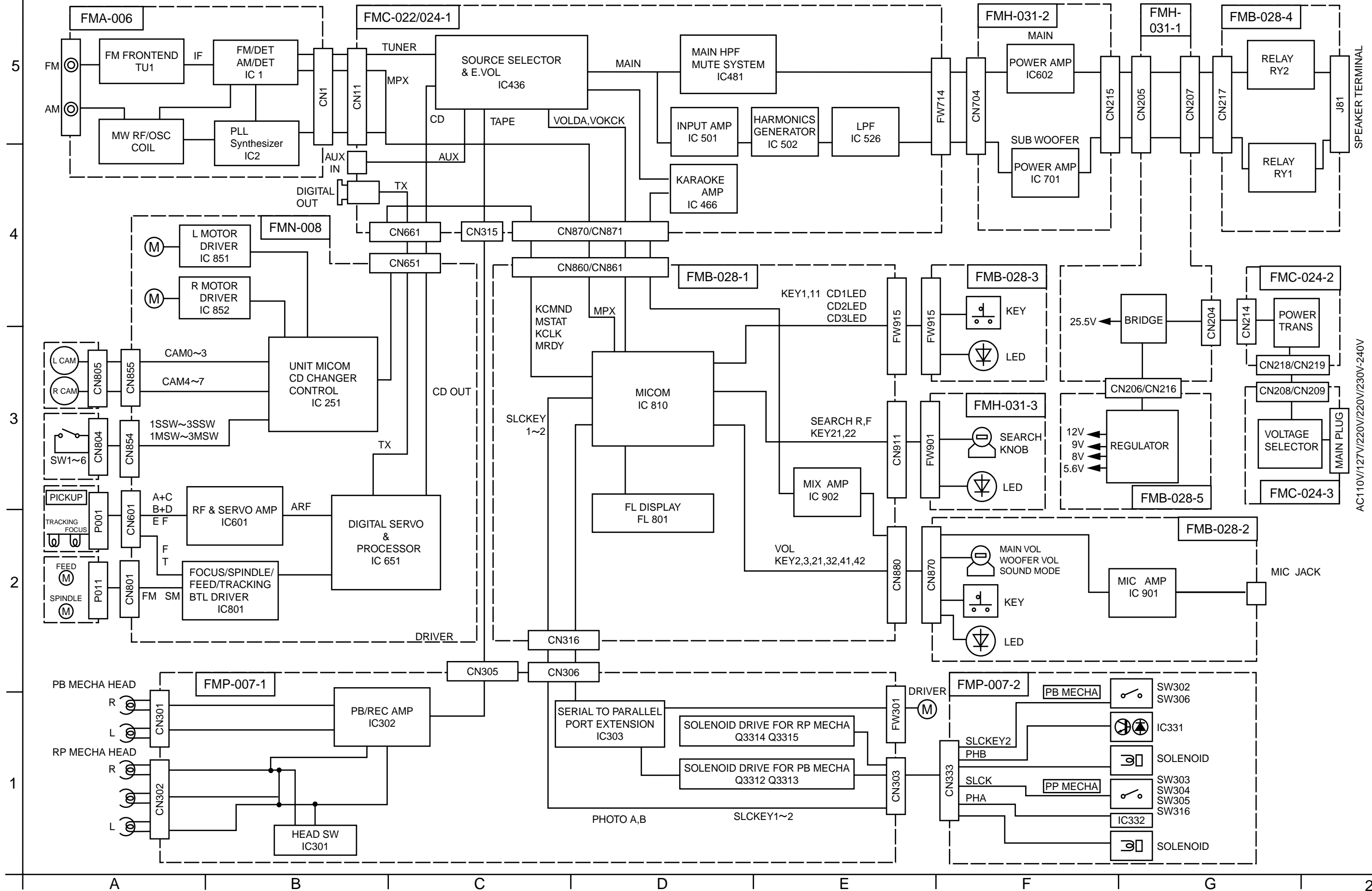


# Block diagram

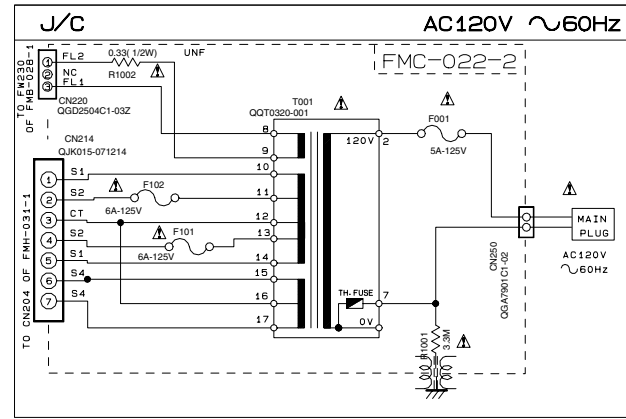


AC110V/127V/220V/230V/240V

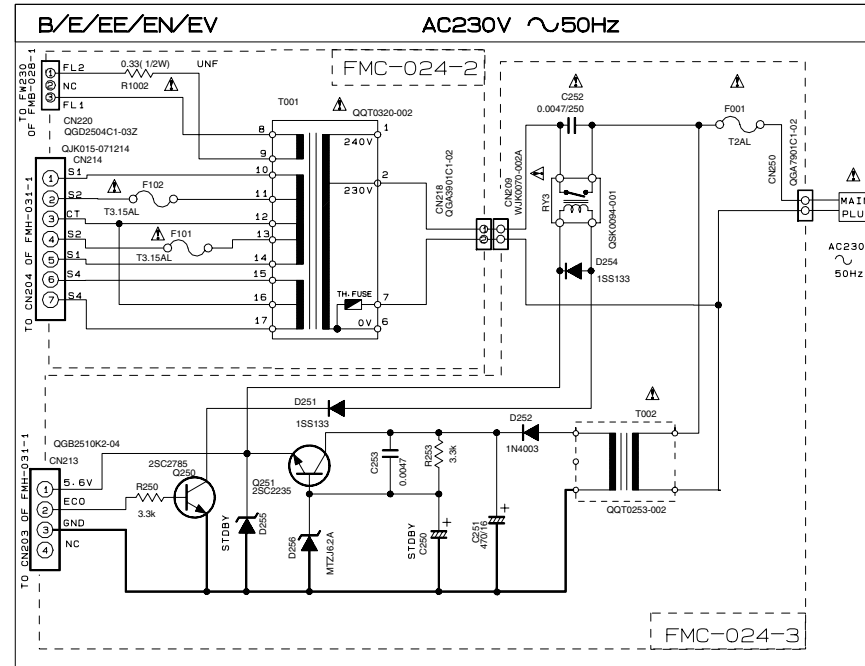
# Standard schematic diagrams

## Power supply section

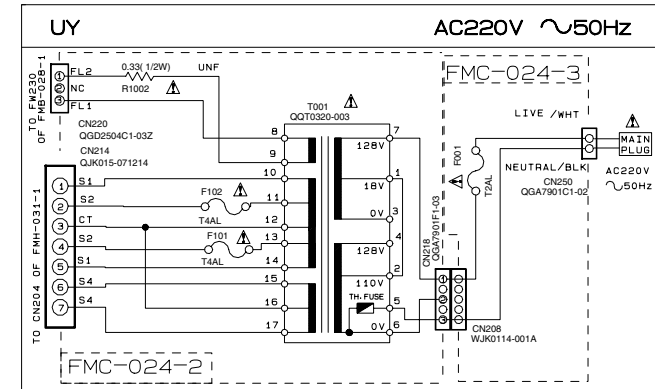
POWER SUPPLY BLOCK



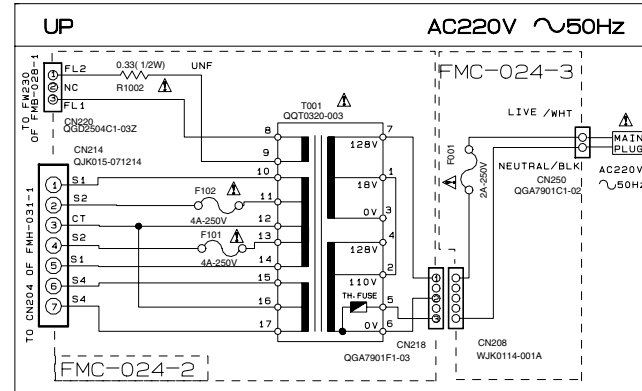
POWER SUPPLY BLOCK



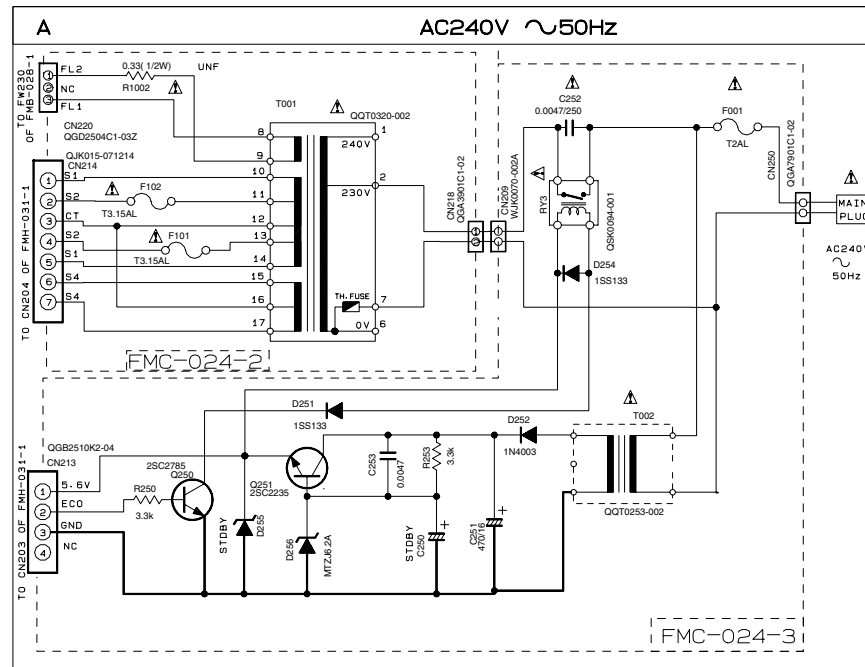
POWER SUPPLY BLOCK



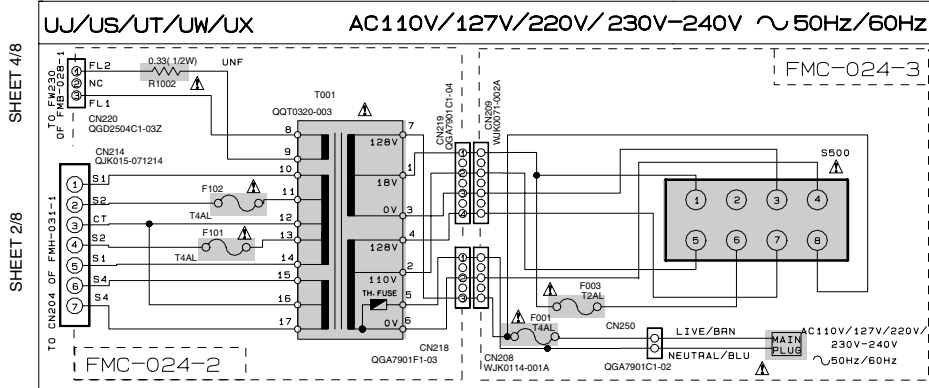
POWER SUPPLY BLOCK



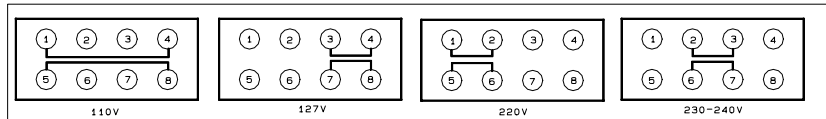
POWER SUPPLY BLOCK



POWER SUPPLY BLOCK



VOLTAGE SELECTOR LOCATION



EXPLANATION OF OVERALL OF SCHEMA.  
MODEL MX-GT80

SHEET NUMBER	MODEL NUMBERS TO BE APPLIED	CIRCUITS DESCRIPTION
1/8	MX-GT80	PRIMARY WITH MAINS TRANSFORMER
2/8	MX-GT80	DC REGULATORS/AUDIO OUTPUT
3/8	MX-GT80	EXTERNAL INPUT, SOURCE SELECTOR SWITCH
4/8	MX-GT80	FL DISPLAYS, SYSTEM CONTROL LSI
5/8	MX-GT80	USER CONTROL KEYS, MIC AMP
6/8	MX-GT80	CD SERVO AND CD SYSTEM CONTROL CD CHANGER MECHANISM CONTROL
7/8	MX-GT80	TAPE DECK MECHANISM CONTROL TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
8/8	MX-GT80	TUNER RF/1F/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.

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A

B

C

2-2

D

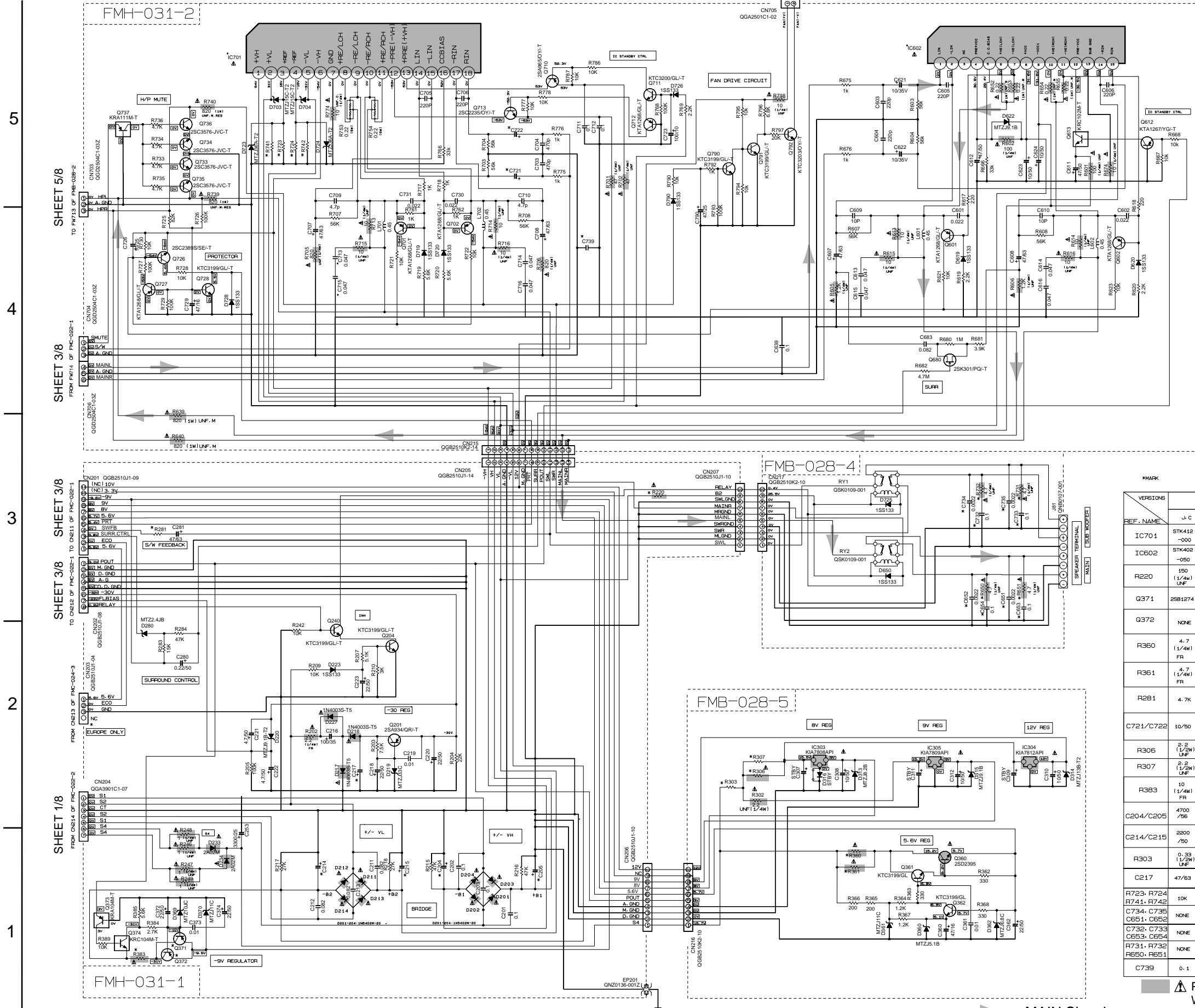
E

F

G

H

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. MDN, BASS OFF.  
 2. UNLESS OTHERWISE SPECIFIED:  
 RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.  
 ALL RESISTANCE VALUES ARE IN OHMS.  
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
 ALL CAPACITANCE VALUES ARE IN μF (μF).  
 ALL INDUCTANCE VALUES ARE IN mH (mH).  
 ALL S-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V). ALL DIMENSIONS ARE IN mm.

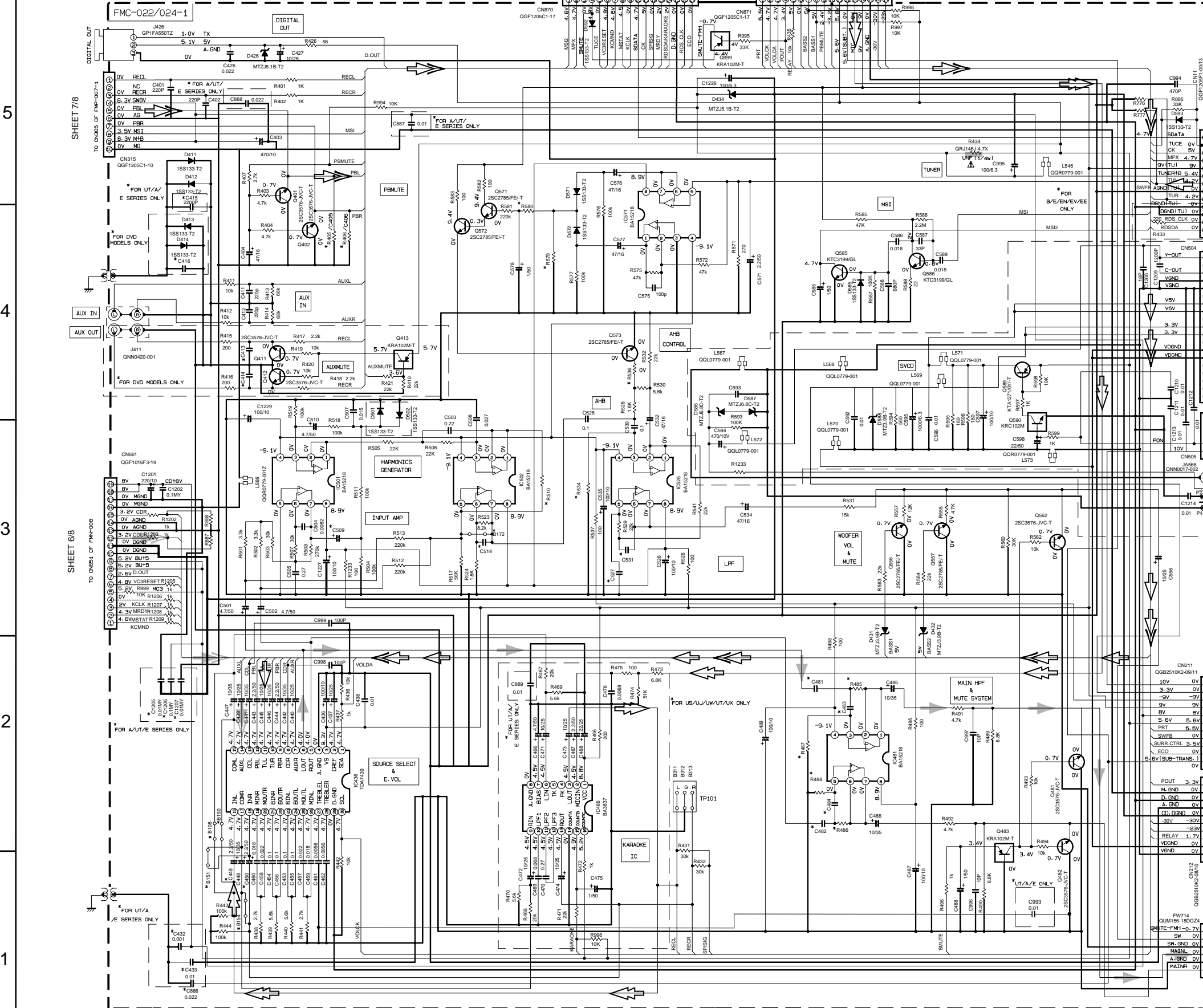
VERSIONS	MX-G70/G71R			MX-GT80			MX-GT90		
	J-C	A-E	U	J-C	A-E	U	J-C	A	U
IC701	STK412-000	STK412-000	STK412-090	STK412-010	STK412-010	STK412-000	STK412-020	STK412-010	STK412-010
IC602	STK402-050	STK402-030	STK402-030	STK402-050	STK402-030	STK402-030	STK402-070	STK402-050	STK402-050
R220	150 (1/4W) UNF	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
Q371	2SB1274	NONE	NONE	2SB1274	NONE	NONE	2SB1274	NONE	NONE
Q372	NONE	KTA1023	KTA1023	NONE	KTA1023	KTA1023	NONE	KTA1023	KTA1023
R350	4.7 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR	2.2 (1/4W) FR	2.2 (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
R281	4.7K	5.6K	4.7K	4.7K	7.5K	10K	6.8K	6.8K	5.6K
C721/C722	10/50	10/50	10/50	10/50	10/50	10/50	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	2.2 (1/2W) UNF	0.33 (1/2W) UNF	0.33 (1/2W) UNF
R307	2.2 (1/2W) UNF	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN
R383	10 (1/4W) FR	SHORT (B123)	SHORT (B123)	10 (1/4W) FR	SHORT (B123)	SHORT (B123)	10 (1/4W) FR	SHORT (B123)	SHORT (B123)
C204/C205	4700 /56	4700 /56	4700 /56	4700 /63	4700 /63	4700 /56	4700 /63	4700 /63	4700 /63
C214/C215	2200 /50	2200 /35	2200 /35	2200 /35	2200 /35	2200 /35	2200 /50	2200 /50	2200 /50
R303	0.33 (1/2W) UNF	SHORT (B303)	SHORT (B303)	0.33 (1/2W) UNF	SHORT (B303)	SHORT (B303)	0.33 (1/2W) UNF	SHORT (B303)	SHORT (B303)
C217	47/63	47/63	47/63	47/63	47/63	47/63	47/100	47/100	47/100
R723, R724, R741, R742	10K	5.6K	6.8K	6.8K	10K	5.6K	6.8K	6.8K	6.8K
C734, C735, C651, C652	NONE	USE	NONE	NONE	USE	NONE	NONE	USE	NONE
C732, C733, C653, C654	NONE	USE	NONE	NONE	USE	NONE	NONE	USE	NONE
R731, R732, R650, R651	NONE	USE	NONE	NONE	USE	NONE	NONE	USE	NONE
C739	0.1	1/50	1/50	1/50	0.1	1/50	1/50	1/50	1/50

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

# MX-GT80

## Main section

SHEET 4/8  
TO CN850 OF FMH-028-1



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SHEET 7/8  
SHEET 6/8  
SHEET 2/8  
SHEET 2/8  
SHEET 2/8

A      B      C      2-4      D      E      F      G      H

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

MODEL	CA-MXG70	MX-G70	CA-MXG71R
R485/486		56K	
R487/488		82K	
C481/482		QFLM1HJ-223Z	
R536		15K	
C514		QFLM1HJ-473Z	
R510		100K	
C509		GETN1CM-475Z	
R534		180K	
C531		QFVJ1HJ-274Z	
C527		QFLM1HJ-273Z	
R579		82K	
R580		2.2K	
C449	USED	NONE	USED
C450	USED	NONE	USED
B150	NONE	USED	NONE
B151	NONE	USED	NONE
B108	NONE	USED	NONE
B154	NONE	USED	NONE

MODEL	CA-MXG780	CA-MXG791R
R485/486		51K
R487/488		130K
C481/482		QFLM1HJ-273Z
R536		12K
C514		QFLC1HJ-471Z
R510		100K
C509		GETN1CM-106Z
R534		180K
C531		QFVJ1HJ-334Z
C527		QFLM1HJ-103Z
R579		100K
R580		5.6K
C449	NONE	USED
C450	NONE	USED
B150	NONE	USED
B151	USED	NONE
B108	USED	NONE
B154	USED	NONE

MODEL	MX-GT80	CA-MXG790
R485/486		56K
R487/488		150K
C481/482		QFZ0160-223Z
R536		12K
C514		QFLC1HJ-417Z
R510		120K
C509		GETN1CM-106Z
R534		220K
C531		QFVJ1HJ-184Z
C527		QFLM1HJ-183Z
R579		82K
R580		680
C449	NONE	USED
C450	NONE	USED
B150	USED	NONE
B151	USED	NONE
B108	USED	NONE
B154	USED	NONE

NOTES

\* R405/R406 = QRE141J-222Y (FOR OTHER THAN A-UT AND E SERIES)  
 C405/C406 = QGCSB1HJ-102Y (FOR A-UT AND E SERIES ONLY)

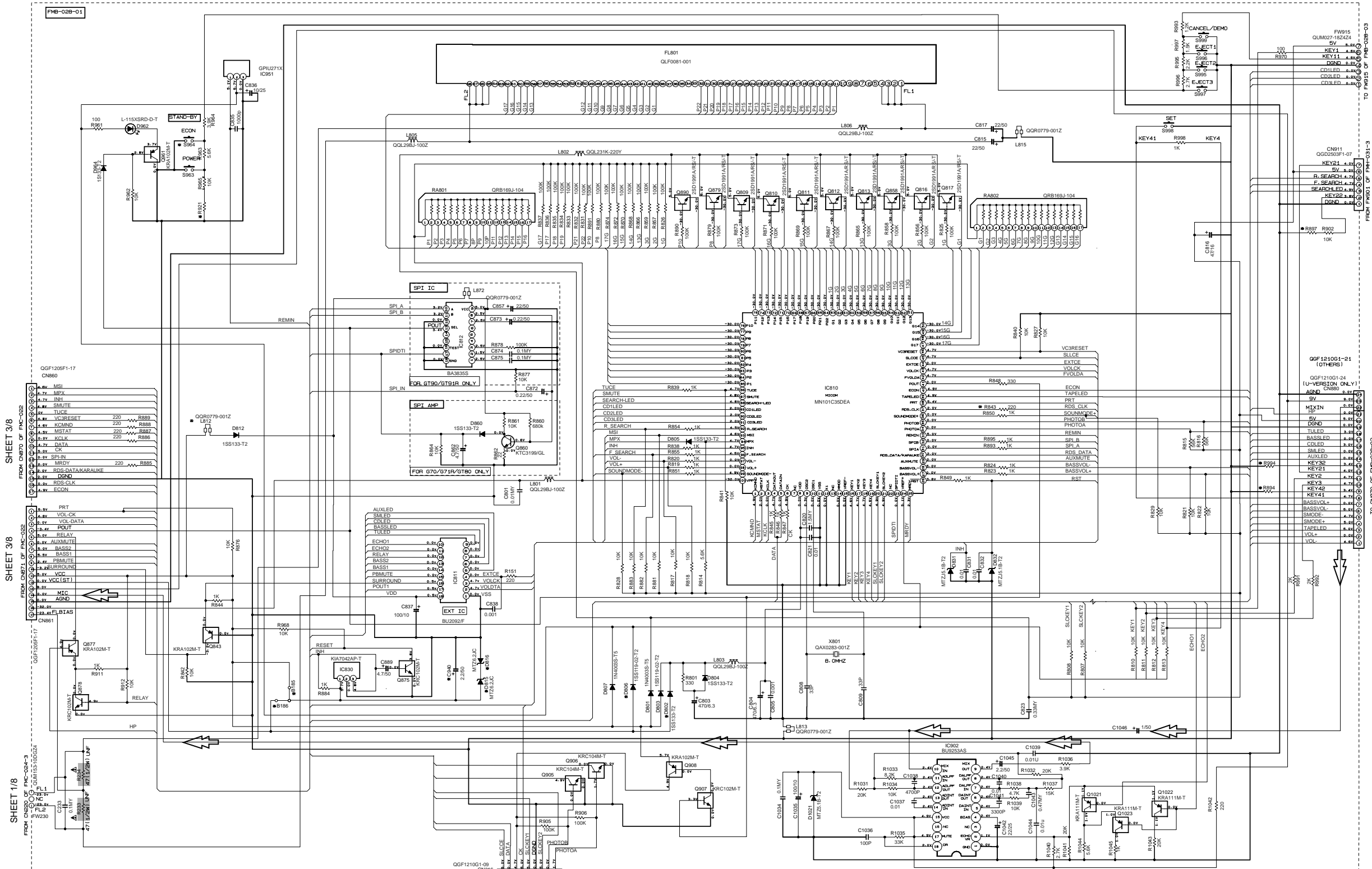
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION — AUX MODE, VOL. MIN, SLEWROCK VOL. 1.

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 pF (pF).  
 ALL INDUCTANCE VALUES ARE IN μH (μH).  
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).  
 ALL DIODES ARE 1SS133

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

SHEET 3/8

FL & System control section



MARK

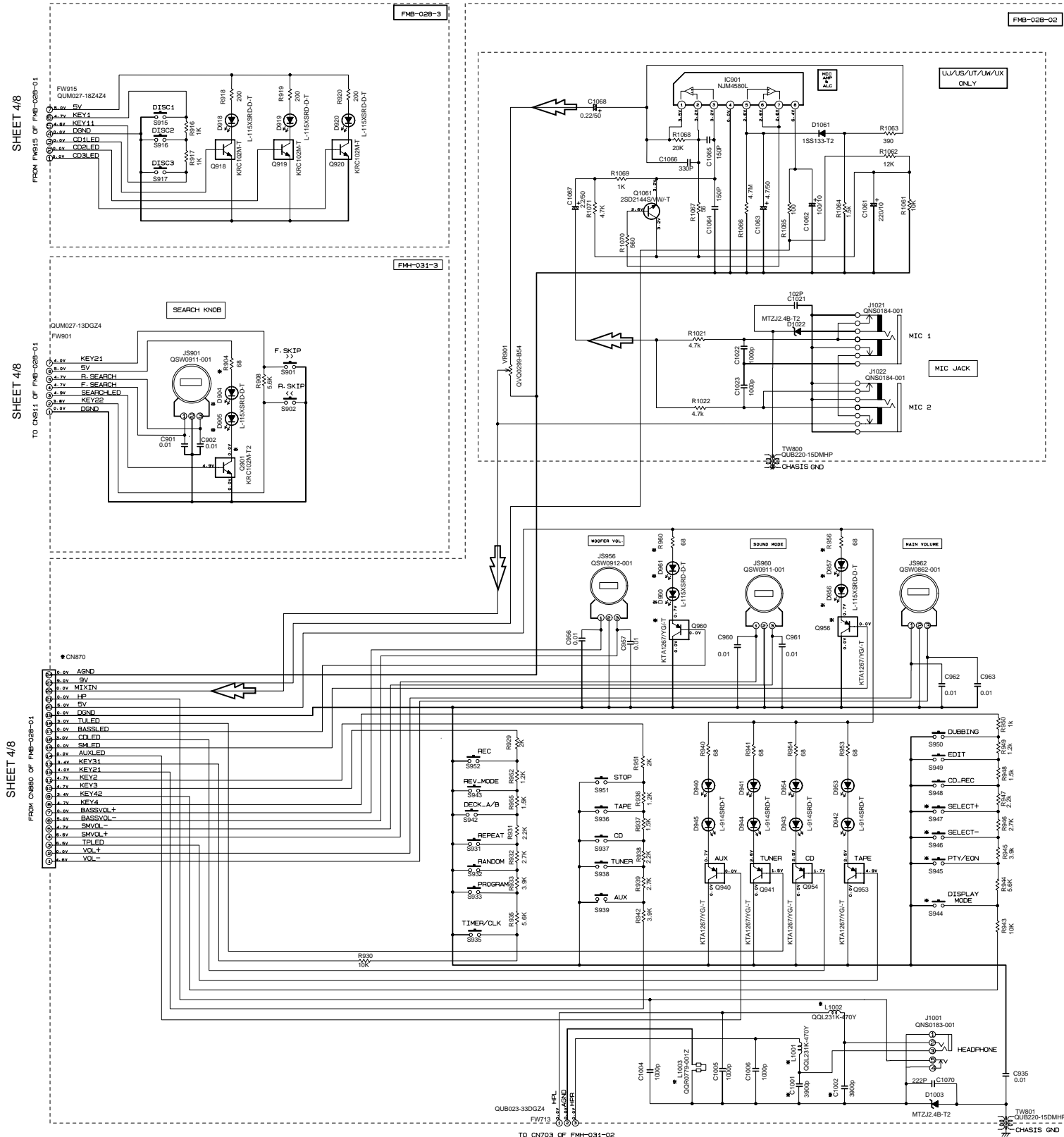
MARK	CA-MK671R B-E-EN-EV	CA-MK670 A	MX-GT90 C-J	CA-MK670 UX	CA-MK670 UJ,UP,US-UT-UM	CA-MK670 UY	MX-GT1R EE	CA-MK670 UJ,UP,US-UT-UM	MX-GT90 C-J	CA-MK671R B-E-EN-EV	MX-GT90 EE	CA-MK670 A	CA-MK670 UY	CA-MK670 UJ,UP,US-UT-UM	MX-GT90 C-J	MX-GT90 A	MX-GT90 UY
R921	330K	330K	330K	330K	330K	330K	75K	75K	75K	75K	75K	75K	75K	18K	18K	18K	18K
R997	330K	75K	75K	75K	75K	75K	330K	75K	330K	75K	75K	75K	75K	75K	75K	75K	75K
R994	75K	330K	75K	18K	75K	75K	330K	75K	330K	330K	75K	75K	75K	75K	330K	18K	75K
R994	330K	330K	75K	18K	330K	330K	75K	330K	75K	330K	18K	330K	330K	330K	18K	330K	330K
R943	USE	NONE	NONE	NONE	NONE	NONE	USE	NONE	USE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
X801	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012	GAX0283-0012
S964	GSW0674-0012	GSW0674-0012	NONE	NONE	NONE	NONE	GSW0674-0012	NONE	GSW0674-0012	GSW0674-0012	GSW0674-0012	NONE	NONE	NONE	NONE	NONE	NONE
D802	1S5133-T2	1S5133-T2	NONE	NONE	NONE	NONE	1S5133-T2	NONE	1S5133-T2	1S5133-T2	1S5133-T2	NONE	NONE	NONE	1S5133-T2	NONE	NONE
D806	1S5119-02-T2	1S5119-02-T2	NONE	NONE	NONE	NONE	1S5119-02-T2	NONE	1S5119-02-T2	1S5119-02-T2	1S5119-02-T2	NONE	NONE	NONE	1S5119-02-T2	NONE	NONE
B195	NONE	NONE	USE	USE	USE	USE	NONE	USE	NONE	NONE	NONE	USE	USE	USE	USE	USE	USE
B196	NONE	NONE	USE	USE	USE	USE	NONE	USE	NONE	NONE	NONE	USE	USE	USE	USE	USE	USE
C940	NONE	2.2/50	NONE	NONE	NONE	NONE	2.2/50	NONE	NONE	2.2/50	2.2/50	NONE	NONE	NONE	NONE	NONE	NONE
DB15-DB16	NONE	MTZJ6-2C-T2	NONE	NONE	NONE	NONE	MTZJ6-2C-T2	NONE	NONE	MTZJ6-2C-T2	MTZJ6-2C-T2	NONE	NONE	NONE	NONE	NONE	NONE

MIC signal

- NOTES
- VOLTAGES ARE DC-MEASURED WITH A 100MΩ VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONNECTION — AUX MODE; VOL. MEN. BASS LEVEL. 1
  - UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/4W ± 5% CARBON RESISTOR. ALL RESISTANCE VALUES ARE IN Ω (OHM). ALL CAPACITORS ARE CERAMIC CAPACITOR OR MILAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN pF (PI-PICO). ALL INDUCTANCE VALUES ARE IN μH (MICRO). ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (1/4)/RATED VOLTAGE (V). ALL DIODES ARE 1S5133.

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

■ Front key section



SHEET 2/8

MARK	CA-MXG71R B-E-EN-EV	CA-MXG70 A	MX-G70 J-C	CA-MXG70 UX	CA-MXG70 UJ-UP-US-UT-LW	CA-MXG70 UY	MX-G71R EE	CA-MXG780 UJ-UP-US-UT-LW	MX-G780 C-J	CA-MXG791R B-E-EN-EV	MX-G791R EE	CA-MXG780 A	CA-MXG780 UY	CA-MXG790 UJ-UP-US-UT-LW	MX-G790 C-J	MX-G790 A	MX-G790 UY
D904-D905-D956-D957-D960-D961	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	L-115XSFD-D-T	L-115XSFD-D-T	NONE	NONE	NONE	L-115XSFD-D-T	L-115XSFD-D-T	L-115XSFD-D-T	L-115XSFD-D-T
S944-S945-S946-S947	GSW0825-0012	NONE	NONE	NONE	NONE	NONE	GSW0825-0012	NONE	NONE	GSW0825-0012	GSW0825-0012	NONE	NONE	NONE	NONE	NONE	NONE
L1001-L1003	QGL231K-470Y	QGL231K-470Y	SHORT	SHORT	SHORT	SHORT	QGL231K-470Y	SHORT	SHORT	QGL231K-470Y	SHORT	SHORT	SHORT	SHORT	SHORT	QGL231K-470Y	SHORT
C1001-C1002	3900P	3900P	NONE	NONE	NONE	NONE	3900P	NONE	NONE	3900P	3900P	NONE	NONE	NONE	NONE	3900P	3900P
L1003	GGP0779-001Z	GGP0779-001Z	QGL231K-2R2Y	QGL231K-2R2Y	QGL231K-2R2Y	QGL231K-2R2Y	GGP0779-001Z	QGL231K-2R2Y	QGL231K-2R2Y	GGP0779-001Z	GGP0779-001Z	GGP0779-001Z	GGP0779-001Z	GGP0779-001Z	GGP0779-001Z	QGL231K-2R2Y	QGL231K-2R2Y
R904-R956-R960	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	68	68
Q901	NONE	NONE	NONE	NONE	NONE	NONE	NONE	KRC102M-T	KRC102M-T	NONE	NONE	NONE	NONE	NONE	KRC102M-T	KRC102M-T	KRC102M-T
CN870	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-24	GGF1205F1-24	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-22	GGF1205F1-24
Q956-Q960	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE

MIC signal

- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
  - CONNECTION — AUX MODE: VOL. MIN. BASS OFF
  - UNLESS OTHERWISE SPECIFIED:
    - RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
    - ALL RESISTANCE VALUES ARE IN OHMS.
    - ALL CAPACITORS ARE CERAMIC CAPACITOR OR MILAR CAPACITOR.
    - ALL CAPACITANCE VALUES ARE IN PPF(1).
    - ALL INDUCTANCE VALUES ARE IN MH(MHML).
    - ALL ELECTROLYTIC CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
    - ALL DIMENSIONS ARE IN MM.

CD servo control section

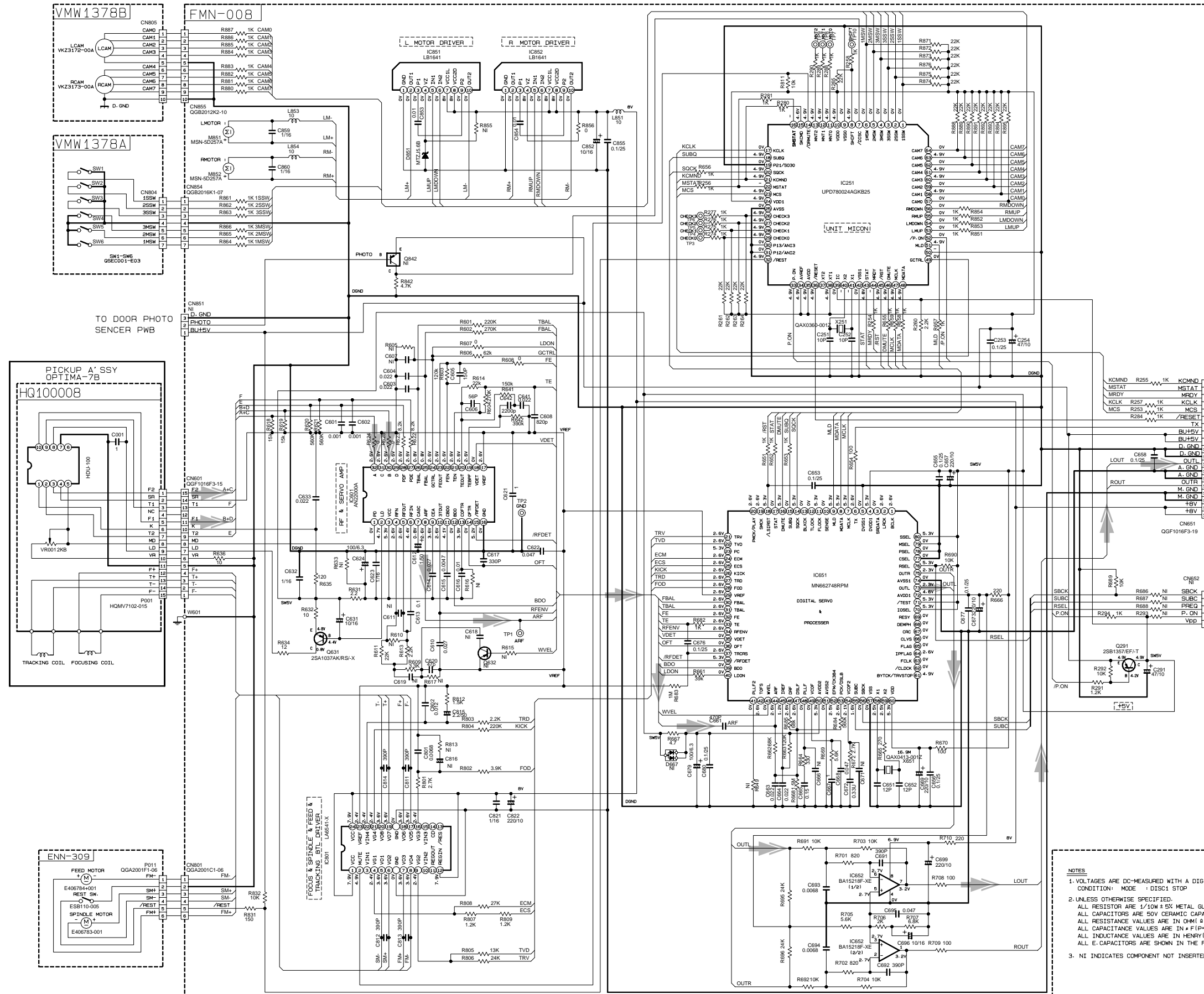
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TO C661 OF FMC-022-1 SHEET 3/8

➔ CD signal

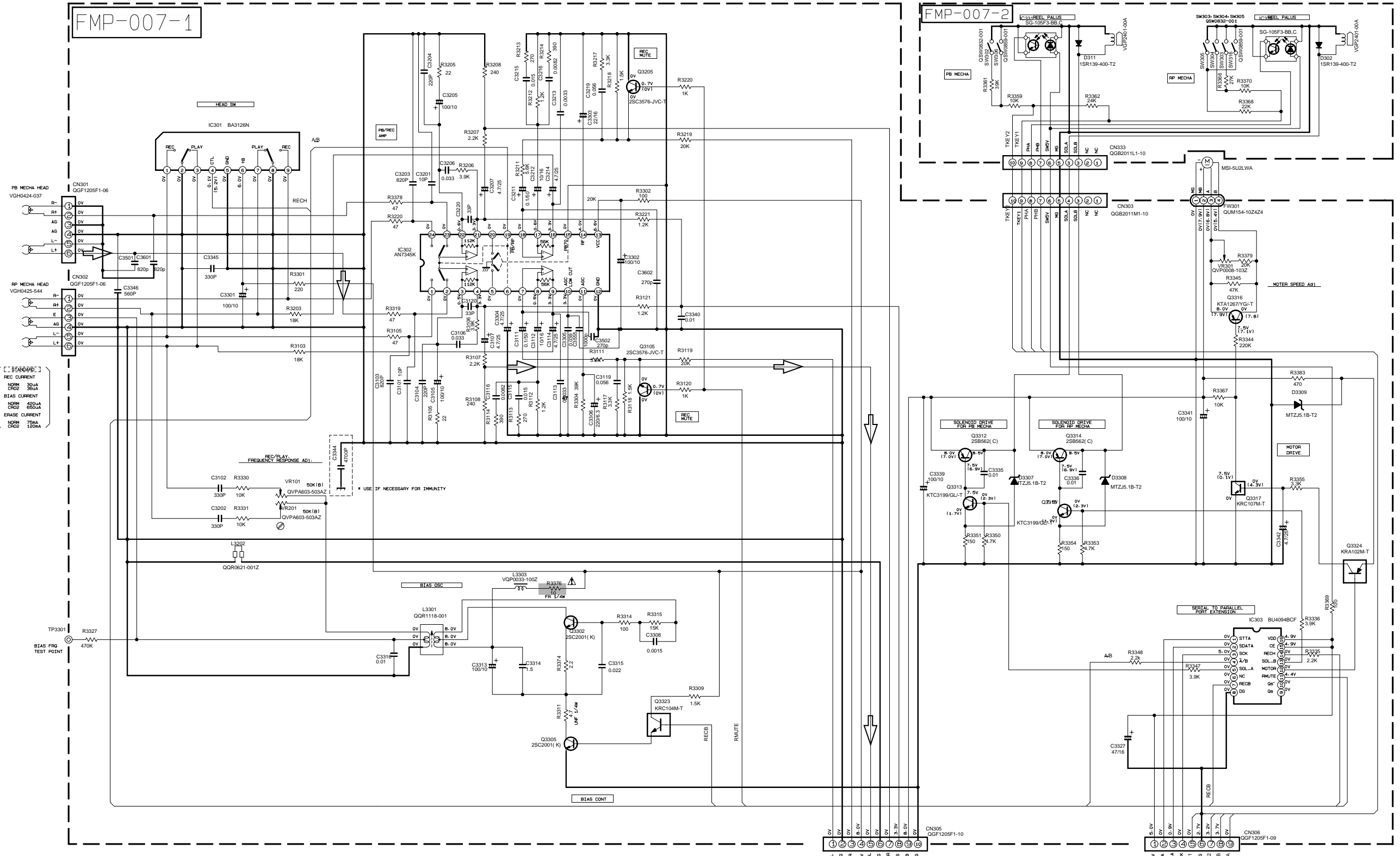
- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER CONDITION: MODE: DISC1 STOP
  2. UNLESS OTHERWISE SPECIFIED:  
ALL RESISTOR ARE 1/10W ± 5% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM (Ω).  
ALL CAPACITANCE VALUES ARE IN PICO-FARAD (pF).  
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

FMP-007-1

CASSETTE MECHA CONTROL CIRCUIT [SLC]

FMP-007-2



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 μF(PpF).  
 ALL INDUCTANCE VALUES ARE IN mH(m=H).  
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).  
 P PLYPROPYLENE CAPACITOR

FROM CN315 OF FMC-022-1

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

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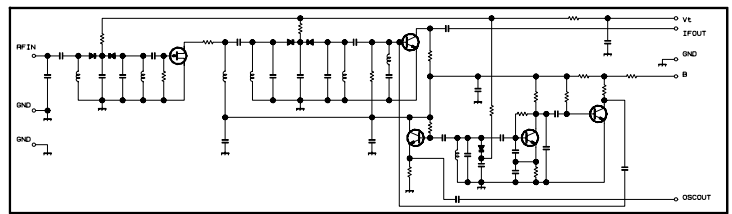
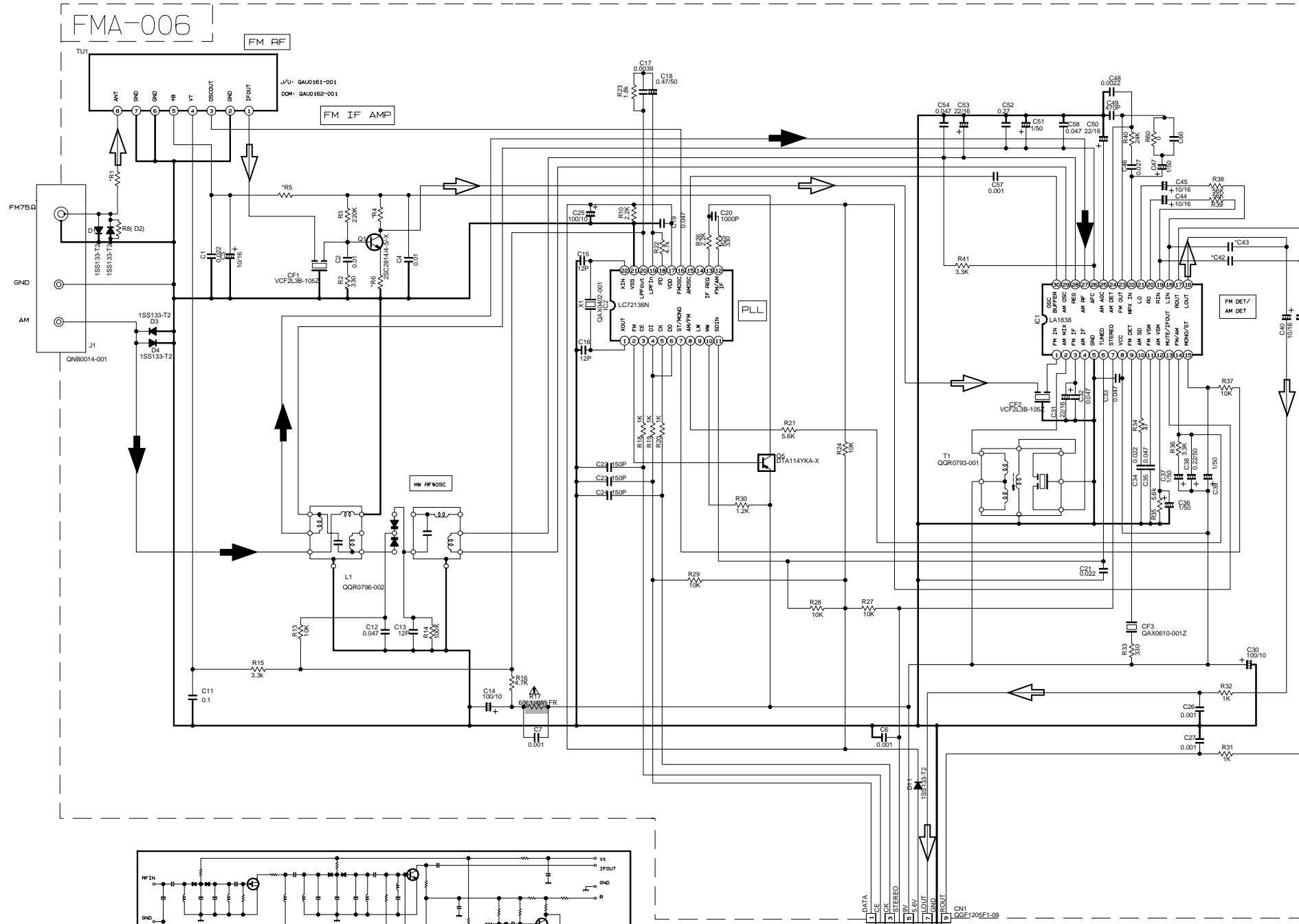
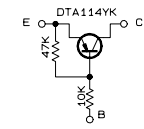
A B C 2-8 D E F G H



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 CAPACITANCE VALUES ARE IN nF(PpF).
  5. ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (nF)/RATED VOLTAGE (V).
  6. SI DIODES (▶) ARE ALL 1S5133-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

B. 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
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	3.3	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								

FROM CN 11 OF FMB-012-1 SHEET 3/8

	VERSION		
	J/C	User-1st	DOM MODEL
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

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

⇨ FM/TUNER signal  
⇨ AM signal

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	9.0	0	8.9	
Tr. NO.	Q2	Q3				
PIN NO.	E	C	B	E	C	B
AM 52KHz NO SIGNAL	0	0	0.7	0	0.7	0
AM 144KHz NO SIGNAL	0	0	0.3	0	0.3	0.3

# Printed circuit boards

■ Main board

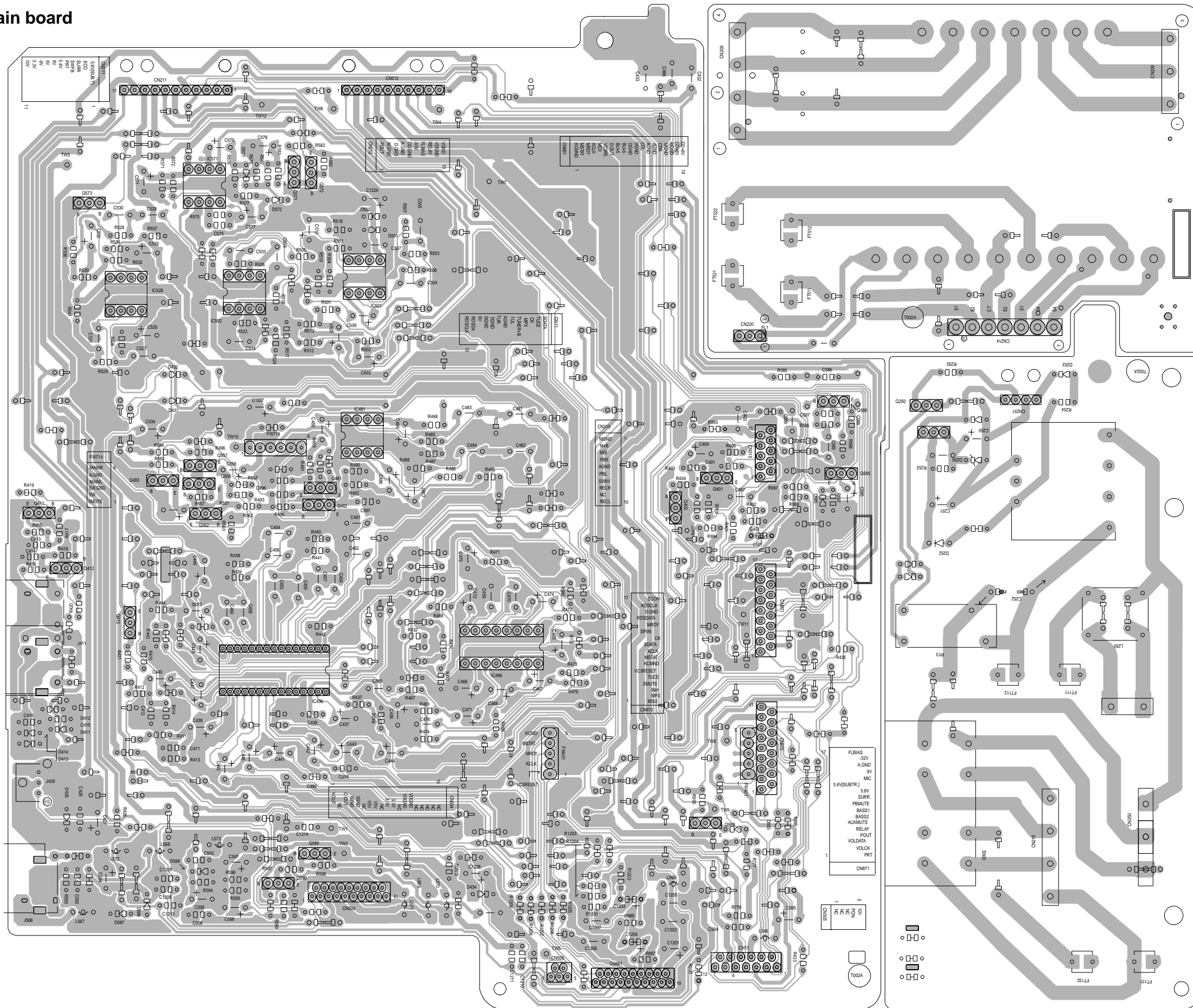
5

4

3

2

1



Transformer board

Voltage selector board

A

B

C

2-10

D

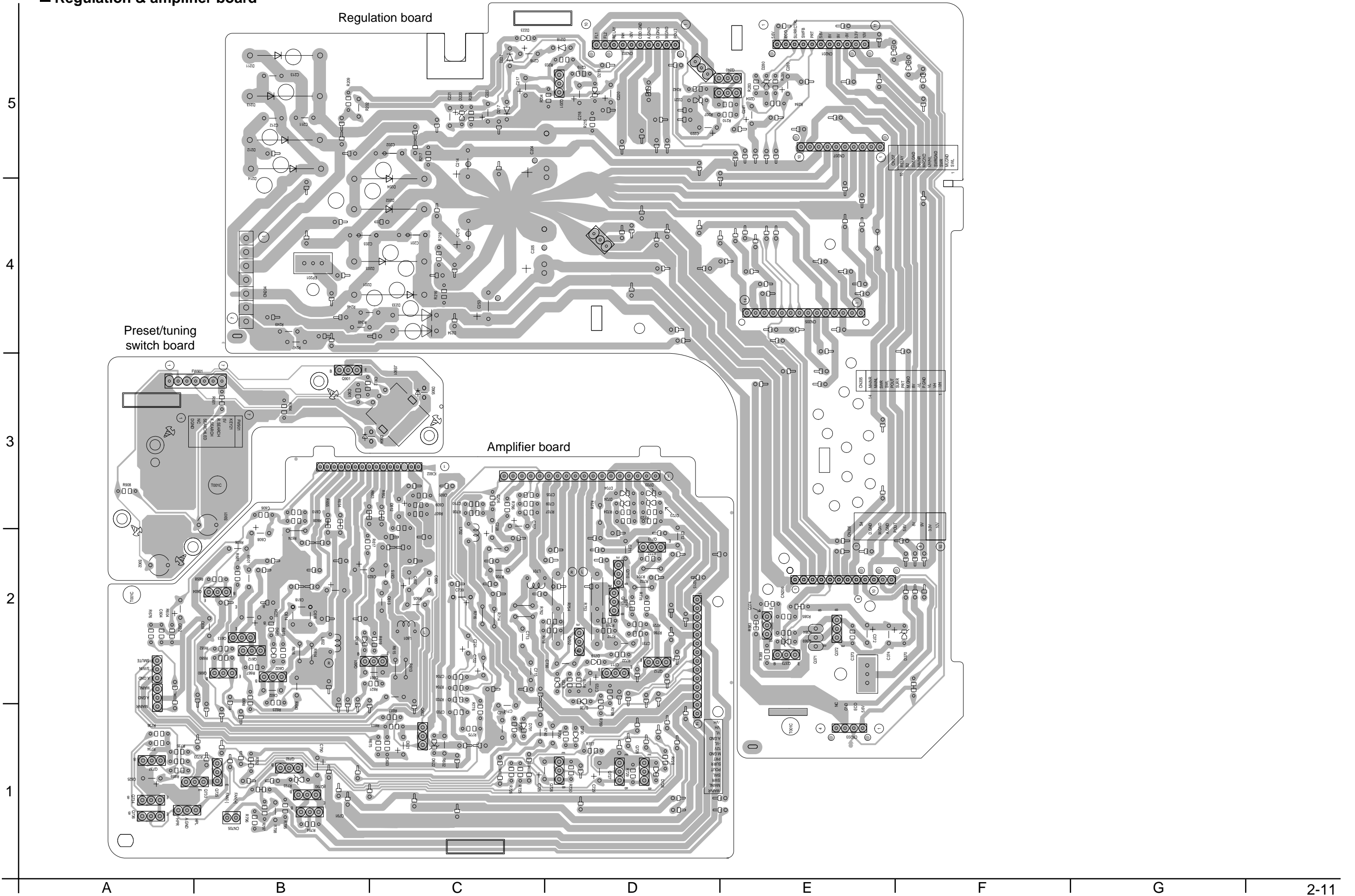
E

F

G

H

■ Regulation & amplifier board



■ Front board

Display & system control board

Operation switch board

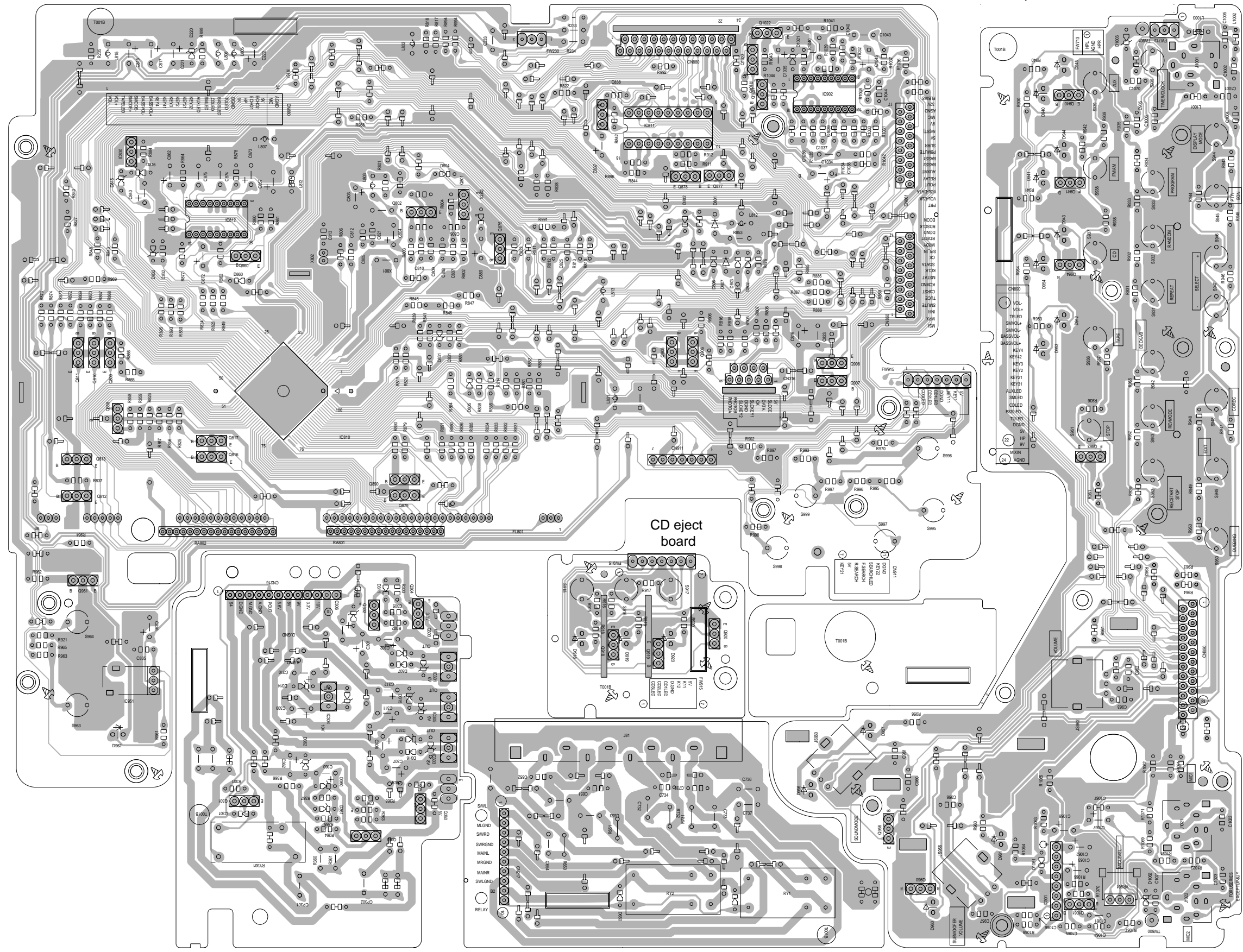
5

4

3

2

1



CD eject board

Voltage board

Speaker terminal board

A

B

C

2-12

D

E

F

G

H

■ CD servo control board

■ Head amplifier & mechanism control board

■ Tuner board

