7” Daylight Viewable Field Monitor

F970 Install and Power Kit

User Manual

Product Overview

Thank you for using our 7 inch ultra bright touch screen monitor. This monitor has HDMI input and output, auxiliary power output, touch screen menu operation, HDR monitoring and support user 3D LUT upload and other features. Advanced features include Parade, Vector, Histogram, Audio Meter, Focus Assist, False Color, Zebra Exposure, Pixel to Pixel, Center Marker, Safety Marker, Marker Mat, Monochrome, Image Freeze, Zoom, Anamorphic etc. It is an ideal, portable and lightweight viewfinder and video monitor.

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 monitor is equipped with a battery plate; you can use the power adapter supply or use the external battery for power supply.

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

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.

Features

- Touch screen menu operation
- Support HDR monitoring
- Support 3D LUT Log to REC.709 and user 3D LUT upload
- 1920x1200 full HD IPS screen
- 2200nits Daylight Viewable (Light Sensor)
- 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, Vectorscope, RGB 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 Front+Top Instruction

①**. Indicator Light:** After connecting the power, the indicator light is on (red). It turns yellow after the monitor turning on. After the signal is connected, it turns green.

②**. MENU:** See details: **3.1 MENU Wheel Menu Operation in 3. Menu Operation Instruction.**

③**. Light Sensor:** Set the backlight to Auto via **User--Options--Display Adjustment--Backlight,** the backlight can be adjusted automatically by the light sensor.

④. **F1 ~ F3:** Custom function buttons

1.2 Rear+Bottom+Side Instruction

①. SD Card Slot 3D-LUT upload via SD card and for firmware upgrade	**⑧. DC OUT 8V Power Output** Connect the optional dummy battery cable to power camera.
②. F970 Install and Power Kit	**⑨. 1/4” Screw Thread**
③. F970 Battery Plate	**⑩. DC 12V Power Input**
④. Battery Release Key Press it before remove the battery	**⑪.** HDMI Signal Output
⑤. Power / Touch Function Button Long press to turn on / off; short press to turn on / off the screen touch function.	**⑫. HDMI Signal Input**
⑥. 1/4” Screw Thread	**⑬. 1/4” Screw Thread**

⑦. 3.5mm Headphone Jack	

1.3 Power Supply Way

(1) The rear cover of the monitor is equipped with a NP-F battery slot, which is applicable to NP-F 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.

(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.

1.4 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) Remove the external device: After the plug-in device is installed on the kit, if your plug-in device has a locking button, and it is more difficult to press it to remove it by hand, then you can use our assisting tool to disassemble.

(3) Steps to remove the kit:

①. Loosen the 2 screws.

②. Use both hands to move the kit up.

③. Move the round holes to the corresponding 2 screws.

(You can also install the kit upside down.)

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

(4) 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.

1.5 Mount Points

There are (3) ¼-20 thread points (bottom, right & left) can be easily connected to the hot shoe mount, tripod fixed installation.

Tilt Arm Mounting

The monitor secures to your camera using the included Tilt Arm via shoe mount or 1/4"-20 thread. The Tilt Arm enables 360° of tilt for convenient monitoring at nearly any angle. A cold shoe on the Tilt Arm lets you secure equipment (like a microphone, LED light, or wireless receiver) that would otherwise be displaced from the camera's accessory shoe.

2.Menu Operation Instruction

After the monitor is properly connected to the power supply, the indicator light is on (red). The monitor default to turn on automatically, the indicator turns Yellow, and then input HDMI signal, the indicator will turn Green.
You can also set the power to Manually in menu **System--Power setting**.
After setting, you need to long press ⏻ / TOUCH to turn on the monitor when plug the power supply.

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

There are two ways to set the touch function

- Short press ⏻ / TOUCH to turn the screen touch function on or off.
- You can set any of the top F1~F3 of the monitor as the touch switch, enter the menu - **User Options - Shortcut Key - F1/F2/F3-Touch Switch,** and directly press the F shortcut key to turn on or off the touch function after setting.

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, swipe left or right select the needed function and click on the corresponding menu box to turn on or turn off the corresponding function.

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 menu knob to adjust the volume or backlight. You can set in the **Left Right**

Key Set of menu User Option

②. Gently press the MENU wheel to open the main menu (on the left side of the screen). Rotate the wheel to select the secondary function menu. After selecting it, press the wheel, then rotate the wheel to select or set the option function.

③. Long press the MENU wheel to return or exit the menu

2.3 MENU Interface

3.Menu Function Instruction

Assist

All Waves	**On, Off** After turning on, waveform, vector, histogram and embedded audio will be shown.
	On, Off

 Waveform	**Mode : RGB、YUV、Y** **Position X: 0~100** (moving the waveform horizontally) **Position Y: 0~100** (moving the waveform vertically) **Waves Trans. : Off, 25%, 50%, 75%** The waveform is a core tool for professional video production. It converts the brightness and color information of the frame into visual curves, enabling precise control of exposure, white balance and color balance, preventing overexposure, crushed blacks or color casts in the frame, ensuring the signal meets broadcast standards. It is ideal for scenarios with vary light, complex composition or cinematic video. The X-axis of the waveform monitor corresponds to the horizontal position of the frame (left to right), and the Y-axis represents the brightness level of each position, generally defined with black as the 0 line and maximum brightness as the 100 line. Luminance Waveform (Y) Display: A white/gray curve representing the overall brightness distribution of the frame. RGB Component Waveform Display: Independent red, green and blue channel waveform, presented side by side. YUV Waveform Separates color and luminance. Y represents the luminance signal, while U and V represent the blue-yellow and red-green chrominance signals respectively.
 Vector	**On, Off** **Position X: 0~100** (moving the Vector horizontally) **Position Y: 0~100** (moving the Vector vertically) The vector scope is a professional tool dedicated to analyzing and monitoring the color information of a frame. It visualizes

	color saturation (vividness) and hue (tone) via chrominance signals in a circular graph to quantify the color data of the frame, enabling precise judgment for cinematographers and colorists. It serves as a color calibration benchmark for professional scenarios such as film and television production, live streaming, and broadcasting.
Histogram	**On, Off** **Mode：RGB1、RGB2、Y** **Position X: 0~100** (moving the histogram horizontally) **Position Y: 0~100** (moving the histogram vertically) RGB1 Histogram:Displays the brightness distribution of the red, green, and blue channels separately, designed to judge color casts, monochromatic over/underexposure, white balance, and color gradation. RGB2 Histogram:The red, green, and blue channels are overlaid on the same coordinate system, with overlapping areas showing mixed colors Y Histogram: A tool for objectively judging exposure and tonal distribution. Ideal for monitoring overall exposure to prevent clipped highlights and crushed blacks, assisting with precise lighting setup and post-production.
Focus Assist	**On, Off** **Color :** (Red, Green, Blue) **Peaking Level : you can adjust the peaking level after turning on (1～10)** Highlights the in-focus areas of the image to help photographers quickly and accurately judge focus position during manual focusing. Especially ideal for fast moving video, portrait, etc.
	On, Off

Embedded Audio	**Position X: 0~100** (moving the audio level horizontally) **Position Y: 0~100** (moving the audio level vertically) A visual audio level indicator tool for monitors that displays sound volume in real time and detects audio clipping (distortion). It resolves issues of being unable to hear audio while monitoring video or inaudible sound in noisy environments, ensuring audio-video synchronization and distortion-free recording. Ideal for live streaming, on-location shooting and filming in noisy settings.
Zebra Pattern	**On, Off** **Threshold Value :you can adjust the threshold value after turning on** (10~100) A real-time exposure assist tool that highlights overexposed areas in the frame with striped patterns for quick identification of blown-out highlights, ensuring accurate exposure ， ideal for video shooting, portrait photography and outdoor high-light scenarios.
Check Field	**On, Off** **Mode : Red, Green, Blue, Mono** Eliminate color interference, focus on exposure, focus, contrast and single-channel signal quality, and quickly judge the picture's brightness gradation, edge details and color channel issues.
False Colors	**On, Off** **Mode: Normal, ARRI** False Color is an exposure assist tool that maps the precise brightness value of every pixel in the frame to distinct colors corresponding to different brightness levels. It allows you to instantly check the exact exposure values across the entire frame and clearly visualize the light and shadow distribution of each specific area. Ideal for video shooting, portrait photography and outdoor shooting in complex lighting conditions.

Marker

Grid	**On, Off** **Mode: 2x2,3x3,4x4,5x5,6x6,7x7,8x8,9x9, Custom** **Rows: 2~9** **Columns: 2~9** When selecting **Custom**, you can custom the rows and columns of the grid **Color: Red, Green, Blue, Black, White, Gray** A core auxiliary tool for professional shooting, primarily designed for rule-of-thirds composition and horizontal/vertical calibration. It divides the screen into equal grids of 4, 9, 16, 25, 36, 49, 64 or 81 cells for optimized framing, and the number of grid rows and columns is fully customizable.
Safe Frames	**On, Off** **Mode: 80%, 85%, 90%, 93%, 96%, 2.35:1, 9:16** **Color: Red, Green, Blue, Black, White, Gray** Prevent edge cropping of the frame, ensure subtitle/subject remain fully visible, and adapt to different playback devices.
Center Marker	**On, Off** **Color : Red, Green, Blue, Black, White, Gray**
Ratio Marker	**On, Off** **Mode: 4:3、13:9、14:9、15:9、16:9、1.85:1、2.35:1, 9:16** **Color: Red, Green, Blue, Black, White, Gray** **Modified Mark : 0~5**

	Preview the target aspect ratio in real time, standardize framing, reduce post-production cropping, align shooting with the final footage ratio, and improve framing efficiency and footage precision.

Image

Scan Mode	**Under Scan, Over Scan**
Aspect Ratio	**Auto, 16:9, 16:10, 4:3, 5:4, 1.85:1, 2.35:1, Full Screen** Provides a wide variety of aspect ratio to match different camera anamorphic lenses. Match the shooting frame, eliminate picture distortion, and monitor precise composition to ensure the captured footage is restored without stretching or cropping in its original aspect ratio, adapting to various formats and creative requirements.
Anamorphic	**On, Off** **Mode：1.33X, 1.6X, 2.0X, 2.0X MAG, User** Under the **User**, can be customized（1.20X～2.00X） Paired with anamorphic lenses, this function restores the horizontally compressed shooting image to the normal aspect ratio on the monitor for real-time framing and proportion checking. It resolves the issue of image squashing and inaccurate framing when shooting with anamorphic lenses.
Image Flip	**Auto, Manual** (when select Manual, you can set below options) **On, Off**

	Mode: H Flip, V Flip, H_V Flip This function resolves abnormal screen orientation caused by special monitor mounting angles (e.g., upside-down, side-mounted) or restricted shooting perspectives. It ensures a correct, upright viewing angle for the screen regardless of the monitor's mounting or shooting position, without interfering with monitoring, focusing or framing.
Zoom Mode	**On, Off** **Mode：2X、4X、9X、16X、User** Under the **User**, can be customized（100%~200%） Magnify the central area of the screen for precise focusing, detail inspection and image quality verification.
Image Freeze	**On, Off**
P2P	**On, Off** A display mode that maps the monitor's input signal pixel 1:1 to its physical screen pixels, presenting the signal with no stretching, no scaling and no cropping to fully restore the original resolution and fine details of the input signal. It is an essential function for precise focusing, image quality inspection and framing calibration. Note: This function is only available when the input signal resolution ≤ the monitor's physical resolution.

User Option

	On, Off

LUT	After the LUT Switch is turned on, you can use the **Lut (SLOG2, SLOG3, LOGC, VLOG)**. **Lut Import：Confirm** **Lut Table** Show the 4 built-in Lut and the custom load Lut (up to 32） The Lut item is displayed after the Lut Switch is turned on. 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
HDR	**On, Off** **Mode: HLG1, HLG2, HLG3** HDR can provide more dynamic range and the details of image, it is better to reflect the visual effects in the real environment.
Display Adjustment	**Backlight：Auto, Manual** When select Auto, the backlight will adjust automatically according to the around environment. Adjust the screen brightness (**0~100), default to 60** **Brightness：0~100, default to 50** Adjust the image brightness **Contrast：0~100, default to 50** Adjustment of the ratio between the brightest and darkest parts of the image . When adjusting, pay attention to the sense of hierarchy in the image. If the proportion is too large or too small, it can cause the image to lose its colorful appearance. **Saturation：0~100, default to 50**

	Adjustment of color concentration **Tint：0~100, default to 50**
Color Adjustment	**Display Range: Auto, Limit, Full** This feature allows for the selection of a grayscale range. The Limited grayscale range is 16-235, and the Full grayscale range is 0-255. (Grayscale represents changes in image brightness, using varying gray levels to depict brightness in different image areas. In grayscale, brightness increases from black to white, typically denoted by a numerical range from 0 to 255, where 0 signifies black and 255 indicates white, and intermediate numbers indicate varying grayscale levels.) 1. If the dark part of the picture lost, the details cannot be seen clearly. For example, the input signal is in the range of 0-255, but the monitor is set Auto or Limit, the brightness of 0-15 and 236-255 is removed, resulting the dark part details unclear. You can set to Full. 2. If the picture is gray, the black part turned gray. For example, the input signal is in the range of 16-235, but the monitor is set Full , resulting the black part turn gray. At this time,you can set to Auto or Limit. **Color Temp.：5600K, 6500K, 9300K, User** Under the **User**, the red, green and blue of the image can be adjusted (0~255), made the colors of the image achieve your favorite.
Shortcut Key	All Waves, Waveform, Vector, Histogram, Embedded Audio, Center Marker, Safe Frames, Grid, Focus Assist, False Colors, Zebra Pattern, Anamorphic, Image Freeze, Check Field, Zoom Mode, Image Flip, Aspect Ratio, Ratio Marker, LUT, Touch Switch Set the function for F1~F3 key which on the top of the monitor for example, choose "Histogram" in F1, exit the menu

	after selection, and press the F1 key directly to quickly call up the histogram. Same setting for F2~F3
Left Right Key Set	**Volume, Backlight**

System

User Switch	**User Switch: 1~4** you can save the set menu as 1-4 and can be called directly next time
Language	English, 简体中文, Español, Português, Français, Nederlands、Deutsch, 日本語, 繁體中文, 한국어로, **русский язык,** Italiano
OSD Option	**OSD Time：Off, 15Sec, 30Sec, 45Sec** Select the display time of the menu on the screen **OSD Trans: Off, 25%, 50%, 75%** Adjust the transparency of the menu picture background on the screen **No Signal: Red, Green, Blue, Black, White, Gray** Can be change the background color of screen when no signal
EDID Settings	**EDID Settings: 2.0, 1.4** Compatible with resolution of different camera/device Default to 2.0 (if set 1.4 manually, then input 4K60 signal, you need to set to 2.0 again)

Volume	**On, Off** 0~100 Adjusting the speaker volume
Power Settings	**Power on: Auto, Manual** Default to Auto. If set Manual, please press power key to turn on after the power plug in.
Reset	Select **Reset** and press MENU button **Confirm**, the system back to original setting.
Firmware Update	**Firmware Version** (display the version number) **Firmware Update** **Confirm**

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 32 Lut files

4.3 File requirements

- The LUT file format suffix should be .cube
- Single file not exceeded to 7.9Mb
- Support LUT-3D-Size 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 -- Confirm** 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 32.

5. Support Formats

HDMI Input/ Output Support Format	480i/576i/480p/576p 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) 3840×2160p (60/50/30/29.97/25/24/23.98) 4096×2160p (60/50/30/29.97/25/24/23.98)

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
Input	HDMI
Output	HDMI

Audio	3.5mm Stereo Headphone
Power Input	DC IN 12V
Power Out	DC OUT 8V
Power Consumption	≦16W
Unit Size	190Lx126Hx27D (mm)
Unit Weight	450g
Mount Points	(3) ¼-20 thread points (left, 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

Please confirm whether the volume control is turned on, and adjust 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.