

DR590-1CH

Manual



ENGLISH

www.blackvue.com

Table of Contents

Introduction4			
Important safety information5			
Overview8			
In the box8			
At a glance9 Removing and inserting the camera			
Installation11			
Installing the BlackVue dashcam11			
Playing and Managing Videos14			
Playing and managing video files using your computer (Windows/Mac)14			
Removing the microSD card14			
Opening video files in BlackVue Viewer15			
Viewer screen composition16			
Windows Viewer16			
Mac Viewer			
Playing video18			
Playing back videos18			
Identify video files by recording type18			
Checking the displayed time20			
Using BlackVue Viewer20			
Exploring the timeline and G-Sensor graph21			
Zoom options22			
Checking the GPS data23			
Managing videos24			
Capturing or printing a still image from video24			
Deleting videos24			
For Windows users			
For Mac users			
Exporting videos			

Copying videos	27
For Windows users	
For Mac users	28
Tips for optimal performance	29
Formatting the microSD card	29
Formatting the card in the BlackVue	29
Format using BlackVue Viewer (Windows)	29
Format using BlackVue Viewer (macOS)	
Upgrading the firmware	32
Upgrading the firmware using a computer (Windows or Mac).	
opgrading the innivare using a computer (windows of Mac).	
Changing settings	35
Changing settings using your computer (Windows	
BlackVue Viewer settings	
Select language	
Speed unit on map	
Select map service	
Firmware settings	37
Basic settings	
Time	
Video settings	
Recording settings	
Sensitivity settings	40
G-Sensor (Normal mode) / G-Sensor (Parking mode)	
Motion detection (Parking mode)	
Advanced sensitivity settings for normal and parking mode	41
System settings	43
LED	43
Voice guidance	44
Volume	
Scheduled Reboot	
Speed alert	
User text overlay	
Applying the settings	44
Optional accessories	45
•	
GPS receiver (Optional)	45

Parking mode hardwiring kit (Optional)	46	
Parking mode battery pack (Optional)	47	
Product specifications	48	
Recording time	50	
Disposal and recycling information51		

Introduction

Thank you for purchasing this BlackVue dashcam made by Pittasoft Co., Ltd.

This instruction manual contains information on how to operate your dashcam.

Before using your dashcam, we recommend that you read through this manual to ensure correct usage.

To improve the performance of the product, the contents of this manual are subject to change without prior notice.

Note

• A microSD card is provided with the BlackVue dashcam when you purchase the product. After inserting the microSD card and turning on the dashcam, the microSD card will be initialized.

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.



Failure to observe the following directions could result in death or property damage:

• 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.

• If any foreign matter gets inside the product, detach the power cord immediately.

Contact the service center for repair.

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 install the product in a location where the product can interfere with the driver's field of vision.

Doing so may cause an accident.

• Do not use a damaged or modified power cord. Only use the cords provided by the manufacturer.

Damaged or modified power cords may cause an explosion, fire, or malfunction.

Do not operate the product with wet hands.

Doing so may cause electric shock.

• Do not install the product in an environment with high humidity, or combustible gases or liquids.

Doing so may cause an explosion and/or fire.



WARNING Failure to observe the following directions could result in death or serious injury:

• Do not leave the product near infants, children, or pets.

There is a risk of them swallowing small components, and/or their saliva may get into the product, causing an explosion due to a short circuit.

• Do not spray water or wax directly onto the product while cleaning the inside of the car.

Doing so may cause fire, electric shock, or malfunction.

• If smoke or an unusual smell is emitted from the power cord, detach the power cord immediately.

Contact the service center or your distributor.

• Keep the terminals of the power cord clean.

Failure to do so may cause excessive heat and fire.

• Use the correct input voltage.

Failure to do so may cause explosion, fire, or malfunction.

• Plug in the power cord firmly so that it cannot easily be disconnected.

Failure to do so may cause fire.

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.



CAUTION Failure to observe the following directions could result in injury or property damage:

Do not spray cleaning products directly onto the product.

Doing so may cause discoloration, cracks, or malfunction.

- 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.
- Make sure that the product is installed properly.

If installed incorrectly, vibrations may cause the product to fall, and may cause physical injury.

- 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.
- Excessively tinted windshield glass can distort the recorded video or cause recorded video to be indistinct.
- Prolonged use of the product can increase the interior temperature and cause burns.
- microSD cards are consumables, so replace microSD cards after prolonged use.
 microSD cards may not record video correctly after extended use, so check the microSD card's recording capability periodically and

replace as necessary.

• Clean the lens regularly.

Foreign material attached to the lens can affect the recording quality.

• Do not remove the microSD card while the microSD card is saving or reading data.

The data can be damaged or malfunctions may occur.

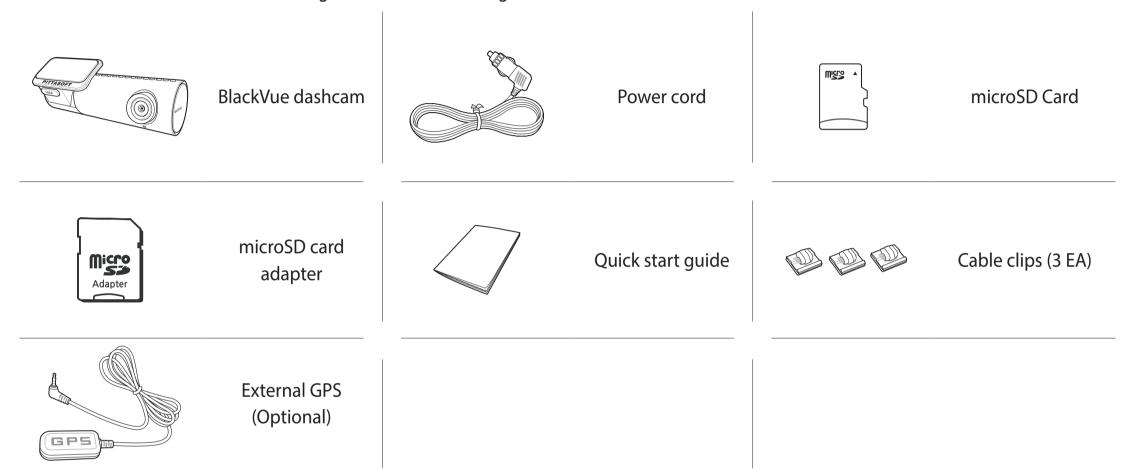
- It is recommended that you install the software and firmware from the BlackVue downloads page (www.blackvue.com).
- It is recommended that you remove the power cord if the product is not used for an extended period of time.

Overview



In the box

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

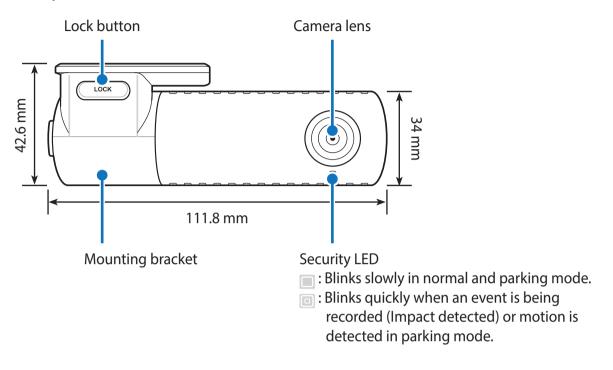


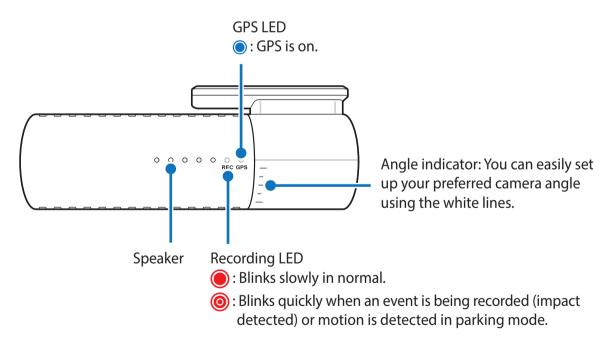


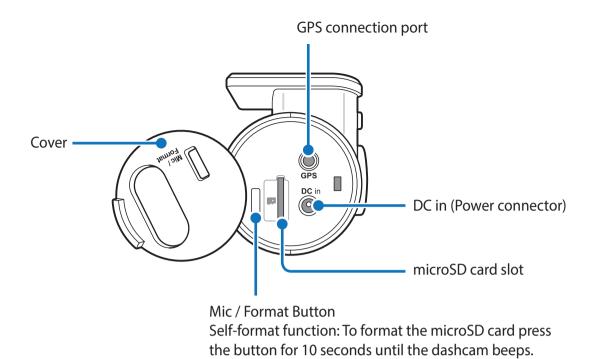
- The illustrations in this manual may differ from the product.
- To improve the performance of the product, the contents of this manual are subject to change without prior notice.
- For more information about the package components and accessories, visit the BlackVue website (www.blackvue.com).

At a glance

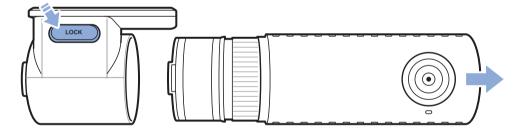
The following diagrams explain each part of the BlackVue dashcam.







Removing and inserting the dashcam

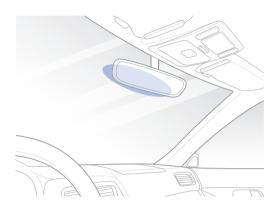


- To remove the dashcam from its bracket, press the LOCK button and pull the dashcam out of the mounting bracket.
- To insert the dashcam into its bracket, push the dashcam into the mounting bracket until it "clicks" in.



Installing the BlackVue dashcam

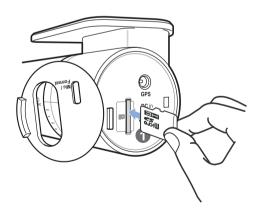
Install the BlackVue dashcam behind the rear view mirror. Remove any foreign matter and clean and dry the windshield before installation.



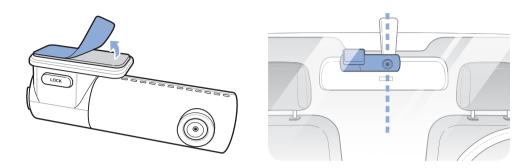


Warning

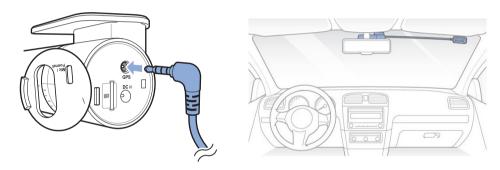
- Do not install the product in a location where it can obstruct the driver's field of vision.
- Turn off the engine. Open the cover of the microSD card slot, gently push the card into the slot until it locks into place and close the cover.



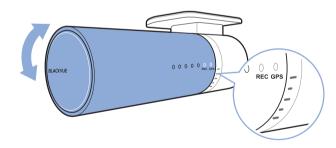
Peel off the plastic film from the dashcam. Peel off the protective film from the double-sided tape and attach the dashcam to the windshield behind the rear-view mirror.



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.

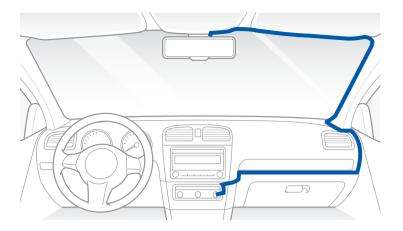


Adjust the angle of the lens by rotating the body of the dashcam. We recommend pointing the lens slightly downwards (≈10° below horizontal), so as to record video with a 6:4 road to background ratio.



5 Plug the power cord into the cigarette lighter socket and the dashcam.

Use the pry tool to lift the edges of the windshield trim/molding and tuck in the power cord. 6



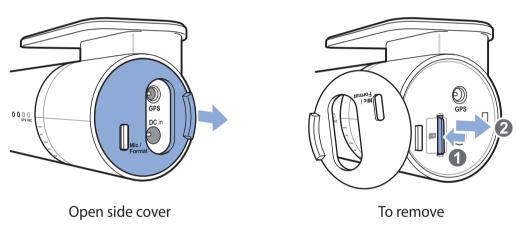
Turn on the engine. The BlackVue dashcam will power up and start recording. Video files are stored on the microSD card. When the microSD card fills up, the newest video files will start to replace the oldest video files (called **loop recording**) – so you will always have the most recent video files.

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 if the vehicle is stationary for 5 minutes.

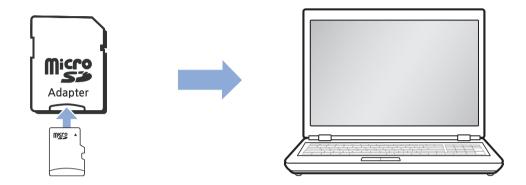
Playing and Managing Videos

- Playing and managing video files using your computer (Windows/Mac)
- Removing the microSD card
- Unplug the power cord to turn off the dashcam.
- Open the cover of the microSD card slot.
- 3 To remove the microSD card, gently press on the card to release the lock then carefully pull the card out. To insert the microSD card, gently push the card into the slot until it locks into place and close the side cover.



Opening video files in BlackVue Viewer

- Remove the microSD card from the dashcam.
- Use the included microSD card adapter to connect the card to a computer.

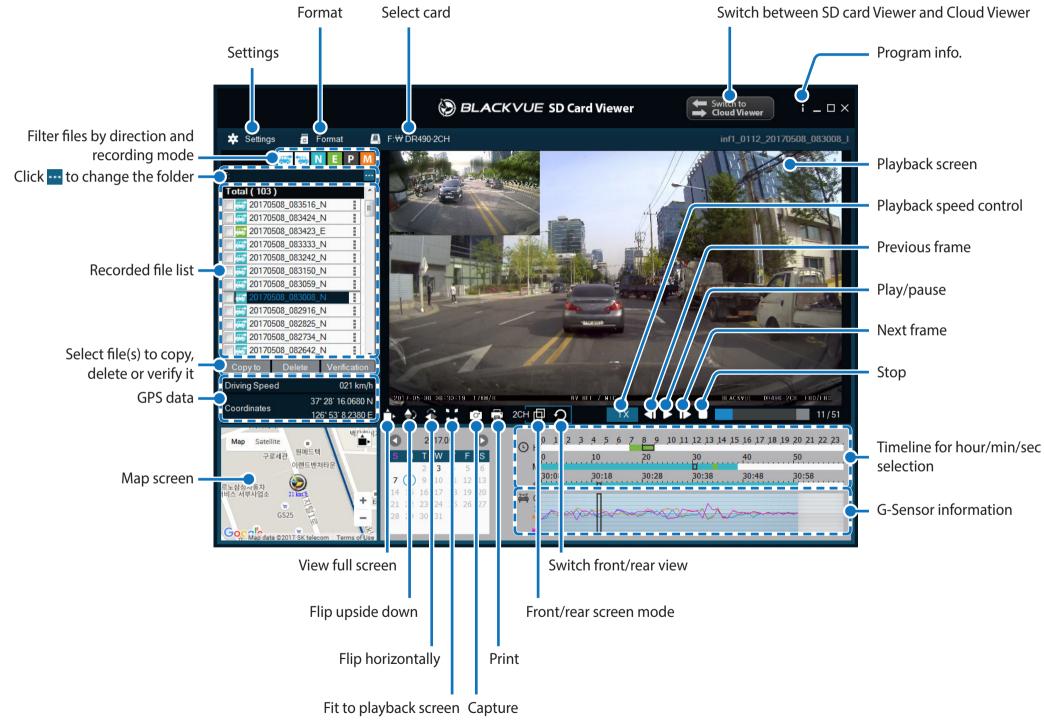


- Download BlackVue Viewer from www.blackvue.com > Support > Downloads and install it on your computer.
- Run BlackVue Viewer.

Viewer screen composition

Windows Viewer

When you launch the program, you will see the SD card Viewer window. To open Cloud Viewer, click the 🚍 🕬 button.

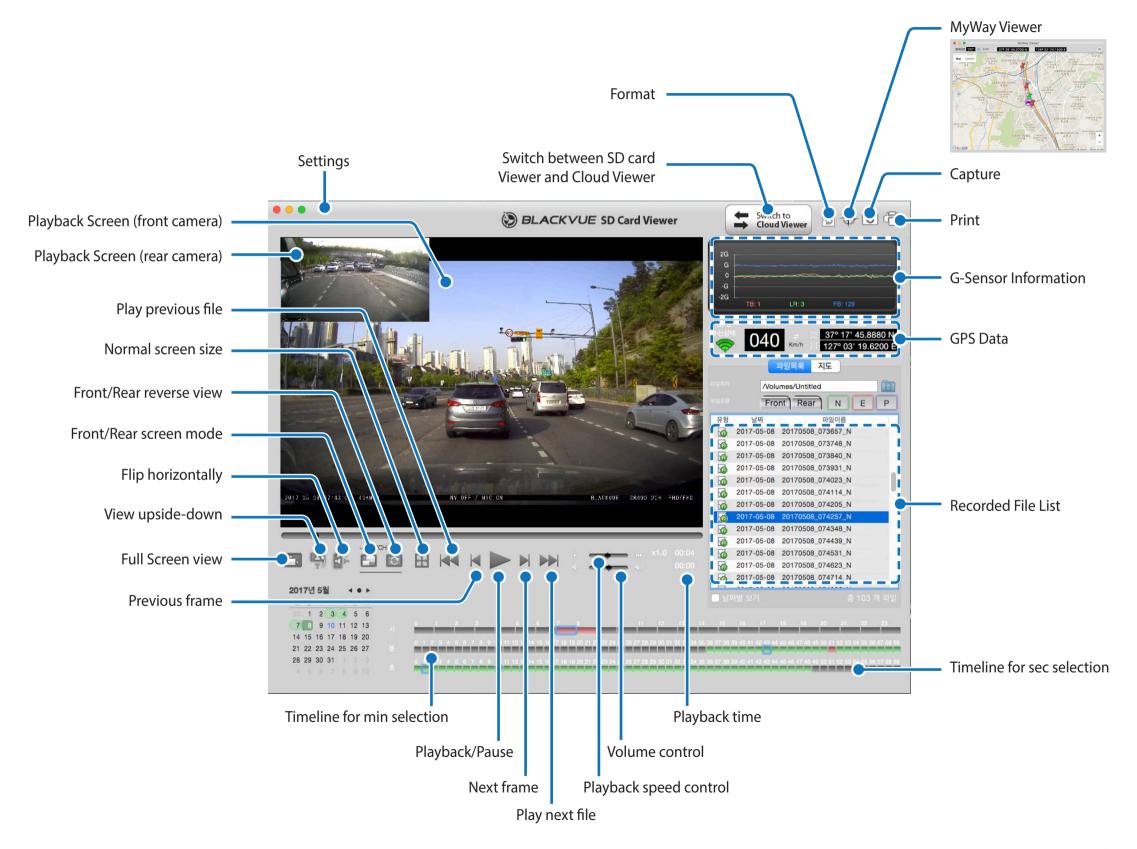




• All images shown are for illustration purposes only. Actual program may differ from images shown.

Mac Viewer

When you launch the program, you will see the SD card Viewer window. To open Cloud Viewer, click the 🗯 witch to n.



Playing video

Playing back videos

In BlackVue Viewer double click a video file to play.

BlackVue Viewer shows by default the files in the microSD card. To see files in another folder click the *** button and browse to the folder.

Identify video files by recording type



N: Normal Recording type:

E: Event

P: Parking mode motion detection

Camera direction: F: Front camera

Example file name: 20170104_150838_NF.mp4

Date & time: 4th January 2017, 03:08:38 PM

Recording type: Normal

Camera direction: Front camera

• Use the 😅 🐃 N E P buttons to filter the video list by recording type. The E filter button displays both E (Event) and I (Impact event while parked) recordings.

Normal	The dashcam records in normal mode by default.
Event	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.
Parking	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.

The car icon with an arrow pointing to the right indicates a front dashcam recording.

The car icon with an arrow pointing to the left indicates a rear dashcam recording.

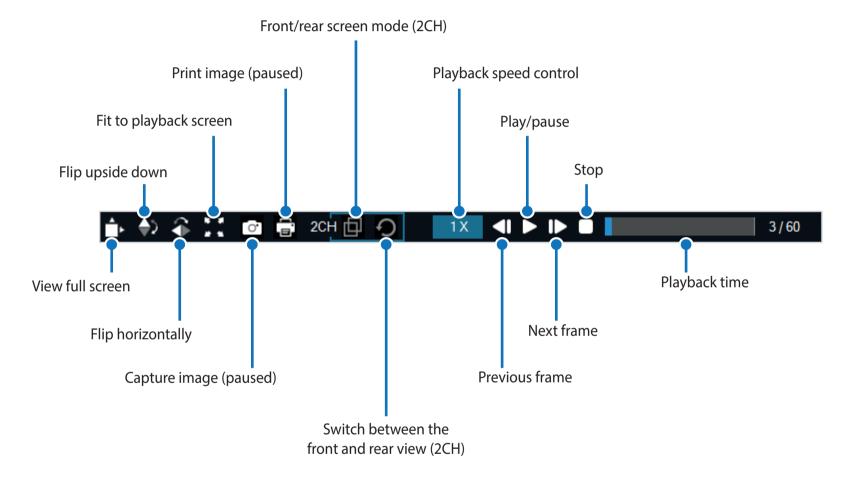
Note

• The dashcam requires a constant power source to record in parking mode. See "Optional accessories" on page 45 for more information.

Checking the displayed time

The time the video was recorded is displayed in the lower left corner of the video in the playback screen. If the displayed time in the recorded videos is incorrect please see "Time" on page 38 or 39.

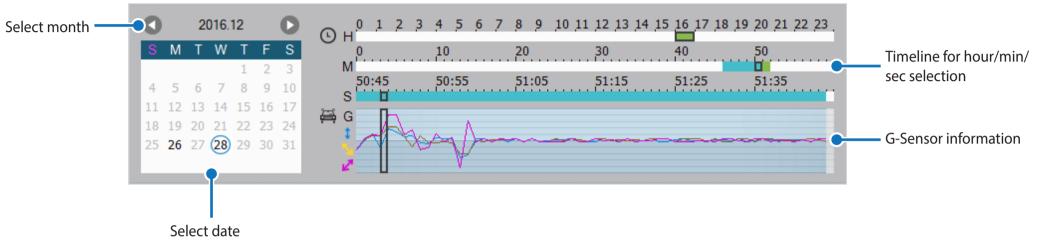
Using BlackVue Viewer



Exploring the timeline and G-Sensor graph

You can explore the timeline for the playback of the recorded videos by date, hour, minute and second using the timeline.

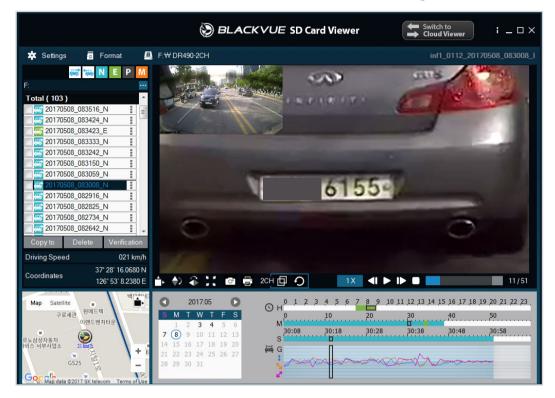
You can check the impact sensitivity (G-Sensor) information in the line graph.

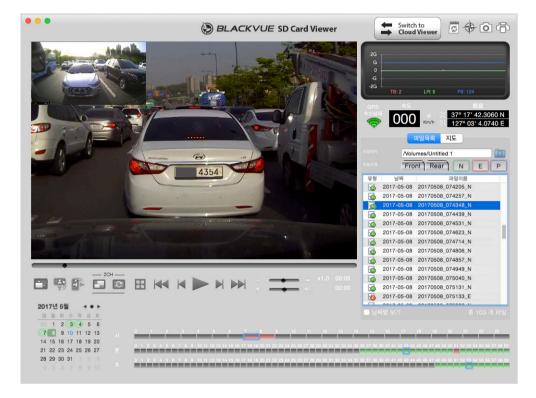


- Dates with recordings are black
- Click a date to filter recordings (date changes to red and circled)

Zoom options

- Use the mouse scroll wheel zoom. Right clicking will restore the video to the default size.
- You can resize the playback frame or the BlackVue Viewer window by dragging the borders.
- Full-screen view: Double click on the video image to enter full-screen view. Double click again or tap ESC to return to the default view.





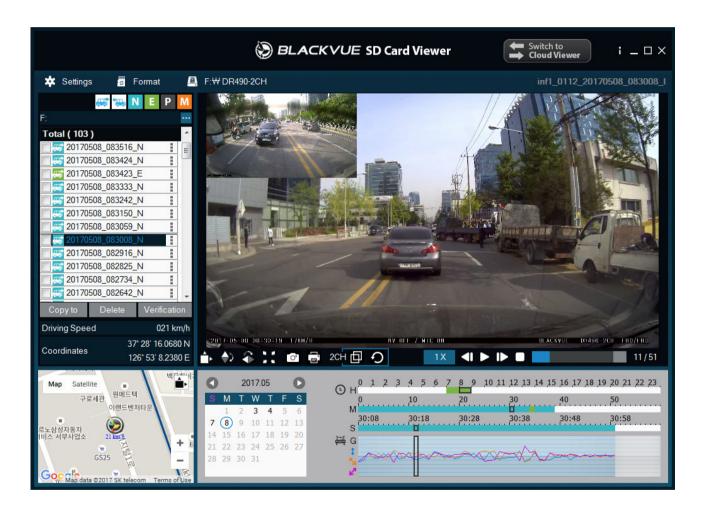
Windows Mac

Checking the GPS data

You can check the GPS data of the recorded video in BlackVue Viewer while video is playing back. The driving speed and coordinates are displayed above the map frame.

Note

- GPS data is not recorded during parking mode. Map data cannot be displayed for parking mode recordings.
- The external GPS recever is required to obtain GPS data.



>

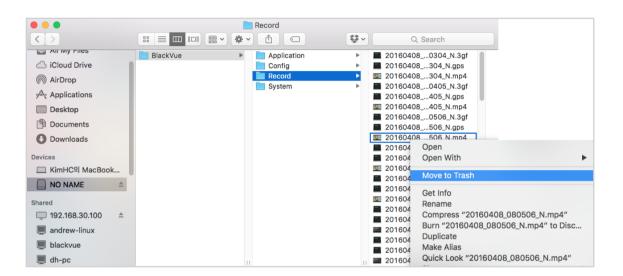
Managing videos

You can manage the recorded videos through the BlackVue Viewer program. You can also format the microSD card.

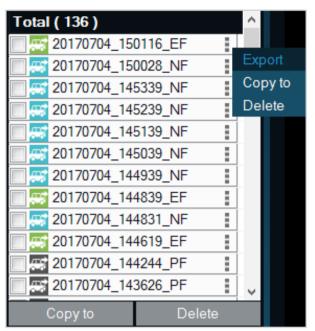


- If the microSD card is full, by default the dashcam will record over the oldest videos first.
- Capturing or printing a still image from video
- 1 Double click a file in the file list to play.
- 2 Click the III pause button to pause the video.
- 3 Select the capture button to capture the image or the print button to print directly.
- Deleting videos
- For Windows users
- 1 Select the video, or videos using the checkboxes, from the recorded video list.
- **2** Click **Delete**.
 - You can also delete individual files by clicking next to a video in the recorded video list and selecting **Delete**.

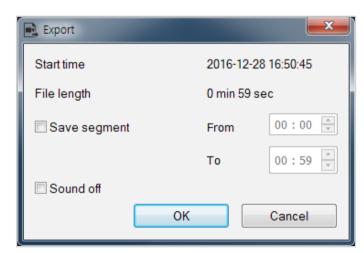
- For Mac users
- Go to \BlackVue\Record\.
- Select the video from the recorded video list.
- Click Move to Trash.



- **Exporting videos**
- For Windows users
- Click next to a video in the recorded video list.



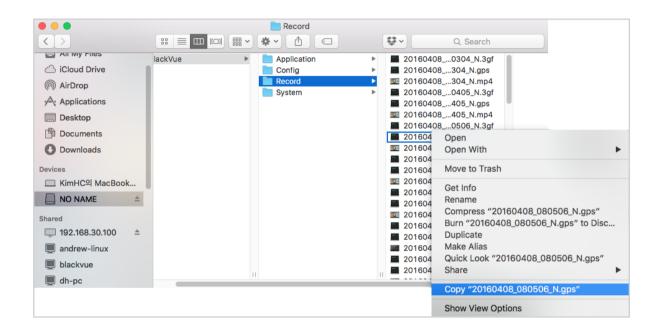
- Click **Export**.
- If you want to extract a segment of a file select Save segment and edit the start and end second points. To export without audio select Sound Off.



- Click the **OK** button.
- Select the folder in which to save the file and enter the file name.
- Click the **Save** button.

- **Copying videos**
- For Windows users
- Click next to a video in the recorded video list.
- Click Copy to.
- Select the folder in which to copy the file and enter the file name.
- Click the **Select folder** button.
 - To copy multiple files at once check the boxes next to the file names and press the **Copy to** button
 - When copying files the segment adjustment and sound off tools are not available.

- For Mac users
- Go to \BlackVue\Record\.
- Select the video from the recorded video list.
- Click Copy "file name".



Tips for optimal performance



Formatting the microSD card



Caution

Back up important video files such as event recording files before formatting the microSD card. If you format the microSD card, all the video files stored in the microSD card will be deleted. Your saved settings will not be affected.

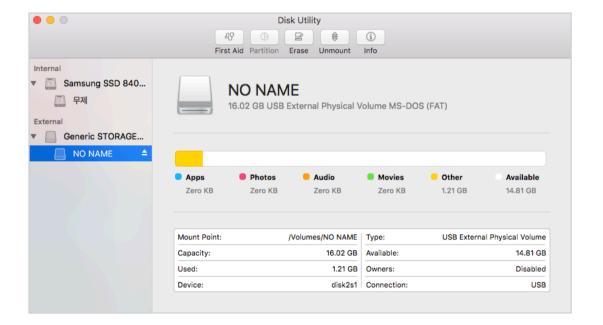
Formatting the card in the BlackVue

To format the microSD card press the Mic / Format Button for 10 seconds until the dashcam beeps.

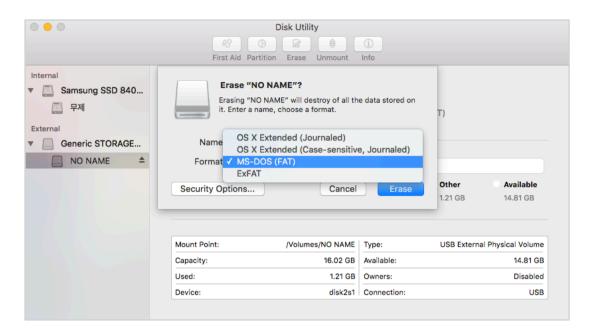
- Format using BlackVue Viewer (Windows)
- Insert the microSD card into the microSD card reader and connect the reader to your computer.
- Download BlackVue Viewer (Windows) from www.blackvue.com > Support > Downloads and install it on your computer.
- Launch the **BlackVue Viewer** that is installed on your computer.
- Click the **Format** Format button, select the card drive and click OK.

Format using BlackVue Viewer (macOS)

- Insert the microSD card into the microSD card reader and connect the reader to your computer.
- Download BlackVue Viewer (Mac) from www.blackvue.com > Support > Downloads and install it on your computer.
- Launch the BlackVue Viewer that is installed on your computer.
- 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.

Note

- Formatting the microSD card once a month is recommended.
- Format the microSD card if the recorded video quality appears to be poor.
- Only use official BlackVue microSD cards. Other cards may have compatibility issues. PittaSoft Co., Ltd. will not be held responsible for any problems caused by using another manufacturer's microSD card.
- For Windows users: To format the microSD card directly from "My Computer", right-click the microSD card drive and select Format. Select File system as FAT32 and Allocation unit size as 64KB then click Start. If FAT32 is not available or can't be selected, please format the microSD card using BlackVue Viewer.

Upgrading the firmware

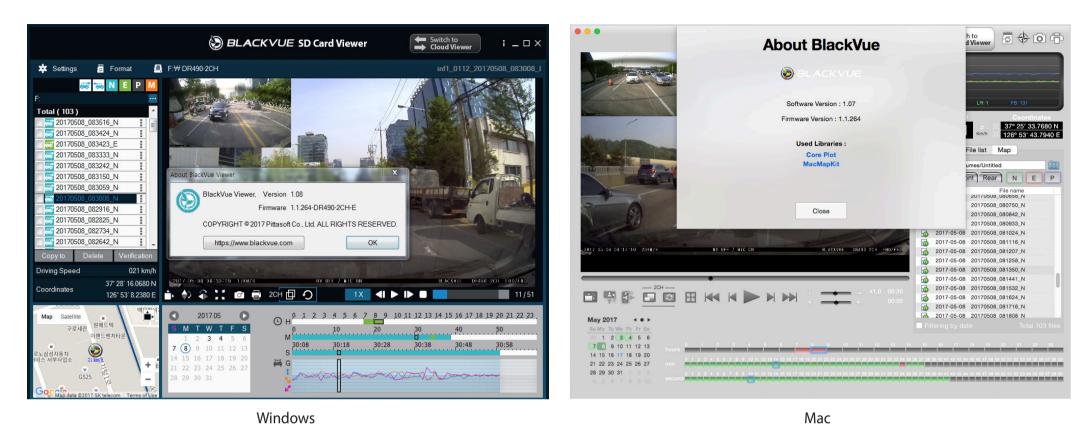
Regularly upgrade the firmware for performance improvements and updated features. Firmware updates will be made available for download at www.blackvue.com > Support > Downloads.

Upgrading the firmware using a computer (Windows or Mac)

Keep your BlackVue dashcam updated by upgrading the firmware to the latest version. Visit the BlackVue website (www.blackvue.com) to check for any new firmware releases for your BlackVue dashcam model.

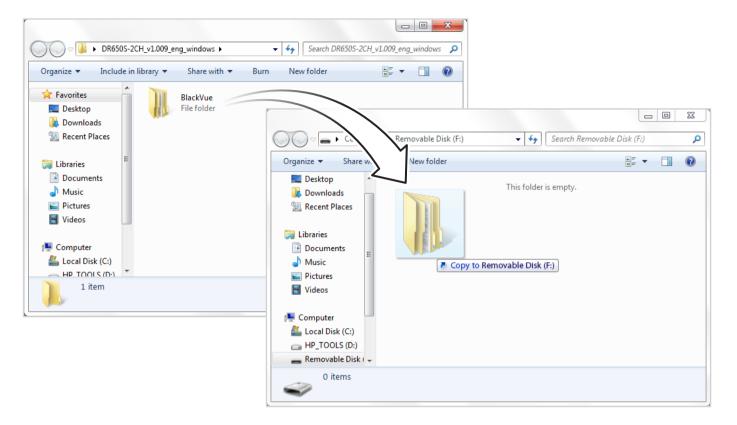
- Insert the microSD card into the microSD card reader.
- Connect the microSD card reader to a computer.
- Launch BlackVue Viewer and click on the About button.
 - For Mac users, click **BlackVue Viewer** and select About BlackVue from the menu.

Check the current firmware version of your BlackVue dashcam and proceed only if your version is not the latest one.



- Format the microSD card. See "Formatting the microSD card" on page 29.
- Go to the BlackVue website (www.blackvue.com > Support > Download) and download the latest firmware for your BlackVue dashcam model in zip format.

Unzip the downloaded file and copy the BlackVue folder to the microSD card.

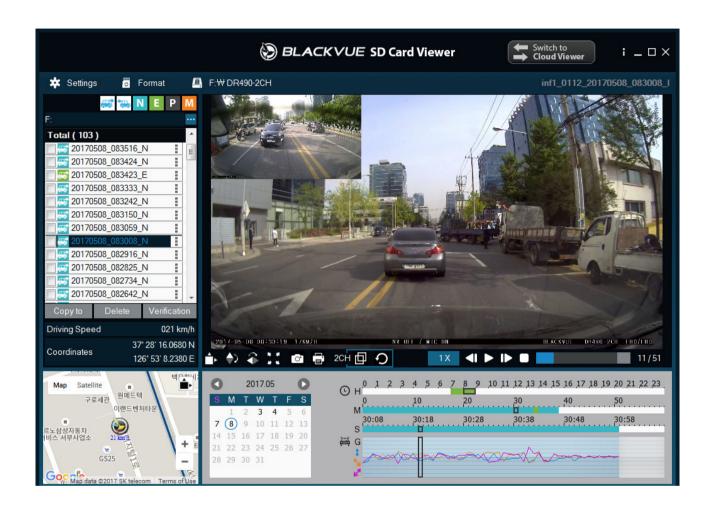


Insert the microSD card into the dashcam and connect the power to initiate the firmware upgrade. Make sure the power remains on until the upgrade is completed. Any power interruption may prevent the firmware upgrade from completing, resulting in malfunction.

Note

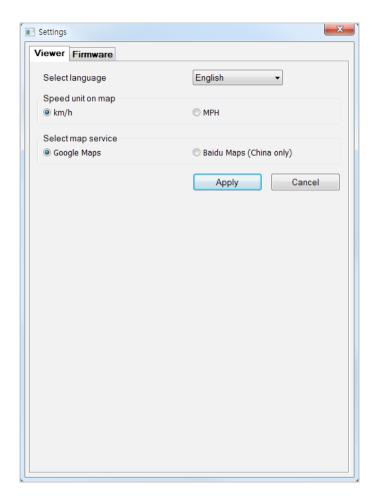
- Do not insert or remove the microSD card when the dashcam is turned on. Doing so may damage the data and cause a malfunction of the microSD card.
- Your saved settings are not affected by firmware upgrade.
- The firmware is upgraded to the previously saved settings.

Changing settings using your computer (Windows/Mac)



Click on the Settings Settings button (Windows) or the SlackVue Viewer menu (macOS) to open the BlackVue settings panel. You will be able to change most of the BlackVue settings to customize its operation.

BlackVue Viewer settings



Select language

Select your preferred language for the BlackVue Viewer interface from the dropdown list.

Speed unit on map

Change the speed unit displayed on the map.

Select map service

Change the mapping service used.



Firmware settings

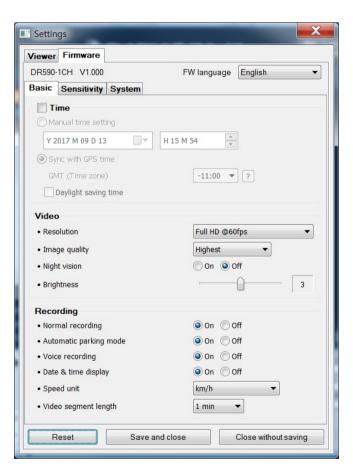
Select your preferred language for the firmware from the FW language dropdown list. The audio announcements by the dashcam will be in the selected language.



Caution

• Please backup necessary recordings before changing time, video resolution, image quality or video segment length settings. If any of the aforementioned settings are changed and saved, the dashcam will format the microSD card and delete all recordings stored on the card.





Time

If you do not connect the GPS receiver:

To manually set the time select **Manual time setting** and set your data and time.

When setting the time manually, please set to the expected time you will use the BlackVue (not the present time).

If you connect the GPSreceiver:

If you run the dashcam with the GPS receiver connected, it is possible to sync with GPS time. To sync with GPS time, select your GMT time zone. The factory setting is GMT -11.

Some examples of GMT time offsets are:

- GMT-7: Los Angeles
- GMT-4: New York
- GMT+0: London
- GMT+1: Paris
- GMT+3: Moscow
- GMT+8: Singapore
- GMT+9: Seoul
- GMT+10: Sydney

If you are unsure of your GMT offset please look up your city on https://greenwichmeantime.com/

* Selecting **Daylight saving time** will advance the clock by one hour.

Video settings

- Resolution

Select the resolution and frame rate. For example, "FullHD@30" means the dashcam records Full HD video at 30 frames per second.

- Image quality

You can adjust the recording image quality (bit rate). Choose between:

- Highest (12 Mbit/s)
- High (10 Mbit/s)
- Normal (8 Mbit/s)

These are the maximum bit rates when the resolution is set to "Full HD@60". If you lower the resolution and frame rate setting, the actual bit rates will be lower.

Increasing the image quality will increase the size of the video files. Loading and copying time will increase accordingly.

- Night vision

Turning on night vision will brighten the image when recording in low-light environments.

- Brightness

You can adjust the recording brightness level of the dashcam.

Recording settings

- Normal recording

When turned off the dashcam does not record in normal mode.

- Automatic parking mode

If enabled, the dashcam switches from normal mode to parking mode when the vehicle is stationary for 5 minutes.

- Voice recording

When turned off the dashcam does not record audio.

- Date & time display

Turn on/off the date and time display on videos.

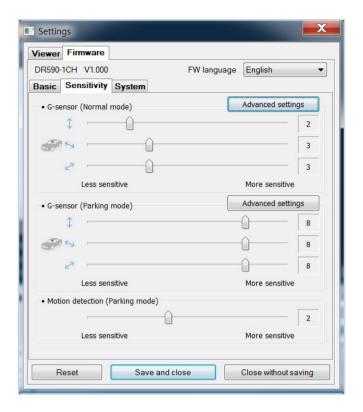
- Speed unit

Select km/h, MPH, or turn off.

- Video segment length

Choose between 1, 2 or 3 minute video segment lengths.

Sensitivity settings



G-Sensor (Normal mode) / G-Sensor (Parking mode)

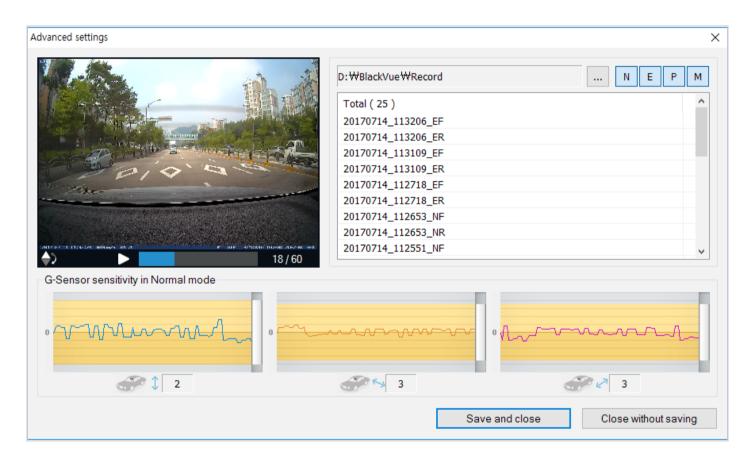
The G-sensor measures the movement of your vehicle through 3 axes – up and down, side to side, and front and back. When the G-sensor detects significant or sudden movement (such as an impact or collision) it will trigger an event recording. You can adjust the sensitivity so minor incidents and bumps don't trigger an event recording. To turn off event recordings by impact detection set the G-sensor sensitivity to off.

Motion detection (Parking mode)

In parking mode the dashcam continuously buffers video and saves a parking recording when motion is detected in the dashcam's field of view.

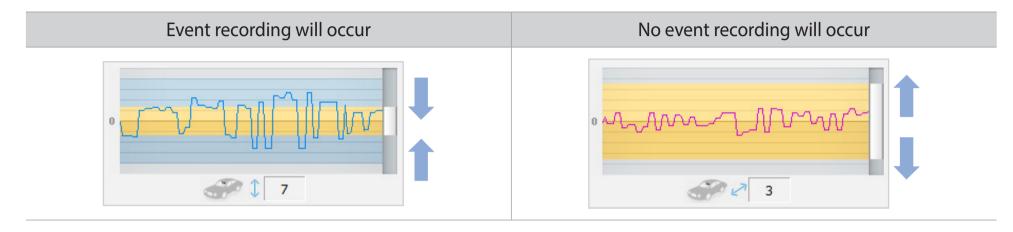
You can adjust the sensitivity of the motion detection so minor motion caused by wind or rain doesn't trigger a recording. Please take into account your vehicle's surroundings when adjusting the sensitivity.

Advanced sensitivity settings for normal and parking mode



Advanced sensitivity settings allows you to fine-tune the event recording G-Sensor threshold, while watching pre-recorded G-Sensor data and video as a reference.

- 1 Click the **Advanced settings** button.
- 2 Double click the video from the list that you want to use as a G-Sensor data reference.
- 3 Set the thresholds by adjusting the control bars next to each G-Sensor axis. Any G-Sensor data that crosses over the threshold on any of the 3 axes will trigger an Event recording.



4 Click Save and close.

System settings



LED

- Recording status

You can turn the recording status LED on/off.

- Security (Normal mode)

You can turn the security LED on/off for normal mode.

- Security (Parking mode)

You can turn the security LED on/off for parking mode.

Voice guidance

You can adjust the voice guidance (announcements) you want to hear.

Volume

You can adjust the volume of the voice guidance (announcements).

Scheduled Reboot

The dashcam reboots automatically once-a-day if in parking mode at the set time for improved stability. If the dashcam is recording at the set time, the scheduled reboot is skipped.

You can enable/disable and change the time for scheduled rebooting. Default time is 03:00 am.

Speed alert

Set a speed limit (up to 300 km/h or 200 MPH) for the speed alert. When the vehicle exceeds the specified speed limit, the dashcam beeps and switches to event recording. After saving one event recording file the dashcam switches back to normal mode recording.

To make use of speed alerts an external GPS receiver must be connected to the dashcam.

User text overlay

You can create a user text overlay of up to 20 characters using a combination of English letters (A - Z, a - z), numbers (0 - 9), and symbols $(:;'/+-_()$\#)$. The text is overlaid in the top-left corner of the recorded videos.

Applying the settings

You can automatically apply the configuration by inserting the microSD card into the BlackVue dashcam and turning it on. Configure the settings before using the dashcam.

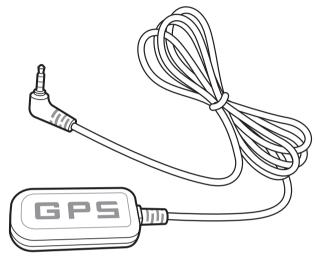
To reset the settings in the current tab to their defaults press the **Reset** button at the bottom of the settings panel.

Optional accessories



GPS receiver (Optional)

If you do not install an external GPS receiver, videos are recorded without GPS coordinates and driving speed information. To include speed, recording location, and the driving route data in the videos, install an external GPS receiver.



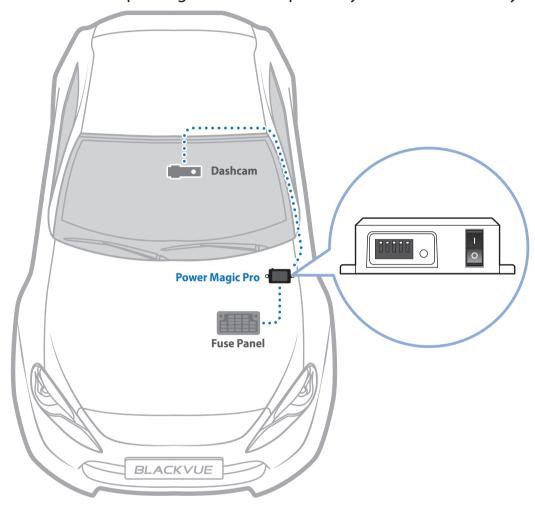


• If you purchased the product without an external GPS receiver, please visit the BlackVue website (<u>www.blackvue.com</u>) for information about purchasing a GPS receiver separately.



Parking mode hardwiring kit (Optional)

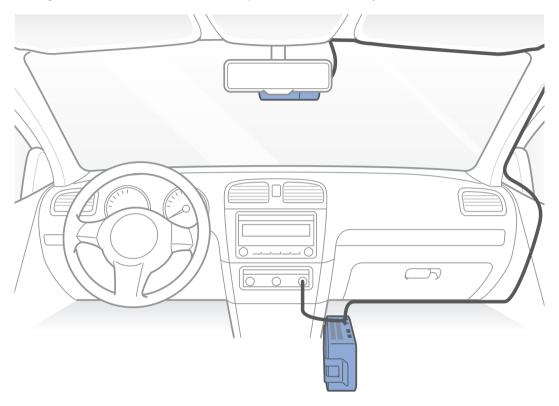
The BlackVue dashcam will turn off when the engine is turned off. To record video while the engine is turned off, a hardwiring kit (such as the Power Magic Pro) is required. The Power Magic Pro powers your dashcam when the engine is off by hardwiring it to the automotive battery. A low voltage power cut-off function and a parking mode timer protect your vehicle's battery from discharge.





Parking mode battery pack (Optional)

To record video when the engine is turned off without using the vehicle's battery, you can install a parking mode battery pack. The Power Magic Battery Pack B-112 powers a single dashcam for up to 12 hours after 1 hour of rapid charging. When the engine is off the battery pack powers the dashcam. When the engine is on the dashcam is powered directly from the vehicle's battery and the battery pack charges.



Product specifications

Model Name	DR590-1CH				
Color/Size/Weight	Black / Width 115.9 mm x Height 34 mm / 61 g				
Memory	microSD Card (16 GB/32 GB/64 GB/128 GB)				
Recording Modes	Normal Recording, Event Recording (when impact is detected in normal and parking mode) and Parking recording (when motion is detected) * For parking mode recording, a Parking Mode Battery Pack (Power Magic Battery Pack) or a Parking Mode Hardwiring Kit (Power Magic Pro) is required.				
Camera	STARVIS™ CMOS Sensor (Approx. 2.1 megapixels)				
Viewing Angle	Diagonal 139°, Horizontal 116°, Vertical 61°				
Resolution/Frame Rate	Full HD (1920x1080) @ 60 fps Full HD (1920x1080) @ 30 fps HD (1280x720) @ 30 fps				
Image Quality	Highest/High/Normal				
Video Compression Mode	MP4				
GPS	External (Optional)				
Microphone	Built-in				
Speaker (Voice Guidance)	Built-in				
LED Indicators	Security, REC, GPS				
Button	Short press: Mic on/off Press and hold: Format microSD card				

^{*} STARVIS is a trademark of Sony Corporation.

Sensor	3-Axis Acceleration Sensor				
Backup Battery	Built-in super capacitor				
Input Power	DC 12V – 24V (DC Plug: ⊖ ⊕ (Ø3.5 x Ø1.35), MAX 1A/12V)				
Power Consumption	Avg. 160mA (FHD@60fps, 2.04W at 12V, when there is no external GPS receiver) Avg. 180mA (FHD@60fps, 2.28W at 12V, when an external GPS receiver is connected) * Actual power consumption may vary depending on use conditions and environment.				
Operation Temperature	-20°C – 70°C (-4°F – 158°F)				
Storage Temperature	-20°C – 80°C (-4°F – 176°F)				
High Temp. Cut-Off	Approx. 80°C (176°F)				
Certifications	FCC, CE, RoHS				
Software	BlackVue Viewer * Windows XP or higher and Mac Yosemite OS X (10.10) or higher				
Other Features	Adaptive Format Free File Management System				

Recording time

Your dashcam will automatically turn on and start recording when it is connected to a power source.

Memory Capacity	Image Quality	Resolution		
		FHD @ 60	FHD @ 30	HD @ 30
16GB	Highest	2 HR 45 MIN	2 HR 45 MIN	4 HR
	High	3 HR 15 MIN	3 HR 15 MIN	5 HR 20 MIN
	Normal	4 HR	4 HR	8 HR
32GB	Highest	5 HR 30 MIN	5 HR 30 MIN	8 HR
	High	6 HR 30 MIN	6 HR 30 MIN	10 HR 40 MIN
	Normal	8 HR	8 HR	16 HR
64GB	Highest	11 HR	11 HR	16 HR
	High	13 HR	13 HR	21 HR 20 MIN
	Normal	16 HR	16 HR	32 HR
128GB	Highest	22 HR	22 HR	32 HR
	High	26 HR	26 HR	42 HR 40 MIN
	Normal	32 HR	32 HR	64 HR
Bit rate	Highest	12 Mbps	12 Mbps	8 Mbps
	High	10 Mbps	10 Mbps	6 Mbps
	Normal	8 Mbps	8 Mbps	4 Mbps



- If the microSD card is full, older files are deleted first to make space for newly-recorded videos.
- Total recording time is different depending on the memory capacity of the microSD card and the resolution of the video.

Disposal and recycling information

Customer Support

For customer support and firmware updates please visit www.blackvue.com

You can also email a Customer Support expert at cs@pittasoft.com

Before Requesting Service

Please back up all important files and data before requesting service. In order to service the dashcam it may be necessary to delete all files and data from the dashcam. All servicing is provided on the basis that the user has backed up all necessary files and data before requesting service. Therefore Pittasoft Co., Ltd. will not be responsible for the loss of any files or data.

Copyright & Trademark

- This instruction manual is protected by Copyright Law, and all rights to it are protected by law.
- It is prohibited to reproduce, copy, modify, or translate this instruction manual without permission.

BLACKVUE BlackVue is the registered trademark of Pittasoft Co., Ltd. Pittasoft Co., Ltd. reserves all rights regarding all works related to the BlackVue brand such as product design, trademarks, and product-promotional videos. It is prohibited to reproduce, copy, modify, or use related works without permission. Any violation may be penalized in accordance with the relevant regulations.





Product I Car Dashcam

Model Name | DR590-1CH

Manufacturer I Pittasoft Co., Ltd.

Address I 7F, BYC HIGHCITY Building A 131, Gasan Digital 1-ro, Geumcheon-gu, Seoul, Republic of Korea, 08506

Customer Support | cs@pittasoft.com

Product Warranty I One-Year Limited Warranty

facebook.com/BlackVueOfficial

www.blackvue.com

Made in Korea