



## DR490L-2CH Quick Start Guide

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## Important safety information

For user safety and to avoid property damage, read through this manual and follow these safety instructions to use the product correctly.

- Do not disassemble, repair, or modify the product yourself.  
Doing so may cause fire, electric shock, or malfunction. For internal inspection and repair, contact the service center.
- Do not adjust the product while driving.  
Doing so may cause an accident. Stop or park your car in a safe place before installing and setting up the product.
- Do not operate the product with wet hands.  
Doing so may cause electric shock.
- If any foreign matter gets inside the product, detach the power cord immediately.  
Contact the service center for repair.
- Do not cover the product with any material.  
Doing so may cause external deformation of the product or fire. Use the product and peripherals in a well-ventilated location.
- If the product is used outside the optimal temperature range (-20°C – 70°C/-4°F – 158°F), performance can decline or malfunctions may occur.
- When entering or exiting a tunnel, when directly facing into bright sunlight, or when recording at night without lighting the quality of recorded video may deteriorate.
- If the product is damaged or the power supply is cut due to an accident, video may not be recorded.
- Do not remove the microSD card while the microSD card is saving or reading data.  
The data can be damaged or malfunctions may occur.
- Do not press the LCD screen with a sharp object.
- Do not press the LCD screen too firmly.

## FCC Compliance Information

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the user's authority to operate such equipment.

## In the box

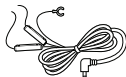
Check the box for each of the following items before installing the BlackVue dashcam.



Front camera



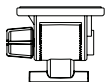
Quick start guide



Hardwire cable



Power cord



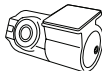
Bracket



microSD Card



microSD card adapter



Rear camera



Rear camera  
connection cable



Pry tool



Cable clips (8 EA)

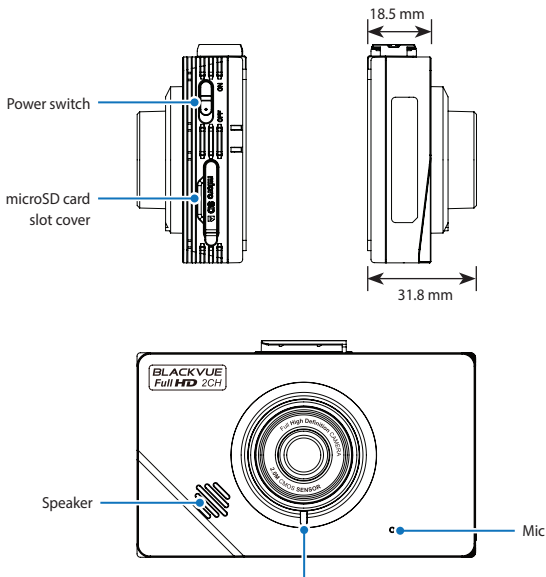


External GPS  
(Optional)



## At a glance

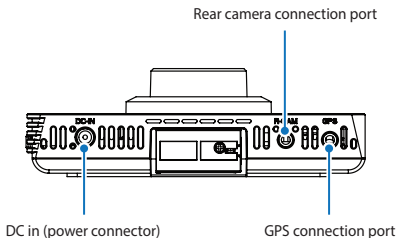
The following diagrams explain each part of the BlackVue dashcam.

### Front camera



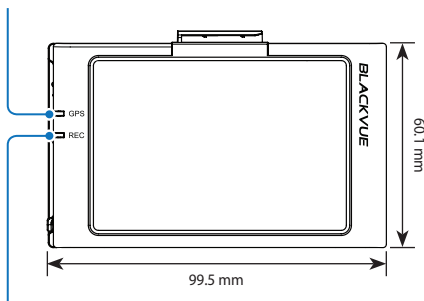
Front security LED

-  : Blinks white slowly in normal mode or event standby mode.
-  : Blinks white quickly:
  - (i) when an event is being recorded (impact detected);
  - or
  - (ii) in parking mode.




#### GPS LED

: Blue LED is on when GPS is on; blinks when there is no GPS signal.  
LED is off when no GPS is connected.



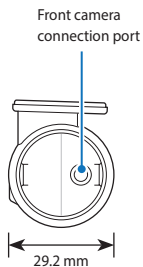
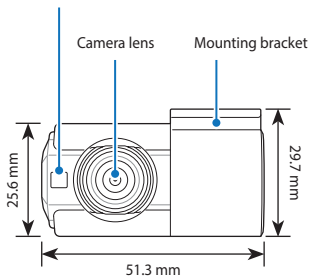
#### Recording LED

: Red LED is on in normal mode, event standby mode and when saving a parking recording (motion detected).  
Red LED blinks when an event is being recorded (impact detected).  
Red LED is off in parking standby mode.

## □ Rear camera

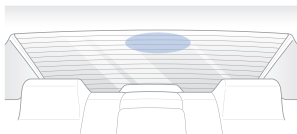
Rear security LED

■ : Blue LED blinks when rear and front cameras are connected.



## STEP 1 Install and power up

Install the front camera behind the rear view mirror. Install the rear camera at the top of the back windshield. Remove any foreign matter and clean and dry the windshield before installation.

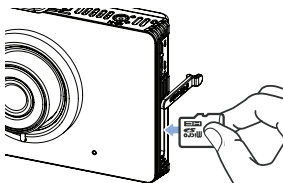


### Warning

- Do not install the product in a location where it can obstruct the driver's field of vision.

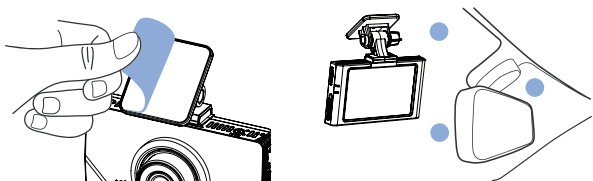
**A** Turn off the engine and make sure accessory power is off. Flick the power switch to the off position.

Open the cover of the microSD card slot, gently push the card into the slot until it locks into place and close the cover.

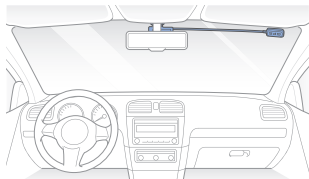
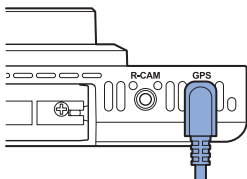




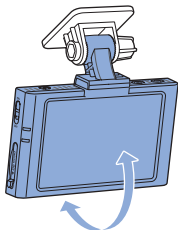
- B** Peel off the plastic film from the lens. Peel off the protective film from the double-sided tape and attach the front camera to the windshield behind the rear-view mirror.



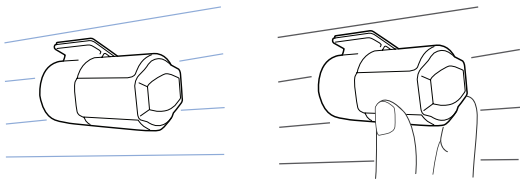
- C** **Optional GPS receiver:** Plug in the GPS receiver and attach it in a corner of the windshield. Tuck the cable into the windshield trim using the pry tool.



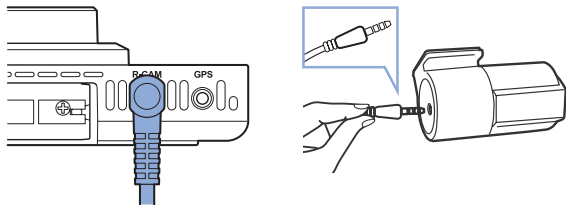
- D** Adjust the angle of the lens by loosening the nut and rotating the front camera. We recommend pointing the lens slightly downwards ( $\approx 10^\circ$  below horizontal), so as to record video with a 6:4 road to background ratio. After installation the camera angle can be adjusting in real time with the LCD screen on.



- E** Peel off the protective film from the double-sided tape and attach the rear camera to the rear windshield. Adjust the angle of the lens by rotating the body of the rear camera.

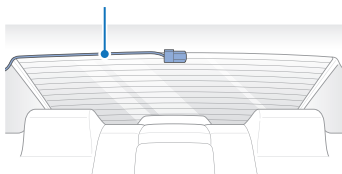


- F** Connect the front camera ('R CAM' port) and the rear camera using the rear camera connection cable.

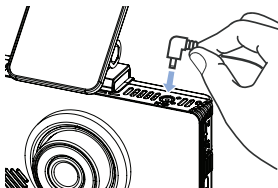


- G** Use the pry tool to lift the edges of the rubber window sealing and molding and tuck in the rear camera connection cable.

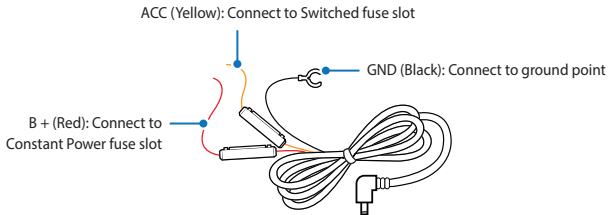
Rear camera connection cable



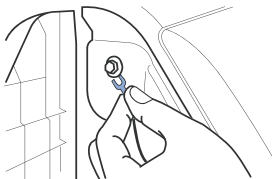
- H** **To record in parking mode you must hardwire the dashcam to your car's fuse panel using the hardwire cable.** Normal mode and event mode will also be available while driving. Plug the **hardwire cable** into the DC-IN port on the front camera. Proceed to Step I.
- Alternatively, if you power the dashcam from the cigarette lighter socket you will not be able to record in parking mode.** Normal mode and event mode will only be available while driving. Plug the **power cord** into the cigarette lighter socket and the DC-IN port on the front camera. Proceed to Step L.



- I** **Connect the yellow [ACC] wire to a Switched fuse.** Referring to your vehicle Owner's Manual/Handbook, identify a Switched (accessory power) fuse in your interior fuse panel. Typical examples are the cigarette lighter and car stereo fuse slots. Remove the identified Switched fuse. Many cars come with a fuse puller tool in the engine compartment fuse panel. Remove the sleeve from the end of the yellow [ACC] wire, and wrap the wire around one of the blades of the Switched fuse. Reinsert the fuse back into the fuse panel.

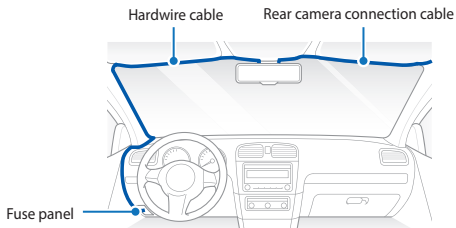


- J** **Connect the red [B +] wire to a Constant Power fuse.** Identify a Constant Power fuse (battery power) in your fuse panel. Typical Constant Power fuses are the hazard light (emergency lamp), tail lights and interior light fuses. If your car has a “Battery Saver Function” please utilize the hazard light fuse. Remove the identified Constant Power fuse. Remove the sleeve from the end of the red [B +] wire, and wrap the wire around one of the blades of the Constant Power fuse. Reinsert the fuse back into the fuse panel.
- K** **Connect the black [GND] wire to a ground point.** Locate a ground point, such as a bolt, that is directly on a bare metal part of the vehicle's frame. Secure the ground wire to the bare metal frame (for example by securing it under the bolt).

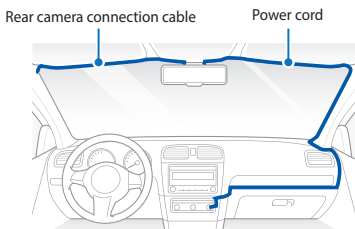


- L** Use the pry tool to lift the edges of the windshield trim/molding and tuck in the hardwire cable.

Hardwire cable installation:



## Alternative cigarette lighter socket installation:



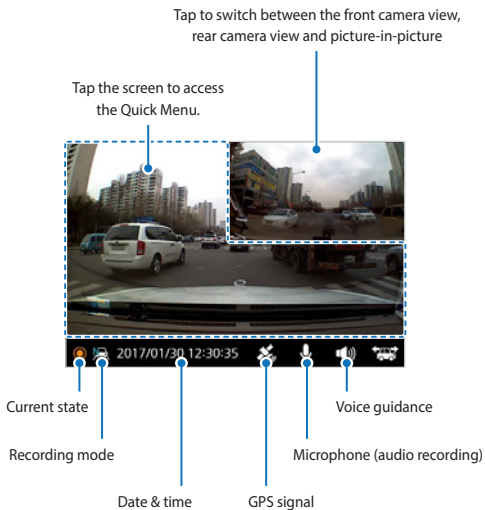
- M** Turn on the engine and switch on the dashcam. The BlackVue dashcam will power up and start recording. Video files are stored on the microSD card. When the microSD card fills up, the newest video files will start to replace the oldest video files (called **loop recording**) – so you will always have the most recent video files.

### Note

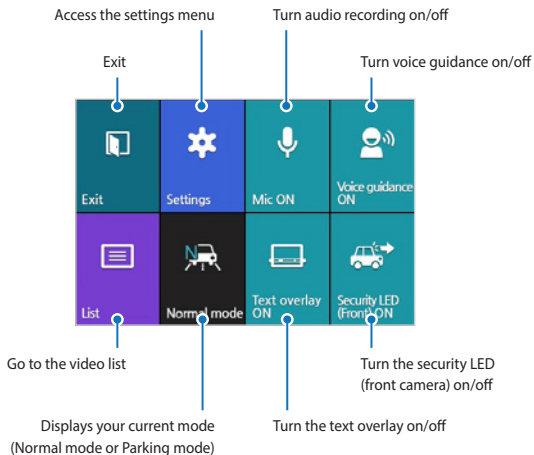
- There are 3 recording modes: Normal, Event and Parking. The dashcam starts recording in normal mode, switches to event mode when an impact is detected, and switches to parking mode when the engine is off. A low voltage power cut-off function protects the automotive battery from discharge.

## STEP 2 LCD main menu composition

Tap the LCD screen anywhere when it is off to turn the LCD on.



## Quick menu



## STEP 3 Playback

### Playing video files on the LCD screen

Tap the N/E/P button to switch between normal, event and parking recordings



- Select the **List** button from the Quick Menu.
- Use the arrows to select a recording and press the **Play** button.

N	<b>Normal</b>	Normal mode recordings
E	<b>Event</b>	When the dashcam detects an impact while in normal or parking mode, it switches to event mode and saves an event recording beginning 10 seconds before the event trigger.
P	<b>Parking</b>	In parking mode the dashcam continuously buffers video. When motion is detected in the dashcam's field of view, it saves a parking recording beginning 10 seconds before the motion detection.



## Playing video files on your computer

You can play video files in **BlackVue Viewer** (available for Windows and macOS) on your computer. Remove the microSD card from the camera and use the included microSD card adapter to connect it to your computer.

## STEP 4 Adjusting the time and other settings

### Adjusting the settings on the LCD screen

Select **Settings** from the Quick Menu.



The settings that can be adjusted include:

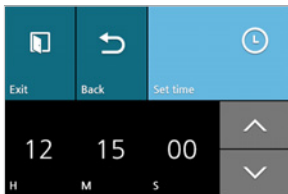
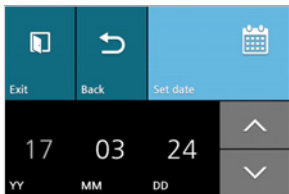
- **Video settings:** Brightness, Saturation
- **Advanced Driver Assistance Systems (ADAS):** Lane Departure Warning System (LDWS) activation speed, Warning alarm
- **Time settings:** Manual time and time zone setting
- **System settings:** Cut-off voltage, Screen timeout, Language, High temperature cut-off, Volume
- **Recording settings:** Night vision, Image quality, Recording mode, Rear camera recording, Mic Volume, Motion detection sensitivity, G-Sensor sensitivity
- **Other settings:** Camera info., Storage allocation, Calibrate touch, Format (microSD card), Reset settings

## □ Adjusting the time on the LCD screen

Please backup any important recordings before adjusting the time. When you save the new time settings the dashcam will format the microSD card and delete all recordings stored on the card.

### If you do not connect the GPS receiver:

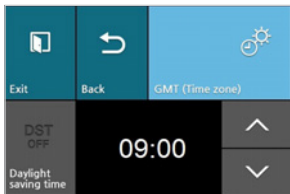
To manually set the time select **Settings** from the Quick Menu and press the **Time** button. Enter your date (year, month, day) by selecting each field and using the up/down buttons. Tap **Set date** to change to **Set time** and enter your time (hour, minute, second). Tap **Exit** and save the settings.



### If you connect the GPS receiver:

If you run the dashcam with the GPS receiver connected, it is possible to sync with GPS time. To sync with GPS time select **Settings** from the Quick Menu and press the **Time** button. Tap the top right button (**Set date**) twice to get to **GMT (Time zone)**.

Enter your GMT time zone by selecting the field and using the up/down buttons. Tap **Daylight saving time** to turn it on or off.



## Tips for optimal performance

- A** Format the microSD card once a month, or when the BlackVue dashcam tells you the card needs maintenance.

### **Formatting the card in the BlackVue:**

Tap the screen to turn the LCD on. Tap again to access the Quick Menu. Select **Settings > Other > Format (microSD card) > Yes** to format the microSD card.

### **Format using BlackVue Viewer (Windows):**

Insert the microSD card into the microSD card adapter and connect it to your computer. Download BlackVue Viewer and install it on your computer.

Launch BlackVue Viewer, click the

 **Format** button, select the card drive and click OK.

### **Format using BlackVue Viewer (macOS):**

Insert the microSD card into the microSD card adapter and connect it to your computer. Download BlackVue Viewer and install it on your computer. Launch BlackVue Viewer, click the Format button and select the microSD card from the list of drives in the left frame. After selecting your microSD card select the Erase tab in the main window. Select "MS-DOS (FAT)" from the Volume Format drop-down menu and click Erase.

- B** Only use official BlackVue microSD cards. Other cards may have compatibility issues.
- C** Regularly upgrade the firmware for performance improvements and updated features.

## Product specifications

<b>Model Name</b>	DR490L-2CH
<b>Color/Size/Weight</b>	Front: Black/Width 99.5 mm x Height 60.1 mm x Thickness 31.8 mm/93 g Rear: Black/Width 51.3 mm x Height 29.7 mm x Thickness 29.2 mm/18 g
<b>Memory</b>	microSD Card (16 GB/32 GB/64 GB/128 GB)
<b>Recording Mode</b>	Normal Recording, Event Recording (Impact Detection), Parking Mode Recording (Motion & Impact Detection)
<b>Camera</b>	Front: CMOS Sensor (Approx. 2 megapixels) Rear: CMOS Sensor (Approx. 2 megapixels)
<b>Viewing Angle</b>	Front: Diagonal 130°, Horizontal 113°, Vertical 58° Rear: Diagonal 130°, Horizontal 110°, Vertical 62.5°
<b>Resolution/Frame Rate</b>	<Front - Rear> Full HD (1920x1080) @ 30 fps - Full HD (1920x1080) @ 30 fps
<b>Image Quality</b>	Highest, High, Normal
<b>LCD</b>	3.5 inch touch LCD
<b>Video Compression Mode</b>	AVI
<b>GPS</b>	External
<b>Microphone</b>	Built-in
<b>Speaker (Voice Guidance)</b>	Built-in
<b>LED Indicators</b>	Front: Front Security, GPS, REC Rear: Rear Security
<b>Switch</b>	Power Switch

<b>Sensor</b>	3-Axis Acceleration Sensor
<b>Backup Battery</b>	Built-in super capacitor
<b>Input Power</b>	DC 12 V–24 V (DC Plug(Ø3.5 x Ø1.1) to Wires (Black: GND/ Yellow: ACC/Red: BATT))
<b>Power Consumption</b>	Max. 370 mA (4.81 W at 13 V, when GPS and LCD are On) Max. 280 mA (3.64 W at 13 V, when in parking standby mode) * Actual power consumption may vary depending on use conditions and environment.
<b>Operation Temperature</b>	-20 °C–70 °C (-4 °F–158 °F)
<b>Storage Temperature</b>	-30 °C–80 °C (-22 °F–176 °F)
<b>High Temperature Cut-Off</b>	Approx. 70 °C (158 °F)
<b>Low Voltage Cut-Off</b>	Configurable: OFF/11.8 V (23.2)/11.9 V (23.6)/12.0 V (24.0)/12.2 V (24.4)/12.4 V (24.8)
<b>Certifications</b>	Front: FCC, CE, RoHS Rear: FCC, CE, RoHS
<b>Software</b>	BlackVue Viewer * Windows XP or higher (Windows 8 supported) and Mac Yosemite OS X (10.10) or higher
<b>Advanced Driver Assistance Systems (ADAS)</b>	Lane Departure Warning System (LDWS)
<b>Other Features</b>	Format-Free Technology for Stable Recording