Intelligent enforcement video and audio recorder

BWC-R1
User manual

Shenzhen HUADEAN Technology Co., Ltd

Content

Preface

Thank you for using our products. Please read this manual carefully before using them. Please keep this operation manual for reference or consultation in the future. We do our utmost to ensure the correctness of the information in this manual. The information is changed due to product upgrade and other reasons without notice.

Matters needing attention

The protection level of this product reaches IP66 under IEC 60529 standard. It can be waterproof, dustproof and shockproof under normal service condition. Because of wear and tear during long-term use of the product, the protection performance will be reduced; to protect your product, please keep the product clean and dry, away from water and other liquids. If the USB plug, headphone plug and battery cover are used, please restore the lid tightly in time and avoid the water entering the machine after encountering water.

In order to avoid product damage caused by improper operation during use, the following points should be noted during use:

＊It is forbidden to dismantle and refit the product without authorization.

＊Please do not allow products to be in a dusty, damp and water environment for a long time.

＊Please do not expose the product to open fire or high temperature.

When charging with a power adapter, please pay attention to the following items:

＊Please use the power adapter supplied or sold by our company.

＊Please keep the metal part of the power adapter plug dry and clean. Failure to comply with this

＊note may lead to fire or electric shock.

＊Please charge the battery at a suitable ambient temperature (0 45 C). When the battery is full of

＊electricity, please unplug the power in time to avoid the battery performance deterioration and shorten its life.

＊If the selected product has a built-in detachable battery, it is prohibited to decompose the built-in detachable battery or throw it into the fire.

＊Please use our company's safety certified battery, long term battery life will have normal attenuation. If the battery can not meet the recording requirements, please replace the new battery in time.

＊Please properly dispose of discarded products, batteries and accessories, classify and recycle according to relevant regulations, do not treat them as domestic waste.

For equipment maintenance, please pay attention to the following items:

＊Please keep the lens front clean so as not to affect the recording effect.

＊Don't let the sun shine directly on the lens for a long time to avoid damage to photosensitive devices.

＊If you do not use it for a long time, please charge the equipment once every 3 months to ensure that the battery can work normally.
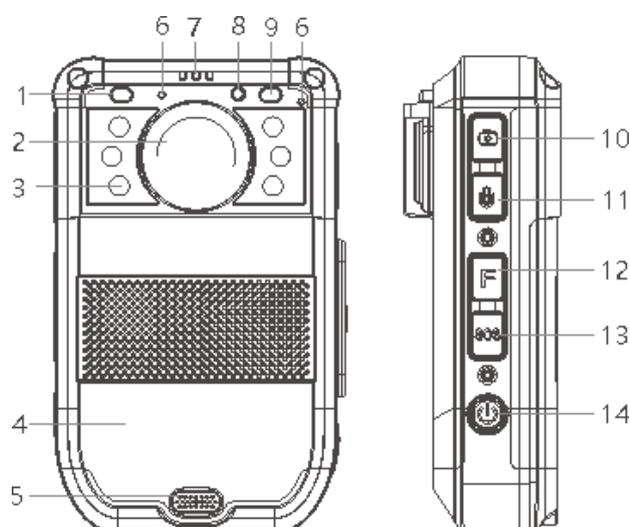
1. Introduction

BWC-R1 is a intelligent body worn camera specifically designed for Law Enforcement. The camera features real time HD video, 1080P recording, support built-in 4G, WIFI and GPS function, and a high resolution still image capture visible on the LCD screen for instant playback, with wide angle; The rugged design is resilient to withstand demanding work environments faced by law enforcement officers, corrections, military and security detail.

Package Contents

＊Body worn camera
＊USB cable
＊USB power adapter
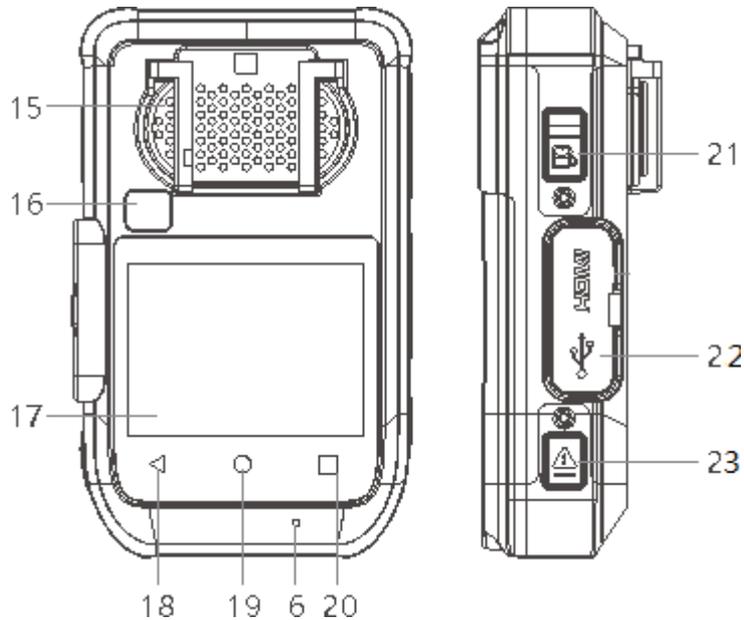＊CD with manual and software
＊Universal metal clip

2. Structure design

2.1 Front view

Item	Name	Description
1	IR sensor	The sensor will detect the brightness of the environment, and then activate the IR light and switch to night vision mode.
2	Camera Lens	Full HD wide angle camera lens
3	IR light	Record clear image in HD in low light situations. 10 meters visible.
4	Battery cover	Remove this cover, you can take out the battery for replacement
5	Cover lock	Press the lock and remove the cover, and then you can take it out.
6	Microphone	Capture the environment voice during recording, and communicate with the center server.
7	Working indicator	Red blinking means video recording, yellow blinking means audio recording, solid green means standby or preview mode.Blue light means network transmission.
8	Laser light	Pinpointing an object from a distance, solid or blinking mode
9	Lighting	Short press the F button to enable the light for auxiliary lighting.
10	Snapshot	Press this button to start capture the snapshots, even during video recording mode.
11	Audio REC button	Press the button to start the audio recording only.
12	Muti-functional button	You can define this function of this button, the default one is enable withe light.
13	SOS button	Press this button to send an alert info to the center server.

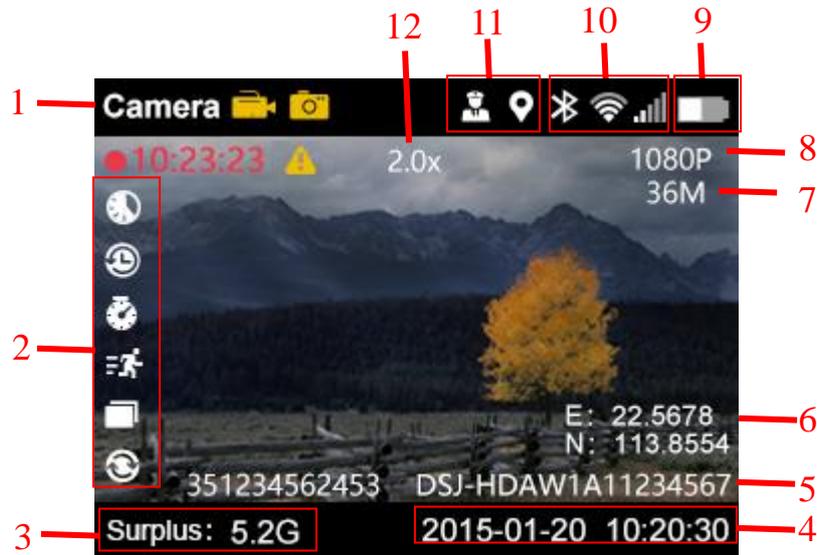| 14	ON/OFF button	Short press the button to open or close the lighting, long press it to power on or power off.

2.2 Back view

Item	Name	Description
15	Speaker	It's the speaker to audio playback and voice report.
16	Screen off sensor	When the sensor detected, it will turn off the screen automatically
17	Touch screen	It's a touch screen for operation
18	Return key	When you do the operation, press this icon to return to the previous interface
19	Home key	Press this icon to make the operation back to the home interface
20	Camera view	Press this icon to make the camera enter into the camera preview mode
21	Video REC button	Press this button to start the video recording
22	USB port	Connect USB cable for charging or connection to PC.
23	Flag button	Press this button during recording, it will make the recorded video as a marked video file.

3. Basic Operations

3.1 Live view window

The body worn camera LCD screen is a small monitor to display various camera information and operation status.

Item	Name	Description
1	Video recording icon	Yellow icon means video recording is working.
2	Function	Function prompt.
3	Storage info	remaining size of the storage
4	Date/Time	The current date/time
5	ID information	The officer ID and Device ID of this camera
6	Zoom in/out	The Zoom in and zoom out info
7	Photo quality	The quality that camera will photograph
8	Recording resolution	The resolution that camera will recording
9	Battery status	The current status of the battery
10	Network status	It will display the WIFI and 4G network status if it's enabled
11	GPS and Inline Info	It will display the latitude and longitude information of the camera and the device online.

12	Defocus	Current doubling

Shooting parameter settings

In view preview mode, tap the switch key ☐ to enter the shooting settings interface and select
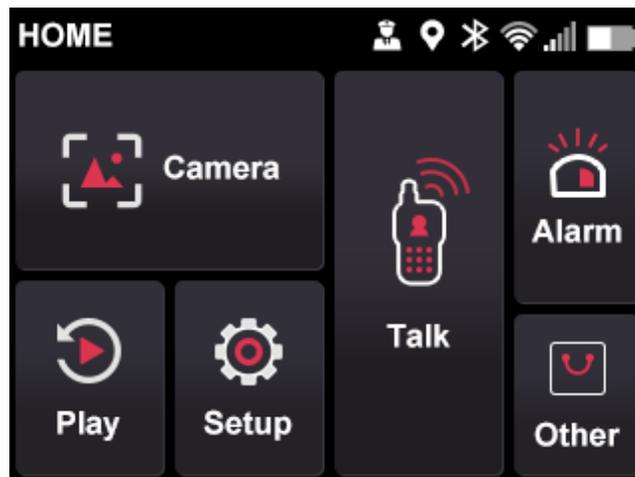
"Video Settings / Photo Settings"

Video Settings

ID	Menu	Options
1	Video resolution	1080P30,,720P30
2	Video quality	High,Low,Medium
3	Video clip	Auto,10min,20min,30min

Photo Settings

ID	Menu	Options
1	Photo pixel	5M,8M,10M,12M,16M,21M,32M
2	Snapshot	1PCS,2 PCS,3 PCS,5 PCS
3	Camera timer	Auto,10min,20min,30min

3.2 Main menu

In preview mode, press home key to enter into main menu interface, you will see the interface as follow:

1	Camera	Enter into the live view of the camera
2	Play	Playback the local video, audio and images.
3	Setup	Setup all the parameters of the camera
4	Talk	Start the intercom function with other camera or center server, video and audio call.

5	Alarm	Check the SMS or picture message sent from center server
6	Other	Some other functions of the camera, such as app, hot spot, pointing and so on

Select the "Setup", you will enter into all the parameters configurations, the all items are as follow:

ID	Menu	Options
1	Pre-recording	OFF,ON
2	Post-recording	10sec,30sec,1min,2min,5min,10min,30min,OFF
3	Video loop	OFF,ON
4	Security password	ON/OFF, default is 000000
5	Position watermark	ON/OFF,
6	Screen off	30sec,1min,3min,5min,OFF
7	Screen off sensor	ON,OFF
8	Media Volume	Drag the icon to adjust
9	Warn tone	Beep,Voice,Drag the icon to adjust volume
10	Hourly notice	ON,OFF
11	Button Vibration	ON,OFF
12	Ring tone	Incall tone, Incall vibration
13	Infrared mode	Auto, OFF
14	Location	GPS, GPS+Beidou, Beidou
15	Offline connection	ON,OFF
16	Motion detect	ON, OFF
17	F button	Flash, sound, laser light, resolution switch, fast playback, setup
18	Server	IP, port, userNo.
19	Stream resolution	1920X1080, 1280X720,848X480,720X480,640X480,352X288
20	Stream bitrate	Auto, or choose the correct bitrate
21	WAN	ON,OFF
22	Mobile data	ON, OFF
23	Bluetooth	ON,OFF
24	Upload frequency	5S
25	Default	ON, OFF
26	About	Display network and other info

1. Video resolution

The body worn camera offers five different recording resolutions. Resolution and frame rate

options feature a proper balance between video quality and maximizing amount of video stored.

Options	Display resolution	Images per second
720P30	1280*720	30

1080P30	1920*1080	30

2. Video quality

Select video quality based on the need of video recording. High means the best quality, which will

encoding with big bit rate.

3. Video clip

Video clip selection defines the length of each video segment, and this option only is used for

video recording, invalid for audio recording.

Sub-option: Auto, 10 minutes, 20 minutes, 30 minutes; auto means it will create a file in almost

2GB size, and the time is about one hour, depends on the video resolution.

4. Pre-recording

Pre-recording saves an additional seconds of video before the video recording button is pressed,

and the additional seconds is about 30 seconds. After the option of pre-recording is enabled, the

camera can not snapshot, but the snapshot will work during the video recording.

For example, we set the value(between setting the pre-recording and pressing the video recording

button) as X, if X <30s, the camera will store an additional video for X seconds before the video

recording button is pressed, if X>=30s, the camera will store an additional video for 30 seconds

before the video recording button is pressed.

5. Post-recording

Post-recording means how long the camera should continue to record after the video recording

button is pressed to stop recording.

6. Video loop

This function means when the SD card is full, the system will start to overwrite the oldest files

automatically, make sure it can continue recording.

7. Photo pixel

The photo pixel provides options for still image resolution.

8. Snapshot

In preview mode, Long press the snapshot button to shoot the selected number of pictures,

and you can set the option as 1PCS, 2 PCS, 3 PCS, 5 PCS. When video recording is working, the

function will not work; When video recording is working, short press snapshot button can take one

single photo.

9. Security password

When this option is on, you have to type in the password if you want to playback and do

configurations, the default password is:000000.

9. Position watermark

When the option is on, the GPS info will display in the video image, even in the recorded video

and streaming video.

10. Screen off

Switch off the screen after a certain time if there is any operation, which will save the power

consumption.

11. Screen off sensor

When the option is on, and if the sensor detected, it will turn off screen automatically.

12. Media Volume

select volume level option to increase or decrease all the volume of camera, including playback,

key sound, indicate sound and so on.

13. Warn tone

This option means when the user operates camera, it will give the corresponding response, OFF,

beep or voice, and it will applied to the operations as follows:

1. Start video recording;

2. Stop video recording;

3. Start audio recording;

4. Stop audio recording;

5. Power on the camera;

6. Power off the camera;

7. Low battery;

8. Inadequate storage space;

13. Hourly notice

Select to turn the hourly notice ON or OFF, it will give the voice report hourly if the switch is ON.

14. Button Vibration

When option is on, It will remind the users that the function is in use through vibration.

17. Ring tone

This option means you can setup the tone for the incall from other BWC or from the center server, setup it as voice or only vibration.

18. Infrared mode

If the users choose auto mode, during video recording(not preview mode), the IR will work when the environment is dark, similarly, when the environment is bright, the IR will be closed automatically.

19. Location

Select the location model, GPS or Beidou.

20. Offline connection

When the option is on, it means when the camera connect to the PC software, it will turn of the wireless function automatically, such as 4G and WIFI network.

21. Motion detect

When the option is on, if there is something moving in the camera, the camera will start to recording. You can press the recording button to stop recording.

22. F button

You can define a function for the F button: Flash, sound, laser light, resolution switch, fast playback, setup.

23. Server

Setup the server IP, port, and user number, make sure the camera can connect to the center server.

24. Stream resolution

Select the video resolution for live streaming.

25. Stream bitrate

Select the bitrate to stream the live video.

26. WLAN

Enable it, so the camera can connect to WIFI work.

27. Mobile data

Only when this option is on, the 4G network can transmit the live video to center server.

28. Bluetooth

Enable the Bluetooth function, which can connect to an earphone.

29. **Upload frequency**

It means the frequency that camera upload the GPS data to the center server.

30. Default

When it is set as ON, the camera will auto-reboot to clear all the settings of menu, but all the

playback files will still be in the camera.

31. About

It will show the information of the camera, network status, firmware version, CAM ID and so on.

Mark:For the internal battery, only when the voltage more than 3.5v, it can works when remove

the main battery.

4. Device using

1. **Turning On the Camera**

In power off status, long press for 3 seconds, the camera will be turn on and enter into

preview mode automatically. Meanwhile, the status indicator will turn green.

2. Turning off the camera

In preview mode, long press ⏻ for 3 seconds, the camera will save the current status and power off. Meanwhile, the status indicator will turn off.

3 Recording Video

In preview mode, short press 📹 to start recording. Meanwhile, the status indicator will turn red and flash, and the recording icon will turn to red. Short press 📹 again to stop recording, and the video will be saved in MP4 format automatically.

Remark: During video recording, can zoom in and zoom out by sliding the icon in the screen.

4 Snapshot

In preview mode, press 📷 to take a photo; long press 📷 to take more photos continuously, the quantity of photo can be configure in the menu. Meanwhile, the status indicator will turn red and flash, snapshot icon will turn to red. and the photo will be saved in JPG format automatically.

5 Audio recording

In preview mode, short press 🎤 to start audio recording. The recording icon display on the screen, the status indicator will turn to yellow and flash. Short press 🎤 again, the camera will stop audio recording, and the audio will be saved in WAV format automatically.

6 Playback

Click HOME key ● to enter the menu interface，and then click Playback ⏵ to enter into playback interface and play the selected file

7 Make a flag for the file

In video/audio recording mode, short press flag button ⚠ to mark it as   important file, the icon ⚠ will display on the top of screen. Short press key mark button ⚠ again to cancel the mark.

When playback the file, short press key mark button ⚠ to mark it as important file or cancel the mark. The name of the marked file has the characters "IMP".

8 Parameter configuration

Click HOME key ⬤ to enter the menu interface，and click Setup icon ⚙ to enter into the parameters configure interface, you can setup all the camera parameters here, such as resolution, network settings and so on.

9 Intercom

Click HOME key ⬤ to enter the menu interface，and click Intercom icon 📡 ，enter into the intercom interface , and select online users for video or voice intercom, you can finish it by sliding the end button.

10 Alarm

Click HOME key ⬤ to enter the menu，and click Alarm 🚨 to enter into the Alarm interface，you can browse the received alarm, select and check the details, open the video, the video files will be automatically associated with the alarm and marked as important documents.

11 Application

Click HOME key ⬤ to enter the menu，and click APP ☺，enter APP interface and select the corresponding application.

12 SOS

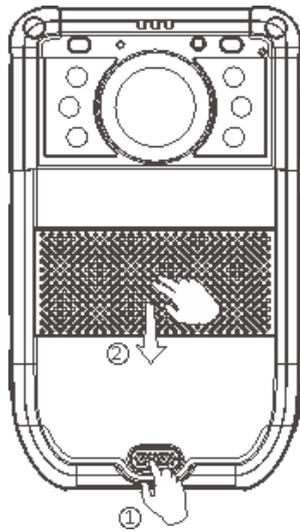Short press SOS button ⌊SOS⌋，the camera will send emergency alert to the Center management platform.

13 Reset

If the system crash and the operation is no respond, long press power button for about 10 seconds, the camera will be forced to reset

Remark: Reset operation will not cause data loss or damage, and it will not change the system settings.

1. Replace battery

① Press the battery cover lock down, and do not loose it
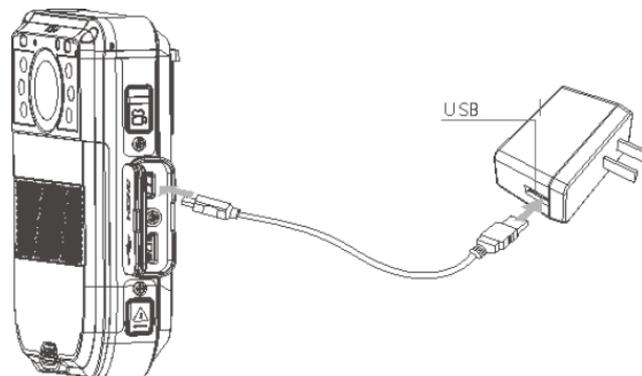② Push the battery cover parallel to the direction of the arrow and remove it.

2. Charging the Battery

Remark: When you recharge the body camera, please make sure it is OFF. Also, even you don't use the camera for a long time; please recharge it every 3 months.
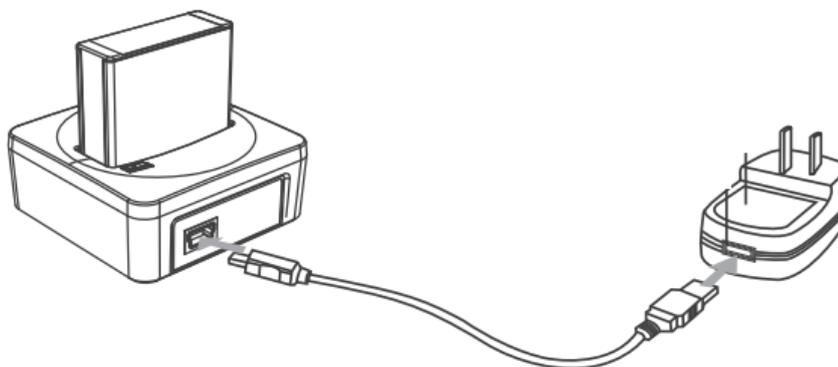
1.Charge the camera

Connect this camera and adapter via USB cable, and connect adapter to power supply to charge the battery. In charging status, the status indicator will turn red. Once the battery is fully charged, the status indicator will turn green.

1. Charge the battery

Connect the battery charger to the power supply to charge the battery. In charging status, the status indicator will turn red. Once the battery is fully charged, the status indicator will turn green.

★ As we are committed to constantly improving our products, some details may not be in conformity with the actual products. Please accept our understanding for the inconvenience caused by the actual products.

FCC Compliance

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. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Note: 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.

Health and safety information Radio Frequency (RF) Energy:

This Body Worn Camera meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government: The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the Body Worn Camera is designed to operate at multiple power levels so as to use only the poser required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. The highest SAR value for the Body Worn Camera as reported to the FCC when tested for use when worn on the body, as described in this user guide, is 1.064W/kg (Body-worn measurements differ among device models, depending upon available enhancements and FCC requirements). While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement. The FCC has granted an Equipment Authorization for this Body Worn Camera with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this Body Worn Camera is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on FCC ID: 2AR3HBWC-R1

For body worn operation, this Body Worn Camera has been tested and meets the FCC RF exposure guidelines for use with an accessory that contains no metal and the positions the handset a minimum of 1 cm from the body. Use of other enhancements may not ensure compliance with FCC RF exposure guidelines. If you do not use a body worn accessory and are not holding the device at the ear, position the handset a minimum of 1cm from your body when the device is switched on.