Car black box

ZeroEdge® Windshield/Dashboard Car Camera/Video Recorder, Z1

Product highlights

·Easy installation with a lockable suction cup mount, providing the flexible choices of recording the vehicle driving history at the windshield or dashboard. Very portable size with a 2.4" HD display screen, easy to store or carry.

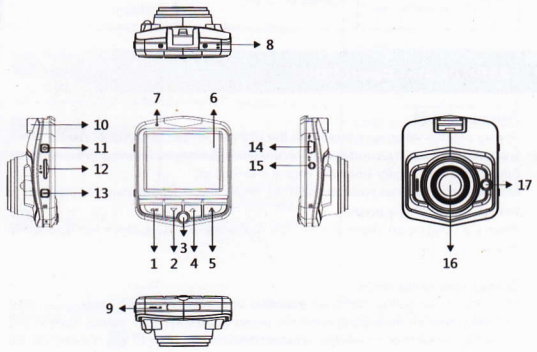
·Crystal clear full high definition video quality. Low light compensation, ensuring high video quality even for driving in the evening. Camera view angle of 135° with a rotatable arm, providing very wide view. Low light compensation ensures good video recording quality even in the evening.

·Different video/audio recording modes for different needs: Record video with the choices of 480p, 720p and 1080p at 30fps frame rate, time lapse recording. One-button audio recording on/off for privacy protection concerns. One-button picture taking. One-button emergency video recording and locking.

·Convenient recording/monitoring: Automatic ignition/motion/crash/vibration detection and recording with G-sensor, monitoring while parking, automatic display off for energy saving, automatic device off after engine off.

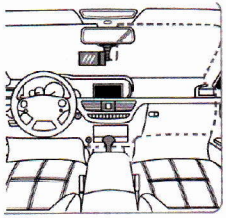
·User friendly and simple operation with multiple languages and several buttons. The 16GB TF card in the package provides adequate video recording storage for regular driving (or even longer for videos with low resolutions). Automatic seamless video recording in loop to use the storage efficiently, with the earliest unlocked video clips being overwritten when reaching the storage card's maximal capacity. Customizable video clip length of 1, 3, 5 and 10 minutes.

Product layout and components



1. OK	2. Down	3. Park (P)
4. Up	5. SOS Emergency/Mode	6. Display Screen
7. Indication Light	8. Reset	9. Microphone
10. Supporting interface	11. Power	12. TF Card Slot
13. Menu	14. Micro USB port	15. 2.5-mm AV port
16. Lens	17. LED	

Installation instruction



1.Choose a place on the windshield to attach the camera. A recommended place would be right under the rear-view mirror, which is easy to reach and does not block the driver's view.

2.Insert the TF card into the TF card slot on the camera. Slide the suction cup into the supporting interface of the camera (component 10).

3.Press and hold the suction cup on the windshield, and turn the locking knob in the clockwise direction (the arrow of the "lock" icon on the knob), until the knob reaches the end.
To release the suction cup, turn the knob in the counter-clockwise direction.

4.Plug the USB car charger into the cigarette lighter. And connect the camera and the USB car charger with one USB cable.

5.Optional: For a more organized environment, the USB cable can be mounted as indicated by the green dashed line in the figure.

6.Start the engine of your car. Z1 will be turned on automatically and start to record.

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 1 or 3 minutes, etc, 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 Z1 directly, or copied/stored and played on a computer later.

Connecting to a computer

When Z1 is connected to a computer using the USB cable, it shows up as a disk drive, like 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.

The choice of the TF card

A 16GB TF card is provided in the package. A TF card with larger storage space can be used to store longer video. Z1 supports TF cards with storage space up to 32GB. TF cards of class 6 and above are preferred for optimal performance.

Settings

1. Language setting:
Press the Menu button multiple times until the Language setting appears ( ). Press the Up and Down buttons to choose the preferred language, and press the OK button to confirm and exist.

2. Time setting: Press the Menu button multiple times until the System setting appears ( ). Use the Up and Down buttons to navigate to the sub-menu "Time/Date Setting" ( ), and set the current date and time.

3.The other settings are listed in the table below.

Main Menu	Sub-menu	Description
Resolution	1920x1080 (FHD) 1280X720 (HD) 640X480 (VGA)	Set the size of the recorded videos
Audio recording	On/Off	Enable/disable audio recording
Video clip file duration	1/3/5/10 mins /Off	Set the duration of each video clip file

Main Menu	Sub-menu	Description
G-sensitivity	Low/Mid/High sensitivity /Off	Set the sensitivity of gravity sensor (crash/intensive detection)
Parking monitoring	On/Off	Enable/disable parking motoring mode (vibration detection)
Motion detection	On/Off	Enable/disable motion detection
Languages	English/German/French/ Spanish/Italian/Russian/ Portuguese/Japanese/ Simplified Chinese/ Traditional Chinese	Set the language of the user interface
System settings	Contains the following sub items	Other system settings
Auto power off	Off/1/3/5/10 min	Set idle time before the product is automatically shut off
Frequency	50HZ/60HZ	Set the frame rate of the recorded videos
LCD backlight	30s/1min/3mins/On	Set the screen display off time
Sound effect	On/Off	Enable/disable the sound effect when pressing the buttons
Format	Yes/No	Format the TF card
Default setting	Yes/No	Restore the factory default settings

Main Menu	Sub-menu	Description
Firmware version	Version number of the current firmware	Display the version number of the current firmware

Features and operations

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 (component 11) manually to turn on or turn off the product.

When the power is on, the indication light (component 7) is on, and it will flash when recording.

Parking monitoring mode

Two parking monitoring modes are available, i.e. the P Mode and T Mode.

P Mode (vibration detection): When the power is on, press the P button (component 3) shortly to enable or disable the vibration detection. An icon of is shown on the screen when it is enabled, and the product will automatically be turned on and record if any vibration or collision is detected. Thirty seconds after the vibration stops, the product will be automatically turned. 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.

T Mode (time-lapse photography): Press and hold the P button (component 3) to enable or disable the time-lapse photography. An icon of is shown on the screen when it is enabled, and the product will record at the speed of 1 frame per second. The video, when played later, will be at the frame rate of 30 frames per second. This T mode allows:

A. The maximal recorded video length can be increased 30 times longer. For example, a 16GB TF card can record the T Mode video for at least three days.

B. The user can view all the videos much faster without missing the unexpected events during the recording period.

This T mode is mainly used for real time monitoring when parking. An external power

source, for example, a portable power bank (not included in the package), is needed for power supply because the product needs to work all the time. The users can shop the appropriate external power source according to their needs.

Folder names

The recorded video and photo files are classified and grouped into different folders. Normal videos and photos are stored in the folders which are named after the recorded date, for example, files generated on Jan 1, 2014 will be stored in the folder 20140101. The protected video files are stored in the EVENT folder. And the files generated in the T Mode (Time-lapse photography) will be stored in the PARK folder.

Video recording features

Motion detection: The product automatically pauses video recording 30 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 starts 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 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 emergency button ⚠ (component 5) to lock the current video file. Press the button again will cancel the protection of the current video file.

Screen display off: After about 1 minute, 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.

Photo mode

When not recording, the user can enter the photo mode by pressing the Mode button (component 5). The user can take a photo by pressing the OK button (component 1). Under this mode, the image resolution can be set by pressing the Menu button (component 13).

Playback mode

When not recording, the user can enter the playback mode by pressing the Mode

button (component 5) twice. In this mode, the user can press the Up and Down buttons (components 2 and 4) to switch files. If the current file is a video, it can be played on the screen by pressing the OK button (component 1). When playing a video, the Up and Down buttons can perform the fast forward and fast backward playing, and the emergency button (component 5) is to stop playing.

Key shortcuts

The user can manually protect (or cancel protection) the current video by pressing the SOS button under Photo mode.

The user can turn on/off the audio recording of the current video recording by pressing the Up button.

The user can turn on/off the screen by pressing the Down button during recording.

Technical specifications

Display screen dimension	2.4" HD screen
View angle	135 degree
Language selection	English, Spanish, Portuguese, Russian, Simplified Chinese, Traditional Chinese
Video size	1920*1080, 1280*720, 640*480
Video format	AVI
External storage support	Up to 32GB TF card
Microphone/Loudspeaker	Built-in
Still picture/photo format	JPEG
G-Sensor	Built-in
USB Interface	USB2.0
External power supply	5.5V 1A
Battery	5.5V 1A
Battery	110mAH internal Li-ion battery
Computer system 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.