VACRON
ADVANCES IN SECURITY SOLUTIONS
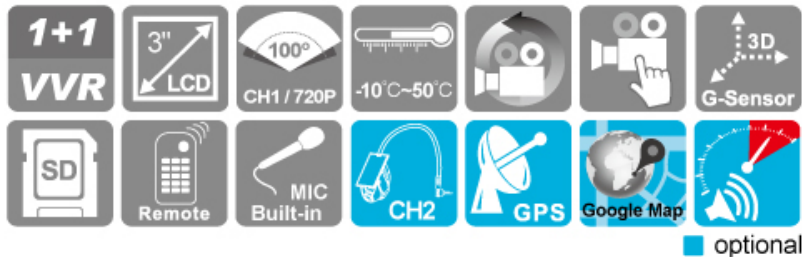
1 CH Vehicle Video Recorder
External Camera (optional)
User Manual

TYPE A : **Built-in GPS**
TYPE B : **W/O GPS** (Optional for G-Mouse)

2012 DEC V1.0

1+1 VVR

3" LCD

100° CH1 / 720P

-10℃~50℃

3D G-Sensor

SD

Remote

MIC Built-in

CH2

GPS

Google Map

optional

Index

A. Features

■ Built-in 720P CMOS Sensor. Viewing angle approx. 100 degrees.

■ 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.

■ During playback of video footage and photo, the built-in G-sensor will detect screen side.

■ Video record outside driving conditions and audio record inside the vehicle simultaneously.

■ SD card Class 10 or above recommend. MAX to 32GB

■ 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.

■ GPS and Image data are recorded and playable on client software. (Only available with GPS receiver)

■ Speeding Warning Function. (Only available with GPS receiver)

B. Specification

Sensor Device	CH1: Forward facing lens 720p CMOS Sensor
	CH2: should equip with Phone Jack -4P 3.5mm connect Camera.(optional)
View Angle	CH1 Outside vehicle approx : 100 degree
	CH 2 is optional accordingly to the camera spec.
Voltage	Start at 5V±5%；2A, The machine needs 4.8v to start.
Operating Temperature	-10℃~+50℃ (Inside Vehicle).
Storage Device	For the performance issue, use SanDisk SD card Class 10 or above read/write speed 15MB/s recommend. (min capacity 4G, Max 32G)
Recording Frame	Forward facing lens: 1280x720 / 30fps. Backward facing lens: 720x480 / 15fps. 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	Auto-calibrating by GPS signals. If GPS is not available, the built-in clock will be used.
Microphone	Built-in High Sensitivity of Single Microphone
G-Sensor	Built in Internal 3D G-Sensor

# C. Accessories

■ Standard:
1. 5V cigarette Power adapter (mini USB 3.5m)
2. Remote controller   3. Product Disc
4. Suction cup bracket   5. Bracket holder
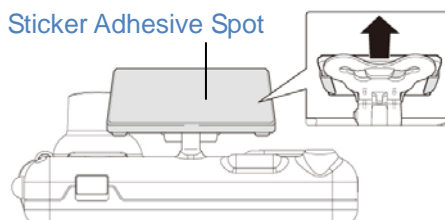6. Quick user guide

■ Optional:
1. 16G _Class 10 SD card
2. External GPS Mouse (4P Phone Jack Connect)
3. External Camera

D. Installation Guide

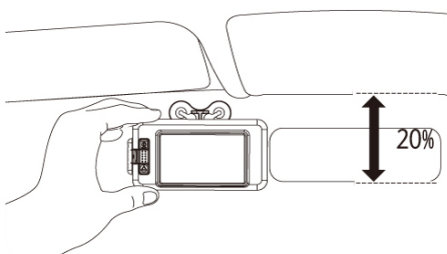1. 1. To install the device on the windshield by "Suction Cups" or "Stick-Holder" Type

Sticker Adhesive Spot
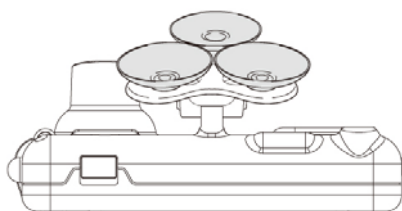
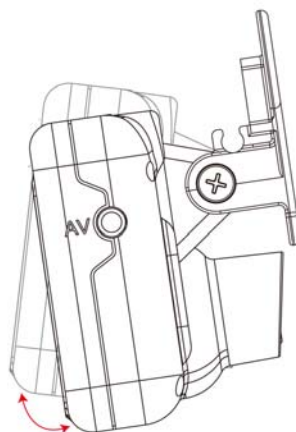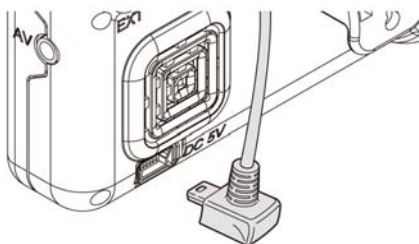Suction Cups Type   Stick-Holder Type

2. The best position to install the device on the windshield
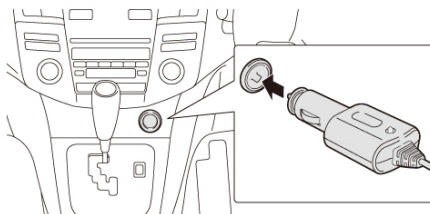
3. To adjust the recording angle properly

20%

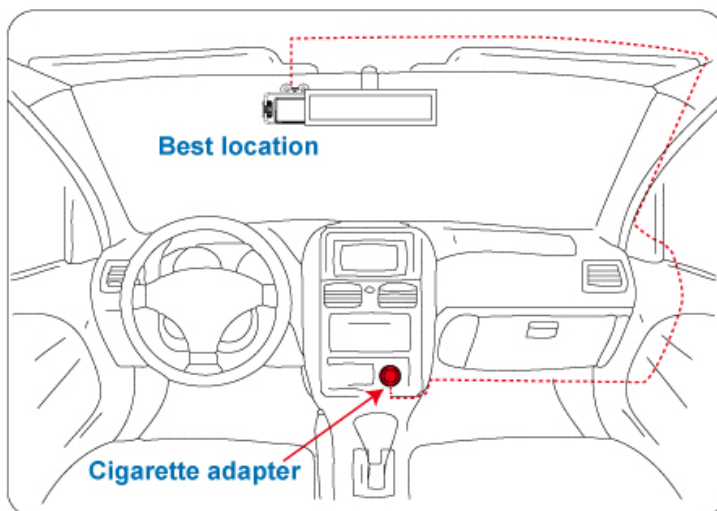4. Plug in DC5V Power Supply

5. Plug in the Cigarette Charger

6. VVR installation

Best location

Cigarette adapter

NOTE:

(a) GPS positioning speed will be affected by weather, window films, etc.

(b) Windows film may contain metal substances and have impact on GPS positioning.

(c) Indicator Lighting Mode- Day and Night mode/Auto Detection.

(d) 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

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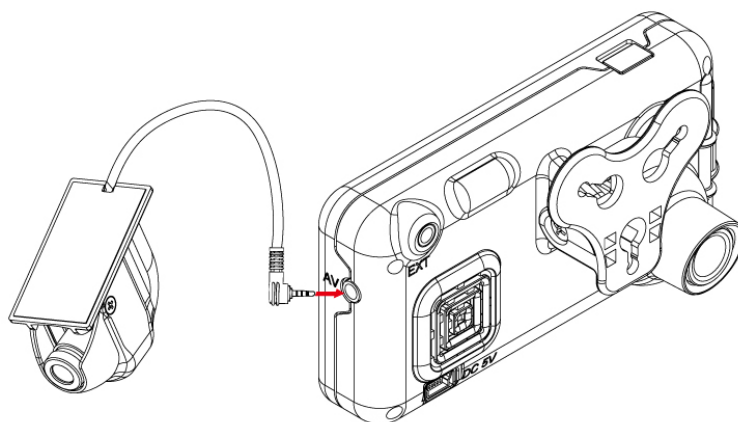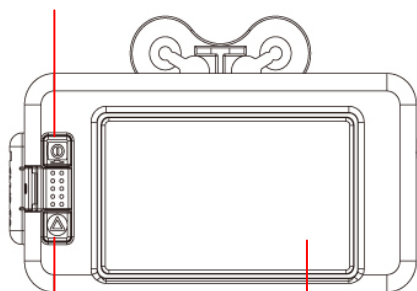

Note: To avoid camera damage, please power off the vehicle video recorder before plug the camera in.
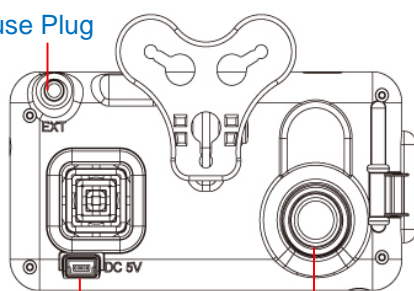
- **Definition of 4P Phone Jack connect**

Negative

Signals

Positive
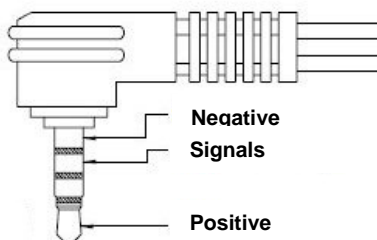
F. Product Appearance

Monitor On/Off

G-Mouse Plug

CH1 720P Lens

Force recording   Screen

DC5V
Power input
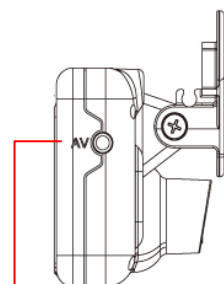
CH2
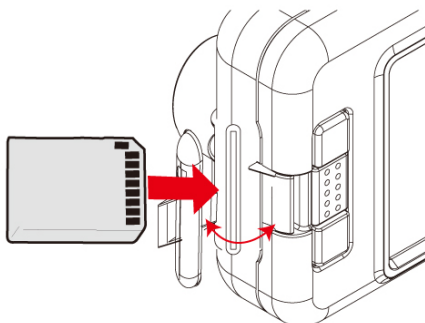External camera plug
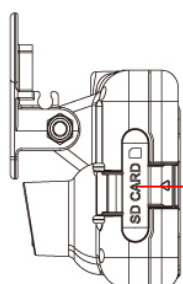
SD card Slot
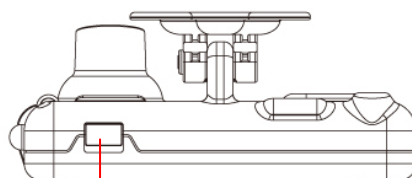
USB cover
Reserved for USB PC Link

111
106.5
46
24.2
56
71
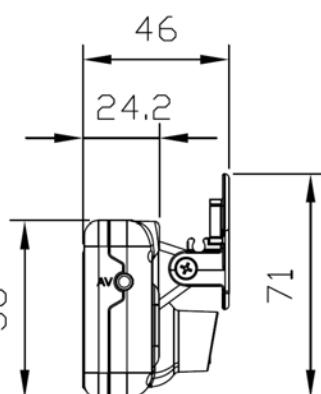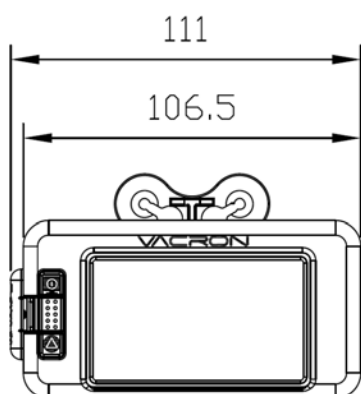
Unit: mm

G. Format Memory Card

■ SD Card Installation

Open SD card cover on the device to insert of remove SD card.

NOTE: Memory Card is optional.

■ **SD Card Format / SD Card Restore**
    (a) 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.

    (b) When should you「**restore**」the SD card?
        When you have backup the record files into PC and want
        to use the SD card for other purposes, you can restore the
        SD Card to normal format, so it can be used correctly.

■ **Format/Restore Procedure from PC side**
    (a) Execute the player "VVR.exe" into main page(refer to
        the charts below), Select format button to start as
        following steps.
    (b) Select format/restore button to start as following steps.
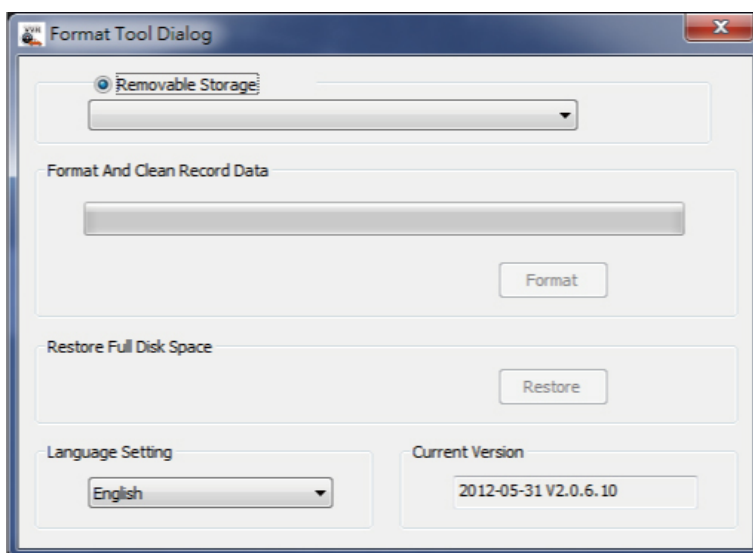
NOTE:
1. Before restoring SD card, please ensure to unlock it first.
2. If the SD card is unlocked but still cannot be formatted, this might be caused by Window Vista / 7 security restrictions. Please run the program as Administrator to prevent from this problem.

⚠ **Warning**

(1) Recommend Memory Card "SanDisk" or "Transcend" Class 10 or above. (Minimum of 4GB)

(2) If the memory card is not formatted by our exclusive player, the device will automatically erase all the data inside of the memory card after inserting it, start recording at default setting.

(3) Please don't 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

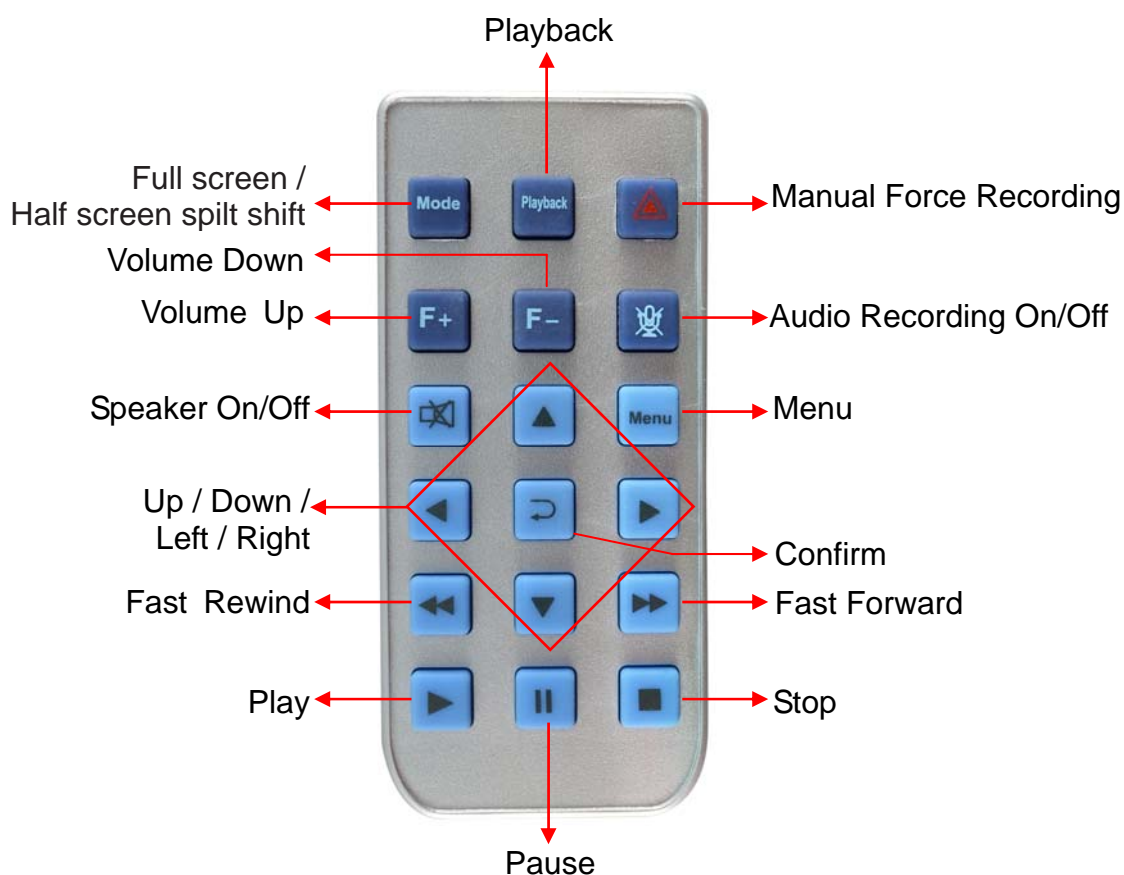# H. Record / Stop-Record

1. Power on / Record

The device can be started completely after power on for one minute. The device starts recording now.

2. Power off / Stop record

Power off and enter playback page to stop recording.
Power off and then remove the memory card to read the recording file in computer.

I. Remote Controller Function

Playback

Full screen /
Half screen spilt shift → Mode

Manual Force Recording

Volume Down ←

Volume Up ← F+ F−

Audio Recording On/Off

Speaker On/Off ←

Menu

Up / Down /
Left / Right ←

Confirm

Fast Rewind ←

Fast Forward

Play ←

Stop

Pause

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J. Live Display

◆Introduction of OSD Interface: (Video output from connecting TV-OUT line to the device)
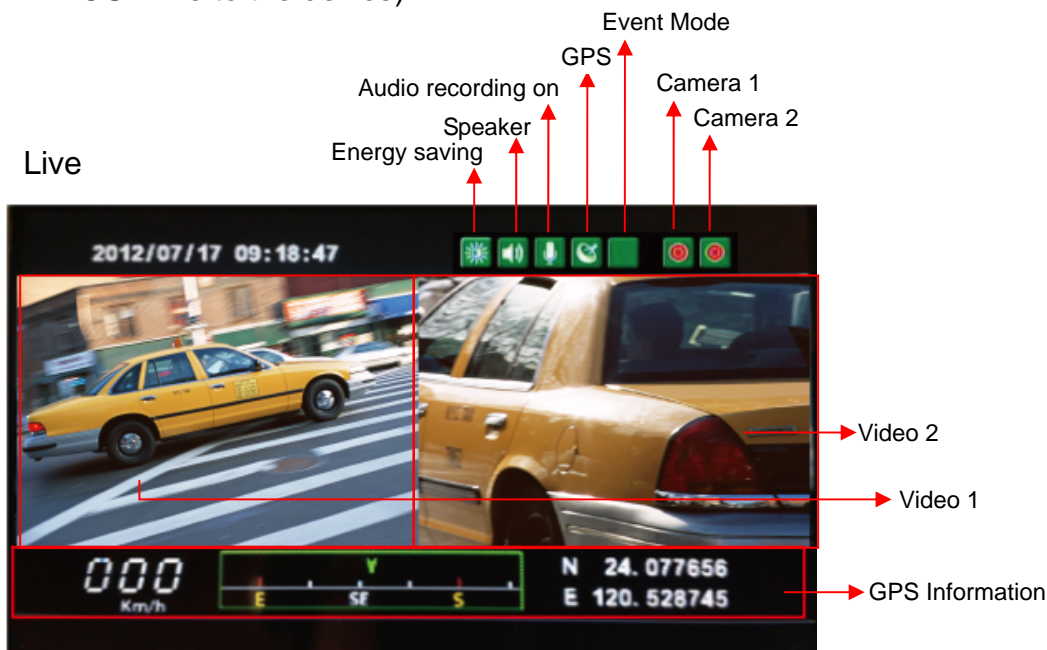
1. If the screen shows 🔴 🔴 on the top right, it means that both channel 1 (left) and channel 2 (right) have video signal. A 🔴 icon indicates that one channel has no video input.

Note: Even if there is no video input, the device still record that channel (as long as there is power and SD card has no error). The channel screen will display a blue background.

2. **Even mode:** A 🟩 icon indicates normal (continuous) recording. Press a 🔲 icon on remote controller for force recording, the screen will show 🖐 icon on the right top indicates manual recording. A 🔳 icon indicates emergency recording activated by the G-sensor.

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3. Press Mode on the remote controller to switch between CH1 full screen, CH2 full screen and 2-split screen display. (see below)

CH1 full screen

CH2 full screen

2-split screen image

4. Press Menu on the remote controller in LIVE mode to show OSD operation setting. (See below)

(a) Speed alarm: Press ⬛ icon for setting speed limit.   It will alarm when driving speed exceed the speed limit.
(b) Time setting: If GPS is not available, press ⬛ icon for time setting with the built-in clock
(c) Firmware version display: Press ⬛ icon to show firmware version.

5. Press audio recording On/Off button on the remote controller to turn off audio recording (⬛ will show on the screen). A ⬛ icon indicates that audio recording is on.

6. A ⊠ icon means that either the device is calculating coordinate or there is no satellite signal. A ⟳ icon means GPS is ready.

7. Daylight/Night mode: ✳ indicates daylight mode; 🌃 indicates night mode.

8. Volume: Press F+ or F− on the remote controller for volume control. The volume indicator 🔊▮▮▮▮▮▮ will show on screen.

K. Software operating instruction

1. **Playback**

Execute the player software 🐾 (the software inside the CD), the screen will be showed as below.   Click "Open the document"

📂 ，and choose the files from memory card or hard disc then click ▶ to do playback.

Note: The software requires Direct X version 9.0 or above.

2. Viewer interface

a. Play & Settings Icon Instruction

	⏮	Return to last file key
	◀‖	Forward playback
	◀	Playback key
	‖	Pause key
	■	Stop key
	▶	Play key
	‖▶	Forward playback
	▶▶|	Rearward playback

💾	Backup the current playing file
⚙	Configuration, Set machine-related settings
e	Google Map
📂	Open document, select the file to play
✂	Snapshoot tool
✗	Format Micro SD Card

■ File Backup 🖫

Save the recorded files to your PC. Click on the button 🖫 and it will pop up the screen as below.
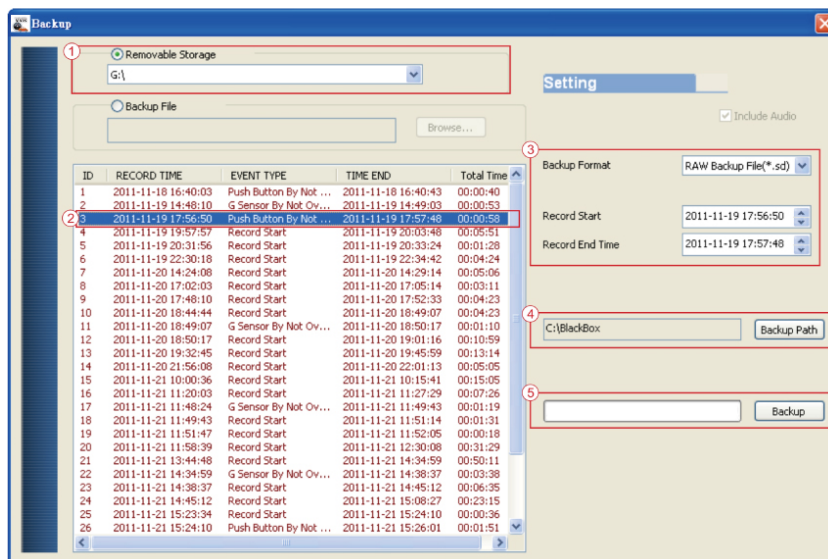
Step1: Select the origin for the Micro SD card
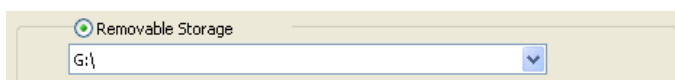
Setp2: Select the recorded file which you want to backup

Step3: Choose the backup file format
    (1)Micro SD Card Backup (*.sd)
    (2)AVI File Backup (*.avi)
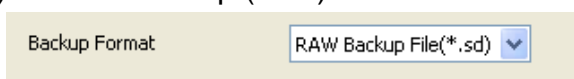
Backup format：
(1) Micro SD card backup format

2010-10-18-10-36-11.sd SD 檔案	Micro SD Card File type (*.sd)

(2)AVI File Backup(*.avi)

	Chn01 is the forward facing lens record. The file name is *.avi.
2011-11-19-12-26-52-CHN01.avi 視訊短片 24,794 KB	Chn01 is the forward facing lens record. The file name is *.avi.
2011-11-19-12-26-52-CHN02.avi 視訊短片 6,958 KB	Chn02 is the backward facing lens record. The file name is *.avi.
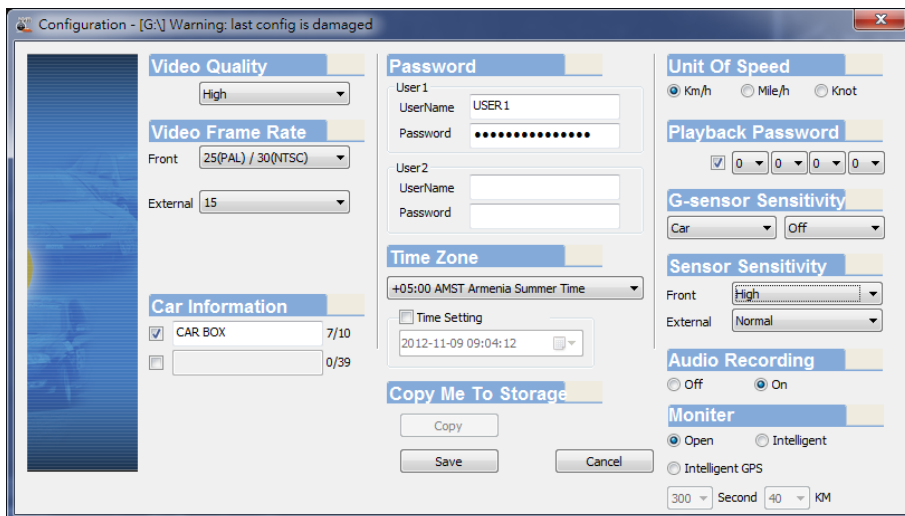
★Note: If backup by original format of Micro SD card, the file recorded with location of GPS (longitude and latitude), speed and G-SENSOR. If backup by the format of *.avi, the file recorded date, video and audio.　We suggest to backup by using original format of Micro SD card.

Step4: Backup Path: Select your backup destination (e.g.: C:\blackbox)

C:\BlackBox | Backup Path |

Step5: Backup : Start backup the file to your specified destination

| Backup |
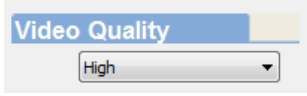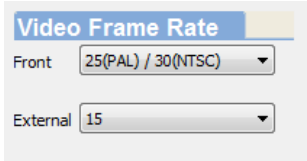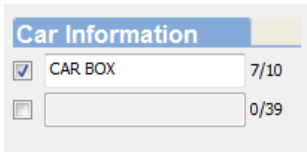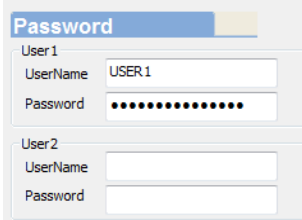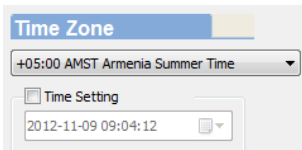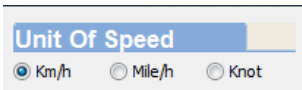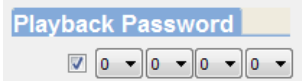
■ Setting ⚙

One side of card translator is plug into Micro SD card, the other one is plug into USB plot before recording. Record format and display of the device can be set by configuration of PC client. After setting completed, the Micro SD card can plug into the device and start recording again.

1	Video Quality		Select the video Quality: High/ Normal / Low
2	Video Frame Rate		Set the recording frame rate for front camera Camera 1: NTSC(5, 10, 15, 20, 30) PAL(5, 10, 15, 20, 25) Camera 2: NTSC/PAL(5, 10, 15)
3	Car Information		The license plate number information can be input here, it is easy to identify which vehicles and drivers from video recording. (only English letter and number acceptable)

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4	Password	**Password** User 1 UserName USER1 Password ●●●●●●●●●●●●●●● User 2 UserName Password	This feature of the SD card encryption, to prevent others from accessing any data. Set a password to 15 characters limited: 123456789123456. After setting the password, it is required to enter password to access the playback file, setting, formatting memory card.
5	Time zone	**Time Zone** +05:00 AMST Armenia Summer Time ☐ Time Setting 2012-11-09 09:04:12	GMT (GPS auto time correction)
6	Unit Of Speed	**Unit Of Speed** ⦿ Km/h ○ Mile/h ○ Knot	You can set up the speed unit here. Km/h: kilometer per hour Mile/h: mile per hour Knot: knot per hour ★ Note： 1 KM=0.6214 mile, 1 mile=1.6093KM, 1 Knot =1.853KM
7	On Screen Playback Password	**Playback Password** ☑ 0 ▼ 0 ▼ 0 ▼ 0 ▼	When it is enable, need to enter password first before enter playback mode. Do the settings first and then set the password. The password setting from 0 to 9.
8	G-sensor Sensitivity	**G-sensor Sensitivity** Car ▼ Off ▼	Six mode can be chosen: OFF, Light, Low, Normal, High, Heavy Note: In some uneven road, you might want to decrease the sensitivity to prevent repeated emergency recording.

9	Sensor Sensitivity at night	**Sensor Sensitivity** Front: High External: Normal	The night sensitivity settings for front and interior lens: very low, low, normal, high, very high. According to night conditions set sensitivity.
10	Audio Recording	**Audio Recording** ○ Off ● On	On: recording voice Off: stop voice recording.
11	Screen on/off setting for Energy-saving	**Moniter** ● Open ○ Intelligent ○ Intelligent GPS 300 ▾ Second 40 ▾ KM	Screen on/off setting with 3 mode: Screen on, Screen auto off time setting, Screen auto off GPS speed setting Screen auto off time setting available with 10, 30, 60, 120, 180, 240, 300 sec. ★ Screen will auto turn off when time being to the specific sec. setting. After you pressed any button on remote controller, the screen will on again but will turn off automatically when the sec. setting time is up. Screen auto off GPS speed setting available with 20, 30, 40, 50, 60, 70, 80, 90, 100KM. ★Screen will auto turn off when driving speed up to the speed setting; this is only functional for your car with GPS receiver.

■ Snapshot ✂

While playing the recorded file, you can use this function
✂ to snapshot the picture and save it into your PC.
Default saving path for snapshot picture will be in
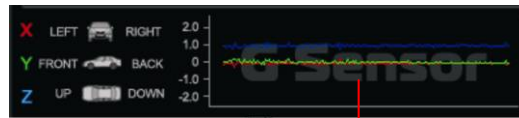/Snapshot folder.
File type: BMP

b. Speed Meter & Volume

c. Video Search & Play Speed

(1) Video Search: You can use the mouse to drag the bar to
search the video quickly.
(2) Play Speed: Support 2x, 4x fast forwarding and -2x, -4x
slow play mode.

d. G SENSOR

When detecting extraordinary G-force, the machine will record the images and separate the recorded file from normal recording.

G SENSOR

(1) X: The G-force from left & right of the car.
(2) Y: The G-force from front & back of the car.
(3) Z: The G-force from upside & downside of the car.

L. 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 dark spot or none is allowed.

(b) The maximum amount of bright spots 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
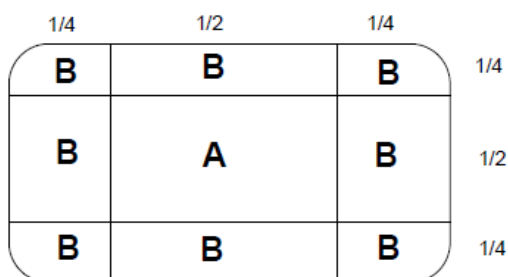
The Diagram of Area A and B

⚠️ **Notcie**

(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.

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