

# CAV-M1000ES

## SERVICE MANUAL

US Model

Ver. 1.2 2004.10



### SPECIFICATIONS

#### CAV-M1000ES Main Unit

##### Audio (each channel)

##### Continuous average power output (FTC)

All channels: 30 W per channel min. RMS at 8 ohms, any two channels driven from 20 Hz to 20 kHz with no more than 0.09 % THD.

40 W per channel min. RMS at 4 ohms, any two channels driven from 20 Hz to 20 kHz with no more than 0.7 % THD.

Frequency response: 5 Hz to 70 kHz  $\pm$  3dB

Input sensitivity: 160 mV for 1 W output, 650 mV for full output (30 W) with volume control set to maximum.

Input impedance: 20 k ohms

Signal-to-noise ratio: 92 dB (A-weighted)

Bass control range: 100 Hz  $\pm$  14 dB, 2 dB step

Treble control range: 10 kHz  $\pm$  14 dB, 2 dB step

##### SOURCE 1-8 and ZONE 1-6 AUDIO OUT

Frequency response: 5 Hz to 55 kHz  $\pm$  3dB

THD @ 2 V: 0.08 %

Signal-to-noise ratio: 102 dB (A-weighted @ 2 V)

##### Video

Input/output impedance:

75 ohm

Video insertion loss: 0 dB (50 Hz - 6 MHz)

#### General

12V trigger: 300 mA max each zone, total 1.2 A max

Power requirements: 120 V 60 Hz

Power consumption: 540 W

Dimensions: 430  $\times$  175  $\times$  433 mm  
(16 <sup>7</sup>/<sub>8</sub>  $\times$  6 <sup>7</sup>/<sub>8</sub>  $\times$  17 <sup>1</sup>/<sub>16</sub> inches)  
(w/h/d)

Mass: 24 kg (52 lbs 15 oz)

#### RM-TP100 RF Remote Control

Interface system: Liquid crystal touch panel

Liquid crystal size: 5.2 inches (320  $\times$  240 dots)

Touch panel: Resistance sensible system  
Analog type

Maximum range from the RF Antenna:

7 m (22 feet 11 <sup>1</sup>/<sub>2</sub> inches)

(The maximum range differs depending on the environment where you use the RF Remote Control.)

Power supply: Rechargeable (Ni-MH) battery

Maximum external dimensions:

227  $\times$  146  $\times$  45 mm

(9  $\times$  5 <sup>3</sup>/<sub>4</sub>  $\times$  1 <sup>7</sup>/<sub>8</sub> inches)

(w/h/d, including projecting parts and controls)

Mass: 0.8 kg (1 lbs 13 oz)

(Main unit only, including the rechargeable battery)

Operating temperature:

5°C to 35°C (41°F to 95°F)

#### Composition

- CAV-M1000ES Main Unit
- RM-TP100 RF Remote Control
- RMB-TP100 Charger cradle for the RF Remote Control
- Ferrite core
- AN-M1000 RF Antenna
- AC power cord
- Plug-in 4-terminal screw-type connector for speaker (6)
- Installation Manual

Design and specifications are subject to change without notice.

## CUSTOM INTEGRATED AV SYSTEM

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Audio Group  
Published by Sony Engineering Corporation

# SONY®

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

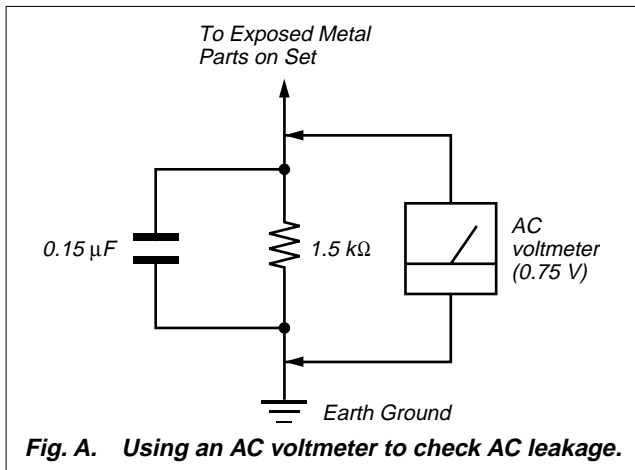
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.

Check leakage as described below.

## LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



## Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

## 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)

## **LF** : 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 viscous (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  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  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

<b>1. SERVICING NOTE</b> .....	4	3-27. Printed Wiring Board – SPEAKER OUT Section – .....	40
<b>2. GENERAL</b> .....	8	3-28. Schematic Diagram – SPEAKER OUT Section – .....	41
<b>3. DIAGRAMS</b>		3-29. Printed Wiring Board – RJ45 Section – .....	42
3-1. Block Diagram – MAIN/POWER Section – .....	14	3-30. Schematic Diagram – RJ45 Section – .....	43
3-2. Block Diagram – AUDIO I/O Section – .....	15	3-31. Printed Wiring Board – PRE OUT BRD Section – .....	44
3-3. Block Diagram – VIDEO I/O Section – .....	16	3-32. Schematic Diagram – PRE OUT BRD Section – .....	45
3-4. Block Diagram – AMP/SPEAKER/PRE OUT Section – .....	17	3-33. Printed Wiring Board – RS232C/12V TRIGGER Section – .....	46
3-5. Block Diagram – IR OUT/RS232C/12V TRIGGER Section – .....	18	3-34. Schematic Diagram – RS232C/12V TRIGGER Section – .....	47
3-6. Block Diagram – RF REMOTE/RF ANTENNA Section – .....	19	3-35. Printed Wiring Board – IR OUT Section – .....	48
3-7. Printed Wiring Board – AMP Section – .....	20	3-36. Schematic Diagram – IR OUT/CONNECTOR Section – .....	49
3-8. Schematic Diagram – AMP Section – .....	21	3-37. Printed Wiring Board – CONNECTOR Section – .....	50
3-9. Printed Wiring Board – AMP BASE Section (SIDE A) – .....	22	3-38. Printed Wiring Board – REGULATOR Section – .....	51
3-10. Printed Wiring Board – AMP BASE Section (SIDE B) – .....	23	3-39. Schematic Diagram – REGULATOR Section – .....	52
3-11. Schematic Diagram – AMP BASE Section – .....	24	3-40. Printed Wiring Board – AC INLET Section – .....	53
3-12. Printed Wiring Board – AUDIO I/O BRD Section – .....	25	3-41. Schematic Diagram – AC INLET Section – .....	54
3-13. Schematic Diagram – AUDIO I/O BRD Section (1/4) – .....	26	3-42. Printed Wiring Board – RF ANTENNA Section (AN-M1000) – .....	55
3-14. Schematic Diagram – AUDIO I/O BRD Section (2/4) – .....	27	3-43. Schematic Diagram – RF ANTENNA Section (AN-M1000) – .....	55
3-15. Schematic Diagram – AUDIO I/O BRD Section (3/4) – .....	28	3-44. Printed Wiring Board – RF REMOTE CONTROL Section (RM-TP100) – .....	56
3-16. Schematic Diagram – AUDIO I/O BRD Section (4/4) – .....	29	3-45. Schematic Diagram – RF REMOTE CONTROL Section (RM-TP100) – .....	57
3-17. Printed Wiring Board – VIDEO I/O BRD Section – .....	30	3-46. Printed Wiring Board – PA UNIT Section (SIDE A) – .....	58
3-18. Schematic Diagram – VIDEO I/O BRD Section (1/2) – .....	31	3-47. Printed Wiring Board – PA UNIT Section (SIDE B) – .....	59
3-19. Schematic Diagram – VIDEO I/O BRD Section (2/2) – .....	32	3-48. Schematic Diagram – PA UNIT Section (1/2) – .....	60
3-20. Printed Wiring Board – DISPLAY Section (SIDE A) – .....	33	3-49. Schematic Diagram – PA UNIT Section (2/2) – .....	61
3-21. Printed Wiring Board – DISPLAY Section (SIDE B) – .....	34	<b>4. EXPLODED VIEWS</b>	
3-22. Schematic Diagram – DISPLAY Section (1/3) – .....	35	4-1. Overall Section .....	70
3-23. Schematic Diagram – DISPLAY Section (2/3) – .....	36	4-2. Front Panel Section .....	71
3-24. Schematic Diagram – DISPLAY Section (3/3) – .....	37	4-3. Chassis Section .....	72
3-25. Printed Wiring Board – FRONT PANEL Section – .....	38	4-4. Back Panel Section .....	73
3-26. Schematic Diagram – FRONT PANEL Section – .....	39	4-5. RF Remote Control (RM-TP100) Section .....	74
		4-6. Charger Cradle (RMB-TP100) Section .....	75
		4-7. RF Antenna (AN-M1000) Section .....	76
		<b>5. ELECTRICAL PARTS LIST</b> .....	77

## SECTION 1 SERVICING NOTE

### Main Unit

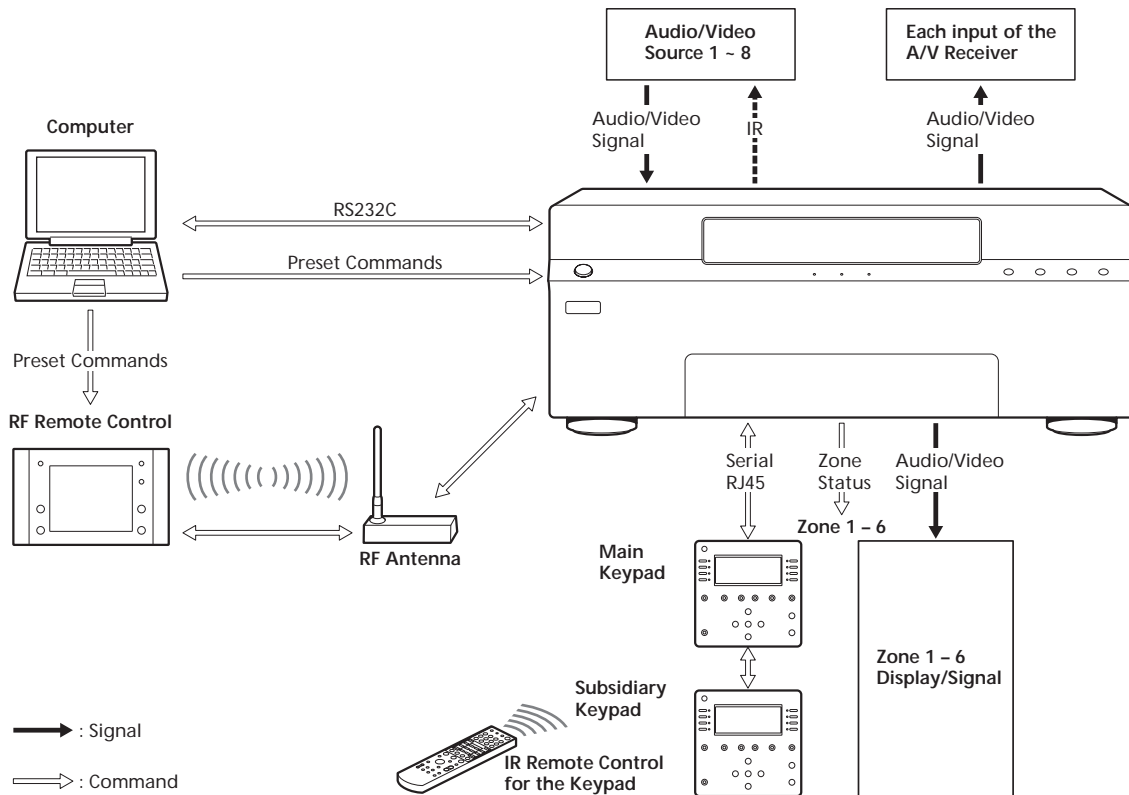
- **Zones:** Up to six zones receive up to eight source audio/video signals.
  - **Preamp Outs:** Four fixed outputs for zones 1 to 4, and two variable outputs for zones 5 and 6.
  - **Amplification:** All six zones have built-in stereo audio amplifiers at 30 Watts per channel.
  - **Video outputs** for all six zones.
  - **Keypad connections:** RJ45 connectors for all six zones using CAT5 cables.
- **Sources:** Up to eight audio/video sources can be selected by all six zones.
- **Remote code entry:** Remote code commands can be learned by the Main Unit.
  - on your computer
  - on the Main Unit
- **12 V trigger:** Six zone-specific 12 V status outputs; each 300 mA max, total 1.2 A.
- **RS232C port (Front):** Allows you to connect the Main Unit to your computer to update the settings or firmware.
- **RS232C ports (Rear):** Allow you to connect a Sony DVD Mega Changer (ex. DVP-CX777ES) and a Sony A/V Receiver (ex. STR-DA5000ES) to the Main Unit.

### Keypad

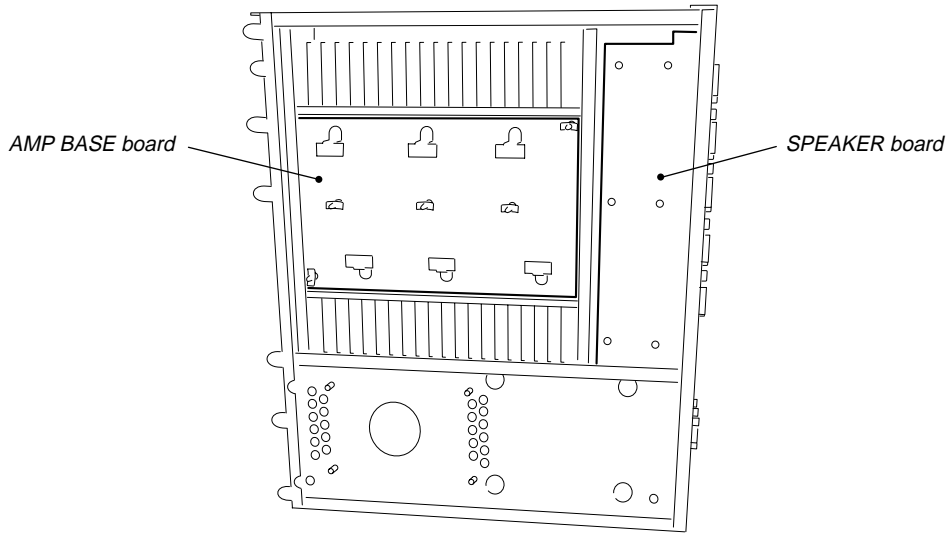
- LCD contrast adjustment.
- Connecting IR IN to an IR emitter enables you to use the IR Remote Control for the additional range.
- RJ45 connectors enable you to use two Keypads in a single zone.

### RF Remote Control

- LCD panel configurable through your computer.
- Controls the audio/video sources in the main zone and the other zones.
- Customize touch panels via an RS232C cross cable connected to your computer.



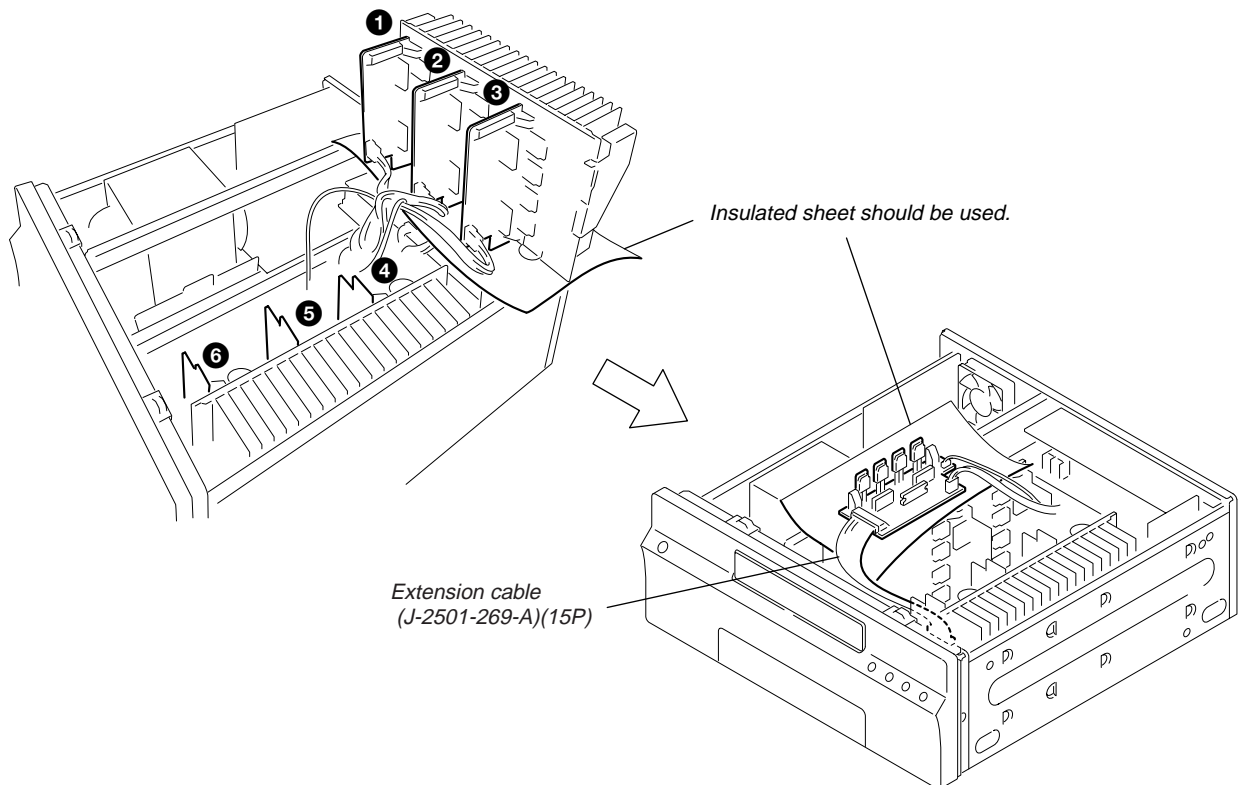
• SERVICE POSITION OF AMP BASE BOARD AND SPEAKER BOARD



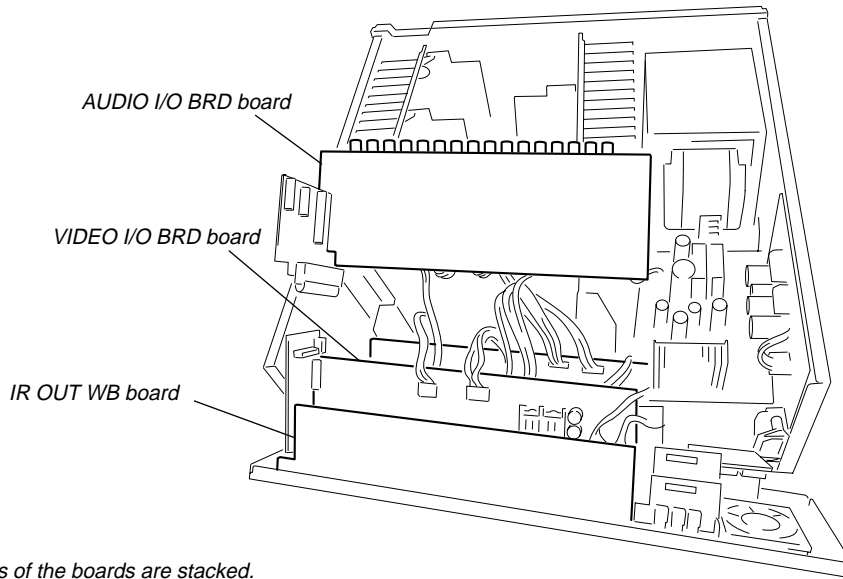
The AMP BASE board and the SPEAKER board can be checked after the bottom panel is removed from the unit.

• SERVICE POSITION OF AMP BOARD

The six pieces of the AMP board are used as shown from No. ① to ⑥ check only the defective AMP board by inserting the extension cable.



## • SERVICE POSITION OF BACK PANEL SIDE BOARD

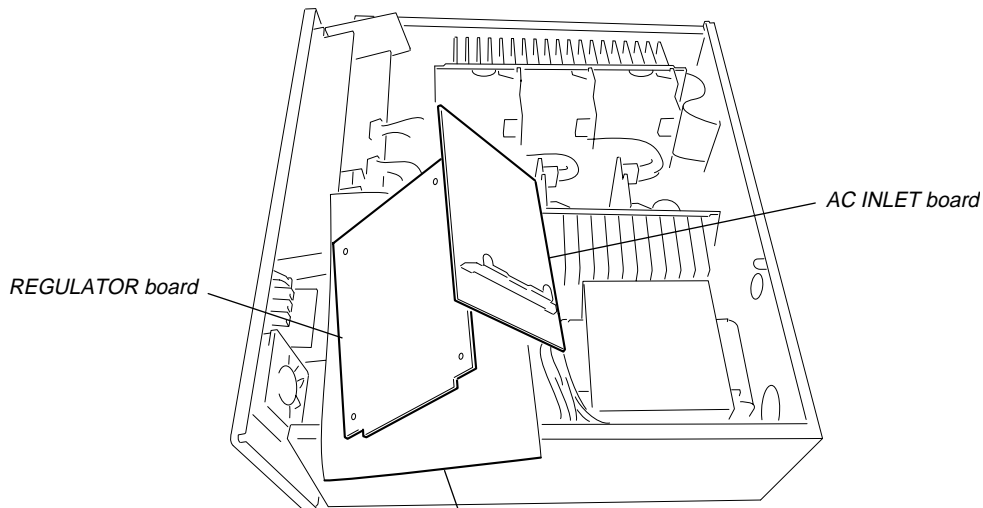


Six pieces of the boards are stacked.

- Check the IR OUT WB board and the VIDEO I/O BRD board in the state as shown. To check the portions that are not visible from outside, remove the two boards together from the back panel and check those portions.
- Check the AUDIO I/O BRD board by removing it independently from the back panel, as shown in the illustration.
- Check the RJ45 board and the PRE OUT BRD board in the same manner as the procedure of checking the AUDIO I/O BRD board.
- Check the SPEAKER board by removing the bottom panel.

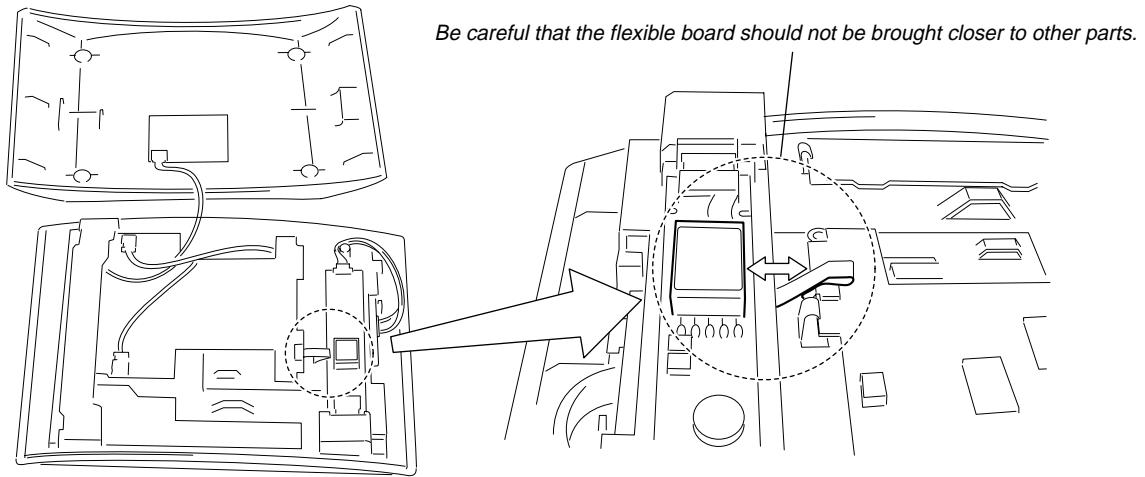
## • SERVICE POSITION OF AC INLET BOARD

Check the AC INLET board by removing it together with the REGULATOR board from the chassis.

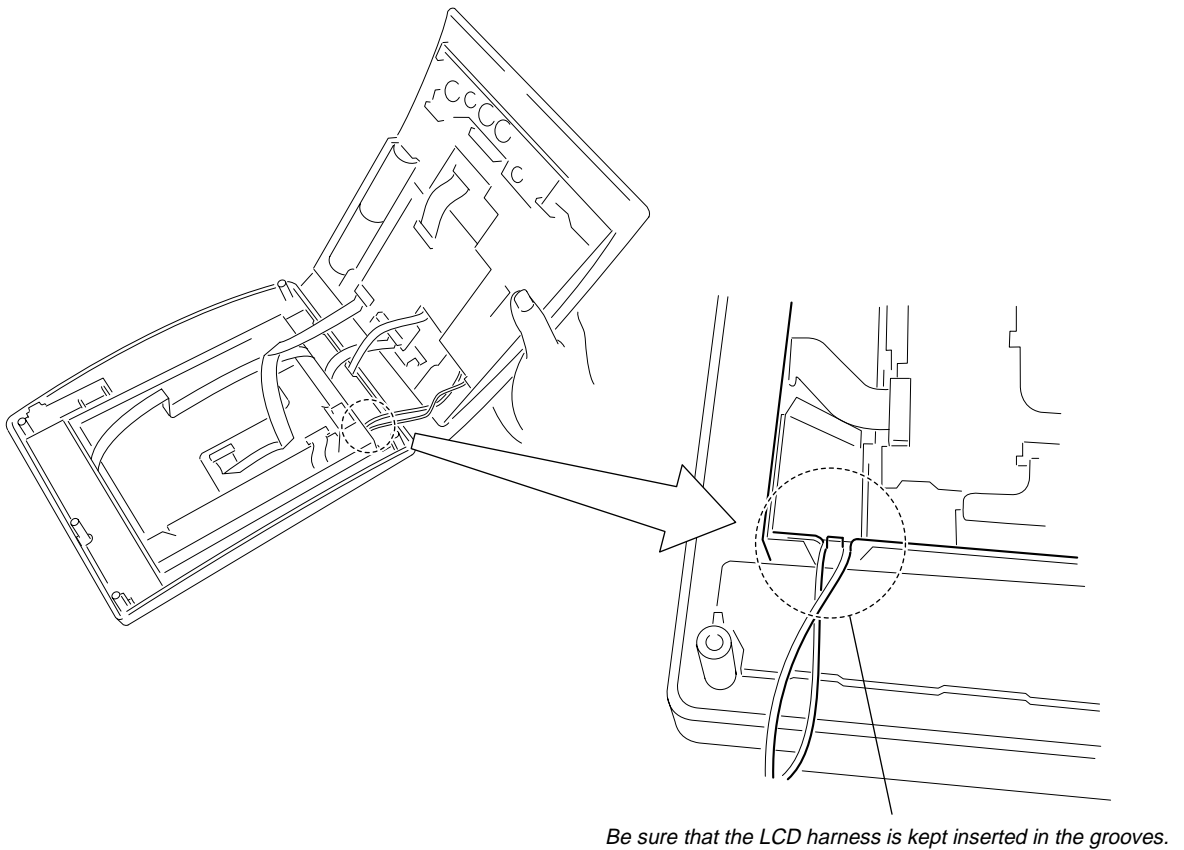


Insulated sheet should be used.

• CAUTIONS ON ASSEMBLING THE COVER

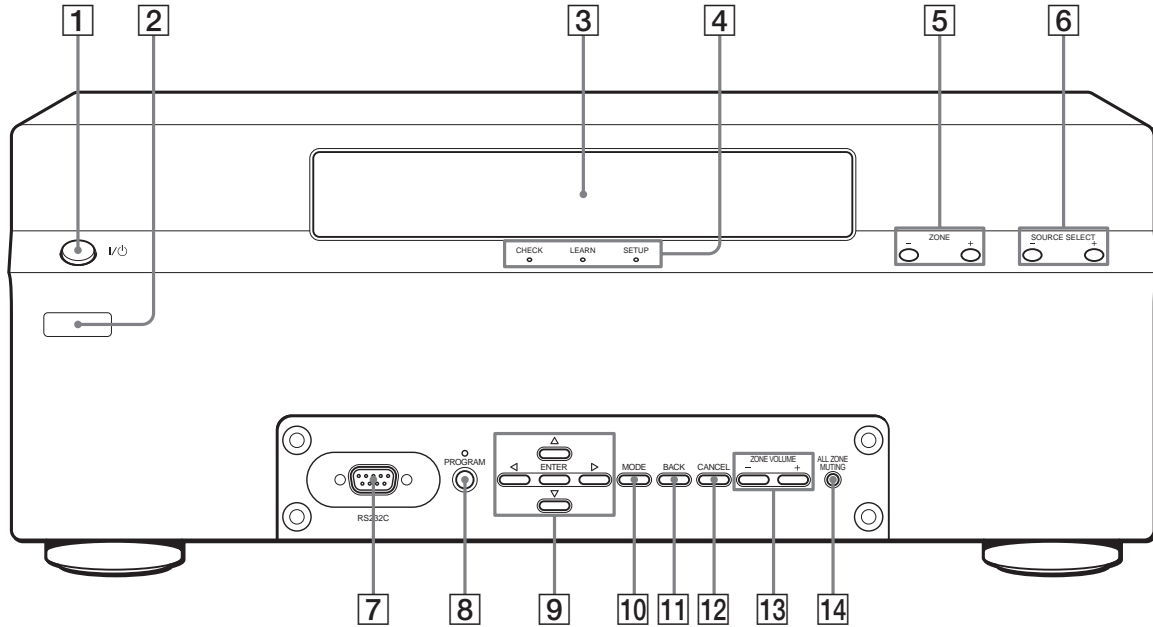


• CAUTIONS ON REPLACING THE LCD BLOCK



This section is extracted from instruction manual.

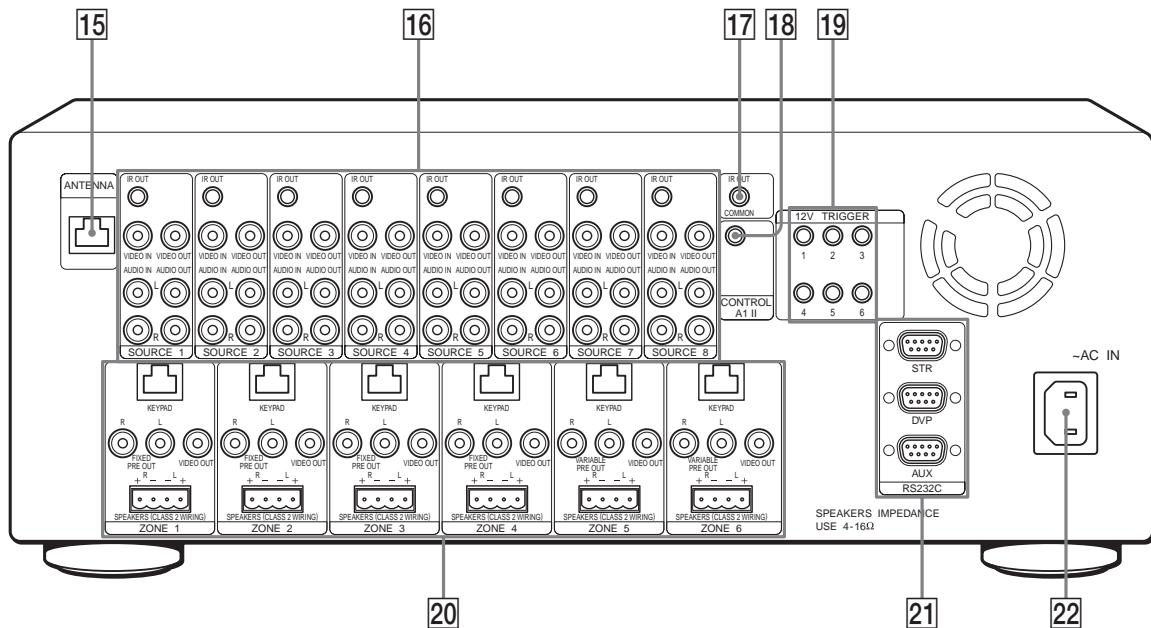
Front panel of the Main Unit



- 1 I/⏻ (POWER) switch**  
Press to turn the power on or off.
- 2 Learning IR window**  
Used to input remote codes into the Main Unit.
- 3 Display window**  
Displays various information.
- 4 Mode indicators**  
Display the current mode. These indicators turn off in the NORMAL mode.
- 5 ZONE +/-**  
Press to select the zone in the NORMAL mode.
- 6 SOURCE SELECT +/-**  
Press to select the source component in the NORMAL mode.
- 7 RS232C connector**  
Used to update the firmware of the Main Unit and to upload/download setup data from a computer using an RS232C cross cable.
- 8 PROGRAM**  
Press to initiate a firmware update.
- 9 Cursor/ENTER**  
Press to select a menu.
- 10 MODE**  
Press repeatedly to select the mode.
- 11 BACK**  
Press to return to the previous layer of the menu.
- 12 CANCEL**  
Press to cancel the present operation and return to the NORMAL mode.
- 13 ZONE VOLUME +/-**  
Press to adjust the volume of the selected zone.
- 14 ALL ZONE MUTING**  
Press to set muting on or off in all zones.



## Rear panel of the Main Unit

**15** ANTENNA (page 18)

Hooks up to the RF Antenna using a shielded CAT5 cable, to operate the RF Remote Control.

**16** SOURCE connection jacks**a) IR OUT (page 17)**

A 3.5 mm monaural mini jack for the connection of an IR emitter to control the eight source components individually. IR signals received from a zone will be routed to the IR sensor of the source component.

**b) VIDEO IN (page 17)**

An RCA jack for composite video input from a source component.

**c) VIDEO OUT (page 18)**

An RCA jack for connecting a video source to another local component.

**Note**

This is a buffered video connection, and this loop-through is active even when the Main Unit is turned off, as long as the AC power cord is plugged in.

**d) AUDIO IN (page 17)**

RCA jacks for stereo line level audio input from a source component.

**e) AUDIO OUT (page 18)**

RCA jacks for connecting an audio source to another local component.

**Note**

This is a buffered audio connection, and this loop-through is active even when the Main Unit is turned off, as long as the AC power cord is plugged in.

**17** IR OUT COMMON (page 18)

A 3.5 mm monaural mini jack for the connection of an IR emitter to control any IR-controlled component such as a lighting system or motorized screen.

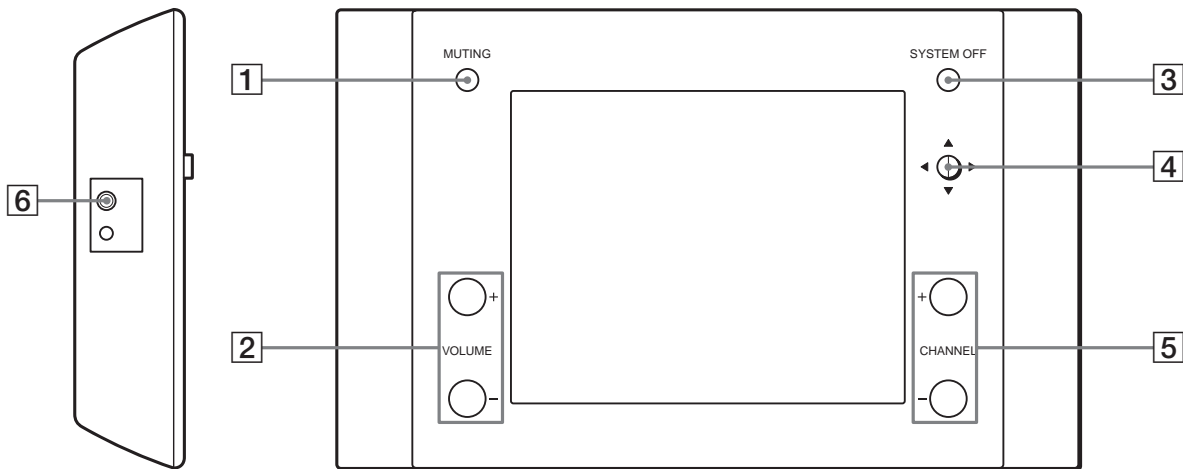
**18** CONTROL A1II (page 17)

Hooks up to a Sony CD Mega Changer (ex. CDP-CX455) equipped with a matching jack allowing the Main Unit to control the source component.

**19** 12 V TRIGGER (page 18)

Provide control outputs of +12 V DC that turn devices on and off in sync with the zone to drive voltage sensing relay modules and AC strips.

## RF Remote Control



### 1 MUTING

Press to mute the audio.

### 2 VOLUME +/-

Press to adjust the volume.

### 3 SYSTEM OFF

Press to shut down the system.

### 4 Cursor/ENTER

Press to control the source.

### 5 CHANNEL +/-

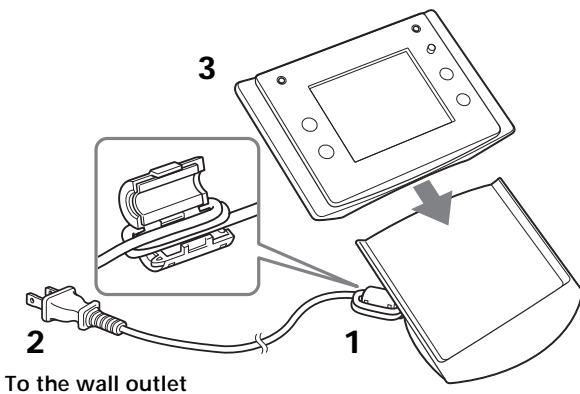
Press to control the source.

### 6 RS232C connector

Hook up a computer using the dedicated RS232C cable.

## Charging the internal battery

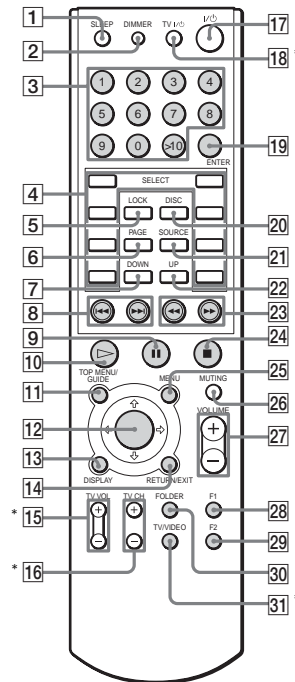
- 1 Attach the supplied ferrite core to the AC power cord of the charger cradle, then wrap the AC power cord twice around the ferrite core.
- 2 Connect the AC power cord of the charger cradle to the wall outlet.
- 3 Place the RF Remote Control on the charger cradle. The internal battery starts charging. It takes approximately 16 hours for full charging. Charge for considerable time when you use it for the first time.



## Meaning of icons shown on the top of the display window

Icon	Meaning
	Communication between the RF Remote Control and the Main Unit is completed.
	Communication between the RF Remote Control and the Main Unit has been interfered with. Or the distance from the RF Remote Control to the RF Antenna is way too far. → Place the RF Antenna closer to the RF Remote Control. → Avoid interference of metal objects such as a cabinet between the RF Antenna and the RF Remote Control. Other radio waves have been interfering. → Move the RF Remote Control about 1 inch to the left to the right or up or down. Doing so may solve the problem.
	Some kind of trouble has occurred. Contact your nearest Sony dealer.
	The internal battery is being charged on the charger cradle.
	The remaining power of the battery is low. → Charge the battery by placing the RF Remote Control on the charger cradle.

## IR Remote Control for Keypads



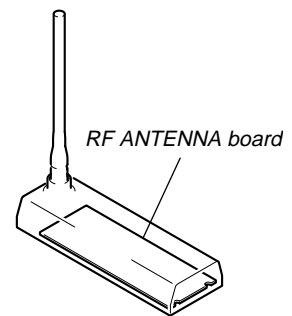
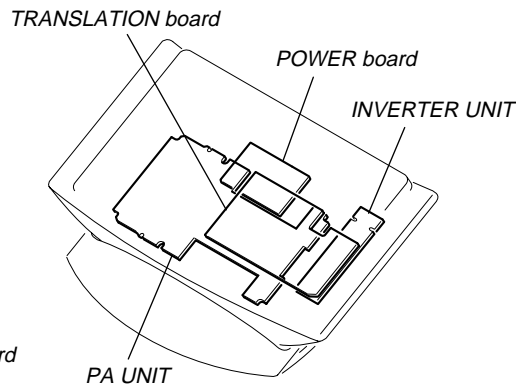
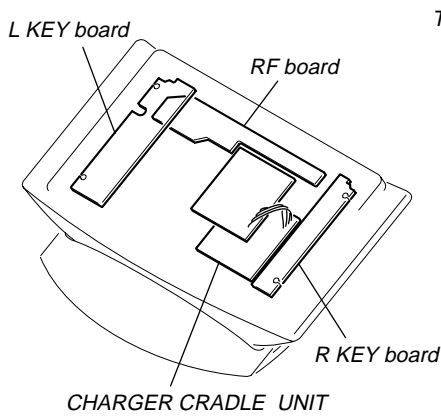
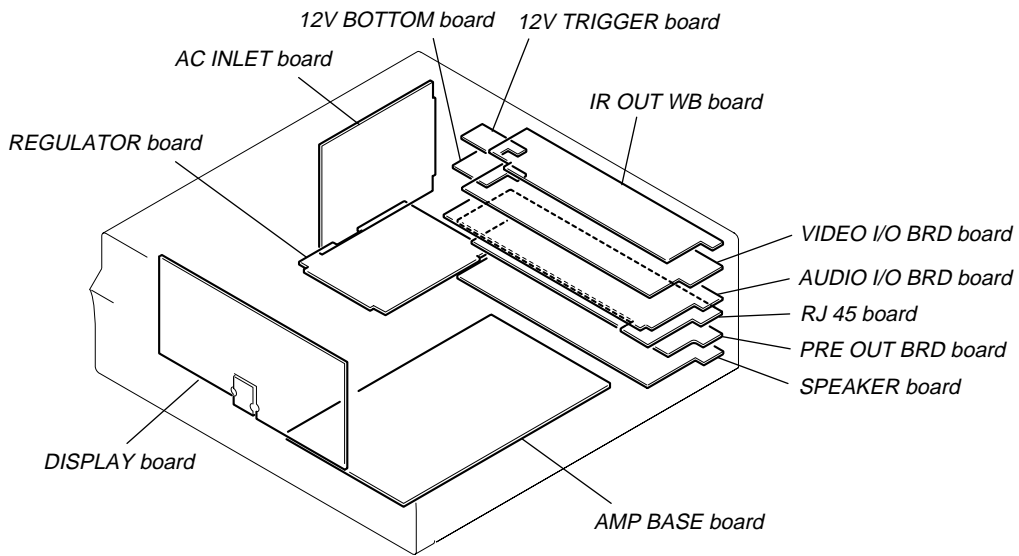
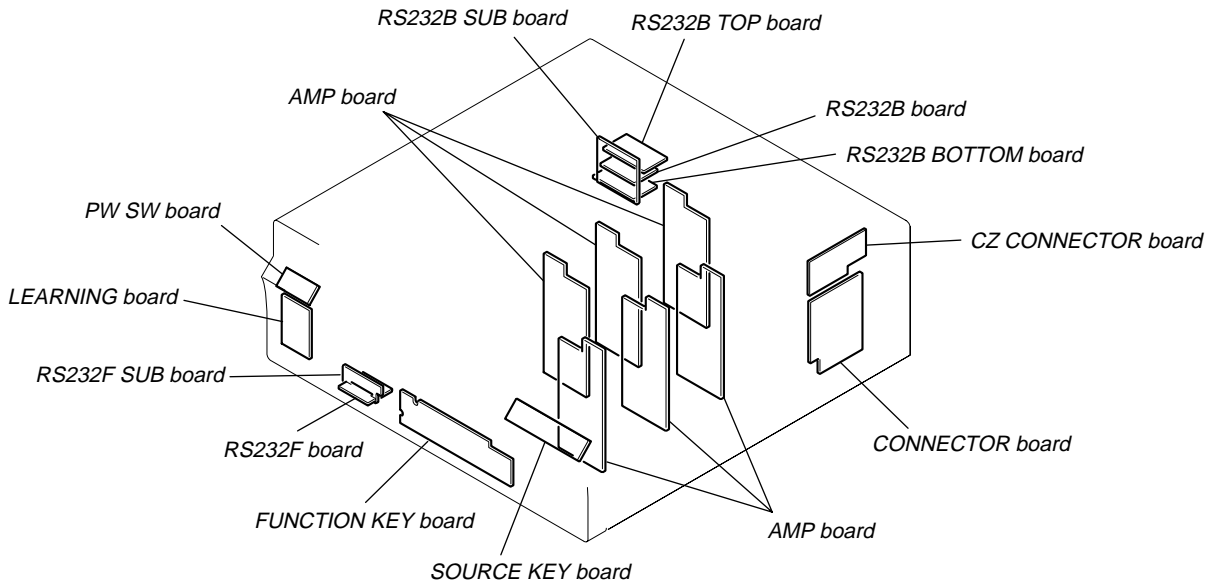
\* Only a Sony TV monitor can be controlled with these buttons.

Buttons marked in gray are used to control the source components.

- 1 SLEEP**  
Press to activate the sleep function that turns off the Keypad automatically after the specified duration. The time changes as shown below.  
2:00 → 1:30 → 1:00 → 0:30 → OFF
- 2 DIMMER**  
Press repeatedly to change the brightness of the LCD backlight.
- 3 Numeral**  
Press to select a number, representing, for example, a desired track of the source.
- 4 SELECT**  
Press to select a menu on the display on the LCD, such as a source menu, a disc title list, etc.
- 5 LOCK**  
Press to lock the selected source.
- 6 PAGE**  
Press to return to the previous menu or to view the current status of the disc title list or the preset station list. If there is no list, only a source name will be displayed.
- 7 DOWN**  
Press to scroll the LCD menu down.
- 8 ◀▶**  
Press to locate a specific track of the source or to select a preset station.
- 9 ■ (PAUSE)**  
Press to pause the playback of the source.
- 10 ▶ (PLAY)**  
Press to operate the selected source.
- 11 TOP MENU/GUIDE**  
Press to display the top menu while using a source component such as a DVD player.
- 12 CURSOR/ENTER**  
Press to select a menu while using a source component such as a DVD player.
- 13 DISPLAY**  
Press to display on-screen messages from equipment such as a DVD player. You cannot control commands, such as PROGRAM, SHUFFLE, REPEAT and A-B REPEAT of the DVD Mega Changer that appear on the display when you press DISPLAY.
- 14 RETURN/EXIT**  
Press to return to the previous menu screen (level) or to quit the menu function while using a source component such as a DVD player.
- 15 TV VOL +/-**  
Press to adjust the Sony TV volume.
- 16 TV CH +/-**  
Press to change the Sony TV channel.
- 17 I/⏻ switch**  
Press to turn the Keypad on/off.
- 18 TV I/⏻ switch**  
Press to turn the Sony TV on/off.
- 19 ENTER**  
Press to confirm the selection.
- 20 DISC**  
Press to select a disc of a DVD/CD Mega Changer.
- 21 SOURCE**  
Press to return to the source components list screen.
- 22 UP**  
Press to scroll the LCD menu up.
- 23 ◀▶▶▶**  
Press to locate a portion you want to play within a track of the source.
- 24 ■ (STOP)**  
Press to stop the current playback.
- 25 MENU**  
Press to display a menu while using a source component such as a DVD player.
- 26 MUTING**  
Press to mute the speaker output in a zone.
- 27 VOLUME +/-**  
Press to adjust the volume in a zone.
- 28 F1**  
A button reserved for source components.
- 29 F2**  
A button reserved for source components.
- 30 FOLDER**  
Press to move to the FOLDER screen while using a DVD player.
- 31 TV/VIDEO**  
Press to switch signals between TV input and Video input of the Sony TV monitor.

**SECTION 3  
DIAGRAMS**

• **Circuit Board Location**






**THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.**  
**(In addition to this, the necessary note is printed in each block.)**





MEMO

**For Schematic Diagrams.**

**Note:**



- All capacitors are in  $\mu\text{F}$  unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{ W}$  or less unless otherwise specified.
- % : indicates tolerance.
- $\Delta$  : internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : panel designation.

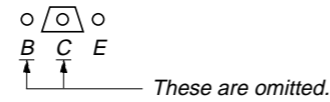
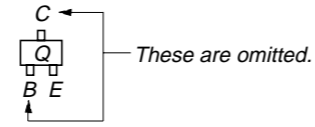
**Note:** The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

-  : B+ Line.
-  : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
 No mark: POWER ON  
 \* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path.  
 : AUDIO  
 : VIDEO

**For Printed Wiring Boards.**

**Note:**

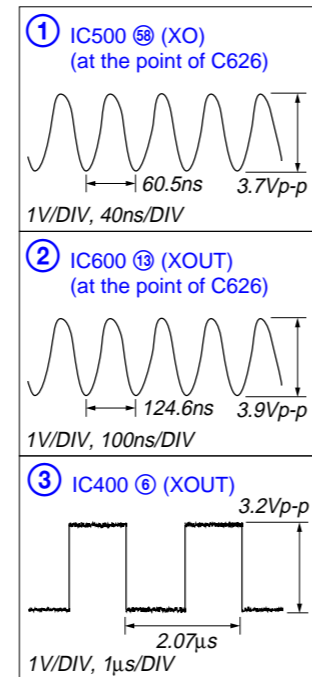
-  : parts extracted from the component side.
- $\circ$  : Through hole.
- $\Delta$  : internal component.
-  : Pattern from the side which enables seeing.



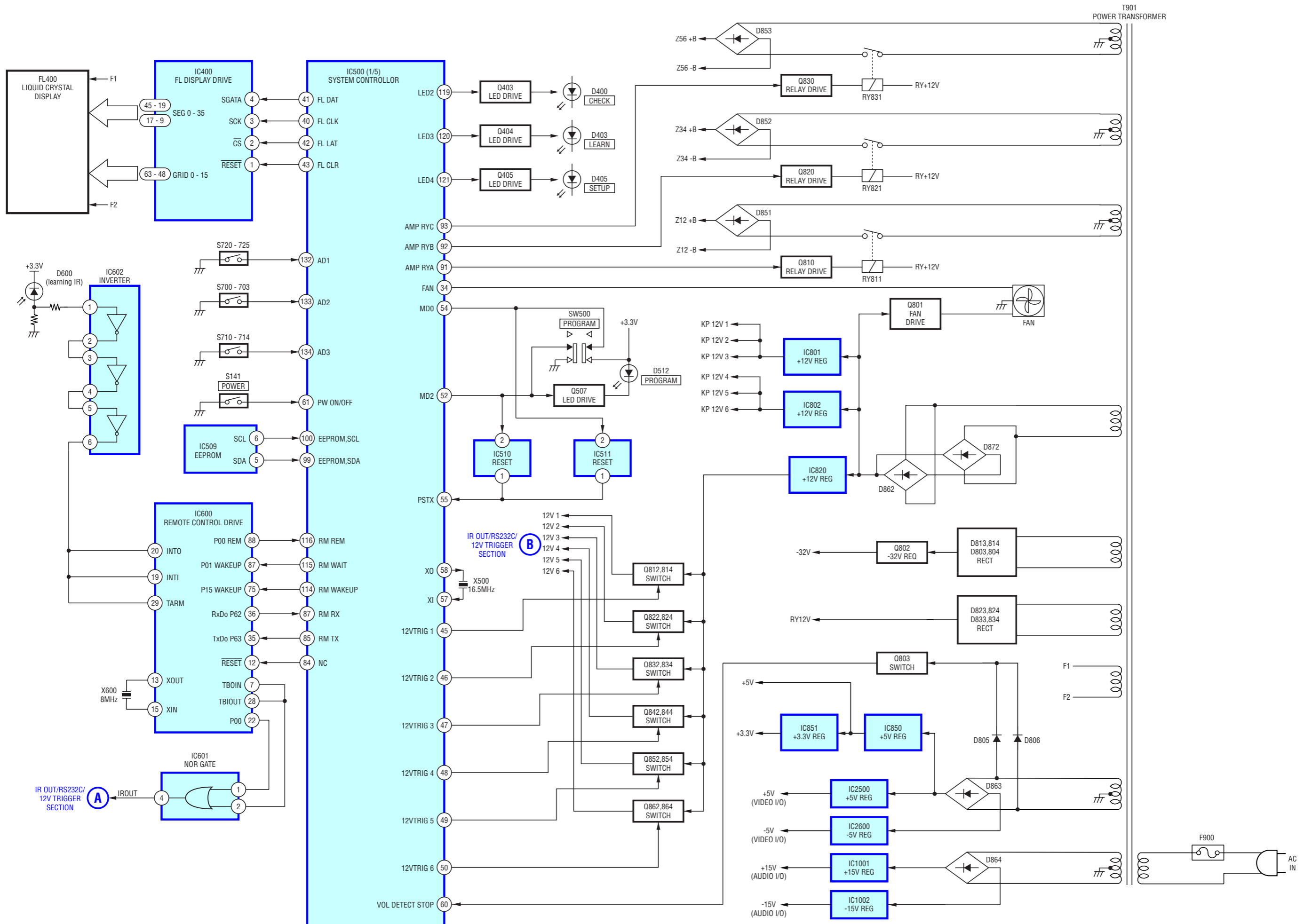
**Caution:**  
 Pattern face side: Parts on the pattern face side seen from (Side A) the pattern face are indicated.  
 Parts face side: Parts on the parts face side seen from (Side B) the parts face are indicated.

• **Waveforms**

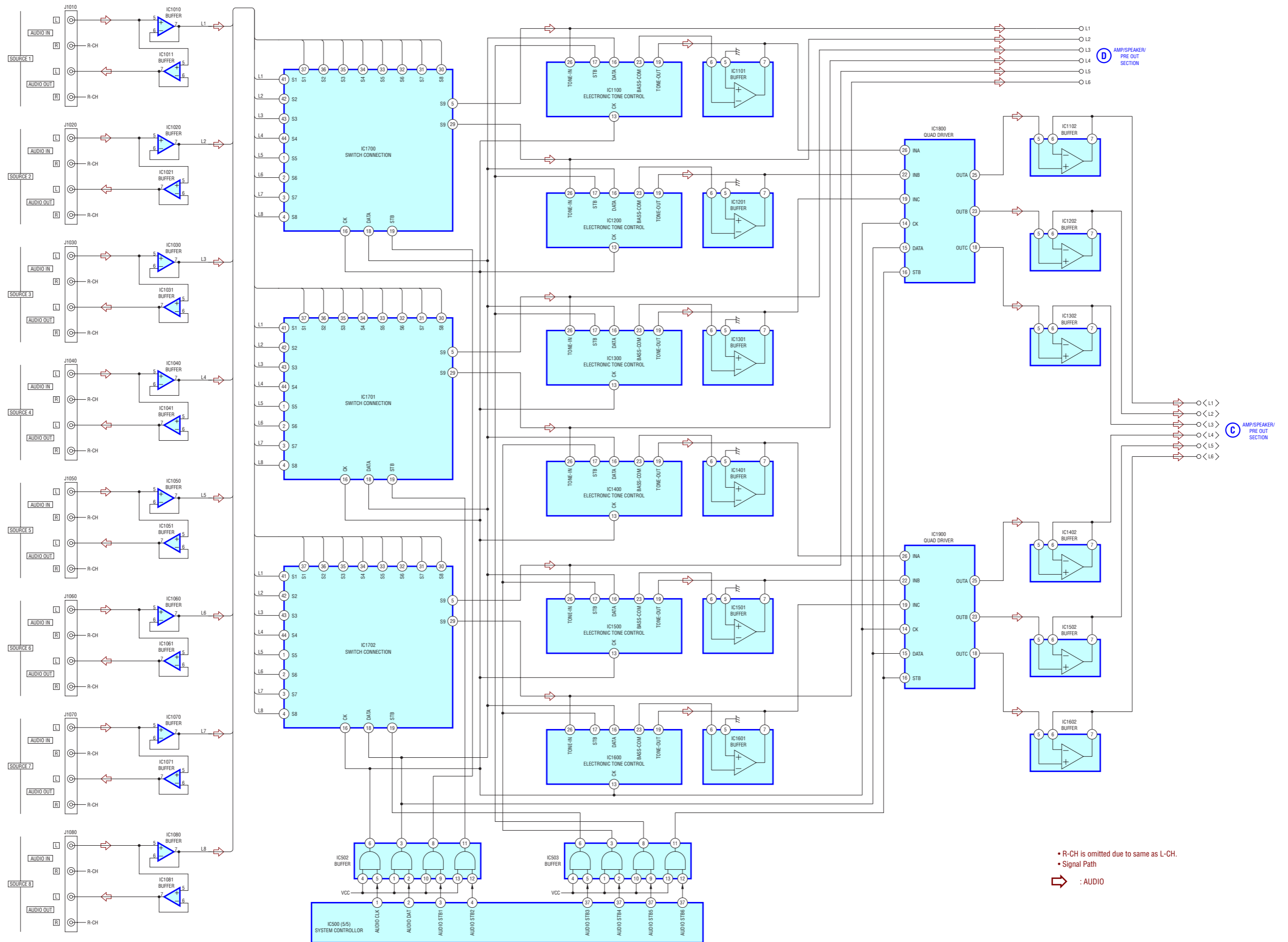
– DISPLAY BOARD –



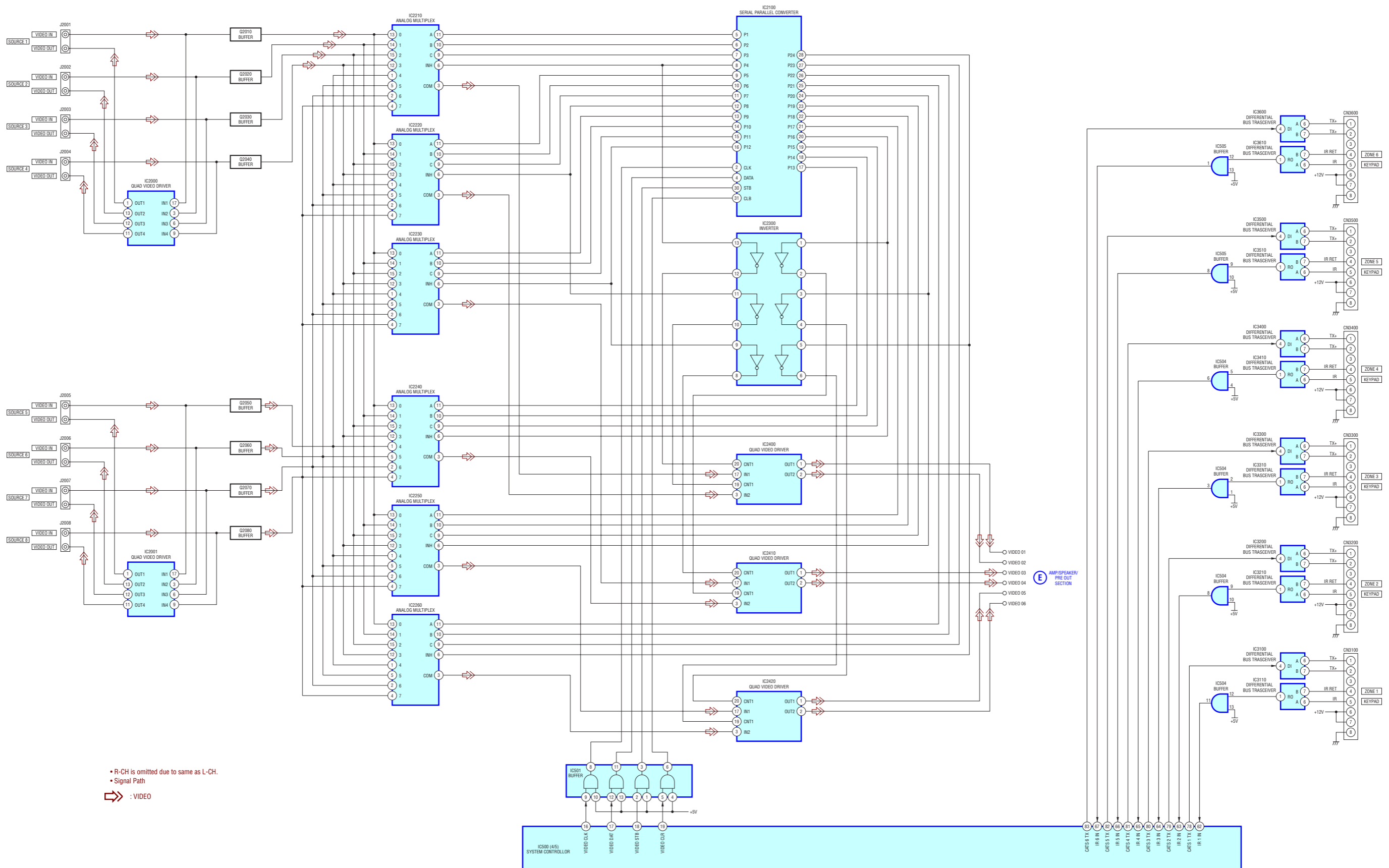
3-1. BLOCK DIAGRAM — MAIN/POWER SECTION —



3-2. BLOCK DIAGRAM — AUDIO I/O SECTION —

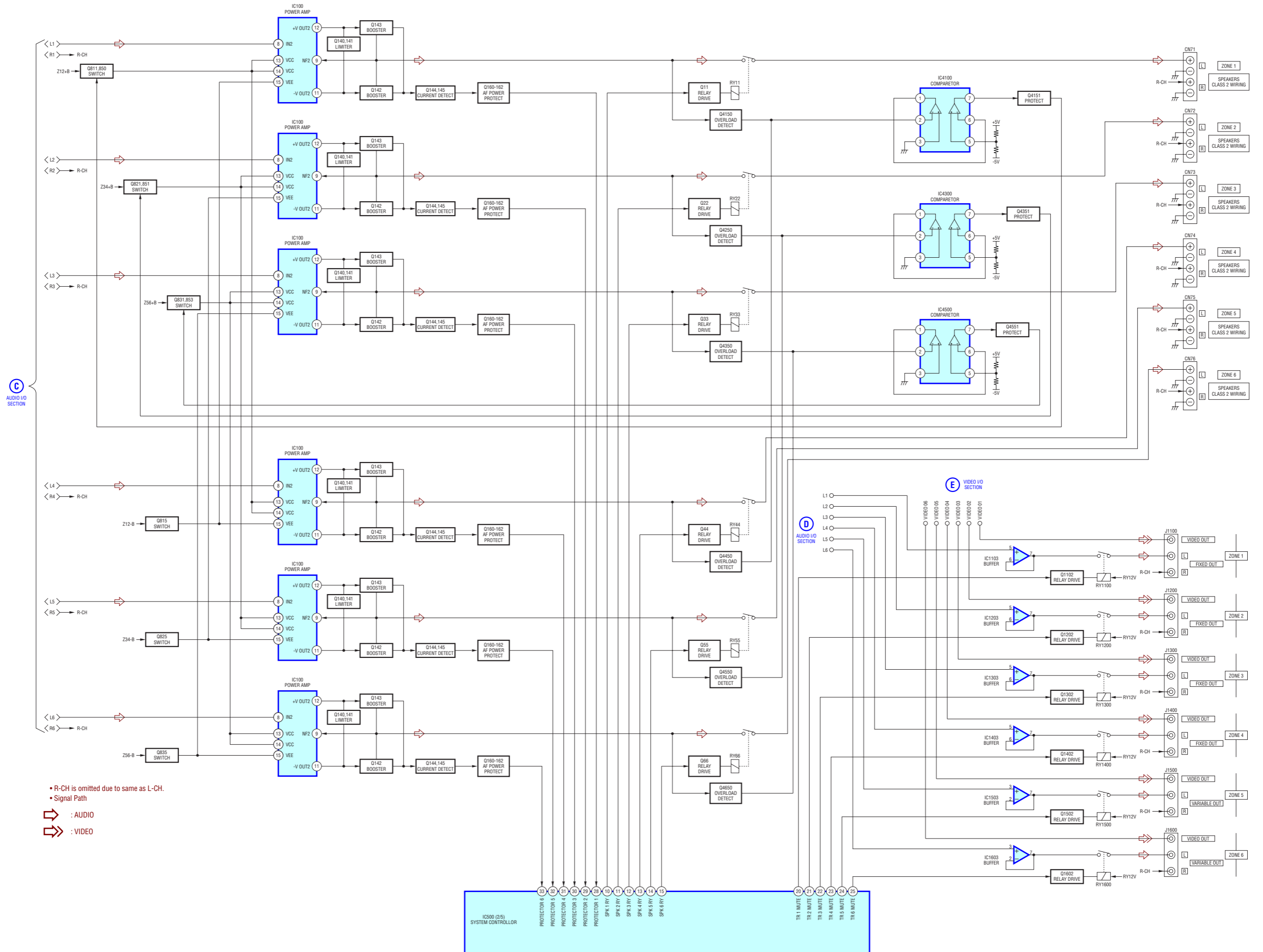


3-3. BLOCK DIAGRAM — VIDEO I/O SECTION —

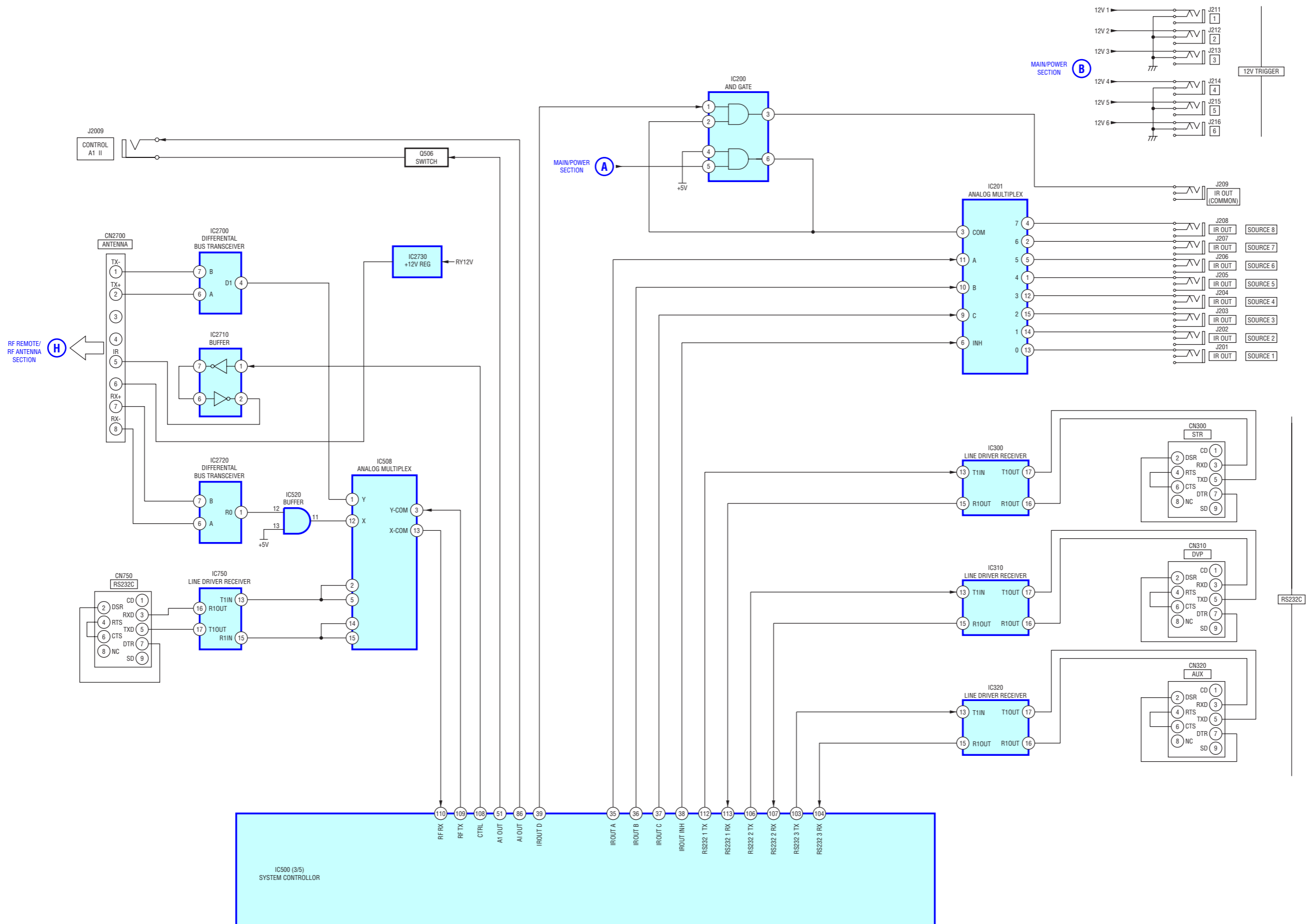




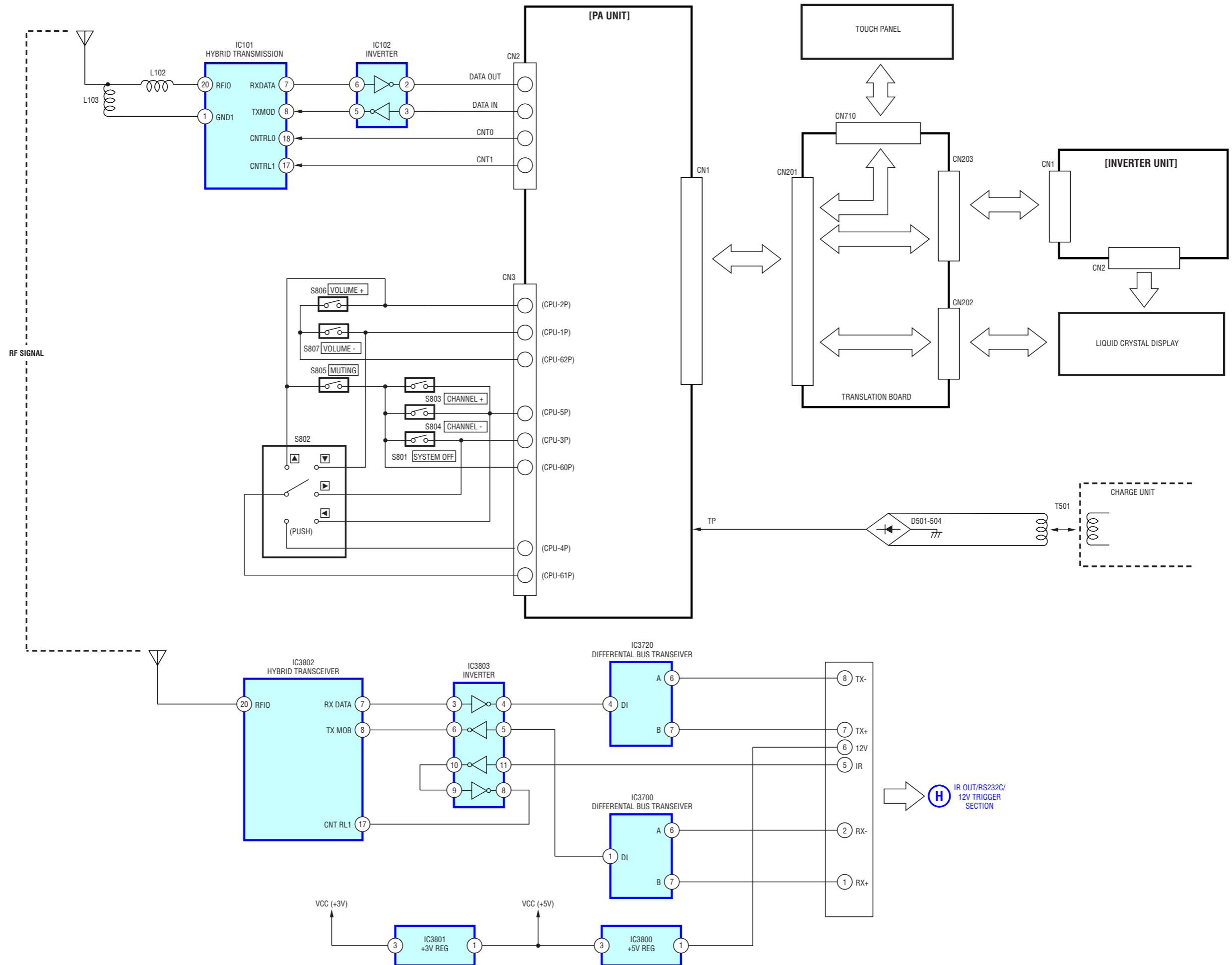
3-4. BLOCK DIAGRAM — AMP/SPEAKER/PRE OUT SECTION —

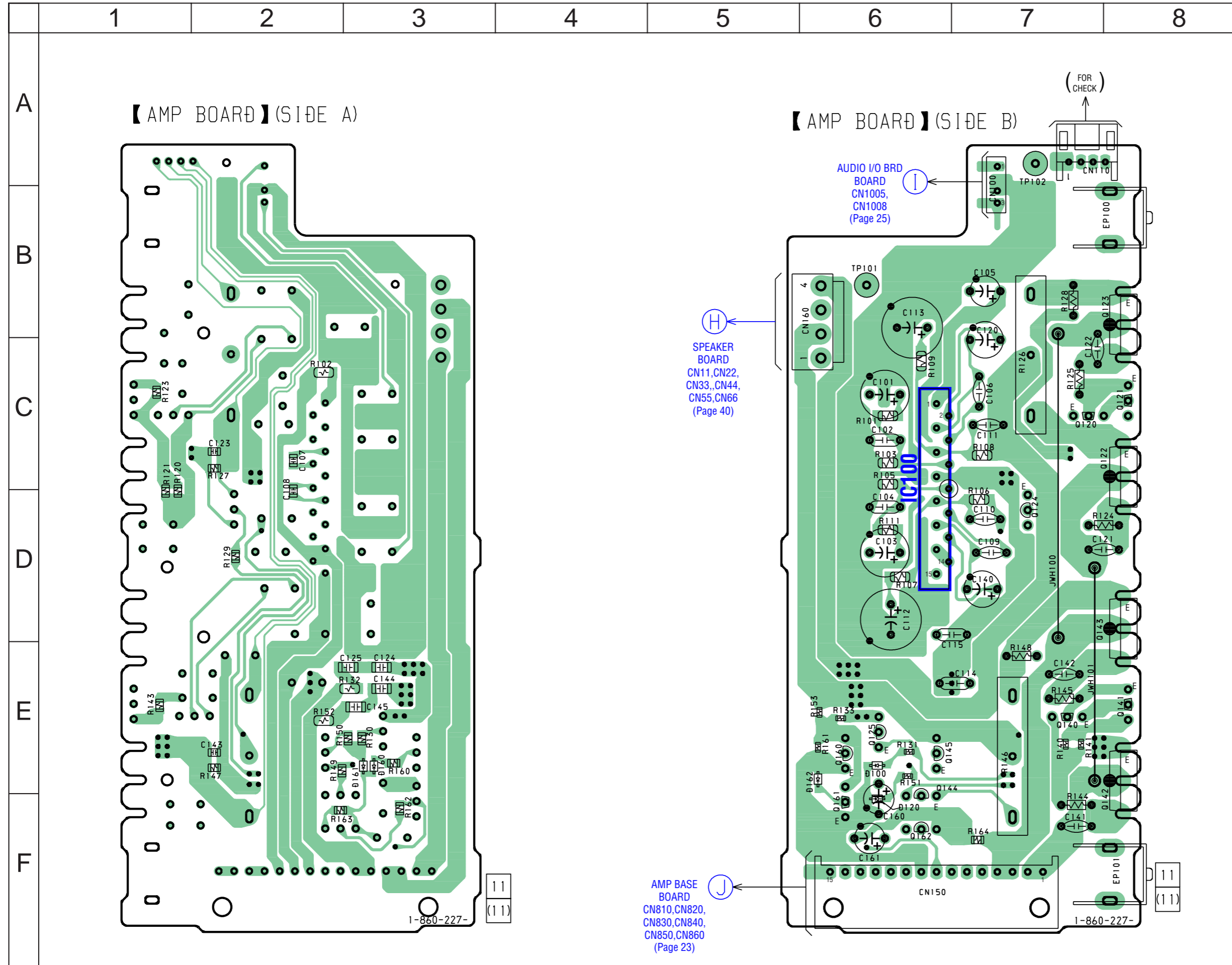


3-5. BLOCK DIAGRAM — IR OUT/RS232C/12V TRIGGER SECTION —



3-6. BLOCK DIAGRAM — RF REMOTE/RF ANTENNA SECTION —

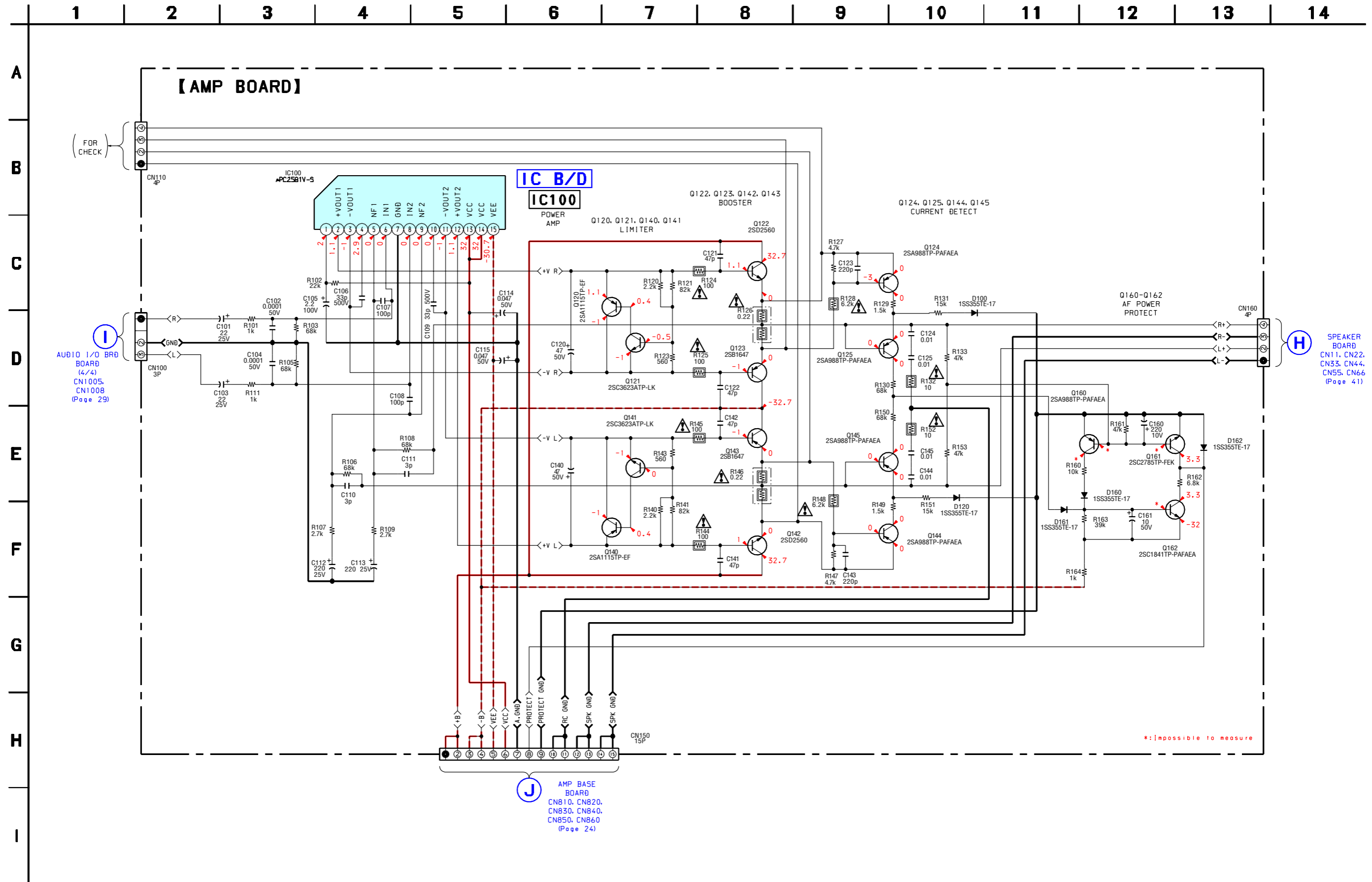


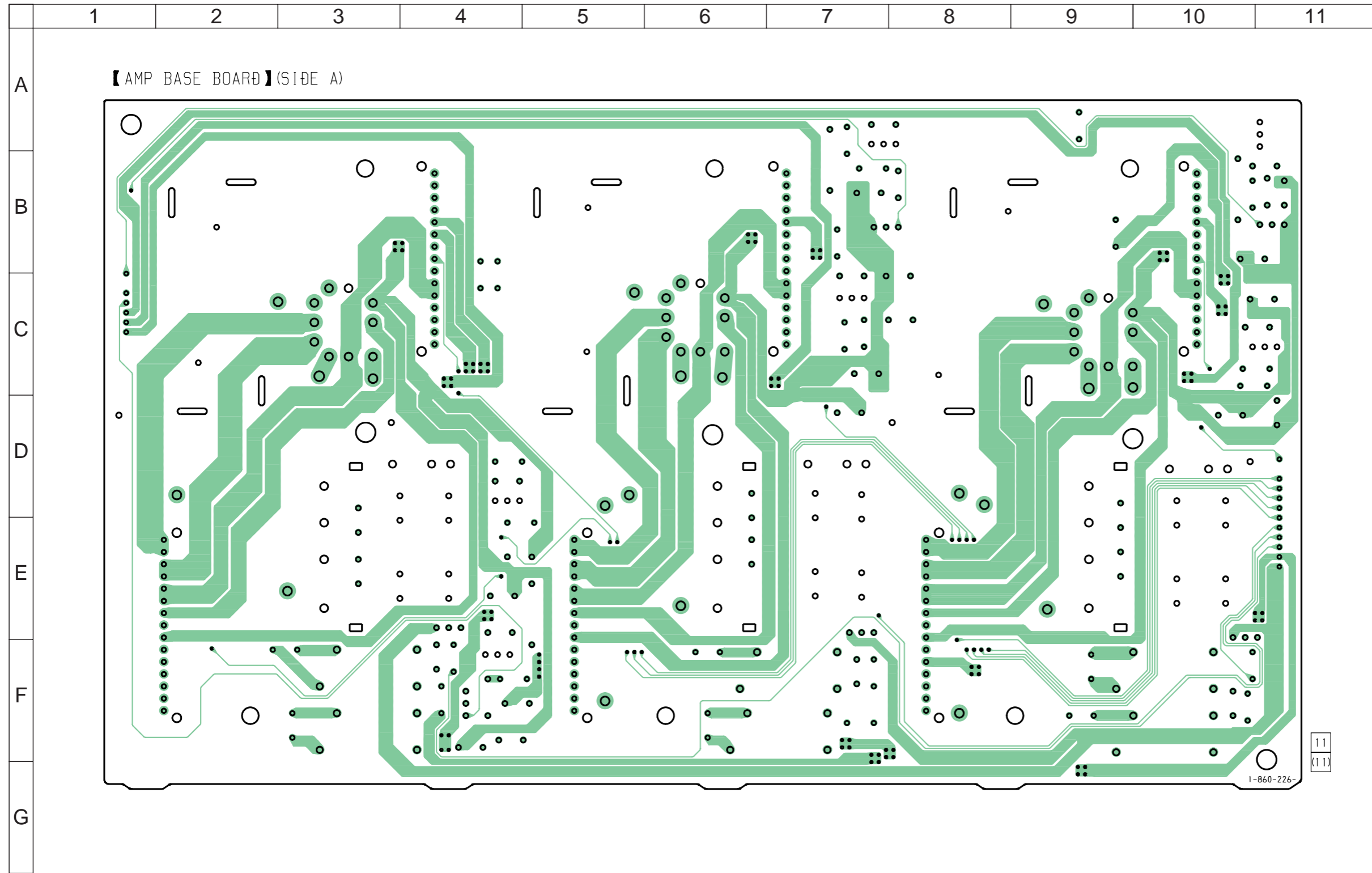



• Semiconductor Location

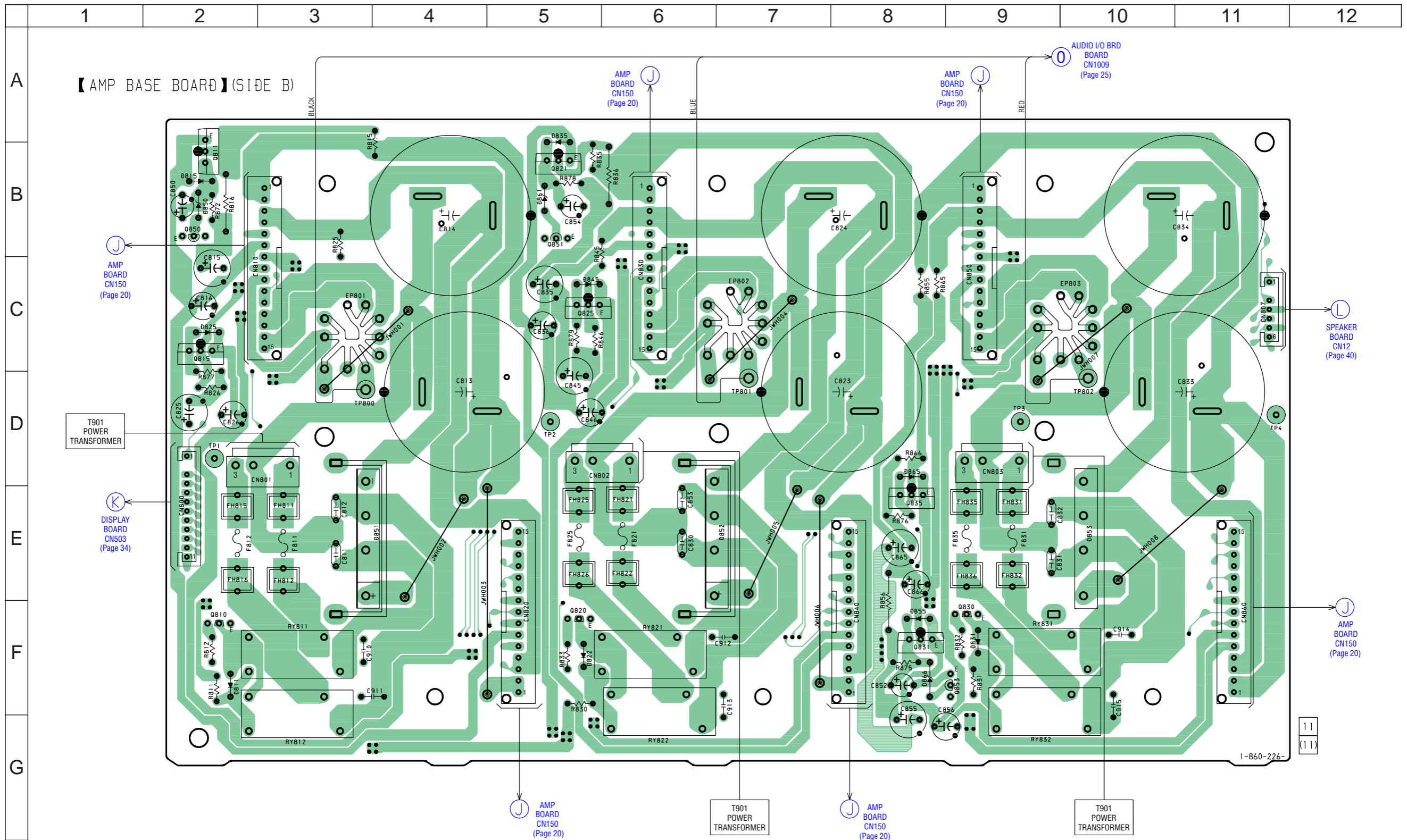
Ref. No.	Location
D100	E-6
D120	F-6
D160	E-3
D161	E-3
D162	E-6
IC100	D-6
Q120	C-7
Q121	C-8
Q122	C-7
Q123	B-7
Q124	C-7
Q125	E-6
Q140	E-7
Q141	E-8
Q142	E-7
Q143	D-7
Q144	F-6
Q145	E-6
Q160	E-6
Q161	F-6
Q162	F-6

3-8. SCHEMATIC DIAGRAM — AMP SECTION — • See page 62 for IC Block diagram.





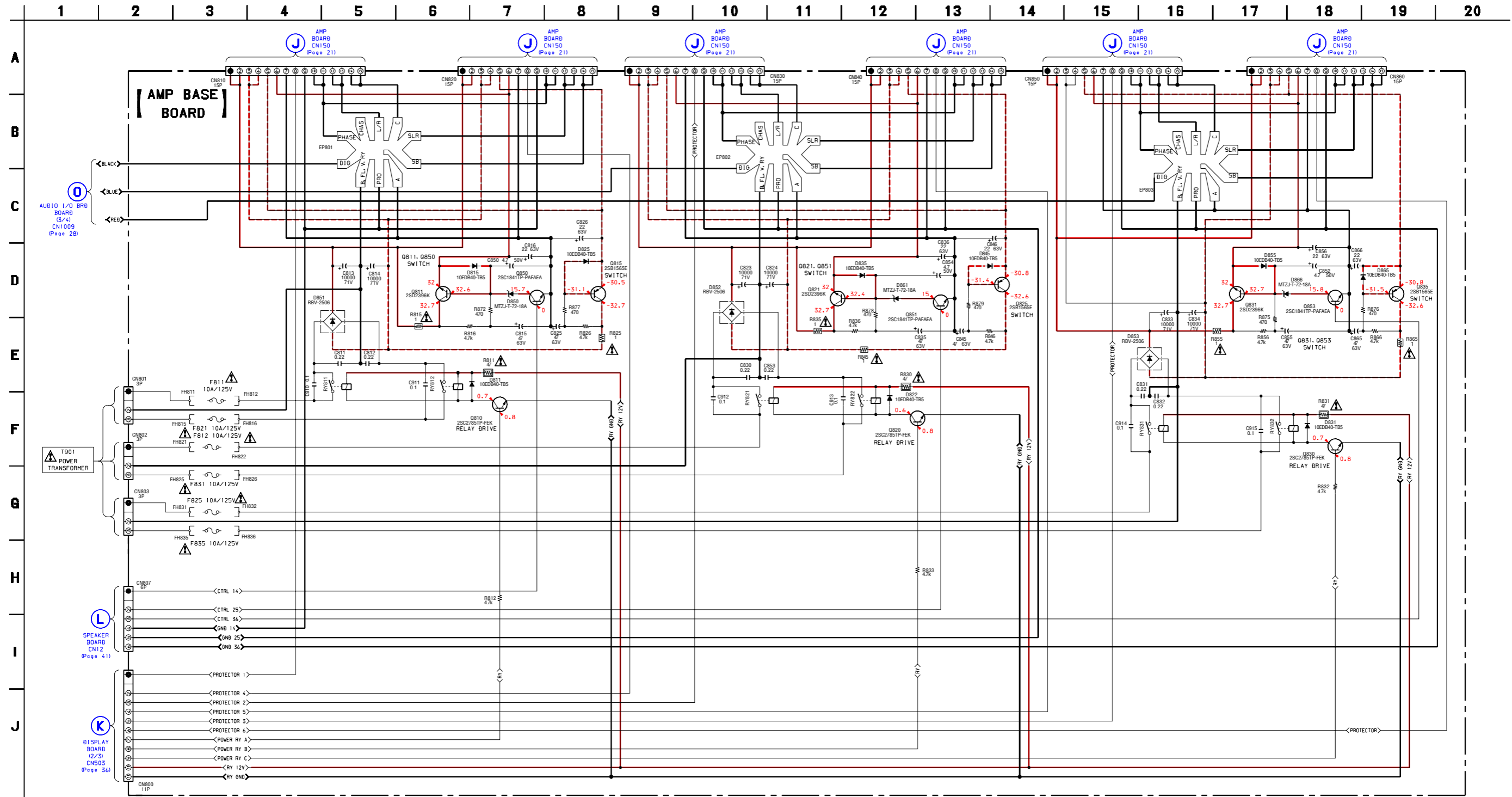
3-10. PRINTED WIRING BOARD — AMP BASE SECTION (SIDE B) — • See page 12 for Circuit Boards Location.  :Uses unleaded solder.




• Semiconductor Location

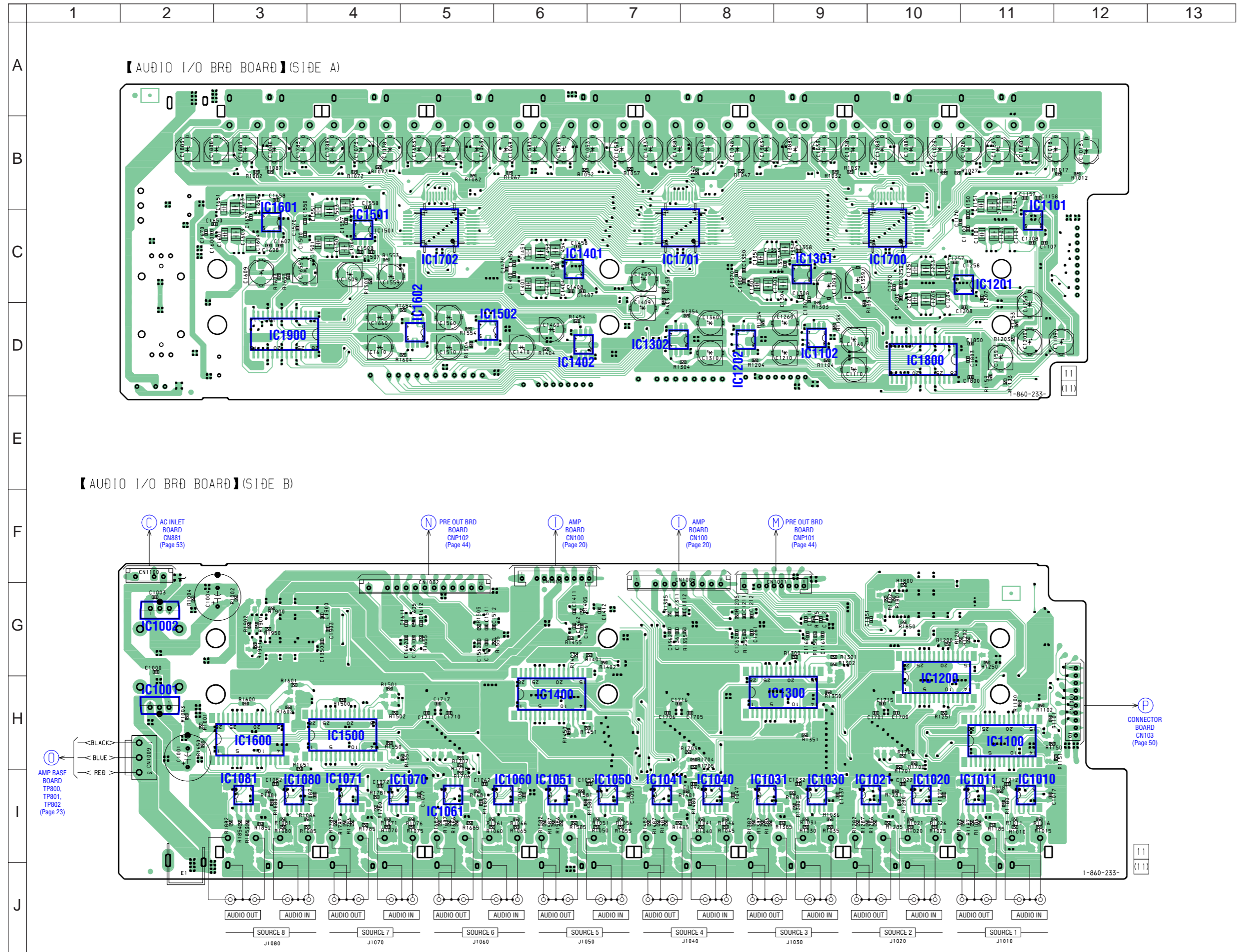
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D811	F-2	D850	B-2	D866	F-8	Q825	C-5
D815	B-2	D851	E-3			Q830	F-9
D822	F-5	D852	E-6	Q810	F-2	Q831	F-8
D825	C-2	D853	E-10	Q811	B-2	Q835	E-8
D831	F-9	D855	F-8	Q815	C-2	Q850	B-2
D835	B-5	D861	B-5	Q820	F-5	Q851	C-5
D845	C-5	D865	E-8	Q821	B-5	Q853	F-8

3-11. SCHEMATIC DIAGRAM — AMP BASE SECTION —



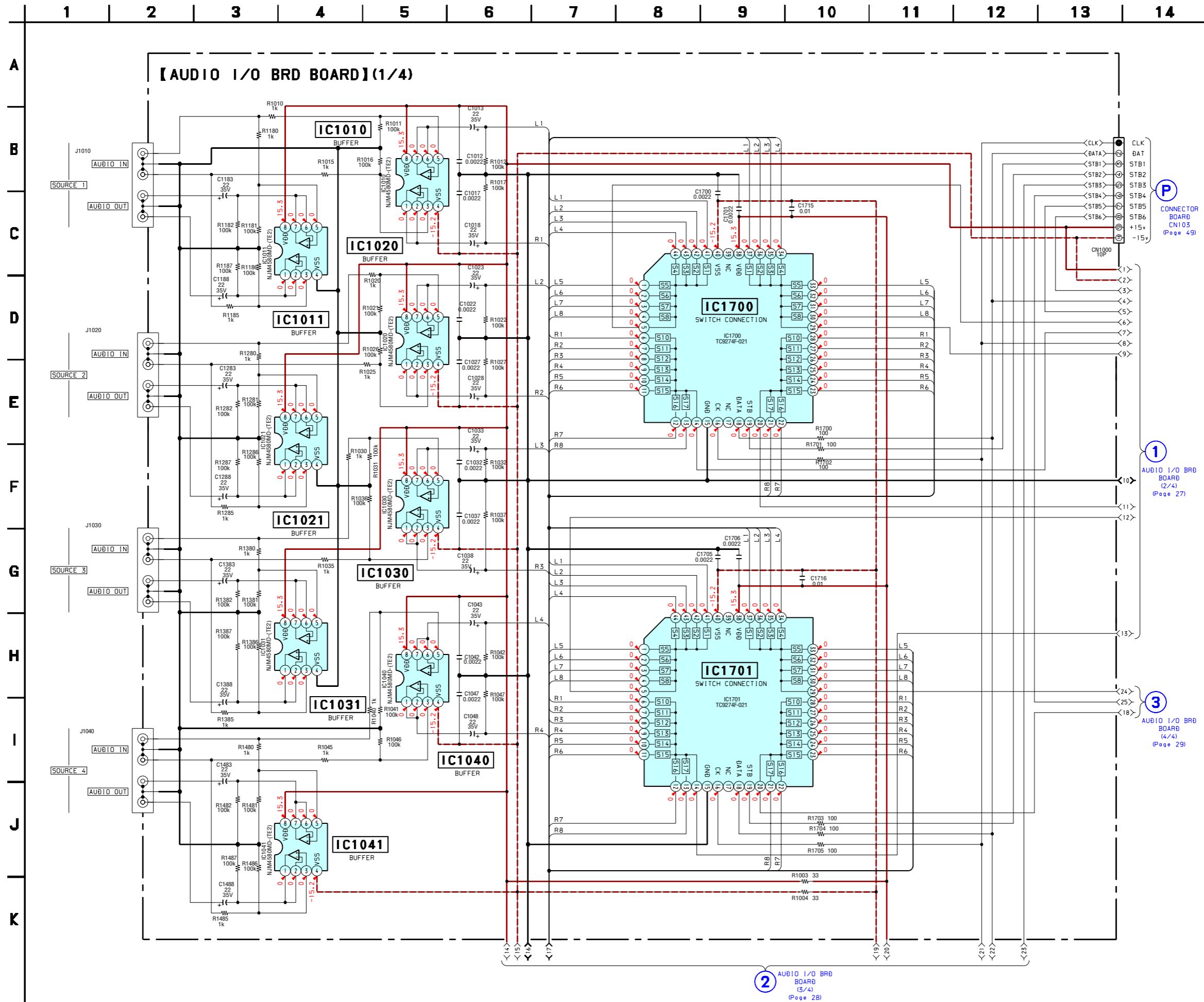


3-12. PRINTED WIRING BOARD — AUDIO I/O BRD SECTION — • See page 12 for Circuit Boards Location.  :Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location
IC1001	H-2
IC1002	G-2
IC1010	I-11
IC1011	I-11
IC1020	I-10
IC1021	I-9
IC1030	I-9
IC1031	I-9
IC1040	I-8
IC1041	I-7
IC1050	I-7
IC1051	I-6
IC1060	I-6
IC1061	I-5
IC1070	I-5
IC1071	I-4
IC1080	I-3
IC1081	I-3
IC1100	H-11
IC1101	C-11
IC1102	D-9
IC1200	H-10
IC1201	D-11
IC1202	D-8
IC1300	H-9
IC1301	C-9
IC1302	D-7
IC1400	H-6
IC1401	C-6
IC1402	D-6
IC1500	H-4
IC1501	C-4
IC1502	D-5
IC1600	H-3
IC1601	C-3
IC1602	D-5
IC1700	C-10
IC1701	C-7
IC1702	C-5
IC1800	D-10
IC1900	D-3



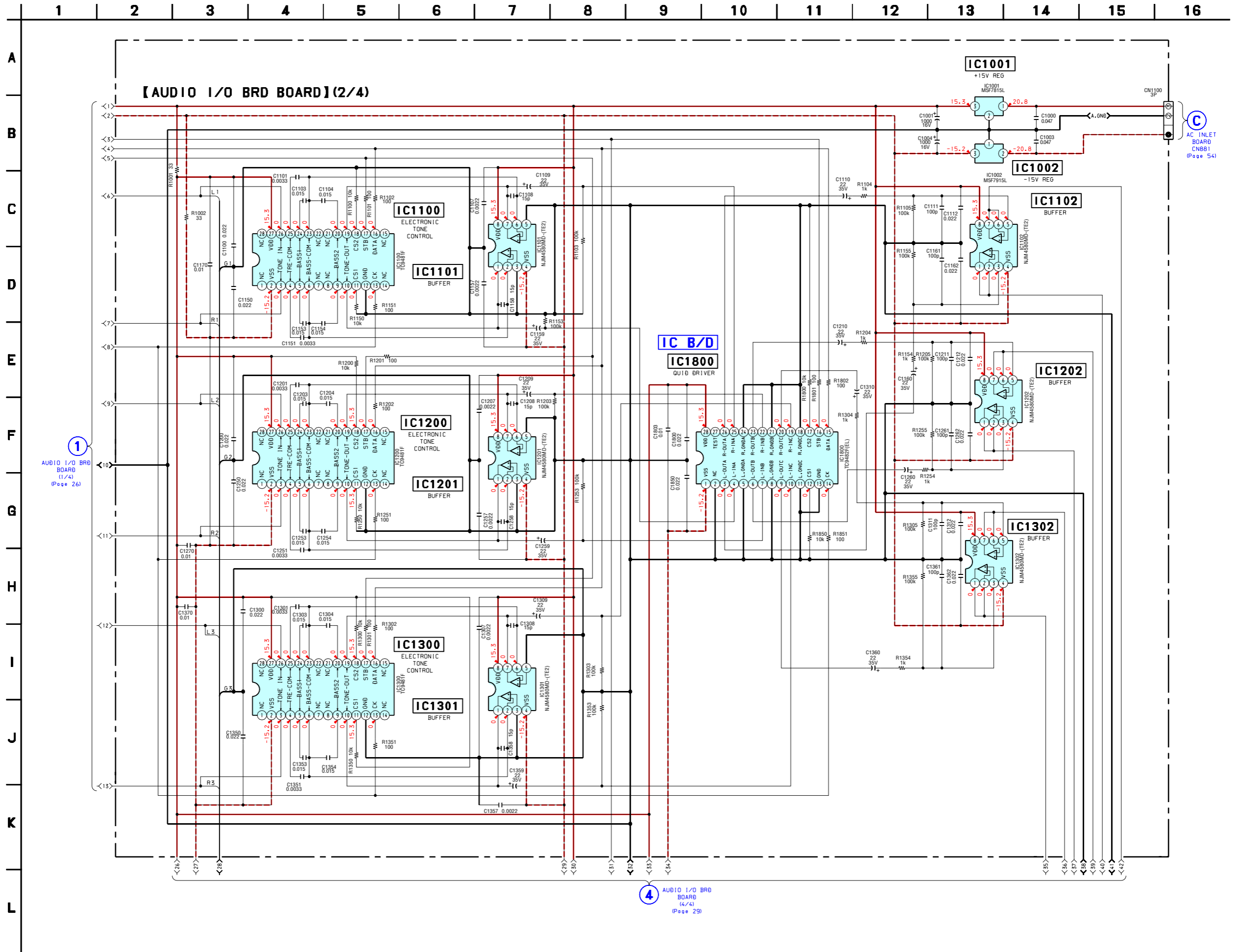
CONNECTOR BOARD CN103 (Page 49)

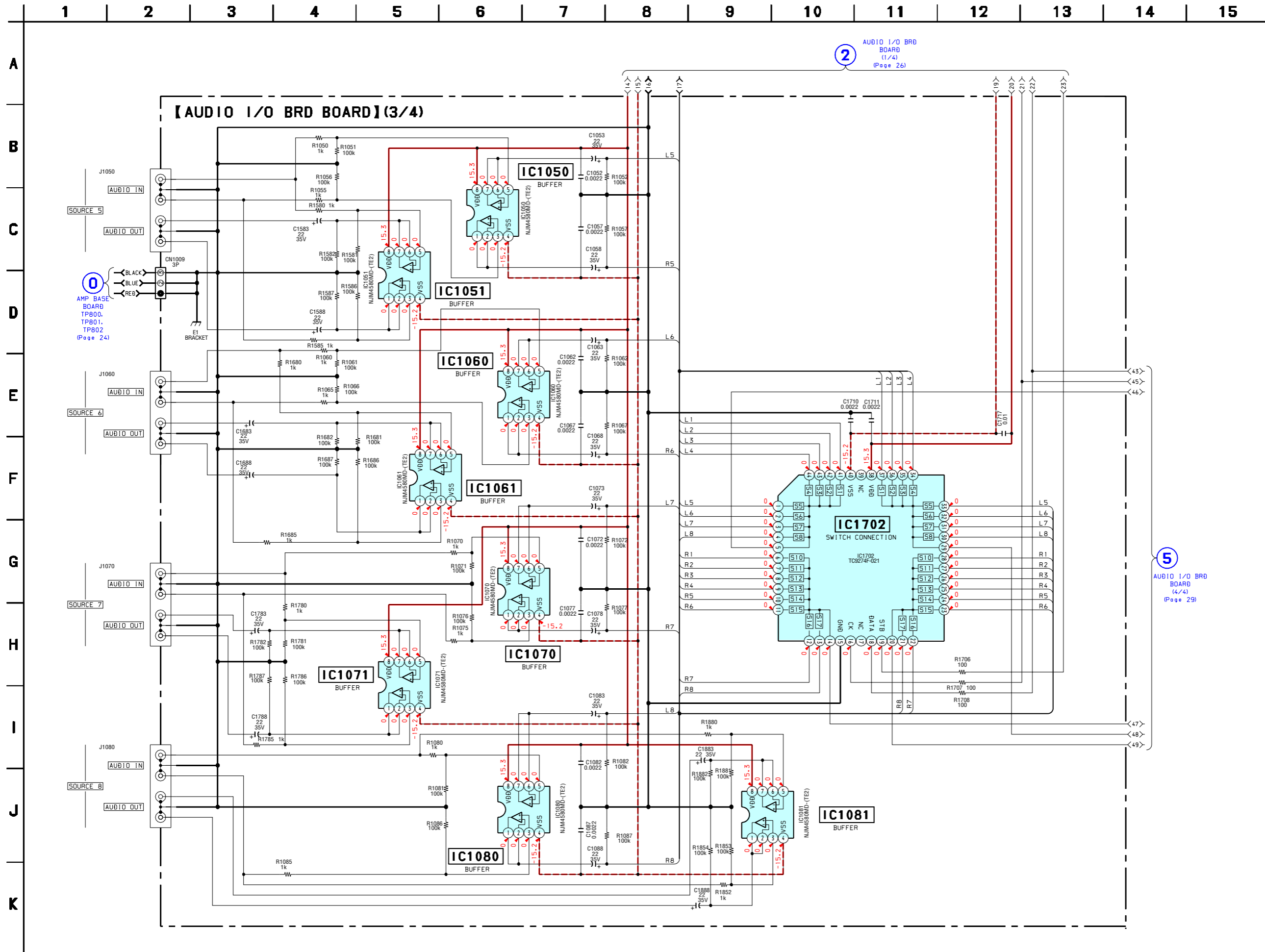
AUDIO I/O BRD BOARD (2/4) (Page 27)

AUDIO I/O BRD BOARD (4/4) (Page 29)

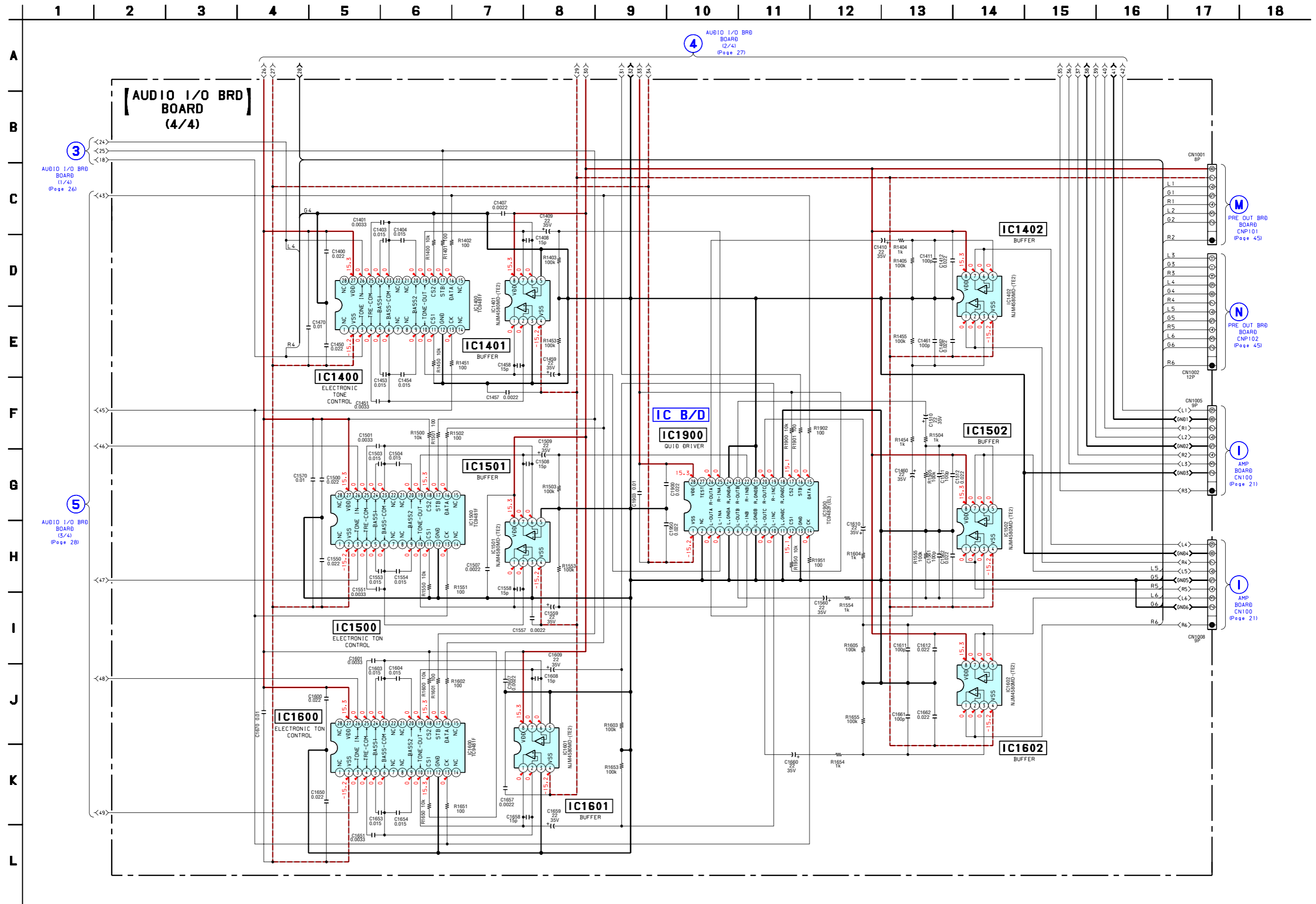
AUDIO I/O BRD BOARD (3/4) (Page 28)

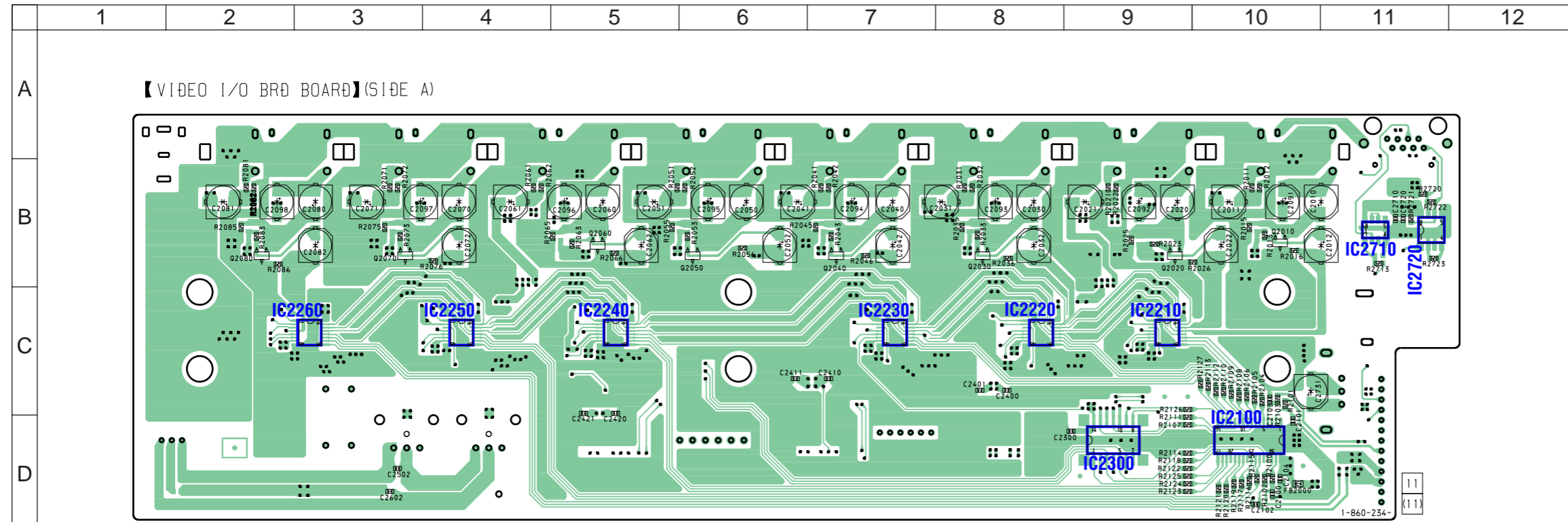
3-14. SCHEMATIC DIAGRAM — AUDIO I/O BRD SECTION (2/4) — • See page 62 for IC Block diagram.





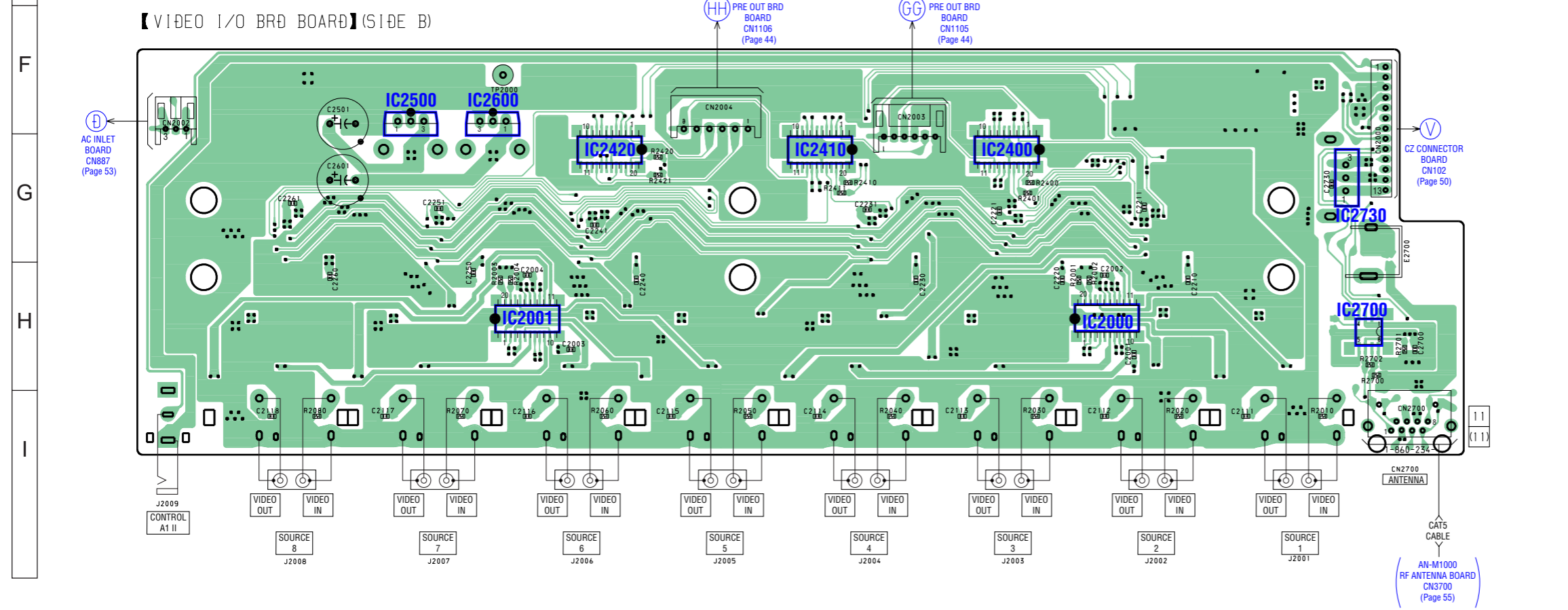
3-16. SCHEMATIC DIAGRAM — AUDIO I/O BRD SECTION (4/4) — • See page 62 for IC Block diagram.



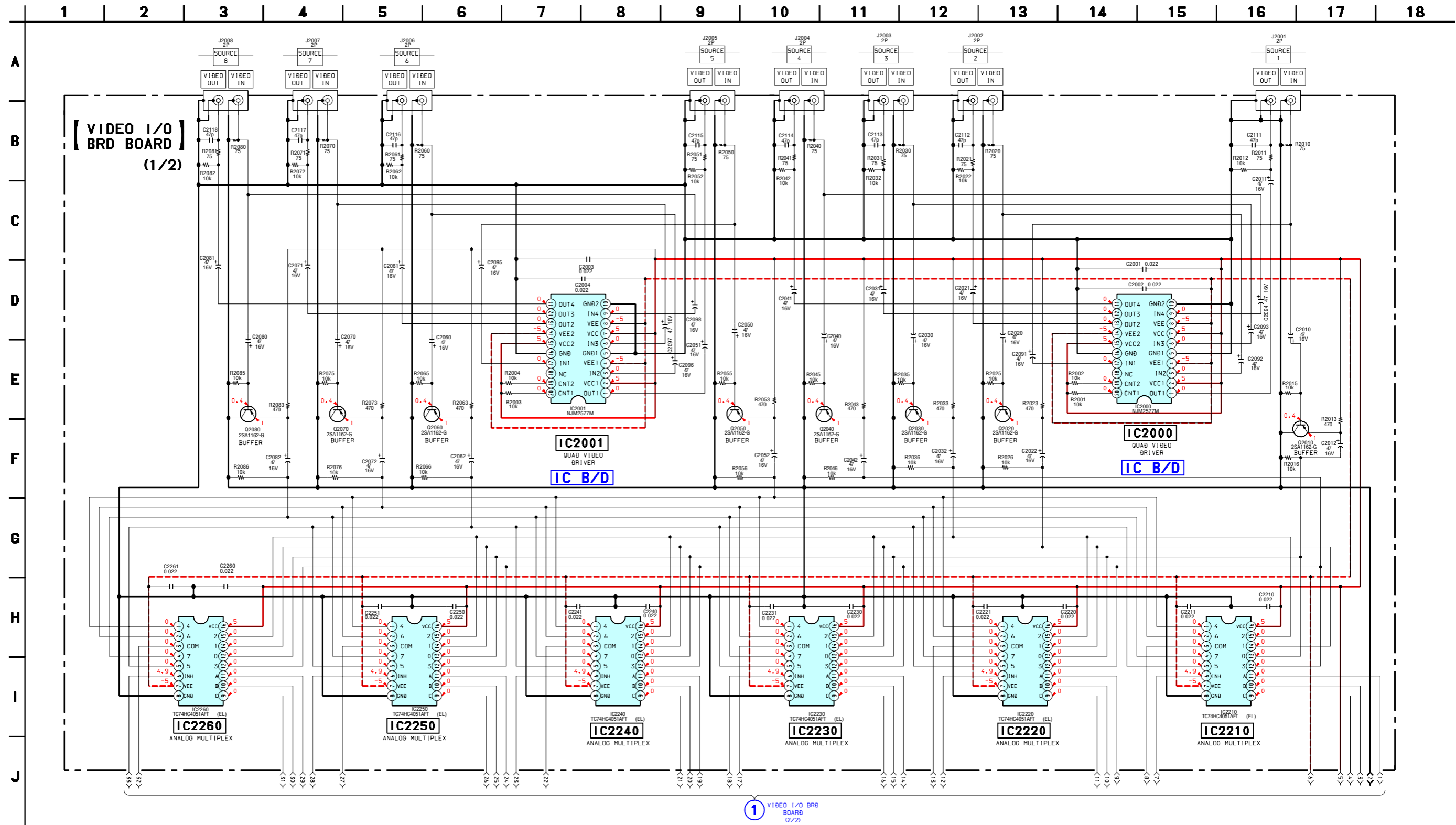


• Semiconductor Location

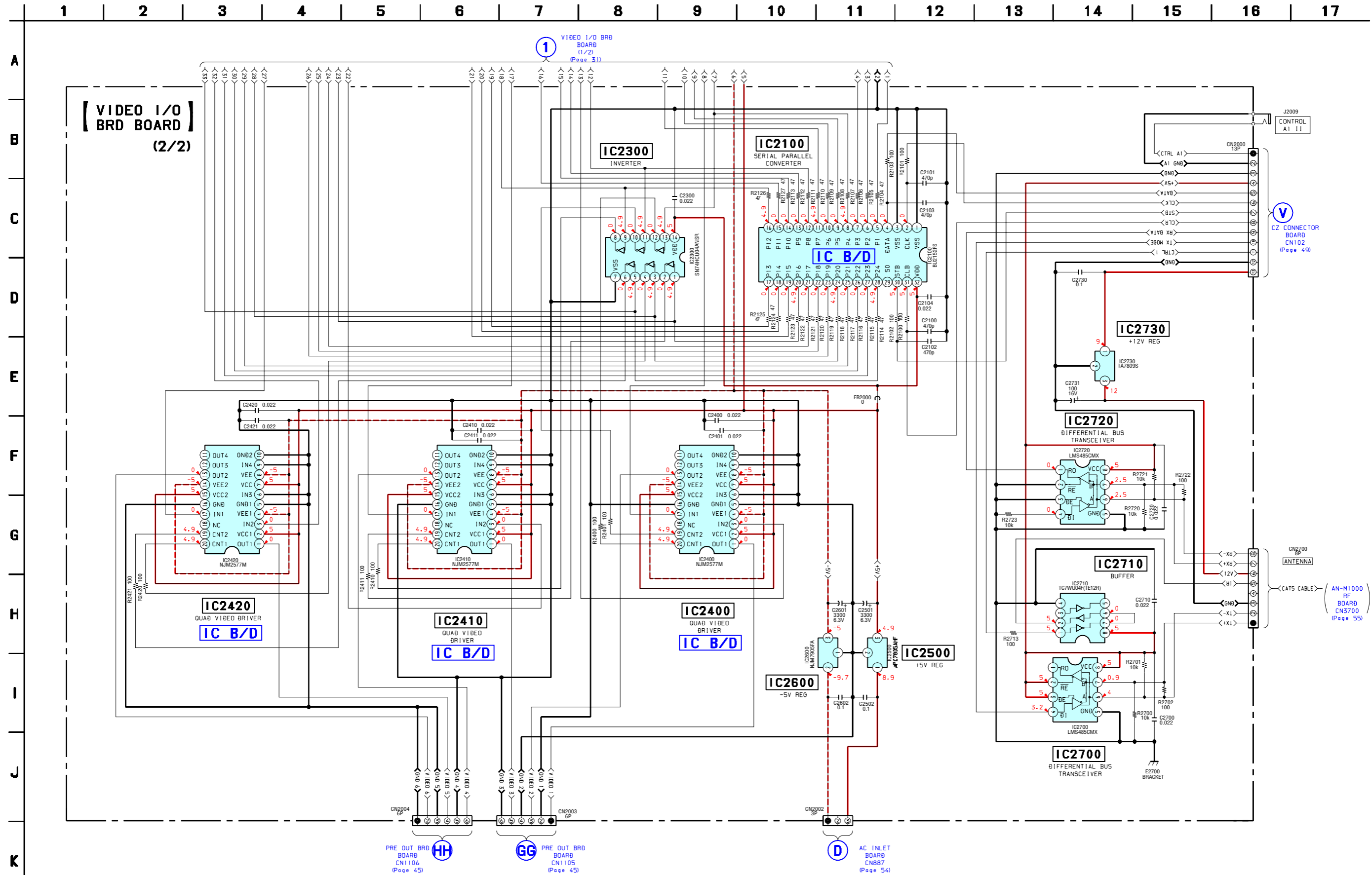
Ref. No.	Location
IC2000	H-9
IC2001	H-4
IC2100	C-10
IC2210	C-9
IC2220	C-8
IC2230	C-7
IC2240	C-5
IC2250	C-4
IC2260	C-2
IC2300	D-9
IC2400	G-9
IC2410	G-6
IC2420	G-5
IC2500	F-3
IC2600	F-4
IC2700	H-11
IC2710	B-11
IC2720	C-11
IC2730	G-11
Q2010	B-10
Q2020	B-9
Q2030	B-8
Q2040	B-7
Q2050	B-6
Q2060	B-5
Q2070	B-3
Q2080	B-2




3-18. SCHEMATIC DIAGRAM — VIDEO I/O BRD SECTION (1/2) — • See page 62 for IC Block diagrams.

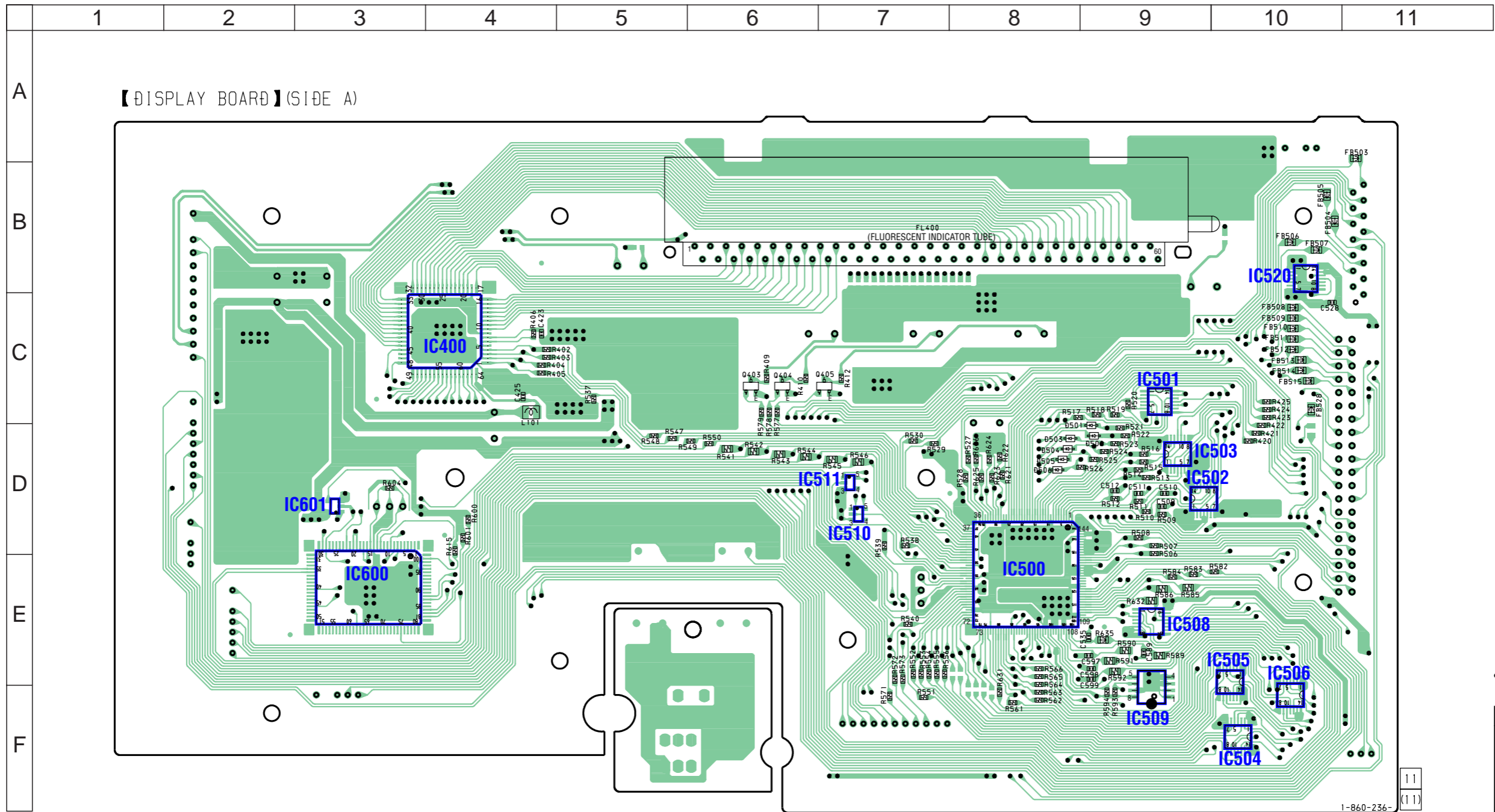


3-19. SCHEMATIC DIAGRAM — VIDEO I/O BRD SECTION (2/2) — • See page 62 for IC Block diagrams.



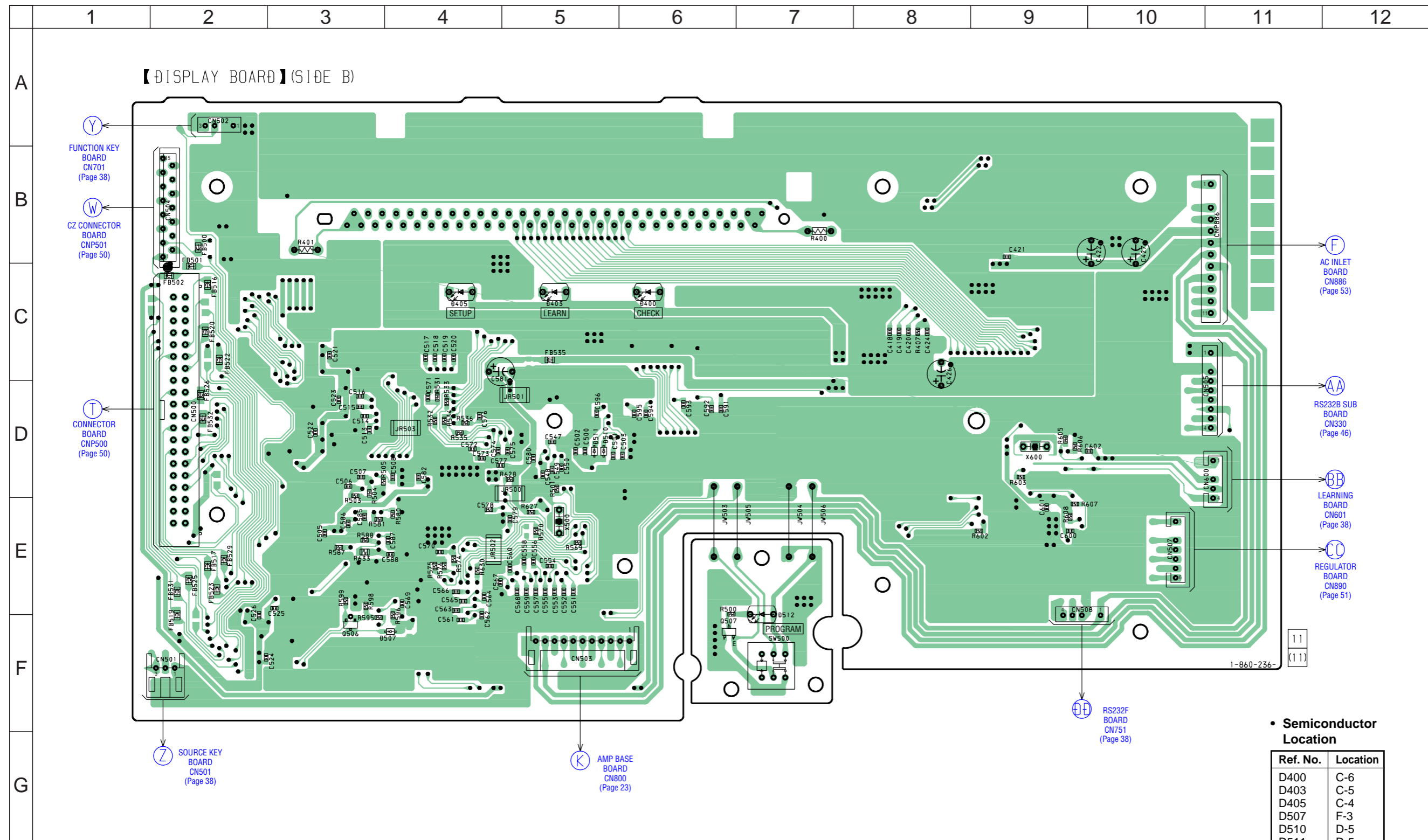


3-20. PRINTED WIRING BOARD — DISPLAY SECTION (SIDE A) — • See page 12 for Circuit Boards Location.  :Uses unleaded solder.



• Semiconductor Location

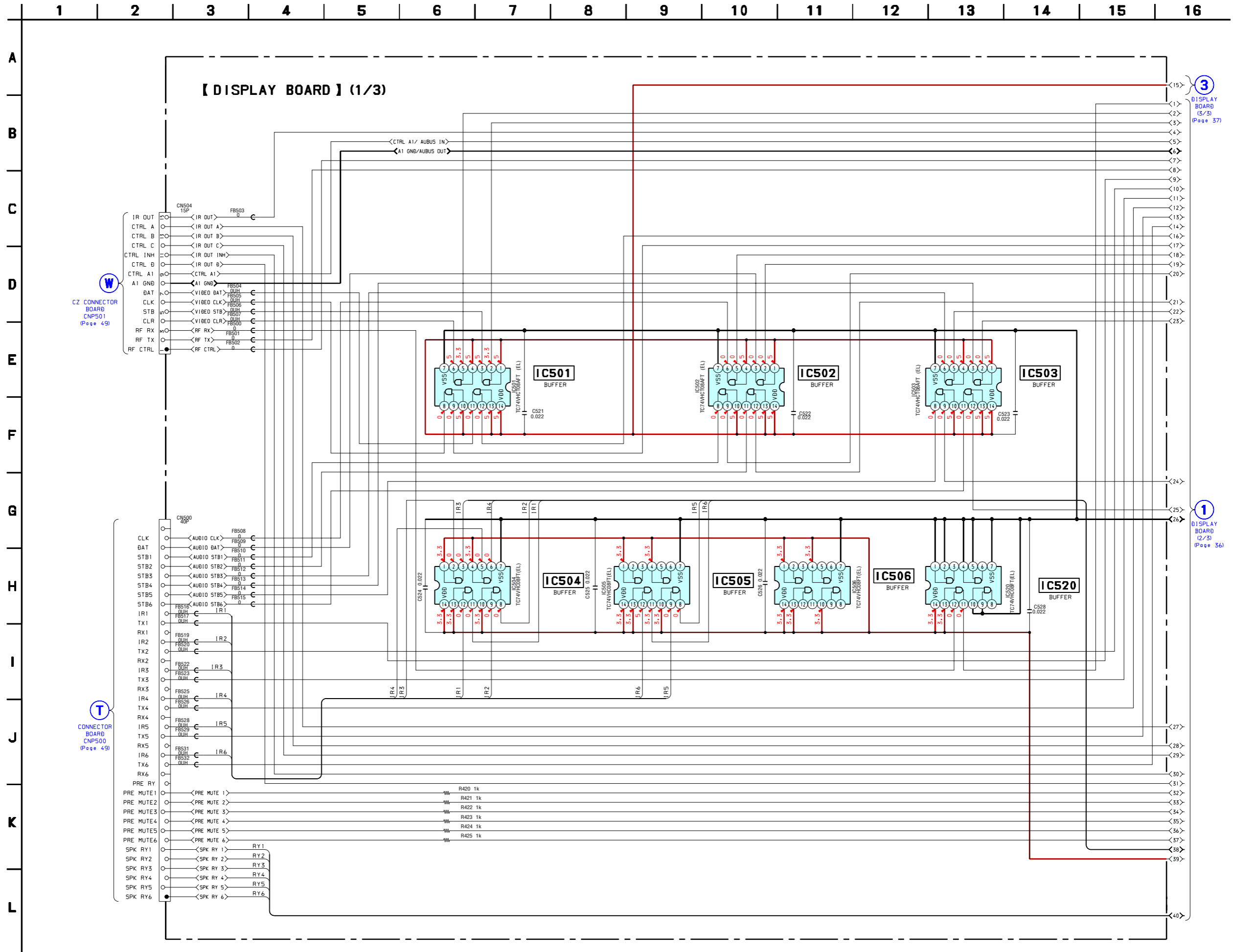
Ref. No.	Location
D501	D-8
D502	D-9
D503	D-8
D504	D-8
D505	D-8
D506	D-8
IC400	C-4
IC500	E-8
IC501	C-9
IC502	D-9
IC503	D-9
IC504	F-10
IC505	E-10
IC506	E-10
IC508	E-9
IC509	F-9
IC510	D-7
IC511	D-6
IC520	B-10
IC600	E-3
IC601	D-3
Q403	C-6
Q404	C-6
Q405	C-7

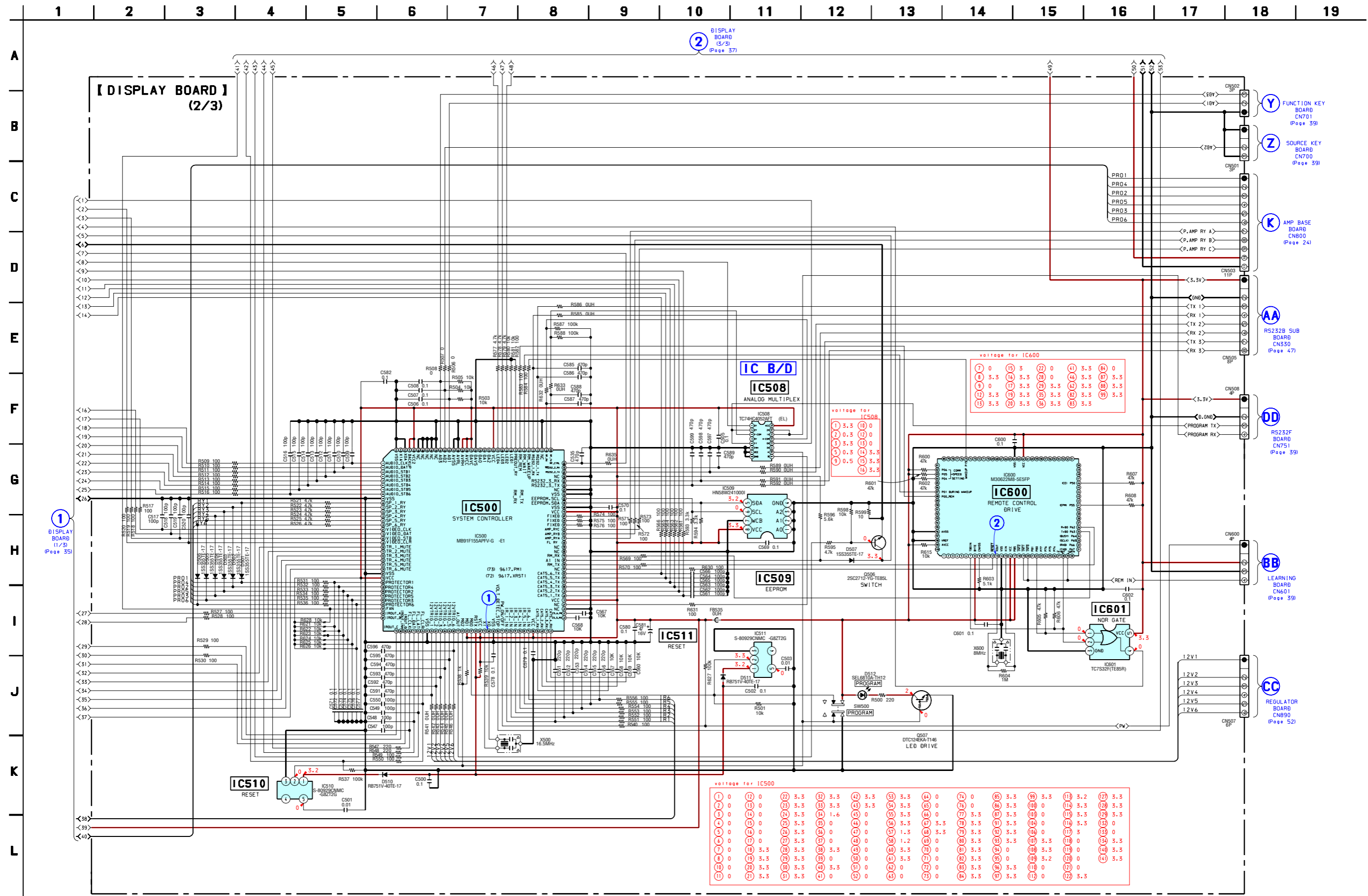


• Semiconductor Location

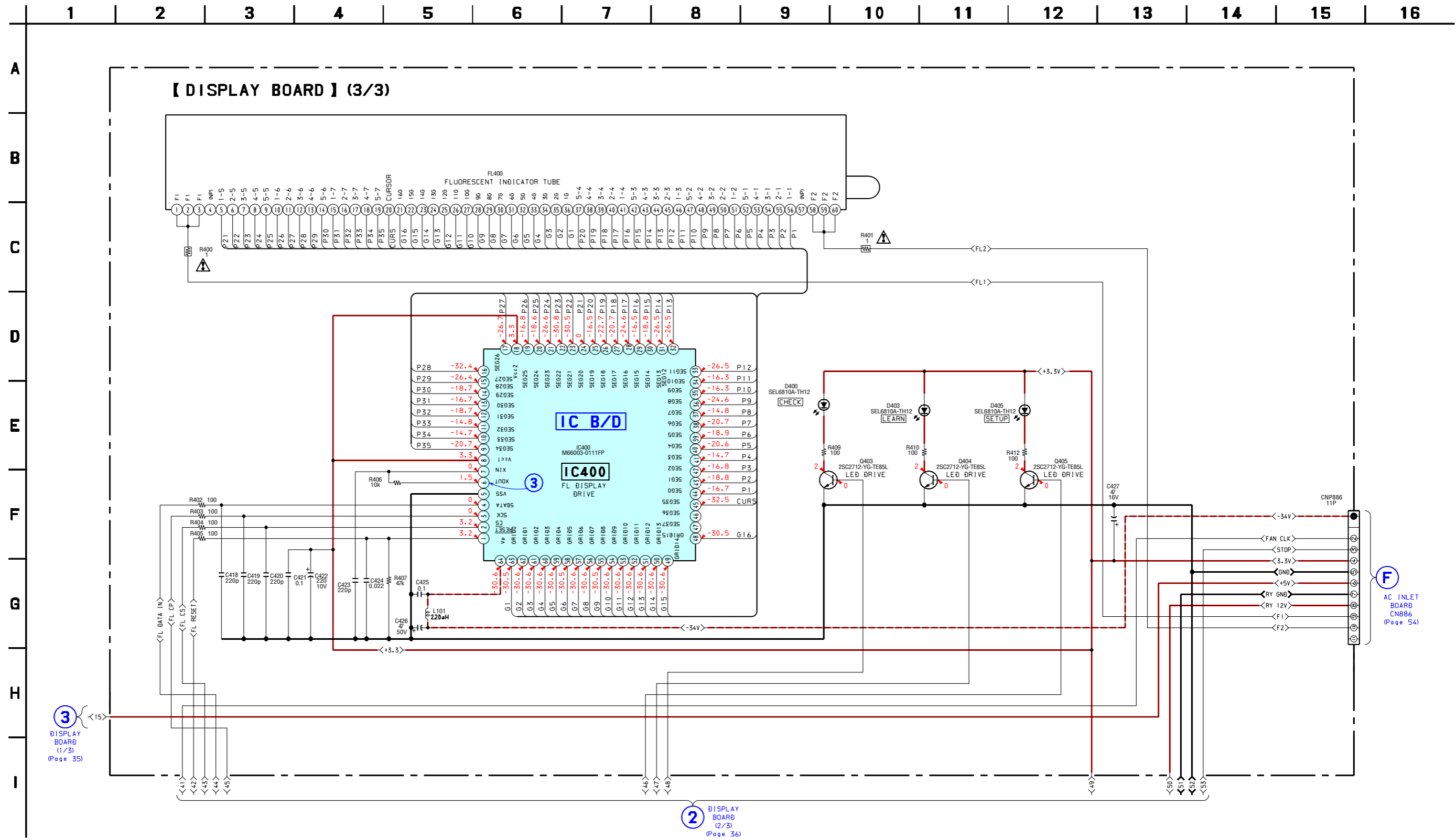
Ref. No.	Location
D400	C-6
D403	C-5
D405	C-4
D507	F-3
D510	D-5
D511	D-5
D512	F-7
Q506	F-3
Q507	E-6

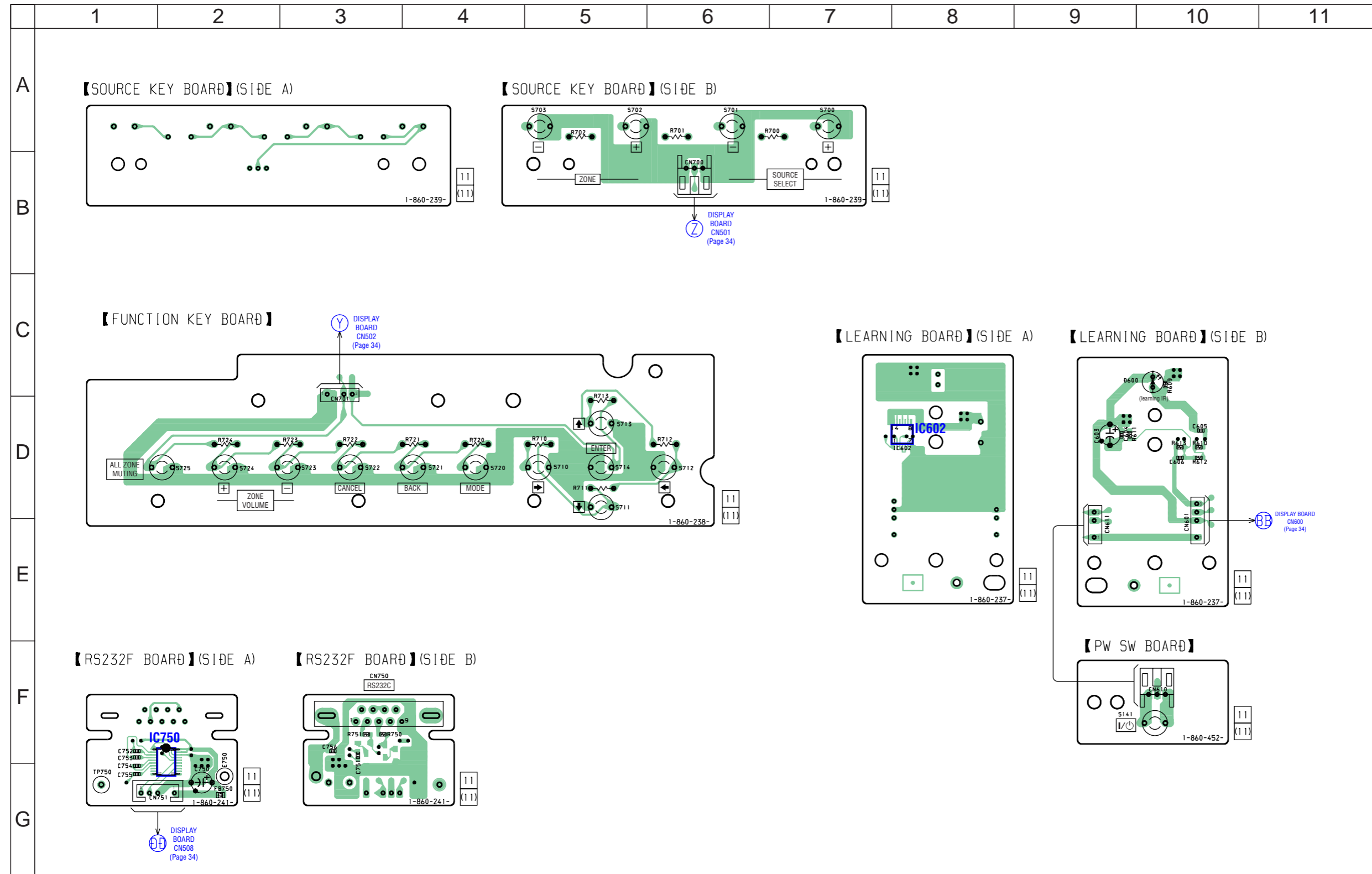
3-22. SCHEMATIC DIAGRAM — DISPLAY SECTION (1/3) —



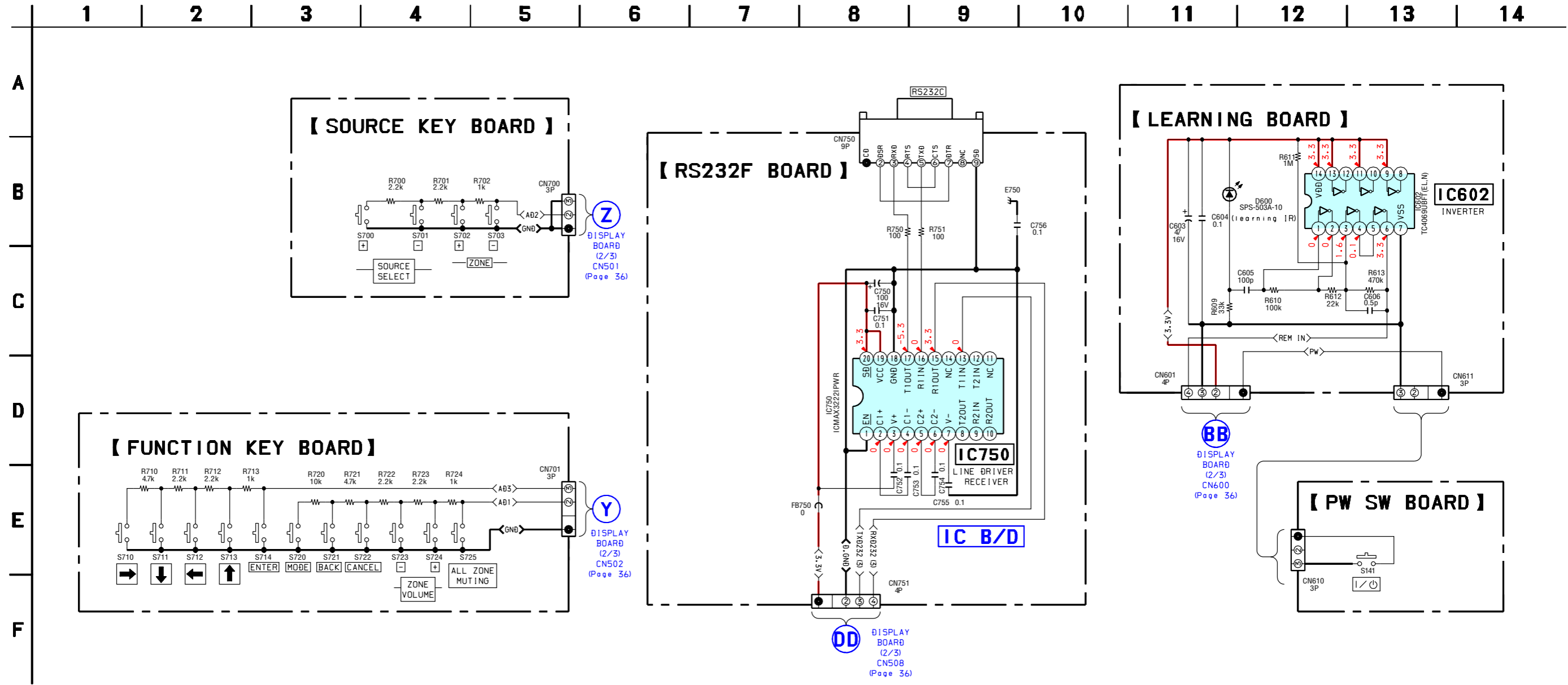


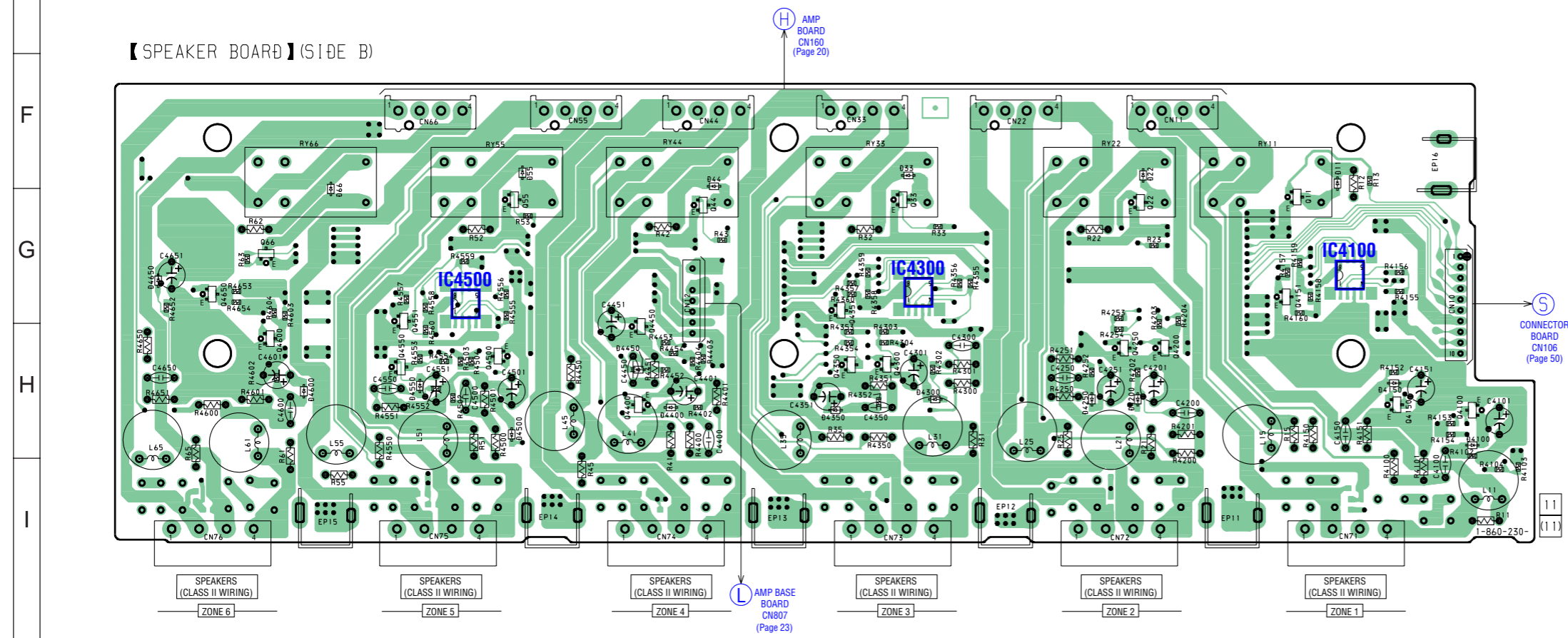
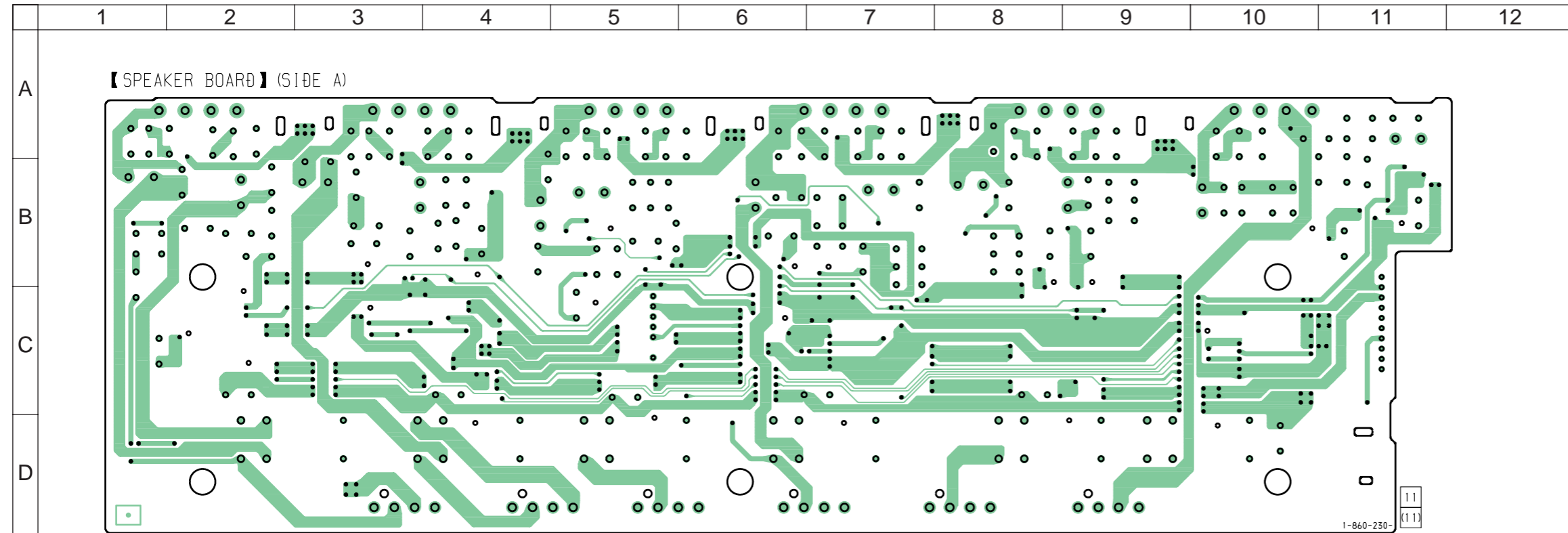
3-24. SCHEMATIC DIAGRAM — DISPLAY SECTION (3/3) — • See page 13 for Waveform. • See page 63 for IC Block diagram.





3-26. SCHEMATIC DIAGRAM — FRONT PANEL SECTION — • See page 64 for IC Block diagram.



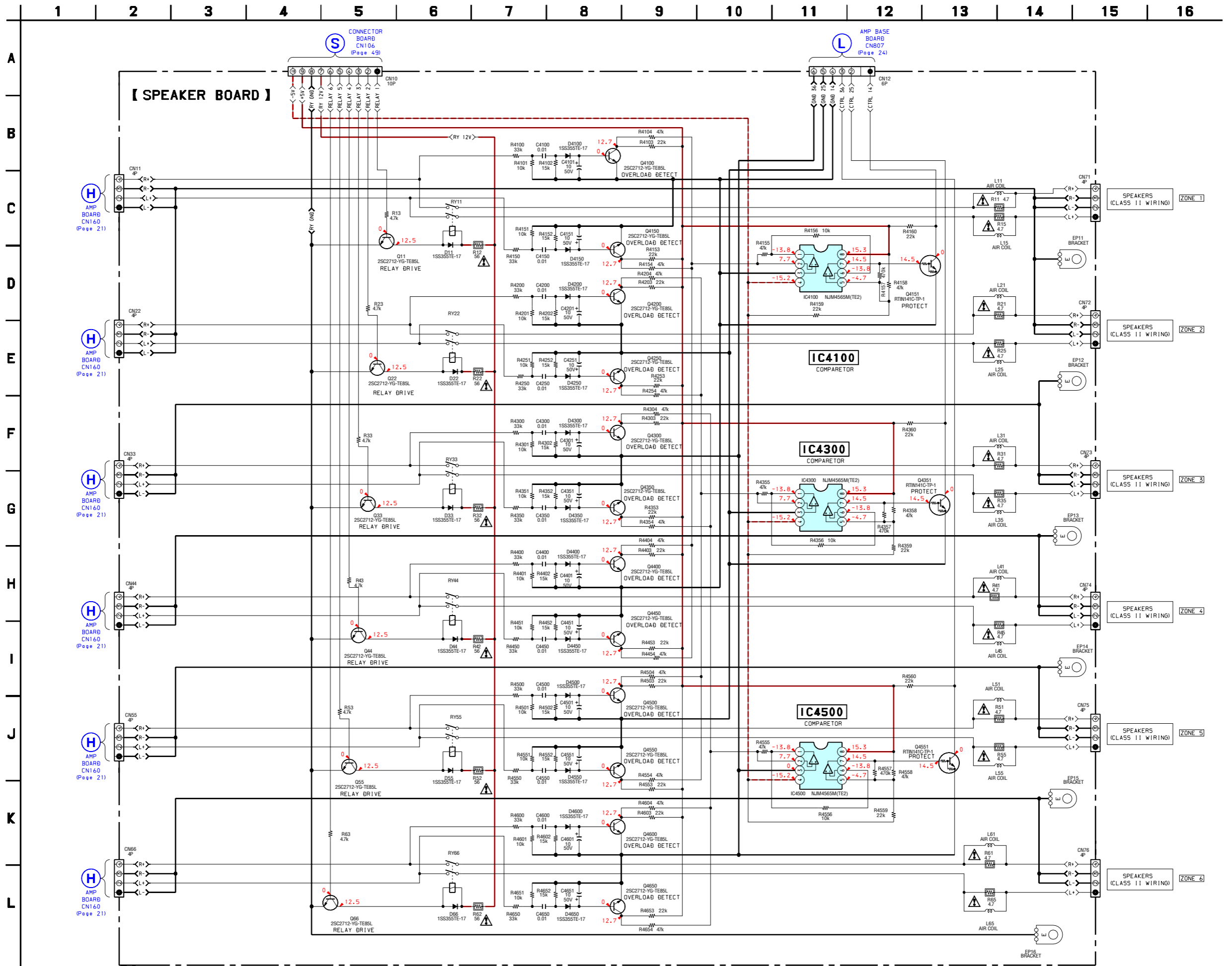


• Semiconductor Location

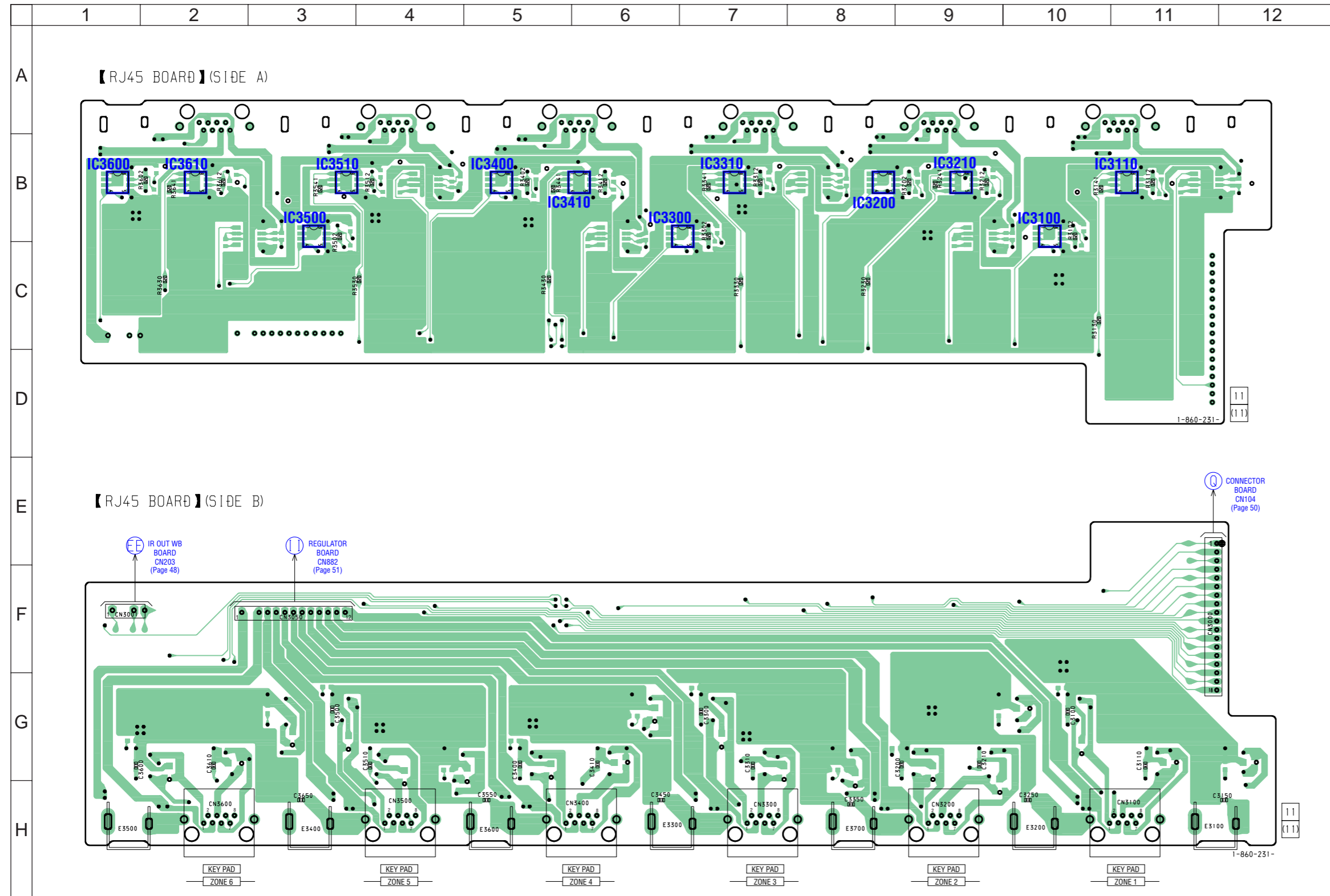
Ref. No.	Location
D11	F-10
D22	F-9
D33	F-7
D44	F-5
D55	F-4
D66	G-3
D4100	H-11
D4150	H-10
D4200	H-9
D4250	H-8
D4300	H-7
D4350	H-6
D4400	H-5
D4450	H-5
D4500	H-4
D4550	H-3
D4600	H-2
D4650	G-1
IC4100	G-10
IC4300	G-7
IC4500	G-4
Q11	G-10
Q22	F-10
Q33	G-7
Q44	G-5
Q55	G-4
Q66	G-2
Q4100	H-11
Q4150	H-11
Q4151	G-10
Q4200	G-9
Q4250	G-8
Q4300	H-7
Q4350	H-6
Q4351	G-6
Q4400	H-5
Q4450	G-5
Q4500	H-4
Q4550	H-3
Q4551	H-3
Q4600	H-2
Q4650	G-2



3-28. SCHEMATIC DIAGRAM — SPEAKER OUT SECTION —



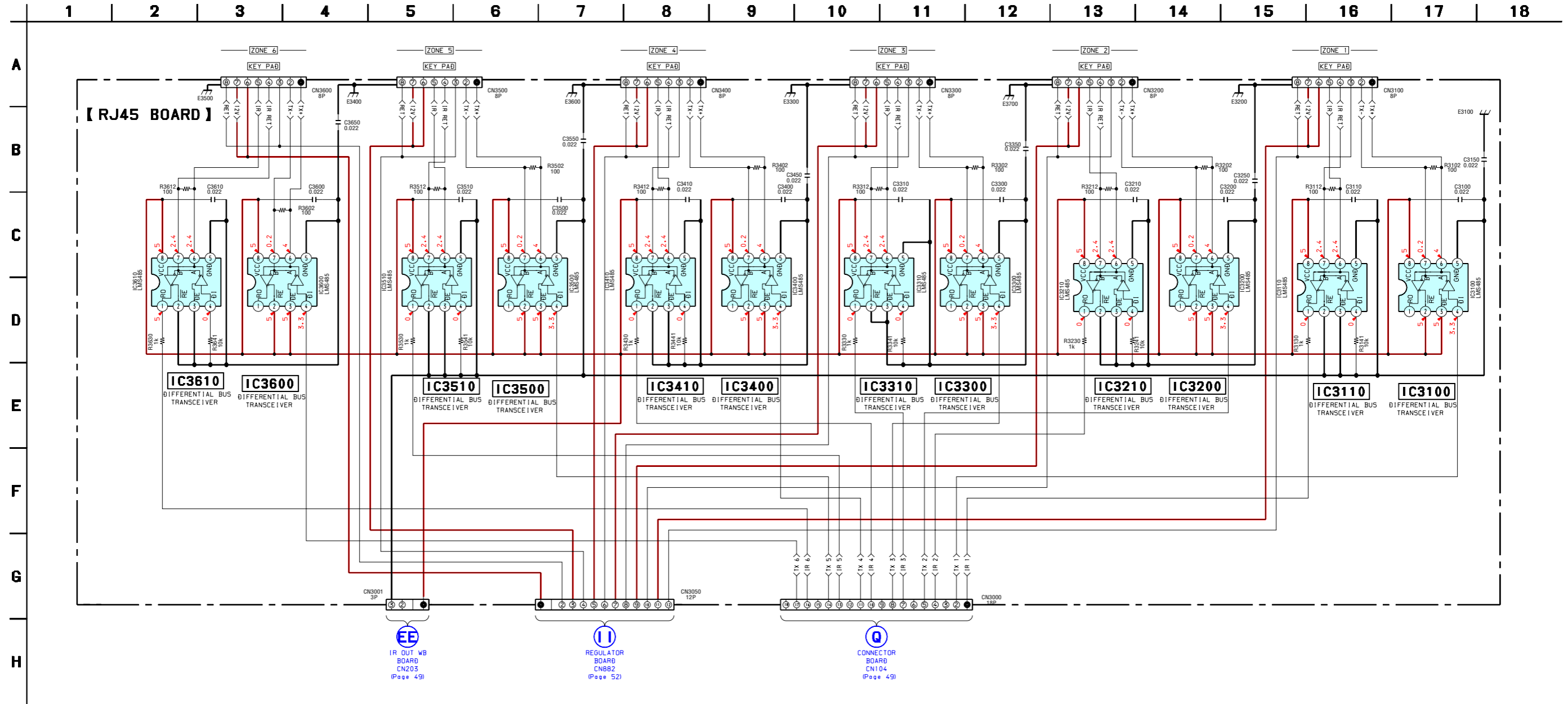
3-29. PRINTED WIRING BOARD — RJ45 SECTION — • See page 12 for Circuit Boards Location.  :Uses unleaded solder.

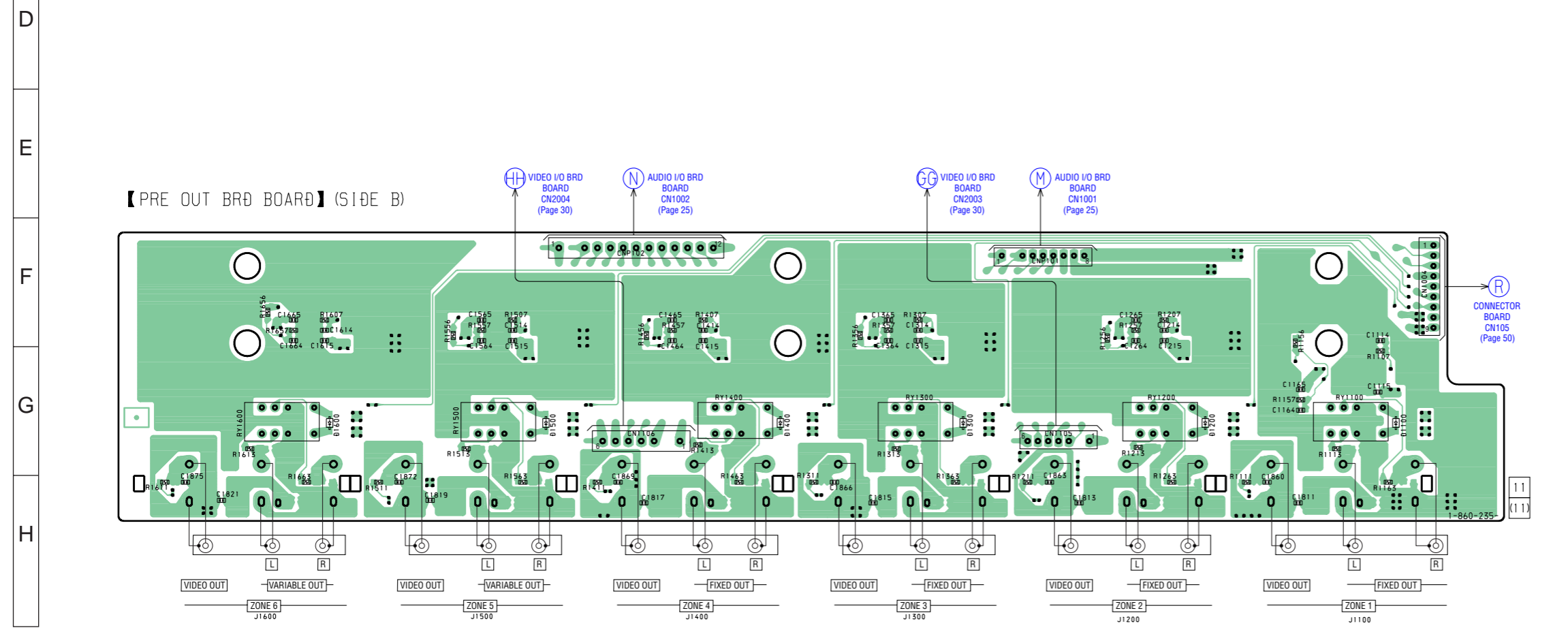
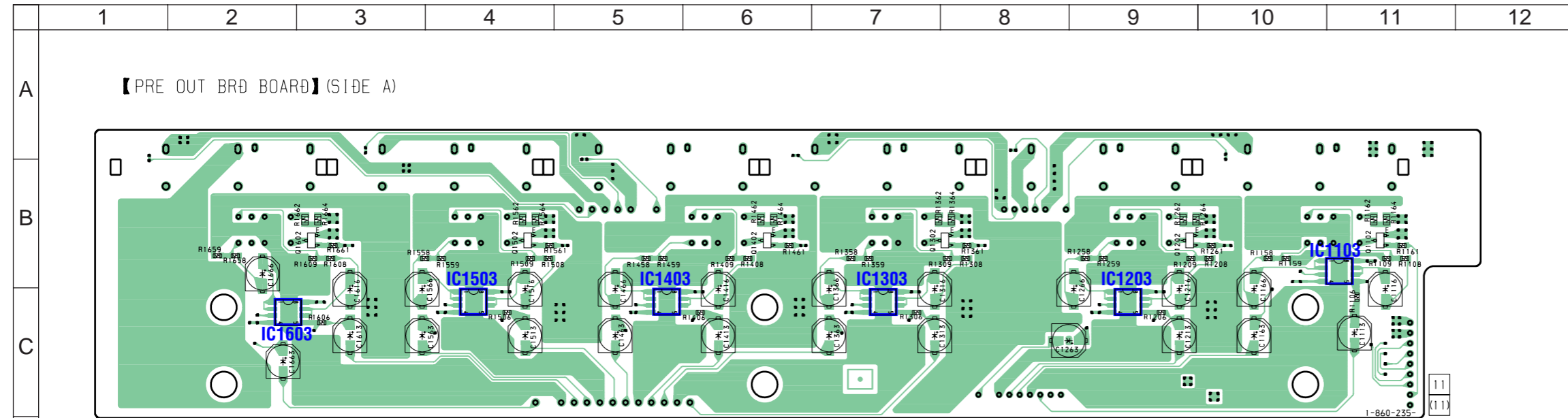


• Semiconductor Location

Ref. No.	Location
IC3100	B-10
IC3110	B-11
IC3200	B-8
IC3210	B-9
IC3300	B-6
IC3310	B-7
IC3400	B-5
IC3410	B-6
IC3500	B-3
IC3510	B-3
IC3600	B-1
IC3610	B-2

3-30. SCHEMATIC DIAGRAM — RJ45 SECTION —

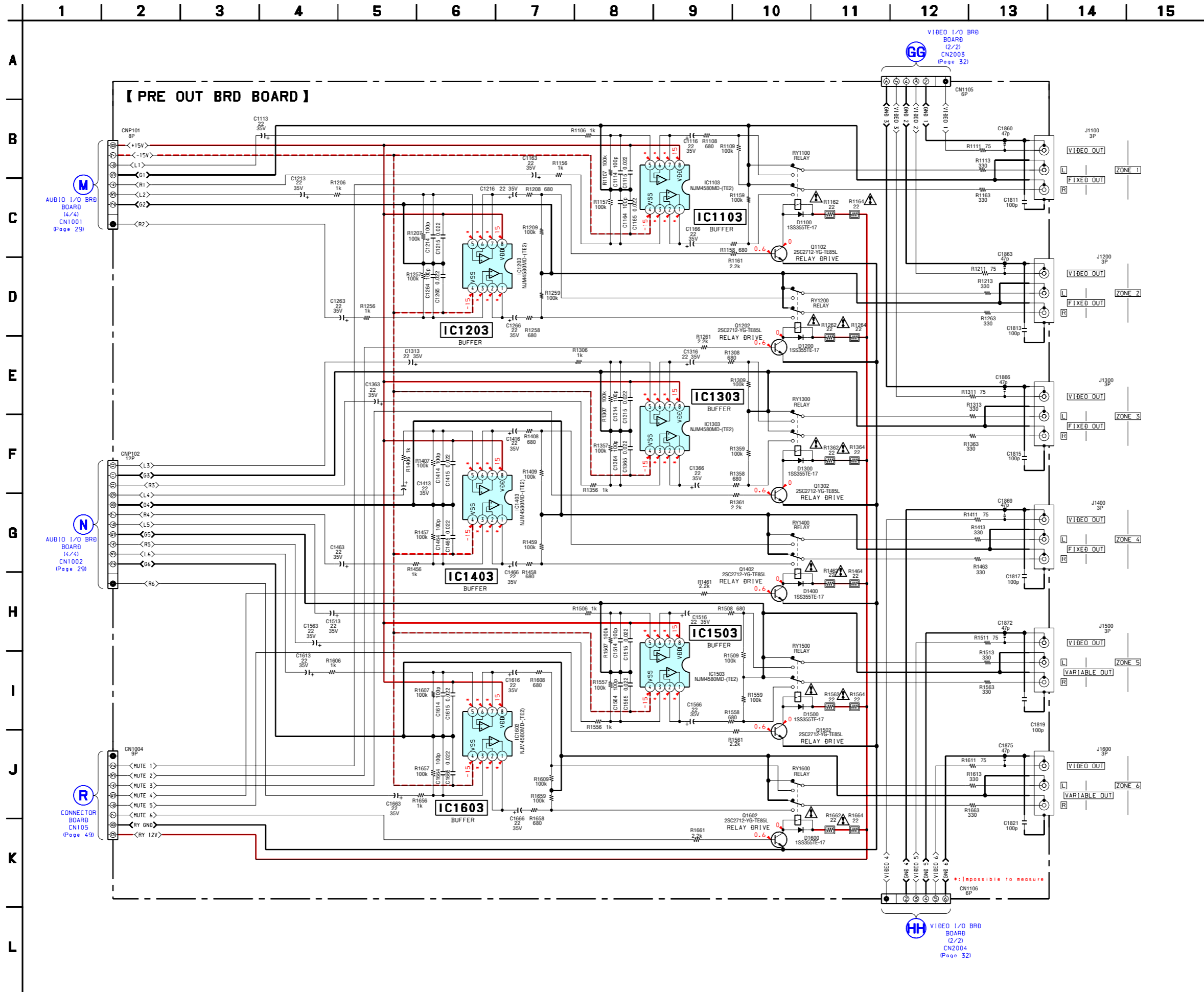


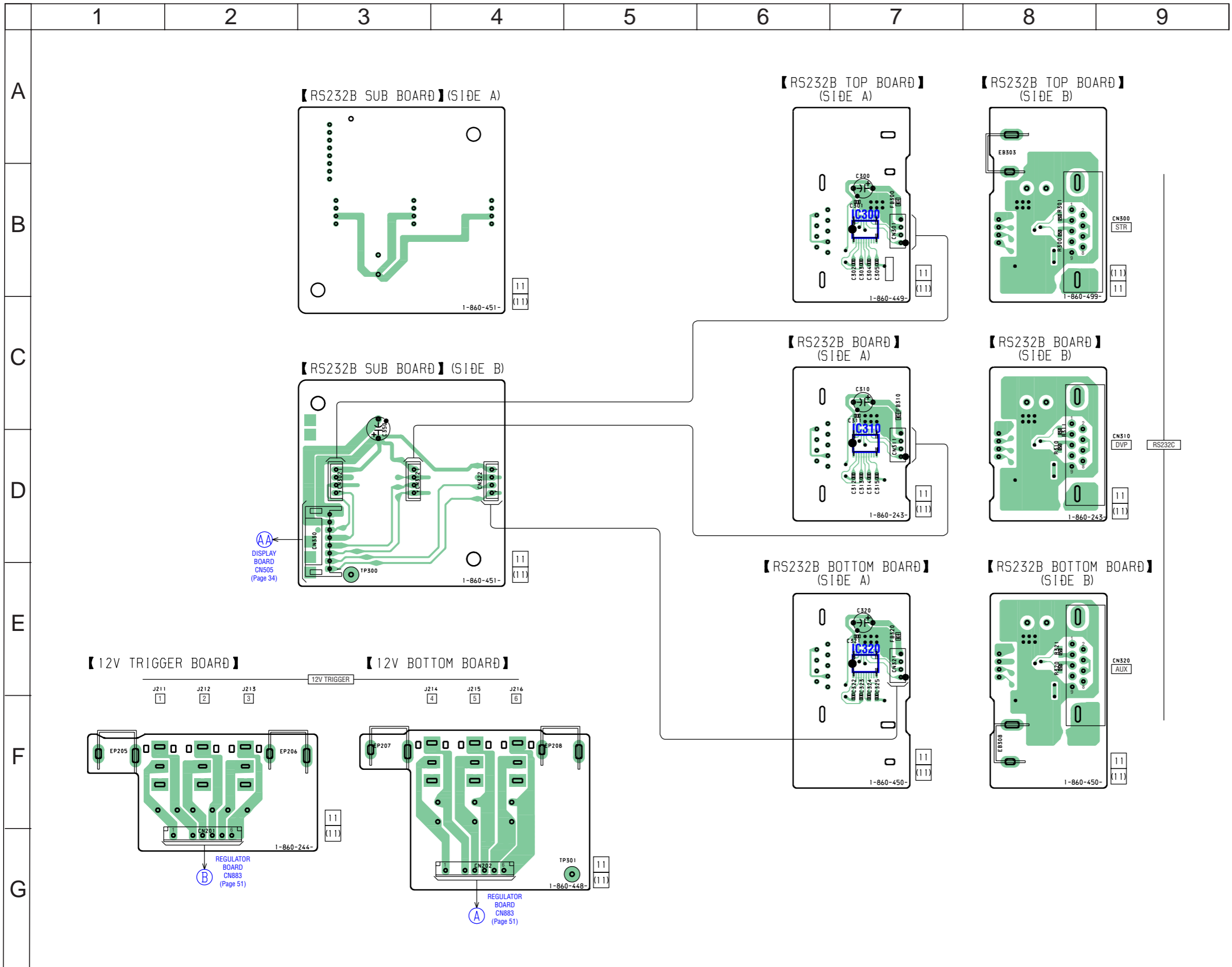


• Semiconductor Location

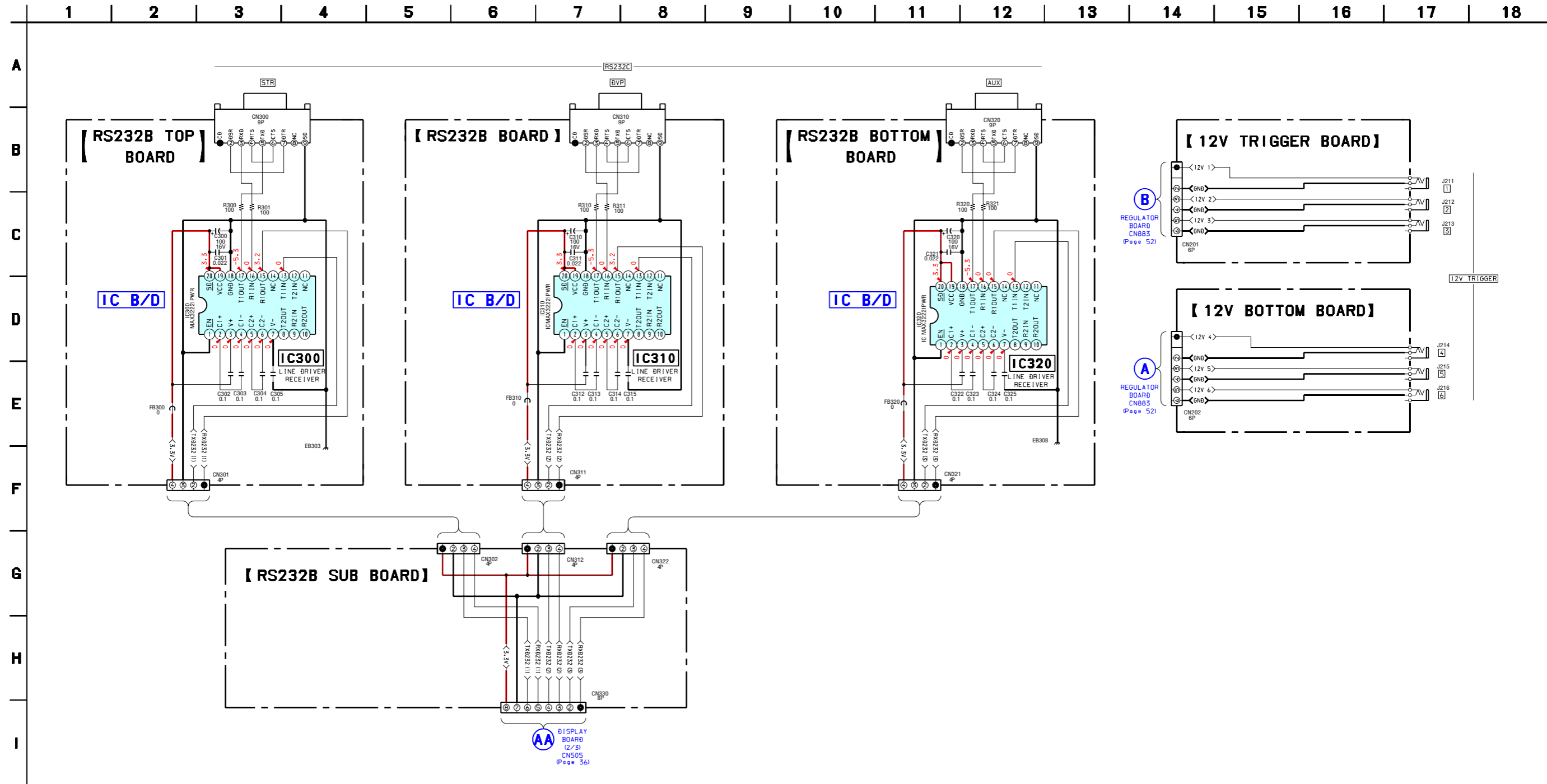
Ref. No.	Location
D1100	G-11
D1200	G-10
D1300	G-8
D1400	G-6
D1500	G-4
D1600	G-3
IC1103	B-11
IC1203	C-9
IC1303	B-7
IC1403	C-5
IC1503	C-4
IC1603	C-2
Q1102	B-11
Q1202	B-9
Q1302	B-7
Q1402	B-6
Q1502	B-4
Q1602	B-3

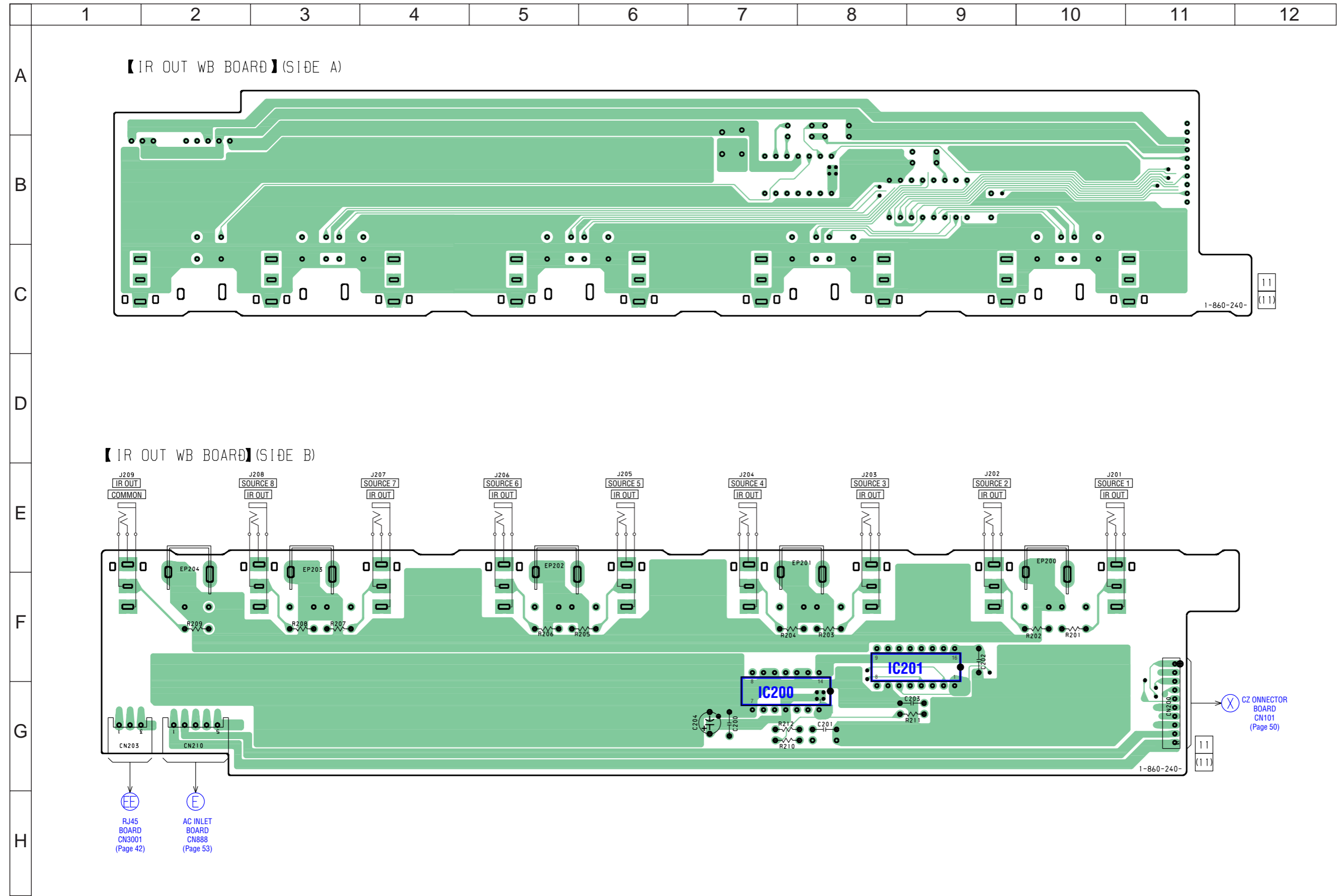
3-32. SCHEMATIC DIAGRAM — PRE OUT BRD SECTION —





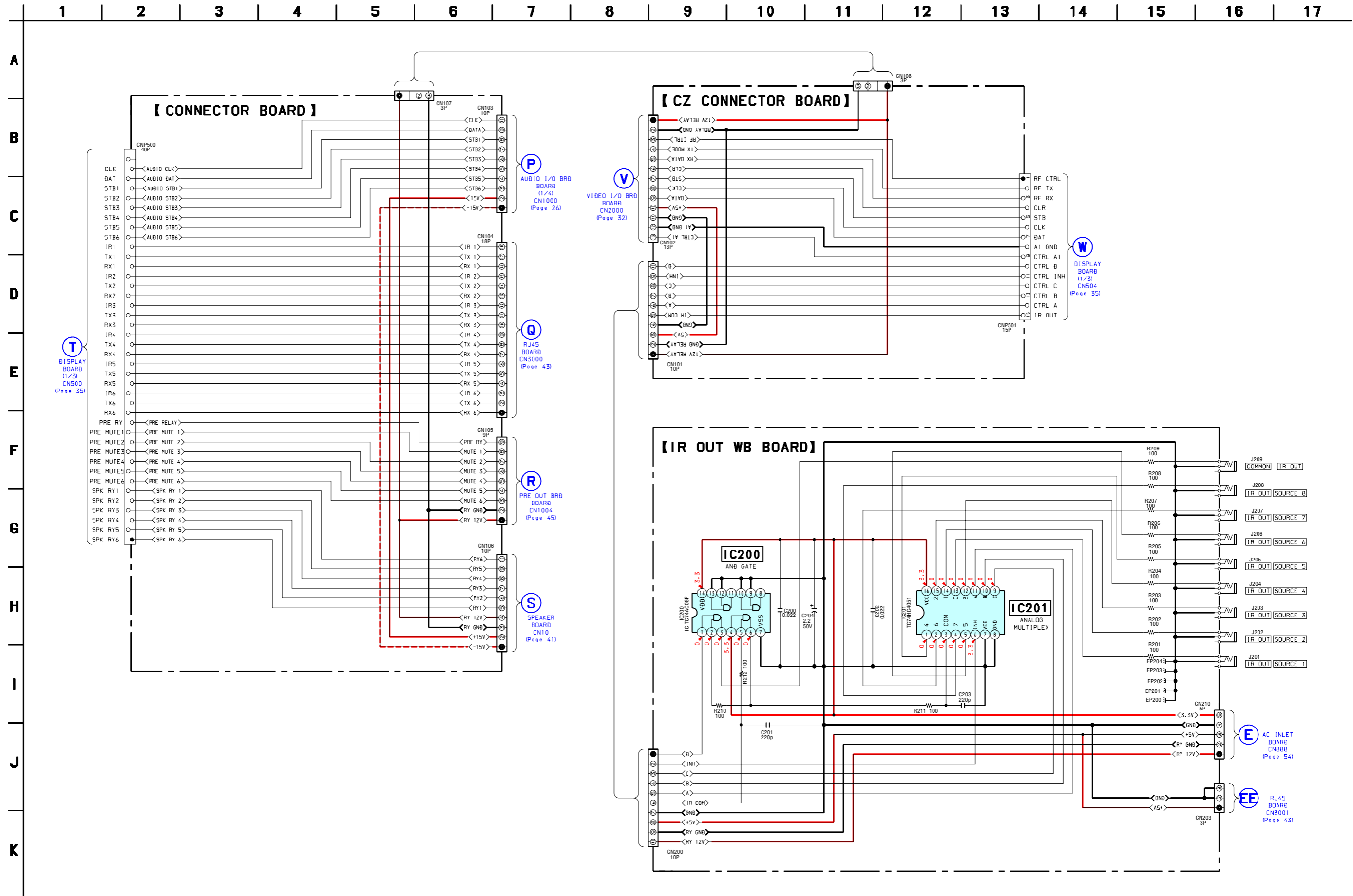
3-34. SCHEMATIC DIAGRAM — RS232C/12V TRIGGER SECTION — • See page 64 for IC Block diagrams.

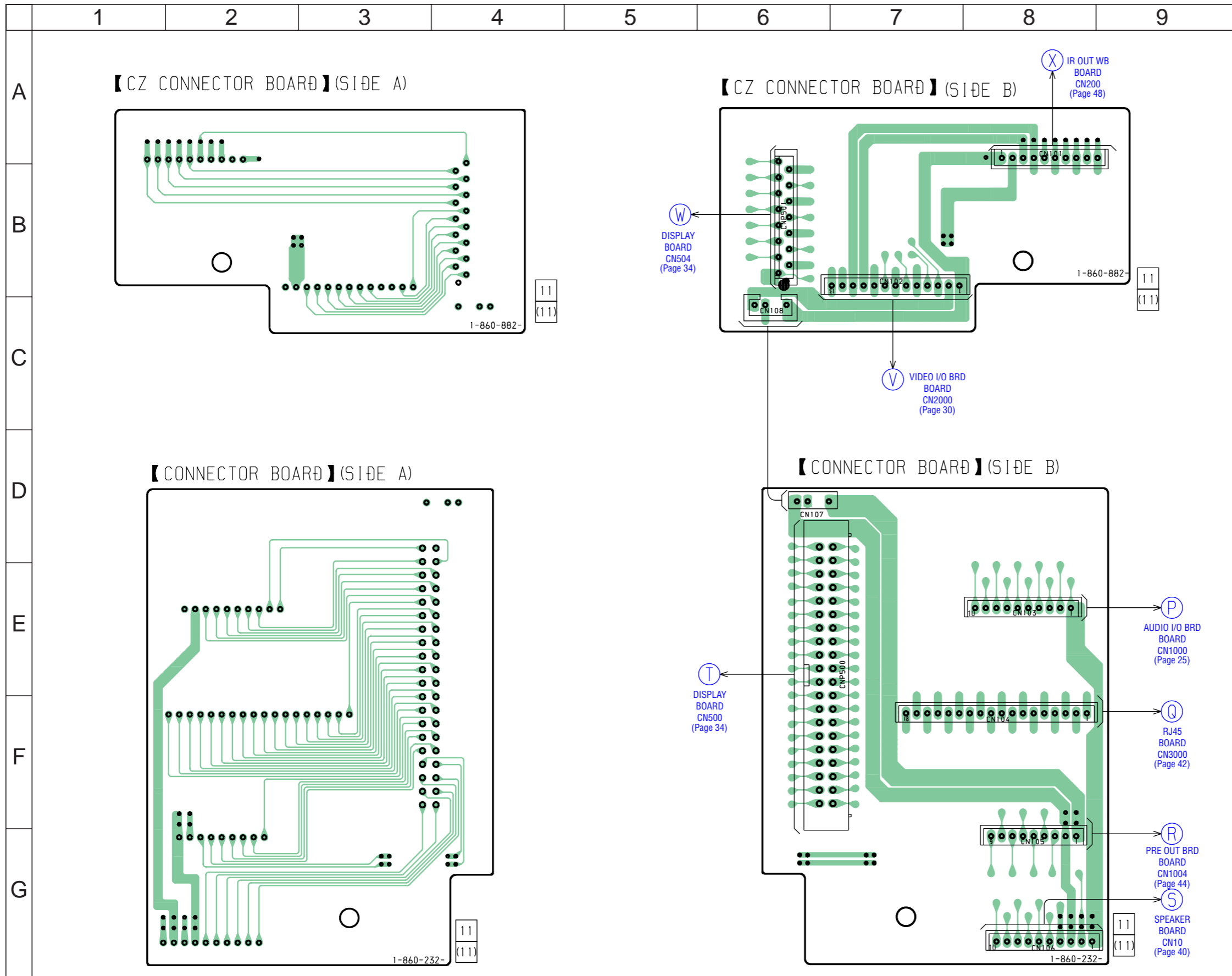





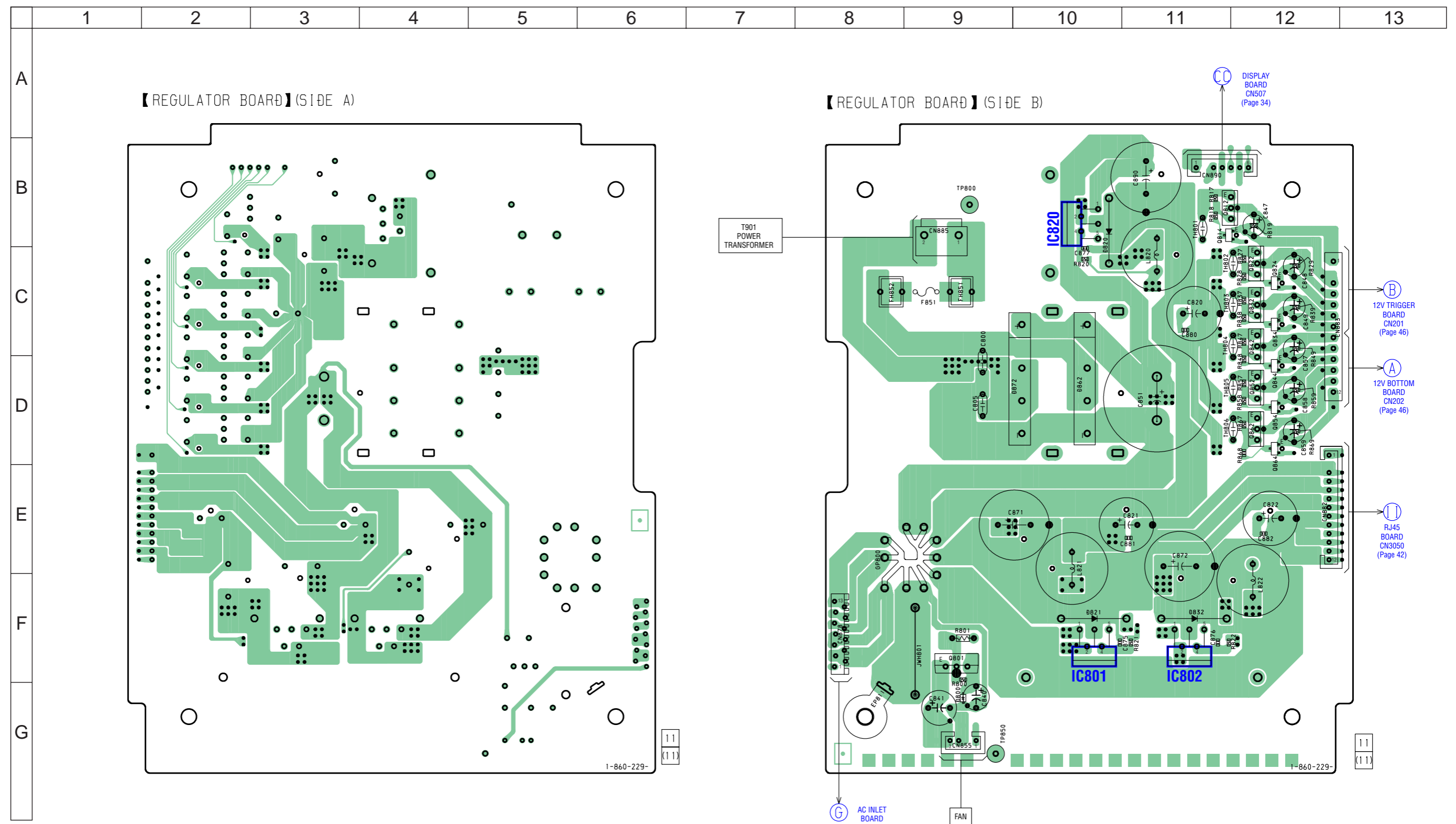


3-36. SCHEMATIC DIAGRAM — IR OUT/CONNECTOR SECTION —



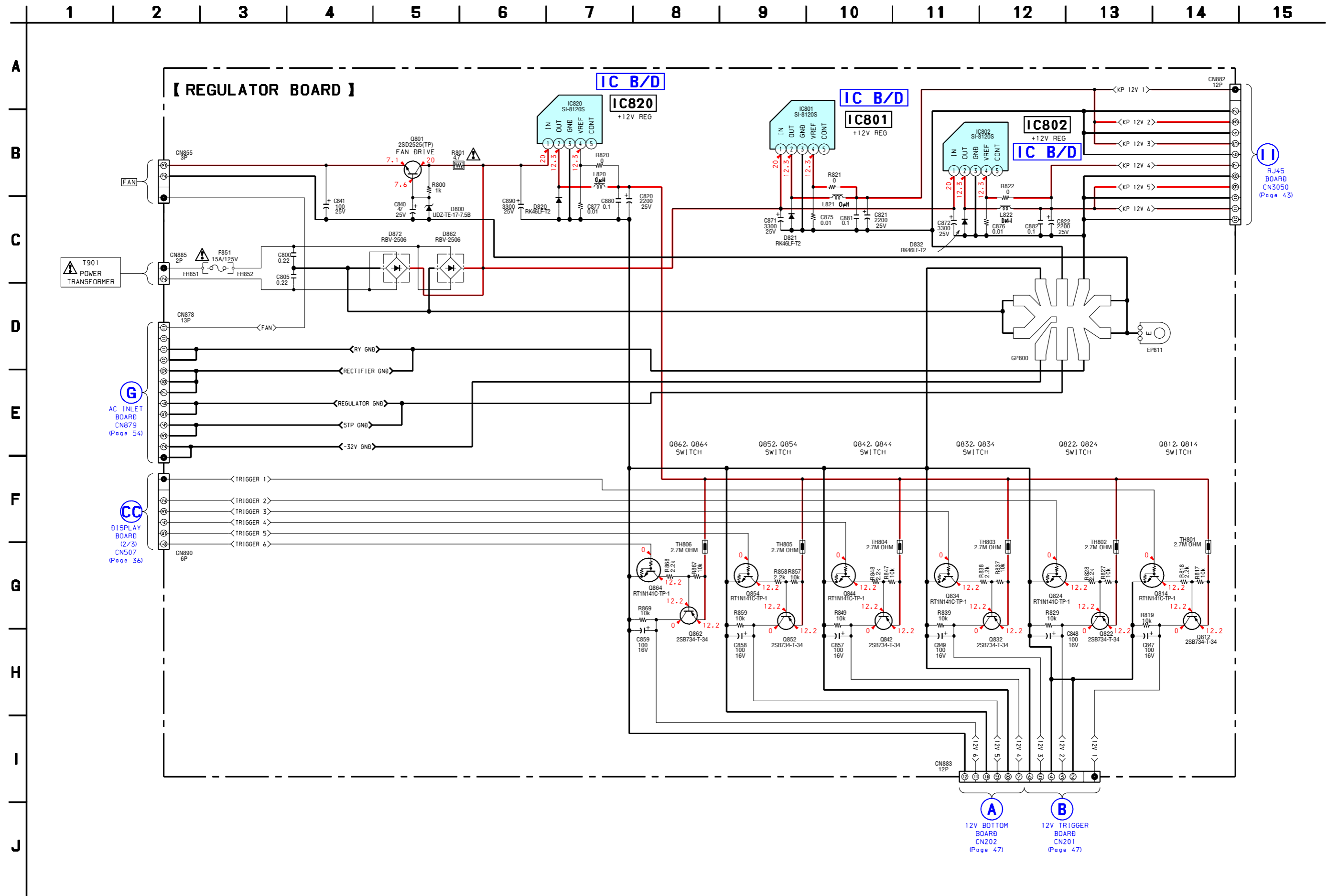


3-38. PRINTED WIRING BOARD — REGULATOR SECTION — • See page 12 for Circuit Boards Location.  :Uses unleaded solder.

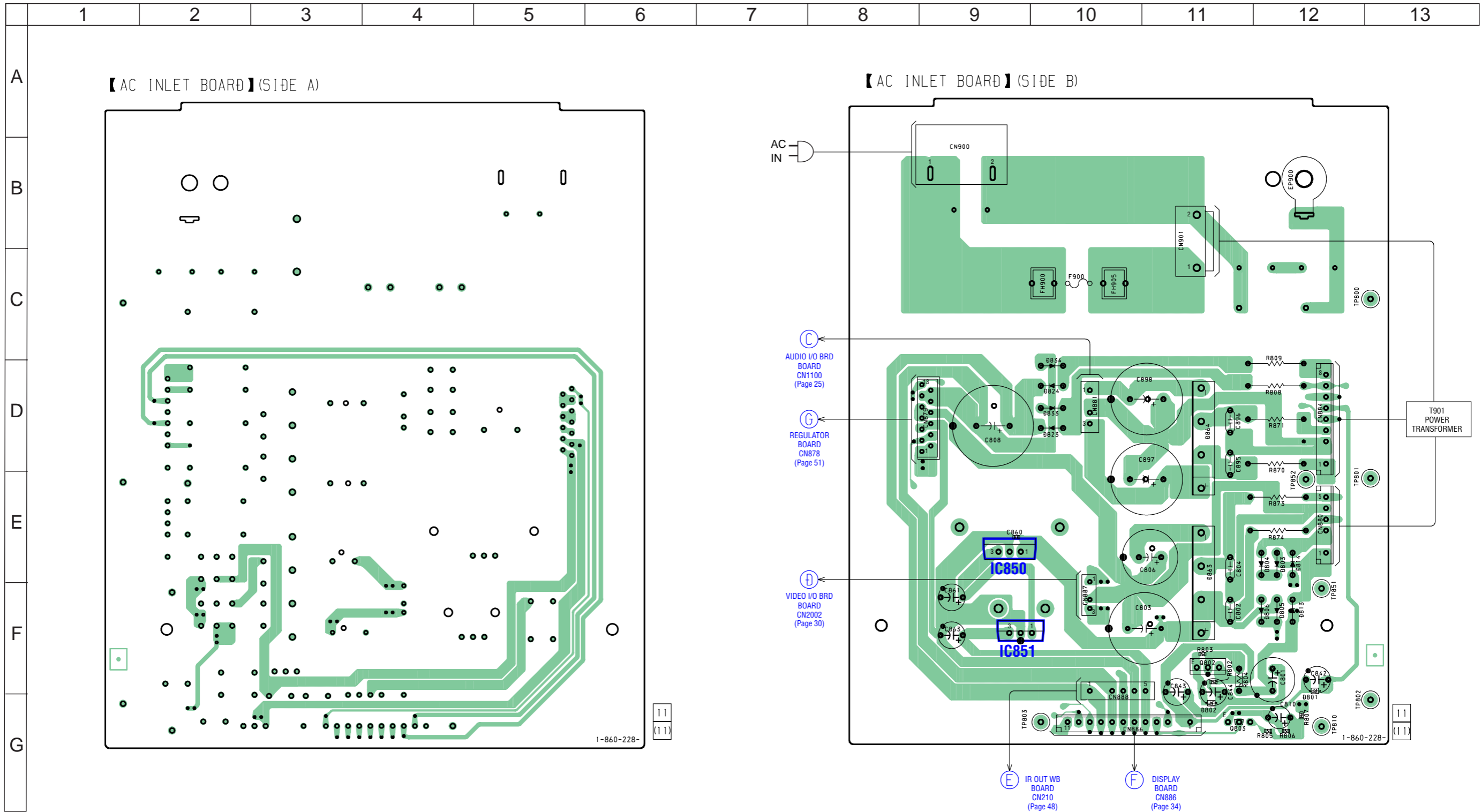


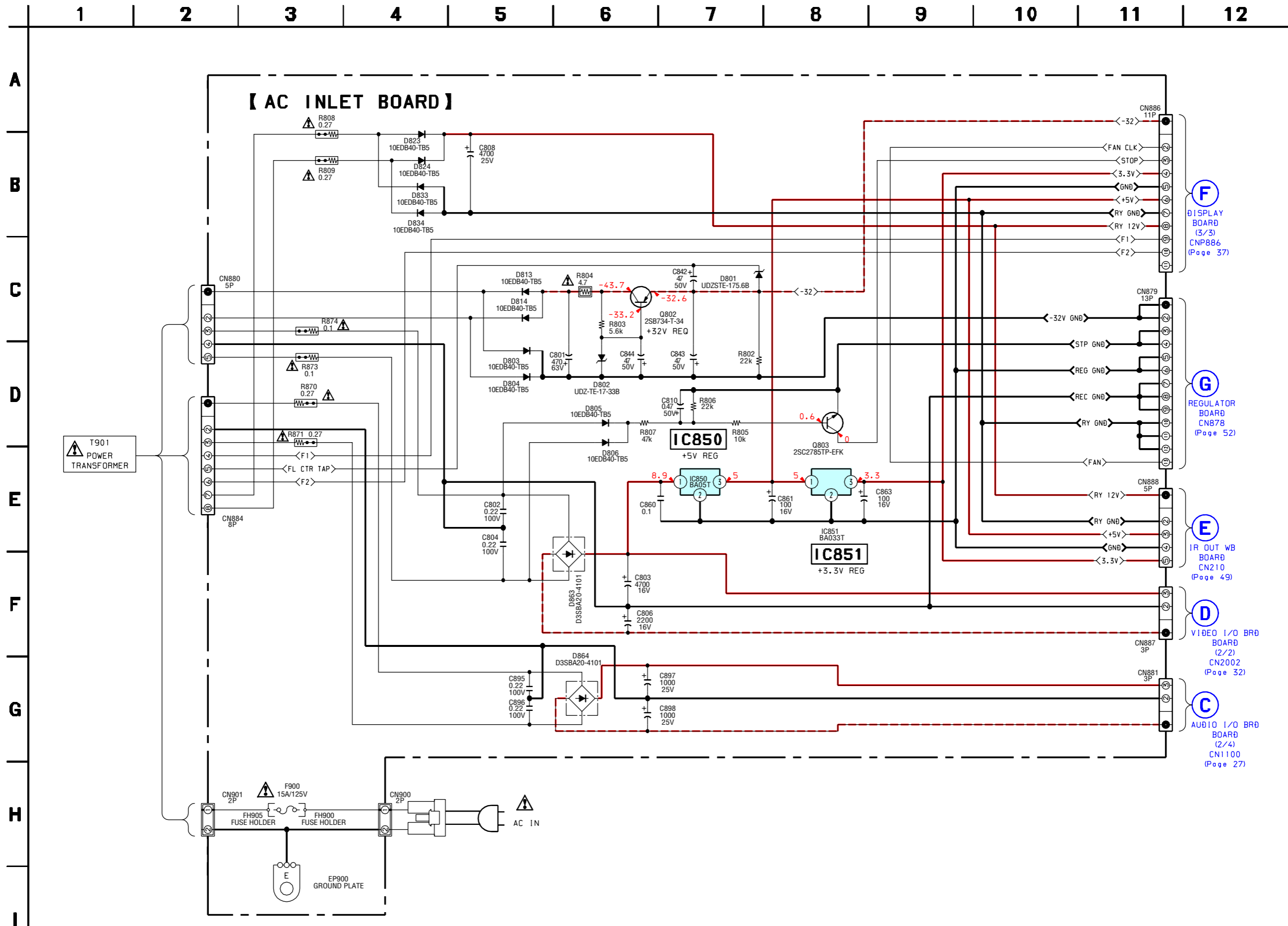
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D800	G-9	IC801	G-10	Q814	C-11	Q844	D-12
D820	C-10	IC802	G-11	Q822	C-12	Q852	E-12
D821	F-10	IC820	C-10	Q824	C-12	Q854	D-12
D832	F-11			Q832	C-12	Q862	E-12
D862	D-10	Q801	F-9	Q834	C-12	Q864	E-12
D872	D-9	Q812	B-11	Q842	D-12		



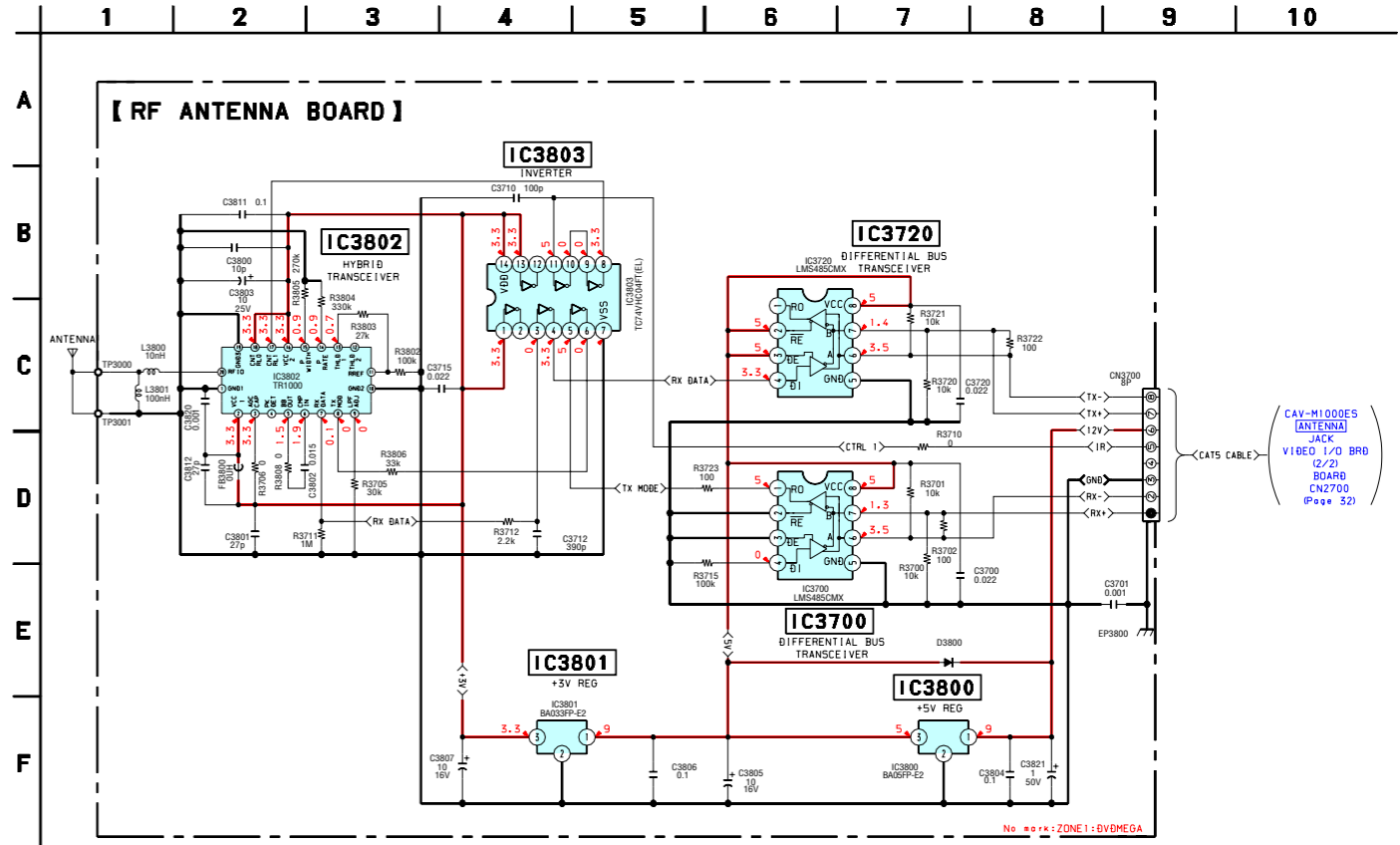
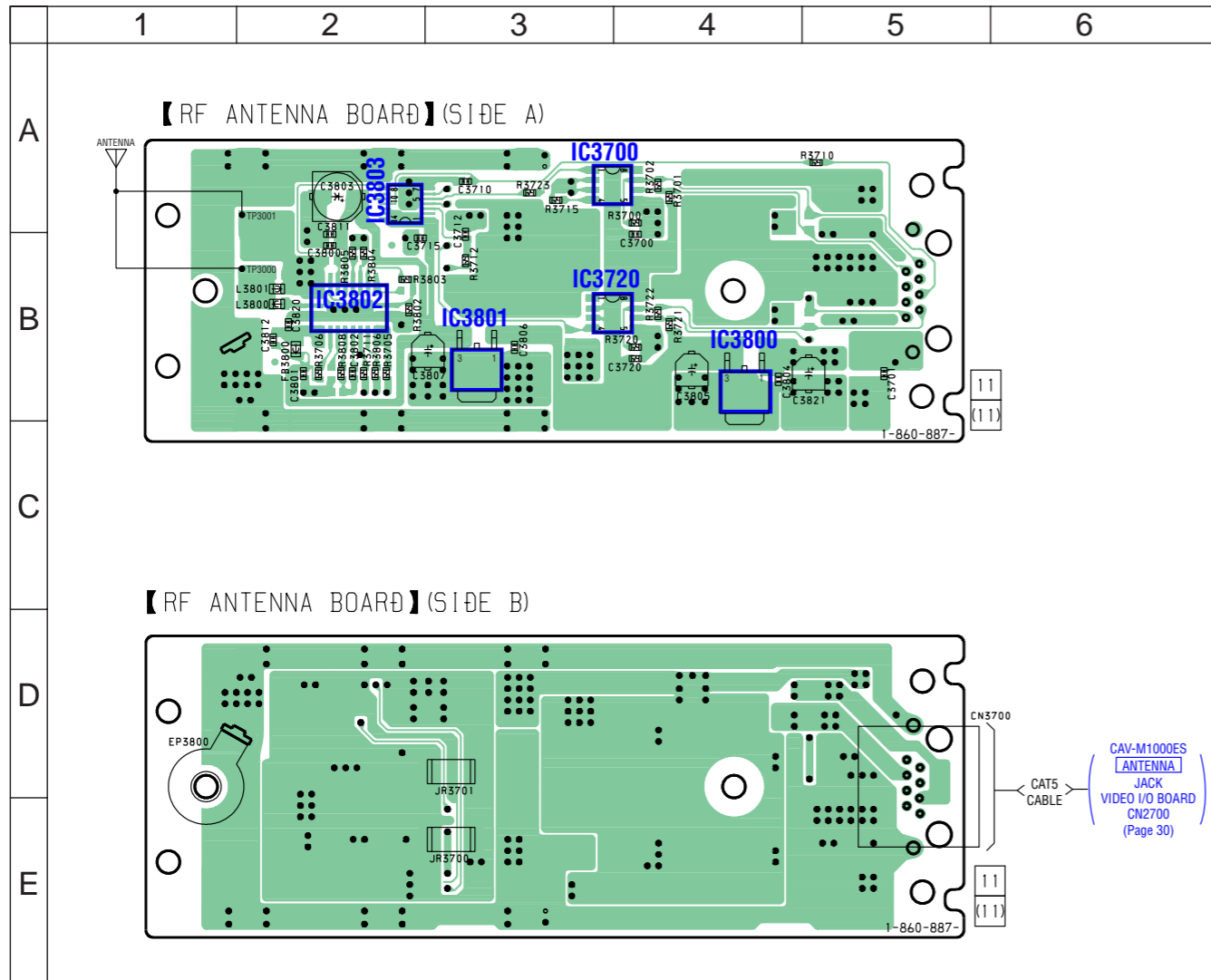
3-40. PRINTED WIRING BOARD — AC INLET SECTION — • See page 12 for Circuit Boards Location.  :Uses unleaded solder.





3-42. PRINTED WIRING BOARD — RF ANTENNA SECTION (AN-M1000) —

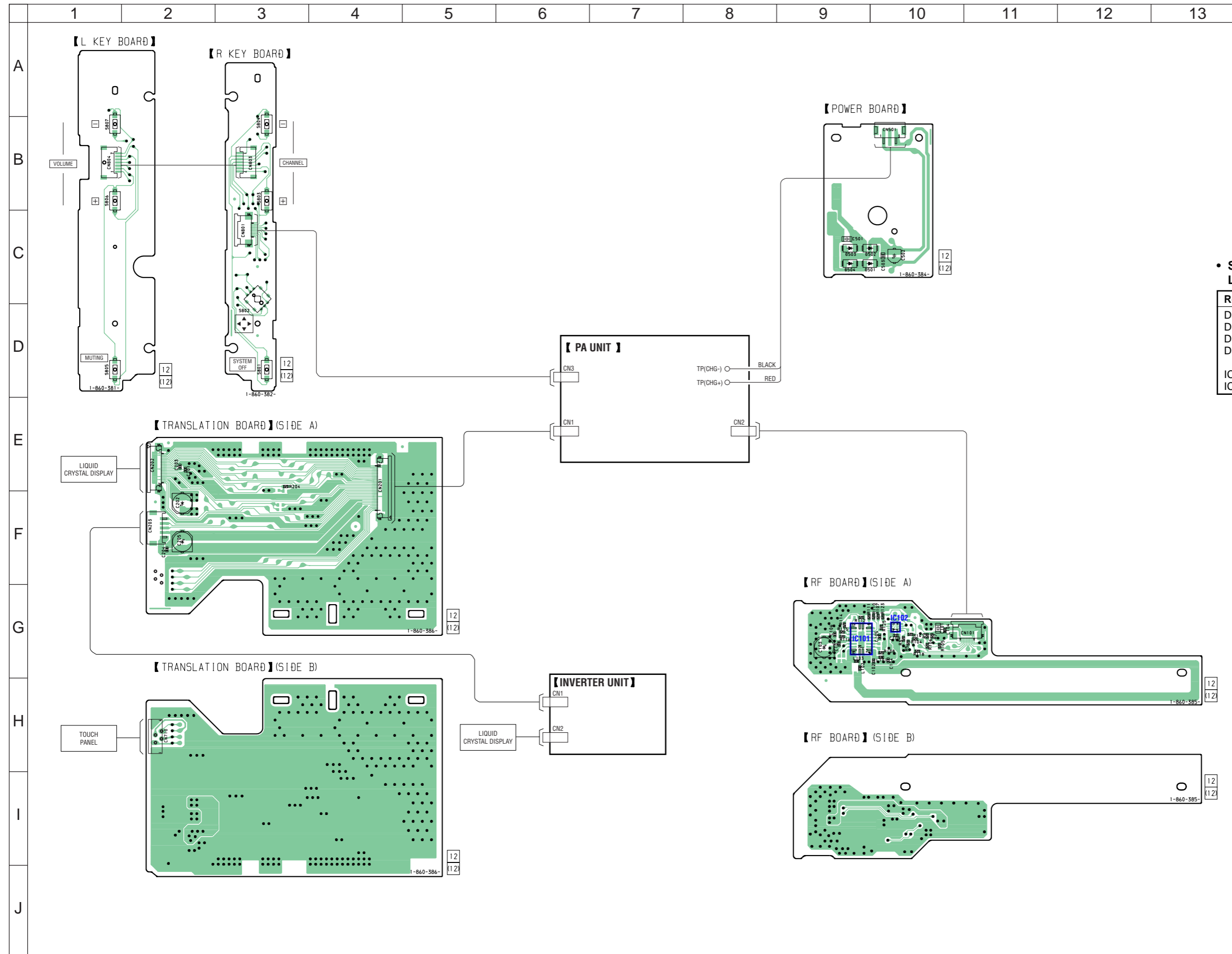
3-43. SCHEMATIC DIAGRAM — RF ANTENNA SECTION (AN-M1000) —



• Semiconductor Location

Ref. No.	Location
IC3700	B-3
IC3720	B-3
IC3800	B-4
IC3801	B-3
IC3802	B-2
IC3803	A-2

3-44. PRINTED WIRING BOARD — RF REMOTE CONTROL SECTION (RM-TP100) —

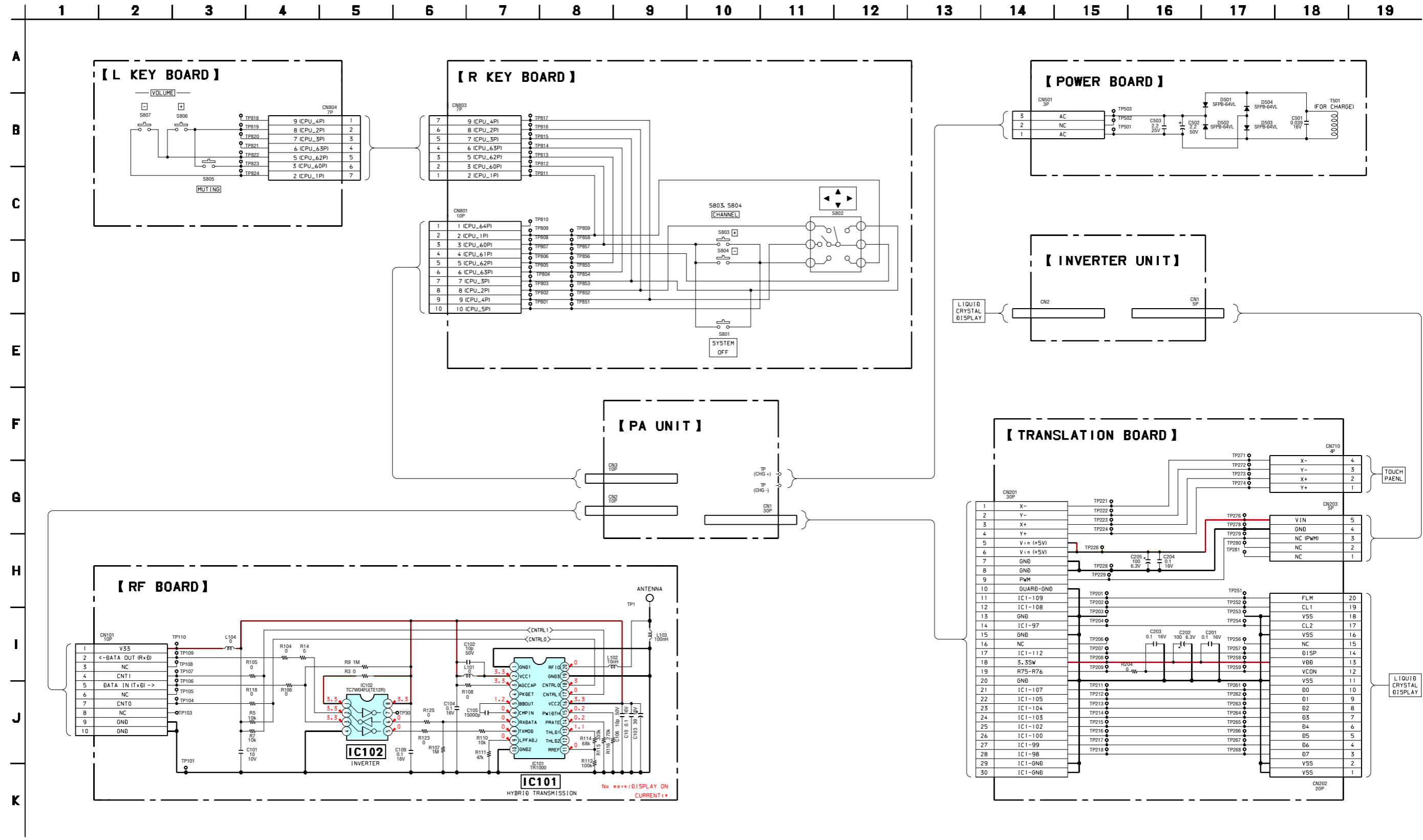


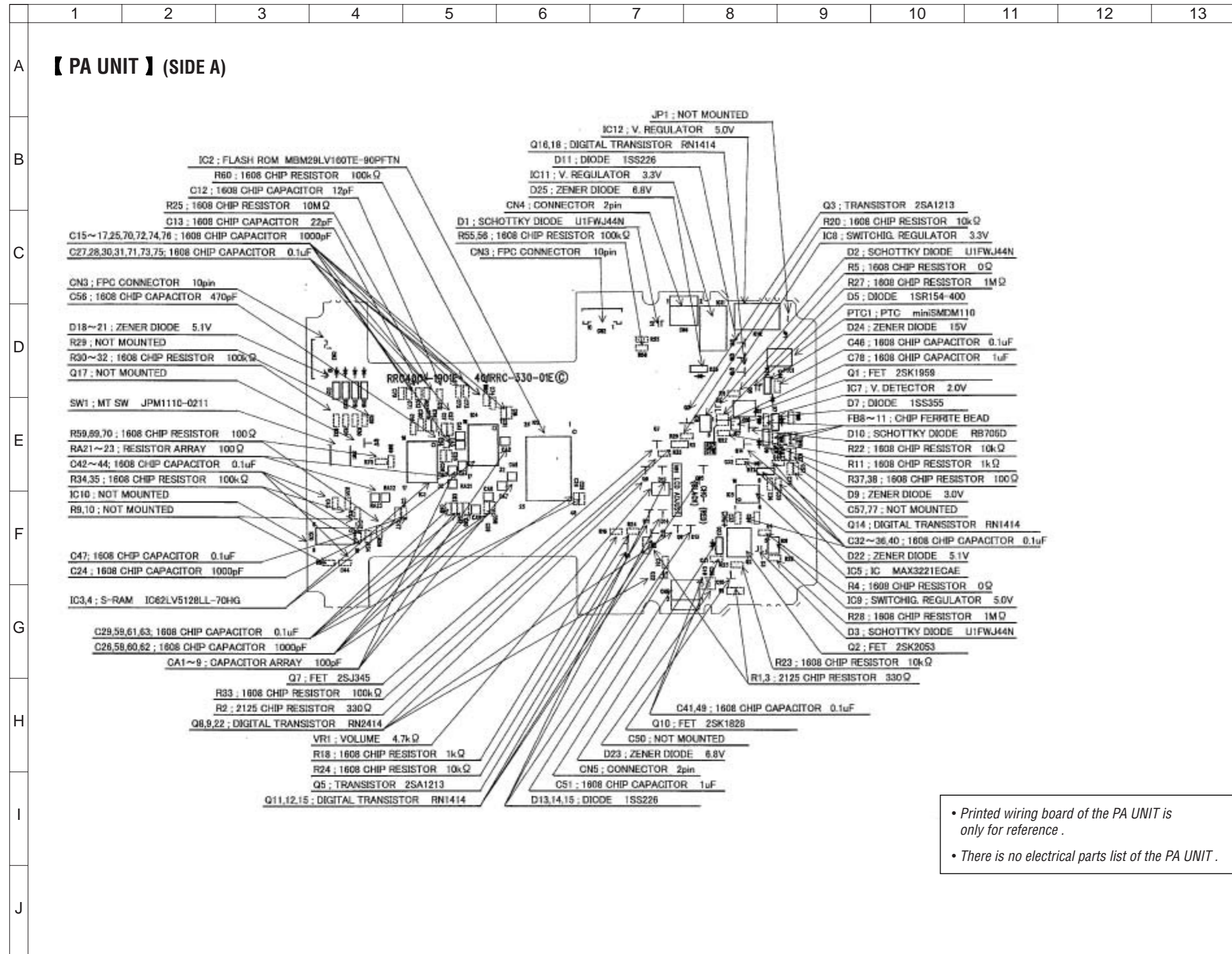
• Semiconductor Location

Ref. No.	Location
D501	C-10
D502	C-10
D503	C-9
D504	C-9
IC101	G-10
IC102	G-10



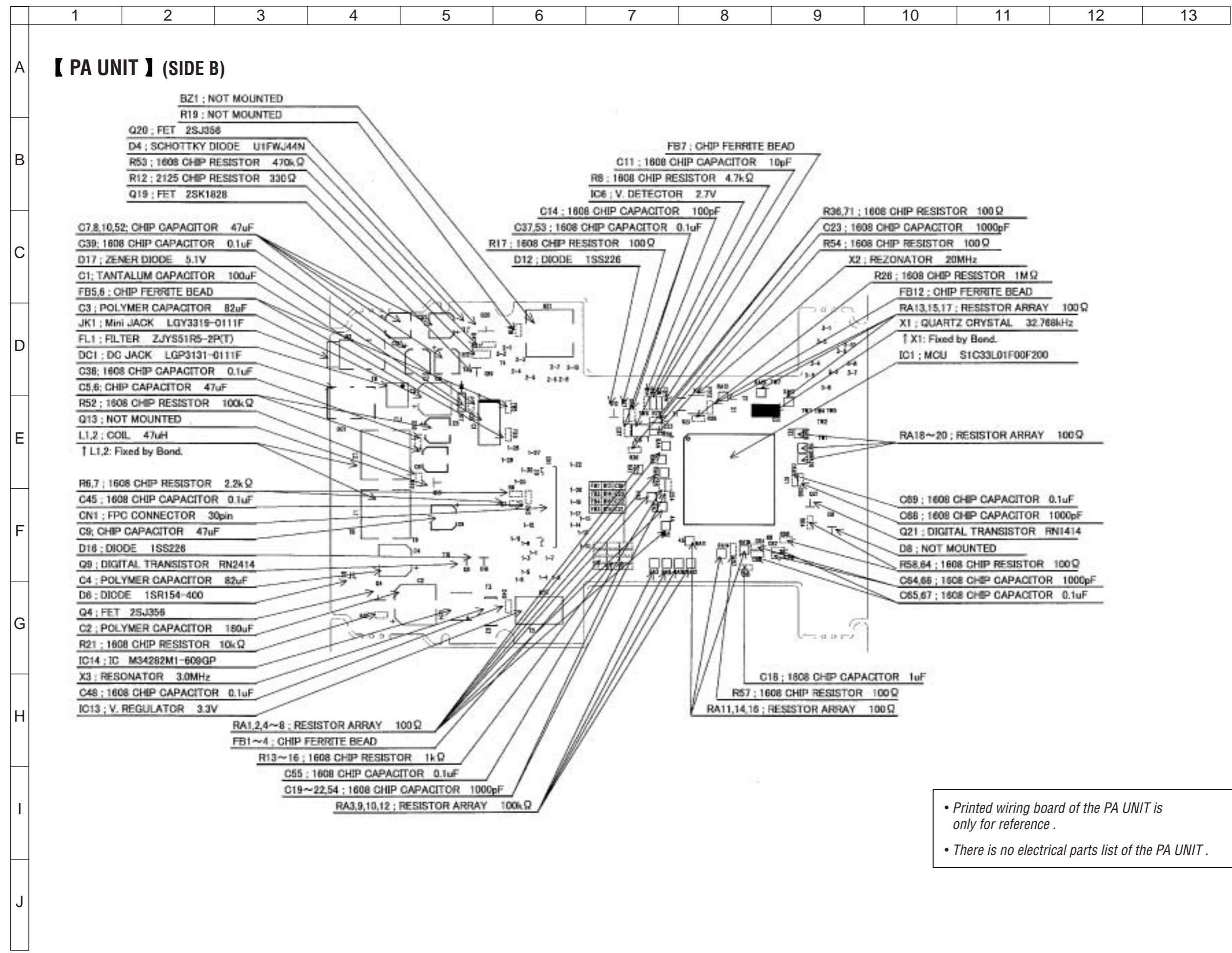
3-45. SCHEMATIC DIAGRAM — RF REMOTE CONTROL SECTION (RM-TP100) —





• Printed wiring board of the PA UNIT is only for reference .  
 • There is no electrical parts list of the PA UNIT .

3-47. PRINTED WIRING BOARD — PA UNIT SECTION (SIDE B) —



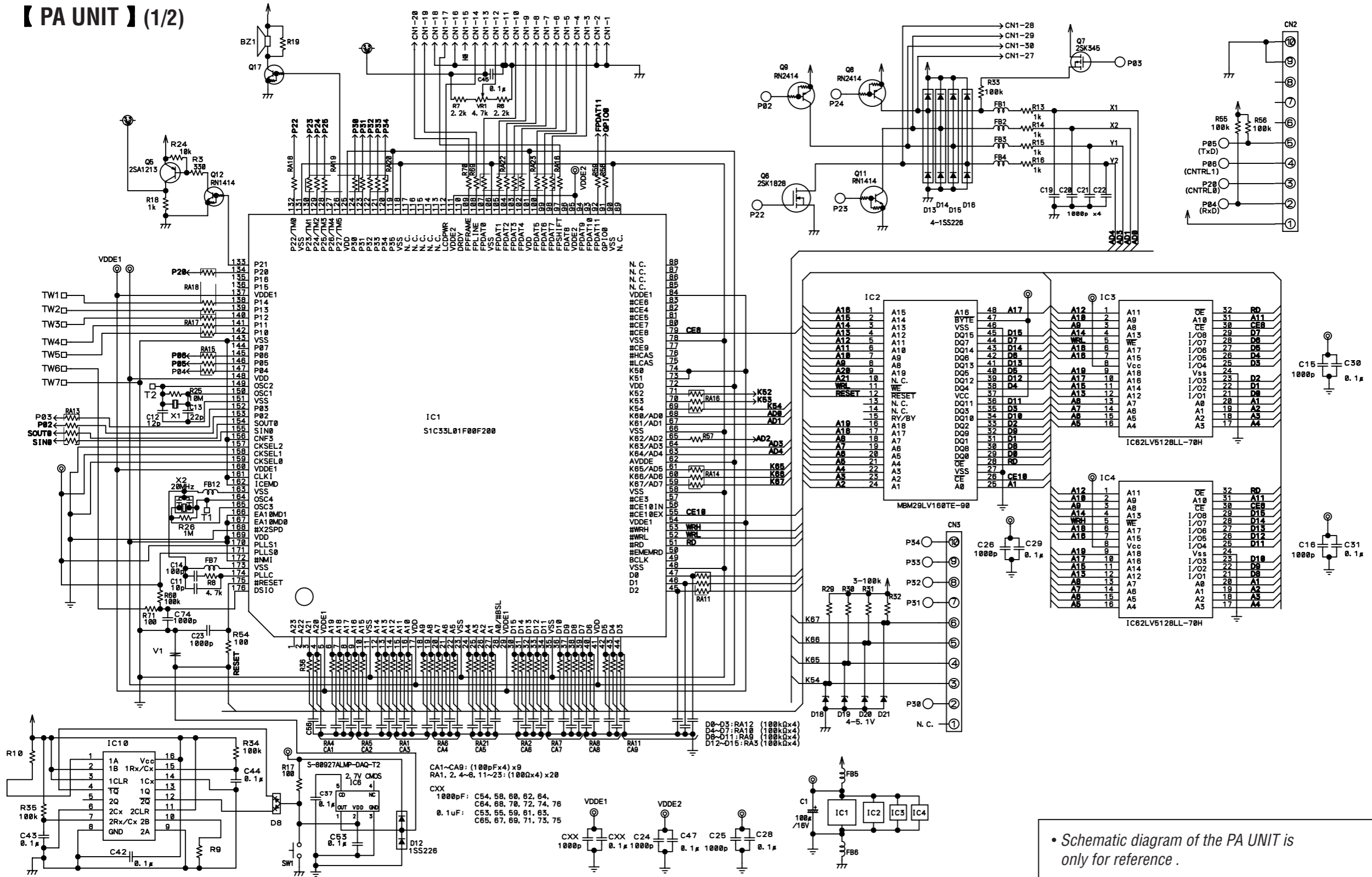
• Printed wiring board of the PA UNIT is only for reference .

• There is no electrical parts list of the PA UNIT .

1 2 3 4 5 6 7 8 9 10 11

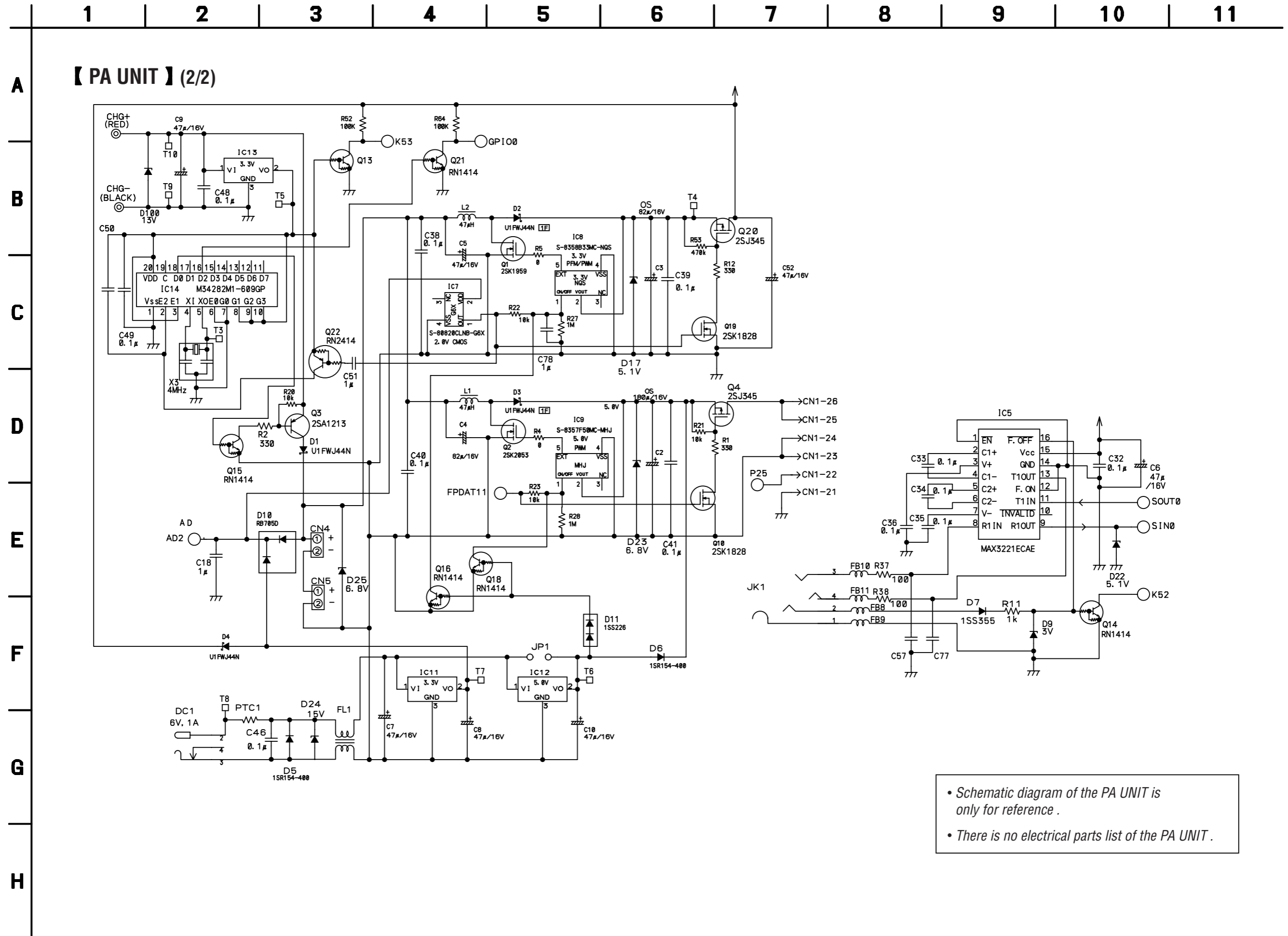
A  
B  
C  
D  
E  
F  
G  
H

【 PA UNIT 】 (1/2)



• Schematic diagram of the PA UNIT is only for reference.  
• There is no electrical parts list of the PA UNIT.

3-49. SCHEMATIC DIAGRAM — PA UNIT SECTION (2/2) —

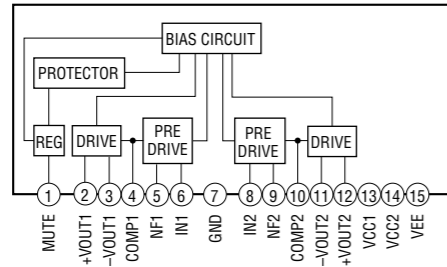


• Schematic diagram of the PA UNIT is only for reference .  
 • There is no electrical parts list of the PA UNIT .

• IC Block Diagrams

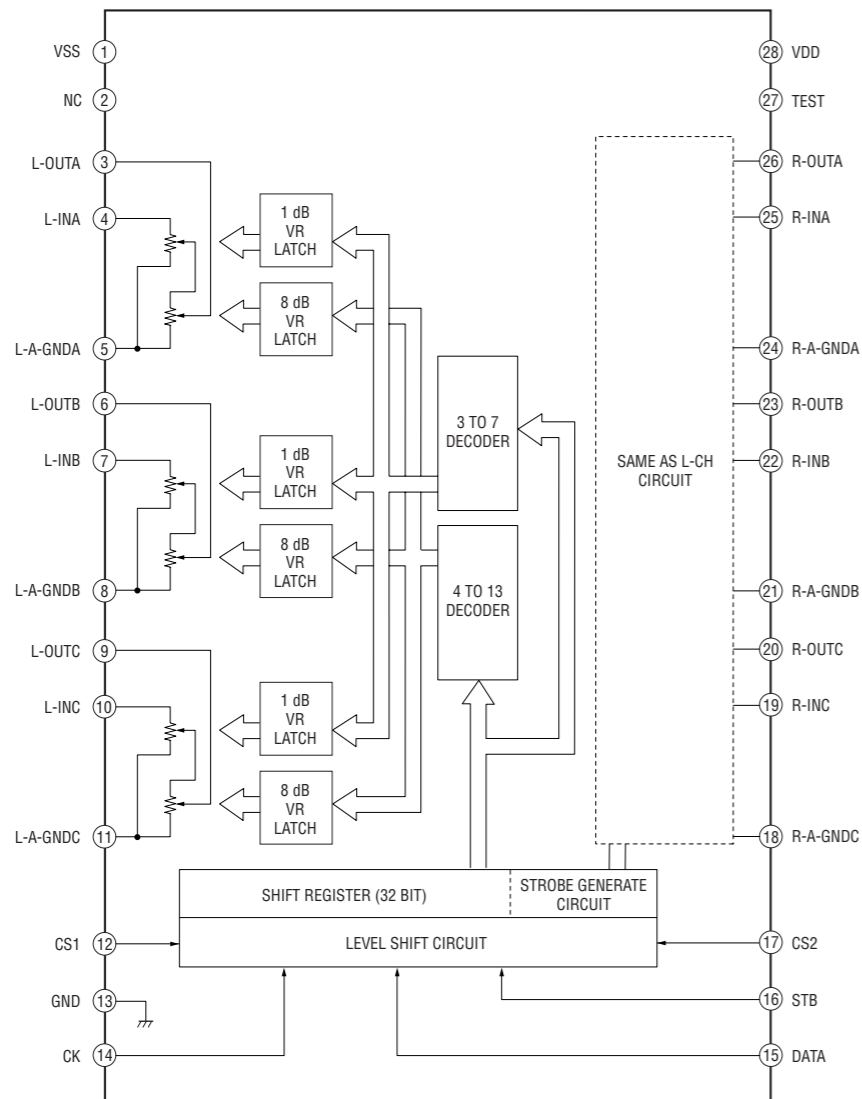
– AMP BOARD –

IC100 uPC2581V-S



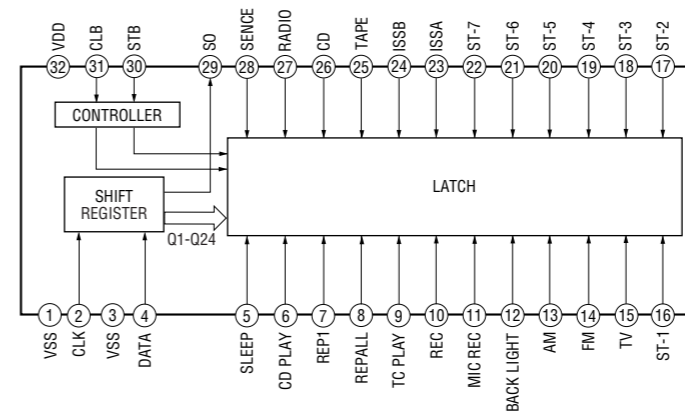
– AUDIO I/O BRD BOARD –

IC1800, 1900 TC9482F(EL)

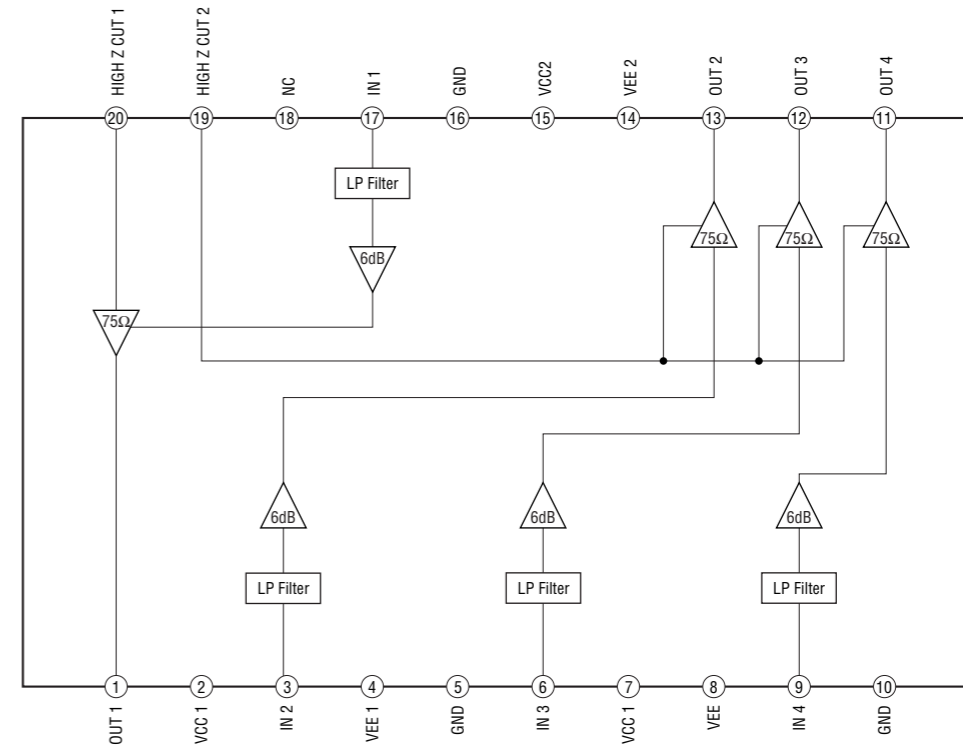


– VIDEO I/O BRD BOARD –

IC2100 BU2152FS

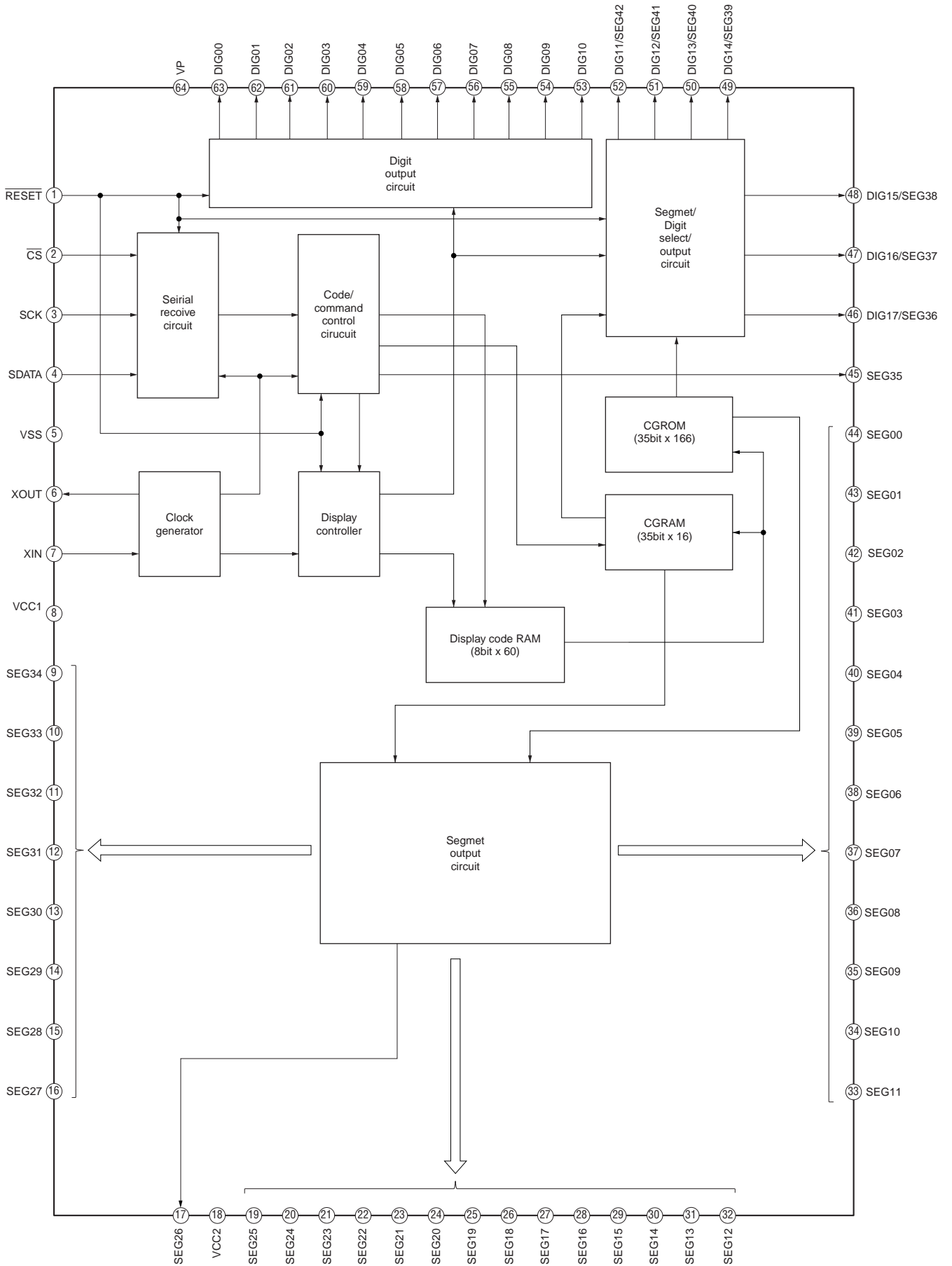


IC2000, 2001, 2400, 2410, 2420 MJM2577M

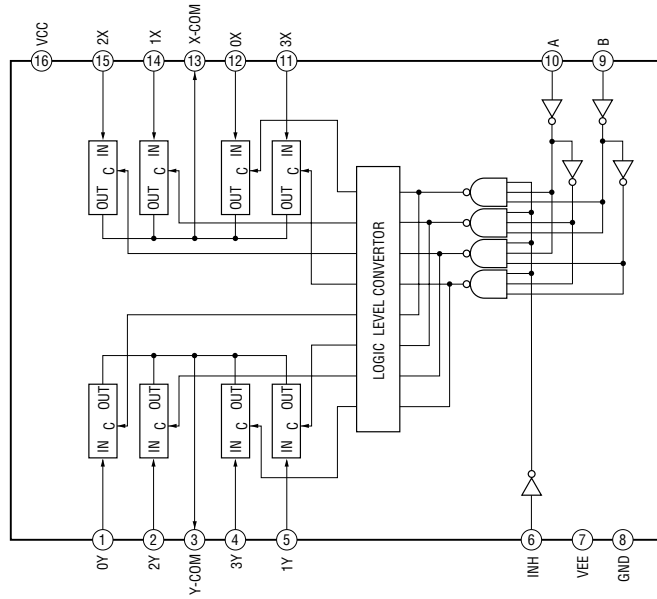


- DISPLAY BOARD -

IC400 M66003-0111FP



IC508 TC74HC4052AFT(EL)



- RS232B BOARD -

- RS232B BOTTOM BOARD -

- RS232B TOP BOARD -

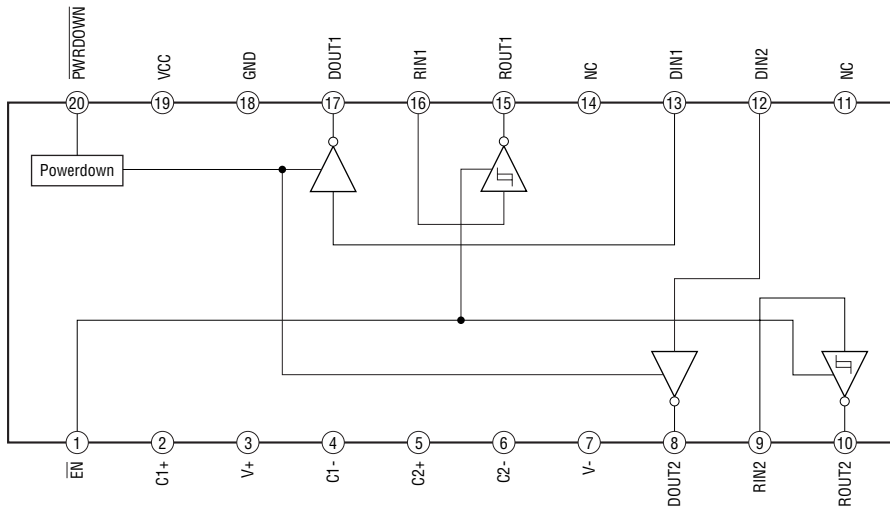
- RS232F BOARD -

IC310 MAX3222IPWR

IC320 MAX3222IPWR

IC300 MAX3222IPWR

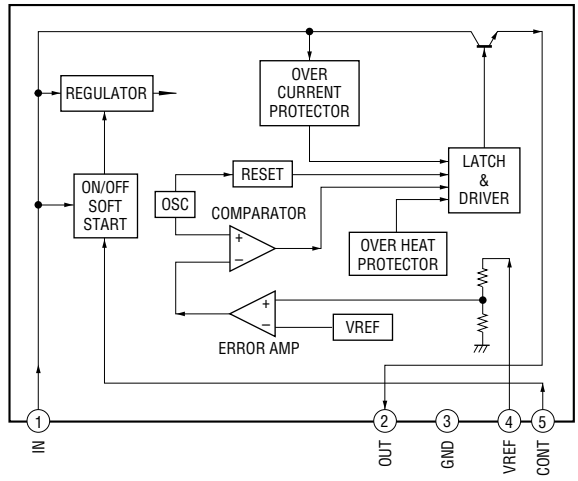
IC750 MAX3222IPWR





– REGULATOR BOARD –

IC801, 802, 820 SI-8120S



• IC Pin Function Description  
**DISPLAY BOARD IC500 MB91F155APFV-G-E1 (SYSTEM CONTROL)**

Pin No.	Pin Name	I/O	Description
1	AUDIO_CLK	O	Audio clock signal output
2	AUDIO_DAT	O	Audio data signal output
3	AUDIO_STB1	O	Audio STB1 signal output (Zone 1 and 2)
4	AUDIO_STB2	O	Audio STB2 signal output (Zone 3 and 4)
5	AUDIO_STB3	O	Audio STB3 signal output (Zone 5 and 6)
6	AUDIO_STB4	O	Audio STB4 signal output (Zone 4,5 and 6)
7	AUDIO_STB5	O	Audio STB5 signal output (Zone 1,2 and 3)
8	AUDIO_STB6	O	Audio STB6 signal output
9	VSS	–	Ground terminal
10	SP_1_RY	O	Speaker relay 1 signal output
11	SP_2_RY	O	Speaker relay 2 signal output
12	SP_3_RY	O	Speaker relay 3 signal output
13	SP_4_RY	O	Speaker relay 4 signal output
14	SP_5_RY	O	Speaker relay 5 signal output
15	SP_6_RY	O	Speaker relay 6 signal output
16	VIDEO_CLK	O	Video clock signal output
17	VIDEO_DAT	O	Video data signal output
18	VIDEO_STB	O	Video STB signal output
19	VIDEO_CLR	O	Video clear signal output
20	PRE_MUTE_1	O	PRE-out mute relay 1 signal output
21	PRE_MUTE_2	O	PRE-out mute relay 2 signal output
22	PRE_MUTE_3	O	PRE-out mute relay 3 signal output
23	PRE_MUTE_4	O	PRE-out mute relay 4 signal output
24	PRE_MUTE_5	O	PRE-out mute relay 5 signal output
25	PRE_MUTE_6	O	PRE-out mute relay 6 signal output
26	VSS	–	Ground terminal
27	VCC	–	Power supply terminal
28	PROTECTOR1	I	Protector circuit 1 signal input
29	PROTECTOR4	I	Protector circuit 4 signal input
30	PROTECTOR2	I	Protector circuit 2 signal input
31	PROTECTOR5	I	Protector circuit 5 signal input
32	PROTECTOR3	I	Protector circuit 3 signal input
33	PROTECTOR6	I	Protector circuit 6 signal input
34	FAN	I	Fan wheeling detect signal input
35	IROUT_A	O	IR out multiplexed A signal output
36	IROUT_B	O	IR out multiplexed B signal output
37	IROUT_C	O	IR out multiplexed C signal output
38	IROUT_INH	O	IR out multiplexed inhibit signal output
39	IROUT_D	O	IR out multiplexed D signal output
40	FL_CLK	O	FL driver clock signal output
41	FL_DAT	O	FL driver data signal output
42	FL_LAT	O	FL driver latch signal output
43	FL_CLR	O	FL driver clear signal output
44	VSS	–	Ground terminal
45	12VTRIG_1	O	12V trigger common 1 signal output
46	12VTRIG_2	O	12V trigger common 2 signal output
47	12VTRIG_3	O	12V trigger common 3 signal output

Pin No.	Pin Name	I/O	Description
48	12VTRIG_4	O	12V trigger common 4 signal output
49	12VTRIG_5	O	12V trigger common 5 signal output
50	12VTRIG_6	O	12V trigger common 6 signal output
51	A1_OUT	O	Control A1 II signal output
52	MD2	–	Not used
53	MD1	–	Not used
54	MD0	–	Not used
55	RSTX	I	System reset
56	VCC	–	Power supply terminal
57	X1	–	Connection for a crystal resonator
58	X0	–	Connection for a crystal resonator
59	VSS	–	Ground terminal
60	VOLT_DETECT_STOP	I	Stop circuit signal input
61	PW_ON/OFF	I	Power switch control signal input
62	IR_1_IN	I	IR 1 signal input
63	IR_2_IN	I	IR 2 signal input
64	IR_3_IN	I	IR 3 signal input
65	IR_4_IN	I	IR 4 signal input
66	IR_5_IN	I	IR 5 signal input
67	IR_6_IN	I	IR 6 signal input
68	VCC	–	Power supply terminal
69	CAT5_1_RX	I	CAT5 cable RX 1 signal input
70	CAT5_2_RX	I	CAT5 cable RX 2 signal input
71	CAT5_3_RX	I	CAT5 cable RX 3 signal input
72	CAT5_4_RX	I	CAT5 cable RX 4 signal input
73	CAT5_5_RX	I	CAT5 cable RX 5 signal input
74	CAT5_6_RX	I	CAT5 cable RX 6 signal input
75	NC	–	Short to ground terminal
76	NC	O	EEPROM mode switch control signal output
77	VCC	–	Power supply terminal
78	CAT5_1_TX	O	CAT5 cable TX 1 signal output
79	CAT5_2_TX	O	CAT5 cable TX 2 signal output
80	CAT5_3_TX	O	CAT5 cable TX 3 signal output
81	CAT5_4_TX	O	CAT5 cable TX 4 signal output
82	CAT5_5_TX	O	CAT5 cable TX 5 signal output
83	CAT5_6_TX	O	CAT5 cable TX 6 signal output
84	RM_RST	O	RM learn reset signal output
85	RM_TX	O	RM learn TX signal output
86	A1_IN	I	Control A1 II signal input
87	RM_RX	I	RM learn RX signal input
88	NC	–	Not used
89	NC	–	Not used
90	FL_RLY	O	FL relay control signal output (not used)
91	AMP_RLYA	O	Power amplifier relay A signal output (Zone 1 and 4)
92	AMP_RLYB	O	Power amplifier relay B signal output (Zone 2 and 5)
93	AMP_RLYC	O	Power amplifier relay C signal output (Zone 3 and 6)
94	FIXED	–	Short to ground terminal

Pin No.	Pin Name	I/O	Description
95	FIXED	–	Short to ground terminal
96	FIXED	–	Short to power supply
97	VCC	–	Power supply terminal
98	VSS	–	Ground terminal
99	EEPROM : SDA	O	EEPROM serial data signal output
100	EEPROM : SCL	O	EEPROM serial clock signal output
101	VSS	–	Ground terminal
102	NC	–	Not used
103	RS232_3_TX	O	RS232 TX 3 signal output
104	RS232_3_RX	I	RS232 RX 3 signal input
105	NC	–	Not used
106	RS232_2_TX	O	RS232 TX 2 signal output
107	RS232_2_RX	I	RS232 RX 2 signal input
108	RF_CTRL	O	RF remote control signal output
109	RF_TX	O	RF remote control TX signal output
110	RF_RX	I	RF remote control RX signal input
111	NC	–	Not used
112	RS232_1_TX	O	RS232 TX 1 signal output
113	RS232_1_RX	I	RS232 RX 1 signal input
114	RM_WAKEUP	O	RM learn wake up signal output
115	RM_WAIT	I	RM learn wait signal output
116	RM_REM	I	RM learn REM signal output
117	NC	–	Not used
118	LED1	O	LED 1 control signal output (short to ground terminal)
119	LED2	O	LED 2 (CHECK) control signal output
120	LED3	O	LED 3 (LEARN) control signal output
121	LED4	O	LED 4 (SETUP) control signal output
122	VCC	–	Power supply terminal
123	DA2	–	Not used
124	DA1	–	Not used
125	DA0	–	Not used
126	DAVS	–	Short to ground terminal
127	DAVC	–	Power supply terminal
128	AVCC	–	Power supply terminal
129	AVRH	–	Power supply terminal
130	AVRL	–	Short to ground terminal
131	AVSS	–	Short to ground terminal
132	AD1	I	A/D key 1 signal input
133	AD2	I	A/D key 2 signal input
134	AD3	I	A/D key 3 signal input
135	NC	–	Not used
136	NC	–	Not used
137	NC	–	Not used
138	NC	–	Not used
139	NC	–	Not used
140	VCC2	–	Power supply terminal
141	BACKUP	–	Short to power supply

Pin No.	Pin Name	I/O	Description
142	X0A	–	Short to ground terminal
143	X1A	–	Not used
144	VSS	–	Short to ground terminal

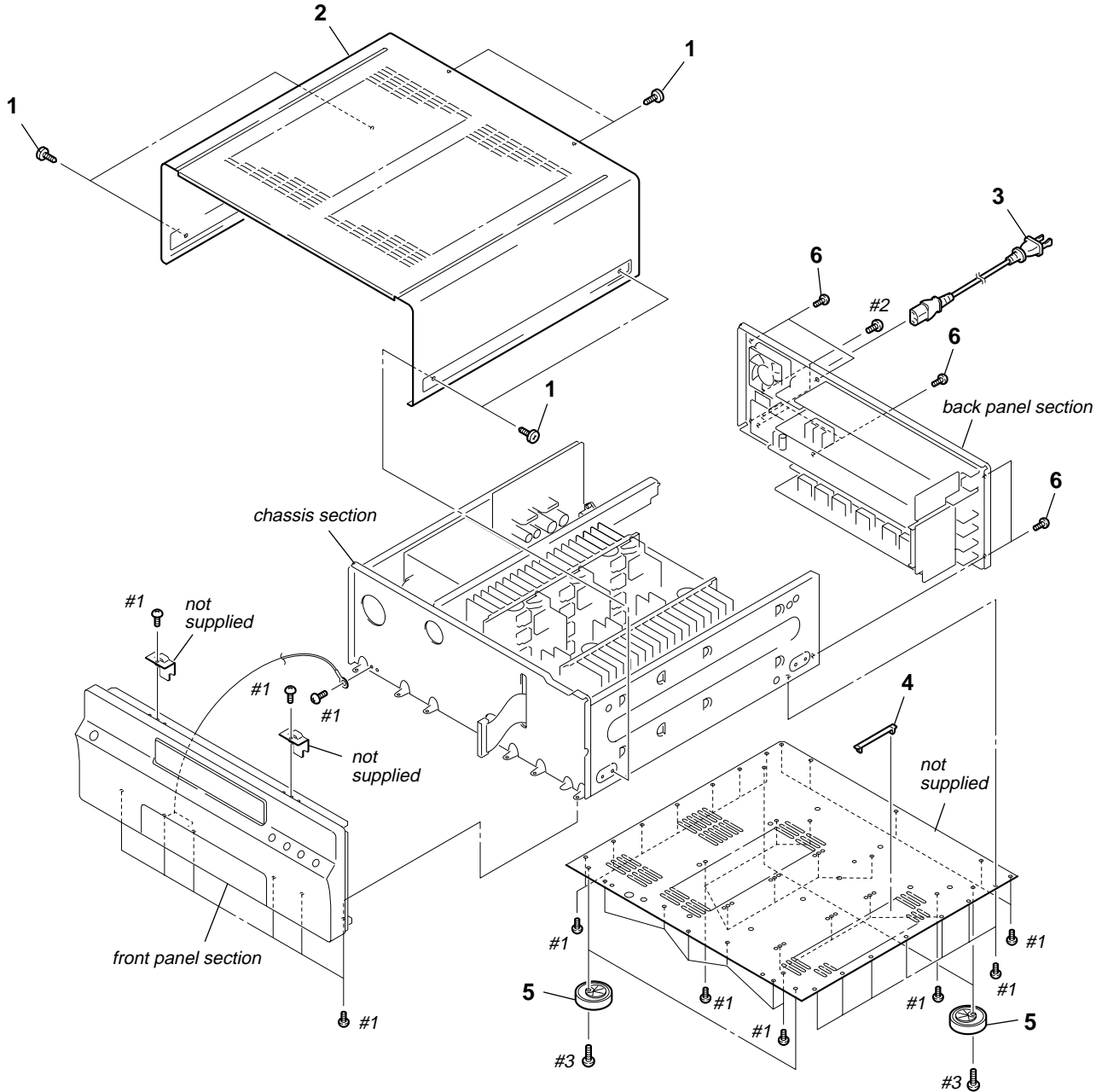
## SECTION 4 EXPLODED VIEWS

**NOTE:**

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- 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.

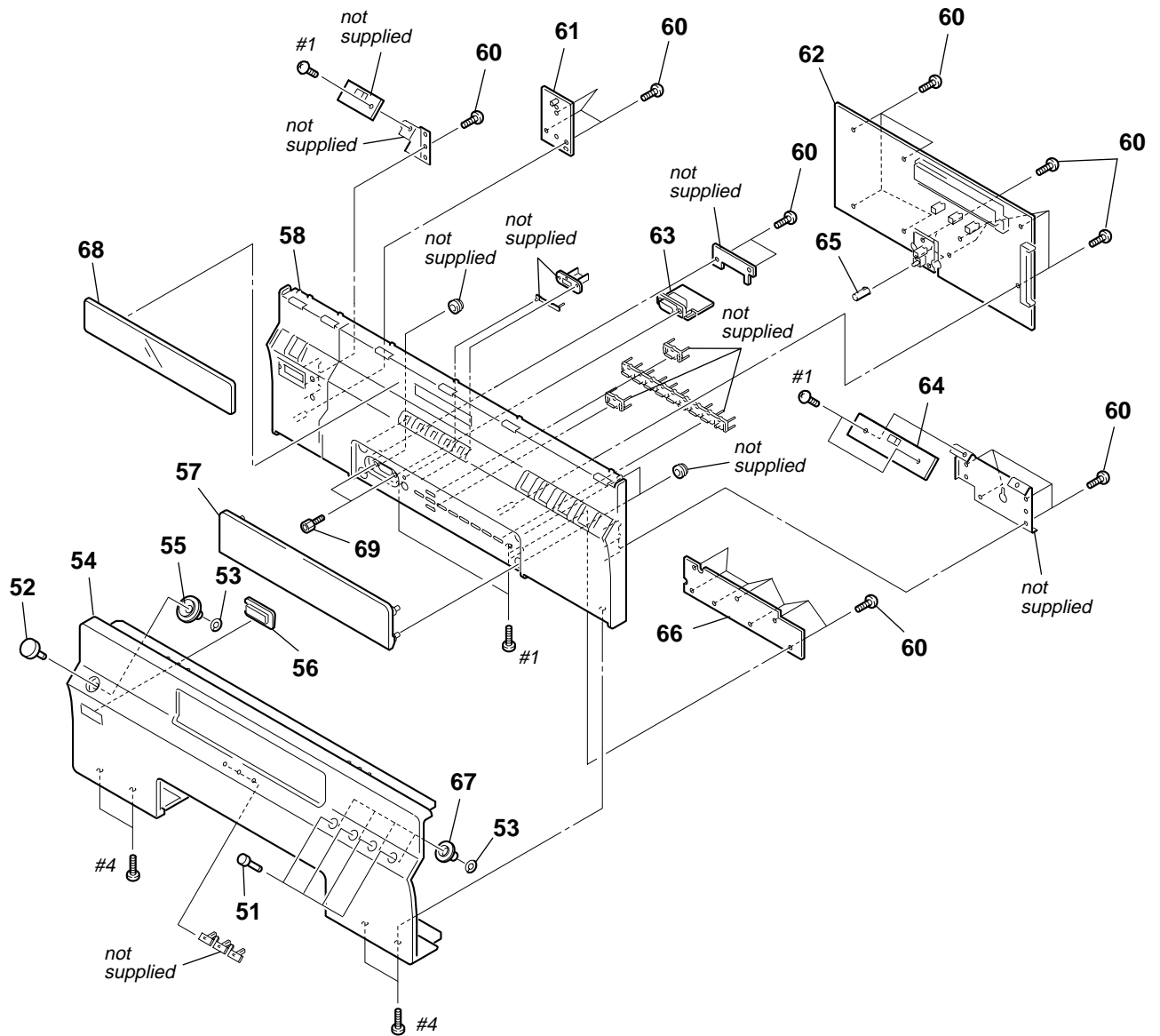
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**4-1. OVERALL SECTION**



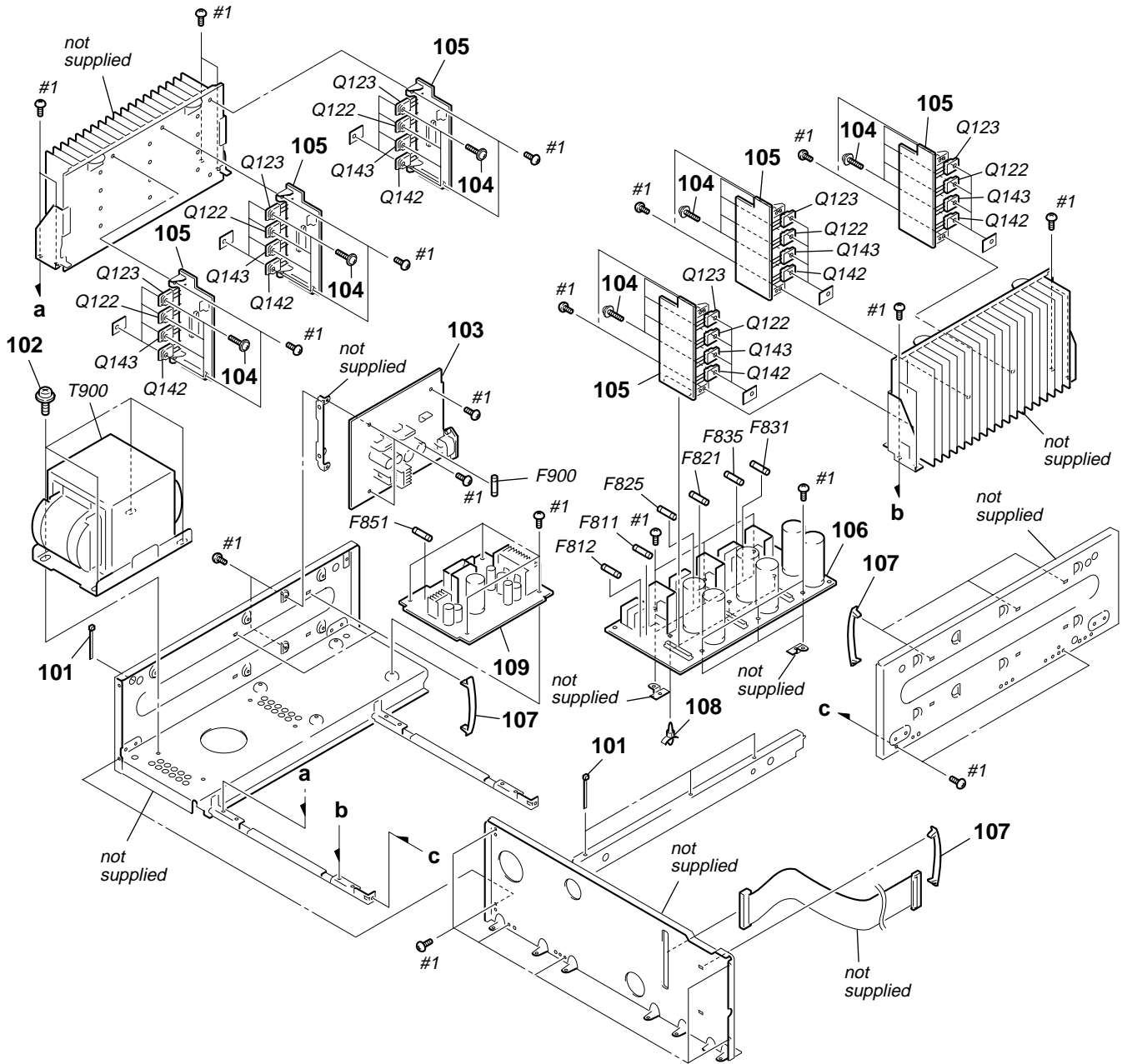
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-227-843-11	SCREW (TP), FLAT HEAD		6	3-704-515-22	SCREW (BV/RING)	
2	4-247-044-11	COVER		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
$\Delta$ 3	1-823-512-12	CORD, POWER		#2	7-685-659-79	SCREW +BVTP 4X8 TYPE2 IT-3	
4	3-064-084-01	CLAMP (FCR-60), FLAT		#3	7-685-885-09	SCREW +BVTT 4X16 (S)	
5	X-4955-348-1	FOOT ASSY					

4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-246-100-03	BUTTON (DIA. 7)		62	A-4749-533-A	DISPLAY BOARD, COMPLETE	
52	4-246-121-03	BUTTON (POWER)		63	A-4749-526-A	RS232F BOARD, COMPLETE	
53	3-325-697-21	WASHER		64	A-4749-528-A	SOURCE KEY BOARD, COMPLETE	
54	4-250-856-01	FRONT PANEL AL (SB)		65	4-980-189-21	KNOB (DIA. 6)	
55	X-4955-652-1	ESCUTCHEON (POWER) ASSY		66	A-4749-529-A	FUNCTION KEY BOARD, COMPLETE	
56	4-246-102-02	WINDOW (REMOTECONTROL)		67	X-4955-653-1	ESCUTCHEON (DIA. 7) ASSY	
57	A-4741-645-A	AL LID ASSY		68	4-251-230-01	PLATE INDICATION (SB)	
58	4-250-841-01	BASE PANEL (SB)		69	1-815-737-11	CONNECTOR, (D) SUB 9P (including screw)	
60	4-951-620-01	SCREW (2.6X8), +BVTP		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
61	A-4749-531-A	LEARNING BOARD, COMPLETE		#4	7-685-536-19	SCREW +BTP 2.6X12 TYPE2 N-S	

## 4-3. CHASSIS SECTION

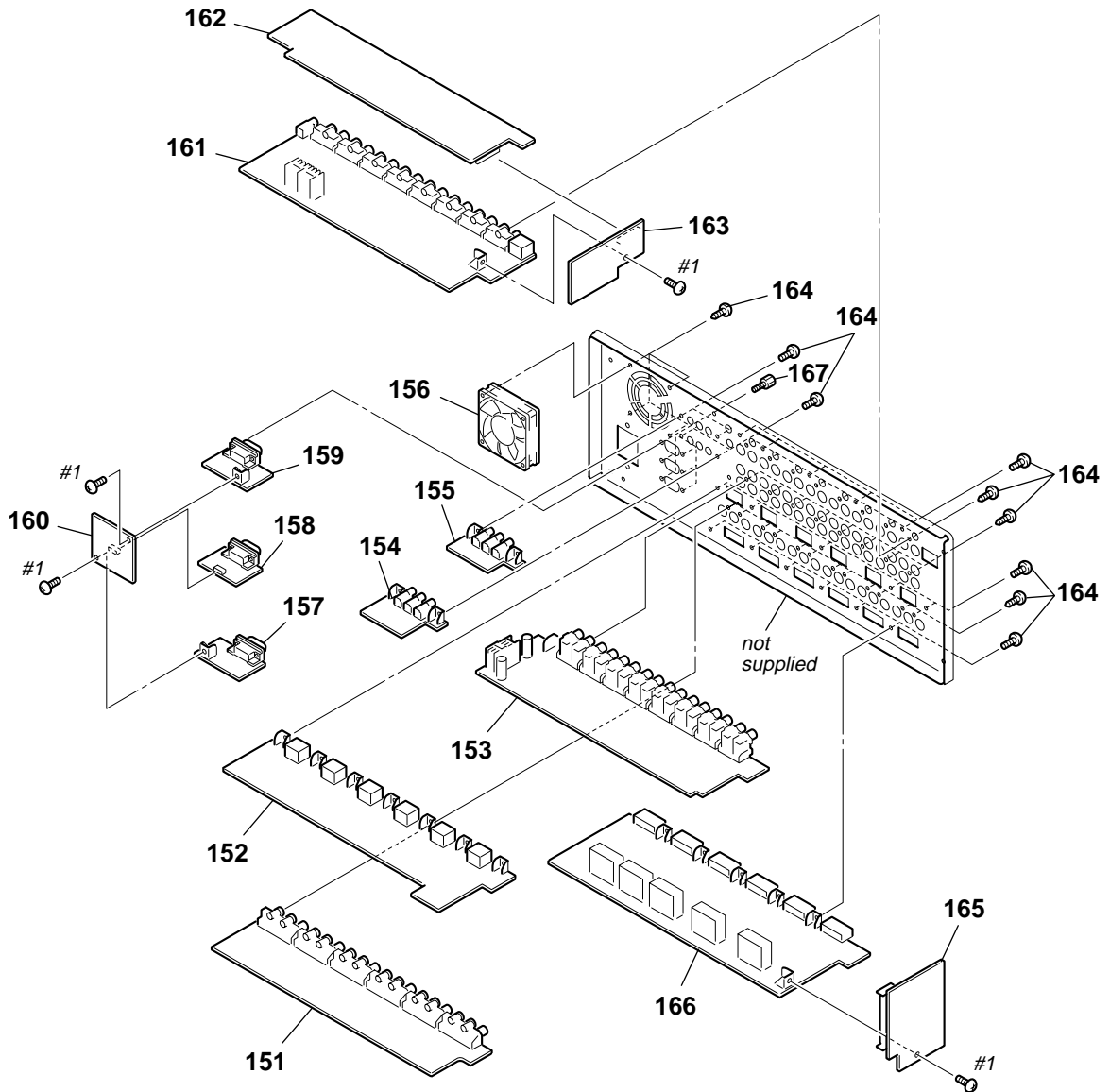


Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-701-748-00	CLAMP		△ F825	1-533-312-11	FUSE (10A/125V)	
102	4-394-596-01	SCREW (M5), TERMINAL		△ F831	1-533-312-11	FUSE (10A/125V)	
103	A-4749-548-A	AC INLET BOARD, COMPLETE		△ F835	1-533-312-11	FUSE (10A/125V)	
104	3-905-609-13	SCREW (TRANSISTOR)		△ F851	1-576-785-11	FUSE (15A/125V)	
105	A-4749-536-A	AMP BOARD, COMPLETE		△ F900	1-576-785-11	FUSE (15A/125V)	
106	A-4749-519-A	AMP BASE BOARD, COMPLETE		Q122	8-729-051-92	TRANSISTOR 2SD2560	
107	3-064-084-01	CLAMP (FCR-60), FLAT		Q123	8-729-051-93	TRANSISTOR 2SB1647	
108	4-924-098-11	HOLDER, PC BOARD		Q142	8-729-051-92	TRANSISTOR 2SD2560	
109	A-4749-546-A	REGULATOR BOARD, COMPLETE		Q143	8-729-051-93	TRANSISTOR 2SB1647	
△ F811	1-533-312-11	FUSE (10A/125V)		△ T900	1-443-110-11	POWER TRANSFORMER	
△ F812	1-533-312-11	FUSE (10A/125V)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
△ F821	1-533-312-11	FUSE (10A/125V)					

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

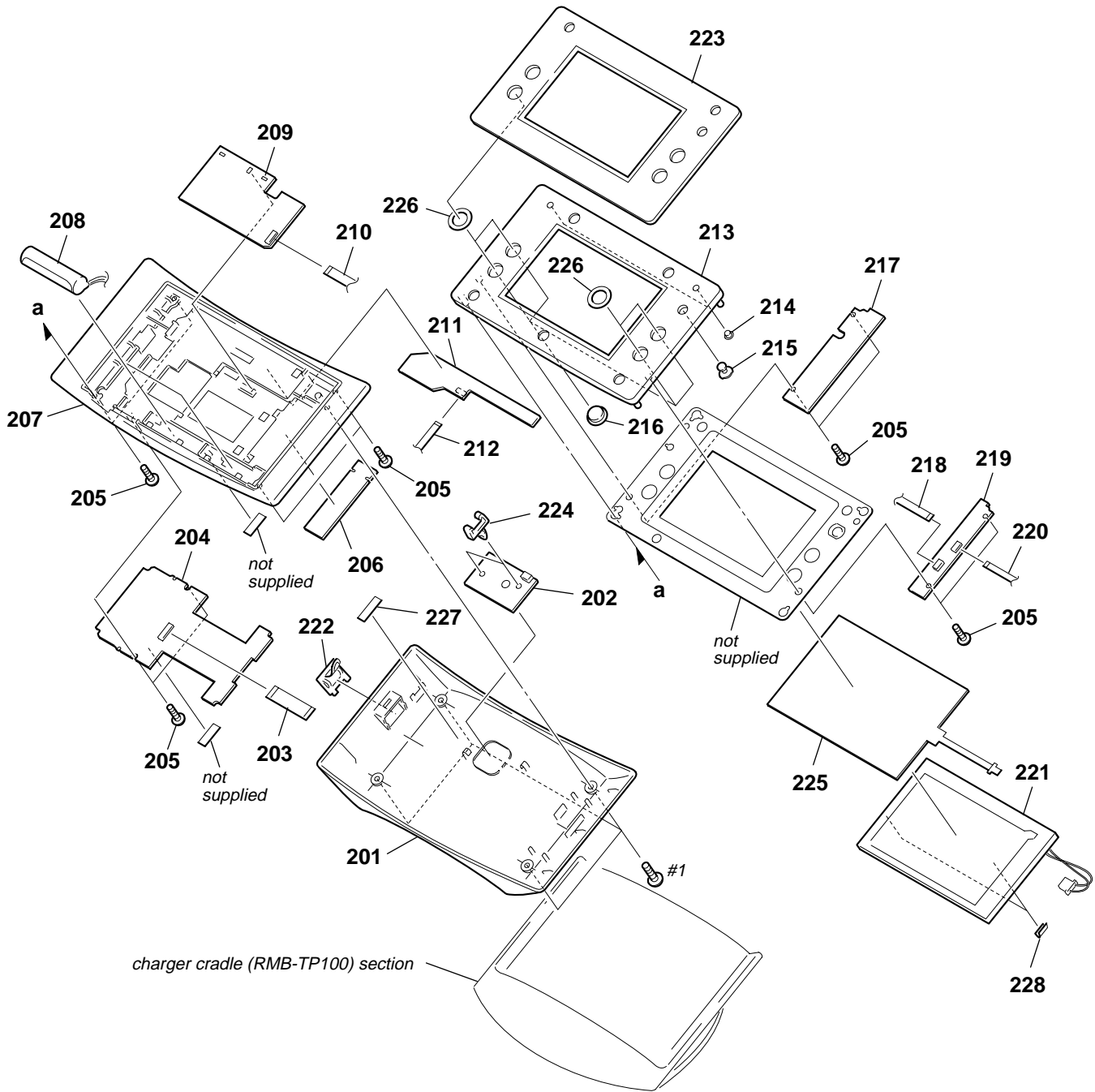


4-4. BACK PANEL SECTION



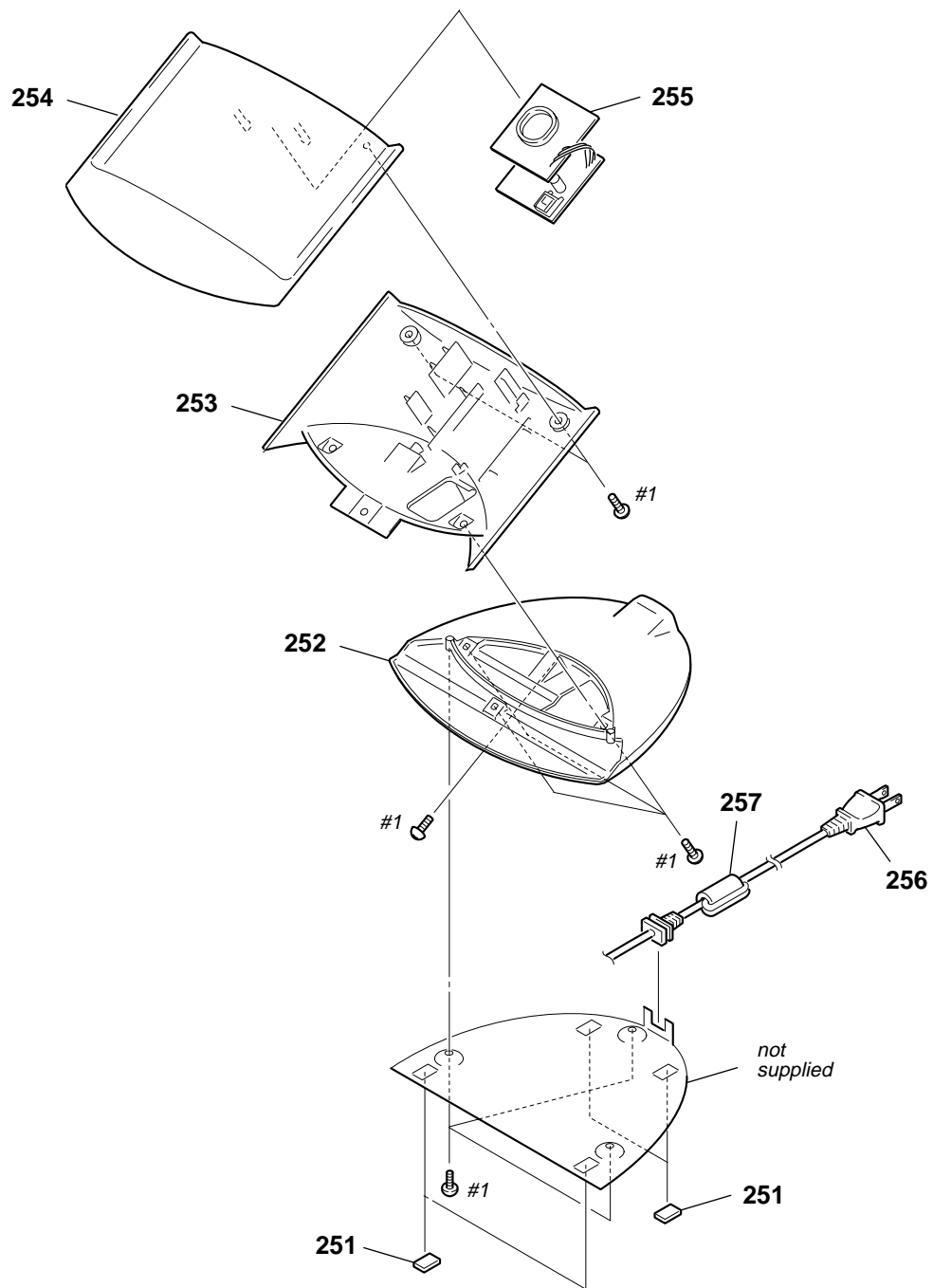
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	A-4749-538-A	PRE OUT BRD BOARD, COMPLETE		160	A-4749-552-A	RS232B SUB BOARD, COMPLETE	
152	A-4749-560-A	RJ45 BOARD, COMPLETE		161	A-4749-540-A	VIDEO I/O BRD BOARD, COMPLETE	
153	A-4749-542-A	AUDIO I/O BRD BOARD, COMPLETE		162	A-4749-527-A	IR OUT WB BOARD, COMPLETE	
154	A-4749-557-A	12V BOTTOM BOARD, COMPLETE		163	A-4750-163-A	CZ CONNECTOR BOARD, COMPLETE	
155	A-4749-558-A	12V TRIGGER BOARD, COMPLETE		164	3-704-515-22	SCREW (BV/RING)	
156	1-763-978-11	DC FAN		165	A-4749-559-A	CONNECTOR BOARD, COMPLETE	
157	A-4749-553-A	RS232B BOTTOM BOARD, COMPLETE		166	A-4749-544-A	SPEAKER BOARD, COMPLETE	
158	A-4749-550-A	RS232B BOARD, COMPLETE		167	1-815-737-11	CONNECTOR, (D) SUB 9P (including screw)	
159	A-4749-555-A	RS232B TOP BOARD, COMPLETE		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

4-5. RF REMOTE CONTROL (RM-TP100) SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-250-762-01	COVER (B)		216	4-250-763-01	BUTTON (A)	
202	A-4749-334-A	POWER BOARD, COMPLETE		217	A-4749-331-A	L KEY BOARD, COMPLETE	
203	1-828-275-11	WIRE (FLAT TYPE) (30 CORE)		218	1-828-301-11	WIRE (FLAT TYPE) (7 CORE)	
204	1-761-907-11	PA UNIT		219	A-4749-332-A	R KEY BOARD, COMPLETE	
205	4-951-620-01	SCREW (2.6X8), +BVTP		220	1-828-177-11	WIRE (FLAT TYPE) (10 CORE)	
206	1-478-343-11	INVERTER UNIT		221	1-478-340-11	LCD-UNIT (5.1 STN)	
207	4-250-761-01	COVER (M)		222	X-2021-763-1	CAP ASSY	
208	1-756-403-11	BATTERY (NICKEL HYDROGEN)		223	4-250-759-01	PLATE, ORNAMENTAL	
209	A-4749-336-A	TRANSLATION BOARD, COMPLETE		* 224	3-906-254-01	CLAMP	
210	1-828-231-11	WIRE (FLAT TYPE) (20 CORE)		225	1-786-628-11	PANEL, TOUCH	
211	A-4749-335-A	RF BOARD, COMPLETE		226	2-067-700-01	SPACER (WASHER)	
212	1-828-175-11	WIRE (FLAT TYPE) (10 CORE)		227	3-378-434-01	CUSHION, SARANET	
213	4-250-760-01	COVER (T)		228	3-314-057-01	CUSHION	
214	4-250-764-01	BUTTON (B)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
215	X-4956-443-1	KNOB (M-SW) ASSY					

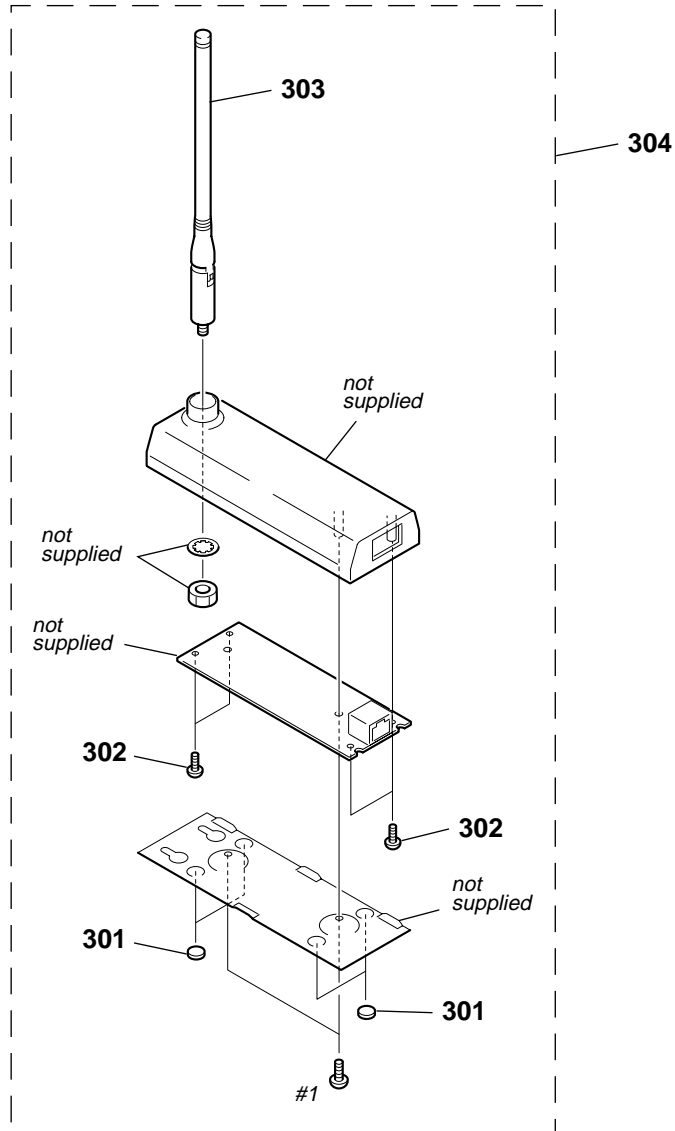
4-6. CHARGER CRADLE (RMB-TP100) SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-977-358-01	CUSHION		255	1-761-849-11	CHARGER CRADLE UNIT	
252	4-251-115-01	COVER (C) (CHARGER)		△ 256	1-790-293-31	CORD, POWER	
253	4-250-776-01	COVER (B) (CHARGER)		257	1-500-386-16	FILTER, CLAMP (FERRITE CORE)	
254	4-250-775-01	COVER (A) (CHARGER)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

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

4-7. RF ANTENNA (AN-M1000) SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	4-210-254-02	CUSHION (FOOT))		304	A-1059-160-A	RF ANTENNA SERVICE ASSY	
302	4-951-620-01	SCREW (2.6X8), +BVTP		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
303	1-754-328-11	ANTENNA					

## SECTION 5

## ELECTRICAL PARTS LIST

AC INLET

## 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
- CAPACITORS  
uF:  $\mu$ F

- COILS  
uH:  $\mu$ H
- 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:  $\mu$ , for example:  
uA. . . :  $\mu$ A. . .      uPA. . . :  $\mu$ PA. . .  
uPB. . . :  $\mu$ PB. . .    uPC. . . :  $\mu$ PC. . .  
uPD. . . :  $\mu$ PD. . .
- Accessories are given in the last of this parts list.

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4749-557-A	12V BOTTOM BOARD, COMPLETE *****		C897	1-119-804-21	ELECT 1000uF 20%	25V
		< CONNECTOR >		C898	1-119-804-21	ELECT 1000uF 20%	25V
CN202	1-691-768-11	PLUG (MICRO CONNECTOR) 6P  < JACK >				< CONNECTOR >	
J214	1-563-330-31	JACK (4(12V TRIGGER))		CN879	1-778-447-11	CONNECTOR, BOARD TO BOARD 13P	
J215	1-563-330-31	JACK (5(12V TRIGGER))		CN880	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
J216	1-563-330-31	JACK (6(12V TRIGGER))		CN884	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
		*****		CN886	1-691-773-11	PLUG (MICRO CONNECTOR) 11P	
				CN900	1-816-148-11	INLET, AC	
				* CN901	1-565-792-11	PIN, CONNECTOR (3.96mm PITCH) 2P	
						< DIODE >	
	A-4749-558-A	12V TRIGGER BOARD, COMPLETE *****		D801	8-719-069-55	DIODE UDZSTE-175.6B	
		< CONNECTOR >		D802	8-719-977-81	DIODE UDZ-TE-17-33B	
CN201	1-564-510-11	PLUG (MICRO CONNECTOR) 6P  < JACK >		D803	6-500-522-31	DIODE 10EDB40-TB5	
J211	1-563-330-11	JACK (1(12V TRIGGER))		D804	6-500-522-31	DIODE 10EDB40-TB5	
J212	1-563-330-11	JACK (2(12V TRIGGER))		D805	6-500-522-31	DIODE 10EDB40-TB5	
J213	1-563-330-11	JACK (3(12V TRIGGER))		D806	6-500-522-31	DIODE 10EDB40-TB5	
		*****		D813	6-500-522-31	DIODE 10EDB40-TB5	
				D814	6-500-522-31	DIODE 10EDB40-TB5	
				D823	6-500-522-31	DIODE 10EDB40-TB5	
				D824	6-500-522-31	DIODE 10EDB40-TB5	
				D833	6-500-522-31	DIODE 10EDB40-TB5	
				D834	6-500-522-31	DIODE 10EDB40-TB5	
	A-4749-548-A	AC INLET BOARD, COMPLETE *****		D863	8-719-028-23	DIODE D3SBA20-4101	
				D864	8-719-028-23	DIODE D3SBA20-4101	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3  < CAPACITOR >				< FUSE HOLDER >	
C801	1-128-555-91	ELECT 470uF 20%	63V	FH900	1-533-293-11	FUSE HOLDER	
C802	1-135-851-21	MYLAR 0.22uF	100V	FH905	1-533-293-11	FUSE HOLDER	
C803	1-126-937-11	ELECT 4700uF 20%	16V			< IC >	
C804	1-135-851-21	MYLAR 0.22uF	100V	IC850	8-759-450-47	IC BA05T	
C806	1-126-768-11	ELECT 2200uF 20%	16V	IC851	8-759-445-59	IC BA033T	
C808	1-128-548-11	ELECT 4700uF 20%	25V			< TRANSISTOR >	
C810	1-126-959-11	ELECT 0.47uF 20%	50V	Q802	8-729-140-97	TRANSISTOR 2SB734-T-34	
C842	1-126-967-11	ELECT 47uF 20%	50V	Q803	8-729-119-79	TRANSISTOR 2SC2785TP-FEK	
C843	1-126-967-11	ELECT 47uF 20%	50V			< RESISTOR >	
C844	1-126-967-11	ELECT 47uF 20%	50V	R802	1-216-837-11	METAL CHIP 22K 5%	1/10W
C860	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R803	1-216-830-11	METAL CHIP 5.6K 5%	1/10W
C861	1-126-933-11	ELECT 100uF 20%	16V	$\triangle$ R804	1-249-389-11	CARBON 4.7 5%	1/4W
C863	1-126-933-11	ELECT 100uF 20%	16V				
C895	1-135-851-21	MYLAR 0.22uF	100V				
C896	1-135-851-21	MYLAR 0.22uF	100V				

# CAV-M1000ES

## AC INLET

## AMP

Ref. No.	Part No.	Description	Remark
R805	1-216-833-11	METAL CHIP 10K 5%	1/10W
R806	1-216-837-11	METAL CHIP 22K 5%	1/10W
R807	1-216-841-11	METAL CHIP 47K 5%	1/10W
△ R808	1-243-633-11	FUSIBLE 0.27 5%	1/2W
△ R809	1-243-633-11	FUSIBLE 0.27 5%	1/2W
△ R870	1-243-633-11	FUSIBLE 0.27 5%	1/2W
△ R871	1-243-633-11	FUSIBLE 0.27 5%	1/2W
△ R873	1-219-591-11	FUSIBLE 0.1 5%	1/2W
△ R874	1-219-591-11	FUSIBLE 0.1 5%	1/2W
*****			
A-4749-536-A	AMP BOARD, COMPLETE *****		
< CAPACITOR >			
C101	1-119-825-11	ELECT 22uF 20%	25V
C102	1-137-503-11	MYLAR 0.0001uF 5%	50V
C103	1-119-825-11	ELECT 22uF 20%	25V
C104	1-137-503-11	MYLAR 0.0001uF 5%	50V
C105	1-119-847-11	ELECT 2.2uF 20%	100V
C106	1-102-233-00	CERAMIC 33PF 10%	500V
C107	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C108	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C109	1-102-233-00	CERAMIC 33PF 10%	500V
C110	1-107-583-11	CERAMIC 3PF 0.25PF	500V
C111	1-107-583-11	CERAMIC 3PF 0.25PF	500V
C112	1-119-801-21	ELECT 220uF 20%	25V
C113	1-119-801-21	ELECT 220uF 20%	25V
C114	1-136-161-00	FILM 0.047uF 5%	50V
C115	1-136-161-00	FILM 0.047uF 5%	50V
C120	1-119-827-11	ELECT 47uF 20%	50V
C121	1-162-815-11	CERAMIC 47PF 5%	500V
C122	1-162-815-11	CERAMIC 47PF 5%	500V
C123	1-163-259-91	CERAMIC CHIP 220PF 5%	50V
C124	1-127-971-21	FILM CHIP 0.01uF 5%	50V
C125	1-127-971-21	FILM CHIP 0.01uF 5%	50V
C140	1-119-827-11	ELECT 47uF 20%	50V
C141	1-162-815-11	CERAMIC 47PF 5%	500V
C142	1-162-815-11	CERAMIC 47PF 5%	500V
C143	1-163-259-91	CERAMIC CHIP 220PF 5%	50V
C144	1-127-971-21	FILM CHIP 0.01uF 5%	50V
C145	1-127-971-21	FILM CHIP 0.01uF 5%	50V
C160	1-126-923-91	ELECT 220uF 20%	10V
C161	1-119-824-31	ELECT 10uF 20%	50V
< CONNECTOR >			
CN100	1-779-978-11	PIN, CONNECTOR 3P	
* CN110	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P	
* CN150	1-770-732-11	CONNECTOR, BOARD TO BOARD 15P	
* CN160	1-564-241-11	PIN, CONNECTOR (3.96mm PITCH) 4P	
< DIODE >			
D100	8-719-988-61	DIODE 1SS355TE-17	
D120	8-719-988-61	DIODE 1SS355TE-17	
D160	8-719-988-61	DIODE 1SS355TE-17	
D161	8-719-988-61	DIODE 1SS355TE-17	
D162	8-719-988-61	DIODE 1SS355TE-17	

Ref. No.	Part No.	Description	Remark
< IC >			
IC100	6-700-943-01	IC uPC2581V-S	
< TRANSISTOR >			
Q120	8-729-119-76	TRANSISTOR 2SA1115TP-EF	
Q121	8-729-141-30	TRANSISTOR 2SC3623ATP-LK	
Q124	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA	
Q125	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA	
Q140	8-729-119-76	TRANSISTOR 2SA1115TP-EF	
Q141	8-729-141-30	TRANSISTOR 2SC3623ATP-LK	
Q144	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA	
Q145	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA	
Q160	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA	
Q161	8-729-119-79	TRANSISTOR 2SC2785TP-FEK	
Q162	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
< RESISTOR >			
R101	1-259-995-11	CARBON MELF 1K 2%	1/8W
R102	1-260-012-11	CARBON MELF 22K 2%	1/8W
R103	1-260-018-11	CARBON MELF 68K 2%	1/8W
R105	1-260-018-11	CARBON MELF 68K 2%	1/8W
R106	1-260-018-11	CARBON MELF 68K 2%	1/8W
R107	1-260-001-11	CARBON MELF 2.7K 2%	1/8W
R108	1-260-018-11	CARBON MELF 68K 2%	1/8W
R109	1-260-001-11	CARBON MELF 2.7K 2%	1/8W
R111	1-259-995-11	CARBON MELF 1K 2%	1/8W
R120	1-208-790-11	METAL CHIP 2.2K 0.5%	1/10W
R121	1-208-828-11	METAL CHIP 82K 0.5%	1/10W
R123	1-208-776-11	METAL CHIP 560 0.5%	1/10W
△ R124	1-249-405-11	CARBON 100 5%	1/4W
△ R125	1-249-405-11	CARBON 100 5%	1/4W
△ R126	1-234-182-11	ENCAPSULATED COMPONENT	
R127	1-208-798-11	METAL CHIP 4.7K 0.5%	1/10W
△ R128	1-240-855-91	CARBON 6.2K 5%	1/4W
R129	1-216-655-11	METAL CHIP 1.5K 0.5%	1/10W
R130	1-208-826-11	METAL CHIP 68K 0.5%	1/10W
R131	1-208-810-11	METAL CHIP 15K 0.5%	1/10W
△ R132	1-259-971-11	CARBON MELF 10 2%	1/8W
R133	1-208-822-11	METAL CHIP 47K 0.5%	1/10W
R140	1-208-790-11	METAL CHIP 2.2K 0.5%	1/10W
R141	1-208-828-11	METAL CHIP 82K 0.5%	1/10W
R143	1-208-776-11	METAL CHIP 560 0.5%	1/10W
△ R144	1-249-405-11	CARBON 100 5%	1/4W
△ R145	1-249-405-11	CARBON 100 5%	1/4W
△ R146	1-234-182-11	ENCAPSULATED COMPONENT	
R147	1-208-798-11	METAL CHIP 4.7K 0.5%	1/10W
△ R148	1-240-855-91	CARBON 6.2K 5%	1/4W
R149	1-216-655-11	METAL CHIP 1.5K 0.5%	1/10W
R150	1-208-826-11	METAL CHIP 68K 0.5%	1/10W
R151	1-208-810-11	METAL CHIP 15K 0.5%	1/10W
△ R152	1-259-971-11	CARBON MELF 10 2%	1/8W
R153	1-208-822-11	METAL CHIP 47K 0.5%	1/10W
R160	1-208-806-11	METAL CHIP 10K 0.5%	1/10W
R161	1-208-822-11	METAL CHIP 47K 0.5%	1/10W
R162	1-208-802-11	METAL CHIP 6.8K 0.5%	1/10W

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

AMP

AMP BASE

Ref. No.	Part No.	Description	Remark
R163	1-208-820-11	METAL CHIP 39K 0.5%	1/10W
R164	1-208-782-11	METAL CHIP 1K 0.5%	1/10W
*****			
A-4749-519-A		AMP BASE BOARD, COMPLETE *****	
7-685-646-79		SCREW +BVTP 3X8 TYPE2 IT-3	
< CAPACITOR >			
C811	1-135-851-21	MYLAR 0.22uF	100V
C812	1-135-851-21	MYLAR 0.22uF	100V
C813	1-125-897-11	ELECT 10000uF 20%	71V
C814	1-125-897-11	ELECT 10000uF 20%	71V
C815	1-135-770-91	ELECT 47uF	63V
C816	1-119-834-11	ELECT 22uF 20%	63V
C823	1-125-897-11	ELECT 10000uF 20%	71V
C824	1-125-897-11	ELECT 10000uF 20%	71V
C825	1-135-770-91	ELECT 47uF	63V
C826	1-119-834-11	ELECT 22uF 20%	63V
C830	1-135-851-21	MYLAR 0.22uF	100V
C831	1-135-851-21	MYLAR 0.22uF	100V
C832	1-135-851-21	MYLAR 0.22uF	100V
C833	1-125-897-11	ELECT 10000uF 20%	71V
C834	1-125-897-11	ELECT 10000uF 20%	71V
C835	1-135-770-91	ELECT 47uF	63V
C836	1-119-834-11	ELECT 22uF 20%	63V
C845	1-135-770-91	ELECT 47uF	63V
C846	1-119-834-11	ELECT 22uF 20%	63V
C850	1-119-823-11	ELECT 4.7uF 20%	50V
C852	1-119-823-11	ELECT 4.7uF 20%	50V
C853	1-135-851-21	MYLAR 0.22uF	100V
C854	1-119-823-11	ELECT 4.7uF 20%	50V
C855	1-135-770-91	ELECT 47uF	63V
C856	1-119-834-11	ELECT 22uF 20%	63V
C865	1-135-770-91	ELECT 47uF	63V
C866	1-119-834-11	ELECT 22uF 20%	63V
C910	1-137-749-11	MYLAR 0.1uF	100V
C911	1-137-749-11	MYLAR 0.1uF	100V
C912	1-137-749-11	MYLAR 0.1uF	100V
C913	1-137-749-11	MYLAR 0.1uF	100V
C914	1-137-749-11	MYLAR 0.1uF	100V
C915	1-137-749-11	MYLAR 0.1uF	100V
< CONNECTOR >			
CN800	1-784-926-11	PIN, CONNECTOR 11P	
CN801	1-785-101-11	PIN, CONNECTOR (3.96mm PITCH) 3P	
CN802	1-785-101-11	PIN, CONNECTOR (3.96mm PITCH) 3P	
CN803	1-785-101-11	PIN, CONNECTOR (3.96mm PITCH) 3P	
CN807	1-779-977-11	PIN, CONNECTOR 6P	
CN810	1-766-956-11	CONNECTOR, BOARD TO BOARD 15P	
CN820	1-766-956-11	CONNECTOR, BOARD TO BOARD 15P	
CN830	1-766-956-11	CONNECTOR, BOARD TO BOARD 15P	
CN840	1-766-956-11	CONNECTOR, BOARD TO BOARD 15P	
CN850	1-766-956-11	CONNECTOR, BOARD TO BOARD 15P	
CN860	1-766-956-11	CONNECTOR, BOARD TO BOARD 15P	

Ref. No.	Part No.	Description	Remark
< DIODE >			
D811	6-500-522-31	DIODE 10EDB40-TB5	
D815	6-500-522-31	DIODE 10EDB40-TB5	
D822	6-500-522-31	DIODE 10EDB40-TB5	
D825	6-500-522-31	DIODE 10EDB40-TB5	
D831	6-500-522-31	DIODE 10EDB40-TB5	
D835	6-500-522-31	DIODE 10EDB40-TB5	
D845	6-500-522-31	DIODE 10EDB40-TB5	
D850	8-719-110-48	DIODE MTZJ-T-72-18A	
D851	8-719-060-53	DIODE RBV-2506	
D852	8-719-060-53	DIODE RBV-2506	
D853	8-719-060-53	DIODE RBV-2506	
D855	6-500-522-31	DIODE 10EDB40-TB5	
D861	8-719-110-48	DIODE MTZJ-T-72-18A	
D865	6-500-522-31	DIODE 10EDB40-TB5	
D866	8-719-110-48	DIODE MTZJ-T-72-18A	
< FUSE HOLDER >			
FH811	1-533-293-11	FUSE HOLDER	
FH812	1-533-293-11	FUSE HOLDER	
FH815	1-533-293-11	FUSE HOLDER	
FH816	1-533-293-11	FUSE HOLDER	
FH821	1-533-293-11	FUSE HOLDER	
FH822	1-533-293-11	FUSE HOLDER	
FH825	1-533-293-11	FUSE HOLDER	
FH826	1-533-293-11	FUSE HOLDER	
FH831	1-533-293-11	FUSE HOLDER	
FH832	1-533-293-11	FUSE HOLDER	
FH835	1-533-293-11	FUSE HOLDER	
FH836	1-533-293-11	FUSE HOLDER	
< TRANSISTOR >			
Q810	8-729-119-79	TRANSISTOR 2SC2785TP-FEK	
Q811	8-729-021-82	TRANSISTOR 2SD2396K	
Q815	8-729-024-93	TRANSISTOR 2SB1565E	
Q820	8-729-119-79	TRANSISTOR 2SC2785TP-FEK	
Q821	8-729-021-82	TRANSISTOR 2SD2396K	
Q825	8-729-024-93	TRANSISTOR 2SB1565E	
Q830	8-729-119-79	TRANSISTOR 2SC2785TP-FEK	
Q831	8-729-021-82	TRANSISTOR 2SD2396K	
Q835	8-729-024-93	TRANSISTOR 2SB1565E	
Q850	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q851	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q853	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
< RESISTOR >			
△R811	1-249-401-11	CARBON 47	5% 1/4W
R812	1-247-847-91	CARBON 4.7K	5% 1/4W
△R815	1-249-381-11	CARBON 1	5% 1/4W
R816	1-215-873-81	METAL OXIDE 4.7K	5% 1W
△R825	1-249-381-11	CARBON 1	5% 1/4W
R826	1-247-847-91	CARBON 4.7K	5% 1/4W
△R830	1-249-401-11	CARBON 47	5% 1/4W
△R831	1-249-401-11	CARBON 47	5% 1/4W
R832	1-247-847-91	CARBON 4.7K	5% 1/4W
R833	1-247-847-91	CARBON 4.7K	5% 1/4W

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

# CAV-M1000ES

## AMP BASE

## AUDIO I/O BRD

Ref. No.	Part No.	Description		Remark
R835	1-249-381-11	CARBON	1	5% 1/4W
R836	1-215-873-81	METAL OXIDE	4.7K	5% 1W
△R845	1-249-381-11	CARBON	1	5% 1/4W
R846	1-247-847-91	CARBON	4.7K	5% 1/4W
△R855	1-249-381-11	CARBON	1	5% 1/4W
R856	1-215-873-81	METAL OXIDE	4.7K	5% 1W
△R865	1-249-381-11	CARBON	1	5% 1/4W
R866	1-247-847-91	CARBON	4.7K	5% 1/4W
R872	1-249-413-11	CARBON	470	5% 1/4W
R875	1-249-413-11	CARBON	470	5% 1/4W
R876	1-249-413-11	CARBON	470	5% 1/4W
R877	1-249-413-11	CARBON	470	5% 1/4W
R878	1-249-413-11	CARBON	470	5% 1/4W
R879	1-249-413-11	CARBON	470	5% 1/4W
< RELAY >				
RY811	1-755-298-11	RELAY		
RY812	1-755-298-11	RELAY		
RY821	1-755-298-11	RELAY		
RY822	1-755-298-11	RELAY		
RY831	1-755-298-11	RELAY		
RY832	1-755-298-11	RELAY		
*****				
A-4749-542-A	AUDIO I/O BRD BOARD, COMPLETE			
*****				
< CAPACITOR >				
C1000	1-164-361-11	CERAMIC CHIP	0.047uF	25V
C1001	1-119-793-11	ELECT	1000uF 20%	16V
C1003	1-164-361-11	CERAMIC CHIP	0.047uF	25V
C1004	1-119-793-11	ELECT	1000uF 20%	16V
C1012	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1013	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1017	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1018	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1022	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1023	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1027	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1028	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1032	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1033	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1037	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1038	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1042	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1043	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1047	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1048	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1052	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1053	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1057	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1058	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1062	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1063	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1067	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1068	1-107-545-91	ELECT CHIP	22uF 20%	35V
C1072	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1073	1-107-545-91	ELECT CHIP	22uF 20%	35V

Ref. No.	Part No.	Description		Remark
C1077	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1078	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1082	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1083	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1087	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1088	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1100	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1101	1-127-968-21	FILM CHIP	0.0033uF	5% 50V
C1103	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1104	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1107	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1108	1-162-917-11	CERAMIC CHIP	15PF	5% 50V
C1109	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1110	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1111	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1112	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1150	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1151	1-127-968-21	FILM CHIP	0.0033uF	5% 50V
C1153	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1154	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1157	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1158	1-162-917-11	CERAMIC CHIP	15PF	5% 50V
C1159	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1160	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1161	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1162	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1170	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
C1183	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1188	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1200	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1201	1-127-968-21	FILM CHIP	0.0033uF	5% 50V
C1203	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1204	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1207	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1208	1-162-917-11	CERAMIC CHIP	15PF	5% 50V
C1209	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1210	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1211	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1212	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1250	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1251	1-127-968-21	FILM CHIP	0.0033uF	5% 50V
C1253	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1254	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1257	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
C1258	1-162-917-11	CERAMIC CHIP	15PF	5% 50V
C1259	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1260	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1261	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1262	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1270	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
C1283	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1288	1-107-545-91	ELECT CHIP	22uF	20% 35V
C1300	1-164-227-11	CERAMIC CHIP	0.022uF	10% 25V
C1301	1-127-968-21	FILM CHIP	0.0033uF	5% 50V
C1303	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1304	1-127-972-21	FILM CHIP	0.015uF	5% 50V
C1307	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V

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



## AUDIO I/O BRD

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C1308	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	C1560	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1309	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1561	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1310	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1562	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1311	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C1570	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1312	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C1583	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1350	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C1588	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1351	1-127-968-21	FILM CHIP	0.0033uF	5%	50V	C1600	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1353	1-127-972-21	FILM CHIP	0.015uF	5%	50V	C1601	1-127-968-21	FILM CHIP	0.0033uF	5%	50V
C1354	1-127-972-21	FILM CHIP	0.015uF	5%	50V	C1603	1-127-972-21	FILM CHIP	0.015uF	5%	50V
C1357	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C1604	1-127-972-21	FILM CHIP	0.015uF	5%	50V
C1358	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	C1607	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1359	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1608	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C1360	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1609	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1361	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C1610	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1362	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C1611	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1370	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C1612	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1383	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1650	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1388	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1651	1-127-968-21	FILM CHIP	0.0033uF	5%	50V
C1400	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C1653	1-127-972-21	FILM CHIP	0.015uF	5%	50V
C1401	1-127-968-21	FILM CHIP	0.0033uF	5%	50V	C1654	1-127-972-21	FILM CHIP	0.015uF	5%	50V
C1403	1-127-972-21	FILM CHIP	0.015uF	5%	50V	C1657	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1404	1-127-972-21	FILM CHIP	0.015uF	5%	50V	C1658	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C1407	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C1659	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1408	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	C1660	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1409	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1661	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1410	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1662	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1411	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C1670	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1412	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C1683	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1450	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C1688	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1451	1-127-968-21	FILM CHIP	0.0033uF	5%	50V	C1700	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1453	1-127-972-21	FILM CHIP	0.015uF	5%	50V	C1701	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1454	1-127-972-21	FILM CHIP	0.015uF	5%	50V	C1705	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1457	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C1706	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1458	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	C1710	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1459	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1711	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C1460	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1715	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1461	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C1716	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1462	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C1717	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1470	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C1783	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1483	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1788	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1488	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1800	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1500	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C1803	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1501	1-127-968-21	FILM CHIP	0.0033uF	5%	50V	C1850	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1503	1-127-972-21	FILM CHIP	0.015uF	5%	50V	C1883	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1504	1-127-972-21	FILM CHIP	0.015uF	5%	50V	C1888	1-107-545-91	ELECT CHIP	22uF	20%	35V
C1507	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C1900	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1508	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	C1903	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1509	1-107-545-91	ELECT CHIP	22uF	20%	35V	C1950	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C1510	1-107-545-91	ELECT CHIP	22uF	20%	35V			< CONNECTOR >			
C1511	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	CN1000	1-766-719-41	CONNECTOR, BOARD TO BOARD	10P		
C1512	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	CN1001	1-784-924-11	PIN, CONNECTOR	8P		
C1550	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	* CN1002	1-691-774-11	PLUG (MICRO CONNECTOR)	12P		
C1551	1-127-968-21	FILM CHIP	0.0033uF	5%	50V	CN1005	1-691-771-11	PLUG (MICRO CONNECTOR)	9P		
C1553	1-127-972-21	FILM CHIP	0.015uF	5%	50V	CN1008	1-779-799-11	PIN, CONNECTOR	9P		
C1554	1-127-972-21	FILM CHIP	0.015uF	5%	50V	* CN1009	1-564-104-00	PIN, CONNECTOR (3.96mm PITCH)	3P		
C1557	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	CN1100	1-691-765-11	PLUG (MICRO CONNECTOR)	3P		
C1558	1-162-917-11	CERAMIC CHIP	15PF	5%	50V						
C1559	1-107-545-91	ELECT CHIP	22uF	20%	35V						

# CAV-M1000ES

## AUDIO I/O BRD

Ref. No.	Part No.	Description	Remark
< IC >			
IC1001	8-759-231-59	IC M5F7815L	
IC1002	8-759-245-87	IC M5F7915L	
IC1010	8-759-656-83	IC NJM4580MD-(TE2)	
IC1011	8-759-656-83	IC NJM4580MD-(TE2)	
IC1020	8-759-656-83	IC NJM4580MD-(TE2)	
IC1021	8-759-656-83	IC NJM4580MD-(TE2)	
IC1030	8-759-656-83	IC NJM4580MD-(TE2)	
IC1031	8-759-656-83	IC NJM4580MD-(TE2)	
IC1040	8-759-656-83	IC NJM4580MD-(TE2)	
IC1041	8-759-656-83	IC NJM4580MD-(TE2)	
IC1050	8-759-656-83	IC NJM4580MD-(TE2)	
IC1051	8-759-656-83	IC NJM4580MD-(TE2)	
IC1060	8-759-656-83	IC NJM4580MD-(TE2)	
IC1061	8-759-656-83	IC NJM4580MD-(TE2)	
IC1070	8-759-656-83	IC NJM4580MD-(TE2)	
IC1071	8-759-656-83	IC NJM4580MD-(TE2)	
IC1080	8-759-656-83	IC NJM4580MD-(TE2)	
IC1081	8-759-656-83	IC NJM4580MD-(TE2)	
IC1100	6-705-130-01	IC TC9481F	
IC1101	8-759-656-83	IC NJM4580MD-(TE2)	
IC1102	8-759-656-83	IC NJM4580MD-(TE2)	
IC1200	6-705-130-01	IC TC9481F	
IC1201	8-759-656-83	IC NJM4580MD-(TE2)	
IC1202	8-759-656-83	IC NJM4580MD-(TE2)	
IC1300	6-705-130-01	IC TC9481F	
IC1301	8-759-656-83	IC NJM4580MD-(TE2)	
IC1302	8-759-656-83	IC NJM4580MD-(TE2)	
IC1400	6-705-130-01	IC TC9481F	
IC1401	8-759-656-83	IC NJM4580MD-(TE2)	
IC1402	8-759-656-83	IC NJM4580MD-(TE2)	
IC1500	6-705-130-01	IC TC9481F	
IC1501	8-759-656-83	IC NJM4580MD-(TE2)	
IC1502	8-759-656-83	IC NJM4580MD-(TE2)	
IC1600	6-705-130-01	IC TC9481F	
IC1601	8-759-656-83	IC NJM4580MD-(TE2)	
IC1602	8-759-656-83	IC NJM4580MD-(TE2)	
IC1700	6-705-129-01	IC TC9274F-021	
IC1701	6-705-129-01	IC TC9274F-021	
IC1702	6-705-129-01	IC TC9274F-021	
IC1800	8-759-658-33	IC TC9482F (EL)	
IC1900	8-759-658-33	IC TC9482F (EL)	
< JACK >			
J1010	1-784-934-11	JACK, PIN 4P (AUDIO IN/AUDIO OUT (SOURCE 1))	
J1020	1-784-934-11	JACK, PIN 4P (AUDIO IN/AUDIO OUT (SOURCE 2))	
J1030	1-784-934-11	JACK, PIN 4P (AUDIO IN/AUDIO OUT (SOURCE 3))	
J1040	1-784-934-11	JACK, PIN 4P (AUDIO IN/AUDIO OUT (SOURCE 4))	
J1050	1-784-934-11	JACK, PIN 4P (AUDIO IN/AUDIO OUT (SOURCE 5))	
J1060	1-784-934-11	JACK, PIN 4P (AUDIO IN/AUDIO OUT (SOURCE 6))	

Ref. No.	Part No.	Description	Remark
J1070	1-784-934-11	JACK, PIN 4P (AUDIO IN/AUDIO OUT (SOURCE 7))	
J1080	1-784-934-11	JACK, PIN 4P (AUDIO IN/AUDIO OUT (SOURCE 8))	
< RESISTOR >			
R1001	1-216-803-11	METAL CHIP	33 5% 1/10W
R1002	1-216-803-11	METAL CHIP	33 5% 1/10W
R1003	1-216-803-11	METAL CHIP	33 5% 1/10W
R1004	1-216-803-11	METAL CHIP	33 5% 1/10W
R1010	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1011	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1012	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1015	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1016	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1017	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1020	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1021	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1022	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1025	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1026	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1027	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1030	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1031	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1032	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1035	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1036	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1037	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1040	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1041	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1042	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1045	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1046	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1047	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1050	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1051	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1052	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1055	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1056	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1057	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1060	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1061	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1062	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1065	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1066	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1067	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1070	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1071	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1072	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1075	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1076	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1077	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1080	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1081	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1082	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1085	1-216-821-11	METAL CHIP	1K 5% 1/10W



# CAV-M1000ES

## AUDIO I/O BRD

## CONNECTOR

## CZ CONNECTOR

## DISPLAY

Ref. No.	Part No.	Description	Quantity	Value	Remark
R1782	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1785	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1786	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1787	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1800	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1801	1-216-809-11	METAL CHIP	100	5%	1/10W
R1802	1-216-809-11	METAL CHIP	100	5%	1/10W
R1850	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1851	1-216-809-11	METAL CHIP	100	5%	1/10W
R1852	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1853	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1854	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1880	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1881	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1882	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1900	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1901	1-216-809-11	METAL CHIP	100	5%	1/10W
R1902	1-216-809-11	METAL CHIP	100	5%	1/10W
R1950	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1951	1-216-809-11	METAL CHIP	100	5%	1/10W

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### A-4749-559-A CONNECTOR BOARD, COMPLETE

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< CONNECTOR >

CN103	1-766-715-21	CONNECTOR, BOARD TO BOARD 10P
CN104	1-774-744-21	CONNECTOR, BOARD TO BOARD 18P
CN105	1-784-038-21	CONNECTOR, BOARD TO BOARD 9P
CN106	1-766-715-21	CONNECTOR, BOARD TO BOARD 10P

< CONNECTOR >

CNP500	1-817-962-11	CONNECTOR PIN
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### A-4750-163-A CZ CONNECTOR BOARD, COMPLETE

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< CONNECTOR >

CN101	1-766-715-21	CONNECTOR, BOARD TO BOARD 10P
CN102	1-573-845-11	CONNECTOR, BOARD TO BOARD 13P
CN108	1-779-978-11	PIN, CONNECTOR 3P

< CONNECTOR >

CNP501	1-794-003-11	CONNECTOR 15P
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### A-4749-533-A DISPLAY BOARD, COMPLETE

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\* 4-955-901-01 CUSHION (FL)

< CAPACITOR >

C418	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C419	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C420	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C421	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C422	1-126-176-11	ELECT	220uF	20%	10V
C423	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C424	1-162-995-11	CERAMIC CHIP	0.022uF		50V

Ref. No.	Part No.	Description	Quantity	Value	Remark
C425	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C426	1-126-967-11	ELECT	47uF	20%	50V
C427	1-124-589-11	ELECT	47uF	20%	16V
C500	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C501	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C502	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C503	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C505	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C506	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C507	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C508	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C509	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C510	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C511	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C512	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C513	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C514	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C515	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C516	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C517	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C518	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C519	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C520	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C521	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C522	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C523	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C524	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C525	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C526	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C528	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C535	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C547	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C548	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C549	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C550	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C551	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C552	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C553	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C554	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C555	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C556	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C557	1-216-833-11	METAL CHIP	10K	5%	1/10W
C558	1-216-833-11	METAL CHIP	10K	5%	1/10W
C559	1-216-833-11	METAL CHIP	10K	5%	1/10W
C560	1-216-833-11	METAL CHIP	10K	5%	1/10W
C561	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C562	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C563	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C564	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C565	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C566	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C567	1-216-833-11	METAL CHIP	10K	5%	1/10W
C568	1-216-833-11	METAL CHIP	10K	5%	1/10W
C569	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C570	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C571	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C572	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C573	1-164-156-11	CERAMIC CHIP	0.1uF		25V

## DISPLAY

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
C574	1-164-156-11	CERAMIC CHIP	0.1uF	25V	FB508	1-216-295-91	SHORT CHIP 0	
C575	1-164-156-11	CERAMIC CHIP	0.1uF	25V	FB509	1-216-295-91	SHORT CHIP 0	
C576	1-164-156-11	CERAMIC CHIP	0.1uF	25V				
C577	1-164-156-11	CERAMIC CHIP	0.1uF	25V	FB510	1-216-295-91	SHORT CHIP 0	
C578	1-164-156-11	CERAMIC CHIP	0.1uF	25V	FB511	1-216-295-91	SHORT CHIP 0	
					FB512	1-216-295-91	SHORT CHIP 0	
C579	1-164-156-11	CERAMIC CHIP	0.1uF	25V	FB513	1-216-295-91	SHORT CHIP 0	
C580	1-164-156-11	CERAMIC CHIP	0.1uF	25V	FB514	1-216-295-91	SHORT CHIP 0	
C581	1-126-947-11	ELECT	47uF	20%	16V			
C582	1-164-156-11	CERAMIC CHIP	0.1uF	25V	FB515	1-216-295-91	SHORT CHIP 0	
C585	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB516	1-414-813-11	FERRITE, EMI (SMD) (2012)
					50V	FB517	1-414-813-11	FERRITE, EMI (SMD) (2012)
C586	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB519	1-414-813-11	FERRITE, EMI (SMD) (2012)
C587	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB520	1-414-813-11	FERRITE, EMI (SMD) (2012)
C588	1-164-315-11	CERAMIC CHIP	470PF	5%	50V			
C589	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB522	1-414-813-11	FERRITE, EMI (SMD) (2012)
C591	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB523	1-414-813-11	FERRITE, EMI (SMD) (2012)
					50V	FB525	1-414-813-11	FERRITE, EMI (SMD) (2012)
C592	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB526	1-414-813-11	FERRITE, EMI (SMD) (2012)
C593	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB528	1-414-813-11	FERRITE, EMI (SMD) (2012)
C594	1-164-315-11	CERAMIC CHIP	470PF	5%	50V			
C595	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB529	1-414-813-11	FERRITE, EMI (SMD) (2012)
C596	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB531	1-414-813-11	FERRITE, EMI (SMD) (2012)
					50V	FB532	1-414-813-11	FERRITE, EMI (SMD) (2012)
C597	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	FB535	1-414-813-11	FERRITE, EMI (SMD) (2012)
C598	1-164-315-11	CERAMIC CHIP	470PF	5%	50V			
C599	1-164-315-11	CERAMIC CHIP	470PF	5%	50V			
C600	1-164-156-11	CERAMIC CHIP	0.1uF	25V			< FLUORESCENT INDICATOR TUBE >	
C601	1-164-156-11	CERAMIC CHIP	0.1uF	25V	FL400	1-518-945-11	INDICATOR TUBE, FLUORESCENT	
							< IC >	
C602	1-164-156-11	CERAMIC CHIP	0.1uF	25V				
		< CONNECTOR >						
CN500	1-817-962-11	CONNECTOR PIN			IC400	6-703-714-01	IC M66003-0111FP	
* CN501	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			IC500	6-803-608-01	IC MB91F155APFV-G-E1	
CN504	1-794-003-11	CONNECTOR 15P			IC501	8-759-491-47	IC TC74VHCT08AFT (EL)	
CN507	1-779-977-11	PIN, CONNECTOR 6P			IC502	8-759-491-47	IC TC74VHCT08AFT (EL)	
CN600	1-784-921-11	PIN, CONNECTOR 4P			IC503	8-759-491-47	IC TC74VHCT08AFT (EL)	
		< DIODE >						
D400	8-719-313-50	DIODE	SEL6810A-TH12 (CHECK)		IC504	8-759-523-81	IC TC74VHC08FT (EL)	
D403	8-719-313-50	DIODE	SEL6810A-TH12 (LEARN)		IC505	8-759-523-81	IC TC74VHC08FT (EL)	
D405	8-719-313-50	DIODE	SEL6810A-TH12 (SETUP)		IC506	8-759-523-81	IC TC74VHC08FT (EL)	
D501	8-719-988-61	DIODE	1SS355TE-17		IC508	8-759-833-99	IC TC74HC4052AFT (EL)	
D502	8-719-988-61	DIODE	1SS355TE-17		IC509	6-705-449-01	IC HN58W241000I	
D503	8-719-988-61	DIODE	1SS355TE-17		IC510	6-702-913-01	IC S-80929CNMC-G8ZT2G	
D504	8-719-988-61	DIODE	1SS355TE-17		IC511	6-702-913-01	IC S-80929CNMC-G8ZT2G	
D505	8-719-988-61	DIODE	1SS355TE-17		IC520	8-759-523-81	IC TC74VHC08FT (EL)	
D506	8-719-988-61	DIODE	1SS355TE-17		IC600	6-705-126-01	IC M30622M8-5E5FP	
D507	8-719-988-61	DIODE	1SS355TE-17		IC601	8-759-035-93	IC TC7S32F (TE85R)	
							< COIL >	
D510	8-719-060-48	DIODE	RB751V-40TE-17		L101	1-412-033-11	INDUCTOR 220uH	
D511	8-719-060-48	DIODE	RB751V-40TE-17				< TRANSISTOR >	
D512	8-719-313-50	DIODE	SEL6810A-TH12 (PROGRAM)		Q403	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
		< FERRITE BEAD >						
FB500	1-216-295-91	SHORT CHIP	0		Q404	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
FB501	1-216-295-91	SHORT CHIP	0		Q405	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
FB502	1-216-295-91	SHORT CHIP	0		Q506	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
FB503	1-216-295-91	SHORT CHIP	0		Q507	8-729-901-00	TRANSISTOR DTC124EKA-T146	
FB504	1-414-813-11	FERRITE, EMI (SMD) (2012)					< RESISTOR >	
					△R400	1-249-381-11	CARBON 1 5% 1/4W	
FB505	1-414-813-11	FERRITE, EMI (SMD) (2012)			△R401	1-249-381-11	CARBON 1 5% 1/4W	
FB506	1-414-813-11	FERRITE, EMI (SMD) (2012)			R402	1-216-809-11	METAL CHIP 100 5% 1/10W	
FB507	1-414-813-11	FERRITE, EMI (SMD) (2012)			R403	1-216-809-11	METAL CHIP 100 5% 1/10W	
					R404	1-216-809-11	METAL CHIP 100 5% 1/10W	

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

# CAV-M1000ES

## DISPLAY

Ref. No.	Part No.	Description	Quantity	Unit	Remark	Ref. No.	Part No.	Description	Quantity	Unit	Remark
R405	1-216-809-11	METAL CHIP	100	5%	1/10W	R547	1-216-813-11	METAL CHIP	220	5%	1/10W
R406	1-216-833-11	METAL CHIP	10K	5%	1/10W	R548	1-216-813-11	METAL CHIP	220	5%	1/10W
R407	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R409	1-216-809-11	METAL CHIP	100	5%	1/10W	R549	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-809-11	METAL CHIP	100	5%	1/10W	R550	1-216-809-11	METAL CHIP	100	5%	1/10W
						R551	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W	R552	1-216-809-11	METAL CHIP	100	5%	1/10W
R420	1-216-821-11	METAL CHIP	1K	5%	1/10W	R553	1-216-809-11	METAL CHIP	100	5%	1/10W
R421	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R422	1-216-821-11	METAL CHIP	1K	5%	1/10W	R554	1-216-809-11	METAL CHIP	100	5%	1/10W
R423	1-216-821-11	METAL CHIP	1K	5%	1/10W	R555	1-216-809-11	METAL CHIP	100	5%	1/10W
						R556	1-216-809-11	METAL CHIP	100	5%	1/10W
R424	1-216-821-11	METAL CHIP	1K	5%	1/10W	R561	1-216-809-11	METAL CHIP	100	5%	1/10W
R425	1-216-821-11	METAL CHIP	1K	5%	1/10W	R562	1-216-809-11	METAL CHIP	100	5%	1/10W
R500	1-216-813-11	METAL CHIP	220	5%	1/10W						
R501	1-216-833-11	METAL CHIP	10K	5%	1/10W	R563	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-833-11	METAL CHIP	10K	5%	1/10W	R564	1-216-809-11	METAL CHIP	100	5%	1/10W
						R565	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-216-833-11	METAL CHIP	10K	5%	1/10W	R566	1-216-809-11	METAL CHIP	100	5%	1/10W
R505	1-216-833-11	METAL CHIP	10K	5%	1/10W	R569	1-216-809-11	METAL CHIP	100	5%	1/10W
R506	1-216-864-11	SHORT CHIP	0								
R507	1-216-864-11	SHORT CHIP	0			R570	1-216-809-11	METAL CHIP	100	5%	1/10W
R508	1-216-864-11	SHORT CHIP	0			R571	1-216-809-11	METAL CHIP	100	5%	1/10W
						R572	1-216-809-11	METAL CHIP	100	5%	1/10W
R509	1-216-809-11	METAL CHIP	100	5%	1/10W	R573	1-216-809-11	METAL CHIP	100	5%	1/10W
R510	1-216-809-11	METAL CHIP	100	5%	1/10W	R574	1-216-809-11	METAL CHIP	100	5%	1/10W
R511	1-216-809-11	METAL CHIP	100	5%	1/10W						
R512	1-216-809-11	METAL CHIP	100	5%	1/10W	R575	1-216-809-11	METAL CHIP	100	5%	1/10W
R513	1-216-809-11	METAL CHIP	100	5%	1/10W	R576	1-216-809-11	METAL CHIP	100	5%	1/10W
						R577	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R514	1-216-809-11	METAL CHIP	100	5%	1/10W	R578	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R515	1-216-809-11	METAL CHIP	100	5%	1/10W	R579	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W						
R517	1-216-809-11	METAL CHIP	100	5%	1/10W	R580	1-216-833-11	METAL CHIP	10K	5%	1/10W
R518	1-216-809-11	METAL CHIP	100	5%	1/10W	R581	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R582	1-216-809-11	METAL CHIP	100	5%	1/10W
R519	1-216-809-11	METAL CHIP	100	5%	1/10W	R583	1-216-809-11	METAL CHIP	100	5%	1/10W
R520	1-216-809-11	METAL CHIP	100	5%	1/10W	R584	1-216-809-11	METAL CHIP	100	5%	1/10W
R521	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R522	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R585	1-414-813-11	FERRITE, EMI (SMD) (2012)			
R523	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R586	1-414-813-11	FERRITE, EMI (SMD) (2012)			
						R587	1-216-845-11	METAL CHIP	100K	5%	1/10W
R524	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R588	1-216-845-11	METAL CHIP	100K	5%	1/10W
R525	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R589	1-414-813-11	FERRITE, EMI (SMD) (2012)			
R526	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R527	1-216-809-11	METAL CHIP	100	5%	1/10W	R590	1-414-813-11	FERRITE, EMI (SMD) (2012)			
R528	1-216-809-11	METAL CHIP	100	5%	1/10W	R591	1-414-813-11	FERRITE, EMI (SMD) (2012)			
						R592	1-414-813-11	FERRITE, EMI (SMD) (2012)			
R529	1-216-809-11	METAL CHIP	100	5%	1/10W	R593	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R530	1-216-809-11	METAL CHIP	100	5%	1/10W	R594	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R531	1-216-809-11	METAL CHIP	100	5%	1/10W						
R532	1-216-809-11	METAL CHIP	100	5%	1/10W	R595	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R533	1-216-809-11	METAL CHIP	100	5%	1/10W	R596	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
						R598	1-216-833-11	METAL CHIP	10K	5%	1/10W
R534	1-216-809-11	METAL CHIP	100	5%	1/10W	R599	1-216-797-11	METAL CHIP	10	5%	1/10W
R535	1-216-809-11	METAL CHIP	100	5%	1/10W	R600	1-216-841-11	METAL CHIP	47K	5%	1/10W
R536	1-216-809-11	METAL CHIP	100	5%	1/10W						
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W	R601	1-216-841-11	METAL CHIP	47K	5%	1/10W
R538	1-216-821-11	METAL CHIP	1K	5%	1/10W	R602	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R603	1-218-272-11	METAL CHIP	5.1K	5%	1/10W
R539	1-216-833-11	METAL CHIP	10K	5%	1/10W	R604	1-216-857-11	METAL CHIP	1M	5%	1/10W
R540	1-216-809-11	METAL CHIP	100	5%	1/10W	R605	1-216-841-11	METAL CHIP	47K	5%	1/10W
R541	1-414-813-11	FERRITE, EMI (SMD) (2012)									
R542	1-414-813-11	FERRITE, EMI (SMD) (2012)				R606	1-216-841-11	METAL CHIP	47K	5%	1/10W
R543	1-414-813-11	FERRITE, EMI (SMD) (2012)				R607	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R608	1-216-841-11	METAL CHIP	47K	5%	1/10W
R544	1-414-813-11	FERRITE, EMI (SMD) (2012)				R615	1-216-833-11	METAL CHIP	10K	5%	1/10W
R545	1-414-813-11	FERRITE, EMI (SMD) (2012)				R621	1-216-833-11	METAL CHIP	10K	5%	1/10W
R546	1-414-813-11	FERRITE, EMI (SMD) (2012)									

<b>DISPLAY</b>	<b>FUNCTION KEY</b>	<b>IR OUT WB</b>	<b>L KEY</b>	<b>LEARNING</b>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R622	1-216-833-11	METAL CHIP	10K 5% 1/10W			< CONNECTOR >	
R623	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R624	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R625	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R626	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R627	1-216-845-11	METAL CHIP	100K 5% 1/10W			< IC >	
R628	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R630	1-216-809-11	METAL CHIP	100 5% 1/10W	IC200	8-759-243-53	IC TC74AC08P	
R631	1-216-809-11	METAL CHIP	100 5% 1/10W	IC201	8-759-007-19	IC TC74HC4051AP	
R632	1-414-813-11	FERRITE, EMI (SMD) (2012)				< JACK >	
R633	1-414-813-11	FERRITE, EMI (SMD) (2012)		J201	1-563-330-11	JACK (IR OUT(SOURCE 1))	
R635	1-414-813-11	FERRITE, EMI (SMD) (2012)		J202	1-563-330-11	JACK (IR OUT(SOURCE 2))	
		< SWITCH >		J203	1-563-330-11	JACK (IR OUT(SOURCE 3))	
SW500	1-554-118-00	SWITCH, PUSH (1 KEY) (PROGRAM)		J204	1-563-330-11	JACK (IR OUT(SOURCE 4))	
		< VIBRATOR >		J205	1-563-330-11	JACK (IR OUT(SOURCE 5))	
X500	1-781-356-21	VIBRATOR, CERAMIC 16.5MHz		J206	1-563-330-11	JACK (IR OUT(SOURCE 6))	
X600	1-579-952-21	VIBRATOR, CERAMIC 8MHz		J207	1-563-330-11	JACK (IR OUT(SOURCE 7))	
*****				J208	1-563-330-11	JACK (IR OUT(SOURCE 8))	
		A-4749-529-A FUNCTION KEY BOARD, COMPLETE		J209	1-563-330-11	JACK (IR OUT(COMMON))	
		*****				< RESISTOR >	
		< RESISTOR >		R201	1-247-807-31	CARBON 100 5% 1/4W	
R710	1-247-847-91	CARBON	4.7K 5% 1/4W	R202	1-247-807-31	CARBON 100 5% 1/4W	
R711	1-249-421-11	CARBON	2.2K 5% 1/4W	R203	1-247-807-31	CARBON 100 5% 1/4W	
R712	1-249-421-11	CARBON	2.2K 5% 1/4W	R204	1-247-807-31	CARBON 100 5% 1/4W	
R713	1-247-831-91	CARBON	1K 5% 1/4W	R205	1-247-807-31	CARBON 100 5% 1/4W	
R720	1-249-429-11	CARBON	10K 5% 1/4W	R206	1-247-807-31	CARBON 100 5% 1/4W	
R721	1-247-847-91	CARBON	4.7K 5% 1/4W	R207	1-247-807-31	CARBON 100 5% 1/4W	
R722	1-249-421-11	CARBON	2.2K 5% 1/4W	R208	1-247-807-31	CARBON 100 5% 1/4W	
R723	1-249-421-11	CARBON	2.2K 5% 1/4W	R209	1-247-807-31	CARBON 100 5% 1/4W	
R724	1-247-831-91	CARBON	1K 5% 1/4W	R210	1-247-807-31	CARBON 100 5% 1/4W	
		< SWITCH >		R211	1-247-807-31	CARBON 100 5% 1/4W	
S710	1-771-410-21	SWITCH, TACTILE (→)		R212	1-247-807-31	CARBON 100 5% 1/4W	
S711	1-771-410-21	SWITCH, TACTILE (↓)		*****			
S712	1-771-410-21	SWITCH, TACTILE (←)				A-4749-331-A L KEY BOARD, COMPLETE	
S713	1-771-410-21	SWITCH, TACTILE (↑)				*****	
S714	1-771-410-21	SWITCH, TACTILE (ENTER)				< CONNECTOR >	
S720	1-771-410-21	SWITCH, TACTILE (MODE)		CN804	1-784-859-21	CONNECTOR, FFC (LIF (NON-ZIF)) 7P	
S721	1-771-410-21	SWITCH, TACTILE (BACK)				< SWITCH >	
S722	1-771-410-21	SWITCH, TACTILE (CANCEL)		S805	1-762-400-11	SWITCH (MUTING)	
S723	1-771-410-21	SWITCH, TACTILE (- (ZONE VOLUME))		S806	1-762-400-11	SWITCH (+ (VOLUME))	
S724	1-771-410-21	SWITCH, TACTILE (+ (ZONE VOLUME))		S807	1-762-400-11	SWITCH (- (VOLUME))	
S725	1-771-410-21	SWITCH, TACTILE (ALL ZONE MUTING)		*****			
*****						A-4749-531-A LEARNING BOARD, COMPLETE	
		A-4749-527-A IR OUT WB BOARD, COMPLETE				*****	
		*****				< CAPACITOR >	
		< CAPACITOR >		C603	1-124-589-11	ELECT 47uF 20% 16V	
C200	1-127-880-11	CERAMIC	0.022uF 10% 50V	C604	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C201	1-128-813-11	CERAMIC	220PF 5% 50V	C605	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C202	1-127-880-11	CERAMIC	0.022uF 10% 50V	C606	1-162-904-11	CERAMIC CHIP 0.5PF 0.25PF 50V	
C203	1-128-813-11	CERAMIC	220PF 5% 50V			< DIODE >	
C204	1-126-961-11	ELECT	2.2uF 20% 50V	D600	6-500-761-01	DIODE SPS-503A-10	

# CAV-M1000ES

<b>LEARNING</b>	<b>POWER</b>	<b>PRE OUT BRD</b>
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Ref. No.	Part No.	Description	Remark		
		< IC >			
IC602	8-759-530-29	IC TC4069UBFT (EL, N)			
		< RESISTOR >			
R609	1-216-839-11	METAL CHIP 33K	5%	1/10W	
R610	1-216-845-11	METAL CHIP 100K	5%	1/10W	
R611	1-216-857-11	METAL CHIP 1M	5%	1/10W	
R612	1-216-837-11	METAL CHIP 22K	5%	1/10W	
R613	1-216-853-11	METAL CHIP 470K	5%	1/10W	
*****					
A-4749-334-A	POWER BOARD, COMPLETE *****				
		< CAPACITOR >			
C501	1-135-818-21	FILM CHIP 0.039uF	5%	16V	
C502	1-126-601-11	ELECT CHIP 2.2uF	20%	50V	
C503	1-165-815-91	CERAMIC CHIP 2.2uF		25V	
		< CONNECTOR >			
CN501	1-774-730-21	PIN, CONNECTOR (PC BOARD) 3P			
		< DIODE >			
D501	8-719-312-03	DIODE SFPB-64VL			
D502	8-719-312-03	DIODE SFPB-64VL			
D503	8-719-312-03	DIODE SFPB-64VL			
D504	8-719-312-03	DIODE SFPB-64VL			
*****					
A-4749-538-A	PRE OUT BRD BOARD, COMPLETE *****				
		< CAPACITOR >			
C1113	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1114	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1115	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1116	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1163	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1164	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1165	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1166	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1213	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1214	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1215	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1216	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1263	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1264	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1265	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1266	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1313	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1314	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1315	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1316	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1363	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1364	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1365	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1366	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1413	1-126-400-11	ELECT CHIP 22uF	20%	35V	

Ref. No.	Part No.	Description	Remark		
C1414	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1415	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1416	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1463	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1464	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1465	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1466	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1513	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1514	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1515	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1516	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1563	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1564	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1565	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1566	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1613	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1614	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1615	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1616	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1663	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1664	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1665	1-164-227-11	CERAMIC CHIP 0.022uF	10%	25V	
C1666	1-126-400-11	ELECT CHIP 22uF	20%	35V	
C1811	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1813	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1815	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1817	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1819	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1821	1-162-927-11	CERAMIC CHIP 100PF	5%	50V	
C1860	1-162-923-11	CERAMIC CHIP 47PF	5%	50V	
C1863	1-162-923-11	CERAMIC CHIP 47PF	5%	50V	
C1866	1-162-923-11	CERAMIC CHIP 47PF	5%	50V	
C1869	1-162-923-11	CERAMIC CHIP 47PF	5%	50V	
C1872	1-162-923-11	CERAMIC CHIP 47PF	5%	50V	
C1875	1-162-923-11	CERAMIC CHIP 47PF	5%	50V	
		< CONNECTOR >			
CN1004	1-784-041-41	CONNECTOR, BOARD TO BOARD 9P			
		< DIODE >			
D1100	8-719-988-61	DIODE 1SS355TE-17			
D1200	8-719-988-61	DIODE 1SS355TE-17			
D1300	8-719-988-61	DIODE 1SS355TE-17			
D1400	8-719-988-61	DIODE 1SS355TE-17			
D1500	8-719-988-61	DIODE 1SS355TE-17			
D1600	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC1103	8-759-656-83	IC NJM4580MD-(TE2)			
IC1203	8-759-656-83	IC NJM4580MD-(TE2)			
IC1303	8-759-656-83	IC NJM4580MD-(TE2)			
IC1403	8-759-656-83	IC NJM4580MD-(TE2)			
IC1503	8-759-656-83	IC NJM4580MD-(TE2)			
IC1603	8-759-656-83	IC NJM4580MD-(TE2)			



PRE OUT BRD

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< JACK >		R1359	1-216-845-11	METAL CHIP	100K 5% 1/10W
J1100	1-817-965-11	JACK PIN 3P (FIXED OUT/VIDEO OUT(ZONE 1))		R1361	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
J1200	1-817-965-11	JACK PIN 3P (FIXED OUT/VIDEO OUT(ZONE 2))		△ R1362	1-216-801-11	METAL CHIP	22 5% 1/10W
J1300	1-817-965-11	JACK PIN 3P (FIXED OUT/VIDEO OUT(ZONE 3))		R1363	1-216-815-11	METAL CHIP	330 5% 1/10W
J1400	1-817-965-11	JACK PIN 3P (FIXED OUT/VIDEO OUT(ZONE 4))		△ R1364	1-216-801-11	METAL CHIP	22 5% 1/10W
J1500	1-817-965-11	JACK PIN 3P (VARIABLE OUT/VIDEO OUT(ZONE 5))		R1406	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R1407	1-216-845-11	METAL CHIP	100K 5% 1/10W
J1600	1-817-965-11	JACK PIN 3P (VARIABLE OUT/VIDEO OUT(ZONE 6))		R1408	1-216-819-11	METAL CHIP	680 5% 1/10W
		< TRANSISTOR >		R1409	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q1102	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L	R1411	1-218-285-11	METAL CHIP	75 5% 1/10W
Q1202	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L	R1413	1-216-815-11	METAL CHIP	330 5% 1/10W
Q1302	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L	R1456	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q1402	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L	R1457	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q1502	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L	R1458	1-216-819-11	METAL CHIP	680 5% 1/10W
				R1459	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q1602	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L	R1461	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
		< RESISTOR >		△ R1462	1-216-801-11	METAL CHIP	22 5% 1/10W
R1106	1-216-821-11	METAL CHIP	1K 5% 1/10W	R1463	1-216-815-11	METAL CHIP	330 5% 1/10W
R1107	1-216-845-11	METAL CHIP	100K 5% 1/10W	△ R1464	1-216-801-11	METAL CHIP	22 5% 1/10W
R1108	1-216-819-11	METAL CHIP	680 5% 1/10W	R1506	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1109	1-216-845-11	METAL CHIP	100K 5% 1/10W	R1507	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1111	1-218-285-11	METAL CHIP	75 5% 1/10W	R1508	1-216-819-11	METAL CHIP	680 5% 1/10W
R1113	1-216-815-11	METAL CHIP	330 5% 1/10W	R1509	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1156	1-216-821-11	METAL CHIP	1K 5% 1/10W	R1511	1-218-285-11	METAL CHIP	75 5% 1/10W
R1157	1-216-845-11	METAL CHIP	100K 5% 1/10W	R1513	1-216-815-11	METAL CHIP	330 5% 1/10W
R1158	1-216-819-11	METAL CHIP	680 5% 1/10W	R1556	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1159	1-216-845-11	METAL CHIP	100K 5% 1/10W	R1557	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1161	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R1558	1-216-819-11	METAL CHIP	680 5% 1/10W
△ R1162	1-216-801-11	METAL CHIP	22 5% 1/10W	R1559	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1163	1-216-815-11	METAL CHIP	330 5% 1/10W	R1561	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
△ R1164	1-216-801-11	METAL CHIP	22 5% 1/10W	△ R1562	1-216-801-11	METAL CHIP	22 5% 1/10W
R1206	1-216-821-11	METAL CHIP	1K 5% 1/10W	R1563	1-216-815-11	METAL CHIP	330 5% 1/10W
R1207	1-216-845-11	METAL CHIP	100K 5% 1/10W	△ R1564	1-216-801-11	METAL CHIP	22 5% 1/10W
R1208	1-216-819-11	METAL CHIP	680 5% 1/10W	R1606	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1209	1-216-845-11	METAL CHIP	100K 5% 1/10W	R1607	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1211	1-218-285-11	METAL CHIP	75 5% 1/10W	R1608	1-216-819-11	METAL CHIP	680 5% 1/10W
R1213	1-216-815-11	METAL CHIP	330 5% 1/10W	R1609	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1256	1-216-821-11	METAL CHIP	1K 5% 1/10W	R1611	1-218-285-11	METAL CHIP	75 5% 1/10W
R1257	1-216-845-11	METAL CHIP	100K 5% 1/10W	R1613	1-216-815-11	METAL CHIP	330 5% 1/10W
R1258	1-216-819-11	METAL CHIP	680 5% 1/10W	R1656	1-216-821-11	METAL CHIP	1K 5% 1/10W
R1259	1-216-845-11	METAL CHIP	100K 5% 1/10W	R1657	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1261	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R1658	1-216-819-11	METAL CHIP	680 5% 1/10W
△ R1262	1-216-801-11	METAL CHIP	22 5% 1/10W	R1659	1-216-845-11	METAL CHIP	100K 5% 1/10W
R1263	1-216-815-11	METAL CHIP	330 5% 1/10W	R1661	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
△ R1264	1-216-801-11	METAL CHIP	22 5% 1/10W	△ R1662	1-216-801-11	METAL CHIP	22 5% 1/10W
R1306	1-216-821-11	METAL CHIP	1K 5% 1/10W	R1663	1-216-815-11	METAL CHIP	330 5% 1/10W
R1307	1-216-845-11	METAL CHIP	100K 5% 1/10W	△ R1664	1-216-801-11	METAL CHIP	22 5% 1/10W
R1308	1-216-819-11	METAL CHIP	680 5% 1/10W			< RELAY >	
R1309	1-216-845-11	METAL CHIP	100K 5% 1/10W	RY1100	1-755-486-11	RELAY	
R1311	1-218-285-11	METAL CHIP	75 5% 1/10W	RY1200	1-755-486-11	RELAY	
R1313	1-216-815-11	METAL CHIP	330 5% 1/10W	RY1300	1-755-486-11	RELAY	
R1356	1-216-821-11	METAL CHIP	1K 5% 1/10W	RY1400	1-755-486-11	RELAY	
R1357	1-216-845-11	METAL CHIP	100K 5% 1/10W	RY1500	1-755-486-11	RELAY	
R1358	1-216-819-11	METAL CHIP	680 5% 1/10W	RY1600	1-755-486-11	RELAY	

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

# CAV-M1000ES

## PW SW

## REGULATOR

Ref. No.	Part No.	Description	Remark
		PW SW BOARD *****	
		< CONNECTOR >	
* CN610	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
		< SWITCH >	
S141	1-771-410-21	SWITCH, TACTILE (I/⏻)	
*****			
A-4749-546-A		REGULATOR BOARD, COMPLETE *****	
7-685-646-79		SCREW +BVTP 3X8 TYPE2 IT-3	
		< CAPACITOR >	
C800	1-135-851-21	MYLAR 0.22uF	100V
C805	1-135-851-21	MYLAR 0.22uF	100V
C820	1-117-332-11	ELECT 2200uF	20% 25V
C821	1-117-332-11	ELECT 2200uF	20% 25V
C822	1-117-332-11	ELECT 2200uF	20% 25V
C840	1-126-947-11	ELECT 47uF	20% 25V
C841	1-104-665-11	ELECT 100uF	20% 25V
C847	1-126-933-11	ELECT 100uF	20% 16V
C848	1-126-933-11	ELECT 100uF	20% 16V
C849	1-126-933-11	ELECT 100uF	20% 16V
C851	1-100-913-11	ELECT 2200uF	20% 25V
C857	1-126-933-11	ELECT 100uF	20% 16V
C858	1-126-933-11	ELECT 100uF	20% 16V
C859	1-126-933-11	ELECT 100uF	20% 16V
C871	1-117-334-51	ELECT 3300uF	20% 25V
C872	1-117-334-51	ELECT 3300uF	20% 25V
C875	1-162-974-11	CERAMIC CHIP 0.01uF	50V
C876	1-162-974-11	CERAMIC CHIP 0.01uF	50V
C877	1-162-974-11	CERAMIC CHIP 0.01uF	50V
C880	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C881	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C882	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C890	1-117-334-51	ELECT 3300uF	20% 25V
		< CONNECTOR >	
CN855	1-779-978-11	PIN, CONNECTOR 3P	
CN878	1-778-446-11	CONNECTOR, BOARD TO BOARD 13P	
CN882	1-784-927-11	PIN, CONNECTOR 12P	
CN885	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P	
CN890	1-779-977-11	PIN, CONNECTOR 6P	
		< DIODE >	
D800	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D820	8-719-059-21	DIODE RK46LF-T2	
D821	8-719-059-21	DIODE RK46LF-T2	
D832	8-719-059-21	DIODE RK46LF-T2	
D862	8-719-060-53	DIODE RBV-2506	
D872	8-719-060-53	DIODE RBV-2506	
		< FUSE HOLDER >	
FH851	1-533-293-11	FUSE HOLDER	
FH852	1-533-293-11	FUSE HOLDER	

Ref. No.	Part No.	Description	Remark
		< IC >	
IC801	6-700-944-01	IC SI-8120S	
IC802	6-700-944-01	IC SI-8120S	
IC820	6-700-944-01	IC SI-8120S	
		< COIL >	
L820	1-456-781-11	COIL 68mH	
L821	1-456-781-11	COIL 68mH	
L822	1-456-781-11	COIL 68mH	
		< TRANSISTOR >	
Q801	8-729-026-68	TRANSISTOR 2SD2525 (TP)	
Q812	8-729-140-97	TRANSISTOR 2SB734-T-34	
Q814	8-729-027-43	TRANSISTOR RT1N141C-TP-1	
Q822	8-729-140-97	TRANSISTOR 2SB734-T-34	
Q824	8-729-027-43	TRANSISTOR RT1N141C-TP-1	
Q832	8-729-140-97	TRANSISTOR 2SB734-T-34	
Q834	8-729-027-43	TRANSISTOR RT1N141C-TP-1	
Q842	8-729-140-97	TRANSISTOR 2SB734-T-34	
Q844	8-729-027-43	TRANSISTOR RT1N141C-TP-1	
Q852	8-729-140-97	TRANSISTOR 2SB734-T-34	
Q854	8-729-027-43	TRANSISTOR RT1N141C-TP-1	
Q862	8-729-140-97	TRANSISTOR 2SB734-T-34	
Q864	8-729-027-43	TRANSISTOR RT1N141C-TP-1	
		< RESISTOR >	
R800	1-216-821-11	METAL CHIP 1K	5% 1/10W
△R801	1-249-389-11	CARBON 4.7	5% 1/4W
R817	1-216-833-11	METAL CHIP 10K	5% 1/10W
R818	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R819	1-216-833-11	METAL CHIP 10K	5% 1/10W
R820	1-216-864-11	SHORT CHIP 0	
R821	1-216-864-11	SHORT CHIP 0	
R822	1-216-864-11	SHORT CHIP 0	
R827	1-216-833-11	METAL CHIP 10K	5% 1/10W
R828	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R829	1-216-833-11	METAL CHIP 10K	5% 1/10W
R837	1-216-833-11	METAL CHIP 10K	5% 1/10W
R838	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R839	1-216-833-11	METAL CHIP 10K	5% 1/10W
R847	1-216-833-11	METAL CHIP 10K	5% 1/10W
R848	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R849	1-216-833-11	METAL CHIP 10K	5% 1/10W
R857	1-216-833-11	METAL CHIP 10K	5% 1/10W
R858	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R859	1-216-833-11	METAL CHIP 10K	5% 1/10W
R867	1-216-833-11	METAL CHIP 10K	5% 1/10W
R868	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R869	1-216-833-11	METAL CHIP 10K	5% 1/10W
		< THERMISTOR >	
TH801	1-805-608-11	THERMISTOR	
TH802	1-805-608-11	THERMISTOR	
TH803	1-805-608-11	THERMISTOR	
TH804	1-805-608-11	THERMISTOR	
TH805	1-805-608-11	THERMISTOR	

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

<b>REGULATOR</b>	<b>R KEY</b>	<b>RF</b>	<b>RF ANTENNA</b>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
TH806	1-805-608-11	THERMISTOR		R116	1-216-850-11	METAL CHIP 270K 5%	1/10W
*****				R118	1-216-864-11	SHORT CHIP 0	
	A-4749-332-A	R KEY BOARD, COMPLETE		R123	1-216-864-11	SHORT CHIP 0	
*****				R125	1-216-864-11	SHORT CHIP 0	
*****				*****			
		< CONNECTOR >				RF ANTENNA BOARD	
						*****	
CN801	1-750-350-21	CONNECTOR, FFC/FPC (ZIF) 10P				< CAPACITOR >	
CN803	1-784-859-21	CONNECTOR, FFC (LIF (NON-ZIF)) 7P					
		< SWITCH >					
S801	1-762-400-11	SWITCH (SYSTEM OFF)		C3700	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
S802	1-786-401-41	SWITCH, TACTILE (◀/▲/▶/▼)		C3701	1-115-416-11	CERAMIC CHIP 0.001uF 5%	25V
S803	1-762-400-11	SWITCH (+(CHANNEL)		C3710	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
S804	1-762-400-11	SWITCH -(CHANNEL)		C3712	1-164-392-11	CERAMIC CHIP 390PF 5%	50V
*****				C3715	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
	A-4749-335-A	RF BOARD, COMPLETE		C3720	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
*****				C3800	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V
		< CAPACITOR >		C3801	1-162-920-11	CERAMIC CHIP 27PF 5%	50V
C10	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C3802	1-164-245-11	CERAMIC CHIP 0.015uF 10%	25V
C101	1-117-370-11	CERAMIC CHIP 10uF	10V	C3803	1-100-552-21	ELECT CHIP 10uF 20%	25V
C102	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V				
C103	1-135-599-11	ELECT CHIP 39uF 20%	16V	C3804	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C104	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C3805	1-124-779-00	ELECT CHIP 10uF 20%	16V
C105	1-164-245-11	CERAMIC CHIP 0.015uF 10%	25V	C3806	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C106	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V	C3807	1-124-779-00	ELECT CHIP 10uF 20%	16V
C109	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C3811	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< CONNECTOR >					
CN101	1-750-350-21	CONNECTOR, FFC/FPC (ZIF) 10P		C3812	1-162-920-11	CERAMIC CHIP 27PF 5%	50V
		< IC >		C3820	1-115-416-11	CERAMIC CHIP 0.001uF 5%	25V
IC101	6-600-286-01	IC TR1000		C3821	1-126-193-11	ELECT CHIP 1uF 20%	50V
IC102	8-759-082-57	IC TC7W04FU (TE12R)				< CONNECTOR >	
		< COIL >		CN3700	1-815-920-11	JACK, MODULAR	
L101	1-216-864-11	SHORT CHIP 0				< FERRITE BEAD >	
L102	1-400-003-21	INDUCTOR 10nH		FB3800	1-414-813-11	FERRITE, EMI (SMD) (2012)	
L103	1-400-028-21	INDUCTOR 100nH				< IC >	
L104	1-216-864-11	SHORT CHIP 0		IC3700	6-705-128-01	IC LMS485CMX	
		< RESISTOR >		IC3720	6-705-128-01	IC LMS485CMX	
R3	1-216-864-11	SHORT CHIP 0		IC3800	8-759-533-85	IC BA05FP-E2	
R5	1-216-833-11	METAL CHIP 10K 5%	1/10W	IC3801	8-759-460-72	IC BA033FP-E2	
R7	1-216-833-11	METAL CHIP 10K 5%	1/10W	IC3802	6-600-286-01	IC TR1000	
R9	1-216-857-11	METAL CHIP 1M 5%	1/10W	IC3803	8-759-491-46	IC TC74VHC04FT (EL)	
R14	1-216-864-11	SHORT CHIP 0				< COIL >	
R104	1-216-864-11	SHORT CHIP 0		L3800	1-400-003-21	INDUCTOR 10nH	
R105	1-216-864-11	SHORT CHIP 0		L3801	1-400-028-21	INDUCTOR 100nH	
R106	1-216-864-11	SHORT CHIP 0				< RESISTOR >	
R107	1-216-857-11	METAL CHIP 1M 5%	1/10W	R3700	1-216-833-11	METAL CHIP 10K 5%	1/10W
R108	1-216-864-11	SHORT CHIP 0		R3701	1-216-833-11	METAL CHIP 10K 5%	1/10W
R110	1-216-833-11	METAL CHIP 10K 5%	1/10W	R3702	1-216-809-11	METAL CHIP 100 5%	1/10W
R111	1-216-841-11	METAL CHIP 47K 5%	1/10W	R3705	1-218-727-11	METAL CHIP 30K 5%	1/10W
R112	1-218-740-11	METAL CHIP 100K 0.5%	1/10W	R3706	1-216-864-11	SHORT CHIP 0	
R114	1-218-736-11	METAL CHIP 68K 0.5%	1/10W				
R115	1-216-851-11	METAL CHIP 330K 5%	1/10W	R3710	1-216-864-11	SHORT CHIP 0	
				R3711	1-216-857-11	METAL CHIP 1M 5%	1/10W
				R3712	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
				R3715	1-216-845-11	METAL CHIP 100K 5%	1/10W
				R3720	1-216-833-11	METAL CHIP 10K 5%	1/10W

# CAV-M1000ES

<b>RF ANTENNA</b>	<b>RJ45</b>	<b>RS232B</b>
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Ref. No.	Part No.	Description	Remark
R3721	1-216-833-11	METAL CHIP 10K 5%	1/10W
R3722	1-216-809-11	METAL CHIP 100 5%	1/10W
R3723	1-216-809-11	METAL CHIP 100 5%	1/10W
R3802	1-216-845-11	METAL CHIP 100K 5%	1/10W
R3803	1-216-838-11	METAL CHIP 27K 5%	1/10W
R3804	1-216-851-11	METAL CHIP 330K 5%	1/10W
R3805	1-216-850-11	METAL CHIP 270K 5%	1/10W
R3806	1-216-839-11	METAL CHIP 33K 5%	1/10W
R3808	1-216-864-11	SHORT CHIP 0	

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A-4749-560-A RJ45 BOARD, COMPLETE  
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< CAPACITOR >

C3100	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3110	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3150	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3200	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3210	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3250	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3300	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3310	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3350	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3400	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3410	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3450	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3500	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3510	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3550	1-162-995-11	CERAMIC CHIP 0.022uF	50V

C3600	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3610	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C3650	1-162-995-11	CERAMIC CHIP 0.022uF	50V

< CONNECTOR >

CN3000	1-774-743-21	CONNECTOR, BOARD TO BOARD 18P	
CN3100	1-815-920-11	JACK, MODULAR (KEYPAD (ZONE 1))	
CN3200	1-815-920-11	JACK, MODULAR (KEYPAD (ZONE 2))	
CN3300	1-815-920-11	JACK, MODULAR (KEYPAD (ZONE 3))	
CN3400	1-815-920-11	JACK, MODULAR (KEYPAD (ZONE 4))	

CN3500	1-815-920-11	JACK, MODULAR (KEYPAD (ZONE 5))	
CN3600	1-815-920-11	JACK, MODULAR (KEYPAD (ZONE 6))	

< IC >

IC3100	6-705-128-01	IC LMS485CMX	
IC3110	6-705-128-01	IC LMS485CMX	
IC3200	6-705-128-01	IC LMS485CMX	
IC3210	6-705-128-01	IC LMS485CMX	
IC3300	6-705-128-01	IC LMS485CMX	

IC3310	6-705-128-01	IC LMS485CMX	
IC3400	6-705-128-01	IC LMS485CMX	
IC3410	6-705-128-01	IC LMS485CMX	
IC3500	6-705-128-01	IC LMS485CMX	
IC3510	6-705-128-01	IC LMS485CMX	

IC3600	6-705-128-01	IC LMS485CMX	
IC3610	6-705-128-01	IC LMS485CMX	

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
R3102	1-216-809-11	METAL CHIP 100 5%	1/10W
R3112	1-216-809-11	METAL CHIP 100 5%	1/10W
R3130	1-216-821-11	METAL CHIP 1K 5%	1/10W
R3141	1-216-833-11	METAL CHIP 10K 5%	1/10W
R3202	1-216-809-11	METAL CHIP 100 5%	1/10W
R3212	1-216-809-11	METAL CHIP 100 5%	1/10W
R3230	1-216-821-11	METAL CHIP 1K 5%	1/10W
R3241	1-216-833-11	METAL CHIP 10K 5%	1/10W
R3302	1-216-809-11	METAL CHIP 100 5%	1/10W
R3312	1-216-809-11	METAL CHIP 100 5%	1/10W

R3330	1-216-821-11	METAL CHIP 1K 5%	1/10W
R3341	1-216-833-11	METAL CHIP 10K 5%	1/10W
R3402	1-216-809-11	METAL CHIP 100 5%	1/10W
R3412	1-216-809-11	METAL CHIP 100 5%	1/10W
R3430	1-216-821-11	METAL CHIP 1K 5%	1/10W
R3441	1-216-833-11	METAL CHIP 10K 5%	1/10W
R3502	1-216-809-11	METAL CHIP 100 5%	1/10W
R3512	1-216-809-11	METAL CHIP 100 5%	1/10W
R3530	1-216-821-11	METAL CHIP 1K 5%	1/10W
R3541	1-216-833-11	METAL CHIP 10K 5%	1/10W
R3602	1-216-809-11	METAL CHIP 100 5%	1/10W
R3612	1-216-809-11	METAL CHIP 100 5%	1/10W
R3630	1-216-821-11	METAL CHIP 1K 5%	1/10W
R3641	1-216-833-11	METAL CHIP 10K 5%	1/10W

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A-4749-550-A RS232B BOARD, COMPLETE  
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< CAPACITOR >

C310	1-126-933-11	ELECT 100uF 20%	16V
C311	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C312	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C313	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C314	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C315	1-164-360-11	CERAMIC CHIP 0.1uF	16V

< CONNECTOR >

CN310	1-815-737-11	CONNECTOR, (D) SUB 9P (DVP(RS232C))	
CN311	1-770-011-41	CONNECTOR, BOARD TO BOARD 4P	

< FERRITE BEAD >

FB310	1-216-295-91	SHORT CHIP 0	
< IC >			
IC310	6-705-514-01	IC MAX3222IPWR	

< RESISTOR >

R310	1-216-809-11	METAL CHIP 100 5%	1/10W
R311	1-216-809-11	METAL CHIP 100 5%	1/10W

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**RS232B BOTTOM**

**RS232B SUB**

**CAV-M1000ES**

**RS232B TOP**

**RS232F**

**RS232F SUB**

**SOURCE KEY**

**SPEAKER**

Ref. No.	Part No.	Description	Remark
	A-4749-553-A	RS232B BOTTOM BOARD, COMPLETE *****	
		< CAPACITOR >	
C320	1-126-933-11	ELECT 100uF 20%	16V
C321	1-162-995-11	CERAMIC CHIP 0.022uF	50V
C322	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C323	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C324	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C325	1-164-360-11	CERAMIC CHIP 0.1uF	16V
		< CONNECTOR >	
CN320	1-815-737-11	CONNECTOR, (D) SUB 9P (AUX(RS232C))	
CN321	1-770-011-41	CONNECTOR, BOARD TO BOARD 4P	
		< FERRITE BEAD >	
FB320	1-216-295-91	SHORT CHIP 0	
		< IC >	
IC320	6-705-514-01	IC MAX3222IPWR	
		< RESISTOR >	
R320	1-216-809-11	METAL CHIP 100 5%	1/10W
R321	1-216-809-11	METAL CHIP 100 5%	1/10W
*****			
	A-4749-552-A	RS232B SUB BOARD, COMPLETE *****	
		< CONNECTOR >	
CN302	1-770-010-21	CONNECTOR, BOARD TO BOARD 4P	
CN312	1-770-010-21	CONNECTOR, BOARD TO BOARD 4P	
CN322	1-770-010-21	CONNECTOR, BOARD TO BOARD 4P	
* CN330	1-564-724-11	PIN, CONNECTOR (SMALL TYPE) 8P	
*****			
	A-4749-555-A	RS232B TOP BOARD, COMPLETE *****	
		< CAPACITOR >	
C300	1-126-933-11	ELECT 100uF 20%	16V
		< CONNECTOR >	
CN300	1-815-737-11	CONNECTOR, (D) SUB 9P	
CN301	1-770-011-41	CONNECTOR, BOARD TO BOARD 4P	
		< IC >	
IC300	6-705-514-01	IC MAX3222IPWR	
		< RESISTOR >	
R300	1-216-809-11	METAL CHIP 100 5%	1/10W
R301	1-216-809-11	METAL CHIP 100 5%	1/10W
*****			

Ref. No.	Part No.	Description	Remark
	A-4749-526-A	RS232F BOARD, COMPLETE *****	
		< CAPACITOR >	
C750	1-125-972-91	ELECT 100uF 20%	16V
C751	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C752	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C753	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C754	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C755	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C756	1-164-156-11	CERAMIC CHIP 0.1uF	25V
		< CONNECTOR >	
CN750	1-815-737-11	CONNECTOR, (D) SUB 9P (RS232C)	
CN751	1-784-921-11	PIN, CONNECTOR 4P	
		< FERRITE BEAD >	
FB750	1-216-295-91	SHORT CHIP 0	
		< IC >	
IC750	6-705-514-01	IC MAX3222IPWR	
		< RESISTOR >	
R750	1-216-809-11	METAL CHIP 100 5%	1/10W
R751	1-216-809-11	METAL CHIP 100 5%	1/10W
*****			
		RS232F SUB BOARD *****	
*****			
	A-4749-528-A	SOURCE KEY BOARD, COMPLETE *****	
		< CONNECTOR >	
* CN700	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
		< RESISTOR >	
R700	1-249-421-11	CARBON 2.2K 5%	1/4W
R701	1-249-421-11	CARBON 2.2K 5%	1/4W
R702	1-247-831-91	CARBON 1K 5%	1/4W
		< SWITCH >	
S700	1-771-410-21	SWITCH, TACTILE (+ (SOURCE SELECT))	
S701	1-771-410-21	SWITCH, TACTILE (- (SOURCE SELECT))	
S702	1-771-410-21	SWITCH, TACTILE (+ (ZONE))	
S703	1-771-410-21	SWITCH, TACTILE (- (ZONE))	
*****			
	A-4749-544-A	SPEAKER BOARD, COMPLETE *****	
		< CAPACITOR >	
C4100	1-136-153-00	FILM 0.01uF 5%	50V
C4101	1-126-964-11	ELECT 10uF 20%	50V
C4150	1-136-153-00	FILM 0.01uF 5%	50V
C4151	1-126-964-11	ELECT 10uF 20%	50V
C4200	1-136-153-00	FILM 0.01uF 5%	50V

# CAV-M1000ES

## SPEAKER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C4201	1-126-964-11	ELECT	10uF 20% 50V	L25	1-420-872-52	COIL, AIR-CORE	
C4250	1-136-153-00	FILM	0.01uF 5% 50V	L31	1-420-872-52	COIL, AIR-CORE	
C4251	1-126-964-11	ELECT	10uF 20% 50V	L35	1-420-872-52	COIL, AIR-CORE	
C4300	1-136-153-00	FILM	0.01uF 5% 50V	L41	1-420-872-52	COIL, AIR-CORE	
C4301	1-126-964-11	ELECT	10uF 20% 50V	L45	1-420-872-52	COIL, AIR-CORE	
C4350	1-136-153-00	FILM	0.01uF 5% 50V	L51	1-420-872-52	COIL, AIR-CORE	
C4351	1-126-964-11	ELECT	10uF 20% 50V	L55	1-420-872-52	COIL, AIR-CORE	
C4400	1-136-153-00	FILM	0.01uF 5% 50V	L61	1-420-872-52	COIL, AIR-CORE	
C4401	1-126-964-11	ELECT	10uF 20% 50V	L65	1-420-872-52	COIL, AIR-CORE	
C4450	1-136-153-00	FILM	0.01uF 5% 50V				
C4451	1-126-964-11	ELECT	10uF 20% 50V			< TRANSISTOR >	
C4500	1-136-153-00	FILM	0.01uF 5% 50V	Q11	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
C4501	1-126-964-11	ELECT	10uF 20% 50V	Q22	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
C4550	1-136-153-00	FILM	0.01uF 5% 50V	Q33	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
C4551	1-126-964-11	ELECT	10uF 20% 50V	Q44	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
C4600	1-136-153-00	FILM	0.01uF 5% 50V	Q55	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
C4601	1-126-964-11	ELECT	10uF 20% 50V	Q66	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
C4650	1-136-153-00	FILM	0.01uF 5% 50V	Q4100	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
C4651	1-126-964-11	ELECT	10uF 20% 50V	Q4150	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
		< CONNECTOR >		Q4151	8-729-027-43	TRANSISTOR	RT1N141C-TP-1
CN10	1-766-719-41	CONNECTOR, BOARD TO BOARD 10P		Q4200	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
CN71	1-818-029-11	CONNECTOR PIN		Q4250	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
CN72	1-818-029-11	CONNECTOR PIN		Q4300	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
CN73	1-818-029-11	CONNECTOR PIN		Q4350	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
CN74	1-818-029-11	CONNECTOR PIN		Q4351	8-729-027-43	TRANSISTOR	RT1N141C-TP-1
CN75	1-818-029-11	CONNECTOR PIN		Q4400	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
CN76	1-818-029-11	CONNECTOR PIN		Q4450	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
		< DIODE >		Q4500	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
D11	8-719-988-61	DIODE 1SS355TE-17		Q4550	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
D22	8-719-988-61	DIODE 1SS355TE-17		Q4551	8-729-027-43	TRANSISTOR	RT1N141C-TP-1
D33	8-719-988-61	DIODE 1SS355TE-17		Q4600	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
D44	8-719-988-61	DIODE 1SS355TE-17		Q4650	8-729-230-49	TRANSISTOR	2SC2712-YG-TE85L
D55	8-719-988-61	DIODE 1SS355TE-17				< RESISTOR >	
D66	8-719-988-61	DIODE 1SS355TE-17		△R11	1-249-389-11	CARBON	4.7 5% 1/4W
D4100	8-719-988-61	DIODE 1SS355TE-17		△R12	1-249-402-11	CARBON	56 5% 1/4W
D4150	8-719-988-61	DIODE 1SS355TE-17		R13	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
D4200	8-719-988-61	DIODE 1SS355TE-17		△R15	1-249-389-11	CARBON	4.7 5% 1/4W
D4250	8-719-988-61	DIODE 1SS355TE-17		△R21	1-249-389-11	CARBON	4.7 5% 1/4W
D4300	8-719-988-61	DIODE 1SS355TE-17		△R22	1-249-402-11	CARBON	56 5% 1/4W
D4350	8-719-988-61	DIODE 1SS355TE-17		R23	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
D4400	8-719-988-61	DIODE 1SS355TE-17		△R25	1-249-389-11	CARBON	4.7 5% 1/4W
D4450	8-719-988-61	DIODE 1SS355TE-17		△R31	1-249-389-11	CARBON	4.7 5% 1/4W
D4500	8-719-988-61	DIODE 1SS355TE-17		△R32	1-249-402-11	CARBON	56 5% 1/4W
D4550	8-719-988-61	DIODE 1SS355TE-17		R33	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
D4600	8-719-988-61	DIODE 1SS355TE-17		△R35	1-249-389-11	CARBON	4.7 5% 1/4W
D4650	8-719-988-61	DIODE 1SS355TE-17		△R41	1-249-389-11	CARBON	4.7 5% 1/4W
		< IC >		△R42	1-249-402-11	CARBON	56 5% 1/4W
IC4100	8-759-710-97	IC NJM4565M (TE2)		R43	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
IC4300	8-759-710-97	IC NJM4565M (TE2)		△R45	1-249-389-11	CARBON	4.7 5% 1/4W
IC4500	8-759-710-97	IC NJM4565M (TE2)		△R51	1-249-389-11	CARBON	4.7 5% 1/4W
		< COIL >		△R52	1-249-402-11	CARBON	56 5% 1/4W
L11	1-420-872-52	COIL, AIR-CORE		R53	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
L15	1-420-872-52	COIL, AIR-CORE		△R55	1-249-389-11	CARBON	4.7 5% 1/4W
L21	1-420-872-52	COIL, AIR-CORE		△R61	1-249-389-11	CARBON	4.7 5% 1/4W
				△R62	1-249-402-11	CARBON	56 5% 1/4W
				R63	1-216-829-11	METAL CHIP	4.7K 5% 1/10W

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

**SPEAKER**

**TRANSLATION**

**VIDEO I/O BRD**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△ R65	1-249-389-11	CARBON	4.7 5%	1/4W	R4504	1-216-841-11	METAL CHIP 47K 5% 1/10W
R4100	1-249-588-91	CARBON	33K 5%	1/4W	R4550	1-249-588-91	CARBON 33K 5% 1/4W
R4101	1-249-576-91	CARBON	10K 5%	1/4W	R4551	1-249-576-91	CARBON 10K 5% 1/4W
R4102	1-216-835-11	METAL CHIP	15K 5%	1/10W	R4552	1-216-835-11	METAL CHIP 15K 5% 1/10W
R4103	1-216-837-11	METAL CHIP	22K 5%	1/10W	R4553	1-216-837-11	METAL CHIP 22K 5% 1/10W
R4104	1-216-841-11	METAL CHIP	47K 5%	1/10W	R4554	1-216-841-11	METAL CHIP 47K 5% 1/10W
R4150	1-249-588-91	CARBON	33K 5%	1/4W	R4555	1-216-841-11	METAL CHIP 47K 5% 1/10W
R4151	1-249-576-91	CARBON	10K 5%	1/4W	R4556	1-216-833-11	METAL CHIP 10K 5% 1/10W
R4152	1-216-835-11	METAL CHIP	15K 5%	1/10W	R4557	1-216-853-11	METAL CHIP 470K 5% 1/10W
R4153	1-216-837-11	METAL CHIP	22K 5%	1/10W	R4558	1-216-841-11	METAL CHIP 47K 5% 1/10W
R4154	1-216-841-11	METAL CHIP	47K 5%	1/10W	R4559	1-216-837-11	METAL CHIP 22K 5% 1/10W
R4155	1-216-841-11	METAL CHIP	47K 5%	1/10W	R4560	1-216-837-11	METAL CHIP 22K 5% 1/10W
R4156	1-216-833-11	METAL CHIP	10K 5%	1/10W	R4600	1-249-588-91	CARBON 33K 5% 1/4W
R4157	1-216-853-11	METAL CHIP	470K 5%	1/10W	R4601	1-249-576-91	CARBON 10K 5% 1/4W
R4158	1-216-841-11	METAL CHIP	47K 5%	1/10W	R4602	1-216-835-11	METAL CHIP 15K 5% 1/10W
R4159	1-216-837-11	METAL CHIP	22K 5%	1/10W	R4603	1-216-837-11	METAL CHIP 22K 5% 1/10W
R4160	1-216-837-11	METAL CHIP	22K 5%	1/10W	R4604	1-216-841-11	METAL CHIP 47K 5% 1/10W
R4200	1-249-588-91	CARBON	33K 5%	1/4W	R4650	1-249-588-91	CARBON 33K 5% 1/4W
R4201	1-249-576-91	CARBON	10K 5%	1/4W	R4651	1-249-576-91	CARBON 10K 5% 1/4W
R4202	1-216-835-11	METAL CHIP	15K 5%	1/10W	R4652	1-216-835-11	METAL CHIP 15K 5% 1/10W
R4203	1-216-837-11	METAL CHIP	22K 5%	1/10W	R4653	1-216-837-11	METAL CHIP 22K 5% 1/10W
R4204	1-216-841-11	METAL CHIP	47K 5%	1/10W	R4654	1-216-841-11	METAL CHIP 47K 5% 1/10W
R4250	1-249-588-91	CARBON	33K 5%	1/4W	< RELAY >		
R4251	1-249-576-91	CARBON	10K 5%	1/4W	RY11	1-755-170-11	RELAY (12V)
R4252	1-216-835-11	METAL CHIP	15K 5%	1/10W	RY22	1-755-170-11	RELAY (12V)
R4253	1-216-837-11	METAL CHIP	22K 5%	1/10W	RY33	1-755-170-11	RELAY (12V)
R4254	1-216-841-11	METAL CHIP	47K 5%	1/10W	RY44	1-755-170-11	RELAY (12V)
R4300	1-249-588-91	CARBON	33K 5%	1/4W	RY55	1-755-170-11	RELAY (12V)
R4301	1-249-576-91	CARBON	10K 5%	1/4W	RY66	1-755-170-11	RELAY (12V)
R4302	1-216-835-11	METAL CHIP	15K 5%	1/10W	*****		
R4303	1-216-837-11	METAL CHIP	22K 5%	1/10W	A-4749-336-A TRANSLATION BOARD, COMPLETE		
R4304	1-216-841-11	METAL CHIP	47K 5%	1/10W	*****		
R4350	1-249-588-91	CARBON	33K 5%	1/4W	< CAPACITOR >		
R4351	1-249-576-91	CARBON	10K 5%	1/4W	C201	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
R4352	1-216-835-11	METAL CHIP	15K 5%	1/10W	C202	1-126-206-11	ELECT CHIP 100uF 20% 6.3V
R4353	1-216-837-11	METAL CHIP	22K 5%	1/10W	C203	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
R4354	1-216-841-11	METAL CHIP	47K 5%	1/10W	C204	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
R4355	1-216-841-11	METAL CHIP	47K 5%	1/10W	C205	1-126-206-11	ELECT CHIP 100uF 20% 6.3V
R4356	1-216-833-11	METAL CHIP	10K 5%	1/10W	< CONNECTOR >		
R4357	1-216-853-11	METAL CHIP	470K 5%	1/10W	CN201	1-750-358-21	CONNECTOR, FFC/FPC (ZIF) 30P
R4358	1-216-841-11	METAL CHIP	47K 5%	1/10W	CN202	1-573-929-11	CONNECTOR, FFC/FPC (ZIF) 20P
R4359	1-216-837-11	METAL CHIP	22K 5%	1/10W	CN203	1-569-775-91	PIN, CONNECTOR 5P
R4360	1-216-837-11	METAL CHIP	22K 5%	1/10W	CN710	1-818-026-11	CONNECTOR, CIC (ZIF TYPE)
R4400	1-249-588-91	CARBON	33K 5%	1/4W	< RESISTOR >		
R4401	1-249-576-91	CARBON	10K 5%	1/4W	R204	1-216-864-11	SHORT CHIP 0
R4402	1-216-835-11	METAL CHIP	15K 5%	1/10W	*****		
R4403	1-216-837-11	METAL CHIP	22K 5%	1/10W	A-4749-540-A VIDEO I/O BRD BOARD, COMPLETE		
R4404	1-216-841-11	METAL CHIP	47K 5%	1/10W	*****		
R4450	1-249-588-91	CARBON	33K 5%	1/4W	< CAPACITOR >		
R4451	1-249-576-91	CARBON	10K 5%	1/4W	C2001	1-164-227-11	CERAMIC CHIP 0.022uF 10% 16V
R4452	1-216-835-11	METAL CHIP	15K 5%	1/10W	C2002	1-164-227-11	CERAMIC CHIP 0.022uF 10% 16V
R4453	1-216-837-11	METAL CHIP	22K 5%	1/10W	*****		
R4454	1-216-841-11	METAL CHIP	47K 5%	1/10W	*****		
R4500	1-249-588-91	CARBON	33K 5%	1/4W	*****		
R4501	1-249-576-91	CARBON	10K 5%	1/4W	*****		
R4502	1-216-835-11	METAL CHIP	15K 5%	1/10W	*****		
R4503	1-216-837-11	METAL CHIP	22K 5%	1/10W	*****		

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**VIDEO I/O BRD**

Ref. No.	Part No.	Description	Remark
C2003	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2004	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2010	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2011	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2012	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2020	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2021	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2022	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2030	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2031	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2032	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2040	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2041	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2042	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2050	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2051	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2052	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2060	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2061	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2062	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2070	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2071	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2072	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2080	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2081	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2082	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2091	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2092	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2093	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2094	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2095	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2096	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2097	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2098	1-126-204-11	ELECT CHIP	47uF 20% 16V
C2100	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C2101	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C2102	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C2103	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C2104	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2111	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C2112	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C2113	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C2114	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C2115	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C2116	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C2117	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C2118	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C2210	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2211	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2220	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2221	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2230	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2231	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2240	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2241	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2250	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2251	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2260	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V

Ref. No.	Part No.	Description	Remark
C2261	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2300	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2400	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2401	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2410	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2411	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2420	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2421	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2501	1-126-917-11	ELECT	3300uF 20% 6.3V
C2502	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C2601	1-126-917-11	ELECT	3300uF 20% 6.3V
C2602	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C2700	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2710	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2720	1-164-227-11	CERAMIC CHIP	0.022uF 10% 16V
C2730	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C2731	1-117-681-11	ELECT CHIP	100uF 20% 16V
< CONNECTOR >			
CN2000	1-764-865-41	CONNECTOR, BOARD TO BOARD 13P	
* CN2002	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
CN2003	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P	
* CN2004	1-564-521-11	PLUG, CONNECTOR 6P	
CN2700	1-815-920-11	JACK, MODULAR (ANTENNA)	
< FERRITE BEAD >			
FB2000	1-216-295-91	SHORT CHIP	0
< IC >			
IC2000	6-705-131-01	IC NJM2577M	
IC2001	6-705-131-01	IC NJM2577M	
IC2100	6-701-888-01	IC BU2152FS	
IC2210	8-759-523-00	IC TC74HC4051AFT (EL)	
IC2220	8-759-523-00	IC TC74HC4051AFT (EL)	
IC2230	8-759-523-00	IC TC74HC4051AFT (EL)	
IC2240	8-759-523-00	IC TC74HC4051AFT (EL)	
IC2250	8-759-523-00	IC TC74HC4051AFT (EL)	
IC2260	8-759-523-00	IC TC74HC4051AFT (EL)	
IC2300	8-759-269-92	IC SN74HCU04ANSR	
IC2400	6-705-131-01	IC NJM2577M	
IC2410	6-705-131-01	IC NJM2577M	
IC2420	6-705-131-01	IC NJM2577M	
IC2500	8-759-039-69	IC uPC7805AHF	
IC2600	8-759-701-84	IC NJM7905FA	
IC2700	6-705-128-01	IC LMS485CMX	
IC2710	8-759-242-70	IC TC7WU04F (TE12R)	
IC2720	6-705-128-01	IC LMS485CMX	
IC2730	8-759-701-59	IC TA7809S	
< JACK >			
J2001	1-794-435-11	JACK, PIN 2P	(VIDEO IN/VIDEO OUT(SOURCE 1))
J2002	1-794-435-11	JACK, PIN 2P	(VIDEO IN/VIDEO OUT(SOURCE 2))
J2003	1-794-435-11	JACK, PIN 2P	(VIDEO IN/VIDEO OUT(SOURCE 3))
J2004	1-794-435-11	JACK, PIN 2P	(VIDEO IN/VIDEO OUT(SOURCE 4))



VIDEO I/O BRD

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
J2005	1-794-435-11	JACK, PIN 2P (VIDEO IN/VIDEO OUT(SOURCE 5))		R2063	1-216-817-11	METAL CHIP 470 5%	1/10W
J2006	1-794-435-11	JACK, PIN 2P (VIDEO IN/VIDEO OUT(SOURCE 6))		R2065	1-216-833-11	METAL CHIP 10K 5%	1/10W
J2007	1-794-435-11	JACK, PIN 2P (VIDEO IN/VIDEO OUT(SOURCE 7))		R2066	1-216-833-11	METAL CHIP 10K 5%	1/10W
J2008	1-794-435-11	JACK, PIN 2P (VIDEO IN/VIDEO OUT(SOURCE 8))		R2070	1-218-285-11	METAL CHIP 75 5%	1/10W
J2009	1-563-330-11	JACK (CONTROL A1 II)		R2071	1-218-285-11	METAL CHIP 75 5%	1/10W
		< TRANSISTOR >		R2072	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q2010	8-729-216-22	TRANSISTOR 2SA1162-G		R2073	1-216-817-11	METAL CHIP 470 5%	1/10W
Q2020	8-729-216-22	TRANSISTOR 2SA1162-G		R2075	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q2030	8-729-216-22	TRANSISTOR 2SA1162-G		R2076	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q2040	8-729-216-22	TRANSISTOR 2SA1162-G		R2080	1-218-285-11	METAL CHIP 75 5%	1/10W
Q2050	8-729-216-22	TRANSISTOR 2SA1162-G		R2081	1-218-285-11	METAL CHIP 75 5%	1/10W
Q2060	8-729-216-22	TRANSISTOR 2SA1162-G		R2082	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q2070	8-729-216-22	TRANSISTOR 2SA1162-G		R2083	1-216-817-11	METAL CHIP 470 5%	1/10W
Q2080	8-729-216-22	TRANSISTOR 2SA1162-G		R2085	1-216-833-11	METAL CHIP 10K 5%	1/10W
		< RESISTOR >		R2086	1-216-833-11	METAL CHIP 10K 5%	1/10W
R2001	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2100	1-216-809-11	METAL CHIP 100 5%	1/10W
R2002	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2101	1-216-809-11	METAL CHIP 100 5%	1/10W
R2003	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2102	1-216-809-11	METAL CHIP 100 5%	1/10W
R2004	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2103	1-216-809-11	METAL CHIP 100 5%	1/10W
R2010	1-218-285-11	METAL CHIP 75 5%	1/10W	R2104	1-216-805-11	METAL CHIP 47 5%	1/10W
R2011	1-218-285-11	METAL CHIP 75 5%	1/10W	R2105	1-216-805-11	METAL CHIP 47 5%	1/10W
R2012	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2106	1-216-805-11	METAL CHIP 47 5%	1/10W
R2013	1-216-817-11	METAL CHIP 470 5%	1/10W	R2107	1-216-805-11	METAL CHIP 47 5%	1/10W
R2015	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2108	1-216-805-11	METAL CHIP 47 5%	1/10W
R2016	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2109	1-216-805-11	METAL CHIP 47 5%	1/10W
R2020	1-218-285-11	METAL CHIP 75 5%	1/10W	R2110	1-216-805-11	METAL CHIP 47 5%	1/10W
R2021	1-218-285-11	METAL CHIP 75 5%	1/10W	R2111	1-216-805-11	METAL CHIP 47 5%	1/10W
R2022	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2112	1-216-805-11	METAL CHIP 47 5%	1/10W
R2023	1-216-817-11	METAL CHIP 470 5%	1/10W	R2113	1-216-805-11	METAL CHIP 47 5%	1/10W
R2025	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2114	1-216-805-11	METAL CHIP 47 5%	1/10W
R2026	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2115	1-216-805-11	METAL CHIP 47 5%	1/10W
R2030	1-218-285-11	METAL CHIP 75 5%	1/10W	R2116	1-216-805-11	METAL CHIP 47 5%	1/10W
R2031	1-218-285-11	METAL CHIP 75 5%	1/10W	R2117	1-216-805-11	METAL CHIP 47 5%	1/10W
R2032	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2118	1-216-805-11	METAL CHIP 47 5%	1/10W
R2033	1-216-817-11	METAL CHIP 470 5%	1/10W	R2119	1-216-805-11	METAL CHIP 47 5%	1/10W
R2035	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2120	1-216-805-11	METAL CHIP 47 5%	1/10W
R2036	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2121	1-216-805-11	METAL CHIP 47 5%	1/10W
R2040	1-218-285-11	METAL CHIP 75 5%	1/10W	R2122	1-216-805-11	METAL CHIP 47 5%	1/10W
R2041	1-218-285-11	METAL CHIP 75 5%	1/10W	R2123	1-216-805-11	METAL CHIP 47 5%	1/10W
R2042	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2124	1-216-805-11	METAL CHIP 47 5%	1/10W
R2043	1-216-817-11	METAL CHIP 470 5%	1/10W	R2125	1-216-805-11	METAL CHIP 47 5%	1/10W
R2045	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2126	1-216-805-11	METAL CHIP 47 5%	1/10W
R2046	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2127	1-216-805-11	METAL CHIP 47 5%	1/10W
R2050	1-218-285-11	METAL CHIP 75 5%	1/10W	R2400	1-216-809-11	METAL CHIP 100 5%	1/10W
R2051	1-218-285-11	METAL CHIP 75 5%	1/10W	R2401	1-216-809-11	METAL CHIP 100 5%	1/10W
R2052	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2410	1-216-809-11	METAL CHIP 100 5%	1/10W
R2053	1-216-817-11	METAL CHIP 470 5%	1/10W	R2411	1-216-809-11	METAL CHIP 100 5%	1/10W
R2055	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2420	1-216-809-11	METAL CHIP 100 5%	1/10W
R2056	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2421	1-216-809-11	METAL CHIP 100 5%	1/10W
R2060	1-218-285-11	METAL CHIP 75 5%	1/10W	R2700	1-216-833-11	METAL CHIP 10K 5%	1/10W
R2061	1-218-285-11	METAL CHIP 75 5%	1/10W	R2701	1-216-833-11	METAL CHIP 10K 5%	1/10W
R2062	1-216-833-11	METAL CHIP 10K 5%	1/10W	R2702	1-216-809-11	METAL CHIP 100 5%	1/10W
				R2713	1-216-809-11	METAL CHIP 100 5%	1/10W
				R2720	1-216-833-11	METAL CHIP 10K 5%	1/10W
				R2721	1-216-833-11	METAL CHIP 10K 5%	1/10W
				R2722	1-216-809-11	METAL CHIP 100 5%	1/10W
				R2723	1-216-833-11	METAL CHIP 10K 5%	1/10W

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# CAV-M1000ES

Ver 1.1

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		MISCELLANEOUS *****	
156	1-763-978-11	DC FAN	
204	1-761-907-11	PA UNIT	
206	1-478-343-11	INVERTER UNIT	
208	1-756-403-11	BATTERY (NICKEL HYDROGEN)	
210	1-828-231-11	WIRE (FLAT TYPE) (20 CORE)	
212	1-828-175-11	WIRE (FLAT TYPE) (10 CORE)	
218	1-828-301-11	WIRE (FLAT TYPE) (7 CORE)	
220	1-828-177-11	WIRE (FLAT TYPE) (10 CORE)	
221	1-478-340-11	LCD-UNIT (5.1 STN)	
225	1-786-628-11	PANEL, TOUCH	
△ 256	1-790-293-31	CORD, POWER	
303	1-754-328-11	ANTENNA	
△ F811	1-533-312-11	FUSE (10A/125V)	
△ F812	1-533-312-11	FUSE (10A/125V)	
△ F821	1-533-312-11	FUSE (10A/125V)	
△ F825	1-533-312-11	FUSE (10A/125V)	
△ F831	1-533-312-11	FUSE (10A/125V)	
△ F835	1-533-312-11	FUSE (10A/125V)	
△ F851	1-576-785-11	FUSE (15A/125V)	
△ F900	1-576-785-11	FUSE (15A/125V)	
Q122	8-729-051-92	TRANSISTOR 2SD2560	
Q123	8-729-051-93	TRANSISTOR 2SB1647	
Q142	8-729-051-92	TRANSISTOR 2SD2560	
Q143	8-729-051-93	TRANSISTOR 2SB1647	
△ T900	1-443-110-11	POWER TRANSFORMER	
		ACCESSORIES *****	
△ 3	1-823-512-12	CORD, POWER	
69	1-815-737-11	CONNECTOR, (D) SUB 9P (including screw)	
167	1-815-737-11	CONNECTOR, (D) SUB 9P (including screw)	
257	1-500-386-16	FILTER, CLAMP (FERRITE CORE)	
	4-253-728-11	INSTRUCTION MANUAL (SB)(ENGLISH)	
	A-4714-399-A	RMB ASSY (RMB-TP100)	
	A-4741-482-A	RM ASSY (RM-TP100)	

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

# CAV-M1000ES

SONY®

*US Model*

## SERVICE MANUAL

Ver. 1.2 2004.10

### SUPPLEMENT-1







Subject: Addition of TEST MODE and ELECTRICAL ADJUSTMENTS

## SECTION 1 TEST MODE

### [Viewing the version information- CIS VERSION]

CIS VERSION provides you the version information of the Main Unit and other external components, such as an FM/AM Receiver (STR), a DVD Mega Changer, an RF Remote Control, or the Keypad.

#### Procedure:

1. Press the  button to turn off the power.
2. Press and hold ,  and  buttons simultaneously.  
“CIS VERSION” appears in the display window for a few seconds.
3. Press the  or  to view the version information.  
Each time you press the button, the display window changes as shown below.

CIS VERSION (Appears for a few seconds)



VERSION [X.XX] : Displays the version information of the Main Unit.



STR [X.XX] : Displays the version information of the FM/AM RECEIVER (STR).



DVD SYS. [X.XX] : Displays the version information of the DVD MEGA CHANGER (system control).



DVD IF. [X.XX] : Displays the version information of the DVD MEGA CHANGER (interface control).



RF RM [X.XX] : Displays the version information of the RF Remote Control.



KEYPAD [X.XX] : Displays the version information of the Keypad.



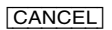



NORMAL mode

### [Initializing all the settings- ALL CLEAR]

Note that all memory data will be deleted when you initiate an ALL CLEAR setting.

#### Procedure:

1. Press the  button to turn off the power.
2. Press and hold ,  and  buttons simultaneously.  
“MEMORY CLEARING” appears in the display window during the initialization.  
When the initialization is completed, “MEMORY CLEARED!” appears for four seconds, then the display window returns to the NORMAL mode.
3. Power will be turned off automatically after the display window returns to the NORMAL mode.



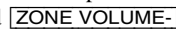

#### Notes

- Any command keys other than POWER are not enabled during the initialization of the Main Unit. If pressed, they are not recognized.
- If you turn off the power before the initialization is completed, the Main Unit will start initializing settings again when you turn on the power the next time.

### [Front Panel Button Test]

Main set front panel button operations check.

#### Procedure:

1. Press the  button to turn off the power.
2. While pressing the  and  buttons, press the  button to enter this mode.
3. “<<KEY LEFT: 15>>” appears in the display window.



4. Press the button and check that the number on display is decreased.






Press the button which is not pushed yet.



5. Repeat Step ④, for other buttons until the number on display finally reaches “00”.



This test is completed.

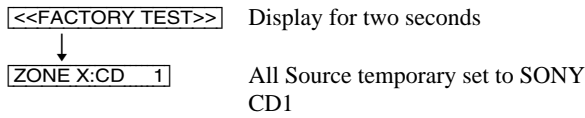
6. To exit from this mode, press the  button to turn off the power.

**[IR Out]**

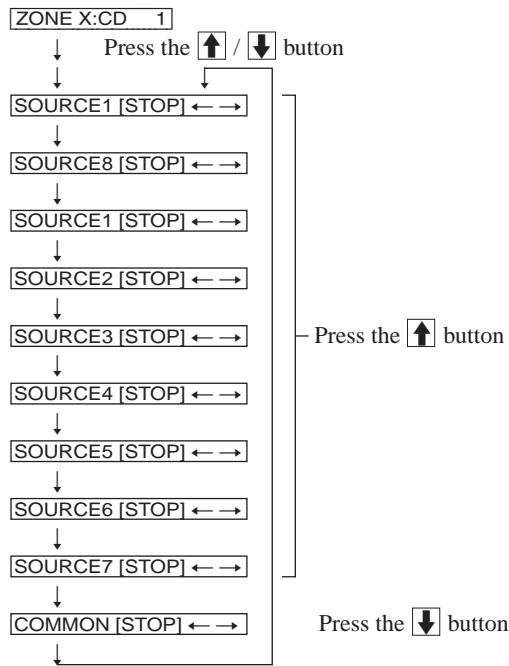
IR out test

**Procedure:**

1. Press the button to turn off the power.
2. While pressing the and buttons, press the button to enter this mode.
3. “<<FACTORY TEST>>” appears in the display window for two seconds, the display window returns to the normal display.



4. During condition ③, press the / button to select Source.



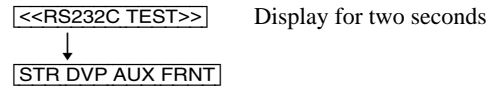
5. During condition ④, press the / button to perform PLAY/STOP.
6. To exit from this mode, press the button to turn off the power.

**[RS-232C Check]**

RS-232C Check

**Procedure:**

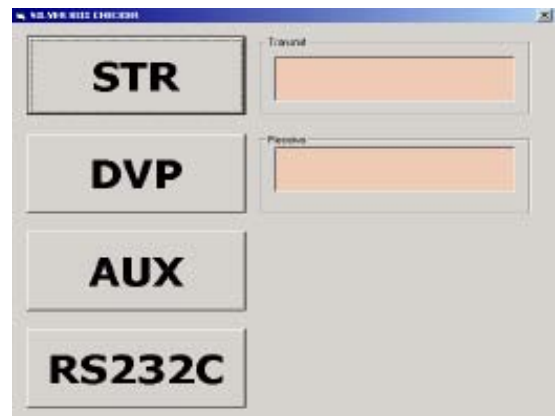
1. Press the button to turn off the power.
2. Use PC (Personal Computer) and run “Silver Box Checker” to perform check.
3. While pressing the and buttons, press the button to enter this mode.
4. “<<RS232C TEST>>” appears in the display window for two seconds, then “STR DVP AUX FRNT” is showed.



These symbol represent:

STR	RS232C for STR
DVP	RS232C for DVP
AUX	RS232C for AUX
FRNT	RS232C for Front Panel

5. During condition ④, on the PC, run the “Silver Box Checker”



- On "Silver Box Checker", press button labeled "STR" while RS232 cable is connected to STR RS232C terminal.  
If the check is pass, display as follow:



[DVP AUX FRNT]

- During condition ⑥, perform check on all other items (DVP, AUX and FRNT)  
If all tests pass, display as follow.

[ALL RS232 PASSED]

- To exit from this mode, press the [I/O] button to turn off the power.

**[Control A1 II Check]**

Control A1 II Check

**Procedure:**

- Press the [I/O] button to turn off the power.
- Use CD player (SONY CD1) STOP button to perform check.
- While pressing the [↑] and [MODE-] buttons, press the [I/O] button to enter this mode.
- "<<CTRL A1 TEST>>" appears in the display window for two seconds, then "PUSH CD STOP..." is showed.

<<CTRL A1 TEST>> Display for two seconds  
↓  
[PUSH CD STOP]

- During condition ④, press STOP key on CD player (SONY CD1)
- During condition ⑤, if the Control A1 II code is received from CD player, display as follow.  
Then, check that CD player is currently start playing CD.

[CD PLAYING]

- To exit from this mode, press the [I/O] button to turn off the power.

**[12V Trigger Check]**

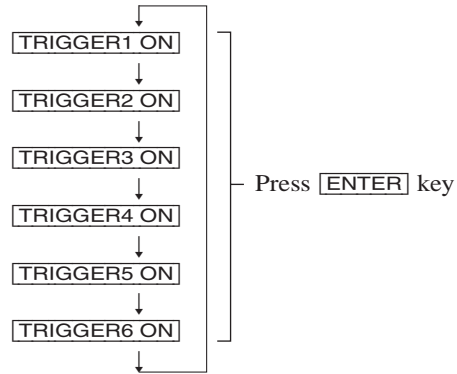
12v Trigger (total 6 triggers) check

**Procedure:**

- Press the [I/O] button to turn off the power.
- While pressing the [BACK] and [→] buttons, press the [I/O] button to enter this mode.
- "<<TRIGGER TEST>>" appears in the display window for two seconds, then "TRIGGER1 ON" is showed.

<< TRIGGER TEST >> display for two seconds  
↓  
[TRIGGER1 ON]

- During condition ③, press [ENTER] key to turn on another trigger in sequence (while the previous one is set to off).



- To exit from this mode, press the [I/O] button to turn off the power.

## SECTION 2 ELECTRICAL ADJUSTMENT

### 1. Repair procedure :

The CAV-M1000ES/RM-TP100 screen display is customized. When repairing, follow the procedure below to set/cancel the initial settings.

- (1) Backing up the customer defined setting data of the RM-TP100  
Connect the PC to the RM-TP100, start up the test program, then read the customer data and save it.

Refer to the Instruction manual for how to operate with the test program.

RM-TP100 test program: "RM-TP100 Editor"

- (2) Saving and setting the ID of the RF Remote Control of the RM-TP100

Read the communication ID for RM-TP100 using the test program, take note of the ID, then set "00" to it.

- (3) Changing the setting data of the RM-TP100

Write the initial data using the RM-R100 test program.

For RM-RP100: sample.gui (supplied with the RM-TP100 Editor)

- (4) Backing up the CAV-M1000ES customer defined data  
Connect the PC to the CAV-M1000ES, start up the test program, then read the customer data and save it.

Refer to the Instruction manual for how to operate with the test program.

CAV-M1000ES test program: "CAV-M1000 Setup Application"

- (5) Saving and setting the RF Remote Control ID  
Read the communication ID for CAV-M1000ES using the test program, take note of the ID, then set "00" to it.

- (6) Changing the CAV-M1000ES setting data  
Turning on the power while pressing the "SOURCE SELECT +" and "CANCEL" keys clears all the settings of the CAV-M1000ES.

When All Clear is performed, the settings of the CAV-M1000 will be the same as that of the RM-TP100 to which sample.gui is imported.

- (7) Check the operations and perform repairing  
Check the operations of the CAV-M1000ES and the RM-TP100 and perform repairing work.

- (8) Writing the setting data of the CAV-M1000ES  
Connect the PC to the CAV-M1000ES and start up the test program.

Write the customer defined data that has been saved in the CAV-M1000ES.

Set the communication ID to the original one that is taken note before.

- (9) Writing the setting data of the RM-TP100  
Connect the PC to the RM-TP100 and start up the test program. Write the customer defined data, that has been saved, in the RM-TP100.

Set the communication ID to the original one that is taken note before.

- (10) Checking and upgrading the firmware version of the RM-TP100  
Check the firmware version and upgrade it if it is not the latest version.

The latest firmware information and how to update it will be announced by the Service HQ.

**Note:** If the upgrade can result in any change of the operation procedure of the remote controller, first confirm the customer whether the customer accepts the upgrade or not.

- (11) Checking and upgrading the firmware version of the CAV-M1000ES

Check the firmware version and upgrade it if it is not the latest version.

The latest firmware information and how to update it will be announced by the Service HQ.

**Note:** If the upgrade can result in any change of the operation procedure of the remote controller, first confirm the customer whether the customer accepts the upgrade or not.

### 2. Checking items :

\* Please refer to SECTION 1 for details.

- (1) A/D KEY CHECK

Enter the A/D KEY CHECK mode.

Press all the keys on the front panel one by one and check that "00" is indicated when all the keys have been pressed.

- (2) IR OUT CHECK

Enter the IR OUT test mode.

Connect the IR equipment to the IR port and check that the IR signal is normally output from the SOURCE 1 through 8 and COMMON.

The IR output signals should be checked by confirming that the PLAY/STOP operations are properly performed on the Sony CD player which is set to the command mode CD1.

- (3) RS-232C I/O CHECK

Enter the RS-232C test mode.

On the PC, start up the "Silver Box Checker".

Connect the PC to the RS-232C ports one after another with the RS-232C cables and confirm whether the communication is successfully established by clicking the button on the Silver Box Checker Screen.

- (4) CONTROL A1II CHECK

Connect the CAV-M1000ES and the CDP-CX455 in which the CD is inserted, with the CONTROL A1II cable.

Enter the CONTROL A1 test mode.

Press the STOP key of the CDP-CX455 and check that the display of the CAV-M1000ES changes and the CDP-CX455 starts playing back the disc.

- (5) 12V TRIGGER CHECK

Enter the 12 V TRIGGER test mode.

Connect the 12 V-triggered-equipment to the 12 V trigger port and check that the equipment operates normally when the ENTER key is pressed to set the port to ON.

