

1CH Vehicle Video Recorder

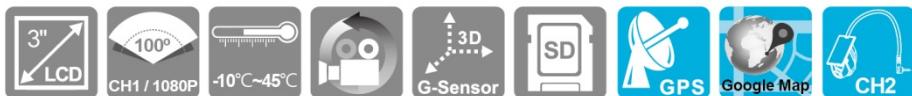
External Camera(optional)

User Manual



TYPE A : Built-in GPS
TYPE B : W/O GPS (optional for G-mouse)

2016 DEC V1.0



■ optional

Safety Precautions

Before using Product, please read instruction & safety precautions. Follow all steps and instruction, operate it correctly.

- Keep device away from children.
- Use recommended Power source.
- Do not open device or modified or heat up.
- Avoid collision & violent impact.
- Avoid falling device to ground, do not try to open the device and fix it.
- If device is smoking or smell like charred, please stop using device immediately.
- Do not use organic solvents to wipe device, e.g. Alcohol, benzene.
- Keep away from water or liquid.
- Avoid terminal & plug to contact to metals e.g. (keys or needles) or dusty.
- Keep device at dry and clean Space.

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A. Features

- Built-in 1080P SONY CMOS Sensor, Viewing angle approx 100 degrees.
- External Camera 720P, Horizontal angle 110 degrees.
(Depend on Cameras you choose)
- Suitable for all types of vehicles use. Small Design, Easy Installation.
- Optional position for camera setting to record situations of inside, outside, front or rear the car.
- Equipped with 3 inch TFT LCD screen to make the adjustment of recording angle easily.
- Built-in high sensitive MIC, recorded synchronize inside and outside of the car.
- SD card Class 10 or above recommend. MAX to 128GB
- G-sensor sensitivity can be adjusted according to vehicles and road situations. When detecting a strong shock, system will start emergency recording and keep the files without being overwritten.
- Built-in Superconductor. Delay for power off, make sure data are saved in SD card.
- Route recorded, Displayed on playback. (with GPS model device only)(optional)

B. Specification

Sensor Device	1CH : Forward facing lens SONY_IMX323 CMOS Sensor 1080p FULL HD
	2CH : Shoud equip PHOME JACK-4P 3.5mm exteranl 720P (AHD Interface) (optional)
View Angle	CH1 : Outside vehicle approx100 degree
	CH2 is optional accordingly to the camera spec
Voltage	Stable current consumption of 850mA
	Start at 5V±5% ; 1A
	The machine needs 4.8v to start
Operating temperature	-10°C~+45°C (Inside Vehicle).
Storage Device	For the performance issue, use SD card Class 10 or above read/write speed 15MB/S recommend. (8G/16G/32G/64G/128GB)
Recoding Frame	NTSC : Forward facing lens:1080P/30fps. External facing lens:720P/25fps.
	PAL : Forward facing lens:1080P/25fps. External: 720P/25fps. Auto record when power up system.
Recording Content	Date, Time, Image, Sound, G-sensor data, GPS data(only available with GPS receiver)
Recording Format	Specific format for software player
Time Setup	Local time = GMT GMT + time zone.
	GMT time setting: GPS automatic calibration

	<p>GMT time, use the built-in calendar clock GMT time when there is no GPS signal. No GPS software version can be corrected with player local time.</p> <p>Time setting: using native menu or the player to adjust the set time.</p> <p>AREA SET: You must use the software to set the time zone.</p>
Microphone	Built-in High Sensitivity of Single Microphone
Display	3 Inch Display
G-Sensor	Internal 3D G-Sensor
In / output Devices	<ul style="list-style-type: none"> (a) Power Input. (b) External camera input 720P(AHD Interface) (Phone Jack) (AV slot). (c) Built-in MIC voice input. (d) SD card slot. (e) Video out. (f) AV video output(Phone Jack) (EXT slot). (g) Built-in Microphone (h) GPS Mouse (Phone Jack) (optional) (EXT Slot). (i) Extra wire for MIC(optional) (EXT Slot)
Notice	<ul style="list-style-type: none"> (a) Output G-Mouse connect to EXT.(same direction with Lens). (b) External camera need to connect to AV port(facing LCD on right hand side), do not plug G-Mouse into AV port, will burn out G-Mouse (AV external camera supply 8Vdc)

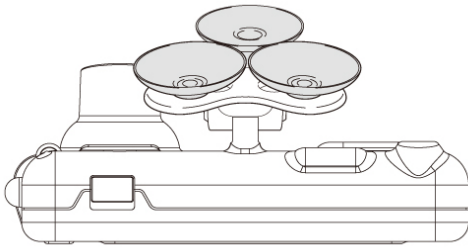
C. Accessories

- Standard:
 1. 5V cigarette Power adapter (miniUSB 3.5M)
 2. PHONE JACK 4 ports 90 deg turn to micro din with extra wire 2.5M
 3. Remote controller
 4. Product Disc
 5. Suction cup bracket
 6. Bracket holder
 7. Quick user guide

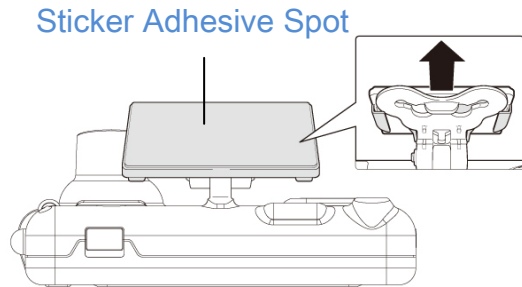
- Optional:
 1. 8G/16G/32G/64G/128G _Class 10 SD card
 2. External GPS Mouse (4P Phone Jack Connect)
 3. External 720P (AHD Interface)
 4. Extra wire for MIC (4P Phone Jack Connect)

D. Installation Guide

1. To install the device on the windshield by "Suction Cups" or "Stick-Holder" Type.

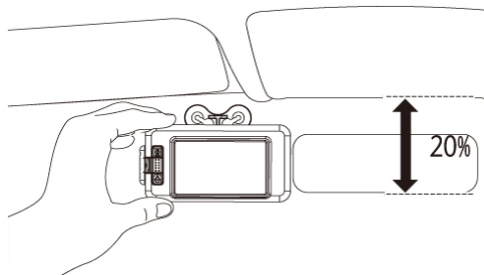


Suction Cups Type

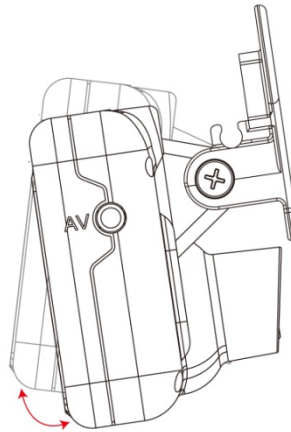


Stick-Holder Type

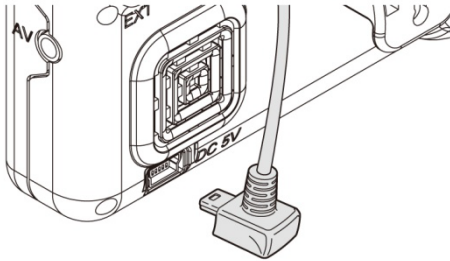
2. The best position to install the device on the windshield



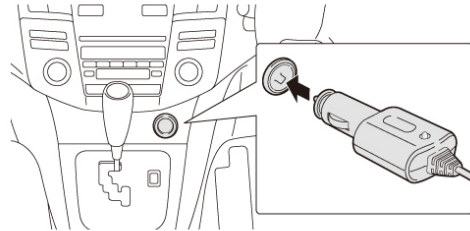
3. To adjust the recording angle properly



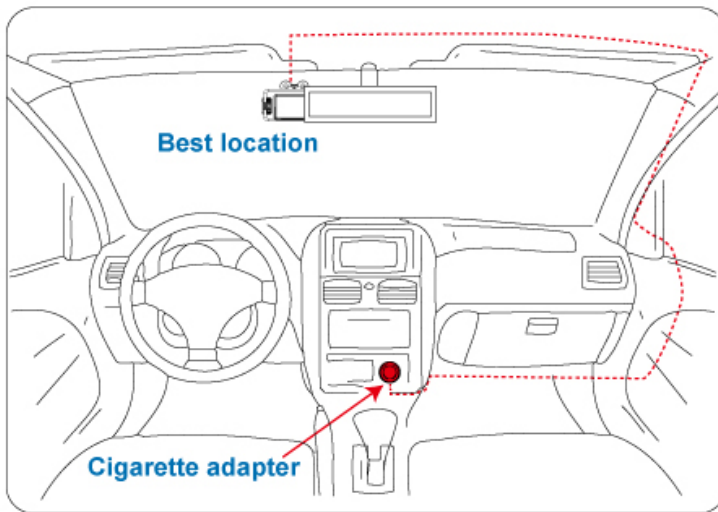
4. Plug in DC5V Power Supply



5. Plug in the Cigarette Charger



6. VVR Installation



Note :

- (a) GPS positioning speed will be affected by weather, window films, etc.
- (b) Window film may contain metal substances and have impact on GPS positioning.
- (c) Mini USB Port reserved for USB PC Link.



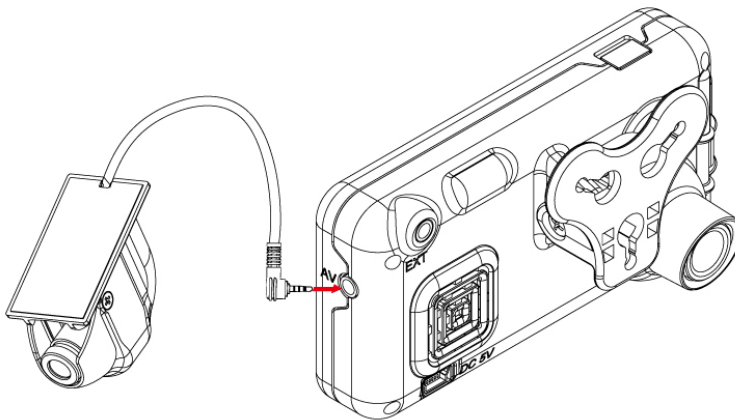
Notice

- (1) This device should be installed in the area where the windshield will be able to be cleaned.
- (2) Formatting SD card on the device before beginning to use.
- (3) Set time zone and timing on OSD, or auto-calibrating by GPS.
- (4) NTSC or PAL setting through OSD.
- (5) Electricity consumption: 500mA. If power supplied by PC, please use Y Type USB Cable.

E. External Camera

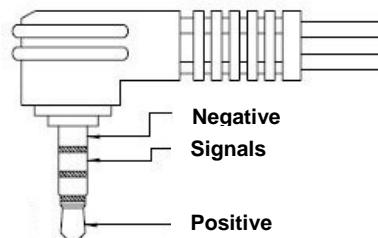
1. Installation diagram

To stall External Camera with 4P Phone Jack Connect (1 Vp-p Composite Video Output) in front or rear of the car.



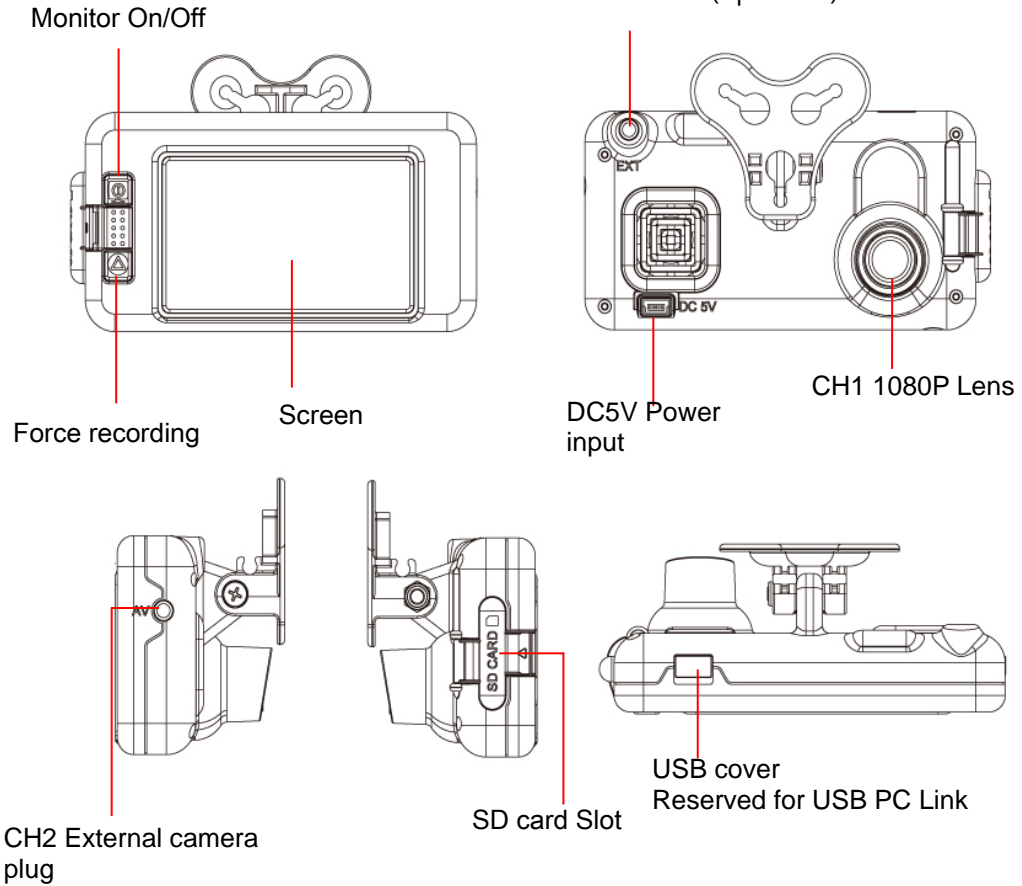
Note: To avoid camera damage, please power off the vehicle video recorder before plug the camera in.

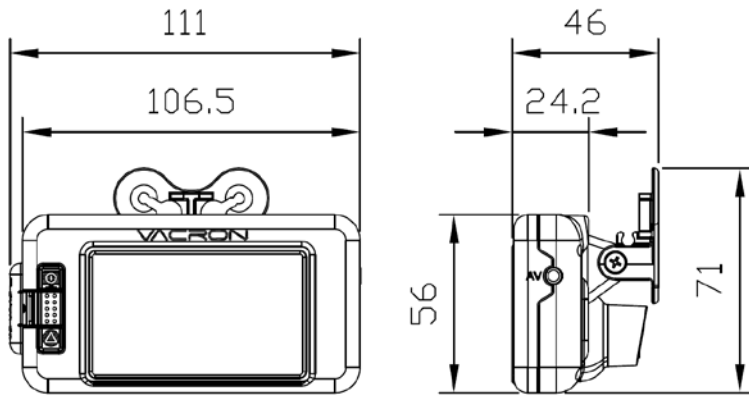
Definition of 4P Phone Jack connect



F. Product Appearance

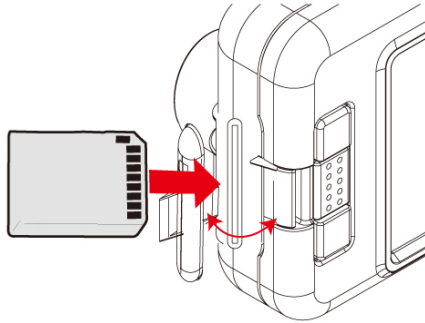
AV output/
GPS Mouse extra slot(optional)/
Extra wire for MIC(optional)





Unit : mm

G. SD Card Installation



1. Open SD card cover on the device to insert or remove SD card.
2. When not using SD card, please close the cover to avoid dust or other items get into device.
3. SD card Format / SD card Restore.

Note : Memory Card is optional.



Notice

- (1). Recommend Memory Card class 10 or above (Minimum of 8GB).
- (2). If SD card did not format by Player before using, device will delete all data inside and format it automatically (take 1~5mins). After it' s done will start to record.
- (3). Please do not convert Micro SD to SD card to begin recording, to avoid the damage during recording.
- (4). Since memory cards have the writing endurance situation, we recommend to inspect the memory card and use pc for playback regularly, to ensure that the memory card can read and write
- (5). Some brand of SD card might not suit for device, if it is not working please change other brand SD card or Class.
- (6). If SD card did not format by player, device will delete all data and setup atomically. Some devices will not able to recorded if SD card is not format.
- (7). SD card 8G 、 16G 、 32G 、 64G or 128G, after format by Player. The space will only show up for 80MB rest of memory space will be displayed by Player only.
- (8). Please backup data from SD card regularly. Avoid losing data.
- (9). When event happened, please take SD card out and lock it. To avoid overwrite.

H. SD card Format



When should you (format)the SD card?

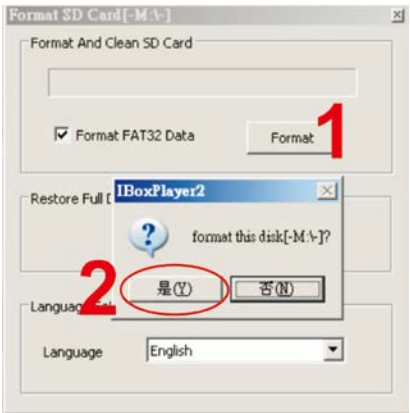

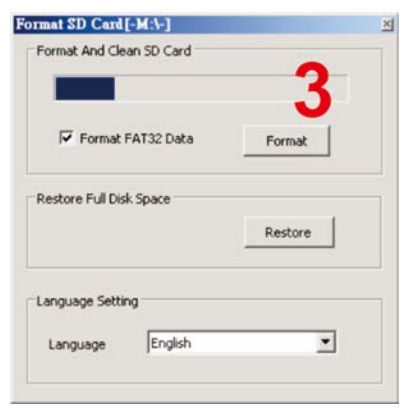
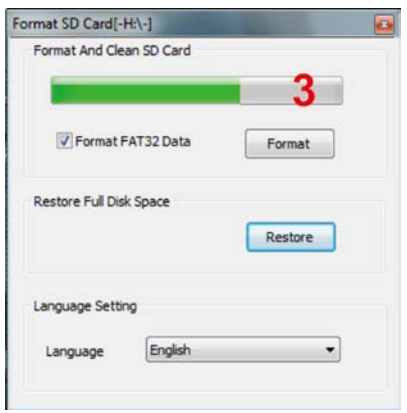

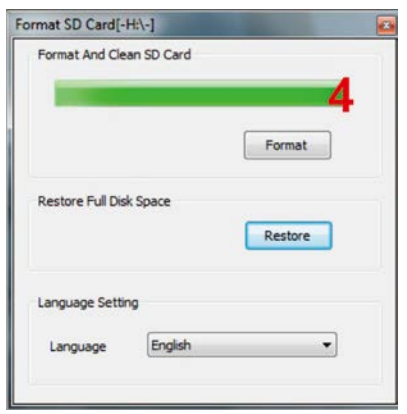
When you purchase a new SD card, you have to format it for vehicle video recorder to record properly.

*Notice :

- Before Format SD card, make sure it' s not locked.
- If it' s not locked and still cannot be format. Use Admin system to open it, will be able to format the SD card.
- Files are special format therefore cannot delete single file, please backup all data before format SD card.

Format Steps :

- 1 ∙ Open the Player , Click  to get into system.
- 2 ∙ Choose format button to start format, follow the diagram next page.
- 3 ∙ After it been formatted, the player will also be install into SD card as well.
- 4 ∙ Insert SD card into device, start to recording.



Windows XP	Windows 7
 <p>Format SD Card [-M*]</p> <p>Format And Clean SD Card</p> <p><input checked="" type="checkbox"/> Format FAT32 Data Format 1</p> <p>Restore Full Disk Space Restore</p> <p>Language Setting</p> <p>Language: English</p> <p>Confirmation dialog: format this disk [-M*]? <input checked="" type="button" value="是(Y)"/> <input type="button" value="否(N)"/> 2</p>	 <p>格式化SD卡 [-G*]</p> <p>格式化並清空SD卡磁碟</p> <p><input checked="" type="checkbox"/> 格式化 FAT32 資料 格式化 1</p> <p>還原全部磁碟空間 還原</p> <p>語言設定</p> <p>語言: 英文</p> <p>Confirmation dialog: 格式化這個磁碟 [-G*]? <input checked="" type="button" value="是(Y)"/> <input type="button" value="否(N)"/> 2</p>
 <p>Format SD Card [-M*]</p> <p>Format And Clean SD Card</p> <p><input checked="" type="checkbox"/> Format FAT32 Data Format</p> <p>Restore Full Disk Space Restore</p> <p>Language Setting</p> <p>Language: English</p> <p>Progress bar: 3</p>	 <p>Format SD Card [-H*]</p> <p>Format And Clean SD Card</p> <p><input checked="" type="checkbox"/> 格式化 FAT32 資料 Format</p> <p>還原全部磁碟空間 Restore</p> <p>語言設定</p> <p>語言: 英文</p> <p>Progress bar: 3</p>
 <p>Format SD Card [-M*]</p> <p>Format And Clean SD Card</p> <p><input checked="" type="checkbox"/> Format FAT32 Data Format</p> <p>Restore Full Disk Space Restore</p> <p>Language Setting</p> <p>Language: English</p> <p>Message box: Format Finished, Please re-Insert SD Card <input type="button" value="確定"/> 4</p>	 <p>Format SD Card [-H*]</p> <p>Format And Clean SD Card</p> <p><input checked="" type="checkbox"/> 格式化 FAT32 資料 Format</p> <p>還原全部磁碟空間 Restore</p> <p>語言設定</p> <p>語言: 英文</p> <p>Progress bar: 4</p>

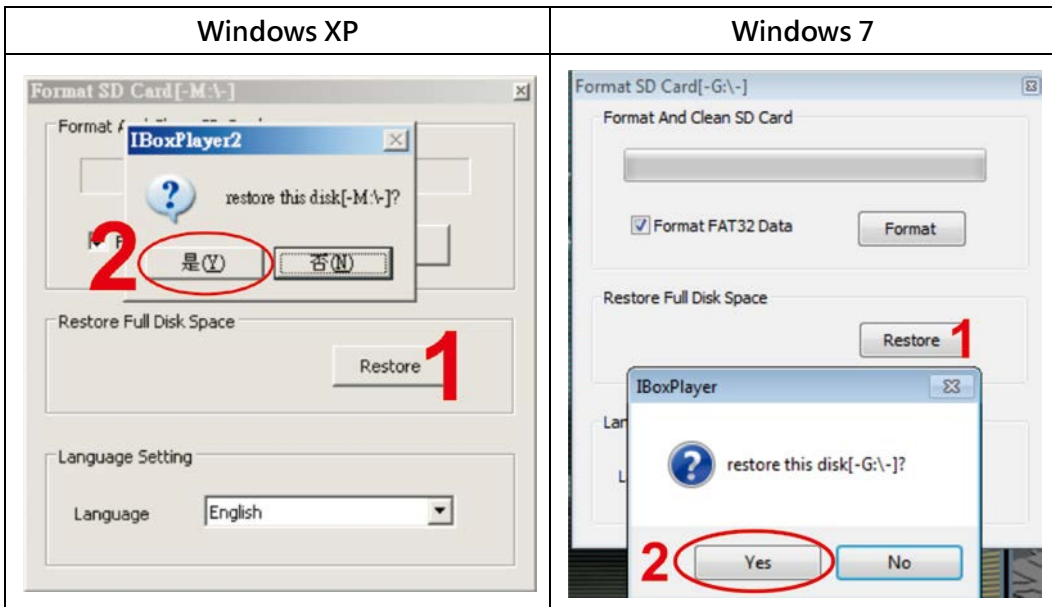
I. SD card Restore

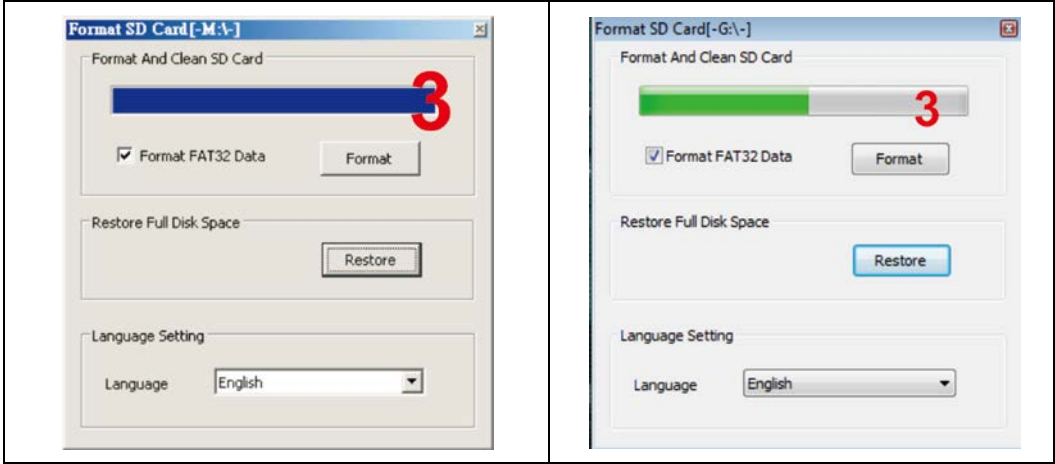
After backup all data from SD card, if need it for other use. Most restore SD card before using it.

*Notice:

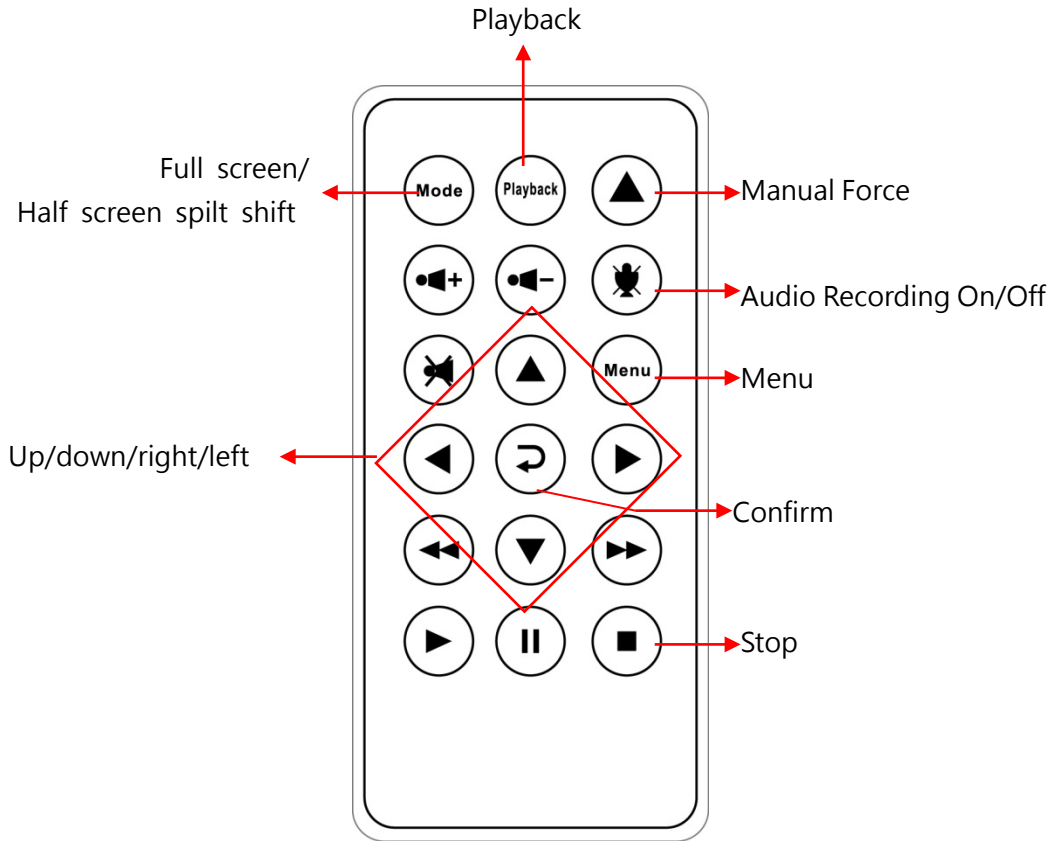
- Before restore SD card, please make sure it' s not locked.
- If it' s not locked and still cannot be restored, use admin system to do it. It would be able to restore.

1. Insert Product Disk, Open the file from Disk.
2. Open the player , Click  to get into system .
3. Choose [Restore] start next step, after SD card been restored it is able for other use.





J. Remote Controller Function



K. Operate Instruction

1. Power on / Record:

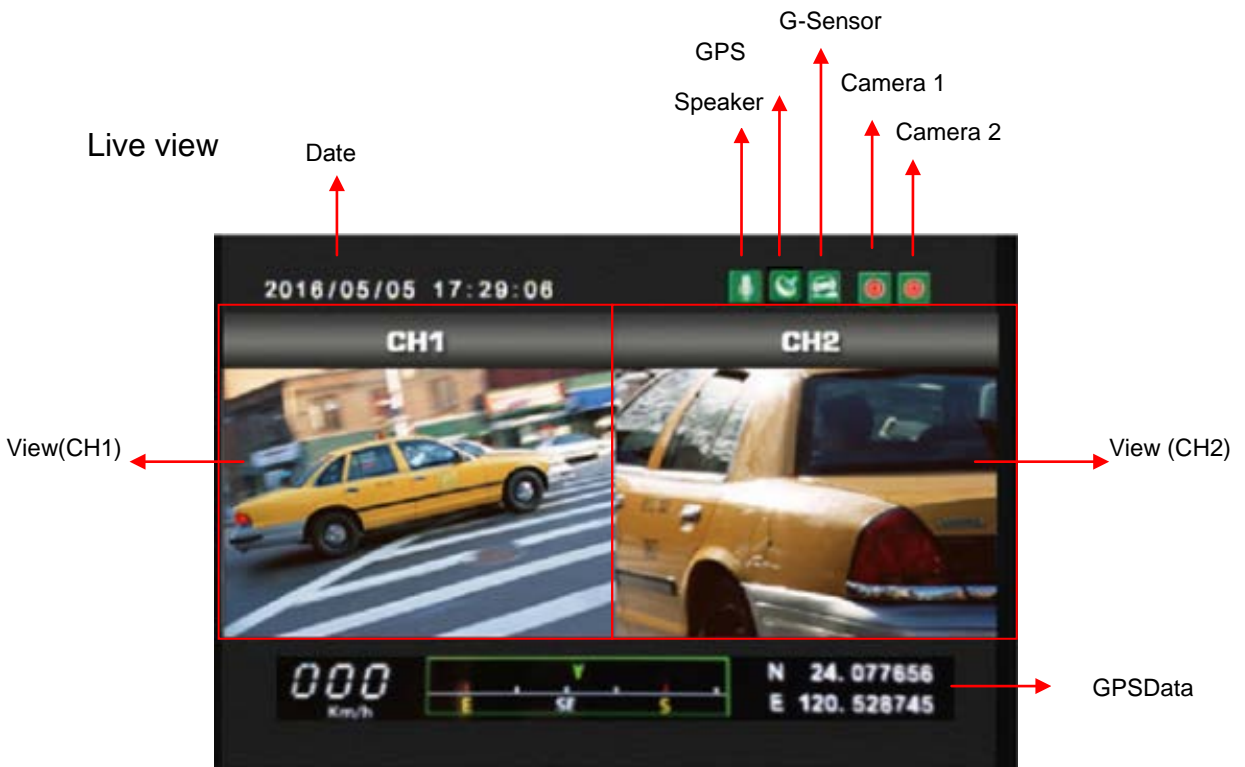
Turn on device and wait for around 20 sec ready for recorded.




2. Power off / Stop record:

After power off, wait for superconductor' s supply is off, when the power are all off. Take out SD card for backup or format.

3. Display

◆Screen & Description



1. Event Record: On LIVE VIEW will show  at right hand side on top, means G-sensor is working. When push forced recorded on the right hand side will show up  means it force recorded. When this show up  means G-sensor detected abnormal impact.
2. For LIVE VIEW on remote controller 「 Mode 」 , can switch CH1 or CH2 like graphic down below:



CH1 full screen







CH2 full screen

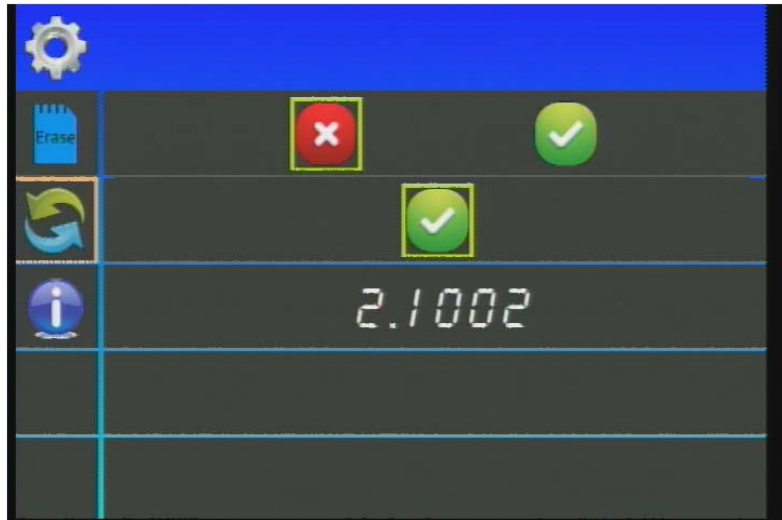
















2-split screen image




Note : If there is no External camera connects to device, LIVE view will base on 1 CH.

3. On LIVE VIEW can choose voice record ON/ OF, when voice record is off show up  means voice is no recorded, when show up this  means it is recording.
4. GPS Display: On LIVE VIEW at right hand side  means there is no signal for GPS ; When show up  means GPS is located.
5. On LIVEVIEW display choose 「 Menu 」 , display device OSD setting like this:


OSD MENU



Menu		Content
	Screen Spilt	<p>Set up for display</p> <ul style="list-style-type: none">  CH1 / CH2  CH1  CH2 <p>Note: if there is no external camera connect to device display will base on 1 CH.</p>
	Sleep mode	<p>Set for sleep mode</p> <p>Count by second, minimum 10 sec.</p>
	Time Setup	Setup Time & Date
	G-sensor	<p>Change sensitivity of G-sensor</p> <ul style="list-style-type: none">  G-sensor off  Sensitivity low (Easy to trigger)  Sensitivity Normal (Normal)  Sensitivity High (Hard to trigger)
	MIC ON/OFF	<p>MIC ON/OFF Set Up</p> <ul style="list-style-type: none">  MIC ON  MIC OFF

	<p>Format SD card</p>	<p>Manual Format <input type="checkbox"/> Cancel Format <input checked="" type="checkbox"/> Confirm Format</p>
	<p>Restore</p>	<p>Restore <input checked="" type="checkbox"/> Restore confirm.</p>
	<p>Version</p>	<p>Version Information</p>

L. Player

Built-in Player in SD card, choose player click  to start, like display below.

★Note : Use software must install DirectX 9.0 or above.

Support for : WINDOWS XP 、 VISTA 、 7 、 8 、 10, Not for MAC OS











Suggest for hardware : i5 or higher level 3.1GHZ, RAM:4G or better 、 with independent graphic card.

■ Viewer Display











■ Control Panel :

a. Software operating

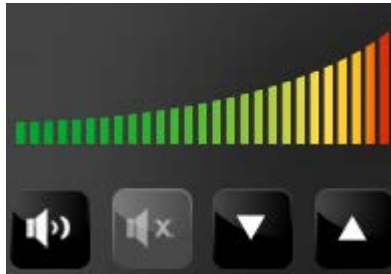
	Google Map Key
	Exit
	Minimize Display
	Play video
	Event calendar
	Backup
	Screenshot tool
	Setting
	Tools, Format \ language setting
	G-sensor

b. Video Playback

	Pause key
	Play key
	Stop key

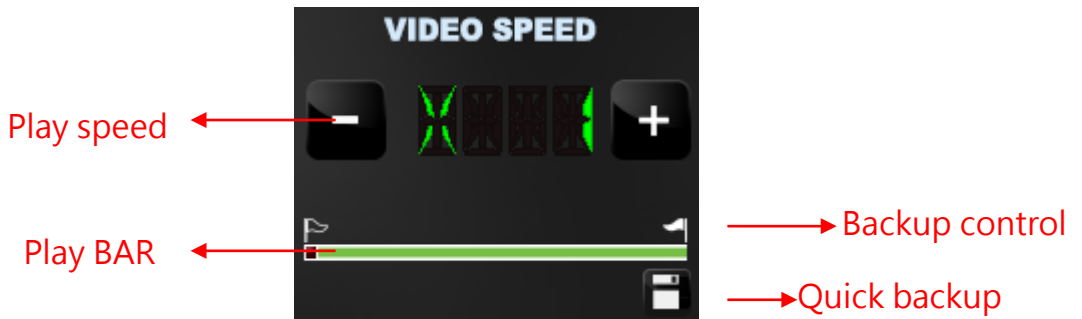
	Playback key
	Forward playback
	Forward playback
	Return to last file key
	Rearward playback

c. Volume



→ Volume control

d. File playback




(1) Play BAR : Use mouse to move BAR.

BAR' s top banner mark, control it to quick saving.

(2) Speed : 2X 、 4X 、 8X fast turn and -2X 、 -4X 、 -8X playback.

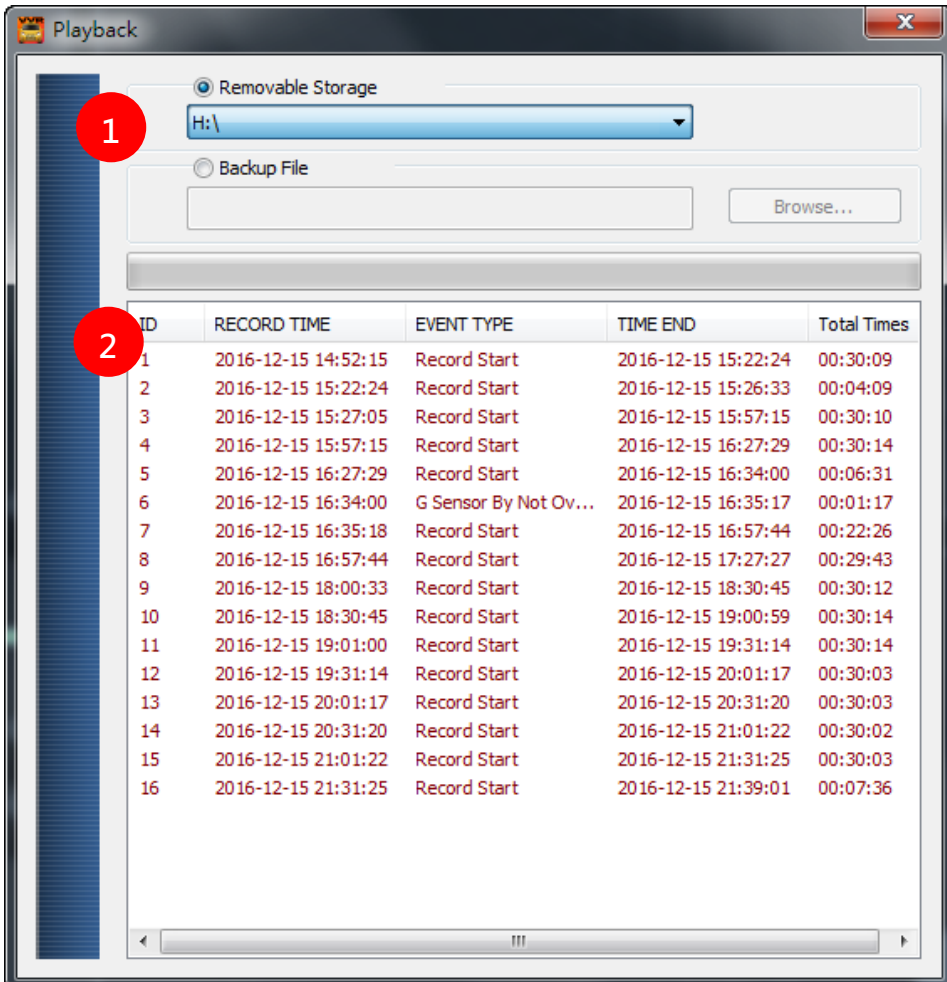
(3) Quick backup : Move banner for quick backup.

■ Playback file 

Choose 『open file』 , choose SD card or save in disk for play.


Video playback operating :

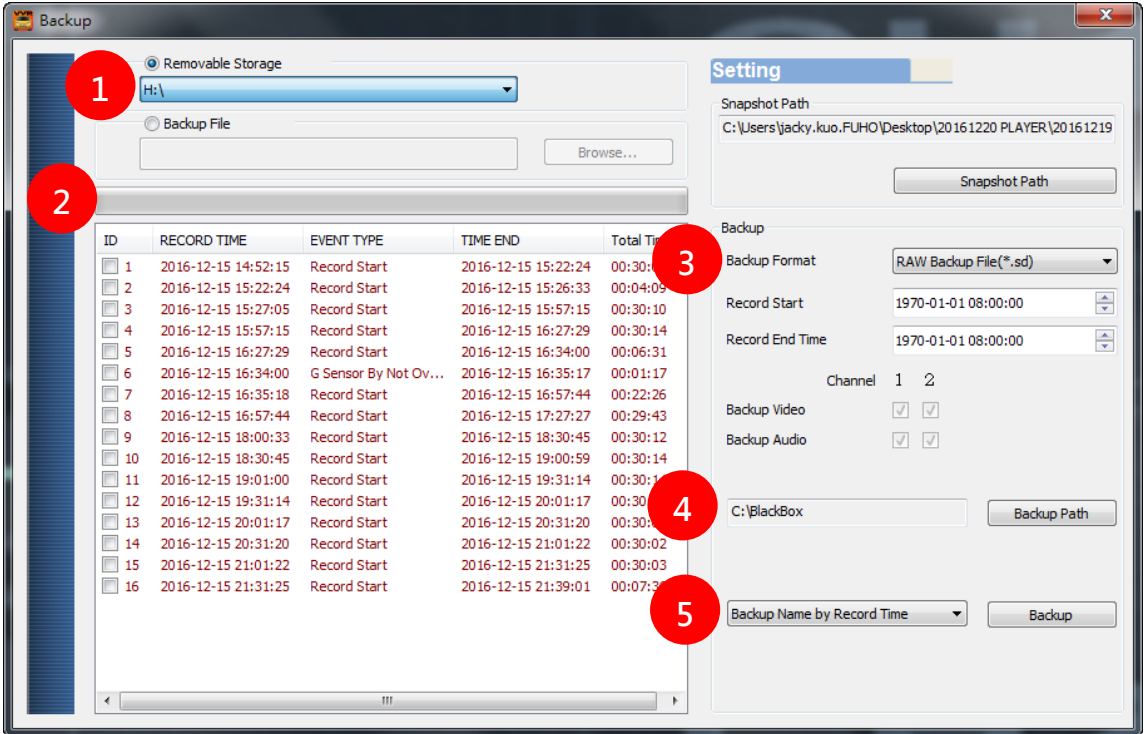
1. Choose source
2. Choose the video, click it twice.



Video Play Back

■ Backup 

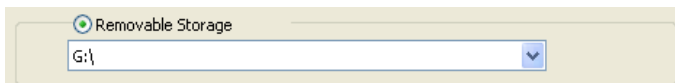
Transfer video from SD card to PC, select  to backup will show the diagram below.



Backing up

■ Backup

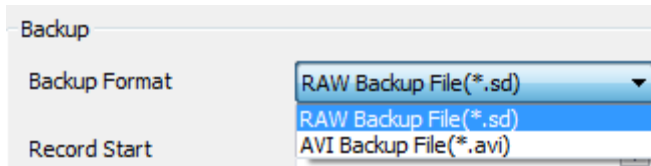
Step1. Select SD card Source



Step2.Select Video For Backup

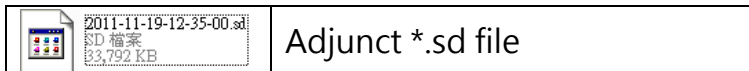
ID	RECORD TIME	EVENT TYPE	TIME END	Total Time
1	2011-11-18 16:40:03	Push Button By Not ...	2011-11-18 16:40:43	00:00:40
2	2011-11-19 14:48:10	G Sensor By Not Ov ...	2011-11-19 14:49:03	00:00:53
3	2011-11-19 17:56:50	Push Button By Not ...	2011-11-19 17:57:48	00:00:58
4	2011-11-19 19:57:57	Record Start	2011-11-19 20:03:48	00:05:51
5	2011-11-19 20:31:56	Record Start	2011-11-19 20:33:24	00:01:28
6	2011-11-19 22:30:18	Record Start	2011-11-19 22:34:42	00:04:24

Step3.Select Format Type





Backup Type :

(1)SD card original format

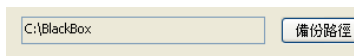


(2)AVI File Backup(*.avi)

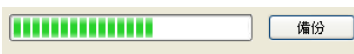
	2011-11-19-12-26-52-CHN01.avi 視訊短片 24,794 KB	ch1 is front camera data, adjunct*.avi file
	2011-11-19-12-26-52-CHN02.avi 視訊短片 6,958 KB	ch2 is back camera data, adjunct*.avi file

★Note : Use original format to record will include all data even G-sensor, if use *.avi format to backup there will only be date, video and voice data without G-sensor' s information. Therefore suggest use original format for backup.

Step4.Backup from SD card transfer to PC at C:\BlackBox file

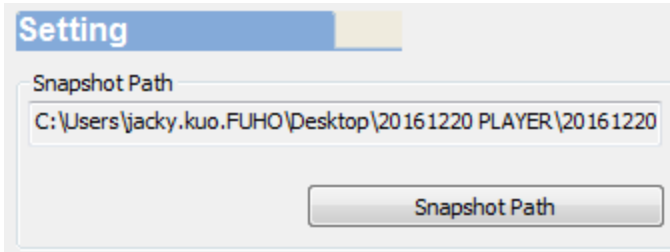


Step5.Start to Backup



■ **Setup photo save**

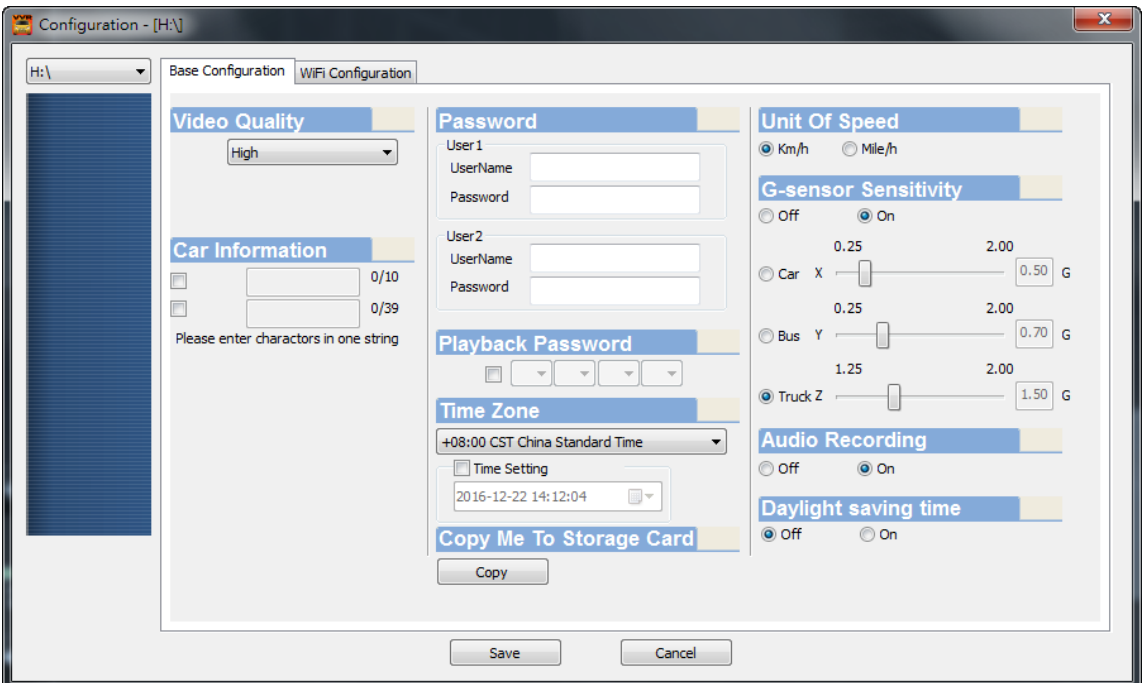
Screen snapshot save route setting



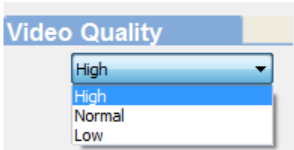
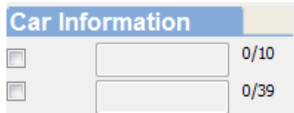
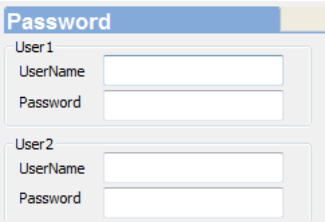
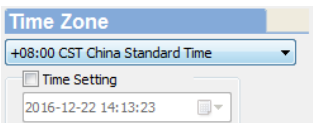
■ **Setting** 

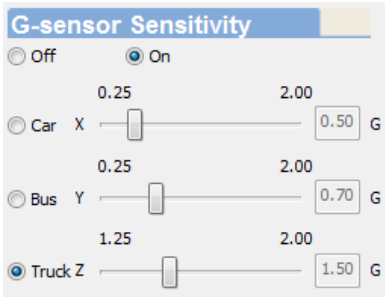

Before using SD card, please format it by Player on PC. Finished all setting for device.


After setup SD card, insert SD card into device and start to recorded.




■ Setting Page

1.	Resolution		3 modes for choose
2.	Device detail		Insert Driver' s name or car plate number for easy tracking. (use for company car, taxi, fleet management).
3.	Password		<p>Setup Password for safety. Passwords character limited is 15. e.g. :123456789123456</p> <p>After password setup when using player to playback, setting, format need insert password.</p> <p>★ Note : Make sure confirm Capital letter and remember your own password.</p>
4.	Time Zone		Choose Time Zone(GPS version will change automatically).

<p>5.</p>	<p>G-sensor Sensitivity (Impact sensor analyzer)</p>		<p>During vehicle moving, use G-sensor to detect the impact. To decide force recorded or not. Different types of car will use different setting.</p>
<p>6.</p>	<p>Voice Record</p>		<p>Voice Record ON/OFF</p>

■ Snap shot Tool 

When playing back video from SD card, click  will show up the page like down below.

After screen snapshot , save at /Snapshot file. File type *.bmp.



M. Appendix: the Indication of Bright and Dark Spot of LCD

Q: What is Bright/Dark Spot ?

- A:
- Bright Spot: At dark background, we found the abnormal bright spots, we called those spot are "Bright Spot"
 - Dark Spot: At multiple color background (excluded dark background), we found the abnormal dark spot, we called those spot are "Dark Spot"

Q:The indication of Bright and Dark Spot

- (a) There is no bright spot allowed in Area A, only single drark spot or none is allowd.
- (b) The maximum amount of bright sopts and dark spots allowed in Area B are two of each.
- (c) The max total amount of bright and dark spots in Area A and B are three or under.

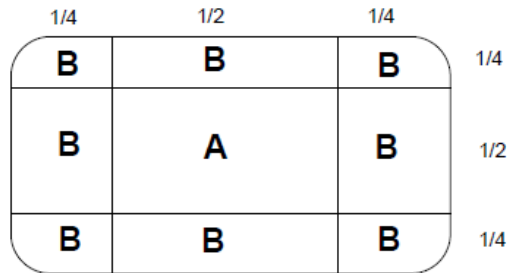


Diagram of A & B



Notice

- (1) There is 30 days exchanges refer to the indication of bright and dark.
- (2) Please keep the receipt and contact your local dealer for exchanging merchandise.
- (3) The maximum valid date is 30 days.
- (4) LCD panel, backlight board is a light-emitting element which will under degeneration by time and environment changes. (The changes in the brightness, the color change, ghosting, ..., etc.) Belong to the normal range.



For More Information
Please check VACRON Website
<http://www.vacron.com>

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