

**mitsuba**

# Motorcycle Drive Recorder

## EDR-22G/EDR-22

# Operating instructions

Thank you for purchasing the "Motorcycle-specific Drive Recorder EDR-22G/EDR-22."

Please read this manual carefully to ensure correct and safe use.

■ In this manual, the following marks are used to indicate items that are important for safety.

The meaning of each mark is as follows:

 Danger	If handled improperly, this indicates "high risk of death or serious injury."
 Caveat	This indicates that improper handling may result in death or serious injury. It also means "violating the law."
 Note	This indicates that improper handling may result in "risk of injury" or "risk of property damage."

※ The specifications and appearance of this product and related software may be changed without notice for improvement purposes.

※ Reproduction of any part or all of the contents of this book without permission is strictly prohibited.

## ■ About after-sales service

If the product does not function properly during use, please refer to "Troubleshooting - Q&A -" (pages 49 to 51). If the problem persists even after trying the recommended solutions, please contact your retailer or our customer

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# ■ Table of contents

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■ After-sales service .....	1
■ Table of Contents .....	2
■ Safety Precautions .....	3
■ Precautions for Use .....	4~5
■ About SD Card .....	6
■ About the dedicated smartphone app "Moto DR" .....	7
■ About the dedicated PC software "Moto DR Player" .....	7
■ Things you can do with the dedicated smartphone app/PC software .....	8
■ Recording/audio settings list .....	9
■ Approximate recording time .....	10
■ Main specifications .....	11~12
■ EDR-22G Component .....	13
■ EDR-22G Parts names・others .....	13
■ EDR-22 Component .....	14
■ EDR-22 Parts names・others .....	14
■ Installation Instructions	
● Installation Precautions .....	15
● Installation steps .....	16~19
■ Initial setting after installation .....	20~25
■ How to use	
● Continuous Recording .....	26
● How to save continuous recordings .....	26
● Event recording (impact recording) .....	27
● Event recording (manual recording) .....	27
● How to save event recordings (impact recordings/manual recordings) .....	28
■ Indicator display list .....	29~31
■ Connecting your smartphone and EDR unit via wireless LAN (Android) .....	32~35
■ Connecting your smartphone and EDR unit via wireless LAN (iOS) .....	36~38
■ Formatting the SD card .....	39
■ Check the camera footage .....	40~41
■ Synchronize time .....	42
■ Displaying the setting screen .....	43
■ Change your wireless LAN password .....	44~47
■ Initialize the wireless LAN password .....	48
■ Initializing the device settings .....	48
■ In these cases—Q&A— .....	49~51
■ License Information .....	51
■ User Registration .....	52
■ FCC statements .....	53
■ ISED statements .....	54

# ■ Safety precautions

Before use, please read these "Safety Precautions" carefully and use the product correctly.

The precautions listed here are intended to ensure the safe and correct use of this product and to prevent injury or damage to the user.

 <b>Danger</b>	<ul style="list-style-type: none"><li>In the event of an abnormality, malfunction or damage, immediately stop using the product and unplug the power cord(red).Please remove it.If used as is, it may cause fire or electric shock.</li><li>This product is a wireless communication(2.4GHzband)I am using. Cardiac pacemakers, defibrillators, etc.If you are using a medical device, please consult with the medical electrical device manufacturer or your doctor regarding the effects of this product on your medical device.</li><li>This product(Main unit, camera, switch,GPS Antennas, power supply units, various cables and cords)of Absolutely no disassembly,Do not modify,fire,Electric shock,This may cause a malfunction.</li><li>Check regularly for loose screws on the camera bracket and peeling of double-sided tape on installed parts.Please have it inspected. This may cause parts to fall off, resulting in an accident or malfunction.</li><li>This product is 12V For battery-equipped vehicles only.Installation on 6V cars and battery-less cars is not possible.Don't do that. This may cause a fire or malfunction.</li></ul>
 <b>Caveat</b>	<ul style="list-style-type: none"><li>Never operate your smartphone while driving. This may cause an accident. surely, please stop the vehicle in a safe place before operating the device.</li><li>Do not operate the Wi-Fi connection while driving. This may cause an accident.</li><li>Do not stare at the switch indicator while driving. This may cause an accident.Furthermore, such actions are a violation of Article 71 of the Road Traffic Act and are subject to punishment.</li><li>The technical standards compliance number is printed on the label on the main unit. This label must never be removed.Please do not do so. Using the product with the sticker removed will violate the Radio Law.</li><li>Disassembly or modification is prohibited by the Radio Law. Please do not do this under any circumstances.</li></ul>
 <b>Note</b>	<ul style="list-style-type: none"><li>If you will not be using this product for a long period of time, please remove the relay connector from the power supply unit.This may cause the vehicle battery to run out.</li><li>When the power supply unit relay connector is removed, the metal part of the relay connector comes into contact with the battery. Insulate it with vinyl tape or similar to prevent it from coming into contact with the positive terminal. short this may cause fire, burns, or damage to the product or vehicle.</li><li>After removing the relay connector, use vinyl tape or similar to prevent water or foreign objects from getting inside.This may cause a malfunction.</li><li>Do not drop, hit, or subject this product to strong impact. This may cause damage or malfunction it will be.</li><li>Do not place objects with strong magnetic fields near this product. This may cause a malfunction.</li><li>Do not allow gasoline, oils, organic solvents, acids, brake fluid, etc. to come into contact with this product. This may cause deterioration, damage or malfunction of the attachment parts.</li><li>Do not use any fuses other than those specified. Use of any other fuse than that specified may result in fire or this may cause a malfunction. Be sure to replace it with one of the specified capacity (ampere).</li><li>Do not insert foreign objects into the SD card slot. This may cause fire, electric shock, or malfunction.</li><li>Do not insert or remove the SD card or relay connector with wet hands. This may cause fire, electric shock, or malfunction.</li><li>Insert or remove the SD card when the power to this product is turned off (IG OFF). This may cause a malfunction.</li></ul>

# ■ Precautions for Use

## Notes on recording

- To ensure clear recording of footage, make sure the camera lens is clean before driving. If it is dirty, wipe it gently with a soft cloth dampened in water. Rubbing the lens too hard with a dry cloth may cause scratches.
- There is no guarantee that the footage recorded by this product will serve as evidence of an accident.
- Please note that we cannot be held responsible for any damage caused by a malfunction or use of this product (such as loss, damage or destruction of recorded footage or data).
- Depending on the video recording cycle of this product and the cycle of the LED traffic light, the light may be recorded blinking or off. In addition, depending on the environment, such as backlighting, it may not be possible to distinguish colors. Please note that we cannot take any responsibility for any damages caused by this event.
- This product's camera uses a wide-angle lens. Due to the characteristics of wide-angle lenses, distortion and shadows will occur in some parts of the image. In addition, the image will be different from the actual perspective.
- If you want to keep the recording file at the time of the accident, either remove the SD card from the main unit and store it away, or lock (protect) the recording file at the time of the accident using the dedicated smartphone app. You may also take measures such as copying the files to your smartphone or PC.
- Images recorded with this product may infringe on rights such as privacy, depending on the purpose and method of use. Please note that we cannot take any responsibility for this.
- To ensure clear recording of footage, make sure the camera lens is clean before driving. If it is dirty, wipe it gently with a soft cloth dampened in water. Rubbing the lens too hard with a dry cloth may cause scratches.
- The built-in clock of the device will have errors. Therefore, there may be a discrepancy between the actual time and the recorded time. To prevent time discrepancies, we recommend that you synchronize the time regularly (once a month) using the dedicated smartphone app.

After starting recording, the EDR-22G automatically synchronizes the time by receiving GPS signals, but there may be a discrepancy in the time recorded in the file at the start of recording. If it has been a while since your last ride, please synchronize the time using the dedicated smartphone app before riding.

- If the battery is replaced or the battery terminals are disconnected, the time will be reset to the initial time (January 1, 2022). Please synchronize the time again.

## Notes on GPS function

- GPS positioning may not be possible depending on the surrounding environment, it may take a long time to determine position, or there may be errors.
- Install the GPS antenna in a location that does not affect radio reception. If the top of the GPS antenna is covered with metal or metal-coated parts, it may not be possible to receive GPS signals and positioning may not be possible. Install the GPS antenna in a location that does not affect radio reception.
- If you are unable to receive GPS signals while driving, such as in a tunnel or in a crowded area, it may take some time to locate your position again.
- Install the device as far away as possible from other in-vehicle electronic devices. Radio waves leaking from other in-vehicle electronic devices may prevent the GPS signal from being received, resulting in positioning failure.
- Do not use high-output wireless devices near this product. Radio waves emitted by wireless devices may cause malfunctions.

# ■ Precautions for Use (continued)

## Wireless LAN Notice

- This product meets the technical standards as a low-power data communications system radio equipment under the Radio Law. Therefore, no radio station license is required to use this product, but if used outside of Japan, it may violate the radio laws of each country.
- The frequency band used by this product (2.4 GHz band) is used by home electrical appliances such as microwave ovens, industrial, scientific and medical equipment, as well as in-plant radio stations for mobile identification (radio stations requiring a license) used in factory production lines, specific low power radio stations (radio stations not requiring a license), and amateur radio stations. Before using this product, please make sure that no such wireless stations are operating nearby. In the unlikely event that radio interference occurs between this product and those radio stations, immediately move the product to a different location or stop using it.
- We have not tested this product to ensure it will connect to all smartphones, so we cannot guarantee that it will work with all smartphones.

## Handling Precautions

- Do not attach the main unit to a location covered with metal or metal-coated parts. Doing so may cause the wireless LAN communication status to deteriorate.
- When washing your car, do not spray high-pressure water from a pressure washer or a narrow hose directly onto this product. This may cause a malfunction.
- When cleaning the main unit, camera, switch, GPS antenna, or power unit, wipe them gently with a soft cloth dampened with water. Rubbing too hard with a dry cloth may cause scratches. Also, never use solvents or abrasives such as benzine or thinner. This may cause parts to deteriorate, break, or fail.
- If you will not be using this product for a long period of time, please remove the relay connector from the power supply unit. In this case, the date and time set on this product will be reset.
- After removing the relay connector, use vinyl tape or similar to prevent water or foreign objects from getting inside. This may cause a malfunction.
- Do not insert rod-shaped objects into the microphone hole on the top of the unit. This may cause water to enter the device and cause malfunctions.
- Do not insert any rod-shaped objects into the ventilation hole on the waterproof cap or block the ventilation hole. This may cause water to enter the device and cause malfunctions.
- Never remove the serial number label attached to the part of the main unit where the waterproof cap is opened. Depending on the warranty provisions, you may not be able to receive repairs, replacements, etc.
- Make sure to securely lock the waterproof cap on the main unit with the slide cap. This may cause water intrusion and malfunction.
- Do not use the unit with the waterproof cap open. This may cause water intrusion and malfunction.

# ■ About SD card<sup>※1</sup>

## ● This product comes with SD Card or our SD Please use your card.

If you are purchasing a new SD card, we recommend the optional recommended SD card. For more information about the product, please check the URL or QR code below.

[https://www.mskw.co.jp/motorcycle/edr/option#div\\_02](https://www.mskw.co.jp/motorcycle/edr/option#div_02)



## ● Please use an SD card that meets the following conditions with this product.<sup>※2</sup>

Storage media	microSDHC / microSDXC
Capacity	8 ~ 256GB
Speed Class <sup>※3</sup>	Class 10 / U1 / U3
Format type <sup>※4</sup>	8 ~ 256GB : FAT32 Allocation unit size : 64KB

※1 In this manual, unless otherwise specified, microSDHC cards and microSDXC cards are referred to as "SD cards."

※2 If you use an SD card made by another company, it may not function properly.

※3 Speed class is a standard for continuous writing speed.

※4 If you are using an SD card made by another company for the first time, be sure to format it with this product. In addition, when you use an SD card with this product for the first time, the indicator on this product may display an abnormality. For instructions on how to format an SD card, see "Formatting an SD card" on page 39 of this manual.

## ● SD card safety precautions



caveat

- Keep out of reach of children. There is a risk of accidentally swallowing it. If swallowed, consult a doctor immediately.
- Do not disassemble or modify. This may cause equipment damage, fire, or malfunction.
- Do not bend, apply strong force to, drop, subject to strong impacts, or place heavy objects on it. This may cause fire, burns, or malfunction.
- If there is an abnormal sound or smell, or if abnormal heat or smoke is observed, immediately discontinue use and disconnect the power cord (red). This may cause fire, burns, or malfunction.

## ● Precautions when handling SD cards



Note

- Please back up any files you need before formatting. Format doing so will erase all your files.
- Do not insert or remove the SD card when it is wet. This may cause fire, electric shock, or malfunction.
- When inserting or removing the SD card, follow the instructions in the instruction manual for the device you are using.

This may cause malfunctions or damage to files.

- When connecting an SD card to a PC, use a card reader/writer that conforms to the SD card standards.

Please use it. This may cause malfunctions or damage to files.

- Because the drive recorder repeatedly overwrites data, please format the SD card regularly.
- When you insert or connect the SD card to a device other than a Windows PC, folders and files may be created automatically. If there are any folders or files other than the "EDR\_MotoDR" folder on the SD card, it may cause malfunction. Be sure to delete it before use or format it with this product.
- SD cards are consumable items. If it cannot be formatted correctly, please replace it.

## ■ About the dedicated smartphone app "Moto DR"

To use this product, you will need a smartphone and a dedicated smartphone app.  
Requires Moto DR (free).

Please access using the QR code below and install it on your smartphone.

※The customer is responsible for any communication charges associated with the installation.

For iPhone, click here



For Android, click here



※You can also search for and install the app by entering "Moto DR" in the search screen of the official app store, App Store (iOS) or Google Play (Android).

For details on how to use the dedicated smartphone app "Moto DR", please see the URL or QR code below.

[https://www.mskw.co.jp/pdf/edr\\_howtomotodr.pdf](https://www.mskw.co.jp/pdf/edr_howtomotodr.pdf)



## ■ About the dedicated PC software "Moto DR Player"

Please download the dedicated PC software "Moto DR Player" from the URL below.

<https://www.mskw.co.jp/motorcycle/edr/support/>

For details on how to use the dedicated PC software "Moto DR Player", please see the URL or QR code below.

[https://www.mskw.co.jp/pdf/edr\\_howtodrplayer.pdf](https://www.mskw.co.jp/pdf/edr_howtodrplayer.pdf)



●SpecialForPC software to "MotoDRPlayer" Operating system required subject 2022年3月現在

○ S : Microsoft Windows 10 Version 1809 or later  
(Only 64-bit version is available)

C P U : Intel Core i3 3.0GHz or higher

Memory : 4GB or more

GPU memory : 1GB or more

Monitor : 1280 x 1024 pixels or more

Other : • microSD card slot compatible with microSDHC and microSDXC  
When using an SD card adapter, use an SD card slot that supports SDHC and SDXC or a microSD/SD card reader/writer with a USB connection.

• Internet connection environment (when using EDR-22G and displaying maps)

※ Operation on all PCs that satisfy the above system requirements is not guaranteed.

※ Depending on your PC environment, some functions may not work or may not be displayed or played correctly.

# ■ About the dedicated PC software "Moto DR Player"

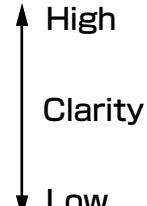
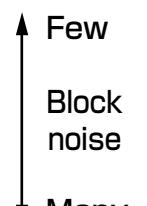
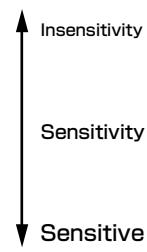
※ App and software specifications are subject to change without notice.

	Dedicated smartphone app Moto DR	Dedicated Windows PC software Moto
<b>■ Main unit function operation and setting</b>		
● Check the camera angle	●	×
● Formatting the SD card	●	×
● Image size and image quality settings	●	●
● Audio recording ON/OFF setting	●	●
● Impact detection sensitivity setting	●	●
● Recording file overwrite ON/OFF setting	●	●
● Time Synchronization	●	×
● Changing the wireless LAN connection password	●	×
<b>■ Recording file operations</b>		
<b>● Playing Recorded Files</b>		
• Playback of recorded files on the main unit's SD card	●	×
• Playback of recorded files saved on your smartphone	●	×
• Playback of recorded files on an SD card connected to a PC	×	●
• Playback recording files backed up to the PC's internal storage	×	●
<b>● Protect/unprotect recording files</b>		
• Individual file protection (overwrite protection) and unprotection of recorded files	●	×
<b>● Downloading Recording Files</b>		
• Download the recording file and save it on your smartphone	●	×
<b>● Backing up recording files</b>		
• Back up recording files and save them to your PC's internal storage	×	●
<b>● Display of driving trajectory (only when using EDR-22G)</b>		
• Display of vehicle position and driving route on map during playback	●	●
<b>● Display of driving speed (only when using EDR-22G)</b>		
• Display of estimated driving speed during playback based on GPS positioning data	×	●

# ■ Recording/audio settings list

The video/audio recording items that can be set with this product are as follows.

- Settings can be changed using the dedicated smartphone app "Moto DR" or the dedicated PC software "Moto DR Player."

item	Settings (★indicates default value)	explanation
Image size	★1080P FHD 720P HD VGA	 <ul style="list-style-type: none"><li>• Set the recording resolution.</li><li>• Increasing the image size will provide better clarity but will reduce available recording time.</li><li>• Lowering the image size will result in less clarity but will allow for more recording time.</li></ul>
image quality	★HIGH MID LOW	 <ul style="list-style-type: none"><li>• Set the image quality.</li><li>• Increasing the image quality will result in less noticeable block noise and better color reproduction, but will reduce the available recording time.</li><li>• Lowering the image quality will result in more noticeable block noise and poor color reproduction, but will increase the available recording time.</li></ul>
Impact Detection Sensitivity	LEVEL5 LEVEL4 ★LEVEL3 LEVEL2 LEVEL1 OFF	 <ul style="list-style-type: none"><li>• Set the detection sensitivity for impact event recording.</li><li>• The larger the sensitivity number, the less sensitive it becomes, and the smaller the number, the more sensitive it becomes.</li></ul> <p>※Please set according to the vehicle characteristics and installation conditions of the main unit.</p>
Audio recording	★ON OFF	<ul style="list-style-type: none"><li>• Set audio recording ON/OFF.</li></ul>
Save (Always)	★ON OFF	<p>&lt;Important&gt; If you set it to OFF and the capacity limit is reached, continuous recording will stop. If continuous recording stops, impact and manual recording will also be impossible.</p> <ul style="list-style-type: none"><li>• Sets file overwrite ON/OFF.</li><li>• When set to ON, the oldest recording files will be overwritten when the allocated recording capacity is reached.</li><li>• When set to OFF, files will not be overwritten even if the allocated recording capacity limit is reached.</li></ul>
Save (Impact / Manual)	★ON OFF	

# ■ Estimated recording time

The approximate recording time for each setting is as follows

SD Card capacity	File type	Image size (image quality: HIGH)		
		1080P FHD	720P HD	VGA
16GB	Continuous recording Impact · Manual recording	1hr 8min 17min	1hr 40min 25min	2hr 52min 43min
32GB	Continuous recording Impact · Manual recording	2hr 16min 34min	3hr 24min 51min	5hr 44min 1hr 26min
64GB	Continuous recording Impact · Manual recording	4hr 24min 1hr 6min	6hr 40min 1hr 40min	11hr 12min 2hr 48min
128GB	Continuous recording Impact · Manual recording	8hr 52min 2hr 13min	13hr 20min 3hr 20min	22hr 28min 5hr 37min
256GB	Continuous recording Impact · Manual recording	17hr 56min 4hr 29min	26hr 56min 6hr 44min	45hr 20min 11hr 20min

SD Card capacity	File type	Image size (image quality: MID)		
		1080P FHD	720P HD	VGA
16GB	Continuous recording Impact · Manual recording	1hr 24min 21min	2hr 4min 31min	3hr 28min 52min
32GB	Continuous recording Impact · Manual recording	2hr 48min 42min	4hr 12min 1hr 3min	7hr 0min 1hr 45min
64GB	Continuous recording Impact · Manual recording	5hr 28min 1h 22min	8hr 12min 2hr 3min	13hr 40min 3hr 25min
128GB	Continuous recording Impact · Manual recording	11hr 0min 2h 45min	16hr 24min 4hr 6min	27hr 24min 6hr 51min
256GB	Continuous recording Impact · Manual recording	22hr 16min 5hr 34min	33hr 8min 8hr 17min	55hr 16min 13hr 49min

SD Card capacity	File type	Image size (image quality: LOW)		
		1080P FHD	720P HD	VGA
16GB	Continuous recording Impact · Manual recording	1hr 48min 27min	2hr 44min 41min	4hr 28min 1hr 7min
32GB	Continuous recording Impact · Manual recording	3hr 40min 55min	5hr 28min 1hr 22min	9hr 0min 2hr 15min
64GB	Continuous recording Impact · Manual recording	7hr 12min 1hr 48min	10hr 40min 2hr 40min	17hr 32min 4hr 23min
128GB	Continuous recording Impact · Manual recording	14hr 24min 3hr 36min	21hr 28min 5hr 22min	35hr 8min 8hr 47min
256GB	Continuous recording Impact · Manual recording	29hr 4min 7hr 16min	43hr 20min 10hr 50min	70hr 52min 17hr 43min

※ The times are approximate and are not a guarantee of recording time.

※ Recording time varies depending on factors such as the subject and surrounding environment.

# Main specifications

※ Specifications and appearance may be changed without notice for improvement purposes.

## ●Main unit

• Outside dimension	85mm(W) × 62mm(D) × 21mm(H) excluding protrusions
• Mass and tolerances	EDR-22G : 223g / EDR-22 : 208g
• Dust and water resistant	IP66・67
• G-sensor	Yes
• microphone	2.4GHz band IEEE802.11b/g/n
• wireless LAN	microSDHC card・microSDXC card
• Storage media	DC12V(for vehicles with battery only)
• Power source voltage	Recording: Approx. 0.35A / Dark current: Approx. 0.05mA (both at 12V battery voltage and room temperature)
• current consumption	-20 ~ 70°C
• operating temperature range	-25 ~ 85°C

## ●Camera (front・rear)

• Outside dimension	Φ27mm(W) × 43mm(D) excluding protrusions
• Mass and tolerances	79g (cable length: 0.9m) / 94g (cable length: 1.4m)
• Dust and water resistant	IP66・67
• Image sensor	CMOS image sensor 2 megapixels
• Lens angle of view	Diagonal 162° (horizontal 137.4° vertical 73.6°)
• Frame rate	27.5fps
• F-Score	1.8
• Minimum illumination	1 lux
• operating temperature range	-20 ~ 60°C
• Storage temperature range	-25 ~ 85°C

## ●GPS ※EDR-22G only

• Outside dimension	33mm(W) × 43.7mm(D) × 13.5mm(H) excluding protrusions
• mass	60g
• Dust and water resistant	IP66・67
• Operating Temperature Range	-20 ~ 70°C
• Storage temperature range	-25 ~ 85°C

## ●Switch

• Outside dimension	23mm(W) × 35mm(D) × 9.5mm (H) excluding protrusions
• mass	41g
• Dust and water resistant	IP66・67
• Operating Temperature Range	-20 ~ 70°C
• Storage temperature range	-25 ~ 85°C

## ●Power supply unit

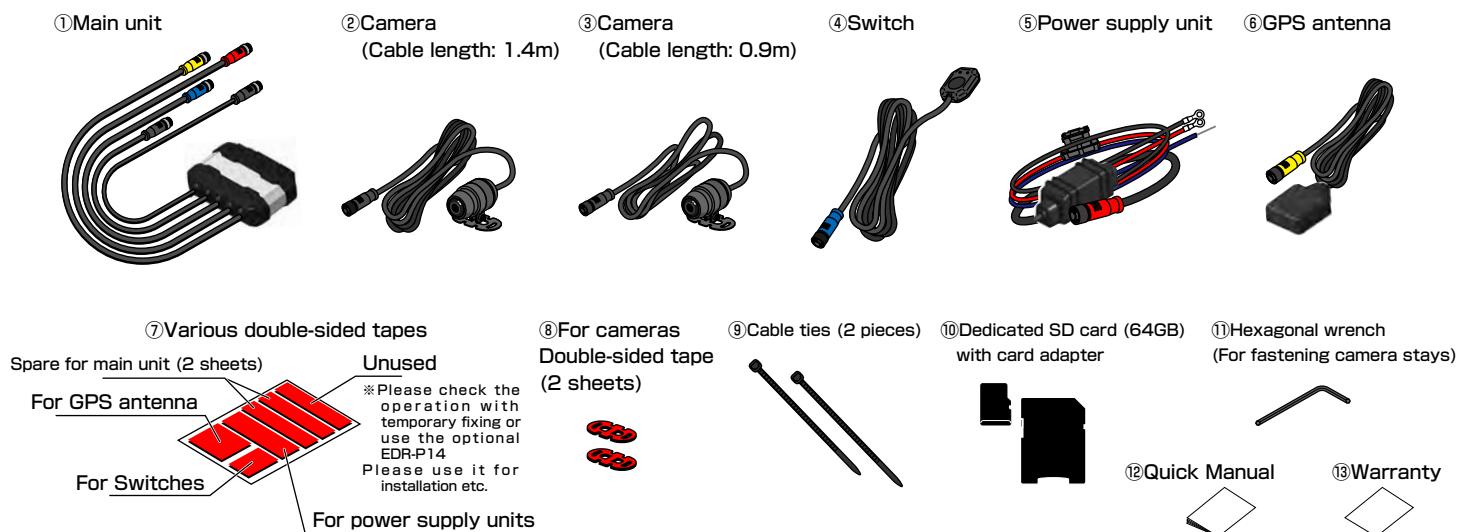
• Outside dimension	74mm(W) × 26mm(D) × 24mm (H) excluding protrusions
• mass	67g
• Dust and water resistant	IP66・67
• Operating Temperature Range	-20 ~ 70°C
• Storage temperature range	-25 ~ 85°C

### ●System

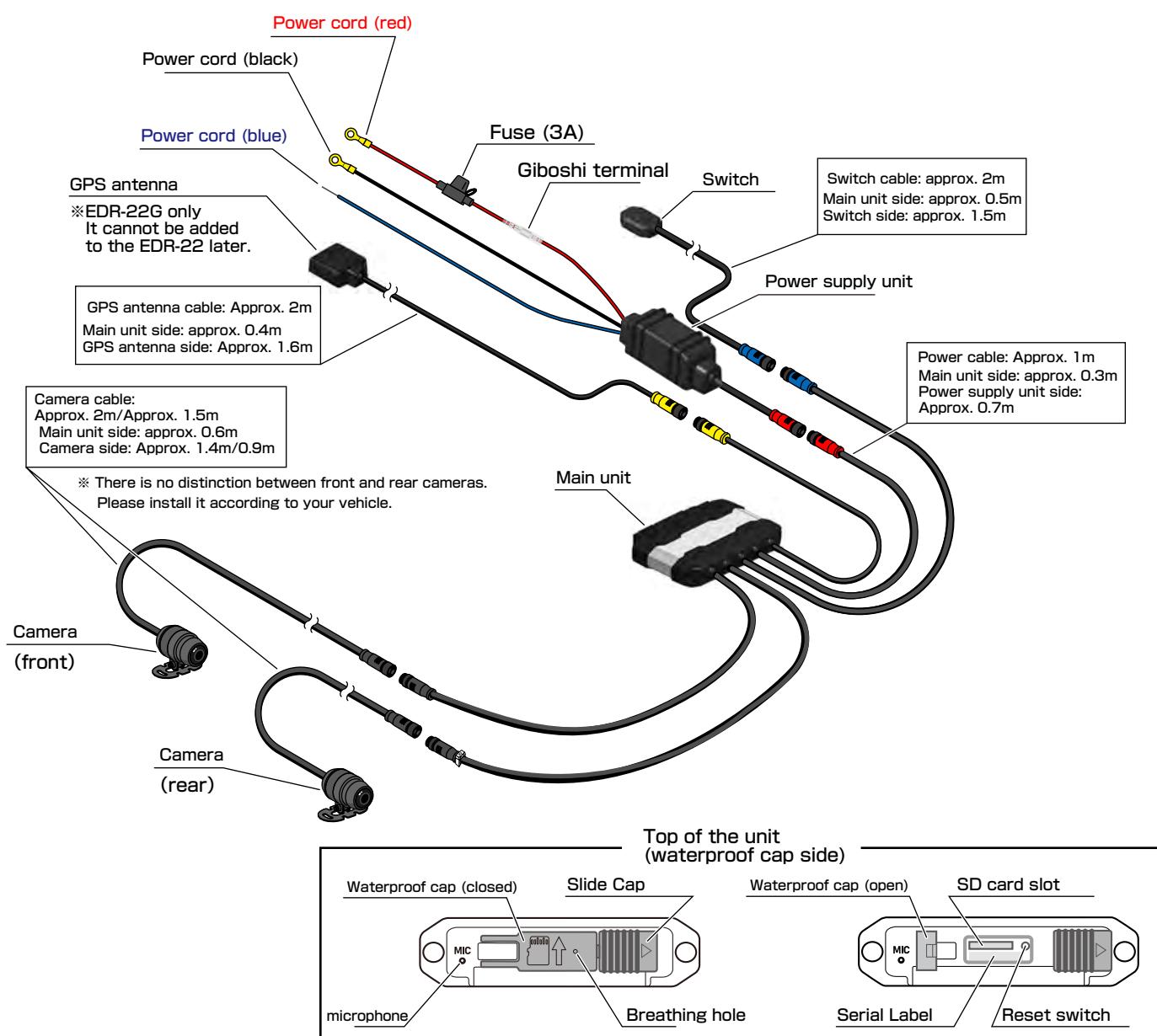
• Image size	1920 × 1080P(1080P) / 1280 × 720P(720P) / 640 × 480(VGA)
• image quality	HIGH / MID / LOW
• audio	Mono 16kHz ON/OFF selectable
• File Format	MP4
• Codec Video	H.264
audio	AAC
• Basic file structure	30 seconds/file
• Recording method	Continuous recording, event recording (impact recording/manual recording)
• Recorded data	video, audio, date and time, acceleration, location information ※EDR-22G only
• WDR	Yes (automatic)
• Color Correction	Yes (automatic)

# ■ EDR-22G Component

Before installation, please check that all parts are included.

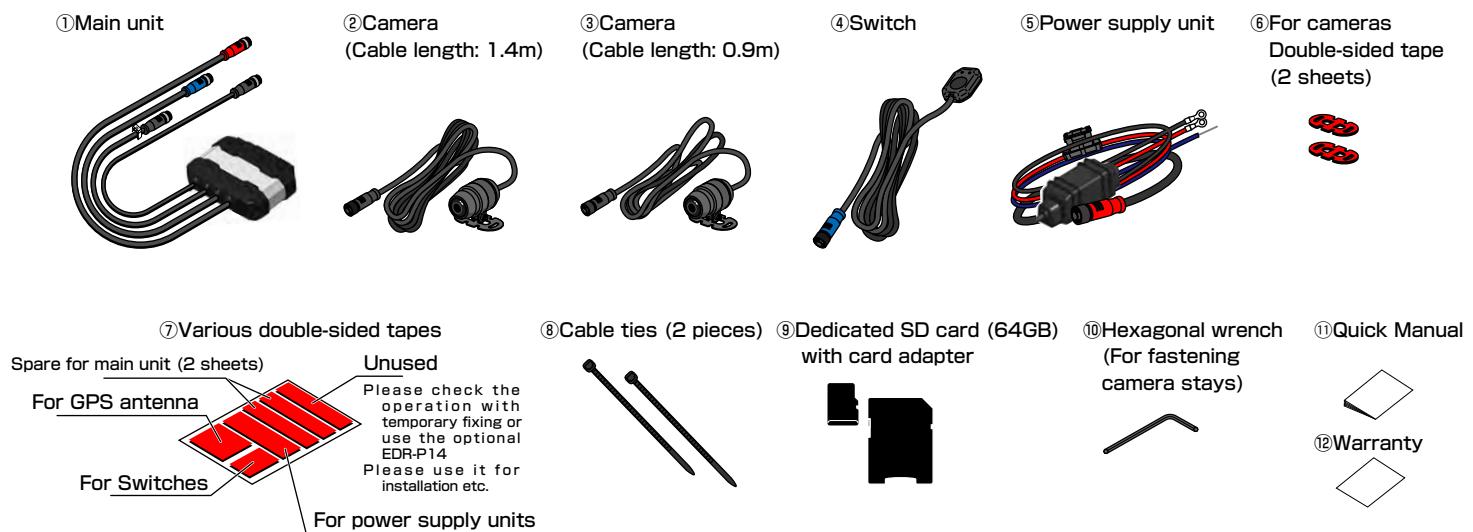


# ■ EDR-22G Parts names • others

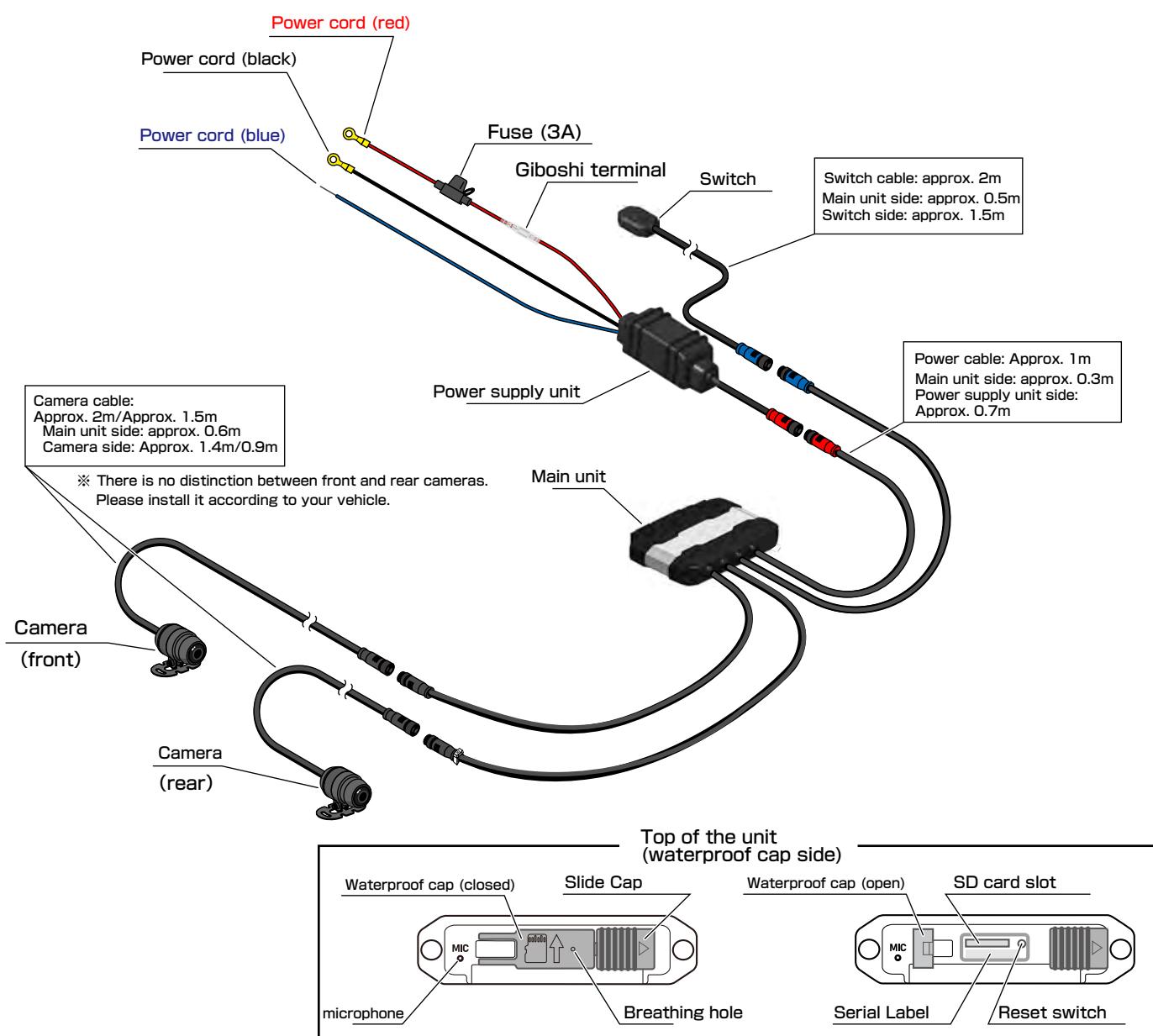


# ■ EDR-22 Components

Before installation, please check that all parts are included.



# ■ EDR-22 Part names and more



# ■ Installation Precautions

## ● Installation precautions

Before installation, please read these "Installation Precautions" carefully and install correctly.



Caveat

- When installing this product in a vehicle, be sure to remove the engine key to prevent the engine from starting accidentally. Please perform the work without any This can cause a serious accident.
- When wiring cables, pay attention to the following points and use vinyl tape or cable ties to prevent them from falling off. Please fix it so that it does not move. This may cause parts to fall off, resulting in fire, accidents, or malfunctions.
  - Do not install in places where temperatures may become high, such as around an engine.
  - Do not allow the product to come into contact with burrs or sharp edges on vehicle parts.
  - Do not allow the product to be pinched or come into contact with moving parts of the vehicle.
  - Leave some slack so that excessive force is not applied while driving.
  - Do not pinch when installing vehicle parts.
- This product should be installed in a location that does not interfere with driving operations or visibility, and does not interfere with any of the vehicle's functions. Please install it in a place where it will not be. This may cause accidents or malfunctions.
- When applying the double-sided tape, use anhydrous alcohol to remove any oil or dirt from the surface. Wipe it off thoroughly with cleaner or similar and allow it to dry completely before applying. Parts falling off, accidents, breakdowns This may cause failure.
- Please install this product in a location that does not exceed the overall length and width of the vehicle.
- This product is designed to be within the range ( $\pm 4$  cm). Place it in a place not exceeding. Please attach it.



Note

- Do not mount the unit on a surface covered with metal or metal-coated parts. Doing so may cause the wireless LAN communication status to deteriorate.
- Do not install this product in locations where it may become hot, such as near an engine. This may cause a malfunction.
- Be sure to connect to the vehicle using this product's power unit. This may cause the device to malfunction or break down.
- Be careful not to let the metal part of the relay connector of this cable come into contact with the positive terminal of the battery. This may cause a short circuit, fire, burns, or damage to the product or vehicle.
- Do not allow a screwdriver or other metal objects to come into contact with the relay connector of this cable or insert any other foreign objects into it. This may cause a fire or malfunction.
- Please connect the cable of this product correctly according to the instructions in the instruction manual. This may cause a fire or malfunction.
- When installing the main unit, power unit, and each cable under the seat, make sure to install them so that they are not compressed by the bending of the seat when riding. This may cause a fire due to a short circuit or a breakdown due to a broken wire or damage.
- For safety reasons, be sure to disconnect the battery cables before performing any work, except when checking the voltage with a tester. This may cause a fire or malfunction.  
For information on how to disconnect the battery cables, an error (self-diagnosis error) may be displayed on the vehicle's meter. Please refer to the vehicle's instruction manual or check with the vehicle manufacturer.
- When removing the relay connector of this cable, loosen the lock nut of the connector and remove it by holding the connector body. This may cause disconnection, damage, or malfunction.
- Do not reapply the double-sided tape. This may cause parts to fall off, resulting in an accident or malfunction. If you need to reattach it, be sure to replace it with new double-sided tape and then attach it.

# ■ Installation steps

## ● Installation procedure

### 1. Decide the mounting position for each part

#### ● Determine the mounting location for each component.

※ If necessary, remove parts of the vehicle (seats, etc.).

### 2. Clean the area where the parts will be installed on the vehicle.

#### ● To remove any oil or dirt from the area to be attached with double-sided tape, wipe it thoroughly with anhydrous alcohol or similar.

※ If dirt or oil remains, the double-sided tape may come off, causing parts to fall off and resulting in an accident or malfunction.

### 3. Install the main unit in the vehicle

#### ● Attach the included double-sided tape (2 sheets) to the main unit and secure it to the vehicle.

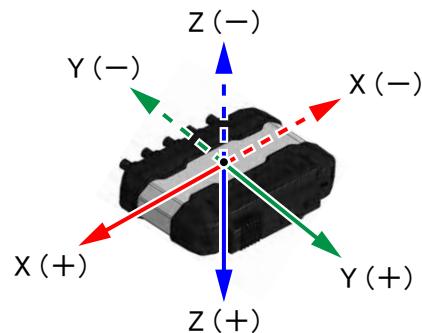
※ Do not attach the main unit to a location covered with metal or metal-coated parts. Doing so may cause the wireless LAN communication status to deteriorate.

※ Make sure to fix it in a place that does not interfere with opening and closing the waterproof cap of the main unit, or inserting and removing the SD card.

※ There is no specification for the installation position of the main unit, but the recorded G The direction depends on the installation position of the main unit. (See the diagram on the right)

※ The G display by the dedicated PC software will be the direction and value recorded in the installation position of the main unit.

※ If the unit is not properly fixed, the actual driving conditions may not match the values and direction of G measured by the G sensor.



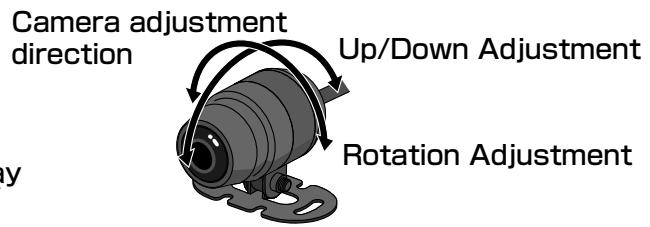
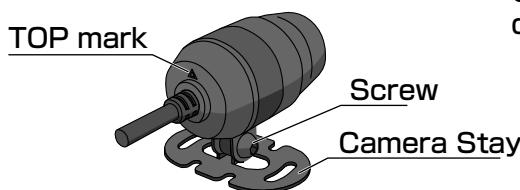
### 4. Temporarily attach the camera (front/rear) to the vehicle

※ The only difference between the two cameras is the cable length. It is no problem to change the front and rear to suit your vehicle.

#### ● Adjust the camera angle to suit the installation location. (See camera adjustment diagram)

- ① Loosen the screws on the camera stay using the included hex wrench so that the camera can be moved.  
※ Do not loosen the screws too much. The screws may come loose and cause parts to get lost.
- ② Rotate the camera so that the TOP mark ( $\triangle$ ) on the back of the camera is facing up.  
※ Make sure there are no twists in the cable. This may cause a malfunction.
- ③ Adjust the camera up and down so that the lens faces the direction you want to shoot.
- ④ Once the adjustment is complete, tighten the screws on the camera stay to secure it in place.

#### ■ Camera adjustment diagram



#### ● Temporarily fix the camera to the vehicle with vinyl tape or similar.

※ Please temporarily secure the camera so that it does not fall off the vehicle. This may cause damage or malfunction of the camera or damage to the vehicle.

※ The camera will be permanently fixed in place as described in "Fine-tuning the temporarily fixed camera and permanently fixing it" (page 19).

### 5. Install the switch in the vehicle

#### ● Attach the included double-sided tape to the switch and secure it to the vehicle.

※ Please install the device in a location that does not interfere with driving operations and allows easy button operation while driving.

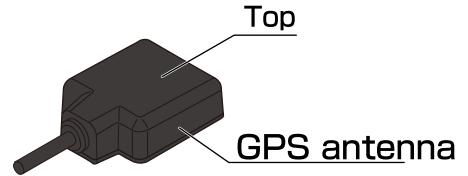
# ■ Installation steps (continued)

## ● Installation procedure(Continued)

### 6. Install the GPS antenna in the vehicle EDR-22G only

#### ● Attach the included double-sided tape for the GPS antenna to the GPS antenna and secure it to the vehicle.

- ※ Please install the GPS antenna with the top facing up so that it can easily receive radio signals from the satellite. (See the diagram on the right)
- ※ The top of the GPS antenna is made of metal or metal-coated parts. Please install it in a place that is not covered by (titanium coated screen, etc.).



### 7. Cable routing

#### ● Route each cable to the main unit.

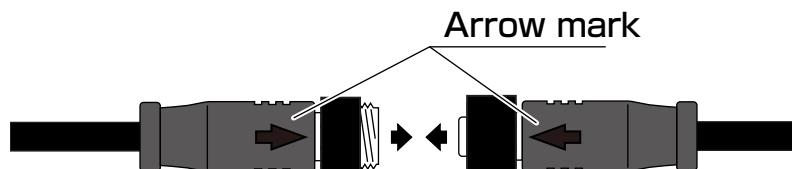
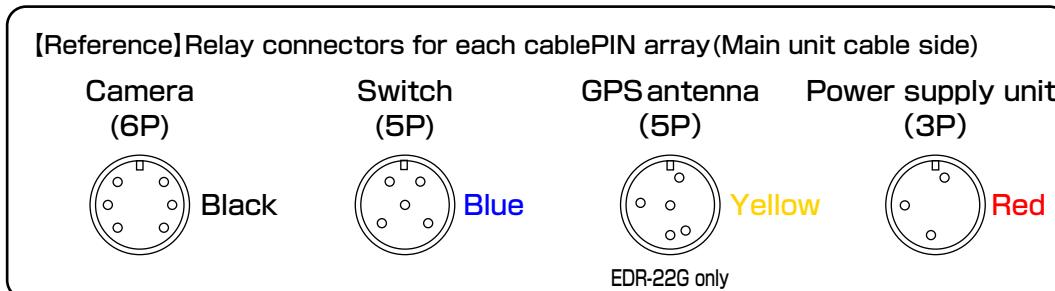
- ※ When wiring cables, pay attention to the following points and secure them with vinyl tape, cable ties, etc. to prevent them from falling off. This may cause parts to fall off, resulting in fire, accidents, or malfunctions.
  - Do not install in places where temperatures may become high, such as around an engine.
  - Do not allow the product to come into contact with burrs or sharp edges on vehicle parts.
  - Do not allow the product to be pinched or come into contact with moving parts of the vehicle.
  - Leave some slack so that excessive force is not applied while driving.
  - Does not get caught when installing vehicle parts.

### 8. Connect the relay connector

#### ● Connect the relay connectors of each cable.

##### ① Check the color and PIN arrangement of the connector to be connected, and connect it while aligning the arrow mark.

- ※ Be sure to match the colors, PIN arrangement, and arrow marks when connecting. This may cause the pins to bend, break, or malfunction.



##### ② After connection, tighten the lock nut.

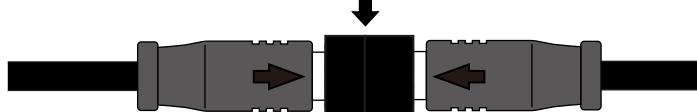
- ※ Tighten the lock nut by hand without using any tools.



# ■ Installation steps (continued)

## ● Installation procedure(Continued)

- ※ Be sure to tighten the lock nuts securely so that there are no gaps between the lock nuts.



- ※ When removing the connector, loosen the lock nut and remove it by holding the connector body. This may cause disconnection, damage, or malfunction.

- ※ Be careful not to let the metal part of the relay connector of this cable come into contact with the positive terminal of the battery. This may cause a short circuit, fire, burns, or damage to the product or vehicle.

### 9. Installing the power supply unit

#### ● Connect each cord of the power supply unit to the vehicle.

- ※ The power cord will not work unless all three are connected. Please be sure to connect.

##### ① Connect the round terminal of the power cord (red) to the positive

- ※ A constant power source is required to maintain the set time.

- ※ When disconnecting the vehicle's battery terminals, an error (self-diagnosis error) may be displayed on the vehicle's meter, so please read the vehicle's instruction manual or check with the vehicle manufacturer.

- ※ The fuse box is not waterproof. Please install in a location where it will not get wet.

##### ② Connect the power cord (blue) to the wire that is 12V when the vehicle's ignition key is ON and OV when it is OFF.

- ※ Make sure to connect securely by soldering etc. to avoid poor contact. This may cause malfunction or failure.

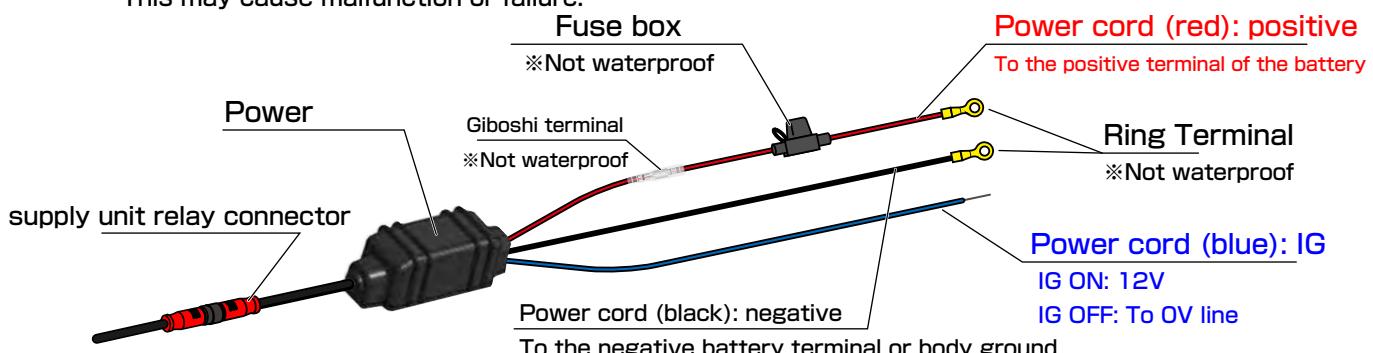
- ※ If the voltage does not become OV immediately after turning off the ignition key, it will take some time for the power to the unit to turn off.

##### ③ Insulate and waterproof the part connected in ② with vinyl tape or similar.

##### ④ Connect the round terminal of the power cord (black) to the negative battery terminal or body earth.

- ※ When connecting to a body earth, please check with the vehicle manufacturer and connect to the specified earth point.

This may cause malfunction or failure.



#### ● Attach the double-sided tape for the power supply unit included with the unit to the power supply unit, and secure it in a space such as under the seat.

- ※ Unstable fixation may result in disconnection.

- ※ Please make sure to secure it in place so as not to interfere with driving operations or moving parts. In addition, parts removed from the vehicle When installing the cover (sheet, etc.), be careful not to damage the cable by pinching it, etc. This may cause disconnection, fire, or malfunction.

# ■ Installation steps (continued)

## ● Installation procedure (Continued)

### 10. Fine-tuning the temporarily fixed camera and final fixing

- ① While checking the camera footage using a dedicated smartphone app, fine-tune the camera that is temporarily attached to the vehicle.
  - ※ For how to check the image captured by the camera, see "Initial settings after installation" (pages 20 to 25).
- ② Once you have completed the fine adjustments, attach the double-sided tape for cameras included with the camera to the camera stay and securely attach the camera to the vehicle.
  - ※ Be sure to tighten the screws on the camera stay so that they do not come loose while driving.
  - ※ Please check regularly to make sure the screws on the camera stay are not loose. If the screw comes loose, the camera may fall off, interfering with driving or causing vehicle
- ③ Peel off the protective film on the camera lens.

### 11. Fixing the camera cable

- ① Use a cable tie or vinyl tape to secure the camera cable to the vehicle as close to the camera as possible.
  - ※ If the camera falls off, make sure to secure it in a position where it will not interfere with driving.

### 12. Installation of removed vehicle parts

- ① If any parts have been removed from the vehicle, reinstall them.
  - ※ When installing parts (such as seats) that have been removed from the vehicle, be careful not to damage the cables by pinching them, etc. This may cause parts to fall off, resulting in fire, accidents, or malfunctions.
- ② Check that there are no problems with the vehicle's various functions and operations.

This completes the installation process.

# ■ Initial setting after installation

## 1. Prepare the dedicated smartphone app "Moto DR"

### ● Please access using the QR code below and install it on your smartphone.

※ The customer is responsible for any communication charges associated with the installation.

For iPhone, click here



For Android, click here



※ You can also search for and install "Moto DR" in the official app store search screen of the App Store (iOS) or Google Play (Android).

For details on how to use the dedicated smartphone app "Moto DR", please see the URL or QR code below.

[https://www.mskw.co.jp/pdf/edr\\_howtomotodr.pdf](https://www.mskw.co.jp/pdf/edr_howtomotodr.pdf)

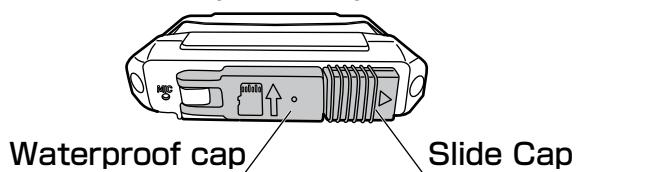


## 2. Insert the included SD card into the device.

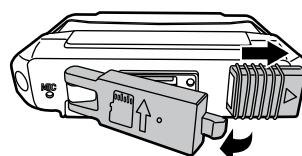
### ① Make sure that the power to the main unit is turned OFF (IG OFF).

※ Do not insert or remove the SD card while the unit is turned on (IG ON). This may cause file corruption or malfunction.

### ② While holding the waterproof cap, slide the slide cap outward and remove the waterproof cap.

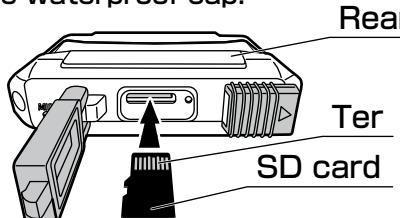


Slide open



### ③ Insert the SD card so that the terminal side faces the rear of the unit until you hear a click.

※ The direction in which the SD card should be inserted is indicated on the surface of the waterproof cap.



Rear side of the main unit

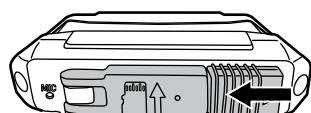
※ When removing the SD card, gently push the SD card in until you hear a click, then slowly release it to remove the SD card. Be careful not to release your finger too quickly after pressing the SD card in, as it may pop out.

### ④ Close the waterproof cap.

### ⑤ While holding the waterproof cap, slide the slide cap inward to lock it in place.

※ Slide the slide cap until you hear a click. This may cause water to enter the device and cause malfunctions.

Slide to lock



※ Do not secure the unit with foreign objects (sand, hair, etc.) caught between the unit and the waterproof cap. This may cause water to enter the device and cause malfunctions.

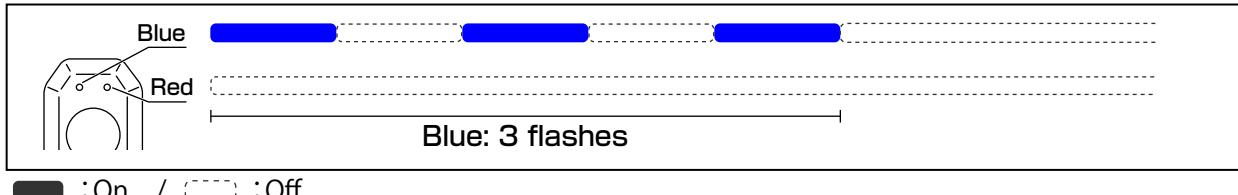
※ Do not insert any rod-shaped objects into the ventilation hole on the waterproof cap or block the ventilation hole. This may cause water intrusion and malfunction.

## ■ Initial setting after installation (continued)

### 3. Connect your smartphone and the device via wireless LAN

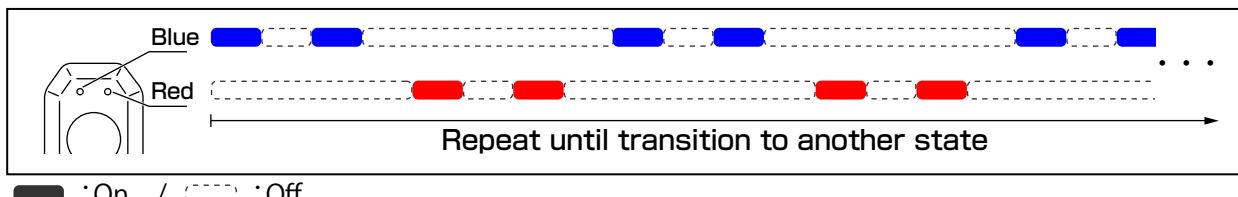
- ① When the vehicle ignition key is turned to IG ON, the power to the unit will be turned on.
- ② When the power is turned on, a system check of the main unit will be performed after a few seconds. During the system check, the indicator lights up in the following pattern.

#### ● Indicator lighting pattern during system check

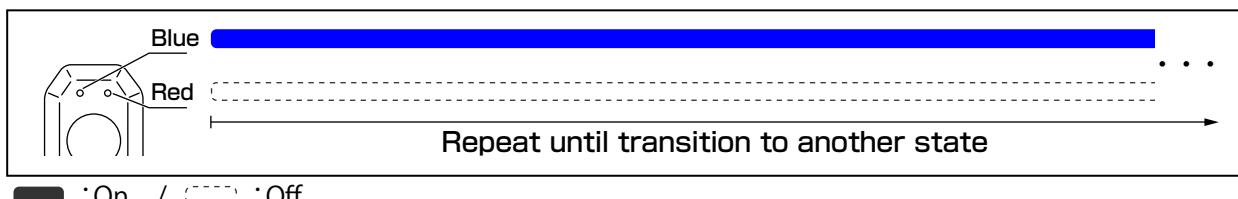


- ※ After installation, if you turn on the unit for the first time or if it has been a while since the unit was last turned on, it may take up to 20 seconds for the system check to start after the power is turned on.
- ※ If a system check reveals an abnormality, the indicator will show the abnormality on the unit. In this case, check the "Indicator Display List" (pages 29 to 31) and "Troubleshooting - Q&A -" (pages 49 to 51) and take measures to resolve the cause of the abnormality.
- ③ Once the system check is completed successfully, continuous recording will begin. When continuous recording is in progress, the lighting pattern of the indicator will differ depending on whether the time is synchronized or asynchronous.

#### ● Continuous recording (time asynchronous)

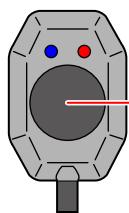


#### ● Continuous recording (time synchronized)



## ■ Initial setting after installation (continued)

④ Press and hold the switch button (for more than 3 seconds) to switch to wireless LAN mode.

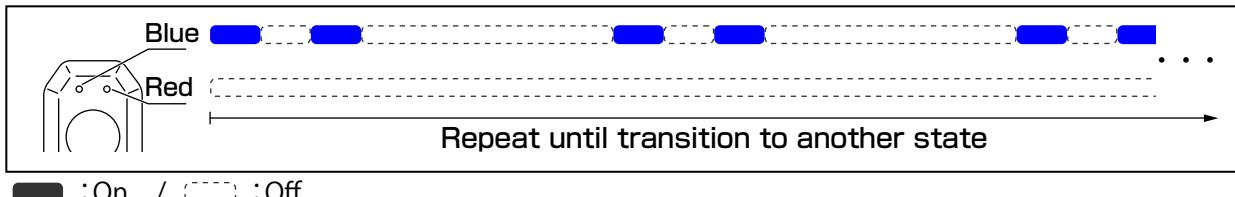


– Press and hold (3 seconds or more)

※ If the button is pressed for a short time, manual recording (blue flashing) will begin. Once the camera is in continuous recording mode, press and hold the button again (for 3 seconds or more).

⑤ When the device is in Wireless LAN mode (waiting for connection), the indicators will light up in the following pattern.

#### ● Wireless LAN mode (waiting for connection) indicator lighting pattern



Note • wirelessLAN During this mode, recording will stop.

- ⑥ From the smartphone's settings, turn on the smartphone's wireless LAN.
  - ※ For various smartphone operations, please follow the instruction manual that came with your smartphone.
- ⑦ From the list of connection destinations (SSID, access points) displayed on your smartphone, select "EDR\_MotoDRxxxxxxxxxxxx."
  - ※ "xxxx•••" is an alphanumeric character unique to the EDR unit.
- ⑧ Enter your password

パスワード : 12345678 《Initial Value》

※ Depending on the model of smartphone, after connecting, a pop-up message may appear stating that there is no Internet connection. In that case, please set it to maintain the connection.

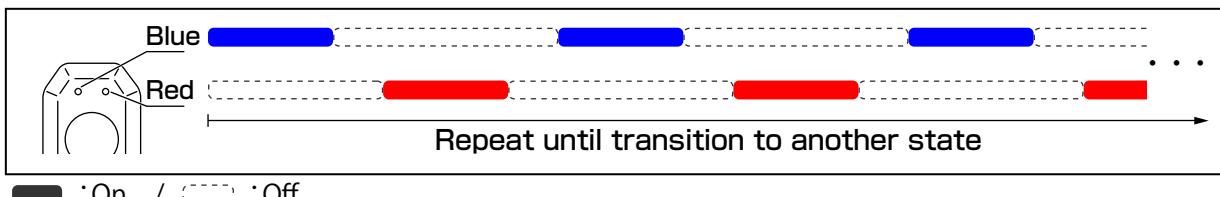
Connecting to a smartphone (wireless LAN connection) If this is not possible, URL or Please check the QR code for instructions on how to proceed.

<https://www.mskw.co.jp/motorcycle/edr/support/>



⑨ When the smartphone and wireless LAN are connected, the indicators will light up in the following pattern.

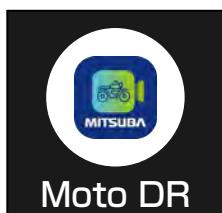
#### ● Wireless LAN mode (connected) indicator lighting pattern



# ■ Initial setting after installation (continued)

## 4. Synchronize the time

① Operate your smartphone and launch "Moto DR."



※ Icons may vary depending on the device.

② Tap "Settings" on the app's top screen.



③ Tap "Time Sync" on the Apps screen.



④ Once the time on the device has been synchronized with your smartphone, the message "Settings complete" will appear at the bottom of the screen.



※ The built-in clock of the device may be inaccurate.

Therefore, there may be a discrepancy between the actual time and the recorded time. To prevent time discrepancies, we recommend that you synchronize the time regularly (once a month) using the dedicated smartphone app.

After starting recording, the EDR-22G automatically synchronizes the time by receiving GPS signals, but there may be a discrepancy in the time recorded in the file at the start of recording. If it has been a while since your last ride, please synchronize the time using the dedicated smartphone app before riding.

※ If the battery is replaced or the battery terminals are disconnected, the time will be reset to the initial time (January 1, 2022). Please synchronize the time again.

# ■ Initial setting after installation (continued)

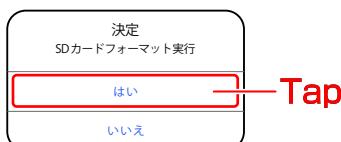
## 5. Format the SD card

- ※ If you are using the SD card included with this product or an "EDR series recommended microSD card" sold by our company, this procedure is not necessary as it has already been formatted. Please proceed to the next step, "6. Check the camera's shooting angle and fine-tune the camera."
- ※ If you are using an SD card other than those listed above, please format the SD card using the following procedure.

- ① Tap "SD Format" on the Apps screen.



- ② On the format confirmation screen, tap "Yes".



- ※ If you want to cancel the format, tap "No".
- ※ When you format the SD card, all files recorded on it will be erased. Please back up any important files before formatting.

- ③ Once the SD card formatting is complete, "Format successful" will be displayed at the bottom of the screen.

## 6. Check the camera's shooting angle and fine-tune the camera

- ① Tap "Check shooting angle" on the app screen to display the camera image.



- ② Hold your smartphone sideways and fine-tune the camera angle while checking the image. For instructions on how to adjust the camera, see "Temporarily attaching the camera (front/rear) to the vehicle" (page 16).



- ※ You can toggle between showing and hiding buttons by tapping anywhere on the screen other than the displayed "X", "Rear", and "Front" buttons.
- ※ Images from smartphones will be displayed with a delay.

- ③ Tap the "Rear" or "Front" button at the bottom of the screen to switch between camera (front/rear) display.
- ④ Once you have finished fine-tuning the camera, tap the "X" button in the upper left corner of the screen to exit "Check the shooting angle."

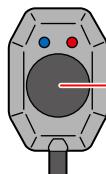
## ■ Initial setting after installation (continued)

### 7. Exit the dedicated smartphone app "Moto DR"

- Operate your smartphone to close "Moto DR."

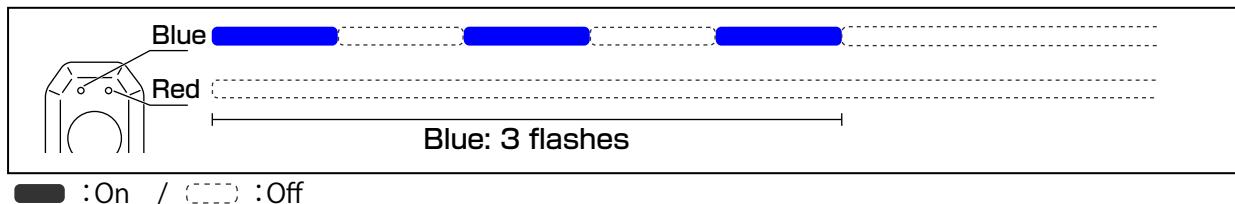
### 8. Turn off the wireless LAN mode on the device

- ① Press the switch button briefly.



- ② The wireless LAN mode of the main unit will be turned off, the indicator will turn off for a few seconds, and then a system check will begin. The indicator lights up in the following pattern.

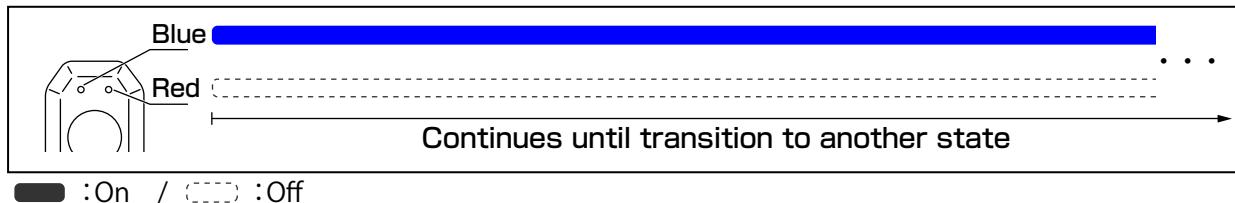
#### ● Indicator lighting pattern during system check



※ If a system check reveals an abnormality, the indicator will show the abnormality on the unit. In this case, check the "Indicator Display List" (pages 29 to 31) and "Troubleshooting - Q&A -" (pages 49 to 51) and take measures to resolve the cause of the abnormality.

- ③ After the system check is complete, continuous recording will begin. The indicator lights up in the following pattern.

#### ● Continuous recording (time synchronized)

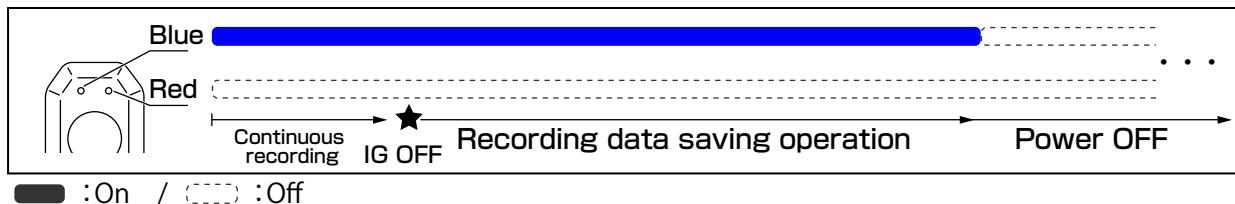


### 9. Turn off the power of the device

- ① Turn the vehicle's ignition key OFF.

- ② The recorded file will be saved, and once this is complete the power to the unit will be turned off.

#### ● Indicator lighting pattern when switching from continuous recording to power OFF



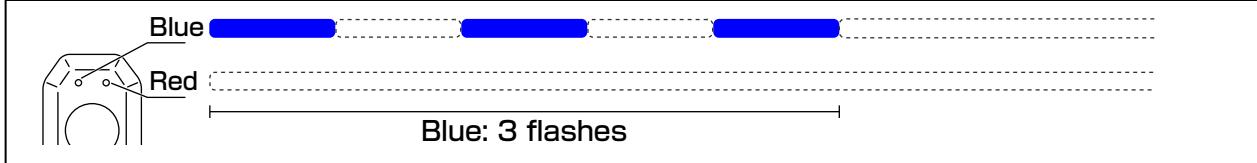
This completes the "Initial Setup After Installation".

# ■ How to use

## ● Continuous recording

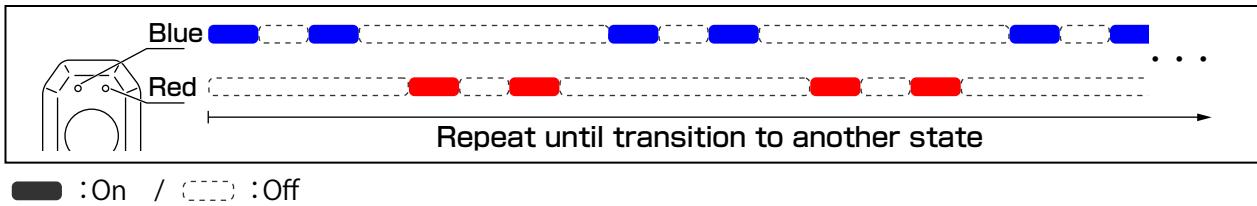
- ① When the vehicle ignition key is turned to IG ON, the power to the unit is turned ON.
- ② When the power is turned on, a system check of the main unit will be performed after a few seconds. During the system check, the indicator lights up in the following pattern.

## ● Indicator lighting pattern during system check

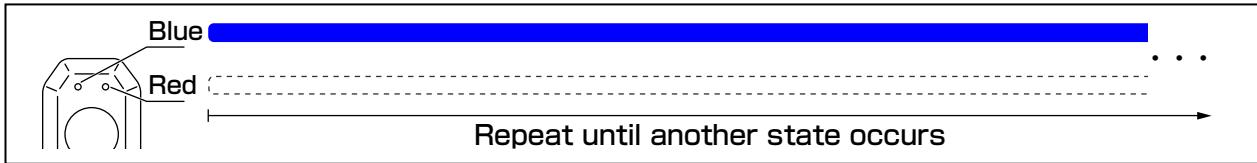


- ※ After installation, if you turn on the unit for the first time or if it has been a while since the unit was last turned on, it may take up to 20 seconds for the system check to start after the power is turned on.
- ※ If a system check reveals an abnormality, the indicator will show the abnormality on the unit. In this case, check the "Indicator Display List" (pages 29 to 31) and "Troubleshooting - Q&A -" (pages 49 to 51) and take measures to resolve the cause of the abnormality.
- ③ Once the system check is completed successfully, continuous recording will begin. When continuous recording is in progress, the lighting pattern of the indicator will differ depending on whether the time is synchronized or asynchronous.

## ● Continuous recording (time asynchronous)



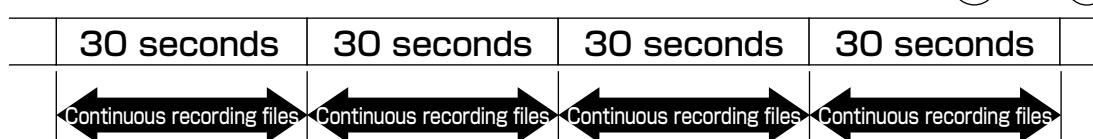
## ● Continuous recording (time synchronized)



- ※ If the time is out of sync, use the dedicated smartphone app "Moto DR" to synchronize the time after connecting to wireless LAN. For details on time synchronization, see "Synchronizing the Time" (page 42).
- ※ The EDR-22G automatically synchronizes the time by receiving GPS signals. Depending on the signal reception conditions, it may not be possible to synchronize the time or it may take a long time to synchronize the time.

## ● How to save continuous recording

- ◆ Records 30 seconds per file and saves it as a continuous recording file.
- ※ If you switch to wireless LAN mode or turn off the power during recording, recording will stop at that point, and each file will be saved in less than 30 seconds.



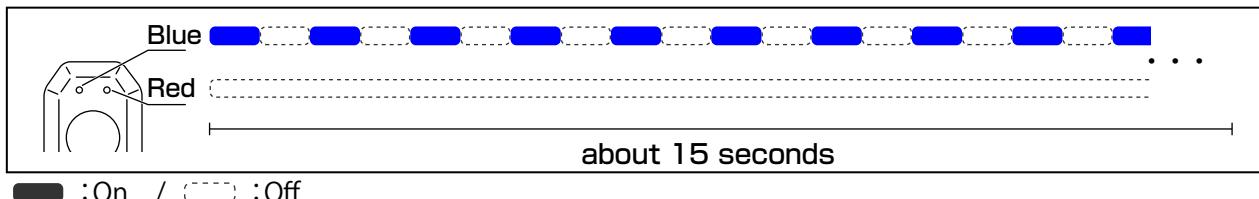
# ■ How to use (continued)

## ● Event recording (impact recording)

◆ When an impact is detected during continuous recording, this function saves the recording files before and after the impact detection as "impact recording files."

① Activated when an impact greater than the set value is detected during continuous recording. During impact recording, the indicator will light up in the following pattern.

### ● Indicator lighting pattern during impact recording



※ When performing impact recording, impact recording and manual recording cannot be performed at the same time. If an impact is detected during manual recording, it will be saved as an impact recording file.

② After about 15 seconds, impact recording will end and continuous recording will automatically resume.

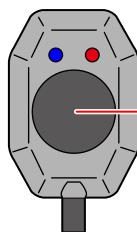
※ It automatically switches to continuous recording, so there is no need to operate the switch.

※ When an event recording file is being overwritten, it will flash for up to approximately 20 seconds.

## ● Event recording (manual recording)

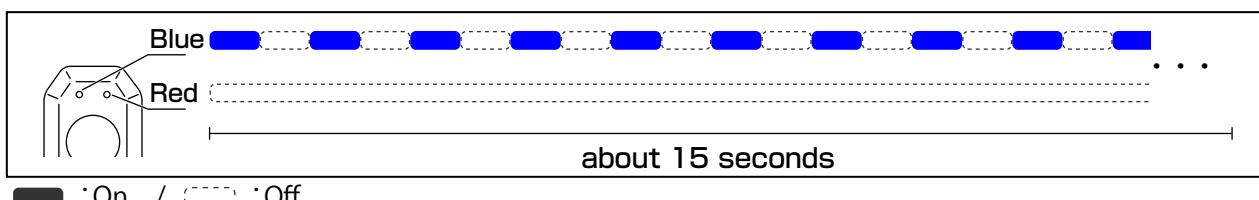
◆ This function saves the recording files before and after the manual recording operation as "manual recording files" when you perform manual recording during continuous recording.

① During continuous recording, briefly press the switch button.



② Start manual recording. During manual recording, the indicator lights up in the following pattern.

### ● Indicator lighting pattern during manual recording



※ Manual recording cannot be performed during impact recording.

※ If an impact is detected during manual recording, it will be saved as an impact recording file.

③ After about 15 seconds, manual recording will end and continuous recording will automatically resume.

※ It automatically switches to continuous recording, so there is no need to operate the switch.

※ When an event recording file is being overwritten, it will flash for up to approximately 20 seconds.

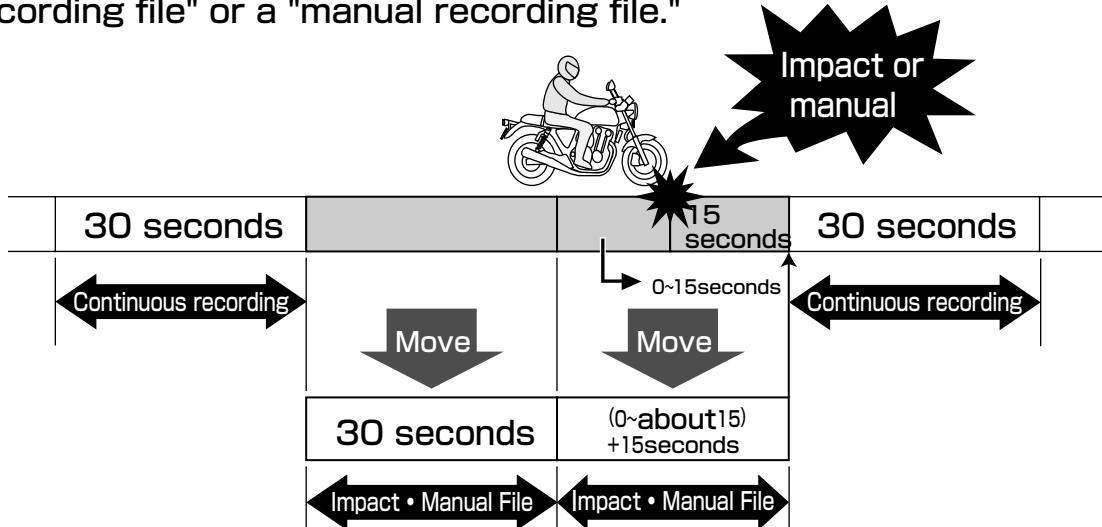
# ■ How to use (continued)

## ● How to save event recordings (impact recordings/manual recordings)

- ◆ For impact recording and manual recording, the way files are saved varies depending on when the event occurs.

### CASE 1

If an event occurs within 15 seconds of the start of the file being recorded, the system will record the continuous recording file (30 seconds) just before the event occurred and the 15 seconds after the event occurred (15 seconds to approximately 30 seconds) in the file being recorded, and save these in two files as either an "impact recording file" or a "manual recording file."



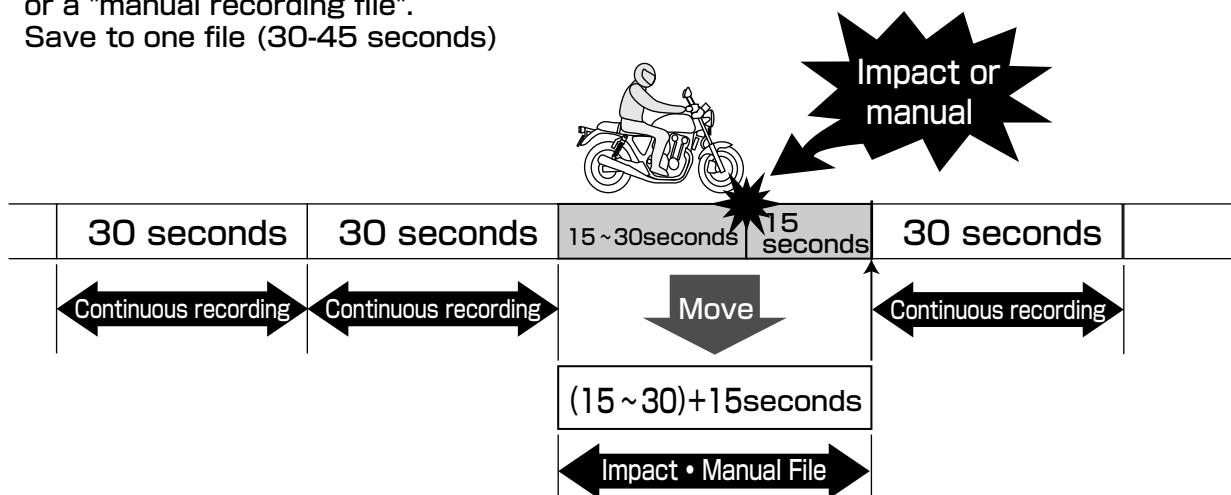
- ※ If the power is turned off during impact recording or manual recording, recording will stop when the power is turned off, and the files recorded up until the power was turned off will be saved.
- ※ If an impact is detected during manual recording, it will be saved as an impact recording file.

### CASE 2

If an event occurs 15 seconds or more into the beginning of a recording file, the file being recorded

The 15 seconds after the event occurs will be recorded as an "impact recording file" or a "manual recording file".

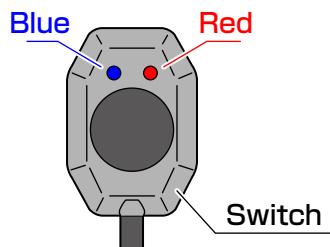
Save to one file (30-45 seconds)



- ※ If the power is turned off during impact recording or manual recording, recording will stop when the power is turned off, and the files recorded up until the power was turned off will be saved.
- ※ If an impact is detected during manual recording, it will be saved as an impact recording file.

## ■ Indicator display list

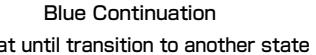
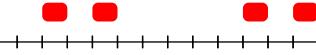
This section explains the indicators and what they show.



## ● Status display when recording is stopped

Indicator display	Status	Remarks
<p>Blue   </p> <p>Red</p> <p>Cycle  Blue flashing every 0.5 seconds</p> <p>Time      Approximately 3 seconds</p>	<ul style="list-style-type: none"> <li>System check in progress</li> </ul>	<ul style="list-style-type: none"> <li>A system check will be performed after the power is turned on.</li> <li>A system check will be performed after turning off the wireless LAN mode.</li> </ul>
<p>Blue    </p> <p>Red</p> <p>Cycle  Blue flashing at 0.2 second intervals, off for 1 second</p> <p>Time      Repeat until transition to another state</p>	<ul style="list-style-type: none"> <li>Waiting for wireless LAN mode connection</li> </ul>	<ul style="list-style-type: none"> <li>Waiting for a Wi-Fi connection from your smartphone.</li> </ul>
<p>Blue    </p> <p>Red  </p> <p>Cycle  0.5 seconds on, 0.2 seconds off, flashing red and blue alternately</p> <p>Time      Repeat until transition to another state</p>	<ul style="list-style-type: none"> <li>Connected in wireless LAN mode</li> </ul>	<ul style="list-style-type: none"> <li>The smartphone is connected to the wireless LAN.</li> </ul>
<p>Blue</p> <p>Red</p> <p>Cycle  Periodic red and blue off</p> <p>Time      —</p>	<ul style="list-style-type: none"> <li>Power OFF</li> <li>SD card not detected during system check</li> </ul>	<ul style="list-style-type: none"> <li>Recording has stopped.</li> </ul>
	<ul style="list-style-type: none"> <li>When switching modes (such as when switching from wireless LAN mode to continuous recording)</li> </ul>	<ul style="list-style-type: none"> <li>The light may go off for 5 to 6 seconds.</li> </ul>

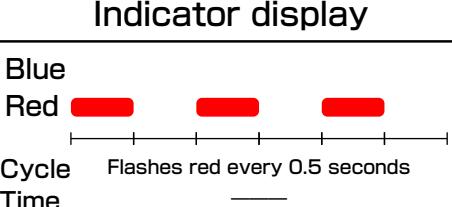
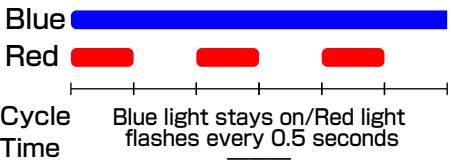
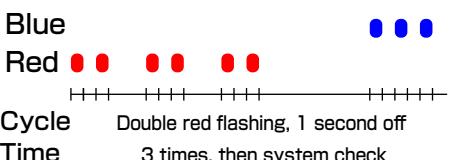
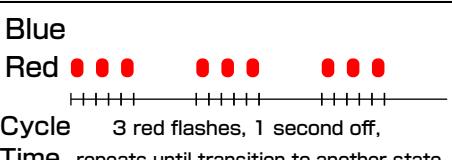
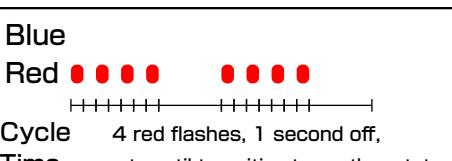
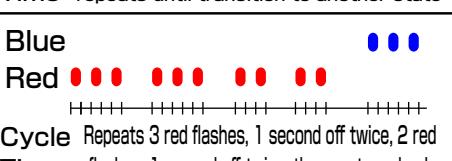
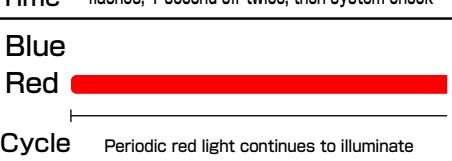
### ● Recording status display list

Indicator display	Status	Remarks
<p>Blue</p> <p>Red</p> <p>Cycle Time</p> 	<ul style="list-style-type: none"> <li>Continuous recording</li> <li>Power supply OFF</li> <li>Write the recording file later</li> <li>Loading Operation</li> </ul>	<ul style="list-style-type: none"> <li>Recording is ongoing.</li> <li>Power OFF Then it lights up for a while</li> <li>The lights will turn off.</li> </ul>
<p>Blue</p> <p>Red</p> <p>Cycle Time</p> 	<ul style="list-style-type: none"> <li>Continuous recording</li> <li>Time out of sync</li> </ul>	<ul style="list-style-type: none"> <li>The time is different from the actual time.</li> <li>Time synchronization is not being performed.</li> </ul>
<p>Blue</p> <p>Red</p> <p>Cycle Time</p> 	<ul style="list-style-type: none"> <li>Manual recording in progress</li> <li>Impact recording</li> </ul>	<ul style="list-style-type: none"> <li>If you turn the power off during manual recording or impact recording, the light will turn blue and then go off.</li> </ul>

# Indicator display list (Continued)

## ● Status display when an abnormality occurs

※ For information on how to deal with any abnormalities that may occur, please refer to "Troubleshooting - Q&A -" (pages 49-51).

Indicator display	Status	Remarks
 Blue Red Cycle Time: Blue light stays on/Red light: Flashes every 0.5 seconds	<ul style="list-style-type: none"> <li>SD card error</li> </ul>	<ul style="list-style-type: none"> <li>Not all recording operations are possible.</li> <li>You can switch to wireless LAN mode.</li> </ul>
	<ul style="list-style-type: none"> <li>Continuous recording capacity is full</li> </ul> <p>※ When the overwrite save (always) setting is OFF</p>	
	<ul style="list-style-type: none"> <li>The event recording (impact recording, manual recording) capacity is full and all event recording files are protected.</li> </ul> <p>※ When the overwrite save (shock, manual) setting is ON</p>	
	<ul style="list-style-type: none"> <li>When the remaining capacity of the SD card differs from the actual recording time. (For example, if a file other than EDR is written to the SD card.)</li> </ul>	<ul style="list-style-type: none"> <li>The available recording time will be reduced.</li> <li>You can switch to wireless LAN mode.</li> </ul>
 Blue Red Cycle Time: Blue light stays on/Red light: Flashes every 0.5 seconds	<ul style="list-style-type: none"> <li>Event recording (impact recording, manual recording) capacity is full</li> </ul> <p>※ When the overwrite save (shock, manual) setting is OFF</p>	<ul style="list-style-type: none"> <li>Continuous recording means continuous recording.</li> <li>You can switch to wireless LAN mode.</li> </ul>
 Blue Red Cycle Time: Double red flashing, 1 second off, 3 times, then system check	<ul style="list-style-type: none"> <li>Front camera error</li> </ul>	<ul style="list-style-type: none"> <li>Not all recording operations are possible.</li> <li>Cannot switch to wireless LAN mode.</li> </ul>
 Blue Red Cycle Time: 3 red flashes, 1 second off, repeats until transition to another state	<ul style="list-style-type: none"> <li>Rear camera error</li> </ul>	<ul style="list-style-type: none"> <li>Record using the front camera only.</li> <li>You can switch to wireless LAN mode.</li> </ul>
 Blue Red Cycle Time: 4 red flashes, 1 second off, repeats until transition to another state	<ul style="list-style-type: none"> <li>GPS anomaly (EDR-22G only)</li> </ul>	<ul style="list-style-type: none"> <li>Continue recording without recording GPS location information.</li> <li>You can switch to wireless LAN mode.</li> </ul>
 Blue Red Cycle Time: Repeats 3 red flashes, 1 second off twice, 2 red flashes, 1 second off twice, then system check	<ul style="list-style-type: none"> <li>Front camera, rear camera error</li> </ul>	<ul style="list-style-type: none"> <li>Not all recording operations are possible.</li> <li>Cannot switch to wireless LAN mode.</li> </ul>
 Blue Red Cycle Time: Periodic red light continues to illuminate	<ul style="list-style-type: none"> <li>Main unit abnormality</li> </ul>	<ul style="list-style-type: none"> <li>You cannot use all the functions.</li> </ul>

# ■ Indicator display list (Continued)

## ● Other status indications

Indicator display	Status	Remarks
Blue  Red  Cycle Time  Blue and red light on simultaneously for 1 second Time <small>※See remarks</small>	<ul style="list-style-type: none"><li>Wireless LAN connection and password initialization completed</li></ul>	<ul style="list-style-type: none"><li>After the password reset message appears, the display will return to the screen before the reset operation.</li></ul>
Blue  Red  Cycle Time  Cyclic Blue 1 second off, 1 second on, 1 second off	<ul style="list-style-type: none"><li>GPS positioning completed (EDR-22G only)</li></ul>	<ul style="list-style-type: none"><li>Displayed only once after power is turned on.</li></ul>

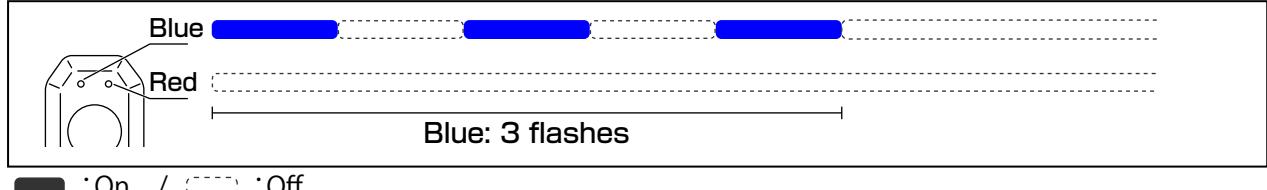
## ■ Connecting your smartphone and EDR unit via wireless LAN (Android)

- Please install the EDR dedicated app "Moto DR" on your smartphone in advance.
- For information on how to operate your smartphone, please refer to the instruction manual for your smartphone.
- The smartphone screen displays in this instruction manual may differ depending on the model you are using.

### 1. Set the EDR unit to wireless LAN mode

- ① Turn the vehicle ignition key to IG ON and turn the EDR unit power ON.
- ② After a few seconds, a system check of the EDR unit will be performed.

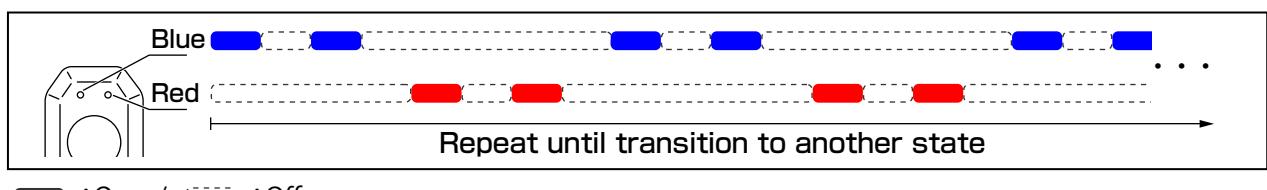
#### ● Indicator lighting pattern during system check



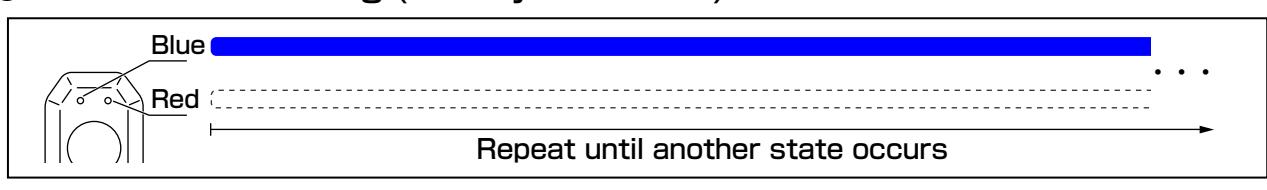
※ After installation, if you turn on the unit for the first time or if it has been a while since the unit was last turned on, it may take up to 20 seconds for the system check to start after the power is turned on.

- ③ Once the system check is completed successfully, continuous recording will begin. When continuous recording is in progress, the lighting pattern of the indicator will differ depending on whether the time is synchronized or asynchronous.

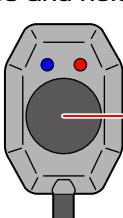
#### ● Continuous recording (time asynchronous)



#### ● Continuous recording (time synchronized)



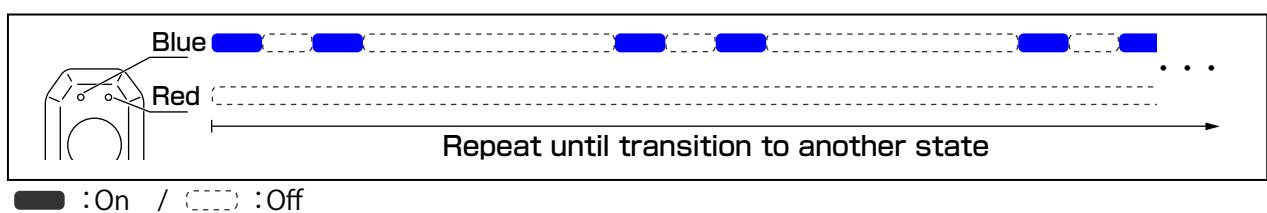
- ④ Press and hold the switch button (for more than 3 seconds) to switch to wireless LAN mode.



Press and hold (3 seconds or more)

※ If the button is pressed for a short time, manual recording (blue flashing) will begin. Once the camera is in continuous recording mode, press and hold the button again (for 3 seconds or more).

#### ● Indicator lighting pattern in Wireless LAN mode (waiting for connection)



**Note** • WirelessLAN During the mode, stop recording.

## 2. Connect your smartphone and EDR unit via wireless LAN



① Operate your smartphone and turn on "Wireless LAN Connection (Wi-Fi)" from the settings.

supplement

- For information on how to operate your smartphone, please refer to the instruction manual for your smartphone.

② Select "EDR\_MotoDRxxxxxxxxxx" from the list of connection destinations (SSID, access points) displayed on your smartphone.

※ "EDR\_MotoDRxxxxxxxxxx" is an alphanumeric character unique to the EDR unit.



③ Enter your password.

supplement

- Password Initial Settings  
「12345678」

④ Tap "Connect".

⑤ When the pop-up shown on the left appears on your smartphone screen, tap it.

supplement

- The pop-up display method and content may vary depending on the smartphone you are using.

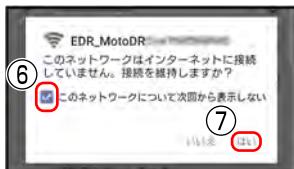
### Note

- Do not operate your smartphone until the pop-up appears. The pop-up may disappear.
- If the pop-up disappears, EDR Wireless connection to the main unit LAN Delete the connection information.  
Please start over from step ①.

If you are unable to connect to your smartphone (wireless LAN connection), please visit the following URL or Please check the QR code for instructions on how to proceed.

<https://www.mskw.co.jp/motorcycle/edr/support/>





⑥ Check "Don't show this again."

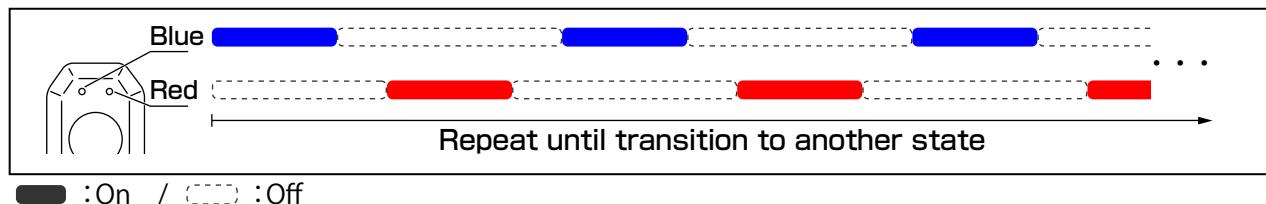
⑦ Tap "Yes" .

**supplement**

- If you check "Don't show this again" and tap "Yes", you can skip steps ⑤ to ⑦ from the next time onwards.
- The contents of pop-ups and dialogs displayed may vary depending on the model. In this case, please configure it to maintain the connection with EDR.

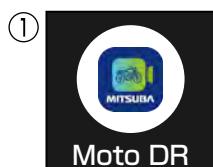
⑧ When the EDR unit and wireless LAN are connected, the indicators will light up in the following pattern.

●Wireless LAN mode (connected) indicator lighting pattern



■ :On / (---) :Off

3. Launch the dedicated app "Moto DR"



Moto DR



① Operate your smartphone and launch "Moto DR".

※ Icons may vary depending on the device.

② A confirmation screen for "Location access" will appear, so tap "Only while using the app" to allow access to your location.

**Note**

- Smartphone WiFi The permissions required to connect. "Allow" If you tap "No", Moto DR may result in poor connection or an unstable connection.

③ A confirmation screen for "Access to media files (photos, videos, music, audio)" will be displayed. Tap "Allow" to allow access to photos, videos, music, and audio.

**supplement**

- On your smartphone OS Version 13 In the following cases If you are using a media file, this screen will not be displayed. (photograph, Video, music, audio) Access is automatically granted.

**Note**

- This permission is required to save files on the smartphone and to play recorded files saved on the smartphone.
- If you tap "Don't allow", File saving operations and recordings saved on the smartphone The file cannot be played. In addition, during use "Moto DR" may be forced to terminate.





④ The "EDR Main Unit Wireless LAN Connection Guide" will appear on your smartphone screen. Tap "Skip" to close it.

- The connection guide you see is the same as the one explained here. So I'm going to skip this and close it.
- Display "EDR Main Unit Wireless LAN Connection Guide" the next time you start the software if you do not want this to happen, select "Do not display at next startup." I'll check.
- The "EDR Main Unit Wireless LAN Connection Guide" can be viewed from "User Guide" on the app's top screen.



⑤ Tap "Playback" or "Settings" on the TOP screen.

- After selecting "Playback", if you tap a tab such as "Always", "Impact" or "Manual", the app will display "Connecting" in the center of the screen. Once the connection is complete, the app will begin loading the recorded files and the message "Loading data" will be displayed in the center of the screen. Once loading is complete, a list of recording folders will be displayed.
- When you select this setting, the word "Connecting" will be displayed in the center of the app screen. Once the connection is complete, the message "Connection complete" will appear at the bottom of the app screen and the settings screen will be displayed.

#### supplement

- If the message "Please connect to the EDR unit" appears on the app screen, "Smartphone and EDR unit wireless LAN Connect" (32 page) Please start the operation again.
- If the app screen displays "No data", SD There is no data on the card.
- The time it takes to load recording files depends on the number of recording files and communication environment.

This completes the explanation of "Connecting your smartphone and EDR unit via wireless LAN (Android)."

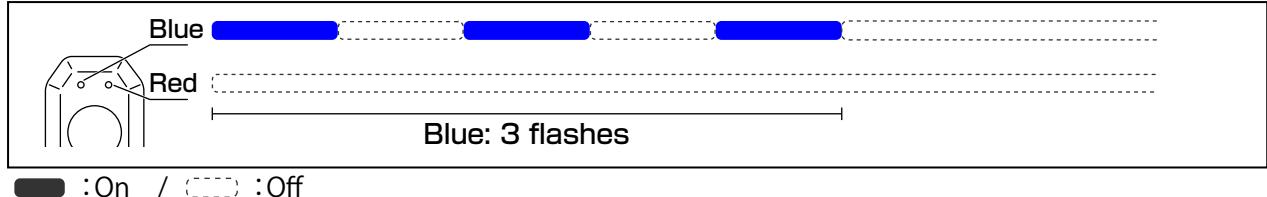
## ■ Connecting your smartphone and EDR unit via wireless LAN (iOS)

- Please install the EDR dedicated app "Moto DR" on your smartphone in advance.
- For information on how to operate your smartphone, please refer to the instruction manual for your smartphone.
- The smartphone screen displays in this instruction manual may differ depending on the model you are using.

### 1. Set the EDR unit to wireless LAN mode

- ① Turn the vehicle ignition key to IG ON and turn the EDR unit power ON.
- ② After a few seconds, a system check of the EDR unit will be performed.

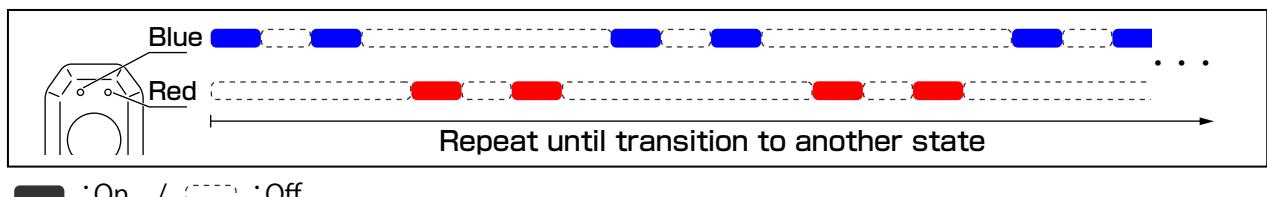
#### ● Indicator lighting pattern during system check



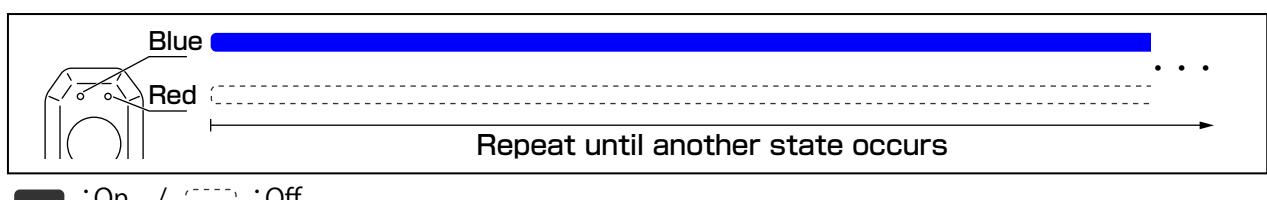
※ After installation, if you turn on the unit for the first time or if it has been a while since the unit was last turned on, it may take up to 20 seconds for the system check to start after the power is turned on.

- ③ Once the system check is completed successfully, continuous recording will begin. When continuous recording is in progress, the lighting pattern of the indicator will differ depending on whether the time is synchronized or asynchronous.

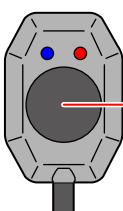
#### ● Continuous recording (time asynchronous)



#### ● Continuous recording (time synchronized)



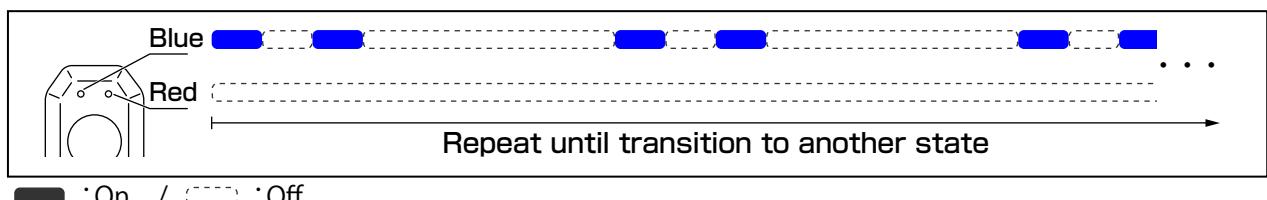
- ④ Press and hold the switch button (for more than 3 seconds) to switch to wireless LAN mode.



Press and hold (3 seconds or more)

※ If the button is pressed for a short time, manual recording (blue flashing) will begin. Once the camera is in continuous recording mode, press and hold the button again (for 3 seconds or more).

#### ● Indicator lighting pattern in Wireless LAN mode (waiting for connection)



**Note** • WirelessLAN During the mode, stop recording.

## 2. Connect your smartphone and EDR unit via wireless LAN



① Operate your smartphone and turn on "Wireless LAN Connection (Wi-Fi)" from the settings.  
supplement

- For information on how to operate your smartphone, please refer to the instruction manual for your smartphone.

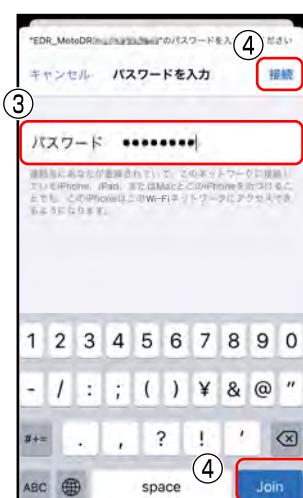
② Select "EDR\_MotoDRxxxxxx" from the list of connection destinations (SSID, access points) displayed on your smartphone.

※ "EDR\_MotoDRxxxxxx" is an alphanumeric character unique to the EDR unit.

③ Enter your password.

supplement

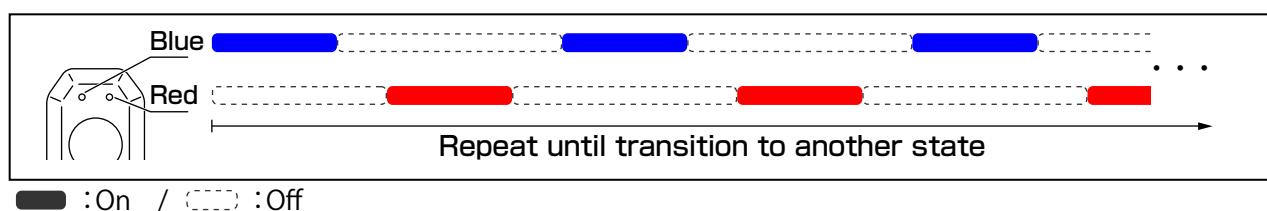
- Password Initial Settings  
「12345678」



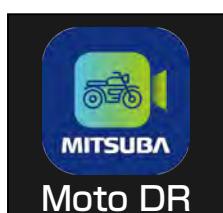
④ Tap "Connect" at the top right of the screen or "Join" at the bottom right of the screen.

⑤ When the EDR unit and wireless LAN are connected, the indicators will light up in the following pattern.

### ●Wireless LAN mode (connected) indicator lighting pattern



## 3. Launch the dedicated app "Moto DR"



① Operate your smartphone and launch "Moto DR".

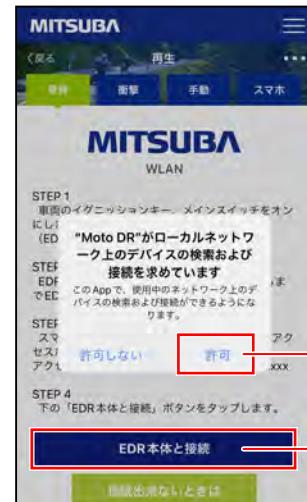


② Tap "Playback" or "Settings" on the TOP screen.

- After selecting "Playback", if you tap a tab such as "Always", "Impact", or "Manual", the app will display "Connecting" in the center of the screen. Once the connection is complete, the app will begin loading the recorded files and the message "Loading data" will be displayed in the center of the screen. Once loading is complete, a list of recording folders will be displayed.
- When you select this setting, "Connecting" will be displayed in the center of the app screen. Once the connection is complete, the message "Connection complete" will appear at the bottom of the app screen and the settings screen will be displayed.

### supplement

- If the message "Please connect to the EDR unit" appears on the app screen, "Smartphone and EDR unit wireless LAN Connect" (36 page) Please start the operation again.
- If the app screen displays "No data", SD There is no data on the card.
- The time it takes to load recorded files depends on the number of recorded files and communication environment.
- " in the center of the app screen "MotoDR" is the local network "Search for and connect to devices on your network" dialogue box will appear. If a message appears, "Allow" or "OK" Tap from "EDR Tap" "Connect to device".



Smartphones and EDR Wirelessly connect the device LAN. If you are unable to connect, please change your smartphone settings. After turning on airplane mode WiFi of ON And, EDR Main unit and wireless LAN Please connect. wireless LAN If you have ended the connection, turn off airplane mode. Please turn it OFF.

This concludes the explanation of "Connecting your smartphone and EDR unit via wireless LAN (iOS)."

# ■ Formatting the SD card

This section explains how to format the SD card inserted in the EDR unit. The explanation will be given assuming that the SD card is inserted into the EDR unit and the smartphone and EDR unit are connected via wireless LAN. For information on connecting your smartphone to the EDR unit via wireless LAN, please see the following page.

- "Connecting your smartphone and EDR unit via wireless LAN (Android)" ... pages 32 to 35
- "Connecting your smartphone and EDR unit via wireless LAN (iOS)" ... pages 36 to 38

## 1. Display the format menu



① Tap "Settings" from the TOP screen.

Tap

### supplement

- If the setting screen is the "Recording" screen, select the "Function" tab. Please tap.



## 2. Format the SD card



① Tap "SD Format".

Tap

② Tap "Yes" on the SD card format execution screen.

Tap

### supplement

- To cancel formatting:, tap No.
- Once the SD card formatting is complete, "Format successful" will be displayed at the bottom of the screen.

### Note

- When you perform a format, SDAll files recorded on the card will be erased. will be done. Back up your important files before formatting. Please do.

This completes the explanation of "formatting an SD card."

# ■ Check the camera footage

This section explains how to check the footage captured by the camera installed in the vehicle.

The explanation will be given assuming that the SD card is inserted into the EDR unit and the smartphone and EDR unit are connected via wireless LAN. For information on connecting your smartphone to the EDR unit via wireless LAN, please see the following page.

- "Connecting your smartphone and EDR unit via wireless LAN (Android)" ... pages 32 to 35
- "Connecting your smartphone and EDR unit via wireless LAN (iOS)" ... pages 36 to 38

## 1. Display the shooting angle confirmation



① Tap "Settings" from the TOP screen.

Tap

supplement

- If the settings screen is displayed as the "Video/Audio Recording" screen, tap the "Functions" tab.

Tap



② Tap "Check shooting angle."

- The image captured by the camera will be displayed.

Tap

## 2. Adjust the camera mounting angle as needed

① Turn your smartphone sideways.



② If you need to adjust the camera angle, refer to "Temporarily attach the camera (front/rear) to the vehicle." Please adjust according to "(page 16)".

# ■ Check the camera footage (continued)

## supplement

- The "Rear" button is displayed at the bottom of the screen."Rear" or "Front" to view the camera image.(rear/ Front Desk) You can switch between the following.



- The buttons displayed on the screen are "X" "rearTap a screen other than "Front" display/ You can switch it off or on.
- The image displayed on your smartphone may be delayed due to factors such as communication conditions.there is.

### 3. Ending the display of the camera's footage

- ① Tap the "X" button in the upper left corner of the screen to close the screen.



This concludes the explanation of "Checking the footage captured by the camera."

This article explains how to synchronize the time on your EDR unit with the time on your smartphone.

The explanation will be given assuming that the SD card is inserted into the EDR unit and the smartphone and EDR unit are connected via wireless LAN.

For information on connecting your smartphone to the EDR unit via wireless LAN, please see the following page.

- "Connecting your smartphone and EDR unit via wireless LAN (Android)" ... pages 32 to 35
- "Connecting your smartphone and EDR unit via wireless LAN (iOS)" ... pages 36 to 38

## 1. Display the time synchronization menu



① Tap "Settings" from the TOP screen.

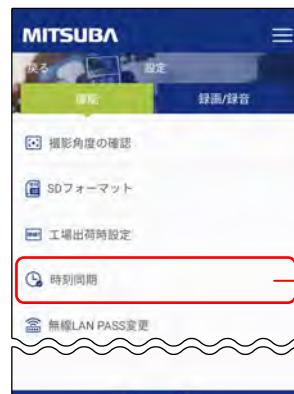
Tap

### supplement

- If the setting screen is the "Recording" screen, select the "Function" tab. Please tap.



## 2. Perform time



① Tap "Sync time" to perform time synchronization.

- When the time on your device is synchronized with your smartphone,  
The message "Setup complete" will be displayed.

Tap

### supplement

- The built-in clock, errors will occur. Therefore, the actual time and the recorded time may differ. There may be a misalignment. To prevent time discrepancies, use the dedicated smartphone app. Regularly (Once a month) It is recommended that you synchronize the time.
- EDR-22G After recording starts, Time is automatically synchronized by receiving GPS signals. However, there may be a discrepancy in the time recorded in the file when recording begins.  
If it has been a while since your last ride, please synchronize the time using the dedicated smartphone app before riding.
- When you replace the battery or disconnect the battery terminal, the initial time (2022 year 1 month 1 day) will be reset. Please synchronize the time again.

This concludes the explanation of "time synchronization."

# ■ Displaying the Settings Screen

This section explains how to display the settings screen.

## 1. Connecting your smartphone to the EDR unit

For information on connecting your smartphone to the EDR via wireless LAN, please see the following page.

- "Connecting your smartphone and EDR unit via wireless LAN (Android)" ... pages 32 to 35
- "Connecting your smartphone and EDR unit via wireless LAN (iOS)" ... pages 36 to 38

## 2. Displaying the Settings Screen



① Tap "Settings" from the TOP screen.  
• The settings screen will be displayed.

Tap

### supplement

- You can also display the settings screen by tapping the main menu "≡" in the upper right corner of the screen and tapping "Settings" from the menu that appears.



This concludes the explanation of "Displaying the settings screen."

# ■ Change your wireless LAN password

This section explains how to change the password required to connect your smartphone and EDR unit via wireless LAN.

The explanation will be given assuming that the SD card is inserted into the EDR unit and the smartphone and EDR unit are connected via wireless LAN.

- "Connecting your smartphone and EDR unit via wireless LAN (Android)" ... pages 32 to 35
- "Connecting your smartphone and EDR unit via wireless LAN (iOS)" ... pages 36 to 38

## 1. Display the menu for changing the wireless LAN password



① Tap "Settings" from the TOP screen.

Tap

### supplement

- If the settings screen is displayed as the "Video/Audio Recording" screen, tap the "Functions" tab.

Tap

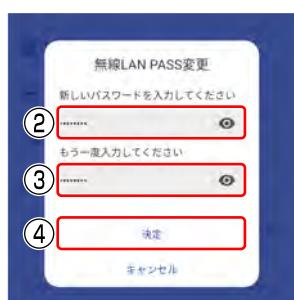


## 2. Change your wireless LAN password



① Tap "Change Wireless LAN PASS" from the Function tab.

- The Wireless LAN PASS change screen will be displayed.



② Enter a new password (8 or more alphanumeric characters) in the "Please enter a new password" field.  
③ In the "Please enter again" field, enter the same password you entered in ② again.  
④ Tap "OK" to change to your new password.

- Once the wireless LAN password change has finished, the messages "Settings complete" and "Connection to MITSUBA EDR has been disconnected" will be displayed at the bottom of the screen.

### supplement

- To cancel the password change, "Cancel"Tap.

# ■ Change your wireless LAN password (Continued)

## 3-1. Resetting the EDR connection information on your smartphone (Android)

### Note

- If you have changed the wireless LAN password, the wireless LAN password saved on your smartphone will be deleted. You need to delete the connection information once. If you do not delete the connection information, EDR Main unit and wirelessLAN You will not be able to connect. Be sure to delete the connection information.

※ Item names may vary depending on the model of your smartphone.



① Tap the settings icon on your smartphone.

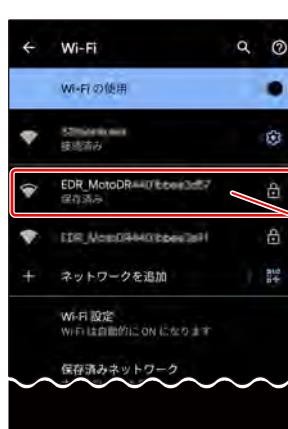


② When your smartphone's settings screen opens, tap on a network connection item such as "Network and Internet" or "Connections."



③ When the network connection item opens, make sure that wireless LAN (Wi-Fi) is turned on.

※ If wireless LAN (Wi-Fi) is turned OFF, turn it ON.



④ From the list of destinations (SSID, access points) displayed on the screen, find "EDR\_MotoDRxxxxxx" and press and hold the destination name until the selection screen appears.

※ "xxxx..." is an alphanumeric character unique to the EDR unit.

Press and hold

# ■ Change your wireless LAN password (Continued)



⑤ When the "Connect / Delete / Change" selection screen appears, tap "Delete."

- The wireless LAN connection information for the EDR unit that was saved on your smartphone has now been deleted.

※ When connecting to the EDR unit via wireless LAN after changing the password, enter the changed password to connect.

## 3-2. Reconfigure your smartphone's EDR connection information (iOS)

### Note

- If you have changed the wireless LAN password, the wireless LAN password saved on your smartphone will be deleted. You need to delete the connection information once. If you do not delete the connection information, EDR main unit and wireless LAN You will not be able to connect. Be sure to delete the connection information.

※ Item names may vary depending on the model of your smartphone.



① Tap the settings icon on your smartphone.



② Once the settings are open, make sure that wireless LAN (Wi-Fi) is ON.

※ If wireless LAN (Wi-Fi) is turned OFF, turn it ON.

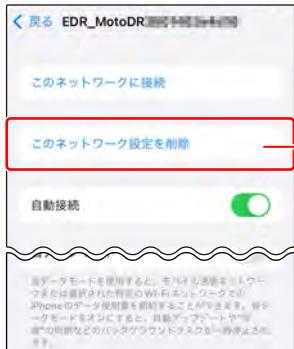


③ List of connection destinations (SSID, access points) displayed on the screen, search for "EDR\_MotoDRxxxxxxxxxxxx" ① icon and tap it.

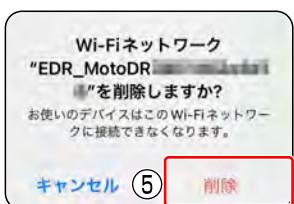
※ "xxxx..." is an alphanumeric character unique to the EDR unit.

Tap

## ■ Change your wireless LAN password (Continued)



④ Tap "Delete this network setting" from the items displayed on the screen.



⑤ When a dialog box asking "Do you want to delete Wi-Fi network "EDR\_Moto DRxxxxxx" ?" appears in the center of the app screen, tap "Delete".

- ※ "xxxx..." is an alphanumeric character unique to the EDR unit.
- The wireless LAN connection information for the EDR unit that was saved on your smartphone has now been deleted.
- ※ When connecting to the EDR unit via wireless LAN after changing the password, enter the changed password to connect.

This completes the explanation of "Changing your wireless LAN password."

# ■ Initialize the wireless LAN password

This section describes how to reset the wireless LAN password. Please use this if you forget your password.

## 1. Turn on the device.

- When the vehicle ignition key is turned to IG ON, the power of the unit is turned ON.

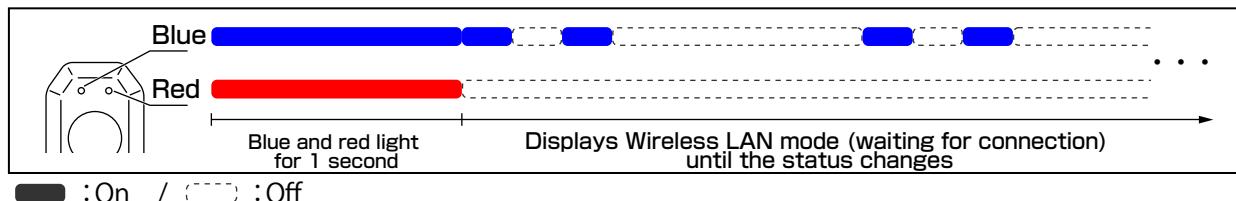
## 2. Switch to wireless LAN mode

- ① Wait until the system check is complete and the unit starts up.
- ② Once the unit has started up, press and hold the switch button (for more than 3 seconds).
- ③ Wait until the device enters wireless LAN mode (waiting for connection).

## 3. Initialize your wireless LAN password

- ① In Wireless LAN mode (waiting for connection), press and hold the switch button (for more than 3 seconds).
- ② Once the password initialization is complete, the indicators will light up in the following pattern.

### ● Indicator lighting pattern when wireless LAN password initialization is complete



※ The wireless LAN password can be initialized even while connected to the wireless LAN.

※ For instructions on how to reconnect, see "Connecting your smartphone and device via wireless LAN" (pages 21-22).

# ■ Initializing the device settings

This section explains how to initialize the unit settings (to factory default settings). Use this when the device is behaving differently than normal and turning the power off and on does not improve the situation.

※ All settings will be reset to the default settings (factory settings).

### ● Settings that will be reset

- Time setting
- Wireless LAN password
- Recording size
- Image quality
- Impact detection sensitivity
- Audio recording
- Overwrite (permanent)
- Overwrite (impact/manual)

## ■ Initializing the EDR unit

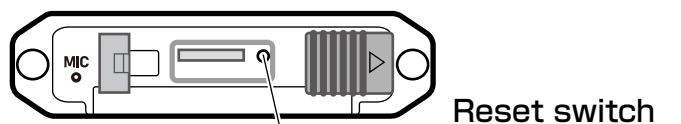
- ① Turn on the power of the main unit.

- ② Open the waterproof cap on the main unit.

- ③ Insert the tip of a ballpoint pen or similar object into the small hole on the main body and press the reset switch. (See figure below)

※ After a while the indicator will go out and the unit will restart.

This completes the initialization of the device settings.



※ If an error message appears after the system check, please check "What to do in these situations - Q&A" (pages 49 to 51) and take appropriate action.

# ■ In these cases—Q&A—

Below are examples of malfunctions, check items, and solutions. If the product does not function properly during use, please check the relevant area. If the problem persists even after taking the appropriate measures, please contact the retailer where you purchased the product or our Customer Support Center.

## ● Indicator display related

No.	Symptoms	Check items	Treatment
1	• The indicator does not light up even when the vehicle ignition is turned on.	• Is the fuse blown?	• Remove the cause of the blown fuse and replace it.(3A)
		• Power supply unit, switch cable relay connector Is it loose?	• Connect the relay connector and tighten the lock nut.
2	• After the system check, The indicator does not light up.	• SD card is inserted in the device. Are you feeling well?	• Please insert the SD card correctly. • Insert a different SD card.
3	• Displays an error in the SD card.	• The SD card terminal is dirty or Are there any cracks?	• Clean the terminals of the SD card or replace it with a new SD card.
		• There are files and folders on the SD card that are not related to EDR. Has it not been written?	• Please delete files and folders that are not related to EDR or format the SD card with this product.
		• Is <b>overwrite save (always)</b> set to OFF?	• Turn on the <b>overwrite (always)</b> setting or replace the SD card with a new one.Sai.
		• Not formatted with this product Are you using an SD card?	• Formatting is required. Please format it with this product.
4	• The event recording (impact recording, manual recording) capacity is full.	• Protected recording files (continuous or impact/manual) Is it full?	• Remove the protection from the recorded files or delete unnecessary files.
		• <b>Over write save (impact/manual)</b> is not set to OFF mosquito?	• Turn on the <b>overwrite (shock/manual)</b> setting, or replace the SD card with a new one.please.
5	• Displays front camera abnormality.	• The front camera cable connector is disconnected. Won't you try?	• Connect the relay connector and tighten the lock nut.
		• Is there any damage to the cable or camera?	• Buy a new camera.
6	• Displays rear camera abnormality.	• Is the rear camera cable relay connector disconnected?	• Connect the relay connector and tighten the lock nut.
		• Is there any damage to the cable or camera?camera?	• Buy a new camera.
7	• Displays GPS abnormality. ※EDR-22G only	• GPS cable relay connector Is the switch loose?	• Connect the relay connector and tighten the lock nut.
		• Is the GPS cable or GPS antenna damaged?	• Buy a new GPS antenna.
8	• Displays an abnormality on the main unit.	• Have you tried turning the power off and on again?	• Please turn the vehicle's ignition OFF, wait a while, then turn it ON.

# ■ In these cases—Q&A—(Continued)

## ● Camera footage

No.	Symptoms	Check items	Treatment
1	• The camera footage is recorded tilted or upside down.	• Is the TOP mark "△" on the back of the camera facing up?	• Adjust the camera so that the TOP mark "△" on the back of the camera is facing up.
2	• The images from the front and rear cameras are recorded alternately.	• Are the front and rear cameras connected to the device in the wrong way?	• Please connect to the correct destination.
3	• There is a difference in color tone between the images from the front and rear cameras.	• Is there a difference in the subject (environment) when recording front and rear?	• The colour tone of the front and rear images is automatically adjusted to suit the subject. There is no abnormality.
4	• The recorded video is not clear.	<ul style="list-style-type: none"> <li>• Is the recording size set too low?</li> <li>• Is the image quality setting too low?</li> <li>• Is the camera lens dirty?</li> </ul>	<ul style="list-style-type: none"> <li>• Increase the recording size setting.</li> <li>• Please increase the image quality setting.</li> <li>• Gently wipe the lens with a soft cloth dampened in water.</li> </ul>
5	• The recorded footage is distorted.	• Is there a difference in image distortion with the engine OFF/ON?	• There may be noise from the vehicle. Please check by changing the camera cable routing and the position of the main unit and power supply unit.
6	• The recorded footage is shaking.	• Is there a difference in the image shaking when the engine is OFF/ON?	• The vibration of the camera mounting part may be large. Please change the camera fixing position and check.

## ● G Sensors: GP Srelationship

No.	Symptoms	Check items	Treatment
1	• Impact recording is not possible.	<ul style="list-style-type: none"> <li>• Is the impact detection setting turned off?</li> <li>• Is the impact detection sensitivity setting too high (insensitive)?</li> </ul>	<ul style="list-style-type: none"> <li>• Please set the impact detection sensitivity to ON.</li> <li>• Please set the impact detection sensitivity to a lower value (more sensitive).</li> </ul>
2	• Impact recordings are made frequently.	<ul style="list-style-type: none"> <li>• Is the unit securely attached to the vehicle?</li> <li>• Is the impact detection sensitivity set too low (too sensitive)?</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure to secure the unit so that it does not move.</li> <li>• Increase (make less sensitive) the impact detection sensitivity setting.</li> </ul>
3	• GPS location information cannot be obtained. The position shifts. ※EDR-22G only	<ul style="list-style-type: none"> <li>• Is the upper part of the GPS antenna covered with metal or a metal-coated object?</li> <li>• Are you driving inside a tunnel, in mountainous areas, near buildings, under an elevated railway, etc.?</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure there is no metal or metal-coated object above the GPS antenna.</li> <li>• Depending on the surrounding environment, there are some places where it is difficult to receive GPS signals. Please confirm from a different location.</li> </ul>

## ● WirelessLAN relationship

No.	Symptoms	Check items	Treatment
1	• I can't connect to the wireless LAN from my smartphone.	• Did you enter your password correctly?	<ul style="list-style-type: none"> <li>• Please enter the correct password.</li> <li>• If you do not know the password, Please initialize the LAN password.</li> </ul>

# ■ In these cases – Q&A – (Continued)

## ● WirelessLAN relationship

No.	Symptoms	Check items	Treatment
2	• I connected to my smartphone, but there was a connection error on the app.	• Set your smartphone to "Keep connected to networks without Internet access" Are you using Android?(Android only)	• Please refer to the smartphone app guide to connect.
		• Is another smartphone connected?	• It is not possible to connect to multiple smartphones at the same time. Disconnect any smartphones you are not using.
		• Can I connect using a different smartphone?	• This seems to be a problem with the individual smartphone. Please connect using a different smartphone.

## ● Operational Relationship

No.	Symptoms	Check items	Treatment
1	• The device and camera become hot during use.	• Is it too hot to touch?	• It will generate heat during use. If it becomes too hot to touch, stop using it immediately.
2	• The displayed time on the recorded video is different from the actual time.	• Is time synchronization performed regularly?	• Please synchronize the time regularly using the dedicated smartphone app.

# ■ License Information

Open source code	License	License Web addr
uitron/DrvExt/BlueTooth	GPL v3.0	<a href="https://www.gnu.org/licenses/gpl-3.0.en.html">https://www.gnu.org/licenses/gpl-3.0.en.html</a>
uitron/Include/Common/arm_neon.h		
uitron/ThirdParty/ecos-profiling		
uitron/ThirdParty/eCos		
uitron/Include/Common/arm_neon.h		
uitron/Common/LibC		
gcclibstdc++		
gcclibgcc	LGPL	<a href="https://www.gnu.org/licenses/lgpl.html">https://www.gnu.org/licenses/lgpl.html</a>
uclibc		
glibc	BSD3.0	<a href="https://www.freebsd.org/copyright/freebsd-license.html">https://www.freebsd.org/copyright/freebsd-license.html</a>
uitron/Lib/iq_tuning_api		
axTLS		
DLNA		
uitron/Common/Utility/lz.c		
uitron/Common/LibC	RedHat eCos Public License	<a href="http://ecos.sourceforge.org/old-license.html">http://ecos.sourceforge.org/old-license.html</a>
uitron/Project/DemoKit/eCos/test_ping.c		
curl	MIT	<a href="https://mit-license.org/">https://mit-license.org/</a>

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- Intel and core are trademarks or registered trademarks of Intel Corporation in the United States and other countries.
- Wi-Fi is a registered trademark of the Wi-Fi Alliance.

## ■ User Registration

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If you access and register the product you purchased by scanning the URL or QR code below, we will send you after-sales service information for the product you are using and information on related products.

<https://www.mskw.co.jp/form/edr/>



## **■ FCC statements**

### Federal Communications Commission (FCC) Statement

#### 15.105(b)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for

#### 15.19

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference and
- 2) this device must accept any interference received, including interference that may cause undesired.

#### 15.21

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. To comply with RF exposure compliance requirements, this equipment should be installed and operated, keeping the radiator at least 5mm or more away from the person's body.

## **ISED statements**

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

**Caution: Exposure to Radio Frequency Radiation**

1. To comply with the Canadian RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.
2. To comply with RF exposure compliance requirements, this equipment should be installed and operated, keeping the radiator at least 5mm or more away from the person's body.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**Attention: exposition au rayonnement radiofréquence**

1. Pour se conformer aux exigences de conformité RF canadienne l'exposition, cet appareil et son antenne ne doivent pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.
2. Pour se conformer aux exigences de conformité RF exposition, cet équipement doit être installé et utilisé en maintenant le radiateur à au moins 5mm ou plus du corps de la personne.