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Warranty (Bring-in Repair)

This document is proof of warranty. Please check the contents of this document (as stipulated below) . If a malfunction occurs during the warranty period, please present this document and where necessary repairs from the store.

Part Number	SN-TW78d
Serial No.	
Purchase date	If the date of purchase is unknown, the repair policy will not apply.
Warranty period	3 years from the date of purchase (Target part: Equipment body (excluding consumable parts))
Name : Name : Guest : Address : TEL( ) -	
Retailer (Store name • address)	If the above column is not filled in or stamped, please be sure to attach a receipt issued by the retailer or other document certifying the date of purchase, store name, etc.

無効

<Free repair regulations>

1. If the product breaks down during the warranty period specified in this document while being used normally in accordance with the instructions in the instruction manual and other documents, we will repair it free of charge.
2. If the product breaks down within the warranty period and you wish to have it repaired free of charge, please bring the unit and this manual to the store where you purchased it and request repairs.
3. If you have moved, received the product as a gift, or are unable to request repairs from the store where you purchased the product (listed on this warranty card), please contact our Customer Service Center.
4. Even if the product is within the warranty period, repairs will be charged in the following cases.
   (a) Breakdowns and damage caused by improper use, or improper repair or modification. (b) Breakdowns and damage caused by moving, dropping, etc. after purchase. (c) Breakdowns and damage caused by fire, earthquake, flood, lightning strike, other natural disasters, pollution, salt damage, use of a power source (voltage, frequency) other than that specified, or abnormal voltage.
   (iv) Malfunction or damage caused by unusual use, such as under special conditions. (v) Malfunction caused by something other than this product. (vi) When this manual is not presented. (vii) When the purchase date, customer name, or retailer name is not written on this manual, or when the wording has been altered. (viii) When the built-in backup battery, microSD card, etc. Replacement of accessories and consumables due to wear and tear
5. This book is valid only in Japan. This warranty is valid only in Japan.

Description of the malfunction

*Please keep this manual in a safe place so as not to lose it. *This warranty card is a promise of free repairs for the period and under the conditions specified in this warranty card. Therefore, this warranty card does not restrict the customer's legal rights. If you have any questions about repairs after the warranty period has expired, please contact the store where you purchased the product or the Customer Service Center.

6SS2191-B

株式会社ユピテル
〒108-0023 東京都港区芝浦4-12-33

SUPER NIGHT

Yupiteru

2-Camera Drive Recorder

SN-TW78d

Instruction manual V vehicles only



Thank you for purchasing a Yupiteru product. The dedicated viewer software used with this unit is not included on the included microSD card. Please download it from our website. (https://www.yupiteru.co.jp/)

⚠ In the event of an accident, be sure to turn off the power, remove the microSD card and store it properly to prevent recorded files from being overwritten.

⚠ Do not insert or remove the microSD card while the power is on. This may damage the microSD card. After turning the power off, make sure the power light is off for at least 3 seconds before inserting or removing the microSD card.

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Safety Precautions

Before using this product, please read these "Safety Precautions" carefully and use the product correctly. The precautions described here are intended to ensure proper use of the product and to prevent injury or damage to the user. Please be sure to follow these important safety precautions.

• To clarify the extent of harm or damage, the following symbols are used to classify and explain the potential consequences of improper handling.

⚠ Danger: This indicates there is a high risk of death or serious injury.

⚠ WARNING: This indicates that there is a risk of death or serious injury.

⚠ Caution: This indicates that there is a risk of minor injury or property damage.

About pictorial symbols

This is a "mandatory" step that you must follow.

This is "prohibited" content that you should not do.

⚠ This is a "warning" that you should be careful of.

☛ Indicates related pages.

•Safety precautions to be observed

⚠ caveat

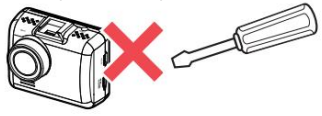
If the product is abnormal, broken, or damaged, immediately discontinue use. If it is used in this condition, it may cause a fire, electric shock, or fire. <Examples of abnormal conditions> - A foreign object has fallen inside - The product has been submerged in water - Smoke is coming out - There is a strange odor

Immediately stop using the product, unplug the power cord, and contact the store where you purchased the product or our customer service center.

* P.78 "After-sales service"

If you are using a medical device such as a cardiac pacemaker, please check with the medical electrical device manufacturer or your doctor to see if this product may affect your medical device. If you have a chronic illness, are pregnant, or may be pregnant, please consult with your doctor before using this device. If you will not be using this device for an extended period of time, unplug the power cord from the unit. Doing so may discharge the vehicle battery or cause a fire.

Anyone other than a service technician should never disassemble or repair the device or its accessories. This may result in electric shock or breakdown. Please ask your dealer to carry out internal inspection, adjustment, or repair.

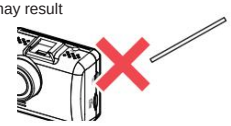


Do not store the unit in the following locations: - Places exposed to direct sunlight or near heaters or other extremely hot locations - Places with a lot of humidity, dust or oily smoke - On the dashboard or inside a car with the windows closed in hot weather

Do not place this unit in a fire, microwave, oven or pressure cooker, or heat it.

This may cause explosion, fire or burns.

Do not insert metal objects such as pins or wires into the holes or gaps as this may result in electric shock or breakdown.



Do not use this device in places where its use is prohibited, such as in hospitals, on airplanes, etc. Doing so may cause electronic devices to malfunction, resulting in a serious accident.

Do not use this unit in an environment with a large amount of flammable gas, as this may result in an explosion or fire.

Keep the SD card and other accessories out of the reach of children to avoid being swallowed .

⚠ Note

Do not continue to use the unit if condensation is present, as this may cause malfunctions, overheating, etc. (Condensation may form inside the unit if it is moved from a cold to a warm place.)

Do not drop the product or subject it to strong shocks, as this may cause damage or malfunction. Handle with care to prevent foreign objects from entering any of the terminals, as this may cause malfunction.

Do not operate the device with wet hands as this may result in electric shock.



Do not place magnets or other magnetic materials near the unit as this may cause malfunction.

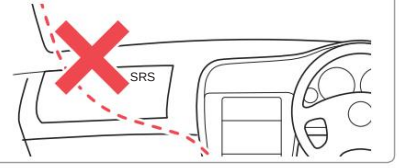
This unit is a precision instrument. Data may be lost due to static electricity, electrical noise, etc. If data is lost, the unit will not function.

• Installation (common)

⚠ caveat

The installation should be done in a location that does not interfere with driving or vision, or with the vehicle's functions (brakes, steering, etc.). Improper installation may result in a traffic accident.

Do not install or wire the unit near an airbag. In the event of an airbag deployment, the unit may be thrown off the body, resulting in an accident or injury. Also, cords may get in the way and cause the airbag to not deploy properly.



⚠ Note

Please install securely. Also, inspect it regularly. There is a risk of injury, accidents, and property damage due to the main unit falling off or dropping. Be careful with protruding parts. There is a risk of injury from protruding parts when installing or removing.

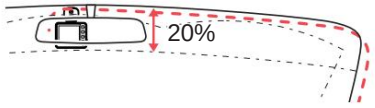
Be sure to insert the connector all the way in. Doing so may result in malfunction, fire, electric shock, or breakdown. Do not install the unit near a TV/radio antenna. This may result in reduced TV/radio reception, flickering, or noise.

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• Installation (front camera unit)

caveat

The unit should be installed within the upper 20% of the windshield. * Although it is now possible to install the unit within 15 cm of the bottom edge of the windshield, we recommend installing it in the upper 20% because the unit is more likely to become hot than at the top.



For vehicles equipped with certain driving assistance systems, the control may be affected depending on the installation position. Please check the vehicle's instruction manual before installation.

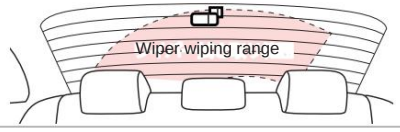
• Installation (rear camera unit) WARNING

For vehicles with movable rear window or a film on the rear window, please attach it to the rear tray or similar.

Please check the image on the front camera unit before installing it with the included double-sided tape. If installed incorrectly, the image will be upside down.

Be sure to attach the double-sided tape so that it does not overlap with the heating wire on the rear glass.

If the vehicle is equipped with a rear wiper, install the camera within the rear wiper's wiping range. If the camera is installed outside the rear wiper's wiping range, it may not be possible to record clearly when it is raining.



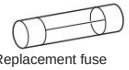
•About the power cord

caveat

Be sure to insert the power cord securely, as this can cause poor contact and lead to a fire.

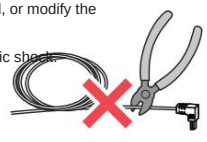
Be sure to unplug the power cord before cleaning, as this can lead to electric shock.

Do not use any fuse other than that specified. Using any fuse other than that specified may cause abnormal overheating or fire. Always replace the fuse with one of the same rating.



Replacement fuse
3A(20mm x 5.2mm)

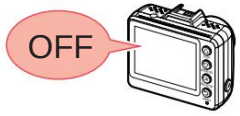
Do not use this product in vehicles with any power supply voltage other than that specified. This may result in fire, electric shock, or equipment failure. Also, pay attention to the polarity of the socket. This product is designed for use only in vehicles with a negative earth. Do not damage, forcibly bend, or modify the cord. This may result in equipment failure or electric shock.



About SD cards

caveat

Before inserting or removing the SD card, make sure the unit is turned off.



The SD card can only be inserted in one direction. Be sure to check the correct direction before inserting it. Forcing the card in may damage the uni

•About the operation and driving of this unit

caveat

The driver must not operate the device or look at the screen while driving. Such actions are a violation of Article 71 of the Road Traffic Act and are subject to punishment. If the driver operates the device, they must stop the vehicle in a safe place before doing so. Doing so may result in a traffic accident or injury.

When performing one-touch recording, be sure to operate quickly and carefully check the safety of your surroundings.

Do not use this unit overseas. This unit is designed for use in Japan.

Drivers should not operate this function while driving. Operating this function while driving may result in inattention to the road ahead and cause an accident. Always stop the vehicle in a safe place and operate the function with the side brake engaged. Do not make sudden starts or apply the brakes suddenly.

This is extremely dangerous in terms of safe driving. There is also a risk of injury, accidents, or property damage due to the main unit or other parts falling off or falling.

• About caring for this unit

Note

If the camera lens is dirty, wipe it gently with a soft, damp cloth. Wiping it with a dry cloth may cause scratches.

When cleaning the exterior of this unit, use a soft, dry cloth instead of water or solvents. If any foreign object gets inside the unit, discontinue use and consult the store where you purchased the unit.

Do not use volatile chemicals such as benzine or thinner to wipe the product as they will damage the painted surface.



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Precautions for Use

• We are not responsible for any violations that occur while using this unit. Please always drive safely. • We are not responsible for any

damages, such as breakdowns of the vehicle or on-board items, or accidents, that may occur as a result of installing this unit. We shall not bear any responsibility therefor.

•We are not responsible for any damages caused by natural disasters, fires, other accidents, intentional or negligent acts by the customer, or product modifications. •We

are not responsible for any damages caused by failure to follow the usage instructions and other matters that must be observed in the instruction manual. •The

specifications, appearance, icons, display names, and display contents of this unit may differ from the actual product or may be changed without notice for

improvement purposes. •We cannot compensate for any discoloration or deformation (marks left) of the vehicle caused by the installation of this product.

ÿ Notes on recording

•This unit records video continuously, but we do not guarantee that video will be recorded in all

circumstances.•We do not guarantee that this unit will serve as

evidence of an accident. •We are not responsible for any damage caused by a malfunction of this unit or the use of this unit, or damage caused by the loss, damage, or destruction of recorded video or data.

•The footage recorded by this unit may be used for any purpose or method. This may result in infringement of the subject's privacy or other rights, for which the Company assumes no responsibility.

- Never perform dangerous driving such as sudden braking while checking the operation of this unit.

•LED traffic lights may flash or the color may be difficult to distinguish. In such cases, please make a judgment based on the images in front and behind and the surrounding vehicle conditions. We are not responsible for any damage caused

by such an incident. •To record images properly, always keep the camera lens and vehicle glass

clean. •The number of frames (frame rate) recorded may change depending on the recording conditions.

- Drivers should not look at or operate power lamps, etc. while driving. When using one-touch recording (manual recording), perform the operation quickly after carefully checking the

surroundings for safety. - In the event of an accident, be sure to store the SD card so that the

recorded files are not overwritten. - This unit is made up of precision electronic components, and handling it as described below may damage the data.

* If static electricity or electrical noise is applied to the unit. * If

the unit is exposed to water or subjected to a strong shock.

* If the unit has not been used for a long

period of time. * If the unit is handled improperly when operating on a computer.

ÿ Notes about SD cards

•Use an SD card reader/writer that is compatible with the capacity of the SD card you are using. If you use an SD card reader/writer that is not compatible with the capacity, data may be corrupted and you may not be able to read or write the data.

- Always make sure to turn off the power before removing the SD card. Removing or inserting the SD card while the unit is operating may result in malfunction, damage to the SD card, loss of data, or other problems.

•SD cards become fragmented as data is repeatedly written and deleted, making them more susceptible to SD card errors. This unit uses a unique system that makes fragmentation less likely, allowing you to significantly reduce the frequency with which you need to format your SD card. We recommend that you format your SD card regularly to ensure stable use.

•SD cards have a lifespan. The area where data is recorded on an SD card is made up of many memory sectors, and the memory sectors tend to deteriorate when data is repeatedly rewritten. As deterioration progresses, some of the memory sectors may become damaged and normal recording may no longer be possible, so we recommend that you replace the SD card with a new one periodically. (Product lifespan varies depending on the SD card manufacturer and

usage conditions.)•We are not responsible for any malfunctions or damage caused by wear and tear on the SD

card. •We recommend that you save important recorded data to a computer or on a separate medium such as a DVD.

If you use an SD card other than the one included with the product, be sure to format it on this unit

the first time you start it up. We are not responsible for any data loss that may occur while using this unit.

Do not store any data other than that of this unit on the SD card as this may cause the unit to become unstable.

ÿ Installation precautions

- Install this unit correctly according to the instruction manual. Incorrect installation not only violates the Road Transport Vehicle Act, but may also cause

traffic accidents and injuries. - Do not install products with GPS functions or VICS receivers near this unit. This

may cause malfunctions. - Do not place other objects around this unit. These

objects may be reflected in the image. - Using the unit near a television antenna may cause reduced television

reception, flickering, or noise. - Wiring near a radio antenna may reduce radio reception.

- Do not use any accessories or optional items other than those listed in this manual. We cannot guarantee proper operation if any other items are used.

ÿ Notes on LCD panels

•Do not press the display hard or operate it with a sharp object such as a fingernail or a ballpoint pen. This may cause the display to malfunction or break, resulting in

injury.•Do not rub or scratch the display with metal or other objects. This may cause the display to malfunction or break,

resulting in injury.•When using sunglasses, the display may become invisible due to polarization characteristics. Please note. •If the

surrounding temperature becomes extremely high, the display may turn black. This is a characteristic of the LCD display and is not a malfunction. When the surrounding temperature returns to the operating temperature range, the

display will return to its original state.•The LCD panel is made with extremely high precision technology, and more than 99.99% of the pixels are effective, but there are 0.01% of pixels that are missing or always lit. Please note.

When recording high-brightness images such as the sun, they may appear as sunspots, but this is not a malfunction.

ÿ Notes on GPS positioning

•When using this unit for the first time, it may take more than 20 minutes for GPS positioning to be

completed.•GPS positioning may not be possible if the glass has low radio wave transmittance (metal-coated insulating glass, etc.) or the windshield is tinted with metallic film, etc.

•Displays such as driving speed, travel angle, and distance are measured only by GPS radio waves. Actual results may differ depending on the positioning conditions.

ÿ Warranty Notice

This product comes with a 3-year warranty from the date of purchase. (However, the power cord, microSD card, and consumables are not covered by the warranty.)

ÿ About the footage

•Because this unit uses a wide-angle lens, distortion or shadows may appear in some parts of the image. This is a characteristic of the wide-angle lens and is not a malfunction. •When the

power is turned off or the engine is stopped, the image from the rear camera may be black, but this is not a malfunction. Please be aware of this in advance.

ÿ Precautions regarding power cords

• Always use the included power cord.• If the fuse inside the

power cord blows, replace it with a commercially available new fuse (3A). If the fuse blows again immediately after replacement, immediately stop using the product and contact the store where you purchased it or our customer service center for repairs.• When replacing the fuse, be careful not to lose

any parts.

ÿ Caution when using with products from other companies

- Please note that we have not tested the product in combination with other companies' products and therefore cannot guarantee its operation.

ÿ Caution regarding stickers with dashcams

Decide where you want to stick the sticker and remove any dirt, oil, or wax from the surface beforehand. The sticker may not adhere to uneven or rough surfaces.

•After application, it takes about a day for the sticker to set, so during that time please refrain

from washing the car, etc. •Due to safety regulations, never apply the sticker to the windshield, driver's seat or passenger seat side windows, lenses, etc.

•The sticker material is designed for outdoor use, but it may deteriorate, such as fading or cracking, depending on the time and conditions of use. It may also peel off due to flying stones, wind pressure, accidents, or other unavoidable circumstances. •If you apply the

sticker to a repainted or damaged painted surface, the paint may peel off or become damaged when you remove the sticker. •Depending on

the long-term use and the material of the surface to which the sticker is applied, the degree of fading may vary and marks may remain on the sticker surface.

ÿ Precautions when using in hot weather such as midsummer

When using a sunshade or other sunshade, do not pinch the unit between the windshield and the sunshade, etc. This can cause heat to build up, which may lead to the unit failing.

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If an accident occurs...

In the event of an accident, be sure to remove the SD card and store it in a safe place to prevent the recorded files from being overwritten. * It can be used as a reference in the event of an accident. It is a guarantee of validity as evidence of the accident. It's not.

*LED traffic lights may be photographed flashing or the color may not be distinguishable. In such cases, please make a judgment based on the images in front and behind and the surrounding vehicle conditions. We are not responsible for any damage caused by such a situation.

Storage of SD card

Regarding storage location...

SD cards are made up of precision electronic components and if they are handled or stored in the types of locations shown below, the recorded files may be damaged.

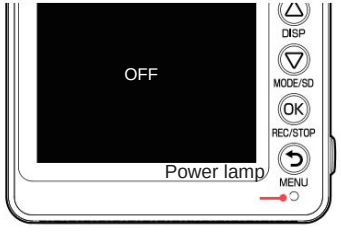


<Static electricity/noise> <Water/humidity> <Corrosive gas> <Impact, bending, folding>

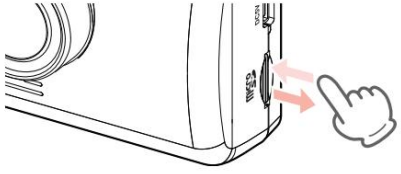
ÿ When connecting the included power cord

How to store the SD card if an accident occurs while the included direct power cord is connected.

1 Turn off the vehicle engine



After turning the power off, make sure the power lamp is off for at least 3 seconds.



* Be careful not to lose the SD card when it pops out. Sai.
* Be careful not to drop the card when removing it. SD cards are small and may get stuck between the seats if you drop them inside the car.

2 Push the SD card in, let it pop out a little, then pull it out

3 Store your SD card

ÿ When connecting an optional multi-battery or power supply unit with voltage monitoring function

How to store an SD card if an accident occurs while driving or parked with an optional multi-battery or power unit with voltage monitoring function connected.

If an accident occurs while driving

1 Turn off the vehicle engine

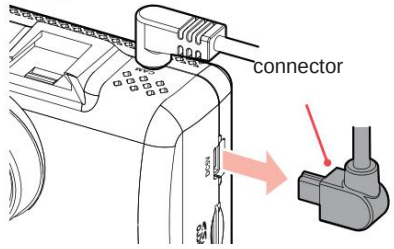
Parking records will be kept.

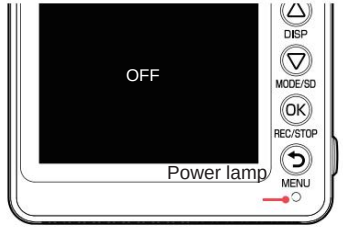
*The power may be turned off depending on the settings of optional items.

If an accident occurs while parking

Please proceed to "2. Disconnect the power cord from the DC jack of the front camera unit."

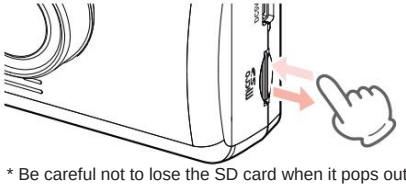
2 Remove the power cord from the DC jack of the front camera unit.





After turning the power off, make sure the power lamp remains off for at least 3 seconds.

3 Push the SD card in, let it pop out a little, then pull it out



* Be careful not to lose the SD card when it pops out. * Be careful not to drop it when removing it. SD cards are small, so it is easy to drop them in the car. It may get stuck between the seats.

4 Store your SD card

Backup function: If the power is suddenly cut off due to a serious accident, the backup function will prevent damage to the video currently being recorded and save it.

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Format the SD card

To ensure peace of mind, we recommend that you format the unit periodically. The following procedure describes how to format the unit using the button. Press and hold the button for 3 seconds or more while recording is stopped, and the format screen will immediately appear. *

All recorded files will be deleted when you format the unit. Back up the files to your computer if necessary.
Please format after doing the following. (* P.67)

* If an error message (* P.69) is displayed, press each button and then format the
Please do so.

* SD cards are consumables and we recommend replacing them with new ones periodically.
The product has a lifespan, such as the number of times it can be written.

How to format an SD card

1 Turn on the vehicle engine

Recording mark



Recording will begin.

The power lamp (red) will light up, the record mark (red) icon will flash, and "Recording" will be displayed.

2 OK Press the button



Recording will stop. The

power lamp (green) will light up and the recording mark will show "Stop."

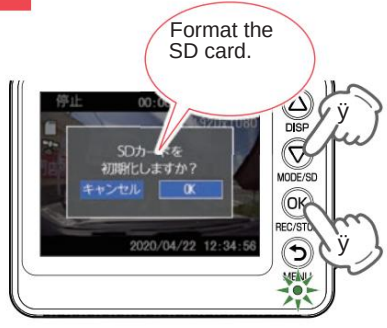
3 ▽ Press and hold the button for more than 3 seconds



The format screen will be displayed.

The message "Initialize SD card?" will be displayed.

4 Select [OK] and press the OK button.



Formatting will begin.



The message "Format completed" will be displayed and the process will be completed.

5 OK Press the button



6 OK Press the button



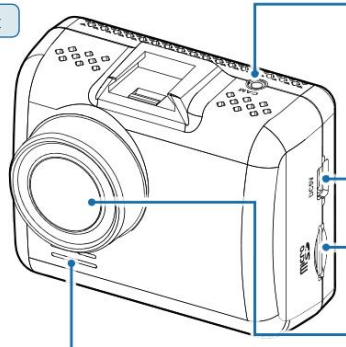
Start recording.

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Names and functions of each part

ÿ Main unit (front camera unit)

Front



Camera jack Connect
the included rear camera cable.
(* P.34)

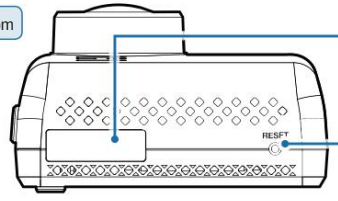
Connect the included
direct power cord to the DC jack (DC5V) .
(* P.35)

microSD card slot * A
microSD card is pre-installed.

lens
* There is a protective film attached when you purchase
the product. Please remove it before use.

The audio from
the speaker recording file will be played.

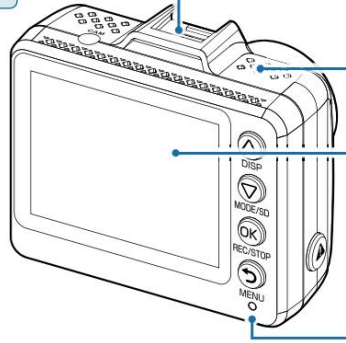
Bottom



The serial number is
printed on it.

Reset button
Resets the unit and reboots the system.
(* P.15)

Back



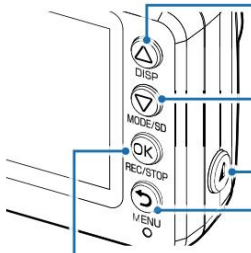
Attach the bracket that
comes with the joint rail .

The built-in microphone
collects surrounding sounds.

Full-color 2.0-inch TFT LCD display. Displays
various setting
screens and allows you to check the video being
recorded and the video after
recording. * A protective film is attached at the
time of purchase. Please remove it before use.

Power lamp (red/green)
The lamp indicates the operating status of the unit.
(* P.44)

Operation buttons



△ Button (DISP)
Switches the video. (* P.47) Press and
hold for 3 seconds or more to turn audio recording ON/OFF.
(* P.47)

▽ Button (MODE/SD) Displays
the playback mode. (* P.54) Press and hold
for 3 seconds or more to display the format screen.
(* P.12)

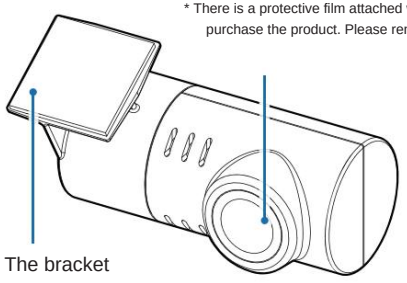
⚠ Button (record button) One-
touch recording. (* P.23, 46)

OK Button (REC/STOP) Starts/
stops recording.
(* P.44, 45) Press
and hold for 3 seconds or more to switch to time
lapse mode (* P.26)

↩ Button (MENU)
Displays the setting menu. (* P.50)

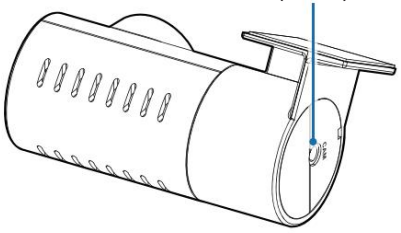
ÿ Rear camera unit

lens
* There is a protective film attached when you
purchase the product. Please remove it before use.



The bracket
is already attached. * Double-
sided tape is attached.

Camera jack
Connect the included rear
camera cable. (* P.34)



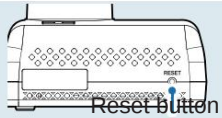
ÿ About the reset button

The screen is frozen
and won't move

No response when I
press the button

What to do in these situations

Press the reset button
to restart.



If the camera stops working or malfunctions, press the reset button on the bottom of the front camera unit to restart the system. * Pressing the reset button will not erase any
data stored on the SD card.

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1. Accessories

Please check the accessories before use.

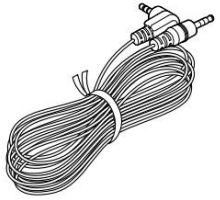
ÿ Bracket ……1

•For front camera (* P.31)

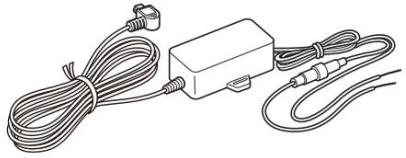


*Double-sided tape is attached.

ÿ Rear camera cable (approx. 9m) (* P.34) ……1



ÿ 5V converter included, power cord (approx. 4m) (* P.35) ……1



ÿ Sticker with dash cam ……1

*Due to safety regulations, never attach it to the windshield, driver's or passenger's side windows or lenses, etc.

ÿ micro SD card (32GB) ……1 (Pre-installed in the unit.)

ÿ Instruction manual and warranty card (this document) ……1

- This unit comes with a three-year product warranty from the date of purchase. However, consumables such as SD cards and double-sided tape are not covered by the warranty. - We do not lend out replacement parts for malfunctions of this unit.

•SD cards are consumable items and we recommend replacing them with new ones periodically.
Due to the nature of SD cards, there is a product lifespan, such as the number of times they can be written to.

•All SD cards have compatibility issues with this unit. In the worst case, commercially available SD cards may not be usable. Genuine SD cards have no such concerns, so you can use them with peace of mind. Please order genuine SD cards from the store where you purchased your model together with your device, or from our nearest dealer.

2. Sold separately

ÿ Multi-battery OP-MB4000 Unit 23,000 yen + tax When the engine is turned off, parking records are performed using power supplied from the multi-battery that was charged while driving. Unlike power supply from the vehicle battery, there is no need to worry about the battery running out. (Maximum approx. 12 hours) (* P.37)

Main unit …… 1 Input cord …… 1 Output cord …… 1 Hook and loop fastener …… 1

ÿ Power supply unit with voltage monitoring function*1 OP-VMU01 Unit 6,000 yen + tax This is a power supply unit with off timer setting and vehicle battery voltage monitoring function that connects to the vehicle battery to record parking. (* P.40)

Main unit …… 1 Input cord …… 1 Double-sided tape …… 1

ÿ AC adapter OP-E368 unit: 3,000 yen + tax Can be used at home.

*1: Although the product is equipped with a voltage monitoring function, the battery may run out due to the condition of the vehicle battery, etc. We are not responsible for any battery failure.

3. Purchasing accessories and optional items

• When purchasing additional accessories or optional items, please order from the store where you purchased the product or from our nearest dealer by including the model name as "XX (model name) for XX (required part)". • Some items can also be purchased on our website. For details, please check the website below.

Yupiteru スペアパーツ ダイレクト
https://spareparts.yupiteru.co.jp/

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Removing/inserting the SD card

In this manual, unless otherwise specified, "microSD card" is written as "SD card". * We cannot guarantee against operational problems caused by incompatibility between this unit and microSD cards other than the included accessories. * This unit supports microSDHC/microSDXC cards of 8GB or more and 128GB or less.
(SD speed class "Class 10" or higher)

⚠ Note

- After turning the power off, make sure that the power lamp is off for at least 3 seconds before proceeding.
- The SD card can only be inserted in one direction. Insert the SD card as shown in the figure below. Forcing it in may damage the unit. - If you use an SD card other than the one included with the product, be sure to format it on this unit before using it.

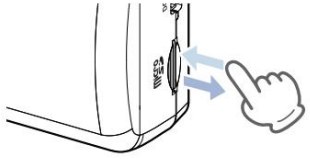
1. Remove the SD card from the device.

If you are using an optional multi-battery or power supply unit with voltage monitoring function, first remove the power cord from the front camera unit. (* P.11)

1 - 1 Turn off the vehicle engine

After turning the power off, make sure the power lamp remains off for at least 3 seconds.

1 - 2 Push the SD card in, let it pop out a little, then pull it out

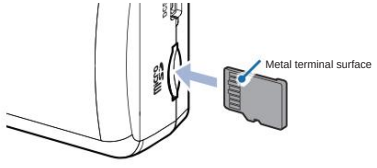


* Be careful not to lose the SD card when it pops out. * Be careful not to drop it when removing it. SD cards are small, so
If you drop it inside the car, it may get stuck between the seats.

2. Insert the SD card into the device

2-1 Turn off the vehicle engine . After turning off the power, make sure that the power lamp is off for at least 3 seconds.

2 - 2 Insert the SD card



Push the SD card into the slot until you hear a click. * Be careful to insert the SD card in the correct direction.

Video Recording Mode

In video recording mode, the camera records video continuously.



No.	display name	explanation
ÿ Recording mark		Displays the recording operation. Recording: (Red) icon flashes and "Recording" is displayed. Stopped: "Stopped" is displayed. Event recording: (Red) icon flashes and "Event Recording" is displayed.
ÿ Recording time *1 *2		Displays the recording time of the current video during recording. ÿ
Rear camera connection icon		Displays the rear camera connection status with an icon. : Connected, : Not connected ÿ
Audio recording icon *3		Displays the audio recording status. : ON, : OFF ÿ microSD icon Displays the
SD card insertion status with an icon. : Inserted, : Not inserted ÿ GPS icon *3		Displays the GPS status with an icon. :
Positioning, : Not positioning ÿ Date and time		
		Displays the current date and time.
ÿ Resolution		Displays the resolution for recording with the front/rear camera. * The resolution for the rear camera is fixed at "1080P (1920 x 1080)".
ÿ Progress bar		The progress of recording in the event recording is indicated by a bar (yellow). Event recording will end when it reaches the right end.
ÿ Mode icon		Displays the icon when in time lapse mode.

* 1: Recording time is per file (1 minute). (Example: 00:59 ÿ 00:00 ÿ 00:01...) *2: In time lapse mode, one file is 30 minutes. *3: The icon is hidden in time lapse mode.

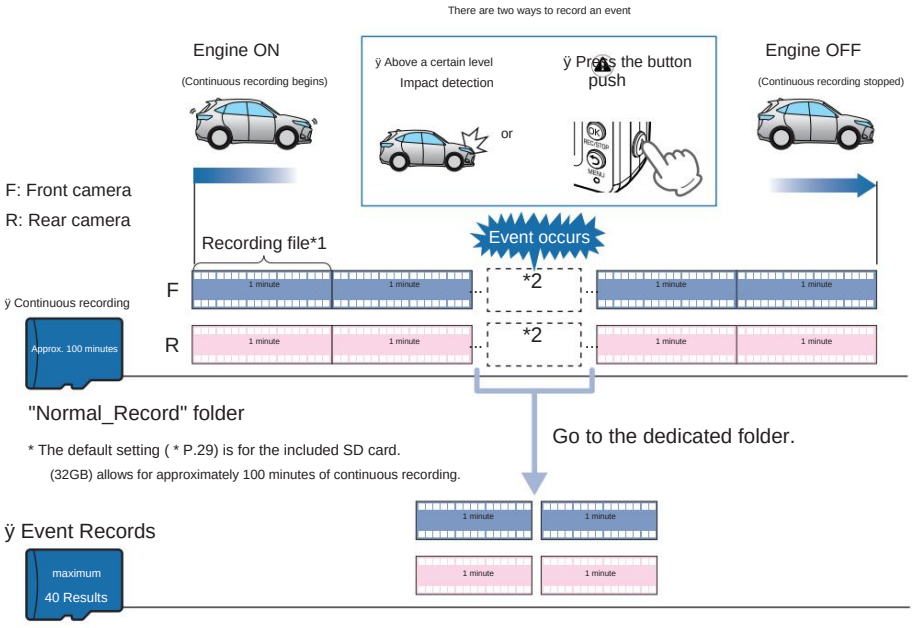
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ÿ Button functions in video recording mode

button	function	
△ button (DISP)	Short press	Short press to switch the image. (* P.47)
	Press and hold	for 3 seconds or more to turn voice recording ON/OFF. (* P.47)
▽ button (MODE/SD)	Short press	Short press: Press while recording is stopped to switch to playback mode. (* P.54)
	Press and hold	Press and hold for more than 3 seconds while recording is stopped to display the format screen. (* P.12)
OK button (REC/STOP)	Short press	Short press to start/stop recording.
	Press and hold	Press and hold for more than 3 seconds while recording to switch to time lapse mode. (* P.26)
⮌ button (MENU)	Short press	When recording is stopped, press to switch to the setting menu. (* P.50)
⚠ button (Record button)	Press during short press	recording to start one-touch recording. (* P.23)

About recording

There are two recording methods: continuous recording and event recording.



* The default setting (* P.29) is for the included SD card.
(32GB) allows for approximately 100 minutes of continuous recording.

* The initial setting (* P.29) is 40 records in total including G-sensor recording and one-touch recording on the included SD card (32GB).
Event recording is possible.

*1: In time lapse mode, approximately 30 minutes of footage will be saved as one file. (* P.25)
*2: The files that are moved vary depending on when the event occurs.

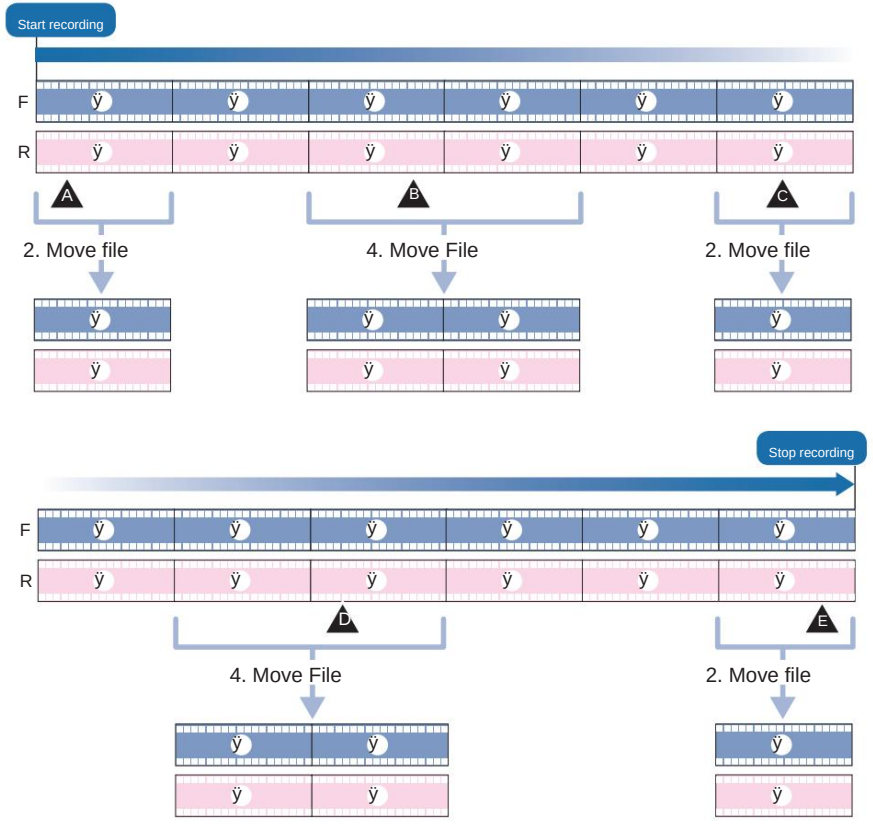
A: If the event occurs immediately after recording starts (1) "0 to 30 seconds"

B: When the event occurs between 31 and 60 seconds (ÿ)

C: In time lapse mode, when the event occurs in the recording file ÿ

D: When the event occurrence timing is ÿ "0 to 30 seconds"

E: If the event occurs between 31 and 60 seconds before the end of recording (12)



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1. Continuous recording

The video is continuously recorded on the SD card from engine start (ACC ON) to engine stop (ACC OFF). When continuous recording starts, the message "Recording will start" will be displayed and the (red) icon will flash and "Recording" will be displayed. * If the volume is set to [OFF], there will be no notification.

- Recording file structure: Each file takes approximately one minute to generate.

• With the initial recording time (* P.29), the included SD card (32GB) allows for approximately 100 minutes of continuous recording. The recording time varies depending on the capacity and resolution of the SD card. (* P.75 "Estimated Recording Time")

• The default setting for overwrite settings is [Overwrite all], so overwrite recording will continue even after 100 minutes. Overwrite operation differs depending on the settings. (* P.23 "About overwrite settings")

2. Event recording (G-sensor recording and one-touch recording)

There are two types of event recording: G-sensor recording and one-touch recording. When an event recording starts, a "ding-dong" sound will be heard and a progress bar will be displayed at the bottom of the screen. * If the volume is set to [OFF], no notification will be made.

- Recording file structure: The recording file structure is the same as for continuous recording. * The file to be moved varies depending on the timing of the event occurrence. -

Maximum number of recordings

The default setting (* P.29) allows for a total of 40 recordings, including G-sensor recording and one-touch recording, on the included SD card (32GB). The number of recorded events varies depending on the capacity and resolution of the SD card. (* P.75 "Maximum number of recorded events")

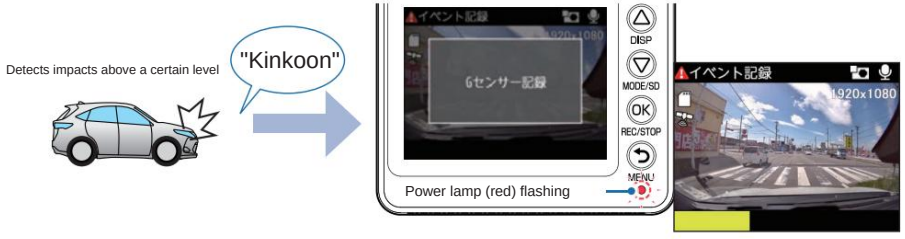
• The default setting for overwrite settings is [Overwrite all], so recording will continue by overwriting even after the maximum number of recorded events (40 events) has been reached. Overwrite operation differs depending on the settings. (* P.23 "About overwrite settings")

ÿ G sensor recording

When the G-sensor detects an impact of a certain magnitude or greater, a recording file will be created in the "Event_Record" folder on the SD card. * The default setting is [G-sensor recording: ON]. You can also set it to [OFF] in the settings. (* P.20)

• G-sensor sensitivity

You can set the sensitivity of the G sensor. The default is X (forward/backward), Y (left/right), All Z (vertical) values are [1.0G]. (* P.51)



If the impact at the time of the accident is weak, the G-sensor may not be able to detect the impact. In that case, please check the video of the continuous recording.

ÿ One-touch recording (manual recording)

When you press the button during continuous recording, a recording file will be created in the "Event_Record" folder on the SD card.



Note

When performing one-touch recording, be sure to check the safety of your surroundings before proceeding quickly.

3. Overwrite settings

You can choose the action to take when the limit is reached from the following. (* P.51 "Settings Menu")

Override Settings		Actions taken when the limit is reached Continuous recording	Event recording
Overwrite all (default value)	Overwrite all recording files.	Overwrite and continue recording	Overwrite and continue recording
Continuous recording overwrite: Only continuous recording files are overwritten.			Stop recording
Do not overwrite	All recording files will not be overwritten.	Stop recording	Stop recording

* Old recording files are automatically deleted and overwritten for each recording method.

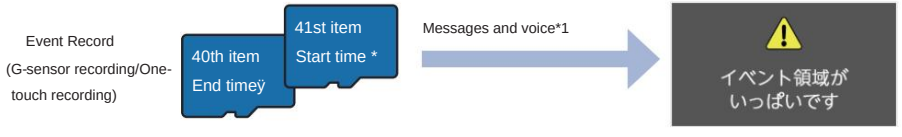
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ÿ Overwrite all (default value)

When the continuous recording or event recording reaches its respective limit, the oldest file for each recording method will be overwritten and recording will continue.

ÿ Continuous recording overwrite

When the SD card capacity limit is reached, the oldest continuous recording will be overwritten and recording will continue. When the SD card capacity limit is reached, event recording will stop in that recording method.

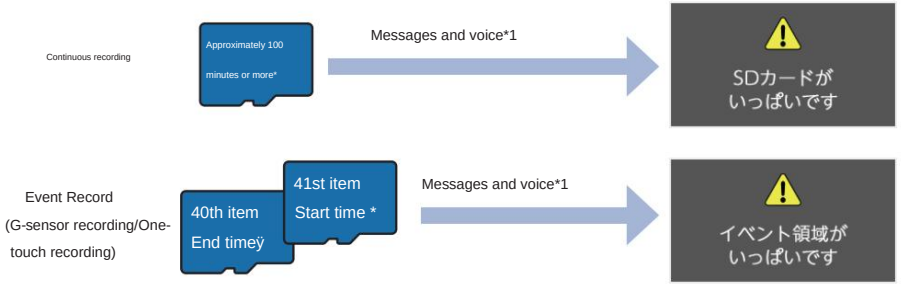


ÿ Do not overwrite

When continuous recording or event recording reaches its respective limit, recording in that mode will stop.

Example 1: When the event recording reaches the upper limit of the SD card capacity, the event recording will stop, but continuous recording will continue. If the image limit has not been reached, recording will continue at all times.

Example 2: When continuous recording reaches the upper limit of the SD card capacity, continuous recording will stop. Furthermore, event recording will also stop regardless of the SD card capacity. * Event recording is a recording file that has been moved from continuous recording.



*Time/number of items varies depending on SD card capacity and resolution.

* 1: If the volume is set to [OFF], no sound will be heard. (* P.51)

To stop the message display, press the appropriate button.

Parking records

This unit has a "Time Lapse Mode" for parking recording (recording while parked with the engine off and an external power source). Use it as necessary.

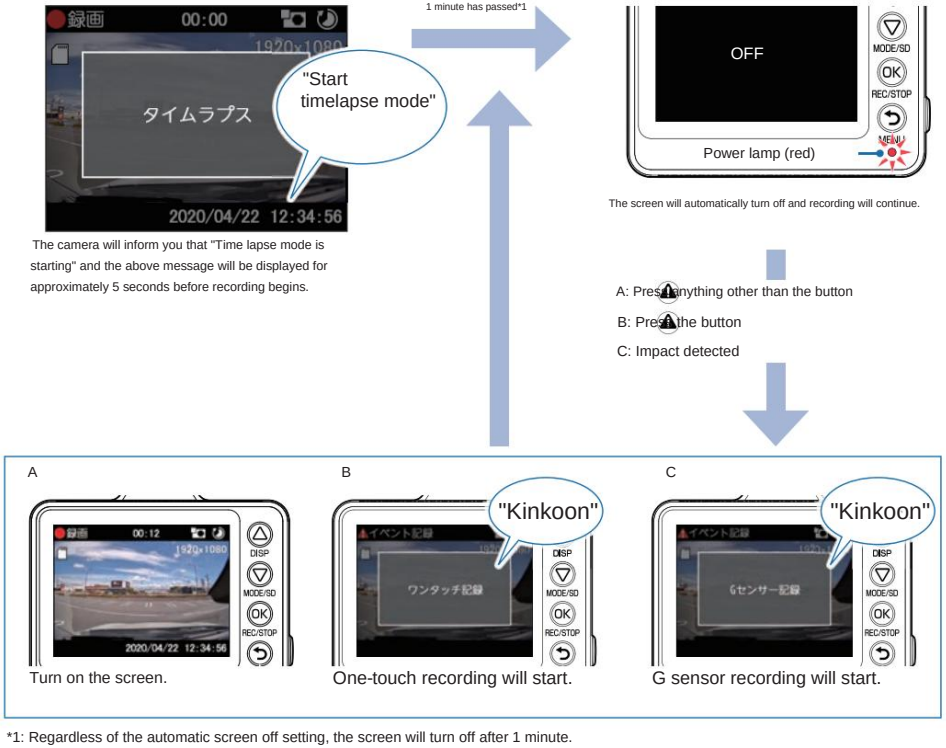
1. Timelapse mode

To accommodate long-term recording while parked, there is a time-lapse mode (parking monitoring) that changes the frame rate to "1 frame/second" for recording. Use this when connecting the optional multi-battery (OP-MB4000) or power supply unit with voltage monitoring function (OP-VMU01) for parking recording. (* P.37) * For continuous recording in time-lapse mode, the frame rate is fixed at "1 frame/second". Therefore,

Approximately 30 minutes of footage will be saved as one file, and when played back, it will be fast forward footage. * GPS location information/G sensor information/audio will not be recorded during time lapse mode. * Optional multi-battery (OP-MB4000) or power supply unit with voltage monitoring function (OP-VMU01)

When connecting and recording parking data, the maximum duration is approximately 12 hours.

ÿ Operation in time lapse mode



*1: Regardless of the automatic screen off setting, the screen will turn off after 1 minute.

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ÿ A: Start time lapse mode

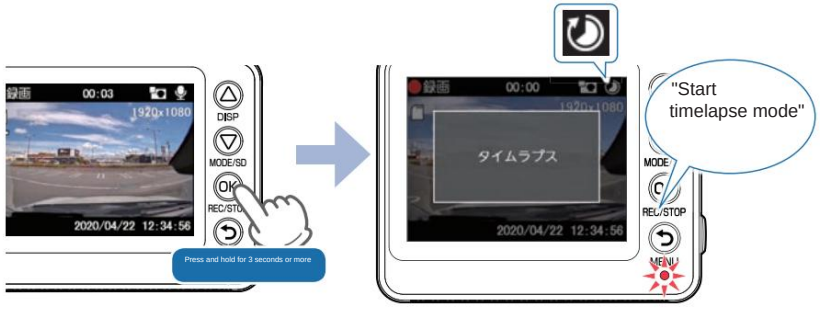
A-1 Turn on the vehicle engine



Recording will begin.

The power lamp (red) will light up, the record mark (red) icon will flash, and "Recording" will be displayed.

Press and hold the OK button for 3 seconds or more.



Starts recording in time lapse mode. The icon is displayed during time lapse mode. * The audio recording icon/GPS icon is hidden during time lapse mode.

ÿ B: Exit time lapse mode

* If the screen is off, press anything other than the button to turn the screen on before proceeding.

B-1 Press the button while in time lapse OK mode.





Exit time lapse mode and stop recording. Press the OK button to start recording again.

B-1 In time lapse mode, press and hold OK the button for 3 seconds or more





It will exit time lapse mode and start recording automatically.

About the footage in time lapse mode: Footage in time lapse mode is recorded in the same way as normal recording files, in the "Normal_Record" folder for continuous recording and in the "Event_Record" folder for event recording.
When playing back on the main unit, select "Continuous Recording" or "Event Recording" from the folder selection screen.



<Folder selection screen>

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About maintenance

It is recommended that you have this unit maintained on a regular basis.

ÿ Maintenance as necessary •Replace the

fuse in the included power cord ý Replacement fuse 3A

(20mm x 5.2mm)

If the power does not turn on even when the engine is started while the power is connected, the fuse (3A) in the power direct cord may be blown. 1. Check that the

power cord is not disconnected. 2. Remove the fuse using the

procedure below and check that the fuse in the fuse holder in the power direct cord is blown.

3. If the fuse is blown, replace it with a

commercially available fuse.

Turn the fuse holder in the direction of the arrow in the illustration to remove the fuse.

After replacing the fuse, turn the fuse holder in the opposite direction to the arrow in the illustration to tighten it securely.



Replacement fuse
3A (20mm x 5.2mm)

•Replacing the fuse sold separately

* Multi-battery (OP-MB4000): Replacement fuse 6A (30mm x 6.0mm) * Power supply unit with voltage monitoring function (OP-VMU01): Replacement fuse 3A (30mm x 6.4mm)

If the power does not turn on when you start the engine while it is connected, the fuse may be blown. 1. Check that the

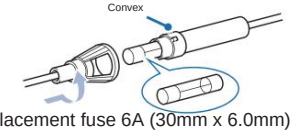
connection cords are not disconnected. 2. Remove the fuse using the

procedure below and check that the fuse inside the fuse holder is not blown. 3. If the fuse is blown, replace it with a commercially available fuse.

<OP-MB4000, OP-VMU01>

While pressing the tip of the fuse holder, turn it in the direction of the arrow in the illustration to remove the fuse. After

replacing the fuse, align the groove on the tip of the fuse holder with the protrusion on the main body, press and turn it in the opposite direction to the arrow in the illustration.



OP-MB4000: Replacement fuse 6A (30mm x 6.0mm)
OP-VMU01: Replacement fuse 3A (30mm x 6.4mm)

About the initial value

The initial settings for this unit are as shown in the table below.

Setting items	Initial Value	
Front Resolution	1080P (1920×1080)	Description: Records the front camera image at a resolution of 1920 x 1080. * The resolution of the rear camera is fixed at "1080P (1920 x 1080)". The resolution cannot be changed.
Rear camera positive image		The rear camera image is recorded in normal view.
Audio recording ON		Recording will be done together with the
volume	MID	video. The volume of this unit is set to [MID]. * The volume includes operation sounds, sounds when continuous recording/event recording starts, and messages. This will be reflected in the audio and playback of recorded files.
Operation sound ON		A sound will be emitted when the operation is performed.
Overwrite settings Overwrite all		When the SD card capacity limit is reached, all recorded files will be overwritten. (* P.23 "About overwrite settings")
Flickerless function 60Hz		The commercial frequency is set to 60Hz (Western Japan). * Only front camera supported
Auto Screen Off Always On		The screen is always on.
G-sensor setting ON		G-sensor recording is performed. (* P.22 "G-sensor recording")
G-sensor sensitivity (X) 1.0G		The impact sensitivity in the X (front-back direction) is set to 1.0G.
G-sensor sensitivity (Y) 1.0G		The Y (left/right) shock sensitivity is set to 1.0G.
G-sensor sensitivity (Z) 1.0G		The Z (vertical) shock sensitivity is set to 1.0G.
language	Japanese	The language of this unit is displayed in Japanese.

* If you want to change the initial values, please refer to "Customize and Use" on pages 50 to 53.

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Installing the unit

Please read the installation instructions carefully before installing this unit in your vehicle.

Installation precautions

ÿ Front camera unit

- Install within the top 20% of the windshield. - Attach the double-sided tape securely in the designated position. - Install in a location that does not obstruct your view. - Install within the wiper's wiping range. If installed outside the wiper's wiping range, images may not be recorded clearly during rainy weather. - Install in a location that does not interfere with the operation of the rearview mirror. - Install so that it does not overlap the vehicle registration sticker, etc.
- Install away from the tinted edges of the windshield or in locations that may obstruct your view. - Install in a location that does not interfere with the operation of the airbag or driving. - Do not place any objects around the unit. Images may be reflected. - If the collision mitigation braking system camera or anti-glare mirror sensor are on the back of the rearview mirror, If so, be sure to avoid any prohibited areas listed in the vehicle's instruction manual when installing.
- Do not install near a TV/radio antenna. This may result in reduced TV/radio reception, flickering, or noise. - Before installation, make sure the installation location is such that the power cord can be connected and the buttons can be easily operated.



ÿ Rear camera unit

- For vehicles with a movable rear window or a film on the rear window, install the rear camera unit on the rear tray, etc. - For vehicles with privacy glass or film on the rear window, the recorded image may be difficult to see at night or in dark places.

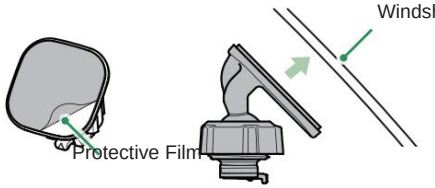
- The light from high-mounted stop lamps or the lights of following vehicles may make the recorded footage difficult to see.

• If the vehicle is equipped with a rear wiper, install the camera within the wiping range of the rear wiper.• If the camera is installed outside the wiping range of the wiper, it may not be possible to record clearly when it rains.• Install the camera so that the adhesive side of the double-sided tape does not overlap with the heating wire of the rear window. • If the rear camera cable is routed near the radio antenna, the radio reception sensitivity may decrease.

1. Install the front camera unit

Please thoroughly remove any dirt or grease from the glass before installing.

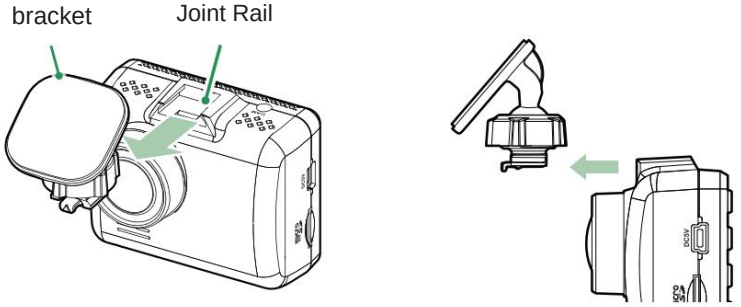
1-1 Peel off the protective film from the double-sided tape of the front camera bracket, Attach to windshield



* When the unit is attached to the bracket, install it in a location where you can connect the power cord and easily operate the buttons.

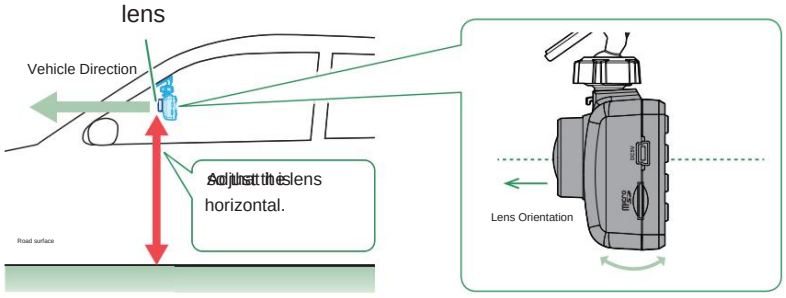
ÿ Please be sure to check the following points as they may cause the tape to peel off. - Never use parts cleaners, glass cleaners, etc. to remove dirt or grease from the windshield.
- When using a sunshade or other sunshade, do not pinch the unit between the windshield and the sunshade. This will cause heat to build up and may cause the double-sided tape to peel off.
- Extremely low temperatures can weaken the adhesiveness of the double-sided tape. Use a hair dryer or similar to warm the adhesive surface before applying. - Re-applying the tape may weaken the adhesive strength of the tape and cause it to fall off. - To strengthen the adhesive strength, leave the unit unattached for more than 24 hours, and be careful not to pull or apply excessive force to the double-sided tape until it is firmly attached. - If the center of the double-sided tape is not attached, or if the entire double-sided tape is not attached to the glass, it may come off.

1-2 Align the front camera bracket with the joint trail of the front camera unit and slide it in the direction of the arrow to attach it.



Machine Translated by Google

1 - 3 Adjust the lens so that it is parallel to the direction of vehicle travel.



* Please be careful not to touch the camera lens when installing. If you touch the lens, The lens may become cloudy and you may not be able to capture clear images. * Slide it all the way in and gently pull the main unit to make sure it does not come off. There is a risk of it falling off while driving.

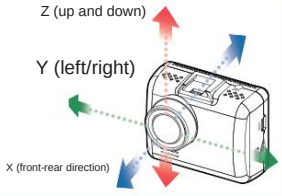
If the lens is not parallel to the vehicle's traveling direction, G sensor recording may operate incorrectly.

* To operate the G sensor recording correctly, Be sure to adjust the lens so that it is parallel to the direction in which the vehicle is moving.



G-sensor sensitivity

The G-sensor sensitivity can be set in the three directions (XYZ) shown in the figure on the right. The setting range is 0.5G (sensitive) to 5.0G (insensitive) in 0.1G increments. (* P.51)



1 - 4 Tighten the nuts to secure



ÿ How to remove ÿ

Lift the lock release lever ÿ Slide the main body in the direction of the arrow



* Be sure to securely fasten with the nuts. Otherwise, it may fall off while driving. * Do not adjust the direction of the main unit after tightening the nuts. This may cause excessive force to be applied to the bracket joint, which may result in damage. Loosen the nuts before making adjustments.
* When loosening the nuts, do not turn the main unit, but loosen the nuts. This may cause excessive force to be applied to the bracket joint, which may result in damage.

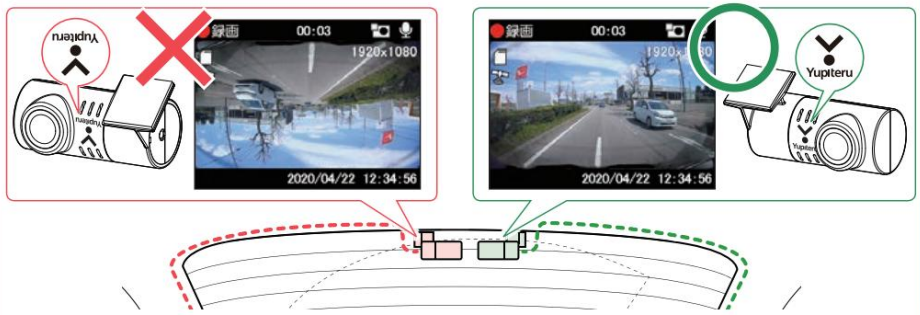
2. Install the rear camera unit

Please remove any dirt or grease from the glass before installing it, and install it carefully. *

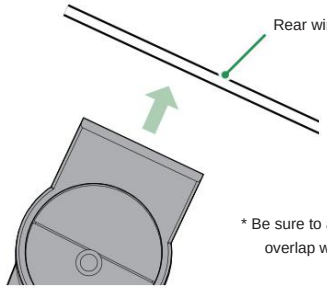
You can record using only the front camera unit without connecting the rear camera unit . Please use as necessary.

⚠

Caution: Before installing the front camera unit with the included double-sided tape, check the image. If installed incorrectly, the image will be upside down.



2-1 Peel off the protective film from the double-sided tape of the rear camera bracket and attach it to the rear glass.



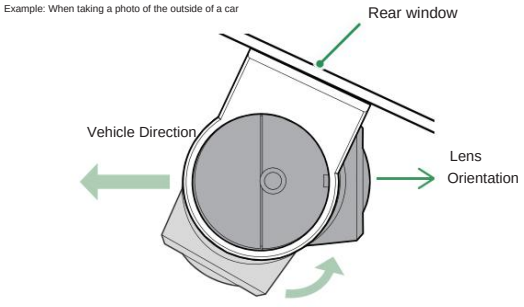
* Be sure to attach the double-sided tape so that the adhesive side does not overlap with the heating wire on the rear window.

ÿ Please check the following points to avoid peeling.•Do not use parts cleaner or glass cleaner to remove dirt and grease from the rear window. Never use it.

- Extremely low temperatures can weaken the adhesiveness of the double-sided tape. Use a hair dryer or similar to warm the adhesive surface before applying. - Re-applying the tape may weaken the adhesive strength of the tape and cause it to fall off. - To strengthen the adhesive strength, leave it for 24 hours or more, and be careful not to pull or apply excessive force until the double-sided tape is firmly attached. - If the center of the double-sided tape is not attached, or the entire double-sided tape is not attached to the glass, it may come off.

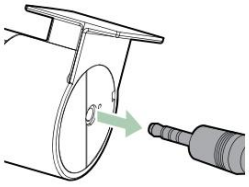
Machine Translated by Google

2-2 Adjusting the Lens Orientation

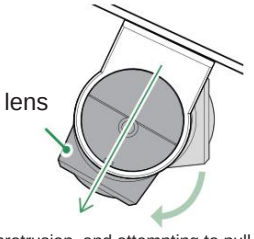


How to remove the rear camera unit

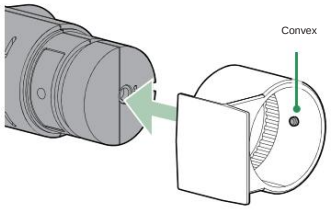
ÿ Remove the rear camera cable.



ÿ Rotate the lens to the position shown in the figure below.



ÿ Pull out the rear camera unit from the rear camera bracket.

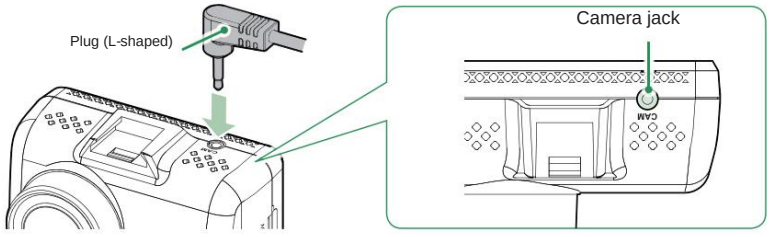


* The rear camera bracket has a protrusion, and attempting to pull it out forcefully may cause damage. Be sure to turn it to position ÿ before removing it.

3. Connect the rear camera cable

By connecting the included rear camera cable, you can also record rear camera images. * Make sure to insert the plug of the rear camera cable all the way into the camera jack. Plug
If the plug is not inserted firmly, you may not be able to record rear camera images. * Do not apply excessive force to the plug. This may cause damage to the camera jack.

3-1 Connect the rear camera cable to the front camera unit

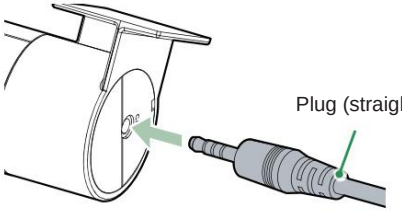


Connect the plug of the included rear camera cable to the camera jack on the front camera unit.

* Please use the plug (L-type) for the front camera unit. If you use the plug (straight type), the cable may be damaged due to the load applied when connecting it.

3 - 2 Route the rear camera cable to the rear glass

3 - 3 Connect the rear camera cable to the rear camera unit



Connect the plug of the included rear camera cable to the camera jack on the rear camera unit.

3 - 4 Use a commercially available cable tie (cable tie) to secure the rear camera cable

Fix the wires and perform wiring.

ÿ Avoid fixing or arranging the wiring in the following locations: - Locations that may interfere with driving or airbag deployment. - Locations exposed to hot air from air conditioners or heaters. - Locations exposed to direct sunlight. - Unstable locations. - Locations where the wiring may become pinched or the insulation may rub against it, causing a break or short circuit. - Near the vehicle's electrical equipment (including antennas, etc.). - Locations where water may splash or where there is a lot of humidity, dust or oily smoke.

4. Connect the power supply

Connect the included direct power cord here.

* If you are connecting optional items, please refer to "Installing optional items (* P.37)".

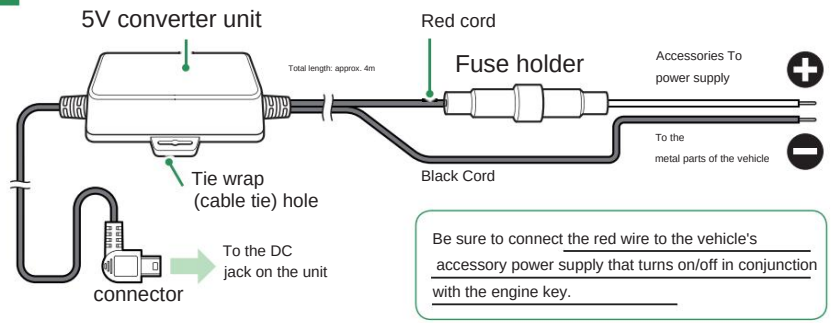
Caution :

To prevent short circuit accidents during work, be sure to disconnect the negative terminal of the vehicle battery before wiring.

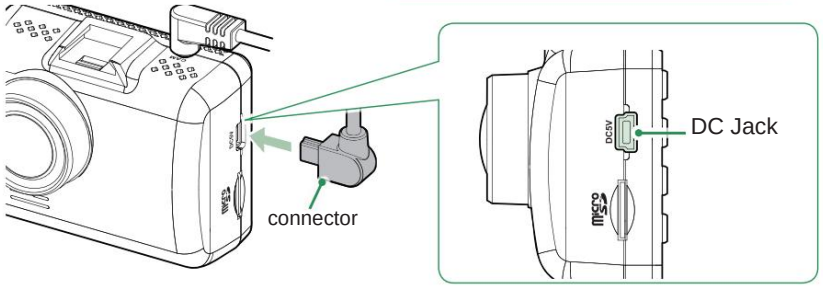
- In vehicles equipped with a car navigation system, radio, audio system, etc., the memory contents may be erased if the battery terminals are disconnected. Be sure to write down the memory contents before disconnecting the terminals.

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4 - 1 Connect the power cord



Be sure to connect the red wire to the vehicle's accessory power supply that turns on/off in conjunction with the engine key.



Connect the included direct power cord to the DC jack on the front camera unit and to the vehicle. * Use the included

direct power cord. * This power supply is for DC12V (negative earth) vehicles only. It cannot be used in 24V vehicles. * Make sure to connect the connector of the direct power cord in the correct orientation. Connecting it in the wrong orientation may cause a malfunction or damage. If you are unable to connect properly, carefully check the connection before connecting.

4-2 Use commercially available cable ties or double-sided tape to secure the 5V converter unit and perform wiring.

ÿ Avoid fixing or arranging the wiring in the following locations: - Locations that may interfere with driving or airbag deployment. - Locations exposed to hot air from air conditioners or heaters. - Locations exposed to direct sunlight. - Unstable locations. - Locations where the wiring may become pinched or the insulation may rub against it, causing a break or short circuit. - Near the vehicle's electrical equipment (including antennas, etc.). - Locations where water may splash or where there is a lot of humidity, dust or oily smoke.

After completing the installation and wiring, please check that the brakes, lights, horn, hazard lights, turn signals, etc. are working properly. If they are not working properly, it may cause a fire, electric shock, or a traffic accident.

Installation of optional items

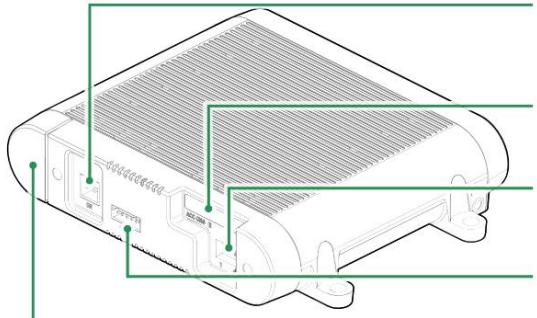
1. How to connect the multi-battery (OP-MB4000)

⚠

Caution : To prevent short circuit accidents during work, be sure to disconnect the negative terminal of the vehicle battery before wiring.

- In vehicles equipped with a car navigation system, radio, audio system, etc., the memory contents may be erased if the battery terminals are disconnected. Be sure to write down the memory contents before disconnecting the terminals.
- If you do not use the OP-MB4000 for 3 months or more, please remove the power connector. If you leave it like this, the built-in battery may become completely discharged and the device may become unusable. *Even if the power connector is removed, the device can still supply power to connected devices.
- Install the dip switch in a location where it can be operated.

ÿ OP-MB4000



Input terminal (DC12V)
Connect the input cord included with the OP-MB4000.

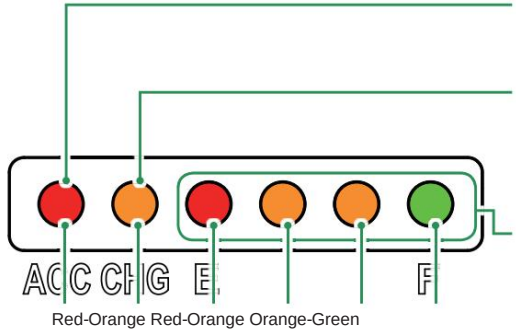
Indicator LED:
Power supply, charging and remaining battery level are displayed by LED.

Used to set the DIP switch off timer.

Output terminal (DC12V)
Connect the output cord included with the OP-MB4000.

Power Connector

ÿ About the indicator LED



Red-Orange Red-Orange Orange-Green

Lights up when power is being supplied to the OP-MB4000.

The light will turn on during charging, and will flash if charging stops when the temperature is outside the operating temperature range. * If the light flashes rapidly, immediately discontinue use as this indicates a battery abnormality.

The remaining battery level is indicated by the number of LEDs that light up. * The LEDs will light up for 5 seconds after the engine is turned off. * It will take about 3 hours to fully charge.

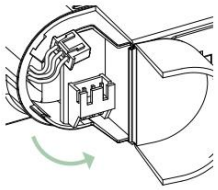
Machine Translated by Google

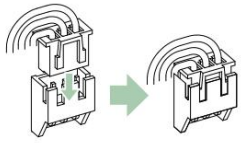
ÿ Items required to connect OP-MB4000

ÿOP-MB4000 ÿInput cable included with OP-MB4000 ÿOutput cable included with OP-MB4000
ÿPower cable with 5V converter (included with dashcam) ÿCommercially available connection terminal

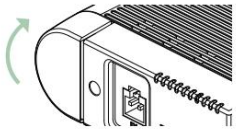
Connect the power connector

ÿ Open the cover ÿ Connect the power connector ÿ Close the cover





* Make sure to insert it all the way in.



* Close it until you hear a click.

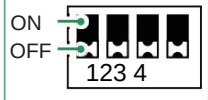
1 - 2 Setting the Off Timer

Use the dip switch to set the time for power supply from the OP-MB4000's built-in battery after the engine is turned off (off timer setting).

The unit cannot be used in the factory settings. Operate the dip switch when the engine is off. The setting will be reflected when the engine is turned on. * Turn the dip switch on and off with a fine-tipped toothpick or similar. * Regardless of the off timer setting, if the OP-MB4000's built-in battery is low, power supply from the OP-MB4000's built-in battery will automatically stop and parking recording will not be performed.

ÿ Off timer setting

Dip Switch



Initial value: 1~4 OFF



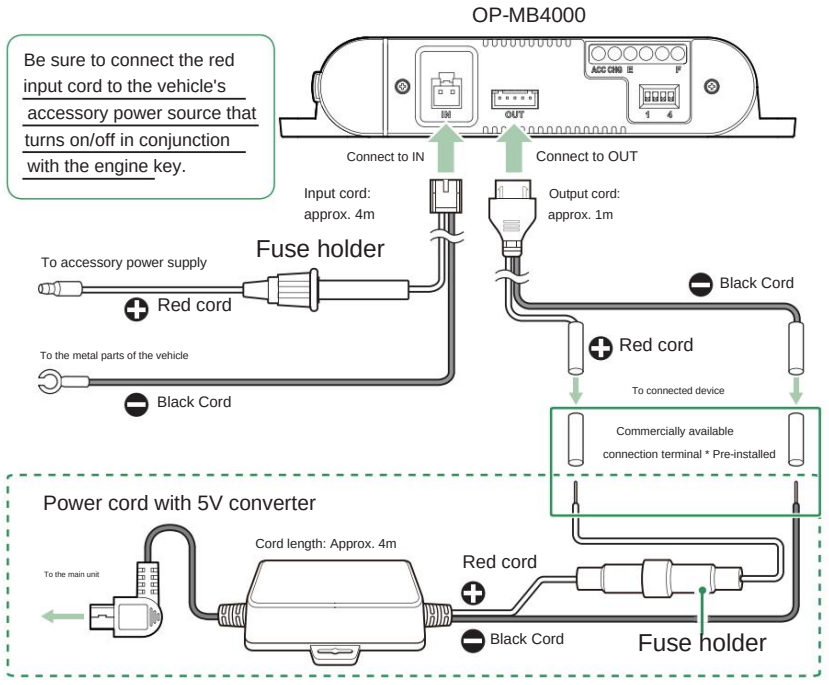
Not used (0 hours) | 0.5 hours | 1 hr | 2 hours



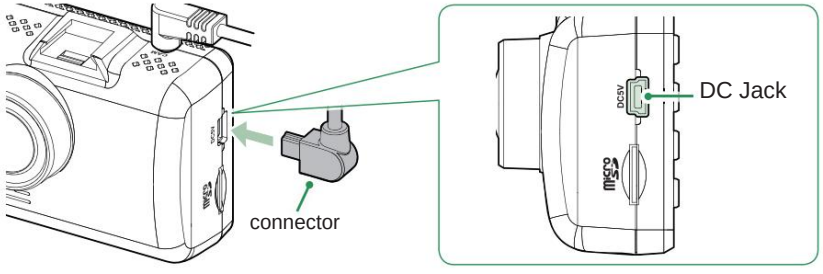
3 hr | 4 hours | 6 hr | 12 hr

About the off timer setting If the off timer setting is set to "Not used (0 hours)", parking records will not be recorded. Set this if you want to fully charge the built-in battery of the OP-MB4000 or if you do not want to record parking information.

1 - 3 Connecting the OP-MB4000 to the vehicle



1 - 4 Connect the power cord



Connect the included direct power cord to the DC jack on the front camera unit. * Be sure to connect the direct power cord connector in the correct orientation. Connecting it in the wrong orientation may cause a malfunction or damage. If you are unable to connect properly, carefully check the connection before connecting.

Machine Translated by Google

1 - 5 Fix the OP-MB4000 with the hook-and-loop fastener or a commercially available tie wrap, and then perform wiring.

ÿ Avoid fixing or arranging the wiring in the following locations: - Locations that may interfere with driving or airbag deployment. - Locations exposed to hot air from air conditioners, heaters, etc. - Locations exposed to direct sunlight. - Unstable locations. - Locations where the wiring may become pinched or the insulation may rub against it, resulting in a break or short circuit. - Near the vehicle's electrical equipment (including antennas, etc.). - Locations where water may splash or where there is a lot of humidity, dust or oily smoke. - Locations where the dip switches cannot be operated.

After completing the installation and wiring, please check that the brakes, lights, horn, hazard lights, turn signals, etc. are working properly. If they are not working properly, it may cause a fire, electric shock, or a traffic accident.

2. How to connect the power supply unit with voltage monitoring function (OP-VMU01)

Note

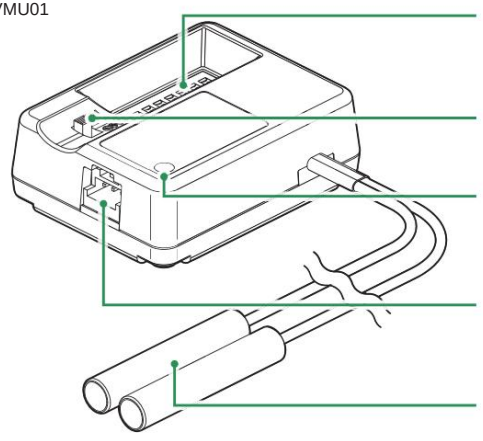
To prevent short circuits during work, be sure to disconnect the negative terminal of the vehicle battery before wiring. please.

- In vehicles equipped with a car navigation system, radio, audio system, etc., the memory contents may be erased if the battery terminals are disconnected. Be sure to write down the memory contents before disconnecting the terminals.

If you will not be using the device for more than 2 days, turn off the power switch.
* Even when the power switch is turned off , power can still be supplied to connected devices.

- Install the dip switch in a location where it can be operated.

ÿ OP-VMU01



DIP switch Used to set the detection voltage and off timer.

Power Switch
Used to turn the OP-VMU01 power on/off.

Indicator LED (red)
The LED (red) lights up when the vehicle engine is on or when OP-VMU01 is operating.

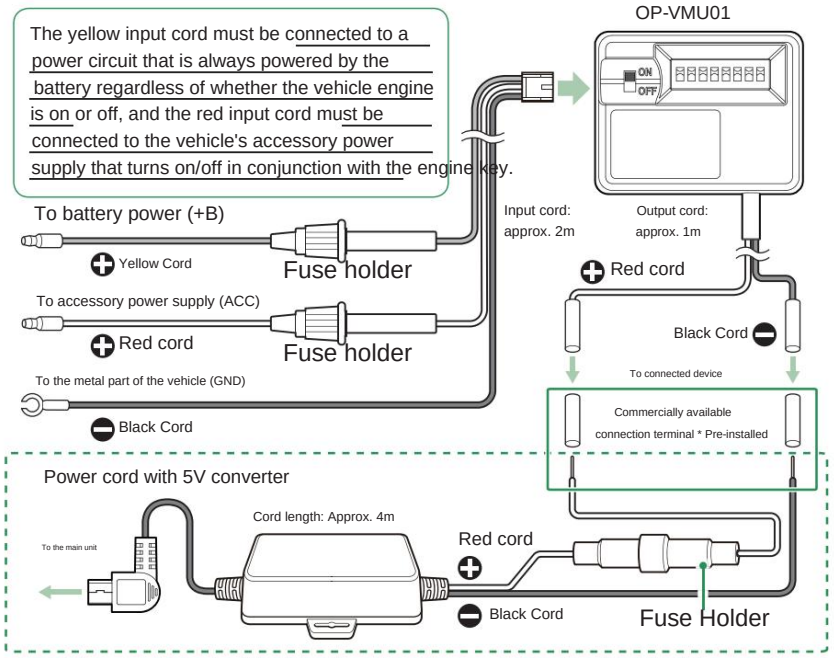
Connect the input cord included with the OP-VMU01 input terminal .

Output cord
Connect to the connected device.

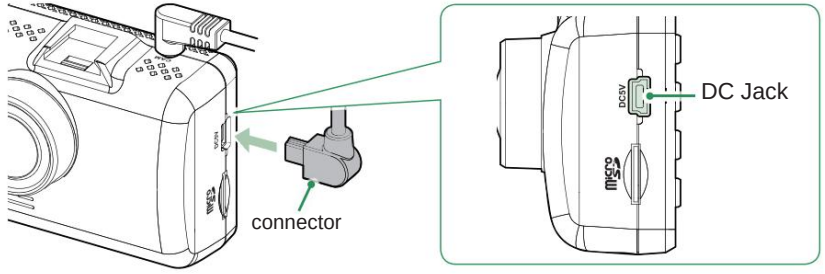
ÿ Items required to connect OP-VMU01 ÿOP-VMU01 ÿOP-VMU01 included input cord ÿ5V converter included power supply direct connection cord (included with dash cam) ÿCommercially available connection terminal

2 - 1 Connecting OP-VMU01 to the vehicle

The yellow input cord must be connected to a power circuit that is always powered by the battery regardless of whether the vehicle engine is on or off, and the red input cord must be connected to the vehicle's accessory power supply that turns on/off in conjunction with the engine key.



Connect the power cord



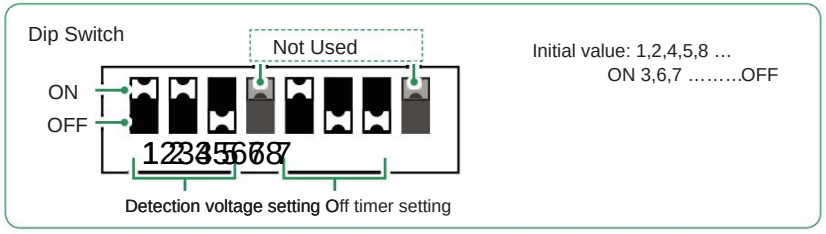
Connect the included direct power cord to the DC jack on the front camera unit. * Be sure to connect the direct power cord connector in the correct orientation. Connecting it in the wrong orientation may cause a malfunction or damage. If you are unable to connect properly, carefully check the connection before connecting.

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2 - 3 Setting the detection voltage and off timer

After the engine is turned off, if the vehicle battery voltage falls below the set voltage, the power supply from the vehicle battery is stopped.
There is an off timer setting that stops the power supply from the vehicle battery after the set time has passed after turning it off.

* Use a fine-tipped toothpick or similar to turn the DIP switches on and off. * DIP switches 4 and 8 are not used. Do not change the default setting (ON). * Regardless of the off timer setting, power supply from the vehicle battery will be cut off if the voltage falls below the detection voltage setting.



Initial value: 1,2,4,5,8 ...
ON 3,6,7 ……OFF

ÿ Detection voltage setting (use 1 to 3) 12V vehicle



11.6V 11.8V 12V 12.2V

ÿ Off timer setting (use 5 to 7)



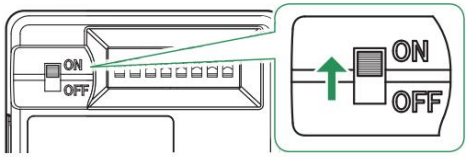
Not used (0 hours) 0.5 hours 1 hour 2 hours



3 hours 4 hours 6 hours 12 hours

About the off timer setting If the
off timer setting is set to "Not used (0 hours)", parking records will not be recorded. Please set this when you do not want to record parking records.

2 - 4 Turn on the power switch



2 - 5 Fix it with the double-sided tape that comes with the OP-VMU01, and then perform the wiring.

ÿ Avoid fixing or arranging the wiring in the following locations: - Locations that may interfere with driving or airbag deployment. - Locations exposed to hot air from air conditioners or heaters. - Locations exposed to direct sunlight. - Unstable locations. - Locations where the wiring may become pinched or the insulation may rub against it, resulting in a break or short circuit. - Near the vehicle's electrical equipment (including antennas, etc.). - Locations where water may splash or where there is a lot of humidity, dust or oily smoke. - Locations where the dip switches cannot be operated.

After completing the installation and wiring, please check that the brakes, lights, horn, hazard lights, turn signals, etc. are working properly. If they are not working properly, it may cause a fire, electric shock, or a traffic accident.

Machine Translated by Google

Power ON and OFF Procedure

If you wish to use the default settings after purchase, please check the operation by following the steps below.

Engine ON

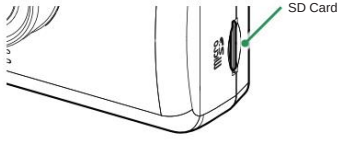
Start recording 1 → Stop recording 2 → formatÿ 3 → Resuming recording 4 → One Touch Recording 5 → Audio recording 6 → Screen switching 7 → Engine OFF Stop recording 8

* If you use an SD card other than the one included with the unit, be sure to format it on this unit the first time you start it up. If you do not format the disc, it may result in poor recording performance or reduced available recording time.

1. Power ON (to start recording)

This unit starts recording when it is linked to the engine key.

1 - 1 Make sure the SD card is inserted



• If no SD card is inserted... After turning the power off, make sure that the power lamp is off for at least 3 seconds and then insert the SD card.

***** P.18 "Removing/inserting the SD card"

1 - 2. Turn on the vehicle engine.



Power lamp: Recording

Lamp status: Red	
light on	
Flashing red	Event recording
Green light	Actions other than recording
Lights out	Power OFF

Recording will begin.

The power lamp (red) will light up, the record mark (red) icon will flash, and "Recording" will be displayed.

When GPS positioning is complete, the icon will be displayed and GPS information will be acquired. * When GPS information is acquired, the date and time will be automatically adjusted. * If GPS positioning fails, the icon will be displayed.

• Time until recording starts Depending on the state of the main unit, it may take from a few seconds to up to 40 seconds until recording starts. Please check the state of the power lamp before starting to drive.

- SD card check function

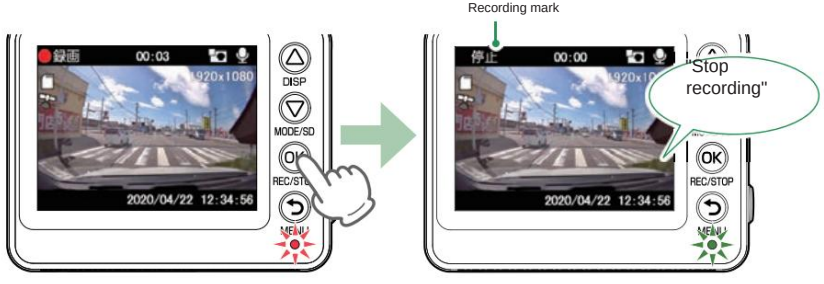
If the SD card is damaged or defective, you will be notified. (* P.69)

- Regarding GPS positioning ,

when using for the first time after purchase, turn on the power and place the device in an open area with no obstacles or obstructions for about 10 to 20 minutes to allow the device to receive GPS signals (position).

2. Stop recording

2 - 1 Press the button during recording



Recording will stop. The

power lamp (green) will light up and the recording mark will show "Stop."

3. Format the SD card

If you use an SD card other than the one provided, be sure to format it on this unit the first time you start it

up. For formatting instructions, see ***** P.12, 53.

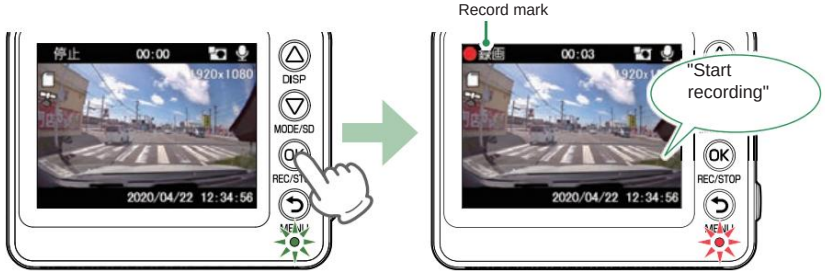
When you format the unit, all recorded files will be deleted. If necessary, back up the files to your computer before formatting the unit.

Backing up recorded files... ***** P.67 "Reading recorded files"

Machine Translated by Google

4. Resume recording

4 - 1 Press the button while recording is stopped.



Resume recording.

For the setting menu, see * P.50. For video playback mode, see * P.56.

5. One-touch recording

When you press the button during continuous recording, this unit will create a one-touch recording file.

5 - 1 Press the button during continuous recording.



The power lamp (red) will flash, the record mark (red) will flash, and "Event Recording" will be displayed. When the progress bar at the bottom of the screen reaches the right end, one-touch recording will end. * After the one-touch recording file is created, it will automatically return to continuous recording.

6. Turn voice recording on/off

You can turn audio recording on or off by pressing and holding the button for 3 seconds or more while recording. * You can also change this from the settings menu. (* P.51)

6 - 1 In video recording mode, press and hold the button for 3 seconds or more.



Audio recording: ON

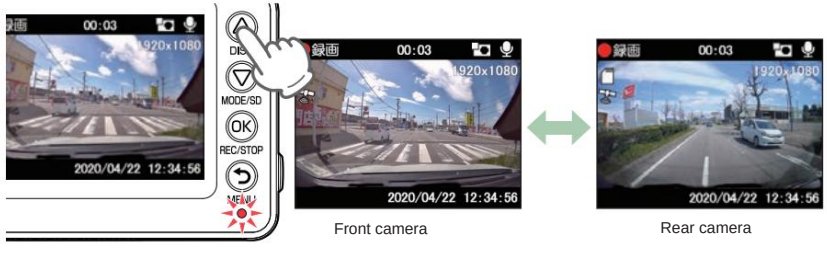
Audio recording: OFF

Each time you press and hold the button for 3 seconds or more, audio recording will switch ON/OFF.

7. Switching screen displays

You can switch the screen display between the front camera and rear camera. * The image from the rear camera unit can be switched between normal and mirror images. (* P.51)

7 - 1 Press the button in video recording mode



Front camera

Rear camera

Each time you press the button, the screen display will change.

Machine Translated by Google

8. Power OFF (stop recording)

This unit will stop recording when the engine key is pressed.

8 - 1 Turn off the vehicle engine

Recording will stop and the power will be turned off.

When connecting an optional multi-battery or power supply unit with voltage monitoring function

*If you will be parking for a long period of time, we recommend using the time lapse mode (* P.26).

ÿ A: When using the time lapse mode

A-1 Turn off the vehicle engine



- Parking recording means
  recording performed while the vehicle is parked using an external power source with the engine off.

Recording will continue and parking records will be made.

*The power may be turned off depending on the settings of optional items.

Press and hold the OK button for 3 seconds or more.



Time Lapse Mode (* P.26)

Start recording in time lapse mode.

A-3 Turn on the vehicle engine

If parking recording is continuing, recording will continue in time lapse mode. Exit time lapse mode. (* P.27) If parking recording is stopped, normal recording will start.

ÿ B: When not using the time lapse mode

Turn off the engine of vehicle



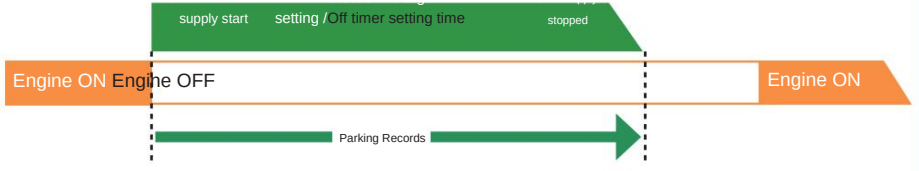
- Parking recording means
  recording performed while the vehicle is parked using an external power source with the engine off.

Recording will continue and parking will be recorded. * The power will be turned off depending on the settings of optional items.

Turn on the engine of vehicle

If parking recording is ongoing, recording will continue. If parking recording is stopped, recording will start.

ÿ Operation when recording parking



Parking recording can be stopped by setting the detection voltage or off timer. (* P.38, 42) * Only the off timer can be set for the multi-battery (OP-MB4000). * To force stop parking recording, disconnect the power cord from the DC jack of the front camera unit.
Please remove it. (* P.11)

Machine Translated by Google

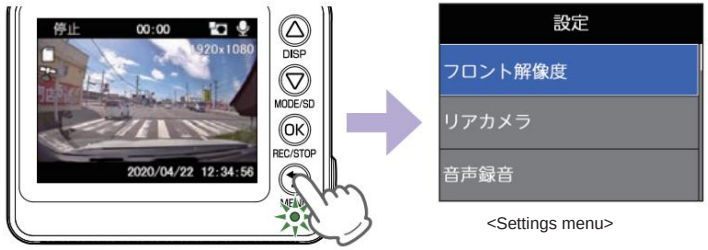
How to display the settings menu

1. Display the settings menu

1 - 1 Check that the power of the main unit is ON, and if recording is in progress, press the button to stop recording.



Press the button



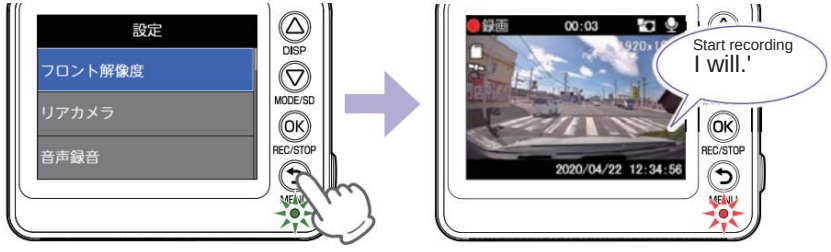
<Settings menu>

Display the settings menu.

2. Resume recording

Once the settings are complete, follow the steps below to resume recording.

2 - 1 Press the button in the Settings menu



Start recording.

Settings Menu



ÿ is the initial value.

Item	setting	explanation
front Resolution*1	1080P(1920×1080) (ÿ)	Select the resolution for the front camera.
	720P(1280×720)	
Rear camera*2	True image (ÿ)	Switch between normal and mirror images when shooting and recording with the rear camera You can replace it.
	Mirror Image	
Audio recording	OFF	Select whether to turn voice recording on or off.
	ON(ÿ)	
volume	OFF	Select the volume of this unit. * The volume is set for operation sounds, sounds when continuous recording/event recording starts, messages, etc. This will be reflected in the message audio and the playback sound of recorded files.
	LOW	
	MID(ÿ)	
	HIGH	
Operation sounds	OFF	Select ON/OFF for operation sounds.
	ON(ÿ)	
Override Settings	Overwrite all (ÿ)	For details, please refer to page 23 .
	Continuous recording overwrite	
	Do not overwrite	

* 1: The rear camera resolution is fixed at [1080P (1920 x 1080)].

*2: If the rear camera is not connected, the item will not be displayed.

Machine Translated by Google

ÿ is the initial value.

Item	setting	explanation
Flickerless function*3	50Hz	Please set the frequency to the commercial frequency of the area you are using. Eastern Japan: 50Hz, Western Japan: 60Hz This prevents flickering from fluorescent lights, etc. when recording.
	60Hz(ÿ)	
Auto Screen Off	Always ON(ÿ) 1 minute	Select the time to automatically turn off the screen display after the set time has elapsed without any operation. To turn on the screen, press each button.
	3 mins	
	5 mins	
G-sensor settings	OFF	Set whether to use G sensor recording by turning it ON/OFF.
	ON(ÿ)	
G-sensor Sensitivity	X: 0.5 to 5.0G (1.0Gÿ) Set the shock sensitivity of X (forward/backward), Y (left/right), and Z (up/down) individually in 0.1G steps. The sensitivity is determined by the smaller the number Y: 0.5 to 5.0G (1.0Gÿ) , the more sensitive it is, and the larger the number, the less sensitive it is.	
	Z: 0.5 to 5.0G (1.0Gÿ)	
Date and time setting		Set the date and time. * Even if you set it manually, the GPS date and time information will take priority and you will not be able to change it. will be done.
language	Japanese(ÿ)	Select the display language for this unit. * If you select [English], no voice notifications will be made.
	English	
SD information		Displays the usage rate of the SD card.
SD Initialization		Initialize (format) the SD card. * All recorded files will be deleted.
Initialize settings		This will reset the unit to the settings it had when you purchased it.
Version Information	-	Displays the firmware version.

*3: Only front camera is supported.

ÿ Button functions in the settings menu

Button	function	
△ Button (DISP)	Short press	Selects an item or setting value or increases the value.
▽ button (MODE/SD)	Short press	Selects an item or setting value or decreases the value.
OK button (REC/STOP)	Short press	Confirms the item or setting value.
⮌ button (MENU)	Press briefly	to return to the previous screen.
⚠ Button (record button)	- Not used.	

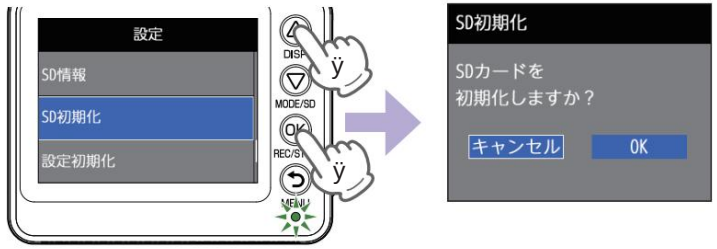
SD Initialization (Format)

For peace of mind, we recommend that you format the card periodically. * All recorded files will be deleted when you format the card. If necessary, back up the files to a computer or other device before formatting. * For information on how to format the card using the button, see page 12, "SD card formatting procedure." * SD cards are consumables, and we recommend that you replace them with new cards periodically. Due to the nature of SD cards, there is a product lifespan, including the number of times they can be written to.

1. Format your SD card

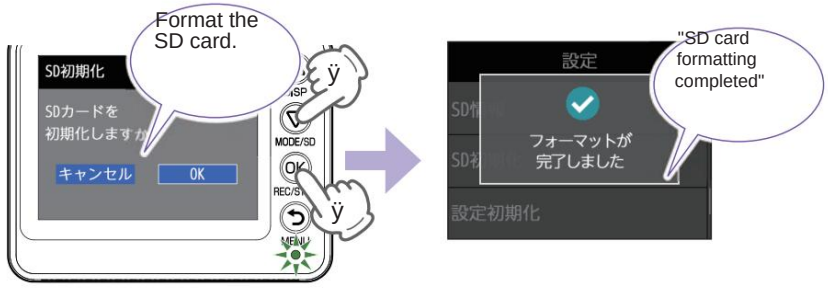
1 - 1 Display the setting menu (* P.50)

1 - 2 Select [SD Format] and press the OK button.



The message "Do you want to format the SD card?" will be displayed.

1 - 3 Select [OK] and press the OK button.



The message "Format completed" will be displayed and the process will be completed.

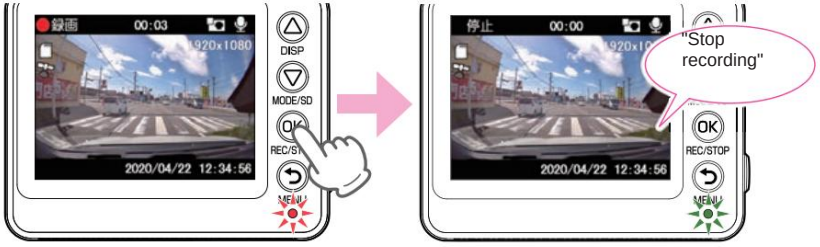
OK Press the button and the display screen will disappear.

Machine Translated by Google

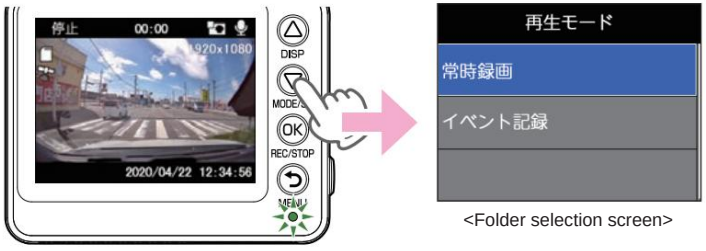
How to display and play the playback mode

1. Display the playback mode

1 - 1 Check that the power of the main unit is ON, and if recording is in progress, press the button to stop recording.



Press the ▽ button



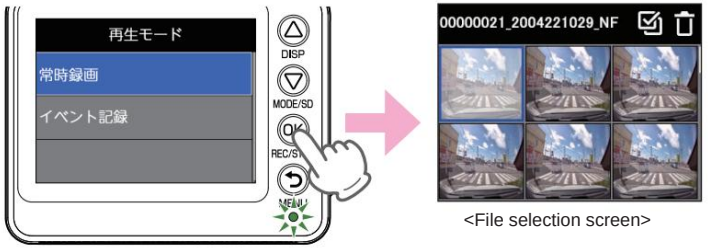
<Folder selection screen>

Displays the folder selection screen for playback mode. *

There is no folder dedicated to time lapse mode. Please check the folders for continuous recording and event recording.

2. Playing back recorded files on this unit

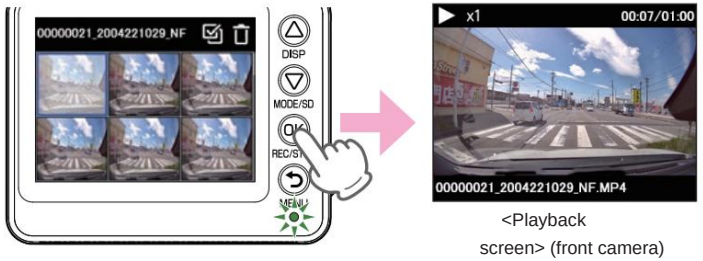
2 - 1 Select the folder you want to play and press the OK button.



<File selection screen>

The file selection screen will be displayed.

2-2 Select the recording file you want to play and press the OK button.



<Playback screen> (front camera)

The recorded file will be played. For

button functions during playback, see page 58 .

* The size of a single video file varies depending on the recording method. (* P.73 "Recording File Composition")

* Playback of one file will stop when it is complete. Continuous playback of multiple files is not possible on this unit. you can't.

On the playback screen, press the ▲ button to switch to the rear camera image. *

To return to the front camera image, press the ▲ button again.



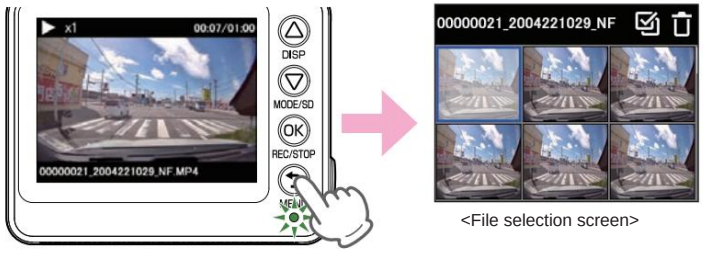
<File selection screen> (rear camera)

Machine Translated by Google

3. Resume recording

After playback, follow the steps below to resume recording.

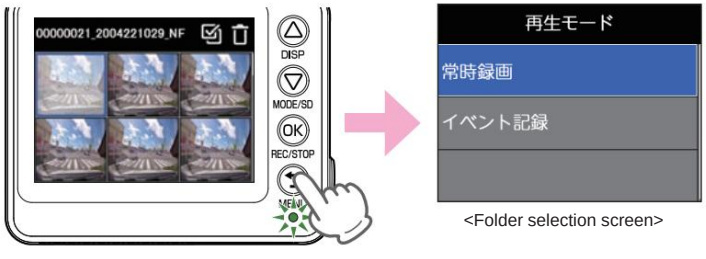
3 - 1 On the playback screen, press the button.



<File selection screen>

The file selection screen will be displayed.

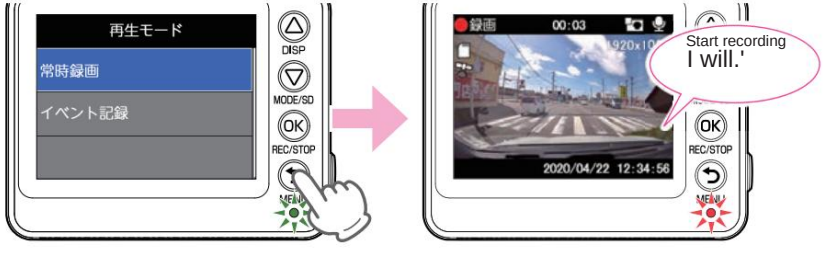
3 - Press the 2 button



<Folder selection screen>

The folder selection screen will be displayed.

3 - Press the 3 button



Start recording.

Playback Mode

* For how to display the playback mode, please refer to page 54.



<File selection screen>



<Playback screen>

No.	display name	explanation
ÿ File name		Displays the selected file name. 00000001 _ 2004221234 _ NF File number Recording date and time (year/month/date/time) ÿ The last two digits of the year are 2020 File type N: Continuous recording, G: G-sensor recording, S: One-touch recording, L: Time lapse Camera Type F: Front camera, R: Rear camera
ÿ Select All		Select/deselect all files. / (Selected: Blue)
ÿ Delete		Deletes the selected file. (* P.59) / (Selected: Blue)
ÿ Selected file		The selected recording file is displayed in a blue frame.
ÿ Action icon	▶	Displayed during playback.
	▶▶	Displayed during fast forward.
	◀◀	Displayed during fast rewind.
	❚❚	Displayed during pause.
ÿ Playback speed		Displays the playback speed (x1 to 4).
ÿ Playback time		Displays the current playing time/total file time.

Machine Translated by Google

ÿ Button functions in video playback mode

button	Operation	function
△ button (DISP)	When selecting a file,	press briefly to select the previous file.
	When playing a file,	press briefly to change the playback speed (fast forward).
▽ button (MODE/SD)	When selecting a file,	press briefly to select the next file.
	When playing a file,	press briefly to change the playback speed (rewind).
OK button (REC/STOP)	When selecting a file,	press briefly to play the recorded file.
	Short press when playing a file	Play/pause. Press when switching playback speed to normal playback speed (x1).
⮌ button (MENU)	When a file is selected	Press briefly to return to the previous screen.
	When playing a file	
⚠ Button (record button)	Move to the file selection	short press (delete) icon.
	When playing a file ,	briefly press to switch between the front and rear camera images.

Deleting Recording Files

* If you delete a recording file from the front camera, the recording file from the other paired rear camera will also be deleted. Please be aware that all files will be deleted at the same time.

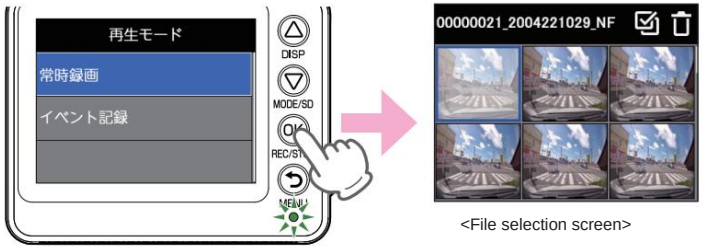
*If you want to delete all recording files on the SD card, please format the SD card.

(* P.12, 53)

1. Delete the recording file

1 - 1 Display the playback mode (* P.54)

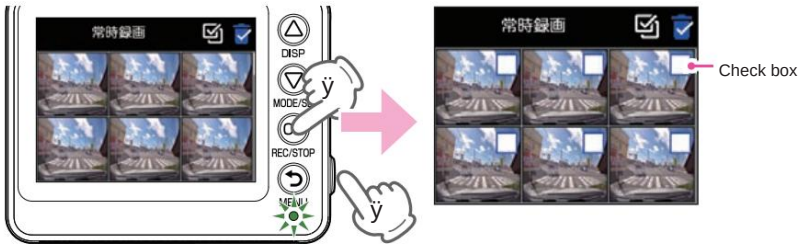
1 - 2 Select the folder containing the recording file you want to delete and press the button.



<File selection screen>

The file selection screen will be displayed.

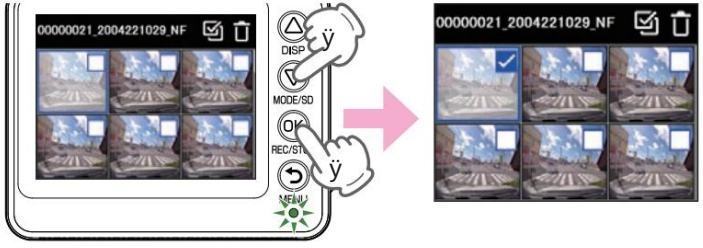
1 - 3 Select the (Delete) icon on the top right of the screen and press the button.



A check box will appear on the recording file.

Machine Translated by Google

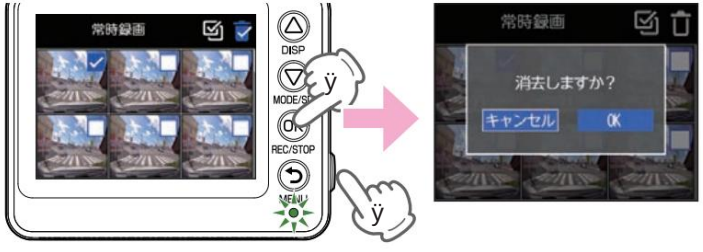
1 - 4 Select the recording file you want to delete and press the button.



The recording file will be checked.

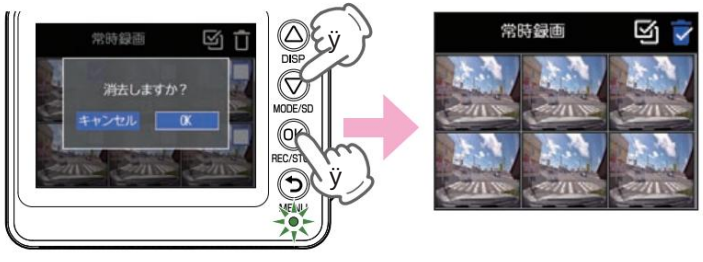
* If you want to delete all the recording files in the folder, select the (Select All) icon and press the button to check all the recording files.

1 - 5 Select the (Delete) icon on the top right of the screen and press the button.



"Do you want to erase?" will be displayed.

1 - 6 Select [OK] and press the button.



Delete the selected recording file.

Play

Playing with a dedicated viewer software

The video recorded by this unit can be displayed in conjunction with Google Maps by installing the dedicated viewer software "PCViewer TypeM" on your computer. * An Internet connection is required to
display your vehicle's position.

1. Prepare

Please download and install the dedicated viewer software from our website. (https://www.yupiteru.co.jp/) The video can be
played on a computer that meets the following specifications.

OS: Microsoft Windows 10 (64-bit only)
CPU: Intel Core i3, 2.7GHz or higher Memory:
4GB or higher (as of April 2020)

* Problems such as dropped frames during video playback may occur due to environmental factors such as CPU performance, RAM status, simultaneous
operation of other applications, etc. * If you accidentally delete the dedicated viewer software, or if it no longer works properly after updating the OS or system, please download the latest dedicated viewer software from our website.

*Please note that due to Windows updates or changes to Google Maps specifications, the dedicated viewer software may not function properly, such as not being able to display maps.

2. Start the dedicated viewer software

2 - 1 Click the [PCViewer TypeM] icon on the desktop.



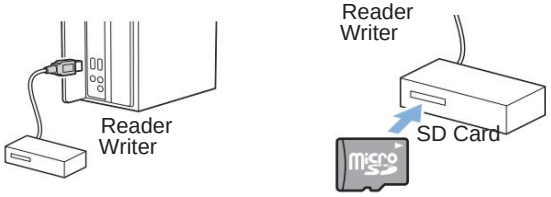
The dedicated viewer software will start.

•For details on the dedicated viewer software, please see...
* P.64 "Special viewer software"

Machine Translated by Google

3. Play the recording file

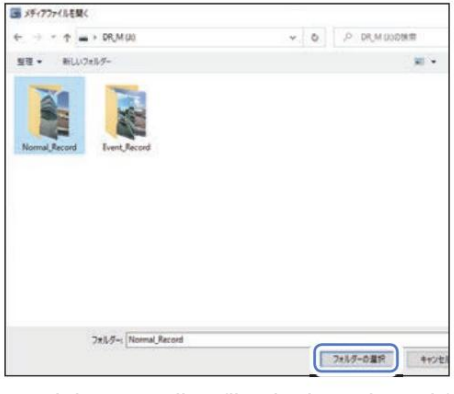
3-1 Connect the reader/writer to your computer and then connect the SD card to the reader/writer.



3 - Click



3-3 Select a folder on the connected SD card and click [Select Folder].

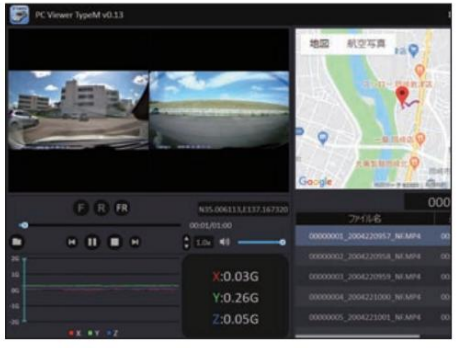


• Folder names
Continuous recording:

"Normal_Record" folder Event
recording: "Event_Record" folder

*There is no folder specifically for time lapse mode. Please check the folders for continuous recording and event recording.

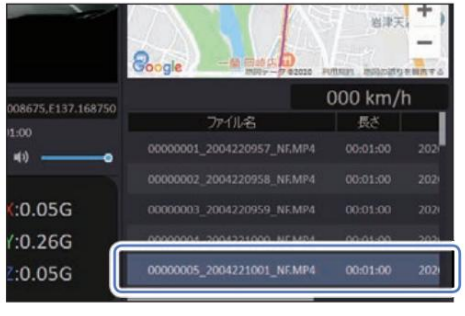
Load the recording files in the selected folder.



The oldest recorded file will be played automatically.

•For details on the dedicated viewer software, please see...
* P.64 "Special viewer software"

3 - 4 Double-click the recording file you want to play.



Plays the selected recording file.

4. Close the dedicated viewer software

4-1 Click on the top right of the dedicated viewer software.



The dedicated viewer software will close.

Machine Translated by Google

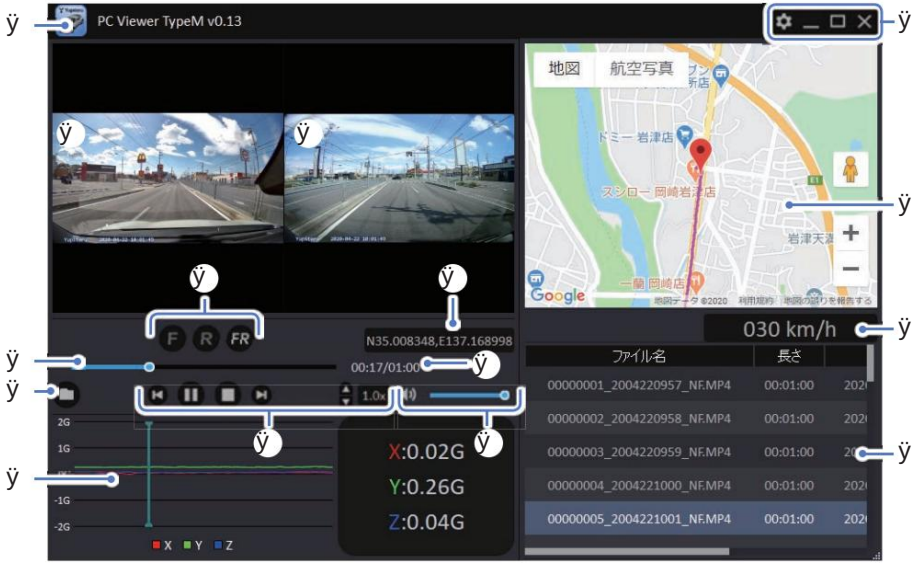
Dedicated viewer software

The dedicated viewer software allows you to play back videos, view your vehicle's position, G-sensor graphs, etc.

*Please check

our website for installation instructions. https://www.yupiteru.co.jp/ *An internet connection is required to view your vehicle's position.

1. About the dedicated viewer software screen



<Front + rear video display>



<Front video display>



<Rear image display>

No	display name	explanation		
ÿ Version display		Displays the version of the dedicated software.		
ÿ	Front camera image window	Displays the image. Double-click to switch between full screen and in-player display. * When the power is turned off or the engine is stopped, the image from the rear camera may be black, but this is not a malfunction. Please be aware of this beforehand.		
ÿ	Rear camera image window			
ÿ Display switching		Click the icon to switch the image display. : Front image display F R : Rear image display FR : Front + rear image display		
ÿ Latitude and longitude		Displays the latitude and longitude recorded by GPS. * If there is no GPS data, it will not change.		
ÿ Timeline		You can play from the position you clicked.		
ÿ Playback time		Displays the current time/total time during playback.		
ÿOpen Media Files		Add the files in the folder to a playlist.		
ÿ File Control			Previous	Play the previous recording file.
			Play/ Pause	Play/pause the recorded file. * If there are multiple recorded files in the playlist, they will be played consecutively.
			Stop	Stops the recording file being played. If you play the file again, it will start from the beginning.
			to the next	Play the next recording file.
			Increase playback speed	Each click changes the fast forward speed. (1.0 to 2.0x)
			Slow down the playback speed	Each click changes the fast reverse speed. (1.0 to 0.5x)
ÿ Volume		Click to mute the sound on/off.) to adjust the volume by moving it left and right.		
ÿ G-sensor graph		The G sensor data embedded in the video file is converted into X-axis, Y-axis, The Z-axis displays both graphs and numbers.		
ÿ Playlist		Displays the file name of the recording file. * For details on file names, please refer to page 67.		
ÿ Running speed		Displays the running speed recorded by GPS. * If there is no GPS data, it will not change.		

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No	display name	explanation		
ÿ Map		The loaded image will be linked to Google Maps and the vehicle's position will be moved. * If you are not connected to the Internet, the map (Google Maps) will not be displayed.		
ÿ Program			setting	You can change the language and map size. (* About Settings)
			Minimize	Minimize the window.
		/	Maximize/Restore	Maximize/restore the window.
			close	Close the software.

2. Settings

You can change the language and map size by clicking on the program.

* After changing the settings, please click [Save]. If you do not click, the settings will not be updated.

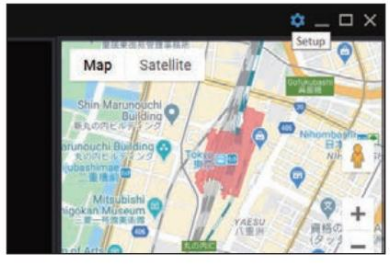


ÿ Language

You can choose the display language from (JP) Japanese/(EN) English. (Default: (JP) Japanese)



<(JP)Japanese>



<(EN)English>

ÿ Map size

You can choose the map size from large/medium/small. (Default: medium)



<Large>



<Middle>



<Small>

Reading recorded files

Video and images recorded by this unit can be handled on a computer in the same way as normal files. They can be played back and displayed on a computer that meets the following specifications.

OS: Microsoft Windows 10 (64-bit only)
CPU: Intel Core i3, 2.7GHz or higher Memory:
4GB or higher (as of April 2020)

* Video playback may be slower depending on the CPU performance, RAM status, simultaneous operation of other applications, etc. Problems such as drops may occur.
* Please check the website for the latest information on supported operating systems and operating environments. * Do not directly connect the device to a computer using a USB cable, etc. Remove the SD card from the device and connect it to a computer.
* Operation is not guaranteed on all computers with the recommended environment.
* Depending on the type of video you play, a computer with high processing power may be required. Depending on the computer environment you use, the video may not play or function properly. * If the CPU or memory does not meet the operating environment requirements, playback may be slow. * If you use an SD card reader/writer that is not compatible with the capacity of your SD card, the Files in the folder may become corrupted.

ÿ File names File numbers are automatically set by the unit in the order in which they are recorded. Example: 00000001_2004221234_NF.MP4 — movie

- 00000001: File number
- 2004221234: Recording date and time (year, month, day, hour, minute) * Year is 2020
- N: File type — N: Continuous recording, G: G-sensor recording, S: One-touch recording, L: Time lapse
- F: Camera Type — F: Front camera, R: Rear camera

ÿ Folder structure

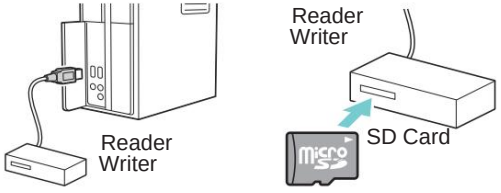
The files are saved in the following folder structure:

- SD Card
  - Normal_Record
    - 00000001_2004221234_NF.MP4
    - 00000001_2004221234_NR.MP4
    - ⋮
  - Event_Record
    - 00000002_2004221235_GF.MP4
    - 00000002_2004221235_GR.MP4
    - ⋮

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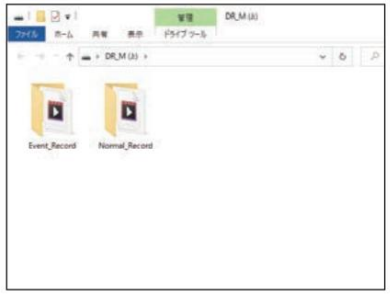
1. Playing recorded files without using a dedicated viewer software

1-1 Connect the reader/writer to your computer and then connect the SD card to the reader/writer.



* If you have a computer that can directly connect to an SD card, you will need to connect a reader/writer. There is none.

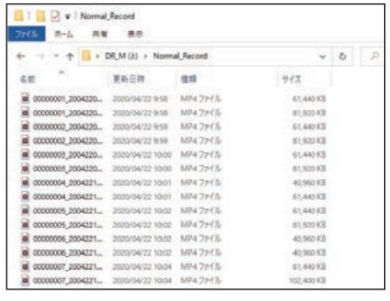
1 - 2 Open the SD card and open the folder containing the file you want to play.



• Folder names Continuous recording: "Normal_Record" folder Event recording: "Event_Record" folder

* There is no folder specifically for time lapse mode. Please check the folders for continuous recording and event recording.

1 - 3 Double-click the recording file

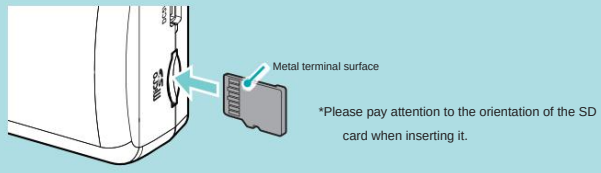


It can be played using the standard Windows "Movies & TV" app.

What to do in these situations

If there is an abnormality with this unit, you will be notified by message and voice.

* If the volume is set to [OFF], no voice will be heard. * To stop the message display, press each button.

message	Solution
⚠ SDカードが挿入されていません	ÿ Insert or reinsert the SD card. Push the SD card into the slot until you hear a click.  *Please pay attention to the orientation of the SD card when inserting it.
⚠ イベント領域がいっぱいです ⚠ SDカードがいっぱいです	ÿ The file size has reached the upper limit of the SD card capacity. You can then use the unit by deleting the recorded files and freeing up space on the SD card. If the message appears frequently, please check the following: - Lower the resolution in the recording settings. (* P.51) - Change the overwrite settings. (* P.51) - Use the unit with a larger capacity SD card.
⚠ SDカードエラー ⚠ 対応していないSDカードです ⚠ SDカードを初期化してください ⚠ SD低速のため録画失敗する恐れがあります	ÿ Please make sure that the SD card is compatible with this unit. Recording medium: microSDHC/microSDXC card Capacity: 8-128GB Speed class: Class 10 or higher ÿPlease format the SD card. (* P.12, 53) ÿ If the message appears frequently even after formatting, Please replace it with a new SD card.

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If you think it might be broken

The power won't turn on

ÿ Check to see if the fuse inside the power supply is blown. Turn the fuse holder in the direction of the arrow to remove the fuse.



Replacement fuse
3A (20mm x 5.2mm)

The power is turned on but the device does not start up/the screen is not displayed

ÿ Press the reset button to restart the device. (* P.15)

ÿ Remove the SD card and start the unit. If it starts, the SD card may be the cause. Please check that the SD card is compatible with this unit. (* P.75)

ÿ Is the automatic screen off setting set to something other than [Always ON]? (* P.51)
Press each button to display the screen.

The power supply does not turn off even when the vehicle engine is turned off.

ÿ Have you connected an optional multi-battery or power unit with voltage monitoring function? Depending on the settings, the unit will not turn off even after the vehicle engine is turned off because power is still supplied to the unit. To force the power off, unplug the power cord. (* P.11)

Event record file is not generated

ÿ Was the impact of the accident weak?
If the impact at the time of the accident is weak, the G-sensor may not be able to detect the impact.
In that case, please check the video of the continuous recording. (* P.22)

There is no recording file

ÿ Have you deleted the recording files from the front or rear camera on this unit? If you delete a recording file from either the front or rear camera on this unit, the corresponding recording file from the other camera will also be deleted. Please be aware of this in advance.

ÿ Have they been overwritten? The default overwrite setting is "Overwrite all", so when the limit is reached, the files will be overwritten. (* P.23)

ÿ Check each dedicated folder. (* P.20, 67)

There are spots or bright spots on the monitor screen

ÿ This is a phenomenon with the LCD panel and is not a malfunction.
Among the effective pixels, there may be some that are missing or always lit.

There is no image from the rear camera

ÿ Firmly insert the plug of the rear camera cable into the camera jack.
Check the icon to see if the rear camera unit is connected .




: When rear camera unit is connected


: When the rear camera unit is not connected

Can't record video

ÿ Is the SD card inserted correctly?
Check the icon to see if the SD card is inserted/recognized.




: When SD card is inserted


: When no SD card is inserted

The dedicated viewer software does not display the map, driving speed, or acceleration.

ÿ Are you connected to the Internet? If you are not connected to the Internet, the map (Google Maps) will not be displayed.

ÿ Was GPS positioning performed? If there is no GPS data in the recording file, the map (Google Maps) will not be displayed.

ÿ Are you recording in time lapse mode? If you record in time lapse mode, GPS location information/G sensor information/audio will not be recorded.

No sound during playback

ÿIs voice recording turned on?

ÿ Are you recording in time lapse mode? If you record in time lapse mode, GPS location information/G sensor information/audio will not be recorded.

Cannot play on dedicated viewer software/Movies & TV

ÿ Please make sure your computer meets the specifications below.

OS: Microsoft Windows 10 (64-bit only)
CPU: Intel Core i3, 2.7GHz or higher Memory:
4GB or higher (as of April 2020)

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Parking record does not work when a power supply unit with voltage monitoring function is connected

ÿ Is the power switch turned ON?

If it is turned off, the power supply unit with voltage monitoring function will not operate. (* P.42)

ÿ Is the off timer setting set to "Not used"?

If the off timer is set to "Not in use," power will not be supplied to the unit after the vehicle engine is turned off.

ÿ Is the vehicle battery voltage below the detection voltage setting when the engine is off? Power will not be supplied if the voltage is below the detection voltage setting. Change the detection voltage setting.
(* P.42)

Parking record does not work when multiple batteries are connected

ÿ Is the power connector connected? If the power

connector is not connected, the multi-battery will not be charged and the vehicle's engine will

The power supply to the unit is not performed after it is turned off. (* P.38)

ÿ Is the off timer setting set to "Not used"?

If the off timer is set to "Not in use," power will not be supplied to the unit after the vehicle engine is turned off.

ÿ Is DIP switch 4 set to OFF?

If DIP switch 4 is set to OFF, power will not be supplied to the unit after the vehicle engine is turned off. Example: When setting the off timer
to [1 hour]



specification

External dimensions (excluding protrusions)	[Front] 62 (width) x 52 (height) x 36 (depth) mm (excluding protrusions) * 85 (height) mm when mounting bracket (tape attached) is attached (assuming window glass is 25°) [Rear] 55 (width) x 25 (diameter) mm (excluding protrusions) * 34 (height) mm when mounting bracket (tape attached) is attached (assuming
Product weight	window glass is 25°) [Front] Approximately 98g
Recording medium	(including microSD card) [Rear] Approximately 28g microSD card (32GB included) 8GB to 128GB (Class
Photographic element	10 or higher) [Front/Rear] 2 megapixel color CMOS (STARVIS™ technology installed*1) [Front]
Lens angle of view	Diagonal 170° [Rear] Diagonal 162° [Front]
Maximum recording angle	Diagonal 160° (135° (horizontal), 75° (vertical)) [Rear] Diagonal 150° (130° (horizontal), 70° (vertical)) [Front/Rear] Maximum
Recording resolution	2 million pixels [Front] 1080P (1920 x 1080), 720P (1280 x 720) [Rear] 1080P (1920 x 1080) [Front] 1.9 [Rear] 1.8
F-Score	Yes G sensor Yes 0.5G to 5.0G (sensitivity can be set in 0.1G
GPS	
increments) Image quality	HDR (High Dynamic Range) Minimum subject illumination
[Front/Rear] 0.5LUX (lux)	Continuous recording/Event recording (G
sensor recording, one-touch recording <manual recording>)/Parking	
Recording method	recording (time lapse) Recording file structure 1 minute unit, 30 minutes unit *2 Screen size [Front] 2.0 inch full color TFT LCD Sound
ON/OFF possible [Front]	28 frames/sec, 1 frame/sec *2
[Rear] 27.5 frames/sec, 1	frame/sec *2
Frame rate	
Video file format: MP4	
How to play back recorded footage	• Dedicated viewer software "PC Viewer TypeM" *3 (Can be downloaded from our website.) • Standard Windows "Movies & TV" *3 For DC12V negative earth vehicles only
Power	(5V input)
supply	10W
voltage Power consumption	Operating temperature
range -10ÿ to +60ÿ	Product warranty period 3 years

(excluding consumables) *The above is based on the Display Guidelines of the Drive Recorder Council.

*1: STARVIS is a high-sensitivity CMOS image sensor developed for surveillance cameras.
This is Sony Corporation's back-illuminated pixel technology that achieves high image quality.

*2: Only in time lapse mode. *3: Compatible with Microsoft Windows 10 (64-bit only).

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Sold separately: Multi-battery (OP-MB4000)	
Input voltage DC12V (max 6A)	
Output voltage Output terminal B: 12V (1A)	
Off timer setting time: 0.5 hours/1 hour/2 hours/3 hours/4 hours/6 hours/12 hours	
Built-in battery	Nickel-metal hydride battery 12V/4,000mAh
Operating temperature range: 0ÿ to +45ÿ	
External dimensions	144 (width) x 33 (height) x 131 (depth) mm (excluding protrusions)
Product weight	Approximately 950g (including built-in battery)

Sold separately: Power supply unit with voltage monitoring function (OP-VMU01)	
Input voltage	DC12V/24V
Output voltage	DC12V/24V (according to input)
Detection voltage setting value 12V car: 11.6V/11.8V/12V/12.2V, 24V car: 23.6V/23.8V/24V/24.2V	
Off timer setting time: 0.5 hours/1 hour/2 hours/3 hours/4 hours/6 hours/12 hours	
Operating temperature range: -10ÿ to +60ÿ	
External dimensions	46 (width) x 36 (height) x 16 (depth) mm (excluding protrusions)
Product weight	Approx. 34g

- All names, company names, product names, etc. mentioned in this manual are trademarks or registered trademarks of the respective companies.
Please note that the TM and ® marks are not stated in the text.

Micro SD card compatibility list

* We cannot guarantee against operational problems caused by incompatibility between this unit and microSD cards other than those included with the unit.
* If you use an SD card other than the one included with the unit, be sure to format it on this unit the first time you start it up.
If you do not format the card, it may result in poor recording performance or reduced available recording time.

Recording medium	microSDHC/microSDXC card
capacity	8 to 128 GB
SD speed class Class 10 or higher	

*Speed class is a speed standard for continuous writing.

1. Estimated recording time

SD Card capacity	Normal		In time lapse mode	
	1080P(1920×1080) (Initial value)	720P(1280×720)	1080P(1920×1080) (Initial value)	720P(1280×720)
8GB	Approximately 25 minutes	Approximately 35 minutes	Approximately 30 hours	Approximately 40 hours
16GB	Approximately 50 minutes	Approximately 70 minutes	Approximately 60 hours	Approximately 80 hours
32GB (included)	Approx. 100 minutes	Approx. 140 minutes	Approximately 120 hours	Approximately 160 hours
64GB	Approx. 200 minutes	Approx. 280 minutes	Approximately 240 hours	Approximately 320 hours
128GB	Approx. 400 minutes	Approx. 560 minutes	Approximately 480 hours	Approximately 640 hours

*The above values are guidelines and are not guaranteed values.

*Recording time may vary depending on factors such as usage conditions, subject and surrounding environment.

2. Maximum number of events recorded

SD card capacity 1080P (1920 x 1080) (default value)		720P(1280×720)
8GB	10 Results	15 Results
16GB	20 Results	30 Results
32GB (included)	40 Results	60 Results
64GB	80 Results	120 Results
128GB	160 Results	240 Results

* The maximum number of records is the combined number of G-sensor records and one-touch records.

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After-sales service

•Warranty (see back cover)

Please be sure to check the "retailer and purchase date" on the warranty, read the warranty details carefully, and keep it in a safe place.

•Warranty

period : 3 years from the date of purchase.

• Target parts: Equipment

body (excluding consumable parts)

When requesting repairs

If you still think there is something wrong after checking the "Troubleshooting" section, please let us know the model name (product number), your name, address, telephone number, purchase date, whether you have a warranty, and the details of the malfunction. If you have moved or received the product as a gift and are unable to request repairs from the store where you purchased the product (listed on this warranty), please contact our Customer Service Center .

• During the warranty period

Please fill out the "Fault Description" section on the warranty card and bring the device itself to the store where you purchased it . We will repair the device according to the warranty.

When the warranty period has expired

If the product can be repaired to maintain its functionality, we will repair it for a fee upon request.

* History and registered data may be erased during inspection or repair. * We do not provide replacement units during repairs. Please be aware of this in advance.

1. Customer Service Center

When making an inquiry, please check the usage environment and symptoms in detail before contacting us. Please note that the names, telephone numbers, and reception hours of the following offices may change due to circumstances. When calling, please check the number and be careful not to dial the wrong number. For additional accessories or optional items due to loss, please order from the store where you purchased the product.

Reception hours: 9:00 to 17:00 Monday to Friday (excluding public holidays, New Year's holidays, and other periods designated by our company)

Customer Service Center フリーコール 0120-998-036

Update information for this unit, the latest instruction manual and dedicated viewer software will be posted on our website from time to time. Please check our website for the latest information. https://www.yupiteru.co.jp/

MEMO