TA-F501ES

SERVICE MANUAL

AEP Model
UK Model

Ver. 1.0 2007.04

This amplifier incorporates Dolby* Digital and DTS**.

* Manufactured under license from Dolby Laboratories.
"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

** "DTS" and "DTS 2.0" are trademarks of DTS, Inc.

SPECIFICATIONS

Amplifier section

POWER OUTPUT

Rated Power Output*
6 ohms 1 kHz, THD 0.7%: 65 W + 65 W

Power requirements 230 V AC, 50/60 Hz

* Measured under the following conditions:
Power requirements: 230 V AC, 50/60 Hz

Frequency response

PHONO	RIAA equalization curve ± 0.5 dB
TUNER, SA-CD/CD, TAPE	10 Hz – 40 kHz ± 3 dB (8 ohms)

Inputs (Analog)

PHONO	Sensitivity: 2.5 mV Impedance: 50 kohms S/N: 86 dB (A, 20 kHz LPF)
TUNER, SA-CD/CD, TAPE	Sensitivity: 150 mV Impedance: 50 kohms S/N: 96 dB (A, 20 kHz LPF)

Output (Analog)

TAPE	Voltage: 150 mV Impedance: 1 kohms

Inputs (Digital)

DIGITAL 1/2/3	Impedance: 75 ohms S/N: 96 dB (A, 20 kHz LPF)
DIGITAL 4	S/N: 96 dB (A, 20 kHz LPF)

– Continued on next page –

INTEGRATED STEREO AMPLIFIER

9-887-686-01
2007D04-1

Sony Corporation
Home Audio Division
Published by Sony Techno Create Corporation

SONY®

Output (Digital)

DIGITAL 4	S/N: 96 dB (A, 20 kHz LPF)

TONE

TREBLE	±10 dB, 1 dB step
BASS	±10 dB, 1 dB step

General

Power requirements	230 V AC, 50/60 Hz
Power consumption	60 W
Dimensions (w/h/d)	(Approx.) 280 × 111 × 286 mm including projecting parts and controls
Mass	(Approx.) 4.6 kg

Supplied accessories

Operating Instructions
Optimizer microphone ECM-AC1 (1)
AC power cord (mains lead) (1)
Remote commander RM-AAU012 (1)

Design and specifications are subject to change without notice.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

TABLE OF CONTENTS

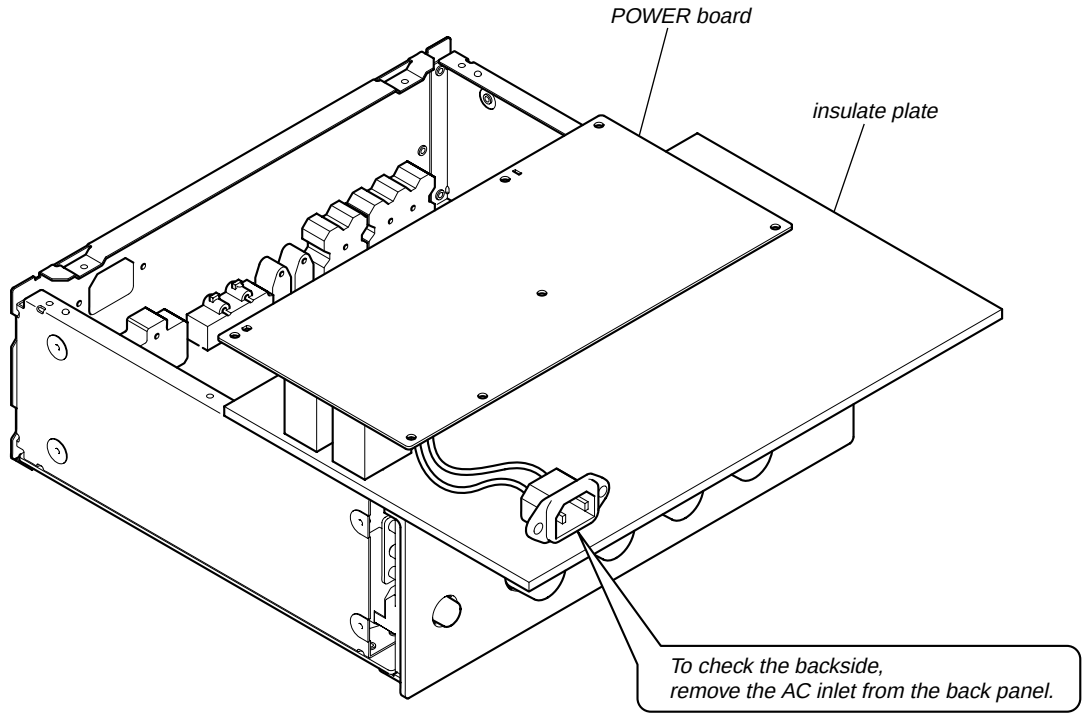
SECTION 1
SERVICING NOTES

ERROR MESSAGES

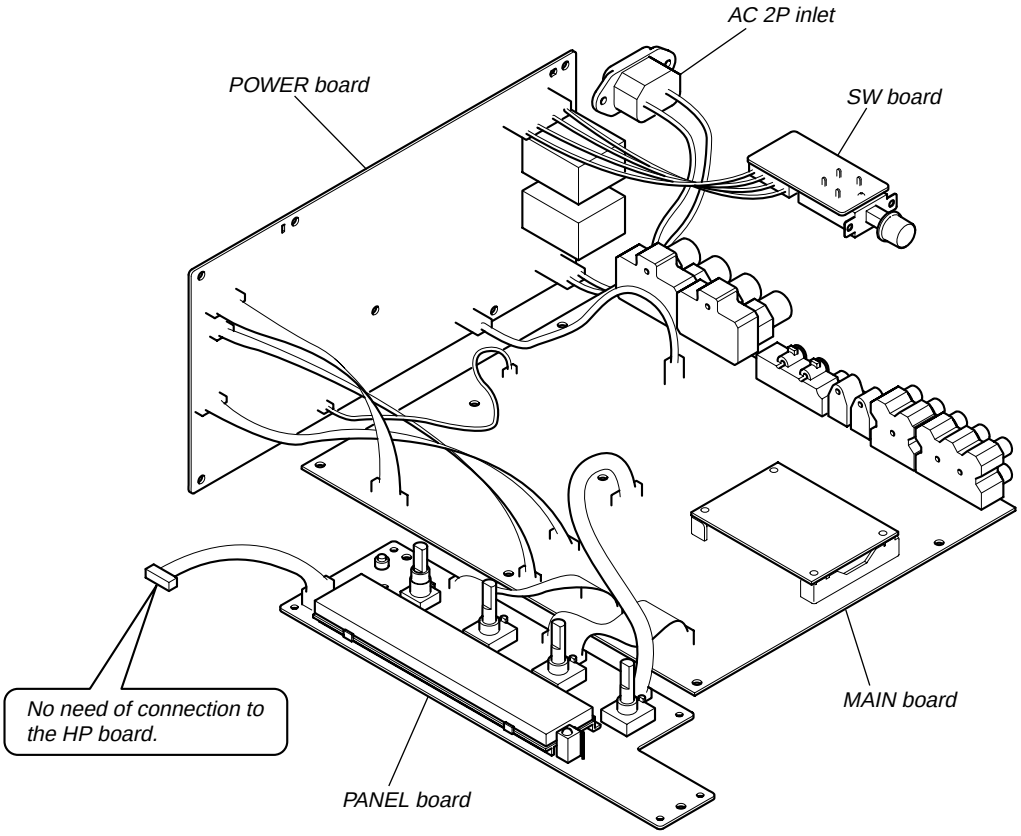
If there is a malfunction, the display shows a code of two numbers. You can check the condition of the system by message. Refer to the following table to solve the problem. If any problem persists, consult your nearest Sony dealer.

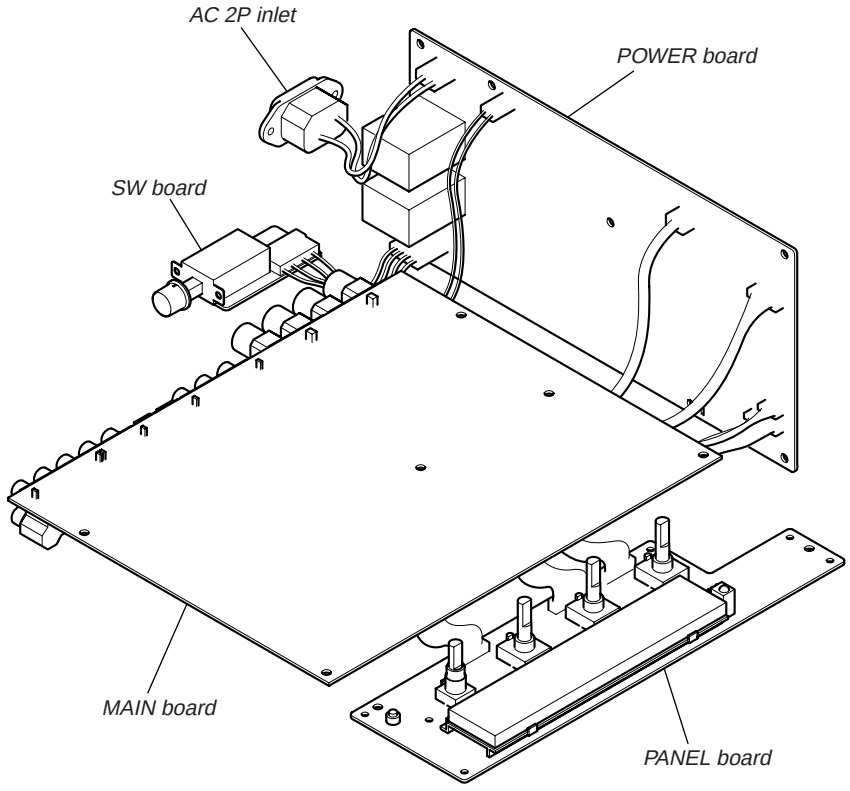
Messages	Check code	Cause and Response
PROTECTOR	11	Irregular current is output from the speakers. Turn off the amplifier, check the central core of a speaker cord is not touching the amplifier or other speakers, and turn on again.
PROTECTOR	12	The amplifier section is overheated. Check that the ventilation hole is not covered. Turn off the amplifier, leave the amplifier for a while, and turn on the power again.
PROTECTOR	14	Turn off the amplifier, check the central core of a speaker cord is not touching the amplifier or other speakers.
PROTECTOR	21	Turn off the amplifier and check that the speaker cords are connected correctly, then turn the power on again.

POWER BOARD SERVICE POSITION



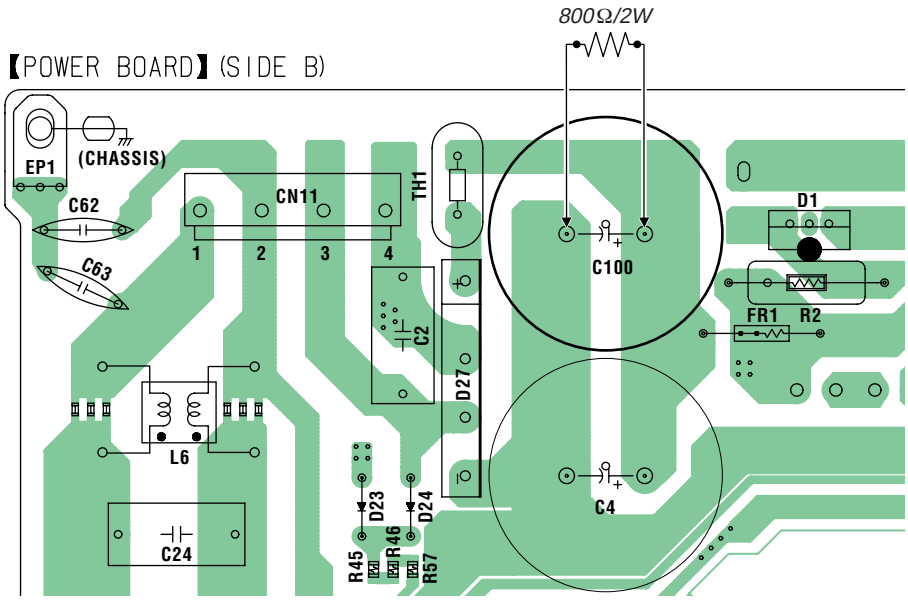
MAIN BOARD SERVICE POSITION

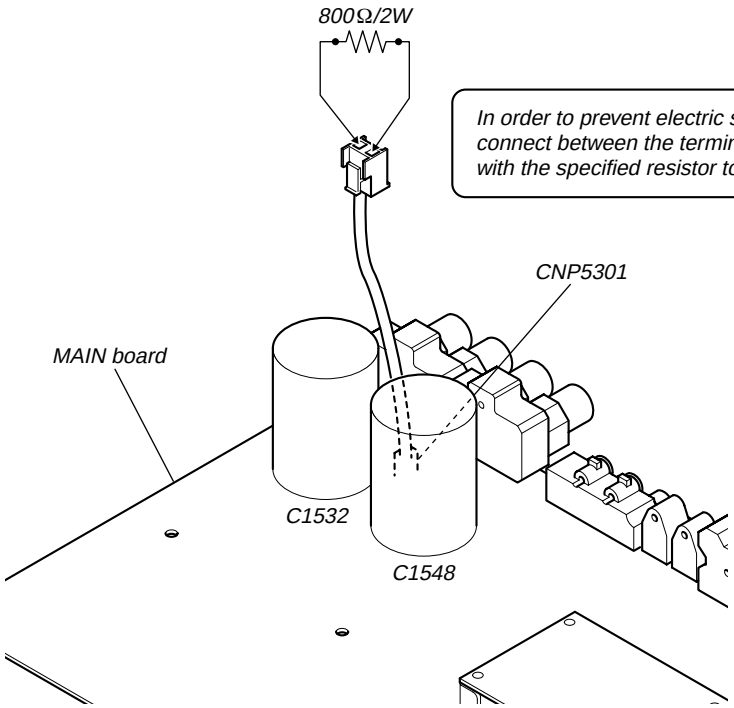




DISCHARGING THE CAPACITORS

In order to prevent electric shock when checking the board, connect between the terminals of the capacitor (C100) with the specified resistor to discharge the capacitor (C100).



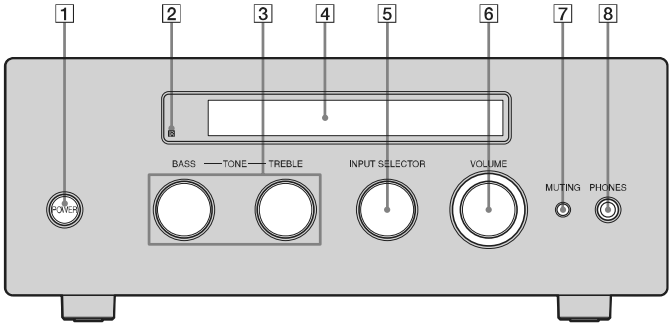


SECTION 2
GENERAL

This section is extracted from instruction manual.

Location of Parts and Operation

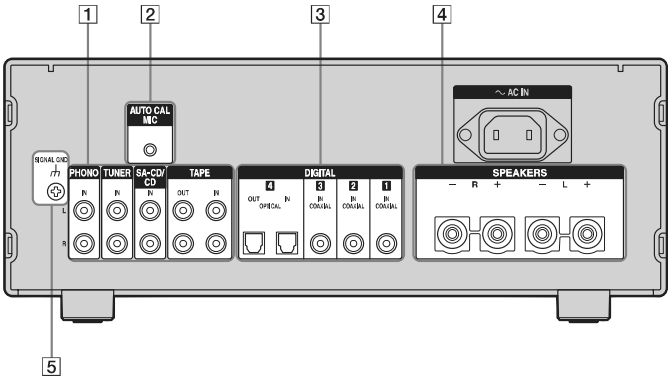
Front panel



Name	Function
1 **POWER**	Press to turn the amplifier on or off.
2 **Remote sensor**	Receives signals from the remote.
3 **TONE BASS/TREBLE**	Turn to adjust the BASS and TREBLE levels. The level can be adjusted from –10 dB to +10 dB.
4 **Display**	The current status of the selected component or a list of selectable items appears here.

Name	Function
5 **INPUT SELECTOR**	Turn to select the input source to play back.
6 **VOLUME**	Turn to adjust the volume level of speakers. The level can be adjusted from –∞ dB to +23 dB.
7 **MUTING**	Press to turn off the sound temporarily. Press the button again to restore the sound.
8 **PHONES jack**	Connects to headphones.

Rear panel



1 AUDIO INPUT/OUTPUT section

L R	Audio input/output jacks	Connects to a Super Audio CD player, tape deck, MD deck or DAT player, etc (page 6).

2 AUTO CAL MIC jack

	Connects to the supplied optimizer microphone for the Auto Calibration function (page 13).

3 DIGITAL INPUT/OUTPUT section

	COAXIAL IN jacks	Connects to a DVD player, Super Audio CD player, etc. The COAXIAL jacks provide a better quality sound (page 7).
	OPTICAL IN/OUT jack	

4 SPEAKERS section

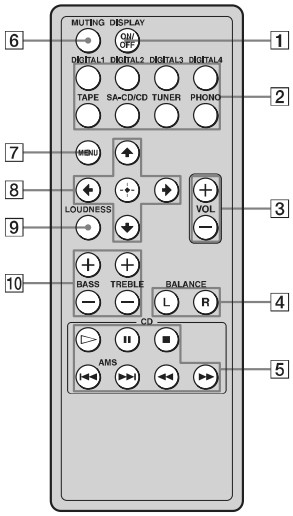
	Connects to speakers (page 5).

5 SIGNAL GND terminal

	If a turntable has a ground (earth) wire, connect it to this terminal to avoid a hamming noise (page 6).

Remote commander

RM-AAU012



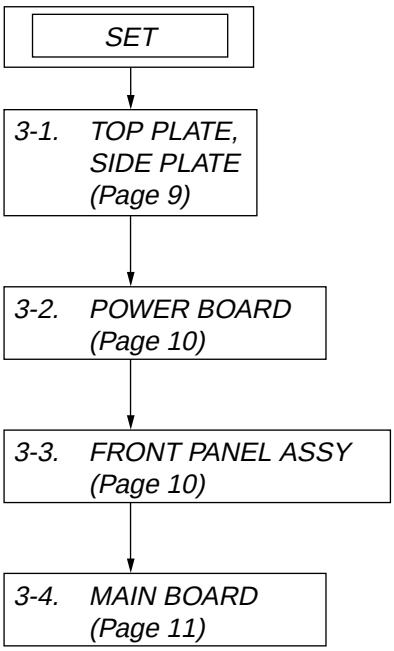
Name	Function
1 **DISPLAY ON/OFF**	Press to turn the display in the display window on and off.
2 **Input buttons**	Press one of the buttons to select the component you want to use.
3 **VOL +/–**	Press to adjust the volume level of speakers. The level can be adjusted from –∞ dB to +23 dB.
4 **BALANCE L/R**	Press to adjust the balance between left and right speakers. Both the left and the right balance can be adjusted from 0 dB to +20 dB. The initial setting is 0 dB (center).
5 **Operation buttons for a Sony CD player**	You can only operate a Sony CD player using this remote, when you connect it to the this amplifier. ▷ playback ❚❚ pause ■ stop I◀◀ /▶▶I select a track ◀◀/▶▶ fast backward/ forward
6 **MUTING**	Press to turn off the sound temporarily. Press the button again to restore the sound.
7 **MENU**	Press to display the menu for the amplifier (page 16).
8 **↑/↓/←/→** ⊕	After pressing MENU (7), press ↑/↓/←/→ to select the settings. Then press ⊕ to enter the selection (page 16).
9 **LOUDNESS**	Set the LOUDNESS function to ON to adjust the BASS and TREBLE levels output from the speakers to the optimum settings, based on the volume level. When you set the LOUDNESS function to OFF, the BASS and TREBLE levels will return to the levels that had been adjusted before the LOUDNESS function was set to ON. Initial setting is OFF.
10 **BASS/ TREBLE +/–**	Press to adjust the BASS and TREBLE levels. The level can be adjusted from –10 dB to +10 dB.

Notes

- The remote command mode of the remote supplied with this amplifier is fixed to CD1 for the connected CD player. Set the remote command mode of the CD player to CD1; otherwise, you cannot operate the CD player using this remote.
- You can adjust the BASS and TREBLE levels manually even when the LOUDNESS function is set to ON. If you adjust the levels manually, the LOUDNESS function will be switched to OFF, automatically.

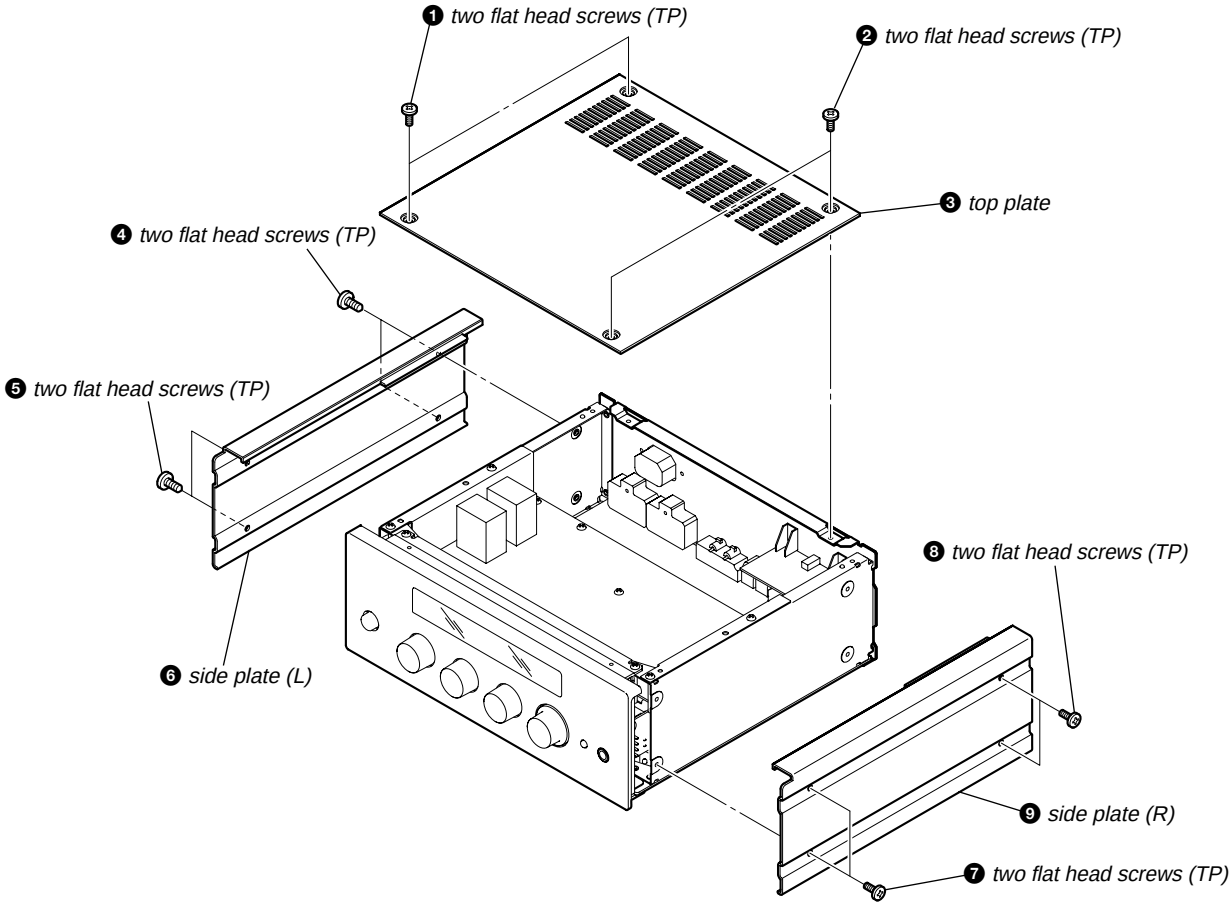
SECTION 3
DISASSEMBLY

- This set can be disassembled in the order shown below.

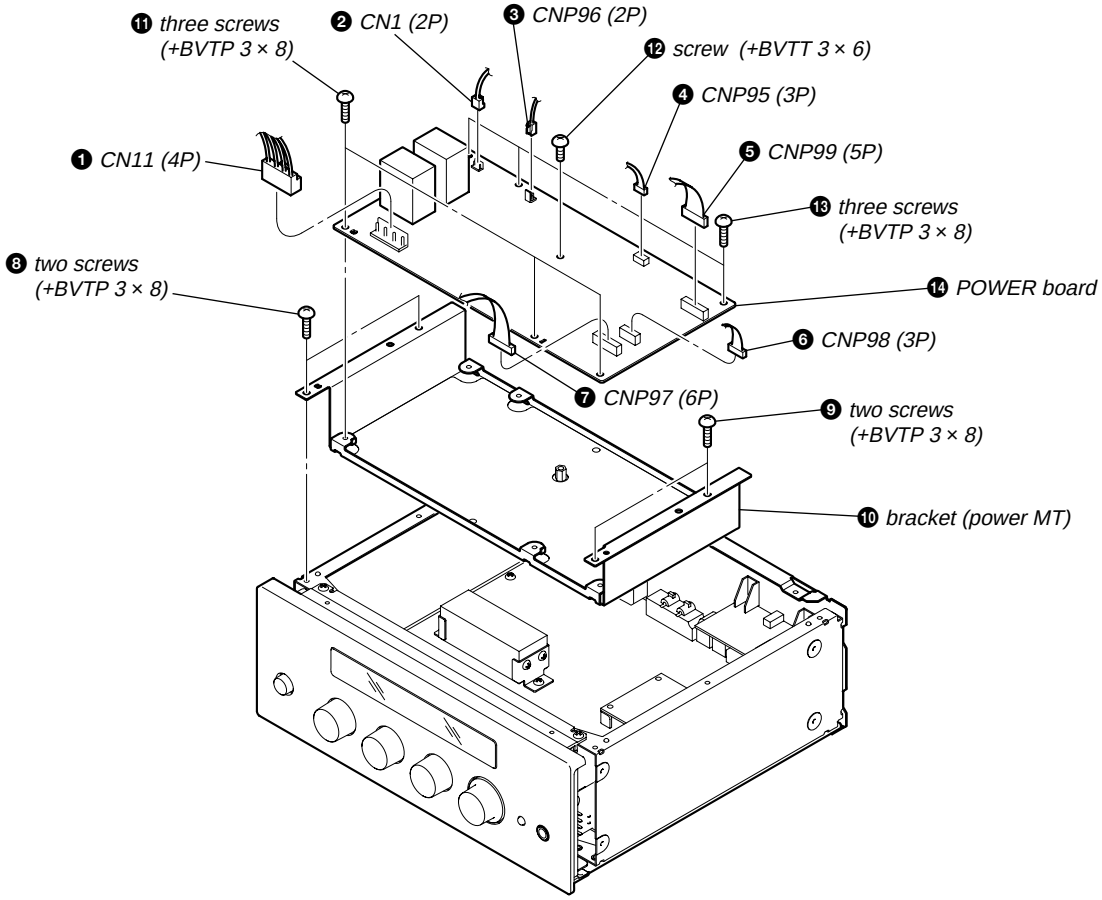


Note: Follow the disassembly procedure in the numerical order given.

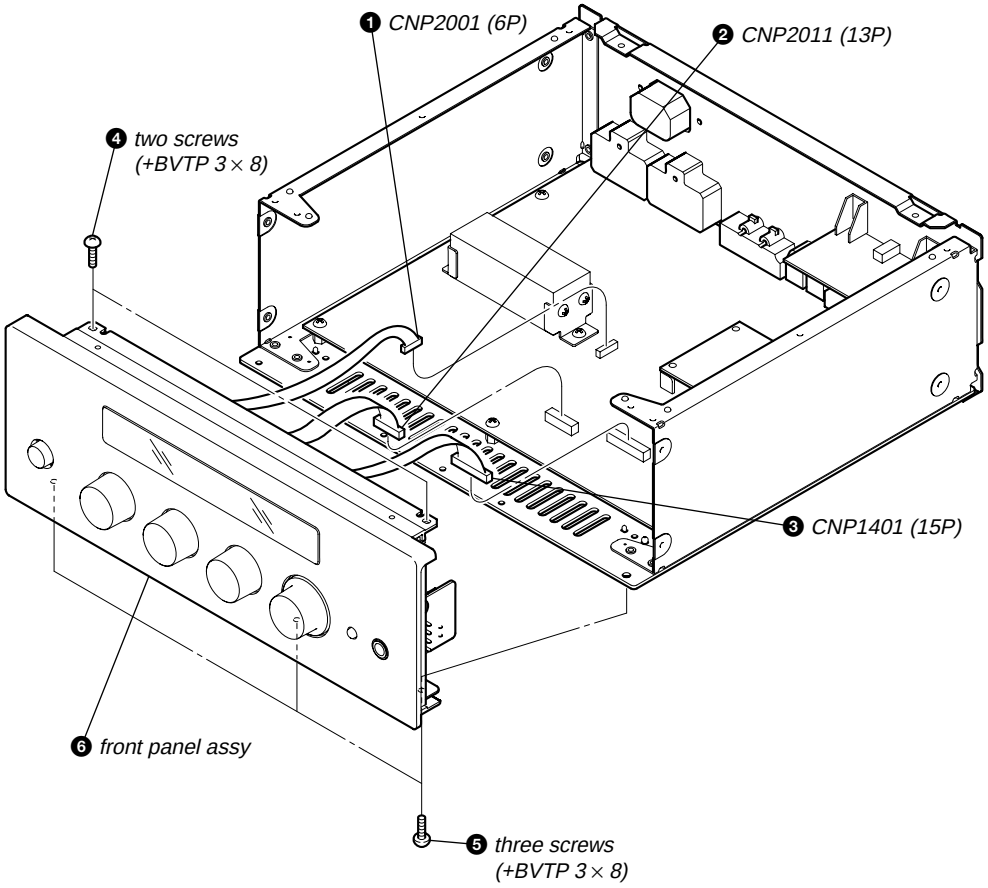
3-1. TOP PLATE, SIDE PLATE



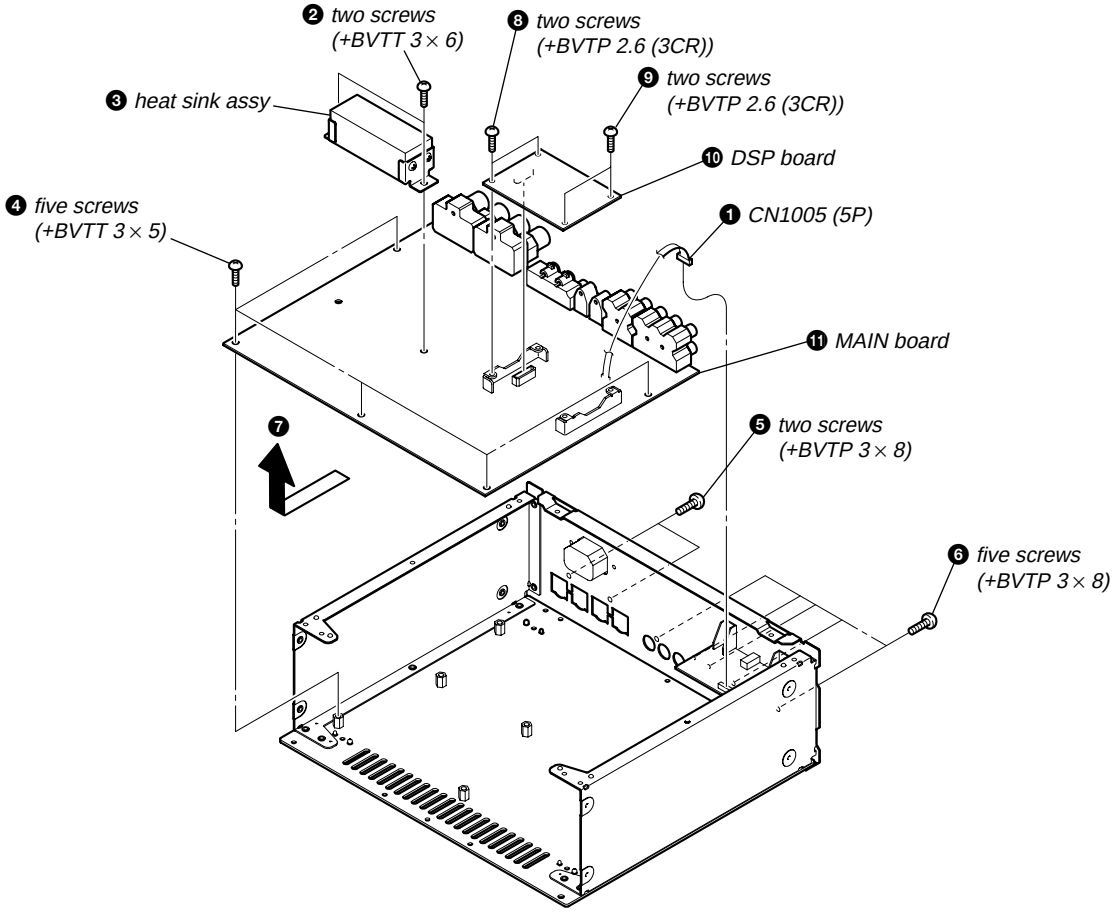
3-2. POWER BOARD



3-3. FRONT PANEL ASSY



3-4. MAIN BOARD



SECTION 4
TEST MODE

MEMORY CLEARING MODE

All preset contents are cleared when this mode is activated. Use this mode before returning the product to clients upon completion of repair.

Procedure:

1. While pressing the [MUTING] button, press the [POWER] button to turn on the main power.
2. The message “MEMORY CLEARING...” appears and the memories are reset to the default values.
3. When done, the message “MEMORY CLEARED !” appears.

SPECIAL MENU MODE

Procedure:

1. Press the [POWER] button to turn on the main power and press the [MUTING] button for more than 5 seconds.
2. The message “MENU SPECIALIZED!” appears.
3. When [∧] [∨] key of the remote commander is pressed, the message “SPECIAL” appers.
4. The item of special menu mode is selected pressing [∧] [∨] key of the remote commander after [ENTER] key of the remote commander is pressed.
5. To release from this mode, press the [MUTING] button for more than 5 seconds. The message “MENU SPECIALIZED OFF” appears upon exiting from this mode.

Note 1: Turn on the power supply again when usually operating after it changes in special menu mode.
Note 2: The setting remains even if coming off the menu. The setting is cleared when turning off power.

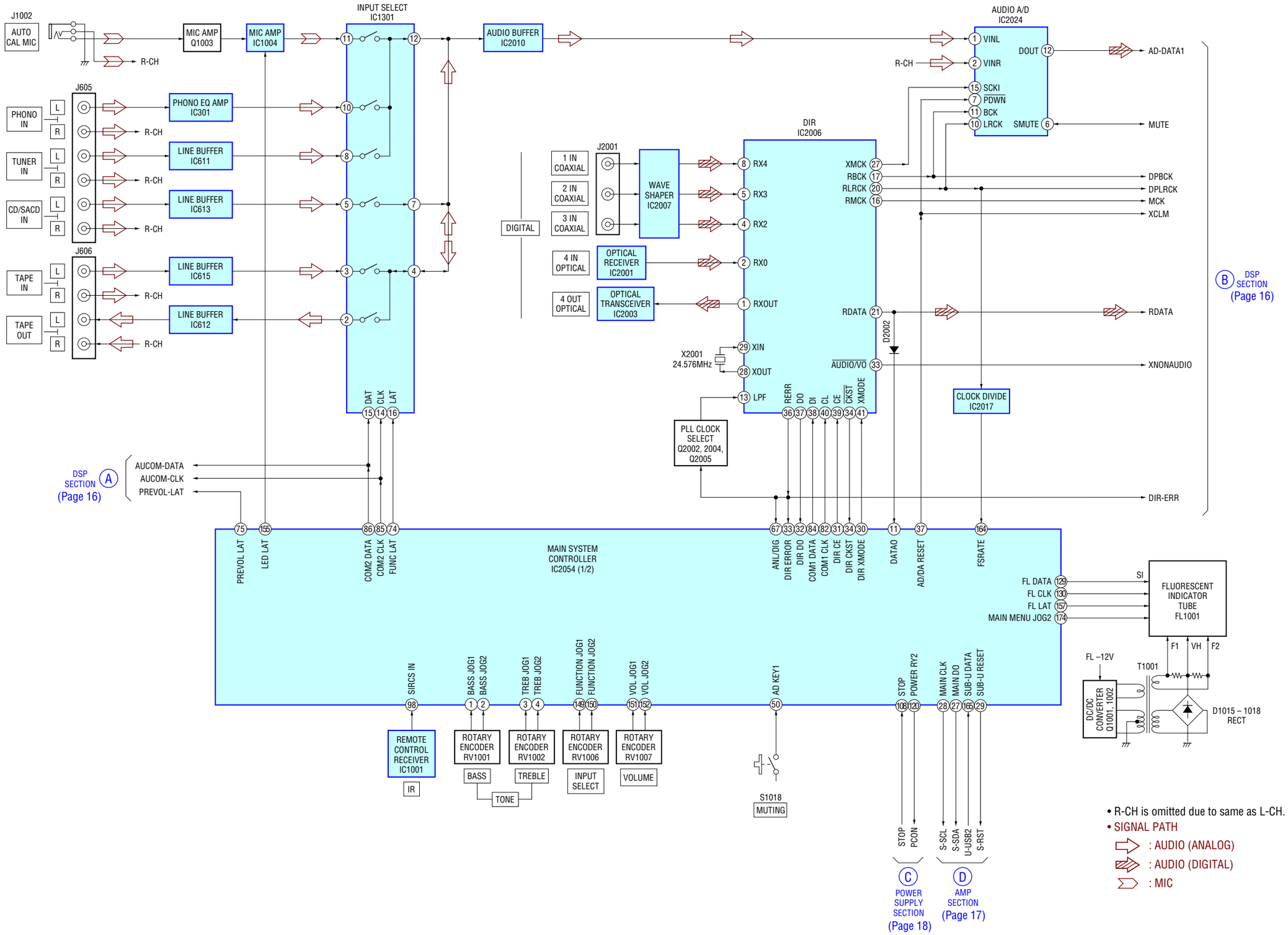
Items	Display	Remark
Protector on/off	PROTECTOR ON/OFF [XXX]	“ON”: Power supply will cut in 5 seconds when the protector works. “OFF”: Power supply doesn't cut when the protector works. **Note:** It is not possible to set it to ON until turning off power when the protector setting is set to OFF. Turn on the power supply again when setting it to ON. XXX: ON or OFF (It switches by pressing the [∧] [∨] key of the remote commander after the item is fixed pressing the [ENTER] key of the remote commander)
Model version display	##### *** vX. XX @@@@	#####: model ***: destination X.XX: main system controller software version @@@@: Sum value of flash memory in the main system controller
Model/destination change	MODEL [##### * * * *] X X	Not used
FM/AM tuner version display	FM/AM Tuner Ver X. XX	Not used
HDMI controller version display	HDMI Micom Ver X. XX	Not used
HDMI controller update mode	HDMIUcom Update [XXX]	Not used
Speaker output setting	SPEAKER OUT XXXXX	XXXXX: Selection of speaker output audio [SOURCE]: nomally mode, [MIC]: mode that output audio from mic from speaker (It switches by pressing the [∧] [∨] key of the remote commander after the item is fixed pressing the [ENTER] key of the remote commander)
FL display fonts test	FL FONT 0x** = [X]	All the fonts to be displayed on the FL display can be checked. **: hexadecimal character code. (It switches by pressing the [∧] [∨] key of the remote commander after the item is fixed pressing the [ENTER] key of the remote commander.) X: character corresponding to the specified code.
FL display test	ALL ON	All segment is display
Audio swap mode	SWAP [XXXXXXXXXXX]	Not used
DSP halt	DSP HALT [XXX]	XXX: ON or OFF (It switches by pressing the [∧] [∨] key of the remote commander after the item is fixed pressing the [ENTER] key of the remote commander) Mode not to send DSP host code, and to make only decipherment done
DSP Version display	DSP Ver S: ***, P: XXX	***: DSP decoder patch version XXX: DSP post process version
Volume value display (FL/FR)	FL**** FR XXXX	****: Front L-ch volume value XXXX: Front R-ch volume value
Volume value display (SL/SR)	SL**** SR XXXX	Not used
Volume value display (CT/SW)	CT**** SW XXXX	Not used

Items	Display	Remark
Volume value display (SBL/SBR)	SBL**** SBR XXXX	Not used
EERROM debug	EEPROM [****] FR XX	****: EEPROM address XX: EEPROM data (It switches by pressing the Λ V key of the remote commander after the item is fixed pressing the ENTER key of the remote commander)
Super reset	SUPER RESET [XXX]	Not used for the servicing When EEPROM initialization is required, perform the “memory clear mode”
2nd volume value display	2nd VOLUME XXX	Not used
FL display duty change	DARK OUT DUTY [XXX%]	Not used
Clock setting value display	STOP CLK [XX] [XX] [XX]	Value of register related to clock of main system controller display mode (for design evaluation)
Sub system controller version display	Sub Micom Ver. X.XX	X.XX: Sub system controller software version
Fan control	FAN CTL ON/OFF [XXX]	Not used
Sub system controller retry counter	Sub Micom RtryCntXXX	XXX: Communication retry count from main system controller side to sub system controller side
Sub system controller status	Sub Micom Stat: XXXXX ↓ Scom Busy Tx/Rx: XXX ↓ Scom Index: XXXXXXXXX	XXXXX: Status in main system controller when communicating with sub system controller side from main system controller side. (It moves to each mode when the Λ V key of the remote commander is pressed after the ENTER key of the remote commander is pressed) XXX: Busy counter of Tx/Rx XXXXXXXXX: Last command forwarded to sub system controller
Sub system controller update mode	SubUcom UpDate [XXX]	XXX: ON or OFF (It switches by pressing the Λ V key of the remote commander after the item is fixed pressing the ENTER key of the remote commander) Reset control from the main system controller side and the reset control from the PC side interfere mutually when updating the sub system controller and it becomes writing NG Therefore, when this mode is set to ON, the reset control from the main system controller side is not done
Sub system controller current detect level setting (8Ω)	8ohm OverCR Th [XXX]	Not used

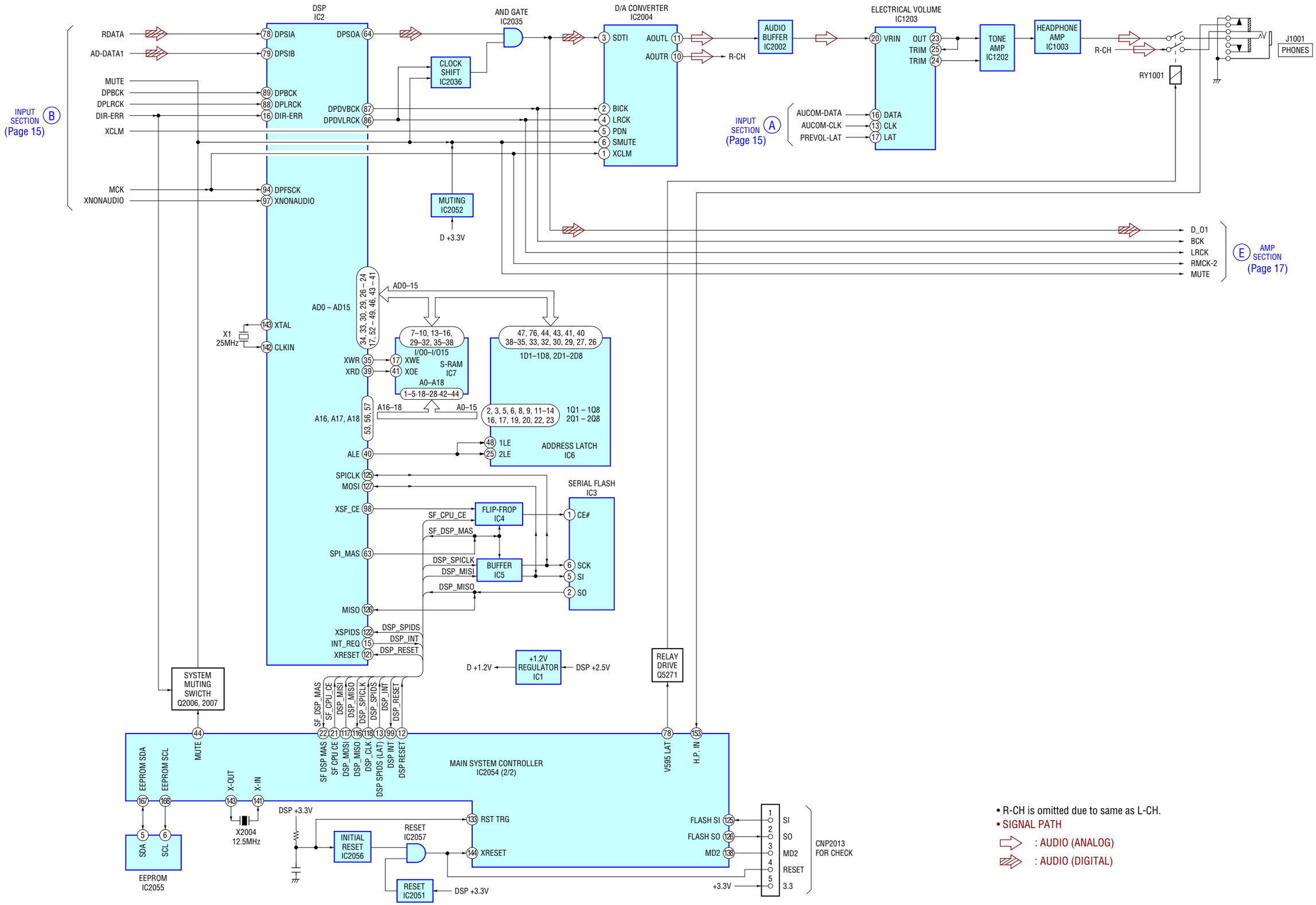
MEMO

SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM – INPUT Section –

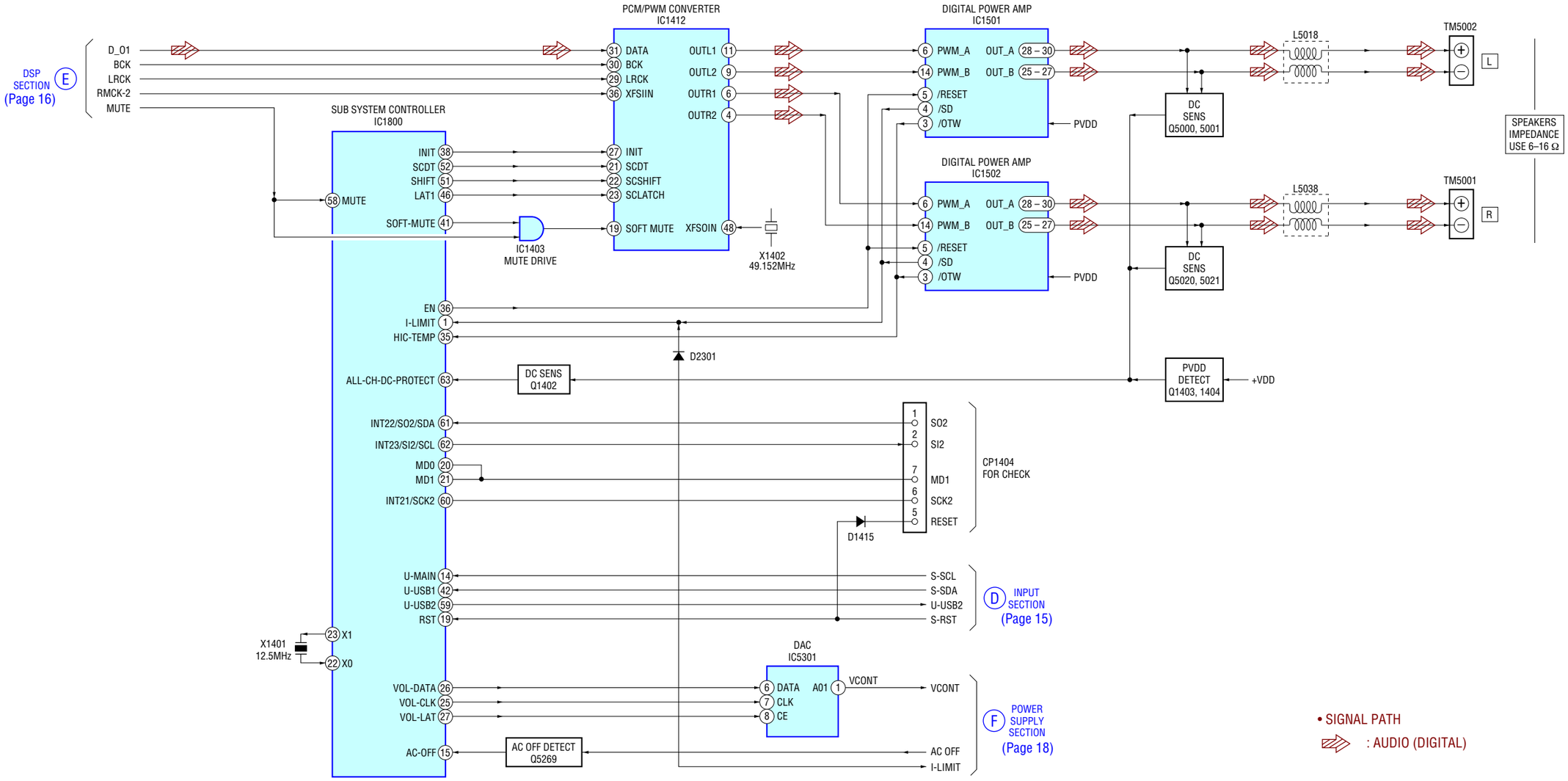


5-2. BLOCK DIAGRAM – DSP Section –



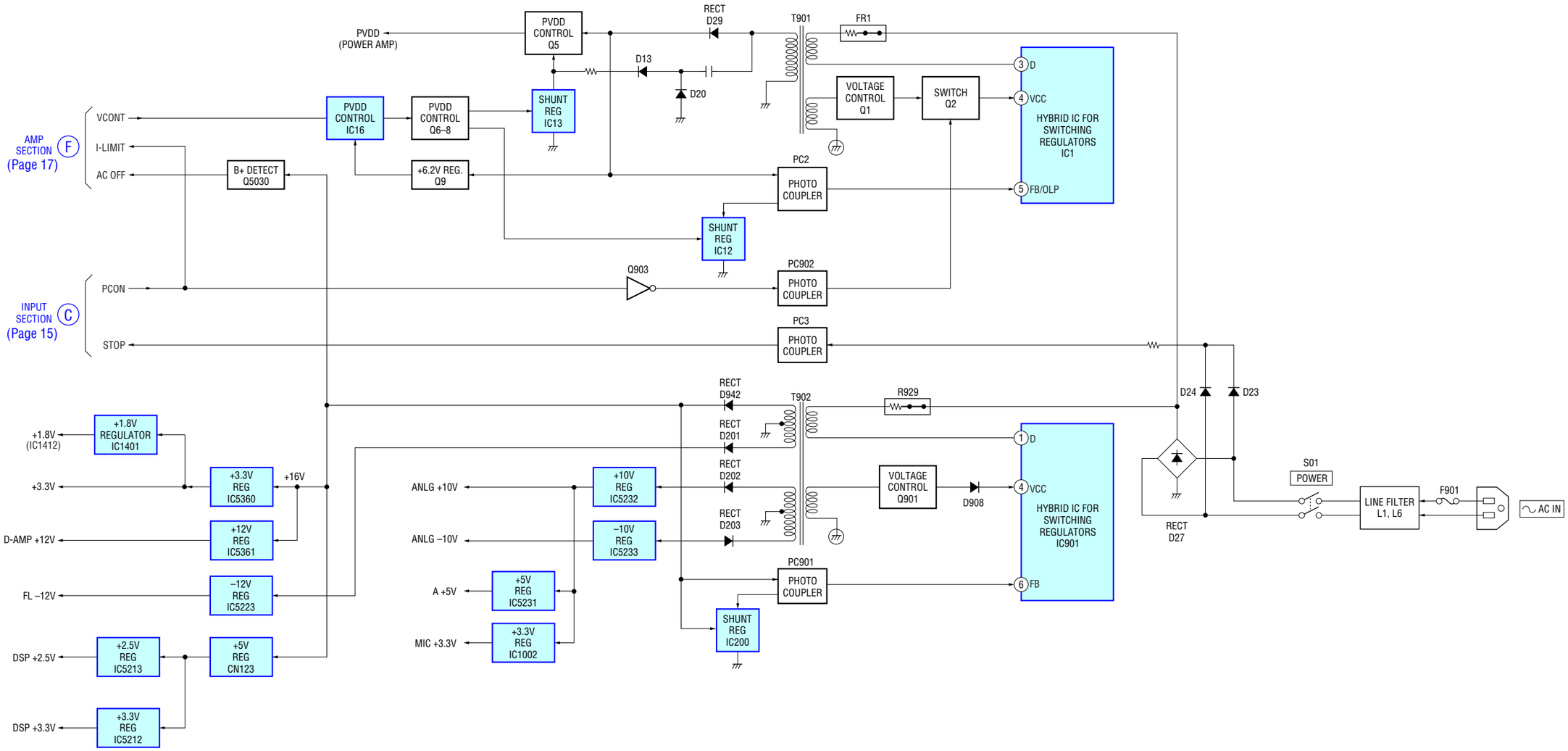
- R-CH is omitted due to same as L-CH.
- SIGNAL PATH
  - : AUDIO (ANALOG)
  - : AUDIO (DIGITAL)

5-3. BLOCK DIAGRAM – AMP Section –



• SIGNAL PATH
: AUDIO (DIGITAL)

5-4. BLOCK DIAGRAM – POWER SUPPLY Section –



• Note for Printed Wiring Boards and Schematic Diagrams

Note on Printed Wiring Board:

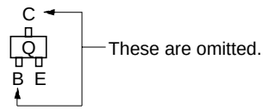
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor



- DSP board is multi-layer printed board.
  However, the patterns of intermediate layers have not been included in thsi diagrams.

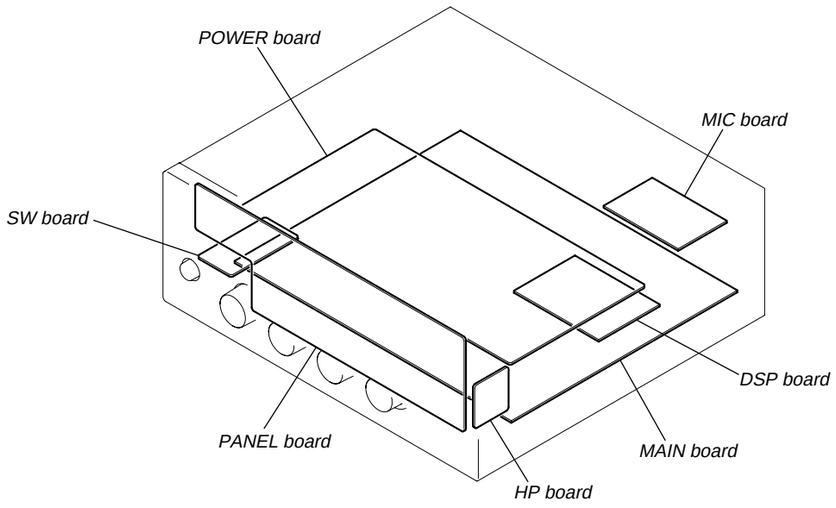
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.
- : nonflammable resistor.
- : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

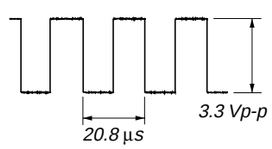
- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  (When measuring the circuit with the HP board removed, connect the ground of the HP board (EB1001) to the chassis ground.)
  no mark : TUNER IN
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path.
  : AUDIO (ANALOG)
  : AUDIO (DIGITAL)
  : MIC

• Circuit Boards Location



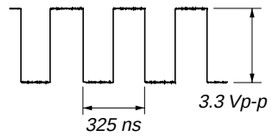
• Waveforms
– MAIN Board –

① IC2024 ⑩ (LRCK)



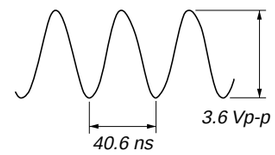
1 V/DIV, 10 µs/DIV

② IC2024 ⑪ (BCK)



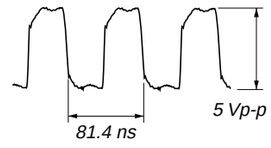
1 V/DIV, 100 ns/DIV

③ IC2024 ⑮ (SCKI)



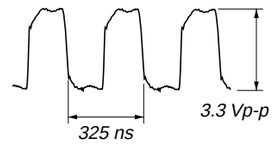
1 V/DIV, 20 ns/DIV

④ IC2004 ① (XCLM)



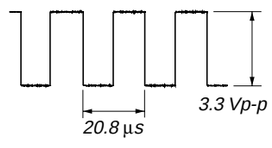
1 V/DIV, 50 ns/DIV

⑤ IC2004 ② (BICK)



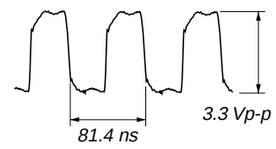
1 V/DIV, 100 ns/DIV

⑥ IC2004 ④ (LRCK)



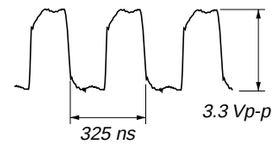
1 V/DIV, 10 µs/DIV

⑦ IC2006 ⑯ (RMCK)



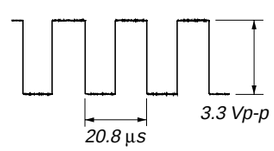
1 V/DIV, 50 ns/DIV

⑧ IC2006 ⑰ (RBCK)



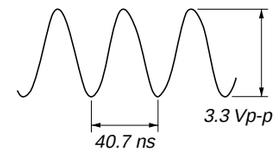
1 V/DIV, 100 ns/DIV

⑨ IC2006 ⑳ (RLRCK)



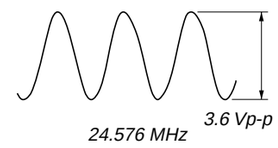
1 V/DIV, 10 µs/DIV

⑩ IC2006 ㉗ (XMCK)



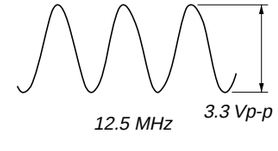
1 V/DIV, 20 ns/DIV

⑪ IC2006 ㉘ (XOUT)



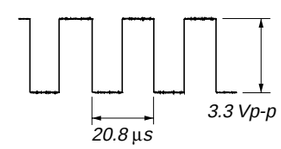
1 V/DIV, 20 ns/DIV

⑫ IC2054 ㊽ (X-OUT)



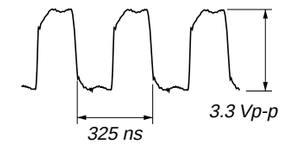
1 V/DIV, 50 ns/DIV

⑬ IC1412 ㉙ (LRCK)



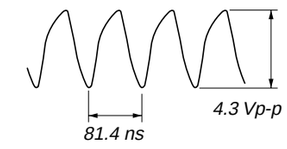
1 V/DIV, 10 µs/DIV

⑭ IC1412 ㉚ (BCK)



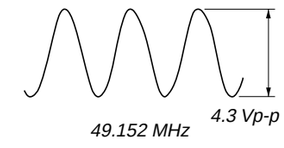
1 V/DIV, 100 ns/DIV

⑮ IC1412 ㊱ (XFSIIN)



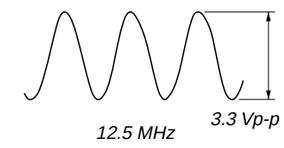
1 V/DIV, 50 ns/DIV

⑯ IC1412 ㊽ (XFSOIN)



500 mV/DIV, 10 ns/DIV

⑰ IC1800 ㉓ (X1)



1 V/DIV, 50 ns/DIV

5-5. PRINTED WIRING BOARD – MAIN Board (Component Side) –

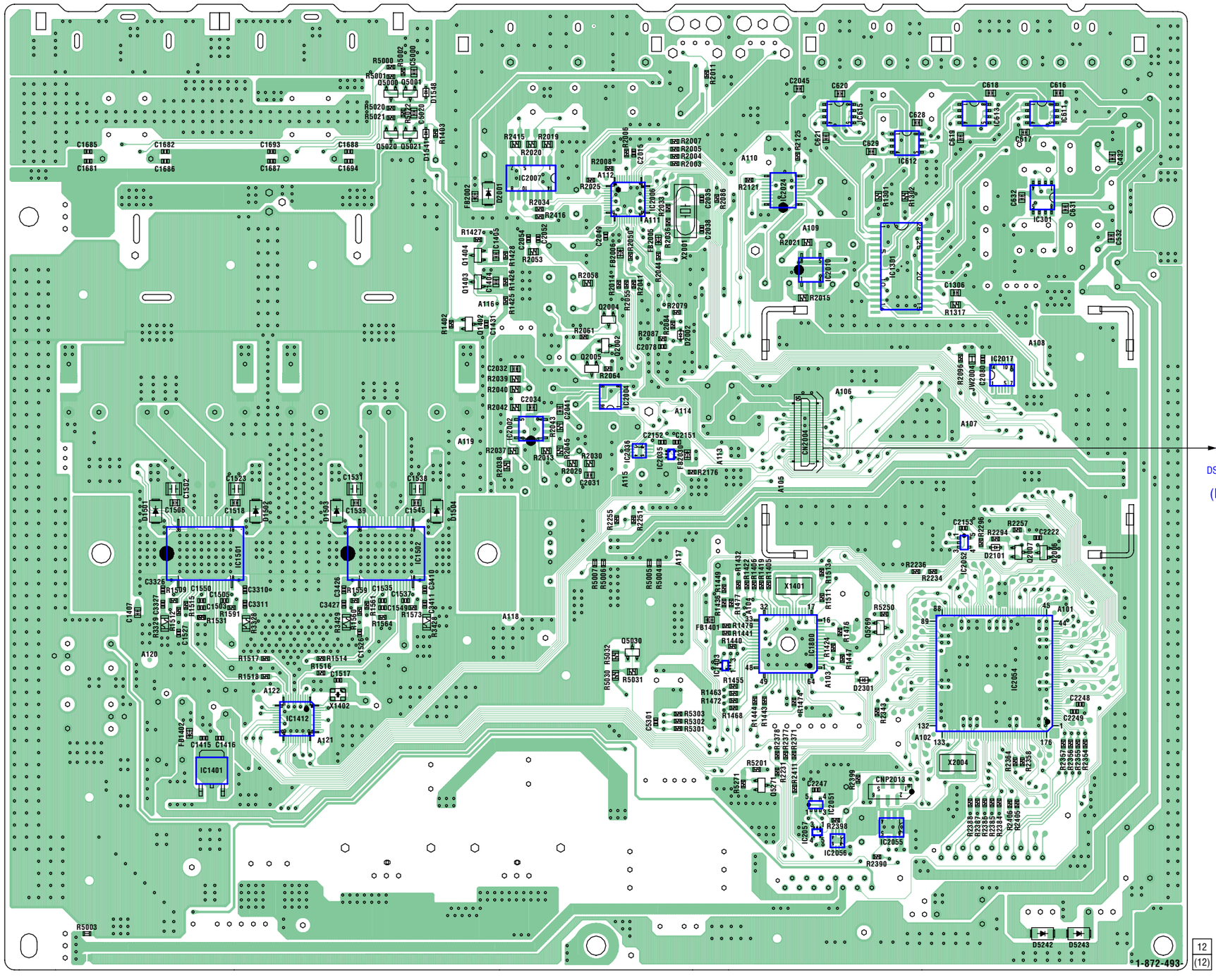
• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

- **Semiconductor Location**

Ref. No.	Location
D1501	F-10
D1502	F-9
D1503	F-9
D1504	F-8
D1541	C-8
D1548	B-8
D2001	C-7
D2002	D-6
D2101	F-3
D2301	G-4
D5242	J-3
D5243	J-2
IC301	C-3
IC611	B-3
IC612	C-4
IC613	B-3
IC615	B-4
IC1301	D-4
IC1401	H-10
IC1403	G-5
IC1412	H-9
IC1501	F-10
IC1502	F-8
IC1800	G-5
IC2002	E-7
IC2004	E-6
IC2006	C-6
IC2007	C-7
IC2010	D-5
IC2017	E-3
IC2024	C-5
IC2035	E-6
IC2036	E-6
IC2051	H-5
IC2052	F-3
IC2054	G-3
IC2055	I-4
IC2056	I-4
IC2057	I-5
Q1402	D-8
Q1403	D-8
Q1404	D-8
Q2002	D-6
Q2004	D-6
Q2005	E-7
Q2006	F-3
Q2007	F-3
Q5000	B-8
Q5001	B-8
Q5020	C-8
Q5021	C-8
Q5030	G-6
Q5269	G-4
Q5271	H-5

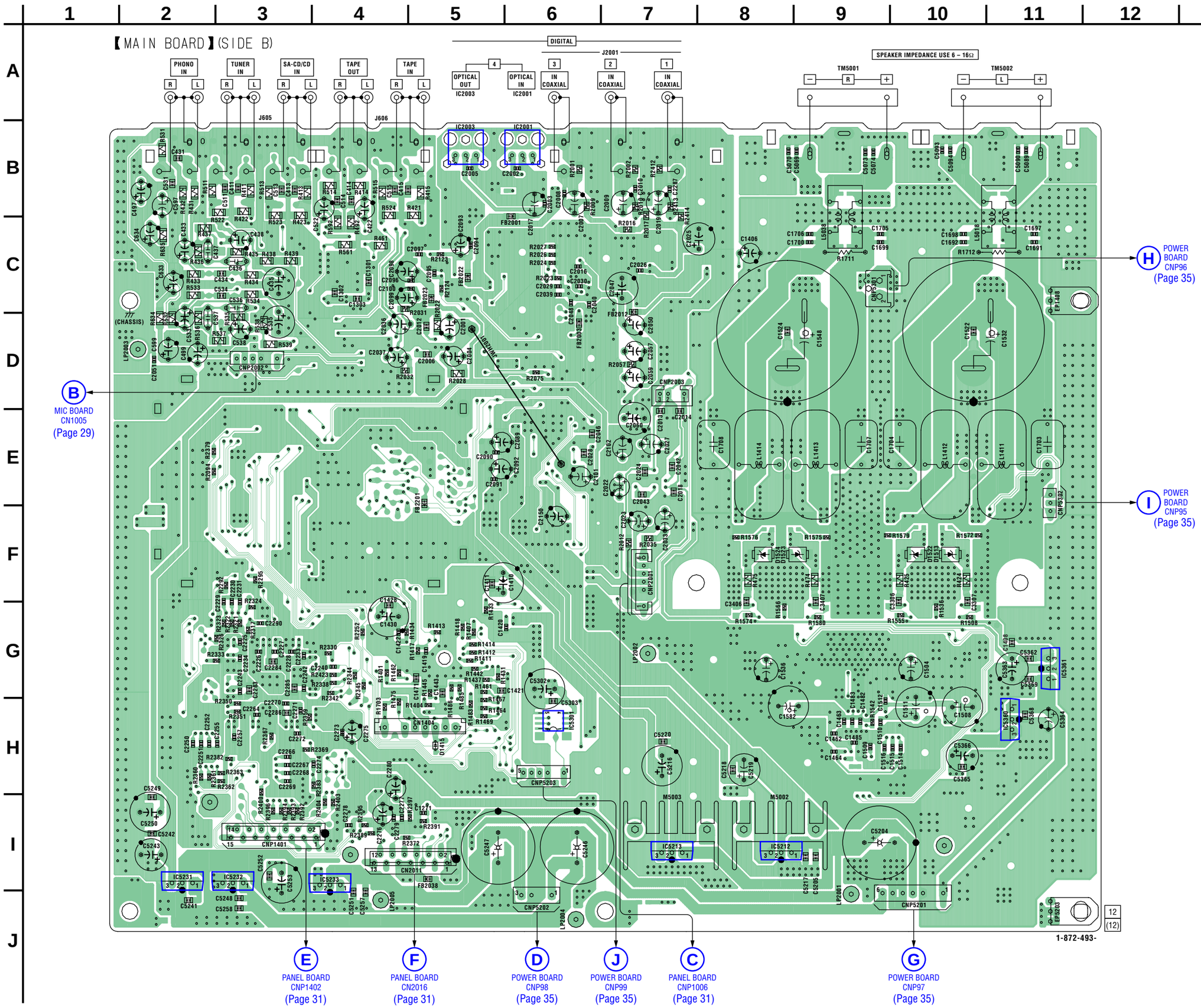
【MAIN BOARD】(SIDE A)



5-6. PRINTED WIRING BOARD – MAIN Board (Conductor Side) –

• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

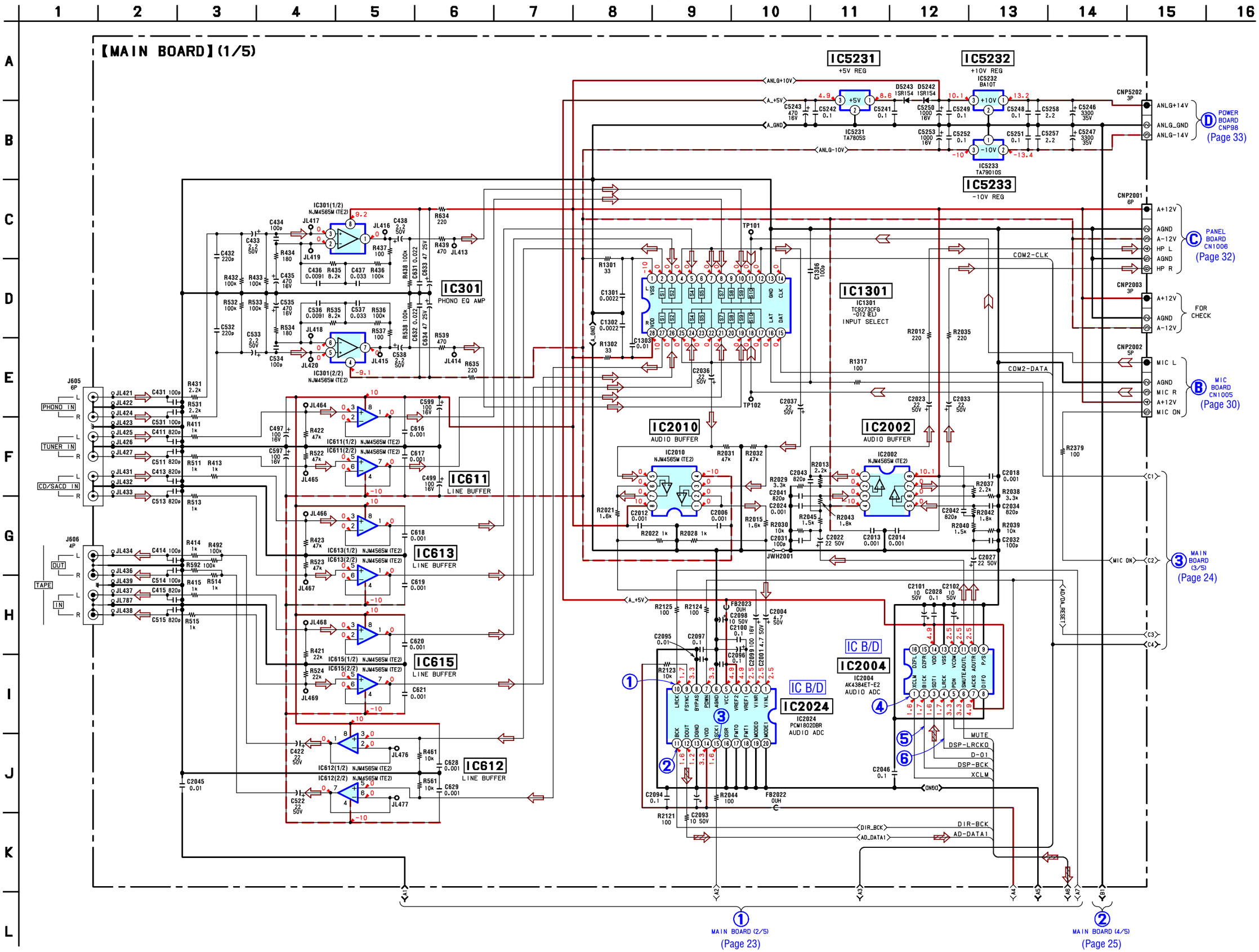


- **Semiconductor Location**

Ref. No.	Location
D1415	H-5
D1513	F-10
D1522	F-10
D1523	F-8
D1524	F-8
IC2001	B-6
IC2003	B-5
IC5212	I-8
IC5213	I-7
IC5231	I-2
IC5232	I-3
IC5233	I-4
IC5301	H-6
IC5360	H-11
IC5361	G-11

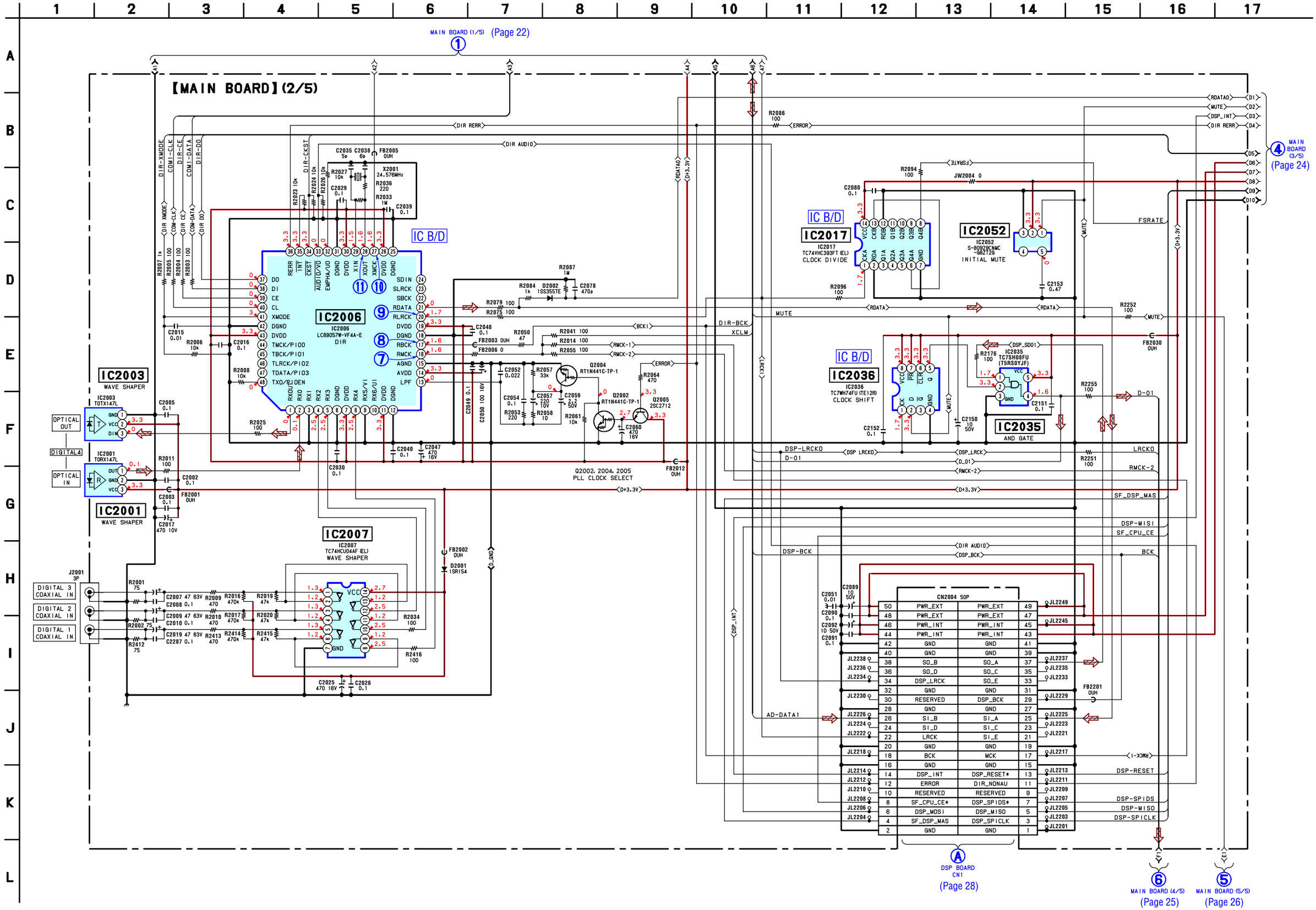
5-7. SCHEMATIC DIAGRAM – MAIN Board (1/5) –

• See page 19 for Waveforms. • See page 36 for IC Block Diagrams.



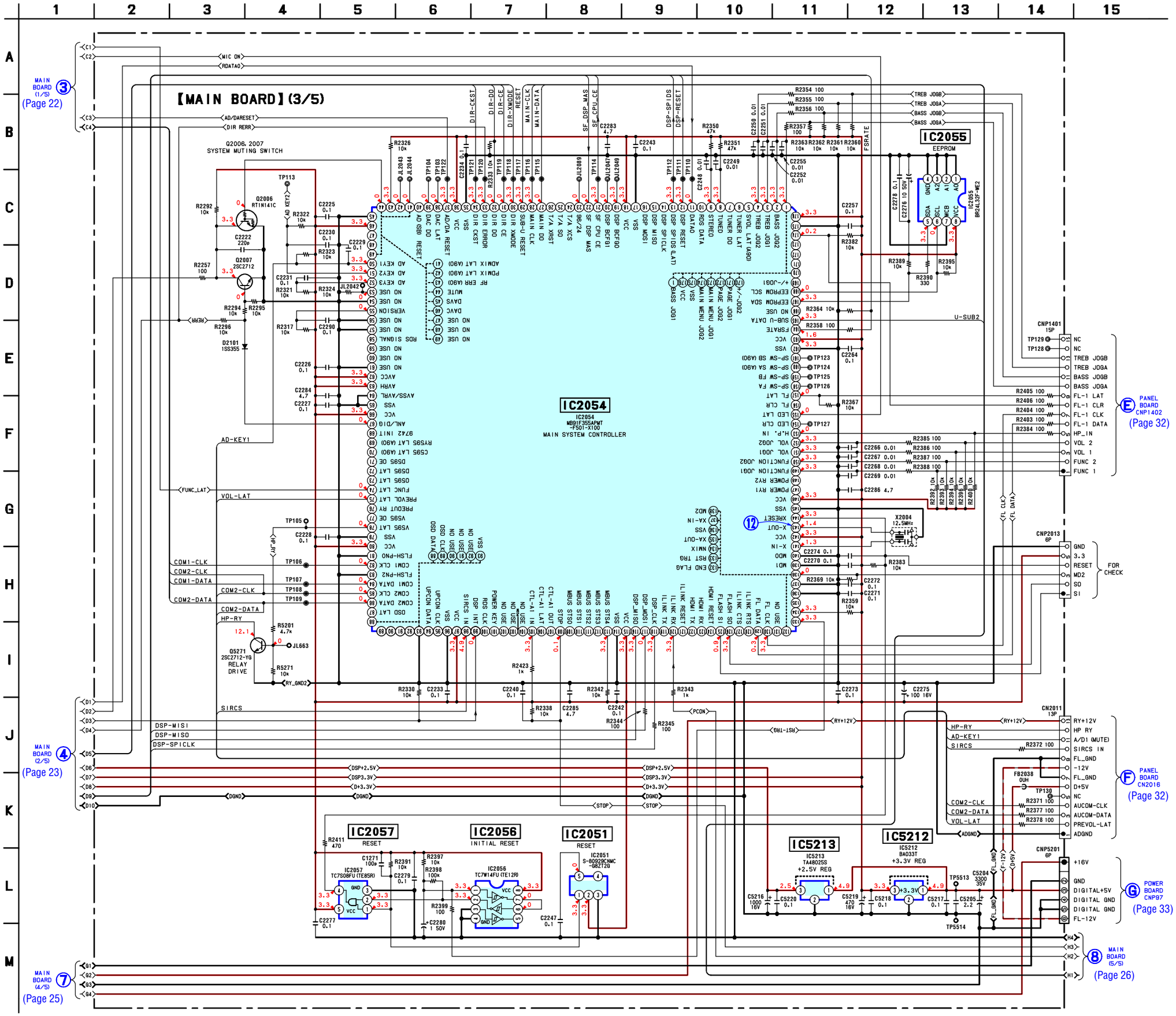
5-8. SCHEMATIC DIAGRAM – MAIN Board (2/5) –

• See page 19 for Waveforms. • See page 36 for IC Block Diagrams.



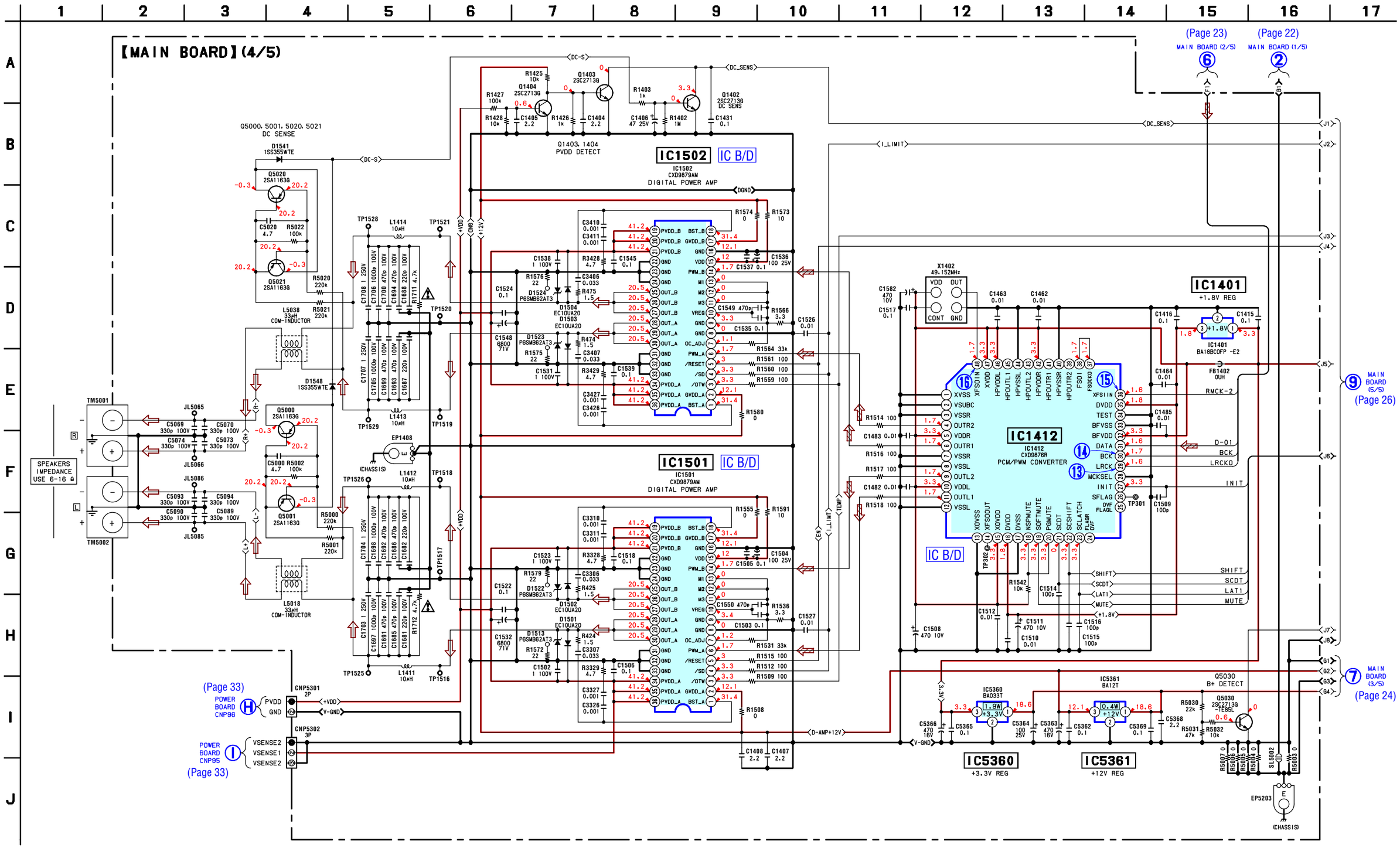
5-9. SCHEMATIC DIAGRAM – MAIN Board (3/5) –

• See page 19 for Waveforms. • See page 41 for IC Pin Function Description.

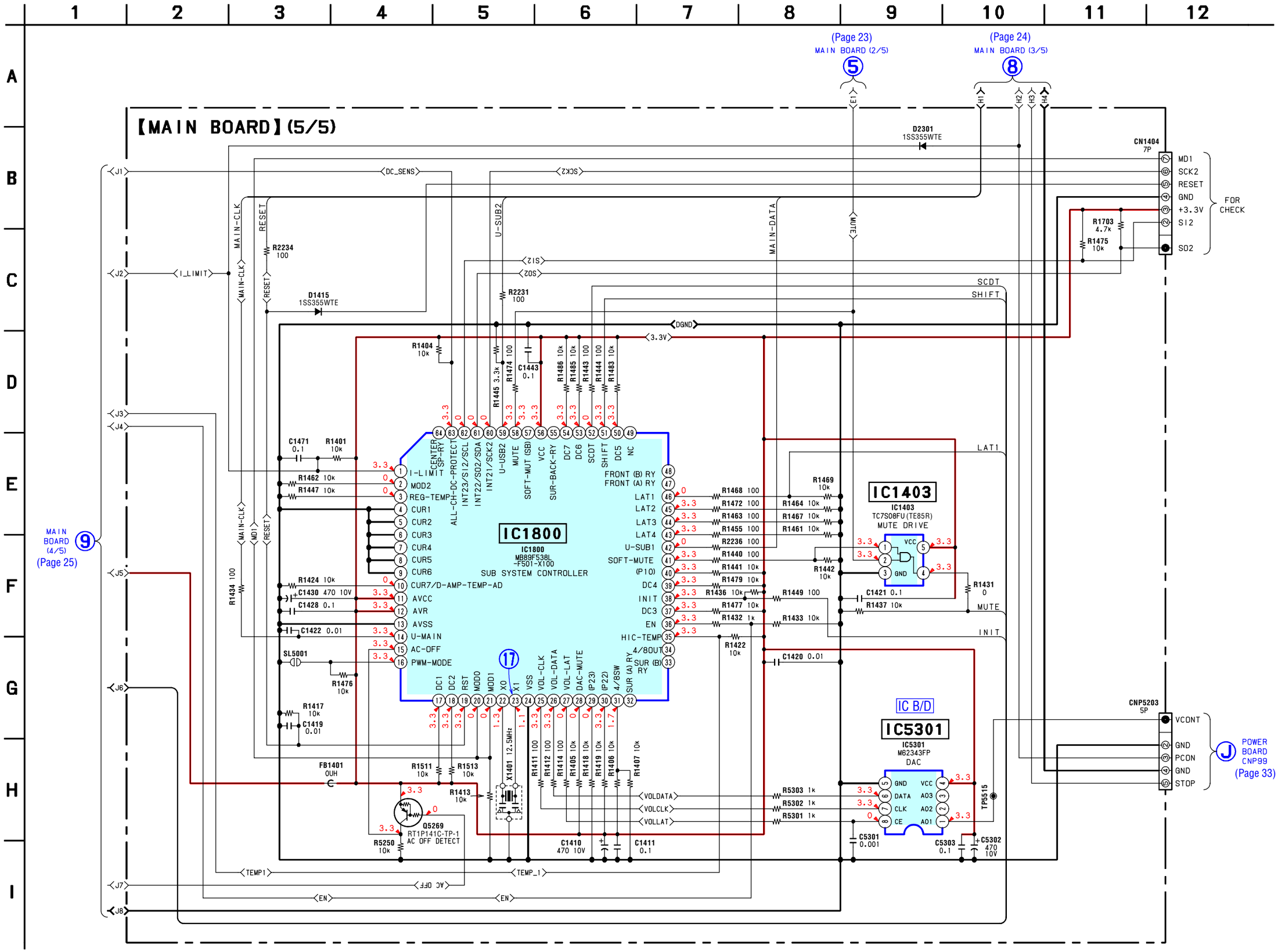


5-10. SCHEMATIC DIAGRAM – MAIN Board (4/5) –

• See page 19 for Waveforms. • See page 37 for IC Block Diagrams.



5-11. SCHEMATIC DIAGRAM – MAIN Board (5/5) – • See page 19 for Waveforms. • See page 38 for IC Block Diagrams. • See page 45 for IC Pin Function Description.

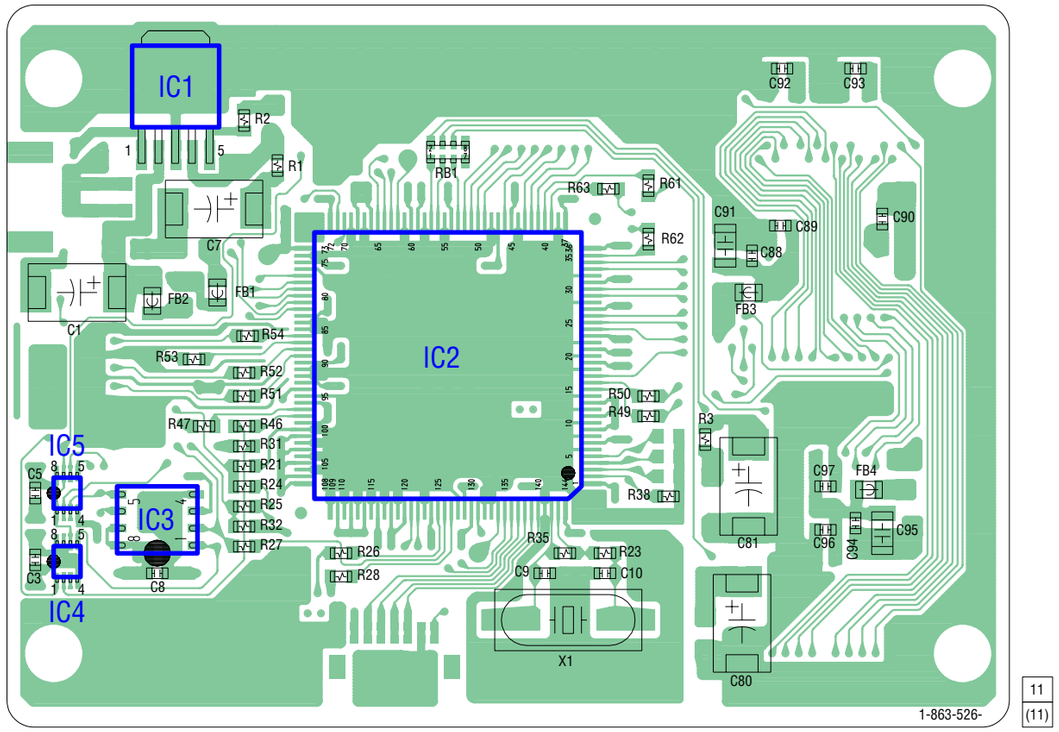


5-12. PRINTED WIRING BOARD – DSP Board –

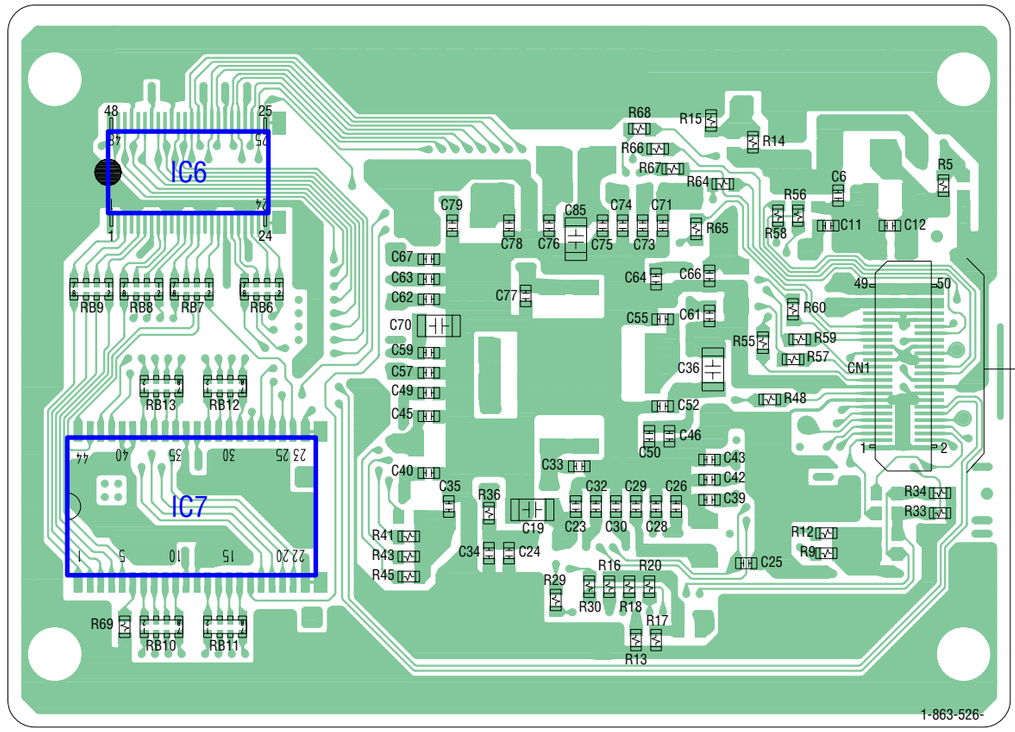
• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

【DSP BOARD】(SIDE A)



【DSP BOARD】(SIDE B)



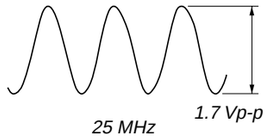
- **Semiconductor Location**

Ref. No.	Location
IC1	B-2
IC2	C-4
IC3	D-2
IC4	D-2
IC5	D-2
IC6	B-9
IC7	D-9

- **Waveform**

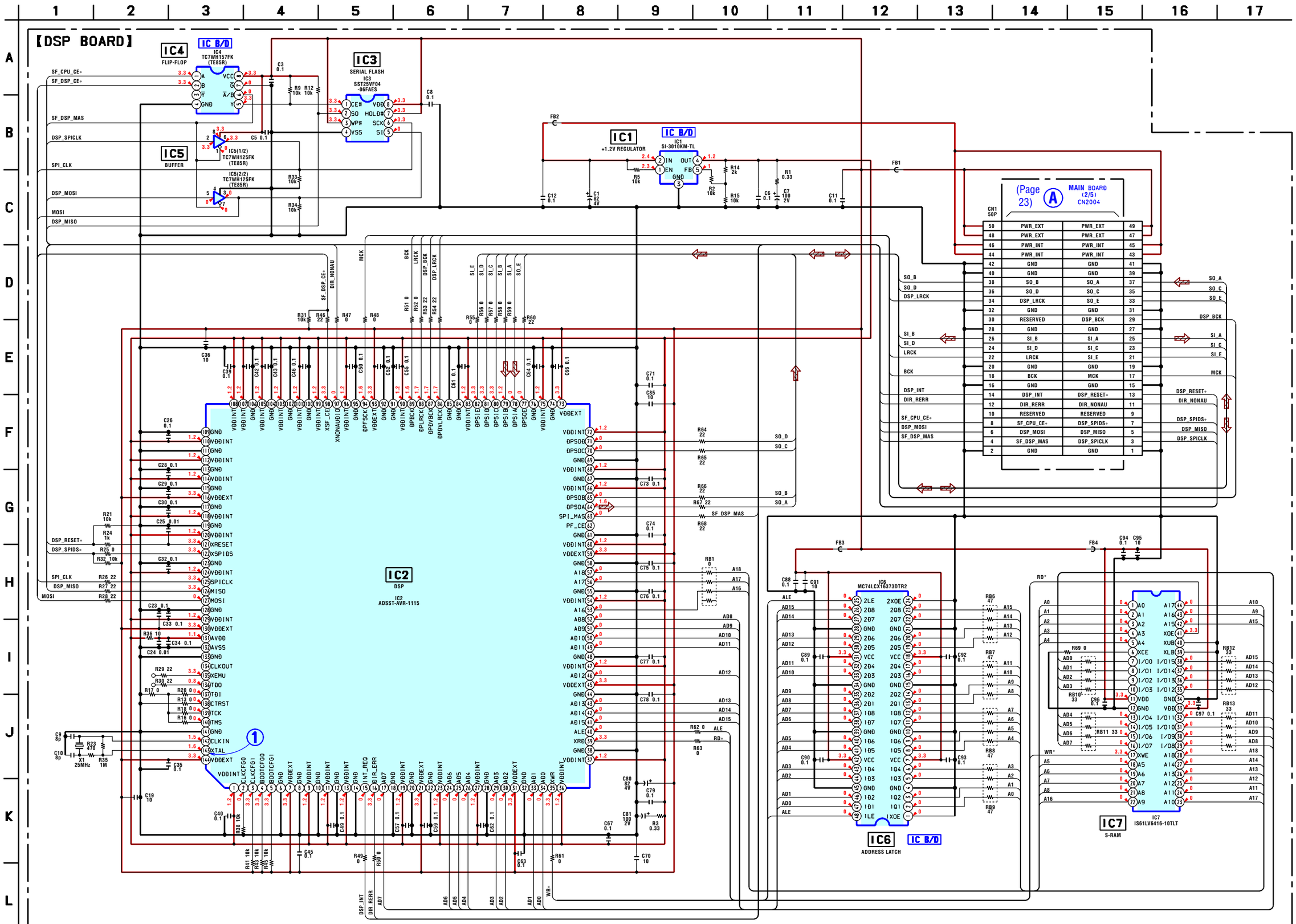
– DSP Board –

① **IC2 ⑭ (XTAL)**



5-13. SCHEMATIC DIAGRAM – DSP Board –

• See page 27 for Waveforms. • See page 39 for IC Block Diagrams. • See page 47 for IC Pin Function Description.

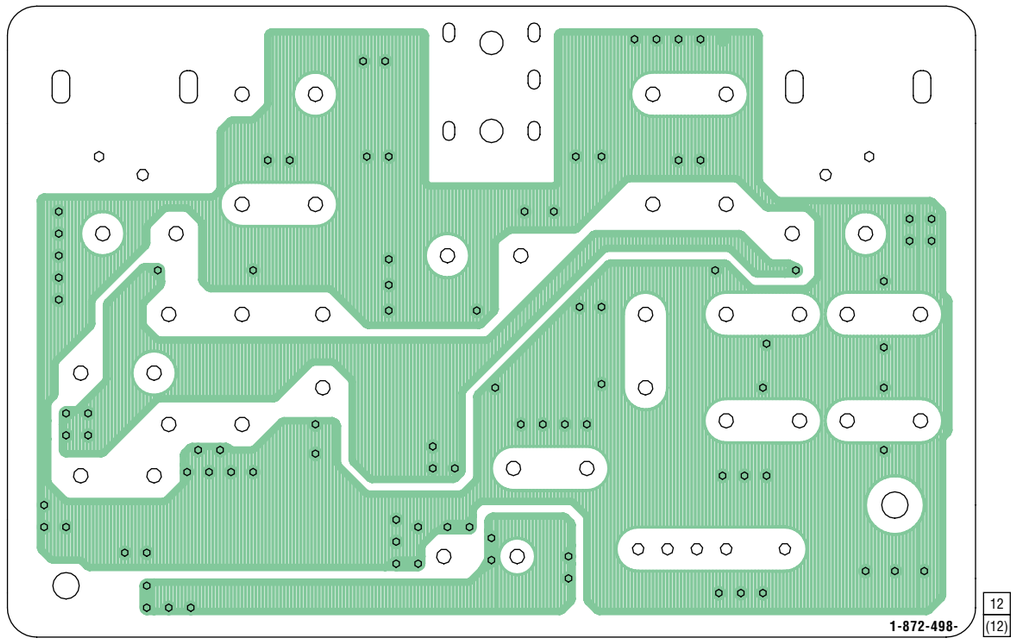


5-14. PRINTED WIRING BOARD – MIC Board –

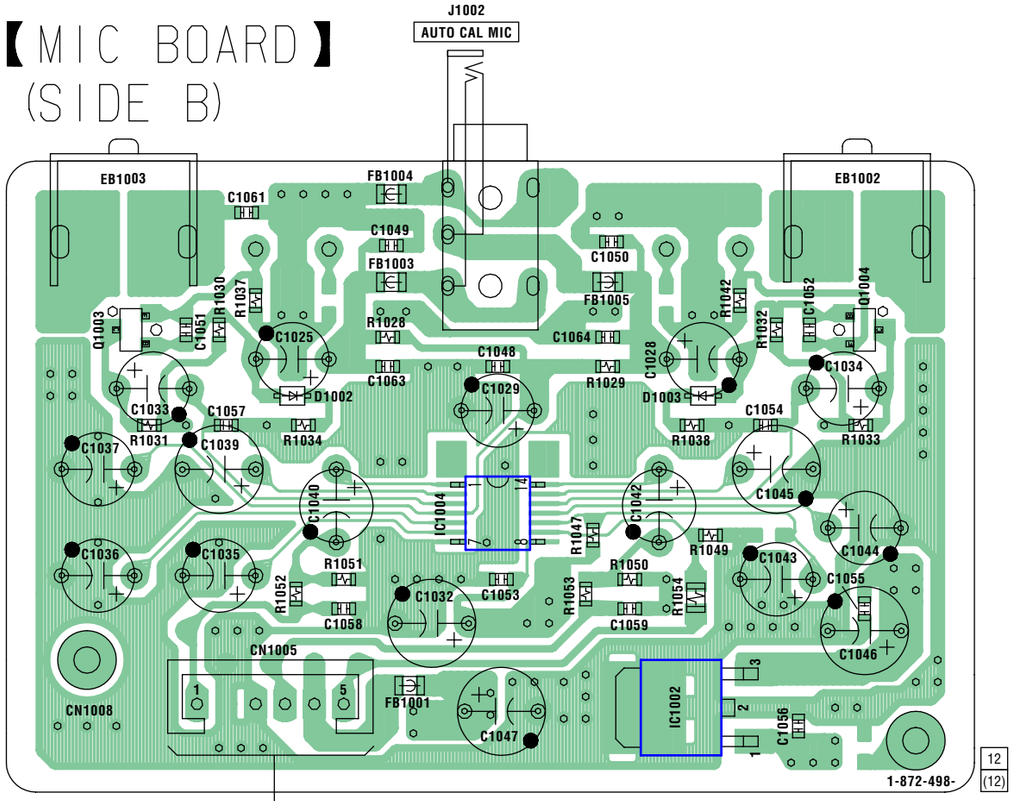
• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

【MIC BOARD】(SIDE A)



【MIC BOARD】
(SIDE B)

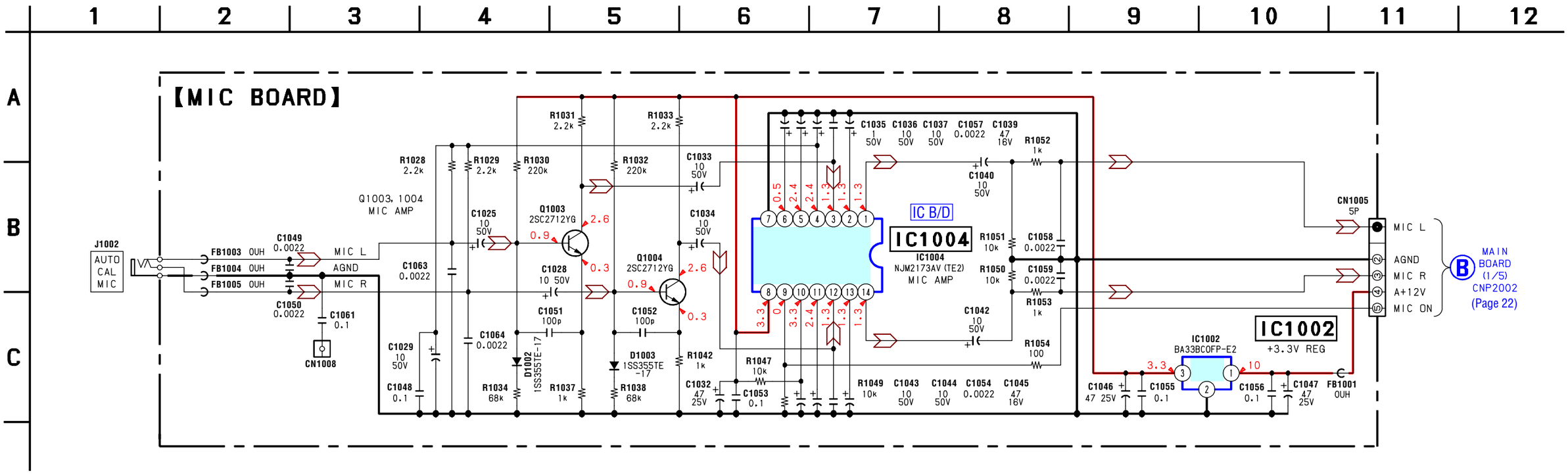


B
MAIN BOARD
CNP2002
(Page 21)

- **Semiconductor Location**

Ref. No.	Location
D1002	D-10
D1003	D-12
IC1002	E-12
IC1004	D-11
Q1003	C-9
Q1004	C-13

5-15. SCHEMATIC DIAGRAM – MIC Board – • See page 40 for IC Block Diagrams.

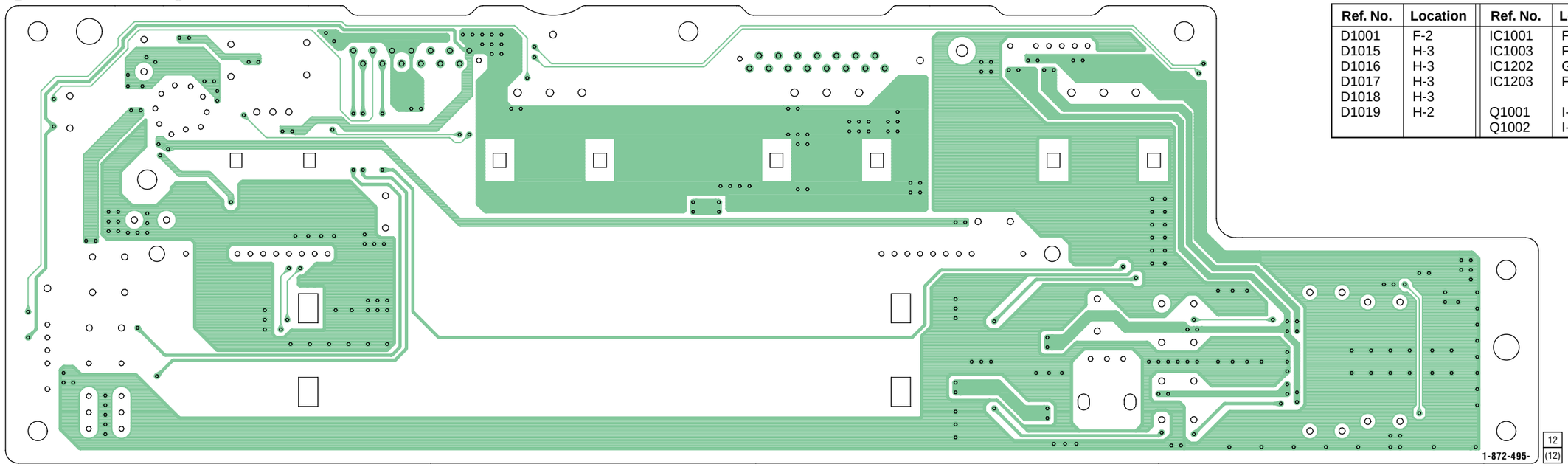


5-16. PRINTED WIRING BOARDS – PANEL Section –

• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

【PANEL BOARD】(SIDE A)

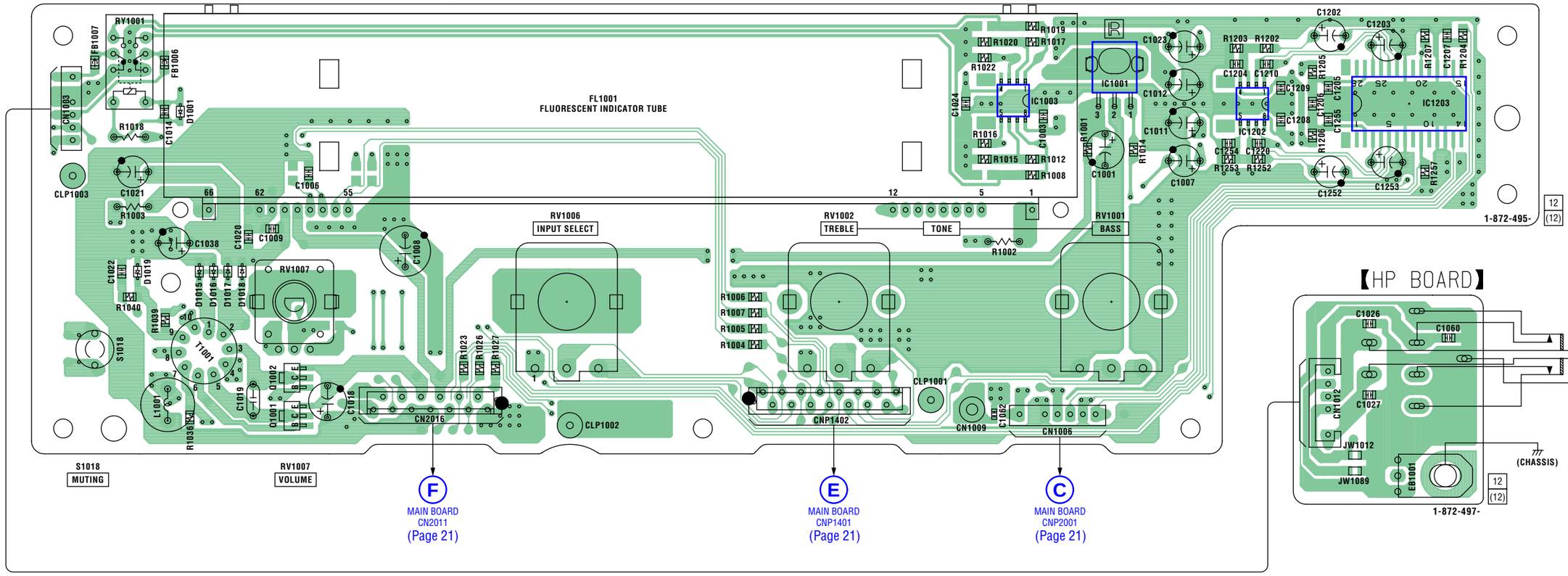


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1001	F-2	IC1001	F-10
D1015	H-3	IC1003	F-10
D1016	H-3	IC1202	G-11
D1017	H-3	IC1203	F-13
D1018	H-3		
D1019	H-2	Q1001	I-3
		Q1002	I-3

1-872-495-

【PANEL BOARD】(SIDE B)

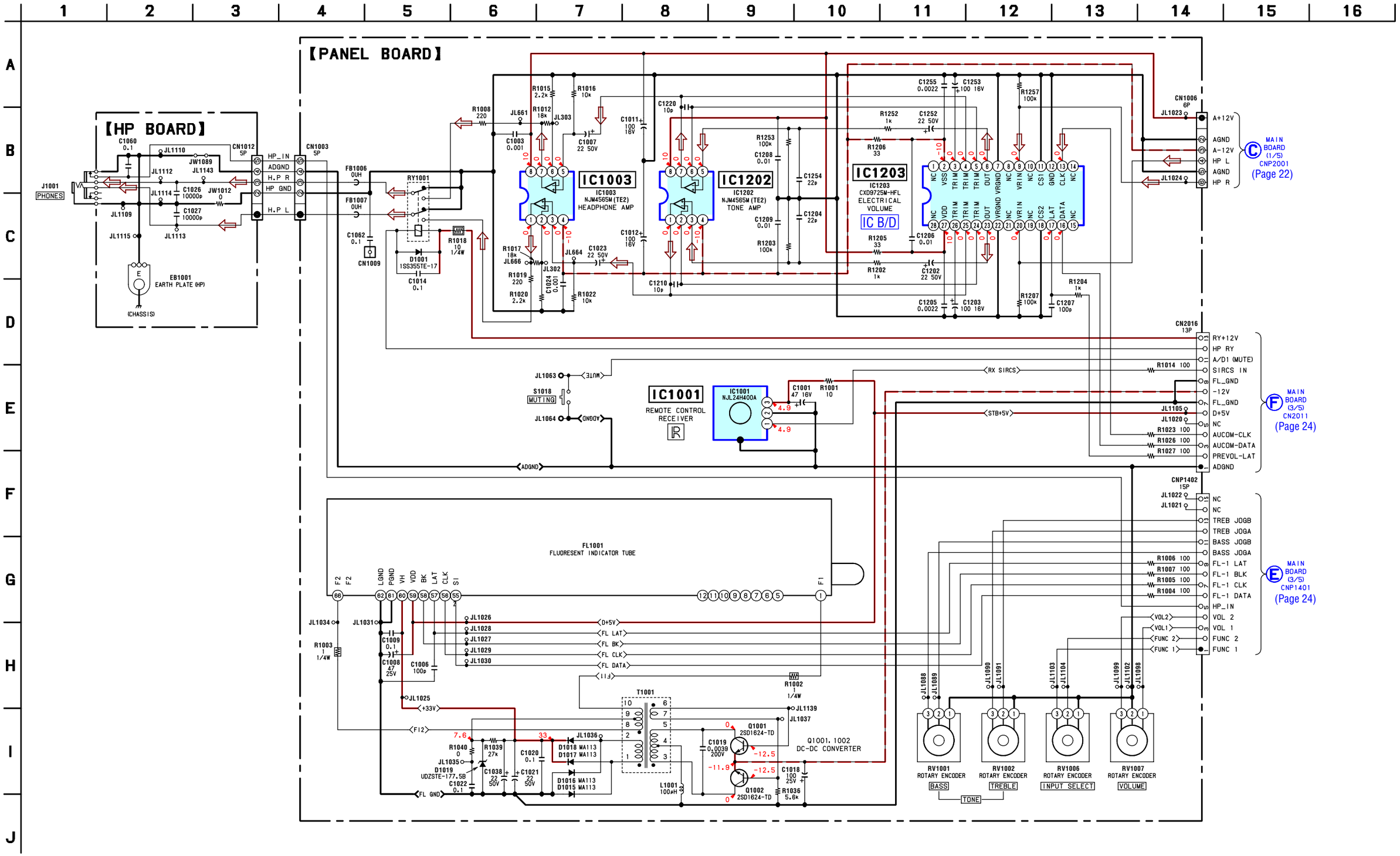


【HP BOARD】

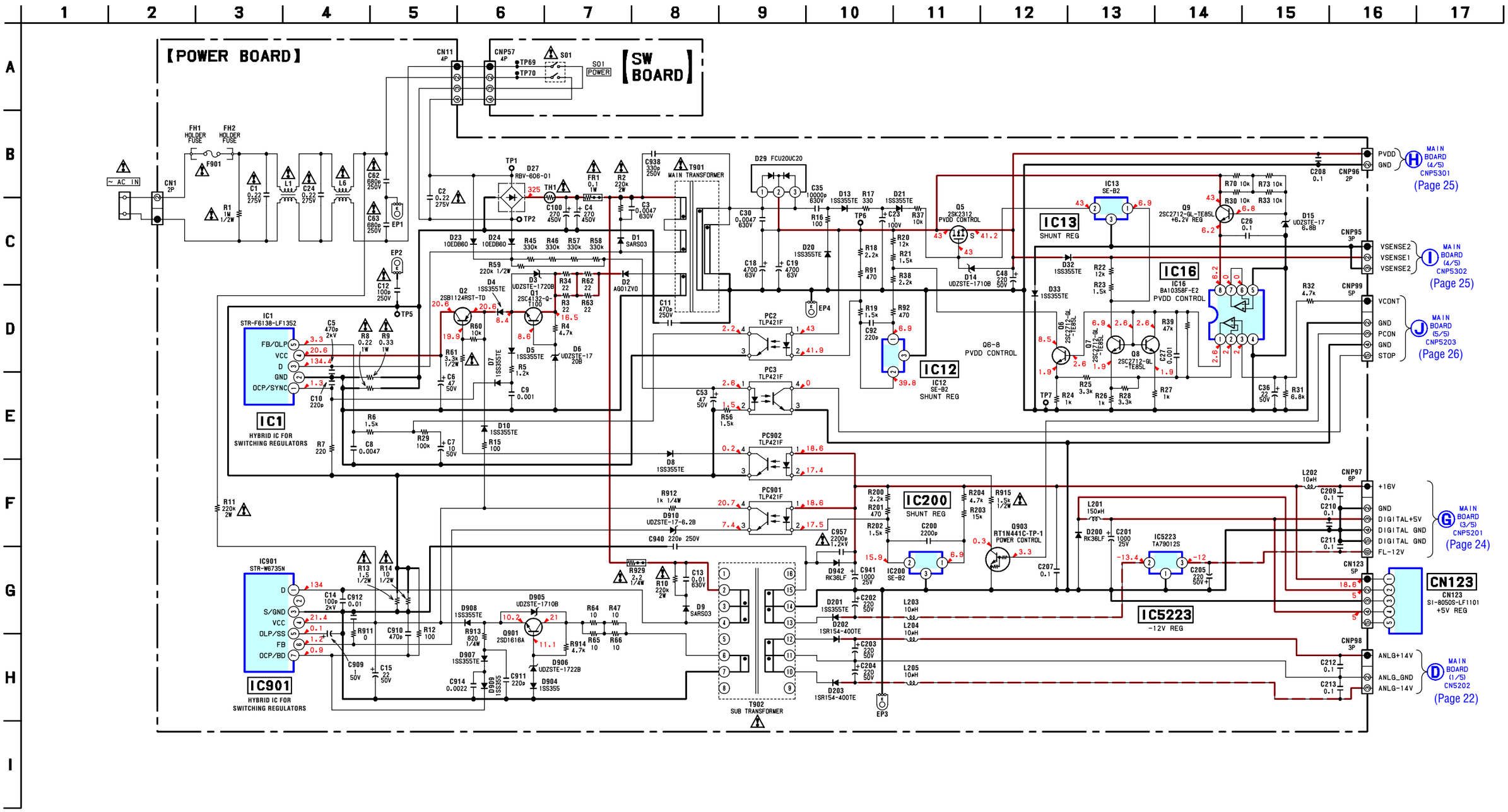
F MAIN BOARD CN2011 (Page 21)
E MAIN BOARD CNP1401 (Page 21)
C MAIN BOARD CNP2001 (Page 21)

5-17. SCHEMATIC DIAGRAM – PANEL Section –

• See page 40 for IC Block Diagrams.



5-18. SCHEMATIC DIAGRAM – POWER SUPPLY Section –



5-19. PRINTED WIRING BOARD – POWER SUPPLY Section (1/2) –

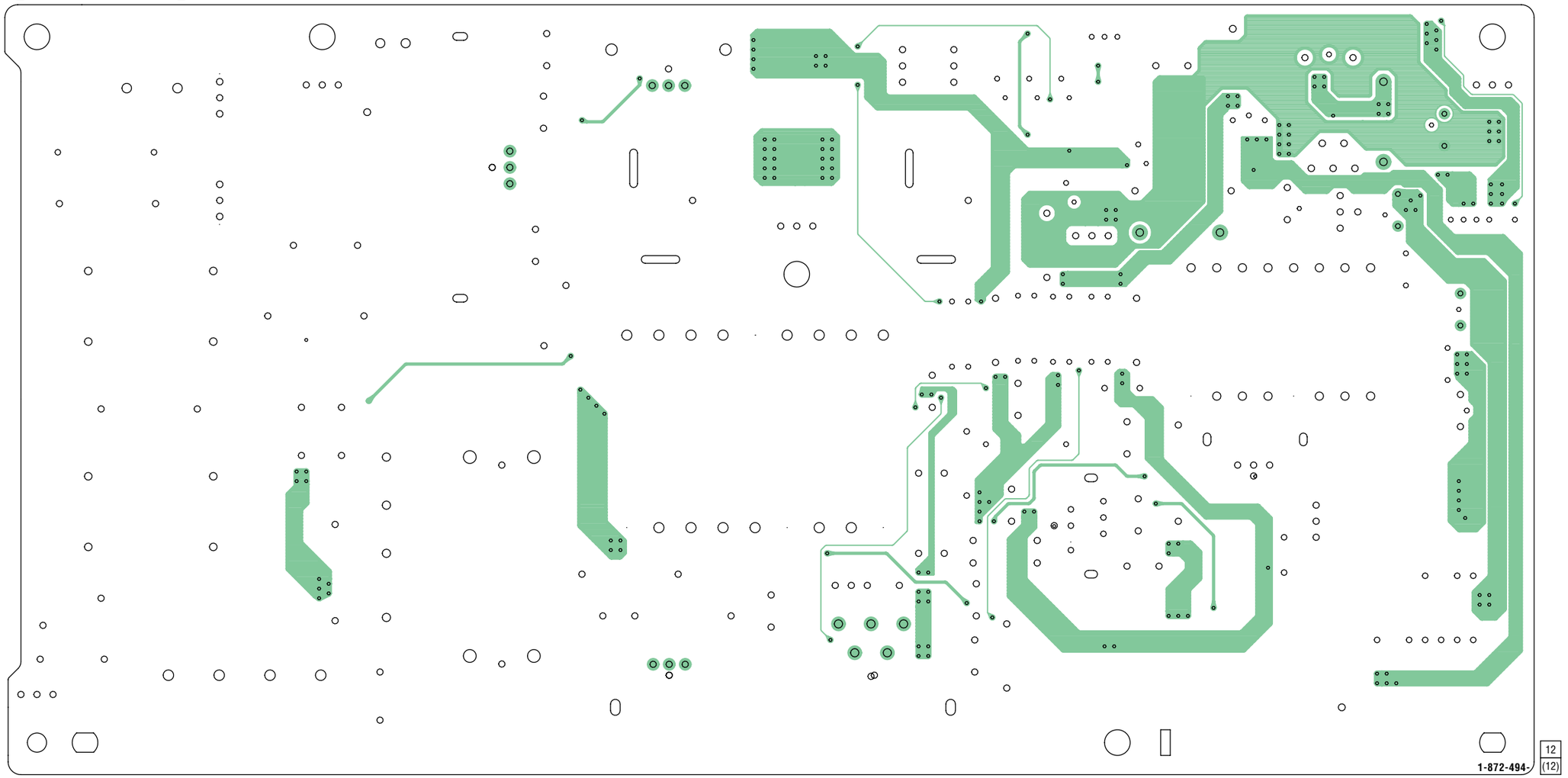
• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

14 13 12 11 10 9 8 7 6 5 4 3 2 1

A B C D E F G H I J

【POWER BOARD】(SIDE A)



5-20. PRINTED WIRING BOARDS – POWER SUPPLY Section (2/2) –

• See page 19 for Circuit Boards Location. : Uses unleaded solder.

【POWER BOARD】(SIDE B)

(Page 21) MAIN BOARD CNP5302 (I)

(Page 21) MAIN BOARD CNP5301 (H)

AC IN

J MAIN BOARD CNP5203 (Page 21)

G MAIN BOARD CNP5201 (Page 21)

D MAIN BOARD CNP5202 (Page 21)

【SW BOARD】(SIDE A)

【SW BOARD】(SIDE B)

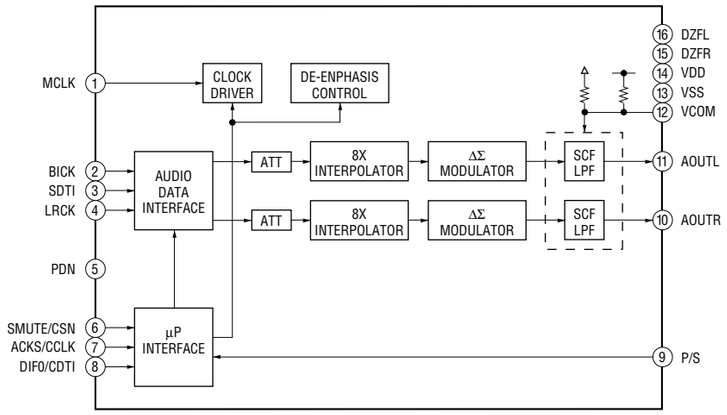
• **Semiconductor Location**

Ref. No.	Location
CN123	B-3
D1	G-8
D2	F-6
D3	F-5
D4	G-5
D5	G-5
D6	G-5
D7	F-6
D8	E-5
D9	E-3
D10	G-5
D13	B-9
D14	B-8
D15	B-5
D20	B-10
D21	C-9
D23	E-11
D24	E-11
D27	F-10
D29	C-9
D32	B-7
D33	B-6
D200	B-2
D201	C-3
D202	D-2
D203	D-2
D904	F-3
D905	F-3
D906	F-3
D907	F-3
D908	F-3
D909	F-4
D910	E-5
D942	C-4
IC1	G-6
IC12	B-6
IC13	B-6
IC16	B-4
IC200	C-5
IC901	F-5
IC5223	C-3
Q1	G-5
Q2	G-5
Q5	B-8
Q6	B-5
Q7	B-5
Q8	B-5
Q9	C-4
Q901	F-3
Q903	C-5

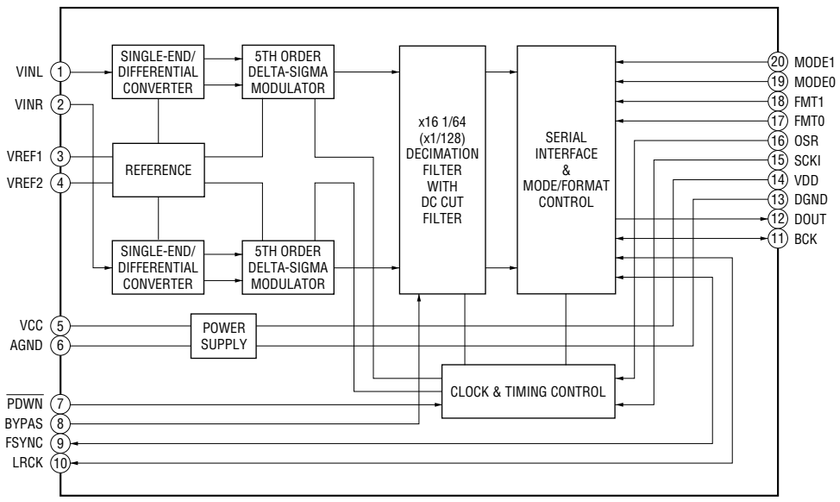
- **IC Block Diagrams**

– MAIN Board –

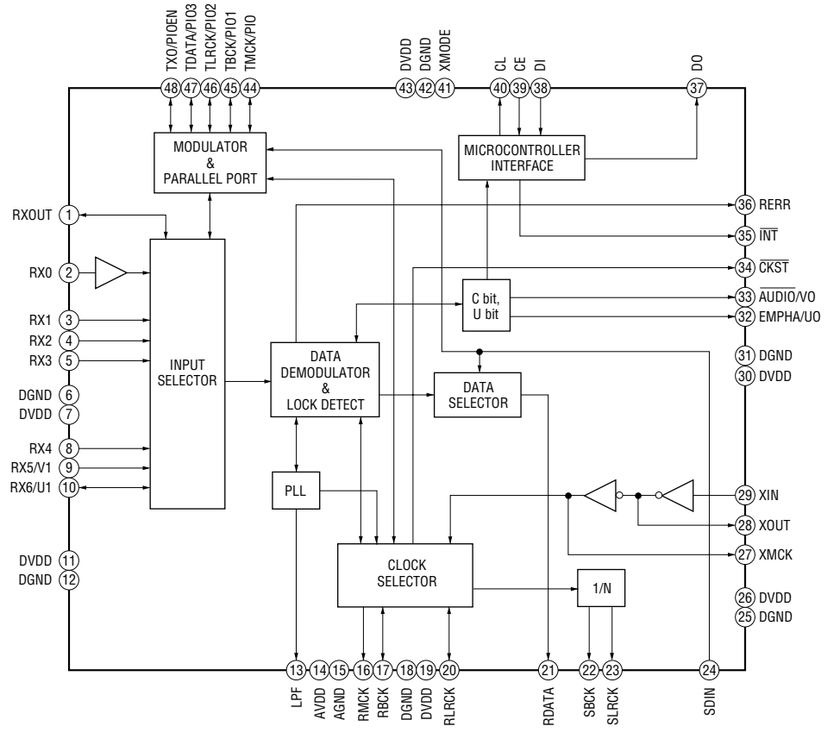
IC2004 AK4384ET-E2



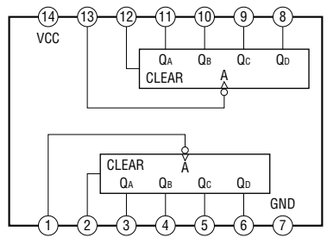
IC2024 PCM1802DBR



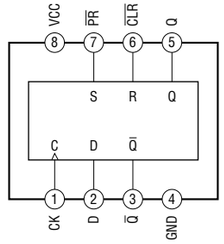
IC2006 LC89057W-VF4A-E



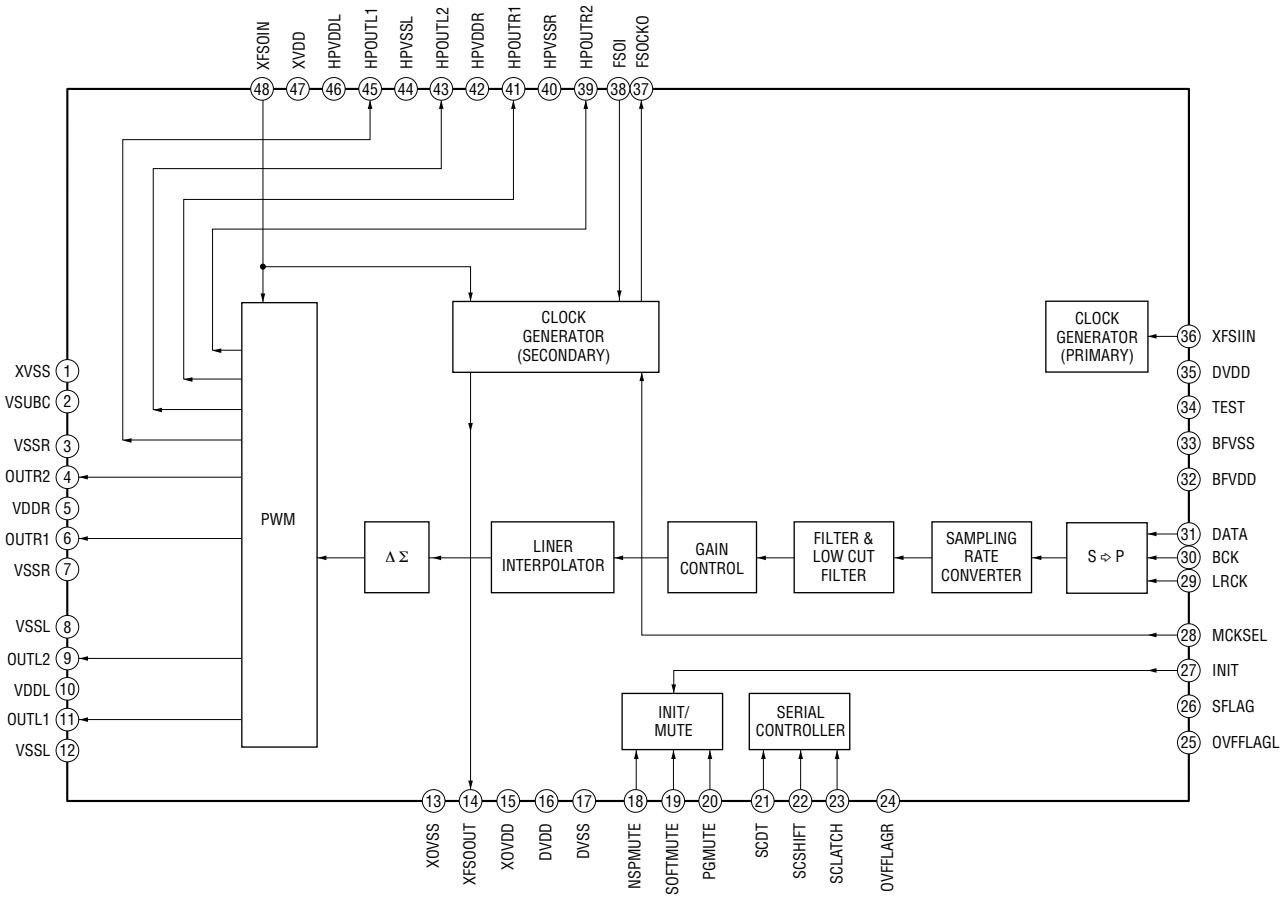
IC2017 TC74VHC393FT (EL)



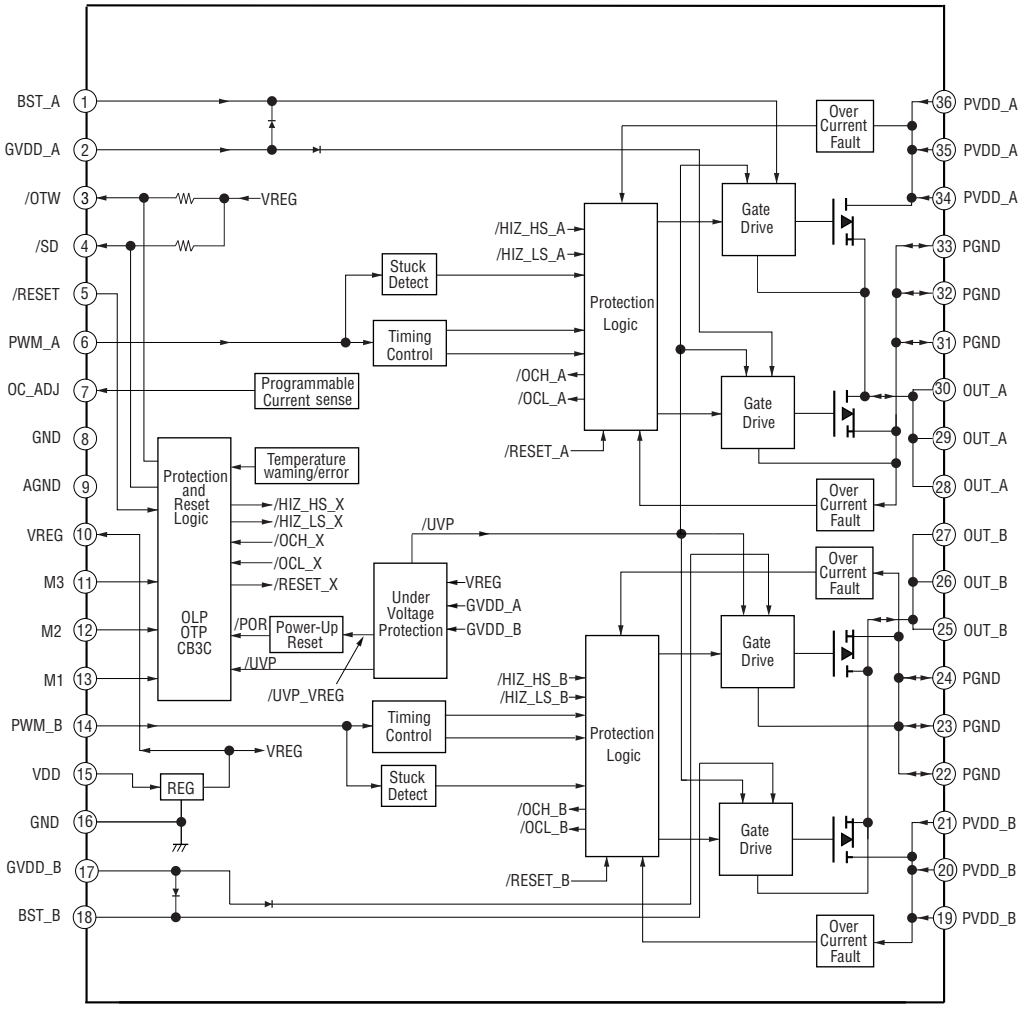
IC2036 TC7WH74FU (TE12R)



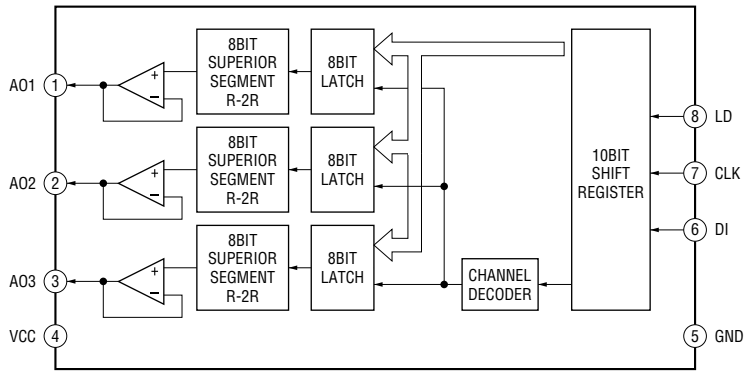
IC1412 CXD9876R



IC501, 1502 CXD9879AM

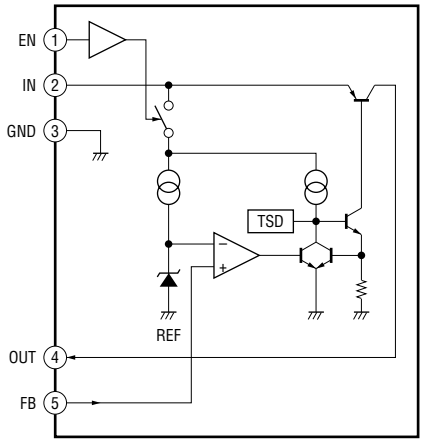


IC5301 M62343FP

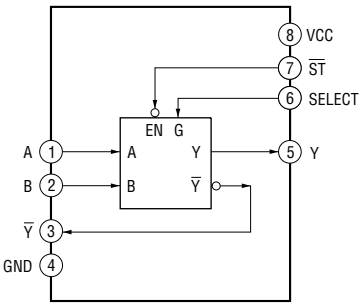


– DSP Board –

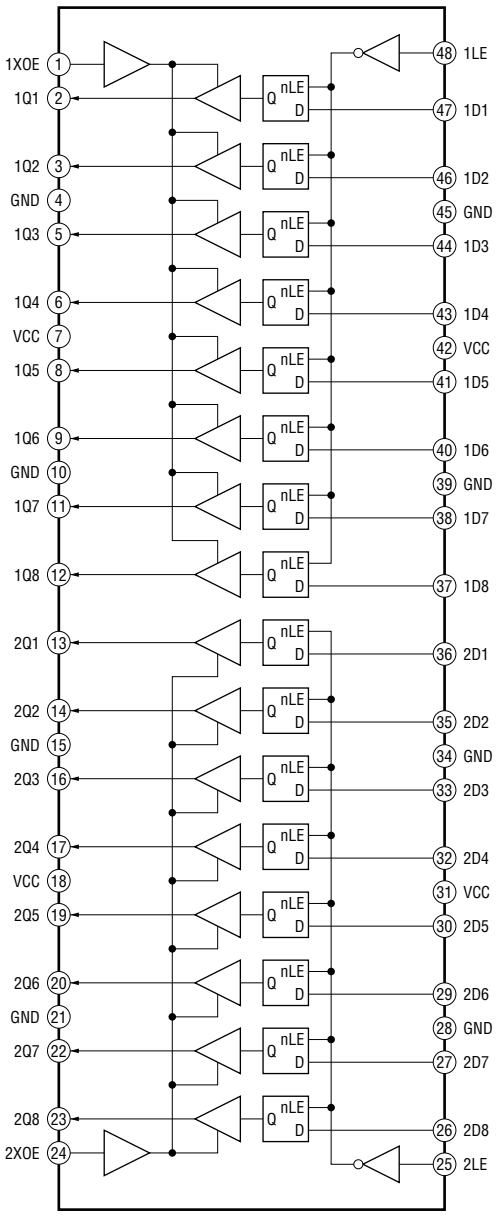
IC1 SI-3010KM-TL



IC4 TC7WH157FK (TE85R)

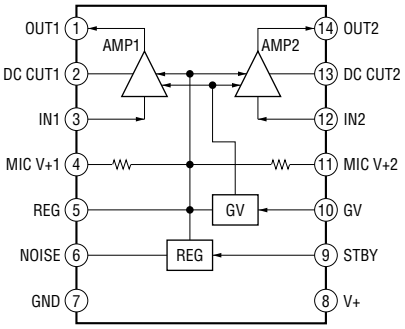


IC6 MC74LCX16373DTR2



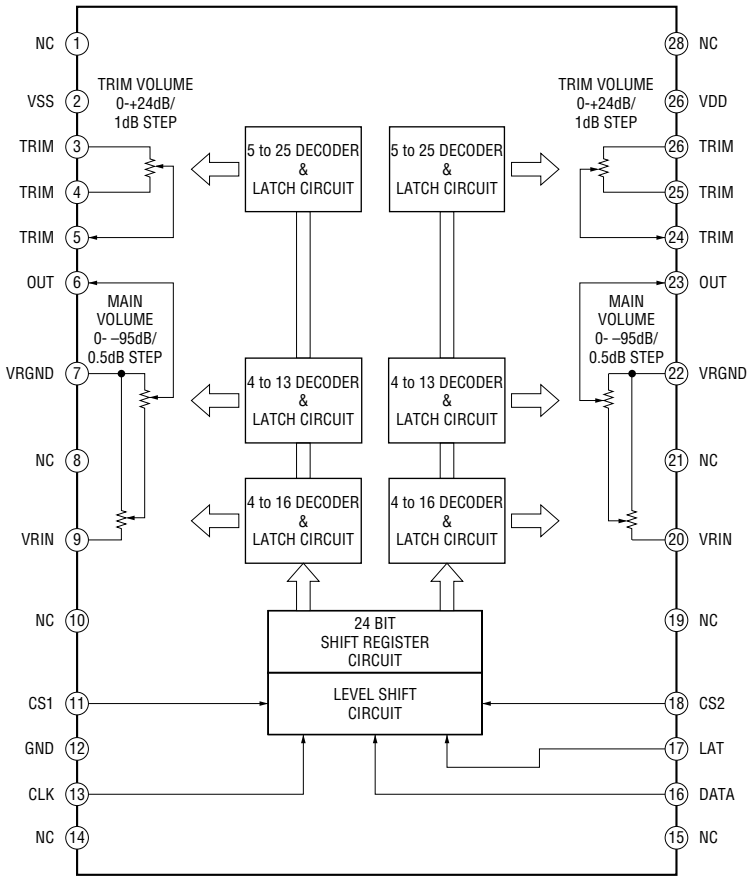
– MIC Board –

IC1004 NJM2173AV (TE2)



– PANEL Board –

IC1203 CXD9725M-HFL



• IC Pin Function Description

MAIN BOARD IC2054 MB91F355APMT-F501-X101 (MAIN SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Pin Description
1, 2	BASS JOG1, BASS JOG2	I	Jog dial pulse input from the rotary encoder (for BASS)
3, 4	TREB JOG1, TREB JOG2	I	Jog dial pulse input from the rotary encoder (for TREBLE)
5	SVOL LAT (A90)	O	Serial data latch pulse signal output terminal Not used (Open)
6	TUNER LAT	O	Serial data latch pulse signal output terminal Not used (Open)
7	TUNER DO	I	Serial data input terminal Not used (Open)
8	TUNED	I	Tuned detection signal input terminal Not used
9	STEREO	I	FM stereo detection signal input terminal Not used
10	RDS DATA	I	RDS serial data input terminal Not used (Open)
11	DATA0	I	Audio serial data input from the digital audio interface
12	DSP RESET	O	System reset signal output to the DSP
13	DSP SPIDS (LAT)	O	Serial data latch pulse output to the DSP
14	DSP SPICLK	O	Not used (Open)
15	DSP MISO	I	Serial data input terminal Not used (Open)
16	DSP MOSI	O	Serial data output terminal Not used (Open)
17	VSS	—	Ground
18	VCC	—	Power supply (+3.3V)
19, 20	DSP BCFG0, DSP BCFG1	—	Not used
21	SF CPU CE	O	Chip enable signal output for the serial flash
22	SF DSP MAS	I	Master/slave selection signal input from the DSP “H”: DSP is master
23	96/24	—	Not used
24	T/A XCS	O	Chip select signal output terminal Not used (Open)
25	T/A SO	I	Serial data input terminal Not used (Open)
26	T/A XRST	O	System reset signal output terminal Not used (Open)
27	MAIN DO	O	Serial data output to the sub system controller
28	MAIN CLK	O	Serial data transfer clock signal output to the sub system controller
29	SUB-U RESET	O	System reset signal output to the sub system controller
30	DIR XMODE	O	System reset signal output to the digital audio interface “L”: reset
31	DIR CE	O	Chip enable signal output to the digital audio interface
32	DIR DO	I	Serial data input from the digital audio interface
33	DIR ERROR	I	PLL lock error signal and data error flag input from the digital audio interface
34	DIR CKST	I	Clock select signal input from the digital audio interface
35	VSS	—	Ground
36	VCC	—	Power supply (+3.3V)
37	AD/DA RESET	O	System reset signal output to the A/D converter and D/A converter “L”: reset
38	DAC LAT	O	Serial data latch pulse signal output terminal Not used
39	DAC DO	I	Serial data input terminal Not used
40	AD (SB) RESET	O	System reset signal output terminal Not used “L”: reset
41	ADMIX LAT (A90)	O	Serial data latch pulse signal output terminal Not used
42	PDMIX LAT (A90)	O	Serial data latch pulse signal output terminal Not used
43	RF ERR (A90)	I	Error signal input terminal Not used
44	MUTE	O	System muting on/off control signal output terminal
45	DAVS	—	Ground
46	DAVC	—	Power supply (+3.3V)
47 to 49	NO USE	—	Not used (Open)
50	AD KEY1	I	Muting key signal input terminal

Pin No.	Pin Name	I/O	Pin Description
51	AD KEY2	I	Not used
52	AD KEY3	I	Not used
53, 54	NO USE	—	Not used
55	VERSION	I	Setting terminal for version
56, 57	NO USE	—	Not used
58	RDS SIGNAL	I	RDS signal input terminal Not used
59 to 61	NO USE	—	Not used
62	AVCC	—	Power supply (+3.3V)
63	AVRH	I	Reference voltage input terminal (+3.3V)
64	AVSS/AVRL	—	Ground
65	VSS	—	Ground
66	VCC	—	Power supply (+3.3V)
67	ANL/DIG	I	PLL lock error signal and data error flag input from the digital audio interface
68	9742 INT	O	Initialize signal output terminal Not used (Open)
69	RY595 LAT (A90)	O	Serial data latch pulse signal output terminal Not used (Open)
70	C595 LAT (A90)	O	Serial data latch pulse signal output terminal Not used (Open)
71	D595 OE	O	Output enable signal output terminal Not used (Open)
72	D595 LAT	O	Serial data latch pulse output terminal Not used (Open)
73	O595 LAT	O	Serial data latch pulse output terminal Not used (Open)
74	FUNC LAT	O	Serial data latch pulse output to the electrical volume
75	PREVOL LAT	O	Serial data latch pulse output to the electrical volume
76	PREOUT RY	O	Relay drive signal (for pre audio section) output terminal Not used (Open)
77	V595 OE	O	Output enable signal output terminal Not used (Open)
78	V595 LAT	O	Relay drive signal (for head phone audio) output terminal
79	VSS	—	Ground
80	VCC	—	Power supply (+3.3V)
81	FLSH-PN0	—	Not used
82	COM1 CLK	O	Serial data transfer clock signal output to the digital audio interface
83	FLSH-PN2	—	Not used
84	COM1 DAT	O	Serial data output to the digital audio interface
85	COM2 CLK	O	Serial data transfer clock signal output to the electrical volume
86	COM2 DAT	O	Serial data output to the electrical volume
87	OSD LAT	O	Serial data latch pulse signal output terminal Not used (Open)
88	OSD DATA	O	Serial data output terminal Not used (Open)
89	OSD CLK	O	Serial data transfer clock signal output terminal Not used (Open)
90 to 92	NO USE	—	Not used (Open)
93	VSS	—	Ground
94	UPCON DATA	I/O	Serial data input/output terminal Not used (Open)
95	UPCON CLK	O	Serial data transfer clock signal output terminal Not used (Open)
96	VSS	—	Ground
97	VCC	—	Power supply (+3.3V)
98	SIRCS IN	I	SIRCS signal input terminal
99	DSP INT	I	Interrupt status input from the DSP
100	RDS CLK	I	RDS serial data transfer clock signal input terminal Not used (Open)
101	POWER KEY	I	Power key input terminal Not used (Open)
102 to 104	NO USE	O	Not used (Open)
105	CTL-A1 IN	I	Not used (Open)
106	CTL-A1 LAT	O	Serial data latch pulse signal output terminal Not used (Open)
107	CTL-A1 OUT	O	Relay drive signal (for front-A) output terminal Not used (Open)
108	STOP	I	AC off detection signal input terminal

Pin No.	Pin Name	I/O	Pin Description
109 to 113	MBUS STS0 to MBUS STS4	—	Not used
114	VSS	—	Ground
115	VCC	—	Power supply (+3.3V)
116	DSP_MISO	I	Serial data input from the DSP or serial flash
117	DSP_MOSI	O	Serial data output to the DSP or serial flash
118	DSP_CLK	O	Serial data transfer clock signal output to the DSP
119	ILINK TX	I	UART communication transfer data input terminal Not used (Open)
120	ILINK RX	O	Abnormal current detection signal output terminal
121	ILINK RESET	O	System reset signal output terminal Not used (Open)
122	HDMI TX	I	Serial data input terminal Not used (Open)
123	HDMI RX	O	Serial data output terminal Not used (Open)
124	HDMI RESET	O	System reset signal output terminal Not used (Open)
125	FLASH SI	I	Serial data input terminal
126	FLASH SO	O	Serial data output terminal
127	ILINK CTS	O	Serial data transfer clock signal output terminal Not used (Open)
128	ILINK RTS	I	Serial data input terminal Not used (Open)
129	FL DATA	O	Serial data output to the fluorescent indicator tube
130	FL CLK	O	Serial data transfer clock signal output to the fluorescent indicator tube
131	NO USE	—	Not used (Open)
132	END FLAG	O	End flag output terminal Not used (Open)
133	RST TRG	O	Reset signal output terminal
134	NMIX	—	Not used
135	XA-OUT	—	Not used (Open)
136	VSS	—	Ground
137	XA-IN	—	Not used
138 to 140	MD2 to MD0	I	Model destination signal input terminal
141	X-IN	I	Main system clock input terminal (12.5 MHz)
142	VCC	—	Power supply (+3.3V)
143	X-OUT	O	Main system clock output terminal (12.5 MHz)
144	XRESET	I	System reset signal input terminal
145	VSS	—	Ground
146	VCC	—	Power supply (+3.3V)
147	POWER RY1	O	Relay drive signal (for main power) output terminal Not used (Open)
148	POWER RY2	O	Relay drive signal (for main power) output terminal Not used (Open)
149, 150	FUNCTION JOG1, FUNCTION JOG2	I	Jog dial pulse input from the rotary encoder (for INPUT SELECT)
151, 152	VOL JOG1, VOL JOG2	I	Jog dial pulse input from the rotary encoder (for VOLUME)
153	H.P. IN	I	Headphone detection signal input terminal “H”: headphone is connected
154	LED CLR	O	LED drive signal output terminal
155	LED LAT	O	MIC on/off control signal output terminal
156	FL CLR	O	Clear signal output terminal Not used (Open)
157	FL LAT	O	Serial data latch pulse output to the fluorescent indicator tube
158, 159	SP-SW FA, SP-SW FB	I	Front speaker selection switch input terminal Not used
160	SP-SW SA (A90)	O	LED drive signal output terminal Not used
161	SP-SW SB (A90)	O	LED drive signal output terminal Not used
162	VSS	—	Ground
163	VCC	—	Power supply (+3.3V)

Pin No.	Pin Name	I/O	Pin Description
164	FSRATE	I	L/R sampling clock signal (44.1 kHz) input terminal
165	SUB-U DATA	I	Serial data input from the sub system controller
166	NO USE	—	Not used (Open)
167	EEPROM SDA	I/O	Two-way data bus with the EEPROM
168	EEPROM SCL	O	Serial data transfer clock signal output to the EEPROM
169, 170	+/– JOG1, +/– JOG2	I	Jog dial pulse input terminal Not used (Open)
171, 172	PAGE JOG1, PAGE JOG2	I	Jog dial pulse input terminal Not used (Open)
173	MAIN MENU JOG1	I	Jog dial pulse input terminal Not used (Open)
174	MAIN MENU JOG2	I	Clear signal output to the fluorescent indicator tube
175	VSS	—	Ground
176	VCC	—	Power supply (+3.3V)

MAIN BOARD IC1800 MB89F538L-F501-X101 (SUB SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Pin Description
1	I-LIMIT	I	Abnormal current detection signal input from the digital power amplifier
2	MOD2	—	Not used (Pull down)
3	REG-TEMP	I	Thermistor connection terminal for abnormal temperature detection Not used
4 to 9	CUR1 to CUR6	I	Current detection terminal for speaker output section Not used (Connected to ground)
10	CUR7/D-AMP-TEMP-AD	I	Abnormal temperature detection terminal for the power amplifier Not used
11	AVCC	—	Power supply (+3.3V)
12	AVR	I	Reference voltage (+3.3V) input terminal
13	AVSS	—	Ground
14	U-MAIN	I	Clock signal input from main system controller
15	AC-OFF	I	AC off detection signal input terminal "L": AC off
16	PWM-MODE	I	PWM mode setting terminal Normally: fixed at "H"
17, 18	DC1, DC2	I	DC offset detection signal input terminal Not used
19	RST	I	System reset signal input from the main system controller "L": reset
20, 21	MOD0, MOD1	I	Setting terminal for memory access mode
22	X0	I	System clock input terminal (12.5 MHz)
23	X1	O	System clock output terminal (12.5 MHz)
24	VSS	—	Ground
25	VOL-CLK	O	Serial data transfer clock signal output to the power amplifier power supply control D/A converter
26	VOL-DATA	O	Serial data output to the power amplifier power supply control D/A converter
27	VOL-LAT	O	Serial data latch pulse signal output to the power amplifier power supply control D/A converter
28	DAC-MUTE	O	Muting on/off control signal output to the power amplifier power supply control circuit
29, 30	(P23), (P22)	—	Not used
31	4/8SW	I	IMPEDANCE SELECTOR switch input terminal Not used
32	SUR (A) RY	O	Relay drive signal (for surround speaker) output terminal Not used (Open)
33	SUR (B) RY	O	Relay drive signal (for surround speaker) output terminal Not used (Open)
34	4/8OUT	I	Relay drive signal (for selection) output terminal Not used (Open)
35	HIC-TEMP	I	Over temperature detection signal input from the digital power amplifier
36	EN	O	Enable/Disable control signal output to the digital power amplifier
37	DC3	I	DC offset detection signal input terminal Not used
38	INIT	O	System reset signal output to the stream processor
39	DC4	I	DC offset detection signal input terminal Not used
40	(P10)	—	Not used
41	SOFT-MUTE	O	Muting on/off control signal output to the stream processor
42	U-SUB1	I	Serial data input from main system controller
43	LAT4	O	Serial data latch pulse signal (for surround back) output terminal Not used
44	LAT3	O	Serial data latch pulse signal (for surround) output terminal Not used
45	LAT2	O	Serial data latch pulse signal (for center) output terminal Not used
46	LAT1	O	Serial data latch pulse signal (for front) output to the stream processor
47	FRONT (A) RY	O	Relay drive signal (for front speaker A) output terminal Not used (Open)
48	FRONT (B) RY	O	Relay drive signal (for front speaker B) output terminal Not used (Open)
49	NC	—	Not used (Open)
50	DC5	I	DC offset detection signal input terminal Not used
51	SHIFT	O	Serial data transfer clock signal output to the stream processor
52	SCDT	O	Serial data output to the stream processor

Pin No.	Pin Name	I/O	Pin Description
53	DC6	I	DC offset detection signal input terminal Not used
54	DC7	I	DC offset detection signal input terminal Not used
55	SUR-BACK-RY	O	Relay drive signal (for surround back speaker) output terminal Not used (Open)
56	VCC	—	Power supply (+3.3V)
57	SOFT-MUT (SB)	O	Muting on/off control signal (for surround back) output terminal Not used (Open)
58	MUTE	I	Muting on/off control signal input from the system controller
59	U-USB2	O	Serial data output to main system controller
60	INT21/SCK2	I	Clock signal input terminal for memory access
61	INT22/SO2/SDA	O	Serial data output terminal for memory access
62	INT23/SI2/SCL	I	Serial data input terminal for memory access
63	ALL-CH-DC-PROTECT	I	DC offset detection signal input terminal
64	CENTER SP-RY	O	Relay drive signal (center) output terminal Not used (Open)

DSP BOARD IC2 ADSST-AVR-1115 (DSP)

Pin No.	Pin Name	I/O	Pin Description
1	VDDINT	—	Power supply (+1.2V)
2, 3	CLKCFG0, CLKCFG1	I	Clock frequency setting terminal
4, 5	BOOTCFG0, BOOTCFG1	I	Boot mode setting terminal for DSP
6	GND	—	Ground
7	VDDEXT	—	Power supply (+3.3V)
8	GND	—	Ground
9	VDDINT	—	Power supply (+1.2V)
10	GND	—	Ground
11	VDDINT	—	Power supply (+1.2V)
12	GND	—	Ground
13	VDDINT	—	Power supply (+1.2V)
14	GND	—	Ground
15	INT_REQ	O	Interrupt status output to the main system controller
16	DIR_ERR	O	PLL lock error signal and data error flag output to the main system controller
17	AD7	I/O	Two-way data bus and address signal output with S-RAM
18	GND	—	Ground
19	VDDINT	—	Power supply (+1.2V)
20	GND	—	Ground
21	VDDEXT	—	Power supply (+3.3V)
22	GND	—	Ground
23	VDDINT	—	Power supply (+1.2V)
24 to 26	AD6 to AD4	I/O	Two-way data bus and address signal output with S-RAM
27	VDDINT	—	Power supply (+1.2V)
28	GND	—	Ground
29, 30	AD3, AD2	I/O	Two-way data bus and address signal output with S-RAM
31	VDDEXT	—	Power supply (+3.3V)
32	GND	—	Ground
33, 34	AD1, AD0	I/O	Two-way data bus and address signal output with S-RAM
35	XWR	O	Data write enable signal output to the S-RAM “L” active
36, 37	VDDINT	—	Power supply (+1.2V)
38	GND	—	Ground
39	XRD	O	Read strobe signal output to the S-RAM “L” active
40	ALE	O	Address latch enable signal output terminal
41 to 43	AD15 to AD13	I/O	Two-way data bus and address signal output with S-RAM
44	GND	—	Ground
45	VDDEXT	—	Power supply (+3.3V)
46	AD12	I/O	Two-way data bus and address signal output with S-RAM
47	VDDINT	—	Power supply (+1.2V)
48	GND	—	Ground
49 to 52	AD11 to AD8	I/O	Two-way data bus and address signal output with S-RAM
53	A16	O	Address signal output to S-RAM
54	VDDINT	—	Power supply (+1.2V)
55	GND	—	Ground
56, 57	A17, A18	O	Address signal output to S-RAM
58	GND	—	Ground
59	VDDEXT	—	Power supply (+3.3V)
60	VDDINT	—	Power supply (+1.2V)
61	GND	—	Ground

Pin No.	Pin Name	I/O	Pin Description
62	PF_CE	I/O	Chip enable signal input/output terminal Not used (Open)
63	SPI_MAS	O	Master/slave selection signal output terminal "L": DSP is master
64	DPSOA	O	PCM audio signal output terminal
65	DPSOB	O	PCM audio signal output terminal Not used
66	VDDINT	—	Power supply (+1.2V)
67	GND	—	Ground
68	VDDINT	—	Power supply (+1.2V)
69	GND	—	Ground
70	DPSOC	O	PCM audio signal output terminal Not used
71	DPSOD	O	PCM audio signal output terminal Not used
72	VDDINT	—	Power supply (+1.2V)
73	VDDEXT	—	Power supply (+3.3V)
74	GND	—	Ground
75	VDDINT	—	Power supply (+1.2V)
76	GND	—	Ground
77	DPSOE	O	PCM audio signal output terminal Not used
78	DPSIA	I	PCM audio signal (digital input) input terminal
79	DPSIB	I	PCM audio signal input terminal from the A/D converter
80	DPSIC	I	PCM audio signal output terminal Not used
81	DPSID	I	PCM audio signal output terminal Not used
82	DPSIE	I	PCM audio signal output terminal Not used
83	VDDINT	—	Power supply (+1.2V)
84, 85	GND	—	Ground
86	DPDVLRCK	O	Sampling clock signal output terminal for PCM audio signal output
87	DPDVBCK	O	Bit clock signal output terminal for PCM audio signal output
88	DPLRCK	I	Sampling clock signal input terminal for PCM audio signal input
89	DPBCK	I	Bit clock signal input terminal for PCM audio signal input
90	VDDINT	—	Power supply (+1.2V)
91, 92	GND	—	Ground
93	VDDEXT	—	Power supply (+3.3V)
94	DPFSCK	I	Master clock signal input terminal
95	GND	—	Ground
96	VDDINT	—	Power supply (+1.2V)
97	XNONAUDIO	I	Digital input signal switch control signal input terminal
98	XSF_CE	O	Chip enable signal output to the flash memory
99	VDDINT	—	Power supply (+1.2V)
100	GND	—	Ground
101	VDDINT	—	Power supply (+1.2V)
102	GND	—	Ground
103	VDDINT	—	Power supply (+1.2V)
104	GND	—	Ground
105	VDDINT	—	Power supply (+1.2V)
106	GND	—	Ground
107, 108	VDDINT	—	Power supply (+1.2V)
109	GND	—	Ground
110	VDDINT	—	Power supply (+1.2V)
111	GND	—	Ground
112	VDDINT	—	Power supply (+1.2V)
113	GND	—	Ground
114	VDDINT	—	Power supply (+1.2V)

Pin No.	Pin Name	I/O	Pin Description
115	GND	—	Ground
116	VDDEXT	—	Power supply (+3.3V)
117	GND	—	Ground
118	VDDINT	—	Power supply (+1.2V)
119	GND	—	Ground
120	VDDINT	—	Power supply (+1.2V)
121	XRESET	I	System reset signal input to the main system controller
122	XSPIDS	I	Serial data latch pulse signal input to the main system controller
123	GND	—	Ground
124	VDDINT	—	Power supply (+1.2V)
125	SPICLK	I/O	Serial data transfer clock signal input/output with the flash memory
126	MISO	I/O	When DSP is master: Serial data input from the flash memory When DSP is slave: Serial data output to the main system controller
127	MOSI	I/O	When DSP is master: Serial data output to the flash memory When DSP is slave: Serial data input from the main system controller
128	GND	—	Ground
129	VDDINT	—	Power supply (+1.2V)
130	VDDEXT	—	Power supply (+3.3V)
131	AVDD	—	Power supply (+3.3V)
132	AVSS	—	Ground
133	GND	—	Ground
134	CLKOUT	—	Not used (Open)
135	XEMU	—	Not used
136	TDO	—	Not used
137	TDI	—	Not used
138	CTRST	—	Not used
139	TCK	—	Not used
140	TMS	—	Not used
141	GND	—	Ground
142	CLKIN	I	System clock input terminal (25 MHz)
143	XTAL	O	System clock output terminal (25 MHz)
144	VDDEXT	—	Power supply (+3.3V)

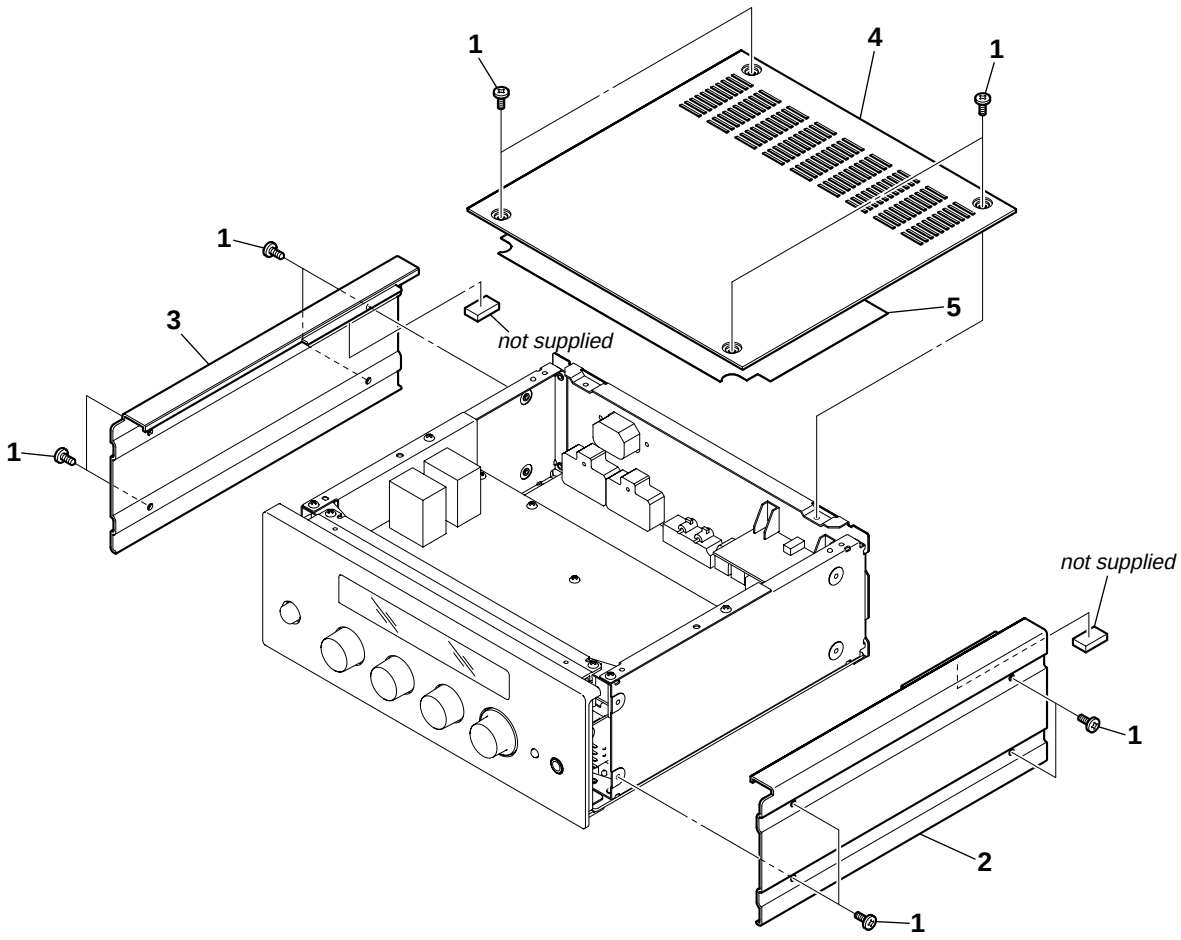
SECTION 6
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

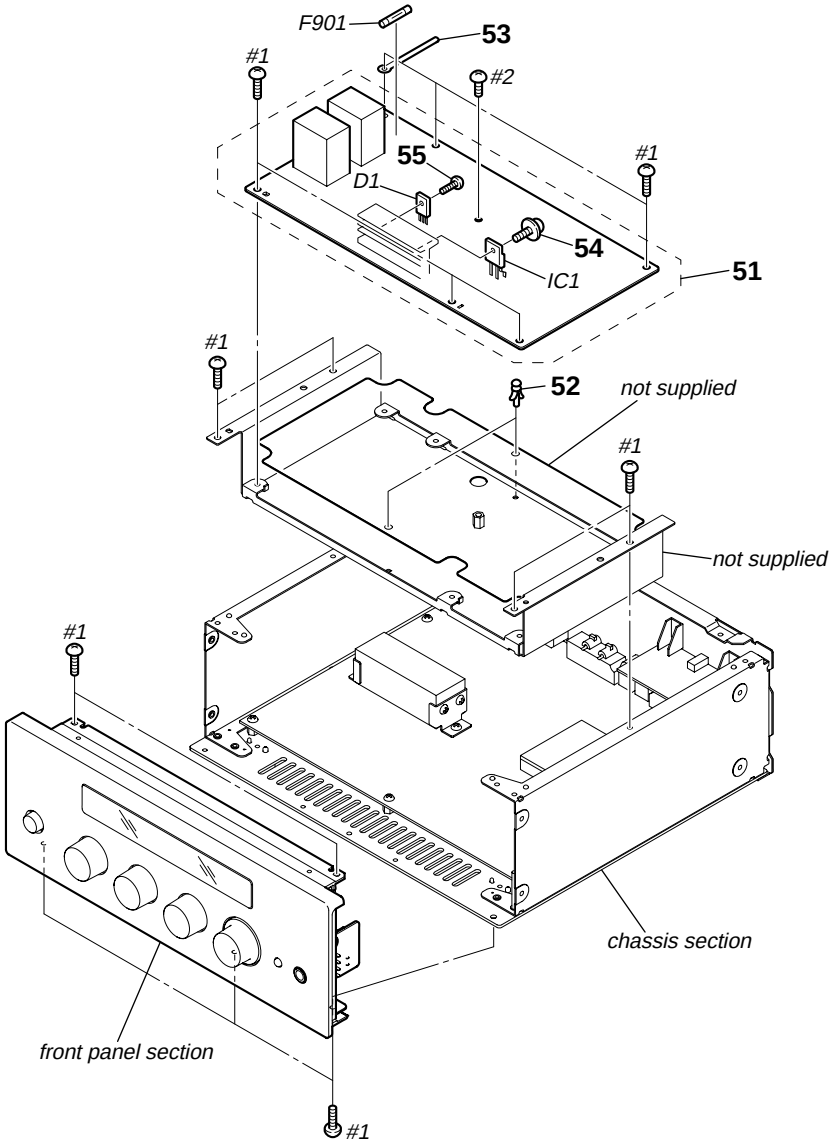
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. PLATE SECTION



Ref. No.	Part No.	Description	Remark
1	4-227-843-31	SCREW (TP), FLAT HEAD	
2	2-897-137-01	PLATE (R), SIDE	
3	2-897-136-01	PLATE (L), SIDE	
4	2-897-138-21	PLATE, TOP	
5	2-319-555-01	PLATE (B), INSULATED	

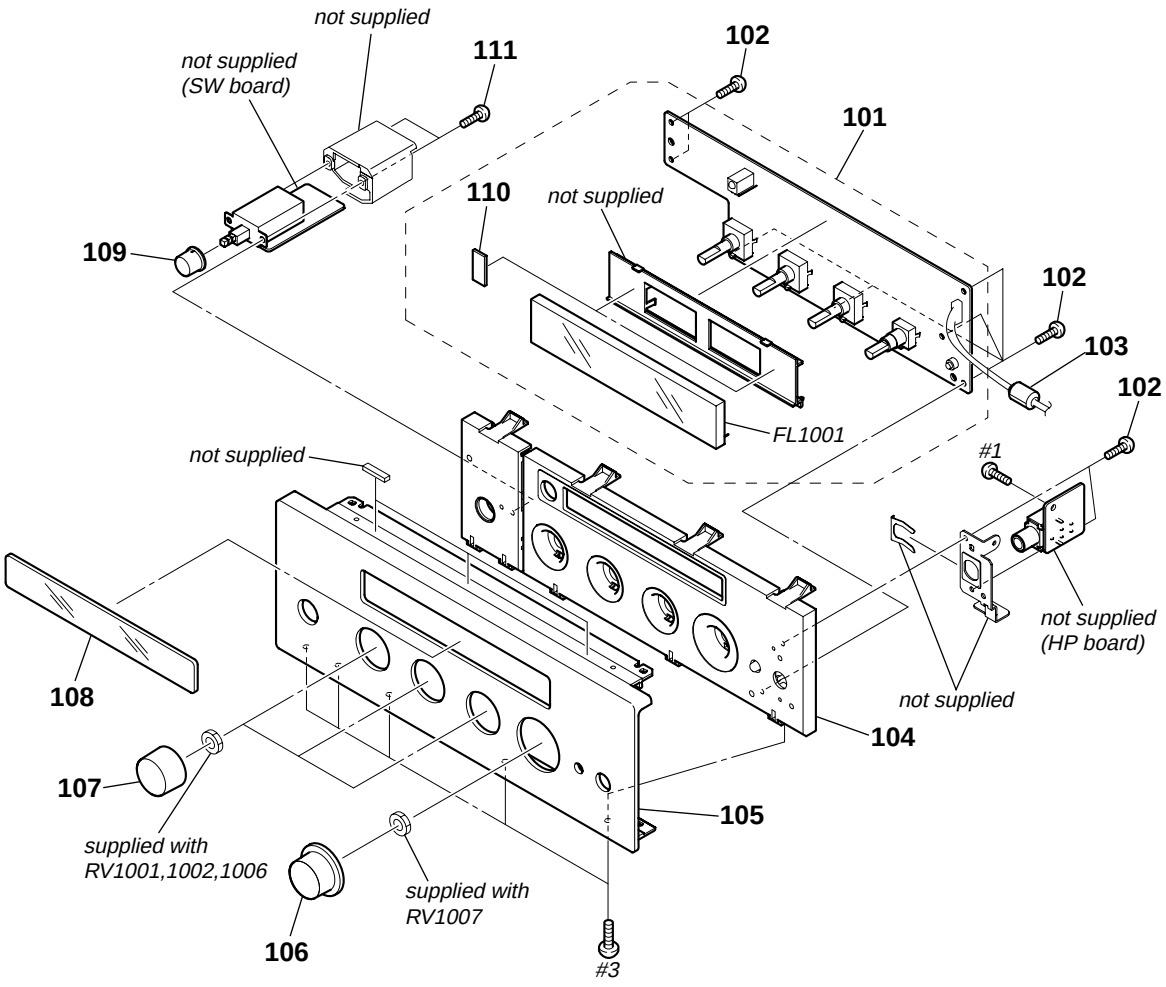
6-2. POWER BOARD SECTION



Ref. No.	Part No.	Description	Remark
51	A-1254-375-A	POWER BOARD, COMPLETE	
52	3-531-576-01	RIVET	
53	4-237-065-01	CLAMP (L35)	
54	3-905-609-13	SCREW (TRANSISTOR)	
55	4-974-510-01	SCREW (+BV 3X8 CU)	

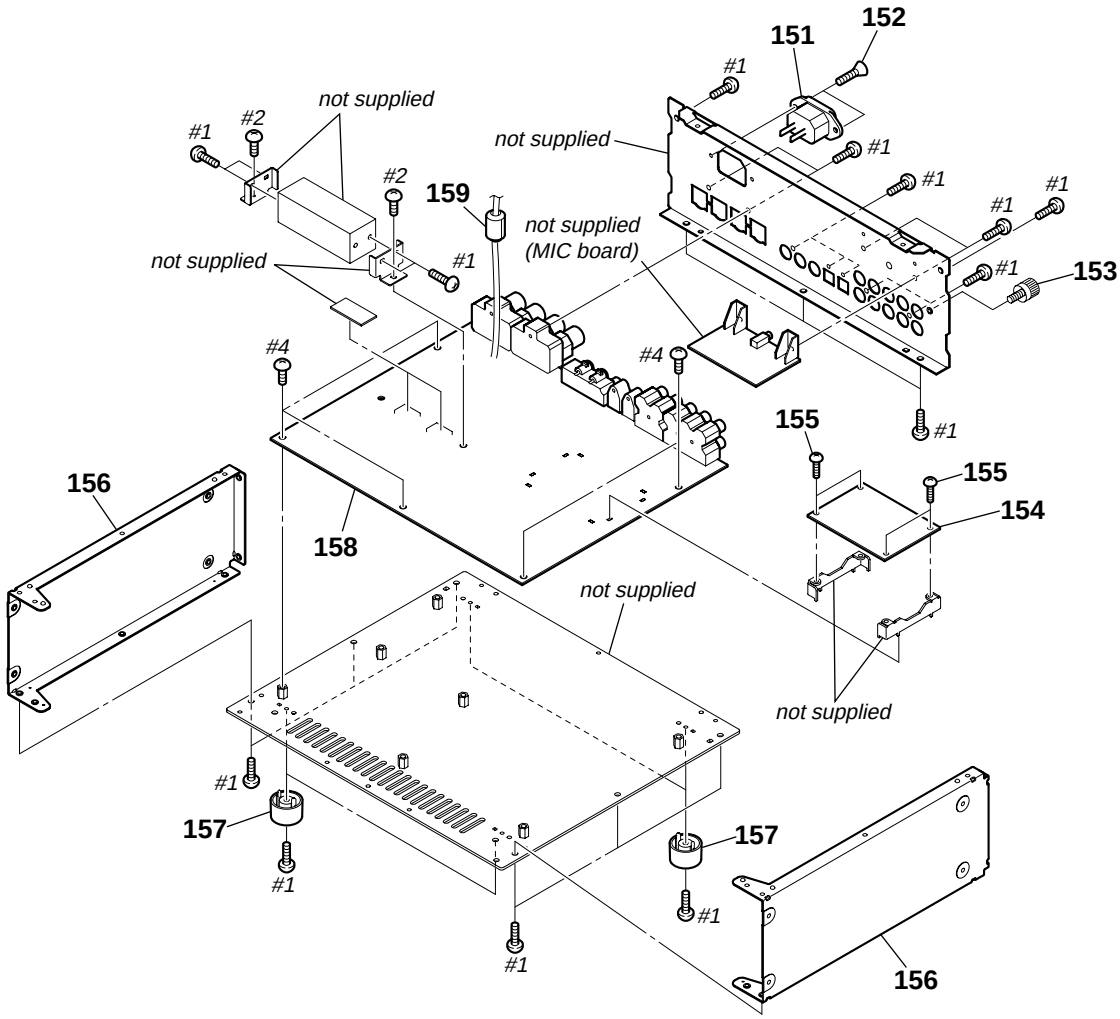
Ref. No.	Part No.	Description	Remark
D1	6-500-241-01	DIODE SARS03	
⚠F901	1-532-506-33	FUSE (T6.3AL/250V)	
IC1	6-707-742-01	IC STR-F6168-LF1352	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	

6-3. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
101	A-1254-376-A	PANEL BOARD, COMPLETE	
102	3-087-053-01	+BVTP 2.6 (3CR)	
103	1-543-793-11	FILTER, CLAMP (FERRITE CORE)	
104	X-2176-433-1	PANEL (TA) ASSY, BASE	
105	2-897-155-11	PANEL (TA), FRONT	
106	X-2176-435-1	KNOB (VOL) ASSY	
107	X-2176-434-1	KNOB (BAL) ASSY	
108	2-897-157-01	WINDOW (TA)	
109	X-2176-429-1	BUTTON (POWER) ASSY	
110	2-389-320-01	CUSHION	
111	4-951-620-11	SCREW (2.6X10), +BVTP	
FL1001	1-519-863-11	INDICATOR TUBE, FLUORESCENT	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	

6-4. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
⚠151	1-819-867-11	INLET, AC 2P (~ AC IN)	
152	2-580-644-01	SCREW, +KTP2 3X8	
153	4-947-010-01	SCREW, FEEDER FIXED	
154	A-1194-485-A	DSP BOARD, COMPLETE	
155	3-087-053-01	+BVTP 2.6 (3CR)	
156	2-897-133-01	FRAME, SIDE	
157	X-2022-049-1	FOOT ASSY	
158	A-1254-380-A	MAIN BOARD, COMPLETE	
159	1-543-793-11	FILTER, CLAMP (FERRITE CORE)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
#4	7-685-870-09	SCREW +BVTT 3X5 (S)	

DSP

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1194-485-A	DSP BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-100-635-21	ELECT CHIP	82uF	20%	4V
C3	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C7	1-165-628-21	ELECT CHIP	100uF	20%	2V
C8	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C9	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C10	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C11	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C12	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C19	1-117-370-11	CERAMIC CHIP	10uF		10V
C23	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C24	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C25	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C26	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C28	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C29	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C30	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C32	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C33	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C34	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C35	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C36	1-117-370-11	CERAMIC CHIP	10uF		10V
C39	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C40	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C42	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C43	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C45	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C46	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C49	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C50	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C52	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C55	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C57	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C59	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C61	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C62	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C63	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C64	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C66	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C67	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C70	1-117-370-11	CERAMIC CHIP	10uF		10V
C71	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C73	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C74	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C75	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C76	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C77	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C78	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C79	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C80	1-100-635-21	ELECT CHIP	82uF	20%	4V
C81	1-165-628-21	ELECT CHIP	100uF	20%	2V
C85	1-117-370-11	CERAMIC CHIP	10uF		10V
C88	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C89	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C90	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C91	1-117-370-11	CERAMIC CHIP	10uF		10V
C92	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C93	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C94	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C95	1-117-370-11	CERAMIC CHIP	10uF		10V
C96	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C97	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN1	1-815-136-21	CONNECTOR, BOARD TO BOARD 50P			
		< FERRITE BEAD >			
FB1	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB2	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB3	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB4	1-469-324-21	FERRITE, EMI (SMD) (2012)			
		< IC >			
IC1	6-705-308-01	IC SI-3010KM-TL			
IC2	6-709-759-01	IC ADSST-AVR-1115			
IC3	6-806-961-01	IC SST25VF04-06FAES			
IC4	8-759-680-48	IC TC7WH157FK(TE85R)			
IC5	8-759-831-52	IC TC7WH125FK(TE85R)			
IC6	6-701-373-01	IC MC74LCX16373DTR2			
IC7	6-704-832-01	IC IS61LV6416-10TLT			
		< RESISTOR >			
R1	1-243-227-11	RES-CHIP	0.33	1%	1/8W

Ref. No.	Part No.	Description			Remark
R2	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3	1-243-227-11	RES-CHIP	0.33	1%	1/8W
R5	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9	1-216-833-11	METAL CHIP	10K	5%	1/10W
R12	1-216-833-11	METAL CHIP	10K	5%	1/10W
R13	1-216-864-11	SHORT CHIP	0		
R14	1-218-854-11	METAL CHIP	2K	0.5%	1/10W
R15	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R16	1-216-864-11	SHORT CHIP	0		
R17	1-216-864-11	SHORT CHIP	0		
R18	1-216-864-11	SHORT CHIP	0		
R20	1-216-864-11	SHORT CHIP	0		
R21	1-216-833-11	METAL CHIP	10K	5%	1/10W
R23	1-216-817-11	METAL CHIP	470	5%	1/10W
R24	1-216-821-11	METAL CHIP	1K	5%	1/10W
R25	1-216-864-11	SHORT CHIP	0		
R26	1-216-801-11	METAL CHIP	22	5%	1/10W
R27	1-216-801-11	METAL CHIP	22	5%	1/10W
R28	1-216-801-11	METAL CHIP	22	5%	1/10W
R29	1-216-801-11	METAL CHIP	22	5%	1/10W
R30	1-216-801-11	METAL CHIP	22	5%	1/10W
R31	1-216-833-11	METAL CHIP	10K	5%	1/10W
R32	1-216-833-11	METAL CHIP	10K	5%	1/10W
R33	1-216-833-11	METAL CHIP	10K	5%	1/10W
R34	1-216-833-11	METAL CHIP	10K	5%	1/10W
R35	1-216-857-11	METAL CHIP	1M	5%	1/10W
R36	1-216-797-11	METAL CHIP	10	5%	1/10W
R38	1-216-833-11	METAL CHIP	10K	5%	1/10W
R41	1-216-833-11	METAL CHIP	10K	5%	1/10W
R43	1-216-833-11	METAL CHIP	10K	5%	1/10W
R45	1-216-833-11	METAL CHIP	10K	5%	1/10W
R46	1-216-801-11	METAL CHIP	22	5%	1/10W
R47	1-216-864-11	SHORT CHIP	0		
R48	1-216-864-11	SHORT CHIP	0		
R49	1-216-864-11	SHORT CHIP	0		
R50	1-216-864-11	SHORT CHIP	0		
R51	1-216-864-11	SHORT CHIP	0		
R52	1-216-864-11	SHORT CHIP	0		
R53	1-216-801-11	METAL CHIP	22	5%	1/10W
R54	1-216-801-11	METAL CHIP	22	5%	1/10W
R55	1-216-864-11	SHORT CHIP	0		
R56	1-216-864-11	SHORT CHIP	0		
R57	1-216-864-11	SHORT CHIP	0		
R58	1-216-864-11	SHORT CHIP	0		
R59	1-216-864-11	SHORT CHIP	0		
R60	1-216-801-11	METAL CHIP	22	5%	1/10W
R61	1-216-864-11	SHORT CHIP	0		
R62	1-216-864-11	SHORT CHIP	0		
R63	1-216-864-11	SHORT CHIP	0		
R64	1-216-801-11	METAL CHIP	22	5%	1/10W
R65	1-216-801-11	METAL CHIP	22	5%	1/10W
R66	1-216-801-11	METAL CHIP	22	5%	1/10W
R67	1-216-801-11	METAL CHIP	22	5%	1/10W
R68	1-216-801-11	METAL CHIP	22	5%	1/10W
R69	1-216-864-11	SHORT CHIP	0		
		< NETWORK RESISTOR >			
RB1	1-234-523-21	RES, CHIP NETWORK 0X4 (3216)			
RB6	1-239-409-11	RES, CHIP NETWORK 47X4 (3216)			
RB7	1-239-409-11	RES, CHIP NETWORK 47X4 (3216)			
RB8	1-239-409-11	RES, CHIP NETWORK 47X4 (3216)			
RB9	1-239-409-11	RES, CHIP NETWORK 47X4 (3216)			
RB10	1-234-524-21	RES, CHIP NETWORK 33X4 (3216)			
RB11	1-234-524-21	RES, CHIP NETWORK 33X4 (3216)			
RB12	1-234-524-21	RES, CHIP NETWORK 33X4 (3216)			
RB13	1-234-524-21	RES, CHIP NETWORK 33X4 (3216)			
		< VIBRATOR >			
X1	1-795-807-11	VIBRATOR, CRYSTAL (25MHz)			
**********					
		HP BOARD			
		*********			
		< CAPACITOR >			
C1026	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C1027	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C1060	1-165-319-11	CERAMIC CHIP	0.1uF		50V
		< CONNECTOR >			
CN1012	1-784-922-11	PIN, CONNECTOR 5P			
		< EARTH TERMINAL >			
* EB1001	1-537-738-21	TERMINAL, EARTH			
		< JACK >			
J1001	1-815-313-11	JACK (PHONES)			
		< JUMPER RESISTOR >			
JW1012	1-216-295-11	SHORT CHIP	0		
**********					
	A-1254-380-A	MAIN BOARD, COMPLETE			
		**********			
	3-087-053-01	+BVTP 2.6 (3CR)			
	4-974-510-01	SCREW (+BV 3X8 CU)			
		< CAPACITOR >			
C411	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C413	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C414	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C415	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C422	1-112-114-11	ELECT	22uF	20%	50V
C431	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C432	1-163-259-11	CERAMIC CHIP	220PF	5%	50V
C433	1-112-097-11	ELECT	2.2uF	20%	50V
C434	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C435	1-112-084-11	ELECT	470uF	20%	16V
C436	1-125-896-11	MYLAR	0.0091uF	5%	50V
C437	1-136-159-00	MYLAR	0.033uF	5%	50V
C438	1-112-097-11	ELECT	2.2uF	20%	50V
C497	1-112-083-11	ELECT	100uF	20%	16V
C499	1-112-083-11	ELECT	100uF	20%	16V
C511	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C513	1-163-139-00	CERAMIC CHIP	820PF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C514	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C515	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C522	1-112-114-11	ELECT	22uF	20%	50V
C531	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C532	1-163-259-11	CERAMIC CHIP	220PF	5%	50V
C533	1-112-097-11	ELECT	2.2uF	20%	50V
C534	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C535	1-112-084-11	ELECT	470uF	20%	16V
C536	1-125-896-11	MYLAR	0.0091uF	5%	50V
C537	1-136-159-00	MYLAR	0.033uF	5%	50V
C538	1-112-097-11	ELECT	2.2uF	20%	50V
C597	1-112-083-11	ELECT	100uF	20%	16V
C599	1-112-083-11	ELECT	100uF	20%	16V
C616	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C617	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C618	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C619	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C620	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C621	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C628	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C629	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C631	1-163-033-11	CERAMIC CHIP	0.022uF		50V
C632	1-163-033-11	CERAMIC CHIP	0.022uF		50V
C633	1-112-089-11	ELECT	47uF	20%	25V
C634	1-112-089-11	ELECT	47uF	20%	25V
C1271	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1301	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	50V
C1302	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	50V
C1303	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C1306	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1404	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1405	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1406	1-126-947-11	ELECT	47uF	20%	35V
C1407	1-112-299-11	CERAMIC CHIP	2.2uF	10%	16V
C1408	1-112-299-11	CERAMIC CHIP	2.2uF	10%	16V
C1410	1-100-621-11	ELECT	470uF	20%	10V
C1411	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C1415	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1416	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1419	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1420	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1421	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C1422	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1428	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C1430	1-100-621-11	ELECT	470uF	20%	10V
C1431	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1443	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C1462	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1463	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1464	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1471	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C1482	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1483	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1485	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1502	1-114-160-11	CERAMIC CHIP	1uF	10%	100V
C1503	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1504	1-112-090-11	ELECT	100uF	20%	25V
C1505	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1506	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C1508	1-100-621-11	ELECT	470uF	20%	10V
C1509	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1510	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1511	1-100-621-11	ELECT	470uF	20%	10V
C1512	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C1514	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1515	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1516	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1517	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1518	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C1522	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C1523	1-114-160-11	CERAMIC CHIP	1uF	10%	100V
C1524	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C1526	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1527	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1531	1-114-160-11	CERAMIC CHIP	1uF	10%	100V
C1532	1-112-013-11	ELECT(BLOCK)	6800uF	20%	71V
C1535	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1536	1-112-090-11	ELECT	100uF	20%	25V
C1537	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1538	1-114-160-11	CERAMIC CHIP	1uF	10%	100V
C1539	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C1545	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C1548	1-112-013-11	ELECT(BLOCK)	6800uF	20%	71V
C1549	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C1550	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C1582	1-100-621-11	ELECT	470uF	20%	10V
C1681	1-100-153-11	CERAMIC CHIP	220PF	5%	100V
C1682	1-100-153-11	CERAMIC CHIP	220PF	5%	100V
C1685	1-100-155-11	CERAMIC CHIP	470PF	5%	100V
C1686	1-100-155-11	CERAMIC CHIP	470PF	5%	100V
C1687	1-100-153-11	CERAMIC CHIP	220PF	5%	100V
C1688	1-100-153-11	CERAMIC CHIP	220PF	5%	100V
C1691	1-100-155-11	CERAMIC CHIP	470PF	5%	100V
C1692	1-100-155-11	CERAMIC CHIP	470PF	5%	100V
C1693	1-100-155-11	CERAMIC CHIP	470PF	5%	100V
C1694	1-100-155-11	CERAMIC CHIP	470PF	5%	100V
C1697	1-100-158-11	CERAMIC CHIP	0.001uF	5%	100V
C1698	1-100-158-11	CERAMIC CHIP	0.001uF	5%	100V
C1699	1-100-155-11	CERAMIC CHIP	470PF	5%	100V
C1700	1-100-155-11	CERAMIC CHIP	470PF	5%	100V
C1703	1-100-598-11	MYLAR	1uF	5%	250V
C1704	1-100-598-11	MYLAR	1uF	5%	250V
C1705	1-100-158-11	CERAMIC CHIP	0.001uF	5%	100V
C1706	1-100-158-11	CERAMIC CHIP	0.001uF	5%	100V
C1707	1-100-598-11	MYLAR	1uF	5%	250V
C1708	1-100-598-11	MYLAR	1uF	5%	250V
C2001	1-112-099-11	ELECT	4.7uF	20%	50V
C2002	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2003	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2004	1-112-099-11	ELECT	4.7uF	20%	50V
C2005	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2006	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C2007	1-112-103-11	ELECT	47uF	20%	63V
C2008	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2009	1-112-103-11	ELECT	47uF	20%	63V
C2010	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remark
C2012	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C2013	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C2014	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C2015	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2016	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2017	1-126-925-11	ELECT	470uF	20%	10V
C2018	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C2019	1-112-103-11	ELECT	47uF	20%	63V
C2022	1-112-114-11	ELECT	22uF	20%	50V
C2023	1-112-114-11	ELECT	22uF	20%	50V
C2024	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C2025	1-112-084-11	ELECT	470uF	20%	16V
C2026	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2027	1-112-114-11	ELECT	22uF	20%	50V
C2028	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2029	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2030	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2031	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C2032	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C2033	1-112-114-11	ELECT	22uF	20%	50V
C2034	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C2035	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C2036	1-112-114-11	ELECT	22uF	20%	50V
C2037	1-112-114-11	ELECT	22uF	20%	50V
C2038	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C2039	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2040	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2041	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C2042	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C2043	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C2045	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2046	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2047	1-112-084-11	ELECT	470uF	20%	16V
C2048	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2049	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2050	1-112-083-11	ELECT	100uF	20%	16V
C2051	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2052	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C2054	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2057	1-112-079-11	ELECT	220uF	20%	10V
C2059	1-112-097-11	ELECT	2.2uF	20%	50V
C2060	1-112-084-11	ELECT	470uF	20%	16V
C2078	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C2080	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2089	1-112-100-11	ELECT	10uF	20%	50V
C2090	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2091	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2092	1-112-100-11	ELECT	10uF	20%	50V
C2093	1-112-100-11	ELECT	10uF	20%	50V
C2094	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2095	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2096	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2097	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2098	1-112-100-11	ELECT	10uF	20%	50V
C2099	1-112-083-11	ELECT	100uF	20%	16V
C2100	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2101	1-112-100-11	ELECT	10uF	20%	50V
C2102	1-112-100-11	ELECT	10uF	20%	50V
C2150	1-126-964-11	ELECT	10uF	20%	50V
C2151	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2152	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2153	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C2222	1-100-153-11	CERAMIC CHIP	220PF	5%	100V
C2225	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2226	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2227	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2228	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2229	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2230	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2231	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2233	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2234	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2240	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2242	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2243	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2247	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2248	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2249	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2250	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2251	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2252	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2255	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2257	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2264	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2266	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2267	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2268	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2269	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2270	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2271	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2272	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2273	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2274	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2275	1-126-933-11	ELECT	100uF	20%	16V
C2276	1-126-964-11	ELECT	10uF	20%	50V
C2277	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2278	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2279	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2280	1-126-960-11	ELECT	1uF	20%	50V
C2283	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C2284	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C2285	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C2286	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C2287	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2290	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3306	1-115-185-11	CERAMIC CHIP	0.033uF	10%	50V
C3307	1-115-185-11	CERAMIC CHIP	0.033uF	10%	50V
C3310	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3311	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3326	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3327	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3406	1-115-185-11	CERAMIC CHIP	0.033uF	10%	50V
C3407	1-115-185-11	CERAMIC CHIP	0.033uF	10%	50V
C3410	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3411	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3426	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C3427	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C5000	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C5020	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C5069	1-100-154-11	CERAMIC CHIP	330PF	5%	100V
C5070	1-100-154-11	CERAMIC CHIP	330PF	5%	100V
C5073	1-100-154-11	CERAMIC CHIP	330PF	5%	100V
C5074	1-100-154-11	CERAMIC CHIP	330PF	5%	100V
C5089	1-100-154-11	CERAMIC CHIP	330PF	5%	100V
C5090	1-100-154-11	CERAMIC CHIP	330PF	5%	100V
C5093	1-100-154-11	CERAMIC CHIP	330PF	5%	100V
C5094	1-100-154-11	CERAMIC CHIP	330PF	5%	100V
C5204	1-112-138-11	ELECT	3300uF	20%	35V
C5205	1-165-815-11	CERAMIC CHIP	2.2uF		25V
C5216	1-112-085-11	ELECT	1000uF	20%	16V
C5217	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5218	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5219	1-112-084-11	ELECT	470uF	20%	16V
C5220	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5241	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5242	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5243	1-112-084-11	ELECT	470uF	20%	16V
C5246	1-112-138-11	ELECT	3300uF	20%	35V
C5247	1-112-138-11	ELECT	3300uF	20%	35V
C5248	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5249	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5250	1-112-085-11	ELECT	1000uF	20%	16V
C5251	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5252	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5253	1-112-085-11	ELECT	1000uF	20%	16V
C5257	1-165-815-11	CERAMIC CHIP	2.2uF		25V
C5258	1-165-815-11	CERAMIC CHIP	2.2uF		25V
C5301	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C5302	1-100-621-11	ELECT	470uF	20%	10V
C5303	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5362	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5363	1-112-084-11	ELECT	470uF	20%	16V
C5364	1-112-090-11	ELECT	100uF	20%	25V
C5365	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5366	1-112-084-11	ELECT	470uF	20%	16V
C5368	1-165-815-11	CERAMIC CHIP	2.2uF		25V
C5369	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN1404	1-691-769-11	PLUG (MICRO CONNECTOR) 7P			
CN2004	1-785-910-21	CONNECTOR, BOARD TO BOARD 50P			
CN2011	1-794-002-11	CONNECTOR 13P			
CNP1401	1-794-003-11	CONNECTOR 15P			
CNP2001	1-779-977-11	PIN, CONNECTOR 6P			
* CNP2013	1-778-867-51	CONNECTOR, FFC/FPC 6P			
		< DIODE >			
D1415	6-501-193-01	DIODE 1SS355WTE-17			
D1501	6-501-485-01	DIODE EC10UA20			
D1502	6-501-485-01	DIODE EC10UA20			
D1503	6-501-485-01	DIODE EC10UA20			
D1504	6-501-485-01	DIODE EC10UA20			
D1513	6-501-484-01	DIODE P6SMB62AT3			

Ref. No.	Part No.	Description	Remark
D1522	6-501-484-01	DIODE P6SMB62AT3	
D1523	6-501-484-01	DIODE P6SMB62AT3	
D1524	6-501-484-01	DIODE P6SMB62AT3	
D1541	6-501-193-01	DIODE 1SS355WTE-17	
D1548	6-501-193-01	DIODE 1SS355WTE-17	
D2001	8-719-053-18	DIODE 1SR154-400TE-25	
D2002	6-501-193-01	DIODE 1SS355WTE-17	
D2101	6-501-193-01	DIODE 1SS355WTE-17	
D2301	6-501-193-01	DIODE 1SS355WTE-17	
D5242	8-719-053-18	DIODE 1SR154-400TE-25	
D5243	8-719-053-18	DIODE 1SR154-400TE-25	
		< FERRITE BEAD >	
FB1401	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB1402	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB2001	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB2002	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB2003	1-414-813-11	FERRITE, EMI (SMD) (2012)	
FB2005	1-469-139-21	FERRITE, EMI (SMD) (2012)	
FB2006	1-216-295-11	SHORT CHIP 0	
FB2012	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB2022	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB2023	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB2030	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB2038	1-469-152-11	FERRITE, EMI (SMD) (2012)	
FB2201	1-414-813-11	FERRITE, EMI (SMD) (2012)	
		< IC >	
IC301	8-759-710-97	IC NJM4565M-D	
IC611	8-759-710-97	IC NJM4565M-D	
IC612	8-759-710-97	IC NJM4565M-D	
IC613	8-759-710-97	IC NJM4565M-D	
IC615	8-759-710-97	IC NJM4565M-D	
IC1301	6-709-809-01	IC TC9273CFG-012(EL)	
IC1401	8-759-832-05	IC BA18BC0FP-E2	
IC1403	8-759-058-62	IC TC7S08FU(TE85R)	
IC1412	6-709-035-01	IC CXD9876R	
IC1501	6-710-431-01	IC CXD9879AM	
IC1502	6-710-431-01	IC CXD9879AM	
IC1800	6-807-434-01	IC MB89F538L-F501-X100	
IC2001	6-600-466-01	IC TORX147L(SONY)	(DIGITAL 4 IN (OPTICAL))
IC2002	8-759-710-97	IC NJM4565M-D	
IC2003	6-600-461-11	IC TOTX147L(R) (DIGITAL 4 OUT (OPTICAL))	
IC2004	6-708-476-01	IC AK4384ET-E2	
IC2006	6-708-025-01	IC LC89057W-VF4A-E	
IC2007	8-759-233-64	IC TC74HCU04AF	
IC2010	8-759-710-97	IC NJM4565M-D	
IC2017	8-759-524-48	IC TC74VHC393FT(EL)	
IC2024	6-701-834-01	IC PCM1802DBR	
IC2035	6-706-487-01	IC TC7SH08FU(T5RSOYJF)	
IC2036	8-759-447-77	IC TC7WH74FU(TE12R)	
IC2051	6-702-913-01	IC S-80929CNMC-G8ZT2G	
IC2052	6-702-913-01	IC S-80929CNMC-G8ZT2G	
IC2054	6-807-435-01	IC MB91F355APMT-F501-X100	
IC2055	6-704-005-01	IC BR24L32F-WE2	
IC2056	8-759-277-63	IC TC7W14FU(TE12R)	
IC2057	8-759-058-62	IC TC7S08FU(TE85R)	

Ref. No.	Part No.	Description			Remark
IC5212	8-759-445-59	IC BA033T			
IC5213	6-707-542-01	IC TA48025S			
IC5231	8-759-231-53	IC TA7805S			
IC5232	8-759-473-41	IC BA10T			
IC5233	8-759-245-84	IC TA79010S			
IC5301	6-707-905-01	IC M62343FP			
IC5360	8-759-445-59	IC BA033T			
IC5361	8-759-394-35	IC BA12T			
		< JACK >			
J605	1-778-517-11	JACK, PIN 6P (PHONO IN,TUNER IN, SA-CD/CD IN)			
J606	1-784-934-11	JACK, PIN 4P (TAPE OUT/IN)			
J2001	1-820-547-11	JACK, PIN 3P (DIGITAL 3 IN (COAXIAL), 2 IN (COAXIAL),1 IN (COAXIAL))			
		< JUMPER RESISTOR >			
JW2004	1-216-295-11	SHORT CHIP	0		
		< COIL >			
L1411	1-456-412-11	INDUCTOR	10uH		
L1412	1-456-412-11	INDUCTOR	10uH		
L1413	1-456-412-11	INDUCTOR	10uH		
L1414	1-456-412-11	INDUCTOR	10uH		
L5018	1-456-594-11	INDUCTOR	33uH		
L5038	1-456-594-11	INDUCTOR	33uH		
		< TRANSISTOR >			
Q1402	8-729-271-31	TRANSISTOR	2SC2713-G		
Q1403	8-729-271-31	TRANSISTOR	2SC2713-G		
Q1404	8-729-271-31	TRANSISTOR	2SC2713-G		
Q2002	8-729-038-28	TRANSISTOR	RT1N441C-TP-1		
Q2004	8-729-038-28	TRANSISTOR	RT1N441C-TP-1		
Q2005	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q2006	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q2007	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q5000	8-729-216-31	TRANSISTOR	2SA1163-G		
Q5001	8-729-216-31	TRANSISTOR	2SA1163-G		
Q5020	8-729-216-31	TRANSISTOR	2SA1163-G		
Q5021	8-729-216-31	TRANSISTOR	2SA1163-G		
Q5030	8-729-271-31	TRANSISTOR	2SC2713-G		
Q5269	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q5271	8-729-230-49	TRANSISTOR	2SC2712-YG		
		< RESISTOR >			
R411	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R413	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R414	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R415	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R421	1-216-230-00	RES-CHIP	22K	2%	1/8W
R422	1-216-238-00	RES-CHIP	47K	2%	1/8W
R423	1-216-238-00	RES-CHIP	47K	2%	1/8W
R424	1-219-107-11	RES-CHIP	1.5	5%	1/8W
R425	1-219-107-11	RES-CHIP	1.5	5%	1/8W
R431	1-216-206-00	RES-CHIP	2.2K	2%	1/8W
R432	1-216-246-00	RES-CHIP	100K	2%	1/8W
R433	1-216-246-00	RES-CHIP	100K	2%	1/8W
R434	1-208-419-11	RES-CHIP	180	2%	1/8W

Ref. No.	Part No.	Description			Remark
R435	1-208-508-11	RES-CHIP	8.2K	2%	1/8W
R436	1-216-246-00	RES-CHIP	100K	2%	1/8W
R437	1-216-174-00	RES-CHIP	100	2%	1/8W
R438	1-216-246-00	RES-CHIP	100K	2%	1/8W
R439	1-216-190-00	RES-CHIP	470	2%	1/8W
R461	1-216-222-00	RES-CHIP	10K	2%	1/8W
R474	1-219-107-11	RES-CHIP	1.5	5%	1/8W
R475	1-219-107-11	RES-CHIP	1.5	5%	1/8W
R492	1-216-246-00	RES-CHIP	100K	2%	1/8W
R511	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R513	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R514	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R515	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R522	1-216-238-00	RES-CHIP	47K	2%	1/8W
R523	1-216-238-00	RES-CHIP	47K	2%	1/8W
R524	1-216-230-00	RES-CHIP	22K	2%	1/8W
R531	1-216-206-00	RES-CHIP	2.2K	2%	1/8W
R532	1-216-246-00	RES-CHIP	100K	2%	1/8W
R533	1-216-246-00	RES-CHIP	100K	2%	1/8W
R534	1-208-419-11	RES-CHIP	180	2%	1/8W
R535	1-208-508-11	RES-CHIP	8.2K	2%	1/8W
R536	1-216-246-00	RES-CHIP	100K	2%	1/8W
R537	1-216-174-00	RES-CHIP	100	2%	1/8W
R538	1-216-246-00	RES-CHIP	100K	2%	1/8W
R539	1-216-190-00	RES-CHIP	470	2%	1/8W
R561	1-216-222-00	RES-CHIP	10K	2%	1/8W
R592	1-216-246-00	RES-CHIP	100K	2%	1/8W
R634	1-216-182-00	RES-CHIP	220	2%	1/8W
R635	1-216-182-00	RES-CHIP	220	2%	1/8W
R1301	1-216-013-00	RES-CHIP	33	5%	1/10W
R1302	1-216-013-00	RES-CHIP	33	5%	1/10W
R1317	1-216-025-11	RES-CHIP	100	5%	1/10W
R1401	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1402	1-216-857-11	METAL CHIP	1M	5%	1/10W
R1403	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1404	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1405	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1406	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1407	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1411	1-216-809-11	METAL CHIP	100	5%	1/10W
R1412	1-216-809-11	METAL CHIP	100	5%	1/10W
R1413	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1414	1-216-809-11	METAL CHIP	100	5%	1/10W
R1417	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1418	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1419	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1422	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1424	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1425	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1426	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1427	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1428	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1431	1-216-864-11	SHORT CHIP	0		
R1432	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1433	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1434	1-216-809-11	METAL CHIP	100	5%	1/10W
R1436	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1437	1-216-833-11	METAL CHIP	10K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R1440	1-216-809-11	METAL CHIP	100	5%	1/10W
R1441	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1442	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1443	1-216-809-11	METAL CHIP	100	5%	1/10W
R1444	1-216-809-11	METAL CHIP	100	5%	1/10W
R1445	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1447	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1449	1-216-809-11	METAL CHIP	100	5%	1/10W
R1455	1-216-809-11	METAL CHIP	100	5%	1/10W
R1461	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1462	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1463	1-216-809-11	METAL CHIP	100	5%	1/10W
R1464	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1467	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1468	1-216-809-11	METAL CHIP	100	5%	1/10W
R1469	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1472	1-216-809-11	METAL CHIP	100	5%	1/10W
R1474	1-216-809-11	METAL CHIP	100	5%	1/10W
R1475	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1476	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1477	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1479	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1483	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1485	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1486	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1508	1-216-864-11	SHORT CHIP	0		
R1509	1-216-809-11	METAL CHIP	100	5%	1/10W
R1511	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1512	1-216-809-11	METAL CHIP	100	5%	1/10W
R1513	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1514	1-216-809-11	METAL CHIP	100	5%	1/10W
R1515	1-216-809-11	METAL CHIP	100	5%	1/10W
R1516	1-216-809-11	METAL CHIP	100	5%	1/10W
R1517	1-216-809-11	METAL CHIP	100	5%	1/10W
R1518	1-216-809-11	METAL CHIP	100	5%	1/10W
R1531	1-216-839-11	METAL CHIP	33K	5%	1/10W
R1536	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R1542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1555	1-216-864-11	SHORT CHIP	0		
R1559	1-216-809-11	METAL CHIP	100	5%	1/10W
R1560	1-216-809-11	METAL CHIP	100	5%	1/10W
R1561	1-216-809-11	METAL CHIP	100	5%	1/10W
R1564	1-216-839-11	METAL CHIP	33K	5%	1/10W
R1566	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R1572	1-216-801-11	METAL CHIP	22	5%	1/10W
R1573	1-216-797-11	METAL CHIP	10	5%	1/10W
R1574	1-216-864-11	SHORT CHIP	0		
R1575	1-216-801-11	METAL CHIP	22	5%	1/10W
R1576	1-216-801-11	METAL CHIP	22	5%	1/10W
R1579	1-216-801-11	METAL CHIP	22	5%	1/10W
R1580	1-216-864-11	SHORT CHIP	0		
R1591	1-216-797-11	METAL CHIP	10	5%	1/10W
R1703	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1711	1-260-107-11	CARBON	4.7K	5%	1/2W
R1712	1-260-107-11	CARBON	4.7K	5%	1/2W
R2001	1-208-755-11	METAL CHIP	75	0.5%	1/10W
R2002	1-208-755-11	METAL CHIP	75	0.5%	1/10W
R2003	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R2004	1-216-809-11	METAL CHIP	100	5%	1/10W
R2005	1-216-809-11	METAL CHIP	100	5%	1/10W
R2006	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2007	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2008	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2009	1-208-774-11	METAL CHIP	470	0.5%	1/10W
R2010	1-208-774-11	METAL CHIP	470	0.5%	1/10W
R2011	1-216-809-11	METAL CHIP	100	5%	1/10W
R2012	1-216-033-00	RES-CHIP	220	5%	1/10W
R2013	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R2014	1-216-809-11	METAL CHIP	100	5%	1/10W
R2015	1-208-787-11	METAL CHIP	1.6K	0.5%	1/10W
R2016	1-208-550-41	RES-CHIP	470K	2%	1/10W
R2017	1-208-550-41	RES-CHIP	470K	2%	1/10W
R2019	1-208-526-41	RES-CHIP	47K	2%	1/10W
R2020	1-208-526-41	RES-CHIP	47K	2%	1/10W
R2021	1-208-787-11	METAL CHIP	1.6K	0.5%	1/10W
R2022	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R2023	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2024	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2025	1-216-809-11	METAL CHIP	100	5%	1/10W
R2026	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2027	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2028	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R2029	1-216-061-11	RES-CHIP	3.3K	5%	1/10W
R2030	1-216-073-11	RES-CHIP	10K	5%	1/10W
R2031	1-208-526-41	RES-CHIP	47K	2%	1/10W
R2032	1-208-526-41	RES-CHIP	47K	2%	1/10W
R2033	1-216-857-11	METAL CHIP	1M	5%	1/10W
R2034	1-216-809-11	METAL CHIP	100	5%	1/10W
R2035	1-216-033-00	RES-CHIP	220	5%	1/10W
R2036	1-216-813-11	METAL CHIP	220	5%	1/10W
R2037	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R2038	1-216-061-11	RES-CHIP	3.3K	5%	1/10W
R2039	1-216-073-11	RES-CHIP	10K	5%	1/10W
R2040	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R2041	1-216-809-11	METAL CHIP	100	5%	1/10W
R2042	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R2043	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R2044	1-216-809-11	METAL CHIP	100	5%	1/10W
R2045	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R2050	1-216-805-11	METAL CHIP	47	5%	1/10W
R2053	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R2055	1-216-809-11	METAL CHIP	100	5%	1/10W
R2057	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R2058	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R2061	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2064	1-216-817-11	METAL CHIP	470	5%	1/10W
R2075	1-216-809-11	METAL CHIP	100	5%	1/10W
R2079	1-216-809-11	METAL CHIP	100	5%	1/10W
R2084	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2086	1-216-809-11	METAL CHIP	100	5%	1/10W
R2087	1-216-857-11	METAL CHIP	1M	5%	1/10W
R2094	1-216-809-11	METAL CHIP	100	5%	1/10W
R2096	1-216-809-11	METAL CHIP	100	5%	1/10W
R2121	1-216-809-11	METAL CHIP	100	5%	1/10W
R2123	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2124	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R2125	1-216-809-11	METAL CHIP	100	5%	1/10W
R2176	1-216-809-11	METAL CHIP	100	5%	1/10W
R2231	1-216-809-11	METAL CHIP	100	5%	1/10W
R2234	1-216-809-11	METAL CHIP	100	5%	1/10W
R2236	1-216-809-11	METAL CHIP	100	5%	1/10W
R2251	1-216-809-11	METAL CHIP	100	5%	1/10W
R2252	1-216-809-11	METAL CHIP	100	5%	1/10W
R2255	1-216-809-11	METAL CHIP	100	5%	1/10W
R2257	1-216-809-11	METAL CHIP	100	5%	1/10W
R2292	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2294	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2295	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2296	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2317	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2321	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2322	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2323	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2324	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2326	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2330	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2333	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2338	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2342	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2343	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2344	1-216-809-11	METAL CHIP	100	5%	1/10W
R2345	1-216-809-11	METAL CHIP	100	5%	1/10W
R2350	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2351	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2354	1-216-809-11	METAL CHIP	100	5%	1/10W
R2355	1-216-809-11	METAL CHIP	100	5%	1/10W
R2356	1-216-809-11	METAL CHIP	100	5%	1/10W
R2357	1-216-809-11	METAL CHIP	100	5%	1/10W
R2358	1-216-809-11	METAL CHIP	100	5%	1/10W
R2359	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2360	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2361	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2362	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2363	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2364	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2367	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2369	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2371	1-216-809-11	METAL CHIP	100	5%	1/10W
R2372	1-216-809-11	METAL CHIP	100	5%	1/10W
R2377	1-216-809-11	METAL CHIP	100	5%	1/10W
R2378	1-216-809-11	METAL CHIP	100	5%	1/10W
R2379	1-216-809-11	METAL CHIP	100	5%	1/10W
R2382	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2383	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2384	1-216-809-11	METAL CHIP	100	5%	1/10W
R2385	1-216-809-11	METAL CHIP	100	5%	1/10W
R2386	1-216-809-11	METAL CHIP	100	5%	1/10W
R2387	1-216-809-11	METAL CHIP	100	5%	1/10W
R2388	1-216-809-11	METAL CHIP	100	5%	1/10W
R2389	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2390	1-216-815-11	METAL CHIP	330	5%	1/10W
R2391	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2392	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2393	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2394	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2395	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2396	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2397	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2398	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2399	1-216-809-11	METAL CHIP	100	5%	1/10W
R2400	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2403	1-216-809-11	METAL CHIP	100	5%	1/10W
R2404	1-216-809-11	METAL CHIP	100	5%	1/10W
R2405	1-216-809-11	METAL CHIP	100	5%	1/10W
R2406	1-216-809-11	METAL CHIP	100	5%	1/10W
R2411	1-216-817-11	METAL CHIP	470	5%	1/10W
R2412	1-208-755-11	METAL CHIP	75	0.5%	1/10W
R2413	1-208-774-11	METAL CHIP	470	0.5%	1/10W
R2414	1-208-550-41	RES-CHIP	470K	2%	1/10W
R2415	1-208-526-41	RES-CHIP	47K	2%	1/10W
R2416	1-216-809-11	METAL CHIP	100	5%	1/10W
R2423	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3328	1-216-142-00	RES-CHIP	4.7	5%	1/8W
R3329	1-216-142-00	RES-CHIP	4.7	5%	1/8W
R3428	1-216-142-00	RES-CHIP	4.7	5%	1/8W
R3429	1-216-142-00	RES-CHIP	4.7	5%	1/8W
R5000	1-216-849-11	METAL CHIP	220K	5%	1/10W
R5001	1-216-849-11	METAL CHIP	220K	5%	1/10W
R5002	1-216-845-11	METAL CHIP	100K	5%	1/10W
R5003	1-216-864-11	SHORT CHIP	0		
R5004	1-216-864-11	SHORT CHIP	0		
R5005	1-216-864-11	SHORT CHIP	0		
R5006	1-216-864-11	SHORT CHIP	0		
R5007	1-216-864-11	SHORT CHIP	0		
R5020	1-216-849-11	METAL CHIP	220K	5%	1/10W
R5021	1-216-849-11	METAL CHIP	220K	5%	1/10W
R5022	1-216-845-11	METAL CHIP	100K	5%	1/10W
R5030	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5031	1-216-089-11	RES-CHIP	47K	5%	1/10W
R5032	1-216-073-11	RES-CHIP	10K	5%	1/10W
R5201	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5250	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5271	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5302	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5303	1-216-821-11	METAL CHIP	1K	5%	1/10W

< TERMINAL BOARD >

TM5001	1-780-297-11	TERMINAL BOARD (SP) (2P) (SPEAKERS R)
TM5002	1-780-297-11	TERMINAL BOARD (SP) (2P) (SPEAKERS L)

< VIBRATOR >

X1401	1-781-893-21	VIBRATOR, CERAMIC (CHIP TYPE) (12.5MHz)
X1402	1-813-388-11	OSCILLATOR, CRYSTAL (49.152MHz)
X2001	1-795-219-21	VIBRATOR, CRYSTAL (24.576MHz)
X2004	1-781-893-21	VIBRATOR, CERAMIC (CHIP TYPE) (12.5MHz)

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MIC **PANEL**

Ref. No.	Part No.	Description			Remark
		MIC BOARD			
		**********			
		< CAPACITOR >			
C1025	1-126-964-11	ELECT	10uF	20%	50V
C1028	1-126-964-11	ELECT	10uF	20%	50V
C1029	1-126-964-11	ELECT	10uF	20%	50V
C1032	1-126-947-11	ELECT	47uF	20%	35V
C1033	1-126-964-11	ELECT	10uF	20%	50V
C1034	1-126-964-11	ELECT	10uF	20%	50V
C1035	1-126-960-11	ELECT	1uF	20%	50V
C1036	1-126-964-11	ELECT	10uF	20%	50V
C1037	1-126-964-11	ELECT	10uF	20%	50V
C1039	1-126-947-11	ELECT	47uF	20%	35V
C1040	1-126-964-11	ELECT	10uF	20%	50V
C1042	1-126-964-11	ELECT	10uF	20%	50V
C1043	1-126-964-11	ELECT	10uF	20%	50V
C1044	1-126-964-11	ELECT	10uF	20%	50V
C1045	1-126-947-11	ELECT	47uF	20%	35V
C1046	1-126-947-11	ELECT	47uF	20%	35V
C1047	1-126-947-11	ELECT	47uF	20%	35V
C1048	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1049	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1050	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1051	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1052	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1053	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1054	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1055	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1056	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1057	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1058	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1059	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1061	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1063	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1064	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
		< CONNECTOR >			
CN1005	1-784-922-11	PIN, CONNECTOR 5P			
		< DIODE >			
D1002	6-501-193-01	DIODE 1SS355WTE-17			
D1003	6-501-193-01	DIODE 1SS355WTE-17			
		< FERRITE BEAD >			
FB1001	1-469-152-11	FERRITE, EMI (SMD) (2012)			
FB1003	1-414-813-11	FERRITE, EMI (SMD) (2012)			
FB1004	1-414-813-11	FERRITE, EMI (SMD) (2012)			
FB1005	1-414-813-11	FERRITE, EMI (SMD) (2012)			
		< IC >			
IC1002	6-705-468-01	IC BA33BC0FP-E2			
IC1004	8-759-825-56	IC NJM2173AV(TE2)			
		< JACK >			
J1002	1-820-056-11	JACK (SMALL TYPE) (AUTO CAL MIC)			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1003	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1004	8-729-230-49	TRANSISTOR 2SC2712-YG			
		< RESISTOR >			
R1028	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1029	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1030	1-216-849-11	METAL CHIP	220K	5%	1/10W
R1031	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1032	1-216-849-11	METAL CHIP	220K	5%	1/10W
R1033	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1034	1-216-843-11	METAL CHIP	68K	5%	1/10W
R1037	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1038	1-216-843-11	METAL CHIP	68K	5%	1/10W
R1042	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1047	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1049	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1050	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1051	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1052	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1053	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1054	1-216-025-11	RES-CHIP	100	5%	1/10W
**********					
	A-1254-376-A	PANEL BOARD, COMPLETE			
		**********			
	2-389-320-01	CUSHION			
		< CAPACITOR >			
C1001	1-104-957-11	ELECT	47uF	20%	25V
C1003	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C1006	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1007	1-112-114-11	ELECT	22uF	20%	50V
C1008	1-119-772-11	ELECT	47uF	20%	35V
C1009	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1011	1-112-083-11	ELECT	100uF	20%	16V
C1012	1-112-083-11	ELECT	100uF	20%	16V
C1014	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1018	1-165-733-31	ELECT	100uF	20%	25V
C1019	1-107-378-11	MYLAR	0.0039uF	5%	200V
C1020	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1021	1-165-746-31	ELECT	22uF	20%	50V
C1022	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1023	1-112-114-11	ELECT	22uF	20%	50V
C1024	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C1038	1-165-746-31	ELECT	22uF	20%	50V
C1062	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C1202	1-112-114-11	ELECT	22uF	20%	50V
C1203	1-112-083-11	ELECT	100uF	20%	16V
C1204	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1205	1-164-690-11	CERAMIC CHIP	0.0022uF	5%	50V
C1206	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C1207	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1208	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C1209	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C1210	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C1220	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V

Ref. No.	Part No.	Description			Remark
C1252	1-112-114-11	ELECT	22uF	20%	50V
C1253	1-112-083-11	ELECT	100uF	20%	16V
C1254	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1255	1-164-690-11	CERAMIC CHIP	0.0022uF	5%	50V
		< CONNECTOR >			
CN2016	1-794-002-11	CONNECTOR 13P			
CNP1402	1-794-003-11	CONNECTOR 15P			
		< DIODE >			
D1001	6-501-193-01	DIODE 1SS355WTE-17			
D1015	8-719-041-97	DIODE MA113-(TX)			
D1016	8-719-041-97	DIODE MA113-(TX)			
D1017	8-719-041-97	DIODE MA113-(TX)			
D1018	8-719-041-97	DIODE MA113-(TX)			
D1019	8-719-056-84	DIODE UDZ-TE-17-7.5B			
		< FERRITE BEAD >			
FB1006	1-414-813-11	FERRITE, EMI (SMD) (2012)			
FB1007	1-414-813-11	FERRITE, EMI (SMD) (2012)			
		< FLUORESCENT INDICATOR TUBE >			
FL1001	1-519-863-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC1001	6-600-349-31	IC NJL24H400A (IR)			
IC1003	8-759-710-97	IC NJM4565M-D			
IC1202	8-759-710-97	IC NJM4565M-D			
IC1203	6-709-814-01	IC CXD9725M-HFL			
		< COIL >			
L1001	1-421-967-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q1001	8-729-808-42	TRANSISTOR 2SD1624-T			
Q1002	8-729-808-42	TRANSISTOR 2SD1624-T			
		< RESISTOR >			
R1001	1-216-001-00	RES-CHIP	10	5%	1/10W
R1002	1-249-381-11	CARBON	1	5%	1/4W F
R1003	1-249-381-11	CARBON	1	5%	1/4W F
R1004	1-216-025-11	RES-CHIP	100	5%	1/10W
R1005	1-216-025-11	RES-CHIP	100	5%	1/10W
R1006	1-216-025-11	RES-CHIP	100	5%	1/10W
R1007	1-216-025-11	RES-CHIP	100	5%	1/10W
R1008	1-216-033-00	RES-CHIP	220	5%	1/10W
R1012	1-216-079-00	RES-CHIP	18K	5%	1/10W
R1014	1-216-025-11	RES-CHIP	100	5%	1/10W
R1015	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1016	1-216-073-11	RES-CHIP	10K	5%	1/10W
R1017	1-216-079-00	RES-CHIP	18K	5%	1/10W
R1018	1-249-393-11	CARBON	10	5%	1/4W F
R1019	1-216-033-00	RES-CHIP	220	5%	1/10W
R1020	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1022	1-216-073-11	RES-CHIP	10K	5%	1/10W
R1023	1-216-025-11	RES-CHIP	100	5%	1/10W
R1026	1-216-025-11	RES-CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R1027	1-216-025-11	RES-CHIP	100	5%	1/10W
R1036	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R1039	1-216-083-00	RES-CHIP	27K	5%	1/10W
R1040	1-216-295-11	SHORT CHIP	0		
R1202	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1203	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1204	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1205	1-216-013-00	RES-CHIP	33	5%	1/10W
R1206	1-216-013-00	RES-CHIP	33	5%	1/10W
R1207	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1252	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1253	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1257	1-216-097-11	RES-CHIP	100K	5%	1/10W
		< ROTARY ENCODER >			
RV1001	1-418-400-11	ENCODER, ROTARY (TONE BASS)			
RV1002	1-418-400-11	ENCODER, ROTARY (TONE TREBLE)			
RV1006	1-418-400-11	ENCODER, ROTARY (INPUT SELECTOR)			
RV1007	1-418-725-41	ENCODER, ROTARY (12 TYPE) (VOLUME)			
		< RELAY >			
RY1001	1-755-486-11	RELAY			
		< SWITCH >			
S1018	1-771-349-21	SWITCH, KEYBOARD (MUTING)			
		< TRANSFORMER >			
T1001	1-445-015-11	TRANSFORMER, DC-DC CONVERTER			
**********					
	A-1254-375-A	POWER BOARD, COMPLETE			
		**********			
	1-533-313-11	HOLDER, FUSE			
	3-905-609-13	SCREW (TRANSISTOR)			
	4-974-510-01	SCREW (+BV 3X8 CU)			
		< CAPACITOR >			
⚠C1	1-165-529-11	MYLAR	0.22uF	10%	275V
⚠C2	1-165-529-11	MYLAR	0.22uF	10%	275V
C3	1-136-559-11	FILM	0.0047uF	5%	630V
C4	1-100-412-21	ELECT(BLOCK)	270uF		450V
C5	1-104-332-11	CERAMIC	470PF	10%	2KV
C6	1-107-909-11	ELECT	47uF	20%	50V
C7	1-107-906-11	ELECT	10uF	20%	50V
C8	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C9	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C10	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C11	1-117-697-51	CERAMIC	470PF	10%	250V
⚠C12	1-117-693-11	CERAMIC	100PF	10%	250V
C13	1-136-601-11	FILM	0.01uF	5%	630V
C14	1-107-444-11	CERAMIC	100PF	5%	2KV
C15	1-107-907-11	ELECT	22uF	20%	50V
C18	1-100-935-11	ELECT(BLOCK)	4700uF	20%	63V
C19	1-100-935-11	ELECT(BLOCK)	4700uF	20%	63V
C23	1-107-925-11	ELECT	1uF	20%	100V
⚠C24	1-165-529-11	MYLAR	0.22uF	10%	275V
C26	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V

POWER

Ref. No.	Part No.	Description			Remark
C27	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C30	1-136-559-11	FILM	0.0047uF	5%	630V
C35	1-165-883-11	CERAMIC CHIP	0.01uF	10%	630V
C36	1-107-907-11	ELECT	22uF	20%	50V
C48	1-107-911-11	ELECT	220uF	20%	50V
C53	1-107-909-11	ELECT	47uF	20%	50V
⚠C62	1-117-693-11	CERAMIC	100PF	10%	250V
⚠C63	1-117-693-11	CERAMIC	100PF	10%	250V
C92	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C100	1-100-412-21	ELECT(BLOCK)	270uF		450V
C200	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C201	1-107-914-11	ELECT	1000uF	20%	50V
C202	1-107-911-11	ELECT	220uF	20%	50V
C203	1-107-911-11	ELECT	220uF	20%	50V
C204	1-107-911-11	ELECT	220uF	20%	50V
C205	1-107-911-11	ELECT	220uF	20%	50V
C207	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C208	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C209	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C210	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C211	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C212	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C213	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C909	1-107-902-11	ELECT	1uF	20%	50V
C910	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C911	1-163-259-11	CERAMIC CHIP	220PF	5%	50V
C912	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C914	1-164-690-11	CERAMIC CHIP	0.0022uF	5%	50V
C938	1-117-696-51	CERAMIC	330PF	10%	250V
C940	1-117-695-51	CERAMIC	220PF	10%	250V
C941	1-107-914-11	ELECT	1000uF	20%	50V
⚠C957	1-117-627-31	FILM	0.0022uF	3%	1.2KV
		< CONNECTOR >			
CN1	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
CN11	1-568-106-11	PIN, CONNECTOR (3.96mm PITCH) 4P			
		< IC >			
CN123	8-759-474-09	IC SI-8050S-LF1101			
		< CONNECTOR >			
CNP95	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP96	1-564-320-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
CNP97	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
CNP98	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CNP99	1-784-922-11	PIN, CONNECTOR 5P			
		< DIODE >			
D1	6-500-241-01	DIODE SARS03			
D2	8-719-075-11	DIODE AG01ZV0			
D3	8-719-083-67	DIODE UDZSTE-1720B			
D4	6-501-193-01	DIODE 1SS355WTE-17			
D5	6-501-193-01	DIODE 1SS355WTE-17			
D6	8-719-083-67	DIODE UDZSTE-1720B			
D7	6-501-193-01	DIODE 1SS355WTE-17			
D8	6-501-193-01	DIODE 1SS355WTE-17			
D9	6-500-241-01	DIODE SARS03			
D10	6-501-193-01	DIODE 1SS355WTE-17			

Ref. No.	Part No.	Description				Remark
D13	6-501-193-01	DIODE 1SS355WTE-17				
D14	8-719-977-28	DIODE DTZ10B				
D15	8-719-978-33	DIODE DTZ-TT11-6.8B				
D20	6-501-193-01	DIODE 1SS355WTE-17				
D21	6-501-193-01	DIODE 1SS355WTE-17				
D23	6-500-593-31	DIODE 10EDB60-TA1B2				
D24	6-500-593-31	DIODE 10EDB60-TA1B2				
D27	6-500-392-01	DIODE RBV-606-01				
D29	6-501-413-01	DIODE FCU20UC20				
D32	6-501-193-01	DIODE 1SS355WTE-17				
D33	6-501-193-01	DIODE 1SS355WTE-17				
D200	8-719-080-53	DIODE RK36LF-B3				
D201	6-501-193-01	DIODE 1SS355WTE-17				
D202	8-719-053-18	DIODE 1SR154-400TE-25				
D203	8-719-053-18	DIODE 1SR154-400TE-25				
D904	6-501-193-01	DIODE 1SS355WTE-17				
D905	8-719-977-28	DIODE DTZ10B				
D906	8-719-083-85	DIODE UDZSTE-1722B				
D907	6-501-193-01	DIODE 1SS355WTE-17				
D908	6-501-193-01	DIODE 1SS355WTE-17				
D909	6-501-193-01	DIODE 1SS355WTE-17				
D910	8-719-069-56	DIODE UDZSTE-176.2B				
D942	8-719-080-53	DIODE RK36LF-B3				
		< EARTH TERMINAL >				
* EP1	1-537-738-21	TERMINAL, EARTH				
* EP2	1-537-738-21	TERMINAL, EARTH				
* EP4	1-537-738-21	TERMINAL, EARTH				
		< RESISTOR >				
⚠FR1	1-220-886-11	FUSIBLE	0.1	10%	1W	F
		< IC >				
IC1	6-707-742-01	IC STR-F6168-LF1352				
IC12	6-700-388-01	IC SE-B2				
IC13	6-700-388-01	IC SE-B2				
IC16	8-759-510-71	IC BA10358F-E2				
IC200	6-700-388-01	IC SE-B2				
IC901	6-706-348-01	IC STR-W6765N				
IC5223	8-759-245-86	IC TA79012S				
		< COIL >				
⚠L1	1-457-079-21	COIL, LINE FILTER				
⚠L6	1-457-079-21	COIL, LINE FILTER				
L201	1-456-349-11	INDUCTOR	150uH			
L202	1-414-398-11	INDUCTOR	10uH			
L203	1-414-398-11	INDUCTOR	10uH			
L204	1-414-398-11	INDUCTOR	10uH			
L205	1-414-398-11	INDUCTOR	10uH			
		< PHOTO COUPLER >				
PC2	6-600-438-01	PHOTO COUPLER TLP421F(D4-GR)				
PC3	6-600-438-01	PHOTO COUPLER TLP421F(D4-GR)				
PC901	6-600-438-01	PHOTO COUPLER TLP421F(D4-GR)				
PC902	6-600-438-01	PHOTO COUPLER TLP421F(D4-GR)				

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1	8-729-931-29	TRANSISTOR 2SC4132-Q-T100			
Q2	8-729-820-61	TRANSISTOR 2SB1124-T			
Q5	8-729-034-61	FET 2SK2312			
Q6	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L			
Q7	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L			
Q8	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L			
Q9	8-729-024-91	TRANSISTOR 2SC2712-GL-TE85L			
Q901	8-729-142-51	TRANSISTOR 2SD1616A-TP-LK			
Q903	8-729-038-28	TRANSISTOR RT1N441C-TP-1			
		< RESISTOR >			
⚠R1	1-219-759-11	METAL	1M	5%	1/2W F
⚠R2	1-245-574-51	METAL OXIDE	220K	5%	2W F
R3	1-216-801-11	METAL CHIP	22	5%	1/10W
R4	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R6	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R7	1-216-813-11	METAL CHIP	220	5%	1/10W
⚠R8	1-216-341-11	METAL OXIDE	0.22	5%	1W F
⚠R9	1-216-343-00	METAL OXIDE	0.33	5%	1W F
⚠R10	1-245-574-51	METAL OXIDE	220K	5%	2W F
⚠R11	1-245-574-51	METAL OXIDE	220K	5%	2W F
R12	1-216-809-11	METAL CHIP	100	5%	1/10W
⚠R13	1-260-294-11	CARBON	1.5	5%	1/2W F
⚠R14	1-260-076-11	CARBON	10	5%	1/2W F
R15	1-216-025-11	RES-CHIP	100	5%	1/10W
R16	1-216-025-11	RES-CHIP	100	5%	1/10W
R17	1-216-037-00	RES-CHIP	330	5%	1/10W
R18	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R19	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R20	1-216-834-11	METAL CHIP	12K	5%	1/10W
R21	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R22	1-216-834-11	METAL CHIP	12K	5%	1/10W
R23	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R24	1-216-821-11	METAL CHIP	1K	5%	1/10W
R25	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R26	1-216-821-11	METAL CHIP	1K	5%	1/10W
R27	1-216-821-11	METAL CHIP	1K	5%	1/10W
R28	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R29	1-216-845-11	METAL CHIP	100K	5%	1/10W
R30	1-216-833-11	METAL CHIP	10K	5%	1/10W
R31	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R32	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R33	1-216-833-11	METAL CHIP	10K	5%	1/10W
R34	1-216-801-11	METAL CHIP	22	5%	1/10W
R37	1-216-833-11	METAL CHIP	10K	5%	1/10W
R38	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R39	1-216-841-11	METAL CHIP	47K	5%	1/10W
R45	1-216-109-00	RES-CHIP	330K	5%	1/10W
R46	1-216-109-00	RES-CHIP	330K	5%	1/10W
R47	1-216-797-11	METAL CHIP	10	5%	1/10W
R56	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R57	1-216-109-00	RES-CHIP	330K	5%	1/10W
R58	1-216-109-00	RES-CHIP	330K	5%	1/10W
R59	1-260-127-11	CARBON	220K	5%	1/2W F
R60	1-216-833-11	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
⚠R61	1-260-105-11	CARBON	3.3K	5%	1/2W F
R62	1-216-801-11	METAL CHIP	22	5%	1/10W
R63	1-216-801-11	METAL CHIP	22	5%	1/10W
R64	1-216-797-11	METAL CHIP	10	5%	1/10W
R65	1-216-797-11	METAL CHIP	10	5%	1/10W
R66	1-216-797-11	METAL CHIP	10	5%	1/10W
R70	1-216-833-11	METAL CHIP	10K	5%	1/10W
R73	1-216-833-11	METAL CHIP	10K	5%	1/10W
R91	1-216-817-11	METAL CHIP	470	5%	1/10W
R92	1-216-817-11	METAL CHIP	470	5%	1/10W
R200	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R201	1-216-817-11	METAL CHIP	470	5%	1/10W
R202	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R203	1-216-835-11	METAL CHIP	15K	5%	1/10W
R204	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R911	1-216-864-11	SHORT CHIP	0		
R912	1-247-831-11	CARBON	1K	5%	1/4W
R913	1-249-416-11	CARBON	820	5%	1/4W
R914	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
⚠R915	1-260-330-11	CARBON	1.5K	5%	1/2W F
⚠R929	1-217-639-00	FUSIBLE	2.2	5%	1/4W F
		< TRANSFORMER >			
⚠T901	1-445-250-11	TRANSFORMER, POWER			
⚠T902	1-445-249-11	TRANSFORMER, POWER			
		< THERMISTOR >			
⚠TH1	1-809-430-11	THERMISTOR 10D-11			
**********					
		SW BOARD			
		*********			
		< CONNECTOR >			
* CNP57	1-566-664-11	PIN, CONNECTOR (3.96mm PITCH) 4P			
		< SWITCH >			
⚠S01	1-786-226-11	SWITCH, AC POWER PUSH (POWER)			
**********					
		MISCELLANEOUS			
		**********			
103	1-543-793-11	FILTER, CLAMP (FERRITE CORE)			
⚠151	1-819-867-11	INLET, AC 2P (~ AC IN)			
159	1-543-793-11	FILTER, CLAMP (FERRITE CORE)			
⚠F901	1-532-506-33	FUSE (T6.3AL/250V)			
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Ref. No.	Part No.	Description	Remark
		ACCESSORIES	
		**********	
	1-480-076-11	COMMANDER, STANDARD (RM-AAU012) (including BATTERY CASE)	
	1-542-644-11	MEASUREMENT MIC (STEREO) (ECM-AC1)	
⚠	1-820-797-11	ADAPTOR, CONVERSION (EURO ECU 6) (UK)	
⚠	1-831-474-11	CORD, POWER	
	2-319-528-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH, SPANISH,GERMAN)	
	2-319-528-21	MANUAL, INSTRUCTION (ITALIAN,DUTCH, POLISH,SWEDISH) (AEP)	

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the top of the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2007.04	New