

# Saturn<sup>®</sup>

ST-VDR0009

FULL HD CAR CAMERA



Full HD Car Camera

Dear Buyer! We congratulate you on having bought the device under trademark «Saturn». We are sure that our devices will become essential and reliable assistance to you.

Avoid extreme temperature changes. Rapid temperature change (e.g. when the unit is moved from freezing temperature to a warm room) may cause condensation inside the unit and a malfunction when it is switched on. In this case leave the unit at room temperature for at least 1.5 hours before switching it on. If the unit has been in transit, leave it indoors for at least 1.5 hours before starting operation.

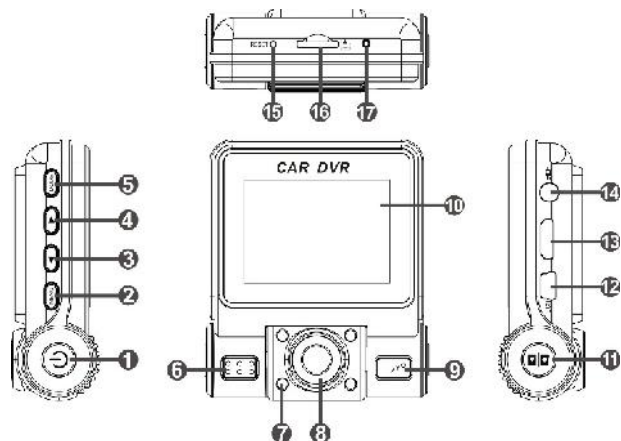
OUTLINE:

This is an advanced technology, high-definition digital video recorder. This device is not just an ordinary FULL HD video recorder but also a professional driving recorder with 1920\*1080P high resolution. The device uses compact TF memory card with and low power consumption, the Full HD camera can perfectly take more tiny details. The videos also can be directly transferred via the HDMI cable or AV cable and playback on HD output LED TV.

PRODUCT FEATURES:

- 1920×1080P high resolution
- Support H.264
- Support WDR
- 3 million pixels, 4pcs IR lights
- 2.0 inch high-definition screen can playback video
- Support HDMI output/ AV OUT output
- Support PC Camera/ USB disk function
- 4 recording resolution for options
- Motion detection
- 4 x zoom, a distance of 12 cm to infinity
- Equipped with a special suction cup bracket, easy to install and use
- G-sensor is to record the sensor data
- Super-protected file function, even in the process of recording, when a power outage or damage to the device, the video files will be automatically saved
- Recording seamlessly, will not lose any data
- Power supply from the cigarette lighter, making driving and recording synchronously
- When car start, recording start automatically
- Automatic loop recording, each video file time can be set
- Watch the video while driving, support the scene playback
- Save display time and date, no need reset when rebooting
- USB charge function
- Up to 32GB SDHC TF card
- Screen protection function
- Support automatic shutdown function, the device will be power off automatically after no recording for limited time.

PRODUCT PICTURE AND FUNCTIONS:



- 1: Power button (short press for power on, long press for off)
- 2: Menu button
- 3: Down button/Record Mode/Camera Mode, long press to adjust the exposure compensation value
- 4: Up button
- 5: Mode button
- 6: Speaker hole
- 7: Night light
- 8: Lens
- 9: MIC hole
- 10: 2.0 inch display screen
- 11: Record/Camera/OK button
- 12: USB interface
- 13: HDMI output
- 14: AV OUT
- 15: Reset hole
- 16: TF card slot
- 17: Working indicator light (blue for working, red for charging)

Power button:

Shortly press for power on; After power on, shortly press to turn on/off night light; long press for power off.

Up/Down button:

Under record/camera mode, it is used for focuses adjustment; Under function list, it is used for function selection; under video/camera mode, it is used for files selection. Under video playback state, shortly press for volume increase/reduce; long press for forward/fast reverse.

Menu button:

Under video recording, shortly press MENU button to start G-sensor.

Mode button:

Shortly press to switch mode; under record mode, long press the button to turn on/off video voice.

Indicator light:

Blue light will long brighten after the device is power on; Blue light will be flash when recording; Red light will long brighten when charging. Red light will be off after battery is full.

REC/OK button:

under record/camera mode, the button is used for starting recording/taking picture; Under function state, it is used for function confirmation; Under video preview state, it is used for play/pause.

TWO CHARGING MODES:

A) Using built-in rechargeable polymer battery

Charging way: 1) Connect with car charger, 2) Connect USB cable to a computer for charge.

Red indicator light will brighten during charging, and will be off after battery is full. The battery icon on the screen will become charging icon.

B) Car charger

After the vehicle is started, the device will automatically enter the recording mode, it can be charged while recording. After car power off, the device will shut down in 5 seconds and save the files automatically.

You also can manually turn off the camera, the recorded files will be saved automatically.

Note: The machine can be only compatible with car charger of output 5V !

FUNCTION DESCRIPTION:

Record/Camera/Playback function.

A) Record mode

Short press power button, then press OK button or connect to car charger to start recording. (Note: please plug into TF card before using), then the red dot will flash on the top left of the screen, the white time figure on the top right will change to red. The recorded files will be saved in TF card. After press OK button to stop recording, the red time figure will change to white.

B) Camera mode

Power on and press MODE button to enter camera mode. Press OK button to start taking picture.

C) Playback mode

Power on and press MODE button twice times and it will enter Playback mode.

Press Up/Down to select the files you want to preview, Press OK button for "play/pause". During playback, short press Up/Down button to volume increase/reduce, and long press Up/Down button to fast forward/fast backward. (Note: Under playback mode and enter into the fast forward/fast backward, it's a normal phenomenon if the video paused temporarily, as it will need a little buffering time for the video decoding.)

USB/PC Camera mode:

Connecting the device to a computer by USB cable, the device's display will pop up "memory" and "camera".

A) Press up/down button to select "Memory", then press OK button to enter into USB mode, open file of My Computer, it appears removable disk. All files of icons are stored in the folder named DCIM, you can copy files to the computer. (Note: some video playback software in the computer does not support thumbnail mode, so it appears the thumbnail of video corruption/green screen phenomenon, but it does not affect the video normal playback)

B) Press up/down button key to select the 'Camera', press OK button, and confirm to enter into PC CAMERA mode

Focus function:

Under the camera or record mode, press UP/DOWN key, then the screen will show the icon of FOCUS zoom, and press UP/DOWN to choose the Zoom multiple (1-4 ).

#### AVOUT/HDMI output test:

After power on, please connect DVR to LED TV by A/V cable or HDMI cable, then the device will automatically switch to playback mode; Meantime, the DVR's screen don't show anything, only TV shows menu operation. (Note: A/V and HDMI cannot be used at the same time).

#### G-SENSOR (collision sensor):

The device is automatically recording after car charger is plugged into. It measures the gravity sensor by dynamic acceleration due to gravity, and could sense the moving direction (Left - right - front - back) and the vibration of collision of the vehicle. If the occurrence of serious vehicle collision, "lock" icon displays on the upper left screen, the collision sensor would be triggered soon. White lock icon means DVR will start to record with a recycle time after the accident happened, and this video will not be removed or overwritten, then it returns to normal working state. In case of serious collision of the vehicle, the device automatically start the collision induced and incidents video will be an important files saved, can serve as an evidence or proof (This file will not be overwritten or deleted).

G-SENSOR works in a cycle time, after saved files of the cycle time period, the icon disappears, it restarts from next time period.

The G-sensor function also could be performed by MENU operation.

#### MENU FUNCTION SETTINGS:

Turned on, press the MENU button to enter the camera mode setting interface, press Down button to enter the option, Press Up/Down buttons to select the listed settings, press the OK button to enter the set function parameter interface, turn the button and press Up/Down to select their specific parameter, and finally press OK to exit.

1) Resolution: 1080Full HD  
(1920x1080) 720P (1280x720)  
WVGA (848x480) VGA (640x480)

2) Cycle recording: OFF, 2 minutes, 3 minutes, 5 minutes

3) WDR: Full-time opening

4) Exposure Value: +2.0 +5/3 +4/3  
+1.0 +2/3 +1/3 +0.0 -1/3 -  
2/3 -1.0 -4/3 -5/3 -2.0

5) Motion detection: OFF/ON

6) Recording audio: OFF/ON

7) Time Display.: Off/On (Time watermark of video recording)

8) G-Sensor: Off High Middle Low

Power on, press MODE button to enter the camera mode, press the MENU button to enter the camera settings interface, press Down button to enter the option, Press Up/Down buttons to select the listed settings, press OK button to enter the set function parameter interface, and then press Up/Down buttons to select specific parameters, press the OK button to exit.

1) Shooting mode: single shoot 2  
seconds pacemaker 5  
seconds pacemaker 10  
seconds pacemaker

2) Resolution: 12M (4032x3024)  
10M (3648x2736) 8M

(3264x2448)

5M (2592x1944) 3M

(2048x1536) 2M HD

(1920x1080)

VGA (640x480) 1.3M

(1280x960)

3) Continuous shooting: Off/On

4) Image quality: High, Medium,  
Economic

5) Sharpness: Strong/Standard/Soft

6) White Balance: Auto/ Daylight/  
Cloudy/ Tungsten/  
Fluorescent

7) Color: Normal/ Black and white/  
Brown

8) ISO: Auto 100 200 400

9) Exposure Value : +2.0 +5/3 +4/3  
+1.0 +2/3 +1/3 +0.0 -  
1/3 -2/3 -1.0 -4/3 -5/3 -  
2.0

10) Anti-shake: Off/ On

11) Time display: Off, Date, Date/Time  
(Time watermark of taking pictures)

Power on, press MODE button twice to enter the playback mode, press the MENU button to enter the Playback Settings interface, press Down button to enter the option, Press Up/Down buttons to select the listed settings, press OK button to enter the function parameter interface, and then press Up/Down button to select specific parameter, press OK button to exit.

1) Delete: Delete current, Delete All.

2) Protection: Locking current, Unlock current, All locking, Unlock all

3) Slide show: 2 seconds, 5 seconds,  
8 seconds

Under Recording Mode or Camera Mode, press the MENU button again, DVR will enter the setting interface, press Down button to enter the option, Press Up/Down button to select their specific parameter, and finally press the OK button to exit.

1) Date/Time: Press Up/Down button to select the date/time, press OK button to enter the setting interface, press the OK button to select the year/month/day/hour/minute/second, press Up/Down to adjust, finally press OK button to exit.

Up/Down button are used to adjust the time and date, press OK button to enter the next setting, when all setting is finished, press OK button to exit.

Note: before setting time, press Up/Down to select: [year/month/day], [date/month/year] and [month/day/year].

2) Automatic shutdown: off, 3 minutes,  
5 minutes, 10 minutes

3) Button sound: Off/On

4) Language: English/ Simplified  
Chinese/ Traditional Chinese/  
Japanese/ Russian/ French/ German/  
Italian/ Spanish/ Portuguese

5) TV system: NTSC PAL

6) Frequency: 50HZ 60HZ

7) Screen protection: off, 3 minute, 5  
minutes, 10minutes.

8) Infrared light: Off/On

9) Format: memory SD card

10) Default settings: Press the OK button to enter, press Up/Down buttons to select the cancel/confirm, press the OK button to exit.

11) Version: press OK button to enter,  
display the current version.

#### WARM TIPS:

1. Please, use only the 5V output to charge the device, otherwise you will cause damage.

2. Make sure TF card plug in right direction, if the direction is incorrect, it may damage the camera and TF card.

3. Please use standard SDHC high speed TF card with mark "C4 " or "C6" tag.

4. If TF card is not compatible with the device, the card cannot be read. Please format the TF Card by the DVR device.

5. To save the battery power , please set the time of turning off the screen and auto power-off in the menu, then the camera will be automatic power-off and in the mode of screen saver in the set time when no any operation .

6. When the Li-polymer is in low level, the screen will show the words and icon of "Low Battery". At this time, please charge the device. Otherwise the device will automatically save files and turn off in 2 seconds.

7. When you need to reset the device, press the RESET button, DVR will automatically reset.

4032\*3024  
 5. Video : H.264 compressed format  
 1920\*1080 1280\*720 848\*480  
 640\*480  
 6. Audio: Built in Microphone and speaker(AAC)  
 7. Memory card : 32M ROM ; Support SDHC TF Card up to 32GB;  
 8. HDMI: support  
 9. Motion Detection: Support  
 10. Filling light: 4 infrared night vision lights  
 11. Battery :600mAh 3.7V lithium battery

**SPECIFICATION:**

1. Zoom : 4 X digital Zoom;  
 2. 2.0 inch TFT screen ;  
 3. Video output: AV(CVBS) ;  
 Composite TV signal output: HDMI interface output.  
 4. Photo: JPG format, Maximum:

**SIMPLE TROUBLESHOOTING ANSWER**

In normal operating conditions, the products has problems, please refer to the following solutions:

* Cannot take pictures, photography	Please check TF card whether there is enough space, whether locked.
* When shooting video, it will automatically stop	Due to huge amount data of high-definition video, please use high-speed TF card which is compatible with SDHC, usually the high-speed TF card is with the mark of C4 or C6.
* When playback pictures and video, appear "file error" prompt, this caused by error saved information	Please use "format" function of the device to format the TF card.
* No image is displayed on a high-definition TV screen	Please confirm AV/HDMI cable plug is properly connected, TV is set to the correct AV/HDMI status.
* The images is hazy	The lens is not enough clean, please check if the lens is dirty, or with finger prints, please wipe lens clean by lens paper before taking pictures.
* Fill light cannot be enabled	In the case of lower battery, fill light cannot be enabled.
* The image is with horizontal stripes interference.	Due to set the wrong light frequency, please set as "50Hz" or "60Hz" according to the local power supply frequency.
* When screen saver, pressing POWER button cannot wake up the screen	Because POWER button is for night lamp On/Off shortcut button at this time, you cannot simultaneously achieve two functions, so pressing POWER button cannot wake up the screen. But pressing any other buttons can wake up the screen.

**ACCESSORIES**

- Car camera 1
- User manual with warranty coupon 1
- Bracket 1
- USB cable 1
- AV cable 1
- Car charger (including the adaptor, 12V/24V transfers to 5V/1200MA) 1
- Package 1

**ENVIRONMENT FRIENDLY DISPOSAL**

You can help protect the environment!



Please remember to respect the local regulations: hand in the non-working electrical equipment to an appropriate waste disposal center.

The manufacturer reserves the right to change the specification and design of the product.

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FULL HD  
1920 1080.

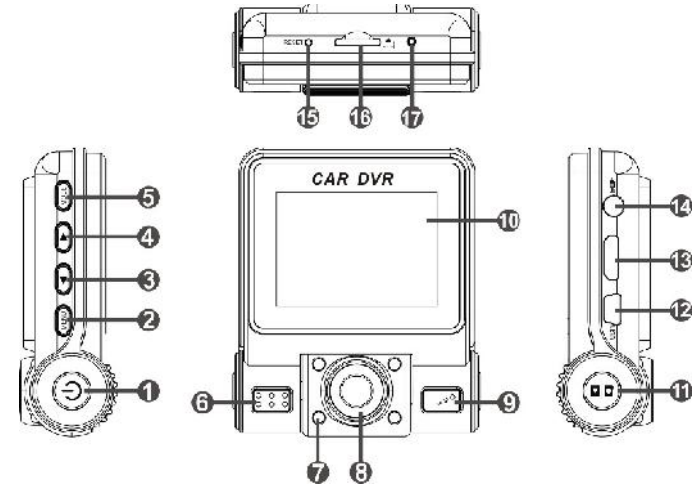
TF

Full HD

HDMI AV  
HD LED-

- 1920×1080P
- H.264
- WDR

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 10M (3648 2736) 8M  
 (3264 2448)  
 5M (2592 1944) 3M  
 (2048 1536) 2M HD  
 (1920 1080)  
 VGA (640 480) 1.3M  
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 "C6" TF  
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 19. HDMI:  
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 21. : 4  
 22. : 600mAh 3.7

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 13. 2- TFT  
 14. : AV(CVBS)  
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 15. : JPG,  
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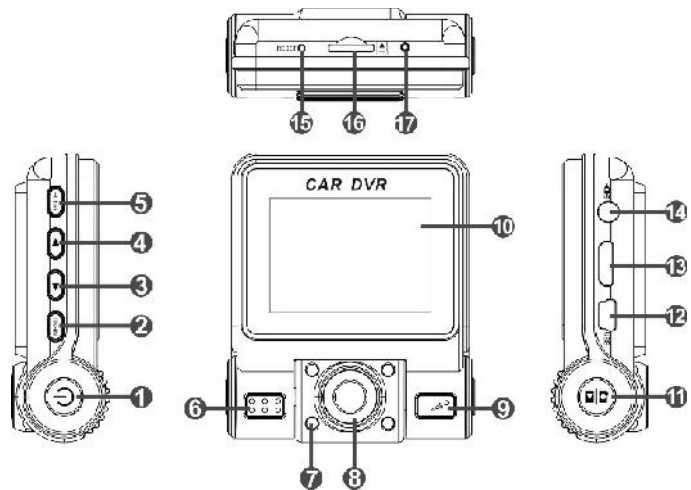


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 FULL HD  
 1920 1080.  
 TF Full HD  
 HDMI LED- AV  
 HD  
 • 1080 1920 ×  
 • H.264  
 • WDR

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1) : 1080Full HD (1920 1080) 720P (1280 720) WVGA (848 480) VGA (640 480)

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8) ISO: 100 200 400

9) : +2.0 +5/3 +4/3 +1.0 +2/3 +1/3 +0.0 -1/3 -2/3 -1.0 -4/3 -5/3 -2.0

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1. : 4-

2. 2- TFT ;

3. : AV (CVBS); : HDMI

4. : JPG, : 4032 3024

5. : H.264 1920 1080 1280 720 848 480 640 480

6. : (AAC)

7. : 32M ROM; SDHC TF 32 ;

8. HDMI:

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10. : 4

11. : 600mAh 3.7

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