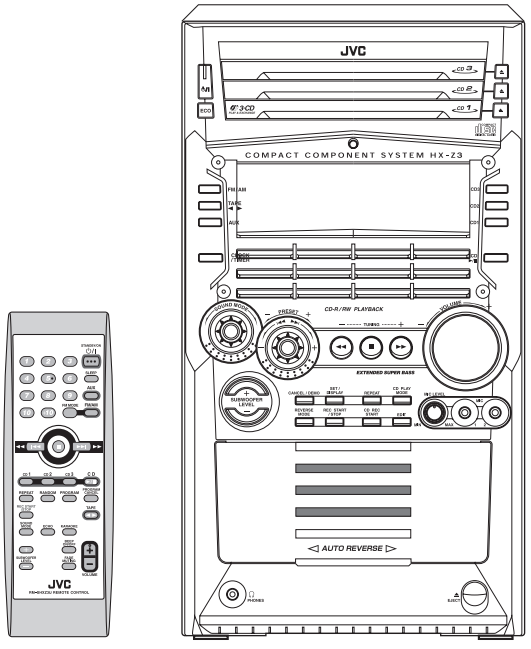
JVC

SCHEMATIC DIAGRAMS

COMPACT COMPONENT SYSTEM

HX-Z3

CD-ROM No.SML200208



COMPACT disc DIGITAL AUDIO

Area Suffix

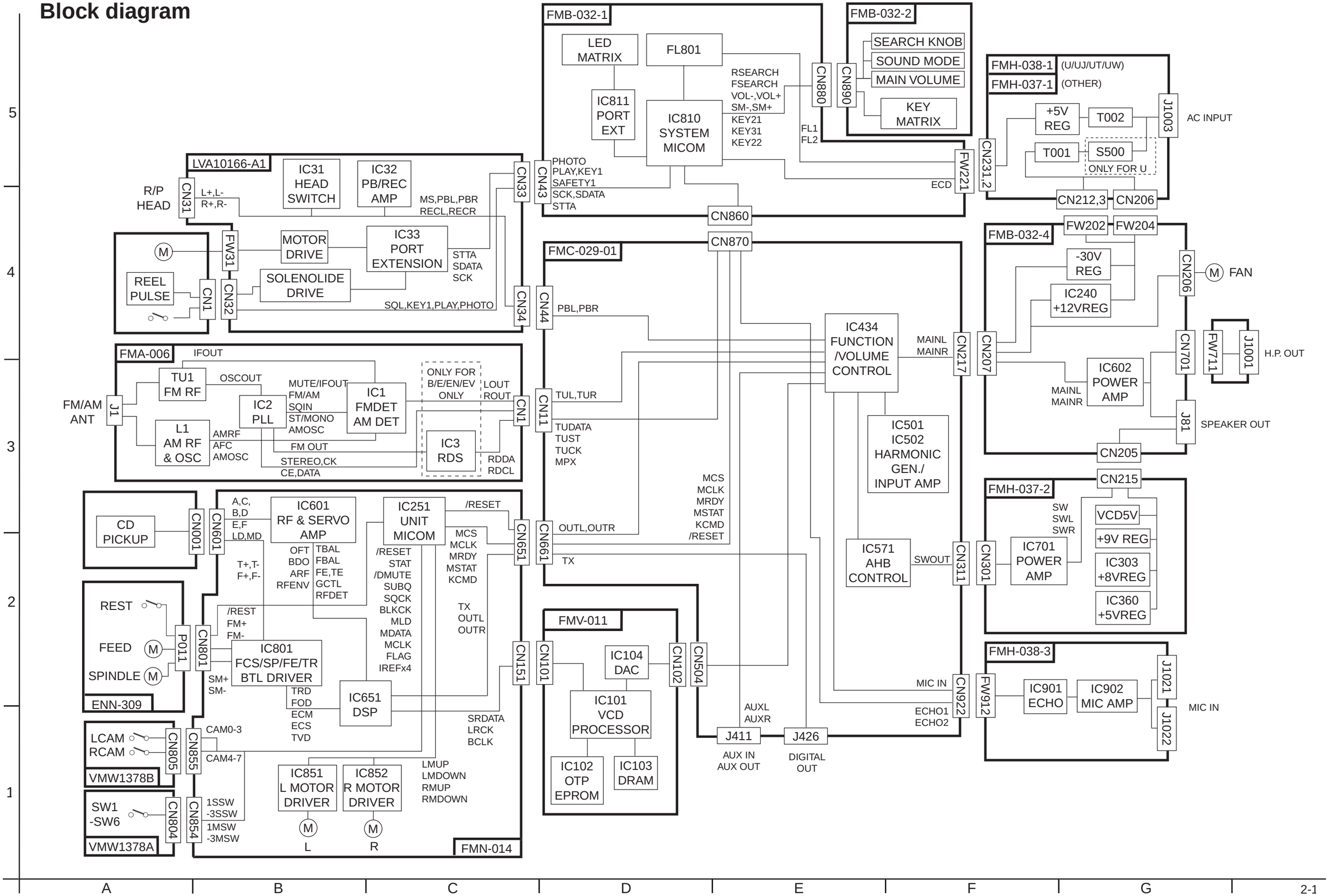
UW ---------- Brazil,Mexico,Peru

Contents

No.21141SCH
Aug. 2002

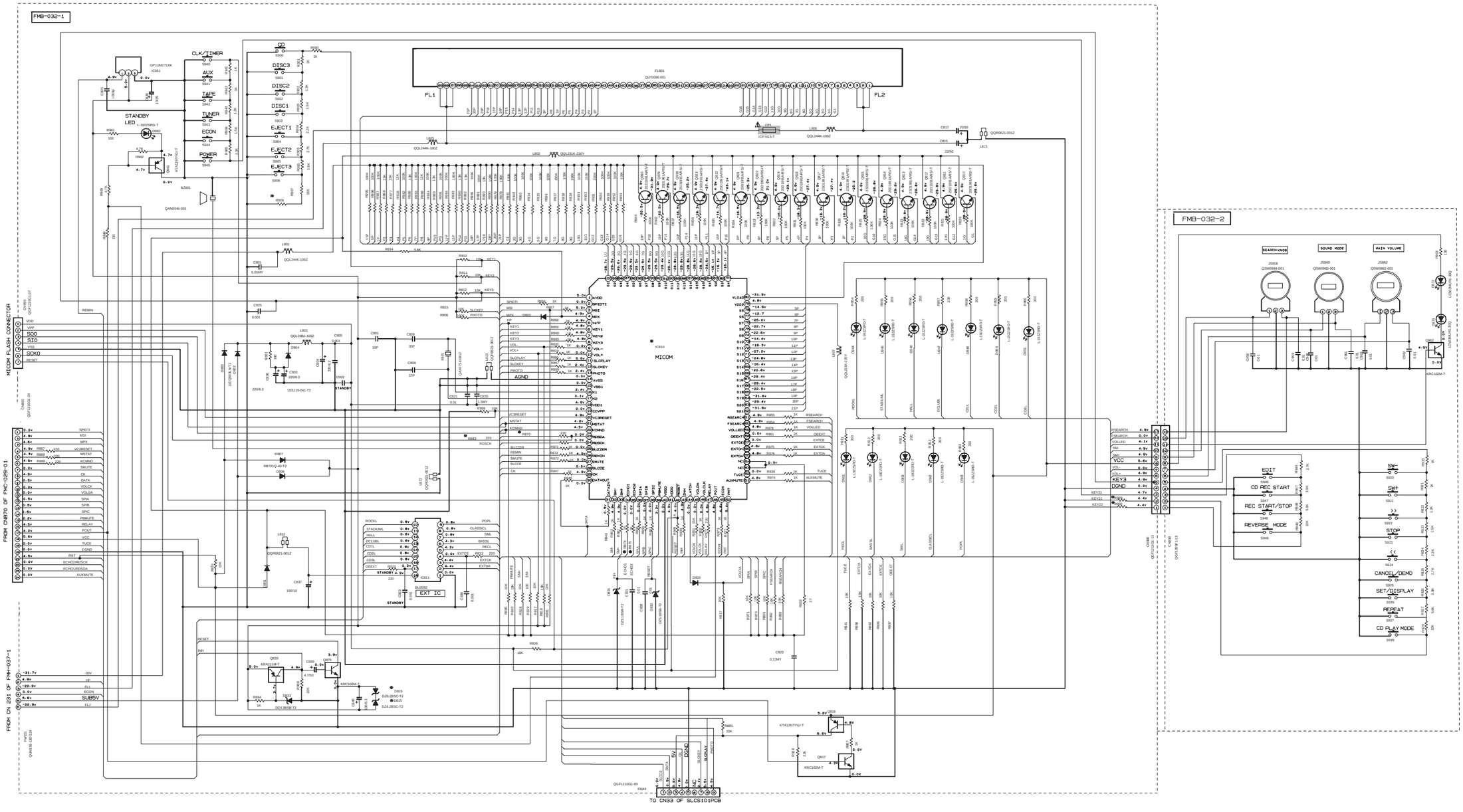
< MEMO >

Block diagram



Standard schematic diagrams

■ Front circuit



● MARK

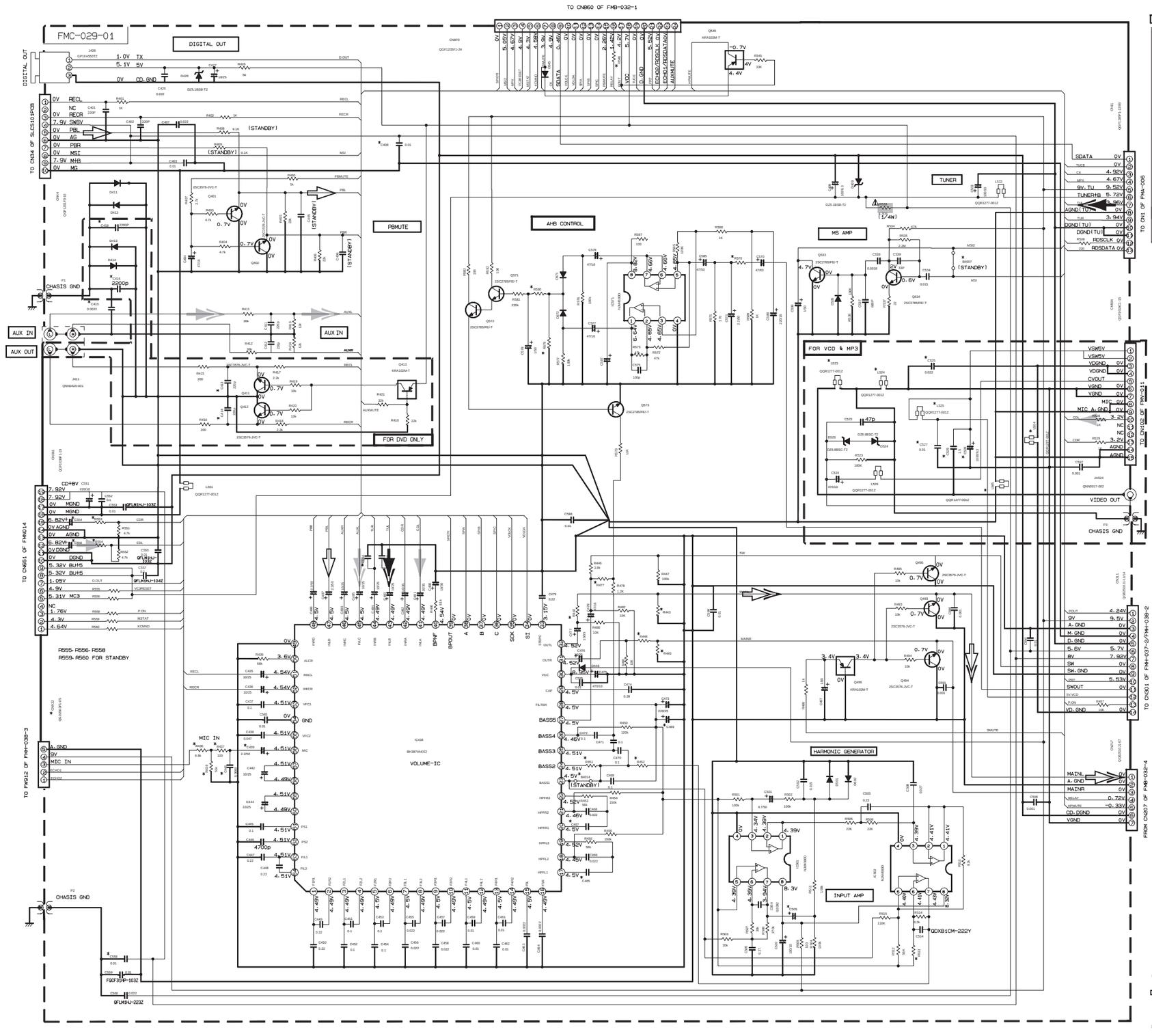
REF NO. \ VERSION	HXZ-1 B·E·EN·EV	A	J·C	U·UJ·UT·UW	UY	HXZ-3 B·E·EN·EV	A	J·C	U·UJ·UT·UW	UY
R909	330K	330K	330K	330K	330K	75K	75K	75K	330K	75K
R929	75K	330K	330K	330K	75K	75K	330K	330K	75K	75K
R950	USE	18K	330K	75K	75K	330K	18K	330K	75K	75K
R843·R870	330K	NONE	NONE	NONE	NONE	USE	NONE	NONE	NONE	NONE
R874·R875	NONE	NONE	NONE	USE	USE	NONE	NONE	NONE	USE	USE
D815·D816	DZ6.2BSC-T2	DZ6.2BSC-T2	NONE	NONE	NONE	DZ6.2BSC-T2	DZ6.2BSC-T2	NONE	NONE	NONE
CN860	QGF1210G1-23	QGF1210G1-21	QGF1210G1-21	QGF1210G1-23	QGF1210G1-21	QGF1210G1-23	QGF1210G1-21	QGF1210G1-21	QGF1210G1-23	QGF1210G1-21
IC810	UPD784975AGF303	UPD784975AGF303	UPD784975AGF303	UPD784975AGF303	UPD784975AGF303	UPD784975AGF302	UPD784975AGF302	UPD784975AGF302	UPD784975AGF302	UPD784975AGF302

NOTE: 1. CN860 ONLY USE FOR FLASH MICOM
2. R998(10K) USE FOR FLASH MICOM AND FOR MASK ROM 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.
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(=μF).
ALL INDUCTANCE VALUES ARE IN ●H(=mH).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (●F)/RATED VOLTAGE (V).
ALL DIODE ARE 1SS119-041-T2
ALL TACT SWITCH ARE QSW0674-001Z

■ Main circuit



MARK ✱

MODEL	HXZ1 & HXZ3				
VERSION	J/C	B/E EN/EV	A	UT/UW U/UJ	UY
C408	NONE	0.01		NONE	
C558	NONE	0.01		NONE	
C563	NONE	0.01		NONE	
C564	NONE	0.01		NONE	
R477	12K	12K		6.8K	
R538	NONE	220	NONE	NONE	
CN922	NONE	NONE		QGD2503F1-05	NONE
CN870	QGF1205F1-21	QGF1205F1-23	QGF1205F1-21	QGF1205F1-21	QGF1205F1-21
CN11	QGF1205F1-09	QGF1205F1-13	QGF1205F1-09	QGF1205F1-09	QGF1205F1-09
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

MARK ✱

MODEL	HX-Z1					HX-Z3				
VERSION	J/C	B/E EN/EV	A	UT/UW U/UJ	UY	J/C	B/E EN/EV	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			10K		6.2K		
R579	150K					220K				
R580	6.8K					22K				
C465	QFG32AJ-223Z (0.022)					QFZ0160-223Z (0.022)				
C467	QFG32AJ-223Z (0.022)					QFZ0160-223Z (0.022)				
C489	NONE					47/16				
C509	4.7/50					10/16				
R546	10K	220		NONE		NONE				
CN504	NONE					QGF1036F1-15				
L523	NONE					QQR1277-001Z				
L524	NONE					QQR1277-001Z				
L525	NONE					QQR1277-001Z				
R528	NONE					1K				
R529	NONE					1K				
C525	NONE					0.022				
C527	NONE					0.01				
C528	NONE					1000/6.3				
C529	NONE					QCZ0202-155Z (1.5)				
R553	11K					NONE				
R554	11K					NONE				
C554	10/25					NONE				
C556	10/25					NONE				

	HX-Z1					HX-Z3				
	J/C	B/E EN/EV	A	UT/UW U/UJ	UY	J/C	B/E EN/EV	A	UT/UW U/UJ	UY
L504	NONE					QQR1277-001Z				
L505	NONE					QQR1277-001Z				
C596	NONE					0.001				
C597	NONE					0.001				
C594	NONE					0.01		NONE		
C565	NONE					0.01		NONE		
C598	NONE					0.01		NONE		
C599	NONE					0.01		NONE		
C590	NONE	0.001		NONE		NONE				
C591	NONE	0.001		NONE		NONE				
C595	NONE	0.01		NONE		NONE				

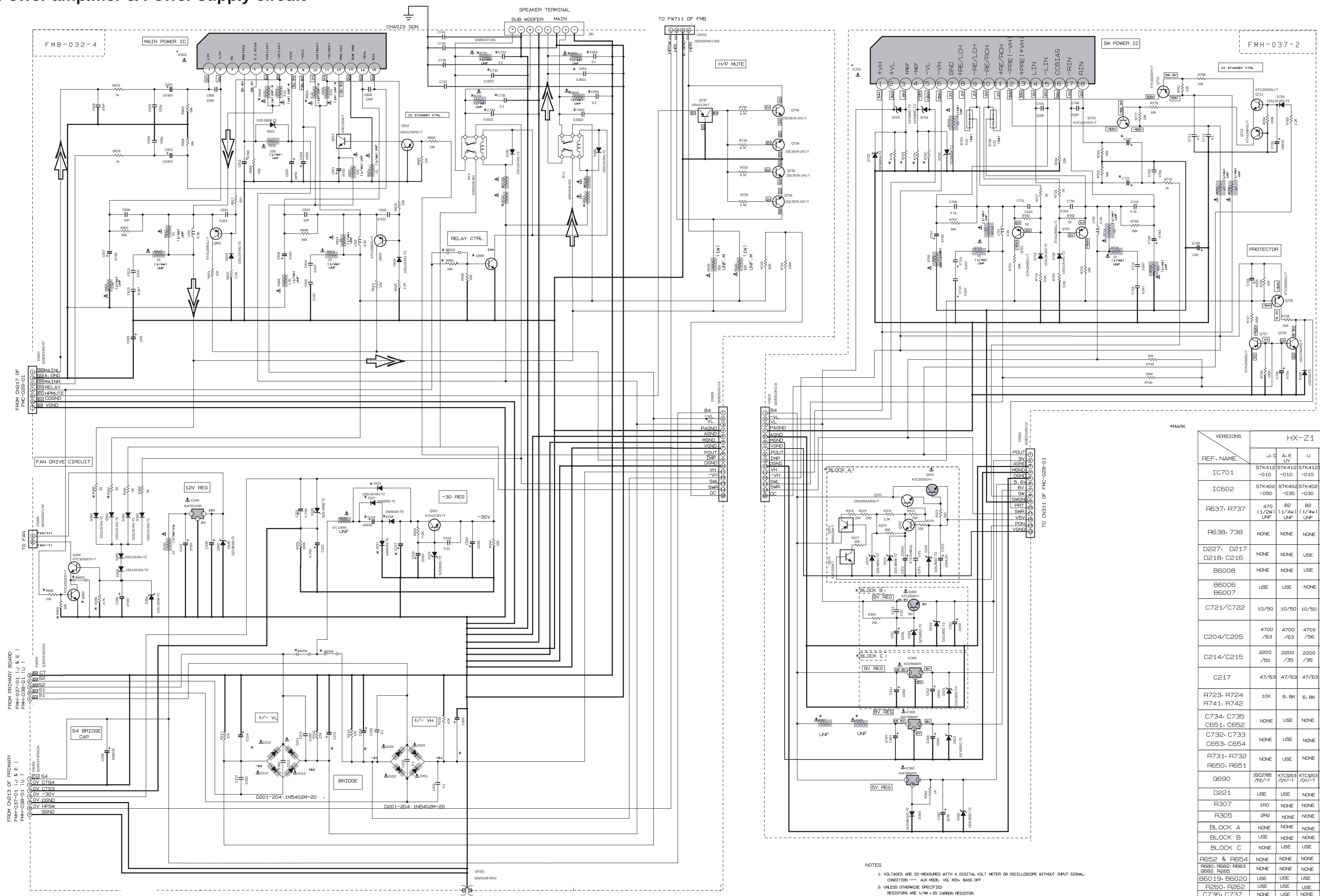
NOTES

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 ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN #F(=μF).
   ALL INDUCTANCE VALUES ARE IN #H(=mH).
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
   ALL DIODES ARE ESS119-041-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



*MARK

VERSIONS / REF. NAME	HX-Z1 J, C	HX-Z1 A, E UY	HX-Z1 U	HX-Z1 UT	HX-Z3 J, C	HX-Z3 A, E UY	HX-Z3 U	HX-Z3 UT
IC701	STK412 -010	STK412 -010	STK412 -010	STK412 -010	STK412 -020	STK412 -020	STK412 -020	STK412 -020
IC602	STK402 -050	STK402 -030	STK402 -030	STK402 -030	STK402 -070	STK402 -070	STK402 -070	STK402 -070
R637, R737	470 (1/2W) UNF	82 (1/4w) UNF	82 (1/4w) UNF	82 (1/4w) UNF	470 (1/2W) UNF	270 (1/2W) UNF	270 (1/2W) UNF	270 (1/2W) UNF
R638, 738	NONE	NONE	NONE	NONE	470 (1/2W) UNF	270 (1/2W) UNF	270 (1/2W) UNF	270 (1/2W) UNF
D227, D217 D218, C216	NONE	NONE	USE	USE	NONE	NONE	USE	USE
B6008	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE
B6006 B6007	USE	USE	NONE	USE	USE	USE	NONE	USE
C721/C722	10/50	10/50	10/50	10/50	10/35	10/35	10/35	10/35
C204/C205	4700 /63	4700 /63	4700 /56	4700 /56	4700 /63	4700 /63	4700 /63	4700 /63
C214/C215	2200 /50	2200 /35	2200 /35	2200 /35	2200 /50	2200 /50	2200 /50	2200 /50
C217	47/63	47/63	47/63	47/63	47/100	47/100	47/100	47/100
R723, R724 R741, R742	10K	6.8K	6.8K	6.8K	10K	6.8K	6.8K	6.8K
C734, C735 C651, C652	NONE	USE	NONE	NONE	USE	USE	NONE	NONE
C732, C733 C653, C654	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
R731, R732 R650, R651	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
Q690	2SC2785 /FE/-T	KTC3203 /OY/-T	KTC3203 /OY/-T	KTC3203 /OY/-T	2SC2785 /FE/-T	KTC3203 /OY/-T	KTC3203 /OY/-T	KTC3203 /OY/-T
D221	USE	USE	NONE	NONE	USE	USE	NONE	NONE
R307	1R0	NONE	NONE	NONE	1R0	NONE	NONE	NONE
R305	2R2	NONE	NONE	NONE	2R2	NONE	NONE	NONE
BLOCK A	NONE	NONE	NONE	NONE	USE	USE	USE	USE
BLOCK B	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE
BLOCK C	NONE	USE	USE	USE	NONE	USE	USE	USE
R652 & R654	NONE	NONE	NONE	NONE	USE	NONE	NONE	NONE
R680, R682, R683 Q682 R265	NONE	NONE	NONE	NONE	USE	USE	USE	USE
B6019, B6020	USE	USE	USE	USE	NONE	NONE	NONE	NONE
R260, R262	USE	USE	USE	USE	NONE	NONE	NONE	NONE
C736, C737	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
C740, C741	NONE	NONE	NONE	NONE	NONE	USE	NONE	NONE
C618	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
Q201	KTA1273	KTA1273	KTA1273	KTA1273	2SB1274	2SB1274	2SB1274	2SB1274

NOTES

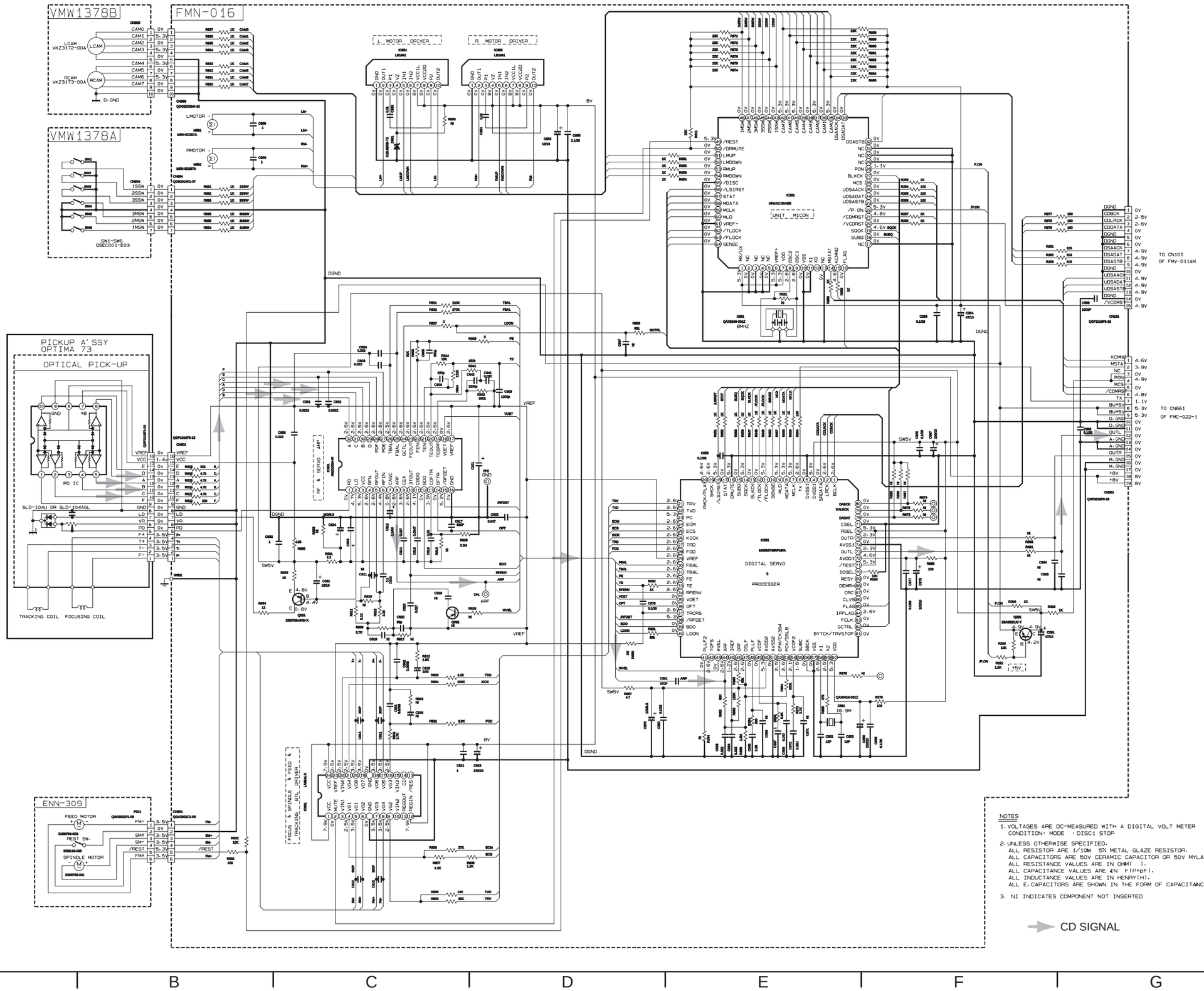
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION --- AUX MODE, VOL MIN, BASS OFF
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.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

⇒ MAIN SIGNAL

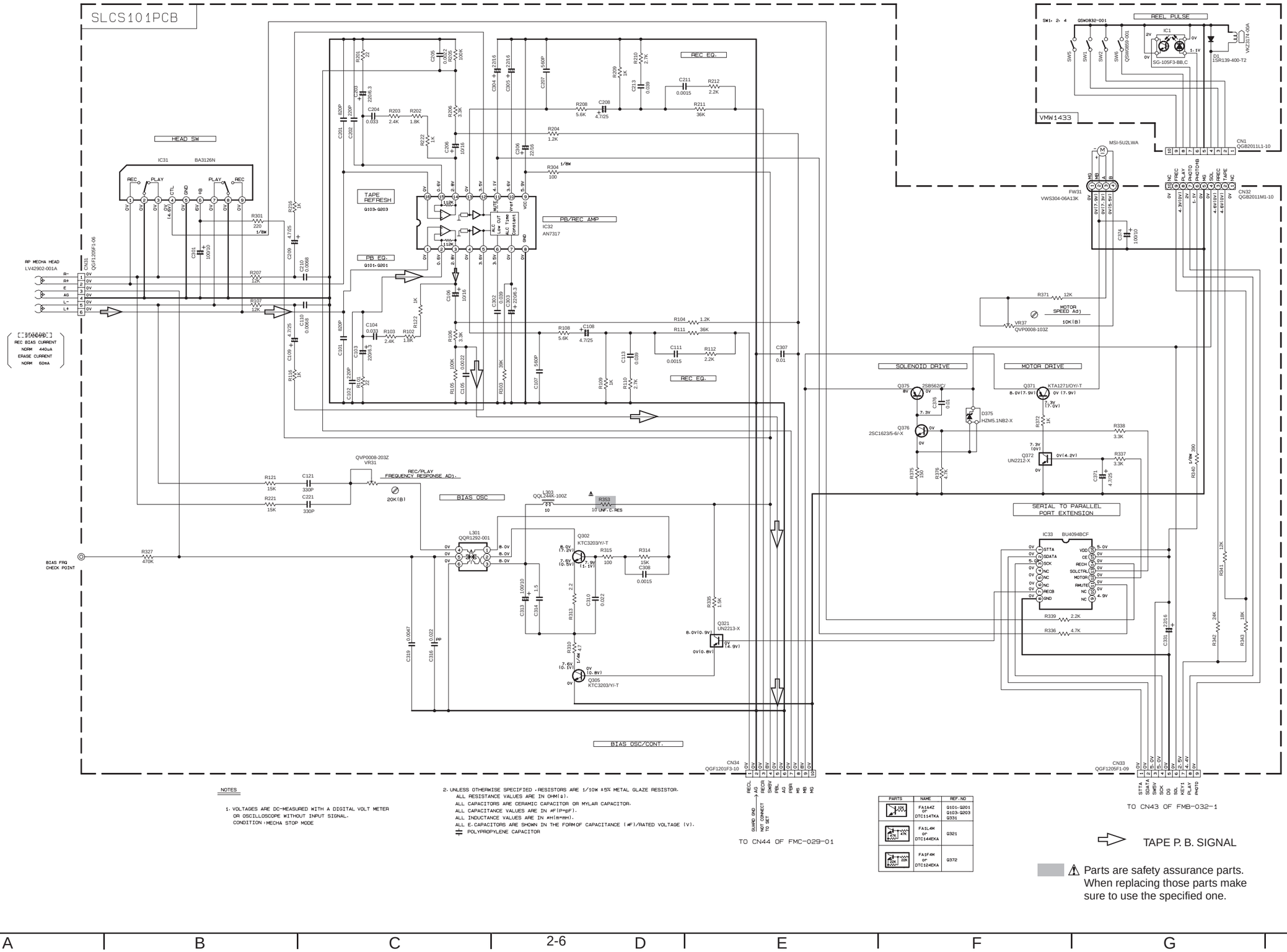
⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

A B C D E F G H

■ CD control circuit



■ Tape circuit



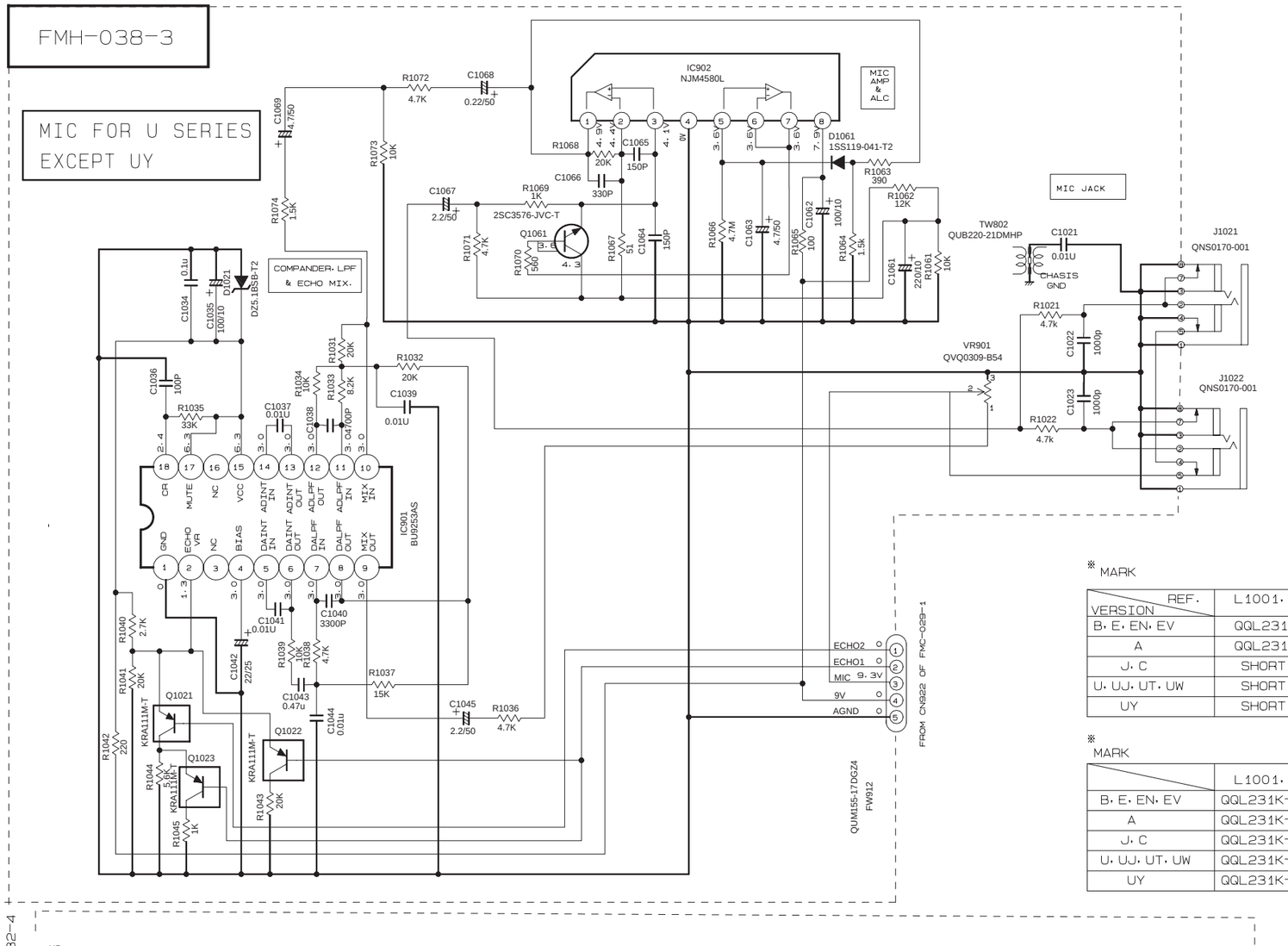
NOTES

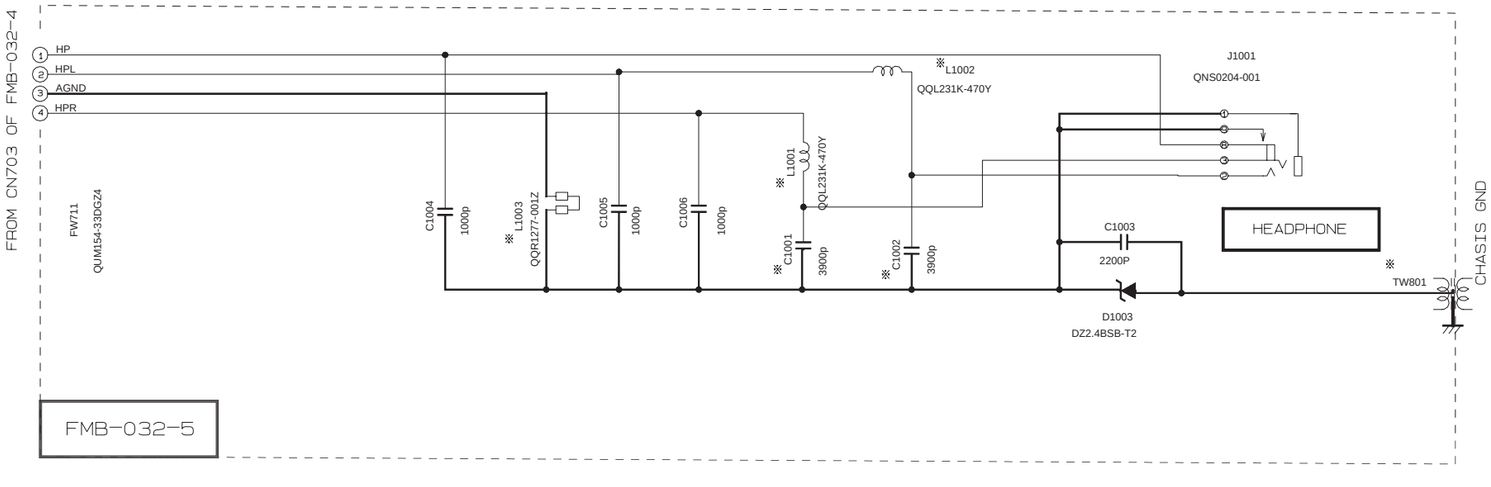
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION : MECHA STOP MODE

2. UNLESS OTHERWISE SPECIFIED , RESISTORS ARE 1/10W ±5% METAL GLAZE 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 mH(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORMOF CAPACITANCE (μF)/RATED VOLTAGE (V).
   POLYPROPYLENE CAPACITOR

PARTS	NAME	REF.NO
	FA1A4Z or DTC114TKA	Q101·Q201 Q103·Q203 Q331
	FA1L4M or DTC144EKA	Q321
	FA1F4M or DTC124EKA	Q372

■ Mic & Head phone circuit





※ MARK

HX-Z1

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

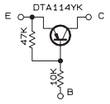
NOTES

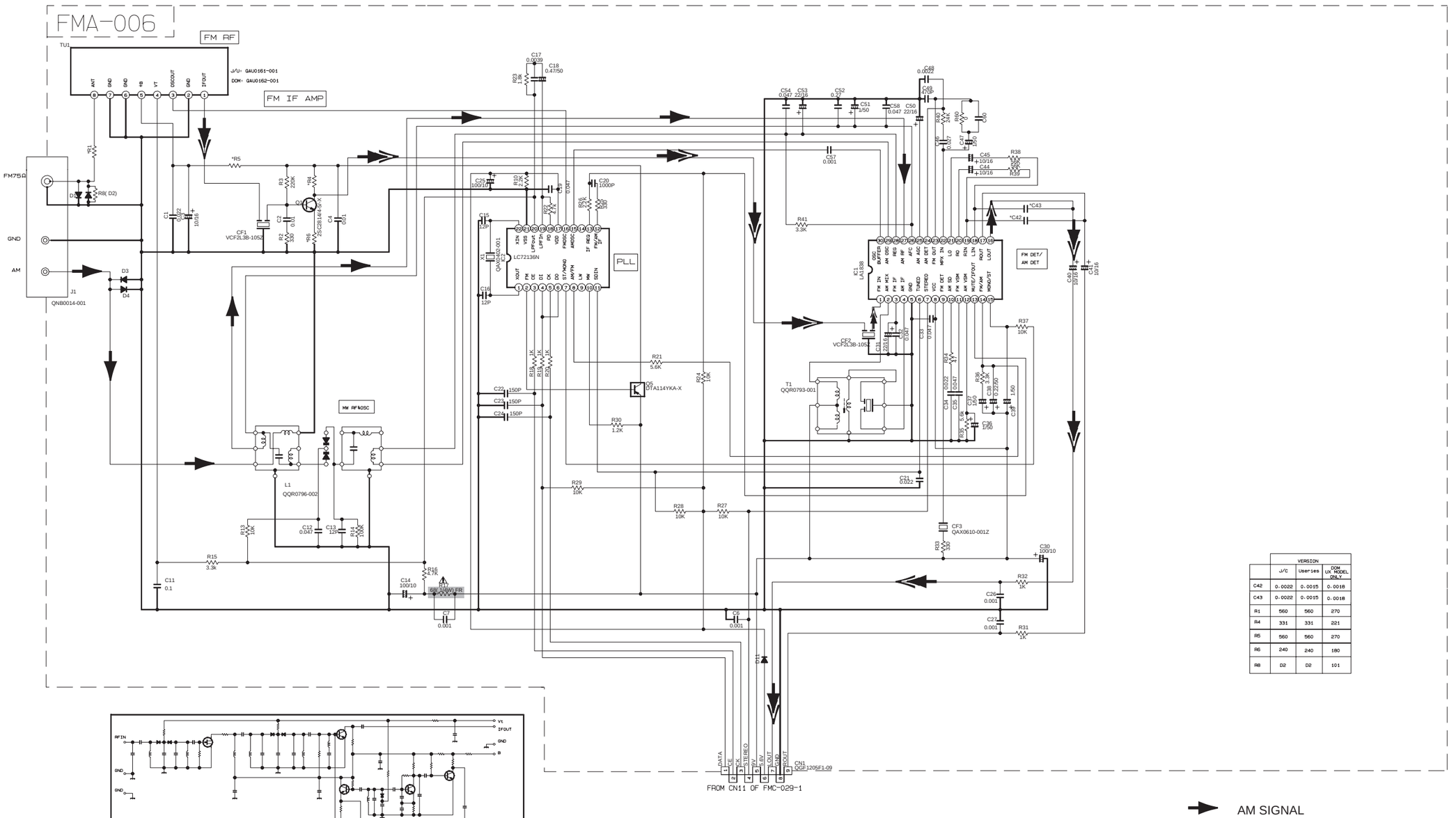
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION --- AUX MODE, ECHO OFF
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.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

■ Tuner circuit

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-T2 UNLESS SPECIFIED THESE DIODES 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	Useries	DOM UX 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

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

■ MP3 circuit

FMV-011

IC102 ST27V020-70SCM1 OTP EPROM

IC101 ES3880FL VCD PROCESSOR

IC103 DRAM SLT44016-35JA-X

IC107 NJM4580E-W

IC108 TC74HCU04AF

IC105 RT9161A-27CG-X

K106 NQR0428-002X

K107 NQR0428-002X

K103 NRSA022-180X

K104 NRSA022-102X

K101 NRSA022-0R0X

K102 NRSA022-0R0X

TO CN504 OF FMC-029-01

TO CN151 OF FMN-016

CN101 QGF1016F3-15

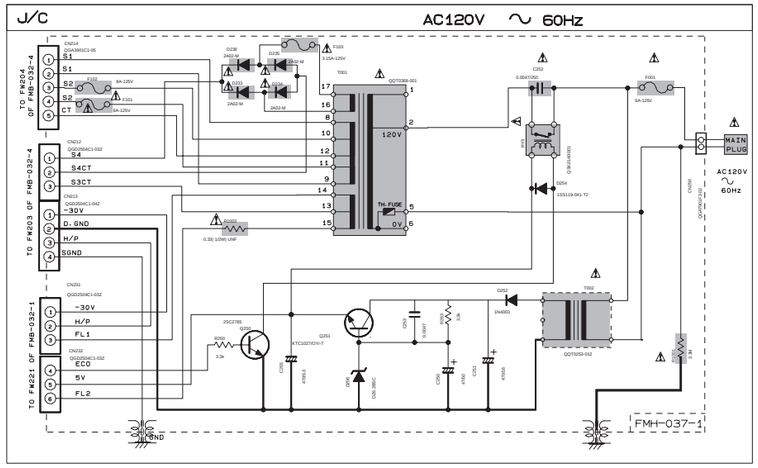
CD SIGNAL

NOTES

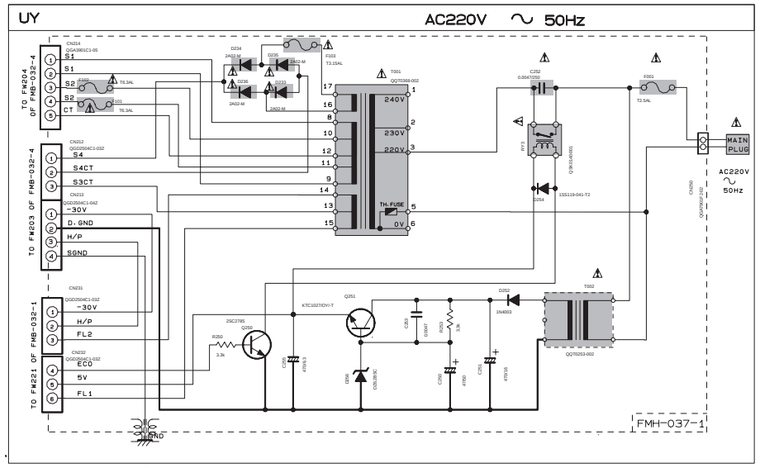
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
   CONDITION:MODE :DISC1 STOP
2. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTOR ARE ±/10W ±5% METAL GLAZE RESISTOR.
   ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
   ALL RESISTANCE VALUES ARE IN OHM( ).
   ALL CAPACITANCE VALUES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

■ Power supply circuit

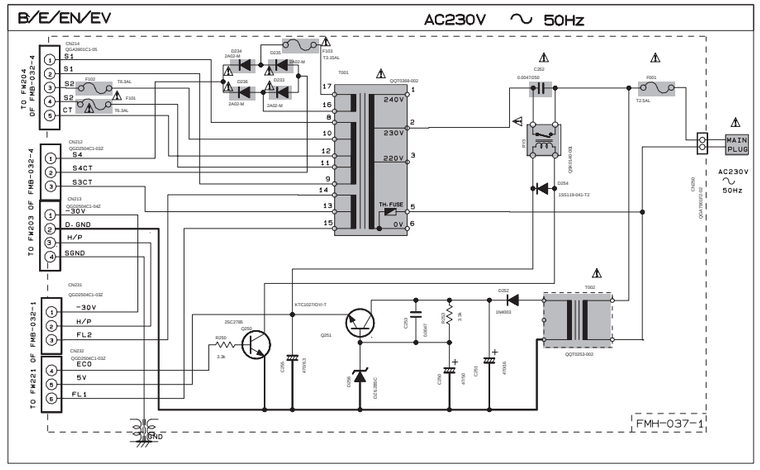
POWER SUPPLY BLOCK



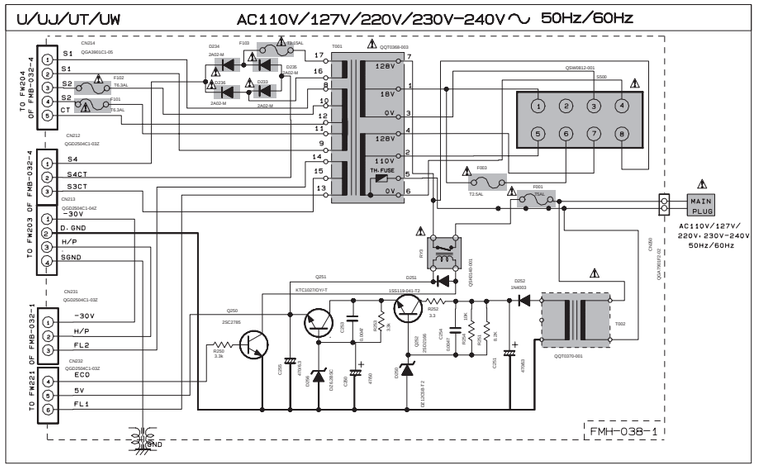
POWER SUPPLY BLOCK



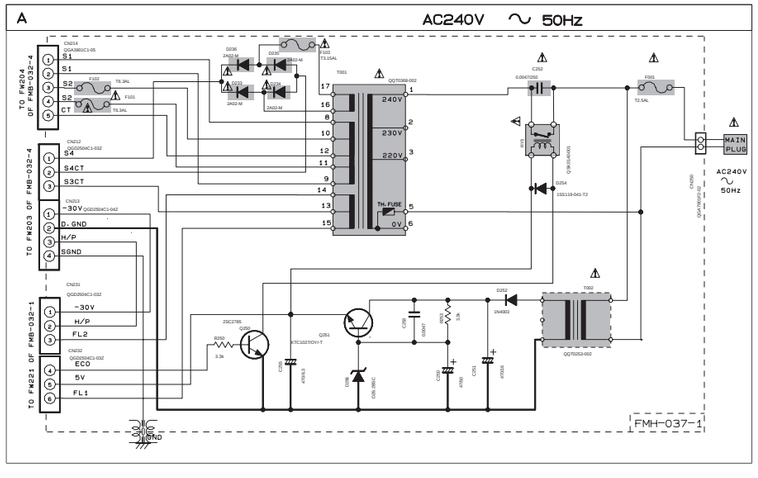
POWER SUPPLY BLOCK



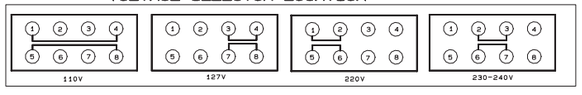
POWER SUPPLY BLOCK



POWER SUPPLY BLOCK



VOLTAGE SELECTOR LOCATION



EXPLANATION OF OVERALL OF SCHEMA.

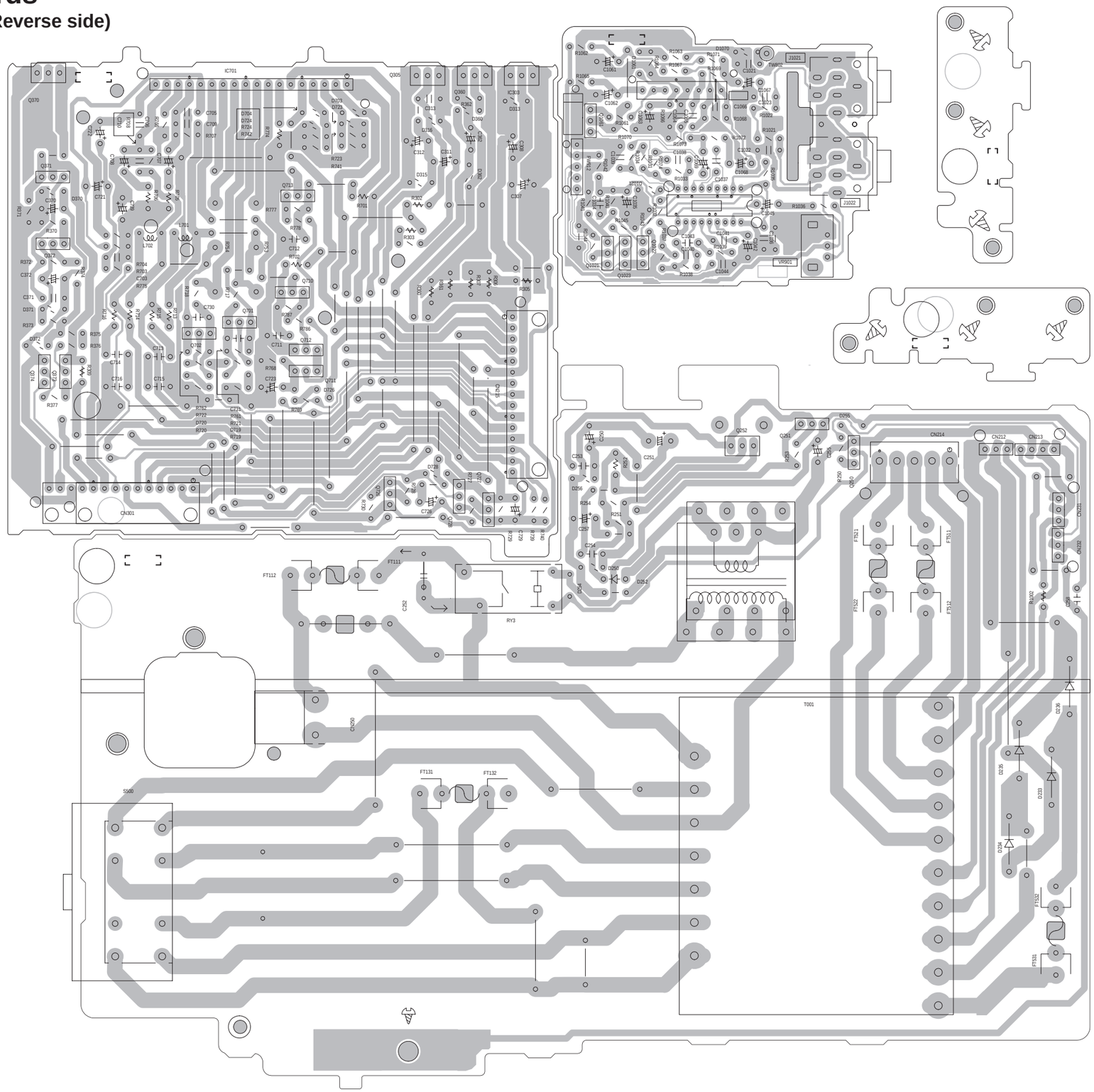
MODEL CA-HXZ3/CA-HXZ3R/HXZ3/HX-Z3R

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· US· 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

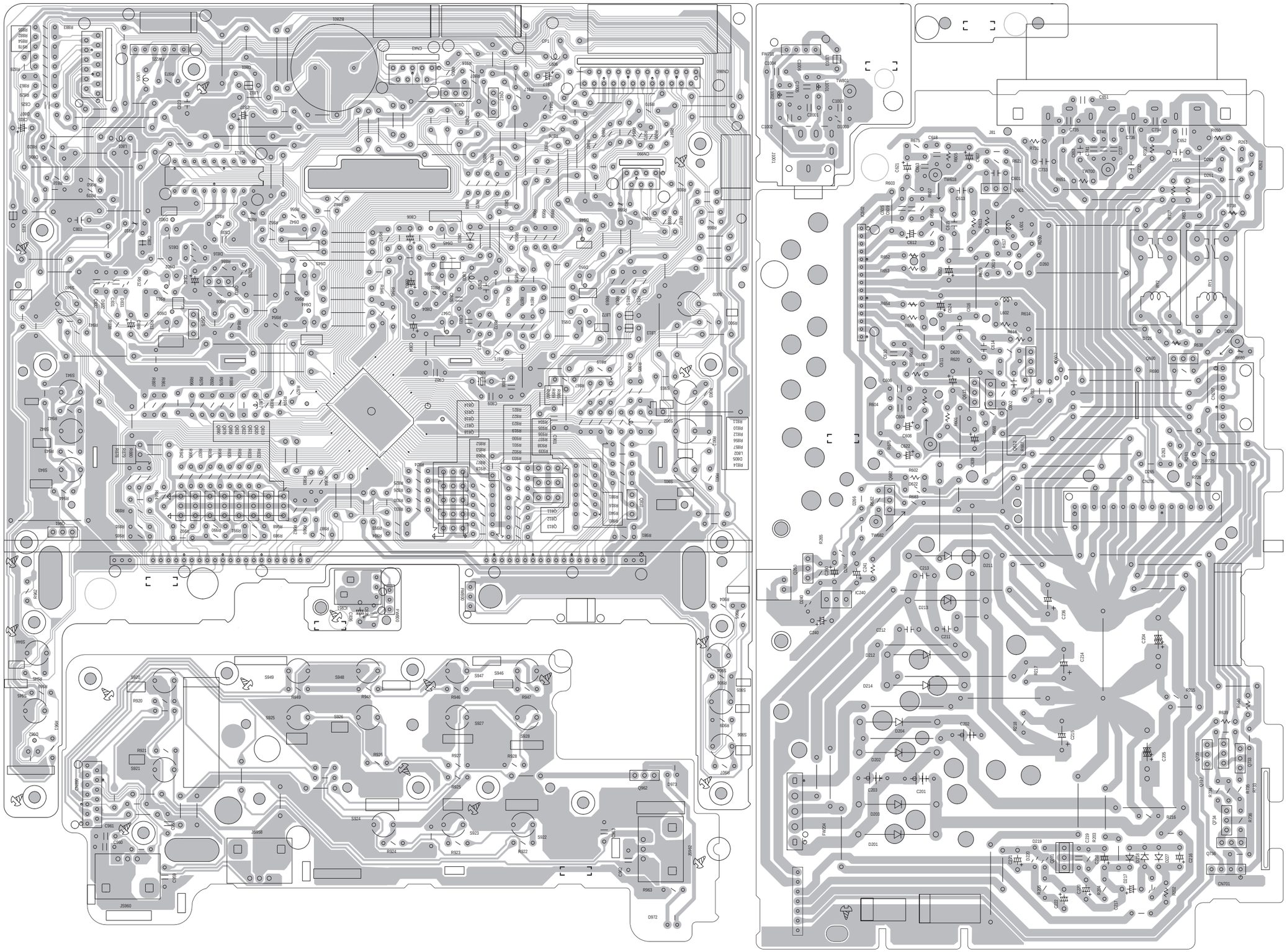
⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.



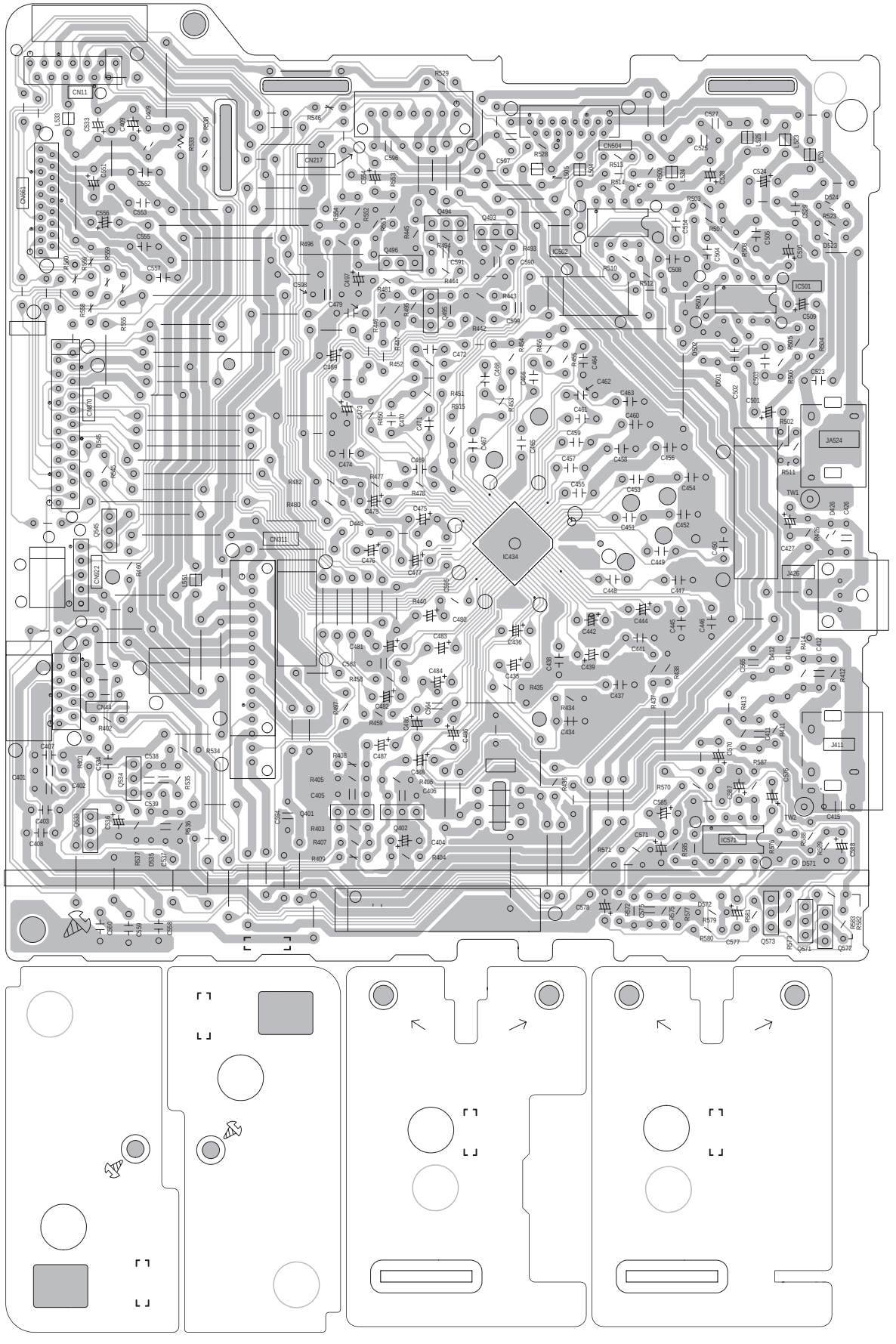
Printed circuit boards

■ Power amplifier board(Reverse side)

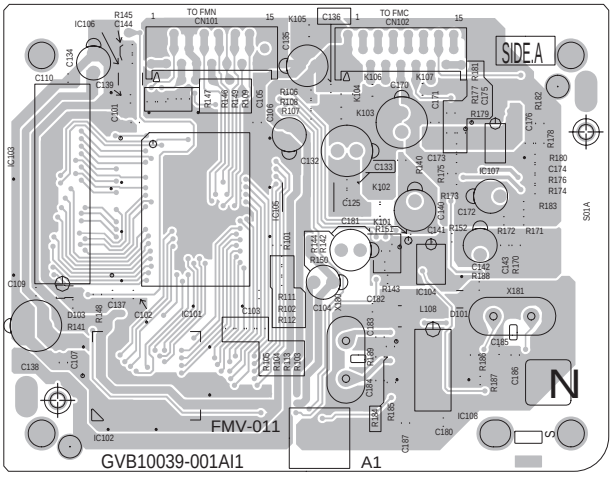
■ Front board(Reverse side)



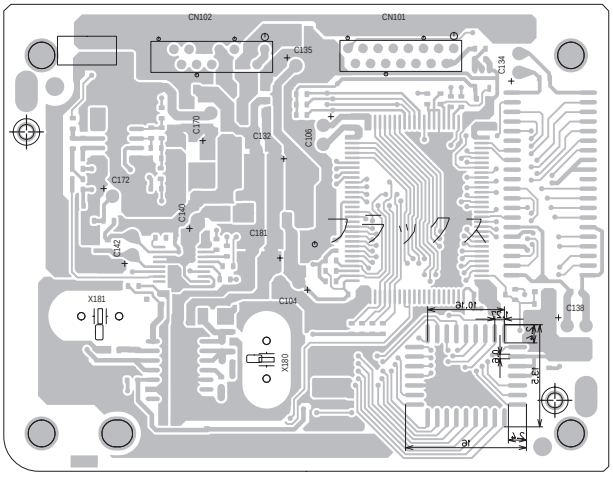
■ Main board(Reverse side)



■ Relay board(Forward side)



■ Relay board(Reverse side)



< MEMO >

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