Wi-Fi camera

Model: HVR360

User Manual

A new way to experience photography

360 CAM is a VR camera that allows you capture a spherical image easily as a simple tab of a button. You can use your smart phone app to shoot photos and videos and share your life to social network groups. Enjoy your VR world with our 360 CAM.

Disclaimer

All the information in this document is subject to change without prior notice.

Trademarks

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Features

- 720° (360° by 360° horizontal and vertical) video auto-recorder
- Dual CMOS image sensor
- Up to 2560 x 1024 resolution
- Panorama/sphere/dual-fisheye live streaming view (Wi-Fi Mode)
- Embedded HD high quality video compression
- Micro SD card slot
- Built-in microphone
- Cam viewer app for Android and iOS smart phone/tablet devices
- Powered by 5V / 1A (USB AC adapter or power bank)

System Requirements

Android or iOS Device

- Android phone or tablet device (with Android OS 4.0 or above)
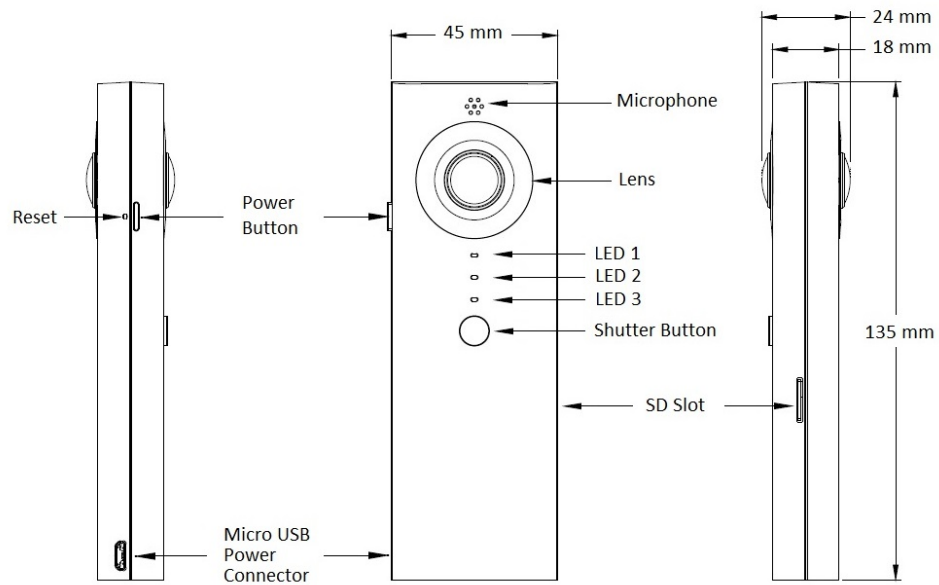- Apple iPhone or iPad device (with iOS 7.0 or above)

Micro SD card

- For video recording storage, it is required that Micro SD card be inserted for photo shooting and video recording.

Specs
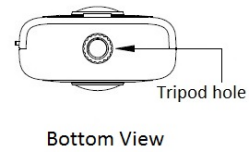
- Exposure Control Mode   Auto mode
- Model   HVR360
- ISO sensor   ISO 100 - 400
- Recording Media   Up to 32GB, Class 10 Micro SD Card recommended
- Photo   Approx. 45,000 photos / 8 GB SD card
- Video recording   Approx. 70 minutes with battery fully charged
- Object Distance   Approx. 10 cm ~ ∞
- Power Consumption   5.0V / 1A
- Battery   Built-in Lithium Battery, 3.7V/ 1,000 mAh
- Image File Format   JPEG (Exif ver 2.3), DCF2.0 compliant
- Video File Format   Video: MPEG-2TS, Audio: AAC
- External Slot   Micro USB (Power Charging only); Micro SD Slot
- Wi-Fi Standard   802.11 b/g/n, 2.4G
- Working Temperature   0°C ~ 40°C
- Storage   -20°C ~ 60°C
- Operating Humidity   90% or under
- Weight   95 g
- Dimension   45 mm(W) x 135 mm(H) x 24 mm (18 mm) (D)

Name of Parts

Reset	
Power Button	
Microphone	
Lens	
LED 1	
LED 2	
LED 3	
Shutter Button	
SD Slot	
Micro USB Power Connector	

45 mm

24 mm

18 mm

135 mm

Functional Description

Power Button   power on/off and Wi-Fi on/off

Lens   keep lens free of dust and scratches

Microphone   record audio in Video Shooting Mode

Shutter Button   for Photo Shooting and Video Shooting
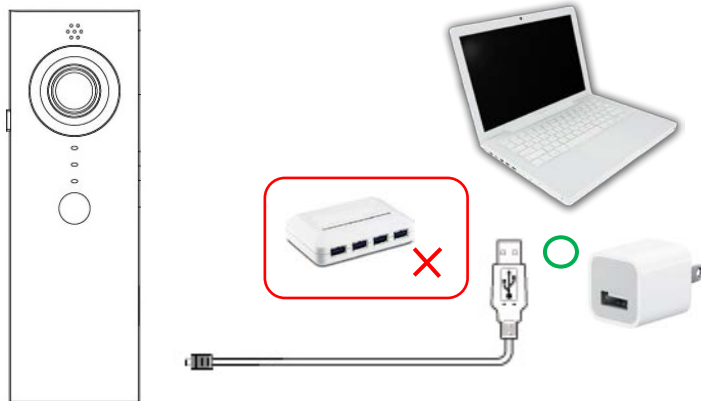
SD card slot   for micro SD card, up to 32GB

Tripod hole

Bottom View

Battery Charging

The Camera needs to be charged before use.

Connect the camera to USB power adapter using the provided cable.

* The Dual Color LED is lit in Red when the camera is in charging. (Camera is off) .
* The Dual Color LED, Red is off, when charging is complete. (Camera is off).

* Remove the charging cable after charging is complete.
* Use the provided USB cable to charge camera.
* Directly connect to an USB power adapter, not to an USB hub. It may or may not be able to charge camera via some USB hubs.

Notice：

- Please use the product with the tripod, and keep the product at least 20cm away from your body .
- Fully charge product before use. Battery life depends on frequency and speed of use.
- Our product do not contains the AC/DC adapter, You need purchase the DC 5V/1A adapter compliance the directive 1999/5/EC.

CE 0700

- The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.
- **FCC Statement**
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- -- Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.
- -- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -- Consult the dealer or an experienced radio/TV technician for help.
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
- (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
  The distance between user and products should be no less than 20cm

Camera Operation

This dual fisheye camera has a large feature set for image display and capturing. Download the app that compatible with your smart phone to take photos and videos now.

**Power Button

Using the downloaded smart phone app, your smart phone is able to connect to the camera. Press and hold the power button to turn the camera on.

Power on/off

Press power button and hold for 3 seconds to turn on	All 3 LEDs light up; only Green LED (LED 3) flashes quickly during the 10 seconds
Normal operation with power on	Green LED (LED 3) is on, Red LED (LED 1) flashes depending on SD status
Press power button and hold for 3 seconds to turn off	No light

**Connecting a Smartphone

Once the camera is powered-on, then press the power button once to turn on the wireless connection between the smartphone and the camera.

Wi-Fi Connection

When camera is powered-on, press the power button once	Blue LED (LED 2) starts flashing
Wi-Fi connection established	Blue LED (LED 2) is lit on
Press power button once to turn off Wi-Fi	No light

**Shutter Button

Take a photo or shoot a video, and store it on the cloud, your Smartphone's main memory, or on an SD card.

Shooting Photo Mode

press the shutter button once	Red LED (LED 1) flashes quickly and then turns off

Shooting Video Mode

Press the shutter button for 3 seconds to start Shooting Video Mode	Red LED (LED 1) flashes slowly
Press the shutter button for 3 seconds to stop Shooting Video Mode	No light

Camera LED Status

There are 3 LEDs on the camera, the first one on the top is a red LED, it is the indicator that when you shoot photos or videos and in different flashing, it also tell you the SD card status.

LED 1

Red	Photo & Video Shooting Mode
Rapidly flashes 3 times	Photo Shooting Mode
Constant slow flash	Video Shooting Mode
Light is off	SD card is inserted
Constant fast flash	SD card slot is empty
On for 3 seconds only	SD card is at full capacity

The second LED in the middle is a blue LED, it tells you the Wi-Fi status.

LED 2

Blue	Wi-Fi connection
Light is off	Wi-Fi is off
Slowly flashing	Wi-Fi is establishing connection
Light is on	Wi-Fi is connected to smartphone

The third LED is a Green/Red dual color LED, green is the power indicator, red is the charging status.

LED 3

Green and Red Dual Color	Power on/off and Charging
Green light is off	Camera is off
Green light is flashing quickly	Camera is powering-on
Green light is on	Camera is powered-on (20% or more capacity)
Green light is slowly flashing	Camera is powered-on (less than 20% capacity)
Red light is on	Camera charging
Red light is off	Camera at full capacity or USB unplugged

Camera connects Smartphone

Press on the power button once to turn on the camera Wi-Fi connection. The blue (2nd) LED starts to flash while it is establishing the connection to the Smartphone. When camera is connected to Smartphone, the blue LED is on. There may have differences to iOS and Android two different Smartphone.

Android Smartphone
- Start the 360 CAM App
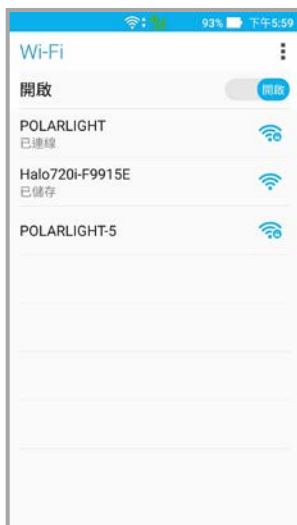- Select the SSID "Unlimited 360-XXXXXX" in the Wi-Fi settings of the Smartphone, see Figure 1
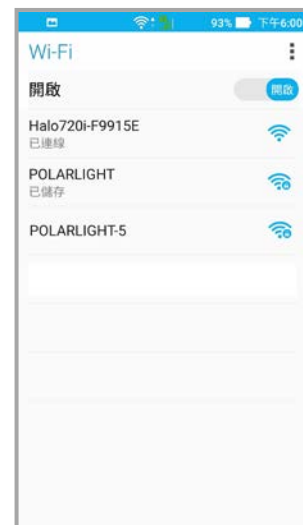

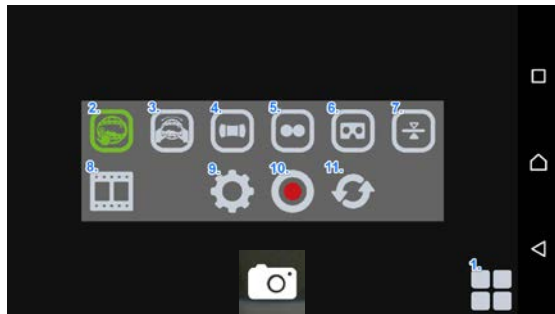Figure 1   Figure 2   Figure 3

- Tap on "連線" on Unlimited 360-XXXXXX pop-up Window, see Figure 2.
- Once Wi-Fi connection to Unlimited 360 established, see Figure 3.
- Tap on the return arrow ↰ on your smartphone to view the screen, see Figure 4.

Figure 4

Smartphone operating screen

Once the camera and smartphone connection is established, you may see an operating screen appeared as below,

1. Menu On/off: This is the button for accessing the menu.
2. Hemisphere view: This mode allows manual control of a single hemisphere for the panoramic spherical picture, with rotation and zoom.
3. Gravity-sensing hemisphere view: This mode uses the phone's G-sensor to position and rotate the panoramic spherical picture. Zoom is manually controlled.
4. Cylindrical fisheye view: This mode allows manual control of individual projections of the panoramic cylindrical picture, with rotation and zoom. The fisheye uses a cylindrical-style stereographic projection for better viewing.
5. Spherical fisheye view: This mode allows manual control of individual projections of the panoramic spherical picture, with rotation and zoom. The fisheye is stereographically flattened for a spherical view.
6. VR view: The VR device, called a VR BOX, should be used with this mode.
7. VR reverse view: This is the same as VR view, but upside down.
8. Data storage mode: Access either 360 camera or smart phone local storage files.

9.

Settings:
(1) The Wi-Fi password setup,
(2) The film segment time option, the film segment time can have length of 3, 5, 10, or 15 minutes.
(3) Product information, where this product information can be looked up.
(4) Frame rate setup, 50 or 60.

10. Video shooting mode: turn on/off video shooting, once recording is activated, video will be stored in SD card only.

    * If no SD card inserted, you are not able to activate video recording.

11. Manual Wi-Fi reconnect: Manually reconnect the smartphone to the VR camera.

12. Shoot photo: tapping the camera icon triggers the VR camera to take a photo and store it on the cellphone.

You always have to re-connect the VR Camera when you jump out of the active screen. It may take a few seconds to do the re-connection.

Cautions on Use

Camera

- Be careful not to drop or hit the camera body against other objects. Take special care of the lens.
- Do not use the camera with wet hands or in a steam room, as it may lead to an electrical shock or malfunction.
- Should the camera fail during use, manufacturer has no liability for any device malfunction.
- In an environment where the temperature changes abruptly, condensation may occur in the camera. This may result in fogging of the glass surface or malfunction of the camera. Should this happen, camera will have to be placed in a bag to slow the temperature change. If condensation occurs, remove the SD card, and wait until the moisture has dried before using the camera again.

Battery

- The battery is a lithium ion battery. Be sure to charge the battery before use.
- Due to the battery characteristics, battery usage time will decrease in cold environments.
- Charge the battery completely before storing the camera for a period of time.
- A dry place with a temperature of 10°C - 30°C is recommended for storing the camera.
- Do not charge the camera immediately right after the charging is done.
- It is recommended to charge the camera in an ambient temperature of 10°C - 30°C. Charging in a cold area may cause insufficient charging. Charging in a hot area may cause deterioration to the battery.

Storage and Care

- To keep the best photo quality, do not have fingerprints, dust, etc. get on lens.

- After using the device in either beach or chemical environment, clean the lens very carefully.

- When dirt or dust gets on lens, use a blower to blow it off. Do not touch it directly.

- It could be dangerous if you try to disassemble the camera.

- The camera quality may change if it gets in touch with volatile substances.

- Please do not use or store your camera in the following kinds of circumstances, since it may cause severe damage to the camera.

  - high temperature, high humidity, or rapid changes in humidity or temperature

  - large amounts of sand or dust

  - significant vibration

  - exposure to chemicals with volatile substances

  - magnetism is emitted (adjacent to monitors, transformers, magnets, etc.)

- Always store your camera in a clean camera bag to avoid possible fiber particles or dust.

Note, Be sure to turn off the camera when it is not in use.