

C.D. Products

**BODY CAMERA
USER' S MANUAL**

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C.D.Products S.A.

Preface

Thank you for using our Body Cameras. This manual is applicable for BC001 series Body Cameras. Please read the manual carefully before using the devices. Please keep this manual for reference in the future. The content of this manual is subject to be changed without notice.

Important notice

- Please keep ventilation for the device to prevent overheating.
- Please contact your supplier if the device is not working properly. Please do NOT disassemble or modify the device in any way.
- Please do NOT charge the device at high temperature over 45 degrees Celsius, or else it could cause the explosion of the battery.
- Please read this manual carefully before using the device and follow the instruction in this manual when using the device.
- Please backup the data in the device timely.
- Please keep the camera clean to get the best recording file and pictures.
- Please keep your password and user name in safe place.

Brief introduction and main features

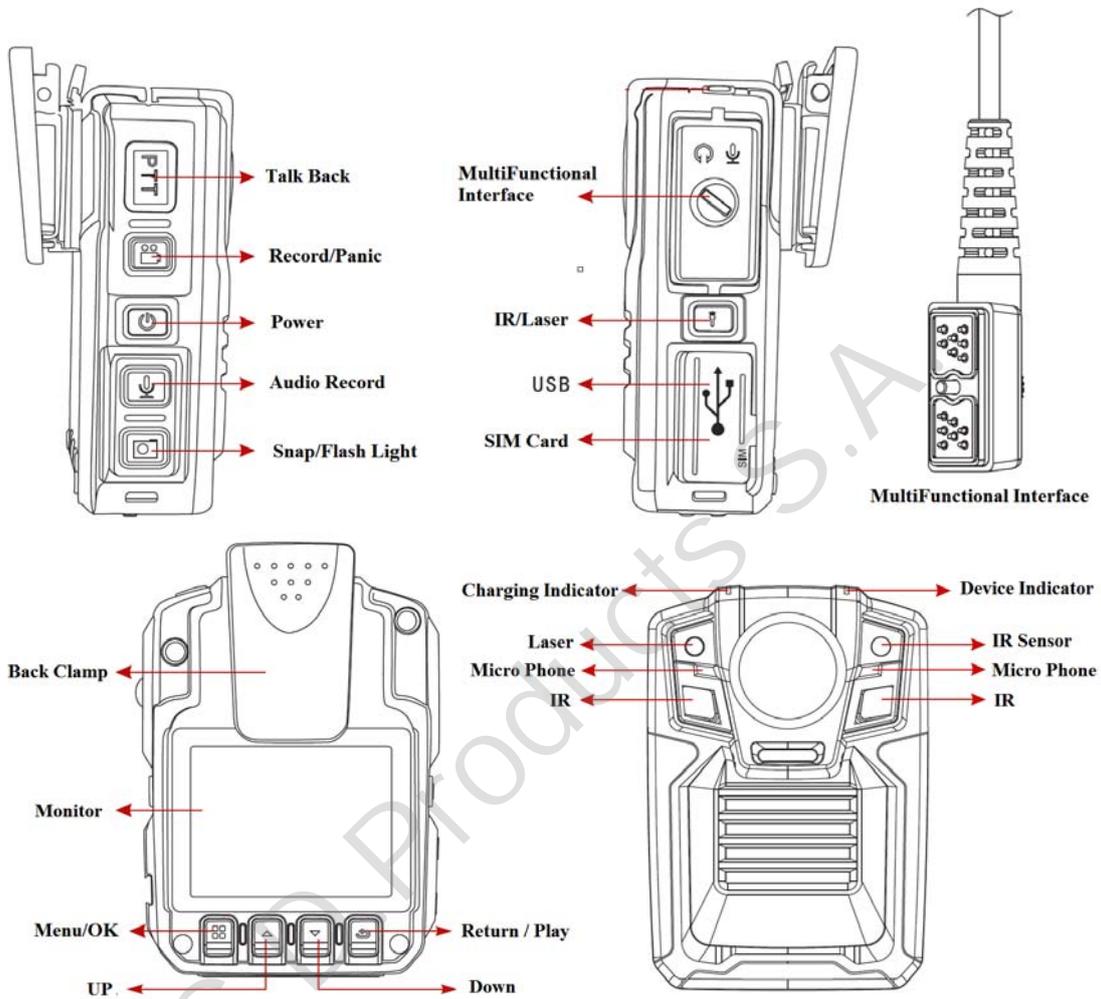
Brief introduction

The body cameras are the portable devices that can record video and audio. The devices can also transmit live video and audio through 3G or 4G, do live tracking with GPS. The devices have a TFT monitor and buttons on it and user can operate the device easily. The body cameras are usually used by police man, security guard, and other law enforcement officers.

Main features

- The device is in compact size and suitable for portable use of recording.
- User can get live video and audio through 3G, 4G or WiFi,
- User can get live tracking of the device through built-in GPS in the device. The GPS data will also be recorded into the record file with audio and video, so user can get the location in the record file.
- Use lithium battery for power supply. Device can be recording continuously for 12 hours with 2 batteries.
- Built-in 16G storage space. (32G~128G optional storage space)
- Built-in 16 million pixel cameras, support recording at 1080P, 720P or D1 resolution, support taking picture with 16 million pixels, 12 million pixels and 5 million pixels.
- Support IR. Support recording at night.
- Record file name have information on date, time, record type, which make it easier for searching and document.
- User can explore, search and playback the files on the device.
- Support panic button. The panic button alarm can be sent to control center through 3G/4G.
- Device can display device ID, user ID, date and time.
- Device can display information about battery usage, charging status, system time and memory space. Device have light indication for power on, recording video or audio. Green light indicates power on, red light indicates recording.
- Device can report event alarm, including alarm for battery running down, insufficient memory space alarm etc.
- Device have log files. Device will log events including power on/off, recording video, recording audio, taking pictures, GPS status fixed, 3G/4g connection, and WiFi connection.

Buttons Description



Buttons Description

| Buttons | Icon | Action | Function |
|---------------------------|---|-------------|--|
| Power |  | Short press | When device is ON, it will turn on/off the monitor. When device is OFF, it will turn on the device. |
| | | Long Press | Turn off the device. |
| Talk Back | PTT | Short press | Start talking back. |
| Record / Panic |  | Short Press | When device is ON, short press will start recording video, short press again will stop recording and save video files. When device is OFF, short press will turn on the device. |
| | | Long Press | Long press for over 3 seconds will start a panic alarm and this alarm can be sent through 3G/4G. |
| Snap |  | Short Press | When device is ON, short press can make the device to take one picture and save the picture. |
| | | Long Press | Long press will turn on the flash light. |
| Audio Recording |  | Short Press | When device is idle, short press will start recording audio, press again will stop recording and save the audio. |
| Laser |  | Short Press | When device is idle, short press will turn on the laser light. The laser light is used for locating the direction of the camera. |
| | | Long Press | When device is idle, long press will turn on the IR for recording at night. |
| Multifunctional interface |  | Connect | For connecting with earphone, external cameras. |
| SIM | SIM | Insert | Insert SIM card for 3G/4G connection |
| USB | USB | Connect | Data transmitting, Charging |
| Menu |  | Short Press | Short press to display the main menu in the monitor. |
| UP |  | Short Press | Scroll up the menu. |
| DOWN |  | Short Press | Scroll down the menu. |
| Return / Play |  | Short Press | When menu is displayed, short press will return back to the upper level menu; When device is idle, short press will show the play back menu and user can choose to play the video files, pictures, audio files. |

Device Indicator

| Color | Description |
|--------|-----------------|
| Green | Idle |
| Red | Recording Video |
| Yellow | Recording Audio |

Operations

1、 Power On/Off

Short press the “Power” button, the device will be turned on. When the device is ON, short press the “Power” button will turn On/Off the monitor, long press the “Power” button will turn off the device.

2、 Record Video

When the device is ON, short press the “Record” button to start recording, the device will vibrate twice and the device indicator will turn red. When the device is recording, short press the “Record” button again will stop recording and start saving files, the device will vibrate twice and beep.

When the device is OFF, short press the “record” button will turn on the device.

At night, user can long press the “Laser” button to turn on the IR. In the IR mode, the picture will be black and white.

3、 Record Audio

When the device is ON, press “Audio Record” button to start recording, the device will vibrate twice and the device indicator will turn yellow. Press the “Audio Record” button again, the device will stop recording audio and save the audio file.

4、 Take Picture

When the device is ON, press “Snap” button to take pictures.

5、 IR

Long press the “IR” button, user can turn On/Off the IR light. When the IR is ON, the recording pictures will be black and white.

6、 Play Back

Short Press the “Play” button, the “Playback” menu will be displayed. User “UP” and “DOWN” button to choose the directory and file to play back.

6.1 Play back video files

In “Video” file directory, there are directories named with date and hour, press “OK” button to open these directories and choose the file and press “OK” button to play back. The video file is in the format of AVI.

6.2 View the pictures

In the “Photo” directory, there are directories named with date and time. Choose the picture file and press “OK” button to view the pictures. The pictures is in JPG format.

6.3 Play Audio

In the “Audio” directory, there are directories named with date and hour. Choose the audio file and press “OK” to play the audio. The audio file is in the WAV format.

7、 Settings

Note: when the device is idle, press “menu” button to show the “Setting” menu. Press “OK” button to choose the sub-menu. Press “UP” and “Down” to scroll up and down in the menu. Press “OK” to choose the menu or value. Press “Return” to return to the upper level menu.

7.1 Recording Resolution (Rec Res menu)

The resolution for recording is 1080P (1920*1080). User can choose 1080P

7.2 Recording Frame Rate (Rec FPS menu)

The default recording frame rate is 30 frames per second (fps). User can choose from 5fps to 30fps.

7.3 Recording Bitrate (Rec Quality menu)

The default recording bitrate is "High". User can choose from "High", "Medium" and "Low". The value of the bitrate is as following.

| | High (bits per second) | Medium (bits per second) | Low (bits per second) |
|-------|------------------------|--------------------------|-----------------------|
| 1080P | 8M | 4M | 1.5M |

7.4 Remote View Resolution (Remote Res menu)

The remote view resolution is the resolution for video transmission through 4G/3G. The default resolution is (1280*720), user can choose 720P and VGA (640*480).

7.5 Remote View Frame Rate (Remote FPS menu)

The remote view frame rate for video transmission through 4G/3G. The default frame rate is 30fps, user can choose from 5fps to 30fps.

7.6 Remote View Bitrate (Remote Quality menu)

The default value for remote view bitrate is "High". You can choose from "High", "Medium" and "Low".

| | High (bits per second) | Medium (bits per second) | Low (bits per second) |
|------|------------------------|--------------------------|-----------------------|
| 720P | 1.8M | 1.2M | 800K |
| VGA | 1M | 700K | 35K |

7.7 Photo Size

Set the resolution for taking pictures, the default value is "2M", "2M" means 2 million pixels. User can choose from "2M", "4M" and "8M".

7.8 USB Mode

The default USB mode is "Auto". User can choose from "Auto", "Host" or "Slave" mode.

7.9 3G/LTE

The 3G/LTE mode is used to turn On/Off 3G/4G. The default mode is "On".

7.10 LAN port

This is used to turn On/Off the LAN port. This feature is reserved for future use.

7.11 WIFI

Used for turn On/Off the WiFi. By default, the WiFi is off.

7.12 External Cameras (Ext Camera menu)

Used for turn On/Off the external camera. This feature is reserved for future use.

7.13 Auto Screen Off

The timeout value for turning off screen automatically. The default value is 5 minutes, user can choose from options "5 minutes", "3 minutes", "1 minute", "30 seconds" and "off".

7.14 Record Mode

The record mode can be "Auto" and "Manual".

7.15 IR Switch

The IR switch mode can be "Auto" and "Manual".

7.16 MIC Volume

The microphone volume can be from 0 to 10. The default value is 10.

7.17 SPK Volume

The speaker volume can be from 0 to 10. The default volume is 10.

7.18 Audio notify

Turn On/Off the audio when pressing buttons.

7.19 Language

Set the language for the device.

7.20 Device Information

The device information includes hardware version, firmware version, MCU version, UUID (the device ID), manufacturer ID, product ID, Lan IP, 3G/LTE IP, Gate way, DNS0, DNS1, Server IP, Server Port.

Specification

| | | |
|----|--------------------------------|---|
| 1 | Chip Set | Powerful Ambarella A12 core |
| 2 | OS | Linux 3.10.73 |
| 3 | Startup Time | < 3 Seconds (From power on to recording) |
| 4 | Image Sensor | 1/2.9" color CMOS sensor |
| 5 | Image Angle | HOV $\geq 130^\circ$ |
| 6 | Light Compensation | Infrared Light, range up to 10 meters |
| 7 | IR-Cut | Automatic |
| 8 | Snap shot | JPG, max resolution up to 7696×4329 (32 million pixels) |
| 9 | Video Format | H.264 |
| 10 | Recording Resolution | 1920×1080p30 for recording and 1280×720p30 for 4G live view |
| 11 | Low Bit Rate | Ambarella Smart AVC technology for volume saving |
| 12 | FPS | 30fps/25fps/20fps/15fps/10fps/5fps |
| 13 | Audio Format | G.711 |
| 14 | Digital Zoom | 16X |
| 15 | Dewarp | Dewarp processing for fish eye lens or wide angle lens (coming soon) |
| 16 | Playback | 1X Playback, 2X Fast Forward/ Reward |
| 17 | LCD | 320x240, 2.0 inch |
| 18 | LCD brightness | >500cd/m ² |
| 19 | LCD Contrast | $\geq 2000:1$ |
| 20 | Data Port | Mini USB & 14pin Auxiliary port |
| 21 | Storage Media | SD Card(SDHC, SDXC up to 256GB) |
| 22 | GPS | Internal GPS module with time synchronize |
| 23 | Battery | Replaceable battery, 1950mAh each |
| 24 | Charging time | ≤ 3 hours (use the standard power adaptor) |
| 25 | Pre-record | Pre-record and Post-record time: 1min or adjustable |
| 26 | Low Power Consumption | <1.0W @1080p30 Recording with audio (without GPS, WIFI, 4G_LTE working) |
| 27 | 4G standby consumption | 2mA standby current with remote data wake up |
| 28 | Continuous working time | >12 hours 1080p30 recording (with one backup battery) |

Body Camera User's Manual

| | | |
|----|---------------------|--|
| 29 | Build-in Modules | Optional GPS, WIFI, 3G/4G_LTE |
| 30 | Language | Chinese / English / Russian |
| 31 | Charging Base | For battery charging and data transmission |
| 32 | Dimension | ≤60mm × 85mm ×30mm |
| 33 | Weight | ≤155g |
| 34 | Working Temperature | -30°C ~ 55°C |
| 35 | Water Proof | IP65 |
| 36 | Parameter settings | LCD menu |
| 37 | Interphone | External analog interphone port |
| 38 | External Camera | Mini digital 1080p30 external Camera |
| 39 | Wireless | 300Mbps WiFi and 3G/4G_LTE |

Packing List

| | Item | Number |
|---|----------------|---------|
| 1 | Body Camera | 1 unit |
| 2 | Battery | 2 units |
| 3 | Charging stand | 1 unit |
| 4 | USB cable | 1 set |
| 5 | Power cable | 1 set |