



O.C. White HD2 User Guide

Chapter 1 Introduction

Advanced Design

O.C. White Co. released the new generation scientific color cameras—HD2. With the amazing color fidelity, HD2 provides a perfect solution for the high definition scientific photography. To meet the customer individual requirements, the flexible parameter settings allow you to quickly get wonderful live images easily and freeze the screen simply to observe the details.

To get more information about HD2, please read this document completely.

Chapter 2 System Standard Items

One HD2 camera,

One 12V2A power adapter,

One HDMI cable (2-meters length),

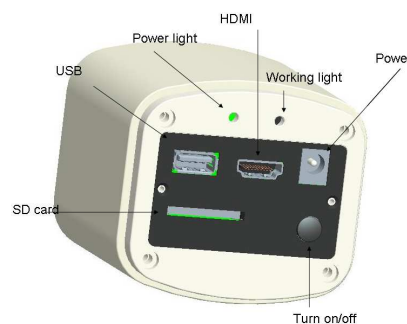
One SD card (8G capacity, class 10),

One mouse (with 1.5-meters cable),

One USB2.0 cable (gold plated connector).

1. **USB interface:**

A: Connect a mouse to the USB port. Use the mouse to control the camera directly.



B: Connect the USB port to PC to make the camera work as a **Driver-Free** camera. Use HD2 Advanced Imaging & Measurement software to control it.

Note: No driver installation is needed when connecting HD2 to PC via USB port.

2. HDMI interface:

Use the HDMI cable to connect HD2 to the monitor. Image data is transferred and displayed on the monitor according to the HDMI protocol.

3. Power interface:

Please use O.C. White provided **12V2A** power supply. When power is plugged in, the red light is on. When switch on the camera, blue light is on.

4. ON/OFF key:

Press and hold ON/OFF key until the blue light is on or off to turn on or off the HD2.

5. SD card:

To get faster and more stable data transfer, recommend to use **Class10** SD card.

6. C mount:

Standard C-mount optical port.

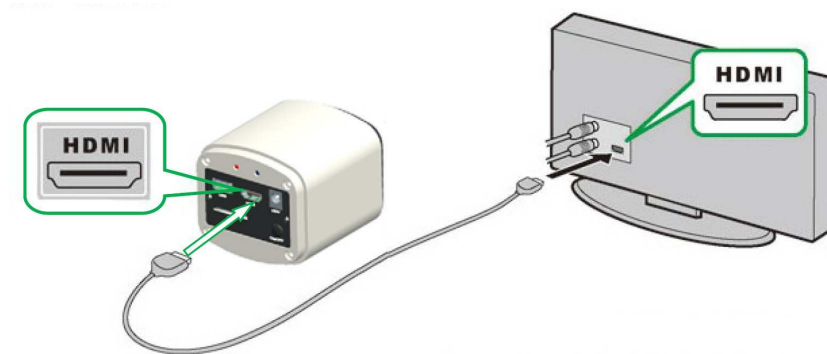
7. Anti-dust seal:

Please remove the seal when first time use the camera.

The seal was placed on the camera optical port when it left the factory. It is used to avoid the dust accumulating during the transport.



Chapter 3 HDMI Operation

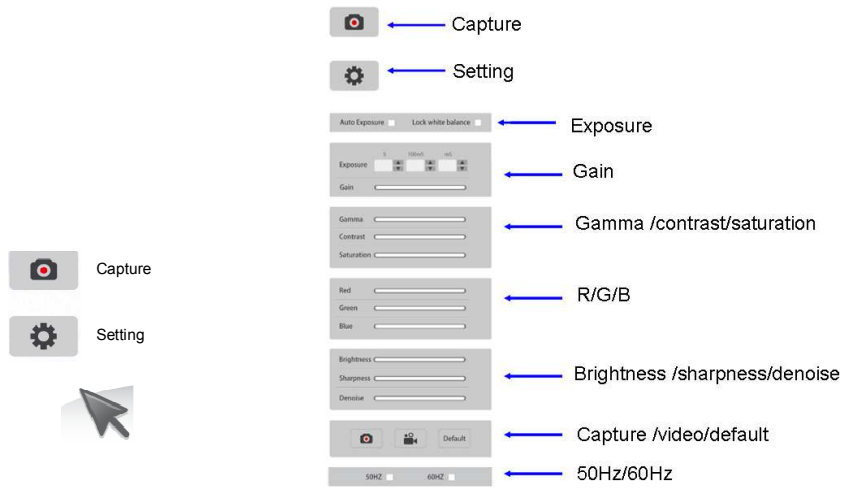


Step 1. Connect the camera.

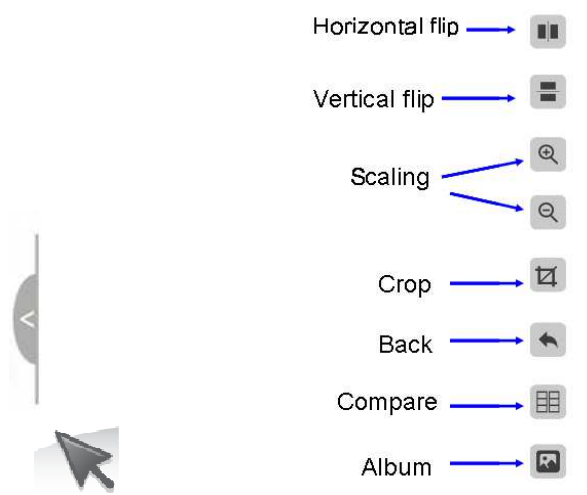
1. Plug in the 12V2A power supply. Use HDMI cable to connect the camera to the monitor. Press and hold ON/OFF key until blue light is on.
2. Connect the mouse to the USB port. Move the cursor to get the settings on the screen.
3. Insert the SD card. Capture images or videos to the SD card.

Step 2. Move the cursor to the left of the screen.

When move the cursor to the left of the screen, 'Capture' and 'Setting' icons will appear (See image on the left hand side). Click 'Setting' to get parameter setting menu (See image on the right).

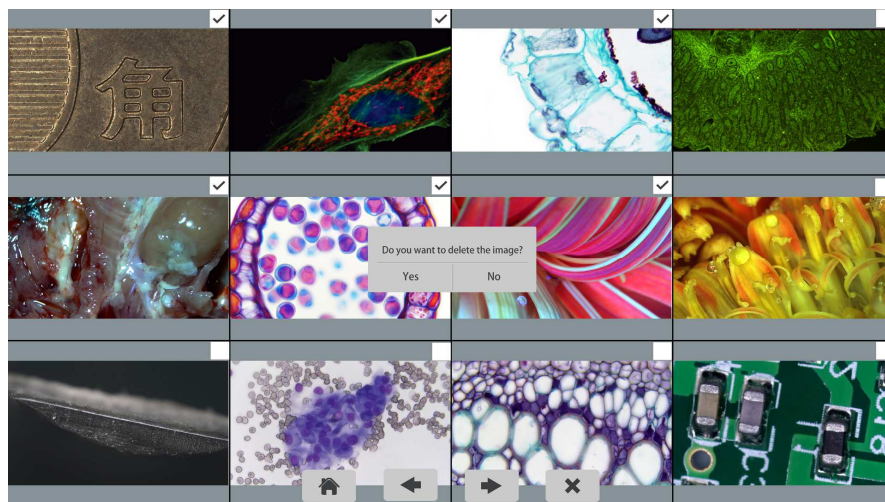
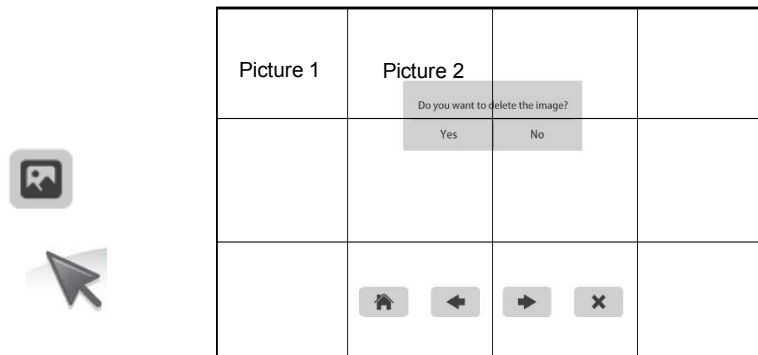


Step 3. Move the cursor to the right of the screen.

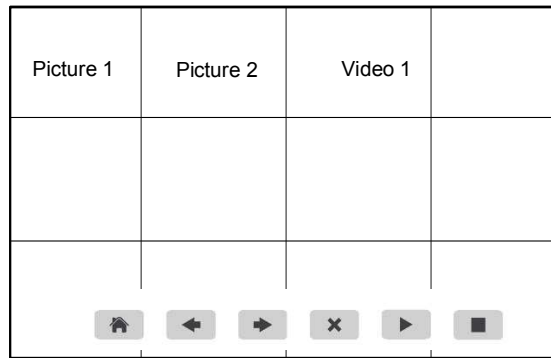


Step 4. Check the photo album and videos

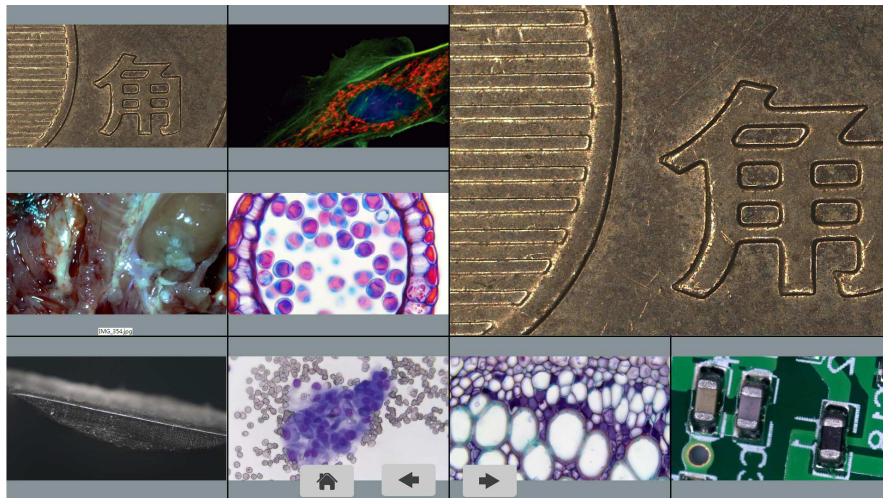
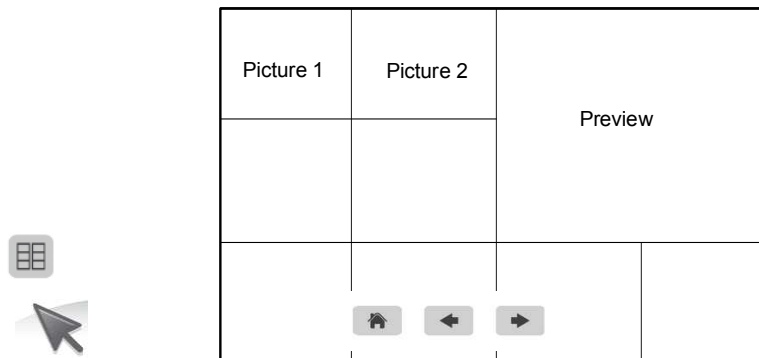
1. Check the album and delete the pictures.



2. Check the video and delete the video. To delete the video successfully, be sure this video is not in use.



Step 5. Compare preview with the captured images.



Chapter 4 Connect HD2 to PC

- (1) Use USB cable to connect the HD2 to the PC.
- (2) Plug in the 12V2A power supply. Press and hold the ON/OFF key until blue light is on to turn on the camera.
- (3) No driver installation is needed when connected to PC. Install HD2 Advanced Imaging & Measurement software to adjust parameters and acquire images.

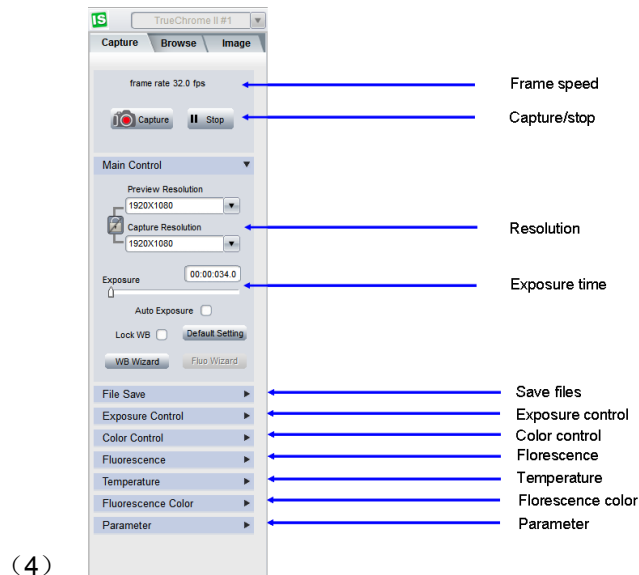


Fig.4-1. The left side of HD2 Advanced Imaging & Measurement software

- (1) Start the software. The parameter settings are shown on the left side of the software. See Fig.4-1.

Note: When use 'Lock WB' , it takes 3 seconds to make sure the camera finish the initialization.

- (2) Switch the Normal High in 'Exposure Control' tab to get different frame rate. In Normal mode, the image quality is better than High mode. To get faster frame rate, please select High mode.

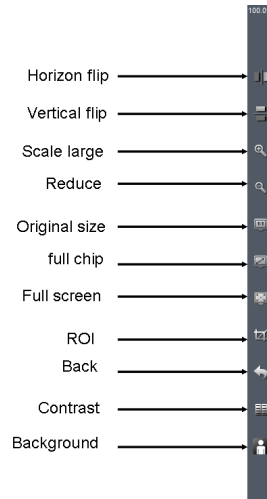


Fig.4-2. Function shortcuts on the right side of software

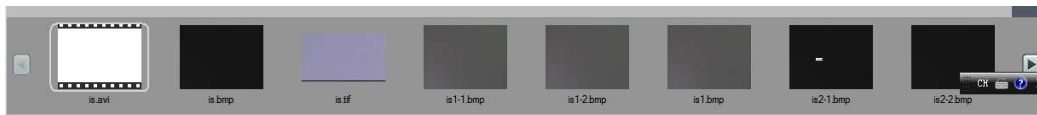


Fig.4-3. Captured image thumbnails

- (1) Users can double click on one image thumbnail to display it. Click on the little triangle button to get more captured image thumbnails.
- (1) Furthermore, you also can select one or more images and delete them.

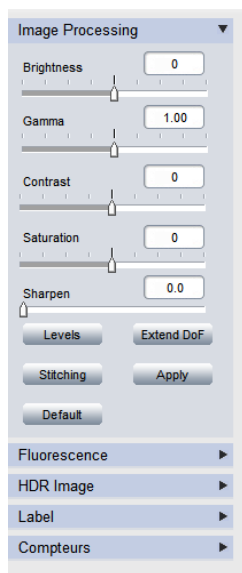


Fig.4-4. Image Processing

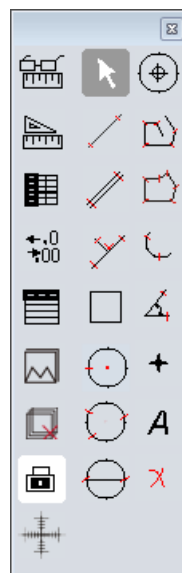


Fig.4-5. Measurement

- (1) Click on **Image** tab, get the image processing functions (Fig.4-4).
- (2) Provide Focus stacking, HDR, Fluorescence Combination functions etc.

Note: When camera is disconnected, all the image processing functions will be gray out.

- (3) Click on **Measure** tab to get measurement functions (Fig.4-5).
- (4) It is allowed to apply measurements to the live and still images. To get more details about measurement, please read the HD2 Advanced Imaging & Measurement software manual.



Fig.4-6. About HD2 Advanced Imaging & Measurement software

If have any questions, please Click on 'Help' to get O.C. White support information.

All right reserved O.C. White Co. (2015)

Cleanliness

When the camera is NOT in use, please screw in the dustproof cap to avoid the dust from the environment accumulating on the optical port.

When get dust accumulated on surface of the optical port, recommend to use a blower bulb to blow away the dust first. If it is still there, please use a very soft lint free cloth (Micro Fiber cloth) with absolute ethyl alcohol or similar cleaning agent to gently clean the surface.

If find the dust inside the camera, please DO NOT open the camera case by yourself. Please contact O.C. White support team to get further advice.

Maintain

Only O.C. White reserves the right to open the camera case for maintenance. If need repair, please contact the customer support team.

CAUTION: Please DO NOT open the camera case and assemble it back by yourself. If assemble the camera by yourself, it will easily bring dust and moisture inside the cameras. Any sensor scratch or moisture issue brought by opening the camera case by yourself is not covered by the warranty.