# FUJITSU

## Plasmavision™
**PDS4208W-B**
**PDS4208E-B**
**PDS4209U-B**

# SERVICE MANUAL

FUJITSU GENERAL Proprietary

FUJITSU GENERAL LIMITED

# CONTENTS

# IMPORTANT INFORMATION

> **WARNING :** **TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.**

Please use a screen saver to prevent burning of an after-image on the screen.

Electrical energy can perform many useful functions. This unit has been engineered and manufactured to assure your personal safety. But IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD. In order not to defeat the safeguards incorporated into this unit, observe the following basic rules governing its installation, use and service. Please read these "Important Safeguards" carefully before use.

— Read all the safety and operating instructions before operating the unit.

— Retain the safety and operating instructions for future reference.

— Adhere to all warnings on the unit and in the operating instructions.

— Follow all operating instructions.

— Unplug the unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

— Do not use attachments not recommended by the manufacturer as they may be hazardous.

— Do not use the unit near water. Do not use the unit immediately after moving it from a low temperature to a high temperature environment, as this causes condensation, which may result in fire, electric shock, or other hazards.

— Do not place the unit on an unstable cart, stand, or table. The unit may fall, causing serious injury to a child or adult, and serious damage to the unit. Mount the unit according to the manufacturer's instructions, using the mount recommended by the manufacturer.

— When the unit is used on a cart, avoid quick stops, excessive force, and uneven surfaces which may cause the unit and cart to overturn, damaging the unit or causing possible injury to the operator.
When transporting by car, place the unit as shown in the figure.

— Slots and openings in the cabinet are provided for ventilation. These ensure reliable operation and protect the unit from overheating. These openings must not be blocked or covered. (The openings should never be blocked by placing the unit on a bed, sofa, rug, or similar surface. The unit should not be placed in a built - in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions are adhered to.) For proper ventilation, separate the unit from other equipment, which may obstruct ventilation. Keep the unit at least 10cm from other equipment.

— Operate only with the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.

— This unit is equipped with a three-wire plug. This plug will fit only into a grounded power outlet. If you cannot insert the plug into the outlet, have an electrician install the proper outlet. Do not defeat the safety purpose of the grounded plug.

— Route power cords so that they are not likely to be walked on or pinched by items placed on or against them. Pay particular attention to cords at doors, plugs, receptacles, and where they exit from the unit.

— For added protection during a lightning storm, or when the unit is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cabling. This will prevent damage to the unit by lighting and power line surges.

— Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in fire or electric shock.

— Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-circuit parts that could result in a fire or electric shock. Never spill liquid of any kind onto the unit.

— Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltages and other hazards. Have all service done by qualified service personnel.

— Unplug this unit from the wall outlet and have it serviced by qualified service personnel in the following cases:

a) If the power supply cord or plug is damaged.
b) If liquid has been spilled, or objects have fallen onto the unit.
c) If the unit has been exposed to rain or water.
d) If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the Operation Manual, as improper adjustment of controls may result in damage and will often require extensive work by a qualified technician to restore the unit to normal operation.
e) If the unit has been dropped or damaged in any way.
f) A distinct change in performance indicates that service is required.

— When required, be sure the service technician uses replacement parts specified by the manufacturer or parts with the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.

— Upon completion of any service of repairs, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

— Place the unit more than one foot away from heat sources such as radiators, heat registers, stoves, and other devices (including amplifiers) that produce heat.

— When connecting other devices such as VCR's and personal computers, turn off the power to this unit to protect against electric shock.

— Do not place combustibles such as cloth, paper, matches, aerosol cans or gas lighters that prevent special hazards when overheated behind the cooling fan.

— Use only the accessory cord designed for this unit to prevent shock.

The power supply voltage rating of this unit is AC100-240V, but the attached power cord conforms to the following power supply voltage. Use only the Power Cord designated by our dealer to ensure Safety and EMC.

When used with other power supply voltages, the power cable must be changed.
Consult your local dealer.

Power Cord

Power supply voltage :     AC 100 - 125 V          AC 200 - 240 V          AC-240V
(SAA TYPE)
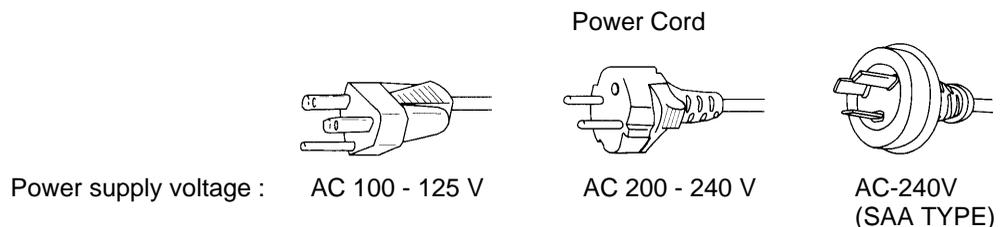
# SPECIFICATIONS

| | | | |
|---|---|---|---|
| **Power source** | 100-240V, 50/60Hz | **Accessories** | User's manual |
| **Power consumption** | 370 W | | Remote controller |
| | | | Dry batteries (Type AA 2pcs.) |
| **Display panel** | UE-41 type | | Power cable |
| Screen size | 92.0 (W) x 51.8 (H) [cm] | | Cable clamp (2 types) |
| | 36.2 (W) x 20.4 (H) [inch] | | Bracket (2 types) |
| Aspect ratio | 16 : 9 | | Screw (2 types) |
| Number of pixels | 852 (H) x 480 (V) pixels | | Ferrite core (2 types) |
| Pixel pitch | 1.08mm x 1.08mm | | |

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  Aspect ratio 16 : 9
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  Pixel pitch 1.08mm x 1.08mm

  Contrast ratio 450 : 1 (typ.)
  Brightness 300 cd/m$^2$ (typ.)
  Viewing angle Max. 160 degrees

**Input terminals**
  Video input BNC connector
              1.0V$_{P-P}$ /75Ω

  S video input S terminal
              Y signal : 1.0V$_{P-P}$ /75Ω
              C signal : 0.3V$_{P-P}$ /75Ω

  Component video Three BNC terminals
  input    Y    : 1V$_{P-P}$ /75Ω
              P$_b$ /B-Y: 0.7V$_{P-P}$ /75Ω
              P$_r$ /R-Y: 0.7V$_{P-P}$ /75Ω

  Analog RGB input mD-sub:15pin (3 row type)
              Video    0.7V$_{P-P}$ /75Ω
              SYNC signal : TTL level
                    or 0.3V$_{P-P}$ /75Ω

  Display frequency Horizontal :15.62 to 80.0kHz
              Vertical : 50.0 to 120Hz
              Dot clock : 50MHz Max
                   XGA 68MHz Max

**RS-232C** D-sub 9-pin terminal

**Color system** NTSC/PAL/SECAM/4.43NTSC

**Display colors** 16.7 million (256 each for R.G.B.)

**Language** English/German/French/Italy/
Spanish/(E type:Russian)

**Dimensions** Width : 103.5 cm (46.7 inch)
Height: 64.0 cm (25.2 inch)
Depth : 8.5 cm (5.9 inch)

**Net weight** 31.5kg

**Environment (Operating)**
              Temperature      0° to 40°C
              Relative humidity  20 to 90%
              Pressure 800 to 1,114 hPa

**Accessories** User's manual
Remote controller
Dry batteries (Type AA 2pcs.)
Power cable
Cable clamp (2 types)
Bracket (2 types)
Screw (2 types)
Ferrite core (2 types)

**Options**
  Stand P-42TT11
  Wall mounting unit P-42WB12  installation angle
              Horizontal   0° to 15°
              Vertical      0° to 5°
  Ceiling mounting unit P-42CT11  installation angle
              Available    0° to 15°

**Regulation**

        PDS4208W-H
        PDS4208E-H
        PDS4209U-H

• UL,CSA
  Safety : UL1950
           CSA C22.2 No.950
  EMC   : FCC Part15 Class A
           ICES-003 Class A

• CE
  Safety:   EN60950  1992
                  A1  1993
                  A2  1993
                  A3  1995
                  A4  1997

  EMC :  EN55022     1994      Class A
          EN61000-3-2, 1995
          EN61000-3-3, 1995
          EN55024,     1998
          EN61000-4-2, 1995
          EN61000-4-3, 1996
          EN61000-4-4, 1995
          EN61000-4-5, 1995
          EN61000-4-6, 1996
          EN61000-4-8, 1993
          EN61000-4-11,1994

• AS
  Safety : IEC950 A1/A2/A3/A
  EMC : AS/NZS 3548

# SETTING  SIGNALS

This display can store parameter settings for eight additional signals for RGB.
To do this, select the desired signal and follow "RGB MODE ADJUSTMENT" in the manual to adjust the parameters.
When you finish, the settings will be automatically stored.

This unit has been factory-set for the 18 signals shown below.

**FACTORY SET SIGNALS (RGB MODE)**

| Display (dots x lines) | Horizontal frequency (kHz) | Vertical frequency (Hz) | Signal |
|---|---|---|---|
| 852 x 480 | 31.72 | 59.97 | When a dedicated graphics card used |
| 640 x 480 | 31.47 | 59.94 | VGA |
| 640 x 480 | 37.86 | 72.81 | VGA 72Hz |
| 640 x 480 | 37.50 | 75.00 | VGA 75Hz |
| 640 x 480 | 43.27 | 85.01 | VGA 85Hz |
| 720 x 400 | 31.47 | 70.09 | VGA 400 lines |
| 640 x 400 | 37.86 | 85.08 | VGA 400 lines |
| 800 x 600 | 35.16 | 56.25 | SVGA 56Hz |
| 640 x 400 | 37.88 | 60.32 | SVGA 60Hz |
| 800 x 600 | 48.08 | 72.19 | SVGA 72Hz |
| 800 x 600 | 48.88 | 75.00 | SVGA 75Hz |
| 1,024 x 768 | 48.36 | 60.00 | XGA 60Hz |
| 640 x 480 | 35.00 | 66.67 | MAC 13RGB |
| 848 x 480 | 31.02 | 60.00 | |
| 640 x 480 | 15.73 | 59.94 | 60 fields |
| 640 x 480 | 15.63 | 50.00 | 50 fields |
| 640 x 400 | 24.82 | 56.42 | NEC 24kHz |
| 640 x 400 | 31.50 | 70.15 | NEC 31kHz |
| | 15.63 to 80.00* | 50.00 to 120.00* | User setting |

∗ " Out of range" appears if the dot clock of the input signal exceeds 54MHz (68MHz for XGA) even when the horizontal
and vertical frequencies are within their permissible ranges.
In this case, the sampling clock is fixed at 54MHz (68MHz for XGA).
Make sure that the vertical frequency of the input signal is 75Hz or less for SVGA and 60Hz for XGA.

**FACTORY SET SIGNALS (Component video mode)**

| Horizontal frequency (kHz) | Vertical frequency (Hz) | Signal |
|---|---|---|
| 15.73 | 59.94 | SDTV 525i |
| 15.63 | 50.00 | SDTV 652i |
| 31.47 | 59.94 | SDTV 480p |
| 45.00 | 60.00 | HDTV 720p |
| 44.96 | 59.94 | HDTV 720p |
| 33.75 | 60.00 | HDTV 1,080i |
| 33.72 | 59.94 | HDTV 1,080i |

**FACTORY SET SIGNALS (Video, S-video mode)**

| Horizontal frequency (kHz) | Vertical frequency (Hz) | Signal |
|---|---|---|
| 15.73 | 59.94 | NTSC |
| 15.63 | 50.00 | PAL |
| 15.63 | 50.00 | SECAM |
| 15.73 | 59.97 | 4.43 NTSC |

- The dedicated graphics card is optional.
- In the 800 x 600 and 1,024 x 768 modes, images of reduced size are displayed on the screen, using size reduction and interpolation.  Also note that on-screen information is also displayed in reduced size.
- " Out of range" appears if the display receives a signal whose characteristic does not fall within the display's permissible range.
- You can check the input signals with "Status" on the OTHERS Menu screen.

# RGB 1 INPUT TERMINAL
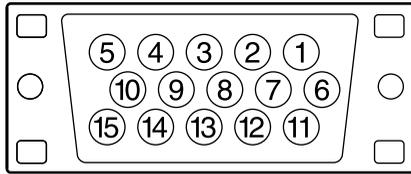


∗ The sync switch (TTL/ANALOG switch) is on the rear of the 13-pin horizontal sync and 14-pin vertical sync terminals.

| Pin No. | Input signal | Pin No. | Input signal |
|---|---|---|---|
| 1 | Red | 9 | |
| 2 | Green | 10 | Ground |
| 3 | Blue | 11 | |
| 4 | | 12 | |
| 5 | Ground | 13 | Horiz. sync |
| 6 | Ground | 14 | Vert. sync |
| 7 | Ground | 15 | |
| 8 | Ground | Outer side | Ground |

# RS-232C INPUT TERMINAL
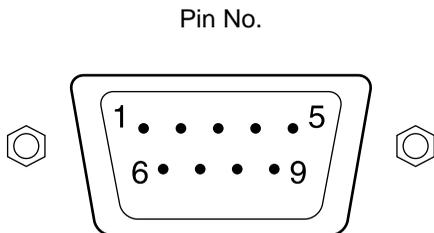
Pin No.



| Pin No. | No. signal |
|---|---|
| 1 | DCD (Data Carrier Detect) |
| 2 | RD (Receive Data) |
| 3 | TD (Transmit Data) |
| 4 | DTR (Data Terminal Ready) |
| 5 | GND (Ground) |
| 6 | DSR (Data Set Ready) |
| 7 | RTS (Request To Send) |
| 8 | CTS (Clear To Send) |
| 9 | RI (Ring Indication) |

# CONNECTION

POWER INPUT

VIDEO INPUT

S-VIDEO INPUT

COMPONENT VIDEO INPUT
(color difference input)

RGB 1 INPUT

RS-232C

To receptacle

To video output terminal

To S-video output terminal

To color difference output terminal

To display (analog RGB) output terminal

To RS-232C output terminal

Connection to AV equipment

Connection to PC
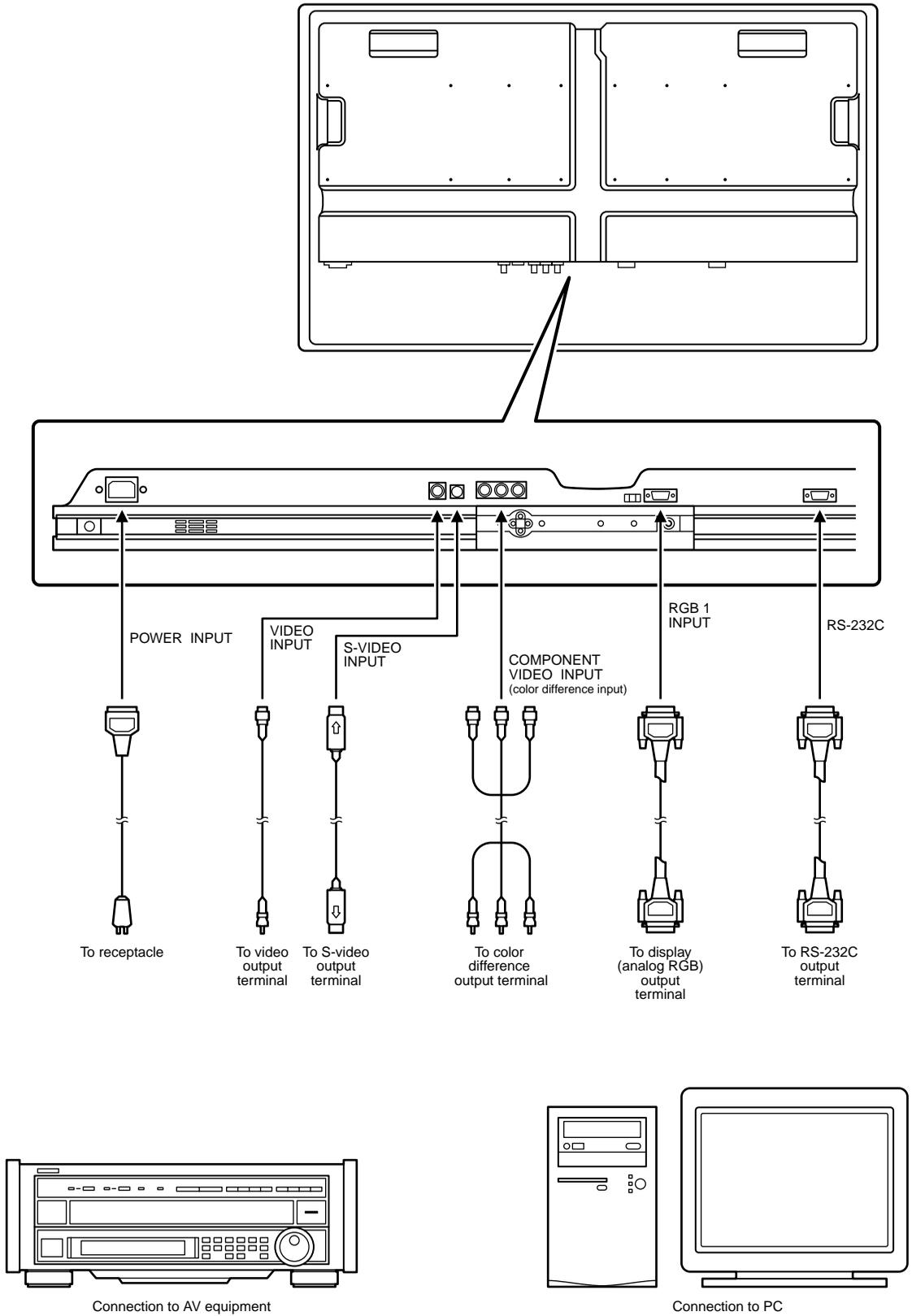
# PART NAMES AND FUNCTIONS

## Front



Control Panel (bottom)

## Remote control



Strap hole
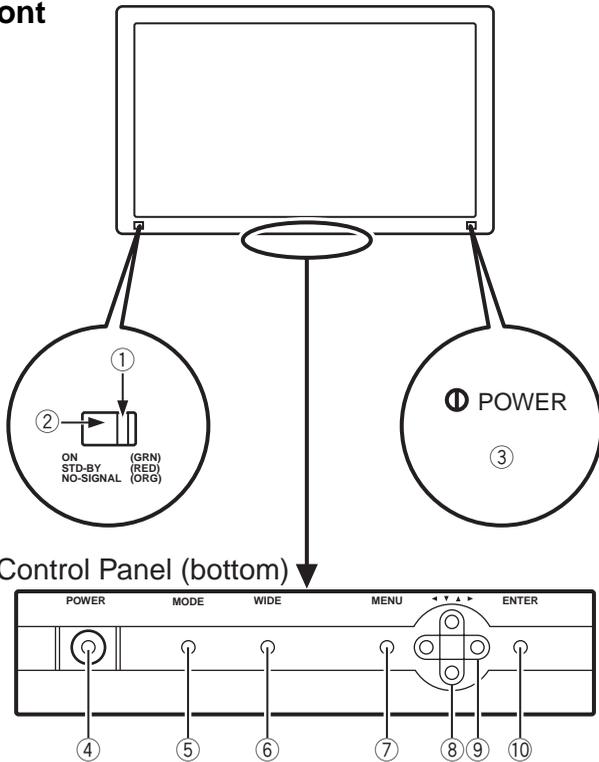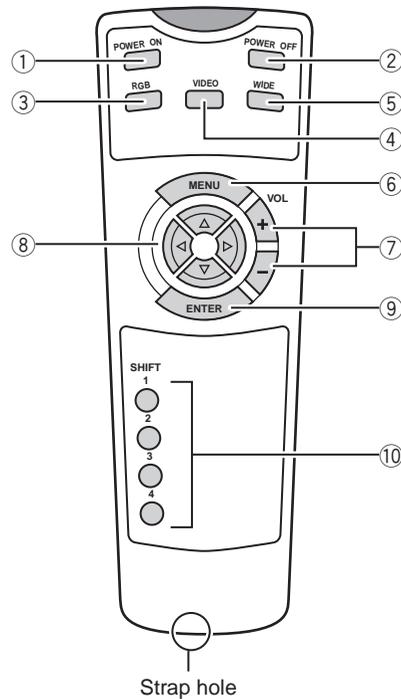
① **Power indicator lamp**
This lamp shows whether the main power is ON or OFF, as follows :

| | |
|---|---|
| Lit (red) | : Standby |
| Lit (green) | : Power ON |
| Lit (orange) | : Power saving (DPMS: Power saving function) mode ON |
| Flashing (red) | : Malfunction (Flashes differently depending on the type of malfunction.) |

② **Remote control signal receiver**
Receives signals from the remote control.

③ **Main Power Switch Indicator**
Indicates the location of the Main Power switch, at the bottom of the display.

④ **Power button [POWER]**
Turns the power ON or OFF when the main power switch, provided at the bottom of the display, is ON.

⑤ **Input mode selector button [MODE]**
Switches between image input modes.

⑥ **Wide screen selector button [WIDE]**
Switches the screen over to a desired wide screen.

⑦ **Menu button [MENU]**
Displays image and sound adjustment menus.

⑧ **Adjustment buttons [ ▼ / ▲ ]**
The [ ▼ / ▲ ] buttons can also be used to scroll through the options when a menu is displayed.

⑨ **Adjustment buttons [ ◀ / ▶ ]**
The [ ◀ / ▶ ] buttons can also be used to scroll through options in a menu, or to change values.

⑩ **Set button [ENTER]**
Press this button to finalize the selection of a desired option in a menu.

① **Power ON button [POWER ON]**
Turns the power ON.

② **Power OFF button [POWER OFF]**
Turns the power OFF.

③ **RGB input mode selector button [RGB]**
Switches between RGB input modes.

④ **Video input mode selector button [VIDEO]**
Switches between video input modes.

⑤ **Wide screen selector button [WIDE]**
Switches the screen over to a desired wide screen.

⑥ **Menu button [MENU]**
Use this button to display a desired menu for adjusting the image and sound.

⑦ **Volume adjustment buttons [VOL +/-]**
Unused.

⑧ **Adjustment buttons [ ◀ / ▶ / ▼ / ▲ ]**
Use these buttons to scroll through options in a menu and change values.

⑨ **Enter button [ENTER]**
Press this button to finalize the selection of a desired menu or option within a menu.

⑩ **Display selector buttons [SHIFT 1-4]**
When you use two or more displays, you can use these buttons to control up to four displays by assigning a unique number to each of the displays.

## Bottom
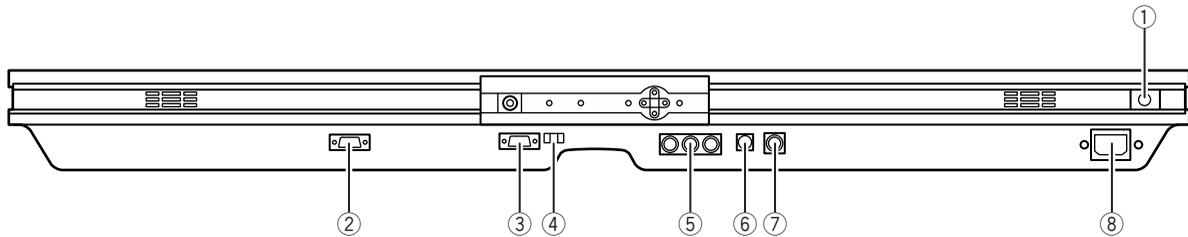


① **Main power switch**

Press this switch when the power is OFF to turn it ON. When you do so, the power indicator lamp will become red, indicating that you can turn ON or OFF the power to the display using either the remote control or the dislay's control panel.

Press this switch when the power is ON to turn it OFF.

② **RS-232C terminal (RS-232C)**

This terminal is provided for you to control the display from the PC. Connect it to the RS-232C terminal on the PC. When connecting a cable, attach a ferrite core to the cable.

∗ No RS-232C cable is supplied with the display. The type of cable to be used varies depending on the PC model. Contact your dealer for more information.

③ **RGB input terminal (RGB INPUT/mD-sub)**

Connect this terminal to the PC's display (analog RGB) output terminal.

∗ No RGB cable is supplied with the display. The type of cable to be used varies depending on the PC model. Contact your dealer for more information.

④ **RGB synchronization switch (SYNC SW TTL/ANALOG (75Ω))**

This switch is used to terminate pins 13 and 14 of the RGB teminal with 75  respectively for receiving horizontal (H) and virtical (V) synchronization signals.

TTL : Used when sending RGB signals from the PC to the RGB terminal

ANALOG (75Ω) : Used when sending analog synchronization signals to the RGB terminal

⑤ **Component video input terminal (COMPONENT VIDEO INPUT)**

Connect this terminal to the component video output (color difference output) terminal of your HDTV unit or DVD player. When connecting a cable, attach a ferrite core to the cable.

⑥ **S-video input terminal (S-VIDEO INPUT)**

Connect this terminal to S-video output terminal of your VCR or video disk player.

⑦ **Video input terminal (VIDEO INPUT)**

Connect this terminal to the video output terminal of your VCR or video disk player.

⑧ **Power input terminal**

Connect this terminal to the power cable supplied with the display.

# VIDEO MODE ADJUSTMENT

REMOTE CONTROLLER
- POWER ON
- POWER OFF
- RGB

- VIDEO
  - Video
  - S-video
  - Comp. video

- WIDE
  - Normal
  - Wide 1
  - Wide 2
  - Zoom 1
  - Zoom 2
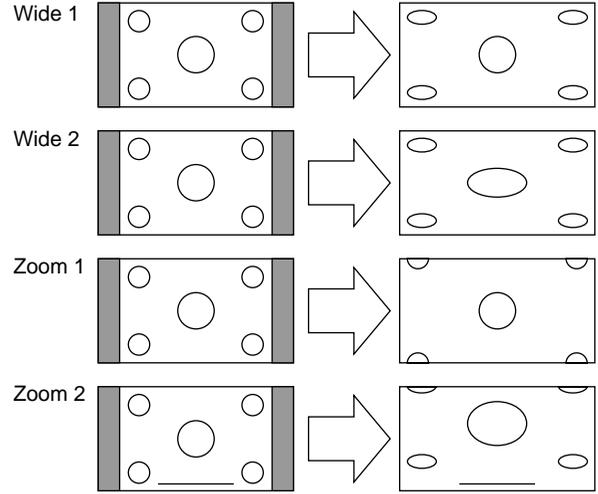
- MENU
  - PICTURE
    - Contrast    –30 to +30
    - Brightness  –60 to +60
    - Color       –60 to +60
    - Tint(NTSC)  –30 to +30 (Com. V –60 to +60)
    - Sharpness   –30 to +30 (Com. V –3 to +3)
    - Color temp.
      - Standard
      - Cool
      - Warm
  - POSITION /SIZE
    - Position
      - Horizontal  –30 to +30 (Comp.V -16 to +16)
      - Vertical    –15 to +15 (Zoom), -7 to +7, (Comp.V -16 to +16)
    - Size
      - Width       –7 to +7   (Comp.V -4 to +4)
      - Height      –7 to +7   (Comp.V -4 to +4)
  - OTHERS
    - OSD
      - On
      - Off
    - Language
      - English
      - German
      - Spanish
      - French
      - Italian
      - Russian (E type)
    - Monitor No.
      - 0
      - 1
      - 2
      - 3
      - 4
    - Video mode
      - NTSC
      - PAL
      - SECAM
      - 4.43 NTSC
    - AGC
      - On
      - Off
    - Bluish white
      - On
      - Off
    - Status
      - • Monitor No.
      - • Video mode
      - • Input signal
    - Extended menu
      - Enter
      - Return
        - OSD rotate
          - Normal
          - +90 Deg.
          - –90 Deg.
        - DPMS
          - Off
          - 1 min.
          - 3 min.
          - 5 min.
          - 10 min.
          - 30 min.
        - White screen
          - Off
          - Link DPMS
          - On
        - Screen saver
          - Function
            - Off
            - Time (1H)
            - Mode
          - Moving area
            - Standard
            - Wide
            - Narrow
        - Input priority
          - Off
          - S-video
          - Comp. video
          - RGB
        - Studio mode
          - Off
          - On
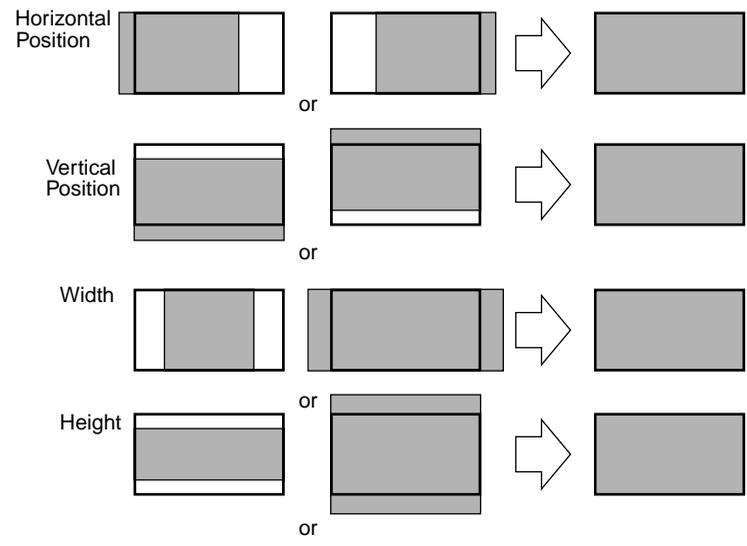
- ENTER

- SHIFT
  - 1
  - 2
  - 3
  - 4



Wide 1

Wide 2

Zoom 1

Zoom 2

Horizontal Position   or

Vertical Position   or

Width

Height   or   or

# RGB MODE ADJUSTMENT

REMOTE CONTROLLER

- POWER ON
- POWER OFF
- RGB
  - RGB 1
  - RGB 2
- VIDEO
  - Video
  - S-video
  - Comp. video
- WIDE
  - Normal
  - Wide
  - Zoom
- MENU
  - PICTURE
    - Contrast — −30 to +30
    - Brightness — −60 to +60
    - Color temp.
      - Standard
      - Cool
      - Warm
    - Dot clock — −300 to +300
    - Clock phase — 0 to +15
  - POSITION /SIZE
    - Position
      - Horizontal — −250 to +250
      - Vertical — −250 to +250
    - Size
      - Width — −150 to +150
      - Height — −150 to +150
  - OTHERS
    - OSD
      - On
      - Off
    - Language
      - English
      - German
      - Spanish
      - French
      - Italian
      - Russian (E type)
    - Monitor No.
      - 0
      - 1
      - 2
      - 3
      - 4
    - Vertical sync. — −2 to +1
    - Clamp pulse — 0 to +8
    - Status
      - • Monitor No.
      - • Freq. Scan
      - • Input signal
      - • Frequency fH / fV
      - • Preset No.
    - Extended menu
      - Enter
      - Return
        - OSD rotate
          - Normal
          - +90 Deg.
          - −90 Deg.
        - DPMS
          - Off
          - 1 min.
          - 3 min.
          - 5 min.
          - 10 min.
          - 30 min.
        - White screen
          - Off
          - Link DPMS
          - On
        - Screen saver
          - Function
            - Off
            - Time (1H)
            - Mode
          - Moving area
            - Standard
            - Wide
            - Narrow
        - Input priority
          - Off
          - Video
          - S-video
          - Comp. video
        - Studio mode
          - Off
          - On
        - White peak level calibration
          - Execute
          - Original
          - Cancel
        - Sharpness — −3 to +3
        - Gamma
          - Motion
          - Still
        - Gradation
          - Mode 1
          - Mode 2
        - Vertical line
          - 350
          - 400
          - 480
        - Freq. scan
          - Auto
          - Fix
- ENTER
- SHIFT
  - 1
  - 2
  - 3
  - 4

Wide 1

Zoom

Horizontal Position

or

Vertical Position

or

Width

or

Height

or

# TROUBLESHOOTING  USING  LED  AND  OSD

## 1. Display

### (1) OSD
Two kinds of error messages are displayed on the screen, and the power is turned off 10 sec later.

### (2) LED
LED error is displayed continuously after the power is turned off.

## 2. Error types and check points

### (1) OSD

| On screen display | Cause | Check point |
|---|---|---|
| ERROR  MESSAGE  CONDITION 1 | Fan protector operated | • Fan<br>• AC/DC power unit<br>• DC/DC power PCB<br>• Main/Digital PCB |
| ERROR  MESSAGE  CONDITION 2 | Temperature protector operated | • Ambient temperature of unit<br>• Main/Digital PCB<br>• Temp. sensor PCB |

### (2) LED

| LED lamp display status | Cause | Check point |
|---|---|---|
| Steady light (Red) | Stand-by status | ——————— |
| **Continuous**<br><br>Flashes continuously (Red) | No power<br><br>Power supply protector operated | • AC/DC power unit<br>• DC/DC power PCB<br>• PDP panel |
| **1 time**<br>Flashes once in 3 sec. (Red) | Fan protector operated | • Fan<br>• AC/DC power unit<br>• DC/DC power PCB<br>• Main/Digital PCB |
| **2 times**<br>Flashes twice in 3 sec. (Red) | Temperature protector operated | • Ambient temperature of unit<br>• Signal PCB<br>• Temperature sensor PCB |
| **4 times**<br>Flashes four times in 3 sec. (Red) | Main/Digital circuit faulty | • Main/Digital PCB |
| **5 times**<br>Flashes five times in 3 sec. (Red) | Video circuit faulty | • Video PCB Assy |

# TROUBLESHOOTING FLOWCHART

## LED lamp blinking

Turn power on and check state of lamp.

| LAMP STATE | POWER SUPPLY STATE | REMEDY |
|---|---|---|
| Not lighted. | Power supply unit faulty. | ∗ Replace Power Supply Unit.<br><br>∗ Vs and -Vy must be adjusted. |

RED — Blinks continuously. → Power turned off immediately. → Check 1

RED — Blinks once → Power turned off after 10 sec. → Check 2

RED — Blinks twice → Power turned off after 10 sec. → Check 3

RED — Blinks four times → Power not turned off, LED blinks only. → Replace Main/Digital PCB Assy.

RED — Blinks five times → Power not turned off, LED blinks only. → Replace Video PCB Assy.

GREEN — Lights steadily for more than 10 sec.

Is on-screen display normal? — NO → Check 4

YES

All input image faulty. → Signal processing PCB faulty. → Replace Main/Digital PCB Assy.

Video input image faulty. → Check 5

S-video input image faulty. → Check 5

Component video input image faulty. → Check 6

RGB input image faulty. → Check 7

**Check 1**

Power supply protector operated

Power lamp : Flashing continuously in red.
(at an interval of 0.5 sec)

Start

(1) Turn main power off and disconnect connectors CN8, CN10, CN41, CN42, CN49 and CN50 on power supply unit.
(2) Connect 1 to pin 2 and 3 to pin 4 on CN4 connector.
(3) Turn on main power and power switch.

Does lamp change to green? — Yes → PDP faulty. → ∗ Replace PDP.

∗ Vs and -Vy must be adjusted.

No

(1) Turn main power off and disconnect connector CN103 on Power Supply Unit.
(2) Connect 1 to pin 3 on connector CN103.
(3) Disconnect all connectors on power supply unit.
(4) Turn on main power and the power switch.

Is voltage at each connector on Power Supply unit normal ? — No → Power Supply circuit faulty. → ∗ Replace Power Supply Unit.

∗ Vs and -Vy must be adjusted.

Yes

(1) Turn main power off and connect connector CN103 to DC/DC power PCB.
(2) Connect pin 5 of P503 to pin 2 of P502 on DC/DC power PCB.
(3) Disconnect all connectors on DC/DC power PCB except P501.
(4) Turn on main power and power switch.

Is voltage at connector on DC/DC power PCB normal? — No → DC/DC power circuit faulty. → Replace DC/DC power PCB Assy.

Yes

(1) Turn main power off and remove Video PCB Assy.
(2) Turn on main power and power switch.
(3) Check state of green lamp.

Is green lamp lit continuously? — No → Main/Digital circuit faulty. → Replace Main /Digital PCB Assy.

Yes → Video circuit faulty. → Replace Video PCB Assy.

– 14 –

## Check 2

Fan protector operated

Power lamp: Flashes once intermittently in red.
(for 0.5 sec. at an interval of 3 sec.)

Start

Is voltage at connectors P505 ①, ⑤, ⑨ and P8202 ① on DC/DC power PCB 24V ?

No →

Is voltage at connector CN103 ⑦, ⑧ on Power Supply Unit normal ? (24V)

Yes ↓

DC/DC power circuit faulty

Replace DC/DC power PCB.

No →

Power Supply Unit circuit faulty.

∗ Replace Power Supply Unit.

∗ Vs and -Vy must be adjusted.

Yes ↓

Is voltage at connectors P505 and P507 on the DC/DC power PCB normal ?

(1) P505 ⑩, P507②, 0 V to 4.3V or 6.6V to 7.0V
(2) P505 ②, ⑥ 12.0V to 13.0V or 0V

No →

Microcomputer peripheral circuit faulty.

Replace Main/Digital PCB Assy.

Yes ↓

Is fan rotary signal of DC/DC power PCB normal ?

(1) P505 ⑪, P507③, 0Hz or 19.6Hz to 103.7Hz
(2) P505 ③, ⑦ 120.3Hz to 168.7Hz or 196.6Hz to 256.3Hz

No →

Fan faulty

Replace fan.

Yes →

Microcomputer peripheral circuit faulty.

Replace Main/Digital PCB Assy.

## Check 3

Temperature protector operated

Power lamp : Flashes intermittently twice in red.
(for 0.5 sec. at an interval of 3 sec.)

Start

Is ambient temperature of PDP unit less than 47°C ?

No →

Adjust PDP unit installation so that peripheral temperature is 40.0°C or less.

Yes ↓

Does unit operate normally when temperature sensor PCB is changed ?

No →

Microcomputer peripheral circuit faulty.

Replace Main/Digital PCB Assy.

Yes ↓

Temperature sensor faulty.

Replace temperature sensor PCB.

Temperature sensor cooling

The temperature sensor PCB is installed inside a mesh. Turn the power off and cool with a point cooler.

**Check 4**

OSD is not displayed.

Power lamp : Lighted green.
(10 sec or more)

Start

Is picture displayed on screen when a signal is input? — **Yes** → Signal processing circuit faulty. → Replace Main/Digital PCB Assy.

**No**

Is voltage at each connector on Power Supply Unit normal ? — **No** → Power Supply circuit faulty. → Replace Power Supply Unit.

**Yes**

Is voltage at each connector on DC/DC power PCB normal ? — **No** → DC/DC power circuit faulty. → Replace DC/DC power PCB Assy.

**Yes**

Is picture displayed normally when PDP is changed ? — **Yes** → PDP panel faulty. → Replace PDP panel.

**No**

Signal processing circuit faulty. → Replace Main /Digital PCB Assy.

**Check 5**

Video/S-video input signals are abnormal.

Power lamp : Lighted green
(10 sec or more)

Start

Can this unit select only RGB 1 or RGB 2 mode ? — **Yes** → Install video PCB Assy firmly.

**No**

Is picture displayed on screen normally when new video PCB unit installed ? — **Yes** → Video PCB Assy faulty. → Replace Video PCB Assy.

**No**

Is signal input level normal ? — **Yes** → Signal prosessing circuit faulty. → Replace Main/Digital PCB Assy.

**No**

Check input signal.

– 16 –

## Check 6

Component input signals (Y/Pb/Pr) are abnormal.

Power lamp : Lighted green
(10 sec or more)

```
                    ┌─────────────────┐
                    │      Start      │
                    └─────────────────┘
                             │
                             ▼
              ◇ Can this unit select ◇  ──Yes──▶  ┌──────────────────┐
              ◇ only RGB 1 or RGB 2  ◇            │ Install video PCB │
              ◇      mode ?          ◇            │ Unit firmly.      │
                             │                    └──────────────────┘
                            No
                             ▼
              ◇ Is picture          ◇
              ◇ displayed on screen ◇  ──Yes──▶  ┌──────────────┐      ┌──────────────────┐
              ◇ normally when new video ◇        │ Video PCB Unit │ ──▶ │ Replace Video PCB │
              ◇ PCB Unit is         ◇            │ faulty.        │     │ Assy.             │
              ◇ installed ?         ◇            └──────────────┘      └──────────────────┘
                             │
                            No
                             ▼
              ◇ Are brightness      ◇
              ◇ and color difference ◇  ──Yes──▶  ┌──────────────────┐
              ◇ signals connected to ◇            │ Check connection │
              ◇ input terminals     ◇            │ cable.           │
              ◇ correctly ?         ◇            └──────────────────┘
                             │
                            No
                             ▼
              ◇ Is signal input level ◇  ──Yes──▶  ┌──────────────────┐      ┌──────────────────┐
              ◇ normally ?          ◇              │ Signal processing │ ──▶ │ Replace Main/Digital │
                             │                      │ circuit faulty.   │     │ PCB Assy.           │
                            No                      └──────────────────┘      └──────────────────┘
                             ▼
                    ┌─────────────────┐
                    │ Check input signal. │
                    └─────────────────┘
```

∗ SYNC. signals are added to the Y signal.

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**Check 7**

RGB input is abnormal.

Power lamp: Lighted green
(10 sec or more)

Start

Is RGB cable pin arrangement appropriate ? — No → Check connection cable.

Yes

What kind of signal is output from signal source ?

Separate signal ← | → Composite signal

Sync. on green signal

Is horizontal sync. signal input to pin ⑬ and vertical sync. signal input to pin ⑭ of RGB cable ? — No → Check input signal.

Yes

Is composite sync. signal input to pin ② of RGB cable ? — No

Yes

Is composite sync. signal input to pin ⑬ of RGB cable ? — No

Yes

Connect RGB cable to terminal.

Is sync. switch (TTL/ANALOG) selected correctly ? — No

Yes (TTL)    Yes (ANALOG)

Is sync. signal polarity negative ? — No

Check input signal.

Is frequency of horizontal sync. and the vertical sync signals within specified range ? — No → Check input signal.

Yes

Is input level(∗) within specified range ? — No → Check input signal.

Yes

Signal processing circuit faulty.

Replace Main/Digital PCB Assy.

Change sync. switch (TTL/ANALOG)

Make sync. signal polarity output from signal source negative, or make output impedance TTL.

Note(∗) : If the sync signal cannot be identified by TTL level, measure it in the 75Ω terminated state.

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# VOLTAGE OF EACH CONNECTOR

- **Voltage measurement in protect mode**
  Because the relay signal is "L" in the protect mode, voltages of Vcc, Vs, and Va are not output. The protect mode is reset only when the power SW is turned off. Therefore, when measuring the voltage, turn off the power SW, then turn on the power by remote control. Remeasure the power supply unit protection operation.
- **Relay signal**
  Voltages Vcc, Vs and Va are output only when the relay signal of "CN103-3" is "H".
  When the microcomputer detects an abnormal voltage, these voltages are not output.
- **ACON signal**
  The ACON signal indicates whether or not AC is supplied. The relay signal is output when the ACON signal is "H".

## 1. Power Supply Unit   (PFW-422)

| CN103    Power supply unit | | | Ground |
| --- | --- | --- | --- |
| No. | NAME | SPEC. | |
| 1 | Vpr | 5V (4.8 to 5.2V) | ② |
| 7 | Vcc 2 | 24V (23.7 to 24.3V) | ② |

| CN49    Power supply unit | | | Ground |
| --- | --- | --- | --- |
| No. | NAME | SPEC. | |
| 1 | Vcc 1 | 5V (4.8 to 5.2V) | ② |
| 3 | Ve | 15.52 to 16.48V | ② |
| 10 | Vs | 165.0 to 185.0V | ② |

| CN42    Power supply unit | | | Ground |
| --- | --- | --- | --- |
| No. | NAME | SPEC. | |
| 3 | Vsc | 116.4 to 123.6V | ④ |
| 4 | -Vy | -150 to -170V | ① |
| 6 | Vcc 1 | 5V (4.8 to 5.2V) | ① |

| CN50    Power supply unit | | | Ground |
| --- | --- | --- | --- |
| No. | NAME | SPEC. | |
| 1 | Vw | 164.9 to 175.1V | ③ |
| 2 | Va | 64.35 to 65.65V | ③ |

## 2. DC/DC Power PCB

| P503    DC/DC Power PCB | | | Ground |
| --- | --- | --- | --- |
| No. | NAME | SPEC. | |
| 2 | A 5V | 5V (4.75 to 5.25V) | ① |
| 4 | 14 V | 13.3 to 14.7V | ① |
| 5 | Vpr | 5V (4.8 to 5.2V) | ① |
| 8 | D 5V | 5V (4.75 to 5.25V) | ① |
| 9 | D 3.3V | 3.2 to 3.4V | ① |
| 10 | A-5V | -5.25 to -4.75V | ① |

# VS AND -VY ADJUSTMENT

**When the Power Supply and PDP units are replaced, Vs and -Vy must be adjusted.**

Preparation : Heat-run for 5 minutes with a white pattern in the wide mode.

Adjustment : Adjust Vs and -Vy in the no-signal state (Black picture).

Test and
adjustment points : Refer to the drawing below.

Adjustment value : Within ±0.1V of the voltage indicated on the label on the PDP unit.

Vs adjustment VR
(RV203)

Vs test point

**Power Supply Unit** (PFW-422)

C331

Vs

RV203

Vs

T 6

RV210

CN41

-Vy adjustment VR
(RV210)

-Vy test point
(CN42, pin 1)
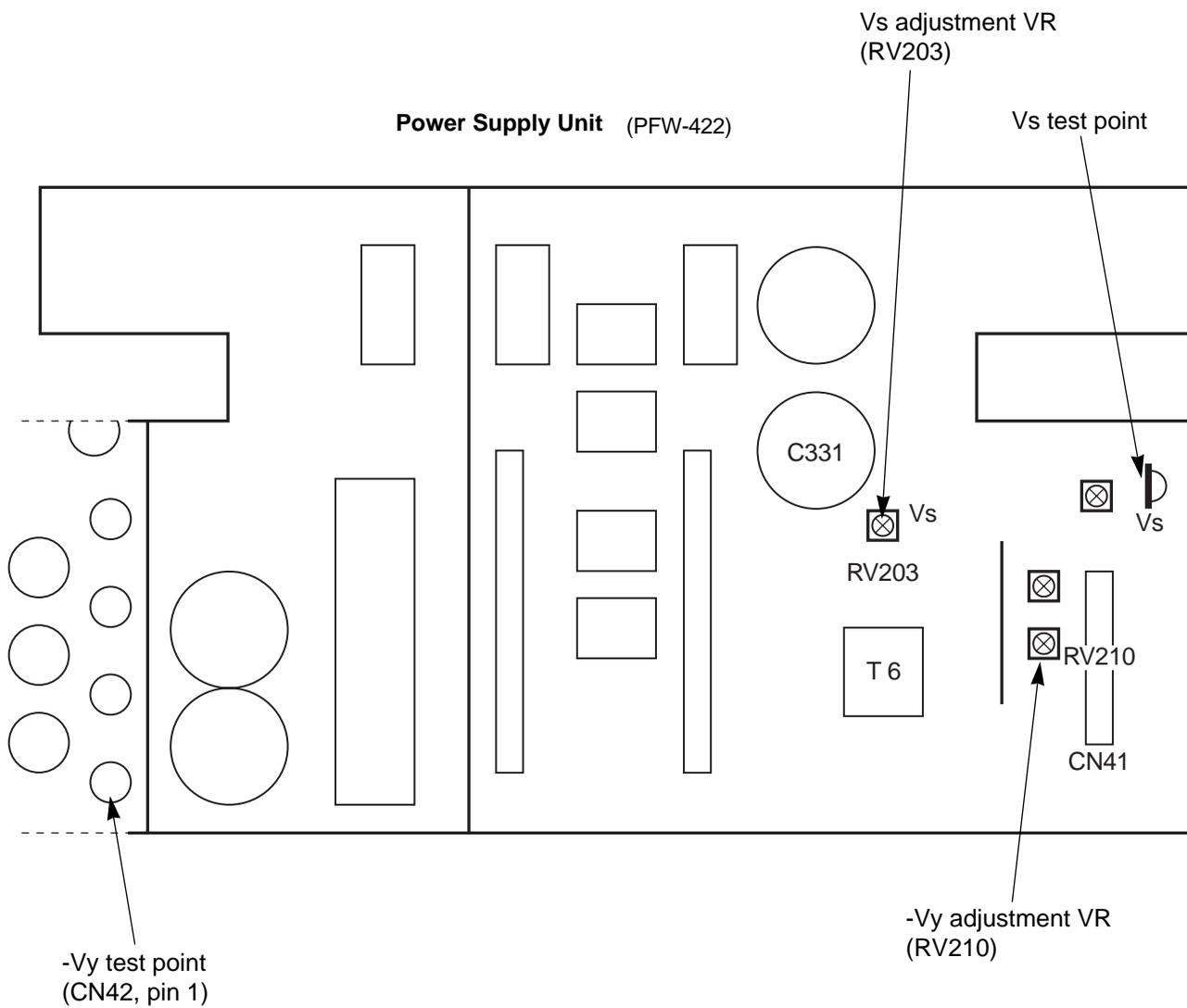
# GENERAL CONNECTION DIAGRAM
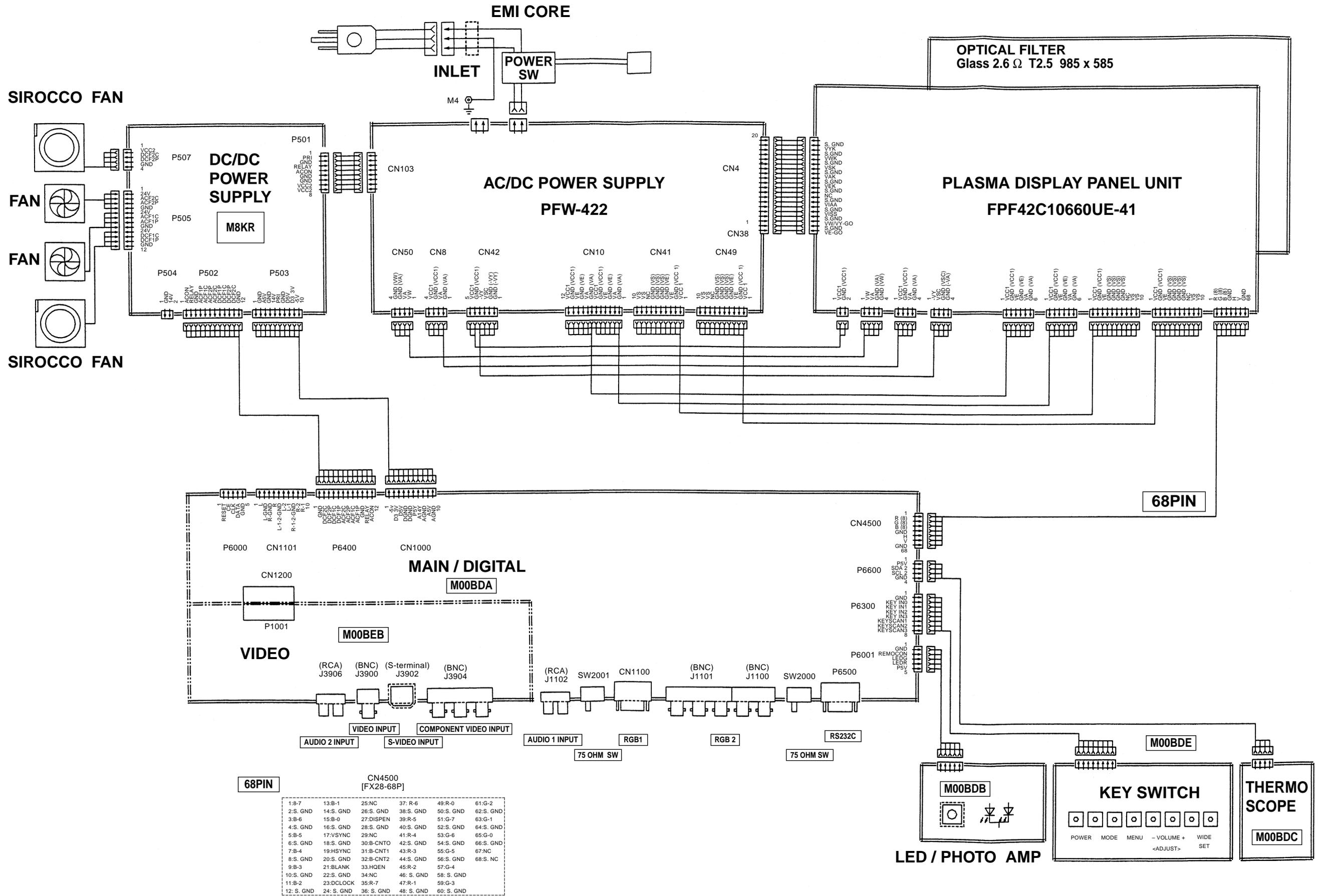
# INSTALLATION

## INSTALLATION  PRECAUTIONS

### 1. Installation Environment

1) Do not expose the display directly to vapor or heat. Protect the unit from rain or water.

2) The display uses glass material, and cracks easily. So, do not subject it to vibration and shock. When carrying the display, always use two peoples so that vibration and shock is not applied to the display.

3) Do not disturb the radiation of heat from the rear, sides and top of the unit. Install the unit in a well ventilated place. Use the unit within an ambient temperature range of 0°C ~ 40°C.

4) Displaying a static picture for a long time may burn an after-image on the screen, the same as a CRT. To prolong the life of the unit, turn off the display when it is not in use, scroll the picture, and use a screen saver. Periodically display a uniformly bright picture over the entire screen, add complimentary colors, and insert moving pictures. Use half tones and intermediate colors, if possible, because the higher the brightness, the easier burning occurs. The problem does not occur with moving pictures.

5) Do not expose the optical filter directly to the sun for a long time. The characteristics of the optical filter will change and discoloration may occur.

6) Do not wipe the optical filter with a solvent such as benzene or paint thinner. The optical filter may peel off. Wipe the surface of the optical filter with a soft, lint-free cloth such as cotton. The surface of the optical filter scratches easily so do not rub or hit it with a hard object.

7) The brightness and contrast of the PDP are still inferior to those of a CRT. Also note that the ambient light may cause the screen become white and difficult to read. Therefore, it is recommended that the ambient light be reduced.

8) Note that light from the back may adversely affect the screen. Avoid backlighting as much as possible.

9) The display may cause radio frequency interference sensors which detect low level and low frequency radiowaves. If an improperly shielded VCR or signal cable is brought close to this unit, noise may appear on the screen. To avoid this, move the unit to a new location.

10) Near infrared rays are radiated from the front of the display panel. These rays may interfere with the infrared ray remote control unit of other equipment and with infrared communication systems. In this case, change the direction of the equipment relative to the screen or move the unit away from the other equipment so that the rays radiated directly from the screen (or reflected rays, depending on the situation) have no affect on other equipment.

11) When the display is installed in a quiet room, it is recommended that a thick curtain be hung on the wall behind the display to reduce the noise.

12) Dark gray scenes may appear purplish or greenish. To avoid this, increase the brightness.

## 2. Installation Precautions

1) The support must withstand the weight of the unit.
   The standards of the country must be met.

2) Special care should be taken in areas where earthquakes occur frequently.
   (At a magnitude of six, each pipe must withstand a load of 100 to 150 kg).

3) Grounding should be performed.
   (Ground connected to power
   outlet is acceptable).

4) Sufficient passage space.

5) Installation should be performed
   by at least two peoples. A simple
   lifter should be used.

6) When carrying the unpacked
   unit, do not hold the Optical
   Filter.
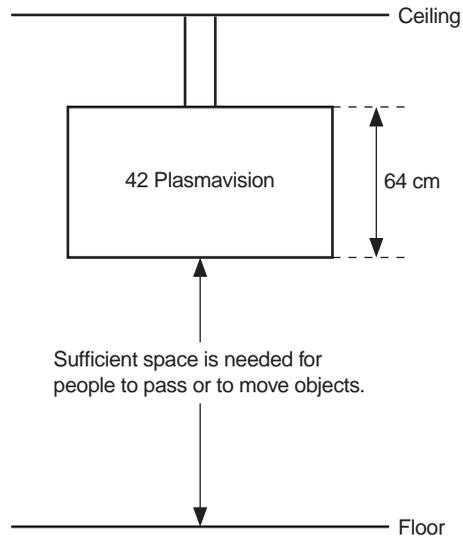


## 3. Outline Drawings



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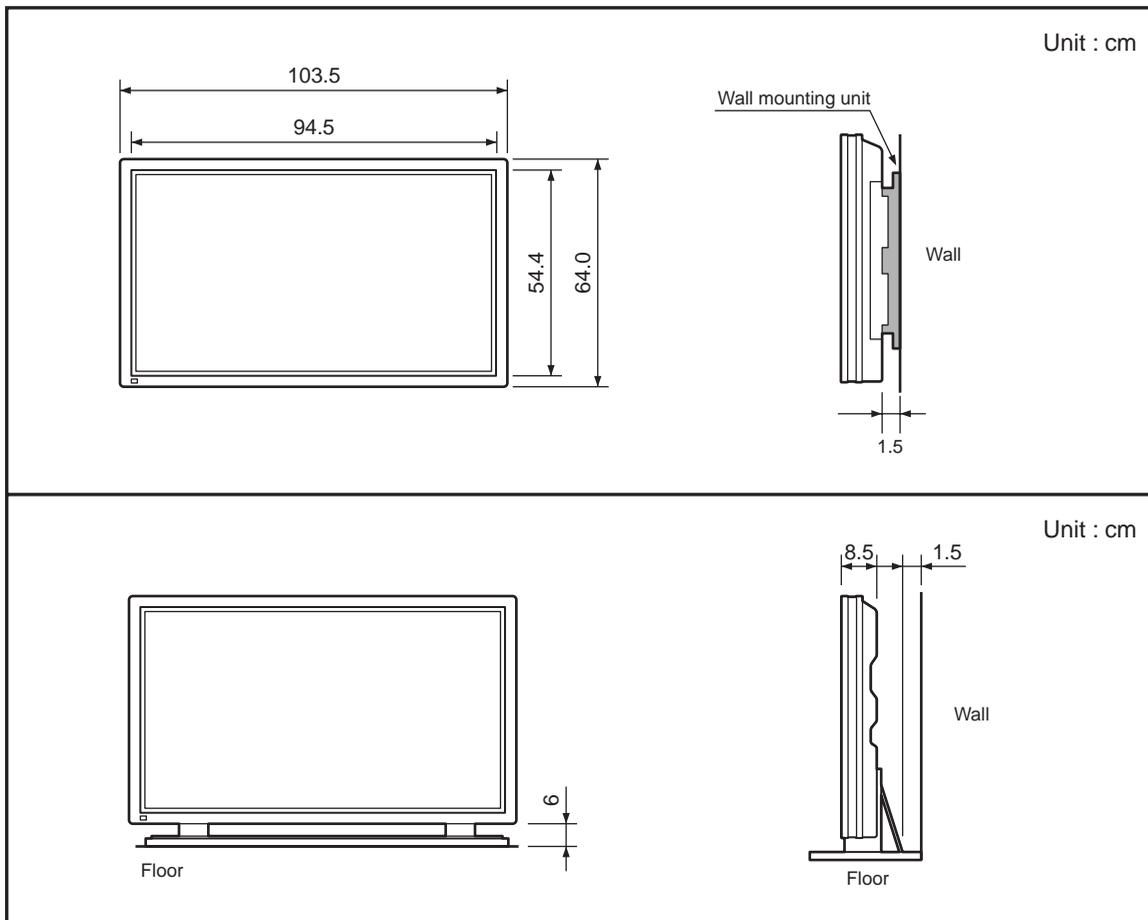
## 4. Space Required Around a Plasma Monitor

- Make sure that the display is installed where the temperature can be maintained between 0 °C to 40 °C.

- Never attempt to tilt the display sideways or backward.

- To prevent the power and other cables from being accidentally pulled, make sure that they run along the wall or through corners.

- The display can be installed with either of its sides facing down.

## When using the stand

| Front | Side |
|---|---|
| (cm) | (cm) |
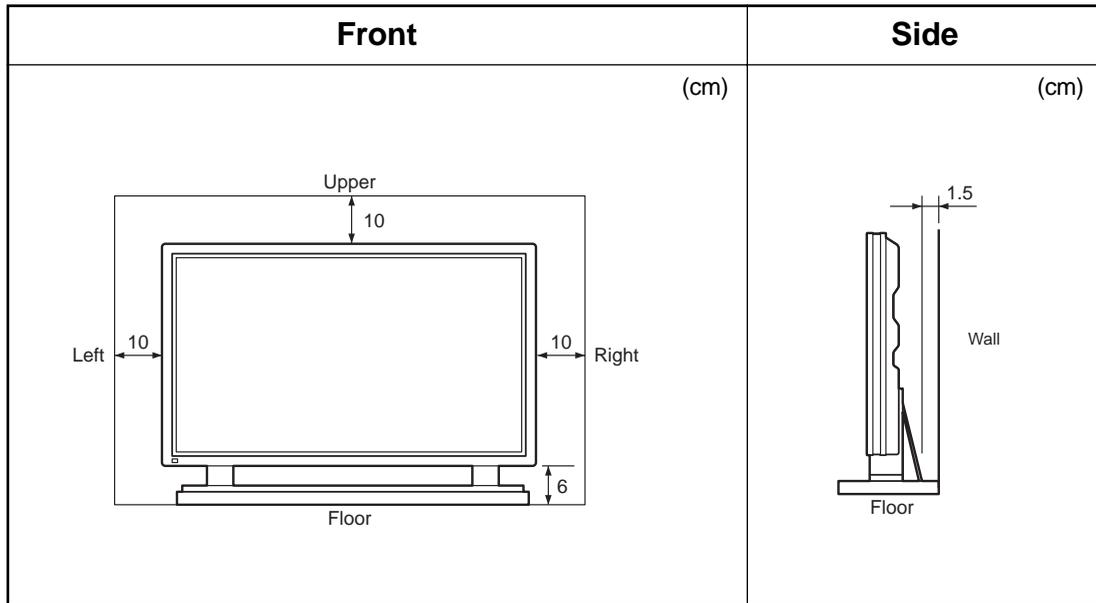
## When using the wall-mounting unit (Horizontal type)

| Front | Side |
|---|---|
| (cm) | (cm) |
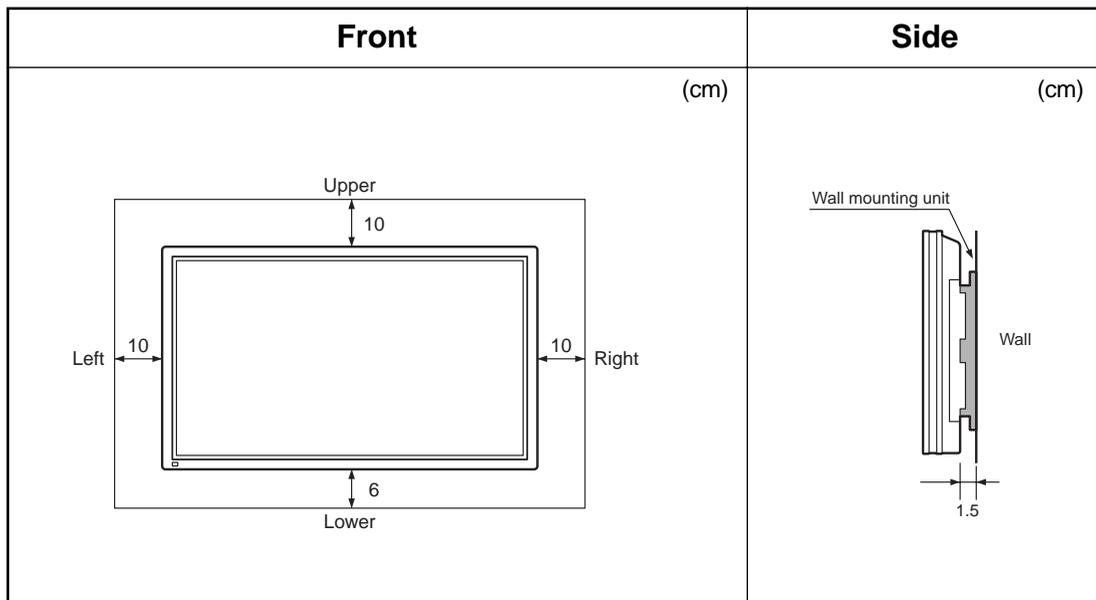
## When using the wall-mounting unit  (Vertical type)

| Front | Side |
|---|---|
| (cm) | (cm) |

Upper

10

Left → 10

10 ← Right

10

Lower

Wall mounting unit

Wall

1.5
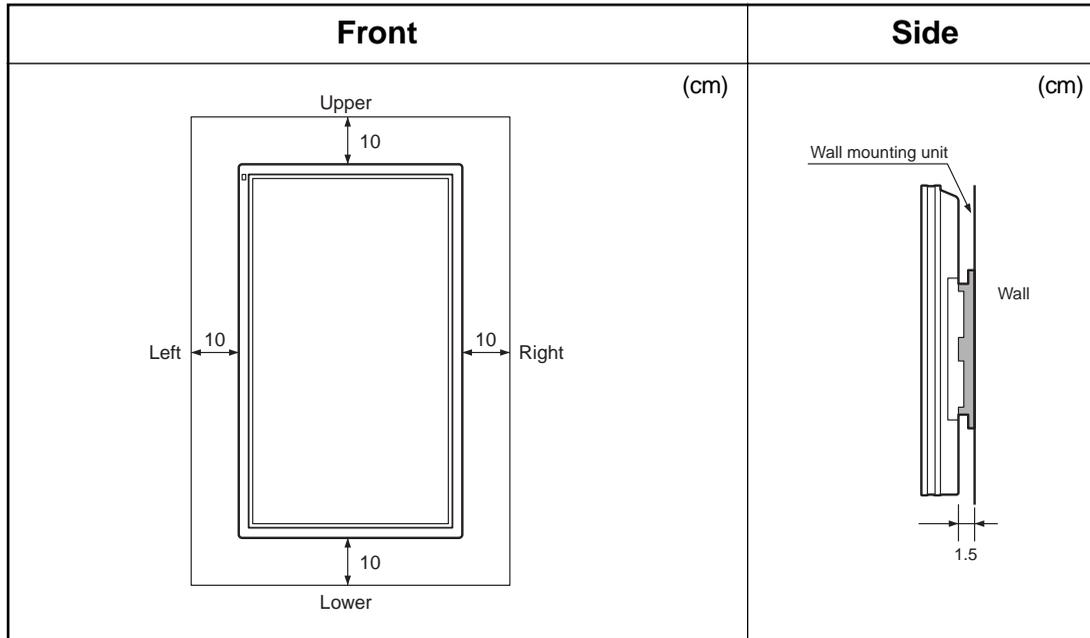
## 5. Desktop Stand (Model P-42TT11)

You need two strong cords.

(1)  Attach a bracket to each hole at the rear of the display.
To do this, use screw A (10mm long) to attach safety bracket A, supplied with the display, to the hole at the rear of the display.

(2)  Attach two brackets to the wall.
To do this, use screws B (20mm long) to attach safety brackets B, supplied with the display, to the wall.
∗ To make sure that the display is stable, attach wall brackets at the same height as
(or slightly lower than) the display brackets.

(3)  Tie brackets A and B together
To do this, use strong cords to fasten the display securely to the wall.
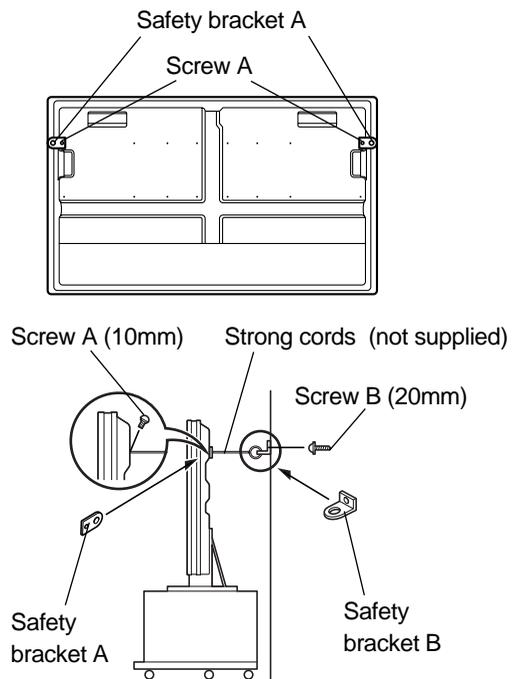
Use the two screws supplied with the stand to fasten the display using the holes provided at the rear of the stand.

See the stand (P-42TT11 type) instruction manual for more information.

Safety bracket A

Screw A

Screw A (10mm)　　Strong cords  (not supplied)

Screw B (20mm)

Safety bracket A

Safety bracket B

Screw (supplied with stand)
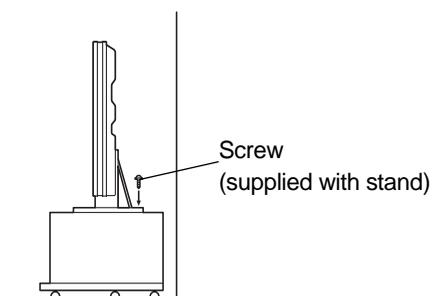
# 6. Ceiling Mounting Unit (Model P-42CT11)

## 1) Assembling

①



Display
Rear fitting
Screw A
Tilting fitting A
Screw A
Screw A
Tilting fitting B
Screw A
Screw A
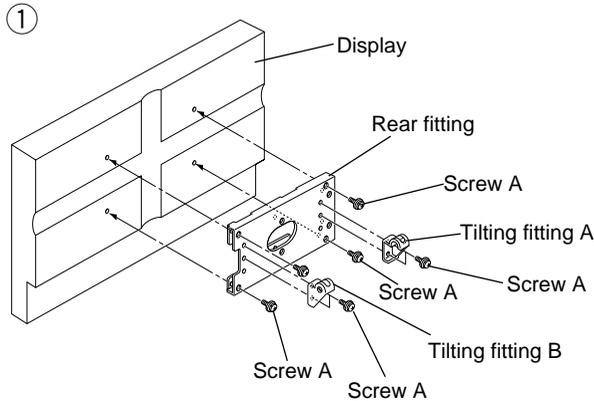
Tightening torque : 40kgf•cm

②



Rear fitting assembly
Spring washer B
Bolt B
Flat washer B
Ceiling suspension pole assembly
Guide pin
Flat washer B
Bolt B
Spring washer B
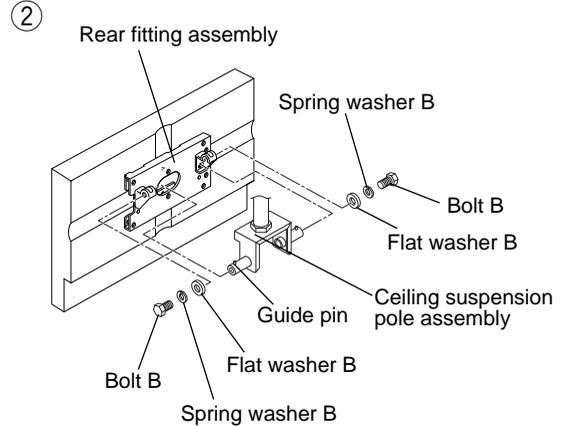
Tightening torque : 350kgf•cm

③



Pass through the round part of the pipe and the round hole at the end.

Bushing
Clamp

Bolt B
M16 bolt
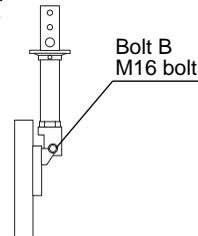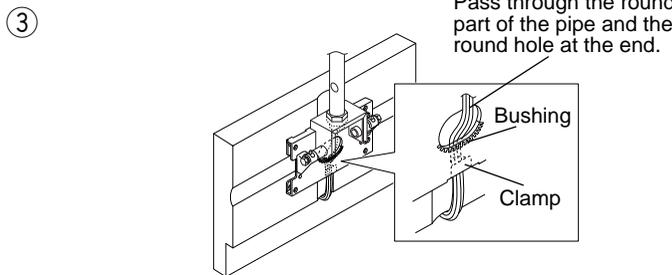
## 2) Optional parts (pipe set)



General view                [Unit : mm]

Ceiling
**A**. Size of the opposite side of ceiling
Flange
Ceiling board
Ornamental adapter
Pipe
Flange/pipe length
**B**. interior ceiling size
156.0
Center of display
**C**. installment height
Floor

Dimensions [Unit : mm]

4-14x25 (Oval hole)
200
300
200
300

Upper hole
Lower hole
a
b
Wire insertion hole (ø30)

100
50 50
250
50
100
300
150
40

Arrangement length
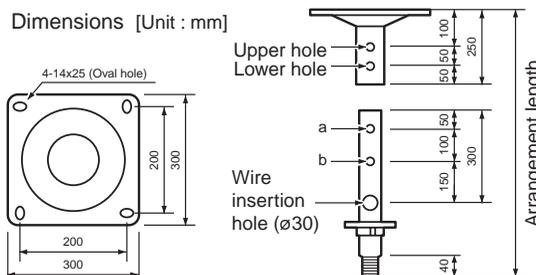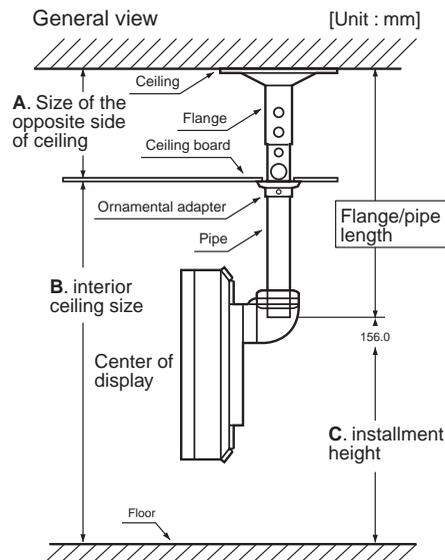
### Selection of pipe length (x)        [Unit : mm]

| Set name | Pipe length : (X) | | Combined length | |
|---|---|---|---|---|
| | | | Upper hole of flange | Lower hole of flange |
| S | 400 | a | 400 | 450 |
| | | b | 500 | 550 |
| A | 600 | a | 600 | 650 |
| | | b | 700 | 750 |
| B | 800 | a | 800 | 850 |
| | | b | 900 | 950 |
| C | 1000 | a | 1,000 | 1,050 |
| | | b | 1,100 | 1,150 |
| D | 1200 | a | 1,200 | 1,250 |
| | | b | 1,300 | 1,350 |
| E | 1400 | a | 1,400 | 1,450 |
| | | b | 1,500 | 1,550 |

### Parts included in sets A to E and S [Unit : mm]

| Part Name | Q'ty | Treatment |
|---|---|---|
| Hanger pipe | 1 | Black |
| Hanger flange | 1 | Black |
| M48 nut | 2 | Black |
| Ornamental adapter | 1 | Black |
| Split pin | 1 | Unpainted |

## 7. Wall Mounting Unit (Model P-42WB12)

### 1) Assembling

① Assembling the Mounting bracket

Wall mounting hole

Display screen centering hole

Display screen centering hole
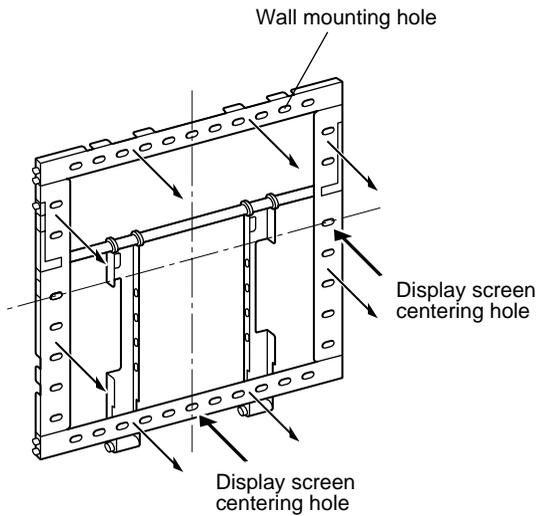
② Fastening to the display

Display

Hole position caution

Screw A
M5 screw with washer (2 each)

Fixing fitting

Screw A
M5 screw with washer

Suspension fitting
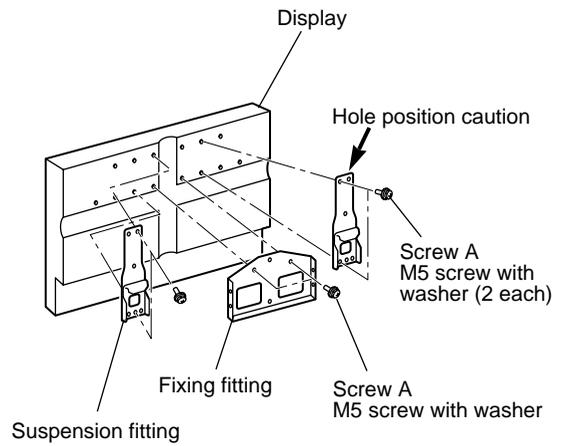
③ Hanging on the Wall Mounting Unit

Suspension fitting

Fasten at the lowest position of the oval hole.

Screw B          Shaft L

④ Cabling

Wall

Display

30cm

⑤ Fastening the display

Display

Shaft fixing fitting L

Fixing fitting

Screw C
M4 screw with washer (2 each)

Shaft fixing fitting R

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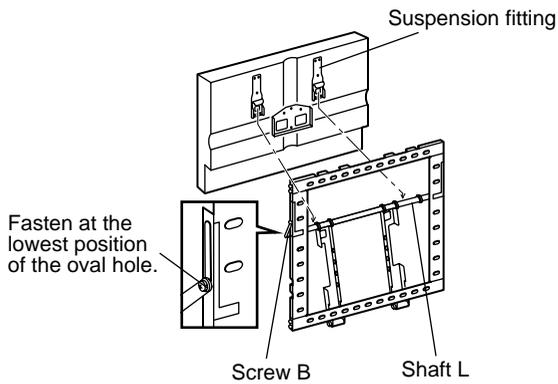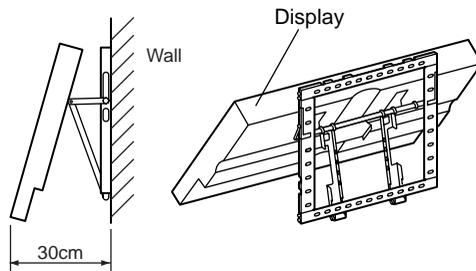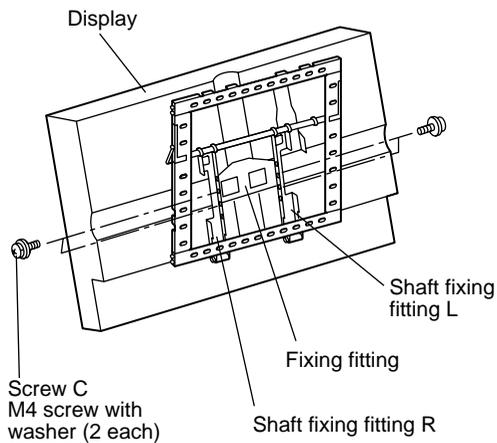
⑥ Adjusting the installation angle

• For a display installation angle of 0° to 5° (horizontal and vertical installation)

Screw B
M5 screw with washer (2 pcs.)

Arm

Holders R (L)

5°

0°

Lock fitting

Screw D
M4 screw with washer (2 pcs.)
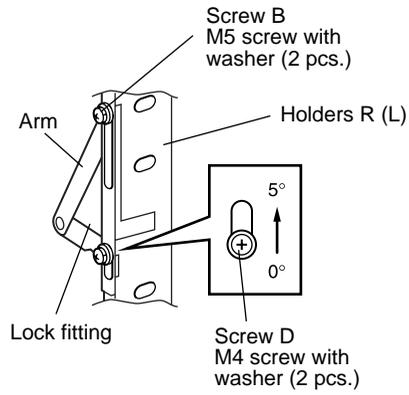
For an angle of 0° to 5°, fasten at two places: the arm mounting screws A and the lock fitting mounting screws C (4 places on both sides).

• For a display installation angle of 5° to 15° (horizontal installation only)

Holder R (L)

Arm

0°

15°

Screw B
M5 screw with washer (2 pcs.)
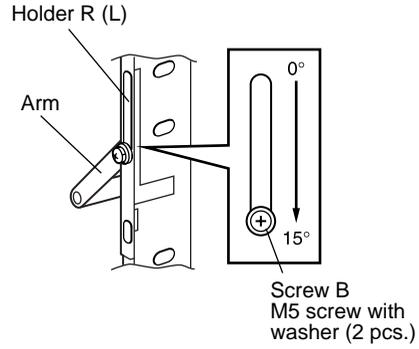
For an angle of 5° to 15°, fasten only at the arm mounting screws B (2 places on both sides). Remove the lock fitting mounting screws D.

# DISASSEMBLY FLOWCHART

```
                                    PDS4208/ 4209

        5                               2
      Front Case                  Rear Case (Upper)              Video PCB Unit

                                                                         1
  Rear Case (Lower)      6                                            Video PCB
                      Optical Filter

    Key-Switch Assy
                                    Frame Panel MID     Frame Panel MID
                                        (Lower)             (Upper)
                                    7
                                    Main/Digital PCB   Frame Panel MID
                                                           (Lower)
                                                         3
  8           3                              4          Temp. Sensor PCB
Noise    Temp. Sensor    Frame Panel MID   DC/DC Power
Filter      PCB            (Upper)             PCB       Power Cover

                          10          10
         Power Cover    Sirocco Fan-L  Sirocco Fan-R    Duct Fans

                                                        Rear Case (Lower)
  9          11           9           Fix a handle on the PDP Unit.
Fan       Power Supply  Fan          Take out the PDP Unit.          11
motor-L      Unit       motor-R                          Power Supply Unit

      Holder Fan-L   Frame Panel-Top   Holder Fan-R   Frame Panel-Bottom   X-SUS Shield

                              12 to 13
                            PDP panel unit   Fixing bracket.
```

## 1. Removing the Video PCB Unit

(1) Remove the 7 screws.
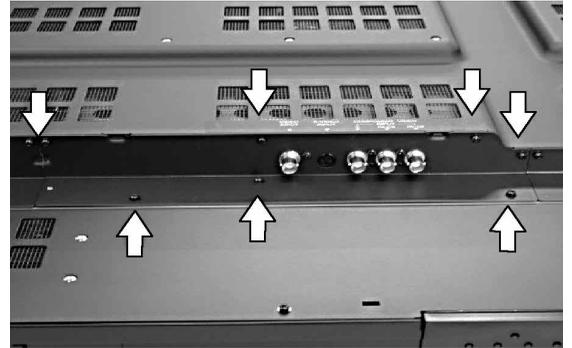


(2) Pull out the Video PCB Unit.
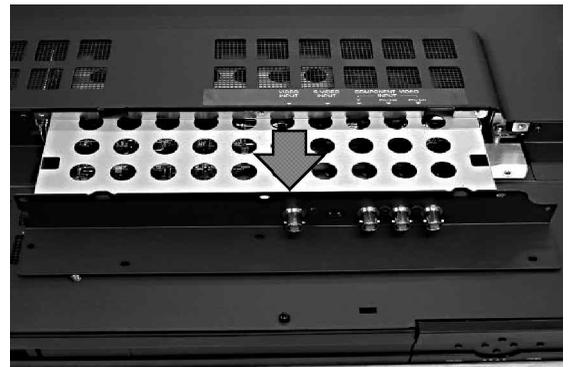


(3) Remove the 9 screws from the Video PCB Unit.



**Video PCB Unit**
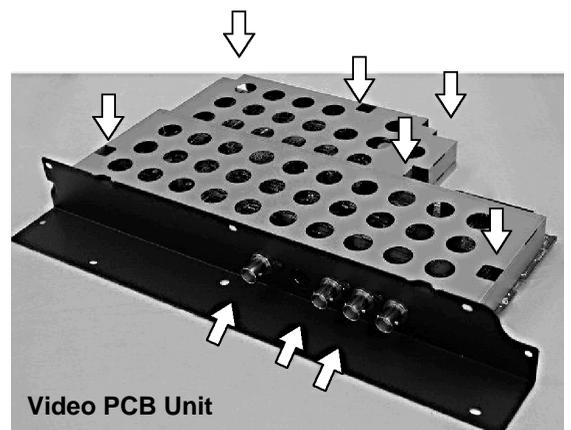
(4) Remove the Video PCB Assy.



**Video PCB Assy**
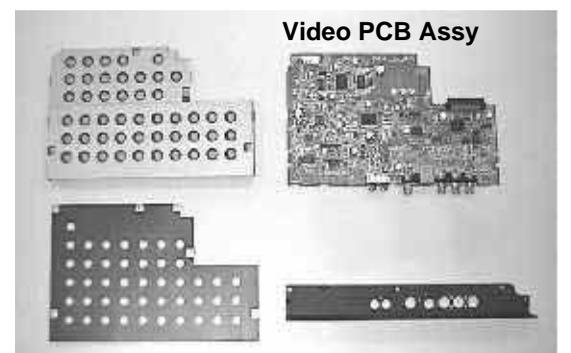
## 2. Removing the Rear Case (Upper)

⟹ : This mark indicates the screw positions.

(1) Remove the 19 screws shown at the right.

**Rear Case (Upper)**
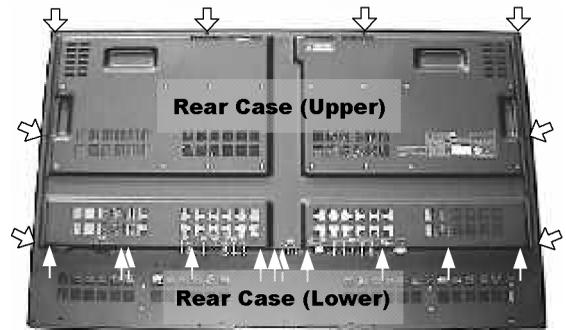
**Rear Case (Lower)**

## 3. Removing the Temp. Sensor PCB

(1) Remove the Rear Case (Upper).

(2) Remove the connector and screw.

**DC/DC Power PCB Assy**

**Temp. Sensor PCB**

**View after Rear Case (Upper) removed**
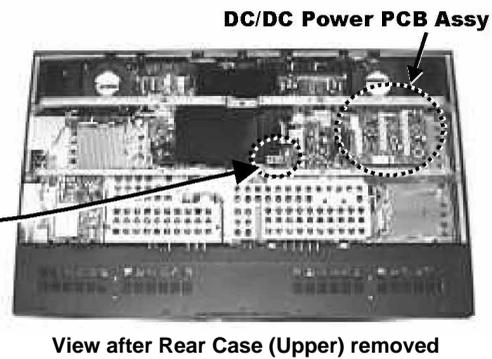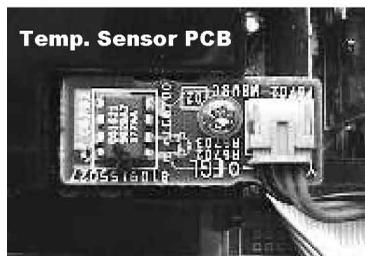
## 4. Removing the DC/DC Power PCB Assy

(1) Remove the Rear Case (Upper).

(2 Remove the insulation sheet on the DC/DC Power PCB.

(3) Remove the connectors and the 3 screws.
(Do not lose the screw assy.)

**No screw**

**Zn screws**

**Zn screws**

**DC/DC Power PCB Assy**

**View after insulation sheet removed**

**Screw assy (0500914050)**
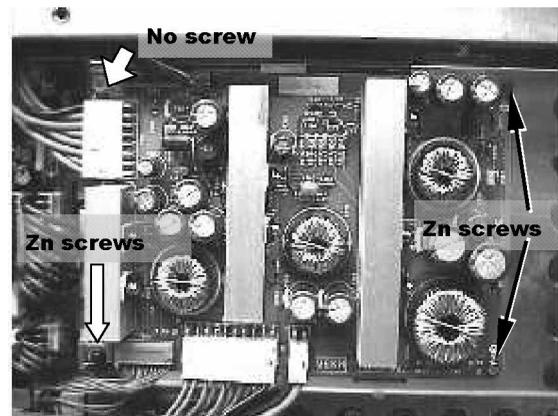
## 5. Removing the Bezel-Front

(1)  Remove the 2 Cover stands on the bottom  and remove the screws in the hole.



**Bezel-Front**



**Screw**

**Cover stand**
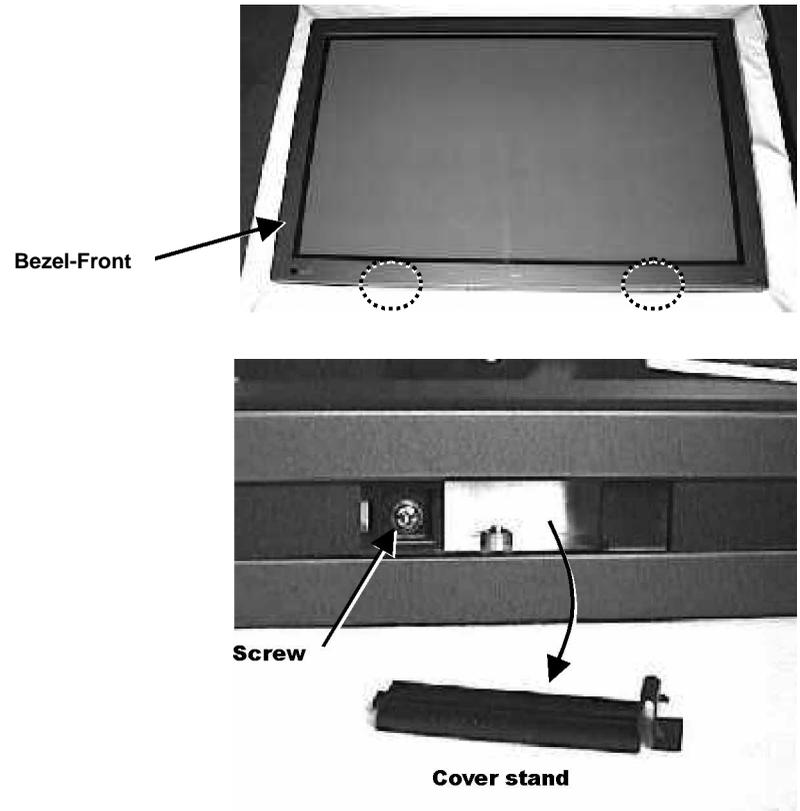
(2)  Lift the bottom of the Bezel-Front while pressing the main power button, and move the Bezel-Front
      upward to remove it.
      (The top of the Bezel-Front is hooked.)



**Main power switch**
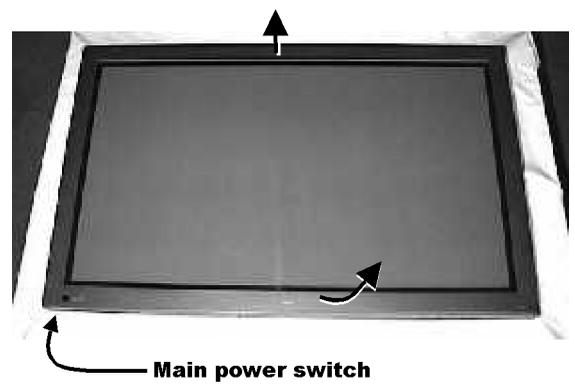
## 6. Removing the Optical Filter

(1)  Remove the Front Case.

(2)  Remove the Holder Filter L/R and T/B.
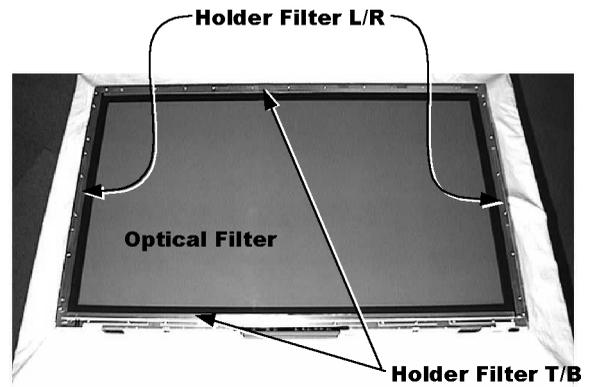


**View after Bezel-Front removed**

(2)-1 See the drawing below for the number and positions of the screws.

(2)-2 Remove by sliding the Holder Filters in the arrow directions.



**Screw fixing position**

**4208/4209 series: Fix the screws indicated by the ○ marks only (14 pcs.).**

**Unmarked positions show that screws are not used.**
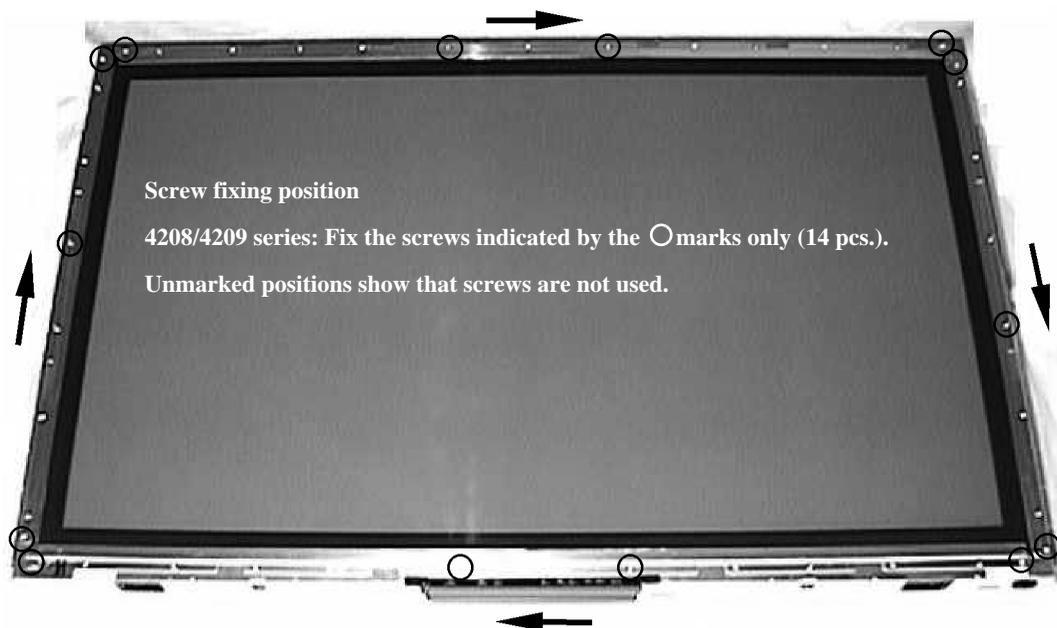
## 7. Removing the Main/Digital PCB Assy

(1) Remove the Rear Case (Upper).
   -Remove the 19 screws.

(2) Remove the Video PCB Unit.

(3) Remove the Frame Panel MID (Lower).
   -Remove the 3 screws.



**Frame Panel MID**

**Main/Digital PCB Assy**
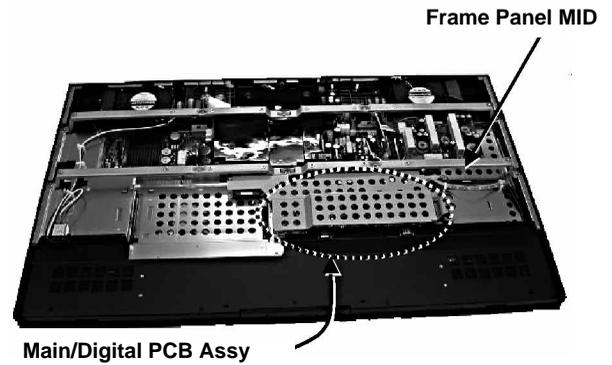
**View after Rear Case (Upper) removed**

(4) Remove the 4 screws at the input terminals.
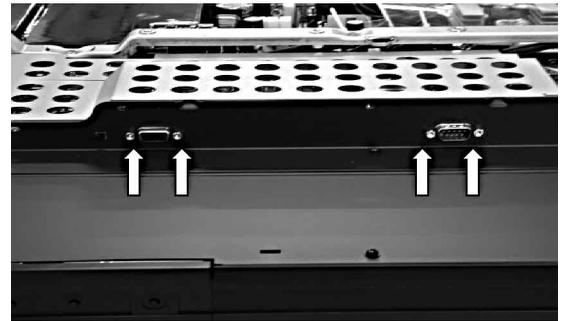


(5) Remove the 5 screws at the shield bracket of the Main/Digital PCB Assy.
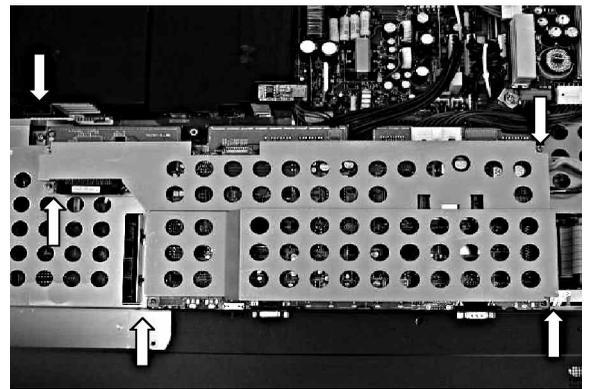
(6) Remove the shield bracket and connectors, and remove the screw.
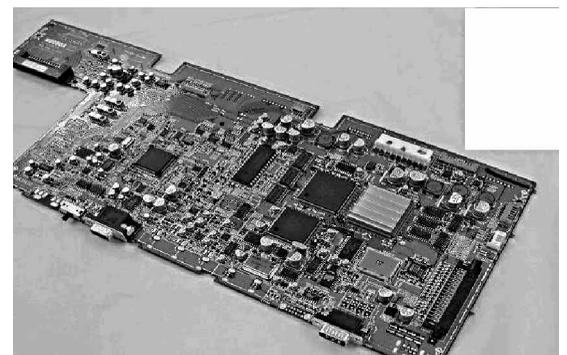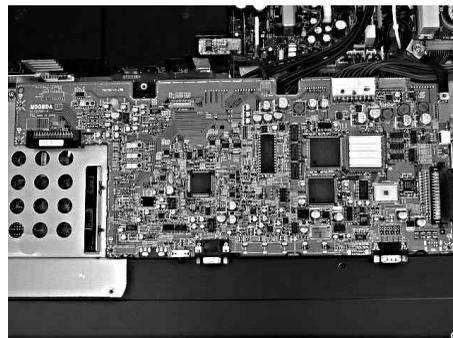




**Main/Digital PCB Assy**

## 8. Removing the Noise Filter (AC inlet)

(1)  Remove the Rear Case (Upper).

**View after Rear Case (Upper) removed**
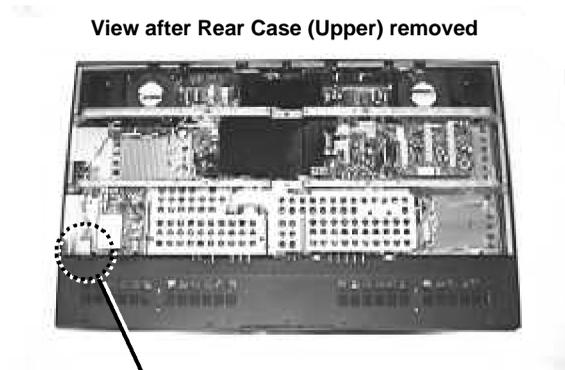
(2)  Remove the 3 wire connectors and the 2 screws.

Wire connectors

Noise Filter
(AC inlet)
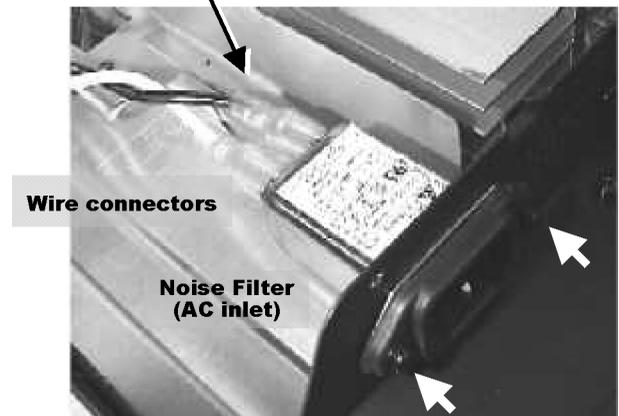
## 9. Removing the Fan Motor (Small)

(1) Remove the Rear Case (Upper).

(2) Remove the Temp. Sensor PCB.

(3) Remove the Frame Panel MID (Upper).
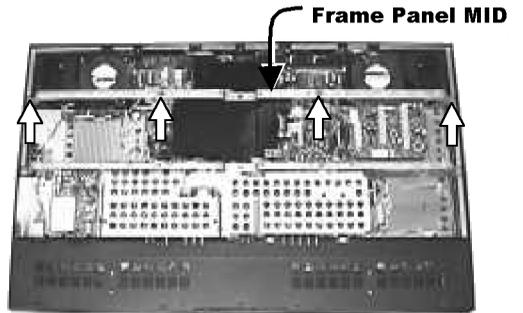


**View after Rear Case (Upper) removed**

(4) Remove the Power Cover.
    Refer to steps (1) to (4) of
    **"11. Removing the Power Supply Unit"**.
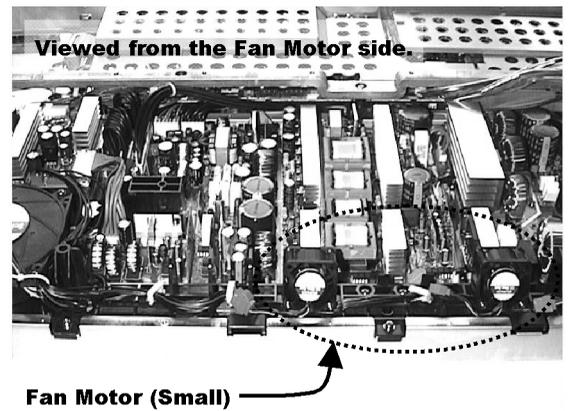


(5) Remove the 2 screws and connectors.
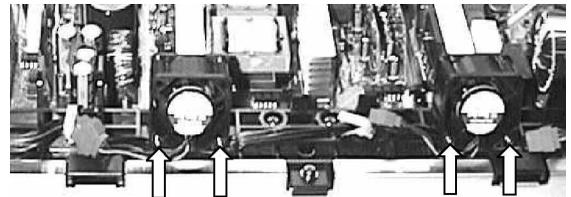
## 10. Removing the Sirocco Fan

(1) Remove the Rear Case (Upper).

(2) Remove the Frame Panel MID (Upper).
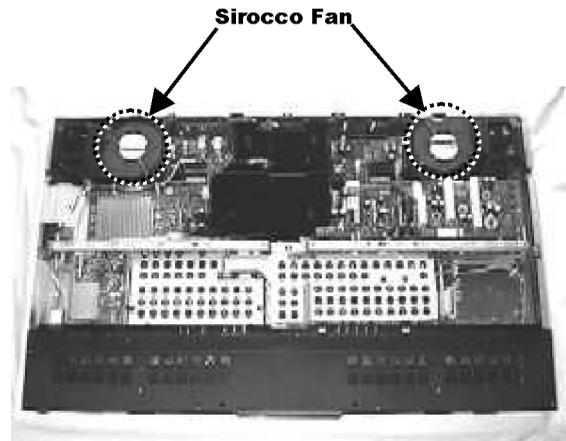


**Sirocco Fan**

(3) Remove the Duct Fan.
Unhook the 3 hooks on the Duct Fan.

**Top view**



**Right side**          **Left side**
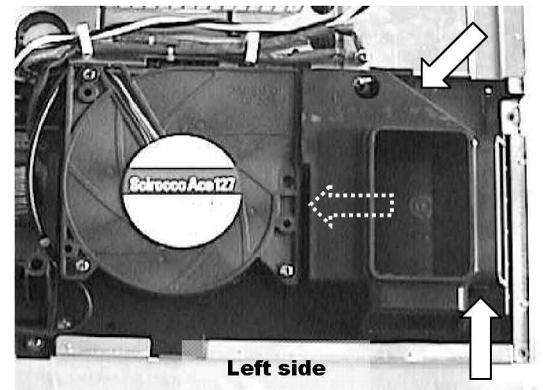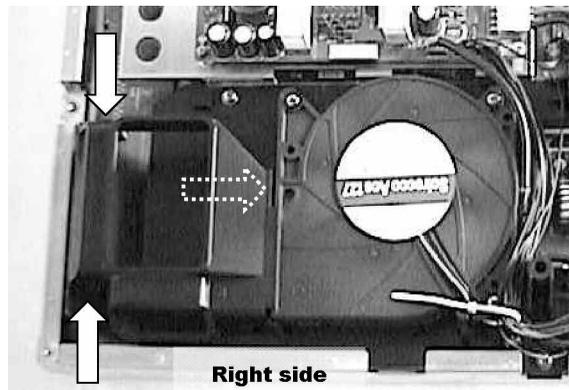
(4) Remove the Sirocco Fan.
Remove the 2 screws and connectors.



**Right side**          **Left side**
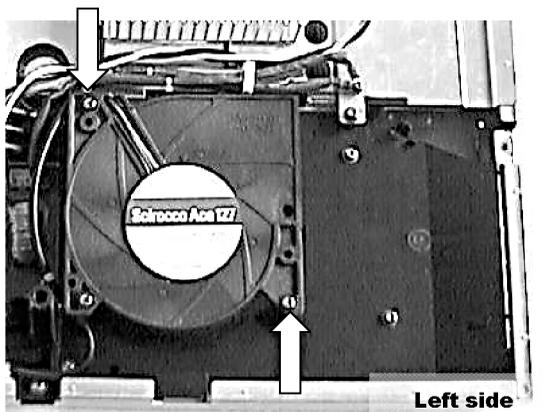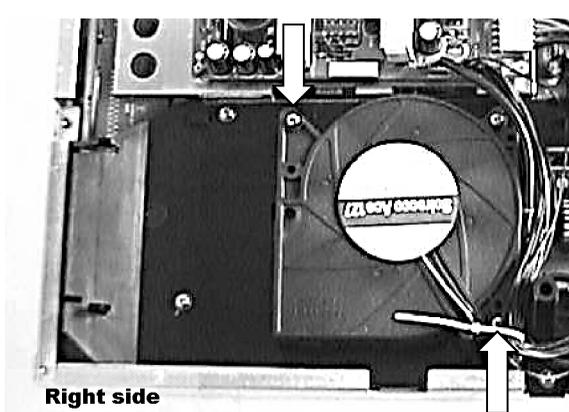
## 11. Removing the Power Supply Unit

(1)  Remove the Rear Case (Upper).

(2)  Remove the Temp. Sensor PCB.

(3)  Remove the Frame Panel MID (Upper).
    - Remove the 4 screws (2 long, 2 short).



**Frame Panel MID**
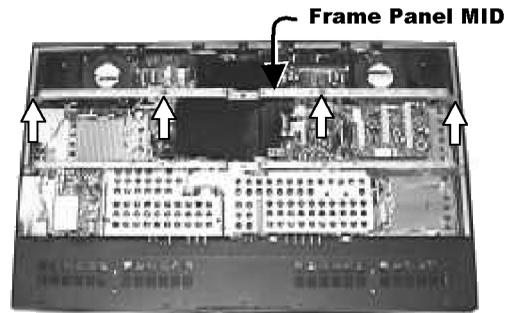
**View after Rear Case (Upper) removed**

(4)  Remove the Power Cover.
    - Unhook the 4 hooks on the Power Cover.



**Top view**

**Power Cover**
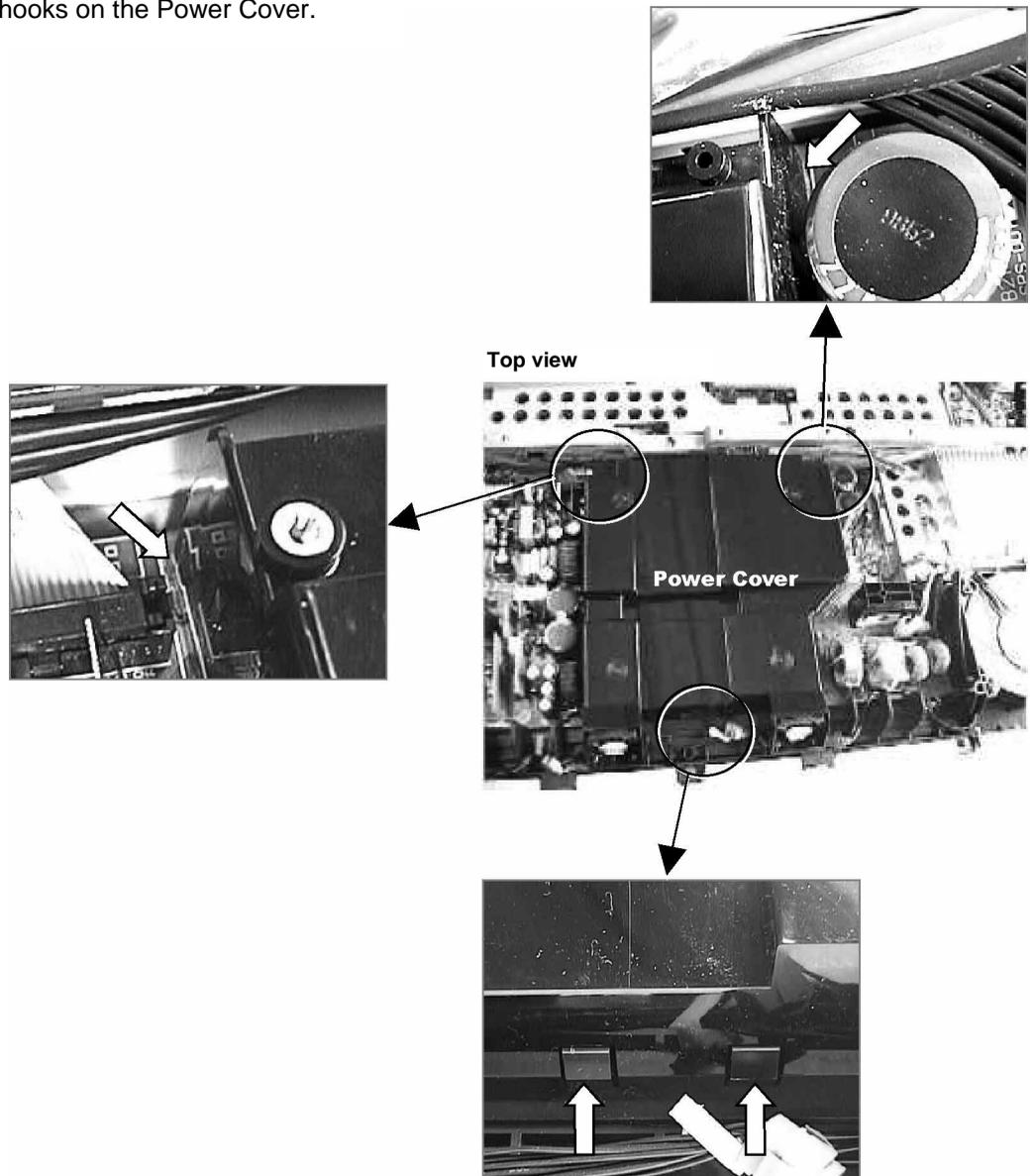
(5)  Remove the Power Supply Unit

(5)-1 Remove the screw holding the ground wire.



Ground wire
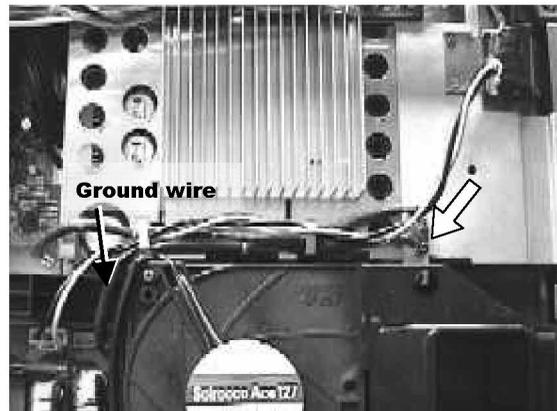
(5)-2 Remove the connectors and the 6 screws.
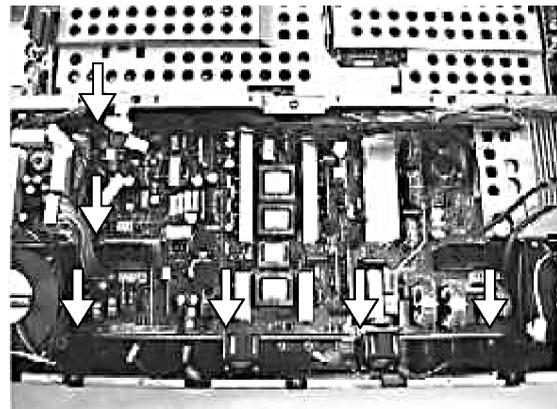


(5)-3 Remove the small PCB first.

**Replace the Power Supply Unit on a couple of PCBs.**
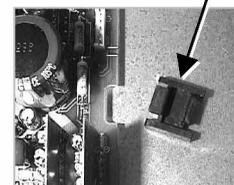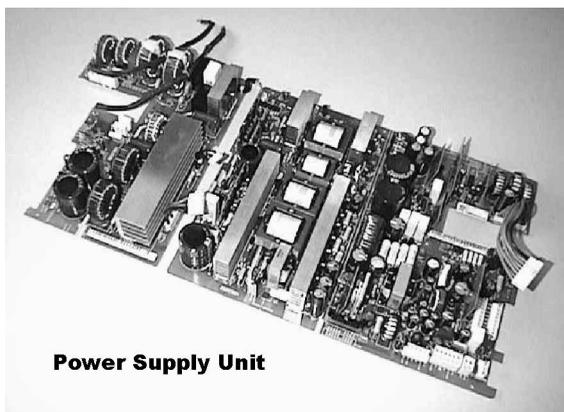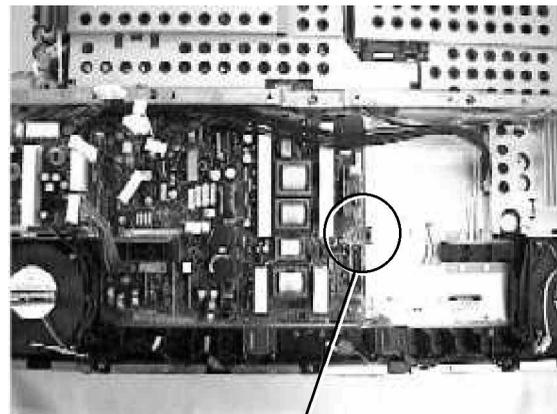


Frame power
(8108326008)



Power Supply Unit

## 12. Removing the PDP unit

(1) Remove the Rear Case (Upper).

(2) Remove the Video PCB Unit.

(3) Remove the Frame Panel MID Upper and Lower.
 - Remove the 7 screws.

(4) Remove the Temp. Sensor PCB .

(5) Remove the Power Cover.



**Frame Panel MID**　　　**Power Cover**
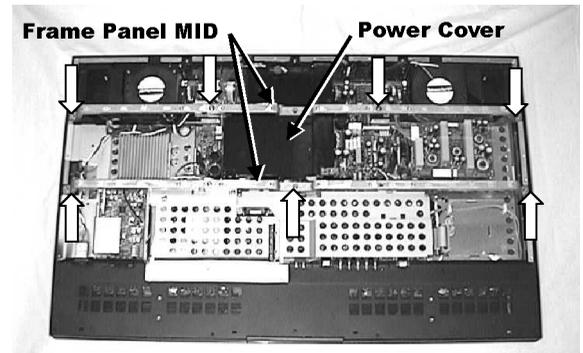
**View after Video PCB Unit and Rear Case Upper removed**

(6) Remove the Duct fans (Right and Left), and disconnect the connectors circled in the picture.



**Duct fans**

**Noise filter: Disconnect the black and white wires**
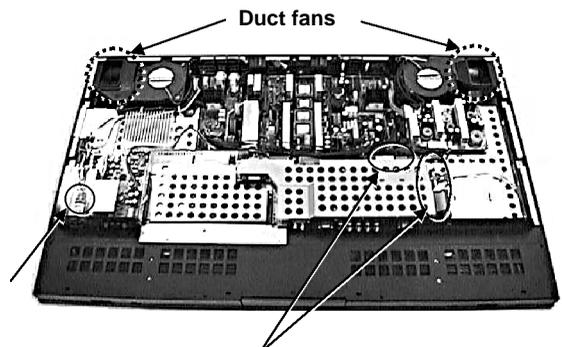
**Main/Digital PCB: Disconnect the 68-pin connector and other connectors**

(7) Disconnect the connector to the Power Supply Unit and inlet.



**Remove this connector.**
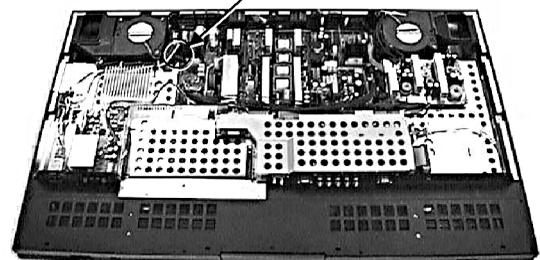
(8) Remove the Rear Case Lower.

**Remove it together with the Main/Digital PCB, Audio PCB and Noise Filter.**

-Remove the 13 screws.



**Screwed together with Main/Digital PCB**
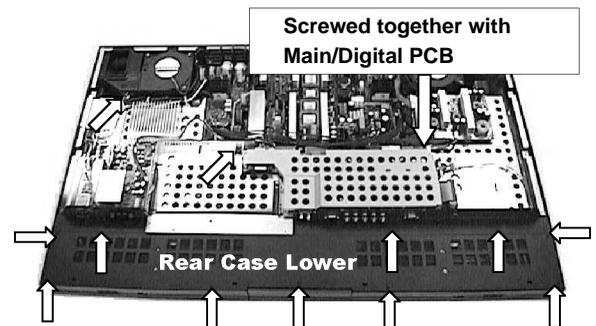
**Rear Case Lower**

(9) Disconnect the wire of the Key-Switch and LED, and move them from the Rear Case Lower.
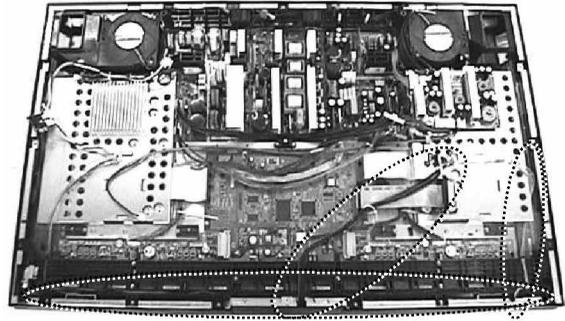
(10) Remove the Frame Panel from Frame Case.

   (10)-1 Remove the 6 screws on the Frame Panel-Bottom.

   (10)-2 Remove the 3 screws on the Frame Panel-Top.

**Frame Panel-Top**

**Frame Panel-Bottom**

**Frame Panel MID (Upper)**
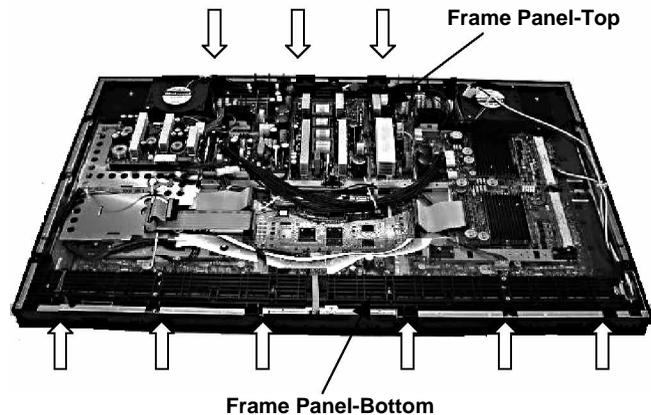
(11) Remove the PDP panel together with the other parts from the Front Case.

   (11)-1 Install the Frame Panel MID Upper using the 2 screws.

   (11)-2 Install the 2 screws jigs to the PDP Panel Unit.
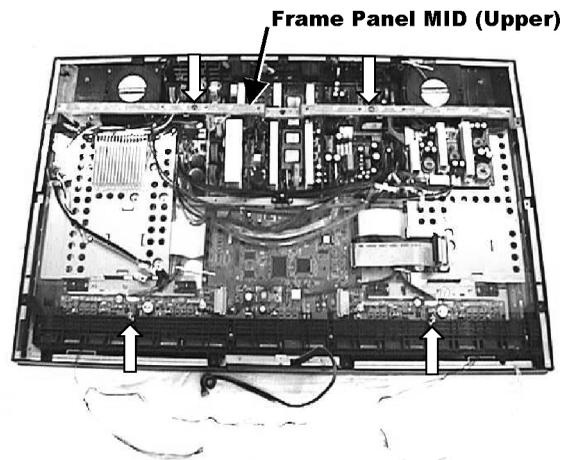
   (11)-3 Have two peoples hold the screw jig and the Frame Panel MID Upper and remove the PDP unit from the Front Case.

– 41 –
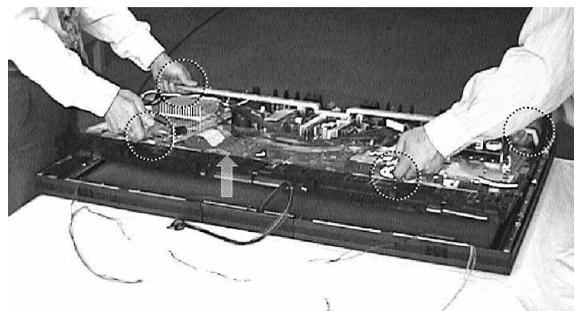
# 13. Removing the parts on the PDP

(1)  Remove the Power Supply Unit.

 (1)-1 Disconnect the 11 connectors.
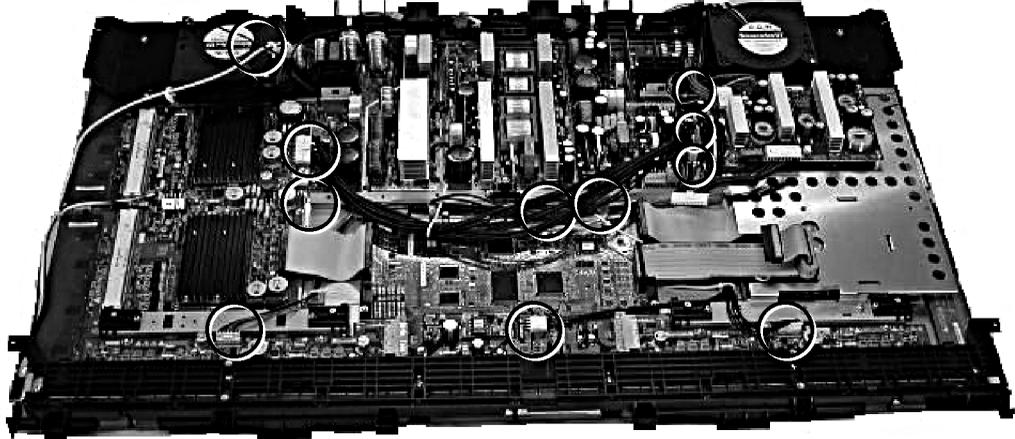
**Vertical view**

 (1)-2 Remove the 6 screws.
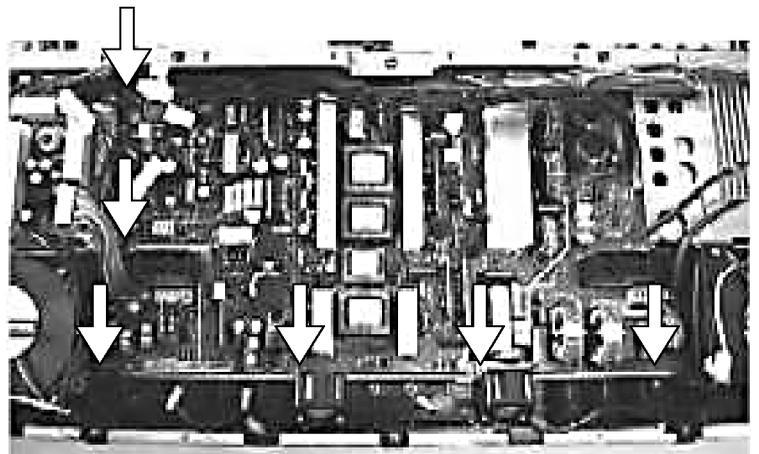
**Vertical view**

(2)  Remove the Frame Panel-Top together with Holder Fan L and R.
- Remove the 7 screws.

(3)  Remove the Frame Panel-Bottom.
- Remove the 5 screws.
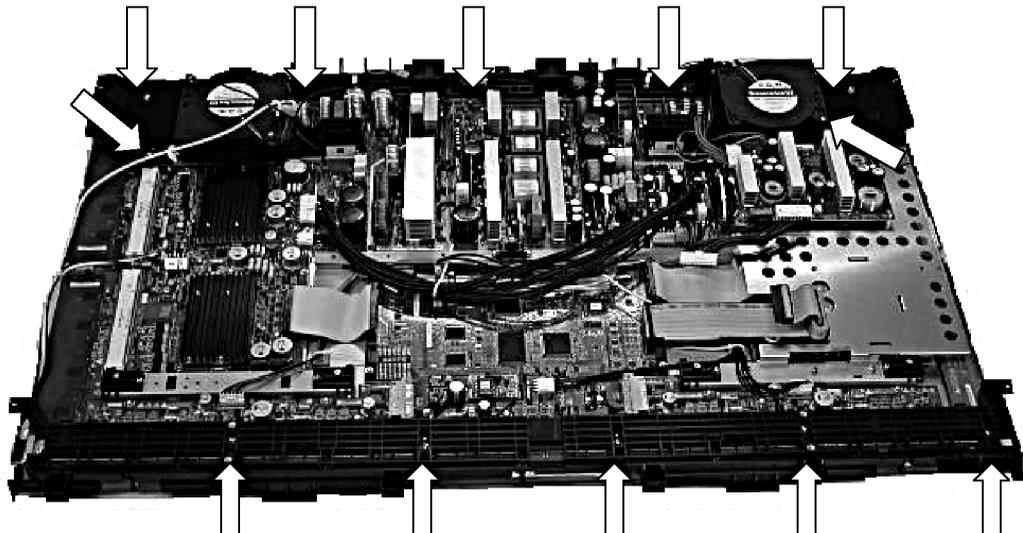
(4) Remove the X-SUS PCB shield.
   - Remove the 2 screws and the 68-pin connector.

(5) Remove the Y-SUS PCB Heat-Sink.



Y-SUS PCB Heat-Sink

X-SUS PCB Shield
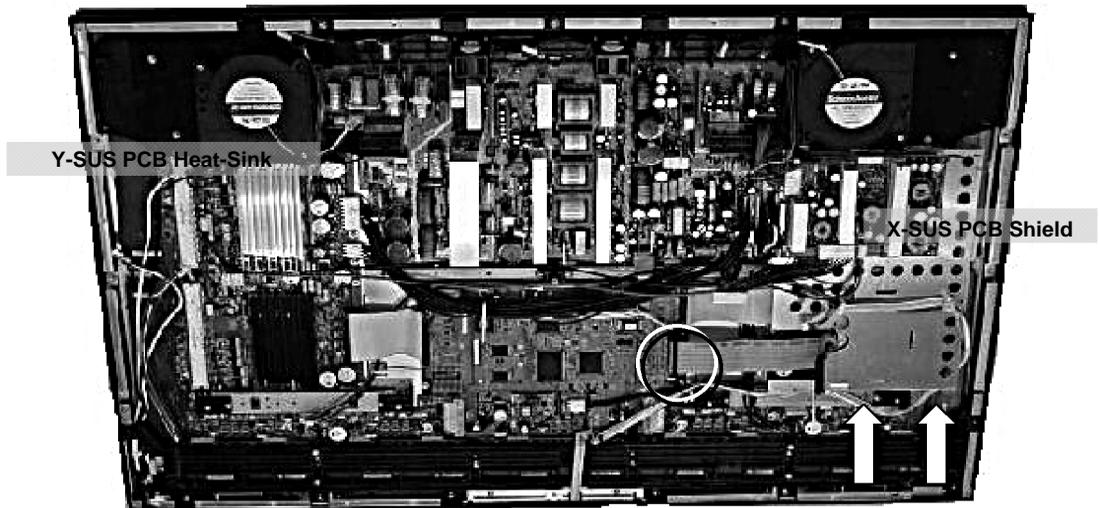
(6) Replace the bracket between the defective panel and the new panel.



PDP Unit
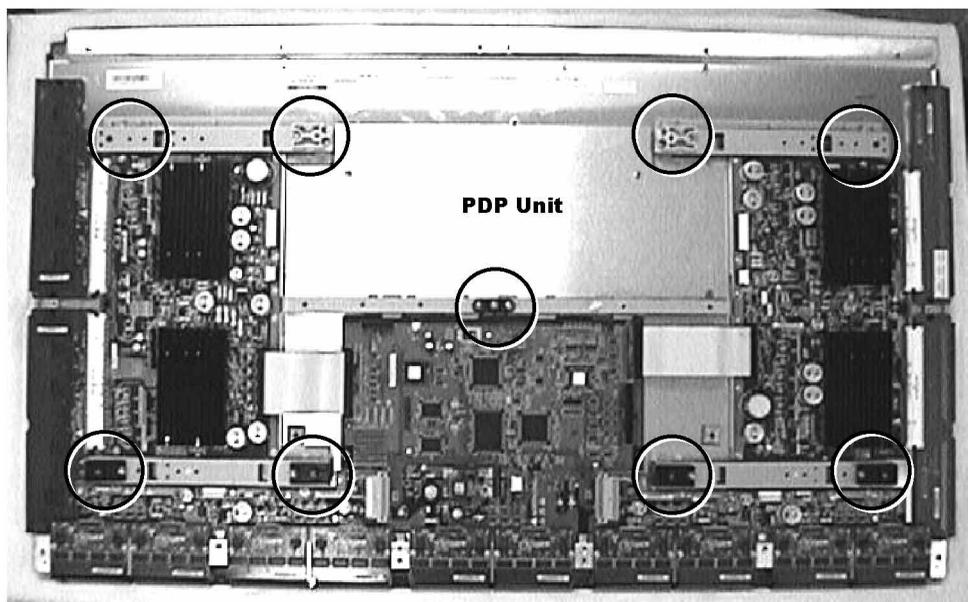
# PARTS LIST

| Ref.No. | Description | PDS4208W-B | PDS4208E-B | PDS4209U-B |
|---------|-------------|------------|------------|------------|
| **Cabinet** | | | | |
| | Rear Case (Upper) | 8110640000 | ⇦ | ⇦ |
| | Rear Case (Lower) | 8110611000 | ⇦ | ⇦ |
| | Bezel Front | 8110608000 | ⇦ | ⇦ |
| | Frame Panel - Mid | 8109740001 | ⇦ | ⇦ |
| | Front case | 8110613004 | ⇦ | ⇦ |
| | Cover Stand | 8110704009 | ⇦ | ⇦ |
| | Holder Filter (T/B) | 8110614001 | ⇦ | ⇦ |
| | Holder Filter (L/R) | 8110619006 | ⇦ | ⇦ |
| | Frame Panel - Top | 8108289006 | ⇦ | ⇦ |
| | Frame Panel - Bottom | 8109479000 | ⇦ | ⇦ |
| **Electric** | | | | |
| | Video PCB Assy | 8110599025 | ⇦ | ⇦ |
| | Main/Digital PCB Assy　　　∗ | 8110589026 4208W | 8110589026 4208E | 8110589026 4209U |
| | LED/Photo PCB Assy | 8110754011 | ⇦ | ⇦ |
| | Power Supply Unit (PFW-422) | 8108193006 | ⇦ | ⇦ |
| | DC/DC Power PCB (M8KR) | 8110809018 | ⇦ | ⇦ |
| | Temp. Sensor PCB | 8110756015 | ⇦ | ⇦ |
| | PDP Panel FPF42C10660UE-41 | 8110753007 | ⇦ | ⇦ |
| | Optical Filter | 8110688002 | ⇦ | ⇦ |
| | Fan Motor (Small) | 8900243015 | ⇦ | ⇦ |
| | Sirocco Fan | 8900242025 | ⇦ | ⇦ |
| | Adapter Main-SW | 8110620002 | ⇦ | ⇦ |
| | Power Cord (VDE) | 8108106006 | ⇦ | 8108105009 |
| | Remote Control Unit | 8108442005 | ⇦ | ⇦ |

∗ When ordering the Main/Digital PCB Assy, always enter the Model No.　　　　⇦ : Same as left

| Ref.No. | Description | PDS4208W-B | PDS4208E-B | PDS4209U-B |
|---------|-------------|------------|------------|------------|
| **Packing** | | | | |
| | Packing Pad-Top (2 pcs.) | 8110234001 | ⇐ | ⇐ |
| | Packing Pad-Bottom (2 pcs.) | 8110235008 | ⇐ | ⇐ |
| | Carton Box-Top | 8110634009 | ⇐ | ⇐ |
| | Carton Box-Bottom | 8108658000 | ⇐ | ⇐ |
| | Packing Joint-D | 8108655009 | ⇐ | ⇐ |
| | Label, Carton | 8110817006 | 8110818003 | 8110819000 |
| | Carton Accessory | 8108657003 | ⇐ | ⇐ |

⇐ : Same as left

# TRANSPORTATION AND HANDLING RESTRICTIONS

**Transportation**

**Bad loading**

Don't load the plasmavision on a truck as shown in the drawing.

**Handling**

**Never topple.**

Plasma vision

**Never drop.**

Plasma vision

Drop

Over 30 cm ↑     ↓ Floor

Don't hold the surface of the optical filter.

Don't stack the plasmavision over three units high.
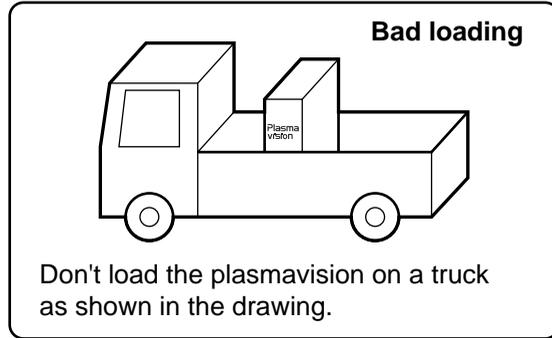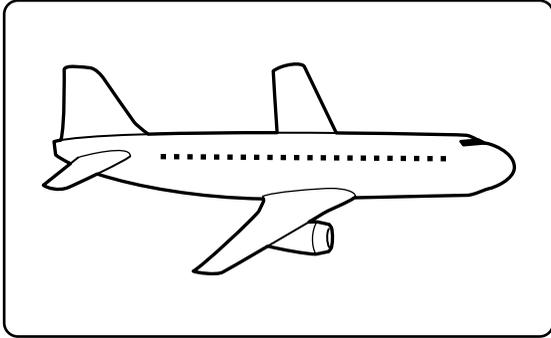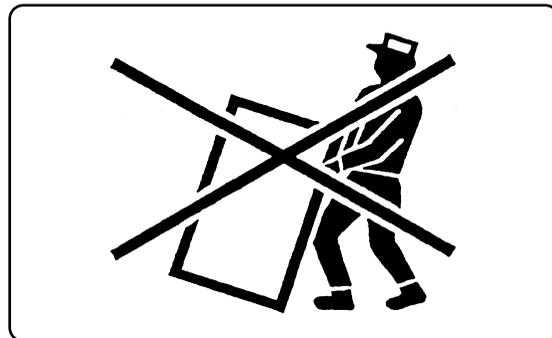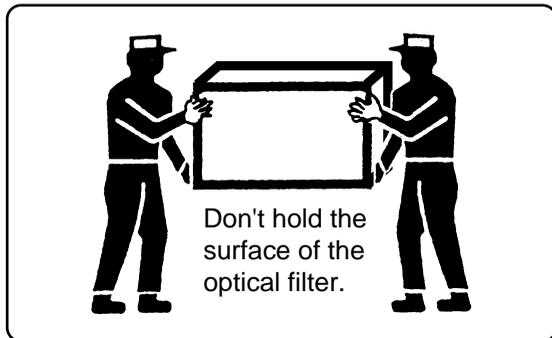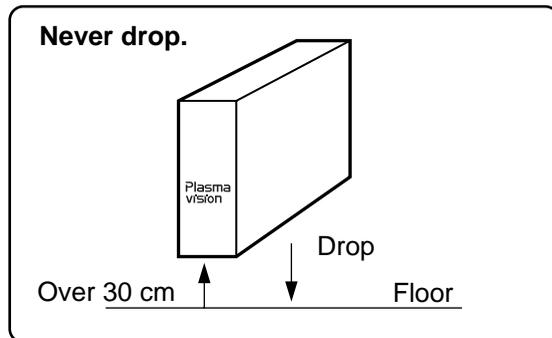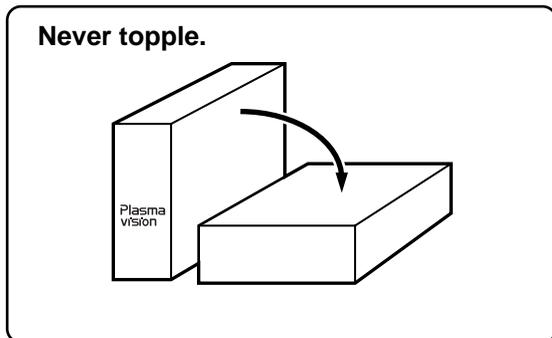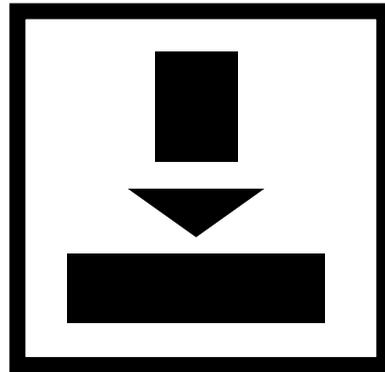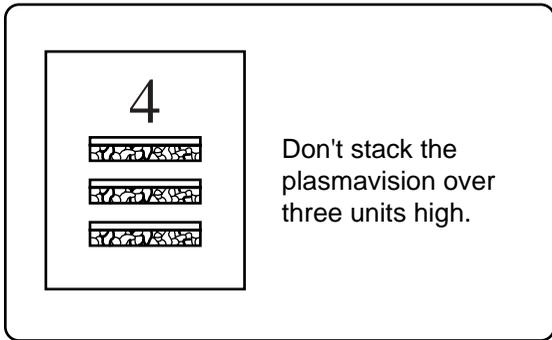


## Example of good transportation and handling

**Good loading**



Load the plasmavision as shown above.

# MEMO