FULL HD 5M Megapixel
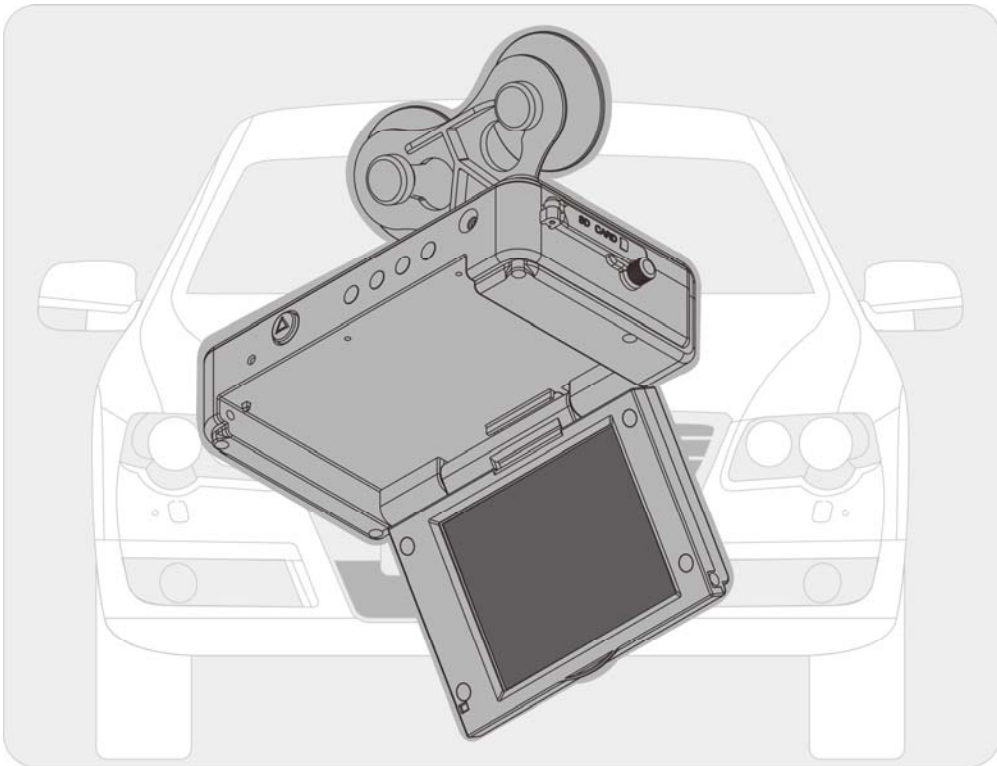## Vehicle Video Recorder User Manual

2011 JUL V1.1

5M CMOS   H.264   FULL HD 1080P 30fps   GPS   G Sensor   Audio   -10~+70℃ (vehicle inside)   3" LCD   SD

Optional

Index

A. Feature Description

- Build-in Full HD 5M CMOS Sensor. View angle approx. 105 degrees.
- Easy installation. Suitable for all types of vehicles.
- Equiped with 3 inch TFT LCD screen provides a platform for composing and playing back your footage, while the fixed focus lens keeps things simple.
- Build-in accelerometer, the system automatically determine the level of the screen visualization, and make the screen self-rotated to normal position
- Advanced H.264 compression technology for longer recording of higher quality video.
- Provide high quality image recording 1280x720 max. 60 frame per sec.
- When the screen turn to abnormal position, the system automatically determine the level of the screen visualization, and make the screen self-rotated to 180 degree.
- Using SDHC memory card, support up to 32GB.
- G-sensor, GPS and Image data will be recorded simultaneously.
- G-sensor sensitivity can be adjusted according to vehicles and road situations. When detect a strong shock, system will start emergency recording and keep the files without being overwritten.
- Embedded GPS module, Google map is available for viewing the recorded file and let user to view the routes.
- The most user-friendly player software, easy to operating.
- Build-in two way High Sensitivity automatic gain control Microphone.
- With full time/date record, can be displayed in screen directly.
- Provides completely Even log table, easy to search recorded files.
- Provides a variety of recording video formats and number of frames to selected.
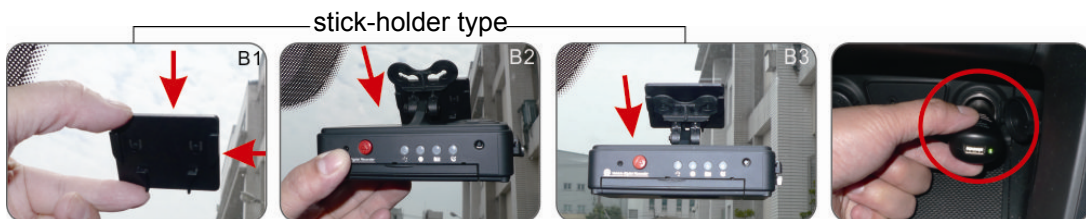
B. Schematic Diagram Of The Installation Steps

Two type of brackets installation for selection，Suction-cups type and stick-holder type.

A: Suction-cups type

make the bracket facing upward, assemble the sucking cups, setup the machine in proper position, adjust the viewer angle.

B: stick-holder type

Remove 3M sticker and adjust the best position to posted closely

Take machine holder slides into the latch and locked.

Plug in the cigarette adapter

connect the USB power cable

The other side of cable connect to DC 5V port

Green indicator: Power
Blue indicator: GPS positioning ready

Installation complete

C. Specification

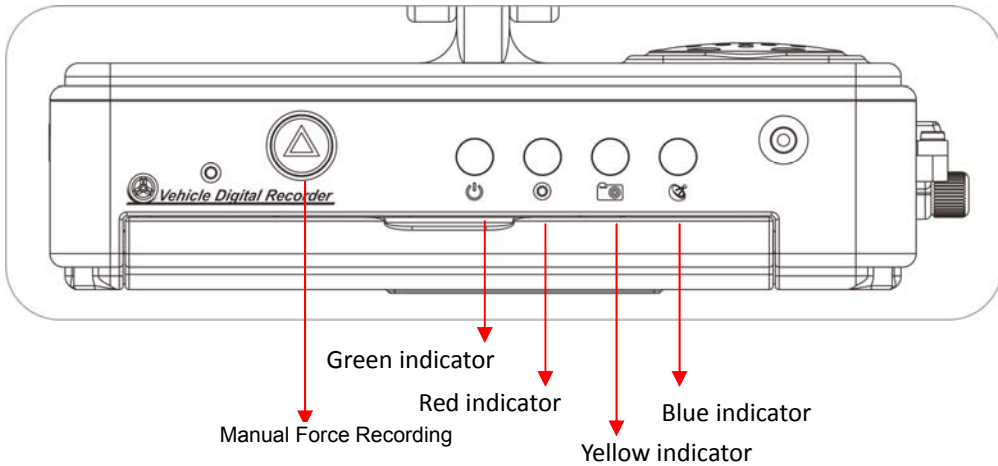| Items	Description
Chipset	Ambarella H.264 image compression chip
Sensor Device	Full HD 5M CMOS Sensor
View Angle	3mm Len, View angle approx. 105 degrees.（Option for M12 Len model）
Voltage	Start at 5V±5%；650mA, Remark: Please use 5V±5%、1A Cigarette lighter adapter. The machine needs 4.8v to start.
Operating Temperature	-10℃～+70℃（Inside vehicle）
Storage Device	For the performance issue, use SanDisk SDHC card Class 6 or above read/write speed 15MB/s recommend. (min capacity 4G, Max 32G)
Recording Frame And Content	1920x1080（Full HD1080P/ 30F）1280x720(HD720P/ 60F and HD720P/ 30F). Auto record when power up system. Recording frame: 30fps/ 60fps(NTSC/PAL) only select one.
Recording Content	Date、time、image、sound、G-Sensor data、GPS data.
Recording Format	Specific format for player software.
Microphone	Build-in Dual High Sensitivity Microphone.
Input Device	Emergency recording button、Remote controller.
Out Device	(a) TV-Out （1 Vp-p composite video output, 75 ohms），Two kind of system: NTSC/PAL (b) Red light：Recording (c) Green light：Power (d) Yellow light：Manual taking photo (e) Blue light：GPS 3D positioning (f) Mini USB for PC connection (g) Build-in accelerometer, the system automatically determine the level of the screen visualization, and make the screen self-rotated to normal position.
Time Setup	Auto-calibrating by GPS signals. If GPS is not available, the built-in clock will be used.
G-Sensor	Build in Internal 3D G-Sensor
Important Notice	(a) Machine must be installed in the area that wipe can be reached. (b) Machine provides both NTSC and PAL systems, please using OSD to change the right system in order to connect system monitor properly. (c) After SD card formatted, user needs to set up time zone data from Software player in order to display the correct time on OSD video output. (d) SD card must be formatted by special player first to be used properly. (e) GPS positioning speed will be affected by weather, window films, etc. (f) Windows film may contain metal substances and have impact on GPS positioning.

D. Product Appearance

Product Dimensions
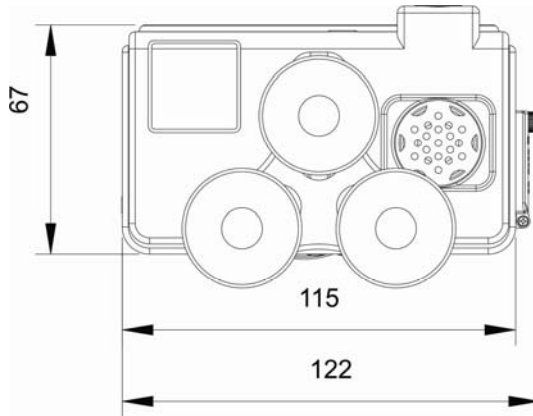
Monitor open
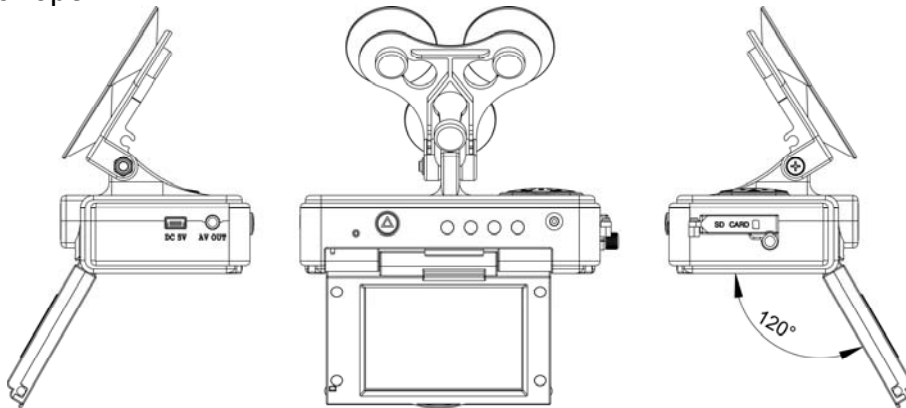
Monitor close
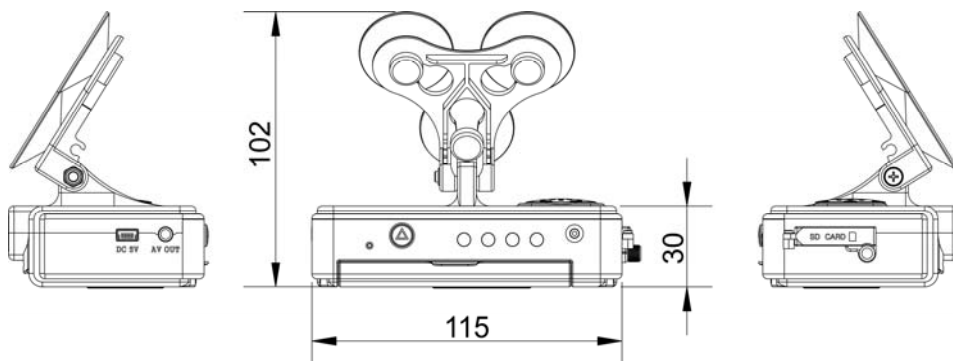
E. Recording And Stop Recording

Green indicator

Red indicator

Blue indicator

Manual Force Recording

Yellow indicator

1. Power on / Recording:

Wait around 30 seconds after power-on to start up the machine.

The recorder will be started while power supply acts after one minute.

Green light indicator will keep on when the recorder is in power-on mode.

The recorder starts to record while red light indicator flashing

Indicator Definition:

●Red indicator：red light flashing is presented as "on recording", the red light flickering shows force recording status.

●Green indicator：green light means power on。

●Yellow indicator：yellow light means in manual photo mode。

●Blue indicator：blue light flashing while GPS signal is not stable, otherwise is stable GPS signals.

2. Power off / Stop recording:

When power supply is shut down, the recording will stop at the same time and you can remove SD card to read the files.

3. Enter / Exit Displayer Mode:

   (a) Select "Playback" to enter display mode on live view, click the time period of recorded file and press the "play" key to show the file.

   (b) Select "Playback" on display mode and return to live view.

F. Remote Controller Description

Key mapping table for remote controller:

Camcorder/cam era mode switch → Mode

Play back → Playback

Manual Force Recording → △

Volume down

Volume up → ◁+

◁−

Stop voice

Mute → ⋈

▲

Menu → Menu

Up / Down / Left / Right → ◀

↩

▶

Confirm

Fast Rewind → ◀◀

▼

▶▶

Fast Forward

Play → ▶

‖

■

Stop

Pause / Step → ‖

6
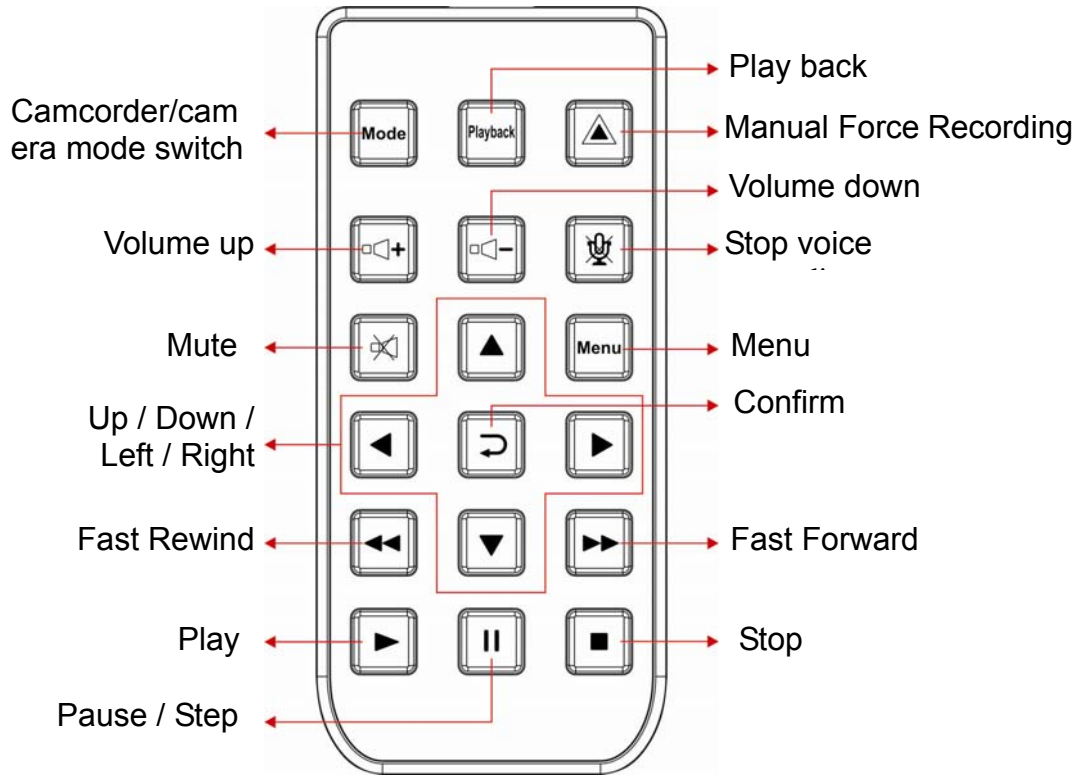
G. Main Menu Operating Description

● Main Menu Table Switch

First stage- Main menu operating key description

Moving menu options	[Up/Down Key]
Selecting items	[Left/Right Key]
Selected the item、confirm setting	[Confirm key]
Enter index、back to previous menu	[MENU key]

● **Setup Menu Description**

1. Language

★Support 13 languages: English / French / German / Italian / Japanese / Korean / Portuguese / Russian /Simplified Chinese / Spanish / Traditional Chinese / Turkish / Dutch

2. Date / Time
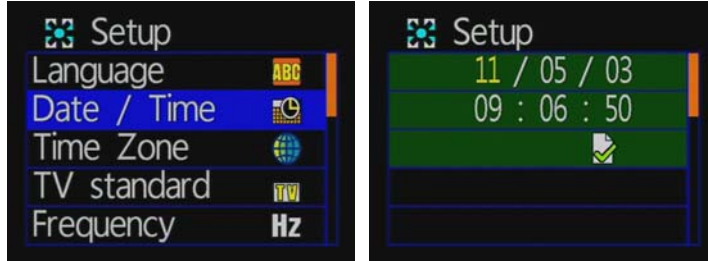
Menu Options	[Up/Down Key]
Selecting Options	[Left/Right Key]
Enter Selecting Items	[Confirm Key]
Back to Top Menu	[MENU Key]

3. Time Zone
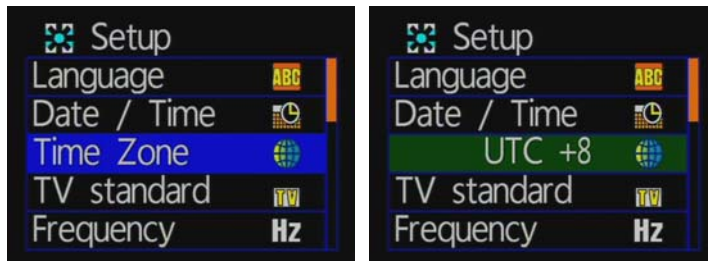
★selecting the proper time zone for your position

4. TV standard

★NTSC/ PAL for selecting

5. Frequency

★50Hz/ 60Hz for selecting

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6. Mic. ON/OFF
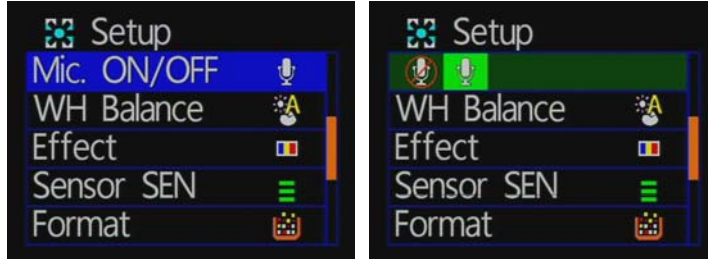
★ OFF/ ON

7. White Balance
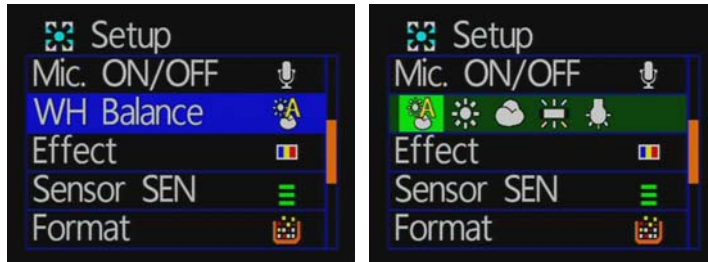
★ Five ambient light option for selecting   Auto / Daylight / Cloudy / Fluorescent / incandescent light

	Auto	Auto (default)	
	Daylight	For sunny day.	
	cloudy	For cloudy, dusk weather, dawn.	
	Fluorescent	For warm white, cool white (3-wavelength) fluorescent lighting.	
	incandescent light	For incandescent and fluorescent lamp type 3-wavelength illumination	

8. Effect
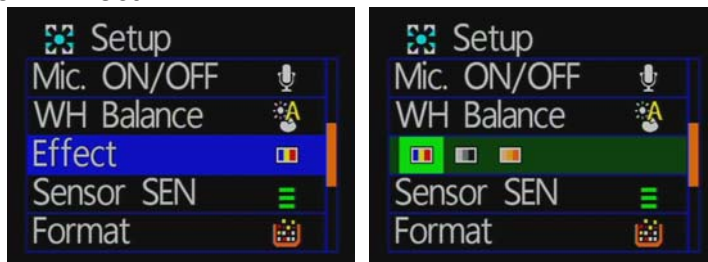
★Color / B & W / Retro color

9.   Sensitivity

★Caution：You can adjust the sensitivity level (more number
of green bars stands for higher sensitivity)

10.   Format
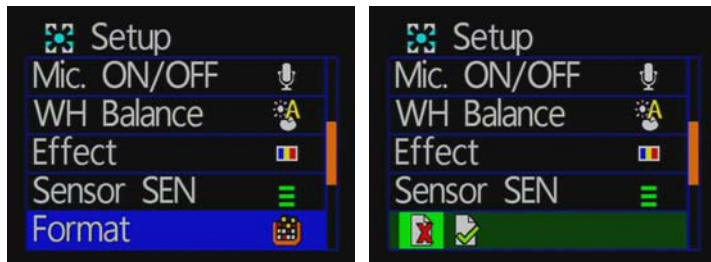
★cancel format   / confirm format

11. Back to Default Setting
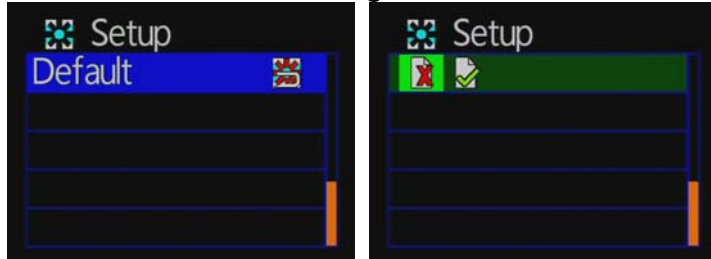
★ cancel default setting / confirm default setting

● Camcorder Menu Setting

1.Resolution setting

★three kind of resolutions for selecting：1080P(30) /720P(60)/
720P(30) Second stage- menu setting key description

2. Quality setting

Camcorder	Camcorder
Resolution 1080P30	Resolution 1080P30
Quality ☰	▬ ═ ☰
G sensor ▬	G sensor ▬

★Caution：You can adjust the video quality level (more number of green bars stands for higher quality)

3. G-sensor sensitivity setting

Camcorder	Camcorder
Resolution 1080P30	Resolution 1080P30
Quality ☰	Quality ☰
G sensor ▬	▬ ═ ═ ☰ ☰

★Caution：You can adjust the G-sensor sensitivity level (more number of green bars stands for higher sensitivity)
★When emergency record is triggered, it will keep around 3 minutes emergency recording and keep the files without being overwritten

● **Camera Menu Setting**

1. Image resolution setting

Camera	Camera
Resolution 8M	3M 5M 8M
Capture Mode NOR	Capture Mode NOR
Cap. Period 🖼	Cap. Period 🖼
G sensor ▬	G sensor ▬

★Three kind of resolutions for selecting：3M/ 5M/ 8M

2. Capture Mode setting

Camera	Camera
Resolution 8M	Resolution 8M
Capture Mode NOR	NOR G-S
Cap. Period 🖼	Cap. Period 🖼
G sensor ▬	G sensor ▬

★NOR：setup the period for taking picture
G-Sensor：G Sensor mode，continuous 3 shootings

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3. Capture period setting
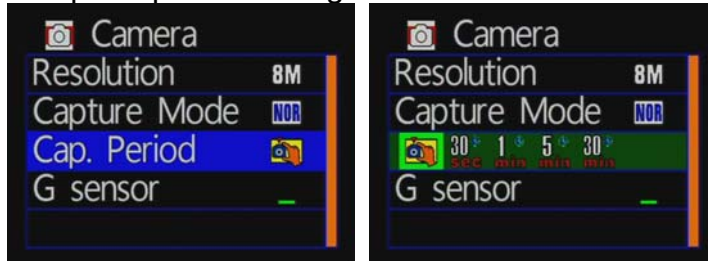
★Select NOR to set capture period function。
★Capture period:30 seconds/1 minute/5 minutes /
30 minutes for taking one frame

4. G-sensor sensitivity setting

★Caution：You can adjust the G-sensor sensitivity level
(more number of green bars stands for higher sensitivity)

Play video files
Direct playback on the local side
Build-in accelerometer, the system automatically determine the level of the screen visualization, and make the screen self-rotated to normal position.
Camcorder playback mode
Press the 'playback ' key on remote controller to enter camcorder playback mode, select the file you want to play, then press 'Play' key.

Playback screen	[Play key]
Select next file	[Left/Right Key]
Enter file to browsing	[confirm key]
Return to menu	[confirm key]

1. Delete one record
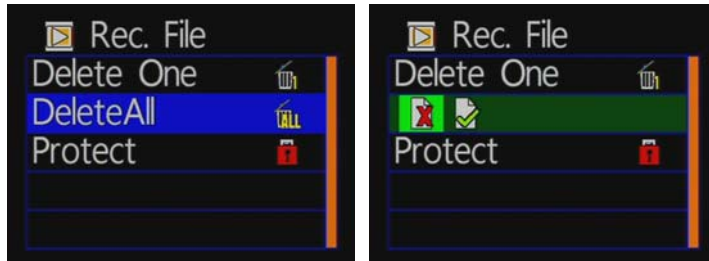
2. Delete all data

3. Protect Recording Data

★PS. The data is protected successfully while the locked image shown.

(b)Photo playback/viewing mode
   Press" Playback" key on remote controller under capture mode, select the file you want to play.

Photo rotation	[confirm key]
Select next/pervious photo	[Left/Right Key]
Photo zoom in/out	[up/down key]

1. Delete one record
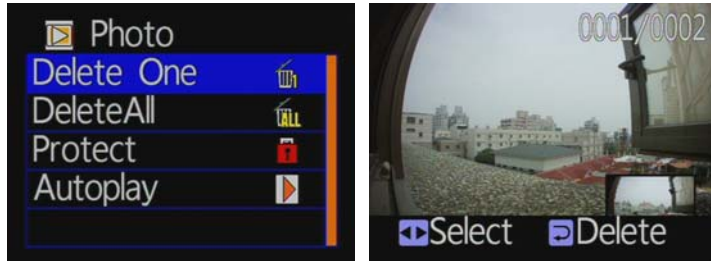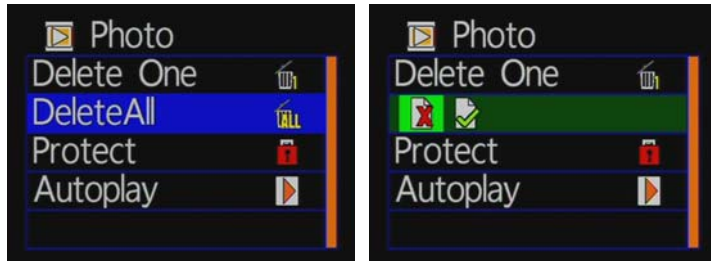
2. Delete all data

3. Protect Recording Data
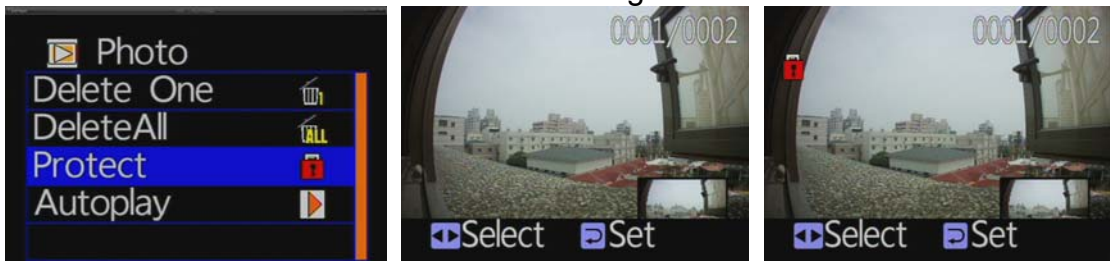
★PS. The data is protected successfully while the locked image shown.

4. Auto play
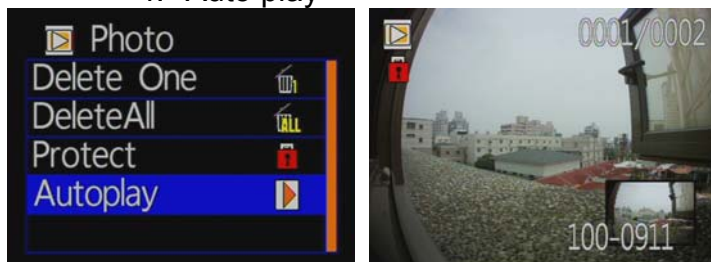
(3)How to read the file from SD card in the computer side?
1、Remove SD card from card slot of host side
2、Put the SD card to the card reader
3、Connect card reader to the USB port of PC side

4、Choose the file to play: Execute "IBoxPlayer.exe" ，which is located in the product CD folder, Screen shown as below. Choose "Open the document" ，and choose the file of memory card or hard disc and then click "Play key" to do playback；when using playback. click key to show the historical routing from Google map.
　　◎Note: To perform this software, please install Direct X 9.0 or above.

H. Software Operating Instruction

1. Viewer interface description

Latitude and Longitude
G-Sensor
Play Bar
Play Speed
Voice Volume
Open File
Save the Playing File
Setting
Google Map
Snapshoot
Playback by Hour
Playback by Minutes
Playback by Date
Google Map

2. Operating Interface Description:

1	⏮	Return to last file key
2	◀	Forward playback
3	◀	Playback key

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4	⏸	Pause key Go to next file key
5	⏹	Stop key
6	▶	Play key
7	⏯	Forward playback
8	⏭	Rearward playback
9	⏵	Mark starting point of back up file
10	⏴	Mark ending point of back up file
11	🖫	Backup the marking file
12	📂	Open document, select the file to play
13	💾	Backup the current playing file
14	✂	Snapshoot tool
15	🅔	Google map
16	⚙	Configuration, Set machine-related settings

3. Player Interface Description:

■ Show latitude and longitude position

■ G-sensor : Impact sensor analyzer, forced saving the accident video before and after 1 to 3 minutes, not covered by other new files, protect the integrity of the incident video.

X: Induct about level of vehicles moving
Y: Induct around level of vehicles moving
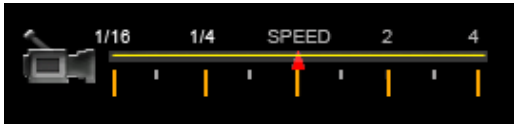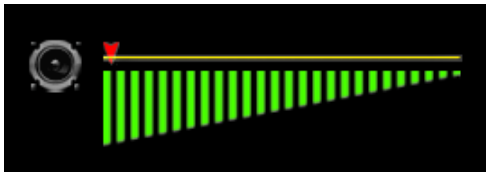Z: Induct Height fluctuation around level of vehicles moving

■ Driving Speed

■ Play BAR: Press left button of mouse and move around to pull BAR with fast-moving.

■ Playback speed
fast forward with 2 times or 4 times, and playback with 0.25 times, 0.0625 times
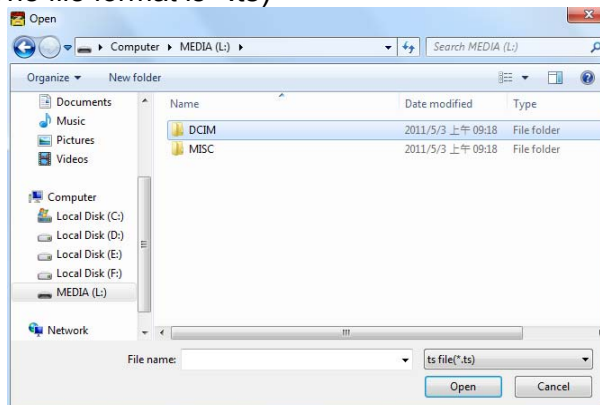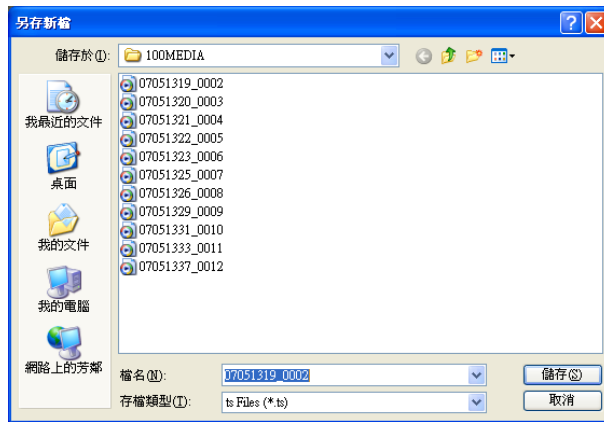

■ Volume control

4. Select the file to playback
Select " Open the document" 📂, and then choose the file of memory card or hard disc. (The file format is *.ts)
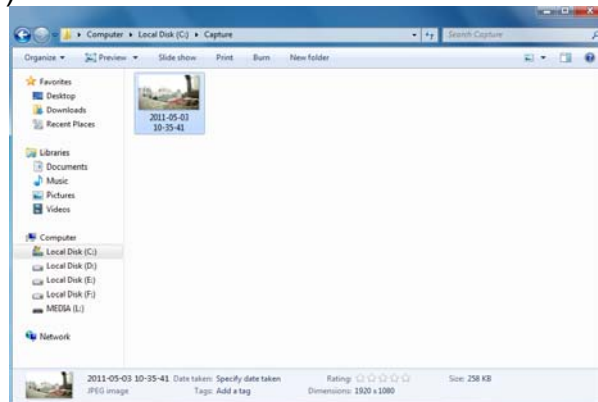

5. Save the playing file
Select "Save the playing file" 💾, and then choose the file of memory card or hard disc. (The file format is *.ts)

6. Snapshoot Tool

Play record from SD card first and then use Snapshoot tool to capture the screen. When select ✂ Snapshoot tool, it will appear the following window. (The picture of display screen will save in capture storage folder path.)
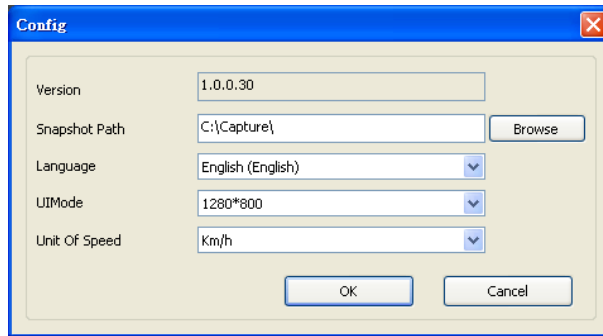

7. Google Map

Click 🅔 and then appear the window of Google Map to view the tracking of Vehicle. (This function needs to connect Internet.)

8. Related settings

Software version related information and SD card data storage settings

(a) Storage path of Snapshot: the location to save images in the computer
(b) Language: select language settings of playback software. (The settings will work after re-open the software)
(c) The mode of User Interface：Set the display mode of host. (To change the configuration option, it must insert SD card into the Vehicle Video Recorder). It provides 3 different resolutions for selecting: 960x600, 1280x800, 1920x1080

9. **Playback date selection**

It allows the user to choose the recording date/hour/minute which wish to play.

- Playback selecting by date

Open the player, the "date table" will show date today with gray-brown display. When you click on the file for playback, If the SD card has recorded file, then S the date will display with a red box, that means it has the data to play back.

- Playback selecting by hours (24-hours)

After selected the time axis, it will display the red box of minutes axis, Click the red box to quickly select and play the selected time.

- Playback selecting by minutes

After open the playback file, Time axis will display a red box, Click the red box to quickly select and play the selected time.

I. Formatting Memory Card

■ When should you need to format the SD card?
When you purchase a new SD card, you have to format it in order to use for Vehicle video recorder.

Procedures for new SD card formatted as follows:
1. Insert SD card into the SD slot of Vehicle Video Recorder and then open the menu. Find the format option and then begin to format SD card.

Follow the steps, turn screw to open the cover, insert SD card (Please check SD card position and make sure SD card is unlock),put the cover back and lock it.

2. Connect power cable to machine, use remote controller to enter index menu and select format operation.
3. After formatting is completed, leave the index menu and back to live screen. Then the SD card formatting is done and ready to use