FUJITSU

Plasmavision™

PDS5001W-H/S PDS5002W-S
PDS5001E-H/S PDS5002E-S
PDS5001U-H/S PDS5002U-S

SERVICE MANUAL

FUJITSU GENERAL Proprietary

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FUJITSU GENERAL LIMITED

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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.

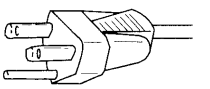
Do not place combustibles such as cloth, paper, matches, aerosol cans or gas lighters that prevent special hazards when overheated behind the cooling fan.

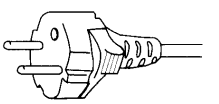
Use only the accessory cord designed for this unit to prevent shock.

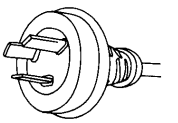
The power supply voltage rating of this unit is AC100-240V, but the attached power cord conforms to the following power supply voltage. Use only the Power Cord designated by our dealer to ensure Safety and EMC.

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 requirement 100-240V, 50/60Hz
Current drain 2.7A (W,E Type) 5.5A (U Type)

Display panel
Screen size 110.6 (W) x 62.2 (H) [cm]
43.5 (W) x 24.5 (H) [inch]
Aspect ratio 16 : 9
Number of pixels 1,366 (H) x 768 (V) pixels
Pixel pitch 0.81mm x 0.81mm

Contrast ratio PDS5001/5002 3000 : 1 (typ.)
Brightness 500 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:0.286V_{P-P} /75Ω

Component video input Three BNC terminals
Y : 1V_{P-P} /75Ω
P_b /B-Y: 0.7V_{P-P} /75Ω
P_r /R-Y: 0.7V_{P-P} /75Ω

RGB 1 input DVI-D terminal

RGB 2 input mD-sub:15pin (3 row type)
Video : 0.7V_{P-P} /75Ω
SYNC signal : TTL level

RGB 3 input BNC terminal x 5
R: 0.7V_{P-P}/75Ω
G: 0.7V_{P-P}/75Ω
B: 0.7V_{P-P}/75Ω
H: TTL level or 0.3V_{P-P} /75Ω
V: TTL level or 0.3V_{P-P} /75Ω

User set mode 8 memories (each RGB1,2)
Display frequency Horizontal :15.63 to 80.0MHz
Vertical : 50.0 to 120Hz
Dot clock:50MHz Max
XGA 68MHz Max

RS-232C D-sub 9 pin terminal

Color system NTSC/PAL/SECAM/N-PAL/M-PAL /4.43NTSC/PAL60

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

Dimensions Width : 121.2cm (47.7 inch)
Height: 72.6cm (28.6 inch)
Depth : 9.8 cm (3.9 inch)

Net weight 45.0kg

Environment (Operating)
Temperature 0˚ to 40˚C
Relative humidity 20 to 80%
Pressure 850 to 1,114 hPa

Accessories User's manual
Remote controller
Batteries (Type AA x 2)
Power cord
Ferrite core (2)

Options
Stand P-50TT01
Wall mounting unit
P-50WB01 installation angle
Horizontal 0˚ to 15˚
Vertical 0˚ to 5˚
Ceiling mounting unit P-50CT01 installation angle
Available 0˚ to 15˚

Standards

	PDS5002W/E/U -S	PDS5001W/E/U-H/S
● UL,CSA		
Safety:	UL1950	UL1950
	CSA C22.2 No.950	CSA C22.2 No.950
	EMC: FCC Part15 Class A	FCC Part15 Class B
	ICES-003 Class A	ICES-003 Class B
● CE		
Safety:	EN60950 1992	EN60950 1992
	A1 1993	A1 1993
	A2 1993	A2 1993
	A3 1995	A3 1995
	A4 1997	A4 1997
EMC :	EN55022 A1/A2 Class A	EN55022 A1/A2 Class B
	EN61000-3-2, 1995	EN61000-3-2, 1995
	EN61000-3-3, 1995	EN61000-3-3, 1995
	EN55024 1998	EN55024 1998
	EN61000-4-2, 1995	EN61000-4-2, 1995
	EN61000-4-3, 1996	EN61000-4-3, 1996
	EN61000-4-4, 1995	EN61000-4-4, 1995
	EN61000-4-5, 1995	EN61000-4-5, 1995
	EN61000-4-6, 1996	EN61000-4-6, 1996
	EN61000-4-8, 1993	EN61000-4-8, 1993
	EN61000-4-11,1994	EN61000-4-11, 1994
● AS		
Safety :	IEC950 A1/A2/A3/A4	IEC950 A1/A2/A3/A4
EMC :	AS/NZS 3548	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.

FACTORY SET SIGNALS (RGB MODE)

Main corresponding signals (RGB mode)

Display (dots x lines)	Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
852 x 480	31.72	59.97	
640 x 480	31.47	59.94	VGA
640 x 480	37.86	72.81	VGA 72 Hz
640 x 480	37.50	75.00	VGA 75 Hz
640 x 480	43.27	85.01	VGA 85 Hz
720 x 400	31.47	70.09	400 lines
800 x 600	37.88	60.32	SVGA 60 Hz
800 x 600	48.08	72.19	SVGA 72 Hz
800 x 600	46.88	75.00	SVGA 75 Hz
800 x 600	53.67	85.06	SVGA 85 Hz
1024 x 768	48.36	60.00	XGA 60 Hz
1024 x 768	56.48	70.07	XGA 70 Hz
1024 x 768	60.02	75.03	XGA 75 Hz
1280 x 1024	63.98	60.02	SXGA 60 Hz
1280 x 1024	79.98	75.03	SXGA 75 Hz
1600 x 1200	75.00	60.00	UXGA 60 Hz
640 x 480	35.00	66.67	MAC 13RGB
848 x 480	31.02	60.00	
720 x 485	15.73	59.94	60 fields
720 x 575	15.63	50.00	50 fields
640 x 400	31.50	70.15	NEC 31 kHz

* With some input signals, "Out of range" may appear even when the horizontal and vertical frequencies are within their permissible ranges. Make sure that the vertical frequency of the input signal is 85 Hz or less for SVGA, 75 Hz or less for XVGA/ SXGA , 60 Hz or less for UXGA.

FACTORY SET SIGNALS (Component video mode)

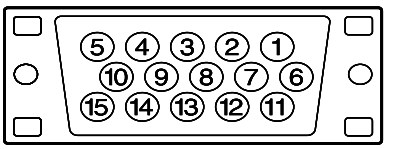
Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
15.73	59.94	SDTV 480i
15.63	50.00	SDTV 576i
31.47	59.94	SDTV 480p
31.25	50.00	SDTV 576p
45.00	60.00	HDTV 720p
37.50	50.00	HDTV 720p
33.75	60.00	HDTV 1,080i
28.13	50.00	HDTV 1,080i

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
15.63	59.52	PAL 60
15.63	50.00	N-PAL
15.73	59.95	M-PAL
15.73	59.94	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 "Information" on the OTHERS Menu screen.

RGB INPUT TERMINAL

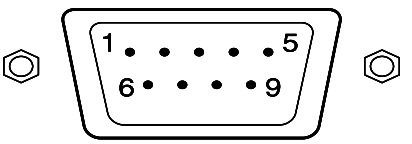


* The sync switch (TTL/ANALOG switch) is on the rear of the 13-pin horizontal sync and 14-pin vertical sync terminals.

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

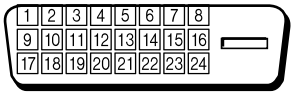
RS-232C INPUT TERMINAL

Pin No.



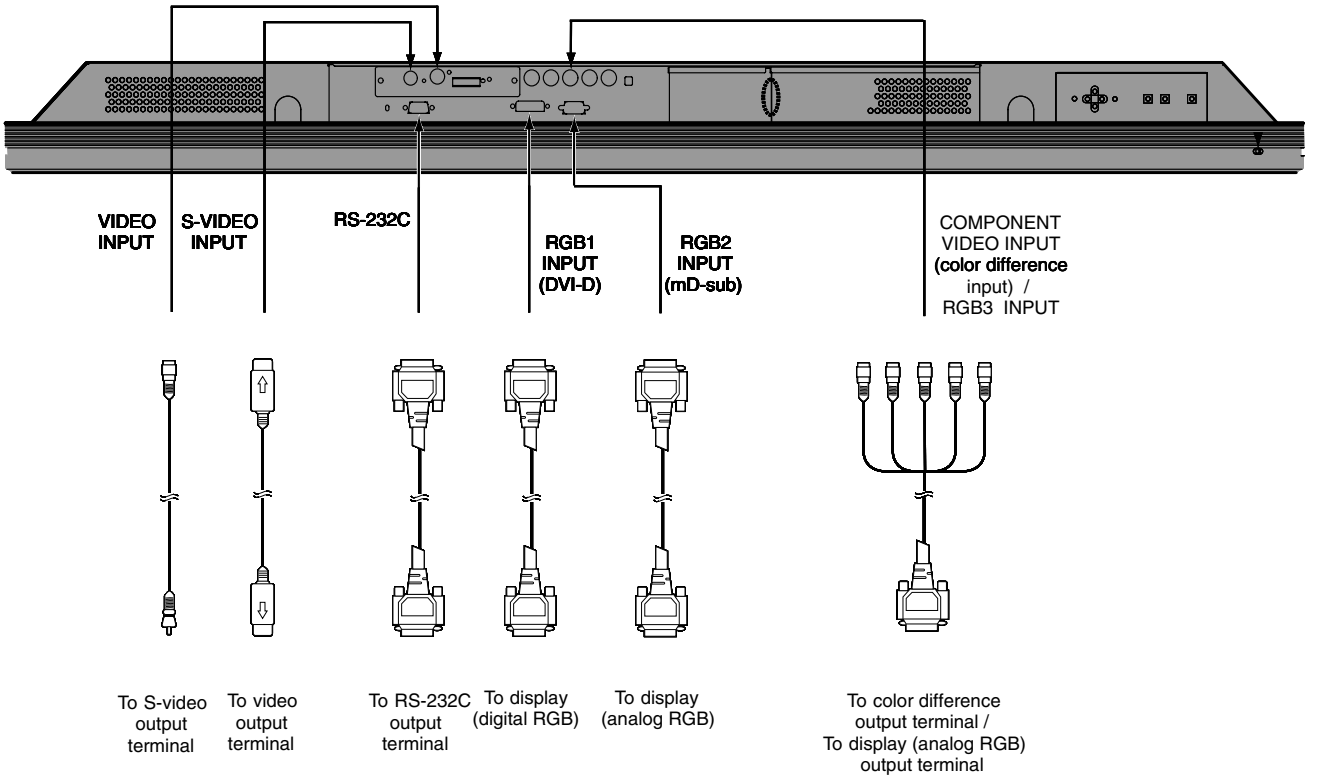
Pin No.	No. signal
1	DCD (Data Carrier Detect)
2	RD (Receive Data)
3	TD (Transmit Data)
4	DTR (Data Terminal Ready)
5	GND (Ground)
6	DSR (Data Set Ready)
7	RTS (Request To Send)
8	CTS (Clear To Send)
9	RI (Ring Indication)

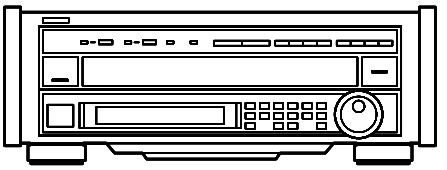
DVI-D INPUT TERMINAL



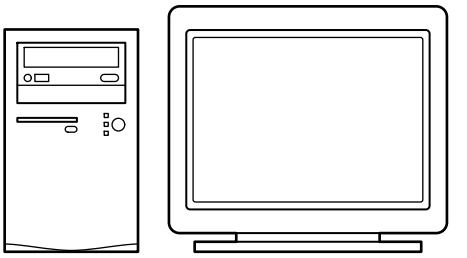
Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	T.M.D.S. Data2−	9	T.M.D.S. Data1−	17	T.M.D.S. Data0−
2	T.M.D.S. Data2+	10	T.M.D.S. Data1+	18	T.M.D.S. Data0+
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	—	12	—	20	—
5	—	13	—	21	—
6	DDC Clock	14	+5V Power	22	T.M.D.S. Clock Shield
7	DDC Data	15	Ground(for +5V)	23	T.M.D.S. Clock+
8	—	16	Hot Plug Detect	24	T.M.D.S. Clock−

CONNECTION





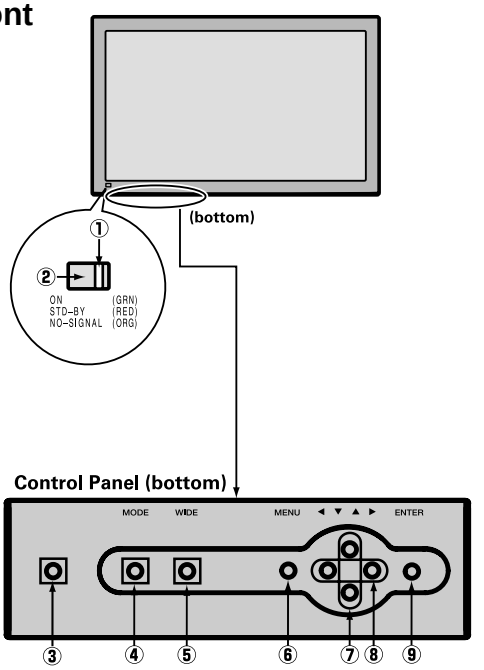
Connection to AV equipment



Connection to PC

PART NAMES AND FUNCTIONS

Front



① Power indicator lamp

This lamp shows the state of the power supply.

Lit (red):	Power OFF (stand-by)
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 Power button

Turns the power ON or OFF (stand-by).

④ Input mode selector button [MODE]

Switches between picture input modes.

⑤ Wide screen selector button [WIDE]

Switches the screen over to a desired wide screen.

⑥ Menu button [MENU]

Displays picture adjustment menus.

⑦ Adjustment buttons [▼ / ▲]

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

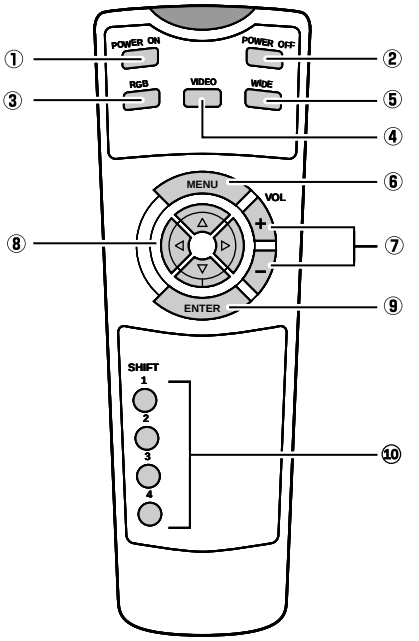
⑧ Adjustment buttons [◀ / ▶]

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

⑨ Enter button [ENTER]

Press this button to finalize the selection of a desired option in a menu.

Remote control



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 picture.

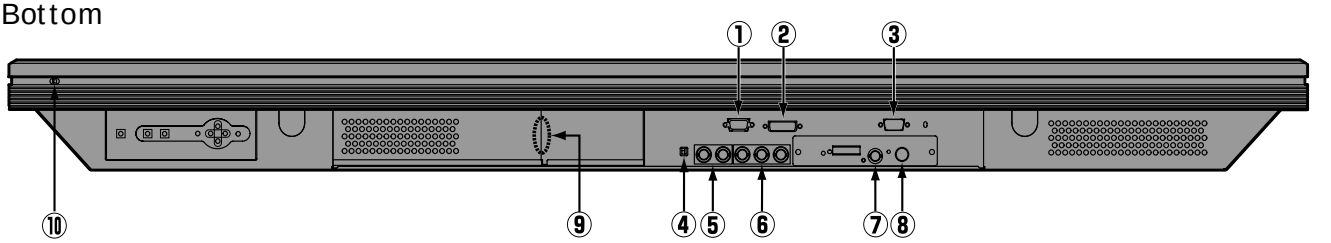
⑦ **Volume adjustment buttons [VOL +/-]**
Adjust the volume.
Press the + button to increase the volume.
Press the - button to reduce the volume.

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 an unique number to each display.

Bottom



① RGB 2 input terminal (RGB 2 INPUT/mD-sub)

Connect this terminal to the PC's display (analog RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.

② RGB 1 input terminal (RGB 1 INPUT/DVI-D)

Connect this terminal to the PC's display (digital RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.

*The connection cable No.88741-8000 made by **molex Inc.** is recommended.

③ 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.

④ RGB 3 synchronization switch (SYNC SW TTL/ANALOG (75Ω))

This switch is used to terminate horizontal (H) terminal and vertical (V) terminal, out of RGB3 input terminals, with 75Ω.

TTL : Used when sending RGB signals from the PC to the RGB 3 terminal

ANALOG (75Ω) : Used when sending analog synchronization signals to the RGB 3 terminal

⑤+⑥ RGB 3 input terminal (RGB 3 INPUT/BNC)

Connect this terminal to the PC's display (analog RGB)output terminal or decoder (digital broadcast tuner,etc.) output terminal.

*When RGB3 input terminal is connected, Comp.video mode is not available.

⑥ 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 Comp.video input terminal is connected, RGB3 mode is not available.

⑦ Video input terminal (VIDEO INPUT)

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

⑧ S-video input terminal (S-VIDEO INPUT)

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

⑨ Power input terminal

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

When connecting a cable, attach a ferrite core to the cable.

⑩ OFF/STD-BY ⏻ switch

OFF :The power indicator lamp goes off, and the power can't be turned on by the power button. The power is partly supplied.

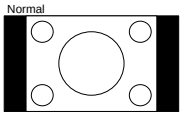
STD-BY⏻ :The power indicator lamp lights red, and the power can be turned on or off by the power button.

VIDEO MODE ADJUSTMENT

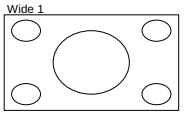
- REMOTE CONTROLLER
  - POWER ON
  - POWER OFF
  - RGB
    - RGB 1
    - RGB 2
    - RGB 3
  - VIDEO
    - Video
    - S-Video
    - Comp. Video
  - WIDE
    - Normal
    - Auto
    - Wide 1
    - Wide 2
    - Zoom 1
    - Zoom 2
  - MENU
  - ENTER

- PICTURE
  - Contrast {-30 to +30}
  - Brightness {-60 to +60}
  - Color {-60 to +60}
  - Tint {-30 to +30 (Comp. Video -60 to +60)}
  - Sharpness {-16 to +16}
  - Gamma
    - Dynamic 1
    - Dynamic 2
    - Dynamic 3
    - Dynamic 4
  - Color Temp.
    - Standard
    - Cool
    - User
    - Warm
  - User Color Temp.
    - Red {0 to 255}
    - Green {0 to 255}
    - Blue {0 to 255}
  - Noise Reduction
    - Std
    - Max
    - Off
    - Min
- POSITION/SIZE
  - Position
    - Horizontal {-30 to +30 (Comp. Video -16 to +16)}
    - Vertical {-7 to +7 (Zoom:-15 to +15) (Comp. Video -16 to +16)}
  - Size
    - Width {-3 to +3 (Comp. Video -2 to +2)}
    - Height {-3 to +3 (Comp. Video -2 to +2)}
- FEATURES
  - Adjustment
    - Clamp Position {-8 to +8} *Only Comp. Video
  - Function
    - 24 Frame model
      - On
      - Off
    - 3D Y/C
      - On
      - Off
  - On Screen Menu
    - OSD
      - On
      - Off
    - Language
      - English
      - Deutsch
      - Espanol
      - Francais
      - Italiano
      - Portuques
      - PyccкHH *Only E-model
  - Input Terminal
    - Video Input
      - Auto
      - NTSC
      - PAL
      - SECAM
      - PAL 60
      - N-PAL
      - M-PAL
      - 4.43 NTSC
    - S-Video Input
      - Auto
      - NTSC
      - PAL
      - SECAM
      - PAL 60
      - N-PAL
      - M-PAL
      - 4.43 NTSC
    - BNC Input
      - RGB PC
      - Decoder
      - Comp.video
      - Mask
        - Off
        - 5
        - 10
        - 15
    - D-SUB Input
      - Function
        - RGB PC
        - Decoder
      - Mask
        - Off
        - 5
        - 10
        - 15
  - Others
    - DPMS
      - Time
        - Off
        - 1 min
        - 15 min
        - 45 min
        - 60 min
      - Background
        - Black
        - White
    - Input Priority
      - Off
      - RGB2
      - RGB3
      - Video
      - S-Video
      - Comp. Video
    - Monitor No.
      - 0
      - 1
      - 2
      - 3
      - 4
    - White Screen
      - Off
      - On
    - Exhibition Mode
      - Off
      - On
    - Installation
      - Normal
      - +90Deg
      - -90Deg
    - Key Lock
      - Off
      - On
    - Information
      - Mode
      - Monitor No.
      - Freq. Scan Mode
      - Input Signal
      - Freq.
- FACTORY DEFAULT
  - Execute
    - Yes
    - No

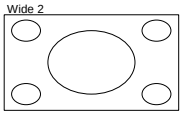
Normal



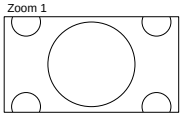
Wide 1



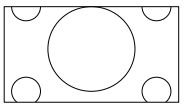
Wide 2



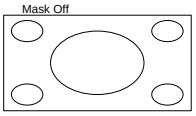
Zoom 1



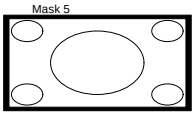
Zoom 2



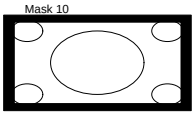
Mask Off



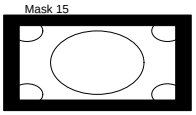
Mask 5



Mask 10



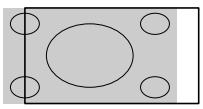
Mask 15



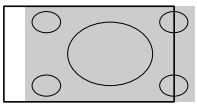
POSITION/SIZE

Position

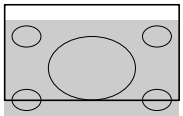
Horizontal "-"



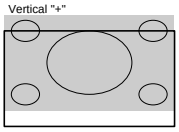
Horizontal "+"



Vertical "-"

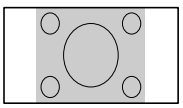


Vertical "+"

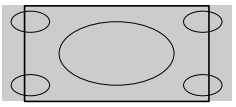


Size

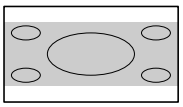
Width "-"



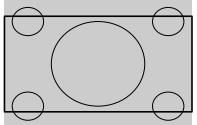
Width "+"



Height "-"



Height "+"



RGB MODE ADJUSTMENT

- REMOTE CONTROLLER
  - POWER ON
  - POWER OFF
  - RGB
    - RGB 1
    - RGB 2
    - RGB 3
  - VIDEO
    - Video
    - S-Video
    - Comp. Video
  - WIDE
    - Normal
    - Wide
    - Zoom
  - MENU
  - ENTER

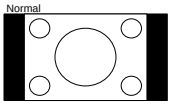
- PICTURE
  - Contrast {-30 to +30}
  - Brightness {-60 to +60}
  - Color {-60 to +60}
  - Tint {-60 to +60}
  - Sharpness {-16 to +16}
  - Gamma
    - Dynamic 1
    - Dynamic 2
    - Dynamic 3
    - Dynamic 4
    - Static
  - Color Temp.
    - Standard
    - Cool
    - User
    - Warm
  - User Color Temp.
    - Red {0 to 255}
    - Green {0 to 255}
    - Blue {0 to 255}

- POSITION/SIZE
  - Position
    - Horizontal {-150 to +150(Decoder:-16 to +16) (1080I,720P:-32 to +32)}
    - Vertical {-150 to +150(Decoder:-16 to +16) (1080I,720P:-32 to +32)}
  - Size
    - Width {-25 to +50(Decoder:-4 to +4)}
    - Height {-25 to +50(Decoder:-4 to +4)}

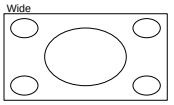
- FEATURES
  - Adjustment
    - Dot Clock {-60 to +60}
    - Clock Phase
      - Auto
      - Manual {1 to 32}
    - Vertical Sync. {-1 to +1}
    - Clamp Position {-8 to +8}
    - Auto Calibration
      - Execute
        - Yes
        - No
  - On Screen Menu
    - OSD
      - On
      - Off
    - Language
      - English
      - Deutsch
      - Espanol
      - Francais
      - Italiano
      - Portugues
      - Русский *Only E-model
  - Input Terminal
    - Video Input
      - Auto
      - NTSC
      - PAL
      - SECAM
      - PAL 60
      - N-PAL
      - M-PAL
      - 4.43 NTSC
    - S-Video Input
      - Auto
      - NTSC
      - PAL
      - SECAM
      - PAL 60
      - N-PAL
      - M-PAL
      - 4.43 NTSC
    - BNC Input
      - RGB PC
      - Decoder
      - Comp.video
      - Mask
        - Off
        - 5
        - 10
        - 15
    - D-SUB Input
      - Function
        - RGB PC
        - Decoder
        - Mask
          - Off
          - 5
          - 10
          - 15
  - Others
    - DPMS
      - Time
        - Off
        - 1 min
        - 15 min
        - 45 min
        - 60 min
      - Background
        - Black
        - White
    - Screen Orbiter
      - Mode/Time
        - Off
        - Time
        - Mode
      - Moving Area
        - Std
        - Max
        - Min
    - Input Priority
      - Off
      - RGB 2
      - RGB 3
      - Video
      - S-Video
      - Comp. Video
    - Monitor No.
      - 0
      - 1
      - 2
      - 3
      - 4
    - Direct Setting
      - Auto
      - VGA
      - WVGA
      - 480P
      - XGA
      - WXGA
      - SXGA
      - SXGA+
    - Code Setting
      - Auto
      - Manual {01 to 2A} *Hexadecimal
    - White Screen
      - Off
      - On
    - Exhibition Mode
      - Off
      - On
    - Installation
      - Normal
      - +90Deg
      - -90Deg
    - Key Lock
      - Off
      - On
    - Information
      - Mode
      - Monitor No.
      - Freq. Scan Mode
      - Input Signal
      - Freq.
      - Preset No.

- FACTORY DEFAULT
  - Execute
    - Yes
    - No

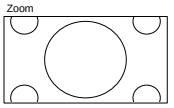
Normal



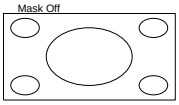
Wide



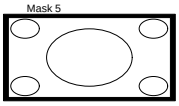
Zoom



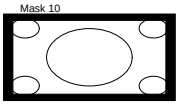
Mask Off



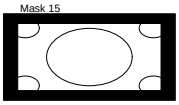
Mask 5



Mask 10



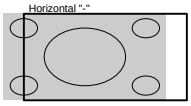
Mask 15



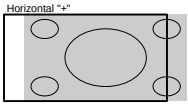
POSITION/SIZE

Position

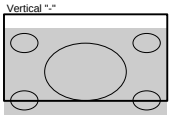
Horizontal "-"



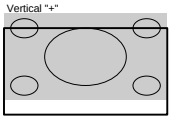
Horizontal "+"



Vertical "-"

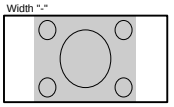


Vertical "+"

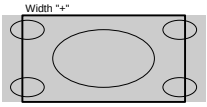


Size

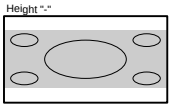
Width "-"



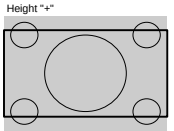
Width "+"



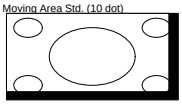
Height "-"



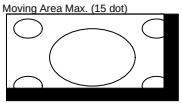
Height "+"



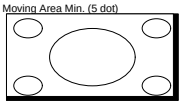
Moving Area Std. (10 dot)



Moving Area Max. (15 dot)



Moving Area Min. (5 dot)



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

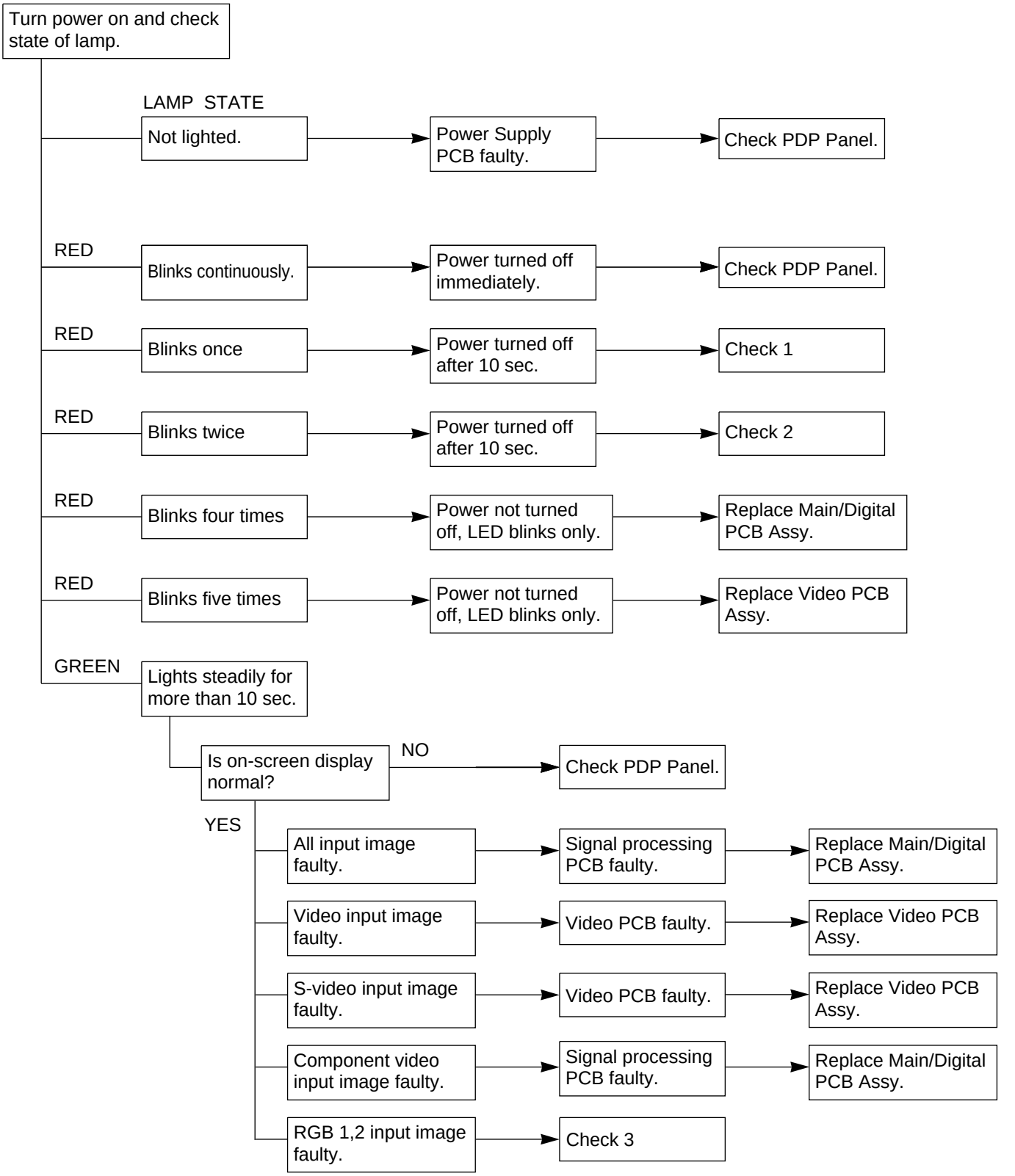
On screen display	Cause	Check point
ERROR MESSAGE CONDITION 1	Fan protector operated	● Fan ● Main/Digital PCB
ERROR MESSAGE CONDITION 2	Temperature protector operated	● Ambient temperature of unit ● Main/Digital PCB ● Temp. sensor IC757

(2) LED

LED lamp display status	Cause	Check point
Steady light (Red)	Stand-by status	----------
Continuous Flashes continuously (Red)	No power Power supply protector operated	● Main/Digital PCB ● PDP panel
1 time Flashes once every 4 sec. (Red)	Fan protector operated	● Fan ● Main/Digital PCB
2 times Flashes twice every 5 sec. (Red)	Temperature protector operated	● Ambient temperature of unit ● Temperature sensor IC757 ● Main/Digital PCB
4 times Flashes four times every 7 sec. (Red)	Main/Digital circuit faulty	● Main/Digital PCB
5 times Flashes five times every 8 sec. (Red)	Video circuit faulty	● Video PCB Assy

TROUBLESHOOTING FLOWCHART

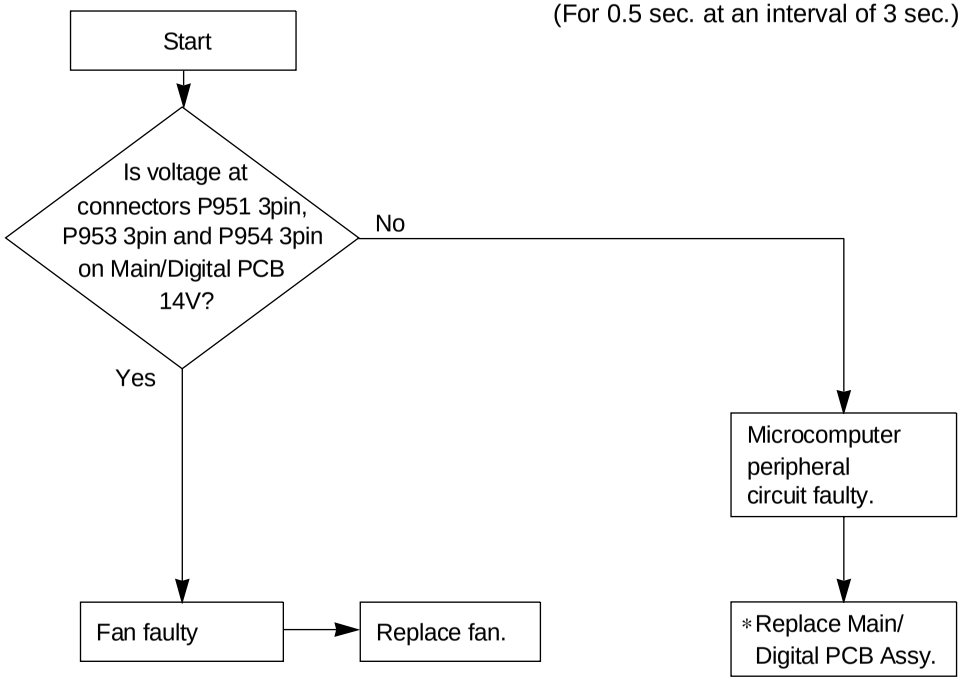
LED lamp blinking



Check 1

Fan protector operated

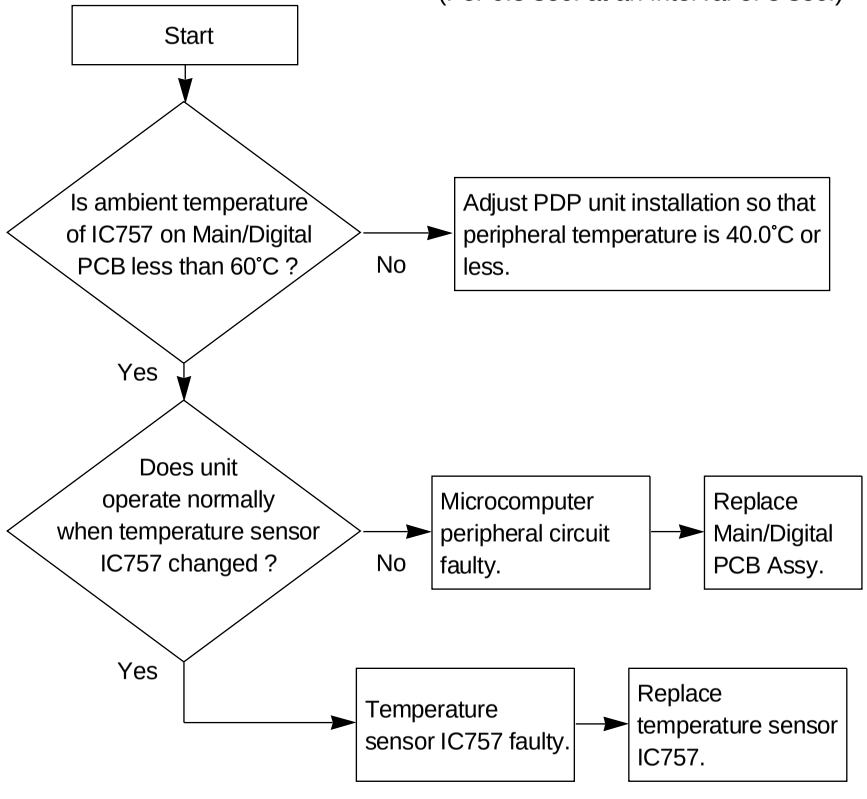
Power lamp: Flashes once intermittently in red.
(For 0.5 sec. at an interval of 3 sec.)



Check 2

Temperature protector operated

Power lamp : Flashes intermittently twice in red.
(For 0.5 sec. at an interval of 5 sec.)



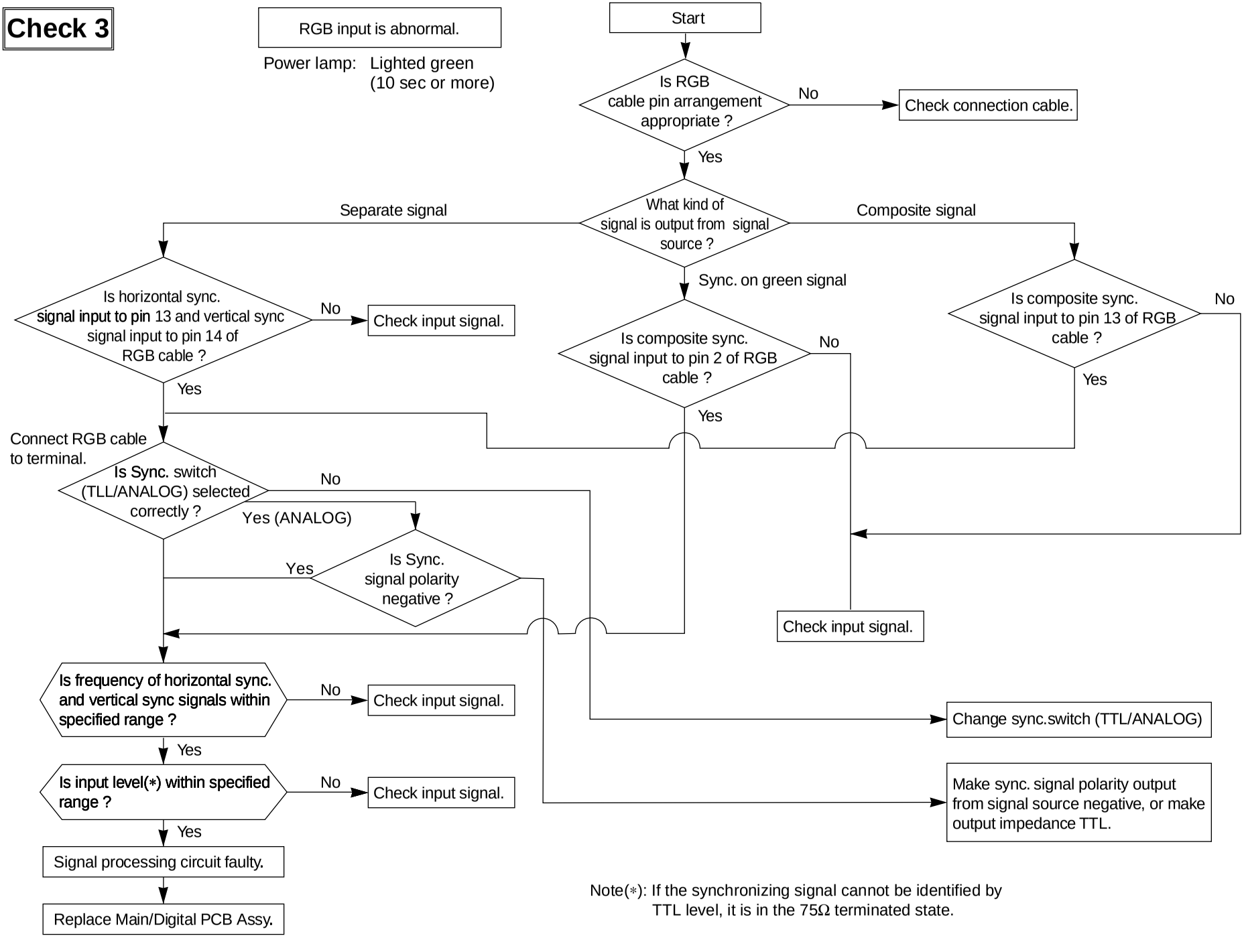
Temperature sensor cooling

The temperature sensor IC757 is installed on Main/Digital PCB. Turn the power off and cool with a point cooler.

Check 3

RGB input is abnormal.

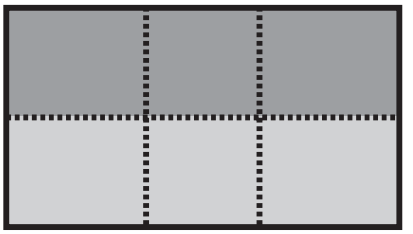
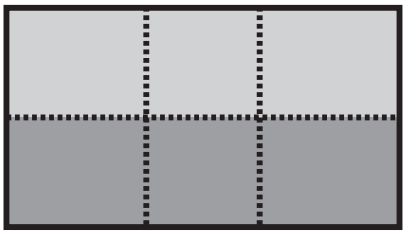
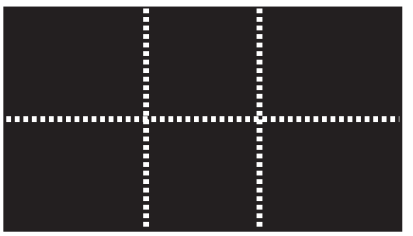
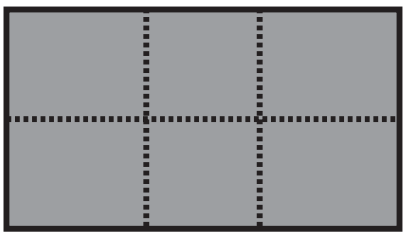
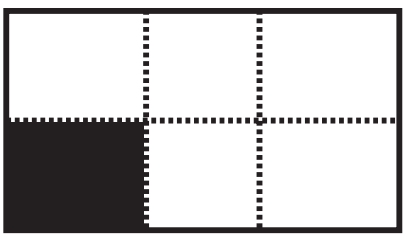
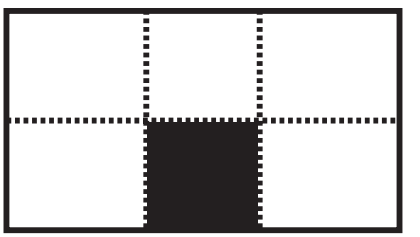
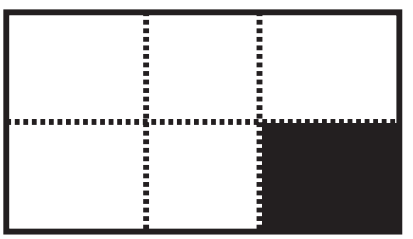
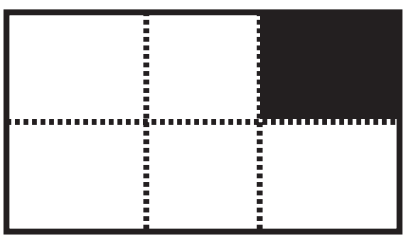
Power lamp: Lighted green
(10 sec or more)

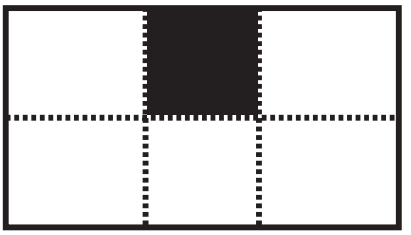
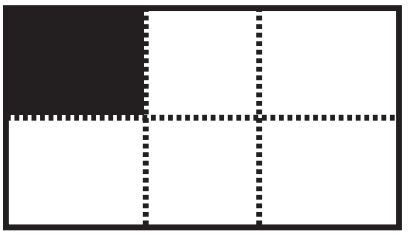
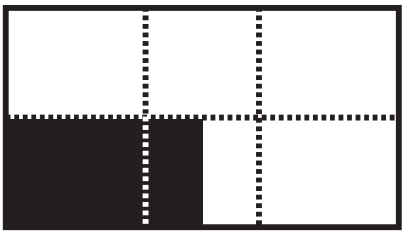
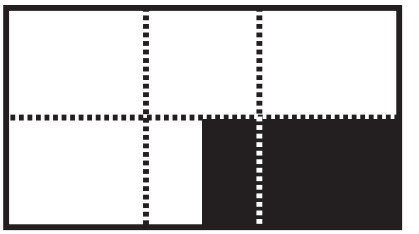
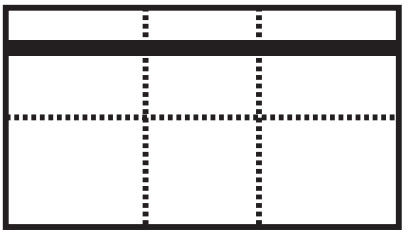
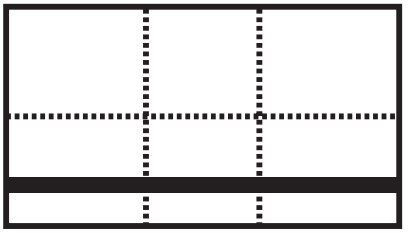
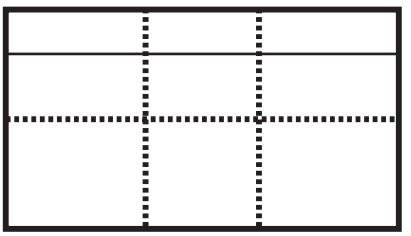
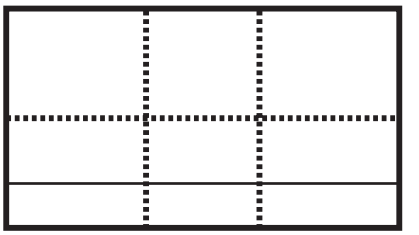
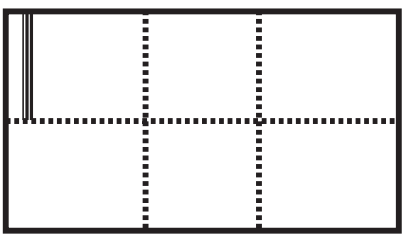
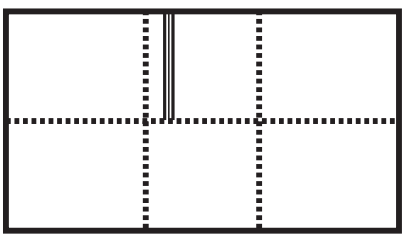


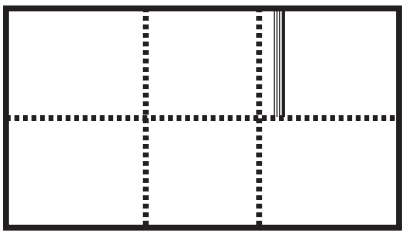
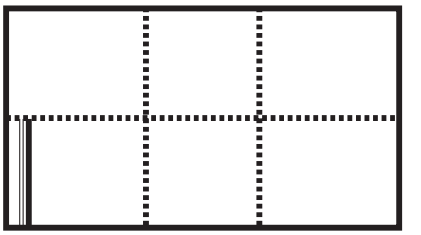
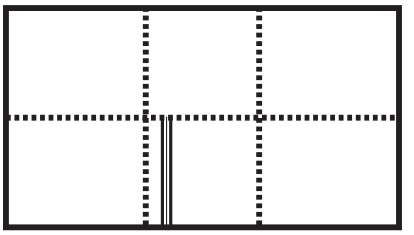
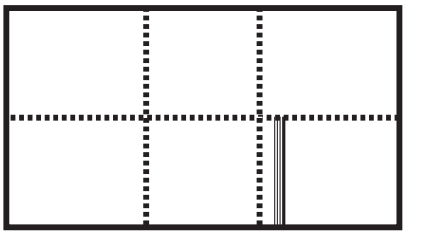
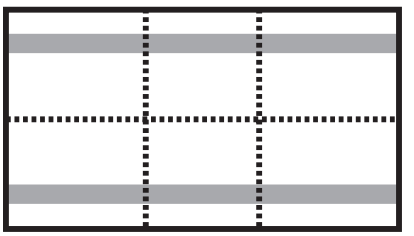
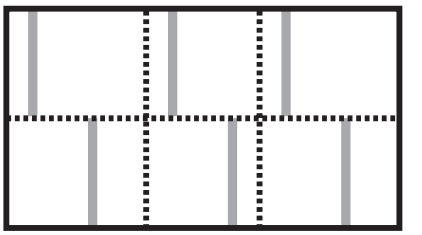
Note(*): If the synchronizing signal cannot be identified by TTL level, it is in the 75Ω terminated state.

TROUBLESHOOTING PANEL

The plasma display panel consists of a set of six surfaces and is connected to each PCB.
For that reason, the faulty part of PCB or plasma display panel can be focused depending on its symptom.

Symptom		Symptom	
Check PCB	1. Digital Process and Control (D) 2. Data Drive Power (U/L) (C1) 3. Data Drive Power (U/C) (C2) 4. Data Drive Power (U/R) (C3) 5. Sustain Drive (SS)	Check PCB	1. Digital Process and Control (D) 2. Data Drive Power (L/R) (C4) 3. Data Drive Power (L/C) (C5) 4. Data Drive Power (L/L) (C6) 5. Sustain Drive (SS)
Symptom		Symptom	
Check PCB	1. Main/Digital PCB 2. Digital Process and Control (D) 3. Scan Drive (SC) 4. Sustain Drive (SS)	Check PCB	1. Digital Process and Control (D) 2. Sustain Drive (SS)
Symptom		Symptom	
Check PCB	1. Digital Process and Control (D) 2. Data Drive Power (L/R) (C4)	Check PCB	1. Digital Process and Control (D) 2. Data Drive Power (L/C) (C5)
Symptom		Symptom	
Check PCB	1. Digital Process and Control (D) 2. Data Drive Power (L/L) (C6)	Check PCB	1. Digital Process and Control (D) 2. Data Drive Power (U/L) (C1)

Symptom		Symptom	
Check PCB	1. Digital Process and Control (D) 2. Data Drive Power (U/C) (C2)	Check PCB	1. Digital Process and Control (D) 2. Data Drive Power (U/R) (C3)
Symptom		Symptom	
Check PCB	1. Saving Power (C7)	Check PCB	1. Saving Power (C8)
Symptom		Symptom	
Check PCB	1. Scan Drive Output (Upper) (SU) 2. Scan Drive (SC)	Check PCB	1. Scan Drive Output (Lower) (SD) 2. Scan Drive (SC)
Symptom		Symptom	
Check PCB	1. Scan Drive Output (Upper) (SU) 2. Display Panel Assy (Glass)	Check PCB	1. Scan Drive Output (Lower) (SD) 2. Display Panel Assy (Glass)
Symptom		Symptom	
Check PCB	1. Data Drive Power (U/R) (C3) 2. Digital Process and Control (D) 3. Display Panel Assy (Glass)	Check PCB	1. Data Drive Power (U/C) (C2) 2. Digital Process and Control (D) 3. Display Panel Assy (Glass)

Symptom		Symptom	
Check PCB	1. Data Drive Power (U/L) (C1) 2. Digital Process and Control (D) 3. Display Panel Assy (Glass)	Check PCB	1. Data Drive Power (L/R) (C4) 2. Digital Process and Control (D) 3. Display Panel Assy (Glass)
Symptom		Symptom	
Check PCB	1. Data Drive Power (L/C) (C5) 2. Digital Process and Control (D) 3. Display Panel Assy (Glass)	Check PCB	1. Data Drive Power (L/L) (C6) 2. Digital Process and Control (D) 3. Display Panel Assy (Glass)
Symptom		Symptom	
Check PCB	1. Sustain Drive (SS)	Check PCB	1. Display Panel Assy (Glass)

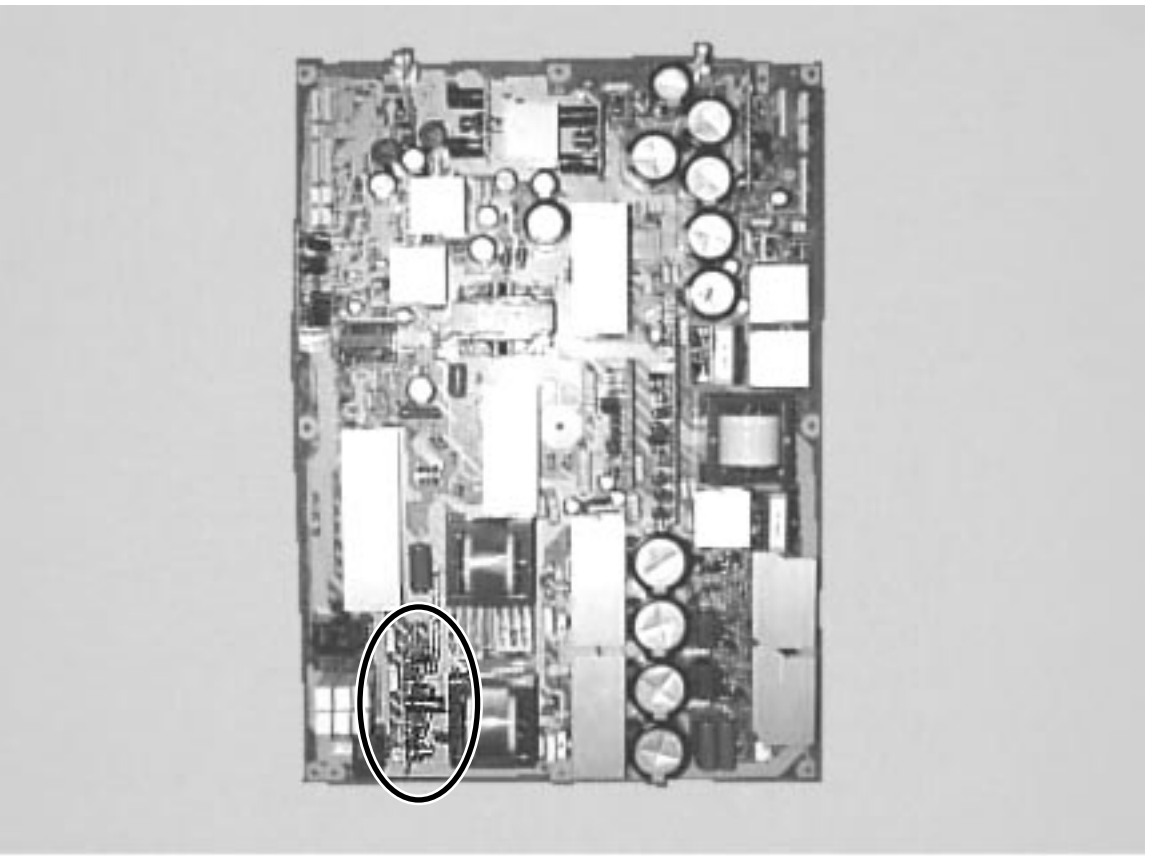
MAIN POWER SELECTOR SWITCH ADJUSTMENT

Adjustment

Confirm the main voltage set switch is set to 230V. (W and E version)
Confirm the main voltage set switch is set to 110V. (U version)

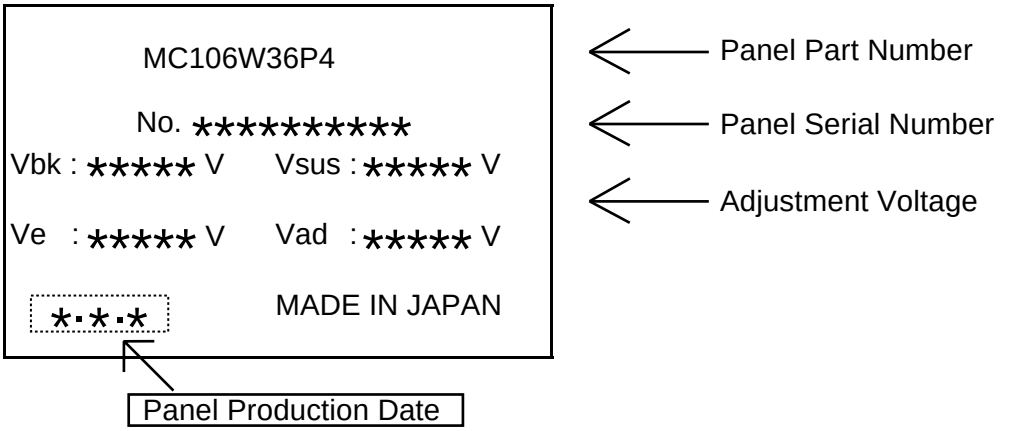
Note:

230V covers input AC voltage from 200V till 260V, and 110V covers from 90V till 130V.



EXPLANATION OF LABELS

● Panel Label Information



Panel Production Date

For Example---------1.8.2

1	8	2
Year	Month	
9 : 1999 0 : 2000 1 : 2001 2 : 2002 ≀	1 : JAN 2 : FEB 3 : MAR ≀ 9 : SEP 0 : OCT N : NOV D : DEC	1 : Beginning of Month(01-10th) 2 : Middle of Month (11-20th) 3 : End of Month (21-31st)

● Unit Serial Number

For Example---------- YA1450001

YA 1 4 5 0001 * MID/AUG/2001
① ② ③ ④ ⑤ * YA Production Line

① Production Line No.

②Production Year
1 : 2001
2 : 2002

③Production Month
1 : JAN-FEB
2 : MAR-APR
3 : MAY-JUN
4 : JLY-AUG
5 : SEP-OCT
6 : NOV-DEC

④Production Period (Day)
1st Month
1 : BEG (1-10)
2 : MID (11-20)
3 : END (21-30/31)
2nd Month
4 : BEG (1-10)
5 : MID (11-20)
6 : END (21-30/31)

⑤Serial Number
From 0001-----

REPLACEMENT PARTS AND REQUIRED ADJUSTMENT

Caution

To remove PCB, wait for 1 minute after power was turned off for electrolytic capacitors to discharge.

Preparation

Wide---------- Auto

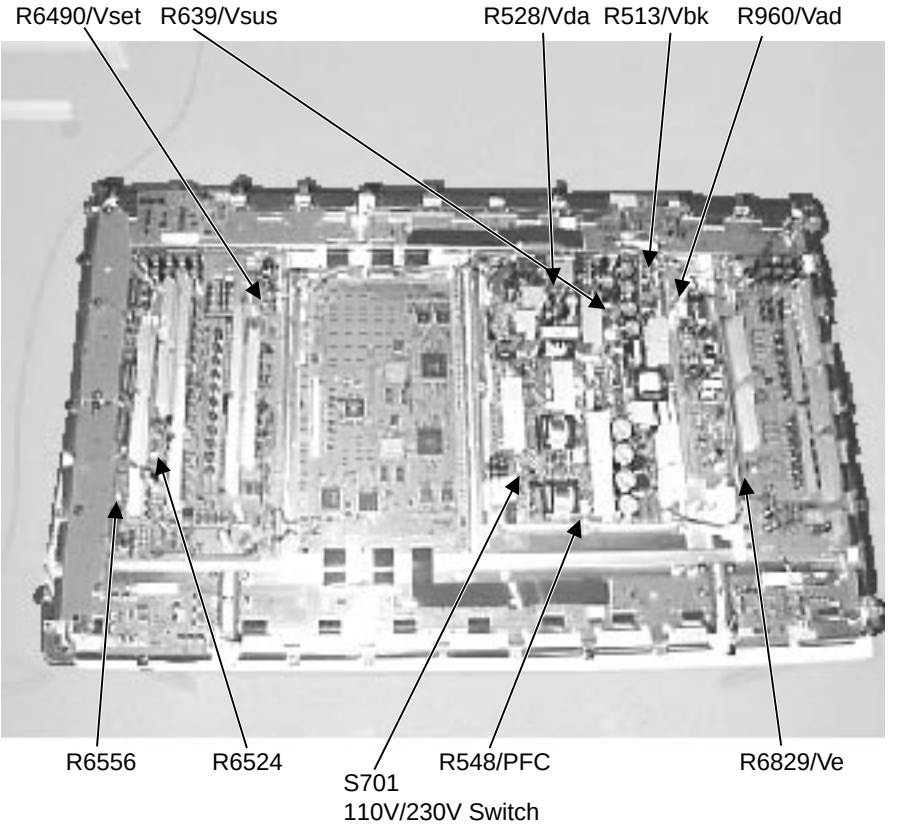
Input---------- White pattern

Quick adjustment after PCB replacement

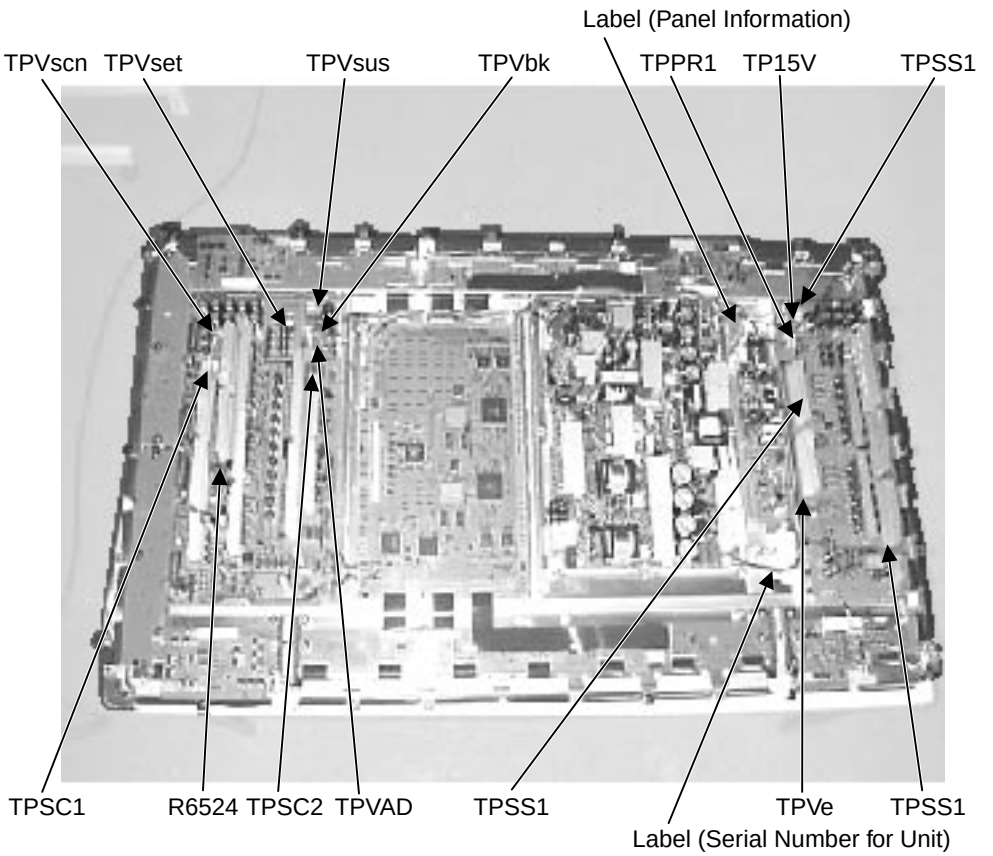
PCB	Item	VR	Test Point	Level
Power Supply PCB	Vsus	R639	TPVsus	Vsus ± 1V
	Vbk	R513	TPVBK	140V ± 5V
	Vda	R528	P27 connector pin 2	75V ± 0.5V
	PFC	R548	P4 connector pin 1	400V ± 1V
Scan Drive PCB	Vset	R6940	TPSET	224V ± 1V
	Vad	R960	TPVAD	VAD ± 1V
Sustain Drive PCB	Ve	R6829	TPVE	VE ± 1V
Panel Drive Power PCB	Vad	R960	TPVAD	VAD ± 1V
Panel Glass	Vsus	R639	TPVsus	Vsus ± 1V
	Vad	R960	TPVAD	VAD ± 1V
	Ve	R6829	TPVE	VE ± 1V

VR AND TEST POINT LOCATION

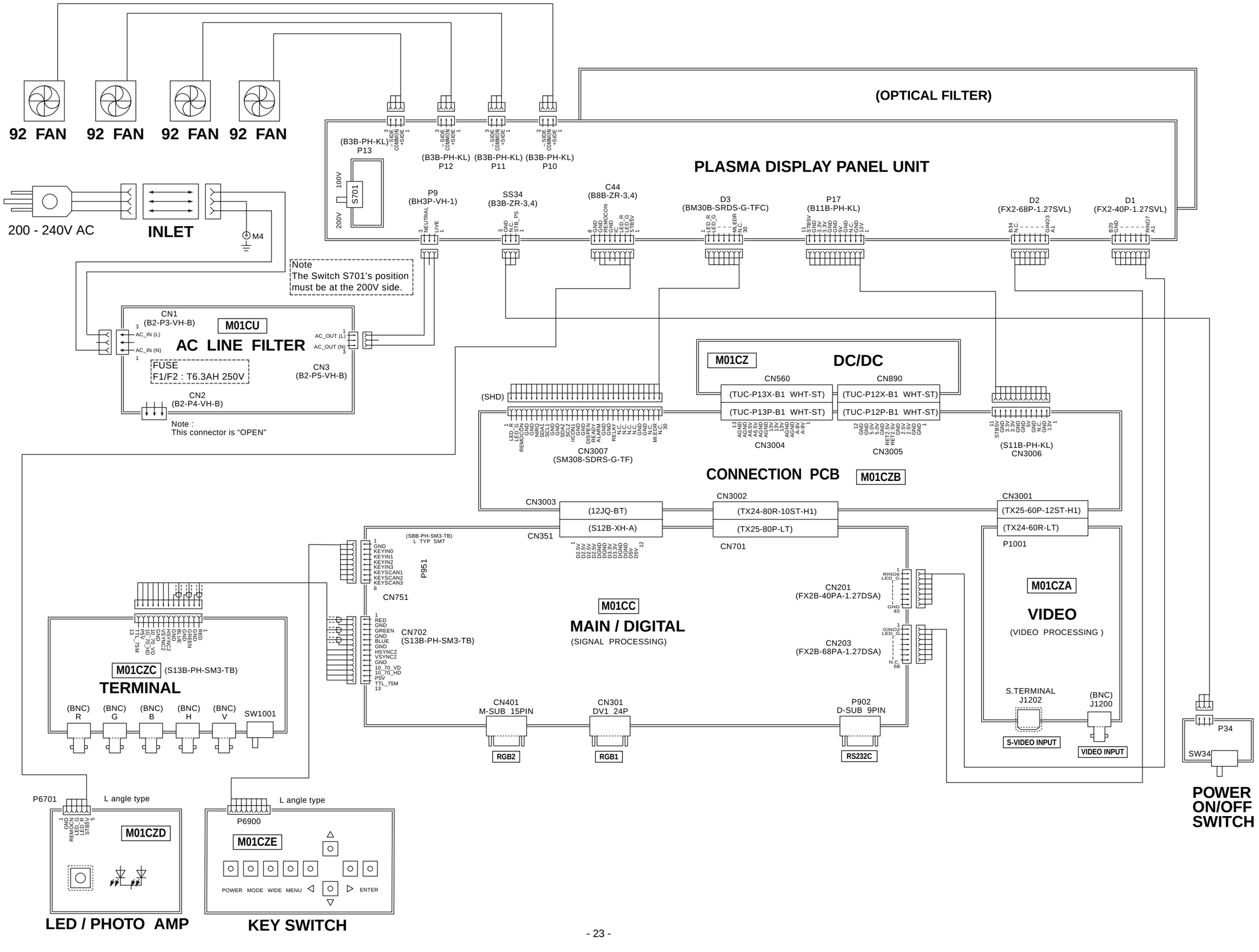
Adjustment VR Location



Test Point Location

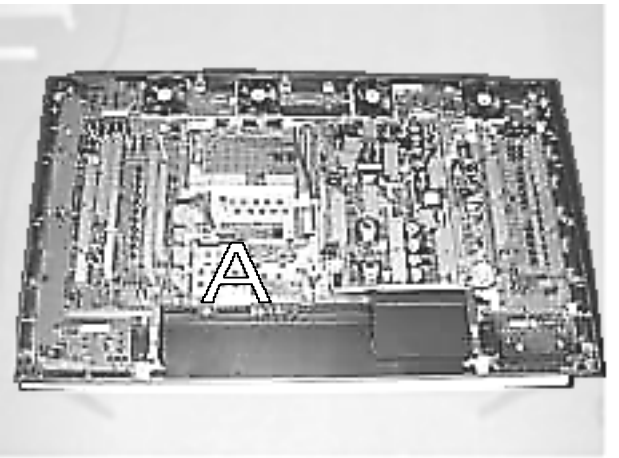


GENERAL CONNECTION DIAGRAM

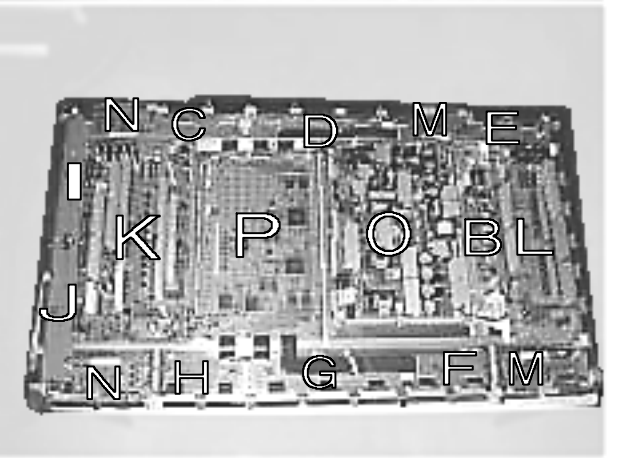


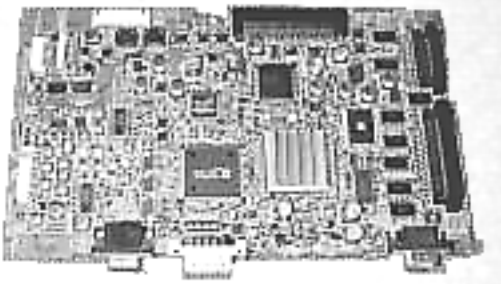
DISASSEMBLY PROCEDURES

1. Layout of Main PCB (1 of 3)



1) Layout of Main PCB.





A: Main Digital PCB

B: Panel Drive Power PCB

C: Data Drive (Upper Left) PCB

D: Data Drive (Upper Center) PCB

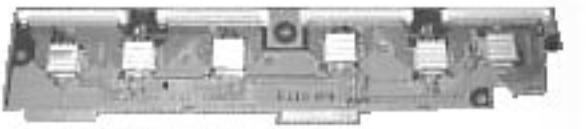
E: Data Drive (Upper Right) PCB

F: Data Drive (Lower Right) PCB

G: Data Drive (Lower Center) PCB

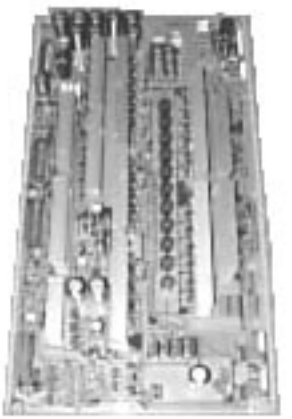
I: Scan Drive Output (Upper)

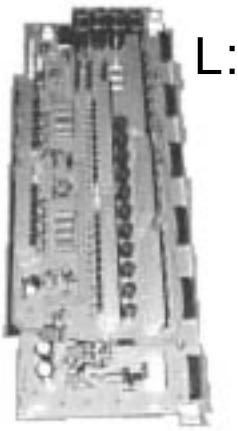
H: Data Drive (Lower Left) PCB



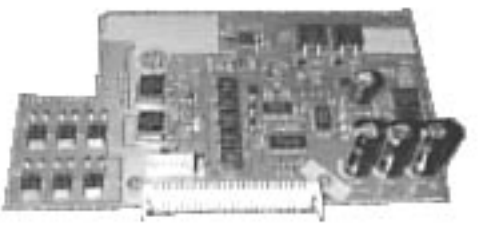
J: Scan Drive Output (Lower)

K: Scan Drive PCB

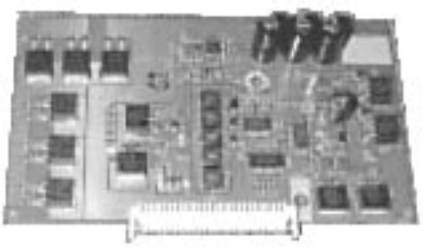




L: Sustain Drive PCB



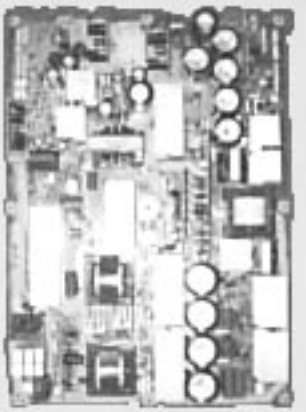
N: Saving Power (Upper/Lower Left)



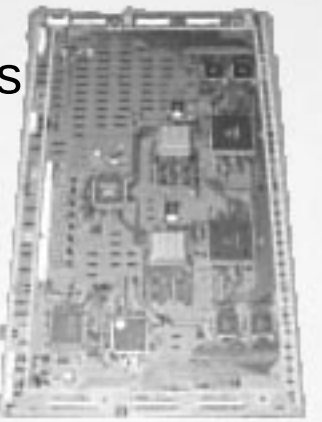
M: Saving Power (Upper/Lower Right)

1. Layout of Main PCB (3 of 3)

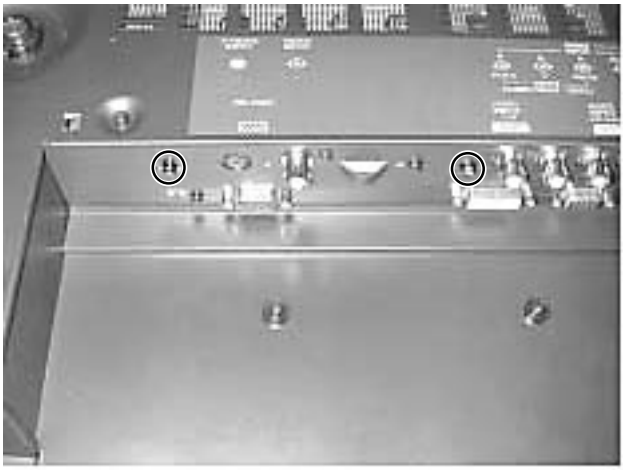
O: Power Supply PCB



P: Digital Process and Control PCB

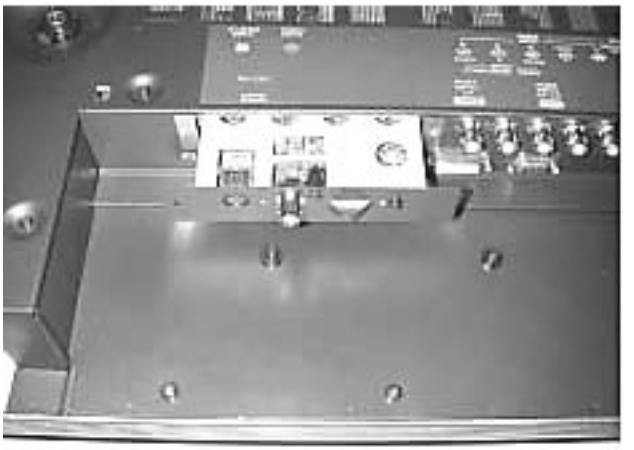


2. Removing the Video PCB

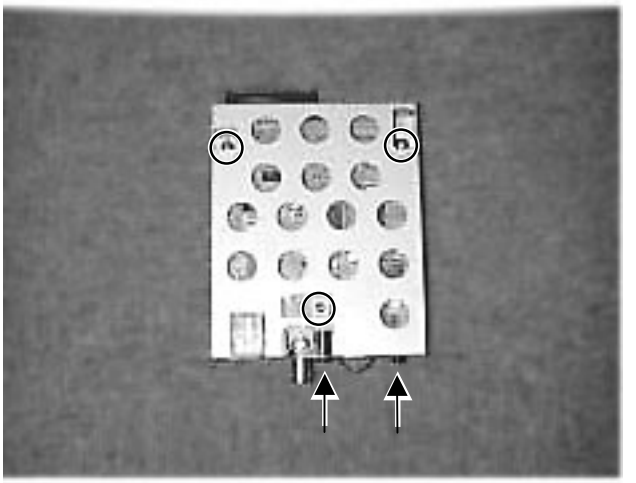


* The Video PCB can be removed without moving the Rear Case.

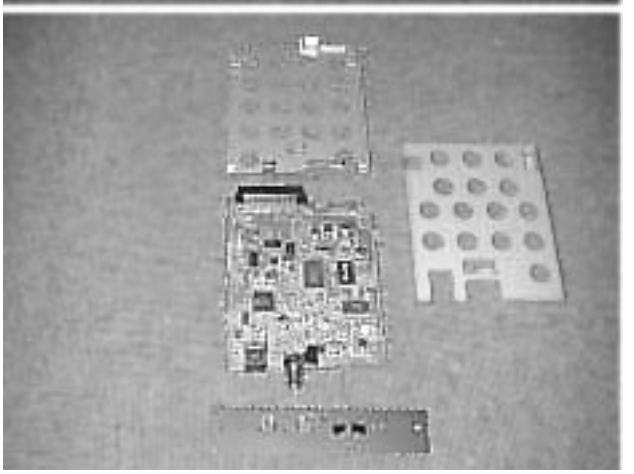
1) Remove the 2 circled screws.



2) Pull out the Video PCB Unit from the Plasmavision.



3) Remove 5 screws from the Video PCB Unit.

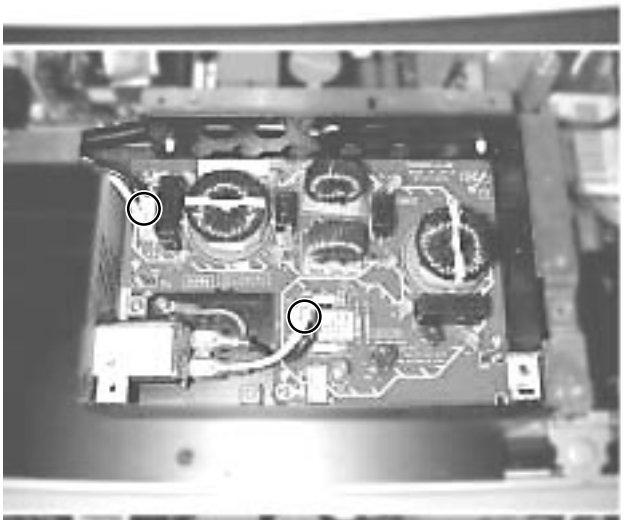


4) Remove the Video PCB Assy.

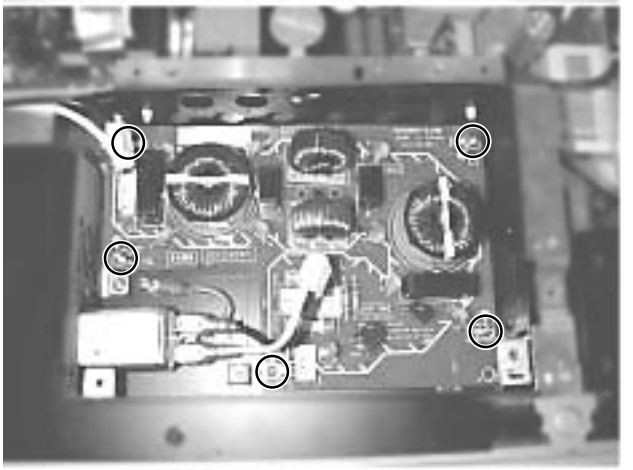
3. Removing the PFC PCB

1) Remove the Rear Case.

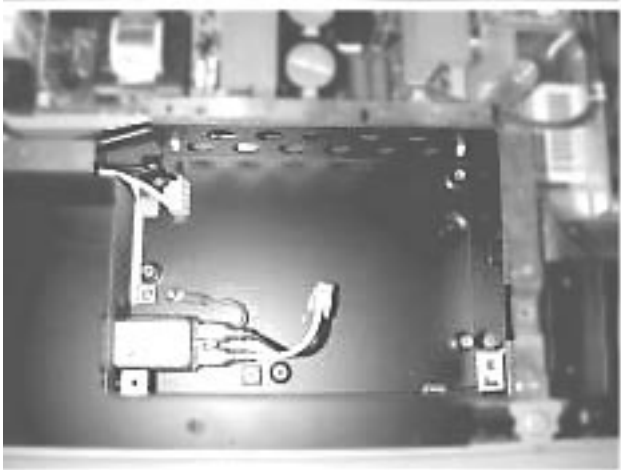
2) Remove the 2 screws and PFC cover.



3) Disconnect the circled connector.

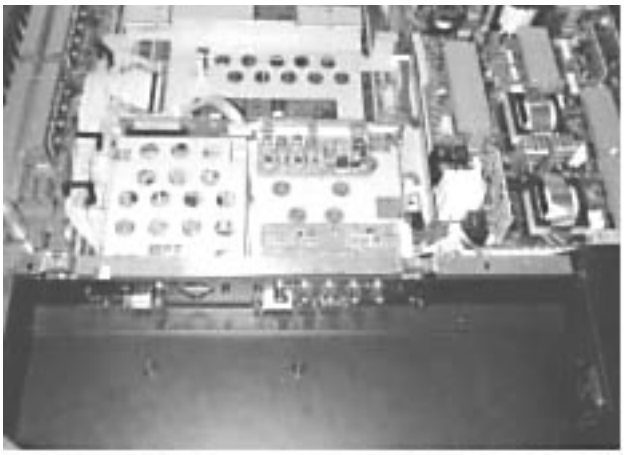


4) Remove the 5 screws and PFC PCB.

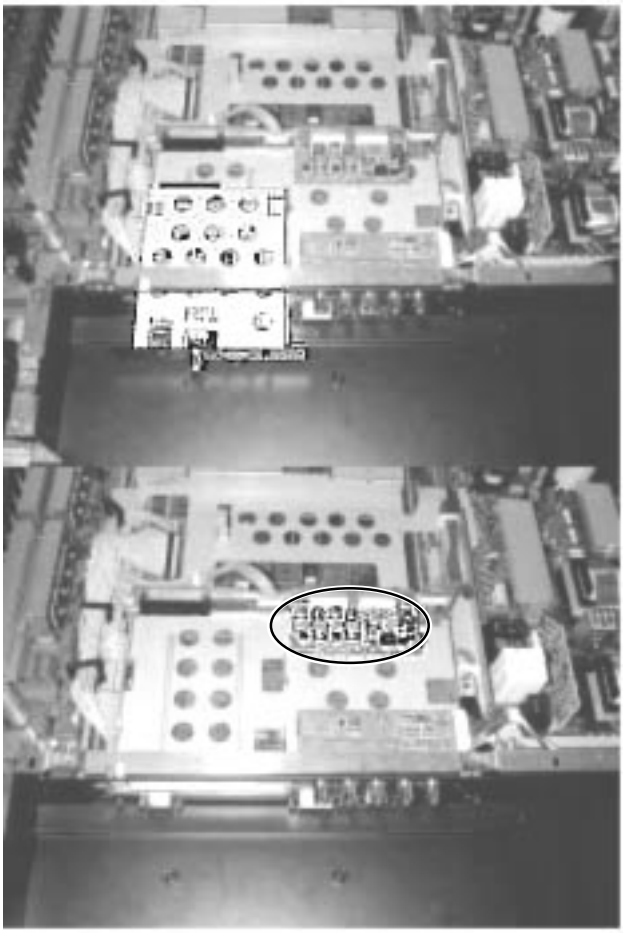


* View after PFC PCB removed.

4. Removing the Main Digital PCB (1 of 3)

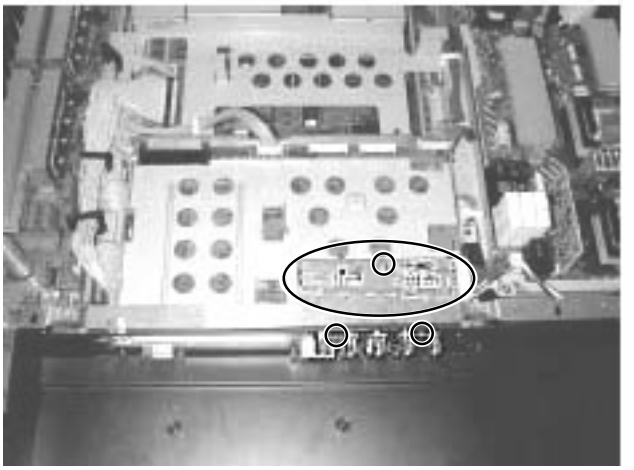


1) Remove the Rear Case.



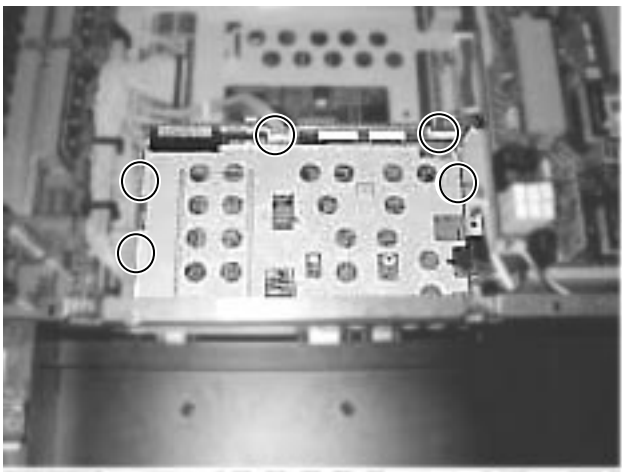
2) Remove the Video Unit.

3) Remove the DC/DC PCB.

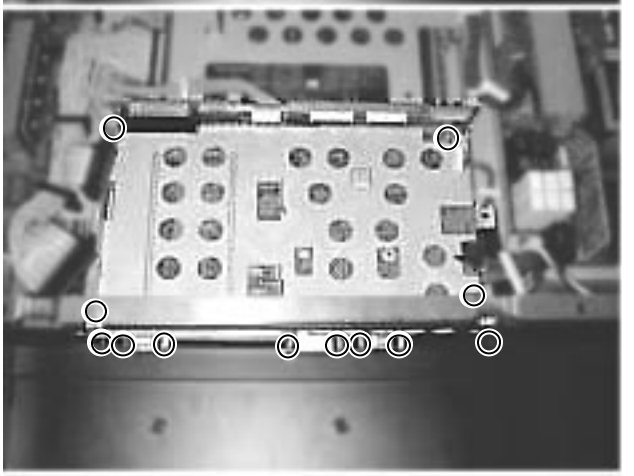


4) Remove the 3 screws and I/O PCB.

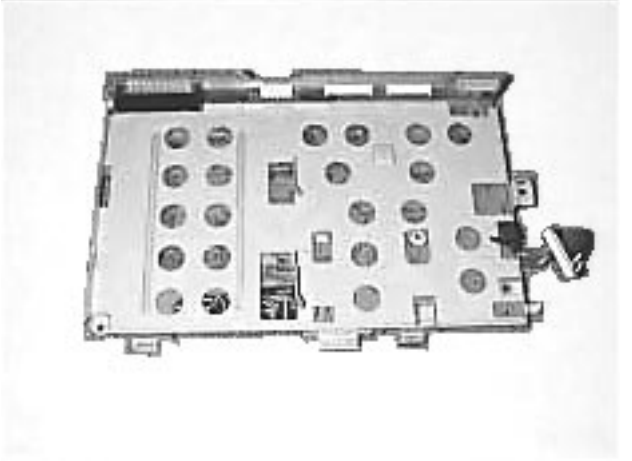
4. Removing the Main Digital PCB (2 of 3)



5) Disconnect the circled connector.



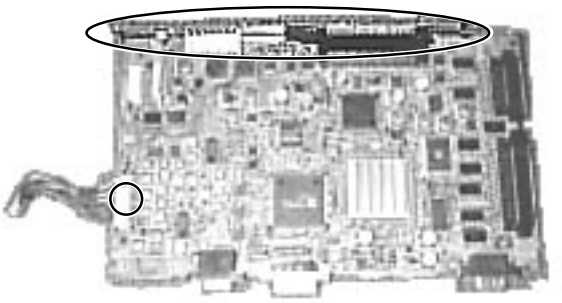
6) Remove the 12 screws and Main Digital Unit.



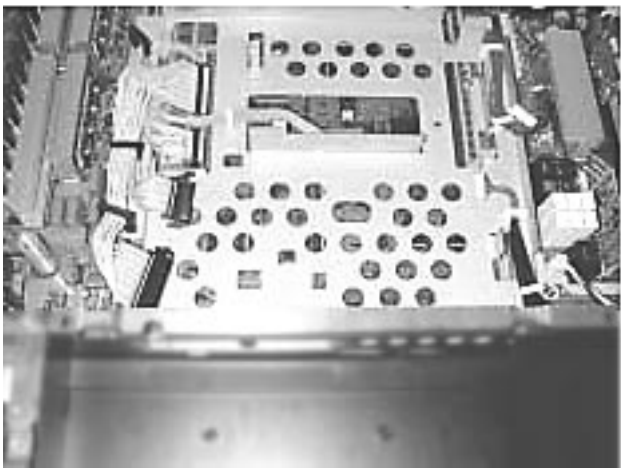
7) Remove the shield.

8) Turn over the Main Digital PCB.

4. Removing the Main Digital PCB (3 of 3)

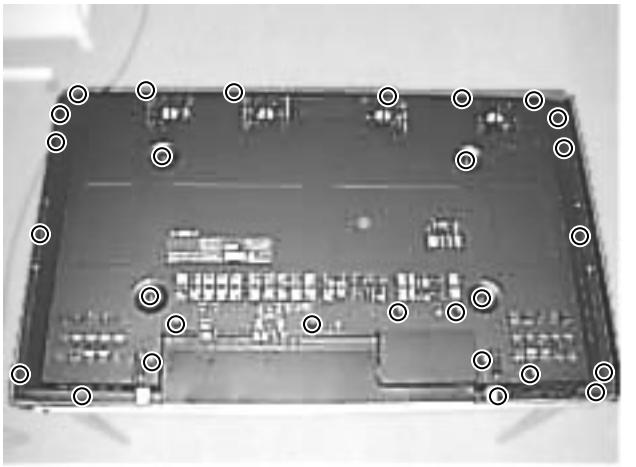


9) Disconnect both the circled connector and connection PCB.

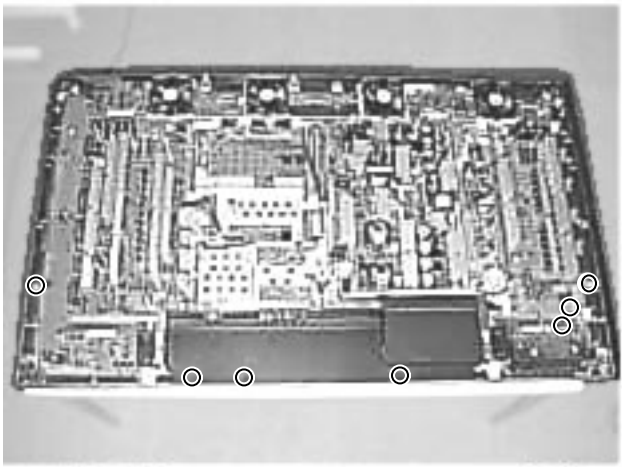


* View after Main Digital PCB removed.

5. Removing the PDP Unit (1 of 3)



1) Remove the 28 screws and Rear Case.

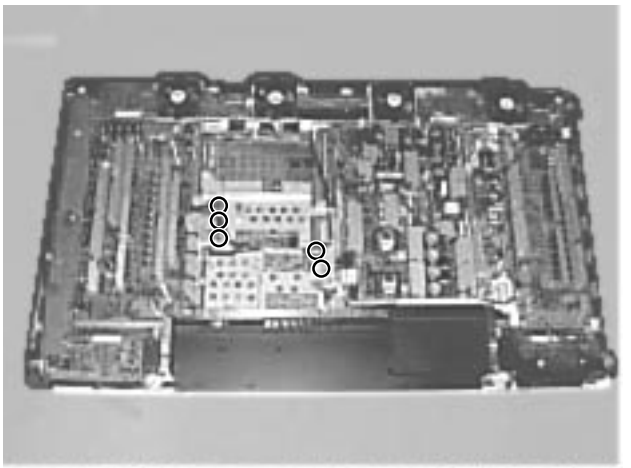


2) Remove the 5 screws and 2 connectors.

3) Remove the Panel and PCBs together from Front Case.
(Lift the bottom of the Panel and PCBs.)

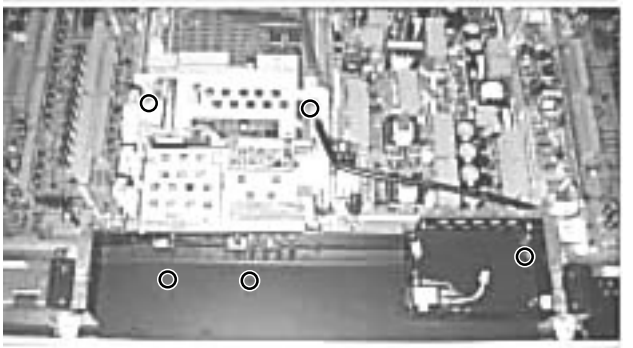
* View of removal of the Panel and PCBs from the Front Case.

5. Removing the PDP Unit (2 of 3)

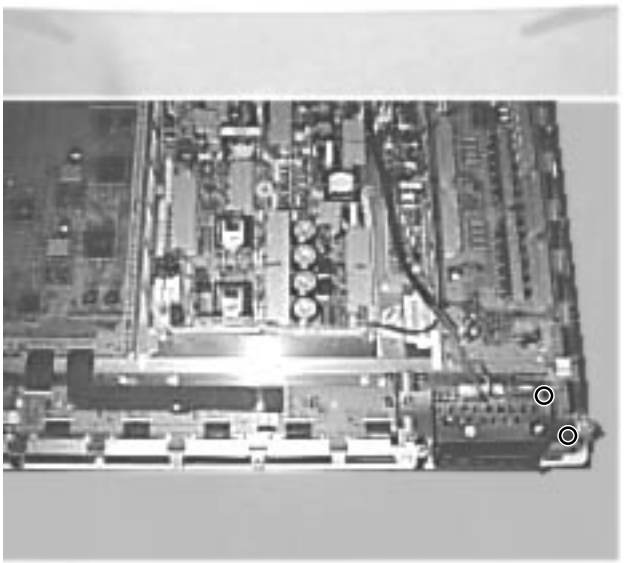


4) Disconnect the circled connector.

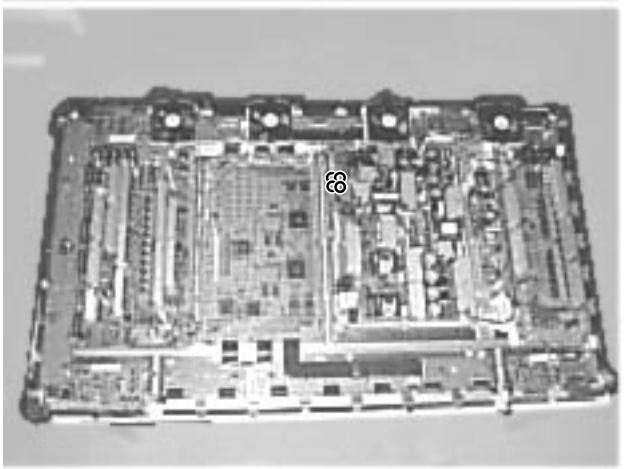
5) Remove the PFC PCB.



6) Remove the 5 screws.

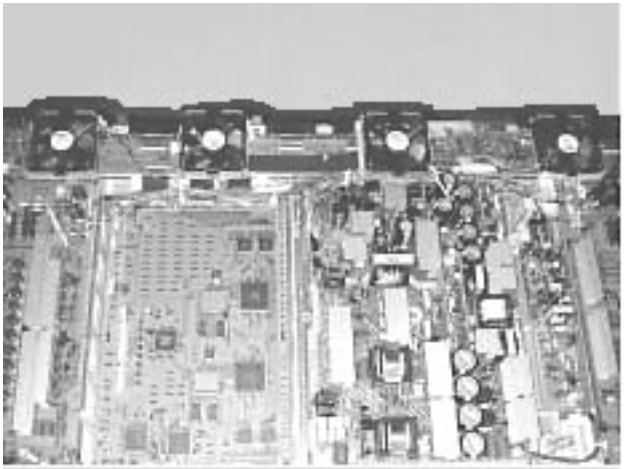


7) Remove the 2 screws.

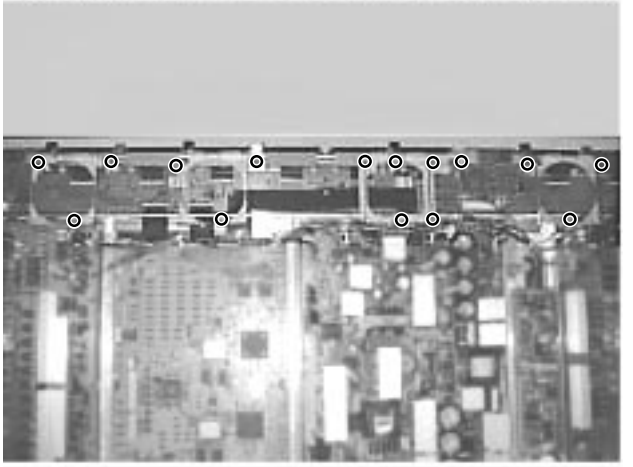


8) Disconnect the circled connector.

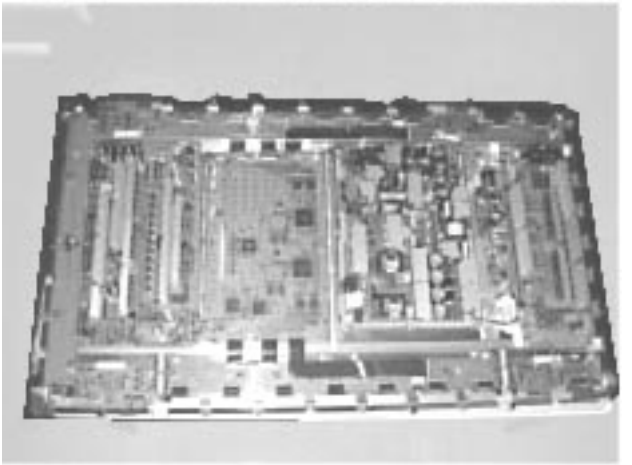
5. Removing the PDP Unit (3 of 3)



9) Remove the 4 fans.

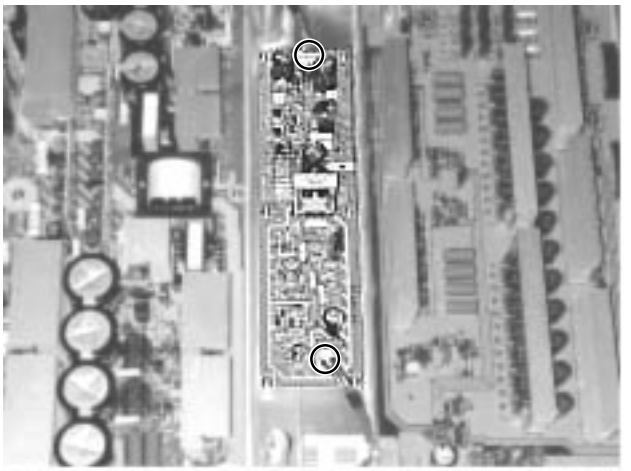


10) Remove the 15 screws.



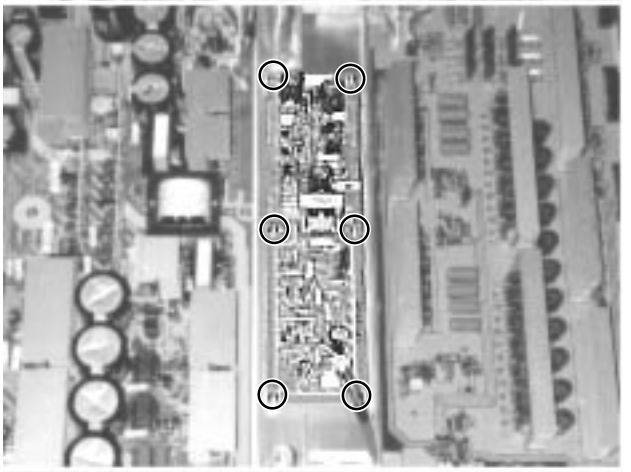
* View after only the PDP Unit removed.
* Replace the parts which are already mounted correctly, when the PDP Unit is replaced.

6. Removing the Panel Drive Power PCB

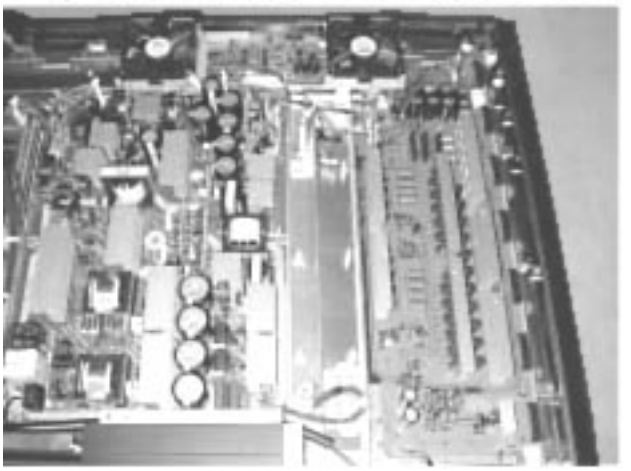


1) Remove the Rear Case.

2) Disconnect the circled connector.

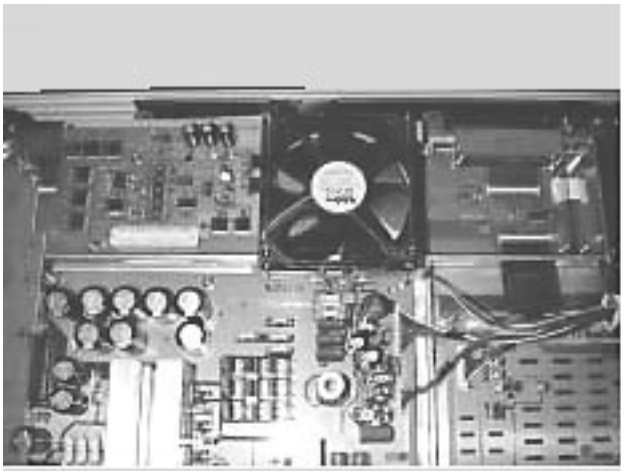


3) Remove the 6 screws and Panel Drive Power PCB.



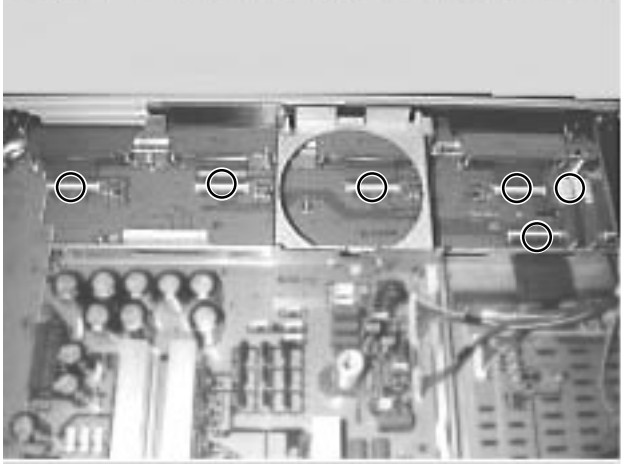
* View after Panel Drive Power PCB removed.

7. Removing the Data Drive (Upper Left) PCB

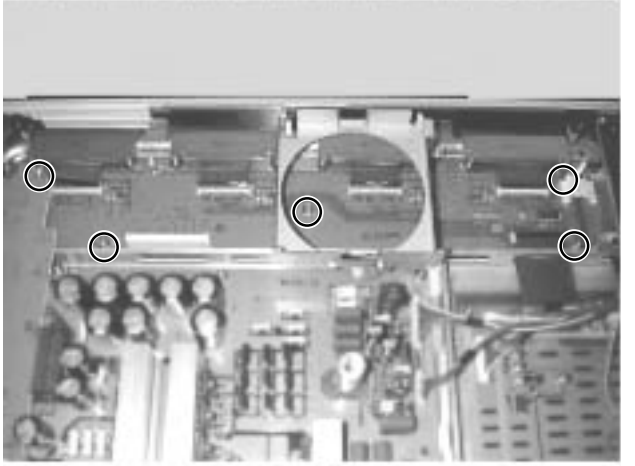


1) Remove the Rear Case.

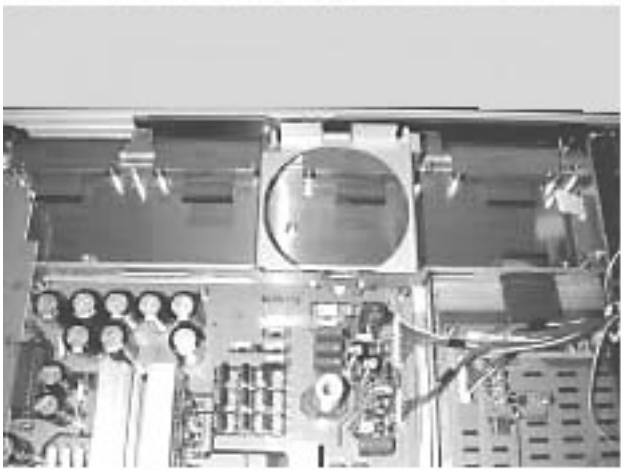
2) Remove the Fan and Saving Power PCB.



3) Disconnect the circled connector.

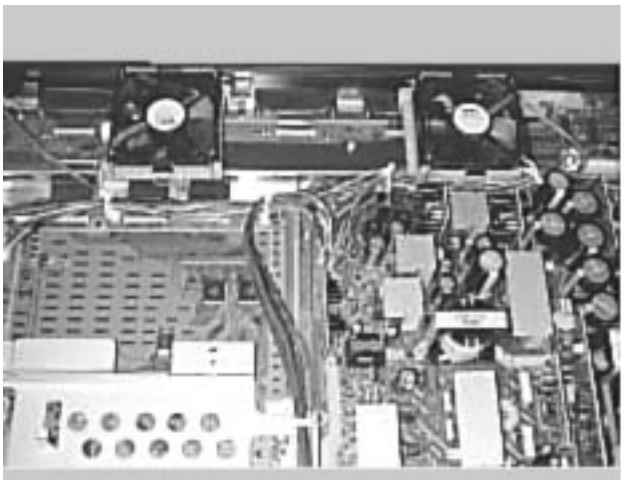


4) Remove the 5 screws and Data Drive (Upper Left) PCB.



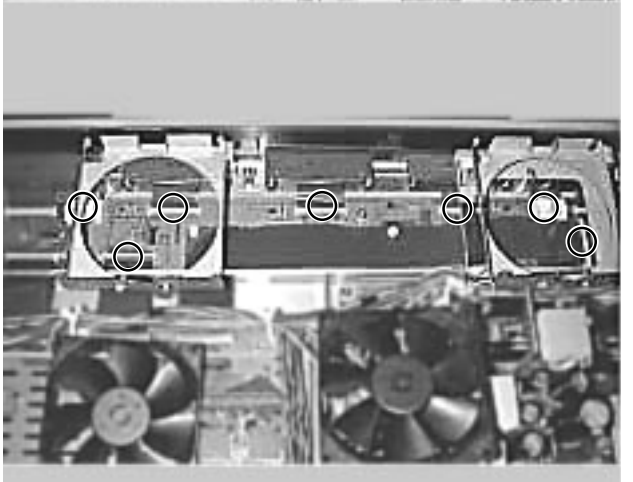
* View after Data Drive (Upper Left) PCB removed.

8. Removing Data Drive (Upper Center) PCB

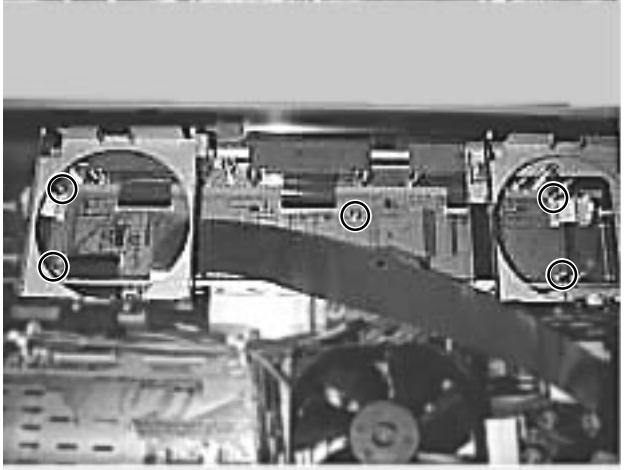


1) Remove the Rear Case.

2) Remove the Fan.



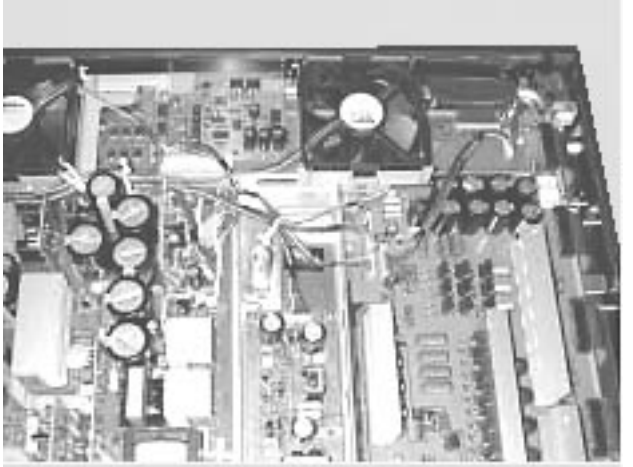
3) Disconnect the circled connector.



4) Remove the 5 screws and Data Drive (Upper Center) PCB.

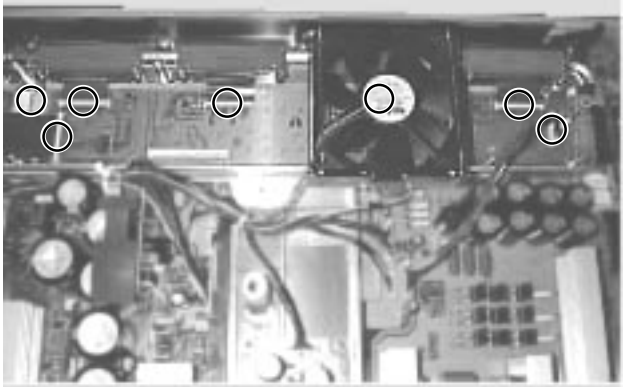
* View after Data Drive (Upper Center) PCB removed.

9. Removing the Data Drive (Upper Right) PCB

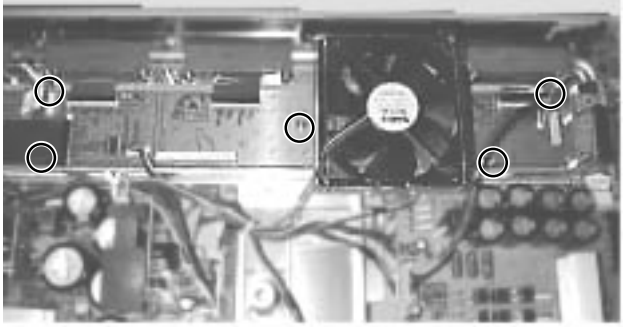


1) Remove the Rear Case.

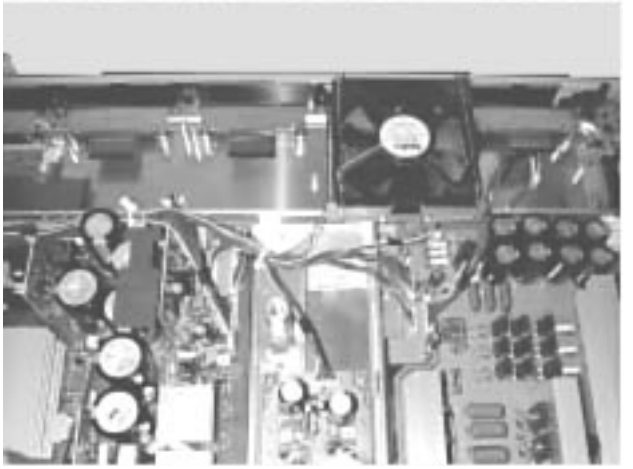
2) Remove the Saving Power PCB.



3) Disconnect the circled connector.



4) Remove the 5 screws and Data Drive (Upper Right) PCB.

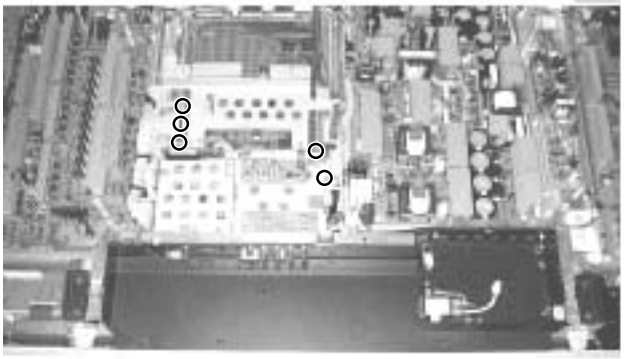


* View after Data Drive (Upper Right) PCB removed.

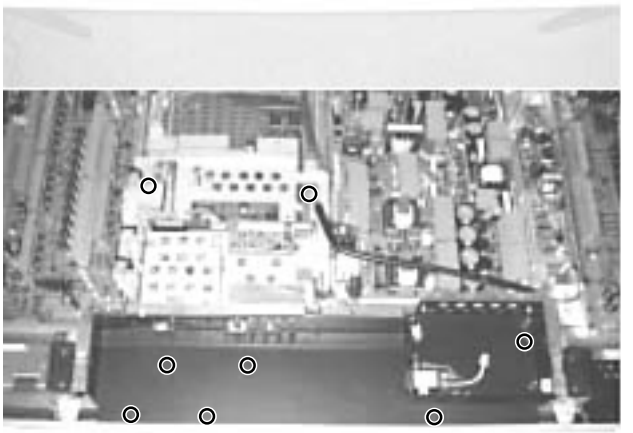
10. Removing the Data Drive (Lower Right) PCB (1 of 3)

1) Remove the Rear Case.

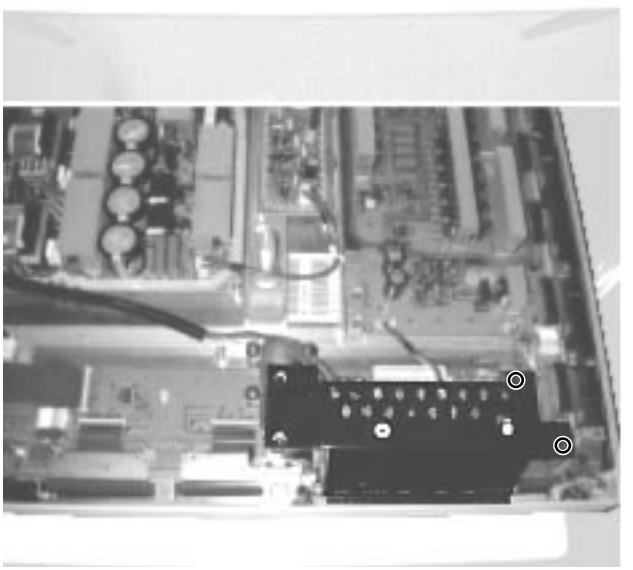
2) Remove the PFC PCB.



3) Disconnect the circled connector.

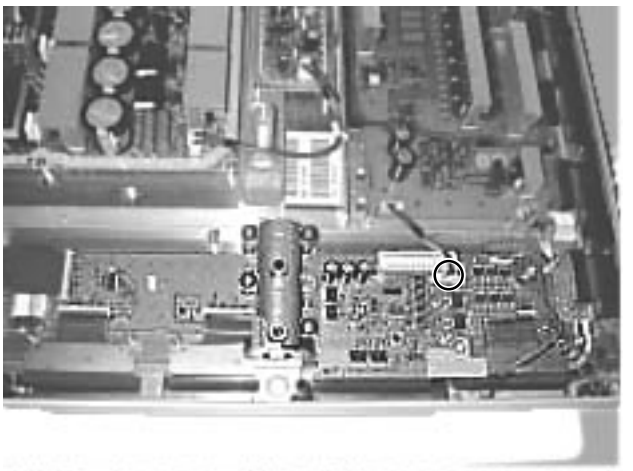


4) Remove the 8 screws.

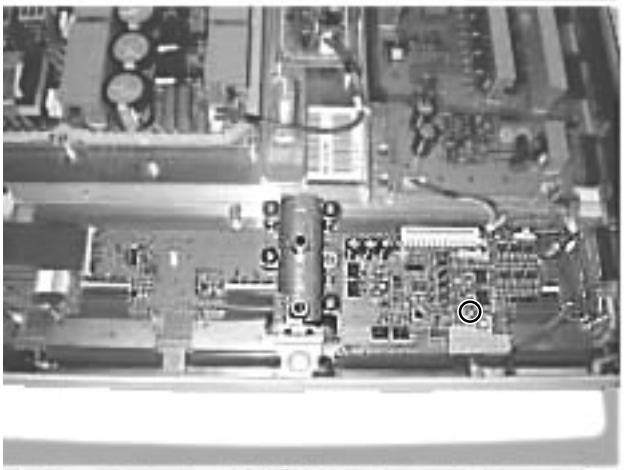


5) Remove the 2 screws.

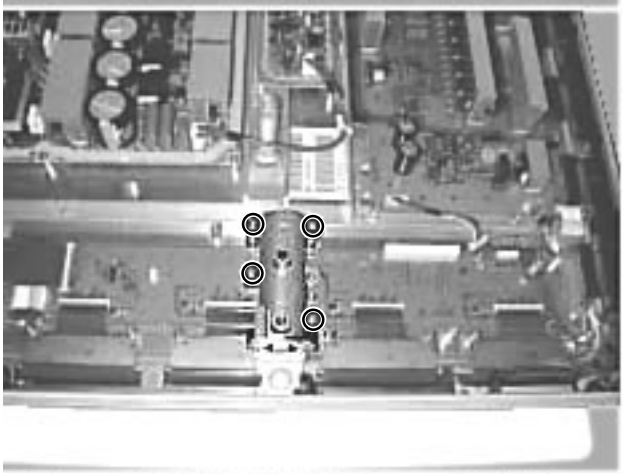
10. Removing the Data Drive (Lower Right) PCB (2 of 3)



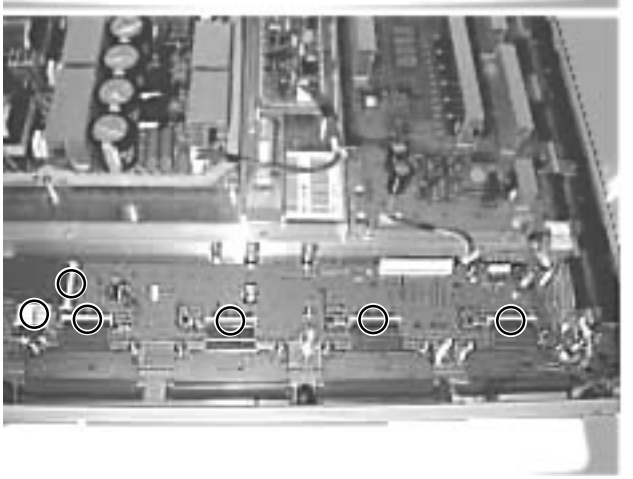
6) Disconnect the circled connector.



7) Remove the 1 screw and Saving Power PCB.

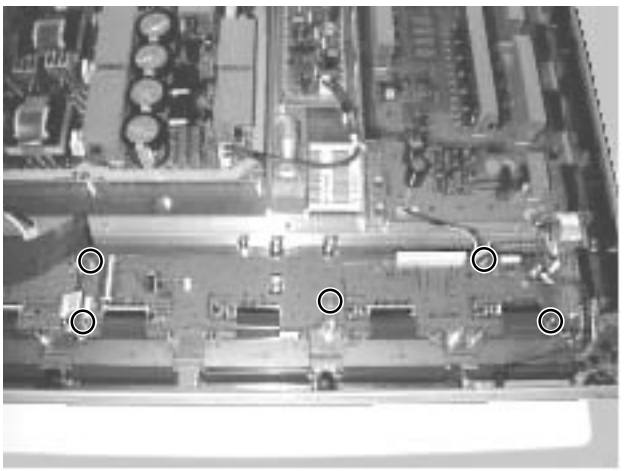


8) Remove the 4 screws and stand support.

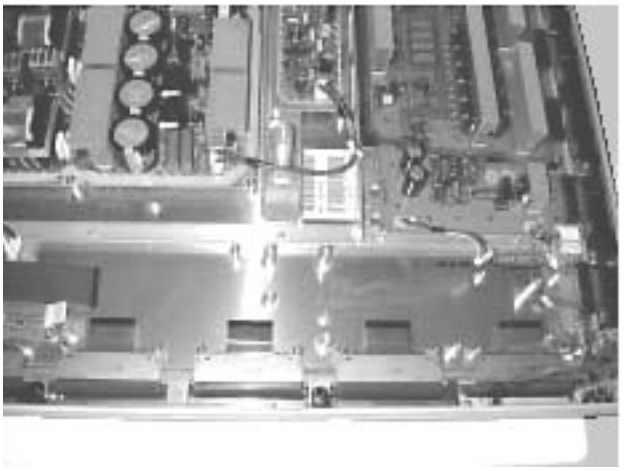


9) Disconnect the circled connector.

10. Removing the Data Drive (Lower Right) PCB (3 of 3)

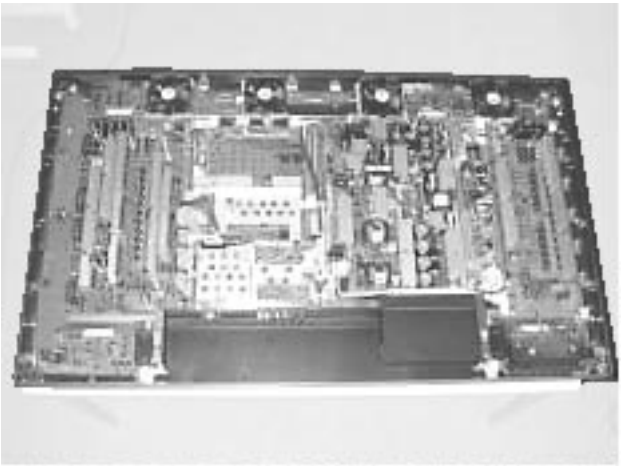


10) Remove the 5 screws and Data Drive (Lower Right) PCB.



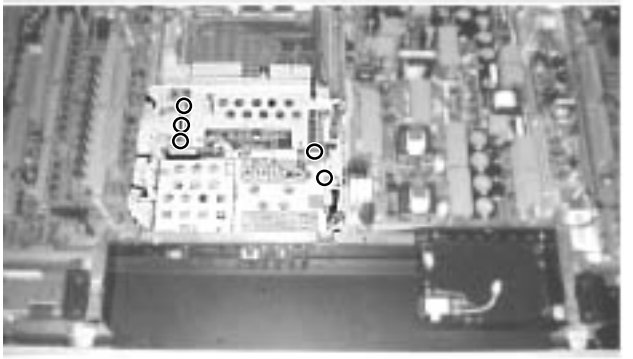
* View after Data Drive (Lower Right) PCB removed.

11. Removing the Data Drive (Lower Center) PCB (1 of 2)

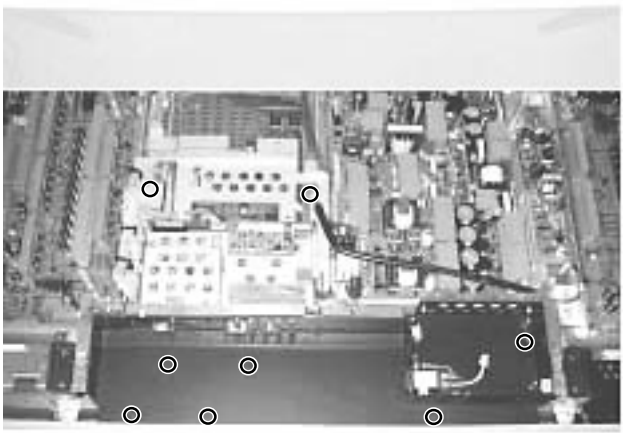


1) Remove the Rear Case.

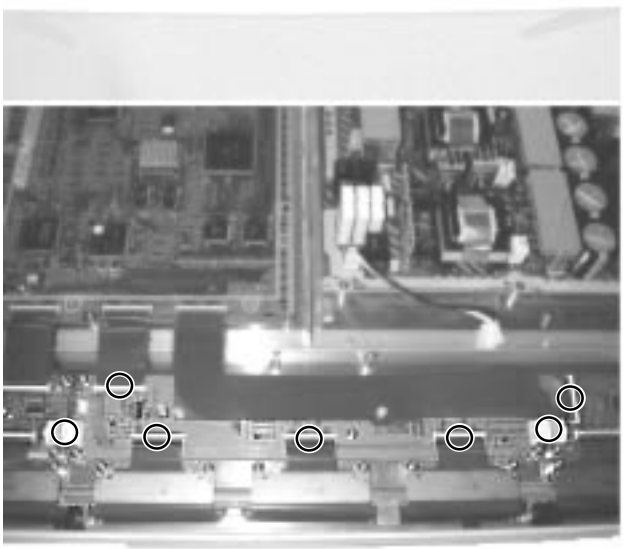
2) Remove the PFC PCB.



3) Disconnect the circled connector.

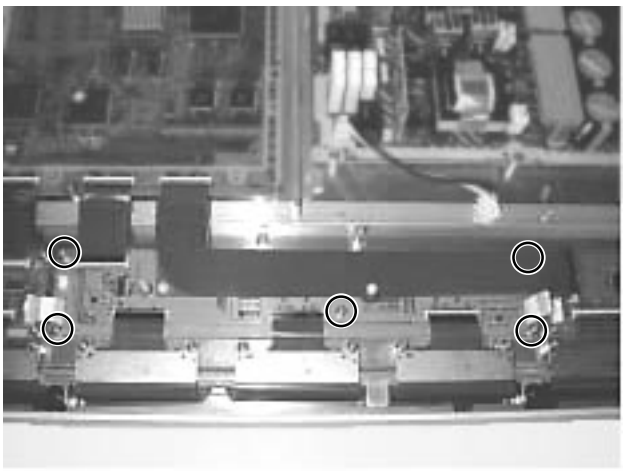


4) Remove the 8 screws.

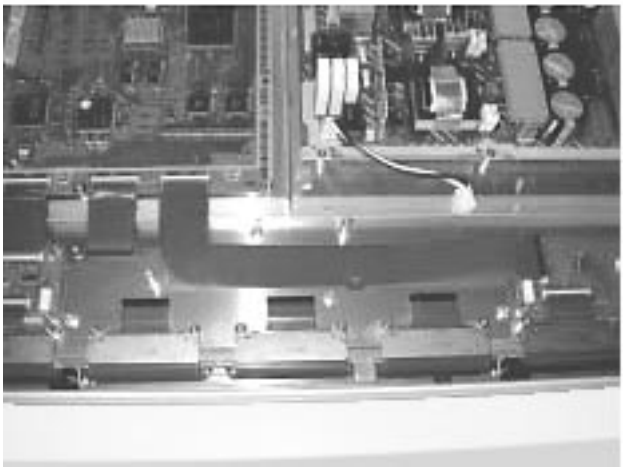


5) Disconnect the circled connector.

11. Removing the Data Drive (Lower Center) PCB (2 of 2)

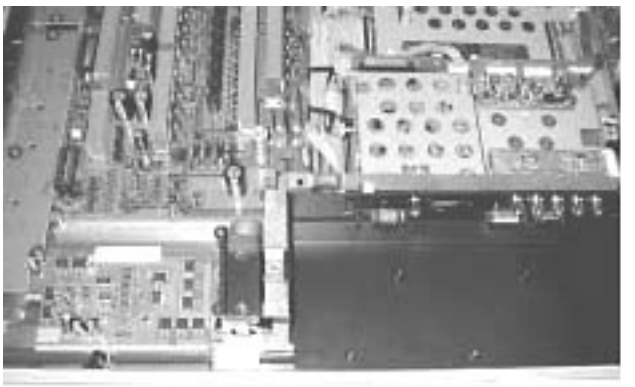


6) Remove the 5 screws and Data Drive (Lower Center) PCB.



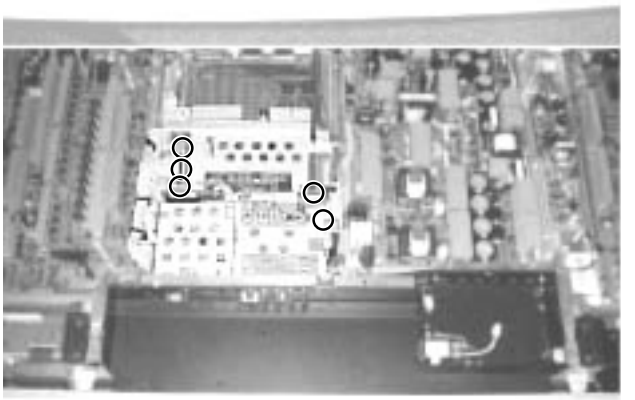
* View after Data Drive (Lower Center) PCB removed.

12. Removing the Data Drive (Lower Left) PCB (1 of 2)

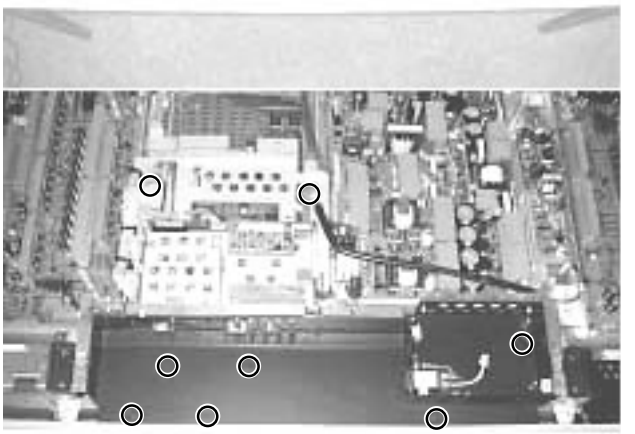


1) Remove the Rear Case.

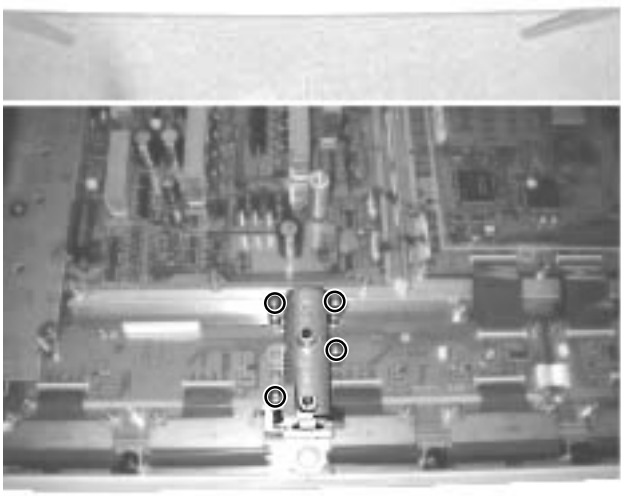
2) Remove the PFC PCB and Saving Power PCB.



3) Disconnect the circled connector.



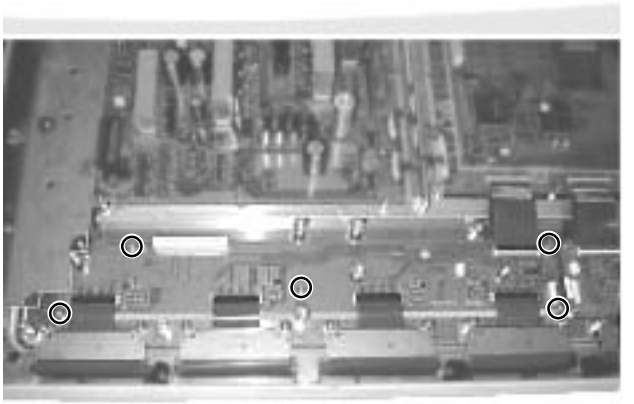
4) Remove the 8 screws.



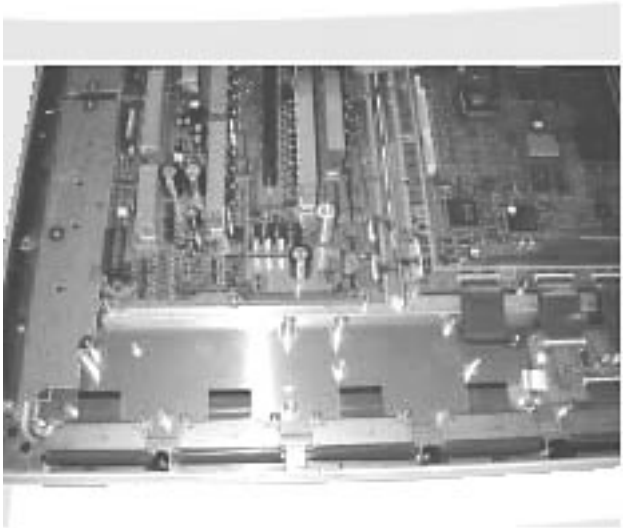
5) Remove the 4 screws and stand support.

12. Removing the Data Drive (Lower Left) PCB (2 of 2)

6) Disconnect the circled connector.

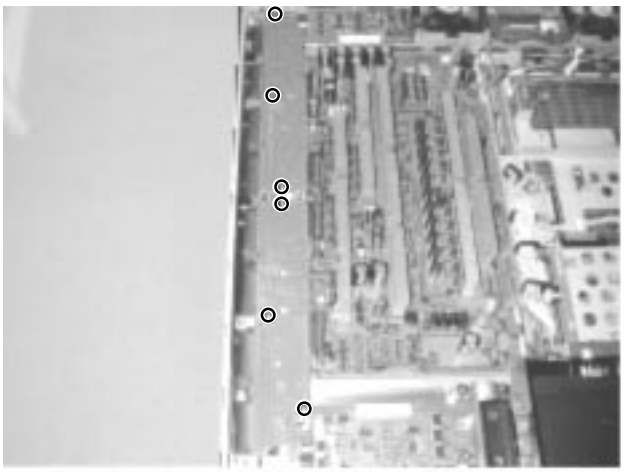


7) Remove the 5 screws and Data Drive (Lower Left) PCB.



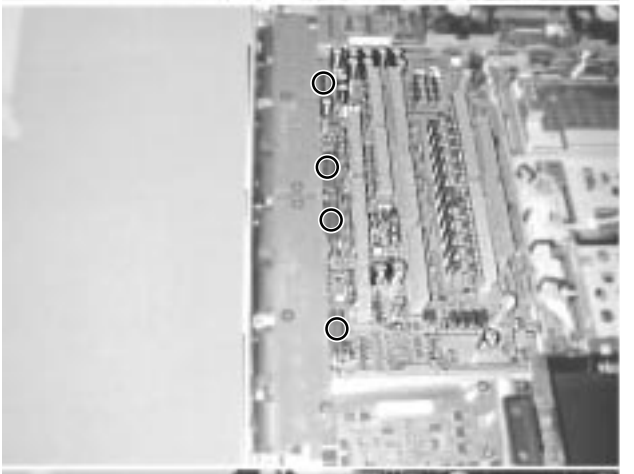
* View after Data Drive (Lower Left) PCB removed.

13. Removing the Scan Drive Output (Upper / Lower)

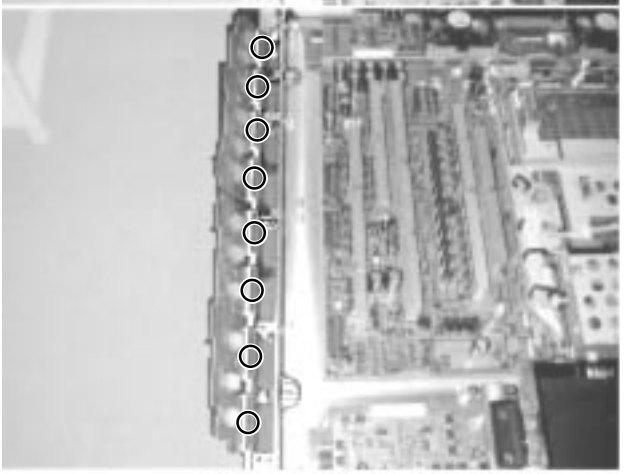


1) Remove the Rear Case.

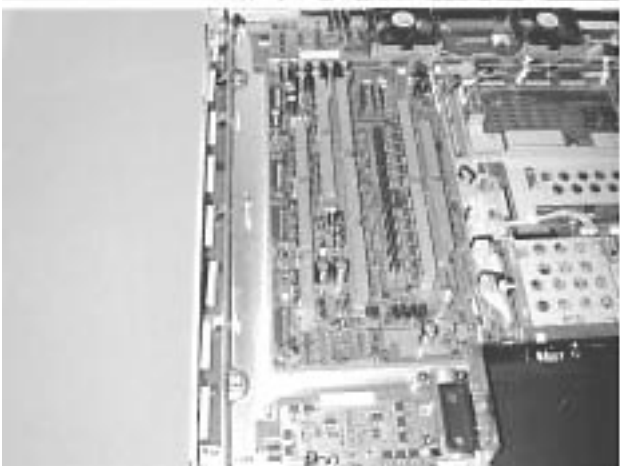
2) Remove the 6 screws.



3) Disconnect the circled connector.

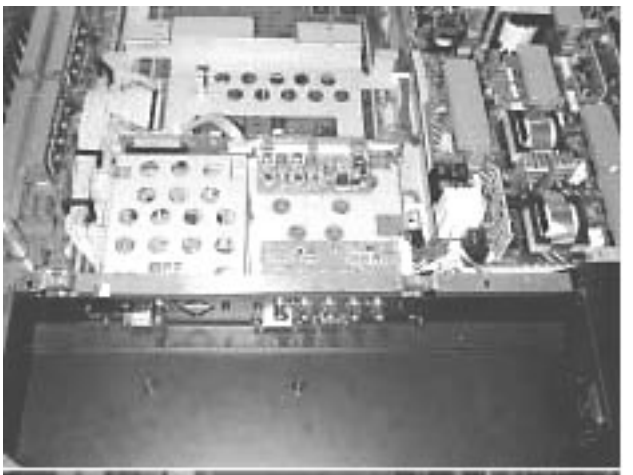


4) Disconnect the circled connector.



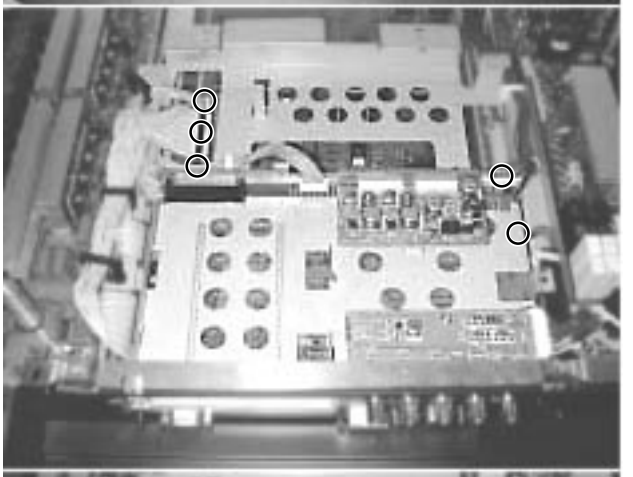
* View after Scan Drive Output (Upper/Lower) PCB removed.

14. Removing the Scan Drive PCB (1 of 2)

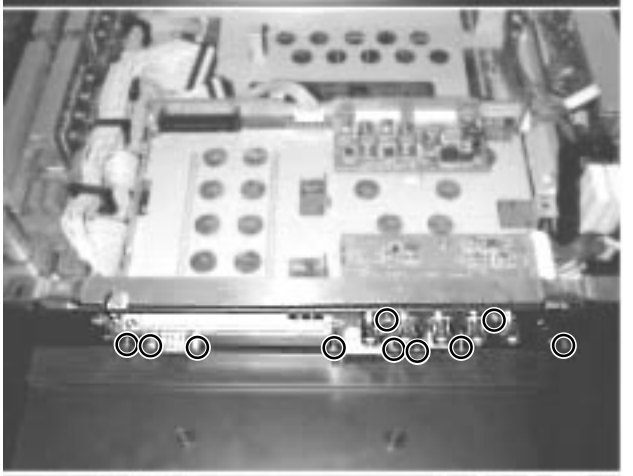


1) Remove the Rear Case.

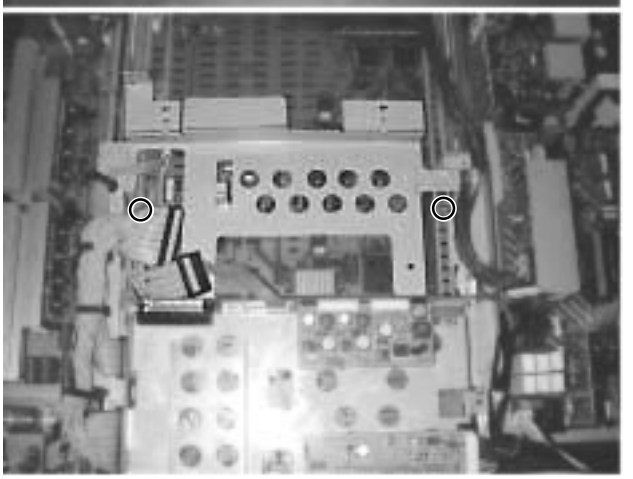
2) Remove the Video Unit.



3) Disconnect the circled connector.

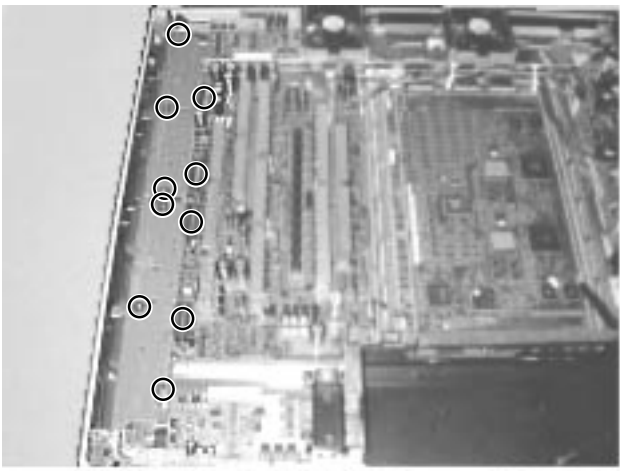


4) Remove the 10 screws.

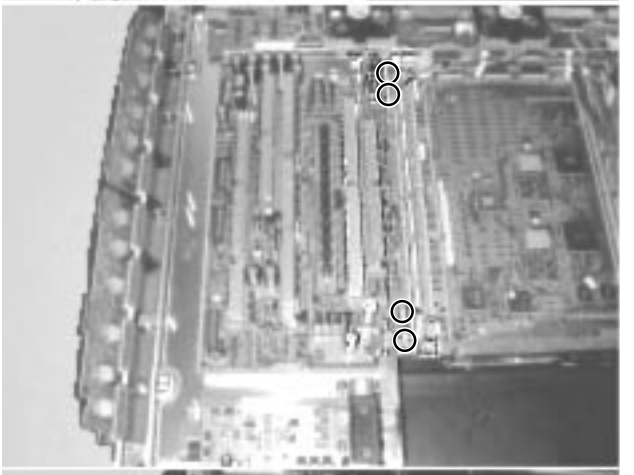


5) Remove the 2 screws and Shield Frame.

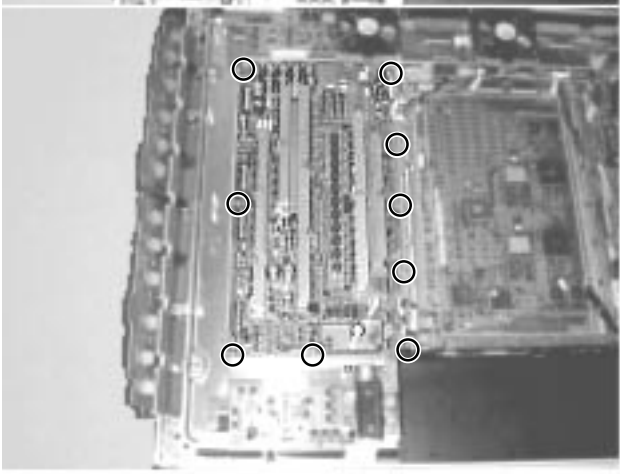
14. Removing the Scan Drive PCB (2 of 2)



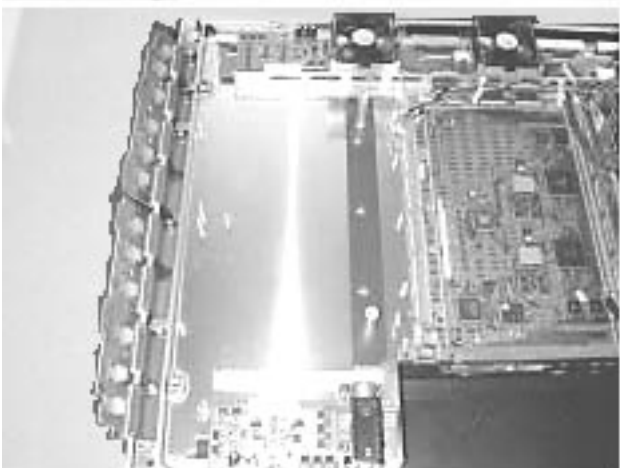
6) Remove the 6 screws and circled connector.



7) Remove the circled connector.

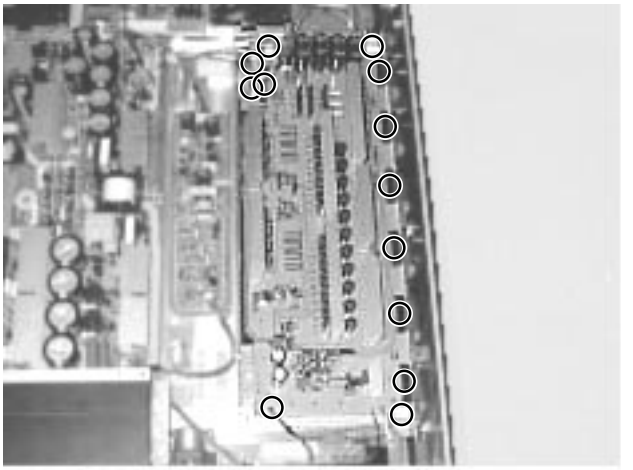


8) Remove the 9 screws and Scan Drive PCB.



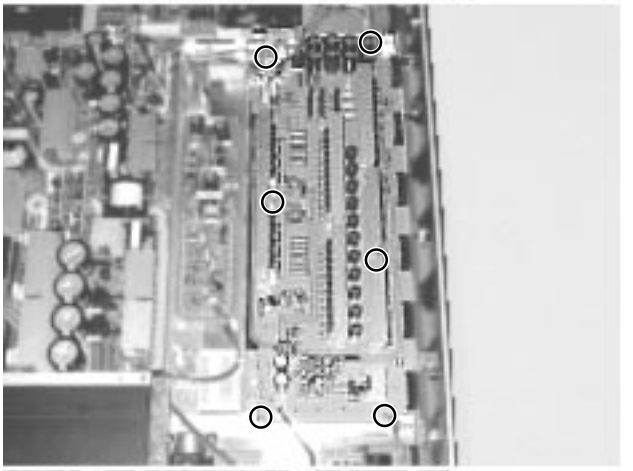
* View after Scan Drive PCB.

15. Removing the Sustain Drive PCB



1) Remove the Rear Case.

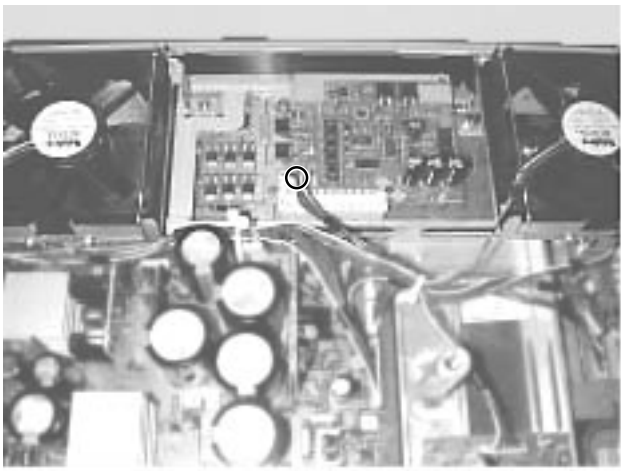
2) Disconnect the circled connector.



3) Remove the 6 screws and Sustain Drive PCB.

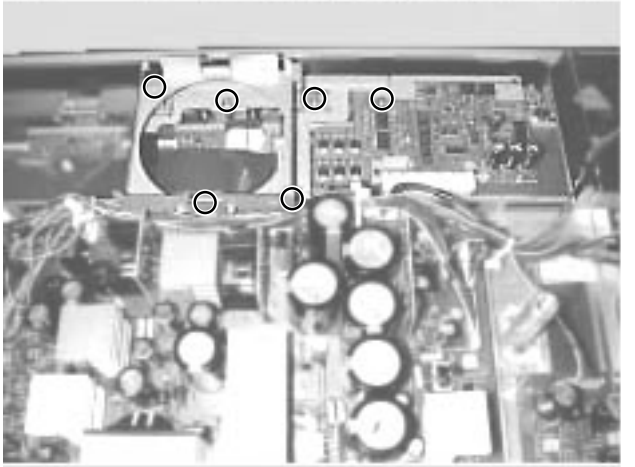
* View after Sustain Drive PCB removed.

16. Removing the Saving Power (Upper Right) PCB

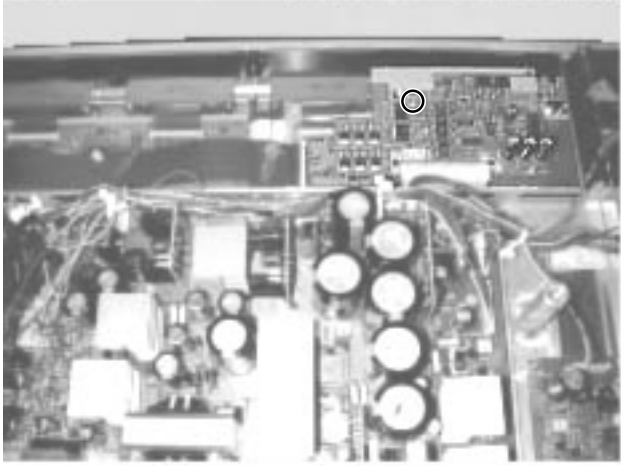


1) Remove the Rear Case.

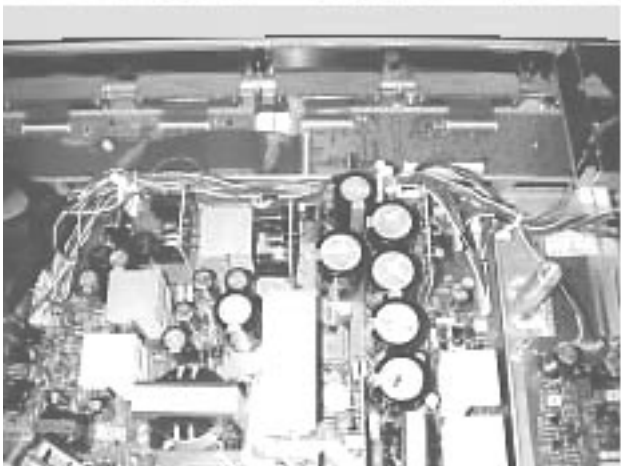
2) Disconnect the circled connector and Fan.



3) Remove the 6 screws and Fan plinth.

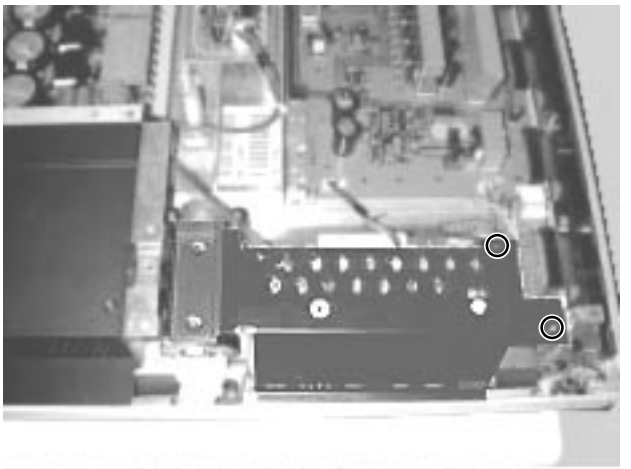


4) Remove the 1 screws and Saving Power (Upper Right) PCB.



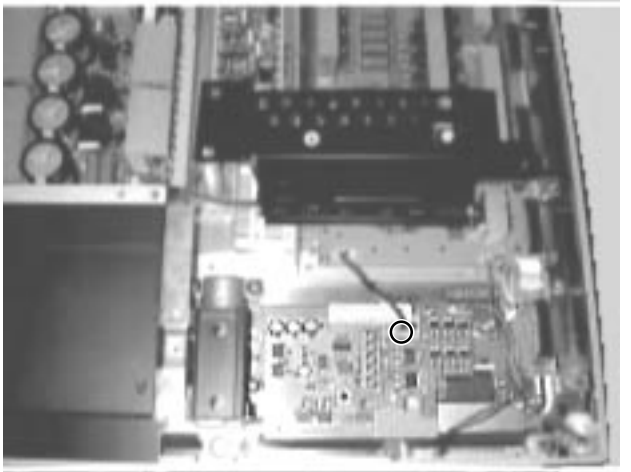
* View after Saving Power (Upper Right) PCB Removed.

17. Removing the Saving Power (Lower Right) PCB

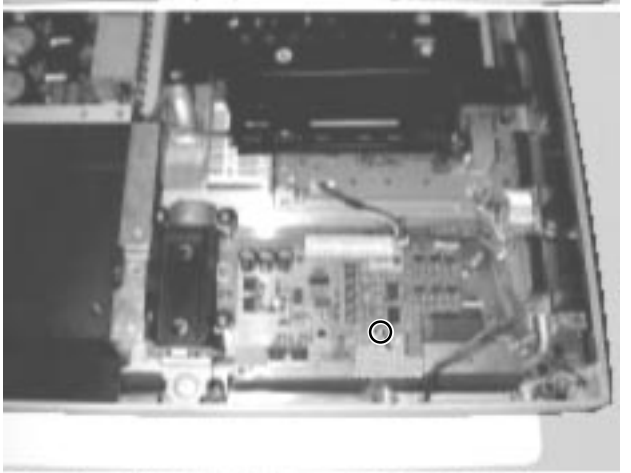


1) Remove the Rear Case.

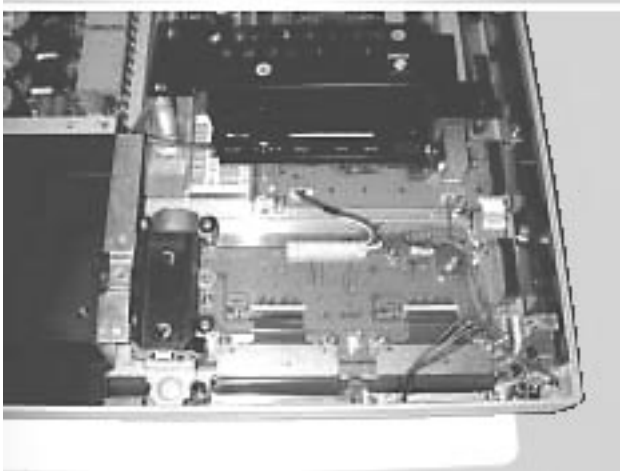
2) Remove the 2 screws.



3) Disconnect the circled connector.

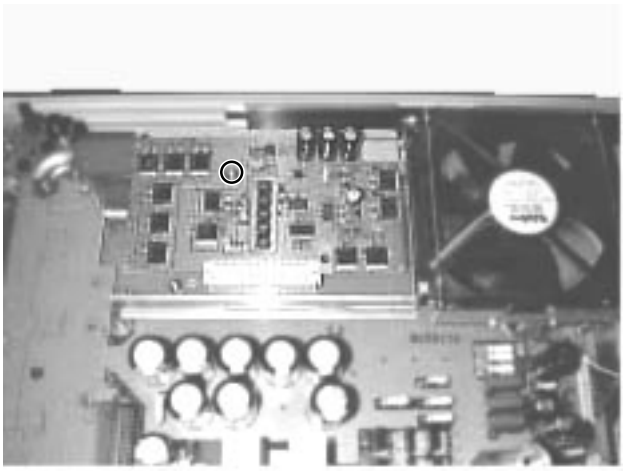


4) Remove the 1 screw and Saving Power (Lower Right) PCB.



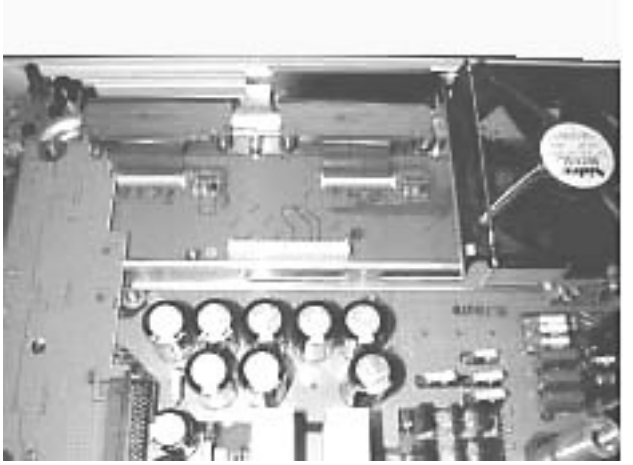
* View after Saving Power (Lower Right) PCB Removed.

18. Removing the Saving Power (Upper Left) PCB



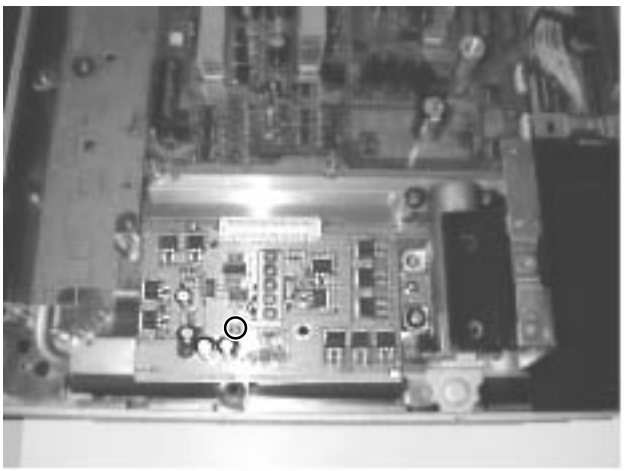
1) Remove the Rear Case.

2) Remove the 1 screw and Saving Power (Upper Left) PCB.



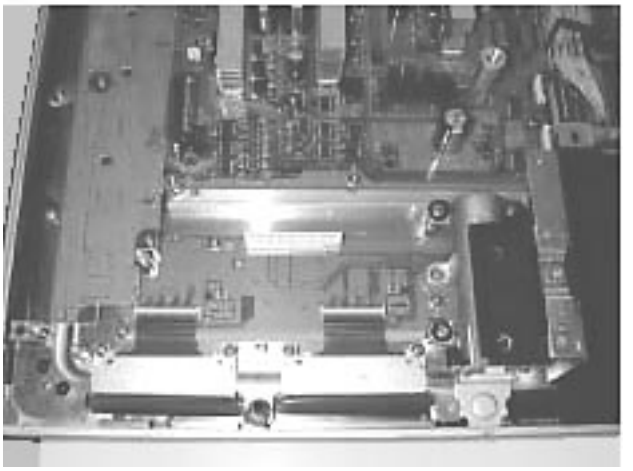
* View after Saving Power (Upper Left) PCB removed.

19. Removing the Saving Power (Lower Left) PCB



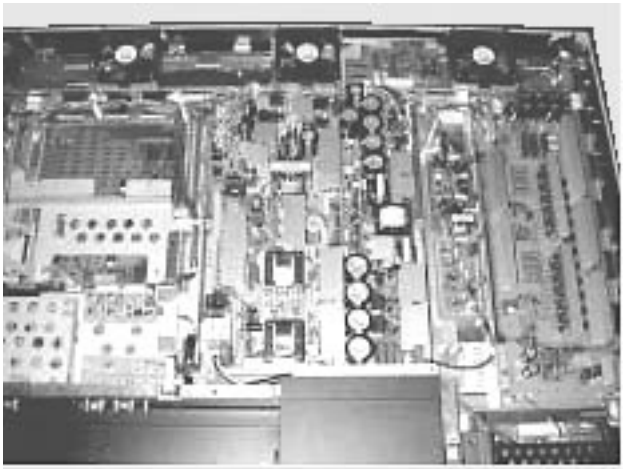
1) Remove the Rear Case.

2) Remove the 1 screw and Saving Power (Lower Left) PCB.



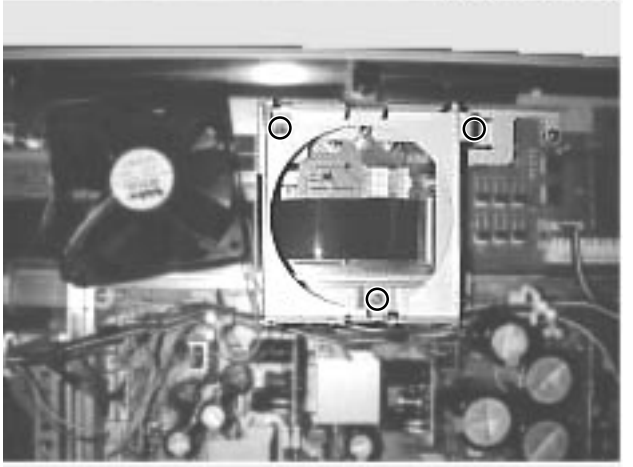
* View after Saving Power (Lower Left) PCB removed.

20. Removing the Power Supply PCB (1 of 2)

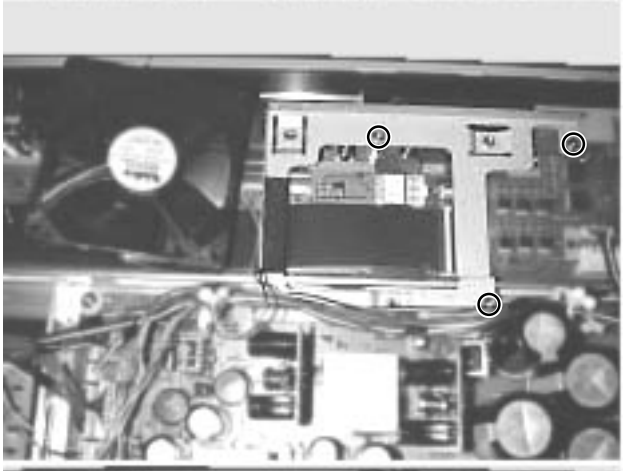


1) Remove the Rear Case.

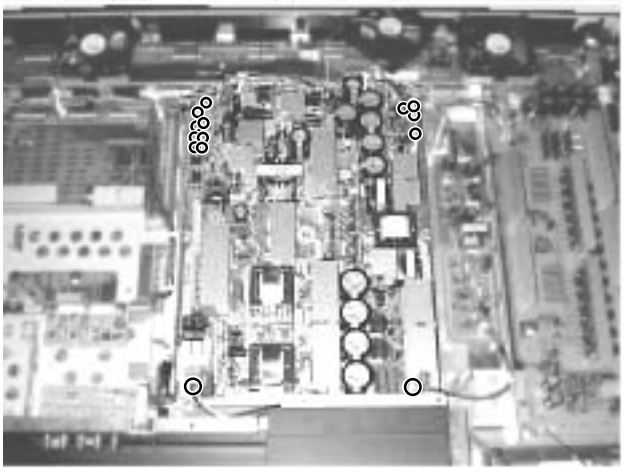
2) Remove the Fan.



3) Remove the 3 screws.

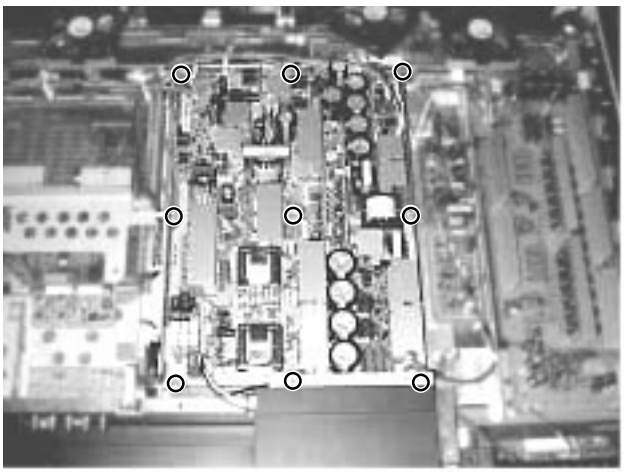


4) Remove the 3 screws.



5) Disconnect the circled connector.

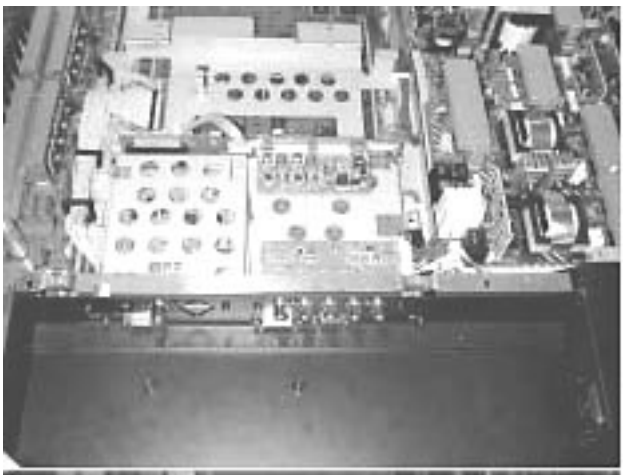
20. Removing the Power Supply PCB (2 of 2)



6) Remove the 9 screws and Power Supply PCB.

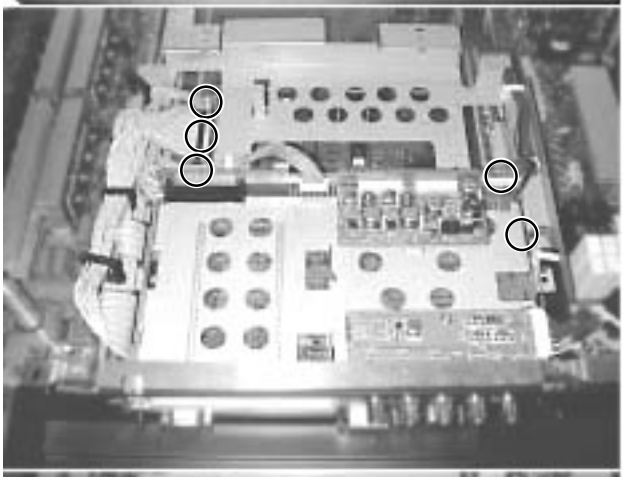
* View after Power Supply PCB.

21. Removing the Digital Process and Control PCB (1 of 2)

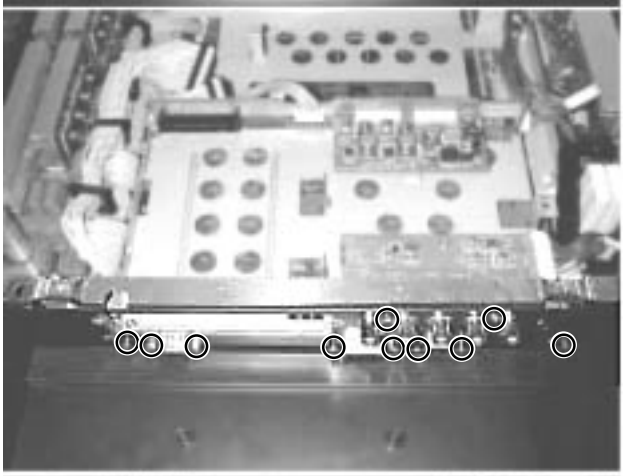


1) Remove the Rear Case.

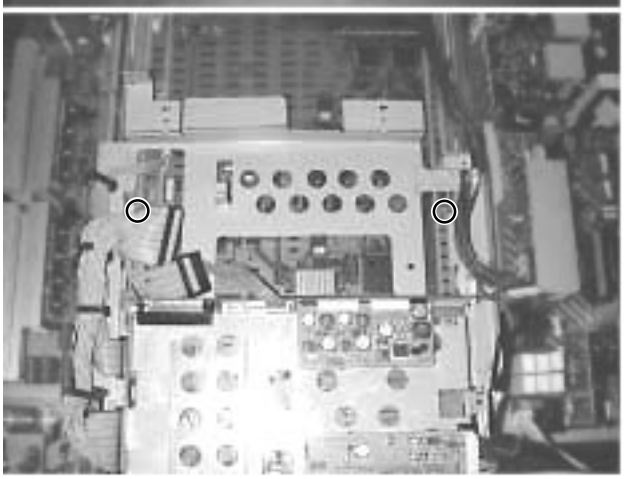
2) Remove the Video Unit.



3) Disconnect the circled connector.

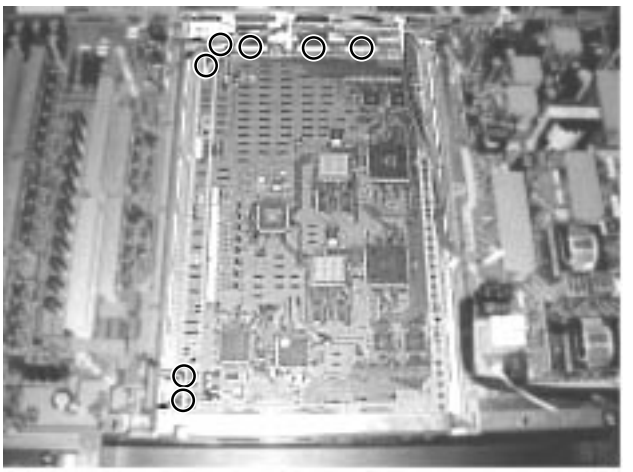


4) Remove the 10 screws.

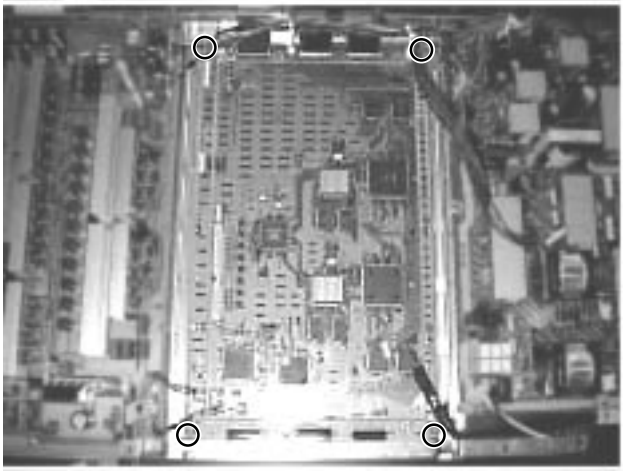


5) Remove the 2 screws and Shield Frame.

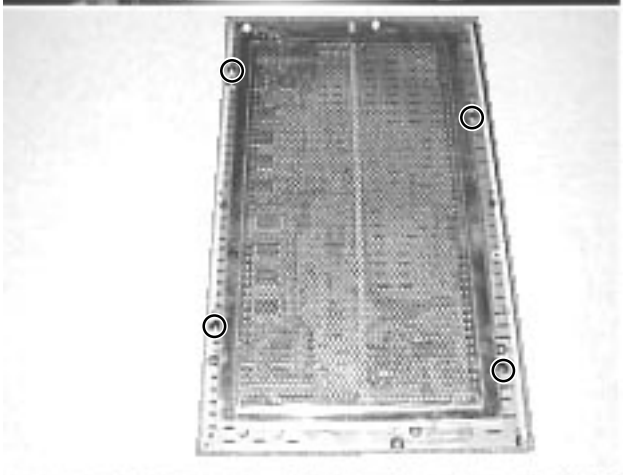
21. Removing the Digital Process and Control PCB (2 of 2)



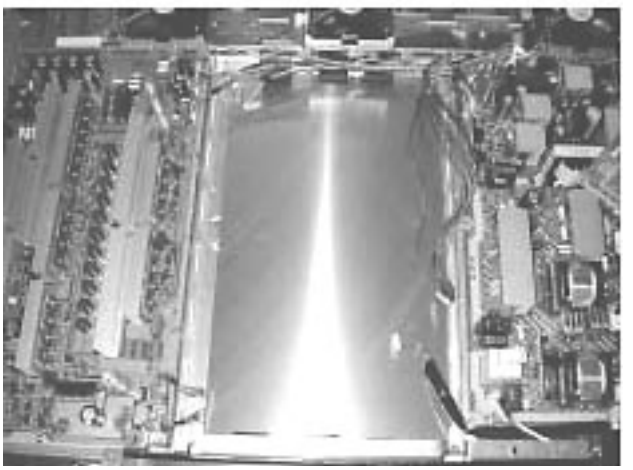
6) Disconnect the circled connector.



7) Remove the 4 screws and Digital Process and Control PCB.



8) Remove the 4 screws and shield.



* View after Digital Process and Control PCB.

PARTS LIST

Ref.no.	Description	PDS5001W-H	PDS5001E-H	PDS5001U-H	PDS5001W-S	PDS5001E-S	PDS5001U-S
Cabinet	Case Front	8112221009	⇦	⇦	8112484008	⇦	⇦
	Case Rear	8112437004	⇦	⇦	⇦	⇦	⇦
Electric	Fan Motor	8900280003	⇦	⇦	⇦	⇦	⇦
	Optical Filter	8112398008	⇦	⇦	⇦	⇦	⇦
	Filter PCB Assy	8112791007	⇦	8112792004	8112791007	⇦	8112792004
	Connection PCB Assy	8112105002	⇦	⇦	⇦	⇦	⇦
	DC/DC PCB Assy	8112111003	⇦	⇦	⇦	⇦	⇦
	I/O PCB Assy	8112103008	⇦	⇦	⇦	⇦	⇦
	Key Switch PCB Assy	8112109000	⇦	⇦	⇦	⇦	⇦
	LED/PHOTO PCB Assy	8112107006	⇦	⇦	⇦	⇦	⇦
	Main Digital PCB Assy	8112788007	⇦	⇦	⇦	⇦	⇦
	Video PCB Assy	8112101004	⇦	⇦	⇦	⇦	⇦
	PDP Unit	8112339001	⇦	⇦	⇦	⇦	⇦
	Power Cord VDE	8112527002	⇦	----------	8112527002	⇦	----------
	UL.CSA	----------	----------	8112528009	----------	----------	8112528009
	Remote Control Unit	8108442005	⇦	⇦	8110867001	⇦	⇦
	Panel Glass	S141010107	⇦	⇦	⇦	⇦	⇦
	Panel Drive Power PCB (P4)	S141009958	⇦	⇦	⇦	⇦	⇦
	Data Drive (Upper Left) PCB (C1)	S141009965	⇦	⇦	⇦	⇦	⇦
	Data Drive (Upper Center) PCB (C2)	S141009972	⇦	⇦	⇦	⇦	⇦
	Data Drive (Upper Right) PCB (C3)	S141009989	⇦	⇦	⇦	⇦	⇦
	Data Drive (Lower Right) PCB (C4)	S141009996	⇦	⇦	⇦	⇦	⇦
	Data Drive (Lower Center) PCB (C5)	S141010008	⇦	⇦	⇦	⇦	⇦
	Data Drive (Lower Left) PCB (C6)	S141010015	⇦	⇦	⇦	⇦	⇦
	Scan Drive Output (Upper) PCB (SU)	S141010022	⇦	⇦	⇦	⇦	⇦
	Scan Drive Output (Lower) PCB (SD)	S141010039	⇦	⇦	⇦	⇦	⇦
	Scan Drive PCB (SC)	S141010046	⇦	⇦	⇦	⇦	⇦
	Sustain Drive PCB (SS)	S141010053	⇦	⇦	⇦	⇦	⇦
	Saving Power (Upper/Lower Right) PCB (C7)	S141010060	⇦	⇦	⇦	⇦	⇦
	Saving Power (Upper/Lower Left) PCB (C8)	S141010077	⇦	⇦	⇦	⇦	⇦
	Power Supply PCB (P1)	S141010084	⇦	⇦	⇦	⇦	⇦
	Digital Process and Control PCB (D)	S141010091	⇦	⇦	⇦	⇦	⇦
Packing	Carton Top	8112482004	⇦	⇦	⇦	⇦	⇦
	Carton Bottom	8112247009	⇦	⇦	⇦	⇦	⇦
	Packing Joint-D	8108655009	⇦	⇦	⇦	⇦	⇦
	Packing Pad-Top	8112248006	⇦	⇦	⇦	⇦	⇦
	Packing Pad-Bottom	8112249003	⇦	⇦	⇦	⇦	⇦

⇦ : Same as left

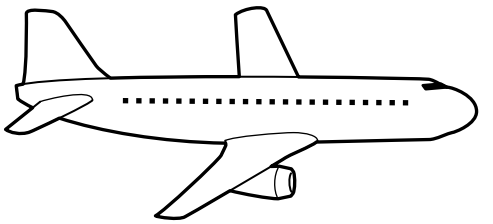
PARTS LIST

Ref.no.	Description	PDS5002W-S	PDS5002E-S	PDS5002U-S
Cabinet	Case Front	8112484008	⇦	⇦
	Case Rear	8112437004	⇦	⇦
Electric	Fan Motor	8900280003	⇦	⇦
	Optical Filter	8112399005	⇦	⇦
	Filter PCB Assy	8112524001	⇦	8112792004
	Connection PCB Assy	8112105002	⇦	⇦
	DC/DC PCB Assy	8112111003	⇦	⇦
	I/O PCB Assy	8112103008	⇦	⇦
	Key Switch PCB Assy	8112109000	⇦	⇦
	LED/PHOTO PCB Assy	8112107006	⇦	⇦
	Main Digital PCB Assy	8112788007	⇦	⇦
	Video PCB Assy	8112101004	⇦	⇦
	PDP Unit	8112339001	⇦	⇦
	Power Cord VDE	8112527002	⇦	----------
	UL.CSA	----------	----------	8112528009
	Remote Control Unit	8110867001	⇦	⇦
	Panel Glass	S141010107	⇦	⇦
	Panel Drive Power PCB (P4)	S141009958	⇦	⇦
	Data Drive (Upper Left) PCB (C1)	S141009965	⇦	⇦
	Data Drive (Upper Center) PCB (C2)	S141009972	⇦	⇦
	Data Drive (Upper Right) PCB (C3)	S141009989	⇦	⇦
	Data Drive (Lower Right) PCB (C4)	S141009996	⇦	⇦
	Data Drive (Lower Center) PCB (C5)	S141010008	⇦	⇦
	Data Drive (Lower Left) PCB (C6)	S141010015	⇦	⇦
	Scan Drive Output (Upper) PCB (SU)	S141010022	⇦	⇦
	Scan Drive Output (Lower) PCB (SD)	S141010039	⇦	⇦
	Scan Drive PCB (SC)	S141010046	⇦	⇦
	Sustain Drive PCB (SS)	S141010053	⇦	⇦
	Saving Power (Upper/Lower Right) PCB (C7)	S141010060	⇦	⇦
	Saving Power (Upper/Lower Left) PCB (C8)	S141010077	⇦	⇦
	Power Supply PCB (P1)	S141010084	⇦	⇦
	Digital Process and Control PCB (D)	S141010091	⇦	⇦
Packing	Carton Top	8112482004	⇦	⇦
	Carton Bottom	8112247009	⇦	⇦
	Packing Joint-D	8108655009	⇦	⇦
	Packing Pad-Top	8112248006	⇦	⇦
	Packing Pad-Bottom	8112249003	⇦	⇦

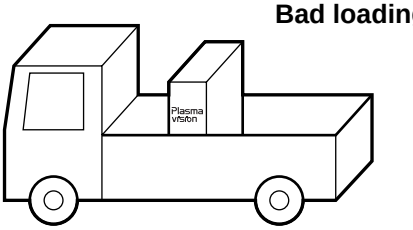
⇦ : Same as left

TRANSPORTATION AND HANDLING RESTRICTIONS

Transportation



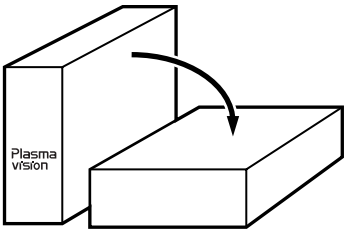
Bad loading



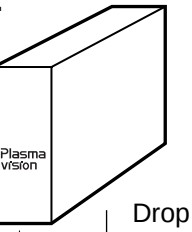
Don't load the plasmavision on a truck as shown in the drawing.

Handling

Never topple.



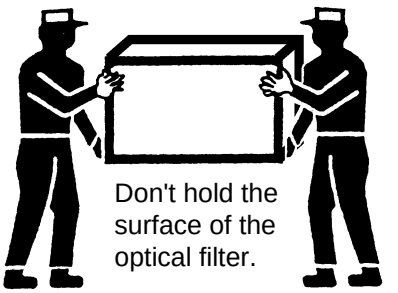
Never drop.



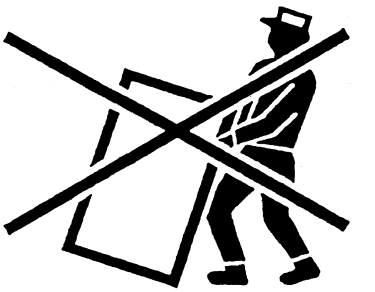
Drop

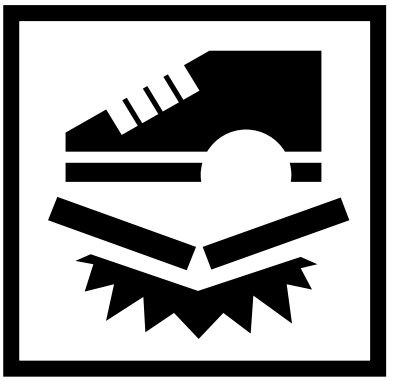
Over 20 cm

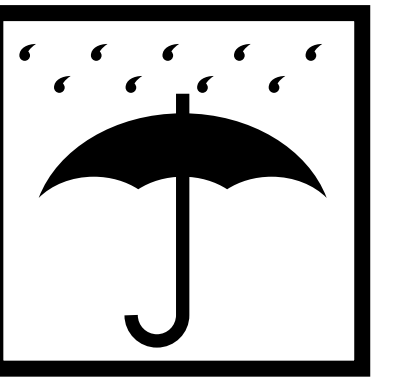
Floor

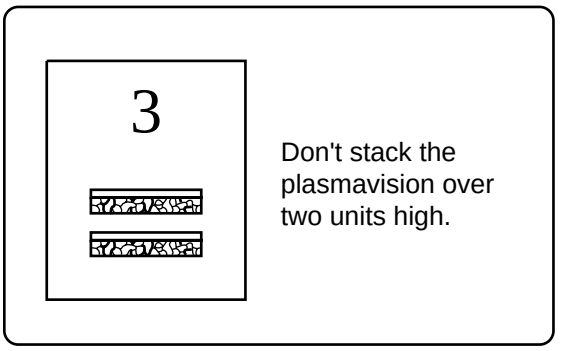


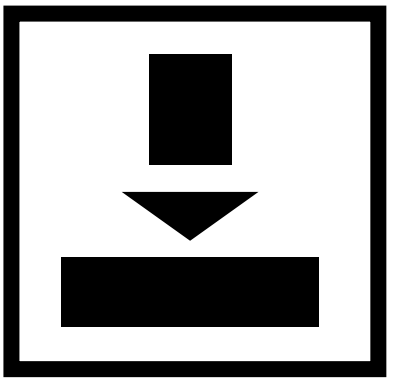
Don't hold the surface of the optical filter.



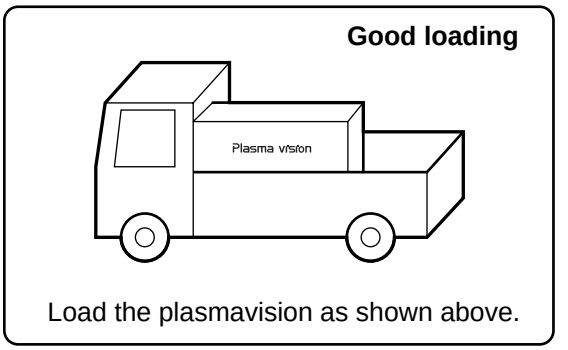


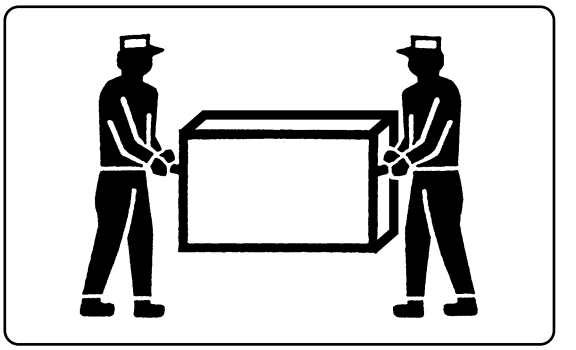


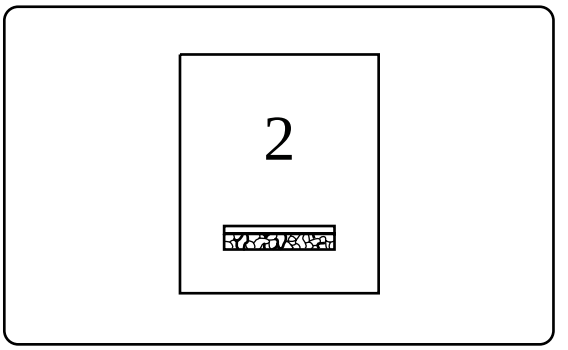


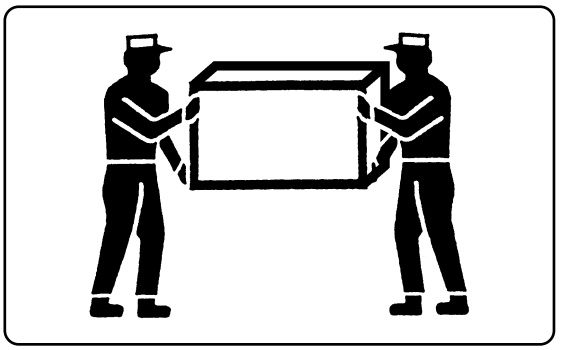


Example of good transportation and handling









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