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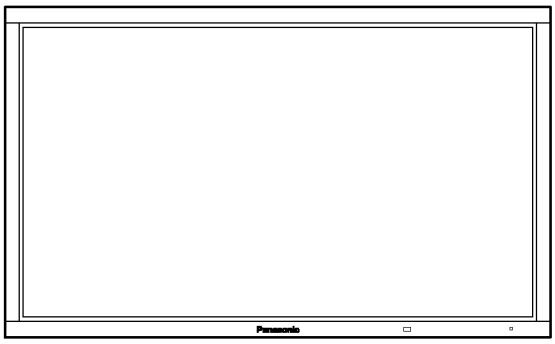
# Service Manual

## High Definition Plasma Display

## Model No. TH-103PF10UK

## Model No. TH-103PF10EK

GPF10D Chassis



**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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# 1 Safety Precautions

## 1.1. General Guidelines

1. When conducting repairs and servicing, do not attempt to modify the equipment, its parts or its materials.
2. When wiring units (with cables, flexible cables or lead wires) are supplied as repair parts and only one wire or some of the wires have been broken or disconnected, do not attempt to repair or re-wire the units. Replace the entire wiring unit instead.
3. When conducting repairs and servicing, do not twist the Faston connectors but plug them straight in or unplug them straight out.
4. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
5. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
6. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

### 1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1Mohm and 5.2Mohm.
   When the exposed metal does not have a return path to the chassis, the reading must be∞.

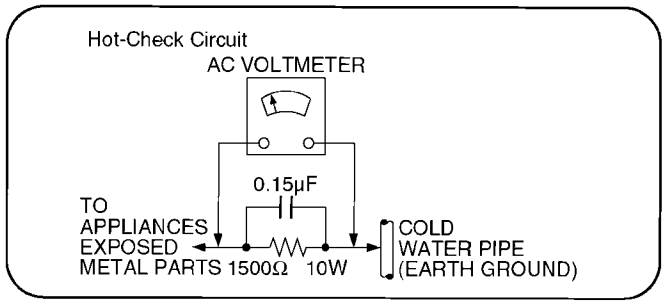



Figure 1

### 1.1.2. Leakage Current Hot Check (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kohm, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

# 2 Warning

## 2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   **Caution**
   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise ham less motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

**IMPORTANT SAFETY NOTICE**

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

## 2.2. About lead free solder (PbF)

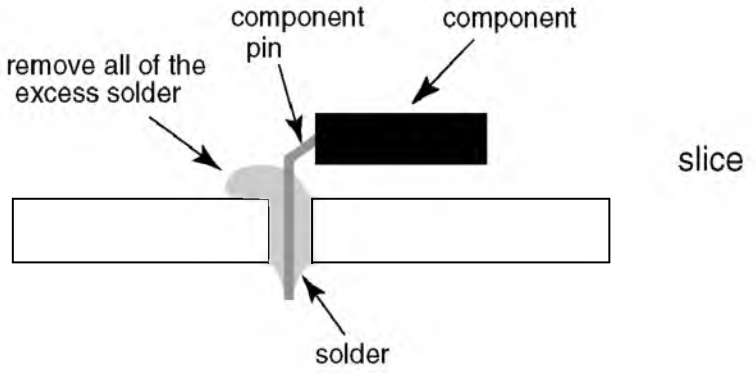
**Note: Lead is listed as (Pb) in the periodic table of elements.**
**In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.**
**The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).**
**That is Tin (Sn), Silver (Ag) and Copper (Cu) although other types are available.**

This model uses Pb Free solder in it's manufacture due to environmental conservation issues. For service and repair work, we'd suggest the use of Pb free solder as well, although Pb solder may be used.

PCBs manufactured using lead free solder will have the PbF within a leaf Symbol **PbF** stamped on the back of PCB.

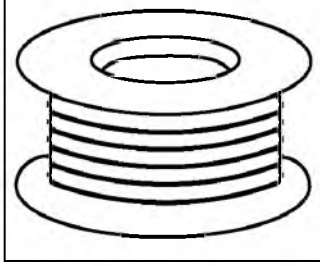
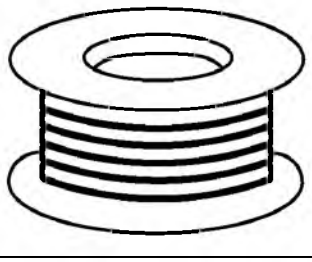
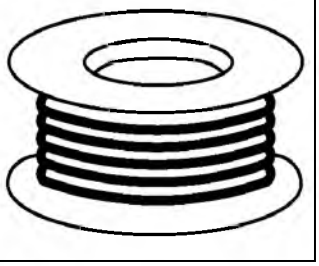
**Caution**

- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 °F (30~40 °C) higher. Please use a high temperature soldering iron and set it to 700 ± 20 °F (370 ± 10 °C).
- Pb free solder will tend to splash when heated too high (about 1100 °F or 600 °C).
  If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.
- After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)




**Suggested Pb free solder**

There are several kinds of Pb free solder available for purchase. This product uses Sn+Ag+Cu (tin, silver, copper) solder. However, Sn+Cu (tin, copper), Sn+Zn+Bi (tin, zinc, bismuth) solder can also be used.

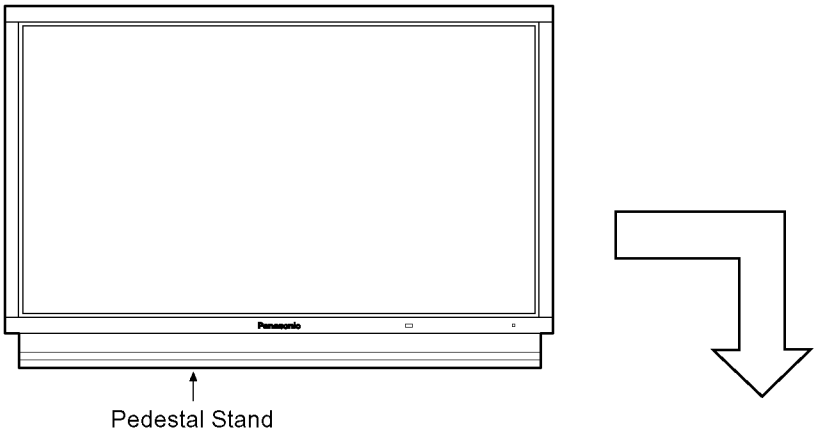
| 0.3mm X 100g | 0.6mm X 100g | 1.0mm X 100g |
|---|---|---|
|  |  |  |

# 3 Service Navigation

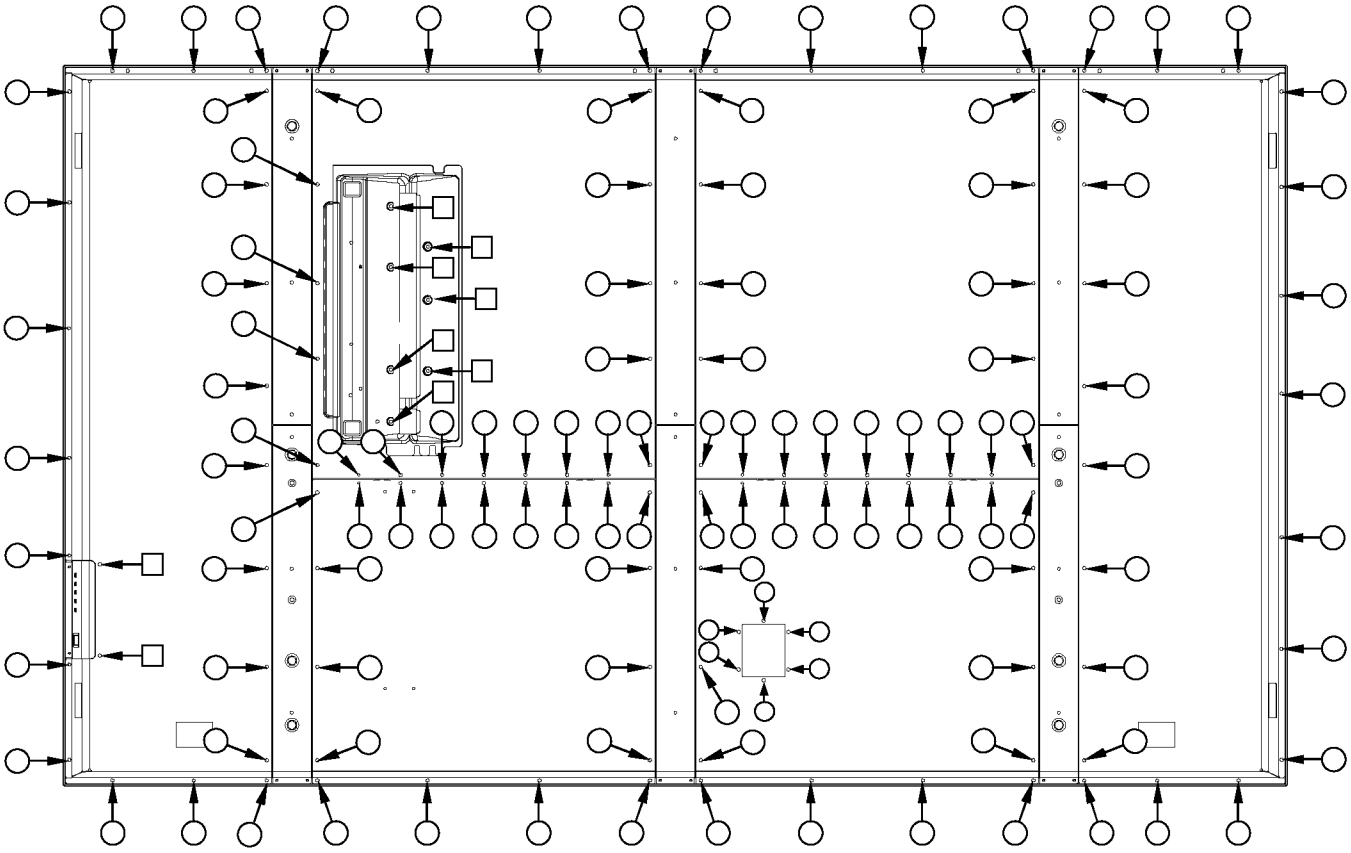
## 3.1. Service Hint

[How to set the plasma unit for servicing]

Place the plasma unit on the pedestal stand.
(Optional Accesory)

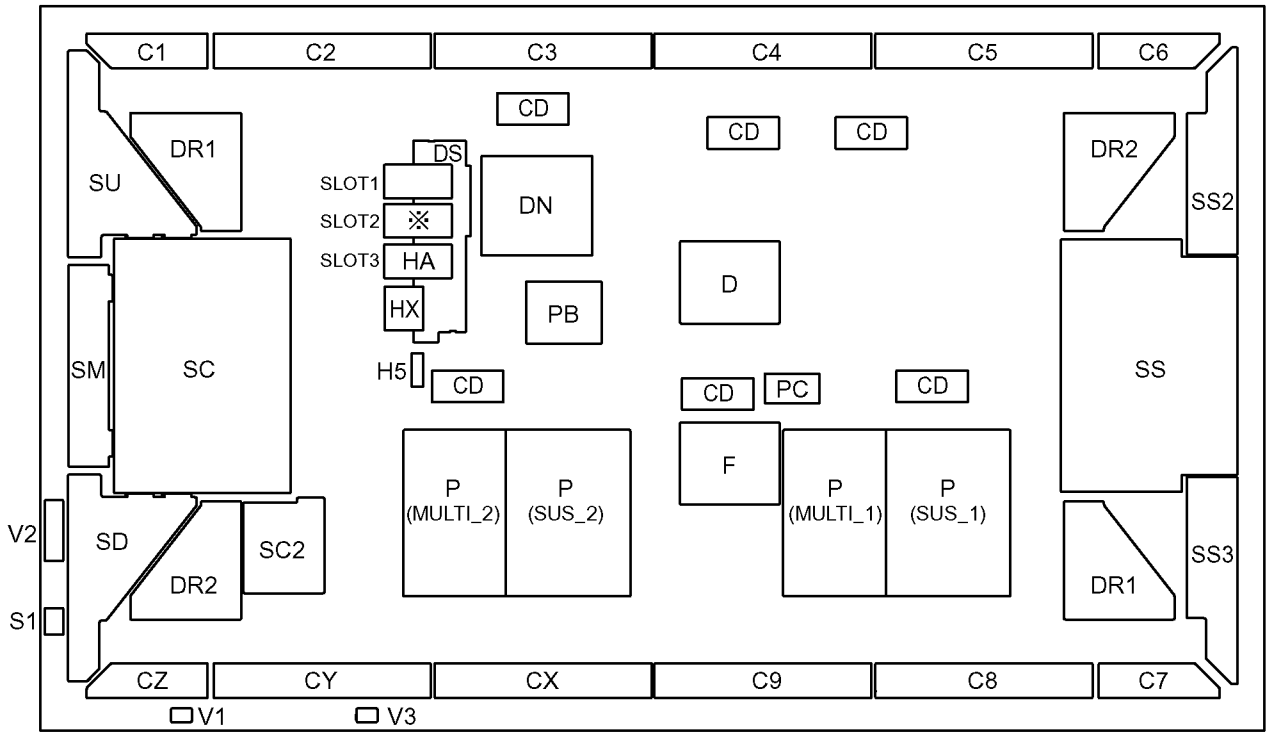



Remove the Rear Cover.



Remove : 128 screws (○) XYN4+F10FJK
9 screws (□) THEL0429

See next page




※ UK : HDMI
EK : HDD

| Board Name | Function | Board Name | Function |
|---|---|---|---|
| D | Digital Signal Processor,<br>Format Converter,<br>Plasma AI Processor<br>Sub-Field Processor | CX | Data Drive (X) |
| | | CY | Data Drive (Y) |
| | | CZ | Data Drive (Z) |
| | | H5 | Audio Out |
| DS | Slot Interface (Audio / Video / Sync Input Switch),<br>SYNC Processor, Audio Processor,<br>Speaker Out Amplifier,<br>DC-DC Converter | S1 | Power Switch |
| | | SS2 | Sustain Out (Upper) |
| | | SS3 | Sustain Out (Lower) |
| | | V1 | LED_G, R |
| SS | Sustain Drive | V2 | Key Scan |
| SC | Scan Drive | V3 | Remocon Receiver |
| SC2 | DC-DC Converter For Scan Drive | PB | Fan Control |
| SU | Scan Out (Upper) | P(SUS_1/2) | Power Supply |
| SM | Scan Out (Middle) | P(MULTI_1/2) | Power Supply |
| SD | Scan Out (Lower) | F | Line Filter |
| C1 | Data Drive (1) | PC | Power Control |
| C2 | Data Drive (2) | HX | PC / RS-232C |
| C3 | Data Drive (3) | HA | BNC Component Video |
| C4 | Data Drive (4) | DN | Digital Signal Processor, Microcomputer |
| C5 | Data Drive (5) | HDD | DVI-D Terminal (EK) |
| C6 | Data Drive (6) | HDMI | Dual HDMI (UK) |
| C7 | Data Drive (7) | CD | C-Board / D-Board Connection |
| C8 | Data Drive (8) | DR1 | Energy Data Recovery |
| C9 | Data Drive (9) | DR2 | Energy Data Recovery |

**Note:**

Extension cable kit for Slot Board is supplied as service fixtures and tools.
(Part No. TZSC07040)

## 3.2. Applicable signals

**Applicable input signals for Component / RGB, Mini D-sub 15P (* Mark)**

| | Signal name | Horizontal frequency (kHz) | Vertical frequency (Hz) | Component / RGB / Mini D-sub 15P (Dot clock (MHz)) |
|---|---|---|---|---|
| 1 | 525 (480) / 60i | 15.73 | 59.94 | * (13.5) |
| 2 | 525 (480) / 60p | 31.47 | 59.94 | * (27.0) ∗4 |
| 3 | 625 (575) / 50i | 15.63 | 50.00 | * (13.5) |
| 4 | 625 (575) / 50p | 31.25 | 50.00 | * (27.0) |
| 5 | 625 (576) / 50p | 31.25 | 50.00 | |
| 6 | 750 (720) / 60p | 45.00 | 60.00 | * (74.25) |
| 7 | 750 (720) / 50p | 37.50 | 50.00 | * (74.25) |
| 8 | 1,125 (1,080) / 60p | 67.50 | 60.00 | * (148.5) ∗1 |
| 9 | 1,125 (1,080) / 60i | 33.75 | 60.00 | * (74.25) ∗1 |
| 10 | 1,125 (1,080) / 50p | 56.26 | 50.00 | * (148.5) ∗1 |
| 11 | 1,125 (1,080) / 50i | 28.13 | 50.00 | * (74.25) ∗1 |
| 12 | 1,125 (1,080) / 24sF | 27.00 | 47.92 | * (74.25) ∗1 |
| 13 | 1,125 (1,080) / 30p | 33.75 | 30.00 | * (74.25) ∗1 |
| 14 | 1,125 (1,080) / 25p | 28.13 | 25.00 | * (74.25) ∗1 |
| 15 | 1,125 (1,080) / 24p | 27.00 | 24.00 | * (74.25) ∗1 |
| 16 | 1,250 (1,080) / 50i | 31.25 | 50.00 | * (74.25) ∗2 |
| 17 | 640 × 400 @70 Hz | 31.46 | 70.07 | * (25.17) |
| 18 | 640 × 480 @60 Hz | 31.47 | 59.94 | * (25.18) ∗5 |
| 19 | 640 × 480 @72 Hz | 37.86 | 72.81 | * (31.5) |
| 20 | 640 × 480 @75 Hz | 37.50 | 75.00 | * (31.5) |
| 21 | 640 × 480 @85 Hz | 43.27 | 85.01 | * (36.0) |
| 22 | 800 × 600 @56 Hz | 35.16 | 56.25 | * (36.0) |
| 23 | 800 × 600 @60 Hz | 37.88 | 60.32 | * (40.0) |
| 24 | 800 × 600 @72 Hz | 48.08 | 72.19 | * (50.0) |
| 25 | 800 × 600 @75 Hz | 46.88 | 75.00 | * (49.5) |
| 26 | 800 × 600 @85 Hz | 53.67 | 85.06 | * (56.25) |
| 27 | 852 × 480 @60 Hz | 31.47 | 59.94 | * (33.54) ∗5 |
| 28 | 1,024 × 768 @50 Hz | 39.55 | 50.00 | |
| 29 | 1,024 × 768 @60 Hz | 48.36 | 60.00 | * (65.0) |
| 30 | 1,024 × 768 @70 Hz | 56.48 | 70.07 | * (75.0) |
| 31 | 1,024 × 768 @75 Hz | 60.02 | 75.03 | * (78.75) |
| 32 | 1,024 × 768 @85 Hz | 68.68 | 85.00 | * (94.5) |
| 33 | 1,066 × 600 @60 Hz | 37.64 | 59.94 | * (53.0) |
| 34 | 1,152 × 864 @60 Hz | 53.70 | 60.00 | |
| 35 | 1,152 × 864 @75 Hz | 67.50 | 75.00 | * (108.0) |
| 36 | 1,280 × 960 @60 Hz | 60.00 | 60.00 | * (108.0) |
| 37 | 1,280 × 960 @85 Hz | 85.94 | 85.00 | * (148.5) |
| 38 | 1,280 × 1,024 @60 Hz | 63.98 | 60.02 | * (108.0) |
| 39 | 1,280 × 1,024 @75 Hz | 79.98 | 75.03 | * (135.0) |
| 40 | 1,280 × 1,024 @85 Hz | 91.15 | 85.02 | * (157.5) |
| 41 | 1,366 × 768 @50 Hz | 39.55 | 50.00 | |
| 42 | 1,366 × 768 @60 Hz | 48.36 | 60.00 | * (86.71) |
| 43 | 1,400 × 1,050 @60 Hz | 65.22 | 60.00 | |
| 44 | 1,600 × 1,200 @60 Hz | 75.00 | 60.00 | * (162.0) |
| 45 | 1,600 × 1,200 @65 Hz | 81.25 | 65.00 | * (175.5) |
| 46 | 1,920 × 1,080 @60 Hz | 67.50 | 60.00 | * (148.5) ∗3 |
| 47 | 1,920 × 1,200 @60 Hz | 74.04 | 59.95 | |
| 48 | Macintosh13" (640 × 480) | 35.00 | 66.67 | * (30.24) |
| 49 | Macintosh16" (832 × 624) | 49.72 | 74.54 | * (57.28) |
| 50 | Macintosh21" (1,152 × 870) | 68.68 | 75.06 | * (100.0) |

1: Based on SMPTE274M standard.
2: Based on SMPTE295M standard.
3: The input signal is recognized as 1,125 (1,080) / 60p.
4: When selected the RGB format and 525p signal input to the Mini D-sub 15P terminal, it is recognized as VGA 60Hz signal.
5: When inputted VGA 60Hz format signal from the other than Mini D-sub 15P terminal, it is recognized as 525p signal.

**Note:** Signals without above speci cation may not be displayed properly.

**VIDEO input (HDMI)**

| Signal format | | Vertical frequency (Hz) | Horizontal frequency (kHz) | Dot clock (MHz) | Number of active pixels | Total number of pixels | Number of active lines | Total number of lines |
|---|---|---|---|---|---|---|---|---|
| 1 | VGA60 | 59.94 | 31.47 | 25.18 | 640 | 800 | 480 | 525 |
| 2 | 525/60p | 59.94 | 31.47 | 27.00 | 720 | 858 | 480 | 525 |
| 3 | 625/50p | 50.00 | 31.25 | 27.00 | 720 | 864 | 576 | 625 |
| 4 | 750/60p | 60.00 | 45.00 | 74.25 | 1280 | 1650 | 720 | 750 |
| 5 | 750/50p | 50.00 | 37.50 | 74.25 | 1280 | 1980 | 720 | 750 |
| 6 | 1125/60i | 60.00 | 33.75 | 74.25 | 1920 | 2200 | 1080 | 1125 |
| 7 | 1125/50i | 50.00 | 28.13 | 74.25 | 1920 | 2640 | 1080 | 1125 |
| 8 | 1125/60p∗ | 60.00 | 67.50 | 148.50 | 1920 | 2200 | 1080 | 1125 |
| 9 | 1125/50p∗ | 50.00 | 56.26 | 148.50 | 1920 | 2640 | 1080 | 1125 |
| 10 | 1125/24p∗ | 24.00 | 27.00 | 74.25 | 1920 | 2750 | 1080 | 1125 |

∗Not compatible with HDMI Terminal Board (TY-FB8HM).
Audio signal  Linear PCM : 48/44.1/32 kHz

# 4 Specifications

| | | |
|---|---|---|
| **Power Source (UK)** | 200 V - 240V AC, 50 / 60Hz | |
| **Power Source (EK)** | 220 V - 240 V AC, 50 / 60Hz | |
| **Power Consumption** | | |
| Power on (UK) | 1,550 W | |
| Power on (EK) | 1,500 W | |
| Stand-by condition | Save OFF 1.0 W, Save ON 0.9 W | |
| Power off condition | 0.5 W | |
| **Plasma Display panel** | Drive method: AC type 103-inch, 16:9 aspect ratio | |
| **Screen size** | 89.5" (2,269 mm) (W) × 50.5" (1,277 mm) (H) × 103" (2,604 mm) (diagonal) | |
| (No. of pixels) | 2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots] | |
| **Operating condition** | | |
| Temperature | 32 °F - 104 °F (0 °C - 40 °C) | |
| Humidity | 20 % - 80 % | |
| **Applicable signals** | | |
| Scanning format | 525 (480) / 60i • 60p, 625 (575) / 50i • 50p, 750 (720) / 60p • 50p, 1125 (1080) / 60i • 60p • 50i • 50p • 24p • 25p • 30p • 24sF,1250 (1080) / 50i | |
| PC signals | VGA, SVGA, XGA, SXGA,<br>UXGA ..... (compressed)<br>Horizontal scanning frequency 15 - 110 kHz<br>Vertical scanning frequency 48 - 120 Hz | |
| **Connection terminals** | | |
| HDMI A-B (UK) | TYPE A Connector x 2 | |
| DVI-D (EK) | Video Input | DVI-D 24 Pin × 1<br>compliance with DVI Revision 1.0 |
| | Audio Input | Stereo mini jack (M3) × 1<br>0.5Vrms |
| | Content Protection | Compatible with HDCP 1.1 |
| COMPONENT / RGB IN | Y / G (BNC) | with / sync 1.0 Vp-p (75-ohm) |
| | $P_B$ / B (BNC), $P_R$ / R (BNC) | 0.7 Vp-p (75-ohm) |
| | AUDIO IN (RCA PIN JACK × 2) | 0.5 Vrms |
| PC IN | (HIGH-DENSITY Mini D-SUB 15PIN) | Y or G with / sync 1.0 Vp-p (75-ohm)<br>Y or G without / sync 0.7 Vp-p (75-ohm) |
| | B / $P_B$ / $C_B$: | 0.7 Vp-p (75-ohm) |
| | R / $P_R$ / $C_R$: | 0.7 Vp-p (75-ohm) |
| | HD / VD: | 1.0 - 5.0 Vp-p (high impedance) |
| | VBS (use HD port) (EK) | with / picture 1.0 Vp-p (high impedance)<br>without / picture 0.3 Vp-p (high impedance) |
| | AUDIO IN (M3 JACK) | 0.5 Vrms (high impedance) |
| SERIAL | EXTERNAL CONTROL TERMINAL (D-SUB 9PIN) | RS-232C COMPATIBLE |
| AUDIO OUT | RCA PIN JACK × 2 (L / R)<br>OUTPUT LEVEL : VARIABLE (-∞ - 0 dB)<br>[INPUT 1KHz / 0dB, 10Kohm Load] | |
| **Accessories Supplied** | | |
| Remote Control Transmitter (UK) | EUR7636070R | |
| Remote Control Transmitter (EK) | EUR7636090R | |
| Batteries (UK) | AA Size x 2 | |
| Batteries (EK) | R6 Size x 2 | |
| Fixing bands | (TMME203) × 2 | |
| **Dimensions (W × H × D)** | 95.0" (2,414 mm) × 56.0" (1,421 mm) × 5.0" (129 mm) (5.6" (141 mm) when including protruding portion of slots) | |
| **Mass (weight)** | | |
| main unit only (UK) | approx. 485.0 lbs | |
| main unit only (EK) | approx. 220.0 kg net | |

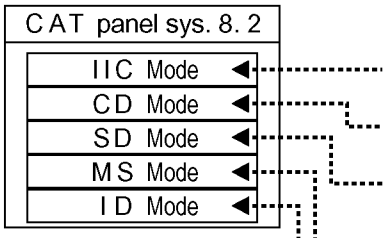
### Notes:

- Design and specifications are subject to change without notice. Mass and dimensions shown are approximate.
- This equipment complies with the EMC standards EN55022, EN55024, EN61000-3-2, EN61000-3-3. (TH-103PF10EK)

# 5 Service Mode

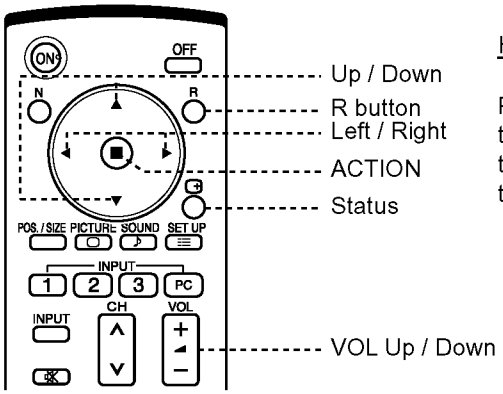
## 5.1. CAT (Computer Aided Test) mode

CAT mode menu




| Mode | Function | Access button |
|---|---|---|
| IIC | Service Alignment | Action |
| CD (Complete Diagnostics) | Software version information EEPROM edit | Mute more than 3 seconds |
| SD (Status Display) | MTBF parameter | Action |
| MS Mode | Market Select | Mute more than 3 seconds |
| ID Mode | LSI Check | Mute more than 3 seconds |

Remote control




How to access the CAT mode.

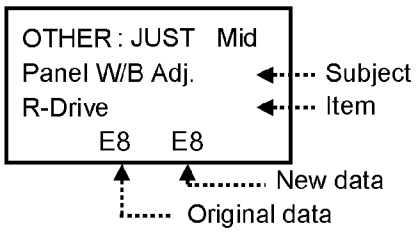
Press and the hold the **Volume down / - button** on the Side of the unit and press the **status button** on the remote control 3 times quickly within 2 seconds, this will place the unit into the CAT mode.

To exit the **CAT mode**, access the **ID mode** and switch off the main power.

### 5.1.1. IIC mode

Select the IIC mode by **Up / Down button** on the remote control at the front page of CAT mode and then press the **Action button** on the remote control.

OSD




How to use the IIC mode.

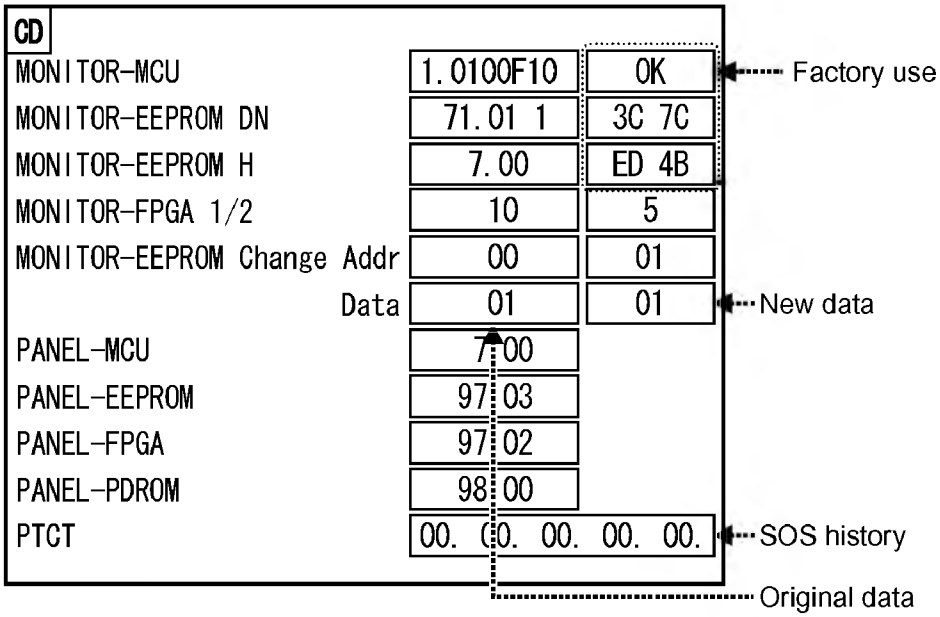
1. Select the alignment **Subject** by **Up/Down buttons** on the remote control.
2. Select the alignment **Item** by **Left/Right buttons** on the remote control.
3. Adjust **optimum setting** by **Volume Up/Down buttons** on the remote control.
4. The **data is memorized** when press the **R button** on the remote control or change the alignment Subject (or Items).

Subject and item are mentioned on “IIC mode structure”.

To exit the IIC mode, press the **R button** on the remote control.

## 5.1.2. CD mode

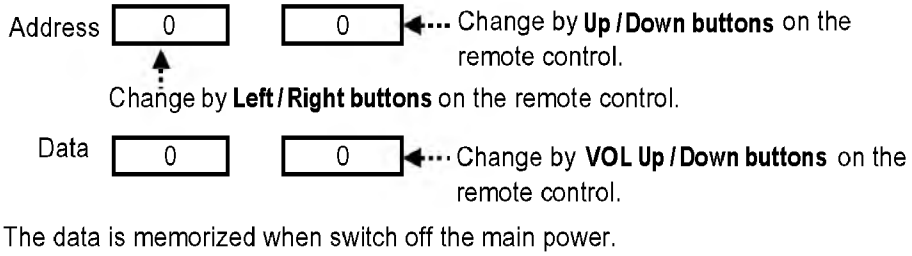
Select the CD mode by **Up / Down button** on the remote control at the front page of CAT mode and then press the **Mute button** on the remote control more than 3 seconds.




Microcomputer software version (IC4002), this version can be upgrade by

1. replace of new version IC
2. Loading the new version software from loader tool, TZSC07036.

Memory data change



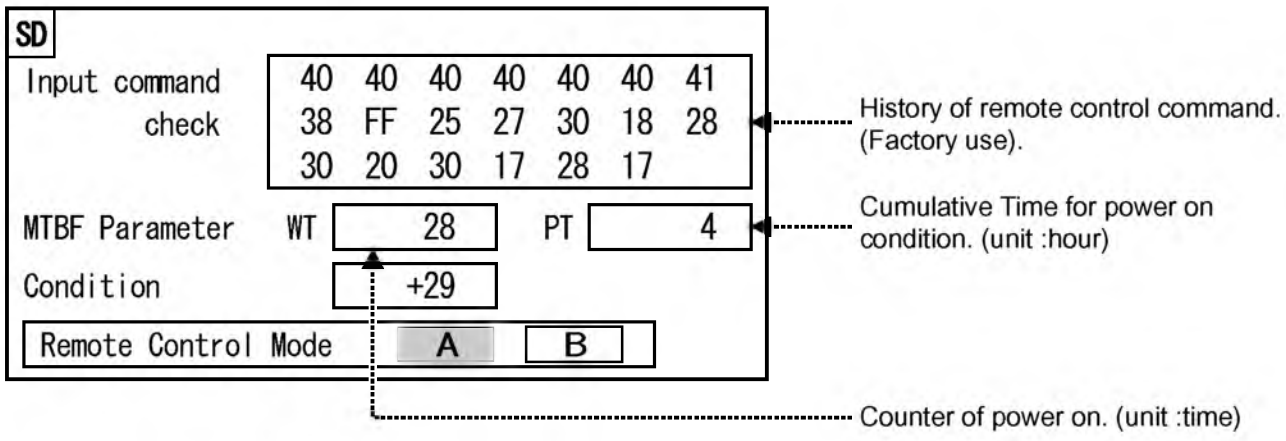

The data is memorized when switch off the main power.

To exit the CD mode, press the **R button** on the remote control.

## 5.1.3. SD mode

Select the SD mode by **Up / Down button** on the remote control at the front page of CAT mode and then press the **Action button** on the remote control.

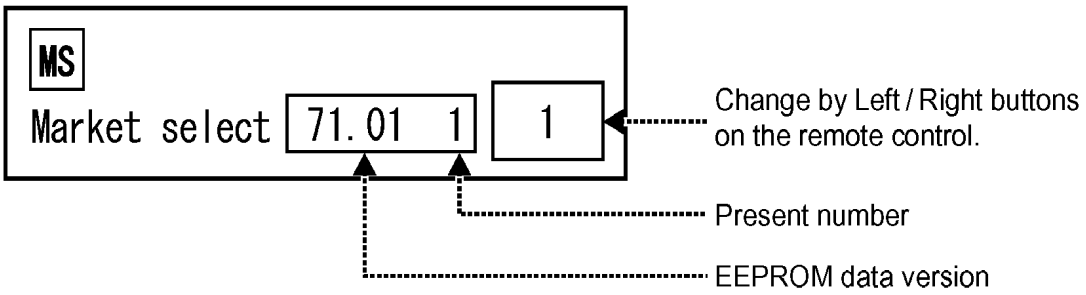
OSD




To exit the SD mode, press the **R button** on the remote control.

## 5.1.4. MS mode

Select the MS mode by **Up / Down button** on the remote control at the front page of CAT mode and then press the **Mute button** on the remote control more than 3 seconds.




To exit the MS mode, press the **R button** on the remote control.

**Caution:**
**Market Select should be set after exchange of DN-Board.**

**Destination number**

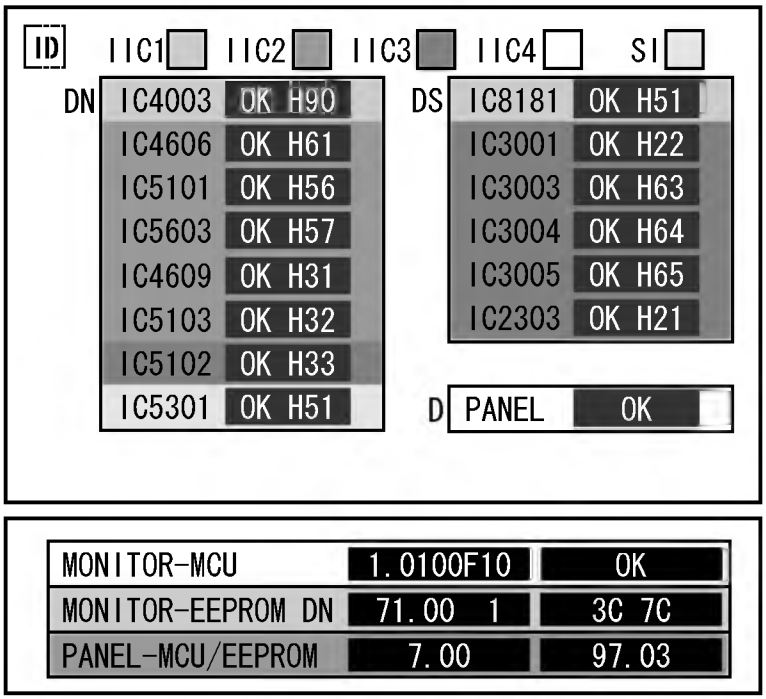
| Number | Destination | Number | Destination |
|---|---|---|---|
| 0 | Japan | 16 | -- |
| 1 | North America | 17 | -- |
| 2 | Europe | 18 | China |
| 3 | Others | 19 | China (Hotel) |
| 4 | Britain | 20 | Russia |
| 5 | Taiwan | 21 | Russia (Hotel) |
| 6 | Thailand | 22 | Hong Kong |
| 7 | -- | 23 | -- |
| 8 | Japan (Hotel) | 24 | -- |
| 9 | North America (Hotel) | 25 | -- |
| 10 | Europe (Hotel) | 26 | -- |
| 11 | -- | 27 | -- |
| 12 | Britain (Hotel) | 28 | Middle East/Hong Kong |
| 13 | -- | 29 | Middle East/Hong Kong (Hotel) |
| 14 | Thailand (Hotel) | 30 | Australia |
| 15 | -- | 31 | Australia (Hotel) |

Default setting

| Number | Destination |
|---|---|
| 1 | North America |

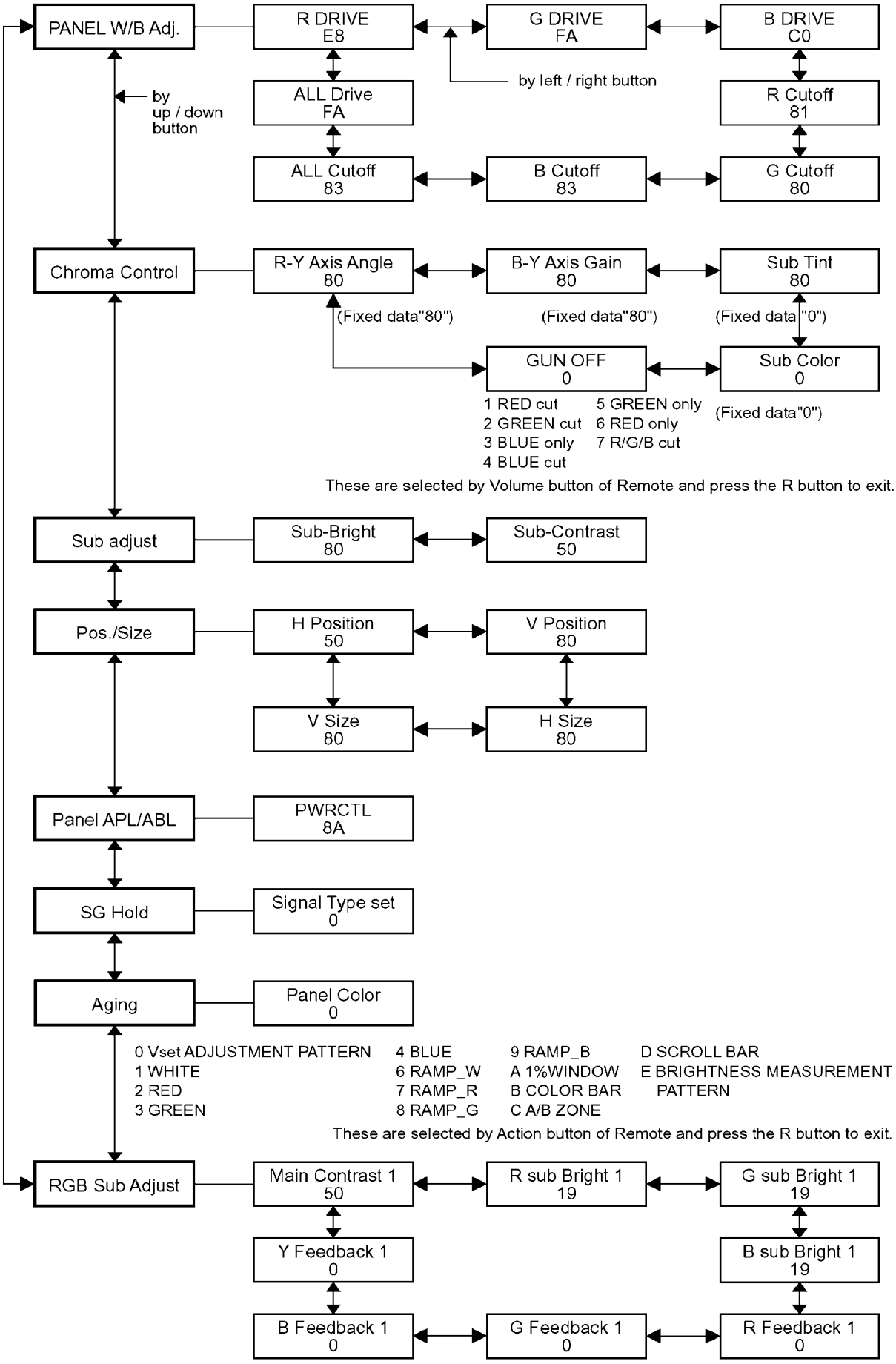
## 5.1.5. ID mode

Select the ID mode by **Up / Down button** on the remote control at the front page of CAT mode and then press the **Mute button** on the remote control more than 3 seconds.




To exit the ID mode, press the **R button** on the remote control.

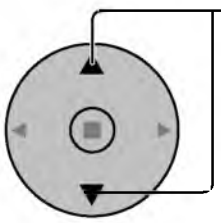
## 5.2. IIC mode structure (following items value is sample data)



## 5.3. Option Setting

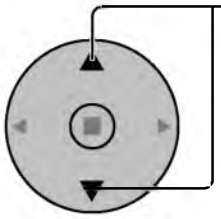
**1** SET UP — Press to display the Setup menu.

**2** Press to select "OSD Language".

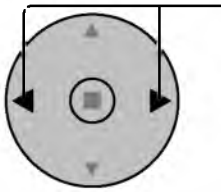


**3** SURROUND — Press and hold until the Options menu is displayed.

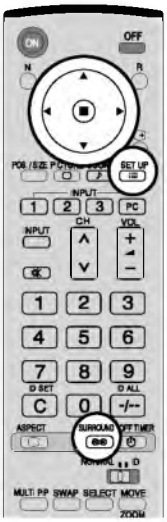
**4** Press to select your preferred menu.

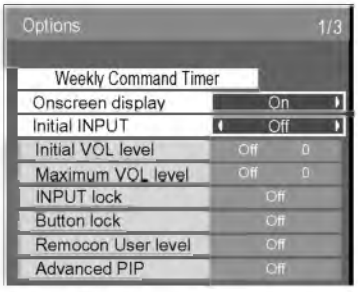


**5** Press to adjust the menu.



**6** SET UP — Press to exit from Options menu.



Option Menu for GPF10D series

**GPH10D chassis series have special function and operation setting facility called Option Menu. This Option Menu is useful for special function required customers. This should be set at the installation stage.**

| Option menus | default setting | Contents |
|---|---|---|
| Weekly Command Timer | --- | Off-timer Sets Weekly Command Timer. Enable/Disable. |
| Onscreen display | On | Enable/Disable to display input mode indication after power on and no signal indication. |
| Initial INPUT | Off | Sets the initial input mode when the power is turned on. Allow input mode selection while power is on. |
| Initial VOL level | Off | Sets the initial volume level when the power is turned on. Allow Volume control while power is on. |
| Maximum VOL Level | Off | Sets the maximum volume to desired level. Volume cannot exceed this level. |
| INPUT lock | Off | Fixes the input mode to AV, Component/RGB or PC. Can not change input mode by input selection key |
| Button lock | Off | Enable/Disable bottom operation buttons (Input, Menu, Enter and/or volume up/down) |
| Remocon User Level | Off | Remote key invalidation.<br>Off: Valid key is all key of remote.<br>User1: Valid key are only Stand-by (ON/OFF), Input, Direct input, Status, Surround, Sound mute On/Off, and volume adjustment.<br>User2: Valid key is only Stand-by (ON/OFF).<br>User3: All keys are null and void |
| Advanced PIP | Off | Off: Sets normal two screen display mode.<br>On: Sets Advanced PIP mode. |
| Off-timer function | Enable | Off-timer operation Enable/Disable. |
| Initial Power Mode | Normal | Sets the power mode of the unit for when the power recovers from failure or after plugging off and in again. |
| ID select | 0 | Set ID number from 0 to 100. |
| Remote ID | Off | Remote ID function On/Off.<br>(While the Remote ID on, standard remote function can not control the unit.) |
| Serial ID | Off | Serial ID function On/Off |
| Display size | Off | Adjusts the image display size on screen.<br>On: Sets the image display size approximately 95% of the normal image display. |
| Studio W/B | Off | Set warm mode color temperature to 3,200 Kelvin. |
| Studio Gain | Off | Sharpens the contrast for a better view when a part of the image is too light to see |
| Slot power | Off | Sets the slot power mode while the power is turned on.<br>Allow Optional Terminal Board insert Slots while power is on. |
| Power On Screen Delay | Off | You can set the power-on delay time of the displays to reduce the power load, when you press ⏻/I to turn on the multiple displays that are set together, for example, on MULTI DISPLAY system.<br>Set each display'fs setting individually. |
| V. Installation | Off | V. Installation function On/Off (Not used) |
| Rotate | Off | The image rotates 180 degrees (up-down) |
| Serial Slot Select | Slot1 | Selects the slot which communicates serial.<br>**Note:** The setting of an external command can be set only from the fixed serial terminal. |

**Note:**

When both main unit buttons and remote control are disabled due to the "Button lock", "Remocon User level" or "Remote ID" adjustments, set all the values "Off" so that all the buttons are enabled again.

Press the "Volume down" button on main unit together with "R" button on the remote control and hold for more than 5 seconds.

The "SHIPPING" menu is displayed and the lock is released when it disappears.

# 6 Troubleshooting Guide

## 6.1. Self Check

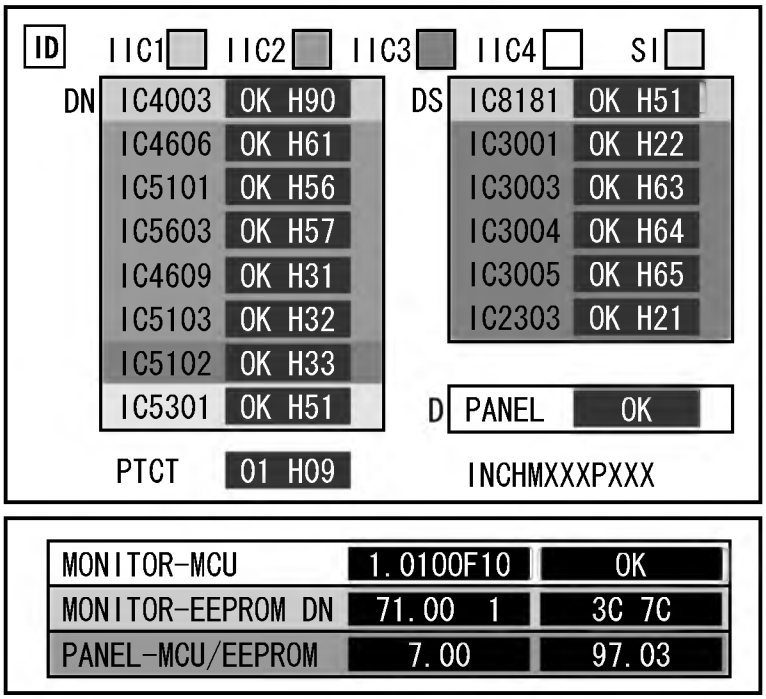
### 6.1.1. Display Indication

1. Self-check is used to automatically check the bus line controlled circuit of the Plasma display.
2. To get into the Self-check mode, press the **volume down** button on the customer controls at the side of the set, at the same time pressing the **OFF-TIMER** button on the remote control, and the screen will show.

If the IIC ports have been checked and found to be incorrect.
Or not located then " - - " will appear in place of " OK ".
" 01 " in the line of the " PTCT " means the number of blinks of the Power LED is 1. (Refer to 7.1.2)
" H09 " in the line of the " PTCT " is the error code.

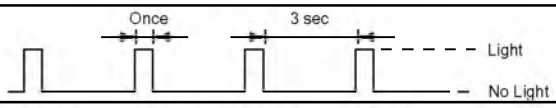
To exit Self Check mode, switch off the main power.

**Note:**
The line of the " PTCT " displays when you get into the Self-check mode for the first time only after the Power LED blinks.

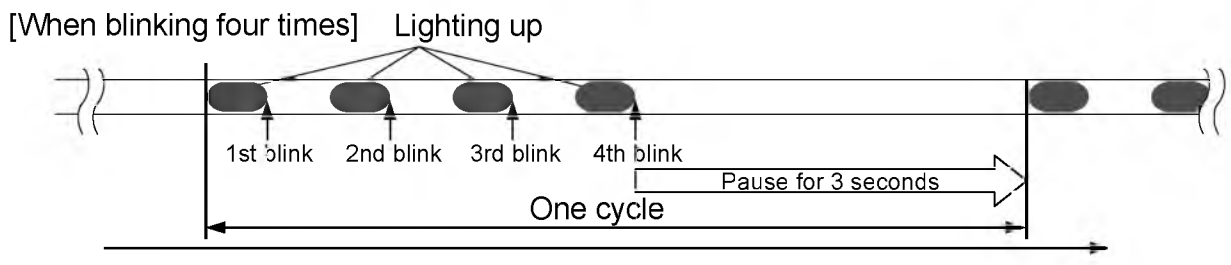


## 6.1.2. Power LED Blinking timing chart

1. Subject
   Information of LED Blinking timing chart.
2. Contents
   When an abnormality has occurred to the unit, the protection circuit operates and resets to the stand by mode. At this time, the defective block can be identified by the number of blinks of the Power LED on the front panel of the unit.

| Blinking times | Blinking timing | Contents & Check point | Check point |
|---|---|---|---|
| 1 |  | No particular check point | – |
| 2 |  | 15V SOS | P-Board (SS side) |
| 3 |  | 3.3V SOS | D-Board<br>DN-Board |
| 4 |  | POWER SOS | P-Board |
| 5 |  | 5V SOS | P-Board (SS-side)<br>D-Board<br>DN-Board<br>DS-Board |
| 6 |  | Driver SOS1(SCAN) | SC-Board<br>SC2-Board<br>SU-Board<br>SM-Board<br>SD-Board |
| 7 |  | Driver SOS2(DATA) | DR1-Board<br>DR2-Board<br>C1-Board<br>C2-Board<br>C3-Board<br>C4-Board<br>C5-Board<br>C6-Board<br>C7-Board<br>C8-Board<br>C9-Board<br>CX-Board<br>CY-Board<br>CZ-Board<br>PC-Board |
| 8 |  | Driver SOS3(SUS) | SS-Board<br>SS2-Board<br>SS3-Board |
| 9 |  | Panel Config SOS | D-Board |
| 10 |  | Terminal Board SOS | P-Board<br>DS-Board |
| 11 |  | FAN SOS | PB-Board<br>FAN |
| 12 |  | DN Config SOS | DN-Board |
| 13 |  | 3.3V / 2.5V / 1.8V | DN-Board |

3. Remarks
   Above Fan function is operated during the fans are installed.
   **About blinking LED**

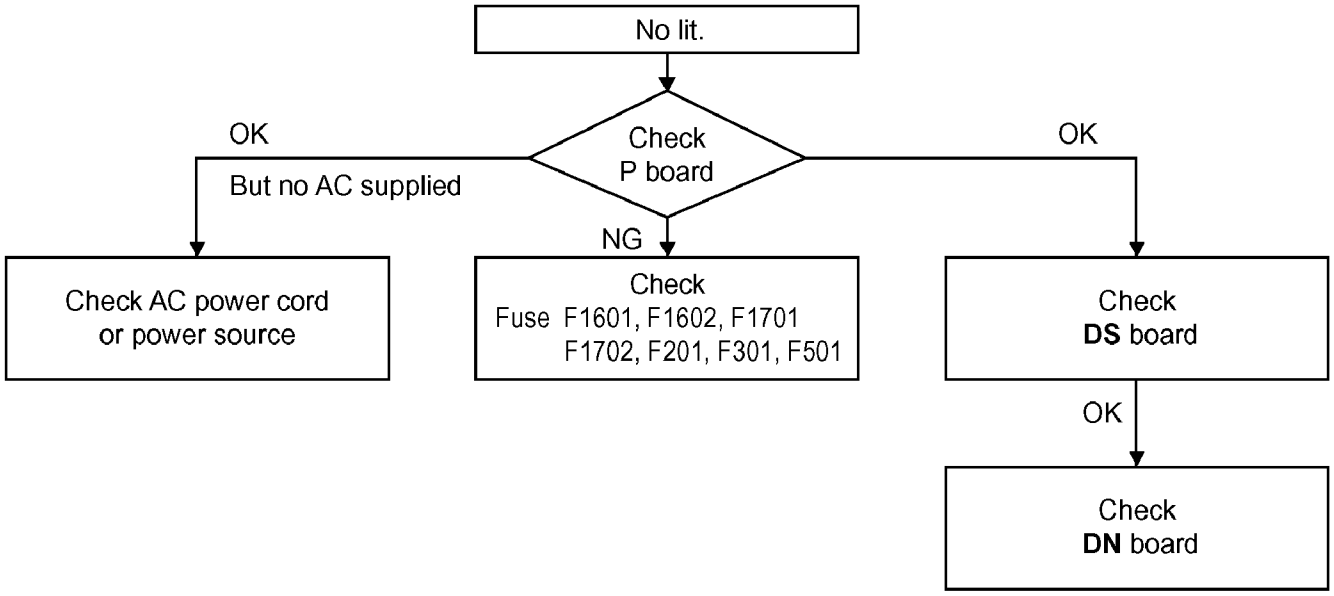


## 6.2. No Power

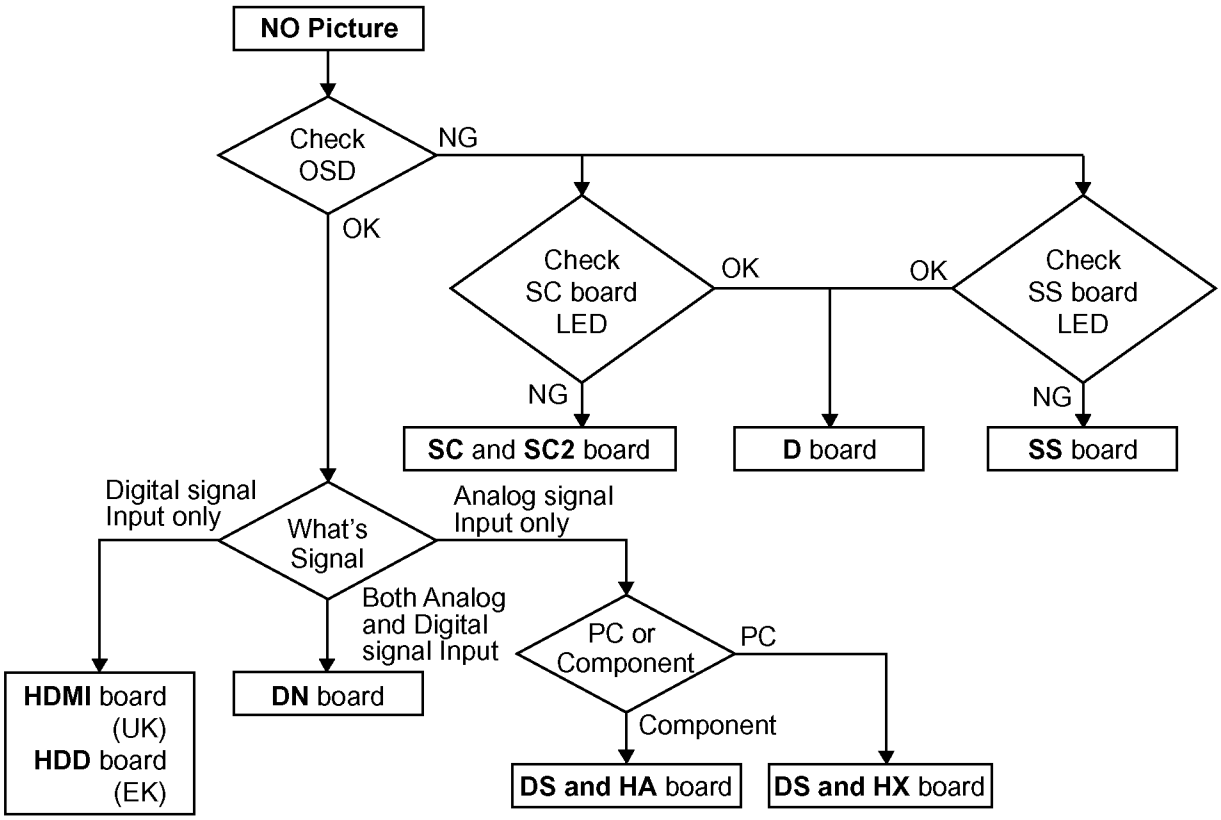
First check point

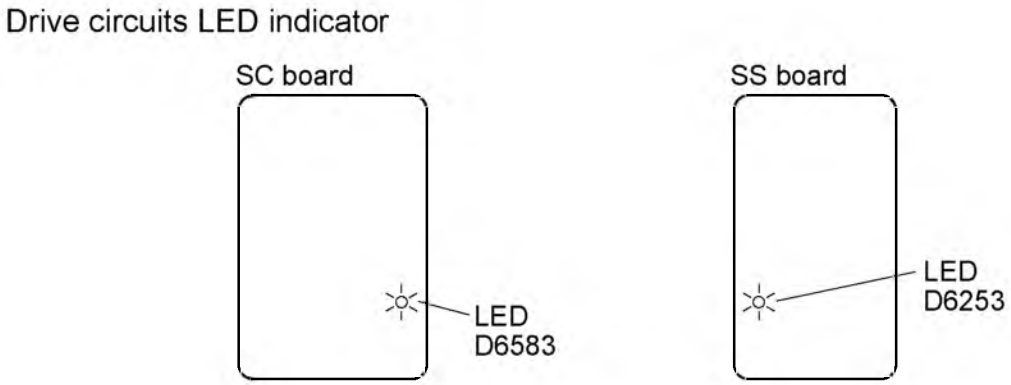
There are following 3 states of No Power indication by power LED.

1. No lit.
2. Green is lit then turns red blinking a few seconds later.
3. Only red is lit.



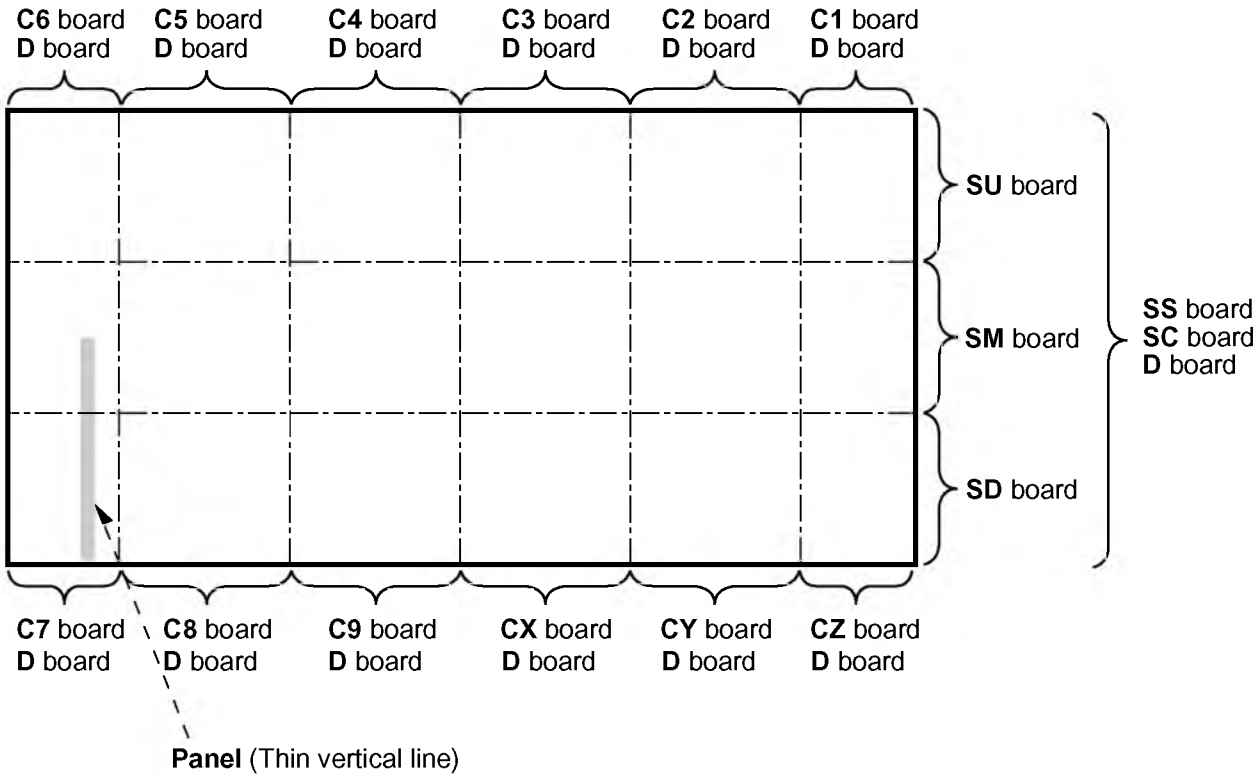

## 6.3. No Picture






## 6.4. Local screen failure

Plasma display may have local area failure on the screen. Fig - 1 is the possible defect P.C.B. for each local area.




<Local screen failure chart>

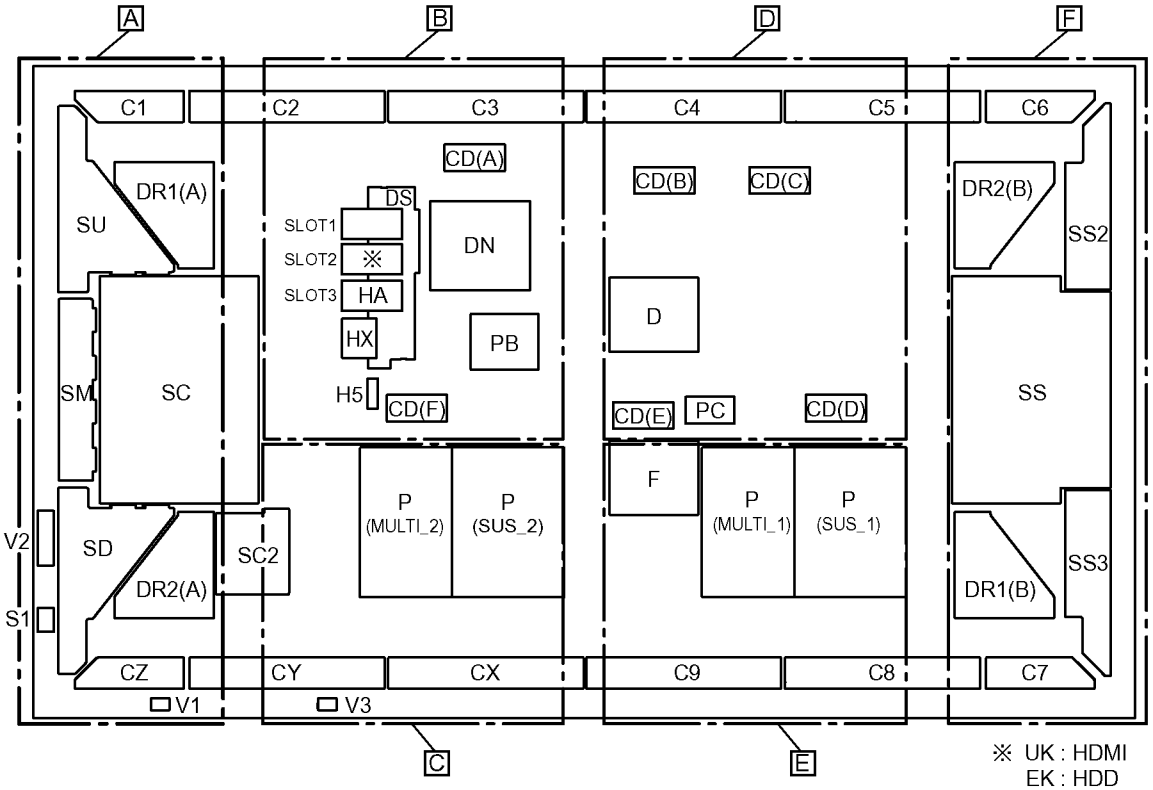
Fig - 1

# 7 Disassembly and Assembly Instructions

- To disassemble P.C.B., wait for 1 minute after power was off for discharge from electrolysis capacitors.
- ⬆ and ⇧ marks indicate screw positions.

## 7.1. Rear Cover and Board

Rear Cover : A, B, C, D, E, F

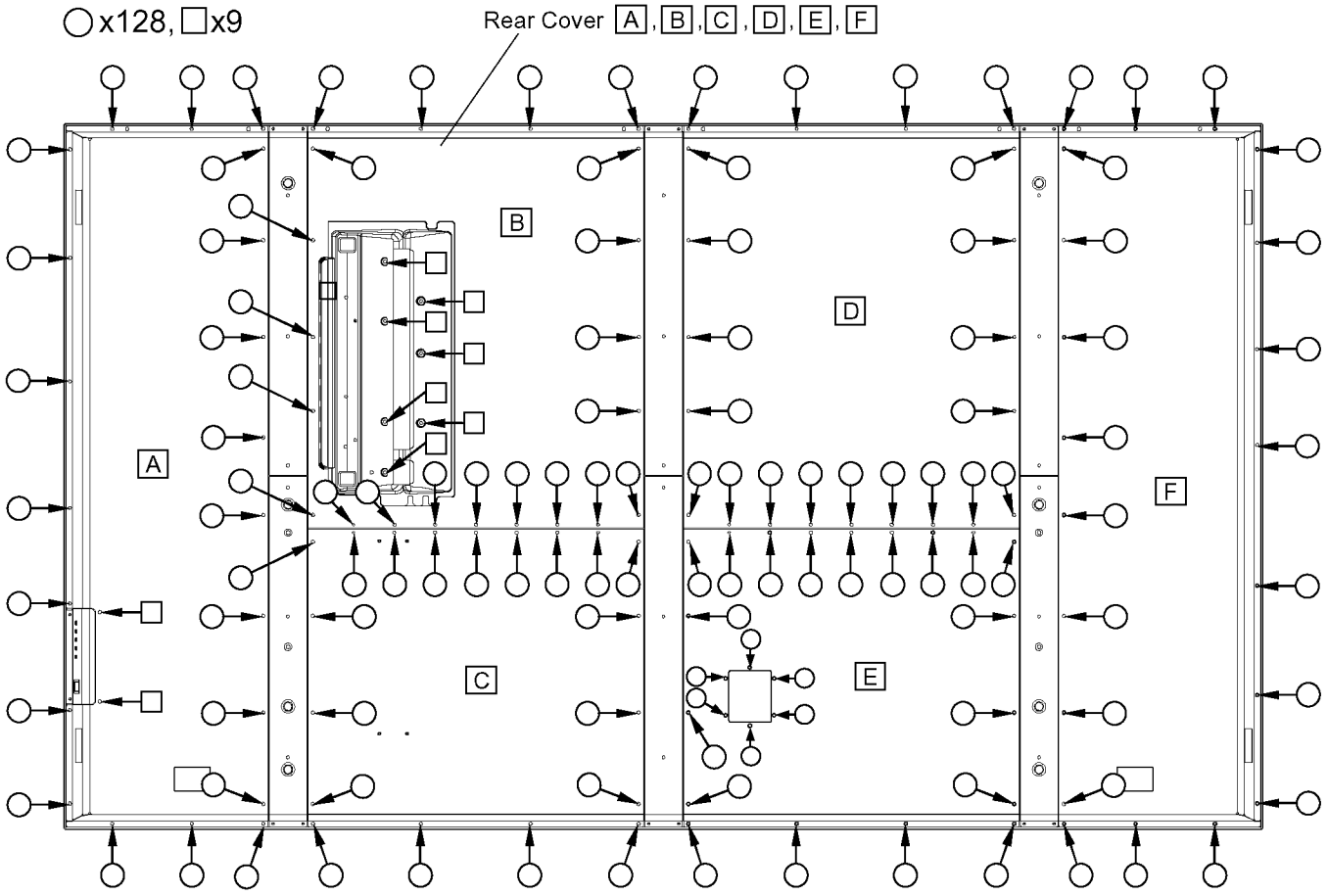



**Rear Cover required to remove for each board exchange.**

| Board Name | Rear Cover |
|---|---|
| D-Board | D |
| DS-Board | B |
| SS-Board | F |
| SC-Board | A, B, C |
| SC2-Board | A, C |
| SU-Board | A |
| SM-Board | A |
| SD-Board | A |
| C1-Board | A |
| C2-Board | A, B |
| C3-Board | B, D |
| C4-Board | B, D |
| C5-Board | D, F |
| C6-Board | F |
| C7-Board | F |
| C8-Board | E, F |
| C9-Board | C, E |
| CX-Board | C, E |
| CY-Board | A, C |
| CZ-Board | A |
| H5-Board | B |
| S1-Board | A |
| SS2-Board | F |
| SS3-Board | F |
| V1-Board | A, B, C, D, E, F |
| V2-Board | A |
| V3-Board | A, B, C, D, E, F |

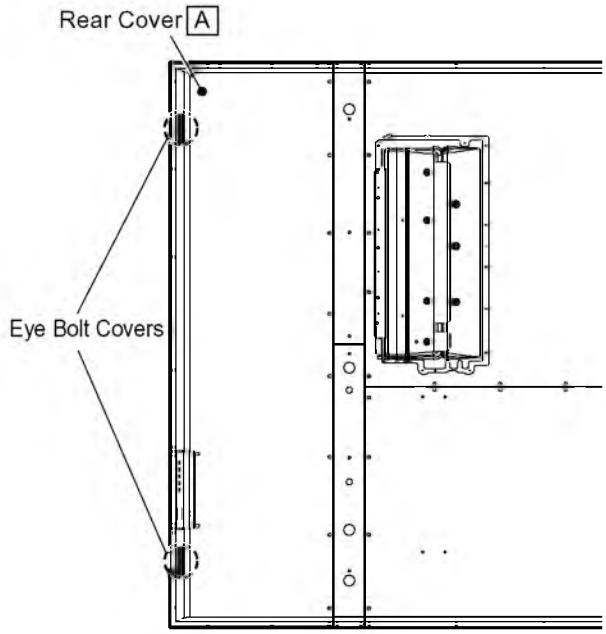
| Board Name | Rear Cover |
|---|---|
| PB-Board | B |
| P-Board (MULTI_1) | E |
| P-Board (SUS_1) | E |
| P-Board (MULTI_2) | C |
| P-Board (SUS_2) | C |
| F-Board | E |
| PC-Board | D |
| HX-Board | B |
| HA-Board | B |
| DN-Board | B |
| HDMI-Board (UK) | B |
| HDD-Board (EK) | B |
| CD-Board (A) | B |
| CD-Board (B) | D |
| CD-Board (C) | D |
| CD-Board (D) | D |
| CD-Board (E) | D |
| CD-Board (F) | B |
| DR1-Board (A) | A |
| DR1-Board (B) | F |
| DR2-Board (A) | A |
| DR2-Board (B) | F |

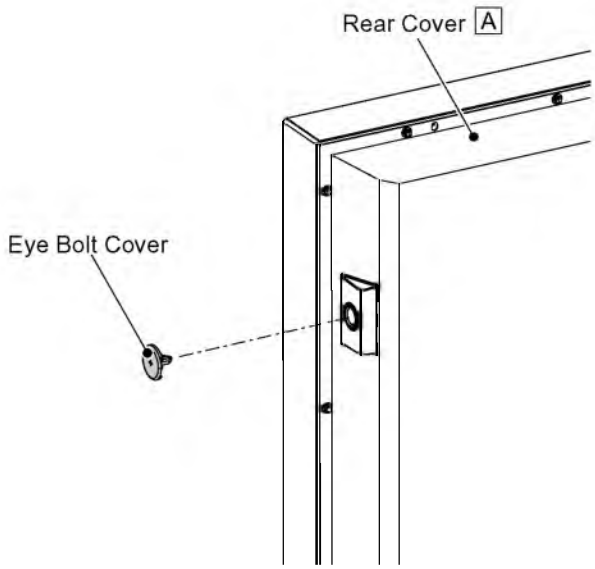
## 7.2. Location of Rear Cover screws



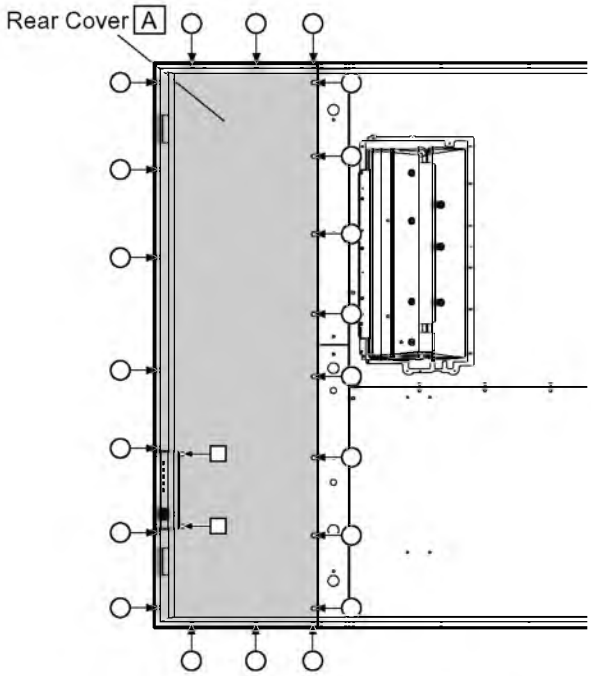
## 7.2.1. Removal of Rear Cover ( A )

1. Remove Eye Bolt Covers.



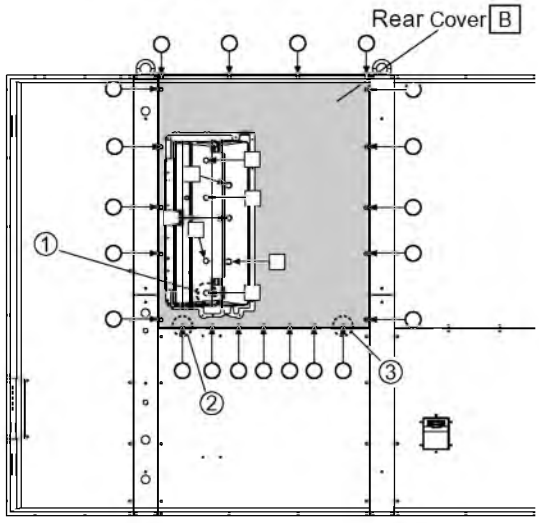

2. Remove screws (×21 ○, ×2 □) and then remove the Rear Cover ( A ).




## 7.2.2. Removal of Rear Cover ( B )

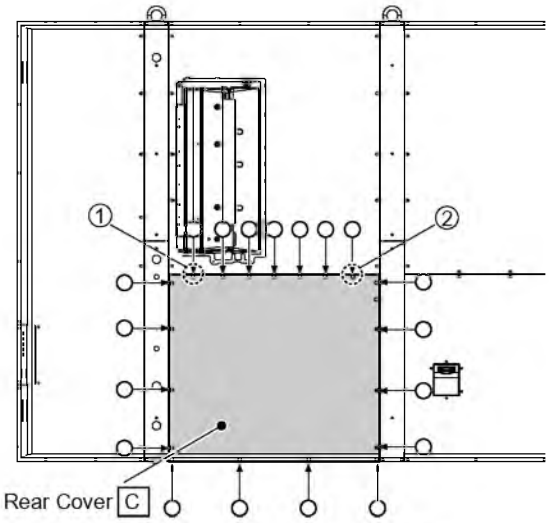
1. Remove screws (×21 ○, ×7 □ ) and then remove the Rear Cover ( B ).

   Tighten screw first in order of ①, ② and ② **when mounting the Rear cover B**.



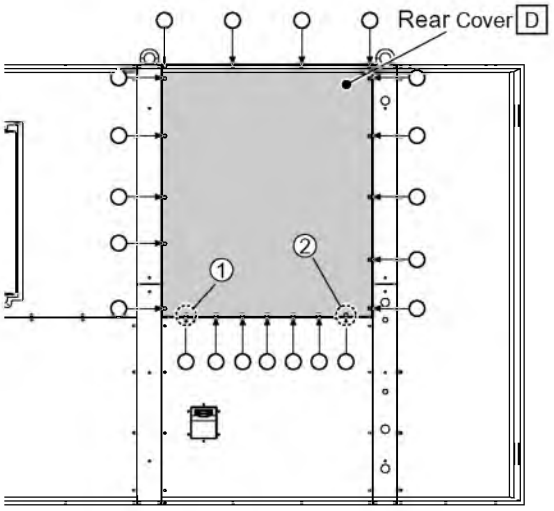
### 7.2.3. Removal of Rear Cover ( C )

1. Remove screws (×19 ○ ) and then remove the Rear Cover ( C ).
   Tighten the screw first in order of ① and ② **when mounting the Rear Cover C.**



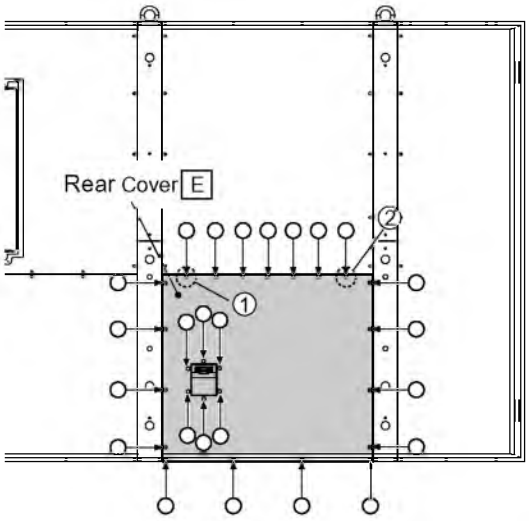

### 7.2.4. Removal of Rear Cover ( D )

1. Remove screws (×21 ○ ) and then remove the Rear Cover ( D ).
   Tighten screw first in order of ① and ② **when mounting the Rear cover D.**



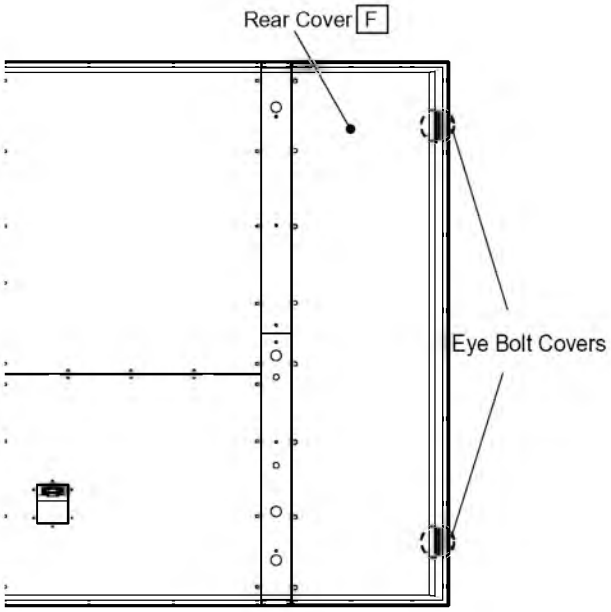

### 7.2.5. Removal of Rear Cover ( E )

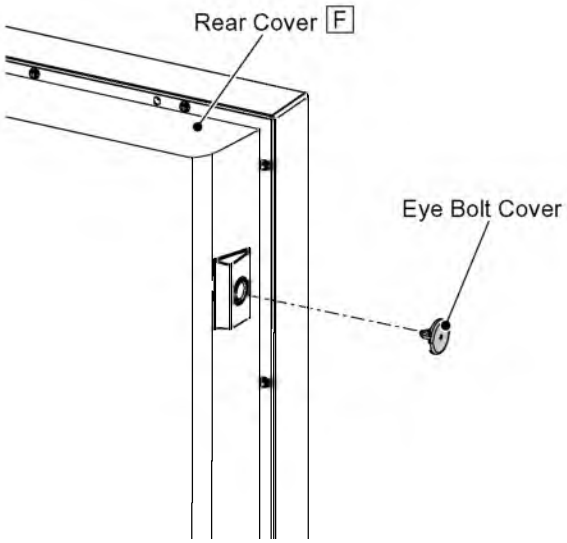
1. Remove screws (×25 ○ ) and then remove the Rear Cover ( E ).
   Tighten screw first in order of ① and ②**when mounting the Rear cover E.**



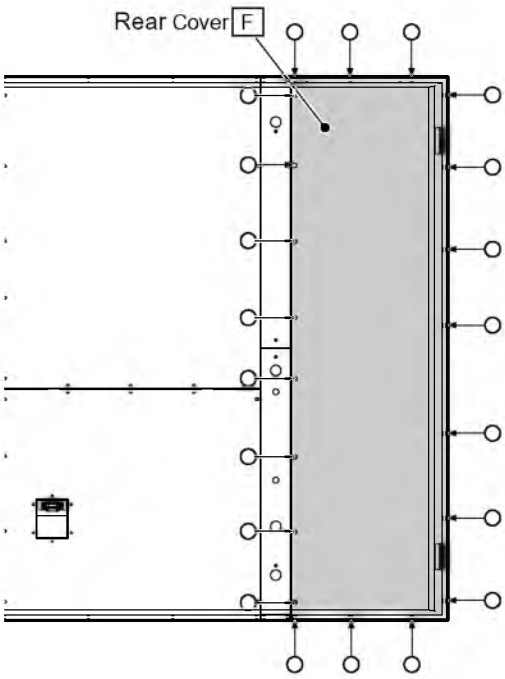

### 7.2.6. Removal of Rear Cover ( F )

1. Remove Eye Bolt Covers.






2. Remove screws (×21 O ) and then remove the Rear Cover ( F ).



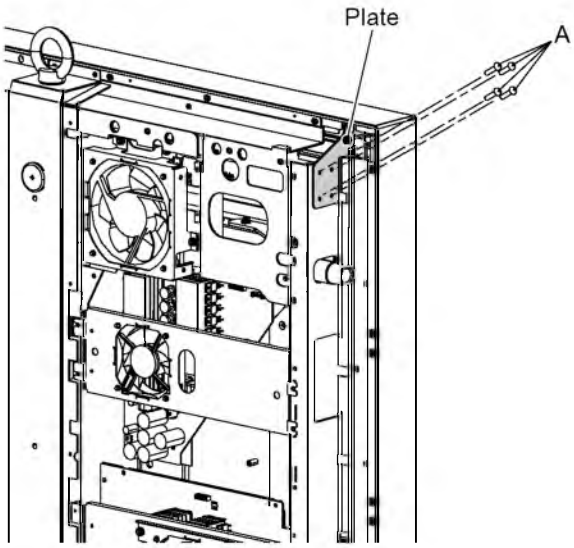

## 7.3. Removal of Side Angle (L), (R)

1. Remove Side Angle (L), (R) beforehand when remove the following Boards.

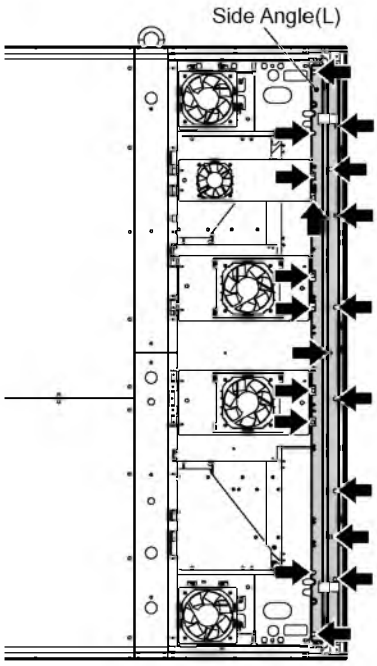
| Board name | Side Angle |
|---|---|
| SU-Board | Side Angle (R) |
| SM-Board | Side Angle (R) |
| SD-Board | Side Angle (R) |
| SC-Board | Side Angle (R) |
| SS2-Board | Side Angle (L) |
| SS3-Board | Side Angle (L) |
| SS-Board | Side Angle (L) |

### 7.3.1. Removal of Side Angle (L)

1. Remove 4 screws (A) of the Plate.

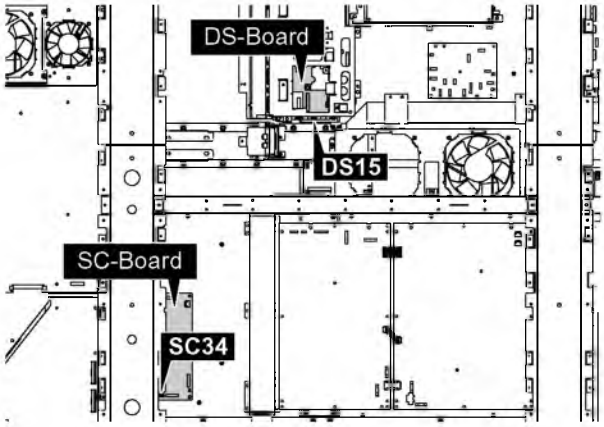



2. Remove 19 screws and then remove the Side Angle (L).

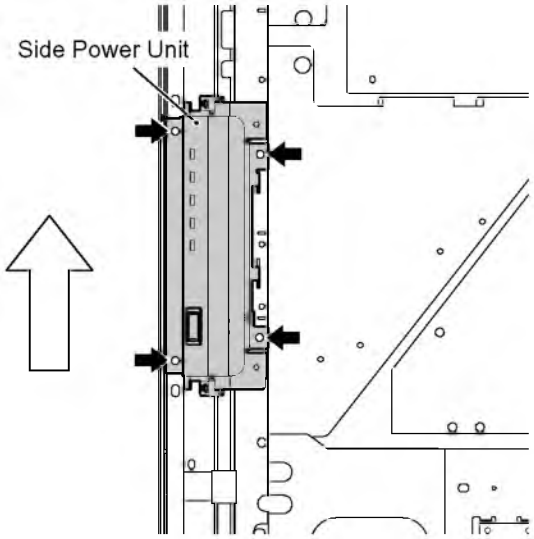


### 7.3.2. Removal of Side Angle (R)

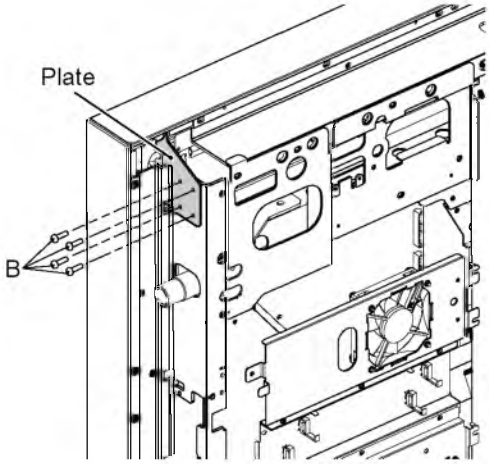
1. Disconnect the connectors (DS15, SC34).



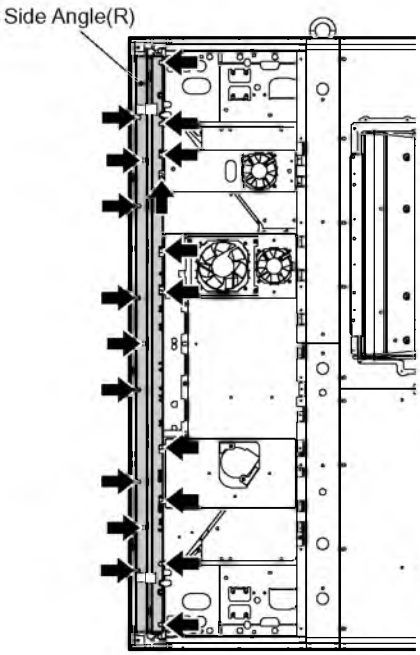

2. Remove 4 screws, and then side the Side Power Unit upward.
3. Remode the side Power Unit.




4. Remove 4 screws (B) of the Plate.

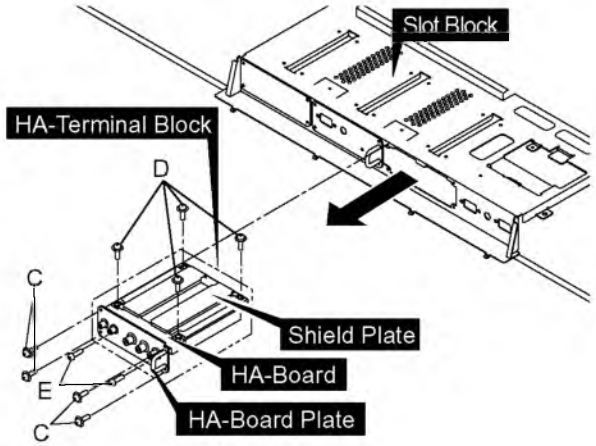



5. Remove 19 screws and then remove the Side Angle (R).



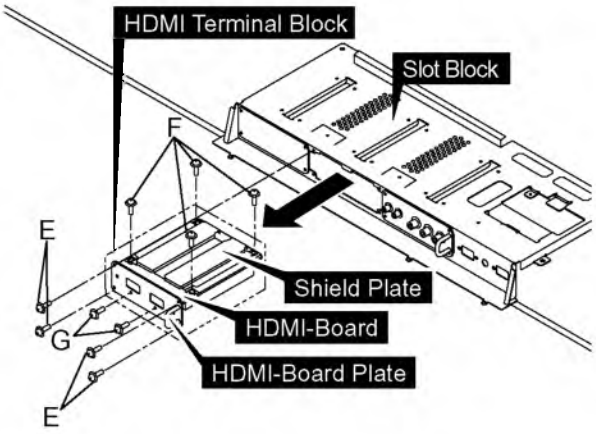

## 7.4. Removal of HA-Board

1. Remove 4 screws (C) and then remove the HA Terminal Block.
2. Remove 4 screws (D) and remove Shield Plate.
3. Remove 2 Hexagonal-Head screws (E) and then remove HA-Board.



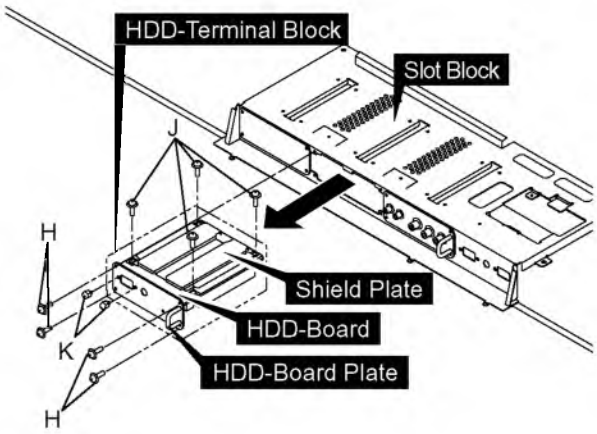
## 7.5. Removal of HDMI-Board (UK)

1. Remove 4 screws (E) and then remove the HDMI Terminal Block.
2. Remove 4 screws (F) and remove Shield Plate.
3. Remove 2 Hexagonal-Head screws (G) and then remove HDMI-Board.

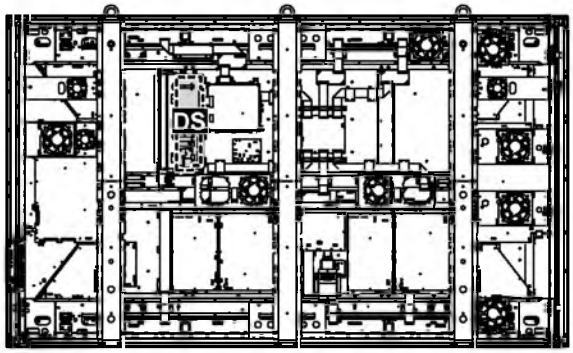



## 7.6. Removal of HDD-Board (EK)

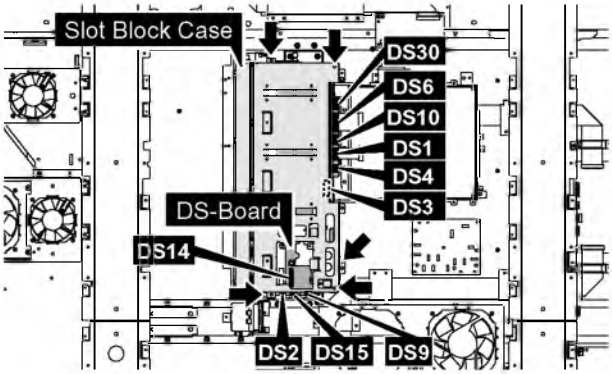
1. Remove 4 screws (H) and then remove the HDD-Terminal Block.
2. Remove 4 screws (J) and remove Shield Plate.
3. Remove 2 Hexagonal-Head screws (K) and then remove HDD-Board.



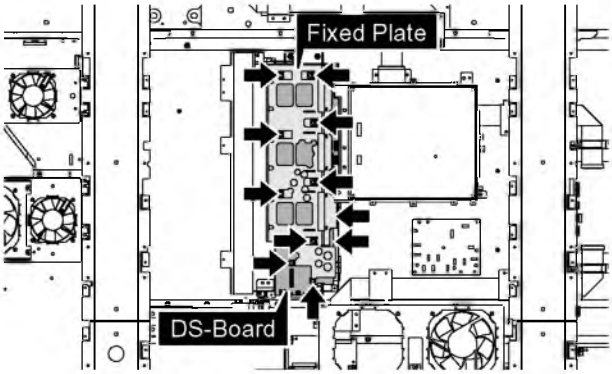

## 7.7. Removal of DS-Board



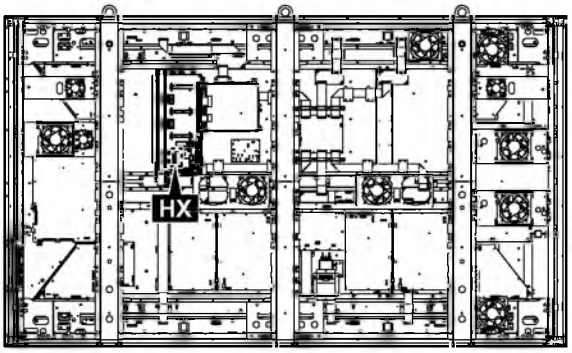

1. Disconnect the connectors (DS1, DS2, DS3, DS4, DS6, DS9, DS10, DS14, DS15, DS30).
2. Remove 5 screws and then remove the Slot Block Case.



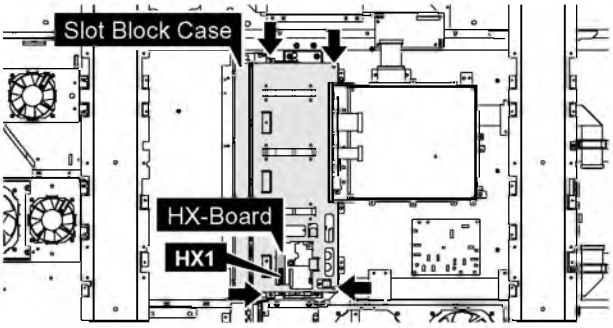

3. Remove 11 screws and then remove DS-Board.



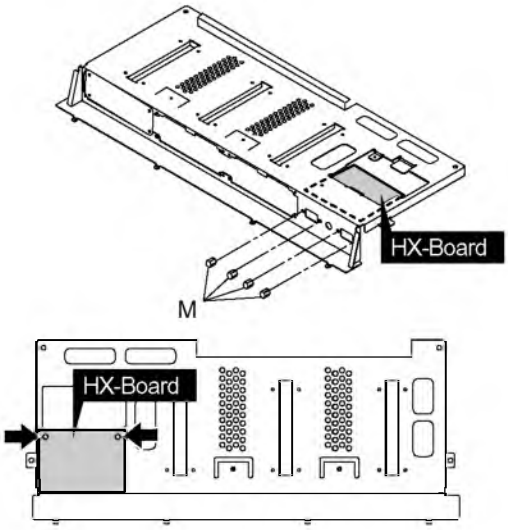
## 7.8. Removal of HX-Board



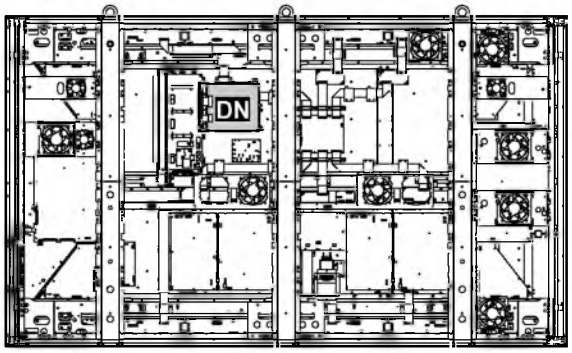

1. Remove the HA Terminal Block.
   (Refer to Removal of HA-Board)
2. Remove the HDMI Terminal Block.(UK)
   (Refer to Removal of HDMI-Board)
3. Remove the HDD Terminal Block.(EK)
   (Refer to Removal of HDD-Board)
4. Disconnect the connectors (HX1).
5. Remove 4 screws and then remove the Slot Block Case.



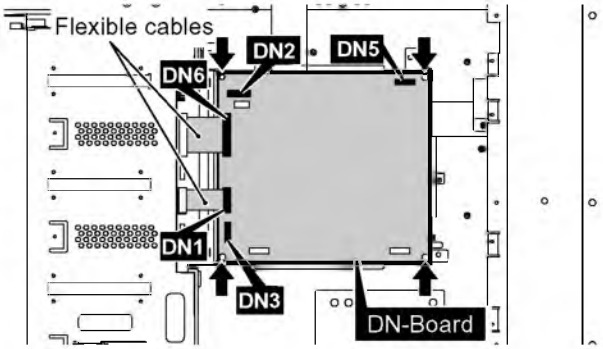

6. Remove 4 Hexagonal-Head screws (M) and 2 screws on HX-Board, and then remove HX-Board.



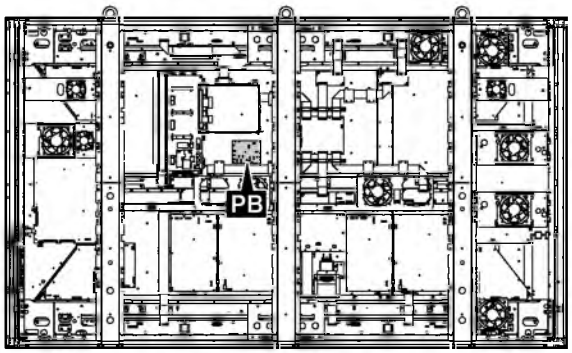

## 7.9. Removal of DN-Board



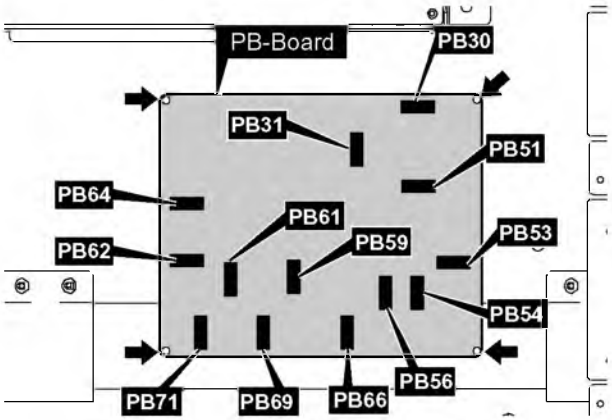

1. Remove the flexible cables from the connectors (DN1, DN6).
2. Disconnect the connectors (DN2, DN3, DN5).
3. Remove 4 screws and then remove DN-Board.



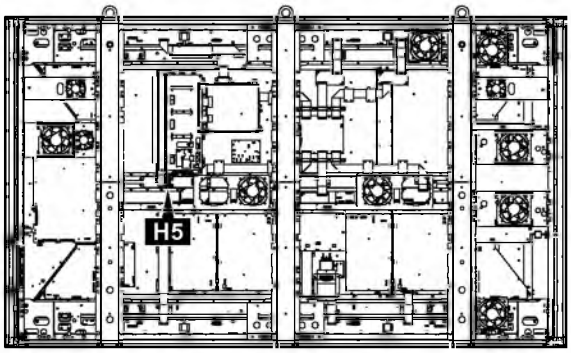

## 7.10. Removal of PB-Board



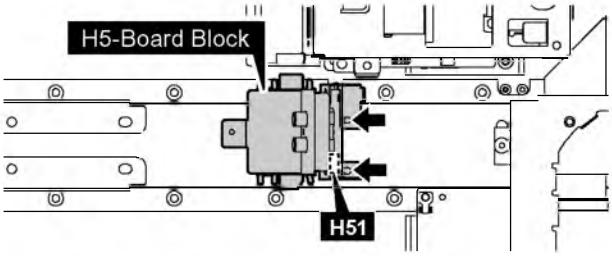

1. Disconnect the connectors (PB30, PB31, PB51, PB53, PB54, PB56, PB59, PB61, PB62, PB64, PB66, PB69, PB71).
2. Remove 4 screws and then remove PB-Board.



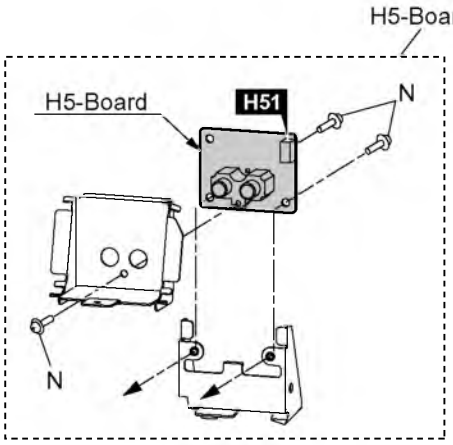

## 7.11. Removal of H5-Board



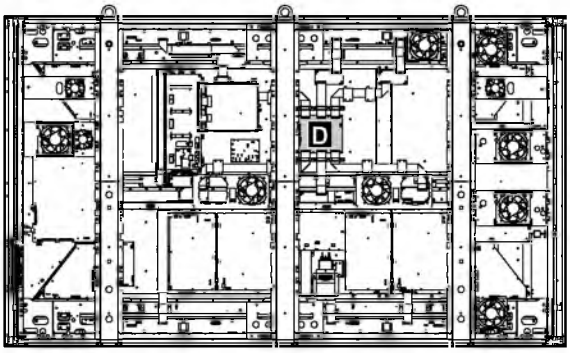

1. Disconnect a connector (H51).
2. Remove 2 screws and then remove H5-Board Block.



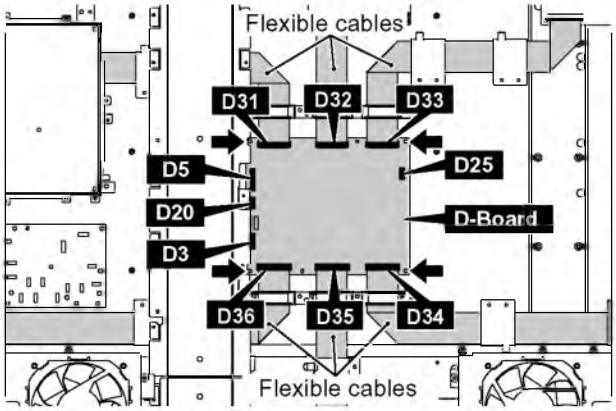

3. Remove 3 screws (N) and then remove H5-Board.



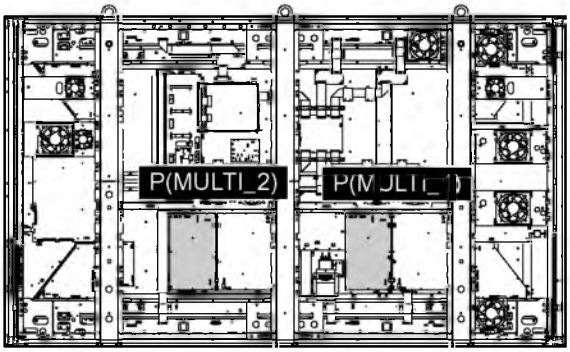

## 7.12. Removal of D-Board




1. Remove the flexible cables from the connectors (D31, D32, D33, D34, D35, D36).
2. Disconnect the connectors (D3, D5, D20, D25).
3. Remove 4 screws and then remove D-Board.



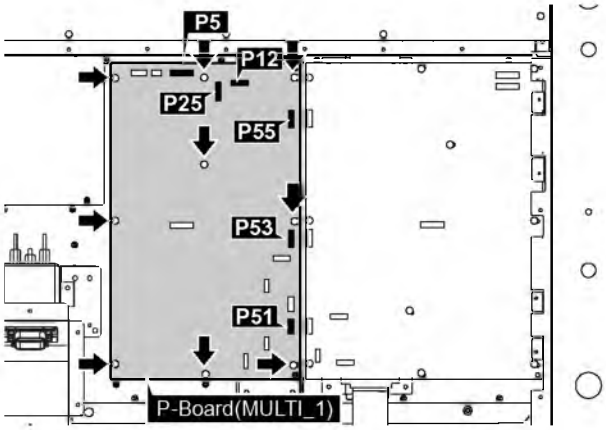

## 7.13. Removal of P-Board (MULTI_1), (MULTI_2)




**The fuses are not included in P-Board for the repair.**

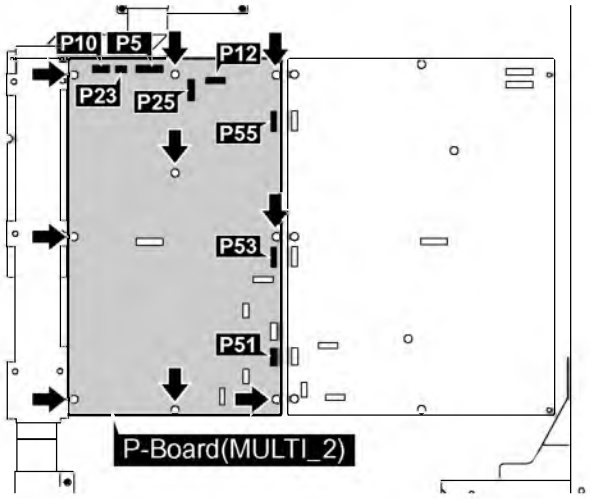
### 7.13.1. Removal of P-Board (MULTI_1)

1. Disconnect the connectors (P5, P12, P25, P51, P53, P55).
2. Remove 9 screws and then remove P-Board (MULTI_1).

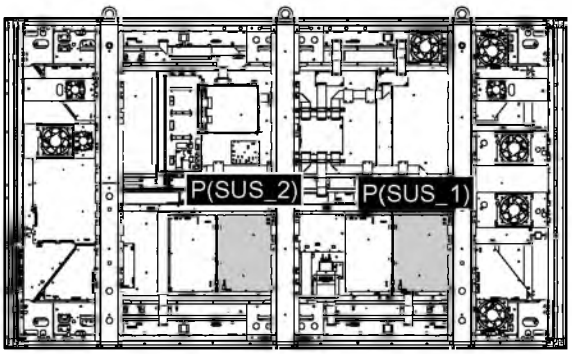



### 7.13.2. Removal of P-Board (MULTI_2)

1. Disconnect the connectors (P5, P10, P12, P23, P25, P51, P53, P55).
2. Remove 9 screw and then remove P-Board (MULTI_2).



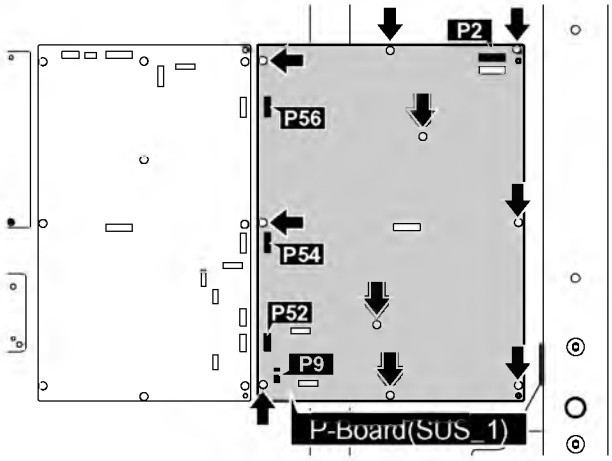

## 7.14. Removal of P-Board (SUS_1), (SUS_2)




**The fuses are not included in P-Board for the repair.**

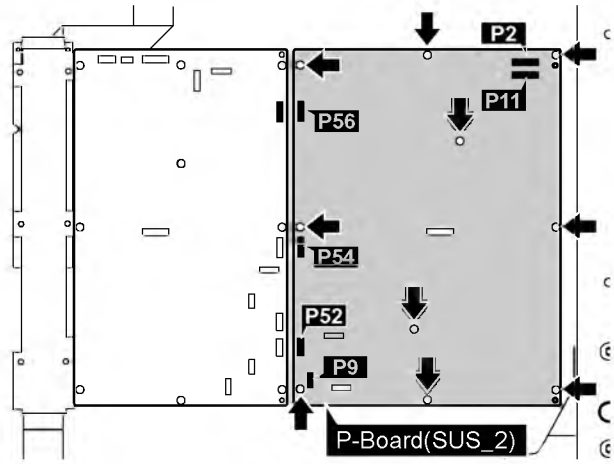
### 7.14.1. Removal of P-Board (SUS1)

1. Disconnect the connectors (P2, P9, P52, P54, P56).
2. Remove 10 screws and then remove P-Board (SUS_1).

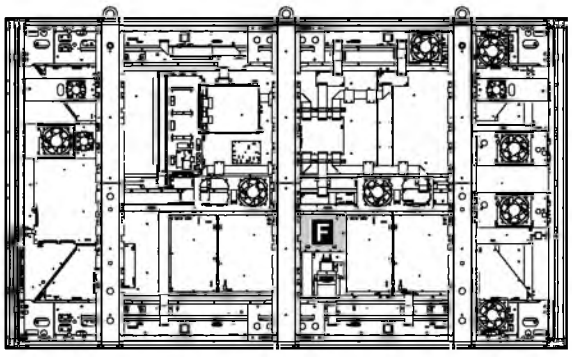



### 7.14.2. Removal of P-Board (SUS2)

1. Disconnect the connectors (P2, P9, P11, P52, P54, P56).
2. Remove 10 screws and then remove P-Board (SUS_2).

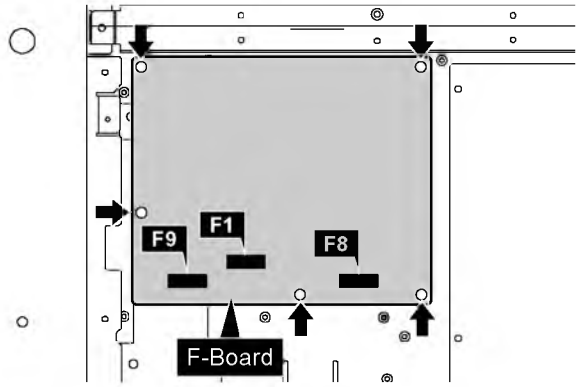



## 7.15. Removal of F-Board

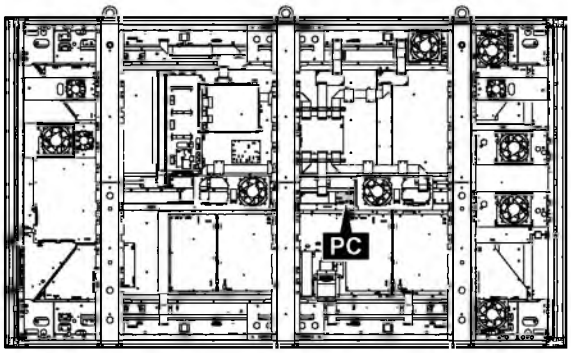



**The fuses (F900, F901, F903, F904) are not included in F-Board for the repair.**

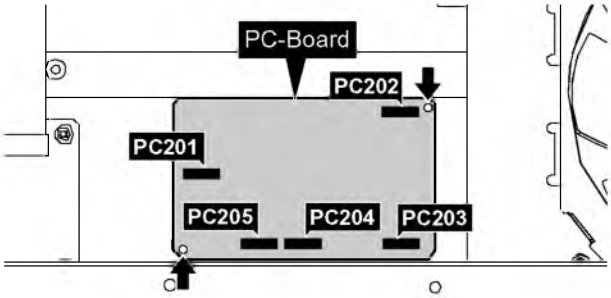
1. Disconnect the connectors (F1, F8, F9).
2. Remove 5 screws and then remove F-Board.



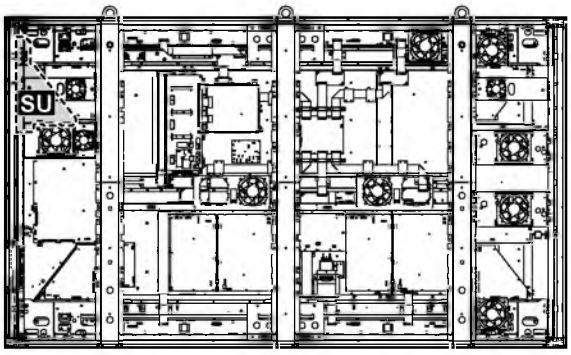

## 7.16. Removal of PC-Board




1. Disconnect the connectors (PC201, PC202, PC203, PC204, PC205).
2. Remove 2 screws and then remove PC-Board.

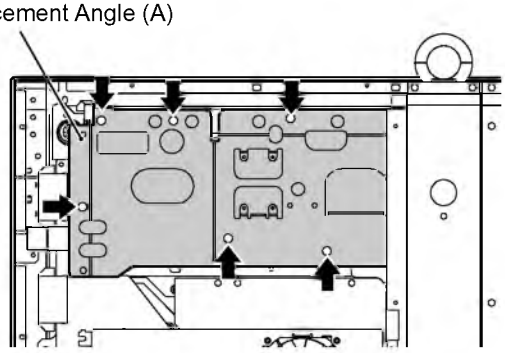



## 7.17. Removal of SU-Board

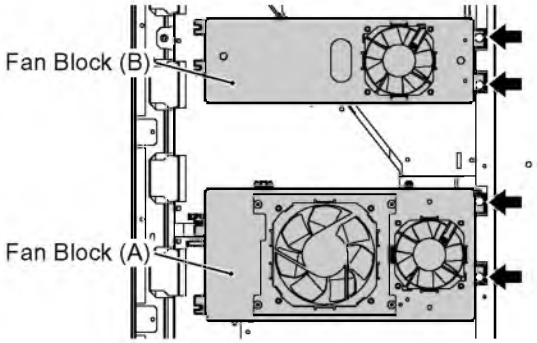



1. Remove the Side Angle (R).
   (Refer to Removal of the Side Angle (L), (R) )
2. Remove 6 screws and then remove the Reinforcement Angle (A).

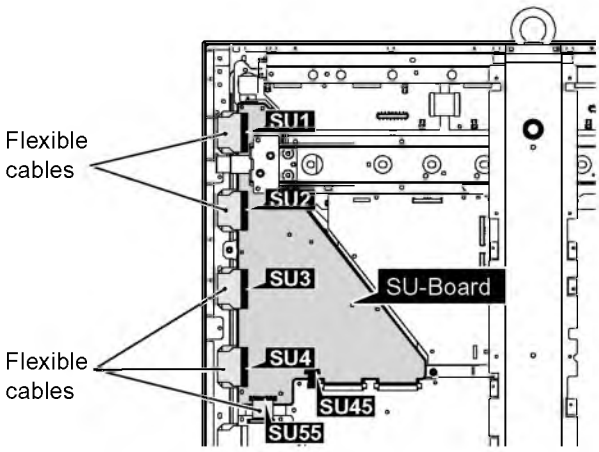
Reinforcement Angle (A)



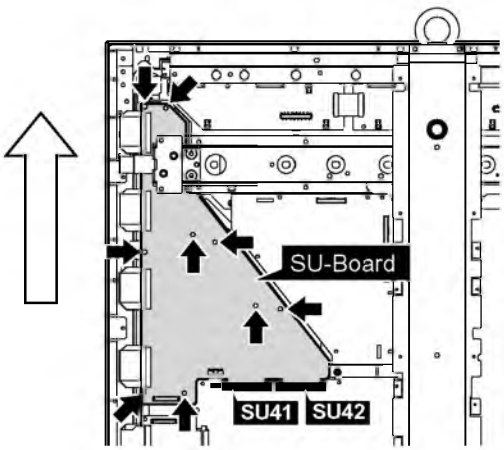
3. Disconnect the Fan relay connectors.
4. Remove 4 screws and then remove the Fan Block (A), (B).



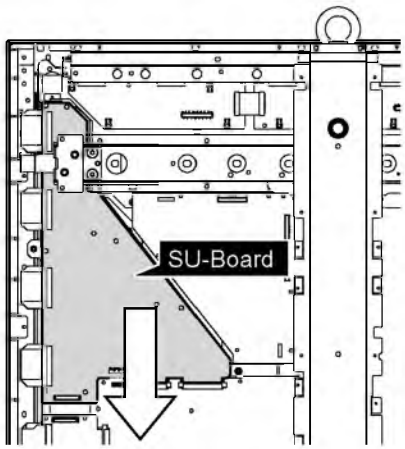

5. Remove the flexible cables from the connectors (SU1, SU2, SU3, SU4, SU55).
6. Disconnect the connector (SU45).



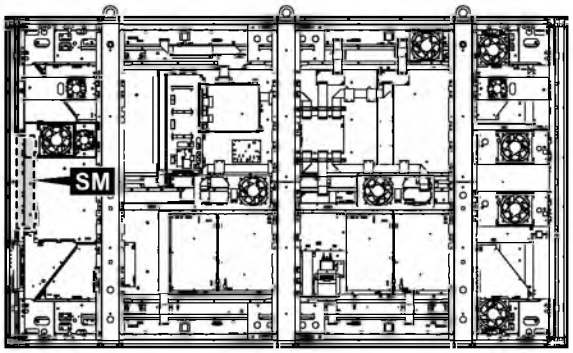

7. Remove 9 screws.
8. Slide the SU-Board to the upper direction to remove the SU-Board from the connectors (SU41, SU42).
   **Take out so as not to damage SU-Board.**



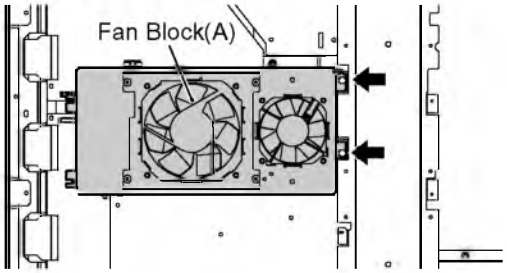

9. Slide the SU-Board to the bottom direction to remove the SU-Board.



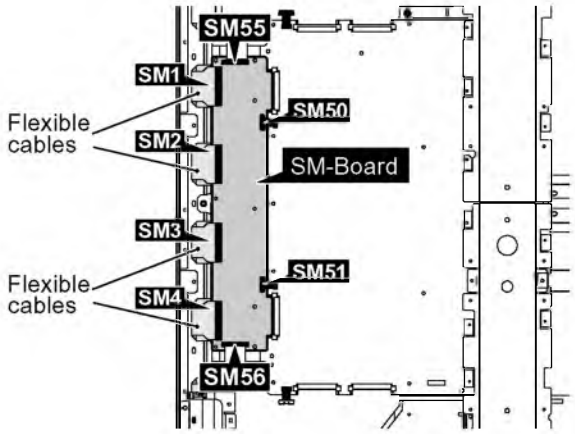

## 7.18. Removal of SM-Board



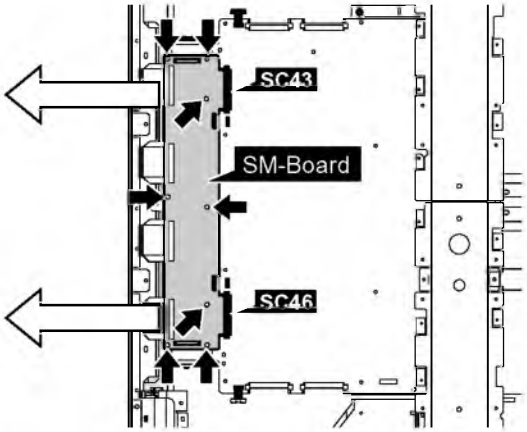

1. Remove the Side Angle (R).
   (Refer to Removal of the Side Angle (L), (R) )
2. Disconnect the Fan relay connectors.
3. Remove 2 screws and then remove the Fan Block (A).



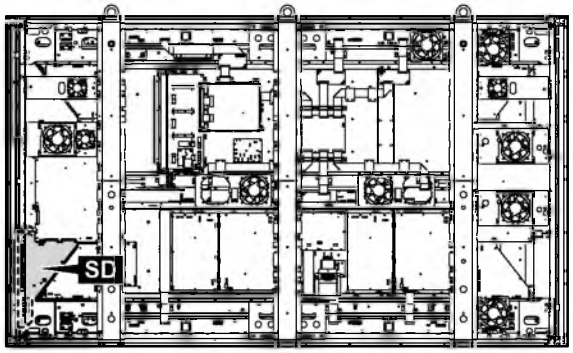

4. Remove the flexible cables from the connectors (SM1, SM2, SM3, SM4,SM55, SM56).
5. Disconnect the connectors (SM50, SM51).



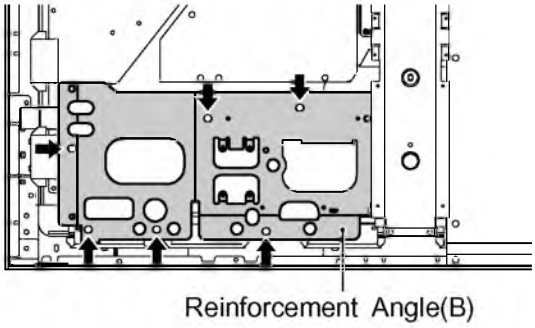

6. Remove 8 screws.
7. Slide SM-Board to the left direction to remove SM-Board from the connectors (SC43, SC46).



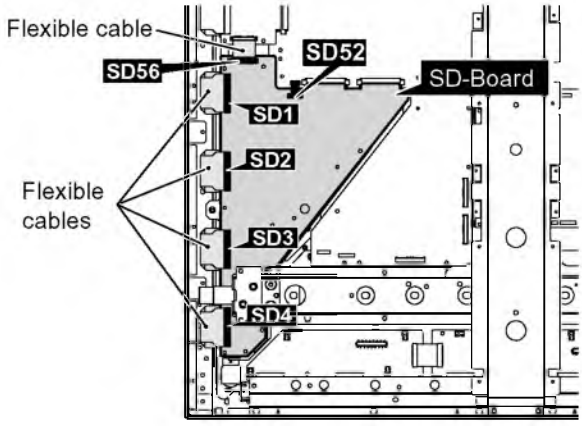
## 7.19. Removal of SD-Board



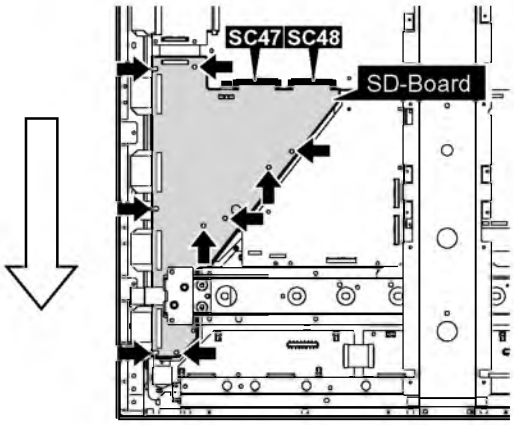

1. Remove the Side Angle (R).
   (Refer to Removal of the Side Angle (L), (R) )
2. Remove 6 screws and then remove the Reinforcement Angle (B).



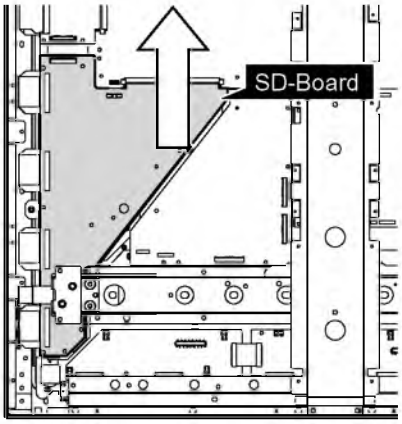

3. Remove the flexible cables from the connectors (SD1, SD2, SD3, SD4, SD56).
4. Disconnect the connectors (SD52).



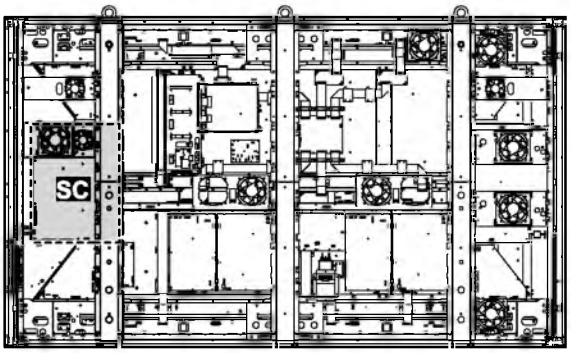

5. Remove 9 screws.
6. Slide SD-Board to the bottom direction to remove SD-Board from the connectors (SC47, SC48).
   **Take out so as not damage SD-Board.**



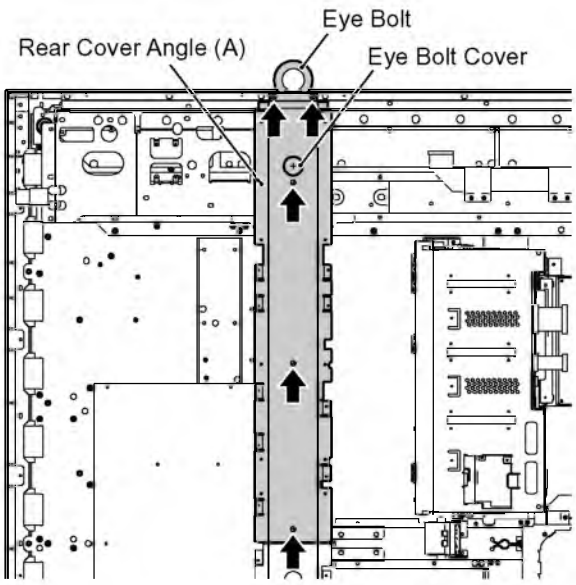

7. Slide the SD-Board to the upper direction to remove the SD-Board.



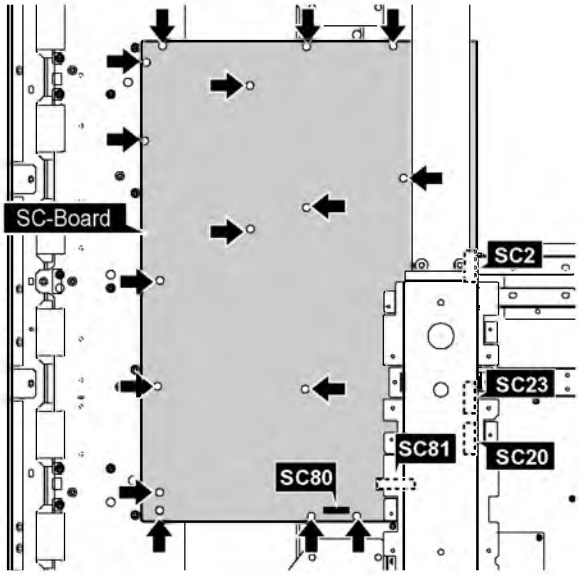

## 7.20. Removal of SC-Board



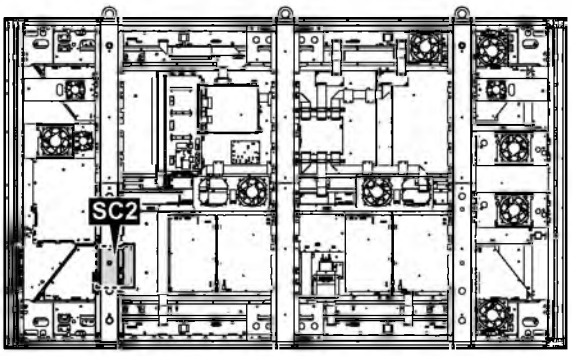

1. Remove SU-Board.
   (Refer to Removal of SU-Board)
2. Remove SM-Board.
   (Refer to Removal of SM-Board)
3. Remove SD-Board.
   (Refer to Removal of SD-Board)
4. Remove the Eye Bolt and Eye Bolt Cover.
5. Remove 5 screws and then remove the Rear Cover Angle (A).



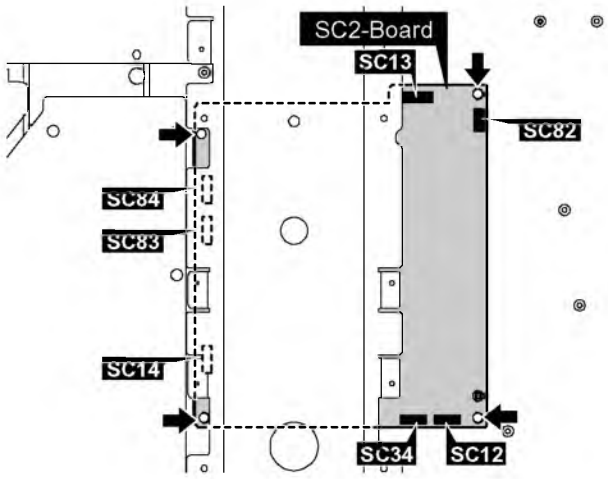

6. Disconnect the connectors (SC2, SC20, SC23, SC80, SC81).
7. Remove 16 screws and then remove SC-Board.



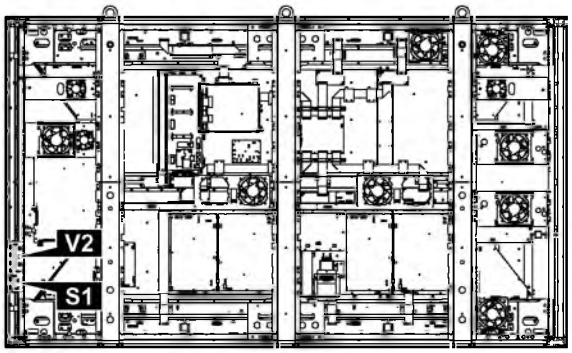

## 7.21. Removal of SC2-Board




1. Disconnect the connectors (SC12, SC13, SC14, SC34, SC82,SC83, SC84).
2. Remove 4 screws and then remove SC2-Board.

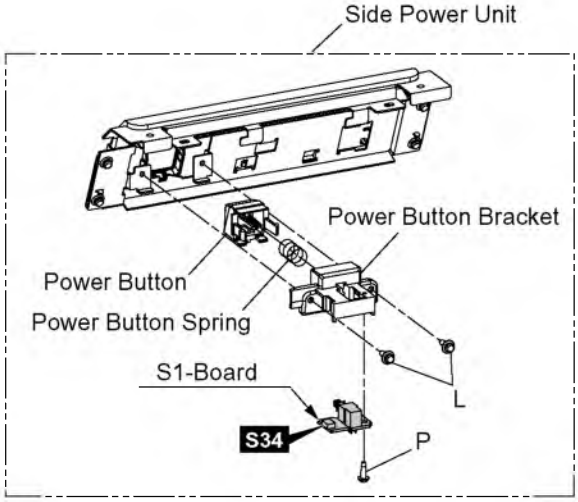



## 7.22. Removal of S1-Board and V2-Board



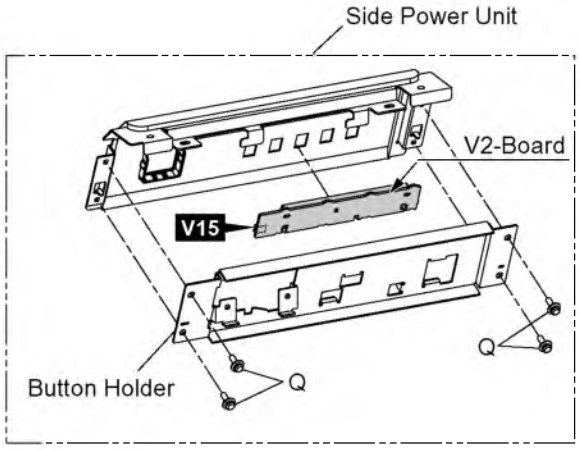

### 7.22.1. Removal of S1-Board

1. Remove the Side Power Unit.
   (Reference to Removal of the Side Angle (L), (R))
2. Remove 2 screws (L).
3. Remove 1 screw (P).
4. Disconnect the connector (S34) and then remove S1-Board.s

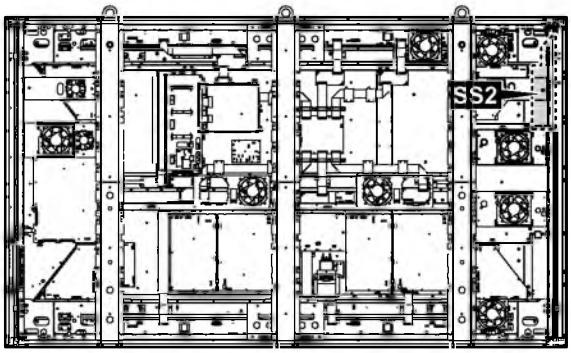


## 7.22.2. Removal of V2-Board

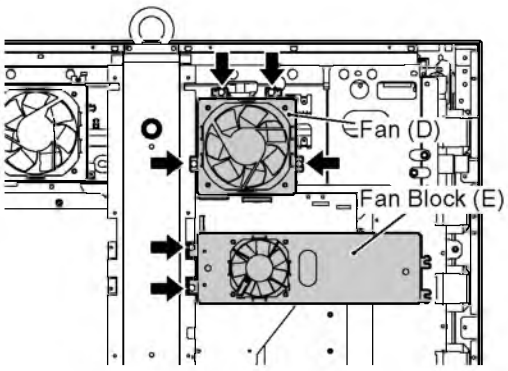
1. Removal the S1-Board
   (Refer to Removal of the S1-Board and V2-Board)
2. Remove 4 screws (Q).
3. Disconnect the connector (V15) and then remove V2-Board.



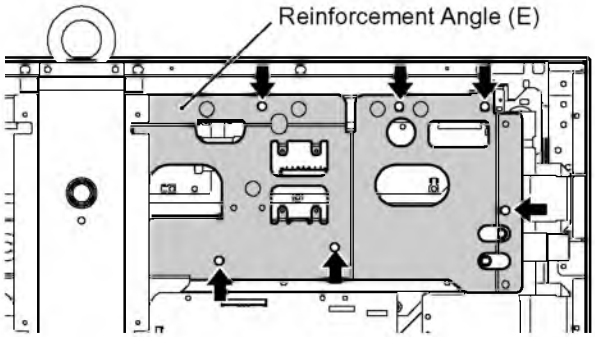

## 7.23. Removal of SS2-Board



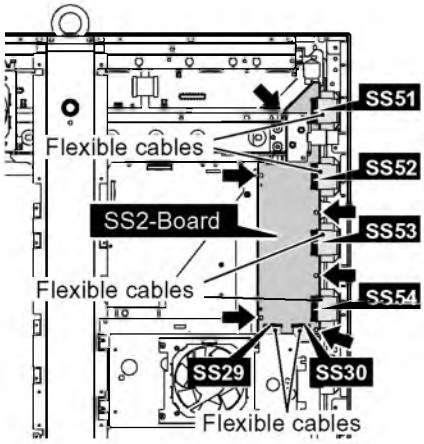

1. Remove the Side Angle (L).
   (Refer to Removal of the Side Angle (L),(R))
2. Disconnect the Fan relay connectors.
3. Remove 6 screws and then remove the Fan (D) and Fan Block (E).



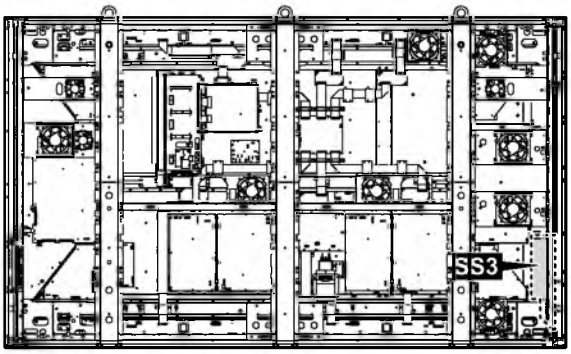

4. Remove 6 screws and then remove the Reinforcement Angle (E).



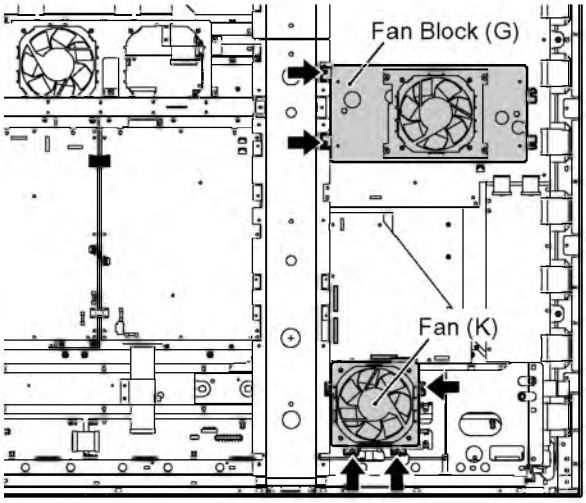

5. Remove the flexible cables from the connectors (SS29, SS30,SS51, SS52, SS53, SS54).
6. Remove 6 screws and then remove SS2-Board.



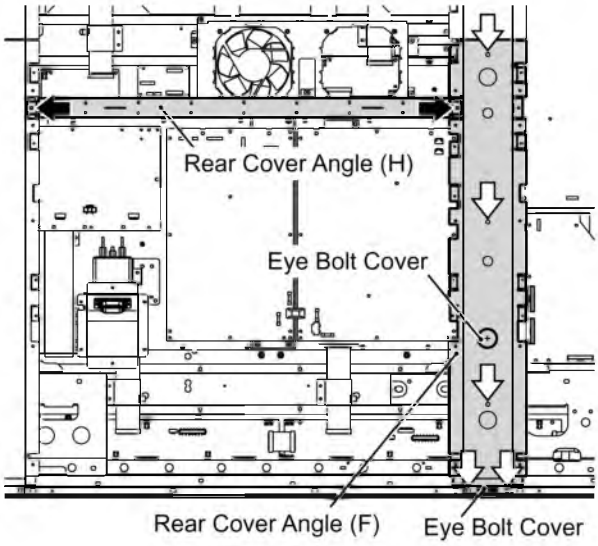

## 7.24. Removal of SS3-Board



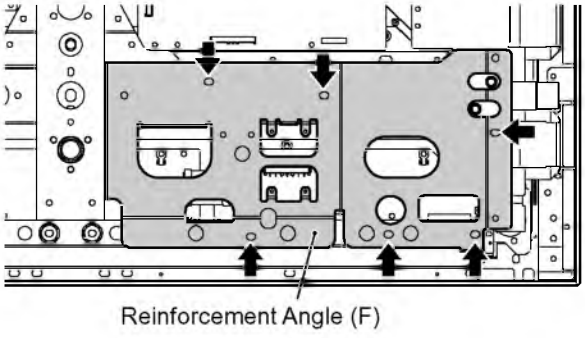

1. Remove the Side Angle (L).
   (Refer to Removal of Side Angle (L)(R))
2. Disconnect the Fan relay connectors.
3. Remove 5 screws and then remove the Fan Block (G) and Fan (K).



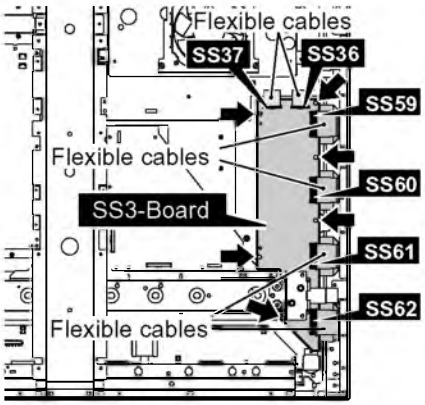

4. Remove 2 screws (⬆) and then remove the Rear Cover Angle (H).
5. Remove 2 Eye Bolt Covers.
6. Remove 5 screws (⇧) and then remove the Rear Cover Angle (F).



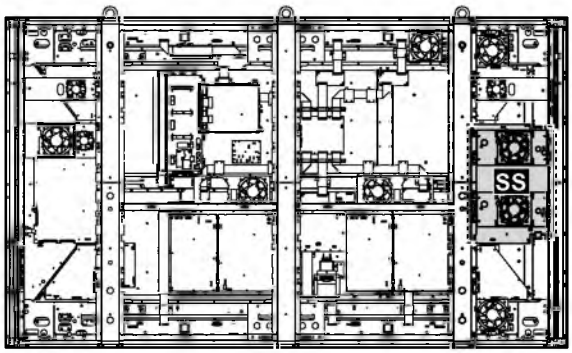

7. Remove 6 screws and then remove the Reinforcement Angle (F).



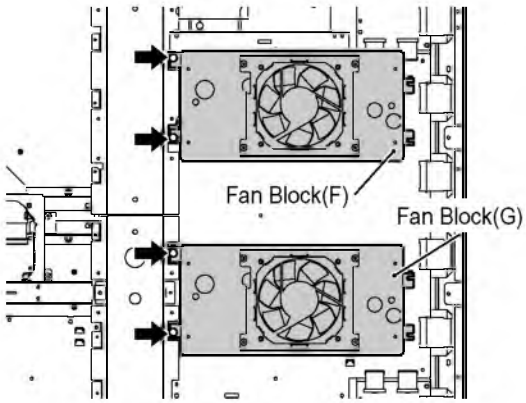

8. Remove the flexible cables from the connectors (SS36, SS37, SS59, SS60, SS61, SS62).
9. Remove 6 screws and then remove SS3-Board.



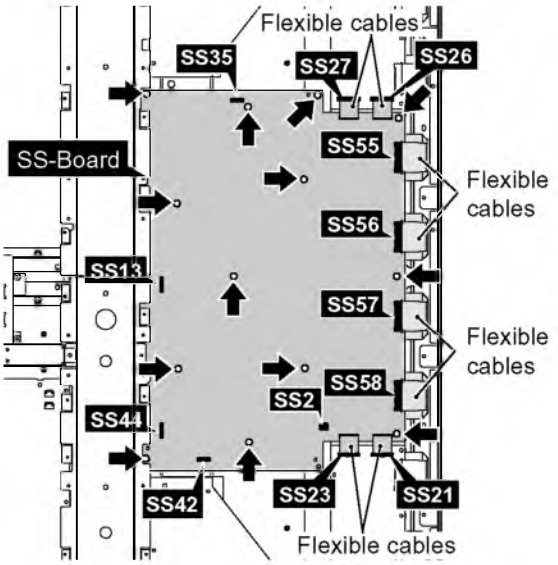

## 7.25. Removal of SS-Board



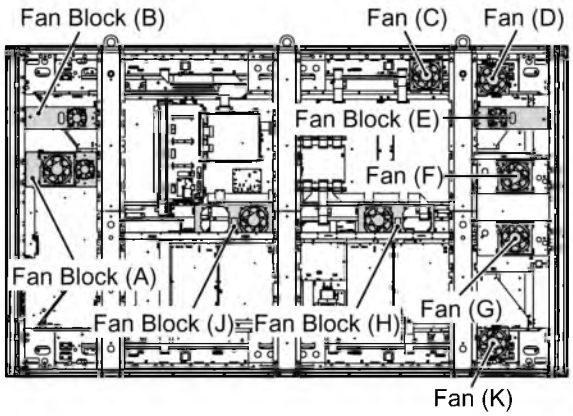

1. Remove the Side Angle (L).
   (Refer to Removal of Side Angle (L),(R))
2. Disconnect the Fan relay connectors.
3. Remove 4 screws and then remove the Fan Block (F), (G).



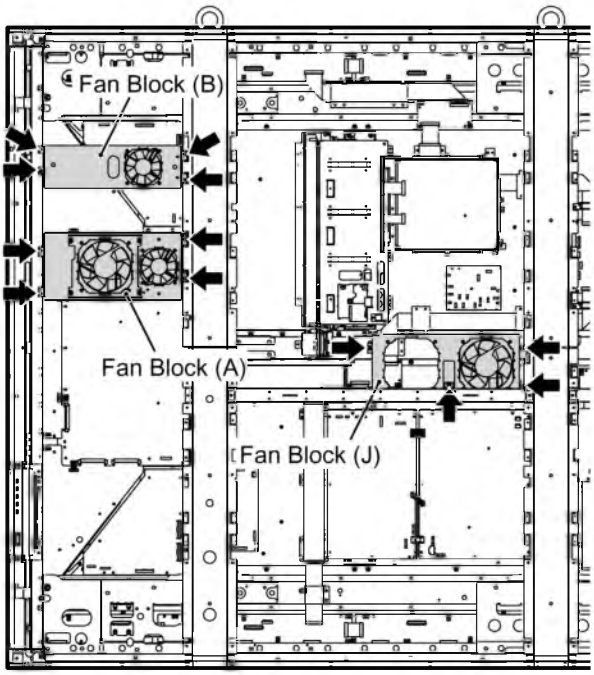

4. Remove the flexible cables from the connectors (SS21, SS23, SS26, SS27, SS55, SS56, SS57, SS58).
5. Disconnect the connectors (SS2, SS13, SS35, SS42, SS44).
6. Remove 13 screws and then remove SS-Board.

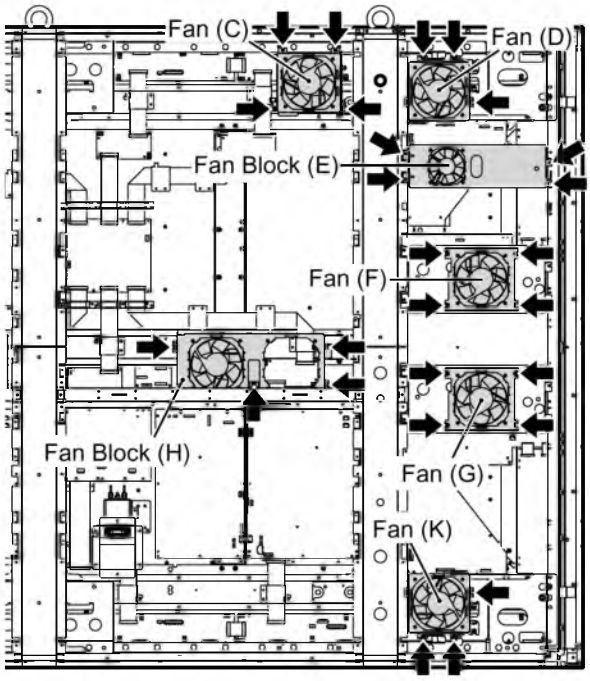



## 7.26. Removal of Fan

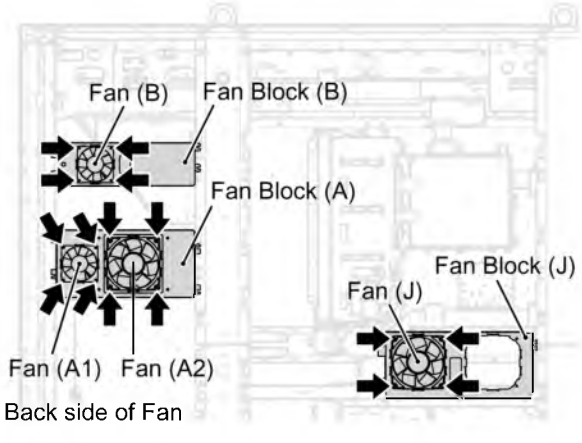


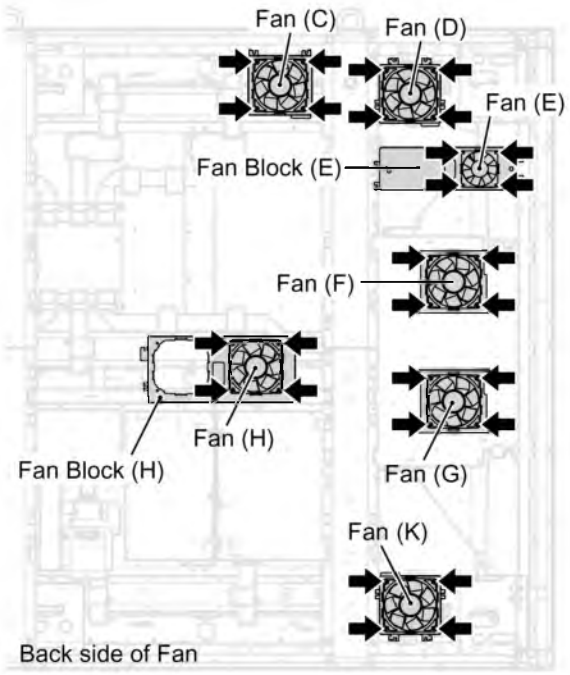

1. Disconnect the Fan relay connectors.
2. Remove each 4 screws of Fan Block (A), (B), (E), (H), (J) and then remove the Fan Blocks.
3. Remove each 4 screws of Fan (C), (F), (G) and then remove the Fans.
4. Remove each 3 screws of Fan (D), (K) and then remove the Fans.



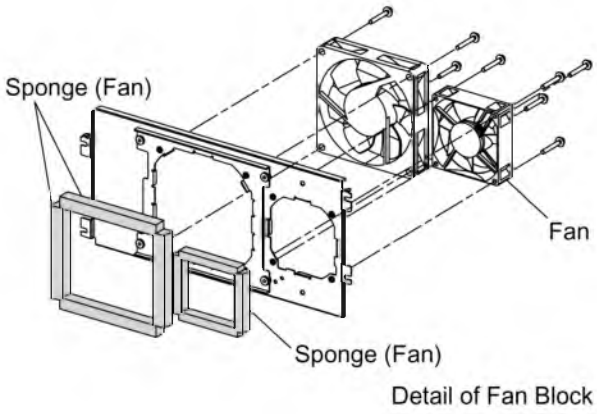

5. Remove each 4 screws and then remove the Fans.



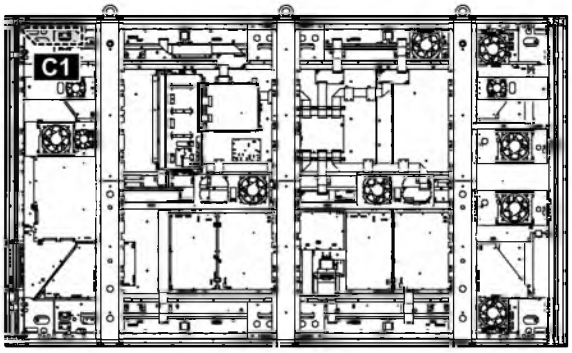



**Note:**

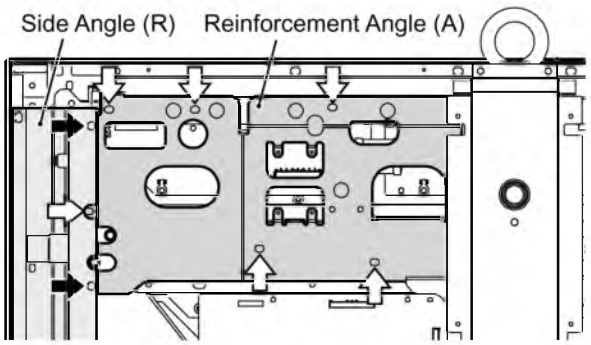
- The Sponge (of Fans) is not re-useable.
  Please use a new one when Fan exchange.



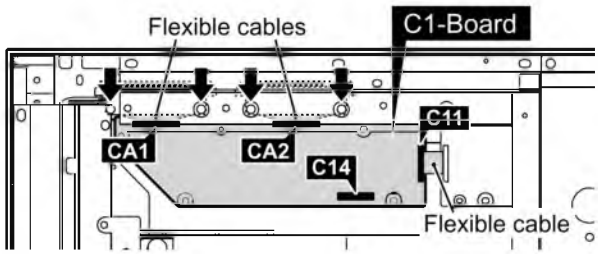

## 7.27. Removal of C1-Board



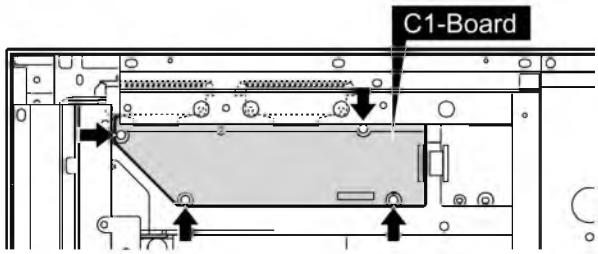

1. Remove 2 screws (⬆) of Side Angle (R).
2. Remove 6 screws (⇧) and then remove the Reinforcement Angle (A).



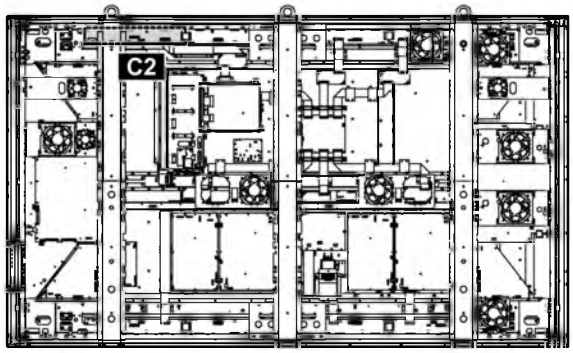

3. Remove 4 screws of the flexible cable.
4. Disconnect the connector (C14).
5. Remove the flexible cables from the connectors (CA1, CA2, C11).



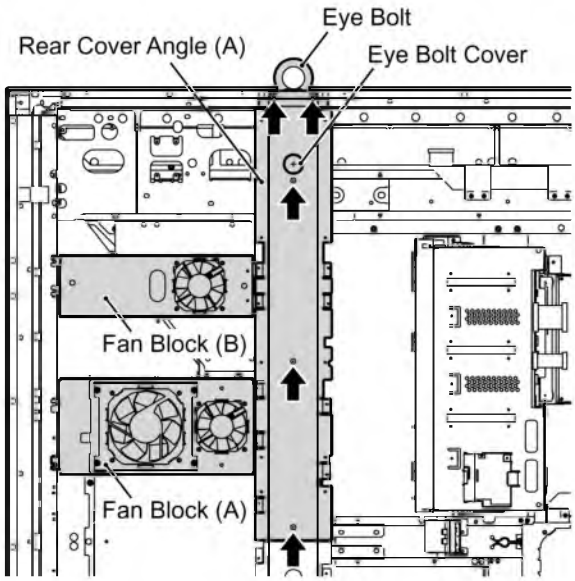

6. Remove 4 screws and then remove C1-Board.



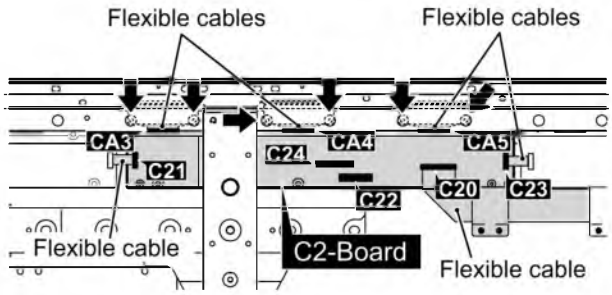

## 7.28. Removal of C2-Board



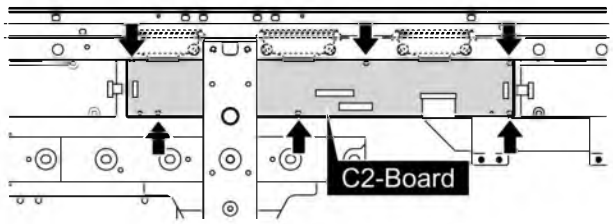

1. Remove the Fan Block (A), (B).
   (Refer to Removal of Fan)
2. Remove the Eye Bolt and Eye Bolt Cover.
3. Remove 5 screws and then remove the Rear Cover Angle (A).



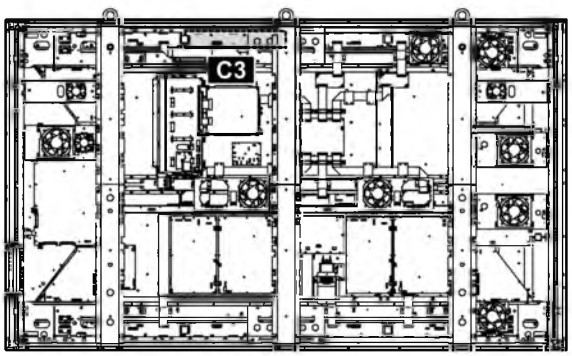

4. Remove the Reinforcement Angle (A). (Refer to Removal of C1-Board)
5. Remove 6 screws of the flexible cable.
6. Remove the flexible cables from the connectors (CA3, CA4, CA5, C20, C21, C23).
7. Disconnect the connectors (C22, C24).



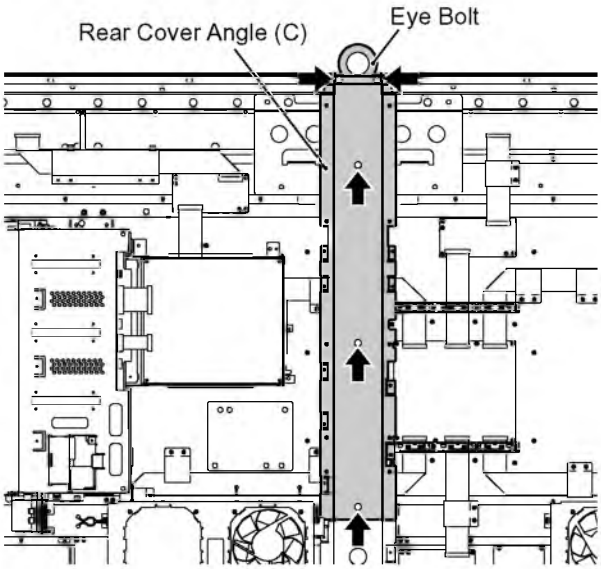

8. Remove 6 screws and then remove C2-Board.



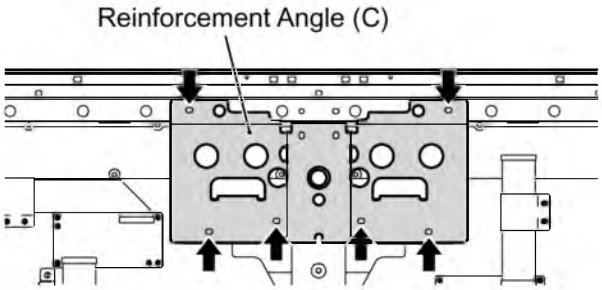

## 7.29. Removal of C3-Board



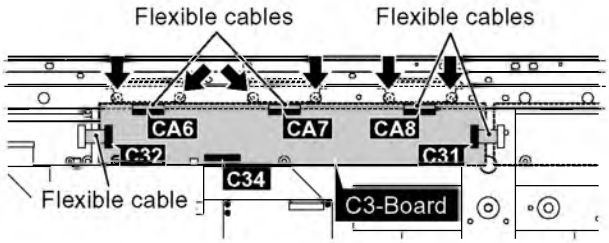

1. Remove the Eye Bolt.
2. Remove 5 screws and then remove the Rear Cover Angle (C).



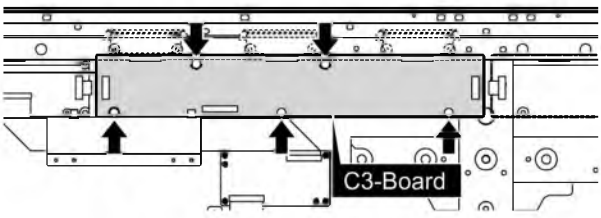

3. Remove 6 screws and then remove the Reinforcement Angle (C).



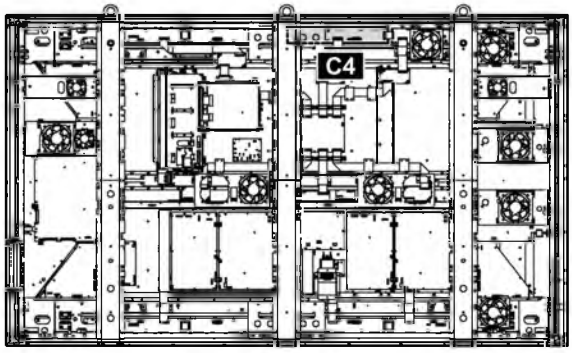

4. Remove 6 screws of the flexible cable.
5. Remove the flexible cables from the connectors (CA6, CA7, CA8, C31, C32).
6. Disconnect the connector (C34).



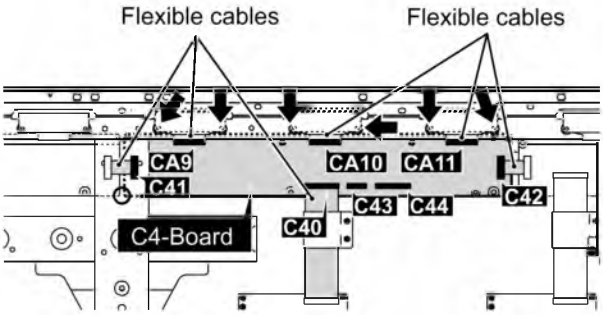

7. Remove 5 screws and then remove C3-Board.



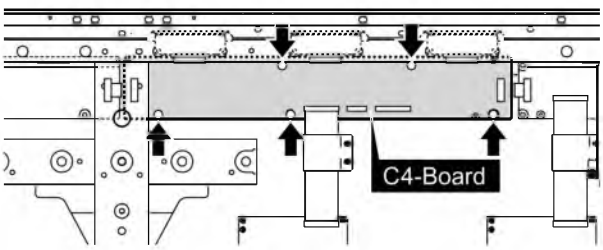
## 7.30. Removal of C4-Board



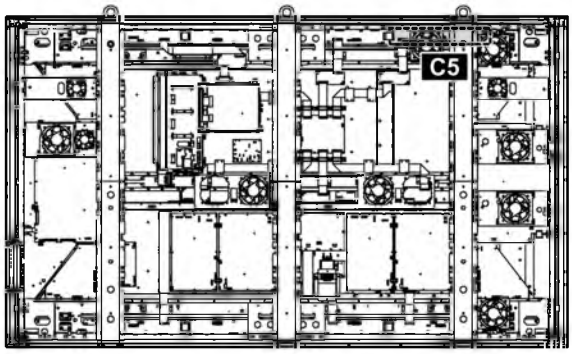

1. Remove the Eye Bolt.
   (Refer to Removal of C3-Board)
2. Remove the Rear Cover Angle (C).
   (Refer to Removal of C3-Board)
3. Remove the Reinforcement Angle (C).
   (Refer to Removal of C3-Board)
4. Remove 6 screws of the flexible cable.
5. Remove the flexible cables from the connectors (CA9, CA10, CA11, C40, C41, C42).
6. Disconnect the connectors (C43, C44).



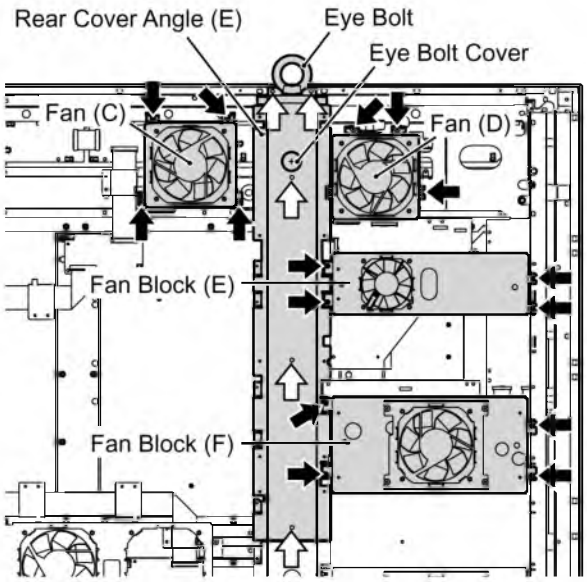

7. Remove 5 screws and then remove C4-Board.



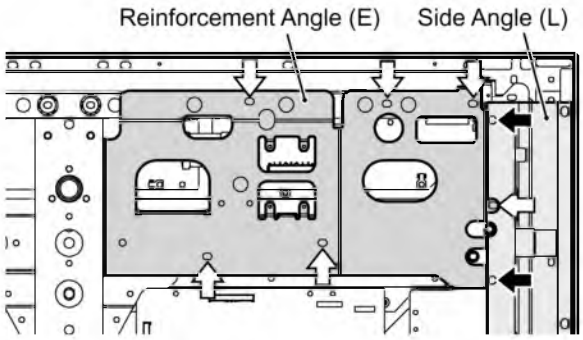

## 7.31. Removal of C5-Board



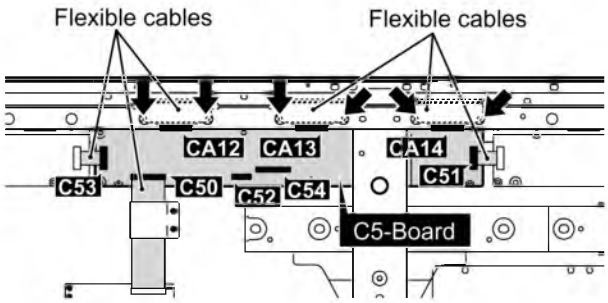

1. Remove the Eye Bolt and Eye Bolt Cover.
2. Remove 15 screws (⬆) and then remove the Fan (C), (D) and Fan Block (E), (F).
3. Remove 5 screws (⇧) and then remove the Rear Cover Angle (E).



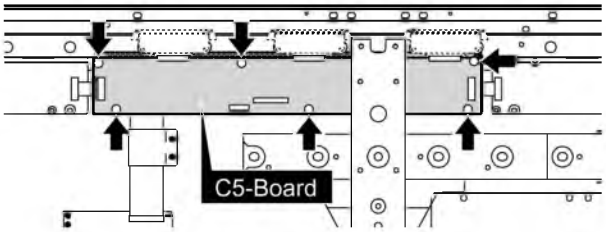

4. Remove 2 screws (⬆) of Side Angle (L).
5. Remove 6 screws (⇧) and then remove the Reinforcement Angle (E).



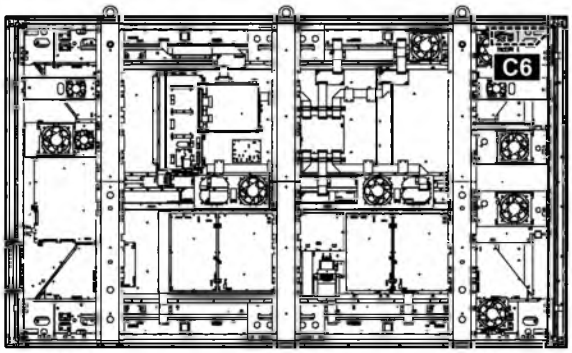

6. Remove 6 screws of the flexible cable.
7. Remove the flexible cables from the connectors (CA12, CA13, CA14, C50, C51, C53).
8. Disconnect the connectors (C52, C54).



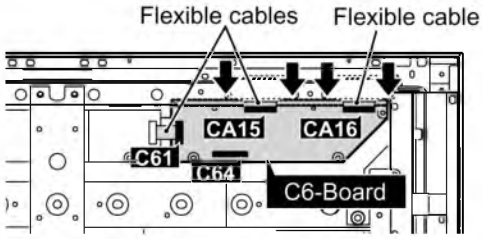

9. Remove 6 screws and then remove C5-Board.



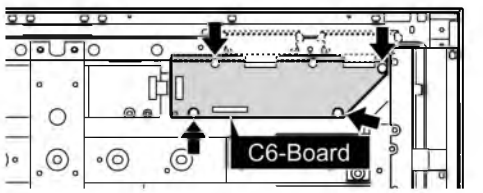

## 7.32. Removal of C6-Board



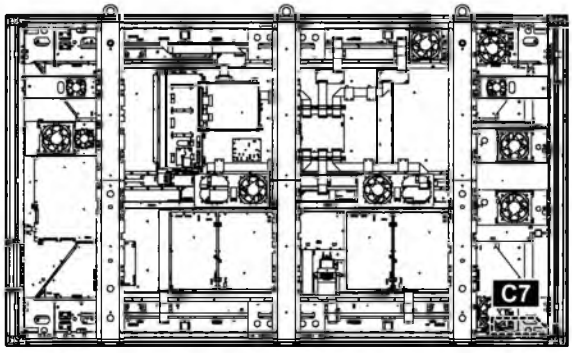

1. Remove the Eye Bolt.
   (Refer to Removal of C3-Board)
2. Remove the Fan (D).
   (Refer to Removal of C5-Board)
3. Remove the Reinforcement Angle (E).
   (Refer to Removal of C5-Board)
4. Remove 4 screws of the flexible cable.
5. Remove the flexible cables from the connectors (CA15, CA16, C61).
6. Disconnect the connector (C64).



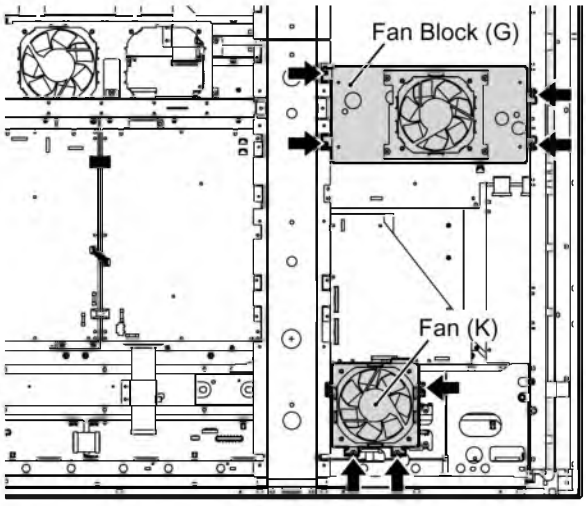

7. Remove 4 screws and then remove C6-Board.



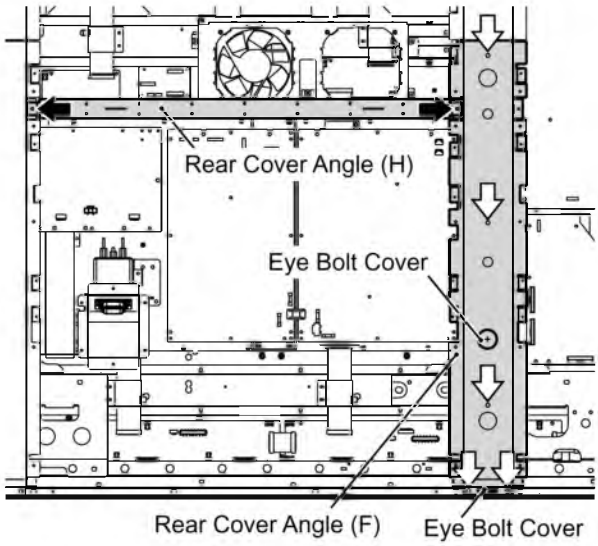

## 7.33. Removal of C7-Board



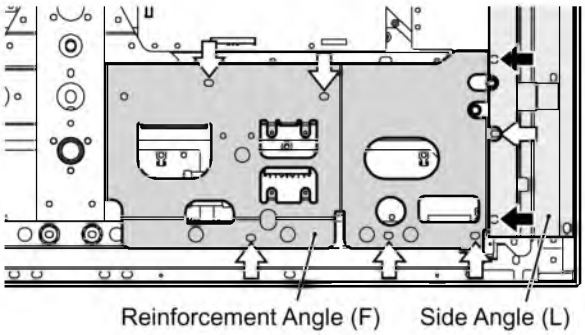

1. Remove 7 screws and then remove the Fan Block (G) and Fan (K).



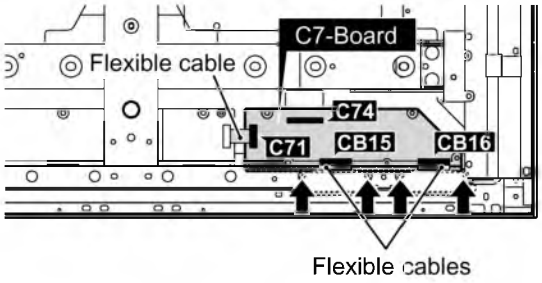

2. Remove 2 screws (⬆) and then remove the Rear Cover Angle (H).
3. Remove the Eye Bolt Covers.
4. Remove 5 screws (⇧) and then remove the Rear Cover Angle (F).



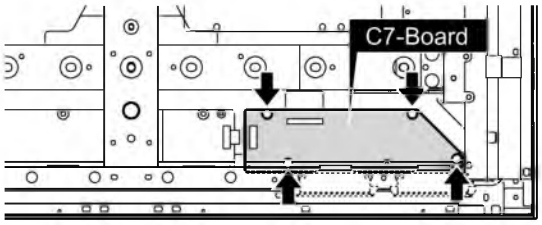

5. Remove 2 screws (⬆) of Side Angle (L).
6. Remove 6 screws (⇧) and then remove the Reinforcement Angle (F).



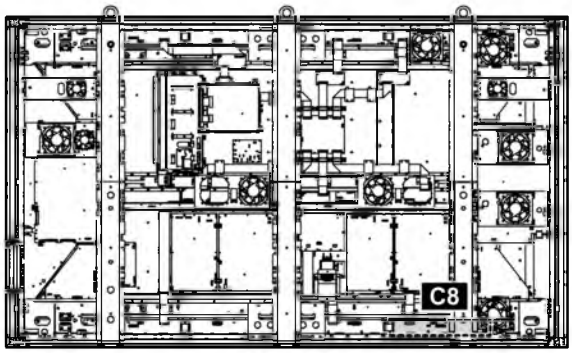

7. Remove 4 screws of the flexible cable.
8. Remove the flexible cables from the connectors (CB15, CB16, C71).
9. Disconnect the connector (C74).



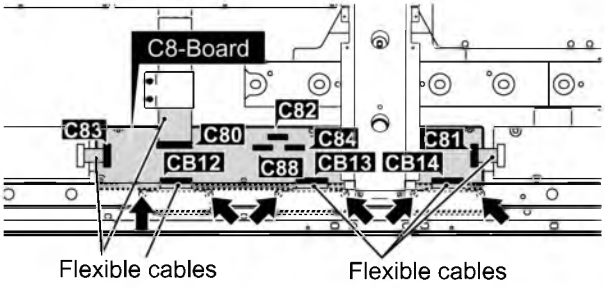

10. Remove 4 screws and then remove C7-Board.



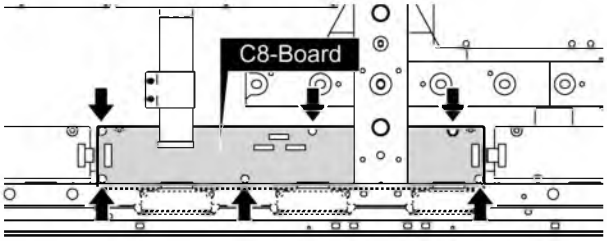

## 7.34. Removal of C8-Board



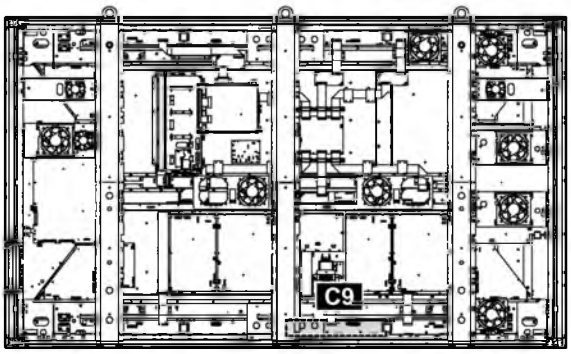

1. Remove the Fan Block (G) and Fan (K).
   (Refer to Removal of C7-Board)
2. Remove the Rear Cover Angle (F), (H).
   (Refer to Removal of C7-Board)
3. Remove the Reinforcement Angle (F).
   (Refer to Removal of C7-Board)
4. Remove 6 screws of the flexible cable.
5. Remove the flexible cables from the connectors (CB12, CB13, CB14, C80, C81, C83).
6. Disconnect the connectors (C82, C84, C88).



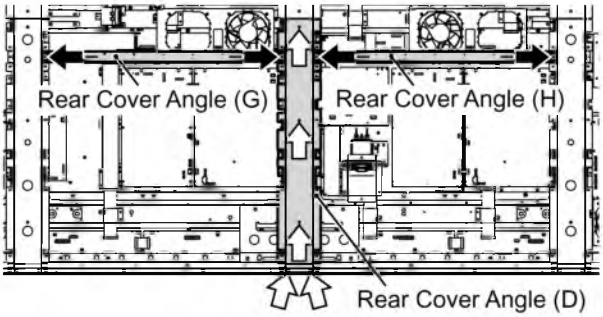

7. Remove 6 screws and then remove C8-Board.



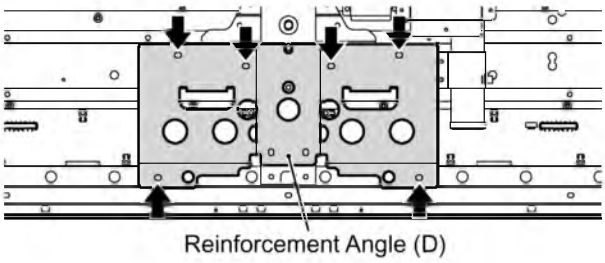

## 7.35. Removal of C9-Board



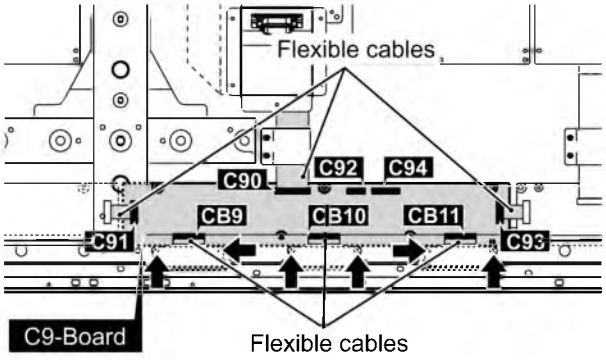

1. Remove 4 screws (⬆) and then the Rear Cover Angle (G), (H).
2. Remove 5 screws (⇧) and then remove the Rear Cover Angle (D).



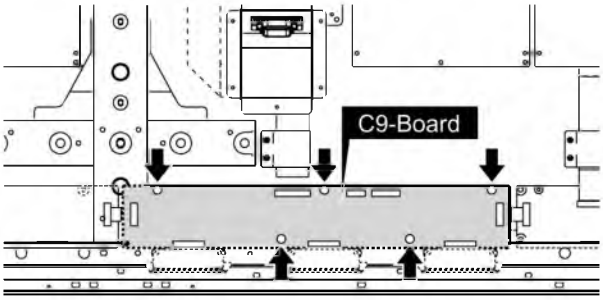

3. Remove 6 screws and then remove the Reinforcement Angle (D).



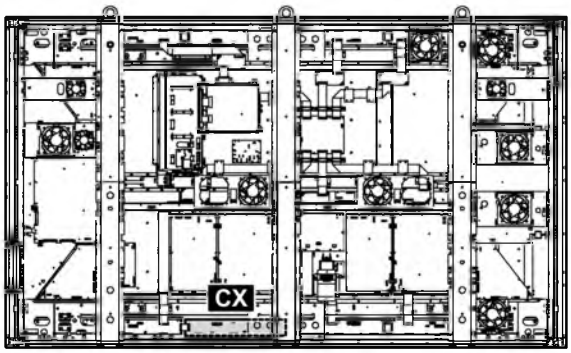

4. Remove 6 screws of the flexible cable.
5. Remove the flexible cables from the connectors ( C90, C91, C93,CB9, CB10, CB11).
6. Disconnect the connectors (C92, C94).



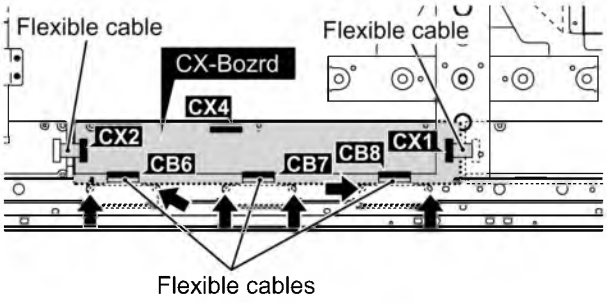

7. Remove 5 screws and then remove C9-Board.



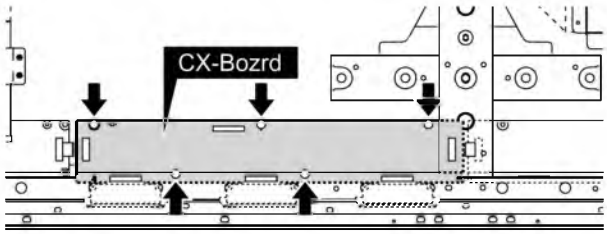

## 7.36. Removal of CX-Board



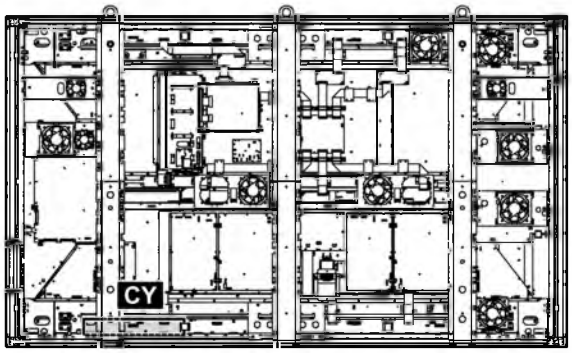

1. Remove the Rear Cover Angle (D), (G), (H). (Refer to Removal of C9-Board)
2. Remove the Reinforcement Angle (D). (Refer to Removal of C9-Board)
3. Remove 6 screws of the flexible cable.
4. Remove the flexible cables from the connectors (CB6, CB7, CB8, CX1, CX2).
5. Disconnect the connector (CX4).



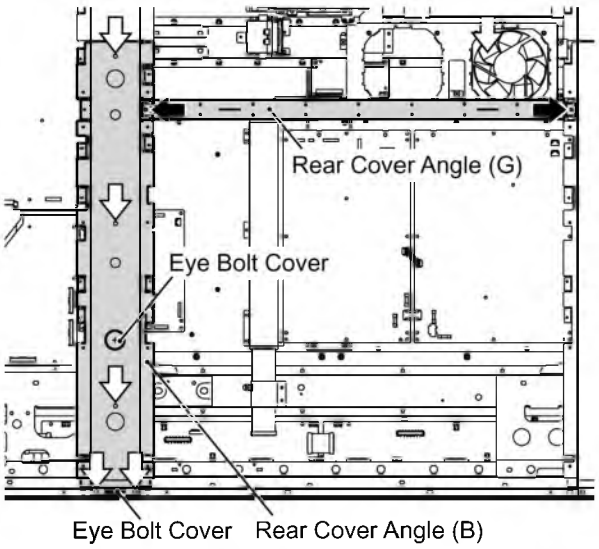

6. Remove 5 screws and then remove CX-Board.




## 7.37. Removal of CY-Board

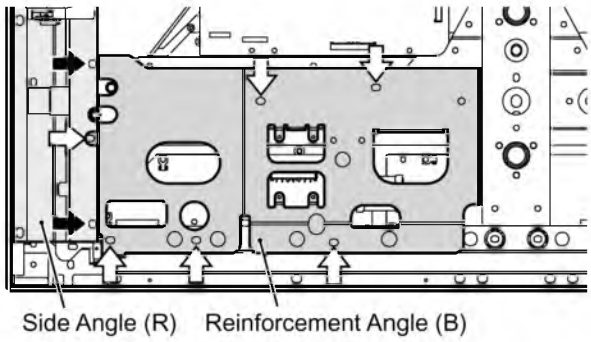



1. Remove 2 screws (⬆) and then the Rear Cover Angle (G).
2. Remove 2 Eye Bolt Covers.
3. Remove 5 screws (⇧) and then remove the Rear Cover Angle (B).

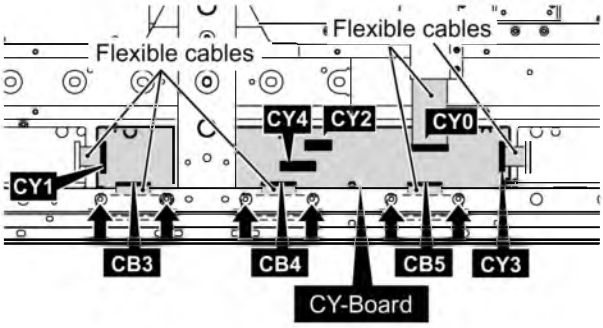



4. Remove 2 screws (⬆) of Side Angle (R).

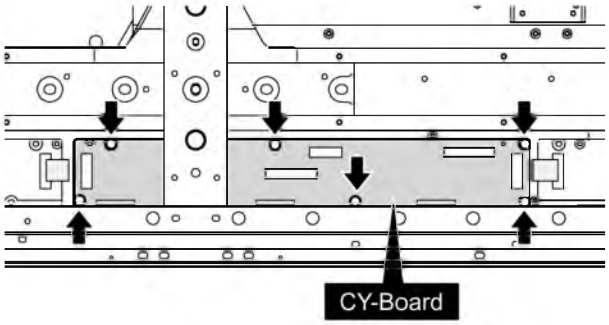
5. Remove 6 screws (⇧) and then remove the Reinforcement Angle (B).



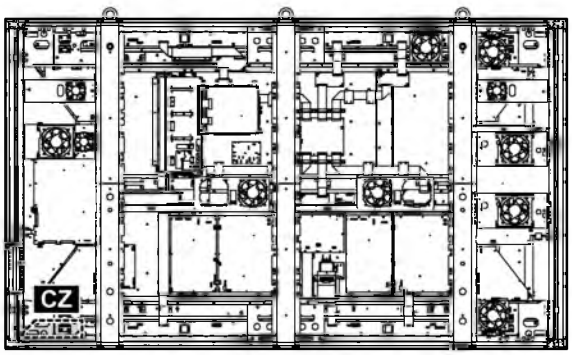

6. Remove 6 screws of the flexible cable.
7. Remove the flexible cables from the connectors (CB3, CB4, CB5, CY0, CY1, CY3).
8. Disconnect the connectors (CY2, CY4).



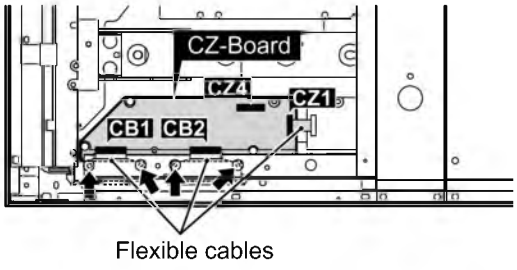

9. Remove 6 screws and then remove CY-Board.



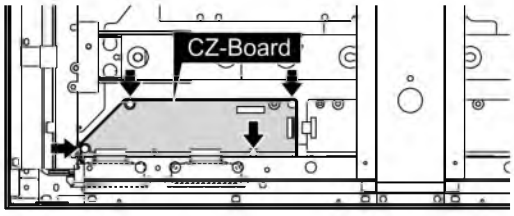

## 7.38. Removal of CZ-Board



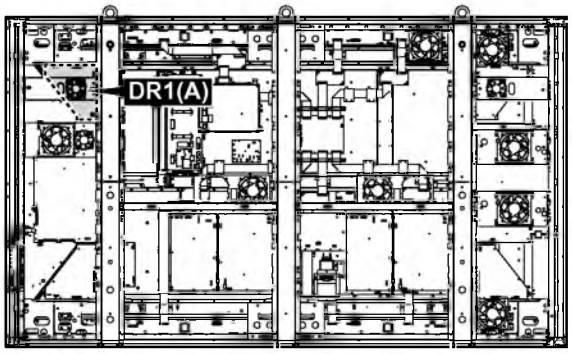

1. Remove the Reinforcement Angle (B).
   (Refer to Removal of CY-Board)
2. Remove 4 screws of the flexible cable.
3. Disconnect the connector (CZ4).
4. Remove the flexible cables from the connectors (CB1, CB2, CZ1).



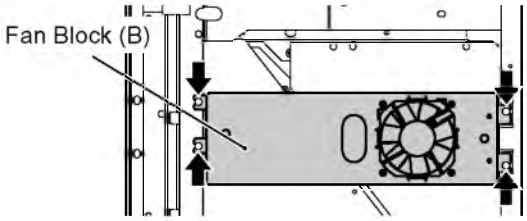

5. Remove 4 screws and then remove CZ-Board.



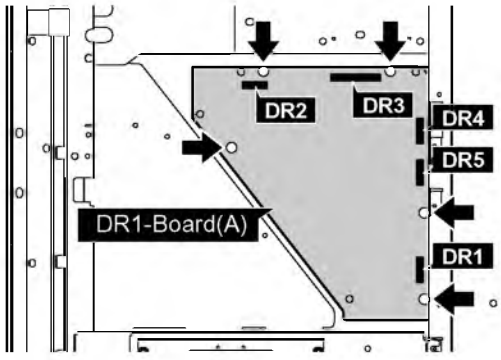

## 7.39. Removal of DR1-Board (A)




1. Disconnect the Fan relay connectors.
2. Remove 4 screws and then remove the Fan Block (B).

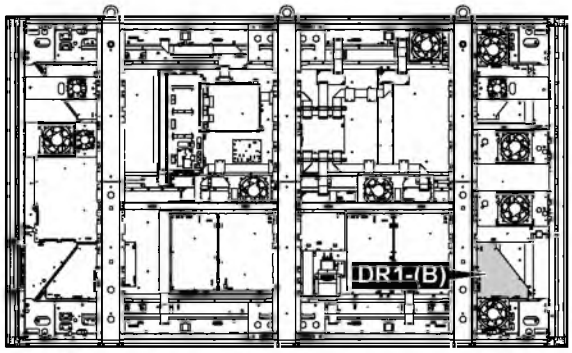



3. Disconnect the connectors (DR1, DR2, DR3, DR4, DR5).
4. Remove 5 screws and then remove the DR1-Board (A).

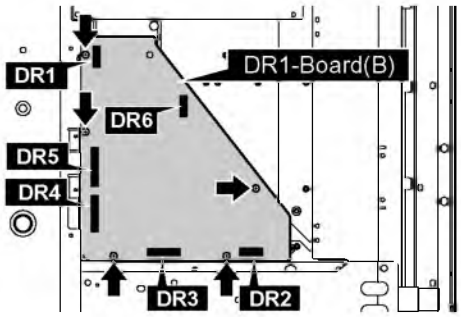


## 7.40. Removal of DR1-Board (B)

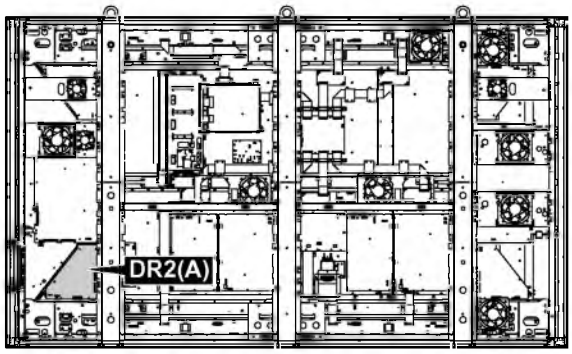
**Attaching short jumper to connector (DR6).**
Attach Short Jumper to the connector (DR6) when replacing DR1-Board.



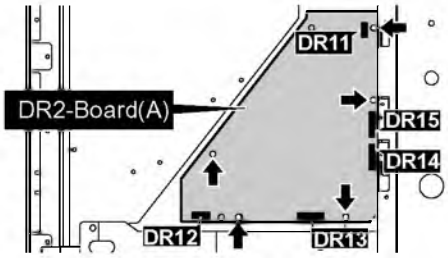

1. Disconnect the connectors (DR1, DR2, DR3, DR4, DR5).
2. Remove 5 screws and then remove DR1-Board (B).
3. Remove Short Jumper attaching to the connector (DR6) on DR1-Board you removed and attach it to the connector (DR6).




## 7.41. Removal of DR2-Board (A)

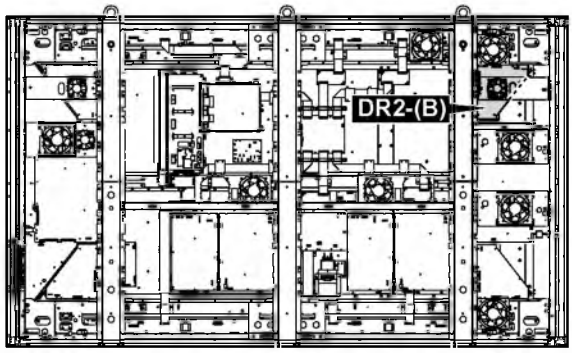



1. Disconnect the connectors (DR11, DR12, DR13, DR14, DR15).
2. Remove 5 screws and then remove DR2-Board (A).

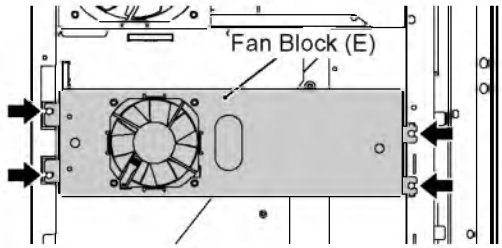



## 7.42. Removal of DR2-Board (B)

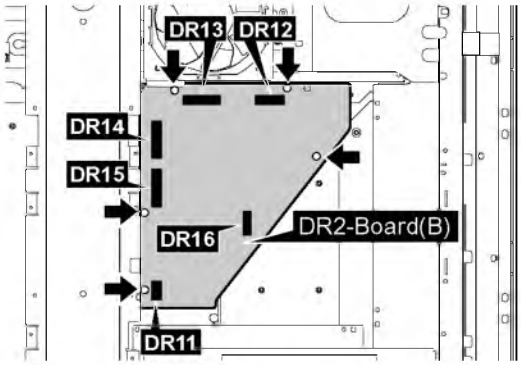
**Attaching short jumper to connector (DR16).**
Attach Short Jumper to the connector (DR16) when replacing DR2-Board.



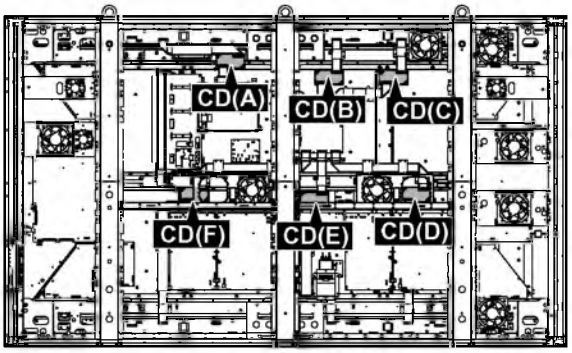

1. Remove 4 screws and then remove Fan Block (E).




2. Disconnect the connectors (DR11, DR12, DR13, DR14, DR15).
3. Remove 5 screws and then remove DR2-Board (B).
4. Remove Short Jumper attaching to the connector (DR16) on DR2-Board you removed and attach it to the connector (DR16).

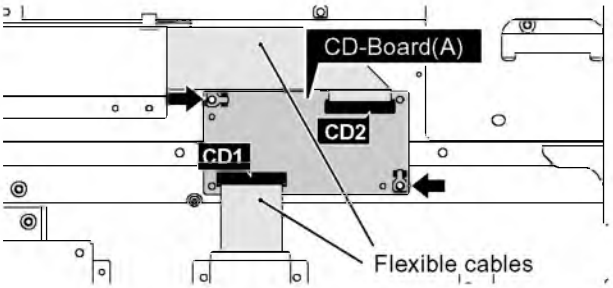


# 7.43. Removal of CD-Board



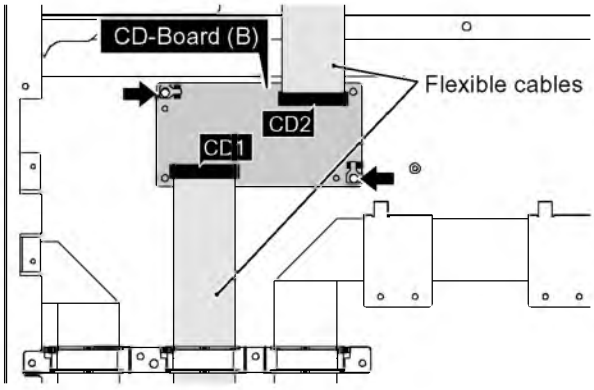

## 7.43.1. Removal of CD-Board (A)

1. Remove the flexible cables from the connectors (CD1, CD2).
2. Remove 2 screws and then remove CD-Board (A).



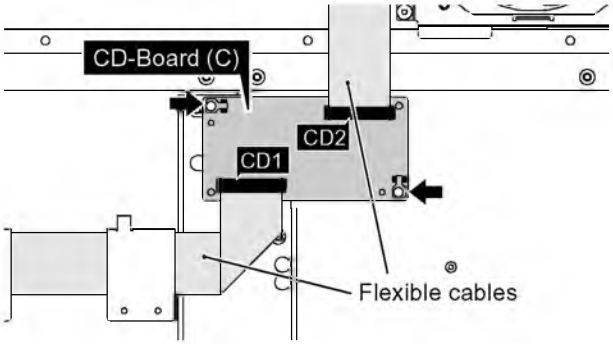

## 7.43.2. Removal of CD-Board (B)

1. Remove the flexible cables from the connectors (CD1, CD2).
2. Remove 2 screws and then remove CD-Board (B).



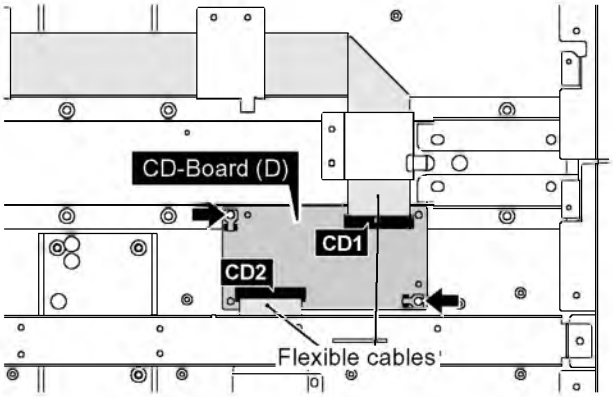

## 7.43.3. Removal of CD-Board (C)

1. Remove the flexible cables from the connectors (CD1, CD2).
2. Remove 2 screws and then remove CD-Board (C).



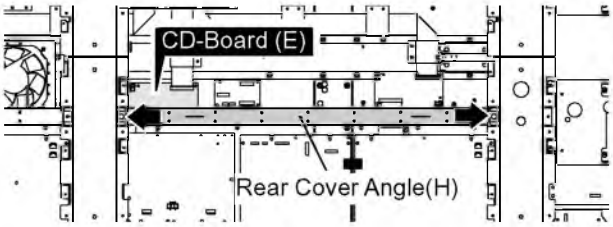

## 7.43.4. Removal of CD-Board (D)

1. Remove the Fan Block (H).
   (Refer to Removal of the Fan)
2. Remove the flexible cables from the connectors (CD1, CD2).
3. Remove 2 screws and then remove CD-Board (D).

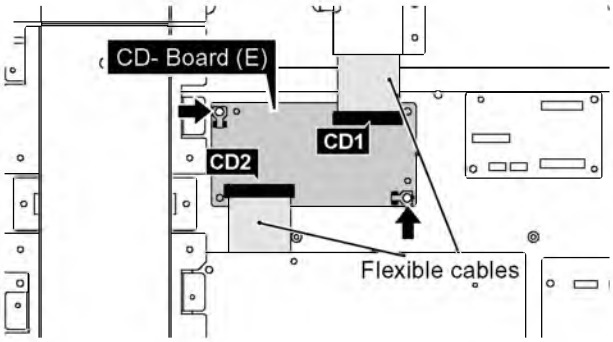



## 7.43.5. Removal of CD-Board (E)

1. Remove 2 screws and then remove the Rear Cover Angle (H).

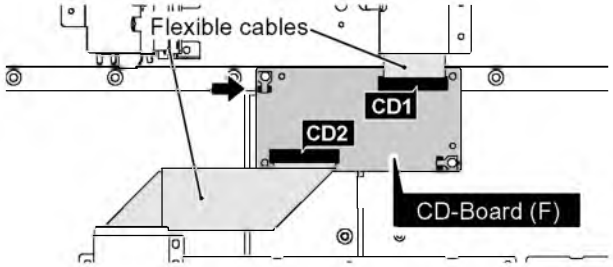


2. Remove the flexible cables from the connectors (CD1, CD2).
3. Remove 2 screws and then remove CD-Board (E).

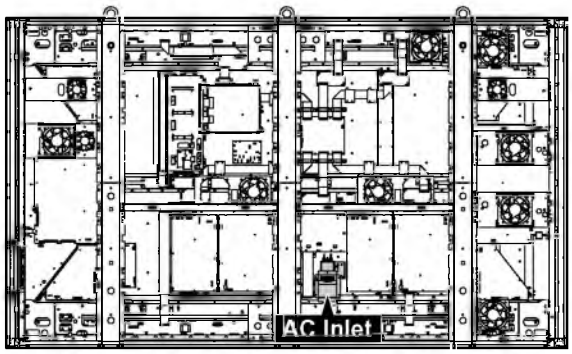



### 7.43.6. Removal of CD-Board (F)

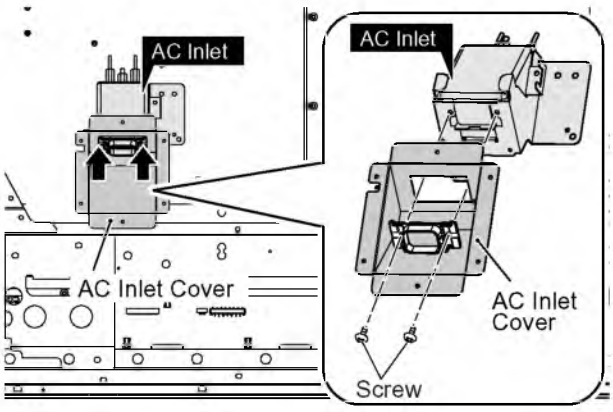
1. Remove the Fan Block (J).
   (Refer to Removal of Fan)
2. Remove the flexible cables from the connectors (CD1, CD2).
3. Remove 2 screws and then remove CD-Board (F).



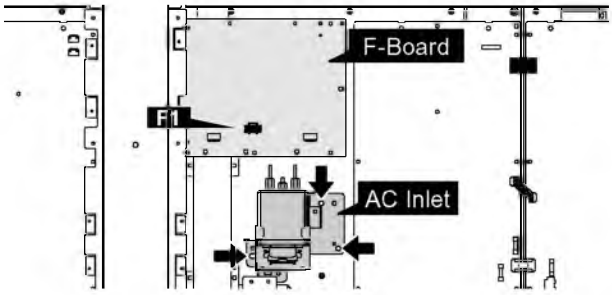

## 7.44. Removal of AC Inlet




1. Remove 2 screws and then remove the AC Inlet Cover.



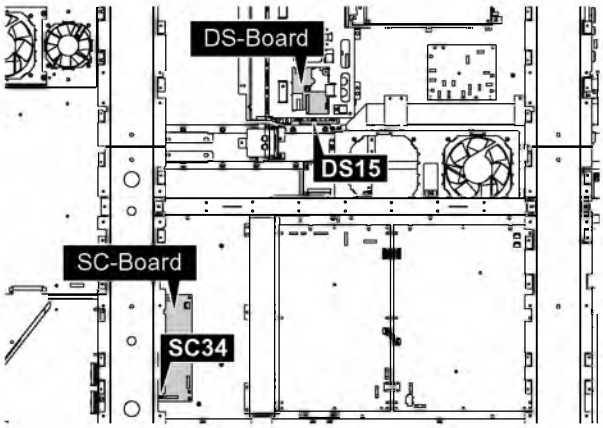

2. Disconnect a connector (F1).
3. Remove 3 screws and then remove the AC-Inlet.



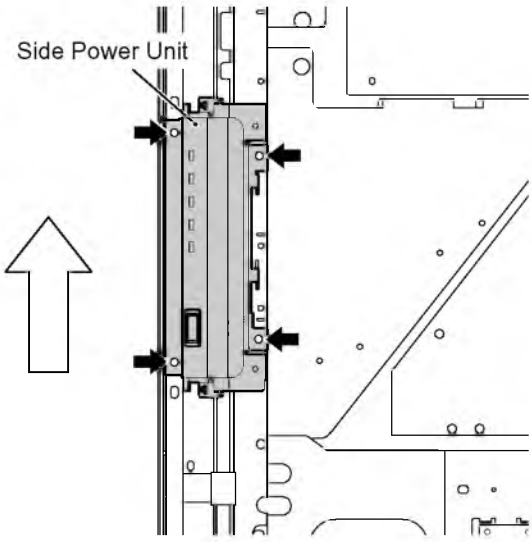

## 7.45. Removal of Cabinet and Front Glass

### 7.45.1. Removal of Front Glass

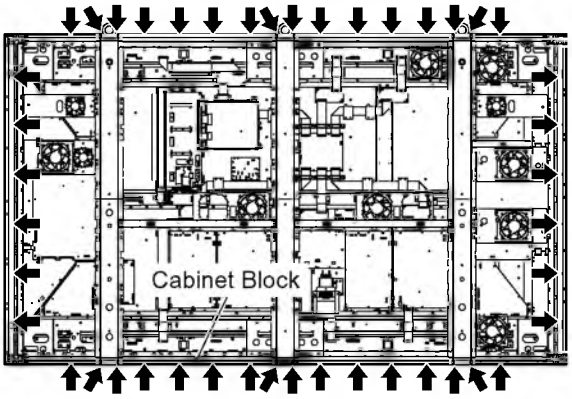
1. Disconnect the connectors (DS15, SC34).




2. Remove 4 screws, and then side the Side Power Unit upward.
3. Remode the side Power Unit.

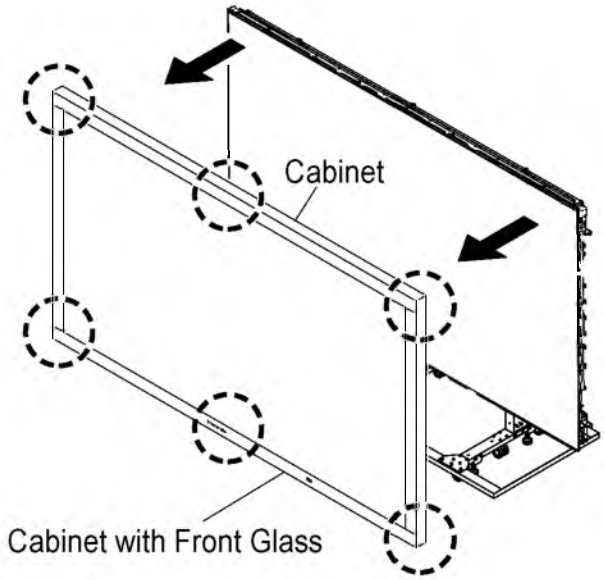



4. Remove 44 screws and then remove cabinet with front glass.

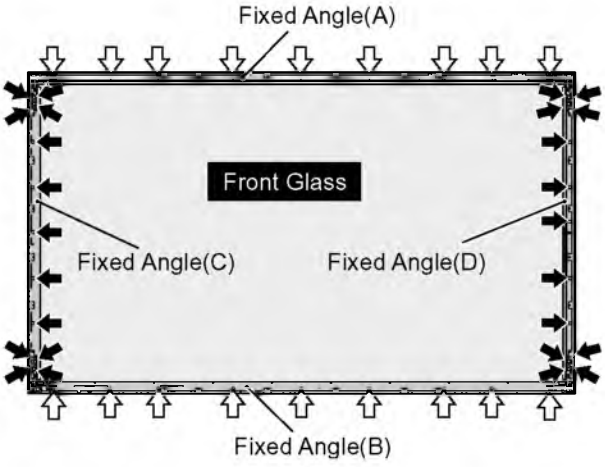



(Note)

- **When removing the Cabinet with Front Glass, take care not to damage the flexible cable of the Plasma Panel circumference.**



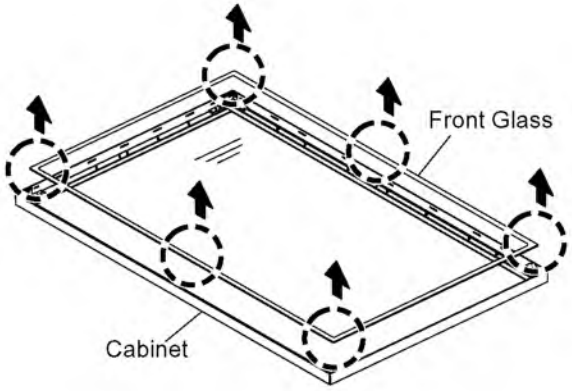

5. Remove 26 screws (⬆) (left and right side) and 18 screws (⇧) (top and bottom side) and then remove the Fixed Angles (A), (B), (C), (D).
6. Remove the Front Glass.




(Note)

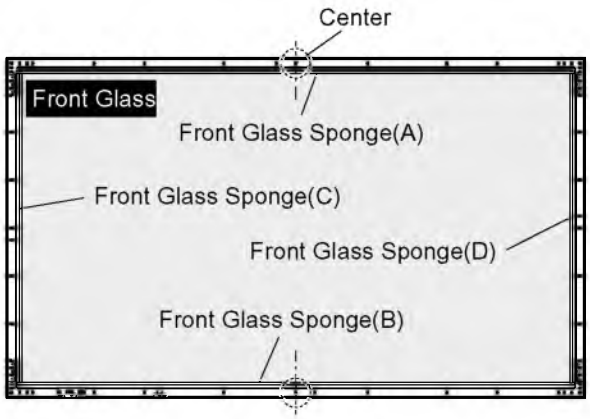
- **When removing the Front Glass from Cabinet, there is a risk of the glass center bending damage.**

- **Be sure to lift the instruction six positions of the figure, when remove the Front Glass.**




**Note: When replacing the Front Glass**

- The sponges for the Front Glass cannot be recycled.
- When replacing the Front Glass, use the new sponges.

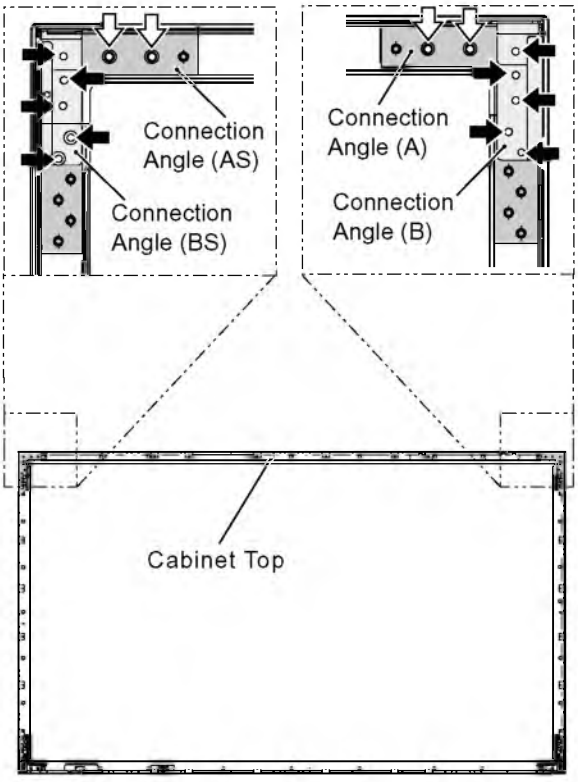


## 7.45.2. Removal of Cabinet

1. Remove the Front Glass.
   (Refer to Removal of Front Glass.)

### 7.45.2.1. Removeval of Cabinet Top

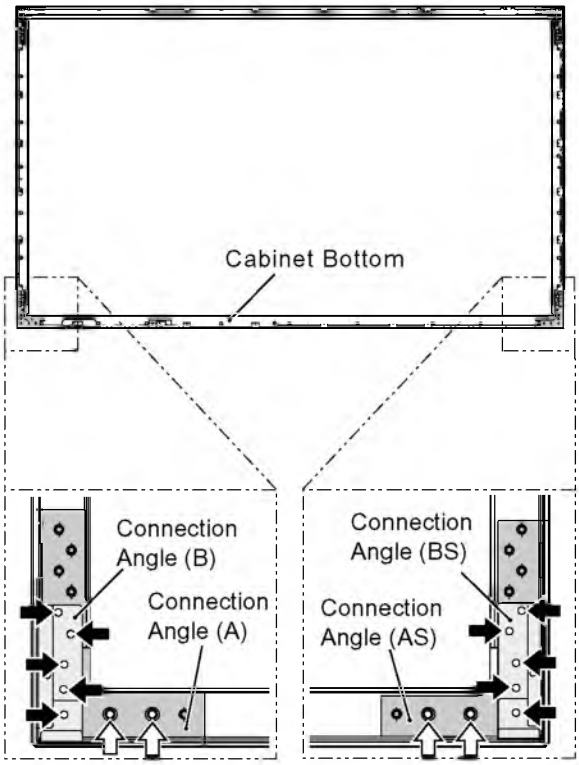
1. Remove each 5 screws (⬆).
2. Remove each 2 screws (⇧) and then remove the Connection Angles (A), (AS), (B), (BS).




3. Remove the Cabinet Top.

### 7.45.2.2. Removeval of Cabinet Bottom

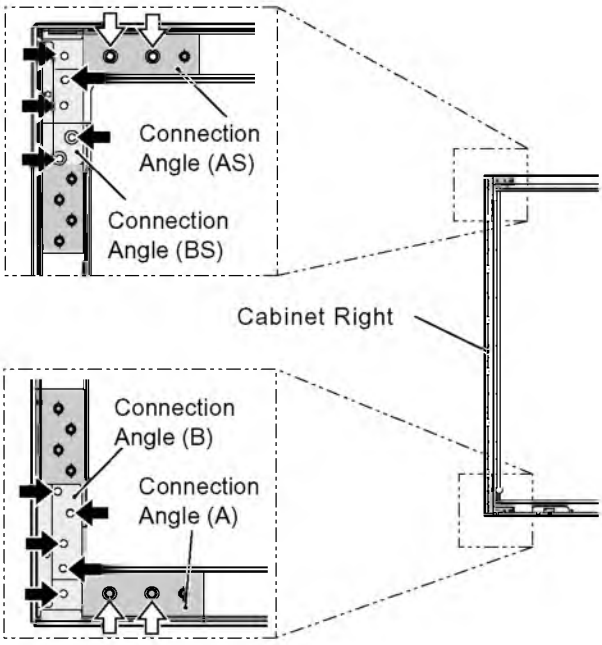
1. Remove each 5 screws (⬆)
2. Remove each 2 screws (⇧) and then remove the Connection Angles (A), (AS), (B), (BS).




3. Remove the Cabinet Bottom.

### 7.45.2.3. Removeval of Cabinet Right

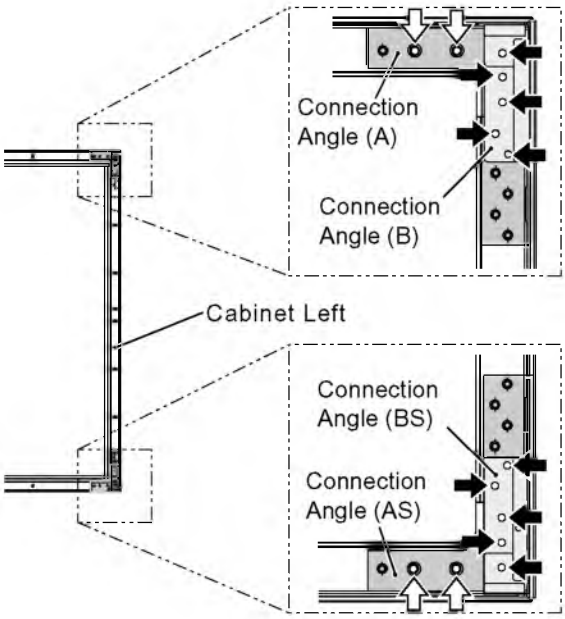
1. Remove each 5 screws (⬆).
2. Remove each 2 screws (⇧) and then remove the Connection Angles (A), (AS), (B), (BS).




3. Remove the Cabinet Right.

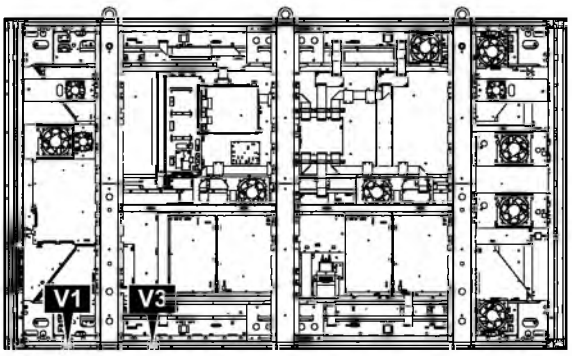
### 7.45.2.4. Removeval of Cabinet Left

1. Remove each 5 screws (⬆).
2. Remove each 2 screws (⇧) and then remove the Connection Angles (A), (AS), (B), (BS).

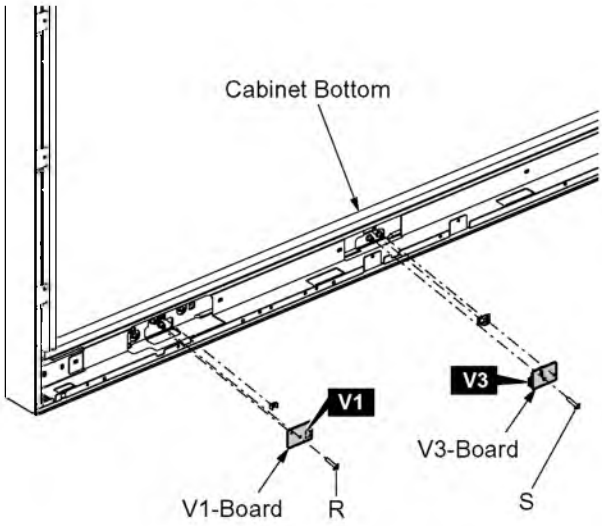



3. Remove the Cabinet Left.

## 7.46. Removal of V1-Board and V3-Board

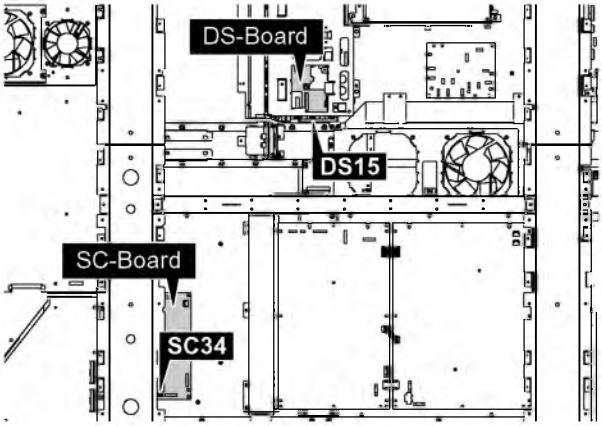



1. Remove the Cabinet.
   (Refer to Removal of Cabinet.)
2. Disconnect the connectors (V1).
3. Remove 1 screw (R) and then remove V1-Board.
4. Disconnect the connectors (V).
5. Remove 1 screw (S) and then remove V3-Board.

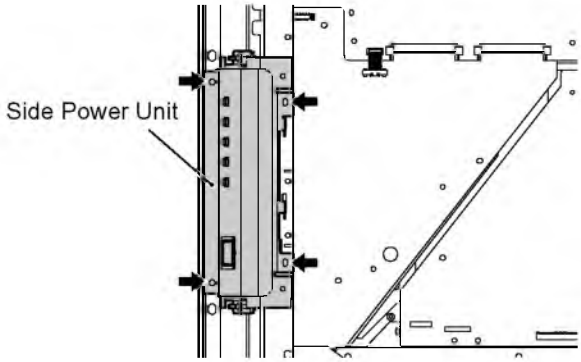



## 7.47. Removal of Plasma Panel

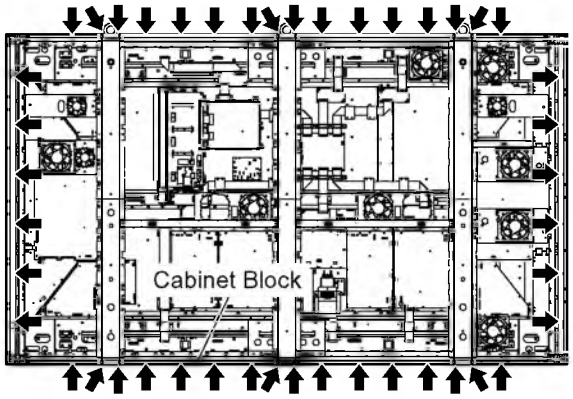
1. Remove the Rear Covers.
   (Refer to Removal of Rear Cover.)
2. Disconnect the connectors (DS15, SC34).



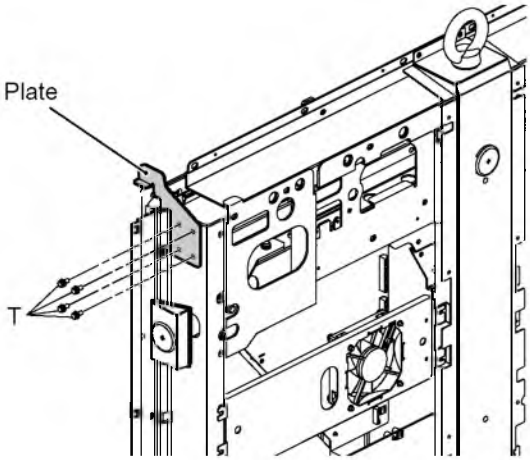

3. Remove 4 screws and then remove the Side Power Unit.



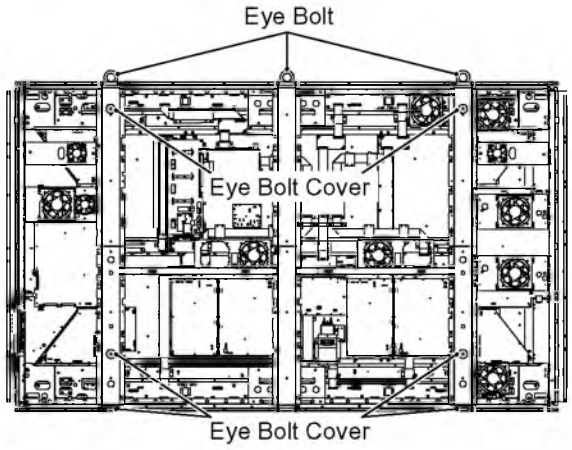

4. Remove 44 screws and then remove cabinet with front glass.
   (Refer to Removal of Cabinet.)



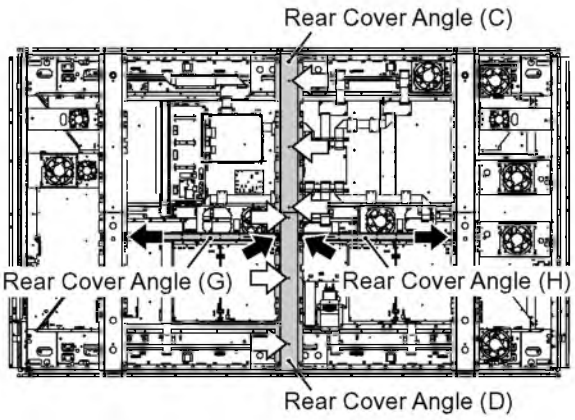

5. Remove 4 screws (T) of the Plate.



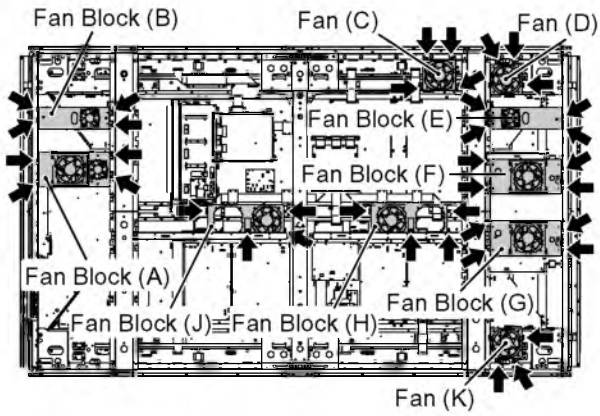

6. Remove 3 Eye Bolts.
7. Remove 6 Eye Bolt Covers.



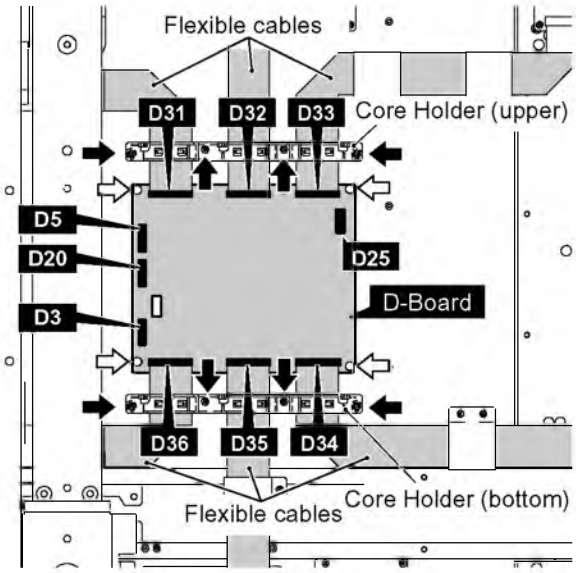

8. Remove 4 screws (⬆) and then remove the Rear Cover Angles(G),(H).
9. Remove 6 screws (⇧) and then remove the Rear Cover Angle (C), (D).



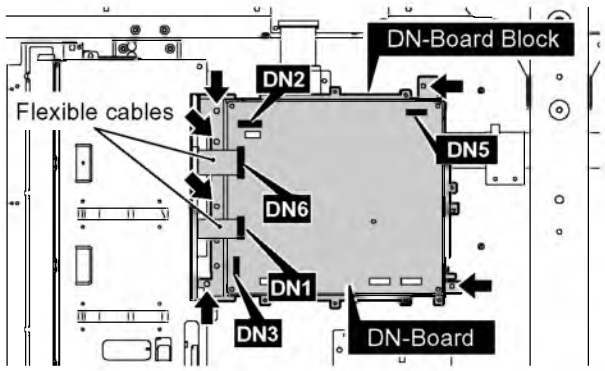

10. Disconnect the each Fan relay connectors.
    - Remove each 4 screws and then remove the Fan Blocks (A), (B), (E), (F), (G), (H), (J).
    - Remove each 4 screws and then remove the Fan (C).
    - Remove each 3 screws and then remove the Fan (D),(K).



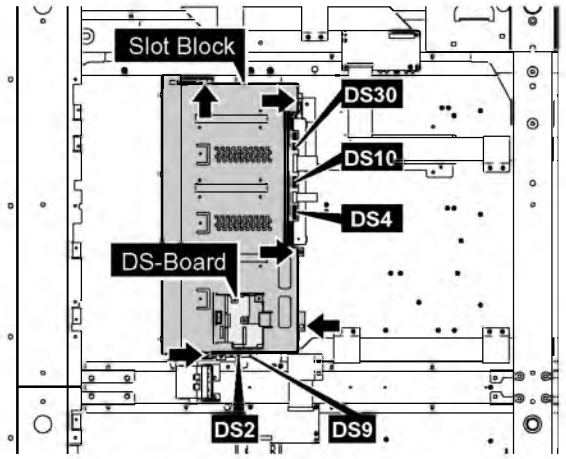

11. Disconnect the connectors (D3, D5, D20, D25).
12. Remove the flexible cables from the connectors (D31, D32, D33, D34, D35, D36).
13. Remove 8 screws (⬆) and then remove the Core Holder (upper), (bottom).
14. Remove 4 screws (⇧) and then remove D-Board.



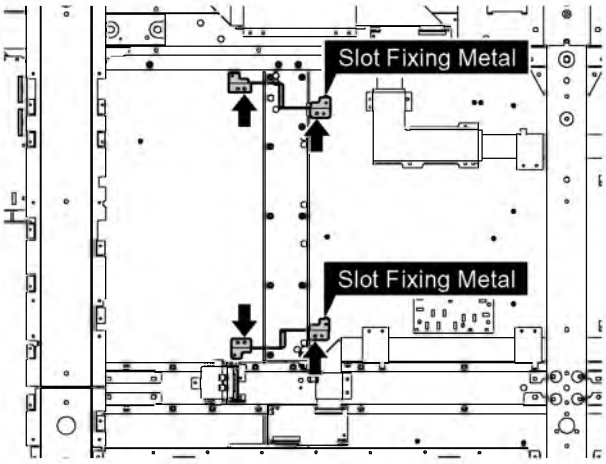
15. Remove the flexible cables from the connectors (DN1, DN6).
16. Disconnect the connectors (DN2, DN3, DN5).
17. Remove 6 screws and then remove DN-Board Block.



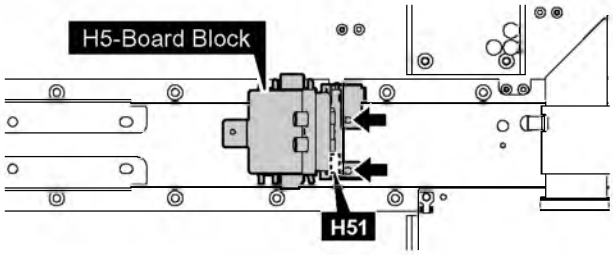

18. Disconnect the connectors (DS2, DS4, DS9, DS10, DS30).
19. Remove 5 screws and then remove the Slot Block.



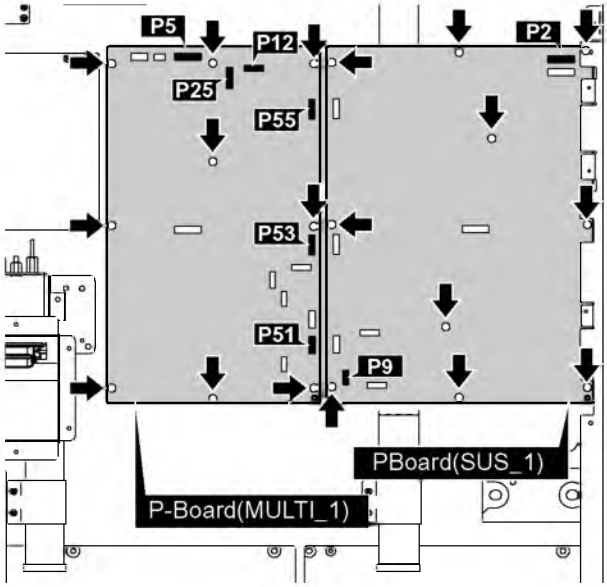

20. Remove 4 screws and then remove the Slot Fixing Metal.



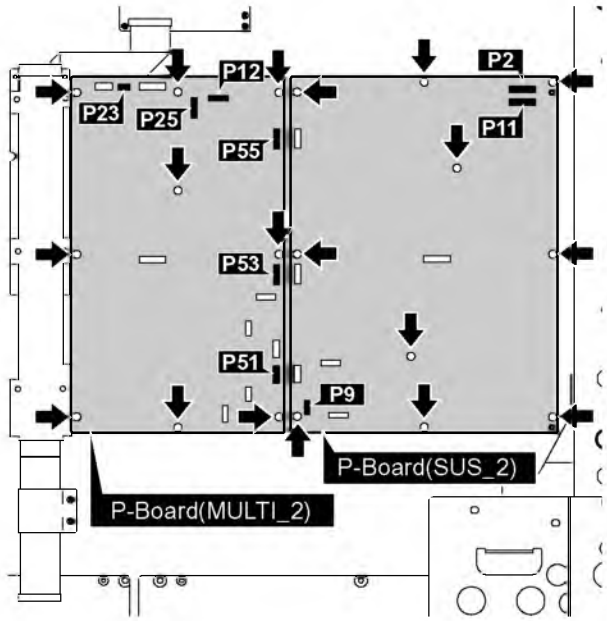

21. Remove 2 screws and then remove H5-Board Block.
22. Disconnect the connector (H51).



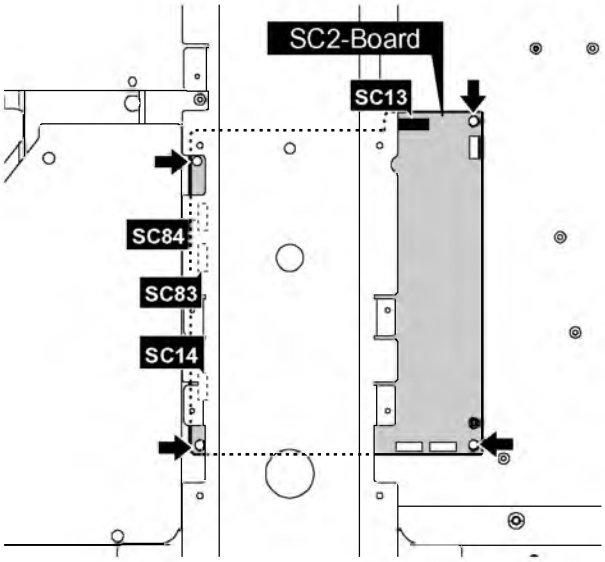

23. Disconnect the connectors (P2, P5, P9, P12, P25, P51, P53, P55).
24. Remove 19 screws and then remove P-Board (MULT_1), (SUS_1).



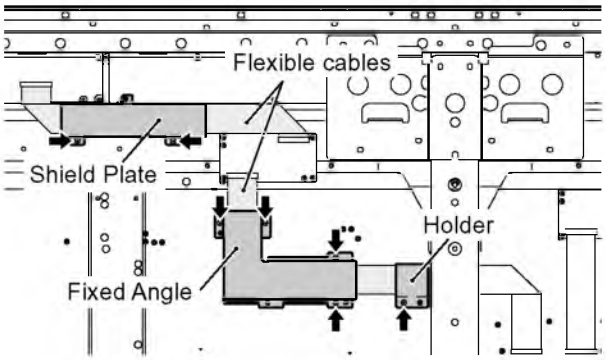

25. Disconnect the connectors (P2, P9, P11, P12, P23, P25, P51, P53, P55).
26. Remove 19 screws and then remove P-Board (MULT_2), (SUS_2).



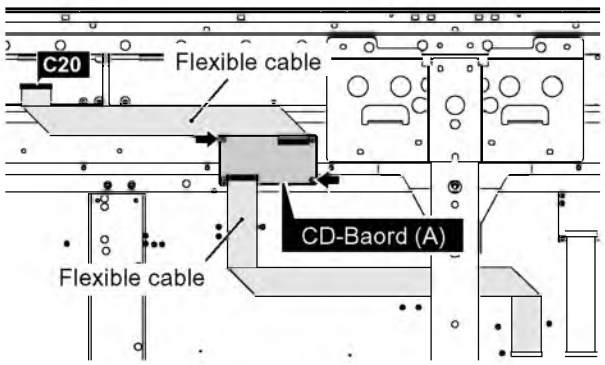
27. Disconnect the connectors ( SC13, SC14, SC34, SC83, SC84).
28. Remove 4 screws and then remove SC2-Board.




29. Remove 3 screws and then remove the Shield Plate.
30. Remove 4 screws and then remove the Fixed Angle (shape of L).
31. Remove 1 screw and then remove the Flexible Holder.

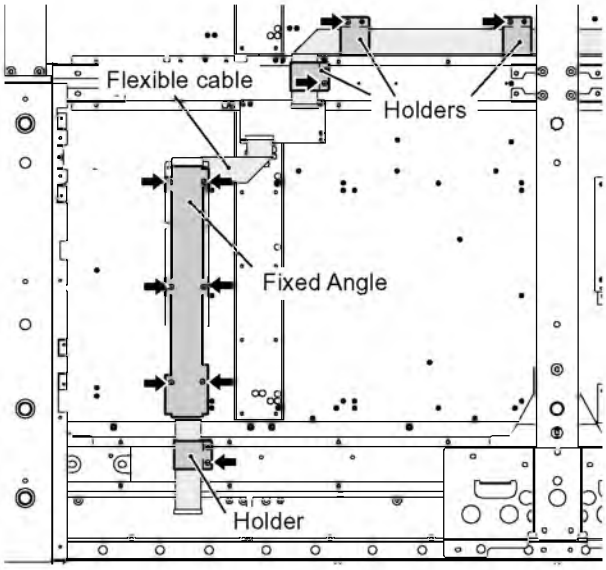



32. Disconnect a connector (C20) connected with C2-Board.
33. Remove 2 screws and then remove CD-Board (A).

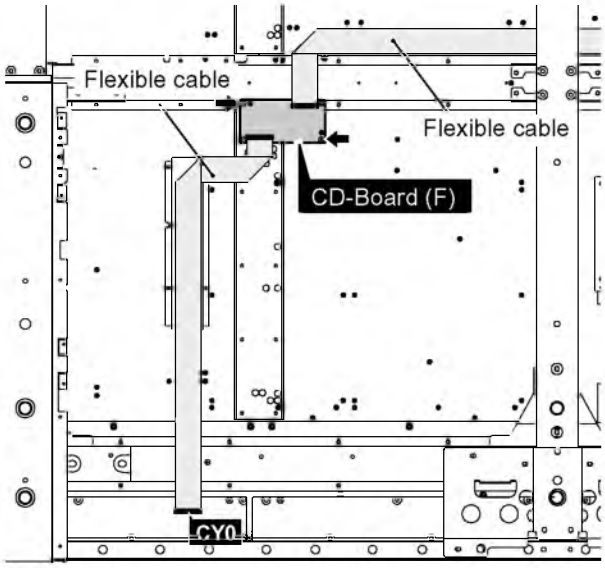



34. Remove each 1 screw of the Flexible Holder and then remove the Flexible Holders (4 places).

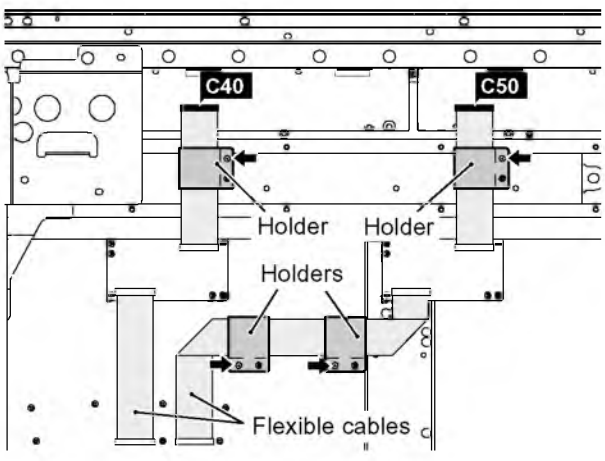
35. Remove 6 screws and then remove the Fixed Angle.



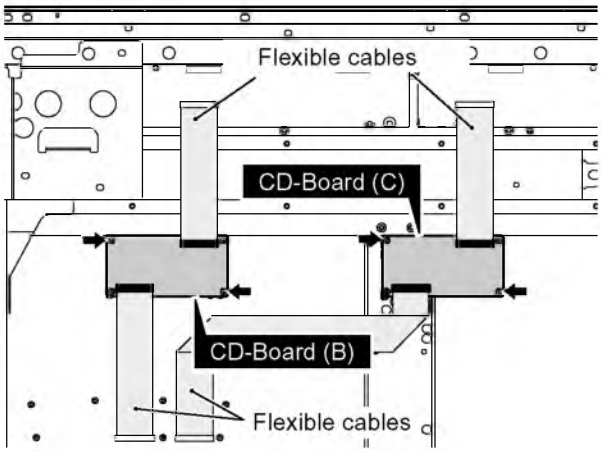

36. Disconnect a connector (CY0) connected with CY-Board.
37. Remove 2 screws and then remove CD-Board (F).



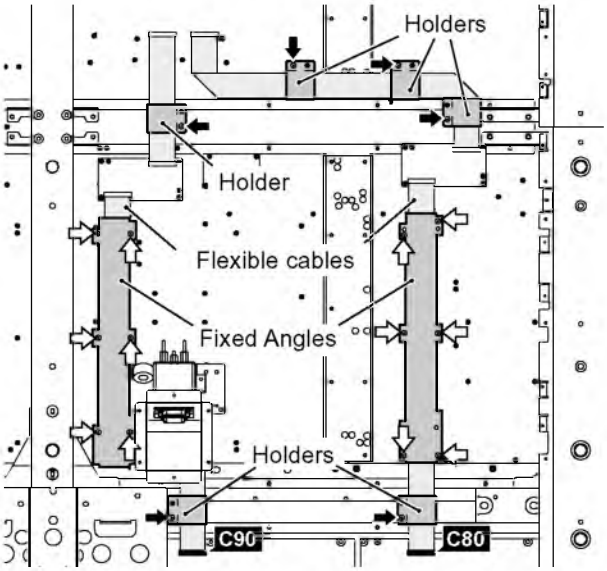

38. Remove each 1 screw and then remove the Flexible Holders (4 places).
39. Remove the flexible cables from the connectors (C40, C50).



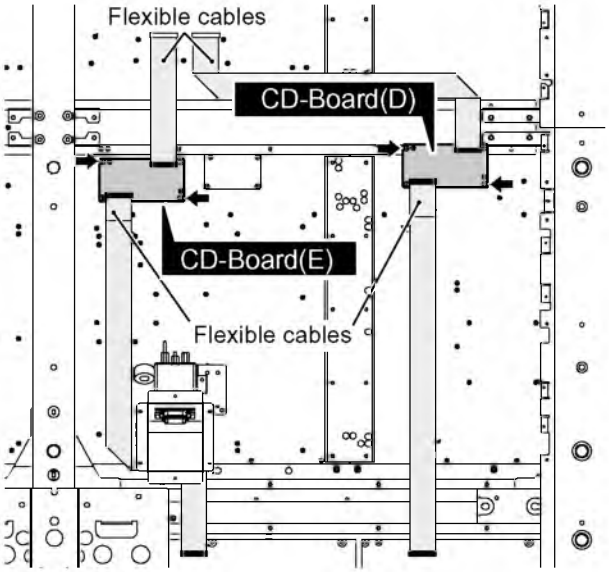
40. Remove 4 screws and then remove CD-Board (B), (C).



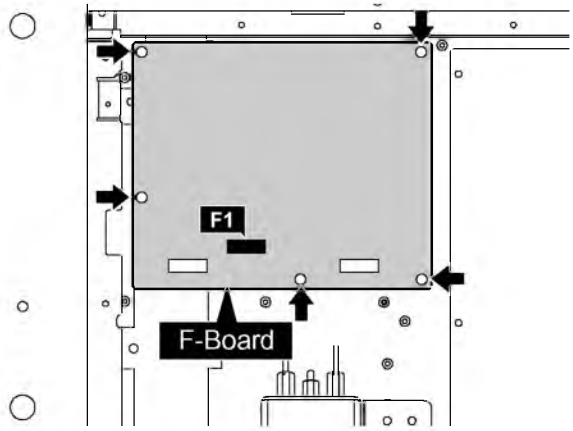

41. Remove each 1 screw (⬆) and then remove the Flexible Holders (6 places).
42. Remove each 6 screws (⇧) and then remove the Fixed Angles (2 places).
43. Remove the flexible cables from the connectors (C80, C90).



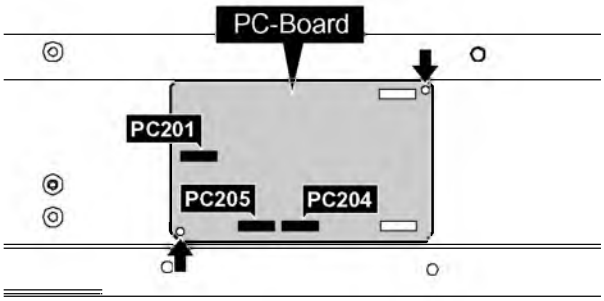

44. Remove 4 screws and then remove CD-Board (D), (E).



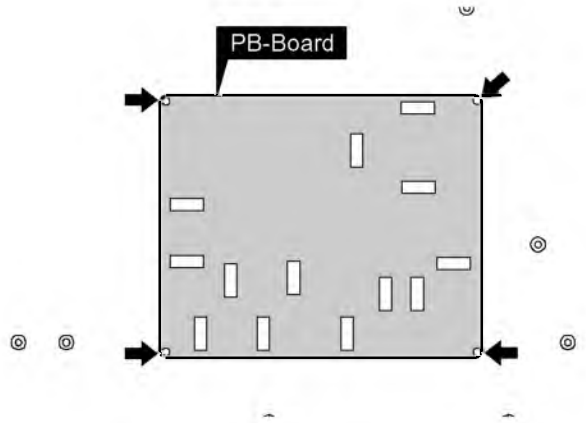

45. Disconnect the connectors (F1).
46. Remove 5 screws and then remove F-Board.



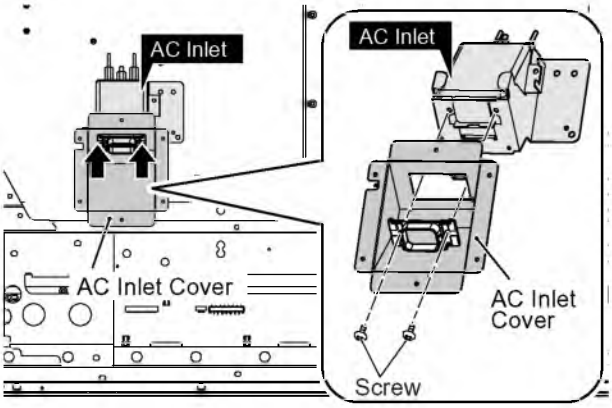

47. Remove the connectors (PC201, PC204, PC205).
48. Remove 2 screws and then remove PC-Board.



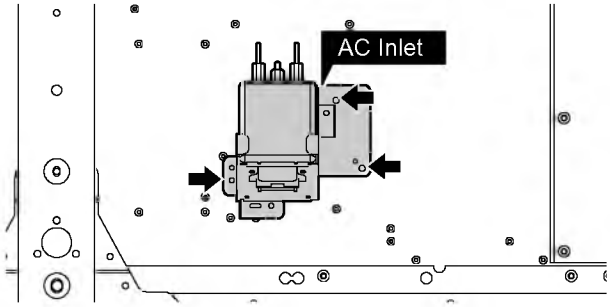
49. Remove the PB-Board.



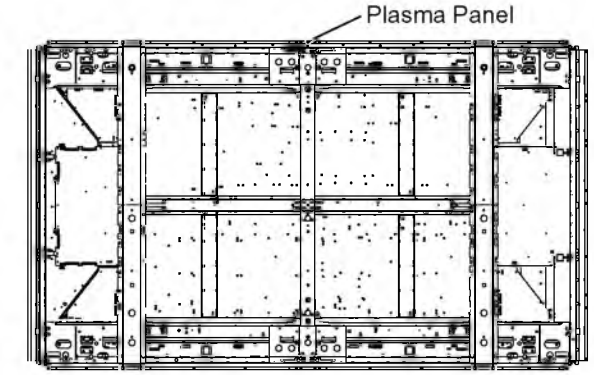

50. Remove 2 screws and then remove AC Inlet Cover.




51. Remove 3 screws and then remove the AC-Inlet.



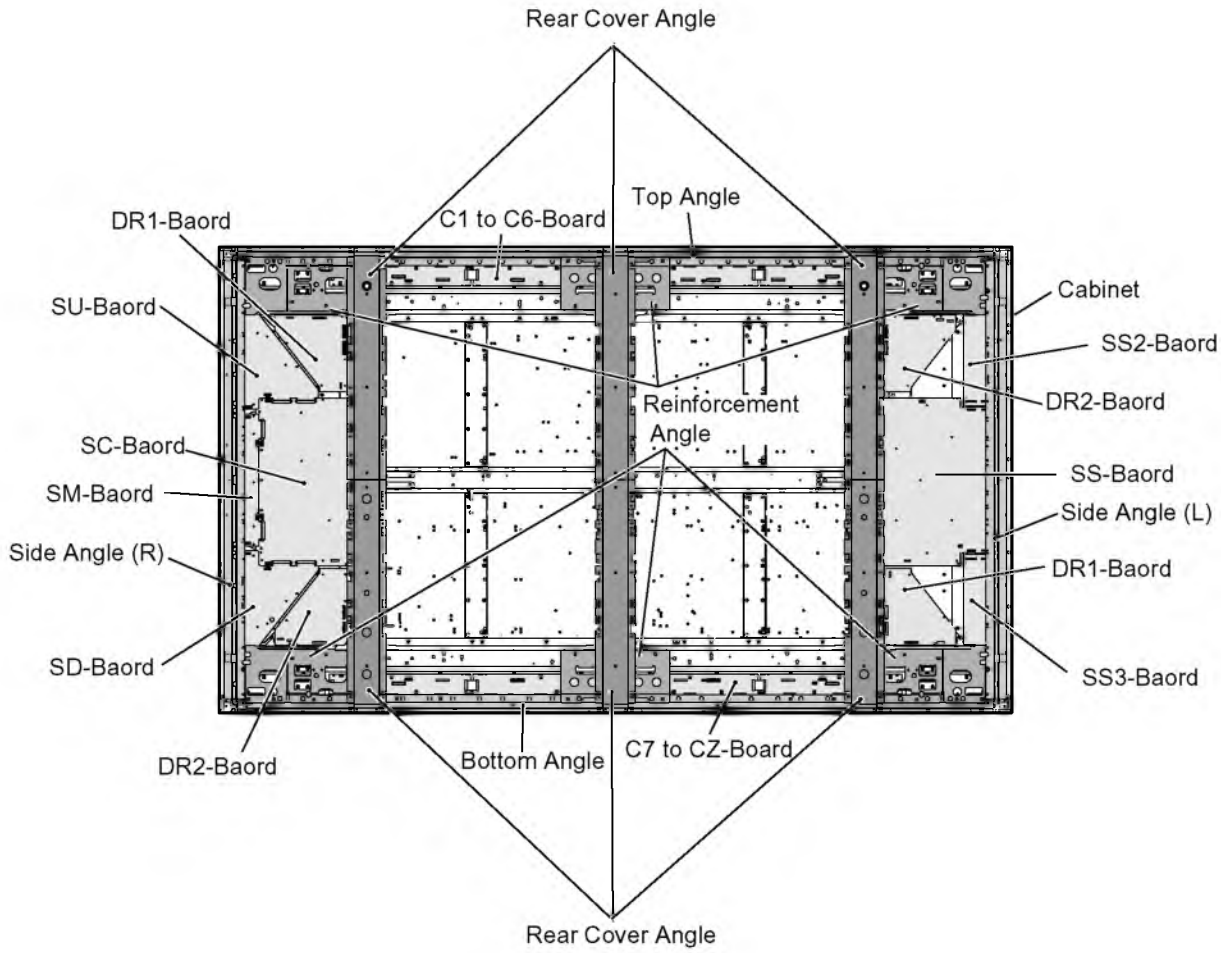

52. Remove the Plasma Panel.




**(Note)**

- When replacing the Plasma Panel, use a hanging device (machine) such as cranes, because the Plasma Panel is too heavy.

**Structure of replacement Plasma Panel (Spare Parts)**



# 8 Measurements and Adjustments

## 8.1. Adjustment Procedure

### 8.1.1. Driver Set-up

#### 8.1.1.1. Item / Preparation

1. Set Aging pattern 1 (White pattern) by IIC mode.
2. Set the picture adjustment items as follows.
   - Picture menu : Standard
   - Color temperature : Normal
   - Picture : 25
   - Aspect : Full

**Caution**

1. First perform Vsus voltage adjustment.
2. Confirmation of Vscn voltage should be performed after confirmation of Vad voltage adjustment.
   When Vad = -85V, Voltage of Vscn is 55V ± 4V.

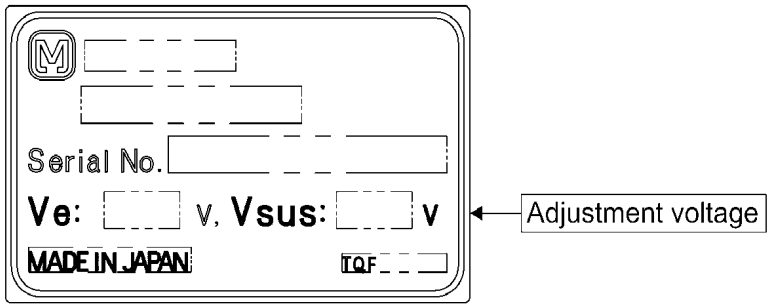
#### 8.1.1.2. Adjustments

Adjust driver section voltages.
(Refer to the panel data on the panel label)
Check or adjust the following voltages with the multimeter.

| Name | Test Point | Voltage | Volume | Remarks |
|---|---|---|---|---|
| Vsus | TPVSUS (SS) | Vsus ± 0.5V | VR251 (P_SS side) | * |
| Vsus | TPVSUS (SC) | Vsus ± 0.5V | VR251 (P_SC side) | * |
| Ve | TPVE (SS) | Ve ± 1V | VR6000 (SS) | * |
| Ve2 | TPVE2 (SS) | 5 ± 1V | (Fixed) | |
| Vad | TPVAD (SC2) | -85V ± 1V | VR6600 (SC2) | |
| Vscn | TPVSCN (SC2) | Vad + 140 ± 4V | VR6605 (SC2) | |
| Vset | TPVSET (SC2) | 240 ± 1V | VR6604 (SC2) | |
| Vset2 | TPVSET2 (SC) | Vad + 8 + 1V, -0V | (Fixed) (SC) | |
| Vbk | TPVBK (SC2) | 150 ± 1V | VR6351 (SC2) | |
| Vda | TPVDA (DR1) | 75 ± 1V | (Fixed) (P_SC side) | |
| Vda | TPVDA (DR2) | 75 ± 1V | (Fixed) (P_SC side) | |
| Vda | TPVDA (DR1) | 75 ± 1V | (Fixed) (P_SS side) | |
| Vda | TPVDA (DR2) | 75 ± 1V | (Fixed) (P_SS side) | |
| Vc | TPVC (DR1) | 45 ± 0.5V | VR600 (DR1_SC) | |
| Vc | TPVC (DR2) | 45 ± 0.5V | VR650 (DR2_SC) | |
| Vc | TPVC (DR1) | 34.5 ± 0.5V | VR600 (DR1_SS) | |
| Vc | TPVC (DR2) | 34.5 ± 0.5V | VR650 (DR2_SS) | |

*See the Panel label.

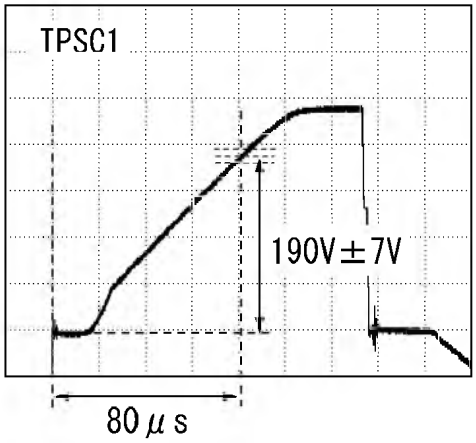
Panel Label information



## 8.1.2. Initialization Pulse Adjust

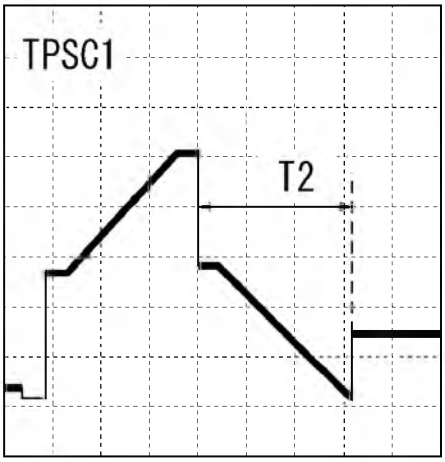
1. Set Aging pattern 1 (White pattern) by IIC mode.
2. Set the picture adjustment items as follows.
   - Picture menu : Standard
   - Color temperature : Normal
   - Picture : 25
   - Aspect : Full
3. Connect Oscilloscope to TPSC1 and adjust VR6601 for 190V ± 7V.
4. Connect Oscilloscope to TPSC1 (T2) and adjust VR6602 for 165 ± 10μ Sec.

| | Test point | Volume | Level |
|---|---|---|---|
| | TPSC1 (SC) | VR6601 (SC) | 190V ± 7V |
| T2 | TPSC1 (SC) | VR6602 (SC) | 165 ± 10μ Sec |




Start up initializing pulse slope

[V] 50V/div
[H] 20μs/div




Descent pulse(T2) period
T2=165±10μsec

[V] 100V/div
[H] 50μs/div

## 8.1.3. P.C.B. (Print Circuit Board) Replacement

### 8.1.3.1. Caution

1. To remove P.C.B., wait 1 minute after power was off for discharge from electrolysis capacitors.

### 8.1.3.2. Quick adjustment after P.C.B. Replacement

Adjust the following voltages with the multimeter.

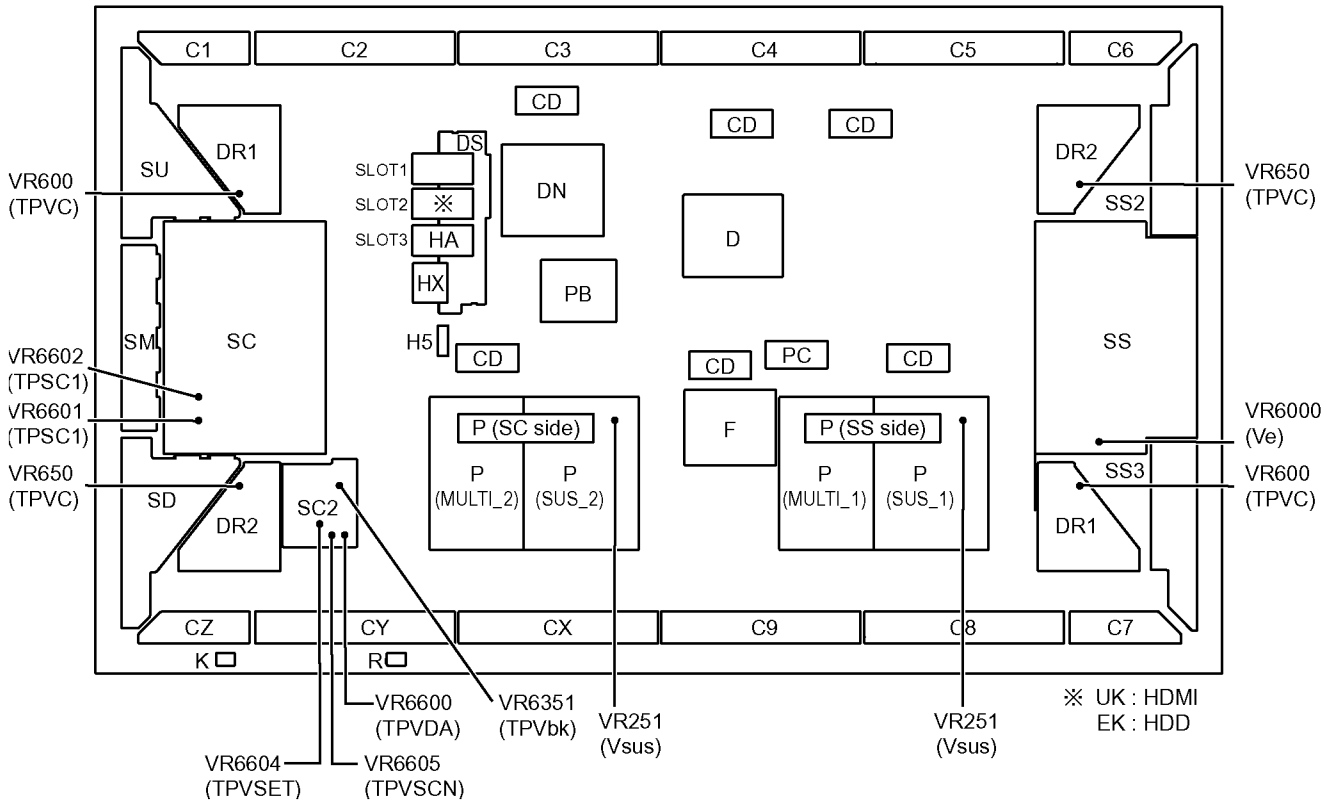
| P.C.B. | Name | Test Point | Voltage | Volume | Remarks |
|---|---|---|---|---|---|
| P Board (SUS) | Vsus | TPVSUS (SS) | Vsus ± 0.5V | VR251 (P_SS side) | * |
| | Vsus | TPVSUS (SC) | Vsus ± 0.5V | VR251 (P_SC side) | * |
| SC2 Board | Vad | TPVAD (SC2) | -85V ± 1V | VR6600 (SC2) | |
| | Vscn | TPVSCN (SC2) | Vad + 140V ± 4V | VR6605 (SC2) | |
| | Vset | TPVSET (SC2) | 240V ± 1V | VR6604 (SC2) | |
| | Vbk | TPVBK (SC2) | 150V ± 1V | VR6351 (SC2) | |
| SS Board | Ve | TPVE (SS) | Ve ± 1V | VR6000 (SS) | * |
| DR1 Board | Vc | TPVC (DR1) | 45 ± 0.5V | VR600 (SC side) | |
| | | | 34.5 ± 0.5V | VR600 (SS side) | |
| DR2 Board | Vc | TPVC (DR2) | 45 ± 0.5V | VR650 (SC side) | |
| | | | 34.5 ± 0.5V | VR650 (SS side) | |
| D, DS Board | White balance and Sub brightness for NTSC, PAL, HD, PC and 625i signals | | | | |
| DN Board | Set Market Select Number to correct destination by Ms mode (See chap. 6.1.4) | | | | |

*See the Panel label.

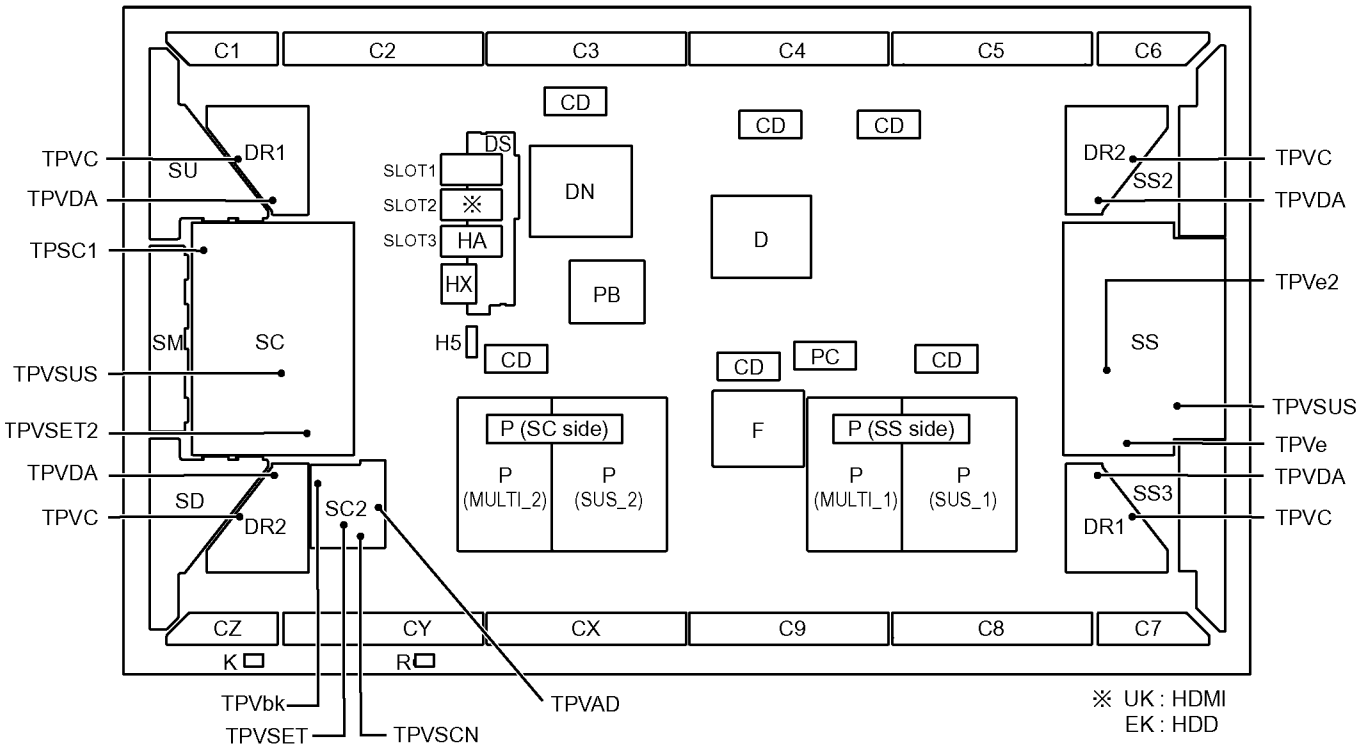
**Caution:**

Absolutely do not reduce Vsus voltage below Ve not to damage the P.C.B.

## 8.1.4. Adjustment Volume Location




## 8.1.5. Test Point Location



# 8.2. Adjustment

## 8.2.1. RGB white balance adjustment

| Instrument Name | Connection | Remarks |
|---|---|---|
| • RGB VGA W / B pattern<br>• Color analyzer<br>(Minolta CA-100 or equivalent) | PC input<br><br>Panel surface | User setting: Normal<br><br>(Picture menu: Standard) |

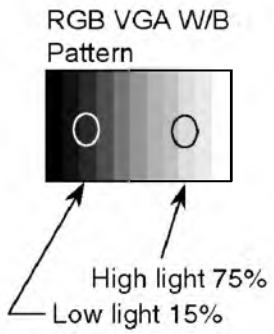
| Procedure | Remarks |
|---|---|
| • Ensure aging is adequate.<br>• Make sure the front panel to be used on the final set is fitted.<br>• Make sure a color signal is not being shown before adjustment.<br>• Put the color analyzer where there is little color variation. | Picture Menu: Standard<br><br>Picture: 25<br><br>Aspect: Full<br><br>Position and size: Normal |
| 1. Set COMPONET / RGB-IN SELECT to RGB.<br>2. Select the IIC mode “PANEL W / B Adj.” item.<br>3. Check that the color temperature is “COOL (High)”.<br>4. Output a white balance pattern.<br>5. Touch the signal receiver of color analyzer to the highlight window’s center.<br>6. Fix G drive at E0h and adjust B drive and R drive so x, y become the “Color temperature High” in the below table.<br>7. Increase R / G / B together so the maximum drive value in R / G / B becomes FCh.<br>8. Set color temperature to “NORMAL (Medium)”.<br>9. Fix G drive at E0h and adjust B drive and R drive so the highlight window’s x, y becomes the “Color temperature Medium” in the below table.<br>10. Increase R / G / B together so the maximum drive value in R / G / B becomes FCh.<br>11. Set color temperature to “WARM (Low)”.<br>12. Set G drive to E0h and adjust B drive and R drive so the highlight window’s x, y become the “Color temperature Low” shown in the below table.<br>13. Increase R / G / B together so the maximum drive value in R / G / B becomes FCh.<br>14. Copy the R drive, G drive and B drive data in NTSC, PAL DVI region. | • Highlight section Signal amplitude 75%<br><br><br><br><br>• Cutoff standard G: 80h<br><br>• Drive standard G: E0h |

Table 1 W/B adjustment values

| Color temperature | x | y |
|---|---|---|
| High | 0.276 | 0.276 |
| Medium | 0.288 | 0.296 |
| Low | 0.313 | 0.329 |

Adjustment target
Hi-light: x ± 0.003 y ± 0.003
Hi-light is target of the number at drive adjustment in the hi-light windows.
Therefore, it is not target of the hi-light number at after adjustment white balance.

Table 2 Drive data addresses (PC/RGB)

| Color temperature | R | G | B |
|---|---|---|---|
| High | A0-11AD | A0-11AE | A0-11AF |
| Medium | A0-11B0 | A0-11B1 | A0-11B2 |
| Low | A0-11B3 | A0-11B4 | A0-11B5 |

Table 3 Drive data addresses (NTSC)

| Color temperature | R | G | B |
|---|---|---|---|
| High | A0-1180 | A0-1181 | A0-1182 |
| Medium | A0-1183 | A0-1184 | A0-1185 |
| Low | A0-1186 | A0-1187 | A0-1188 |

Table 4 Drive data addresses (PAL)

| Color temperature | R | G | B |
|---|---|---|---|
| High | A0-1189 | A0-118A | A0-118B |
| Medium | A0-118C | A0-118D | A0-118E |
| Low | A0-118F | A0-1190 | A0-1191 |

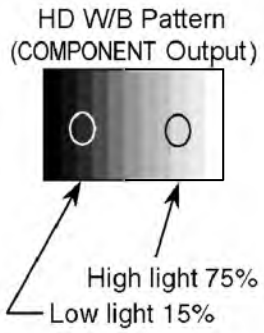
Table 5 Drive data addresses (DVI)

| Color temperature | R | G | B |
|---|---|---|---|
| High | A0-11B6 | A0-11B7 | A0-11B8 |
| Medium | A0-11B9 | A0-11BA | A0-11BB |
| Low | A0-11BC | A0-11BD | A0-11BE |

## 8.2.2. HD white balance adjustment

| Instrument Name | Connection | Remarks |
|---|---|---|
| • HD W / B pattern (COMPONENT Output)<br>• Color analyzer<br>(Minolta CA-100 or equivalent) | PC input<br><br>Panel surface | User setting: Normal<br><br>(Picture menu: Standard) |

| Procedure | Remarks |
|---|---|
| • Ensure aging is adequate.<br>• Make sure the front panel to be used on the final set is fitted.<br>• Make sure a color signal is not being shown before adjustment.<br>• Put the color analyzer where there is little color variation. | Picture Menu: Standard<br><br>Picture: 25<br><br>Aspect: Full<br><br>Position and size: Normal |
| 1. Set COMPONENT / RGB-IN SELECT to COMPONENT<br>2. Select the IIC mode "PANEL W / B Adj." item.<br>3. Check that the color temperature is “COOL (High)”.<br>4. Output a white balance pattern.<br>5. Touch the signal receiver of color analyzer to the highlight window’s center.<br>6. Fix G drive at E0h and adjust B drive and R drive so x, y become the "Color temperature High" in the below table.<br>7. Increase R / G / B together so the maximum drive value in R / G / B becomes FCh.<br>8. Set color temperature to “NORMAL (Medium)”.<br>9. Fix G drive at E0h and adjust B drive and R drive so the highlight window's x, y becomes the "Color temperature Medium" in the below table.<br>10. Increase R / G / B together so the maximum drive value in R / G / B becomes FCh.<br>11. Set color temperature to "WARM (Low)".<br>12. Set G drive to E0h and adjust B drive and R drive so the highlight window's x, y become the “Color temperature Low” shown in the below table.<br>13. Increase R / G / B together so the maximum drive value in R / G / B becomes FCh.<br>14. Copy the R drive, G drive and B drive data in YUV1_525ip, YUV3_625ip region. | • Highlight section Signal amplitude 75% |
| Table 6 W/B adjustment values | |
| Adjustment target<br>Hi-light: x ± 0.003 y ± 0.003<br>Hi-light is target of the number at drive adjustment in the hi-light windows.<br>Therefore, it is not target of the hi-light number at after adjustment white balance. | • Cutoff standard G: 80h<br><br>• Drive standard G: E0h |




| Color temperature | x | y |
|---|---|---|
| High | 0.276 | 0.276 |
| Medium | 0.288 | 0.296 |
| Low | 0.313 | 0.329 |

Table 7 Drive data addresses (YUV2_HD)

| Color temperature | R | G | B |
|---|---|---|---|
| High | A0-119B | A0-119C | A0-119D |
| Medium | A0-119E | A0-119F | A0-11A0 |
| Low | A0-11A1 | A0-11A2 | A0-11A3 |

Table 8 Drive data addresses (YUV1_525ip)

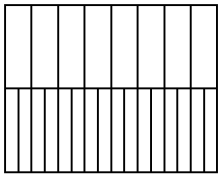
| Color temperature | R | G | B |
|---|---|---|---|
| High | A0-1192 | A0-1193 | A0-1194 |
| Medium | A0-1195 | A0-1196 | A0-1197 |
| Low | A0-1198 | A0-1199 | A0-119A |

Table 9 Drive data addresses (YUV3_625ip)

| Color temperature | R | G | B |
|---|---|---|---|
| High | A0-11A4 | A0-11A5 | A0-11A6 |
| Medium | A0-11A7 | A0-11A8 | A0-11A9 |
| Low | A0-11AA | A0-11AB | A0-11AC |

## 8.2.3. Power control adjustment

| Instrument Name | Connection | Remarks |
|---|---|---|
| • PC (RGB) signal generator (Leader: VGA / No.9 signal)<br>• Wattmeter | • PC input<br>• Connect the AC power of the adjustment set to the wattmeter. | Set "RGB" at 'COMPONENT / RGB-IN SELECT' in Setup Menu. |

| Procedure | Remarks |
|---|---|
| [condition]<br>• Make sure the set is aged for 30 minutes or more before adjustment.<br>• Voltage 240V 50 / 60Hz (variation within 1%)<br>• Volume at minimum and screen size at full<br>• PC input and picture menu at normalized Dynamic<br><br>1. Connect the set's AC power to the wattmeter.<br>2. Receive the VGA No.9 signal from Leader.<br>3. Select the PWRCTL item in Panel APL / ABL in the IIC mode.<br>4. Adjust PWRCTL so the set's power consumption is description below.<br>Adjust to shift large to small for DAC.<br><br>Factory adjustment with OSD<br><br>1350+10W / -30W<br><br>BUSCON without OSD<br><br>1350+10W / -30W | <br><br>No.9 Signal<br><br>Top half: Full color bar<br><br>Bottom half: Horizontal 16 steps bar<br><br>**Notes:**<br>1. When passing through factory adjustment mode, the power few watts which goes down is the consideration being completed.<br>2. Adjust the large number for DAC when they have 2 adjustment points. |

# 9 Block Diagram

## 9.1. DiagramNote

**Important Safety Notice**

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

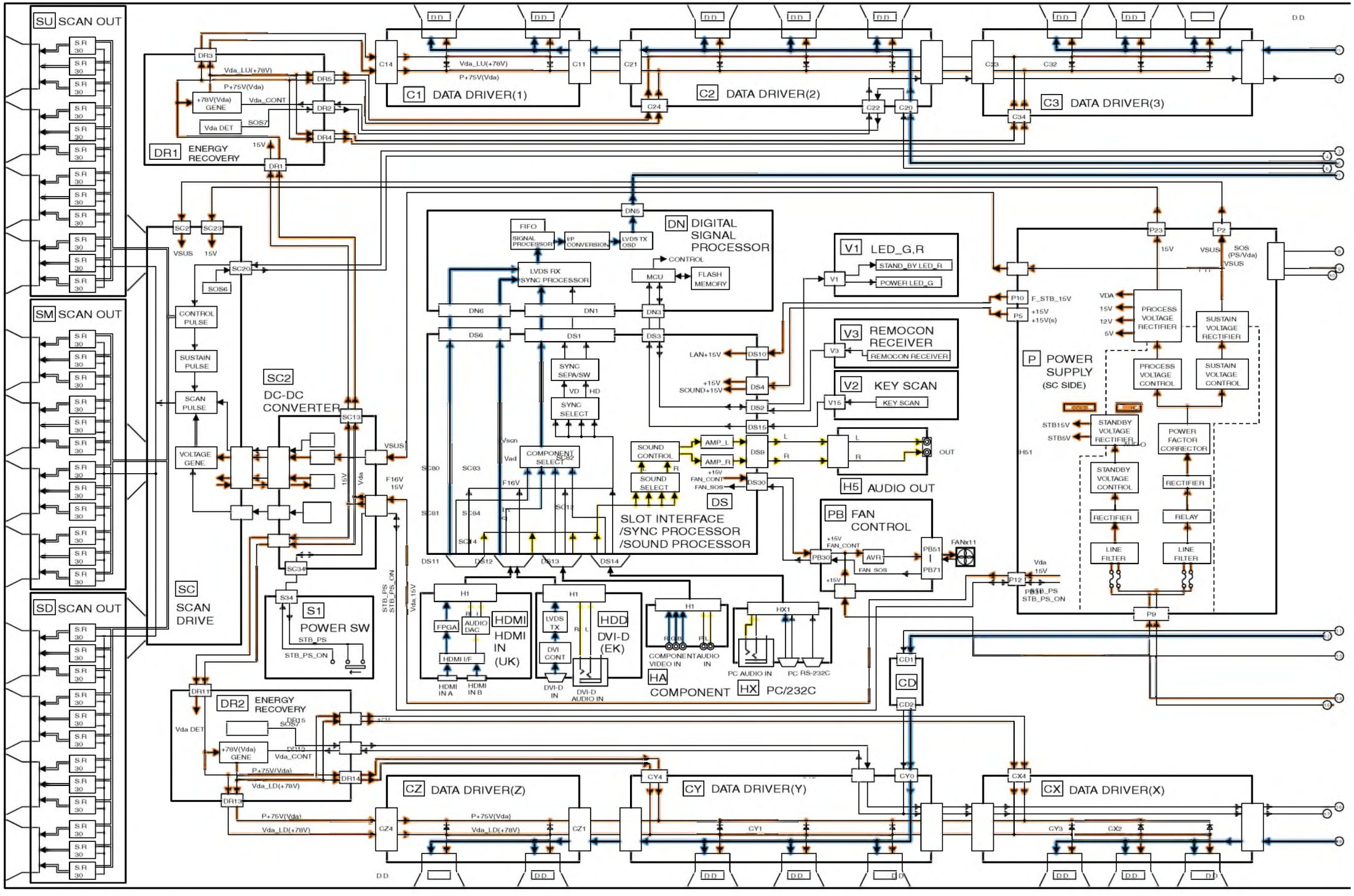
**Notes:**

1. **Resistor**
   Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).
2. **Capacitor**
   Unit of capacitance is μF, unless otherwise noted.
3. Coil
   Unit of inductance is H, unless otherwise noted.
4. Test Point
   ⚲ : Test Point position
5. Earth Symbol
   ⏚ : Chassis Earth (Cold) ⏚ : Line Earth (Hot)
6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   Power Source ..... AC240V, 50/60Hz (UK)
   AC220-240V, 50/60Hz (EK)
   Receiving Signal ..... Colour Bar signal (RF)
   All customer's controls ..... Maximum positions
7. When arrow mark ( ↗ ) is found, connection is easily found from the direction of arrow.
8. Indicates the major signal flow. : Video ➡ Audio ⇨
9. This schematic diagram is the latest at the time of printing and subject to change without notice.

**Remarks:**

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
      Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.

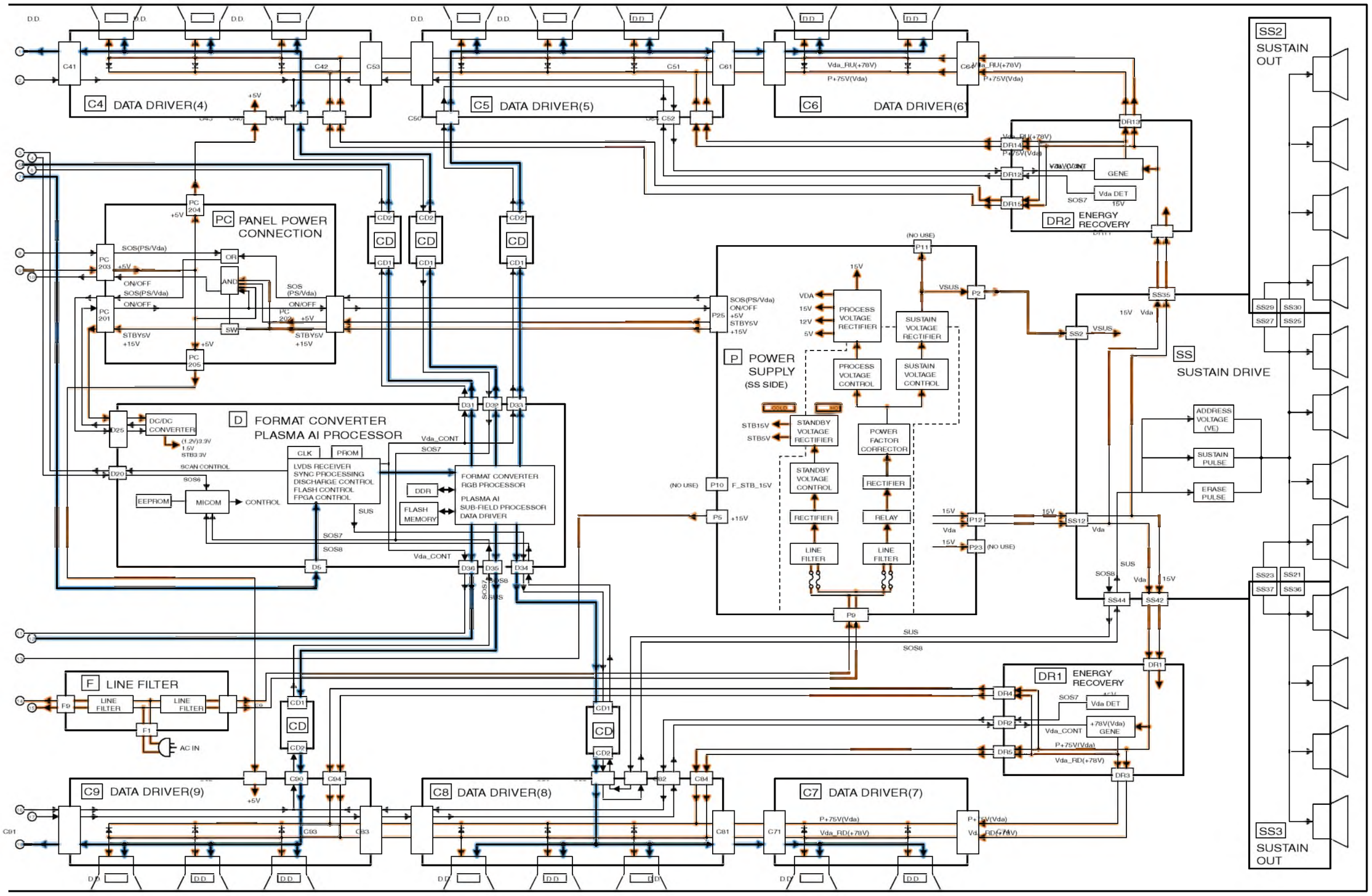
## 9.2. Main (1 of 2) Block Diagram




TH-103PF10UK/EK
Main (1 of 2) Block Diagram

TH-103PF10UK/EK
Main (1 of 2) Block Diagram

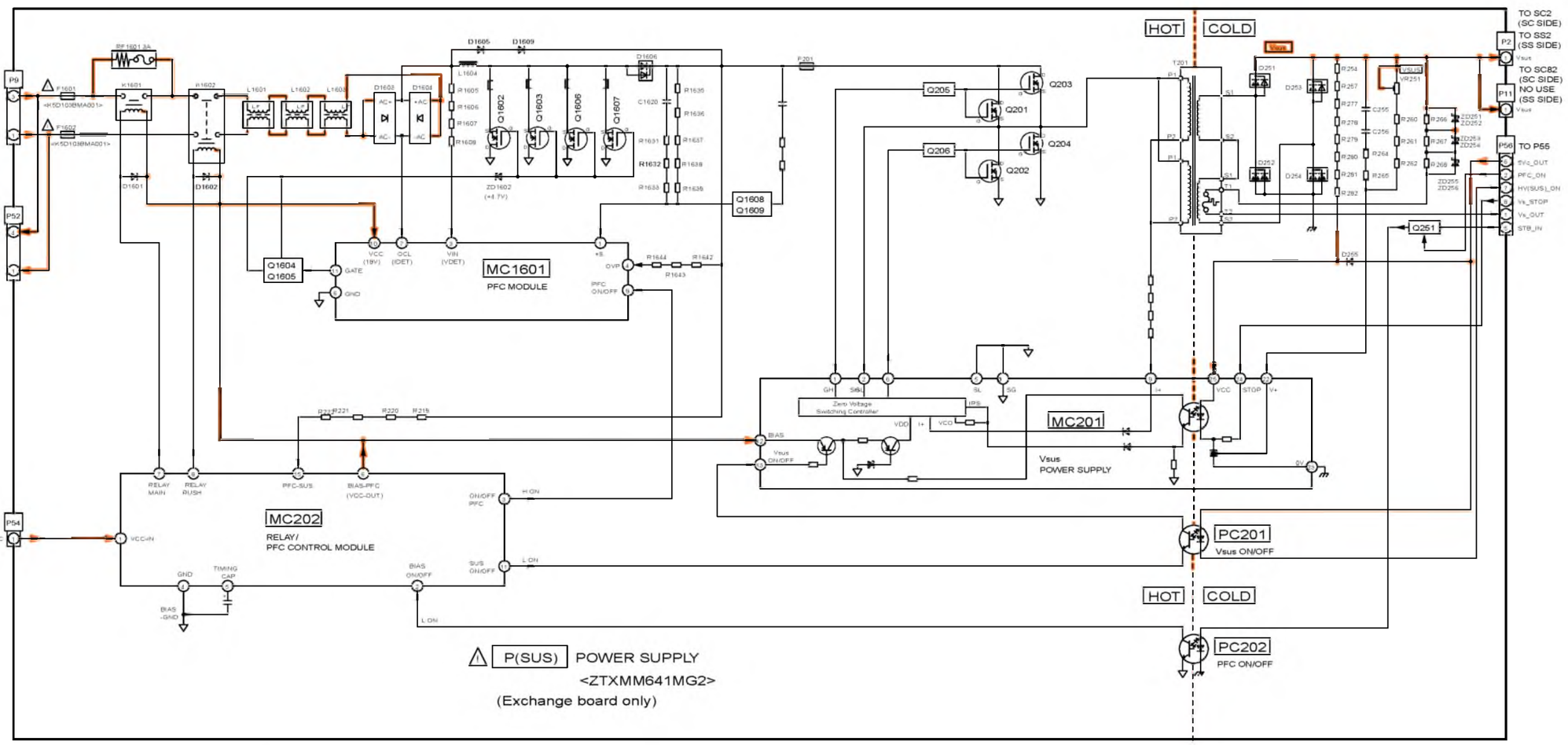
## 9.3. Main (2 of 2) Block Diagram

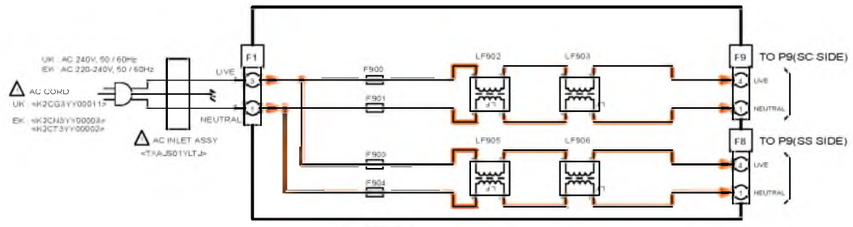



TH-103PF10UK/EK
Main (2 of 2) Block Diagram

TH-103PF10UK/EK
Main (2 of 2) Block Diagram

## 9.4. P-Board (1 of 2) and F-Board Block Diagram

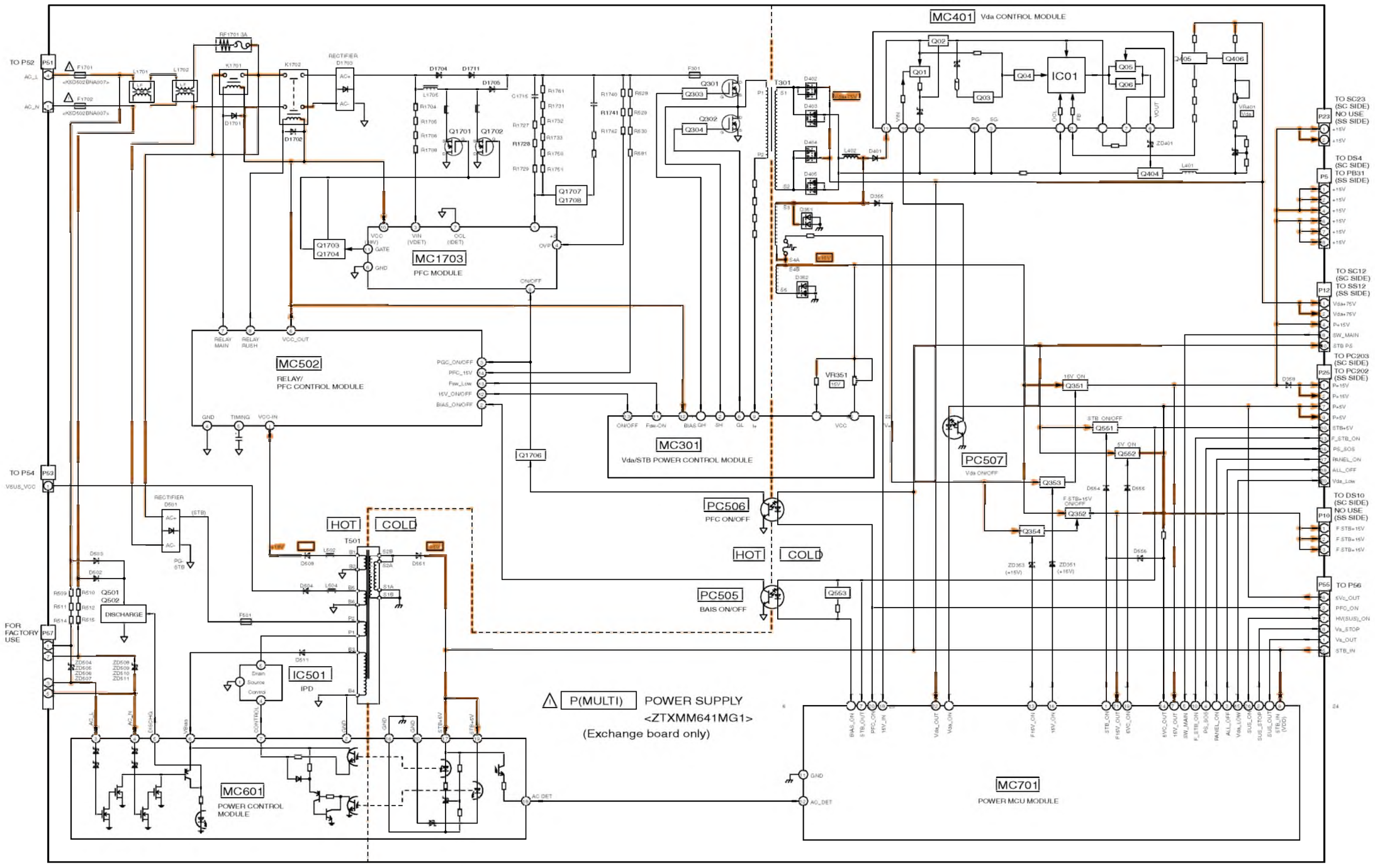





TH-103PF10UK/EK
P-Board (1 of 2) and F-Board Block Diagram

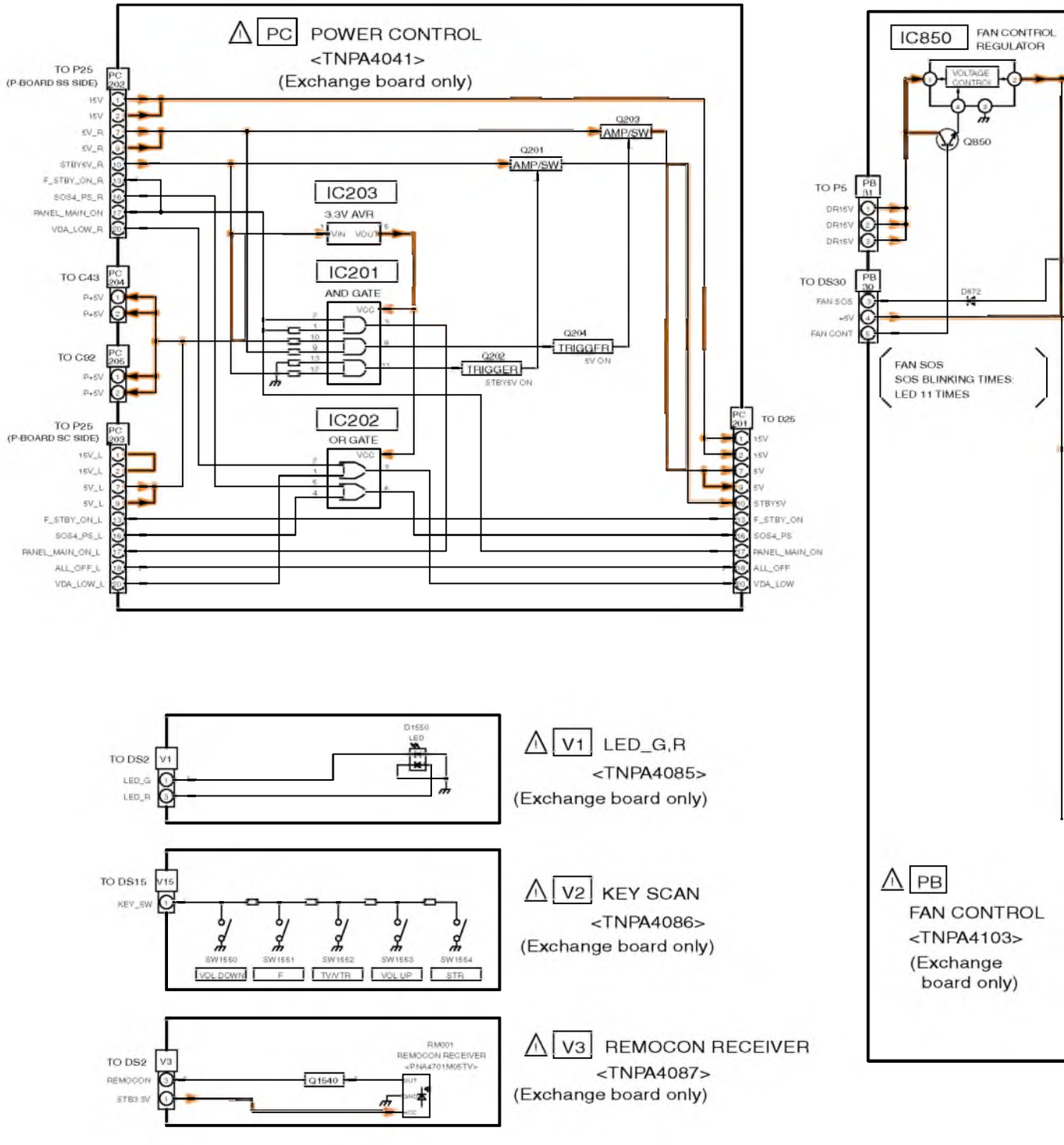
## 9.5. P-Board (2 of 2) Block Diagram

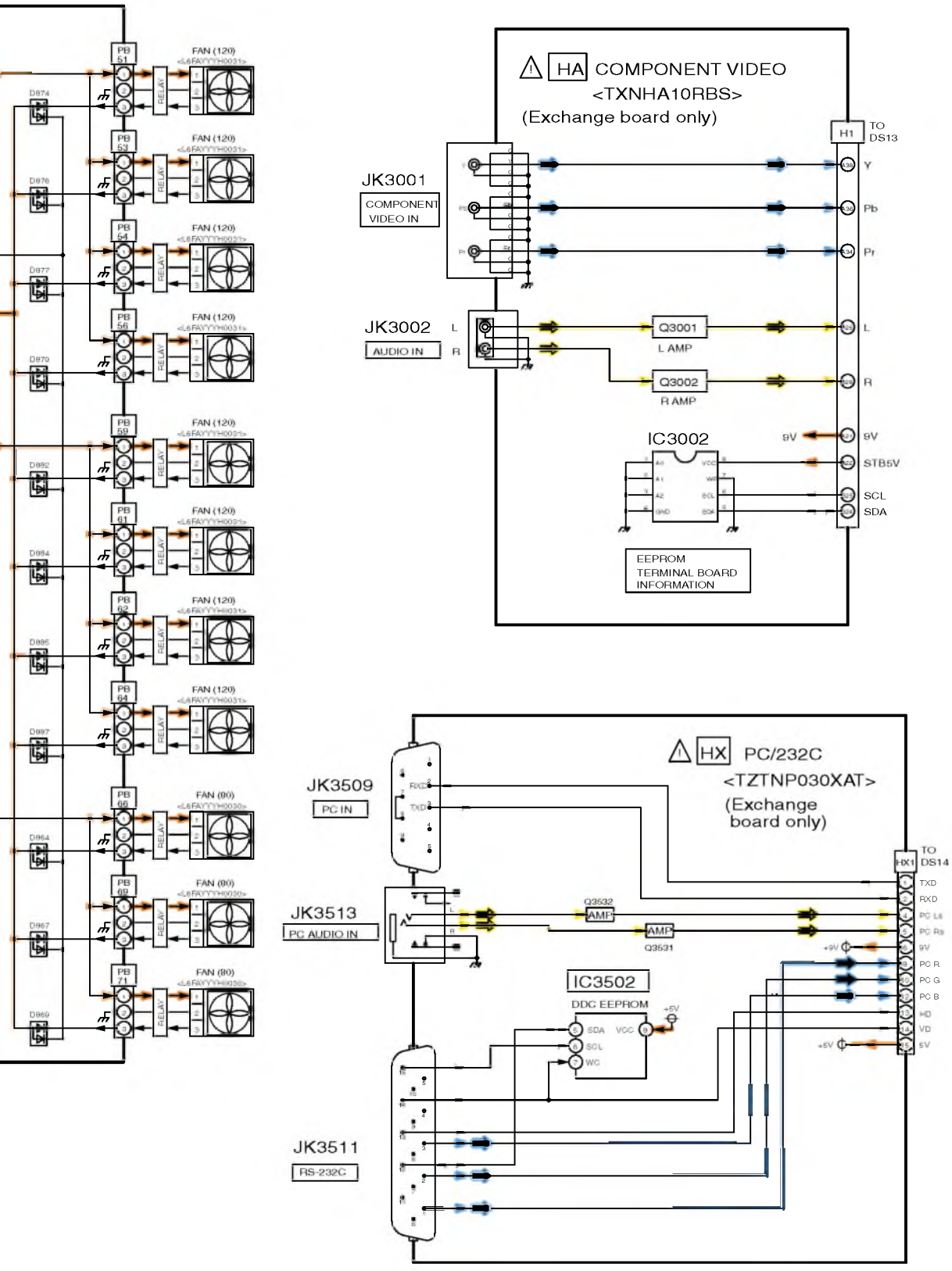





TH-103PF10UK/EK
P-Board (2 of 2) Block Diagram

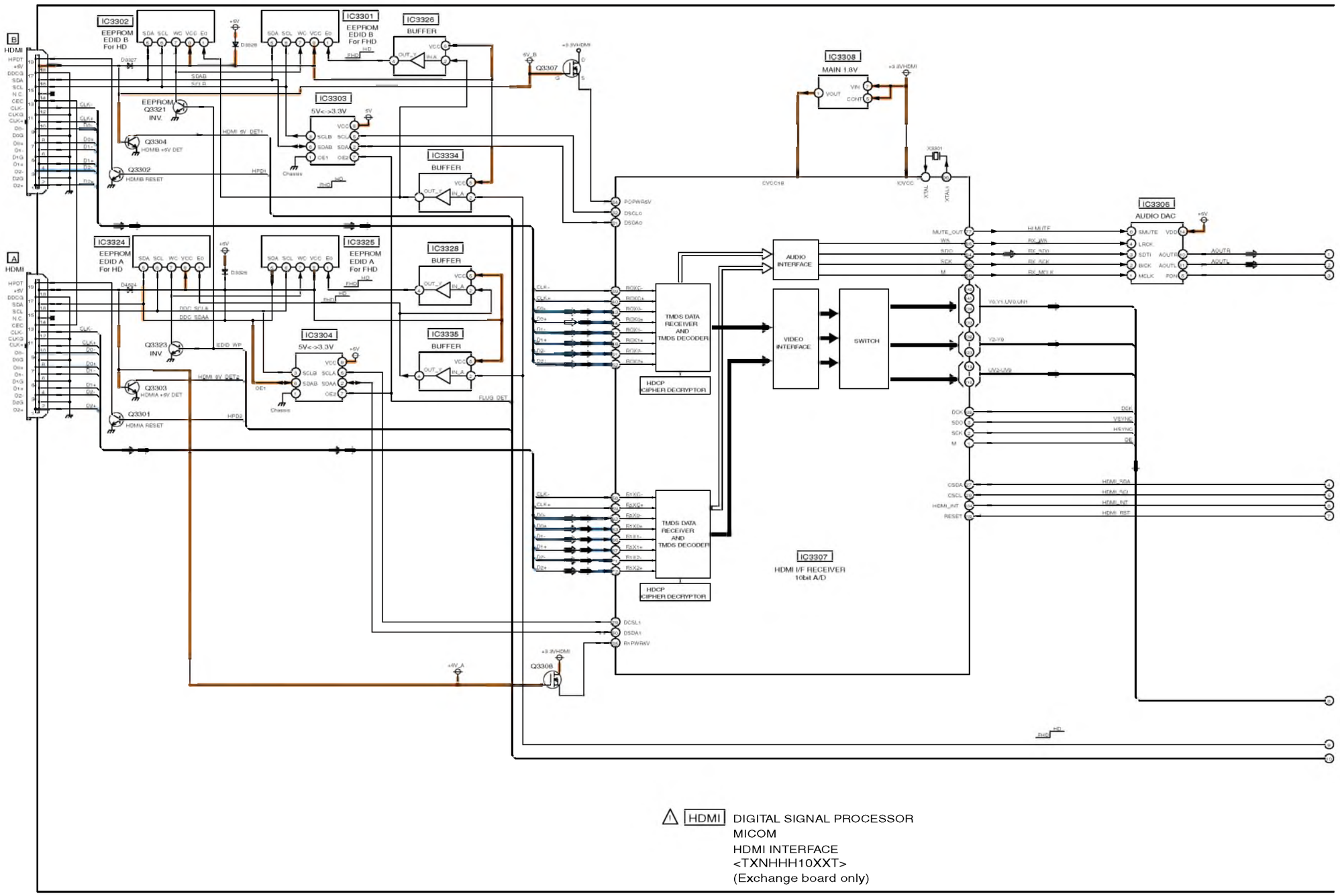
## 9.6. HA, HX, PC, PB, V1, V2 and V3-Board Block Diagram






TH-103PF10UK/EK
HA, HX, PC, PB, V1, V2 and V3 Block Diagram

## 9.7. HDMI-Board (1 of 2) Block Diagram

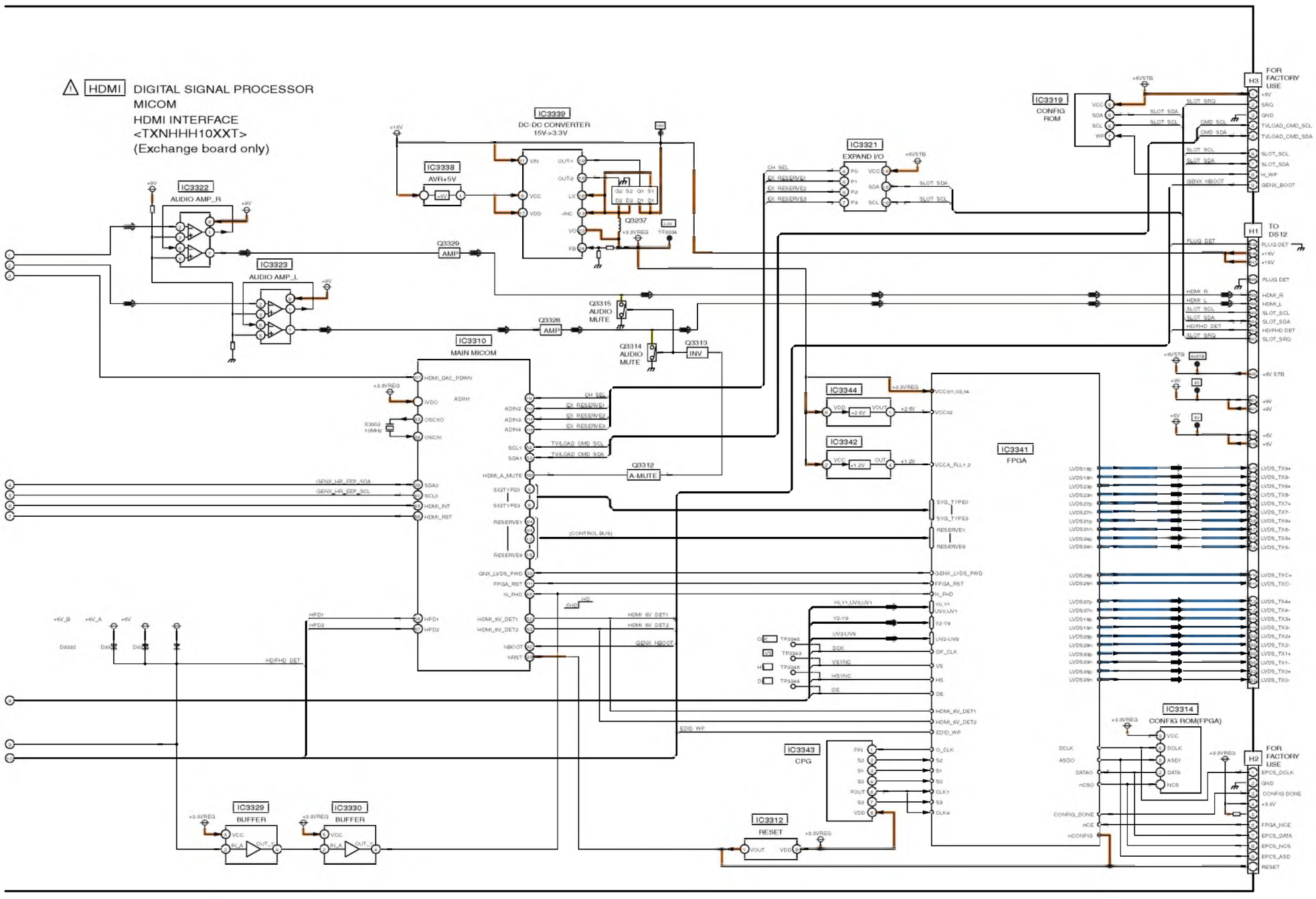



⚠ HDMI DIGITAL SIGNAL PROCESSOR
MICOM
HDMI INTERFACE
<TXNHHH10XXT>
(Exchange board only)



TH-103PF10UK
HDMI-Board (1 of 2) Block Diagram

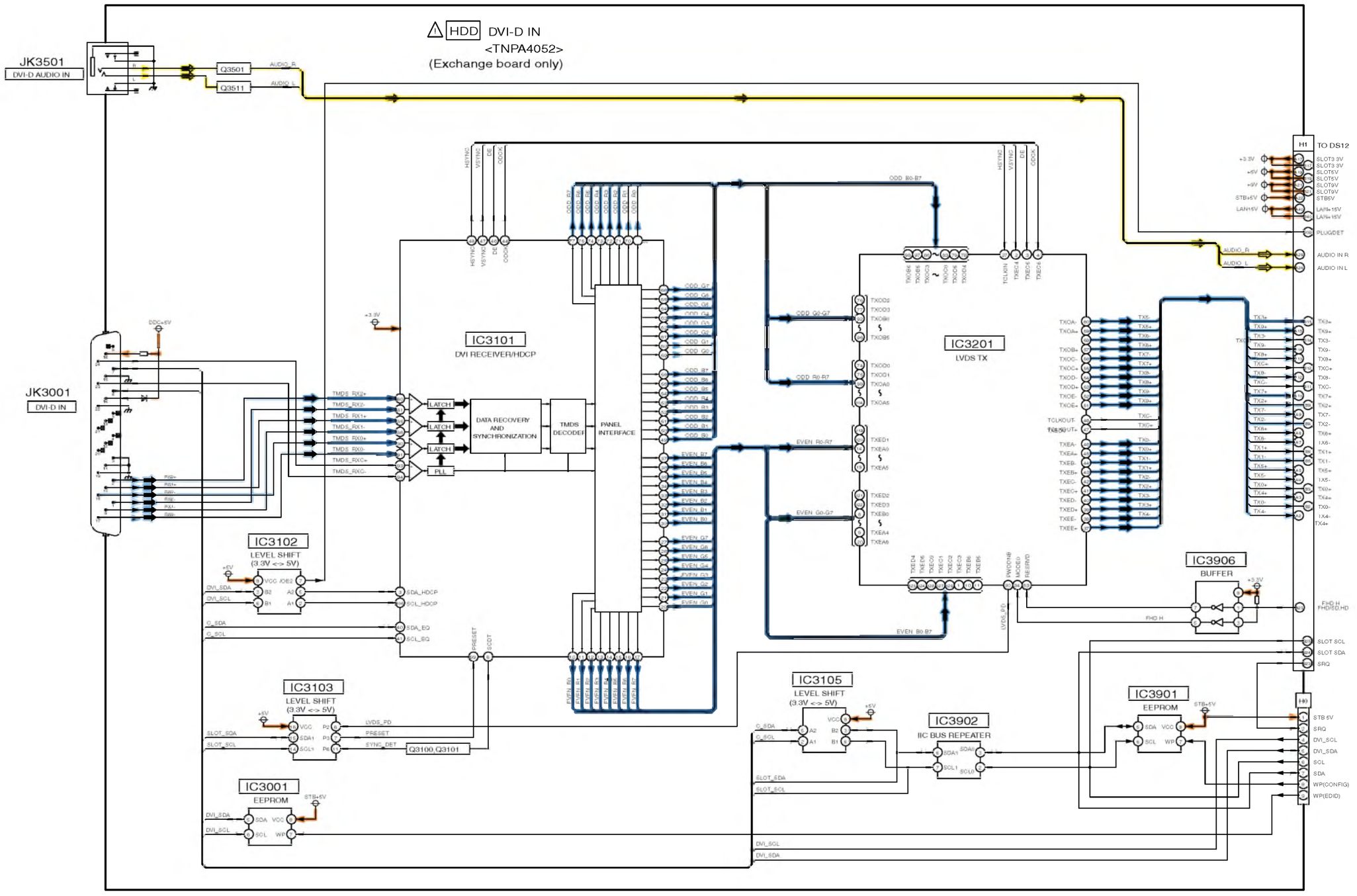
## 9.8. HDMI-Board (2 of 2) Block Diagram




TH-103PF10UK
HDMI-Board (2 of 2) Block Diagram

TH-103PF10UK
HDMI-Board (2 of 2) Block Diagram

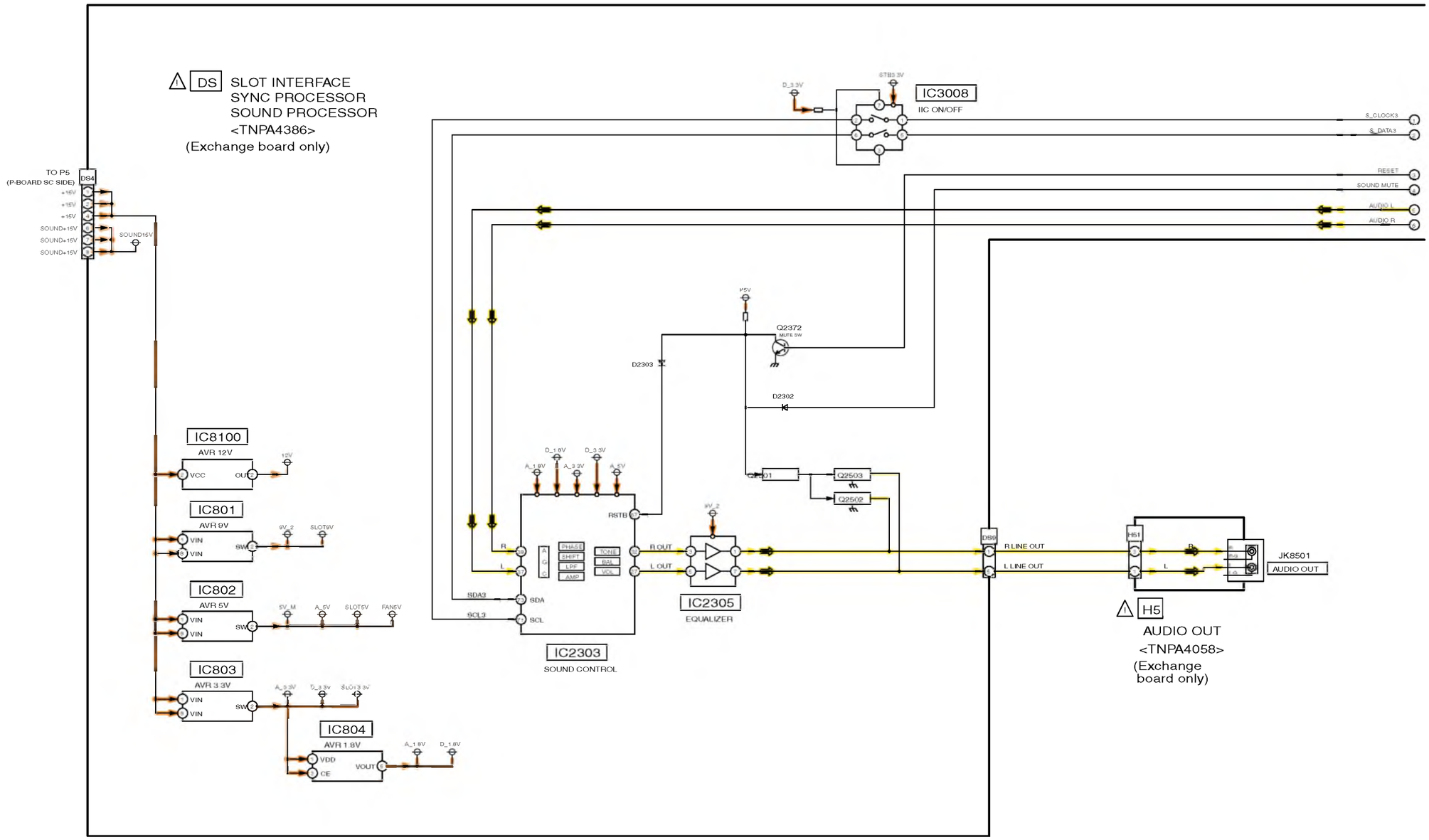
## 9.9. HDD-Board Block Diagram






TH-103PF10EK
HDD-Board Block Diagram

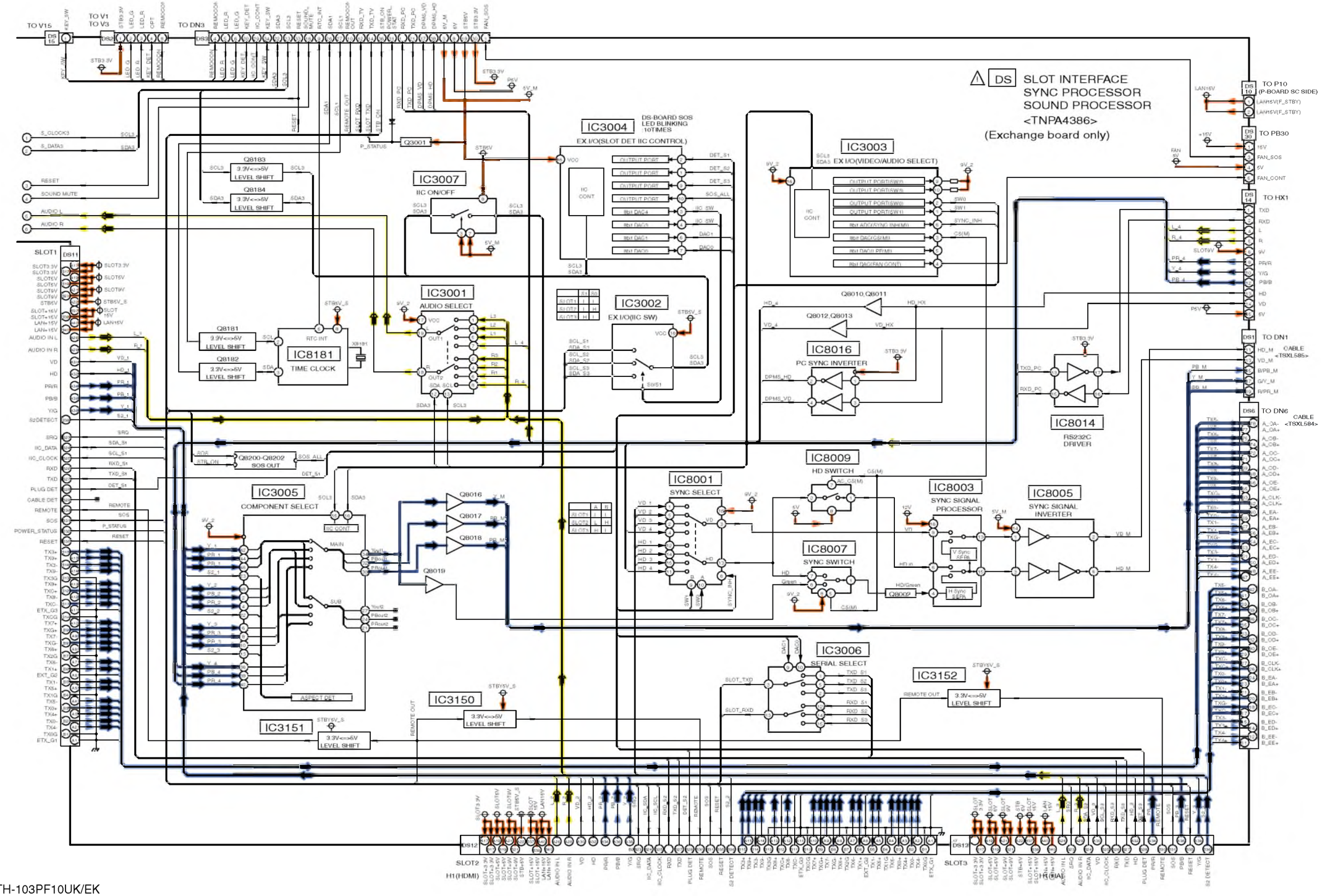
## 9.10. DS-Board (1 of 2) and H3-Board Block Diagram






TH-103PF10UK/EK
DS-Board (1 of 2) Block Diagram

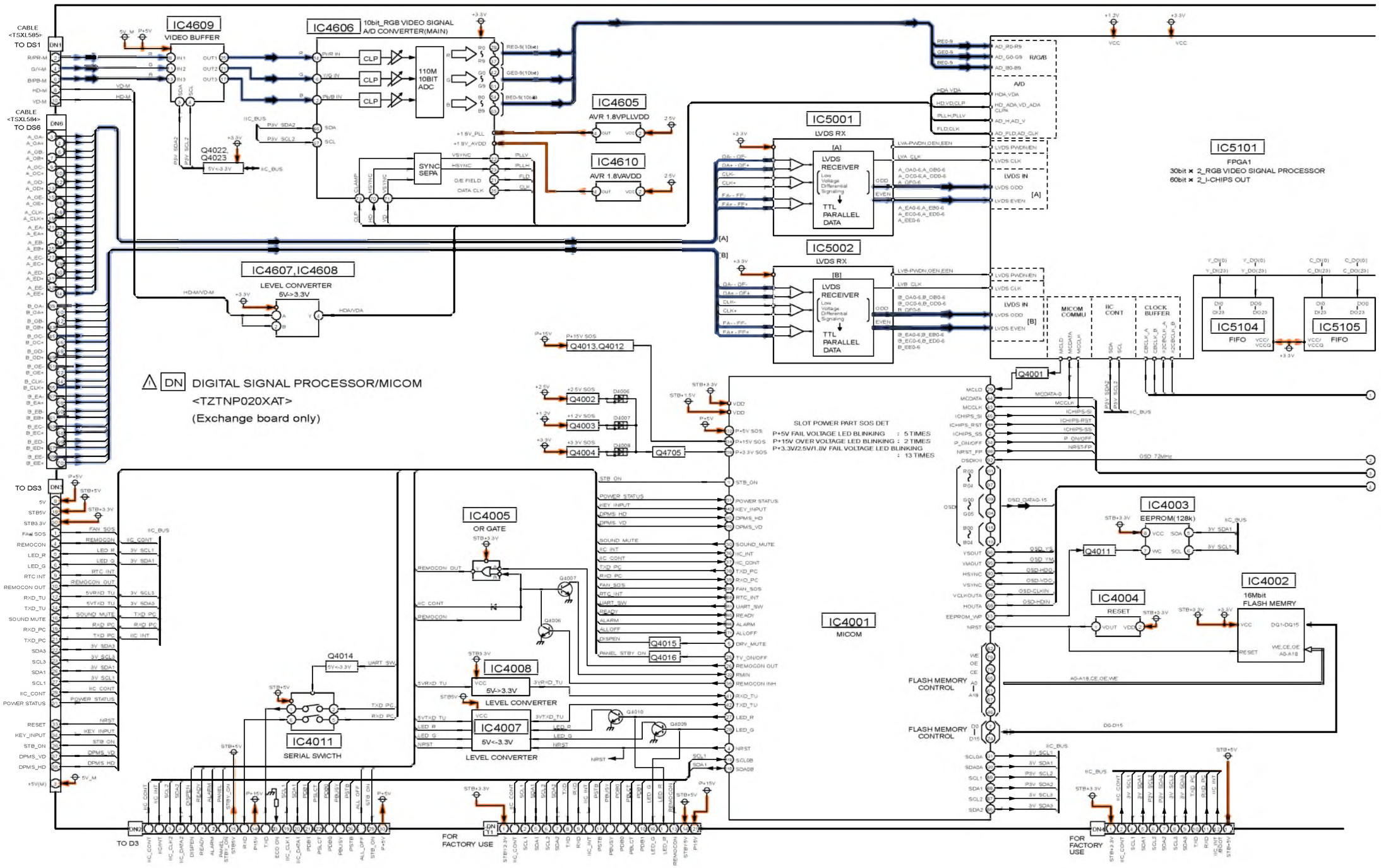
## 9.11. DS-Board (2 of 2) Block Diagram




TH-103PF10UK/EK
DS-Board (2 of 2) Block Diagram

TH-103PF10UK/EK DS-Board (2 of 2) Block Diagram

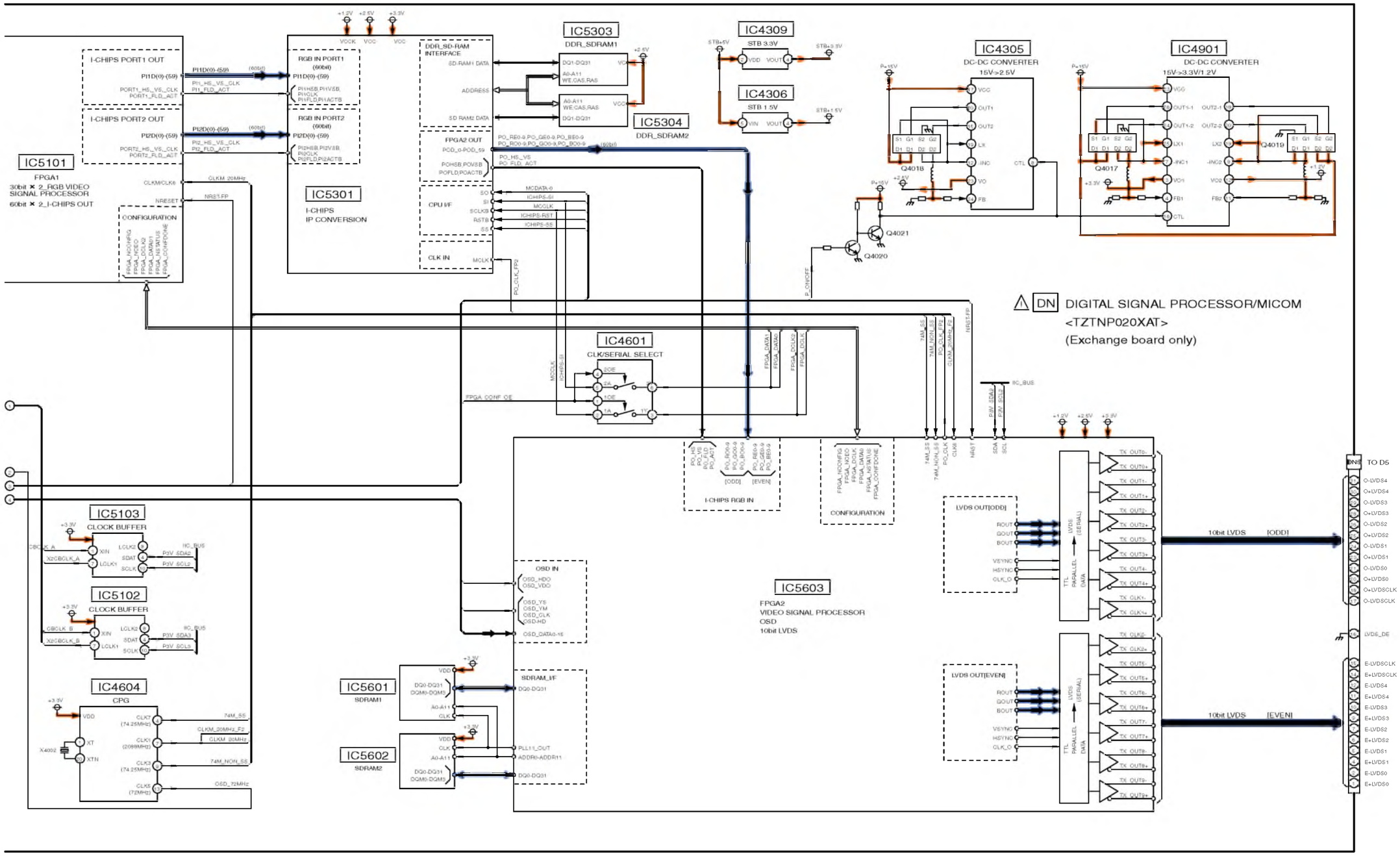
## 9.12. DN-Board (1 of 2) Block Diagram




TH-103PF10UK/EK
DN-Board (1 of 2) Block Diagram

TH-103PF10UK/EK
DN-Board (1 of 2) Block Diagram

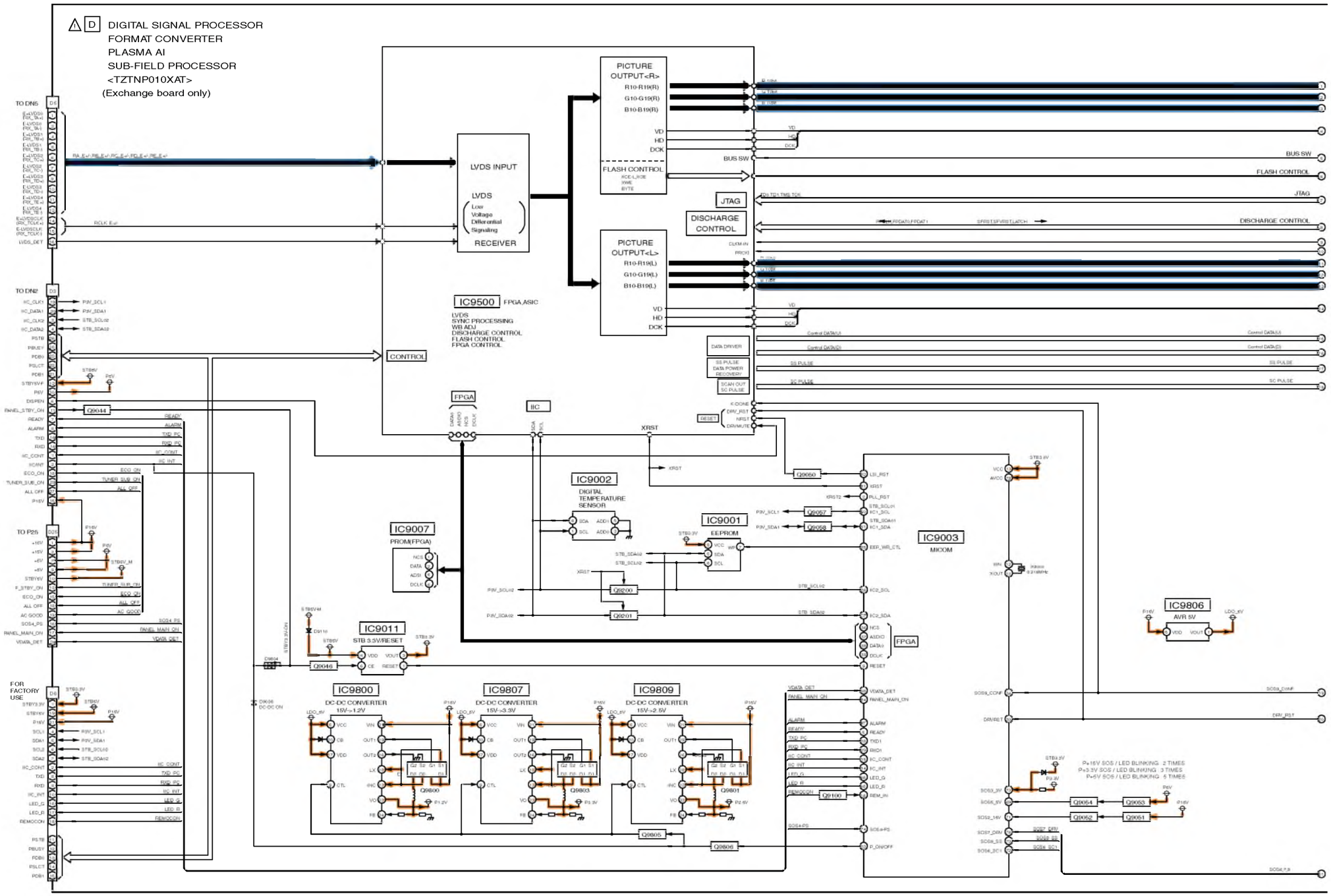
## 9.13. DN-Board (2 of 2) Block Diagram






TH-103PF10UK/EK
DN-Board (2 of 2) Block Diagram

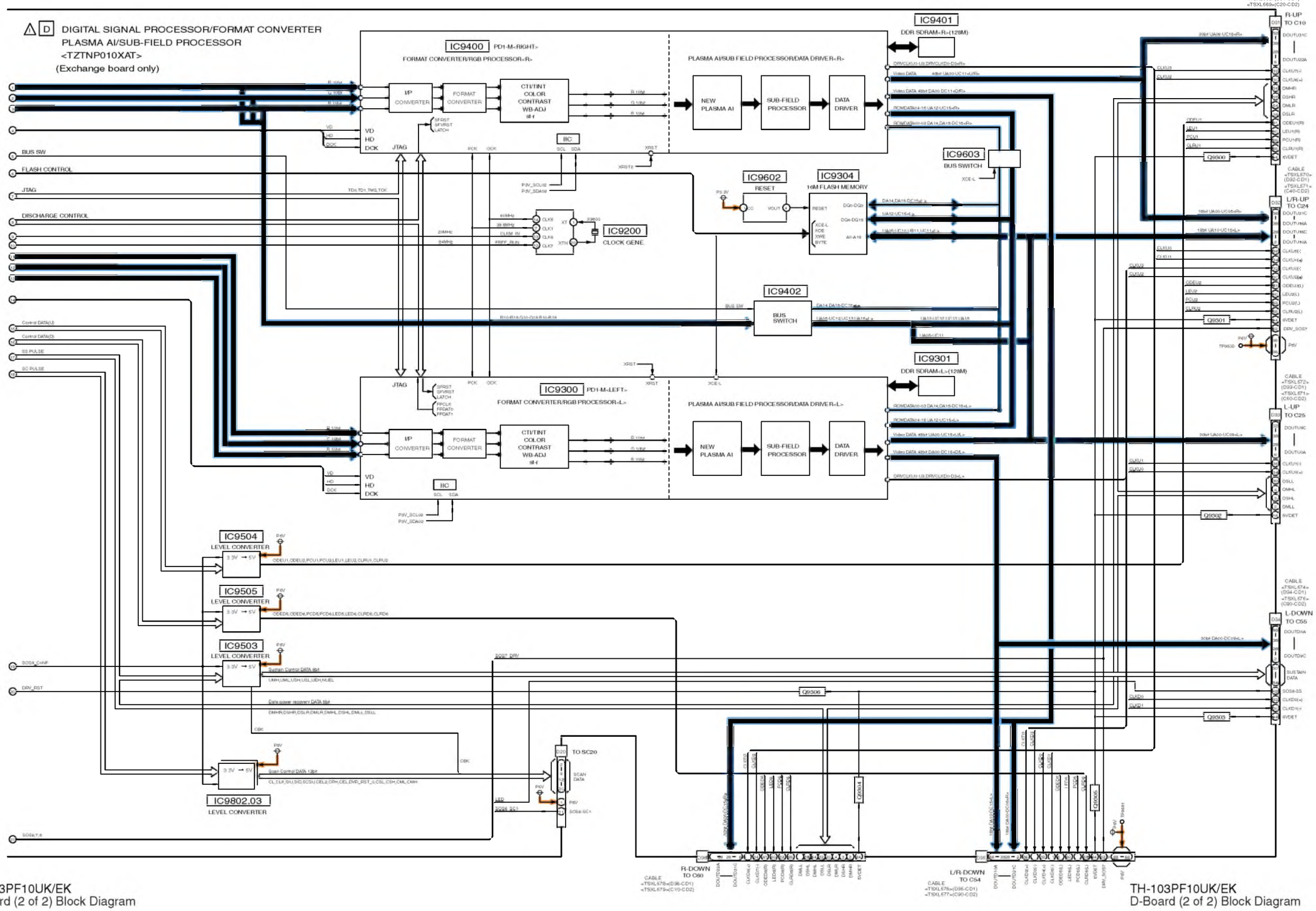
## 9.14. D-Board (1 of 2) Block Diagram




TH-103PF10UK/EK
D-Board (1 of 2) Block Diagram

TH-103PF10UK/EK
D-Board (1 of 2) Block Diagram

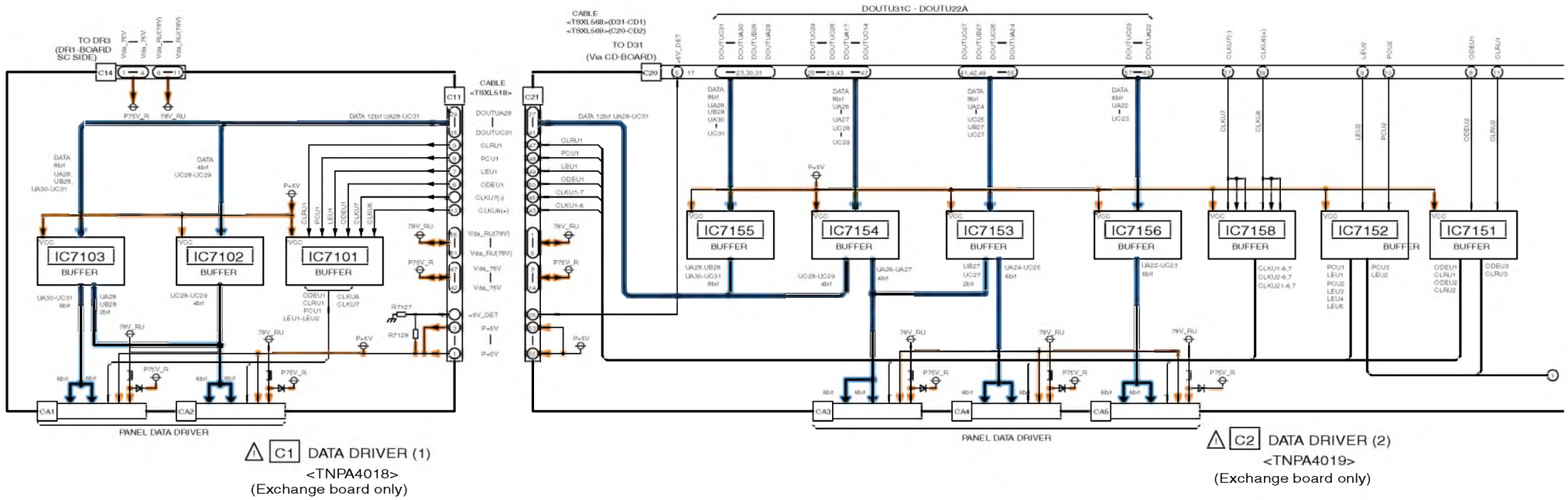
## 9.15. D-Board (2 of 2) Block Diagram

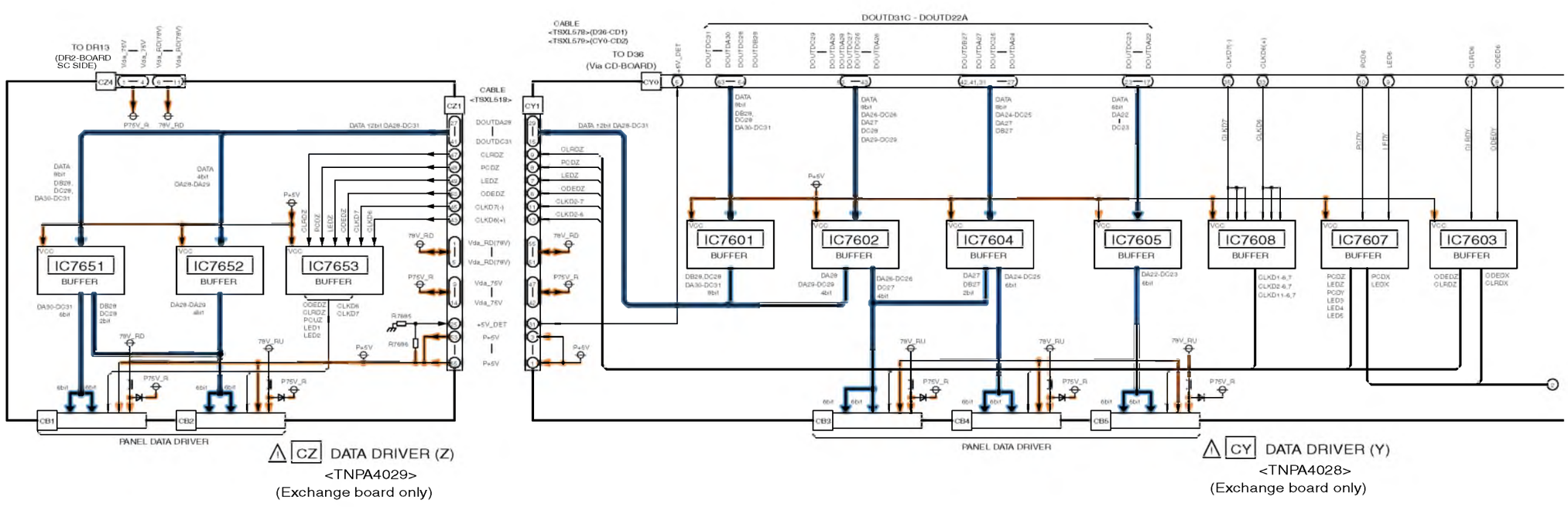





TH-103PF10UK/EK
D-Board (2 of 2) Block Diagram

## 9.16. C1, C2, CY and CZ-Board Block Diagram

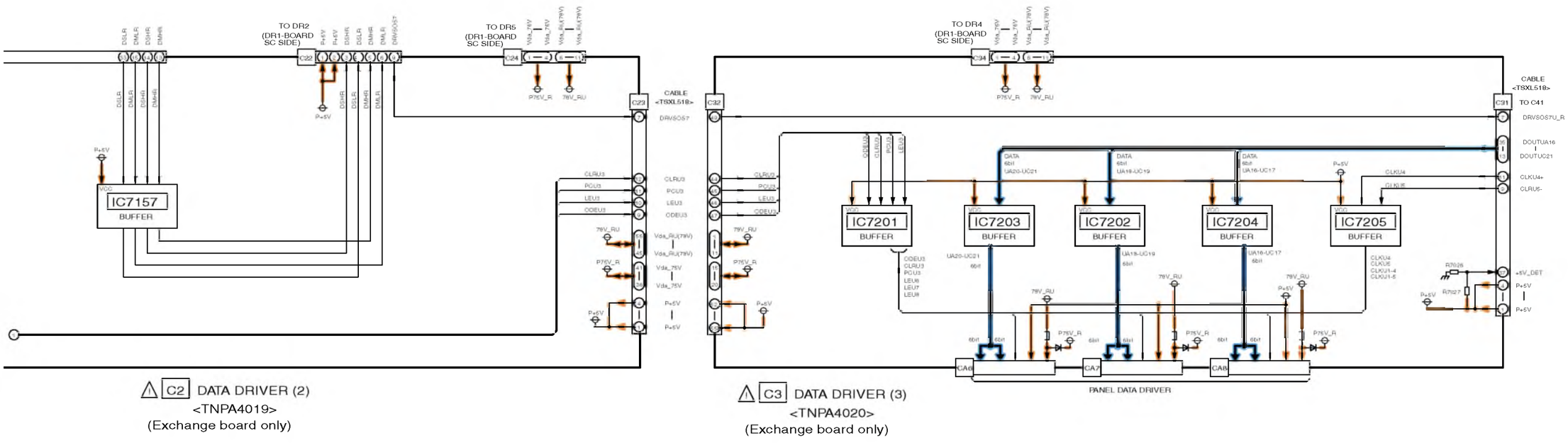




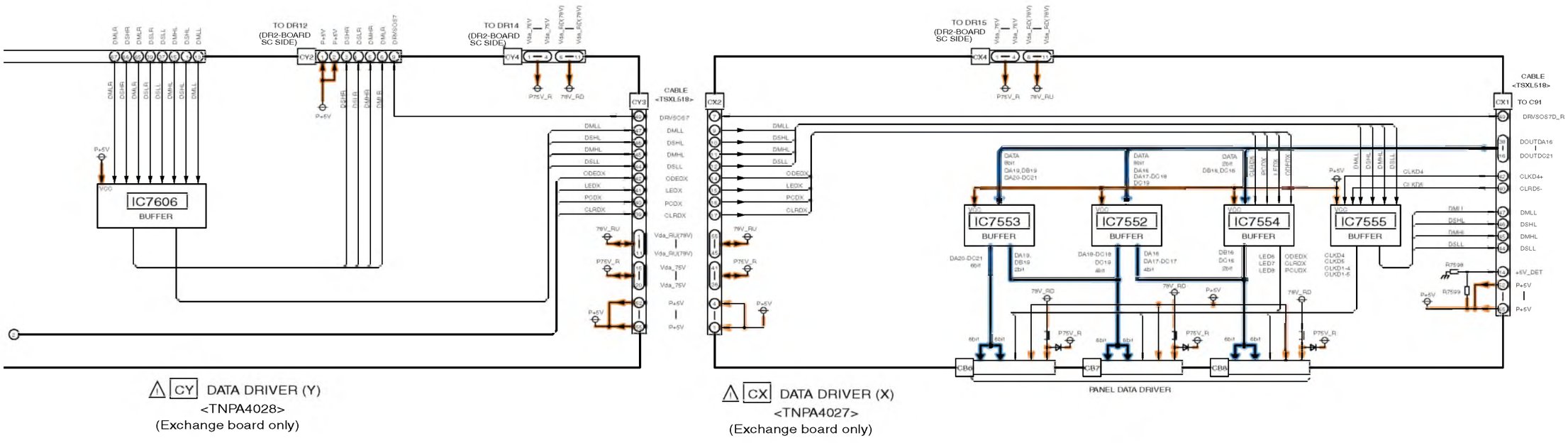

TH-103PF10UK/EK
C1, C2, CY and CZ-Board Block Diagram

## 9.17. C2, C3, CX and CY-Board Block Diagram




⚠ C2 DATA DRIVER (2)
<TNPA4019>
(Exchange board only)

⚠ C3 DATA DRIVER (3)
<TNPA4020>
(Exchange board only)



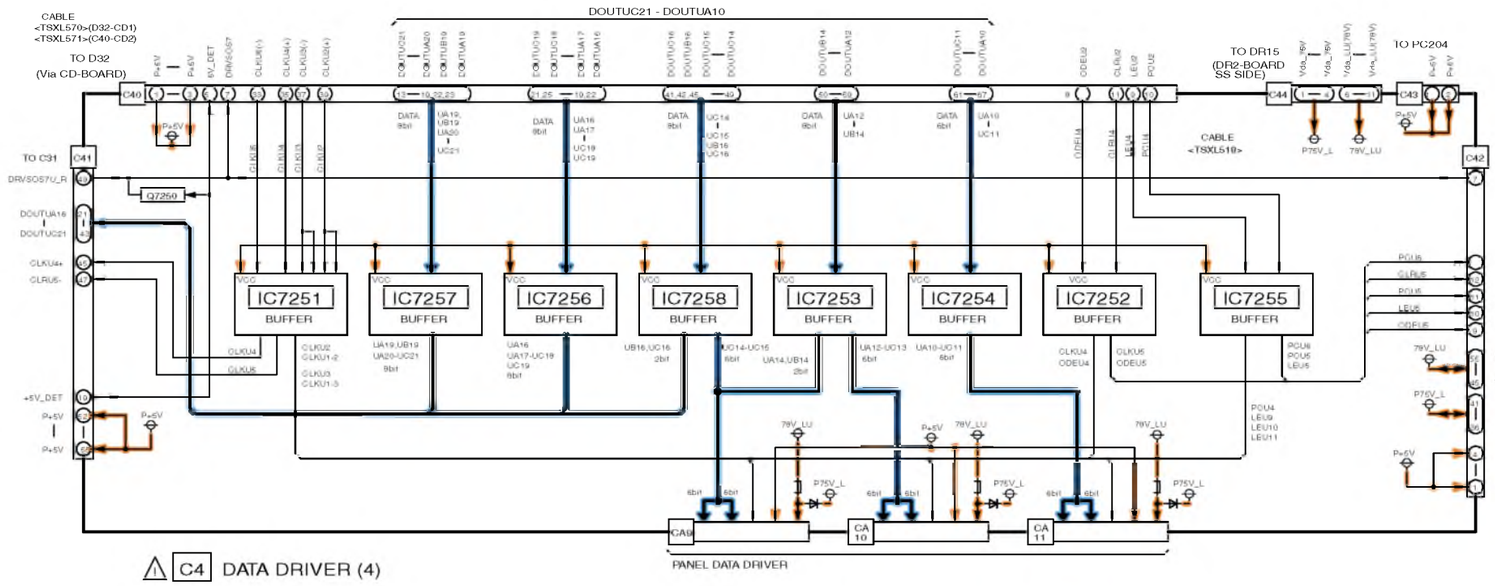

⚠ CY DATA DRIVER (Y)
<TNPA4028>
(Exchange board only)

⚠ CX DATA DRIVER (X)
<TNPA4027>
(Exchange board only)

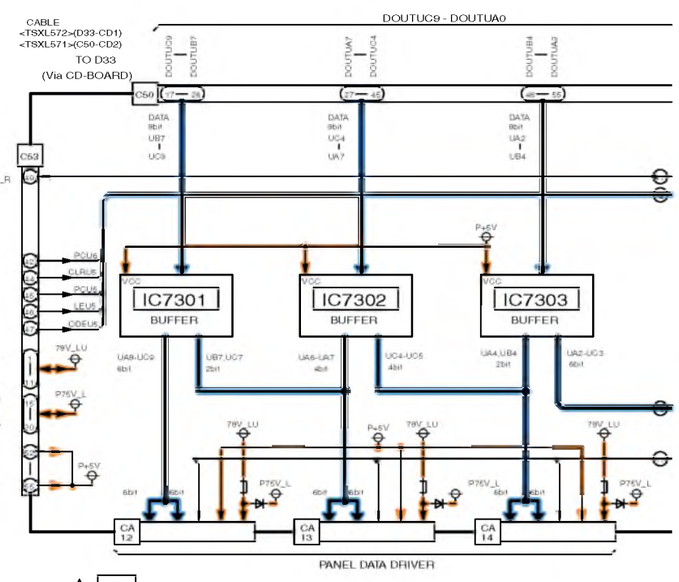


TH-103PF10UK/EK
C2, C3, CX and CY-Board Block Diagram

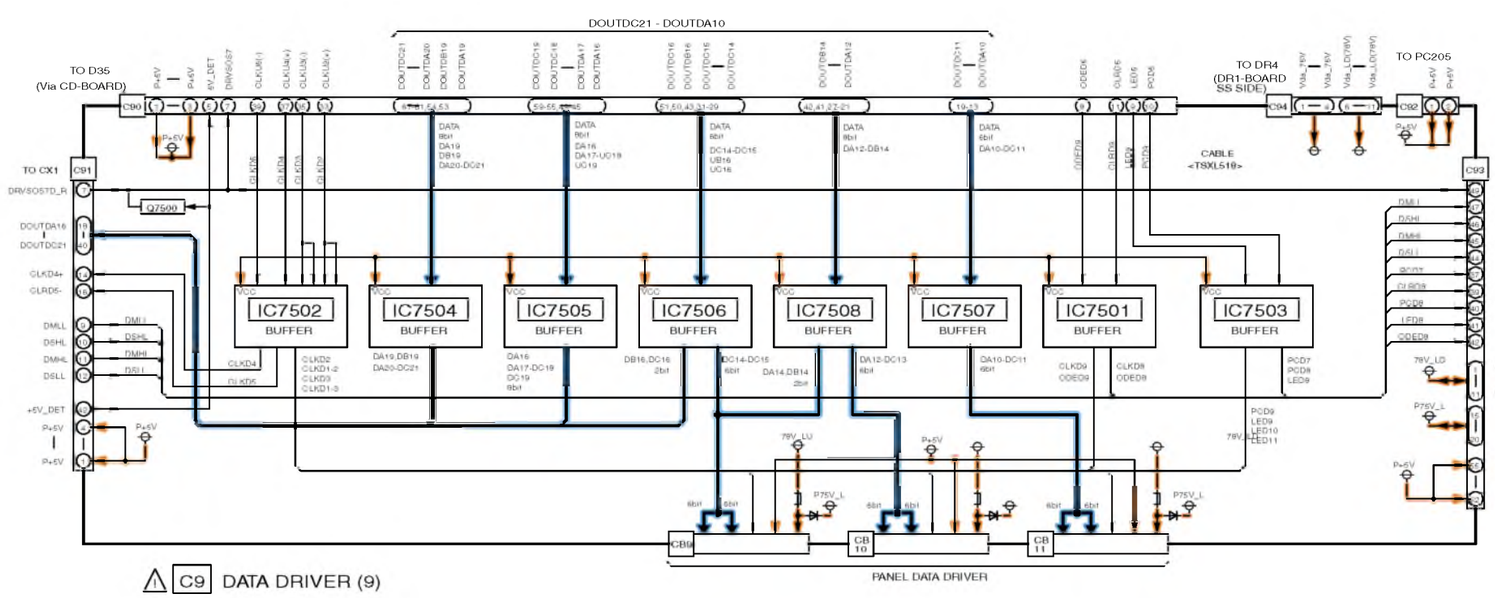
## 9.18. C4, C5, C8 and C9-Board Block Diagram



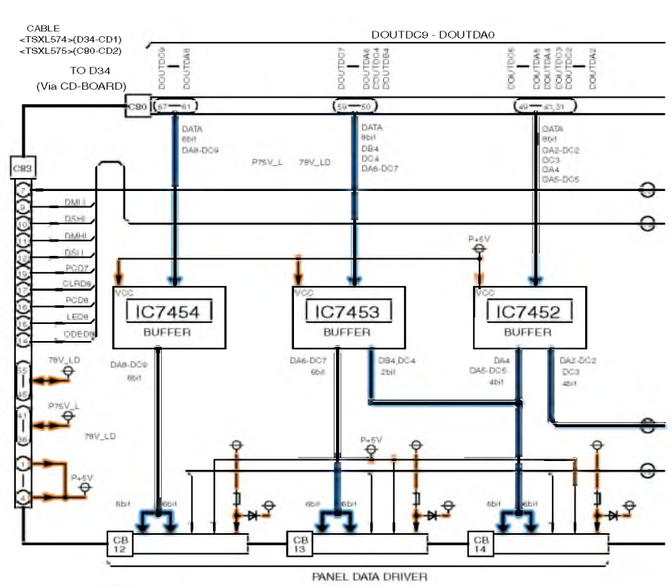

⚠ C4 DATA DRIVER (4)
<TNPA4021>
(Exchange board only)




⚠ C5 DATA DRIVER (5)
<TNPA4022>
(Exchange board only)




⚠ C9 DATA DRIVER (9)
<TNPA4026>
(Exchange board only)

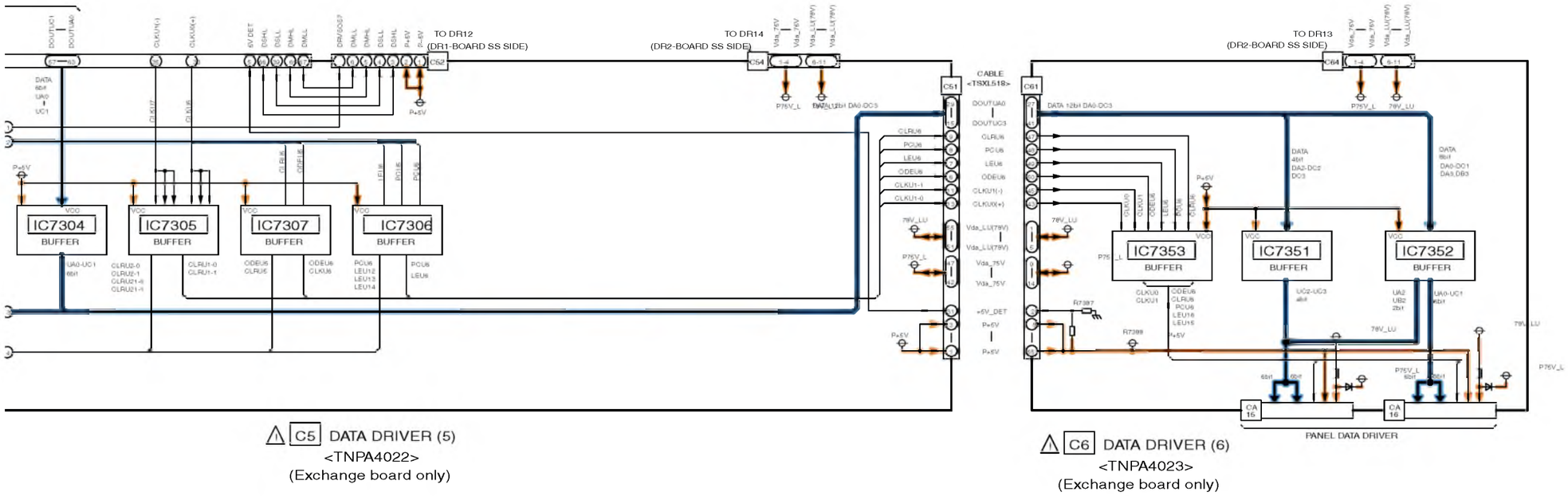



⚠ C8 DATA DRIVER (8)
<TNPA4025>
(Exchange board only)



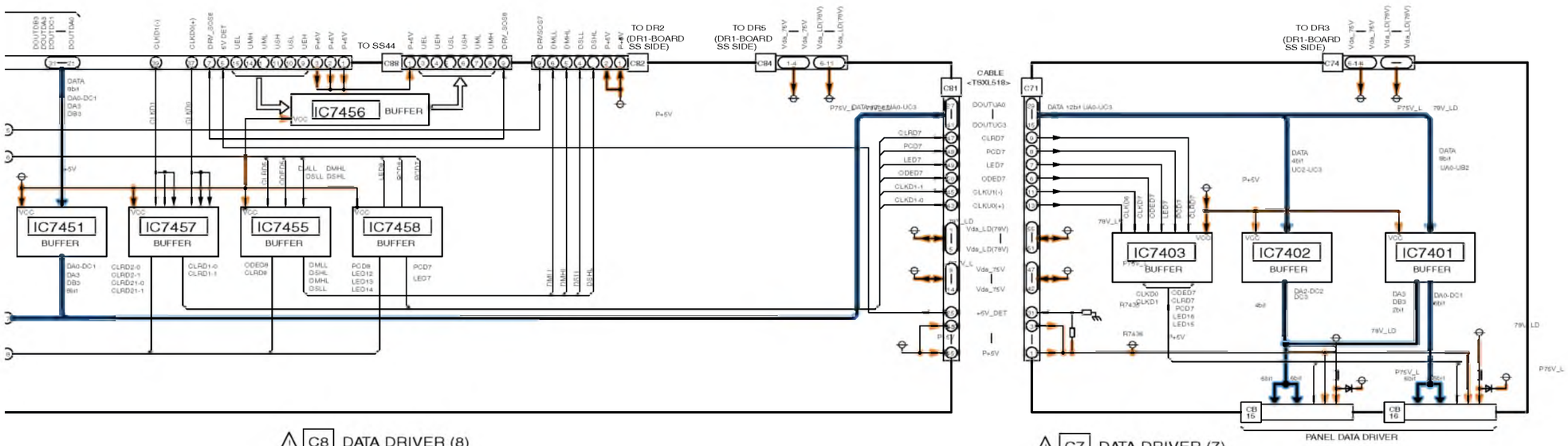
TH-103PF10UK/EK
C4, C5, C8 and C9-Board Block Diagram

## 9.19. C5, C6, C7 and C8-Board Block Diagram




⚠ C5 DATA DRIVER (5)
<TNPA4022>
(Exchange board only)

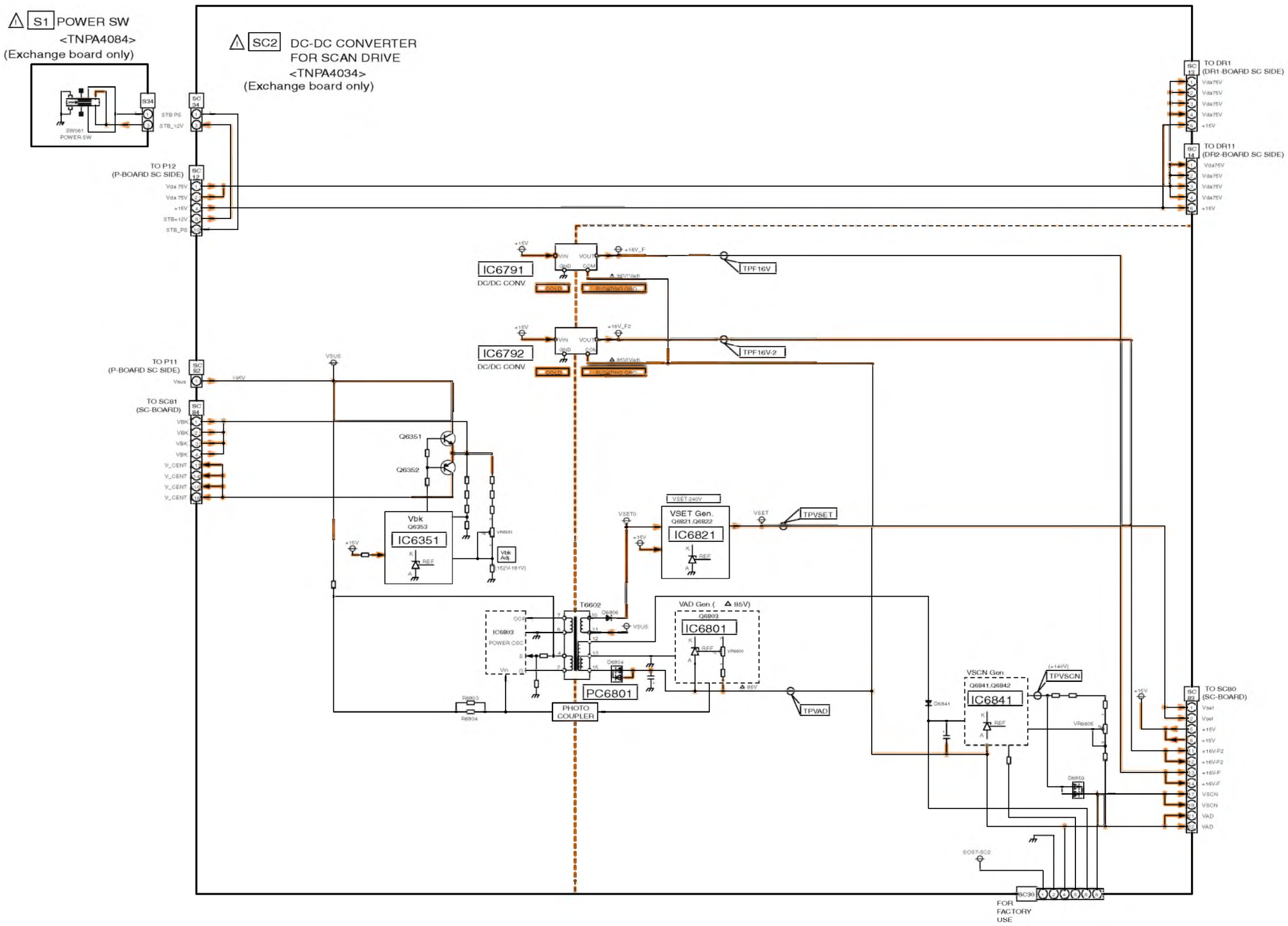
⚠ C6 DATA DRIVER (6)
<TNPA4023>
(Exchange board only)




⚠ C8 DATA DRIVER (8)
<TNPA4025>
(Exchange board only)

⚠ C7 DATA DRIVER (7)
<TNPA4024>
(Exchange board only)

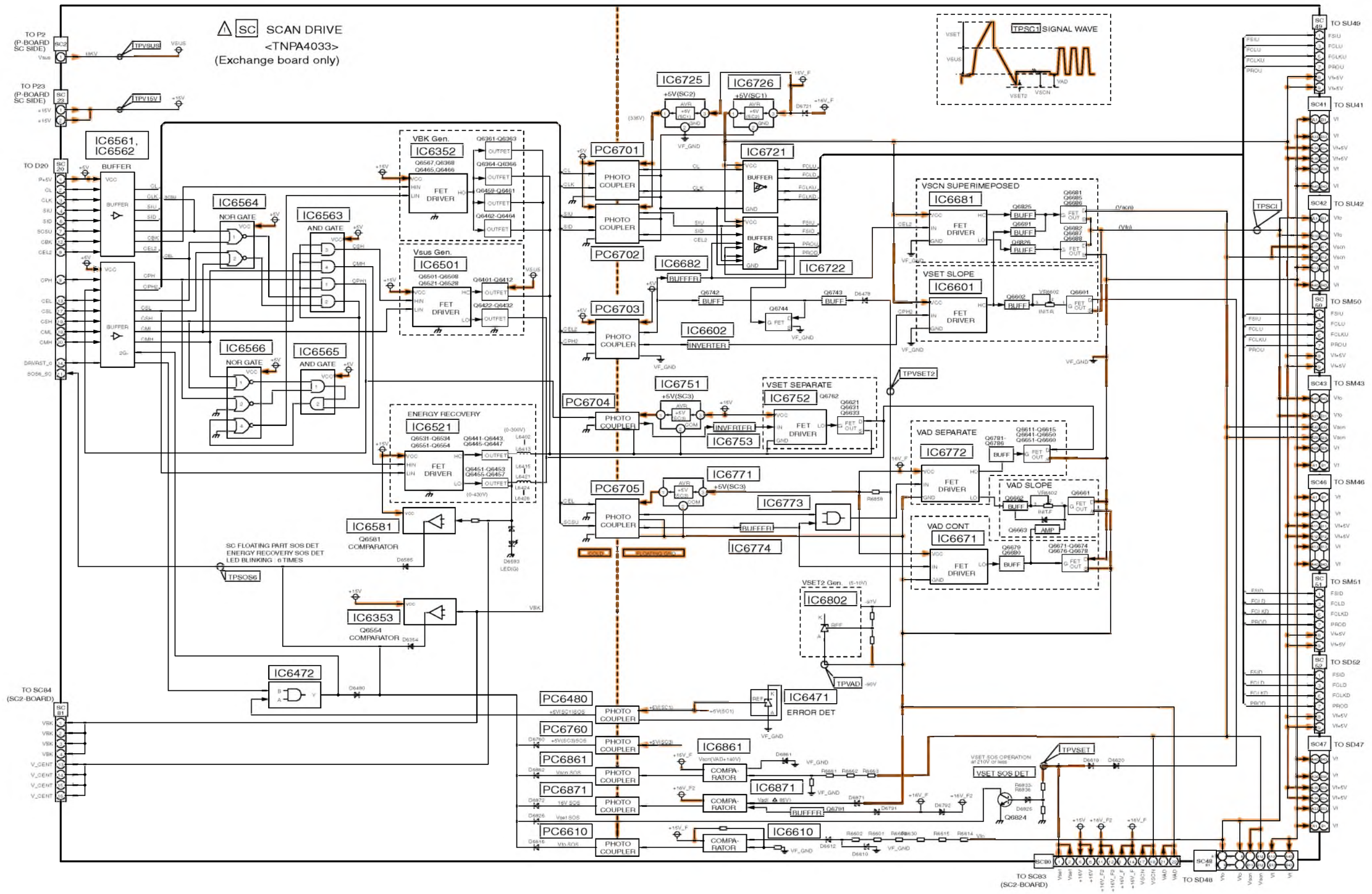
## 9.20. SC2 and S1-Board Block Diagram






TH-103PF10UK/EK
SC2 and S1-Board Block Diagram

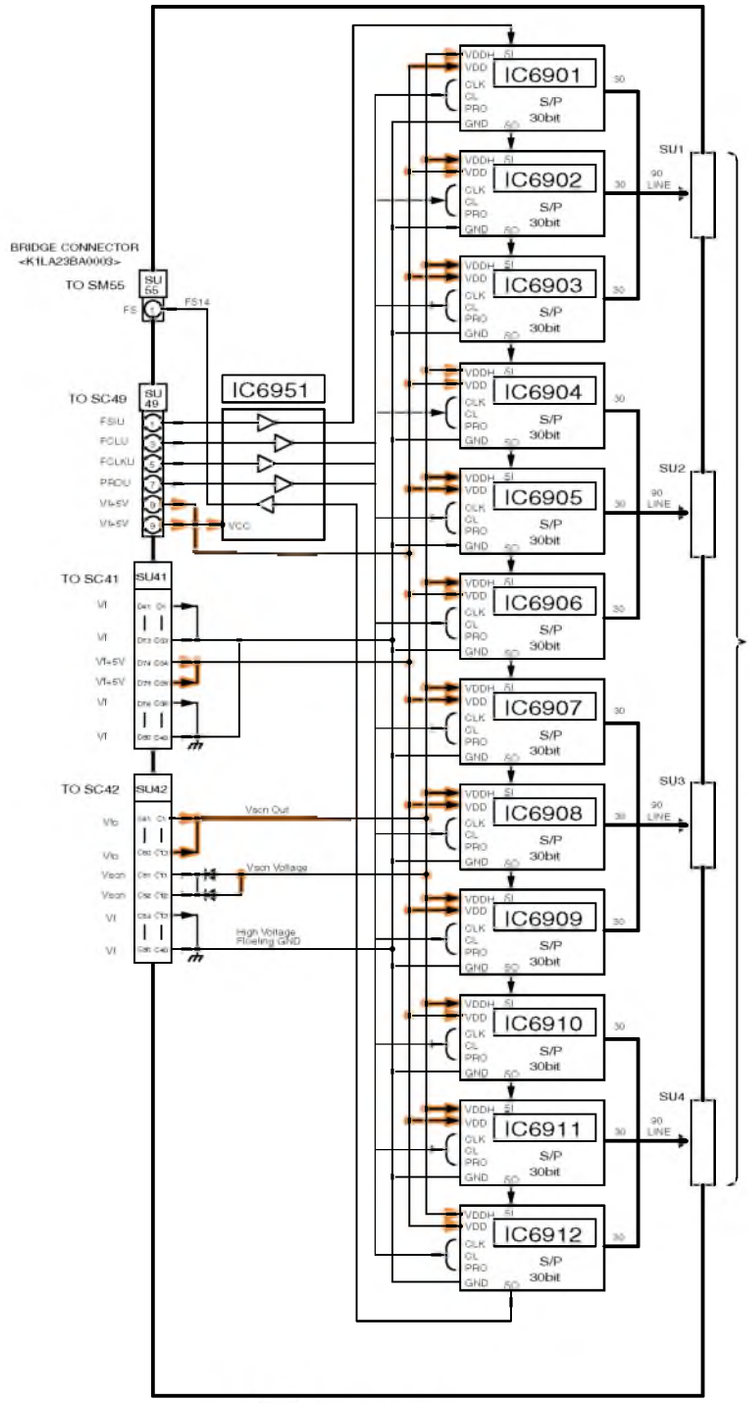
## 9.21. SC-Board Block Diagram



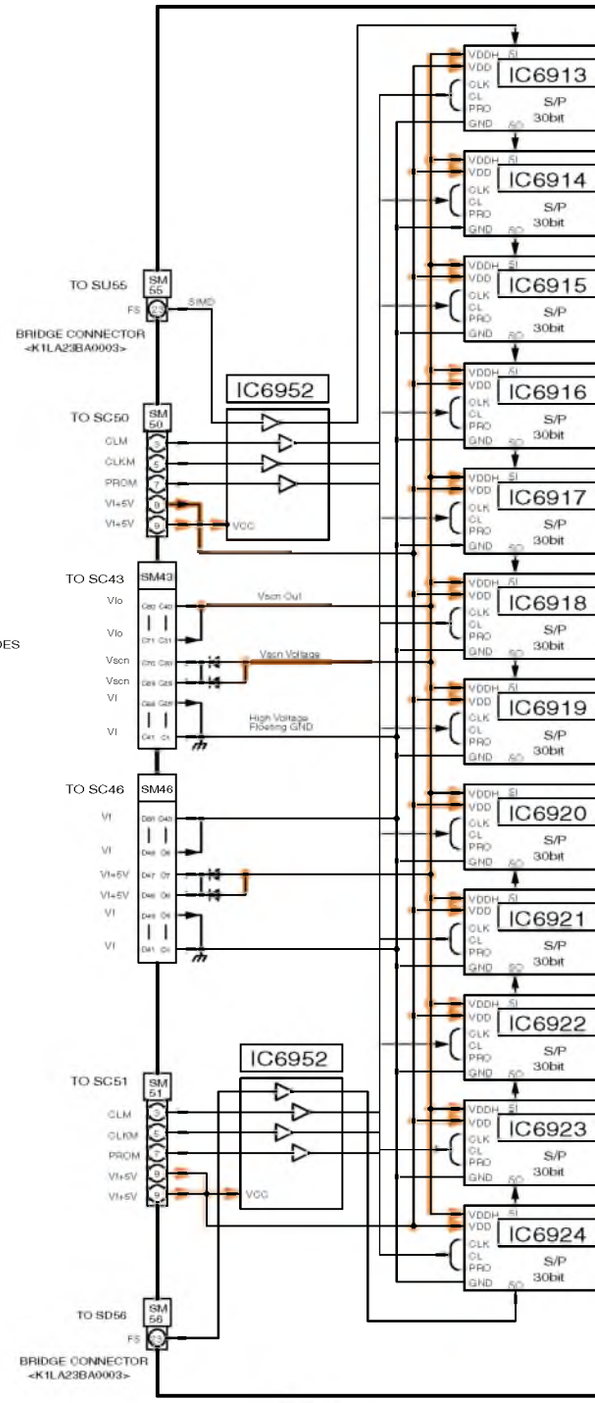



TH-103PF10UK/EK
SC-Board Block Diagram

# 9.22. SU, SM and SD-Board Block Diagram

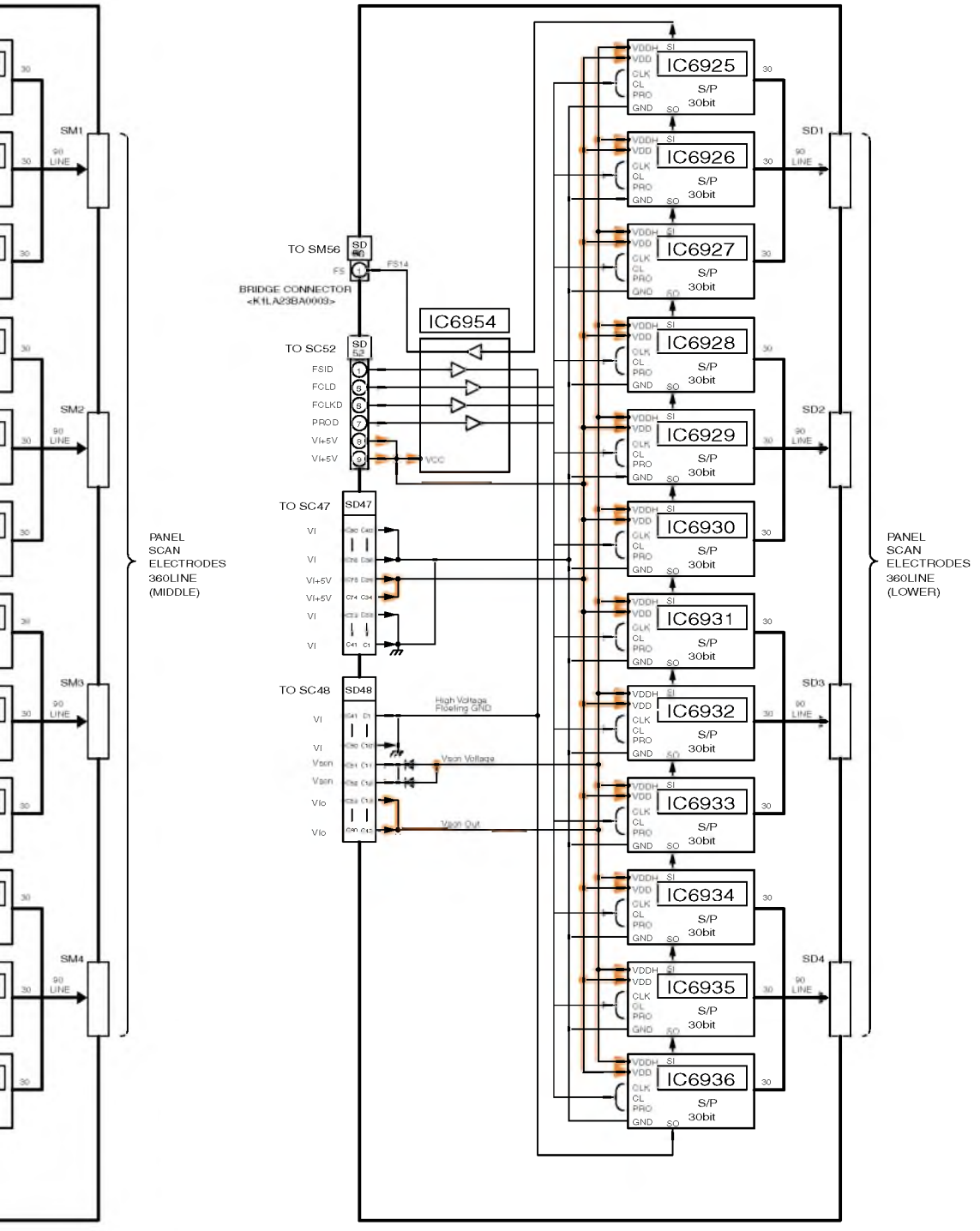



⚠ SU SCAN OUT (UPPER)
<TNPA4030>
(Exchange board only)




⚠ SM SCAN OUT (MIDDLE)
<TNPA4031>
(Exchange board only)

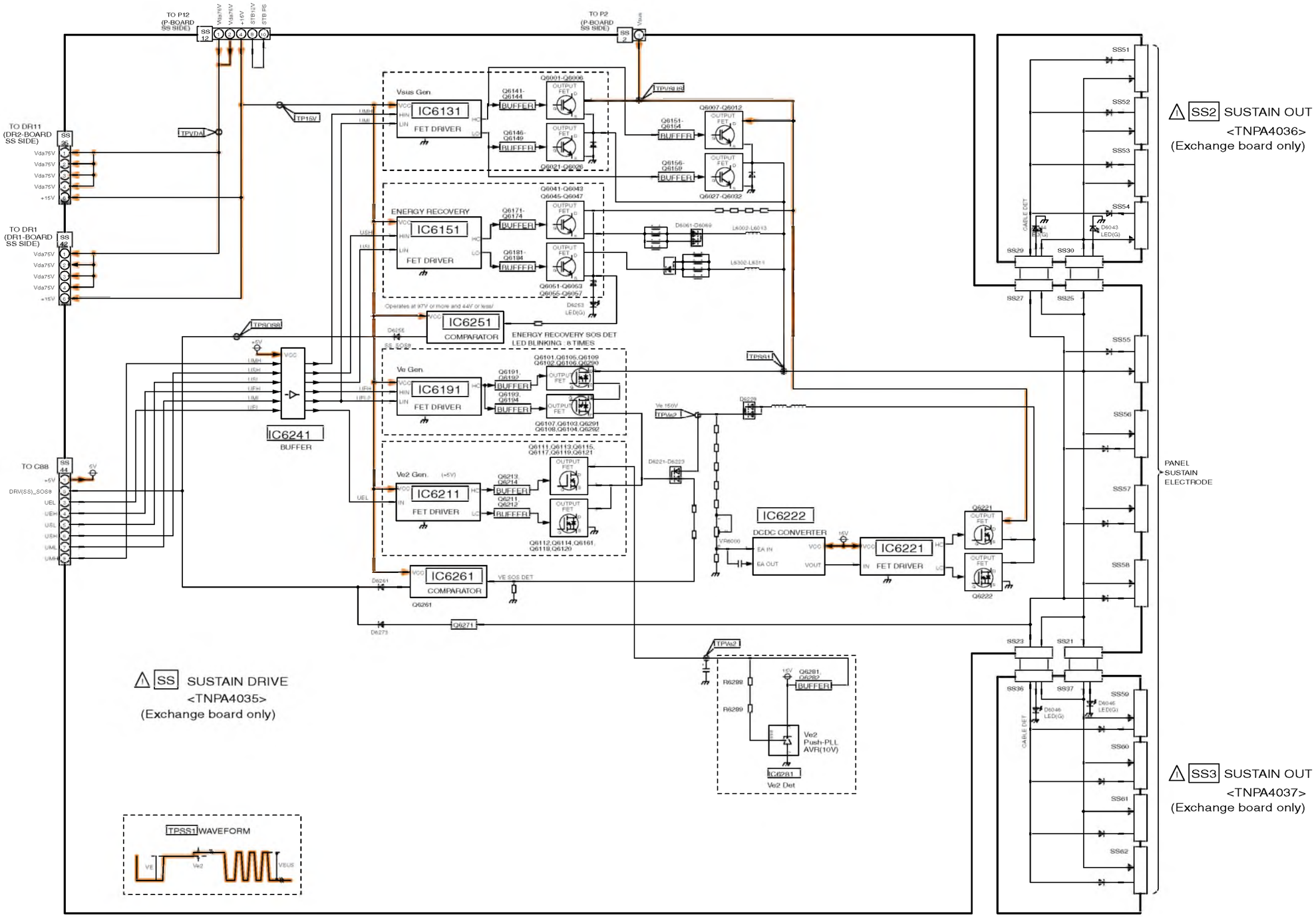
TH-103PF10UK/EK
SU, SM and SD-Board Block Diagram




⚠ SD SCAN OUT (LOWER)
<TNPA4032>
(Exchange board only)

TH-103PF10UK/EK
SU, SM and SD-Board Block Diagram

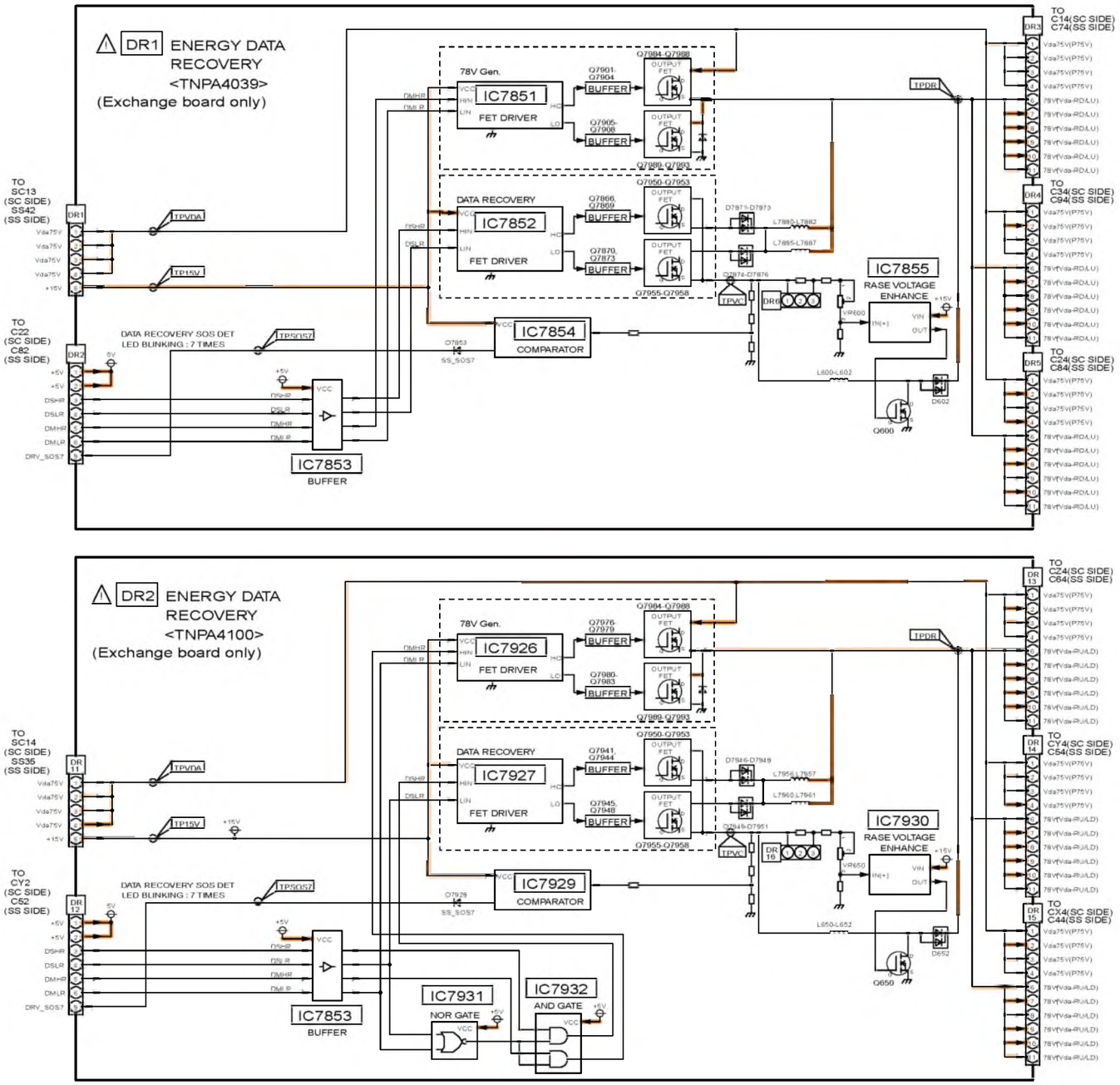
## 9.23. SS, SS2 and SS3-Board Block Diagram

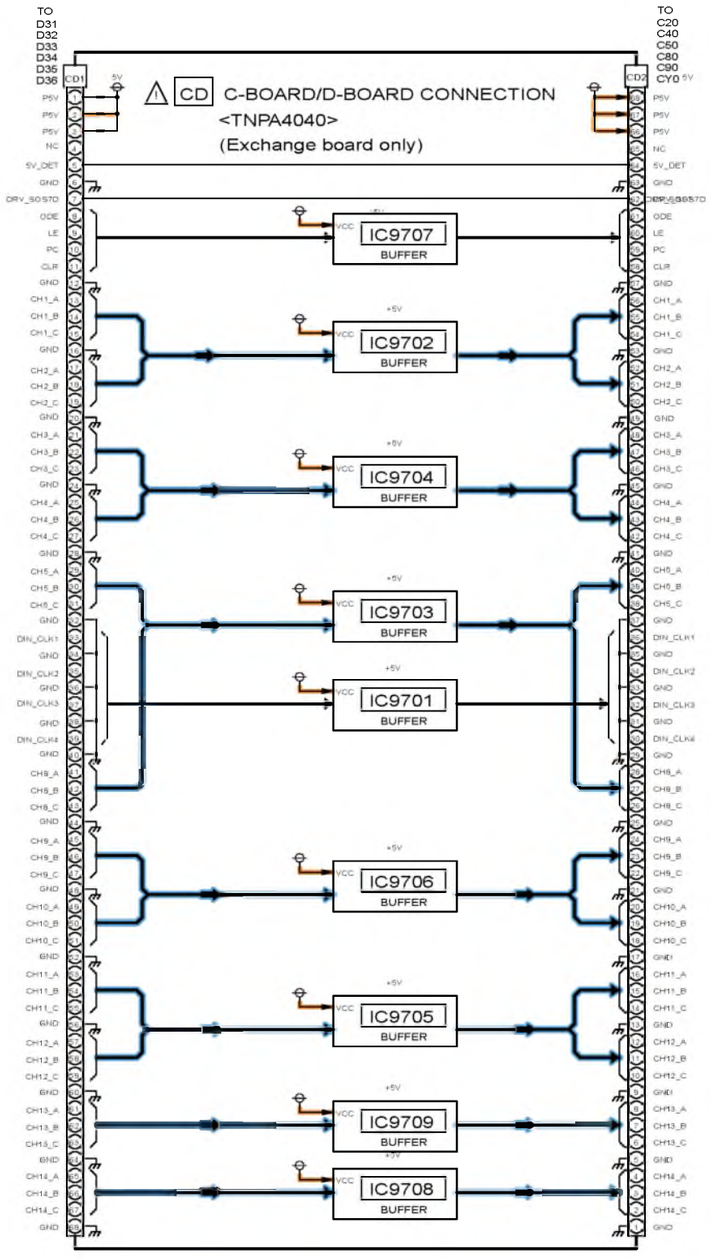





TH-103PF10UK/EK
SS, SS2 and SS3-Board Block Diagram

## 9.24. DR1, DR2 and CD-Board Block Diagram



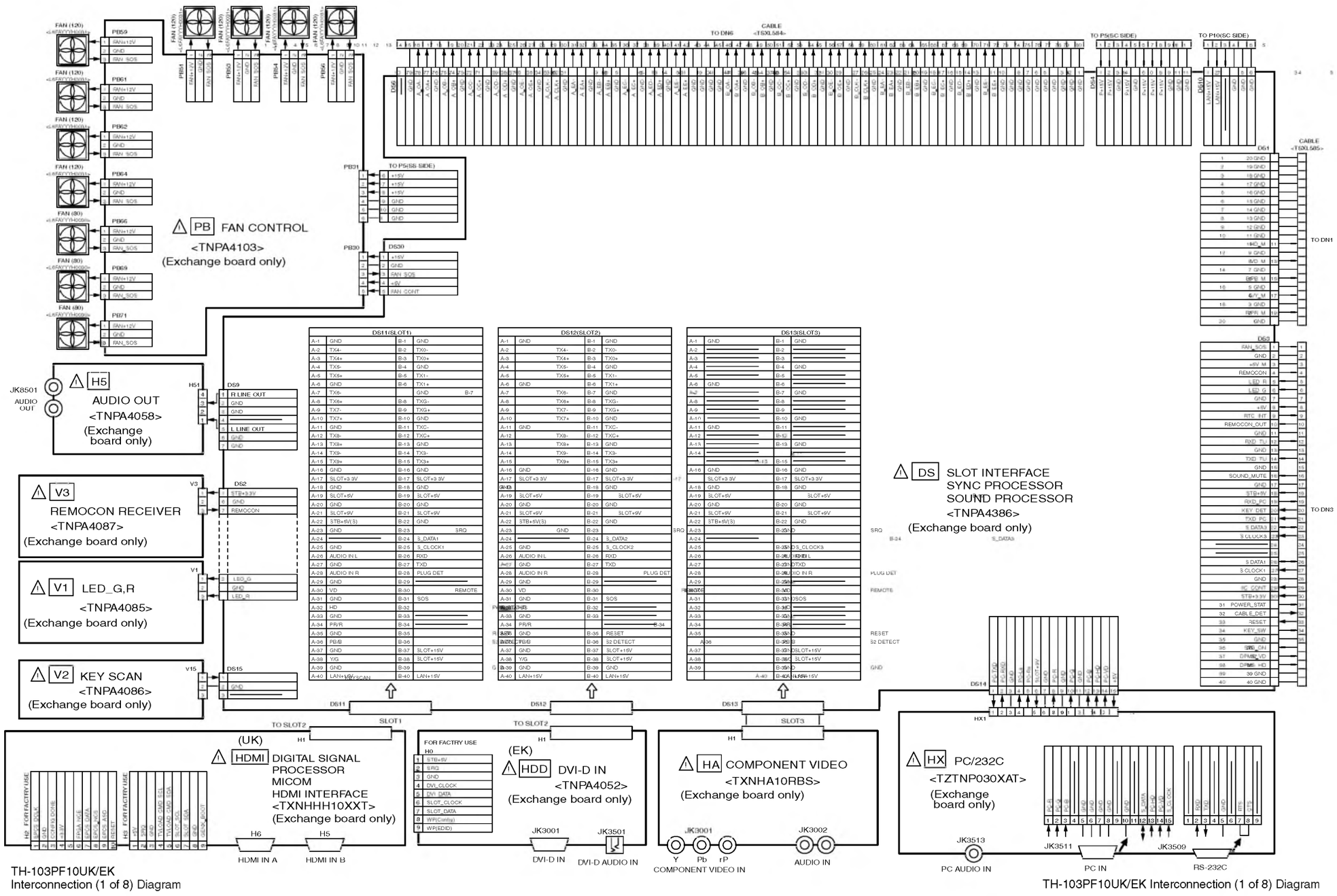




TH-103PF10UK/EK
DR1, DR2 and CD-Board Block Diagram

TH-103PF10UK/EK
DR1, DR2 and CD-Board Block Diagram

# 10 Wiring Connection Diagram

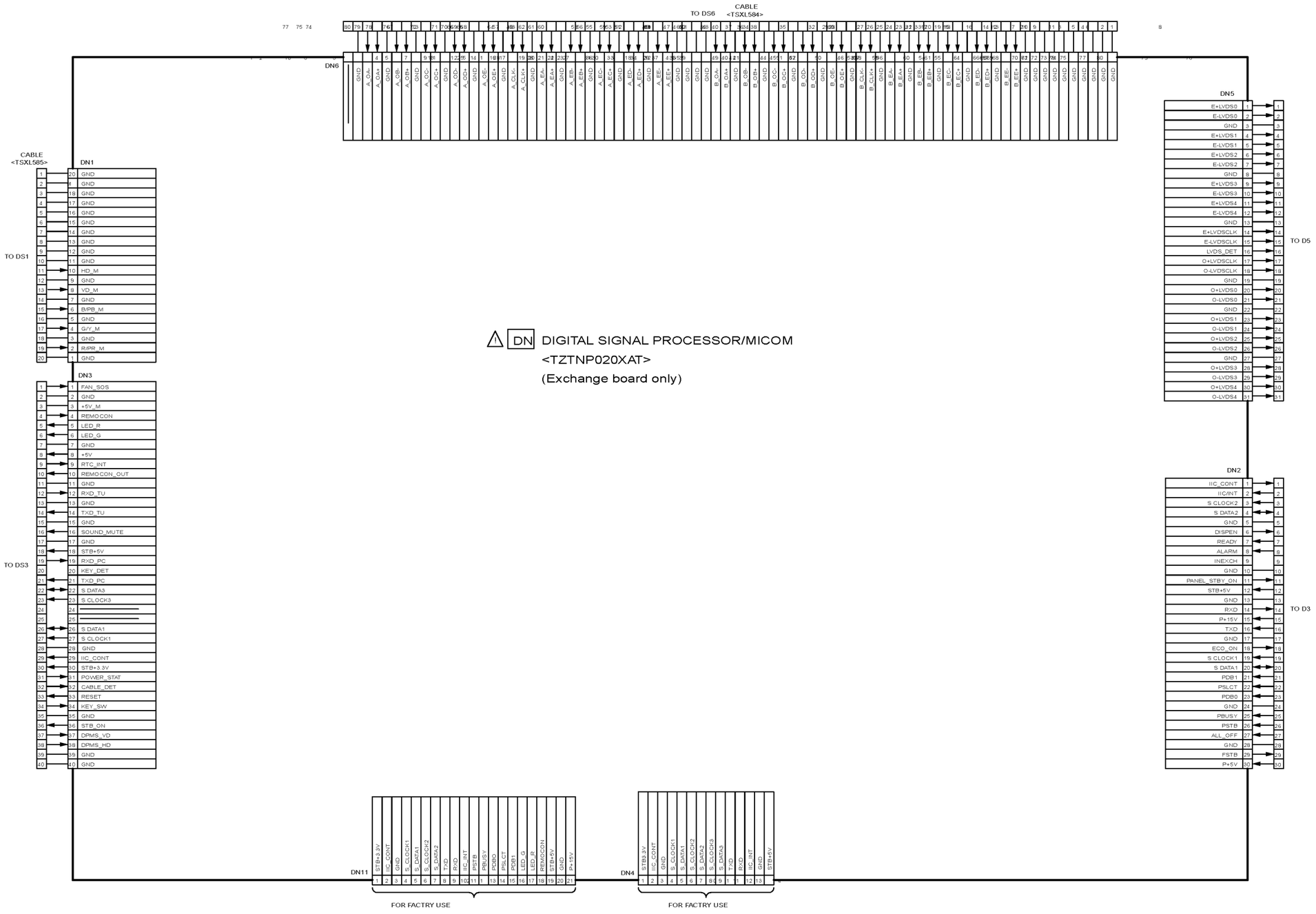
## 10.1. Interconnection (1 of 8) Diagram




TH-103PF10UK/EK
Interconnection (1 of 8) Diagram

TH-103PF10UK/EK Interconnection (1 of 8) Diagram

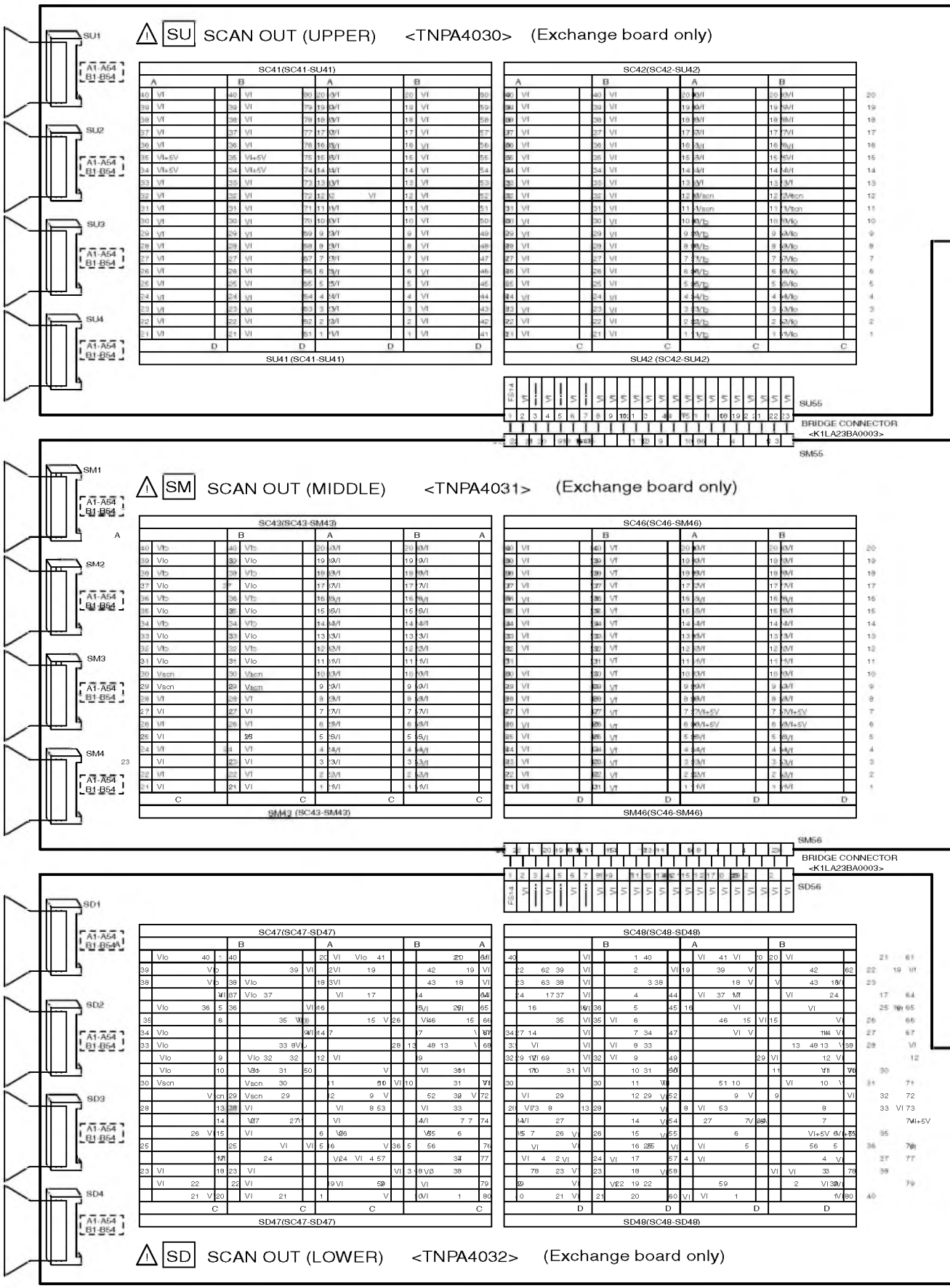
## 10.2. Interconnection (2 of 8) Diagram

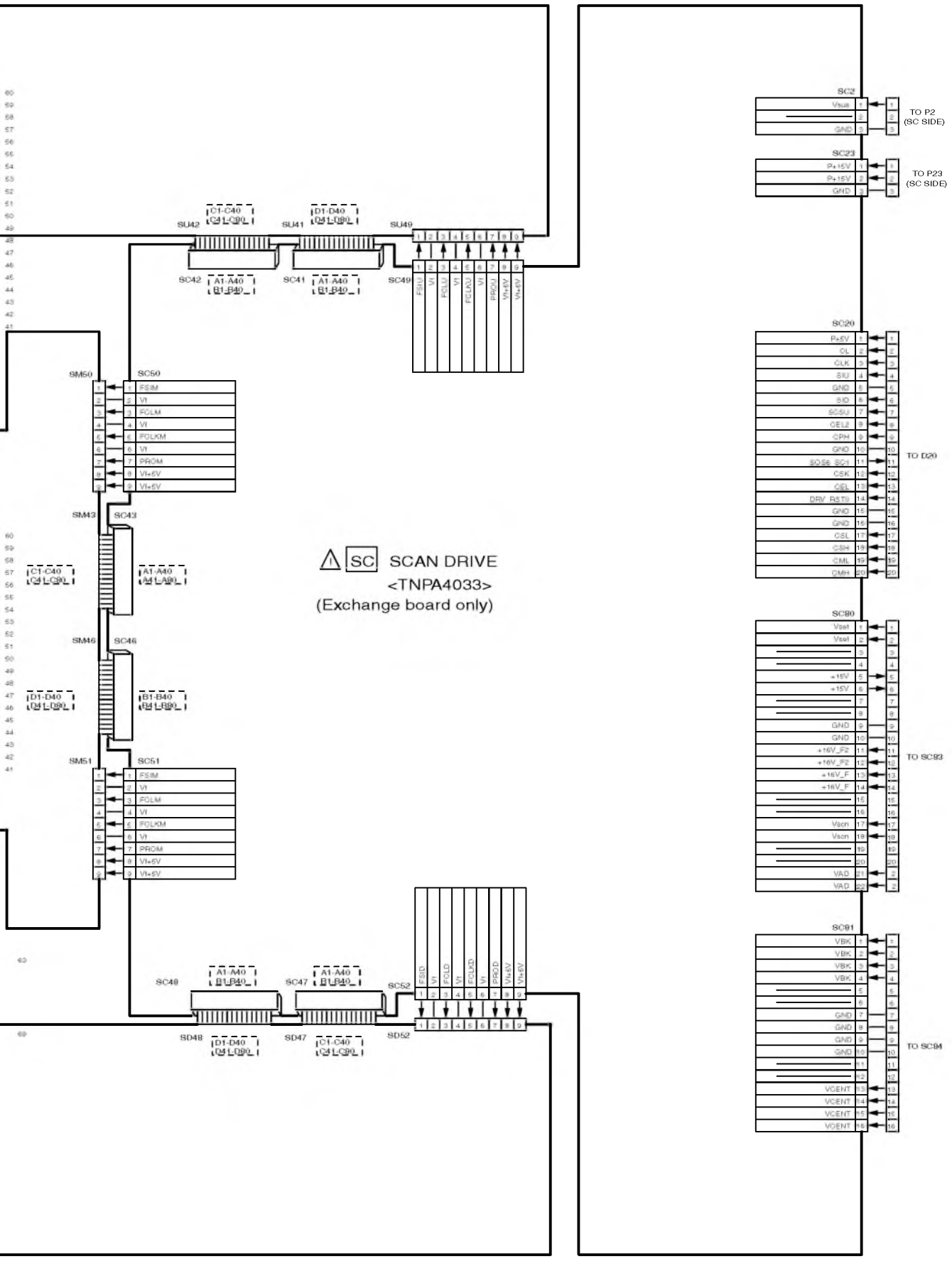





TH-103PF10UK/EK
Interconnection (2 of 8) Diagram

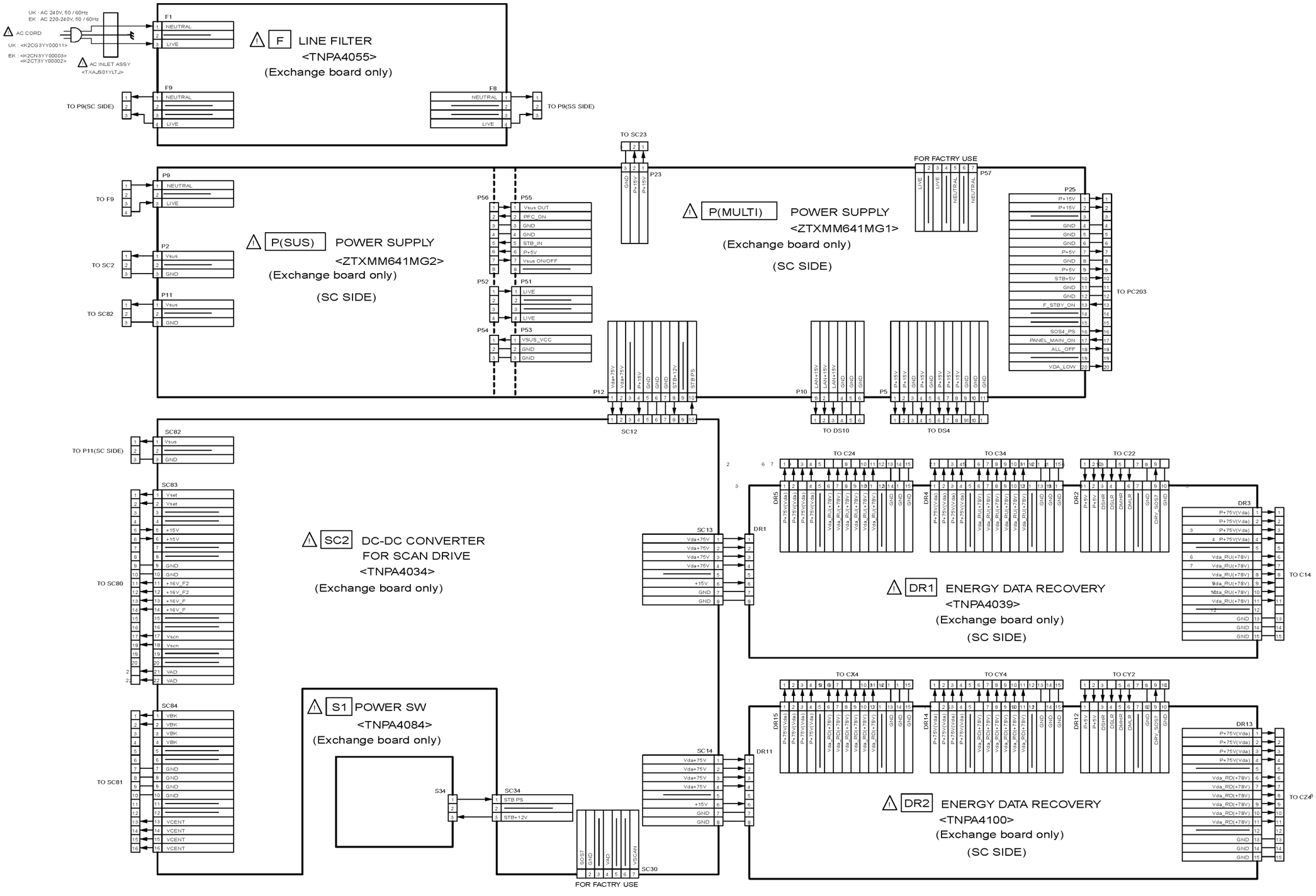
# 10.3. Interconnection (3 of 8) Diagram






TH-103PF10UK/EK
Interconnection (3 of 8) Diagram

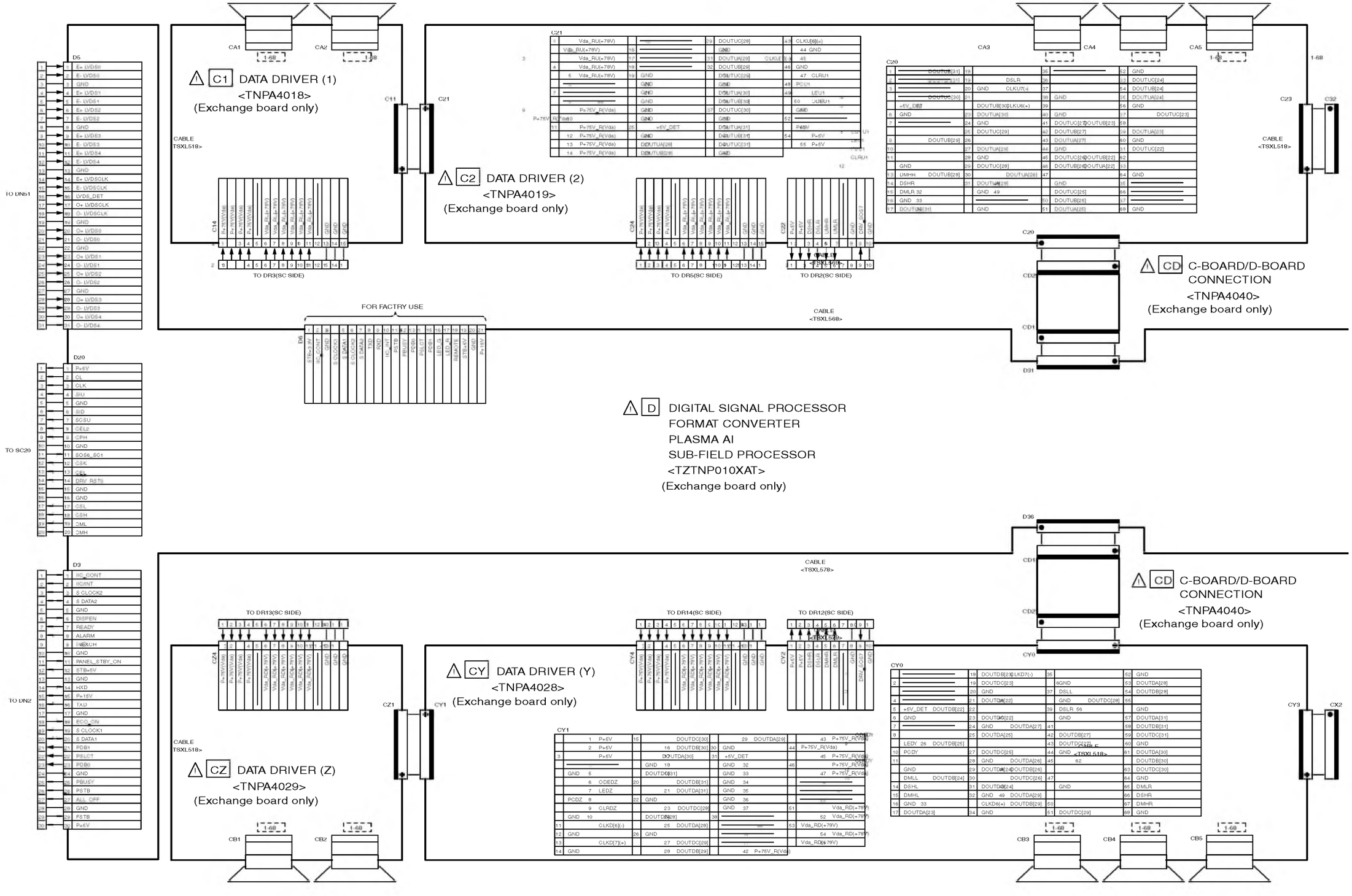
## 10.4. Interconnection (4 of 8) Diagram




TH-103PF10UK/EK
Interconnection (4 of 8) Diagram

TH-103PF10UK/EK
Interconnection (4 of 8) Diagram

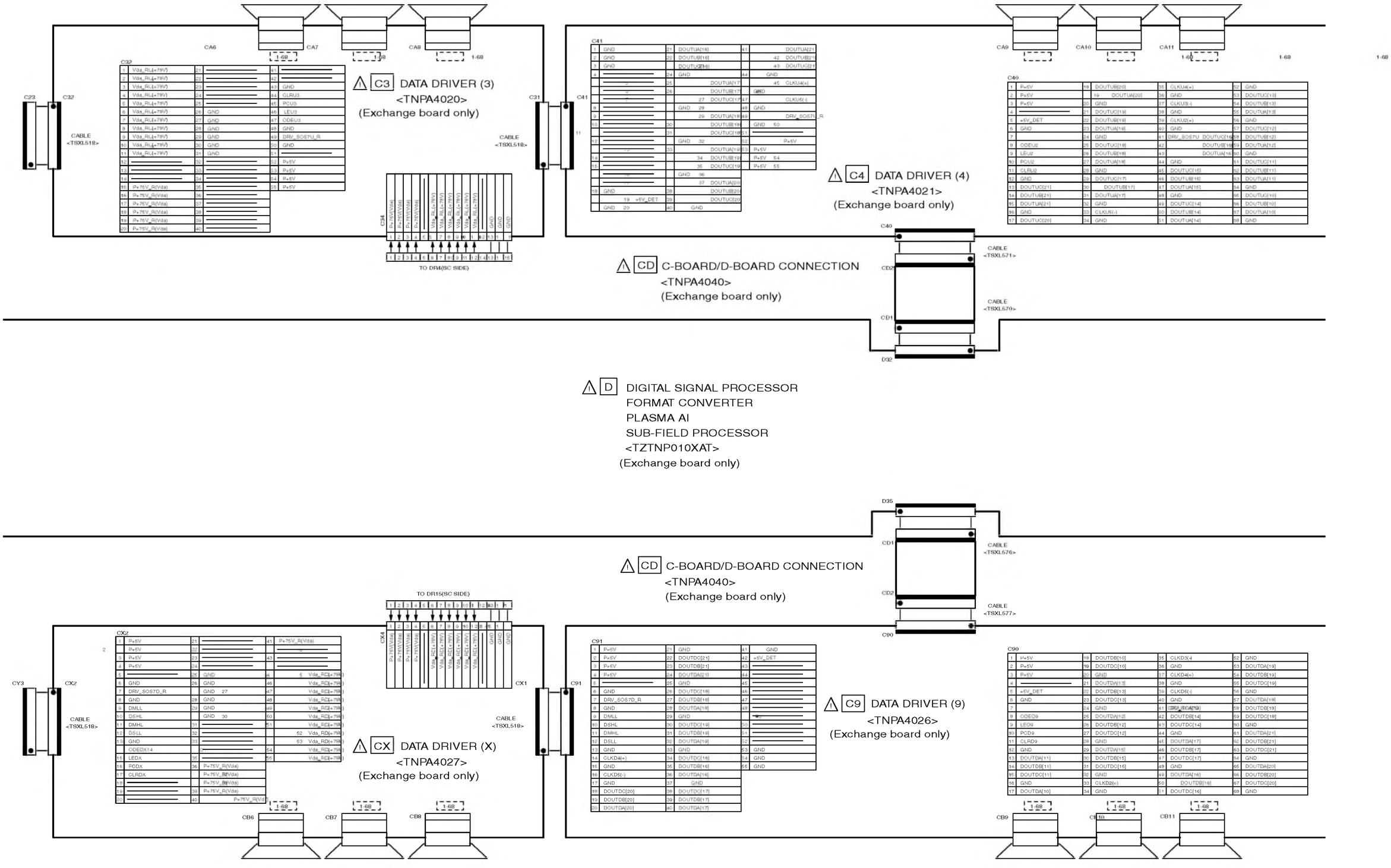
## 10.5. Interconnection (5 of 8) Diagram






TH-103PF10UK/EK
Interconnection (5 of 8) Diagram

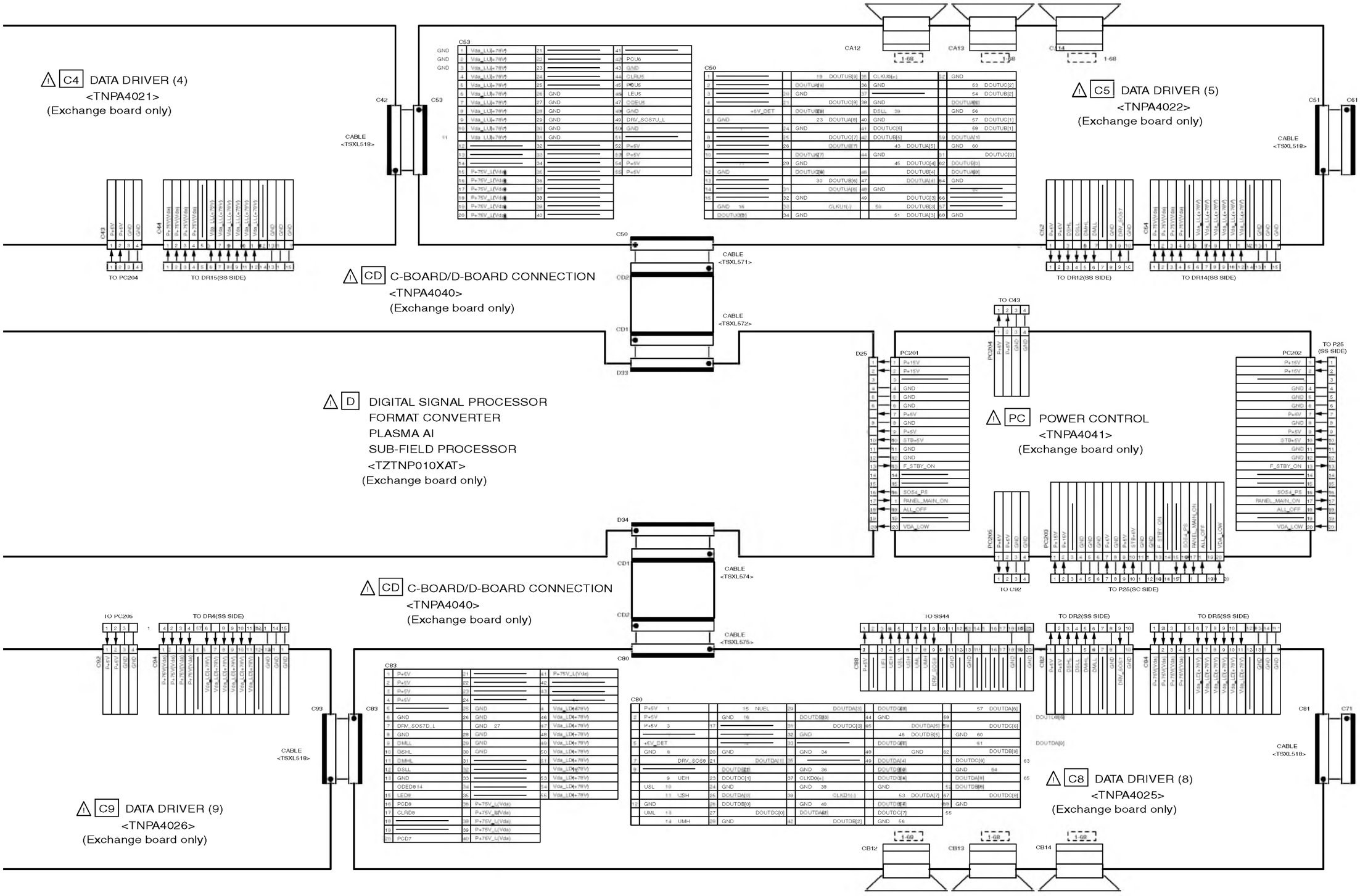
## 10.6. Interconnection (6 of 8) Diagram




TH-103PF10UK/EK
Interconnection (6 of 8) Diagram

TH-103PF10UK/EK
Interconnection (6 of 8) Diagram

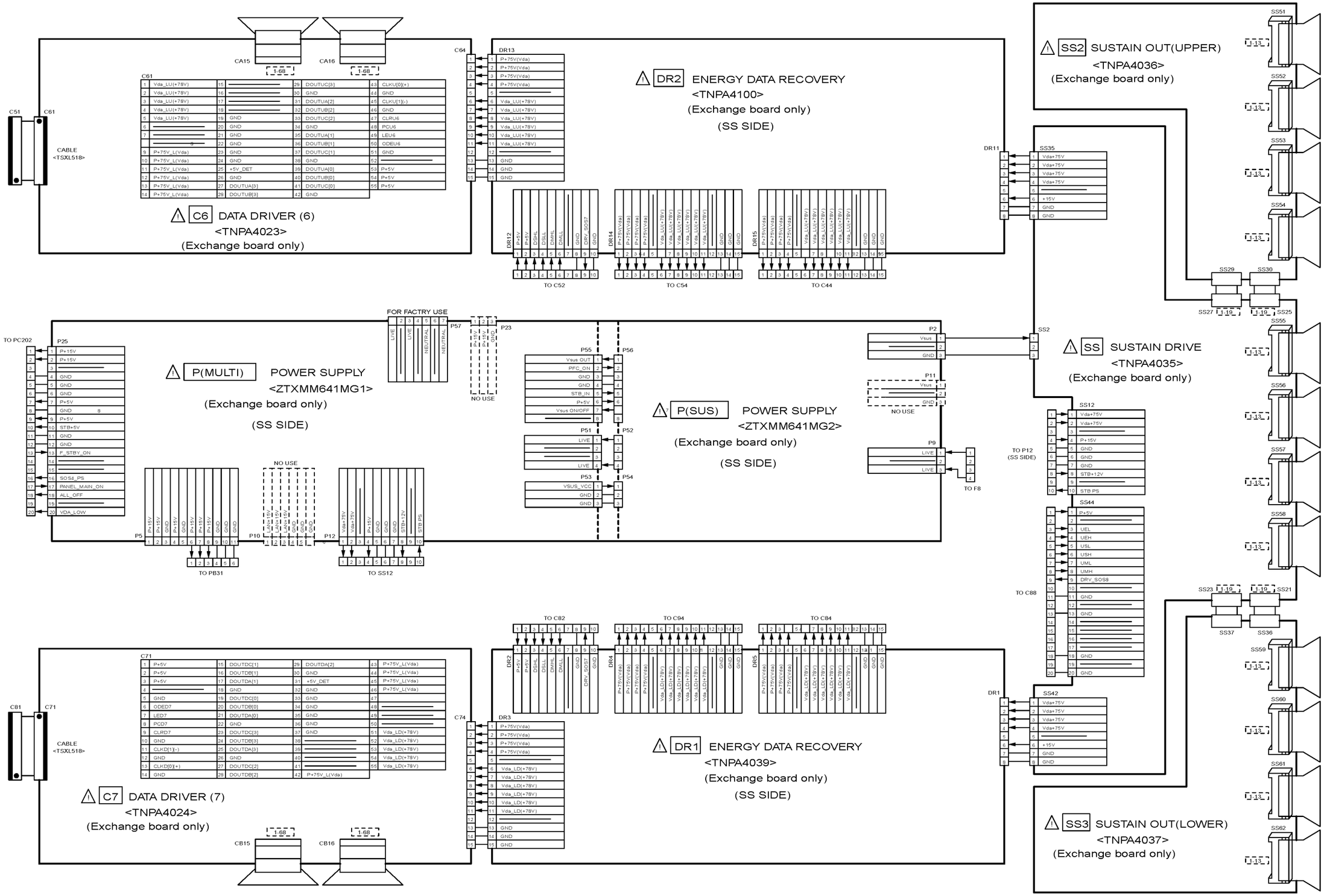
## 10.7. Interconnection (7 of 8) Diagram






TH-103PF10UK/EK
Interconnection (7 of 8) Diagram

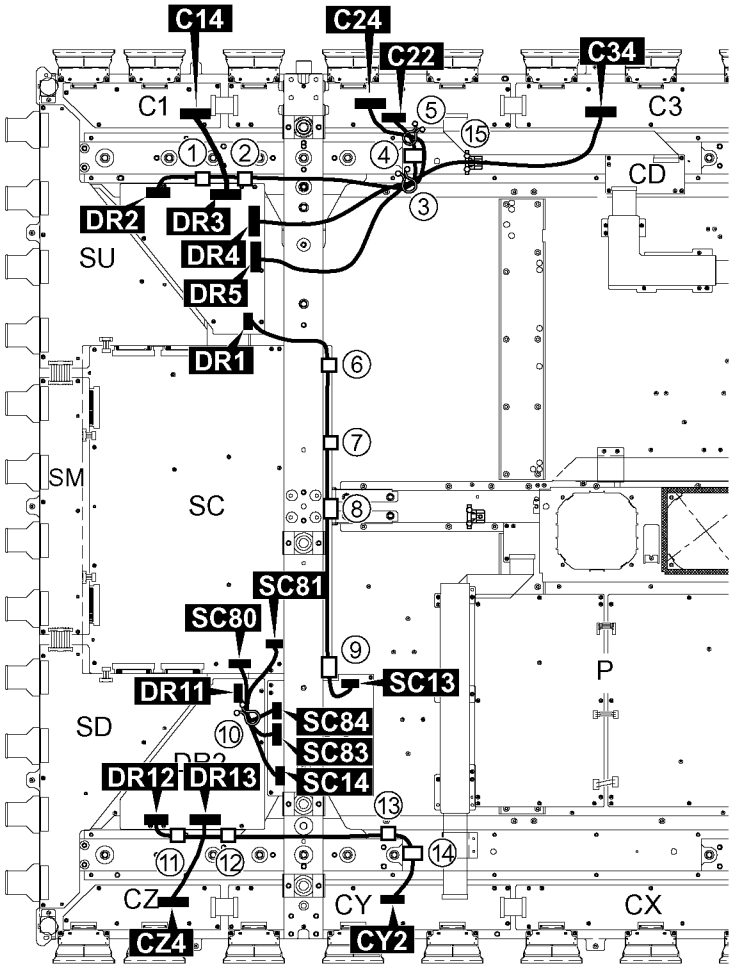
## 10.8. Interconnection (8 of 8) Diagram




TH-103PF10UK/EK
Interconnection (8 of 8) Diagram

TH-103PF10UK/EK
Interconnection (8 of 8) Diagram

## 10.9. Lead Wiring (1)



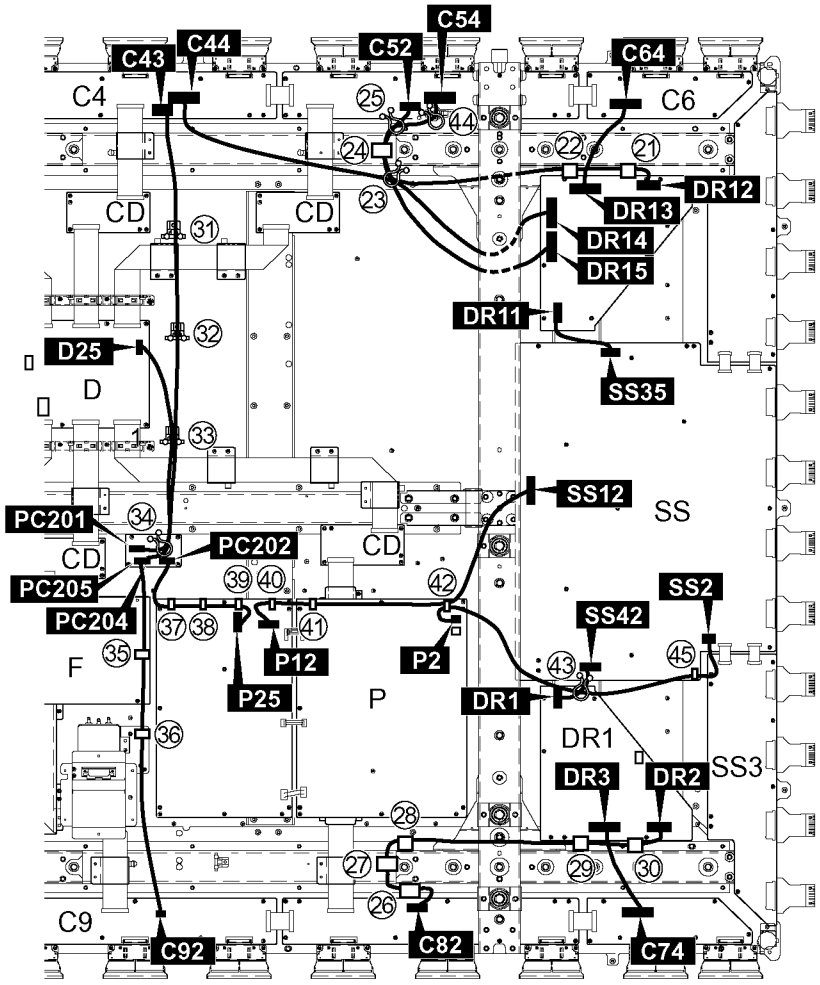

Clamp position

| CONNECTOR NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|
| DR3 - C14 | | | | | | | | | | |
| DR2 - C22 | O | O | O | O | O | | | | | |
| DR4 - C24 | | | O | | O | | | | | |
| DR5 - C34 | | | O | | | | | | | O |
| DR1 - SC13 | | | | | | O | O | O | O | |

| CONNECTOR NUMBER | 10 | 11 | 12 | 13 | 14 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DR11 - SC14 | O | | | | | | | | | |
| SC80 - SC83 | O | | | | | | | | | |
| SC81 - SC84 | O | | | | | | | | | |
| DR13 - CZ4 | No Clamp | | | | | | | | | |
| DR12 - CY2 | | O | O | O | O | | | | | |

■ : Connector position

# 10.10. Lead Wiring (2)




Clamp position

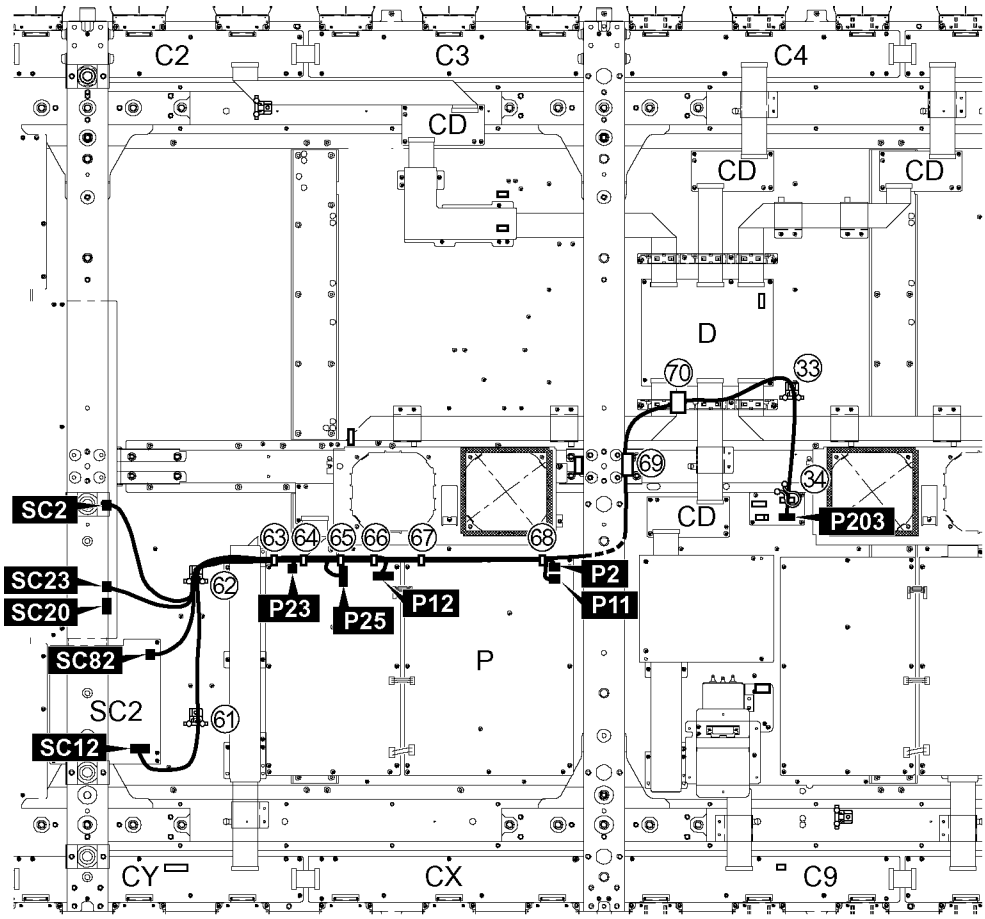
| CONNECTOR NUMBER | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DR13 - C64 | | | | | | | | | | | |
| DR12 - C52 | O | O | O | O | O | | | | | | |
| DR14 - C44 | | | O | | | | | | | | |
| DR15 - C54 | | | O | | O | | | | | | O |
| DR11 - SS35 | No Clamp | | | | | | | | | | |
| DR3 - C74 | No Clamp | | | | | | | | | | |
| DR2 - C82 | | | | | | O | O | O | O | O | |

| CONNECTOR NUMBER | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C43 - PC204 | O | O | O | O | | | | | | | |
| D25 - PC201 | | | O | O | | | | | | | |
| PC205 - C92 | | | | | O | O | | | | | |
| PC202 - P25 | | | | O | | | O | O | O | | |

| CONNECTOR NUMBER | 40 | 41 | 42 | 43 | 45 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P12 - SS12 | O | O | O | | | | | | | | |
| P2 - SS2 | | | O | O | O | | | | | | |
| DR1 - SS42 | | | | O | | | | | | | |

■ : Connector position

# 10.11. Lead Wiring (3)

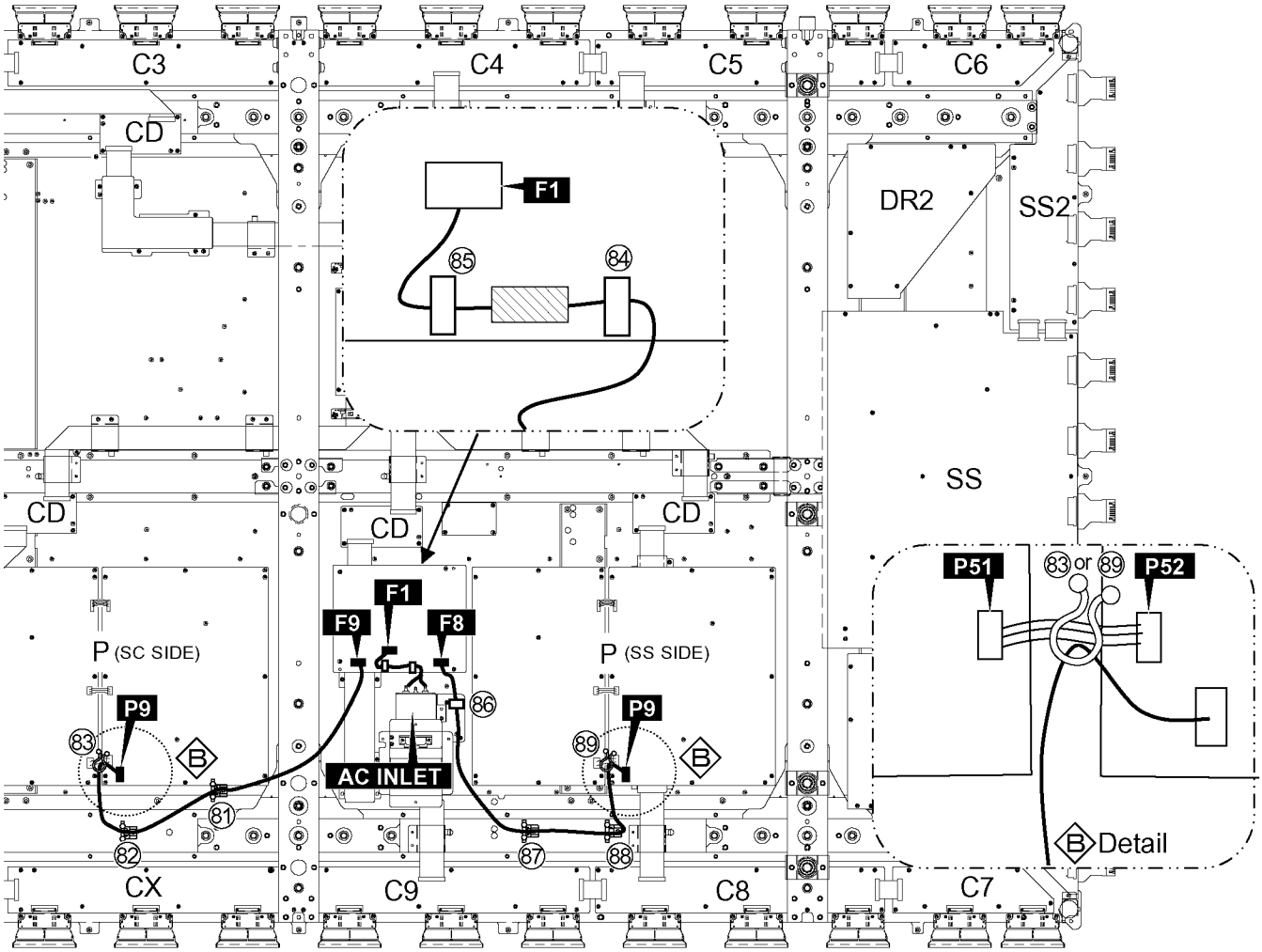



Clamp position

| CONNECTOR NUMBER | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 33 | 34 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SC12 - P12 | O | O | O | O | O | O | | | | | | |
| SC82 - P11 | | O | O | O | O | O | O | O | | | | |
| SC23 - P23 | | O | O | | | | | | | | | |
| SC2 - P2 | | O | O | O | O | O | O | O | | | | |
| P25 - PC203 | | | | | O | O | O | O | O | O | O | O |

■ : Connector position

# 10.12. Lead Wiring (4)

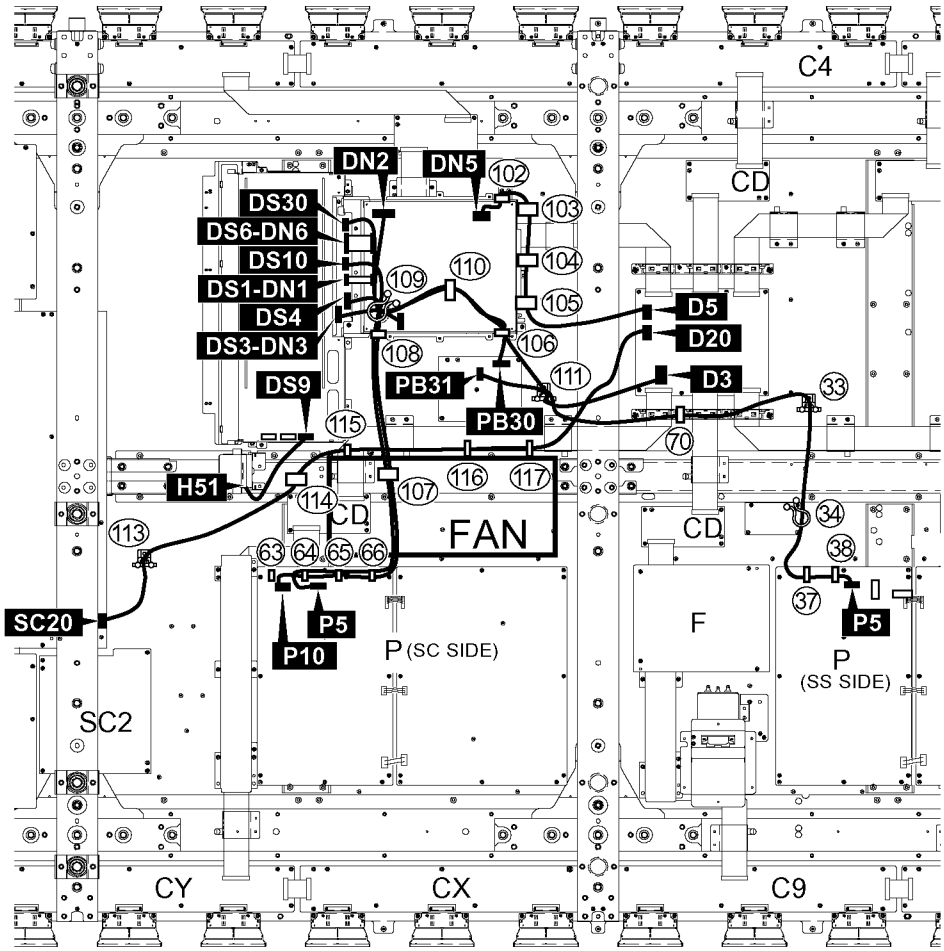



Clamp position

| CONNECTOR NUMBER | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 |
|---|---|---|---|---|---|---|---|---|---|
| F9 - P9 (SC SIDE) | O | O | O | | | | | | |
| AC INLET - F1 | | | | O | O | | | | |
| F8 - P9 (SS SIDE) | | | | | | O | O | O | O |
| P51(SC SIDE) - P52(SC SIDE) | | | O | | | | | | |
| P51(SS SIDE) - P52(SS SIDE) | | | | | | | | | O |

■ : Connector position

# 10.13. Lead Wiring (5)




Clamp position

| CONNECTOR NUMBER | 102 | 103 | 104 | 105 | 106 | 109 | 110 | 111 |
|---|---|---|---|---|---|---|---|---|
| DN5 - D5 | O | O | O | O | | | | |
| DN2 - D3 | | | | | O | O | O | O |
| DS3 - DN3 | | | | | | O | | |
| DS30 - PB30 | | | | | O | O | O | |

| CONNECTOR NUMBER | 107 | 108 | 109 | 66 | 65 | 64 | 63 | |
|---|---|---|---|---|---|---|---|---|
| DS10 - P10 | O | O | O | O | O | O | | |
| DS4 - P5 (SC SIDE) | O | O | O | O | O | O | | |

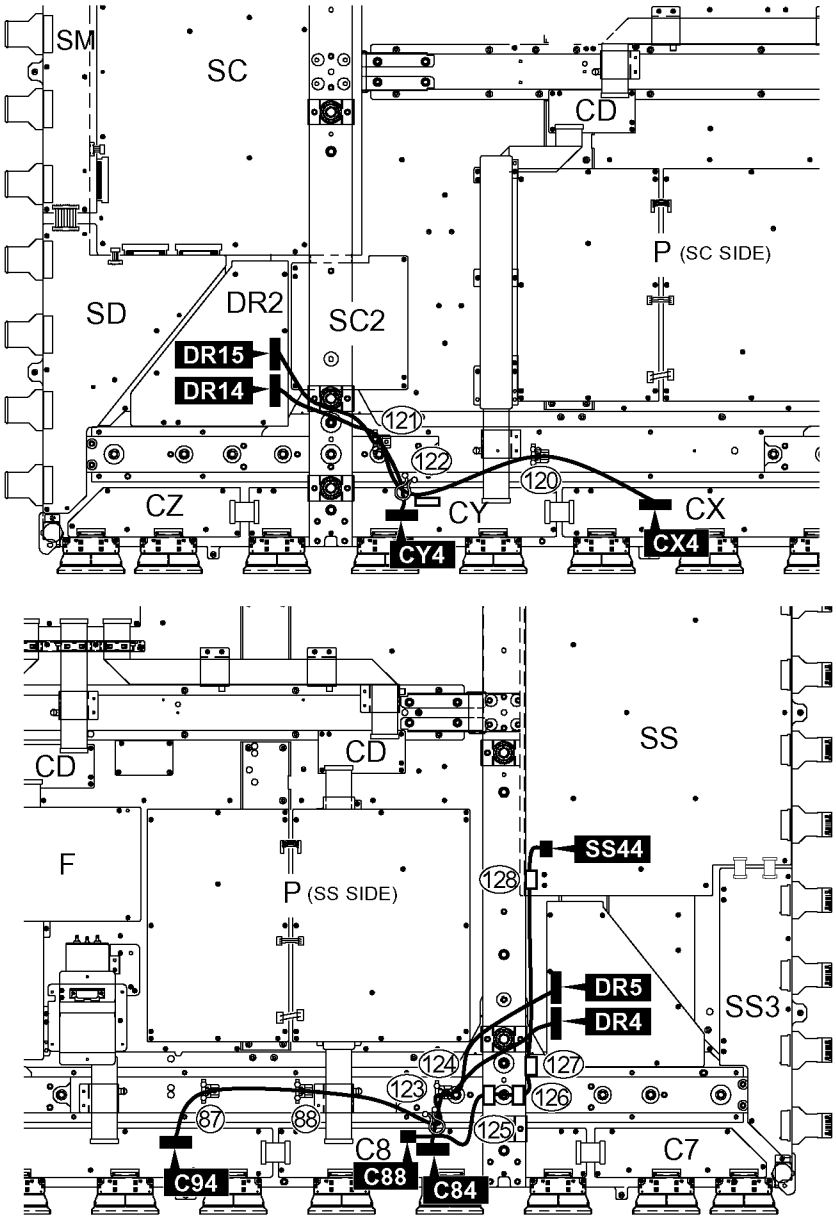
| CONNECTOR NUMBER | 111 | 70 | 33 | 34 | 37 | 38 | | |
|---|---|---|---|---|---|---|---|---|
| PB31 - P5 (SS SIDE) | O | O | O | O | O | O | | |

| CONNECTOR NUMBER | 113 | 114 | 115 | 116 | 117 | | | |
|---|---|---|---|---|---|---|---|---|
| SC20 - D20 | O | O | O | O | O | | | |

| CONNECTOR NUMBER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DS6 - DN6 | No Clamp | | | | | | | |
| DS1 - DN1 | No Clamp | | | | | | | |
| H51 - DS9 | No Clamp | | | | | | | |

■ : Connector position

# 10.14. Lead Wiring (6)

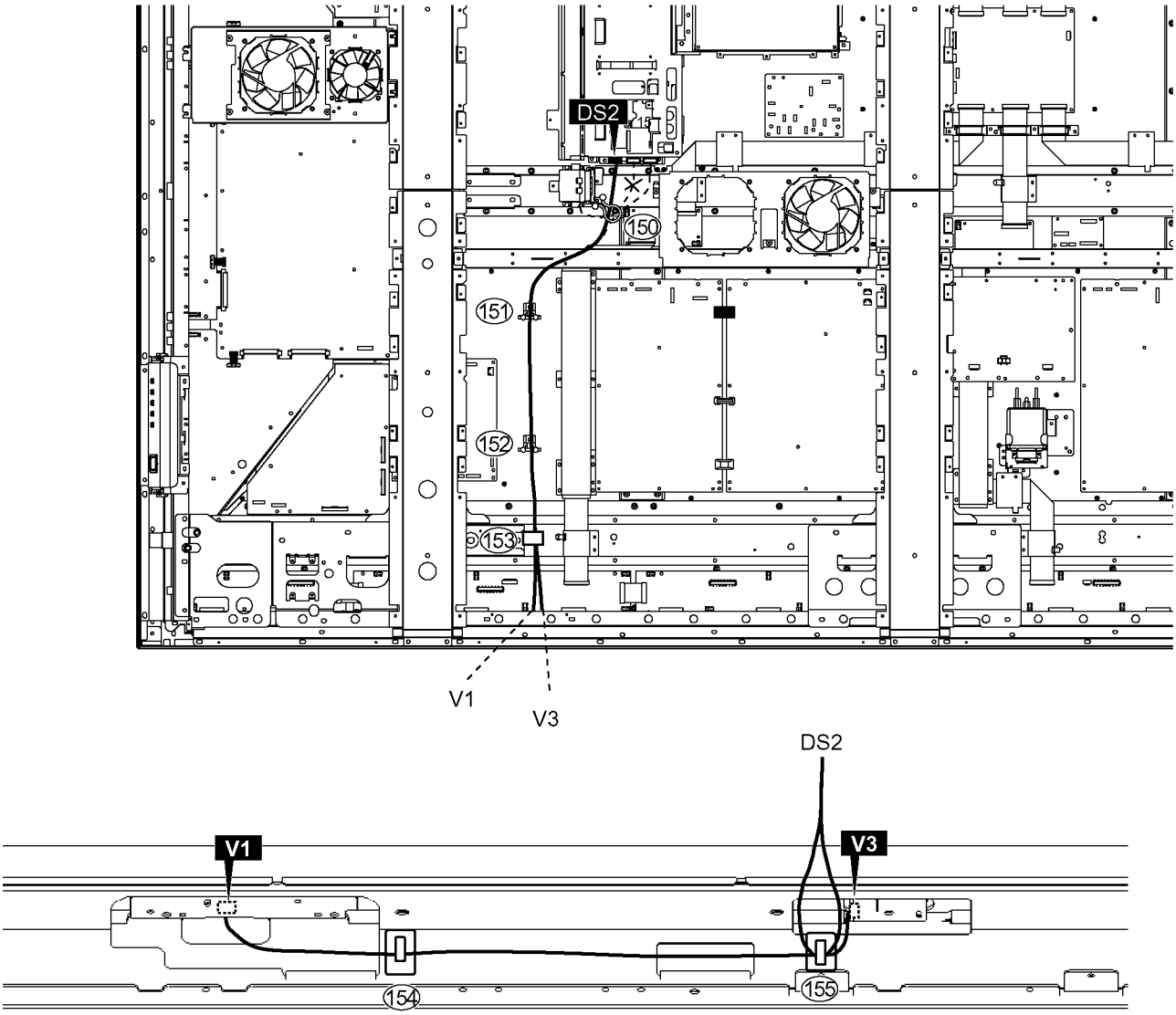



Clamp position

| CONNECTOR NUMBER | 87 | 88 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DR15 - CY4 | | | | ○ | ○ | | | | | | |
| DR14 - CX4 | | | ○ | ○ | ○ | | | | | | |
| | | | | | | | | | | | |
| C94 - DR5 | ○ | ○ | | | | ○ | ○ | | | | |
| C84 - DR4 | | | | | | ○ | ○ | | | | |
| | | | | | | | | | | | |
| C88 - SS44 | | | | | | | | ○ | ○ | ○ | ○ |

■ : Connector position

## 10.15. Lead Wiring (7)

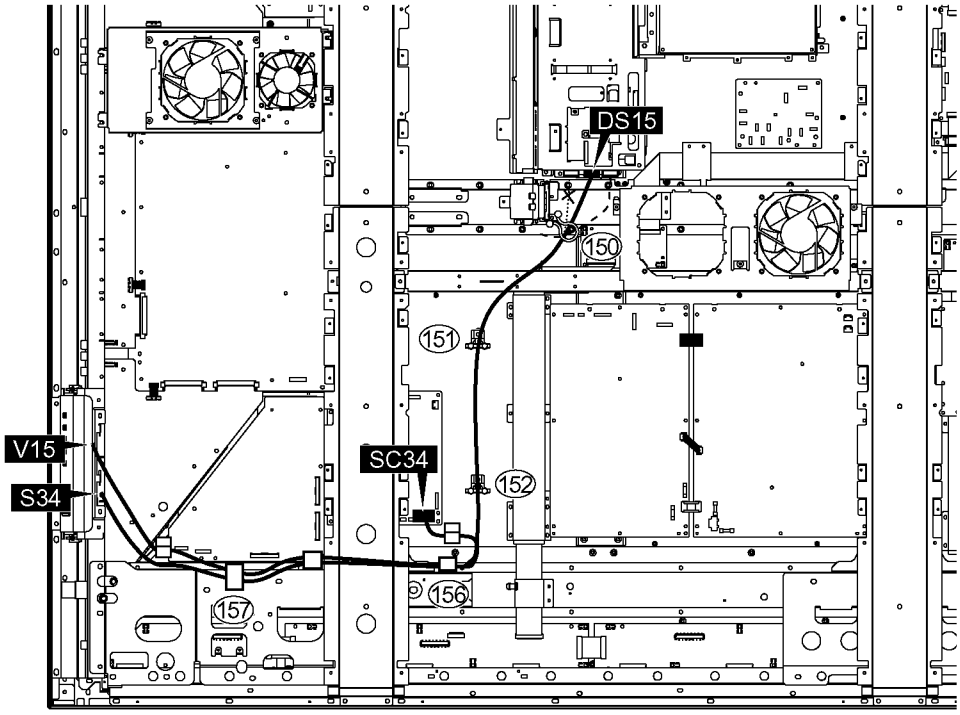



Clamp position

| CONNECTOR NUMBER | 150 | 151 | 152 | 153 | 154 | 155 |
|---|---|---|---|---|---|---|
| V1 - DS2 | O | O | O | O | O | O |
| V3 - DS2 | O | O | O | O | | O |

■ : Connector position

# 10.16. Lead Wiring (8)

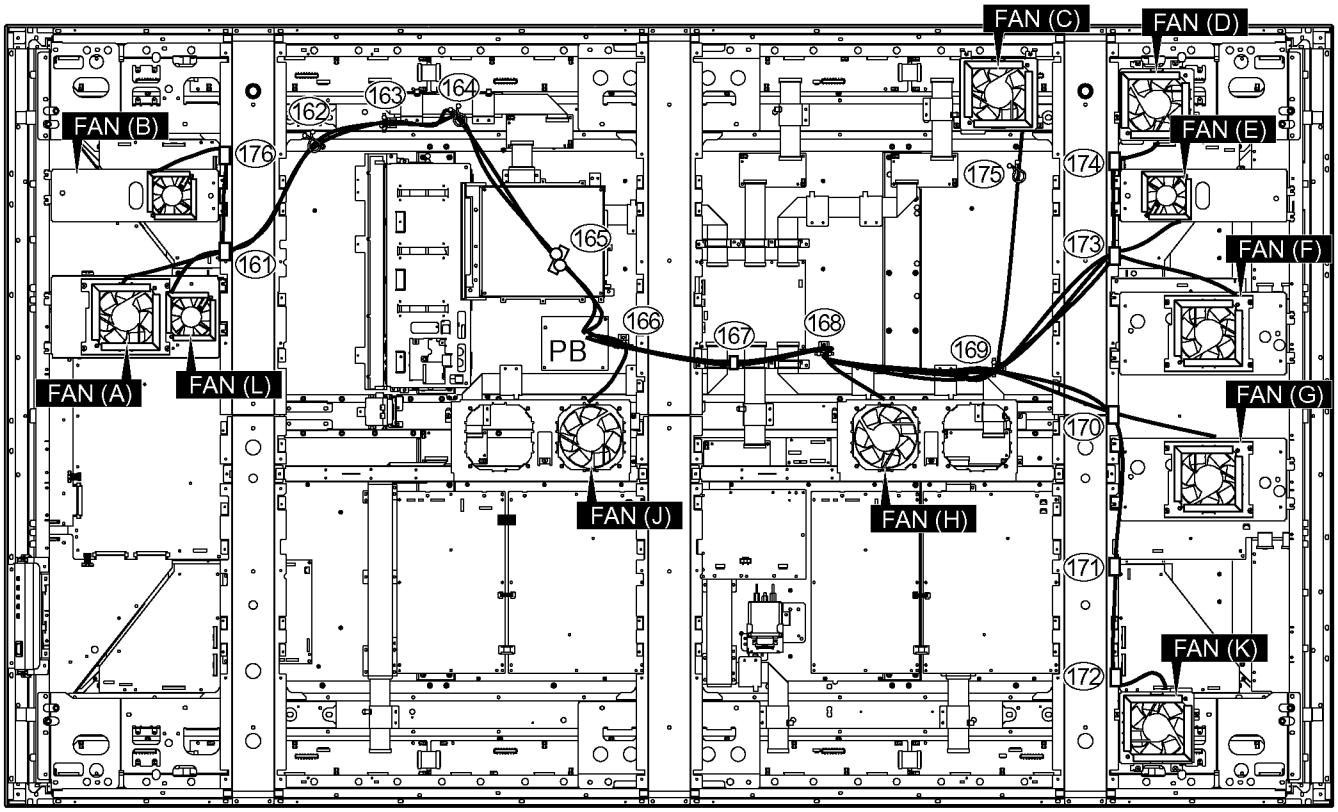



Clamp position

| CONNECTOR NUMBER | 150 | 151 | 152 | 156 | 157 |
|---|---|---|---|---|---|
| S34 - SC34 | | | | O | O |
| V15 - DS15 | O | O | O | O | |

■ : Connector position

# 10.17. Lead Wiring (9)




Clamp position

| CONNECTOR NUMBER | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB – FAN(B) | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | ○ |
| PB – FAN(A) | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | |
| PB – FAN(L) | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | |
| PB – FAN(J) | | | | | | ○ | | | | | | | | | | |
| PB – FAN(H) | | | | | | ○ | ○ | ○ | | | | | | | | |
| PB – FAN(C) | | | | | | ○ | ○ | ○ | ○ | | | | | | ○ | |
| PB – FAN(D) | | | | | | ○ | ○ | ○ | ○ | | | | ○ | ○ | | |
| PB – FAN(E) | | | | | | ○ | ○ | ○ | ○ | | | | ○ | | | |
| PB – FAN(F) | | | | | | ○ | ○ | ○ | ○ | | | | ○ | | | |
| PB – FAN(G) | | | | | | ○ | ○ | ○ | ○ | ○ | | | | | | |
| PB – FAN(K) | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | | |

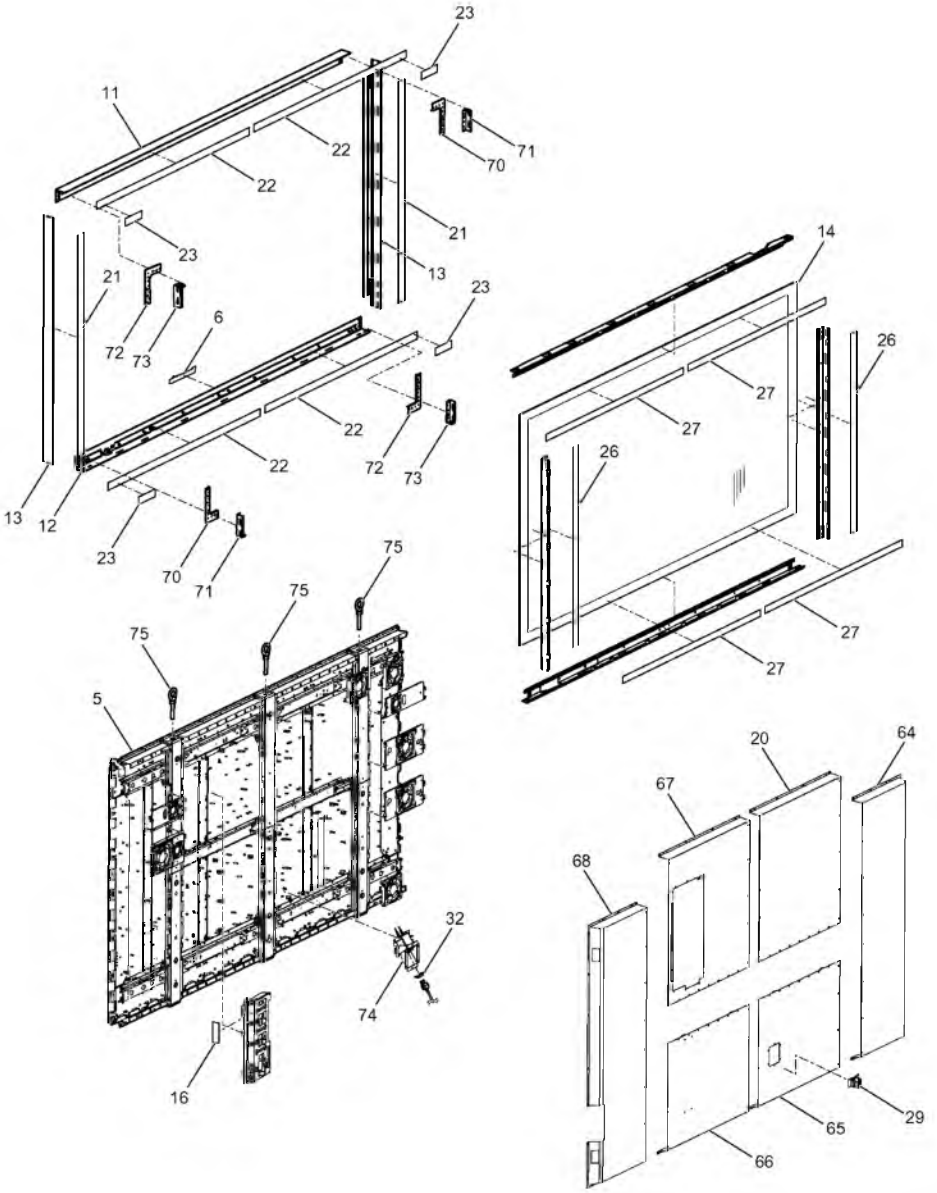
■ : Connector position

## Model No. : TH-103PF10UK/EK Caution

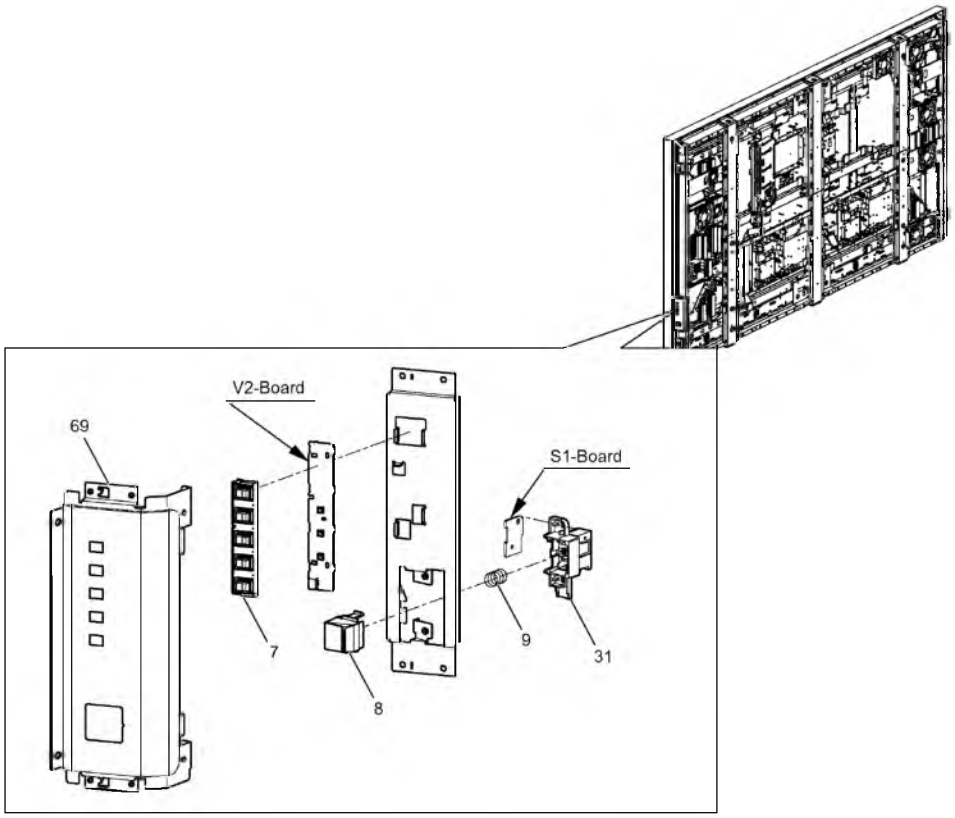
**Note**: **Important Safety Notice**
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

**Note**: All parts except parts mentioned [PAVCCZ] in the Remarks column are supplied by PAVC-CSG.
Parts mentioned [PAVCCZ] are supplied by PAVCCZ.

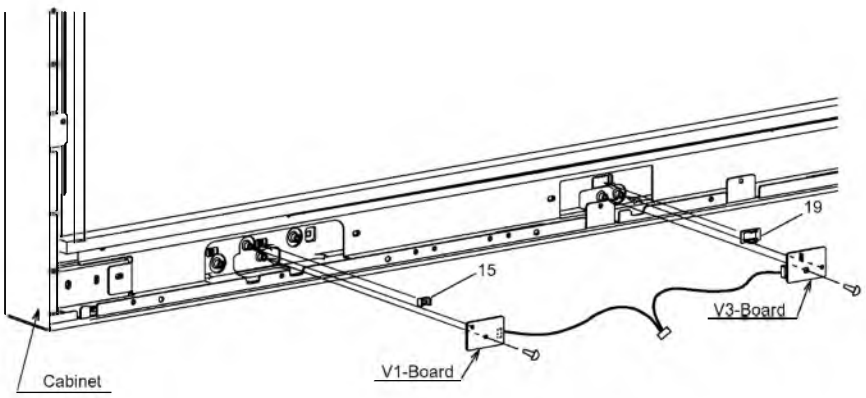
**Model No. : TH-103PF10UK/EK Exploded View**



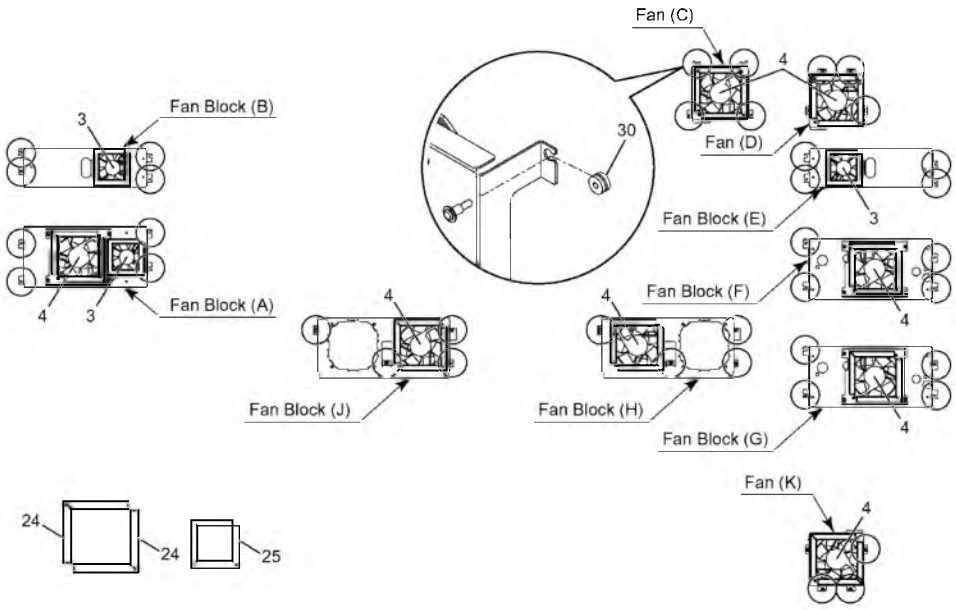
**Model No. : TH-103PF10UK/EK Cabinet part location**



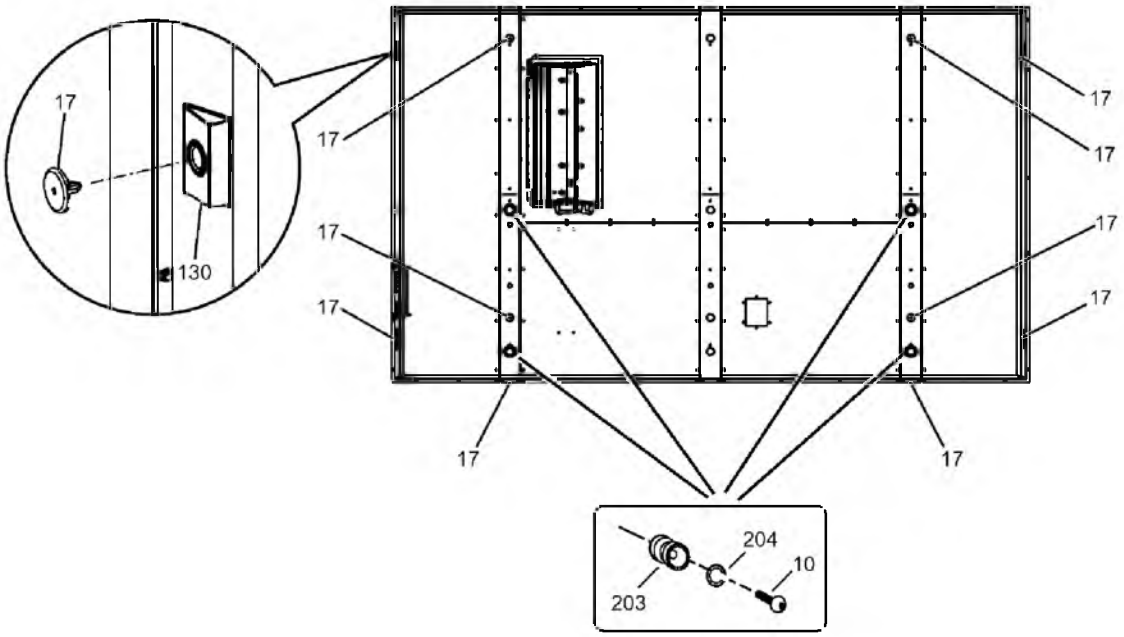
**Model No. : TH-103PF10UK/EK  Side Power part location**



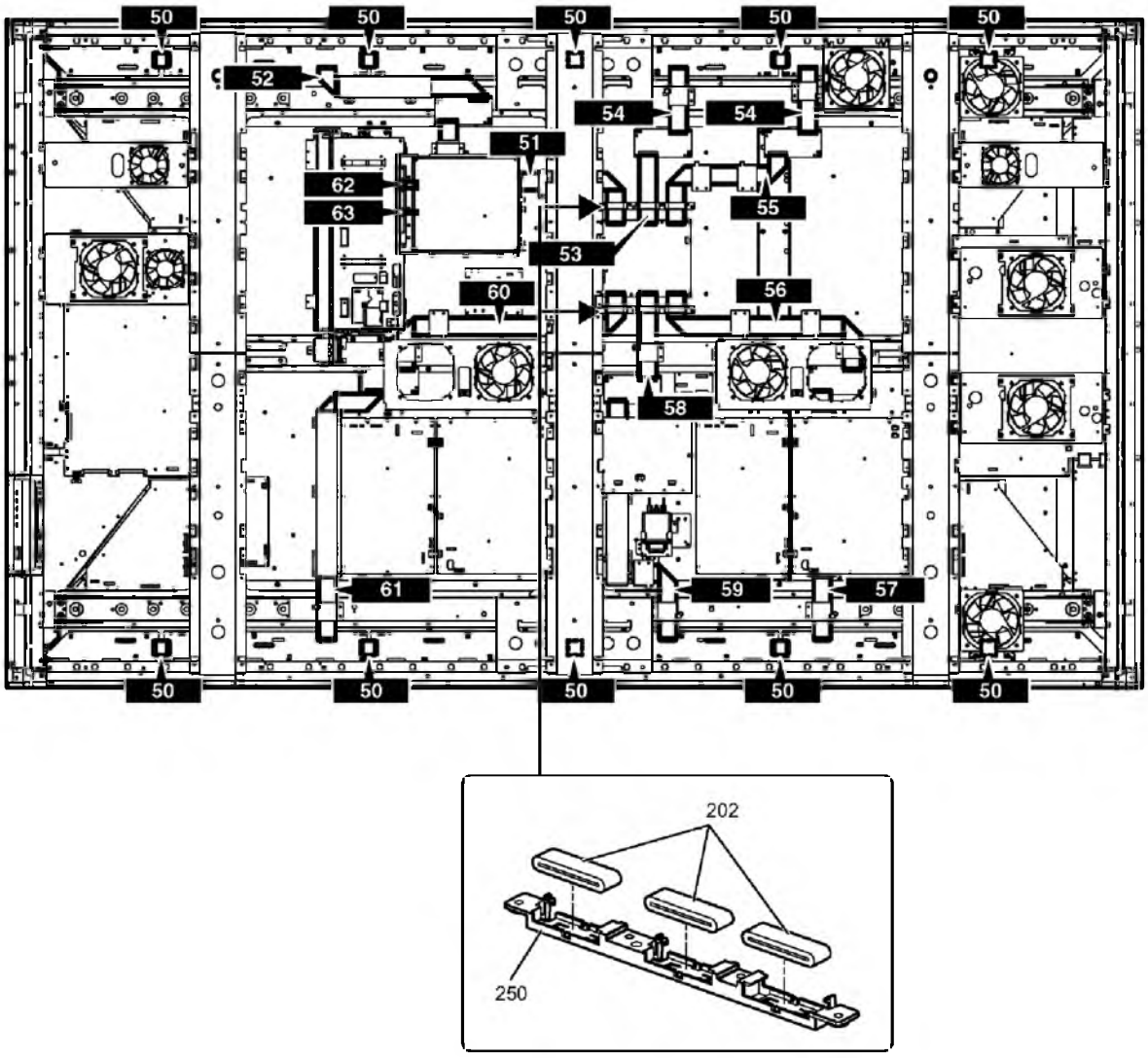
## Model No. : TH-103PF10UK/EK Fan part location



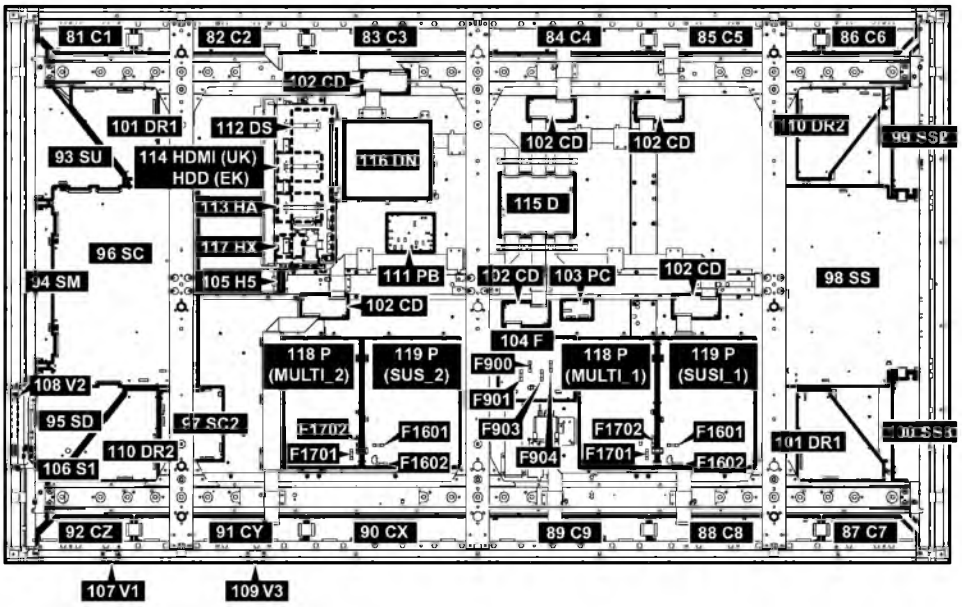
**Model No. : TH-103PF10UK/EK  Rear cover location**



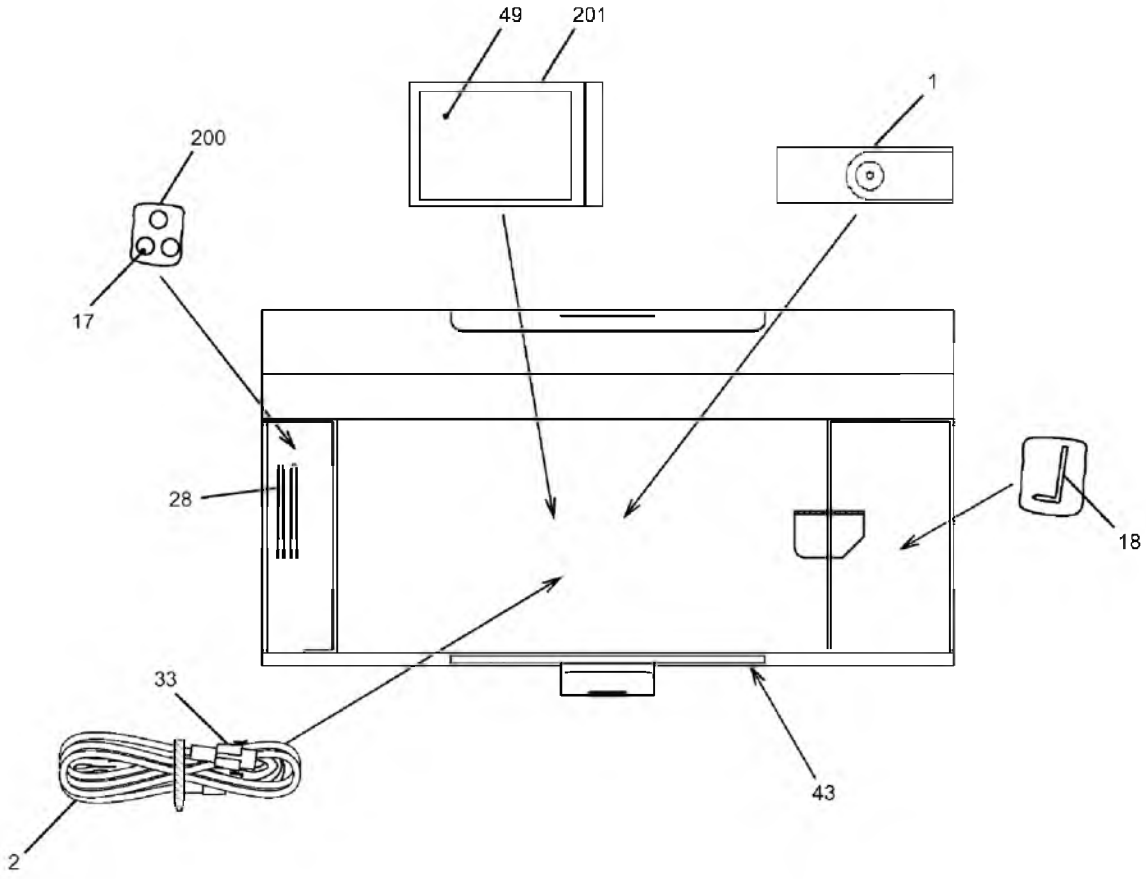
**Model No. : TH-103PF10UK/EK Cable relation**



**Model No. : TH-103PF10UK/EK Board and Fuse**

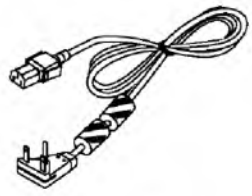


## Model No. : TH-103PF10UK/EK Packing summary (1)



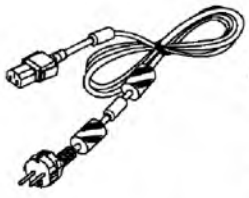

<AC power cord>

TH-103PF10UK



K2CG3YY00011
Flat parallel blade with round pin

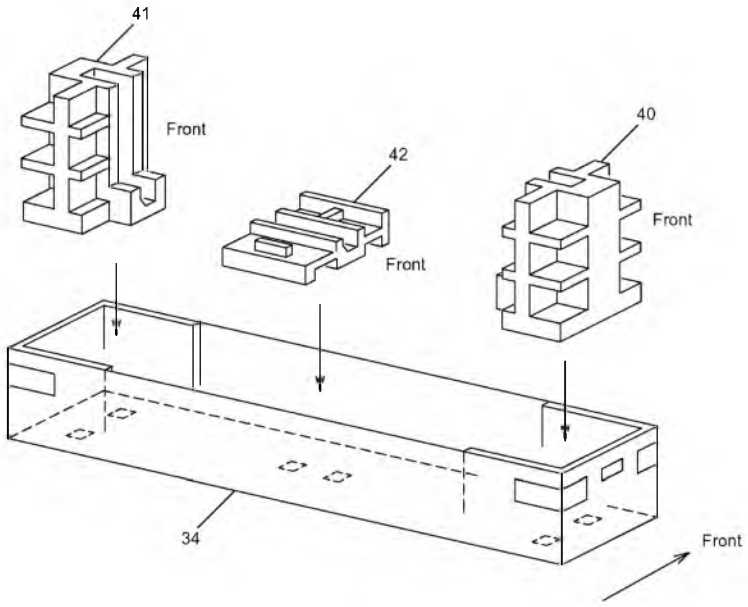
TH-103PF10EK



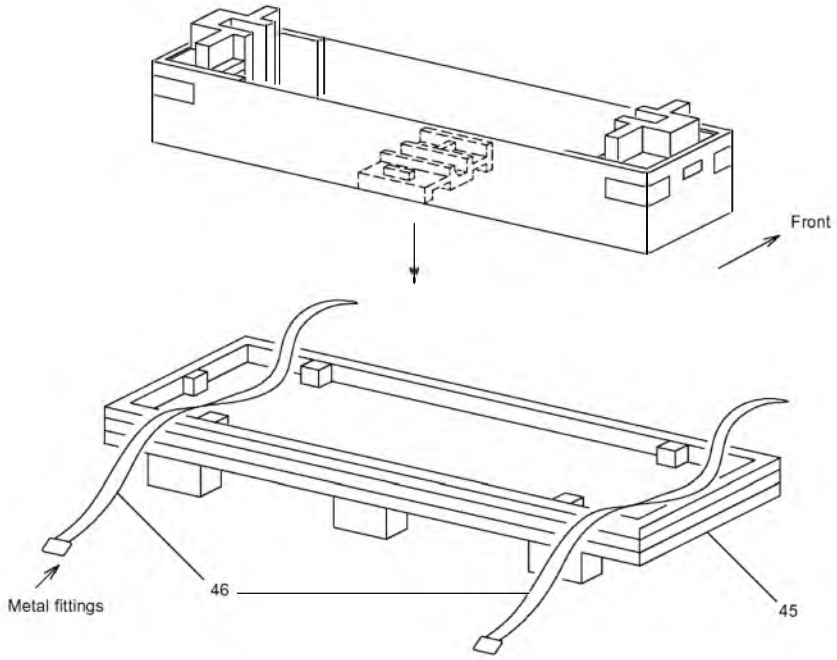
K2CN3YY00003
Round pin

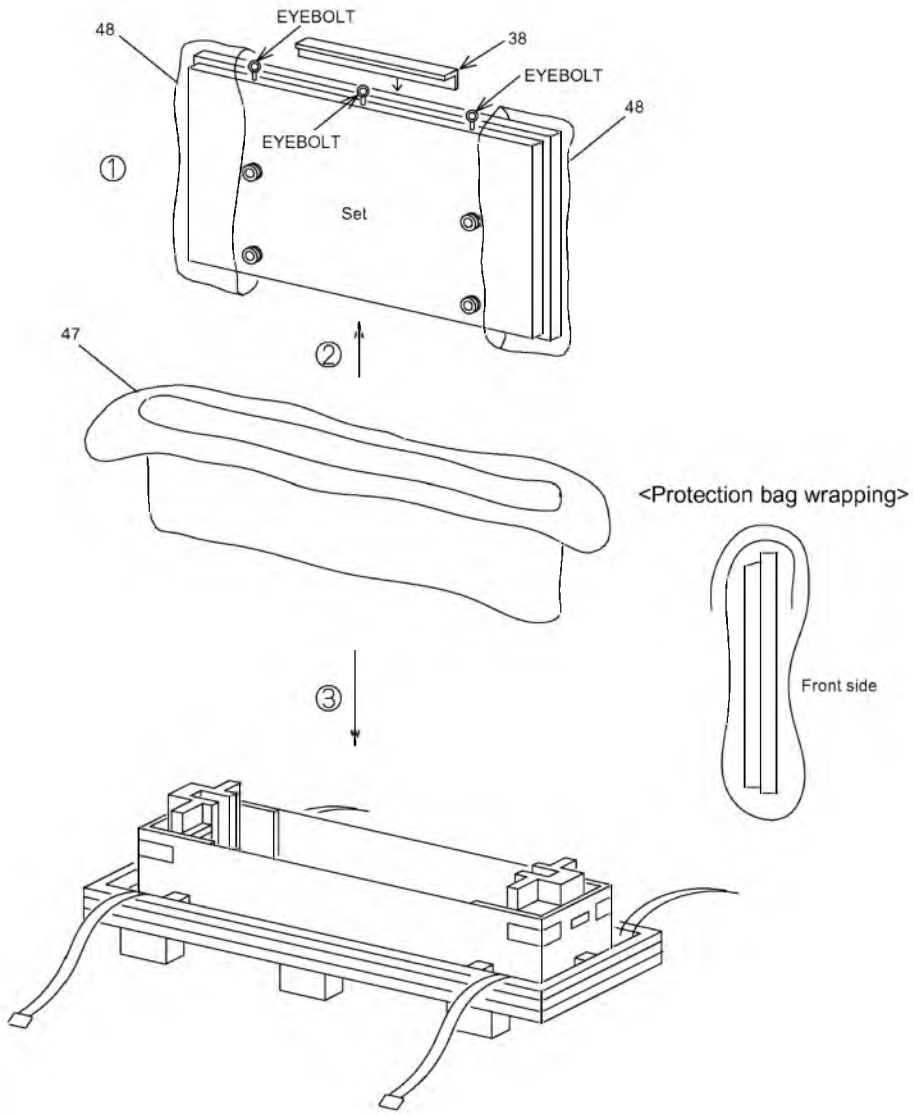


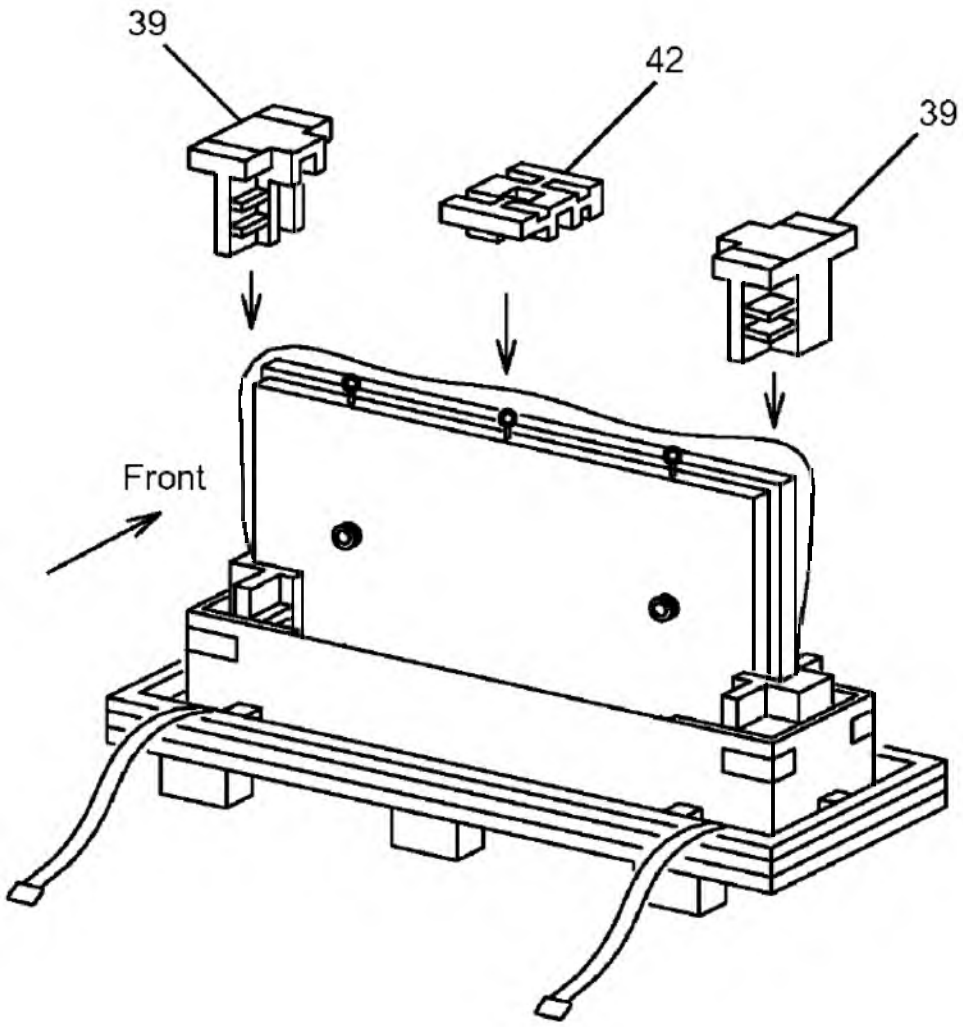
K2CT3YY00002
Rectangular blade


41
Front
42
Front
40
Front
34
Front

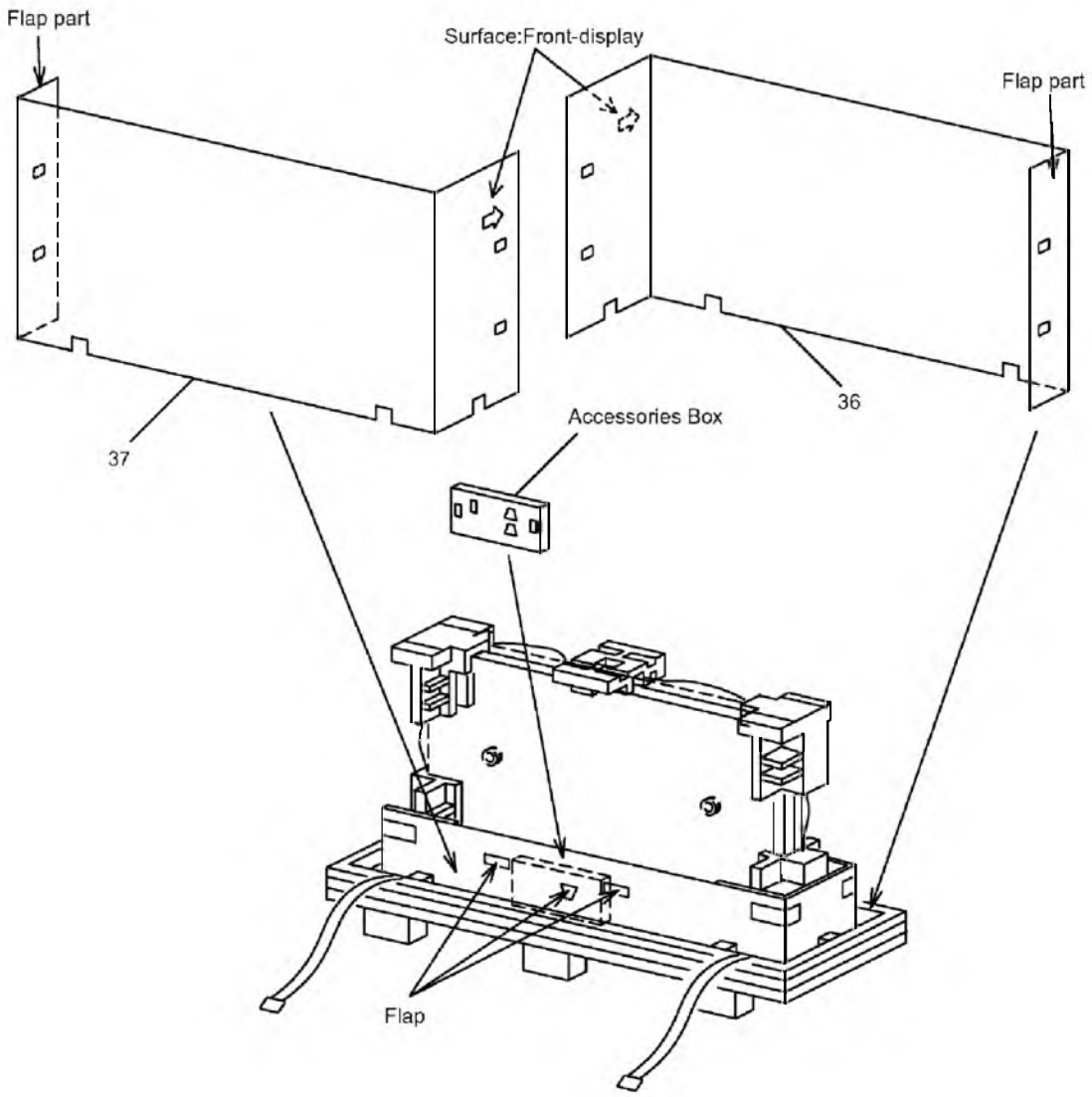
**Model No. : TH-103PF10UK/EK Packing summary (3)**

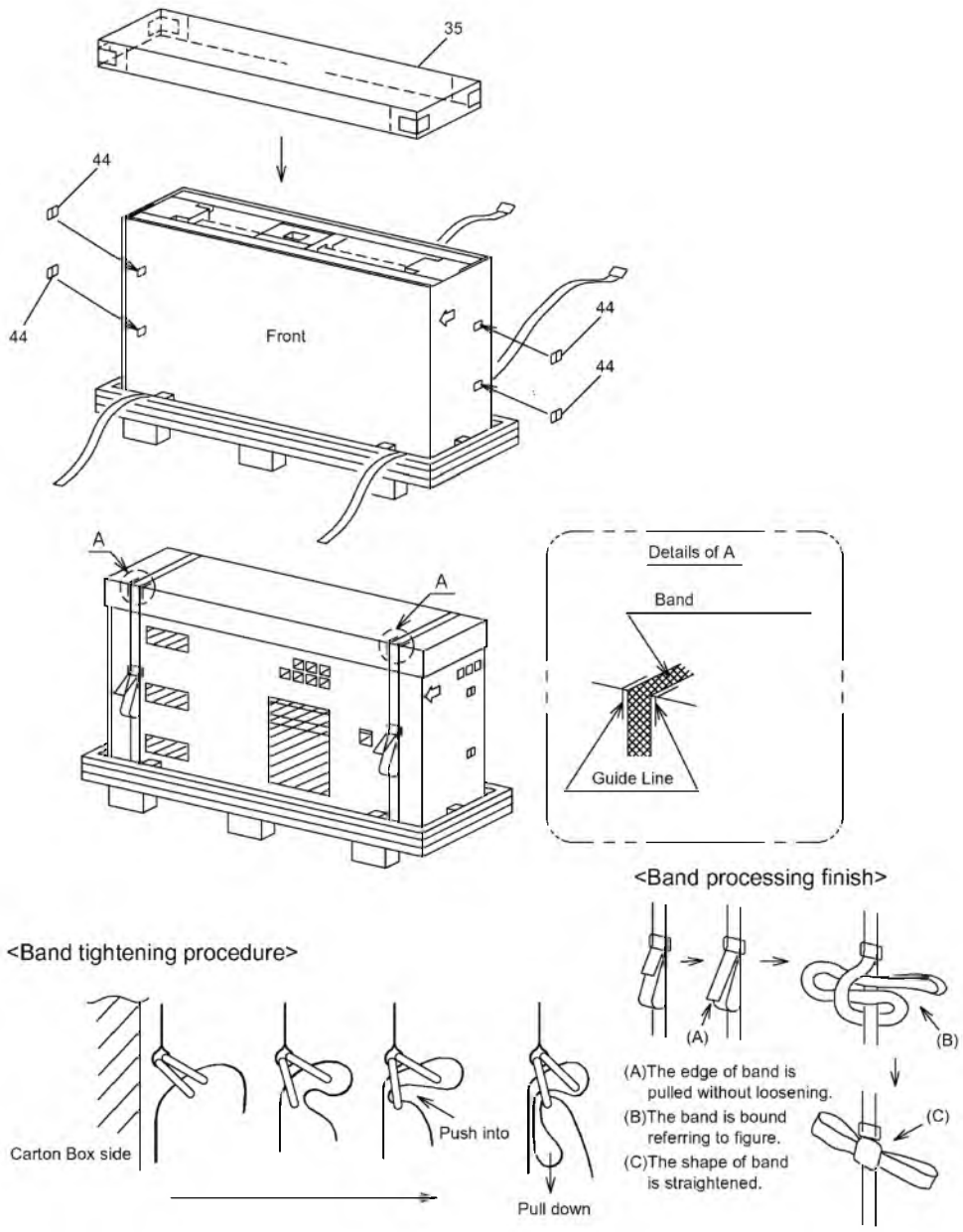



EYEBOLT
48
38
EYEBOLT
EYEBOLT
48
①
Set
47
②
<Protection bag wrapping>
Front side
③


39
42
39
Front

**Model No. : TH-103PF10UK/EK Packing summary (6)**




35
44
44
Front
44
44
A
A
Details of A
Band
Guide Line
<Band processing finish>
(A)
(B)
(C)
(A)The edge of band is pulled without loosening.
(B)The band is bound referring to figure.
(C)The shape of band is straightened.
<Band tightening procedure>
Carton Box side
Push into
Pull down

## Model No. : TH-103PF10UK/EK Parts List

| Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|---|---|---|---|---|---|
| | 1 | EUR7636070R | REMOTE CONTROLLER | 1 | UK |
| | 1 | EUR7636090R | REMOTE CONTROLLER | 1 | EK |
| ⚠ | 2 | K2CG3YY00011 | AC CORD | 1 | UK |
| ⚠ | 2 | K2CN3YY00003 | AC CORD (E) | 1 | EK |
| ⚠ | 2 | K2CT3YY00002 | AC CORD (B) | 1 | EK |
| | 3 | L6FAYYYH0030 | FAN UNIT (80) | 3 | |
| | 4 | L6FAYYYH0031 | FAN UNIT (120) | 8 | |
| ⚠ | 5 | MD103F10A1J | PLASMA DISPLAY PANEL | 1 | |
| | 6 | TBMA209 | PANASONIC BADGE | 1 | |
| | 7 | TBXA46703A | 5 RANGE BUTTON | 1 | |
| | 8 | TBXA50001 | POWER BUTTON | 1 | |
| | 9 | TESD031 | POWER BUTTON SPRING | 1 | |
| | | THEA068N | SCREW | 4 | |
| | 10 | THEA154J | M16 BOLT | 4 | |
| | | THEC098J | SCREW | 18 | |
| | | THEL0239 | SCREW | 12 | |
| | | THEL027N | SCREW | 12 | UK |
| | | THEL027N | SCREW | 8 | EK |
| | | THEL037N | SCREW | 1 | |
| | | THEL0429 | SCREW | 11 | |
| | | THTA0419 | SCREW | 2 | |
| | | THTD011J | SCREW | 4 | |
| | | THTD013N | SCREW | 22 | |
| | | THTF011N | SCREW | 163 | |
| | 11 | TKEA16401A | CABINET TOP | 1 | |
| | 12 | TKEA16504T | CABINET BOTTOM | 1 | |
| | 13 | TKEA16601A | CABINET LEFT/RIGHT | 2 | |
| | 14 | TKGA5410 | FRONT GLASS | 1 | |
| | 15 | TKKC5213 | LED PANEL | 1 | |
| | 16 | TKKL5266-1 | BLANK PLATE | 1 | |
| | 17 | TKKL5370 | EYE BOLT COVER | 13 | |
| | 18 | TKKX0015 | HEXAGONAL WRENCH | 1 | |
| | 19 | TKPA60301 | REMOCON RECEIVE PANEL | 1 | |
| | 20 | TKUX11501 | REAR COVER(CENTER/LEFT/TOP) | 1 | |
| | 21 | TMKA580 | CABINET FELT LEFT/RIGHT | 2 | |
| | 22 | TMKA581 | CABINET FELT TOP/BOTTOM | 4 | |
| | 23 | TMKA629 | CABINET FELT CORNER | 4 | |
| | 24 | TMKG405 | SPONGE(FAN) | 16 | |
| | 25 | TMKG469-1 | SPONGE(FAN) | 3 | |
| | 26 | TMKG732 | SPONGE(LEFT/RIGHT) | 2 | |
| | 27 | TMKG733 | SPONGE(TOP/BOTTOM) | 4 | |
| | | TMM14490 | CLAMPER | 31 | |
| | | TMM16473-1 | CLAMPER | 16 | |

## Model No. : TH-103PF10UK/EK Parts List

| Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|---|---|---|---|---|---|
| ⚠ | | TMM17499 | CLAMPER | 1 | |
| | | TMM6428-1 | CLAMPER | 3 | |
| | | TMM6463-1 | CLAMPER | 7 | |
| | | TMM6496-1 | CLAMPER | 2 | |
| | | TMM7464-2 | CLAMPER | 2 | |
| | | TMM7468-1 | CLAMPER | 5 | UK |
| | | TMM7468-1 | CLAMPER | 6 | EK |
| | | TMME047 | CLAMPER | 4 | |
| | | TMME185 | CLAMPER | 4 | |
| | | TMME190 | CLAMPER | 3 | |
| | | TMME287 | CLAMPER | 4 | |
| | | TMME292 | CLAMPER | 1 | |
| | 28 | TMME203 | CLAMPER | 2 | |
| | 29 | TMME226 | AC CORD CLAMPER | 1 | |
| | | TMME228 | CLAMPER | 4 | |
| | 130 | TMMX158 | COVER(EDGE GAURD) | 4 | |
| | 30 | TMMJ068 | RUBBER(FAN) | 38 | |
| | 31 | TMWC016 | POWER BUTTON BRACKET | 1 | |
| | 250 | TMXX033 | CORE HOLDER | 2 | |
| | 32 | TMXX035 | AC CORD CLAMPER A | 1 | |
| | 33 | TMXX036 | AC CORD CLAMPER B | 1 | UK |
| | 34 | TPCC04501 | CARTON BOX BOTTOM | 1 | |
| | 35 | TPCC04601 | CARTON BOX TOP | 1 | |
| ⚠ | 36 | TPCC28804 | CARTON SIDE A | 1 | UK |
| ⚠ | 36 | TPC0E83501 | CARTON SIDE A (Indication: Assembled in CZ) | 1 | EK, PAVCCZ |
| ⚠ | 36 | TPCC28810 | CARTON SIDE A (Indication: Made in Japan ) | 1 | EK |
| ⚠ | 37 | TPCC28904 | CARTON SIDE B | 1 | UK |
| ⚠ | 37 | TPC0E83503 | CARTON SIDE B (Indication: Assembled in CZ) | 1 | EK, PAVCCZ |
| ⚠ | 37 | TPCC28910 | CARTON SIDE B (Indication: Made in Japan ) | 1 | EK |
| | 38 | TPDA1038 | CUSHION (CENTER) | 4 | |
| | 39 | TPDA1416 | TOP CUSHION | 2 | |
| | 40 | TPDA1417-1 | BOTTOM CUSHION LEFT | 1 | |
| | 41 | TPDA1418-1 | BOTTOM CUSHION RIGHT | 1 | |
| | 42 | TPDA1419 | CUSHION CENTER | 2 | |
| | 43 | TPDF1746 | ACCESSORIES BOX | 1 | |
| | 44 | TPDX0007 | JOINT | 4 | |
| | 45 | TPDX0027 | BOTTOM SKID | 1 | |
| | 46 | TPDX0041 | BAND | 2 | |
| | 47 | TPEH323 | PROTECTION BAG | 1 | |
| | 48 | TPEH324 | FRONT PROTECTION COVER | 2 | |
| ⚠ | 49 | TQBC2243 | INSTRUCTION BOOK(ENGLISH) | 1 | UK |
| ⚠ | 49 | TQBC2244 | INSTRUCTION BOOK(SPANISH) | 1 | UK |

## Model No. : TH-103PF10UK/EK Parts List

| Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|---|---|---|---|---|---|
| ⚠ | 49 | TQBC2245 | INSTRUCTION BOOK(FRANCH) | 1 | UK |
| ⚠ | 49 | TQB0E0481A | INSTRUCTION BOOK(GERMAN) | 1 | PAVCCZ EK |
| ⚠ | 49 | TQB0E0481B | INSTRUCTION BOOK(DUTCH) | 1 | PAVCCZ EK |
| ⚠ | 49 | TQB0E0481C | INSTRUCTION BOOK(ITALIAN) | 1 | PAVCCZ EK |
| ⚠ | 49 | TQB0E0481D | INSTRUCTION BOOK(FRENCH) | 1 | PAVCCZ EK |
| ⚠ | 49 | TQB0E0481E | INSTRUCTION BOOK(SPANISH) | 1 | PAVCCZ EK |
| ⚠ | 49 | TQB0E0481F | INSTRUCTION BOOK(SWEDISH) | 1 | PAVCCZ EK |
| ⚠ | 49 | TQB0E0481K | INSTRUCTION BOOK(DANISH) | 1 | PAVCCZ EK |
| ⚠ | 49 | TQB0E0481U | INSTRUCTION BOOK(ENGLISH) | 1 | PAVCCZ EK |
| | 200 | TQEF035 | POLY BAG FOR EYE BOLT COVER | 1 | |
| | 50 | TSXL518 | CABLE (C11-C21/C23-C32/C31-C41/C42-C53/C51-C61/C71-C81/C83-C93/C91-CX1/CX2-CY3/CY1-CZ1) | 10 | |
| | 51 | TSXL568 | CABLE(D31-CD1) | 1 | |
| | 52 | TSXL569 | CABLE(C20-CD2) | 1 | |
| | 53 | TSXL570 | CABLE(D32-CD1) | 1 | |
| | 54 | TSXL571 | CABLE(C40-CD2) | 2 | |
| | 55 | TSXL572 | CABLE(D33-CD1) | 1 | |
| | 56 | TSXL574 | CABLE(D34-CD1) | 1 | |
| | 57 | TSXL575 | CABLE(C80-CD2) | 1 | |
| | 58 | TSXL576 | CABLE(D35-CD1) | 1 | |
| | 59 | TSXL577 | CABLE(C90-CD2) | 1 | |
| | 60 | TSXL578 | CABLE(D36-CD1) | 1 | |
| | 61 | TSXL579 | CABLE(CY0-CD2) | 1 | |
| | 62 | TSXL584 | CABLE(DN6-DS6) | 1 | |
| | 63 | TSXL585 | CABLE(DN1-DS1) | 1 | |
| | 64 | TTUA1515-1 | REAR COVER(SIDE/LEFT) | 1 | |
| | 65 | TTUA1518 | REAR COVER(CENTER/LEFT/BOTTOM) | 1 | |
| | 66 | TTUA1520 | REAR COVER(CENTER/(RIGHT/BOTTOM) | 1 | |
| | 67 | TTUA1748 | REAR COVER(CENTER/(RIGHT/TOP) | 1 | UK |
| | 67 | TTUA1519 | REAR COVER(CENTER/(RIGHT/TOP) | 1 | EK |
| ⚠ | 68 | TTUA1751-1 | REAR COVER(SIDE/RIGHT) | 1 | UK |
| ⚠ | 68 | TTUA1779-1 | REAR COVER(SIDE/RIGHT) | 1 | EK PAVCCZ |
| ⚠ | 68 | TTUA1892 | REAR COVER(SIDE/RIGHT)(Indication: Made in Japan) | 1 | EK |
| | 69 | TUWC056 | SIDE POWER COVER | 1 | |
| | 70 | TUXJ350 | CABINET/TOP RIGHT/BOTTOM) | 2 | |
| | 71 | TUXJ351 | CABINET/TOP RIGHT/BOTTOM) | 2 | |
| | 72 | TUXJ370 | CABINET/TOP LEFT/BOTTOM) | 2 | |
| | 73 | TUXJ371 | CABINET/TOP LEFT/BOTTOM) | 2 | |
| | 203 | TUXK056 | STAND HOOK | 4 | |
| ⚠ | 74 | TXAJS01YLTJ | INLET ASSY | 1 | |
| | 202 | J0KD00000096 | FERRITE CORE | 6 | |
| | | UR76EC2803A | BATTERY COVER | 1 | UK |
| | | XTV3+10JFJ | SCREW | 3 | |

## Model No. : TH-103PF10UK/EK Parts List

| Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|---|---|---|---|---|---|
| | | XTV3+8JFJK | SCREW | 1 | |
| | | XTW3+8TFJ | SCREW | 2 | |
| | 75 | XVN16FJ | EYE BOLT | 3 | |
| | 204 | XWB16BVJ | M16 SPRING WASHER | 4 | |
| | | XYN3+F10FJ | SCREW | 9 | |
| | | XYN3+F8FJ | SCREW | 35 | |
| | | XYN3+J12FJ | SCREW | 193 | |
| | | XYN3+J8FJ | SCREW | 16 | |
| | | XYN4+F10FJ | SCREW | 8 | |
| | | XYN4+F10FJK | SCREW | 142 | |
| | | XYN4+F32FJ | SCREW | 32 | |
| | | XYN4+J10FJ | SCREW | 99 | |
| | | XYN5+F15FJ | SCREW | 56 | |
| | | XYN5+F30FJK | SCREW | 18 | |
| | | XYN8+F20FJK | SCREW | 6 | |
| | 201 | XZBT6506 | POLY BAG FOR INST.BOOK | 1 | |
| ⚠ | F900 | K5D103BMA001 | TIME LAG FUSE HIGH | 1 | |
| ⚠ | F901 | K5D103BMA001 | TIME LAG FUSE HIGH | 1 | |
| ⚠ | F903 | K5D103BMA001 | TIME LAG FUSE HIGH | 1 | |
| ⚠ | F904 | K5D103BMA001 | TIME LAG FUSE HIGH | 1 | |
| ⚠ | F1601 | K5D103BMA001 | TIME LAG FUSE HIGH | 2 | |
| ⚠ | F1602 | K5D103BMA001 | TIME LAG FUSE HIGH | 2 | |
| ⚠ | F1701 | K5D502BNA007 | AC FUSE | 2 | |
| ⚠ | F1702 | K5D502BNA007 | AC FUSE | 2 | |
| ⚠ | 81 | TNPA4018 | CIRCUIT BOARD C1 | 1 | |
| ⚠ | 82 | TNPA4019 | CIRCUIT BOARD C2 | 1 | |
| ⚠ | 83 | TNPA4020 | CIRCUIT BOARD C3 | 1 | |
| ⚠ | 84 | TNPA4021 | CIRCUIT BOARD C4 | 1 | |
| ⚠ | 85 | TNPA4022 | CIRCUIT BOARD C5 | 1 | |
| ⚠ | 86 | TNPA4023 | CIRCUIT BOARD C6 | 1 | |
| ⚠ | 87 | TNPA4024 | CIRCUIT BOARD C7 | 1 | |
| ⚠ | 88 | TNPA4025 | CIRCUIT BOARD C8 | 1 | |
| ⚠ | 89 | TNPA4026 | CIRCUIT BOARD C9 | 1 | |
| ⚠ | 90 | TNPA4027 | CIRCUIT BOARD CX | 1 | |
| ⚠ | 91 | TNPA4028 | CIRCUIT BOARD CY | 1 | |
| ⚠ | 92 | TNPA4029 | CIRCUIT BOARD CZ | 1 | |
| ⚠ | 93 | TNPA4030 | CIRCUIT BOARD SU | 1 | |
| ⚠ | 94 | TNPA4031 | CIRCUIT BOARD SM | 1 | |
| ⚠ | 95 | TNPA4032 | CIRCUIT BOARD SD | 1 | |
| ⚠ | 96 | TNPA4033 | CIRCUIT BOARD SC | 1 | |
| ⚠ | 97 | TNPA4034 | CIRCUIT BOARD SC2 | 1 | |
| ⚠ | 98 | TNPA4035 | CIRCUIT BOARD SS | 1 | |
| ⚠ | 99 | TNPA4036 | CIRCUIT BOARD SS2 | 1 | |

## Model No. : TH-103PF10UK/EK Parts List

| Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|---|---|---|---|---|---|
| ⚠ | 100 | TNPA4037 | CIRCUIT BOARD SS3 | 1 | |
| ⚠ | 101 | TNPA4039 | CIRCUIT BOARD DR1 | 2 | |
| ⚠ | 102 | TNPA4040 | CIRCUIT BOARD CD | 6 | |
| ⚠ | 103 | TNPA4041 | CIRCUIT BOARD PC | 1 | |
| ⚠ | 104 | TNPA4055 | CIRCUIT BOARD F | 1 | |
| ⚠ | 105 | TNPA4058 | CIRCUIT BOARD H5 | 1 | |
| ⚠ | 106 | TNPA4084 | CIRCUIT BOARD S1 | 1 | |
| ⚠ | 107 | TNPA4085 | CIRCUIT BOARD V1 | 1 | |
| ⚠ | 108 | TNPA4086 | CIRCUIT BOARD V2 | 1 | |
| ⚠ | 109 | TNPA4087 | CIRCUIT BOARD V3 | 1 | |
| ⚠ | 110 | TNPA4100 | CIRCUIT BOARD DR2 | 2 | |
| ⚠ | 111 | TNPA4103 | CIRCUIT BOARD PB | 1 | |
| ⚠ | 112 | TNPA4386 | CIRCUIT BOARD DS | 1 | |
| ⚠ | 113 | TXNHA10RBS | CIRCUIT BOARD HA | 1 | |
| ⚠ | 114 | TXNHHH10XXT | CIRCUIT BOARD HDMI | 1 | UK |
| ⚠ | 114 | TNPA4052 | CIRCUIT BOARD HDD | 1 | EK |
| ⚠ | 115 | TZTNP010XAT | CIRCUIT BOARD D | 1 | |
| ⚠ | 116 | TZTNP020XAT | CIRCUIT BOARD DN | 1 | |
| ⚠ | 117 | TZTNP030XAT | CIRCUIT BOARD HX | 1 | |
| ⚠ | 118 | ZTXMM641MG1 | CIRCUIT BOARD P (MULTI) | 2 | |
| ⚠ | 119 | ZTXMM641MG2 | CIRCUIT BOARD P (SUS) | 2 | |
| | RM001 | PNA4701M05TV | REMOCON RECEIVER | 1 | |