2CH Vehicle Video Recorder

Operation Manual
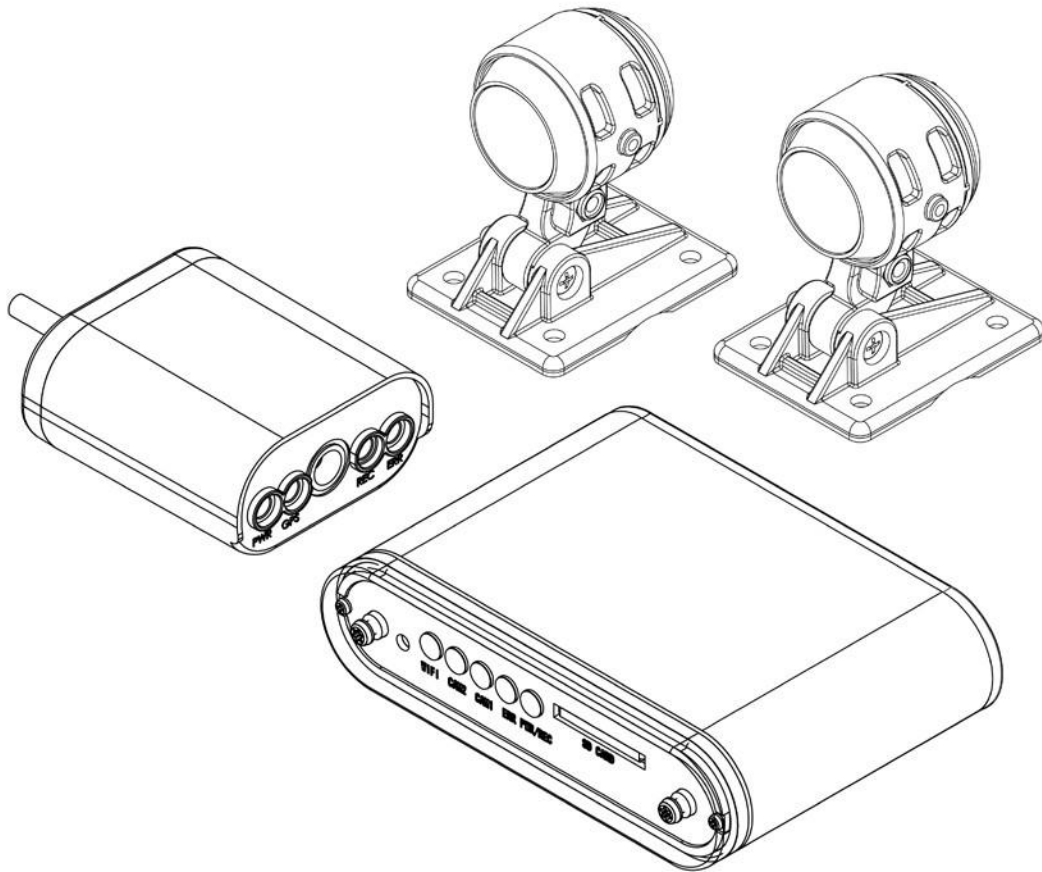
2018 OCT V1.0

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Safety Precautions

Dear Vacron user,

Appreciate for you purchase Vacron products. Please contact your local distributor if you meet any question or need for any assistance. We will offer you complete and in time service via local distributor. However, we still have rights to upgrade software and hardware without any kind notice beforehand. Please read this manual carefully prior to use of this product.

Installation Precautions

- Before installation, please insure wires and cables connect correctly.

- Device has to install in ventilated environment and the installation have to guide or help by professional device installer.

- Please use storage device that recommended by manufacture, and purchase the storage device from official purchase channel.

- Please contact local distributor and technology support service if you have any question and need any help during product usage

In Use Precautions

- Please avoid any solid or liquid get into the inner components.

- Please do not disassemble the equipment for warranty issue.

- Please contact local dealers or the manufacturer for prompt service.

- Please remove the battery if remote control keeps idle for quite a long while.

- The equipment best connects with ground wire in case of outdoor cameras connection or alarm I/O connection. This is to keep the DVR away from static electricity damage.

Surrounding

- Please have the DVR under recommended temperature set it away from the sun and heating source.
- Please keep this equipment away from humid surrounding.
- Please keep this equipment away from smoke and dust environment.
- Please avoid strongly collision and do not drop the equipment.
- Please set this equipment in ventilation space, and do not block the device's ventilator.
- Please use device under rated voltage and Amp.
- Please keep flammable objects away from the equipment.

A. Accessories

Please check every accessory we list below, make sure everything include in the product package before use. If you found any thing missing, please contact local distributor.

Note：The product set does not come with memory card, please purchase the memory card separately.

Standard set：

Power cable

Multi-functional OBD display (built in GPS and microphone)

USB WiFi Dongle

2 pcs camera (DC5V)

2 Pcs camera cable

Velcro tape

B. Features:

a)   Aluminum casing make it durable and waterproof.

b)   Small independent system, 2 channels video and 1 channel audio recording.

c)   H.264 compression format, **4MP** video resolution.

d)   Low power consumption and efficient heat dissipation, no build-in Lithium battery to prevent possible danger and heat explosion.

e)   Devices starts recording automatically when engine is on, file is well formatted and saved securely with extension recording by super capacitor.

f)   Have GPS route tracking function, can display the route tracking by click Google map during video playing in PC player.

g)   Can connect with USB WiFi dongle, connection for APP to display, playback and backup file directly.

C. Specifications

● CAR DVR

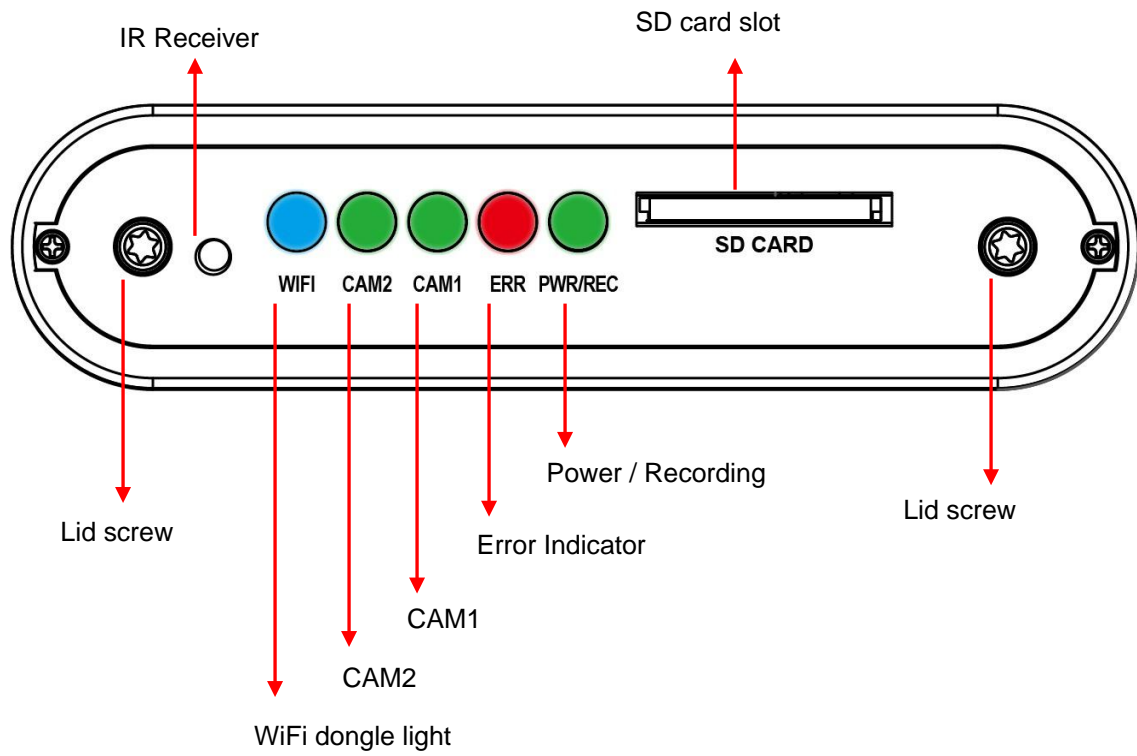| Item	Specification
Video Input	2CH **4MP**
Resolution	**4MP** CH1 NTSC/PAL:30FPS/25FPS 、 CH2 NTSC/PAL:30FPS/25FPS
Power Consumption	(a) DC12V input, power consumption is approx. 1A. (b) DC12V input, ACC OFF standby power consumption is approx.2.5mA. (c) Operation voltage: DC10.0v ~ DC15.6v. (d) Initial voltage: DC8V above.
Operation Temperature	Operation -20℃ ~ 60℃ (In disclosed space) . Storing temperature: -40℃ ~ 85℃.
Storage Device	Memory card speed is recommended to be above U3, Otherwise it may causes the recording not completely.
Recording mode	Continuous recording after power ON.
Data Content	Video, date, time, audio, GPS, external alarm trigger log, G-Sensor.
Storage Format	TS file format with universal playback software playback; the device has the function of playback.
Audio Input	Compatible With multi-function display (including microphone receiver)

Time Setting	GPS time zone auto calibration, and initialize with build-in calendar if no GPS signal. Please do GPS time calibration after installation, time memory is kept with car battery, no battery power supply will result setting return to default, please do time calibration after connecting to power.
Display	TV-Out, Wifi AP mode by APP

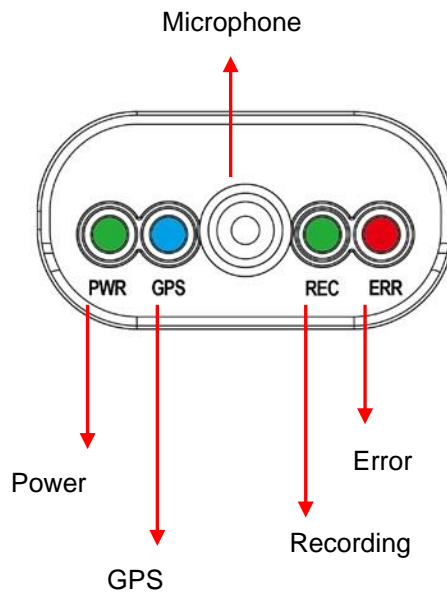| Mode	
OBD Indicator	(a) Green light flashing: recording. (Higher flashing frequency for event recording). (b) Red light: install or set incorrect. (c) Blue light: WiFi connection. (d) Green light: CAM 1 on (e) Green light: CAM 2 on

Input	(a) Power and signal input:
	     i. Power input DC12V
	     ii. ACC signal: power input range DC10.0v ~ DC15.5v。
	     iii. LAMP signal: power input range DC10.0v ~ DC15.6v for external alarm triggered force event recording. (Reserved function, no effect)
	 (b) Video input
	 (c) Monitor input: GPS, speed, microphone audio input.
	 (d) Infrared remote control reception.
	 (e) SD card slot

Notes : The product specification is subject to change without prior notice
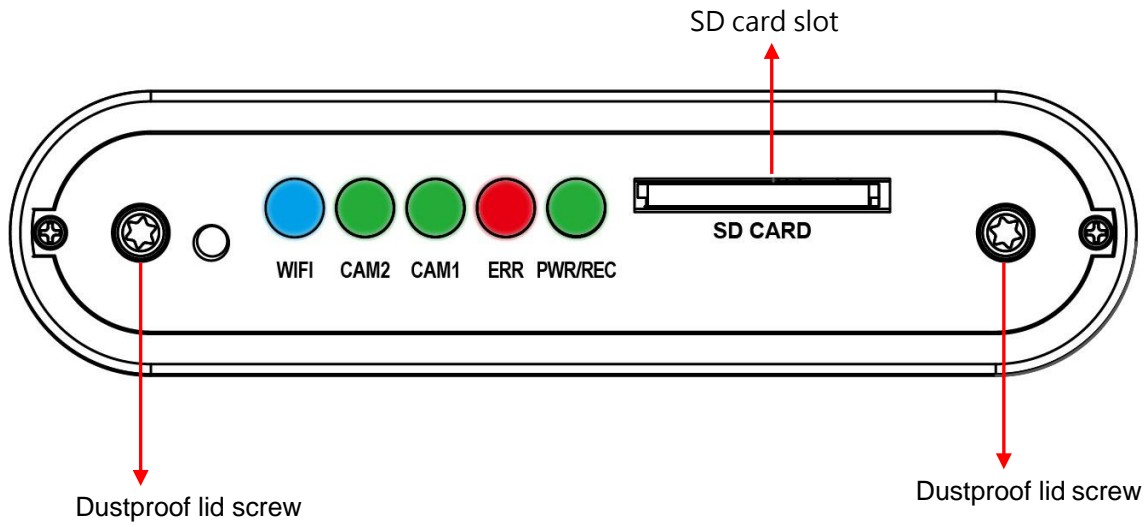
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D. Product appearance

Mobile DVR unit:

IR Receiver

SD card slot

WIFI CAM2 CAM1 ERR PWR/REC

SD CARD

Lid screw

Power / Recording

Lid screw

Error Indicator

CAM1

CAM2

WiFi dongle light

OBD (On Board Display)

Microphone

PWR GPS   REC ERR

Power

Error

Recording

GPS

E. Installation of SD card

SD card slot

WIFI CAM2 CAM1 ERR PWR/REC

SD CARD

Dustproof lid screw

Dustproof lid screw

(1). Counterclockwise to unscrew the screw of dustproof lid to install/takeoff the SD card.

(2). Format/ restoration SD card refer to other chapter description.

⚠️ **Attention**

(1)   Memory card speed is recommended to be above U3, Otherwise it may causes the recording not completely.

(2)   Before using the memory disk, please format the disk first by using the software player in the CD-ROM. If not, device will automatically erase all data in the memory disk before recording.

(3)   To ensure recording quality, please do not use adapter card with Micro SD card. Doing so may lead to bad connection due to shock and vibration.

(4)   All memory disks have limited lifespan. Please regularly watch videos on PC and check the memory disk to ensure proper functioning.

(5)   Collision and vibration may cause SD card defective and result intermittent recording, please check data and backup file periodically.

(6)   When you using new memory card insert host, the device will format the memory card, and beginning recording after approx. 2 second.

(7)   Any memory SD card, after being formatted by the device or PC, the recorded image is played on the Windows operating system and to format the SD Card by using PC to format.

(8)   When accident happen, please remove SD card and set it as write protection condition, for avoid record being over writing or tampering.

F. Cable Installation

● **Cables**
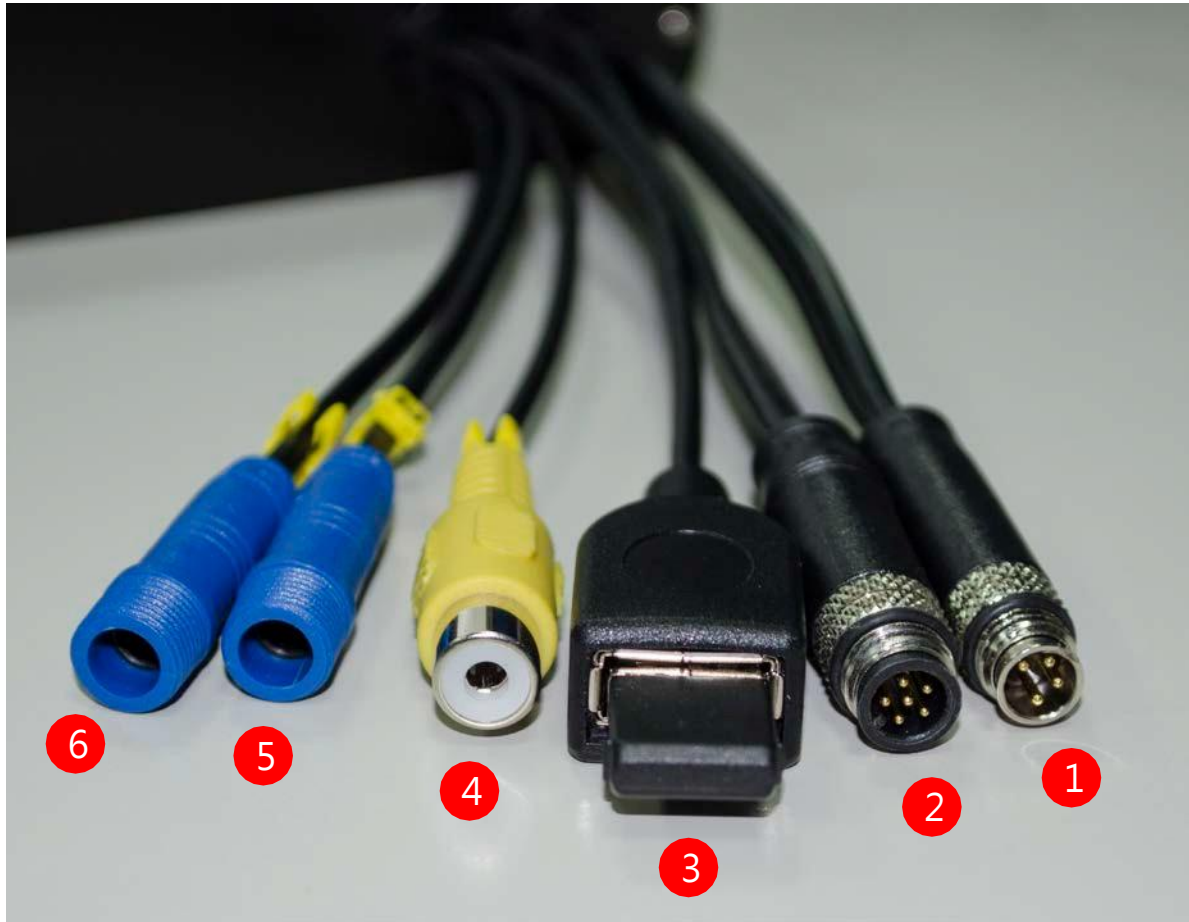
(1) Power connector

(2) Multi-functional OBD display connector

(3) WiFi dongle slot

(4) Video out

(5) Camera 1 connector

(6) Camera 2 connector

> Note: Please use specified camera that provide by manufacture.

● **Power cable**

(a) Power connection: reception

(b) Alarm recording (Grey cable): Pre-reserved function. (Reserved function, no effect)

(c) Power cable (Red): connect to power positive connector.

(d) ACC activation cable (Brown): connect to motorcycle power switch (+).

(e) Ground (Black): connect to power supply (-).

● **OBD**
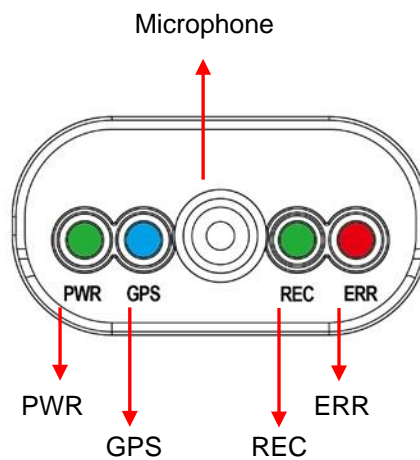
(A) PWR (Green)：power indication.

(B) GPS (Blue)：Flashing mean GPS 3D positioning searching. Consistent blue light on means 3D positioned successfully.

(C) Microphone：built-in microphone input.

(D) REC (Green)：Flashing means continuous recording.

(E) ERR (Red)： Error diagnosis, please check camera signal, OBD display, SD storage and so on.

G. Installation diagram

- Installation on motorcycle

⚠️ **Attention**

(1) Please install this device with the help of professional technician to avoid damaging your vehicle.

(2) For installation by none-technician, please use tapes instead of boring tools to avoid damaging the electrical and gasoline system.

(3) For safety, switch off ignition before installation, and please keep away from gasoline pipeline and tank.

(4) Before inserting wires through holes, temporarily wrap the terminal with tape to prevent bad connection from accumulated dirt or debris.

(5) Tightly seal all electrical connection with tape to prevent loose connection or leak leaking to the connection.

(6) Connect the power behind the key ignition and fuse (not directly to the vehicle battery) to avoid depleting the battery.

(7) The device should be fixed to the vehicle. Tumbling inside the storage trunk will damage the device.

(8) GPS positioning accuracy may be affected by the installation position, sun-screen or weather condition.

●DVR installation diagram

(a) DC12V input is approx. 1A consumption ； Standby power consumption when ACC OFF is 2.5mA.

(b) Operation electric pressure： DC10.0v ~ DC15.6v.

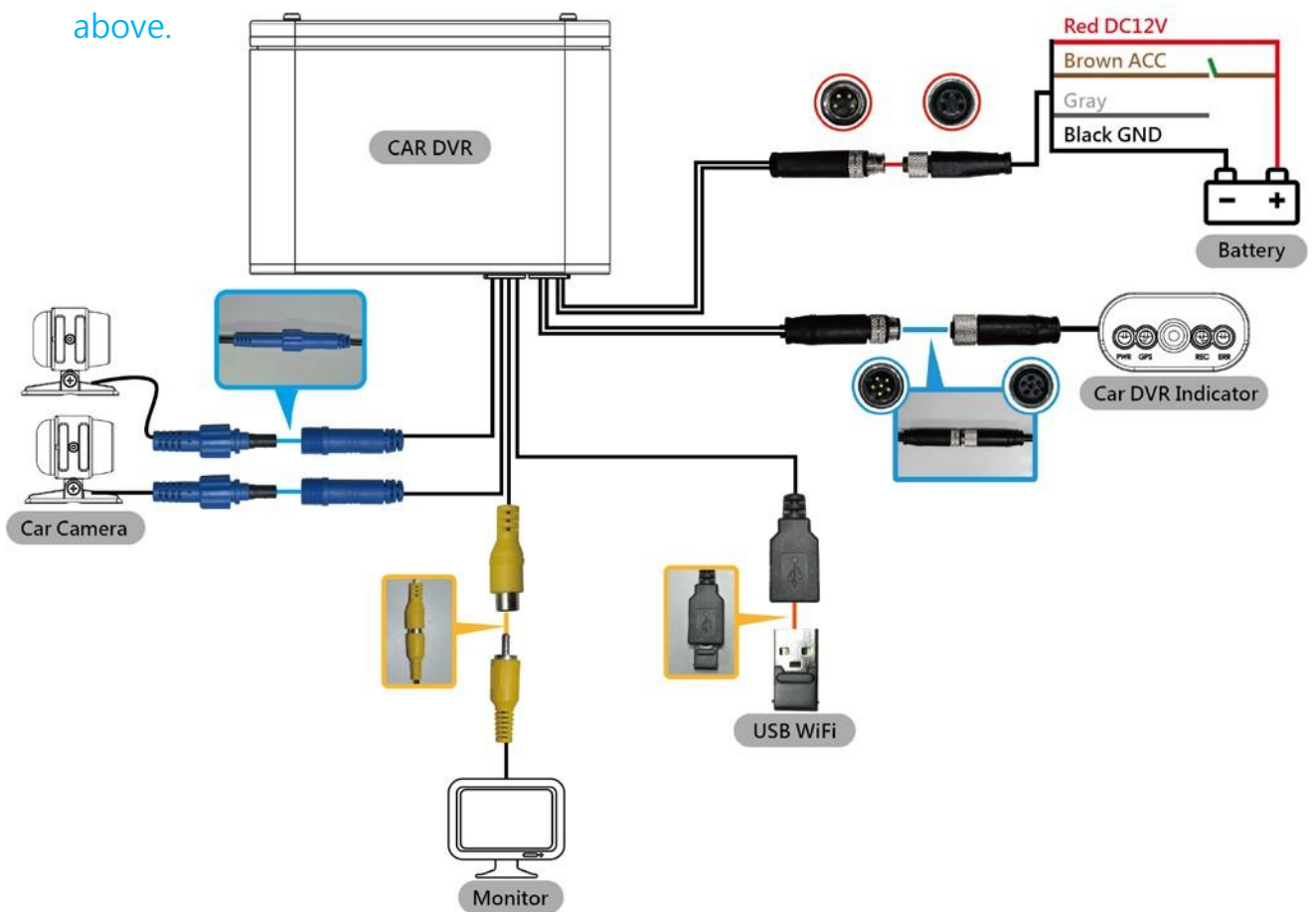(c) Device initiate by power DC8v above.

Power supply:

Red cable: DC (+)

Brown cable: ACC power DC current

Grey cable: Pre-reserved function, no effect

Black cable: Ground cable

H. Remote Controller (optional)

Button Description			
No.	Description	No.	Description
1	Split screen display	7	Enter
2	Force Record	8	-
3	Quad display	9	Fast Forward
4	Mute	10	Play back
5	Menu	11	Pause
6	Arrow keys	12	Stop

How to check if the remote controller is not workable?	✓ Check the mercury cell is installed in Correct direction. (Check the pole)
	✓ √ Check the cell power is exhaust or not.
	✓ √ Check the sensor is covered or not
	✓ √Check if it nearby Fluorescent Lamp.

I.   Recording and stop recording

1. System initialization / Recording:

System initializes within 30 seconds when power is on. PWR green light ON when system is rebooting. System starts to recording when REC green light is flashing.
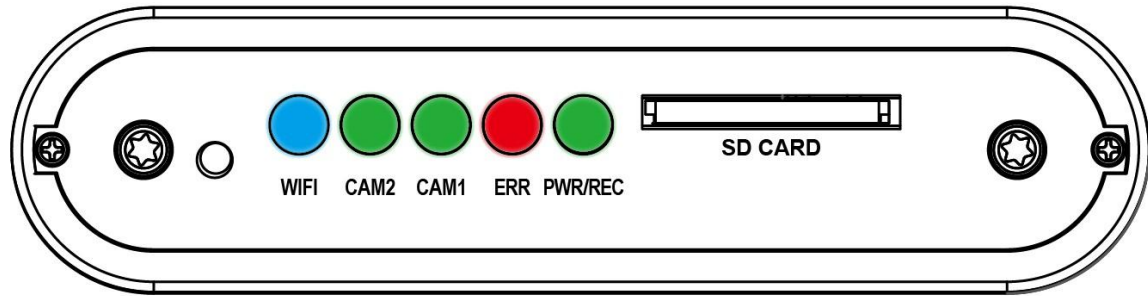
Light Indication:

- PWR/REC：GREEN on means device POWER is on, Flashing resembles recording.
- ERR：RED on means abnormal, please check possible reason such as camera signal, HUD display, SD card ...etc.
- CAM 1：GREEN means in connection.
- CAM 2：GREEN means in connection.
- WiFi：BLUE means the WiFi dongle has been detective.

2. Shut off/ Stop recording

Device offer prolonged 3 seconds recording after power off to ensure data is well stored; user can take out the SD card when indication is off.

J. Live view:

(1) The monitor can display video record from CH1, CH2 or both CH1 and CH2.

(2) Icon Description:
- 🔴: Recording
- 🔷: GPS sensor position successfully.
- 🎤: Microphone ON
- 🔘: Activate event recording
- 🔔: Alarm

(3) OBD Main menu operation and parameter setting description

Recording Setting	**Record FPS**	NTSC	**4M**	5-30fps
		PAL	**4M**	5-25fps
	Record Quality	regular	Good	Excellent
Image Setting	Setting the brightness, contrast, color adjustment by chooses different channels.			
Image input	For lens image adjustment, you can set the normal mode, mirror mode, flip mode			
Time Setting	When GPS signal successful positioning, the system will automatically adjust time and time zone by GPS. If device cannot receive GPS signal, user can directly setting the time on device			
GPS Setting	Select and display the vehicle speed and speed unit on live view video screen.			
Vehicle License Plate Number	Input range: A~Z and 0~9			

Operating Mode	1.Setting default channel mode 2.Audio record ON/OFF
G-Sensor	The device will activate force recording function, which ensure device keep recording and avoid overwrite records during vehicle collision accident.
Restore default Setting	After restore default setting, the device will restart and restore default setting data.
Format Hard Disk	All the records will delete with Hard Disk format.

K. WiFi connection

(a)、QR Code download：

VACRON MOTO FOR IOS   VACRON MOTO FOR ANDROID

### (b)、Android:

1. Visit Google play store, search for "VACRON MOTO" and download

2. WLAN connection, type in 「DIRECT-SSID-XXXXXX」as user ID, password as 「12345678.」

3. Open "VACRON MOTO", watch real time video record by selecting real time video

4. Select「Playback:」Capable play all video files that storages in SD card.

5. Select「Download Video files,」capable download video by date, time and channel for 1 minute.

6. Click "Save Record": Capable watch all records, Instant Record, Playback Record, and Downloaded Record.

7. Click " Video fragment ": watch the video fragment during play real time and

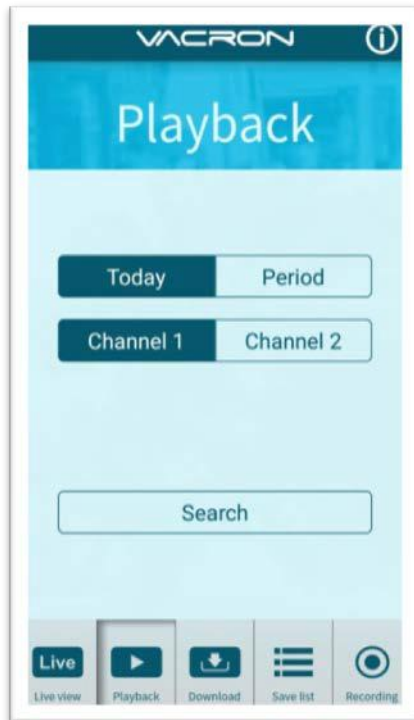playback video

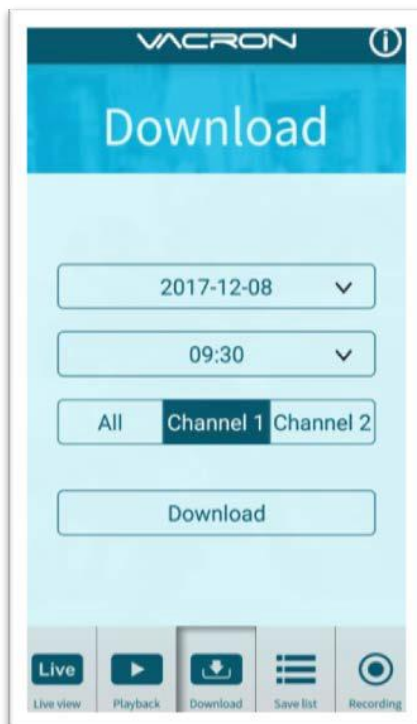APP main menu   Real time image
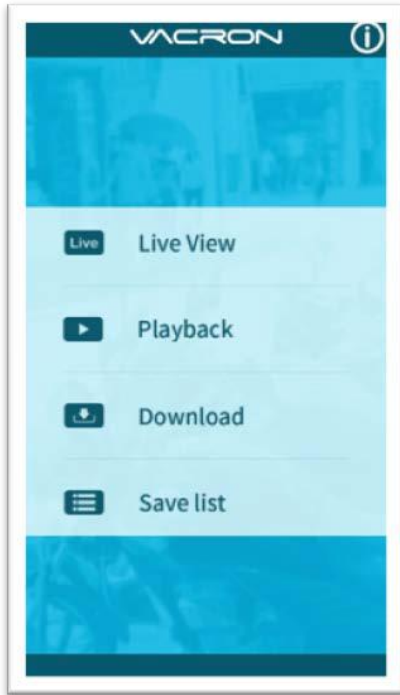
Playback

Playback:

1. Today: choose channel 1 or channel 2, and then press Search button, it will show all video files that record in today. Select and playback any video record as your request.

2. Custom : Choose channel1 or channel2, at meanwhile, setting date and time period, press search, it will show all video records that record during this range, select and playback any video record as your request.

File download

File Download

1. Select date, time point, and channel to download video file (choose suitable channel for different device, it cannot download file when you choose incorrect channel for your device.)

2. Press download to download video file, the complete download time length depends on file size. Normally, is takes approx.1 to 2 minutes, the download format as MP4.

Save list

Save list

1. All records: press and playback all downloaded records, which include video clip of real time video, playback video, download image.

2. Real time: video fragment of real time video record, the file name ending with "L".

3. Playback: video fragment of playback video record, file name ending with "PB".
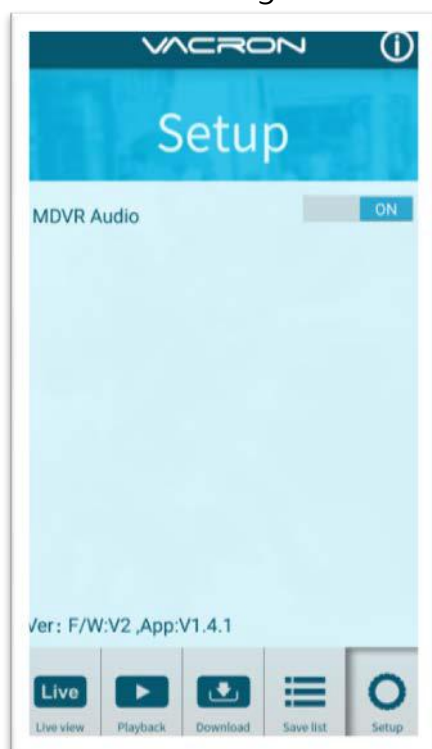
4. Download: file name ending with "D"

Video fragment

video fragment:

1. Press "Video fragment" during play real time video, the system will save a video fragment as MP4 format.

2. Press "Video fragment" during play back video records, the system will save a video fragment as MP4 format.

Setting

Setting:

Select microphone On/Off.(Require use with OBD)

Version：

1. F/W: Display the device current version
2. App: Display APP current version

(c)、IOS

1. Search and download "VACRON MOTO" in Apple store.
2. WLAN　connection, type in「DIRECT-SSID-XXXXXX」as user ID, password as 「12345678.」
3. Open "VACRON MOTO", watch real time video record by selecting real time video
4. Select「Playback:」Capable play all video files that storage in SD card.
5. Select「Download Video files,」capable download video by date, time and channel for 1 minute.
6. Click "Save Record": Capable watch all records, Instant Record, Playback Record, and Downloaded Record.
7. Select「Setting:」Capable turn On/Off microphone.
8. Select「Snapshot:」Capable take snapshot.
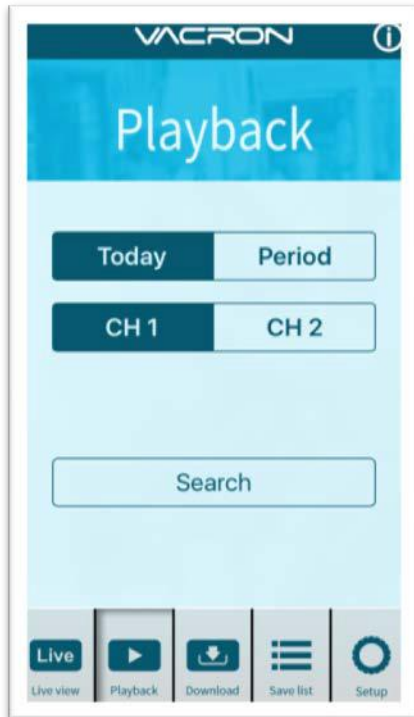
APP main menu   Real time image
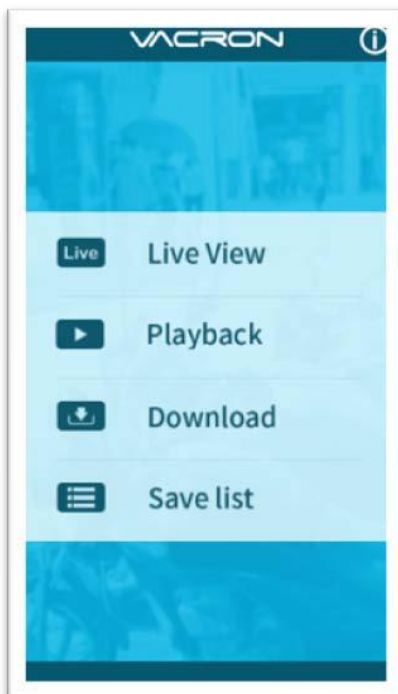
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3. Playback: video fragment of playback video record, file name ending with "PB".

4. Download: file name ending with "D"

Setting

Setting:

Select microphone On/Off.(Require use with OBD)

> ### ⚠ **Attention**
>
> 1. Live image may be delay caused by wireless signal connection error.
> 2. Remote control only use for records that storage in device, record cannot be searched when the SD card had been overwritten.
> 3. Remember to close the WiFi connect with device after operation
> 4. It is recommended to check regularly with the use of the Laptop player to play the video. Make sure the video system maintain normal operations if OBD is not installed.

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