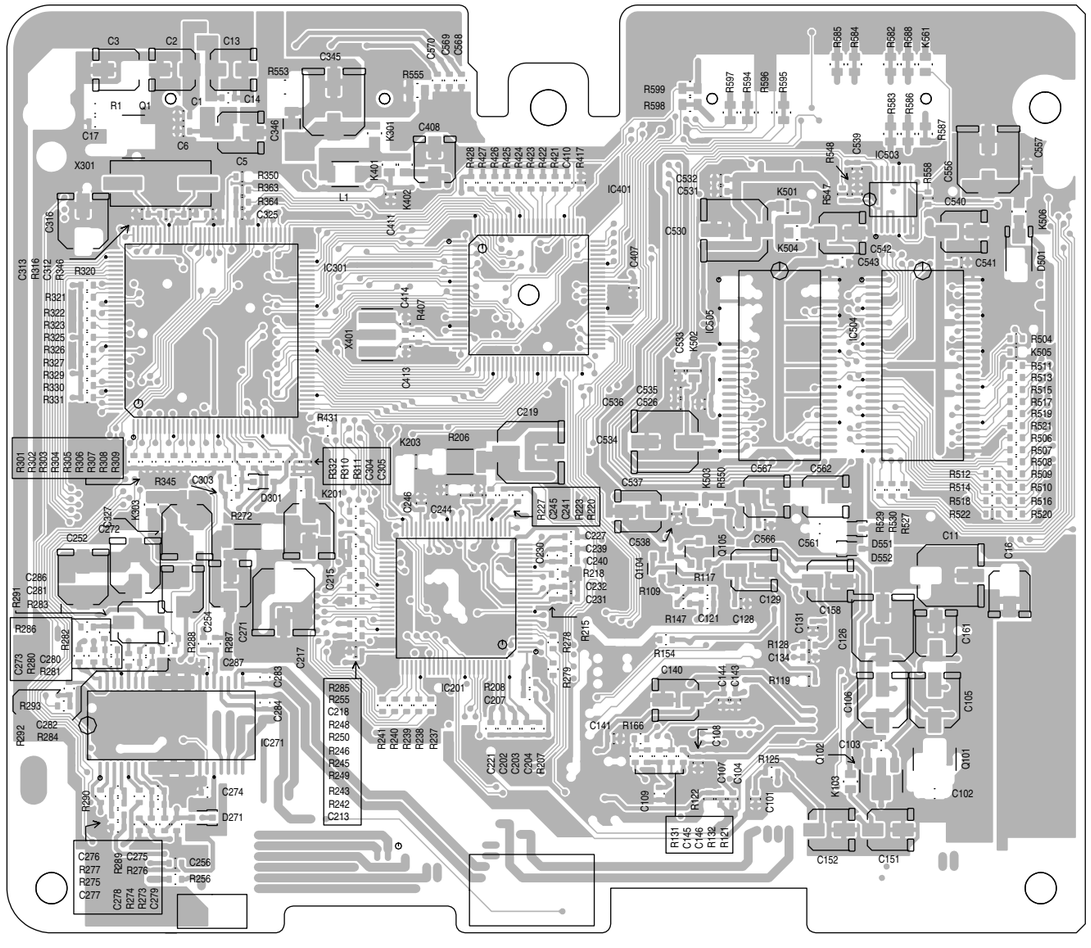
J	:U.S.A.
C	:CANADA
B	:U.K.
E	:CONTINENTAL EUROPE
EE	:RUSSIA
EN	:NORDIC COUNTRIES
EV	:EASTERN EUROPE
A	:AUSTRALIA
UJ	:MILITARY
UP	:KOREA
UT	:TAIWAN
UX	:SAUDI ARABIA
UY	:ARGENTINA
UW	:SOUTH AMERICA EXCEPT ARGENTINA
US	:SINGAPORE AND UNIVERSAL EXCEPT ALL OF ABOVES

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

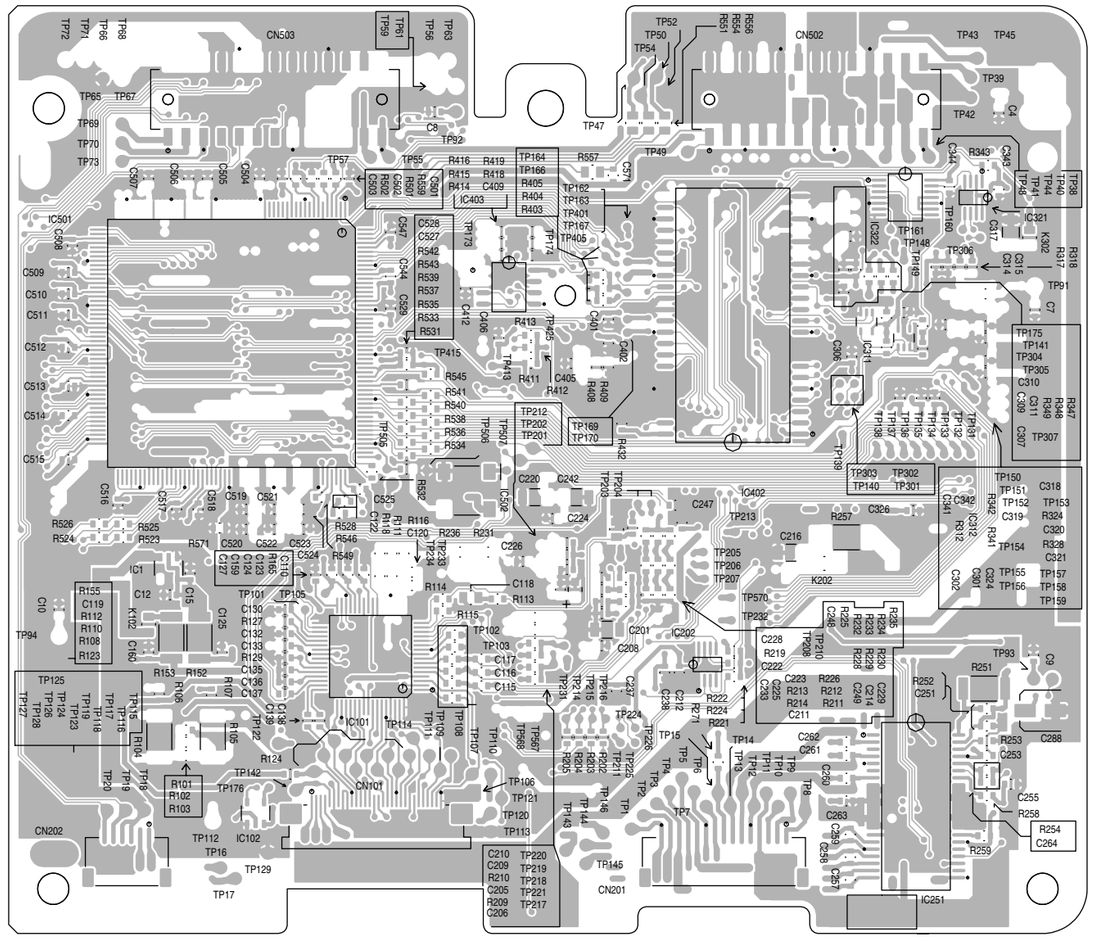
Printed circuit boards

■ DVD Servo control section

Forward side

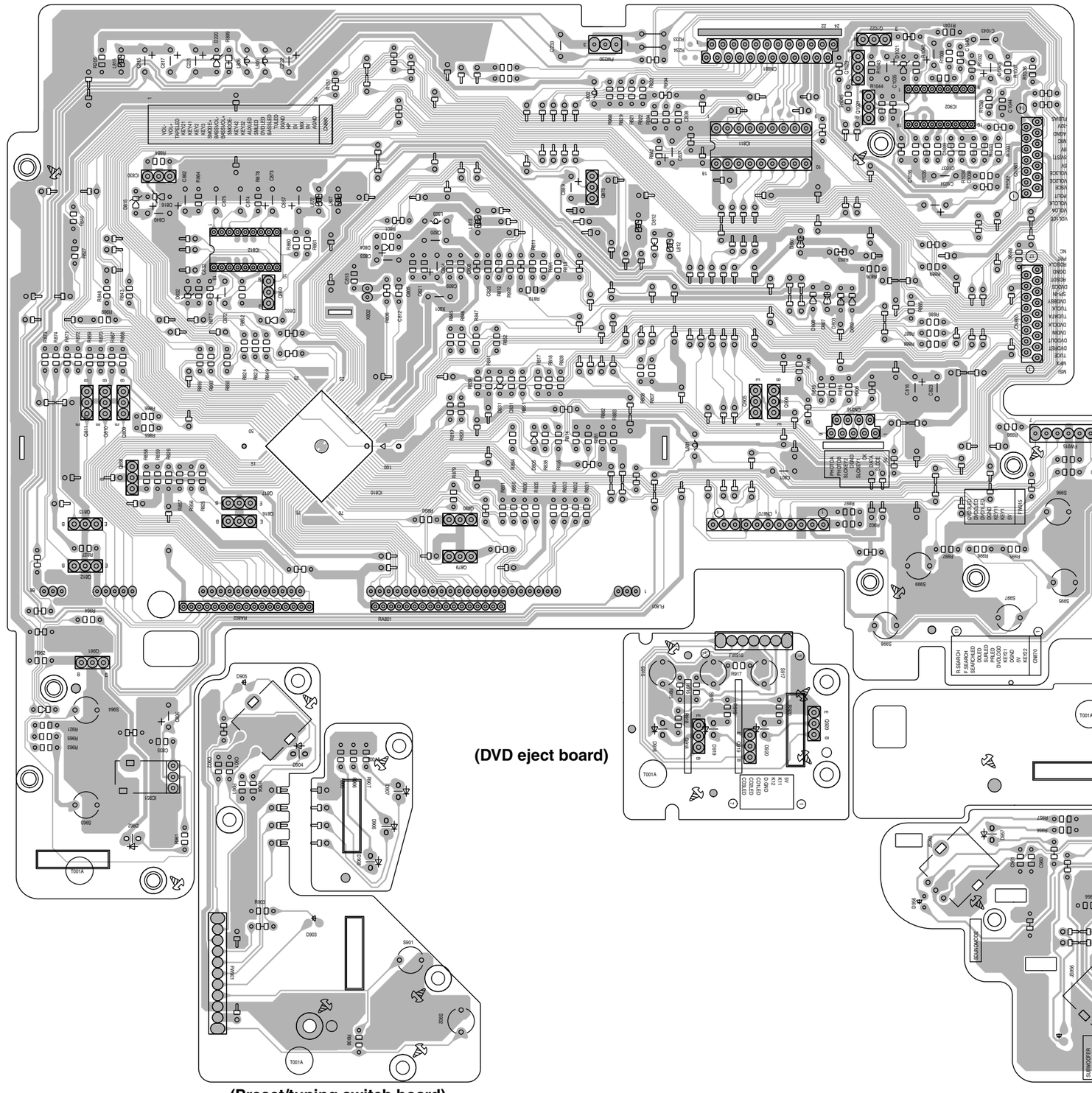


Reverse side



■ Micon section

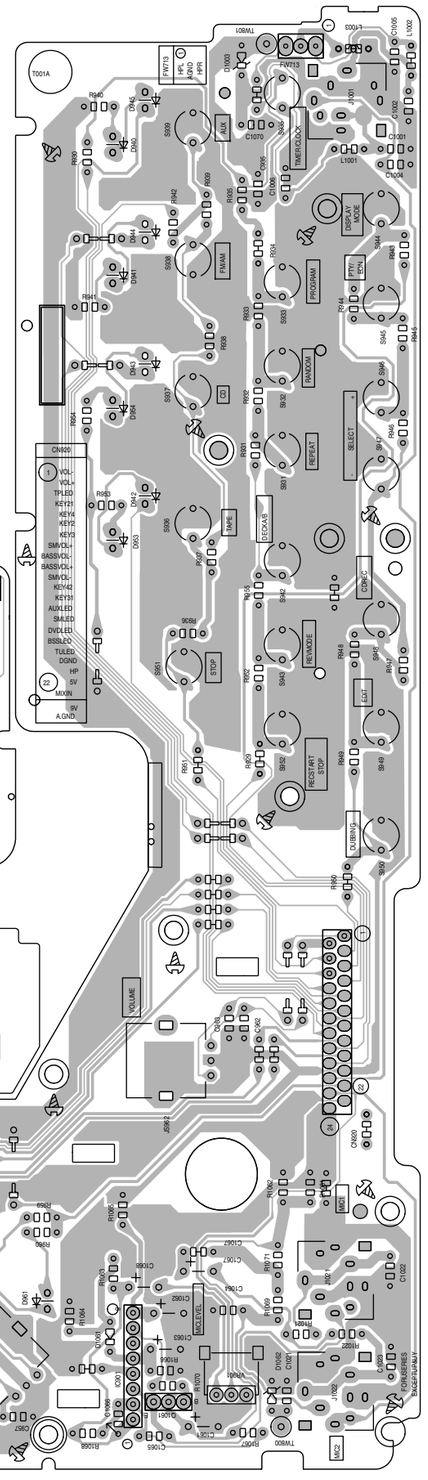
(Display system control board)



(DVD eject board)

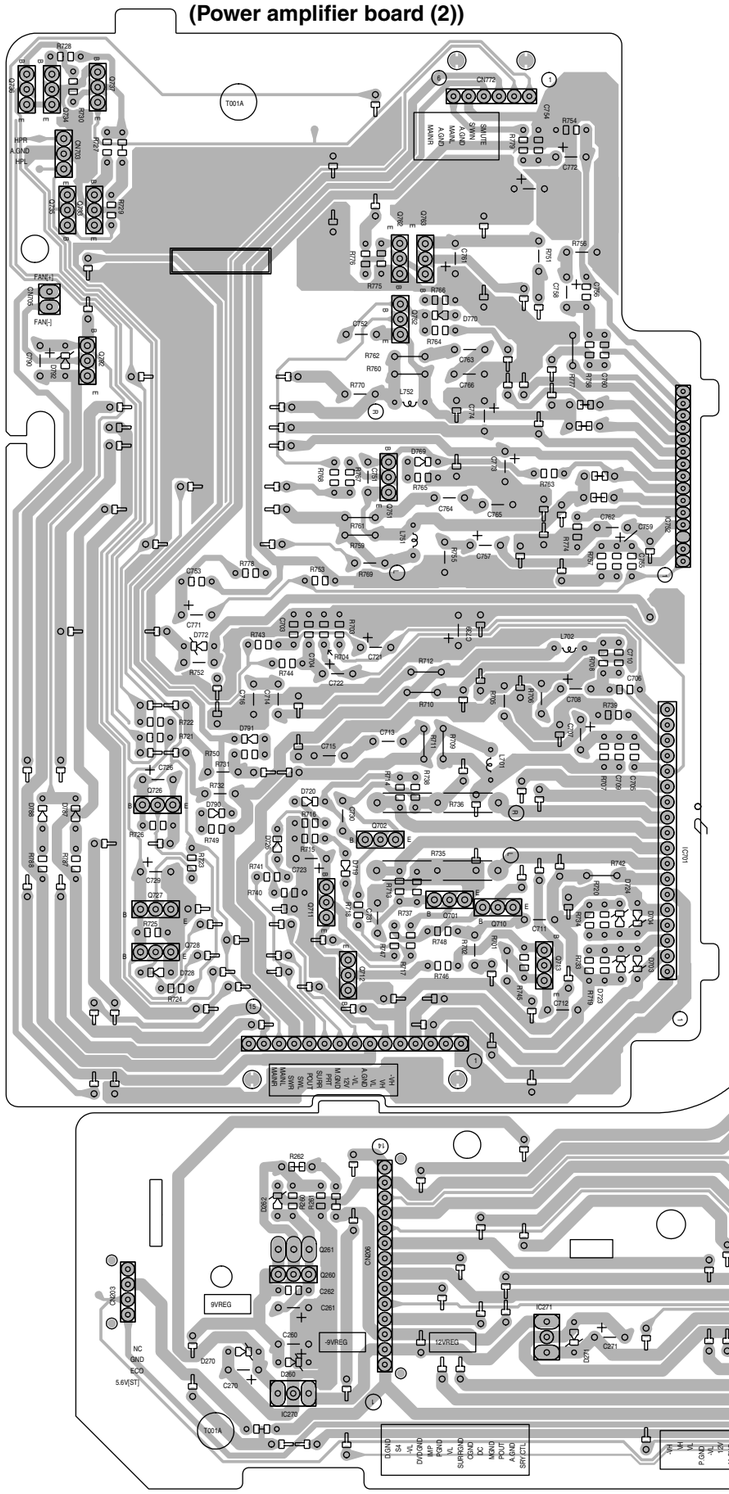
(Preset/tuning switch board)

(Operation switch board)

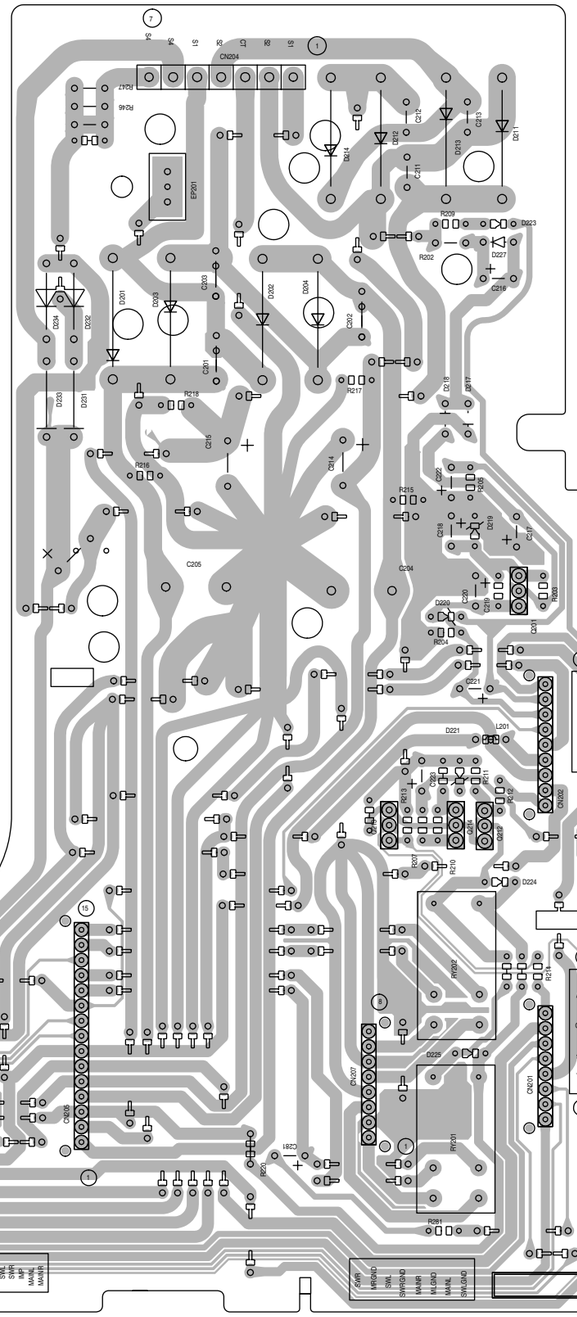


■ Main section

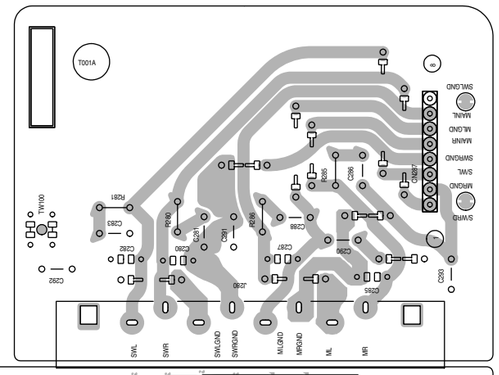
(Power amplifier board (2))

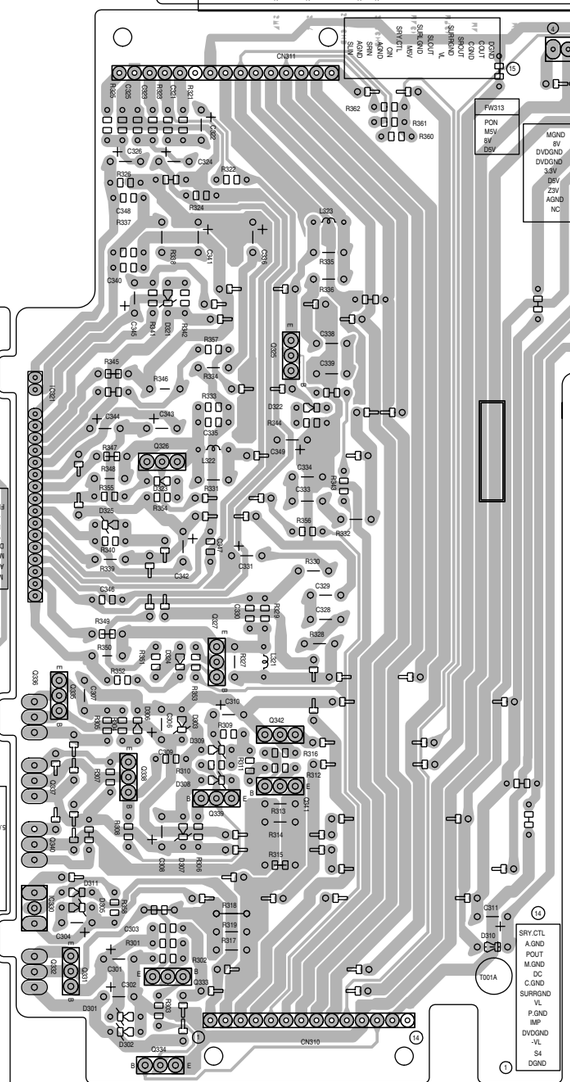


(Regulator board)



(SP terminal board)

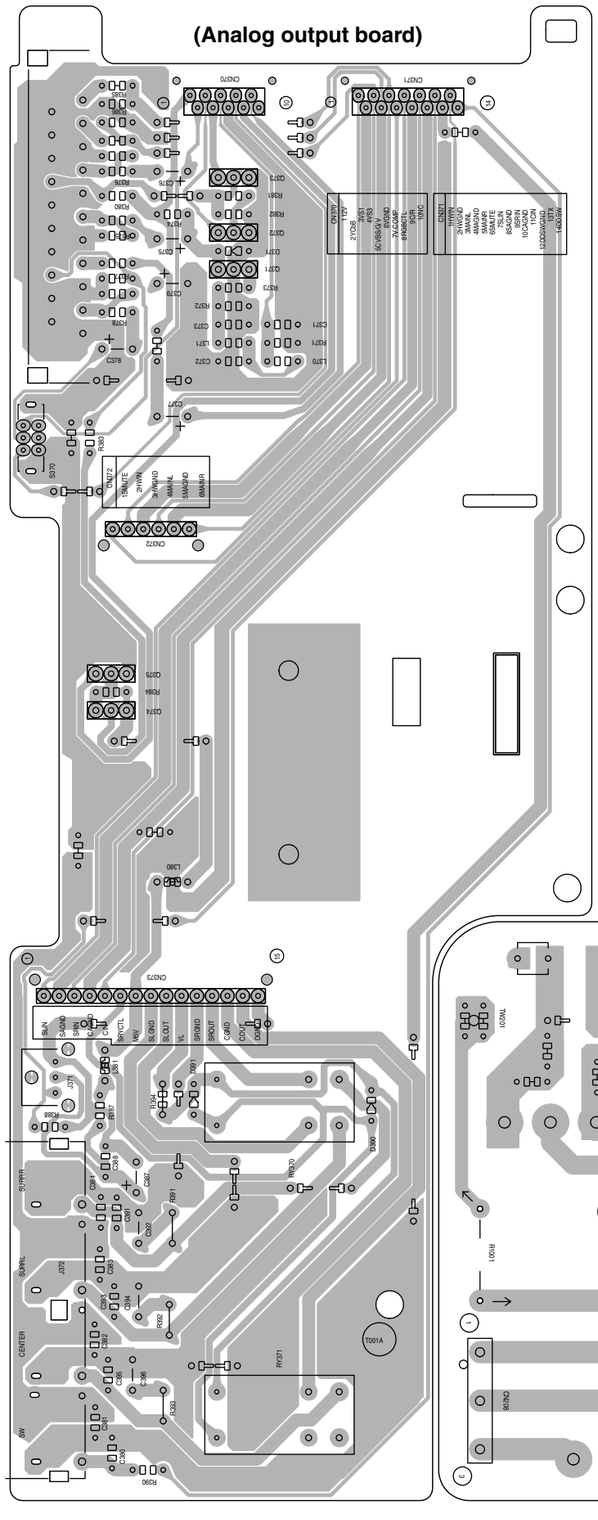




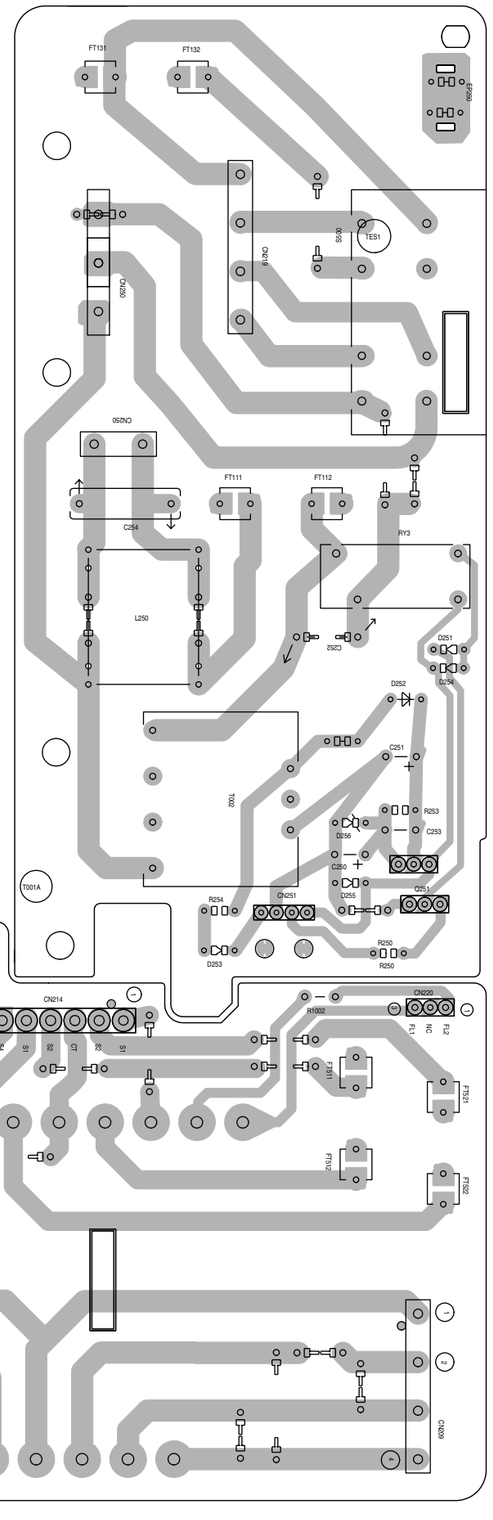
(Power amplifier board (1))

■ Primary section

(Analog output board)

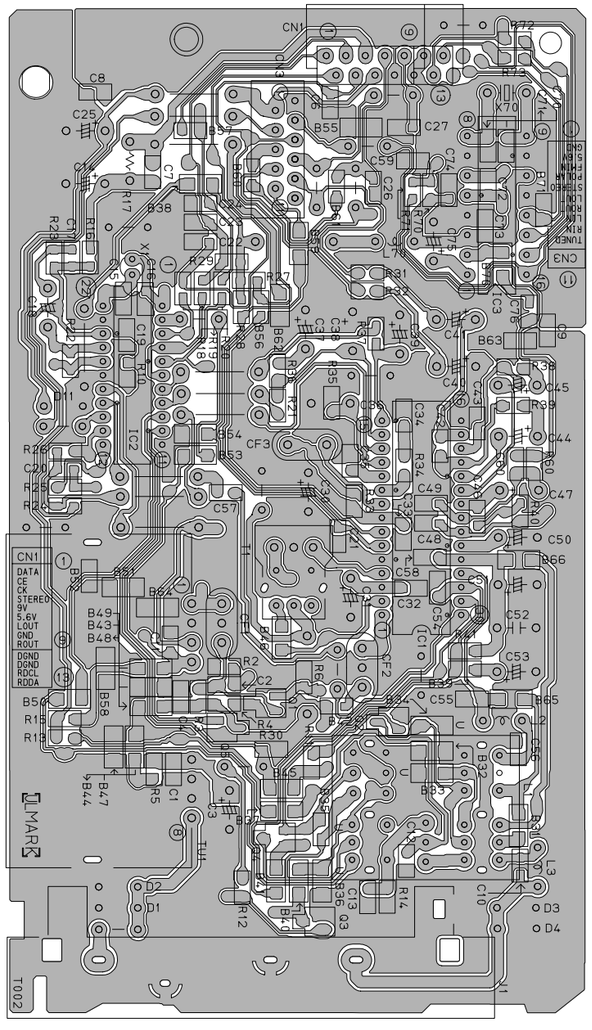


(Power board)



(Trans board)

■ Tuner section



■ Cassette section

(Cassette swicth board)

(Head amplifier & mechanism board)