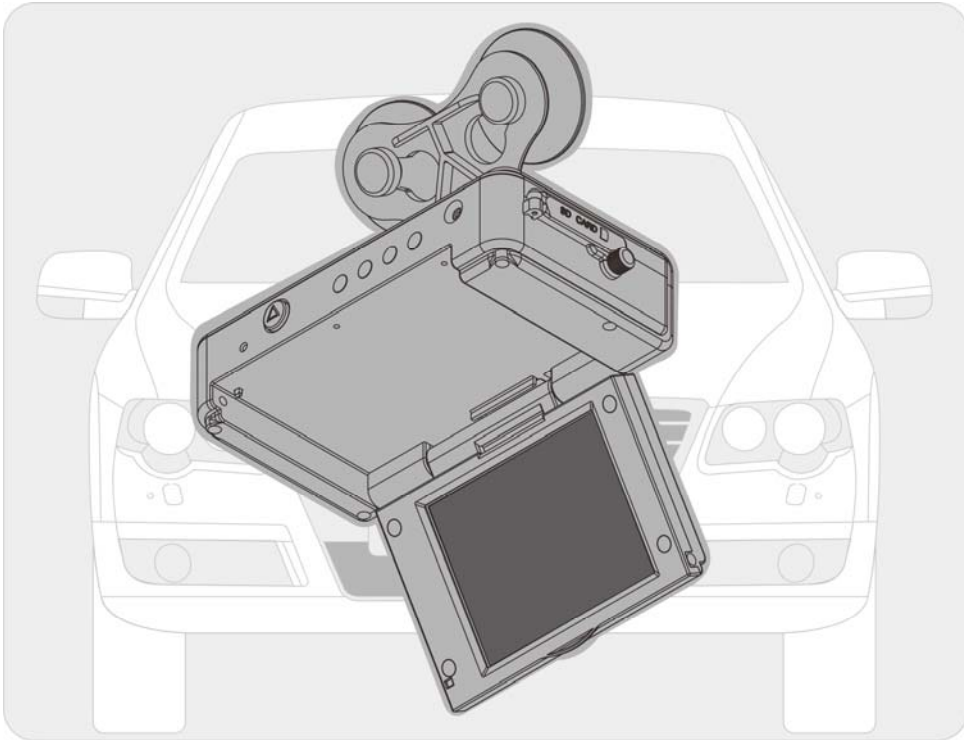


FULL HD 5 Megapixel

Vehicle Video Recorder User Manual



2013 JAN V2.0



Optional

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A. Feature Description

- Built-in Full HD 5M CMOS Sensor. View angle approx. 105 degrees.
- Easy installation. Suitable for all types of vehicles.
- Equipped with 3 inch TFT LCD screen provides a platform for composing and playing back your footage, while the fixed focus lens keeps things simple.
- Built-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.
- 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.
- Built-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 types of brackets installation for selection , Suction-cups type and Stick-holder type.

A. Suction-cups type



Make the bracket facing upward, assemble the suction cups, setup the machine in proper position, adjust the viewing angle.

B. Stick-holder type



Remove 3M sticker and adjust the best position properly.

Take machine bracket slides into the latch and lock.



Plug in the cigarette adapter.

The other side of cable connect to DC 5V port

- Green indicator: Power on.
- Blue indicator: GPS positioning ready.

Installation complete

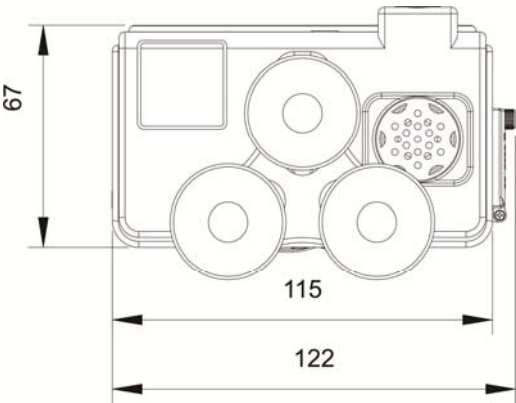
C. Specification

Items	Description
Chipset	Ambarella H.264 image compression chip
Sensor Device	Full HD 5M CMOS Sensor
View Angle	View angle approx. 105 degrees.
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/ 30F). Auto record when power up system. Recording frame: 30fps(NTSC/PAL) only select one.
Recording Content	Date, time, image, sound, G-Sensor data, GPS data.
Recording Format	Specific format for player software.
Microphone	Built-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) Built-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	Built in Internal 3D G-Sensor
Accessories	Standard: 1. Main Machine 2. Quick Guide 3. Remote Control 4. 5V Cigarette Lighter Adapter 5. Driver CD Optional: 1. SD card 2. 5M RCA Video out Cable
Important Notice	(a) Machine must be installed in the area that wipe can be reached. (b) Machine provides both NTSC and PAL systems, please use 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.

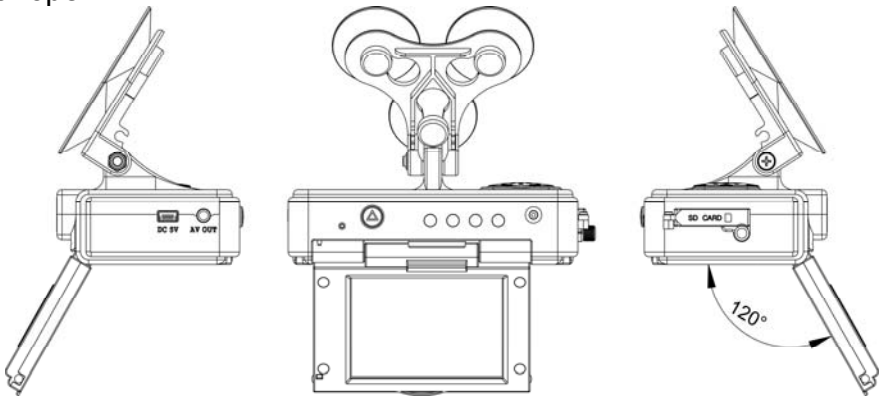
D. Product Appearance

UNIT:mm

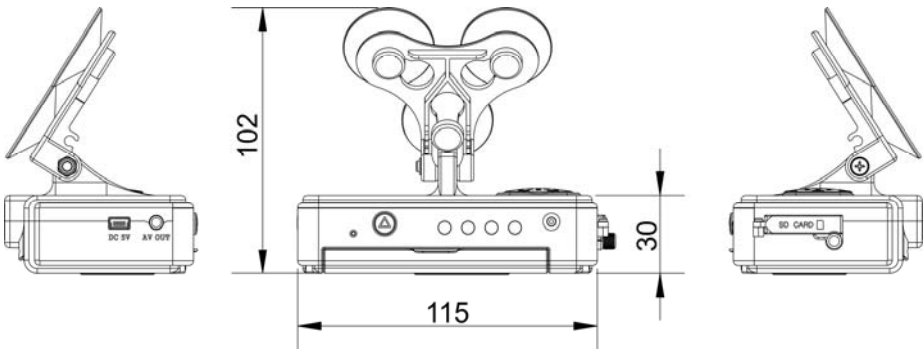
Product Dimensions



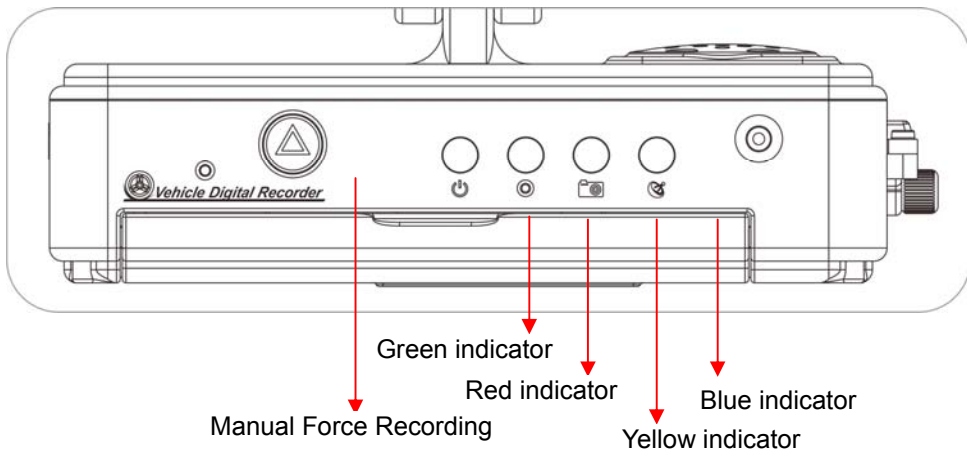
Monitor open



Monitor close



E. Recording And Stop Recording



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:

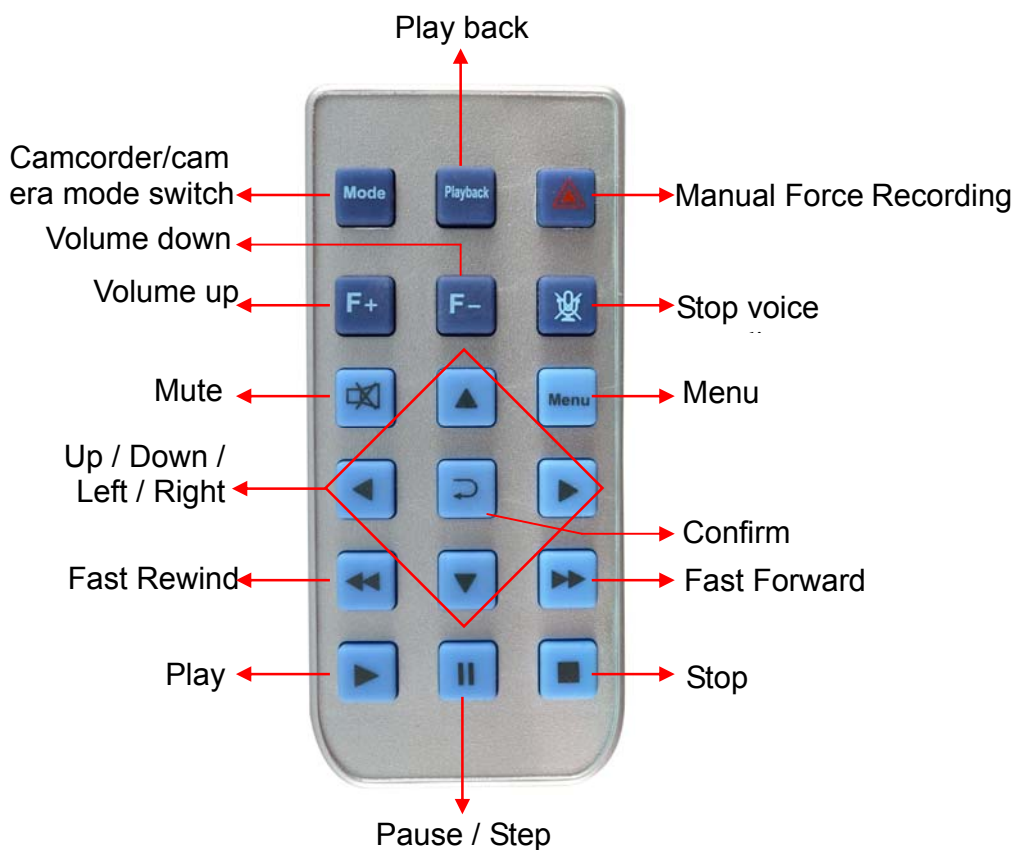
(a) Select “Playback” to enter display mode on live view, click the

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.

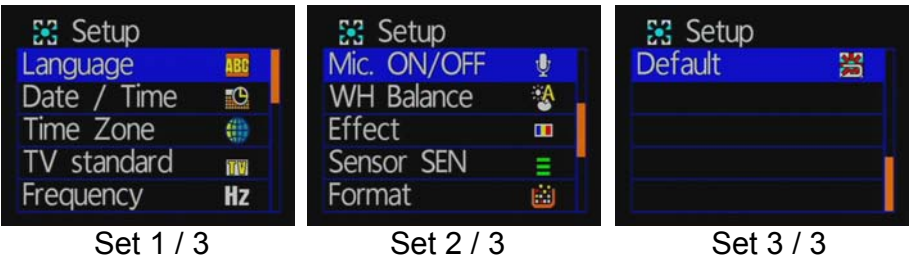
F. Remote Controller Description

Key mapping table for remote controller:



G. Main Menu Operating Description

Main menu table switch



★Total three setting pages; click on the settings page, you can conduct more detailed and related setting (For detailed setting, please refer to the settings page instructions).



First stage Remote control keys description

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

Main Menu Settings

Click button on the remote control to enter the main menu setting page.

After entering the main menu settings page, press the button on the remote control, choose the Settings page; then click on the remote control to enter the settings page.

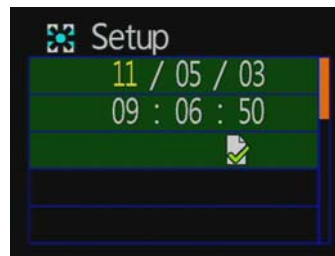
To exit the Settings page, click on the remote control you can choose to leave and return to the settings page.

◆ Language setting

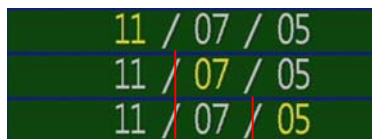


★Support 13 languages: English / French / German / Italian / Japanese / Korean / Portuguese / Russian / Simplified Chinese / Spanish / Traditional Chinese / Turkish / Dutch

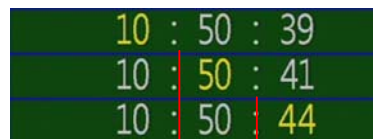
◆ Date / Time



Menu Options	[Up/Down Key]
Selecting Options	[Left/Right Key]+ [Confirm key]+ [Up/Down Key]
Selected the item Confirm setting	[Confirm key]
back to previous menu	[MENU key]









Year Month Date

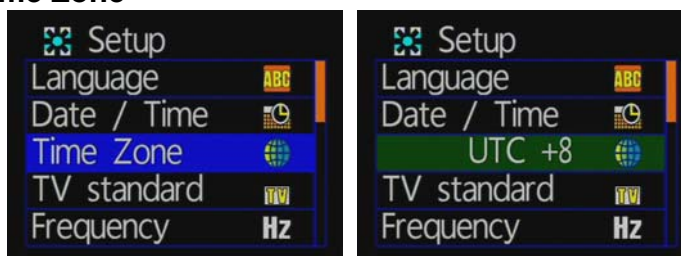


Hour Minute Second

- Date / time: Press the remote control button, enter the date / time setting
- Press the remote control key, move to the year / month / day / hour / minutes / seconds

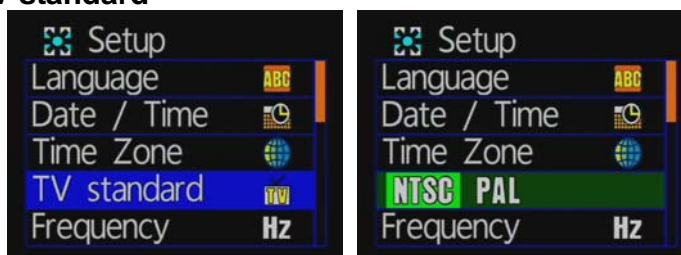
- Press the remote control   button, can change the set of year / month / day / hour / minutes / seconds
- After setting and then press remote control   key to the Select  button and then press  to confirm saving.
- ★Year Setting: to set behind 2 digits of AD year, to set hour for the 24-hour.

◆ Time Zone









★selecting the proper time zone for your position

◆ TV standard



★NTSC/ PAL for selecting






- TV output format: click the remote control  button to enter the TV output format settings page.
- Press the remote control   key, select the video output format of driving recorder.
For example:  → , after setting up and then press the remote control  button to save the settings.

★TV output format, according to different national systems using the input format for the TV set, the system is preset to NTSC (Taiwan TV image is NTSC). When input the image causing TV screen which appears black and white, beat, we can switch to PAL TV screen to check returning to normal status.

◆ Light frequency setting

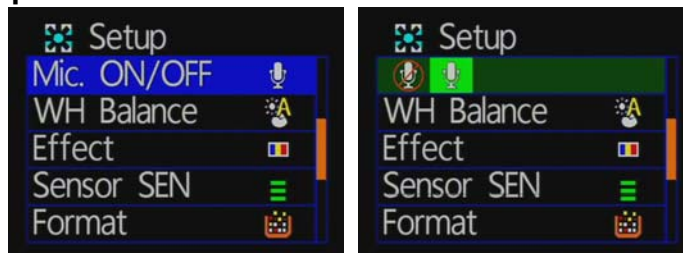


★50Hz/ 60Hz for selecting

- Light frequency: press the remote control  button, enter the light frequency page to do the setting.
- Remote control   button, can change the light frequency setting.
For example:  → , after setting finished, press the selected remote control key to save the settings.

★Light frequency: according to different power frequency flicker and, thus, the wavelength, the wavelength is caused by the human eye brightness of the most important factor; general, the higher the frequency of light, the brighter the ambient feel. As the use of Taiwan's general power frequency 60HZ, 60HZ recommended to set the frequency for the light source is more suitable environment in Taiwan.

◆ Microphone switch







★OFF/ ON



: microphone off

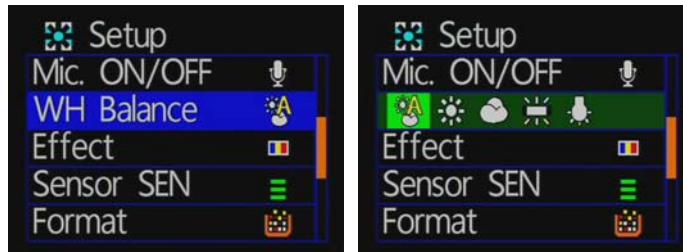


: microphone on

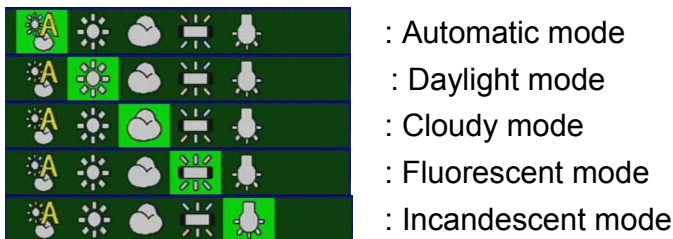
- Microphone: press the remote control  button, into the microphone switch pages.
- Press the remote control   key can be turned on or off the microphone.
- Setup is complete, press the remote control  key to store settings.

★Microphone to record the sound of inside vehicle information, if concern about personal privacy information, proposed close microphone function (off microphone function, converting the image files to video without sound state).

◆ White balance



★Five ambient light option for selecting Auto / Daylight / Cloudy / Fluorescent / incandescent light













- White balance, press remote button, into white balance settings page.
- Remote control key to select different white balance mode.
- Setup is complete, press the remote button to save the setting.

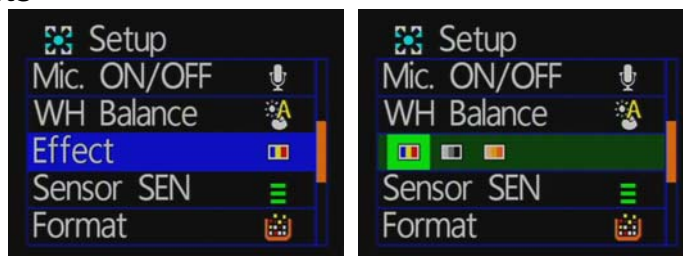
★White balance mode is set, regardless of the state in the camera or photography will open automatically.

★When take recording, suggest white balance set to automatic mode in order to open the white balance automatically to avoid the screen unclear.





The following table shows picture taken in various white balance mode.

Icon	Description	Picture	Application instructions
	Auto		The machine set automatically
	Sunlight		For fine weather
	Cloudy day		For cloudy, dark or twilight
	Fluorescent		For warm white, cool white (3-wavelength) fluorescent lighting
	Incandescent		For incandescent lamps and bulb-type 3-wavelength fluorescent

◆ Effects



★Color / B & W / Retro color

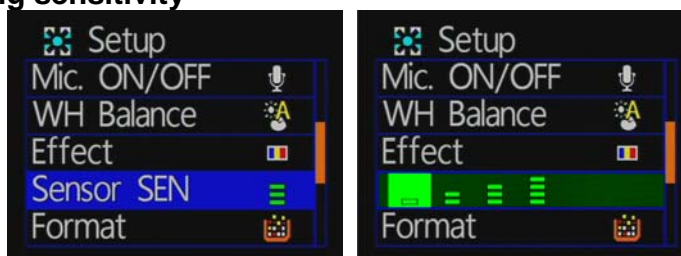
- Effects: press the remote  button, enter the effects settings page.
- Press the remote control   button to select the effect model.
- Setup is complete, press the remote  button to save the settings.

★Effects model setting, whether in photography or video mode it will automatically open.

The following table shows picture taken in various effect mode.





Icon	Description	Picture
	Color mode	
	Black mode	
	Retro mode	

◆ Sensing sensitivity



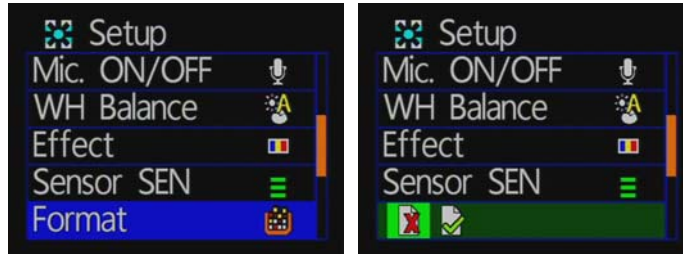
★ Caution: You can adjust the sensitivity level (more number of green bars stands for higher sensitivity)



- Sensor sensitivity: press the  button, enter the sensor sensitivity settings page.
- Press the remote control   key, select the sensor sensitivity level.
- Setup is complete, press the  button to save the settings

★ Sensor sensitivity means the sensitivity of the reaction: when passing through a dark place, the vehicle turned on the white balance mode; when the higher sensitivity settings, after passing a little dark as long as it will open automatically, more likely to cause excessive light up the screen.

◆ Format







★cancel format / confirm format



: Cancel format



: Confirm format

- Format: press the  button, enter the format settings page.
- Press the remote control   button, choose whether to format.
- To confirm the format, press the  button to do the SD card format.

★When you click “cancel the format:”, it will return to the main Settings page.

★When determining to format the SD card, all data in the SD card will be erased, please back up any old data in advance to avoid old data be erased.

★A new SD card must do the formatting operation first and then start the recording.

◆ Restore factory settings







★cancel default setting / confirm default setting



: Cancel to restore factory settings



: confirm to restore factory settings

- Restore factory settings: press the remote control  button, enter the restore factory settings page.
- Press the remote control   key, whether you want to restore to factory settings.
- Confirm to restore factory settings, press the remote control  button, to return to the original setting







★When click “cancel to restore factory settings”, it will return to the main Settings page.








★When confirm “confirm to restore factory settings”, it will return to the factory value settings; when return to factory value, you could enter main menu to configure the related settings again.

Camcorder mode setting



Remote control keys 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]

Camcorder mode settings: press the remote control  key to enter the camcorder settings page. Enter the main page, press the remote control   key to select the camera or camcorder. Enter camcorder mode main page, press the remote control   key to select the setting. Press the remote control  key to enter the settings page. If leaves the settings page, press the select  button on the remote control, you can leave and return to the camcorder or the main page.

★Camera mode setting is total one page; Click the Settings page to enter more detail setting related (set for details, see the description of the settings page)

◆ Video resolution setting







- Camcorder mode settings / image resolution, press remote control  button to enter image resolution setting page.
- Press the remote control   key to choose variety of image resolution.
- Setup is complete, press the remote control  button to save the settings.

There are two kinds of image resolution mode selectable:

1920 * 1080P (30): 1920 * 1080 screen resolution, 30 frames per second.

1280 * 720P (30): 1280 * 720 screen resolution, 30 frames per second.

Icon	Description	Picture
	1920x1080P(30)	
	1280x720P(30)	

◆ Quality settings



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

: Low : Normal : High

- **Set the camcorder mode / quality:** press the remote control button to enter the quality settings.
- Press the remote control key to select the video quality.
- Setup is complete, press the remote control button to save the settings.

★Video quality setting higher, the better image quality.

◆ G-sensor setting





★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

: Very low
 : Low
 : Normal
 : High
 : Very high

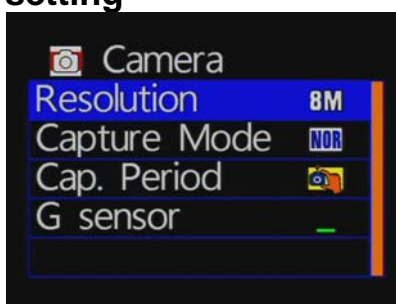
- Camcorder mode settings / G-sensor: press the remote control

button to enter the G-sensor settings.





- Press the remote control  button to select the sensitivity of G-sensor.
- Setup is complete, press the  button to save the settings.


★Note: the higher the sensitivity on behalf of gravity (G) the more sensitive the sensor, the more likely trigger mandatory recording; every trigger mandatory recording, before and after the accident will force to save 3 minute video and not be covered (when G-sensor trigger recording, all the lights will become darker).





Camera mode setting



Remote control keys 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]

Set the camera mode: press the  button on the remote control to enter the camera settings page.

To set directory on the main page, press the select  button on the remote control to select the camera or photograph; Into the camera mode of the main page, press the remote control  key selected to choose the Settings page and press the remote control  to enter the setting page; to leave the settings page, press the  button on the remote control, you can leave and return to the camera or main setting page.

★Camera mode is total one page; Click Settings page to more detail settings (the detailed settings, see the setting instructions on the settings page).

◆ Image resolution setting:



- Camera mode / image resolution: press the remote control button to enter the setting page of image resolution.
- Press the remote control button to select different image resolution.
- After setting, press the remote control key, to store settings.

★ There are three image resolution modes selectable:

8M: 3200 * 2400 screen resolution, picture quality is 800 million pixels.

5M: 2592 * 1944 screen resolution, picture quality is 500 million pixels.

3M: 2048 * 1536 screen resolution, picture quality is 300 million pixels.


Icon	Description	Picture
	3M: 300 million pixels	
	5M: 500 million pixels	
	8M: 800 million pixels	





★ When the higher image resolution, the greater the amount of data stored in the file.

◆ Capture mode setting



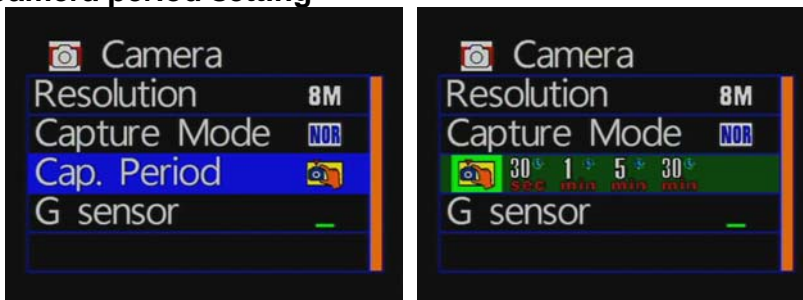
 NOR: Normal mode





 G-S: G-Sensor mode with three pictures once

- Camera mode / capture mode: press the  button to enter the capture mode setting page.
- Press the remote control   key to select the capture mode.
- After setting, press the  button to save the settings.

★ When the capture mode NOR selected, to set capture picture time from the camera cycle option.

◆ Camera period setting

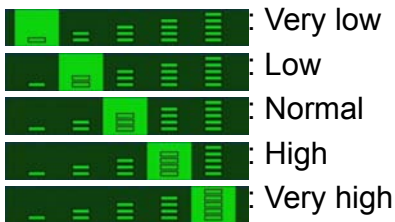


- Camera mode / capture period: press the remote control  button to enter the settings page to set the period setting.
- Press the remote control   button to select period of time to capture.
- Setup is complete, press the remote button  to save the settings

★ When the capture mode NOR selected, the option to set the camera period setting.

★ Photographic period: 30 seconds / 1 minute / 5 minutes / 30 minutes, fixed shot once.

◆ G-sensor setting



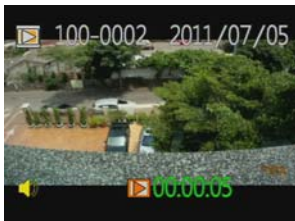
- Camera mode / G-sensor, press the remote control button to enter the page to set the G-sensor.
 - Press the remote control button to set the sensitivity of G-sensor.
 - Setup is complete, press the remote button to save the settings.
- ★Note: the higher the sensitivity on behalf of gravity (G) the more sensitive the sensor, the more likely trigger mandatory photography; Each time the force shooting is triggered, it will shoot three images once.

H. Play the recorded file

Direct playback on machine side

Built-in accelerometer, the system automatically determine the level of the screen visualization, and make the screen self-rotated to normal position.

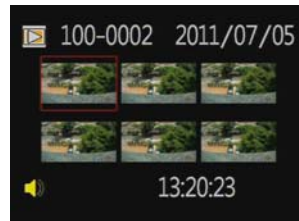
Camcorder mode







Play back file screen









File selecting screen

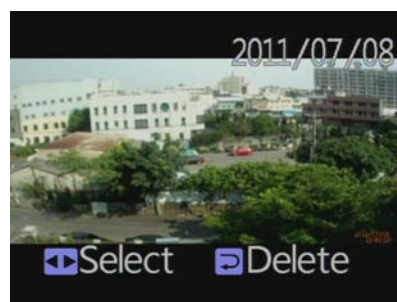
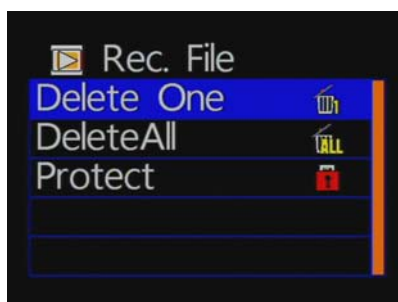







Multi-files selecting screen

- Press  button on remote controller under LIVE recording mode to enter file playback menu.
- Press   button to adjust before and after clips.
- Press  button to play file.

★When in the playback file page, default is as single file mode. However, you can press the  button to enter into six separate screen page, and then press the     button to select the file you want to play. When you select OK, and then press the  button to return to a single file for playback page.

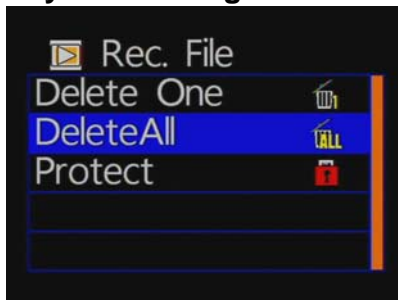
◆ Playback settings - Deleting a single file




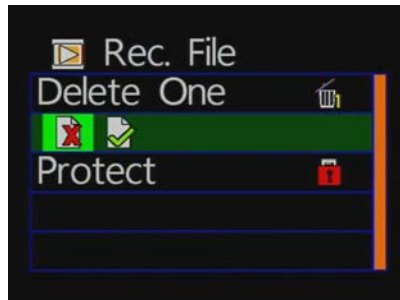
- For playback file setting, press  button to enter setup page, press  button to move to delete one item, then press  enter into deleting page.
- Use  button moving to the file you want to delete, then press  to start deleting.

★You must disable the protection function first in order to process the deleting procedures.






◆ Playback settings- Delete All



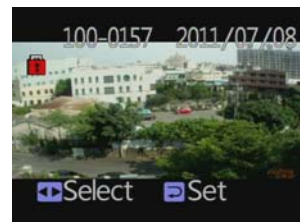
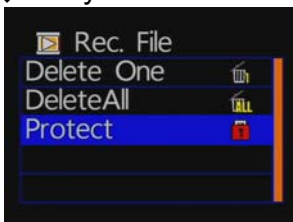
: Cancel delete all








: Confirm Delete All

- Press  button to enter setup page, press  button to move to delete all item, then press  enter into deleting all page.
 - Use  button moving to you want to delete all files, then press  to start deleting.
- ★You must disable the protection function first in order to process the deleting procedures.

◆ Playback file setting-protect







★Caution: When the picture has a lock-shaped icon indicates that the data in protection mode

- Press  button to enter setup page, press  button to move to protect item, then press  enter into protect setting page.
- Use  button moving to you want to protect file, then press  to start protect setting.

Camera mode

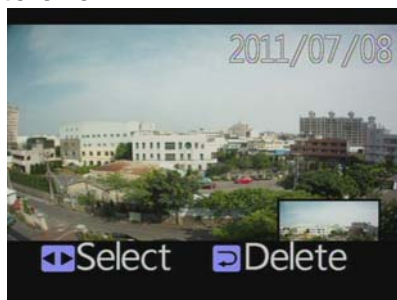





- Under camera mode, press  button entering into photo playback page.
- Press  button to select the file you want to play.
- Then press  button to play.

★When in playback page, press  button to do Clockwise rotation of photo.



◆ Photo playback settings-Delete one



- Photo play setting, press  button entering into setting page.
- Press  button moving to delete one item. Then press  button to enter delete page.

- Press button to select the file you want to delete. Then press button to start deleting.
- ★ You must disable the protection function first in order to process the deleting procedures.

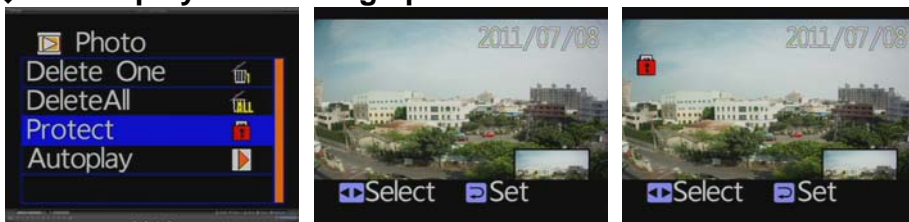
◆ Photo playback settings-Delete All



- Photo playback settings, press button enter setup page.
- Press button moving to delete all item. Then press button to enter delete all page.
- Press button to confirm delete all files. Then press button to start deleting all files.

★You must disable the protection function first in order to process the deleting procedures.

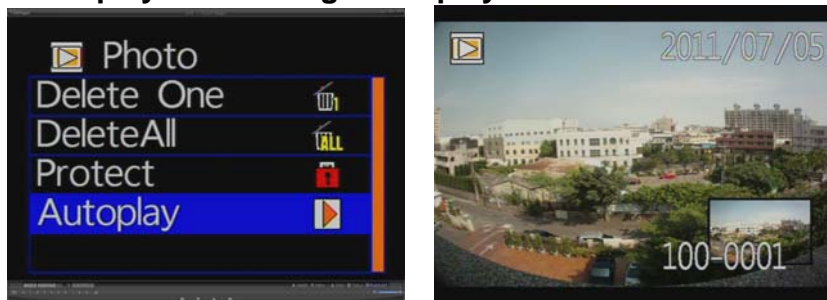
◆ Photo playback settings-protect








- Photo playback settings, press button enter setup page.
- Press button to move to protect item, then press enter into protect setting page.
- Use button moving to you want to protect file, then press to start protect setting.

★Caution: When the picture has a lock-shaped icon indicates that the data in protection mode.

◆ Photo playback settings-Autoplay







★ 5 Sec duration per image / click menu to stop.

- Photo playback settings, press  button enter setup page. Press   button to move to auto play item, then press  enter into auto play setting page.
- When under Auto Play mode, about every 5 seconds to play the next photo. You can click the stop  button to return to photo playback page.

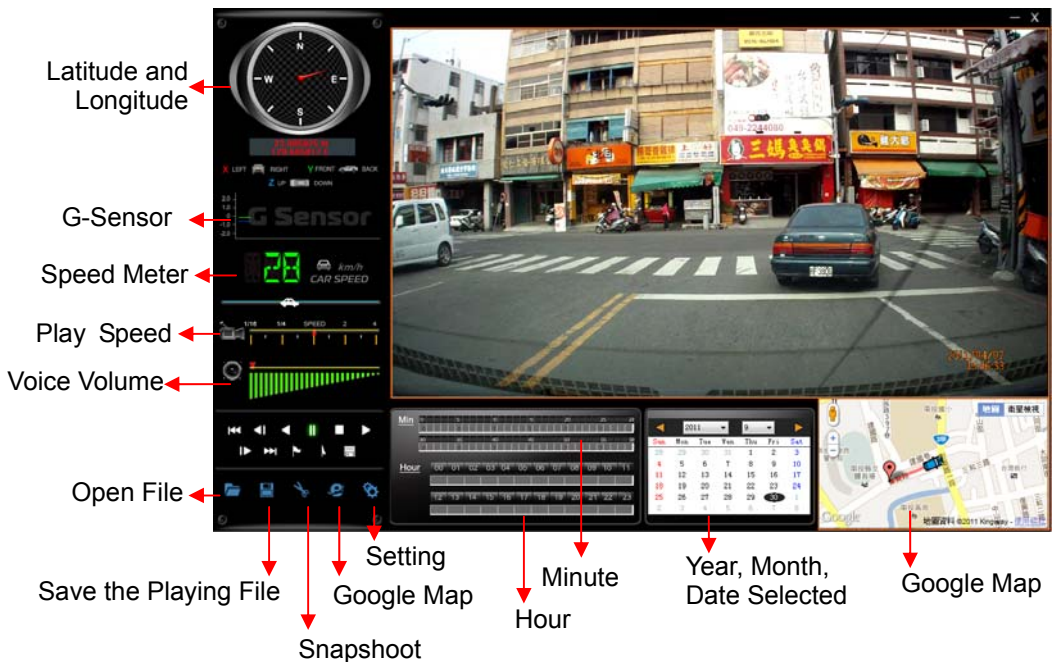
H. Software Operating Instruction

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.

1. Viewer interface description



2. Operating Interface Description:

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

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		Snapshot 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

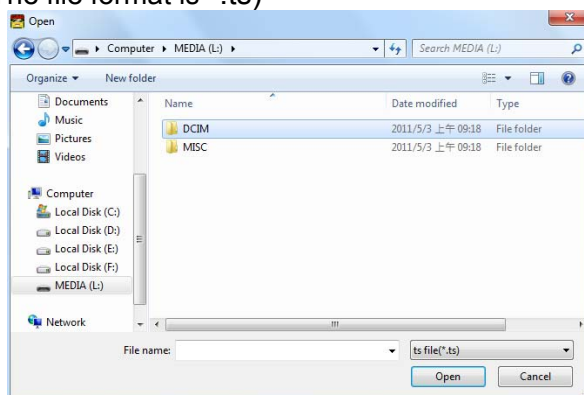


- Volume control




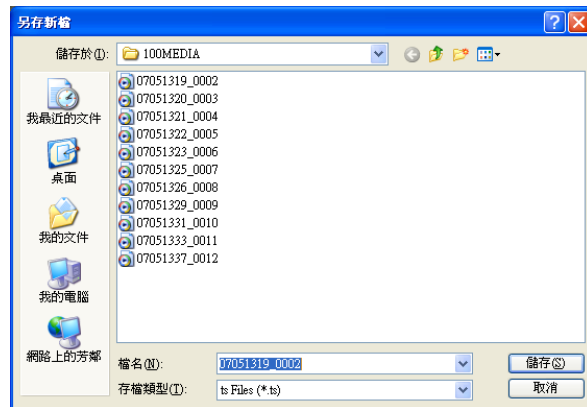
4. Select the file to playback

Select “Open the document” , and then choose the file of memory card or hard disc. (The file format is *.ts)




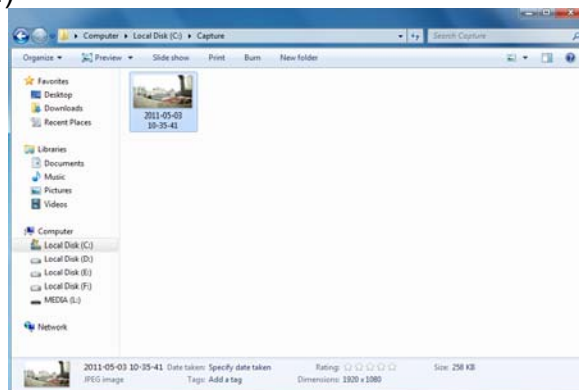
5. Save the playing file

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




6. Snapshot Tool

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



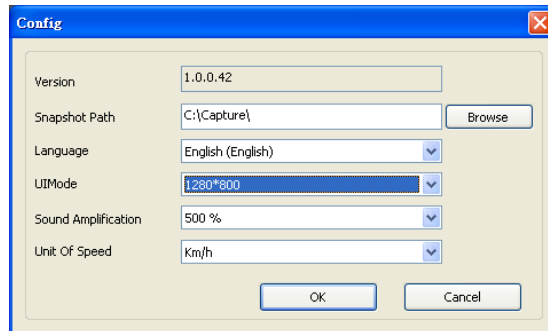
7. Google Map

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.
- (d) Sound Amplification: max. 10 times
- (e) Unit of Speed: Km/h, Mile/h, Knot

9. Playback date selection

1. Selecting by date



Launch the Player, click the "open" to select the file or path of storage. Then on date table with Gray-brown color means having recording footage.

2. Selecting by Hours/Minutes (24-hours)

The screenshot shows a digital interface for selecting a 24-hour period. It consists of two main sections: 'Min' (Minutes) and 'Hour'.

Min Section: A horizontal row of 60 cells representing minutes from 0 to 59. The cells are grouped into three rows of 20. The top row shows minutes 0, 5, 10, 15, 20, 25, 29. The middle row shows minutes 30, 35, 40, 45, 50, 55, 59. The bottom row shows minutes 0, 1, 1, 1, 1, 2, 2. The cells are color-coded: minutes 0-9 are green, minutes 10-11 are red, and minutes 12-13 are green. The rest of the cells are gray.

Hour Section: A horizontal row of 24 cells representing hours from 00 to 23. The cells are grouped into two rows of 12. The top row shows hours 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11. The bottom row shows hours 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23. The cells are color-coded: hours 00-09 are gray, hours 10-11 are green, and hours 12-13 are red. The rest of the cells are gray.

After select the "Date" with Gray-brown color, on Hour/Minutes table will display Red/Green color.

Green: normal record

Red: force record

3. Quick switching by minutes

The screenshot shows the 'Min' section of the interface, which is a horizontal row of 60 cells representing minutes from 0 to 59. The cells are grouped into three rows of 20. The top row shows minutes 0, 5, 10, 15, 20, 25, 29. The middle row shows minutes 30, 35, 40, 45, 50, 55, 59. The bottom row shows minutes 0, 1, 1, 1, 1, 2, 2. The cells are color-coded: minutes 0-9 are green, minutes 10-11 are red, and minutes 12-13 are green. The rest of the cells are gray.

Click the minutes table to change the recording footage immediately.

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

