Overview

HD (high definition) video camera recorder with the most advanced technology; this device is a common HD video camera as well as a professional driving recorder. It can record the high resolution image with the pixel as high as 1920X1080P FULL HD and take the picture of 12 megapixels. Using SD card as the storage device, compact in size, low power consumption, HD camcorder can record more detailed perfect video image. Video also can be transferred by HDMI transmission wire directly to the high quality LED TV (HDMI) for high resolution displaying.
**Feature**

DV600D product features:

- 120 degree ultra wide angle lens.
- 1920x1080P FULL HD high quality resolution.
- Advanced H.264 video compression technology.
- 12 mega pixels.
- Video record / photograph angle. Being able to adjust 70~120 degree ultra wide angle.
- 4 X digital zoom, ranges from 12 cm to limitless distance.
- 2 inch high resolution LCD, the screen can be photographed with watching the recording side.
- Matching LED for supplementing light at night.
- Support HDMI high quality video transmission
- 4 resolution forms can be changed for video recording.
- 30 degree adjustable for the lens from upside to downside.
- 30/60 frames per second for smooth video flow.
- Equipped with special auto suction cup holder sucker supporting structure. Convenient in installation.
- Adopt auto cigarette lighter power supply, to make the video recording while driving.
- To start the auto automatic off; to start the video recording function.
- Automatic circulating video recording, being able to set the record time for each file.
- Watch video while make video recording in driving. Support on-spot play back.
- Improve time & date display, need no reset when re-start.
- Set the video recording time, stop recording when the setting time is up.
- Turn upside-down for 180 degree for video recording.
- Play back screenshots, when play back the video, it is possible to take the video screenshot.
- Turn off the screen when make the video recording, secret and power saving.
- To charge through USB.
- Bottom stand adapt the foot of the camera, convenient for photographing and video recording.
- Super mini appearance, compact and fashionable design.
- Human orientated operation interface.
Maximum 32GB or even bigger SD high capacity storage device.

High capacity BL-5C mobile lithium cell.

模式 Mode
菜单 Menu
开关键 Power key
拍摄键 Shooting key
五向键 Multi-function key (5-direction key)
可调远焦/近焦 Adjustable for far focus/close focus

电灯键 Electric lamp key
HDMI 插口 HDMI jack
USB    USB
AV 插口 AV jack
三脚架接口 Tripod receptacle
SD 卡槽 SD card slot
Structure
**Key**

**MODE shift key:** to shift video recording, photographing and play back mode.

**MENU key:** to enter the menu setting, press to enter the menu, press again to exit the menu, when play the video, press this key to stop playing.

**Power key:** to switch on and switch off the device.

**Up/Down key:** In video recording and photographing, used for digital zooming; used for choosing menu item in menu status; in play back status, press Down key to enter six-picture browsing status.

**Left key:** In the play back, used to browsing pictures, fast backward play; used to choose single menu item in menu status.

**Right key:** In video recording and photographing, to choose flashlight; In the play back, to view picture, fast forward play; in menu, to choose single menu item on it.

**OK key:** to confirm menu setting in menu mode; used for starting, holding play in play back.

**Photographing/video recording:** used for video recording and photographing; in the process of video play back, to make the screenshot of the video.
◆ **Load and unload the battery**

1. Push the battery cover on the bottom of the device body.
2. By matching the touch point of battery, load the battery pack into the battery case of video recorder.
3. You can check the remaining battery charge on the LCD screen
   - [ ] Sufficient power remaining
   - [ ] Battery moderately low
   - [ ] Battery low
   - [ ] Replace the battery with full charged one, or charge the battery.

◆ **电池充电**

Charge the battery

4. This device can be charged through connecting the USB terminal of computer as well as connecting charger.

◆ **Connect 12V/24V car charger as driving recorder**

When used as driving recorder, it is required to turn on the Circulating Video Recording and Automatic Video Recording Upon Start On, at the same time, connect the DV600D with the car charger, when the car turn on, DV600D will start video recording automatically; when the car turn off, stop the video recording, the file will be saved automatically.

➢ **Note:**

*Only the car charger with the output of 5V can be used for the power supply, or the device could be damaged by the charger of other voltages.*

◆ **Insert in and take out the memory card.**

1. Prior to using the SD card, confirm if the SD card is locked.
2. Confirm the inserting direction of SD card, wrong inserting direction could damage the camcorder and SD card;
3. Use the SDHC specification conforming high speed SD card, this SD card has the marking of C4 or C6.
4. In the event of the storage card format cannot be compatible with the device, the device could not read the card, and it is required to formalize the SD card.

◆ **Turn on / off and auto off of video recorder**

1. Press the power key for 1 second to turn on/off the device.
2. For saving the power capacity of battery, to set the automatic off time in the menu, the device will turn off automatically when not any operation on the video recorder.
Operation

◆ Video recording mode
1. Press Mode key to enter the video recording mode, the icon of video recording show on the upper left corner of the screen.

2. Press button †/ to start the video recording, and then press button †/ to stop the video recording. During the process, red icon ● will flash on the screen.

3. Select flashlight:
Choose the mode of flashlight in the status of video recording by pressing right key. The sequencing will be forced flash ✕, automatic flash ✕ and no flash ✕.

4. Digital zoom: focus the camera on the subject; press the key Up and Down to make the digital zoom.

5. Menu mode: press MENU key to enter the mode of menu, press key Up and Down to select the item in the menu, press key Right and Left to revise the content of menu, press OK for confirmation.

Revise the following content in the Menu mode:
Video recording quality: to choose the resolution of video recording: 1920x1080, 1440x1080, 1280x720, 848x480.
Sensibility: to offset present the brightness of the image, used for the circumstance with big difference, such as water surface, snow field and so on, this function can be used to revise the brightness.

White balance: the pictures will present colors difference in different light source; this function can be used to select the proper light source circumstance to improve the image quality.

Contrast ratio: to set the contrast ratio of the image.

Acuteness: set the sharpness of the image.

Color: to produce special color effect, inc. art, nostalgia, negative film, black & white, bright-colored etc.

Video recording time: to set the length of shooting time according to the users’ requirements.

Circulating video recording: to set or shut the circulating video recording, in the status of circulating video recording, when the capacity of SD card is full, the previous content shall be covered automatically.
Operation

**Automatic video recording upon start on:** when connecting car charger, the device will start the video recording automatically 5 seconds after start on.

**Video recording upon turn off:** when connecting car charger, after the car light off, the device will proceed the video recording for a short period of time before turn off.

**Video recording upside down:** this function can make the video recording in reversed 180 degree; even reverse the device body, the normal video and image still can be recorded by using this function.

**Moving monitoring:** to start on the video recording automatically when the moving object monitored in the front.

**Night mode:** in the dark condition, night mode can increase the ability of catching the light significantly; improve the effect of video recording at night.

**Voice recording:** to turn on or turn off the microphone.

**Delay to turn on:** When connecting car charger, select automotive ignition, the delayed time for turning on the device.

◆ **Photographing mode**

1. Press MODE enters the photographing mode, the icon 📸 display on the upper left corner of the screen.
2. Digital zoom: focus the camera on the subject, press Up and Down key for the digital zoom.
3. Photographing: Press 📸 button to start photographing.
4. Choose flashlight: In the photographing status, press right key to choose flashlight mode in a circulative way, the sequencing of the modes are forced flash},${auto flash},${no flash}.
5. Menu mode: press MENU key to enter menu mode, use Up and Down key to choose menu item, press Left and Right key to revise the menu content, press OK for confirmation.

**In menu mode, the following contents can be revised:**

**Pixel:** to choose three resolutions: 12M, 8M and 5M.
Operation

Sensitivity: to offset the present image brightness, used for the circumstance with big contrast, e.g. application of this function in water surface and snow field can correct the exposure value.

Quality: to set the quality of picture, totally 3 levels: best, standard, better.

White balance: Images will present different color appearance in different light source, this function can be used to select the proper light source circumstance, so as to improve the image quality.

Contrasting ratio: to set the contrast ratio of the picture.

Acuteness: to set the acuteness of the picture.

Color: to produce special color effect, inc. art, nostalgia, negative film, black & white, brightness etc.

Self-timer: to set 5 seconds, 10 seconds self timer.

Continuous shooting: set the continuous shooting; produce 3 or 5 photos continuously.

Voice in shooting: if the voice could produced in shooting.

Note:
Hold the video recorder set tightly in video recording, reduce the hand shaking.

◆ Play back mode
1. Press mode shift key MODE, enter the play back mode. Present picture or video recorded will display on the screen, press the Right and Left key for browsing, press Down key to enter the six-picture index mode.
2. Six-picture index browsing: use the Up, Down, Left and Right key to browse the picture or video quickly, press OK key to enter the play back mode of single piece.
3. Video play: in the display of single piece, in the event of the icon 🎥 appear on the center of picture, it means the present file is video. Press OK key for playing or holding, press Left and Right key to chose Back or Fast Forward, press MENU to exit Play.
4. Screen shot: during the process of video play back, press OK key for holding, press photographing key 📸 to save the present picture, press OK key to proceed playing.
5. Deleting: in the play back mode, press MENU key to enter the menu mode, press Up and Down key to choose Delete menu, press OK key to confirm the deletion.
6. Play back of slide show: in the status of play back, press MENU key in the menu to enter the menu mode, press Up and Down key to select the menu of play back of slide show, press Right and Left to select the time interval, press OK key to confirm entering the status of play back of slide show, play all the files automatically. During the process of play back of slide show, press MENU to exit the play back of slide show.

◆ Systems setting
Press MENU key to enter the menu mode, press Up and Down key to select the single piece on the menu, press Right and Left key to revise the content of menu, press OK key for confirmation.
**System setting menu including:**

**Volume:** to adjust the volume.

**Language:** to set language.

**Date:** to set year, month and date, press Up and Down key to plus or minus, press OK key for confirmation and enter the next item to be set.

**Time:** to set hour and minutes, press Up and Down key for the plus and minus operation, press OK key for confirmation and enter the next item to be set.

**Formatting:** to format the memory or SD card.

**Re-set system:** to set the system parameter as the default value.

**Auto off:** to set the function of automatic off.

**Light source frequency:** to choose the frequency of electric wire, in the event of selecting the wrong frequency, the horizontal lines interruption will show on the image.

**Version:** to check the version number of video recorder.

- **Connect the operation of TV.**
  
  There are two TV output modes: AV and HDMI.

  1. AV output: to insert one side of AV output wire into the AV terminal of video recorder, while connecting the other side to the terminal of video input of TV and audio input in the TV. It is required to note that the plug of video is yellow and that of audio is red/white.

  2. HDMI output: HDMI terminal can provide the video output as high as 1080 resolution; insert one side of HDMI output wire into the HDMI terminal of video recorder while connecting the other end to the HDMI terminal of TV.
Operation

- HDMI Operation illustration:
  HDMI 输出: HDMI output
  HDMI 连接线: HDMI connecting wire
  高清电视线: High definition TV cable
  HDMI 视频输入: HDMI video input
Operation

- **AV Operation illustration:**
  - **AV output:** AV output
  - **电视机:** TV
  - **AV连接线:** AV connecting wire
  - **红色:** Red
  - **白色:** White
  - **黄色:** Yellow
  - **AV音频输入:** AV audio input
  - **AV视频输入:** AV video input

- **Note:**
  
  *TV shall be correctly set when entering the corrective AV and HDMI status, please refer to the operation manual of TV.*
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Sensor</td>
<td>5M CMOS Sensor, 1/2.5&quot; light-sensing surface area</td>
</tr>
<tr>
<td>Lens</td>
<td>4 fixed focus Lens, aperture 3.0, focus 7.45mm</td>
</tr>
<tr>
<td>Zoom</td>
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<td>LCD displayer</td>
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<td>Video output</td>
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<td>High definition TV terminal interface: HDMI signal output.</td>
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<td>Picture</td>
<td>JPG file format Maximum output pixel: 12.0 mega pixels</td>
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<td>Video recording</td>
<td>H.264 compressed format</td>
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<tr>
<td></td>
<td>1920 x 1080, 30 frame/sec</td>
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<tr>
<td></td>
<td>1440 x 1080, 30 frame/sec</td>
</tr>
<tr>
<td></td>
<td>1280 x 720, 30 frame/sec</td>
</tr>
<tr>
<td></td>
<td>848x480, 60 frame/sec</td>
</tr>
<tr>
<td>Audio</td>
<td>Build-in microphone/speaker (AAC)</td>
</tr>
<tr>
<td>Memorizer</td>
<td>Memory: 32M</td>
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<tr>
<td></td>
<td>External media: SDHC (support 32G max, SDHC)</td>
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<tr>
<td>Shutter</td>
<td>Electronic shutter</td>
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<tr>
<td>White balance</td>
<td>Auto/sunshine/cloudy/tungsten lamp/fluorescent lamp</td>
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<tr>
<td>Flashlight</td>
<td>Automatic electronic video supplement lamp (LED)</td>
</tr>
<tr>
<td>Battery</td>
<td>1000mAh 3.7V rechargeable lithium battery</td>
</tr>
<tr>
<td>Working temperature/moisture</td>
<td>0°C—40°C / 10%–80%</td>
</tr>
</tbody>
</table>
Warning

Do not allow other substances into the case of the device. Such problem could cause fire, electric shock, product failure etc; in the event of the parts fall into water or liquid, disconnect the power, ask for the customer supporting center for the help ASAP.

Do not fall the device on the ground. This could cause damage and failure;

Keep the part away from moisture and area with more dust. Such environment could cause malfunction and failure;

Do not disassemble the part at will. Or warranty service will not be offered for such parts are disassembled by users.

Do not use the chemicals or detergent to rub the part. This will discolor the parts;

Do not remove the USB wire when transferring the data. This could affect severely on parts.
Simple Solution

- **In the event of problem happened on the parts in the normal operation, refer to the following methods for the solution.**

  - **Unable to conduct photographing and video recording**
    Check if there is enough storage space in the SD card, if the card is locked.
  
  - **The device will stop automatically in video recording.**
    As the data of high definition video take up large capacity, please use the high speed SD card which is compatible with the SDHC, the SD card have the marking of C4 or C6.
  
  - **The marking of file mistake appears in the play back of pictures and videos.**
    As the mistake happen in data saving, please use the formalizing of the device for re-formalizing SD card.
  
  - **No image appears on the screen of high definition TV.**
    Confirm if the plug of AV and HDMI cable plug is correct, if the TV is correctively set to the corrective AV and HDMI status.
  
  - **Misty effect**
    The lens is not clean.
    Please check if there is dirt or finger print on the lens. Prior to photographing, rub the lens with lens paper.
  
  - **The image is very dark when taking space and water surface.**
    This belongs to big contrasting circumstance, this will affect severely the auto exposure function of the device, and it is required to adjust the sensibility to revise the exposure value of the video recorder.
  
  - **The color is not perfect in cloudy and indoor light source.**
    Set the white-balance function according to the specific circumstance.
  
  - **The flashlight cannot start on**
    The flash light cannot start on when the battery capacity is short of power.
  
  - **Horizontal lines interruption in the image**
    This is caused by the light source is wrongly set, please set as 50Hz or 60Hz according to the local power supply frequency.