

BODY CAMERA USER'S MANUAL

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Preface

Thank you for using our Body Cameras. This manual is applicable for BC107 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 the device from high temperature.
- When smoke, smell or noise comes out from the device, shut down the power immediately, and contact your supplier in time.
- Please contact your supplier if the device is not working properly. No warranty will be covered if the damage caused by unauthorized disassembly or repair.
- Please do NOT charge the device at high temperature over 45 degrees Celsius, it could possibly cause the explosion of the battery. Please use the certificated battery from the original factory ONLY.
- Please read this manual carefully before using the device, and follow the instructions when using the device.
- Please do NOT kick or hit the product to avoid device damage and data missing.
- Keep the device away from high temperature and high humidity environment.
- Keep the device away from strong interference source.
- Please backup the data recorded by the device in time.
- Please keep the lens clean for good image quality.
- Please keep your user name and password safe.

Brief Introduction and Main Features

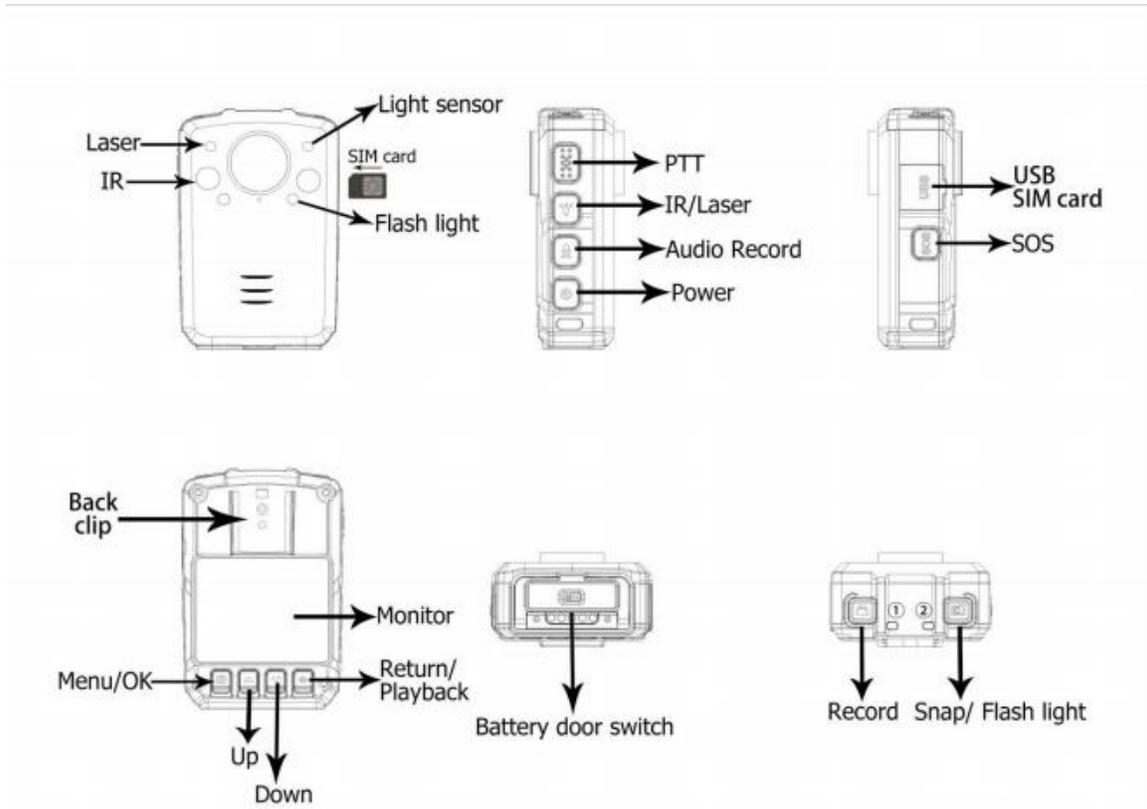
Brief introduction

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 information in the record file.
- Use lithium battery for power supply. Device can be recording continuously for 8 hours.
- Built-in 32G storage space. (32G~128G optional storage space)
- Built-in 5 million pixel cameras, support recording at 1512P, 1440P, 1296P or 1080P resolution, support taking picture with 64M, 16M and 4M.
- Support IR. Support recording at night.
- Record file name have information on date, time, record type, which make it easier for searching.
- 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.
- Record encryption makes the evidence more safe.
- Support H.264 video compression.
- 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 has light indication for power on, recording video or audio. Green light indicates power on, red light indicates video recording, yellow light indicates audio recording.
- Device can report event alarm, including alarm for battery running low, insufficient memory space alarm etc.
- Device has log files. Device with log events that include power on/off, recording video, recording audio, taking pictures, GPS status fixed, 3G/4G connection, and WiFi connection.

Buttons Description



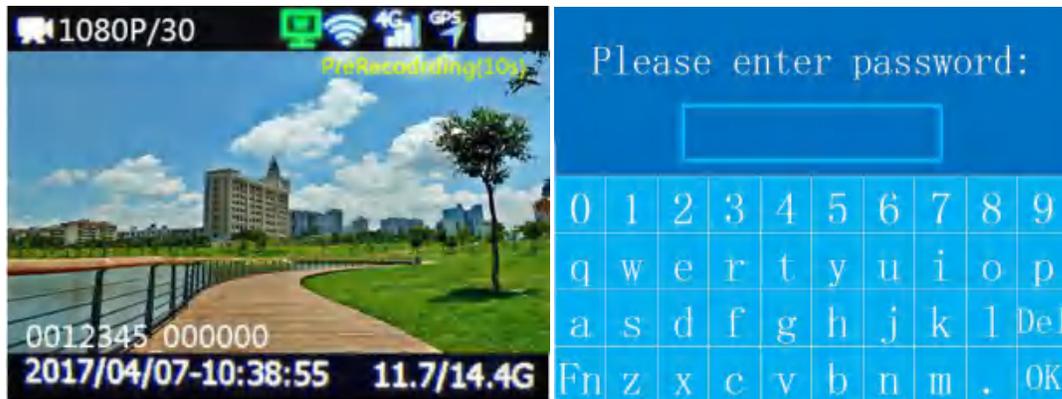
Buttons Description

Buttom	Icon	Action	Function
Power		Short Press	When device is ON, short press to turn on/off the screen.
		Long press	1. When device is OFF, power on device when holding for over 3 seconds. 2. When device is ON, power off device when holding for over 3 seconds.
Talk back	PTT	Short Press	Start talking back. (Need to connect to interphone or server through internet★)
Record		Short Press	Start recording when device is ON, Stop recording after pressing it again.
		Long press	Power ON and start recording when device is OFF.
Snap		Short Press	1. Start to snap. 2. Snap when device is recording and store the picture.
		Long press	Holding for 3 seconds will turn on the flash light when device is ON.
Audio Record		Short Press	1. Start recording audio when device is ON. 2. Switch to record audio when device is recording video.
Laser		Short Press	Turn on the laser when device is ON (only when laser is enabled in menu)
		Long press	Holding for 3 seconds will turn on the IR (when IR is in manual mode)
SOS	SOS	Long press	Holding for 3 seconds to starts an alarm and recording, send the alarm to server at the same time★
SIM	SIM	Insert / Eject	Insert a SIM card into the slot and use 4G service to connect internet★
USB	USB	Connect	For charging, data transmission, external camera, headset and interphone ect.
Menu/ OK		Short Press	1. Display the main menu on the screen when device is in preview mode. 2. Confirm the setting changed.
		Long press	Switch 1080P, 720P or other REC resolution in preview mode.
Up		Short Press	Scroll up the menu or zoom out the view in preview mode.
Down		Short Press	Scroll down the menu or zoom in the view in preview mode.
Return / Play		Short Press	1. When menu is displayed, press to return to the upper level menu; 2. When device is idle, press to play back recorded video, audio and pictures. 3. When recording, press the button will mark the recording video as IMP file.
		Long press	Disable/Enable menu operaton when recording.

Indicator

LED Indicator	Colour	Description
Indicator 1	Blue	ON: Charging complete Twinkling: Charging OFF: Not charging
Indicator 2	Green	Twinkling slowly: Idle ON: Live streaming or menu operating
	Red	Video recording in progress
	Yellow	Audio recording in progress

Interface Introduction



- 1080P/30 Preview mode, resolution is 1920*1080 and FPS is 30
- PreRecording(10s) Pre-recording 10 seconds
- 0012345 000000 Product ID_Officer ID
- GPS signal icon GPS signal icon
- 3G/4G Signal icon 3G/4G Signal icon
- WIFI Signal icon WIFI Signal icon
- Battery icon Battery icon
- 2017/04/07-10:38:55 Date and time
- 11.7/14.4G Available memory/total memory
- Connected server icon Connected server icon
- Please enter password: The default password is 888888 (Only for six letters or numbers)

Operations

1. Power On/Off

When the device is OFF, holding the "Power" button for 3 seconds will turn on the device.

When the device is ON, short press the "Power" button will turn On/Off the monitor, press and hold the "Power" button for 3 seconds will turn off the device.

2. Record Video

When device is ON, short press the "Record" button to start recording, the device will vibrate once and indicator will turn red. When the device is recording, press the "Record" button again will stop recording with vibration and beep.

When device is ON, holding the "SOS" button for 3 seconds to activate the alarm system and start recording.

When the device is OFF, holding the "record" button for 3 seconds will power on the device and start recording video.

3. Record Audio

When the device is ON, press "Audio Record" button to start recording, the device will vibrate once and the indicator will turn yellow. Press the "Audio Record" button again, the device will stop recording.

4. Take Picture

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

5. IR

When the IR setting is Manual, holding the "IR" button for 3 seconds can turn On/Off the IR light; When the IR setting is Auto, the IR switches according to the ambient light illumination. When the IR is ON, the Bodycam's view will be black and white.

6. Play Back

Short Press the "Return" button, the "Playback" menu will be displayed. Use "UP" and "DOWN" button to choose the directory and file to play, The directories and files are named with date and time. See the picture below, the directory of "20190101_20" means those videos in the folder is recorded between 20:00 and 21:00 in the day of 2019/01/01, "203315" means the video is generated at 20:33:15, "1030h4" means that is a H.264 video with 30fps@1080P.

Playback	20190101_20	001/002	20190101_16	001/001	20190101_13	001/001
Video	203315_1030h4.avi		164732_3.jpg		135326.wav	
Photo	202011_1030h4.avi		160311_2.jpg		136012.wav	
Audio	202433_1030h4.avi		162036_1.jpg		134428.wav	
	202017_1030h4.avi		161115_0.jpg		133852.wav	
	201518_1030h4.avi				132819.wav	
	201425_1030h4.avi					

6.1 Play back video files

In "Video" directory, there are directories named with date and hour, press "OK" button to access the directories and press "OK" button to play back. The video format is AVI.

6.2 View the pictures

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

6.3 Play Audio

In the "Audio" directory, there are directories named with time. Choose the audio file and press "OK" to play the audio. The audio format is WAV.

7. Settings

When the device is in preview mode, press "menu" button to show the "Setting" menu. Press "UP" or "Down" to scroll up or down in the menu. Press "OK" to set the configuration. Press "Return" to return to the upper level menu.

Setting		Setting	
Rec Resolution	1080P	Live Quality	Medium
Record FPS	30	Live EncType	Normal
Record Quality	High	Picture Size	4M
Rec EncType	Normal	Burst Shot	Off
Live Resolution	720P	USB mode	Auto
Live View FPS	25	3G/4G	On

- The Rec resolution is for recording. The default setting is 1080P (1920*1080).
- The default record FPS is 30 FPS. The higher of the FPS, the smoother of the video footage.
- Recording quality refers to the bit rate of recording, the higher of the bit rate value, theoretically, the better image we can get from the video footage.

Normal/Advance	Super	High	Medium	Low
1080P	8/ 4M	5/ 3M	3/ 1.8M	1.2/ 1M
1296P	9/ 5M	6/ 3.5M	3/ 2.4M	2/ 1.5M
1440P	10/ 6M	7/ 4M	4/ 2.5M	2/ 1.5M
1512P	10/ 6M	7/ 4M	4/ 2.5M	2/ 1.5M

- The Rec EncType is for recording files compression, given "Normal" and "Advance" two options. Theoretically, "Advance" consumes 50% less storage space than "Normal" mode under the same picture quality.
- The Live resolution is for video streaming through 4G/3G or WiFi. The default resolution is (1280*720), the higher value we set, the better image we can get from the live streaming.
- The Live view FPS for video streaming through 4G/3G or WiFi. The higher of the FPS, the smoother of the live video.
- The default value of live quality is "medium". We can get a better live streaming base on the higher live quality value.

Normal/Advance	Super	High	Medium	Low
720P	2/ 2M	1.5/ 1.5M	1/ 1M	0.8/ 0.5M
1080P	3/ 3M	2.5/ 2M	1.8/ 1.5M	0.8/ 0.5M
1296P	3.5/	2.8/ 2.8M	2/ 1.8M	1.5/ 1M

1440P	4/ 4M	3/ 3M	2/ 2M	1.5/ 1M
1512P	4/ 4M	3/ 3M	2/ 2M	1.5/ 1M

- The Live EncType is for live streaming compression, include "Normal" and "Advance" two options. Theoretically, "Advance" consumes 50% less data transmission than "Normal" mode under the same picture quality.
- Picture size means the picture's resolution when you snap; the picture's resolution you took when device record, which is based on the record resolution.
- The default USB mode is "Auto". User can choose from "Auto", "Host" or "Device" mode. "Host" means that device is working on 4G/3G or WiFi mode; "Device" means camera is communicating with PC; "Auto" means that camera can detect the USB connected, if the USB cable connects with PC, camera will work on "device" mode, if the USB cable connects with charger, camera will work on "Host" mode.
- The 3G/4G setting is used to turn On/Off 3G/4G module.

Setting		Setting	
WiFi	On	Record Mode	Manual
WiFi List		Overwrite Mode	On
GPS Module	PowerSave	IR Switch	Manual
G-sensor	Off	Mic Volume	8
Face Recognition	On	SPK Volume	9
Autoscreen Off	30 Seconds	Voice Reminder	Beep

- The WiFi setting is to turn On/Off the WiFi and AP. The default AP password is 12345678. WiFi list can show the list of WiFi searched by device, device can connect a WiFi in the list.
- The GPS module is to turn on/off the GPS, when the GPS connected, the GPS icon will turn green.
- Device support built-in G-sensor chip, which makes device alert and start recording when device was impacted.
- Camera support face recognition function, if a face were similar to a picture stored in the database, device would trigger an alarm and start recording. User can get the manual for importing the face database to the device at [ftp://netdvr.net/BCFR](http://netdvr.net/BCFR) or contact sales for the manual.
- The setting of Autoscreen Off is for turning off screen automatically, when the setting is OFF, you have to press power button to turn screen off.
- The record mode can be "Auto" and "Manual". When it is "Auto", device will record video automatically after device power on, and when it is "Manual", video record needs to press record button.
- The earliest files (except the IMP files) can be overwritten when the memory card is going to overflow.
- The IR switch mode can be "Auto" and "Manual". "Auto" means IR will automatically switch depends on ambient light illumination, "Manual" means that holding the "IR" button for 3 seconds to switch IR.

- The microphone volume can be choose from 0 to 10. The higher of the setting value, the more sounds information device can get from the surrounding.
- The speaker volume can be from 0 to 10. The speaker sound would be louder if the setting were larger.
- Voice reminder is to turn On/Off the “beep” when button was pressed.

Setting		Setting	
Vibrate Reminder	On	Time Sync	On
External Audio	Off	Laser	Disable
File Length	5Mins	Password	Off
Record Encrypt	On	Talk Group	Off
Pre-Recording	Off	Talk P2P	Off
Post-Recording	Off	Language	English

- External audio includes “Headphone”, “Interphone”, “None” 3 options. The setting should refer to the external device connected with camera.
- File length means the length of each saved video file. You can select from “5 Minutes” to “30 Minutes”.
- “Record Encrypt” means that the video is encrypted when you record, the encrypted video can be played with special player, the default password is 888888.
- Pre-Recording means that device records 10 seconds video and store in RAM cyclically in advance when you press the “record” button.
- Post-Recording means that device will continue recording within the setting time after you press the “record” button to end the record. The options include 5s, 10s, 20s, off.
- The default laser setting is “disable”, which means that you can NOT turn on laser light by pressing “IR/Laser” button, to turn on the laser you must change the setting to “enable”.
- When the password protect is ON, it needs you to enter the password to get into the setting and playback interface.
- According to the body camera’s registration, the default language is English.
- Talk group means that several people can talk in a group, it needs an internet platform to support the function. When the device is online, access the “Talk Group” interface, groups will appear on the page, select one and then holding the “PTT” button to start group talking. If device not supported the function, the “Talk Group” menu was always being “Off”.

Talk Group	01/01	Setting
Off		Device Info
TeamA_grouptalk		
TeamB_grouptalk		

●Talk P2P means that 2 people can talk to each other in a “talk group”, so the function is based on the “group talk” function, need to choose a talk group first and then “P2P” is ready, it needs an internet platform to support the function.

●The device information includes hardware version, firmware version, MCU version, Device SN, vendor ID, product ID, Lan IP, 3G/LTE IP、WiFi IP, Gate way, DNS0, DNS1, Server IP, Server Port, 4G/3G Module, IMEI, Operator Name, Signal Level, WiFi Module, WiFi MAC, AP Name.

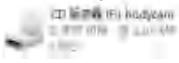
Device Info		Device Info		02/04 Device Info		03/04 Device Info		04/04	
HW Ver	V1.0.3-1710-BC07	3G/4G IP	10.10.10.10	Server port	6608	WiFi MAC			
FW Ver	V2.5.1-2019010116	WiFi IP	192.168.0.222	3G/4G module	YY20	AP Name			
MCU Ver	20/09/2018-03	gateway	192.168.0.1	IMEI	123456789012	GPS Module	GPS		
DEV/SN	00001111	DNS0	192.168.0.1	Operator Nam	CHN-UNICOM				
VendorID	BC1	DNS1	192.168.0.1	Signal Level	-56dBm				
ProductID	0200E	Server IP	mobilecam3.net	WiFi Module	AP6255				

Operation for BodycamTool

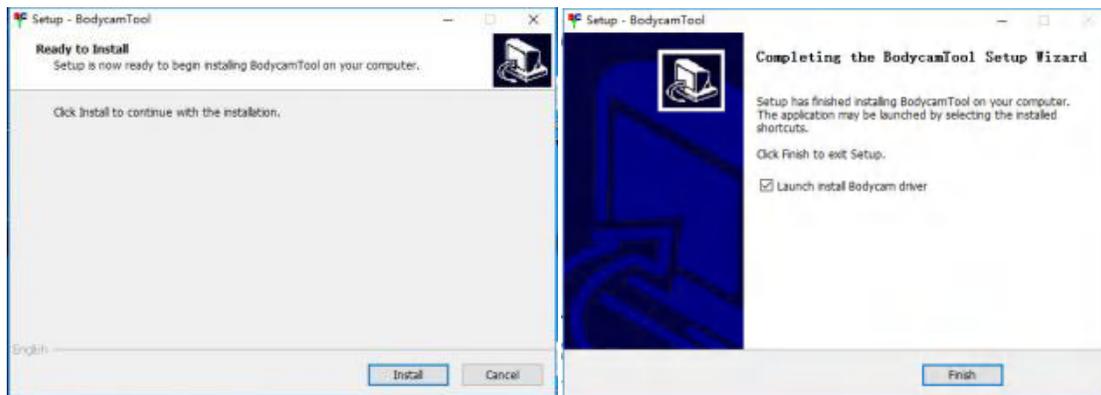
◆ Install the BodycamTool

Support Windows2000/WindowsXP/Vista/Windows7/Windows8 and Windows10, if it's your device first time to connect your PC, you need to install the BodycamTool software to make your PC communicate with our device.

1.1 Hold the “PTT” button to connect device to your PC's USB port with USB cable, then your

PC will generate a “CD driver”, see the picture:  , and then find the software “BodycamTool.exe” in the “CD driver”.

1.2 Double click the BodycamTool.exe to set up the software, and click the “finish” button to finish the installation.

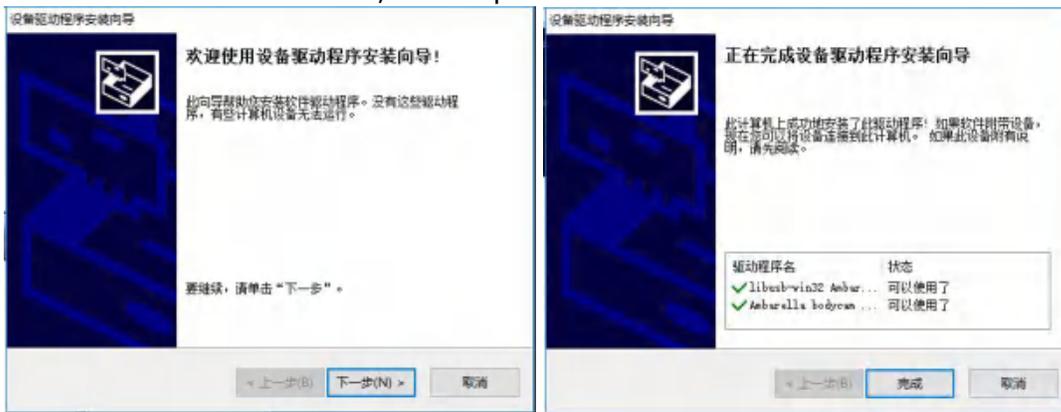


And then it will continue to install the USB driver, see the picture as below:

```

C:\WINDOWS\system32\cmd.exe
Using INF guid.
Hash added.
Catalog file 'bodycam_libusb.cat' created.
Deleted existing certificate: CN=libusb-win32 (bodycam_libusb.inf) [Self] (Root store)
Deleted existing certificate: CN=libusb-win32 (bodycam_libusb.inf) [Self] (TrustedPublisher store)
Set Enhanced Key Usage, URL and CPS.
Created new key container.
Generated new keypair.
Created new self-signed certificate: CN=libusb-win32 (bodycam_libusb.inf) [Self]
Added CN=libusb-win32 (bodycam_libusb.inf) [Self] certificate to 'Root' and 'TrustedPublisher' stores.
Signed file: C:\Users\Administrator\AppData\Local\Temp\1s-VQ3K4.tmp\Driver\bodycam_libusb.cat
Deleted private key.
Success!
Hash calculated for: .\bodycam_rndis.inf
Using INF guid.
Hash added.
Catalog file 'bodycam_rndis.cat' created.
Deleted existing certificate: CN=Asiarella bodycam Inc. (bodycam_rndis.inf) [Self] (Root store)
Deleted existing certificate: CN=Asiarella bodycam Inc. (bodycam_rndis.inf) [Self] (TrustedPublisher store)
Set Enhanced Key Usage, URL and CPS.
Created new key container.
Generated new keypair.
Created new self-signed certificate: CN=Asiarella bodycam Inc. (bodycam_rndis.inf) [Self]
Added CN=Asiarella bodycam Inc. (bodycam_rndis.inf) [Self] certificate to 'Root' and 'TrustedPublisher' stores.
Signed file: C:\Users\Administrator\AppData\Local\Temp\1s-VQ3K4.tmp\Driver\bodycam_rndis.cat
Deleted private key.
Success!
    
```

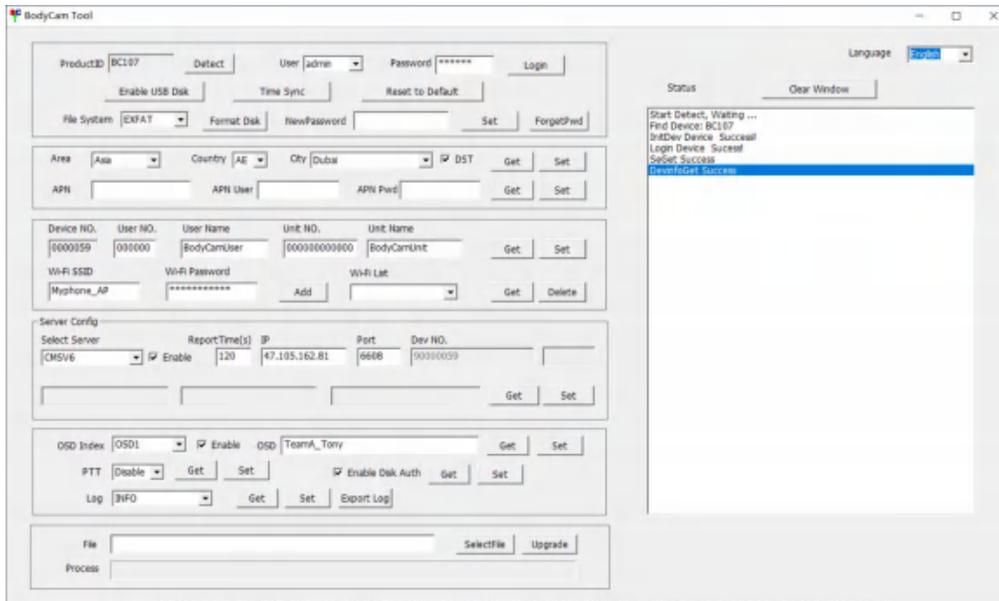
Click "next" button to go on the driver's installation, then the driver install successfully, click "Finish" to end the installation, see the picture as below.



◆ Login BodycamTool



1. Double click the icon  to run the software after your device connect to your PC, click "Detect" button to read the product ID, when the "Status" box shows "InitDev Device Success!", which means that BodycamTool connects device successfully, input the password 888888; click "Login" button, the "Status" box shows Login Device Success! See the picture as below:



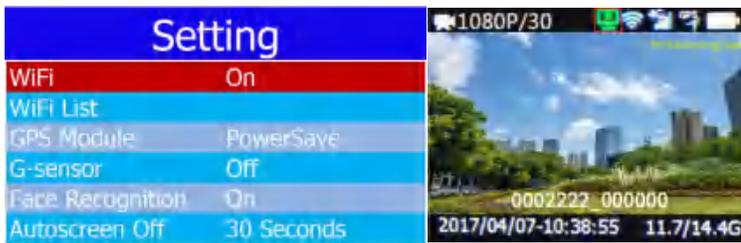
2. In the first part we can see the "Enable USB Disk" button that means device's memory can be read by PC, "Time Sync" means that device's time can synchronize to your PC. Note those three setting "Reset to Default"/"Format Disk"/"Newpassword", Once the factory settings are restored, the current settings saved will be restored to the factory default settings. Format SD indicates that the data inside the device will be erased completely. Device default password is 888888, if you want to modify the password, Please make it easy to remember.
3. In the second part user can set "Area"/ "Country"/ "City" according to your current location, after that the time zone will change automatically. "APN" means that device support dedicated card provided by telecommunication operators, the "APN User" and "APN" is also provided by operators.
4. The third part include device information and WiFi, click "Get" button to read the default information, you can click "Set" to modify these information after you input a new one(the "Device NO." can NOT be changed). Input "WiFiSSID" and "WiFi password", then click "Add" button to add the WiFi to device and then click "Get" to check if the WiFi was adding successfully.
5. The forth part is server config, Select the "ServerName" to "CMSV6" and click "Get" button to get the default server setting, modify the server IP in "IP" box and then click "Set" to save the IP setting. (6608 port is the default one, generally the default port doesn't need to change)
6. The fifth part is about "OSD", "PTT" and "Log". Enable the "OSD Index" to add a water mark for recording and snapping. For "Enable"/ "Disable"/ "Auto" respectively means full duplex/ half duplex/ auto mode. Click "Export log" to export log to the device storage.
7. The sixth part for device upgradation.

Note: To avoid detecting device failed due to inadequate power, try to connect it in rear USB slot in your PC.

Operations for 4G BodyCamera Connection

This part is only for built-in 4G or WiFi module device.

1. Connect to the internet with WiFi. (If the device has NOT built in WiFi model, you can skip this part)
 - a. Remove the USB cable from device after you have set WiFi to your device in "BodyCamToll".
 - b. Then go back to the device and find the wifi setting, change the setting to be "ON" (Or user can add WiFi in device's "WiFi list" menu). And then you can find the WiFi signal icon and "W" icon on the screen, when the "W" icon turns green, which means the device has connected to the server.



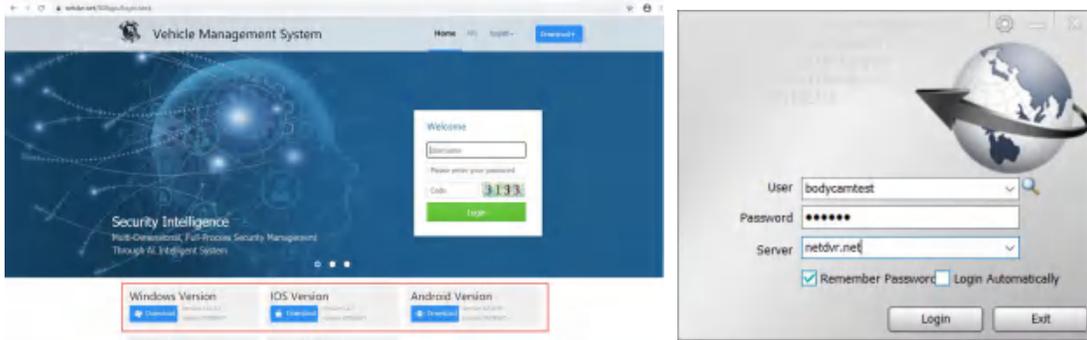
2. Connect to the internet with 4G SIM card. (Make sure "USB Mode" setting is Auto)
 - a. Insert an available 4G SIM card into the BodyCamera's card slot after device power off.
 - b. Power on the device, once the device has connected to the internet, you can see a 4G signal icon on the screen, and the "M" icon beside 4G signal icon will turn green, which means the device has connected to the server.



Icon	Definition
	WiFi ON and waiting to connect WiFi
	WiFi connected
	4G module ON but no SIM car detected
	4G connected



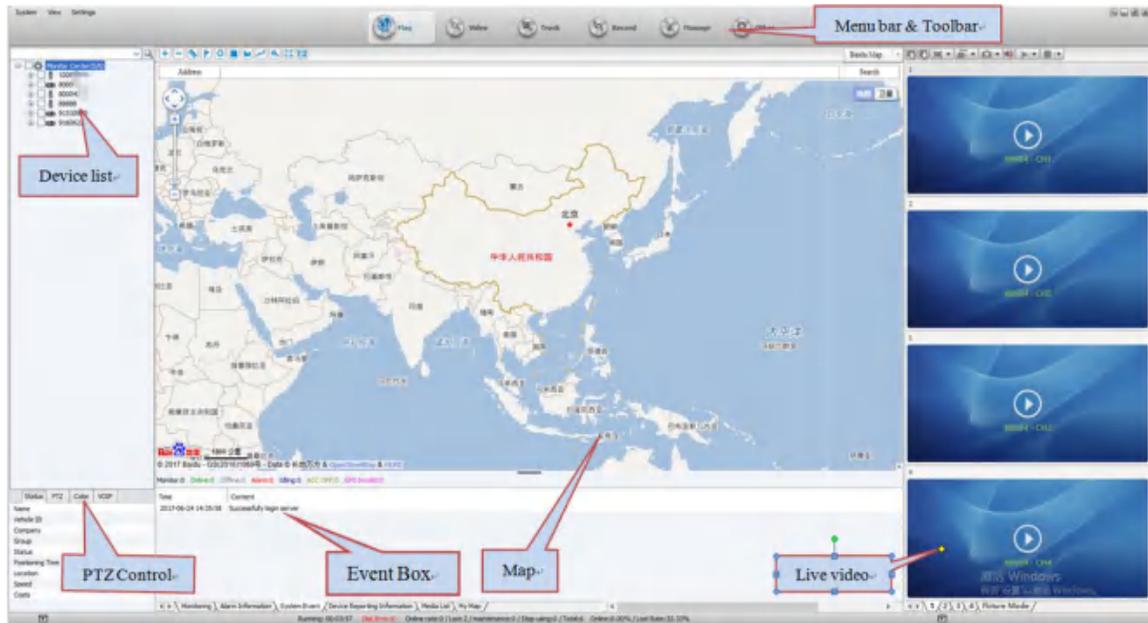
3. Connect the website: <http://netdvr.net> with your PC's browser, and download the CMSV6 platform to install it in your PC (according to your PC's OS to select a proper one). (Find ios version from apple store)



4. Double click the CMSV6 icon, and then you can see the login interface, enter the given user name, password and server IP before click "Login" button. (Note: For body cameras with 4G and/or WiFi, there is a sticker with login information on each packing box, which includes user name, password and server IP)

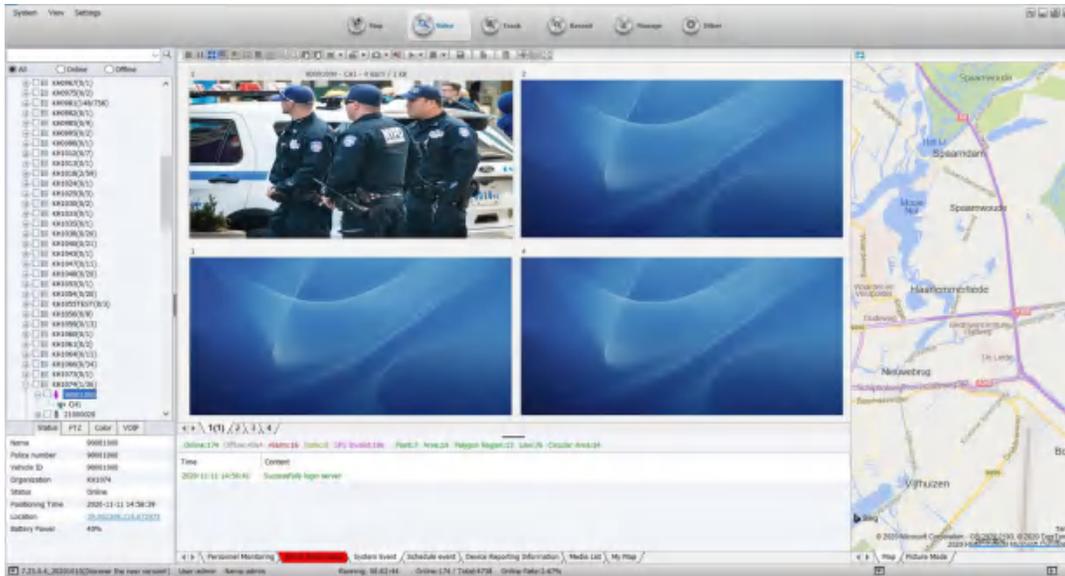
5. The operation of CMSV6 platform

5.1 The Map



- a. The status of the device can be observed in the device list. Where the icon turns green that indicating the device is online and connected to the GPS, check the box in front of device ID to get the location information in map; the pink icon indicates that the device is online but device fails to get the GPS signal; the gray icon indicates that the device is offline.
- b. VOIP: Including intercom, listening and broadcasting. For intercom that allow you to communicate between the platform and device, for monitor means the background sound of the device can be individually monitored, and the broadcast is a function that allow you to send voice messages to devices. (Due to the device has not built in relevant module, PTZ and color functions are not available)

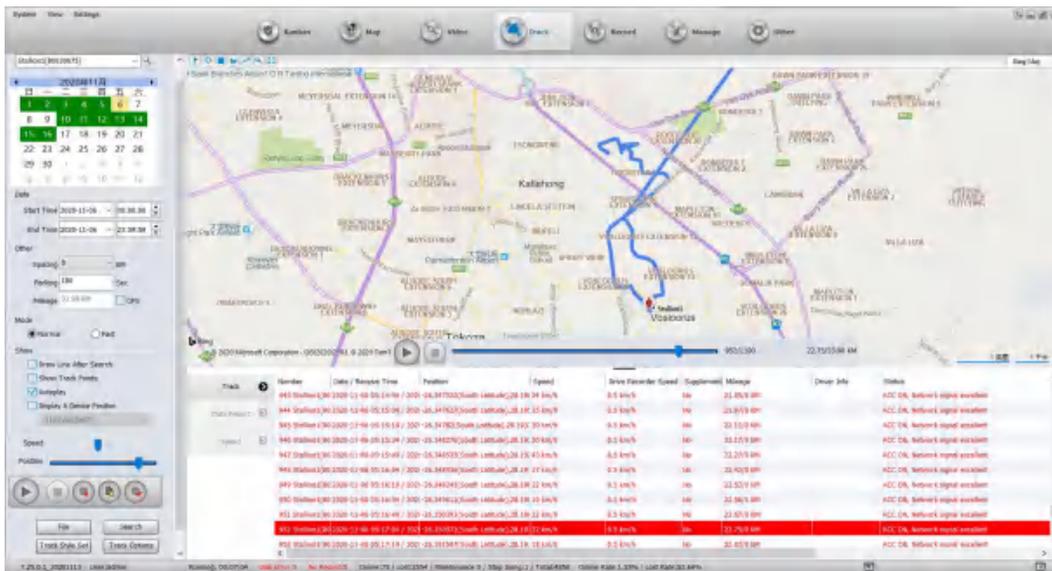
5.2 Video



- a. Start to preview the video: double click the device icon in the list to preview the video.

5.3 Track

User can perform track search according to the specified conditions and export the relevant data. First, select the device, then select the start and end time, click Search. See the picture below:

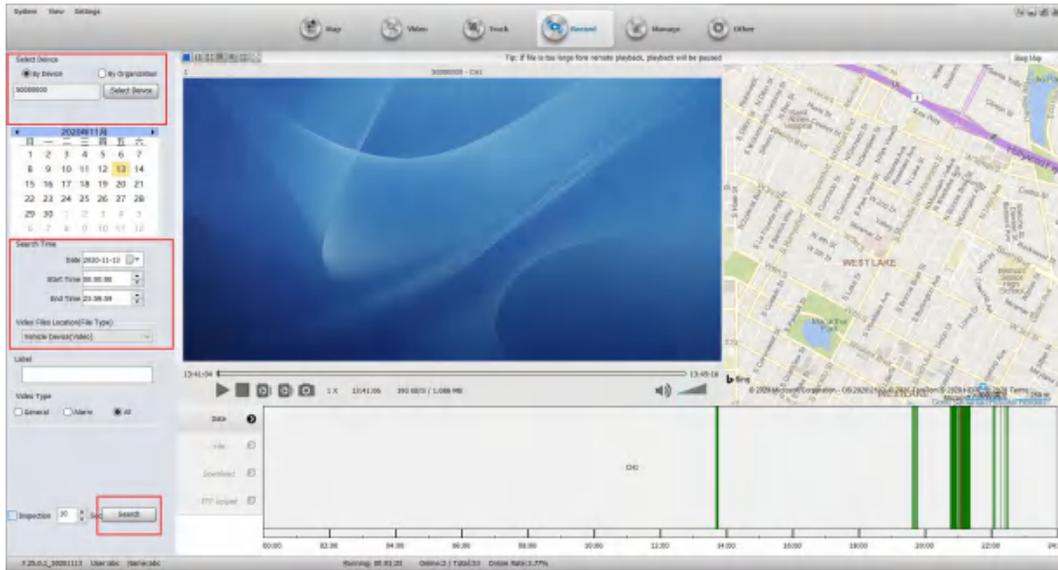


5.4 Record

The user can download and play the video file in CMSV6, see steps below:

- a. Select the device and pick the search time, then select the vehicle device (video), click Search. (If you want to download photo in the device storage, you can choose "vehicle device (picture)")
- b. After that, green areas appear on the "Date" menu (red areas are the alarm records), double click the green area to playback the record file; User can also find the files on the

"File" menu, double click the file to playback the record file, right click the file to download files.



◆ Troubleshooting

1. Q: Why device couldn't power up when I was holding the power button for 3 seconds.
A: Make sure device's battery is not in low battery level, please charge the device first when the device is being idle for a long time.
2. Q: A SIM card have inserted, but the 4G icon doesn't show in the monitor?
A: 1.Check the SIM card direction when you insert the SIM card to device, user can refer to the page15 in the manual, if the direction is correct, restart the device to check. 2.Check the SIM card if it is being overdue. 3.Check the "USB mode" in device manual, make sure it is set to "Auto".
3. Q: What does the small PC icon mean on the top of device's monitor?
A: The small PC icon indicates the connection status between device and server, when the icon turns green that means device connected to server successfully, when the icon turns white that means device's network is ready and device doesn't connect to sever. Normally there is a "M" or "W" in the icon, "M" means device is using 4G network, "W" means device is using WiFi network.
4. Q: How can I move the cursor up and down?
A: Cursor movement: Move left: "UP" button; Move right: "DOWN" button; Move up: "Snap" button; Move down: " Audio record" button.
5. Q: Device's network is ready, but device's status is still being offline on the platform.
A: Check the "server IP" setting in the menu(Device info=>Server IP) if the server IP matches the IP you login the platform, if that doesn't match, correct it by "BodycamTool", user can refer the page14 in the manual to modify the serve IP.

Specification

OS	OS	Linux 4.9.110
	Booting time	< 8 s
	Language	English
Video	Video input	1x digital built-in Camera, available for external camera
	Video output	2 inch LCD screen
	Recording resolution	1080p/1296P /1440P/1512P
	Frame rate	30 fps@ (1080p/1296P /1440P/1512P)
	Record mode	Record audio and video at the same time
	Compression	H.264
Audio	Audio input	1x MIC input, support intercom connection with USB
	Compression	PCM
	Audio record	Support audio recording
Video process	Live video resolution	720P/1080p/1296P /1440P/1512P
	Photograph	4M, 16M, 64M
	Snap	Support snapping during recording (the photo resolution base in recording)
	Storage	Built in 32GB TF card(available for 32~128GB)
Light source	Flash light	To increase brightness when you are recording or taking a photo
	Laser	Fix the view when you record
	IR	Up to 10 Meters with Visible shape image at night
Two way radio	Talk back	Support two way radio between different devices(only for 4G/3G device)
	Talk back in platform	Support two way radio between device and platform(only for 4G/3G device)
Lens	Lens's angle	>120°
Alarm	Alarm input	Support alarm input and the alarm can be show in platform
Interface	USB	1x USB, for charging, communication with PC, upgrade OS, connect external camera etc
Network	Protocol	TCP/IP
	3G/4G	Optional, built in 3G/4G module(HSUPA/HSDPA/WCDMA/EVDO/TD-SCDMA/FDD-LTE/TDD-LTE)
	WiFi	Optional, support WiFi connection and AP
GPS	GPS	Optional module for BDS/GPS/GLONASS, to record location and speed
Firmware	OSD	Display and record time, license ID, officer ID, location, speed
	Overwrite	Support
	Play bakc	Support play back, file listed by time and alarm
	Play speed	Support from 1/128 to 128
	Pre-recording/post-recording	Maximum 10s pre-recording and 20s post-recording
	Dewarp	Support dewarp to make the picture more accurate and realistic
	Safe mode	Need password to enter Setting or Playback in safe mode
	Record encryption	Support Record encryption, encrypted video can be played in special player
Log	Record power on/off, setting change, start record, alarm etc	
Software	hplayer	Player software, play multiple cameras together, can also play the encrypted file
	CMSV6	Used for 4G/3G model only, support live view/live tracking/historical track

Upgrade	Firmware maintain	Firmware can be upgrade though USB
Working condition	Temperature	-40--60℃
	Humidity	40%~80%
Other	Time	synchronize with GPS, internet, PC
	Dual bit stream	Two different bit stream for recording and live streaming via 4G/3G
	Default	Can set to default setting
	Indicator	Power、Record、Snap、Audio record
	Battery capacity	2700mAh replaceable battery, keep NON-4G device recording for about 8h, keep 4G device recording for about 6h; Charging time is about 4h
	Size	88.3*59.8*34.4mm
	Wight	About 165g

Packing List

No.	Item	Number
1	Body Camera & Clamp	1 unit
2	Battery	2 units
3	Charging stand	1 unit
4	USB cable	1 set
5	Adapter	1 set
6	Manual	1 set