1 Brief Introduction of Multi-Purposes HD DVR

This is a trendy and fashionable design Multi-Purposes HD DVR. It can be used as Car Black Box, Sport DVR and a 12 Mega Pixel digital camera that supports 1080p video recording. It uses latest H.264 compression technology and can be played directly on TV through HDMI connection. With a wide range of accessories, customers can record HD 1080p videos during driving, cycling, skiing, hiking or snorkeling. It comes with an optional and detachable GPS module to keep track of your route, speed and location. It is the smallest HD DVR with remote control available in the market.

1.1 PC System Requirements
The PC system needs to meet the following requirements:
- Windows Vista/XP/Win 7 operating system
- Intel Pentium 4 2.8GHz CPU or above (recommended 3GHz)
- At least 512 MB RAM or above (recommended 1GB)
- Standard USB2.0 port or above
- At least 64MB video card or above

1.2 Features and functions
- HD Car Black Box, auto continuous and seamless recording when starting the car
- 12 Mega Pixel digital camera
- Outdoor/Extreme sport DVR (cycling, skiing, hiking and snorkeling etc)
- HDMI HD Audio-Video output
- USB Hard disk
- 4x digital zoom (720p30 camera mode)
- Multi-scene white balance compensation
- Exposure compensation
- Built-in Microphone and speaker
- High capacity Lithium ion battery

1.3 Multi-Purposes HD DVR appearance and feature icons
Be familiar with the buttons and operations according to the following pictures.

Table of Descriptions of each button

<table>
<thead>
<tr>
<th>Name</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Press this button to power ON/OFF</td>
</tr>
<tr>
<td>Menu</td>
<td>Press down to display OSD main menu.</td>
</tr>
<tr>
<td>Mode</td>
<td>Press down to switch DV, camera and AV mode</td>
</tr>
<tr>
<td>Ok Key</td>
<td>Under the camera Playback mode, press down to check all the photos. Press again to play a slide automatically; press again back to manual operation. Under the DV Playback mode, press down to select video files to play.</td>
</tr>
<tr>
<td>Up</td>
<td>Under the menu catalogue, press down to move up the option. Under the Playback mode, press the button to stop recording. Press again to</td>
</tr>
</tbody>
</table>
2.5.1 Before using

There

2.4

Press

2.3

The battery

2.2

Pleasc use

2.1

There

1.4 About LED

The table below explains the DVR LED.

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power/Record</td>
<td>Blue</td>
<td>Power on</td>
</tr>
<tr>
<td></td>
<td>Red</td>
<td>Charging</td>
</tr>
<tr>
<td></td>
<td>Red Yellow</td>
<td>GPS</td>
</tr>
</tbody>
</table>

Getting Started

Read this chapter to know how to operate the Multi-Purposes HD DVR.

2.1 Inserting a TF card

Inserting a TF card into the DVR provides more space to store videos, images or other files.

Please use high-speed TF card meeting the specification of SDHC. (CLASS 4 or above)

2.2 Charging the battery

The battery can be charged separately by a standard 5V2A battery charger.

2.3 Turning on DVR

Press Power button to turn ON/ OFF. Or plug into the car charging port.

2.4 Switch Mode

There are 3 modes including Record, Camera and Tape. Press MODE button to switch.

2.5 Before the operation

Before using the DVR, it is necessary to do some basic settings such as Date and Time, Language and Beep Tone.

2.5.1 Setting Date and Time

1. Power on the DVR. Press Menu button first. Then press Left/ Right button to select Setting item. Press Up/Down button to select the highlighting Date/ Time. Press OK key to enter.

2. Press Up/Down button to highlight every word.

3. Press Left/ Right button to adjust value. Press OK key to save the setting.

4. Press Menu button to quit.

2.5.2 Setting Language

1. Power on the DVR. Press Menu button first. Then press Left/ Right button to select Setting item. Press Up/Down button to select the highlighting Language. Press OK key to enter.

2. Press Up/Down button to select the following language: English, Simplified Chinese, Traditional Chinese. After the selection, press OK key to confirm the setting.

2.5.3 Setting Beep Tone.

1. Power on the DVR. Press Menu button first. Then press Left/ Right button to select Setting item. Press the Up/Down button to select the highlighting Beep Tone. Press OK key to enter.

2. Press Up/Down button to choose OFF/ ON. Press OK key to confirm the setting.

2.6 Record/ Playback a video

2.6.1 Loop recording mode

1. Press Menu button, then press Up/Down to enter Recording Setting, then to select loop mode or different Time Zone for loop recording. Press OK key to enter.

2. In loop recording mode, recording will start when plug in to car charging system.

Attention: When in loop recording mode, the device will be power off automatically if it doesn't link the car charger.

2.6.2 GPS tracking

1. Plug in the GPS module to the DVR, satellite searching will be start automatically.

2. When GPS signal is located, will be showed on the display.

3. When taking picture in Camera mode, location will be recorded automatically.

2.6.3 Camera mode

1. Press Menu button first, then press Up/Down key to select Manual

2. Press Up/Down to select DV+AV or Recording mode (mute recording), press OK key to confirm

2.6.4 Recording a video file

1. Power on the DVR, the default mode is DV mode.

2. Select a view with the LED monitor.

3. Press OK to confirm recording.

4. Press OK again to stop recording.

5. The video file is automatically saved with the only file name.

Attention:

1. Maximum length of each recorded video file is 3.66G. When it reaches the maximum, the recording is automatically split and saved as another file.

2. With higher resolution, the file is bigger and recording time length is shorter.
### 3. Operating DVR

#### 3.1 Record and tape mode

This mode is for recording a video file or taping. The files are saved into TF card.

##### 3.1.1 Record and tape mode

**Record Mode:**

About the indication of each icon and symbol, see the table below.

<table>
<thead>
<tr>
<th>Video Mode</th>
<th>Battery</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED Light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recording</td>
<td>Digital Zoom</td>
<td></td>
</tr>
<tr>
<td>TF card</td>
<td>Scene</td>
<td></td>
</tr>
<tr>
<td>Metering mode</td>
<td>Color effects</td>
<td></td>
</tr>
<tr>
<td>White balance</td>
<td>Exposure shift</td>
<td></td>
</tr>
<tr>
<td>720P/30</td>
<td>Resolution: 2006.01.01</td>
<td></td>
</tr>
<tr>
<td>Date and Time</td>
<td>Loop recording</td>
<td></td>
</tr>
<tr>
<td>23:28:39</td>
<td>Recording time</td>
<td></td>
</tr>
<tr>
<td>GPS</td>
<td>Mute</td>
<td></td>
</tr>
</tbody>
</table>

**Tape mode:**

About the indication of each icon and symbol, see the table below.

<table>
<thead>
<tr>
<th>Tape</th>
<th>Tape mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td></td>
</tr>
<tr>
<td>2006.01.01</td>
<td>Date and Time</td>
</tr>
<tr>
<td>01:30AM</td>
<td></td>
</tr>
</tbody>
</table>

#### 3.1.2 Zooming

Use HDMI cable to connect to HD TV for 1080P video play back.

**Attention:** When connected to HDTV, camera, recording and taping are not available!
3.2 Camera Mode
Use Camera mode to take a still picture. The pictures are saved into TF card.
About the indication of each icon and symbol, see the table below:

<table>
<thead>
<tr>
<th>Camera mode</th>
<th>Battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED Light</td>
<td>Exposure</td>
</tr>
<tr>
<td>Date and Time</td>
<td>TF Card</td>
</tr>
<tr>
<td>Digital Zoom</td>
<td>Scene</td>
</tr>
<tr>
<td>White balance</td>
<td>Color effects</td>
</tr>
<tr>
<td>Remaining No. of pictures</td>
<td>3M</td>
</tr>
</tbody>
</table>

3.3 Playback mode
Using Playback mode to display all the video files saved in the DVR.

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Frame Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>Play/Pause</td>
</tr>
</tbody>
</table>

3.4 Picture playback mode
Using Picture playback mode to display all the images saved in the DVR.

3.4.1 Picture playback icon
About the indication of each icon and symbol, see the table below:

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Exposure</th>
</tr>
</thead>
</table>

Thumbnails
Under the camera or record mode, press Play back button to display the thumbnails of images.
1. Power on the DVR and make sure that it is in Camera or Record mode.
2. Press Play back button. There are 6 thumbnail images or video files on the LCD screen.
3. Press the four Move button to select the next highlighting image or video file. Press Ok key to display the image or playback video files or tape recording in full-screen mode.
4. Press Playback button to shift back Index mode.

3.5 USB mode
You can use USB mode to connect with the host PC.
When the DVR is connected with the host PC, it appears as a removable disk in the Windows explorer.
Remark: the device must be set “recording setting” to Manual to read the TF card as USB drive.

4 Menu Operations
Read this chapter to know how to configure the setup and fine-tune the functions.

4.1 Video menu
Under the record mode, press Menu button to display the video items menu.

4.1.1. White Balance
This item is for correction in different colors under different light conditions. When the white balance is set as Auto, the DVR compensates different light conditions automatically.
1. Power on the DVR and make sure that it is under Record mode.
2. Press Menu button, use four Move button to highlight White Balance item. Press Ok key to display sub-menu.
3. Use Up/Down button to choose among Auto, Tungsten, D4000, D5000, Daylight, Cloudy and Fluorescent. Press Ok key to confirm the setting.
4. Press Menu button again to quit.

4.1.2. Video resolution
Use Resolution item to set record resolution. The larger screen, the more storage space is occupied.
1. Power on the DVR and make sure that it is under Record mode.
2. Press Menu button, use four Move button to highlight Image Resolution item. Press Ok key to display sub-menu.
3. Use Up/Down button to select 1080P30 (1920 x 1080P), 1080P30-2(1440 x 1080P), 720P30(1280 x 720P). Press Ok key to confirm the setting.
4. Press Menu button again to quit.

4.1.3. Color Effect
This DVR can record several color effect including Standard Color, Brown, Film, Black/White and Bright.
1. Power on the DVR and make sure that it is under Record mode.
2. Press Menu button, use four Move button to highlight Color Effect item. Press Ok key to display sub-menu.
3. Press Up/Down button to select Off (Standard color), Brown, Film, Black/White and Bright. Press Ok key to confirm the setting.
4. Press Menu button again to quit.

4.2 Record/Camera playback menu
Use Playback menu to manage the files saved in TF card.

4.2.1 Deletion
Use this item to delete files.
1. Power on the DVR and make sure that it is under Record mode. Press Playback button, then press Menu button to display video files in Thumbnail Image Menu.
2. Press Menu button, use Left/Right Move button to select NG/YES/ALL items. If you delete one picture at one time, thumbnail screen will be displayed again. Use four Move button to find which picture to delete, and press Menu button to delete.

4.2.2 Protection
Use this function to lock the files in case they are accidentally deleted.
1. Power on the DVR and make sure that it is under Record mode. Press Playback button, then press Menu button to display video files Thumbnail Image Menu.
2. Use four Move button to find what files to protect. Press Ok key button to switch to Playback mode. Press Menu button again, use Up/Down Move button to select which one to protect. Press Ok key button to quit. The files with "P" are protected.

Attention: To unlock the files, repeat the steps above. After being unlocked, no files are with "P".
3. Press Menu button again to quit.

4.2.3 AutoPlay
This DVR can AutoPlay and automatically replay all the videos in order.
1. Power on the DVR and make sure that it is under Record mode. Press Playback button, then press Playback button to enter Thumbnail Image Menu. Press Ok key to select files and then press Menu button to display Playback Video menu.
2. Use Up/Down move button to select the item Play ALL. Then press Ok key. In the Playback mode, all the videos are displayed automatically.
3. Under the video file Thumbnail Image menu, press Ok key button to select the file needed, LCD screen will play it in full screen. Press Menu button to display Deletion menu, use Up/Down Move button to choose Delete One, Protect files or Delete All.
4. Press Ok key to stop Playback.

4.3 Camera mode
Under the Camera mode, press Menu button to display camera item menu.

4.3.1 White Balance
This item is for correction in different colors under different light conditions.

1. Power on the DVR and make sure that it is under Camera mode.
2. Press Menu button, use four Move button to highlight White Balance item. Press Ok key to display sub-menu.
3. Use Up/Down button to choose among Auto, Tungsten, D4000, D5000, Daylight, Cloudy and Fluorescent. Press Ok key to confirm the setting.
4. Press Menu button again to quit.

4.3.2 Image Resolution
Use Resolution item to set image resolution. The larger screen, the more details and the more storage space is occupied.
1. Power on the DVR and make sure that it is under Camera mode.
2. Press Menu button, use four Move button to highlight Image Resolution item. Press Ok key to display sub-menu.
3. Use Up/Down button to select 3M, 5M, 8M or 16M (some models). Press Ok key to confirm the setting.
4. Press Menu button again to quit.

4.3.3 Color Effect
This DVR can record several color effect including Standard Color, Brown, Film, Black/White and Bright.
1. Power on the DVR and make sure that it is under Camera mode.
2. Press Menu button, use four Move button to highlight Color Effect item. Press Ok key to display sub-menu.
3. Press Up/Down button to select Off (Standard color). Brown, Film, Black/White and Bright. Press Ok key to confirm the setting.
4. Press Menu button again to quit.

4.3.4 Self-Timer
Use Self-Timer function to take a picture of yourself.
1. Power on the DVR and make sure that it is under Camera mode.
2. Press Menu button, use four Move button to highlight Self-Timer item. Press Ok key to display sub-menu.
3. Press Up/Down button to select Self-Timer function. Press Ok key to confirm the setting.
4. Press Menu button again to quit.

4.4 System menu
System Menu is used to set other functions of the DVR.

4.4.1 Auto Off
This function allows the camera to automatically power off after some idle time to save energy.
1. Turn on the DVR. Press Menu button to enter system menu.
2. Use four Move button to highlight Auto Off item. Press Ok key to display sub-menu.
3. Use Up/Down Move button to select ON/ OFF, 1 min, 3 min, 5mins. Press Ok key to confirm the setting.

Attention when in loop recording mode, the device will be power off automatically if it doesn't link the car charger.

4.4.2 TV-Out Format
Use the TV option to set the TV-out format of your area.
1. Power on the DVR. Press Menu button to enter system menu.
2. Use four Move button to highlight TV-out Format option. Press Ok key to display sub-menu.
3. Use Up/Down Move button to select NTSC or PAL. Press Ok key to confirm the setting.
4.4.3 Format
Use this function to Format the storage medium. Note that all the data stored in the medium will be gone.
1. Power on the DVR. Press Menu button to enter system menu.
2. Use four Move button to highlight Format option. Press Ok key to enter selection mode.
3. Use Left/Right button to select No/Yes. Press Ok key to confirm.
4. The medium is formatted.

4.4.4 Restore factory defaults
This function will restore all the settings to the factory defaults.
1. Power on the DVR. Press Menu button to enter system menu.
2. Use four Move button to highlight Restore Factory Defaults. Press Ok key to enter selection mode.
3. Use Left/Right button to select No/Yes. Press Ok key to confirm.

4.4.5 Flicker Frequency
Use this function to set the flicker frequency in your area.
Set Flicker Frequency:
1. Power on the DVR. Press Menu button to enter system menu.
2. Use four Move button to highlight Flicker Frequency option. Press Ok key to display sub-menu.
3. Use Up/Down button to choose 60Hz or 50Hz. Press Ok key button to confirm.
Troubleshooting

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible reasons</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to turn on the DVR</td>
<td>Battery is improperly installed</td>
<td>• Install the battery properly</td>
</tr>
<tr>
<td></td>
<td>Low battery</td>
<td>• Charge the battery</td>
</tr>
<tr>
<td>The DVR is suddenly turned off</td>
<td>1. Auto Off Function is On.</td>
<td>• Turn on again DVR</td>
</tr>
<tr>
<td></td>
<td>2. Low battery</td>
<td>• Replace/charge the battery</td>
</tr>
<tr>
<td></td>
<td>3. When in loop recording mode, the device will be powered off automatically if it doesn’t link the car charger</td>
<td></td>
</tr>
<tr>
<td>Captured images are not saved into memory</td>
<td>Power is off before the images are saved.</td>
<td>When the battery indicator turns red, replace the battery instantly.</td>
</tr>
<tr>
<td>The DVR turns off when using the self-timer function</td>
<td>Low battery</td>
<td>• Replace/charge the battery</td>
</tr>
<tr>
<td>Poor image focusing</td>
<td>Scene beyond the focus range</td>
<td>• Please select the Normal or Macro mode within effective focus range (See Section 3.1.2 Macro Function)</td>
</tr>
<tr>
<td>Memory card can not be</td>
<td>Memory card is protected</td>
<td>• Unlock the memory card.</td>
</tr>
</tbody>
</table>

Appendix

Accessories

1. Car mounting bracket
2. Bicycle mounting bracket
3. User manual
4. USB 2.0 cable
5. GPS module (optional)
6. Water proof bracket (optional)
7. Mounting Clip (optional)
8. Car charger (optional)
9. CD driver
10. Remote control
11. HDMI cable (optional)
12. Battery charger (optional)

Specifications

Image Sensor: 1/2.5° CMOS 5.0Mega-pixel sensor
Effective pixels: 5.0 Mega-pixel
External memory: SD card, SDHC card (class 4 or the high-speed card above)
Sensitivity: Auto
Color effects: Standard, tan, film, black, white, bright
Lens: Fixed Focus
Zoom range: Normal: 30cm or infinite distance
Close-up: 30cm
Still images: Format: JPEG (EXIF2.2), DCF, DPOF
Image resolution: 3M, 5M, 8M (Software Interpolation), 16M (Software Interpolation)
Quality: Auto
Videos: Format: H.264 (MOV)
Resolution: 1920 × 1080 30fps, 1440 × 1080p 30fps, 1280 × 720 30fps
Quality: Auto

Memory card contains non-DCF images from other cameras.
• Format the memory card. Before formatting, make sure to backup files first.

All the buttons are invalid. Short-circuit when connecting the DVR with other equipments.
• Remove the battery first and then reinstall.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
</table>
| **Zoom**           | Video: 4X Digital Zooming (1440x1080P30 Record mode)  
                        Car digital video recorder: 4X Digital Zooming  
                        Playback still image: Digital Zoom 8X (Maximum) |
| **Tape**           | Yes                                    |
| **TFT Display**    | 1.5” TFT (480 x 240 pixels)            |
| **White Balance**  | Auto                                   |
|                    | Tungsten                               |
|                    | Daylight                               |
|                    | Cloudy                                 |
|                    | Fill light                              |
|                    | Fluorescent                            |
| **Exposure compensation** | -2.0EV~+2.0EV                       |
| **Self timer**     | Off, On, 3 seconds, 5 seconds, 10 seconds, 15 seconds, 20 seconds |
| **PC Interface**   | USB 2.0 (High-speed)                   |
| **AV Output Format** | NTSC/PAL                           |
| **Shutter**        | Electronic Shutter                     |
|                    | 1/16~1/10000 Seconds                  |
| **Auto Power Off** | On/ Off, 1 minute, 3 minutes, 5 minutes |
| **Battery**        | Lithium ion battery                    |