

In order to use this Product safely and prevent any damages caused to you and surrounding people/property, please ensure to read this manual carefully before use. Please note that Car Mate takes no responsibility for any loss arising from the use or failure of this Product, or from any damage to any recorded video and/or data.

Cautionary symbols

Graphic symbols are used in this manual to indicate cautionary matters, based on both the level of seriousness and the subject matter. Please ensure a thorough understanding of what each symbol represents before reading.



WARNING

If the Product is handled improperly, possibility of death or serious injury is anticipated.



CAUTION

If the Product is handled improperly, possibility of injury or property damage may occur.














ATTENTION

Improper handling of the Product may be regarded as violation of the law.










Useful tips to know when handling the Product.








For your safety, please follow the instructions below:

-  Do not use this Product if it is broken, not working, or shows any other signs suggesting an abnormality. To prevent possible accidents or fire from occurring, stop using the Product immediately if it you notice any smoke, abnormal noises, or abnormal smells, etc.
-  Check that Product is securely mounted before driving your car. A Product that has detached or fallen down may result in injury or accidents occurring.
-  Do not suddenly accelerate or make any sharp turns for the sole purpose of checking the performance of the Product. Operating your vehicle in such a way may lead to injury or accidents.
-  Do not use the Product where the usage is prohibited; it may cause other electronic medical devices to malfunction.
-  Keep the power cable and terminal portions clean, wiping away any dust or dirt that may have gathered. Dust and dirt can prevent secure electrical contact, which may lead to electric shock or fire.
-  This product is not dustproof, rainproof, or waterproof. To prevent electric shock, fire, or product failure, do not touch it with wet hand, and keep it away from water and other foreign matter.
-  Do not use the Product if condensation (water droplets) has formed on the inside. Condensation is more likely to form when the Product is subjected to sudden change of temperature, and may cause the Product to malfunction or heat up.
-  Do not insert metal items such as pins or needles, directly into holes or gaps in the Product. Doing so may result in product malfunction or electric shock.
-  To prevent electric shock, fire, or product failure, do not disassemble, attempt to repair, or alter this Product in any way.
-  Do not operate the Product or keep watching the Product's screen while you are driving. Doing so may lead to accidents. Keeping your eye on such display devices while operating a vehicle is prohibited by law.
-  This product is for use only in Japan, United States, and Hong Kong. Please follow the local and state laws.
















Installing the Product

-  Do not mount the Product or distribute its cables around areas where operation of the vehicle's airbags may be obstructed. In the event of car crash, the airbag may not work properly, or lead to an accident/injury upon inflating.
-  Install this Product properly according to quick start guide. Keep the camera body attached to the mount while driving and during inspection. Car products mounted incorrectly may not only be regarded as a violation of your local traffic laws, but may further lead to road accidents.
-  Do not install the Product on a vehicle equipped with a sliding rear window.
-  Double-sided tape should be attached to the glass surface.
-  Images/video on the LCD screen may become darker if the rear window of your car is tinted or coated with film.
-  A high mounted stop light at the rear of your car or headlamps of the car behind may make it difficult to recognize images/video on the LCD screen.
-  Radio-frequency interference may occur with other electrical devices such as the radio or vehicle GPS systems. If such interference has occurred, change the installation location and/or the distribution of cables.

Powering the Product

-  Use the power cable plug alone. Overloading or splitting the connection may lead to the abnormal generation of heat or fire.
-  Hold the connector portion of the power cable when unplugging. A damaged power cable may cause electric shock or fire.
-  Use this Product only with DC 12V/24V negative-earth vehicles. Using this Product with other vehicles may result in product malfunction.
-  This Product automatically switches between its two operational modes by recognizing its electric power supply source. Use only the add-on accessory products included in this Product, or those sold separately. Some third-party USB cables and USB power sockets may not be compatible with this Product.
-  Some cars (such as those imported from overseas) are designed to keep supplying electrical power to their cigarette lighter receptacle, even with the engine turned off. If your car falls into this category, unplug the Product when the engine is turned off.
-  After the camera is switched on, it may take up to approximately 15 seconds to begin recording. It will take even longer when the ambient temperature exceeds the operating temperature range.
-  In some cars with an idling-stop system, the supplied voltage may be reduced in order to restore the electric power for restarting the engine. Due to this, the power supply to this Product may be stopped.

The camera

-  Do not drop or apply excessive force to the Product.
-  To prevent product failure or the loss of data, do not place the Product near magnetic objects.
-  To prevent possible deformation or fire from occurring, do not leave the camera body in areas where temperatures can rise quickly, such as on the dashboard.
-  If the camera body has become hot after using it for a long period of time, do not touch it to avoid potential burns.
-  When cleaning the camera body, do not use solutions containing abrasive compounds, alcohols, or organic solvents.
-  To prevent possible product failure, avoid exposing the camera lens and/or its' LCD screen to direct sunlight for long period of time.
-  Do not press forcibly on the camera LCD screen or touch it with the tip of sharp-edged objects such as fingernail or a pen. Doing so may lead to product failure or injury by broken LCD screen.
-  To prevent possible product failure or damaged to data, do not switch off the camera while updating the camera body.
-  If the surface of the lens has collected dirt, wipe it clean using the included lens cleaning cloth.
-  Due to the characteristics of the electrical components of this Product, the surface/internal temperatures of the camera may increase depending on the conditions of use. When the ambient temperature exceeds the operating temperature range, Product operation will be stopped for protection. If Product operation is stopped, resume operation once the camera temperature has decreased.
-  Due to the characteristics of LCD screens, slowing or darkening of the screen display, or image lag may occur at extreme temperatures. Occurrence of these phenomena however, is not considered product failure.
-  Due to the characteristics of LCD screens, you may not be able to see the screen display clearly when seeing at certain viewing angles. This is not considered product failure.
-  Due to the characteristics of LCD screens, small dots, horizontal or vertical lines, or differences in brightness may be observed on the screen display. Occurrence of these phenomena however, is not considered product failure.
-  You may not be able to see the screen display at all when wearing a pair of polarized sunglasses.
-  Due to the characteristics of LCD screens, some pixels do not light up while some do. Occurrence of this phenomenon however, is not considered product failure.

GPS (Global Positioning System)

- ⚠ The precise position and the speed of your car cannot be determined if this Product is unable to receive GPS signals.
- ⚠ Depending on the ambient environment or geographical factors, this Product may not be able to adequately receive GPS signals or receive GPS signals at all.
- ⚠ GPS satellites are controlled by the U.S. Department of Defense and their accuracy is subject to change without prior notice.
- ⚠ Do not use this Product near other GPS products or VICS receiver units. Doing so may cause such products/units and this Product to malfunction.

- ⚠ Using this Product near a TV antenna may cause a deterioration in the reception sensitivity, flickering and/or noise from the TV set.
- ⚠ In order to receive clear GPS signals, do not place obstructive items around the Product.
- ⚠ When the Product is switched on, it may take time until it starts receiving GPS signals. Allow between 30 seconds to a few minutes, depending on the signal reception environment, weather, vehicle conditions, and position of the Product.
- ⚠ GPS signal reception may be hindered if the front windshield of your car has been surface-treated with a coating, etc.

Recording images and video

- ⚠ In some cases, your recorded images, video and/or data may constitute an infringement on the legal rights of a third party.
- ⚠ Car Mate takes no responsibility for any matters with regard to, and arising from, the content of the images, videos and/or data recorded on this Product.
- ⚠ This Product is not guaranteed to produce valid evidence as proof for any accidents, or to identify any license plate, model or color of any vehicle.

- ⚠ This Product is not guaranteed to record in all circumstances.
- ⚠ Recording performance and time may vary depending on the object being recorded or on the ambient environment.
- ⚠ In certain circumstances, other electronic components or devices may hinder the recording operation of this Product.
- ⚠ The effects of infrared LED may cause recorded image/movie of certain subject to become more reddish.

microSD card

- ⚠ Ensure to use the microSD card exclusively for DC4000RA (accessory or optional Item number DC3A/4A/5A). Using a different microSD card may result in errors occurring in recorded image, movie or sound.
- ⚠ If the microSD card has become hot after using it for a long period of time, do not touch it to avoid potential burns.
- ⚠ To prevent product failure, do not touch the memory card with oily or wet hands.
- ⚠ To prevent possible data breakage and failure, do not insert or remove the microSD card while the camera is powered on.
- ⚠ To prevent possible breakage, failure and malfunction of the microSD card, do not deform it with sharp-edged objects, or apply excessive force to it.
- ⚠ To prevent possible breakage, failure and malfunction of the microSD card, do not insert any foreign objects into its' slots, and do not touch its' terminal portion.
- ⚠ To prevent possible data breakage and failure, insert the microSD card in the correct orientation until it clicks in place.
- ⚠ To prevent possible data breakage and failure, do not affix any stickers or labels on the microSD card.

- ⚠ Initialize (format) your microSD card when:
 - * You wish to delete all the data on the microSD card.
 - * The camera has warned you to format the microSD card. (Refer to page 5 in Quick Start Guide)
- ⚠ The microSD card is an expendable supply. After writing data on it a certain number of times, or after its' period of use, normal recording may be impeded due to breakage in part of its memory sector. It is recommended you replace your microSD card with a new one every year and a half, assuming you use it two hours a day on average.
- ⚠ Ensure to back up important data on other devices. Data stored on a microSD card may be overwritten or deleted.
- ⚠ Store your microSD cards in a dry, cool, clean place.

Parking Mode

- ⚠ When using the camera in Parking Mode, ensure to connect the Parking Option add-on provided exclusively for this Product. To avoid possible drainage of your car battery or malfunction, DO NOT use any other third-party cables to connect directly to the power source.
- ⚠ Car Mate takes no responsibility for any damage or loss arising from the drainage of your car battery while using the Product in Parking Mode.

- ⚠ If the Parking Mode is running at night without sufficient light source around the camera, recorded image/video may become unclear, or the camera may not start recording at all.
- ⚠ For some cars, imported cars in particular, user mistakes may occur as to the location of the power supply cable (when Parking Option is connected). After the installation is complete, wait a while to see if the camera operates as expected. Incorrect installation may cause the product to stop operating sooner than its set time.

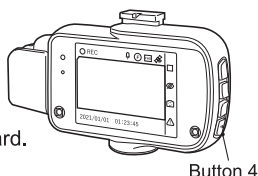
Other considerations

- ⚠ According to copyright law, you cannot use recorded images, videos and/or data without permission of their right holder for any purposes other than your own personal use. If you plan to use this Product at live demonstrations, shows or exhibitions, follow the rules of the organizers.
- ⚠ Do not attach included stickers on the vehicle windshield, the driver-side window, or the passenger-side window. Sticker positioning on vehicles must comply with road safety standards.

- ⚠ The stickers provided are highly adhesive, so special care should be taken when applying them to painted surfaces. Also, sticking the stickers to areas where the surface will be rubbed, such as windows that open and close vertically or horizontally, may cause the stickers to peel off.
- ⚠ If you use a car window sunshade, heat tends to generate around it, which may cause the camera to malfunction or come away. As such, ensure the camera is not tucked between the sunshade and the windshield.
- ⚠ Do not remove the product label placed on the Product. It will be required for product identification, as when claiming product warranty.

What to do after an accident

- (1) Press and hold button 4 for about 5 seconds to turn off the camera.
- (2) Confirm that the LED on the camera has turned off, then remove the microSD card.



⚠ CAUTION Check the surrounding area for safety before working.

■ Windshield Mounting Legal Restrictions

Before using the Product on your windshield, check the state and local laws and ordinances where you drive. Some state laws prohibit or restrict the placement of objects on the windshield of motor vehicle. IT IS THE USER'S RESPONSIBILITY TO MOUNT THE PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS AND ORDINANCES. Always mount the Product in a location that does not obstruct the driver's view of the road. Car Mate is not responsible for any fines, penalties, or damages that may be incurred as a result of any state or local law or ordinance relating to the use of your Product.

■ Camera Legal Notice

In some jurisdictions it could be considered an invasion of privacy rights to take or publicly display photographs or videos of people or their vehicles using this Product. It is your responsibility to know and comply with applicable laws and rights to privacy in your jurisdiction.

dAction360 DC4000RA

Quick Start Guide

Download the latest detailed instruction manual / camera firmware / PC software below



<https://carmate-usa.com/pages/daction-download-center>

- Ensure that you read this manual prior to use, and keep it in a safe place.
- Appearance or specifications may change without notice.
- Manufacturer is not responsible for any loss or damages caused by the modification or misuse of the Product.

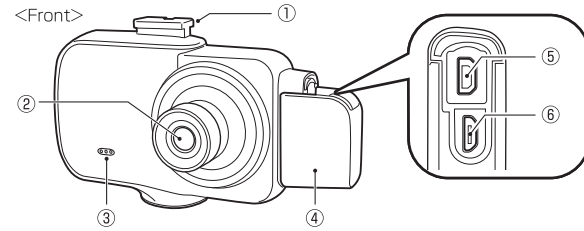
≡ 1 ≡

Part Names and Accessories

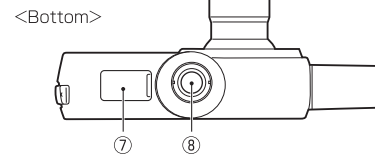
Before use, check the Product for the following contents.

Main camera (Front camera and 360 camera)

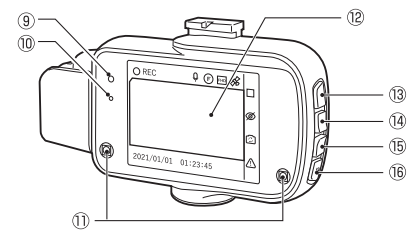
<Front>



<Bottom>



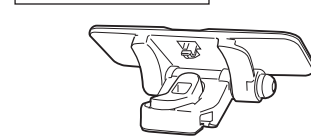
<Back>



Main camera

| | |
|---|----------------------------|
| ① | Mount rail |
| ② | Front camera |
| ③ | Speaker |
| ④ | Cable cover |
| ⑤ | Power cable terminal |
| ⑥ | Rear camera cable terminal |
| ⑦ | Card slot |
| ⑧ | 360° Camera |
| ⑨ | LED |
| ⑩ | Microphone |
| ⑪ | Infrared LED |
| ⑫ | LCD Screen |
| ⑬ | Button 1 |
| ⑭ | Button 2 |
| ⑮ | Button 3 |
| ⑯ | Button 4 |

Main camera mount



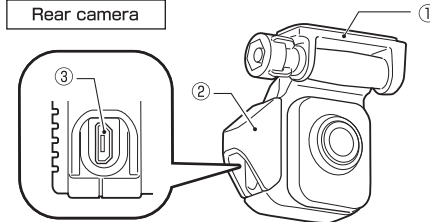
32GB microSD card

The microSD card is already set in the main camera.



≡ 2 ≡

Rear camera



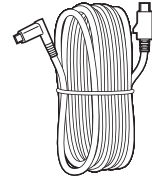
Rear camera

| | |
|---|----------------------------|
| ① | Rear camera mount |
| ② | Cable cover |
| ③ | Rear camera cable terminal |

Power cable,
approx. 3.9m
(153.5 inch)



Rear camera cable,
approx. 8.9m
(350.4 inch)



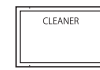
Communication cable,
approx. 0.3m
(11.8 inch)



Hex wrench



Cleaning wet wipe



Sticker



Lens cleaning cloth



- Product information: [Quick Start Guide] (this booklet), [Quick Reference Guide] and [Using this product safely]

≡ 3 ≡

About microSD card

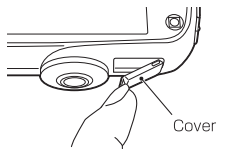
Ensure to review the instructions on [Using this Product safely].

- ⚠ To prevent possible data breakage and failure, do not insert or remove the microSD card while the camera is powered on.
- 🔧 To use this Product, a microSD card is required.
- 🔧 The microSD card set in the main camera is provided exclusively for DC4000RA.
- 🔧 Initialize (format) your microSD card when:
 - * You wish to delete all the data on the microSD card.
 - * The camera has warned you to format the microSD card. (Refer to page 5)
- 🔧 The microSD card is an expendable supply. After writing data on it a certain number of times, or after its' period of use, normal recording may be impeded due to breakage in part of its memory sector. It is recommended you replace your microSD card with a new one every year and a half, assuming you use it two hours a day on average.
- 🔧 Ensure to back up important data on other devices. Data stored on a microSD card may be overwritten or deleted.
- 🔧 A microSD card is already set in the camera at the time of purchase.

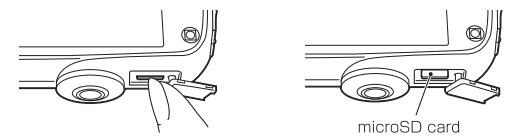
Removing microSD card

- 1 Check that the camera is powered off. Open the cover of the card slot.

- ⚠ Ensure to power off the camera.



- 2 Push in the microSD card until it clicks out. Pull it out as it ejects.



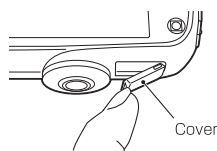
- 3 Put the cover of the card slot back on.

≡ 4 ≡

Inserting microSD card

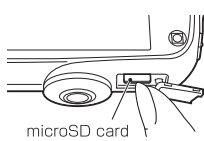
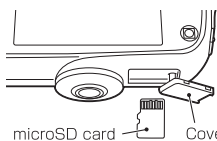
- 1 Check that the camera is powered off. Open the cover of the card slot.

- ⚠ Ensure to power off the camera.



- 2 Insert the microSD card until it clicks in place.

- 🔧 Insert the card straight into the slot with its' terminal surface facing the LCD screen.



- 3 Put the cover of the card slot back on.

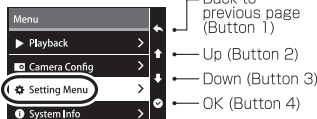
Initializing (formatting) microSD card

Delete all files on the microSD card to optimize its folder structure.

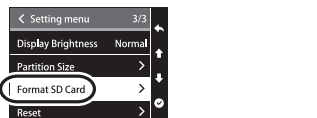
- ⚠ Formatting a microSD card erases all of the existing files stored on it. Back up any important data onto a storage device (such as a PC) prior to formatting.

- 1 Display Menu screen.

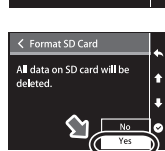
- 🔧 If recording is in progress, press button 1 to stop recording. Press button 1 again to switch to Menu display.



- 2 Press button 2 / button 3 to select [Setting Menu]. Press button 4 [OK] to confirm.



- 3 Press button 2 / button 3 to select [Format SD card]. Press button 4 [OK] to confirm.



- 4 Press button 2 / button 3 to select [Yes]. Press button 4 [OK] to confirm.

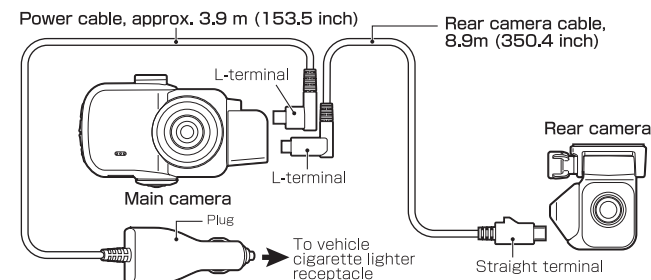
- 🔧 When formatting the microSD card is complete, the screen automatically switches to Menu display.

≡ 5 ≡

Installation

Wiring diagram

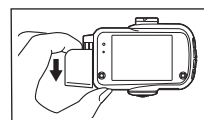
- ⚠ When installing the camera in your vehicle, ensure to use the accessories included in this Product, or optional add-on products exclusively provided for this Product.
- 🔧 The communication cable is used for connecting the main camera to a PC. It will not be used in your vehicle.
- 🔧 If you are installing the Parking Option add-on to be used with this Product, the power cable will not be required.



Connecting cables

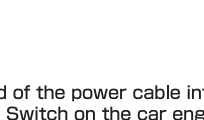
- 1 Slide the cable cover of the main camera downward. Insert the power cable, and the rear camera cable in that order.

- 🔧 Slide the cable cover downward with your index finger.



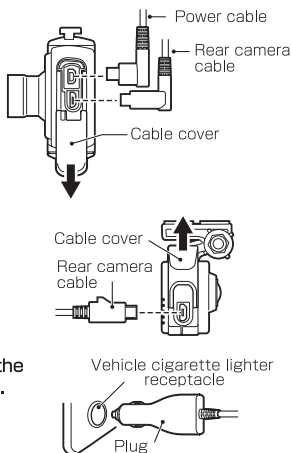
- 2 Slide the cable cover of the rear camera upward. Insert the rear camera cable.

- 🔧 Slide the cable cover upward with your index finger.



- 3 Insert the plug end of the power cable into the lighter receptacle. Switch on the car engine.

- 🔧 The main camera will start and the camera LCD screen will display menus for setting.



≡ 6 ≡

Initialization of the camera

- 🔧 The initial setting screen will appear when you use it for the first time or reset it.
- 🔧 Please set up the camera outdoors where it can easily receive GPS and other signals. Not in parking structures or basements for example.

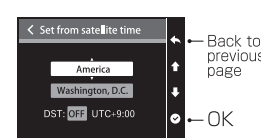
- 1 Choose and decide on the language to be used.

- 🔧 If you need to change the language setting, please refer to page 14 and reset the setting from [Reset].



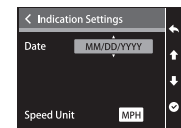
- 2 Select a region, then a city, then press button 4 [OK].

- 🔧 The date and time will also be set automatically when it receives GPS or other signals.
- 🔧 DST stands for Daylight Saving Time. If you turn it on, it will add one hour.



- 3 Select the order of the year, month and date and the speed unit, and press button 4 [OK].

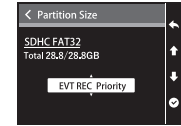
- 🔧 Y stands for year, M for month, and D for day.



- 4 Select the Partition Size you want to prioritize and decide.

- 🔧 The recorded data is automatically sorted and saved into different Partition Size (folders) according to the content. The ratio of the Partition Size (folder) capacity can be changed.

- 🔧 When the data in the Partition Size (folder) becomes full, it will be overwritten in order starting with the oldest data.



(EVT(EVENT) REC Priority *default)

The recording area for impact recording and manual recording during Drive Mode.

(NML(NORMAL) REC Priority)

The recording area for constant recording in Drive Mode.

(PKG(PARKING) REC Priority)

The recording area for impact and motion recording during Parking Mode.

Capacity ratio of recording area

| | Event Recording Area | Normal Recording Area | Parking Recording Area | The Others |
|------------------|----------------------|-----------------------|------------------------|------------|
| EVT REC Priority | 20% | 69% | 10% | |
| NML REC Priority | 10% | 79% | 10% | |
| PKG REC Priority | 10% | 69% | 20% | |

- 🔧 Proceed with the installation process while the camera is still recording.
- 🔧 If the Parking Option is installed, proceed with the installation process with the vehicle's engine switch turned on to start constant recording.

Installation Position

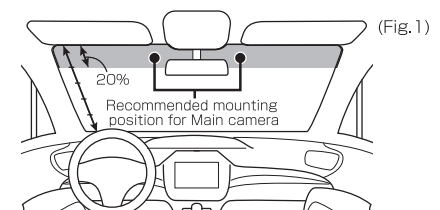
- 1 Insert the mount rail through the groove of the main camera mount.

- ⚠ Ensure to insert the mount rail until it clicks in place, so the camera is firmly held.

- 2 Place and hold both the main camera and the rear camera with your hand onto their respective mounting position. Make a layout plan for distribution of the cables inside the car.

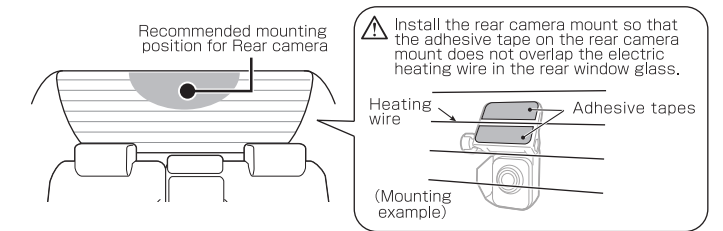
- ⚠ In doing this, do not affix the camera mounts yet with the adhesive tapes.
- ⊘ Car products mounted incorrectly may be regarded as a violation of your local traffic laws. Ensure to mount the cameras in compliance with such laws.

Installation position requirements and notes



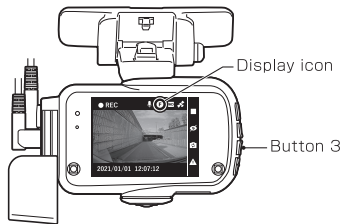
- The camera is mounted within the upper 20% portion of the windshield. (Fig. 1)
- The mounted camera does not interfere with the driver's vision and operation of the vehicle.
- The mounted camera does not block the rearview mirror, or obstruct the vehicle's airbags.
- The camera is mounted so that its lens is within the wiping range of the windshield wipers.
- The mounting tape of the cameramount does not overlap any heated wire printed on the windshield or antenna.
- If additional security or safety cameras are already in place, the mounted camera should not be within the view of such camera.
- No cable or metallic objects should be between the front windshield and the GPS antenna. (Fig. 2)
- * If additional security or safety cameras are already in place, observe their instruction manuals.

≡ 8 ≡ Continued on to the next page ➡



Recording range and adjusting camera angle

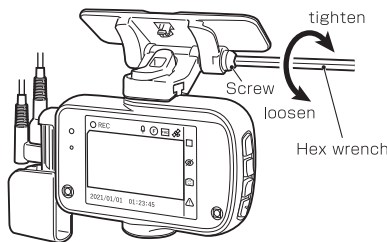
1 Place and hold both the main camera and the rear camera with your hand onto their respective mounting position you have found desirable. Press button 3 to switch images, and check the recording range of each camera.



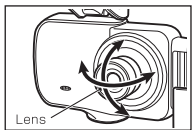
As each camera is switched to display its' recording range, the corresponding icon changes accordingly.

2 Adjust the camera angle according to its recording range.

Adjusting the main camera angle
Using the included hex wrench, loosen the screw to adjust the camera, and tighten.



Lens orientation can also be adjusted.

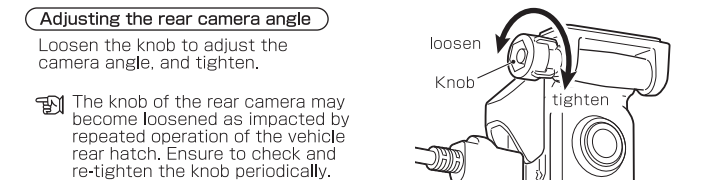


The camera angle can be easily adjusted by first displaying the 360-degree camera image on the LCD screen, fixing the camera at the angle at which the interior of the car is best viewed, and then moving the front lens direction. The standard for the proper angle is the angle at which the rear glass enters the angle of view. (Adjust according to the shape of the vehicle and your preference.)

← 9 →

| Problem | Cause and explanation | Solution | Reference page |
|---|--|---|-----------------------------|
| Impact recording starts without apparent impact. | Impact sensitivity might have been set high. | On [Driving G Sensor] or [Parking Monitor], reset [Impact sensitivity]. | QRG 9-11 |
| Recorded data have disappeared. | When the folder on a microSD card becomes full, the most recently saved file overwrites the oldest file. | Ensure to back up important data on other devices. | 7, QRG 15 |
| While playing video footage, there is no sound. | [Audio Record] is disabled on recording settings. | On [Camera Config], enable [Audio Record]. | QRG 9-10 |
| | [Playback volume] might have been set low on [Setting Menu]. | On [Setting Menu], set [Playback volume] to [H], which stands for high audio volume. | QRG 9-12 |
| The video of Motion recording has no motion. | Motion recording detects and record a slightest movement around the car such as change in light as one moving object. As such, an object that is moving so slightly cannot be recognized (or difficult to recognize) at playback. | — | — |
| Video recorded in Parking security mode has disappeared. | When the folder on a microSD card becomes full, the most recently saved file overwrites the oldest file. It is possible that the video that has disappeared has been overwritten in the same partition (PARKING folder) in form of Motion recording. | Set [Partition Size] to [PKG REC priority]. | QRG 7, 9, 12, 15 |
| | | On [Parking Monitor], disable [Motion Detect]. | 9, QRG 11 |
| The camera notifies to format the SD card way too often. | The microSD card is an expendable item and its' writing speed decreases through repeated use. The camera is programmed to advise you to format your card before its' writing speed becomes too slow to record. | Back up important data on other devices, and format the microSD card. | 5 |
| | | Replace the microSD card with a new one. | 4-5 |
| In Parking Mode, the camera stops operating sooner than its' set time. | In Parking Mode, voltage monitoring function is operating. | Reset the value of the voltage monitoring function, or change or charge your car battery. | — |
| When the car door is opened or closed during Parking Mode, the d'Action 360 logo appears on the LCD screen. | For Parking Option to operate properly, it must be connected to the right power supply in your car. Otherwise, the vehicle voltage fluctuates by car door operation after a certain amount of time while the car engine is off. | Review and rectify the vehicle power supply cable portion to which Parking Option is connected. | [Using this product safely] |
| After loading the microSD card on the computer and checking the recording data, when I put the card back in the camera, an error message appeared and I could no longer record. | Data in the microSD card may have been corrupted due to a malfunction of a commercially available card reader or conversion adapter due to age-related deterioration. | Format the microSD card in the camera body. If this does not improve the situation, replace the card with a new microSD card. Also, when reading the microSD card with a computer, connect the computer to the main camera with the supplied communication cable. | — |

← 13 →



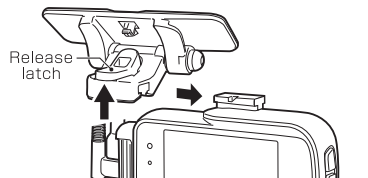
Adjusting the rear camera angle
Loosen the knob to adjust the camera angle, and tighten.

The knob of the rear camera may become loosened as impacted by repeated operation of the vehicle rear hatch. Ensure to check and re-tighten the knob periodically.

Affixing camera mounts

1 Turn off the car engine to power off the camera.

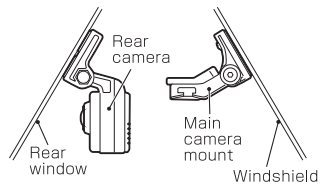
2 While pressing the release button of the main camera upward, pull out the camera sideways.



3 Remove the rear camera cable from the rear camera.

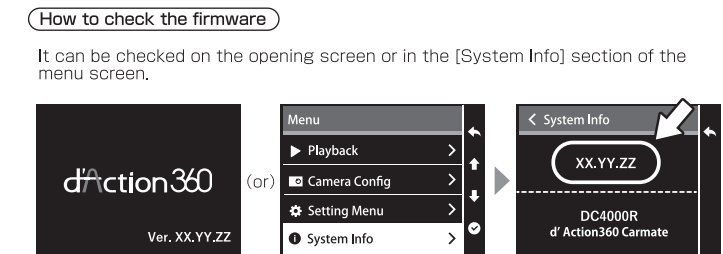
4 Using the included sterile wipe, wipe clean both mounting positions, and dry.

5 Affix both the main camera mount and the rear camera firmly onto their respective mounting position.



Be careful not to overlap the adhesive tape with the heat wire, antenna, or center visor.
Adhere to the adhesive tape by pressing it strongly so that any unevenness in crimping or air bubbles are eliminated.
Leave it on for at least 24 hours to stabilize the adhesive strength. Please note that it is not possible to reattach the mount as the adhesive strength will degrade. When reattaching, please purchase a new mount.

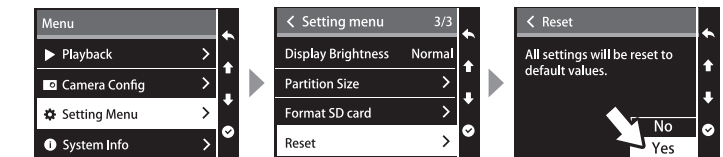
← 10 →



How to reset the camera

All setting values will be initialized.

Resetting will not delete the data recorded on the microSD card.



After the reset is executed and the camera is rebooted, the initial setting screen will appear.

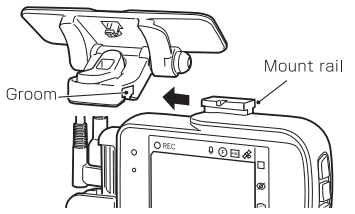
← 14 →

After installation

1 Insert the rear camera cable into the rear camera. Turn on the car engine.

2 Insert the mount rail through the groove of the main camera mount.

Ensure to insert the mount rail until it clicks in place, so the camera is firmly held.



3 Check the recording range of the cameras again. Change the angles of the cameras and the lenses if necessary. (Refer to page 9.)

If you have touched the camera lenses during installation, clean them using the included lens cleaning cloth, to ensure that recording images are free of stains.

4 Use cable clips or tying tools to organize distribution of the cables.

Do not mount the Product or distribute its cables around areas where operation of the vehicle's airbags may be obstructed. In the event of car crash, the airbag may not work properly, or lead to an accident/injury upon inflating.

Organize the connector part of the cable so that no necessary force is applied to it.

Do not forcibly bend or strongly bend the cable.

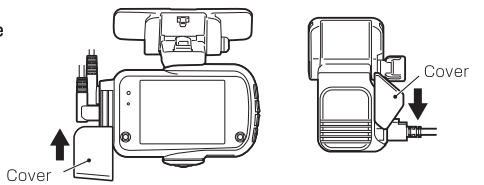
The wiring needs to be organized so that it does not interfere with the driver's view or operation.

Ensure to distribute and organize the cables well away from the car doors and the rear hatch.

Wiring should be handled avoiding areas that are particularly prone to high temperatures.

The rear camera cable should be routed from the front side of the vehicle for smoother installation.

5 Slide the covers of the main camera and the rear camera until they click back in place.



← 11 →

| Warranty coverage | Main camera and rear camera *Excluding consumables and accessories |
|--|---|
| <p>1. In the case of product failure resulting from normal use, Car Mate will repair or exchange the product free of charge within the warranty period. (Three (3) year from the date of purchase) *The customer will be responsible for the cost of installation and removal work.</p> <p>2. Repairs will incur a charge within the warranty period for any of the following:</p> <p>(a) When this Warranty Document is not presented</p> <p>(b) Product failure and damage due to incorrect use, improper repair and alterations</p> <p>(c) Failure, damage or loss caused by mail/freight carriers incurred during shipment of parts to Car Mate Customer Service.</p> <p>(d) When there is evidence of moisture, etc., having infiltrated the product from the outside</p> <p>(e) Product failure and damage due to fire, earthquake, flood damage, abnormal voltage, pollution, use of power supply outside the specification (voltage / frequency), and other natural disasters and calamities</p> <p>(f) When the warranty certificate information has not been properly completed.</p> <p>Note: Valid dated sales receipt from authorized Car Mate dealer can be accepted as proof of warranty coverage.</p> <p>(g) The external portion of the camera has been damaged</p> <p>3. The loss of products, parts or accessories is not covered under warranty.</p> <p>4. Products received from another person and resold items are not covered under warranty.</p> <p>5. Please present this warranty document prior to requesting repairs at your place of purchase or at a Car Mate Customer Service.</p> <p>6. This Warranty Document will not be reissued, so keep it stored in a safe place.</p> <p>7. This warranty is valid only for service in Americas.</p> | |
| <p>Car Mate USA, Inc. 383 Van Ness Avenue, Suite 1603 Torrance, CA 90501, USA info@carmate-usa.com 310-533-1647 (OFFICE) https://carmate-usa.com/</p> | |

*Windows® is a trademark or registered trademark of Microsoft Corporation in the United States and/or other countries.
*microSD® and microSDHC, microSDXC are registered trademarks of SD-3C, LLC.
*This product is licensed under the AVC PATENT PORTFOLIO LICENSE for the personal and noncommercial use of a consumer to
1. record video that is in compliance with the MPEG-4 AVC standard;
2. play video that was recorded in compliance with the MPEG-4 AVC standard; and/or
3. play video that was recorded by a video provider licensed to provide AVC video.

← 15 →

Troubleshooting

If you have some indications for malfunction, please try the followings.
*[QRG] indicates the Quick Reference Guide.

| Problem | Cause and explanation | Solution | Reference page |
|--|--|--|----------------|
| Camera will not turn on. | Power cable and/or the plug are not connected properly. | Check if the power cable and/or the plug are connected properly. | 6 |
| | Not using the cable or optional add-on items designed for this product. | Use the cable or optional add-on items designed for this product. | 2-3 |
| | The camera is outside its' operational temperature range. To prevent breakage failure, the camera stops operating when it is outside its' operational temperature range. | Use the camera within its operational temperature range. | QRG 16 |
| | (When Parking option unit is used) Parking option unit is not connected or wired correctly. | Check the cable/wire connection of Parking Option unit. | — |
| [Rear camera connection error] warning appears on the screen. | Rear camera cable is not connected correctly. | Connect the rear camera cable correctly. | 6 |
| Movie image of the 360° Camera appears reddish. | Due to the characteristics of the 360° camera, which can take pictures even in dark places, reddish tones may be recorded, but this is not abnormal. | — | — |
| The LCD screen goes off. | By default, the display time of the LCD screen is three minutes. It goes off three minutes after the camera has switched on. | On [Setting Menu], reset [LCD Standby]. | QRG 9, 12 |
| Date and time seem incorrect. | Date and time-zone are not set correctly. | On [Setting Menu], reset [Date/Time Zone]. | 7, QRG 9, 12 |
| Information on the location or the speed of my car cannot be obtained. | The camera cannot receive GPS signals indoors or in tunnels. In addition, it may take between 30 seconds to a few minutes to start receiving GPS signals depending on the ambient environment or geographical factors. | Check if the camera receives GPS signals in a place that permits a clear view with no obstructive items around it. | — |
| Impact recording does not record. | The camera does not start Impact recording until its sensor detects an impact. Impact sensitivity might have been set low. | On [Driving G Sensor] or [Parking Monitor], reset [Impact sensitivity]. | QRG 9-12 |

← 12 →

| Warranty Document | |
|---|--|
| This Product has been made available for purchase after having undergone strict quality control and inspection. In the event of a product failure arising from normal use, please contact the dealer at the point of purchase, or Car Mate Customer Service for product repair/replacement. | |
| Purchased Product | DC4000RA |
| Date of Purchase | *Please retain proof of purchase indicating the Purchase Date alongside this Warranty Document. Month / Day / Year Warranty period for free repairs Within 3 years from the Purchase Date |
| Customer Information | First Name Last Name |
| | Street |
| | City State Zip Code Country |
| | TEL |
| Dealer Information | Dealer Name |
| | Street |
| | City State Zip Code Country |
| | TEL |

United States :
Car Mate USA, Inc.
383 Van Ness Avenue, Suite 1603 Torrance, CA 90501, USA
For product questions and technical support please contact: info@carmate-usa.com 310-533-1647 (OFFICE) https://carmate-usa.com/

For other countries :
CAR MATE MFG. CO., LTD.
5-33-11, Nagasaki, Toshima-ku, Tokyo 171-0051, Japan
int@carmate.co.jp https://www.carmate.co.jp/global/en/

Item No. DC4000RA
Product name: d' Action 360D EN

← 16 →

d'Action360 DC4000RA

Quick Reference Guide

Download the latest detailed instruction manual / camera firmware / PC software below



<https://carmate-usa.com/pages/daction-download-center>

- Ensure that you read this manual prior to use, and retain it in a safe place.
- Appearance or specifications may change without notice.
- Manufacturer is not responsible for any loss or damages caused by the modification or misuse of the Product.

← 1 →

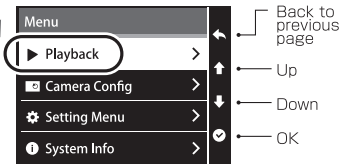
Play / delete video

You can play back the recorded video on both the main camera and PC.

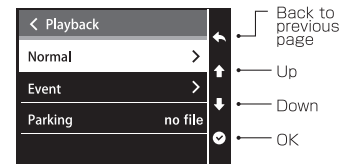
Playing the recorded video on the main camera

1 Switch to Menu on the LCD screen.

- If recording is in progress, press button 1 to stop recording. Press button 1 again to switch the display to Menu.



2 Press button 2 [Up]/ button 3 [Down] to select [Playback]. Press button 4 [OK] to confirm.



3 Press button 2 [Up]/ button 3 [Down] to select the partition (folder) in which the video you wish to play is saved.

| Partition (folder) of video | Recording type |
|---|---|
| NORMAL folder (Partition for Normal Recording) | Normal Recording in Drive Mode |
| EVENT folder (Partition for Event Recording) | Event Recording in Drive Mode Manual Recording in Drive Mode |
| PARKING folder (Partition for Parking Recording) | Event Recording in Parking monitor Mode Motion Recording in Parking monitor Mode |

4 Press button 2 [Up]/ button 3 [Down] to select the video you wish to play. Press button 4 [OK] to confirm.

- The most recently recorded video is listed first, in reverse chronological order.



Date of recording
Recorded with or without audio
The camera used for the recording
Resolution of the front camera in the recording
GPS signal status in the recording

← 5 →

Directions for Use

This product has [Drive Mode] and [Parking Mode].

For more information on the Parking Mode, please refer to the instruction manual of the Parking Option (Item No. DC203A).

Drive Mode

In this mode, the camera records while the engine is turned on.

- We recommend you change the camera settings in advance according to the recording purpose and use. (Refer to page 9 to 12.)

1 Turn on your car engine.

- The camera starts Normal Recording no later than 15 seconds after it has started. If the camera is outside its operating temperature range, it may take more time to start Normal Recording.

2 Auto recording (Camera automatically start recording)

- The recorded data is automatically sorted and saved in a partition (folder) based on its recording mode. You can change the volume ratio of each partition (folder). (Refer to page 7 of the Quick Start Guide.)
- When the folder becomes full, the most recently saved file overwrites the oldest file.

3 Turn off the car engine.

- The camera stops recording and automatically turns off.

Recording types and contents in Drive Mode

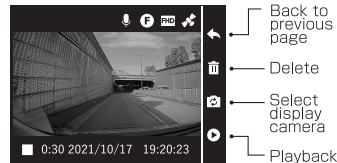
| Camera Status | Recording type | Content (What is recorded) | Operational camera | Data Partition |
|-----------------------|------------------|---|-----------------------------|---|
| Recording in progress | Normal Recording | Recorded segments of every 30 seconds from the switching-on to the switching-off of the camera | Front camera 360° camera | NORMAL folder (Partition for Normal Recording) |
| | Event Recording | Recorded segments of every 30 seconds, including that of 10 seconds before and 10 seconds after an impact detection by the camera | | EVENT folder (Partition for Event Recording) |
| | Manual Recording | Recorded segments of every 30 seconds before and 30 seconds after Manual Recording command | | EVENT folder (Partition for Event Recording) |
| Recording standby | Manual Recording | Recorded segments of 30 seconds after Manual Recording command | Rear camera | EVENT folder (Partition for Event Recording) |

- When the folder becomes full, the most recently saved file overwrites the oldest file.

← 2 →

5 Press button 4 to play the video.

- Press button 3 (Select display camera) to switch to the video recorded on the front camera, 360° camera, or the rear camera.



- To check the details of the video, play it on PC.

- By using the software for PC, you can simultaneously play videos recorded on the front camera, 360° camera, or the rear camera, edit video, and check the recording location and the vehicle speed. (Refer to page 8.)

Playing the recorded video on PC

1 Download the d'Action 360D software on your PC.

- PC software is available free of charge on the website below.

<https://carmate-usa.com/pages/daction-download-center>



2 Install the downloaded file on your PC as shown below.

- 1) Extract the zip file you downloaded.
- 2) Execute [DAction360DSetup.msi] in the folder.
- 3) When installation is completed, [d'Action 360D] will be added on the start menu.

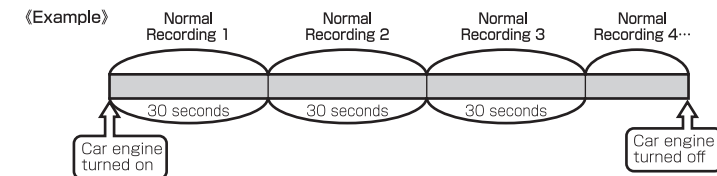


d'Action 360D software for PC

← 6 →

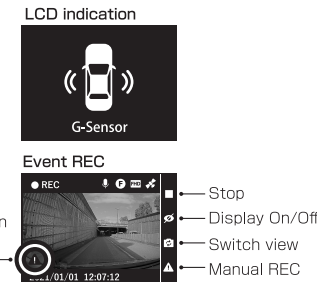
Normal Recording

- The camera records video segments of every 30 seconds from the time it is turned on until it is turned off.



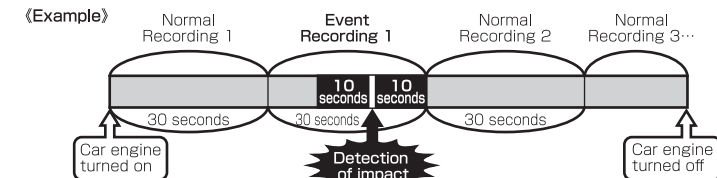
Event Recording

- When the camera detects an impact while it is in Normal Recording, the camera indicates as such on its LCD display and via voice, and starts recording up to two video segments of every 30 seconds which includes 10 seconds before and 10 seconds after the detection of impact.



- While the camera is in Event Recording, a red icon appears on the bottom-left of the screen. As soon as Event Recording is finished, the camera automatically switches back to Normal Recording.

- Detection sensitivity of G-Sensor can be set at five levels depending on vehicle or driving conditions. (Refer to page 10 to 12.)



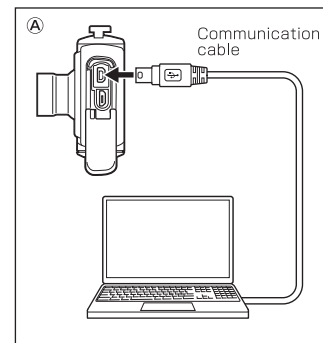
← 3 →

3 Connect the camera to your PC by means of either Method A or Method B.

Method A:
Connect the camera and the PC using the included communication cable.

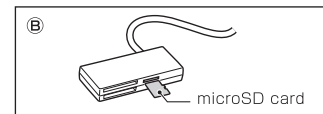
- Remove both the power cable and the rear camera cable from the main camera. Insert the communication cable into the power cable terminal. (Refer to page 6 of the Quick Start Guide.)

- When the communication cable is successfully connected to the PC, [Connected to PC] will appear on the LCD screen.



Method B:
Remove the microSD card from the main camera. Connect the card to the PC using a card reader.

- Please confirm in advance that the card reader or other device is compatible with the microSD card standard and capacity you are using.
- Use of a card reader or conversion adapter that has deteriorated over time or is otherwise defective may corrupt the data on the microSD card.



4 Start d'Action 360D software on the PC. Select the folder which contains the video you wish to play.

- If the microSD card is 128GB, it will take longer to read data.

- Do not disconnect cables, conversion adapters, etc. during data transfer, as this may corrupt the data on the microSD card.



To play back video

Select the video you wish to play. Click [Play] button. (Refer to page 8.)

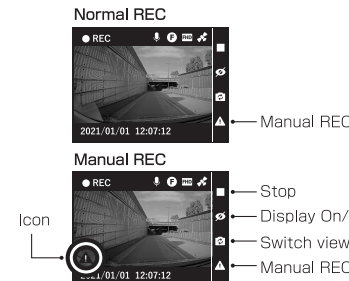
To delete video

Select the video you wish to delete. By right-clicking or selecting [Edit] on the menu bar, delete the video. (Refer to page 8.)

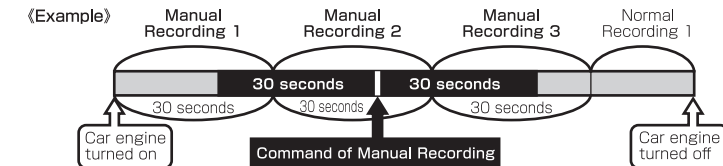
← 7 →

Manual Recording

- While the camera is in Normal Recording, press button 4 to command it to switch to Manual Recording. The camera starts recording up to three video segments of every 30 seconds which includes 30 seconds before and 30 seconds after the command of Manual Recording.

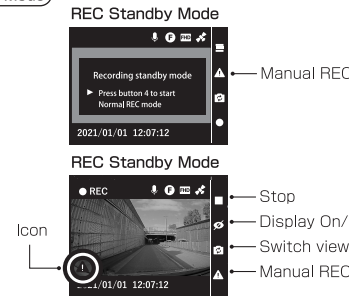


- While the camera is in Manual Recording, a red icon appears on the bottom-left of the screen. As soon as Manual Recording is finished, the camera automatically switches back to Normal Recording.



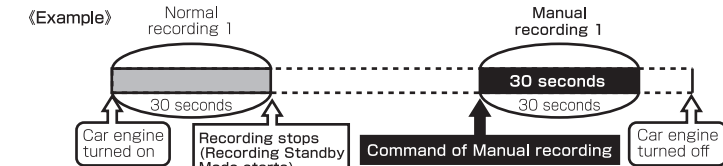
Manual Recording during Recording Standby Mode

- While the camera is in Recording Standby Mode, press button 2 to command it to switch to Manual Recording. The camera starts recording a 30-second video segment after the command of Manual Recording.



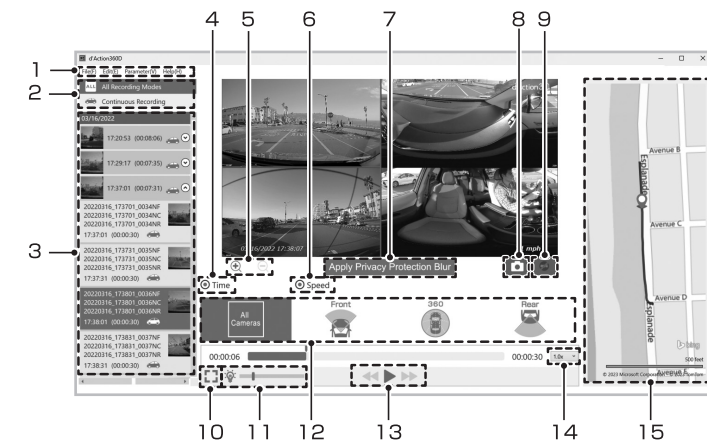
- While the camera is in Manual Recording, a red icon appears on the bottom-left of the screen. As soon as Manual Recording is finished, the camera automatically switches back to Recording Standby Mode.

- While the camera is in Manual Recording, press button 1. The camera stops recording and switches to Recording Standby Mode.



← 4 →

Function of the PC software



| | |
|----|--|
| 1 | Menu bar |
| 2 | This is a folder that contains all playable files. All: List all the recorded videos. Normal: List all the videos recorded in Normal Recording saved in NORMAL folder. Event: List all the videos recorded both in Event Recording and Manual Recording saved in EVENT folder. Parking: List all the videos recorded both in Event Recording and Motion Recording saved in PARKING folder. |
| 3 | Recorded videos are listed chronologically in the selected folder. |
| 4 | Recording dates are shown on the LCD upper screen. |
| 5 | The size of video to play can be scaled up or down. |
| 6 | When geotagging is obtained, the vehicle speed at the time of recording is shown on the monitor. |
| 7 | By moving your mouse while clicking mouse buttons, you can render blur effects to videos, including adjusting the blur intensity. |
| 8 | The video shown on the PC screen can be captured and saved on the PC. |
| 9 | The video shown on the PC screen can be screen-recorded and saved on the PC. |
| 10 | You can play back video in full screen mode. |
| 11 | Brightness of video can be adjusted. |
| 12 | Switching video to play: All Cameras: Videos on the front camera, the 360° camera and the rear camera are shown on the monitor. Front: Videos on the front camera are shown on the monitor. 360°: Videos on the 360° camera are shown on the monitor. Rear: Videos on the rear camera are shown on the monitor. |
| 13 | You can play back, pause, fast-forward, rewind, or reverse-play back (play back backwards) videos. |
| 14 | You can adjust play back speed of videos. |
| 15 | The camera position at the time of recording is indicated on a map. (When geotagging is obtained.) |

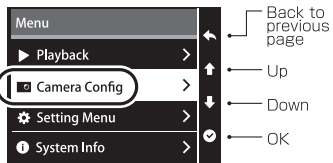
← 8 → Continued on to the next page

Various settings

Changing settings

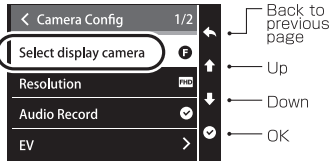
1 Switch to Menu on the LCD screen.

If recording is in progress, press button 1 to stop recording. Press button 1 again to switch the display to Menu.



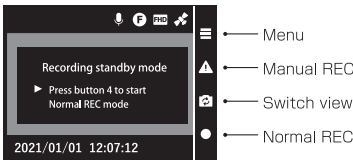
2 Press button 2 [Up]/ button 3 [Down] to select the menu you wish to change. Press button 4 [OK] to confirm.

Ensure to press button 4 [OK] to confirm after selecting an item. Going back to the previous screen without pressing the button 4, no change has been made.



3 Press button 2[Up]/ button 3 [Down] to select the setting you wish to change. Press button 4 [OK] to confirm.

Ensure to press button 4 [OK] to confirm after selecting an item. Going back to the previous screen without pressing the button 4, no change has been made.



← 9 →

List of recording items Bold symbols or letters are initial values.

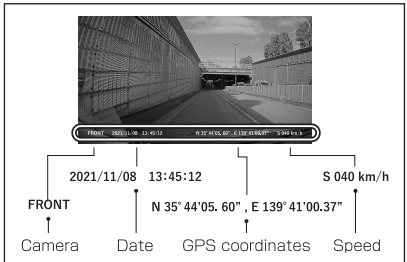
| Item | Details | Description |
|-----------------------|---|---|
| Select display camera | F/360/R/FR | You can switch the view which each camera is recording. F is the video which the front camera is recording, 360 is the video of 360° camera, R is the video of the rear camera, and FR is the video recording with the front and rear cameras. |
| Resolution | FHD/HD | You can set the resolution of the front camera either to FHD (High definition) or HD (Low definition). Resolutions of 360° camera and the rear camera cannot be changed. |
| Audio Record | <input checked="" type="radio"/> (Activated) <input type="radio"/> (Deactivated) | You can set to record or not to record audio at the time of recording. |
| EV (Exposure Value) | Front: -3/-2/-1/0/+1/+2/+3 360: -3/-2/-1/0/+1/+2/+3 Rear: -3/-2/-1/0/+1/+2/+3 | You can set the exposure levels individually of the front camera, 360° camera, and the rear camera. If it is set to towards plus (+) value, the recorded video becomes brighter, and towards minus (-) value, it becomes darker. |
| Rear Camera | <input checked="" type="radio"/> (Activated) <input type="radio"/> (Deactivated) | You can set to activate or deactivate the rear camera operation. As long as the rear camera is connected correctly, it stays [Activated] at all times. If the rear camera is set [Deactivated], no error message is given even when the rear camera is not connected. |
| Video Stamp | Date/Time: <input checked="" type="radio"/> (Show) <input type="radio"/> (Hide) Speed: <input checked="" type="radio"/> (Show) <input type="radio"/> (Hide) GPS coordinates: <input checked="" type="radio"/> (Show) <input type="radio"/> (Hide) | You can set to show or hide Date/Time, Speed, and GPS coordinates on the recorded data which is saved on the microSD card. |
| Driving G Sensor | OFF/Lowest/Low/Medium/High/Highest | You can set the detection sensitivity of G-Sensor in Drive Mode. |

●About Video Stamp

This function indicates the date, time, speed, and GPS coordinates on the recorded data stored on the microSD card. Since the text is small, it can be confirmed by viewing the video on a computer.

This is useful for providing images to third parties who do not have dedicated software, as they can check the date, time, speed, and GPS coordinates without the need to use dedicated software on their computer.

If the video stamp setting is not turned on, it will not be indicated. Also, indicated characters cannot be hidden afterwards.



← 10 →

List of Parking Mode settings Bold symbols or letters are initial values.

| Item | Details | Description |
|----------------------------|---|---|
| Activation of Parking Mode | <input checked="" type="radio"/> (Activated) <input type="radio"/> (Deactivated) | You can set to [Activate] or [Deactivate] Parking Mode. Even when it is [Activated], this will not run if Parking Option unit is not connected. |
| Impact Sensitivity | Low/Medium/High | You can set the detection sensitivity of G-Sensor in Parking Mode. |
| Motion Detect | <input checked="" type="radio"/> (Activated) <input type="radio"/> (Deactivated) | You can set to [Activate] or [Deactivate] the motion detection in Parking Mode. |
| Deactivation time | 1min/5min/10min | You can set the deactivation time before the camera starts operation in Parking Mode. |
| Recording mode | Before and After Recording After Recording Before/After 3 hours + After 24 hours Before/After 12 hours + After 6 hours | The camera records 10 seconds before and 30 seconds after an impact or motion detection. The camera keeps monitoring them up to 12 hours. The 360° camera records approximately 2 seconds after an impact or motion detection, for 30 seconds. The camera keeps monitoring for them up to 48 hours. You can set combination of Before/After and After recordings. |
| MAX REC time | 0.5/1/3/6/12 hours | You can set the effective recording time of Before/After recording. [After recording] can be set up to 48 hours, which duration is unchangeable. |

← 11 →

List of other settings Bold symbols or letters are initial values.

| Item | Details | Description |
|---------------------|---|--|
| Date/Time Zone | Set from satellite time Manual setting | Date and Time zone are set by GPS signal reception. You can set Date and Time zone manually. If GPS is activated, the manually set time is updated to the Date and Time zone received by GPS. |
| Language | 日本語/English | You can set your language. |
| GPS | Activate: <input checked="" type="radio"/> (Activated) <input type="radio"/> (Deactivated) Speed unit: km/h/MPH Date format: YYYY/MM/DD, MM/DD/YYYY, DD/MM/YYYY | You can set to receive or not to receive GPS signals. You can set the speed unit on the video stamp. You can set the date notation. Y stands for year, M for month, and D for day. |
| Beep Sound | <input checked="" type="radio"/> (ON) <input type="radio"/> (OFF) | You can set to have or not to have the button beep sound. |
| Playback volume | H/M/L | The volume in playback can be set from H (high volume) to L (low volume). |
| Notification volume | H/M/L | The volume of the notification sound can be set from H (high volume) to L (low volume). |
| IR (Infrared) LED | Stays on/Manual setting/Off | You can set the effective duration time of the infrared LED. As weather/environment may render darker inside a vehicle even during daytime, it is recommended to set it to [Stays on]. However, you can set IR LED manually [Manual setting] to switch it on only at night. Video image may appear reddish when recorded with IR LED, this should not be considered abnormality. |
| LCD Standby | Stays On/10 sec/1 min/3 min | You can set the time when the LCD screen starts display. |
| Display Brightness | Bright/Normal/Dark | You can adjust the brightness of the LCD screen. |
| Partition Size | EVT(EVENT) REC Priority PKG(PARKING) REC Priority NML(NORMAL) REC Priority | You can increase the volume of EVENT and/or MANUAL Recording partitions (folders) in Drive Mode, from 10% to 20%. You can increase the volume of PARKING Recording partition (folder) in Parking Mode, from 10% to 20%. You can increase the volume of NORMAL Recording partition (folder) in Drive Mode, from 69% to 79%. |

← 12 →

Updating firmware

Due to specification changes and additional features, the firmware on the camera body needs to be updated. Download the most recent firmware from Car Mate website, and copy it on the microSD card to update the camera firmware.

Whenever your firmware needs to be updated, we will notify you as such when you start your PC software.

1 Download the most recent firmware onto your PC.

Download the firmware from the website as below.

<https://carmate-usa.com/pages/daction-download-center>



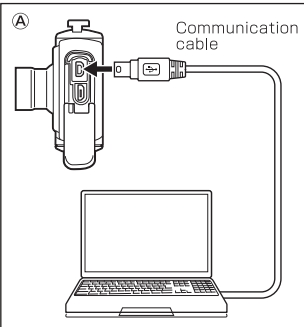
2 Extract (unzip) the file (firmware_dc4000ra.zip) you have downloaded.

3 Connect the camera to your PC by means of either Method A or Method B.

Method A: Connect the main camera to PC using included communication cable.

Remove both the power cable and the rear camera cable from the main camera. Insert the communication cable into the power cable terminal. (Refer to page 6 of the Quick Start Guide.)

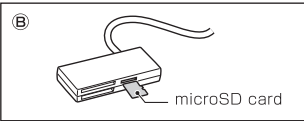
When the communication cable is successfully connected to the PC, [Connected to PC] will appear on the LCD screen.



Method B: Remove the microSD card from the main camera. Connect the card to the PC using a card reader.

Please confirm in advance that the card reader or other device is compatible with the microSD card standard and capacity you are using.

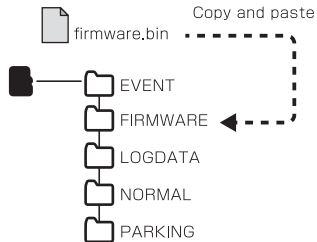
Use of a card reader or conversion adapter that has deteriorated over time or is otherwise defective may corrupt the data on the microSD card.



← 13 →

4 Copy firmware.bin file in the extracted (unzipped) folder. Paste the file in FIRMWARE folder on the microSD card.

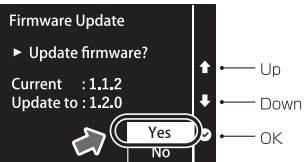
Do not disconnect cables, conversion adapters, etc. during data transfer, as this may corrupt the data on the microSD card.



5 Disconnect the main camera from the PC, and insert the vehicle power cable into the camera. Or remove the microSD card from the card reader or the PC, and insert the card into the main camera.

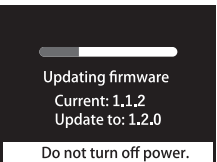
6 With the microSD card inserted in the camera, turn on the car engine.

7 A message [Update Firmware?] will appear. Press button 2 / button 3 to select [Yes], and press button 4 to confirm.



8 Wait until update is complete.

To prevent malfunction, do not turn off the power while updating.



9 After the update is completed, press any of buttons 1, 2, 3 or 4 to restart the camera.

Go to [System Info] in [Setting Menu] and verify that the firmware has been updated. Refer to page 14 of the Quick Start Guide. If updating has been failed, start again from step 4 above.

← 14 →

Recordable time (Approximate value)

The tables below indicate recordable times on microSD cards of different storage, of videos which all the cameras (Front camera, 360° camera and Rear camera) record.

Depending on the priority partition (folder), recording modes, and resolutions of the front camera, the recordable times saved in each partition vary.

The recorded data is automatically sorted and saved in a partition (folder) based on its recording mode. You can change the volume ratio of each partition (folder). (Refer to page 7 of the Quick Start Guide.)

When the partition (folder) becomes full, the most recently saved file overwrites the oldest file. Back up important data on other devices such as PC.

EVENT REC priority The default setting is [Event Recording Priority].

| Data folder | Resolution of Front camera | 32GB (Included DC3A) | 64GB (DC4A) | 128GB (DC5A) |
|--|----------------------------|----------------------|-------------|--------------|
| NORMAL folder (Partition for Normal recording) | FHD | 76 min | 153 min | 306 min |
| | HD | 89 min | 178 min | 356 min |
| EVENT folder (Partition for Event recording) | FHD | 21 min | 42 min | 86 min |
| | HD | 24 min | 50 min | 100 min |
| PARKING folder (Partition for Parking recording) | FHD | 10 min | 20 min | 41 min |
| | HD | 12 min | 24 min | 47 min |

NORMAL REC priority

| Data folder | Resolution of Front camera | 32GB (Included DC3A) | 64GB (DC4A) | 128GB (DC5A) |
|--|----------------------------|----------------------|-------------|--------------|
| NORMAL folder (Partition for Normal recording) | FHD | 88 min | 177 min | 354 min |
| | HD | 103 min | 206 min | 411 min |
| EVENT folder (Partition for Event recording) | FHD | 10 min | 22 min | 44 min |
| | HD | 12 min | 25 min | 52 min |
| PARKING folder (Partition for Parking recording) | FHD | 10 min | 20 min | 39 min |
| | HD | 11 min | 23 min | 45 min |

PARKING REC priority

| Data folder | Resolution of Front camera | 32GB (Included DC3A) | 64GB (DC4A) | 128GB (DC5A) |
|--|----------------------------|----------------------|-------------|--------------|
| NORMAL folder (Partition for Normal recording) | FHD | 76 min | 153 min | 306 min |
| | HD | 89 min | 178 min | 356 min |
| EVENT folder (Partition for Event recording) | FHD | 10 min | 22 min | 44 min |
| | HD | 12 min | 25 min | 52 min |
| PARKING folder (Partition for Parking recording) | FHD | 21 min | 43 min | 85 min |
| | HD | 25 min | 49 min | 99 min |

← 15 →

Specifications

| | Front camera | 360 camera | Rear camera |
|---------------------------|--|--|--|
| CCD | Full-color CMOS sensor 1/2.7 | Full-color CMOS sensor 1/2.7 | Full-color CMOS sensor 1/2.8 |
| Number of recorded pixels | Approximately 2 megapixels FHD 1920×1080 Approximately 0.9 megapixels HD 1280×720 | Approximately 3.6 megapixels FHD 1920×1920 | Approximately 2 megapixels FHD 1920×1080 |
| View angle | Horizontal: 96° Vertical: 50° Diagonal: 119° | 360° 190° — | 131° 75° 155° |
| F-number | 1.5 | 2.2 | 1.8 |
| Frame rate | Drive Mode: 27.5fps Parking Mode: 5.2fps | 19fps 5.2fps | 27.5fps 5.2fps |
| Auto adjustment | HDR: Yes WDR: Yes | No Yes | Yes No |

| | |
|--|---|
| Recording modes | Drive Mode: Normal Recording, Event Recording, Manual Recording Parking Mode (requires an optional add-on that is sold separately): Impact Recording, Motion Recording |
| Recording time unit per file of Normal Recording | 30 seconds |
| File format | MOV(H.264) |
| GPS | Yes |
| G-Sensor | Yes |
| Audio recording | Yes |
| Noise reduction | Yes |
| Recording media | Included microSD card, 32GB or dedicated microSD cards, 32GB (Item No. DC3A), 64GB (Item No. DC4A), or 128GB (Item No. DC5A) |
| Video playback media | Main camera screen, Software for DC4000RA (d'Action 360D software, downloadable from Car Mate website), Playback media such as Windows media player |
| LCD | 2.7 inch full-color TFT |
| External dimensions with mount attached | Main camera: H92mm×W122mm×D47mm (H3.6inch×W4.8inch×D1.8inch) Rear camera: H59mm×W59mm×D38mm (H2.3inch×W2.3inch×D1.5inch) |
| Weight with mount attached | Main camera: 206 grams (7.3 oz) Rear camera: 62 grams (2.2 oz) |
| Power supply voltage | DC 12V/24V (camera body: DC 5V) |
| Maximum electrical power consumption (DC12V) | 440mA |
| Operating temperature range | Drive Mode: -10°C to +50°C (14°F to 122°F) Parking Mode: -10°C to +65°C (14°F to 149°F) |
| Warranty period | 3 years |

← 16 →

d'Action360 DC4000RA

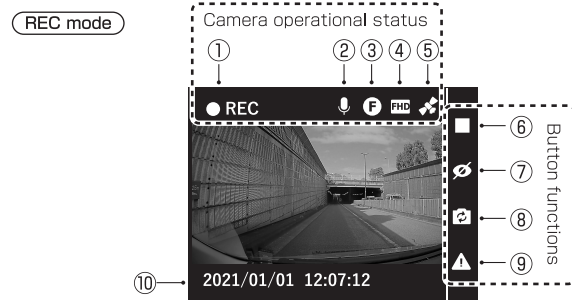
Additional Information

- Ensure that you read this manual prior to use, and keep it in a safe place.
- Appearance or specifications may change without notice.
- Manufacturer is not responsible for any loss or damages caused by the modification or misuse of the Product.

← 1 →

LCD screen display

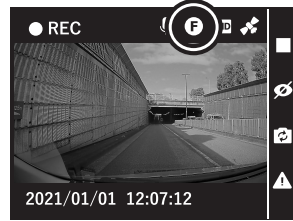
- The operational status of the camera is displayed on the upper side of the LCD screen.
- Each of the four buttons on the right side of the camera corresponds to the adjoining icon displayed vertically on the right side of the screen. Each icon has its' own function which changes as the operational status changes.



| | |
|---|--|
| ① | Indicates that recording is in progress. |
| ② | Indicates that voice recording is in progress. |
| ③ | Indicates the camera that is recording the video F : The front camera is recording the video. 360 : The 360 camera is recording the video. R : The rear camera is recording the video. FR : Both the front and the rear cameras are recording the video. |
| ④ | Indicates the screen resolution of the video of the front camera that is recording. FHD : Full high definition (1920x1080) HD : High definition (1280x720) |
| ⑤ | Indicates GPS signal the camera receives. Solid light : Receiving GPS signal Flashing : Not receiving GPS signal No light : Disabled to receive GPS signal |
| ⑥ | Press button 1 to stop recording and switch to Recording Standby mode. |
| ⑦ | Press button 2 to switch between Display and Non-Display. |
| ⑧ | Press button 3 to switch to each video of the other cameras that are recording. |
| ⑨ | Press button 4 to start Manual Recording. |
| ⑩ | Current date and time |

← 2 →

When [F] icon is shown, the image on front camera appears on LCD screen.

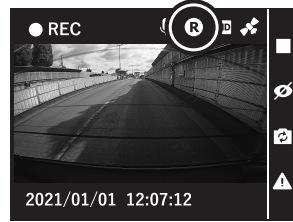


When [360] icon is shown, two divided images on 360° space camera appear on LCD screen.



Due to the wide-angle fisheye lens of 360° space camera, images appear warped. This, however, is not abnormal.

When [R] icon is shown, the image on rear camera appears on LCD screen.



When [FR] icon is shown, a scaled-up on front camera and a scaled-down image of rear camera appear on LCD screen.



Recording range of the front camera

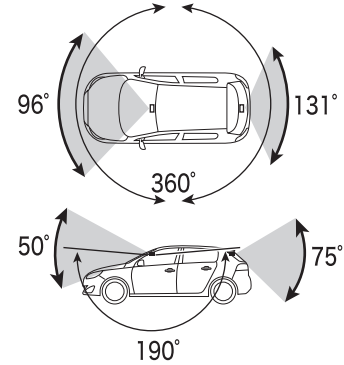
Horizontal 96°/ Vertical 50°

Recording range of the 360 camera

Horizontal 360°/ Vertical 190°

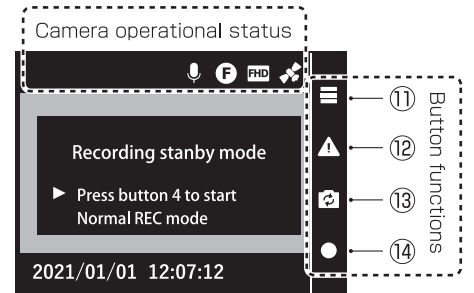
Recording range of the rear camera

Horizontal 131°/ Vertical 75°



← 3 →

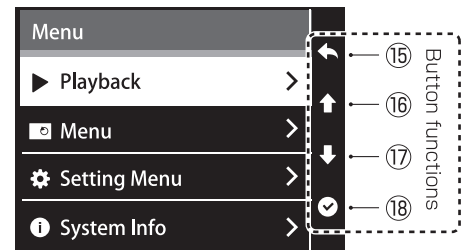
REC Standby



- With Recording icon on display, press button 1 to switch to Recording Standby mode.

| | |
|---|--|
| ⑪ | Press button 1 to switch to Menu display. |
| ⑫ | Press button 2 to start Manual Recording. |
| ⑬ | Press button 3 to switch cameras on display. |
| ⑭ | Press button 4 to start Normal Recording. |

Menu display



- With Recording standby mode on display, press button 1 to switch to Menu display.

| | |
|---|--|
| ⑮ | Press button 1 to switch back to the previous display. |
| ⑯ | Press button 2 to go up to a menu item above. |
| ⑰ | Press button 3 to go down to a menu item below. |
| ⑱ | Press button 4 to confirm. |

← 4 →

Operation on [Playback] screen

- For details on video playback, please refer to page 5 of the Quick Reference Guide.



Pause

During playback, press button 4 to pause the video. Press button 4 again to resume the video playback.

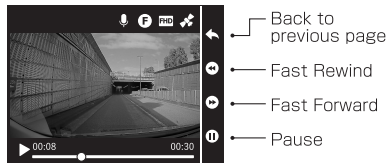
Fast-rewind/Fast-forward

During Playback, press and hold button 2 to fast-rewind the video. Press and hold button 3 to fast-forward.

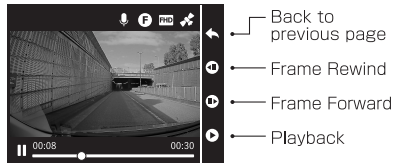
Frame-by-frame rewind / Frame-by-frame forward

During Pause, press button 2 to rewind the video frame by frame. Press button 3 to forward it frame by frame. By holding buttons 2 or 3, rewind and forward the video continuously frame by frame.

Playback



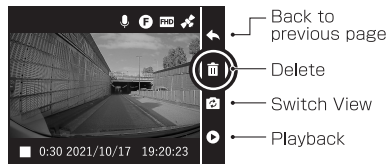
Pause



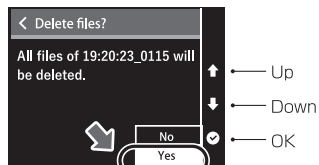
← 5 →

Deleting Recordings

- Switch to playback on the LCD screen, and press button 4 to delete.



- Press button 2 / button 3 to select [Yes], and press button 4 to confirm.



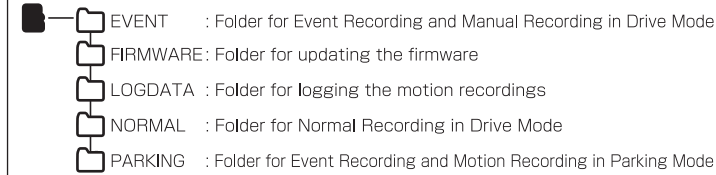
- All videos recorded on all cameras on the selected file are deleted.

← 6 →

Folders and Files

Folder structure

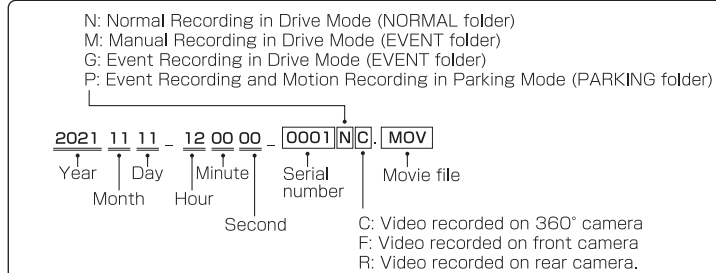
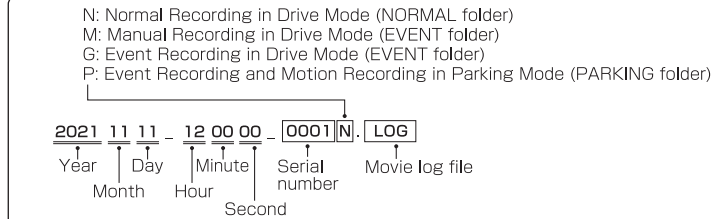
Folder structure on the memory card is as follows.



- Do not switch data files between their designated folders, or move any data that is not generated on DC4000RA onto a designated folder.

File name

Naming of a recorded data file follows the rules below.

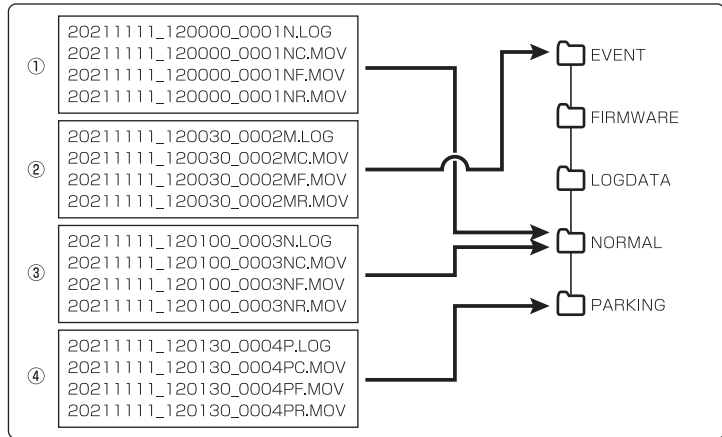


- Do not change the name of a file name in its' folder.

← 7 →

Files in folders

As each recorded data file is sorted and saved in a partition (folder), the file names in a folder may not be in numerical sequence.



← 8 → Continued on to the next page

Recording in Parking Mode (Requires Parking Option, sold separately)

In Parking Mode, the camera operates while the car engine is turned off.

- On the camera setting, you need to [Activate] Parking Mode. (Refer to pages 9 and 11 of the Quick Reference Guide)
- We recommend that you change the camera settings in advance according to the recording purpose and use. (Refer to pages 10 to 11 of this manual, 9 and 11 of the Quick Reference Guide.)

1 Turn off your car engine.

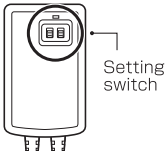
- Approximately 60 seconds after the engine is turned off (default setting of Deactivation time), the camera starts Parking Mode.
- During Parking Mode, the LCD screen turns off but the camera is still operating and the LED indicator is still on.

2 During Parking Mode, the camera starts recording when it detects an impact or a moving object.

- The recorded data is automatically sorted and saved in a parking partition (PARKING folder). You can change the volume ratio of each partition (folder). (Refer to pages 7 of the Quick Start Guide, 9 and 11 of the Quick Reference Guide.)
- When the folder becomes full, the most recently saved file overwrites the oldest file.

3 Stopping Parking Mode

- When the preset time for Parking Mode has elapsed, the camera automatically switches off.
- If you get in the car during Parking Mode, the camera may start Event Recording or Motion Recording. In this case, turn on the car engine while the recording is in progress. This will stop recording and delete the data recorded when you got in.
- When you have turned on the car engine during Parking Mode to start Drive Mode, you will hear a recorded voice announcing "There is one or more parking mode files on the SD card.", which indicates the camera detected and recorded some sort of Event (an impact or moving object) during Parking Mode.
- To prevent the car battery from draining, the camera will force a shut down sooner than the set time for Parking Mode as soon as the voltage value of the battery is below the set value of Parking Option unit.



Setting switch

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

The unique identifier is any means to positively associate the device with the compliance test reports and records for a specific product approved using the SDoC procedure. This may be a trade name and type number, model number, serial number, or other means employed utilizing the responsible party's internal manufacturing process.

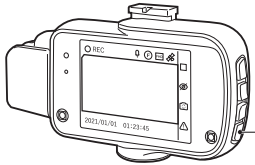
The provided shielded USB cables must be used for connection to computer or peripherals in order to meet FCC emission limits and RF interference suppression.

CAUTION:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

COMPLIANCE INFORMATION STATEMENT
Product Name : Dashcam
Model No. : DC4000RA
Responsible party : Car Mate USA, Inc.
Address : 383 Van Ness Avenue, Suite 1603, Torrance, CA 90501
Phone : 310-533-1647

- When the camera becomes hot, it will switch from Before/After recording to After recording, or stop recording in order to prevent the high temperature from increasing further. If you operate the camera in Parking Mode during summertime, we recommend you park your car where ambient temperatures are kept as low as possible.
- Even if the parking monitoring mode is set to active, the camera power can be turned off (stop parking monitoring) by pressing and holding button 4 on the camera after the car engine is turned off.



Button 4

Recording types and contents in Parking Mode

| Recording mode in Parking Mode | Recording type | Content (What is recorded) | Operational camera | Data Partition |
|--------------------------------|------------------|---|--|---|
| Before/After Recording | Event Recording | A 40-second video segment with 10 seconds before and 30 seconds after detecting an impact | Front camera 360° camera Rear camera | PARKING folder (Partition for Parking recording) |
| | Motion Recording | A 40-second video segment with 10 seconds before and 30 seconds after detecting a moving object | | |
| After Recording | Event Recording | A 30-second video segment with approximately 2 seconds after detecting an impact | 360° camera | |
| | Motion Recording | A 30-second video segment with approximately 2 seconds after detecting an impact | | |

| | | |
|--|--|--|
| Before/After Recording and After Recording | Parking Mode can be set in combination of Before/After Recording and After Recording | PARKING folder (Partition for Parking recording) |
|--|--|--|

- When the folder becomes full, the most recently saved file overwrites the oldest file.

Event Recording

Event Recording is defined as a video that is recorded during which time the G-sensor on the camera has detected an impact. Video footage of hit-and-run incidents, door dings or scrapes are recorded and saved on PARKING folder.

Motion Recording

Motion Recording is defined as a video that is recorded on 360° camera during Parking Mode, whereupon the 360° camera has detected a moving object through image transition. Occurrence around the car is recorded on Parking Recording Area (PARKING folder). For Before/After Recording, front camera, 360° camera and rear camera start recording, and for After Recording, only 360° camera operates.

- As the camera detects a moving object through image transition, ambient changes such as a sudden ray of sunshine, lighting changes, moving trees or flags may be recorded as well on the camera. So as not to record such unnecessary moving objects, ensure that in your intended parking space, there are neither objects that are constantly moving, nor lighting that is constantly changing. This detection function for moving objects may vary depending on the ambient environment and weather.
- As this function constantly detects and frequently records almost any object that moves, important data saved on PARKING folder such as Event Recording video files may be overwritten.
- By default, [Motion Detect] is disabled. To use Motion Recording, enable [Motion Detect], and preferably set [Partition Size] to [PKG REC priority]. (Refer to pages 7 of the Quick Start Guide, 9 to 12 of the Quick Reference Guide.)

Monitoring time set for Parking Mode

Monitoring time can be set to Before/After Recording, After Recording, or Before/After Recording + After Recording depending on the purpose. If Before/After Recording is selected, you can set your own monitoring duration. (Refer to pages 9 and 11 of the Quick Reference Guide.)

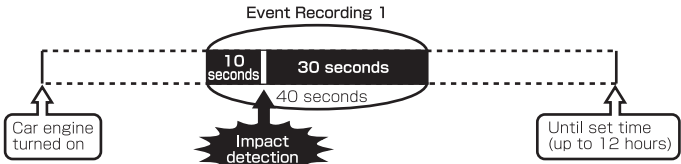
| Recording in Parking Mode | | Surveillance time settings | When to set time |
|--|---|---|--|
| Before/After Recording | Front camera 360° space camera Rear camera | 0.5 hours/ 1 hour/3 hours | Car is unattended for up to 3 hours, as in shopping. |
| | | 6 hours/12 hours | Car is unattended for up to 12 hours, as in school or office. |
| After Recording | 360° space camera only | Up to 48 hours | Car is unattended for more than two days, parked at home garage. |
| Before/After Recording and After Recording | Front camera 360° space camera Rear camera and 360° space camera only | Before/After Recording 3 hours + After Recording 24 hours | Car is unattended for at least 3 hours up to 24 hours. |
| | | Before/After Recording 12 hours + After Recording 6 hours | Car is unattended for up to 18 hours. |

Deactivation time

To prevent the cameras from recording unnecessary motion such as vibration caused when the driver/passengers exit the car, set the deactivation time to start the camera in Parking Mode after one minute. Change the default time setting of one minute either to 5 minutes or 10 minutes for a longer deactivation time, if, for example, your passengers need more time to get out of your car, or more time is needed to unload it. (Refer to pages 9 and 11 of the Quick Reference Guide.)

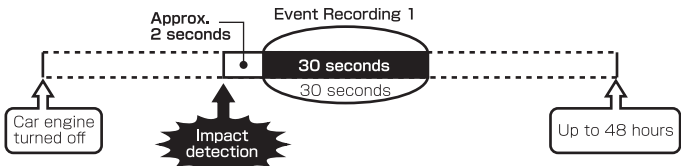
Event Recording and Motion Recording in Before/After Recording

- When the camera detects an event caused by an impact or a moving object, it records a video segment of 40 seconds in total, including that of 10 seconds before and 30 seconds after the impact detection. When a series of events are detected, recording time will be longer.
- After Event Recording and Motion Recording, the camera automatically switches back to Parking Mode.



Event Recording and Motion Recording in After Recording

- When the camera detects an event caused by an impact or a moving object, it records a video segment of 30 seconds, approximately 2 seconds after the impact detection.
- After Event Recording and Motion Recording, the camera automatically switches back to Parking Mode.



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