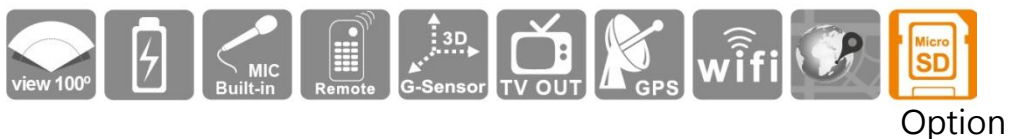


Smart Driving Recorder

User Manual



2016 JUN. V1.0



* Memory cards are not Include, .

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A. Notice

Please test recording and play function to make sure the device is running well. Attention, if the failure was due to device accessories included memory card out of function to lead to any loss of video recording function fail or unable to read the video type, our company, subsidiary bodies and agency all not responsible for indemnification.

Before use the product, please sure you have read notifications as below. And please sure the way you operating the product is all correct.

- For your safety, you do not watch the video or operate this product while driving. To install and configure this product, please park the car to a safe place.
- Please do not uses the external (multiple plug) automobile cigar lighter to prevent unstable voltage crashed the device system.
- Please make sure automobile cigar lighter and the power head must be fitted.
- Do not install the product it might cause interference place.
- Please avoid to use or place or storage the device in the damp or full of dirt environment.
- Do not use this product placed in long-term direct sunlight, so as not to reduce the life of the product. Without using the product, please return the product storage at room temperature, dry environment.
- If the machine fails during use, do not disassemble, repair, please contact your local dealer.

- If the device is smoking, waft peculiar smell or any abnormal issues, please stop to operate the device.
- Please do not let any liquid or object into the device.
- Please avoid the terminal or plug to contact any metal object (ex. needle or key) or dirt.

B. Accessories

Before use, check the package offered by the following items.

If you find that items are not complete, please contact your retailer to purchase.

※ Memory cards are not include

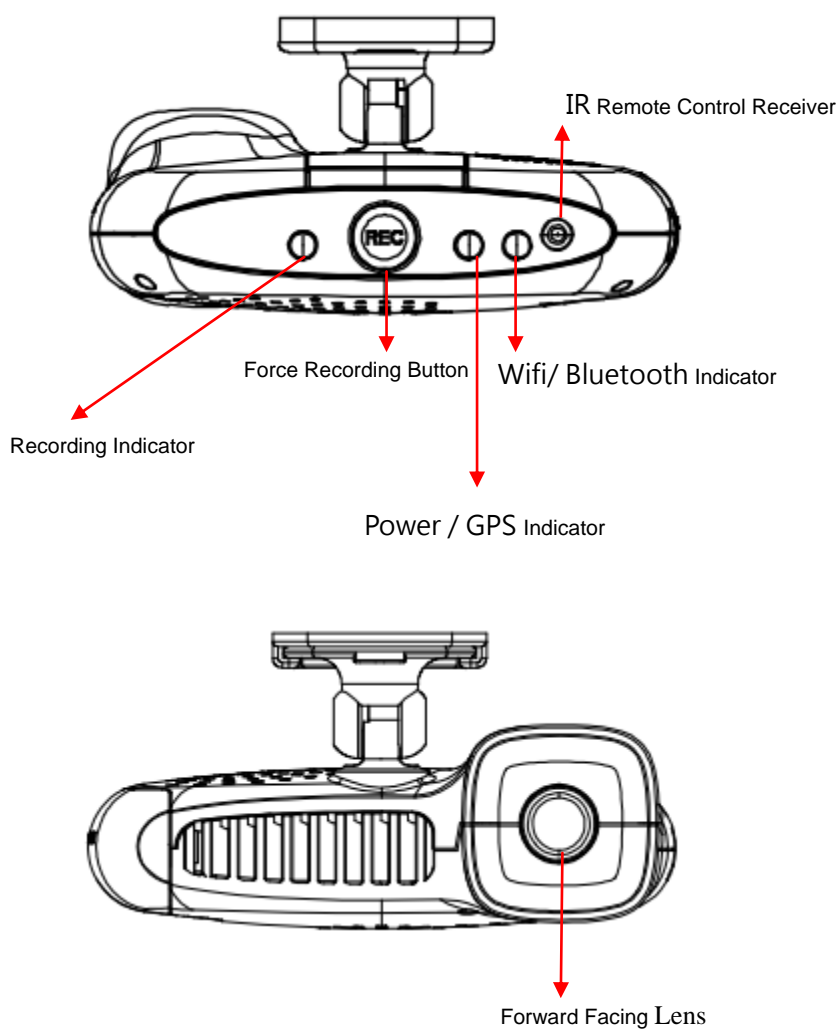
1. Standard :

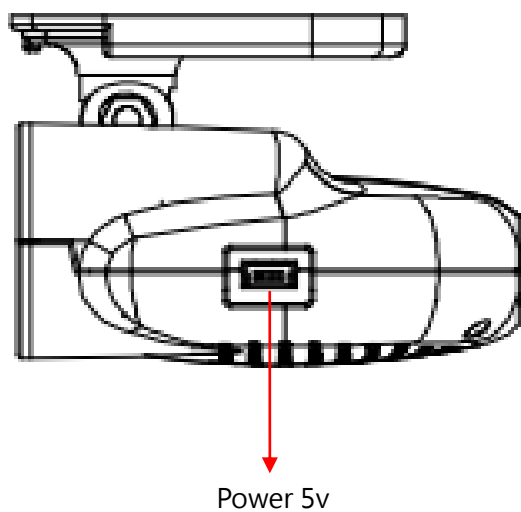
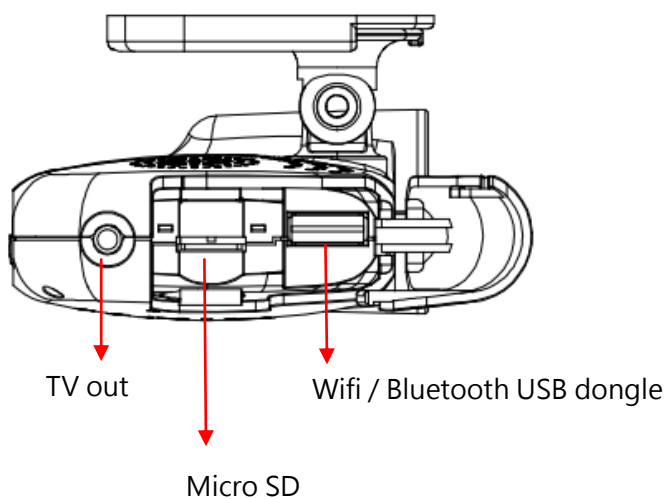
- (a) 5V cigarette Power adapter
- (b) 4 pins, 3.5 inch headphone jack to RCA output cable
- (c) WiFi/Bluetooth USB Dongle(Install to device)
- (d) Remote control
- (e) Bracket holder
- (f) Suction cup bracket
- (g) Product CD
- (h) Quick Guide

2. Optional :

- (a) 8G Class10 above MicroSD (8GB/16GB/32BG/64GB)

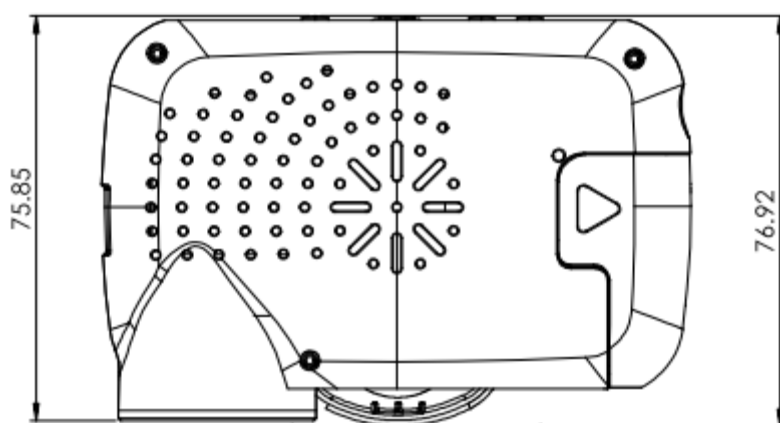
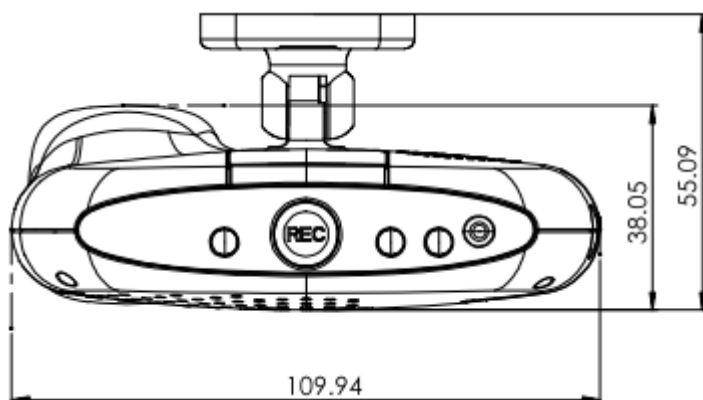
C. Structure of Product





D. Dimension

Unit : mm

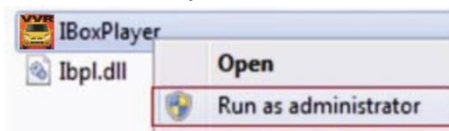



E. Recorder initial setting

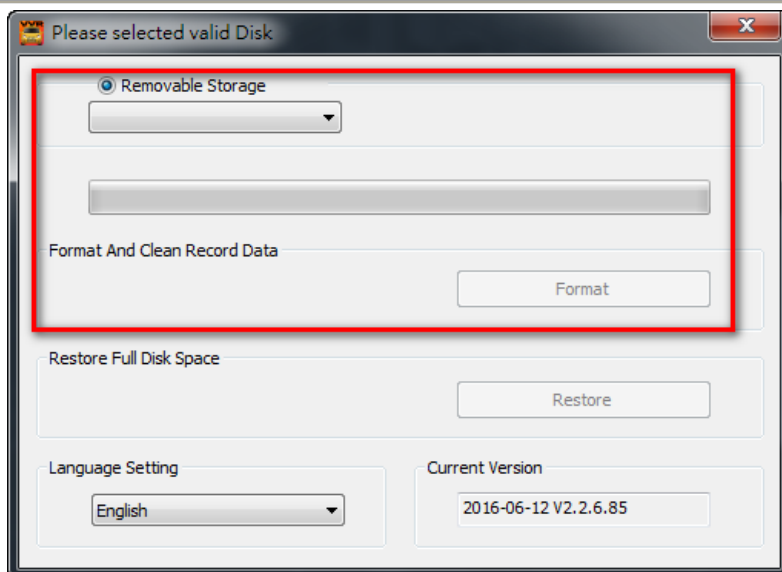
Before using the recorder, please read this chapter and operate in accordance with steps to make sure you use the best driving recorder.

1. Memory card format

- (1). When you use the Micro SD card for the first time or just purchase a new card, please using VACRON player to format SD Card first.
- (2). You can find the VACRON player in CD, or visit VACRON website to download it.
- (3). Please run the program as Administrator to open this VACRON player.




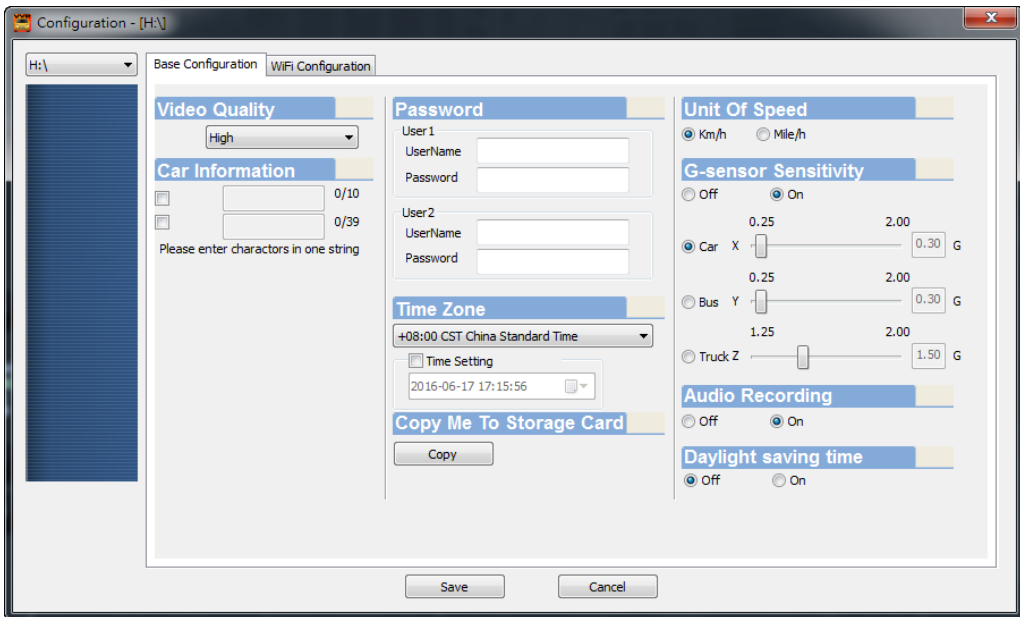
- (4). Open player and click on 「Toolbar」  to format SD Card. Detailed steps, refer to < Formatting Memory Card > section explains.



Memory Card format Operation screen

2. Memory card recording the initial value setting

- (1). Open VACRON player and click on 「Configuration」  to initial setting data. Detailed settings, please refer to <Memory card configuration> section explains.



Memory card Configuration Operation screen

3. Memory Installation

Please note that the memory card before inserting the memory card is inserted, refer to <Memory card installation> section explains.

4. Recorder Installation

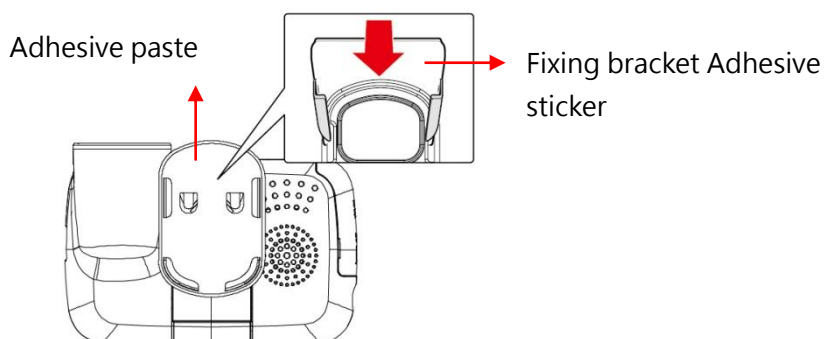
Please refer to <Cars installation guide steps> section explains.

5. Recording

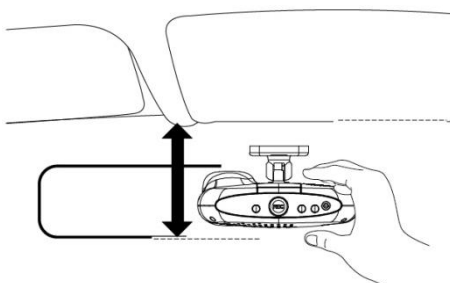
After recorder connect the power and start the car, it will automatically turn on and start recording. Refer to the <start and stop recording> section explains.

F. Installation Guide

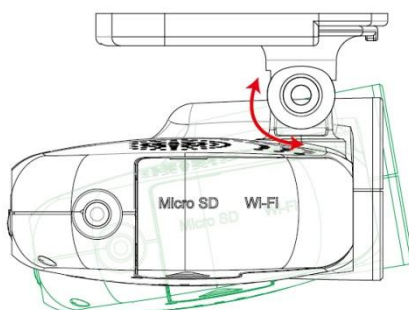
1. The "fixing bracket adhesive sticker" and host-to-latch link



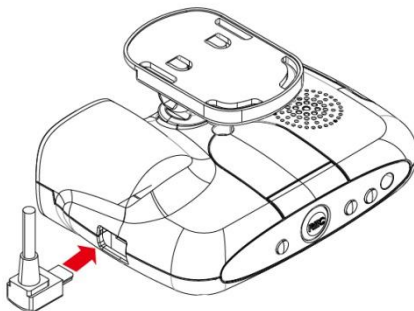
2. Install the device in windshield position. around rearview mirror by the front passenger seat



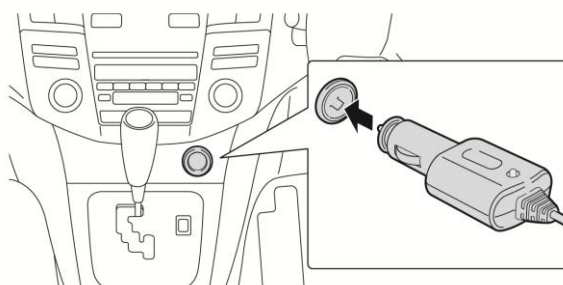
3. Adjust the viewing angle.



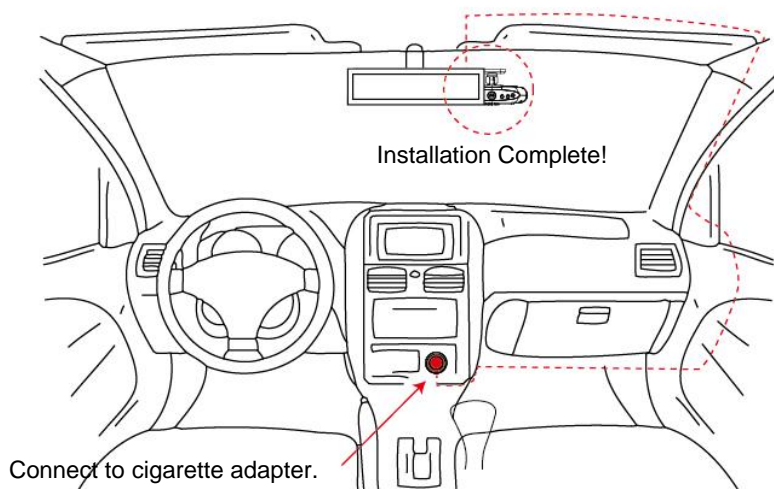
4. Plug the power cable to socket DC5V.



5. Plug in the cigarette adapter.



6. Recorder installation guide

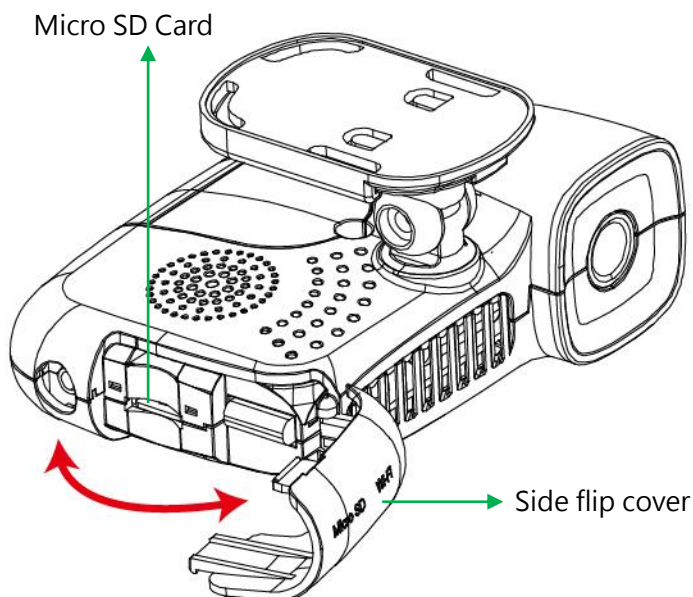




Notice

- (a) Make sure that the front install your windshield is clean and dry.
And install on a flat glass, instead of having a place in radians.
- (b) When using the car holder, please carefully choose the location.
Do not place the body in sight will hinder the drive position.
- (c) When the machine is installed, it can be installed in the wiper to
clean the area.
- (d) The initial use of a memory card recording, first in VACRON Player
configuration data to the memory card.
- (e) The initial use of a memory card recording please set the
adjustment time, image files can display normal time.

G. Memory Card Install



1. Insert the memory card side flip cover is open; you can install or remove the memory card.
2. When not using the memory card, insert the dust cover closed, dust or other foreign matter can be isolated from the memory card may cause anomalies generated.
3. Please recording before the memory card, using the supplied software is set to play host video-related manner, after the setup is complete, you can return the memory card inserted in the host side, you can be recording.
4. Format the memory card / restore card, please refer to the other section explains.



Memory Card Precautions

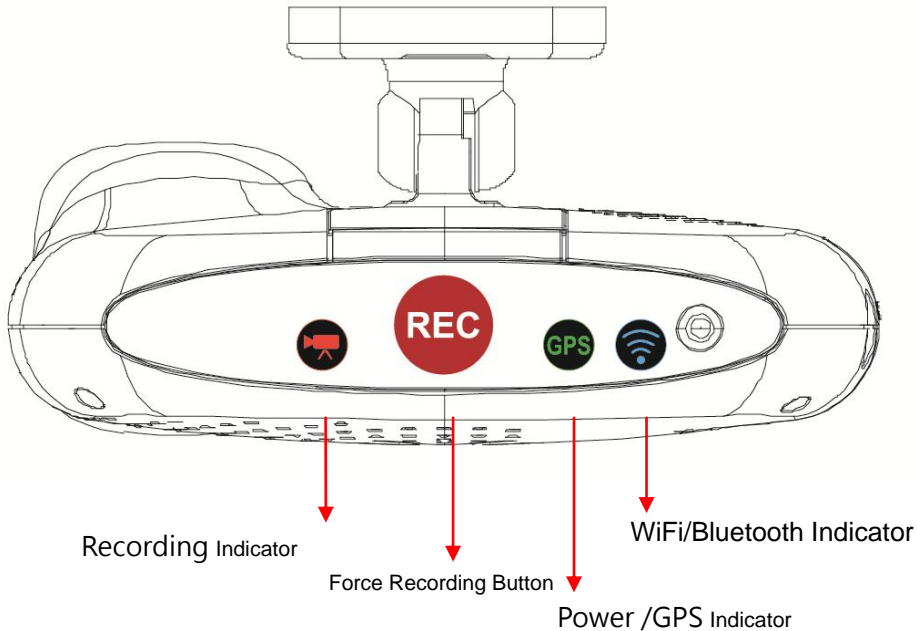
- (1). Class 10 memory card is recommended above SDHC Card (need to use more than 8G)
- (2). Failure to use a dedicated memory card playback software format, then the machine will be forced to clear the entire memory card information, then the machine in order to start recording a preset value.
- (3). Do not use MicroSD turn SD card video card, so as to avoid vibration resulting in poor contact video adapter exception.
- (4). The number of memory card reader and lifetime problem, periodic inspection and the use of computers playing a video, make sure that the memory card can read and write.
- (5). Memory card because the manufacturers may change or adjustment process, and the compatibility problem occurs, the device cannot guarantee compatibility for all commercially available memory card. Memory card compatibility problems if the proposed replacement model or brand.
- (6). If no memory card first using a dedicated playback software format, then the machine will be forced to clear the entire memory card information, then the machine in order to start recording a preset value. Unformatted specific models may not allow videos.

- (7). Whether the memory card 8G, 16G, 32G or 64G, after the unit or format the player, to see the computer storage only 80MB, the rest is dark file format, you must be able to see files via player.
- (8). At the time of impact and vibration and high, it may cause the magnetic domain memory card physically damaged, resulting in choppy playback or unable problem, we recommend regular inspection and backup important material.
- (9). When an accident occurs, please remove the card and set the write-state, to avoid information being altered or overwritten. Class 10 above SDHC Card

H. Start / Stop Recording

1. Start/Recording:

Power on, and wait about 30 seconds later, the boot is complete. Red light flashes from a presentation showing the video.



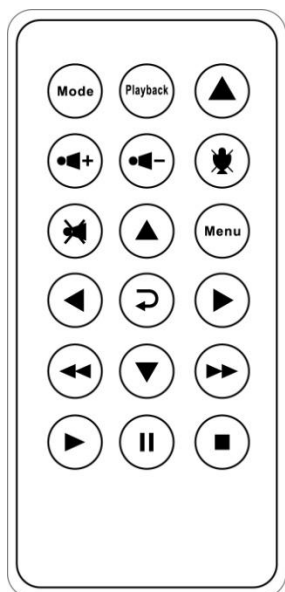
Indicator:

- **Video light (red):** Red indicator of REC,
Stable flicker of red indicator: On recording
Fast flicker of red indicator: Force recording
- **Green indicator of GPS positioning:**
Flicker of green indicator: GPS 3D positioning
Steady of green indicator: GPS 3D positioning accomplished.
- **WiFi/Bluetooth (blue light):** Solid blue light indicates
Connected WiFi/Bluetooth phone.


2. Power Off / Stop Recording

Built-in super capacitor, when the device power off and delay of about three seconds, the data buffer is written back to the SD card, wait for the lights go out is to stop recording, then you can remove the memory card file to read the video's

I. Functions of Remote Controller



Button		Function Description
▲	Force Recording Button	Manually establish a recorded file which cannot be overwritten.
Menu	Menu Button	Device version number
🔇	Mute Button	Voice recording On/Off
⏮	Playback Button	Playback list

<p>Remote control abnormality check</p> 	<ul style="list-style-type: none"> ✓ Check the battery polarity ✓ Check if the batteries run out ✓ Check if remote sensor is blocked ✓ Check whether nearby fluorescent lighting is being used
---	--

J. VACRON Player

1. Player

Open the CD and install player  player as follows.

*Notes:

(A) To do this, the software should be installed DirectX 9.0 or above.











(B) Support OS: WINDOWS XP, VISTA, 7,8,10, does not support MAC OS

(C) The recommended hardware requirements: i3 above grade 2.7GHZ, RAM: 4G or more, more preferably independent display card

2. Vacron player Interface

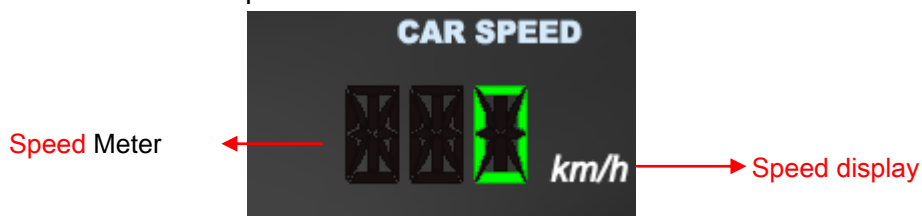


a. Play & Settings Icon Instruction :

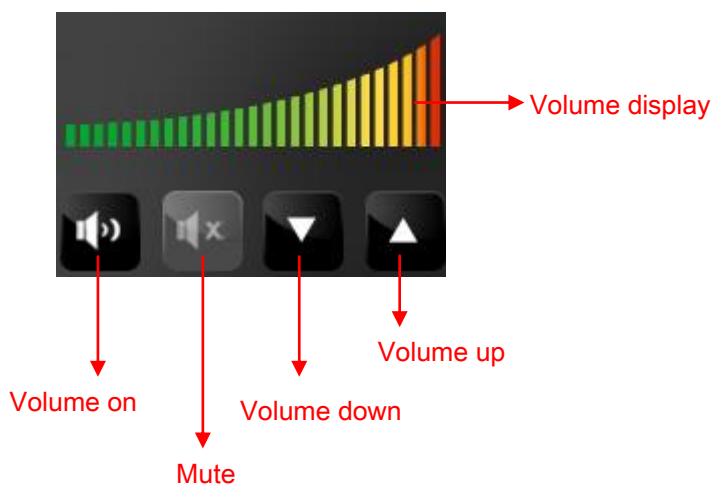
	Close
	Minimal
	Playback
	Calendar
	Backup
	Snapshot
	Configuration
	Format
	G-sensor
	Compass

Functional operation described in detail, please refer to the other sections explain

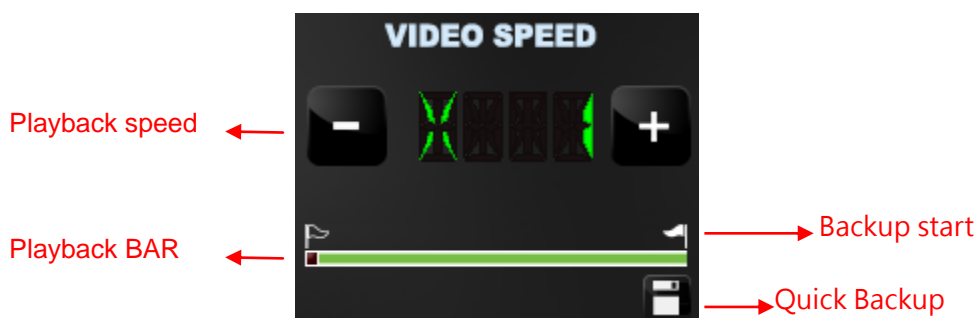
b. Speed



c. Volume

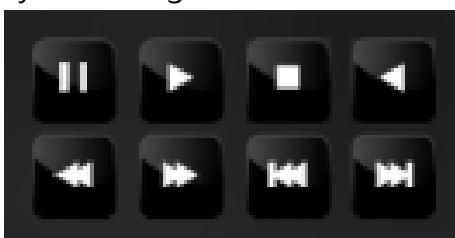


d. Playback controls



- (1) BAR : Available left mouse button and move around to pull BAR, fast-moving. Top boxes BAR Flagged can be the backup.
- (2) Playback speed : 2X 、 4X 、 8X Fast Forward and -2X 、 -4X 、 -8X playback.
- (3) Quick Backup : Use drag on the image flag timeline for quick backup archive.


e. Play & Settings Icon Instruction :



	Pause		play previous frame
	Play		Play next frame
	Stop		Play previous file
	play backward		Play next file

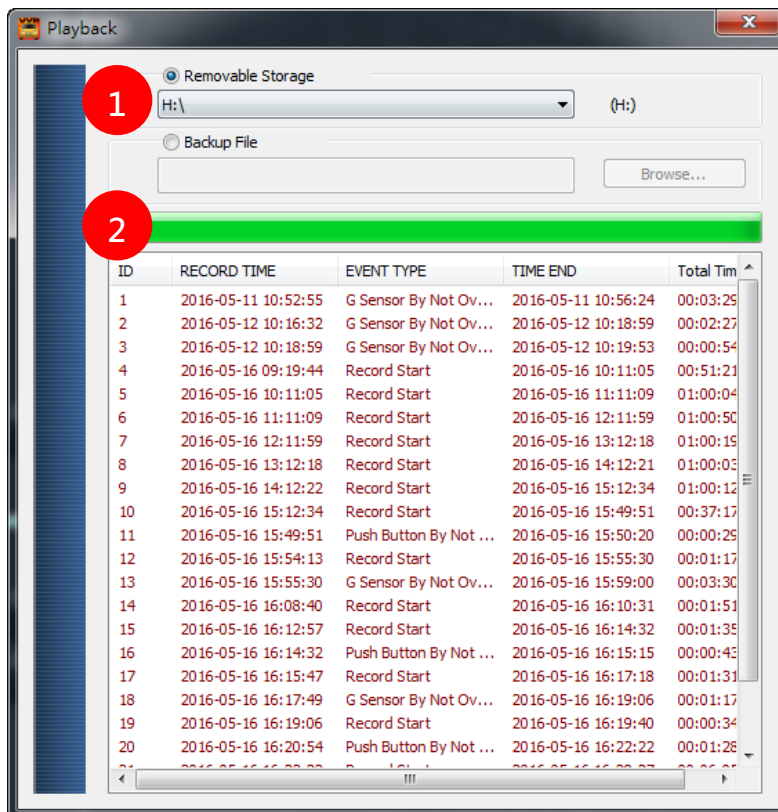
K. Video Play

Using Vacron player to playback

Click on open files  choice files to play in memory or HDDS

Video playback operator :

1. Select the source of the film path, memory card reader, or by reading backup file
2. Select the movie to be played back, after clicking batter for 2 to enter the video player




Playback interface

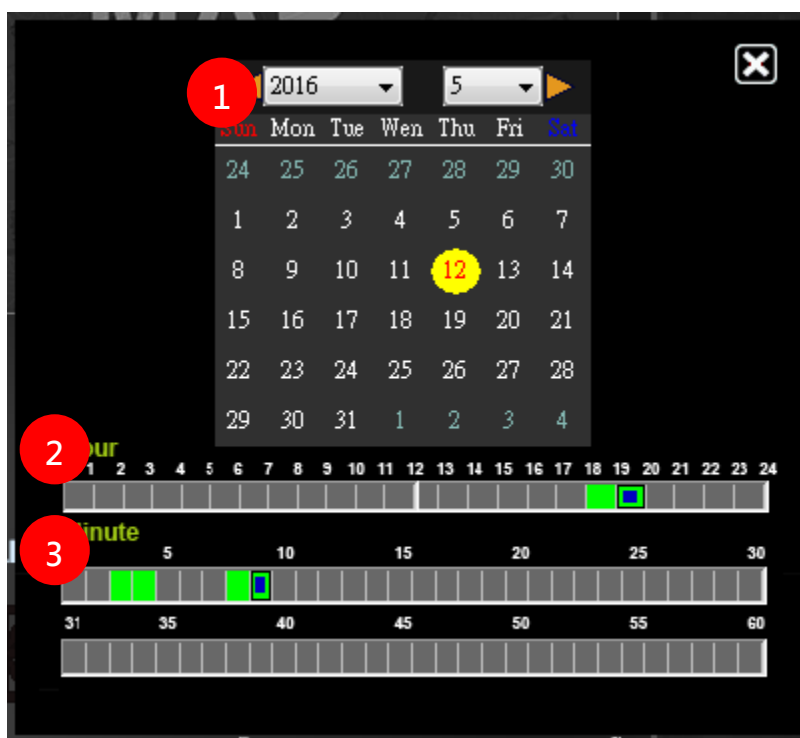
L. Even Calendar

Using the Vacron player, click on 「Even Calendar」 .

Date Event browse video files to follow the sequence of operations to date -> times -> select points.

 Green point of videotaped information, mouse click the

 Bluepoint. In videotaped information using mouse to clicking two consecutive points and play video

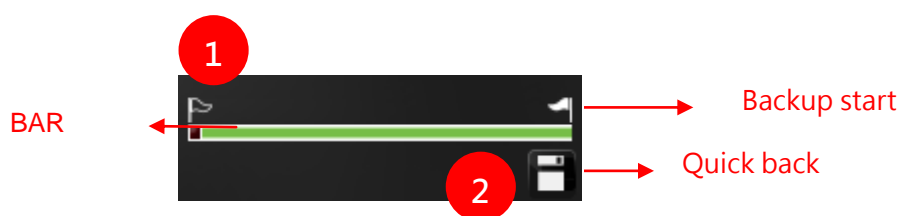


Event Calendar

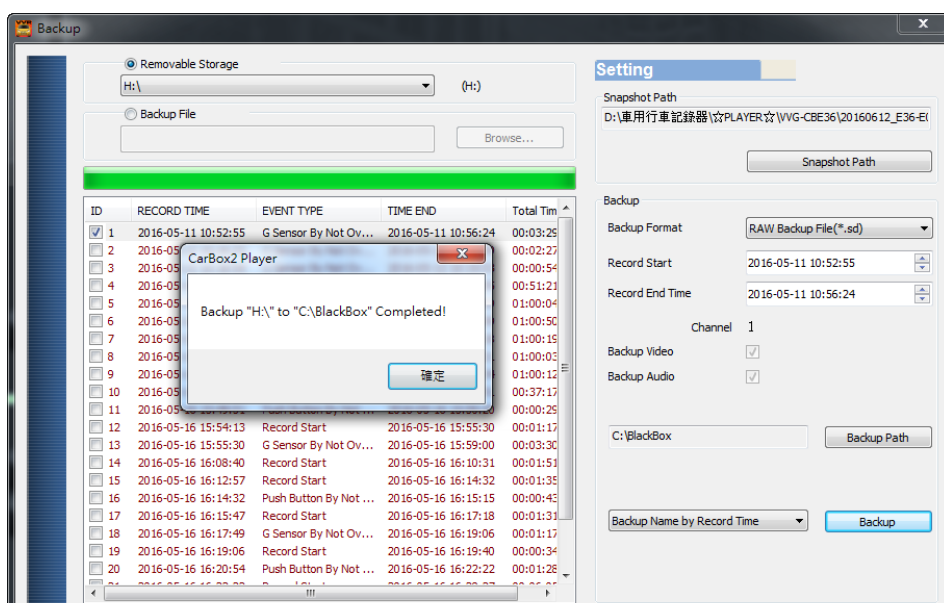
M. Backup

Using the Vacron player, backup file. Backup There are two ways: 1、using the playback interface "Quick Backup" operation; 2、the use of software to control the operation of the key "Disk Backup" to backup videos.

1. Quick Backup



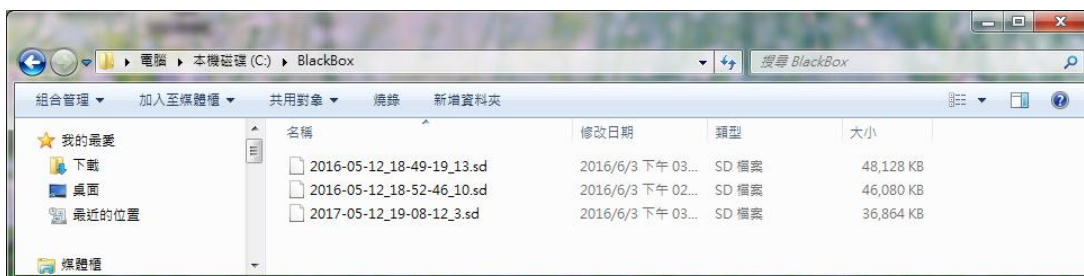
- (1). In the movie playback, use the "backup start control flag" to mark the start backup video.
- (2). After the initial time stamp, press the "rapid backup key" , That quick video backup.



Quick video backup

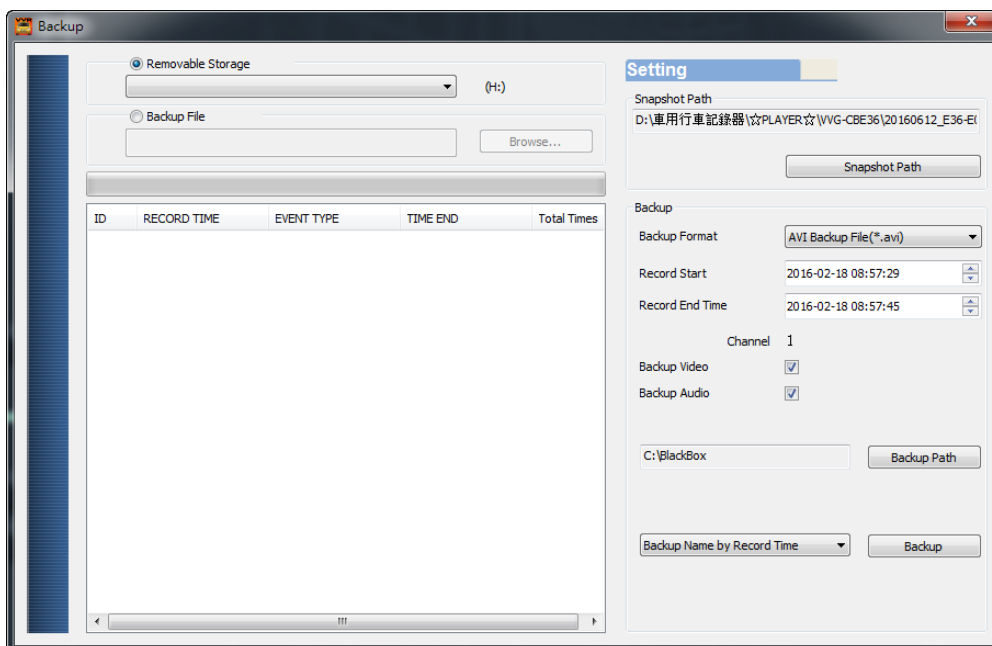
Notes :

- (1). Backup video file formats in their original format(*.sd)
- (2). stored in the file path c:\BlackBox\data

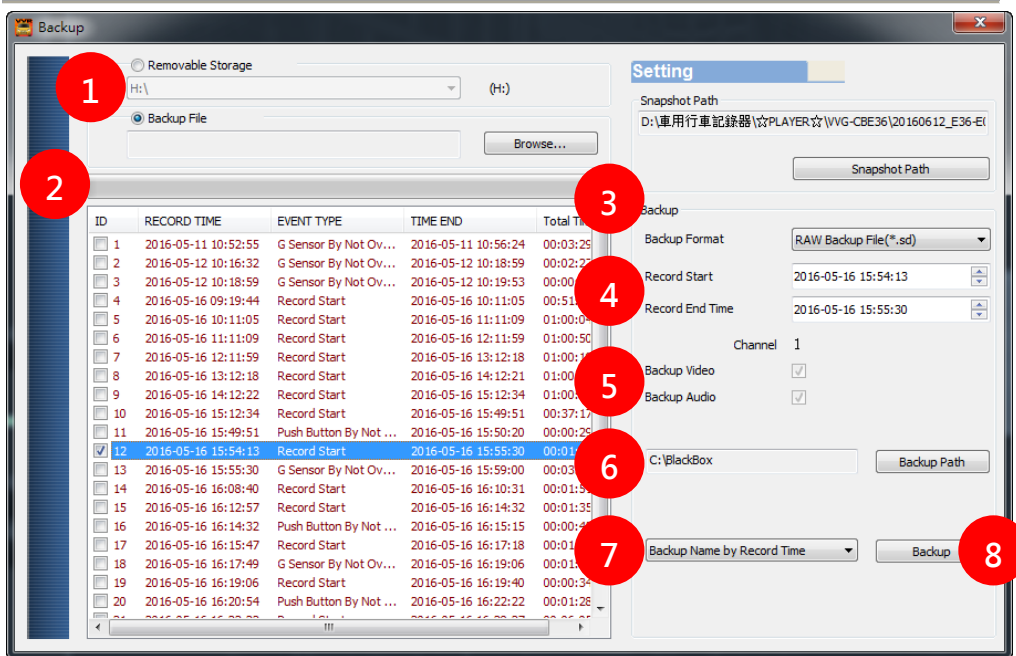


2. Disk Backup

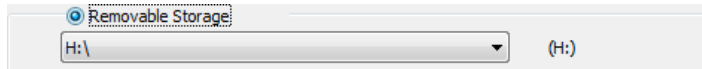
Click on 『disk backup』  That would appear under the window



Video backup interface



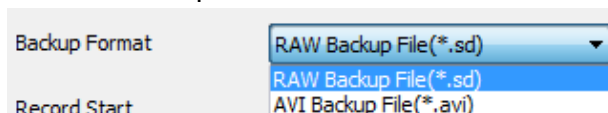
(1). Select backup data source



(2). Select backup recorder data

ID	RECORD TIME	EVENT TYPE	TIME END	Total Times
1	2016-02-18 08:42:36	Record Start	2016-02-18 08:43:14	00:00:38
2	2016-02-18 08:57:01	Record Start	2016-02-18 08:57:29	00:00:28
3	2016-02-18 08:57:29	G Sensor By Not Ov...	2016-02-18 08:57:45	00:00:16





(3). Select backup data format : original backup(*.sd)
or AVI backup(*.avi)



***Notes:**

In the original format of the backup memory card, that format will include GPS latitude and longitude, speed, G-SENSOR data and other records, *.avi format backup of the terms of the date, video and audio data, it is more recommended that the memory card in its original format backup.


- (4). Select backup start and end

Record Start	2016-02-18 08:57:29	 
Record End Time	2016-02-18 08:57:45	 

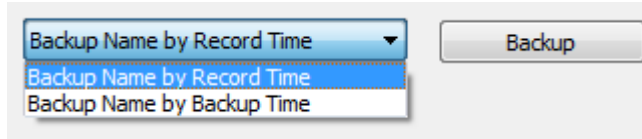
- (5). Select backup video and voice, or backup video and voice together

Channel 1	
Backup Video	<input checked="" type="checkbox"/>
Backup Audio	<input checked="" type="checkbox"/>

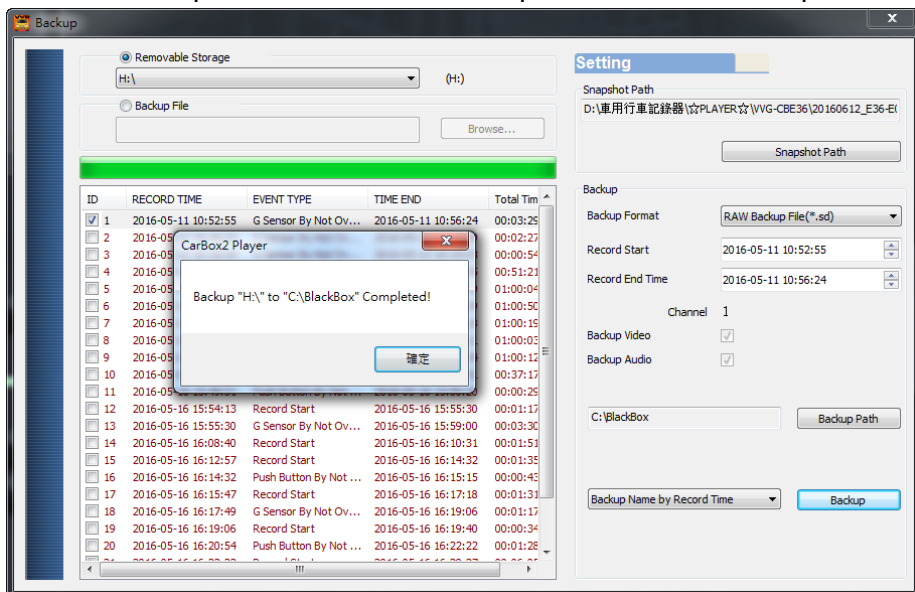
- (6). Select Saved Locations, Default path
C:\BlackBox

C:\BlackBox	
-------------	--

- (7). Backup file name setting mode: choose the recording time by naming or named according to the backup time

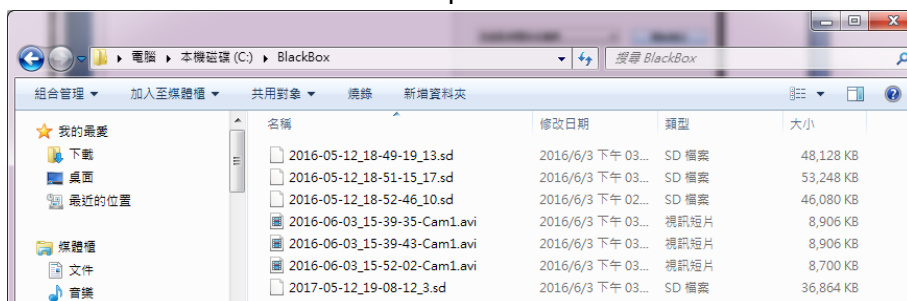


- (8). After the above description is set up, you can press the "Start Backup" button to backup.



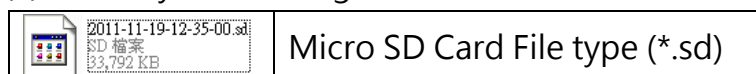
Backup complete

- (9). After the movie backup is complete, you can view data in the backup box




Backup can be divided according to format :

- (a) Memory card in original format




Micro SD Card File type (*.sd)

(b)AVI File Backup (*.avi)

 <p>2011-11-19-12-26-52-CHN01.avi 視訊短片 24,794 KB</p>	<p>CHN01 is the forward facing lens record. The file name is *.avi.</p>
---	---

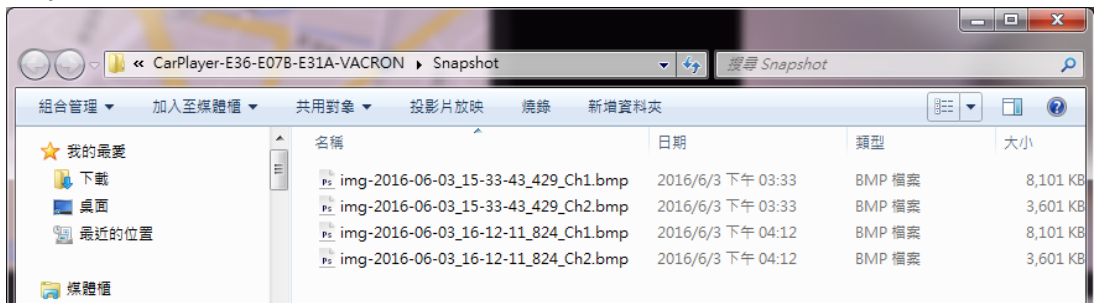
N. Snapshot

Snapshot operator

While playback video and click snapshot  It is played to the display screen to save the theme of archives.

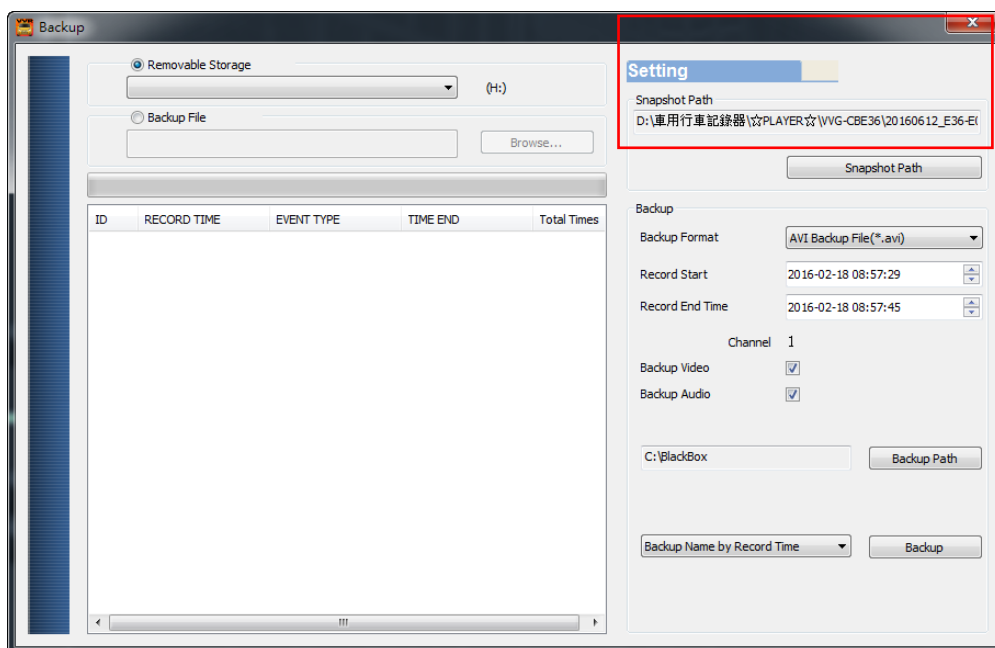


Capture the screen, then save it under the same program to play/Snapshot. Files format *.bmp.



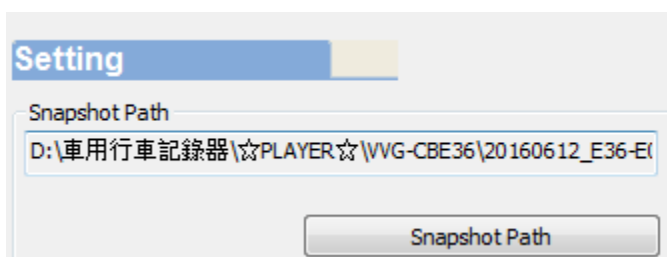
Snapshot theme archive path

Select 『HDDS Backup』  The following will appear depending on




Video backup interface

Click on 「snapshot save location」, It can replace the position of the image archive screenshots



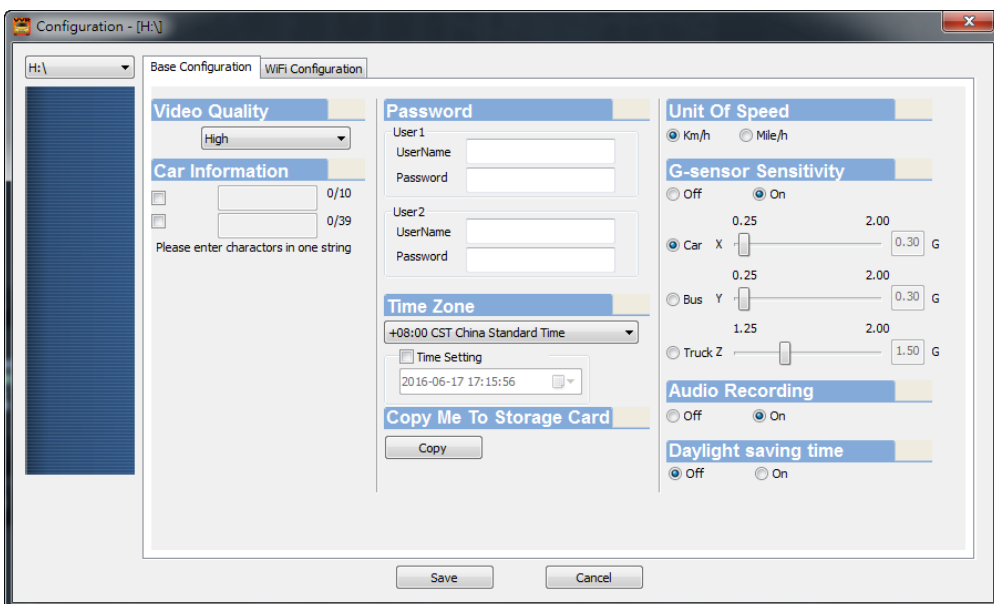
O. Memory card configuration

To be set before the video recording of the relevant host mode, after the setup is complete, you can return the Micro SD memory card inserted in the host side, and you can move the carriage were recording.

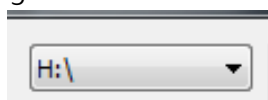
Using Vacron player, select 「configuration」 , Memory card data recording performed the initial value setting

*Notes:

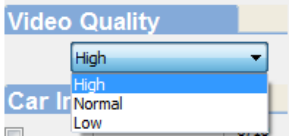
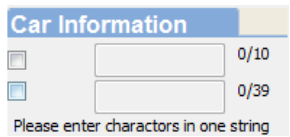
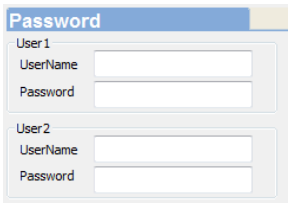
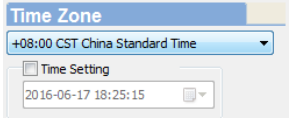
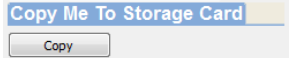
Operation memory card configuration menu, turn the memory card into the computer terminal. Log data set will be used to set the video recording of driving time

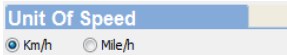
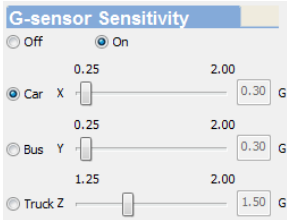
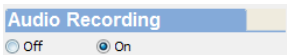
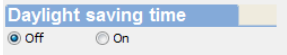


Operation memory card configuration menu, please select the memory card storage location

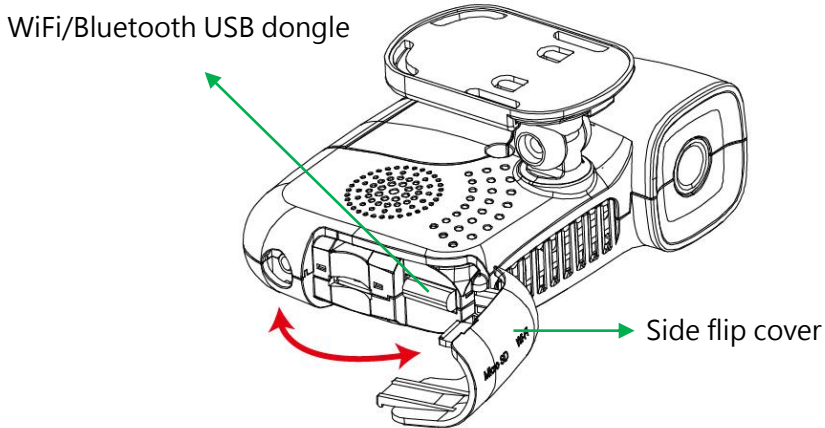


1. Video Memory Card data - basic settings

Video Quality		Select the video Quality: High/ Normal / Low
Car Information		The license plate number information can be input here, the film is easy to identify which vehicles to record video record (only English letter and number acceptable).
Password		This feature of the Micro SD card encryption, to prevent others from accessing any data. Set a password to 15 characters limited: 123,456,789,123,456. After setting the password, it is required to enter password to access the playback file, setting, formatting memory card.
Time zone		Time Zone: GMT (GPS auto time correction)
Copy to SD Card		VACRON Player Playback software is copied to the memory card. You can always

		use the other computer playback software to view the video information.
Unit Of Speed		<p>You can set up the speed unit here.</p> <p>Km/h: kilometer per hour</p> <p>Mile/h: mile per hour</p> <p>Knot : knot per hour</p> <p>★ Note : 1 KM=0.6214 mile, 1 mile=1.6093KM</p>
G-sensor Sensitivity		<p>Set the sensitivity for G-sensor.</p> <p>Three basic modes can be selected may also be closed.</p> <p>Note: In some uneven road, you might want to decrease the sensitivity to prevent repeated emergency recording.</p>
Audio Recording		<p>Audio recording.</p> <p>Open: recording voice / Close: stop voice recording.</p>
Daylight Saving Time		<p>Daylight Saving Time:</p> <p>The practice of advancing clock during summer months by one hour so that evening daylight lasts an hour longer, while sacrificing normal sunrise times</p>

2. Memory card recorder –WiFi setting



WiFi /Bluetooth Dongle

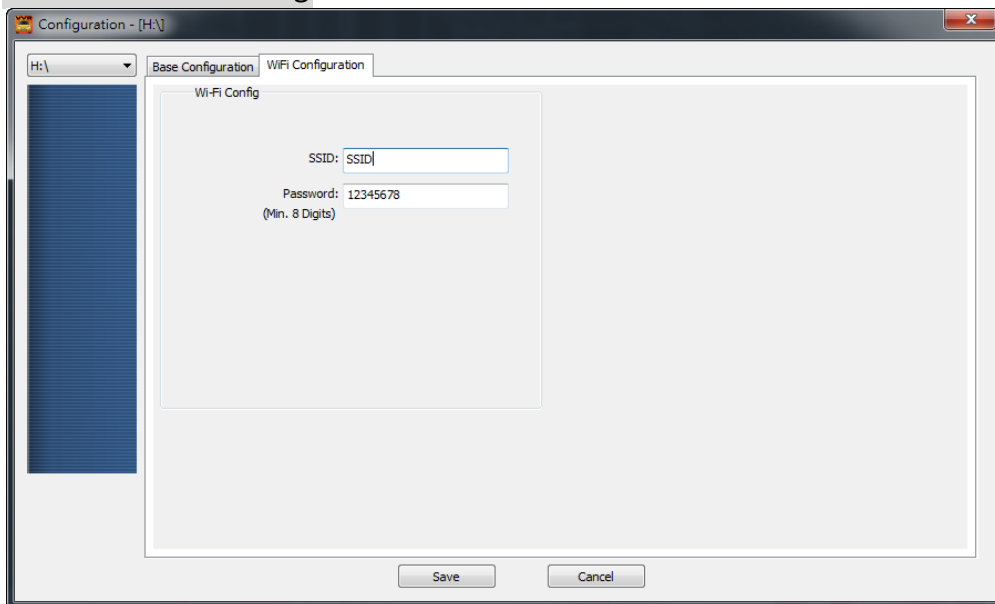


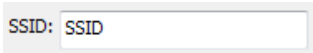
* Picture for reference only, actual factory products, WiFi/Bluetooth USB wireless network card, factory-installed in the machine.

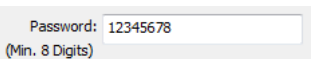
*Notes:

WiFi/Bluetooth Wireless card to do in the factory setting driver, do not arbitrarily remove or change settings on the computer to do other, so as to avoid abnormal connection.

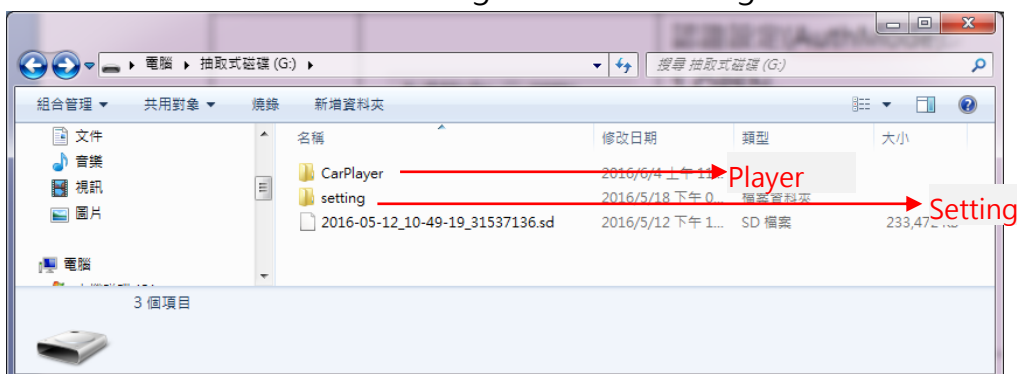
WiFi function setting




Setting SSID		<p>SSID, available revise SSID name, The default name for the SSID.</p> <p>★NOTE: Please set a password enter alphanumeric combinations, do not enter the Chinese in order to avoid garbled.</p>
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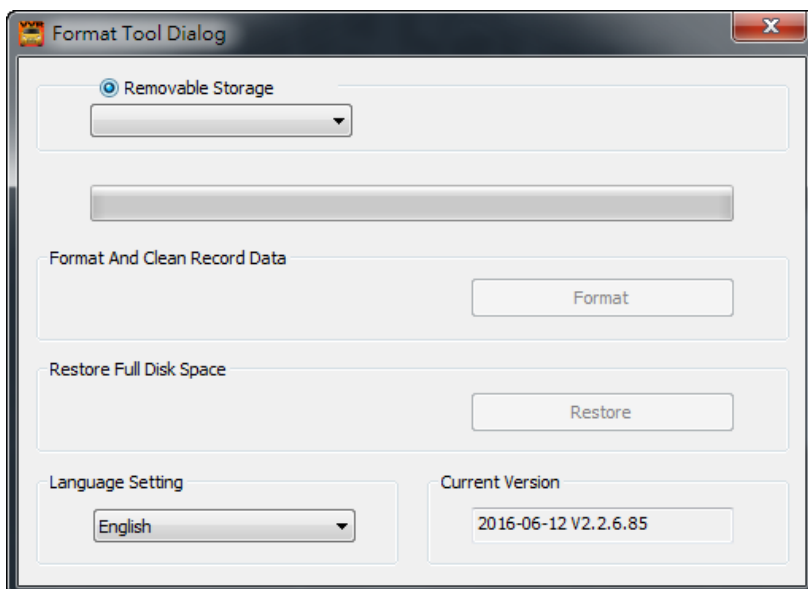
password		<p>This feature allows SSID encryption to prevent unauthorized access to any information. Set a password of 15 characters is limited, at least 8 yards. Example: 123456789123456</p> <p>After setting a password and password is required to connect the machine.</p> <p>★ Note 1: Make sure the font case set a password and record your password in order to avoid the password is forgotten.</p> <p>★ Note 2: If you forget the password, you can hold down the REC button on the unit for 10 seconds, then re-opened this opportunity to reset, SSID-XXXXXX After the reset, password: 12345678</p>
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If data is set, please press "Save" button, the setting data stored in the memory card. And inserted back in the recorder, complete video recorder host basic settings and WiFi settings.



P. Toolbar operation

Open the player and click on 「toolbar」 . Perform memory card format memory card and restore operations, or language settings, or to view the current version of the software.



Toolbar interface

1. Format SD card

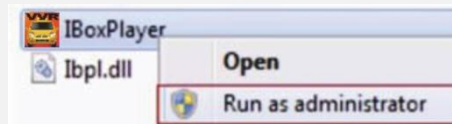
What conditions need to format the memory card? When the user to purchase a new memory card, or use their existing card, is required after the first card is formatted before use. (The supplied memory card, the original formatting has been completed, and tested).

***Notes:**

1. Before formatting Micro SD card, please ensure to unlock it first.

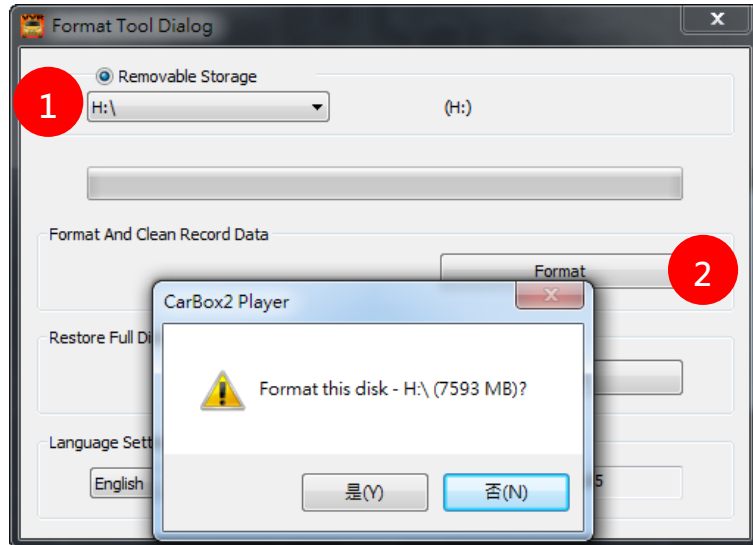


2. If the card is unlocked but still cannot be formatted, this might be caused by Window Vista / 7 security restrictions. Please run the program as Administrator to prevent from this problem.



Formatting screen to Windows 7 as an example, as shown in step :

- (1) Select the formatted memory card path location.
- (2) Press the "Format" button, confirm that you want to format the memory card, then follow the steps to complete the operation screen.
- (3) After formatting is complete, the memory card Replace the recorder, and to get started.



2. Restoring Memory Card

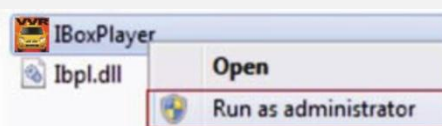
When the memory card after the video images are recorded when files have been backed up in the computer, and the memory card to be done to other storage purposes, then the card must first restore operation, only do it with !!

*Notes:

1. Before restoring Micro SD card, please ensure to unlock it first.

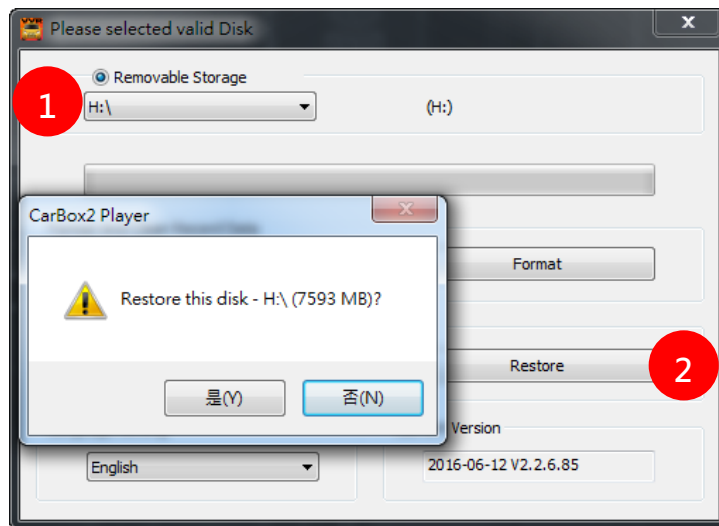


2. If the card is unlocked but still cannot be restoring, Please run the program as Administrator to restoring memory card



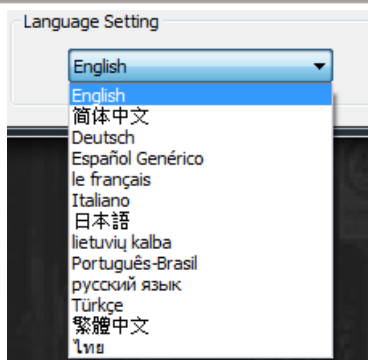
Restore memory card images to Windows 7 as an example,
as shown in step :

- (1) Select the card you want to restore path location.
- (2) Press the "Restore" button, confirm that you want to restore the memory card, then follow the steps to complete the operation screen, you can move to do other storage purposes. .



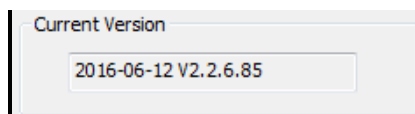
3. Interface Language setting

Select playback software language setting is set to be re-started after the software.




4. Version

Current software version, go VACRON website to download or check it



Q. 3D (G-SENSOR)

1. Check impact sensor analyzer

Open the player and select 「3D」  That you can view the impact sensor analyzer

X: Induction vehicle traveling in the left and right horizontal

Y: Induction vehicle traveling in the ups and downs


Z: Induction vehicle traveling in front and rear horizontal

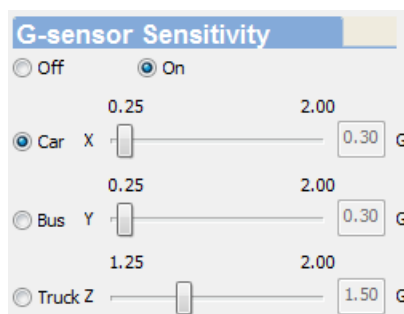


2. Mandatory event video through G-SENSOR

Force Save before the accident, after 1 to 3 minutes video, other images will not be covered by guarantee complete accident image.

G-SENSOR SETTING :


Open the VACRON Viewer, select 「Configuration」 , Memory card data recording performed the initial value setting. Detailed settings, please refer to <Memory card configuration> section explains.



***Notes:**

Due to some area poor road conditions, it is suggested that the gravity sensor sensitivity is set low to avoid excessive lock file, resulting in insufficient memory card space, causing the machine can't continue recording. If gravity sensor set too low, leading to excessive locked file caused by lack of memory card space, the machine can't continue recording, please use VACRON Player format cards.

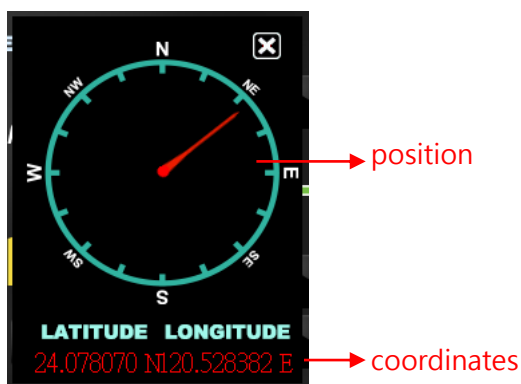
R. Route / position coordinates

Open player and click 「」, can be check route and position coordinates.

1. Route



2. position coordinates



S. Product Upgrade

- (1) Please enter VACRON official website (www.vacron.com.tw) to download the latest firmware. When downloading the latest software, please view the system version (if the host version of the current firmware version is higher than the official website, it is recommended not to replace the firmware).
- (2) firmware update, follow these steps:
 - The memory card in the recorder with a card reader connected to the computer.
 - Enter VACRON official website (www.vacron.com) click on "Technical Support."
 - After entering the download area, click to download the corresponding model, begin downloading the update firmware to the memory card.
 - After the download is complete, the memory card into the drive recorder.
 - The car recorder is connected to power, the machine will automatically turn on and run the upgrade program, the upgrade is complete the machine will automatically reboot.

*** Precautions:**

Do not interrupt the upgrade process program or the power suddenly to avoid bugs so that the products can't boot or have other faults.

Notes 1 : Product future

1. Ultra-low-light one million high-definition CMOS sensor.
2. Built-in gold capacitor backup power available at the accidental impact while retaining most real side.
3. The anti-noise microphone sensitivity can be synchronized record vehicle driving conditions and interior sound data.
4. Automatic loop recording, video card power that is beginning.
5. Manual recording event, save important data.
6. Built-in G-Sensor, do not bother to save the event.
7. GoogleMAP driving route track record.
8. The image data to the Micro SD Card (Max 64GB) storage.
9. Support TV-Out, can be output to the screen inside the vehicle used.
10. Built-in WiFi / Bluetooth Dongle, viewing, playback video from a mobile device instantly
11. The hidden bottom pumping full design, built-in memory card, WiFi/Bluetooth slot to prevent dust accumulation.

Notes 2 : Product Specifications

Item	Specification
Sensor	CMOS Sensor
View Angle	2.45mm Outside vehicle approx 100 degree
Recording Frame	NTSC : 720P/ 30fps or 1080P/30 fps. PAL : 720P/ 25fps or 1080P/25 fps
Video Streaming	1Mbps Streaming(720P) or 512Kbps Streaming(VGA).
Voltage	(a) Using DC5V±5% 、1A adapter (b) Insert 1.5F super capacitor
TV-Out	(a) TV-Out (1 Vp-p composite video output, 75 ohms), Video Output format: NTSC / PAL alternative.
Operating Temp	-10 degree ~ +60 degree
Recording Frame	Automatic recording after power turned on, after a power failure delayed 3S stop recording.
Storage Device	Micro SDHC Card 8GB/Class 10 or above specification is available max 64GB
Recording Content	Date, time, image, sound, G-sensor data, GPS data.
Recording Format	Specific format for software player. H.264 compression
Microphone	Build-in high sensitivity of single microphone for automatic voice adjustment.
Time Setup	Auto-calibrating by GPS signals. If GPS is not available, the built-in clock will be used.

WiFi	Inside WiFi Dongle or Bluetooth Dongle
G-Sensor	(Internal 3D G-Sensor)

* Product specifications are subject to change without notice.



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