23.8"/ 27" 4K Broadcast Monitors

Quad Split LCD Display

SDI/HDMI Cross Converter

User Manual

Dear Users:

Thank you for using our photography, broadcasting media and the matching color LCD Monitor with SDI ⇌ HDMI cross converter built in, which is made with LCD monitor and cross converter. This monitor part adopts digital signal processing circuit and professional LCD screen, which makes it high brightness, stable performance and low radiation etc., also has strong compatibility, adjustable color temperature control. Its advanced features include Image Split Display, False Color, Center Marker, Screen Marker, Zoom, Display Rotate, Check Field, etc. It is an ideal NLE (Nonlinear Edit) matching monitor.

To meet different customers' needs, our monitor is equipped with serial digital interface signals HDMI (and HDMI-1 input support HDMI 2.0), DVI, VGA, AUDIO Inputs etc.

SDI ⇌ HDMI Cross Converter can converter HD serial digital interface SDI signal to HDMI signals, and also can convert the HDMI signal to equipment with HD serial digital interface SDI signal, which can be adaptive SD and HD, 3Gb/s video format. It could convert SDI into HDMI output, and then connect to the LCD monitor HDMI inputs to ensure it could have the SDI input function.

To insure best use of the unit, please read the user's manual carefully.

CAUTION

1. Please use the adapter attached in the accessory, if necessary, please use qualified adapter.

2. Please do NOT expose this product directly in the sunlight, heat, and humid conditions.

3. Please keep the monitor away from the strong light while using this product to ensure the image effect and long-term use.

4. Please avoid heavy impact or drop onto the ground.

5. Please do NOT use chemical solutions to clean this product. Please wipe the monitor with a clean soft cloth to maintain the brightness of the surface.

6. No adjustable components are in the monitor. Please do not take apart or repair the unit by yourself, to avoid the damage of the product.

1. LCD Monitor Part

◆ 4K Ultra HD Resolution (3840 x 2160)

◆ False Color

◆ Screen Center Marker (cross mark) display setting

◆ Screen Marker: 80%, 85%, 90%, 93%, 96%, 2.35:1

◆ Image Freeze: The current picture still (capture function).

◆Anamorphic: x1.33, x1.5, x1.8, x2.0

◆ Display Rotate, could select 0°, 90°, 180°, 270° image Display Rotate

◆ Check Field: To switch among Red, Green, Blue, Mono, Off

◆ Color Temperature: 9300k, 7500k, 6500k,5500k, 3200k, User (custom adjust)

◆ Display Mode could set 1P, 2P-LR, 2P-TB, PIP, 4P

◆ Zoom: left top (Z1), right top (Z2), left bottom (Z3), right bottom (Z4), Center1 (Z5), Center2 (Z6)

◆ Aspect Ratio could select full, 16:9, 4:3, 1:1, 2.39:1, 2.35:1, 1.896:1 and 1.85:1

◆ Panel buttons (F1～F4) function custom settings

◆ Adjust LED backlight, Image display more brighter, screen does not flicker

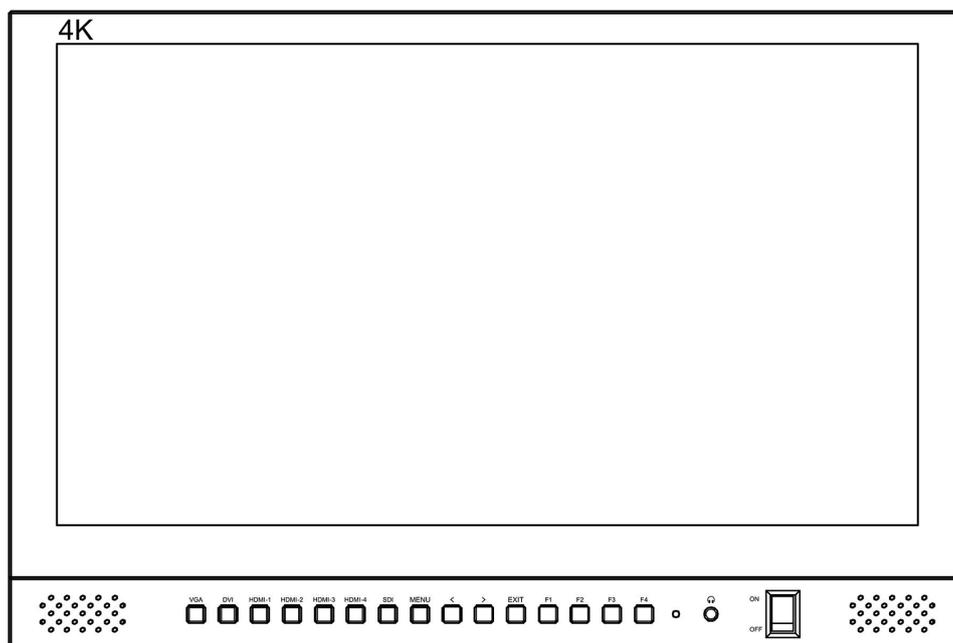◆ Front panel stereo earphone output

2. Cross Converter Part

◆ Support one SDI input& output and one HDMI input& output.

◆ Support SMPTE 424M, SMPTE 292M, SMPTE 259M standard.

◆ SD/HD/3G-SDI signal　perfectly transformed.

◆ Adopts adaptive signal enhancement technique, and simultaneously to ensure that no lose of the video signal.
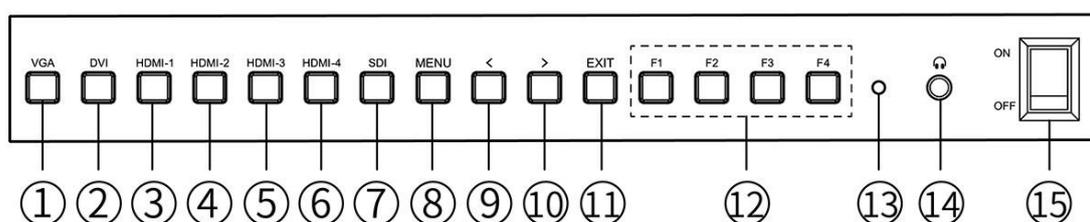
CONTENTS

# 1. Product Description

1.1 Front Panel Features

🖎 Panel Button Instructions

①. **VGA:** VGA signal input selection

②. **DVI:** DVI signal input selection

③. **HDMI-1:** HDMI-1 signal input selection

(This port supports HDMI2.0).

④. **HDMI-2:** HDMI-2 signal input selection

⑤. **HDMI-3:** HDMI-3 signal input selection

⑥. **HDMI-4:** HDMI-4 signal input selection

⑦. SDI ⇌ HDMI：SDI ⇌ HDMI Cross Convert

⑧. **MENU:** Menu entry and items selection.

⑨. ＜**:** Volume down, when enter into the menu it is for up button selection.

⑩. ＞**:** Volume up, when enter into the menu it is for down button selection.

⑪. **EXIT:** Menu exit

⑫. **Custom button F1～F4**

⑬. **Power Indicator**

⑭. 🎧 **:** Earphone jack output port

⑮. **Power ON/OFF**

1.2 Rear Panel Features
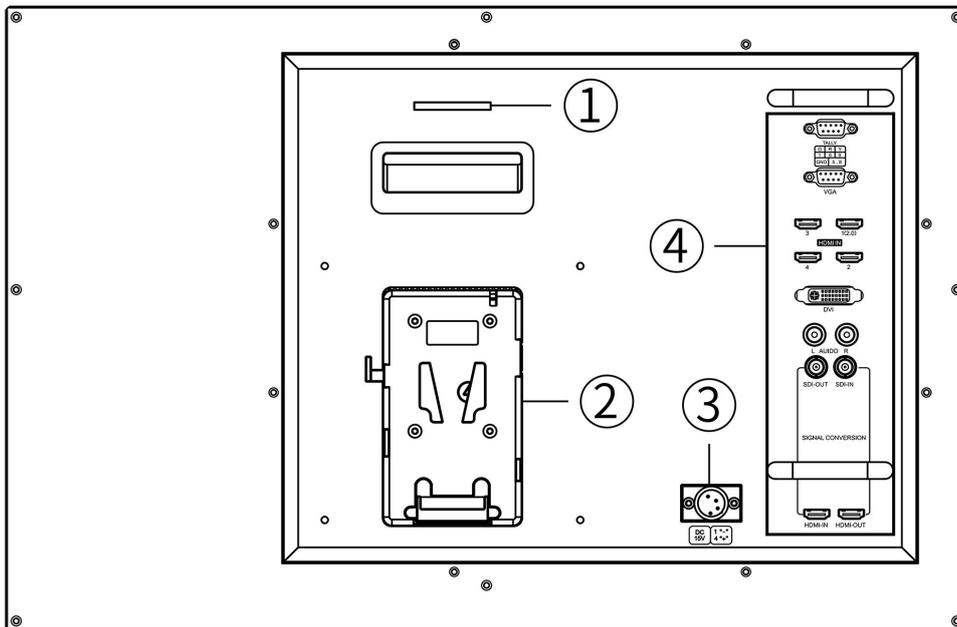
①. **TALLY** (indicator)

②. **Battery Plate slot:** According to the users' requirements selection. (Please check battery plates instructions)

③. 4-pin XLR DC power input port

④. **Interfaces** (See below Interfaces instructions)

👆 **Interfaces Instructions**
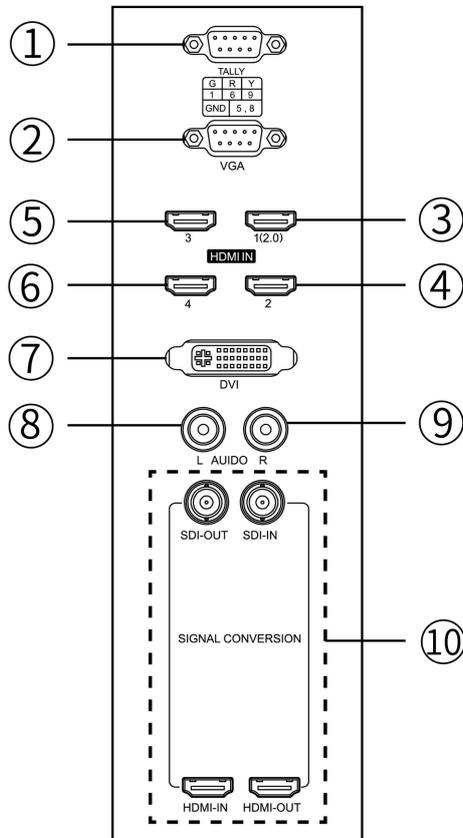
①. TALLY indicator signal input

②. VGA signal input

③. HDMI-1(2.0) signal input

④. HDMI-2 signal input

⑤. HDMI-3 signal input

⑥. HDMI-4 signal input

⑦. DVI signal input

⑧. Audio signal L stereo input

⑨. Audio signal R stereo input

⑩. SDI ⇌ HDMI Cross Converter input & output port

1.3 Battery Plates

Panasonic Anton Plate   **Sony V-Mount Plate**

We assemble the suitable battery plate for the customers according to the different requirements of the batteries**.** If the customers have no requirement on the battery, the factory assembles Sony V-Mount Plate by default.

Remark: According to the different specification of the battery, the capability is different, and the working time for the monitor will be different. Higher capability (working time) will be longer.

1.4 Power Input Way

There are some ways of power supply to our monitor as below:

A. Via 4 pin XLR interface power supply, to share power with the camera or via power adapter input.

Polarity of the 4-pin XLR power input as below image, please note the polarity of the power input, otherwise it may damage monitor.

Pin number	Signal
1	GND
2	No connection
3	No connection
4	V+

B. Add battery into the monitor battery plate to supply the power.

The battery plate on product back case is available for two types of

batteries. Customers can choose different battery plates according

to their needs. (If the customers have no requirement on the battery,

the factory assembles Sony V-Mount Plate by default.).
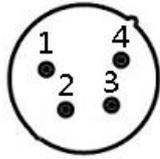
According to the different specification of the battery, the capability

is different, and the working time for the monitor will be different.

Higher capability (working time) will be longer.

Without the charging circuit design for the monitor, please

remove the battery to charge with the battery charger.
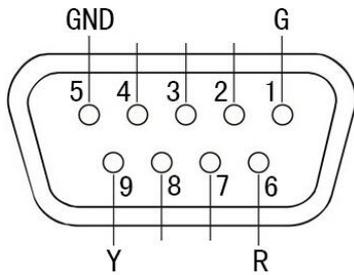
Suggestion: Better to remove the battery if don't use this

product in a long time.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACE

BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING

TO THE INSTRUCTIONS.

1.5 TALLY Indicator Connection

Indicator Color	Pin Connection
Green	1-5
Red	6-5
Yellow	9-5

1.6 SDI ⇌ HDMI Cross Converter Instruction
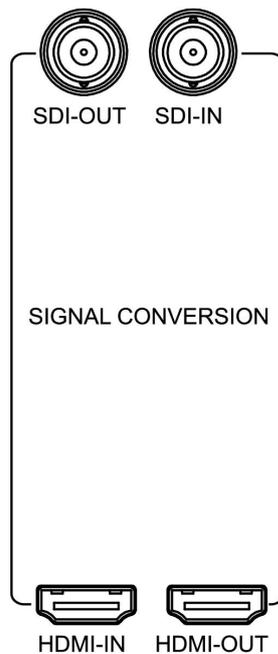
SDI ⇌ HDMI Cross Converter is installed in the lower part of the back of the LCD monitor interface port, its role is to converter HD serial digital interface SDI signal to HDMI signals, or convert HDMI signal to HD serial digital interface SDI signal, and can be adaptive SD and HD, 3Gb/s video format.

When operation, please connect SDI or HDMI signal to corresponding input port of converter, SDI-OUT or HDMI-OUT

connect to SDI monitor or HDMI monitor, and then press the button ⑦SDI ⇌ HDMI on front panel of the monitor to cross converter signals, and the transformed signal from the corresponding output port of the Cross Converter to the corresponding monitor for display.

✎ **Cross Converter Supported Format**

SDI Supported Format	3G-SDI:1080P(60/59.94/50) HD-SDI:1080P(30/29.97/25/24) 1080PsF24 720P(60/59.94/50/30/25/24)
HDMI Supported Format	1080P(60/59.94/50/30/29.97/25/24) 1080PsF24 720P(60/59.94/50/30/25/24)

2. Button Operation Instruction

✎ **Signal Input Selection**

VGA → VGA signal input selection.

DVI → DVI signal input selection.

HDMI-1 → HDMI-1 signal input selection.

(This port supports HDMI2.0, 3840×2160 resolution, 50P, 60P)

HDMI-2 → HDMI-2 signal input selection.

HDMI-3 → HDMI-3 signal input selection.

HDMI-4 → HDMI-4 signal input selection.

SDI ⇌ HDMI → SDI ⇌ HDMI Cross Convert selection.

✍ Custom Shortcut Function Operation

F1～F4 are custom shortcut function buttons, users can customize the function of the buttons.

Operation as below: Short press these buttons is for function operation, long press these buttons to enter into shortcut button setting.

Take F1 button for example and explain.

Long press F1 button, the screen will display:

| **F1** | ‹ | Freeze | Ultra Vivid | False Color | Check Field | › |

Use‹ or › button to move selection:

Freeze, Ultra Vivid, False Color, Check Field, **2P-LR, 2P-TB, PIP, 4P, Aspect Ratio, Disp Rotate, Anamorphic, Zoom, Safety Marker, Center Marker, Grid Marker, Mute**

To choose any single item of them and press MENU button to confirm and then enter into the next F button setting.

✍ The adjustment of the analogue
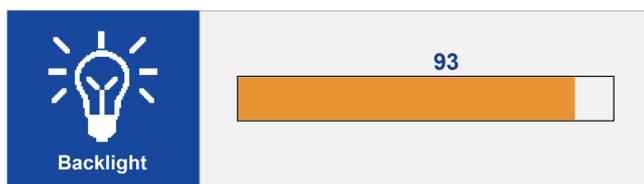
Backlight   93

Press ‹ or › button to enter into the analogue, adjustment and press MENU button to select Volume, Brightness, Contrast, Hue, Saturation, Sharpness, Backlight and then press ‹ or › button to adjust the analogue, press **EXIT** button to exit the menu.

✎ Menu Operation

MENU → Menu button

Press MENU button to enter into menu bar, then press＜ or ＞ button to select menu items, press MENU button to confirm and then enter into the secondary menu.

After enter into the secondary menu, use＜or＞ button to select or adjust the items, then press MENU button to confirm and it will enter into analogue value of the adjustment item or set item selection and then press＜ or＞ button to adjust or select, then press MENU button to confirm, and press EXIT button to return last step selection or adjustment.

＜ → Volume down or enter into the adjustment of analogue, and it is for moving selection button in menu adjustment.

Press it directly is the volume down button or enter into the adjustment of analogue.

After enter into menu, it is for moving selection button. When enter into secondary menu, it is for the set item selection or adjustment.

＞ → Volume up or enter into the adjustment of analogue, it is for moving selection button in menu adjustment.

Press it directly is the volume up button or enter into the adjustment of analogue.

After enter into menu, it is for moving selection button.

When enter into secondary menu, it is for the set item
selection or adjustment.

EXIT → Signal input selection button and exit button of menu

3. Menu Function Instruction

 Picture

Brightness	0～100
Contrast	0～100
Hue	0～100
Saturation	0～100
Backlight	0～100
Gamma	Off, 1.8, 2.0, 2.2, 2.4
Temperature	6500K, 5500K, 3200K, User, 9300K, 7500K Under the **User**, the **Red**, **Green** and **Blue** of the image can be adjusted. **Red (0～255), Green (0～255), Blue (0～255)** (Use the ＜/＞ key to select the User, and then press the **MENU**

	key to enter the **User** menu.)
Color Effect	The **Hue (0-100)** and **Saturation (0-100)** of the three primary colors (**Red, Green, Blue**) and three auxiliary colors (**Yellow, Cyan, Magenta**) of the image can be adjusted. (Press the **MENU** key to enter the **Color Effect** menu.）

Function

| Aspect Ratio	Full, 16:9, 4:3, 5:4, 1:1
Check Field	Off, Red, Green, Blue, Mono
Anamorphic	Off, x1.33, x1.5, x1.8, x2.0
Ultra Vivid	**Off, On** By sharpening the edge of images to help peaking focus operation when shooting.
Freeze	Off, On
Zoom	**Off, Upper Left, Upper Right, Lower Left, Lower Right, Center1, Center2** (**Center 1:** magnify 4 times; **Center 2:** magnify 9 times)
Disp Rotate	0°, 90°, 180°, 270°, H Mirror, V Mirror
False Color	Off, Mode1, Mode2, Mode3

Display

Display Mode	1P, 2P LR, 2P TB, 2P PIP, 4P
Display Function	When the Display Mode is **2P LR** or **2P PIP**, you can

	press the **MENU** key to enter the **Display Function** menu for parameter adjustment. ● Under the **2P LR**, you can adjust: 　**LR Ratio (0～4)** ● Under **2P PIP**, you can adjust: 　**PIP Position (RB, MID, LT, RT, LB)** 　**PIP Transparency (0～10)** 　**PIP Size (0～10)** 　**Input Swap (Press MENU key to swap)**
Select Region	When the display mode is multi-picture mode, you can select one of the pictures to adjust the brightness, contrast, hue, saturation and other parameters of the picture.
Input	Perform signal input switching on the displayed screen. (Press the **MENU** key to enter the **Input** menu to switch the input source)
Information	View the corresponding screen input source information. (Press the **MENU** key to enter the **Information** menu to view.)

 Audio

Volume	**0～100**
Mute	**Off, On**
Audio Source	In multi-picture mode, you can select the input signal of one picture as audio output.
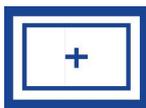
 Marker

Safety Marker	**Off, 80%, 85%, 90%, 93%, 96%, 4:3, 2.39:1, 2.35:1, 1.85:1**

Center Marker	Off, On
Grid Marker	Off, 3X3, 6X6, 9X9
Line Width	0～10
Line Color	Red, Green, Blue, White
Mask	Half, Black, Off

 Setting

Language	English, 中文, 日本語
F1～F4	**False Color, Check Field, 2P LR, 2P TB, 2P PIP, 4P, Aspect Ratio, Disp Rotate, Anamorphic, Zoom, Safety Marker, Center Marker, Grid Marker, Mute, Freeze, Ultra Vivid** (You can customize the shortcut key function settings for F1～F4 of the key panel.)
Transparency	0～255
OSD H Position	0～100
OSD V Position	0～100
Menu Time	29～60s
Reset	Press the **MENU** button to reset, it will restore the factory default parameter settings.

4. LCD Monitor Supported Signal Formats

Video Signals	Supported Signal Formats
HDMI	HDMI 2.0: 4K 2160P (23.98/24/25/29.97/30/50/59.94/60) HDMI 1.4: 4K 2160P (23.98/24/25/29.97/30) 480p/576p 720p (60/59.94/50/30/29/25/24/23.98) 1080p (60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF)
SDI	720p (60/59.94/50/30/29/25/24/23.98) 1080p (60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF)

5. LCD Monitor Parameters

Panel Size	23.8″	27″
Resolution	3840×2160 pixels	
Aspect Ratio	16:9	
Dot Pitch	0.13725x0.13725 mm	0.1554 × 0.1554 mm
Color Display	1.07B	1.07B
Brightness	310cd/m²	400cd/m²
Contrast	1000:1	1200:1
Viewing Angle	178°(H) / 178°(V)	178°(H) / 178°(V)
Backlight	LED	
Signal Input	HDMIx4(HDMI2.0x1 support 4K 60HZ; HDMI1.4x3 support 4K 30HZ) DVI, VGA, Audio(L/R), Tally, USB Upgrade	
Audio	3.5mm headphone jack port, speaker	
Special Function	TALLY Indicator	
Working Temperature	-10°C～50°C	
Storage Temperature	-20°C～60°C	

Input Voltage	DC 10~24V (XLR)	
Power Consumption	≤42W	≤45W
Unit Size (mm) (W/O Bracket/ Suitcase)	627L×372H×39D (mm)	670L×410H×39D (mm)
Unit Weight (W/O Bracket/ Suitcase)	6.5kg	7.9kg

6. Trouble Shooting

If there is any problem when using the unit, please try following ways to inspect and solve. Please contact us if you still could not solve it or have other problems.

Without image display	Trouble shooting
◆ Video cable off or connect incorrectly	Check the quality of the cable, make sure the correct input interface
◆ Without video signal input	Check the signal source and output interface connect is correct or not
◆ Monitor is not be powered on	Check whether the power is connected, put the power switch to "**on**" position
◆ Supply voltage instability	The power adapter or battery is poor connected with battery plate
◆ self-contained power supply, polarity connect inversely	Reference "Power input way" reconnect

Image/color display abnormal	Trouble shooting
◆ Video cable poor contact	Change video cable, try again
◆ Video signal interfered by external	Move to another environment to try again

environment	
◆ Menu color saturation adjustment closing	Enter menu to check color, or reset to factory settings
◆ Check Field set in mono or black & white	Reset Check Field, back to the color
◆ Image deformation	Reset the image aspect ratio

Speaker without sound	**Trouble shooting**
◆ Audio cable off or connection properly	Confirm connected with the corresponding input port
◆ Volume adjustment was closed	Reset the volume control and adjust to a proper position
◆ HDMI cable poor connected	Check the quality of cable, or change cable and have a try
◆ No sound after switch video signal	In VGA and DVI state, it needs to input audio signal synchronize.

■ **Remark:**

★ If there are still other problems, please contact with our related technical persons.

★ As we are improving our products features, so if there are changes without prior notice.