Multi-Channel with Seamless Switch Pro-Broadcast HD LCD Monitor



User Manual

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User Instruction:

Dear Customer:

Thanks for using our field monitor. Our monitor adopt special digital signal processing circuit and TFT LCD screen, with high brightness, low consumption, Non-radiation and stable performance. Product advanced features with color temperature adjust, screen marker, 5II camera mode, zoom-in, image flip and check field, etc. The monitor not only has 3G/HD/SD-SDIX2,HDMI,Ypbpr,Video,Audio input, also has multi way installation, can be easy install with various of hot shoes mount and bracket. Portable and easy to operate, ideal as viewfinder and video monitor equipment.

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

- •Please read this manual before using the product
- •Please keep manual for future reference
- •Please read the cautions to prevent the possible danger and loss of property
- •Please follow the instruction to use this product.
- •Do not use the accessory without authorized by the Manufacturer. Improper use will cause serious accidents

Cautions:

- •Please avoid the heavy impact and drop onto the ground when move the product.
- •Please do not cover the vents and holes on the enclosure and do not place the machine on a bed, sofa, rug to ensure good ventilation. Otherwise it will leading to overheating and reduces the service lift.

- The screen of this product is made of glass. Please do not display the screen towards the ground. Keep away from injury if the screen is broken.
- •Keep the product away from the heat source, such as radiator, water heater, stoves or other heating products.
- •Avoid prolonged exposures to the sun as the LCD screen will damaged.
- Please use the adapter and battery attached in accessory
- Without adjustable component in the unit, please do not take apart or repair the unit by yourself, to avoid damage the product.
- •To better maintain the LCD screen; please keep notice this way as below to avoid the scratch, discoloration and other damage.
 - 1. Please refrain from using hard objects to hit the screen
 - 2. Please do not force to wipe the screen
 - 3. Please do not use chemical solutions to clean the screen.
 - 4. Please do not sprayed any detergent on the screen
 - 5. Please do not write on the screen directly
 - 6. Please do not stick on the screen
 - Please simply wipe with a clean soft cloth and make sure no water on the screen
- To better protect the plastic cover; please follow these ways as below to avoid the damage:
 - 1. Please do not use chemical solutions to clean the cover
 - 2. Please keep away from the volatile things
 - 3. Please keep away from the rubber
 - 4. Please do not clean hard casing
 - Please simply wipe with a clean soft cloth and make sure no water on the cover

Product Features:

- 1. IPS Panel, 178°
- 2. Check field (R, G, B, gray)
- 3. False Color
- 4. Peaking Focus Assist
- 5. Screen Marker
- 6. Squared Segmentation
- 7. Histogram
- 8. Vector Scope/ RGB Histogram/Waveform
- 9. Embedded Audio
- 10、 5II Camera Mode(No black screen when recording)
- 11. Scan Mode(Over scan & Standard)
- 12、 Freeze
- 13. Pixel-to-Pixel
- 14、 U/D、 L/R Mirror Image
- 15、 Ratio (4: 3/16:9)
- 16、 Zoom-in
- 17. Color temp Adjust
- 18. Brightness, contrast, colors, Saturation ; adjust
- 19. Support a variety of different types of battery brands (F970, E6, D28S, VType, Anton)
- 20、 A variety of SD HD video interface SDI/HDMI/YPbPr/CVBS etc input and output interface.
- 21. Speaker and earphone output
- 22、External sun shade

Description & Function

•7" Front Panel View:



to enter the Camera mode

- 4. \mathbf{O} /FOCUS: Rotate it to adjust the contrast, Press it to enter the peaking filter function
- 5. X / ESC: Rotate it to adjust the brightness Press it to confirm if OSD need exit

- MENU: Press it to open OSD main menu, Press again to enter the secondary menu, select menu item or adjustment when it's rotate, Press it again to confirm the setting
- 7. SDI 2: SDI.2 signal input selected
- F5: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 9. SDI 1: SDI.1 signal input selected
- F4: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 11. HDMI: HDMI signal input selected
- F3: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 13. YPbPr: Ypbpr signal input selected
- F2: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 15. VIDEO: Vo signal input selected
- 16. F1: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 17. Speaker
- 18. LCD Screen
- 19. TALLY

•7" Rear Panel view:



- 1. Signal input port
- 2. Battery plate
- **3.** DC Power Input
- 4. 4-PIN (XLR) DC 12V Power input
- 5. TALLY Input
- 6. Power switch. ; Power on (ON), O : Power off (OFF)

• 7" Rear Signal Port:



- 1. HDMI OUT Multimedia signal output
- 2. HDMI IN Multimedia signal input
- VIDEO IN Composite video signal input (Y signal output in Ypbpr)
- 4. VIDEO OUT Composite video signal output
- 5. Pb IN Component video Pb signal input in Ypbpr
- Pb OUT Component video- Component video Pb signal output in Ypbpr
- Pr IN Component video- Component video Pr signal input in Ypbpr
- Pr OUT Component video- Component video Pr signal output in Ypbpr
- 9. AUDIO IN L Analog stereo audio L channel input
- 10、 AUDIO IN Analog stereo audio R channel input

- 11、SDI.1 IN SDI 1 signal input
- 12、 SDI.1 OUT SDI 1 signal loop output
- 13、SDI.2 IN SDI 2 signal input
- 14、SDI.2 OUTSDI 2 signal loop output

•10.1" Front Panel View:



1. **Power indicator**

- 2. Volume/ : Rotate it to control the Volume, Press it directly to enter the Camera mode
- 3. **•**/**FOCUS:** Rotate it to adjust the contrast, Press it to enter the peaking filter function

- 4. ^{*}/ESC: Rotate it to adjust the brightness, Press it to confirm if OSD need exit
- 5. *** / MENU: Press it to open OSD main manu, Press again to enter the secondary manu, select manu item or adjustment when it's rotate, Press it again to confirm the setting
- 6. SDI 2: SDI.2 signal input selected
- F5: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 8. SDI 1: SDI.1 signal input selected
- 9. F4: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 10、HDMI: HDMI signal input selected
- 11、F3: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 12. YPbPr: Ypbpr signal input selected
- 13、 F2: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 14. VIDEO: Video signal input selected
- 15. F1: Shortcuts buttons. User-definable function buttons, enter the Manu of shortcuts defined item to use the function
- 16. Speaker
- 17. (): earphone jack
- 18、 LCD Screen
- 19、 TALLY

•10.1" Rear Panel View:



- 1. Signal input port
- 2. Battery plate
- **3.** DC Power Input
- 4. 4-PIN (XLR) DC 12V Power input
- 5. TALLY Input

6. Power switch : — Power on (ON), O Power off (OFF)

•10.1" Rear Signal Port:



- 9. HDMI OUT Multimedia signal output
- 10. HDMI IN Multimedia signal input
- 11、 VIDEO IN Composite video signal input (Y signal output in Ypbpr)
- 12、 VIDEO OUT Composite video signal output
- 13. Pb IN Component video Pb signal input in Ypbpr
- 14、 Pb OUT Component video- Component video Pb signal output in Ypbpr
- Pr IN Component video- Component video Pr signal input in Ypbpr
- 16、 Pr OUT Component video- Component video Pr signal output in Ypbpr
- 9. AUDIO IN L Analog stereo audio L channel input

- 10、 AUDIO IN Analog stereo audio R channel input
- 11、SDI.1 IN SDI 1 signal input
- 12、SDI.1 OUT SDI 1 signal loop output
- 13、SDI.2 IN SDI 2 signal input
- 14、SDI.2 OUTSDI 2 signal loop output

Manu Instruction

- Press "Menu" to OSD main menu, Rotate the button to select the item what you need.
- Press "MENU" again, enter the submenu. Rotate the button to browse or select the item
- Press "Menu" again to confirm the selection and then rotate the button to make a adjustment.
- 4. Press "ESC", exit the Menu.

Main Menu	Submenu	Adjustment
Assistant functions	Check Field	Off
Auxiliary line	Pseudo Color	Off
Waveform	Zebra Crossing	Off
Picture Setting	Assist in Focus	Off
Color Setting Shortcuts OSD Setting	Focus Color	Off

• Assistant functions

Assistant functions	Check Field	Off
Auxiliary line.	Pseudo Color	Off
Waveform	Zebra Crossing	Off
Picture Setting	Assist in Focus	Off
Color Setting	Focus Color	Off
Shortcuts		
OSD Setting		

- ★Check Field: Under the Red/Blue/Green/Gray only mode, only the Red/Blue/Green/Gray pixels are used to generate the image, because hue and saturation can be adjusted quickly and accurately
- ★ Pseudo Colors: False color can be intuitive observation and calculation in the scene lighting levels, make brightness or lighting value mapping for the display brightness of false color, from the darkest to the brightest, in turn display blue, cyan, green, yellow, orange and red
- ★Zebra Crossing The Exposure is used to assist in exposure adjustment in the mode of Zebra Pattern.
- ★Assist in Focus To select high, low or close the auxiliary focus、 function 、 in order to meet different customers' needs
- ★Focus Color: Select auxiliary focus hook edge color (red, blue, green, white)

• Auxiliary Line

Assistant functions	Center Marker	Off
Auxiliary line	Marker Type	Off
Waveform	Safety Area	Off
Picture Setting	Marker Color	White
Color Setting	Nine Grid	Off
Shortcuts		
OSD Setting		

★ Center Marker: screen center mark (cross mark) display settings

★ Marker Type: Can select 16:9; 4:3; 2.35:1; 1.85:1 or exit.

- ★ Safety Area: Picture framing marker selection frame (off,; 95%; 93%; 90%; 85%; 80%.)Center Marker, Marker Type and Safety Area can be display at the same time
- ★ Marker Color: White, black, grey, red, blue, green can be optional.
- ★ Nine Grid: Rotate " ★ / MENU" can select the one picture what you need, Press " ★ / MENU" to Zoom-in the picture, Press "ESC" to exit.

Waveform

Assistant functionsHAuxiliary lineHWaveformNPicture SettingHColor SettingHShortcutsOSD Setting	Histogram Audio Column Vector RGB Vector Parade	Off Off Off RGB
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- ★Histogram: The Brightness Histogram is a quantitative tool to check the picture brightness. The feature shows the distribution of brightness in an image as graph of brightness along the horizontalaxis (Left: Dark, Right: Bright)and a stack of the number of pixels at each level of brightness along the vertical axis
- ★Audio Column: When in SDI&HDMI mode,2 channels mar with audio-level- column, more than -20dB showing yellow color, more than -10dB showing red color
- ★Vector : Vector scope shows how saturated the image is and where the pixels I n the image land on the color spectrum. It can also be displayed in various sizes & positions, that allows users to monitor color gamut range in real time.
- ★RGB Vector: RGB histogram is a graphical display of the distribution of tones, exposure conditions can visually display screen is divided into R, G, B three-channel independent display. Suitable for HD-SDI and HDMI signal monitoring.
- ★Parade: RGB component making waveform, you also can choose YUV making (color) to display the Y, Pb, Pr color component video waveform

•Picture Setting

Assistant functions Auxiliary line Waveform Picture Setting Color Setting Shortcuts OSD Setting	Scan Mode DSLR Camera Flip Freeze Pixel to Pixel Zoom	Auto Off Vertical Off Off 4X

★ Scan Mode: Auto, Full screen and scan mode.

★ DSLR Camera: On/Off

\star Flip: The U/D,L/R of the image around flip

★ Freeze: The current picture still(capture function)

★Pixel to Pixel : The display mode that make the resolution of the image

consistent with display of the physical resolution .

★ Zoom : digital zoom function, optional for 1.4X, 9X, 16X.

•Color Setting

Assistant functions	Brightness	50
Auxiliary line	Contrast	50
Waveform	Hue	50
Picture Setting	Chroma	50 .
Color Setting	Sharpness	50
Shortcuts	Color Temp	6500K
OSD Setting	Red	128
	Green	128
	Blue	128

★ Brightness: Rotate" → / MENU" to adjust the image's brightness
★ Contrast: Rotate" → / MENU" to adjust the brightest and darkest ratio

of the image

- ★ Hue: Under the NTSC format, adjust the hue to make a perfect image display
- **\star** Chroma: Rotate" **\checkmark** / MENU" to adjust it
- ★ Sharpness: Rotate" ★ / MENU" to adjust it
- ★ Color Temp: 3200K, 5600K ,6500K or 9300K(Standard:6500K)

Shortcuts

Assistant functions	F1	Scan Mode
Auxiliary line	F2	Histogram
Waveform	F3	Audio Column
Picture Setting	F4	Check Field
Color Setting	F5	Freeze
Shortcuts		
OSD Setting		

★ F1; F2; F3; F4; F5 (The setting of the front panel F1 ~ F5)

The front panel buttons F1 ~ F5 for custom shortcuts, users can according to operating habits, selected one of below choice as a function of the definition of the key, such as Scan Mode、 Pixel to Pixel、 Zoom、 H Mirror、 V Mirror、 Freeze、 Camera Mode、 Timer、 Single Color、 Pseudo Color、 Zebra Crossing、 Assist Focus、 Histogram、 Audio Column、 Pattern Gen、 Center、 Safe Border、 Nine Grid、 Video Ratio.

•OSD Setting

Assistant functions	Language	English
Auxiliary line	OSD Time	30
Waveform	OSD Trans	Off
Picture Setting	Volume	50
Color Setting	Mute	Off
Shortcuts	Reset	
OSD Setting	SW Version	V1.1

- ★ Language: Chinese and English are optional
- ★ OSD Time: OSD Menu will disappear without operation after 5s

10s、15s、20s、25s or 30s.

- ★ OSD Trans : Display the menu on the screen translucently
- ★ Volume: Control the volume of Speaker or earphone
- ★ Mute: Close the volume of speaker or earphone
- ★ **Reset:** Back to original setting
- ★ SW Version: Menu version No.

Power Supply

This monitor can be powered with these three ways:

★ DC Power Supply:



★ 4-pin XLR DC power input



 ★ Powered by Battery: The product back including a battery slot is available five types of batteries as below: Standard accessory is F970

★ Battery Plate



F970







D28



Anton Plate





★ **F970** can be adapted with:

SONY F970 F960 F950 T930 F770 T750 F730 F570 F550 F530 QM91D OM91 QM90D QM90 QM71D QM71 QM70D QM70 QM51D QM51 FM71 FM70.

★ LP-E6 can be adapted with:

Canon LP-E6

\star D28 can be adapted with:

Panasonic D55 D54S D54SE D40 D35 D33 D32 D28 D25 D22

Parameters

Panel Size	7 " TFT LCD	10.1" TFT LCD	
Aspect Radio	16:10	16:10	
Resolution	1280 RGB(H) × 800(V)	1280 RGB(H) × 800(V)	
Dot pitch	0.11775(H) × 0.11775(V)	0.1695(H) × 0.1695(V)	
Brightness	400 cd/m ²	650 cd/m ²	
Contrast	800 : 1	800 : 1	
Response Time	25ms	25ms	
View Angle	(L+R) 89°/89° (U+D) 89°/89°		
Backlight	LED		
	-		
l	21		

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	SDI ×2			$3G/HD/SD$ $2 \times BNG$	
	HDMI			× 1	
Input	YPbPr			$3 \times BNG$	
	CVBS			VIDEO 1× BNG	
	AUDIO			AUDIO L/R $2 \times BNG$	
	$SDI \times 2$			$3G/HD/SD 2 \times BNG$	
Output	HDMI			× 1	
	YPbPr			$3 imes \mathrm{BNG}$	
	CVBS			VIDEO $1 \times BNG$	
Front Earphone Jack			3.5mm		
	TALLY		RS232 D-sub 9pin× 1		
Vide	eo format				
	SDI	ITU-R B	T.656	576i	
		SMPTE-	125M	480i	
		SMPTE-	274M	1080i (60/59.94/50)	
Input				1080p(30/29.97/25/24/24fps/23.98/23.98fps)	
		SMPTE-	296M	720p(60/59.94/50/30/29/25/24/23.98)	
		SMPTE-	424M	1080i (60/59.94/50)	
				1080p (60/59.94/50)	
	HDMI	480i / 3		76i / 480p/576P	
		1080i (60/59.94/50)			
				22	

	HDMI	720p (60/59.94/50/30/29/25/24/23.98)			
		1080p (60/59.94/5030/29.97/25/24/24fps/23.98/23.98fps)			
Input	YPbPr	480i / 576i / 576p			
		1080i (60/50)			
		720p (60/50)			
	CVBS	NTSC 480i PAL 5	576i		
	(video)				
Par	ameters				
		7 " TFT LCD	10.1" TFT LCD		
Inpu	ut Voltage	DC 7 ~ 24V	DC 7 ~ 24V		
Power Consumption		≤13 W	$\leq 16W$		
Unit size (Max)		213 (W) × 160 (H) × 62 (D)	260 (W) × 192 (H) × 64 (D)		
Unit weight		630g	780g		
Battery Plate		Standard: F970 battery plate			
Optional: LP-E6/D2			/ V Mount Plate/Anton		
Ins	tall Way	1/4"-20 Thread So	ocket(All 4 Sides)		
Workin	ng Temperature	-20 ~	50℃		
storage Temperature		−30 ~ 60 °C			

Trouble Shooting

If there is any problem using the unit. You can try follow ways to inspect and solve.

• Without image display	Trouble shooting
Video cable off or connect incorrectly	Check the quality of the cable, make sure the
	correct input interface
Without video signal input	Check the signal source and output interface
	connect is correct or not
Monitor is not be powered on	Check the power whether connected, put the power
	switch to "on" position
Supply voltage instability	The power adapter or battery's poor connected
	with battery plate Battery power shortage
The power use is self-made,	Reference "Power input way" reconnect
Polarity connect inversely	

•Image/color display abnormal	Trouble shooting
Video cable poor contact	Change video cable, try again
Video signal interfered from external environment	Move to another environment to try again
Menu color saturation adjustment closing	Enter menu check color, or reset to factory settings
B/W set in monochrome or black & white	Press the B/W button, back to the color
Image deformation	Reset the ratio

•Speaker without sound	Trouble Shooting
Volume adjustment was closed	Reset the volume control is adjusted to a proper
	position
HDMI cable poor connected	Check the quality of cable, or change cable have a
	try
Video without sound output	A normal phenomenon. Because in the recording
	process, in order to avoid the sound field monitor
	and a voice of harassing together was also recorded
	in, so the camera itself is no sound output. Only in
	the playback when a sound output.

■Remark:

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

■ If there are changes without prior notice