# **10.1" Camera Control Monitor** with 1500 nits Ultra Brightness and Touch Screen.

# **User Guide**



### Important Safety Instructions



The device has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, the device should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Please do not place the display screen towards the ground to avoid scratching the LCD surface.
- Please avoid heavy impact.
- Please do not use chemical solutions to clean this product. Simply wipe with a soft cloth to keep clean of the surface.
- Please do not place on uneven surfaces.
- Please do not store the monitor with sharp, metallic objects.
- Please follow the instructions and trouble-shooting to adjust the product.
- Internal adjustments or repairs must be performed by a qualified technician.
- Please keep user guide for future reference.
- Please unplug the power and remove the battery if long-term no-use, or thunder weather.

# Safety Disposal For Old Electronic Equipment

Please do not regard the old electronic equipment as municipal waste and do not incinerate old electronic equipment. Instead please always follow local regulations and hand it over to the applicable collection stand for safe recycling. Ensure that these waste materials can be effectively disposed of and recycled to prevent our environment and families from negative effects.

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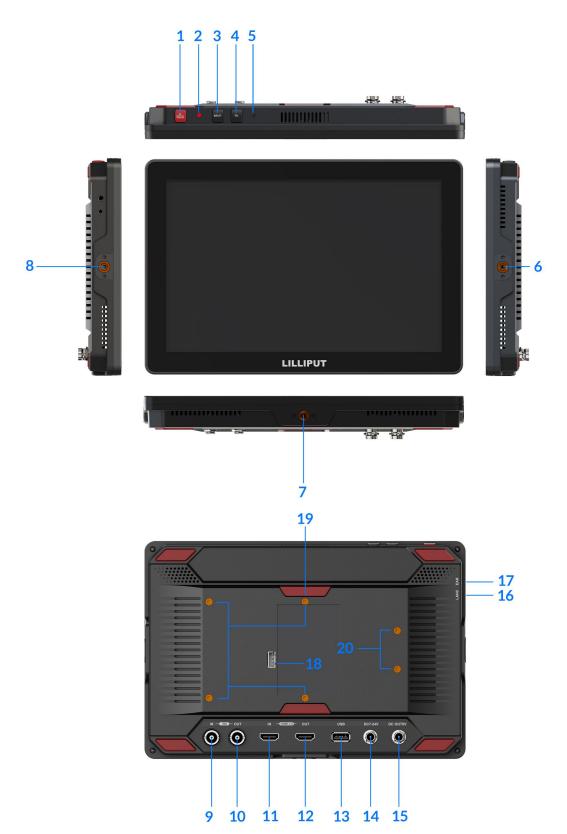
# 1. Main Features

### Features

- Capacitive touch screen
- Camera control
- > 50000 h LED life time
- HDMI 2.0 input & loop output
- 3G-SDI input & loop output
- > 1500 cd/m<sup>2</sup> high Brightness
- > 125% BT.709, 92.5% DCI-P3
- HDR (High Dynamic Range) supporting HLG, ST 2084 300/1000/10000
- 3D-Lut option of color production includes 17 default camera logs and 6 user camera logs
- Gamma adjustments (Off/1.8/2.0/2.2/2.35/2.4/2.6/2.8)
- Color Temperature (3200K/5500K/6500K/7500K/9300K/User)
- Markers & Aspect Mat (Center Marker, Aspect Marker, Safety marker, User Marker)
- Check Field (Red, Green, Blue, Mono)
- > Assistant (Waveform, Vector scope, Peaking, False Color, Exposure, Histogram)
- FN User-definable function button

# 2. Production Description

### 2.1 Buttons & Interfaces



- 1) OTOUCH Button:
  - Short press: To power on. Also for touch function switch on/off.
  - Long press: To power off.
- 2)Power Indicator: The indicator light turns green when powered on.
- 3) Input Button: Switch the signal between SDI and HDMI.
- 4) FN Button: User-definable function button. Default as Peaking function.
- 5) Light sensor.
- 6) 1/4 inch screw mount: For Hotshoe Mount
- 7) 1/4 inch screw mount: For Hotshoe Mount
- 8) 1/4 inch screw mount: For Hotshoe Mount
- 9) 3G-SDI Signal Input.
- 10) 3G-SDI Signal Loop Output
- 11) HDMI 2.0 Signal Input.
- 12) HDMI 2.0 Signal Loop Output.
- 13) USB : For 3D-LUT load and firmware upgrade.
- 14) DC 7-24V Power Input
- 15) DC 8V Power Output
- 16) LANC Port: To connect LANC cable for camera control.
- 17) Earphone Jack: 3.5mm earphone slot.
- 18) Battery Slot : Compatible with V-Lock battery plate.
- 19)Screw mount\*4pcs: For VESA Mount.
- 20)Screw mount\*2pcs: For Battery Slot

# 3. Menu Setting

Before setting the functions, please make sure the device is connected correctly.

#### 3.1 Shortcut Touch Gestures

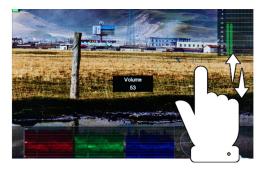
• Center swipe up or down: Activate or hide the menu.



• Left swipe up or down: Adjusting the back light level.



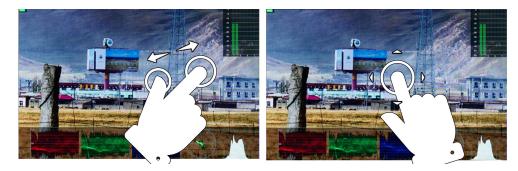
• Right swipe up or down: Adjusting the volume level.



• Swipe left or right: Activate or hide the shortcut menu.



• Two-finger zoom: When no menu, zoom-in and zoom-out of image, and support moving image when zooming-in.



• Short press the Power Button to switch the touch function off/on.

### 3.2 Menu Operation

#### 3.2.1 Input

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							( <u>©</u> )
Input							
SDI	HD	MI					

Input signal option: SDI/HDMI.

3.2.2 Waveform

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Wavefo	orm	Vector	Histog	ram	Full Mode	•			
Off	Multi	Y	YCbCr	RGB			Off	25%	50%

7

Waveform

- When activated, select one of the waveform modes from among [Multi], [Y],

[YCbCr] and [RGB].

[Multi]: Display waveform, histogram, vector, and level meter simultaneously.

[Y]: Display Y Waveform.

[YCbCr]: Display YCbCr Waveform.

[RGB]: Display R/G/B Waveform

- Adjust the transparency of the waveform, histogram and level meter among [off],

[25%] and [50%].

 [Off]: The background of waveform / histogram / level meter is shown at 100% black.

- [25%]: The background of waveform / histogram / level meter is shown at 75% black.

- [50%]: The background of waveform / histogram / level meter is shown at 50% black.

• Vector

Use this item to activate or deactivate Vector

#### Histogram

Use this item to activate or deactivate the histogram.

#### • Full Mode

When activated, select one of the waveform, Vector and Histogram mode from among [Off], [Y], [YCbCr], [RGB], [Vector] and [Histogram].

#### 3.2.3 Peaking



Use this item to activate or deactivate the peaking function. It is used to aid the camera operator in obtaining the sharpest possible picture.

- Peaking Level: Adjust the level of peaking from 1-100, default is 50. The higher peaking level is, the more obvious peaking effect is.

- Peaking Color: Choose the color of focus assist lines among [Red], [Green], [Blue], and [White].



#### 3.2.4 Luminance Distribution

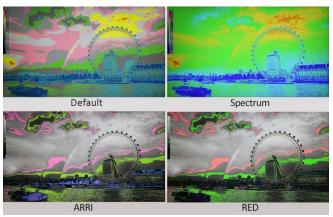
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False Co	olor E	xposure							
Off	Default	Spect	rum A	RRI	RED	Tab	e :	Off	On

#### • False Color

The function represents the exposure levels of the image by replacing the colors of the image with a standard set of colors.

- When activated, [Default], [Spectrum], [ARRI] and [RED] are for optional.

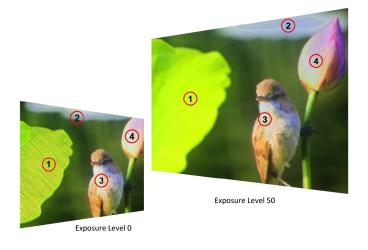
- False Color Table: Activate or deactivate the false color table. The range of the false color table is between 0-100 IRE.



#### • Exposure

The exposure feature helps the user achieve optimum exposure by displaying diagonal lines over areas of the image that exceed the setting exposure level.

- Activate or deactivate the exposure function.
- Exposure Level: Adjust the level of exposure among 0-100. Default value is 100.



#### 3.2.5 Color Calibration

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Camera LUT	Def. LUT	lser LUT   Gamma/	HDR Color Space	Calibration
	Camera LU	T : Off Def	. LUT User LUT	

#### Camera LUT

When activated, select one camera LUT mode among [Def. LUT] and [User LUT].

#### • Def. LUT

17 kinds of default LUT models are for optional:

```
[SLog2ToLC-709], [SLog2ToLC-709TA], [SLog2ToSLog2-709], [SLog2ToCine+709],
[SLog3ToLC-709], [SLog3ToLC-709TA], [SLog3ToSLog2-709], [SLog3ToCine+709],
[ArriLogCTo709], [ArriLogCToP3DCI], [CLogTo709], [VLogToV709], [JLogTo709],
[JLogTo709HLG], [JLogTo709PQ], [Z7 NLogTo709] and [D780 NLogTo709].
```

#### • User LUT

Use this item to choose one of the user LUT modes (1-6). Please load the user LUT as the following steps:

- The user LUT must be named with .cube in the suffix.

**Note!** The device only supports the file with 17x17x17 / 33x33x33 and with BGR for both Data format and Table format. If the format does not meet the requirement, please use tool "Lut Tool.exe" to transform it.

- Naming the user LUT as User1-User6.cube, then copy the user LUT into USB flash disk. Insert the USB flash disk to the device, the user LUT is saved to the device automatically at the first time. The power indicator will flash during saving the user LUT, then stop flashing when saved completely.

If the user LUT is not loaded for the first time, the device will pop up a prompt message, please choose whether to update or not. If there is not a prompt message, please check the format of document system of the USB flash disk or format it (The document system format is FAT32). Then try it again.

Note! After saving the LUT through the USB flash disk, please restart the device.

#### • Gamma/HDR

#### - Gamma

Use this item to choose the display Gamma: [Off], [1.8], [2.0], [2.2], [2.35], [2.4], [2.6] and [2.8].

#### - HDR

When activated, the display reproduces a greater dynamic range of luminosity, allowing lighter and darker details to be displayed more clearly. Effectively enhancing the overall picture quality.

Select one of the HDR presets: [ST 2084 300], [ST 2084 1000], [ST 2084 10000] and [HLG].



#### Color Space

Select the display gamut from among [Native], [SMPTE-C], [Rec709] and [EBU].

#### • Calibration

- Select [Off] or [On].

If the device needs to be calibrated color, please operate as following,

- Connect the device with the PC via HDMI interface.
- Make sure the device and color calibration equipment to work more than 30 minutes.
- After the previous step, activate the Color Calibration function of the device and color calibration software to calibrate the color (See the document "CMS Color Calibration Process" for details).
- It will generate a document "Rec709.cube" after calibrated, then copy this document to USB flash disk.
- Insert the USB flash disk to the device and save the document. This document "Rec709.cube" will be found under Color Space Option.

#### - Comparison En

Use this setting to activate or deactivate the Comparison En function. When activated, the screen displays the comparison of both original image and customized image as shown.



Option: [Off], [Gamma/HDR], [Color Space], [Camera LUT]. Default: [Off].

3.2.6 Marker

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Center	Mar. A	spect Mar.	Safety	∕Mar. ∯ Off	Mar. Colo On	r Aspe	ect Mat.	User H	1 >

#### • Center Marker

Select [On] to display the center marker "+" and [Off] not to display it.

#### • Aspect Marker

Select the aspect ratio of the marker: [Off], [16:9], [1.85:1], [2.35:1], [2.39:1], [4:3], [3:2], [Grid].



#### Safety Marker

Used to select and control the size and availability of the safety area. Select the size of the safety markers: [95%], [93%], [90%], [88%], [85%], [80%].

**Note!** When [Aspect Marker] is selected as [Grid], the safety marker cannot be displayed.

#### Marker Color

Select the color of marker displayed on the screen: [Black], [Red], [Green], [Blue], and [White]. Default: [White]

#### • Aspect Mat.

-Thickness: Adjust the line width of the center marker, aspect marker and safety

marker among [1-15]. The step value is 1. Default value: 6.

- Aspect Mat.: Darkens the area of the outside of Marker. The degrees of darkness are from [0] to [7]. Default: [Off].



#### • User H1

Adjust user marker in the position of vertical markers from 1 to 1920, default value is 1 (Step value is 1).

#### • User H2

Adjust user marker in the position of vertical markers from 1 to 1920, default value is 1920 (Step value is 1).

#### • User V1

Adjust user marker in the position of horizontal markers from 1 to 1080, default value is 1 (Step value is 1).

#### • User V2

Adjust user marker in the position of horizontal markers from 1 to 1080, default value is 1080 (Step value is 1).

Note: User maker only in [Aspect Maker]- [User] mode available.

#### 3.2.7 Parameter Adjustment



#### Brightness

Control the degree of brightness between 0-100, default value: 50.

• Contrast

Control contrast ratio between 0-100, default value: 50.

#### Saturation

Adjust the color intensity between 0-100, default value: 50.

• Tint

Adjust tint between 0-100, default value: 50.

#### • Sharpness

Control sharpness of the image between 0-100, default value: 0.

#### • Color Temp.

Use this item to choose one of the color temperature presets: [3200K], [5500K],

[6500K], [7500K], [9300K], [User]. Default: [6500K].

Note! Only under [User] mode, R/G/B Gain and Offset can be adjusted.

• R Gain

Adjust the R Gain of the current color temperature from 0 to 255. Default value: 128.

• G Gain

Adjust the G Gain of the current color temperature from 0 to 255. Default value:

128.

#### • B Gain

Adjust the B Gain of the current color temperature from 0 to 255. Default value: 128.

#### R Offset

Adjust the R Offset of the current color temperature from 0 to 511. Default value:

255.

#### G Offset

Adjust the G Offset of the current color temperature from 0 to 511. Default value:

255.

#### B Offset

Adjust the B Offset of the current color temperature from 0 to 511. Default value: 255.

#### 3.2.8 Display



Scan

- Adjust the scan mode among [Aspect], [Pixel To Pixel], and [Zoom].

#### Note:

- Only when the [Aspect] mode under [Scan] is selected, the markers including center marker, aspect marker and safety marker can work.

- Only when the [Zoom] mode is selected, the zoom scale can be adjusted among

[10%], [20%], [30%], [40%], [50%], [60%], [70%], [80%], [90%] and [User].

#### Aspect

- Select the aspect of the image among [Full], [16:9], [1.85:1], [2.35:1], [4:3], [3:2], [1.3X], [1.5X], [2.0X], [2.0X MAG].



- Overscan: Activate or deactivate overscan.

**Note!** Only when the [Aspect] mode under [Scan] is selected, the aspect and overscan function can be adjusted.

#### • Anamorphic De-squeeze

Restore the deformation of image caused by anamorphic lens. Select the option among [Off], [1.33X], [1.5X], [1.8X], [2X] and [2X MAG].

#### H/V Delay

Select one of the H/V modes: [Off], [H], [V], [H/V]. When H/V Delay on, the blanking portions of the input signal will be displayed horizontally or vertically.

#### • Freeze

Choose [On] to capture one frame of current image on the screen, and choose [Off] to close freeze function.

#### Image Flip

Allow the displayed image to be flipped horizontally or vertically by selecting one of flip mode among [H], [V], [H/V].



#### Check Field

Use the check field modes for monitor calibration or to analyze individual color components of an image. In [Mono] mode, all color is disabled and only a grayscale image is shown. In [Red], [Green], and [Blue] check field modes, only the selected color will be shown.

#### • Time code

Use this item to activate or deactivate the Time Code. When activated, [LTC], [VITC] are for optional. Default: [Off].

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Note: Time code is only available under SDI mode.

3.2.9 Audio



#### • Volume

Adjust the volume among 0-100. Default Value: 50.

#### • Level Meter

Select whether to activate or deactivate level meter. Default: [On].

#### • Audio Channel

In HDMI mode, select one of the audio channels among [CH1&CH2], [CH3&CH4],

[CH5&CH6], [CH7&CH8]. Default: [CH1&CH2]

In SDI mode, select the audio channels among [CH1&CH2].

	6 7 2 4	÷.	(R)	[+]	Ļ		
							6
Ul Config English 中文		Back	Light   20s	Color Bar 30s	Config Off	Syster	m 50%

#### 3.2.10 Setting

#### • UI Config

- Language: [English] and [中文] for optional.

- OSD Display Timer: [10s], [20s], and [30s] for optional. Default: [10s].

- OSD Transparency: [Off], [25%], [50%] for optional. Default: [25%].

• HDMI

- HDMI EDID

Select HDMI EDID between [4K]and [2K], default: [4K].

- RGB Range

Select RGB Range between [Limited] and [Full], default: [Limited].

Back Light

Adjust the level of the back light from [Auto], [Standard], [Outdoor], [Custom], Custom Value: 0-100. Default: [50%].

• Color Bar

Option: [Off], [100%], [75%], default: [off].

#### • F Config

Select FN "Configuration" for setting. Functions of FN button can also be customized: [Peaking], [False Color], [Exposure], [Histogram], [Full Mode], [Waveform], [Vector], [Timecode], [Mute], [Level Meter], [Center Marker], [Aspect Marker], [Safety Marker], [Overscan], [Scan], [Aspect], [Anamorphic], [Color Space], [HDR], [Gamma], [Camera LUT], [Check Field], [H/V Delay], [Freeze], [Image Flip], [Color Bar]. Default: [Peaking].

#### • System

- Reset

When select [On], restore the factory settings.

#### 3.2.11 Camera Control

Ĵ		FOCUS	ZOOM	IRIS			
							REC
	MENU 🔨	~ <	>	ОК	DISP FUNC	MAG	S-Lanc

Tapping the "Camera" icon on the right edge to access the UI of camera control. Action in the UI of camera control are reflected to video camera in real time. - REC

Controlling the record function of video camera on and off

- FOCUS

Controlling the focus of video camera.

- ZOOM

Controlling the zoom in and out of video camera lens.

- IRIS

Controlling the aperture size of video camera.

Þ

Click the icon to activated Play back function

Menu--Controlling the menu items in video camera



-- To scroll up the item of menu



--To scroll down the item of menu



-On the menu, used to return to the previous menu.

--On the menu, used to enter the submenu menu of the selected item OK----- To confirm the selection.

Play back the record files of video camera DISP---Displaying the current status information of video camera FUNC---Controlling the menu function MAG----Controll the ZOOM IN function of video camera

Note: This camera control feature only supports Sony brand cameras with S-Lanc function.

# 4. Product Parameters

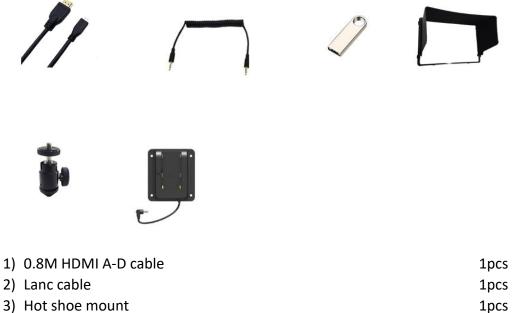
	Touch Screen	Capacitive touch
	Panel	10.1" LCD
	Physical Resolution	1920×1200
Display	Aspect Ratio	16:10
	Brightness	1500 cd/m²
	Contrast	1000: 1
	Viewing Angle	170°/ 170°(H/V)
Damas	Input Voltage	DC 7-24V
Power	Power Consumption	≤23W
	Input	HDM 2.0 x1
Source		3G-SDI x1
Source	Output	HDMI 2.0 x1
		3G-SDI x1
Supported	3G-SDI	1080P 24/25/30/50/60, 1080pSF 24/25/30, 1080i 50/60, 720p 50/60
Format		2160p (24/25/30/50/60)
	HDMI 2.0	1080P 24/25/30/50/60, 1080i (50/60), 720p 50/60
	HDMI	8ch 24-bit
Audio	Ear Jack	3.5mm-2ch 48kHz 24-bit
	Speaker	1
Environme	Operating Temperature	0°C~50°C
nt	Storage Temperature	-20°C~60°C
	•	,

Conorol	Dimension (LWD)	251x170x26.5mm
General	Weight	850g

\*Tip: Due to constant effort to improve products and product features, specifications may change without notice.

# 5. Accessories

• Standard Accessories



3) Hot shoe mount	1pcs
4) USB drive disk	1pcs
5) Sunshade	1pcs

6) Battery plate

2) Gimbal bracket

• Optional Accessories



3) V-Lock battery plate+ VESA adapter plate

1) Battery plate adapter(with cable)

4) 12V 3A DC power adapter





	1pcs
	1pcs
	1sets
2	Lpcs

# 6. 3D-LUT Loading

#### **6.1 Format Requirement**

• LUT format

Type:	.cube
3D Size:	17x17x17
Data Order:	BGR
Table Order:	BGR

USB flash disk version

USB: 2.0 System: FAT32 Size: <16G

- Color calibration document: lcd.cube
- User LUT: User1.cube ~User6.cube

### **6.2 LUT Format Conversion**

The format of LUT should be transformed if it doesn't meet monitor's requirement.

It can be transformed by using LUT Converter (V1.3.30).

#### 6.2.1 Software User Demo

• Activate LUT converter.

Please tell t	he manufacturer ID of the product to get Key !	
roduct ID :	087604760612059606120492046005320636	
Anter Key :	[	]
	Ok Back	

One individual Product ID for one computer. Please send the ID number to Sales to get an Enter Key. Then the computer gets the permission of the LUT Tool after input the Enter Key.

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• Enter the LUT Converter interface after input the Enter Key.

Lut Converter (v1.3.30)		
Input File	Output File	语言/Language: English -
File Name	File Path	
Туре	Type .cube 💌	
Default Order 🔽	3D Size	
Data Order RGB 🔻	Default Order 🗹	
Table Order	Data Order BGR 🔹	
3D Size	Table Order	
1D Size		
Dimension		Generate Lut

• Click Input File, then select \*LUT.

Lut Converter (v1	.3.30)		and the second s	
Input File		Output File	]	语言/Language: English
File Name	/ColorSpace Image.cube	File Path		Linglish
Туре	. cube	Туре	. cube 🔻	
Default Order		3D Size	17 🔹	
Data Order	RGB	Default Order		
Table Order	BGR •	Data Order	BGR	
3D Size	17	Table Order	BGR	
1D Size	0			
Dimension	30			Generate Lut

• Click Output File, choose the file name.

Lut Converter (v1	.3.30)		the second se	
Input File		Output File	]	语言/Language: English
File Name	/ColorSpace Image.cube	File Path		
Туре	. cube	Туре	. cube 🔻	
Default Order		3D Size	17 💌	
Data Order	RGB	Default Order	<b>v</b>	
Table Order	BCR	Data Order	BGR 👻	
3D Size	17	Table Order	BGR 🗸	
1D Size	0			
Dimension	30			Generate Lut

• Click Generate LUT button to finish.

#### 6.3 USB Loading

Copy the needed files to the root directory of the USB flash disk. Plug the USB flash disk into USB port of the device after power on.

When the LUT is loaded, the monitor will be automatically loaded after the USB flash disk is inserted.(If the device doesn't pop-up the prompt window, please check if the LUT document name or the USB flash disk version meets monitor's requirement.) It will pop-up a prompt message if the update completed.

# 7. Trouble Shooting

1) Only black-and-white display:

Check whether the color saturation is properly setup or not.

2) Power on but no pictures:

Check whether the cable of HDMI is correctly connected or not.

Whether the signal source has output or the input source mode is not switched correctly.

3) Wrong or abnormal colors:

Check whether the cables are correctly and properly connected or not. Broken or loose pins of the cables may cause a bad connection.

4) When on the picture shows size error:

Press "MENU  $\rightarrow$  DISPLAY  $\rightarrow$  ASPECT  $\rightarrow$ OVERSCAN" to zoom in/out pictures automatically when receiving HDMI signals. Or the ZOOM in function is turned on.

5) How to delete 3D-LUT User camera log:

The User camera LUT cannot be deleted directly from the monitor, but can be replaced by reloading the camera log with same named.

6) Other problems:

Please press "MENU" button and choose "SYSTEM  $\rightarrow$  Reset  $\rightarrow$  On".

Note: Due to constant effort to improve products and product features,

specifications may change without priority notice.