

1000nit Broadcast Monitor

13.3"/17.3"/21.5"



User Manual

Foreword

Thank you for purchasing our high bright broadcast monitor. Please read this manual carefully before using the unit. Have a great experience!

Cautions

1. Please avoid drop onto the ground and lead to the device broken when move the product.
 2. The screen of this product is made of glass, please keep away from injury if the screen is broken.
 3. Keep the product away from the heat source. Avoid the prolonged exposures to the sun as the LCD screen will be damaged.
 4. To avoid damaging the product, please do not take apart or repair the unit by yourself without the adjustable components in the unit.
- To protect the screen or housing better, please follow these ways as below to avoid the damages:

Please refrain from using the hard objects to hit the screen

Please do not force to wipe the screen or housing

Please do not use the chemical solutions to clean the screen or housing

Please do not spray any detergent on the screen or housing

Please do not write on the screen directly

Please do not stick anything on the screen or housing

Please simply wipe with a clean soft cloth and make sure no water on the screen or housing

Vorsichtsmaßnahmen

1. Bitte vermeiden Sie den Fall auf den Boden und führen Sie zum gebrochenen Gerät, wenn Sie das Produkt bewegen.

2. Der Bildschirm dieses Produkts besteht aus Glas, halten Sie sich bitte von Verletzungen fern, wenn der Bildschirm gebrochen ist.
 3. Halten Sie das Produkt von der Wärmequelle fern. Vermeiden Sie längere Sonneneinstrahlungen, da der LCD-Bildschirm beschädigt wird.
 4. Um Beschädigungen des Produkts zu vermeiden, nehmen Sie bitte das Gerät nicht ohne die einstellbaren Komponenten im Gerät auseinander oder reparieren Sie es nicht selbst.
- Um den Bildschirm oder das Gehäuse besser zu schützen, folgen Sie bitte diesen Wegen wie unten, um die Schäden zu vermeiden:
Bitte unterlassen Sie die Verwendung der harten Objekte, um den Bildschirm zu treffen
Bitte zwingen Sie nicht, den Bildschirm oder das Gehäuse zu wischen
Bitte verwenden Sie die chemischen Lösungen nicht, um den Bildschirm oder das Gehäuse zu reinigen
Bitte sprühen Sie kein Reinigungsmittel auf den Bildschirm oder das Gehäuse
Bitte schreiben Sie nicht direkt auf den Bildschirm
Bitte kleben Sie nichts auf den Bildschirm oder das Gehäuse
Bitte wischen Sie einfach mit einem sauberen weichen Tuch ab und stellen Sie sicher, dass kein Wasser auf dem Bildschirm oder Gehäuse vorhanden ist.

Précautions

1. Lorsque vous déplacez le produit, évitez de tomber sur le sol et de causer des dommages à l'équipement.
2. L'écran de ce produit est en verre, s'il vous plaît rester loin de la foule si l'écran est cassé.

3. Gardez le produit loin de la source de chaleur. Évitez l'exposition prolongée au soleil, car l'écran LCD peut être endommagé.
 4. Pour éviter d'endommager le produit, veuillez ne pas démonter ou réparer l'unité vous - même sans pièces réglables à l'intérieur de l'unité.
- Afin de mieux protéger l'écran ou le boîtier, veuillez suivre les méthodes ci - dessous pour éviter les dommages:
S'il vous plaît ne pas frapper l'écran avec des objets durs
Veuillez ne pas forcer l'écran ou le boîtier
Veuillez ne pas utiliser de solutions chimiques pour nettoyer l'écran ou le boîtier
Veuillez ne pas pulvériser de nettoyant sur l'écran ou le boîtier
S'il vous plaît ne pas écrire directement sur l'écran
Veuillez ne rien coller à l'écran ou au boîtier

Precauzioni

1. Please evitare di cadere a terra e portare al dispositivo rotto quando spostare il prodotto.
 2. Lo schermo di questo prodotto è fatto di vetro, si prega di tenere lontano da lesioni se lo schermo è rotto.
 3. Tenere il prodotto lontano dalla fonte di calore. Evitare l'esposizione prolungata al sole poiché lo schermo LCD sarà danneggiato.
 4. Per evitare di danneggiare il prodotto, non smontare o riparare l'unità da soli senza i componenti regolabili nell'unità.
- Per proteggere meglio lo schermo o l'alloggiamento, si prega di seguire questi modi come di seguito per evitare i danni:
Si prega di astenersi dall'utilizzare gli oggetti duri per colpire lo schermo
Si prega di non forzare a pulire lo schermo o l'alloggiamento

Si prega di non utilizzare le soluzioni chimiche per pulire lo schermo o l'alloggiamento

Si prega di non spruzzare alcun detergente sullo schermo o sull'alloggiamento

Si prega di non scrivere direttamente sullo schermo

Si prega di non attaccare nulla sullo schermo o sull'alloggiamento

Precauciones

1. al mover el producto, evite caer al suelo, causando daños al equipo.
 2. la pantalla de este producto está hecha de vidrio, si la pantalla está rota, Manténgase alejada de la multitud.
 3. mantenga el producto alejado de la fuente de calor. Evite la exposición prolongada al sol, ya que la pantalla LCD puede dañarse.
 4. para evitar daños al producto, no desmontar o reparar la unidad por sí mismo sin componentes ajustables dentro de la unidad.
- Para proteger mejor la pantalla o la carcasa, siga los siguientes métodos para evitar daños:

Por favor, no golpee la pantalla con objetos duros

No limpie a la fuerza la pantalla o la carcasa

No use una solución química para limpiar la pantalla o la carcasa

No rocíe ningún detergente en la pantalla o en la carcasa

Por favor, no escriba directamente en la pantalla

Por favor, no pegue nada a la pantalla o a la carcasa

Limpie simplemente con un paño suave limpio y asegúrese de que no haya agua en la pantalla o en la carcasa.

Product Feature

- ✧ Full HD panel, viewing details with confidence
- ✧ High bright 1000nit, visible in sunlight
- ✧ Intuitive buttons operation, 4 custom function shortcut buttons to improve work efficient
- ✧ Support 4K@60 HDMI Input and Output
- ✧ Under HDMI signal the audio meter level can be display max 8 channels; under SDI signal can be display max.16 channels
- ✧ HDR monitoring, what you see is what you get
- ✧ Custom 3D-LUT, preview film look
- ✧ With Waveform, RGB Histogram, Focus Assist, Monochrome etc. functions, help you accurately exposure and focus every shot
- ✧ Dual speakers
- ✧ Built-in front and rear Tally light, enhance team cooperation
- ✧ Multiple power supply ways (DC IN, XLR , V-mount battery plate)

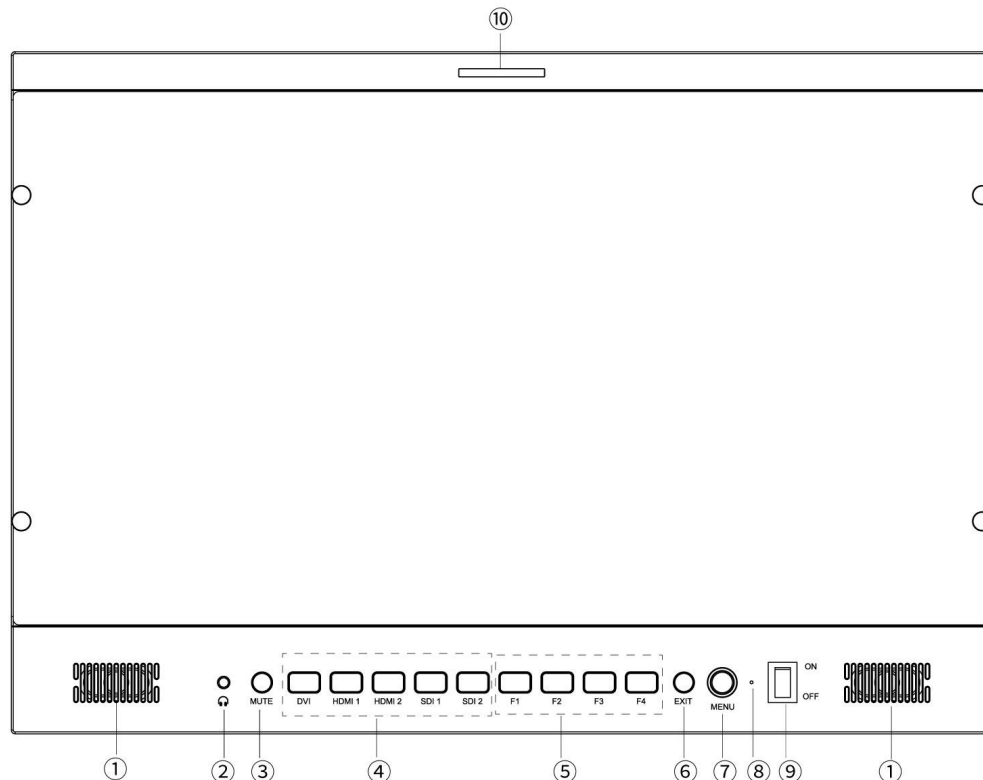
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1. Product Description (Take 21.5" as an example)

Note: Different sizes are slightly different in appearance, please refer to the actual product.

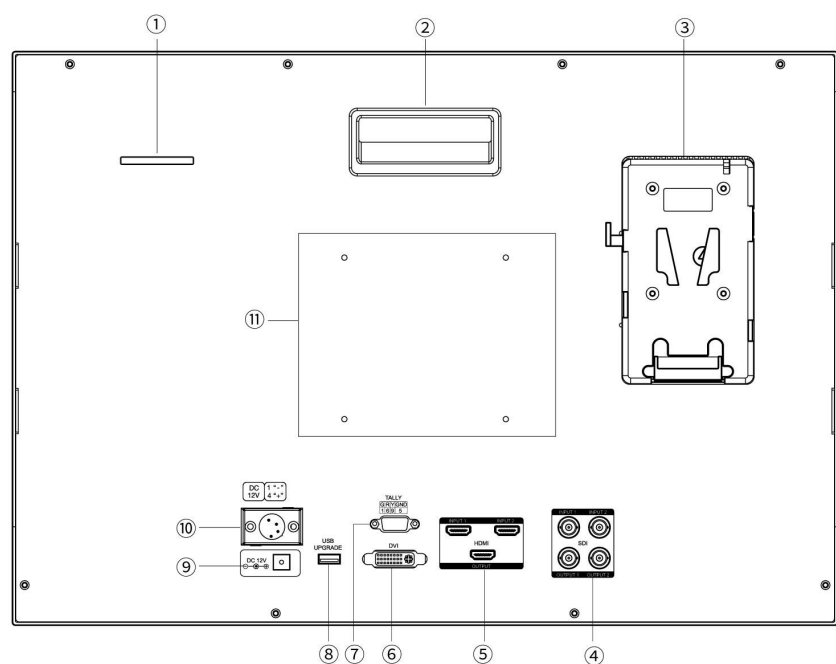
1.1 Front Panel



Number	Instruction
①	Speaker
②	3.5mm headphone jack
③	Mute Key When the menu is not displayed, press it to turn on mute. When turned on, the button will display a green constant light; closed the mute function , the button light turn off
④	Signal Input Selection When the menu is not displayed, the signal input source can be selected. After selection, the button will display a green constant light.
⑤	Custom Function Key

	Users can enter the main menu User Option - Shortcut Key to set F1~F4 as common function keys. After setting and close menu, simply press to turn on or off the function
⑥	Return/Exit menu
⑦	Function when OSD is displayed Rotate to select the desired function or parameter, and press confirm after selection Function when OSD is not displayed Rotate to adjust volume or backlight (can be set to volume or backlight in the menu User Option - Left Right Key Set) Press to enter main menu
⑧	Power Indicator After the monitor is properly connected to the power, turn on power switch the indicator display red, and display green after input signal
⑨	Power ON/OFF
⑩	Tally Indicator (Red、Green、Yellow)

1.2 Rear Panel



Number	Instruction
①	Tally Indicator (Red、Green、Yellow)
②	Handle
③	V-mount Battery Plate
④	2*3G-SDI Signal Inputs and Outputs
⑤	2*HDMI Signal Inputs, 1*HDMI Signal Output
⑥	DVI Signal Input (VGA input from this port after conversion module signal conversion)
⑦	Tally (Indicator) Signal Input
⑧	LUT File/Upgrade File Importing port
⑨	The direct DC plug-in power input port supply
⑩	4-pin XLR DC power input
⑪	VESA Holes (100x100mm)

1.3 Power Input Way

There are three ways of power supply to our monitor:

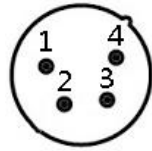
a. Powered by the direct plug-in power input port supply.

Please select DC power plug supply and the polarity is as image below:



b. 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	+12V

c. Add battery to the monitor battery plate to supply the power.

The product back case including battery plate 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).

❖ Battery Plates



Panasonic Anton Plate



Sony V-Mount Plate

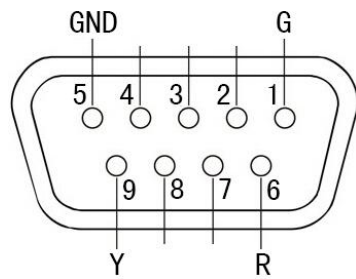
We assemble the suitable battery plate for the customers according to the different requirements of the batteries. If the customers have no requirement on the battery, the factory assembles Sony V-Mount Plate by default.

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.

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.

1.4 TALLY Indicator Connection



Indicator colors	Pin connection
Green	1-5
Red	6-5
Yellow	9-5

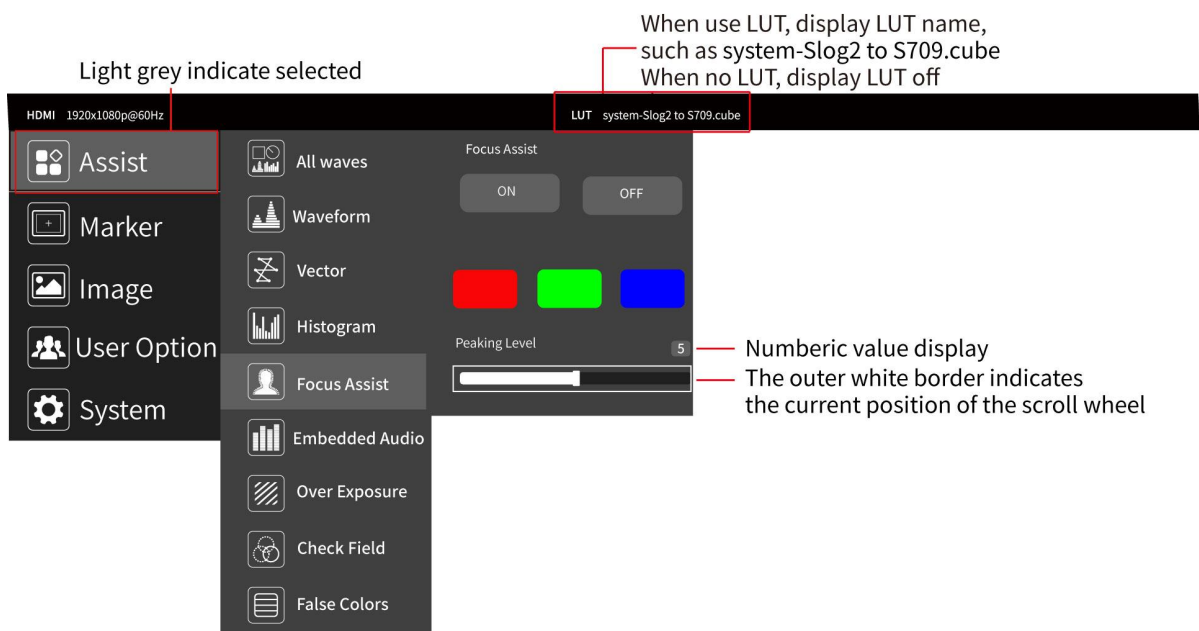
2. Menu Operation Instruction

After the monitor is properly connected to the power, turn on the monitor power switch.

2.1 Press **MENU** knob to enter OSD main menu, and rotate it to select the first level menu, the icon will turn gray after selected, press **MENU** knob confirm to enter the secondary menu.

2.2 After enter the secondary menu, rotate MENU knob to select the function, and press it confirm to enter three level menu, then rotate MENU knob to select turn on/off the function or select the detail parameter, press MENU knob confirm after selected

2.3 Press **EXIT** button to exit the menu



3. Menu Function Instruction



Assist

 All Waves	ON, OFF After turning on, waveform, vector, histogram and embedded audio will be shown.
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 Waveform	ON, OFF Mode: RGB, YUV, Y Waves Trans.: Off, 25%,50%,75% This essential feature assists with the calibration of professional video cameras. It shows the overall brightness of the image assisting the video professional in correcting exposure. The waveform feature also checks the evenness of the lighting when lighting a chromakey or background.
 Vector scope	ON, OFF Shows how saturated the image is and where the pixels in the image land on the color spectrum.
 Histogram	Histogram: ON, OFF Mode: RGB1, RGB2, Y Y Histogram A quantitative tool to check the picture brightness, display different color for different brightness RGB Histogram It can display the graphic of color tone distribution, can intuitively display the exposure status of the image, and display overlapping histograms in red, green, and blue channels
 Focus Assist	ON, OFF Focus Color: Red, Green, Blue After turned on, the Focus Level (1 ~ 10) and Focus Color can be adjusted. It highlights the areas that are in focus so you are able to quickly focus the camera and not miss crucial shots.
	ON, OFF Display an audio diagram after enabled to help you understand the audio status being used.

Embedded Audio	Under HDMI Signal, max display 8 channels Mode: pr1, gp1, gp2, gp12 Audio Out: ch1-2, ch3-4, ch5-6, ch7-8 pr1 display1-2 channel, gp1 display 1-4 channel, gp2 display 5-8 channel, gp12 display 1-8 channel Under SDI Signal, max display 16 channels Mode: pr1, gp1, gp2, gp12, gp3, gp4, gp14 Audio Out: ch1-2, ch3-4, ch5-6, ch7-8, ch9-10, ch11-12, ch13-14, ch15-16 pr1 display1-2 channel, gp1 display 1-4 channel, gp2 display 5-8 channel, gp12 display 1-8 channel, gp3 display 9-13 channel, gp4 display 14-16 channel, gp14 display 1-16 channel
 Over Exposure	ON, OFF After the exposure is turned on, the Exposure Level (10RE~100IRE), can be adjusted.
 Check Field	On, Off Mode: red, green, blue, gray When enabled, hue and saturation adjusted quickly and accurately.
 False Color	ON, OFF Mode: Normal, ARRI An image that depicts an object in colors that differ from those a photograph (a true color image) would show.
 Time Code (Only Under SDI Signal)	ON, OFF Mode: LTC, VITC Same as camera time code consists of four groups of numbers, which respectively represent hours, minutes, seconds and frames. Through the time code, you can quickly find a specific frame in the video, so that in the later multi-camera editing, you can use the time code function to quickly align the video materials shot at different camera positions at the same time, saving post-production time.



Marker

 Grids	ON, OFF Mode: 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8, 9x9 Color: Red, Green, Blue, Black, White, Gray The area of the picture can be divided into 4, 9, 16, 25, 36, 49, 64, 81 equal grids.
 Safe Frames	ON, OFF Mode: 80%, 85%, 90%, 93%, 96%, 2.35:1 Marker Line Color: Red, Green, Blue, Black, White, Gray
 Center Marker	ON, OFF Marker Line Color: Red, Green, Blue, Black, White, Gray
 Ratio Marker	ON, OFF Mode: 4:3, 13:9, 14:9, 15:9, 16:9, 1.85:1, 2.35:1 Marker Line Color: Red, Green, Blue, Black, White, Gray Modified Mark: 0~5



Image

 Scan Mode	Under Scan, Over Scan
Aspect  Ratio	Auto, 16:9, 16:10, 4:3, 5:4, 1.85:1, 2.35:1, Full Screen
	ON, OFF Mode: 1.33x, 1.6x, 2.0x, 2.0x mag, User Under User, you can custom adjust nx (1.20x~2.00x)

Anamorphic	Allows you to use anamorphic lenses or adapters and see the image unsqueezed, even if your camera does not de-squeeze in camera.
 Image Flip	ON, OFF Mode: H Flip, V Flip, H_V Flip
 Zoom Mode	ON, OFF Mode: 2X, 4X, 9X, 16X, User Under User, you can adjust 100%~200% It is HD signal in any part, an amplification for high quality close-up.
 Image Freeze	ON, OFF
 P2P (Pixel to Pixel)	ON, OFF Enable the filmmaker to check the image from the 1:1 signal source without scaling. This feature is essential for capturing optimum detail.



User Option

 LUT	ON, OFF LUT is a table for quickly looking up and output specific color data. By loading different 3D-LUT tables, it can quickly recombine color tone to form different color styles. LUT Import: Confirm LUT Table: display the built in SLOG2, SLOG3, LOGC, VLOG and the custom LUTs
 HDR	HDR: ON, OFF Mode: HLG1, HLG2, HLG3 HDR can provide more dynamic range and the details of image, it is

	better to reflect the visual effects in the real environment.
 Display Adjustment	Backlight: 0~100 Adjust the screen brightness Brightness: 0~100 Adjust the image brightness Contrast: 0~100 Adjustment of the ratio between the brightest and darkest parts of the image . When adjusting, pay attention to the sense of hierarchy in the image. If the proportion is too large or too small, it can cause the image to lose its colorful appearance. Saturation: 0~100 Adjustment of color concentration Tint: 0~100 It is the most accurate standard for distinguishing various different colors. Determine what a certain color is actually color via the color appearance.
 Color Adjustment	Color Temp.: 5600K, 6500K, 9300K, User Under the “user”, the red, green, and blue values of the image can be adjusted (0~255)
 Shortcut Key	F1~F4 Shortcut List: All Waves, Waveform Vector, Histogram, Embedded Audio, Center Marker, Safe Frames,Grids, Focus Assist, False Colors , Over Exposure, Anamorphic, Image Flip, Aspect Ratio Set the shortcut function e.g.: Using the MENU knob to select and confirm. Enter main menu --User Option--Shortcut Key--F1 select one of pop-up functions, such as “All Waves”, press confirm after selected and the icon show light gray. Then when you exit menu, you could press F1

	directly on the front of panel to turn on “All waves” function. Same setting for F2~F4
 Left Right Key Set	Backlight, Volume After selecting one of them, when the menu is not displayed, rotate the MENU knob can directly adjust



System

 Language	English, 简体中文, Español, Português, Français, Nederlands, Deutsch, 日本語, 繁體中文, 한국어로, русский язык
 OSD Option	OSD Time: off, 15s, 30s, 45s Select the display time of the menu on the screen OSD Trans: OFF, 25%, 50%, 75% Adjust the transparency of the menu picture background on the screen. No Signal: Red, Green, Blue, Black, White, Gray
 Volume	Mute: ON, OFF Volume: 0~100 Adjusting the speaker volume
 Reset	After confirmed, the system back to original setting.
 Firmware Update	Firmware Version FTY CAL: On/Off Confirm Each monitor has color calibration before ex-factory, the factory calibration button turn on by default. After turning off, the monitor will without has color calibration, suggest don't turn it

	off. How to upgrade? 1. USB flash driver format Supports FAT32 2. After copying the update file to USB flash driver and inserting it into USB port of the monitor, use MENU knob to select Confirm and press to update. 3. The monitor will turn off automatically after finishing, please turn on manually 4. Check the firmware version whether the latest one
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4. How to Import Custom LUT

4.1 USB flash driver format

Supports FAT32

4.2 Max Files Limit Maximum 32 Lut files

4.3 File requirements

- The LUT file format suffix should be **.cube**
- Single file not exceeded to 7.9Mb
- Support LUT-3D-Size **16,17,32,33,64,65**

Remark: LUT file name must be English or Arabic numerals

4.4 Steps for loading

4.4.1 Make sure the USB flash driver correctly insert

4.4.2 Enter main menu **User Option--LUT-- Import -- Confirm** to load

the monitor will auto detect the USB flash driver

If there is valid LUT file in USB flash driver, the monitor will load LUT files and show “[n] name. The [n] shows the quantity number. The “name” should in LUT files’ name. If

load successful, the screen will show “complete[n]”. [n] Stands for the quantity number for LUT files should under 32.

PS: How to clear up the imported LUTs?

Insert a empty USB flash driver to the monitor, enter main menu **User Option--LUT--Import -- Confirm**, the imported LUTs will be clear up.

5. Support Signal Format

HDMI	720p(60/59.94/50/30/29.97/25/24/23.98) 1080i (60/59.94/50) 1080p(60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF) 4K 3840×2160p (60/50/30/29.97/25/24/23.98Hz) 4K 4096×2160p (60/50/30/29.97/25/24/23.98Hz)
SDI	720p(60/59.94/50/30/29/25/24/23.98) 1080i(60/59.94/50) 1080p (60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF)

6. Parameters

Panel Size	13.3"	17.3"	21.5"
Resolution	1920×1080	1920×1080	1920×1080
Pixel Pitch (mm)	0.153(H) X 0.153(V)	198.9(H) X 198.9 (V)	0.24795(W) X 0.24795(H)
Color Display	16.7M (8bit)	16.7M (8bit)	16.7M (8bit)
Color Gamut	REC709 99.3%	REC709 97.5%	REC709 97.5%
Aspect Ratio	16:9	16:9	16:9
Brightness	1000cd/m ²	1000cd/m ²	1000cd/m ²

Contrast	800:1	1100:1	1000:1
Viewing Angle	85°/85°(L/R)	85°/85°(L/R)	89°/89°(L/R)
	85°/85°(U/D)	85°/85°(U/D)	89°/89°(U/D)
Backlight	LED		
Inputs	2*3G-SDI , 2*HDMI 2.0, DVI-I, Tally		
Outputs	2*3G-SDI, 1*HDMI 2.0		
Upgrade/LUT Import	USB2.0		
Audio	Speakers, 3.5mm Headphone Jack		
VESA Mount Size	75x75mm	100x100mm	100x100mm
Input Voltage	DC 10~24V		
Power Consumption	≤ 28W	≤ 33W	≤ 44W
Special Function	TALLY Indicators		
Working Temperature	0℃ ~ 50℃		
Storage Temperature	-20℃ ~ 60℃		
Unit Size	330.5x231x30.15mm	426x302.9x34.8mm	511.5x355.5x34.8mm
Unit Weight	2.07kg (w/o desktop stand)	3.65kg (w/o desktop stand)	4.16kg (w/o desktop stand)

7. 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 cannot 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

	corrected or not
◆ Monitor cannot 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 environment	Move to another environment to try again
◆ Video input signal amplitude too low	Check signal source video output, or change signal source and have a try.
◆ 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 ratio

● Speaker without sound Trouble shooting	
◆ Audio cable off or improper connection	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	This monitor is with audio signal only in audio input and HDMI state

■ **Remark:**

- ★ If there are still other problems, please contact with our related technical persons.
- ★ If there are changes without prior notice.