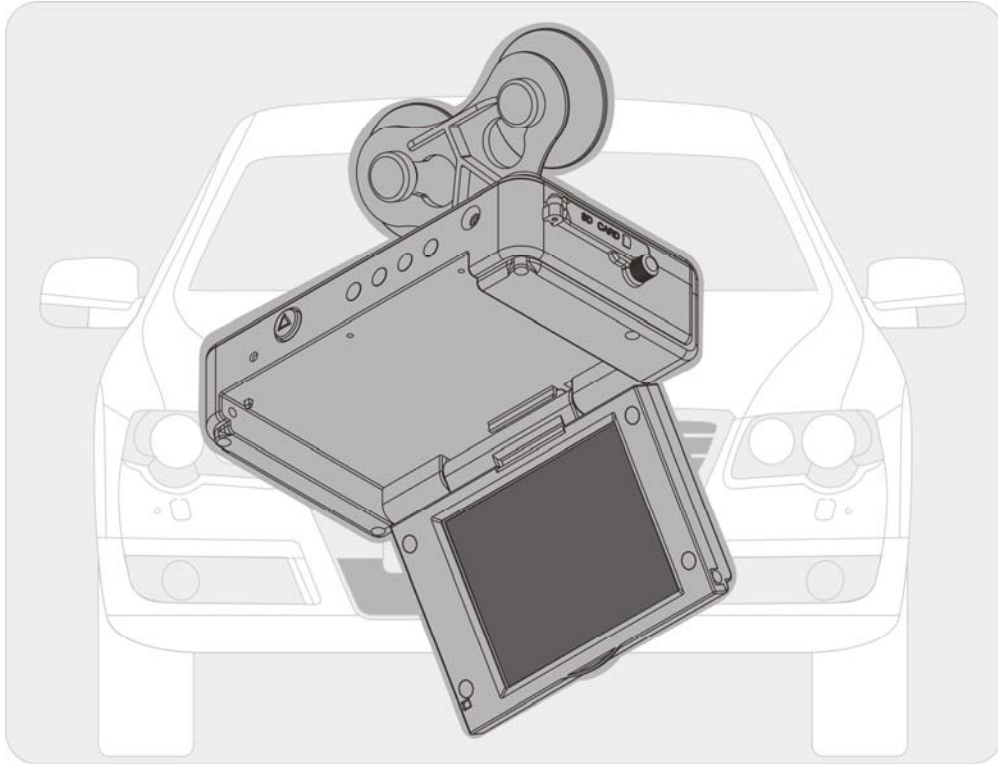


FULL HD 1080P

Vehicle Video Recorder

User Manual



2013 FEB V2.0



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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.
- Advanced H.264 compression technology for longer recording of higher quality video.
- Provide high quality image recording 1280x720 max. 30 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 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.
- 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 type 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.

Installation complete

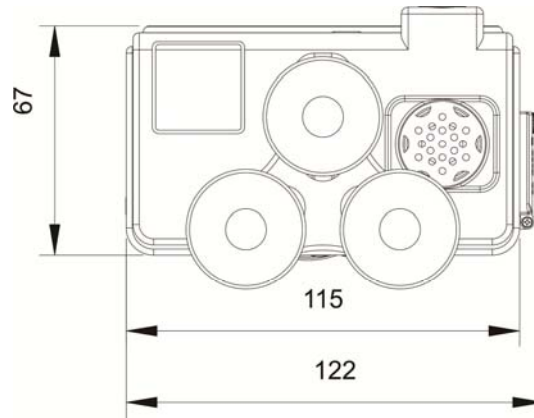
C. Specification

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%; 550mA, Remark: Please use 5V±5%, 1A Cigarette lighter adapter. The machine needs 4.8v to start.
Operating Temperature	-10°C~ +70°C (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.
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) Mini USB for PC connection (f) Built-in accelerometer, the system automatically determine the level of the screen visualization, and make the screen self-rotated to normal position.
Time Setup	Use the built-in clock.
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 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.

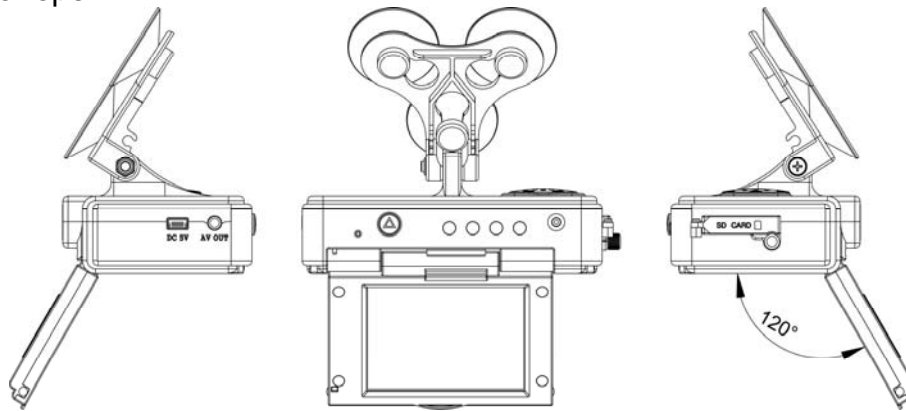
D. Product Appearance

UNIT: mm

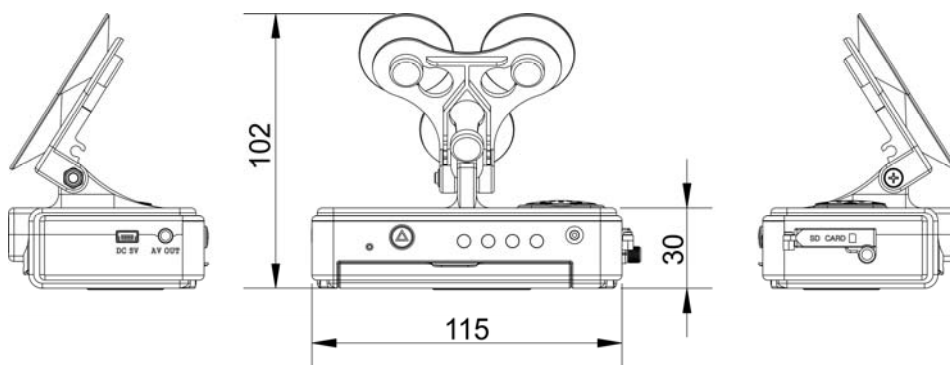
Product Dimensions



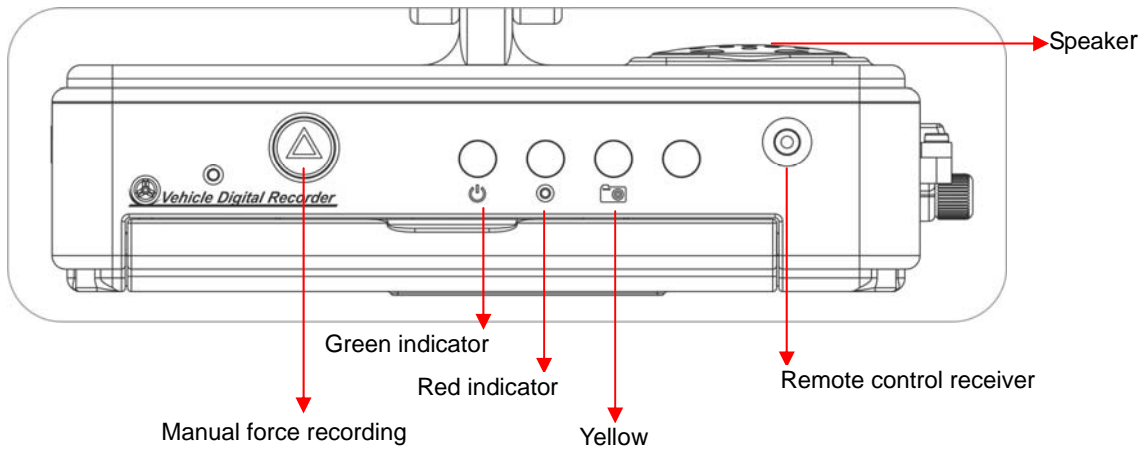
Monitor open



Monitor close

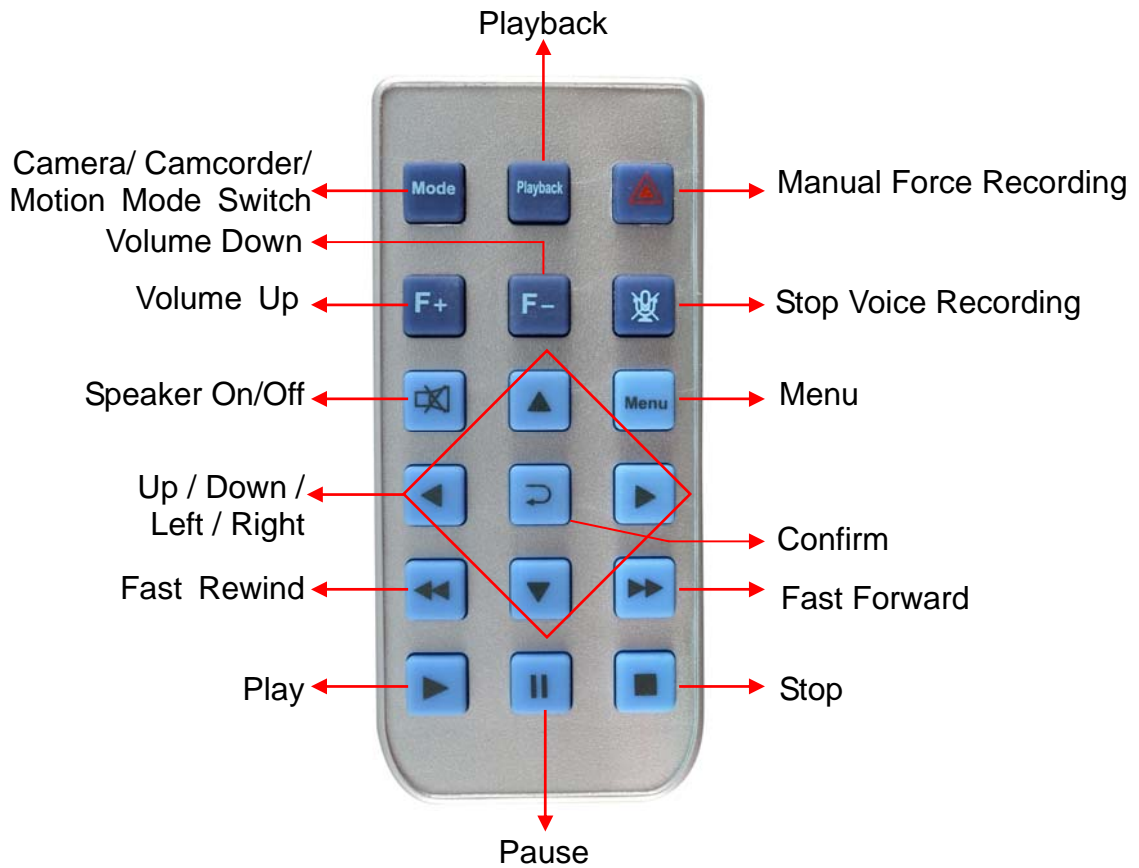


E. Recording And Stop Recording



F. Remote Controller Description

■ Key mapping table for remote controller:



G. Operation Setting

1. OSD List Menu

■ Setup Menu



1/2



2/2

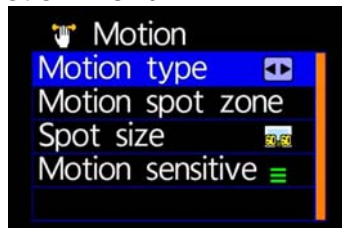
■ Camcorder Menu



■ Camera Menu



■ Motion Menu



■ Please use IR controller to select function

List Function	Key on IR Controller
List Moving	[LEFT OR RIGHT]
Bar Moving	[UP OR DOWN]
Confirmation	[CONFIRM]
Go to Previous Menu or Main Menu	[MENU]

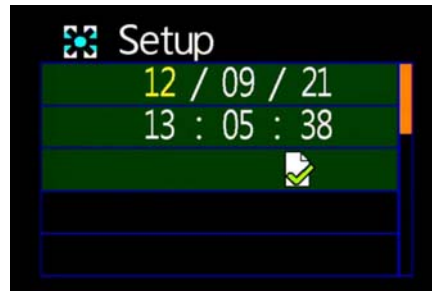
2. Setup Menu

◆ Language Setting

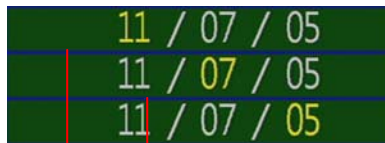


★ English / French / German / Italian / Japanese / Korean / Portuguese / Russian / Traditional Chinese / Spanish / Simplified Chinese / Turkish / Dutch...etc

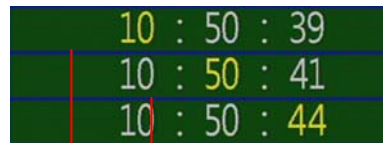
◆ Date/Time Setting



LIST FUNCTION	[UP/DOWN]
LIST MOVING	[R/L]+[CONFIRMATION]+[UP/DOWN]
CONFIRMATION	[CONFIRM]
Go to Previous Menu	[MENU]



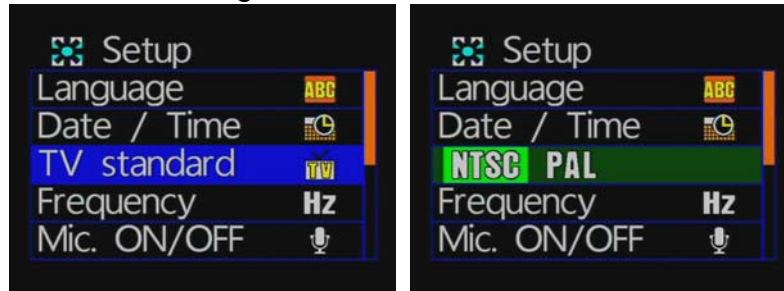
Y M D



H M S

★ Year: Last digits of year (11 means 2011).
Hour: 24 hour.

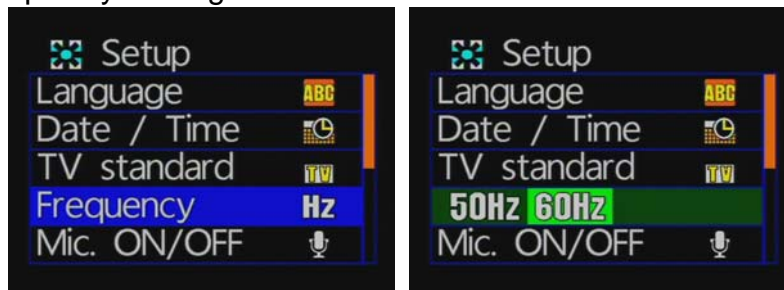
◆ TV Standard Setting



★NTSC/ PAL for selecting

★ 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.

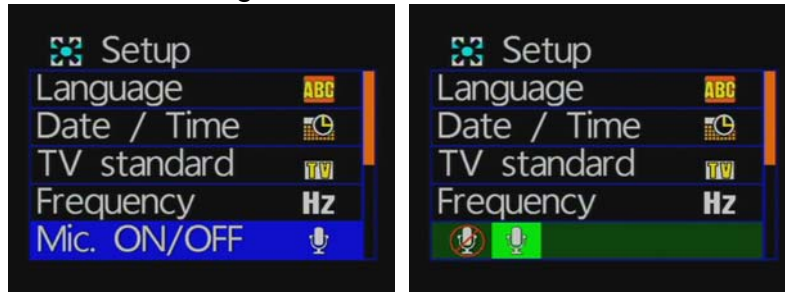
◆ Frequency Setting



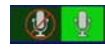
★km/h(kilometer) or mph(knot)

★ 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.

◆ Mic ON/OFF Setting



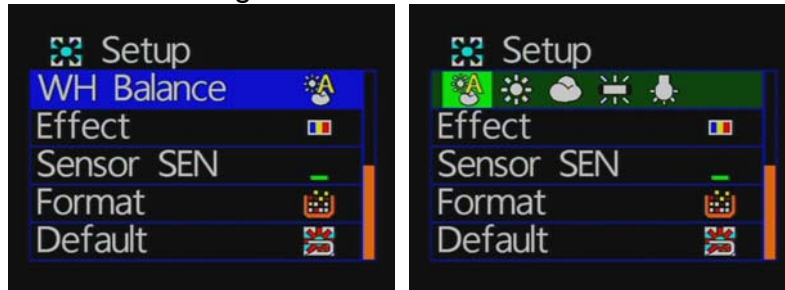
Microphone off



Microphone on

★ 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).

◆ WH Balance Setting











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

★ 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
	Automatic mode		The machine set automatically.





	Daylight mode		For fine weather.
	Cloudy mode		For cloudy, dark or twilight.
	Fluorescent mode		For warm white, cool white (3-wavelength) fluorescent lighting
	Incandescent mode		For incandescent lamps and bulb-type 3-wavelength fluorescent

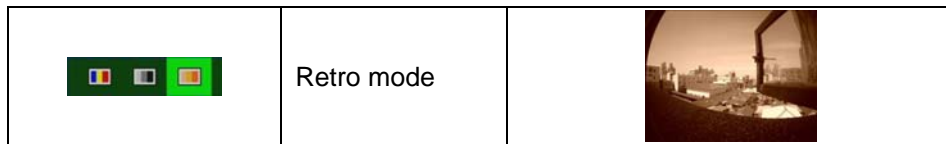
◆ Effect Setting



★Color / B & W / Retro color

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

Icon	Description	Picture
	Color mode	
	Black mode	



◆ Sensor SEN Setting



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

★When vehicle drives through darker areas, “sensitivity” decides whether “white balance” is going to be functioned or not. If “sensitivity “ is set more sensitive, as vehicle drives into darker areas, “ white balance” will automatically be on, and under the situation, it may cause the video image too bright.

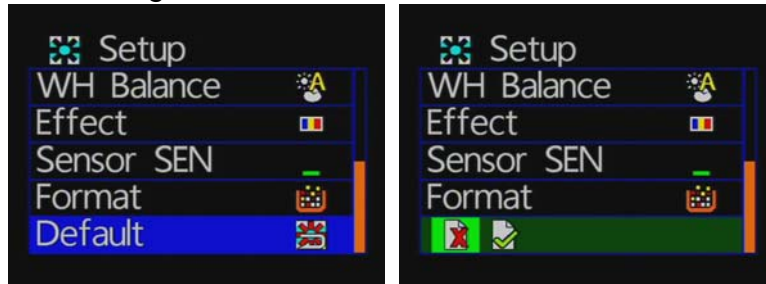
◆ Format Setting



★Cancel / Confirm Formatting

- ★When selecting “Cancel Formatting”, it goes to “Main Menu.”
- ★During formatting, existed data will be erased. Please backup the needed data before the process
- ★Brand-new SD cards must be formatted before using.

◆ Default Setting



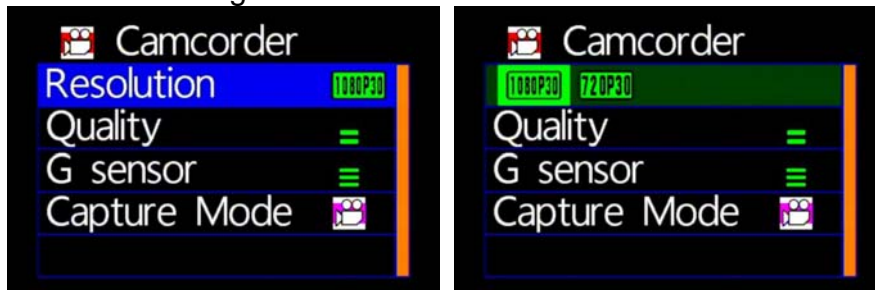
★Cancel Factory Default Setting / Confirm Factory Default Setting

★When selecting “Default”, it goes to “Main Menu”.

★When going to “Default”, it will automatically go to factory default setting.
For changing further setting, please go to main menu.

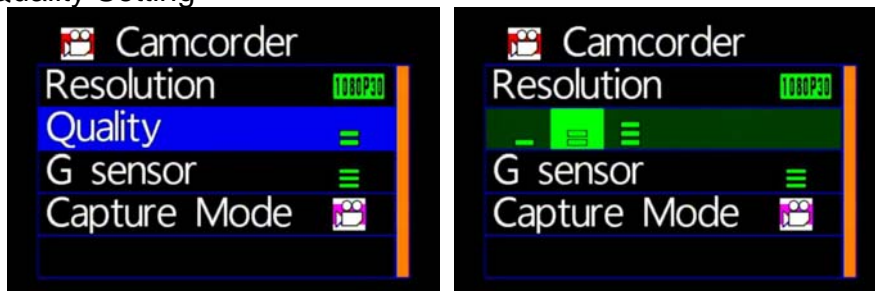
3. Camcorder Menu

◆ Resolution Setting



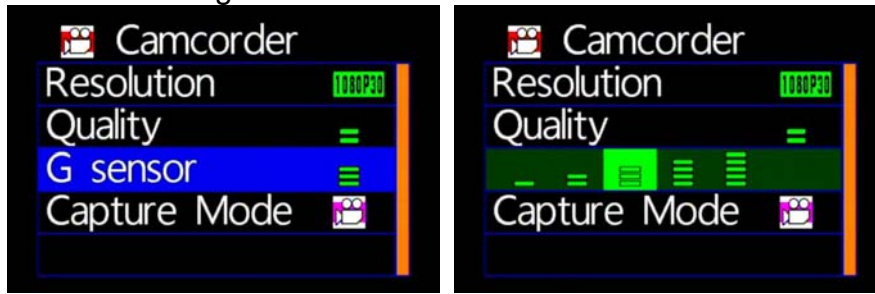
★2 resolution: 1080P(30) / 720P(30)

◆ Quality Setting



★Notice: More stripes appear; more video resolution does

◆ G-Sensor Setting



★NOTICE: More Stripes; More Sensitivity to trigger G-sensor easily for forced recording.

★Each time for triggering force recording, it will be automatically saving 3 more minutes before and after the accident.

◆ Capture Mode Setting



: Motion mode / : Normal mode

★During Motion mode, it will be switched to normal recording mode after restart

★To start the function of motion and LDWS recording, please turn on this.

4. Camera Menu

◆ Resolution Setting



★3 Resolution modes: 3M/ 5M/ 8M

◆ Capture Mode Setting



★NOR: Normal, G-S: G Sensor mode, three continuous snapshots

◆ Capture Frequency Setting



★Normal / 30sec / 1 minute / 5 minutes / 30minutes

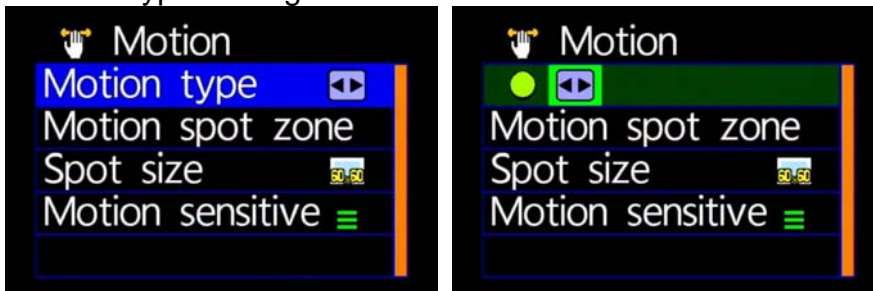
◆ G-sensor Setting




★ Notice: Higher sensitive of G-sensor, Easier to trigger forcing video recording. After force recording is triggered, 3 consecutive pictures will be taken automatically.

5. Motion Menu

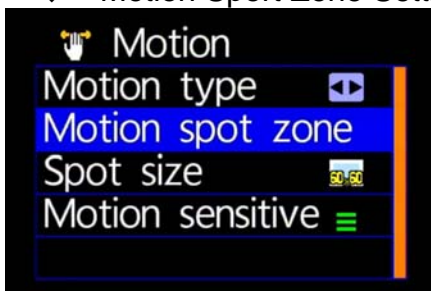
◆ Motion Type Setting



★  : Constant Motion Recording.

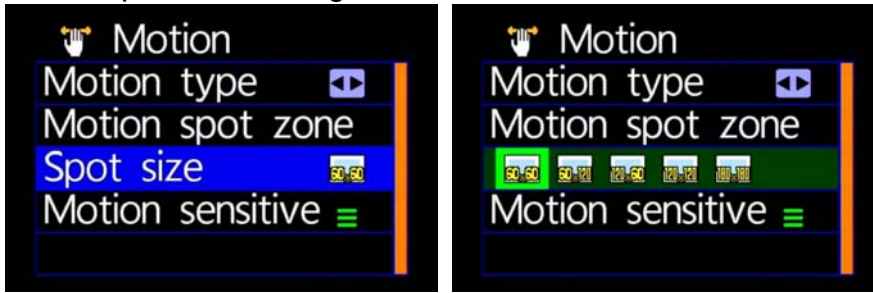
★  : Full Screen Motion Recording. (For this setting, it is not necessary to setup the motion detection areas)

◆ Motion Sport Zone Setting



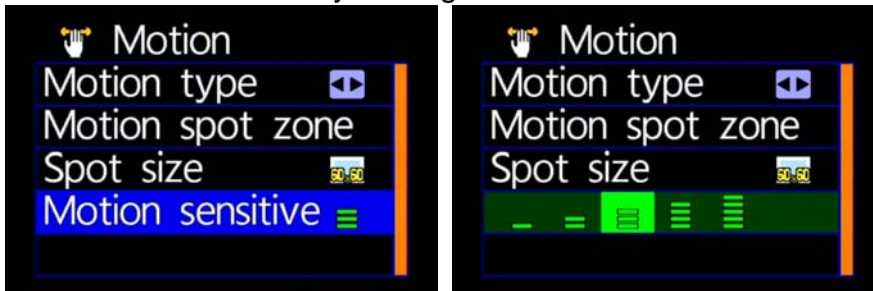
★ Use remote controller to sense the movement location
 ★ When setup for constant motion recording mode, please select the designated areas for motion detection.

◆ Spot Size Setting



★ Sizes: 60x60 / 60x120 / 120x60 / 120x120 / 180x180

◆ Motion Sensitivity Setting



★ More Stripes, More Sensitivity

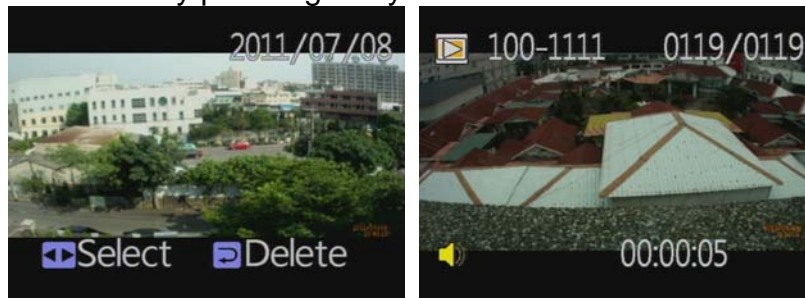
H. Playback

1. Direct playback on machine side

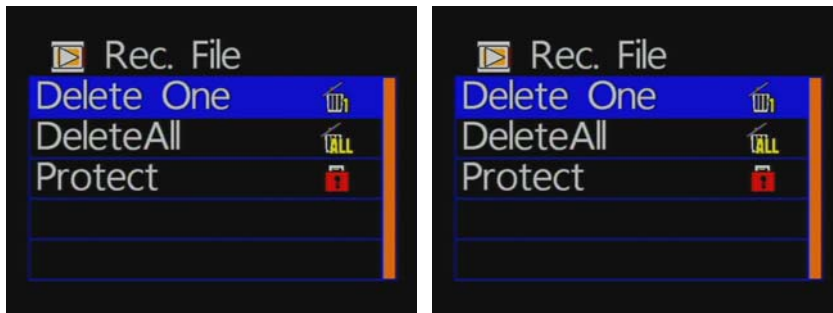
Build-in accelerometer, the system automatically determine the level of the screen visualization, and make the screen self-rotated to normal position.

2. Video modes

Press “Playback” on remote controller into Playback modes. Select the timing of the video by pressing “Play”

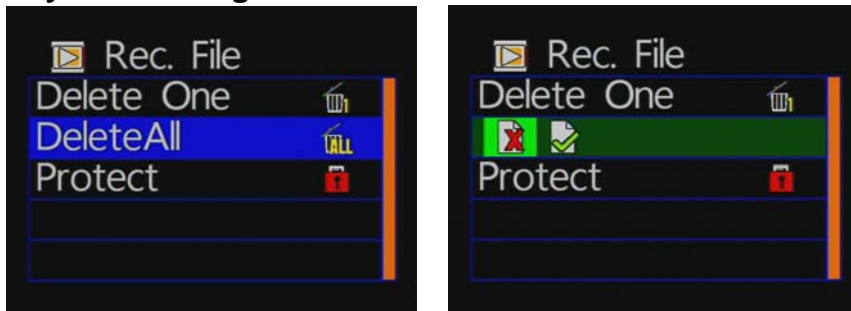


◆ Playback settings - Deleting a single file



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

◆ Playback settings- Delete All



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

◆ Playback file setting-protect








Notice: When an icon of lock is appear, this specific video data is protected.

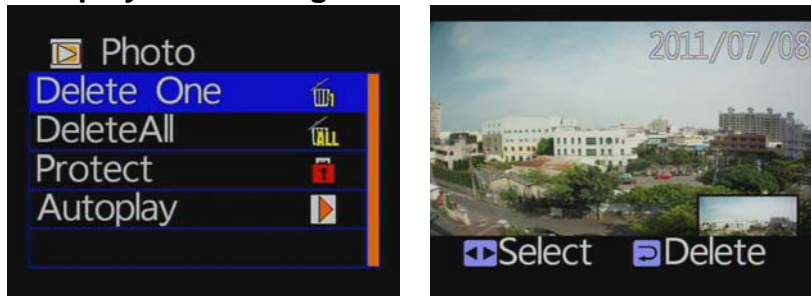
3. Snapshot playback

Press “ Playback” on remote controller under Snapshot mode. Select the timing of snapshot pictures.



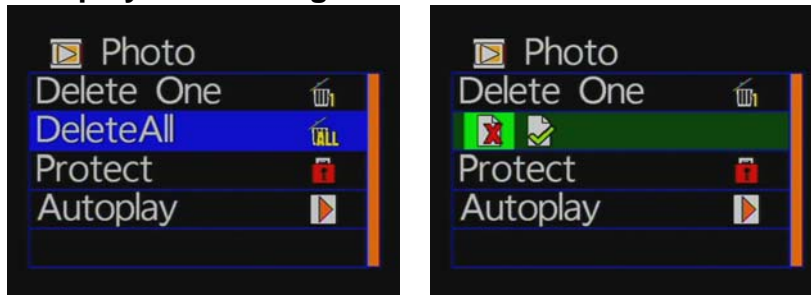
Rotation	 [Confirm] key
Next	  [R/L]key
Zoom	  [U/D]key

◆ Photo playback settings-Delete one



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

◆ Photo playback settings-Delete All



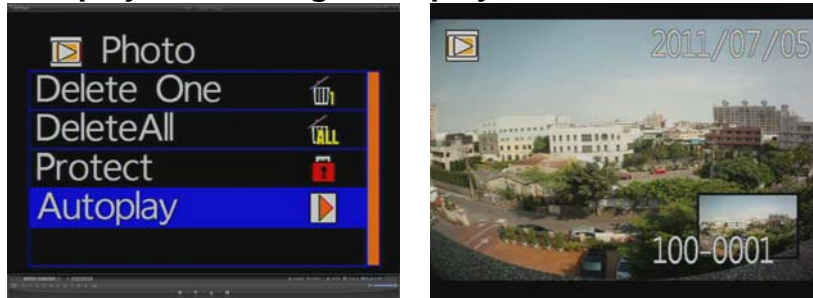
★ You must disable the protection function first in order to process the deleting procedures.

◆ Photo playback settings-protect






Notice: When an icon of lock is appear, this specific video data is protected.

◆ Photo playback settings-Autoplay



Each Snapshot will display in every 5 seconds. Press "Menu" for stop.

I. Software operating instruction
















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 "TransportStream.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"  for playback.

©Note: To perform this software, please install Direct X 9.0 or above.

Viewer interface description



2. Operating Interface Description:

1		Return to last file key
2		Forward playback
3		Playback key
4		Pause key
5		Stop key
6		Play key
7		Forward playback
8		Go to next file key
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		Configuration, Set machine-related settings

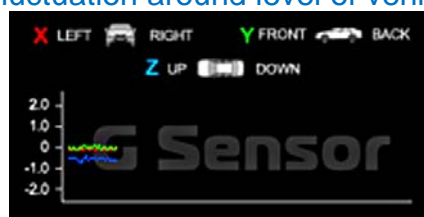
3. Player Interface Description:

- 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



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

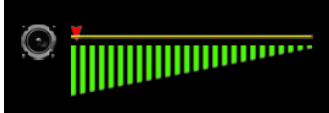



■ Playback speed


Fast forward with 2 times or 4 times, and playback with 0.25 times, 0.0625 times

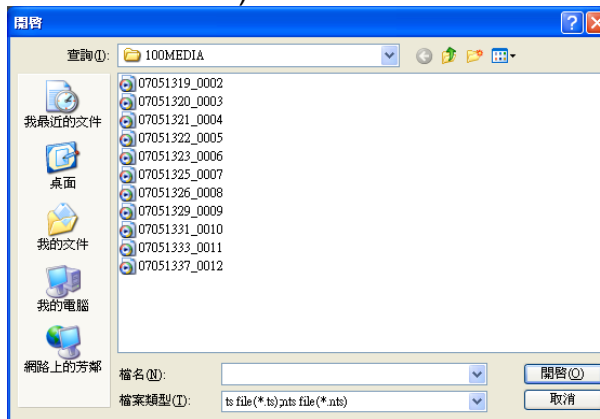


■ Volume control




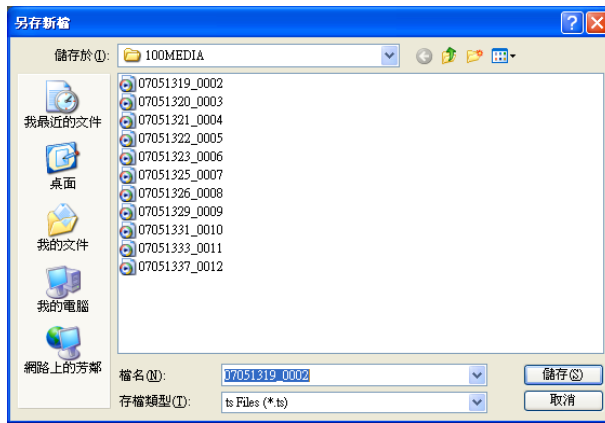
4.  Select the file to playback



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




5.  File backup

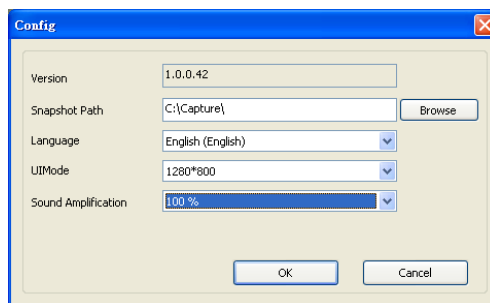
Select “file backup” , and then choose the file of memory card or hard disc to start backup procedures.



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.  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 and 1920x1080
- (d) Sound Amplification: max. 10 times

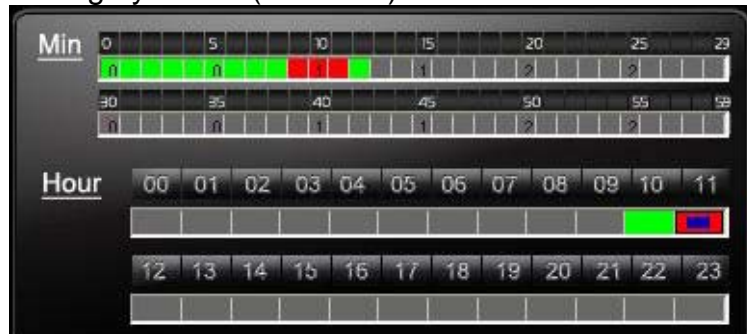
8. Playback date selection

- Playback selecting by date

◀		2012		▼		1		▶	
Sun	Mon	Tue	Wed	Thu	Fri	Sat			
25	26	27	28	29	30	31			
1	2	3	4	5	6	7			
8	9	10	11	12	13	14			
15	16	17	18	19	20	21			
22	23	24	25	26	27	28			
29	30	31	1	2	3	4			

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)

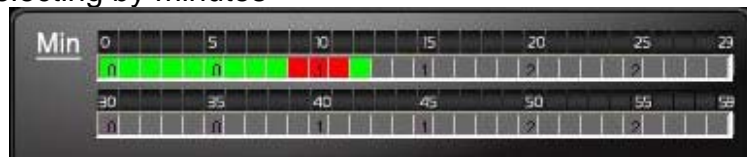


After select the "Date" with Gray-brown color, on Hour/Minutes table will display Red/Green color.

Green: normal record

Red: force record

■ Playback selecting by minutes



Click the minutes table to change the recording footage immediately.

J. Formatting memory card

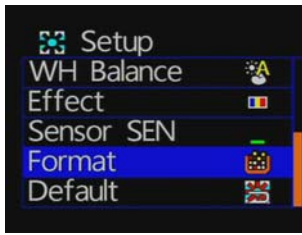
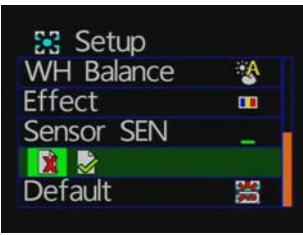

When should you need to format the SD card?

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

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.
2. Connect power cable to machine, use remote controller to enter index menu and select format operation.

Formatting Steps :

Step 1	Step 2	Step 3
		

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.

K. Record Time Estimation (based on constant record mode with 8GB card)

* The chart of estimated record time listed below is for reference only. The length of time recorded can be varied due to variation in image size may be somewhat different.

Video Format (NTSC / PAL)		
Resolution	1080P30	720P30
Video Quality		
High	110 Min	115 Min
Normal	115 Min	135 Min
Low	135 Min	155 Min

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

$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}$	
B	B	B	$\frac{1}{4}$
B	A	B	$\frac{1}{2}$
B	B	B	$\frac{1}{4}$

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.