

HD Car DVR

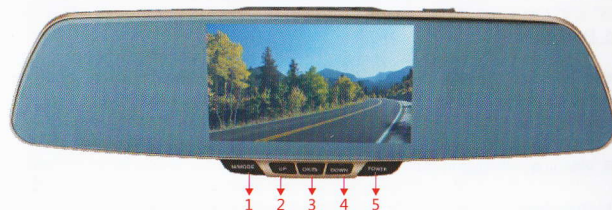
ZeroEdge® Dual-lens Rear-View Mirror Car Camera/Camcorder, Z2

Please read this manual carefully before using this product. We hope you enjoy this product.

Product highlights

- Large and decent rear view mirror design, providing a good replacement for your original rear view mirror with the enhancement of a 5" screen in the middle for display.
- Front view video recording with the choices of 720p and 1080p, and view angle of 120°. Crystal clear full high definition video quality. Great video quality even for driving in the evening. One-button picture taking at the resolution of 8M pixels.
- Water-proof rear view license plate lens, providing simultaneous rear view video recording and display at 480p. When connected to the reverse lights, automatic backup monitoring will be triggered to show on the display screen at the same time of backing up the vehicle.
- Convenient recording and monitoring: Automatic ignition/motion/crash detection and recording with G-sensor, monitoring while parking, automatic display off for energy saving, automatic device off after engine off, one-button emergency video recording and saving, one-button audio recording on/off.
- User friendly and simple operation with multiple languages and several buttons. The 16GB TF card in the package provides approximately about 3 hours of 1080P front view video recording (or even longer for videos with resolutions lower than 1080P) and 480P rear view video recording storage. Seamless video recording in loop to ensure the efficient use of storage.

Product layout and components



Components on the rear-view mirror

- | | | | |
|--------------------------------------------------------------------------|--------------------|----------------|------------|
| 1. Menu/Mode | 2. UP | 3. OK/Record | 4. Down |
| 5. Power | 6. Front-view Lens | 7. Reset | |
| 8. GPS port for connection of external GPS (not included in the package) | | | |
| 9. TF card slot 10. AV-IN port (Rear-view camera connection) | | | |
| 11. USB port | 12. Speaker | 13. Microphone | 14. Straps |

Components on the rear-view camera

15. Rear-view/Backup lens 16. AV-IN plug
17. Wires (black & red) to connect backup camera to car reverse lights

Installation guide

1. Insert the TF card into the TF card slot (component 9) on the rear-view mirror. Please note: If you want to use a different TF card from the one provided in the package, please use TF cards of at least 4GB, Class 6 or above. The maximal supported capacity of a TF card is 32GB.
2. Untie the two straps (component 14), put the rear-view mirror on top of the original rear-view mirror in your car, and then fasten rear-view mirror by tightening the two straps (component 14).
3. Plug the USB car charger into the cigarette lighter. And connect the rear-view mirror and the USB car charger using the USB port (component 11) with one USB cable. Now your front-view camera is ready to use.
4. Optional step: It is recommended to talk with or ask for help from an experienced mechanic for accomplishing this step. Install the rear-view/backup lens (component 15) at the top of the license plate of your car (see the illustration figure). Depending on your car make and model, you may need to drill pilot holes for screws to fasten the rear-view/backup lens. Insert the AV-IN plug (component 16) into the AV-IN port (component 10) on the rear-view mirror.

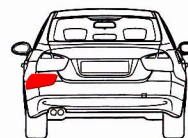
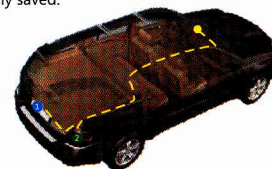
5. Optional step: It is HIGHLY recommended to talk with or ask help from an experienced mechanic for accomplishing this step. Connect the black and red wires (component 17) to the corresponding wires of the reverse lights of your car. (see the illustration figure). Depending on your car make and model, you may need to open certain coverage to find the reverse light wires to make connection. Please refer to the manual of your car for necessary information.

6. Optional step: For a more organized environment, the USB cable in step 3, the AV-IN wire in step 4, and the black and red wires in step 5 can be arranged along the edge of the car roof.

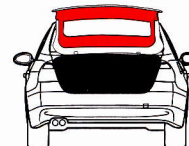
7. Start the engine of your car. This product will be turned on automatically and start to record. If step 4 is accomplished, both the front view and the rear view videos will be recorded. If both step 4 and step 5 are accomplished, when the car is driven in reverse, the rear view video will automatically display distance scale lines to help the driver. When the engine of your car is turned off, the product will be turned off automatically shortly after the recorded video is automatically saved.

Illustration figures

- 1 Step 4: Install the rear-view/backup lens.
- 2 Step 5: Connect the black and red wires to the reverse lights.



Reverse light circuit location 1
(certain car models)



Reverse light circuit location 2
(certain car models)

*These three illustration figures are based on certain car models, and may not best reflect your car's condition for installation. These figures are for reference only. Please consider talking with or asking help from an experienced mechanic to learn your car's condition.

The red wire is connected to the positive wire of the reverse light.

The black wire is connected to the negative wire of the reverse light.



Commonly used functions/operations

1. The Up button (component 2)

The Up button (component 2) has the following functionalities in different modes or scenarios.

- **Upper/previous item:** To browse the Menu or video/photo lists, press the Up button to navigate to the upper/previous item or video/photo.
- **Switch cameras:** If the rear view camera is correctly connected, the Up button can be used to switch cameras. In the Recording mode, press the Up button to make the LCD screen toggle among the display of front-view camera only, rear-view camera only, picture-in-picture for both front-view and rear-view cameras. In the Photo mode, press the Up button to switch between the front-view camera and the rear-view camera to take photos.
- **Fast backward:** In the Playback mode, press the Up button to fast backward the video being played.
- **Enable/disable motion detection:** In the Standby mode (not doing recording or photo taking), press and hold the Up button to enable/disable the motion detection feature.

2. The Down button (component 4)

The Down button (component 4) has the following functionalities in different modes or scenarios.

- **Lower/next item:** To browse the Menu or video/photo lists, press the Down button to navigate to the lower/next item or video/photo.
- **Enable/disable audio recording:** During video recording, press the Down button to enable/disable the audio recording.
- **Fast forward:** In the Playback mode, press the Down button to fast forward the video being played.
- **Enable/disable parking monitoring:** In the Standby mode (not doing recording or photo taking), press and hold the Down button to enable/disable the parking monitoring feature.

3. The OK button (component 3)

The OK button (component 3) has the following functionalities in different modes or scenarios.

- **Confirm item:** When browsing the Menu, press the OK button to confirm the current highlighted/selected item.
- **Enable/disable video recording:** In the Recording mode, press the OK button to

start and stop the video recording.

- **Photo taking:** In the Photo mode, press the OK button to take a photo.
- **Video playing:** In the Playback mode, press the OK button to start and stop the video playing.

4. The Menu/Mode button (component 1)

The Menu/Mode button (component 1) has the following functionalities in different modes or scenarios.

- **System menu:** In the Standby mode (not doing recording or photo taking), press and hold the Menu/Mode button to activate the system menu. Use the Up and Down buttons to navigate, and press the OK button to confirm item selection. Press the Menu/Mode button to exit the system menu.
- **Toggle different modes:** In the Standby mode (not doing recording or photo taking), press the Menu/Mode button to toggle among different modes: the Recording mode, the Photo Taking mode, and the video/photo Playback mode.
- **Emergency video locking:** During video recording, press the Menu/Mode button to lock the current video being recorded. A lock icon will show up on the screen, indicating that this current video file will not be erased by the feature of the automatic seamless video recording in loop.

5. The Power button (component 5)

The Power button (component 5) has the following functionalities in different modes or scenarios.

- **Power on/off:** When the product is off, press and hold the Power button for 3 seconds to turn on the product. When the product is on, press and hold the Power button for 3 seconds to turn off the product.
- **LCD screen on/off:** In the Standby, Recording, Photo, or Playback mode, press the Power button to turn off the LCD screen display. Press the Power button again to turn on the LCD screen display.

More functions/features

1. Power on and off

During driving: When connected with the USB car charger, the product can be automatically turned on and start to record when the engine is turned on, and will be turned off automatically when the engine is turned off.

Manual mode: You can press and hold the Power button manually to turn on or turn off the product.

2. System menu

In the Standby mode, press and hold the Menu/Mode button to access the system menu. The system menu has the following submenus.

- **Video quality:** Set the recorded video size to 1920x1080 (1080P FHD) or 1280x720 (720P HD).
- **Photo quality:** Set the photo size in the resolution of 1M, 3M, 5M or 8M.
- **Video time length:** Set the video clip file length 2, 3 or 5 minutes for each file.
- **Move detect:** Enable/disable motion detection.
- **White balance:** Set the scenario to apply white balance with the choices of Auto, Daylight, Cloudy and Incandescent.
- **Contrast:** Set the preset Contrast settings with the level from 0 to 5.
- **Exposure:** Set the preset Exposure settings with the level from -3 to 3.
- **Power on record:** Set whether to start recording when the product is turned on.
- **Screen timeout:** Set whether the LCD screen will be turned off automatically after 10, 20 or 30 seconds, or set the LCD screen to be always on.
- **Record voice:** Enable/disable audio recording.
- **Park monitor:** Enable parking monitoring.
- **G-sensor:** Set the sensitivity of the G-sensor to low, mid or high, or turn off G-sensor.
- **Date:** Set the date and time.
- **Language:** Set the language of the user interface.
- **Time watermark:** Enable/disable the time watermark on the videos or photos.
- **Format:** Format the TF card.
- **Factory reset:** Reset the product to the default settings.
- **Firmware info:** Display the firmware version.

3. Recorded video files

The recorded videos are saved on the TF card as multiple video clip files, even when it is continuously recording for a long time. You can set the duration of a video clip to be 2, 3 or 5 minutes in the system menu, for each single file. You can select the files you want to copy or remove, instead of operating a single big file. This also allows the feature of automatic seamless video recording in loop to overwrite the earliest unlocked video clips in small files corresponding to short duration, so that you do not lose a long recorded video at once. The video files can be played on the product directly, or copied/stored and played on a computer later.

4. Connecting to a computer

When the product is connected to a computer using the USB cable, the LCD screen display provides two modes to choose: Open USB Storage Device and Charge Mode. When "Open USB Storage Device" is selected, the content on the TF card shows up

as a disk drive on the computer, similar to plugging in a USB flash drive. Then you can view, play, copy and delete the files on it. It works for both Windows (XP and later) and MAC (OS X and later) directly. When "Charge Mode" is selected, the product can be operated normally while being charged.

5. Folder names

The recorded video and photo files are classified and grouped into different folders. Video file of front view and rear view cameras are saved in the "DCIMA" and "DCIMB" folders, respectively. And the photo files are stored in the "PHOTO" folder.

6. Video recording features

Motion detection: The product automatically pauses video recording 5 seconds after the vehicle stops moving, and automatically resumes recording when the vehicle starts to move. In addition, when there is any movement of an object in front of the camera, the product will automatically start to record.

Video Recording in Loop: Automatic seamless video recording in loop to use the storage efficiently, with the earliest unlocked video clips being overwritten when the storage card's maximal capacity is reached.

Crash detection: Highly-sensitive G-sensor powered automatic video recording and video file locking when a collision or crash is detected. The sensitivity of the G-sensor can be set to low, mid and high levels.

One-button audio recording: The user can turn on/off the audio recording of the current video recording by pressing the Down button.

One-button emergency video recording and locking: In addition, there is a manual mode to record and protect the video files being recorded. During video recording, the user can press the Menu/Mode button (component 1) to lock the current video file. Press the button again will cancel the protection of the current video file. The files that had the lock protection have a "SOS" suffix in the filenames.

Screen display off: After about 10, 20 or 30 seconds, the display screen turns off automatically. The screen can be turned on again when pressing any buttons. This auto off feature can be set in the system setting menu.

7. Photo mode

When not recording, the user can enter the photo mode by pressing the Menu/Mode button (component 1). The user can take a photo by pressing the OK button (component 1).

8. Playback mode

When not recording, the user can enter the playback mode by pressing the Menu/Mode button. In this mode, the user can press the Up and Down buttons to switch files. If the current file is a video, it can be played on the screen by pressing the OK button. When playing a video, the Up and Down buttons can perform the fast backward and fast forward playing, and the OK button is to pause playing.

9. Parking monitoring mode

When the parking monitoring is enabled in the System menu, the product will automatically be turned on and record if any vibration or collision is detected during parking. About 20 seconds after the vibration stops, the product will be automatically turned off. When recording during parking, the internal rechargeable battery will be used to supply the power (the screen will be automatically turned off during recording to save battery during recording unless you force the screen to be on). With the motion and vibration detection features, the product can turn itself on to record when it detects motion or vibration, and turn itself off soon after no more motion or vibration is detected anymore. This smart turning-off feature could save the battery and make the actual valid and useful recording time spanning a long time.

10. Reverse driving video

The step 5 in the Installation guide has to be correctly accomplished before the reverse driving video can work properly. If the black and red wires are connected to the reverse lights appropriately, when the car is driven in reverse, the LCD screen will show the rear view with distance scale lines to help the driver. After the reverse driving, the LCD screen will recover to the status before the reverse driving.

Specifications

Front view video resolution	1080P (FHD 1920×1080) 720P (HD 1280×720)
View Angle	120 Degrees
Rear view video resolution	480P (SD 720×480)
Photo resolution	1M (1280×720) 3M (1920×1080) 5M (2560×1920) 8M (3264×2448)
Video codec/format	H.264/MP4
Photo format	JPEG
Languages	English, Spanish, Portuguese, Russian, Simplified Chinese, Traditional Chinese, etc
Microphone/Loudspeaker	Built-in
USB Interface	USB2.0
Memory card capacity	16GB TF card provided in the package Support up to 32GB TF cards
Standard voltage/current	DC5V / 1A
Computer requirement	PC: Windows XP and above MAC: OS X and above

Note: The design and specifications of this product could be amended at any time without prior notifications. There might be some differences between the product and the description in this manual. We sincerely appreciate your understanding.