



T7 4K ULTRAHD

**HDMI ON CAMERA Monitor
User Manual**



Product Information

Model: T7 4K ULTRAHD HDMI ON CAMERA Monitor
Version: V010001
Release Date: August 4th, 2021

Company
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About this manual

Important

The following symbols are used in this manual:

Tips

- The further information or know-how for described subjects above which helps user to understand them better.
-

Warning

- The safety matters or operations that user must pay attention to when using this product.
-

Contents

The user manual applies to the following device types:

- **T7 4K ULTRAHD**

The images and descriptions of T7 4K ULTRAHD are adopted as examples in the following document.

Before reading the manual, please confirm the device type.

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Chapter 1 Overview

T7 4K ULTRAHD is a high-performance UHD HDMI On Camera Monitor to monitor professional 4K HDMI for outdoor photography.

The unit is designed in a high impact plastic frame, and the professional screen glass at full resolution of 1920x1200 with high brightness makes T7 4K ULTRAHD capable of reproducing a natural color and great daylight viewing. In addition, the monitor has excellent assistants functionalities, versatile build-in 3D-LUTs and easy to use.

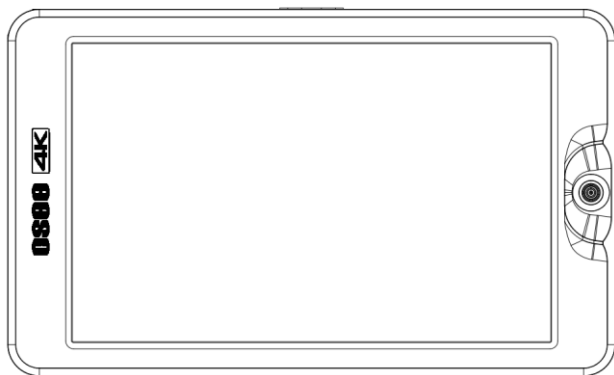


Figure 1-1 A Diagram of T7 4K ULTRAHD

Features

- Support 4K HDMI input
- Support output to external cameras, such as SONY, Panasonic, Canon etc.
- Support high qualified waveform, vector scope, histogram and audio meter
- Support multiple assistants: level, zebra, focus assist, exposure

assist, peaking adjust

- Provide a five directions joystick as a navigation tool to scroll between scenes pages and set features
- Support SONY NP-F series batteries

Functionality

- Provide versatile build-in 3D-LUT tables, supporting the general LUT files for ARRI, RED, SONY, Panasonic, Canon, BlackMagic and Panavision, etc. And you can upload custom 3D LUTs through SD card and apply to the On Camera monitor
- Support Anamorphic Desqueeze functionality in multiple modes: 1X, 1.33X, 1.5X, 1.66X, 2X, 2XMAG
- Support Image ZOOM functionality to double(2X) or quadruple(4X) the image, and to pan the image in every direction

Chapter 2 Safety

FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Warnings:

Read, keep and follow all of these instructions for your safety. Heed all

warnings.

Warning

Device

- Install in accordance with the manufacturer's instructions.
 - Do not touch the screen with sharp, metallic or abrasive objects.
 - Do not make the freeze picture displaying on the screen time too long, otherwise, it will leave the afterimage on the screen.
 - If the brightness is adjusted to the minimum, then it might be hard to see the display screen.
 - Clean only with dry cloth.
 - Do not block any ventilation openings. Leave enough space around the unit for ventilation.
 - Do not expose to strong electrical or magnetic fields.
 - To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture.
 - If the product needs replacement parts, make sure that the service person use replacement parts specified by the manufacture, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other damage.
 - The panel used in this produce is made of glass. Therefore, it can break when it is dropped or applied with impact. Be careful not to be injured by broken glass pieces.
 - Refer all servicing to qualified service personnel.
 - Specifications are subject to change without notice.
-

Warning

- Do not use attachments or accessories not recommended by the manufacture. Use of inadequate attachments may result in

serious accidents.

- Do not damage the power cord, place the heavy objects on the power cord, stretch the power cord, or bend the power cord.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the unit.
- Please remember that almost all HDMI cables do not use locking connectors and will simply pull out if they are jerked or tripped over. Please ensure your cables make a secure connection and avoid flexing them excessively to maintain reliability.

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Chapter 3 Unpack and Installation

Unpack:

When unpacking the T7 4K ULTRAHD monitor, please verify that none of the components listed in Table 3.1 are damaged or missing. If there are any components missing, please contact your distributors or OSEE for it.

Table 3-1 Packing List

| No. | Item | Quantity |
|-----|----------------------|----------|
| 1 | T7 4K ULTRAHD | 1 |
| 2 | AC power adapter | 1 |
| 3 | Ball Head | 1 |
| 4 | D-tap to DC IN Cable | 1 |
| 5 | Warranty Card | 1 |
| 6 | Certificate card | 1 |

Installation:

1. Prepare for installation

Please follow the procedures below before installing T7 4K ULTRAHD:

- Check the package and equipment for any visible damage that may have occurred during transit.
- Confirm all the items listed on the packing list have been received.
- Remove all the packing material including electrostatic-resistant

packing.

- Retain these packing materials for future use.
- 2. Connect required cables for signal input and output.**
 - 3. Connect the 11~17VDC power source through DC IN interface or powered by battery.**
 - 4. As a final step, turn on the device by toggling the power switch located on the rear of the unit.**

Install Battery:

Only support SONY NP-F series currently. Please take note of the battery installation direction according to the “NP-F” icon near the slot when mounting the battery. The icons are as shown in the following illustration, slide the battery down into the slot until heard a click.

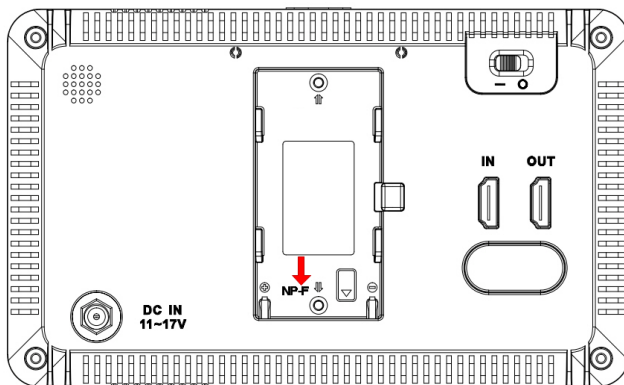


Figure 3-1 Battery Installation

Install Sunhood:

In case of diffusion light and direct illumination, we can use sunhood for the monitor when supervising images.

First, spread the sunhood along the fold lines, then pull the rubber belts

into the depressed slots at both sides of the rear panel of the monitor, adapting to the monitor tightly as below:

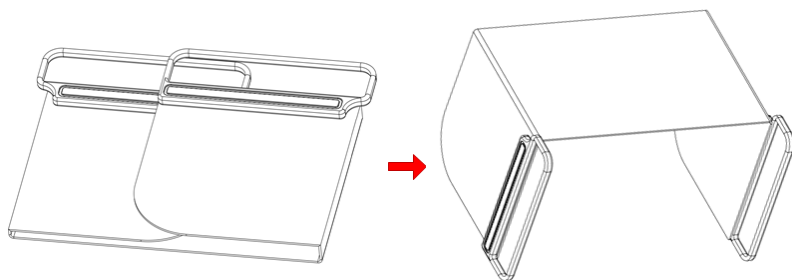


Figure 3-2 Spread Sunhood

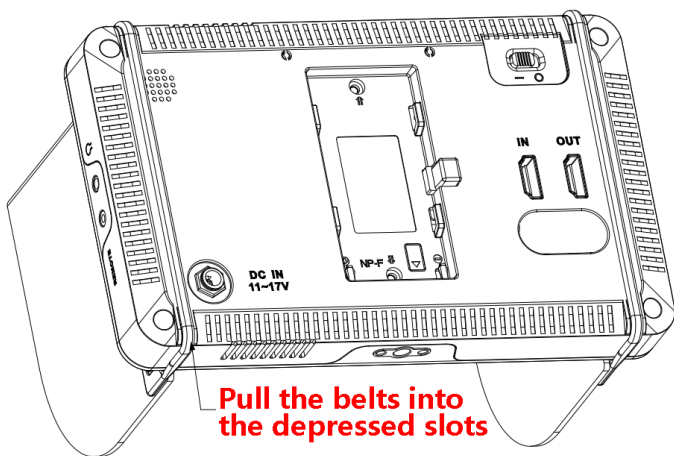


Figure 3-3 Fasten the Belts

Hangar Installation:

There are two 1/4 inch screw holes on the monitor for installing various types of hangers, as shown in the illustration below. Screw the hanger into the screw hole, and fasten it tightly.

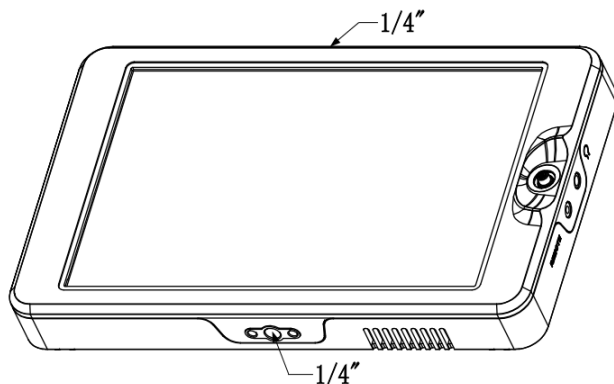


Figure 3-4 *Positions for Hanger Installation*

Tips

- Connect a standard signal line to the relevant input port.

Chapter 4 Features

4.1 Parts and Functions

The parts of T7 4K ULTRAHD is shown as below, there are various input and output interfaces for T7 4K ULTRAHD monitor, as shown in Figure 4.1-1.

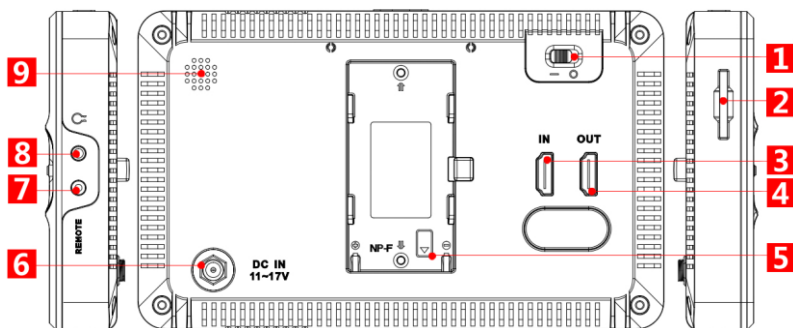




Figure 4.1-1 Parts in Rear Panel

| No. | Connector | Description |
|-----|---|---|
| 1 | Power Switch | Switch to “ ” position to power on; and switch to “○” position to power off |
| 2 |  | SD card slot, the SD card is used to load the customized LUT tables, and update firmware. |
| 3 | HDMI IN | HDMI input interface, supports HDCP, compatible DVI1.0, HDMI Type-A |
| 4 | HDMI OUT | HDMI output interface, supports HDCP, compatible DVI1.0, HDMI Type-A, supports loop out |

| No. | Connector | Description |
|-----|---|--|
| 5 | Battery Input | External battery NP-F, 6V ~ 8.4V |
| 6 | DC IN | DC power input, 11~17VDC |
| 7 | Remote | Remote control, headphone output, 2.5mm Jack |
| 8 |  | Headphone output jack, 3.5mm stereo Jack |
| 9 | Speaker | Internal speaker |

* Support SONY NP-F battery currently.

4.2 Buttons and Functions

The monitor provides a Joystick at the front panel, as shown in Figure 4.2-1. It is used for monitor settings, adding tools for scenes, tools settings, zoom image and so on.

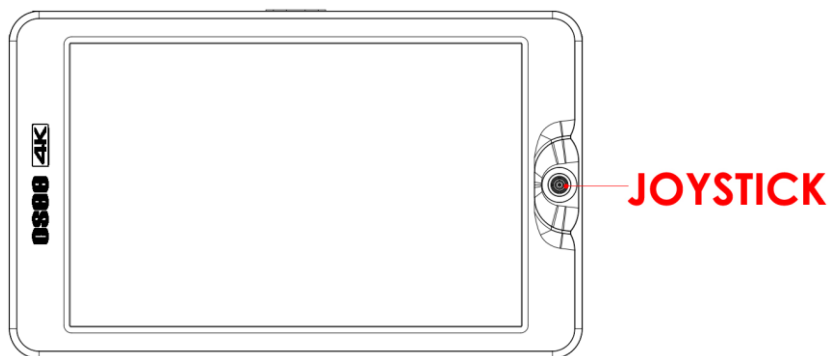


Figure 4.2-1 Buttons in Front Panel

4.3 Operations

Joystick

Use the joystick as a navigation tool to scroll between scenes pages and set features. The joystick provides multiple functions with five operation directions, **Up**, **Down**, **Left**, **Right** and **Straight Down**, as shown in Figure 4.3-1.

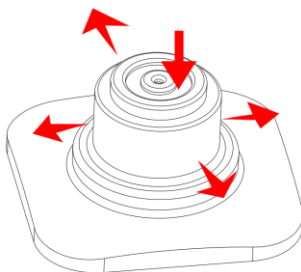


Figure 4.3-1 Five Operation Directions for Joystick

◀: scroll it leftmost and hold on for 3 seconds to access the monitor settings menu

▶: scroll it right and hold on for 3 seconds to create a new scene

⬆: access ZOOM mode; cancel scene deletion

⬇: display backlight adjust menu; hold on for 3 seconds to delete current scene

↘: scroll it down to display the scene TOOL menu

| Direction | Operation |
|-----------|---|
| UP | Without any menu, scroll up to access ZOOM mode. Keep |

| Direction | Operation |
|-----------|---|
| | <p>scrolling up, and switching among these three modes FULL→2X→4X;</p> <p>In ZOOM 2X or ZOOM 4X editing mode, scroll up the joystick to move the starting position of the enlarged image;</p> <p>In monitor settings, scroll up to select the previous item or increase the item value;</p> <p>In scene tool menu, scroll down to select the previous item or increase the item value.</p> <p>In a scene, scroll up to close the scene deletion prompt (No.1 scene can't be deleted) or close the Backlight menu.</p> |
| DOWN | <p>In ZOOM mode, scroll down to exit ZOOM mode.</p> <p>In ZOOM 2X or ZOOM 4X editing mode, scroll up the joystick to move the starting position of the enlarged image;</p> <p>In monitor settings mode, scroll down to select the next item or decrease the item value;</p> <p>In scene tool menu, scroll down to select the next item or decrease the item value;;</p> <p>In scene page, scroll down to display the Backlight menu, and hold on for 3 seconds to prompt the scene deletion command.</p> |
| LEFT | <p>Without any menu, scroll leftmost and hold on for 3 seconds to access the monitor settings menu;</p> <p>In ZOOM 2X or ZOOM 4X editing mode, scroll left the joystick to move left the starting position of the enlarged image;</p> <p>In monitor settings mode, scroll left to return to the previous level menu, or decrease the item value;</p> <p>In a tool bar of a scene, scroll left to return to the previous level menu or the downward adjustment the item value.</p> |
| RIGHT | <p>Without any menu, scroll right to switch to a scene, or scroll right and hold on for 3 seconds to create a new scene;</p> <p>In ZOOM 2X or ZOOM 4X editing mode, scroll right the joystick to move right the starting position of the enlarged image;</p> <p>In monitor settings menu, scroll the joystick right to access the next level menu, or increase the item value;</p> <p>In a tool bar of a scene, scroll right to access the next level menu or the upward adjustment the item value.</p> |

| Direction | Operation |
|----------------|--|
| STRATIGHT DOWN | <p>In ZOOM 2X or ZOOM 4X mode, press straight down the joystick to access editing the starting position of the enlarged image mode; In ZOOM 2X or ZOOM 4X editing mode, press straight down the joystick to confirm and finish the adjusting of the starting position of the enlarged image;</p> <p>In a scene, press straight down to display the Tool menu;</p> <p>In a tool bar of a scene, press straight down the joystick to enable or disable the selected tool;</p> <p>In monitor settings mode, press straight down the joystick to access the next level menu, or confirm the selection of the last level menu item and return to the previous level menu.</p> |

4.4 Power On

The power switch is on the right corner of the rear panel of T7 4K ULTRAHD. Use it to power the T7 4K ULTRAHD on or off.

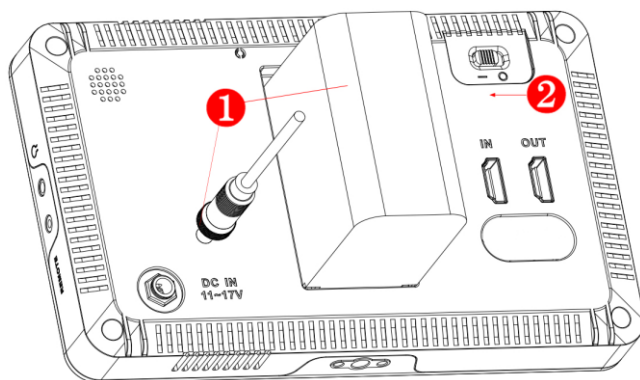


Figure 4.4-1 Power Switch

■ Power Method

There are two methods for powered T7 4K ULTRAHD as below:

Method 1: Powered by battery. There is a built-in battery slot at the rear panel of the monitor. It supports SONY NP-F series batteries. (6V~8.4V)

Method 2: Powered by DC power input. Use smart phone charger or power bank to connect external power through the DC IN interface. (11~17VDC)

■ Power On Operation

First, install the battery or connect the power cord.

Second, switch the power switch to “I” position, the device is powered on, and the control buttons on the front panel are lit up in highlight white.

Tips

- It will display the boot screen after power on for 3~4 seconds.
- Only use the adapter and the power cord specified by the manufacture for your safety!

4.5 ZOOM

You can get closer view to your image in ZOOM mode. It provides 2X ZOOM mode and 4X ZOOM mode, that is you can double(2X) or quadruple(4X) the image, and move the starting position of the enlarged image.

1. ZOOM 2X

■ Enter Zoom 2X Mode

Scroll right the joystick to access a scene, and then scroll up the joystick to access **Zoom 2X** mode, the image is twice as large as the original one. There will be a Zoom 2X icon at the bottom right of the

screen, as shown in Figure 4.5-1

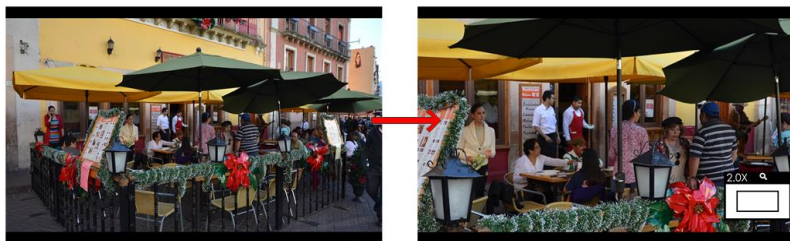


Figure 4.5-1 Zoom 2X Mode

■ Zoom 2X Editing Mode

After accessing the Zoom 2X Mode, press straight down the joystick to move the starting position of the enlarged image.

There will be a Zoom 2X Editing icon at the bottom right of the screen, as shown in Figure 4.5-2. The small rectangle with four direction arrows in this icon represents the current full screen image in the monitor, you can judge where this area is in the original image.

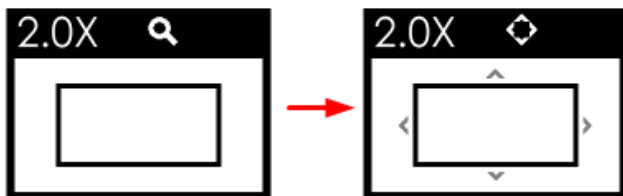


Figure 4.5-2 Zoom 2X Editing Mode

■ Moving the zoomed image

Meanwhile, scroll up, down, left or right the joystick to move the displayed area to the relevant direction, then, press straight down the joystick to confirm and finish the movement and exit the Zoom 2X Editing mode.

2. ZOOM 4X

■ Enter Zoom 4X Mode

Scroll up the joystick to show the **Zoom 2X** mode, and then keep scrolling the up the joystick to show the **Zoom 4X** mode, the image is four times as large as the original one. There will be a Zoom 4X icon at the bottom right of the screen, as shown in Figure 4.5-3:



Figure 4.5-3 Zoom 4X Mode

■ Zoom 4X Editing Mode

After accessing the Zoom 4X Mode, press straight down the joystick to move the starting position of the enlarged image.

There will be a Zoom 4X Editing icon at the bottom right of the screen, as shown in Figure 4.5-4. The small rectangle with four direction arrows in this icon represents the current full screen image in the monitor, you can judge where this area is in the original image

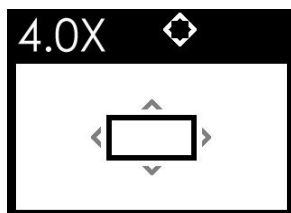


Figure 4.5-4 Zoom 4X Editing Mode

■ Moving the zoomed image

As the same as Zoom 2X editing mode, scroll up, down, left or right

the joystick to move the displayed area to the relevant direction, then, press straight down the joystick to confirm and finish the movement and exit the Zoom 4X Editing mode.

3. Original Image Mode

■ Original Image Mode

In Zoom 2X mode or Zoom 4X mode, press straight down the joystick, it will recover and display the original image.

Tips

- The scene tools are not editable in ZOOM 2X or ZOOM 4X mode.

4.6 Supported Signal Format

The supported signal format for this device is as shown in Table 4.6-1:

Table 4.6-1 Supported Signal Format

| Signal Format | | HDMI |
|---------------|---------------|------|
| 4KP | 4KP30/29.97 | ✓ |
| | 4KP25 | ✓ |
| | 4KP24/23.98 | ✓ |
| 2160P | 2160P30/29.97 | ✓ |
| | 2160P25 | ✓ |
| | 2160P24/23.98 | ✓ |
| 1080P | 1080P60/59.94 | ✓ |

| Signal Format | | HDMI |
|---------------|---------------|------|
| | 1080P50 | ✓ |
| | 1080P30/29.97 | ✓ |
| | 1080P25 | ✓ |
| | 1080P24/23.98 | ✓ |
| 1080I | 1080I60/59.94 | ✓ |
| | 1080I50 | ✓ |
| 720P | 720P60/59.94 | ✓ |
| | 720P50 | ✓ |
| 576P50 | 576P50 | ✓ |
| 480P60 | 480P60 | ✓ |

Chapter 5 Monitor Settings

The chapter describes the structure and functionality of the monitor settings, and introduces how to modify and customize the monitor settings.

Monitor settings contains the settings on input, volume, backlight, display rotate, anamorphic, DSLR scale, status display menu, LUTs, language, firmware and so on, as shown in Figure5-1.

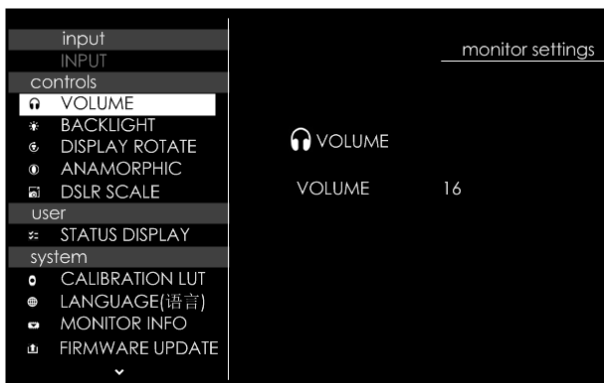


Figure 5-1 Monitor Settings Menu

The features on the screen are as shown in Figure 5-2:



Figure 5-2 Tools for T7 4K ULTRAHD Monitor

And there could be multiple accessorial objects on screen, such as status display information, aspect area, safe area, crosshair, waveform, audio meter, histogram, focus assist, false color and so on.

Please refer to the relevant sections for the details in this chapter.

5.1 Menu Operations

Display the Monitor Settings Menu

Scroll leftmost the **Joystick** to display the monitor settings Menu at the left side of the screen, as shown in Figure 5.1-1:

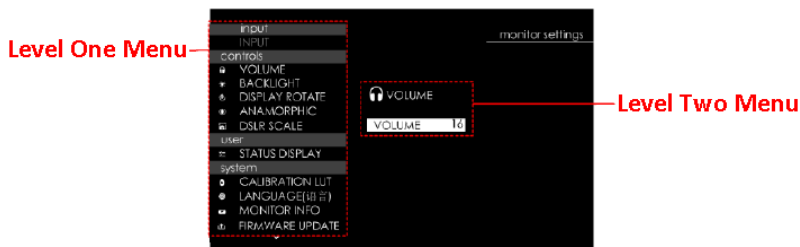


Figure 5.1-1 the Structure of the Monitoring Settings Menu

The menu interface is divided into two parts: **Level one menu** and **Level two menu**. Follow the instructions below:

Menu List for Monitor Settings

The level one menu is the main menu list for monitor settings, including **input output**, **controls**, **user**, and **system**.

Scroll up and down the **Joystick** to navigate to the level one menu of the monitor settings and select a menu item. The selected menu item will be highlighted in a control icon.

Submenu for Monitor Settings

The details of the selected menu item is located at the center right of the screen. You can check the content of the current menu item.

Scroll straight down the joystick, it will access the level two menu page, and the control icon followed. Then, scroll up or down to select the

submenu item, after that, scroll left or right to switch or adjust the value of the selected submenu item, at last, Scroll straight down to return to the previous level menu and confirm the setting.

Tips

- The control icon is displayed as a highlight white rectangle at the background of the current active item.

5.2 Monitor Menu

The following will introduce the contents and functionality of these menu items in sorts.

5.2.1 INPUT

The **INPUT** menu provides HDMI input, as shown in Table 5.2-1:

Table 5.2-1 Description of INPUT Menu

| Menu | Items | Description |
|-------|-------|--------------------------------|
| INPUT | HDMI | Select the input signal source |

Tips

- The **INPUT** menu can't be modified.

5.2.2 Controls

The **CONTROLS** menu items are used to adjust volume, backlight, rotating image, and set anamorphic ratio and image size from DSLR device. The menu items are as shown in Figure 5.2-1:

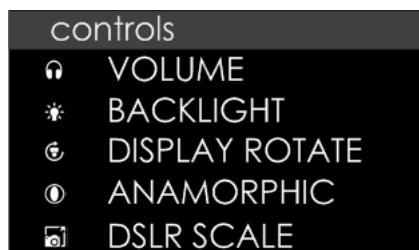


Figure 5.2-1 Controls Menu

Table 5.2-2 Description of Controls Menu Items

| Menu | Items | Default | Domain Range | Description |
|----------------|---------------|---------|--|--|
| VOLUME | VOLUME | 16 | 0 ~ 31 | Adjust the volume |
| BACKLIGHT | BACKLIGHT | 8 | 0~10 | Adjust the backlight |
| DISPLAY ROTATE | SCREEN ROTATE | AUTO | AUTO/0/180 | Rotate the image and menus |
| | IMAGE ROTATE | 180 | 0/180 | Rotate the image |
| ANAMORPHIC | OPTIONS | 1X | 1X/1.33X/1.5X/1.66X/2X/2XMAG | Set the anamorphic ratio |
| DSLR SCALE | OPTIONS | NONE | NONE/ CANON 5D MARK II/ CANON 7D | Enable the input signal from a variety of DSLR cameras to fill the screen of T7 4K ULTRAHD. This item is particularly to CANON/NIKON DSLR. |

1. Adjust Volume

Select **control**→**VOLUME** item, scroll straight down to confirm the selection and display the VOULME menu, as shown in Figure 5.2-2. Scroll left to decrease the volume, or scroll right to increase the volume. Scroll it down to return to the previous level menu.



Figure 5.2-2 Volume Menu

2. Adjust Backlight

Select **control**→**BACKLIGHT** item, scroll straight down to confirm the selection and display the BACKLIGHT menu, as shown in Figure 5.2-3. Scroll left to decrease, while scroll right to increase the backlight. Besides, scroll down the joystick to display the Backlight menu directly in a scene, then scroll up to exit this menu.



Figure 5.2-3 Backlight Menu

3. Display Rotate

■ Screen Rotate

Set **control**→**Display Rotate**→ **Screen Rotate** item to be **180**, **0** or **AUTO**, the input image will reverse vertically with the menus, as shown in Figure 5.2-4:

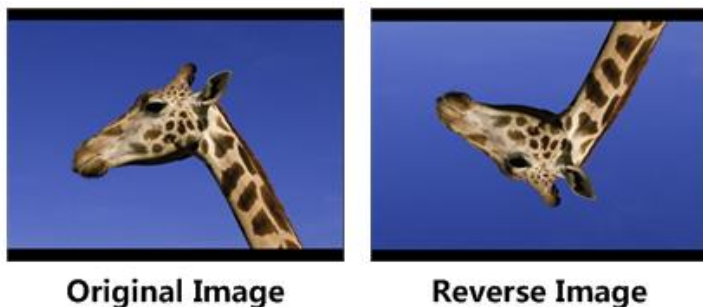


Figure 5.2-4 Vertical Rotate

■ Image Rotate

Set **control**→**Display Rotate**→ **Image Rotate** item to be **180** or **0**, the input image will reverse vertically.

4. Set Anamorphic Ratio

This feature enables you to de-squeeze signals coming from camera utilizing anamorphic lenses that may not have a built-in de-squeeze feature of their own. This is quite useful in applications, such as outdoor post production, onset monitoring, real-time de-squeezing, etc.

Select **control**→**ANAMORPHIC** item, scroll straight down to confirm the selection and display the **ANAMORPHIC**, as shown in Figure 5.2-5, scroll left or right to cycle through these anamorphic ratios: 1X, 1.33X, 1.5X, 1.66X, 2X, 2XMAG.



Figure 5.2-5 ANAMORPHIC Menu

The resolution of the input and output are as shown in Table 5.2-3:

Table 5.2-3 Resolution Relationship Between Input and Output

| ANAMORPHIC | INPUT SIGNAL | INPUT | OUTPUT |
|------------|--------------|-----------|-----------|
| 1X | 1080P/1080I | 1920x1080 | 1920x1080 |
| | 720P | 1280x720 | 1920x1080 |
| 1.33X | 1080P/1080I | 1920x1080 | 1920x812 |
| | 720P | 1280x720 | 1920x812 |
| 1.5X | 1080P/1080I | 1920x1080 | 1920x720 |
| | 720P | 1280x720 | 1920x720 |
| 1.66X | 1080P/1080I | 1920x1080 | 1920x650 |
| | 720P | 1280x720 | 1920x650 |
| 2X | 1080P/1080I | 1920x1080 | 1920x540 |
| | 720P | 1280x720 | 1920x540 |
| 2XMAG | 1080P/1080I | 1290x720 | 1920x803 |
| | 720P | 860x720 | 1920x803 |

5. DSLR SCALE

This function is designed for some DSLR cameras (CANON 5D MARK II, CANON 7D). The valid area which will fill the screen is controlled by **control→DSLR SCALE** item selection.

When the input source is coming from CANON 5D MARK II or CANON 7D DSLR device, but the **control→DSLR SCALE** item is set as **NONE**, the **DSLR SCALE** function is disable, there will be blank area at the surrounding of the image. Otherwise, set as the relevant DSLR model, it will enlarge and display the image at full screen, removing those useless blank bars, as shown in Figure 5.2-6:



Figure 5.2-6 DSLR SCALE

For different **DSLR SCALE** item value, the resolution comparison of the input and output is as shown in the table below:

| DSLR SCALE Item | INPUT RESOLUTION | OUTPUT RESOLUTION |
|-------------------|-------------------|-------------------|
| NONE | 1920X1080 | 1920x1080 |
| CANNON 5D MARK II | (1920X1080)x0.85 | 1920x1080 |
| CANNON 7D | (1920X1080) x0.85 | 1920x1080 |

5.2.3 User

The **User** menu items are used to set the status display bar, Fast mode, multiple images display mode and settings, backlight, auto standby mode, aperture, language mode, horizontal flip, and uniformity, the menu items are as shown in Figure 5.2-7:



Figure 5.2-7 User Settings Menu

Table 5.2-4 Description of User Menu Items

| Menu | Items | Default | Domain Range | Description |
|----------------|---------|---------|---------------------|--|
| STATUS DISPLAY | OPTIONS | OFF | OFF/ON/ BAT ONLY | Enable/disable the status bar at the top of the screen |

1. STATUS BAR

Set **user**→**STATUS DISPLAY** item to be **ON**, it will display the Status bar at the top of the screen, including these information from left to right: Input source format and the battery voltage indication.

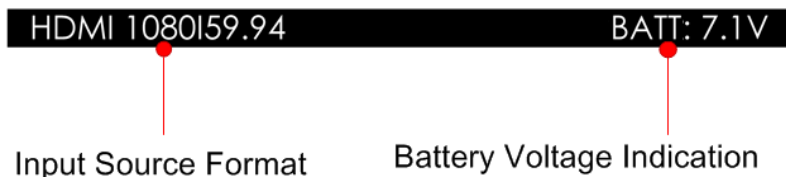


Figure 5.2-8 Status Bar

■ INPUT FORMAT

The **Signal Format** usually displays as the following situations:

- ☐ **UNKNOWN:** appears if an unsupported signal is input.
- ☐ **NO SIGNAL:** appears if no signal is detected.
- ☐ **Normal:** the signal format is displayed as HDMI 1080i59.94, etc. when the input is supported by the monitor.

5.2.4 System

The **system** menu provides calibration, language selection, firmware update, LUT file loading and factory reset operations, as shown in Figure 5.2-9:



Figure 5.2-9 System Menu

Table 5.2-5 Description of System Menu Items

| Menu | Items | Default | Domain Range | Description |
|-----------------|-----------------|---------|-------------------------------------|---|
| CALIBRATION LUT | COLOR TEMP | NATIVE | NATIVE/ D56/D65 /D93/ USER | Select a calibration standard for the panel |
| | GAMMA | 2.2 | 2.2/2.4 | Set Gamma |
| | CALIBRATION LUT | ON | ON/OFF | Enable/disable calibration LUT |
| | BRIGHTNESS | 50 | 0~100 | Adjust the brightness |
| | SATURATION | 50 | 0~100 | Adjust the saturation |
| | R-GAIN | 512 | 0~512 | Adjust the Red Gain |
| | G-GAIN | 512 | 0~512 | Adjust the Green Gain |
| | B-GAIN | 512 | 0~512 | Adjust the Blue Gain |
| | RGB GAIN RESET | -- | -- | Reset R,G,B GAIN |
| | COLOR FROM | D65 | D56/D65 | Copy this parameter value to |

| Menu | Items | Default | Domain Range | Description |
|-----------------|-------------------------|---------|-----------------------------------|--|
| | | | /D93 | USER |
| | INPUT LEVELS | VIDEO | VIDEO: 64~940 FULL: 0~1023 | Set color range |
| LANGUAGE | OPTIONS | 中文 | ENGLISH / 中文 / Français / Español | Select a language mode |
| MONITOR INFO | VERSION | -- | -- | Show the firmware versions |
| | SERIAL NUMBER | -- | -- | Show serial number |
| | MODEL | -- | -- | Show device model |
| FIRMWARE UPDATE | EXECUTE FIRMWARE UPDATE | -- | -- | Execute firmware update |
| LOAD LUT FILE | EXECUTE LOAD LUT FILE | -- | -- | Load a color look profile from SD card |
| FACTORY RESET | EXECUTE FACTORY RESET | -- | -- | Revert the factory settings |
| | LOGO DISPLAY | ON | OFF/ON | Enable/disable LOGO display |

1. Enable/Disable Calibration

Set **system** → **CALIBRATION LUT** item to display the CALIBRATION menu, as shown in Figure 5.2-10:

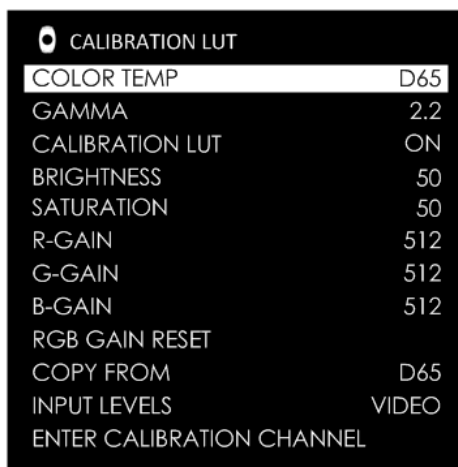


Figure 5.2-10 Calibration LUT Menu

Set **system**→ **CALIBRATION LUT** → **CALIBRATION LUT** item as **ON**, it will be able to load LUT file.

Set **system**→ **CALIBRATION LUT** → **CALIBRATION LUT** item as **OFF**, it will be disable to load LUT file.

2. Load LUT File

First, write the designated LUT file to the monitor.

Operation: Select **system**→ **LOAD LUT FILE** → **EXECUTE LOAD LUT FILE** item to choose a LUT file from SD card.

Scroll the joystick right to display the LUT file list menu, as shown in Figure 5.2-11, scroll up or down to select a LUT type as **USER LUT**, **CAMERA LUT** or **CALIBRATION LUT**, and press the joystick straight down to confirm the selection. Then, it will pop up a series of directories for navigating to the designated LUT file, scroll up or down to select the LUT file with .cube suffix, and specify its storage directory, as shown in Figure 5.2-12, please don't cut off the power during loading.



Figure 5.2-11 Calibration LUT Directory

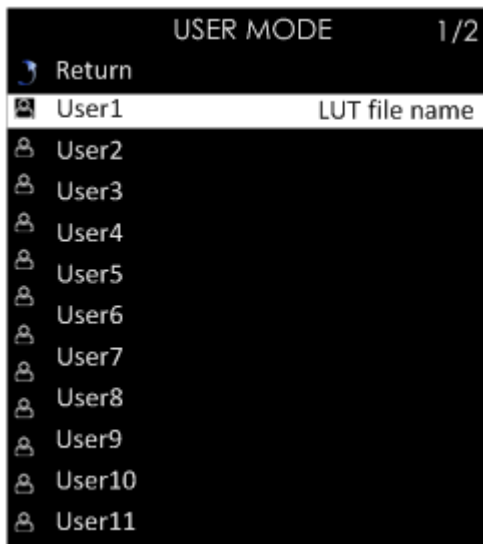


Figure 5.2-12 LUT Storage Directory

For example: Load a LUT file to **USER LUT**, it will prompt a directory for LUT file selection, then select a LUT and choose a target USER LUT to be stored, as shown in Figure 5.2-12. For example, select

USER1, press the joystick straight down to confirm the selection, it will write the specified LUT file into the monitor from the SD card.

Second, use **LOOK** tool to activate a LUT to current scene.

Operation: scroll the joystick right to access a scene, and add a **LOOK** tool for the scene, for example, set the **ENABLE** item as **ON**, **SETTING** item as **USER**, and **USER LUT** as **USER1**, thus, it will apply **USER1** to current scene display. After activating a LUT file, it will be loaded to the image display immediately, as shown in Figure 5.2-13:



Figure 5.2-13 Output Image Applied with a LUT File

Tips

- Make sure to restart the device to effect the selected user LUT file after loading it to a designated LUT directory through the SD card.
- There will a “File format not support!” prompt for unavailable LUT file when executing file writing operation.
- The items about RED/GREEN/BLUE GAIN are available only in **USER** mode. If the **COLOR TEMP** sets as **USER** with customized settings, you can select the menu item **RGB GAIN RESET** command to restore product originals for Gains.
- Refer to “6.1.4 Look Tools” for the details about loading the 3D LUT file.
- Make sure your SD card is FAT32 format, otherwise, it will not be supported in this monitor.

If detecting no SD card during the operation, it will prompt "**SD Card does not exist!**"; if any other wrong happened, it will pop up the relevant prompt, please check it according to this prompt.

3. BRIGHTNESS

Set **system**→ **CALIBRATION** →**BRIGHTNESS** item to adjust the brightness. Scroll left to decrease the brightness, or scroll right to increase the brightness.

4. R/G/B GAIN

Set **system**→ **CALIBRATION** →**R-GAIN/G-GAIN/B-GAIN** item to adjust the gain values. Scroll left to decrease the gain, or scroll right to increase the gain.

5. FIRMWARE UPDATE

Select **system**→ **FIRMWARE UPDATE**→**EXECUTE FIRMWARE UPDATE** item to upgrade the firmware, it will prompt as shown in Figure 5.2-14:

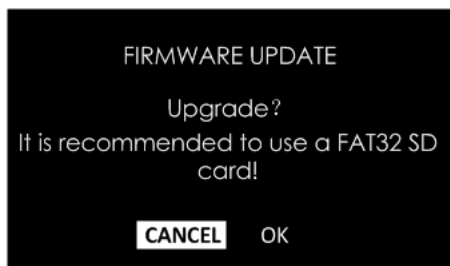


Figure 5.2-14 FIRMWARE UPDATE

Scroll right to select **OK** command, and press the joystick straight down to confirm the selection. It will update the firmware from the SD card.

6. FACTORY RESET

Select **system**→ **FACTORY RESET**→ **EXECUTE FACTORY RESET**

item to initialize the settings to default values, it will pop up a prompt, as shown in Figure 5.2-15 , scroll right to select **RESET** command, and press the joystick straight down to confirm the selection.

Please pay some patience during the reset operation, and it lasts about one minute. The device will be in black screen mode for a short time after confirming reset operation, and then it will display the Boot Screen for successful reset operation, as shown in Figure 5.2-16. At last, please restart the device by manual.



Figure 5.2-15 Prompt for Factory Reset



Figure 5.2-16 Boot Screen

 **Tips**

- It lasts about one minute for restarting operation, please don't do any operations during restarting the device.
-

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Chapter 6 Scenes and Tools

6.1 Scenes Tools Settings

You can create customized scenes pages with different features and settings in T7 4K ULTRAHD. In a scene, press the joystick straight down, and select **ADD NEW TOOL** command, and press the joystick straight down again, it will display the Tools Menu, as shown in Figure 6.1-1.



Figure 6.1-1 Tools Menu for Scene

The tools menu provides access to tools aiding in composition, focus and exposure for a scene, you can add several tools on a scene, and then they will be listed in a tool bar, as shown in Figure 6.1-2. After adding tools

to the tool bar of a scene, you can edit the tool's attributes by its tool settings menu, as shown in Figure 6.1-3:



Figure 6.1-2 Tool Bar for A Scene

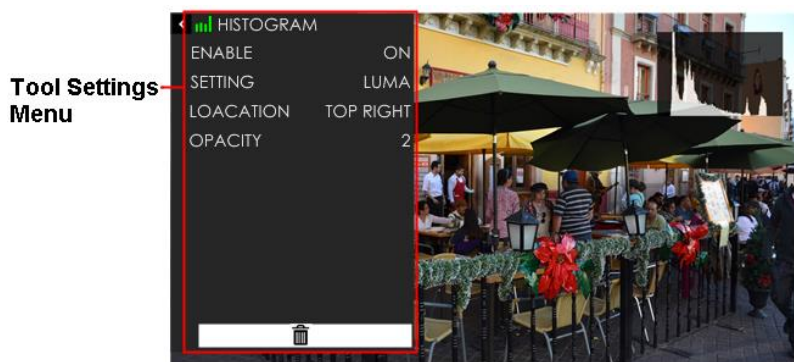


Figure 6.1-3 Tool Settings Menu

It will introduce the tools and their attributes in the following section, and refer to “6.2 Tools Operations” for the details about tools operation.

6.1.1 Frame Tools

Frame tools assist to set viewing frame, including aspect area, safe area, center and crosshatch. Show or hide these markers by their switches easily, and their display style and transparency are adjustable.



Figure 6.1-4 Frame Tools




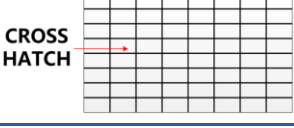
Table 6.1-1 Description of Frame Tools

| Tool | Items | Default | Domain Range | Description |
|--------|---------|---------|---|--|
| ASPECT | ENABLE | OFF | OFF/ON | Enable/Disable area marker display |
| | RATIO | 4:3 | 4:3/1.85:1/ 2.39:1 /16:9/ CUSTOM | Select the marker type |
| | WIDTH | 75 | 25~100 | Set the width of the mat area in CUSTOM mode |
| | HEIGHT | 75 | 25~100 | Set the height of the mat area in CUSTOM mode |
| | SETTING | MATTE | MATTE/ LINE | Set the mat area type is 50% darken area or line |
| SAFE | ENABLE | OFF | OFF/ON | Enable/Disable safe marker |

| Tool | Items | Default | Domain Range | Description |
|------------|-------------|---------|---------------|--|
| | | | | display |
| | FORMAT | 16:9 | 16:9/14:9/4:3 | Set the safe marker position |
| | ACTION | OFF | OFF/ON | The safe marker is displayed as an outside frame, proportional to 92% of the FORMAT |
| | TITLE | OFF | OFF/ON | The safe marker is displayed as an inside frame, proportional to 80% of the FORMAT in horizontal direction, and 90% of the FORMAT in vertical direction. |
| CENTER | ENABLE | OFF | OFF/ON | Enable/Disable crosshair display |
| CROSSHATCH | ENABLE | OFF | OFF/ON | Enable/Disable crosshatch display |
| | REGIONS | 2 | 2~9 | Set the cross line number |
| LEVEL | ENABLE | OFF | OFF/ON | Enable/Disable the level |
| | CALIBRATION | -- | -- | Set the level reference for level calibration |
| | SENSITIVITY | 1 | 1~4 | Set the sensitivity for horizontal detecting. Smaller value represents more sensitive detection. |

1. Marker

| Marker | Illustration | Description |
|--------|--------------|-------------|
|--------|--------------|-------------|

| Marker | Illustration | Description |
|----------------------------|---|--|
| ASPECT (AREA MARKER) |  | This marker identifies an area with a specified aspect ratio. |
| SAFETY MARKER |  | This marker displays a rectangle to identify the safety area with a specified percentage in Area Marker. |
| CENTER MARKER |  | This marker enables easier checking the center portion's focus. |
| CROSS HATCH |  | This marker displays multiple vertical and horizontal lines to help when users check the composition of a picture. |

2. Area Marker

Set the area marker **FRAME→ASPECT SAFE→RATIO** item as **CUSTOM**, the **WIDTH** and the **HEIGHT** of the marker are adjustable as your requirement.

And the outside area of the area maker could be filled with **FRAME→ASPECT SAFE →SETTING** selection, you can choose it as **MATTE** or **LINE**.

- ☐ **LINE**: there are two white lines labeled the area marker;
- ☐ **MATTE**: the outside area of marker is 50% blackness of the background, and without lines, as shown in Figure 6.1-5:



STYLE=LINE



STYLE=MATTE

Figure 6.1-5 Marker Mat Style

3. Level Calibration

Set **LEVEL→ENABLE** item as **ON**, and **LEVEL→ SENSITIVITY** item to a proper numeric, the lower the level sensitivity is, the more sensitive the detection is.

There will be a level indicator displayed at the bottom of the screen, as shown in Figure 6.1-6 or Figure 6.1-7. The bubble in the level will be in green when the level indicates the horizontal center, and it will be in yellow when indicates a left or right offset, and it will be in red when the bubble is very closed to the leftmost or rightmost that indicates too much askew, as shown in Figure 6.1-7.

Then, set **LEVEL→ CALIBRATION** item, it will pop up a prompt for starting level calibrating, as shown in Figure 6.1-8:



Figure 6.1-6 Level Bubble

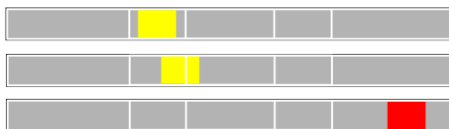


Figure 6.1-7 Level Bubbles

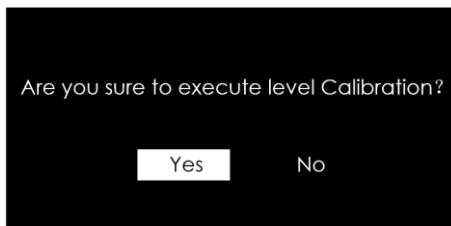


Figure 6.1-8 Level Calibration Prompt

Click **Yes** to execute level calibration which will set the current horizontal of the OSEE monitor to be the level reference, otherwise, click **No** to quit the calibration.

The horizontal will be recorded, and you can see the level indicator changes in green to indicate it as the level reference, then use this OSEE monitor as a level to calibrate your cameras or other recorders in order to identify them all in the same relative horizontal.

6.1.2 Expose Tools

Expose tools provide false color, zebra, histogram, waveform and vectorscope, as shown in Figure 6.1-9:



Figure 6.1-9 Expose Tools

Table 6.1-2 Description of Expose Tools

| Tool | Items | Default | Domain Range | Description |
|-------------|----------|-----------|---|--|
| FALSE COLOR | ENABLE | OFF | OFF/ON | Enable/Disable false color function |
| | SETTING | Spectrum | Ref Table 6.1-3 | Set the type of the false color display |
| ZEBRA | ENABLE | OFF | OFF/ON | Enable/Disable the zebra function that will compare the signal luminance with the ZEBRA LEVEL, and fill the relevant image area whose luminance is higher than the ZEBRA LEVEL with a zebra pattern. |
| | LEVEL | 50 | 0~100 | Set the reference level of detecting luminance. |
| HISTOGRAM | ENABLE | OFF | OFF/ON | Enable/Disable histogram display |
| | SETTING | LUMA | LUMA: luminance histogram RGB: RGB histogram | Set the type of the histogram |
| | LOCATION | TOP RIGHT | Ref Table 6.1-4 | Set the position of the histogram |
| | OPACITY | 0 | 0: 100% 1: 75% 2: 50% 3: 25% | Set the transparency of the histogram |
| WAVE FORM | ENABLE | OFF | OFF/ON | Enable/Disable waveform display |
| | SETTING | LUMA | LUMA/RGB/ | Set the type of the waveform |

| Tool | Items | Default | Domain Range | Description |
|--------|----------|--------------|----------------------------|---|
| | | | PARADE | |
| | SIZE | SMALL | SMALL/ MIDDLE/ LARGE | Set the size of the waveform |
| | LOCATION | TOP RIGHT | Ref Table 6.1-4 | Set the position of the waveform |
| | OPACITY | 0 | 0 ~ 3 | Set the transparency of the waveform |
| VECTOR | ENABLE | OFF | OFF/ON | Enable/Disable vectorscope display |
| | LOCATION | TOP RIGHT | Ref Table 6.1-4 | Set the position of the vectorscope |
| | OPACITY | 0 | 0~3 | Set the transparency of the vectorscope |

1. FALSE COLOR

EXPOSURE ASSIST is also known as FALSE COLOR, this function generates an artificial luminance map of the input signal that can be useful to identify over exposed areas (exposure). This is a quick way to gauge the exposure levels of an image in a clear way.

Choose the **FLASE COLOR** tool to the current scene, and activate the FALSE COLOR tool. It provides various types of FALSE COLOR as below:

Table 6.1-3 FALSE COLOR TYPES

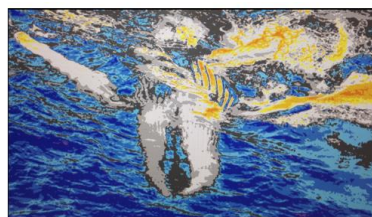
| FALSE COLOR TYPES | |
|-------------------|--------|
| Spectrum | BMD |
| SONY SLOG3 | BMD 4K |

| FALSE COLOR TYPES | |
|-------------------|----------------|
| SONY SLOG2 | ARRI REC709 |
| ARRI LOGC | SONY LC709A |
| CANON CLOG2 | SONY LC709 |
| CANON CLOG3 | PANASONIC V709 |
| PANASONIC VLOG | RED RG3 |
| RED LOG FILM | RED RG4 |
| RED RL3G10 | |

For example: Set **FALSE COLOR** → **ENABLE** item as **ON**, set **FALSE COLOR** → **SETTING** item as **ARRI LogC**, as shown in Figure 6.1-10:



FALSE COLOR=OFF



FALSE COLOR=ON

Figure 6.1-10 Comparison Mode- Original Image and Normal Mode Image

Tips

- The LOOK tool is incompatible with the False Color tool. That is, enable the LOOK tool, the False Color tool will be disabled automatically, and enable the False Color tool, the LOOK tool will be disabled automatically.

2. ZEBRA

The **ZEBRA** function is used to display images on the screen with a zebra pattern to adjust the camera exposure parameter. It will compare the signal luminance with the **ZEBRA LEVEL**, and fill the relevant image area whose luminance is higher than the **ZEBRA LEVEL** with a zebra pattern

For example, set the **ZEBRA LEVEL** as 80, the compared results are as shown in Figure 6.1-11, the special area is filled with a zebra pattern.



ORIGINAL IMAGE



ZEBRA CHECK

Figure 6.1-11 Illustration for ZEBRA Function

3. HISTOGRAM

Histogram assists in judging the distribution of luminance in the image.

■ Histogram Type

Set **EXPOSE**→**HISTOGRAM**→**SETTING** item as LUMA or RGB, these two histogram types are as shown in Figure 6.1-12:

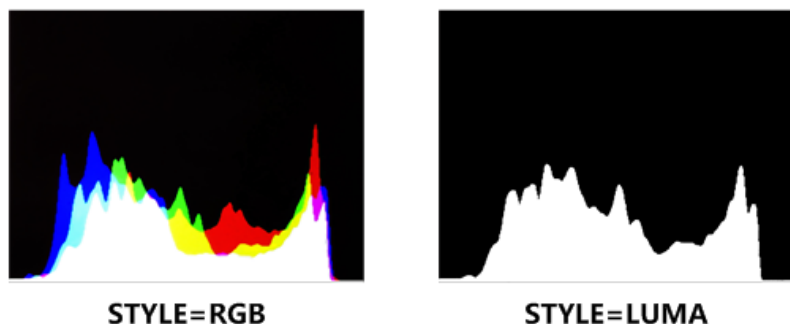


Figure 6.1-12 RGB Histogram and LUMA Histogram

4. WAVEFORM

■ WAVEFORM SIZE

Set **EXPOSE→WAVEFORM→SIZE** item to adjust the size of the waveform, there are three kinds of sizes for waveform:

- ☐ Small size waveform: set **SIZE** item as **SMALL**, and this kind of waveform could be located in any one of the 8 positions listed in **LOCATION** item;
- ☐ 75% waveform: set **SIZE** item as **MIDDLE**, and this kind of waveform is located in the center bottom of the screen, and it can't be moved;
- ☐ Full size waveform: set **SIZE** item as **LARGE**, and this kind of waveform is located in the bottom of the screen, and it can't be moved.

■ WAVEFORM TYPE

Set **EXPOSE→WAVEFORM→STYLE** item to display the following three kinds of waveform as LUMA, RGB, PARADE, as shown in Figure 6.1-13:

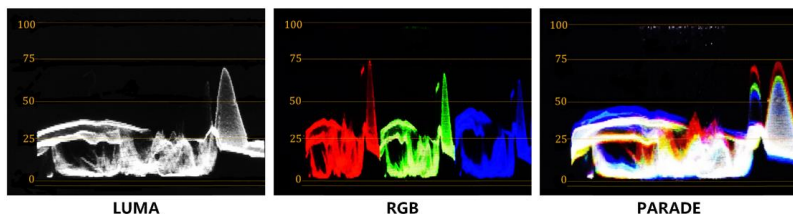


Figure 6.1-13 *LUMA Waveform and RGB Waveform and PARADE Waveform*

5. VECTORSCOPE

Set **EXPOSE**→**VECTOR**→**ENABLE** item to display or hide the vectorscope.

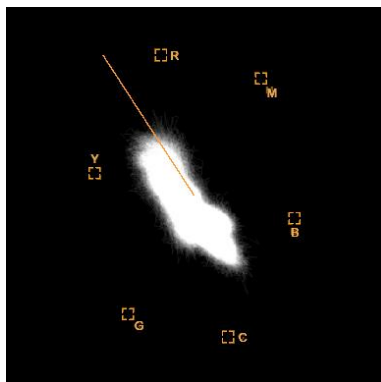


Figure 6.1-14 *VECTORSCOPE*

6. LOCATION

There are 8 positions for display the histogram, waveform and vectorscope on the screen, as shown in Table 6.1-4 and Figure 6.1-15. Move them through the **LOCATION** item.

Table 6.1-4 *LOCATION SETTINGS*

| Locations | |
|---------------|-------------|
| TOP RIGHT | BOTTOM LEFT |
| MIDDLE RIGHT | MIDDLE LEFT |
| BOTTOM RIGHT | TOP LEFT |
| MIDDLE BOTTOM | TOP MIDDLE |

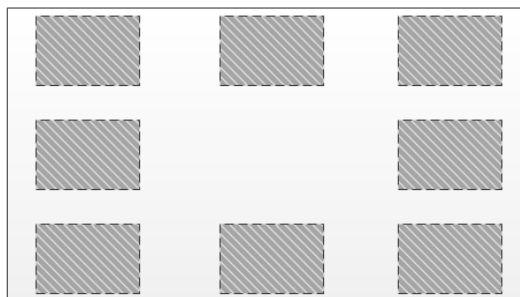


Figure 6.1-15 *Location of the Assistant Elements*

7. OPACITY

There are 4 degrees of opacity for display the histogram, waveform and vectorscope on the screen. Set the transparency through the **OPACITY** item.

- ☐ 0: 100%, when opacity set to 0, the assistant element (histogram, waveform or vectorscope) is opaque, not transparent.
- ☐ 1: 75%, when opacity set to 1, the assistant element (histogram, waveform or vectorscope) is proportional to 75% opacity.
- ☐ 2: 50%, when opacity set to 2, the assistant element (histogram, waveform or vectorscope) is proportional to 50% opacity.

- 3: 25%, when opacity set to 3, the assistant element (histogram, waveform or vectorscope) is proportional to 25% opacity.

For example: set **EXPOSE→HISTOGRAM→OPACITY** as 0, 1, 2, 3 separately, the comparison are as below:

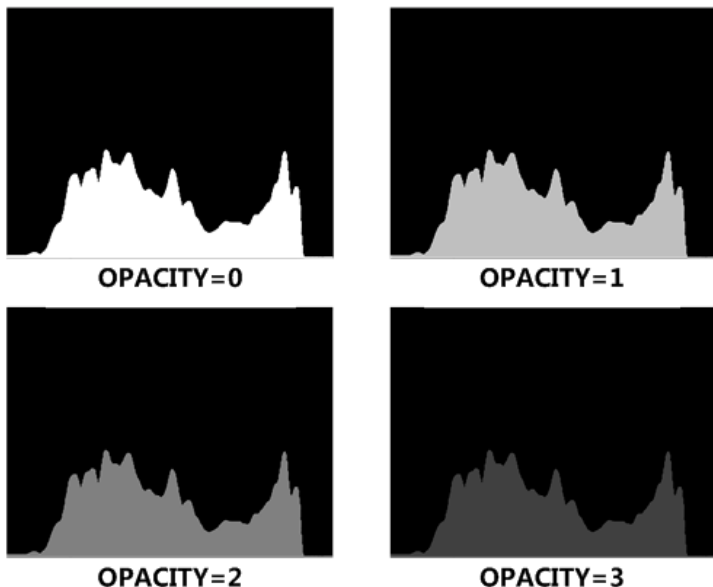


Figure 6.1-16 Different Opacity for Histogram

6.1.3 Focus Tools

Focus tools provide the focus assist function and the peaking function. Set display color, sensitivity and display type for focus assist, and set intensity for peaking detecting.

**Figure 6.1-17 Focus Tools****Table 6.1-5 Description of Focus Tools**

| Tool | Items | Default | Domain Range | Description |
|--------------|-----------------|---------|---|--|
| FOCUS ASSIST | ENABLE | OFF | OFF/ON | Enable/Disable focus assist function |
| | COLOR | RED | STANDARD /RED /GREEN /BLUE | Select the color of the focus assist edge. For standard color, the intensified edges highlight in white. |
| | SENSITIVITY | 5 | 1 ~ 10 | Set the edge difference value between the edges in an image, and take this value as the reference value. Larger value means more detail detection. |
| | B&W BACKGRO UND | OFF | OFF: COLOR MODE ON: BLACK & WHITE MODE | Set the Focus Assist display mode: color mode or black&white mode. |
| PEAKING | ENABLE | OFF | OFF/ON | Enable/Disable peaking function Over sharpen the image. |
| | INTENSITY | 5 | 1 ~ 10 | Set the sharpness level of the image. The higher the value, the sharper the image. |

1. FOCUS ASSIST

The FOCUS ASSIST function is used to display images on the screen with intensified edge to help camera focus operation. The intensified edges are those areas whose difference value exceeds the reference focus level (**SENSITIVITY**), and the intensified edge are displayed in the designated color set by **COLOR**.

■ FOCUS ASSIST MODE

- **COLOR MODE:** Set **FOCUS** → **FOCUS ASSIST** → **B&W BACKGROUND** item as **OFF**, the image is in color mode, then set **FOCUS** → **FOCUS ASSIST** → **COLOR** to color the intensified edge.
- **B\$W MODE:** Set **FOCUS** → **FOCUS ASSIST** → **B&W BACKGROUND** item as **ON**, the image is in black and white mode, that is removing all colors and only leaving the luminance data of the signal.



**B&W BACKGROUND=OFF
COLOR=RED**



**B&W BACKGROUND=OFF
COLOR=GREEN**

Figure 6.1-18 Illustration for FOCUS ASSIST Function



B&W BACKGROUND=ON

Figure 6.1-19 Illustration for FOCUS ASSIST Function

6.1.4 Look Tools

Look tools provides loading 3D LUT profile and adding audio meter to current scene, as shown in Figure 6.1-20



Figure 6.1-20 Look Tools

Table 6.1-6 Description of Look Tools

| Tool | Items | Default | Domain Range | Description |
|------|---------|---------|--------------|-------------------------------------|
| LOOK | ENABLE | OFF | OFF/ON | Enable/Disable LUT profile function |
| | SETTING | CAMERA | CAMERA/USER | Select the LUT type |

| Tool | Items | Default | Domain Range | Description |
|-------------|---------------|------------------|---------------------|---|
| | CAMERA LUT | ARRI_LogC_Rec709 | Ref Table 6.1-7 | Select a camera LUT |
| | USER LUT | User1 | User1 ~ User16 | Select a user LUT |
| | USER LUT NAME | -- | -- | Display the user LUT name |
| AUDIO METER | ENABLE | OFF | OFF/ON | Enable/Disable audio meter display |
| | LOCATION | BOT LEFT | BOT LEFT/ BOT RIGHT | Set the position of the audio meter |
| | OPACITY | 0 | 0~3 | Set the transparency of the audio meter |

1. LOOK PROFILE (3D LUT)

The monitor is equipped with versatile color lookup profiles for different requirements. We provide the following LUT profiles:

- ☐ **CAMERA LUT:** preset camera logs, as shown in Table 6.1-7;
- ☐ **USER LUT:** custom 3D LUTs from SD card.

Select **LOOK→ LOOK→ CAMERA LUT** item to choose a 3D LUT file from SD card or internal files.

■ Preset LUT File(CAMERA LUT)

There are versatile preset 3D-LUT tables, supporting the LUT files for ARRI, RED, SONY, Panasonic, Canon, BlackMagic and Panavision, etc.

Table 6.1-7 CAMERA LUT Files

| Preset LUT File | Company |
|--------------------------------|------------|
| ARRI_LogC_Rec709 | ARRI |
| BMD_4.6KFilm_Rec709 | BlackMagic |
| BMD_4.6KFilmV3_Rec709 | |
| BMD_4KFilm_Rec709 | |
| BMD_4KFilmV2_Rec709 | |
| BMD_4KFilmV3_Rec709 | |
| BMD_CCFilm_Rec709 | |
| BMD_CCFilmV2_Rec709 | |
| Canon_CLog1Cine_Rec709_FF_V1.1 | Canon |
| Canon_CLog2Cine_Rec709_FF_V1.1 | |
| Canon_CLog3Cine_Rec709_FF_V1.1 | |
| DJI_Phantom3DLog_Rec709_Improv | DJI |
| DJI_Phantom4DLog_Rec709 | |
| DJI_Phantom4Dlog_Rec709_Improv | |
| DJI_X5DLog_Rec709_Improv | |
| FUJI_FLogFGamut_FLogRec709_V1 | FUJIFILM |
| FUJI_FLogFGamut_WDRRec709_V1 | |
| GoPro_Protune_Rec709 | GoPro |
| JVC_JLog1_Rec709_Daylight | JVC |
| JVC_JLog1_Rec709_Tungsten | |
| Panasonic_VLog_V709_V1 | Panasonic |
| RED_L3G10RWG_Rec709_R1_V1.13 | RED |
| RED_L3G10RWG_Rec709_R2_V1.13 | |

| Preset LUT File | Company |
|-------------------------------|---------|
| RED_L3G10RWG_Rec709_ R3_V1.13 | |
| RED_L3G10RWG_Rec709_ R4_V1.13 | |
| RED_RedLogFilm_RG3 | |
| Sony_SLog2SGamut_LC709 | Sony |
| Sony_SLog2SGamut_LC709A | |
| Sony_SLog3SG3Cine_LC709 | |
| Sony_SLog3SG3Cine_LC709A | |

Tips

- The preset LUT files are constantly under development.
- T7 4K ULTRAHD supports color management software CalMAN currently, the customized 3D LUT profiles (*.cube) produced by these software could be loaded to SD card by a control computer.
- The LOOK tool is incompatible with the False Color(EXPOSURE ASSIST) tool. That is, enable the LOOK tool, the False Color tool will be disabled automatically, and enable the False Color tool, the LOOK tool will be disabled automatically.

2. AUDIO METER

Set **LOOK→AUDIO METER→ENABLE** item as ON to enable the display of Audio Meter on screen.

The audio meter could be displayed at the left bottom or right bottom of the screen, and the opacity could be set from 0 to 3. Refer to “6.1.2 Expose Tools--7 OPACITY” for the details about OPACITY.

The volume in normal range appears in green, above -20dB but

below -10dB appears in yellow, and above -10dB appears in red, as shown in Figure 6.1-21:



Figure 6.1-21 Audio Meter

6.1.5 Scale Tools

Scale tool is used to adjust the horizontal and vertical size of the screen, as shown in Figure 6.1-22



Figure 6.1-22 Scale Tools

Table 6.1-8 Description of Scale Tools

| Tool | Items | Default | Domain Range | Description |
|---------------|----------|-----------|---|-------------------------------------|
| IMAGE RE-SIZE | ENABLE | OFF | OFF/ON | Enable/Disable image scale function |
| | LOACTION | TOP LIGHT | TOP RIGHT MID RIGHT BOT RIGHT MID BOT BOT LEFT MID LEFT TOP LEFT TOP MID CENTER | Set image position on screen |

1. IMAGE SCALE

- **Activate Image Scale Function**

Set **SCALE**→ **SCALE**→ **ENABLE** item as **ON**, the image scale is activated. The image size changes to 75% of the original one, and after scaling down, the blank area will be filled with black, as shown in Figure 6.1-23:



Figure 6.1-23 Scale Illustration

■ **Image Position**

There are 9 positions for display the small image on screen, they are TOP RIGHT, MIDDLE RIGHT, BOTTOM RIGHT, MIDDLE BOTTOM, BOTTOM LEFT, MIDDLE LEFT, TOP LEFT, TOP MIDDLE and CENTER, as shown in Figure 6.1-24. Move it through the **LOCATION** item.

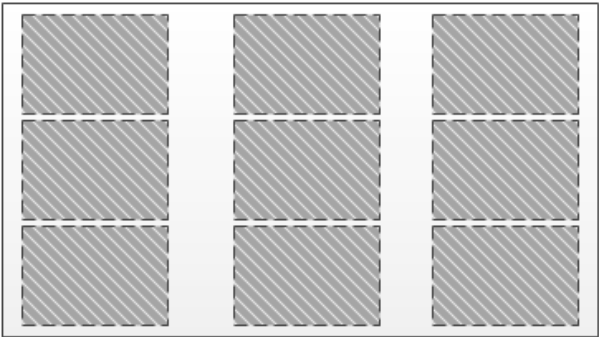



Figure 6.1-24 Image Position

6.2 Tools Operations

It will introduce how to edit scene and its tools in this section.

6.2.1 Add a Scene

You can customize up to 8 scenes in T7 4K ULTRAHD for various requirement, and switch swiftly among these scenes by joystick operations.

Scroll the joystick right and hold for 3 seconds to add a new scene, it will prompt “**Add New MySet** ” command in the bottom center of the screen, as shown in Figure 6.2-1, press the joystick straight down to confirm the operation.

The scene will be numbered in sequence, and the name (a scene icon followed by a number) will be displayed at the bottom center of the screen, as shown in Figure 6.2-2:

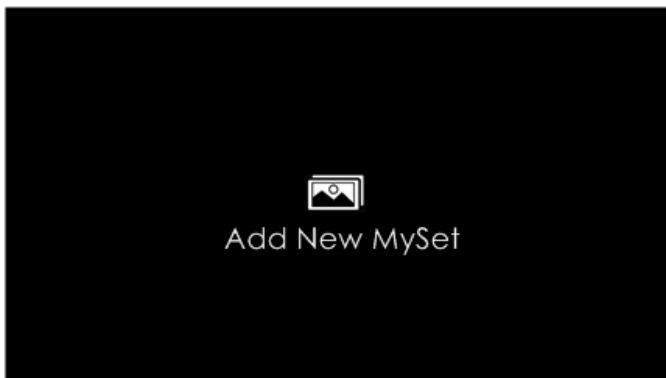


Figure 6.2-1 Add New MySet

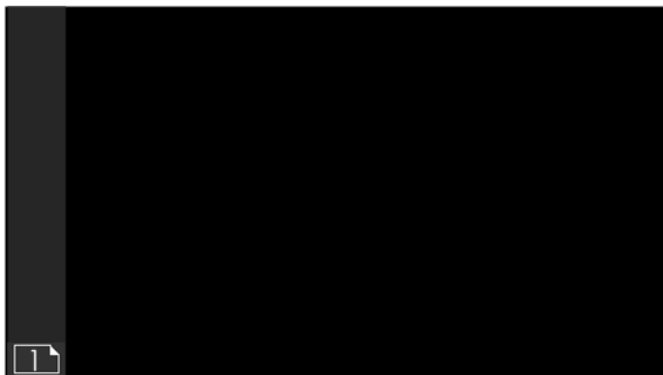


Figure 6.2-2 A New Scene

Tips

- T7 4K ULTRAHD supports up to 8 customized scenes.
- No.1 scene exists by default.

Scroll the joystick left or right to switch among scenes.

6.2.2 Delete a Scene

Scroll the joystick down in a scene, it will display the **DELETE** command at the bottom of the screen, as shown in Figure 6.2-3. Press the joystick straight down to confirm deletion, and there will be a waiting prompt during the deletion. Wait until the prompt disappeared, then the scene deletion is completed.



Figure 6.2-3 Prompt for Delete a Scene

Tips

- No.1 scene can't be deleted.
-

6.2.3 Add a Tool

After creating a scene, add some tools to assist in composition, for example, add a marker, waveform, histogram or audio meter, etc.

Tips

- Each scene supports up to 8 scene tools.
 - You can add more than one of the same tool in a scene.
-

Scroll the joystick down, it will pop up the “**ADD NEW TOOL**” command, as shown in Figure 6.2-4. Press the joystick straight down to confirm, and it will pop up the **Tools Menu** on screen, as shown in Figure 6.2-5:

*Figure 6.2-4 Add a New Tool*



Figure 6.2-5 Tools Menu for Scene

Scroll the joystick up or down to select your desired scene tool, and press the joystick straight down to confirm, the selected tool will be added to the **Tool Bar** of the current scene.

For example: Add histogram to Tool Bar

Scroll the joystick up or down to **HISTORGRAM** item, as shown in Figure 6.2-6, press the joystick straight down to confirm the selection, the **HISTORGRAM**, tool will be added in the tool bar, as shown in Figure 6.2-7:



Figure 6.2-6 Choose Histogram Tool



Figure 6.2-7 Histogram in the Tool Bar

Continue to add other tools for the scene, and you can add up to 8 tools in a scene.

6.2.4 Load/Close Tool Bar

In a scene, after added the tools, you can load the tool bar or close the tool bar. The instructions are as below:

■ Load Tool Bar

First, scroll the joystick right to access a scene;

Second, press the joystick straight down to load the tool bar for the current scene, the tool bar will be displayed the leftmost of the screen, as shown in Figure 6.2-8. The bar labeled in the red rectangle are the tool bar for the current scene.



Figure 6.2-8 Tool Bar for A Scene

■ Close Tool Bar

- ☐ After loading a tool bar, scroll the joystick left to close the tool bar.

- ❑ When in editing tool setting menu status, scroll the joystick left to return to the previous menu, then scroll the joystick left to close the tool bar.

■ Open tool setting menu

After loading a tool bar, scroll the joystick right to access tool settings menu, as shown in Figure 6.2-9

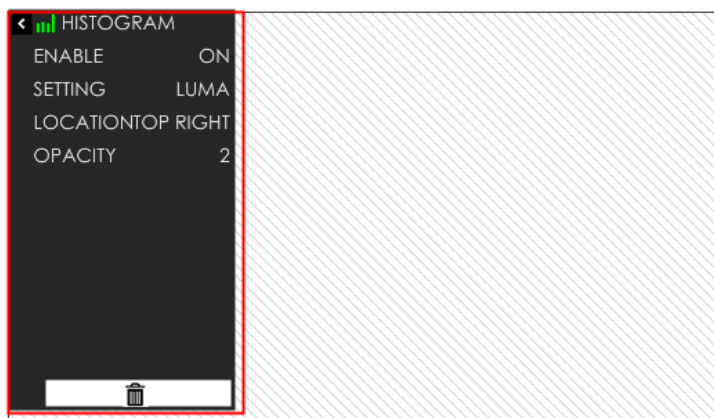


Figure 6.2-9 Tool Setting Menu

Scroll the joystick left to return to the tool bar and close the tool setting menu.

6.2.5 Open/Close a Tool

Follow the instructions below to open or close a tool swiftly:

■ Open a Tool

First, press the joystick straight down to load the tool bar of the current scene;

Second, scroll the joystick up or down to select a tool;

At last, press the joystick straight down to open the tool.

■ Close a Tool

Press the joystick straight down to close the tool after opened it.

■ Select a Tool

Scroll the joystick up or down to select a tool after loading the tool bar.

Tips

- The tool icon in the tool bar will change in highlight green of opened status, and will change in white of closed status.

6.2.6 Tool Settings

Add tools for a scene through the tool settings, then, set a tool's attributes by scrolling the joystick right, it will display the tool settings menu on the screen.

Scroll the joystick left or right to switch among different scenes. The tool bar is hidden when switching to a scene by default. You should press the joystick straight down to display the tool bar for the current scene.

Operate the tool bar to display each tool settings menu, and set the style, location or size of the tool. Refer to “6.1 Scenes Tools Settings” for the details of each tool.

For example: Display histogram on a scene.

In a scene, press the joystick straight down to display the tool bar at the left side of the screen. Scroll the joystick down to move the cursor onto the **HISTOGRAM** tool icon, as shown in Figure 6.2-10:



Figure 6.2-10 Select HISTOGRAM

Press the joystick straight down to load the histogram window on the screen, and the histogram icon is lit in highlight green, as shown in Figure 6.2-11. Or press the joystick straight down again to close the histogram window.



Figure 6.2-11 Display the Histogram

Scroll the joystick right to access the next level menu, it will display the

histogram settings menu, as shown in Figure 6.2-12. It lists the characteristics of histogram in this menu, such as SETTING, LOCATION, OPACITY and ENABLE switch. After finish the parameter settings, scroll the joystick left to return to the tool bar.

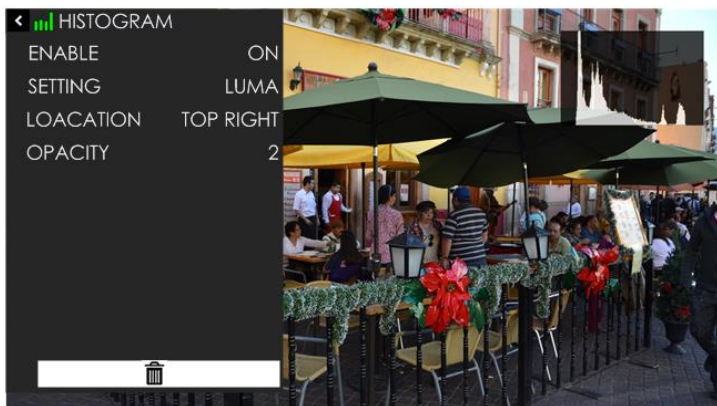


Figure 6.2-12 Settings Menu for Histogram

Tips

- The parameters of the tool could not be modified until the tool is opened.

6.2.7 Delete a Tool

In a scene, press the joystick straight down to display the tool bar for current scene, and scroll the joystick up or down to select the tool which you want to delete, then scroll right to access the tool setting menu, and select **DELETE** command at the end of the menu list, as shown in Figure 6.2-13.

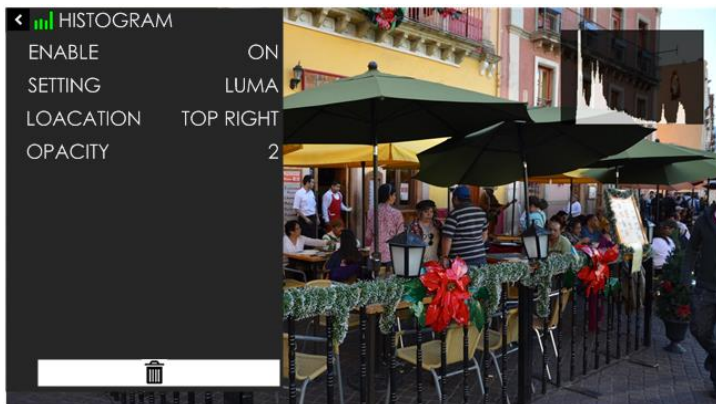


Figure 6.2-13 Delete a Tool

Press the joystick straight down to confirm the selection, and it will pop up a prompt to confirm the deletion, as shown in Figure 6.2-14, press straight down to delete, then the tool will be deleted from its tool bar.



Figure 6.2-14 Prompt for Deleting a Tool

 **Tips**

- The effect or window displayed on the current scene will be closed after the relevant tool is deleted.
-

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Chapter 7 Specifications

7.1 Product detailed information

| Specification | Values |
|----------------------|---------------------------------------|
| Model | T7 4K ULTRAHD |
| Display | |
| Dimension | 7.0" |
| Aspect Ratio | 16:10 |
| Viewing Angle | 160° (H)*160° (V) |
| Resolution | 1920×1200 |
| Contrast | 1200:1 |
| Input Signal Formats | |
| HDMI | 2160P30/29.97/25/24/23.98 |
| | 1080P60/59.94/50/30/29.97/25/24/23.98 |
| | 1080i60/59.94/50 |
| | 720p60/59.94/50 |
| | 480P60, 576P50 |
| Connector Type | |
| HDMI IN | HDMI Type A |
| HDMI OUT | HDMI Type A, loop out |
| Audio | 3.5mm Mini Jack |
| Control | 2.5mm Jack |

| Specification | Values | | |
|--------------------------|--------------------------------|-----------------------------|-----|
| Power | | | |
| Input Voltage | DC IN 11~17VDC | | |
| Battery Types | SONY NP-F, 6V ~ 8.4V | | |
| Consumption | 16.2W | | |
| Environmental | | | |
| Operating Temperature | 0° C~50° C | | |
| Dimensions(Bare Monitor) | 192.0(mm) ×116.3(mm) ×24.7(mm) | | |
| Weight(without Battery) | 438g | | |
| Features | | | |
| Image Scale | Yes | Zebra | Yes |
| Anamorphic De-squeeze | Yes | Waveform | Yes |
| Image Rotate | Yes | Vectorscope | Yes |
| Cross Hatch | Yes | RGB Parade | Yes |
| Center Marker | Yes | Histogram | Yes |
| Safe Marker | Yes | Audio Meters | Yes |
| Area Marker | Yes | Pre-loaded LUTs for Cameras | Yes |
| Focus Assist | Yes | LUT Loaded via SD Card | Yes |
| Peaking | Yes | Firmware Upgrading | Yes |
| Pixel Zoom(2X & 4X) | Yes | Language(EN/CH) | Yes |
| False Color | Yes | | Yes |

7.2 Dimensions

The description of the T7 4K ULTRAHD dimensions are as shown in the following figures(Unit: mm):

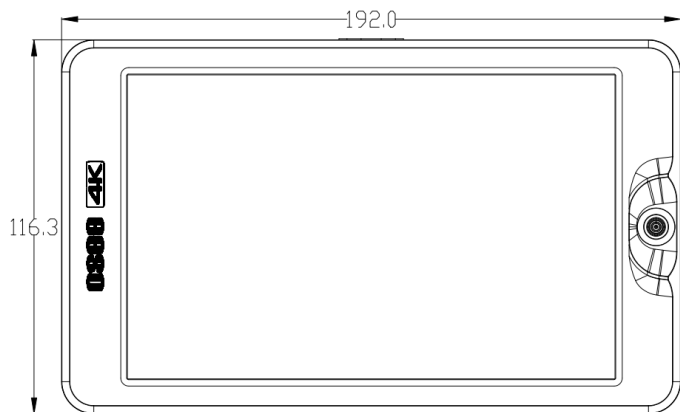


Figure 7.2-1 Front View(Unit: mm)

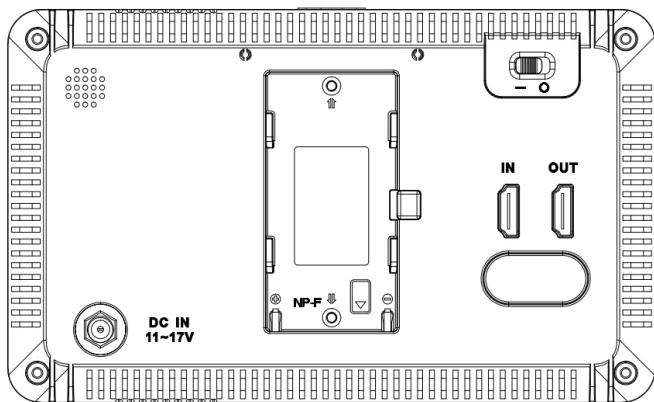


Figure 7.2-2 Back View(Unit: mm)

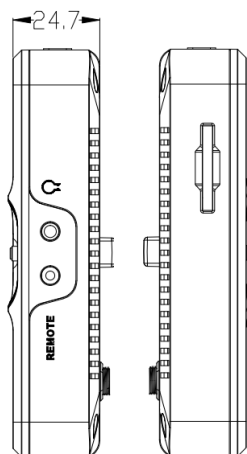


Figure 7.2-3 Side View(Unit: mm)

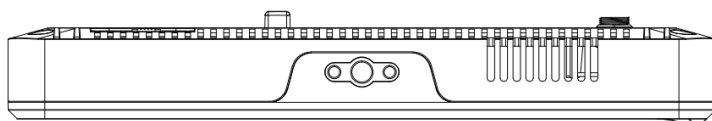


Figure 7.2-4 Top View (Unit: mm)

Tips

- Specifications are subject to change without notice.

-----No Text Below-----



FOR MORE INFORMATION PLEASE VISIT: <http://www.osee-dig.com/>

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