Atec XHD070 XHD070 Pro



Operation Manual_V1.0



Important Safety Instructions

There are no user-serviceable components inside the device so please do not take apart or repair the unit by yourself.

The device repair must be done by qualified specialists only.

Do not expose this product to direct sunlight, heat or humid conditions

WARNING! To avoid possible malfunctions the device must not be exposed to rain or moisture. Prevent water or other liquids from getting inside the device.

Do not use any damaged or leaking batteries and please replace the battery immediately if its working life becomes significantly short

Keep away from strong light while using this product so as to obtain the clearest and the most colorful picture.

Please use a sun shade outdoors if necessary.

Please use the supplied power sources.

Do not use chemical solutions to clean this unit. Simply wipe with a clean soft cloth to remove fingerprints or smudges.

Please avoid heavy impact or drop on the ground.

FCC (Federal Communications Commission)

This equipment has been tested and found to comply with the limits for class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interface when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential to correct the interference at his own expense

CAUTION: Change or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

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AVtec LCD Monitors Page: 1/13



1. Overview

Thank you for purchasing the AVtec XHD070(Pro) on-camera field monitor. This 7" monitor is a great tool for focusing, composing, and viewing images/video clips directly from your digital camera/video camera. It is conveniently sized for easy transportation, and it is perfect for difficult shooting situations. To obtain the best results with your new XHD070(Pro), please take the time to read this manual.

2. Features

- Ultra Thin & lightweight 7" IPS Screen
- 1280x800 HD screen, PAL/NTSC color system
- Supports 1080i & 1080p
- Built-in speaker & integrated jack port for headphones
- Four assignable function buttons
- Firmware upgradable through USB
- AC/DC Adapter with EU, UK, US & AU plugs included
- Detachable sun hood attachment & foldable sun hood
- Focus Assist, Center Marker, Safe Frames, Check Field
- Image Freeze, Image Flip & Pixel-to-Pixel
- Histogram, Exposure (Zebras) & False Colors (XHD070Pro only)

AVtec LCD Monitors Page: 2/13



3. Included in this box

- 1x AVtec XHD070(Pro) On-Camera Field Monitor
- 3x Battery bracket for NP-F, BP-U & LP-E6 batteries
- 1x AC/DC Combi adapter with EU, US, UK & AU plugs
- 1x Sun hood attachment & detachable sun hood
- 1x Ball head with 1/4" camera screw
- 1x HDMI cable & HDMI plug lock
- 1x Operational manual



AVtec LCD Monitors Page: 3/13



3.1 Battery brackets & AC/DC Adapter

Battery brackets

The battery bracket for Sony NP-F batteries is installed on the monitor. You can easily change the battery bracket by unscrewing the 4 small screws on the back of the battery bracket. Unplug the bracket connector from the slot, plug in the connector of the bracket you would like to install and fasten the 4 screws.

The following table will give you an idea which brackets you are able to use for the Sony and Canon battery types.

Item:	For use with:
NP-F bracket	Sony NP-F970, NP-F960, NP-F950, NP-F930, NP-F770, NP-F750, NP-F730, NP-F570, NP-F550, NP-F530, NP-QM91D, NP-QM91, NP-QM90D, NP-QM90, NP-QM71D, NP-QM71, NP-QM70D, NP-QM70, NP-QM51D, NP-QM51, NP-FM71 & NP-FM70 series.
BP-U bracket	Sony BP-U30, BP-U60 & BP-U90
LP-E6 bracket	Canon LP-E6

NOTE: Please remove the battery from the bracket before changing the battery bracket itself.

AVtec LCD Monitors Page: 4/13



AC/DC Combi adapter

The supplied AC/DC combi adapter (100-240V~) supports AC or DC power and uses wall, vehicle, or airplane power outlets to power your device. Four power plugs are supplied for EU, US, UK and AU. Slide the selected plug on to the adapter until you hear a soft click.



3.2 Other included accessories

HDMI plug lock

Use the HDMI locking plate to lock the plug of the HDMI cable, then put the locking plate close to the monitor, and finally bolt the locking screw to lock the plate with the monitor. As shown in the picture below (arrow direction).

- 1. HDMI plug lock
- 2. Locking Screw



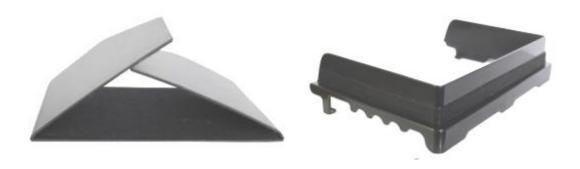


AVtec LCD Monitors Page: 5/13



Sun hood

The firm but flexible plastic sun hood is designed to protect your screen and reduces strong light reflection. It mounts to the monitor with a strong easy-on-easy-off construction with hook and loop fasteners.



Ball head

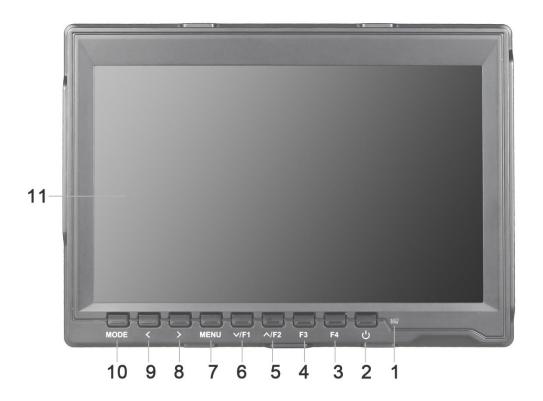
The ball and socket joint of the supplied ball head allows movement on all axes at the same time and has a single locking screw for easy fixation to your device. Slide the ball head into a hot shoe and fasten it by turning the wheel on the bottom of the ball head to the right.



AVtec LCD Monitors Page: 6/13



4. Front panel & Controls

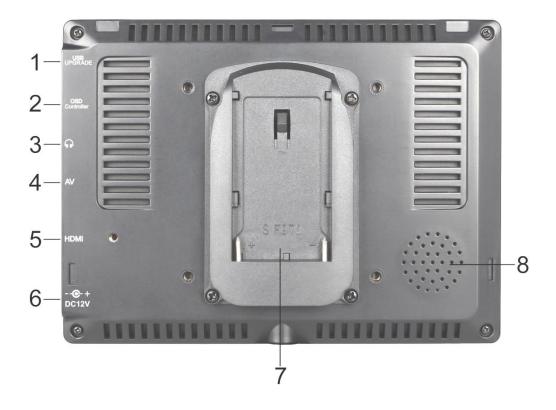


Item:	Description:
1	Power Indicator light
	when power on/standby, it turns red; when signal in, it turns green.
2	U Power on/off button
3	F4 Function button, enter secondary menu item F (self-defined button), then self-define the function that user need
4	F3 Function button enter secondary menu item F (self-defined button), then self-define the function that user need
5	▲/F2 Menu control button / F2: Function button to navigate into the menu or when not in menu for use of function button
6	▼/F1 Menu control button / F1: Function button
	to navigate into the menu or when not in menu for use of function button
7	MENU To enter or exit the menu
8	► Volume up / increase the value of selected menu item
9	■ Volume down / decrease the value of selected menu item
10	MODE To switch signal mode
11	IPS LCD 7.0" screen

AVtec LCD Monitors Page: 7/13



5. Rear panel



Item:	Description:
1	USB Upgrade port
2	OSD Controller port
3	Headphone Jack port
4	AV port
5	HDMI-in port (HDMI type A-connector)
6	DC Power input (12V)
7	Battery bracket
8	Built-in speaker

AVtec LCD Monitors Page: 8/13

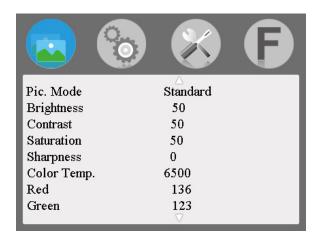


6. Menu instructions



Image Color menu

Use one of the ▼/F1 button to enter the Image Color menu. Press ▲/F2 or **▼/F1** to navigate through the settings. Once the desired setting is highlighted, use the ◀ or ▶ buttons to navigate through the sub-menu functions. Press the MENU button to activate the function.





Menu item:	Description:
Pic. Mode	Standard, Dynamic, Mild, User
	Select "user" to adjust the image of Brightness, Contrast, Saturation, Sharpness" according to the practical situation.
Brightness	To adjust the monitors brightness.
Contrast	To adjust the contrast.
Saturation	To adjust color concentration.
Sharpness	Also called "Resolution", an indicator for the image plane definition and image edge sharpness.
Color Temp.	6500 K, 9300 K or User. The User option allows you to adjust Red, Green & Blue.
Tint	On NTSC video mode, the image color tint difference is adjusted by tint.

AVtec LCD Monitors Page: 9/13



Settings menu

Use one of the ▼/F1 button to enter the Settings menu. Press ▲/F2 or ▼/F1 to navigate through the settings. Once the desired setting is highlighted, use the ◀ or ▶ buttons to navigate through the sub-menu functions. Press the MENU button to activate the function.





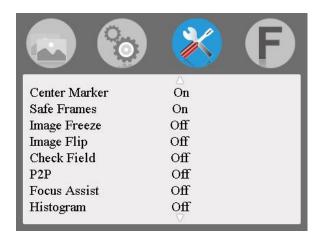
Menu item:	Description:
Language	To change the menu language.
Aspect Ratio	To change the display ratio to: Panorama, Automatic, Just Scan, Zoom 1, Zoom 2, 16:9, 4:3.
No Signal	To select screen color when no signal. Black (recommended), White, Red, Green Screen or Blue.
OSD Trans.	Menu transparency. Low, Medium or High.
OSD H	To adjust the horizontal position of the menu.
OSD V	To adjust the vertical position of the menu.
Camera Mode	Mode for Canon (D)SLR cameras.
Zoom All	Image Zoom. Use ◀ or ▶ to zoom all.
OSD Time	Menu automatically hide feature.
U/D Zoom	Use ◀ or ▶, to adjust the proportion of the image Up and Down to Zoom In or Zoom Out.
L/R Zoom	Use ◀ or ▶, to adjust the proportion of the image Left and Right to Zoom In or Zoom Out.
USB Upgrade	To update the firmware via USB. Please check the firmware page on <u>AVtec.tv</u> .
Reset	Restore factory settings.
SW Version	The current firmware installed on the monitor, please check <u>AVtec.tv</u> for the latest firmware.

AVtec LCD Monitors Page: 10/13





Use one of the ▼/F1 button to enter the Function menu. Press ▲/F2 or ▼/F1 to navigate through the settings. Once the desired setting is highlighted, use the ◀ or ▶ buttons to navigate through the sub-menu functions. Press the MENU button to activate the function.





Menu Item:	Description:
Center Marker	To set center mark (cross mark) display.
Safe Frames	To show screen markers; 96%, 93%, 90%, 85%, 80%, 2.35:1 or Off.
Image Freeze	Capture the current picture.
Image Flip	Flip the image, horizontally, vertically or in both directions.
Check Field	Color overlay; Red, Green, Blue, Mono or Off.
P2P (Pixel-to-Pixel)	The display mode that made the resolution of the image consistent with display of the physical resolution.
Focus Assist	Turns on the Focus Assist function that makes it easier to focus.
Histogram	Turns on the Histogram in the right corner of the screen. To check the picture brightness. (only available in XHD070Pro version)
Exposure (Zebras)	Turns on Exposure with red stripes to check what is overexposed. (only available in XHD070Pro version)
False Colors	Turns on False Colors to show scene lighting levels. Red areas are overexposed, blue areas are insufficient lighting, green areas are good lighting levels. (only available in XHD070Pro version)

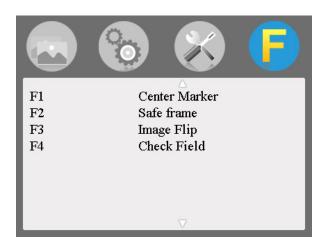
AVtec LCD Monitors Page: 11/13





Function buttons menu

Use one of the ▼/F1 button to enter the Function buttons menu. Press ▲/F2 or **▼/F1** to navigate through the settings. Once the desired setting is highlighted, use the ◀ or ▶ buttons to navigate through the sub-menu functions. Press the MENU button to activate the function to save it under the specific function button.



Assignable functions

Menu Item:	AVtec XHD070:	AVtec XHD070Pro:
Focus Assist	V	V
Center Marker	V	V
Safe Frame	V	V
Check Field	V	V
Camera Mode	V	V
Aspect Ratio	V	V
Image Flip	V	V
P2P (Pixel-to-Pixel)	V	V
Image Freeze	V	V
Histogram	X	V
Exposure (Zebras)	X	٧
False Colors	X	V

AVtec LCD Monitors Page: 12/13



7. Technical Specifications

Panel Type IPS LCD Resolution 1280x800 (3.072.000 Pixels) Backlight LED Dot Pitch 0.11775(W) x 0.11775 (H) Aspect Ratio 16:9 Brightness 400cd/m2 Contrast Ratio 800:1 Response Time 25ms Viewing Angle 89°/89°(Left/Right) 89°/89°(Up/Down) Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps /23.98/ps)	Panel Size	IPS LCD 7.0 inch
Backlight LED Dot Pitch 0.11775(W) x 0.11775 (H) Aspect Ratio 16:9 Brightness 400cd/m2 Contrast Ratio 800:1 Response Time 25ms Viewing Angle 89°/89°(Left/Right) 89°/89°(Up/Down) Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Panel Type	IPS LCD
Dot Pitch 0.11775(W) x 0.11775 (H) Aspect Ratio 16:9 Brightness 400cd/m2 Contrast Ratio 800:1 Response Time 25ms Viewing Angle 89°/89°(Left/Right) 89°/89°(Up/Down) Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Resolution	1280x800 (3.072.000 Pixels)
Aspect Ratio 16:9 Brightness 400cd/m2 Contrast Ratio 800:1 Response Time 25ms Viewing Angle 89°/89°(Left/Right) 89°/89°(Up/Down) Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Backlight	LED
Brightness 400cd/m2 Contrast Ratio 800:1 Response Time 25ms Viewing Angle 89°/89°(Left/Right) 89°/89°(Up/Down) Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Dot Pitch	0.11775(W) x 0.11775 (H)
Contrast Ratio 800:1 Response Time 25ms Viewing Angle 89°/89°(Left/Right) 89°/89°(Up/Down) Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Aspect Ratio	16:9
Response Time 25ms Viewing Angle 89°/89°(Left/Right) 89°/89°(Up/Down) Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Brightness	400cd/m2
Viewing Angle 89°/89°(Left/Right) 89°/89°(Up/Down) Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Contrast Ratio	800:1
Input Signal Video / Audio / HDMI Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Response Time	25ms
Video Color System NTSC 3.58 / PAL 4.43 HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Viewing Angle	89°/89°(Left/Right) 89°/89°(Up/Down)
HDMI Support Format 480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Input Signal	Video / Audio / HDMI
720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	Video Color System	NTSC 3.58 / PAL 4.43
1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25 / 24/24fps	HDMI Support Format	•
		, ,
Headphone Output Stereo 3.5mm	Headphone Output	Stereo 3.5mm
Input Voltage DC:7.4~35V	Input Voltage	DC:7.4~35V
Power Consumption ≤5W	Power Consumption	≦5W
Unit Size (LxWxH) 176 x 130 x 17 mm	Unit Size (LxWxH)	176 x 130 x 17 mm
6.93 x 5.12 x 0.67 inch		6.93 x 5.12 x 0.67 inch
Unit Weight 400 g / 14.11 oz	Unit Weight	400 g / 14.11 oz
Installation Method 1/4 inch bracket screw hole, can be easily connected to the hot shoe mount, tripod fixed installation	Installation Method	connected to the hot shoe mount, tripod fixed
Working Temperature -20°C~50°C / -4°F~122°F	Working Temperature	-20°C~50°C / -4°F~122°F
Storage Temperature -30°C~60°C / -22°F~140°F	Storage Temperature	-30°C~60°C / -22°F~140°F

AVtec LCD Monitors Page: 13/13



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