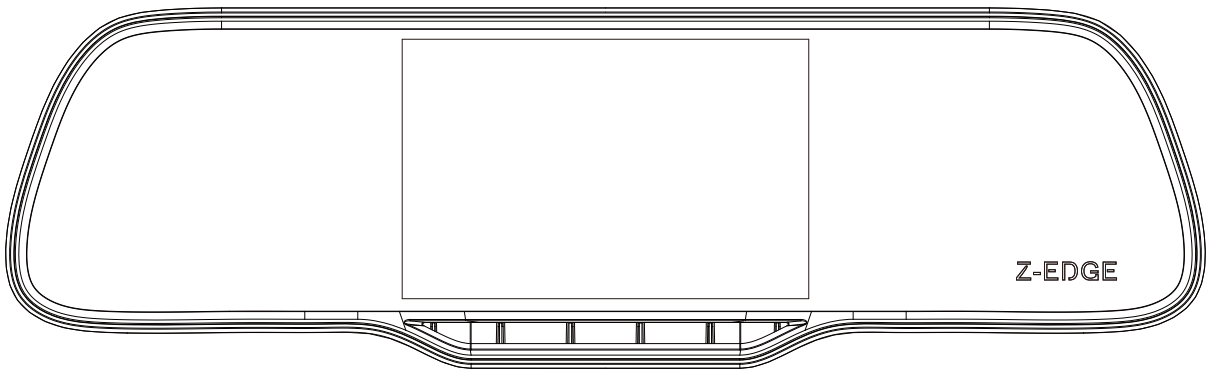
Z-EDGE



Model:Z2 PRO

USER GUIDE

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INTRODUCTION

Thank you for purchasing the Z2 Pro High Definition Car DVR / Camcorder by Z-Edge®. Featuring a rear-view mirror design and dual lenses for recording front and back. Please read this manual carefully before using this product. We hope you enjoy using this product.

PRODUCT OVERVIEW

· Front view high definition camera housed inside large rear-view mirror design, providing a high-quality replacement for your stock mirror with the addition of a 5" LCD display screen with IPS screen technology for improved resolution.

· Record crystal clear, high-definition video simultaneously via the front-view camera with 150° viewing angle, and waterproof rear view camera in Full HD 1080P resolution.

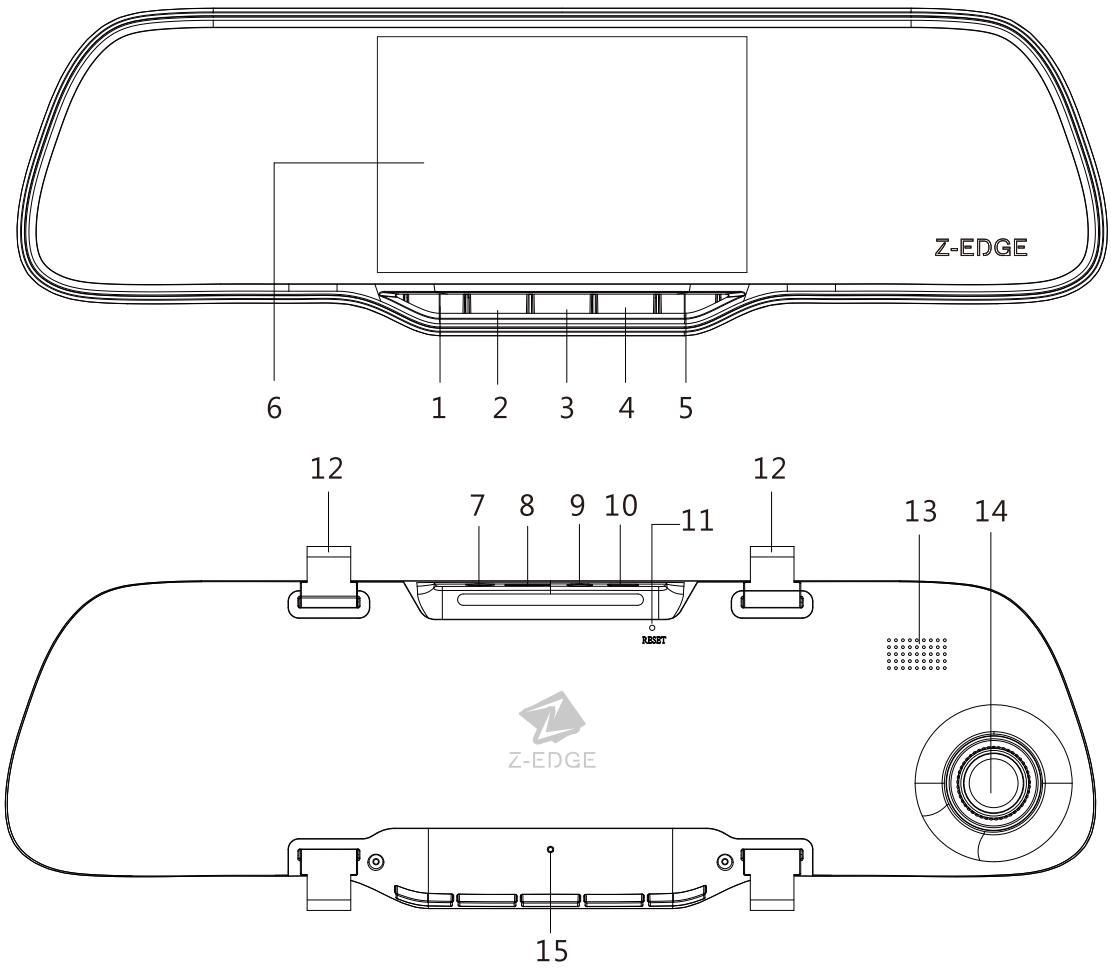
· Excellent video quality for recording even in low visibility driving conditions. Includes automatic backup display and monitoring while reversing. Also features image capture with 12-megapixel resolution.

· Convenient automatic recording and monitoring features including automatic ignition, motion/crash detection and recording, parking mode for monitoring your vehicle via the highly sensitive built-in G-Sensor and seamless loop video recording.

· Smart features include LCD power save, automatic device shutdown after the engine is turned off, one-button audio recording and one-button emergency video recording and protection.

· Records up to 1.5-hour simultaneous front cam (1080P) and rear cam (1080P) video via 16GB TF/MicroSD card included. Loop recording feature ensures efficient use of storage.

GETTING STARTED



Front-View Camera Components	
1	Power
2	Up / Fast Rewind / PiP Display Toggle (when rear-view camera connected)
3	Down / Fast Forward / Sound Record
4	OK / Record
5	Menu / Mode Switch / Video Protect
6	Display Screen
7	Mini USB 8Pin Port (rear-view camera interface)
8	TF/MicroSD Card Slot
9	AV Port

10	Mini USB Port (battery charging, USB drive connection to PC)
11	Reset Hole
12	Straps
13	Loudspeaker
14	Front-View Lens
15	Microphone
Rear-View Camera Components (pg5)	
16	Rear-View Lens
17	Micro USB Cable for Connecting Rear-View Camera
18	Red Wire for Connecting Rear-View Camera to Positive Wire of Car Reverse Lights

INSTALLATION

Please refer to our "Zero Edge Technology" Youtube channel for further advice.

Front-View Camera

1. Insert memory card into the TF/MicroSD card slot (component 8) on the front-view camera.

2. Untie both rubber straps (components 12), holding the Z-Edge front-view camera over the top of your vehicles stock rear-view mirror, wrap straps around and fasten to secure firmly.

3. Plug USB car charger into vehicle's cigarette lighter and connect the Mini USB cable from charger to Mini USB port (component 10) on front-view camera. The front-view camera is now ready to use.

NOTE: The included USB car charger has two charging ports (1A and 2.4A). Please ensure you power the dash camera via the 2.4A output.

Rear-View Camera

There are two ways to install the rear-view camera to your vehicle. The method you choose will depend on your vehicle type and your requirements.

ⓘ **IMPORTANT:** Please note when rear-view camera is connected the following resolutions are NOT supported for dual recording: 'UHD[2880x2160]P24, QHD[2560x1440]P30, FHD[1920x1080]P60, FHD[1920x1080]P30, HD[1280x720]P120, HD[1280x720]P60, HD[1280x720]P30'. In these resolutions only the front-view camera recording will be saved to disk. To ensure dual recording, please remember to select 'FHD P30+FHD P30' resolution when the rear-view camera is connected.

METHOD 1: Quick Dual Lens Recording

Note: Please be aware this method does not support the automatic backup display and monitoring while reversing. Also, depending on your vehicle type, full rear visibility may be obstructed by the trunk of the vehicle - please ensure you test visibility before fixing. You may choose to install the rear view camera via method 2.

4. To simply record whilst driving you may opt to install the camera inside the vehicle using the Velcro sticker included. This can be stuck either to your cargo cover or for a higher viewpoint install directly to the rear windshield. Route the Micro USB cable from the Micro USB port (component 7) of the front-view camera to the rear-view camera inside the vehicle.

Fix the camera with 3M sticker

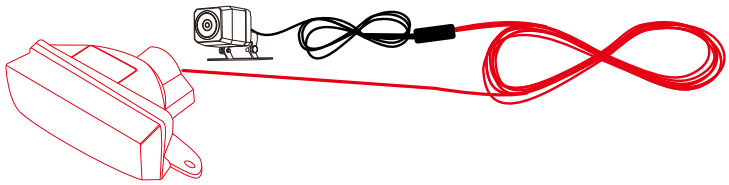
METHOD 2: Full Dual Lens Recording and Automatic Backup Display

ⓘ **WARNING:** We recommend seeking advice or asking for help from an experienced mechanic before attempting any further steps below.

5. If you require the automatic backup display or your rear-view visibility is poor using method 1, please read on. Install the rear-view camera at the top of the license plate of your car. Please see illustration . You can also refer to our "Zero Edge Technology" YouTube channel for further advice. Depending on your specific vehicle's make and model, you may need to drill pilot holes for screws to fasten the camera lens.

6. Route the Micro USB cable from the Micro USB port (component 7) of the front-view camera to the rear-view camera. For a more organized car environment, route the cables along the dashed lines recommended in the illustration. Cables can be arranged along the edge of the car roof although it is advised you seek expert advice before installing.

7. To set up the rear-view camera so that it automatically triggers the rear-view camera display once reverse gear is selected, connect the red wire to the positive wire of your vehicle's reverse lights (see illustration). Seek expert advice before attempting this installation. To access the reverse light wires we advise you refer to the car manual for further instructions related to your vehicle.



Connect the red wire to the positive wire of car reverse light.

Note: Illustrations above are for reference only. They are based on certain car models, and may not best reflect your car's layout for installation. Please seek expert advice before attempting this installation.

8. Start the engine of your car. The front-view camera will automatically turn on and start recording. If the rear-view camera is connected, both front and rear-view videos will start recording simultaneously. If the rear-view camera is connected to the reverse lights (as per step 7), when the car is driven in reverse the rear-view camera will automatically display (including indicative distance lines to aid reversing). Toggle between front and rear camera views manually by pressing "Up" button (component 2) on your front-view camera.

9. This device will detect when the engine is switched off, and automatically power off shortly after the last video clip duration is complete and saved.

ⓘ **WARNING:** Some car models supply power from the cigarette lighter even after the engine is turned off. We recommend you always unplug the USB charger manually before leaving your car to avoid any unwanted car battery drainage.

NAVIGATION

"Power" Button (1)

- **Manual ON/OFF:** Press and hold for 3 seconds to turn device ON/OFF.
- **Turn OFF/ON LCD Display Screen:** After the device starts up, short press the "Power" button to turn off or turn on the LCD display screen.

"Up" Button (2)

- **Navigate to Upper/Previous Item:** Press "Up" button to navigate to upper or previous item while browsing the system menu or playback files.
- **Fast Rewind:** In playback mode press "Up" button to fast rewind video being played.

- **Toggle PiP Display:** Short press "Up" button to switch between front and rear camera view options.

"Down" Button (3)

- **Navigate to Lower/Next Item:** Press "Down" button to navigate to lower or next item while browsing the system menu or playback files.
- **Fast Forward:** In playback mode press "Down" button to fast forward video being played.
- **Enable/Disable Record Audio:** In video recording mode press "Down" button to enable/disable the record audio feature.

"OK" Button (4)

- **Select/Confirm:** While browsing press "OK" button to select or confirm highlighted item.
- **Enable/Disable Video Recording:** In video recording mode press "OK" button to start/stop video recording.
- **Photo Capture:** In photo capture mode press "OK" button to capture a photo.
- **Video Playback:** In playback mode press "OK" button to start/stop video playback.

"Menu / Mode" Button (5)

- **Personalize Mode Settings - Video Mode / Still Capture / Playback:** While in standby mode (device not recording or capturing images) pressing and holding the "Menu" button for 2 seconds will open the system menu in the currently selected mode. For example, while in video recording mode, pressing the "Menu" button will show "Video Mode". To access settings menu use the "Up" and "Down" buttons to navigate. Press "OK" button to confirm. Short press "Menu" button while in the menu to exit.
- **Access Setup Menu:** In standby mode (device not recording or capturing images) pressing the "Menu" button followed by the "Down" button will highlight the "Setup" Menu. Press "OK" button to enter and then use the "Up" and "Down" buttons to navigate. Press "OK" button to confirm. Short press "Menu" button while in the menu to exit.

- **Access Language Menu:** In standby mode (device not recording or capturing images) pressing the "Menu" button for twice to get into setup menu and select language. Press "OK" button to enter and then use the "Up" and "Down" buttons to navigate. Press "OK" button to confirm. Short press "Menu" button while in the menu to exit.
- **Switch Modes:** In standby mode (device not recording or capturing images), short press "Menu" button to switch between (i) Video Recording, (ii) Photo Capture, and (iii) Playback modes.
- **Emergency Video Protection:** In the event of an emergency, it is important to save and protect recorded video files so that they are not erased by the "Loop Recording" feature. With "Crash Detection" feature enabled, this device automatically protects video files when a significant vibration has been detected. However you can manually protect any video clip by long pressing the "Menu" button during a video recording. This will protect the saved clip/file from being automatically deleted in the future. A "Lock Current File" message appears on screen to signify the file has been successfully protected. Press the "Menu" button again to remove protection.

OPERATION

Powering ON/OFF

- **Automatic:** When device is connected via the USB car charger, it will automatically detect engine ignition and turn on.
- **Manual:** Press and hold the "Power" button for 3 seconds to power on/off device.

Recorded Video Files

Videos are recorded and saved to the memory card as multiple video clips. Once the memory card is full, the "Loop Recording" feature automatically overwrites the earliest unprotected saved file. This prevents long duration video clips from being lost in a single overwrite. Video clip duration can be set to 3, 5 or 10 minutes inside the "Video Mode" settings menu. Video clips can be played directly on the display screen, or copied/stored and played on a computer.

VIDEO RECORDING MODE

Motion Detection

With “Motion Detection” enabled, video recording is automatically paused when no movement is detected by the front view camera or G-Sensor. Video recording will automatically start again when movement is detected. This feature can be disabled or enabled : **Video Mode -> Motion Detection.**

Loop Recording

Videos are recorded and saved to the memory card as multiple video clips. Once the memory card is full, the “Loop Recording” feature automatically overwrites the earliest unprotected saved file. This prevents long duration video clips from being lost in a single overwrite. Video clip duration can be set to 3, 5 or 10 minutes inside the menu: **Video Mode -> Loop recording.**

Crash Detection

In the event of a collision the “Crash Detection” feature, triggered by the highly sensitive built-in G-Sensor, will automatically turn video recording on and protect the saved file. The sensitivity of the G-Sensor can be set to Off, low,medium, high inside the menu: **Video Mode -> Gravity sensing.**

Parking Monitor

When “Parking Monitor” is enabled, the device continues to monitor the vehicle while it is turned off and parked. If any motion or vibration is detected by the device, it will automatically turn on and begin recording. Approximately 30 seconds after the motion or vibration has finished, the device will automatically turn off and return to monitoring mode.

In “Parking Monitor” the device is powered by the internal rechargeable battery, and the LCD display screen is automatically set to power save to conserve battery power. This feature can be set inside the menu: **Video Mode -> Parking Monitor.**

Emergency Video Protection

In addition to automatic video file protection, any video can be protected manually by long pressing the "Menu" button during a video recording. A "🔑" message appears on screen to signify the file has been successfully protected. Press the "Menu" button again to remove protection.

Record Audio

With audio recording enabled the device will record audio for the current video clip via the integrated microphone. This feature can be enabled/disabled inside the menu: **Video Mode -> Record Audio**. Alternatively turn audio recording on/off while recording a video by pressing the "Down" button. The integrated microphone sensitivity can be set to Low or Standard inside the menu: **Video Mode -> Record Audio.**

Screen Saver

Automatically turn off the LCD display screen after 1,3 minutes. This feature is useful if the display screen proves a driving distraction for the driver. Feature can be set to Off, 1,3 mins inside the menu: **General Settings -> Screen Saver**. Turn on the display screen again by pressing any button.

PHOTO CAPTURE MODE

From standby mode short press "Mode" button to switch to photo capture mode. Capture a photo by pressing the "OK" button. "Resolution" can be set to VGA, 1.3M, 2M, 3M, 5M, 8M, 10M or 12M inside the menu: **Still Capture -> Resolution.**

PLAYBACK MODE

From standby mode short press "Mode" button to switch to playback mode. Browse video and image files by pressing the "Up" and "Down" buttons. Play/Pause highlighted video files by pressing "OK" button.

STANDBY MODE

This is the default mode the device enters when not recording or capturing images. In standby mode you can adjust settings inside the system menu. To enter “Standby Mode” while recording a video, press the “OK” button to stop the current video recording.

DRIVING SHORTCUTS

· Turn audio recording on/off while recording a video by pressing the “Down” button.

· In addition to automatic video file protection, any video can be protected manually by long pressing the “Menu” button during a video recording. A “” message appears on screen to signify the file has been successfully protected. Press the “Menu” button again to remove protection.

· Press the “Up” button to toggle between front and rear camera views (when rear-view camera is connected).

PERSONALIZED SETTINGS

Mode	Main Menu	Sub-Menu or Prompt	Description
Video Mode	Video Resolution	*UHD[2880x2160]P24 *QHD[2560x1440]P30 *FHD[1920x1080]P60 *FHD[1920x1080]P30 *HD[1280x720]P120 *HD[1280x720]P60 *HD[1280x720]P30 FHD P30 + FHD P30	Set the resolution of the videos to be recorded.

*Please note this resolution is supported by the front view camera only. If recording with both front and rear view cameras connected, ONLY the front view recording will be saved to disk. Please select 'FHD P30 + FHD P30' for optimal dual lens recording.

Mode	Main Menu	Sub-Menu or Prompt	Description
Video Mode	Loop Recording	Off 3 Minutes 5 Minutes 10 Minutes	Set the duration of each video clip recorded to the memory card. Refer to"Recorded Video Files" for more details.
	Time-lapse Record	Off 100 ms 200 ms 500 ms	Set the time lapse.
	WDR	On Off	Enable/Disable WDR function.
	Exposure	+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	Set the exposure levels of photos captured.
	Motion Detection	Off On	Enable/Disable motion detection. Refer to "Motion Detection" for more details.
	Record Audio	Off On	Turn on/off audio recording during a video recording.
	Date Stamp	Off On	Enable/Disable time stamp on recorded videos and photos.
	Gravity Sensing	Off Low Medium High	Set the gravity sensing level.
	Parking Monitor	Off On	Enable/Disable parking monitor. Refer to "Parking Monitor" for more details.

Mode	Main Menu	Sub-Menu or Prompt	Description
Still Capture	Capture Mode	Single 2S Timer 5S Timer 10S Timer	Set the time for capturing a photo.
	Resolution	12M 4032X3024 10M 3648X2736 8M 3264X2448 5M 2592X1944 3M 2048X1536 2MHD 1920X1080 VGA 640X480 1.3M 1280X960	Set the resolution of each photo taken (M= megapixel).
	Quality	Fine Normal Economy	Set the quality of the photo.
	Sharpness	Strong Normal Soft	Set the sharpness level.
	White Balance	Auto Daylight Cloudy Tungsten Fluorescent	Set the white balance level.
	Color	Color Black&White Sepia	Set the color.
	ISO	Auto 100 200 400	Set the ISO level.
	Exposure	+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	Set the exposure levels of photos captured.

Mode	Main Menu	Sub-Menu or Prompt	Description
Still Capture	Anti-Shaking	Off On	Set the anti-shaking function.
	Quick Review	Off 2 Seconds 5 Seconds	Set the quick review.
	Date Stamp	Off Date Date/Time	Enable/Disable time stamp on recorded videos and photos.
Playback	Delete	Delete Current Delete All	Delete files.
	Protect	Lock Current Unlock Current Lock All Unlock All	Lock/Unlock files.
	Slide Show	2 Seconds 5 Seconds 8 Seconds	Set the slide show time.
Setup	Date/Time	YY/MM/DD HH:MM:SS	Set the date/time.
	Auto Power Off	Off 1 Minute 2 Minutes 3 Minutes 5 Minutes 10 Minutes	Device will automatically shut down when sitting idle (even when power still exists) after set time.
	Beep Sound	Off On	Turn on/off the beep sound.
	Language	English French Spanish Portuguese German Italian Simplified Chinese Traditional Chinese Russian Japanese	Set the language.

Mode	Main Menu	Sub-Menu or Prompt	Description
Setup	TV Mode	NTSC PAL	Set the TV mode.
	Frequency	50Hz 60Hz	Select frequency of corresponding AC light source.
	Screen Saver	Off 1 Minute 3 Minutes	Automatically save a screen after set time.
	Delayed Shutdown	Off 10 Seconds 20 Seconds 30 Seconds	The device will automatically power off after set time.
	Format	SD Card	Format the TF/Micro SD card.
	Default Setting	Cancel OK	Restore to default setting.
	Version		Show the version of the device.

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.

COMMON FUNCTIONS

Connecting to a Computer

Make sure you disconnect the rear view camera before you connect the device to a PC.

Connect device to a computer using the mini USB cable. When "Mass Storage" appears on the screen, press "OK" button to enter.

File Management

Recorded video and photo files are classified and grouped into different folders:

· Normal video files are stored in "CARDV/Movie" folder.
· Protected video files are stored in "CARDV/Movie/RO" folder.
· Photo files are stored in "Photo" folder.

Choosing a TF/MicroSD Card

The higher the video resolution, the better the image quality. However a higher video resolution also requires more storage space. This means with the same capacity TF/MicroSD card, if you choose to record a higher video resolution, you will need to save shorter video clips.

A 16GB TF/MicroSD card is included. A TF/MicroSD card with larger storage space can be used to store longer individual video clips or a longer total duration of saved files. This device supports TF/MicroSD cards with a storage space of up to 128GB.

ⓘ Important:

· Use TF/MicroSD cards of class 10 and above for optimal performance. Format TF/MicroSD card the first time you use it. You can format the TF/Micro SD card in this dash cam with the option inside the menu: **General Settings -> Format.**

The supported capacities of TF/MicroSD cards and their corresponding 1080P front-view camera and 1080P rear-view camera video recording times are listed in the table below:

Storage Capacity	Video Recording Time (Front-View Camera 1080P, Rear-View Camera 1080P)
128GB	720min
64GB	360min
32GB	180min
16GB	90min
For reference only	

Language Setting

1. To change languages, in standby mode press two times the “Menu” button followed by the “Down” button twice to enter the “Language” menu.

2. Select a language by highlighting it using the “Up” and “Down” buttons, and pressing “OK” button to confirm.

3. Exit the menu by pressing the “Menu” button.

Date/Time Setting

1. To change the date or time, in standby mode press the “Menu” button two times followed by the “Down” button to enter the “General Settings” menu.

2. Using the “Up” and “Down” buttons navigate to the “Date/Time” sub-menu, and press the “OK” button.
3. Use the “Up” and “Down” buttons to change the data entry.
4. To save an entry press the “OK” button (YYYY-MM-DD, HH:MM:SS).

5. To change a wrong entry, scroll through the entry fields by pressing the “OK” button until the incorrect entry field is highlighted. Change and save as above.
6. Save and exit the menu by pressing the “Menu” button.

Reset Device

In the event of a software crash, locate the small reset pinhole (11) on the device. Insert a straightened paper clip through the pinhole and depress the switch inside. The device will be reset.

Note: Press reset button only when the device crashes. Under normal circumstances, please do not press reset button.

TECHNICAL SPECIFICATIONS

View Angle	150 degrees
Video Resolution	UHD[2880x2160]P24 QHD[2560x1440]P30 FHD[1920x1080]P60 FHD[1920x1080]P30 HD[1280x720]P120 HD[1280x720]P60 HD[1280x720]P30 FHD P30 + FHD P30
Still Picture/Photo Resolution	12M 4032X3024 10M 3648X2736 8M 3264X2448 5M 2592X1944 3M 2048X1536 2MHD 1920X1080 VGA 640X480 1.3M 1280X960
Still Picture/Photo Format	JPEG
Audio Format	AAC
G-Sensor	Built-in
External Storage Card Type	TF/MicroSD
External Storage Card Capacity Support	Up to 128GB
Microphone/Loudspeaker	Built-in
Light Frequency	50Hz/60Hz
USB Port	USB 2.0
AV Port	2.5-mm AV OUT
External Power Supply	DC 5.5V 3.4A
Battery	500mAH internal Li-ion battery
Computer System Requirement	PC: Windows XP and above MAC: OS X and above

Language Selection	English French Spanish Portuguese German Italian Simplified Chinese Traditional Chinese Russian Japanese
Accessories	Straps Cable clips 3.8m Mini USB cable 0.8m Mini USB cable Car charger 16GB TF/MicroSD card Manual Warranty Card

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