

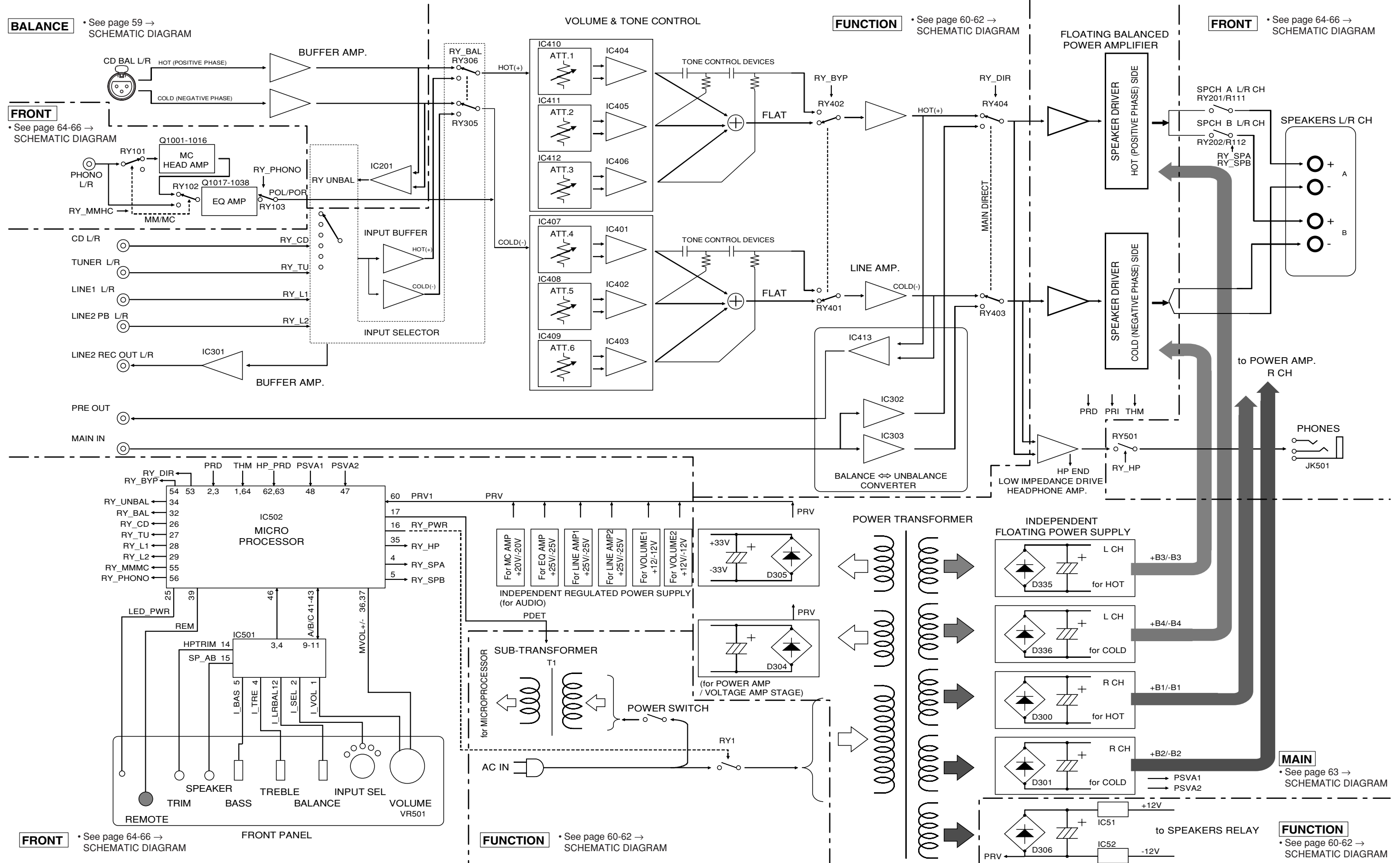
BLOCK DIAGRAM

BALANCE • See page 59 → SCHEMATIC DIAGRAM

FRONT • See page 64-66 → SCHEMATIC DIAGRAM

FUNCTION • See page 60-62 → SCHEMATIC DIAGRAM

FRONT • See page 64-66 → SCHEMATIC DIAGRAM



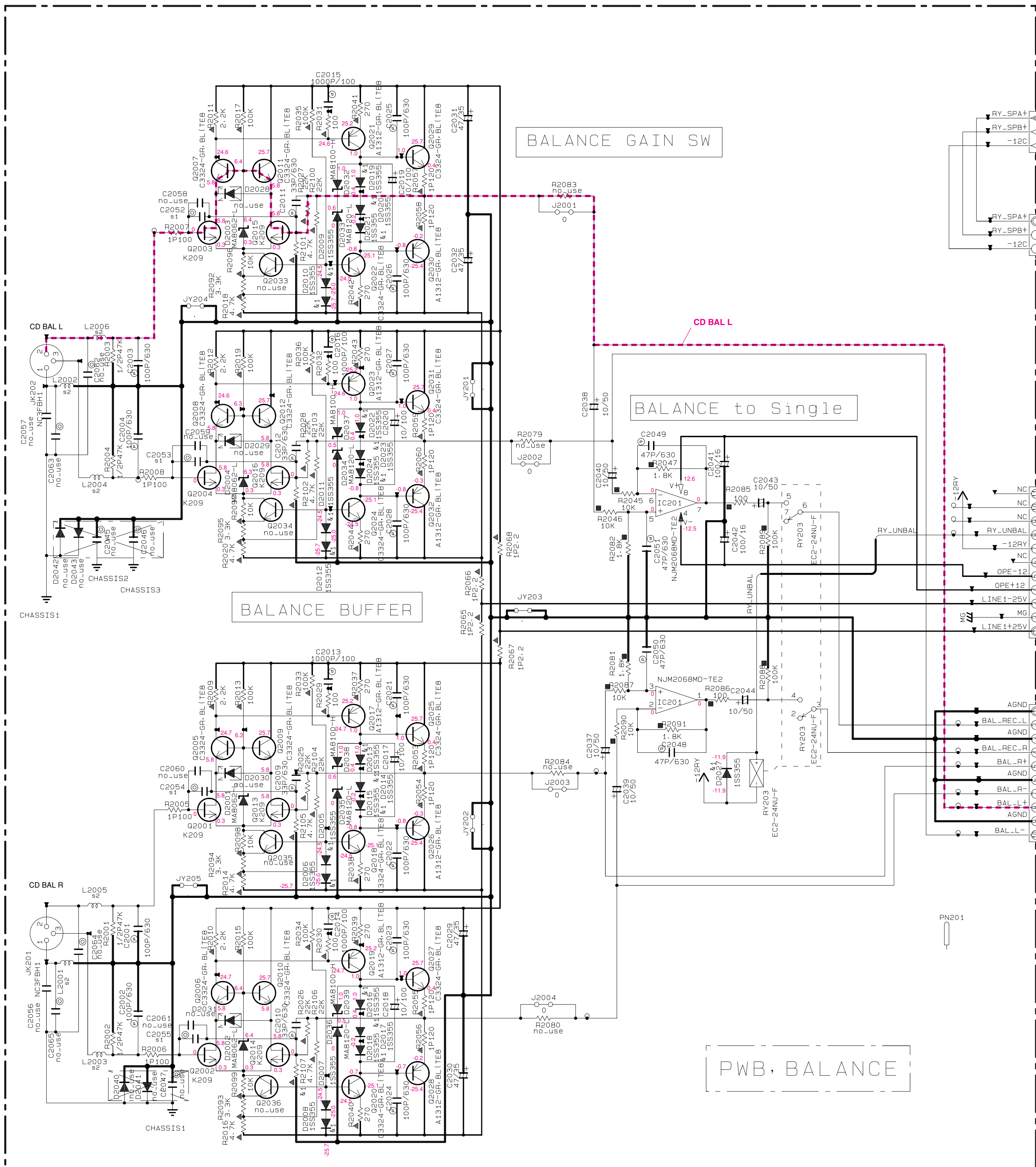
FRONT • See page 64-66 → SCHEMATIC DIAGRAM

FUNCTION • See page 60-62 → SCHEMATIC DIAGRAM

MAIN • See page 63 → SCHEMATIC DIAGRAM

FUNCTION • See page 60-62 → SCHEMATIC DIAGRAM

SCHEMATIC DIAGRAMS
BALANCE



RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
▣	FIRE PROOF CARBON FILM RESISTOR
◻	CEMENT MOLDED RESISTOR
⊕	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
●	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
⊖	MICA CAPACITOR
⊕	POLYPROPYLENE FILM CAPACITOR
⊗	SEMICONDUCTIVE CERAMIC CAPACITOR

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
&1	D2005-2024-2027	1SS355 MA111 KDS160-RTK/P

NOTICE (mode1)

- (J)..... JAPAN
- (U)..... U.S.A
- (C)..... CANADA
- (R)..... GENERAL
- (T)..... CHINA
- (K)..... KOREA
- (A)..... AUSTRALIA
- (B)..... BRITISH
- (G)..... EUROPE
- (L)..... SINGAPORE
- (E)..... SOUTH EUROPE
- (V)..... TAIWAN
- (F)..... RUSSIAN

To PWB. SPTML-R
CB59

Page 66 [H2]
to FRONT (12)_CB59

To PWB. SUBTR
W3

Page 62 [H8]
to FUNCTION (3)_W3

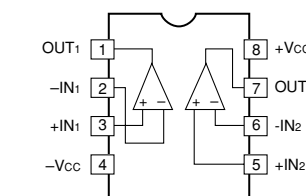
To PWB. FUNC (1)
-INPUT
W3005

Page 60 [K2]
to FUNCTION (1)_W3005

To PWB. FUNC (1)
-INPUT
W3006

Page 60 [K2]
to FUNCTION (1)_W3006

IC201: NJM2068MD-TE2
Dual operational amplifier



Destination Part List

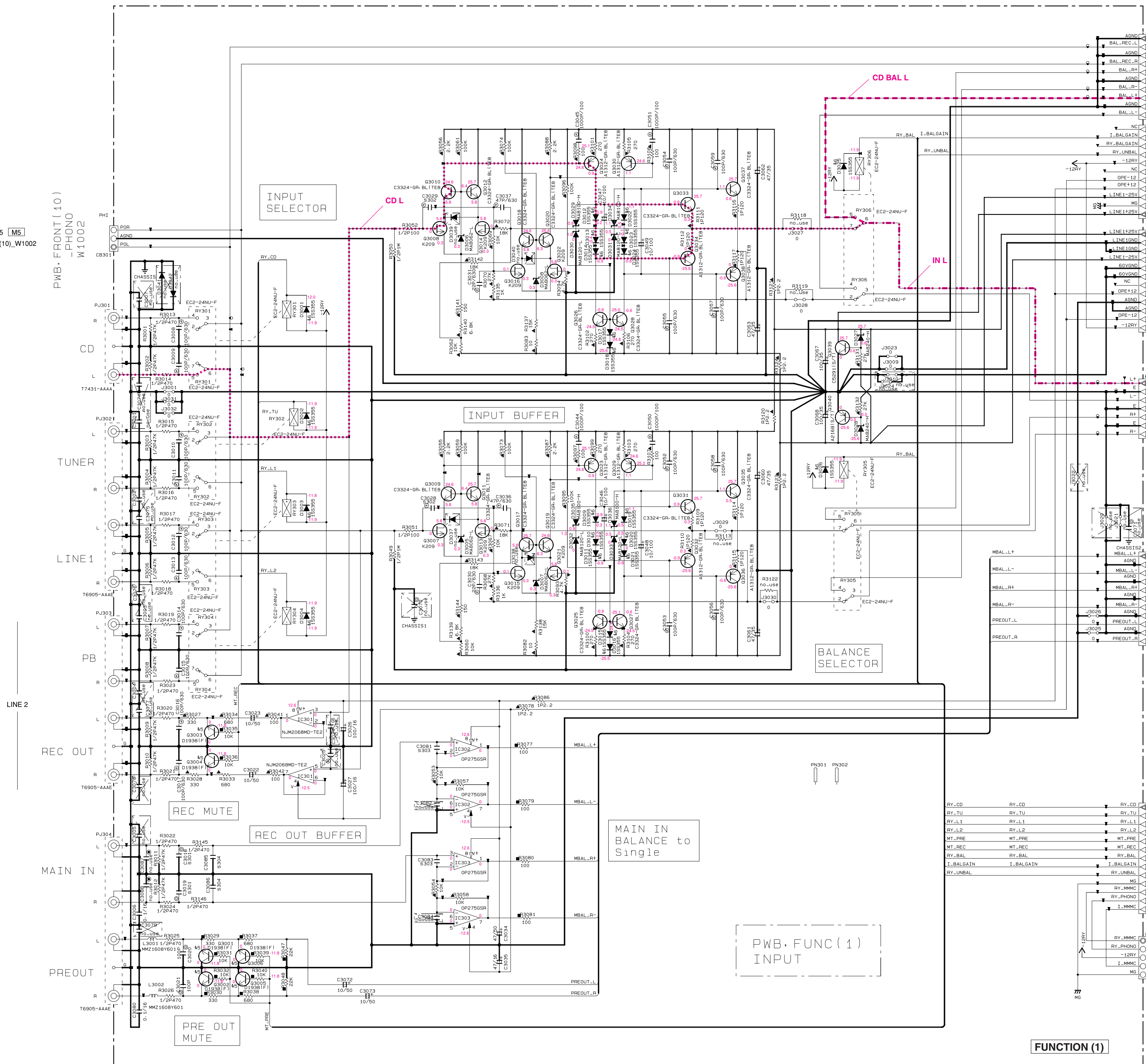
sXX	LOC	J	UC	RTKAL	B	G
s1	C2055 C2053 C2054 C2052	X	X	WE10050 100P/630	WE10050 100P/630	WE10050 100P/630
s2	L2004 L2001 L2005 L2003 L2002 L2006	V4B3010 MMZ168Y601	V4B3010 MMZ168Y601	RD35000 0	RD35000 0	RD35000 0

- ★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
- ★ Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
- ★ Schematic diagram is subject to change without notice.
- 電圧は、内部抵抗10MΩの電圧計で測定したものです。
- Δ 印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
- 本回路図は標準回路図です。改良のため予告なく変更することがございます。

PWB. BALANCE

FUNCTION 1/3

Page 65 [M5] to FRONT (10)_W1002



RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
⊠	METAL FILM RESISTOR
⊞	METAL PLATE RESISTOR
⊞	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
⊞	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

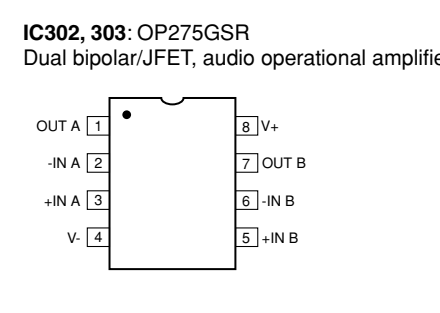
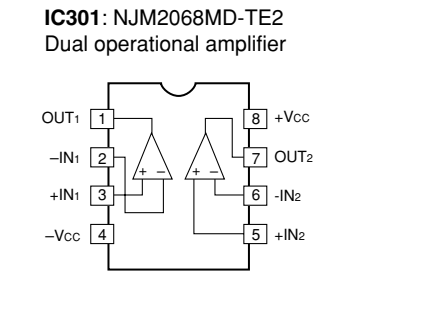
CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	POLYSTYRENE FILM CAPACITOR
⊙	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
k1	02-4-7	2SC2412K(G/R/S) 2SC9318S(AK/R/R/S) KTC3875S-V-GR-RTK/P
k2	01-144-147-4050-4053	OTC144EKA KRC104S-RTK/P
k3	0145-146	DTA144EKA KRA104S-RTK/P
k4	04001-4002-4007-4008	2SA1037AK(G/R/S) KTA1504S-V-GR-RTK/P
k5	0401-3001-3006-4003-4006 4009-4011	2SD1938F(S-T 2SC3326(A/B) 2SC938A(A/B) 2SC9704(K)
k6	01-4-6-10-12-3001-3004 3009-3026-4009-4010 4015-4034-4037-4038	1S535S MA111 KDS160-RTK/P

NOTICE (code1)
 (J)..... JAPAN
 (U)..... U.S.A
 (C)..... CANADA
 (R)..... GENERAL
 (T)..... CHINA
 (K)..... KOREA
 (A)..... AUSTRALIA
 (B)..... BRITISH
 (G)..... EUROPE
 (L)..... SINGAPORE
 (E)..... SOUTH EUROPE
 (V)..... TAIWAN
 (F)..... RUSSIAN



To PWB. BALANCE CB202
Page 59 [I7] to BALANCE_CB202

To PWB. BALANCE CB201
Page 59 [I5] to BALANCE_CB201

To PWB. FUNC(2) -VOLUME CB403
Page 61 [J4] to FUNCTION(2)_CB403

To PWB. FUNC(2) -VOLUME CB402
Page 61 [B6] to FUNCTION(2)_CB402

To PWB. FUNC(2) -VOLUME CB401
Page 61 [B5] to FUNCTION(2)_CB401

To PWB. FRONT(1) MICON CB519
Page 64 [B5] to FRONT(1)_CB519

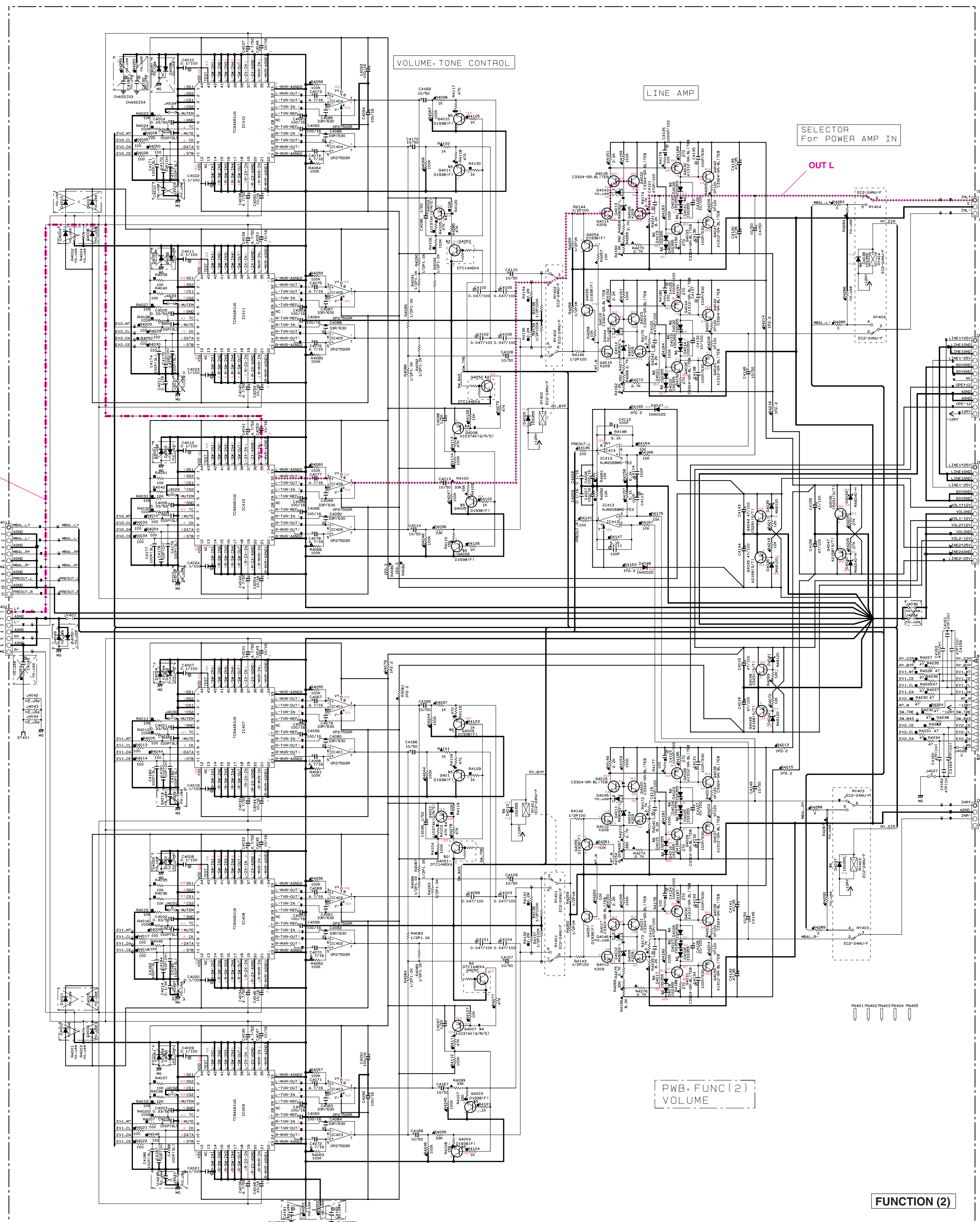
To PWB. FRONT(10) PHONO W1003
Page 65 [B5] to FRONT(10)_W1003

Destination Part List

sXX	LDC	J	UC	RL	TK	A	B	G
9301	C3018 C3019	UA65210 100P	UA65210 100P		UA65247 470P	UA65210 100P	UA65247 470P	UA65247 470P
9302	C3026 C3029	X	X	X	WE10095 100P/630	X	WE10095 100P/630	WE10095 100P/630
9303	C3083	X	X	X	US06210 100P[SL]	X	US06210 100P[SL]	US06210 100P[SL]
9304	C3085	X	X	X	US06247 470P[SL]	X	US06247 470P[SL]	US06247 470P[SL]

★ All voltages are measured with a 10MQ/V DC electronic voltmeter.
 ★ Components having special characteristics are marked with a triangle and must be replaced with parts having specifications equal to those originally installed.
 ★ Schematic diagram is subject to change without notice.

●電圧は、内部抵抗10MQの電圧計で測定したものです。
 ●△印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
 ●本回路図は標準回路図です。改良のため予告なく変更することがございます。



REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
■	METAL CLATE RESISTOR
◆	FILM PROOF CARBON FILM RESISTOR
○	CEMENT MOUNTED RESISTOR
◇	SEMI VARIABLE RESISTOR
●	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
●	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
○	POLYESTER FILM CAPACITOR
○	POLYETHYLENE FILM CAPACITOR
○	MICA CAPACITOR
○	POLYPROPYLENE FILM CAPACITOR
●	SEMICONDUCTIVE CERAMIC CAPACITOR

NOTICE (note1)
 (J)..... JAPAN
 (U)..... U.S.A
 (C)..... CANADA
 (R)..... GENERAL
 (T)..... CHINA
 (K)..... KOREA
 (A)..... AUSTRALIA
 (B)..... BRITISH
 (G)..... EUROPE
 (L)..... SINGAPORE
 (E)..... SOUTH EUROPE
 (V)..... TAIWAN
 (F)..... RUSSIAN

Page 60 [K6]
 to FUNCTION (1)_W3002

Page 60 [K4]
 to FUNCTION (1)_W3001

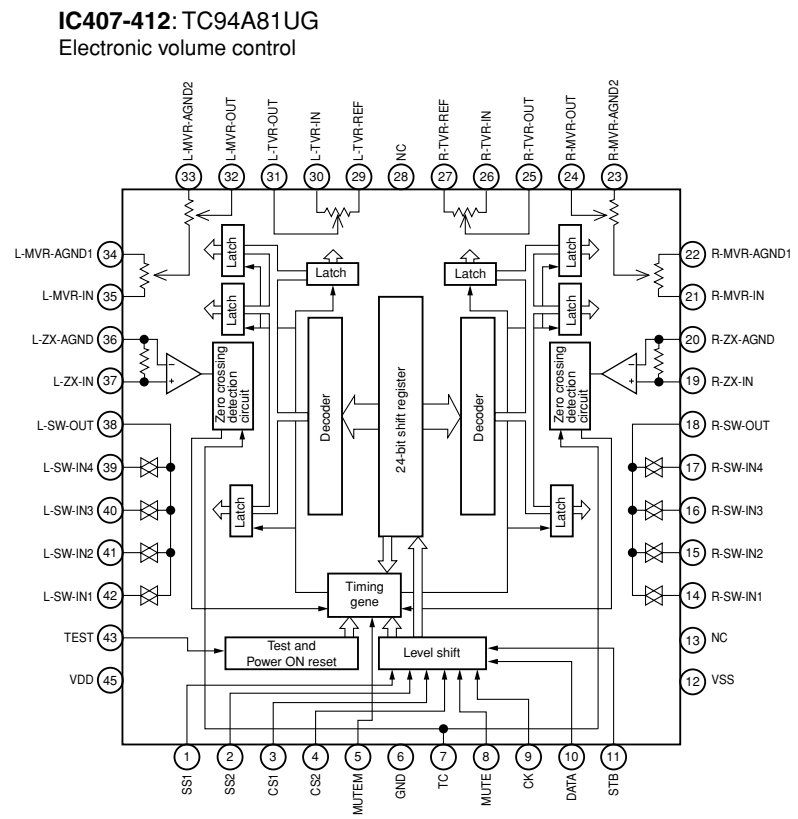
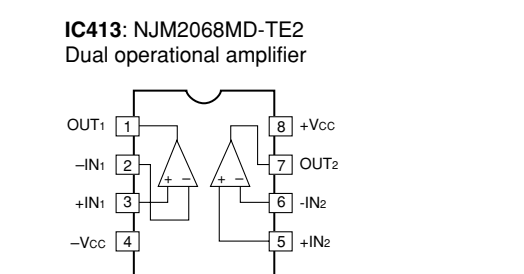
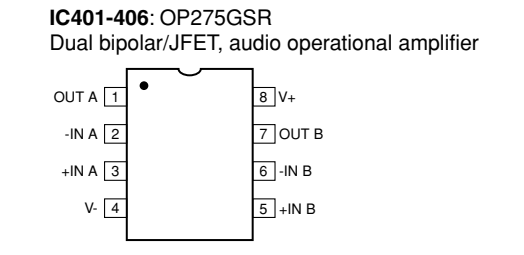
To PWB_MAIN-L
 W202
 Page 63 [A8]
 to MAIN (2)_W202

To PWB_FUNC (1)
 W3003
 Page 60 [K3]
 to FUNCTION (1)_W3003

To PWB_POWER (2)
 W6
 Page 66 [F4]
 to FRONT (11)_W6

To PWB_FRONT (1)
 MICON
 CB517
 Page 64 [K6]
 to FRONT (1)_CB517

To PWB_MAIN-R
 W102
 Page 63 [A3]
 to MAIN (1)_W102

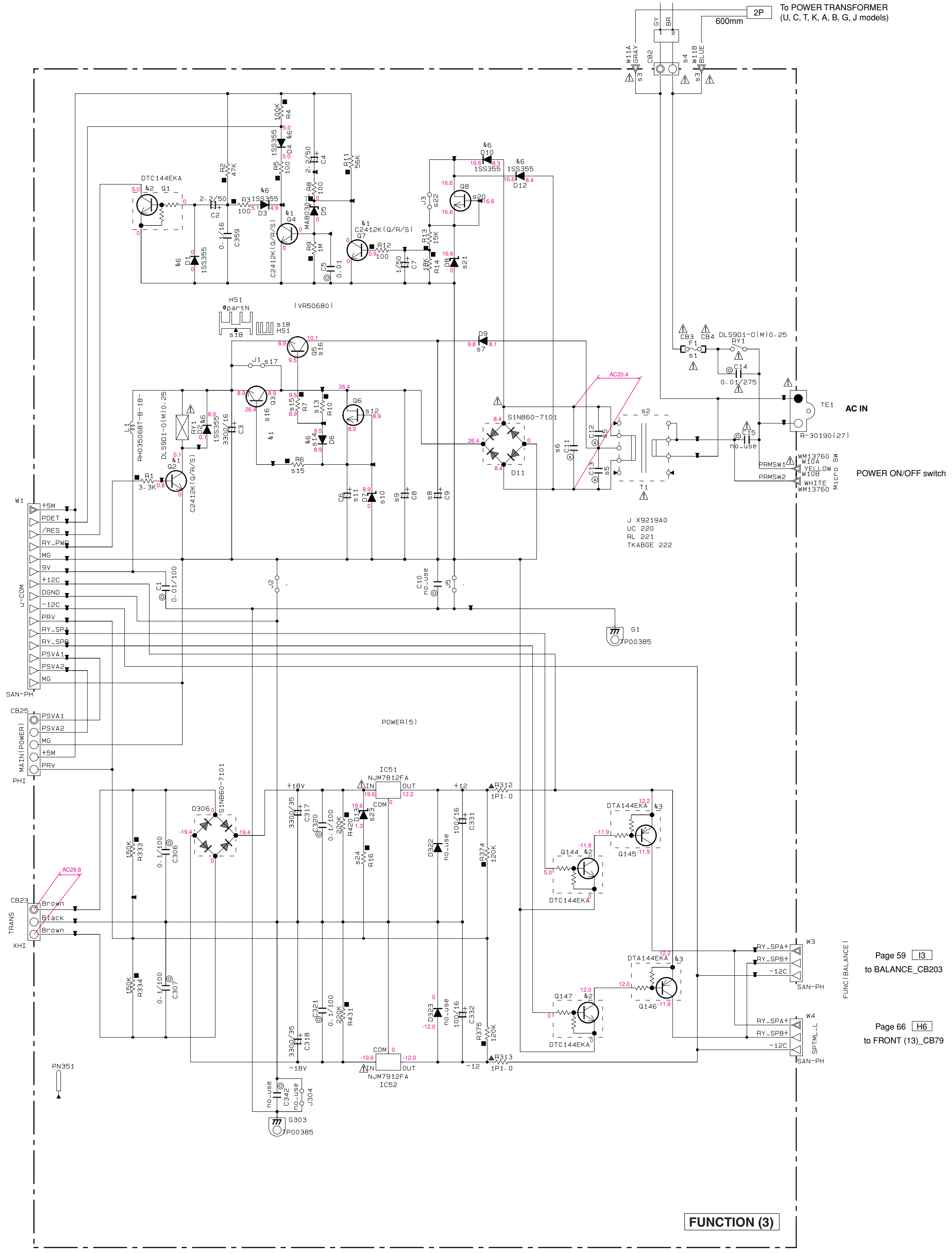


- ★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
- ★ Components having special characteristics are marked with a triangle (▲) and must be replaced with parts having specifications equal to those originally installed.
- ★ Schematic diagram is subject to change without notice.
- 電圧は、内部抵抗10MΩの電圧計で測定したものです。
- ▲印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
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FUNCTION (2)

FUNCTION 3/3

Page 66 B4 to FRONT (14_W8A, W8B (R, L models) To POWER TRANSFORMER (U, C, T, K, A, B, G, J models)



Destination Part List table with columns for part number, location, and various model identifiers (J, UC, RL, TK, A, B, G).

NOTICE (model) (J) JAPAN (U) U.S.A (C) CANADA (A) GENERAL (T) CHINA (K) KOREA (A) AUSTRALIA (B) BRITISH (G) EUROPE (L) SINGAPORE (E) SOUTH EUROPE (V) TAIWAN (F) RUSSIAN

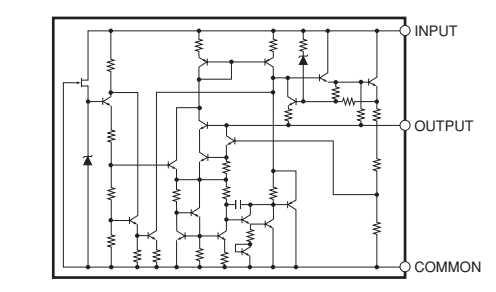
Page 64 B4 to FRONT (1)_CB501

Page 63 L3 to MAIN (3)_W317

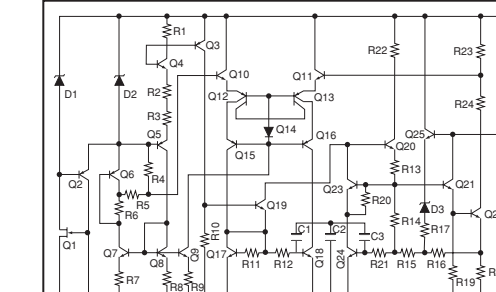
Page 59 I3 to BALANCE_CB203

Page 66 H6 to FRONT (13)_CB79

IC51: NJM7812FA Voltage regulator



IC52: NJM7912FA Voltage regulator

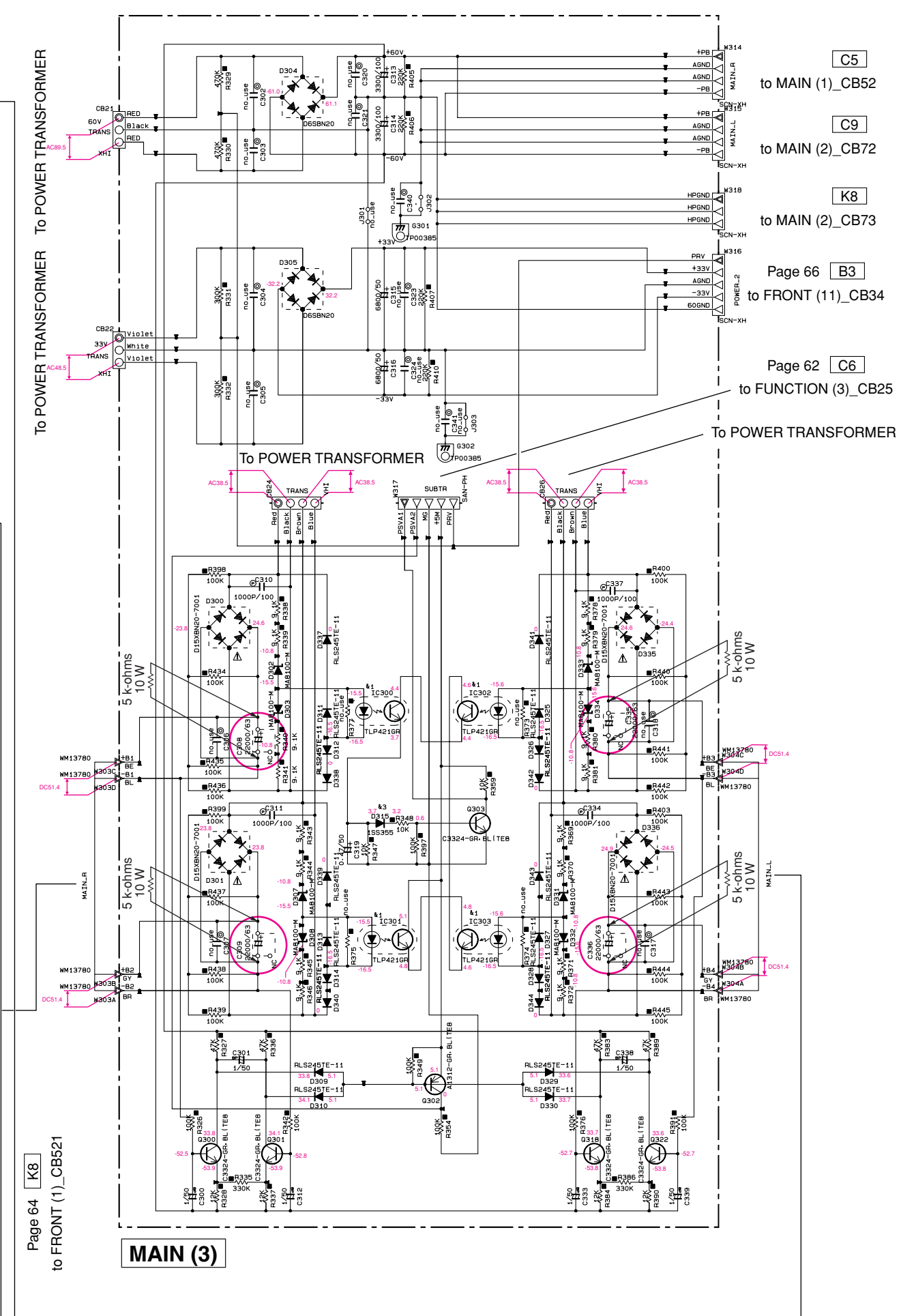
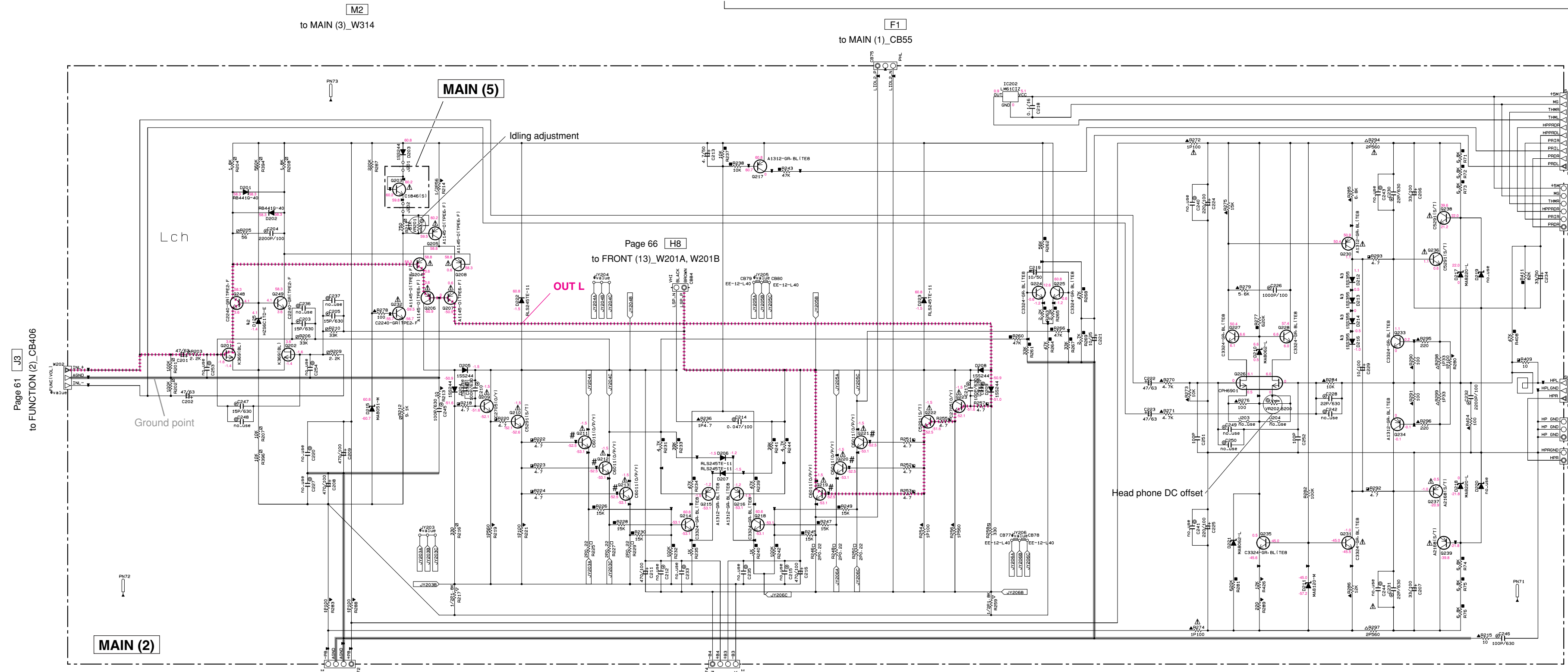
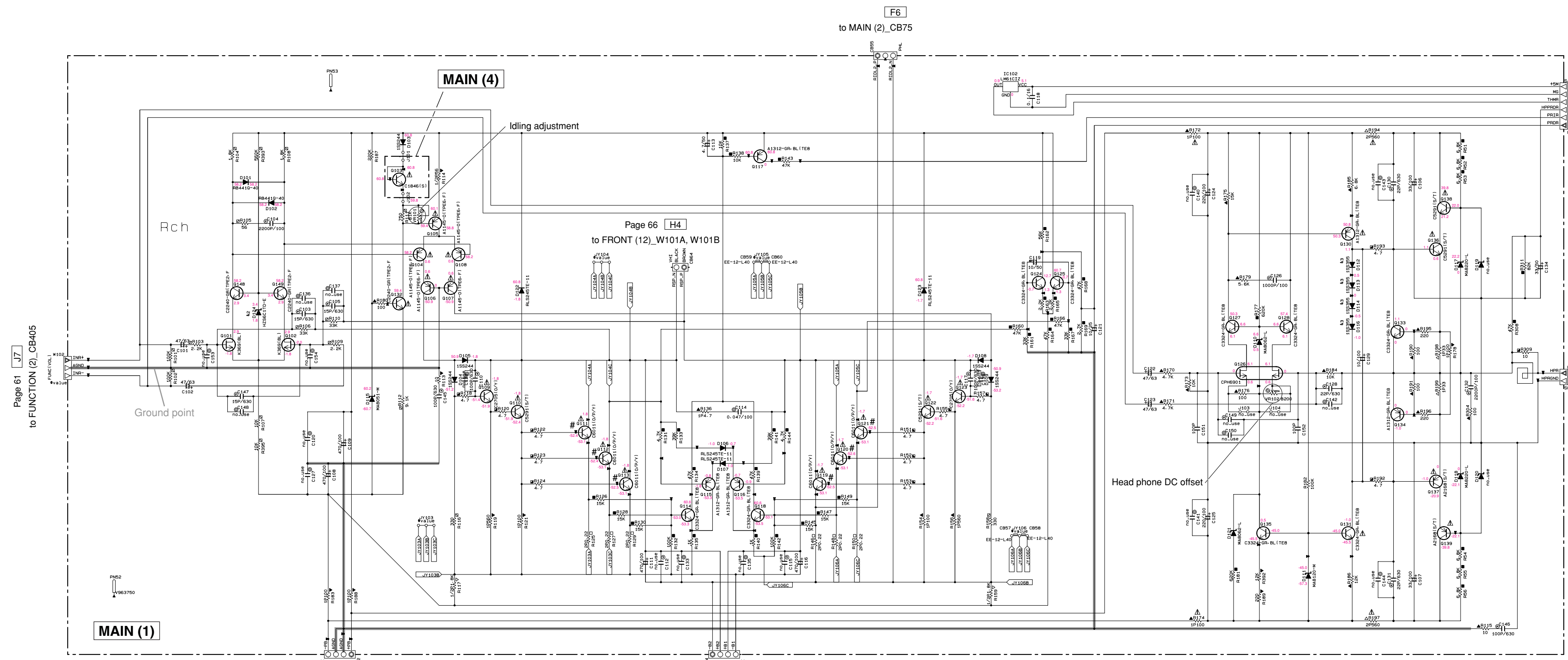


FUNCTION (3)

* All voltages are measured with a 10MΩ/V DC electronic voltmeter. * Components having special characteristics are marked ! and must be replaced with parts having specifications equal to those originally installed. * Schematic diagram is subject to change without notice.

● 電圧は、内部抵抗10MΩの電圧計で測定したものです。 ● !印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。 ● 本回路図は標準回路図です。改良のため予告なく変更することがございます。

MAIN



Interchangeable Parts at Manufacture-Stage

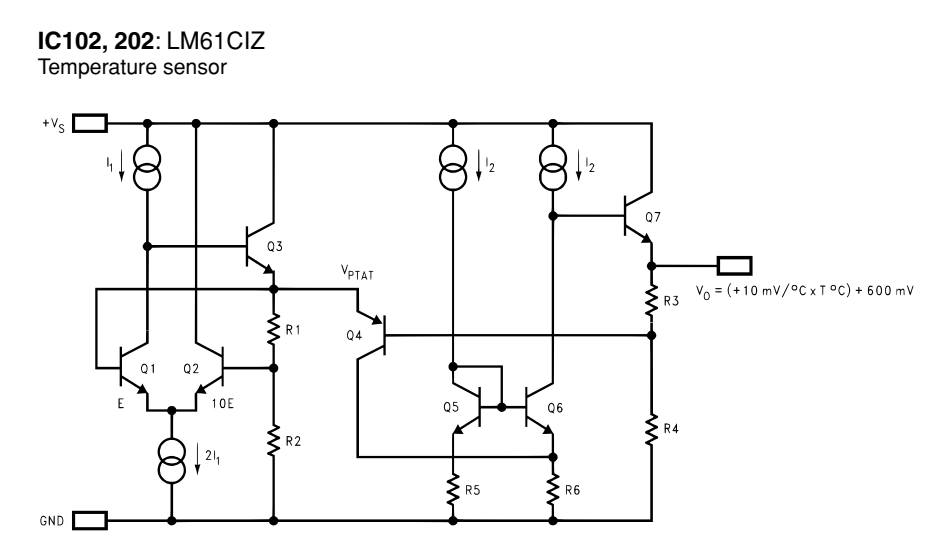
Mark	Reference Parts Number	Parts Name
#1	IC300-303	TP4220R
#2	0104-105	H506C110-E
#3	0101-11A, 11B, 20P-214, 216, 315	M4111
		M4115
		M4108-80V-P

NOTICE model

- (J) JAPAN
- (U) U. S. A
- (C) CANADA
- (R) GENERAL
- (T) CHINA
- (K) KOREA
- (A) AUSTRALIA
- (B) BRITISH
- (G) EUROPE
- (L) SINGAPORE
- (E) SOUTH EUROPE
- (V) TAIWAN
- (F) RUSSIAN

Page 64 [C9] to FRONT (2)_CB504

[M2] to MAIN (3)_W318



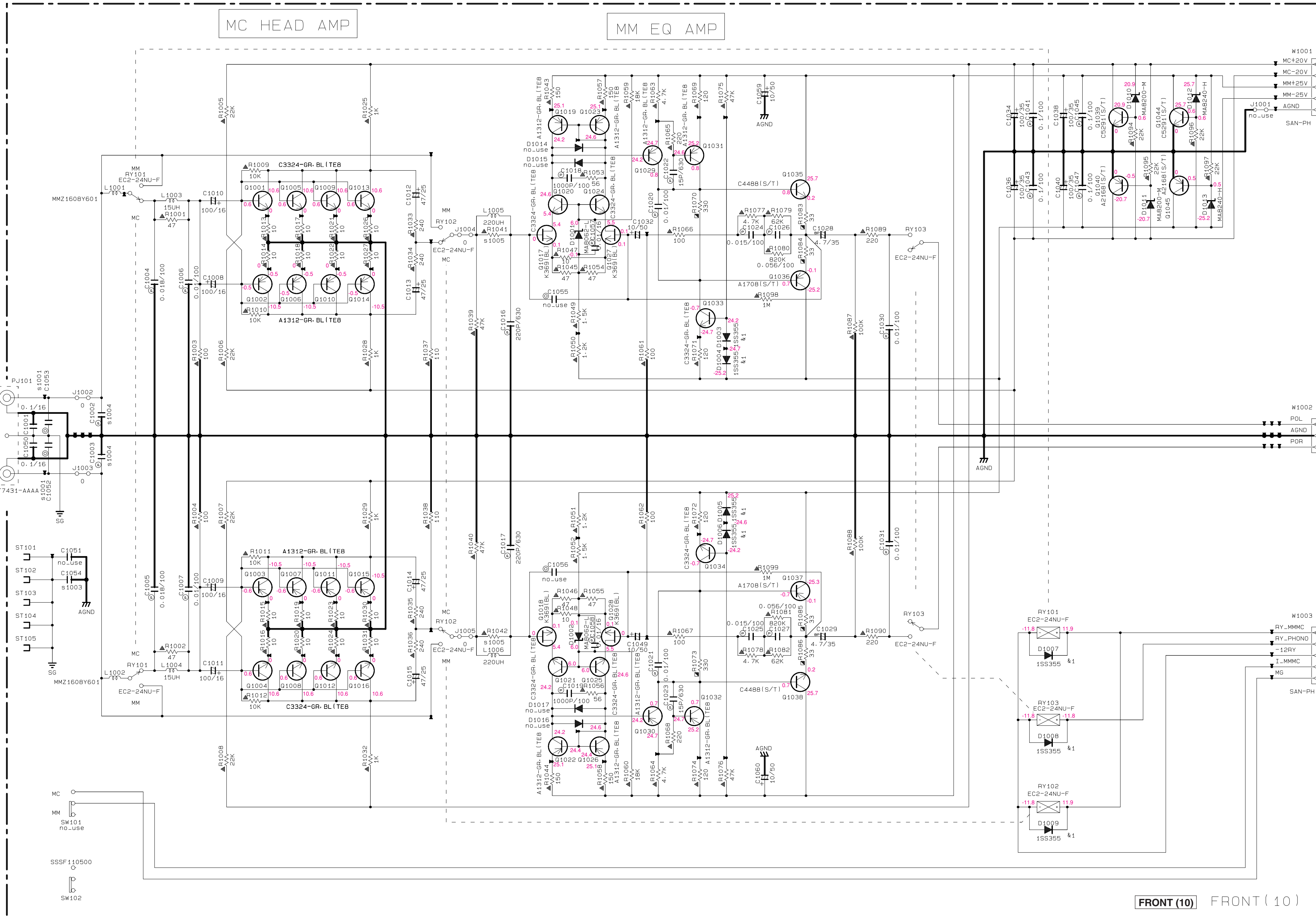
Note) Those parts marked with "#" are not included in the P.C.B. ass'y.
(マーク#の部品は、基板に含まれません。)

- Safety measures**
- Some internal parts in this product contain high voltages and are dangerous. Be sure to take safety measures during servicing, such as wearing insulating gloves.
 - Note that positions indicated below are dangerous even after the power is turned off because an electric charge remains and a high voltage continues to exist there. Before starting any repair work, perform discharge by connecting a discharge resistor (5k-ohms/10W) between terminals at following positions. The time required for discharging is about 30 seconds.
- C308 on MAIN (3) P.C.B.
 - C309 on MAIN (3) P.C.B.
 - C335 on MAIN (3) P.C.B.
 - C336 on MAIN (3) P.C.B.

- 安全対策**
- この製品の内部には高電圧部分があり危険です。修理の際は、絶縁性の手袋を使用するなどの安全対策を行ってください。
 - 下記箇所には電源をOFFにした後も電荷が残り、高電圧が維持されており危険です。修理作業前に放電用抵抗(5kΩ/10W)を下記箇所の端子間に接続して放電してください。放電所用時間は約30秒間です。
- MAIN (3) P.C.B.のC308
 - MAIN (3) P.C.B.のC309
 - MAIN (3) P.C.B.のC335
 - MAIN (3) P.C.B.のC336

- All voltages are measured with a 10MQV DC electronic voltmeter.
- Components having special characteristics are marked #, and must be replaced with parts having specifications equal to those originally installed.
- Schematic diagram is subject to change without notice.

- 電圧は、内部抵抗10MΩの電圧計で測定したものです。
- 上印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
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Page 66 G3 to FRONT (11)_CB27

Page 60 B3 to FUNCTION (1)_CB301

Page 60 K9 to FUNCTION (1)_CB305

FRONT (10) FRONT (10)

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
▤	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
⊙	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
●	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
Ⓜ	MICA CAPACITOR
Ⓟ	POLYPROPYLENE FILM CAPACITOR
Ⓢ	SEMICONDUCTIVE CERAMIC CAPACITOR
Ⓣ	POLYPHENYLENE SULFIDE FILM CAPACITOR

NOTICE (model)

(J)..... JAPAN
 (U)..... U. S. A
 (C)..... CANADA
 (R)..... GENERAL
 (T)..... CHINA
 (K)..... KOREA
 (A)..... AUSTRALIA
 (B)..... BRITISH
 (G)..... EUROPE
 (L)..... SINGAPORE
 (E)..... SOUTH EUROPE
 (V)..... TAIWAN
 (F)..... RUSSIAN

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
&1	D1003-1009	1SS355 MA111 KDS160-RTK/P

★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
 ★ Components having special characteristics are marked with a triangle and must be replaced with parts having specifications equal to those originally installed.
 ★ Schematic diagram is subject to change without notice.

● 電圧は、内部抵抗10MΩの電圧計で測定したものです。
 ● 印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
 ● 本回路図は標準回路図です。改良のため予告なく変更することがございます。

