

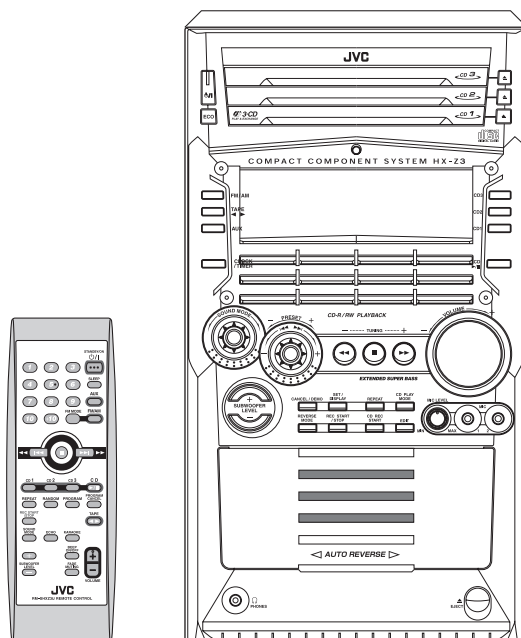
JVC

SCHEMATIC DIAGRAMS

COMPACT COMPONENT SYSTEM

HX-Z3

CD-ROM No.SML200208



COMPACT
disc
DIGITAL AUDIO

Area Suffix

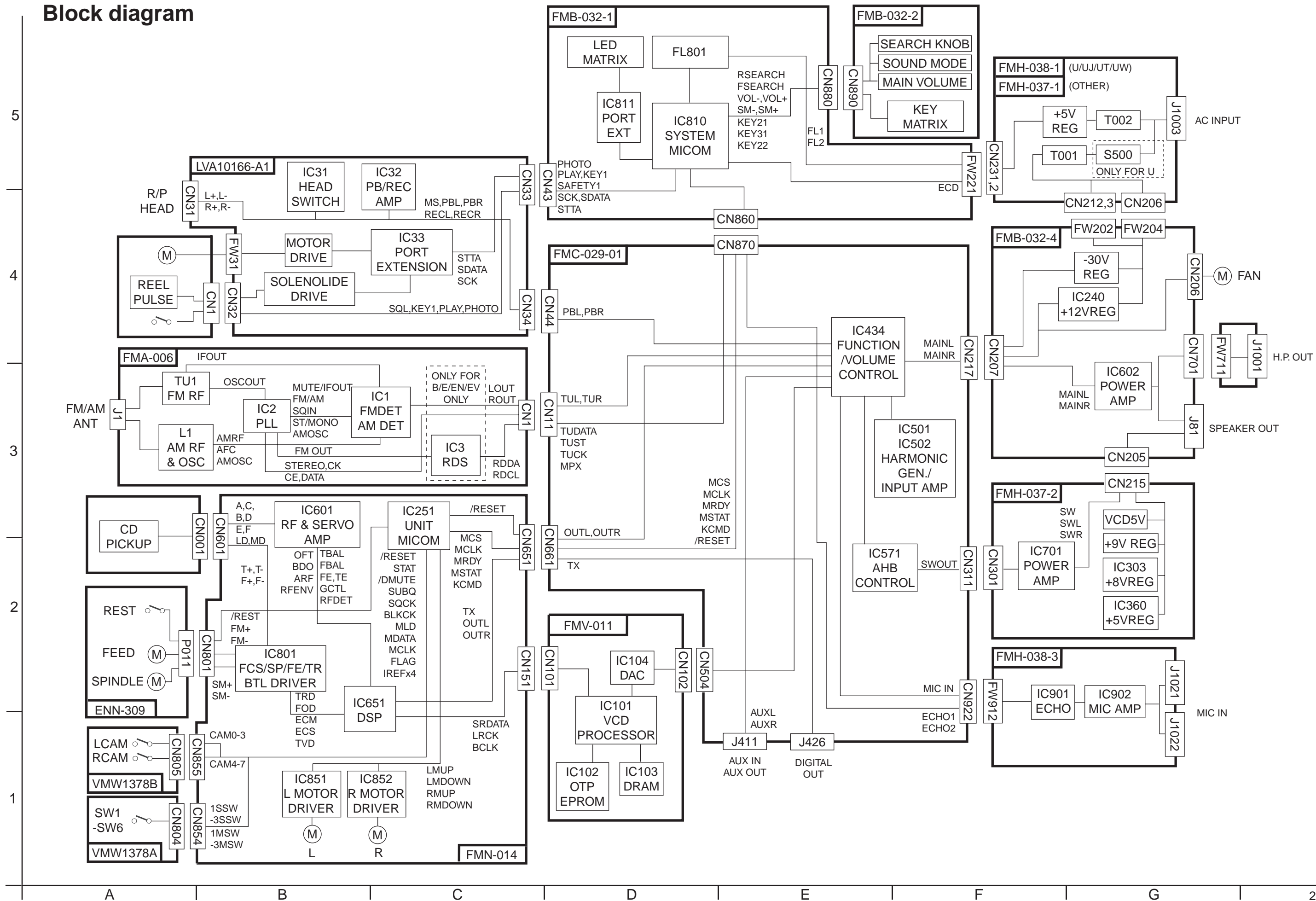
UW ----- Brazil, Mexico, Peru

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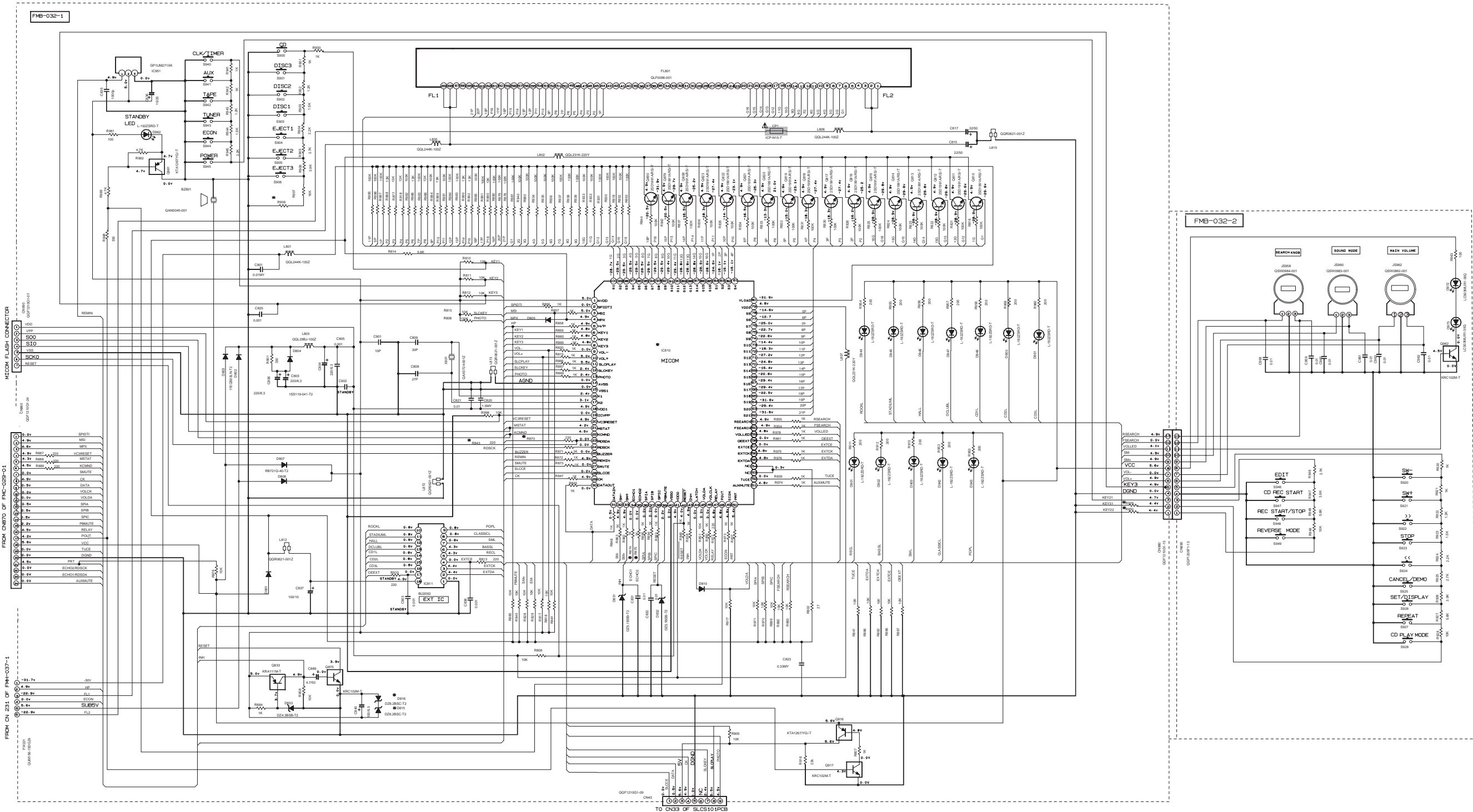
< M E M O >

Block diagram



Standard schematic diagrams

■ Front circuit



HXZ-1						HXZ-3					
VERSION	B-E-EN-EV	A	J-C	U-UJ-UT-UW	UY	VERSION	B-E-EN-EV	A	J-C	U-UJ-UT-UW	UY
REF. NO.						REF. NO.					
R909	330K	330K	330K	330K	330K	R909	75K	75K	75K	330K	75K
R909	75K	330K	330K	330K	75K	R909	75K	330K	330K	75K	75K
R950	USE	18K	330K	75K	75K	R950	330K	18K	330K	75K	75K
RB43-RB70	330K	NONE	NONE	NONE	NONE	RB43-RB70	USE	NONE	NONE	NONE	NONE
RB74-RB75	NONE	NONE	NONE	USE	USE	RB74-RB75	NONE	NONE	NONE	USE	USE
DB15-DB16	DZ6-2BSC-T2	DZ6-2BSC-T2	NONE	NONE	NONE	DB15-DB16	DZ6-2BSC-T2	DZ6-2BSC-T2	NONE	NONE	NONE
CN860	QGF1210G1-23	QGF1210G1-21	QGF1210G1-21	QGF1210G1-23	QGF1210G1-21	CN860	QGF1210G1-23	QGF1210G1-21	QGF1210G1-21	QGF1210G1-23	QGF1210G1-21
IC810	UPD784975AGF303	UPD784975AGF303	UPD784975AGF303	UPD784975AGF303	UPD784975AGF303	IC810	UPD784975AGF302	UPD784975AGF302	UPD784975AGF302	UPD784975AGF302	UPD784975AGF302

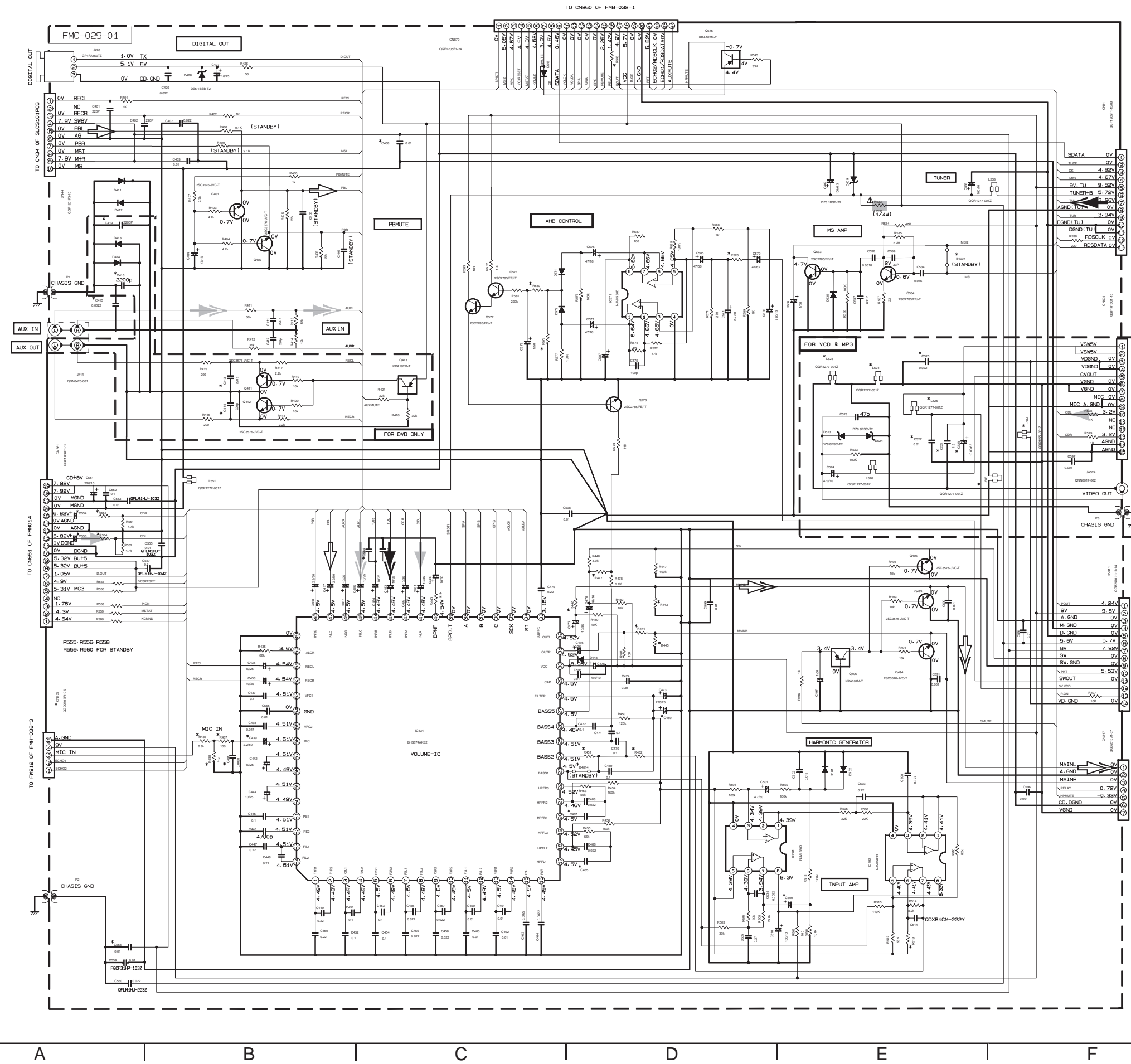
NOTE: 1. QN950 ONLY USE FOR FLASH MCOM
2. R998(10K) USE FOR FLASH MCOM AND FOR MASK FROM REPLACE BY BUS WIRE

⚠ 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.
CONVENTION: AUX MODE: VOL. MDV. 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 pF (pF).
ALL INDUCTANCE VALUES ARE IN mH (mH).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
ALL DIODES ARE 1SS119-041-12
ALL TACT SWITCHES ARE 08M074-0012

■ Main circuit

5
4
3
2
1



HX-Z1 & HX-Z3					
MODEL	J/C	B/E EN/EN	A	UT/UW U/UJ	UY
C408	NONE	0.01			NONE
C568	NONE	0.01			NONE
C563	NONE	0.01			NONE
C564	NONE	0.01			NONE
R477	12K	12K			6.8K
R538	NONE	220	NONE		NONE
CN622	NONE	NONE	GGC2503F1-05		NONE
CN570	GGF1205F1-21	GGF1205F1-23	GGF1205F1-21	GGF1205F1-21	GGF1205F1-21
CN11	GGF1205F1-09	GGF1205F1-13	GGF1205F1-09	GGF1205F1-09	GGF1205F1-09
R436	NONE	NONE		6.8K	NONE
R437	NONE	NONE		100	NONE
R438	NONE	NONE		51K	NONE
C439	NONE	NONE		2-2/50	NONE
C441	NONE	NONE		0.0068	NONE

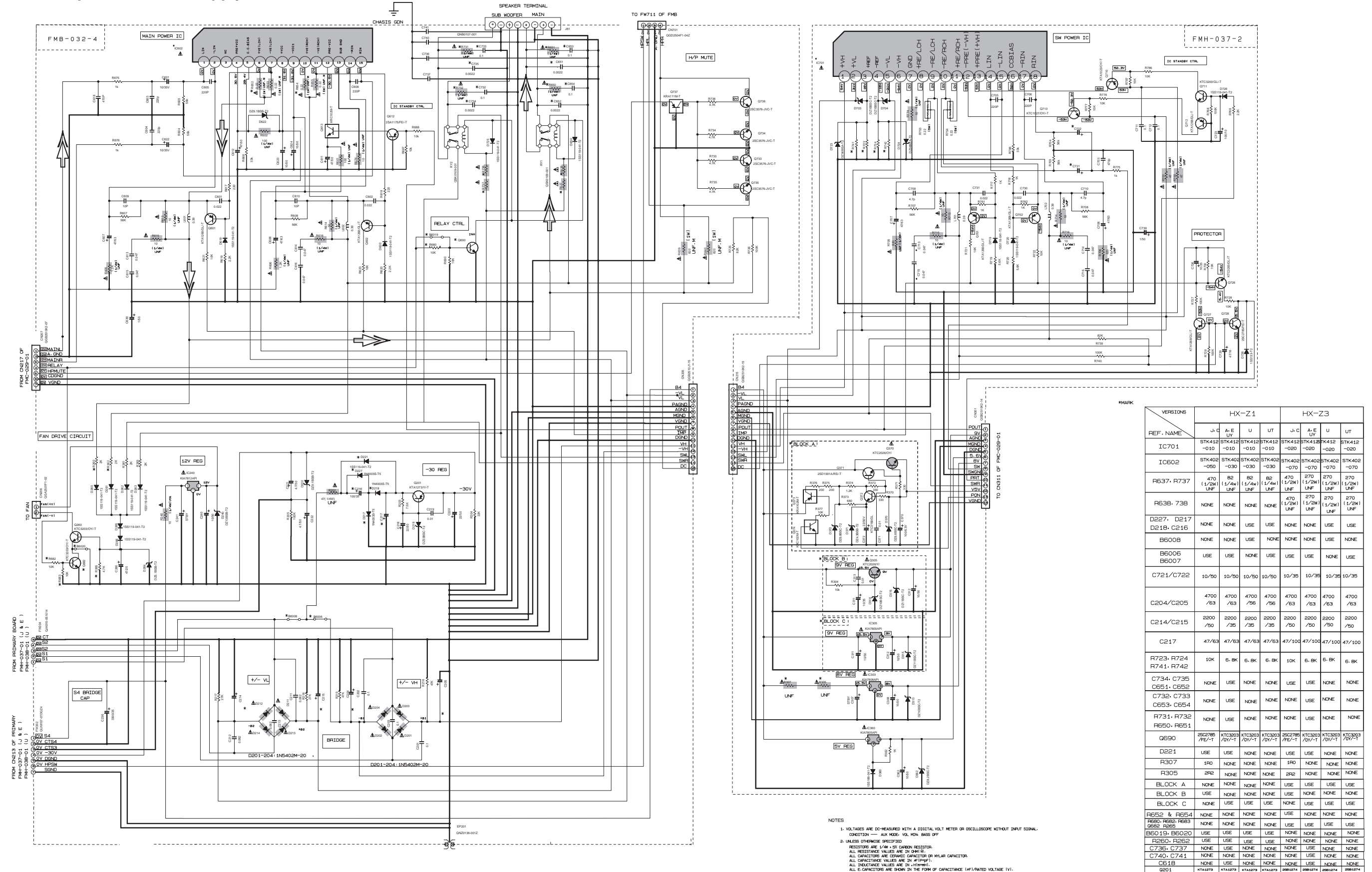
HX-Z1						HX-Z3					
MODEL	J/C	B/E EN/EN	A	UT/UW U/UJ	UY	VERSION	J/C	B/E EN/EN	A	UT/UW U/UJ	UY
R442			6.8K							4.7K	
R443			24K							10K	
R444			6.8K							4.7K	
R445			24K							10K	
R451			18K							15K	
R452			6.8K							8.2K	
R513			10K							8.2K	
R570	5.6K		8.2K							6.2K	
R579			150K							220K	
R580			6.8K							220K	
C465			QF632AJ-223Z (0.022)							QF20160-223Z (0.022)	
C467			QF632AJ-223Z (0.022)							QF20160-223Z (0.022)	
C489			NONE							47/16	
C509			4.7/50							10/16	
R546	10K		220							NONE	
CN504			NONE							GGF1036F1-15	
LS23			NONE							GGF1277-001Z	
LS24			NONE							GGF1277-001Z	
LS25			NONE							GGF1277-001Z	
R528			NONE							1K	
R529			NONE							1K	
C525			NONE							0.022	
C527			NONE							0.01	
C528			NONE							1000/6.3	
C529			NONE							GGC2020-155Z (1.5)	
R553			11K							NONE	
R554			11K							NONE	
C554			10/25							NONE	
C555			10/25							NONE	

HX-Z1						HX-Z3					
MODEL	J/C	B/E EN/EN	A	UT/UW U/UJ	UY	VERSION	J/C	B/E EN/EN	A	UT/UW U/UJ	UY
L504			NONE							GGF1277-001Z	
L505			NONE							GGF1277-001Z	
C596			NONE							0.001	
C597			NONE							0.001	
C594			NONE							0.01	NONE
C595			NONE							0.01	NONE
C598			NONE							0.01	NONE
C599			NONE							0.01	NONE
C590	NONE	0.001								NONE	
C591	NONE	0.001								NONE	
C596	NONE	0.01								NONE	

NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION — AUX MODE, VOL MIN, SLEWOPPER VOL 1.
2. UNLESS OTHERWISE SPECIFIED
RESISTORS ARE 1/4W 5% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM(S).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN P(F) (P=PF).
ALL INDUCTANCE VALUES ARE IN MH(MH=H).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (MF)/RATED VOLTAGE (V).
ALL DIODES ARE 1SS119-041-T2

- CD SIGNAL
 - AUX SIGNAL
 - MAIN SIGNAL
 - TAPE P.B. SIGNAL
 - FM/TUNER SIGNAL
- Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

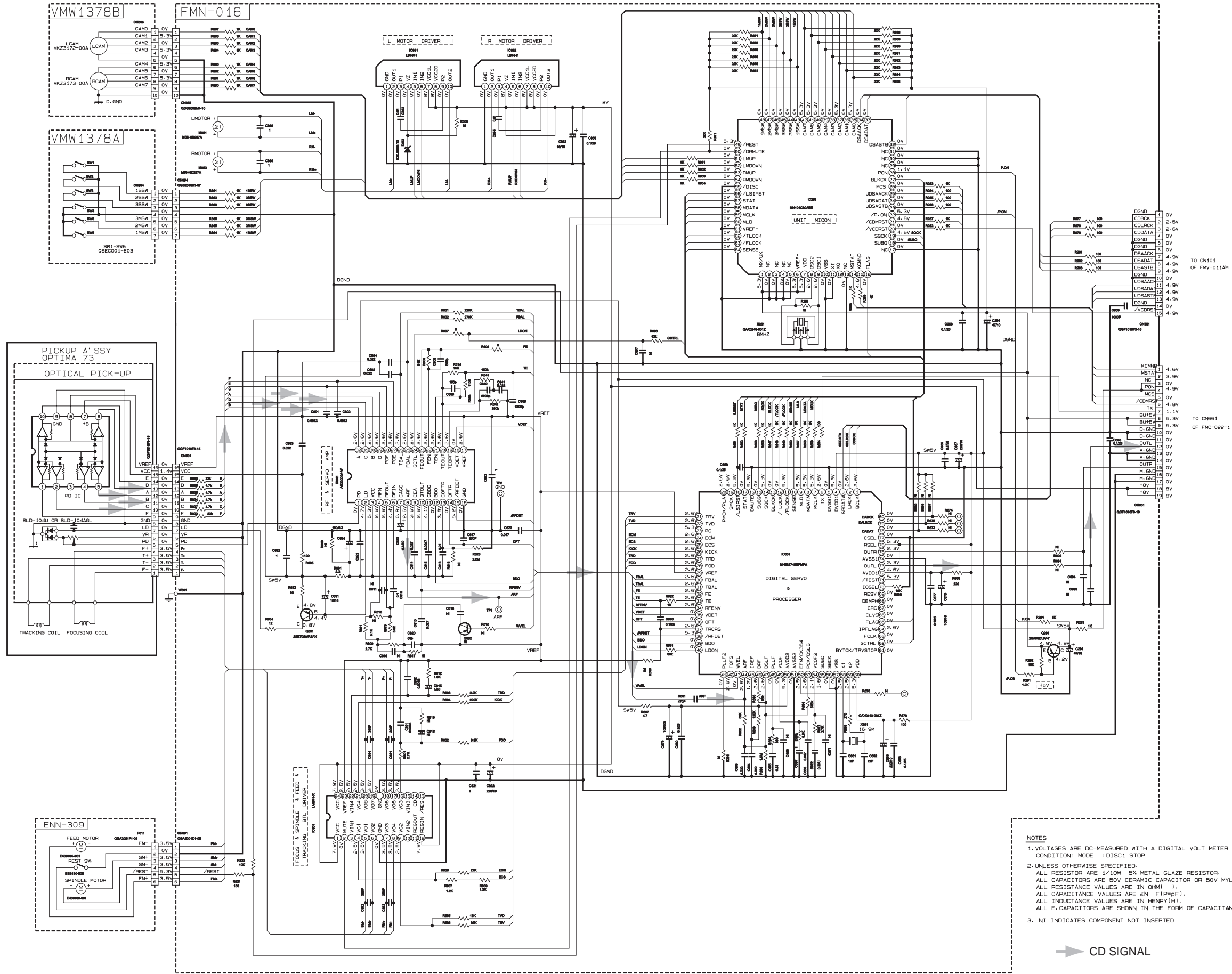
Power amplifier & Power supply circuit



➡ MAIN SIGNAL

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

CD control circuit



- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
CONDITION: MODE 1 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-F (pF).
ALL INDUCTANCE VALUES ARE IN HENRY (H).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE/RATED VOLTAGE (V).
 3. NI INDICATES COMPONENT NOT INSERTED

➡ CD SIGNAL

1



➡ TAPE P. B. SIGNAL

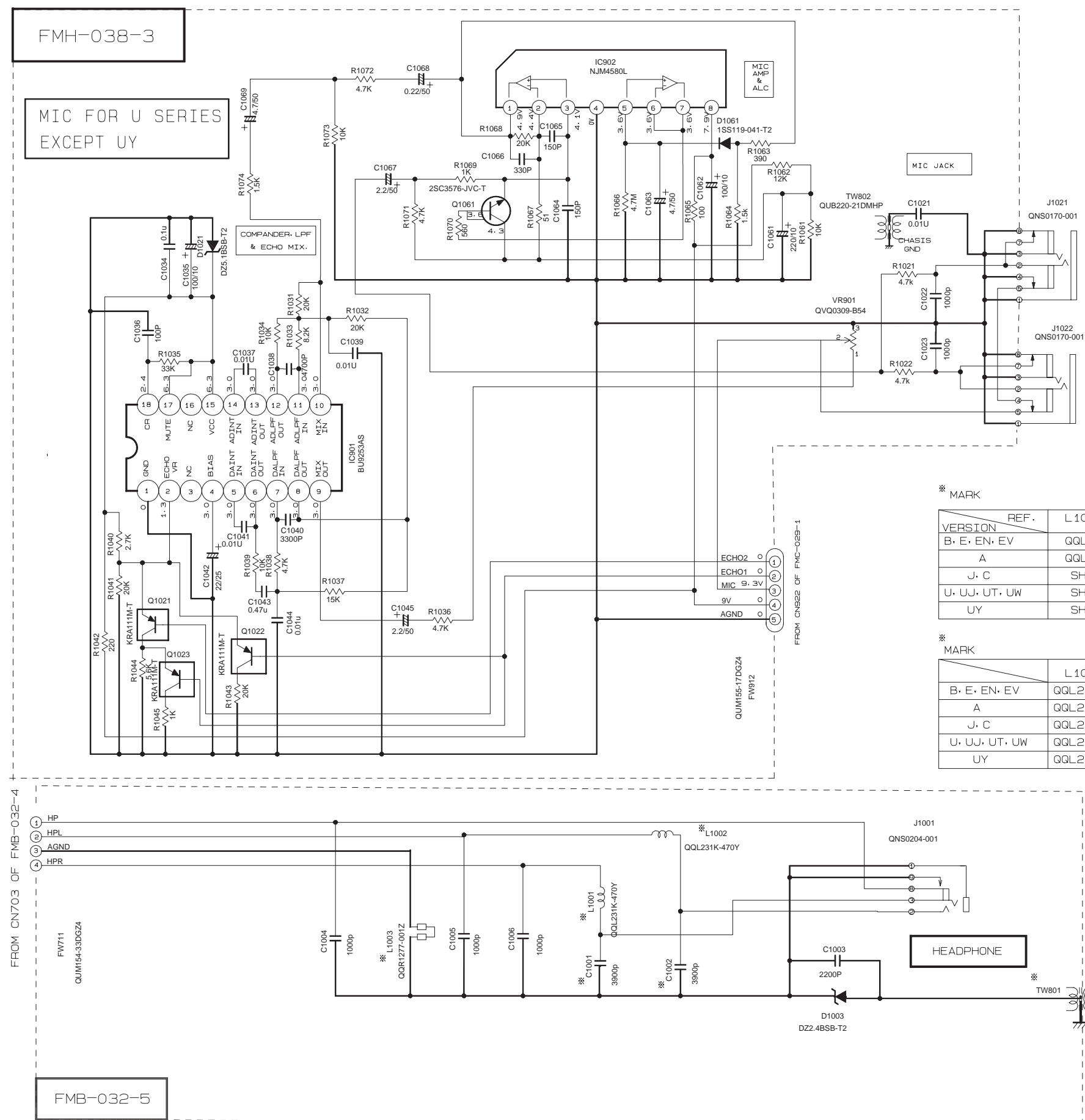
 Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

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

2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/10W $\pm 5\%$ METAL GLAZE RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM[Ω].
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN μ F[PpF].
ALL INDUCTANCE VALUES ARE IN mH[mH].
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μ F)/RATED VOLTAGE (V)
= POLYPROPYLENE CAPACITOR

TO CN44 OF FMC-029-01

■ Mic & Head phone circuit



※ MARK		HX-Z 1			
VERSION	REF.	L1001, L1002	C1001, C1002	L1003	TW801
B, E, EN, EV		QQL231K-470Y	3900P	QQR1277-001Z	QUB220-04DMHP
A		QQL231K-470Y	3900P	QQR1277-001Z	QUB220-04DMHP
J, C		SHORT	NONE	QQL231K-2R2Y	QUB220-04DMHP
U, UJ, UT, UW		SHORT	NONE	QQL231K-2R2Y	QUB220-04DMHP
UY		SHORT	NONE	QQL231K-2R2Y	QUB220-04DMHP

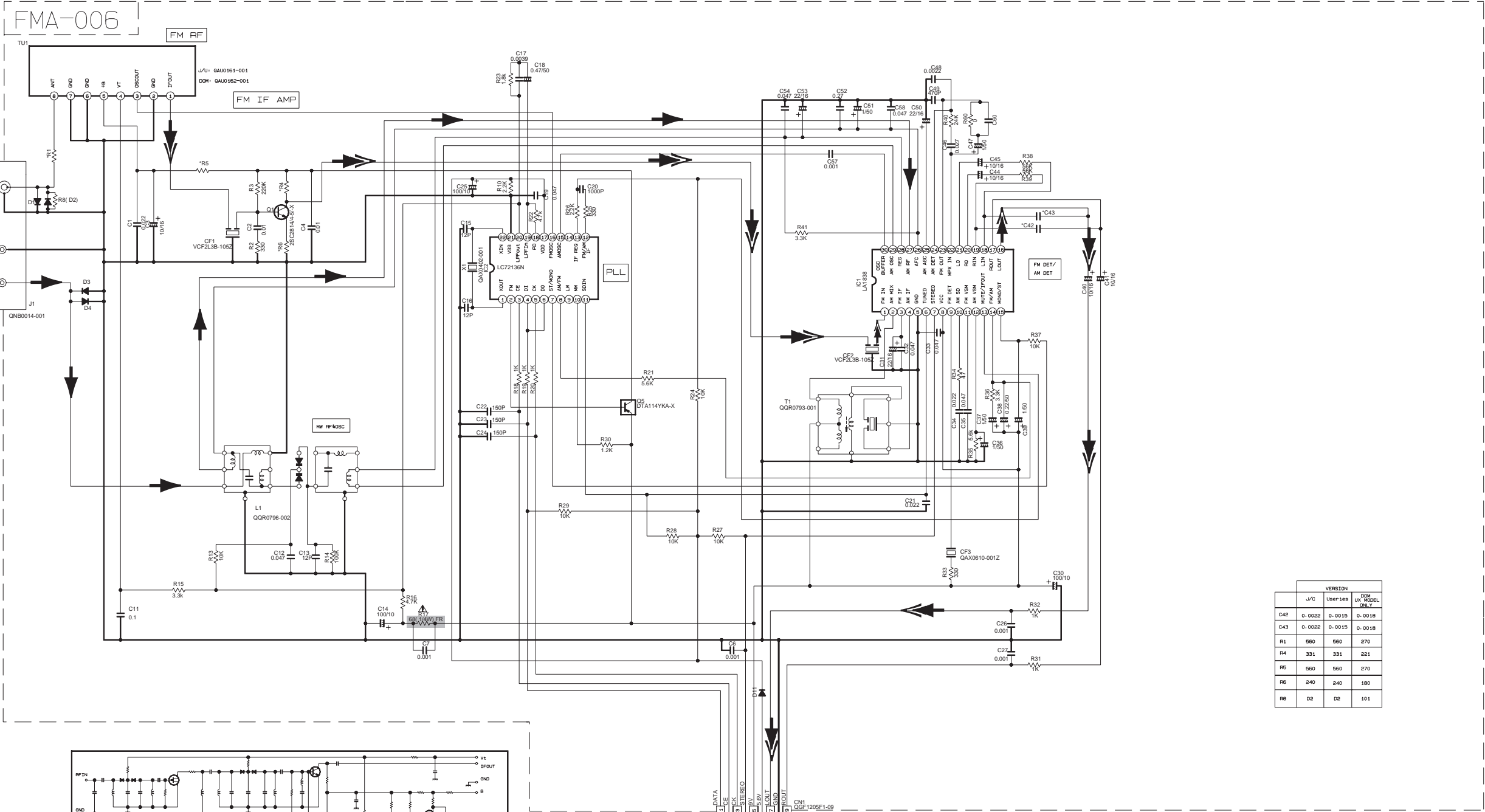
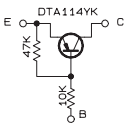
※ MARK HX-Z3				
	L1001・L1002	C1001・C1002	L1003	TW801
B・E・EN・EV	QQL231K-470Y	3900P	QQR1277-001Z	QUB220-09HPDT
A	QQL231K-470Y	3900P	QQR1277-001Z	QUB220-09HPDT
J・C	QQL231K-470Y	3900P	QQR1277-001Z	QUB220-09HPDT
U・UJ・UT・UW	QQL231K-470Y	3900P	QQR1277-001Z	QUB220-09HPDT
UY	QQL231K-470Y	3900P	QQR1277-001Z	QUB220-09HPDT

NOTES

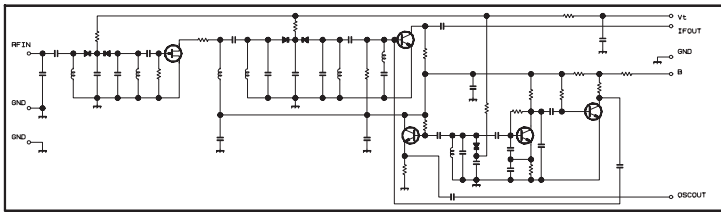
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
CONDITION --- AUX MODE, ECHO OFF
2. UNLESS OTHERWISE SPECIFIED
- RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE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

Tuner circuit

- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
 - ALL RESISTORS ARE 1/8W ±5% METAL GLAZE RESISTOR.
 - ALL RESISTANCE VALUES ARE IN OHM(Ω).
 - ALL CAPASITANCE VALUES ARE IN *F(P=pF).
 - ALL E.CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (μF)/RATED VOLTAGE (V).
 - SI DIODES (▷) ARE ALL 1SS133-T2 UNLESS SPECIFIED THESE DIODES CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR H5S104J.
 - PARTS NO. OF TRANSISTORS ARE AS FOLLOWS:
Q1 2SC2814/4-S/-X Q2, Q3 2SC2412K/R/-X
Q4, Q5 DTA114YKA-X
- B. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



VERSION			
W/C	Series	DOM	UX MODEL
C42	0.0002	0.0015	0.0018
C43	0.0002	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
IC1	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
IC2	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	0.7	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	0.7	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

➡ AM SIGNAL
➡ FM/TUNER SIGNAL

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

MP3 circuit

TO CN151
OF FMN-015

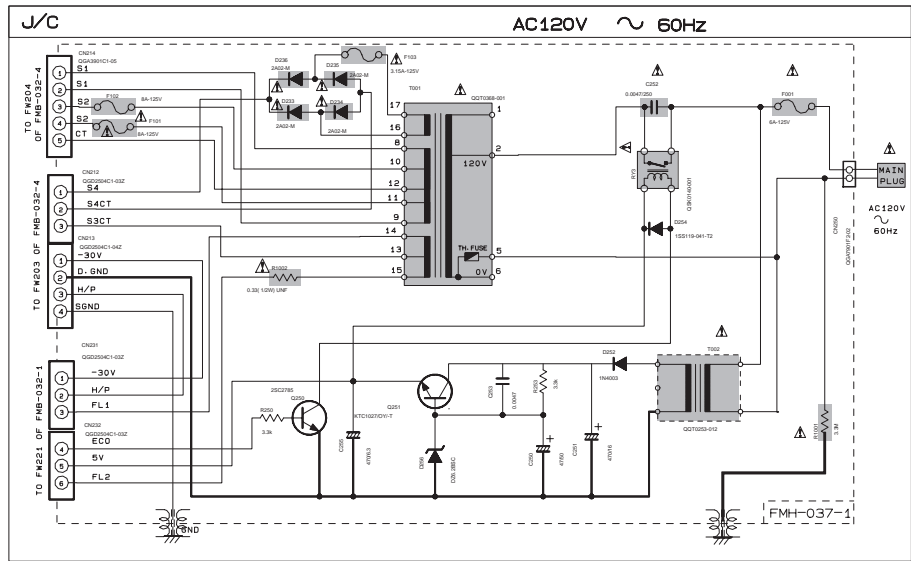
TO CN504
OF FMC-029-01

→ CD SIGNAL

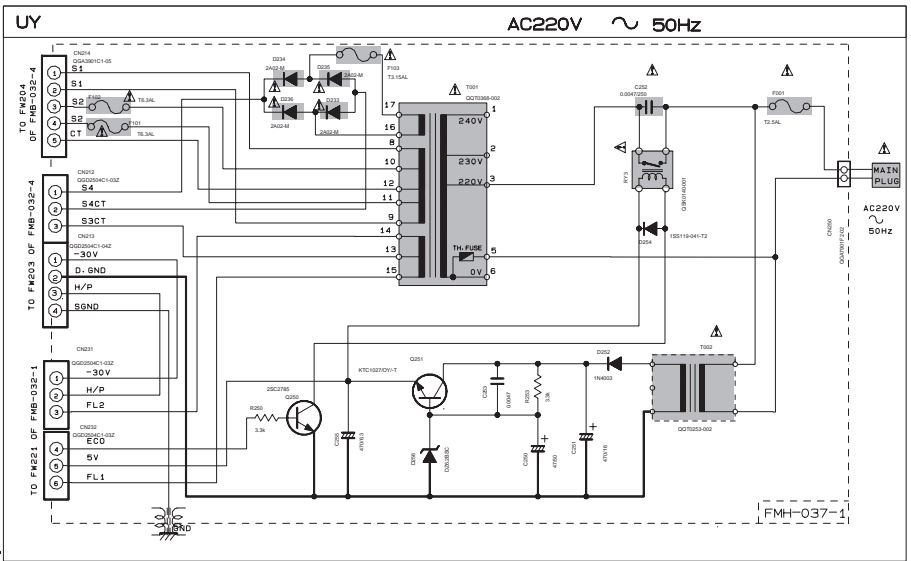
- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
CONDITIONMODE : DISC1 STOP
 2. UNLESS OTHERWISE SPECIFIED:
ALL RESISTOR ARE 1/10W 5% METAL GLAZE RESISTOR.
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM ().
ALL CAPACITANCE VALUES ARE IN P (pF).
ALL INDUCTANCE VALUES ARE IN HENRY (H).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF EAPACITANCE VOLTAGE (V).
 3. NI INDICATES COMPONENT NOT INSERTED

Power supply circuit

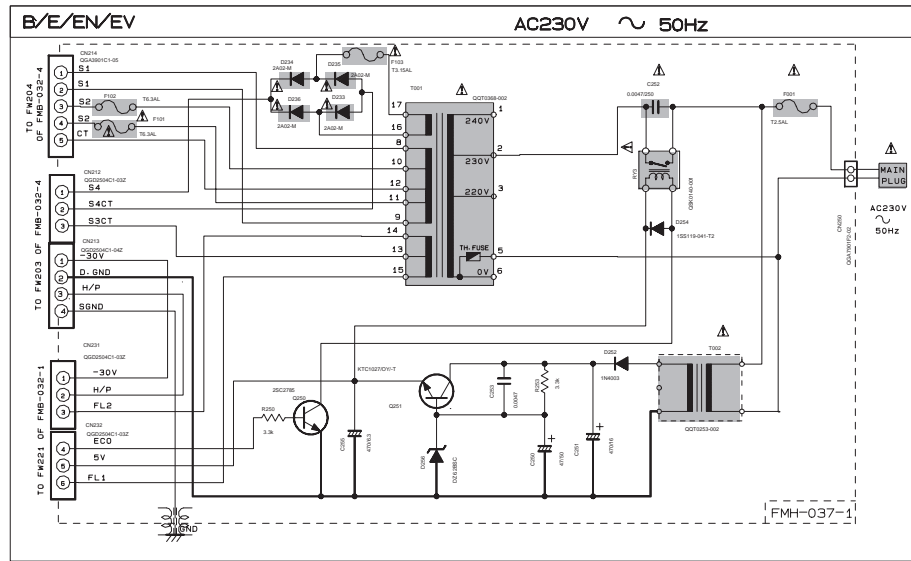
POWER SUPPLY BLOCK



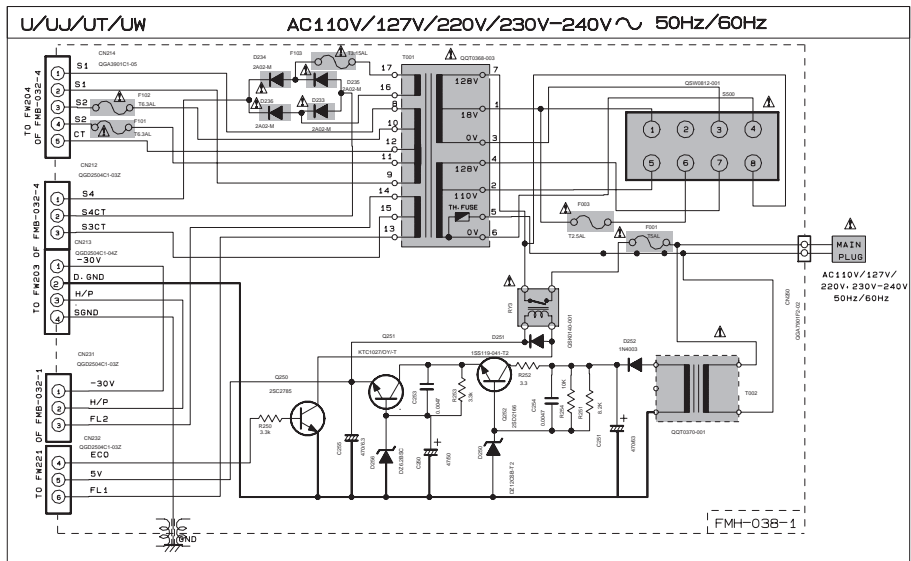
POWER SUPPLY BLOCK



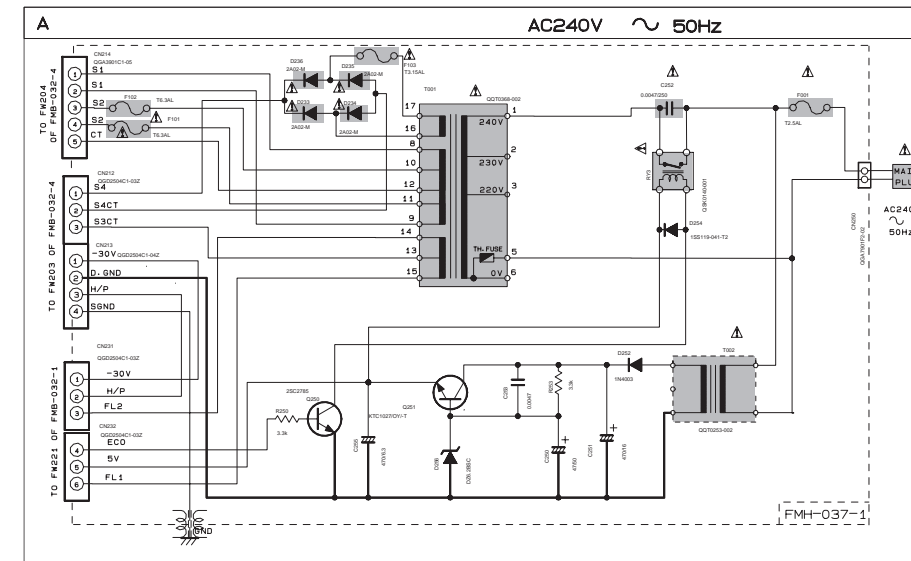
POWER SUPPLY BLOCK



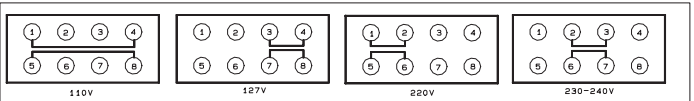
POWER SUPPLY BLOCK



POWER SUPPLY BLOCK



VOLTAGE SELECTOR LOCATION



EXPLANATION OF OVERALL OF SCHEMA.

MODEL CA-HXZ3/CA-HXZ3R/HXZ3/HX-Z3R

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 (ONLY FOR U-UJ-UT-UW)
6/10	.CD SERVO AND CD SYSTEM CONTROL .CD CHANGER MECHANISM CONTROL
7/10	.TAPE DECK MECHANISM CONTROL .TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
8/10	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR A-B-E-EN-EV)
9/10	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR C-J-U-UP-UT-UX-UY)
10/10	MP3 DECODER

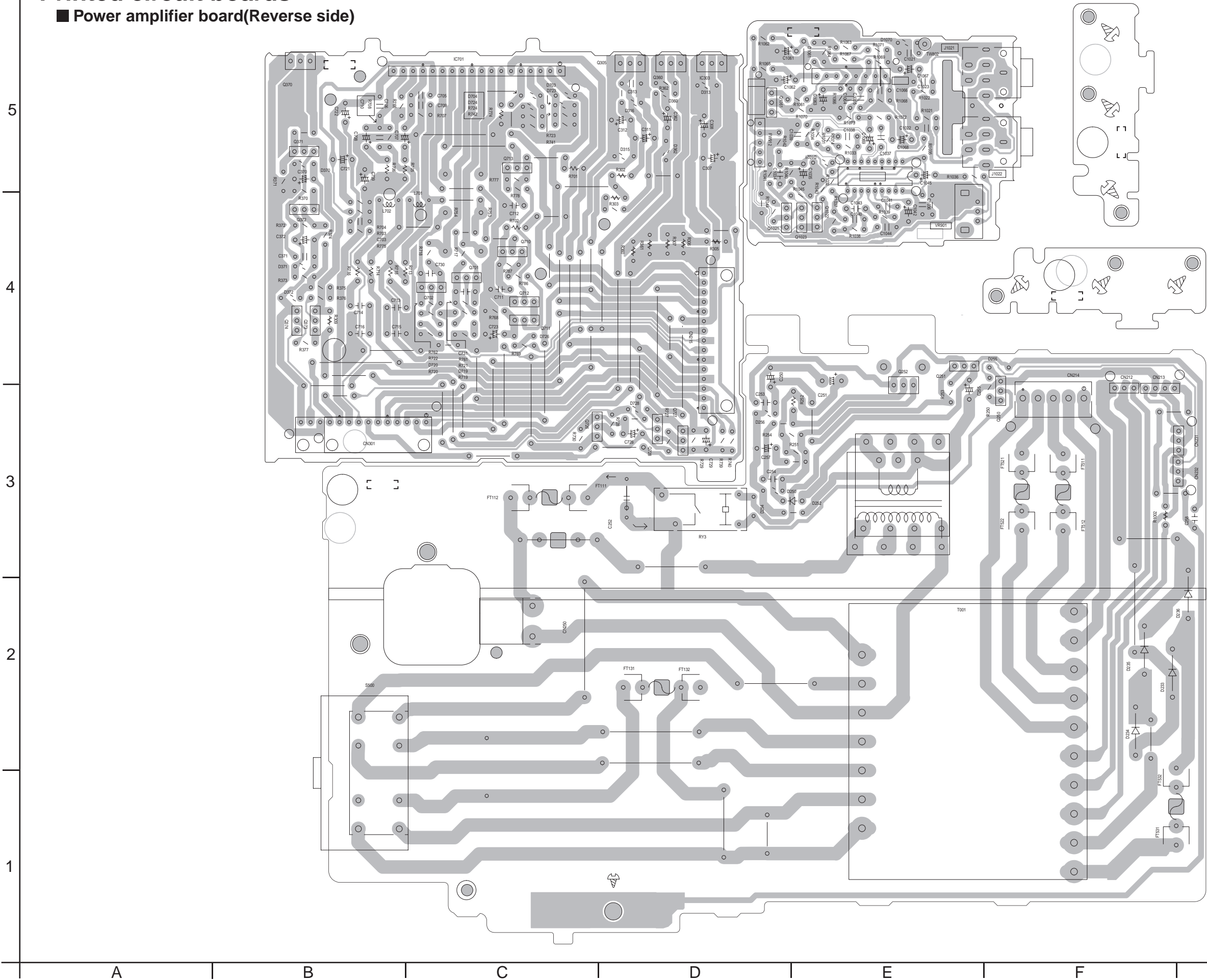
VERSION CODES

- J : U. S. A.
- C : CANADA
- B : U. K.
- E : CONTINENTAL EUROPE
- EN : NORDIC COUNTRIES
- EV : EASTERN EUROPE & RUSSIA
- A : AUSTRALIA
- UJ : MILITARY
- UT : TAIWAN
- UY : ARGENTINA
- UW : SOUTH AMERICA EXCEPT ARGENTINA
- U : UNIVERSAL EXCEPT ALL OF ABOVE

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

Printed circuit boards

■ Power amplifier board(Reverse side)



HX-Z3

HX-Z3

■ Front board(Reverse side)

5

4

3

2

1

A

B

C

2-12

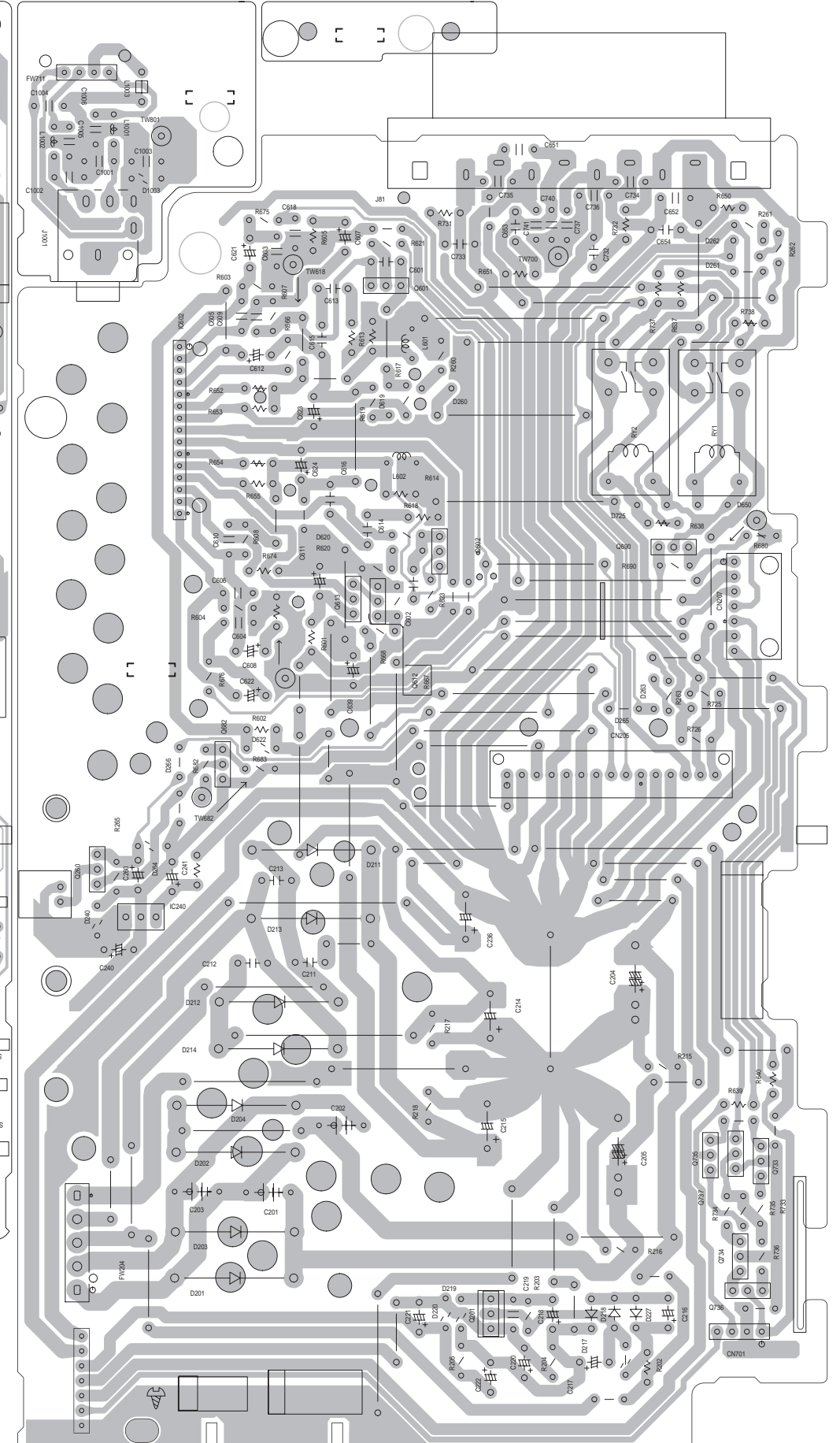
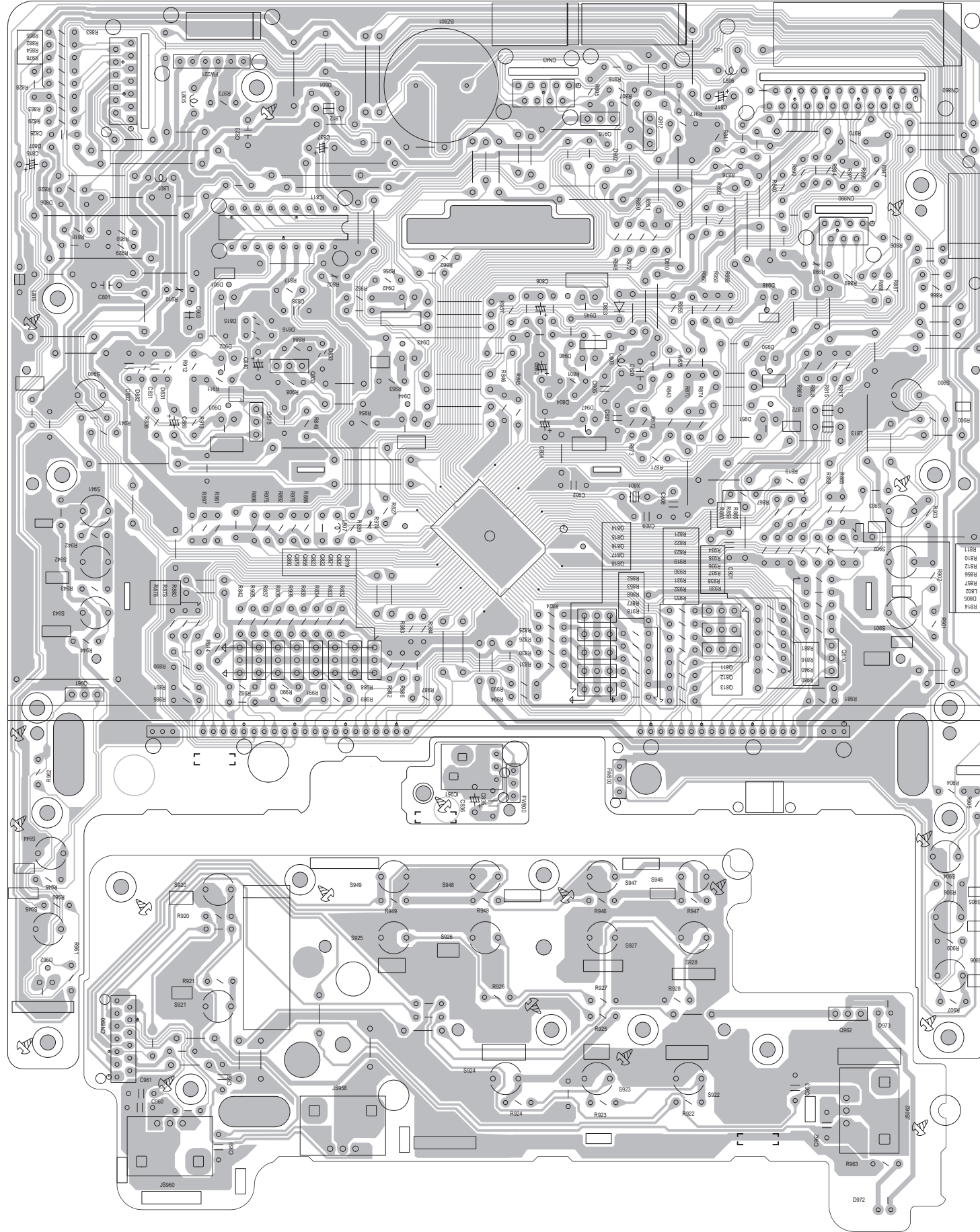
D

E

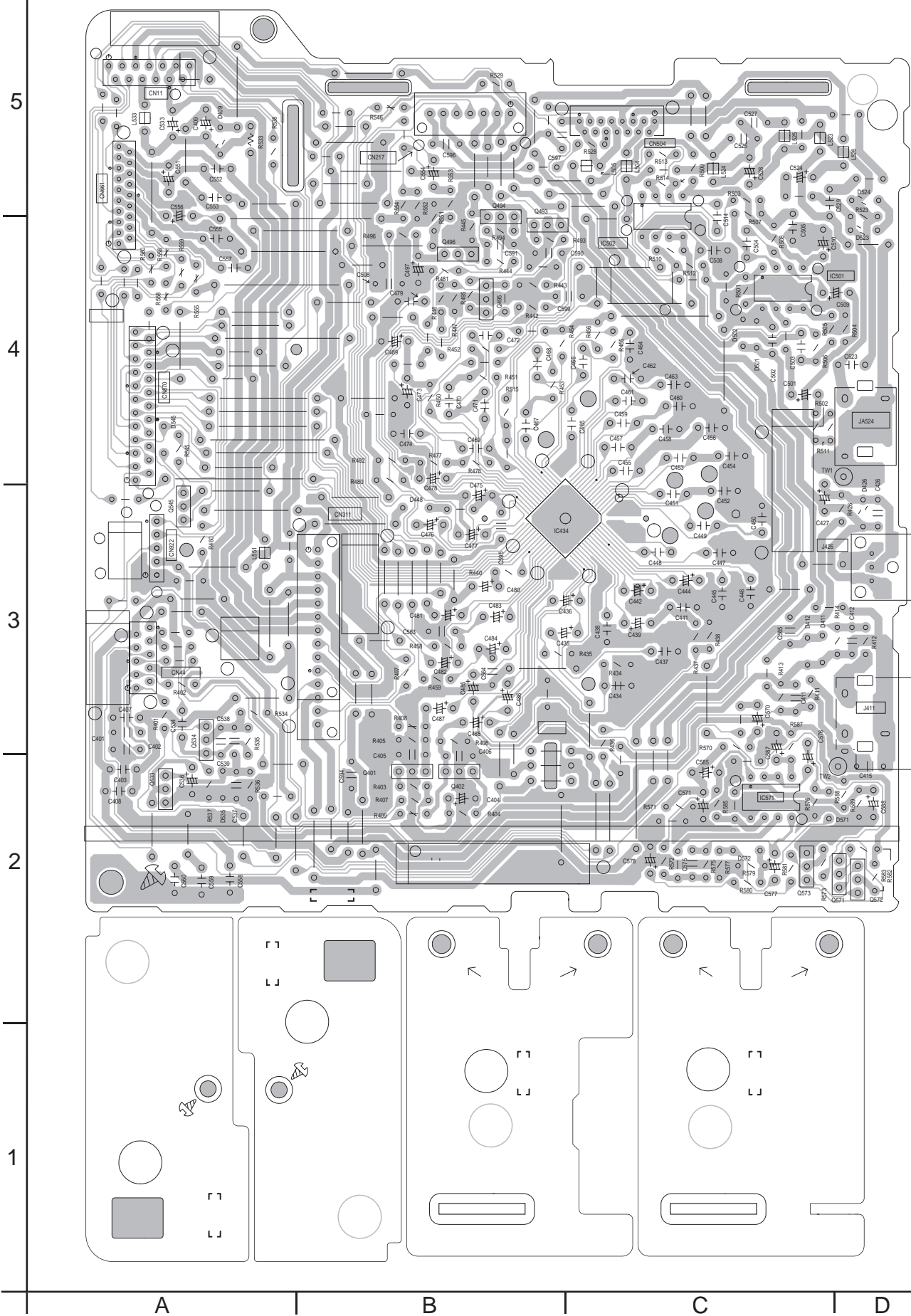
F

G

H



■ Main board(Reverse side)



< M E M O >



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