SONY

SRM-L560

LCD VIDEO MONITOR

Operating Instructions

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

SRM-L560

TRIMASTER HDMI

http://www.sony.net/

Sony Corporation   Printed in Japan

4142589120

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.

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.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

When installing the installation space must be secured in consideration of the ventilation and service operation.
- Do not block the ventilation slots at the top, left and right side and rear panels.
- Leave a space around the unit for ventilation.
- Leave more than 15 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 15 cm of space in the rear.
Leaving 15 cm or more of space above the unit is recommended for service operation.

Using this unit at a voltage other than 120 V 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.

For the customers in Canada

This Class A digital apparatus complies with Canadian ICES-003.

For the customers in Europe

This product with the CE marking complies with both the EMC Directive and the Low Voltage Directive issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European standards:
- EN60950-1:Product Safety
- EN55103-1: Electromagnetic Interference (Emission)
- EN55103-2: Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environment: E4 (controlled EMC environment, ex. TV studio)

The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.
The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

This apparatus shall not be used in the residential area.

For the customers in Europe, Australia and New Zealand

WARNING
This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

For kundene i Norge
Dette utstyret kan kobles til et IT-strømfordelingssystem.

Apparatet må tilkoples jordet stikkontakt

Suomessa asuville asiakkaille
Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan

För kunderna i Sverige
Apparaten skall anslutas till jordat uttag

AVERTISSEMENT

Afin de réduire les risques d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.

Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

CET APPAREIL DOIT ÊTRE RELIÉ À LA TERRE.

Lors de l'installation de l'appareil, incorporer un dispositif de coupure dans le câblage fixe ou brancher la fiche d'alimentation dans une prise murale facilement accessible proche de l'appareil. En cas de problème lors du fonctionnement de l'appareil, enclencher le dispositif de coupure d'alimentation ou débrancher la fiche d'alimentation.

Pour les clients Europe
Ce produit portant la marque CE est conforme à la fois à la Directive sur la compatibilité électromagnétique (EMC) et à la Directive sur les basses tensions émises par la Commission de la Communauté Européenne.
La conformité à ces directives implique la conformité aux normes européennes suivantes:
• EN60950-1: Sécurité des produits
• EN55103-1: Interférences électromagnétiques (émission)
• EN55103-2: Sensibilité électromagnétique (immunité)
Ce produit est prévu pour être utilisé dans l'environnement électromagnétique suivants: E4 (environnement EMC contrôlé, ex. studio de télévision).

Le fabricant de ce produit est Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japon.
Le représentant autorisé pour EMC et la sécurité des produits est Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Allemagne. Pour toute question concernant le service ou la garantie, veuillez consulter les adresses indiquées dans les documents de service ou de garantie séparés.

Ne pas utiliser cet appareil dans une zone résidentielle.

Pour les clients en Europe, Australie et Nouvelle-Zélande

AVERTISSEMENT
Il s'agit d'un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre des mesures appropriées.

Pour les clients au Canada
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

WARNUNG

Um die Gefahr von Bränden oder elektrischen Schlägen zu verringern, darf dieses Gerät nicht Regen oder Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur qualifiziertem Fachpersonal.

DIESES GERÄT MUSS GEERDET WERDEN.

Beim Einbau des Geräts ist daher im Festkabel ein leicht zugänglicher Unterbrecher einzufügen, oder der Netzstecker muss mit einer in der Nähe des Geräts befindlichen, leicht zugänglichen Wandsteckdose verbunden werden. Wenn während des Betriebs eine Funktionsstörung auftritt, ist der Unterbrecher zu betätigen bzw. der Netzstecker abzuziehen, damit die Stromversorgung zum Gerät unterbrochen wird.

Für Kunden in Europa
Dieses Produkt besitzt die CE-Kennzeichnung und erfüllt die EMV-Richtlinie sowie die Niederspannungsrichtlinie der EGKommission.
Angewandte Normen:
• EN60950-1: Sicherheitsbestimmungen
• EN55103-1: Elektromagnetische Verträglichkeit (Störaussendung)
• EN55103-2: Elektromagnetische Verträglichkeit (Störfestigkeit)
Für die folgenden elektromagnetischen Umgebungen: E4 (kontrollierter EMV-Bereich, z.B. Fernsehstudio)

Der Hersteller dieses Produkts ist Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.
Der autorisierte Repräsentant für EMV und Produktsicherheit ist Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Deutschland. Bei jeglichen Angelegenheiten in Bezug auf Kundendienst oder Garantie wenden Sie sich bitte an die in den separaten Kundendienst- oder Garantiedokumenten aufgeführten Anschriften.

Dieser Apparat darf nicht im Wohnbereich verwendet werden.

Für Kunden in Europa, Australien und Neuseeland

WARNUNG
Dies ist eine Einrichtung, welche die Funk-Entstörung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen verursachen; in diesem Fall kann vom Betreiber verlangt werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

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Overview

Chapter **1**

Precautions

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.
- When installing the installation space must be secured in consideration of the ventilation and service operation.
  - Do not block the ventilation slots at the top, left and right side and rear panels.
  - Leave a space around the unit for ventilation.
  - Leave more than 15 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 15 cm of space in the rear.
Leaving 15 cm or more of space above the unit is recommended for service operation.

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 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.
  If you wipe the screen using too much force, the screen surface may lose uniformity or the LCD panel may malfunction.
  Never use tissue as it may scar the surface of the screen.
- 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 Repacking

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

Features

The SRM-L560 LCD Video Monitor incorporates the panel that supports QFHD (3840×2160 pixels) of 4 times the resolution of full HD.

This is suitable for digital cinema production, industrial design, CG, simulation, printing, monitoring, ATC (Air Traffic Control), research and development, video-equipment development, HD video production or GIS (Geographic Information System) where precise image reproduction or four-screen display is required.

The SRM-L560 features flat panel and "TRIMASTER", which is a new technology developed for three elements, "accurate color reproduction," "precision imaging" and "quality picture consistency," that are in demand for professional use. "TRIMASTER" decreases the viewing difference that occurs due to the individuality of each panel. Also, the SRM-L560 realizes the high picture quality and high-trust required by the color management system with its wide color gamut device, high-resolution/precise gradation display and signal processing of high accuracy/calibration/feedback system.

56-type LCD panel developed for the SRM-L560

The monitor incorporates a 56-type LCD panel developed for this monitor, which supports QFHD (4 times the resolution of full HD) and is equipped with a 10-bit driver, providing high resolution and high color gradation.

Backlight system by LED with high-purity technology

High-purity LEDs enable wider color space. The precision backlight system also incorporates a uniformity control function and color feedback system.

12-bit precision display engine for professional use

The panel is equipped with a unique signal process engine developed for the professional use monitor. This engine incorporates 12-bit output accuracy, providing a high-quality I/P conversion algorithm, scaling processing, panel driving and a high-accuracy color management system.

Multi color space

A backlight system with high-precision technology and color management system which uses the unique 3D LUT (Look Up Table) reproduces the color space that complies with the broadcast standard ITU-R BT.709, EBU and SMPTE-C accurately. A wider color space[1] allows digital cinema reproductions.

[1] The RGB chromaticity of SMPTE RP 431-2 is not covered in full.

High-accuracy I/P conversion processing

A high-quality picture near the original one, in which jagged lines and conversion errors are decreased by detecting the feature of the picture inside the subdivided block and processing properly, is reproduced.

The signal delay is decreased by judging the animation or still picture from the past video signal. Film cadence processing, which converts the signal composed of 2-2·2-3·2-3-3-2 pull down to the I/P signal closely following the original, is also selectable.

Available to a multi signal format

The monitor supports various input signals such as digital cinema (D-Cine) 4096 × 2160/24P, 3840 × 2160/24P, 2048 × 1080/24P and variable computer signals up to 1920 × 1080. A DVI-D (HDCP correspondence) and HDMI inputs and eight option slots are equipped as the interface. Combination of the optional input adaptors enables input of 3G-SDI, HD-SDI and Dual-link HD-SDI signals.

Variable screen modes

There are three basic screen modes: 4K/QFHD, 2K/HD Zoom and Quad View modes.

When displaying a 4096 × 2160 or 3840 × 2160 resolution signal, 4K/QFHD mode is used.

When displaying a 2048 × 1080 or 1920 × 1080 resolution signal in full screen, 2K/HD Zoom mode is used. Quad View mode is used to display and confirm four HD signals simultaneously, etc.

For details on each screen mode, see "About the Screen Mode" on page 16.

Visual and efficient operations with a GUI (Ethernet control[1])

The SRM Manager application software is used to operate the monitor from a PC.

Operation time is shortened, as monitor operation such as four screen settings is performed on wide GUI space visually and efficiently.

SRM Manager is available on Windows 7, Windows Vista SP1 or Windows XP SP3.

[1] SRM Manager lets you control up to 32 monitors via the Ethernet (10BASE-T/100BASE-TX).

For details of the PC requirements, see page 30.

Scan selection (Quad View mode only)/Native scan display function

You can select from under scan (–3%), normal scan (0%) and over scan (mask of the 5% over scan portion in the normal scan) for the picture display.

The monitor is equipped with a native scan display function which maps the pixel of the signal to the panel on a one-to-one basis.

Using the shift function enables you to check every corner of the picture.

For the operation, see "Selecting the Native Scan/Scan Mode" on page 82.

Aspect selectable function

A squeezed and recorded signal is displayed with the correct aspect ratio. You can select from 16:9, 1.896:1 and 2.39:1[1] aspect ratio.

[1] When the aspect ratio is set to 2.39:1, the vertical resolution is reduced.

Safe area marker and aspect marker functions (Quad View mode only)

The monitor is equipped with two area markers and center marker as the safe area marker and aspect marker for confirming the aspect ratio.

For the operation, see "Displaying the Area Marker or Aspect Marker" on page 83.

Gamut error function

The signal outside the specified range (gamut error) caused by the conversion of the format or during CG/CM production can be displayed in zebra patterns.

Black detail mode display function

You can reduce dull black color caused by backlight leaking and precisely assess any parts with low color gradation.

You can reduce the black level to 40% of normal display (100 cd/m^2 at 100% signal). The parts with high color gradation (higher than 75 IRE) are clipped by the dynamic range of the circuit. The portions to be clipped can be displayed in zebra patterns (selectable).

For the operation, see "Displaying the Picture in Black Detail Mode" on page 82.

Closed caption display function (except 4K/QFHD mode)

EIA/CEA-608 or EIA/CEA-708 standard closed caption signals superimposed on the SDI signals can be displayed by installing the optional input adaptor (BKM-244CC).

Audio level meter and time code display functions

Audio level of the embedded audio and time code signals superimposed on the SDI signals can be displayed by installing the optional input adaptor (BKM-250TG).

Variable picture adjustment functions

The white balance can be automatically adjusted by using a commercially available probe (Konica Minolta CA-210, DK-Technologies PM5639/06, X-Rite Eye-One Pro).

Other features

- The color temperature is selectable from D65, D93, D61, D56, D-Cine and User.
- Built-in test patterns can be displayed; 100% white signal, 20% gray signal, 0% black signal, PLUGE (Picture Line Up Generation Equipment) signal, color-bar signal, 5-step gray scale signal and lamp signal.

Options

Input adaptors

The connector panel of the monitor is composed of the connectors on the optional input adaptors installed in the input option slots on the side panel of the monitor. Four or eight adaptors can be installed.

The input signal type for each connector of the adaptor is set with the Configurations tab window of the Main Operation window, in accordance with the configuration of the connector panel.

Note

When installing the adaptor, be sure to perform the necessary input setup in Input of the Configurations tab window of the Main Operation window. If the setup is not performed, the adaptors may not function correctly.

For information about the Configurations tab window of the Main Operation window, see page 45.

For details of each input adaptor, refer to the operating instructions of each model.

BKM-243HS HD/D1-SDI Input Adaptor

A decoder for serial digital component signals is built in and the input/output connectors consist of two channels of serial digital signal input and one channel of monitor output.

Notes

- The signal from the MONITOR OUT connector of the BKM-243HS does not satisfy the ON-LINE signal specifications.
- For use of the MONITOR OUT connector in 2K/HD Zoom mode, connect a coaxial cable less than 1 m (3.3 feet) long. For how to connect the cable, see page 24.

BKM-244CC HD/SD-SDI Closed Caption Adaptor

A decoder for serial digital component signals is built in. EIA/CEA-608 or EIA/CEA-708 standard closed caption signals superimposed on the SDI signals are decoded and displayed. Input/output connectors consist of two channels of serial digital signal input and one channel of monitor output.

Notes

- The signal from the MONITOR OUT connector of the BKM-244CC does not satisfy the ON-LINE signal specifications.
- For use of the MONITOR OUT connector in 2K/HD Zoom mode, connect a coaxial cable less than 1 m (3.3 feet) long. For how to connect the cable, see page 24.

BKM-250TG 3G/HD/SD-SDI Input Adaptor

A decoder for serial digital component signals is built in. Time code and audio level of the embedded audio signals superimposed on the SDI signals can be displayed. Input/output connectors consist of two channels of serial digital input and two channels of monitor output.

Notes

- The signal from the MONITOR OUT connector of the BKM-250TG does not satisfy the ON-LINE signal specifications.
- For use of the MONITOR OUT connector in 2K/HD Zoom mode, connect a coaxial cable less than 1 m (3.3 feet) long. For how to connect the cable, see page 24.

Caution

When you install the following input adaptor to this equipment, use that with the serial numbers given below.
- BKM-243HS with serial number 2108355 or higher
BKM-243HS: The equipment may not meet the requirements of the electromagnetic interference standard or work correctly, or you may not be satisfied with the performance if designated input adaptors are not installed.

Input/Output Connector and Adaptor

By adding the optional input adaptors, the input/output connector panel can be assembled in a wide variety of configurations. Acceptable signals of each adaptor are given in the following table. The type of signal to be applied to each input/output connector is set with the Configurations tab window of the Main Operation window.

For information about the Configurations tab window of the Main Operation window, see page 45.

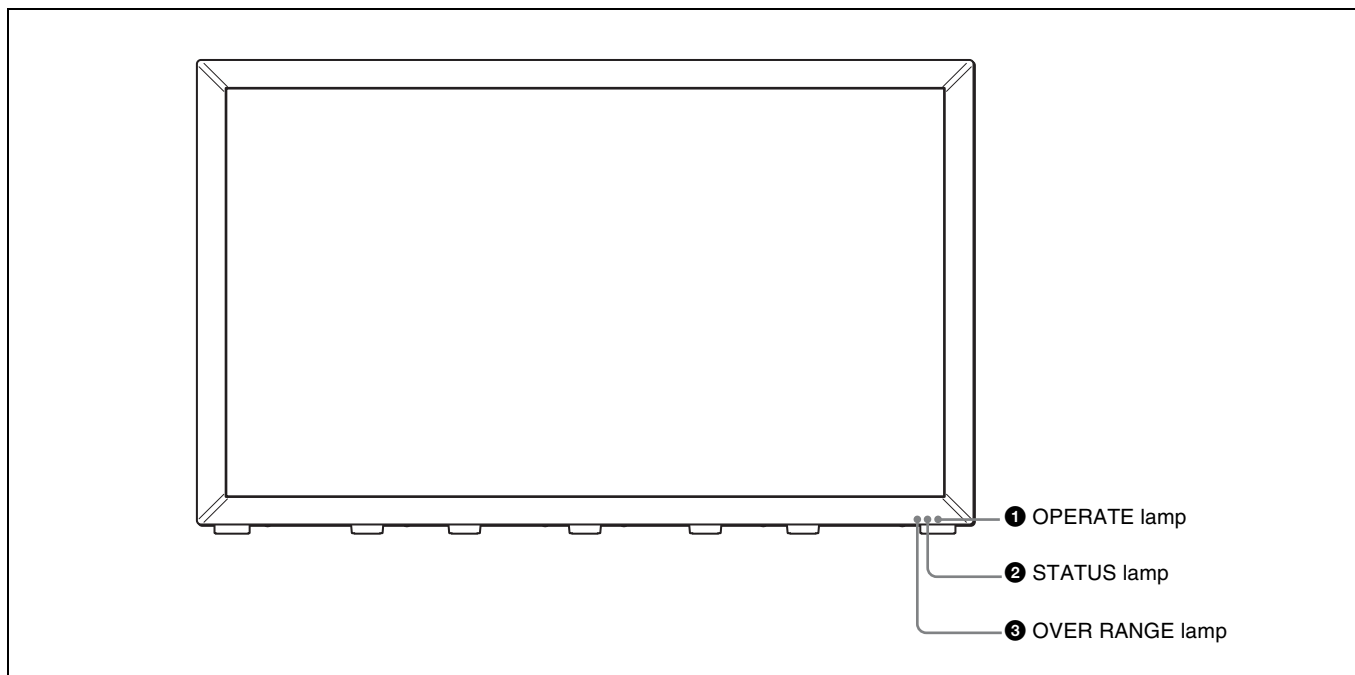| Input adaptor Input signal		BKM-243HS/ 244CC	BKM-250TG
Serial digital input	Single-link HD-SDI	○	○
	Dual-link HD-SDI	○(2)	○
	Single-link 3G-SDI		○
Number of digital inputs		2	2

○: Signal can be reproduced.
○(2): Two adaptors of the same model are used.

For details, see "Available Signal Formats" on page 96.

Location and Function of Parts

Front Panel

➊ OPERATE lamp

➋ STATUS lamp

➌ OVER RANGE lamp

➊ OPERATE lamp

Lights in red when the monitor is in standby mode. The monitor will be in standby mode under the following condition:
• The monitor is changed from operation mode to standby mode by clicking the ⏻ STANDBY button in the window of SRM Manager.
Lights in green when the monitor is put into operation mode from standby mode by clicking the ⏻ STANDBY button again.

Notes

• When the lamp is flashing in red, the monitor cannot be put into operation mode. (Internal data initialization is taking place.) Wait until the lamp is steadily lit.
• The lamp may show the error, warning or operation mode.

For details, see "Error/warning/operation mode display by the lamp" on page 11.

➋ STATUS lamp

The lamp may show the error, warning or operation mode.

For details, see "Error/warning/operation mode display by the lamp" on page 11.

➌ OVER RANGE lamp

Lights in orange when the picture is displayed in black detail mode or when the dynamic range of the following item is exceeded.
• Contrast (Contrast)
Flashes when the luminance is decreased to protect the monitor from a rise in temperature.

Note

The lamp may show the error, warning or operation mode.

For details, see "Error/warning/operation mode display by the lamp" on page 11.

Error/warning/operation mode display by the lamp

The OVER RANGE lamp, STATUS lamp or OPERATE lamp on the front panel may show an error, warning or operation mode while the monitor is being operated.

Error display
If the error is shown, please contact your Sony dealer.

OVER RANGE lamp	STATUS lamp	OPERATE lamp	Symptoms
Lights in orange	Goes out	Flashes in red	The power in the LED backlight part is overcurrent.
Flashes in orange	Goes out	Flashes in red	The power in the LED backlight part is overvoltage.
Goes out	Lights in blue	Flashes in red	The LED temperature of the LED backlight part is unusual.
Goes out	Flashes in blue	Flashes in red	The LED driver temperature of the LED backlight part is unusual.
Goes out	Flashes in blue	Flashes in green	The temperature sensor is unusual.
Lights in orange	Lights in blue	Flashes in red	The temperature of the LCD panel is unusual.
Lights in orange	Goes out	Flashes in green	The RGB sensor of the LED backlight part is unusual.
Goes out	Lights in blue	Flashes in green	LED disconnection of the LED backlight part.
Lights in orange	Flashes in blue	Flashes in green	The LED VF power voltage in the LED backlight part is unusual (VF feedback range over).
Lights in orange	Flashes in blue	Flashes in red	The power consumption is unusual.

Warning/operation mode display

OVER RANGE lamp	STATUS lamp	OPERATE lamp	Symptoms
Flashes in orange	–	–	The luminance is reduced to protect the circuit from an increase of temperature in the LED backlight part. ⇨ Please contact your Sony dealer.
Lights in orange	–	–	• The dynamic range of the LED backlight part is exceeded. ⇨Please contact your Sony dealer. • The dynamic range is exceeded when contrast is adjusted. ⇨ Reduce the contrast setting. • The picture is displayed in black detail mode.

–: Status except for error display.

Left Side Panel
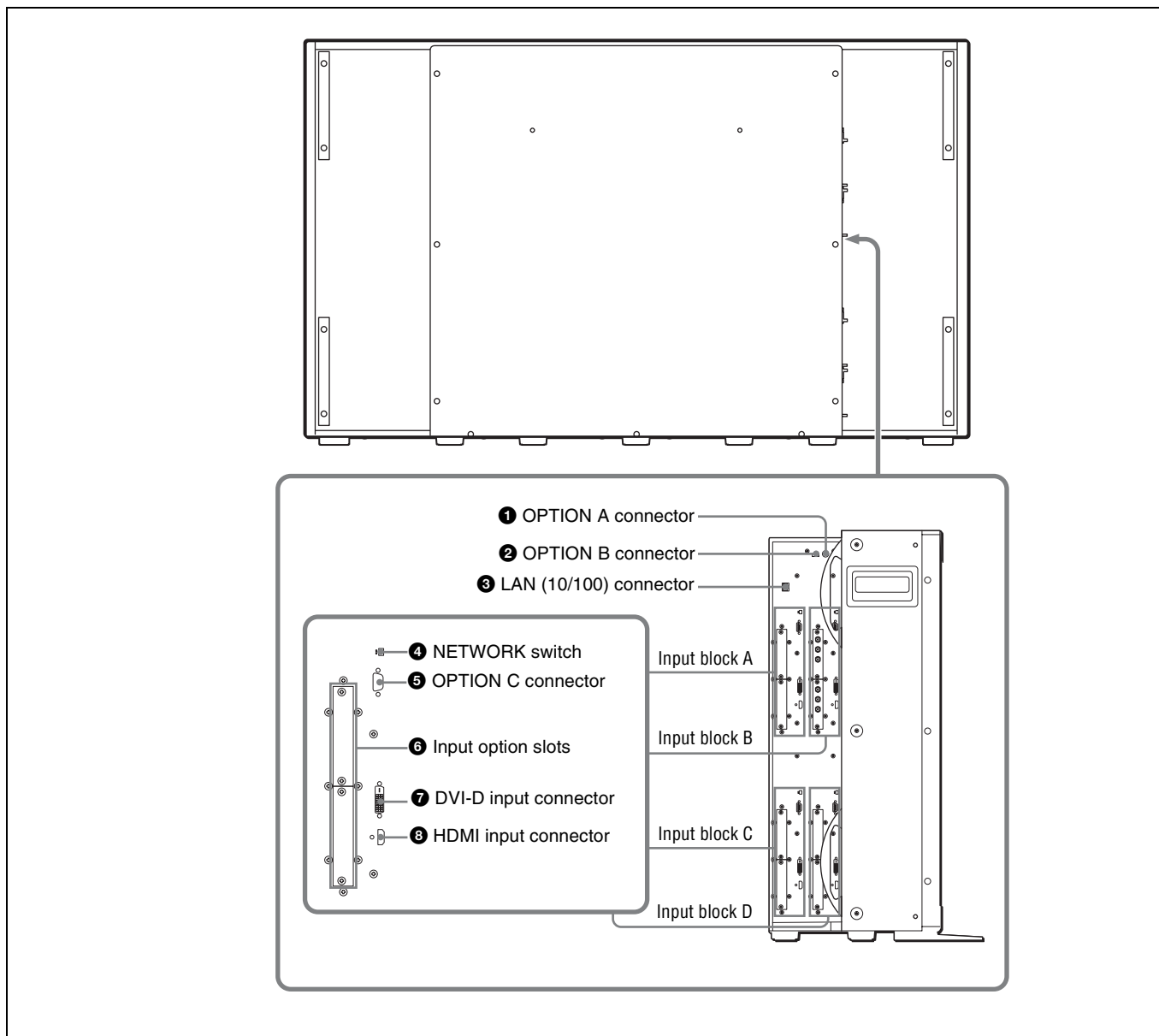
❶ OPTION A connector
Used to connect a probe for automatic adjustment.

❷ OPTION B connector
Used for future expansion.
The cover is attached at the factory.

❸ LAN (10/100) connector (10BASE-T/100BASE-TX)
Connect to the network or the LAN (10/100) connector of the PC by using a 10BASE-T/100BASE-TX LAN cable (not supplied).

CAUTION
• For safety, do not connect the connector for peripheral device wiring that might have excessive voltage to this port. Follow the instructions for this port.
• The effective communication throughput may be affected by the network system.

ATTENTION
Par mesure de sécurité, ne raccordez pas le connecteur pour le câblage de périphériques pouvant avoir une tension excessive à ce port. Suivez les instructions pour ce port.

ACHTUNG
Aus Sicherheitsgründen nicht mit einem Peripheriegerät-Anschluss verbinden, der zu starke Spannung für diese

Buchse haben könnte. Folgen Sie den Anweisungen für diese Buchse.

❹ NETWORK switch
LAN: To connect to the network.
PEER TO PEER: To connect to the LAN (10/100) connector of the PC in one-to-one connection.

Note

Set the NETWORK switches on input blocks A to D of the monitor to the same setting. Otherwise, the monitor may not be connected to SRM Manager and the correct picture may not be displayed.

❺ OPTION C connector (D-sub 9-pin)
Used for future expansion.
The cover is attached at the factory.

❻ Input option slots
Used to install the optional input adaptors.

For installing the input adaptor, see page 19.

For the input signals, see "Input/Output Connector and Adaptor" on page 10.

❼ DVI-D (DVI digital) input connector
Inputs DVI Rev.1.0 applicable Single-link digital RGB signal.
To input the DVI signal of SXGA or higher resolution, use the cable within 3 m (118 ^{1}/8 inches) in length.

❽ HDMI input connector
Inputs the HDMI signal.
HDMI (High-Definition Multimedia Interface) is an interface that supports both video and audio on a single digital connection, allowing you to display high quality digital picture. The HDMI specification supports HDCP (High-bandwidth Digital Content Protection), a copy protection technology that incorporates coding technology for digital video signals.

Notes

- The monitor does not support the HDMI audio signal.
- Use HDMI compliant cable (not supplied), Category 2 (High Speed HDMI cable), with HDMI logo.

Right Side Panel

❶ MAIN POWER switch
❷ AC IN connector
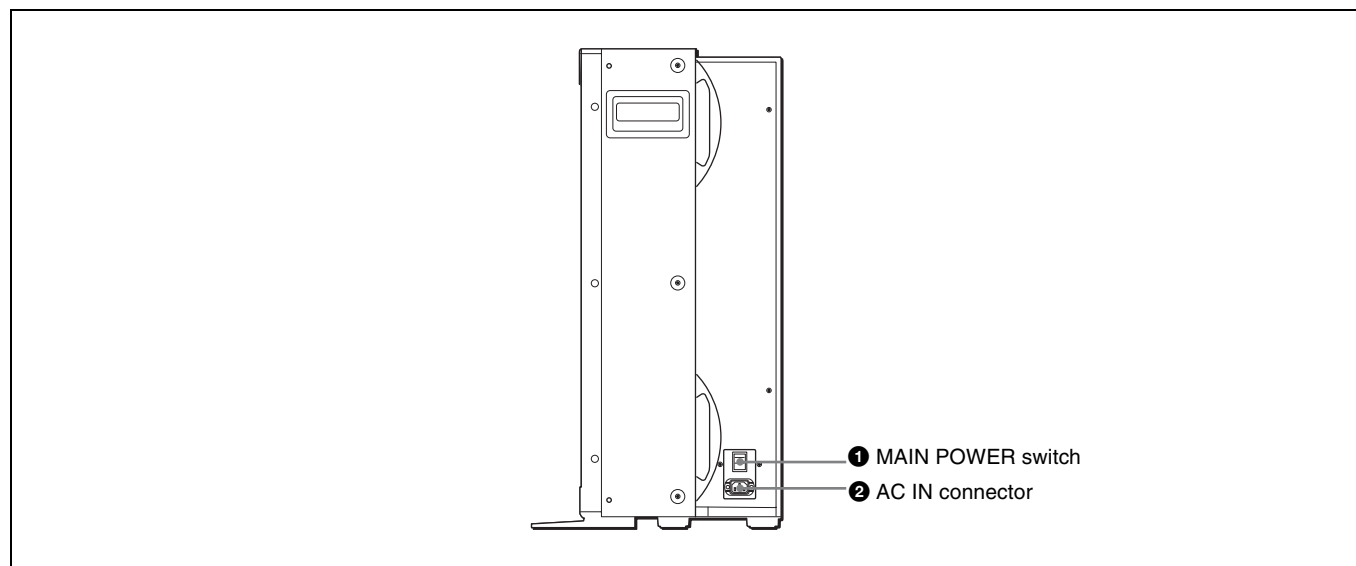
❶ MAIN POWER switch
When turned on (**l**), the monitor enters operation mode.

❷ AC IN connector (3-pin)
Connects the monitor to an AC power source, via the supplied AC power cord.

Preparations

Environments of the Installation Location

Illumination environments

The apparent color reproduction on the monitor is greatly affected by ambient light or glare.

The LCD device controls the brightness by moving LCD molecules with the backlight always lit. For this reason, in a dark place, an LCD monitor screen shows very dim light leaks from the black image. We recommend that you adjust the ambient light and use in an environment that does not degrade the reproduction of black.

Viewing angle

The ideal viewing angle is within 5 degrees (up/down/left/right) off the center of the monitor screen when the operator views the entire monitor screen. Keep the viewing angle within 15 degrees off the center of the monitor screen.
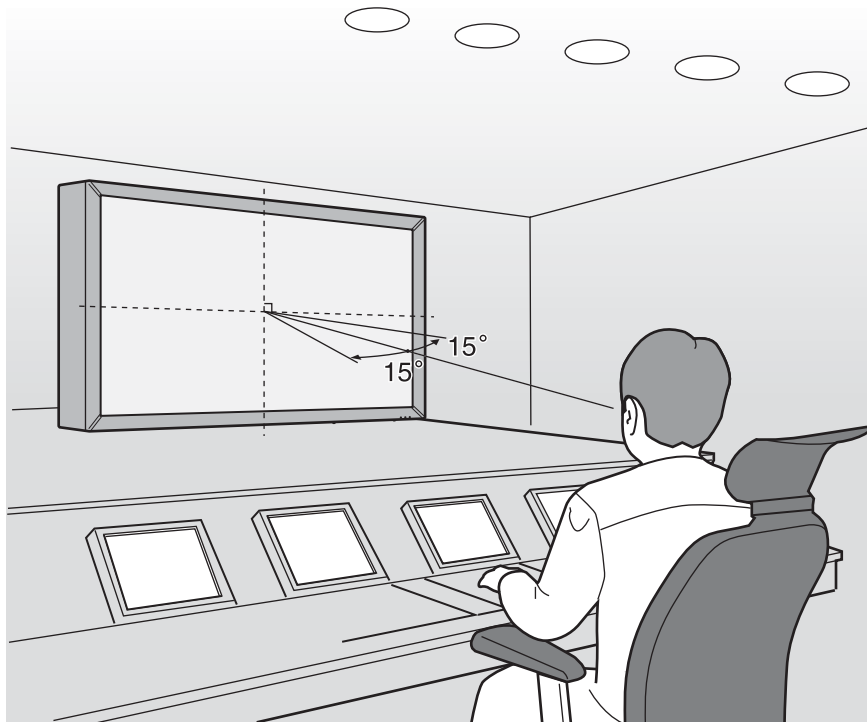
Carrying the Monitor

Carry or move the monitor in the proper manner

- When the monitor is carried or moved in an improper manner, it may fall and cause serious injuries such as bruises or bone fractures, or be damaged leading to malfunction of the monitor.
- As the monitor is heavy, unpack or carry it with at least four people.
- Hold the monitor securely as illustrated.
- Never expose the monitor to strong shock. Dropping it may cause serious personal injury or damage to the monitor.
- Never hold or press the LCD screen strongly.
- Unplug the AC power cord and connecting cables from the monitor.
  When the monitor is carried with the cord and cables connected, the power cord be damaged and later may cause fire or electric shock.

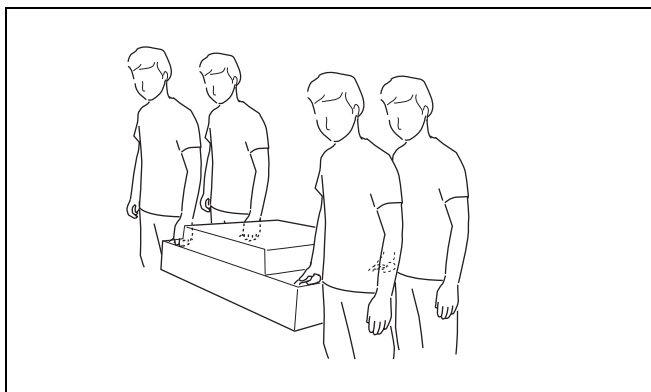- The mass of this unit is approx. 73 kg (160 lb 15 oz). Install the unit on a horizontal, flat rack in such a manner that the rack will not become deformed or break.

About the Screen Mode

You can select the mode from three screen modes according to the type of the input signal or monitoring use. Input the signal with the specified connections (page 22). Click the corresponding screen mode button (page 43) to select the screen mode.

4K/QFHD Mode

Select to confirm the 4096 × 2160 or 3840 × 2160 resolution signal.
One screen of 4K or QFHD is displayed with the signals divided in four.
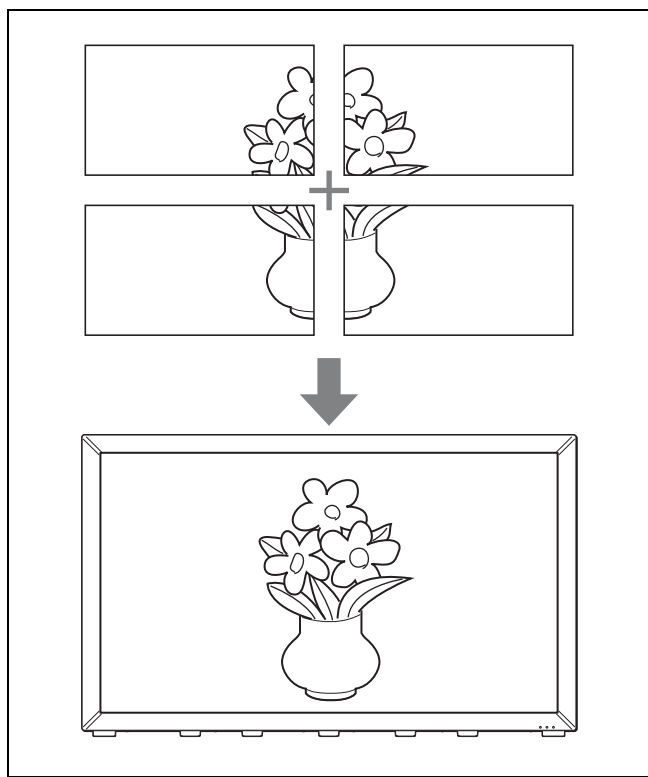
For restrictions on the screen mode, see "4K/QFHD mode" in "Input Signals and Adjustable/Setting Items" on page 88.

Notes

- When displaying in 4K/QFHD mode, all the input signals from the inputs A to D should be genlocked to synchronize with one another. Also, input all the input signals in the same signal system and signal format.
- When interlaced signals are input from the four inputs A to D and combined to display one image, a horizontal line may appear on the border of four divided screens owing to the process of I/P conversion.

Quad View Mode

Select when a 2048 × 1080, 1920 × 1080 or 1280 × 720 resolution signal or computer signal is input.
It is useful to compare pictures for how color or gradation is processed or pictures shot from various angles such as front, rear or left/right side. Also, this mode is used to confirm overscan of an HD signal or picture position by the marker or to compare HD-SDI and DVI signals of the same picture.
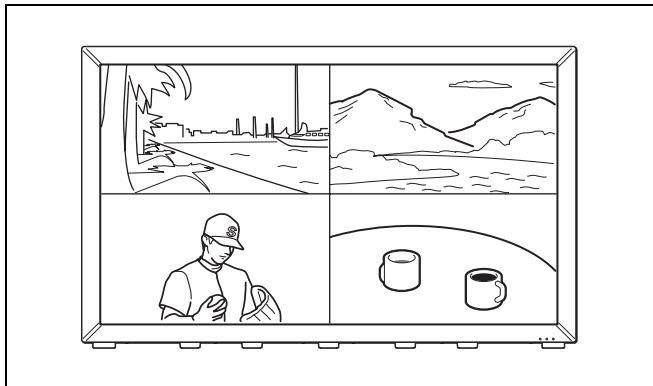
For restrictions on the screen mode, see "Quad View Mode" in "Input Signals and Adjustable/Setting Items" on page 90.

2K/HD Zoom Mode

Select to confirm the 2048 × 1080, 1920 × 1080 or 1280 × 720 resolution signal in full display mode.
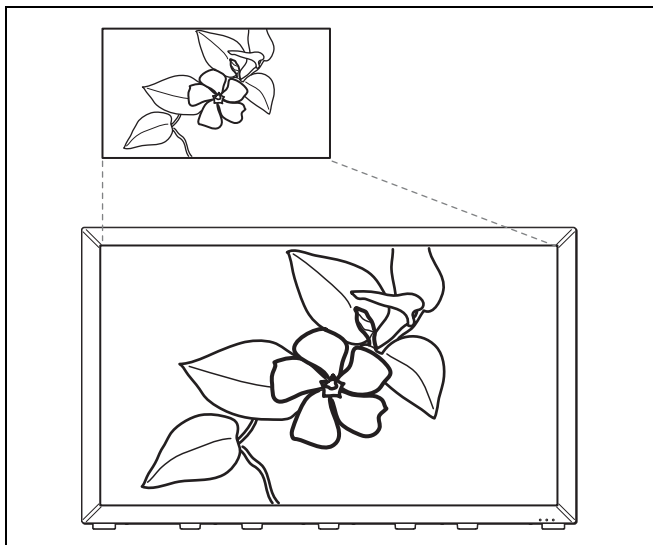
Notes

• 2K/HD Zoom mode is not available for the DVI or HDMI signal input.

• When interlaced signals are input from the four inputs A to D and combined to display one image, a horizontal line may appear on the border of four divided screens owing to the process of I/P conversion.

About the magnified screen

When the BKM-250TG is used
The screen A is magnified.
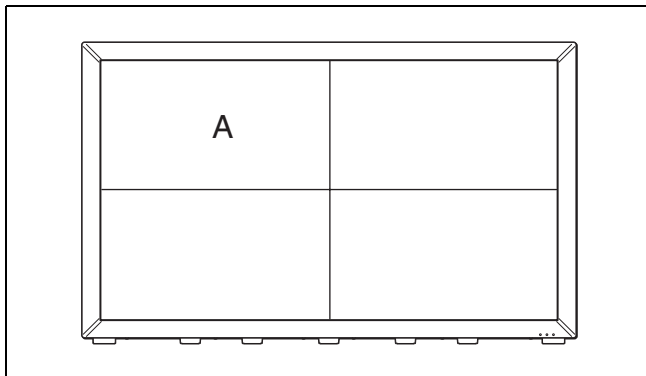
When the BKM-243HS or BKM-244CC is used
You can select a screen to be magnified from among screens A, B, C and D.
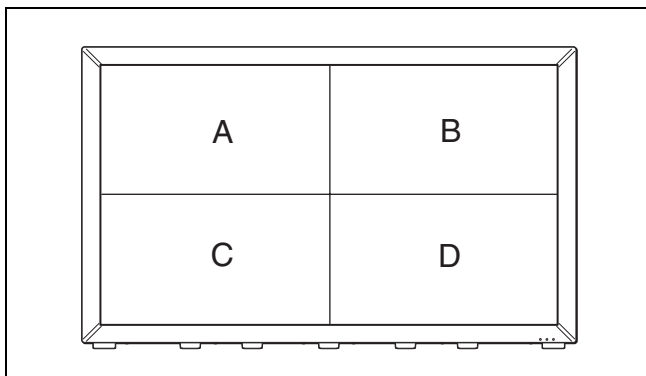
Click the radio button for the screen you wish to magnify.

  : To magnify the A signal
  : To magnify the B signal
  : To magnify the C signal
  : To magnify the D signal

For restrictions on the screen mode, see "2K/HD Zoom Mode" in "Input Signals and Adjustable/Setting Items" on page 92.

Screen Modes and Applicable Setting Values

There are some setting items that apply to every mode and every screen and others that apply only to the particular mode or screen for which the item is set.

Common setting items

The setting values of the items in the following table apply to every mode and every screen.

Setting values	Menu windows First layer > Second layer
Adjustment values for Picture Preset data (Contrast/Bright/Chroma)	Adjustment > Picture (Manual) tab
Preset/Manual selection for Contrast/Bright/Chroma adjustments	Main Operation > Controls tab
Contrast/Bright/Chroma manual adjustment values	Main Operation > Controls tab
Color Temp adjustment values and related settings	Adjustment > Color Temp (Auto) tab and Color Temp (Manual) tab
Adjustment values for Marker Preset data	Main Operation > Configurations tab (Edit of Marker Preset)
Matrix and Gamma settings for User Matrix/Gamma user data	Display Function > User Matrix/Gamma tab
File to be registered in User LUT data and its registration number	Display Function > User LUT Manager tab
Black Detail mode settings (including On/Off setting)	Display Function > Miscellaneous tab
Gamut Error settings (including On/Off setting)	Display Function > Gamut Error Display tab
Network settings (including SNMP setting)	System Configuration > Network tab
Date/time setting	System Configuration > Date/Time tab
Password setting	System Configuration > Password tab

Settings other than common setting items

Values set for 4K/QFHD mode and values set for Quad View mode or 2K/HD Zoom mode

The values set for 4K/QFHD mode are not reflected to Quad View or 2K/HD Zoom mode. The values set for Quad View or 2K/HD Zoom mode are not reflected to 4K/QFHD mode.
Set the items other than common setting items for 4K/QFHD mode and for Quad View or 2K/HD Zoom mode individually.

Values set for Quad View mode and values set for 2K/HD Zoom mode

The values set for Quad View mode apply to 2K/HD Zoom mode, as well.
The settings for Quad View mode and 2K/HD Zoom mode are required for each screen A to D. Set the items other than common setting items for screen A, B, C and D individually.

4K/QFHD mode	Quad View and 2K/HD Zoom mode			
	Common setting items			
Setting items for 4K/QFHD mode	Setting items for screen A	Setting items for screen B	Setting items for screen C	Setting items for screen D

Number of Signal Inputs in Single Screen Mode

The table below shows the number of available signal inputs when a screen mode is not switched.
When you are using a combination of screen modes, see "Input Signal and Selectable Screen Mode."

Input signal	Input adaptor	Required number of adaptors	Number of inputs		
			4K/QFHD	Quad View	2K/HD Zoom
3G-SDI	BKM-250TG	4	1 to 2	1 to 8	1 to 2
		8	1 to 4	1 to 16	1 to 4
Dual-link HD-SDI	BKM-250TG	4	1	1 to 4	1
		8	2	1 to 8	2
	BKM-243HS[a] BKM-244CC[a]	8	1 to 2	1 to 8	1 to 4
HD-SDI	BKM-250TG	4	1 to 2	1 to 8	1 to 2
		8	1 to 4	1 to 16	1 to 4
	BKM-243HS BKM-244CC	4	1 to 2	1 to 8	1 to 4
		8	1 to 4	1 to 16	1 to 8
DVI	–	–	1	1 to 4	–
HDMI	–	–	1	1 to 4	–

–: Not available
[a] Use the same model of the adaptor.

Note

When one signal is input, you can select Quad View mode. However, the screens with no signal received are displayed in black.

Input Signal and Selectable Screen Mode

Input signal	4K/QFHD	Quad View	2K/HD Zoom
3G-SDI	○[a]	○[d]	○[a]
Dual-link HD-SDI	○[b]	○[e]	○[b]
HD-SDI	○[a]	○[d]	○[a]
DVI	○[c]	○	–

Input signal	4K/QFHD	Quad View	2K/HD Zoom
HDMI	○[c)]	○	–

–: Not available
[a)] At least four input adaptors are required. Use the same model of the input adaptor.
[b)] When the BKM-243HS or BKM-244CC input adaptor is used, prepare eight and when the BKM-250TG is used, prepare four. Use the same model of the input adaptor.
[c)] When no sync signals are input to four inputs, the display screen becomes no sync.
[d)] One input adaptor is required for each input block.
[e)] Two input adaptors are required for each input block when the BKM-243HS or BKM-244CC is used and one input adaptor is required when the BKM-250TG is used. Use the same model of the input adaptor.

Combination of the connection when an SDI signal is input

To display the picture of an SDI signal, you can select various combinations of the model or number of input adaptors or Single-link or Dual-link connection. You may not be able to configure the required combination of the connection. Select the proper combination according to the system in use.

For details on combination patterns, see "Connection Combination Table When an SDI Signal Is Input" on page 113.

Installing an Input Adaptor

Installing an Input Adaptor

Each input adaptor can be installed in any input option slot on the side panel.

Caution

When you install the following input adaptor to this equipment, use that with the serial numbers given below.
BKM-243HS with serial number 2108355 or higher
BKM-243HS: This equipment may not meet the requirements of the electromagnetic interference standard or work correctly, or you may not be satisfied with the performance if designated input adaptors are not installed.

Note

Turn off the MAIN POWER switch of the monitor and disconnect the AC power cord before installing or removing adaptors.

1 Loosen two screws and remove the cover of an input option slot on the side panel of the monitor.

Cover of an input option slot

Make sure the MAIN POWER switch is turned off, and disconnect the AC power cord.
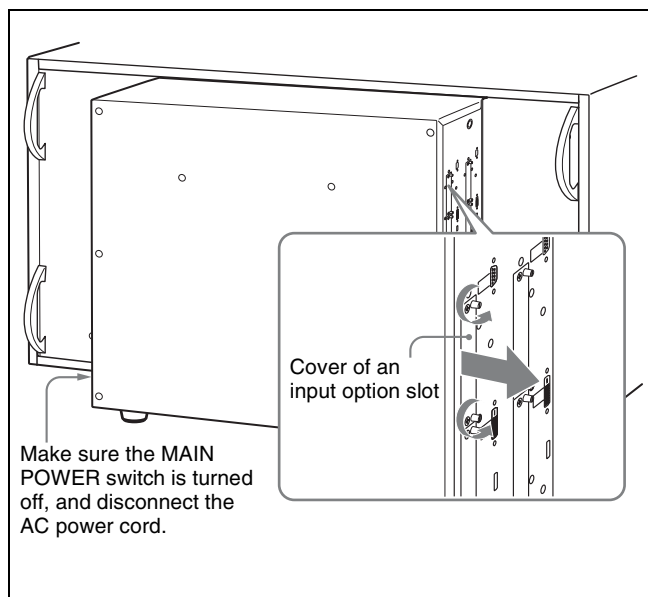
2 Insert the adaptor facing the board as shown below.

Board
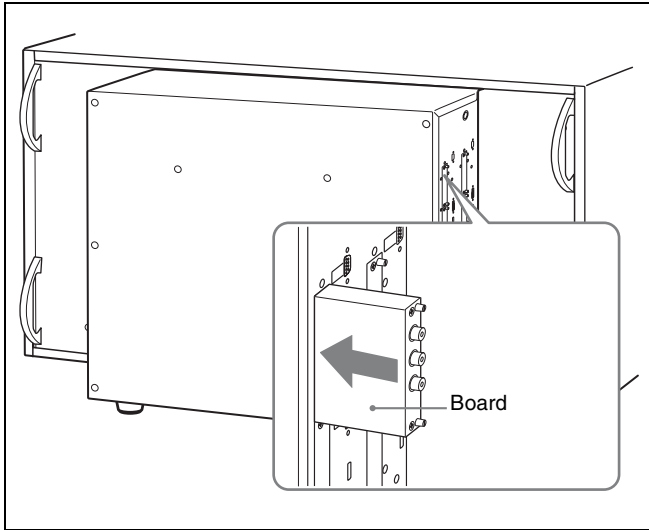
3 Push the adaptor in until it is firmly fit into the connector inside the monitor, then tighten the two screws to secure the adaptor.
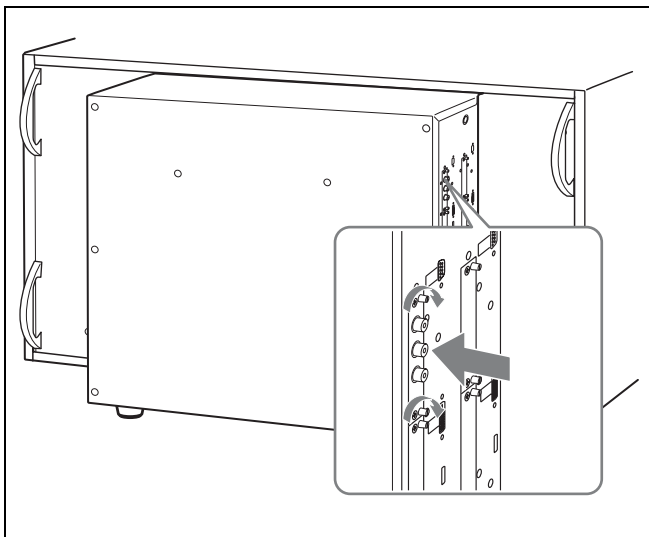
Installation of the input adaptor for Dual-link connection

Two BKM-243HS or BKM-244CC input adaptors or one BKM-250TG input adaptor is required for each input block A to D. When the BKM-243HS or BKM-244CC adaptors are used, install them in option slots 1 and 2. The input adaptors of different models cannot be used at the sama time.

To connect the input cables

When the BKM-243HS or BKM-244CC input adaptors are used

Input the Link A signal to option slot 1, and Link B signal to option slot 2.

Connect the cables to the connectors with the same input number on the input adaptors installed in option slots 1 and 2.

Example when Dual-link input cables are connected

A   B

Option slot 1
Link A

INPUT 1

INPUT 2

Option slot 2
Link B

INPUT 1

INPUT 2

C   D
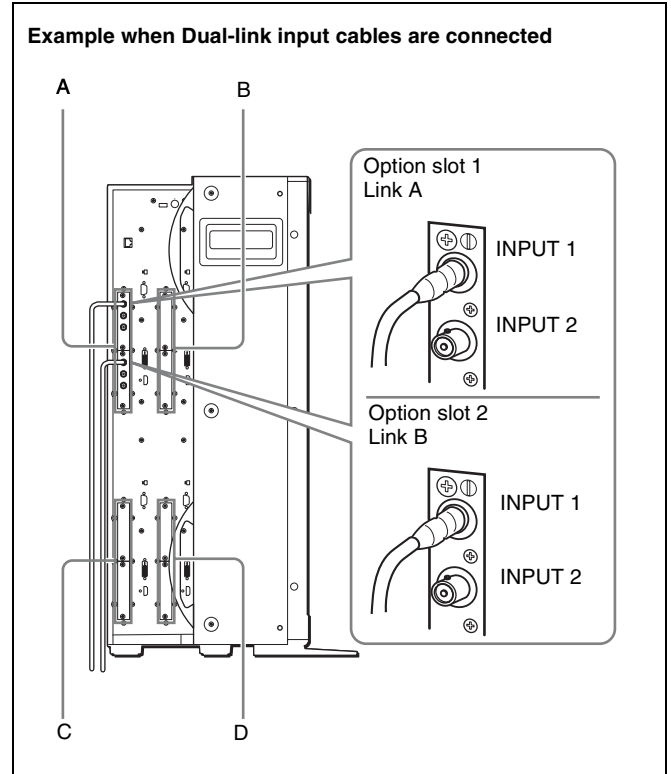
When the BKM-250TG input adaptor is used

Input the Link A signal to INPUT 1, and Link B signal to INPUT 2.

Example when Dual-link input cables are connected
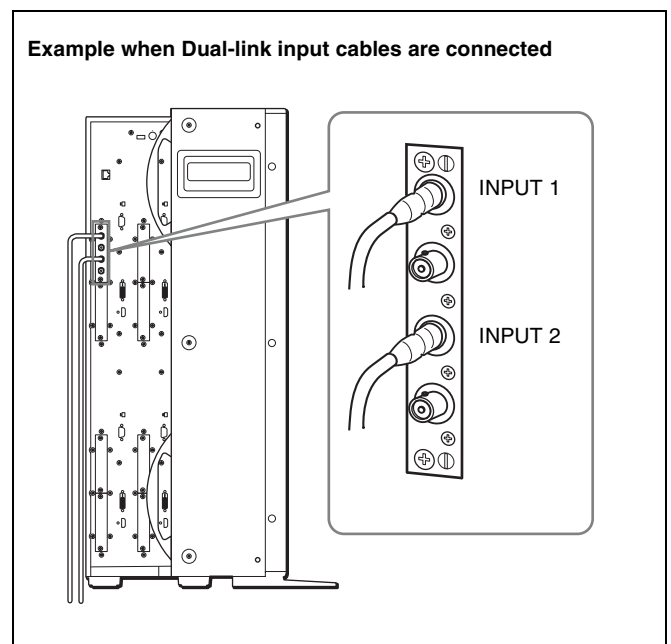
INPUT 1

INPUT 2

Four divided screens and the displayed positions of input signals

The monitor can display different input signals on four divided screens. The positions of input signals (DVI-D/HDMI input connectors and the positions where the input adaptors are installed) for each screen are defined.

Screen A   Screen B
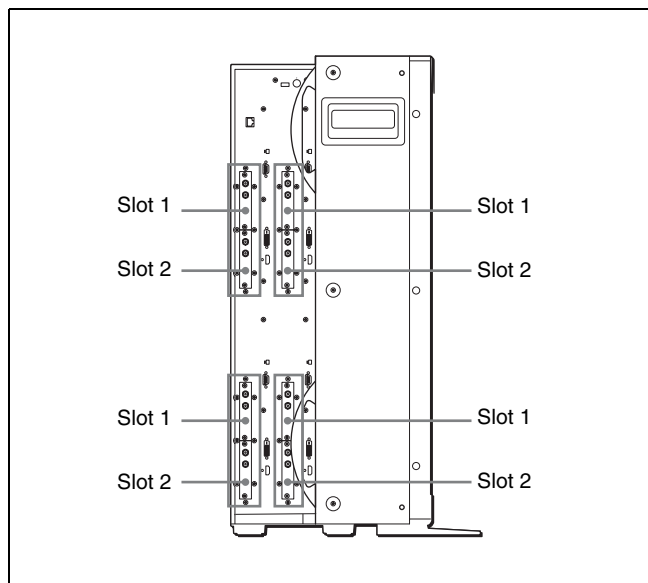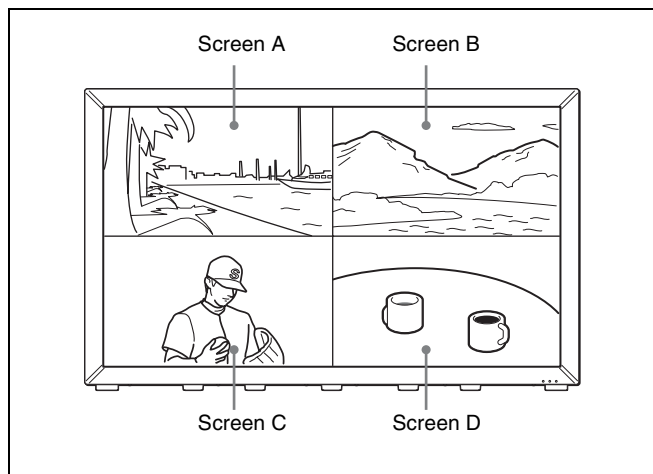
Screen C   Screen D

DVI-D or HDMI input connectors and the position where the input adaptors are to be installed for each screen

For screen A (Input block A)

For screen B (Input block B)

Slot 1

Slot 2

For screen C (Input block C)

For screen D (Input block D)

Slot 1

Slot 2

Slot 1   Slot 1

Slot 2   Slot 2

Slot 1   Slot 1

Slot 2   Slot 2
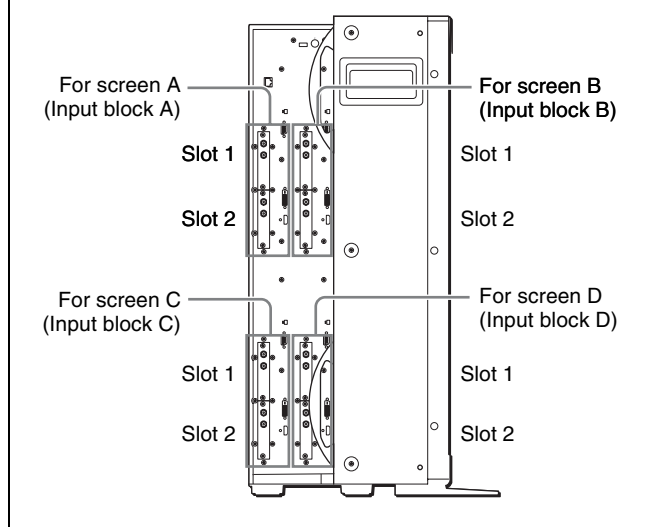
Combination of input adaptors and positions of input slots

Install input adaptors of the same model in the same option slot (slot 1 or slot 2) for each screen.
You can install the four input adaptors in slot 1 only or eight input adaptors in slot 1 and slot 2.

To install the adaptors in slot 1 only
Install the input adaptors of the same model in slot 1 for four screens.

To install the eight adaptors
The four input adaptors to be installed in slot 1 and those in slot 2 should be of the same models, respectively.

Connecting the Cable

Connections when the monitor is used in 4K/QFHD mode

To input from the DVI-D or HDMI input connectors

A 4K/QFHD resolution signal is divided into four and the divided signals are connected to the DVI-D or HDMI input connectors on input blocks A to D.

To input from the connectors on the input adaptors

A 4K/QFHD resolution signal is divided into four and the divided signals are connected to the input adaptors installed in input blocks A to D. For every screen install the input adaptor in the same slot (slot 1 or slot 2) and connect the signal to the same input (INPUT 1 or INPUT 2) on the adaptor.

When the BKM-243HS or BKM-244CC is used
To connect in Single-link

When four input adaptors are installed, you can select the signal from two systems and when eight input adaptors are installed, you can select from four systems.

Example when eight input adaptors are used
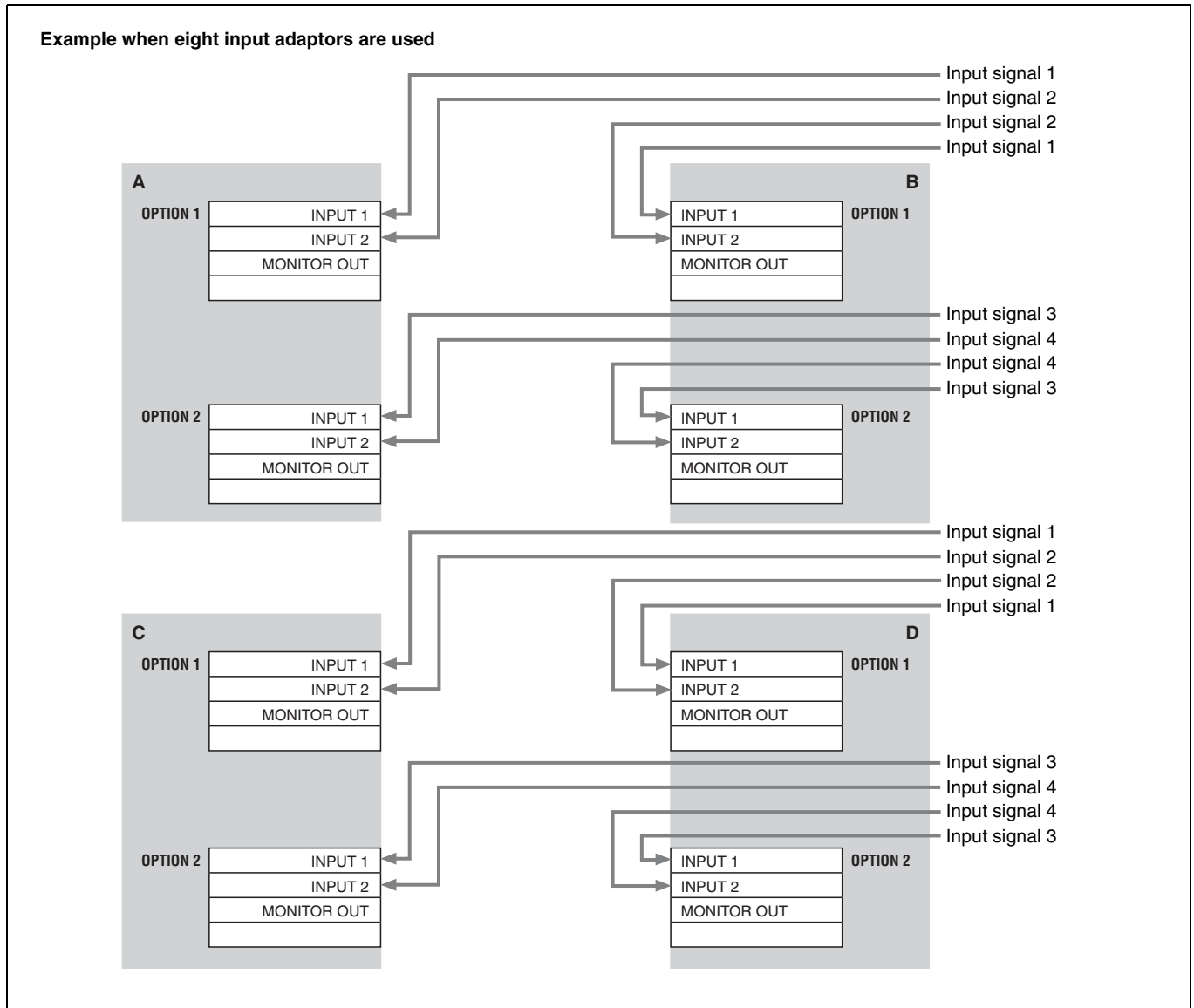
Connections when the monitor is used in Quad View mode

Connect the signals to the DVI-D or HDMI input connectors or the connectors on the input adaptors in input blocks A, B, C and D.

When the BKM-243HS or BKM-244CC is used
To connect in Single-link
When four input adaptors are installed, you can select the signal from eight systems and when eight input adaptors are installed, you can select from 16 systems.

Example when eight input adaptors are used
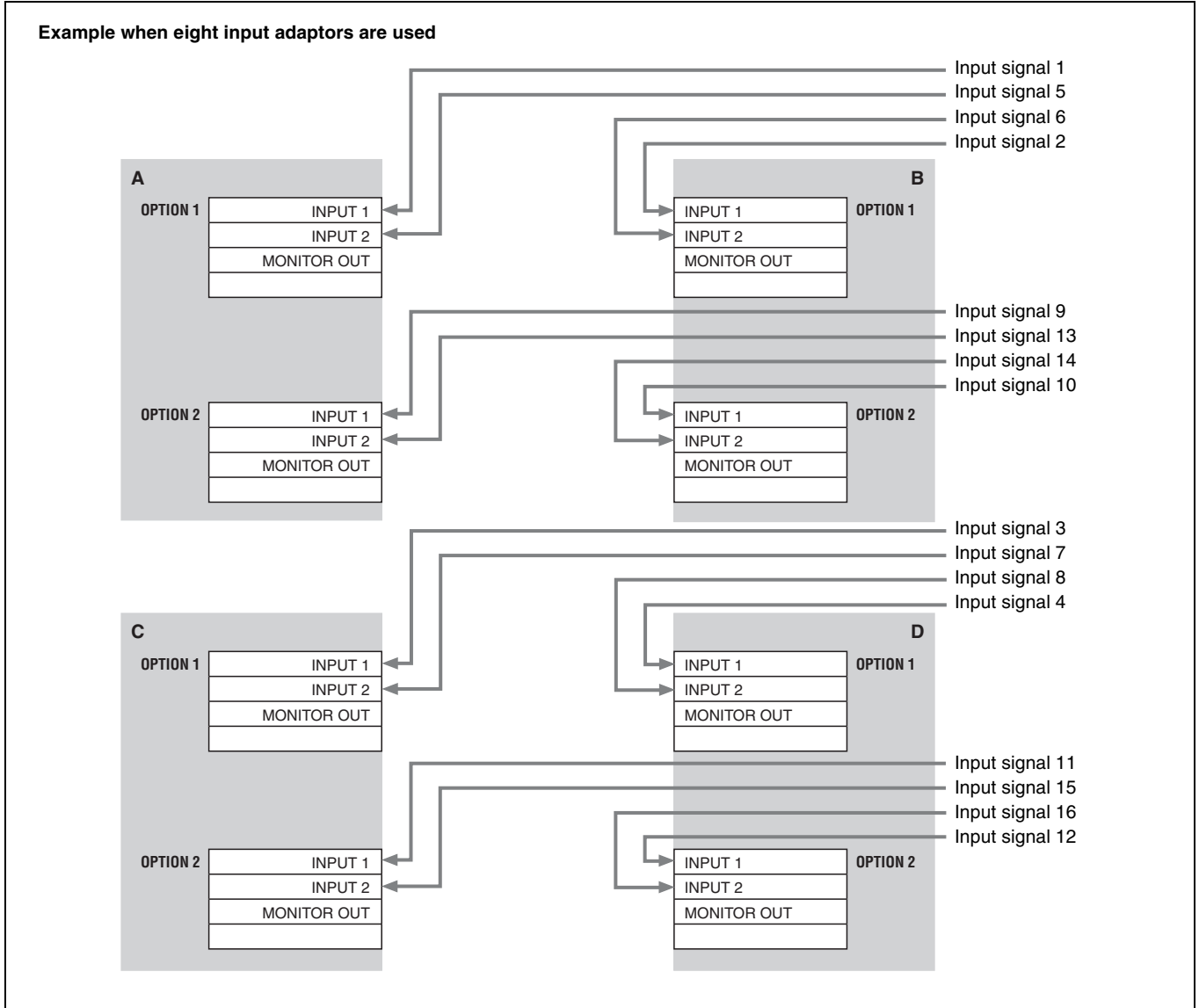
Connections when the monitor is used by switching between Quad View and 2K/HD Zoom modes

To input the signals in 2K/HD Zoom mode, the monitor output connectors on the input adaptors are used; therefore, coaxial cables for connections among the input adaptors are required, as well as those for connection between the signal source and the monitor.

Note

Use a coaxial cable less than 1 m (3.3 feet) long.

When the BKM-243HS or BKM-244CC is used

Input the signal to INPUT 1 on the input adaptor installed in input blocks A to D, and input the same signal to be output from MONITOR OUT to INPUT 2 on the input adaptor installed in the same slot (slot 1 or slot 2) of another input block.

To connect in Single-link

When four input adaptors are installed, you can select the signal from four systems and when eight input adaptors are installed, you can select from eight systems.

Example when eight input adaptors are used
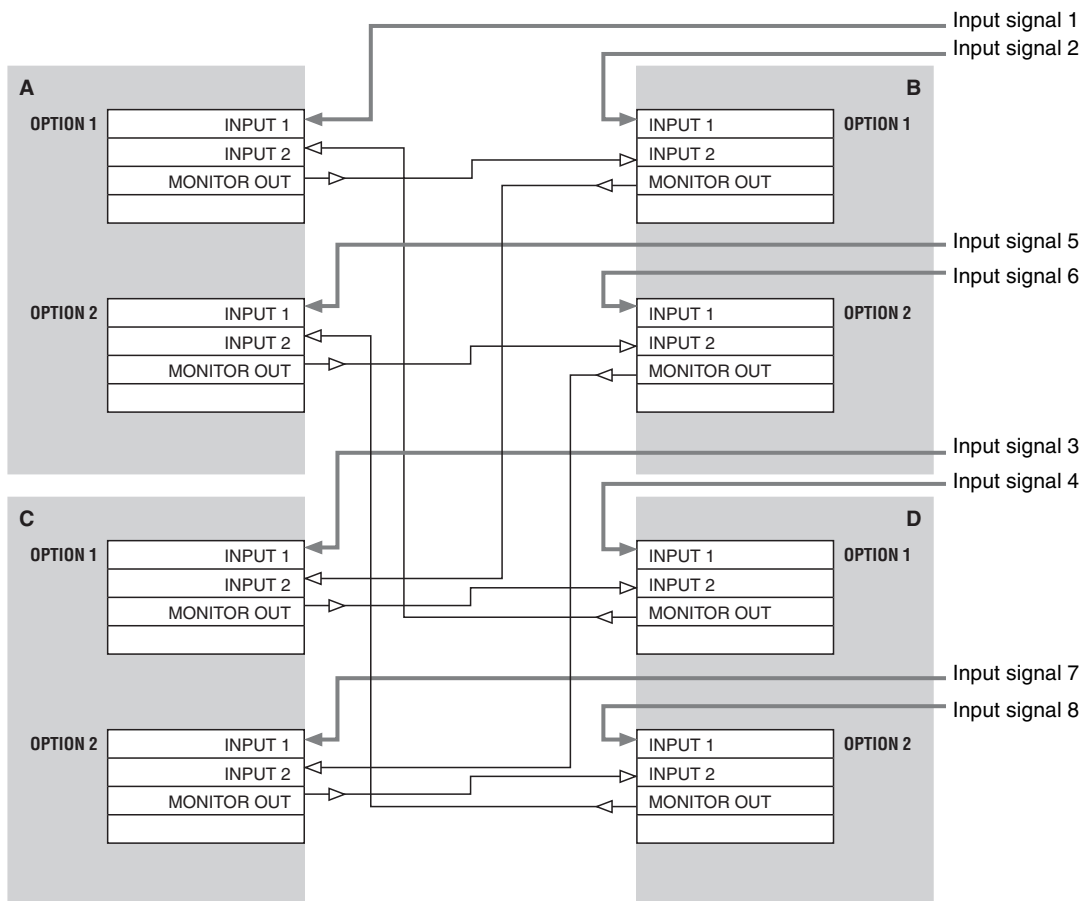
To connect in Dual-link
When eight input adaptors are installed, you can select from four systems.

Example when eight input adaptors are used

A		B
OPTION 1	INPUT 1 / INPUT 2 / MONITOR OUT	INPUT 1 / INPUT 2 / MONITOR OUT OPTION 1
OPTION 2	INPUT 1 / INPUT 2 / MONITOR OUT	INPUT 1 / INPUT 2 / MONITOR OUT OPTION 2
C		D
OPTION 1	INPUT 1 / INPUT 2 / MONITOR OUT	INPUT 1 / INPUT 2 / MONITOR OUT OPTION 1
OPTION 2	INPUT 1 / INPUT 2 / MONITOR OUT	INPUT 1 / INPUT 2 / MONITOR OUT OPTION 2

Input signal 1 Link A
Input signal 2 Link A
Input signal 1 Link B
Input signal 2 Link B
Input signal 3 Link A
Input signal 4 Link A
Input signal 3 Link B
Input signal 4 Link B

When the BKM-250TG is used

Input the signal to INPUT 1 or INPUT 2 on the input adaptor installed in input block A, and input the same signal to be output from MONITOR OUT 1 or MONITOR OUT 2 to the same INPUT (INPUT 1 or INPUT 2) on the input adaptor installed in the same slot (slot 1 or slot 2) of input block B, C or D.

To connect in Single-link

When four input adaptors are installed, you can select the signal from two systems and when eight input adaptors are installed, you can select from four systems.


Example when eight input adaptors are used
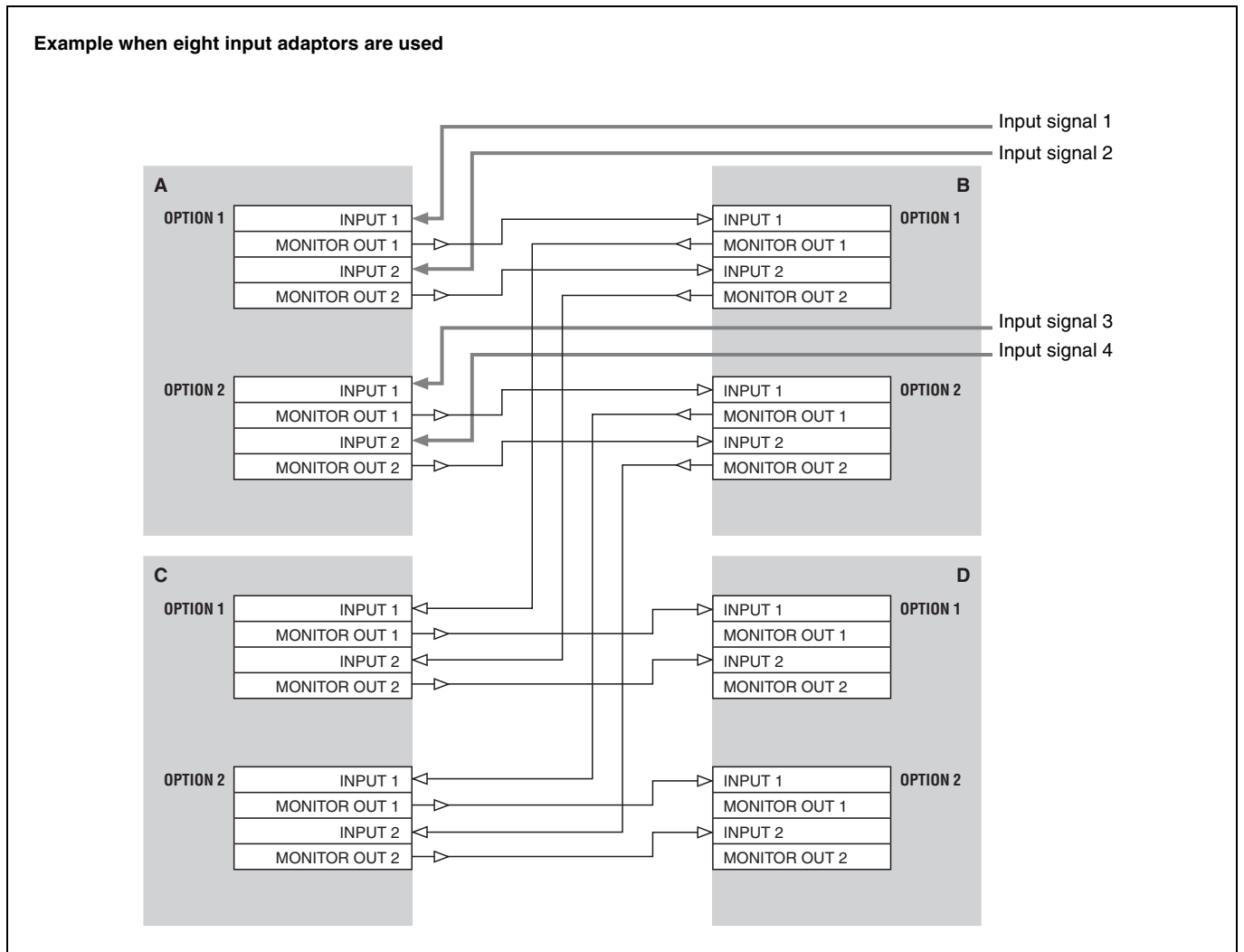
To connect in Dual-link
When four input adaptors are installed, you can select the
signal from one system and when eight input adaptors are
installed, you can select the signal from two systems.

Example when eight input adaptors are used

Input signal 1 Link A
Input signal 1 Link B

A			B
OPTION 1	INPUT 1	INPUT 1	OPTION 1
	MONITOR OUT 1	MONITOR OUT 1	
	INPUT 2	INPUT 2	
	MONITOR OUT 2	MONITOR OUT 2	

Input signal 2 Link A
Input signal 2 Link B

OPTION 2	INPUT 1	INPUT 1	OPTION 2
	MONITOR OUT 1	MONITOR OUT 1	
	INPUT 2	INPUT 2	
	MONITOR OUT 2	MONITOR OUT 2	

C			D
OPTION 1	INPUT 1	INPUT 1	OPTION 1
	MONITOR OUT 1	MONITOR OUT 1	
	INPUT 2	INPUT 2	
	MONITOR OUT 2	MONITOR OUT 2	
OPTION 2	INPUT 1	INPUT 1	OPTION 2
	MONITOR OUT 1	MONITOR OUT 1	
	INPUT 2	INPUT 2	
	MONITOR OUT 2	MONITOR OUT 2	

Note on displaying the picture in 2K/HD Zoom mode

A 2K/HD Zoom mode cannot be selected when a DVI-D
or HDMI signal is input.
The mode is available when four or eight input adaptors
are installed and an HD-SDI (Single-link or Dual-link) or
3G-SDI signal is input.

Connections when the monitor is used in 4K/QFHD or Quad View mode

When the BKM-243HS or BKM-244CC is used

When eight input adaptors are installed, you can select Dual-link 4K signals (4K/QFHD mode) from one system or an HD-SDI signal (Quad View mode) from eight systems.

Example when eight input adaptors are used
- The INPUT 1 connectors on OPTION 1 and OPTION 2 are used for Dual-link connection in 4K/QFHD mode.
- The INPUT 2 connectors on OPTION 1 and OPTION 2 are used for Single-link connection in Quad View mode.
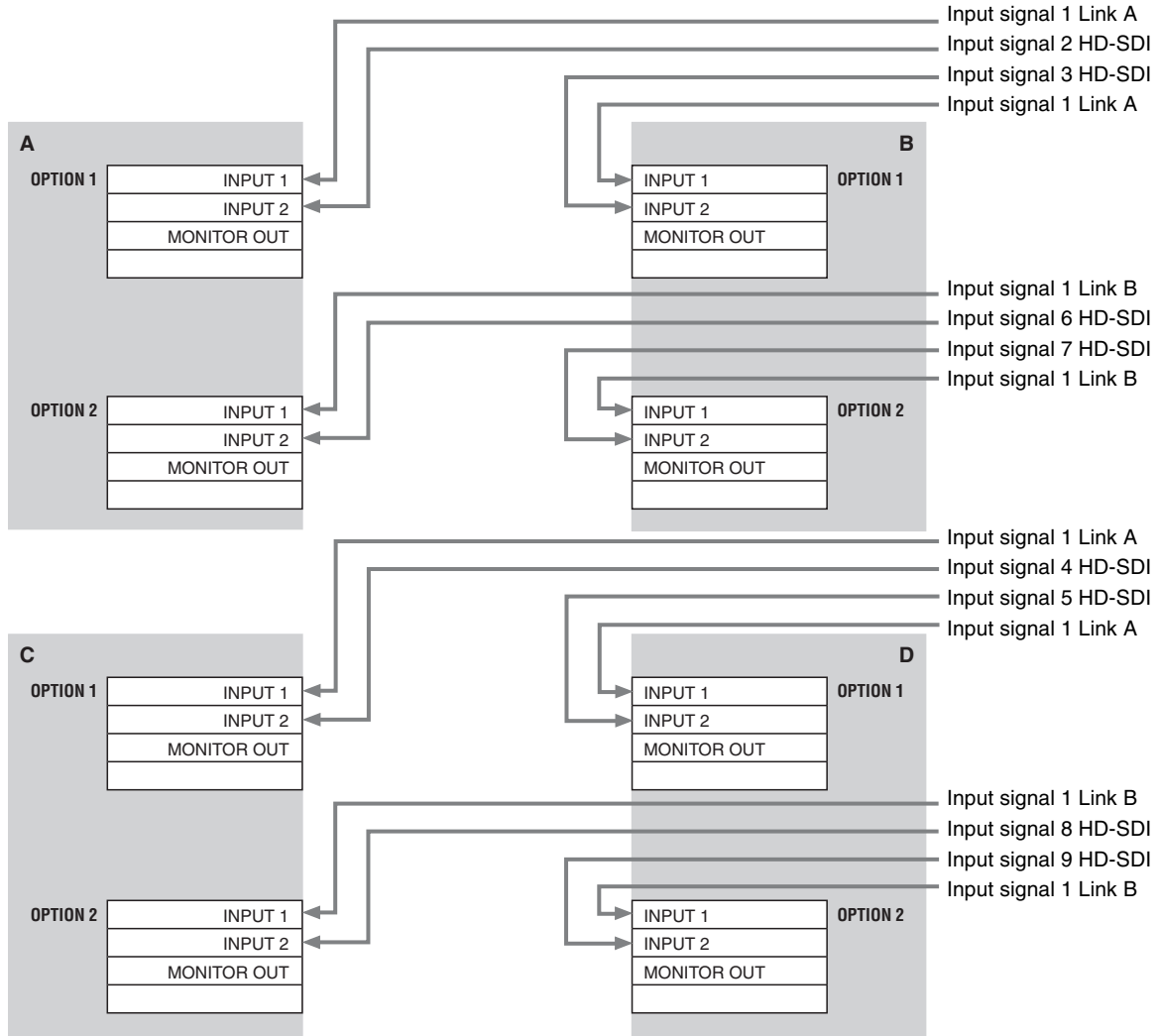
When the BKM-250TG is used

When eight input adaptors are installed, you can select
Dual-link 4K signals (4K/QFHD mode) from one system
or a Single-link HD signal (Quad View mode) from four
systems and a Single-link HD signal (2K/HD Zoom mode)
from one system.

Example when eight input adaptors are used
- The INPUT 1 and INPUT 2 connectors on OPTION 1 are used for Dual-link connection in 4K/QFHD mode.
- The INPUT 1 connectors on OPTION 2 are used for Single-link connection in Quad View mode.
- The INPUT 2 connectors on OPTION 2 are used for Single-link connection in 2K/HD Zoom mode.
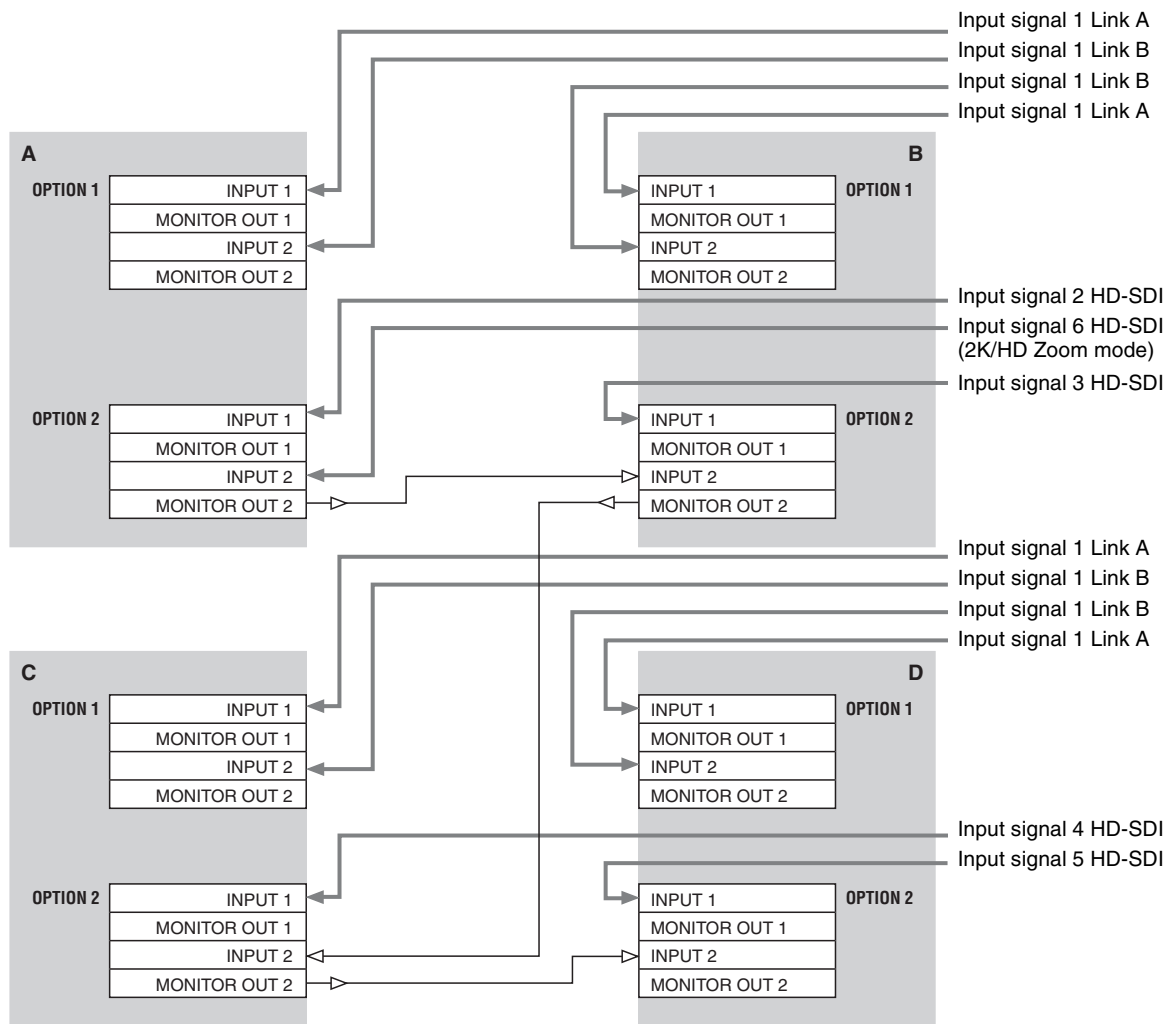
Attaching the Hooks

You can prevent the monitor from falling by using the supplied hook.

1 Attach two hooks to the upper position on the rear panel.
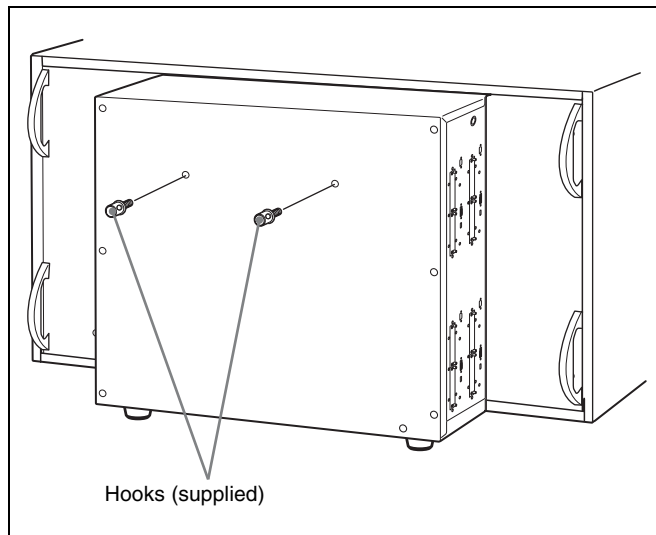
Hooks (supplied)

2 Pass a piece of string, etc., through the hooks and secure them to the floor or wall.

String, etc.

Hooks
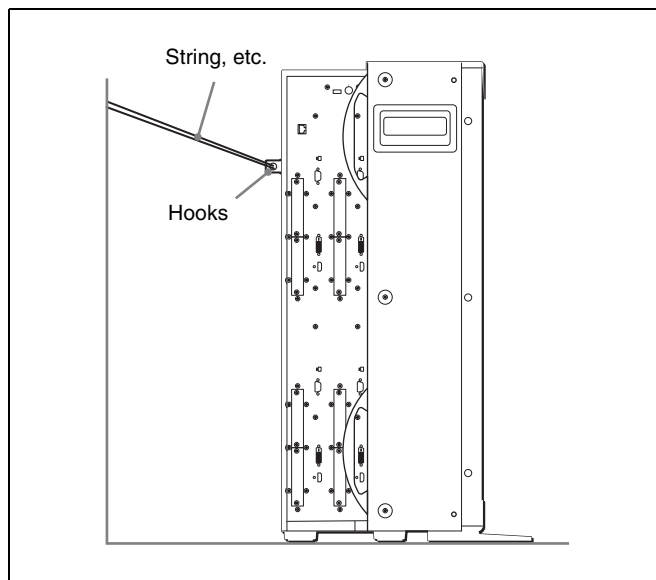
Installing Application Software (PC Application)

Install the SRM Manager contained on the supplied CD-ROM in your PC for controlling the monitor from the PC.

Required

- LAN cable (straight, 10BASE-T/100BASE-TX)
- PC (for controlling the monitor)

Recommended System Requirements

The following are recommended to operate the SRM Manager.
- OS
  Windows XP SP3
    Professional Edition
  Windows Vista SP1
    Ultimate Edition
    Business Edition
  Windows 7
    Ultimate Edition
    Professional Edition
- PC
  CPU: Intel Celeron 1 GHz or more
  Memory: 512 MB or more (Windows XP), 1 GB or more (Windows Vista, Windows 7)
 Display: 1024 × 768 or higher (Hi Color 16 bit or higher)
  HDD: Connected to a PC via the IDE port, Usable memory with 700 MB or more
  OP drive: CD-ROM ×8 or faster
- Browser
  Internet Explorer 6.0 or later
- Network
  10BASE-T/100BASE-TX
- Connectable in the internet
- .NET Framework 3.5 SP1

Note

The SRM Manager will not work on some computers and OS even though they satisfy the above requirements.

Some names of the items in this manual are shortened as follows:
Microsoft Windows XP Professional is mentioned as Windows XP.
Microsoft Windows Vista Ultimate and Microsoft Windows Vista Business are mentioned as Windows Vista.
Microsoft Windows 7 Ultimate and Microsoft Windows 7 Professional are mentioned as Windows 7.

Installing the SRM Manager

To control the SRM-L560 monitor with the SRM Manager, you are required to download .NET Framework 3.5 Service Pack 1 via Windows Update and install it in your computer.[1] For details, access a web site of Microsoft Corporation.

Note

Sony will not be liable for any cost arising from downloading or installing and any damage in connection with above-mentioned software application.

1) .NET Framework 3.5 has been installed on Windows 7.

To install the SRM Manager

1 Insert the supplied CD-ROM into the CD-ROM drive of a PC.

The index window of the browser starts automatically.

2 Click "Install SRM Manager" in the index window.

The setup.exe starts.
If setup.exe does not start automatically, double-click setup.exe in the root folder to start it manually.

3 Follow the instructions in the window and click Execute.

The window for preparing the installation appears.

After a while, the wizard of the SRM Manager appears.

4 Click Next.

The License Agreement window appears.

5 Read the license agreement, click "I accept the terms in the license agreement" if you agree to be bound by the terms, and click Next.

The select window of the destination folder in which to install the SRM Manager appears.

When you want to install it in the default folder, click Next.
We recommend to install it in the default folder.
If you wish to install it in a different folder, click Change…, specify the folder, click OK, then click Next.

The program installation starts.
After a while, the following window appears.

6 Click Finish.

When clicking the Cancel button during installation

The window to cancel the installation is displayed.

Click the Finish button to close the window.
To install again, start the installation from step **1**.

Note

When you use Windows XP Professional Edition, Windows Vista Ultimate Edition, Windows Vista Business Edition, Windows 7 Ultimate Edition or Windows 7 Professional Edition, log on with the administrator account.

To uninstall the SRM Manager

Click Start and select Programs, Sony Monitor Utilities, Sony Monitor Tools, SRM Manager, then Uninstall SRM Manager. Then uninstall the SRM Manager according to the instructions shown on the display.

Connections of the Monitor and PC

Connecting a Monitor
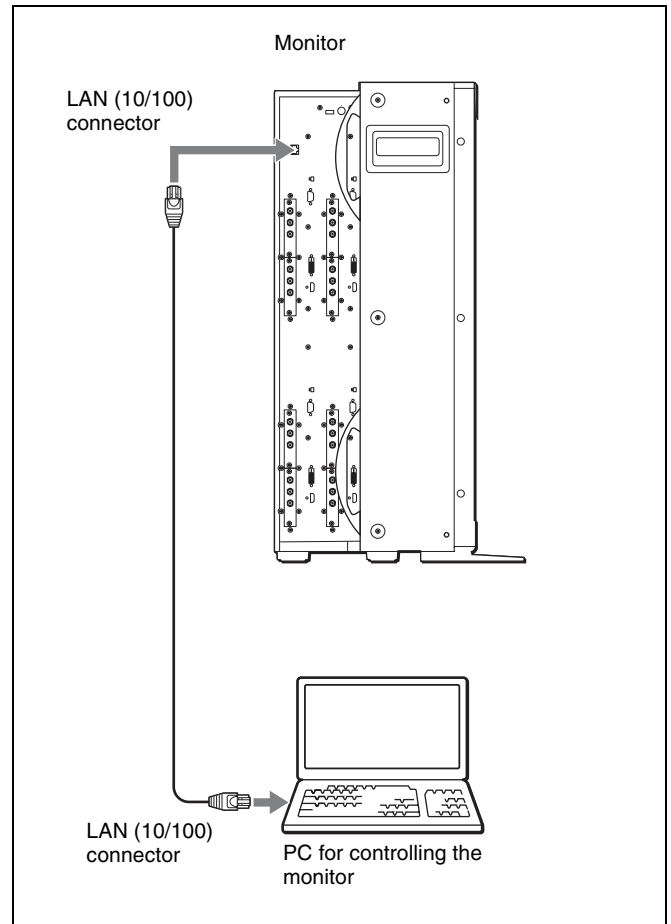
1 Turn off the MAIN POWER switch of the monitor.

2 Connect the LAN (10/100) connector of the monitor and the LAN (10/100) connector of the PC using a 10BASE-T/100BASE-TX straight LAN cable (not supplied).

3 Set all the NETWORK switches on input blocks A to D of the monitor to PEER TO PEER.

If you are connecting to a network, configure the network for the monitor (page 35).

Connecting Multiple Monitors

Up to 32 monitors can be controlled with the PC.

Notes

- The PC cannot control monitors in another subnet mask. For how to set the subnet mask, consult your system administrator.
- When you are using the monitors for the first time after purchasing, the IP addresses of the monitors may overlap between monitors. Connect the monitors to a PC according to the procedure in "Connecting a Monitor" (page 32) then change an IP address of each monitor referring to "Configuring the Network" (page 35).

Monitor   Monitor

LAN (10/100) connector   LAN (10/100) connector

Switching hub (recommended: with AUTO MDI/MDI-X function)

PC for controlling the monitor   LAN (10/100) connector
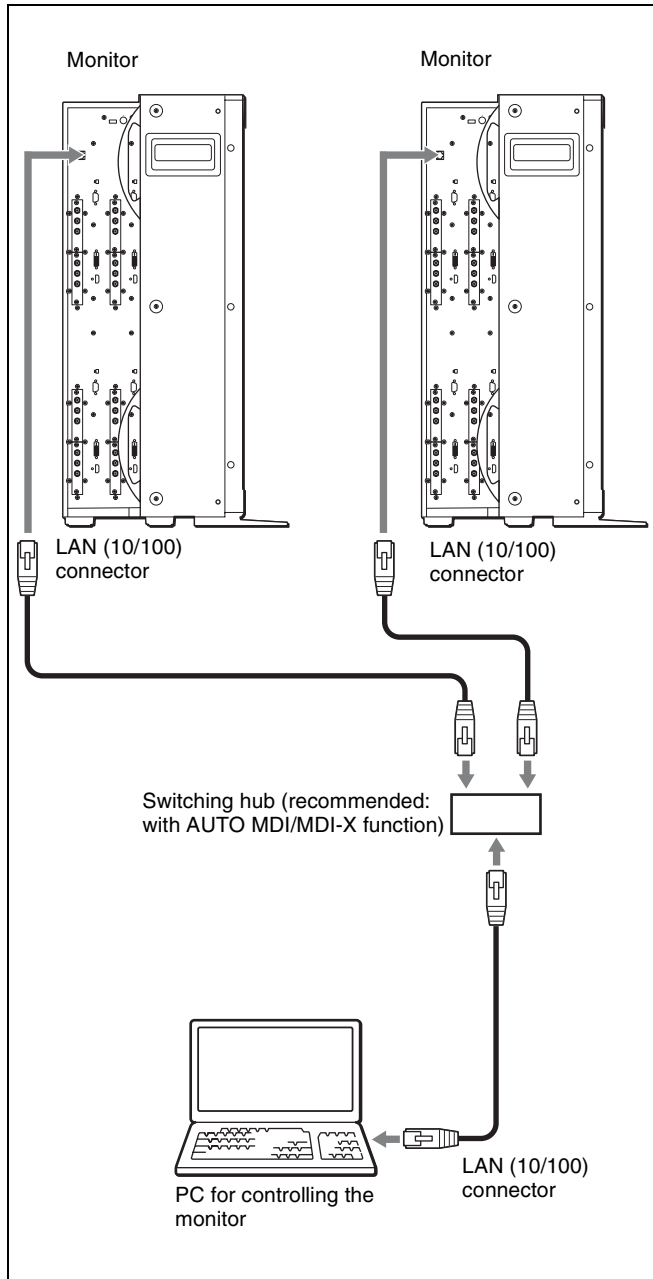
1 Turn off the MAIN POWER switch of the monitor.

2 Connect to the network using a 10BASE-T/100BASE-TX cable (not supplied).

Notes

- We recommend to use an optional switching hub with auto selection function of a straight/cross cable (AUTO MDI/MDI-X).
- To connect multiple monitors, network configuration of the monitors is required. Before setting the NETWORK switches to LAN, configure the network for the monitors (page 35).

3 Set all the NETWORK switches on input blocks A to D of each monitor to LAN.

Turning on the Power

Connecting the AC Power Cord

1 Plug the AC power cord into the AC IN connector on the side panel. Then, attach the AC plug holder (supplied) to the AC power cord.

AC power cord (supplied)

AC plug holder (supplied)

Attach the AC plug holder to the AC power cord, and connect the cord to the AC IN connector so that the cord does not come loose.
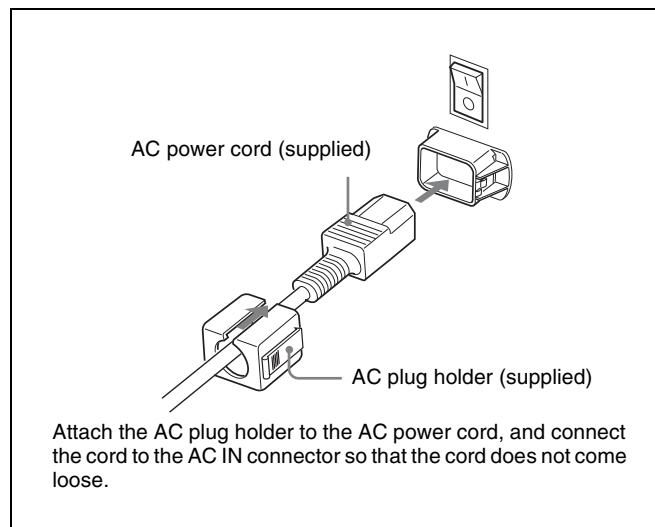
2 Slide the AC plug holder over the cord until it locks.
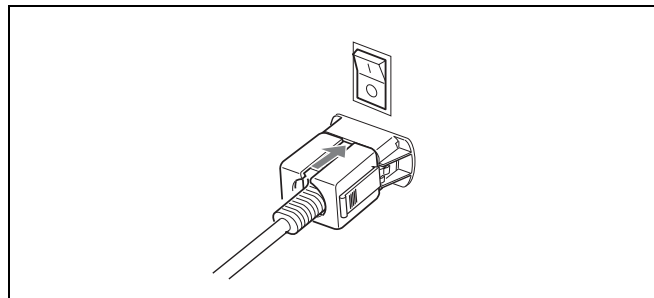
To disconnect the AC power cord

Pull out the AC plug holder while pressing the lock levers.

Turning on the Monitor

Press the MAIN POWER switch on the side panel to turn on the power.
When you turn on the monitor for the first time after purchasing it, the Select Area screen is displayed. Select the area where you intend to use this monitor.
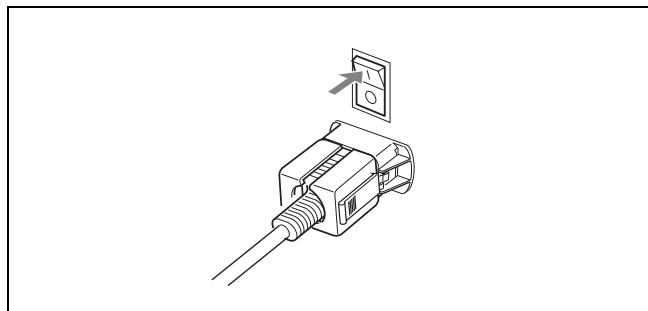
The warm-up time is more than 30 minutes, approximately.

To turn off the monitor

Press the MAIN POWER switch on the side panel to turn off the power.

Configuring the Network

About the IP Address

IP address of the monitor

The monitor uses four IP addresses. Sequential IP addresses are assigned to each of input blocks A to D on the monitor.

When the NETWORK switch is set to PEER TO PEER

The IP addresses of the monitor are fixed to the following:

    Input block A: 192.168.0.1
    Input block B: 192.168.0.2
    Input block C: 192.168.0.3
    Input block D: 192.168.0.4

When the NETWORK switch is set to LAN

The IP addresses of the monitor are reflected by those set in "Network Configuration for the Monitor" (page 35). Set up the IP address of the monitor if necessary.
They are set to the following at the factory:

    Input block A: 192.168.0.1
    Input block B: 192.168.0.2
    Input block C: 192.168.0.3
    Input block D: 192.168.0.4

IP address of a PC for controlling the monitor

Set a different IP address from those of the monitor for the windows PC for controlling the monitor.
Example:
In a case where the IP addresses of the monitor are set to the following,

    IP address   192.168.0.1 to 192.168.0.4
    Subnet mask   255.255.255.0
set the IP address of the PC to the following:
    IP address   192.168.0.100
    Subnet mask   255.255.255.0

Network Configuration for the Monitor

Perform the network configuration for the monitor using a Web browser. The name can be set for an individual monitor using a Web browser. You can also optionally set a password for the network configuration of the monitor (page 36).

Note

We recommend configuring the network when a single monitor is connected to the PC.

To start the setup window

1 Start Internet Explorer on the PC connected to the monitor.

2 Enter the IP address of input block A on the Address bar.
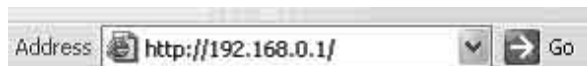
The Enter Network Password window appears.

3 Type "root" in the User Name text box and the password in the Password text box, then click OK.

The password is set to "9999" at the factory.

If the settings are authenticated, the Network setup window is displayed in the Web browser.

To change the network configuration

Set the IP addresses, subnet mask and default gateway that are applied when the monitor is used with the NETWORK switch set to LAN. Set the IP address for input block A. The sequential IP addresses are automatically assigned for input blocks B to D.

Note

None of new IP addresses are to match any of the old IP addresses.
Setup example:
Old IP addresses   192.168.0.1 to 192.168.0.4
New IP addresses   [Correct] 192.168.0.5 to 192.168.0.8
                    [Incorrect] 192.168.0.3 to 192.168.0.6

1 Click the Network button.

The Network setup window appears.

SRM-L560

Network	**Network**
Monitor Name	
Password	

IP Address `192` . `168` . `0` . `1`

Subnet Mask `255` . `255` . `255` . `0`

Default Gateway `0` . `0` . `0` . `0`

Submit

2 Enter the IP address, subnet mask and default gateway in the respective text boxes.

For available setting values, consult your network administrator.

3 Click the Submit button.

When the configuration is completed, the message "Operation has been succeeded." appears.

Note

Wait until the message appears after clicking the Submit button.

To change the monitor name

Set the monitor name to identify an individual monitor. The monitor name set in this window can be used as subname to select the monitor to be connected in the Monitor Browser of SRM Manager.

1 Click the Monitor Name button.

The Monitor Name setup window appears.

SRM-L560

Network	**Monitor Name**
Monitor Name	
Password	

The name you enter here will appear in "Monitor Browser".

Submit

2 Enter the name for the monitor to set.

The name can be set within 13 characters using the following alphanumeric characters and symbols.

Alphanumeric characters: A to Z, a to z, 0 to 9
Symbols: space ,.:;'`-+*/=%&!?#_|$^~@{}[]<>()

Note

A space cannot be used as the first character.
If a space is entered at the beginning, it will be deleted before transmission to the SRM-L560.

3 Click the Submit button.

When the configuration is completed, the message "Operation has been succeeded." appears.

Note

Wait until the message appears after clicking the Submit button.

To change the password

Set the network password.

1 Click the Password button.

The password setup window appears.

SRM-L560

Network	**Password**
Monitor Name	
Password	

Old Password `_____`

New Password `_____`

New Password (Confirm) `_____`

Submit

2 Enter the current password in the Old Password text box.

3 Enter a new password in the New Password and New Password (Confirm) text boxes.

The password can be set between 4 and 24 characters using the following alphanumeric characters and symbols.
Alphanumeric characters: A to Z, a to z, 0 to 9
Symbols: .:'`-+*/=%&!?#_|$^~@{}[]<>() (Spaces cannot be used.)

4 Click the Submit button.

When the configuration is completed, the message "Operation has been succeeded." appears.

Note

Wait until the message appears after clicking the Submit button.

Starting the PC Application

1 Start the PC and click Start to select Programs, Sony Monitor Utilities and SRM Manager.

The initial window of SRM Manager appears.
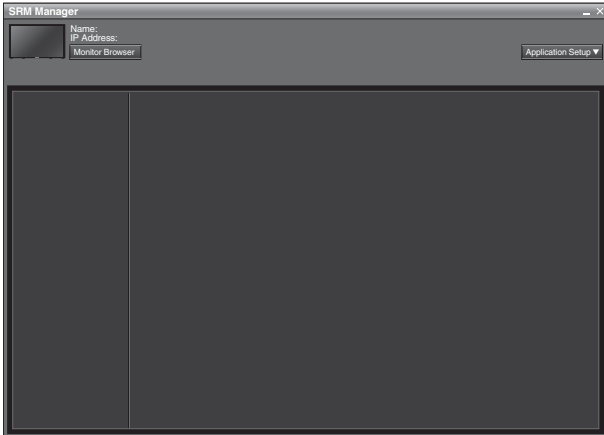
2 Click the Application Setup button if the PC is connected to multiple networks.

The Network Adaptor window appears.

Note

Even if you click the Application Setup button when the PC has been connected with the monitor, the Network Adaptor window will not be displayed. Reboot the SRM Manager to display the initial window.
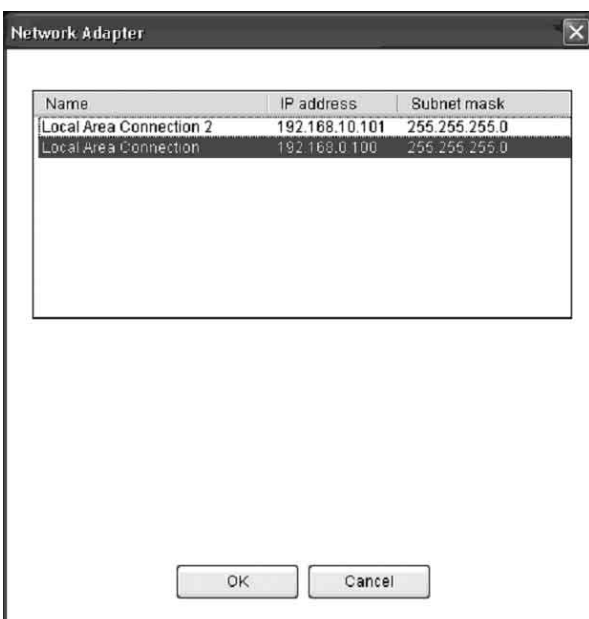
3 Select the network adaptor to be used for connection with the monitor then click the OK button.

4 Click the Monitor Browser button.

The Monitor Browser window of the SRM Manager appears.

Monitor Browser screen
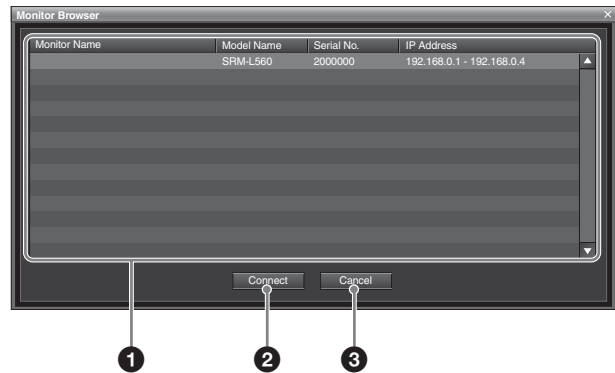
❶ Monitor detect window
Information on the monitors connected to a network is displayed.
Monitor Name: Optional monitor name
Model Name: Model name of the monitor
Serial No.: Serial number of the monitor
IP Address: IP address of the monitor

For setting up Monitor Name and IP Address, see page 35.

❷ Connect
Connects the selected monitor to the PC for controlling the monitor.

❸ Cancel
Closes the window without connecting.

Note when starting the SRM Manager

When the Operating System of the PC is blocked with the Windows firewall, or any commercially available firewall software is installed in your PC, unblock the Windows firewall following the procedures below.

For Windows firewall
If the Security Alert dialog appears when the SRM Manager is started, select Unblock. When the dialog does not appear but the PC does not access the monitor, start Windows Firewall from Control Panel, and add SRM Manager to the list in the Exceptions tab.

For commercially available firewall software
Add SRM Manager to the exceptions list, referring to the operating instructions supplied with the software.

Settings

Selecting the Area

When you turn on the monitor for the first time after purchasing it, select the area where you intend to use this monitor from among the options.
When the area is selected, the menu item settings suitable for the selected area are applied.

Default value for each area
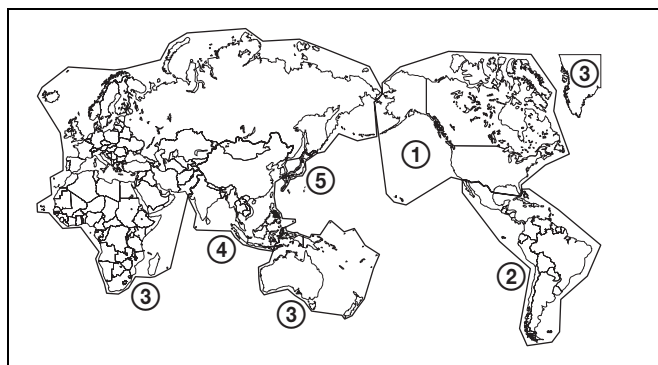
		Color Temp	Color Gamut Emulation
① **North America**		D65	BVM SMPTE-C
② **Latin America**	Argentina	D65	BVM EBU
PAL&PAL-N Area	Paraguay	D65	BVM EBU
	Uruguay	D65	BVM EBU
NTSC&PAL-M Area	Other Area	D65	BVM SMPTE-C
③ **Africa Australasia Europe Middle-East**		D65	BVM EBU
④ **Asia Except Japan**	NTSC Area	D65	BVM SMPTE-C
	PAL Area	D65	BVM EBU
⑤ **Japan**		D93	BVM EBU

1 Start a PC and connect with the monitor.

The Select Area screen appears.

Area   Color temperature

Color gamut emulation
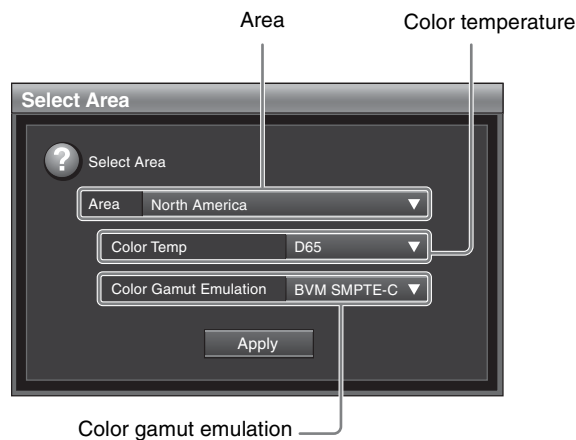
2 Select the area where you intend to use the monitor.

North America: North America
Latin America (PAL & PAL-N Area): Latin America (PAL & PAL-N Area)
Latin America (PAL & PAL-M Area): Latin America (PAL & PAL-M Area)
Africa: Africa
Australasia: Australia/New Zealand
Europe: Europe/Russia
Middle-East: Middle East
Asia Except Japan (NTSC Area): Asia Except Japan (NTSC Area)
Asia Except Japan (PAL Area): Asia Except Japan (PAL Area)
Japan: Japan

Customers who will use this monitor in the shaded areas shown in the map below should select Asia Except Japan (NTSC Area).
Other customers should select Asia Except Japan (PAL Area).
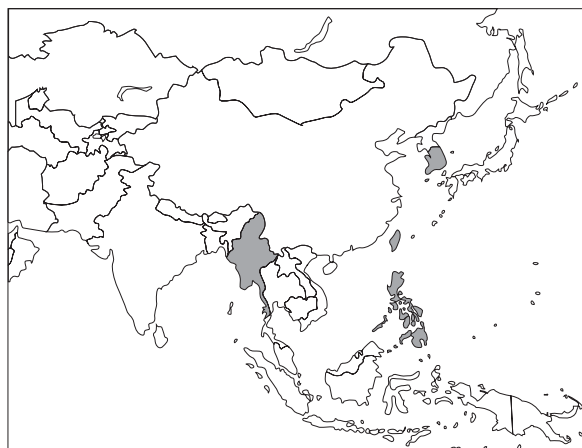
3 Select the color temp and set the value.

See "Default value for each area" on page 38 on the setting value.

4 Select the color gamut emulation and set the value.

See "Default value for each area" on page 38 on the setting value.

Note

After saving and reflecting the setting, you can change the setting with the menu window.
• Color Temp (color temperature) (page 46)
• Color Gamut Emulation (page 48)

Setting the Input Signal

Setting the screen mode

Click the screen mode button (page 43) to set the screen mode.
You can select the screen mode from 4K/QFHD, 2K/HD Zoom and Quad View modes.

Setting the input signal format and input connector number

1 Select the input signal format to display in Format (page 45) of the Configurations tab window of the Main Operation window.

2 Select the input adaptor and input connector number to display in Input (page 46) of the Configurations tab window of the Main Operation window.

Setting the Screen Mode of the Picture

Set the display mode condition of the input signal to display on the screen. The setting items are as follows:
• Setting Matrix/Gamma (transmission matrix and transmission gamma)
• Selecting the color gamut (color space and gamma)

1 Select Matrix/Gamma (page 46) in the Configurations tab window of the Main Operation window.

2 Set Emulation (page 48) to the color gamut (color space and gamma) to be used in Color Gamut of the Configurations tab window of the Main Operation window.

Adjusting

Before adjusting
The monitor must be warmed up sufficiently.
To perform stable color reproduction, turn on the power of the monitor, display the white signal and leave it in this state for more than 30 minutes.

About monitor adjustment
The monitor is used as a measuring instrument and is required to faithfully reproduce the input signal. To measure the signal accurately, the monitor must be calibrated correctly using a reference signal.
To calibrate, adjust the following items in sequence.

1 Chroma adjustment
You can save the adjustment value in Picture Preset 1 to Picture Preset 5 and Picture Preset(D-Cine). The data of Picture Preset 1 to Picture Preset 5 or Picture Preset(D-Cine) can be set in Picture Preset (page 46) of the Configurations tab window of the Main Operation window.

2 Color Temperature (white balance) adjustment
You can adjust the data set in the Color Temp (page 46) of the Configurations tab window of the Main Operation window.
You can adjust D93, D65, D61, D56, D-Cine or User Color Temp 1 to User Color Temp 5 except for the XYZ format signal and D-Cine XYZ or User Color Temp XYZ1 to User Color Temp XYZ5 for the XYZ format signal.

3 Brightness/Contrast adjustment
You can save the adjustment value in Picture Preset 1 to Picture Preset 5 and Picture Preset(D-Cine). The data of Picture Preset 1 to Picture Preset 5 or Picture Preset(D-Cine) can be set to the channel in Picture Preset (page 46) of the Configurations tab window of the Main Operation window.

Chroma Adjustment

The following is the example of the method to perform the manual adjustment of the chroma.

Note

The chroma adjustment is not available for the RGB or XYZ signal display.

1 Input the multi format color-bar signal or SMPTE color-bar signal to the monitor.

2 Set the Blue Only to on in Mono/Cut (page 52) of the Controls tab window of the Main Operation window.

Red and green signals are cut, and only the blue signal is displayed as a monochrome picture.

The following is the example of the adjustment when the multi format color-bar signal is used.

3 Select the Picture (Manual) tab window (page 53) of the Adjustment window and adjust the levels so that the brightness of bars "a" (Blue part) and "b" (75% White part) in the following illustration are the same.

4 Click Apply.

The adjusted data is confirmed.

5 Set the Blue Only button to off.

Color Temperature (White Balance) Adjustment

You can adjust manually or automatically with a specified color temperature probe.

Note

When the XYZ or DVI Computer signal, or the computer signal of HDMI is displayed, the color temperature cannot be adjusted automatically.
Perform the manual adjustment of the color temperature.

Automatic adjustment
Use one of the following probes.
• Konica Minolta CA-210
• DK-Technologies PM5639/06
• X-Rite Eye-One Pro

1 Connect the color temperature probe.

For the cable to connect the color temperature probe, see page 129.

2 Select Color Temp (Auto) tab window (page 54) of the Adjustment window and adjust the color temperature.

Manual adjustment

1 Select Color Temp (Manual) tab window (page 57) of the Adjustment window.

2 Select Start Adjustment.

3 Adjust the color as desired with the Current xy values or +/– of R/G/B.

4 Click Apply.

The adjusted data is confirmed.

Brightness/Contrast Adjustment

As an image on a color video monitor is seen differently according to the ambient light (environmental brightness), adjust the brightness (black level) according to the ambient light and the black level of the image to be reproduced and adjust the contrast (white level) according to the ambient light.
Adjust the brightness/contrast with an external reference signal of a multi format color-bar signal or SMPTE color-bar signal.

Note

When the XYZ signal is displayed, the brightness cannot be adjusted.

1 Input the multi format color-bar signal or SMPTE color-bar signal to the monitor.

The following are explained as the example when the multi format color-bar signal is used for adjustment.

2 Select the Picture (Manual) tab window (page 53) of the Adjustment window.

3 Adjust the –2%, 0% and +2% ranges of the PLUGE signal section of the color-bar with Bright.

Adjust so that the –2% and 0% ranges are seen as equal and the +2% and 0% ranges are more distinctive.

-2%
0%
0%
+2%
0%
+4%

HD
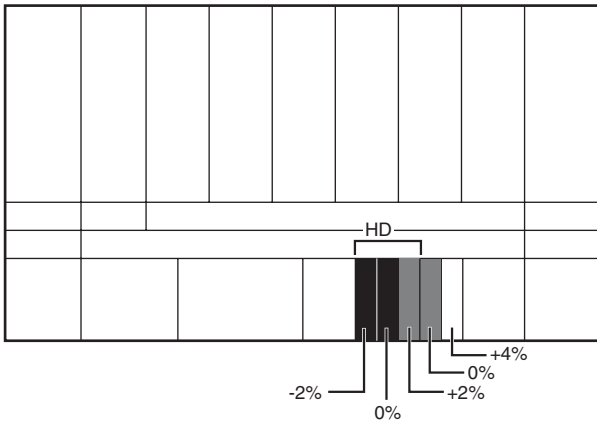
4 Adjust so that the luminance of the 100% white signal of the color-bar is set to the desired value with Contrast.

We recommend adjusting the luminance to 100 [cd/m^2] when Picture Preset 1 to 5 is selected and to 48 [cd/m^2] when Picture Preset(D-Cine) is selected in Picture Preset of the Configurations tab window of the Main Operation window.

5 As the brightness and contrast adjustments affect each other, repeat the adjustments of steps **3** and **4**.

Note

When the contrast of the monitor is adjusted, the luminance of the backlight is adjusted for a picture of luminance 40 [cd/m^2] or higher, and the contrast is adjusted by the signal level for a picture of luminance lower than 40 [cd/m^2].

Chapter **3**

Displaying the Menu Window

1 Turn on the monitor with the MAIN POWER switch.

2 Start your PC, click Start and select Programs, Sony Monitor Utilities, then SRM Manager.

The initial screen of SRM Manager is displayed.

3 Click the Monitor Browser button.

The Monitor Browser window of SRM Manager is displayed.

4 Select the monitor you want to operate and click Connect.

Monitor Name	Model Name	Serial No.	IP Address
	SRM-L560	2000000	192.168.0.1 - 192.168.0.4

Connect   Cancel
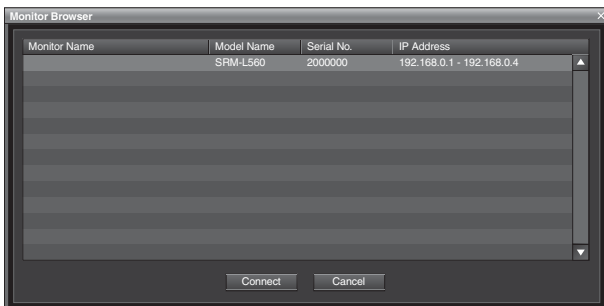
The menu window is displayed.

Location and function of the menu window
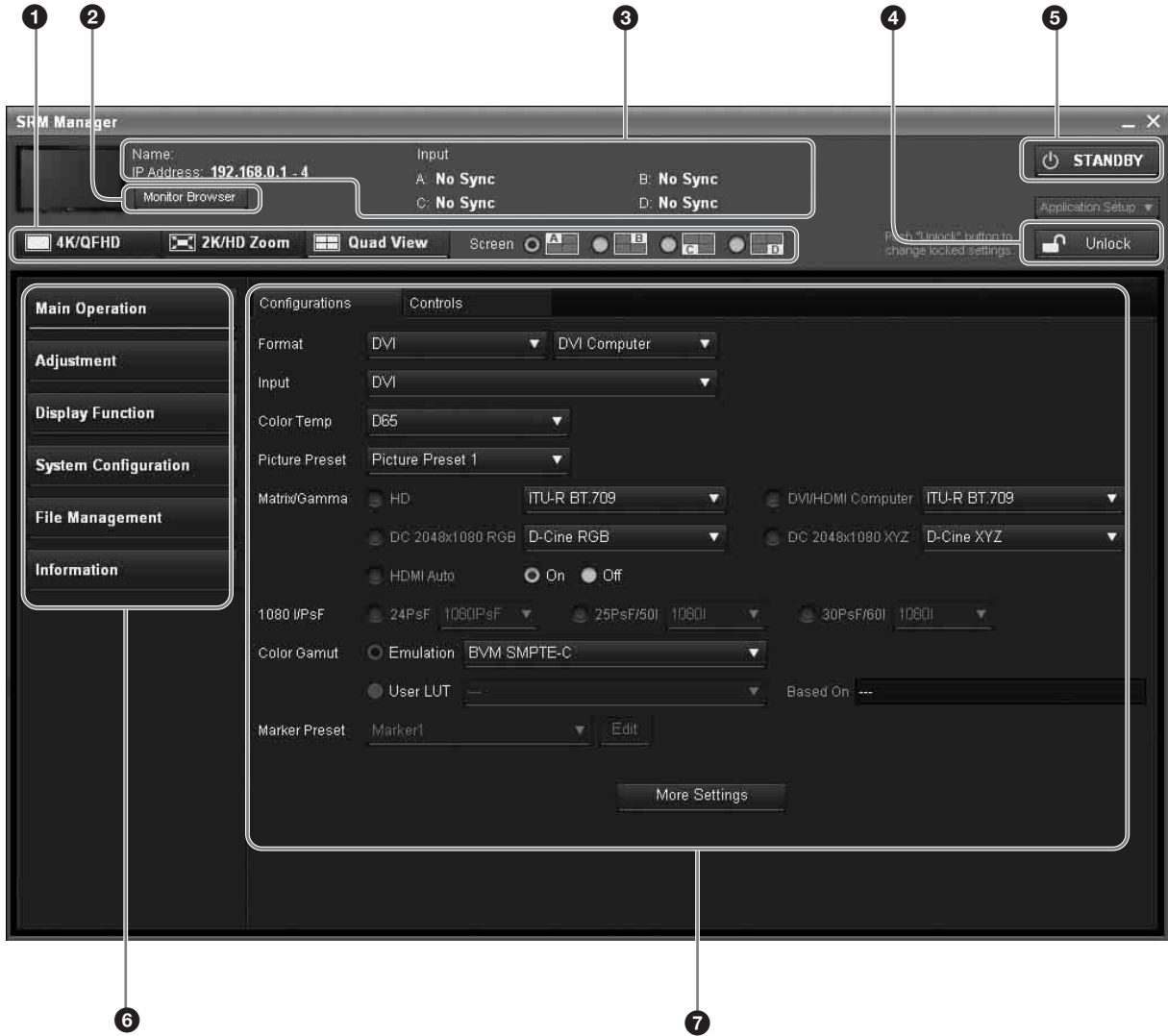
❶ Screen mode button

Selects the screen mode.

4K/QFHD (Single screen mode): Displays a high-resolution signal such as 4K or QFHD as one image by combining each input signal from the four inputs A to D.

2K/HD Zoom (Zoom mode): Magnifies and displays the picture of the input signal selected from inputs A to D.
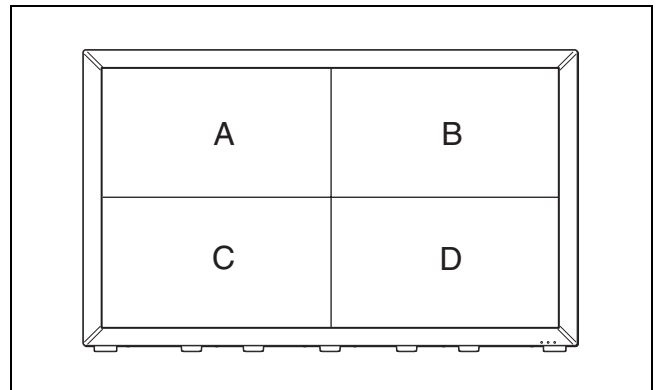
To select the signal to be magnified, click the radio button displayed when the BKM-243HS or BKM-244CC is used.

- **A** : To magnify the A signal
- **B** : To magnify the B signal
- **C** : To magnify the C signal

: To magnify the D signal

When the BKM-250TG is used, the input signal on the A screen is magnified.

Quad View **(Quad view mode):** Displays the signals from inputs A to D in four divided screens.

When the radio button is clicked, you can set each screen.

: To set the A signal

: To set the B signal

: To set the C signal

: To set the D signal

❷ Monitor Browser button
When you click this button, the Monitor Browser window is displayed.

❸ Status bar
Displays the connected monitor status.

Name: Displays a name representing the monitor.

IP Address: Displays the IP address.

Input: Displays the signal systems of inputs A to D.

❹ Password Lock/Unlock button
Issues the authentication for the password specified in the Password tab window (page 71), or cancels the authentication mode.

Unlock : Displays when the password has not been authenticated.
When you click this button, the Password Required window is displayed.

Password Required	✕
Unlock Settings	
Enter Password	
OK	Cancel
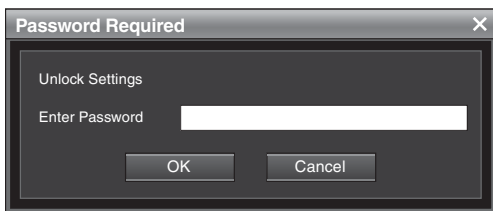
Enter Password: To enter a password.

OK: To perform the password authentication.

Cancel: To cancel without performing the password authentication.

Lock : Displays when the password has been authenticated.
When you click this button, the authentication is canceled and the password status returns to no authenticated.

❺ ⏻ STANDBY
Click to enter or cancel the standby mode. The indicator lights in green when the monitor is turned on. It goes off when the monitor is in standby mode.

❻ Menu window level 1 display
Displays the level 1 of the menu window.

After selecting the level 1, select the tab and the tab window is displayed.

❼ Tab window
You can select or set the items.

Main Operation Window

[ ]: default setting preset at the factory

Configurations Tab Window

This window is used to select the input signal or set the basic settings to display the picture correctly.
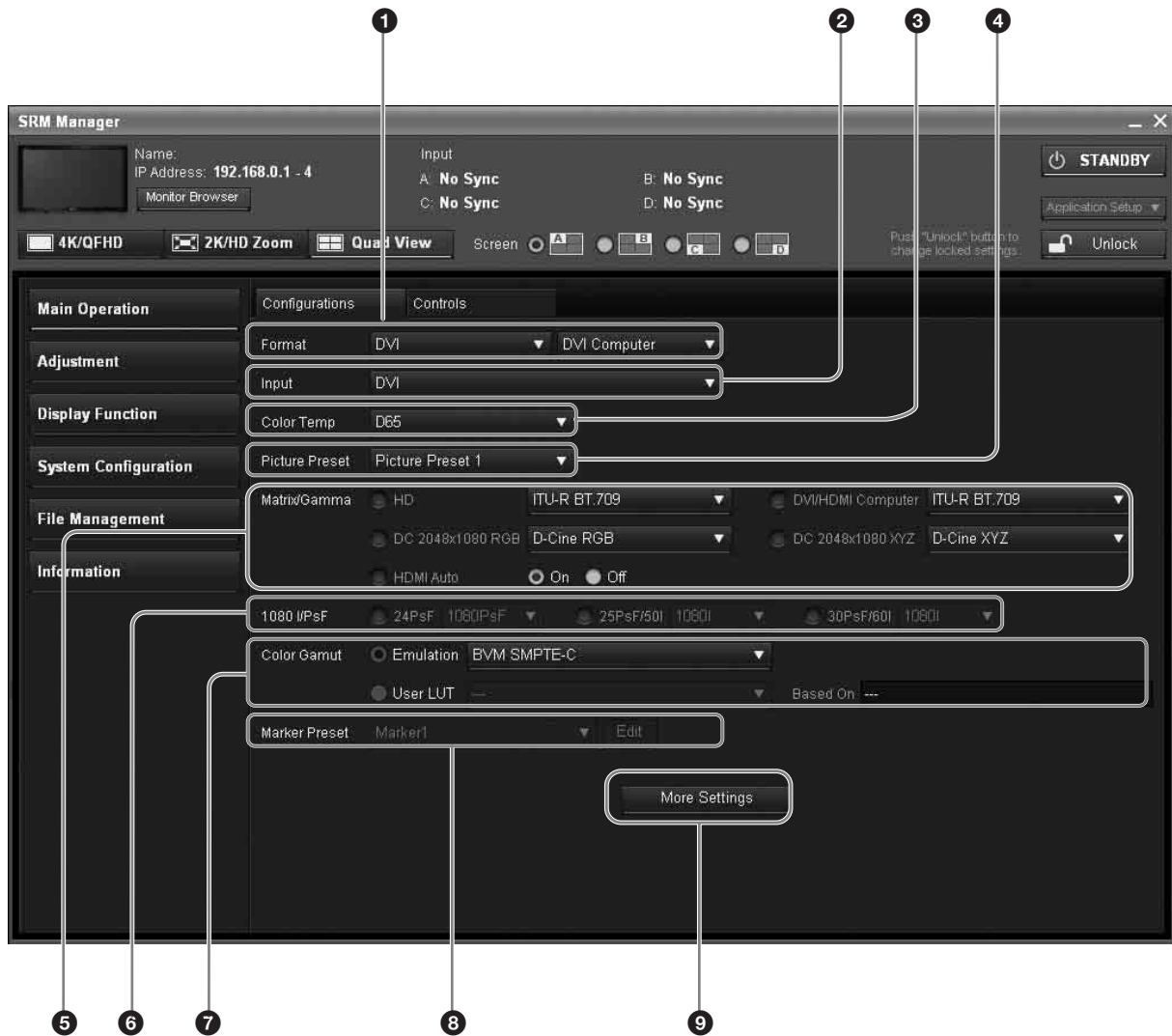
❶ Format
Sets the input signal type.
Set the combo box 1 (left) and combo box 2 (right).
You can select the item depending on the screen mode.

Combo box 1
3G/HD-SDI Auto: Sets the signal format automatically according to the Sampling Structure, Bit Depth, Picture and transport scanning method information for the Payload ID of SMPTE-352M

standard superimposed on the input signals and the result of the signal judgment by the monitor when the BKM-250TG is installed.

Note

You can confirm the Payload ID information and the signal format status of the current monitor in SDI Payload ID Status (page 79) of each Screen tab window of the Information window.

3G-SDI: Sets the serial digital signal format when the BKM-250TG is installed.
HD-SDI: Sets the serial digital signal format when the BKM-243HS, BKM-244CC or BKM-250TG is installed.
Dual Link HD-SDI: Sets the Dual-link HD-SDI signal format when two BKM-243HS or BKM-244CC are installed in the OPTION 1 and 2 option slots or BKM-250TG is installed.
[DVI]: Sets the DVI signal format.
HDMI: Sets the HDMI signal format.
In this manual, the 800 × 600, 1024 × 768, 1280 × 960, 1280 × 1024 and 1400 × 1050 signals are referred to as the "HDMI computer signals."

Combo box 2
When 3G-SDI or Dual Link HD-SDI is selected in Combo box 1, select the signal format:
4:2:2 YCbCr 10bit
4:4:4 YCbCr 10bit
4:4:4 RGB 10bit
4:4:4 YCbCr 12bit
4:4:4 RGB 12bit
4:4:4 XYZ 12bit

When DVI is selected in Combo box 1, select the following:
[DVI Video]: Displays the CEA-861 signal.
DVI Computer: Displays the computer output signal such as the VESA standard signal.

❷ **Input**
Sets the input adaptor of the input signal to be displayed and the input number.
The available setting items differ according to the installed input adaptor (BKM-243HS, BKM-244CC or BKM-250TG), screen mode and specified Format. For details, see page 116.
   Option 1 [BKM-xxx] - Input 1
   Option 1 [BKM-xxx] - Input 2
   Option 2 [BKM-xxx] - Input 1
   Option 2 [BKM-xxx] - Input 2
   Option 1 [BKM-XXX] - Input 1&2
   Option 2 [BKM-XXX] - Input 1&2
   Option 1&2 [BKM-xxx] - Input 1
   Option 1&2 [BKM-xxx] - Input 2
   Option 1 [BKM-xxx]
   Option 2 [BKM-xxx]
   Option 1&2 [BKM-xxx]
   DVI
   HDMI

❸ **Color Temp**
Sets the color temperature.

Except for the XYZ format signal
You can select from D93, D65, D61, D56, D-Cine, User Color Temp 1 to User Color Temp 5.

When D-Cine is selected, the color temperature is set to x=0.314 and y=0.351 in the CIE chromaticity coordinate.
When D93, D65, D61, D56 or D-Cine data is changed, they are displayed as D93*, D65*, D61*, D56* or D-Cine*.

For the XYZ format signal
You can select from D-Cine XYZ or User Color Temp XYZ 1 to User Color Temp XYZ 5.
When D-Cine XYZ data is changed, it is displayed as D-Cine XYZ*.

❹ **Picture Preset**
Sets the picture adjustment preset.
Select from [Picture Preset 1] to Picture Preset 5 or Picture Preset(D-Cine).

❺ **Matrix/Gamma**
Sets Matrix/Gamma data (transmission matrix and transmission gamma) depending on the input signal format.
Matrix/Gamma data consist of seven data in which the transmission matrix and transmission gamma have been preset and five user data in which the transmission matrix and transmission gamma can be selected respectively (see the table below).
   Preset data: ITU-R BT.709, ITU-R BT.601, SMPTE 240M, D-Cine RGB, D-Cine XYZ, xvYCC 709, xvYCC 601
   Data set respectively: User Matrix/Gamma 1 to User Matrix/Gamma 5
The Matrix/Gamma data can be set for each type of the input signal (HD, DVI/HDMI computer, DC 2048 × 1080 RGB or DC 2048 × 1080 XYZ).
For the type of the input signal, see "Matrix/Gamma Setting Table" on page 106.

Note

When User LUT that includes Matrix/Gamma data is applied, the Matrix/Gamma data are changed to those of the specified user data, regardless of this window setting.

For details of User LUT, see the Display Function window (page 60).

Matrix/Gamma	Matrix (Transmission matrix)	Gamma (Transmission gamma)
ITU-R BT.709	ITU709	2.2
ITU-R BT.601	ITU601	2.2
SMPTE 240M	SMPTE240M	2.2
D-Cine RGB	ITU709	2.6 RGB
D-Cine XYZ	ITU709	2.6 XYZ
xvYCC 709	ITU709	xvYCC
xvYCC 601	ITU601	xvYCC

Matrix/Gamma	Matrix (Transmission matrix)	Gamma (Transmission gamma)
User Matrix/ Gamma 1 to User Matrix/Gamma 5	ITU709 ITU601 SMPTE240M Select from above three types.	2.2 2.6 RGB 2.6 XYZ xvYCC S-LOG Standard S-LOG Full Select from above six types.

Matrix/Gamma data

ITU-R BT.709: Select when the signal of the ITU-R BT.709 standards format is input.
ITU-R BT.601: Select when the signal of the ITU-R BT.601 standards format is input.
SMPTE 240M: Select when the signal of the SMPTE-240M standards format is input.
D-Cine RGB: Select when 2048 × 1080 RGB format signal is input.
D-Cine XYZ: Select when XYZ format signal of SMPTE RP 431-2 standards is input.
xvYCC 709: Select when the IEC 61966-2-4 standards (xvYCC) and the transmission matrix ITU-R BT.709 standards format signal is input.
xvYCC 601: Select when the IEC 61966-2-4 standards (xvYCC) and the transmission matrix ITU-R BT.601 standards format signal is input.
User Matrix/Gamma 1 - **User Matrix/Gamma 5**: Select when the transmission matrix and transmission gamma is set individually depending on the input signal format.

Note

When you select xvYCC 709 or xvYCC 601, set Emulation (page 48) to L560 Native in Color Gamut of the Configurations tab window of the Main Operation window to display the extended color gamut area.

For setting the user data (User Matrix/Gamma 1 to User Matrix/Gamma 5) of Matrix/Gamma, see the User Matrix/Gamma tab window (page 61) of the Display Function window.

Transmission matrix

ITU709: Matrix of ITU-R BT.709 standards
ITU601: Matrix of ITU-R BT.601 standards
SMPTE240M: Matrix of SMPTE-240M standards

Note

The internal fixed value is applied to the transmission matrix of the RGB format or XYZ format.

Transmission gamma

2.2: Transmission gamma 2.2
2.6 RGB: Transmission gamma 2.6 for 2048 × 1080 RGB format

2.6 XYZ: Transmission gamma 2.6 for the XYZ format
xvYCC: Transmission gamma of IEC 61966-2-4 standards (xvYCC)
S-LOG Standard: Log gamma available with the Sony F23 Digital Cinematography Camera.
Select to run the 100% output level of the F23 with the 100% level of the monitor for confirmation.
S-LOG Full: Log gamma available with the F23.
Select to fit the full dynamic range of the F23 in the 100% level of the monitor for confirmation.

Notes

- As 2.6 RGB is the setting for 2048 × 1080 RGB format, the input signal of any other format is not displayed correctly.
- When you select xvYCC, set Emulation (page 48) to L560 Native in Color Gamut of the Configurations tab window of the Main Operation window to display the extended color gamut area.
- When the quantization range of the DVI or HDMI signal is Full, the internal fixed value of the transmission gamma is applied.

HD: Sets Matrix/Gamma of the HD signal.
You can select from [ITU-R BT.709], ITU-R BT.601, SMPTE 240M, xvYCC 709, xvYCC 601 or User Matrix/Gamma 1 to User Matrix/Gamma 5.

DVI/HDMI Computer: Sets Matrix/Gamma of the DVI/HDMI Computer signal.
You can select from [ITU-R BT.709], ITU-R BT.601, SMPTE 240M, xvYCC 709, xvYCC 601 or User Matrix/Gamma 1 to User Matrix/Gamma 5.

DC 2048 × 1080 RGB: Sets Matrix/Gamma of the digital cinema signal (2048 × 1080) of the RGB format.
You can select from [D-Cine RGB] or User Matrix/Gamma 1 to User Matrix/Gamma 5.

DC 2048 × 1080 XYZ: Sets Matrix/Gamma of the digital cinema signal (2048 × 1080) of the XYZ format.
You can select from [D-Cine XYZ] or User Matrix/Gamma 1 to User Matrix/Gamma 5.

HDMI Auto: Sets the manual or automatic setting for the transmission matrix/transmission gamma of the HDMI signal.

[On]: Select to set Matrix/Gamma automatically according to the input signal.
Off: Select to use Matrix/Gamma set in HD or DVI/HDMI Computer.

Note

When HDMI Auto is set to On and the signal of which the format is RGB and transmission gamma is xvYCC is input, transmission gamma is set to the internal fixed value.

❻ 1080I/PsF

When the 1080i/PsF signal is input, select the signal processing systems.
You can select this item when Format is set to 3G/HD-SDI Auto, 3G-SDI, HD-SDI or Dual Link HD-SDI.
When 1080I is selected, the I/P conversion signal is displayed. When 1080PsF is selected, the progressive conversion (PsF to P) signal is displayed.
When the 1080PsF signal is input and 1080I is selected, the signal processing delay is shortened. The signal converted from PsF to P is not displayed and the I/P conversion signal is displayed.

24PsF: Sets the display mode for the 1080/24PsF signal.
You can select from 1080I or [1080PsF].

25PsF/50I: Sets the display mode for the 1080/25PsF, 50i signal.
You can select from [1080I] or 1080PsF.

30PsF/60I: Sets the display mode for the 1080/30PsF, 60i signal.
You can select from [1080I] or 1080PsF.

❼ Color Gamut

As the SRM-L560 is equipped with the wider color space LED backlight, the signal can be displayed (emulation) in the color gamut (color space and gamma) selected in Emulation.

Emulation: Select the color gamut (color space and gamma) to be used from the following preset data:
  BVM SMPTE-C: Displays in the color gamut of BVM-A24 SMPTE-C phosphor CRT.
  BVM EBU: Displays in the color gamut of BVM-A24 EBU phosphor CRT.
  ITU-R BT.709: Displays in the color gamut of the chromaticity points of the three primary colors provided by ITU-R BT.709.
  D-Cine[1]: Displays in the color gamut of the chromaticity points of the three primary colors provided by SMPTE RP 431-2.
  L560 Native: Displays in the color gamut of the chromaticity points of the three primary colors that is independent for the SRM-L560.
  This is the widest color space setting of the signal reproduced by the SRM-L560.
  S-GAMUT: Sets to display the color gamut of the wide color space mode S-GAMUT, which is supported by the Sony F23 Digital Cinematography Camera.

  [1] Chromaticity points of the three primary colors provided by SMPTE RP431-2 are not covered in full.

User LUT: Sets the user data to apply to the Emulation setting.
If the user data are not prepared, you cannot set User LUT.
You can select from User 1 [User LUT 1 file name] to User 5 [User LUT 5 file name]. [- - - (no setting)]

Based On: Displays the color gamut used as the basis of user data. When the basic color gamut is not set in the selected user data, "---" is displayed. In this case, select the basic color gamut data from the preset Emulation data.

❽ Marker Preset

Sets the marker preset data.
You can select from [Marker 1] to Marker 5.

Edit: Sets the details of the marker.

When the button is clicked, the Marker Preset window is displayed.
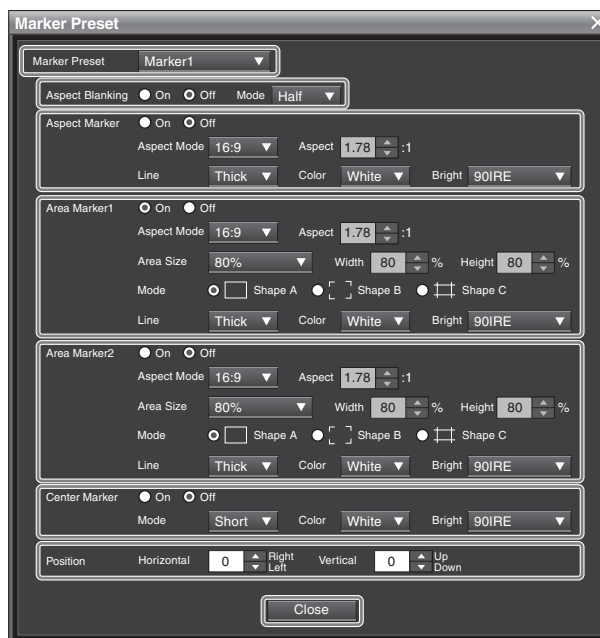
Marker Preset: Sets the marker preset data.
You can select from [Marker 1] to Marker 5.

Aspect Blanking: Sets the display of the blanking outside the area of the aspect marker.
Sets whether or not to set the blanking (On or [Off]).
  Mode: Sets the blanking mode when Aspect Blanking is set to On.
  You can select from [Half] (half blanking) or Black (blanking).

Aspect Marker: Sets whether or not to display the aspect marker (On or [Off]).
  Aspect Mode: Sets the aspect ratio of the aspect marker.
  You can select from [16:9], 15:9, 14:9, 13:9, 4:3, 2.39:1, 2.35:1, 1.85:1, 1.66:1, 1.896:1 or Variable.
  Aspect: Sets the aspect ratio of the aspect marker when Variable is selected in Aspect Mode.
  Set to 1.00:1 to 3.00:1. [1.78:1]
  Line: Sets the thickness of the aspect marker.
  You can select from [Thick] (thick) or Thin (thin).
  Color: Sets the color of the aspect marker.

You can select from [White] (white), Red (red), Green (green), Blue (blue), Yellow (yellow), Cyan (cyan) or Magenta (magenta).
Bright: Sets the luminance of the aspect marker.
You can select from [90IRE] (bright) or 40IRE (dark).

Area Marker 1: Sets whether or not to display the area marker 1 ([On] or Off).
    Aspect Mode: Sets the aspect ratio of the area marker 1.
    You can select from [16:9], 15:9, 14:9, 13:9, 4:3, 2.39:1, 2.35:1, 1.85:1, 1.66:1, 1.896:1 or Variable.

> **Note**
>
> When Variable (dot) is selected in Area Size, the size of the area marker 1 is set in pixel unit of the input signal and the Aspect Mode setting becomes invalid.

    Aspect: Sets the aspect ratio of the area marker 1 when Variable is selected in Aspect Mode.
    Set to 1.00:1 to 3.00:1. [1.78:1]
    Area Size: Sets the size of the area marker 1.
    You can select from [80%], 88%, 90%, 93%, Variable (%) or Variable (dot).
    Width: Sets the width of the area marker 1 when Area Size is set to Variable (%) or Variable (dot).
    When Variable (%) is selected
    Set to 50 to 100 (%). [80]
    When Variable (dot) is selected
    Set to 360 to 2048 (dot). [512]
    Height: Sets the height of the area marker 1 when Area Size is set to Variable (%) or Variable (dot).
    When Variable (%) is selected
    Set to 50 to 100 (%). [80]
    When Variable (dot) is selected
    Set to 240 to 1080 (dot). [384]
    Mode: Sets the shape of the area marker 1.
    You can select from [Shape A], Shape B or Shape C.
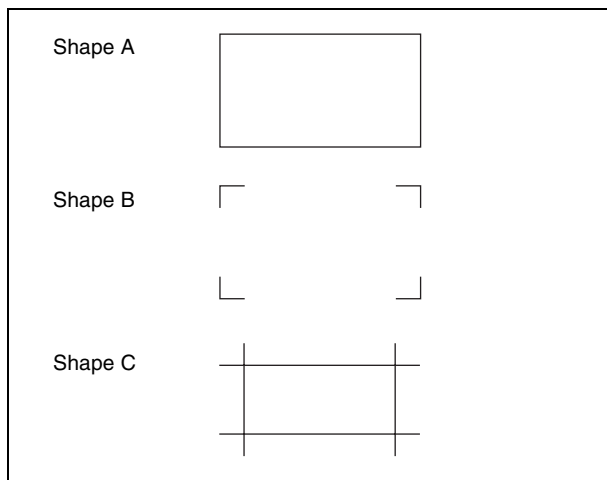
> **Note**
>
> The size of the area is as follows depending on the settings of Area Size, Aspect Mode and aspect ratio of the picture.

Example: Area Size 80%, Aspect Mode 16:9 or 2.39:1
With 16:9
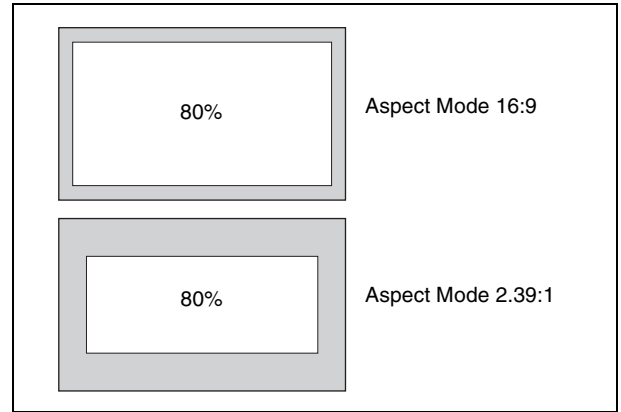
With 2.39:1
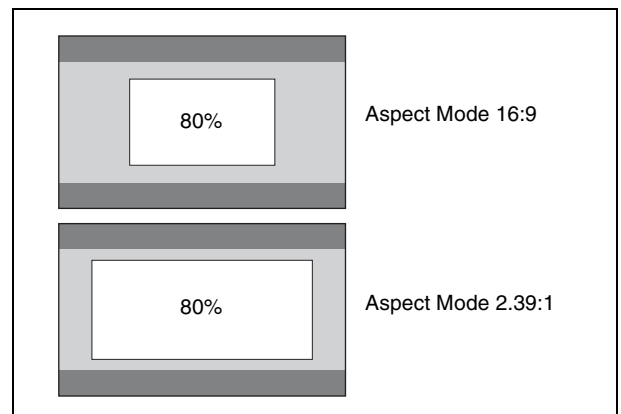
    Line: Sets the thickness of the area marker 1.
    You can select from [Thick] (thick) or Thin (thin).
    Color: Sets the color of the area marker 1.
    You can select from [White] (white), Red (red), Green (green), Blue (blue), Yellow (yellow), Cyan (cyan) or Magenta (magenta).
    Bright: Sets the luminance of the area marker 1.
    You can select from [90IRE] (bright) or 40IRE (dark).

Area Marker 2: Sets whether or not to display the area marker 2 (On or [Off]).
The setting items are the same as for Area Marker 1 (page 49).

Center Marker: Sets whether or not to display the center marker (On or [Off]).
    Mode: Sets the display mode of the center marker.
    You can select from Long (long) or [Short] (short).
    Color: Sets the color of the center marker.
    You can select from [White] (white), Red (red), Green (green), Blue (blue), Yellow (yellow), Cyan (cyan) or Magenta (magenta).
    Bright: Sets the luminance of the center marker.
    You can select from [90IRE] (bright) or 40IRE (dark).

Position: Sets the display position of the marker.
    Horizontal: Sets the horizontal position of the marker.
    Set to –65 (leftward) to +65 (rightward). [0]

Vertical: Sets the vertical position of the marker.
Set to –35 (downward) to +35 (upward). [0]

Close: Closes the Marker Preset window.

❾ **More Settings**
Sets the details of the Configurations tab window.
When the button is clicked, the More Settings window is displayed.
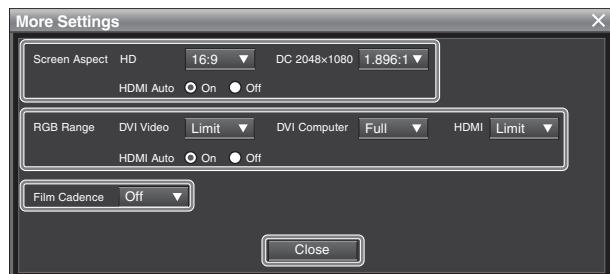
Screen Aspect: Selects the aspect ratio.

Note

This item is not selectable when Format is set to DVI Computer.

HD: Sets the aspect ratio of the HD signal.
You can select from [16:9] or 2.39:1.
DC 2048 × 1080: Sets the aspect ratio of the digital cinema signal (2048 × 1080).
You can select from [1.896:1] or 2.39:1.
HDMI Auto: Sets the manual or automatic setting for the aspect ratio of the HDMI signal.
  [On]: Select to set the aspect ratio automatically according to the input signal. The aspect ratio is not set manually.
  Off: Select to set the aspect ratio manually.

RGB Range: Sets the quantization range of the DVI or HDMI input signal.
You can select this item when Format is set to DVI Video, DVI Computer or HDMI.
DVI Video: Sets the display mode for the DVI Video signal.
  Full: 0 (black level) to 255 (white level) (8bit)
  [Limit]: 16 (black level) to 235 (white level) (8bit)
DVI Computer: Sets the display mode for the DVI Computer signal.
  [Full]: 0 (black level) to 255 (white level) (8bit)
  Limit: 16 (black level) to 235 (white level) (8bit)
HDMI: Sets the display mode for the HDMI signal.
  Full: 0 (black) to 255 (8bit)/1023 (10bit)/4095 (12bit) (white level)
  [Limit]: 16 (8bit)/64 (10bit)/256 (12bit) (black level) to 235 (8bit)/940 (10bit)/3760 (12bit) (white level)
HDMI Auto: Sets the manual or automatic setting for the quantization range of the HDMI signal.
  [On]: Select to set the quantization range automatically according to the input signal.

Off: Select to use the quantization range set in HDMI.

Film Cadence: Sets the film cadence mode.
This item is not selectable when Format is set to DVI Computer.
The progressive picture is reproduced according to the setting.
  [Off]: The progressive conversion signal is not displayed in film cadence mode.
  2-2: When the interlace signal of 2-2 pull-down processing is input
  2-3: When the interlace signal of 2-3 pull-down processing is input
  2-3-3-2: When the interlace signal of 2-3-3-2 pull-down processing is input

Notes

- When the 50i interlace signal is input, the mode is automatically set to 2-2, even when 2-3 or 2-3-3-2 is selected.
- The signal is not displayed in film cadence mode when 1080i interlace signal is input and 1080PsF is selected in 1080I/PsF. Set to 1080I.
- As the signal is displayed in film cadence mode by cadence sequence detection based on the sequential pattern of the input signal, some patterns of the input signal may not be displayed correctly.

Close: Closes the More Settings window.

Controls Tab Window

This window is used to set the display size and to adjust the color.

The indicator on the button shows whether the function of the button is on or off.

When the function is on: The indicator lights.
When the function is off: The indicator goes off.
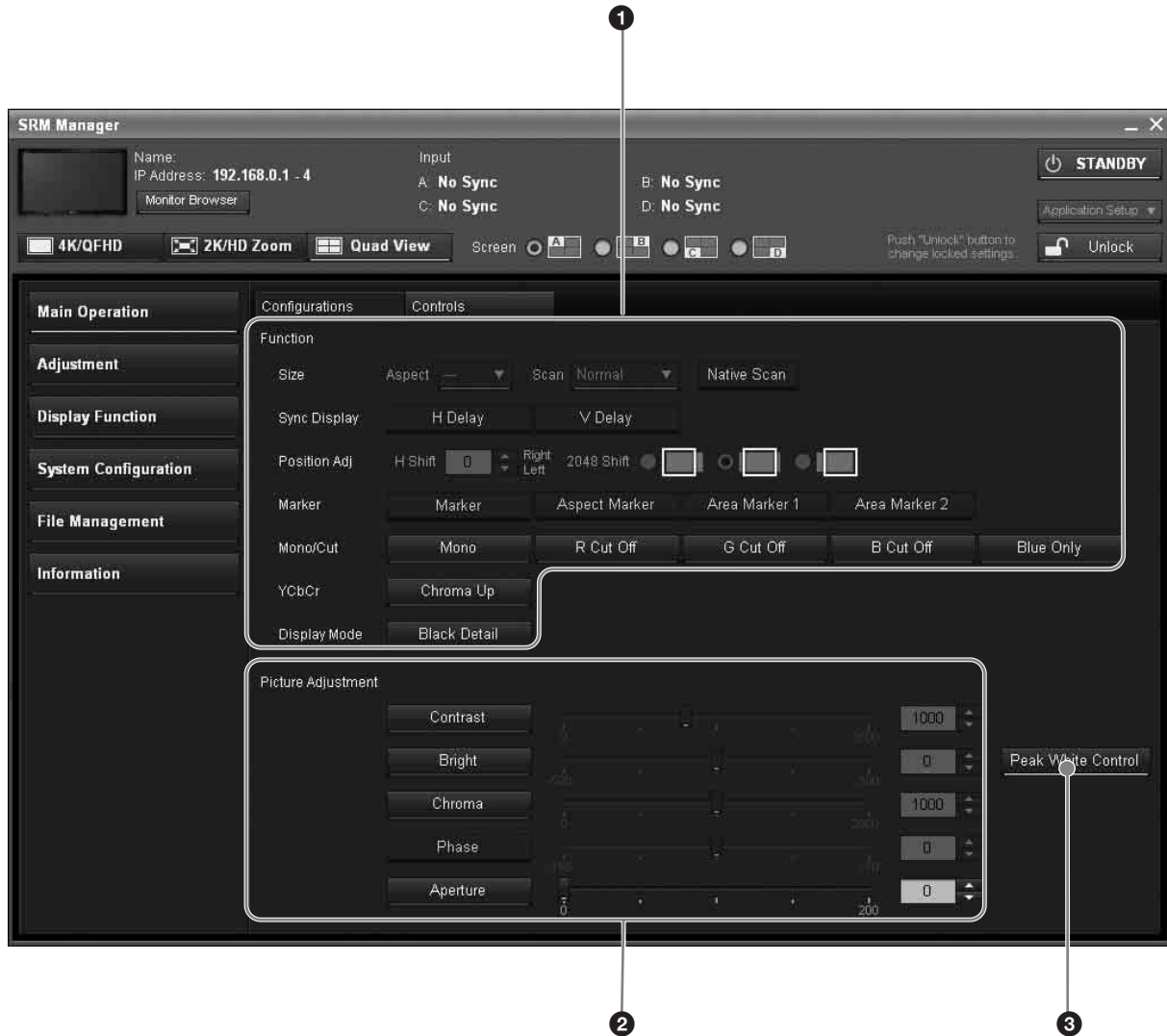
❶ Function
The function related to the picture display is set.

Size: Sets the display size.
  Aspect: Sets the aspect ratio of the picture. The selectable values differ according to the input signal. You can select from 16:9, 4:3, 2.39:1, or 1.896:1.
  Scan: Sets the scan mode of the picture.
    [Normal]: Normal scan
    Under: 3% under scan
    Over: Mask of 5% over scan portion in the normal scan

Note

The scan mode is not selectable in the following cases:
- When the input signal has no sync signal
- When the internal signal is displayed
- When Native Scan is set to on

Native Scan: Sets whether or not to enable the native scan display (on or [off]).

Note

Native scan is not selectable in the following cases:
- When the input signal has no sync signal

- When Format is set to DVI Computer (Native Scan display is set to on regardless of its setting.)
- When the HDMI computer signal is input (Native Scan display is set to on regardless of its setting.)
- When the input signal is 2048 × 1080 and the internal signal is displayed (Native Scan is set to off regardless of its setting and the normal scan display is selected.)

Sync Display: Sets the H delay and V delay.
  H Delay: Sets whether or not to display in H delay (on or [off]).
  V Delay: Sets whether or not to display in V delay (on or [off]).

Note

The picture is not displayed in H delay or V delay in the following cases:
- When the input signal has no sync signal
- When the internal signal is displayed
- When Format is set to DVI Video, DVI Computer or HDMI

Position Adj: Adjusts the position of the picture.
  H Shift: Adjusts the horizontal position of the picture when a 720/24P, 25P or 30P signal is input and H Delay is set to on.
  As the setting value increases, the picture moves to the right. As it decreases, the picture moves to the left. [0]
  4096 Shift/2048 Shift: Adjusts the display range of the picture when the 4096/2048 signal is displayed in Native Scan.
    ▣: The left side of the picture is displayed without cutting and the right side is cut.
    [▣]: The center of the picture is displayed and the left and right sides are cut.
    ▣ : The right side of the picture is displayed without cutting and the left side is cut.

Marker: Sets the marker display.
  Marker: Sets whether or not to display all the markers (on or [off]).
  Aspect Marker: Sets whether or not to display the aspect marker (on or [off]).
  Area Marker 1: Sets whether or not to display the area marker 1 (on or [off]).
  Area Marker 2: Sets whether or not to display the area marker 2 (on or [off]).

Note

The marker is not displayed in the following cases:
- When the input signal has no sync signal
- When the internal signal is displayed
- When Format is set to DVI Computer
- When the HDMI computer signal is input
- When H Delay/V Delay is set to on

Mono/Cut: Sets to display the picture in monochrome mode or cut the R/G/B signal.

Mono: Sets whether or not to display the picture in monochrome mode (on or [off]).
R Cut Off: Sets whether or not to cut the red signal (on or [off]).
G Cut Off: Sets whether or not to cut the green signal (on or [off]).
B Cut Off: Sets whether or not to cut the blue signal (on or [off]).
Blue Only: Sets whether or not to display only the blue signal as a monochrome picture after cutting the red and green signals (on or [off]).

Note

When the signal to be displayed is XYZ, Mono, R/G/B Cut Off and Blue Only are fixed to off and cannot be selected.

YCbCr:
  Chroma Up: Sets whether or not to increase the chroma value by 12 dB (on or [off]).

Note

The chroma value is not increased in the following cases:
- When the signal to be displayed is RGB or XYZ
- When the internal signal is displayed

Display Mode: Sets the black detail mode.
  Black Detail: Sets whether or not to display the signal in black detail mode (on or [off]).

Note

The black detail mode cannot be set when H Delay/V Delay is set to on.

❷ **Picture Adjustment**
Adjusts the picture by clicking the corresponding button.

Contrast: Sets the contrast. Sets to 0 to 2500. [1000]

Bright: Sets the brightness. Sets to –500 to +500. [0]

Chroma: Sets the chroma. Sets to 0 to 2000. [1000]

Phase: Currently unavailable

Aperture: Sets the aperture modification value. Sets to 0 to 200. [0]

❸ **Peak White Control**
When the brightness is increased, using the brightness adjustment, the picture may be clipped, because of the dynamic range of the circuit. Sets whether or not to control the signal gain automatically according to the setting value of the brightness, to prevent such clipping ([on] or off).

Note

Peak white control does not function with XYZ signals.

Adjustment Window

[ ]: default setting preset at the factory

Picture (Manual) Tab Window

This window is used to adjust the contrast, brightness and chroma and to set the preset value for picture adjustment preset data.

❶ Destination
The picture adjustment preset data to be set is displayed. To change the picture adjustment preset data to be adjusted, you can select from Picture Preset 1, Picture Preset 2, Picture Preset 3, Picture Preset 4, Picture Preset 5 and Picture Preset(D-Cine) in Picture Preset of the Configurations tab window of the Main Operation window.

For information about the Configurations tab window of the Main Operation window, see page 45.

Contrast: Sets the contrast. Sets to 0 to 2500. [1000] (for Picture Preset 1 to Picture Preset 5), [480] (for Picture Preset(D-Cine))

Bright: Sets the brightness. Sets to –500 to +500. [0]

Chroma: Sets the chroma. Sets to 0 to 2000. [1000]

Phase: Currently unavailable

To change the setting
Change the value in the corresponding spin box. The trackbar is also usable.

To reset the setting to the default
Click the corresponding Default button. The adjusted value is reset to the default.

b Apply
Click to confirm adjustment.

c Cancel
Click to cancel adjustment.

Color Temp (Auto) Tab Window

This window is used to adjust the color temperature automatically using a color temperature probe (not supplied).
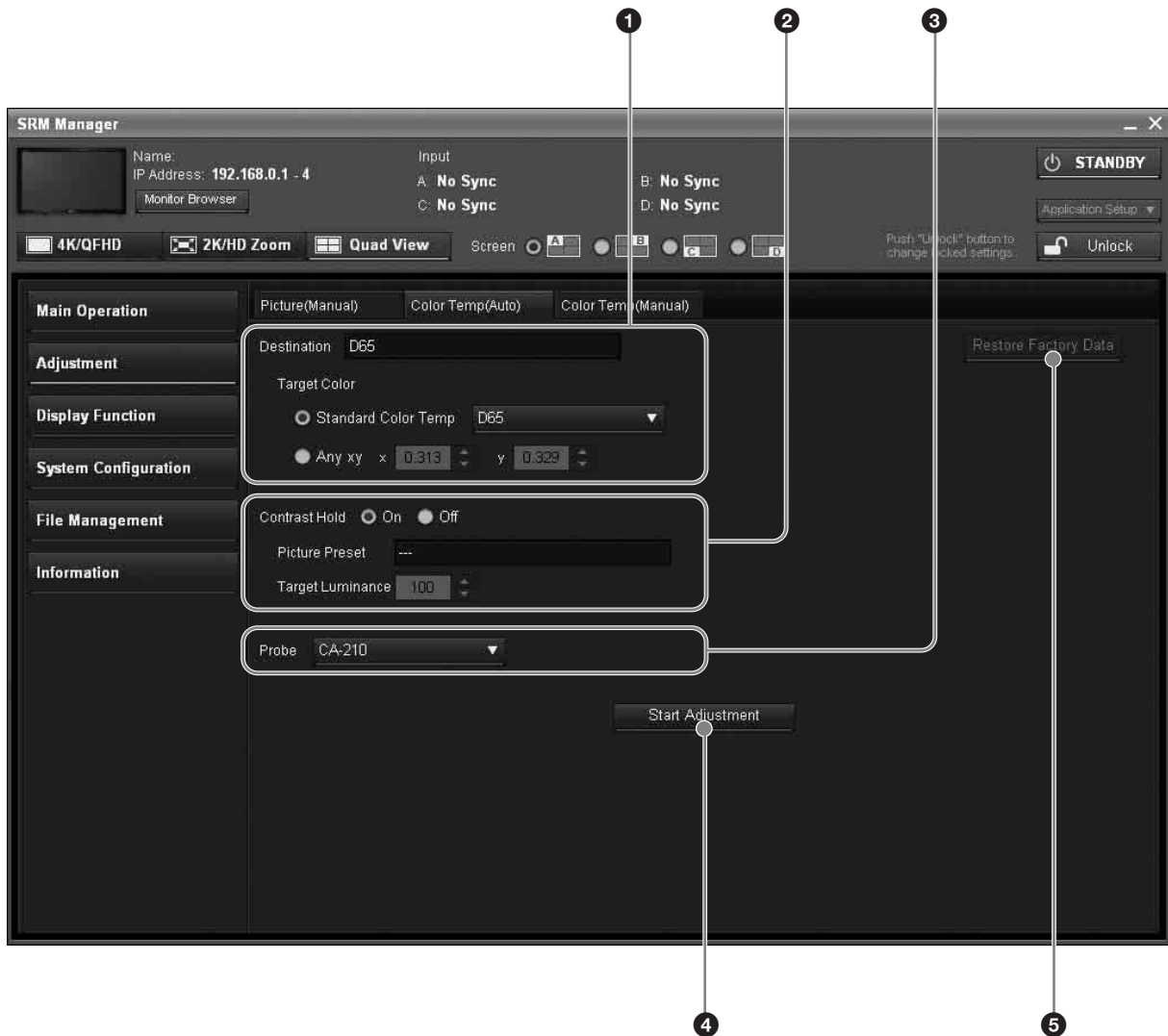
a Destination
The color temperature data to be used is displayed.

Except for the XYZ format signal
When D93, D65, D61, D56 or D-Cine data is changed, they are displayed as D93*, D65*, D61*, D56* or D-Cine*.
To change the color temperature data to be adjusted, select D93, D65, D61, D56, D-Cine, User Color Temp 1, User

Color Temp 2, User Color Temp 3, User Color Temp 4 or User Color Temp 5 in Color Temp of the Configurations tab window of the Main Operation window.

For information about the Main Operation window, see page 45.

Note

When an XYZ format signal is input, the color temperature cannot be adjusted automatically even though the color temperature data is displayed.

Target Color: Sets the adjustment value to be used.
Standard Color Temp: Sets the adjustment value to be used from D93, D65, D61, D56 or D-Cine.
Any xy: Enters the CIE color system x and y coordinates.
x: Enters the x coordinate.
Set to 0.280 to 0.345.
y: Enters the y coordinate.
Set to 0.280 to 0.352.

❷ **Contrast Hold**
Sets whether or not to adjust the color temperature automatically and adjust the contrast (backlight) at the same time.
[**On**]: The contrast is not adjusted.
Off: The contrast is set to the value depending on the luminance set in Target Luminance.

Picture Preset: When Contrast Hold is set to Off, displays the picture adjustment preset data to be used. To change the type of the picture adjustment preset data, select from Picture Preset 1 to Picture Preset 5 or Picture Preset(D-Cine) in Picture Preset of the Configurations tab window of the Main Operation window.
When Contrast is adjusted in Picture Adjustment of the Controls tab window of the Main Operation window, Picture Manual is displayed.

For information about the Main Operation window, see page 45.

Target Luminance: When Contrast Hold is set to Off, enters the luminance (cd/m^2) when the 100% white signal is input.
Adjust the luminance by the contrast adjustment (backlight adjustment).
Set to 40 to 250. [100]

Note

The luminance calibrated internally by the backlight does not guarantee an absolute value and may be different from the luminance calibrated by the probe. When you set Target Luminance near to the upper limit (250) or the lower limit (40), the setting value may exceed the adjustment range and cause an error. If an adjustment error occurs, change Target Luminance and perform the automatic adjustment again.

❸ **Probe**
Selects the probe to be used for automatic adjustment of the color temperature.

[CA-210]: Select when Konica Minolta CA-210 is used.
PM 5639/06: Select when DK-Technologies PM 5639/06 is used.
Eye-One Pro: Select when X-Rite Eye-One Pro is used.
The cable to connect the probe and the monitor is required.

About the color temperature after automatic adjustment
The values of x and y displayed by the probe may be different from those set in Target Color because the x and y values of the probe is calibrated by the monitor.

Note

An external PC with USB connector and software for adjusting the color temperature are required to use the Eye-One Pro. Before adjusting the color temperature automatically, start the software for adjusting the color temperature.
For the software for adjusting the color temperature, please contact your Sony dealer.

For more information about the cable specification required and about the connection, see "Connection Cable Specifications for Color Temperature Probes" on page 129.

❹ **Start Adjustment**
Click to display the window to confirm settings.
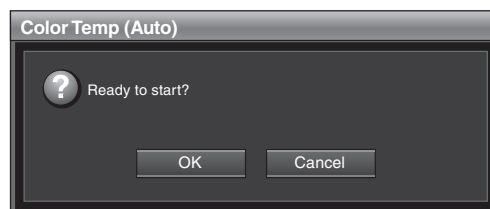
OK: Starts adjustment.
• Since the color temperature of the backlight is calibrated in accordance with the color temperature of Target Color, not only the target color temperature but also other color temperature data are adjusted by automatic adjustment.
• When Contrast Hold is set to Off, the contrast data is also adjusted since the luminance of the backlight is calibrated in accordance with the luminance set in Target Luminance.

Cancel: Closes the window without starting adjustment.

Note

Start Adjustment is not selectable in the following case:
• When 4:4:4 XYZ 12bit, DVI Computer or the HDMI computer signal is selected in Format of the Configurations tab window of the Main Operation window

Before automatic adjustment, select the value to use for the adjustment in following sequence.
When you use the previously adjusted values for adjustment, click Start Adjustment without performing steps ①, ② and ③.
①Select the color temperature to be used in Standard Color Temp of Target Color.
When Any xy is selected, enter the values of the CIE color system x and y coordinates.
②When Contrast Hold is set to Off, select Target Luminance and enter the value of the luminance (cd/m^2) when the 100% white signal is input.
③Select the probe to be used in Probe.
④Click Start Adjustment.
When the probe is attached on the center of the display, automatic adjustment starts and "In progress..." is displayed during adjusting. (It may take some time until the automatic adjustment is completed.)

Note

First connect the probe and then click Start Adjustment.

❺ **Restore Factory Data**
Resets the color temperature data to the default.
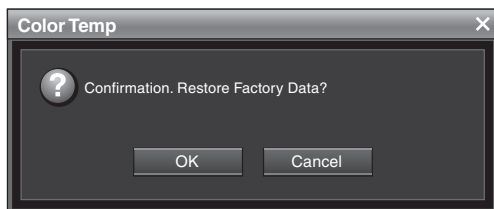
OK: Resets the setting to the default.

Cancel: Closes the window without resetting the setting.

Color Temp (Manual) Tab Window

This window is used to adjust the color temperature manually.
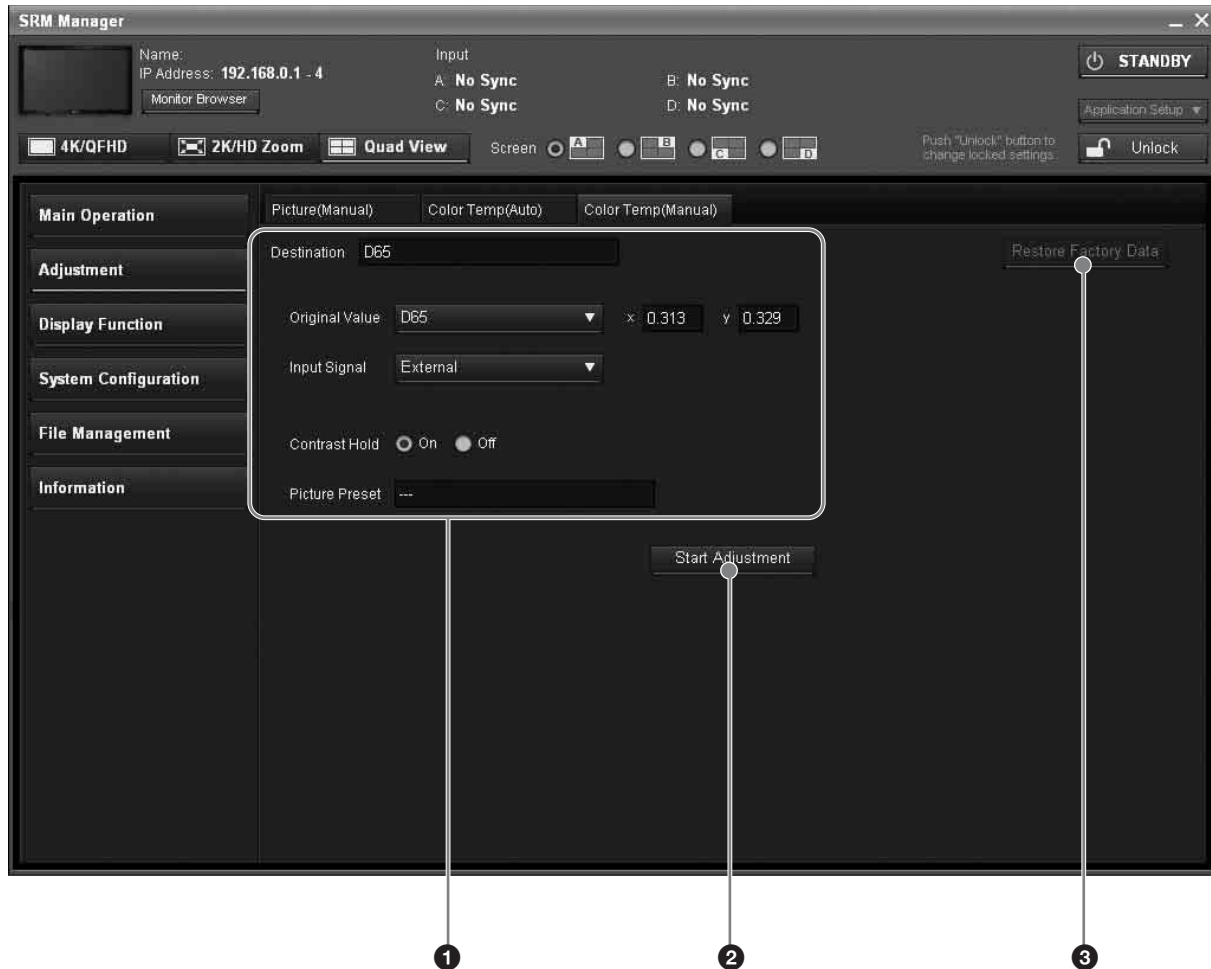
1 Destination
The color temperature data to be used is displayed.

Except for the XYZ format signal
When D93, D65, D61, D56 or D-Cine data is changed, they are displayed as D93*, D65*, D61*, D56* or D-Cine*.
To change the color temperature data to be adjusted, select D93, D65, D61, D56, D-Cine, User Color Temp 1, User Color Temp 2, User Color Temp 3, User Color Temp 4 or User Color Temp 5 in Color Temp of the Configurations tab window of the Main Operation window.

For the XYZ format signal
When D-Cine XYZ data is changed, it is displayed as D-Cine XYZ*.
To change the color temperature data to be adjusted, select D-Cine XYZ, User Color Temp XYZ 1, User Color Temp XYZ 2, User Color Temp XYZ 3, User Color Temp XYZ

4 or User Color Temp XYZ 5 in Color Temp of the Configurations tab window of the Main Operation window.

For information about the Main Operation window, see page 45.

Original Value: Sets the initial value.

Except for the XYZ format signal
You can select from D93, D65, D61, D56, D-Cine, User Color Temp 1, User Color Temp 2, User Color Temp 3, User Color Temp 4 or User Color Temp 5.
When D93, D65, D61, D56 or D-Cine data is changed, they are displayed as D93*, D65*, D61*, D56* or D-Cine*.

Adjustment Window | 57

For the XYZ format signal

You can select from D-Cine XYZ, User Color Temp XYZ 1, User Color Temp XYZ 2, User Color Temp XYZ 3, User Color Temp XYZ 4 or User Color Temp XYZ 5. When D-Cine XYZ data is changed, it is displayed as D-Cine XYZ*.

    x: Displays the default x coordinate.
    y: Displays the default y coordinate.

Input Signal: Sets the signal to be used for adjusting the color temperature manually.

    Internal: Select when an internal signal is used.
    [External]: Select when an external signal is used.

Note

Input Signal cannot be selected in the following cases. Input the 100% white signal.
- When the signal to be displayed is XYZ or HDMI computer signal
- When Format is set to DVI Computer

Contrast Hold: Sets whether or not to adjust the color temperature and contrast (backlight) at the same time.

    [On]: Contrast is not adjusted.
    Off: Contrast is adjusted.

Picture Preset: The picture adjustment preset data set in Picture Preset of the Configurations tab window of the Main Operation, Picture Preset 1 to Picture Preset 5 or Picture Preset(D-Cine), is displayed.

To change the picture adjustment preset data, select from Picture Preset 1 to Picture Preset 5 or Picture Preset(D-Cine) in Picture Preset of the Configurations tab window of the Main Operation window.

When Contrast is adjusted in Picture Adjustment of the Controls tab window of the Main Operation window, Picture Manual is displayed.

For information about the Main Operation window, see page 45.

❷ **Start Adjustment**

Click to display the color temperature adjustment window.
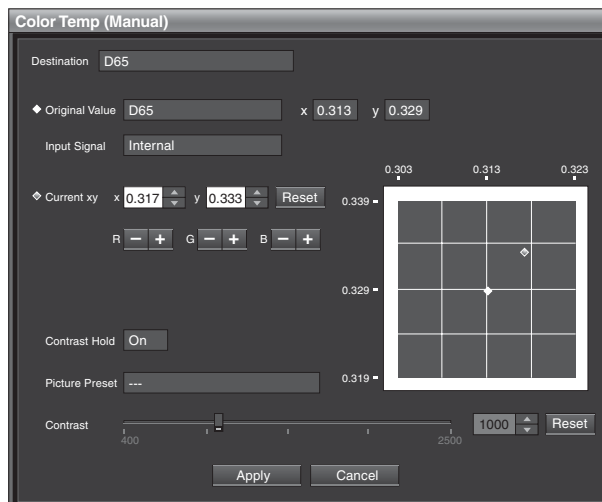
Destination: Displays the color temperature data to be adjusted.

Original Value: Displays the default setting to be adjusted.

Input Signal: Displays the signal to adjust the color temperature manually.

Current xy: Displays the x and y coordinates of the color temperature data to be adjusted.

Note

The displayed chromaticity coordinates x and y are reference values and are not guaranteed as absolute values.

    R/G/B: Adjusts the R/G/B of the color temperature data to be adjusted with +/–.
    When Contrast Hold is set to On, the adjustable items are as follows:
    R (red)
    G (green)
    B (blue)
    When Contrast Hold is set to Off, the adjustable items are as follows:
    R (red)
    G (green)
    B (blue)
    Contrast (contrast)

    To reset x, y, Red, Green and Blue to the value before adjustment
    Click the Reset button of Current xy. The x, y, Red, Green and Blue are reset to the value before adjustment.

    To reset Contrast to the value before adjustment
    Click the Reset button of Contrast.

Contrast Hold: Displays the Contrast Hold setting in the Color Temp (Manual) tab window.

Picture Preset: The picture adjustment preset data set in Picture Preset of the Configurations tab window of the Main Operation, Picture Preset 1 to Picture Preset 5 or Picture Preset(D-Cine), is displayed.
To change the picture adjustment preset data, select from Picture Preset 1 to Picture Preset 5 or Picture Preset(D-Cine) in Picture Preset of the Configurations tab window of the Main Operation window.
When Contrast is adjusted in Picture Adjustment of the Controls tab window of the Main Operation window, Picture Manual is displayed.

Cancel: Click to cancel the adjustment.
The adjustment data is cleared and the setting returns to the previous value.

Apply: Click to confirm the adjustment.

❸ **Restore Factory Data**
Resets the color temperature data to the default.
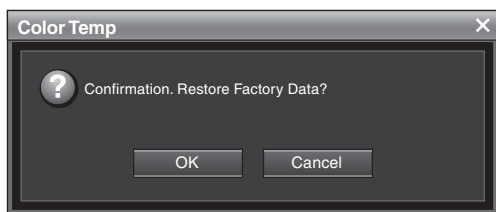
OK: Resets the color temperature data to the default.
Cancel: Closes the window without resetting the setting.

Display Function Window

[ ]: default setting preset at the factory

User LUT Manager Tab Window

This window is used to set the user data (User LUT 1 to User LUT 5) of Color Gamut.
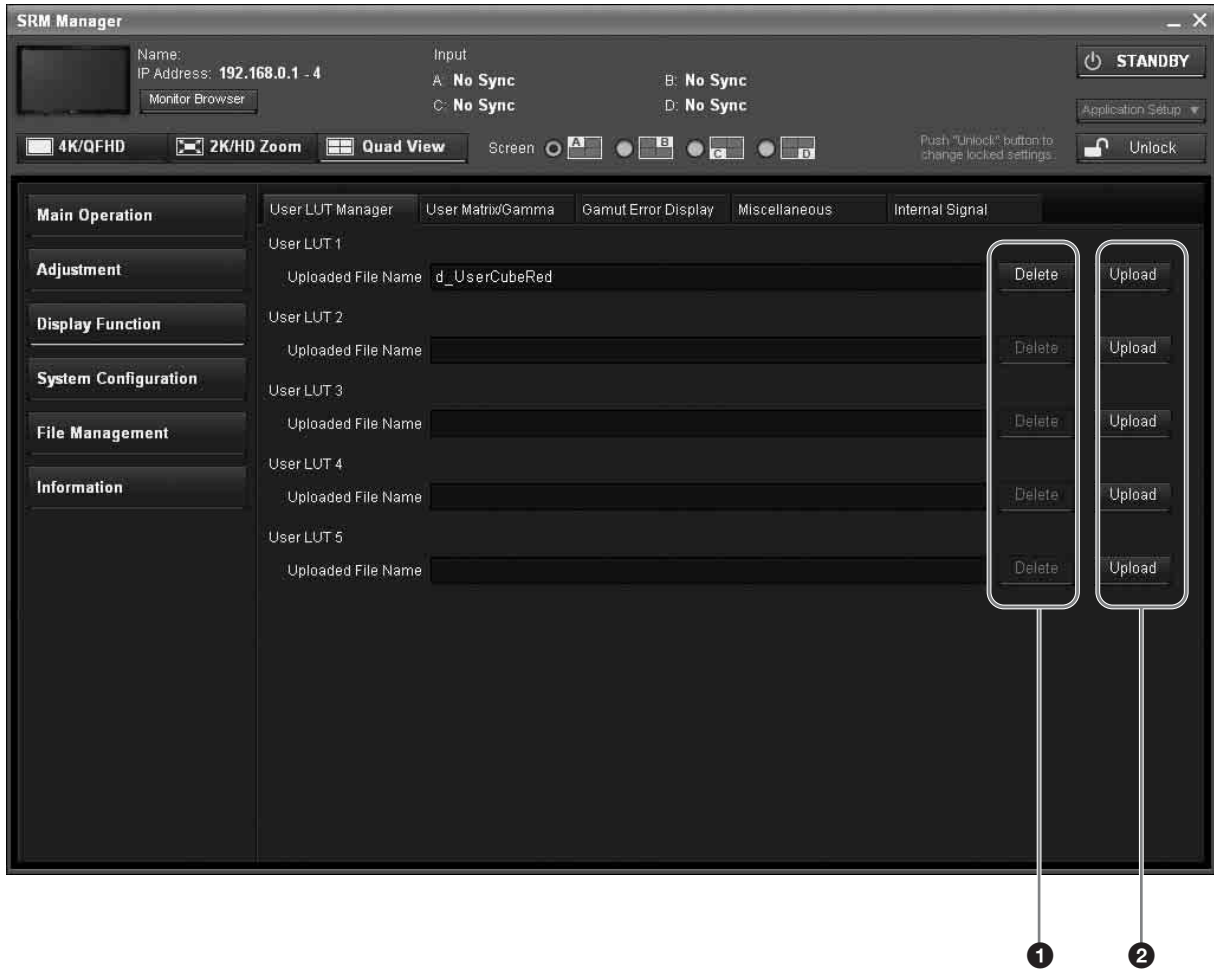
❶ **Delete**
Deletes the LUT data file read into the user data (User LUT 1 to User LUT 5).
When the item is selected, the file name in Upload File Name is deleted.

❷ **Upload**
When the button is clicked, the window to select the file is displayed. Select the file existing in the PC and load it to the user data (User LUT 1 to User LUT 5).

Notes

• After converting the LUT data output from Grading Tool of another vendor to LUT data in the Sony-unique format, convert the LUT data again with the conversion tool so that it can be read by the monitor.
To obtain the Sony-unique format specifications for the LUT data to input to the conversion tool, conversion tool and operation procedures for the conversion tool, contact your Sony dealer.

- You can set the file name of LUT data using the following alphanumeric characters and symbols.

Alphanumeric characters: A to Z, a to z and 0 to 9
Symbols: . ' ` - + = % & ! # _ $ ^ ~ @ { } [ ] ( )

User Matrix/Gamma Tab Window

This window is used to set the transmission matrix and transmission gamma (User Matrix/Gamma 1 to User Matrix/Gamma 5).
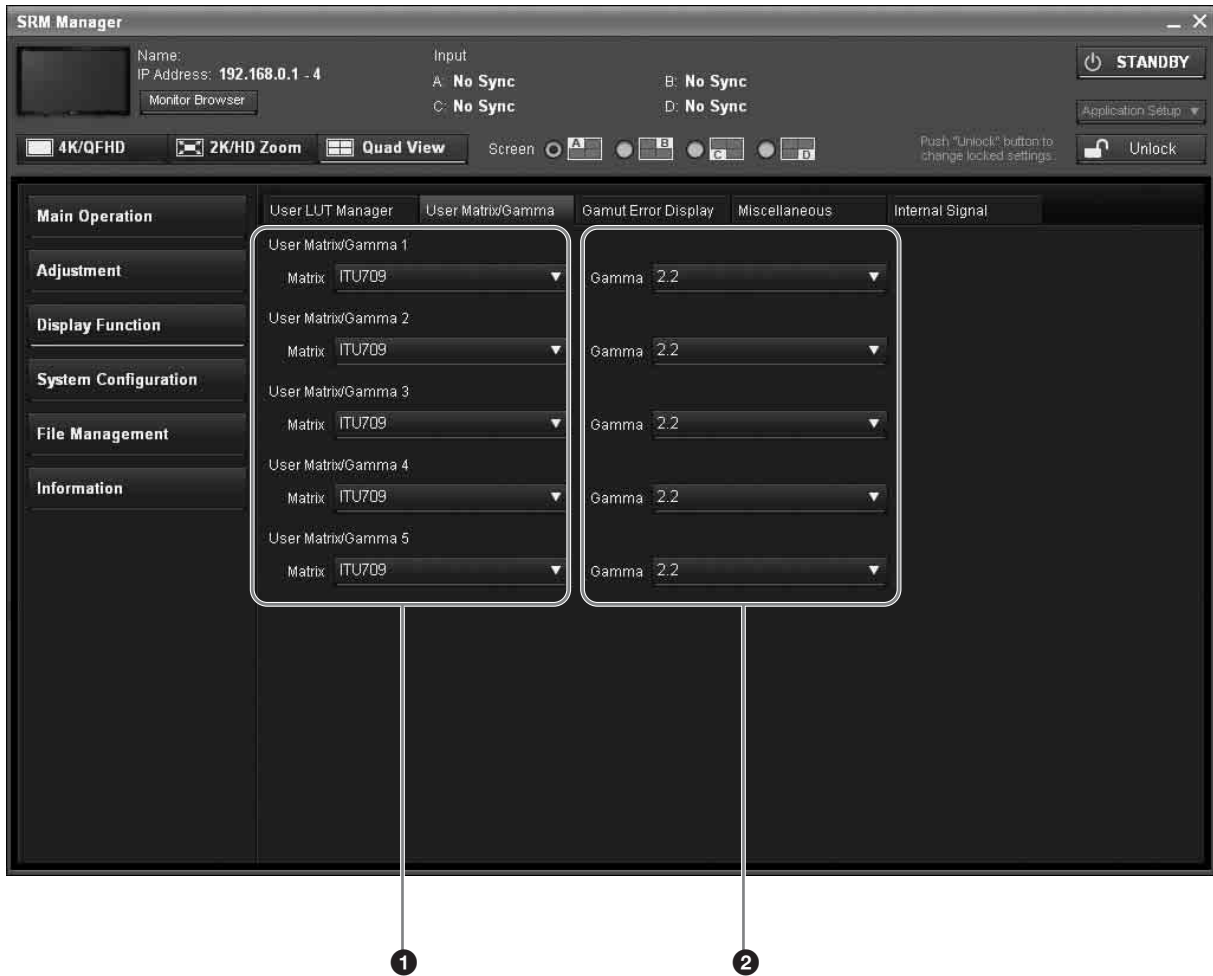
❶ **Matrix**
Sets the transmission matrix.
  [ITU709]: Matrix of ITU-R BT.709 standards
  ITU601: Matrix of ITU-R BT.601 standards
  SMPTE 240M: Matrix of SMPTE-240M standards

Note

The internal fixed value is applied to the transmission matrix of the RGB format and XYZ format.

❷ **Gamma**
Sets the transmission gamma.
  [2.2]: Transmission gamma 2.2

2.6 RGB: Transmission gamma 2.6 for the RGB format
2.6 XYZ: Transmission gamma 2.6 for the XYZ format
xvYCC: Transmission gamma of IEC 61966-2-4 standards (xvYCC)
S-LOG Standard: Log gamma available with the Sony F23 Digital Cinematography Camera.
Select to run the 100% output level of the F23 with the 100% level of the monitor for confirmation.
S-LOG Full: Log gamma available with the F23.
Select to fit the full dynamic range of the F23 in the 100% level of the monitor for confirmation.

Notes

- As 2.6 RGB is the setting for 2048 × 1080 RGB format, the input signal of any other format is not displayed correctly.

- When you select xvYCC, set Emulation (page 48) to L560 Native in Color Gamut of the Configurations tab window of the Main Operation window to display the extended color gamut area.
- When the quantization range of the DVI signal or HDMI signal is Full, the internal fixed value of the transmission gamma is applied.

Gamut Error Display Tab Window

This window is used to set the gamut error display.
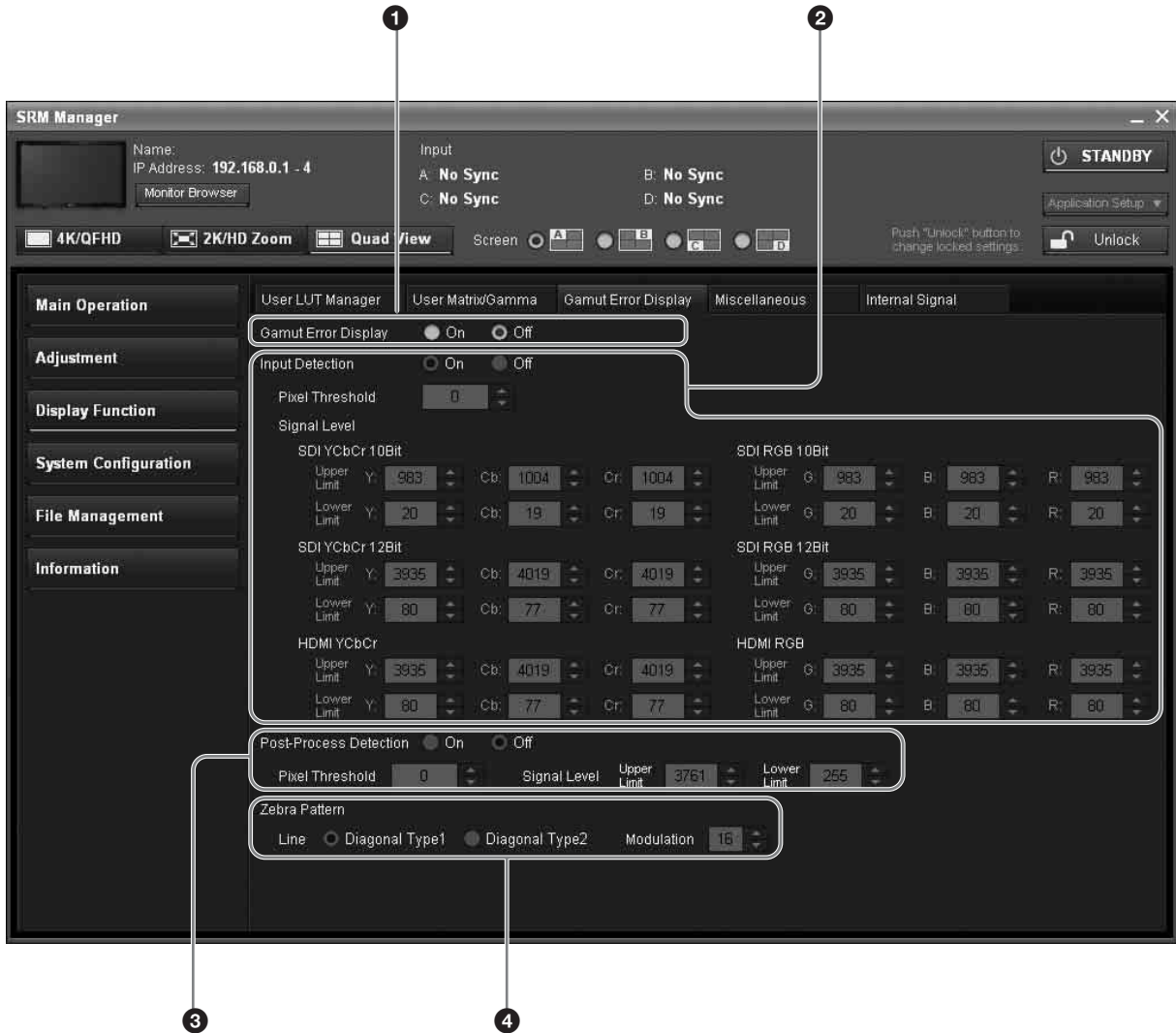
Notes

- The gamut error display function is effective when 3G/HD-SDI (except 2048 × 1080 RGB and XYZ) or HDMI (the quantization range is Limit) signal is input.
- The gamut error display function does not work in the following cases:
  – When the input signal has no sync signal
  – When the internal signal is displayed
  – When H Delay/V Delay is set to on
  – When Black Detail Mode is set to on
- In under scan mode, each one line of the upper and lower lines of the video signal is also detected for gamut error display.
- The closed caption display when the BKM-244C is installed, and the time code display and the audio level

display of embedded audio when the BKM-250G is installed are also detected for gamut error display.
- In over scan mode, 5% mask portion is also detected for gamut error display. However, the zebra pattern is not displayed on 5% mask portion.

❶ Gamut Error Display
Sets whether or not to display the gamut error (On or [Off]).

❷ Input Detection
Sets whether or not to detect the error of the input signal ([On] or Off).

Pixel Threshold: Sets the pixel number of the gamut error in the frame to notify the gamut error detection.

When the pixel number of the error exceeds the set pixel number, the detection is notified.

Set to [0] to 65535.

> **Note**
>
> When the display mode is 4K/QFHD or 2K/HD Zoom, the monitor detects the error individually for the signal displayed on each of the four divided screens (top left, top right, bottom left and bottom right) using the set value of Pixel Threshold.

Signal Level: Sets the upper and lower limits of the signal level to detect the gamut error for each signal individually.

SDI YCbCr 10bit: When the BKM-243HS, BKM-244CC or BKM-250TG is installed, you can select this item.
  Upper Limit (upper limit)
  Y: 0 to 1023 [983]
  Cb: 0 to 1023 [1004]
  Cr: 0 to 1023 [1004]
  Lower Limit (lower limit)
  Y: 0 to 1023 [20]
  Cb: 0 to 1023 [19]
  Cr: 0 to 1023 [19]

SDI RGB 10bit: When two BKM-243HS or BKM-244CC are installed in the OPTION 1 and 2 option slots or BKM-250TG is installed, you can select this item.
  Upper Limit (upper limit)
  G: 0 to 1023 [983]
  B: 0 to 1023 [983]
  R:0 to 1023 [983]
  Lower Limit (lower limit)
  G: 0 to 1023 [20]
  B: 0 to 1023 [20]
  R: 0 to 1023 [20]

SDI YCbCr 12bit: When two BKM-243HS or BKM-244CC are installed in the OPTION 1 and 2

option slots or the BKM-250TG is installed, you can select this item.
  Upper Limit (upper limit)
  Y: 0 to 4095 [3935]
  Cb: 0 to 4095 [4019]
  Cr: 0 to 4095 [4019]
  Lower Limit (lower limit)
  Y: 0 to 4095 [80]
  Cb: 0 to 4095 [77]
  Cr: 0 to 4095 [77]

SDI RGB 12bit: When two BKM-243HS or BKM-244CC are installed in the OPTION 1 and 2 option slots or the BKM-250TG is installed, you can select this item.
  Upper Limit (upper limit)
  G: 0 to 4095 [3935]
  B: 0 to 4095 [3935]
  R: 0 to 4095 [3935]
  Lower Limit (lower limit)
  G: 0 to 4095 [80]
  B: 0 to 4095 [80]
  R: 0 to 4095 [80]

HDMI YCbCr
  Upper Limit (upper limit)
  Y: 0 to 4095 [3935] (12bit conversion value)
  Cb: 0 to 4095 [4019] (12bit conversion value)
  Cr: 0 to 4095 [4019] (12bit conversion value)
  Lower Limit (lower limit)
  Y: 0 to 4095 [80] (12bit conversion value)
  Cb: 0 to 4095 [77] (12bit conversion value)
  Cr: 0 to 4095 [77] (12bit conversion value)

HDMI RGB
  Upper Limit (upper limit)
  G: 0 to 4095 [3935] (12bit conversion value)
  B: 0 to 4095 [3935] (12bit conversion value)
  R: 0 to 4095 [3935] (12bit conversion value)
  Lower Limit (lower limit)
  G: 0 to 4095 [80] (12bit conversion value)
  B: 0 to 4095 [80] (12bit conversion value)
  R: 0 to 4095 [80] (12bit conversion value)

❸ Post-Process Detection
Sets whether or not to detect the error for the signal after YCbCr is converted to RGB. (On or [Off]).

Pixel Threshold: Sets the pixel number of the gamut error in the frame to notify the gamut error detection.
When the pixel number of the error exceeds the set pixel number, the detection is notified.
Set to [0] to 65535.

> **Note**
>
> When the display mode is 4K/QFHD or 2K/HD Zoom, the monitor detects the error individually for the signal displayed on each of the four divided screens (top left, top

right, bottom left and bottom right) using the set value of Pixel Threshold.

Signal Level: Sets the upper and lower limits of the signal level.
The signal level to be set is black level 256 and white level 3760 in 12bit conversion value.

Upper Limit (upper limit): 0 to 4095 [3761]
Lower Limit (lower limit): 0 to 4095 [255]

❹ **Zebra Pattern**
Sets the zebra pattern displayed by the gamut error detection.

Note

When the setting for the zebra pattern is changed, Zebra Pattern of Black Detail of the Miscellaneous tab window is also set to the same setting value.

Line: Sets the direction of the pattern.
[Diagonal Type1]: Right descending
Diagonal Type2: Left descending

Modulation: Sets the amplitude of the pattern display. Set to 1 to 50. [16]

Miscellaneous Tab Window

This window is used to set the black detail mode and the synchronization of the output signal from the input adaptors.
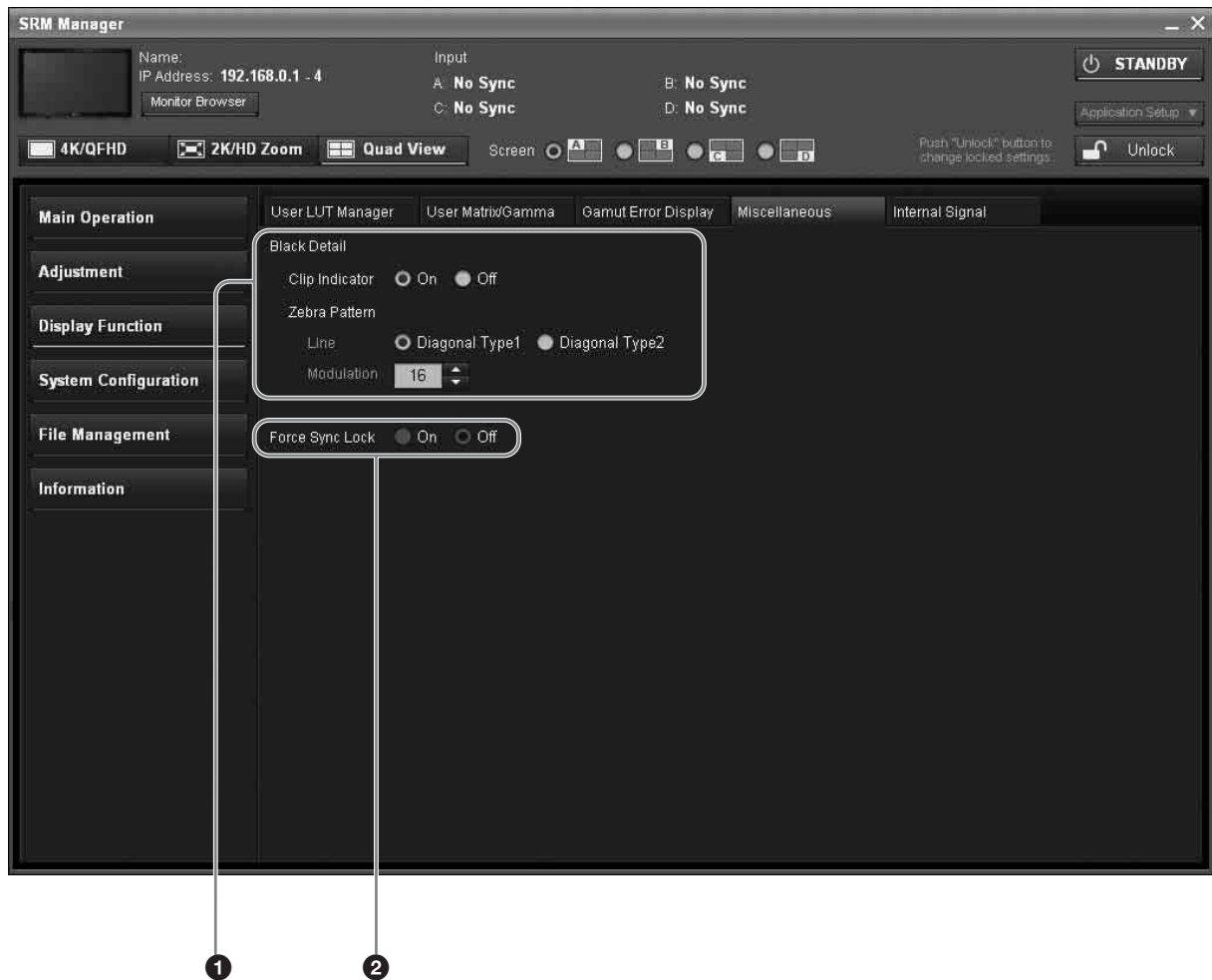
❶ **Black Detail**
Sets the black detail mode.

Clip Indicator: Sets whether or not to display a zebra pattern in the clipped portions with high color gradation on the black detail mode display ([On] or Off).

Zebra Pattern: Sets the zebra pattern displayed in the clipped portions.

Note

When the setting for the zebra pattern is changed, Zebra Pattern of the Gamut Error Display tab window is also set to the same setting value.

Line: Sets the direction of the pattern.
 [Diagonal Type1]: Right descending
 Diagonal Type2: Left descending

Modulation: Sets the amplitude of the pattern display.

Set to 1 to 50. [16]

❷ **Force Sync Lock**
Sets whether or not to enable the forced sync lock (On or [Off]) when the display mode is 4K/QFHD.
When displaying in 4K/QFHD mode, all the input signals from the inputs A to D should be genlocked to synchronize with one another.
Normally set Force Sync Lock to Off. When the input signals are not genlocked and the image is disturbed, set Force Sync Lock to On. The disturbance of the image may be decreased.

Internal Signal Tab Window

This window is used to set the internal signal.
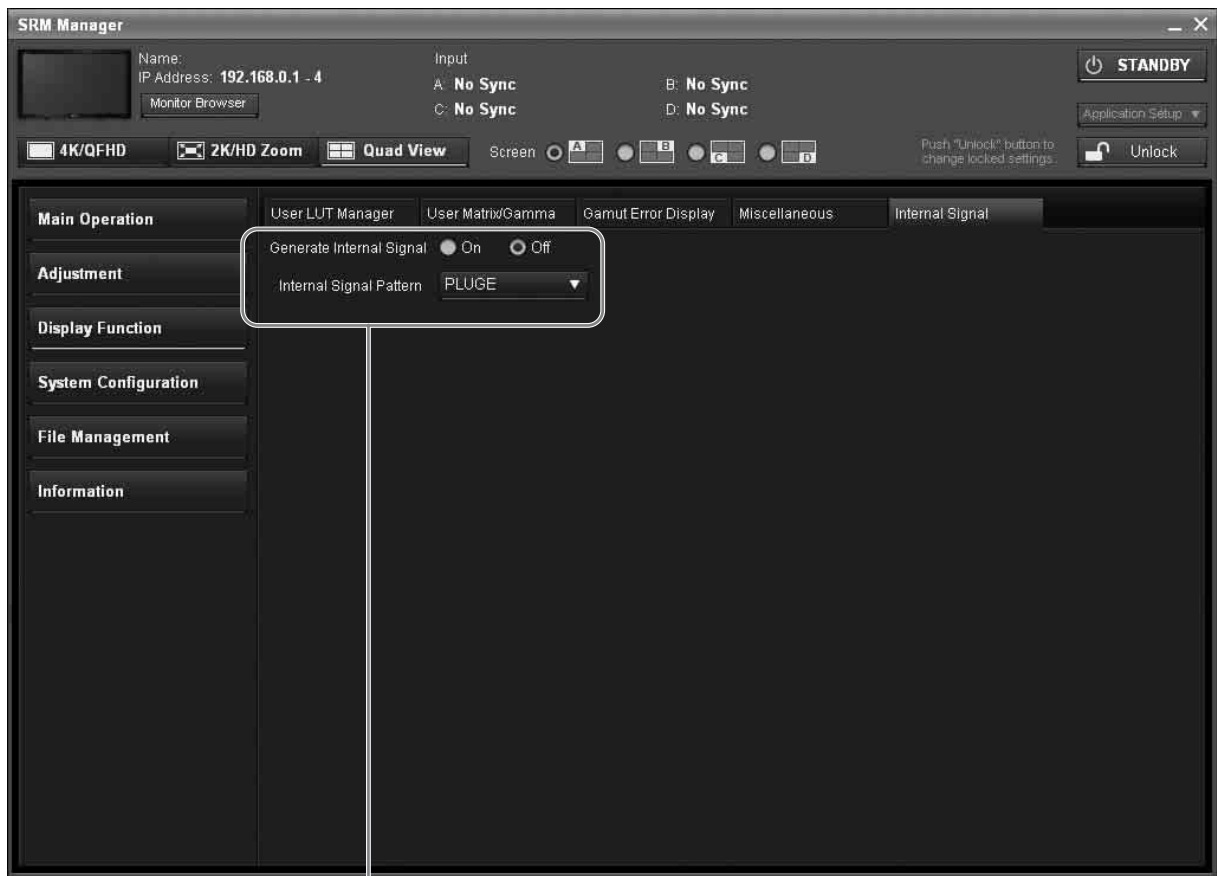
❶ **Generate Internal Signal**
Sets whether or not to display the internal signal (On or [Off]).

Internal Signal Pattern: Sets the type of the internal signal.
 [PLUGE]: PLUGE signal

Gray: 20% gray signal
White: 100% white signal
5Step: 5 step gray scale signal
Ramp: Ramp signal
Color Bars: Color bar signal
Black: 0% black signal

Notes

- When the XYZ or DVI Computer format signal, or the HDMI computer signal is input, the internal signal cannot be displayed.
- Pictures from internal signals of the same type are displayed on four divided screens in 4K/QFHD or 2K/HD Zoom mode.

System Configuration Window

[ ]: default setting preset at the factory

Network Tab Window

This window is used to set the control function from the network.
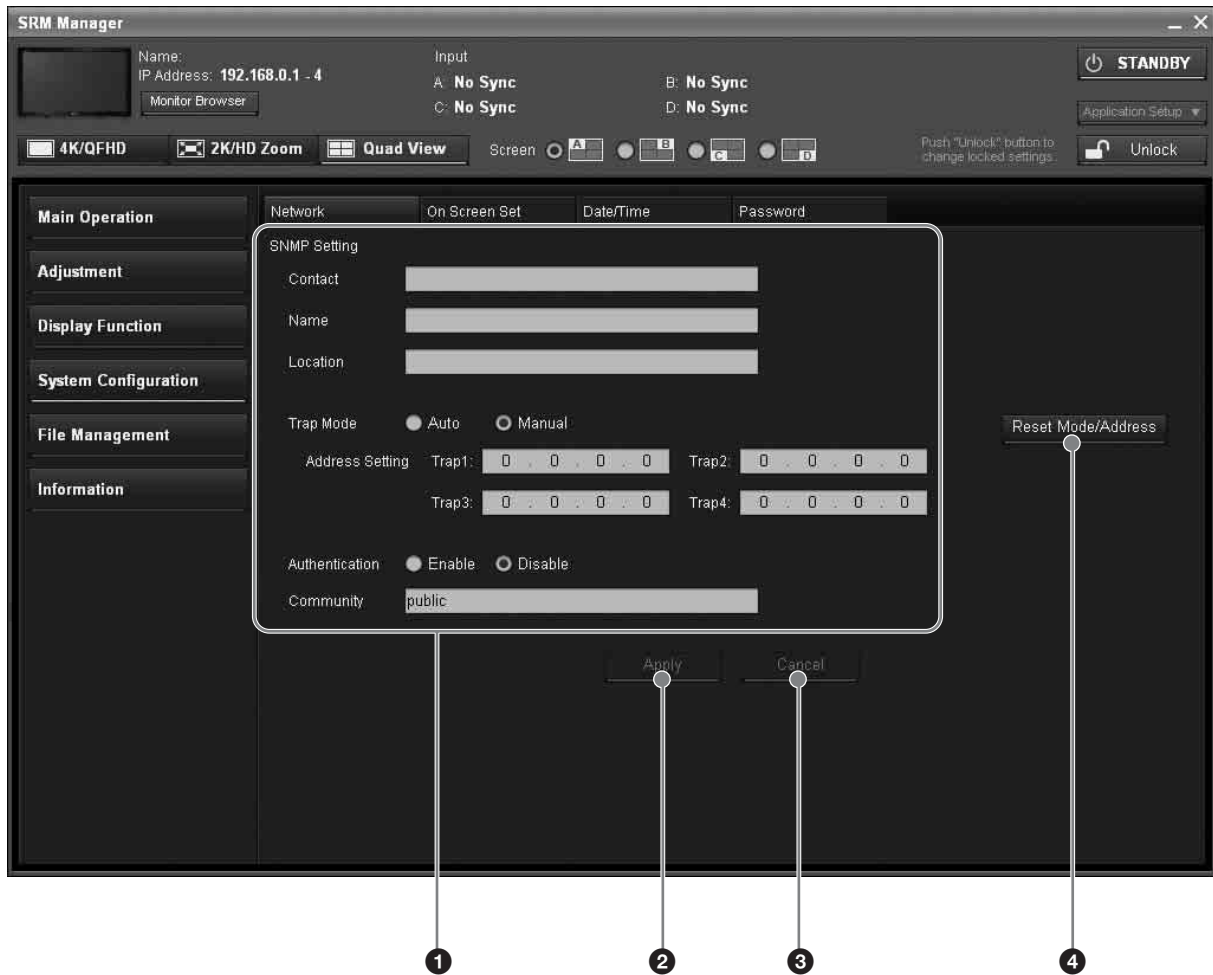
❶ **SNMP Setting**
Sets SNMP.
For the setting value, consult the network administrator.

Contact: Sets the information of the administrator (up to 20 characters).

Name: Sets the information for the administration (device ID) (up to 20 characters).

Location: Sets the location information (up to 20 characters).

Trap Mode: Sets the settings to send information manually or automatically (Auto or [Manual]).
    Address Setting: Sets the IP address to send the information.
    When Trap Mode is set to Manual, you can select this item.
    When the item is selected, you can set the IP address of Trap1 to Trap4. [0 . 0 . 0 . 0]

Authentication: Sets whether or not to issue the authentication (Enable or [Disable]).

Community: Sets the community name (up to 20 characters).

Usable alphanumeric characters and symbols

Alphanumeric characters: A to Z, a to z and 0 to 9
Symbols: space . : ` - + * / = % ! ? # _ | $ ^ ~ @ { } [ ] ( )

Note

A space cannot be used as the first character.

If a space is entered at the beginning, it will be deleted before transmission to the SRM-L560.

❷ Apply
Confirms the SNMP setting.

❸ Cancel
Cancels the changed setting.

❹ Reset Mode/Address
Resets the settings to send information manually or automatically and the IP address to the default setting.

On Screen Set Tab Window

This window is used to set the closed caption display.
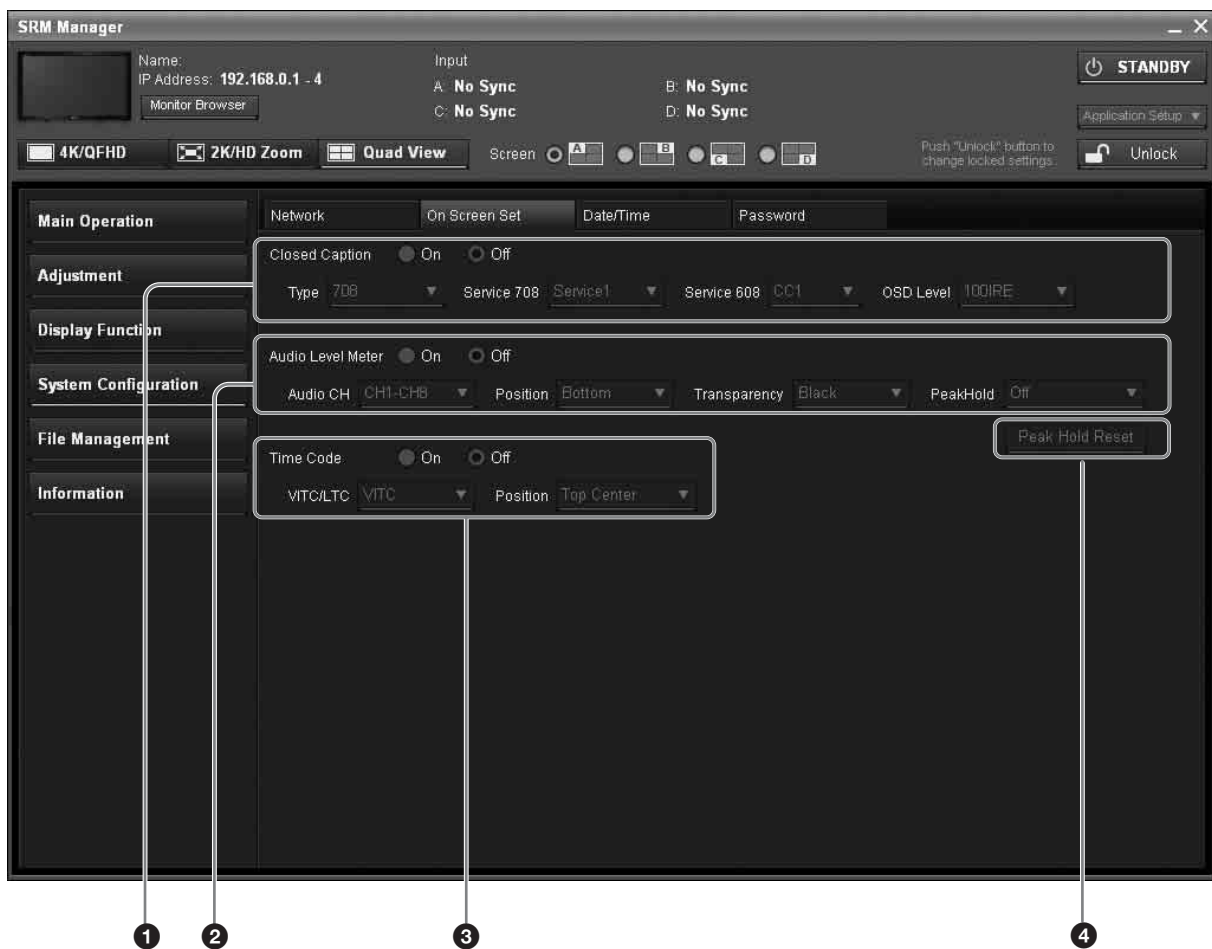
❶ Closed Caption
Sets whether or not to display closed caption signal (On, [Off]).
When the BKM-244CC is installed, you can select the item.
The setting is effective for the input signal of the BKM-244CC.

Note

Captions may not be displayed correctly in 2K/HD Zoom mode immediately after the monitor starts or the screen mode, input signal, or closed caption setting, etc. is changed.

Type: Sets the type of closed caption signal.
> **[708]:** Select to display the closed caption signal of the EIA/CEA-708 standards.
> **608(708):** Select to display the closed caption signal of the EIA/CEA-608 standards transmitted by EIA/CEA-708 standards.
> **608(ANC):** Select to display the closed caption signal of the EIA/CEA-608 standards transmitted as the ancillary data.

Service 708: Sets Service when Type is set to 708.
You can select from [Service1] to Service6.

Service 608: Sets Service when Type is set to 608(ANC) or 608(708).
You can select from [CC1] to CC4 or Text1 to Text4.

OSD Level: Sets the luminance of letters.
You can select from [100IRE] (bright), 50IRE or 30IRE (dark).

❷ Audio Level Meter

Sets whether or not to display the audio level meter (On or [Off]).
When the BKM-250TG is installed, you can select the item.
The setting is effective for the input signal of the BKM-250TG.

> **Note**
>
> As the audio level meter is superimposed on the video signal, a portion of the displayed meter may be cut depending on the scan mode setting on the monitor.

Audio CH: Sets the audio channel.
You can select from [CH1-CH8] or CH9-CH16.

Position: Sets the display position of the audio level meter.
You can select from [Bottom] (bottom) or Top (top).

> **Note**
>
> The display position is fixed when 4K/QFHD mode is selected.

Transparency: Sets the transparency of the background.
You can select from [Black] (black) or Half (translucent).

Peak Hold: Sets the peak hold mode.
> **[Off]:** The peak hold is not performed.
> **Auto:** The peak hold continues about 1 second and is released automatically.
> **Manual Reset:** The peak hold is released manually.
> To release, click the Peak Hold Reset button.

❸ Time Code

Sets whether or not to display the time code (On or [Off]).
When the BKM-250TG is installed, you can select this item.
The setting is effective for the input signal of the BKM-250TG.

> **Note**
>
> As the time code is superimposed on the video signal, a portion of the displayed time code may be cut depending on the scan mode setting on the monitor.

VITC/LTC: Sets the type of time code.
You can select from [VITC] or LTC.

Position: Sets the display position of the time code.
> You can select from Top Left (top left), [Top Center] (top center), Top Right (top right), Bottom Left (bottom left), Bottom Center (bottom center) or Bottom Right (bottom right).

> **Note**
>
> The display position is fixed when 4K/QFHD mode is selected.

❹ Peak Hold Reset

Releases the peak hold on the audio level meter.

> **Note**
>
> Peak Hold Reset cannot be selected when Peak Hold is set to Off or Auto.

Date/Time Tab Window

This window is used to set or change the date and time.

a **Sync with PC Clock**
Check to synchronize with the clock set in the PC.

b **Date and time setting buttons**
The date and time set on the PC is displayed when Sync with PC Clock is checked.
When it is not checked, you can set any date and time.

Year: Sets the year.

Month: Sets the month.

Day: Sets the day.

Hour: Sets the hour (in 24-hour display).

Minute: Sets the minute.

Second: Sets the second.

c **Apply**
Confirms the settings.

d **Cancel**
Cancels the set data.

Password Tab Window

This window is used to set the password.
Password authentication (page 44) is required when you change or set the password.
You can set a password within 20 characters using the following alphanumeric characters and symbols.

Alphanumeric characters: A to Z, a to z and 0 to 9
Symbols: .:'`-+*/=%&!?#_|$^~@{}[]<>()
The default password is [9999].
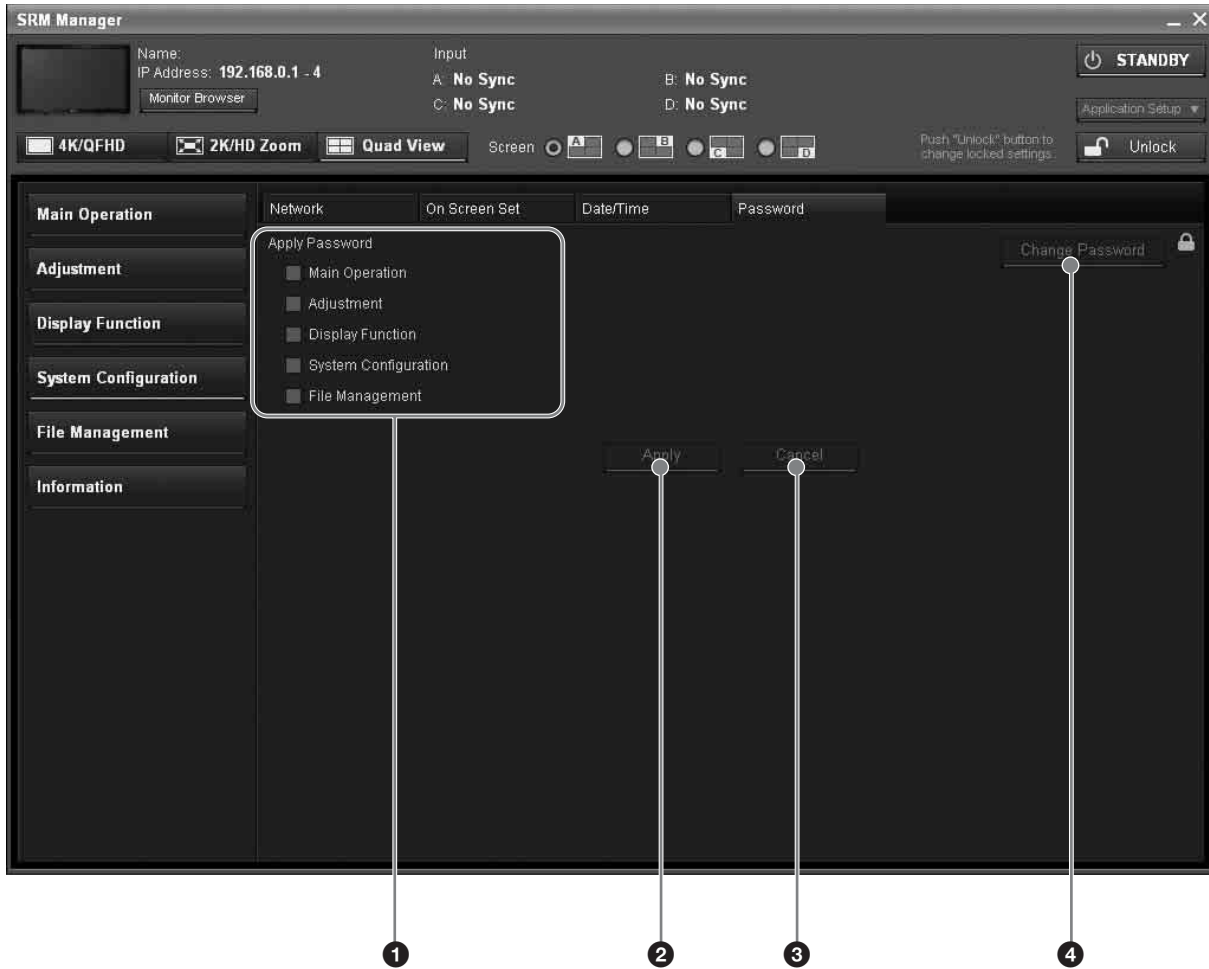
❶ Apply Password
Check the items you wish to apply the password setting.
Main Operation: Applies the password to the Main Operation window.
Adjustment: Applies the password to the Adjustment window.
Display Function: Applies the password to the Display Function window.
System Configuration: Applies the password to the System Configuration window.
File Management: Applies the password to the File Management.

❷ Apply
Confirms the settings.

❸ Cancel
Cancels the changed settings.

❹ Change Password
Click to change the password.
The Change Password window is displayed.
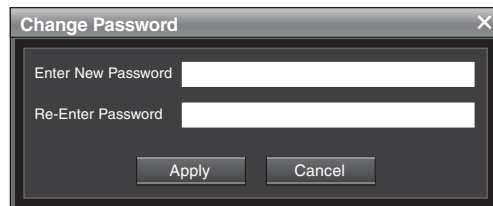
Enter New Password: Enters a new password.

Re-Enter Password: Enters the same password as one in Enter New Password to confirm.

Apply: Confirms the changed password.

Cancel: Cancels the changed password.

File Management Window

[ ]: default setting preset at the factory

Save System File Tab Window

This window is used to save the system data in the PC.
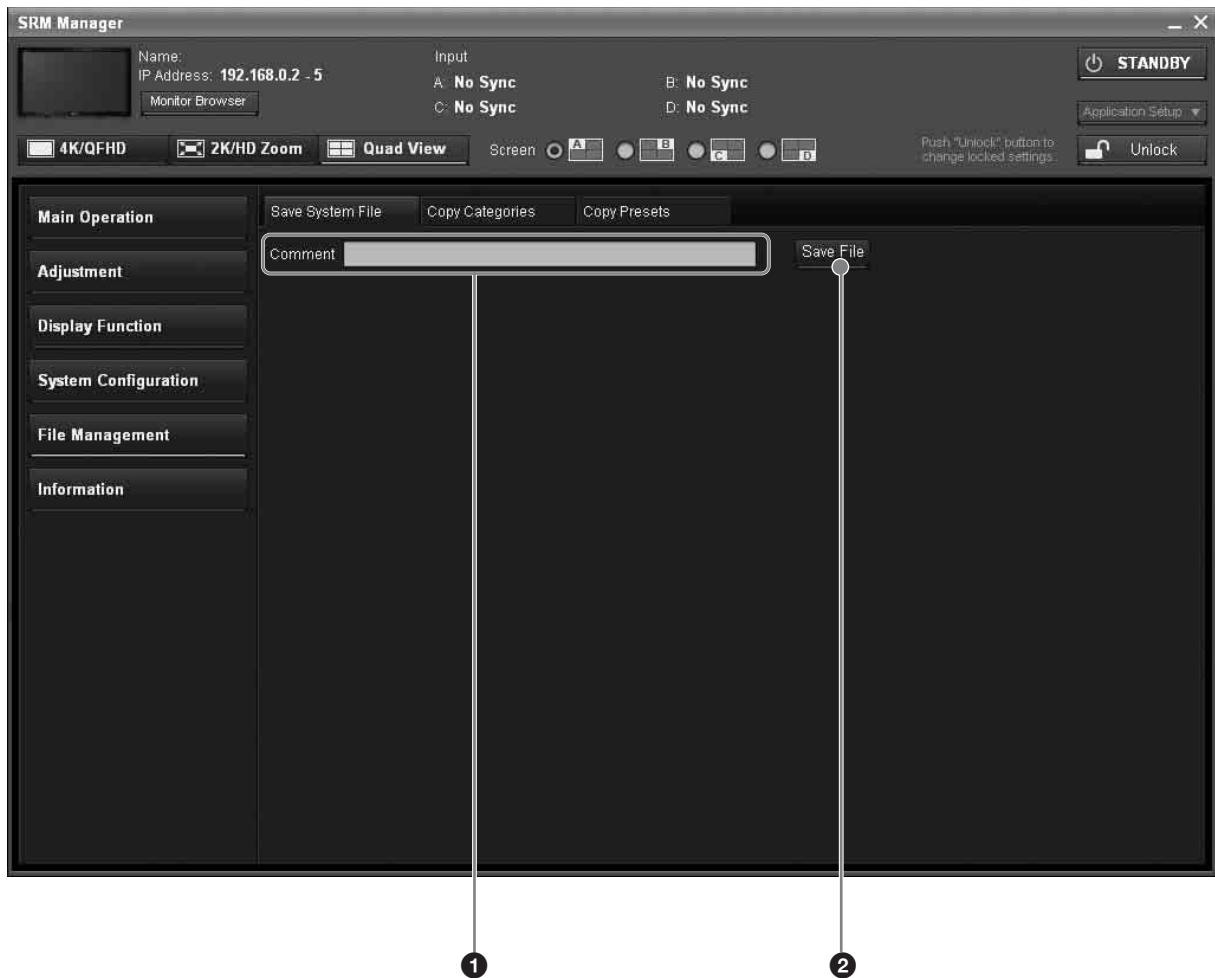
❶ **Comment**
Enters the comment when the setting data is saved (up to 20 characters).

Usable alphanumeric characters and symbols

Alphanumeric characters: A to Z, a to z and 0 to 9
Symbols: space ,.:;'`-+/=%&!?#_|$^~@{}[]<>()

> **Note**
>
> A space cannot be used as the first character.

If a space is entered at the beginning, it will be deleted before transmission to the SRM-L560.

❷ **Save File**
Click to save the setting data.

Copy Categories Tab Window

This window is used to copy the data saved in other monitor or a local PC to the monitor.
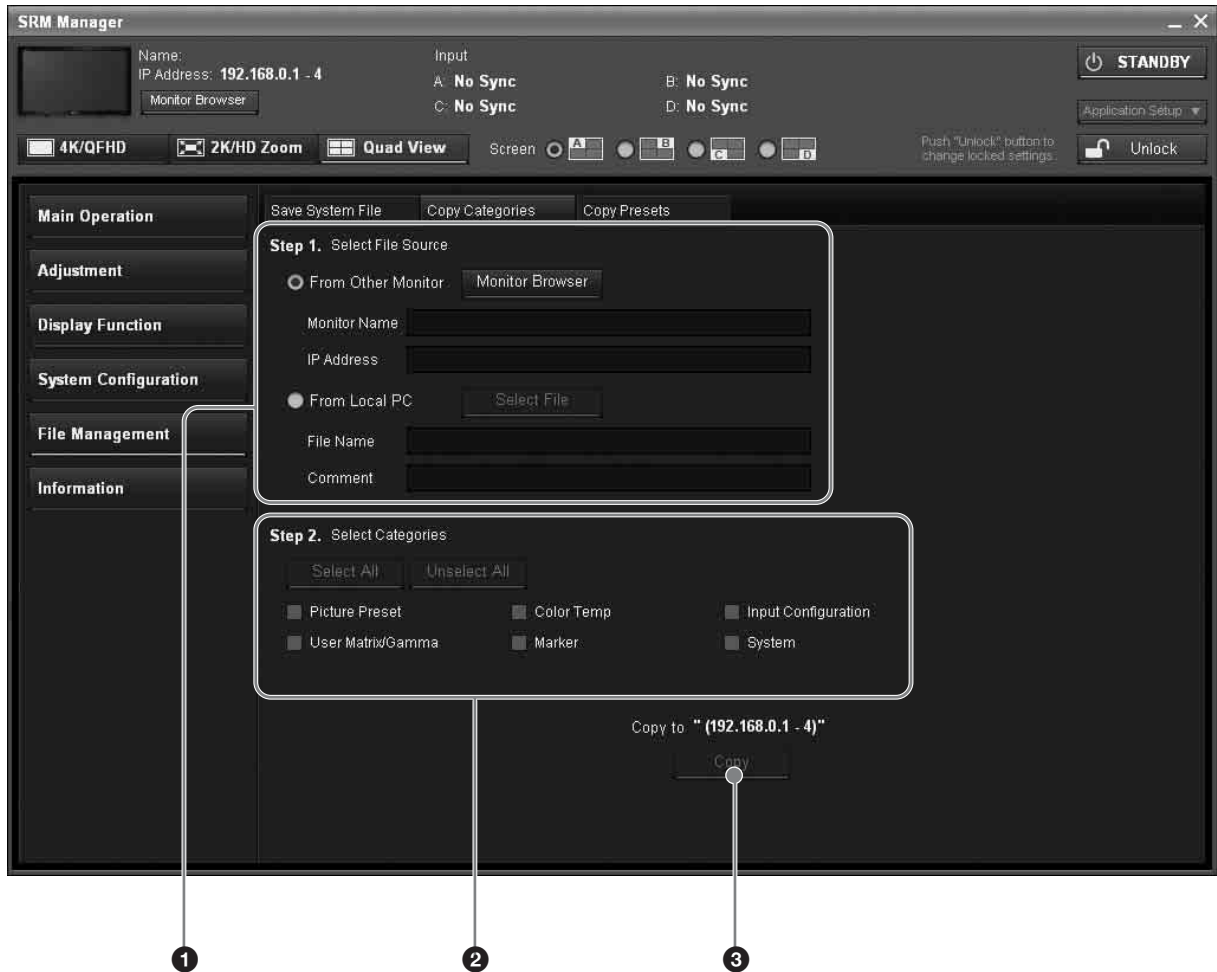
❶ **Step 1. Select File Source**
Select the source.

From Other Monitor: Select to copy the data from other monitor.
  Monitor Browser: Click to copy the data from the equipment not connected to the monitor.
  Monitor Name: Displays the selected monitor name.
  IP Address: Displays the IP address of the selected monitor.

From Local PC: Select to copy the data from the local PC.
  Select File: Click to select the file.
  File Name: Displays the selected file name.
  Comment: Displays the comment of the selected file.

❷ **Step 2. Select Categories**
Check the item to be copied.

Item	Settings to be copied	Copy destination Level 1 display > Level 2 display
Picture Preset	Adjustment values of picture adjustment preset data	Adjustment > Picture (Manual) tab window
Color Temp	Adjustment values of color temperature data	Adjustment > Color Temp (Auto) tab window or Color Temp (Manual) tab window
Input Configuration	Input setting	Main Operation > Configurations (except for Marker Preset Edit) tab window

Item	Settings to be copied	Copy destination Level 1 display > Level 2 display
User Matrix/ Gamma	Setting values of transmission matrix and transmission gamma (User Matrix/Gamma)	Display Function > User Matrix/Gamma tab window
Marker	Detailed setting values of marker preset data	Main Operation > Configurations (Marker Preset Edit) tab window
System	Setting of Peak White Control (on/off)	Main Operation > Controls tab window
	Aperture modification value	
	Setting of Gamut Error Display tab window (On/ Off)	Display Function > Gamut Error Display tab window
	Display setting of gamut error	
	Display setting of clipped portions in black detail mode	Display Function > Miscellaneous tab window
	Setting of Force Sync Lock (On/Off)	
	Setting of Closed Caption (On/Off)	System Configuration > On Screen Set tab window
	Display setting of Closed Caption	
	Display setting of Audio Level Meter	
	Display setting of Time Code	

Select All: All items are checked.

Unselect All: The checks are removed from all items.

❸ **Copy**
Copies the source data to the current monitor.

Copy Presets Tab Window

This window is used to set the source preset data and the item to be copied.
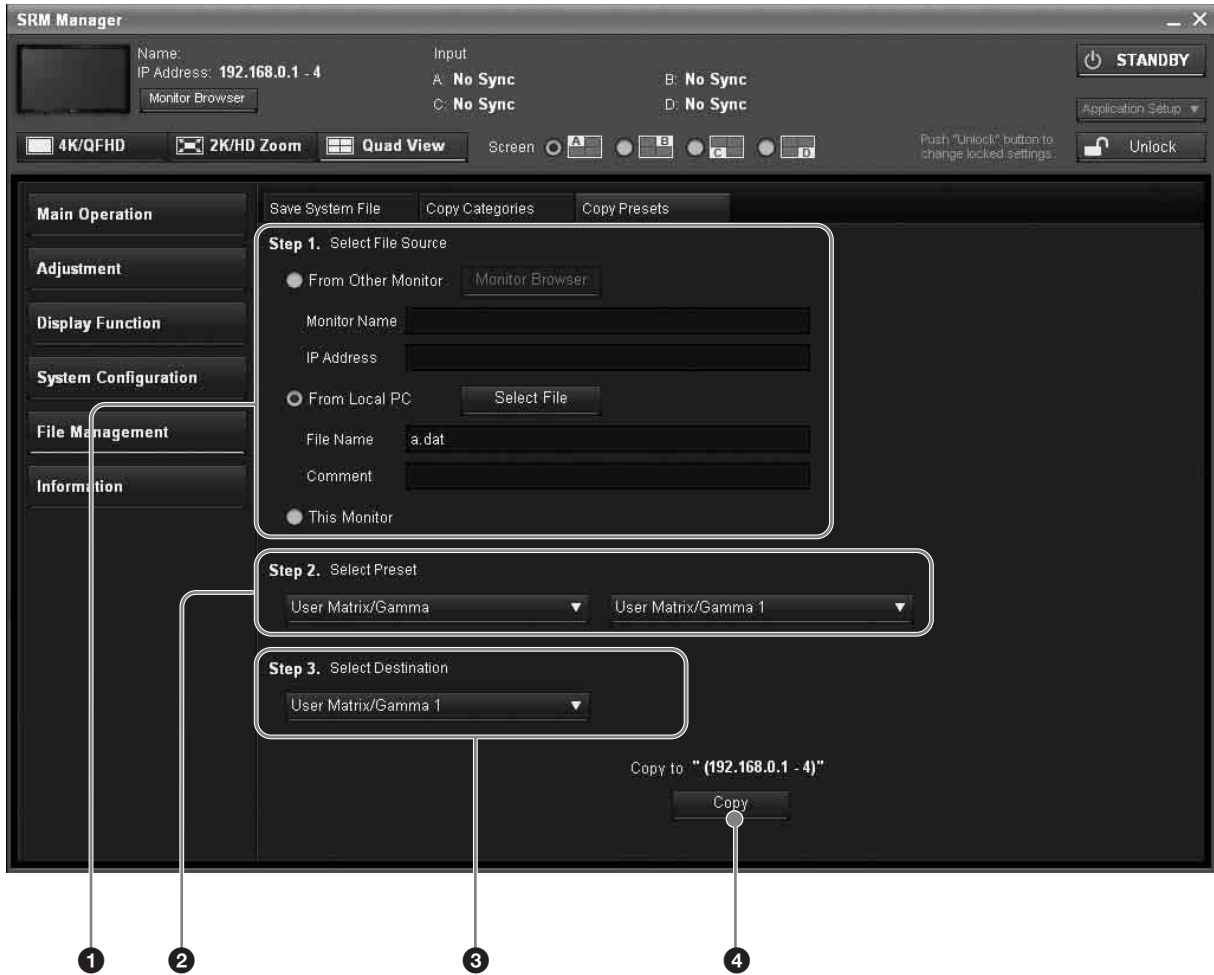
❶ Step 1. Select File Source
Select the source.

From Other Monitor: Select to copy the data from other monitor.
> **Monitor Browser:** Click to select the equipment not connected to the monitor.
> **Monitor Name:** Displays the selected monitor name.
> **IP Address:** Displays the IP address of the selected monitor.

From Local PC: Select to copy the data from the local PC.
> **Select File:** Click to select the file.
> **File Name:** Displays the selected file name.
> **Comment:** Displays the comment of the selected file.

This Monitor: Select the data of the current monitor.

❷ Step 2. Select Preset
Sets the category and preset data.
Set the combo box 1 (left) and combo box 2 (right).

Combo box 1: Select the category to be copied.

Category	Settings to be copied	Copy destination Level 1 display > Level 2 display
Color Temp	Adjustment values of color temperature data	Adjustment > Color Temp (Auto) tab window or Color Temp (Manual) tab window
Picture Preset	Adjustment values of picture adjustment preset data	Adjustment > Picture (Manual) tab window

Category	Settings to be copied	Copy destination Level 1 display > Level 2 display
User Matrix/Gamma	Setting values of transmission matrix and transmission gamma (User Matrix/Gamma)	Display Function > User Matrix/Gamma tab window
Marker Preset	Detailed setting values of marker preset data	Main Operation > Configurations (Marker Preset Edit) tab window

Combo box 2: Select the source preset data.
  When Color Temp category is selected
    Except for the XYZ format signal
    You can select from D93, D65, D61, D56, D-Cine, User Color Temp 1 to User Color Temp 5.
    When D93, D65, D61, D56 or D-Cine data are changed, they are displayed as D93*, D65*, D61*, D56* or D-Cine*.
    For the XYZ format signal
    You can select from D-Cine XYZ or User Color Temp XYZ 1 to User Color Temp XYZ 5.
    When D-Cine XYZ data is changed, it is displayed as D-Cine XYZ*.
  When Picture Preset category is selected
    You can select from Picture Preset 1 to Picture Preset 5 or Picture Preset(D-Cine).
  When User Matrix/Gamma category is selected
    You can select from User Matrix/Gamma 1 to User Matrix/Gamma 5.
  When Marker Preset category is selected
    You can select from Marker 1 to Marker 5.

❸ **Step 3. Select Destination**
Select the preset data of the copy destination.
When User Matrix/Gamma is selected in Step 2, you can select from User Matrix/Gamma 1 to User Matrix/Gamma 5.
When Marker Preset is selected in Step 2, you can select from Marker 1 to Marker 5.

❹ **Copy**
Copies the source data to the current monitor.

Information Window

[ ]: default setting preset at the factory

Common Tab Window

This window is used to view the monitor information.
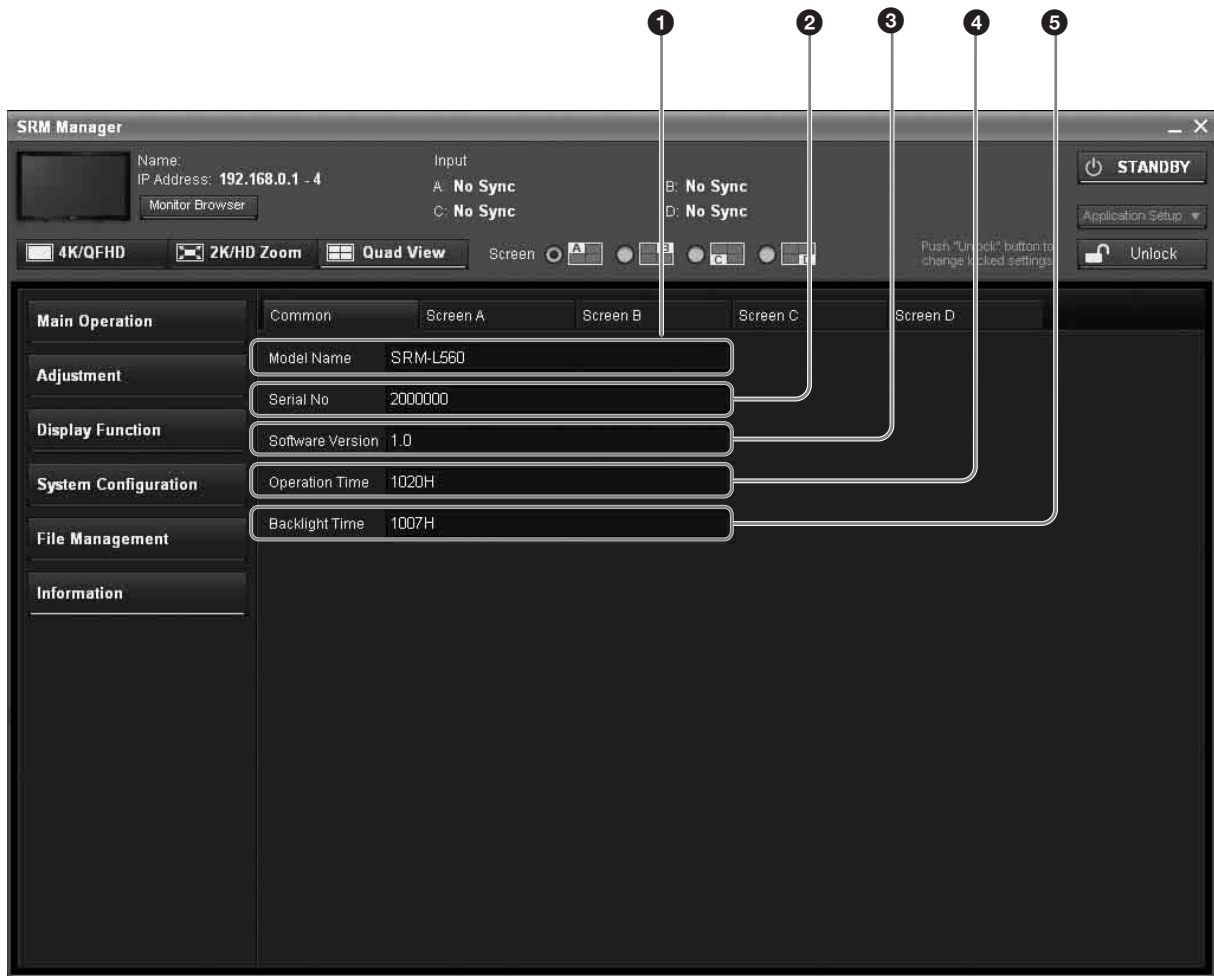
❶ **Model Name**
Displays the model name of the monitor.

❷ **Serial No**
Displays the serial number of the monitor.

❸ **Software Version**
Displays software version of the monitor.

❹ **Operation Time**
Displays operation time (hours, in total) of the monitor.

❺ **Backlight Time**
Displays brighten time (hours, in total) of the monitor backlight.

Screen A Tab Window

This window is used to view the information of the A screen.
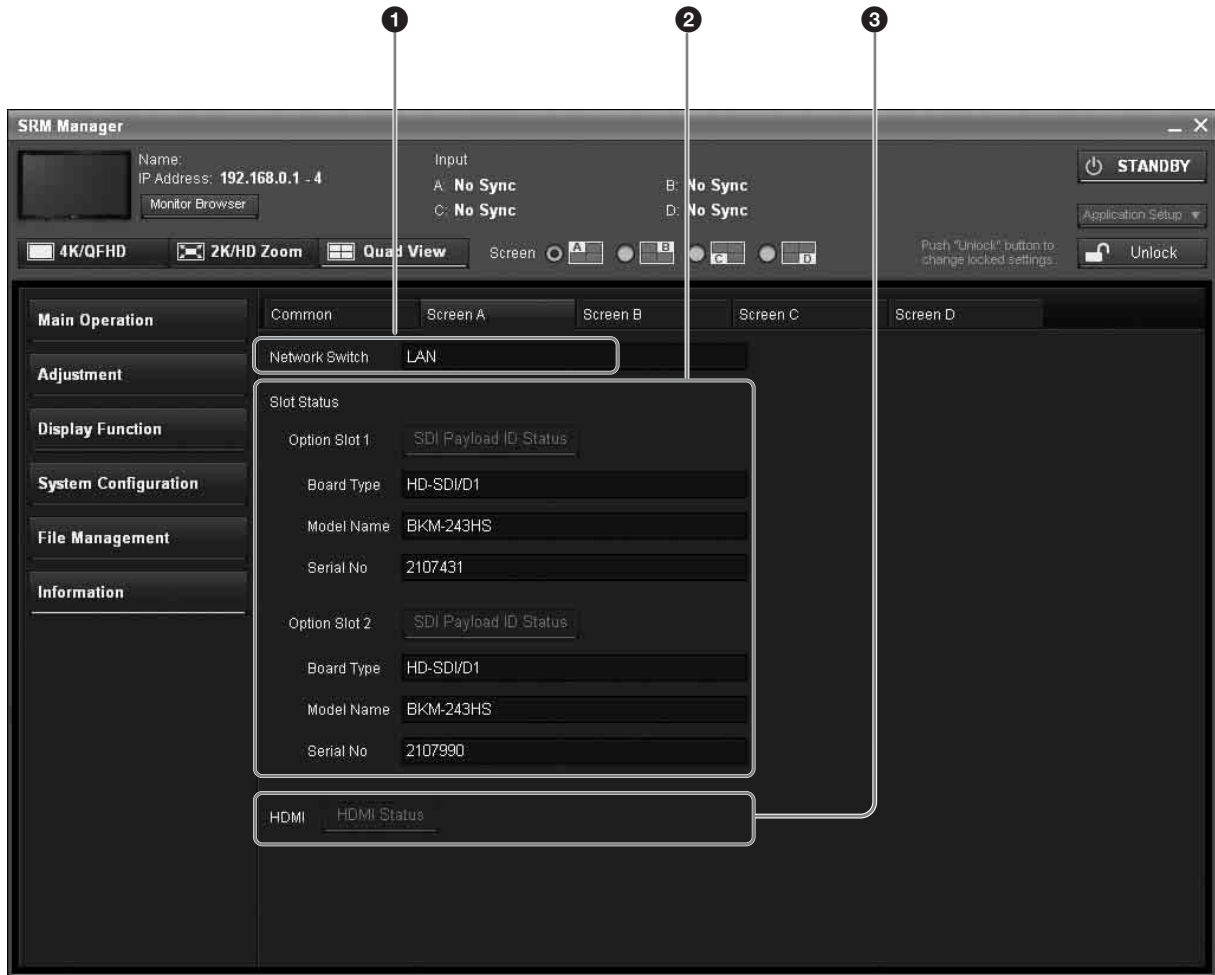
❶ **Network Switch**
Displays the network switch setting of screen A.

❷ **Slot Status**
Displays the slot information of screen A.

Option Slot 1, Option Slot 2: Displays the information of the input adaptor installed in the option slots 1 and 2.

Board Type: Displays the type of the input adaptor.
  HD-SDI/D1: When the BKM-243HS or BKM-244CC is installed
  3G-SDI: When the BKM-250TG is installed
  Unknown: When a non-compliant input adaptor is installed
  ---: When no input adaptor is installed

Model Name: Displays the model name of the input adaptor.

Serial No: Displays the serial number of the input adaptor.

SDI Payload ID Status: Displays the information of the Payload ID data superimposed on the SDI signal and the status of the current monitor.
This button is displayed when the number of the option slot to which the BKM-250TG is installed is selected in Input of the Configurations tab window of the Main Operation window.
When the button is clicked, the SDI Payload ID Status window is displayed.
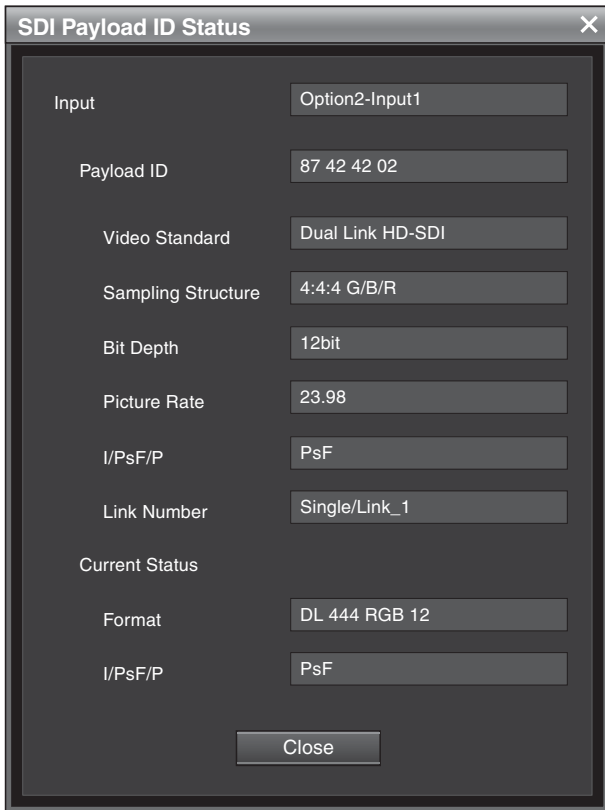
Input: Displays the option slot and input connector whose information is displayed on this window.

Payload ID: Displays in hexadecimal the 4-byte data of the Payload ID of SMPTE-352M standard in order of Byte 1, Byte 2, Byte 3 and Byte 4.

If no Payload ID information is present, only the Current Status information is displayed and "---" is displayed in other boxes. Unknown is displayed when the monitor cannot decode the following information.

> **Video Standard:** Decoded information of Byte 1_Bit 6-0 (HD-SDI, 3G-SDI, Dual Link HD-SDI, etc.)
> **Sampling Structure:** Decoded information of Byte 3_Bit 3-0 (4:2:2 Y/Cb/Cr, 4:4:4 Y/Cb/Cr, 4:4:4 G/B/R, etc.)
> **Bit Depth:** Decoded information of Byte 4_Bit 1-0 (8bit, 10bit or 12bit)
> **Picture Rate:** Decoded information of Byte 2_Bit 3-0 (23.98, 24, 25, 29.97, 30, 50, 59.94 or 60)
> **I/PsF/P:** Decoded information of Byte 2_Bit 7-6 (Interlace, PsF or Progressive)
> **Link Number:** Decoded information of Byte 4_Bit 7-6 (Single/Link_1, Link_2, Link_3 or Link_4)

Current Status: Displays the status of the current monitor.

> **Format:** Displays the information in format of "Video Standard + Sampling Structure + Bit Depth."
> > Video Standard: 3G/DL/HD
> > Sampling Structure: 422 YCbCr /444 YCbCr/444 RGB/444 XYZ

> > Bit Depth: 10/12
> > **I/PsF/P:** Displays Interlace, PsF or Progressive.

Close: Closes the SDI Payload ID Status window.

❸ HDMI
Displays the HDMI information of screen A.

HDMI Status: When the button is clicked, the HDMI Status window is displayed.
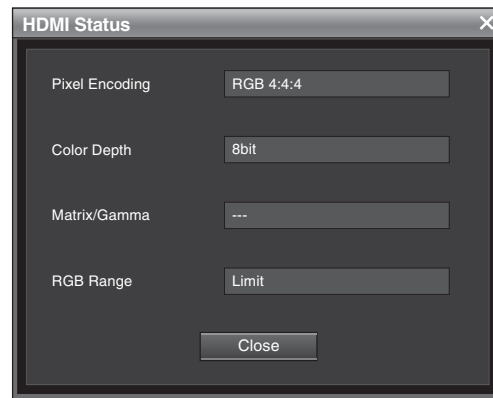
Pixel Encoding: Information of the pixel encoding (RGB 4:4:4/YCbCr 4:2:2/YCbCr 4:4:4)

Color Depth: Information of the color depth (8bit/10bit/12bit)

Matrix/Gamma: Information of the matrix/gamma (ITU-R BT.601/ITU-R BT.709/xv YCC601/xv YCC709)

Note

The Matrix/Gamma status is displayed when HDMI Auto is set to On in Matrix/Gamma of the Configurations tab window of the Main Operation window.

RGB Range: Displays the quantization range (Limit/Full)

Note

The RGB Range status is displayed when HDMI Auto is set to On in RGB Range of the More Settings window of the Configurations tab window of the Main Operation window.

Screen B Tab Window

This window is used to view the information of the B screen.
The displayed items are the same as those in the Screen A tab window (page 79).

Screen C Tab Window

This window is used to view the information of screen C.

The displayed items are the same as those in the Screen A tab window (page 79).

Screen D Tab Window

This window is used to view the information of screen D. The displayed items are the same as those in the Screen A tab window (page 79).

Operations

Chapter *4*

Selecting the Native Scan/Scan Mode

You can select scan mode from a native scan, under scan (–3%), normal scan (0%) and over scan (mask of 5% over scan portion in the normal scan picture).
Under scan and over scan modes are selectable only when the signal is displayed in Quad View mode.
You can set scan mode in Function (page 51) of the Controls tab window of the Main Operation window. To display the signal in native scan, set Native Scan to on.

Note

Native Scan is not selectable in the following cases:
- When the input signal has no sync signal
- When Format is set to DVI Computer (Native Scan display is set to on regardless of its setting.)
- When the HDMI computer signal is input (Native Scan display is set to on regardless of its setting.)
- When the input signal is 2048 × 1080 and the internal signal is displayed (Native Scan is set to off regardless of its setting and the normal scan display is selected.)

To switch the scan mode, set Native Scan to off then select any scan mode in Scan.
Normal: Normal mode
Under: Under mode
Over: Over mode

Note

The scan mode cannot be switched in the following cases:
- When the input signal has no sync signal
- When the internal signal is displayed
- When Native Scan is set to on

Displaying the Picture in Black Detail Mode

Black detail mode display function

You can reduce to dull black color by backlight leaking and precisely assess any parts with low color gradation. You can decrease the black level up to 40% of the normal display (100 cd/m^2 at 100% signal). The parts with high color gradation (higher than 75 IRE) are clipped by the dynamic range of the circuit and can be shown with a zebra pattern (selectable).

For details on the zebra pattern display for the clipped portion, see "Black Detail" (page 64) of the Miscellaneous tab window of the Display Function window.

Notes

- The setting is in effect when Gamma (transmission gamma) of the Matrix/Gamma menu is set to 2.2 or 2.6 RGB.
- The contrast is not adjusted in black detail mode.
- The gamut error is not displayed in black detail mode.
- When H Delay/V Delay is set to On, the signal is not displayed in black detail mode.

For the Matrix/Gamma setting, see "Matrix/Gamma" (page 46) of the Configurations tab window of the Main Operation window.

To display the signal in black detail mode
Set Black Detail to on in Function of the Controls tab window of the Main Operation window (page 52).
The OVER RANGE lamp of the front panel is lit in black detail mode.

Zebra pattern display of the clipped portion

Zebra pattern
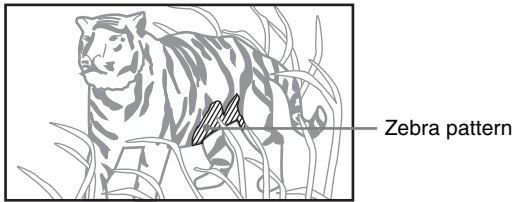
To end the black detail mode
Set Black Detail to off in Function of the Controls tab
window of the Main Operation window (page 52).

Displaying the Area Marker or Aspect Marker

The monitor is equipped with two area markers and center
marker as the safe area marker and aspect marker for
confirming the aspect ratio of the picture.
When Quad View mode is selected, you can use this
function.

1 Input the signal.

2 Select the screen with the screen mode button (page
43).

3 Set the marker preset data (Marker 1 to Marker 5) to
display in Marker Preset (page 48) of the
Configurations tab window of the Main Operation
window.

4 Set the marker to be displayed for the preset data set in
step **3** using the Edit button (page 48) in Marker Preset
of the Configurations tab window of the Main
Operation window.

To display all the markers simultaneously
If you set Marker (page 52) to on in the Controls tab
window of the Main Operation window, all the markers set
to on in steps **3** and **4** are displayed.

To display the aspect marker, area marker 1 or area marker 2 individually
Set the marker button (Aspect Marker (page 52), Area
Marker 1 (page 52) or Area Marker 2 (page 52)) of the
marker you wish to display to on in the Controls tab
window of the Main Operation window.

To cancel the marker display
Set Marker, Aspect Marker, Area Marker 1 or Area
Marker 2 to off in the Controls tab window of the Main
Operation window.

Displaying the Audio Level Meter

The audio level of the embedded audio signals superimposed on the SDI signals is displayed by installing the optional input adaptor (BKM-250TG).

Note

As the audio level meter is superimposed on the video signal, the audio level meter may be invisible partially depending on the scan mode setting of the monitor.

1 Input the SDI signal.

2 Select the picture to be displayed with the screen mode button (page 43).

3 Set the audio level meter in Audio Level Meter (page 69) of the On Screen Set tab window of the System Configuration window.

To set the audio channel
Set in Audio CH.
CH1-CH8: Selects when the channel 1 to 8 is selected.
CH9-CH16: Selects when the channel 9 to 16 is selected.

To set the display position
Set in Position.
Bottom: Displays at the bottom of the window.
Top: Displays at the top of the window.

Note

The display position is fixed when 4K/QFHD mode is selected.

To set the transparency of the background
Set in Transparency.
Black: Sets the background in black.
Half: Sets the background in translucence.

To set the peak hold
Select in Peak Hold.
Off: The peak hold does not function.
Auto: The peak hold is automatically canceled after about a second.
Manual Reset: The peak hold is canceled manually. To cancel the peak hold, click the Peak Hold Reset button.

4 Set Audio Level Meter (page 69) to On.

The audio level meter is displayed.

Channel number
The level meters of eight channels including the selected channel are displayed.
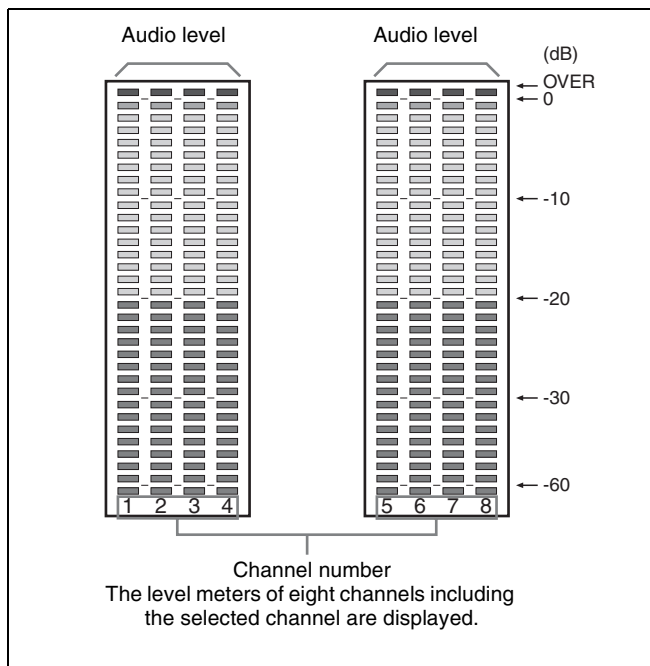
To cancel the display of the audio level meter
Set Audio Level Meter (page 69) to Off in the On Screen Set tab window of the System Configuration window.

Displaying the Time Code

The time code superimposed on the SDI signals is displayed by installing the optional input adaptor (BKM-250TG).

Note

As the time code is superimposed on the video signal, the time code may be invisible partially depending on the scan mode setting of the monitor.

1 Input the SDI signal.

2 Select the picture to be displayed with the screen mode button (page 43).

3 Set the time code in Time Code (page 69) of the On Screen Set tab of the System Configuration window.

To set the type of time code
Set in VITC/LTC.
VITC: Sets to VITC
LTC: Sets to LTC.

To set the display position for time code
Select in Position.
Top Left: To display at the top left of the screen
Top Center: To display at the top center of the screen
Top Right: To display at the top right of the screen
Bottom Left: To display at the bottom left of the screen
Bottom Center: To display at the bottom center of the screen
Bottom Right: To display at the bottom right of the screen

Note

The display position is fixed when 4K/QFHD mode is selected.

4 Set Time Code (page 69) to On .

The time code is displayed.

To cancel the time code display
Set Time Code to Off in the On Screen Set tab window of the System Configuration window.

Appendixes

Specifications

General

LCD panel   a-Si TFT Active Matrix
Picture size   56 inches
Display area   1244.16 (H) × 699.84(V)
Resolution   3840 (H) × 2160 (V) pixel
Backlight   High-purity LEDs
Panel drive   RGB 10 bit
Panel frame rate

        48/50/60 Hz
Viewing angle   176º/176º

        (horizontal/vertical, contrast 30:1)
Pixel efficiency 99.99%
Warm-up time   Approx. 30 minutes
Power consumption

        Approx. 660 W (at maximum load, the
        luminance compensation due to the
        aged deterioration of the LED is
        included.)
        Approx. 360 W (default status)
Power requirements

        100 V to 240 V AC,
        6.7 A to 3.2 A, 50/60 Hz
Peak inrush current

        (1) Power ON, current probe method:
        22 A (100 V), 26 A (240 V)
        (2) Hot switching inrush current,
        measured in accordance with
        European standard EN55103-1: 17 A
        (230 V)
Mass   Approx. 73 kg (160 lb 15 oz)

Input/Output

Option slot   Eight slots
        Signal format
        Refer to "Available Signal Systems"
        (page 94) and "Available Signal
        Formats" (page 96).

PC input   DVI-D × 4
        HDCP correspondence
        Signal format
        Refer to "DVI-D" (page 99) of
        "Available Signal Formats".
HDMI   HDMI^{TM} × 4
        HDCP correspondence, Deep Color
        correspondence
        Signal format
        Refer to "HDMI" (page 100) of
        "Available Signal Formats".
Control   OPTION A: Mini-DIN 8-pin (female) × 1
        OPTION B: USB (Type A) type × 1
        LAN (10BASE-T/100BASE-TX):
        RJ-45 × 1
        OPTION C: D-sub 9-pin (female) × 4

Picture performance

Normal scan   0% scan
Native scan   Mapping the pixels of the signal to the
        panel to one-to-one mode
Under scan   3% under scan
Over scan   Mask of 5% over scan portion in the
        normal scan
Color temperature

        D56, D61, D65, D93, D-Cine[1], (Setting
        possible in other color temperatures)
   [1] D-Cine: x=0.314, y=0.351
Standard luminance

        100 cd/m^2 (Picture Preset 1 to Picture
        Preset 5)
        48 cd/m^2 (Picture Preset(D-Cine))
        (1.0 Vp-p reference signal, 100% white
        signal input)
Color space (color gamut)

        ITU-R BT.709, BVM EBU, BVM
        SMPTE-C, D-Cine[1],
        L560 Native[2],
        S-GAMUT[3]
   [1] Although color gamut of SMPTE RP 431-2 is
     referred, chromaticity point of RGB is not fully
     covered.

[2] Individual chromaticity points for the SRM-L560. The widest color space setting of the signal reproduced by the SRM-L560.

	x	y
R	0.663	0.313
G	0.232	0.654
B	0.150	0.060

(Typical)

[3] For displaying the color gamut of the wide color space mode S-GAMUT, which is available for the Sony F23 Digital Cinematography Camera

Operating conditions

Temperature   0 °C to 35 °C (32 °F to 95 °F)
Optimum temperature
              20 °C to 30 °C (68 °F to 86 °F)
Humidity   0% to 90% (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)
Hooks (2)
Connection cable for color temperature adjustment (1)
Operating Instructions (Japanese, English, each 1)
CD-ROM (1)
Using the CD-ROM Manual (1)

Optional accessories

BKM-243HS HD/D1-SDI Input Adaptor (with serial number 2108355 or later)
BKM-244CC HD/SD-SDI Closed Caption Adaptor
BKM-250TG 3G/HD/SD-SDI Input Adaptor

Note

BKM-243HS: This equipment may not meet the requirement for the electromagnetic interference standard or work correctly, or you may not be satisfied with the performance if an input adaptor with a serial number that is not designated is installed.

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.

Appendixes

Input Signals and Adjustable/Setting Items

4K/QFHD mode

Item		Input signal/Screen mode					
		4K/QFHD					
		SDI			DVI-D		HDMI
		3G/HD			Video	PC	
		YCbCr	RGB	XYZ	RGB	RGB	
Color Temp		○	○	○	○	○	○
Picture Preset		○	○	○	○	○	○
Aspect		○ g)	○ g)	○	○ g) h)	×	○ g) i) j)
Scan		×	×	×	×	×	×
Native Scan		○	○	○	○	○	○
H Delay		×	×	×	×	×	×
V Delay		×	×	×	×	×	×
H Shift		×	×	×	×	×	×
2048 Shift		×	×	×	×	×	×
4096 Shift a)		×	○	○	×	×	×
Marker		×	×	×	×	×	×
Aspect Marker		×	×	×	×	×	×
Area Marker 1		×	×	×	×	×	×
Area Marker 2		×	×	×	×	×	×
Mono		○	○	×	○	○	○
R Off		○	○	×	○	○	○
G Off		○	○	×	○	○	○
B Off		○	○	×	○	○	○
Blue Only		○	○	×	○	○	○
Chroma Up		○	×	×	×	×	○ k)
Black Detail b) c)		○	○	○	○	○	○
Contrast b)		○	○	○	○	○	○
Bright b)		○	○	×	○	○	○
Chroma b)		○	×	×	×	×	○ k)
Aperture		×	×	×	×	×	×
Peak White Control		○	○	×	○	○	○
Adjustment	Contrast b)	○	○	○	○	○	○
	Bright b)	○	○	×	○	○	○
	Chroma b)	○	×	×	×	×	○ k)
Color Temp (Auto) b)		○	○	×	○	×	○ i)
Color Temp (Manual) b)		○	○	○ l)	○	○ l)	○ l)
Gamut Error Display b)		○	○ m)	×	×	×	○ n)
Force Sync Lock		○	○	○	○	○	○
Internal Signal d)		○	○	○	○	×	○ i)
Closed Caption		×	×	×	×	×	×
Audio Level Meter e) f)		○	○	×	×	×	×
Peak Hold Reset e)		○	○	×	×	×	×
Time Code e) f)		○	○	×	×	×	×
Film Cadence		×	×	×	×	×	×

○: Adjustable/can be set
×: Not adjustable/cannot be set

a) Effective for the 4096 × 2160 signal for display in Native Scan.
b) Common to all screen modes.
c) Functions when Gamma (transmission gamma) in Matrix/Gamma is set to 2.2 or 2.6 RGB.
d) Displays the same internal signal on four screens.
e) Can be set when an SDI signal is input from the BKM-250TG.
f) Display position fixed.
g) Fixed to 16:9 for 720P input signals.
h) Excludes 640 × 480/60P input signals. Fixed to 16:9 for 1280 × 720/50P and 60P signals.
i) Does not function when the HDMI computer signal is input.
j) Functions when HDMI Auto (page 50) in Screen Aspect is set to Off.
k) Functions only when a YCbCr signal is input.
l) Not adjustable with the internal signal.
m) Does not function for 2048 × 1080 input signals.
n) Does not function when the quantization range is set to Full.

Quad View mode

Item		SDI 3G/HD YCbCr	SDI 3G/HD RGB	SDI 3G/HD XYZ	DVI-D Video RGB	DVI-D PC RGB	HDMI
Color Temp [a] [b]		○	○	○	○	○	○
Picture Preset [a]		○	○	○	○	○	○
Aspect		○ [l]	○ [l]	○	○ [l] [m]	×	○ [l] [n] [o]
Scan		○	○	○	○	×	○ [p]
Native Scan		○	○	○	○	○	○
H Delay		○	○	○	×	×	×
V Delay		○	○	○	×	×	×
H Shift [c]		○	○	×	×	×	×
2048 Shift [d]		×	○	○	×	×	×
4096 Shift		×	×	×	×	×	×
Marker [e]		○	○	○	○	×	○ [n]
Aspect Marker		○	○	○	○	×	○ [n]
Area Marker 1		○	○	○	○	×	○ [n]
Area Marker 2		○	○	○	○	×	○ [n]
Mono		○	○	×	○	○	○
R Off		○	○	×	○	○	○
G Off		○	○	×	○	○	○
B Off		○	○	×	○	○	○
Blue Only		○	○	×	○	○	○
Chroma Up		○	×	×	×	×	○ [q]
Black Detail [a] [f] [g]		○	○	○	○	○	○
Contrast [f]		○	○	○	○	○	○
Bright [f]		○	○	×	○	○	○
Chroma [f]		○	×	×	×	×	○ [q]
Aperture [h]		○	○	○	○	×	○
Peak White Control		○	○	×	○	○	○
Adjustment	Contrast [a] [f]	○	○	○	○	○	○
	Bright [a] [f]	○	○	×	○	○	○
	Chroma [a] [f]	○	×	×	×	×	○ [q]
Color Temp (Auto) [a] [f]		○	○	×	○	×	○ [n]
Color Temp (Manual) [f]		○	○	○ [r]	○	○ [r]	○ [r]
Gamut Error Display [f]		○	○ [s]	×	×	×	○ [t]
Force Sync Lock		×	×	×	×	×	×
Internal Signal		○	○	○	○	×	○ [n]
Closed Caption [i]		○	○	×	×	×	×
Audio Level Meter [j]		○	○	×	×	×	×
Peak Hold Reset [j]		○	○	×	×	×	×
Time Code [j]		○	○	×	×	×	×
Film Cadence [k]		○	○	×	○	×	○

○: Adjustable/can be set
×: Not adjustable/cannot be set

a) Common to all display modes.

Appendixes

b) Color Temp settings differ between XYZ format signals and signals of other than XYZ format. The setting to be used depends on the signal format displayed on screen A. If signals of different format are input on four screens, the color temperature for the signals on screens other than screen A may not be adjusted correctly.

c) Effective for 720/24P, 25P or 30P input signal displayed in H Delay.

d) Effective for 2048 × 1080 input signal displayed in Native Scan.

e) Different Marker Preset settings are enabled for each of the four screens.

f) Common to all screen modes.

g) Functions when Gamma (transmission gamma) in Matrix/Gamma is set to 2.2 or 2.6 RGB.

h) For operable input signals, see "Aperture Modification Frequency" (page 101).

i) Can be set when the SDI signal is input from the BKM-244CC.

j) Can be set when the SDI signal is input from the BKM-250TG.

k) Functions when an interlace signal is input.
If 1080i interlace signal is input and the format is set to 1080PsF, film cadence processing is not done. Set the signal to 1080I. Even if the item is set to 2-3 or 2-3-3-2, it is automatically set to 2-2 for a 50i interlace input signal.

l) Fixed to 16:9 for 720P input signals.

m) Excludes 640 × 480/60P. Fixed to 16:9 with 1280 × 720/50P and 60P.

n) Does not function when the HDMI computer signal is input.

o) Functions when HDMI Auto (page 50) in Screen Aspect is set to Off.

p) Fixed to Native Scan when the HDMI computer signal is input.

q) Functions only when a YCbCr signal is input.

r) Not adjustable with the internal signal.

s) Does not function for 2048 × 1080 input signals.

t) Does not function when the quantization range is set to Full.

Appendixes

2K/HD Zoom

Item		Input signal/Screen mode		
		2K/HD Zoom		
		SDI		
		3G/HD		
		YCbCr	**RGB**	**XYZ**
Color Temp		○	○	○
Picture Preset		○	○	○
Aspect		○ [j]	○ [j]	○
Scan		×	×	×
Native Scan [a]		○	○	○
H Delay		×	×	×
V Delay		×	×	×
H Shift		×	×	×
2048 Shift [b]		×	○	○
4096 Shift		×	×	×
Marker		×	×	×
Aspect Marker		×	×	×
Area Marker 1		×	×	×
Area Marker 2		×	×	×
Mono		○	○	×
R Off		○	○	×
G Off		○	○	×
B Off		○	○	×
Blue Only		○	○	×
Chroma Up		○	×	×
Black Detail [c] [d]		○	○	○
Contrast [c]		○	○	○
Bright [c]		○	○	×
Chroma [c]		○	×	×
Aperture [e]		○	○	○
Peak White Control		○	○	×
Adjustment	Contrast [c]	○	○	○
	Bright [c]	○	○	×
	Chroma [c]	○	×	×
Color Temp (Auto) [c]		○	○	×
Color Temp (Manual) [c]		○	○	○ [k]
Gamut Error Display [c]		○	○ [l]	×
Force Sync Lock		×	×	×
Internal Signal [f]		○	○	○
Closed Caption [g]		○	○	×
Audio Level Meter [h]		○	○	×
Peak Hold Reset [h]		○	○	×
Time Code [h]		○	○	×
Film Cadence [i]		○	○	×

○: Adjustable/can be set
×: Not adjustable/cannot be set

[a] Magnified by twice for the 2048 × 1080 and 1920 × 1080 input signals and magnified by three times for the 1280 × 720 input signal.
[b] Effective for the 2048 × 1080 signal displayed in Native Scan.
[c] Common to all screen modes.

d) Functions when Gamma (transmission gamma) in Matrix/Gamma is set to 2.2 or 2.6 RGB.
e) For operable input signals, see "Aperture Modification Frequency" (page 101).
f) Displays the same internal signal on four screens.
g) Can be set when the SDI signal is input from the BKM-244CC. Captions may not be displayed correctly in 2K/HD Zoom mode immediately after the monitor starts or the screen mode, input signal, or closed caption setting, etc. is changed.
h) Can be set when the SDI signal is input from the BKM-250TG.
i) Functions when an interlace signal is input.
   If 1080i interlace signal is input and the format is set to 1080PsF, film cadence processing is not done. Set the signal to 1080I. Even if the item is set to 2-3 or 2-3-3-2, it is automatically set to 2-2 for 50i interlace input signal.
j) Fixed to 16:9 for 720P input signals.
k) Not adjustable with the internal signal.
l) Does not function for 2048 × 1080 input signals.

Available Signal Systems

Input adaptor

Signal system	Total lines per frame	Active lines per frame	Frame rate (Hz)	Scanning format	Aspect ratio	Standard	Display on the monitor
1920×1080/24PsF	1125	1080	24	Progressive	16:9	SMPTE-RP211	1080/24PsF
					2.39:1		
1920×1080/23.98PsF	1125	1080	24/1.001	Progressive	16:9	SMPTE-RP211	1080/24PsF 1080/23.98PsF[a]
					2.39:1		
1920×1080/25PsF	1125	1080	25	Progressive	16:9	SMPTE-RP211	1080/25PsF
					2.39:1		
1920×1080/30PsF	1125	1080	30	Progressive	16:9	SMPTE-RP211	1080/30PsF
					2.39:1		
1920×1080/29.97PsF	1125	1080	30/1.001	Progressive	16:9	SMPTE-RP211	1080/30PsF 1080/29.97PsF[a]
					2.39:1		
1920×1080/24P	1125	1080	24	Progressive	16:9	SMPTE-274M	1080/24P
					2.39:1		
1920×1080/23.98P	1125	1080	24/1.001	Progressive	16:9	SMPTE-274M	1080/24P 1080/23.98P[a]
					2.39:1		
1920×1080/25P	1125	1080	25	Progressive	16:9	SMPTE-274M	1080/25P
					2.39:1		
1920×1080/30P	1125	1080	30	Progressive	16:9	SMPTE-274M	1080/30P
					2.39:1		
1920×1080/29.97P	1125	1080	30/1.001	Progressive	16:9	SMPTE-274M	1080/30P 1080/29.97P[a]
					2.39:1		
1920×1080/50i	1125	1080	25	2:1 Interlace	16:9	SMPTE-274M	1080/50I
					2.39:1		
1920×1080/60i	1125	1080	30	2:1 Interlace	16:9	SMPTE-274M	1080/60I
					2.39:1		
1920×1080/59.94i	1125	1080	30/1.001	2:1 Interlace	16:9	SMPTE-274M	1080/60I 1080/59.94I[a]
					2.39:1		
1920×1080/50P	1125	1080	50	Progressive	16:9	SMPTE-274M	1080/50P
					2.39:1		
1920×1080/60P	1125	1080	60	Progressive	16:9	SMPTE-274M	1080/60P
					2.39:1		
1920×1080/59.94P	1125	1080	60/1.001	Progressive	16:9	SMPTE-274M	1080/60P 1080/59.94P[a]
					2.39:1		
1280×720/24P	750	720	24	Progressive	16:9	SMPTE-296M	720/24P
1280×720/23.98P	750	720	24/1.001	Progressive	16:9	SMPTE-296M	720/24P 720/23.98P[a]
1280×720/25P	750	720	25	Progressive	16:9	SMPTE-296M	720/25P
1280×720/30P	750	720	30	Progressive	16:9	SMPTE-296M	720/30P
1280×720/29.97P	750	720	30/1.001	Progressive	16:9	SMPTE-296M	720/30P 720/29.97P[a]
1280×720/50P	750	720	50	Progressive	16:9	SMPTE-296M	720/50P

Signal system	Total lines per frame	Active lines per frame	Frame rate (Hz)	Scanning format	Aspect ratio	Standard	Display on the monitor
1280×720/60P	750	720	60	Progressive	16:9	SMPTE-296M	720/60P
1280×720/59.94P	750	720	60/1.001	Progressive	16:9	SMPTE-296M	720/60P 720/59.94P[a]
2048×1080/24PsF	1125	1080	24	Progressive	1.896:1		2048 × 1080/ 24PsF
					2.39:1		
2048×1080/ 23.98PsF	1125	1080	24/1.001	Progressive	1.896:1		2048 × 1080/ 24PsF 2048 × 1080/ 23.98PsF[a]
					2.39:1		
2048×1080/24P	1125	1080	24	Progressive	1.896:1		2048 × 1080/24P
					2.39:1		
2048×1080/23.98P	1125	1080	24/1.001	Progressive	1.896:1		2048 × 1080/24P 2048 × 1080/ 23.98P[a]
					2.39:1		

[a] Displayed when the signal is input from the BKM-250TG, Format is set to 3G/HD-SDI Auto (page 45) in the Configurations tab window of the Main Operation window and the Picture Rate information of the Payload ID superimposed on the input signal is 23.98, 29.97 or 59.94.

• For details on the available signal system for the DVI-D input signal, see "DVI-D" (page 99) of "Available Signal Formats".
• For details on the available signal system for the HDMI input signal, see "HDMI" (page 100) of "Available Signal Formats".

Appendixes

Available Signal Formats

Input adaptor

Signal format				Applied system	BKM-243HS/244CC	BKM-250TG	Standard
HD-SDI							
Single-link	4:2:2	YCbCr	10bit	1920×1080/24[a] PsF	○	○	SMPTE-292M
Dual-link	4:4:4	YCbCr	10bit		○(2)	○	SMPTE-372M
		RGB	10bit				
		YCbCr	12bit				
		RGB	12bit				
Single-link	4:2:2	YCbCr	10bit	1920×1080/25PsF	○	○	SMPTE-292M
Dual-link	4:4:4	YCbCr	10bit		○(2)	○	SMPTE-372M
		RGB	10bit				
		YCbCr	12bit				
		RGB	12bit				
Single-link	4:2:2	YCbCr	10bit	1920×1080/30[a]PsF	○	○	SMPTE-292M
Dual-link	4:4:4	YCbCr	10bit		○(2)	○	SMPTE-372M
		RGB	10bit				
		YCbCr	12bit				
		RGB	12bit				
Single-link	4:2:2	YCbCr	10bit	1920×1080/24[a]P	○	○	SMPTE-292M
Dual-link	4:4:4	YCbCr	10bit		○(2)	○	SMPTE-372M
		RGB	10bit				
		YCbCr	12bit				
		RGB	12bit				
Single-link	4:2:2	YCbCr	10bit	1920×1080/25P	○	○	SMPTE-292M
Dual-link	4:4:4	YCbCr	10bit		○(2)	○	SMPTE-372M
		RGB	10bit				
		YCbCr	12bit				
		RGB	12bit				
Single-link	4:2:2	YCbCr	10bit	1920×1080/30[a]P	○	○	SMPTE-292M
Dual-link	4:4:4	YCbCr	10bit		○(2)	○	SMPTE-372M
		RGB	10bit				
		YCbCr	12bit				
		RGB	12bit				
Single-link	4:2:2	YCbCr	10bit	1920×1080/50i	○	○	SMPTE-292M
Dual-link	4:4:4	YCbCr	10bit		○(2)	○	SMPTE-372M
		RGB	10bit				
		YCbCr	12bit				
		RGB	12bit				

Signal format				Applied system	BKM-243HS/244CC	BKM-250TG	Standard
Single-link	4:2:2	YCbCr	10bit		○	○	SMPTE-292M
Dual-link	4:4:4	YCbCr	10bit	1920×1080/60[a]i	○(2)	○	SMPTE-372M
		RGB	10bit				
		YCbCr	12bit				
		RGB	12bit				
Dual-link	4:2:2	YCbCr	10bit	1920×1080/50P	○(2)	○	
Dual-link	4:2:2	YCbCr	10bit	1920×1080/60[a]P	○(2)	○	
Single-link	4:2:2	YCbCr	10bit	1280×720/24[a]P	○	○	SMPTE-292M
Single-link	4:2:2	YCbCr	10bit	1280×720/25P	○	○	
Single-link	4:2:2	YCbCr	10bit	1280×720/30[a]P	○	○	
Single-link	4:2:2	YCbCr	10bit	1280×720/50P	○	○	
Single-link	4:2:2	YCbCr	10bit	1280×720/60[a]P	○	○	
Dual-link	4:4:4	RGB	10bit[b]	2048×1080/24[a]PsF	○(2)	○	
			12bit[b]				
		XYZ	12bit				
Dual-link	4:4:4	RGB	10bit[b]	2048×1080/24[a]P	○(2)	○	
			12bit[b]				
		XYZ	12bit				
3G-SDI							
Single-link	4:4:4	YCbCr	10bit	1920×1080/24[a]PsF	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
	4:4:4	YCbCr	12bit				
	4:4:4	RGB	12bit				
Single-link	4:4:4	YCbCr	10bit	1920×1080/25PsF	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
	4:4:4	YCbCr	12bit				
	4:4:4	RGB	12bit				
Single-link	4:4:4	YCbCr	10bit	1920×1080/30[a]PsF	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
	4:4:4	YCbCr	12bit				
	4:4:4	RGB	12bit				
Single-link	4:4:4	YCbCr	10bit	1920×1080/24[a]P	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
	4:4:4	YCbCr	12bit				
	4:4:4	RGB	12bit				
Single-link	4:4:4	YCbCr	10bit	1920×1080/25P	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
	4:4:4	YCbCr	12bit				
	4:4:4	RGB	12bit				
Single-link	4:4:4	YCbCr	10bit	1920×1080/30[a]P	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
	4:4:4	YCbCr	12bit				
	4:4:4	RGB	12bit				

Signal format				Applied system	BKM-243HS/244CC	BKM-250TG	Standard
Single-link	4:4:4	YCbCr	10bit	1920×1080/50i	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
	4:4:4	YCbCr	12bit				
	4:4:4	RGB	12bit				
Single-link	4:4:4	YCbCr	10bit	1920×1080/60[a]i	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
	4:4:4	YCbCr	12bit				
	4:4:4	RGB	12bit				
Single-link	4:2:2	YCbCr	10bit	1920×1080/50P	×	○	SMPTE-425-AB
Single-link	4:2:2	YCbCr	10bit	1920×1080/60[a]P	×	○	SMPTE-425-AB
Single-link	4:4:4	YCbCr	10bit	1280×720/24[a]P	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
Single-link	4:4:4	YCbCr	10bit	1280×720/25P	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
Single-link	4:4:4	YCbCr	10bit	1280×720/30[a]P	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
Single-link	4:4:4	YCbCr	10bit	1280×720/50P	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
Single-link	4:4:4	YCbCr	10bit	1280×720/60[a]P	×	▲	SMPTE-425-AB
	4:4:4	RGB	10bit				
Single-link	4:4:4	RGB	10bit[b]	2048×1080/24[a]PsF	×	▲	
	4:4:4		12bit[b]				
	4:4:4	XYZ	12bit				
Single-link	4:4:4	RGB	10bit[b]	2048×1080/24[a]P	×	▲	
	4:4:4		12bit[b]				
	4:4:4	XYZ	12bit				SMPTE-425-AB

○: Signal can be reproduced.
×: Signal cannot be reproduced.
▲: Untested
○(2): Two adaptors are used.

[a] Also compatible with 1/1.001.
[b] 2048 × 1080 4:4:4 RGB format input signal is compatible with the input code 4-1019 (10bit) and 16-4079 (12bit).

DVI-D

Signal format				System	Interface sampling frequency [MHz]	Aspect ratio	Standard
DVI video							
Single-link	4:4:4	RGB	8bit	640 × 480/60[a]P	25.200[a]	4:3	
Single-link	4:4:4	RGB	8bit	720 × 480/60[a]P	27.027[a]	4:3/16:9	CEA-861
Single-link	4:4:4	RGB	8bit	1280 × 720/60[a]P	74.250[a]	16:9	
Single-link	4:4:4	RGB	8bit	1920 × 1080/60[a]i	74.250[a]	16:9	CEA-861
						2.39:1	
Single-link	4:4:4	RGB	8bit	720 (1440)[c] × 480/60[a]i	27.027[a]	4:3/16:9	
Single-link	4:4:4	RGB	8bit	720 × 576/50P	27.000	4:3/16:9	CEA-861
Single-link	4:4:4	RGB	8bit	1280 × 720/50P	74.250	16:9	
Single-link	4:4:4	RGB	8bit	1920 × 1080/50i	74.250	16:9	CEA-861
						2.39:1	
Single-link	4:4:4	RGB	8bit	720 (1440)[c] × 576/50i	27.000	4:3/16:9	CEA-861
Single-link	4:4:4	RGB	8bit	1920 × 1080/60[a]P	148.500[a]	16:9	CEA-861
						2.39:1	
Single-link	4:4:4	RGB	8bit	1920 × 1080/50P	148.500	16:9	CEA-861
						2.39:1	
Single-link	4:4:4	RGB	8bit	1920 × 1080/24[a]P	74.250[a]	16:9	CEA-861
						2.39:1	
Single-link	4:4:4	RGB	8bit	1920 × 1080/25P	74.250	16:9	CEA-861
						2.39:1	
Single-link	4:4:4	RGB	8bit	1920 × 1080/30[a]P	74.250[a]	16:9	CEA-861
						2.39:1	
DVI computer[b]							
Single-link	4:4:4	RGB	8bit	fH: 28-68 kHz fV: 48-60 Hz Maximum resolution: 1920×1080/60P	25.000 - 162.000		

[a] Also compatible with 1/1.001.
[b] Supports the progressive signal with square pixel structure. The interlace signal is not applicable.
[c] Pixel Repetition = 2 (transmit the same pixel twice)

• The quantization range of the DVI input signal is set in RGB Range (page 50).
• The picture is not displayed correctly when the selection of DVI (page 46) does not correspond to the input signal.
• When DVI Computer is selected in Format and the output signal from the PC, etc. is not displayed correctly, select DVI Video for confirmation.
• When DVI Video is selected in Format and the picture is not displayed correctly, select DVI Computer for confirmation.

HDMI

Signal format	System	Interface sampling frequency [MHz]	Aspect ratio	Standard
HDMI				
	640 × 480/60[a])P	25.200[a])	4:3	CEA-861
	720 × 480/60[a])P	27.027[a])	4:3/16:9	
	1280 × 720/60[a])P	74.250[a])	16:9	
	1920 × 1080/60[a])i	74.250[a])	16:9	CEA-861
			2.39:1	
	720 (1440)[c]) × 480/60[a])i	27.027[a])	4:3/16:9	CEA-861
	720 × 576/50P	27.000	4:3/16:9	
	1280 × 720/50P	74.250	16:9	
	1920 × 1080/50i	74.250	16:9	CEA-861
			2.39:1	
	720 (1440)[c]) × 576/50i	27.000	4:3/16:9	CEA-861
RGB 4:4:4 8/10/12bit[b])	1920 × 1080/60[a])P	148.500[a])	16:9	CEA-861
YCbCr 4:4:4 8/10/12bit[b])			2.39:1	
YCbCr 4:2:2 12bit[b])	1920 × 1080/50P	148.500	16:9	CEA-861
			2.39:1	
	1920 × 1080/24[a])P	74.250[a])	16:9	CEA-861
			2.39:1	
	1920 × 1080/25P	74.250	16:9	CEA-861
			2.39:1	
	1920 × 1080/30[a])P	74.250[a])	16:9	CEA-861
			2.39:1	
	800 × 600/60P[d])	40.000	4:3	VESA
	1024 × 768/60P[d])	65.000	4:3	
	1280 × 960/60P[d])	108.000	4:3	
	1280 × 1024/60P[d])	108.000	5:4	
	1400 × 1050/60P[d])	121.750	4:3	

a) Also compatible with 1/1.001.
b) RGB/YCbCr format and 8/10/12bit are selected automatically according to the input signal.
c) Pixel Repetition = 2 (transmit the same pixel twice)
d) In this manual, the 800 × 600, 1024 × 768, 1280 × 960, 1280 × 1024 and 1400 × 1050 signals are referred to as the HDMI computer signals.

• The quantization level of the HDMI input signal is set in RGB Range (page 50).
• The aspect ratio of the HDMI input signal is manually set when HDMI Auto (page 50) of Screen Aspect is set to Off.

Aperture Modification Frequency

Signal system	Serial digital input	DVI-D/HDMI input
	3G/HD-SDI	RGB
Input adaptor		
1080/24[a]PsF	25 MHz	
1080/24[a]P	25 MHz	
1080/50i (25PsF)	25 MHz	
1080/25P	25 MHz	
1080/60[a]i (30[a]PsF)	25 MHz	
1080/30[a]P	25 MHz	
720/24[a]P	25 MHz	
720/25P	25 MHz	
720/30[a]P	25 MHz	
720/50P	25 MHz	
720/60[a]P	25 MHz	
2048 × 1080/24[a]PsF	25 MHz	
2048 × 1080/24[a]P	25 MHz	
1080/50P	50 MHz	
1080/60[a]P	50 MHz	
DVI video/HDMI		
640 × 480/60[a]P		10 MHz
720 × 480/60[a]P		10 MHz
1280 × 720/60[a]P		25 MHz
1920 × 1080/60[a]i		25 MHz
720 (1440)[b] × 480/60[a]i		5 MHz
720 × 576/50P		10 MHz
1280 × 720/50P		25 MHz
1920 × 1080/50i		25 MHz
720 (1440)[b] × 576/50i		5 MHz
1920 × 1080/60[a]P		50 MHz
1920 × 1080/50P		50 MHz
1920 × 1080/24[a]P		25 MHz
1920 × 1080/25P		25 MHz
1920 × 1080/30[a]P		25 MHz

[a] Also compatible with 1/1.001
[b] Pixel Repetition = 2 (transmit the same pixel twice)

Blank column: The signal cannot be input or the aperture modification does not operate for that signal even if it is input.

Picture Display Size

Input adaptor

Signal system	Aspect ratio	Native Scan[b]	Normal Scan[c]	Under Scan	Over Scan
		(H) × (V)	(H) × (V)	(H) × (V)	(H) × (V)
1920 × 1080/24[a]PsF	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/25PsF	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/30[a]PsF	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/24[a]P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/25P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/30[a]P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/50i	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/60[a]i	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/50P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/60[a]P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1280 × 720/24[a]P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
1280 × 720/25P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
1280 × 720/30[a]P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
1280 × 720/50P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
1280 × 720/60[a]P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
2048 × 1080/24[a]PsF	1.896:1	2048 × 1080	1920 × 1013	1862 × 982	1829 × 965
	2.39:1		1920 × 803	1862 × 779	1829 × 765
2048 × 1080/24[a]P	1.896:1	2048 × 1080	1920 × 1013	1862 × 982	1829 × 965
	2.39:1		1920 × 803	1862 × 779	1829 × 765

[a] Also compatible with 1/1.001
[b] The picture elements are three times the value for 1280 × 720 signals, and twice the value for other signals, when the signal is displayed in 2K/HD Zoom mode.
[c] The picture elements are twice the value for any signals when the signal is displayed in 2K/HD Zoom mode.

• Over Scan: The area size where 5% over scan portion in the normal scan is masked.

DVI-D

Signal system	Aspect ratio	Native Scan (H) × (V)	Normal Scan (H) × (V)	Under Scan (H) × (V)	Over Scan (H) × (V)
DVI video					
640 × 480/60[a]P	4:3	640 × 480	1440 × 1080	1397 × 1048	1371 × 1029
720 × 480/60[a]P	4:3	720 × 480	1440 × 1080	1397 × 1048	1371 × 1029
	16:9		1920 × 1080	1862 × 1048	1829 × 1029
1280 × 720/60[a]P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
1920 × 1080/60[a]i	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
720 (1440)[b] × 480/60[a]i	4:3	720 × 480	1440 × 1080	1397 × 1048	1371 × 1029
	16:9		1920 × 1080	1862 × 1048	1829 × 1029
720 × 576/50P	4:3	720 × 576	1440 × 1080	1397 × 1048	1371 × 1029
	16:9		1920 × 1080	1862 × 1048	1829 × 1029
1280 × 720/50P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
1920 × 1080/50i	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
720 (1440)[b] × 576/50i	4:3	720 × 576	1440 × 1080	1397 × 1048	1371 × 1029
	16:9		1920 × 1080	1862 × 1048	1829 × 1029
1920 × 1080/60[a]P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/50P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/24[a]P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/25P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/30[a]P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
DVI computer					
fH: 28-68 kHz fV: 48-60 Hz Maximum resolution: 1920 × 1080/60P					

[a] Also compatible with 1/1.001
[b] Pixel Repetition = 2 (transmit the same pixel twice)

- Over Scan: The area size where 5% over scan portion in the normal scan is masked.

HDMI

Signal system	Aspect ratio	Native Scan (H) × (V)	Normal Scan (H) × (V)	Under Scan (H) × (V)	Over Scan (H) × (V)
HDMI					
640 × 480/60[a]P	4:3	640 × 480	1440 × 1080	1397 × 1048	1371 × 1029
720 × 480/60[a]P	4:3	720 × 480	1440 × 1080	1397 × 1048	1371 × 1029
	16:9		1920 × 1080	1862 × 1048	1829 × 1029
1280 × 720/60[a]P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
1920 × 1080/60[a]i	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
720 (1440)[b] × 480/60[a]i	4:3	720 × 480	1440 × 1080	1397 × 1048	1371 × 1029
	16:9		1920 × 1080	1862 × 1048	1829 × 1029
720 × 576/50P	4:3	720 × 576	1440 × 1080	1397 × 1048	1371 × 1029
	16:9		1920 × 1080	1862 × 1048	1829 × 1029
1280 × 720/50P	16:9	1280 × 720	1920 × 1080	1862 × 1048	1829 × 1029
1920 × 1080/50i	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
720 (1440)[b] × 576/50i	4:3	720 × 576	1440 × 1080	1397 × 1048	1371 × 1029
	16:9		1920 × 1080	1862 × 1048	1829 × 1029

Signal system	Aspect ratio	Native Scan (H) × (V)	Normal Scan (H) × (V)	Under Scan (H) × (V)	Over Scan (H) × (V)
1920 × 1080/60[a])P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/50P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/24[a])P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/25P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
1920 × 1080/30[a])P	16:9	1920 × 1080	1920 × 1080	1862 × 1048	1829 × 1029
	2.39:1		1920 × 803	1862 × 779	1829 × 765
800 × 600/60P (SVGA)	4:3	800 × 600			
1024 × 768/60P (XGA)	4:3	1024 × 768			
1280 × 960/60P (SXGA)	4:3	1280 × 960			
1280 × 1024/60P (SXGA)	5:4	1280 × 1024			
1400 × 1050/60P (SXGA+)	4:3	1400 × 1050			

[a]) Also compatible with 1/1.001
[b]) Pixel Repetition = 2 (transmit the same pixel twice)

• Over Scan: The area size where 5% over scan portion in the normal scan is masked.
• The aspect ratio is manually set when HDMI Auto (page 50) of Screen Aspect is set to Off.

Picture/Frame Display

Input adaptor

Signal system	Display frame rate [Hz]
1920 × 1080/24[a)]PsF	48[a)]
1920 × 1080/25PsF	50
1920 × 1080/30[a)]PsF	60[a)]
1920 × 1080/24[a)]P	48[a)]
1920 × 1080/25P	50
1920 × 1080/30[a)]P	60[a)]
1920 × 1080/50i	50
1920 × 1080/60[a)]i	60[a)]
1920 × 1080/50P	50
1920 × 1080/60[a)]P	60[a)]
1280 × 720/24[a)]P	48[a)]
1280 × 720/25P	50
1280 × 720/30[a)]P	60[a)]
1280 × 720/50P	50
1280 × 720/60[a)]P	60[a)]
2048 × 1080/24[a)]PsF	48[a)]
2048 × 1080/24[a)]P	48[a)]

[a)] Also compatible with 1/1.001.

DVI-D

Signal system	Display frame rate [Hz]
DVI video	
640 × 480/60[a)]P	60[a)]
720 × 480/60[a)]P	60[a)]
1280 × 720/60[a)]P	60[a)]
1920 × 1080/60[a)]i	60[a)]
720 (1440)[b)] × 480/60[a)]i	60[a)]
720 × 576/50P	50
1280 × 720/50P	50
1920 × 1080/50i	50
720 (1440)[b)] × 576/50i	50
1920 × 1080/60[a)]P	60[a)]
1920 × 1080/50P	50
1920 × 1080/24[a)]P	48[a)]
1920 × 1080/25P	50
1920 × 1080/30[a)]P	60[a)]

Signal system	Display frame rate [Hz]
DVI computer	
fH: 28-68 kHz fV: 48-60 Hz Maximum resolution: 1920 × 1080/60P	48/50/60 Hz

[a)] Also compatible with 1/1.001.
[b)] Pixel Repetition = 2 (transmit the same pixel twice)

HDMI

Signal system	Display frame rate [Hz]
HDMI	
640 × 480/60[a)]P	60[a)]
720 × 480/60[a)]P	60[a)]
1280 × 720/60[a)]P	60[a)]
1920 × 1080/60[a)]i	60[a)]
720 (1440)[b)] × 480/60[a)]i	60[a)]
720 × 576/50P	50
1280 × 720/50P	50
1920 × 1080/50i	50
720 (1440)[b)] × 576/50i	50
1920 × 1080/60[a)]P	60[a)]
1920 × 1080/50P	50
1920 × 1080/24[a)]P	48[a)]
1920 × 1080/25P	50
1920 × 1080/30[a)]P	60[a)]
800 × 600/60P (SVGA)	60
1024 × 768/60P (XGA)	60
1280 × 960/60P (SXGA)	60
1280 × 1024/60P (SXGA)	60
1400 × 1050/60P (SXGA+)	60

[a)] Also compatible with 1/1.001.
[b)] Pixel Repetition = 2 (transmit the same pixel twice)

Note

When the monitor is in Quad View mode, the picture is displayed with the frame rate of the input signal for screen A.

Matrix/Gamma Setting Table

Input adaptor

- M in the following table shows Matrix.
- G in the following table shows Gamma.

Signal format				Signal system	Matrix/Gamma data setting area	ITU-R BT.709 M ITU 709	ITU-R BT.709 G 2.2	ITU-R BT.601 M ITU 601	ITU-R BT.601 G 2.2	SMPTE 240M M SMPTE 240	SMPTE 240M G 2.2	D-Cine RGB M ITU 709	D-Cine RGB G 2.6 RGB	D-Cine XYZ M ITU 709	D-Cine XYZ G 2.6 XYZ	xvYCC 709 M ITU 709	xvYCC 709 G xv YCC	xvYCC 601 M ITU 601	xvYCC 601 G xv YCC	User1 - User5 M	User1 - User5 G
HD-SDI																					
Single-link	4:2:2	YCbCr	10bit	HD 1920 × 1080/24[a]PsF		○						×		×							
Dual-link	4:4:4	YCbCr	10bit			○						×		×							
Dual-link	4:4:4	RGB[b]	10bit			○						×		×							
Dual-link	4:4:4	YCbCr	12bit			○						×		×							
Dual-link	4:4:4	RGB[b]	12bit			○						×		×							
Single-link	4:2:2	YCbCr	10bit	1920 × 1080/25PsF		○						×		×							
Dual-link	4:4:4	YCbCr	10bit			○						×		×							
Dual-link	4:4:4	RGB[b]	10bit			○						×		×							
Dual-link	4:4:4	YCbCr	12bit			○						×		×							
Dual-link	4:4:4	RGB[b]	12bit			○						×		×							
Single-link	4:2:2	YCbCr	10bit	1920 × 1080/30[a]PsF		○						×		×							
Dual-link	4:4:4	YCbCr	10bit			○						×		×							
Dual-link	4:4:4	RGB[b]	10bit			○						×		×							
Dual-link	4:4:4	YCbCr	12bit			○						×		×							
Dual-link	4:4:4	RGB[b]	12bit			○						×		×						A	B
Single-link	4:2:2	YCbCr	10bit	1920 × 1080/24[a]P		○						×		×							
Dual-link	4:4:4	YCbCr	10bit			○						×		×							
Dual-link	4:4:4	RGB[b]	10bit			○						×		×							
Dual-link	4:4:4	YCbCr	12bit			○						×		×							
Dual-link	4:4:4	RGB[b]	12bit			○						×		×							
Single-link	4:2:2	YCbCr	10bit	1920 × 1080/25P		○						×		×							
Dual-link	4:4:4	YCbCr	10bit			○						×		×							
Dual-link	4:4:4	RGB[b]	10bit			○						×		×							
Dual-link	4:4:4	YCbCr	12bit			○						×		×							
Dual-link	4:4:4	RGB[b]	12bit			○						×		×							
Single-link	4:2:2	YCbCr	10bit	1920 × 1080/30[a]P		○						×		×							
Dual-link	4:4:4	YCbCr	10bit			○						×		×							
Dual-link	4:4:4	RGB[b]	10bit			○						×		×							
Dual-link	4:4:4	YCbCr	12bit			○						×		×							
Dual-link	4:4:4	RGB[b]	12bit			○						×		×							

Appendixes

Signal format				Signal system	Matrix/Gamma data setting area	ITU-R BT.709		ITU-R BT.601		SMPTE 240M		D-Cine RGB		D-Cine XYZ		xvYCC 709		xvYCC 601		User1 - User5	
						M ITU 709	G 2.2	M ITU 601	G 2.2	M SMPTE 240	G 2.2	M ITU 709	G 2.6 RGB	M ITU 709	G 2.6 XYZ	M ITU 709	G xv YCC	M ITU 601	G xv YCC	M	G
Single-link	4:2:2	YCbCr	10bit	1920 × 1080/50i	HD	○						×		×							
Dual-link	4:4:4	YCbCr	10bit			○						×		×							
		RGB[b]	10bit			○						×		×							
		YCbCr	12bit			○						×		×							
		RGB[b]	12bit			○						×		×							
Single-link	4:2:2	YCbCr	10bit	1920 × 1080/60[a]i		○						×		×							
Dual-link	4:4:4	YCbCr	10bit			○						×		×							
		RGB[b]	10bit			○						×		×						A	B
		YCbCr	12bit			○						×		×							
		RGB[b]	12bit			○						×		×							
Dual-link	4:2:2	YCbCr	10bit	1920 × 1080/50P		○						×		×							
Dual-link	4:2:2	YCbCr	10bit	1920 × 1080/60[a]P		○						×		×							
Single-link	4:2:2	YCbCr	10bit	1280 × 720/24[a]P		○						×		×							
Single-link	4:2:2	YCbCr	10bit	1280 × 720/25P		○						×		×							
Single-link	4:2:2	YCbCr	10bit	1280 × 720/30[a]P		○						×		×							
Single-link	4:2:2	YCbCr	10bit	1280 × 720/50P		○						×		×							
Single-link	4:2:2	YCbCr	10bit	1280 × 720/60[a]P		○						×		×							
Dual-link	4:4:4	RGB[b]	10bit[c]	2048 × 1080/24[a]PsF	DC 2048 × 1080 RGB	×		×		×		○		×		×		×			
			12bit[c]			×		×		×		○		×		×		×			
		XYZ[b]	12bit		DC 2048 × 1080 XYZ	×		×		×		×		○		×		×			
Dual-link	4:4:4	RGB[b]	10bit[c]	2048 × 1080/24[a]P	DC 2048 × 1080 RGB	×		×		×		○		×		×		×			
			12bit[c]			×		×		×		○		×		×		×			
		XYZ[b]	12bit		DC 2048 × 1080 XYZ	×		×		×		×		○		×		×			
3G-SDI																					
Single-link	4:4:4	YCbCr	10bit	1920×1080/24[a]PsF	HD	○						×		×							
	4:4:4	RGB[b]	10bit			○						×		×							
	4:4:4	YCbCr	12bit			○						×		×							
	4:4:4	RGB[b]	12bit			○						×		×							
Single-link	4:4:4	YCbCr	10bit	1920×1080/25PsF	HD	○						×		×							
	4:4:4	RGB[b]	10bit			○						×		×						A	B
	4:4:4	YCbCr	12bit			○						×		×							
	4:4:4	RGB[b]	12bit			○						×		×							
Single-link	4:4:4	YCbCr	10bit	1920×1080/30[a]PsF		○						×		×							
	4:4:4	RGB[b]	10bit			○						×		×							
	4:4:4	YCbCr	12bit			○						×		×							
	4:4:4	RGB[b]	12bit			○						×		×							

Appendixes

Signal format				Signal system	Matrix/Gamma data setting area	ITU-R BT.709		ITU-R BT.601		SMPTE 240M		D-Cine RGB		D-Cine XYZ		xvYCC 709		xvYCC 601		User1 - User5	
						M ITU 709	G 2.2	M ITU 601	G 2.2	M SMPTE 240	G 2.2	M ITU 709	G 2.6 RGB	M ITU 709	G 2.6 XYZ	M ITU 709	G xv YCC	M ITU 601	G xv YCC	M	G
Single-link	4:4:4	YCbCr	10bit	1920×1080/24a)P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1920×1080/24a)P	HD	○						×		×							
Single-link	4:4:4	YCbCr	12bit	1920×1080/24a)P	HD	○						×		×							
Single-link	4:4:4	RGBb)	12bit	1920×1080/24a)P	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1920×1080/25P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1920×1080/25P	HD	○						×		×							
Single-link	4:4:4	YCbCr	12bit	1920×1080/25P	HD	○						×		×							
Single-link	4:4:4	RGBb)	12bit	1920×1080/25P	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1920×1080/30a)P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1920×1080/30a)P	HD	○						×		×							
Single-link	4:4:4	YCbCr	12bit	1920×1080/30a)P	HD	○						×		×							
Single-link	4:4:4	RGBb)	12bit	1920×1080/30a)P	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1920×1080/50i	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1920×1080/50i	HD	○						×		×							
Single-link	4:4:4	YCbCr	12bit	1920×1080/50i	HD	○						×		×							
Single-link	4:4:4	RGBb)	12bit	1920×1080/50i	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1920×1080/60a)i	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1920×1080/60a)i	HD	○						×		×							
Single-link	4:4:4	YCbCr	12bit	1920×1080/60a)i	HD	○						×		×							
Single-link	4:4:4	RGBb)	12bit	1920×1080/60a)i	HD	○						×		×							
Single-link	4:2:2	YCbCr	10bit	1920×1080/50P	HD	○						×		×						A	B
Single-link	4:2:2	YCbCr	10bit	1920×1080/60a)P	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1280×720/24a)P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1280×720/24a)P	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1280×720/25P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1280×720/25P	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1280×720/30a)P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1280×720/30a)P	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1280×720/50P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1280×720/50P	HD	○						×		×							
Single-link	4:4:4	YCbCr	10bit	1280 × 720/60a)P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bit	1280 × 720/60a)P	HD	○						×		×							
Single-link	4:4:4	RGBb)	10bitc)	2048×1080/24a)PsF	DC 2048 × 1080 RGB	×		×		×		○		×		×		×			
Single-link	4:4:4	RGBb)	12bitc)	2048×1080/24a)PsF	DC 2048 × 1080 RGB	×		×		×		○		×		×		×			
Single-link	4:4:4	XYZb)	12bit	2048×1080/24a)PsF	DC 2048 × 1080 XYZ	×		×		×		×		○		×		×			
Single-link	4:4:4	RGBb)	10bitc)	2048×1080/24a)P	DC 2048 × 1080 RGB	×		×		×		○		×		×		×			
Single-link	4:4:4	RGBb)	12bitc)	2048×1080/24a)P	DC 2048 × 1080 RGB	×		×		×		○		×		×		×			
Single-link	4:4:4	XYZb)	12bit	2048×1080/24a)P	DC 2048 × 1080 XYZ	×		×		×		×		○		×		×			

a) Also compatible with 1/1.001.

b) The internal fixed value applies to the transmission matrix of the RGB format and XYZ format.

c) 2048 × 1080 4:4:4 RGB format input signal is compatible with the input code 4-1019 (10bit) and 16-4079 (12bit).

○: Selectable (default setting)
Blank column: The signal is selectable but the display may not be correct depending on the input signal.
×: Not selectable

A: 1. ITU709
  2. ITU601
  3. SMPTE240M

  Selectable from above 1 to 3.

B: 1. 2.2
  2. 2.6 RGB
  3. 2.6 XYZ
  4. xvYCC
  5. S-LOG Standard
  6. S-LOG Full

  Selectable from above 1 to 6.

DVI-D

- M in the following table shows Matrix.
- G in the following table shows Gamma.

Signal format	Signal system	Matrix/Gamma data setting area	ITU-R BT.709 M ITU709	ITU-R BT.709 G 2.2	ITU-R BT.601 M ITU601	ITU-R BT.601 G 2.2	SMPTE 240M M SMPTE240	SMPTE 240M G 2.2	D-Cine RGB M ITU709	D-Cine RGB G 2.6 RGB	D-Cine XYZ M ITU709	D-Cine XYZ G 2.6 XYZ	xvYCC 709 M ITU709	xvYCC 709 G xvYCC	xvYCC 601 M ITU601	xvYCC 601 G xvYCC	User1-User5 M	User1-User5 G
DVI video																		
Single-link 4:4:4 RGB[b] 8bit	640 × 480/60[a]P	_[d]	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Single-link 4:4:4 RGB[b] 8bit	720 × 480/60[a]P	_[d]	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Single-link 4:4:4 RGB[b] 8bit	1280 × 720/60[a]P	HD	○	○					×	×	×	×					A	B
Single-link 4:4:4 RGB[b] 8bit	1920 × 1080/60[a]i	HD	○	○					×	×	×	×					A	B
Single-link 4:4:4 RGB[b] 8bit	720 (1440)[c] × 480/60[a]i	_[d]	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Single-link 4:4:4 RGB[b] 8bit	720 × 576/50P	_[d]	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Single-link 4:4:4 RGB[b] 8bit	1280 × 720/50P	HD	○	○					×	×	×	×					A	B
Single-link 4:4:4 RGB[b] 8bit	1920 × 1080/50i	HD	○	○					×	×	×	×					A	B
Single-link 4:4:4 RGB[b] 8bit	720 (1440)[c] × 576/50i	_[d]	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Single-link 4:4:4 RGB[b] 8bit	1920 × 1080/60[a]P	HD	○	○					×	×	×	×					A	B
Single-link 4:4:4 RGB[b] 8bit	1920 × 1080/50P	HD	○	○					×	×	×	×					A	B
Single-link 4:4:4 RGB[b] 8bit	1920 × 1080/24[a]P	HD	○	○					×	×	×	×					A	B
Single-link 4:4:4 RGB[b] 8bit	1920 × 1080/25P	HD	○	○					×	×	×	×					A	B
Single-link 4:4:4 RGB[b] 8bit	1920 × 1080/30[a]P	HD	○	○					×	×	×	×					A	B
DVI computer																		
Single-link 4:4:4 RGB[b] 8bit	fH: 28-68 kHz fV: 48-60 Hz Maximum resolution: 1920 × 1080/60P	DVI/HDMI Computer	○	○					×	×	×	×					A	B

[a] Also compatible with 1/1.001.

^{b)} The internal fixed value applies to the transmission matrix of the RGB format and XYZ format.
^{c)} Pixel Repetition = 2 (transmit the same pixel twice)
^{d)} Internally fixed, not changeable
  M: ITU601
  G: 2.2

○: Selectable (default setting)
Blank column: The signal is selectable but the display may not be correct depending on the input signal.
✕: Not selectable

A: 1. ITU709
  2. ITU601
  3. SMPTE240M

Selectable from above 1 to 3.

B: 1. 2.2
  2. 2.6 RGB
  3. 2.6 XYZ
  4. xvYCC
  5. S-LOG Standard
  6. S-LOG Full

Selectable from above 1 to 6.

HDMI

- M in the following table shows Matrix.
- G in the following table shows Gamma[c].

Signal format	Signal system	Matrix/Gamma data setting area	ITU-R BT.709 — M (ITU 709)	ITU-R BT.709 — G (2.2)	ITU-R BT.601 — M (ITU 601)	ITU-R BT.601 — G (2.2)	SMPTE 240M — M (SMPTE 240M)	SMPTE 240M — G (2.2)	D-Cine RGB — M (ITU 709)	D-Cine RGB — G (2.6 RGB)	D-Cine XYZ — M (ITU 709)	D-Cine XYZ — G (2.6 XYZ)	xvYCC 709 — M (ITU 709)	xvYCC 709 — G (xv YCC)	xvYCC 601 — M (ITU 601)	xvYCC 601 — G (xv YCC)	User1-User5 — M	User1-User5 — G
HDMI																		
4:4:4 RGB[b] 8/10/12bit 4:4:4 YCbCr 8/10/12bit 4:2:2 YCbCr 12bit	—[e]	640 × 480/60[a]P	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	—[e]	720 × 480/60[a]P	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	HD	1280 × 720/60[a]P	○	○					×	×	×	×					A	B
	HD	1920 × 1080/60[a]i	○	○					×	×	×	×					A	B
	—[e]	720 (1440)[d] × 480/60[a]i	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	—[e]	720 × 576/50P	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	HD	1280 × 720/50P	○	○					×	×	×	×					A	B
	HD	1920 × 1080/50i	○	○					×	×	×	×					A	B
	—[e]	720 (1440)[d] × 576/50i	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
	HD	1920 × 1080/60[a]P	○	○					×	×	×	×					A	B
	HD	1920 × 1080/50P	○	○					×	×	×	×					A	B
	HD	1920 × 1080/24[a]P	○	○					×	×	×	×					A	B
	HD	1920 × 1080/25P	○	○					×	×	×	×					A	B
	HD	1920 × 1080/30[a]P	○	○					×	×	×	×					A	B
	DVI/HDMI Computer	800 × 600/60P	○	○					×	×	×	×						
	DVI/HDMI Computer	1024 × 768/60P	○	○					×	×	×	×						
	DVI/HDMI Computer	1280 × 960/60P	○	○					×	×	×	×						
	DVI/HDMI Computer	1280 × 1024/60P	○	○					×	×	×	×						
	DVI/HDMI Computer	1400 × 1050/60P	○	○					×	×	×	×						

a) Also compatible with 1/1.001.
b) The internal fixed value applies to the transmission matrix of the RGB format.
c) When the quantization range is Full, the internal fixed value applies to the transmission gamma.
d) Pixel Repetition = 2 (transmit the same pixel twice)
e) Internally fixed, not changeable
   M: ITU601
   G: 2.2

○: Selectable (default setting)
Blank column: The signal is selectable but the display may not be correct depending on the input signal.
×: Not selectable

A: 1. ITU709
    2. ITU601
    3. SMPTE240M

    Selectable from above 1 to 3.

B: 1. 2.2
    2. 2.6 RGB
    3. 2.6 XYZ

4. xvYCC
5. S-LOG Standard
6. S-LOG Full

Selectable from above 1 to 6.

Connection Combination Table When an SDI Signal Is Input

When four to eight input adaptors are installed in the monitor, various combinations of models of input adaptors and input signals are enabled depending on the screen mode.
The tables below show available screen modes and numbers of signal inputs when a Single-link HD-SDI, Dual-link HD-SDI or 3G-SDI signal is input.

Example: Connection combination shown in the sixth column from the left in the table "Single-link 4K/QFHD mode used (Dual-link 4K/QFHD not used)" of "When eight BKM-250TG input adaptors are installed"

In a case where 3G/HD-SDI signals are input in Single-link from two systems for 4K/QFHD mode and are input in Single-link from one system for 2K/HD Zoom mode, up to four 3G/HD-SDI signal inputs are available for Quad View mode. As a result, this shows that the seven input signals are available in total.

When eight BKM-250TG input adaptors are installed

Dual-link 4K/QFHD mode used

Screen mode	Connection	Number of signals that can be input											
4K/QFHD	Dual-link	2	1	1	1	1	1	1	1	1	1	1	1
	Single-link	0	2	1	1	0	0	0	0	0	0	0	0
2K/HD Zoom	Dual-link	0	0	0	0	1	0	0	0	0	0	0	0
	Single-link	0	0	1	0	0	2	1	0	0	0	0	0
Quad View[a]	Dual-link	0	0	0	0	0	0	0	4	3	2	1	0
	Single-link	0	0	0	4	0	0	4	0	2	4	6	8
Total		2	3	3	6	2	3	6	5	6	7	8	9

Single-link 4K/QFHD mode used (Dual-link 4K/QFHD not used)

Screen mode	Connection	Number of signals that can be input																								
4K/QFHD	Dual-link	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-link	4	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2K/HD Zoom	Dual-link	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	Single-link	0	1	0	0	2	1	0	0	0	0	0	1	0	3	2	1	1	1	1	1	0	0	0	0	0
Quad View[a]	Dual-link	0	0	0	0	0	0	4	3	2	1	0	0	0	0	0	4	3	2	1	0	4	3	2	1	0
	Single-link	0	0	4	0	0	4	0	2	4	6	8	0	4	0	4	0	2	4	6	8	4	6	8	10	12
Total		4	4	7	3	4	7	6	7	8	9	10	3	6	4	7	6	7	8	9	10	9	10	11	12	13

4K/QFHD mode not used

Screen mode	Connection	Number of signals that can be input																												
4K/QFHD	Dual-link	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-link	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2K/HD Zoom	Dual-link	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-link	0	2	1	0	0	0	0	0	4	3	2	2	2	2	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0
Quad View[a]	Dual-link	0	0	0	4	3	2	1	0	0	0	4	3	2	1	0	4	3	2	1	0	8	7	6	5	4	3	2	1	0
	Single-link	0	0	4	0	2	4	6	8	0	4	0	2	4	6	8	4	6	8	10	12	0	2	4	6	8	10	12	14	16
Total		2	3	6	5	6	7	8	9	4	7	6	7	8	9	10	9	10	11	12	13	8	9	10	11	12	13	14	15	16

When eight BKM-243HS or eight BKM-244CC input adaptors are installed

Note

You cannot use the BKM-243HS and BKM-244CC input adaptors together.

Dual-link 4K/QFHD mode used

Screen mode	Connection	Number of signals that can be input							
4K/QFHD	Dual-link	2	1	1	1	1	1	1	1
	Single-link	0	2	1	0	0	0	0	0
2K/HD Zoom	Dual-link	0	0	0	0	0	0	0	0
	Single-link	0	0	0	0	0	0	0	0
Quad View[a]	Dual-link	0	0	0	4	3	2	1	0
	Single-link	0	0	4	0	2	4	6	8
Total		2	3	6	5	6	7	8	9

Single-link 4K/QFHD mode used (Dual-link 4K/QFHD mode not used)

Screen mode	Connection	Number of signals that can be input													
4K/QFHD	Dual-link	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-link	4	3	2	2	2	2	2	2	1	1	1	1	1	1
2K/HD Zoom	Dual-link	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Single-link	0	0	4	0	0	0	0	0	4	0	0	0	0	0
Quad View[a]	Dual-link	0	0	0	4	3	2	1	0	0	4	3	2	1	0
	Single-link	0	4	0	0	2	4	6	8	4	4	6	8	10	12
Total		4	7	6	6	7	8	9	10	9	9	10	11	12	13

4K/QFHD mode not used

Screen mode	Connection	Number of signals that can be input											
4K/QFHD	Dual-link	0	0	0	0	0	0	0	0	0	0	0	0
	Single-link	0	0	0	0	0	0	0	0	0	0	0	0
2K/HD Zoom	Dual-link	4	0	0	0	0	0	0	0	0	0	0	0
	Single-link	0	8	4	0	0	0	0	0	0	0	0	0
Quad View[a]	Dual-link	0	0	0	8	7	6	5	4	3	2	1	0
	Single-link	0	0	8	0	2	4	6	8	10	12	14	16
Total		4	8	12	8	9	10	11	12	13	14	15	16

When four BKM-250TG input adaptors are used

Screen mode	Connection	Number of signals that can be input											
4K/QFHD	Dual-link	1	0	0	0	0	0	0	0	0	0	0	0
	Single-link	0	2	1	1	0	0	0	0	0	0	0	0
2K/HD Zoom	Dual-link	0	0	0	0	1	0	0	0	0	0	0	0
	Single-link	0	0	1	0	0	2	1	0	0	0	0	0
Quad View[a]	Dual-link	0	0	0	0	0	0	0	4	3	2	1	0
	Single-link	0	0	0	4	0	0	4	0	2	4	6	8
Total		1	2	2	5	1	2	5	4	5	6	7	8

When four BKM-243HS or four BKM-244CC input adaptors are installed

> **Note**
>
> You cannot use the BKM-243HS and BKM-244CC input adaptors together.

Screen mode	Connection	Number of signals that can be input			
4K/QFHD	Dual-link	0	0	0	0
	Single-link	2	1	0	0
2K/HD Zoom	Dual-link	0	0	0	0
	Single-link	0	0	4	0
Quad View[a]	Dual-link	0	0	0	0
	Single-link	0	4	0	8
Total		2	5	4	8

[a] Shows available numbers of signals when displayed in Quad View mode only.
The actual available number of signals displayed in Quad View mode includes the number of signals to be displayed in 2K/HD Zoom mode.
Example: When the number of input signals to be displayed in 2K/HD Zoom is four and those to be displayed in Quad View mode is eight, the actual number of input signals available for display in Quad View mode becomes 12 in total.

Appendixes

Format/Input Setting Table

Display mode	Input adaptor (slot)	Format 1	Format 2	Input	Installed in	
					OPTION 1	OPTION 2
4K/QFHD[a] Quad View	BKM-250TG	3G/HD-SDI Auto	Auto	Option 1 [BKM-250TG] - Input 1	○	—
				Option 1 [BKM-250TG] - Input 2	○	—
				Option 2 [BKM-250TG] - Input 1	—	○
				Option 2 [BKM-250TG] - Input 2	—	○
		3G-SDI	4:2:2 YCbCr 10bit 4:4:4 YCbCr 10bit 4:4:4 RGB 10bit 4:4:4 YCbCr 12bit 4:4:4 RGB 12bit 4:4:4 XYZ 12bit	Option 1 [BKM-250TG] - Input 1	○	—
				Option 1 [BKM-250TG] - Input 2	○	—
				Option 2 [BKM-250TG] - Input 1	—	○
				Option 2 [BKM-250TG] - Input 2	—	○
		HD-SDI	4:2:2 YCbCr 10bit	Option 1 [BKM-250TG] - Input 1	○	—
				Option 1 [BKM-250TG] - Input 2	○	—
				Option 2 [BKM-250TG] - Input 1	—	○
				Option 2 [BKM-250TG] - Input 2	—	○
		Dual-link HD-SDI	4:2:2 YCbCr 10bit 4:4:4 YCbCr 10bit 4:4:4 RGB 10bit 4:4:4 YCbCr 12bit 4:4:4 RGB 12bit 4:4:4 XYZ 12bit	Option 1 [BKM-250TG] - Input 1&2	○	—
				Option 2 [BKM-250TG] - Input 1&2	—	○
	BKM-243HS	HD-SDI	4:2:2 YCbCr 10bit	Option 1 [BKM-243HS] - Input 1	○	—
				Option 1 [BKM-243HS] - Input 2	○	—
				Option 2 [BKM-243HS] - Input 1	—	○
				Option 2 [BKM-243HS] - Input 2	—	○
	BKM-243HS (OPTION 1&2)	Dual-link HD-SDI	4:2:2 YCbCr 10bit 4:4:4 YCbCr 10bit 4:4:4 RGB 10bit 4:4:4 YCbCr 12bit 4:4:4 RGB 12bit 4:4:4 XYZ 12bit	Option 1&2 [BKM-243HS] - Input 1	○	○
				Option 1&2 [BKM-243HS] - Input 2	○	○
	BKM-244CC	HD-SDI	4:2:2 YCbCr 10bit	Option 1 [BKM-244CC] - Input 1	○	—
				Option 1 [BKM-244CC] - Input 2	○	—
				Option 2 [BKM-244CC] - Input 1	—	○
				Option 2 [BKM-244CC] - Input 2	—	○
	BKM-244CC (OPTION 1&2)	Dual-link HD-SDI	4:2:2 YCbCr 10bit 4:4:4 YCbCr 10bit 4:4:4 RGB 10bit 4:4:4 YCbCr 12bit 4:4:4 RGB 12bit 4:4:4 XYZ 12bit	Option 1&2 [BKM-244CC] - Input 1	○	○
				Option 1&2 [BKM-244CC] - Input 2	○	○
	DVI-D	DVI	DVI Video	DVI	—[a]	
			DVI Computer		—[a]	
	HDMI	HDMI	Auto	HDMI	—[b]	

Display mode	Input adaptor (slot)	Format 1	Format 2	Input	Installed in OPTION 1	OPTION 2
2K/HD Zoom [c]	BKM-250TG	3G/HD-SDI Auto	Auto	Option 1 [BKM-250TG] - Input 1	○	—
				Option 1 [BKM-250TG] - Input 2	○	—
				Option 2 [BKM-250TG] - Input 1	—	○
				Option 2 [BKM-250TG] - Input 2	—	○
		3G-SDI	4:2:2 YCbCr 10bit 4:4:4 YCbCr 10bit 4:4:4 RGB 10bit 4:4:4 YCbCr 12bit 4:4:4 RGB 12bit 4:4:4 XYZ 12bit	Option 1 [BKM-250TG] - Input 1	○	—
				Option 1 [BKM-250TG] - Input 2	○	—
				Option 2 [BKM-250TG] - Input 1	—	○
				Option 2 [BKM-250TG] - Input 2	—	○
		HD-SDI	4:2:2 YCbCr 10bit	Option 1 [BKM-250TG] - Input 1	○	—
				Option 1 [BKM-250TG] - Input 2	○	—
				Option 2 [BKM-250TG] - Input 1	—	○
				Option 2 [BKM-250TG] - Input 2	—	○
		Dual-link HD-SDI	4:2:2 YCbCr 10bit 4:4:4 YCbCr 10bit 4:4:4 RGB 10bit 4:4:4 YCbCr 12bit 4:4:4 RGB 12bit 4:4:4 XYZ 12bit	Option 1 [BKM-250TG] - Input 1&2	○	—
				Option 2 [BKM-250TG] - Input 1&2	—	○
	BKM-243HS	HD-SDI	4:2:2 YCbCr 10bit	Option 1 [BKM-243HS]	○	—
				Option 2 [BKM-243HS]	—	○
	BKM-243HS (OPTION 1&2)	Dual-link HD-SDI	4:2:2 YCbCr 10bit 4:4:4 YCbCr 10bit 4:4:4 RGB 10bit 4:4:4 YCbCr 12bit 4:4:4 RGB 12bit 4:4:4 XYZ 12bit	Option 1&2 [BKM-243HS]	○	○
	BKM-244CC	HD-SDI	4:2:2 YCbCr 10bit	Option 1 [BKM-244CC]	○	—
				Option 2 [BKM-244CC]	—	○
	BKM-244CC (OPTION 1&2)	Dual-link HD-SDI	4:2:2 YCbCr 10bit 4:4:4 YCbCr 10bit 4:4:4 RGB 10bit 4:4:4 YCbCr 12bit 4:4:4 RGB 12bit 4:4:4 XYZ 12bit	Option 1&2 [BKM-244CC]	○	○

[a] The DVI-D input connector on the monitor is used.
[b] The HDMI input connector on the monitor is used.
[c] Install the same model of the adaptors in the same positions of the option slots for A to D screens (page 21).

Scan Mode Image
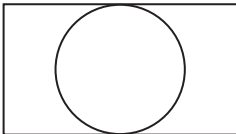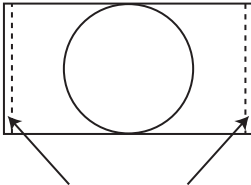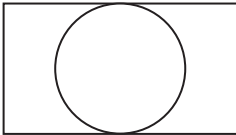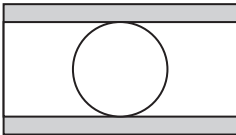
Example: Scan mode images of available signal system when the input adaptor is installed

For details of the picture display size, see page 102.
- For setting of Native Scan Mode, see Native Scan (page 51) in the Controls tab window of the Main Operation window.
- For setting of Scan (Normal, Under or Over), see Scan (page 51) in the Controls tab window of the Main Operation window.
- For setting of Aspect, see Screen Aspect (page 50) in More Settings in the Configurations tab window of the Main Operation window or Aspect (page 51) in the Controls tab window.
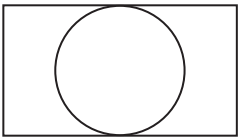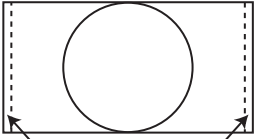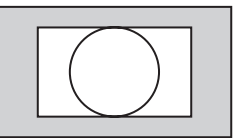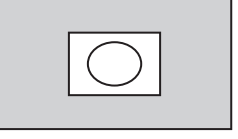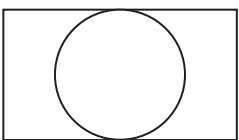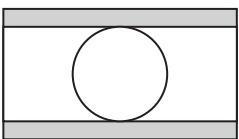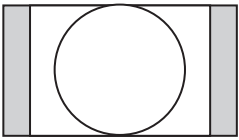
Panel size in 4K/QFHD mode
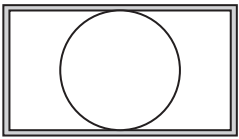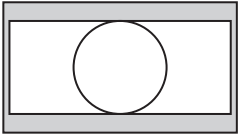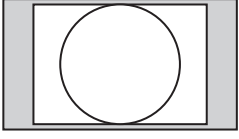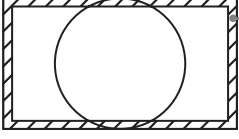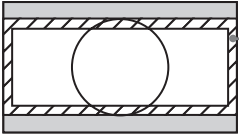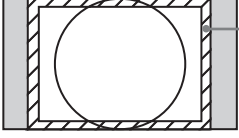
Scan mode	Input signal system and scan mode image
Native Scan	
Native Scan	3840 × 2160 4096 × 2160 Displayed by shifting the picture in 4096 Shift of the Controls tab window of the Main Operation window.
Normal Scan	
Aspect: 16:9 (1.896:1[a]) [a] When a 4096 × 2160 signal is input	3840 × 2160 4096 × 2160
Aspect: 2.39:1	3840 × 2160 4096 × 2160

Screen size in Quad View mode
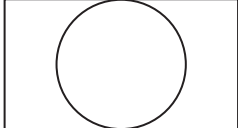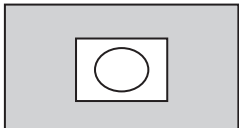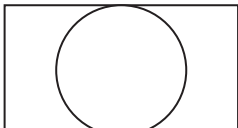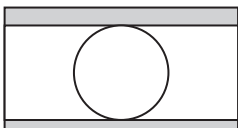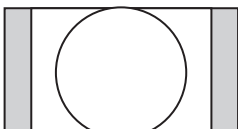
1920 × 1080

Scan mode	Input signal system and scan mode image
Native Scan	
Native Scan	1920 × 1080 1280 × 720 2048 × 1080 720 × 576 / 720 × 487 Displayed by shifting the picture in 2048 Shift of the Controls tab window of the Main Operation window.
Normal Scan	
Aspect: 16:9 (1.896:1 [a]) [a] When a 2048 × 1080 signal is input	1920 × 1080 1280 × 720 2048 × 1080 720 × 576 720 × 487 1440 × 576 1440 × 487 1440 × 483
Aspect: 2.39:1	1920 × 1080 2048 × 1080
Aspect: 4:3	720 × 576 720 × 487 1440 × 576 1440 × 487 1440 × 483

Scan mode	Input signal system and scan mode image
Under Scan	
Aspect: 16:9 (1.896:1[a]) [a]When a 2048 × 1080 signal is input	1920 × 1080 1280 × 720 2048 × 1080 720 × 576 720 × 487 1440 × 576 1440 × 487 1440 × 483
Aspect: 2.39:1	1920 × 1080 2048 × 1080
Aspect: 4:3	720 × 576 720 × 487 1440 × 576 1440 × 487 1440 × 483
Over Scan	
Aspect: 16:9 (1.896:1[a]) [a]When a 2048 × 1080 signal is input	1920 × 1080 1280 × 720 2048 × 1080 720 × 576 720 × 487 1440 × 576 1440 × 487 1440 × 483 5% mask portion
Aspect: 2.39:1	2048 × 1080 1920 × 1080 5% mask portion
Aspect: 4:3	720 × 576 720 × 487 1440 × 576 1440 × 487 1440 × 483 5% mask portion

Panel size in 2K/HD Zoom mode

3840

2160

Scan mode	Input signal system and scan mode image
Native Scan	
Native Scan	1920 × 1080[a] 1280 × 720[a] 720 × 576 720 × 487 2048 × 1080[a] Displayed by shifting the picture in 2048 Shift of the Controls tab window of the Main Operation window. [a] Magnified by twice for 2048 × 1080 or 1920 × 1080 input signal and magnified by three times for 1280 × 720 input signal.
Normal Scan	
Aspect: 16:9 (1.896[a]) [a] When a 2048 × 1080 signal is input	1920 × 1080 1280 × 720 2048 × 1080 720 × 576 720 × 487 1440 × 576 1440 × 487 1440 × 483
Aspect: 2.39:1	1920 × 1080 2048 × 1080
Aspect: 4:3	720 × 576 720 × 487 1440 × 576 1440 × 487 1440 × 483

Troubleshooting

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

Symptom	Assumed causes	Remedy
When configuring the network for the monitor, the setup window via a Web browser cannot be displayed (The Enter Network Password window for password authentication does not appear).	The monitor or the device for connecting the monitor is turned off.	• Check that the MAIN POWER switch on the connected monitor is turned on. If not, turn it on. • Check that the power of the LAN hub is turned on. If not, turn it on.
	The cable connection between the monitor and PC is not correct.	• Check that the cable is connected correctly. If not, connect it correctly (page 32).
	• One of the four IP addresses used for the monitor is set to the same as that for the connected PC. • Any of the four IP addresses used for the monitor are set to the same as those used for the devices connected via the network.	• Change the IP addresses of the devices that are the same as those as the monitor connected via the network. • Turn off the LAN hub then turn it on after changing the IP address, since the LAN hub may store the abnormal status in memory. • Reboot the PC.
	The subnet masks of the monitor and PC differ.	Check the subnet mask of the PC in the Network setting window of the Operating System of the PC. If the subnet mask differs from that of the monitor, set it to the same subnet mask as the monitor. For the setting, consult your network administrator.
	The browser is not set correctly.	If the browser uses a proxy server, change the proxy server setting to "Access the Internet without using a proxy server."
	Multiple network connections are used on the PC at the same time.	Close all network connections other than connection to the monitor, reboot the PC, then connect to the monitor via the network again.
	The Windows OS is slow in data processing or there may be a problem with the application in use.	• Close any open applications. • Reboot the PC.
The Network setup window via a Web browser cannot be displayed when operating the password authentication window (Enter Network Password window) during network configuration for the monitor.	You have entered an incorrect password.	Enter the correct password (page 35).
An error occurs when a new IP address is entered in the Network setup window during network configuration for the monitor.	The new IP address you are setting is the same as the current IP address of the monitor. This monitor uses four sequential IP addresses.	Set a correct IP address (page 35).
An error occurs in the Monitor Name setup window for network configuration for the monitor.	You are typing a character or symbol not allowed for use in a monitor name setting.	Use only characters or symbols allowed for use in the monitor name setting (page 36).
An error occurs in the Password setup window for network configuration for the monitor.	• You are typing a character or symbol not allowed for use in a password setting. • The entered password consists of fewer than four characters.	Set the password using four to 20 characters and symbols allowed for use in a password setting (page 36).

Symptom	Assumed causes	Remedy
• The picture you wish to display does not appear. • An exclamation mark is displayed beside Input in the Configurations tab window of the Main Operation window.	The input setting in the Configurations tab window of the Main Operation window does not match the input signal.	Check the setting in the Configurations tab window of the Main Operation window. If the setting is not correct, set it correctly.
The color is not displayed correctly.	The color temperature is not set correctly.	Set the color temperature correctly in Color Temp (page 46) of the Configurations tab window of the Main Operation window.
	Emulation of color gamut or Matrix/Gamma is not set correctly.	Set Color Gamut (page 48) or Matrix/Gamma (page 46) correctly in the Configurations tab window of the Main Operation window.
	Moisture condensation has accumulated on the surface of the RGB sensor of the backlight LED.	Turn off the monitor and let it dry sufficiently.
• The picture is not displayed in the selected color temperatures. • An exclamation mark is displayed beside Color Temp in the Configurations tab window of the Main Operation window.	When Quad View mode is selected, signals of both XYZ and other formats are input for four divided screens and Format is set for them.	A different color temperature cannot be set for four divided screens in Quad View mode. Input the signals of XYZ or the same format other than XYZ in the four screens and set Format in the Configurations tab window of the Main Operation window (page 45).
No markers are displayed.	The screen mode is set to 4K/QFHD or 2K/HD Zoom mode.	The markers are not displayed in 4K/QFHD and 2K/HD Zoom modes. Select Quad View mode.
	The monitor displays a DVI Computer signal or HDMI computer signal.	The markers are not displayed when a DVI Computer signal or HDMI computer signal is input.
	The internal signal is displayed.	The markers are not displayed on the internal signal.
	The picture is displayed in H delay or V delay.	The markers are not displayed when H Delay or V Delay is set to on.
The selected picture cannot be magnified accurately in 2K/HD Zoom mode.	The signal source is not connected by the method corresponding to the input adaptor used.	Connect the signal source correctly (page 22).
An error message is displayed when 2K/HD Zoom is selected or the screen to be magnified is changed in 2K/HD Zoom mode.	For the screen to be magnified, Format is set to HDMI or DVI in the Configurations tab window of the Main Operation window.	To operate the picture in 2K/HD Zoom mode, select Quad View mode and set Format for the screen to be magnified to a setting other than DVI and HDMI.
	For the screen to be magnified, Input is set to BKM-250TG in the Configurations tab window of the Main Operation window and the screen to be magnified is set to the screen other than screen A.	To operate the picture using the BKM-250TG in 2K/HD Zoom mode, input the signal you wish to magnify to the input adaptor for screen A (page 17), select Quad View mode, and set Input for screen A.
	For the screen to be magnified, Input is set to Input 2 on BKM-243HS or BKM-244CC in he Configurations tab window of the Main Operation window.	To operate the picture using the BKM-243HS or BKM-244CC in 2K/HD Zoom mode, input the signal you wish to magnify to Input 1, select Quad View mode, and set Input for the screen to be magnified.
	Input adaptors of the same model are not installed in the same positions of the option slots for screens A to D.	Install input adaptors of the same model in the same option slot number (page 21).
When 4K/QFHD mode is selected, the list of the desired formats is not displayed in the combo boxes in Format.	Input adaptors of the same model are not installed in the same positions of the option slots for screens A to D.	Install input adaptors of the same model in the same option slot number (page 21).
An exclamation mark is displayed beside Start Adjustment in the Color Temp (Manual) tab window of the Adjustment window, and you cannot operate Start Adjustment.	The adjustment value of Contrast is set to less than 400.	Set Contrast to 400 or more (page 53).

Symptom	Assumed causes	Remedy
An external signal is displayed even if Internal is selected in Input Signal of the Color Temp (Manual) tab window of the Adjustment window.	If Format for the four screens is set to DVI Computer, HDMI computer signal or 4:4:4 XYZ 12bit in Quad View mode, the internal signal cannot be selected.	Set the format for the four screens to one other than DVI Computer, HDMI computer signal or 4:4:4 XYZ 12bit (page 45).
After connection in the Monitor Browser window, the message box of "Different Setting Data" is displayed and the monitor reboots.	A communication error occurred during the process of setting before connecting in the Monitor Browser window.	The setting data are automatically recovered. Confirm the recovered setting data.
The characters entered in the window of SRM Manager are transformed.	Only alphanumeric characters and symbols (except for some symbols) can be used for entering the characters in SRM Manager except for file selection in the File Management window. The entered characters may contain ones that can be entered only when IME is set to on.	Do not set IME to on before you enter the characters.
A monitor you wish to connect is not displayed on the list in the Monitor Browser window.	The settings of the NETWORK switches on the monitor are not the same.	Set the NETWORK switches on input blocks A to D to the same setting (page 14).
	The monitor or the device for connecting the monitor is turned off.	• Check that the MAIN POWER switch on the connected monitor is turned on. If not, turn it on. • Check that the power of the LAN hub is turned on. If not, turn it on.
	The cable connection between the monitor and PC is not correct.	Check that the cable is connected correctly. If not, connect it correctly (page 32).
	• One of the four IP addresses used for the monitor is set to the same as that for the connected PC. • Any of the four IP addresses used for the monitor are set to the same as those used for the devices connected via the network.	• Change the IP address of the monitor in the Network setup window of a web browser (page 35). • Change the IP addresses of the devices that are the same as those of the monitor connected via the network. • Turn off the LAN hub then turn it on after changing the IP address, since the LAN hub may store the abnormal status in memory. • Reboot the PC.
	You have failed to change the network configuration in the Network setup window.	Confirm that the monitor and a computer are connected correctly (page 32) and change the network configuration in the Network setup window (page 35).
	The subnet masks of the monitor and PC differ.	Check Subnet Mask of the monitor in the Network setup window (page 35) via a Web browser and that of the PC in the Network setting window of the Operating System of the PC. If they are different, set them to the same subnet mask. For the setting, consult your network administrator.
	• Multiple network connections are used at the same time and the network for connection with the monitor is not selected. • The IP address of the PC was changed.	Click the Application Setup button in the initial window of SRM Manager to display the Network Adaptor window (page 37) then select the network adaptor to be used for connection with the monitor.
	The Windows OS is slow in data processing or there may be a problem with the application in use.	• Close any open applications. • Reboot the PC.
	• The SRM Manager has not been registered in the list for the firewall setting. • The port is not unblocked in the firewall setting.	• Unblock the SRM Manager in the firewall setting. Refer to the operating instructions supplied with the firewall software used. • Unblock UDP port number 53862 in the firewall setting.

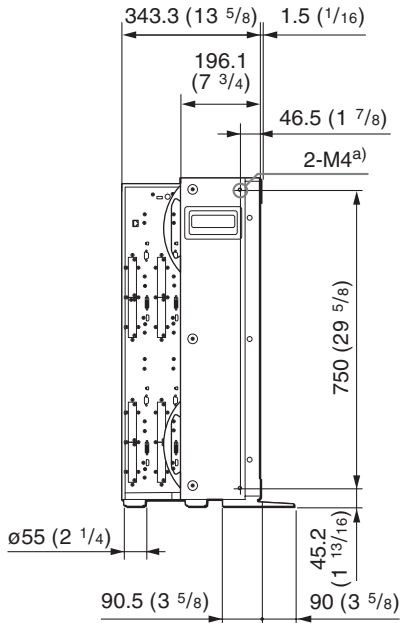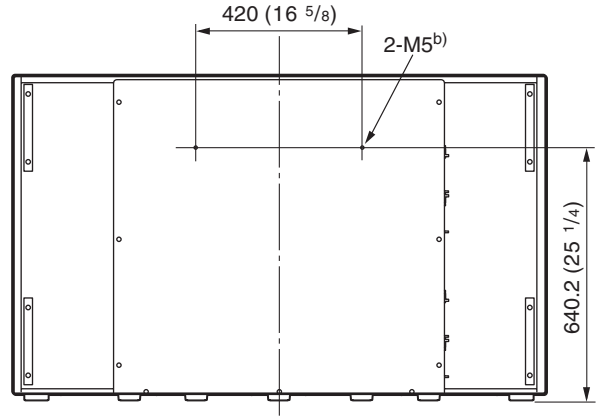| Symptom	Assumed causes	Remedy
A dialog box with the message "Ethernet connection error." is displayed.	You are trying to connect multiple monitors with the same IP address to a PC.	• Close all open applications, and click Start to select [Programs] and [Accessories], and open [Command Prompt]. Enter "arp –d" then press the Enter key. • Reboot the PC.
	The monitor or the device for connecting the monitor is turned off.	• Check that the MAIN POWER switch on the connected monitor is turned on. If not, turn it on. • Check that the power of the LAN hub is turned on. If not, turn it on.
	The cable connection between the monitor and PC is not correct.	Check that the cable is connected correctly. If not, connect it correctly (page 32).
	• One of the four IP addresses used for the monitor is set to the same as that for the connected PC. • Any of the four IP addresses used for the monitor are set to the same as those used for the devices connected via a network.	• Change the IP address of the monitor in the Network setup window of a web browser (page 35). • Change the IP addresses of the devices that are the same as those of the monitor connected via the network. • Turn off the LAN hub then turn it on after changing the IP address, since the LAN hub may store the abnormal status in memory. • Reboot the PC.
	The Windows OS is slow in data processing or there may be a problem with the application in use.	• Close any open applications. • Reboot the PC.
	• The SRM Manager has not been registered in the list for the firewall setting. • The port is not unblocked in the firewall setting.	• Unblock the SRM Manager in the firewall setting. Refer to the operating instructions supplied with the firewall software used. • Unblock TCP port number 53484 in the firewall setting.
A dialog box with the message " Already connected to another SRM Manager" is displayed.	The monitor you are to connect with your PC is operated by SRM Manager installed on another PC.	The monitor cannot be operated by multiple SRM Manager applications. Disconnect the monitor from the other PC then connect it to your PC.
A dialog box with the message "Connection time out." or "Invalid SDCP packet." is displayed.	The monitor or the device for connecting the monitor is turned off.	• Check that the MAIN POWER switch on the connected monitor is turned on. If not, turn it on. • Check that the power of the LAN hub is turned on. If not, turn it on.
	The cable connection between the monitor and PC is not correct.	Check that the cable is connected correctly. If not, connect it correctly (page 32).
	Any of the four IP addresses used for the monitor are set to the same as those used for the devices connected via a network.	• Change the IP address of the monitor in the Network setup window of a web browser (page 35). • Change the IP addresses of the devices that are the same as those of the monitor connected via the network. • Turn off the LAN hub then turn it on after changing the IP address, since the LAN hub may store the abnormal status in memory. • Reboot the PC.
	The Windows OS is slow in data processing or there may be a problem with the application in use.	• Close any open applications. • Reboot the PC.

Appendixes

Symptom	Assumed causes	Remedy
A dialog box with the message "File transfer error." is displayed when you click the Upload button in the User LUT Manager tab window of the Display Function window.	The monitor or the device for connecting the monitor is turned off.	• Check that the MAIN POWER switch on the connected monitor is turned on. If not, turn it on. • Check that the power of the LAN hub is turned on. If not, turn it on.
	The cable connection between the monitor and PC is not correct.	Check that the cable is connected correctly. If not, connect it correctly (page 32).
	Any of the four IP addresses used for the monitor are set to the same as those used for the devices connected via a network.	• Change the IP addresses of the devices that are the same as those of the monitor connected via the network. • Turn off the LAN hub then turn it on after changing the IP address, since the LAN hub may store the abnormal status in memory. • Reboot the PC.
	The Windows OS is slow in data processing or there may be a problem with the application in use.	• Close any open applications. • Reboot the PC.
	You have selected an improper User LUT file.	Use the proper User LUT file (page 60).
A dialog box with the message "Ethernet connection error." is displayed when you click the Connect button in Monitor Browser of the Copy Categories tab window or Copy Presets tab window of the File Management window.	The subnet mask of the monitor selected in Monitor Browser to copy the data differs from that of the PC.	Check Subnet Mask of the monitor in the Network setup window (page 35) via a Web browser and that of the PC in the Network setting window of the Operating System of the PC. If they are different, set them to the same subnet mask. For the setting, consult your network administrator.
	The monitor from which the data are to be copied or the device for connecting that monitor is turned off.	• Check that the MAIN POWER switch on the connected monitor is turned on. If not, turn it on. • Check that the power of the LAN hub is turned on. If not, turn it on.
	The cable connection between the monitor from which the data are to be copied and the PC is not correct.	Check that the cable is connected correctly. If not, connect it correctly (page 32).
	Any of the four IP addresses used for the monitor from which the data are to be copied are set to the same as those used for the devices connected via a network.	• Change the IP address of the monitor in the Network setup window of a Web browser (page 35). • Change the IP addresses of the devices that are the same as those of the monitor connected via the network. • Turn off the LAN hub then turn it on after changing the IP address, since the LAN hub may store the abnormal status in memory. • Reboot the PC.
	The Windows OS is slow in data processing or there may be a problem with the application in use.	• Close any open applications. • Reboot the PC.
The dialog box with the message "File transfer error.," "Connection time out." or "Invalid SDCP packet." is displayed when you click the Connect button in Monitor Browser of the Copy Categories tab window or the Copy Presets tab window of the File Management window.	The monitor from which the data are to be copied or the device for connecting that monitor is turned off.	• Check that the MAIN POWER switch on the connected monitor is turned on. If not, turn it on. • Check that the power of the LAN hub is turned on. If not, turn it on.
	The cable connection between the monitor from which the data are to be copied and the PC is not correct.	• Check that the cable is connected correctly. If not, connect it correctly (page 32).
	Any of the four IP addresses used for the monitor from which the source data are copied is set to the same as those for the connected devices via a network.	• Change the IP address of the monitor in the Network setup window of a web browser (page 35). • Change the IP addresses of the devices that are the same as those of the monitor connected via the network. • Turn off the LAN hub then turn it on after changing the IP address, since the LAN hub may store the abnormal status in memory. • Reboot the PC.
	The Windows OS is slow in data processing or there may be a problem with the application in use.	• Close any open applications. • Reboot the PC.

Symptom	Assumed causes	Remedy
• The dialog box with the message "File transfer error." is displayed while operating in the Save System File tab window of the File Management window. • The dialog box with the message "File transfer error." is displayed when you click the Copy button in the Copy Categories tab window or Copy Presets tab window of the File Management window.	The monitor or the device for connecting the monitor is turned off.	• Check that the MAIN POWER switch on the connected monitor is turned on. If not, turn it on. • Check that the power of the LAN hub is turned on. If not, turn it on.
	The cable connection between the monitor and PC is not correct.	Check that the cable is connected correctly. If not, connect it correctly (page 32).
	Any of the four IP addresses used for the monitor are set to the same as those used for the devices connected via a network.	• Change the IP address of the monitor in the Network setup window of a Web browser (page 35). • Change the IP addresses of the devices that are the same as those of the monitor connected via the network. • Turn off the LAN hub then turn it on after changing the IP address, since the LAN hub may store the abnormal status in memory. • Reboot the PC.
	The Windows OS is slow in data processing or there may be a problem with the application in use.	• Close any open applications. • Reboot the PC.

Appendixes

Dimensions

Unit: mm (inches)

Front

1352.3 (53 1/4)

824.3 (32 1/2)

420.2 (16 5/8)

60 (23/8)

420 (16 5/8)

760 (30)

1232 (48 5/8)

Side

343.3 (13 5/8)　1.5 (1/16)

196.1 (7 3/4)

46.5 (1 7/8)

2-M4[a]

750 (29 5/8)

ø55 (2 1/4)

45.2 (1 13/16)

90.5 (3 5/8)　90 (3 5/8)

[a] When using this hole, use a screw which can be inserted into the monitor to a depth of 6 to 8 mm (^{1}/4 to ^{11}/32 inches).

Rear

420 (16 5/8)

2-M5[b]

640.2 (25 1/4)
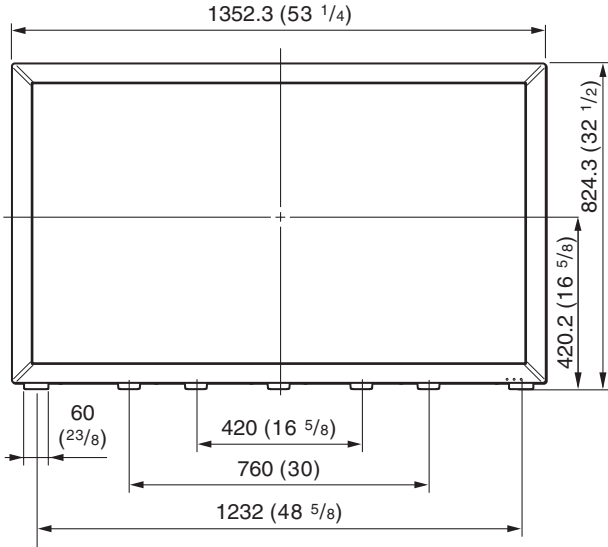
[b] When using this hole, use a screw which can be inserted into the monitor to a depth of 6 to 10 mm (^{1}/4 to ^{13}/32 inches).

Bottom

64 (2 5/8)

92.5 (3 3/4)

154.8 (6 1/8)

Appendixes

Connection Cable Specifications for Color Temperature Probes

Specified cables are required to connect color temperature probes to the monitor.

The following diagrams show pin assignments to connect the supplied connection cable for color temperature adjustment and optional D-sub 9-pin connector.

Connection cable for color temperature adjustment (supplied)

Mini DIN 8-pin connector (male)

Color of cable core	Pin number
Red	1
White	2
Black	3
Yellow	4
Blue	5
Green	6
Brown	7
Gray	8
Shield	Cover
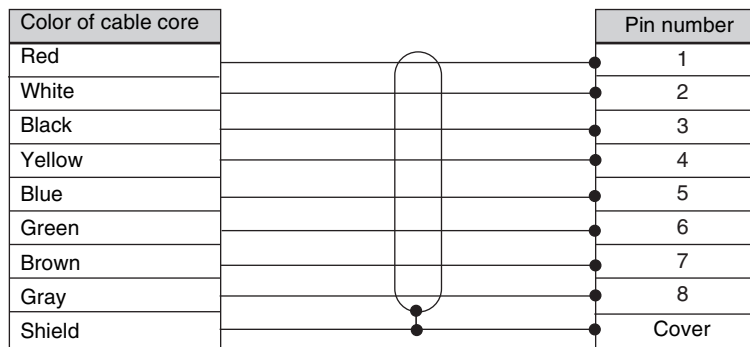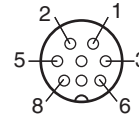
Connection cable for Konica Minolta CA-210 probe

D-sub 9-pin connector (male) (optional)
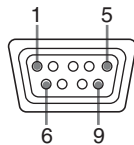
Mini DIN 8-pin connector (male)

Signal	Pin number
CD	1
RXD	2
TXD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
GND	9

Pin number	Signal
1	N.C.
2	N.C.
3	RTS
4	GND
5	N.C.
6	TXD
7	+5V
8	RXD
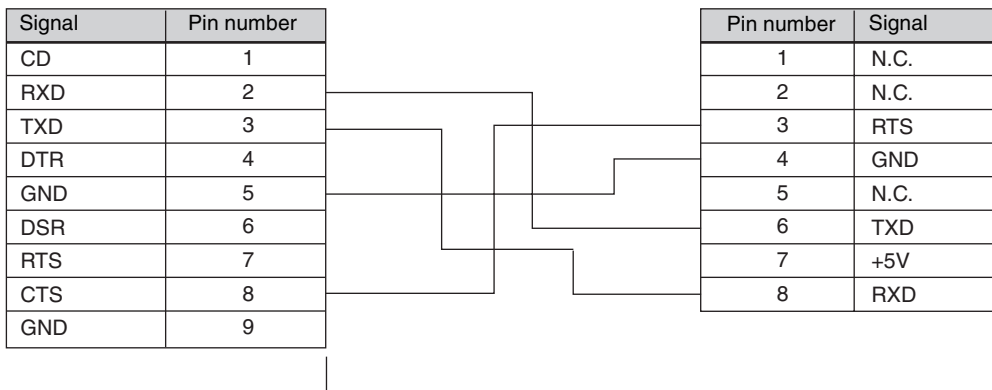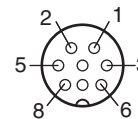
Connection cable for color temperature adjustment (supplied)

Connection cable for DK-Technologies PM5639/06 probe

D-sub 9-pin connector (male)
(optional)
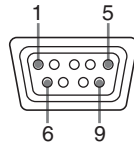
Mini DIN 8-pin connector (male)
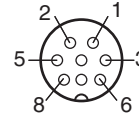
Signal	Pin number
NC	1
RXD	2
TXD	3
NC	4
GND	5
NC	6
NC	7
NC	8
+5V	9

Pin number	Signal
1	NC
2	NC
3	RTS
4	GND
5	NC
6	TXD
7	+5V
8	RXD

Connection cable for color temperature adjustment (supplied)

Connection cable for X-Rite Eye-One Pro probe

D-sub 9-pin connector (female)
(optional)
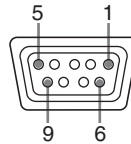
Mini DIN 8-pin connector (male)
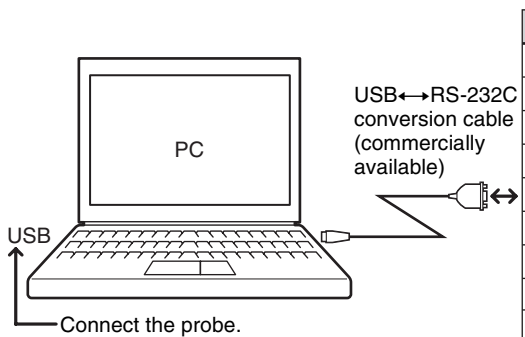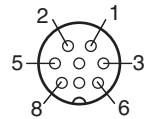
PC

USB↔RS-232C conversion cable (commercially available)

USB

Connect the probe.

Signal	Pin number
CD	1
RXD	2
TXD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
GND	9

Pin number	Signal
1	N.C.
2	N.C.
3	RTS
4	GND
5	N.C.
6	TXD
7	+5V
8	RXD

Connection cable for color temperature adjustment (supplied)

Besides the connecting cable, an external PC is required.
When the PC is not equipped with a serial port, a
USB↔RS-232C conversion cable (commercially available)
is required.
Connect the probe to the USB connector of the external PC.

Menu Index

The menu index shows the principal menu items provided with this monitor in alphabetical sequence. For your reference, each menu item is followed by the page of this manual on which the item is explained and the main window that the item belongs to.

	Menu Item	Page	Level 1 > Level 2 display
Number	1080I/PsF	48	Main Operation > Configurations tab window
	24PsF	48	Main Operation > Configurations tab window
	25PsF/50I	48	Main Operation > Configurations tab window
	30PsF/60I	48	Main Operation > Configurations tab window
	4096 Shift/2048 Shift	52	Main Operation > Controls tab window
A	Address Setting	67	System Configuration > Network tab window
	Adjustment	53	Adjustment window
	Any XY	55	Adjustment > Color Temp (Auto) tab window
	Aperture	52	Main Operation > Controls tab window
	Apply Password	71	System Configuration > Password tab window
	Area Marker 1	49	Main Operation > Configurations tab window
		52	Main Operation > Controls tab window
	Area Marker 2	49	Main Operation > Configurations tab window
		52	Main Operation > Controls tab window
	Aspect Blanking	48	Main Operation > Configurations tab window
	Aspect Marker	48	Main Operation > Configurations tab window
	Audio CH	69	System Configuration > On Screen Set tab window
	Audio Level Meter	69	System Configuration > On Screen Set tab window
	Authentication	67	System Configuration > Network tab window
B	B Cut Off	52	Main Operation > Controls tab window
	Backlight Time	78	Information > Common tab window
	Bit Depth	80	Information > Screen A tab window
	Black Detail	52	Main Operation > Controls tab window
		64	Display Function > Miscellaneous tab window
	Blue Only	52	Main Operation > Controls tab window
	Bright	52	Main Operation > Controls tab window
		53	Adjustment > Picture (Manual) tab window
C	Center Marker	49	Main Operation > Configurations tab window
	Change Password	71	System Configuration > Password tab window
	Chroma	52	Main Operation > Controls tab window
		53	Adjustment > Picture (Manual) tab window
	Chroma Up	52	Main Operation > Controls tab window
	Clip Indicator	64	Display Function > Miscellaneous tab window
	Closed Caption	68	System Configuration > On Screen Set tab window
	Color Depth	80	Information > Screen A tab window
	Color Gamut	48	Main Operation > Configurations tab window
	Color Temp	46	Main Operation > Configurations tab window
	Color Temp (Auto)	54	Adjustment > Color Temp (Auto) tab window
	Color Temp (Manual)	57	Adjustment > Color Temp (Manual) tab window

Appendixes

Appendixes

	Menu Item	Page	Level 1 > Level 2 display
	Target Luminance	55	Adjustment > Color Temp (Auto) tab window
	Time Code	69	System Configuration > On Screen Set tab window
	Transparency	69	System Configuration > On Screen Set tab window
	Trap Mode	67	System Configuration > Network tab window
	Type	69	System Configuration > On Screen Set tab window
U	Upload	60	Display Function > User LUT Manager tab window
	User LUT	48	Main Operation > Configurations tab window
	User LUT Manager	60	Display Function > User LUT Manager tab window
	User Matrix/Gamma	61	Display Function > User Matrix/Gamma tab window
Y	YCbCr	52	Main Operation > Controls tab window
Z	Zebra Pattern	64	Display Function > Gamut Error Display tab window
		65	Display Function > Miscellaneous tab window

Appendixes

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