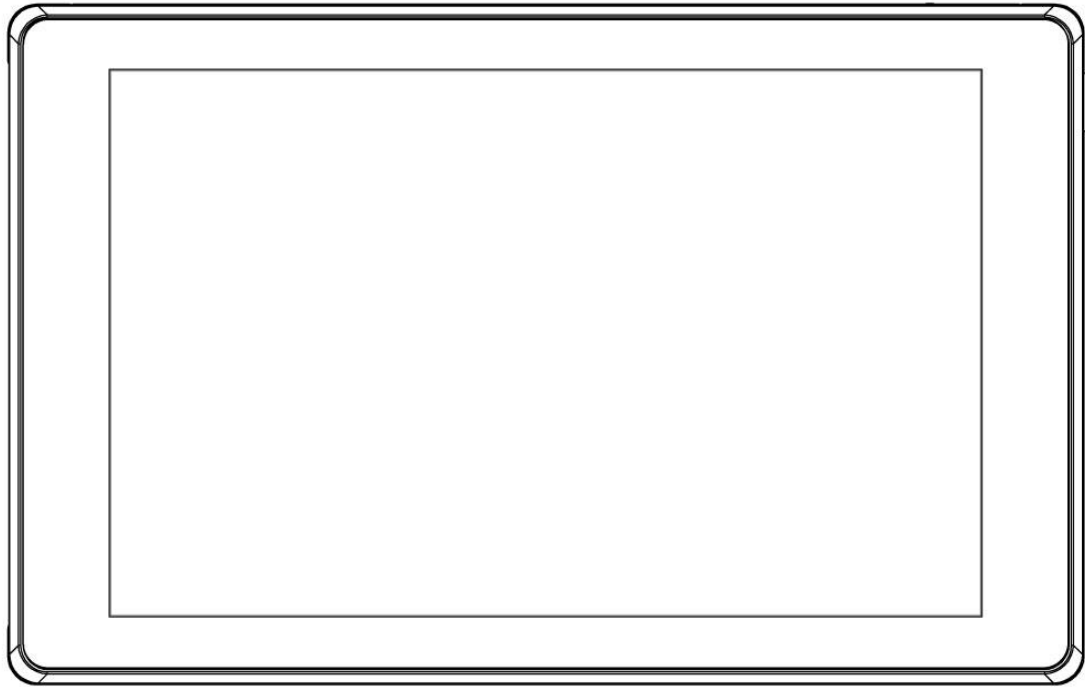


7" 2200nit On-camera Monitor

SDI HDMI Cross Conversion|F970 External Power Kit| LUT Out



User Manual

Foreword

Thank you for purchasing our 7-inch Full HD touch screen monitor. Please read this manual carefully before using the unit. Have a great experience!

CAUTION

1. Please avoid the heavy impact and drop onto the ground when move the product.
2. The screen of this product is made of glass.Keep away from injury if the screen is broken.
3. Keep the product away from the heat source, and avoid the prolonged exposures to the sun as the LCD screen will be damaged.
4. Please do NOT use chemical solutions to clean this product.
Please wipe the monitor with a clean soft cloth to maintain the brightness of the surface.
5. No adjustable components are in the monitor. Please do not take apart or repair the unit by yourself, to avoid the damage of the product.

Key Features

- 7-inch 1920x1200 full HD IPS screen
- Touch screen menu operation, improve shooting efficiency
- 2200nits daylight viewable (Light Sensor)
- New menu interface, more intuitive and intelligent
- With SDI & HDMI cross conversion
- Support HDR monitoring, what you see is what you get
- Support 3D LUT Log to REC.709 and user 3D LUT upload(up to 50)
- SDI & HDMI support LUT loop out

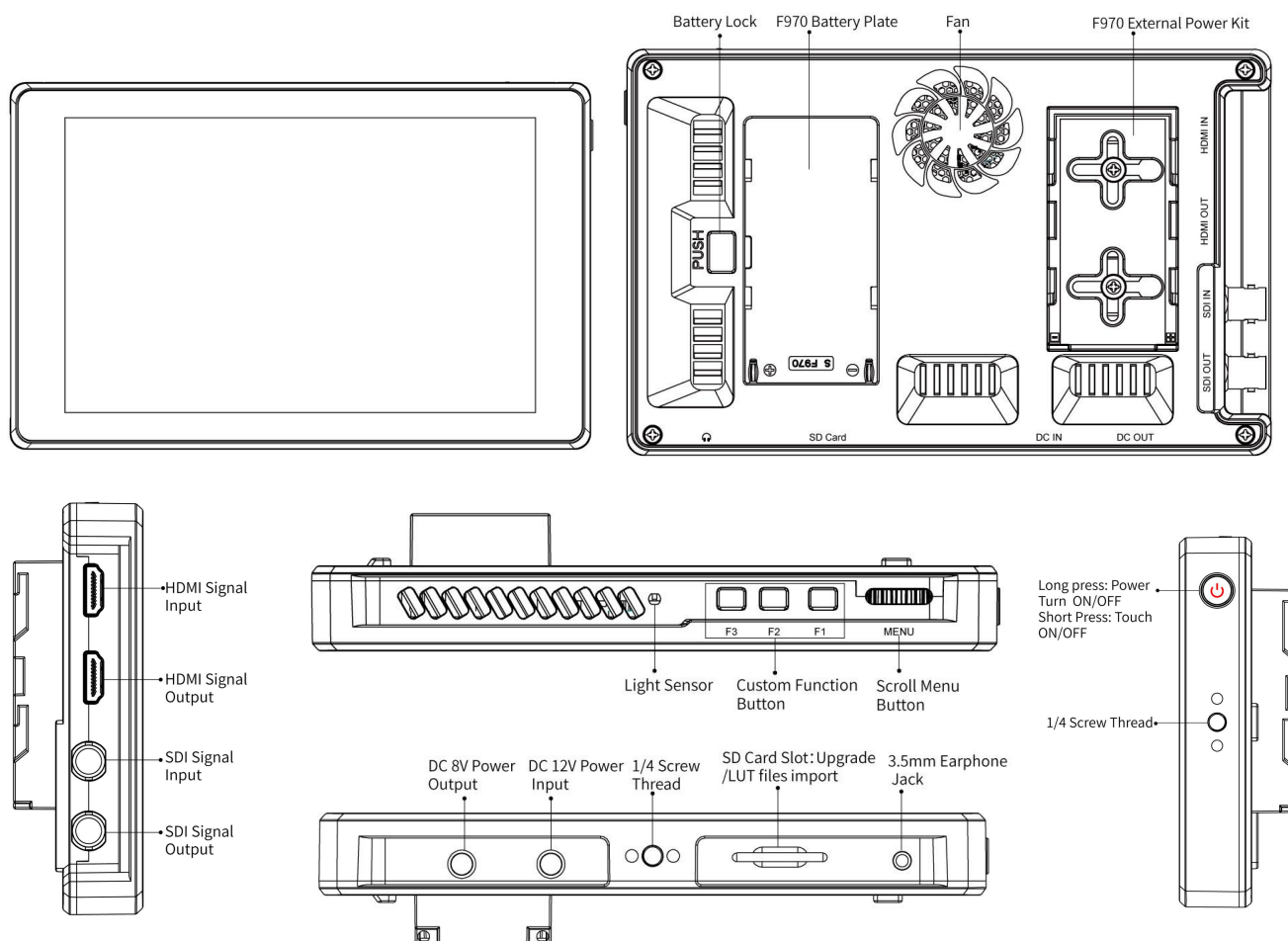
- Sony F970 external install and power kit design can be used to install and supply power to external equipment, easy to install and disassemble, simplify your photography equipment.
- With Waveform, Vector scope, Histogram, Focus Assist, Monochrome etc. functions, can help you accurately exposure and focus every shot.
- Stereo Earphone output
- DC 8V power out to power your DSLR camera or mirrorless camera

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1. Product Description

1.1 Structure Instruction



Remark

Light Sensor: The backlight mode under the icon  is set to Auto, and the brightness of the backlight can be adjusted automatically by the light sensor.

1.2 Power Supply Ways


(1) The rear cover of the monitor is equipped with a F970 battery plate, which is applicable to F970 series of batteries.


Sony F970 battery plate for battery of Sony DV:

Sony F970 F960 F950 F930 F770 F750 F730 F570 F550 F530 series

Remark: It is recommended to use standard original F970 batteries.

Different specifications of the battery have different capability. The working time for the monitor will be different. Higher capability (working time) will be longer. Please take off the battery from the monitor if you don't use the monitor in a long time.

(2) **DC IN 12V:** DC power input, polarity as the input power , Barrel (5.5mm outer, 2.1mm inner) at the bottom of the monitor, DC 7~24V Input. Suitable use for 12V/1.5A power adapter.

(3) **DC OUT 8V:** DC power output interface, polarity as the output power 

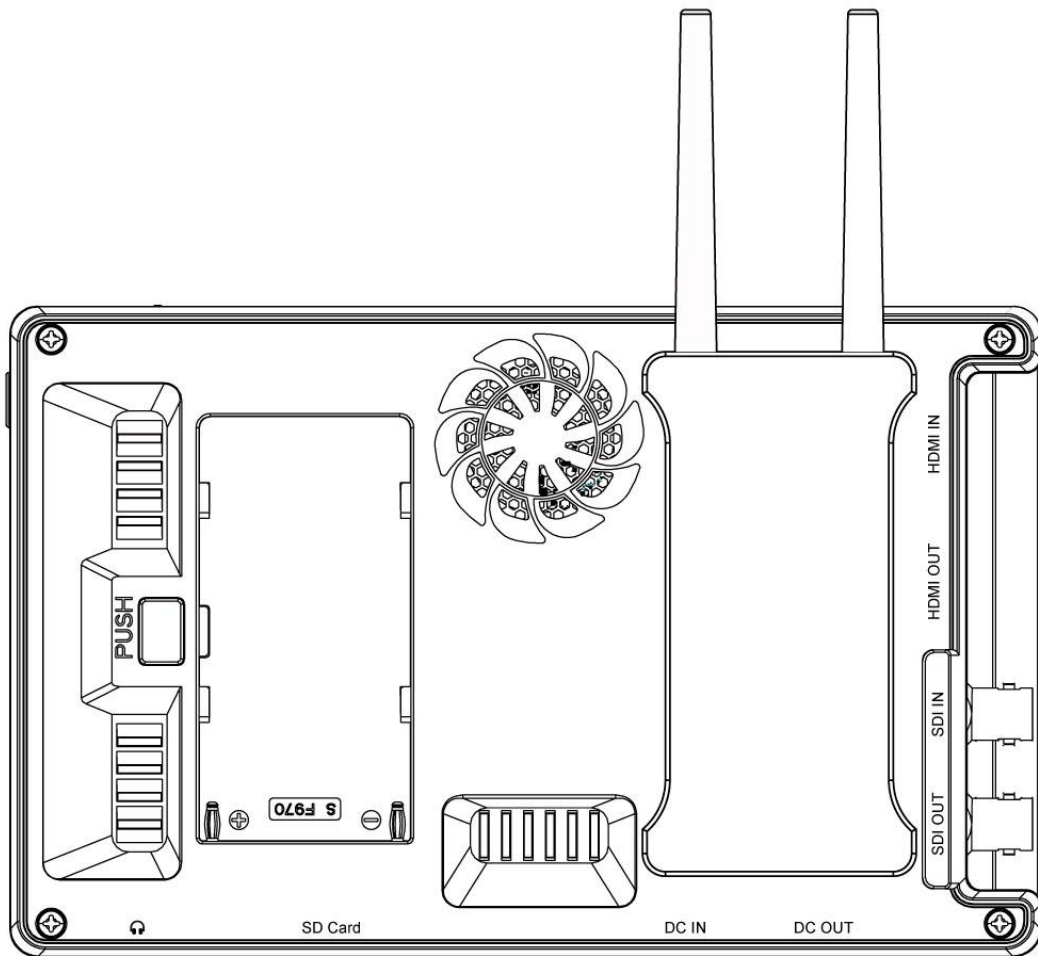
Barrel output for powering your camera with a separately available DC coupler via adaptor (NP-FW50 Sony & LP-E6 Canon&DMW-BLF19 Panasonic). More adapters coming soon.

1.3 Sony F970 Install and Power Kit

A Sony F970 external install and power kit design is added to the back of the monitor. The external kit can be used to install and install the external equipment, like wireless transmitter, LED light, video converter and others which can be powered by Sony F970 battery.

The kit has two cross grooves, you can adjust the position of the external device by loosening 2 screws up and down / left or right, or install the kit upside down. When you don't need the kit, you can loosen the screws and remove the kit.

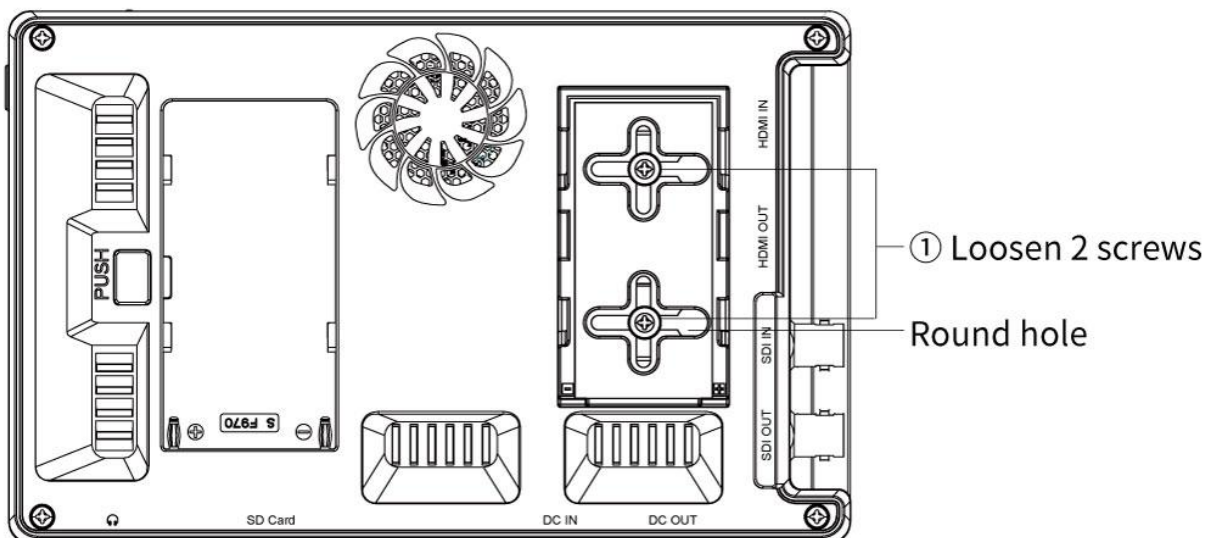
Note: Before disassembling the kit, make sure that the monitor is turned off, and then remove the battery or power adapter.

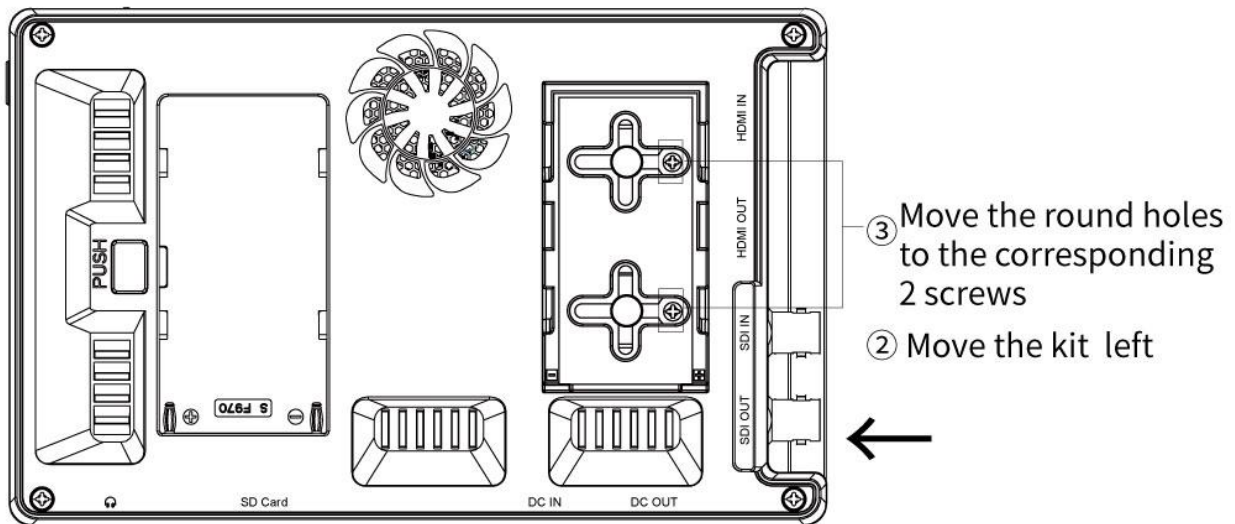


(1) Just move the kit: Loosen 2 screws, and then adjust up / down / left / right.

(2) Steps to remove the kit:

- ①. Loosen the 2 screws.
- ②. Use both hands to move the kit left.
- ③. Move the round holes to the corresponding 2 screws.



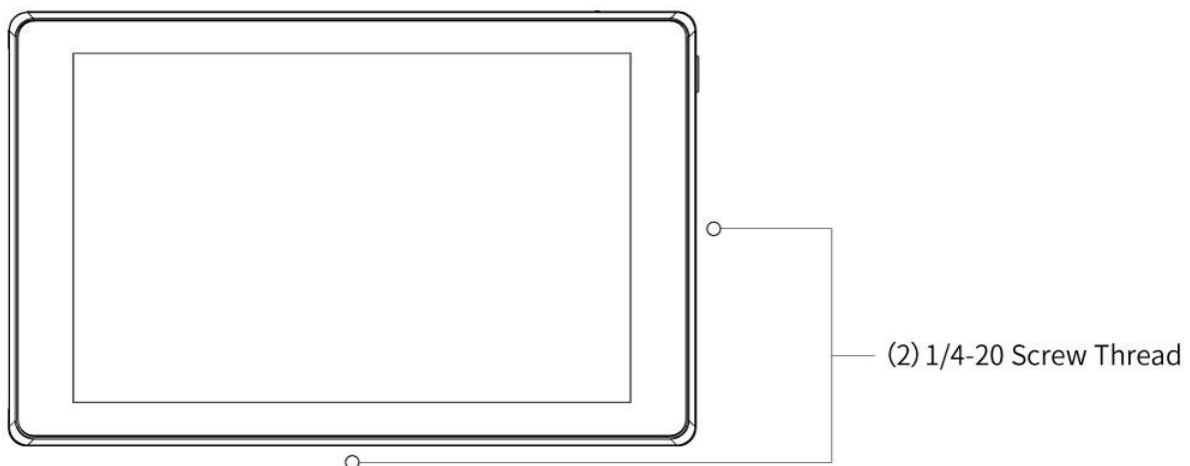


- ④. Then gently lift the kit upwards and carefully disassemble the 2P power cord.
- ⑤. Then remove the 2 screws.

(3) Install back to the kit: first screw the 2 screws back to the screw hole used to install the kit on the back of the monitor, install the 2P power cable to the cutout, then align the round hole of the kit with the screw, and then push the kit to the screw at the center of the kit cross, then tighten the screws.

1.4 Mount Points

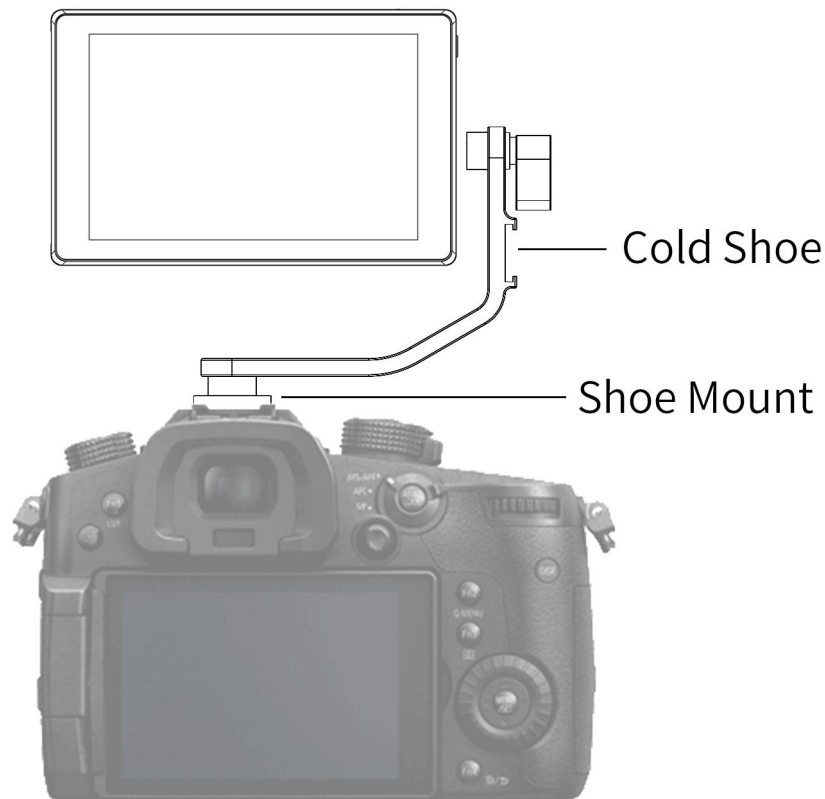
There are (2) 1/4-20 thread points (bottom, right) can be easily connected to the hot shoe mount, tripod fixed installation.





(2) Tilt Arm Mounting


The monitor included a Tilt Arm, shooters will have a secure way to position their monitor while maintaining a low profile.


- The monitor can be rotated 360° with two different ways, for viewing convenience.(1. rotate 360° from up to down through the side mounting point of tilt arm; 2. rotate 360° from left to right through the bottom mounting point of tilt arm).
- Secure and light weight mounting via shoe mount or 1/4"-20 thread
- Includes a shoe mount of its own for accessories such a microphone, LED light or wireless receiver, etc.
- There are two small dots on the tilt arm, which are aligned with the monitor for installation, the connection is more stable, just grab the monitor to rotate without loosening the screws.



2. Menu Operation Instruction

After the monitor is properly connected to the power supply, the  button display(red indicating). Long press  button to turn on the monitor and turns

yellow indicating. After the signal is connected, the  button turns green indicating.

After startup, short press  button to select to turn the screen touch function on or off.

2.1 Touch Screen Menu Operation (turn on the screen touch function)



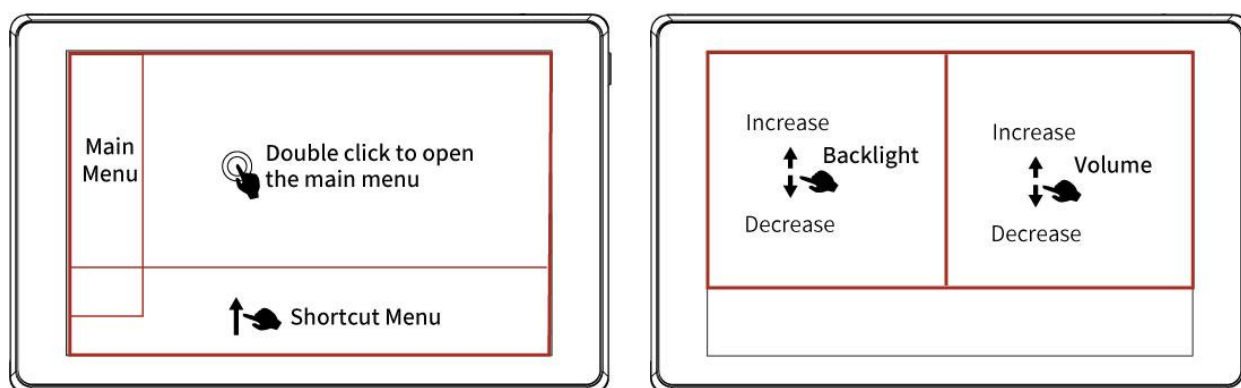

- ①. Double-click on the screen to open the main menu (show on the left side of the screen) and click on the corresponding menu to display the secondary menu. You can enter the corresponding function option and click directly to select or set. Click the touch screen to exit the menu.
- ②. When the menu is not displayed, swipe up from the bottom of the screen to open the shortcut menu, and click on the corresponding menu box to open or set the corresponding function. Click  the hide icon to close detailed parameters, and click icon  to display detailed parameters.
- ③. When the menu is not displayed, on the left side of the screen (1/2 split screen), you can directly adjust the brightness of the screen backlight; on the right side of the screen (1/2 split screen), you can directly adjust the volume.

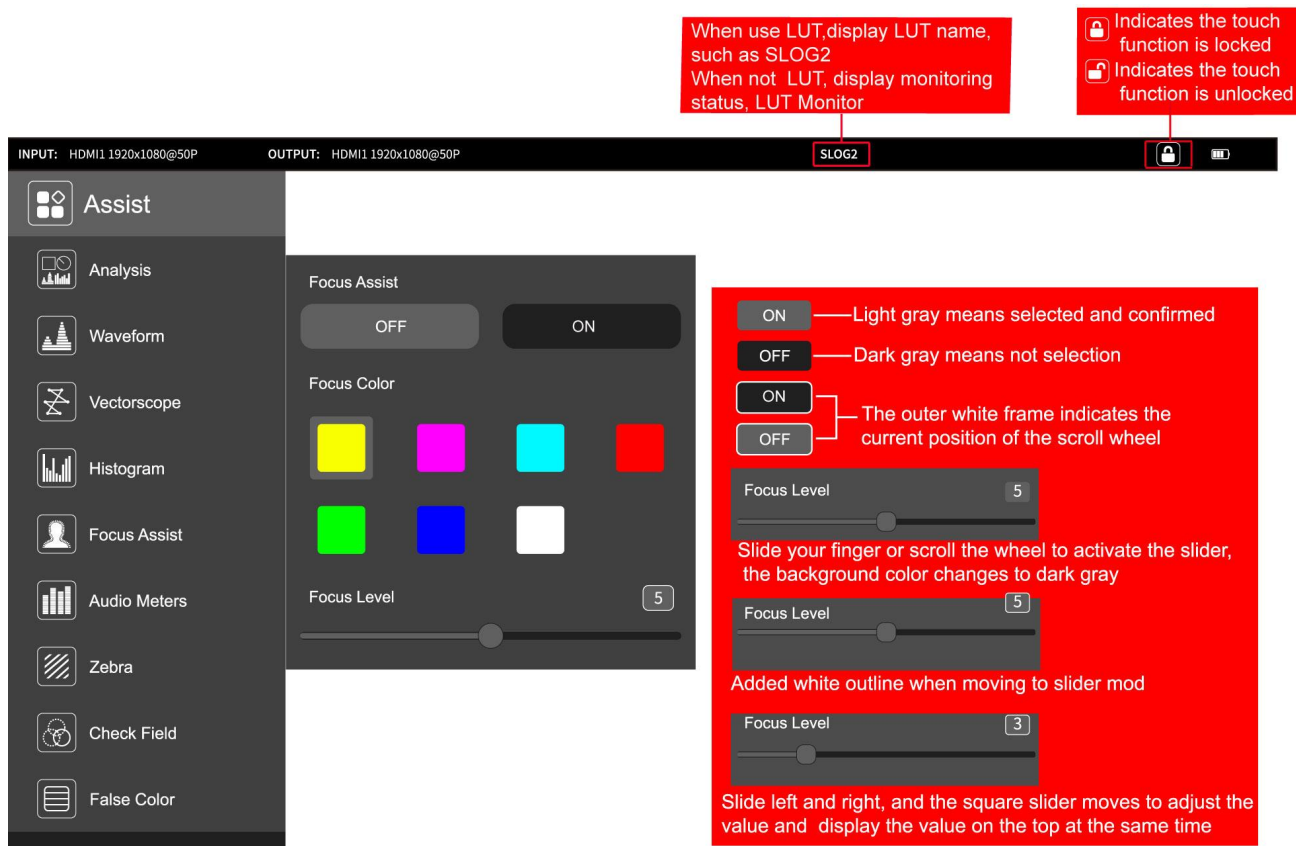
Figure:



2.2 MENU Wheel Menu Operation



- ①. When the menu is not displayed, directly rotate the wheel to backlight or volume adjustment. The wheel option can be set to backlight or volume in the menu .
- ②. Short press the MENU wheel to open the main menu (on the left side of the screen), rotate the wheel to select menu. After selected, press the wheel to show the secondary menu, then rotate the wheel to select. After selected, press the wheel to enter function menu, rotate the wheel to select or set option function, press the wheel to confirm after selected or set, then the icon will show gray.
- ③. Long press the MENU wheel to open the shortcut menu (below the screen), rotate the wheel to select the shortcut menu option, press the wheel to directly turn on/off the function, if you press the parameter selection, repeat the above operation.
- ④. Long press the wheel to return or exit menu.







2.3 MENU UI Instruction





3. Menu Function Instruction







 Analysis	OFF, ON After turning on, waveform, vector, histogram and embedded audio will be shown.
 Waveform	OFF, ON Type: RGB, YUV, Y 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.

 Vectorscope	OFF, ON Shows how saturated the image is and where the pixels in the image land on the color spectrum.
 Histogram	Histogram: OFF, ON Y Histogram: OFF, ON A quantitative tool to check the picture brightness, display different color for different brightness RGB Histogram: OFF ON 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	OFF, ON Focus Color: Yellow, Magenta, Cyan, Red, Green, Blue, White After turned on, the Focus Level (1~8) 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.
 Audio Meters	OFF, ON Display an audio diagram after enabled to help you understand the audio status being used.
 Timecode (Under SDI Signal)	OFF, ON 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.
 Zebra	OFF, ON After the Zebra is turned on, the Zebra Value (0IRE~100IRE) can be adjusted.

 Check Field	Monochrome Display: OFF, ON Display Color: red, green, blue, gray When enabled, hue and saturation adjusted quickly and accurately.
 False Color	OFF, ON Type: Spectrum, ARRI An image that depicts an object in colors that differ from those a photograph (a true color image) would show.










Marker

 Crosshatch	OFF, ON Type: 3x3, 4x4, 5x3, 5x5, 6x4, 6x6 Color: Yellow, Magenta, Cyan, Red, Green, Blue, White The area of the picture can be divided into 9, 16, 15, 25, 24, 36 equal grids.
 Safe Areas	OFF, ON Marker Line Type: 70%, 80%, 90%, 16:9, 16:10, 4:3, 5:4, 1:1, 1.91:1.1, 4:5, 9:16, 1.85:1, 2.35:1 Marker Line Color: Yellow, Magenta, Cyan, Red, Green, Blue, White
 Crosshair	OFF, ON Marker Line Color: Yellow, Magenta, Cyan, Red, Green, Blue, White
 Cinema Guides	OFF, ON Marker Line Type: 16:9, 16:10, 4:3, 1.85:1, 2.35:1, 2.41:1, 1.9:1, 5:4, 1:1.9 Marker Line Color: Yellow, Magenta, Cyan, Red, Green, Blue, White After the Marker Mat is turned on, the Marker Mat Alpha

(0%, 25%, 50%, 75%) can be adjusted.







Image

 Scan Mode	Under Scan, Over Scan
 Aspect Ratio	OFF, ON Type: Auto, 16:9, 16:10, 4:3, 5:4, 1.85:1, 2.35:1, user Under the “user”, you can customize the Video Width (100% ~ 300%), Video Height (100% ~ 300%)
 Anamorphic	Lens: OFF, ON Lens Type: 1.25x, 1.33x, 1.5x, 2.0x, 2.0x mag Allows you to use anamorphic lenses or adapters and see the image unsqueezed, even if your camera does not de-squeeze in camera.
 Mirror	Mirror: OFF, ON Auto Mirror: OFF, ON After turning on, the image will automatically adjust upside down. Horizontal Mirror: OFF, ON Vertical Mirror: OFF, ON
 Zoom Times	Image Zoom: OFF, ON Zoom Times: 1.0x~5.0x It is HD signal in any part, an amplification for high quality close-up.
 Freeze	OFF, ON
 Pixel to Pixel	OFF, ON Enable the filmmaker to check the image from the 1:1 signal source without scaling. This feature is essential for capturing optimum detail.




User Options









 HDR	<p>HDR: OFF, ON</p> <p>Camera: After turning on, can choose Gamma and Gamut corresponding to the camera RED, ARRI, Sony, Canon, Panasonic, Fujifilm, Bolex</p> <p>HDR can provide more dynamic range and the details of image, it is better to reflect the visual effects in the real environment.</p>
 LUT	<p>LUT Switch: OFF, ON</p> <p>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.</p> <p>SDI/HDMI Out (LUT) : OFF, ON</p> <p>Under the SDI or HDMI signal, you can choose whether to loop out the LUT after the LUT function is turned on</p> <p>LUT Import: OFF, ON</p> <p>After copying the 3D LUT file to the SD card and inserting it into the SD card slot, click ON or rotate the wheel to import the 3D LUT file. (Up to 50)</p> <p>Note: the chip should be faced up when inserting the SD card, and press it after inserting to ensure that the SD card is fully inserted.</p> <p>LUT List: display built in SLOG2, SLOG3, LOGC, VLOG and the custom LUTs</p>
 Display Setup	<p>Brightness: 0~100</p> <p>Adjust the image brightness</p> <p>Contrast: 0~100</p>

	<p>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.</p> <p>Saturation: 0~100</p> <p>Adjustment of color concentration</p> <p>Hue: 0~100</p> <p>It is the most accurate standard for distinguishing various different colors. Determine what a certain color is actually color via the color appearance.</p> <p>Sharpness: 0~100</p> <p>An index that reflects the clarity of image planes and the sharpness of image edges.</p> <p>Backlight Mode: manual, Auto</p> <p>Adjust the screen brightness</p> <p>Under "Manual", the Backlight (1~100) can be adjusted manually.</p> <p>Under "Auto", the backlight is automatically adjusted by the light sensor.</p>
 Color	<p>Color Space: REC709, DCIP3, BT2020</p> <p>Color Temp.: 5600K, 6500K, 9300K, User</p> <p>Under the “user”, the red, green, and blue values of the image can be adjusted (0~255)</p>



System

 Wheel	<p>Backlight, Volume</p> <p>After selecting the wheel option, you can click Backlight or Volume , or rotate the wheel to select one of the shortcut</p>
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	key to set it to the rotary wheel adjustment (when the menu is not displayed).
 Shortcut	<p>F1 Function, F2 Function, F3 Function</p> <p>Shortcut List: Analysis, Waveform Type, Histogram, Audio Meters, Crosshatch Type, Marker Line Type, Crosshair, Monochrome Display Color, False Color Type, Focus Level, Zebra, Color Space, Color Temp., HDR, LUT Switch, Scan Mode, Aspect Ratio Type, Lens Type, Pixel to Pixel, Mute, Input, Freeze, Auto Mirror, Tips</p> <p>Set the shortcut function</p> <p>e.g.: Tap the Shortcut  in System, and select F1Function, then select one of function on Shortcut List, such as “Analysis”. So when you exit menu, you could press F1 directly on the front of panel to turn on “Analysis” function.</p> <p>Same setting for F2, F3</p>
 Input	HDMI, SDI
 Language	English、中文、Français、Tedesco、Italiano、Español、日本語、한국、Русский
 OSD Setup	<p>OSD Time: always, 15s, 30s, 45s</p> <p>Select the display time of the menu on the screen</p> <p>OSD Alpha: OFF, Low, Middle, High</p> <p>Adjust the transparency of the menu picture background on the screen.</p>
 Volume	<p>Mute: OFF, ON</p> <p>Volume: 0~100</p> <p>Adjusting the speaker volume</p>
 Fan	<p>Fan: OFF, ON</p> <p>Fan Speed: Low, Middle, High</p>
 Power display	<p>OFF, ON</p> <p>After turning on, the battery level will be displayed in the upper right corner of the screen.</p>
	Firmware Update, Restore



Firmware Update

After copying the update file to the SD card and inserting it into the SD card slot, you can click **Update** or rotate the wheel to update.

Note: the chip should be faced up when inserting the SD card, and press it after inserting to ensure that the SD card is fully inserted.

Restore: click **Restore** or rotate the wheel to restore the system.

4. How to Load LUT

4.1 SD card format

Support FAT32 or NTFS. For MAC system, the SD card should be formatted in MS-DOS (FAT)

4.2 Max Files Limit Maximum 50 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 SD card correctly insert

4.4.2 Enter main menu “**User Option**”--**LUT**--**Lut Import** -- click “**ON**” to load

the monitor will auto detect the SD card

A. There is no SD Card, the screen will show failed,can try once more,if not work, restart the monitor and try again

B. There is SD Card, the monitor will erase the exits user’s lut fill and show “Initializing” , If there is no valid lut file in SD card, the lut will not load.The monitor will show “clean up”

C. If there is valid lut file in SD card, 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 50.

5. Support Formats

SDI Output Support Format	720p (60/59.94/50/30/29.97/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25/24/23.98)
HDMI Support Format	720p (60/59.94/50/30/29.97/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50)

6. Technical Parameters

Panel Size	7” touch screen
Resolution	1920 × 1200 pixels
Dot Pitch	0.07875 (H) x 0.07875 (W) (mm)
Aspect Ratio	16:10
Brightness	2200cd/m ² (Light Sensor)
Contrast	1200:1
Viewing Angle	80°/80°(L/R) 80°/80°(U/D)
Backlight	LED
Backlight Adjustment Mode	Auto, Manual
Input	SDI, HDMI
Output	SDI, HDMI, DC OUT 8V
Audio	3.5mm Stereo Headphone
Power Input Voltage	7~24V
Power Consumption	≦ 15W

Unit Size	186.8Lx118Hx23D (mm)
Unit Weight	420g
Mount Points	(2) ¼-20 thread points (right, bottom)
Working Temperature	-20℃～50℃
Storage Temperature	-30℃～60℃

7. Trouble Shooting

7.1 Only black and white or monochrome picture:

- ① please check saturation, brightness & contrast adjustment.
- ② Please check "Monochrome" is in black, white or monochrome image or other condition.

7.2 NO Image after put on the power

- ① Check if signal cable connecting is in good condition.
- ② Check signal cable connecting, and make sure to use the standard adapter to connect the monitor. If power is supplied by battery, please check if the battery is fully charged.

7.3 Earphone No sound

- ① Check if Volume control do not open, press the volume button, and try to increase the volume.

■ If there are still other problems, please contact with our related technologists.

★ As we are improving product features and product performance, so if there is any change on the specification without prior notice.