⚠️ WARNING
This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠️ WARNUNG
Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠️ AVERTISSEMENT
Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.
FWD-42PV1/42PV1P/42PV1A

**Vorsicht!**
Explosionsgefahr bei unsachgemässem Austausch der Batterie.


**Attention**
Il y a danger d’explosion s’il y a remplacement incorrect de la batterie.

Remplacer uniquement avec une batterie du même type ou d’un type équivalent recommandé par le constructeur.
Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

**CAUTION**
Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacturer’s instructions.

**ADVARSEL!**
Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

**VARNING**
Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en likvärdig typ som rekommenderas av apparatfabrikanten.
Kassera använt batteri enligt gällande föreskrifter.

**VAROITUS**
Paristo voi räjähtää jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

**For the customers in the Netherlands**
**Voor de klanten in Nederland**

Hoe u de batterijen moet verwijderen, leest u in de tekst van deze handleiding.

Gooi de batterij niet weg maar lever deze in als klein chemisch afval (KCA).

**Für Kunden in Deutschland**

Entsorgungshinweis: Bitte werfen Sie nur entladene Batterien in die Sammelboxen beim Handel oder den Kommunen. Entladen sind Batterien in der Regel dann, wenn das Gerät abschaltet und signalisiert "Batterie leer" oder nach längerer Gebrauchsdauer der Batterien "nicht mehr einwandfrei funktioniert". Um sicherzugehen, kleben Sie die Batteriepole z.B. mit einem Klebestreifen ab oder geben Sie die Batterien einzeln in einen Plastikbeutel.
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Section 1
Service Overview

1-1. Appearance Figure

1-2. Board Location
1-3. Disassembly

**Note**
When removing/installing the cabinet and replacing the board, place the unit on the conductive cushion.

1-3-1. Rear Cabinet Assembly

[Diagram of Rear Cabinet Assembly]

- Hold the two handles and remove the rear cabinet assembly.
- Four screws
- Four knobs
- Fourteen screws
- Nineteen screws
- Panel securing screws
- BKM-FW10
- Rear cabinet assembly
- Conductive cushion
- Upper side
1-3-2. Bezel Assembly/H1 Board/H2 Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)

**Notes**
- When removing the chassis assembly, be sure to work with more than two persons.
- When removing the chassis assembly, hold the four portions A and remove it from the front frame assembly.
- Place the removed chassis assembly on the conductive cushion.
1-3-3. A Board/L Board/I Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)
1-3-4. G Board/TEMP Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)

1-3-5. T-R Board/T-L Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)
1-3-6. A Block Assembly/DC Fan

• Remove the rear cabinet assembly. (Refer to Section 1-3-1.)
• Remove the bezel assembly. (Refer to Section 1-3-2.)
• Remove the G board. (Refer to Section 1-3-4.)
1-3-7. YDT Board/YDB Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)
- Remove the bezel assembly. (Refer to Section 1-3-2.)
- Remove the G board. (Refer to Section 1-3-4.)

1-3-8. Y SUS Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)
- Remove the bezel assembly. (Refer to Section 1-3-2.)
- Remove the YDT board and YDB board. (Refer to Section 1-3-7.)
1-3-9. CTRL Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)
- Remove the bezel assembly. (Refer to Section 1-3-2.)
- Remove the A block assembly. (Refer to Section 1-3-6.)

1-3-10. Z SUS Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)
- Remove the bezel assembly. (Refer to Section 1-3-2.)
1-3-11. XL Board/XR Board

- Remove the rear cabinet assembly. (Refer to Section 1-3-1.)
- Remove the bezel assembly. (Refer to Section 1-3-2.)
- Remove the G board. (Refer to Section 1-3-4.)
- Remove the A block assembly. (Refer to Section 1-3-6.)
1-3-12. Plasma Display Panel

- Remove each part. (Refer to Sections 1-3-1 to 1-3-11.)

![Diagram of Plasma Display Panel]

- Four screws
- Two screws
- AC socket support
- Speaker bracket supports
- Speaker bracket supports
- AC socket support
- Speaker bracket supports
- Speaker bracket supports
- Speaker bracket supports
- Speaker bracket supports
- Speaker bracket supports
- Speaker bracket supports
- Speaker bracket supports
1-4. Service Position

1-4-1. Service Position of A Board

**Notes**
- When attaching this unit to the stands, be sure to work with two persons.
- After attaching this unit to the stands, make sure that the knobs are securely inserted into the holes of the stands.
- When assembling the service position, be sure to repair after removing the rear cabinet.
1-5. Packing of the Plasma Display Panel

- **1. PDP module**
- **2. Protection plate for inner box**
- **3. Inner box (front)**
- **4. Inner box (rear)**
- **5. Protection plate for outer box**
- **6. Palette**
- **7. Outer box**
- **8. Lid of outer box**
1-6. Warning on Power Connection

Use a proper power cord for your local power supply.

<table>
<thead>
<tr>
<th>Description</th>
<th>The United States, Canada</th>
<th>Continental Europe</th>
<th>UK, Ireland, Australia, New Zealand</th>
<th>Japan</th>
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<tr>
<td>Plug type</td>
<td>VM0233</td>
<td>COX-07/636</td>
<td>–1) VM1296</td>
<td>VM1313</td>
</tr>
<tr>
<td>Female end</td>
<td>VM0089</td>
<td>COX-02/VM0310B</td>
<td>VM0303B</td>
<td>VM1313</td>
</tr>
<tr>
<td>Cord type</td>
<td>STV</td>
<td>H05VV-F</td>
<td>CEE (13) 53rd (O, C)</td>
<td>HVCTF</td>
</tr>
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<td>Rated Voltage &amp; Current</td>
<td>10 A/125 V</td>
<td>10 A/250 V</td>
<td>10 A/250 V</td>
<td>10A/125V</td>
</tr>
<tr>
<td>Safety approval</td>
<td>UL/CSA</td>
<td>VDE</td>
<td>VDE</td>
<td>DENAN-HO</td>
</tr>
</tbody>
</table>

1) Use an appropriate rating plug which is applied to local regulations.

1-7. Unleaded Solder

Boards requiring use of unleaded solder are printed with a lead free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

![LEAD FREE MARK]

**Notes**

- Be sure to use the unleaded solder for the printed circuit board printed with the lead free mark.
- The unleaded solder melts at a temperature about 40 °C higher than the ordinary solder, therefore, it is recommended to use the soldering iron having a temperature regulator.
- The ordinary soldering iron can be used but the iron tip has to be applied to the solder joint for a slightly longer time. The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful.
Section 2  
Service Mode and Adjustment

2-1. Service Mode

2-1-1. Service Mode Startup Procedure

1. Press the Enter key of the remote controller (RM-980).
2. Enter the number 1 → 8 → 2 in order.

2-1-2. Configuration

<table>
<thead>
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<th>ASI510-MAIN</th>
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<td>• CONTRAST</td>
<td>• GAMMA-G</td>
<td>• CONTRAST</td>
<td>• GAMMA-R</td>
<td>• CONTRAST-R</td>
<td>• BRIGHT-B</td>
<td>• PC.CUTOFF</td>
</tr>
<tr>
<td>• BRIGHT</td>
<td>• GAMMA-B</td>
<td>• BRIGHT</td>
<td>• GAMMA-G</td>
<td>• CONTRAST-G</td>
<td>• BRIGHT-B</td>
<td>• PC.GAIN</td>
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<td>• SHARP-Y</td>
<td>• GAMMA-B</td>
<td>• CONTRAST-B</td>
<td>• PHASE</td>
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<td>• SHARP-C</td>
<td>• BLACK EXPD</td>
<td>• SHARP-C</td>
<td>• GAMMA-B</td>
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<td>• DTV.GAIN</td>
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<td>• WHITE EXPD</td>
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<td>• EEPROM INIT.</td>
<td>• MODEL NAME</td>
<td>• AGING ON/OFF</td>
<td>• FAN ON/OFF</td>
<td>• S-INIT GOOD</td>
<td>• S-INIT GOOD</td>
<td>• SELECT RS232</td>
<td></td>
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<td>• EXCEPT WB</td>
<td>• FILL 0xFF</td>
<td>• ONLY WB INIT</td>
<td>• INIT GOODS</td>
<td>• SERIAL NO.</td>
<td>• REFER.SAVE</td>
<td>• SENSOR2</td>
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<td>• ELAPSED TIME</td>
<td>• SERIAL MODE</td>
<td>• TEMPERATURE</td>
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<td></td>
<td>• SENSOR1</td>
<td>• SENSOR3</td>
<td></td>
</tr>
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<td></td>
<td>• WB DEFAULT DATA</td>
<td></td>
<td></td>
<td>• PC</td>
<td>• DVI</td>
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<td>• FOR TEST</td>
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<td>• PC</td>
<td></td>
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<td>• VIDEO</td>
<td>• COPY WB DATA</td>
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<td>• FOR SONY</td>
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<td>• DVI</td>
<td></td>
<td></td>
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<td>• CONTRAST</td>
<td>• IFC</td>
<td>• MDIN-CONT</td>
<td>• MDIN-SATUR</td>
<td>• COLOR TEMP</td>
<td>• SUB-GAIN</td>
<td>• SUB-OFFSET</td>
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<td>• CBW</td>
<td>• MDIN-BRT</td>
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<td>• R-GAIN</td>
<td>• SUB PK</td>
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<td>• LDLY</td>
<td>• SURROUND</td>
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<td>• SUB PFS</td>
<td>• SUB-OFFSET</td>
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<tr>
<td>• HUE</td>
<td>• YOF</td>
<td></td>
<td>• SUB SHARP</td>
<td>• B-GAIN</td>
<td></td>
<td>• SUB-CHIP</td>
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<td>• BRIGHT-CIP</td>
<td>• LPF2</td>
<td></td>
<td>• SHARP THRD</td>
<td>• R-OFFSET</td>
<td>• LARGE EDGE</td>
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<td>• BRIGHT-CIP</td>
<td>• PFS</td>
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<td></td>
<td>• G-OFFSET</td>
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<td></td>
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<tr>
<td>• SATUR.-CIP</td>
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<td></td>
<td>• B-OFFSET</td>
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</tr>
</tbody>
</table>

(Continued)
2-1-3. Description of Main Items

1. AD CALIBRATION
   PC.CUTOFF: Sets Cut Off of PC mode.
   PC.GAIN: Sets Gain of PC mode.
   DTV.CUTOFF: Not used
   DTV.GAIN: Not used
   CONT.R: Not used
   CONT.G: Not used
   CONT.B: Not used
   BRT.R: Not used
   BRT.G: Not used
   BRT.B: Not used

2. WHITE BALANCE
   COLOR TEMP: Sets color temperature (11000, 9300, 6500).
   R-GAIN: Sets Red Gain (contrast).
   G-GAIN: Sets Green Gain (contrast).
   B-GAIN: Sets Blue Gain (contrast).
   R-OFFSET: Sets Red Offset (brightness).
   G-OFFSET: Sets Green Offset (brightness).
   B-OFFSET: Sets Blue Offset (brightness).
   SUB-OFFSET: Not used
   SUB-GAIN: Not used

3. INITIALIZATION
   EEPROM INIT.: Initializes EEPROM to default data.
   EXCEPT WB: Initializes data except white balance.
   ONLY WB INIT: Initializes white balance data only.
   ELAPSED TIME: Initializes Operation Time.
   SERIAL NO.: Initializes Serial Number.
   MODEL NAME: Initializes Model Name.
   FILL 0xFF: Initializes EEPROM to 0xFF.
   SERIAL MODE: Sets Serial Mode to communicate with
   the set by using RS-232C.
   SONY: This is for user to control the set by using RS-232C as remote controller.
   LG: This is for setting white balance.
   ETC: This is for developer.

4. FOR TEST
   AGING ON/OFF: Sets Aging Mode on/off.
   FAN ON/OFF: Sets fan on/off.
   INIT GOODS: Initializes whole data for user to be able to use the set.

5. FOR SONY
   S-INIT GOOD: Initializes whole data except Operation Time for user to be able to use the set.
   FAN FOR TEST: Sets fan on/off.
   Note: This mode is used for the check in service. The fan is stopped under normal condition. It operates when the temperature inside of this unit rises.
   SELECT RS232C: Select V-net (Slot1/Slot2)

6. WB DEFAULT DATA
   PC: Not used
   VIDEO: Not used
   DTV: Not used
   DVI: Not used
   COPY WB DATA: Not used
2-2. White Balance Adjustment

2-2-1. AD Calibration

Run Auto Calibration in PC (852 × 480@60Hz) signal.

2-2-2. 1PC Signal

1. Start the service mode. (Refer to Section 2-1-1.)
2. Select AD CALIBRATION menu.
3. Input Full Black (No Video) pattern.
4. Run PC. CUTOFF.
5. Input Full White Pattern.
6. Run PC.GAIN.

2-2-3. White Balance

After aging the set about 30 min., adjust color matrix of each color temperature 11000K/9300K/6500K.

Preparation for adjustment

Required equipment
- Signal generator
- Color analyzer (ex: CA100)

Signals
- PC WVGA (852 × 480@60 Hz)
- 1080I (Y/Pb/Pr)
- 480P (Y/Pb/Pr)
- NTSC composite
- PAL composite
- 480I (NTSC component)
- 575I (PAL component)

Signal level
700 mV p-p

Signal pattern
100 % white pattern

Color matrix adjustment

Run the following program sequence in order PC → 1080i → 480p → 480i → 575i → NTSC Composite → PAL Composite.

1. Input Full White Pattern.
2. Setup R-GAIN and R/G/B-OFFSET values of the WHITE BALANCE menu into the following TABLE value.

<table>
<thead>
<tr>
<th></th>
<th>PC</th>
<th>1080i</th>
<th>480p</th>
<th>480i</th>
<th>575i</th>
<th>NTSC</th>
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<td>63</td>
<td>63</td>
<td>63</td>
<td>63</td>
<td>63</td>
</tr>
</tbody>
</table>

3. Change G-GAIN and B-GAIN values and adjust color matrix.
   - 11000K: \( x = 276 \pm 15 \), \( y = 282 \pm 15 \)
   - 9300K: \( x = 283 \pm 15 \), \( y = 298 \pm 15 \)
   - 6500K: \( x = 313 \pm 15 \), \( y = 329 \pm 15 \)
4. Adjust each color temperature 11000K/9300K/6500K in order repeating steps 3 and 4.

Shipment condition setting

Set up the shipment condition.
1. Start the on service mode. (Refer to Section 2-1-1.)
2. After selecting FOR SONY menu, run S-INIT GOODS.
   When the setting is completed, the unit becomes ON state automatically after power ON/OFF.
2-3. Va/Vs Voltage Adjustment

2-3-1. Required Equipment

- Digital multi meter
- Signal generator
  Input signal: Input1 (RGB, D-Sub) 852 × 480@60 Hz
  (Recommended pattern), 100% white pattern

2-3-2. Vs Voltage Adjustment

1. Check the label on the right upper side of PDP panel
2. Turn the volume (VR600) to be “Vs Voltage” on the label.
   It is normally set in the range between 180 V and 195 V.

2-3-3. Va Voltage Adjustment

1. Look at the label on the right upper side of PDP panel
2. Then turn the volume (VR700) to be “Va Voltage” on the label.
   It is normally set in the range between 55 V and 65 V.

2-4. Vsc/−Vy Voltage Adjustment

After replacing the Y SUS board, perform the adjustment in this section.

2-4-1. Required Equipment

- Digital multimeter
- Signal generator
  Input signal: Input1 (RGB, D-Sub) 852 × 480@60 Hz
  (Recommended pattern), 100% white pattern

2-4-2. Vsc Voltage Adjustment

1. Perform the adjustment so that the following specification is satisfied.
   Adjustment point: R53
   Specification: See below

2-4-3. −Vy Voltage Adjustment

1. Perform the adjustment so that the following specification is satisfied.
   Adjustment point: R78
   Specification: See below

The above is a label sample.
Check the actual model for the actual specification value.
2-5. Firmware Version Upgrade

Perform the firmware version upgrade using the ISP program.
When the firmware version upgrade is required, a technical memo is issued.

**Note**

Windows 2000 and later is recommended as the personal computer (PC) OS.

1. Connect this unit with PC using the RS-232C cable.
2. Disconnect the AC power cord of this unit.
3. Copy the ISP program to the arbitrary folder.
4. Start the ISP program.
5. Set the port to the setting as displayed on PC.
   In the above screen, set the port to “COM1”.
6. Click the **Ports Setup** button.
   Check that “OK” is displayed.
7. Click the **Load** button.
8. Open the ****.bin file.
9. Click the **Run DownLoad** button.
The progress bar under the dialog box changes to “Ready Signal” and the unit goes into standby state.
10. Connect the AC power cord to this unit. The version upgrade starts.

2-6. DEVICEINFO Section

1. Connect PC to PDP using the serial cable.
2. Set the port.
   (1) Select the model. (FWD-42PV1)
   (2) Select the port. (COM1, COM2, COM3 or COM4)
   **Note**
   The initial setting is COM1.
3. Click the **Read** button in “Model Name”.
   (Data reading)
   If the data reading is completed successfully, the setting in the port that has been selected in step 2 can be performed. If not, return to step 2 and select another port. Then, perform the data reading again.
4. Data writing
   Modify: Model name, serial number, operating time
   Write: Model name, serial number, operating time
3-1. Self Diagnosis Operation

<table>
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<tr>
<th>Check Items</th>
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<th>V-NET (BKM-FW13)</th>
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<tr>
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<td>Concept: Power Off → LED Blinking 2 times</td>
<td>Concept: Power Off → LED Blinking 2 times</td>
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<td>FAN Abnormal</td>
<td>Concept: Power On → “FAN NG” message display</td>
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<tr>
<td>Temp. Abnormal</td>
<td>Concept: Power Off → LED Blinking 4 times</td>
<td>Concept: Power Off → LED Blinking 4 times</td>
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<tr>
<td>Voltage Abnormal</td>
<td>Concept: Power Off → LED Blinking 5 times</td>
<td>Concept: Power Off → LED Blinking 5 times</td>
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</tbody>
</table>

*: There is abnormal state in any of 5 V/9 V/3.3 V/Vs/Va/12V that is output from the G board.

3-2. Check Point

3-2-1. A Board

LED symptoms

1. No LED flashing
   Cause 1: G board can’t supply 5 V.
   (Check 3 and 4-pins of the CN9 on the A board.)
   → Check the connector, or replace the G board.
   Cause 2: Pattern on the A board is short.
   → Replace the A board or H2 board.

2. Only red LED lighting (No power on)
   Cause 1: Check the 5 V line from the G board to the A board.
   (Check 1-pin of the CN9 on the A board.)
   → If the 5 V line is abnormal, check the connector, or replace the G board. If it is ok, replace the A board.
   Cause 2: Micom halt
   → Replace the A board.

3. Only amber LED lighting (No power on)
   Cause 1: Micom halt → Replace the A board.

4. Repeated blinking from red to green LED flashing (No power on)
   Cause 1: A board is damaged.
   → Replace the A board.
   Cause 2: G board can’t supply another voltage.
   → Replace the G board.

5. Blinking red LED many times.
   Refer to Section 3-1.

Raster symptoms (If LED is ok)

1. No raster
   (First check back raster if plasma display panel is on)
   Cause 1: If it is ok, replace the A board.
   Cause 2: If it is not, replace the G board or plasma display panel.

2. No raster at special mode.
   Cause 1: Replace the A board.
   Cause 2: If there is no raster after inputting the DVI signal, check EDID.

3. Abnormal raster
   Cause 1: When you change A board, it is abnormal.
   → Plasma display panel has problem.

Sound Symptoms

1. You can’t hear sound output
   Cause 1: Check 1 and 3-pins of the CN1 on the L board. If it is ok, replace the L board.
   The 3-pin of CN1 is the L/R output terminal of the audio signal. Check the signal using the oscilloscope. If there is no signal, the A board is the cause of the trouble. Otherwise, the L board is the cause of the trouble.
   Cause 2: If it is not, replace the A board.

2. Abnormal sound
   Cause 1: Replace the L board.
3-2-2. Plasma Display Panel

1. Image is not displayed.
   - Check all connectors.
   - Check the Exhaust tip.
   - Check blink of LEDs on the CTRL board and check the 5 V CTRL voltage.
   - Check fuse on the Y SUS board and check Vsc, −Vy, Vs, V5 CTRL voltage.
   - Check fuse on the Z SUS board and check Va, V5 CTRL, Vs voltage.

2. Vertical bar failure
   - Check all connectors.
   - Check peripheral circuit and connecting of the XR and XL borads.

3. Horizontal bar failure
   - Check all connectors.
   - Check peripheral circuit and connecting of the YDT and YDB borads.

4. Mal discharge
   - Check signals of YDT, YDB, and Z SUS boards and check Y SUS board voltage (−Vy, Vsc).
   - Check YDT and YDB boards.
   - Check CTRL board.
3-3. Image Trouble

Main symptoms
- Dot noise
- No image
- No screen saver
- Picture noise
- Broken OSD
- Flashing picture
- Bad color
- No inversion
- Dark picture
- Vertical dot noise
- No power saving
- Unstable image
- Clock error
- No screen saver
- No inversion
- Dark picture
- Vertical dot noise
- No power saving
- Unstable image
- Clock error

Image is abnormal.

Are all input signals abnormal? (RGB/DVI/YUV/CVBS)
- No
  - There is a high possibility that the A board caused the trouble. → Replace the A board.
- Yes
  - Connect correctly. If the trouble persists, replace the A board.

Is the connection of the A board abnormal?
- Yes
  - Connect correctly. If the trouble persists, replace the A board.
- No

Is the G board abnormal?
- Yes
  - Replace the G board.
- No

Is the CTRL board or peripheral circuit abnormal?
- Yes
  - Replace the CTRL board.
- No

Is the Y SUS board abnormal?
- Yes
  - Replace the Y SUS board.
- No

Is the Z SUS board abnormal?
- Yes
  - Replace the Z SUS board.
- No

After replacing the parts, perform the following adjustments.
- AD calibration adjustment (Refer to Section 2.)
- White balance adjustment (Refer to Section 2.)
- EDID data input
- S-init Goods (Refer to Section 2.)

For the replacement parts, refer to Section 4.
The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.
3-4. Power (G Board) Trouble

Power cannot be turned on.

Is LED reset repeatedly?
Yes
There is a high possibility that the A board caused the trouble. → Replace the A board.
No

Is the connection of the A board abnormal?
Yes
Connect correctly. If the trouble persists, replace the A board.
No

Is the G board abnormal?
Yes
Replace the G board.
No

Is the CTRL board abnormal?
Yes
Replace the CTRL board.

Note
For the replacement parts, refer to Section 4.
The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

Note
After replacing the parts, perform the following adjustments.
- AD calibration adjustment (Refer to Section 2.)
- White balance adjustment (Refer to Section 2.)
- EDID data input
- S-init Goods (Refer to Section 2.)

Note
After replacing the parts, perform the following adjustments.
- AD calibration adjustment (Refer to Section 2.)
- White balance adjustment (Refer to Section 2.)
- EDID data input
- S-init Goods (Refer to Section 2.)

Note
After replacing the G board, perform the following adjustments.
- Va Voltage Adjustment (Refer to Section 2-3.)
- Vs Voltage Adjustment (Refer to Section 2-3.)
3-5. Remote Control Trouble

Remote control is abnormal.

Is the H1 board abnormal?

Yes $\rightarrow$ Replace the H1 board.

No

Is the connection of H1 board abnormal?

Yes $\rightarrow$ Connect correctly. If the trouble persists, replace the H1 board.

No $\rightarrow$ Replace the A board.

Note
For the replacement parts, refer to Section 4. The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

After replacing the parts, perform the following adjustments.
- AD calibration adjustment (Refer to Section 2.)
- White balance adjustment (Refer to Section 2.)
- EDID data input
- S-init Goods (Refer to Section 2.)

3-6. Sound Trouble

Sound is abnormal.

Is the sound circuit abnormal?

Yes $\rightarrow$ Replace the defective parts.

No

Is the connectors of sound circuit abnormal?

Yes $\rightarrow$ Replace the defective parts.

No $\rightarrow$ Replace the A board.

Note
For the replacement parts, refer to Section 4. The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

After replacing the parts, perform the following adjustments.
- AD calibration adjustment (Refer to Section 2.)
- White balance adjustment (Refer to Section 2.)
- EDID data input
- S-init Goods (Refer to Section 2.)
3-7. Other Trouble

**LED failure**

*Note*
For the replacement parts, refer to Section 4. The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

**Button failure**

Is the H1 or H2 board abnormal?

Yes → Replace the H1 or H2 board.

No → Is the connector of H1 or H2 board abnormal?

Yes → Replace the defective parts.

No → Replace the A board.

*Note*
After replacing the parts, perform the following adjustments.
- AD calibration adjustment (Refer to Section 2.)
- White balance adjustment (Refer to Section 2.)
- EDID data input
- S-init Goods (Refer to Section 2.)

**DC fan operation failure**

*Note*
For the replacement parts, refer to Section 4. The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

Is the DC fan abnormal?

Yes → Replace the DC fan.

No → Is the connection of DC fan OK?

Yes → Replace the A board.

No → Connect the DC fan correctly.

*Note*
After replacing the parts, perform the following adjustments.
- AD calibration adjustment (Refer to Section 2.)
- White balance adjustment (Refer to Section 2.)
- EDID data input
- S-init Goods (Refer to Section 2.)
3-8. Plasma Display Panel

3-8-1. Image is not displayed

Image is not displayed.

Is the connection abnormal?
  Yes Connect correctly.
  No

Are all fuses abnormal?
  Yes Replace the defective fuse.
  No

Are output signals from the G board abnormal?
  Yes Replace the G board.
  No

Are output voltages from the Y SUS and Z SUS boards abnormal?
  Yes Replace the Y SUS or Z SUS board.
  No Replace the CTRL board.

Note
For the replacement parts, refer to Section 4. The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

Note
After replacing the Y SUS or Z SUS board, perform the following adjustments.
  • Va Voltage Adjustment (Refer to Section 2-3.)
  • Vs Voltage Adjustment (Refer to Section 2-3.)

Note
After replacing the G board, perform the following adjustments.
  • Vsc Adjustment (Refer to Section 2-4.)
  • —Vy Adjustment (Refer to Section 2-4.)
3-8-2. Vertical Image is abnormal

Vertical image is abnormal.

- Is the connector of TCP abnormal?
  - Yes: Connect correctly.
  - No: Is the XL or XR board abnormal?
    - Yes: Replace the XL or XR board.
    - No: IS the CTRL board abnormal?
      - Yes: Replace the CTRL board.
      - No: Replace the plasma display panel.

**Note:**
For the replacement parts, refer to Section 4.
The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

**Note:**
After replacing the parts, perform the following adjustments.
- AD calibration adjustment (Refer to Section 2.)
- White balance adjustment (Refer to Section 2.)
3-8-3. Horizontal Image is abnormal

Horizontal image is abnormal.

Is the connector of FCP?

Yes → Connect correctly.

No

Is the YDT, YDB, Y SUS, or CTRL board abnormal?

Yes → Replace the defective board.

No

Replace the plasma display panel.

Note
For the replacement parts, refer to Section 4. The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

3-8-4. Mal Discharge

Mal discharge

Replace the YDT, YDB, Y SUS, or CTRL board.

Note
For the replacement parts, refer to Section 4. The parts other than those described in Section 4 are not service parts. When the replacement of those parts is required, replace them in the assembly unit.

Note
After replacing the G board, perform the following adjustments.
- Vsc Adjustment (Refer to Section 2-4.)
- –Vy Adjustment (Refer to Section 2-4.)
4-1. Notes on Repair Parts

1. Safety Related Components Warning

   **WARNING**
   Components marked △ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

2. Standardization of Parts

   Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement. Parts list has the present standardized repair parts.

3. Stock of Parts

   Parts marked with “o” at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

4. Harness

   Harnesses with no part number are not registered as spare parts. In need of repair, get components shown in the list and repair using them.
Screw Kit

4-2. Exploded Views
Note: The screws can be ordered in units of screw kit. (Sony part No. 20 to 22)

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<th>Part No.</th>
<th>SP Description</th>
<th>No.</th>
<th>Part No.</th>
<th>SP Description</th>
<th>No.</th>
<th>Part No.</th>
<th>SP Description</th>
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<td>X-2022-847-1</td>
<td>SCREW KIT, WALL MOUNT</td>
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<td>X-2055-059-1</td>
<td>SCREW KIT (INSIDE)</td>
<td>22</td>
<td>X-2055-060-1</td>
<td>SCREW KIT (OUTSIDE)</td>
</tr>
</tbody>
</table>

**INSIDE SCREW KIT**
- 1 1SZZTMP007C
- 2 332-102C
- 3 332-113E
- 4 332-112E
- 5 339-006B
- 6 339-008F
- 7 339-008H
- 8 339-008K
- 9 339-008L
- 10 339-009C
- 11 332-095B
- 12 1SZZTMFD12A
- 13 1SZZTMB005B
- 14 332-241A
- 15 332-241D
- 16 1NH0302118
- 17 1WZZTKK005A
- 18 1SZZTMH005A

**OUTSIDE SCREW KIT**
- 1 332-102R
- 2 339-008K

**WALL MOUNT SCREW KIT**
- 1 1WZZTKK004B
- 2 1SZZTMH003B

*The numbers encircled by round corresponds to numbers in illustrations.
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<th>No.</th>
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(See Sec.1-6. Warning on Power Connection)
## Table of Parts

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*The numbers encircled by round corresponds to those of the left illustration.*