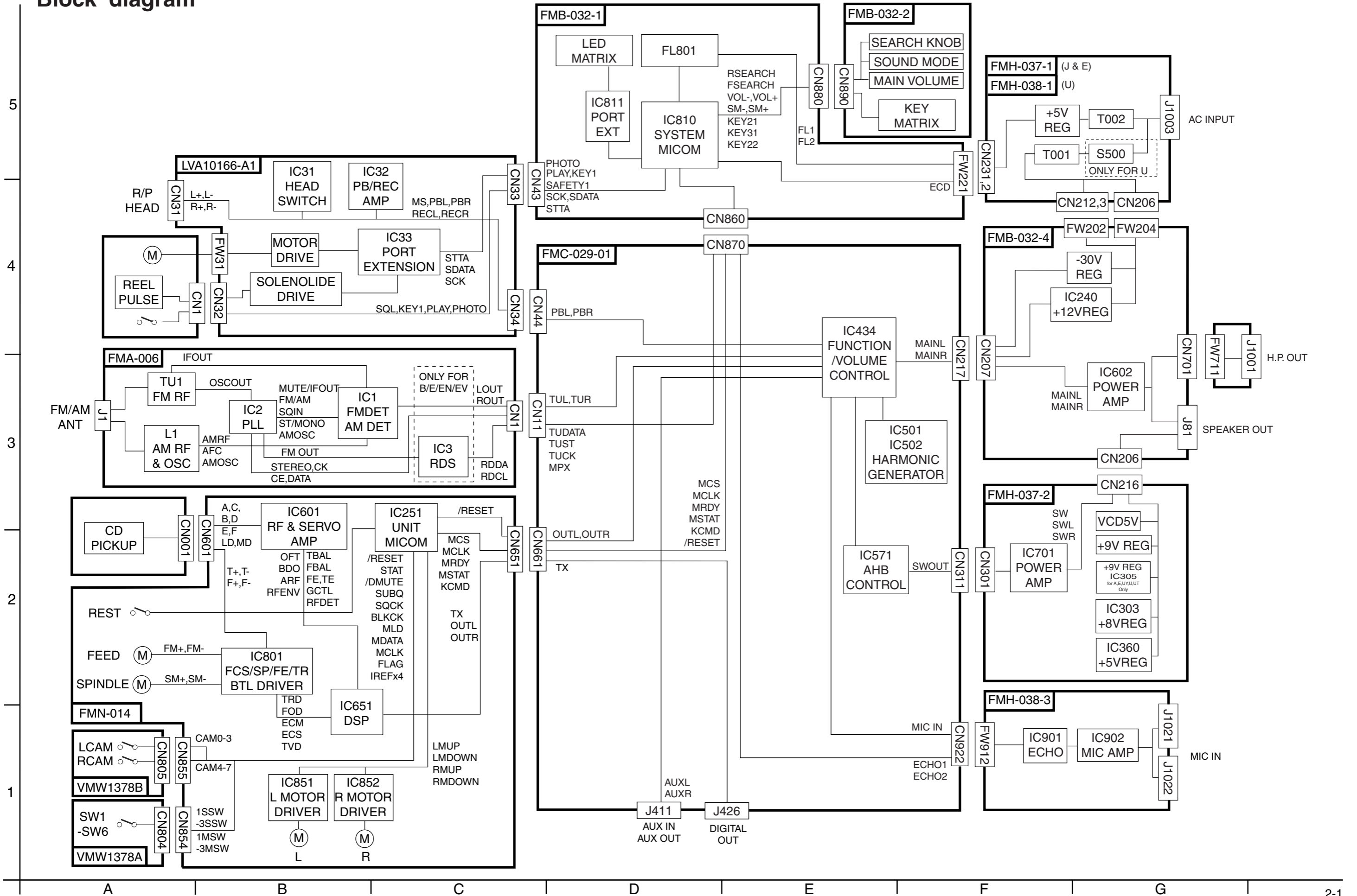


Block diagram



Standard schematic diagrams

■ Front circuit

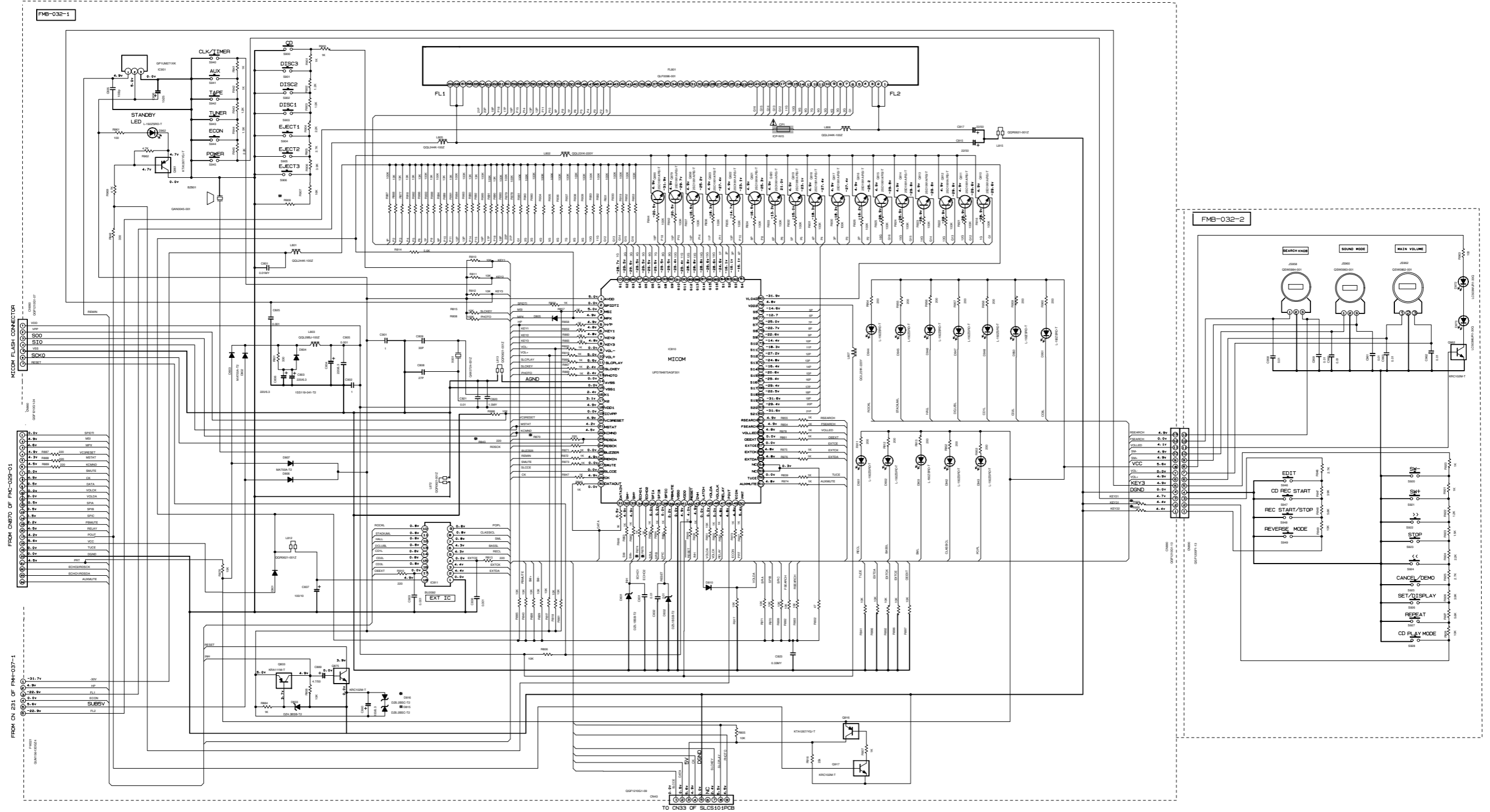
5

4

3

2

1



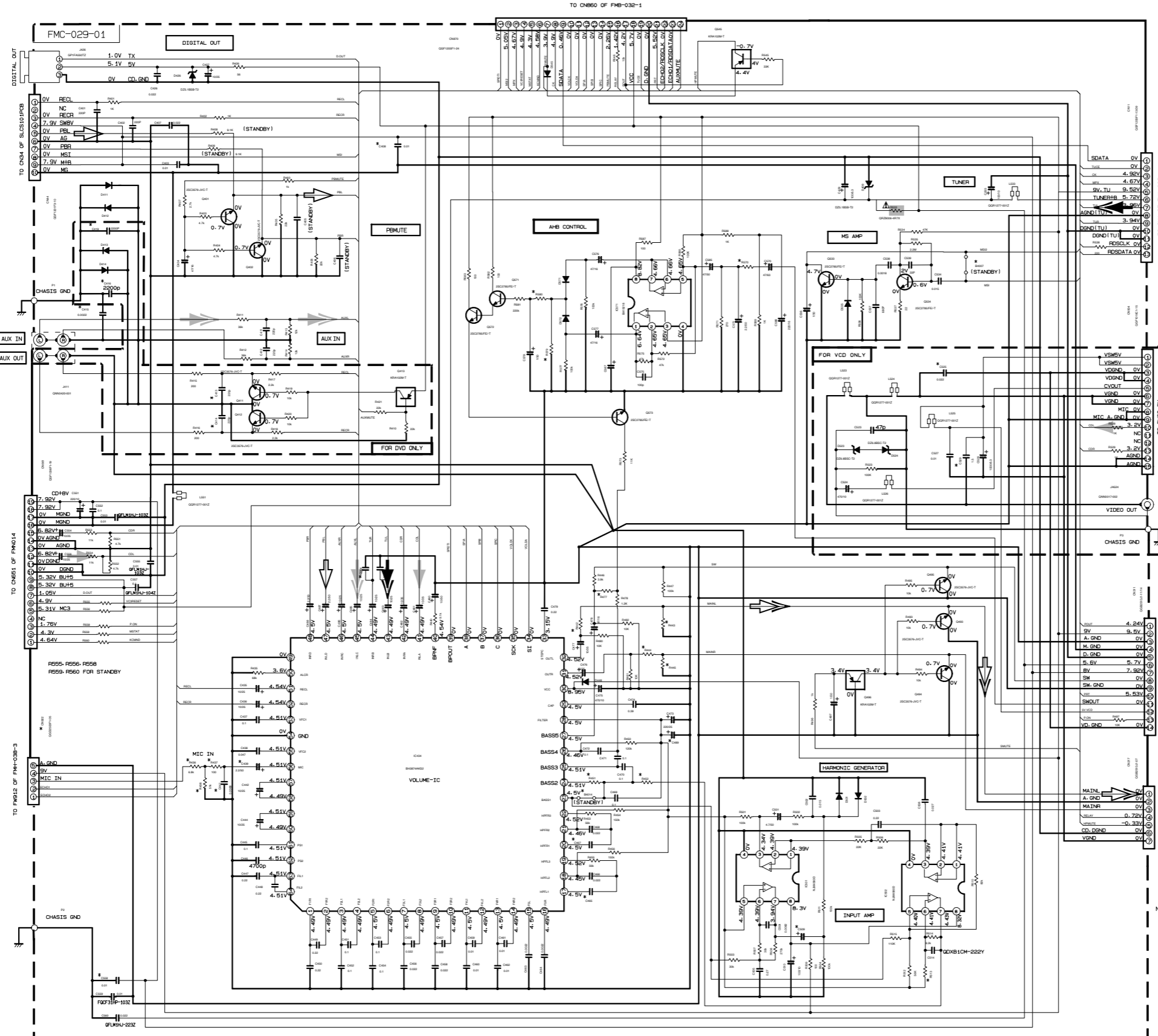
MARK	HXZ-1					HXZ-3				
	B-E-EN-EV	A	J-C	U-UJ-UT-UW	UY	B-E-EN-EV	A	J-C	U-UJ-UT-UW	UY
R909	330K	330K	330K	330K	330K	75K	75K	75K	75K	75K
R929	75K	330K	330K	330K	75K	75K	330K	330K	330K	75K
R950	330K	10K	330K	75K	75K	330K	10K	330K	75K	75K
R843-R870	USE	NONE	NONE	NONE	USE	NONE	NONE	NONE	NONE	NONE
R874-R875	NONE	NONE	NONE	USE	USE	NONE	NONE	NONE	USE	USE
D815-D816	DZ6.2B5C-T2	DZ6.2B5C-T2	NONE	NONE	NONE	DZ6.2B5C-T2	DZ6.2B5C-T2	NONE	NONE	NONE

NOTE: FOR VCD MODEL C840 CHANGE TO 100/10 AND REPLACE B8150 BY 68 OHM RESISTOR

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

- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION — AUX MODE, VOL. MIN., BASS OFF.
 - UNLESS OTHERWISE SPECIFIED: RESISTORS ARE 1/4W ±5% CARBON RESISTOR. ALL RESISTANCE VALUES ARE IN OHM (Ω). ALL CAPACITORS ARE CERAMIC CAPACITOR OR MLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN PICO (pF). ALL INDUCTANCE VALUES ARE IN MILLI (mH). ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V). ALL DIODES ARE 1SS119-041-12. ALL TACT SWITCH ARE G80674-0012.

■ Main circuit

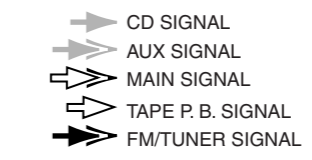


MARK *					
MODEL	HX-Z1 & HX-Z3				
VERSION	J/C	B/E EN/VE	A	UT/AW U/UJ	UY
C408	NONE	FGCF31P-103Z			NONE
C568	NONE	FGCF31P-103Z			NONE
C563	NONE	GDYB1CM-103Y			NONE
C564	NONE	GDYB1CM-103Y			NONE
R477	GRE141J-123Y	GRE141J-123Y			GRE141J-682Y
R538	NONE	GRE141J-221Y	NONE		NONE
CN922	NONE	NONE	NONE	GRD250F1-05	NONE
CN870	GGF1205F1-21	GGF1205F1-23	GGF1205F1-21	GGF1205F1-21	GGF1205F1-21
CN11	GGF1205F1-09	GGF1205F1-13	GGF1205F1-09	GGF1205F1-09	GGF1205F1-09
R436	NONE	NONE	NONE	GRE141J-682Y	NONE
R437	NONE	NONE	NONE	GRE141J-101Y	NONE
R438	NONE	NONE	NONE	GRE141J-513Y	NONE
C439	NONE	NONE	NONE	GETN14M-282Z	NONE
C441	NONE	NONE	NONE	GFLM14J-682Z	NONE

MARK *			
MODEL	HX-Z1		HX-Z3
VERSION	J/C/A/B/E/EN	UT/AW/U/UJ	UY
R442	GRE141J-682Y		GRE141J-472Y
R443	GRE141J-243Y		GRE141J-103Y
R444	GRE141J-682Y		GRE141J-472Y
R445	GRE141J-243Y		GRE141J-103Y
R451	GRE141J-183Y		GRE141J-103Y
R452	GRE141J-682Y		GRE141J-822Y
R513	GRE141J-103Y		GRE141J-822Y
R570	GRE141J-562Y		GRE141J-622Y
R579	GRE141J-154Y		GRE141J-224Y
R580	GRE141J-682Y		GRE141J-223Y
C465	GGF32AJ-223Z		GF20160-223Z
C467	GGF32AJ-223Z		GF20160-223Z
C469			OTE1C06-476Z
C509	GETN14M-475Z		GETN1CM-106Z

	REFERENCE NUMBER POSITION
TAPE	401 - 409
AUX IN	410 - 421
DIGITAL OUT	426 - 427
VOLUME IC	434 - 489
SUPPLY	493 - 497
HARMONIC GENERATOR	501 - 515
VCD	523 - 529
TUNER	533 - 539
TO FMB	545 - 548
VIDEO	551 - 560
AHB CONTROL	570 - 588

NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
 CONDITION - AUX KEYS - VOL. MIN. SUBSCOOPER 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 MLAR CAPACITOR.
 ALL CAPACITANCE VALUES ARE IN #F(μF).
 ALL INDUCTANCE VALUES ARE IN #H(mH).
 ALL C. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V).
 ALL DIODES ARE 1SS119-041-12

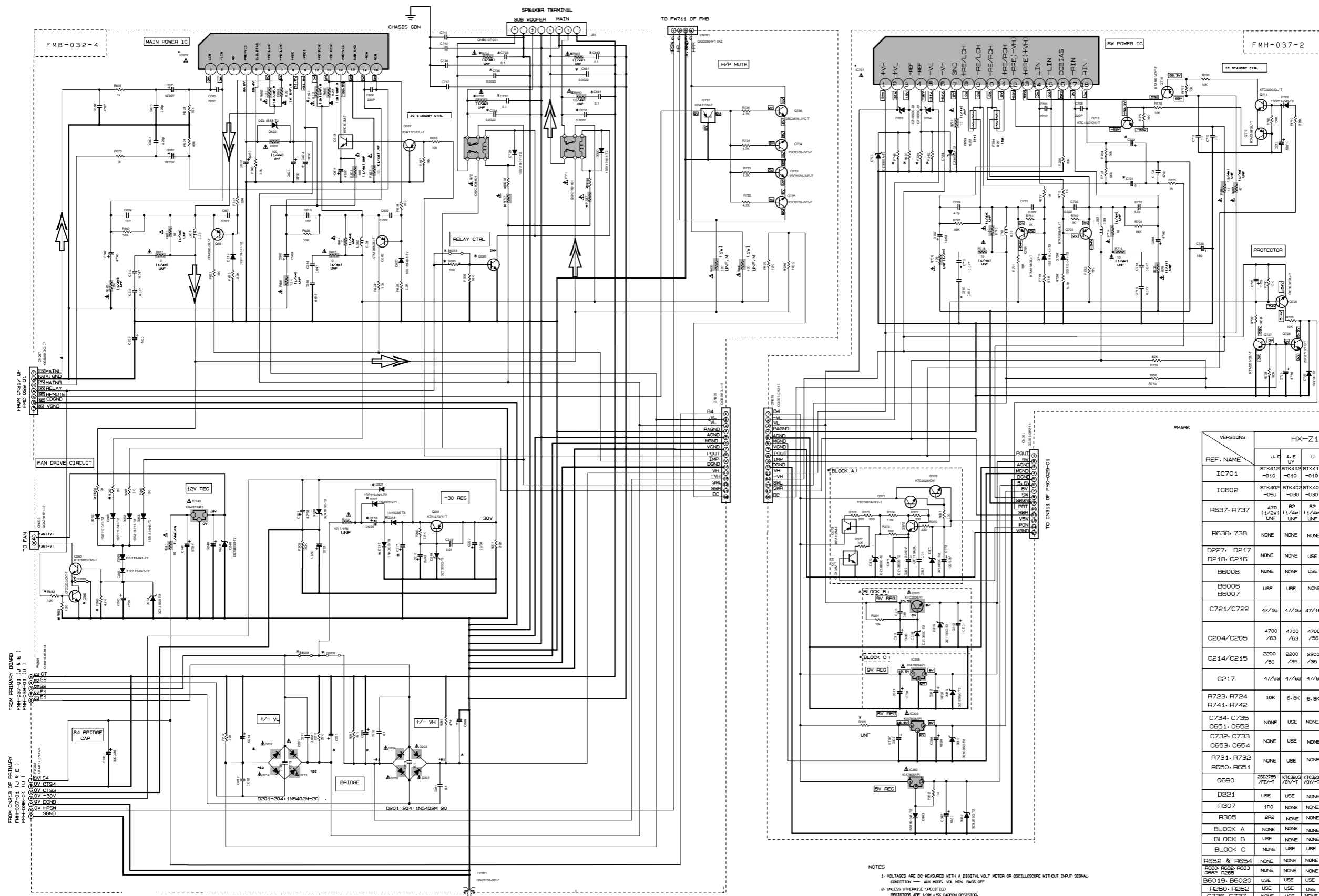


▲ Parts are safety assurance parts.
 When replacing those parts make sure to use the specified one.

5
4
3
2
1

Power amplifier & Power supply circuit

5
4
3
2
1



➔ MAIN SIGNAL

⚠ 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. HON, 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 pF (PF).
 ALL INDUCTANCE VALUES ARE IN mH (MH). ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).

VERSIONS REF. NAME	HX-Z1				HX-Z3			
	J-C	A-E	U	UT	J-C	A-E	U	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, R738	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
B600B	NONE	NONE	USE	NONE	NONE	NONE	USE	NONE
B6006 B6007	USE	USE	NONE	USE	USE	NONE	USE	NONE
C721/C722	47/16	47/16	47/16	47/16	47/16	47/16	47/16	47/16
C204/C205	4700 /63	4700 /63	4700 /63	4700 /63	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	USE	NONE	NONE	NONE
R731, R732 R650, R651	NONE	USE	NONE	NONE	USE	NONE	NONE	NONE
Q690	2SC778 /7E-1	KTC3003 /0V-1	KTC3003 /0V-1	KTC3003 /0V-1	2SC778 /7E-1	KTC3003 /0V-1	KTC3003 /0V-1	KTC3003 /0V-1
D221	USE	USE	NONE	NONE	USE	NONE	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
R650, R653, R653 Q682, R655	NONE	NONE	NONE	NONE	USE	NONE	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	NONE	NONE	NONE
C740, C741	NONE	NONE	NONE	NONE	NONE	USE	NONE	NONE
C618	NONE	USE	NONE	NONE	NONE	USE	NONE	NONE
Q201	KTA409	KTA409	KTA409	KTA409	2BB174	2BB174	2BB174	2BB174

A B C 2-4 D E F G

CD control circuit

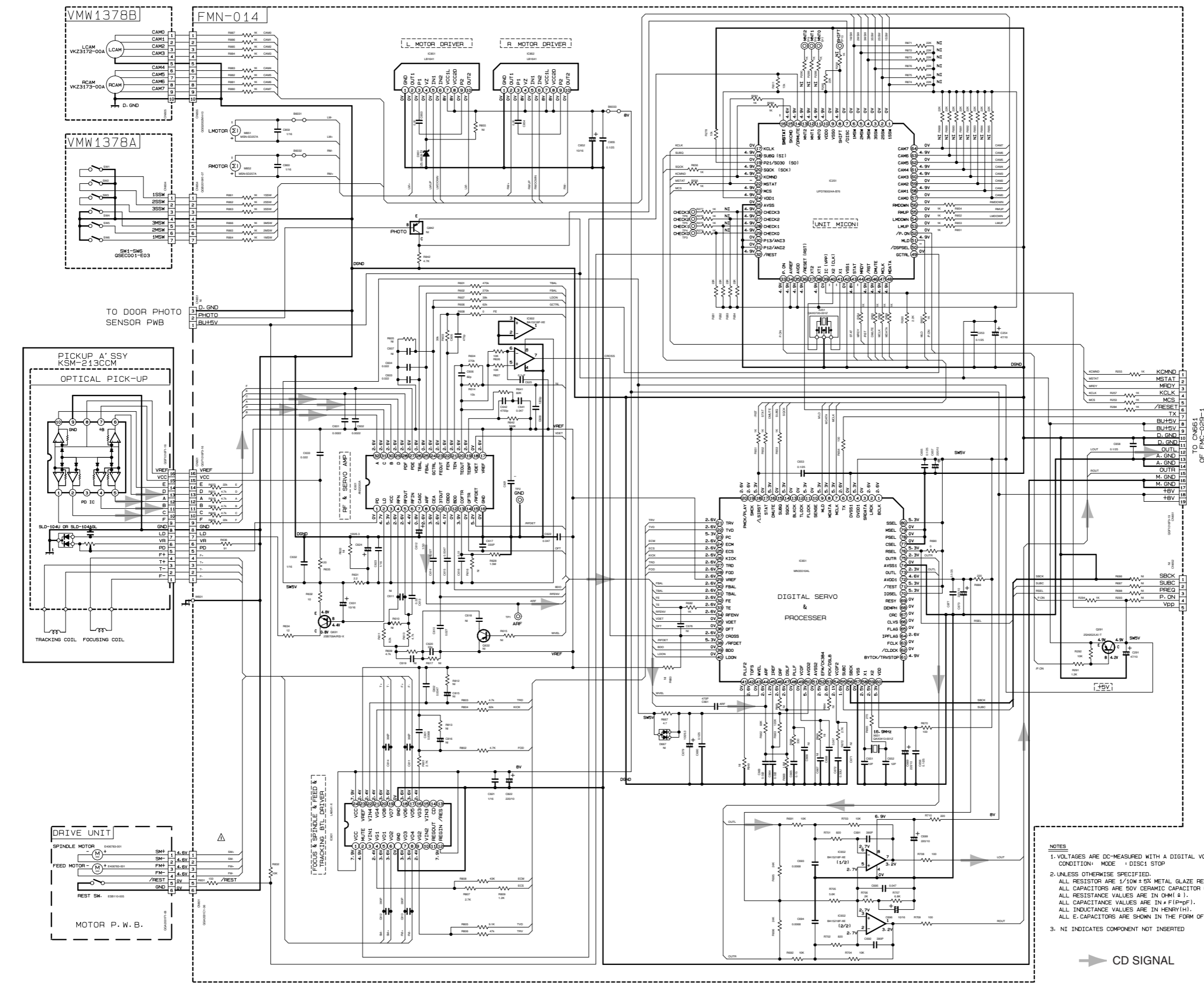
5

4

3

2

1

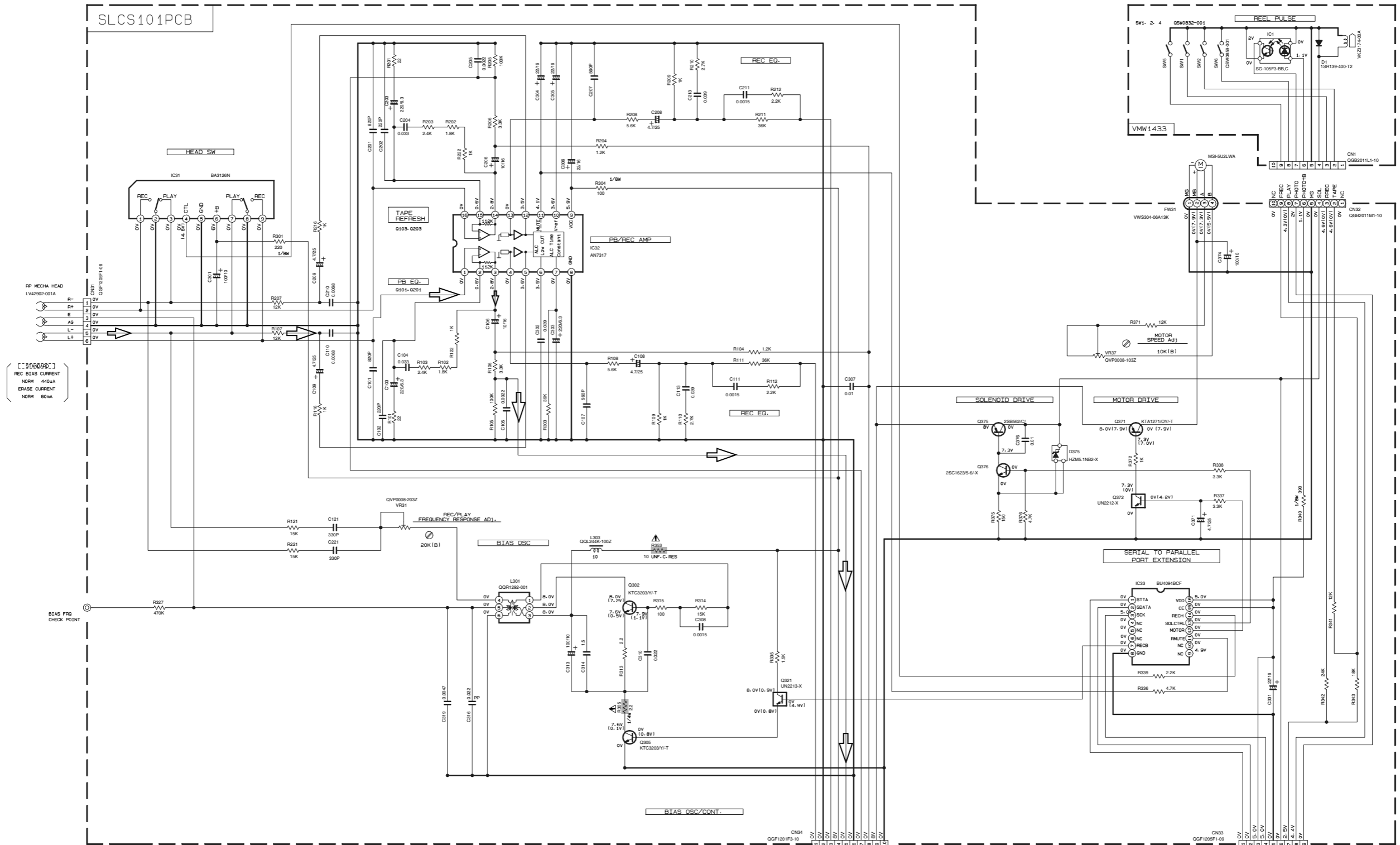


- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
CONDITION: MODE 1 DISC1 STOP
 2. UNLESS OTHERWISE SPECIFIED.
ALL RESISTORS ARE 1/10W ± 5% METAL GLAZE RESISTOR.
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V NYLON CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM (Ω).
ALL CAPACITANCE VALUES ARE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

➔ CD SIGNAL

■ Cassette amplifier circuit

5
4
3
2
1



NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION: MECHA STOP MODE
- UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/10W ±5% METAL GLAZE RESISTOR. ALL RESISTANCE VALUES ARE IN OHM(S).
- ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN #F(=pF).
- ALL INDUCTANCE VALUES ARE IN #H(=mH).
- ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F1/RATED VOLTAGE (V)).
- POLYPROPYLENE CAPACITOR

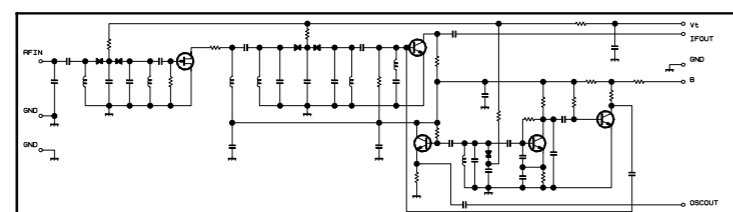
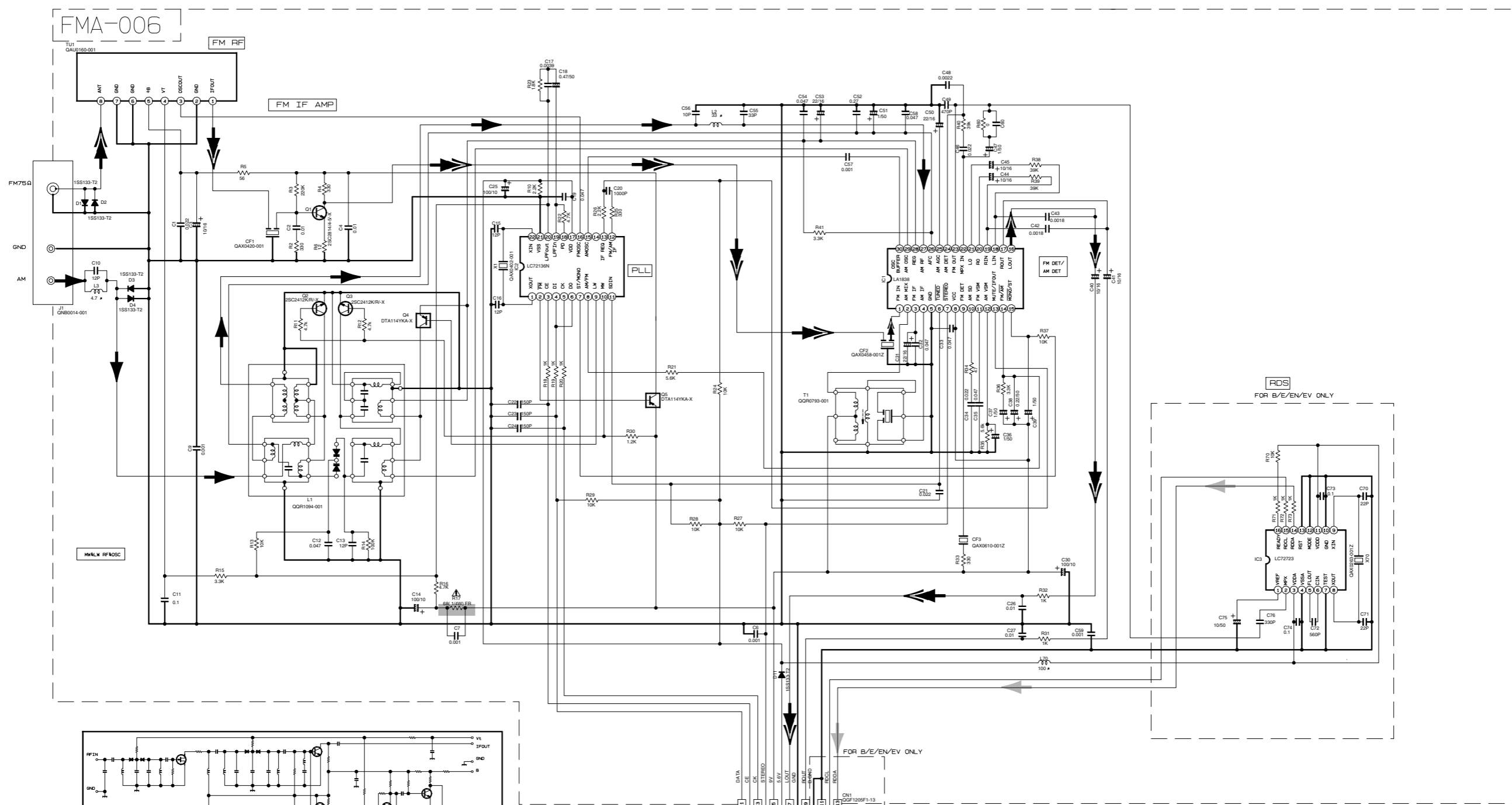
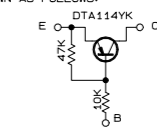
PARTS	NAME	REF. NO.
	FA144Z OF DTC144TKA	G101-G203 G331
	FA144M OF DTC144MKA	G321
	FA144M OF DTC144MKA	G372

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

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

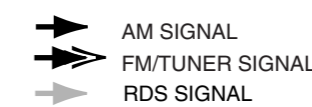
8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



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	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
	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	E C B E C B
FM 87.5MHz NO SIGNAL	0 7.1 0.85	B.9 B.8 0
AM 52KHz NO SIGNAL	0 0 0 9.0	0 8.9

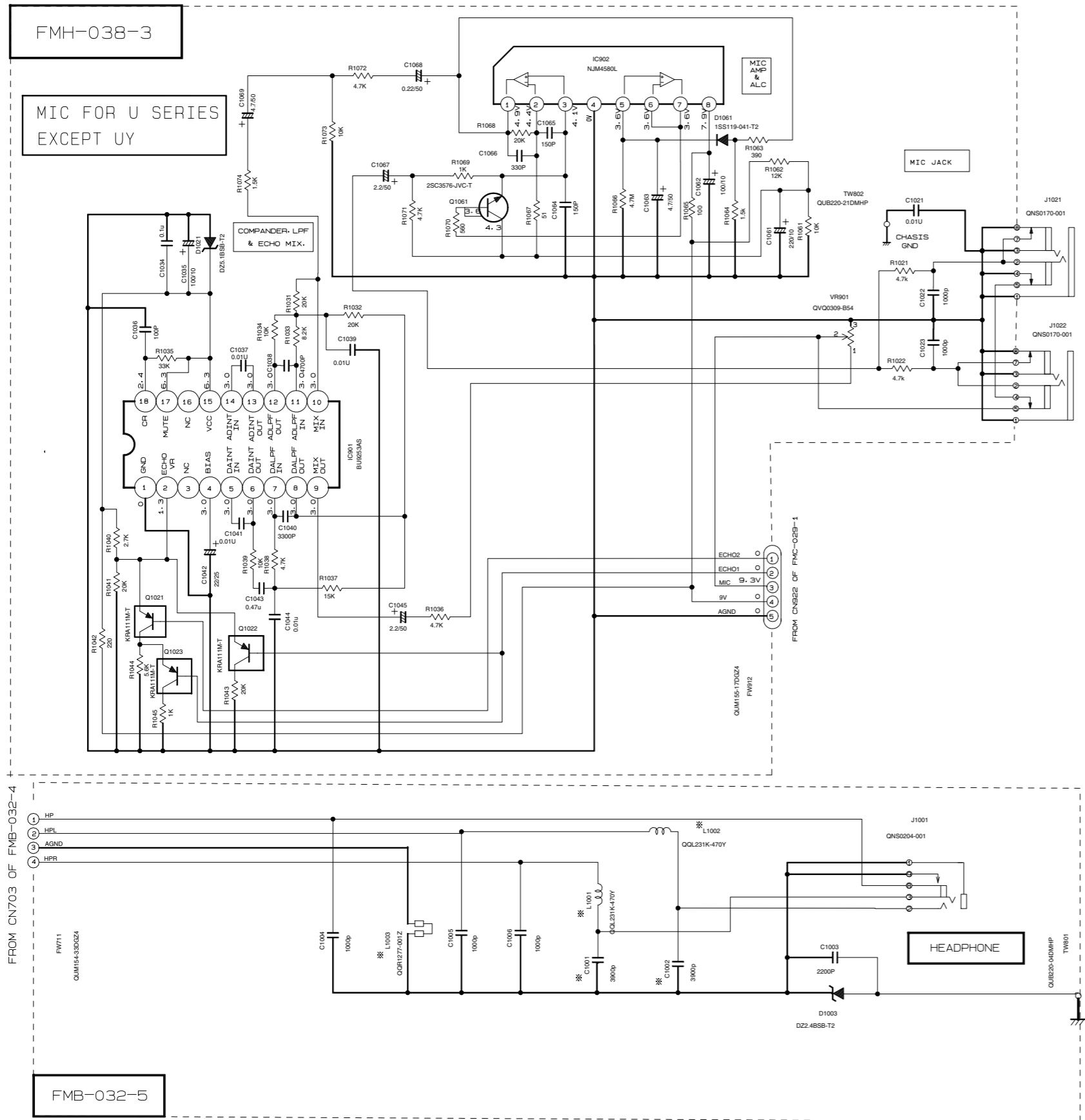
Tr NO.	Q2	Q3	Q4
PIN NO.	E C B E C B E C B	E C B E C B	
AM 52KHz NO SIGNAL	0 0 0.7	0 0 0.7	0 3.6 0.7
AM 144KHz NO SIGNAL	0 0 0.3	0 0.3 0.3 3.6	3.6 3.6



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

5
4
3
2
1

■ Mic & Head phone circuit



* MARK	L 1001, L 1002	C 1001, C 1002	L 1003
B, E, EN, EV	QQL231K-470Y	3900P	QQR1277-001Z
A	QQL231K-470Y	3900P	QQR1277-001Z
J, C	SHORT	NONE	QQL231K-2R2Y
U, UJ, UT, UW	SHORT	NONE	QQL231K-2R2Y
UY	SHORT	NONE	QQL231K-2R2Y

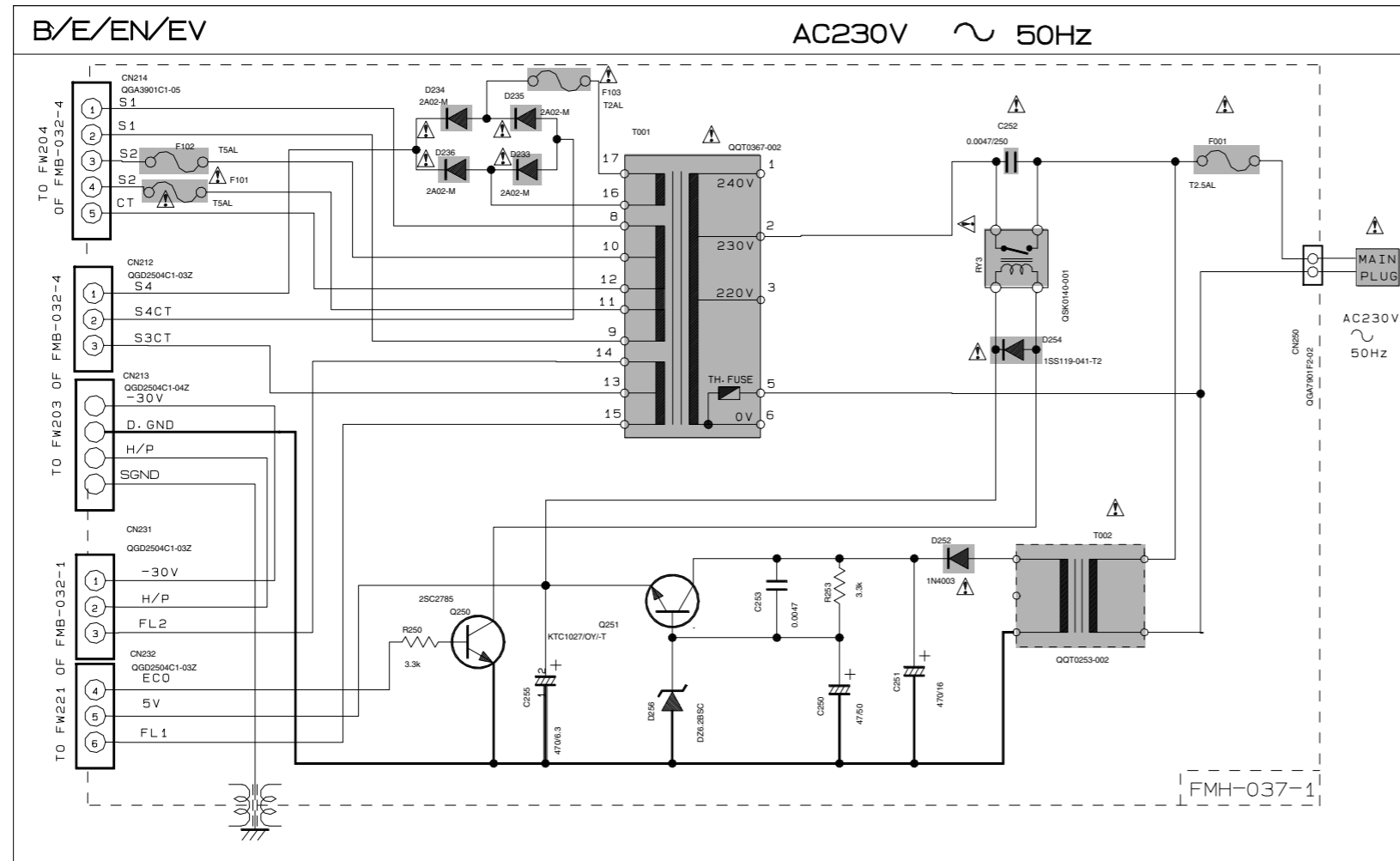
* MARK	L 1001, L 1002	C 1001, C 1002	L 1003
B, E, EN, EV	QQL231K-470Y	3900P	QQR1277-001Z
A	QQL231K-470Y	3900P	QQL231K-2R2Y
J, C	SHORT	NONE	QQL231K-2R2Y
U, UJ, UT, UW	SHORT	NONE	QQL231K-2R2Y
UY	SHORT	3900P	QQL231K-2R2Y

NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION --- AUX MODE, ECHO OFF
- 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 (P=pF). ALL INDUCTANCE VALUES ARE IN μH (μ=mH). ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (F/H/RATED VOLTAGE (V)).

■ Power supply circuit

POWER SUPPLY BLOCK



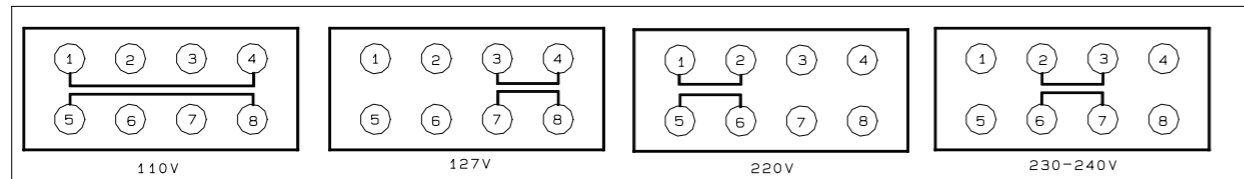
EXPLANATION OF OVERALL OF SCHEMA.
MODEL CA-HXZ1/CA-HXZ1R/HX-Z1/HX-Z1R

SHEET NUMBER	CIRCUITS DESCRIPTION
1/9	. PRIMARY WITH MAINS TRANSFORMER
2/9	. DC REGULATORS/AUDIO OUTPUT
3/9	. EXTERNAL INPUT, SOURCE SELECTOR SWITCH
4/9	. FL DISPLAY, SYSTEM CONTROL LSI, USER CONTROL KEYS
5/9	. MIC AMP, ECHO CIRCUIT (ONLY FOR U·UJ·UT·UW)
6/9	. CD SERVO AND CD SYSTEM CONTROL . CD CHANGER MECHANISM CONTROL
7/9	. TAPE DECK MECHANISM CONTROL . TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
8/9	. TUNER RF/IF/FM MULTIPLEX (ONLY FOR A·B·E·EN·EV)
9/9	. TUNER RF/IF/FM MULTIPLEX (ONLY FOR C·J·U·UP·US·UT·UX·UY)

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

VOLTAGE SELECTOR LOCATION

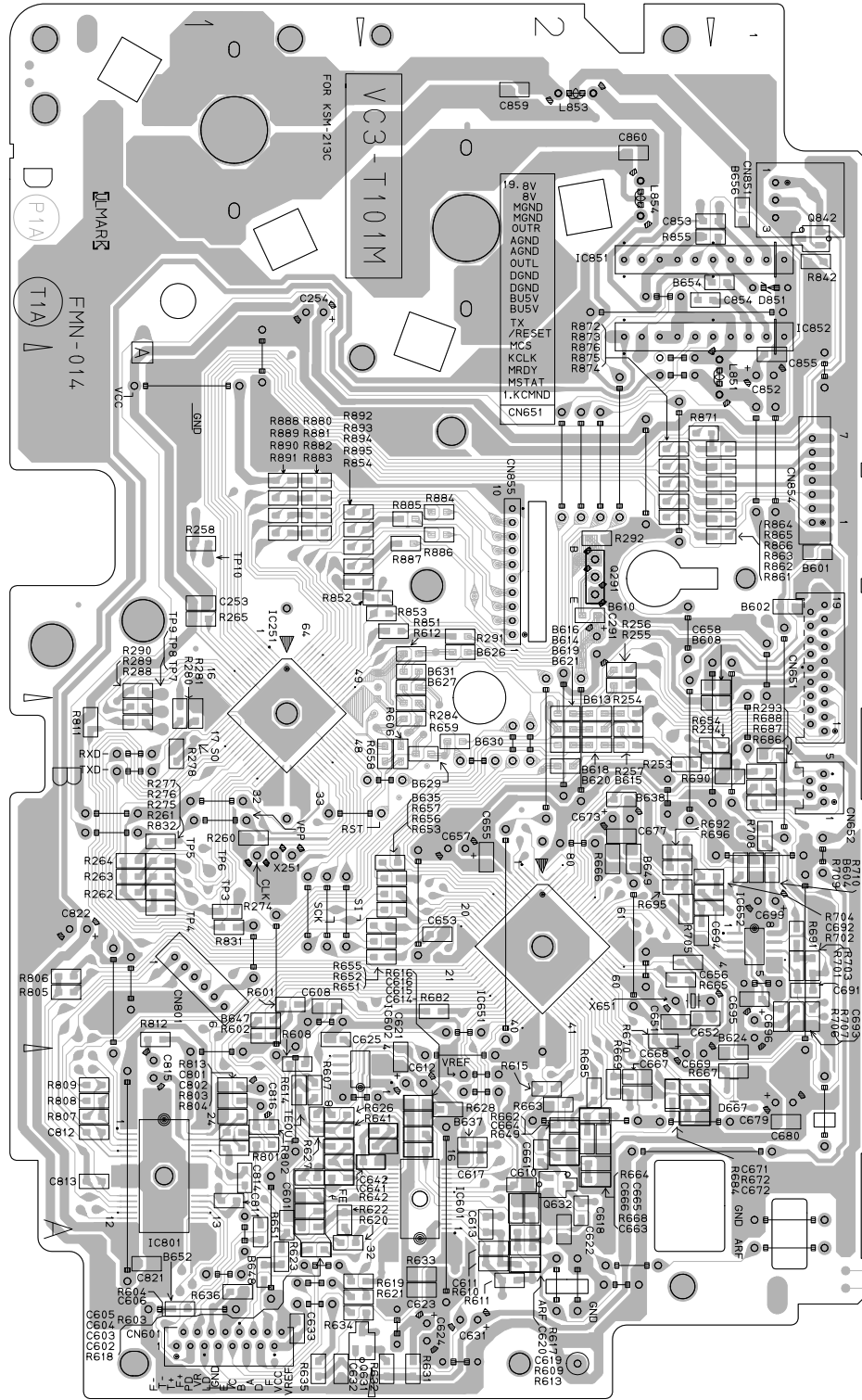


▲ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

5
4
3
2
1

CD servo control board

5
4
3
2
1



■ Tuner board

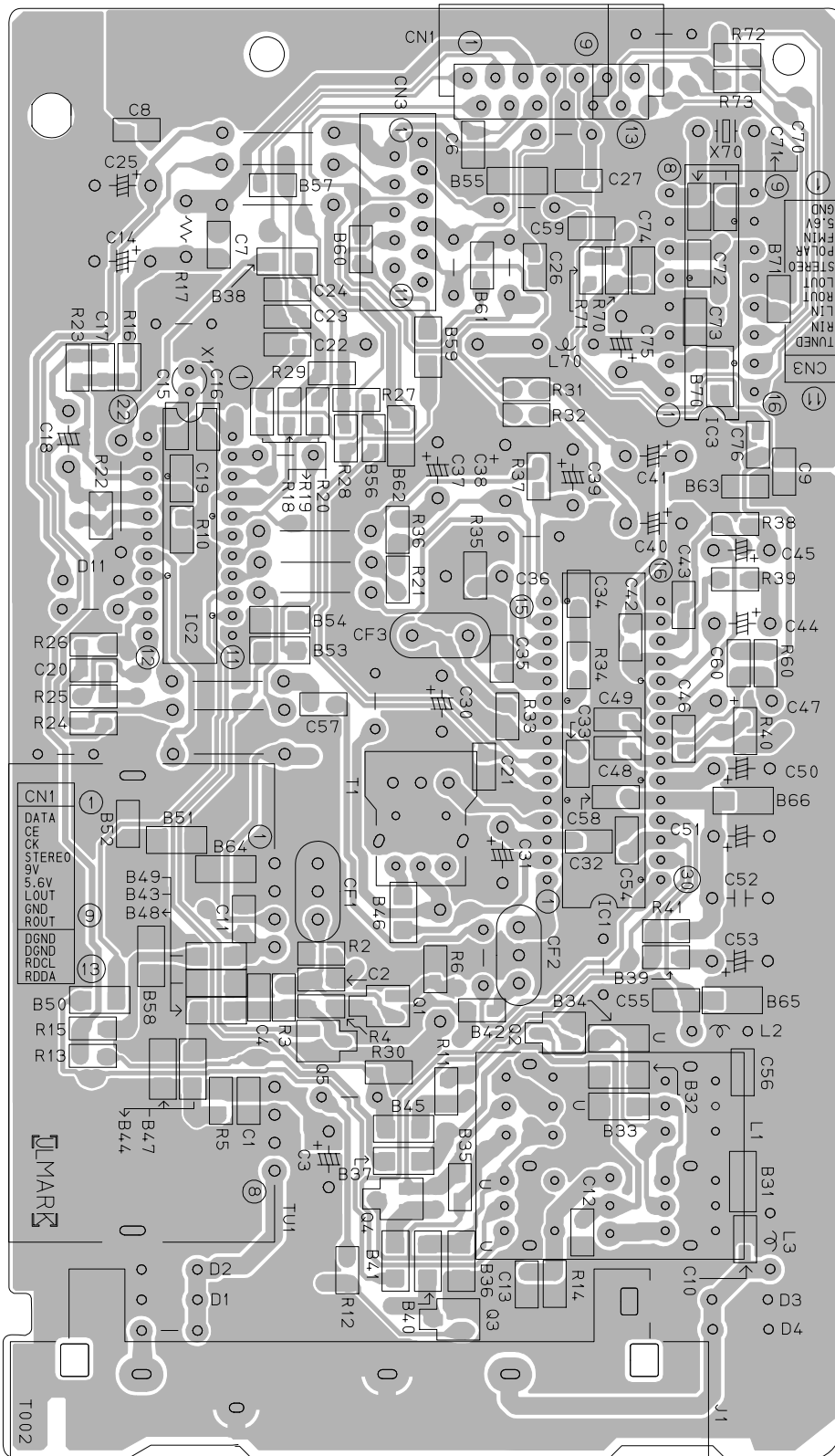
5

4

3

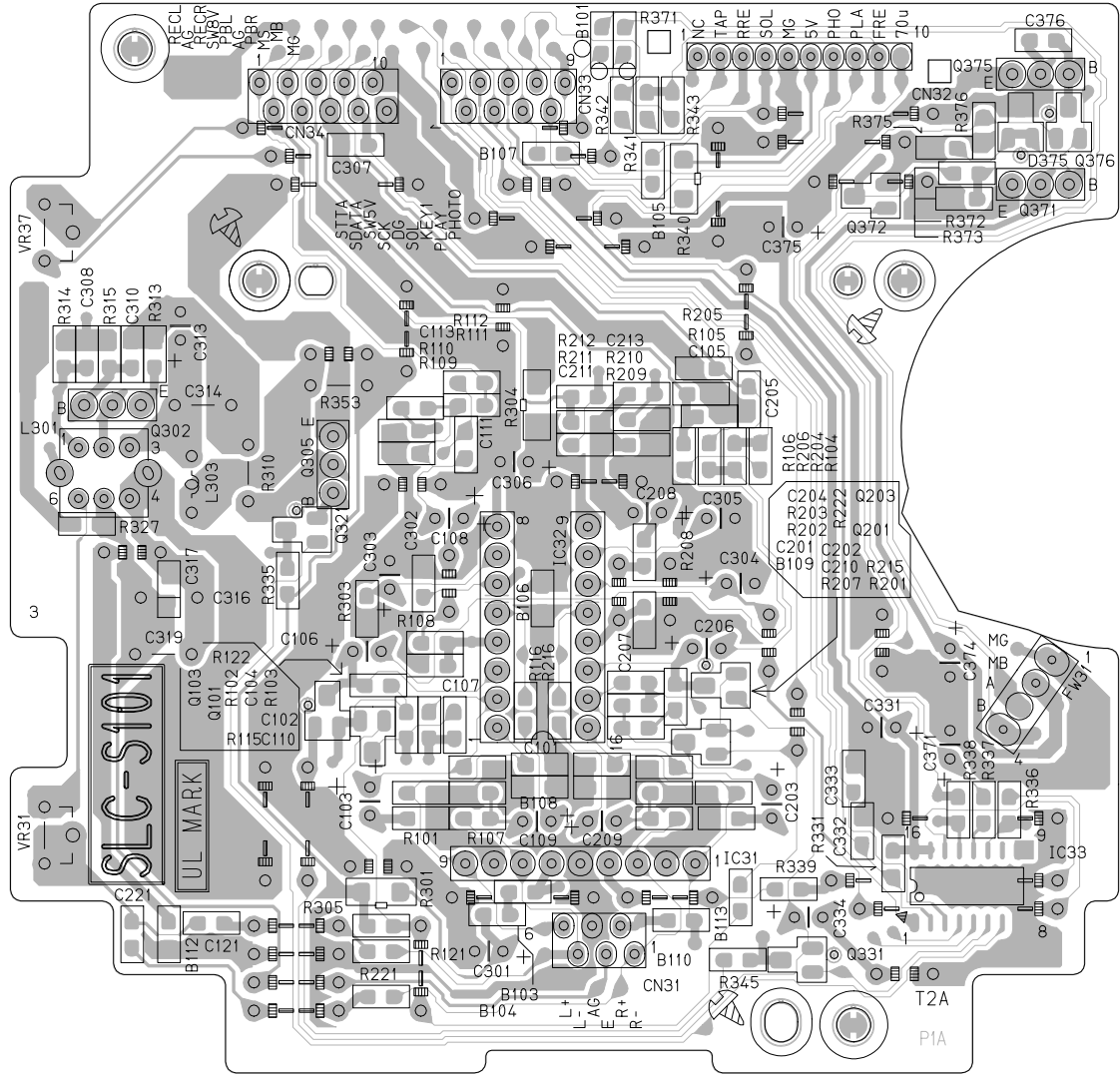
2

1

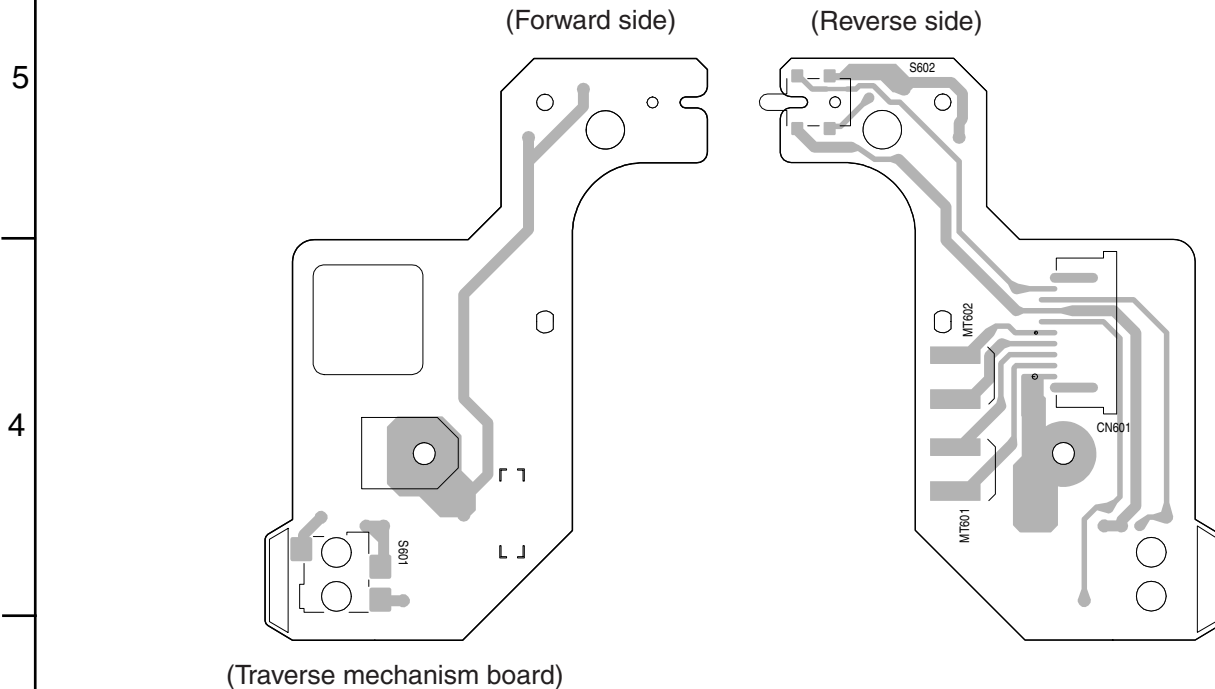


Head amplifier board

5
4
3
2
1



■ **Traverse mechanism board**



■ **Cassette switch board**

