



Professionally approved products.

User Manual

FULL HD

Video-Blackbox

Article no: 8802201



CE FC



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A. Feature Description

- Full HD real-time recording (with H.264 compression technology)
- 105° Wide-angle CMOS Lens
- 2.5" TFT LCD
- GPS sensor
- Record video with sound inside and outside the car
- Compatible with SDHC Card up to 32GB
- Automatic loop recording
- Emergency recording, file save to separate area to prevent overwritten
- Built-in GPS for tracking speed and position
- Built-in G-Sensor, to automatically record footage in case of an accident
- Made in Taiwan, with a 1 year warrantee – the longest of any dash-camera

B. Specification

Items	Description
Sensor	CMOS
View Angle	105° Wide-angle
Resolution	NTSC 30fps / PAL 25fps
V / A	DC5V±5% / 1A
Operating tmp.	-10°C ~ +60°C
Display	2.5" TFT LCD
Storage	4GB - 32 GB SDHC Card (『SanDisk』 or 『Transcend』 Class 10 or above is recommended)
Manner of Recording	Automatic recording on power on, Recording is stopped on power off
Recorded content	Date, Time, Image, Sound, G-Sensor data, GPS data
Storage Format	Proprietary format, playback on device or bundled software
Audio Input	Built-in microphone
Time setting	Internal calendar adjustable via GPS, remote control or bundled software
G-Sensor	Built-in 3D G-Sensor

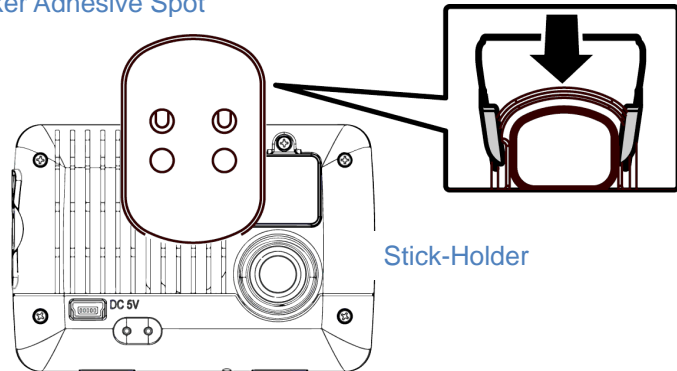
C. Accessories

Adapter / IR remote control / Software CD / Bracket / 3M sticker / 8 GB Class 10 SDHC Card

D. Schematic Diagram of The Installation Steps

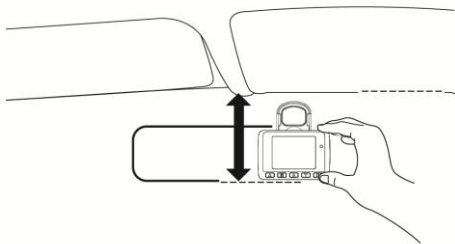
1. Install the device on the windshield using bundled 3M or suction cup mount

Sticker Adhesive Spot

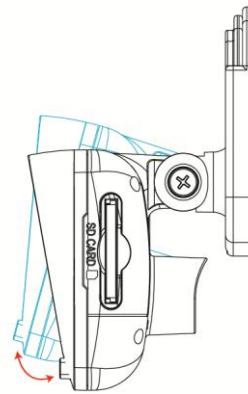


Stick-Holder

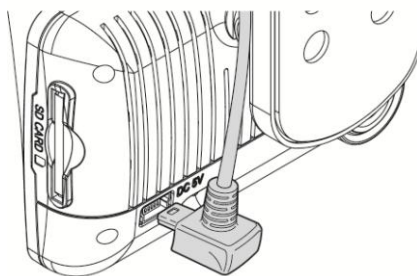
2. Find the optimal position of device on the windshield



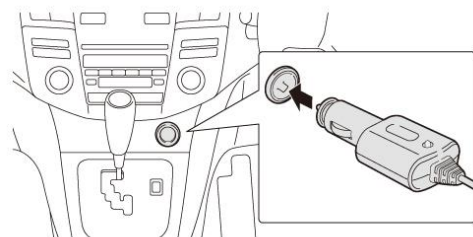
3. Adjust to the appropriate recording angle



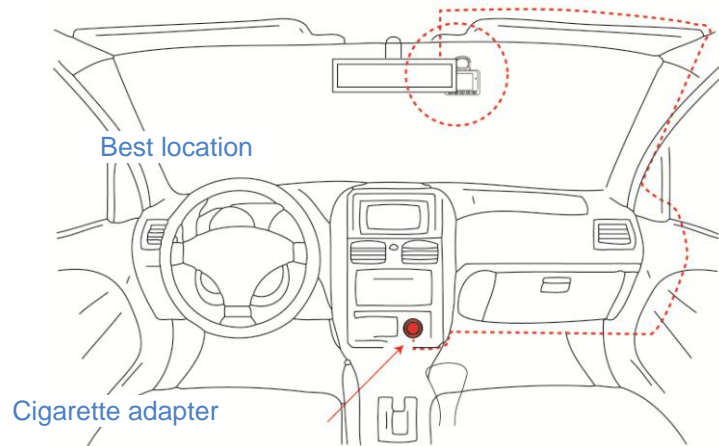
4. Plug in the DC5V Power Supply



5. Plug in the Cigarette charger



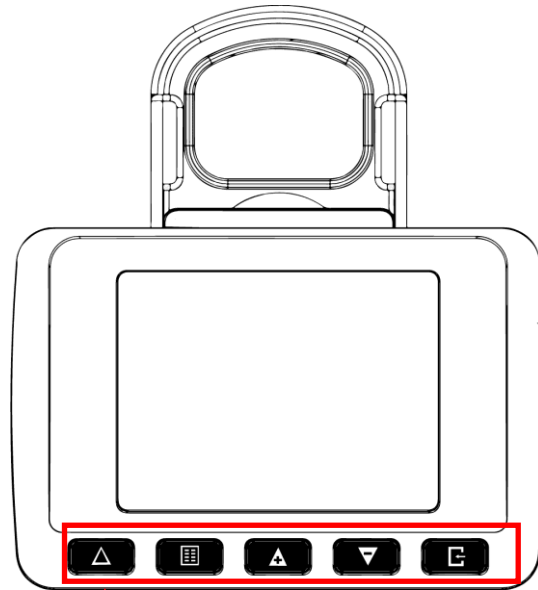
6. Diagram of recommended device installation



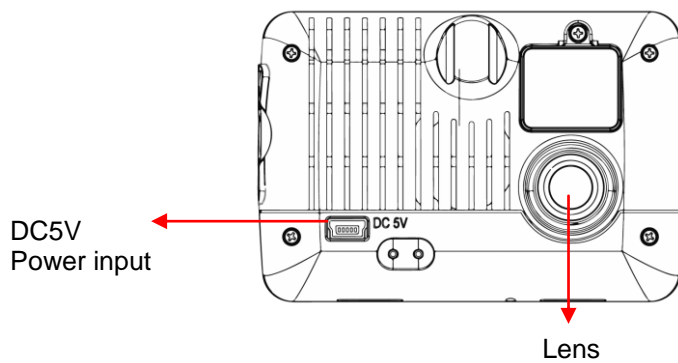
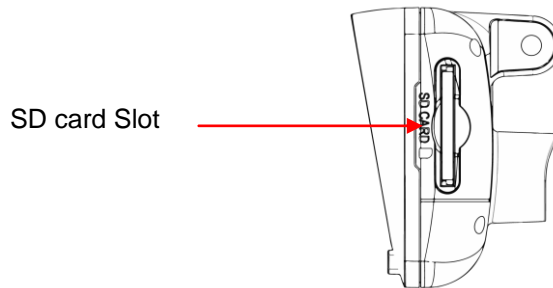
Notice

- (1). This device should be installed within the area of the windshield wipers
- (2). Format the SD card before first-time use
- (3). Set date and time on the OSD, or auto-calibration via GPS
- (4). Set NTSC or PAL through OSD

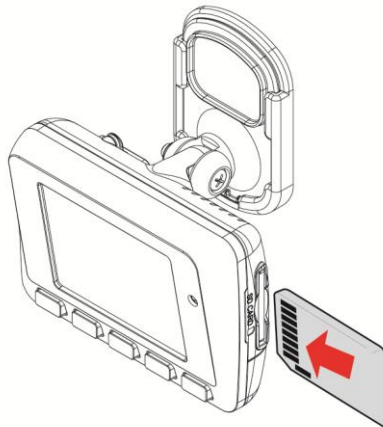
E. Product Function Introduction



Secure recording | Menu | Up | Down | Enter



F. SD Card Installation




- (1). To format the memory card; please refer to the other chapter “Formatting the memory card” for more detail.

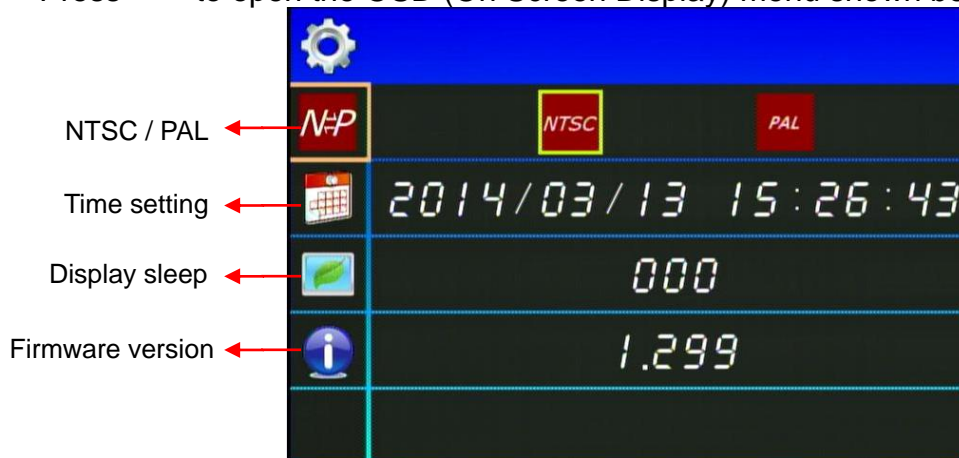






Warning

- (1). “SanDisk” or “Transcend” Class 10 or above SDHC cards are recommended (4GB minimum)
- (2). If memory card is not formatted using the bundled software, the device will automatically erase all the data on the memory card and start recording at default settings
- (3). Please don't use a Micro SD to SD card adapter for recording, to avoid damage during recording
- (4). Fragmentation of the memory card storage during writing is normal. Regular inspection of the memory card and playback using bundled software is recommended to ensure good read/write performance

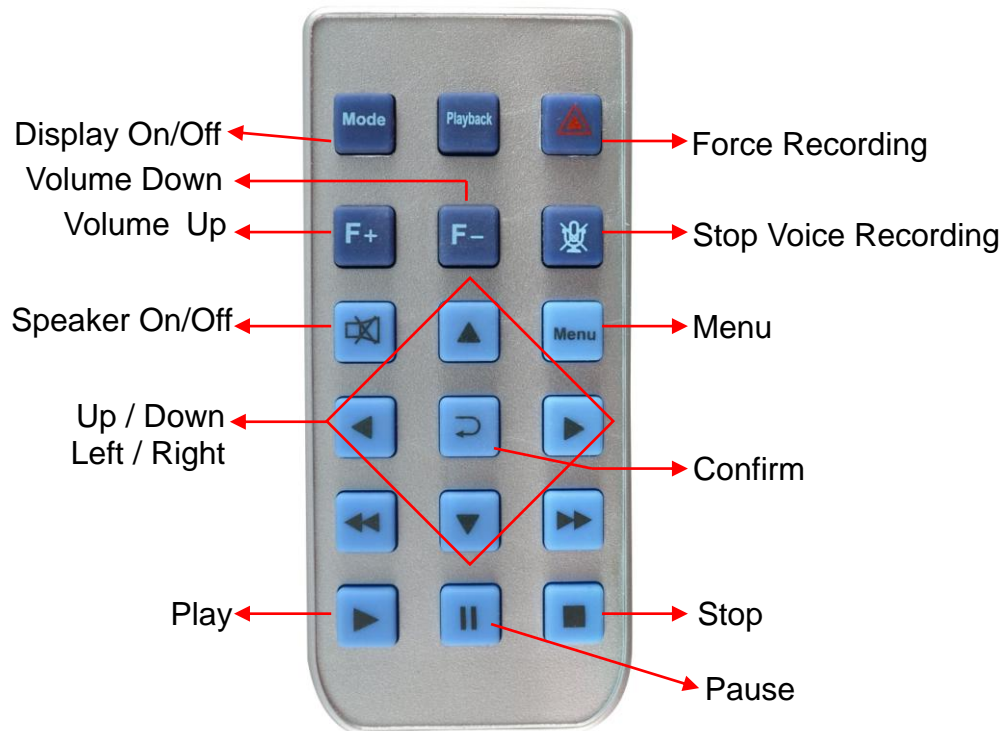
G. OSD Menu

Press  to open the OSD (On Screen Display) menu shown below:



1. Video standard: Click  to choose **NTSC / PAL**
2. Time setting: Click  to **adjust clock**
3. Display sleep: Click  to **set delay time of display sleep**
4. Firmware Version:  to **show firmware version**

H. Remote Controller Description





I. Recording / Stop Recording

1. Power On/Recording

The device automatically starts on car power on.
Please allow 30 sec. for recording to start.

2. Power Off/Stop recording

When the car power is off, the device will stop recording video and sound. You can take out the memory card and insert it in your computer to view the video.

3. Indication

Blinking red light indicates recording.









Fast blinking red light indicates activation of the secure recording feature.

J. The RS component Player



- This software requires DirectX 9.0 or above installed on your PC.

1. Operation icon introduction

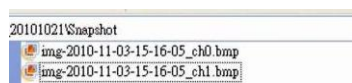
	Back to previous file
	Previous image
	Rewind
	Pause
	Stop
	Play
	Next image
	Next footage

2. Capture: Create a snapshot of current video frame


You can save a frame of your footage during playback of footage.

Click the  button to take a snapshot of the current video frame.

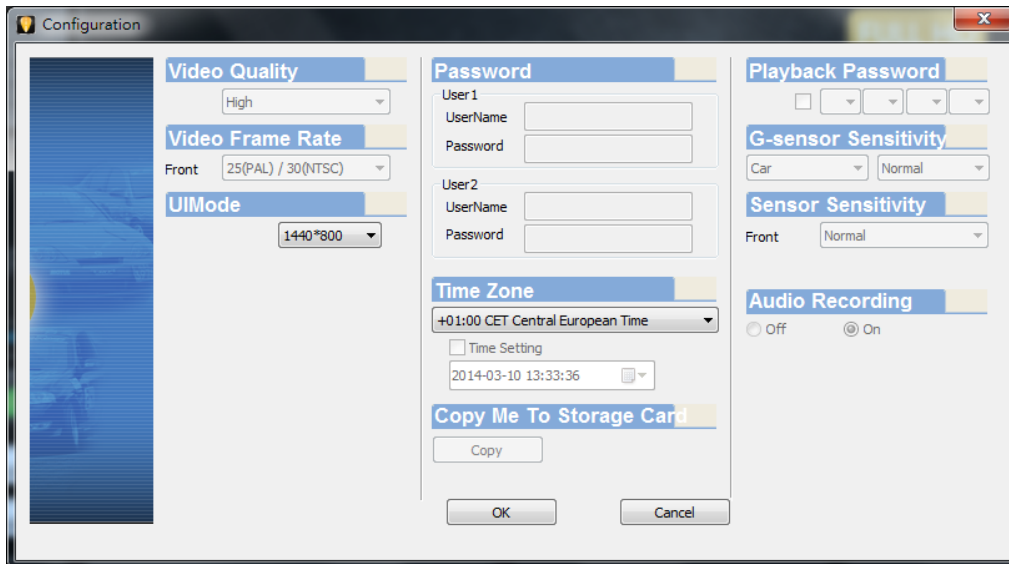
The following window is shown, with the image captured shown on the right side. Snapshots are saved as Bitmap images (*.bmp) in the application directory /Snapshot sub-folder.


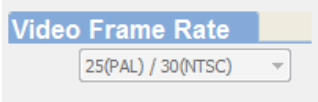
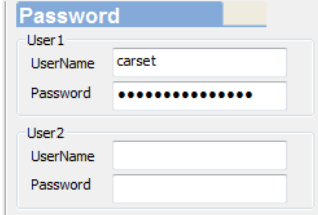

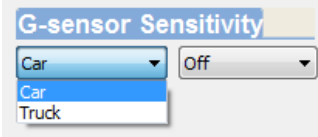
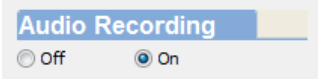


(Snapshot file)

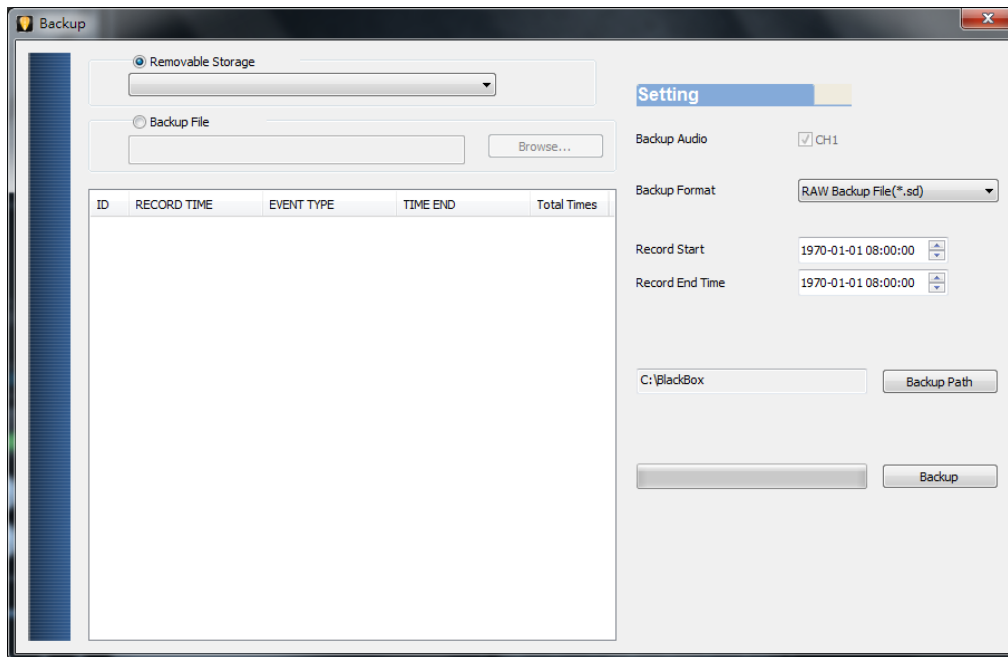
3. Configuration : configure default settings

Before using the first-time connect the SD Card to your computer to format the SD card. Configure the desired video format (NTSC or PAL). Afterwards, you can insert the SD card into the device and start recording.

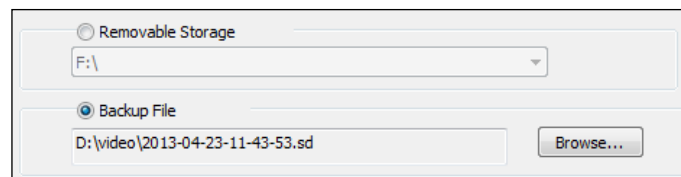


1	Video Quality		Default quality is high
2	Video Frame Rate		25(PAL) / 30(NTSC)
3	Set Password		<p>Encrypt the SD card to prevent unauthorized access. Password must be under 15 characters in length, for example: 123456789123456</p> <p>After setup, the password is required for playback, configuration and formatting of the SD card.</p> <p>★Note: password is case-sensitive; Remember the password. Without password footage cannot be retrieved.</p>
4	Playback Password		You can set a password for playback on the built-in display of the device.
5	G-sensor sensitivity		<p>The G-Sensor can detect impact and active the secure recording function automatically.</p> <p>Set the sensitivity here. Choose Car or Truck. The sensitivity has 5 options: Off / Very low / Low / Normal / High / Very high.</p>
6	Audio Recording		Turn audio recording on/off.

4.  File backup: click to backup footage.



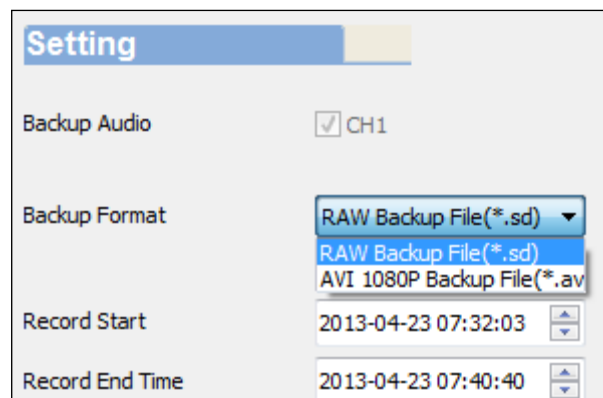
Step1. Choose the source of the memory card.



Step2. Choose the footage you want to backup.

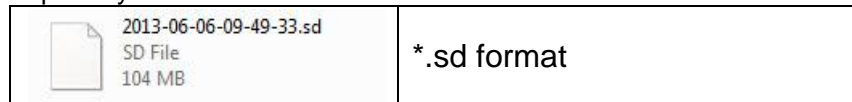
ID	RECORD TIME	EVENT TYPE	TIME END	Total Times
1	2013-04-23 07:31:43	G Sensor By Not Ov...	2013-04-23 07:32:03	00:00:20
2	2013-04-23 07:32:03	Record Start	2013-04-23 07:40:40	00:08:37

Step3. Choose the target file format and the start and end points.



File format

(1) Proprietary file format



(2) AVI video (*.avi)



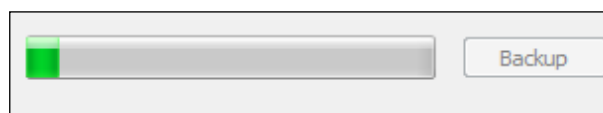
★Note:

To keep G-Sensor data, use proprietary format.
 AVI format doesn't not contain G-sensor data (only date/time/image/sound)

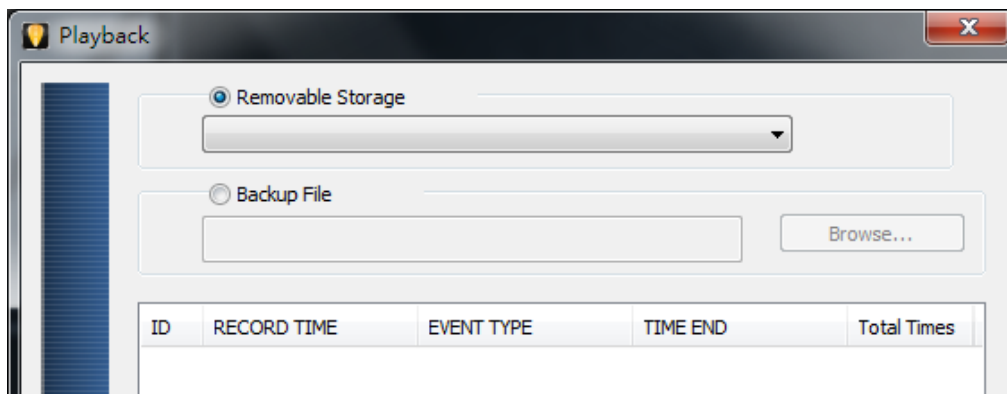
Step 4. Set the backup folder: default is C:\BlackBox



Step 5. Start backup

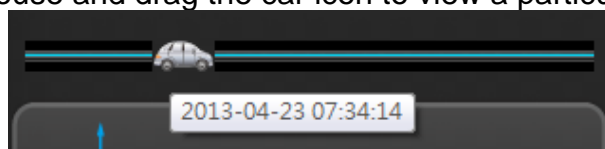


5. Playback: Open file



6. Progress bar:

Use the mouse and drag the car icon to view a particular time of the footage



7. Play speed:

Choose 2, 4 or 8 times normal playback
or 1/2, 1/4 or 1/8 times normal playback.



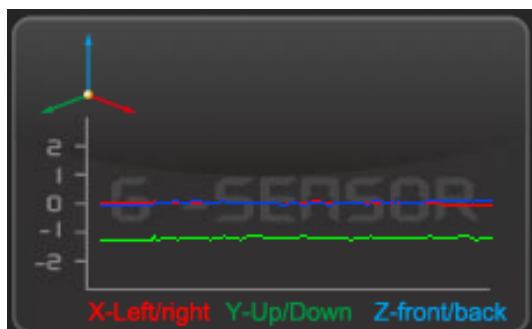
8. Volume control:

Click +/- to adjust volume.



9. G-SENSOR

The integrated G-Sensor can detect impact and record 1-3 minutes of footage automatically. This footage is protected to avoid files being overwritten.



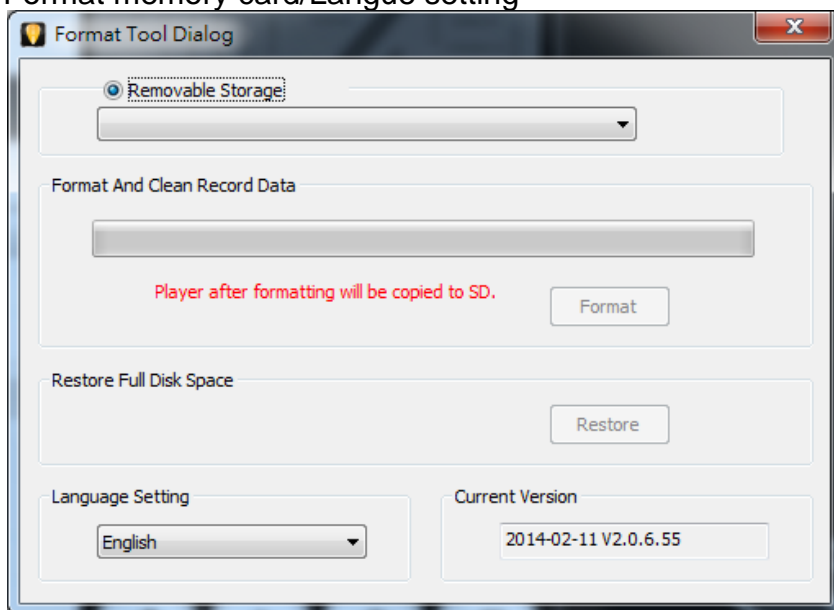
(1) **X**: Detect vehicle horizontal change.

(2) **Y**: Detect vehicle vertical change.

(3) **Z**: Detect vehicle front/back change.

10.  Format:

Format memory card/Langue setting





Warning

- (1). 「Format / Restore」 will erase all data on the SD-Card, Please make sure you have backed up any sensitive data before using 「Format / Restore」 .
- (2). Before using 「Format / Restore」 , please ensure the SD-Card is unlocked.
- (3). User Account Control in Windows Vista, 7 and 8 may prevent the SD-Card from being formatted. In which case, please run the program as Administrator.

a、 「Format」 SD-Card

When you use an SD card for the first time, it recommended you format the SD-Card.

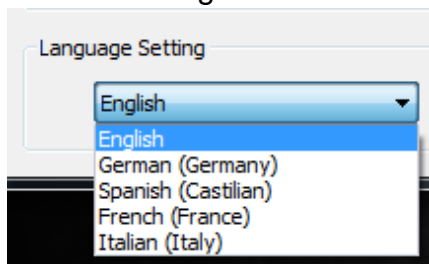
b、 「Restore」 SD-Card

If you have a back up of your SD-Card, you may restore it's contents using the restore function.

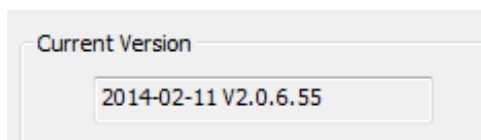
c、 Language setting

You can change the change the language setting.

* Note: Changes will take effect after rebooting software.



d、 Current Version





K. Estimated Recording Time

Note: The chart below of estimated recording times is for reference only. The length of recording may vary according to recording conditions.

Capacity	8G	16G	32G
Video Quality			
High	120 Min	240 Min	480 Min

L. Appendix: Bright and dark spot on the LCD

Q: What is a bright/dark spot?

- A:
- Bright spot: An abnormal bright spot, against a dark background, is called a “bright spot”
 - Dark spot: An abnormal dark spot, against a multi-colored background (excluding dark backgrounds), is called “dark spot”

Indication of bright and dark spots

- No bright spot is allowed in Area A, only a single dark spot
- The maximum amount of bright spots and dark spots allowed in Area B is two of each
- The maximum total amount of bright and dark spots in Area A and B are three or less

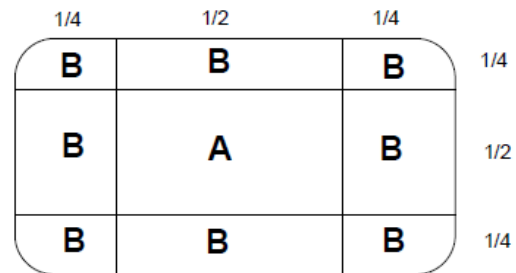


Diagram of areas A and B



Notice

- (1). There is a 30 day exchange window with the presence of bright and dark spots.
- (2). Please keep the receipt and contact your local dealer to exchange merchandise.
- (3). The maximum time interval is 30 days.