Shenzhen Jueying Technology Co.,Ltd.
www.viltrox.com

2015.05
PRINTED IN CHINA

VILTROX
Your Smart Choice

DC-70

Clip-on LCD Monitor

User Manual

Contents

Precaution..1
On cleaning...2
Before use...3
Checking the accessories...............................4
Product function..5
Product introduction.......................................6
Identifying the parts..7
Attaching the battery.......................................9
Attaching to the camera.................................10
To move from the camera..............................13
HDMI cable connection...................................15
Adjusting the direction of the screen...........17
Attaching /Removing the sun shade hood.....18
To open and close the sun shade hood..........19
Side panel...20
Top panel..21
Menus operation...22
Function name...24
Peaking..26
Pixel magnification..27
Marker display..28
Troubleshooting...29
Specifications..31
Available signal formats..................................32

Before using the product ,please read this manual carefully.
Keep this manual safety in case you need to check during your usage.
Operate this product on base of your full understand of this manual.

Specifications subject to change without notice.For more information, please visit www.viltrox.com

---

Precaution

About the battery pack, AC adaptor and charger

A battery pack, AC adaptor and charger are not supplied. Use a compatible battery pack or AC adaptor (pages 9). If you do not have a battery pack or AC adaptor, purchase them separately.

Handling the LCD screen

- Do not leave the LCD screen facing the sun as it can damage the LCD screen. Take care when you place the unit by a window.
- Do not push or scratch the LCD monitor's screen. Do not place a heavy object on the LCD monitor's screen. This may cause the screen to lose uniformity.
- If the unit is used in a cold place, horizontal lines or a residual image may appear on the screen. This is not a malfunction. When the monitor becomes warm, the screen returns to normal.
- If a fixed picture such as a frame of a divided picture or time code, or a still picture is displayed for a long time, an image may remain on the screen and be superimposed as a ghosting image.
- The screen and the cabinet become warm during operation. This is not a malfunction.
- The LCD panel fitted to this unit is manufactured with high precision technology. Thus a very small proportion of pixels may be "stuck", either always off (black), always on (red, green, or blue), or flashing. In addition, over a long period of use, because of the physical characteristics of the liquid crystal display, such"stuck" pixels may appear spontaneously. These problems are not a malfunction.

On cleaning

1. Before cleaning be sure to remove the battery first.
2. The monitor screen surface is especially treated to reduce reflection of light. As incorrect maintenance may impair the performance of the monitor.
3. Take care wipe the screen gently with a soft cloth such as a cleaning cloth or glass cleaning cloth.
4. Stubborn stains may be removed with a soft cloth such as a cleaning cloth or glass cleaning cloth lightly dampened with water.
5. Never use solvent such as alcohol, benzene or thinner, or acid, alkaline or abrasive detergent, or chemical cleaning cloth, as they will damage the screen surface.
6. Clean the cabinet gently with a soft dry cloth. Stubborn stains may be removed with a cloth lightly dampened with mild detergent solution, followed by wiping with a soft dry cloth.
7. Use of alcohol, benzene, thinner or insecticide may damage the finish of the cabinet or remove the indications on the cabinet. Do not use these chemicals.
8. If you rub on the cabinet with a stained cloth, the cabinet may be scratched.
9. If the cabinet is in contact with a rubber or vinyl resin product for a long period of time, the finish of the cabinet may deteriorate or the coating may come off.
10. Do not dispose of this unit with ordinary garbage. Do not throw the monitor away with garbage that will be placed in a landfill.
11. The top of this unit and the ventilation holes and metal parts may become hot after long use. Be very careful if holding this unit during or after use.
12. During take-off and landing, follow the onboard instructions concerning this unit.

Before use

Read this instruction manual together with the instruction manual of your camera.

This unit is not dust-proof, splash-proof or waterproof. Regardless of whether this unit is in use or in storage, do not place it in any of the following locations. Doing so may lead to a malfunction.

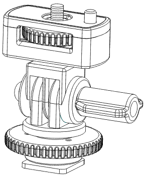
- Placing this unit in locations subject to direct sunlight such as on dashboards or near a heater may cause this unit to deform or malfunction.
- Locations with excessive vibration
- Locations with strong electromagnetism
- Locations with excessive sand

  In locations such as the seashore and other sandy areas or where dust clouds occur, protect the unit from sand and dust. This may lead to a malfunction.

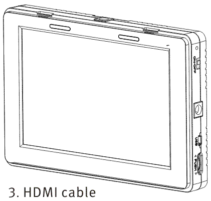
Checking the accessories

Check that the following accessories are supplied.

1. Standard Shoe adaptor



2. Sun shade hood



3. HDMI cable
4. Carrying pouch
5. Set of printed documentation

Product function

DC-70 a portable LCD monitor for use with an Interchangeable Lens Digital Camera or an Interchangeable Lens Digital HD Video Camera Recorder with an HDMI terminal and live view mode. It can display HDMI video output from the camera. The following functions help you to see the image more clearly and take better pictures.

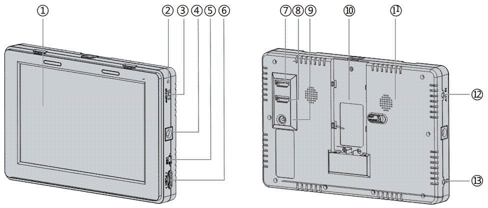
- ◎ Wide viewing angle LCD screen
- ◎ Useful functions such as peaking and pixel-by-pixel zoom
- ◎ Controls camera shutter release, ensures the long-distance monitor.
- ◎ Moveable shoe adaptor enables easy removal when using a camera that has an auto lock accessory shoe.
- ◎ Works with rechargeable battery or power adapter.

Product introduction

Viltrox DC-70 Clip-on LCD Monitor adopts with 7-inch TFT high resolution LCD panel, is loaded with pro-style features to help photo enthusiasts and videographers shoot high-quality HD video footage with their Interchangeable Lens Digital camera. There is also pixel magnification and peaking facility which will ensure accurate focus confirming, give an enlarged pixel-perfect view of a selected portion of the Full HD image.

Viltrox DC-70 Clip-on LCD Monitor has angle adjustment shoe adaptors, they fulfill the different angles need in the real shooting process. DC-70 has two HDMI jacks and one AV jack to get the video signal from the camera; the shutter release jack successes to control shooting when DC-70 epitaxial the camera LCD display.

Identifying the parts



Identifying the parts

① LCD screen
② Powerlamp:When the power is on, this lamp lights up or blinks depending on the status of this unit.
③ Power button
④ Tripod receptacle
⑤ USB jack
⑥ Operation dial: Brings up and operates the menu.

Press the dial to the left*	Brings up the menu./Executes the selection.
Turn the dial	Selects the menu item./Changes the setting value.

* The function varies depending on the status of this unit.

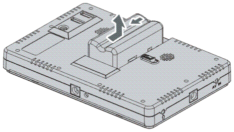
⑦ HDMI Input jack
⑧ HDMI Output jack
⑨ Battery release lever
⑩ Shutter release jack
⑪ Headphone jack :You can connect headphones with a 3.5 mm stereo mini-plug to listen to sound.
No sound comes from the speaker when headphones are connected.
⑫ Input jack 2 AV ×1
⑬ Headphone jack

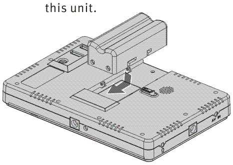
Attaching the battery

This unit can be powered by rechargeable battery or AC adapter. Sony battery is suitable for this unit . You cannot use other battery packs because this unit will not work.

1. Push the battery in gently in the direction shown,then slide it to the left while still pushing. There is a click as the battery is fixed into place.

2. To remove the battery Slide the battery to the right while sliding the battery release lever to the left. The battery pack comes away from this unit.

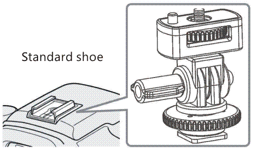




⚠ Note: Be careful not to drop the battery while removing it.

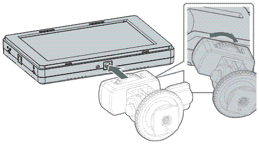
Attaching to the camera

1. Select one of the provided shoe adaptors according to the shape of the accessory shoe on the camera.



2. Insert the tripod screw of the shoe adaptor into the tripod receptacle on the bottom of this unit.

3. Turn the shoe adaptor dial to lock.

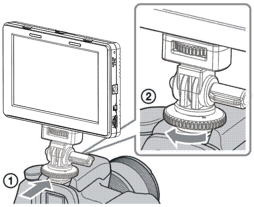


Attaching to the camera

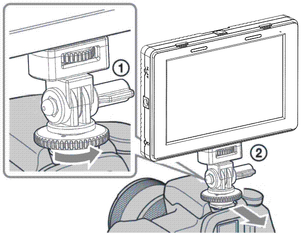
4. If using standard shoe:
   ① Insert the foot of the shoe adaptor fully into the standard shoe in the direction illustrated.
   ② Rotate the dial of the shoe adaptor fully to the left to fix it firmly to the camera.

To move from the camera

5. When using the standard shoe:
   ① Rotate the dial of the shoe adaptor to the right to release the lock.
   ② Check that the lock is release before sliding the shoe adaptor toward you.

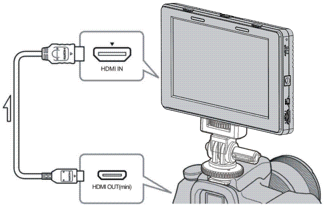


⚠ If using a camera equipped with a pop-up built-in flash, be careful of the following: Always close the built-in flash of the camera. If your camera has a built-in auto flash function, turn that function off. Before using the flash, remove this unit from the camera.



HDMI cable connection

1. Connect this unit to the camera with the HDMI cable supplied.



Tip: If the cable is not long enough, buy a long enough HDMI cable (not supplied)

2. Turn on the power to the camera and this unit.
   The viewfinder image of the camera is displayed on the LCD screen of this unit.
   If your camera has an HDMI output setting function, set it to AUTO or 16:9.

HDMI cable connection

⚠ **Note**

When this unit is connected to the camera by the HDMI cable, the following may happen depending on the camera.
- No image appears on the camera's LCD screen.
- The camera switches to playback mode. (Make sure the camera is in shooting mode before taking pictures.)

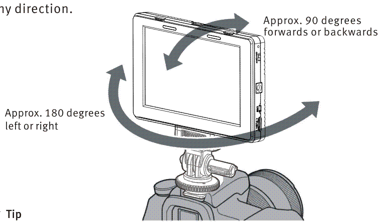
Tip

After a certain time in either of the following conditions, the backlight of this unit turns off.
- No HDMI signal is output from the camera.
- The HDMI cable is disconnected.

Carrying out the following turns the backlight on again.
- Press the operation dial of this unit.
- Operate the camera so that an HDMI signal is output.
- Reconnect the HDMI cable and turn the camera on.

Adjusting the direction of the screen

The pan and tilt function of the shoe adaptor lets you move the screen of this unit in any direction.

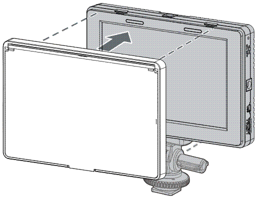


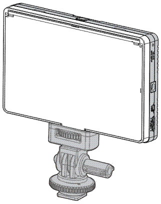
Tip
- The moveable range of the shoe adaptor is about 90 degrees forwards or backwards and about 180 degrees left or right.

⚠ **Notes**
- Depending on your battery pack and camera, this unit may interfere with the builtin flash. Do not pan or tilt with excessive force.
- Be careful when you pull the HDMI cable not to stretch it or get it caught in any moveable part.

Attaching / Removing the sun shade hood

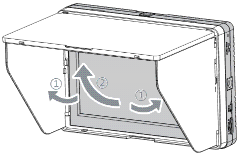
1. Align the clips on the frame of the sun shade hood with the holes in the outer frame of this unit and attach, as illustrated.
2. To remove the sun shade hood Pull the bottom part of the sun shade hood frame towards you to remove it.

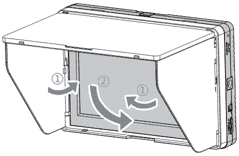




To open and close the sun shade hood

Open and close the sun shade hood as illustrated.



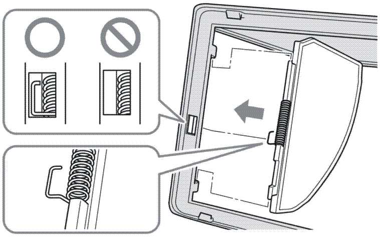


If the hood panels come away from the frame

A force applied to the top or side hood panels can detach them from the frame to prevent them from breaking. If this happens, reattach the hood panels as follows.

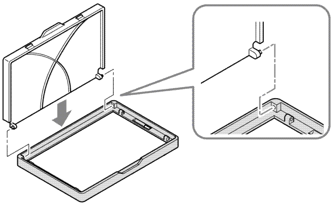
Side panels

Push the projecting end of the spring into the middle groove along the side of the frame, and fit the projections of the side panel into the top and bottom grooves along the side of the frame.



Top panel

Fit the projection of the top panel into the groove along the top of the frame.



Note

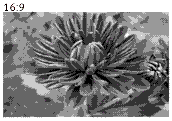
- The side panels only open if the projecting end of the spring is placed correctly into the groove. If the panels do not open, reattach the spring so that its projecting end is in the groove.

Menu operation

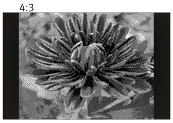
The functions that can be set with this unit appear as icons in the menu on the right of the screen.

The aspect ratio of the LCD panel of this unit is 1:9, so black stripes may appear above and below or on each side of movie images that have an aspect ratio of 16:9, 4:3.

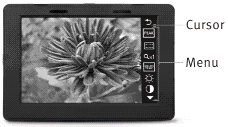
16:9



4:3

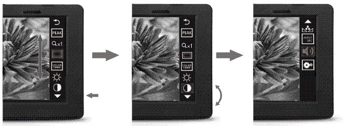


1. Move the operation dial. The menu appears on the right of the screen.

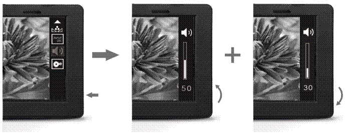


Menu operation

2. Turn the operation dial to align the cursor with the icon of the function you want to use, Press the dial to the left to confirm. The setup window of the selected function appears.



3. Turn the operation dial to select the setup details and press the dial to the left to confirm. The setting is saved and the setup window disappears.



Function name

You can set the following functions with this unit:

Icon	Function Name	Setup Details
↩	Exit	Closes the menu Peaking, Displays the focused part of the image in color.
PEAK	Peaking	Displays image by different colors.
Q×1	Pixel-by-pixel	Displays the image resolution output from the camera(If the image resolution is "800X480" or over, zooms in on the center of the image.)
⬚	TV display area (Marker display)	Displays a grid just inside the angle of view that acts as a guide to the area shown on a LCD screen.
COLOR TEMP	Color temperature	Selects the color temperature and adjusts thewhite balance of the screen; Settings: 9300K, 7200K, 6500K; Default: 6500K
☼	Brightness	Adjusts the brightness of displayed images. Settings: 0 (dark) to 100(bright) Default: 50

Icon	Function Name	Setup Details
◐	Contrast	Adjusts the contrast of displayed images. Settings: 0(soft)to 100 (sharp): Default: 50
	Color-tone (Phase)	Adjusts the hue of displayed images. Settings: 0 (green) to 100 (violet);Default: 50
🔊	Volume	Adjusts the volume;Settings 0 (low) to 100 (high) ; Default: 30
INPUT SRC	Input port	Chooses the input port; Port type: AV, ,HDMI
⚙	Setting	SET: Mirror, Upgrade language(Chinese or English) Reset, Return.

Function name

Note

- The menu is not shown when the peaking function is on. When setting other functions, set them before turning peaking on.

Tip

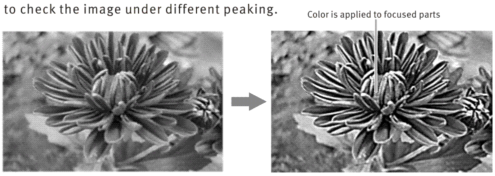
- The setting functions of this unit only affect the image displayed on the LCD screen. They do not affect the actual recorded image.

  To restore the default settings

- Enter into ‹⚙› menu to choose restore default settings.

Peaking

This function displays the whole image in black,white and blue, this makes it easier to check the image under different peaking.



Note

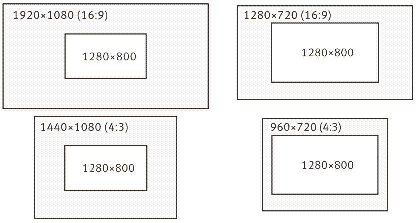
- Color may be added to the menu display of your camera, depending on the specifications of this unit. This is not a malfunction.

Tip

- When the peaking function is on, the image displayed on the LCD screen is only for checking the effect. The peaking function does not affect the actual recorded image.

Pixel magnification

This function magnifies the center of the image (1280 x 800 pixels) by displaying it pixel by pixel on the whole LCD of this unit. Therefore the higher the image resolution from the camera, the smaller the area magnified.



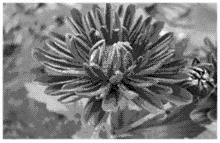
Note

- There is no zoom effect if the image resolution is less than the LCD screen resolution (1280×800 pixels).

Marker display

This function displays a grid just inside the angle of view that acts as a rough guide to the shooting area. There are two types of grid, You can select either one to suit your TV's playback conditions.

16:9



4:3

(The outer marker is 90% and the inner marker is 80%)

Tip

- The grid marker on the LCD screen of this unit is not recorded.

Troubleshooting

Before requesting repairs, carry out one more check. Then, if this unit still does not work properly, contact your Viltrox dealer.

Problem	Cause / Countermeasures
Cannot remove the battery	◎ The battery lock is not released. → Slide the battery release lever to the left to remove the battery.
No power to this unit	◎ The battery has run out. →Replace the battery pack. ◎ The AC adaptor (not supplied) is disconnected. Reconnect it correctly.
Cannot attach this unit to the camera	◎ You are using the wrong type of shoe adaptor. → Check the camera shoe type and select the correct shoe adaptor.
No image appears on thescreen of this unit	◎ The camera is in power save mode. → Carry out some camera function such as half-pressing the shutter button to leave power save mode. ◎ The HDMI cable is disconnected. →Reconnect it properly. ◎ The shooting image may not be displayed on this unit when using a camera that does not have the live view function. For details, refer to the instruction manual of your camera.
No image appears on the screen of the camera	◎ Depending on your camera, when it is connected to this unit by the HDMI cable, the image may only appear on the screen of this unit. For details, see the instruction manual of your camera.

Troubleshooting

Problem	Cause / Countermeasures
Cannot hear sound	◎ The headphones are connected. → When the headphones are connected, no sound is output from the speaker of this unit. ◎ Make sure the volume of this unit is not set to 0. ◎ Make sure the sound setting of your camera is not set to OFF. ◎ Some cameras do not output sound. ◎ For details, check the instruction manual of your camera.
Cannot record	◎ Depending on your camera, it may switch to playback mode when connected to this unit. Switch the camera to shooting mode before taking pictures.
The screen is difficult to see	◎ Use the sun shade hood to block sunlight.
Black stripes appear on the screen	◎ The aspect ratio of the LCD panel of this unit is 15:9, so black stripes may appear depending on the image.

Specifications

◎ **General**

Dimensions(W×H×D): Approx. 191×128×36 mm
Weight: Approx. 480g (Excluding battery)
Color: Black
Operating temperature: +0 to +40°C (+32 to +104°F)
Storage temperature: -20 to +60°C (-4 to +140°F)
Power Supply: DC 8V~18V
Battery: FM500H / QM71D / QM91D

◎ **Panel**

LCD panel size: Approx 7’’
Resolution: 1280×800 pixels
Speaker: Yes
Input jack: Input jack 1 HDMI ×1 / Input jack 2 AV ×1
Input jack 3 DC IN (power adapter plug)
Input jack 4 USB upgrade jack
Output jack: Headphones output jack / Output jack 1 HDMI ×1

◎ **Accessories supplied**

Standard shoe × 1 Sun shade hood × 1
HDMI Cable Type A-Type C × 1

Available signal formats

The unit is applicable to the following signal formats:

System	Total lines	Active lines	Frame rate	Scanning	Aspect ratio
575/50I(PAL)	625	575	25	2:1 interlace	16:9/4:3
480/60I(NTSC)	525	483	30	2:1 interlace	16:9/4:3
576/50P	625	576	50	Progressive	16:9/4:3
480/60P	525	483	60	Progressive	16:9/4:3
640×480/60P	525	480	60	Progressive	4:3
1080/50I	1125	1080	25	2:1 interlace	16:9
1080/60I	1125	1080	30	2:1 interlace	16:9
720/50P	750	720	50	Progressive	16:9
720/60P	750	720	60	Progressive	16:9
1080/50P	1125	1080	50	Progressive	16:9
1080/60P	1125	1080	60	Progressive	16:9

Product specifications and external appearance are subject to change without notice.