SONY®

Professional Video Monitor

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

PVM-X300

TRIMASTER **4K** HDMI

Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No._____
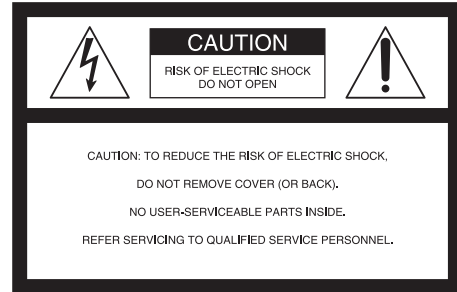Serial No._____

Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

THIS APPARATUS MUST BE EARTHED.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING
When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power plug to an easily accessible socket-outlet near the unit. If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power plug.

Using this unit at a voltage other than 120V may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

When installing the installation space must be secured in consideration of the ventilation and service operation.
- Do not block the ventilation slots, and vents of the fans.
- Leave a space around the unit for ventilation.
- Leave more than 40 cm of space in the rear of the unit to secure the operation area.
When the unit is installed on the desk or the like, leave at least 10 cm of space in the top side. Leaving 40 cm or more of space in the rear of the unit is recommended for service operation.

Table of Contents

Precaution

On Safety

- Operate the unit only with a power source as specified in the "Specifications" section.
- A nameplate indicating operating voltage, power consumption, etc., is located on the rear panel.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Do not drop or place heavy objects on the power cord. If the power cord is damaged, turn off the power immediately. It is dangerous to use the unit with a damaged power cord.
- Unplug the unit from the wall outlet if it is not to be used for several days or more.
- Disconnect the power cord from the AC outlet by grasping the plug, not by pulling the cord.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

On Installation

- Allow adequate air circulation to prevent internal heat build-up.
  Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

Handling the LCD Screen

- The LCD panel fitted to this unit is manufactured with high precision technology, giving a functioning pixel ratio of at least 99.99%. Thus a very small proportion of pixels may be "stuck", either always off (black), always on (red, green, or blue), or flashing. In addition, over a long period of use, because of the physical characteristics of the liquid crystal display, such "stuck" pixels may appear spontaneously. These problems are not a malfunction.
- Do not leave the LCD screen facing the sun as it can damage the LCD screen. Take care when you place the unit by a window.
- Do not push or scratch the LCD monitor's screen. Do not place a heavy object on the LCD monitor's screen. This may cause the screen to lose uniformity.

- If the unit is used in a cold place, horizontal lines or a residual image may appear on the screen. This is not a malfunction. When the monitor becomes warm, the screen returns to normal.
- If a fixed picture such as a frame of a divided picture or time code, or a still picture is displayed for a long time, an image may remain on the screen and be superimposed as a ghosting image.
- The screen and the cabinet become warm during operation. This is not a malfunction.

On Burn-in

For LCD panel, permanent burn-in may occur if still images are displayed in the same position on the screen continuously, or repeatedly over extended periods.

Images that may cause burn-in
- Masked images with aspect ratios other than 17:9
- Color bars or images that remain static for a long time
- Character or message displays that indicate settings or the operating state

To reduce the risk of burn-in
- Turn off the character displays.
  Press the MENU button to turn off the character displays. To turn off the character displays of the connected equipment, operate the connected equipment accordingly. For details, refer to the operation manual of the connected equipment.
- Turn off the power when not in use.
  Turn off the power if the monitor is not to be used for a prolonged period of time.

On a Long Period of Use

Due to the characteristics of LCD panel, displaying static images for extended periods, or using the unit repeatedly in a high temperature/high humidity environments may cause image smearing, burn-in, areas of which brightness is permanently changed, lines, or a decrease in overall brightness.

In particular, continued display of an image smaller than the monitor screen, such as in a different aspect ratio, may shorten the life of the unit.
Avoid displaying a still image for an extended period, or using the unit repeatedly in a high temperature/high humidity environment such an airtight room, or around the outlet of an air conditioner.

To prevent any of the above issues, we recommend reducing brightness slightly, and to turn off the power whenever the unit is not in use.

On Cleaning

Before cleaning
Be sure to disconnect the AC power cord from the AC outlet.

On cleaning the monitor screen
The monitor screen surface is especially treated to reduce reflection of light.
As incorrect maintenance may impair the performance of the monitor, take care with respect to the following:
- Wipe the screen gently with a soft cloth such as a cleaning cloth or glass cleaning cloth.
- Stubborn stains may be removed with a soft cloth such as a cleaning cloth or glass cleaning cloth lightly dampened with water.
- Never use solvent such as alcohol, benzene or thinner, or acid, alkaline or abrasive detergent, or chemical cleaning cloth, as they will damage the screen surface.

On cleaning the cabinet
- Clean the cabinet gently with a soft dry cloth. Stubborn stains may be removed with a cloth lightly dampened with mild detergent solution, followed by wiping with a soft dry cloth.
- Use of alcohol, benzene, thinner or insecticide may damage the finish of the cabinet or remove the indications on the cabinet. Do not use these chemicals.
- If you rub on the cabinet with a stained cloth, the cabinet may be scratched.
- If the cabinet is in contact with a rubber or vinyl resin product for a long period of time, the finish of the cabinet may deteriorate or the coating may come off.

On Dew Condensation

If the viewfinder is moved suddenly from a cold place to a warm place, or used in a room with high humidity, water droplets may form on the interior of the product. This phenomenon is known as dew condensation.
This product does not come with a feature that warns users of dew condensation. If water droplets are found on the casing, turn off the power, and wait until the condensation disappears before using.

On Repacking

Do not throw away the carton and packing materials. They make an ideal container which to transport the unit.

Disposal of the Unit

Do not dispose of the unit with general waste.

Do not include the monitor with household waste. When you dispose of the monitor, you must obey the law in the relative area or country.

On Fan Error

The fan for cooling the unit is built in. When the fan stops and the ⏻ (standby) switch indicator on the front panel blinks in green and amber for fan error indication, turn off the power and contact an authorized Sony dealer.

Features

The PVM-X300 (30-type) Professional Video Monitor is a high-resolution, high-performance LCD video monitor that features full 4K resolution (4096 × 2160 pixels), higher than four times that of a full HD monitor. The monitor is equipped with SDI and HDMI[1] inputs supporting signals of most 4K formats. This is suitable for job sites where high-resolution monitors are required, such as production houses of 4K digital cinema, computer graphics and industrial design, as well as research and development fields, and development departments for video equipment.

1) The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

High resolution, high-performance LCD panel
The monitor is a high-performance LCD monitor equipped with a high-resolution panel (full 4K: 4096 × 2160 pixels) and 10-bit driver. It offers precise color reproduction with its wide viewing-angle characteristics. Despite its high resolution of full 4K, the size of the monitor is middle-sized 30-type. This is available for various usage settings, from shooting to editing.

Supports multiple signal formats
The monitor supports the input of HD signals such as 4096 × 2160/24P, 3840 × 2160/24P, and 1920 × 1080/24P digital cinema signals.
For input interfaces, four 3G/HD-SDI inputs and four HDMI inputs are equipped.

Multiple display modes
The monitor basically supports 4K/QFHD and 2K/HD display modes.
The 4K/QFHD mode is used for displaying 4096 × 2160 or 3840 × 2160 signals. The 2K/HD mode is used for displaying signals or signals of lower resolution than 1920 × 1080.

Focus assist function
This function sharpens the edges of the image more than the amount set by the upper limit of the aperture value set in the USER CONTROL menu. This is convenient for focusing with the camera.
This function also highlights the focused objects in an image in contrasting color, providing fast and exact focusing.

Gamma-adjustment function
You can select the gamma mode from among 2.2, 2.6, and S-LOG2 TO 709(800%), in addition to 2.4 specified by ITU-R BT.1886.

Illuminated control panel
The characters that represent the names of the buttons on the control panel can be illuminated, therefore legible in the dark. The brightness of the LED has two levels, and varies according to the ambient light.
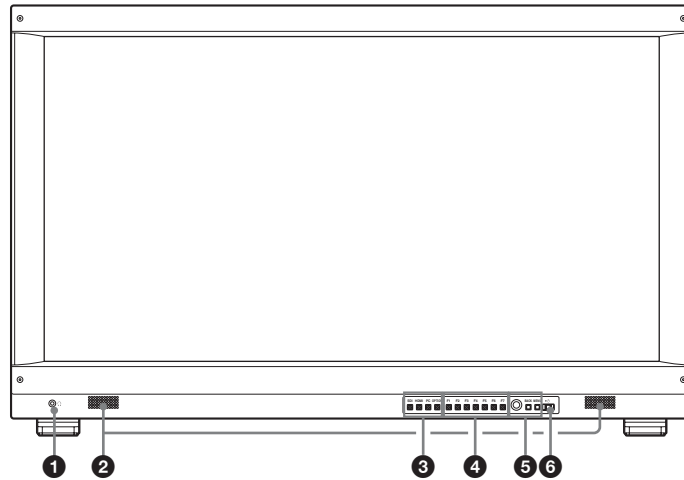
Various audio outputs
The monitor is equipped with stereo speakers on the front panel. An audio monitor output connector (stereo mini jack) is also provided on the lower panel.

Durable aluminum housing
A solid aluminum housing ensures sufficient durability to use the monitor when shooting on location.

Location and Function of Parts and Controls

Front Panel

❶ ∩ **(headphones) jack**
The audio signal which is selected using the input select button is output in stereo sound.

❷ Speakers
The audio signal selected using the input select button is output in stereo.
When SDI signals are input, the audio signals of channels CH1 (L) and CH2 (R) are output.
The audio signals for the speakers are also output from the AUDIO OUT connector on the lower panel (see page 11).
Audio signals will not be output when headphones are connected to the ∩ jack.

❸ Input select buttons
Press to monitor the signal input to each connector.
SDI button: to monitor the signal through the SDI input connector
HDMI button: to monitor the signal through the HDMI connector
PC button: used for future expansion
OPTION button: used for future expansion

❹ Function buttons
Press to adjust or turn on/off the assigned function.
F1 button: BRIGHTNESS
F2 button: CONTRAST
F3 button: CHROMA
F4 button: BACKLIGHT
F5 button: FOCUS ASSIST
F6 button: VOLUME
F7 button: VIEW MODE
You can adjust or turn on/off the function as follows:

BRIGHTNESS
Press the F1 button to display the adjustment screen and adjust the picture brightness. Press again to hide the adjustment screen. However, the picture brightness remains adjustable. Turn the menu selection control right to increase the brightness and turn left to decrease it.

CONTRAST
Press the F2 button to display the adjustment screen and adjust the picture contrast. Press again to hide the adjustment screen. However, the picture contrast remains adjustable. Turn the menu selection control right to increase the contrast and turn left to decrease it.

CHROMA
Press the F3 button to display the adjustment screen and adjust the color intensity. Press again to hide the adjustment screen. However, the color intensity remains adjustable. Turn the menu selection control right to increase the intensity and turn left to decrease it.

BACKLIGHT
Press the F4 button to display the adjustment screen and adjust the backlight brightness. Press again to hide the adjustment screen. However, the backlight brightness remains adjustable. Turn the menu selection control right to increase the brightness and turn left to decrease it.

FOCUS ASSIST
Press the F5 button to confirm the camera focus. An image with sharpened edges is displayed.

VOLUME

Press the F6 button to display the adjustment screen and adjust the volume. Press again to hide the adjustment screen. However, the volume remains adjustable. Turn the menu selection control right to increase the volume and turn left to decrease it.

VIEW MODE

Press the F7 button to select the view mode. Each time the button is pressed, 4K/QFHD mode or 2K/HD mode is set alternately.

❺ **Menu operation buttons**

Displays or sets the on-screen menu.

Menu selection control

When the menu is displayed, turn the control to select a menu item or setting value, and then press the control to confirm the setting.
If the menu is not displayed and the menu selection control is pressed, the characters that represent the names of the buttons light up. Also, the names of the functions assigned to the function buttons appear on the screen.
Alternatively, if the menu is not displayed and the menu selection control is pressed for more than two seconds, the signal format is displayed on the screen.

BACK button

When the menu is displayed, press the button to reset the value of an item to the previous value (except some items).
When the menu is not displayed, press the button to display the names of the functions assigned to the function buttons.

MENU button

Press to display the on-screen menu.
Press again to clear the menu.

❻ ⏻ **(standby) switch and indicator**

Press to turn the power on when this unit is in standby mode. After being turned on, the unit performs initialization and the indicator flashes in green. The indicator lights in green once initialization is completed. Press the switch again to set the monitor in standby mode. The indicator goes out.

Note

The indicator temporarily lights in green even in standby mode, immediately after the AC power cord is connected to an AC outlet.

Error display by the indicator

The indicator of the ⏻ (standby) switch on the front panel may show an error while the monitor is being operated. If the error is shown, please contact an authorized Sony dealer.

Error display	Symptoms
Flashes in red	Device error
Lights in amber	The temperature in the panel part is unusual.
Flashes in amber	The ambient temperature sensor is unusual.
Flashes in green and amber	Fan error

Input Signals and Adjustable/Setting Items

Item	Input signal	
	SDI	HDMI
BRIGHTNESS*1	◯	◯
CONTRAST*1	◯	◯
CHROMA	◯	◯
BACKLIGHT	◯	◯
FOCUS ASSIST	◯	◯
VOLUME	◯	◯
VIEW MODE	◯	✕
COLOR TEMP	◯	◯
COLOR SPACE	◯	◯
GAMMA	◯	◯
APERTURE	◯	◯

◯ : Adjustable/can be set   ✕ : Not adjustable/cannot be set

*1 This item is disabled when GAMMA is set to S-LOG2 TO 709(800%) in the COLOR TEMP/COLOR SPACE/GAMMA menu.

Rear Panel/Side Panel/Lower Panel
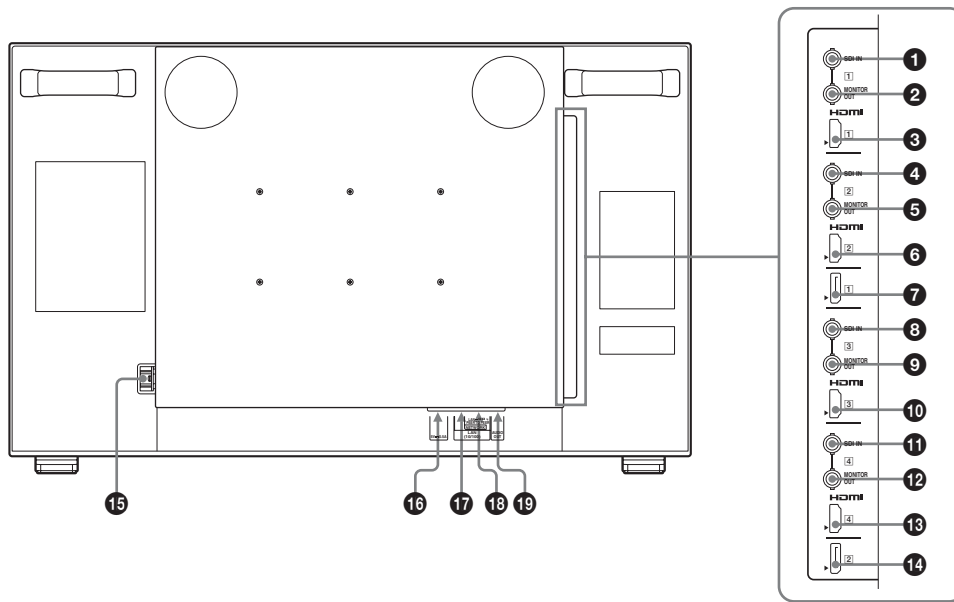
❶❹❽⓫ SDI IN (SDI input) connectors (BNC)
Input connectors for serial digital signals.
The ⎡1⎤ to ⎡4⎤ connectors are available for four inputs.

To input the Quad-Link 3G-SDI signal, connect the
Link 1 signal to SDI IN⎡1⎤, the Link 2 signal to SDI
IN⎡2⎤, the Link 3 signal to SDI IN⎡3⎤, and the Link 4
signal to SDI IN⎡4⎤,

To input the Quad-Link HD-SDI signal, connect the CH
1(Link A) signal to SDI IN⎡1⎤, the CH 2(Link B) signal
to SDI IN⎡2⎤, the CH 3(Link A) signal to SDI IN⎡3⎤, and
the CH 4(Link B) signal to SDI IN⎡4⎤,

**❷❺❾⓬ MONITOR OUT (monitor input)
connectors (BNC)**
Output connectors for serial digital signals.
Each of ⎡1⎤ to ⎡4⎤ connectors outputs the signal that is
input to the corresponding SDI IN connector.

Notes

- The signal from the MONITOR OUT connector does
  not satisfy the ON-LINE signal specifications.
- Output is only activated when the power is on. No
  output in standby mode.

❸❻❿⓭ HDMI input connectors
Input connectors for HDMI signals.
The ⎡1⎤ to ⎡4⎤ connectors are available for four inputs.

HDMI (High-Definition Multimedia Interface) is an
interface that supports both video and audio on a single

digital connection, allowing you to enjoy high quality
digital picture and sound. The HDMI specification
supports HDCP (High-bandwidth Digital Content
Protection), a copy protection technology that
incorporates coding technology for digital video signals.

Note

Use HDMI compliant cable (optional), Category 2
(High Speed HDMI Cable), with HDMI logo.

❼⓮ PC input connectors (⎡1⎤⎡2⎤)
Used for future expansion.

⓯ AC IN Socket
Connects the supplied AC power cord.

⓰ OPTION connector
Used for future expansion.

⓱ LAN (10/100) connector
Used for future expansion.
Connect to the LAN (10/100) connector of the network
by using a 10BASE-T/100BASE-TX LAN cable.

CAUTION
For safety, do not connect the connector for peripheral
device wiring that might have excessive voltage to this
port.

⓲ NETWORK switch
Used for future expansion.

⓳ **AUDIO OUT connector (stereo mini jack)**
Outputs the audio of the signal which is selected using the input select button on the front panel.
When the SDI signal is selected, the audio signals of channels CH1 (L) and CH2 (R) are output.

Connecting the AC Power Cord

1 Plug the AC power cord into the AC IN socket on the rear. Then, attach the AC plug holder (supplied) to the AC power cord.

AC IN socket

AC IN socket

AC power cord

AC plug holder (supplied)
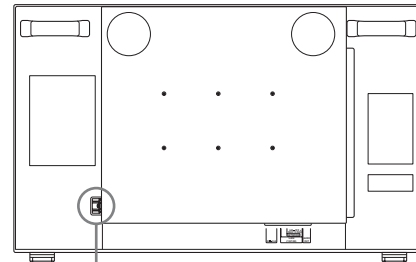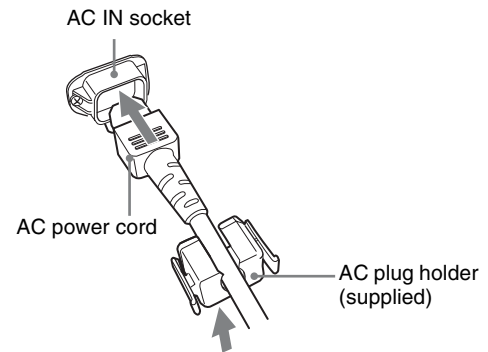
2 Slide the AC plug holder over the cord until it locks.

To disconnect the AC power cord
Pull out the AC plug holder while pressing the lock levers.

Using the Menu

The unit is equipped with an on-screen menu for making various adjustments and settings such as picture control, input setting, set setting change, etc.

The current settings are displayed in place of the ■ marks on the illustrations of the menu screen.

1 Press the MENU button.

The menu appears.
The menu presently selected is shown in yellow.

```
STATUS 1/2
        FORMAT              ■■■■■■■■■■
        RGB RANGE           ■■■■■■■■■■
        COLOR TEMP          ■■■■■
        BRIGHTNESS          ■■■
        CONTRAST            ■■
        CHROMA              ■■
        COLOR SPACE/GAMMA   ■■■■■■
        BACKLIGHT           ■■
```

2 Turn the menu selection control to select a menu, then press the menu selection control.
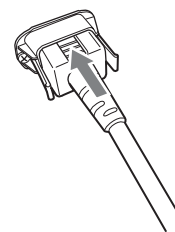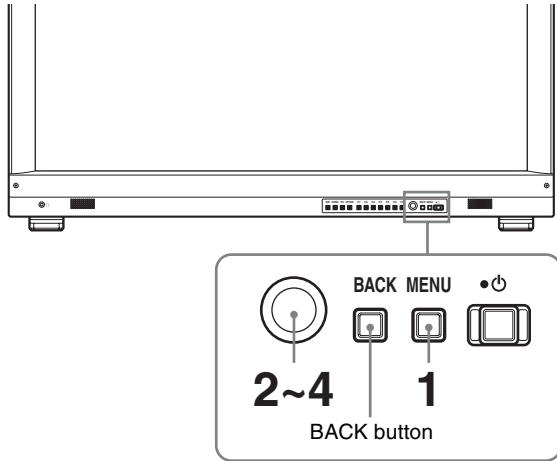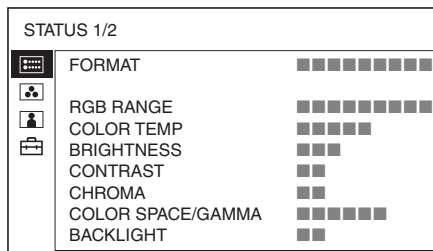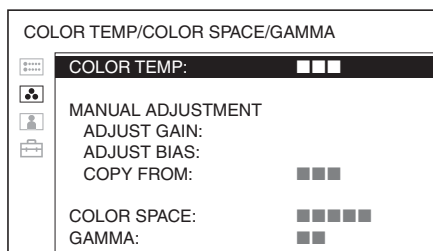
The menu icon presently selected is shown in yellow and setting items are displayed.

```
COLOR TEMP/COLOR SPACE/GAMMA
        COLOR TEMP:         ■■■

        MANUAL ADJUSTMENT
          ADJUST GAIN:
          ADJUST BIAS:
          COPY FROM:        ■■■

        COLOR SPACE:        ■■■■■
        GAMMA:              ■■
```

3 Select an item.

Turn the menu selection control to select the item, then press the menu selection control.

The item to be changed is displayed in yellow. If the menu consists of multiple pages, turn the menu selection control to go to the desired menu page.

4 Make the setting or adjustment on an item.

When changing the adjustment level:
To increase the number, turn the menu selection control right.
To decrease the number, turn the menu selection control left.
Press the menu selection control to confirm the number, then restore the original screen.
When changing the setting:
Turn the menu selection control to change the setting, then press the menu selection control to confirm the setting.
When returning the adjustment or setting to the previous value:
Press the BACK button before pressing the menu selection control.

> **Note**
>
> An item displayed in black cannot be accessed. You can access the item if it is displayed in white.

To return the display to the previous screen

Press the BACK button.

To clear the menu

Press the MENU button.

About the memory of the settings

The settings are automatically stored in the monitor memory.

Adjustment Using the Menus

Items

The screen menu of this monitor consists of the following items.

▦ STATUS menu (the items indicate the current settings.)

FORMAT
RGB RANGE
COLOR TEMP
BRIGHTNESS
CONTRAST
CHROMA
COLOR SPACE/GAMMA
BACKLIGHT
MODEL NAME
SERIAL NO.
SOFTWARE VERSION

⊛ COLOR TEMP/COLOR SPACE/ GAMMA menu

COLOR TEMP
MANUAL ADJUSTMENT
  ADJUST GAIN
  ADJUST BIAS
  COPY FROM
COLOR SPACE
GAMMA

⛊ USER CONTROL menu

APERTURE

⛭ USER CONFIG menu

4K/QFHD INPUT SETTING
  INTERFACE FORMAT
  SIGNAL FORMAT
  INPUT
2K/HD INPUT SETTING
  INTERFACE FORMAT
  SIGNAL FORMAT
  INPUT
SYSTEM SETTING
  FORMAT DISPLAY
  LED BRIGHTNESS
FOCUS ASSIST SETTING
  FOCUS ASSIST
  FOCUS MODE

COLOR
FREQUENCY
RANGE
GAIN

Adjusting and Changing the Settings

▦ STATUS menu

The STATUS menu is used to display the current status of the unit. The following items are displayed:
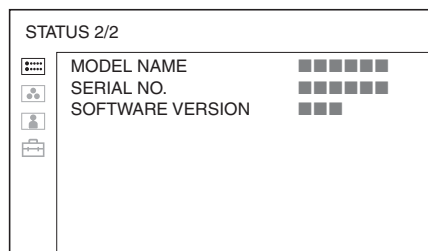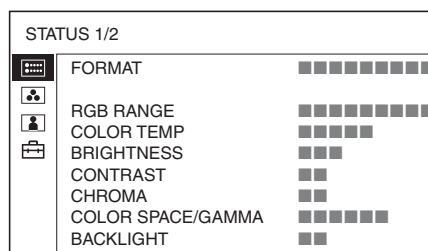
- FORMAT
- RGB RANGE
- COLOR TEMP
- BRIGHTNESS
- CONTRAST
- CHROMA
- COLOR SPACE/GAMMA
- BACKLIGHT
- MODEL NAME
- SERIAL NO.
- SOFTWARE VERSION

⊛ COLOR TEMP/COLOR SPACE/ GAMMA menu

The COLOR TEMP/COLOR SPACE/GAMMA menu is used for adjusting or setting the picture white balance, color space or gamma.

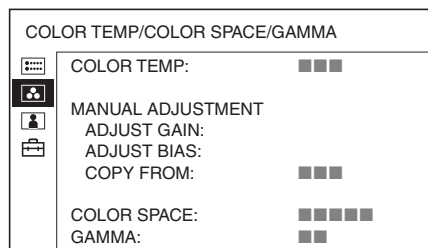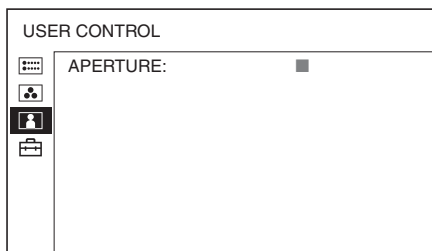| Submenu	Setting
COLOR TEMP	Selects the color temperature from among D65, D93 and USER setting. **Note** If you measure the color temperatures of different display types, such as CRT, LCD, or OLED, by using a common (or general) color analyzer that is based on CIE 1931, and adjust the xy chromaticity to the same value, the appearance may be different because of optical spectrum differences. To compensate for this difference, the D65 and D93 settings of the monitor are adjusted by an offset*. * The offset value applied (x-0.003, y-0.005) is based on the Judd's function to the CIE 1931 (x, y) value.
MANUAL ADJUSTMENT	If you set the COLOR TEMP to USER setting, the item displayed is changed from black to white, which means you can adjust the color temperature. The set values are memorized. • **ADJUST GAIN**: Adjusts the color balance (Gain). • **ADJUST BIAS**: Adjusts the color balance (Bias). • **COPY FROM**: If you select D65 or D93, the white balance data for the selected color temperature will be copied in the USER setting.
COLOR SPACE	Selects the color space from among ITU-709 and S-GAMUT.
GAMMA	Select the appropriate gamma mode from among 2.2, 2.4, 2.6 and S-LOG2 TO 709(800%). The factory setting is gamma 2.4 that is specified by ITU-R BT.1886.

USER CONTROL menu

The USER CONTROL menu is used for adjusting the picture.

```
USER CONTROL

 [icon]   APERTURE:              ■
 [icon]
 [icon]
 [icon]
```

Submenu	Setting
APERTURE	Adjusts the picture sharpness. The higher the setting, the sharper the picture. The lower the setting, the softer the picture. APERTURE does not work when the FOCUS ASSIST is set to ON.

USER CONFIG menu

The USER CONFIG menu is used for making the input, system, and focus assist settings.

There are two input settings:
• 4K/QFHD INPUT SETTING: to display 4K or QFHD images
• 2K/HD INPUT SETTING: to display 2K or HD images

```
USER CONFIG

 [icon]   4K/QFHD INPUT SETTING:
 [icon]   2K/HD INPUT SETTING:
 [icon]   SYSTEM SETTING:
 [icon]   FOCUS ASSIST SETTING:
```
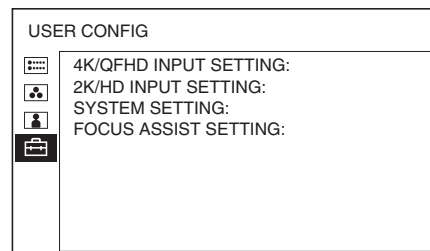
4K/QFHD INPUT SETTING

This is the input setting for 4096 × 2160 and 3840 × 2160 signals. The setting items differ depending on the selection made with the input select button (SDI or HDMI) on the front panel.

When SDI input is selected

```
USER CONFIG-4K/QFHD INPUT SETTING

 [icon]   INTERFACE FORMAT:  ■■■■■■■■■
 [icon]   SIGNAL FORMAT:     ■■■■■■■
 [icon]   INPUT:             ■■■■■■
 [icon]
```
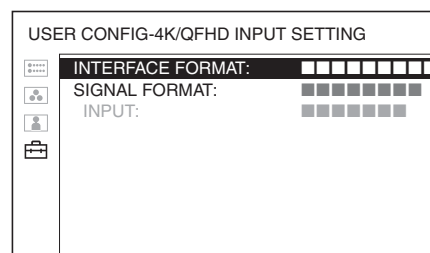
When HDMI input is selected

```
USER CONFIG-4K/QFHD INPUT SETTING

 [icon]   INTERFACE FORMAT:  ■■■■■■■■■
 [icon]   SIGNAL FORMAT:     ■
 [icon]   INPUT:             ■■■■
 [icon]
```

Submenu	Setting
INTERFACE FORMAT	Selects the interface format. **For SDI input** Select either of the following two interface formats. The SIGNAL FORMAT item may appear, depending on the selection. • **QUAD-LINK 3G-SDI:** Select the SIGNAL FORMAT. The INPUT is fixed to INPUT 1&2&3&4. • **QUAD-LINK HD-SDI:** The SIGNAL FORMAT is fixed to 422 YCBCR 10BIT, and the INPUT is fixed to INPUT 1&2&3&4. **For HDMI input** The INTERFACE FORMAT is fixed to SINGLE-LINK HDMI. Select the INPUT.
SIGNAL FORMAT	**For SDI input** Selects the format of the SDI input signal when QUAD-LINK 3G-SDI is selected for the INTERFACE FORMAT. You can select from AUTO, 422 YCBCR 10BIT, 444 RGB 10BIT, 444 YCBCR 10BIT, 444 RGB 12BIT, or 444 YCBCR 12BIT. **For HDMI input** This item cannot be accessed.
INPUT	Selects the input connector to be used. **For SDI input** This item is fixed to INPUT 1&2&3&4. **For HDMI input** • **INPUT 1:** to use HDMI input connector 1 • **INPUT 2:** to use HDMI input connector 2 • **INPUT 3:** to use HDMI input connector 3 • **INPUT 4:** to use HDMI input connector 4

2K/HD INPUT SETTING

This is the input setting for signals below 1920 × 1080. The setting items differ depending on the selection made with the input select button (SDI or HDMI) on the front panel.

USER CONFIG-2K/HD INPUT SETTING
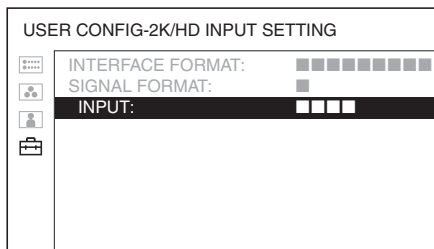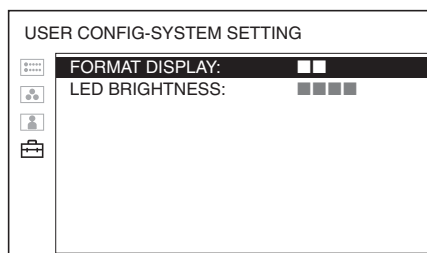
INTERFACE FORMAT: ■■■■■■■■
SIGNAL FORMAT: ■
INPUT: □□□□

Submenu	Setting
INTERFACE FORMAT	Displays the interface format. **For SDI input** The INTERFACE FORMAT is fixed to SINGLE-LINK 3G/HD-SDI, and the SIGNAL FORMAT is fixed to AUTO. Select the INPUT. **For HDMI input** The INTERFACE FORMAT is fixed to SINGLE-LINK HDMI. Select the INPUT.
SIGNAL FORMAT	**For SDI input** This item is fixed to AUTO. **For HDMI input** This item cannot be accessed.
INPUT	Selects the input connector to be used. **For SDI input (SINGLE-LINK 3G/HD-SDI)** • **INPUT 1**: to use SDI IN connector 1 • **INPUT 2**: to use SDI IN connector 2 • **INPUT 3**: to use SDI IN connector 3 • **INPUT 4**: to use SDI IN connector 4 **For HDMI input (SINGLE-LINK HDMI)** • **INPUT 1**: to use HDMI input connector 1 • **INPUT 2**: to use HDMI input connector 2 • **INPUT 3**: to use HDMI input connector 3 • **INPUT 4**: to use HDMI input connector 4

SYSTEM SETTING

USER CONFIG-SYSTEM SETTING

FORMAT DISPLAY: □□
LED BRIGHTNESS: ■■■■

Submenu	Setting
FORMAT DISPLAY	Selects the display mode of the signal format. • **ON**: The format is always displayed. • **OFF**: The display is hidden. • **AUTO**: The format is displayed for about five seconds when the input of the signal starts.

Submenu	Setting
LED BRIGHTNESS	Selects the brightness of the LED of the buttons. • **HIGH**: The LED becomes brighter. • **LOW**: The LED becomes darker.

FOCUS ASSIST SETTING

```
USER CONFIG-FOCUS ASSIST SETTING

  FOCUS ASSIST:        ▉▉
  FOCUS MODE:          ▉▉▉▉▉
    COLOR:             ▉▉▉
  FREQUENCY:           ▉▉▉▉▉▉▉
  RANGE:               ▉▉▉▉
  GAIN:                ▉▉
```
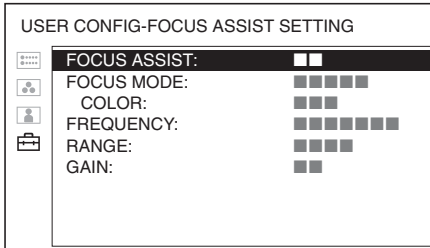
Submenu	Setting
FOCUS ASSIST	Enables or disables the focus assist function that can highlight focused objects with contrasting color. • **OFF**: to disable the focus assist function • **ON**: to enable the focus assist function
FOCUS MODE	Switches the focus mode. • **STD**: An image with sharpened edges is displayed. • **COLOR**: Displays the intensified areas of images with color selected in COLOR below.
COLOR	Selects the color to intensify from among WHITE, RED, GREEN, BLUE, and YELLOW.
FREQUENCY	Sets the center frequency of the edge sharpening signal. You can select LOW, MIDDLE, MIDDLE HIGH, or HIGH.
RANGE	Sets the target area for edge sharpening. You can select NARROW, MIDDLE, or WIDE.
GAIN	Sets the level of edge sharpening. You can select from 0 to 100.

Scan mode image

4K/QFHD mode (native)

4096 × 2160

3840 × 2160

2K/HD mode (native)

1920 × 1080

Troubleshooting

This section may help you isolate the cause of a problem and as a result, eliminate the need to contact technical support.

- **The unit cannot be operated** → A function that does not work is assigned. Press the BACK button to check the function assigned to the function button.
- **The black bars appear at the upper/lower/left/right positions, or left/right positions of the display** → When the signal aspect ratio is different from that of the panel, the black bars appear. This is not a failure of the unit.
- **Adjustments and settings cannot be made** → Adjustments and settings may not be possible depending on the input signals and the status of the unit. See "Input Signals and Adjustable/Setting Items" (page 9).
- **Color is not displayed correctly** → Check the INTERFACE FORMAT, SIGNAL FORMAT, COLOR TEMP or COLOR SPACE setting.

Specifications

Picture performance

LCD panel   a-Si TFT Active Matrix
Picture size (diagonal)
    767.5 mm (30.2 inches)
Effective picture size (H × V)
    678.9 x 358.0 mm
    ($26 \, {}^{3}/_{4} \times 14 \, {}^{1}/_{8}$ inches)
Resolution (H × V)
    4096 × 2160 pixels
Aspect   17:9
Pixel efficiency   99.99%
Panel drive   RGB 10-bit
Viewing angle (Panel specification)
    89º/89º/89º/89º (typical)
    (up/down/left/right, contrast > 10:1)
Color temperature
    D65, D93
Warm-up time   Approx. 30 minutes
    To provide stable picture quality, turn on the power of the monitor and leave it in this state for more than 30 minutes.

Input

SDI input connector
    BNC type (4)
HDMI input connector
    HDMI (4)
    HDCP correspondence

Output

SDI monitor output connector
    BNC type (4)
    Output signal amplitude: 800 mVp-p ±10%
    Output impedance: 75 Ω unbalanced
Audio monitor output connector
    Stereo mini jack (1)
Built-in speaker output
    1.0 W Stereo
Headphones output connector
    Stereo mini jack (1)

General

Power   AC 100 to 240 V, 2.4 A to 1.2 A, 50/60 Hz
Power consumption
    Approx. 220 W (max.)

Inrush current

    (1) Maximum possible inrush current at initial switch-on (Voltage changes caused by manual switching):
    50 A peak, 3 A r.m.s. (240V AC)

    (2) Inrush current after a mains interruption of five seconds (Voltage changes caused at zero-crossing):
    15 A peak, 3 A r.m.s. (240V AC)

Operating conditions
  Temperature
    0 °C to 35 °C (32 °F to 95 °F)
  Recommended temperature
    20 °C to 30 °C (68 °F to 86 °F)
  Humidity   30% to 85% (no condensation)
  Pressure   700 hPa to 1060 hPa

Storage and transport conditions
  Temperature
    –20 °C to +60 °C (–4 °F to +140 °F)
  Humidity   0% to 90%
  Pressure   700 hPa to 1060 hPa

Accessories supplied
    AC power cord (1)
    AC plug holder (1)
    Operating Instructions (1)
    CD-ROM (1)

Design and specifications are subject to change without notice.

Note

Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.

Available Signal Formats

The unit is applicable to the following signal formats.

Signal system	Signal format			
HD-SDI				
1920 × 1080/30[*1]PsF	Single-Link		4 : 2 : 2 (YCbCr) 10bit	
1920 × 1080/25PsF	Single-Link		4 : 2 : 2 (YCbCr) 10bit	
1920 × 1080/24[*1]P	Single-Link		4 : 2 : 2 (YCbCr) 10bit	
1920 × 1080/24[*1]PsF	Single-Link		4 : 2 : 2 (YCbCr) 10bit	
3840 × 2160/30[*1]P	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
3840 × 2160/30[*1]PsF	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
3840 × 2160/25P	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
3840 × 2160/25PsF	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
3840 × 2160/24[*1]P	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
3840 × 2160/24[*1]PsF	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
4096 × 2160/30[*1]P	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
4096 × 2160/30[*1]PsF	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
4096 × 2160/25P	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
4096 × 2160/25PsF	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
4096 × 2160/24[*1]P	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
4096 × 2160/24[*1]PsF	Quad-Link		4 : 2 : 2 (YCbCr) 10bit	Square Division
3G-SDI				
1920 × 1080/30[*1]PsF	Single-Link	Level A/Level B	4 : 4 : 4 (RGB) 10bit 4 : 4 : 4 (YCbCr) 10bit 4 : 4 : 4 (RGB) 12bit 4 : 4 : 4 (YCbCr) 12bit	
1920 × 1080/25PsF	Single-Link	Level A/Level B	4 : 4 : 4 (RGB) 10bit 4 : 4 : 4 (YCbCr) 10bit 4 : 4 : 4 (RGB) 12bit 4 : 4 : 4 (YCbCr) 12bit	
1920 × 1080/24[*1]P	Single-Link	Level A/Level B	4 : 4 : 4 (RGB) 10bit 4 : 4 : 4 (YCbCr) 10bit 4 : 4 : 4 (RGB) 12bit 4 : 4 : 4 (YCbCr) 12bit	
1920 × 1080/24[*1]PsF	Single-Link	Level A/Level B	4 : 4 : 4 (RGB) 10bit 4 : 4 : 4 (YCbCr) 10bit 4 : 4 : 4 (RGB) 12bit 4 : 4 : 4 (YCbCr) 12bit	
3840 × 2160/60[*1]P	Quad-Link	Level B	4 : 2 : 2 (YCbCr) 10bit	Square Division
3840 × 2160/50P	Quad-Link	Level B	4 : 2 : 2 (YCbCr) 10bit	Square Division
3840 × 2160/30[*1]P	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit 4 : 4 : 4 (YCbCr) 10bit 4 : 4 : 4 (RGB) 12bit 4 : 4 : 4 (YCbCr) 12bit	Square Division
3840 × 2160/30[*1]PsF	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit 4 : 4 : 4 (YCbCr) 10bit 4 : 4 : 4 (RGB) 12bit 4 : 4 : 4 (YCbCr) 12bit	Square Division

Signal system	Signal format			
3840 × 2160/25P	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
3840 × 2160/25PsF	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
3840 × 2160/24[*1]P	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
3840 × 2160/24[*1]PsF	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
4096 × 2160/60[*1]P	Quad-Link	Level B	4 : 2 : 2 (YCbCr) 10bit	Square Division
4096 × 2160/50P	Quad-Link	Level B	4 : 2 : 2 (YCbCr) 10bit	Square Division
4096 × 2160/30[*1]P	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
4096 × 2160/30[*1]PsF	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
4096 × 2160/25P	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
4096 × 2160/25PsF	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
4096 × 2160/24[*1]P	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
4096 × 2160/24[*1]PsF	Quad-Link	Level B	4 : 4 : 4 (RGB) 10bit	Square Division
			4 : 4 : 4 (YCbCr) 10bit	
			4 : 4 : 4 (RGB) 12bit	
			4 : 4 : 4 (YCbCr) 12bit	
HDMI				
640 × 480P@60[*1]	RGB 4 : 4 : 4	12/10/8bit[*2]		
	YCbCr 4 : 4 : 4	12/10/8bit[*2]		
	YCbCr 4 : 2 : 2	12bit[*2]		
720 × 480P@60[*1]	RGB 4 : 4 : 4	12/10/8bit[*2]		
	YCbCr 4 : 4 : 4	12/10/8bit[*2]		
	YCbCr 4 : 2 : 2	12bit[*2]		

Signal system	Signal format	
720 × 576P@50	RGB 4 : 4 : 4	12/10/8bit[*2]
	YCbCr 4 : 4 : 4	12/10/8bit[*2]
	YCbCr 4 : 2 : 2	12bit[*2]
1920 × 1080P@24[*1]	RGB 4 : 4 : 4	12/10/8bit[*2]
	YCbCr 4 : 4 : 4	12/10/8bit[*2]
	YCbCr 4 : 2 : 2	12bit[*2]
4096 × 2160P@24[*1]	RGB 4 : 4 : 4	8bit[*2]
	YCbCr 4 : 4 : 4	8bit[*2]
	YCbCr 4 : 2 : 2	12bit[*2]

*1 Compatible with 1/1.001 frame rates.
*2 RGB/YCbCr format and 8/10/12bit are selected automatically according to the input signal.
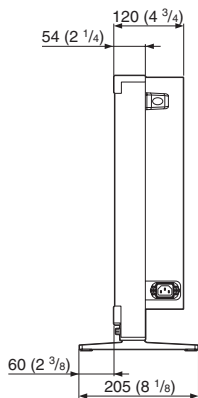
Dimensions

Front
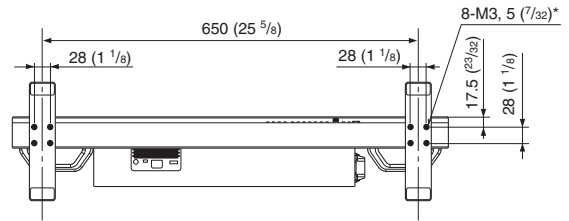
754 (29 3/4)
734 (29)
260.75 (10 3/8)
399 (15 3/4)
457 (18)
475 (18 3/4)
45 (1 13/16)
45 (1 13/16)
650 (25 5/8)
18 (23/32)

Rear

215 (8 1/2)
236 (9 3/8)
200 (7 7/8)
10-M4,10 (13/32)
100 (4)

Side

120 (4 3/4)
54 (2 1/4)
60 (2 3/8)
205 (8 1/8)

Bottom

650 (25 5/8)
28 (1 1/8)
28 (1 1/8)
8-M3, 5 (7/32)*
17.5 (23/32)
28 (1 1/8)
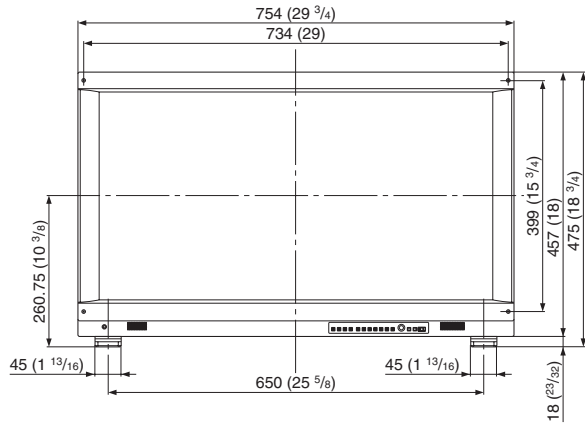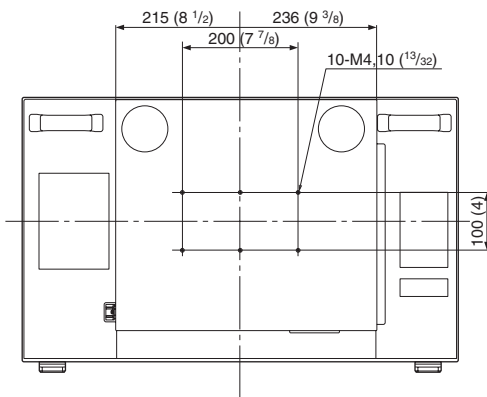
* Without the stand

unit: mm (inches)

Mass:
  Approx. 17 kg (37 lb 8 oz)