

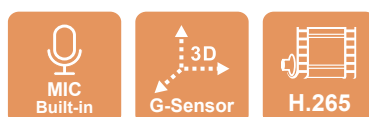
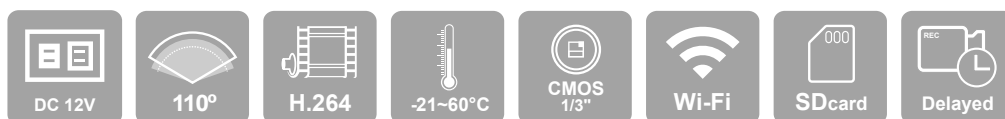
# Highest Resolution 2CH Motorbike Video Recorder

2CH H.264 FULL HD 1080P

## Operation Manual



2024 AUG. V1.0



(選配)

# Menu

- Operational Precautions ..... 2
- A. Product Accessories ..... 3
- B. Product Feature ..... 3
- C. Specifications ..... 4
- D. Dimensions ..... 5
- E. Appearance ..... 6
- F. Memory Card Installation ..... 7
- G. Device Wire Installation ..... 8
- H. Installation Diagram ..... 9
- I. PC software operation ..... 11
- J. File Backup ..... 13
- K. Memory Card Setting ..... 14
- L. File Playback ..... 16
- M. Screenshot ..... 16
- N. Memory Card Formatting ..... 17
- O. WiFi Connection ..... 18
- (a) QR Code Download ..... 18
- (b) Android ..... 18
- (c) iOS ..... 21

# CAUTION

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Dear User:

Thank you for using our products. If you encounter any problems during using, please contact the dealer in time. We will provide you with prompt and accurate services. We will reserve the right to make any software or hardware modification and physical improvements to this series of products without making prior notice. Please read the manual carefully before using this product:

## System Installation Precaution

- Please learn the electric wiring of the device before installation.
- The system should be installed by a professional car installation factory or car manufacturer, and the equipment should be placed in a well-ventilated location inside the vehicle as far as possible.
- Please select storage devices that are recommended by the dealer and meet the demands for the device to operate, to accomplish long-term IOPS needs with large amounts of data. Meanwhile, please purchase from certificated access to ensure the quality of the storage device.
- If you have any questions or require assistance, please contact with Technician from the dealer.

## In-Vehicle system precaution

- Do not let any liquid or foreign material enter, drop or soak into the machine.
- Do not detach, repair or replace any components on one's own.
- If encounter any malfunction, please contact the dealer or manufacturer, and we will provide solutions to cope with the issue as soon as possible.
- If the remote control is idle for long periods, please take out the battery to avoid battery leakage and causing damage to the remote control, it could lead to malfunction.
- When installing this device, if external devices, cameras or alarms, are installed outdoors, it is suggested to connect a grounding wire to the screws on the body of the vehicle system to prevent static electricity generated by causes such as lightning from burning the host.

## Operating Environment

- Please place or use this device under the operating temperature and avoid direct sunlight or being near heat.
- Do not place the device in humid or moist environment.
- Do not expose the device to smoking or dusty environment.
- Avoid strong collision and drop.
- Please install the device in well-ventilated place and avoid any block to the vent.
- Please operate the device under rated range of current and Voltage input and output.
- The device is a mechanization device design for long term use, do not place it near flammable or explosive items. To avoid safety risk.

## A. Product Accessories

If lack accessories, please contact the dealer.

\*The device does not come with a memory card.

This product contains the following accessories

1. DVR
2. Full HD camera (DC 5V)\*2
3. WiFi dongle
4. Power lead
5. Head-up Display (optional)
6. GPS (optional)

Optional:

1. SD Card-32G/64G/128G class 10 and above

## B. Product Feature

1. Miniature video recording system supports 2 CH 1080P video input, built-in LED indicator, optional for Mic.
2. H.264 compression without distortion, FHD video resolution, upgrade to H.265 compression saving space of storage
3. Vehicle power supply, low power consumption, good heat dissipation, no built-in lithium battery, no fear of high temperature, no burst doubts.
4. The device will automatically boot and then loop-record after vehicle engine is started; automatically archive and then turn off after vehicle engine is stopped.
5. File is well formatted and saved securely with extension recording by built-in supercapacitor.
6. USB WiFi dongle › through APP for live view / playback and video download
7. M.I.T Novatek Soc, Durable, Reliable and clear image solution
8. Embedded OS, vision-based driver assistance system for long operation/Record Application
9. Professional file formats to ensure completed footage without lose and to avoid SD card damaged.
10. Suitable for different kind of SD Cards, Card health status can be checked if Vacon Smart Card is used.

## C. Specifications

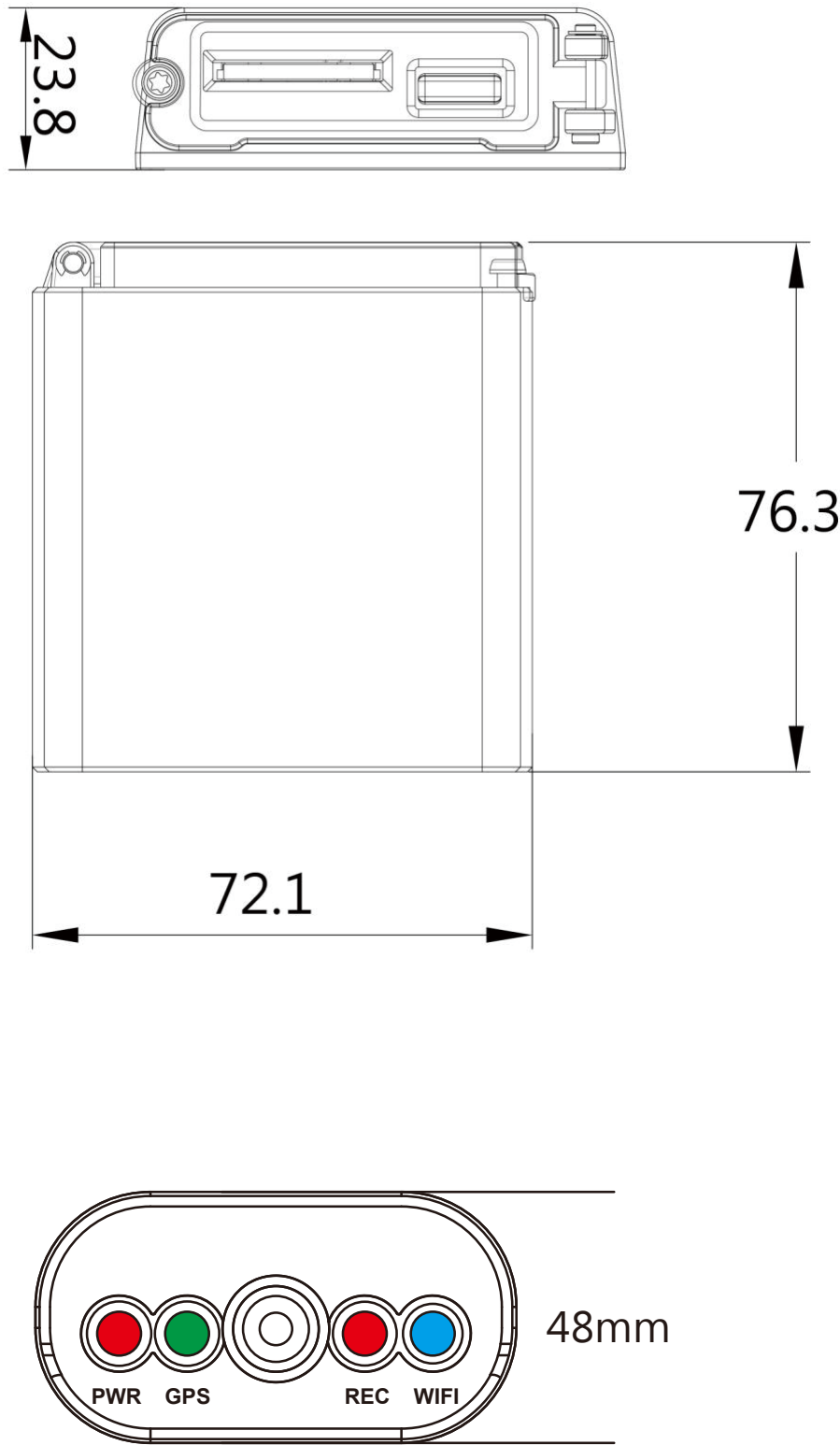
| SPECIFICATIONS           |  |
|--------------------------|--|
| Record Frame             | 2CH 1080P@30FPS                                  |
| Display Mode             | Dual CH Mode                                     |
| Simplex                  | Rec / Playback                                   |
| Resolution               | Display:1920x1080 Rec:1920x1080                  |
| Backup/Record            | SD ; Vacron Smart Card Supported                 |
| Indication LED           | REC 、WiFi  |
| Video Lose               | Yes  |
| SD Card                  | Yes  |
| G-SENSOR                 | Yes(Optional)                                    |
| WIFI                     | Yes, through APP                                 |
| Systeme                  | The recording will resume once power is restored |
| Built-in Super Capacitor | Yes  |
| Power input              | input voltage DC12V                              |
| Operation Temperature    | -20°C~60°C                                       |

| Camera Specification |                                  |
|----------------------|----------------------------------|
| Power Input          | Input Voltage DC5V $\pm 10\%$    |
|                      | Power Consumption 100mA          |
| Resolution           | 1920(H)X1080(V)                  |
| Sensor               | 1/3" CMOS Sensor                 |
| View Angle           | H: 110° $\pm 3$                  |
|                      | V: 65° $\pm 3$                   |
|                      | D: 150° $\pm 3$                  |
| Temperature Range    | Operating Temperature : -20°~60° |
|                      | (Natural Convection Environment) |
|                      | Storage Temperature : -40°~85°   |
| Output terminal      | Micro DIN                        |
| Dust & Water proof   | IP67                             |
| Size                 | Ø25mm × 38mm                     |

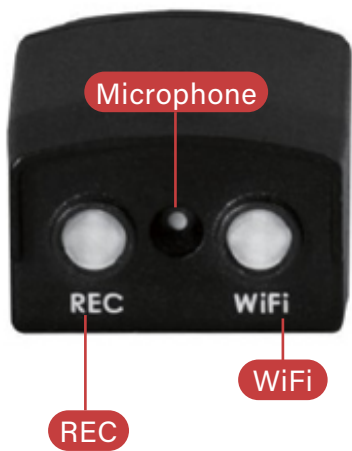
| Mic (Option)       |                   |
|--------------------|-------------------|
| Mic                | Audio Input       |
| Indication LED     | 2 LED (WIFI 、REC) |
| Video Lose         | Yes               |
| Dust & Water proof | IP66              |

D. Dimensions

DVR Unit:mm



E. Appearance



### F. Memory Card Installation

- (1) Remove the Waterproof and dust-proof plastic cover to install/remove the memory card and WiFi dongle.
- (2) Please refer to the instruction in other chapter for Memory Card Formatting.



#### Attention

- (a) It is recommended to use class 10 and above SDHC/SDXC card (8G and above).
- (b) Before using the memory disk, please format the disk first by the software player. If not, the device will automatically erase all data in the memory disk before recording, then recording as the default setting.
- (c) Do not record with an SD card applied in Micro SD adaption to avoid malfunction during recording caused by loose connection due to shock.
- (d) The memory card has a life span, please check the memory card and play it on PC Player regularly to ensure it is still functioning.
- (e) Collision or high vibration may cause physical damage to the memory card and lead to stammering records or unable to play, please check and keep a backup for important data.
- (f) When applying a new memory card to the DVR, a formatting process according to the capacity will start, and the recording will start after two minutes.
- (g) The memory card will display a storage space of 80.5MB in the Windows system after formatted by the device or player, the remaining is in stash file mode and can only be played by the specific video player. The player is required if wish to reset the memory card and needs to take the form of the memory card into account.
- (h) Upon the occurrence of an incident, please take out the memory card and set it to "Write protection" to avoid data modification and overwriting.



## G. Device Wire Installation

Vehicle wire

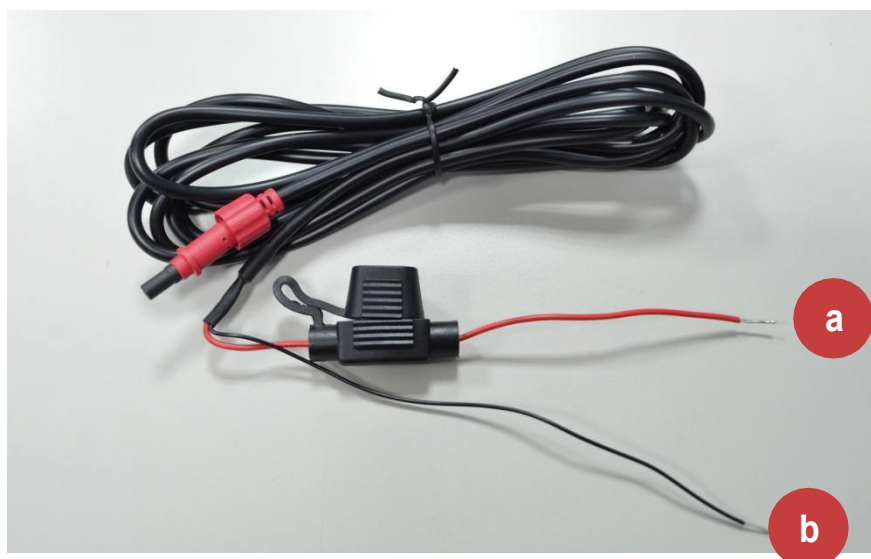


- (1) Camera connector 1CH
- (2) Camera connector 2CH
- (3) Power connector
- (4) Head-up Display connector

**Note:**

- 1. The device is required to be matched with an exclusive mobile surveillance camera.
- 2. The color of the wire is subject to actual conditions."

Power lead



- (a) Live wire (Red): Connected to anode.
- (b) Ground wire (Black): Connected to cathode.

## H. Installation Diagram

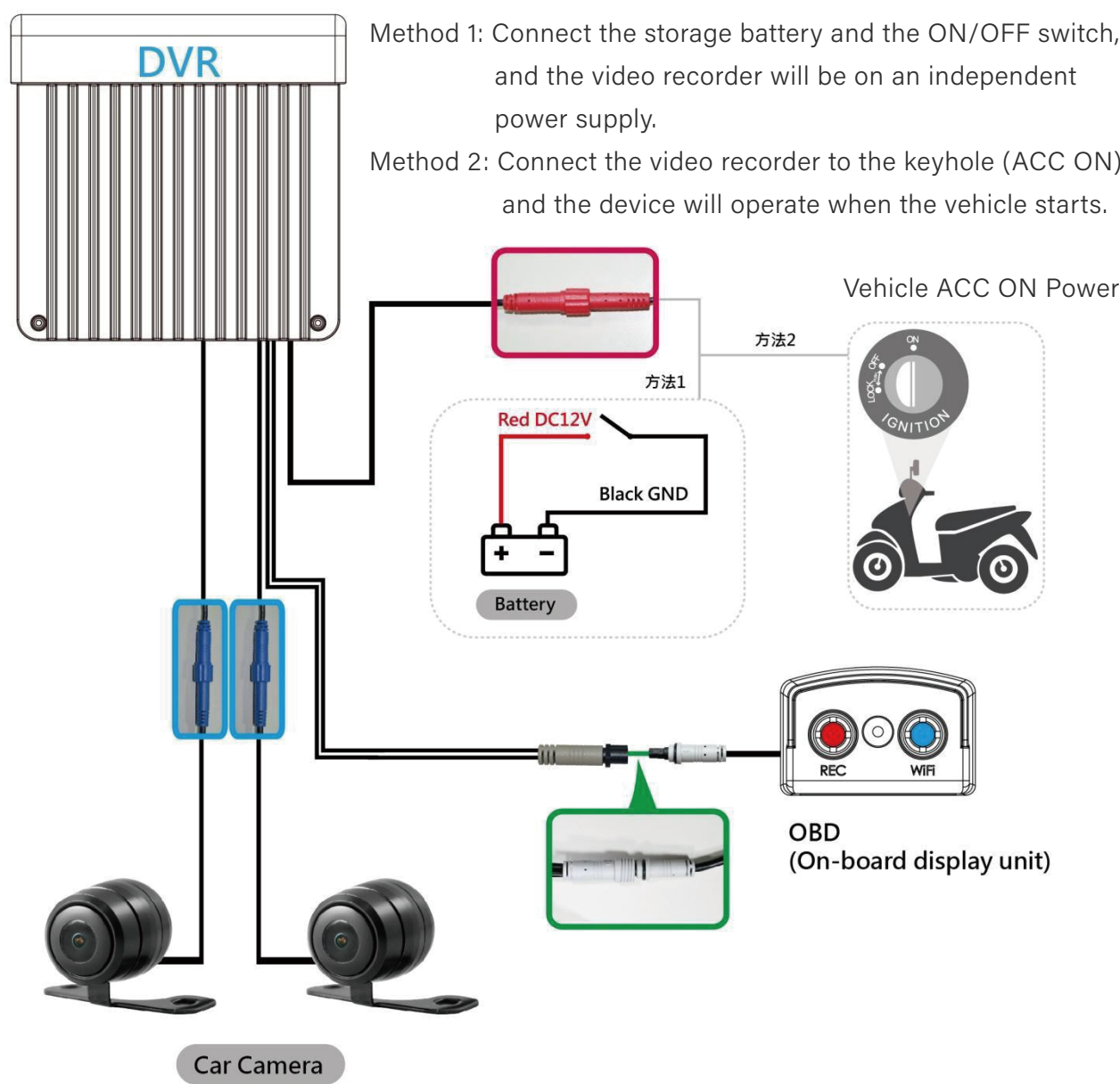
Installation diagram (For reference)



### Installation Description

- (a) For non-professional technicians, please use the adhesive method during installation to avoid danger caused by construction tools damaging the in-vehicle system, such as the vehicle oil supply or power supply system.
  - (b) Please avoid the fuel line and the fuel tank when arranging wires, and install them after the engine stops.
  - (c) Do not record with an SD card applied in Micro SD adaption to avoid malfunction during recording caused by loose connection due to shock.
  - (b) When wiring, please wrap all connectors with tape to prevent dust from blocking the metal terminals of the connectors and causing poor contact.
  - (e) After wiring, tape should be wrapped around at the joints to enhance waterproofing and avoid loosening.
  - (f) All wiring should be set behind the fuse to avoid danger.
- The main device needs to be fixed to prevent it from bouncing in the trunk and causing damage to the machine.

Local Installation diagram



## I. PC software operation

Run the player software CarBox2.exe , software display as below:











### CAUTION

- (a) The software requires DirectX 9.0 or above to operate.
- (b) Compatible operating systems: Windows 7, 8, and 10.  
Please note that MAC and iOS are not included.
- (c) Recommended hardware requirement: i3 and above, 2.7GHZ  
RAM:4G and above. Better with a separate display card.



- (1) Operation Interface
- (2) Google Map / Play list overview
- (3) Speed
- (4) Volume
- (5) Play Speed
- (6) Player Timeline / File clip starter mark
- (7) Play Interface
- (8) Cam1
- (9) Cam2


2.Operation Interface

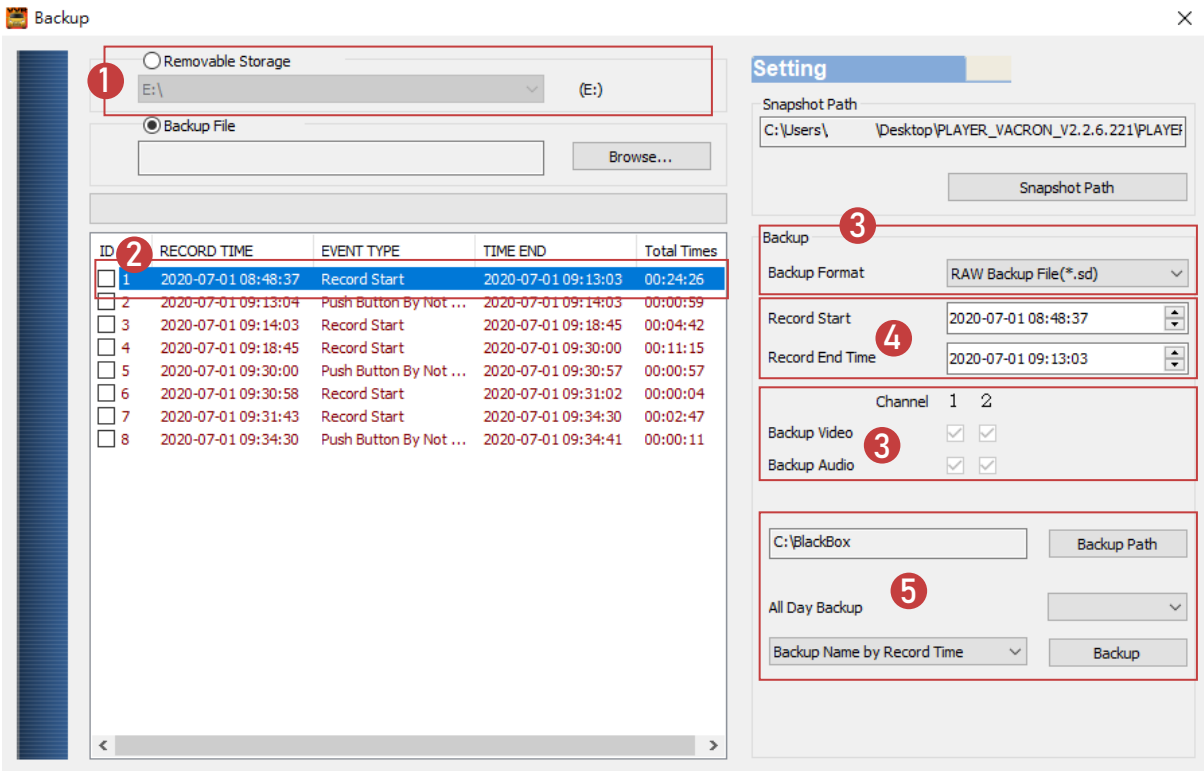
|   |                      |   |  |
|---|----------------------|---|--|
|  | Turn off the program |  | Screenshot                                     |
|  | Close the window     |  | Machine-related Settings                       |
|  | Play videos          |  | Tool bar / Memory card / formatting / language |
|  | Event Schedule       |  | 3D G-Sensor                                    |
|  | Disc backup          |  | Route map / latitude-longitude                 |

3.Player Interface

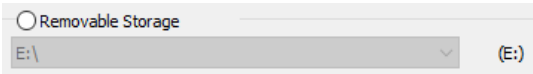
|   |              |   |                |
|---|--------------|---|----------------|
|   | Pause        |   | Previous image |
|  | Play         |  | Next image     |
|  | Stop         |  | Previous file  |
|  | Back forward |  | Next file      |

J. File Backup

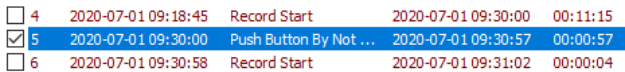
Unload data from memory card to the PC  
Select the "back file"  of the player software on your PC , and the following window will pop up.  
Please follow the instructions below to backup your files.



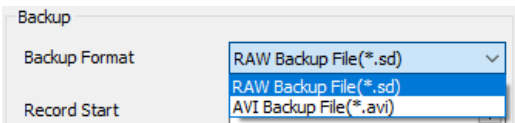
**Step 1.** Select the memory card of the data source.



**Step 2.** Select the data you wish to back up.

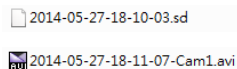


**Step 3.** Select file format.



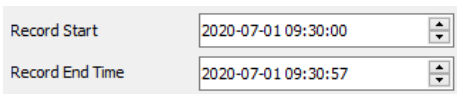
Backup File Format:

- (1) Original Format (RAW)
- (2) AVI (\*.avi)

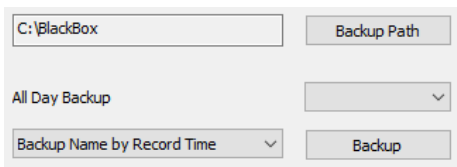


Note: Back up in original format will include more complete data such as the G-SENSOR data.  
back up in \*.avi format, only the date, video and audio-data will be available, so it is recommended to choose the original format.

**Step 4.** Select the required time.




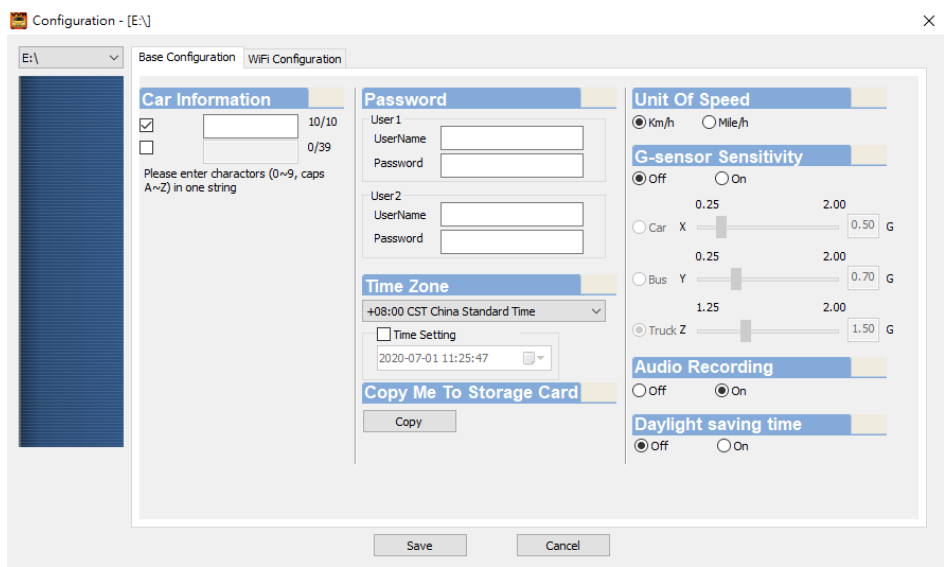
**Step 5.** Select the path and start backup process.





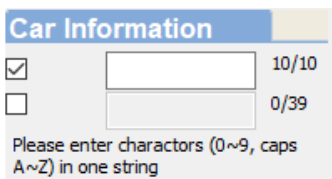
K. Memory Card Setting

Before recording, insert the SD card into the card reader and plug it into the USB slot on the PC. Use the PC to select the main program and set the host recording format and display mode. After the settings are completed, you can put the SD memory card back into the card reader to record. Select  on the PC player and the following window will pop up:



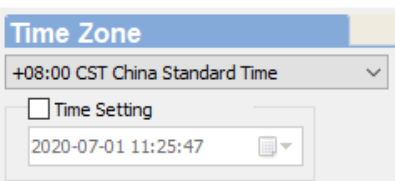
(1) Host information

English name and vehicle information could be inserted here to identify which vehicle or driver the record is from.



(2) Time setting

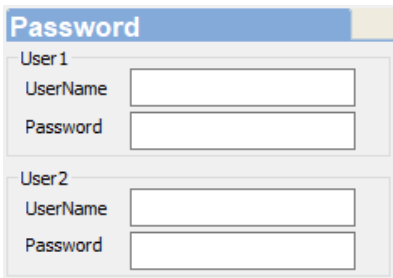
The time can be set manually when there is no GPS signal, it will calibrate with GMT automatically when the GPS signal is restored.



(3) Password

Password can be applied to the memory card to prevent others from accessing data. There is a 15-character limitation for the password. For example: 123456789123456 After setting the password, using the file, setting, and formatting the disk all require the password to operate.

Note: Pay attention to the font and capital when setting the password, and keep proper notes to avoid forgetting the password



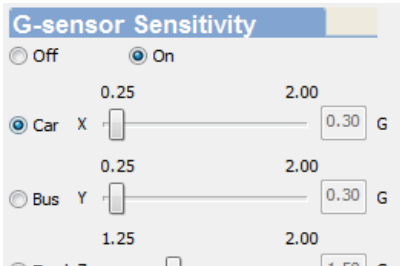
(4) Copy the player to SD card.

Copy the player progreem and save it to SD card



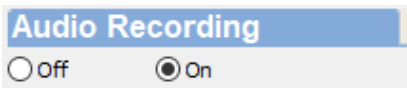
(5) Collision sensor

During driving, the G-sensor will detect the vehicle's vibrations and make a recording judgment by the intensity.



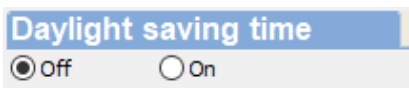
(6) Audio recording

Audio setting : On / Off




(7) Daylight saving time

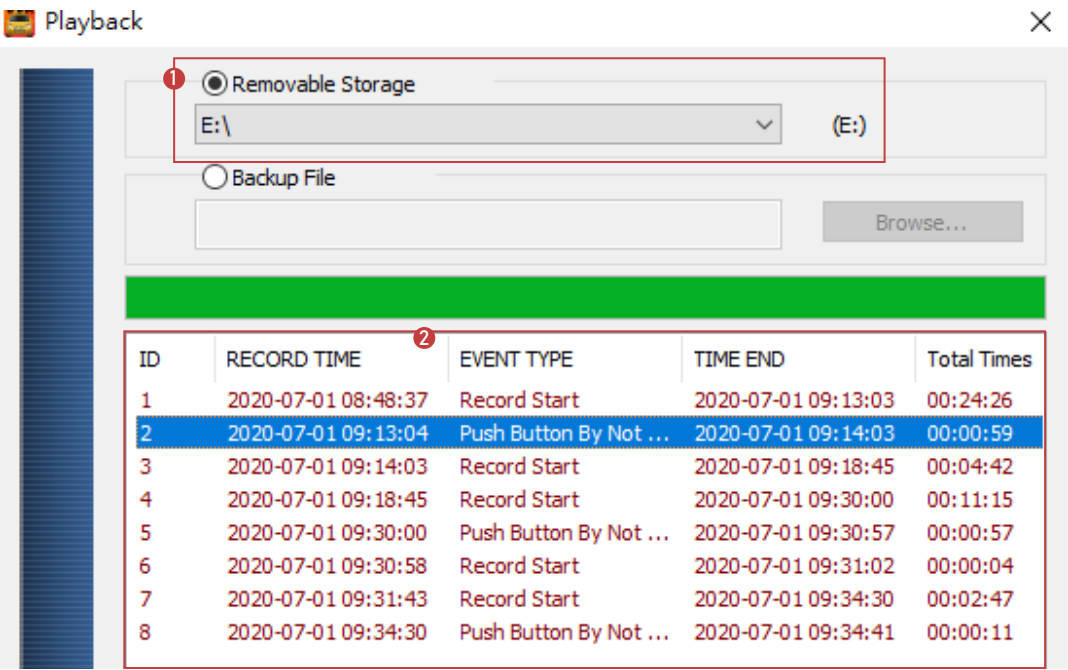
Daylight saving time setting : On / Off







L. File Playback

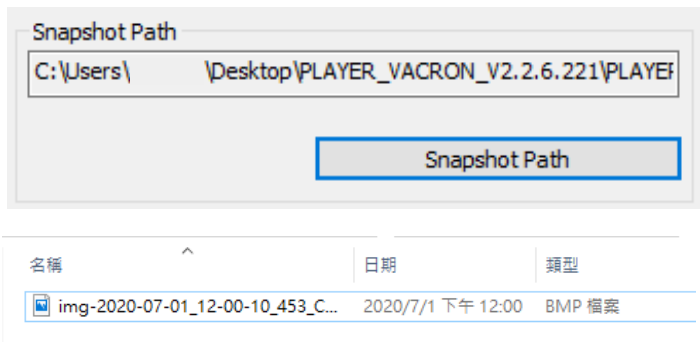
Select the  of the player software on your PC , and the following window will pop up. Window operation and setting instructions:



- (1) Select the file in the memory card or back up file saving in hard discs.
- (2) Select the event playlist, double-click on the left to play the recorded video.

M. Screenshot

When playing the recorded video, use the  screenshot tool to capture the required image. The following window will pop up when the screenshot tool is selected. The screenshots will be saved in the C:\BlackBox folder,  it can be modified manually via "Settings" File Format: \*.bmp



## N. Memory Card Formatting

Q1. When to format the SD card?

It is required to format a new SD card before applying it.

The recording system fails to delete certain clips separately, please back up and export the wanted video before formatting.

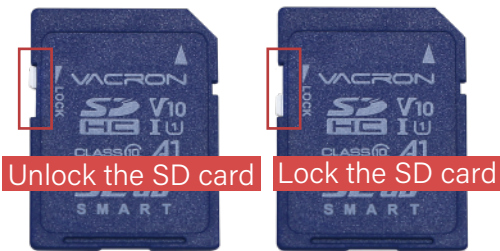
Q2. When to restore the SD card?

When the SD card is previously used for recording, it requires to be restored before applying for other usages, better after the records within have already had a copy.

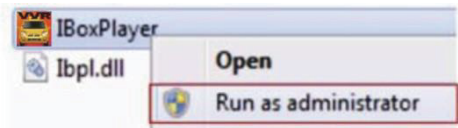


### CAUTION

(1) Before formatting/restoring the SD card, please make sure that the SD card has been unlocked.



(2) If the SD card has been unlocked, but the formatting process cannot be operated, please right-click and select "Operate as System administrator" and the process can be conducted.

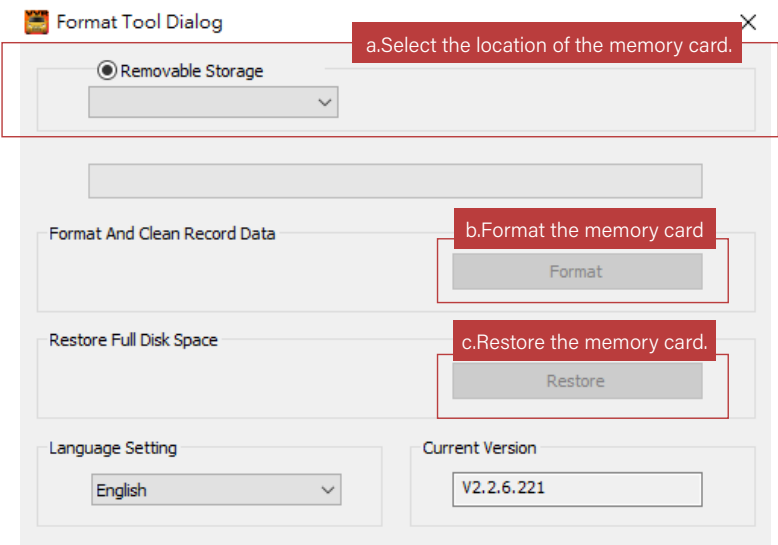


Q3. How to format the SD card? Instruction steps as follows:

- (1) Insert the SD card into the card reader and plug the reader into the computer.
- (2) If the player is placed on the SD card, please replicate it to the computer table, operate the player program format process, and then enter the screen
- (3) Select the location of the memory card, and select "Format" or "Restore" depending on one's need.



(4)Only when the formatting or restoring process is completed can the memory card be applied for other usage.



# 0. WiFi Connection

## (a) QR Code Download

VacronMoto for iOS

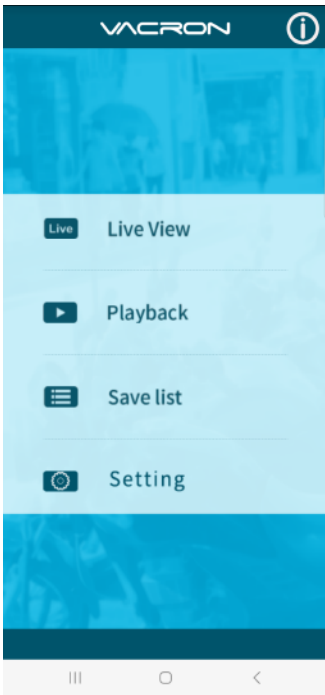


VacronMoto for Android



## (b) Android

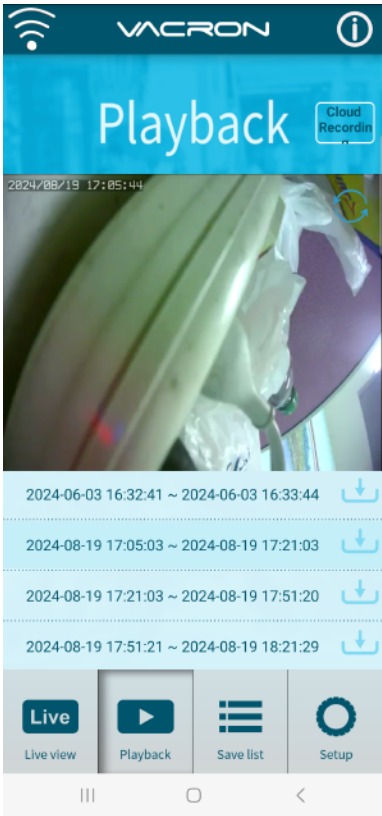
- 1. Visit Google play store, search and download the VacronMoto app.
- 2. Open WLAN on the smartphone to connect "SSID-XXXXXX".  
Enter the default password "12345678".
- 3. Open the VacronMoto app, and press [Live View] to watch real-time video from the device.
- 4. Select [Playback] to playback video files on the SD card.
- 5. Select [Download] to download videos. Three minutes per download.
- 6. Select [Save list] to get a list of all downloaded records, and playback the records.



App main page

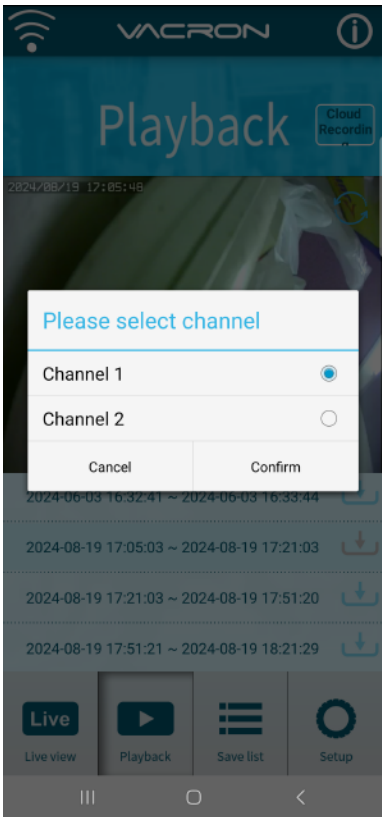


Live view page



Playback:

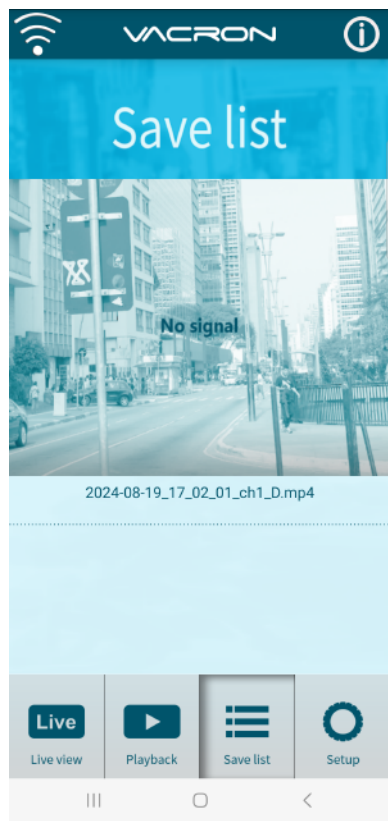
1. Today: select channel 1 or channel 2, and press the [Search] button to get a list of today's recorded video files. Select the desired recorded file to view.
2. Period: Select channel 1 or channel 2, set the date and time range, and press the [Search] button to get a list of recorded video files of that certain range. Select the desired recorded file to view.



Downloads:

1. Specify the date, time, and channels  
(Note: Please select the correct channel, selecting the incorrect channel may lead to a failure download. )
2. Select [Download] and the file will be downloaded. It takes about 1~2 minutes to process depending on the file size. After it is successfully downloaded, the file will be converted into .mp4.

Save list:



(3)

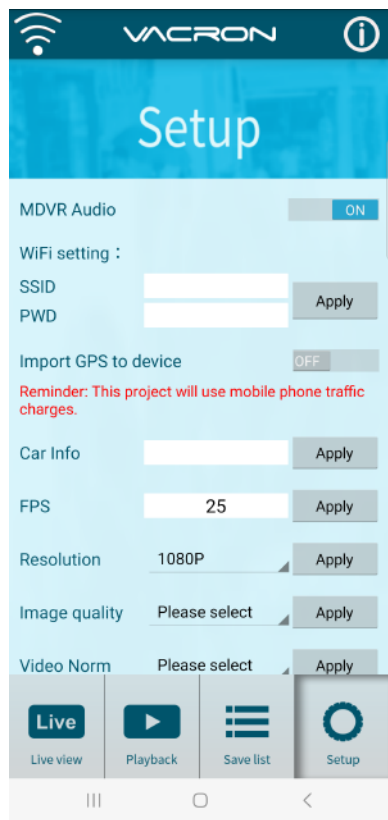
Save list:

Verify and check whether the downloaded records are complete.  
The downloaded file may vary in different brand of smartphones.

Example

Video file listing on the smartphone → VacronMoto → videos  
→ Save list

Setup



(4)

Setup

Sound Setting: Select microphone On/Off

WiFi Setting: Users can set SSID and password.

(Enter the new username and password after system auto reboot.)

Vehicle Info: Enter car info such as a car license plate to show on  
live view.

Default: Press [apply] to set the system to default setting.

The WiFi password is set to the default setting and  
needs to be reconnected.

Format SD Card: all data on the SD card will be erased and cannot  
be recovered. Back up all important data before  
proceeding with SD card formatting.

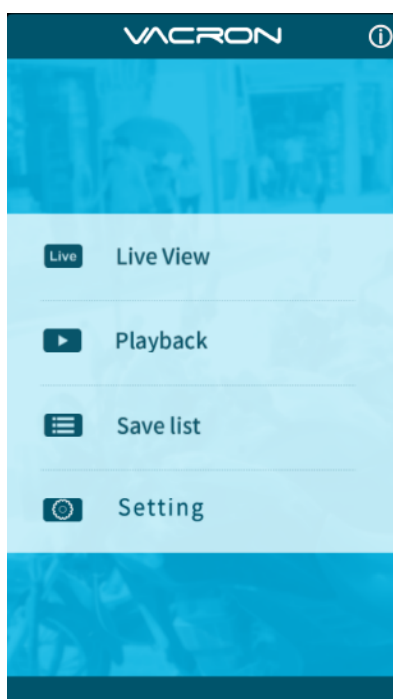
Firmware version:

F/W: device firmware version

App: Current App version

## (c) iOS:

1. Visit APP store, search and download VacronMoto app.
2. Open WLAN on the smartphone to connect "SSID-XXXXXX". Enter the default password "12345678".
3. Open the VacronMoto app, and press [Live View] to watch real-time video from the device.
4. Select [Playback] to playback video files on the SD card.
5. Select [Download] to download videos. Three minutes per download.
6. Select [Save list] to get a list of all downloaded records, and playback the records.



App main page



Live view page



Playback:

1. Today: select channel 1 or channel 2, and press the [Search] button to get a list of today's recorded video files. Select the desired recorded file to view.
2. Period: Select channel 1 or channel 2, set the date and time range, and press the [Search] button to get a list of recorded video files of that certain range. Select the desired recorded file to view.



Near-end record downloads:

1. Set the date, time and channel numbers.  
(Note: Please set the correct channel numbers by the device, wrong settings could cause failure in downloading)
2. The downloading process will kick off after clicking "download".  
It will take about 1-2 minutes to download, depending of the scale of the file. It will transfer into an MP4 file when the downloading is successful.



Save list:



(3)

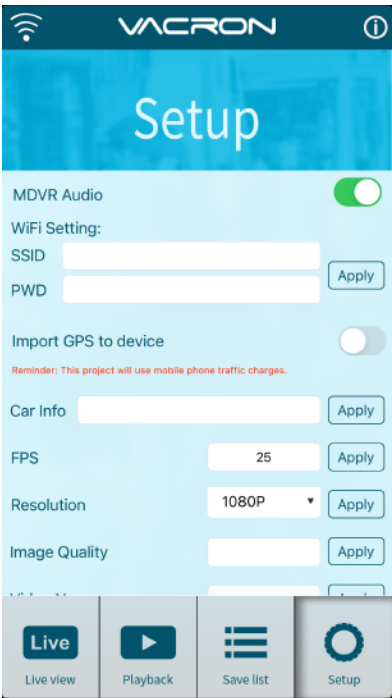
Save list:

Verify and check whether the downloaded records are complete.  
The downloaded file may vary in different brand of smartphones.

Example

Video file listing on the smartphone → VacronMoto → videos  
→ Save list

Setup



(4)

Setup

- Sound Setting: Select microphone On/Off
- WiFi Setting: Users can set SSID and password.  
(Enter the new username and password after system auto reboot.)
- Vehicle Info: Enter car info such as a car license plate to show on live view.
- Default: Press [apply] to set the system to default setting.  
The WiFi password is set to the default setting and needs to be reconnected.
- Format SD Card: all data on the SD card will be erased and cannot be recovered. Back up all important data before proceeding with SD card formatting.
- Firmware version:  
F/W: device firmware version  
App: Current App version





## CAUTION

Please try to record and playback first to make sure the device is in good condition.

Please notice that the manufacturer, dealers, and the subsidiary are not committed to the malfunction caused by the accessories of the device.

Please read cautions below to ensure proper operation.

Please confirm that the ways of operation is correct.

1. Live streaming may lag when transmitting and receiving wirelessly.
2. The remote operation function is limited to only data in the storage device. If the data on the SD card has been overwritten, the data for that period cannot be searched.
3. When the operation is over, please remember to close the Wi-Fi connection with the machine; otherwise, the phone will not connect to the external network.
4. Please store this equipment out of the reach of children and infants
5. Please use regulated power supply.
6. Do not apply an external porous cigarette lighter, the unstable voltage of the cigarette lighter may cause the device to break down or lose power and fail to record. please make sure that the power port of the cigarette lighter and the device is sealed.
7. Do not try to detach, refit or heat the product.
8. Keep the equipment from drop or hit.
9. To avoid injury, keep your hands away from the inner parts after drop or damage.
10. Stop using in case of smoke, smell or things unusual from the equipment.
11. Do not use organic solvents such as alcohol, benzene, or paint thinner to clean the product.
12. Do not let the product come into contact with water (such as seawater) or other liquids.
13. Do not let any liquid or foreign material enter the machine.
14. Do not place batteries near heat sources, or expose to flame
15. Do not touch the power cord with wet hands
16. Do not use this equipment with the power outlets or wiring accessories which exceed the
17. specified voltage.  
Do not use a damaged power cord or plug, or it is not fully plugged into a power outlet
18. Keep the terminals or plugs away from metal objects (such as pins or keys) or dirt.
19. Avoid using, placing, or storing the product in wet or dusty areas



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More information about products

Please visit our website

<http://www.vacron.com>

Made in Taiwan

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