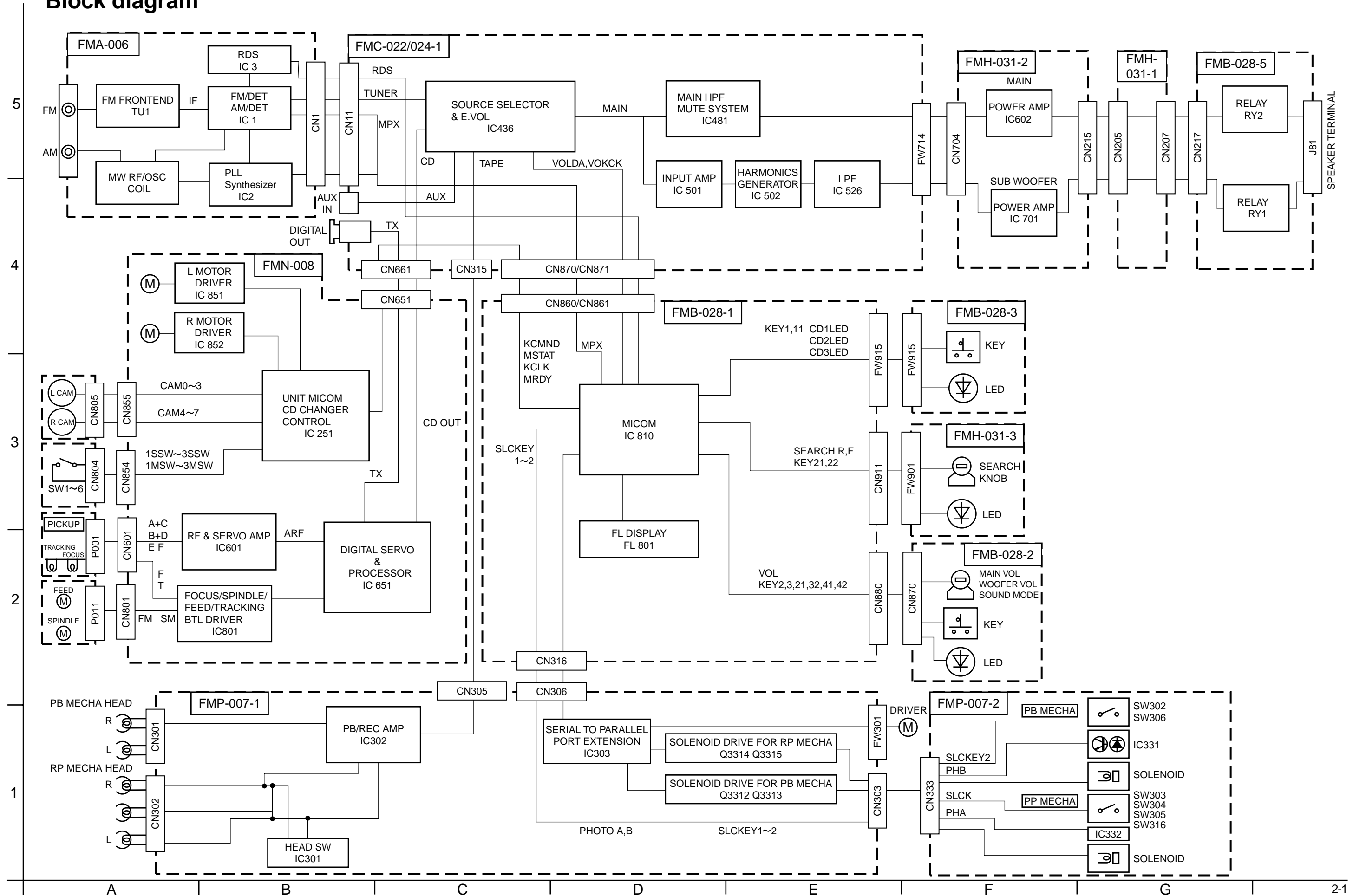


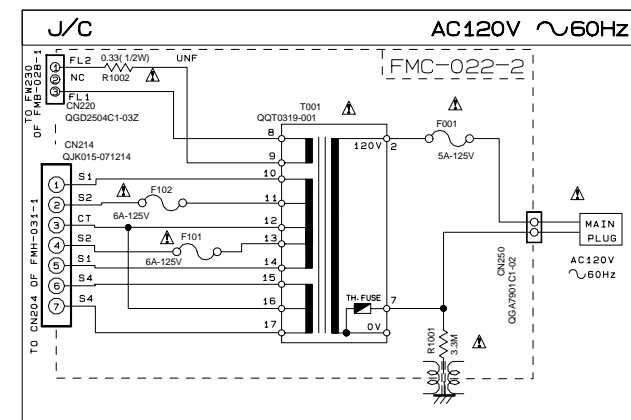
Block diagram



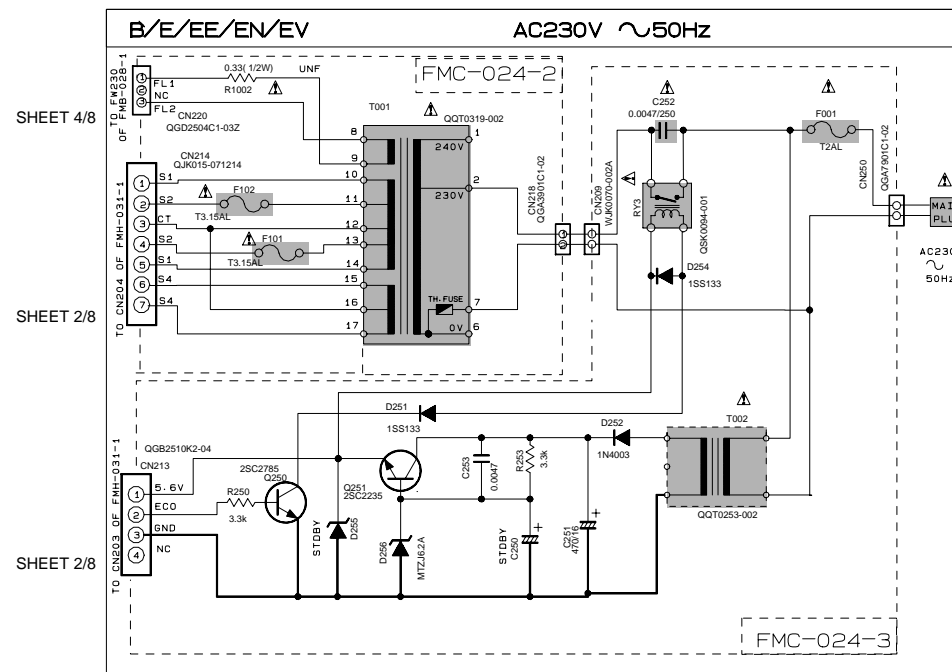
Standard schematic diagrams

Power supply section

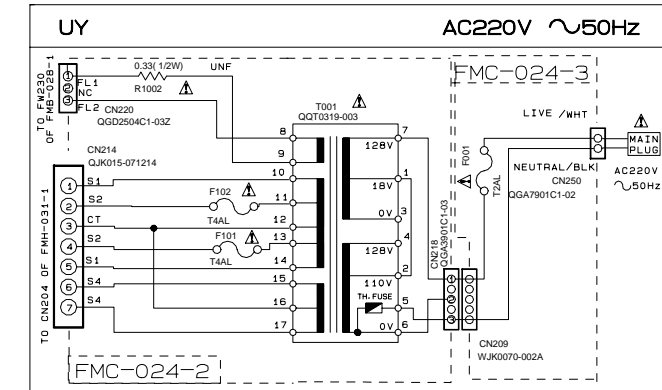
POWER SUPPLY BLOCK



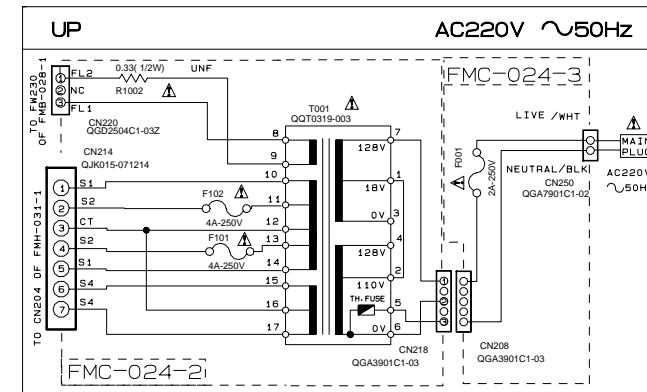
POWER SUPPLY BLOCK



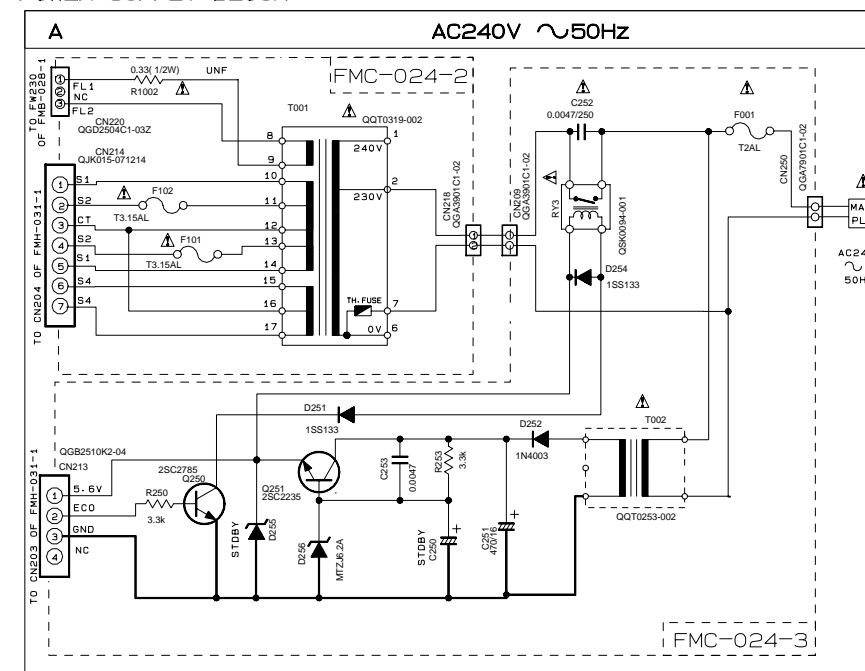
POWER SUPPLY BLOCK



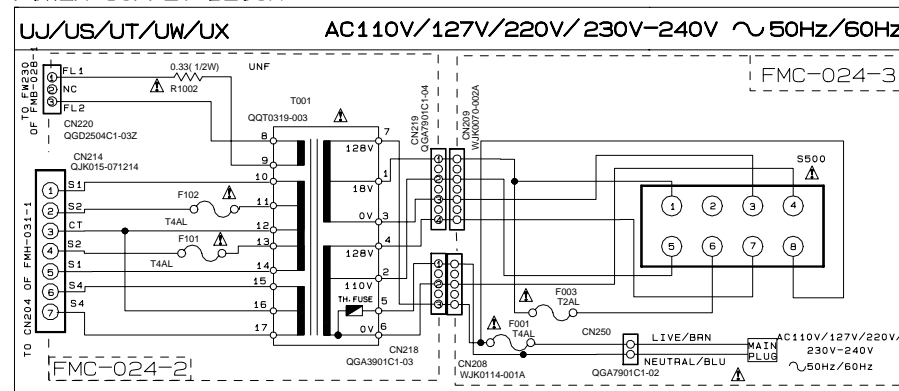
POWER SUPPLY BLOCK



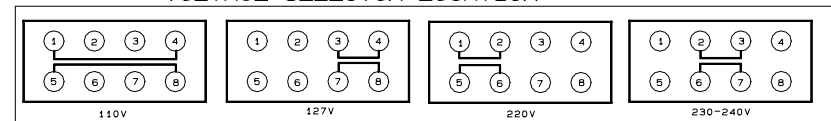
POWER SUPPLY BLOCK



POWER SUPPLY BLOCK



VOLTAGE SELECTOR LOCATION

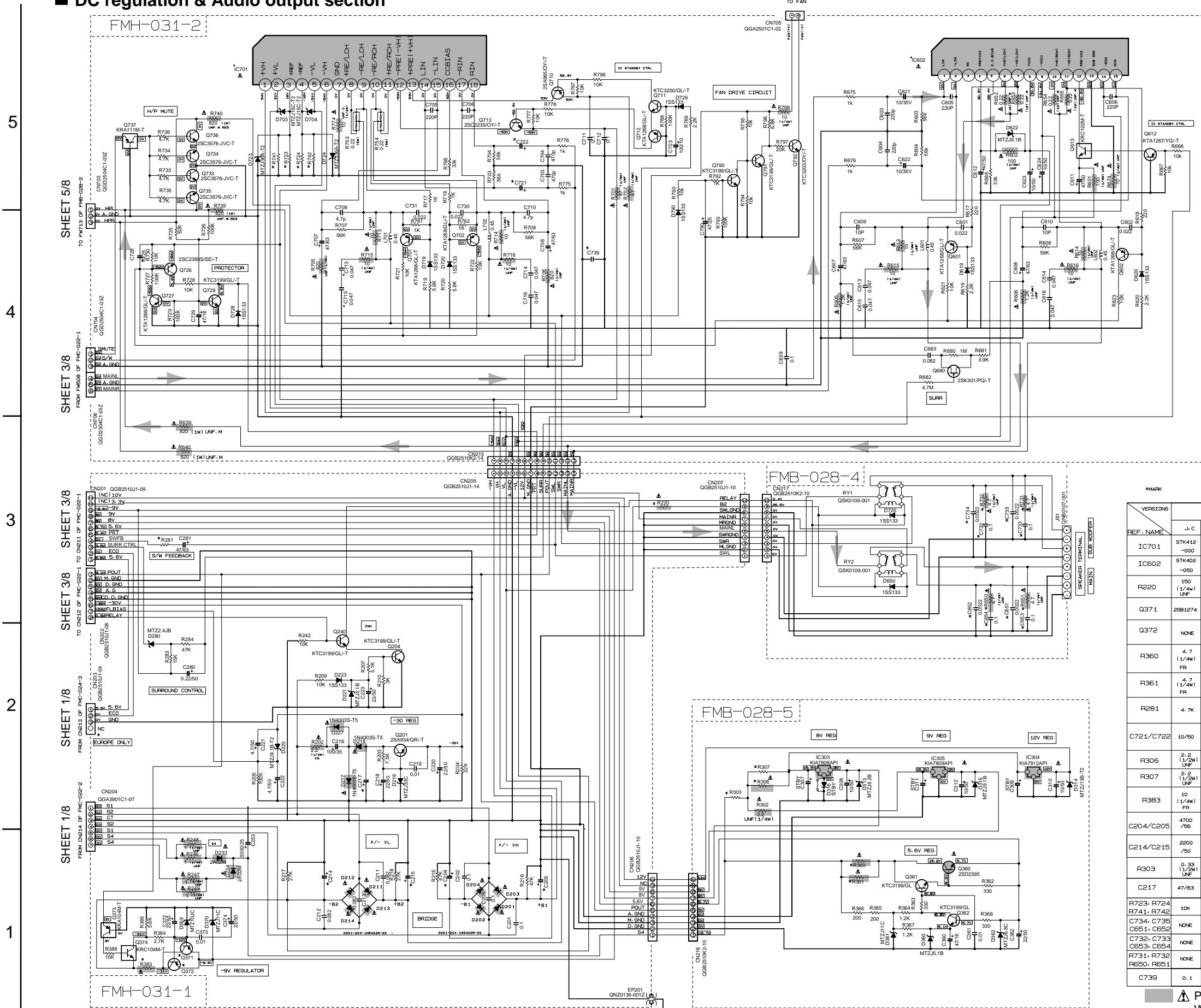


SHEET NUMBER	CIRCUITS DESCRIPTION
1/8	PRIMARY WITH MAINS TRANSFORMER
2/8	DC REGULATORS/ AUDIO OUTPUT
3/8	EXTERNAL INPUT, SOURCE SELECTOR SWITCH
4/8	FL DISPLAYS, SYSTEM CONTROL LSI
5/8	USER CONTROL KEYS, MIC AMP
6/8	CD SERVO AND CD SYSTEM CONTROL CD CHANGER MECHANISM CONTROL
7/8	TAPE DECK MECHANISM CONTROL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

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 ABOVE

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

DC regulation & Audio output section



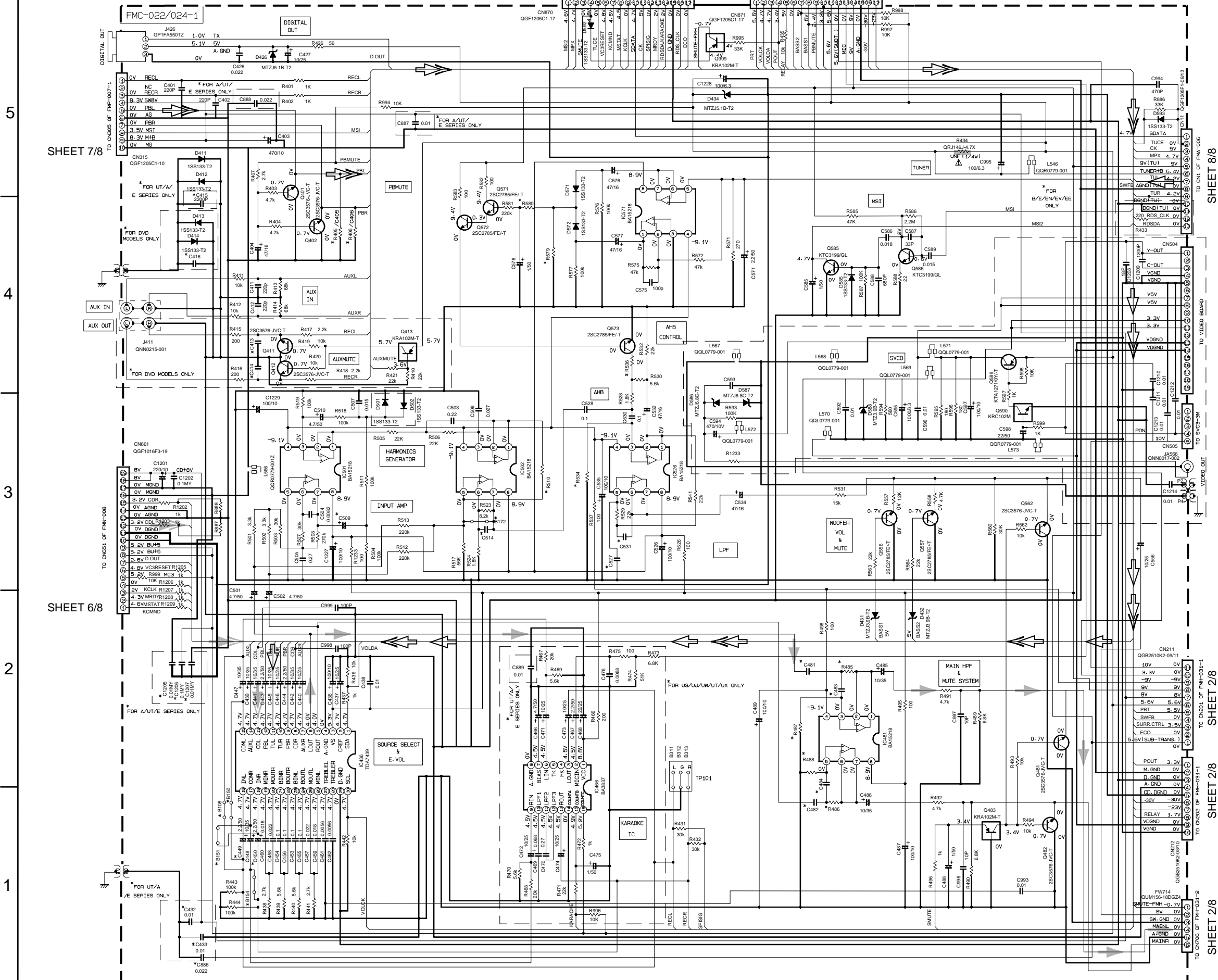
NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION — AUX MODE, VOL. MIN, BASS OFF.
 2. UNLESS OTHERWISE SPECIFIED:
 RESISTORS ARE 1/4W ± 5% CARBON RESISTOR. ALL RESISTANCE VALUES ARE IN OHM Ω.
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
 ALL CAPACITANCE VALUES ARE IN μF (μF).
 ALL INDUCTANCE VALUES ARE IN mH (mH).
 ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF/RATED VOLTAGE (V)).
 ALL COILS ARE 5S1533

REF. NAME	MX-G70/G71R				MX-GT80				MX-GT90			
	J-C	A-E	U	UT	J-C	A-E	U	UT	J-C	A	U	UT
IC701	STK412-000	STK412-000	STK412-090	STK412-010	STK412-010	STK412-000	STK412-000	STK412-010	STK412-010	STK412-010	STK412-010	STK412-010
IC602	STK402-050	STK402-030	STK402-030	STK402-050	STK402-030	STK402-030	STK402-030	STK402-050	STK402-050	STK402-050	STK402-050	STK402-050
R220	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF	150 (1/4W) UNF
G371	25B1274	NONE	NONE	NONE	25B1274	NONE	NONE	NONE	25B1274	NONE	NONE	NONE
G372	NONE	KTA1023	KTA1023	KTA1023	NONE	KTA1023	KTA1023	NONE	KTA1023	KTA1023	KTA1023	KTA1023
R360	4.7 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR	4.7 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR	4.7 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR
R361	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR	4.7 (1/4W) FR
R281	4.7K	5.6K	4.7K	4.7K	7.5K	10K	6.8K	6.8K	8.2K	5.6K	5.6K	5.6K
C721/C722	10/50	10/50	10/50	10/50	10/50	10/50	10/50	10/35	10/35	10/35	10/35	10/35
R306	2.2 (1/2W) UNF	0.33 (1/2W) UNF	0.33 (1/2W) UNF	0.33 (1/2W) UNF	2.2 (1/2W) UNF	0.33 (1/2W) UNF	0.33 (1/2W) UNF	0.33 (1/2W) UNF	2.2 (1/2W) UNF	0.33 (1/2W) UNF	0.33 (1/2W) UNF	0.33 (1/2W) UNF
R307	2.2 (1/2W) UNF	OPEN	OPEN	OPEN	2.2 (1/2W) UNF	OPEN	OPEN	OPEN	2.2 (1/2W) UNF	OPEN	OPEN	OPEN
R383	10 (1/4W) FR	SHORT (B123)	SHORT (B123)	SHORT (B123)	10 (1/4W) FR	SHORT (B123)	SHORT (B123)	SHORT (B123)	10 (1/4W) FR	SHORT (B123)	SHORT (B123)	SHORT (B123)
C204/C205	4700/56	4700/56	4700/56	4700/56	4700/63	4700/56	4700/56	4700/56	4700/63	4700/63	4700/63	4700/63
C214/C215	2200/35	2200/35	2200/35	2200/35	2200/35	2200/35	2200/35	2200/35	2200/35	2200/35	2200/35	2200/35
R303	0.33 (1/2W) UNF	SHORT (B303)	SHORT (B303)	SHORT (B303)	0.33 (1/2W) UNF	SHORT (B303)	SHORT (B303)	SHORT (B303)	0.33 (1/2W) UNF	SHORT (B303)	SHORT (B303)	SHORT (B303)
C217	47/63	47/63	47/63	47/63	47/63	47/63	47/63	47/63	47/100	47/100	47/100	47/100
R723, R724	10K	6.8K	6.8K	6.8K	10K	6.8K	6.8K	6.8K	10K	6.8K	6.8K	6.8K
R741, R742	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
C734, C735	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
C651, C652	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
C732, C733	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
C653, C654	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
R731, R732	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
R650, R651	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
C739	0.1	1/50	1/50	1/50	0.1	1/50	1/50	1/50	0.1	1/50	1/50	1/50

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

MAIN Signal

Main section



MODEL	CA-MXG70			MX-G70		CA-MXG74R	
VERSION	US/UM UK/UJ	UP/UY	UT	A	J/C	B/E	EN/EE
R485/486						56K	
R487/488						82K	
C481/482 483/484						QFLM1HJ-23Z	
R536						15K	
C514						QFLM1HJ-473Z	
R510						100K	
C509						GETN1H-475Z	
R534						180K	
C531						QFVJ1HJ-274Z	
C527						QFLM1HJ-273Z	
R579						82K	
R580						2.2K	
C449	USED	NONE	USED			NONE	
C450	USED	NONE	USED			NONE	
B150	NONE	USED	NONE			USED	
B151	NONE	USED	NONE			USED	
B108	NONE	USED	NONE			USED	
B154	NONE	USED	NONE			USED	

MODEL	CA-MXG780			CA-MXG79R		
VERSION	J/C	US/UM LU	UP/UY	UT	A	B/E/EN EV/EE
R485/486						51K
R487/488						130K
C481/482 483/484						QFLM1HJ-273Z
R536						12K
C514						QFLC1HJ-471Z
R510						100K
C509						GETN1CH-106Z
R534						180K
C531						QFVJ1HJ-334Z
C527						QFLM1HJ-103Z
R579						100K
R580						5.6K
C449	NONE	USED	NONE	USED		NONE
C450	NONE	USED	NONE	USED		NONE
B150	USED	NONE	USED	NONE		USED
B151	USED	NONE	USED	NONE		USED
B108	USED	NONE	USED	NONE		USED
B154	USED	NONE	USED	NONE		USED

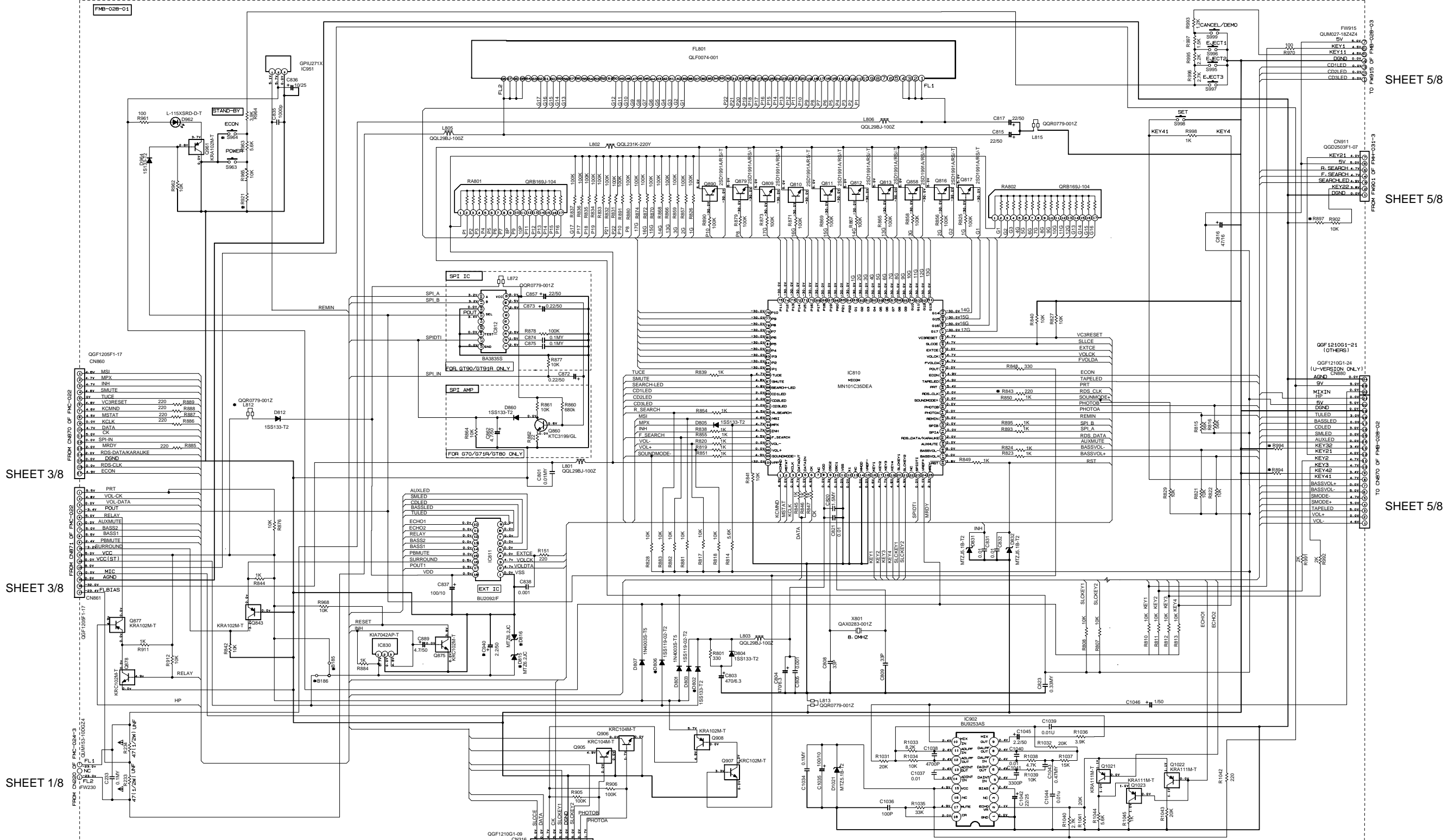
*R405/R406 = QRE141J-222Y (FOR OTHER THAN A-UT AND E SERIES)
 C405/C406 = QCSB1HJ-102Y (FOR A-UT AND E SERIES ONLY)

- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION — AUX MODE. VOL MIN. SLEWFOOT VOL. 1.
 - 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 PICO (pF). ALL INDUCTANCE VALUES ARE IN HENRY (H). ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V). ALL DIODES ARE 1SS133.

- ➔ MAIN signal
- ➔➔ TAPE P.B. signal
- ➔➔ CD signal
- ➔➔ TUNER signal

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

FL & System control section



MARK	CA-MXG71R B-E-EN-EV	CA-MXG70 A	MX-G70 J-C	CA-MXG70 UX	CA-MXG70 UJ-LP-US-UT-UM	CA-MXG70 UY	MX-G71R EE	CA-MXG71R B-E-EN-EV UT-UM	MX-G71R C-J	CA-MXG71R B-E-EN-EV EE	CA-MXG71R A	CA-MXG71R UY	CA-MXG71R UJ-LP-US-UT-UM	MX-G71R C-J	MX-G71R A	MX-G71R UY
R821	330K	330K	330K	330K	330K	330K	330K	75K	75K	75K	75K	75K	75K	18K	18K	18K
R897	330K	75K	75K	75K	75K	75K	330K	75K	75K	330K	75K	75K	75K	75K	75K	75K
R994	75K	330K	75K	75K	75K	75K	330K	75K	75K	330K	75K	75K	75K	330K	75K	75K
R894	330K	330K	75K	18K	330K	18K	75K	330K	75K	330K	18K	330K	75K	330K	18K	18K
R843	USE	NONE	NONE	NONE	NONE	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE	NONE	NONE	NONE
X801	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z	GAX0283-001Z
S964	GSW0674-001Z	GSW0674-001Z	NONE	NONE	NONE	NONE	GSW0674-001Z	GSW0674-001Z	GSW0674-001Z	GSW0674-001Z	GSW0674-001Z	GSW0674-001Z	GSW0674-001Z	NONE	NONE	NONE
D802	1SS133-T2	1SS133-T2	NONE	NONE	NONE	NONE	1SS133-T2	1SS133-T2	1SS133-T2	1SS133-T2	1SS133-T2	1SS133-T2	1SS133-T2	NONE	NONE	NONE
D806	1SS119-02-T2	1SS119-02-T2	NONE	NONE	NONE	NONE	1SS119-02-T2	1SS119-02-T2	1SS119-02-T2	1SS119-02-T2	1SS119-02-T2	1SS119-02-T2	1SS119-02-T2	NONE	NONE	NONE
B185	NONE	NONE	USE	USE	USE	USE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
B186	USE	USE	NONE	NONE	NONE	NONE	USE	USE	USE	USE	USE	USE	USE	NONE	NONE	NONE
C940	NONE	2.2/50	NONE	NONE	NONE	NONE	2.2/50	2.2/50	2.2/50	2.2/50	2.2/50	2.2/50	2.2/50	NONE	NONE	NONE
DB15-DB16	NONE	MTZJ6-2C-T2	NONE	NONE	NONE	NONE	MTZJ6-2C-T2	MTZJ6-2C-T2	MTZJ6-2C-T2	MTZJ6-2C-T2	MTZJ6-2C-T2	MTZJ6-2C-T2	MTZJ6-2C-T2	NONE	NONE	NONE

NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
 CONDITION --- AUX MODE- VOL MIN- BASS LEVEL 1
 2. UNLESS OTHERWISE SPECIFIED
 RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
 ALL RESISTANCE VALUES ARE IN OHM Ω.
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR POLAR CAPACITOR.
 ALL CAPACITANCE VALUES ARE IN μF(μF).
 ALL DIMENSIONAL VALUES ARE IN MM(MM).
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
 ALL DIODES ARE 1SS133

SHEET 5/8

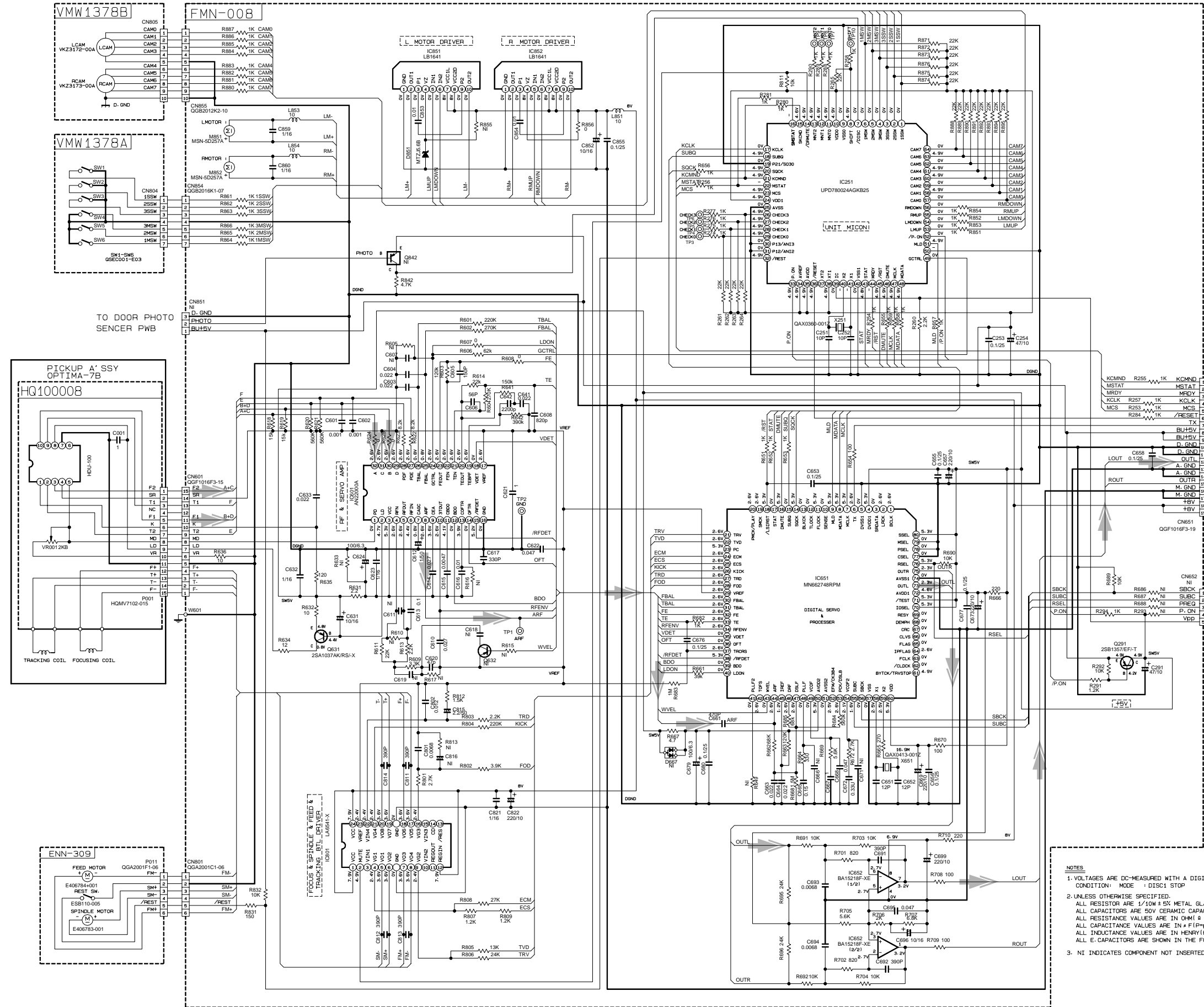
SHEET 5/8

SHEET 5/8

SHEET 7/8

CD servo control section

5
4
3
2
1



TO CN51 OF FMC-022-1 SHEET 3/8

CD signal

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
CONDITION: MODE = DISC1 STOP
 2. UNLESS OTHERWISE SPECIFIED:
ALL RESISTORS 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 μF (μF).
ALL INDUCTANCE VALUES ARE IN HENRY (H).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
 3. NI INDICATES COMPONENT NOT INSERTED

Head amplifier section

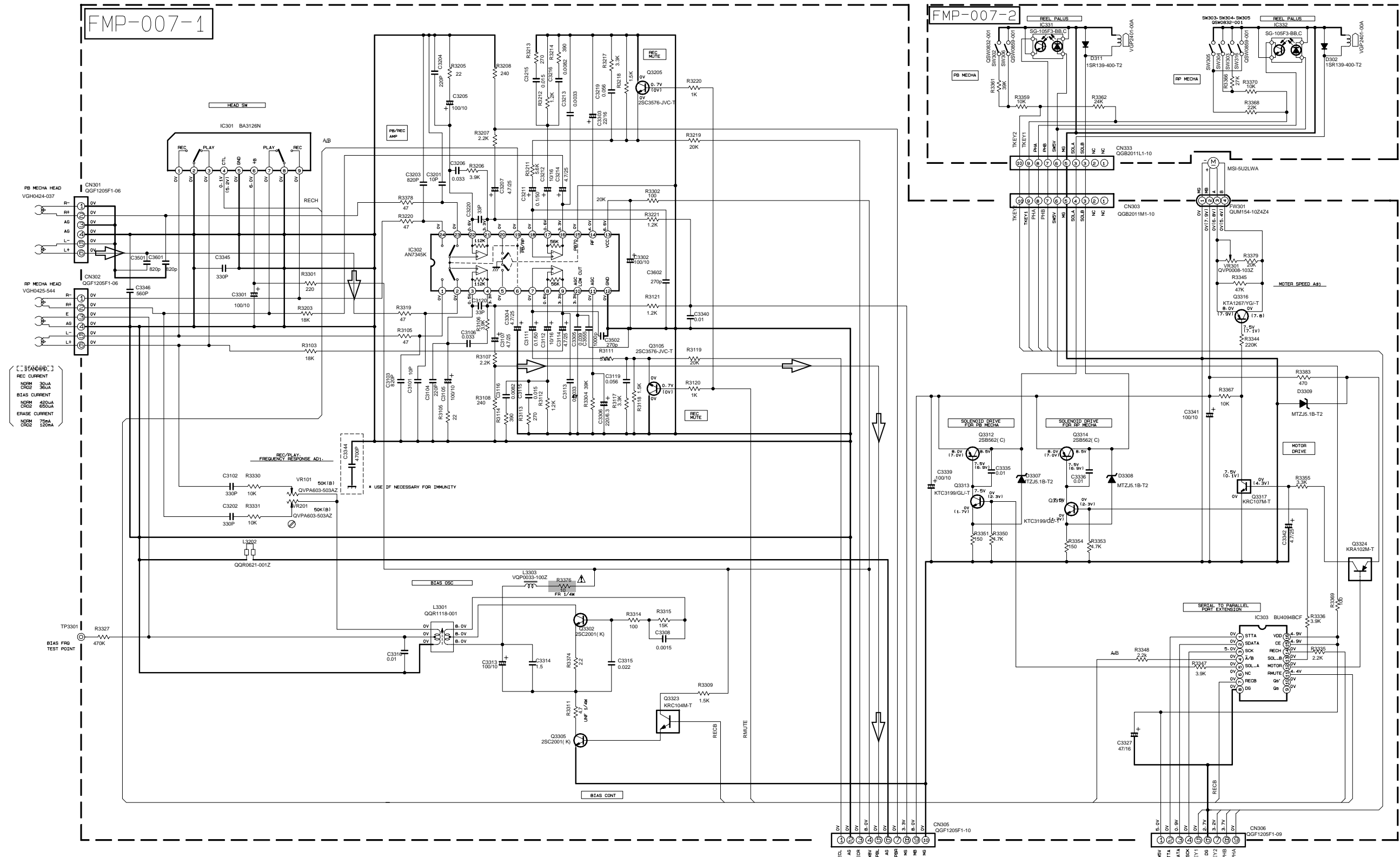
5

4

3

2

1



REC CURRENT

NORM	30uA
CR2	36uA
BIAS CURRENT	
NORM	40uA
CR2	65uA
ERASE CURRENT	
NORM	75uA
CR2	120uA

- 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(Ω).
- ALL CAPACITANCE VALUES ARE IN μF(μF).
- ALL CAPACITANCE VALUES ARE IN nF(nF).
- ALL INDUCTANCE VALUES ARE IN mH(mH).
- ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
- ≡ PLYPROPYLENE CAPACITOR

SHEET3/8

FROM CN315 OF FMC-022-1

SHEET4/8

FROM CN316 OF FMB-028-1

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

TAPE P.B. signal

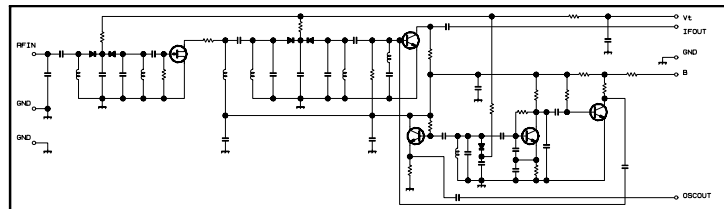
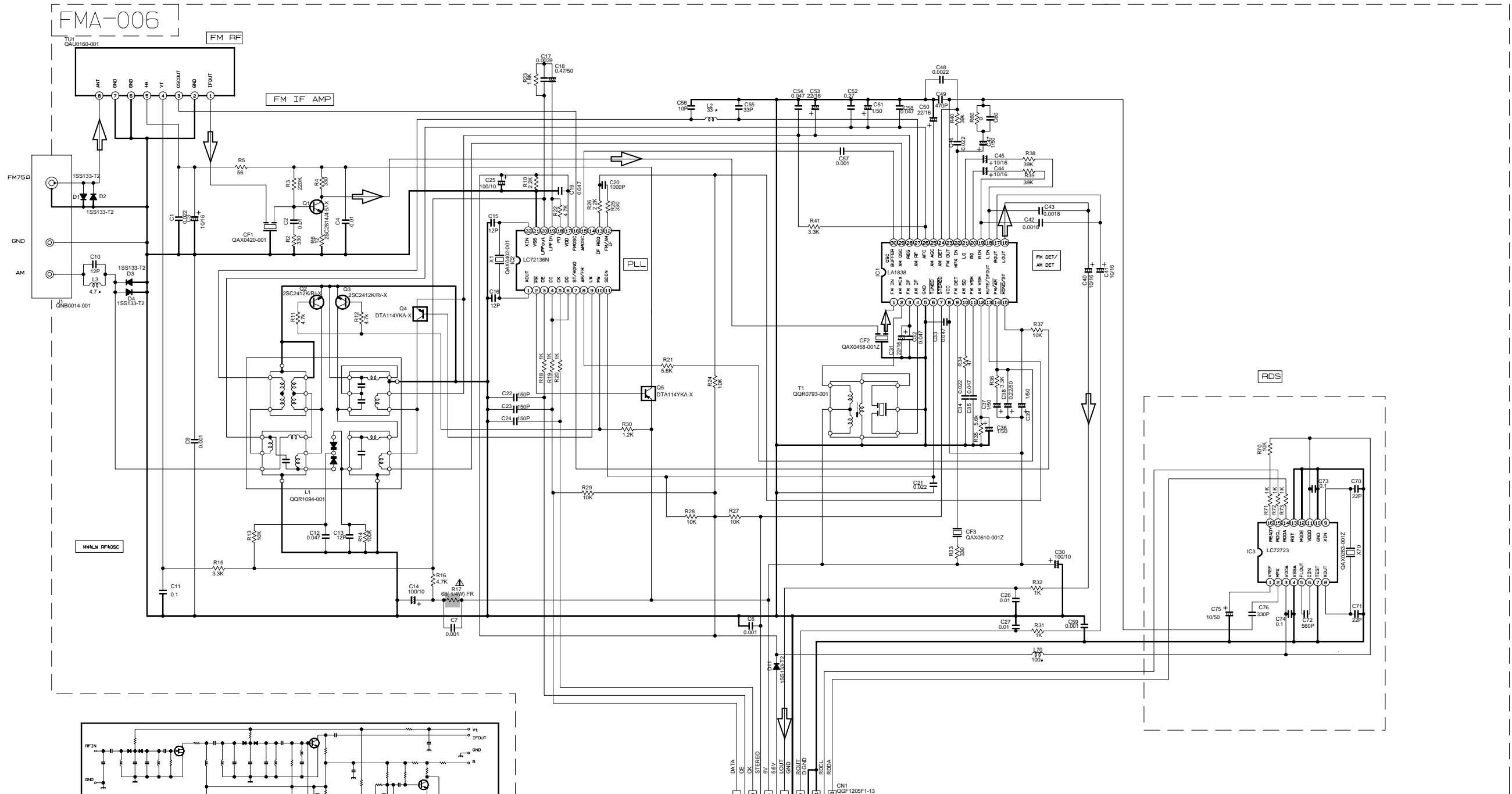
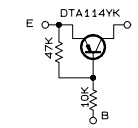
SHEET 7/8

■ 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 CAPACITANCE VALUES ARE IN #F(P=pF).
5. ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/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 Q2 Q3 2SC2814/4-5/-X Q2, Q3 2SC2412K/R/-X
Q4, Q5 DTA114YKA-X

B. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



SHEET 3/8

➔ FM/TUNER signal

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

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
IC1 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	3.2	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 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 0.7	0 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

Printed circuit boards

■ Main board

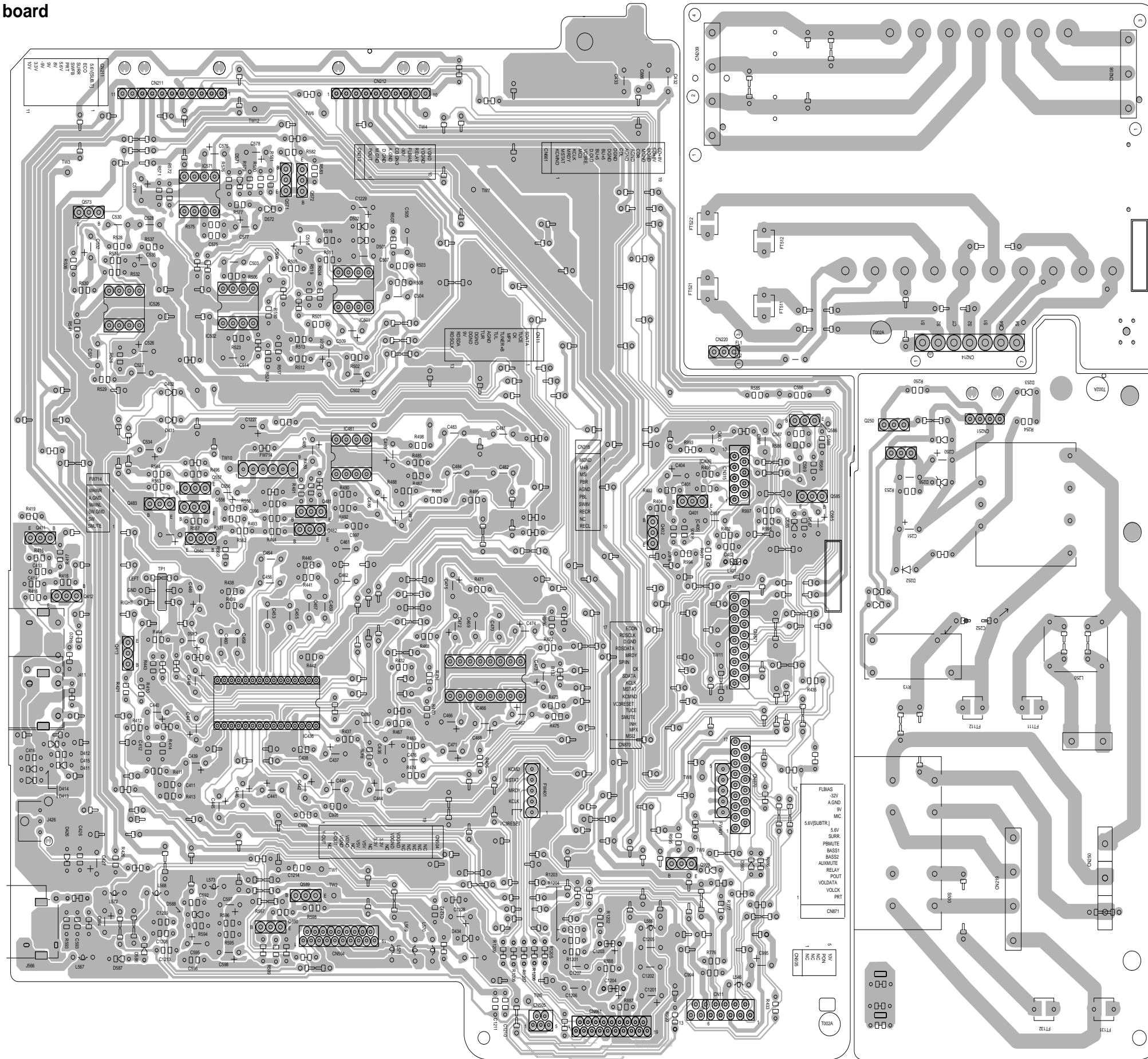
5

4

3

2

1



Transformer board

Eco board

A

B

C

2-10

D

E

F

G

H

■ Regulation & amplifier board

5

4

3

2

1

A

B

C

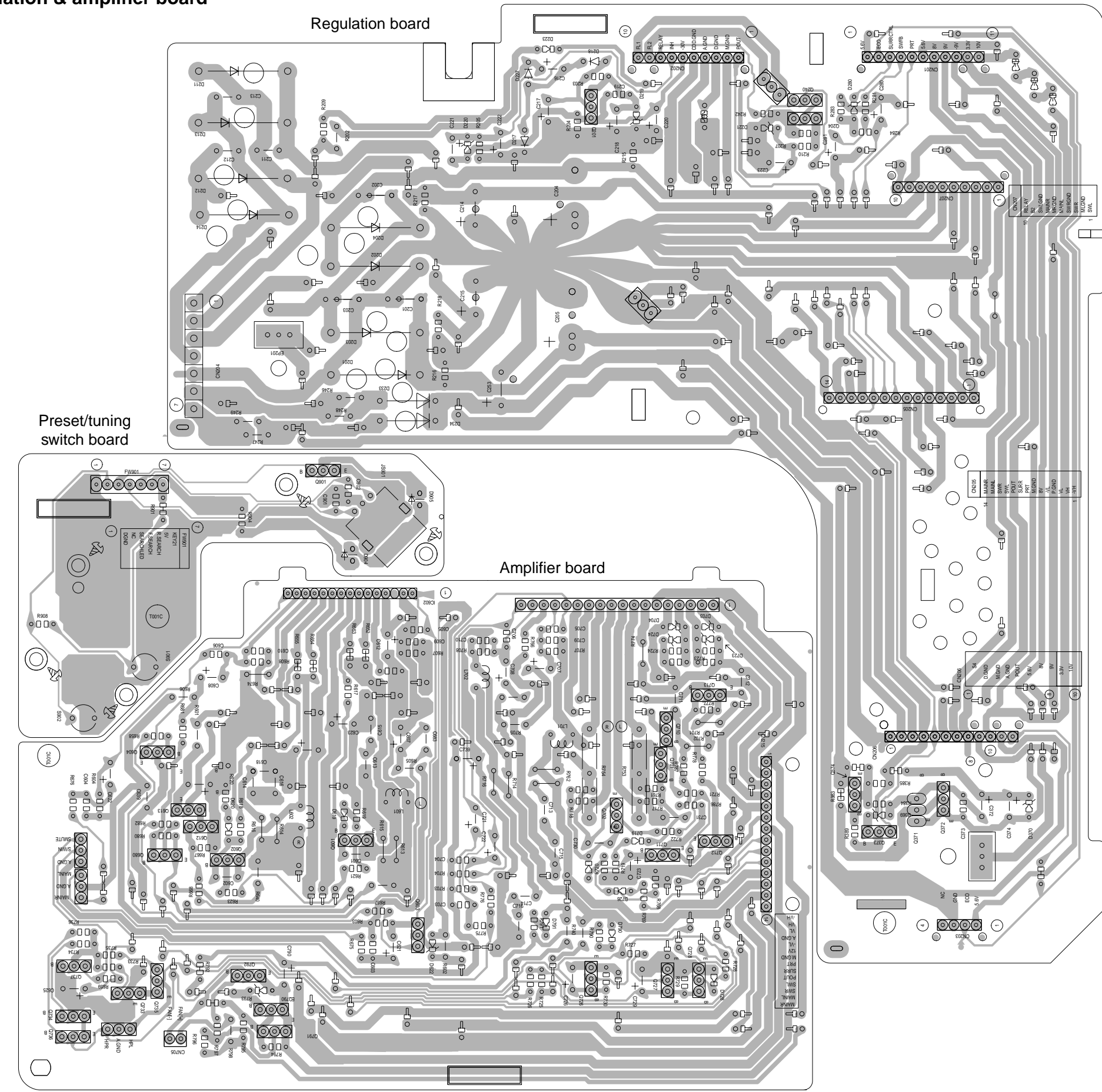
D

E

F

G

2-11

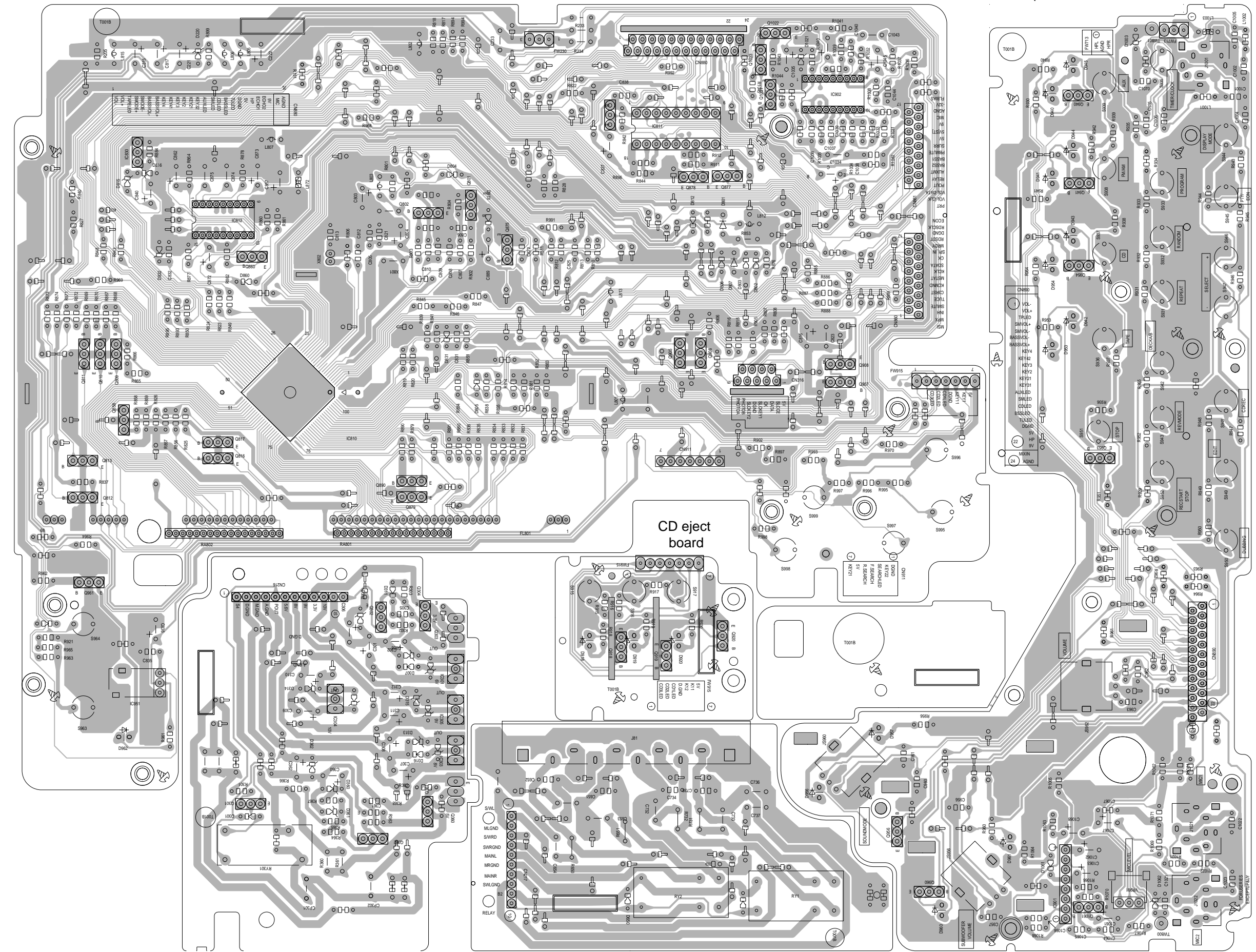


Front board

Display & system control board

Operation switch board

5
4
3
2
1



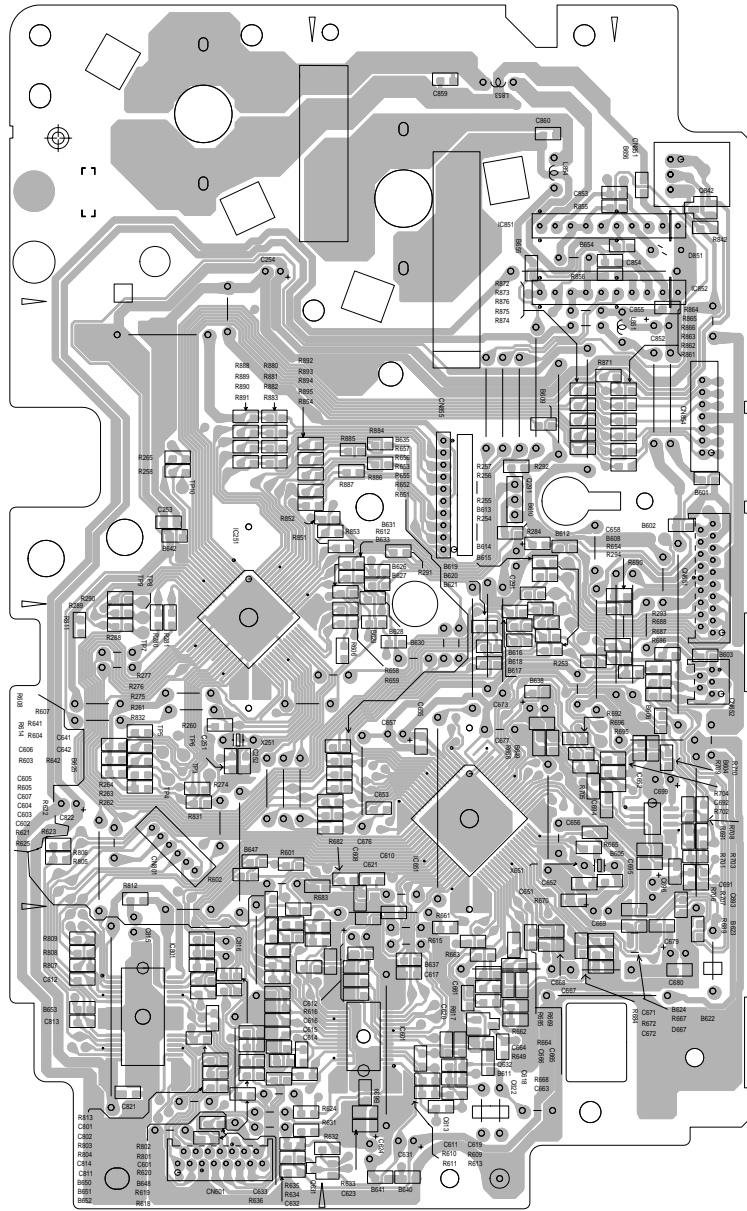
A B C 2-12 D E F G H

Voltage board

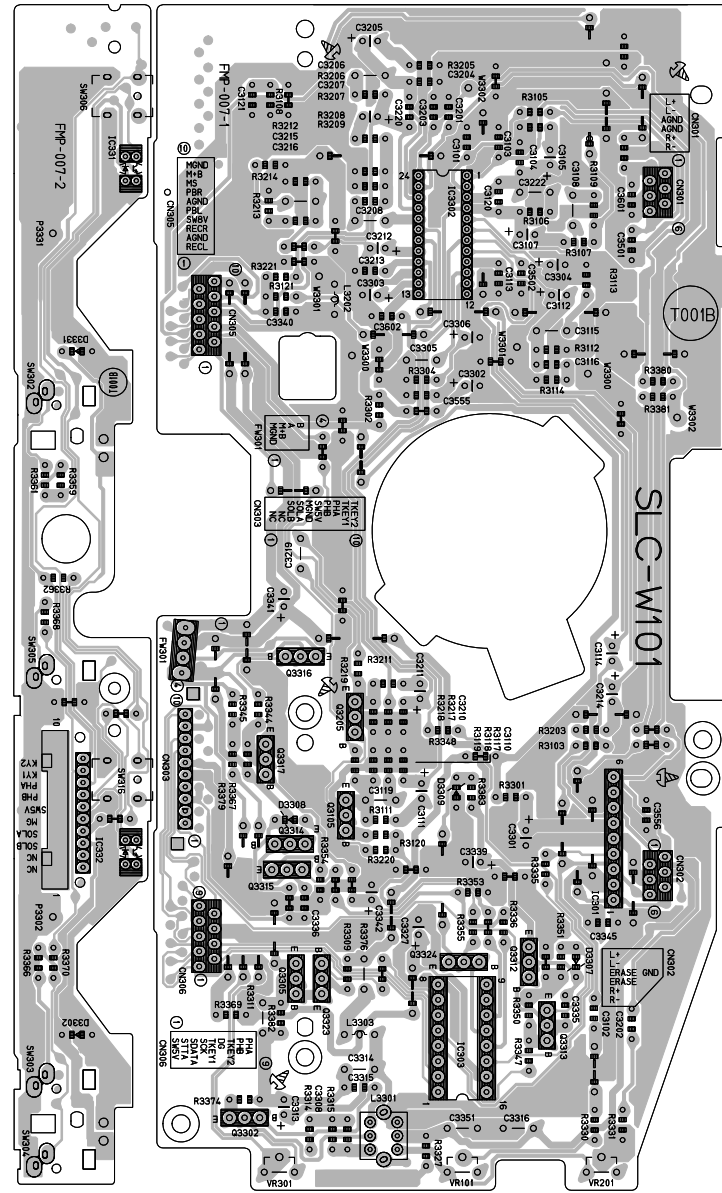
Speaker terminal board

CD eject board

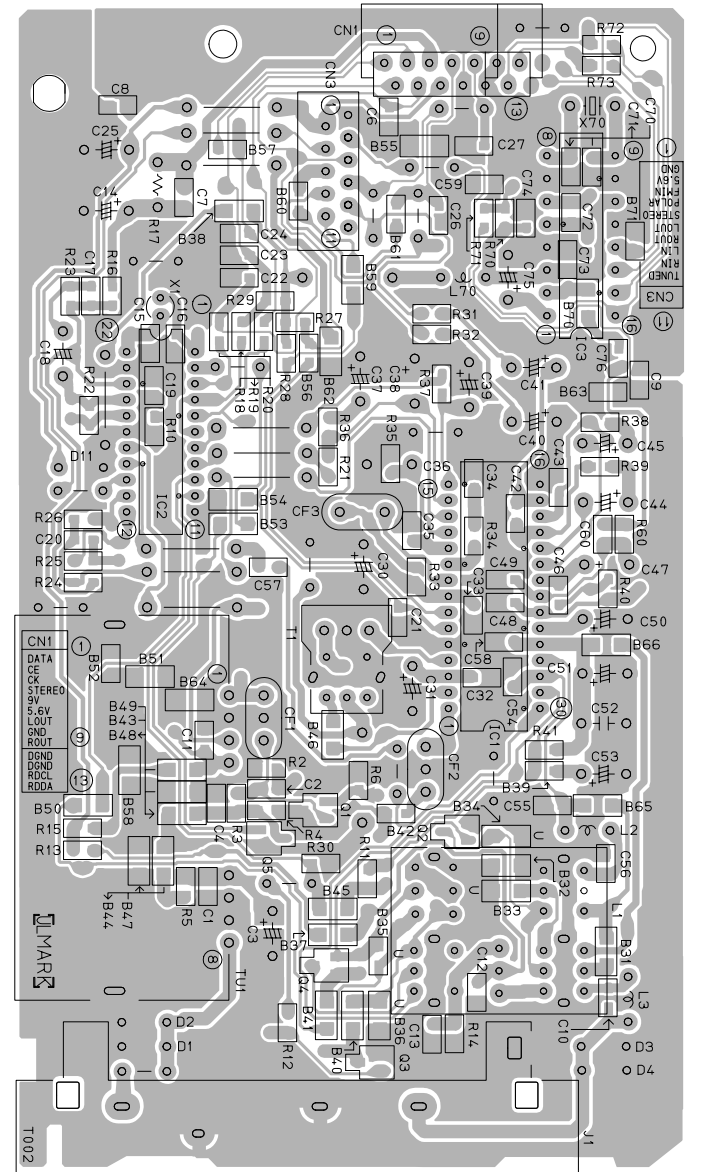
■ CD servo control board



■ Head amplifier & mechanism control board



■ Tuner board



5
4
3
2
1

A B C D E F G 2-13