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PI-SIGHT Device User Manual

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Notes · · ·

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Please observe the following precautions:

• Observe all regulations regarding camera use.

• The camera generates a low level magnetic field. Keep it away from medical equipment to avoid interference.

Please.

• Low-level magnetic fields generated by cameras can cause interference in other electronic devices.

• Careless use may be dangerous and may result in serious injury. Precautions for the safety of the document

You must comply with the terms and conditions.

• Turn off the product in areas where wireless communication is prohibited.

• Make sure the product is properly fixed before use. If the product becomes detached during use,

This may cause damage to the product and cause accidents.

• If an abnormal smell, overheating, or other abnormal symptoms occur while using or charging the product,

If this happens, stop charging or using it immediately.

• Mounting the product to a helmet may void the helmet warranty or interfere with the helmet's functionality.

Therefore, before using the product, you should fully understand the risks of accidents that may occur due to it.

You should be familiar with it.

• Before using the product, make sure you understand and comply with the laws in your area.

• Do not apply shock to the product with sharp tools or pull the cable excessively. The product may

It may be damaged.

• Keep out of reach of pets and infants.

• Make sure the camera is operating normally in advance.

• Do not use the product under direct sunlight for a long period of time. This may damage the product and cause burns due to overheating.

It is.

• Do not use or store products with batteries inside a car in hot weather. Battery

The Riga may become feverish or ignite.

• Do not install a physically damaged battery. This may cause an explosion or accident.

• Battery life may vary depending on conditions, environment, and features.

• Store the product at room temperature. Extremely low or high temperatures may damage the device.

• Pay attention to display protection, and if foreign substances adhere to the prism, wipe the surface with a soft cloth.

Please.

• Do not use the product in rainy or snowy environments as it is not waterproof.

• This device is a business-use (Class A) electromagnetic wave-compatible device, so sellers and users should take note of this.

It is intended for use in areas outside the home.

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Thank you for purchasing PI-SIGHT.

PI-SIGHT is a head-up display (HUD) device that displays necessary information in front of the helmet wearer's eyes.

It is.

You can check the information you need without moving your head through the translucent display in front of your eyes.

Yes, you can control the device via wireless remote control.

It is based on the Raspberry Pi Zero 2W board and Raspberry Pi OS, and supports the desired memory card.

You can download and install the software or develop and use it yourself.

It can also connect external modules such as a Bluetooth headset or GPS, allowing it to be used for a variety of purposes such

as navigation, racing instrumentation, and aviation instrument panels, depending on your needs.

This manual covers the rearview software that comes standard with your device.

A separate Windows PC is required to view the recorded video.

For more information about modules and software available for PI-SIGHT, see vudev.net.

Please.

The box contains the following items:

- PI-SIGHT display unit
- PI-SIGHT Main Body-Camera Unit
- PI-SIGHT Pi-Mic Unit
- PI-SIGHT remote control
- Micro SD memory (for rearview software installation)
- Helmet mount
- Velcro for attaching microphone
- Cross screwdriver
- User Manual

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*Batteries and chargers are not included with the product. To operate and charge the product, you must purchase a separate

You must purchase it. See technical specifications for details.

*The product does not include an adapter to connect the Micro SD memory to a PC. Recording

You must purchase it separately to check the video and reinstall the software.

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PI-SIGHT BODY SET

• Length: Main body 105.5mm / Camera 21mm / Display 71mm

• Height: Main body 35mm / Camera 23.5mm / Display 47.5mm

• Width: Main body 34.4mm / Camera 35mm / Display 38mm

• Weight: 145g (including battery)

• Screen size: 0.23 inches / 3 meters 50 inches

• Screen resolution: 640*400

• Camera: 5 million pixels 120 degree wide angle

• Video resolution: 1296*860p (user changeable / up to 1920*1080p)

• Motherboard: Raspberry Pi Zero 2W

• Processor: 1GHz quad-core 64-bit Arm Cortex-A53 CPU

• RAM capacity: 512MB

• Wireless: 2.4GHz 802.11 b/g/n Wi Fi , Bluetooth 4.2, BLE

• Connector: USB-C for charging, 3.5mm for display, 3.5mm for Pi mic • Memory card: 32GB Micro SD

(Class 10 or higher recommended for additional purchase)

• *Battery: 18650 Lithium-ion replaceable

*Batteries must be purchased separately

PI-SIGHT remote control

• Length: 87mm

• Height: 87.5mm

• Width: 23mm

• Weight: 85g (including battery)

• Connector: USB-C for charging

• Wireless communication: Bluetooth 4.2

• *Battery: 18650 Lithium-ion replaceable

*Batteries must be purchased separately

• Operating time: Main body approximately 5 hours, remote control approximately 16 hours

(3500mAh, based on medium screen brightness, may vary depending on software used)

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PI -SIGHT BODY SET

1. Power button

2. Screen brightness button

3. Fn button

4. Battery cover clip

5. Battery Gauge

6. Display terminal

7. Charging terminal

8. Pie mic terminal

9. Display Prism

10. Display Mount Tension Bolt

11. Display prism tension bolt

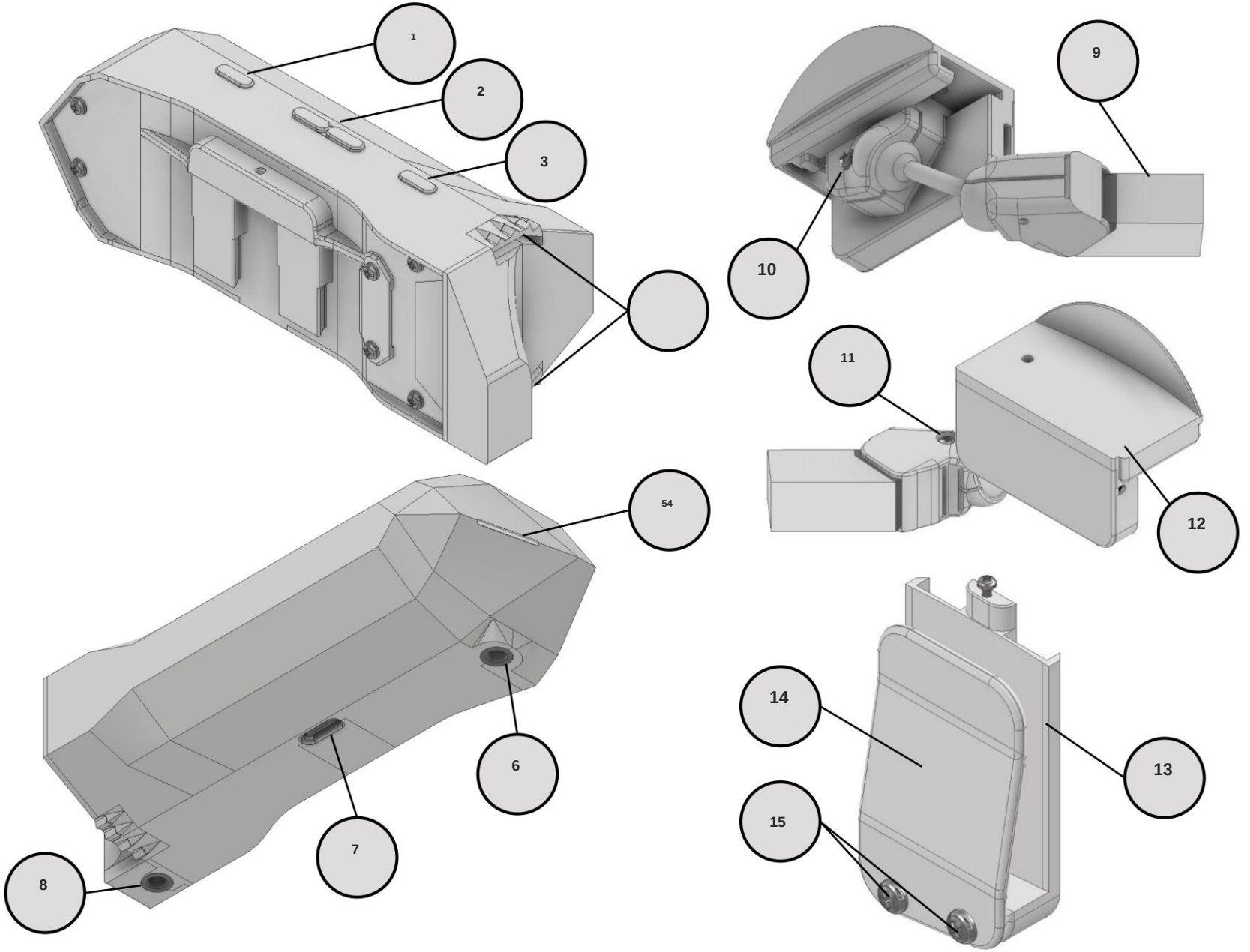
12. Display Helmet Mount

13. Body Mount

14. Body mount clip

15. Body mount clip bolts

The role of the buttons may vary depending on the software.



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PI-SIGHT remote control

16. Camera Helmet Mount

17. Camera tension bolt

18. Camera Lens

19. Power switch

20. Charging LED

21. 5-way joystick buttons (up, down, left, right, press)

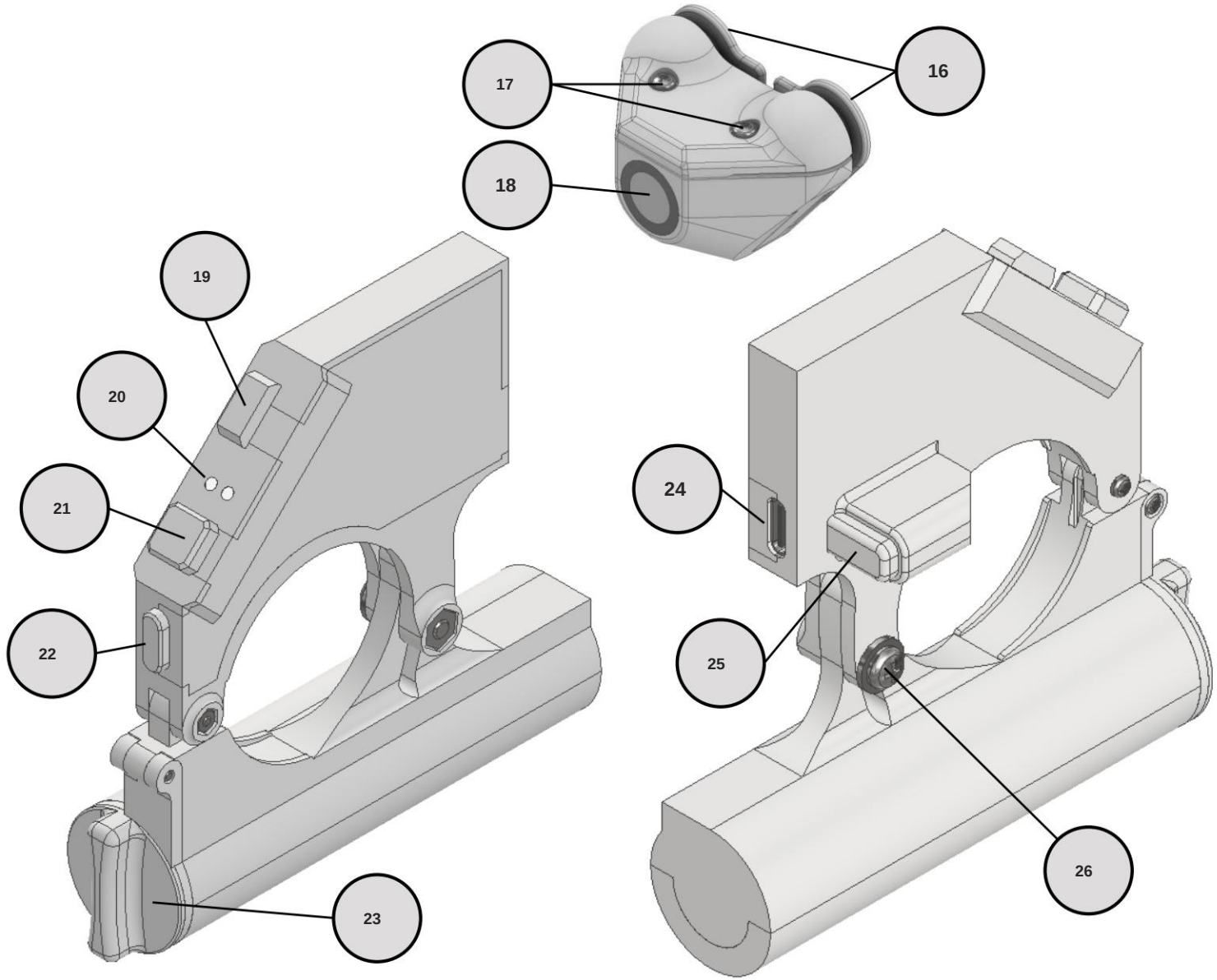
22. Thumb Button

23. Battery cover

24. Charging terminal

25. Index Button

26. Fixed bolt



The role of the button may vary depending on the software.

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1. Remove all bolts and body mount clips from the body mount and the main body.

Combines with .

2. Slightly loosen the camera tension bolt to allow the camera helmet mount to move.

After locking, position the camera on the center left and right of the helmet to fit the curve of the helmet.

Attach the rock.

3. Attach the body mount to the helmet according to the length of the camera cable.

4. Attach the pie mic to the front of your mouth inside the helmet.

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caution!

Before bonding the parts, clean any foreign substances on the surface of the helmet and allow it to dry completely.

Attach the body so that the camera cable is not subject to excessive strain.

1

2

3

4

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5. Route the pie mic cable inside the outer shell of the helmet and organize it, and attach it to the body of the helmet.

Combine the wrench clip and bolt.

6. Attach the display helmet mount to your helmet.

7. Organize the display cable by placing it inside the outer shell of the helmet and connecting it to the main bar.

Connect with Dee.

8. Adjust the display mount and prism tension bolts so that they can be moved by hand.

Make sure that you do not move while riding. After that, put on your helmet.

Make sure it fits properly into your field of vision.

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caution!

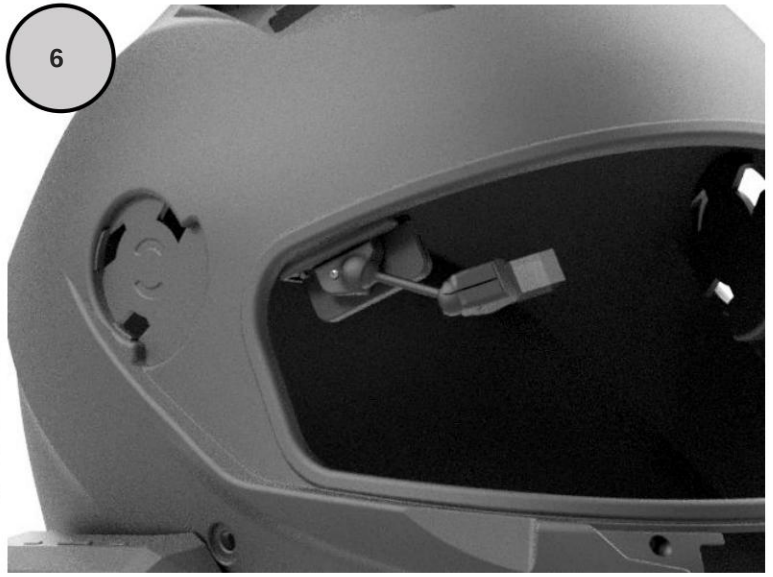
Be careful not to pull too hard on the cables when organizing them.

After connecting the cables, place any excess wires behind the inner padding to avoid damaging the wiring.

Put it in order.

5

6



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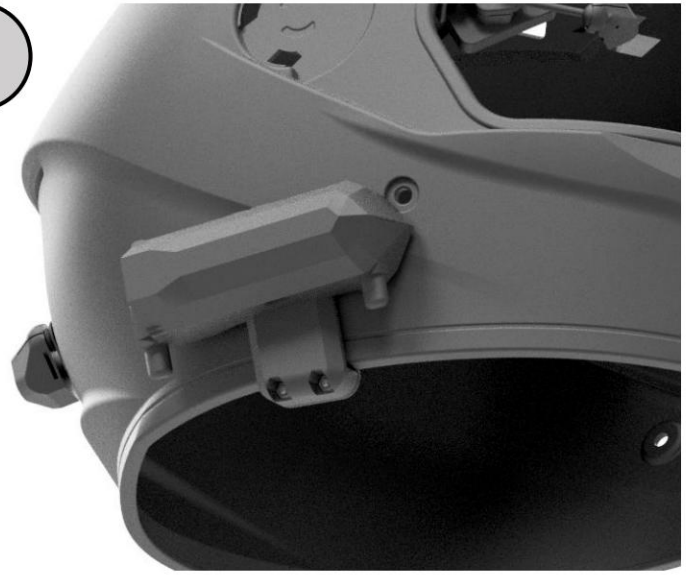

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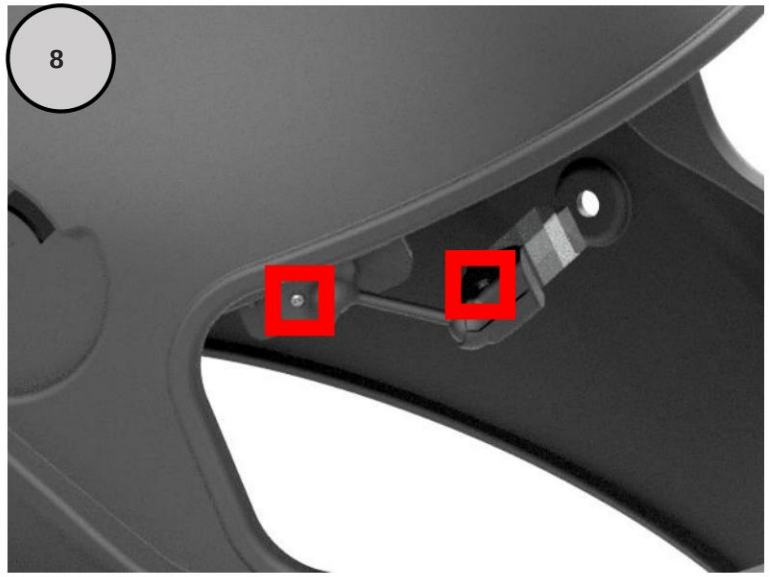

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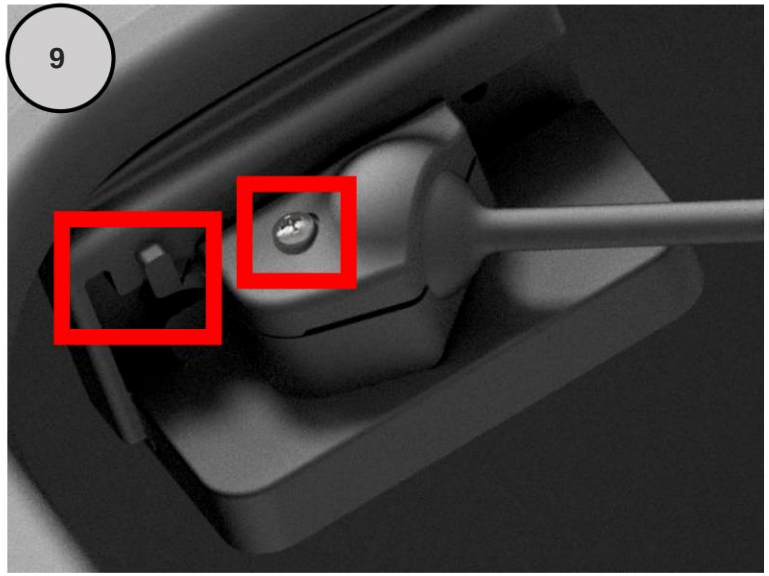
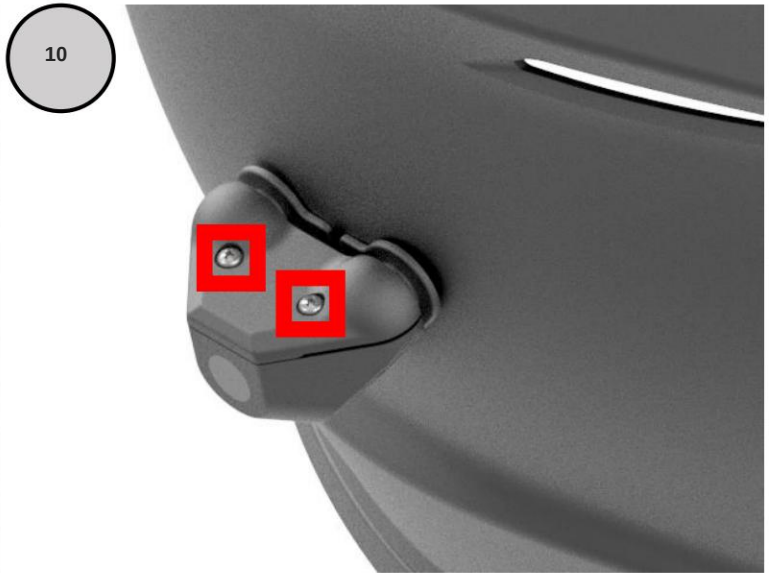
9. Completely loosen the display mount tension bolts and remove the cover, then release the clips.

The mount can be moved forward and backward in one step.



10. Turn on the power and check the rear camera to adjust the camera's up and down angle.

Tighten the camera tension bolts to prevent movement.



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1. Loosen the remote control fixing bolts so that the top and bottom of the remote control can move.

It is.

2. Mount the remote control on the left handlebar.

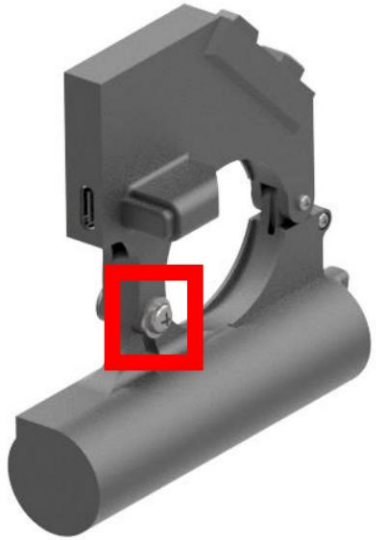
3. Make sure the thin connection part of the remote control faces the lever to prevent movement of the lever.

Make sure it doesn't get damaged.

After that, hold the top and bottom of the remote control to prevent it from moving.

Tighten the retaining bolts to prevent them from loosening.

1



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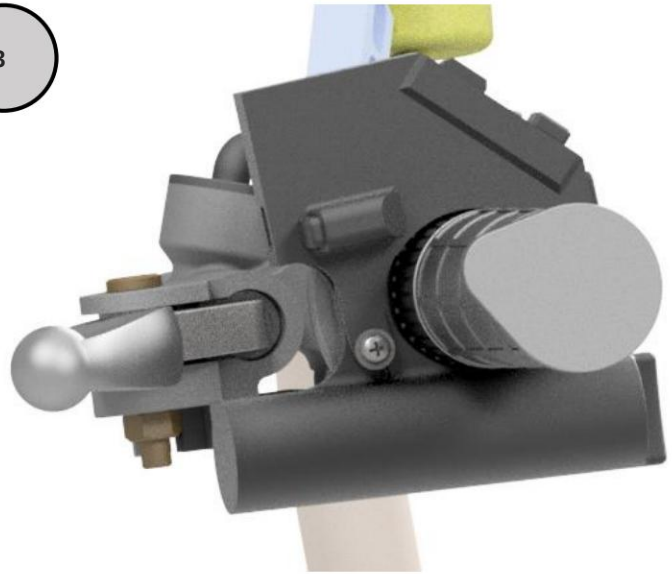

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caution!

Over-tightening the remote control/top/bottom to the handle may cause the hinge to break.

Depending on your bike, there may be some interference with the movement of the lever.

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1. Grasp the upper/lower clips of the main body battery cover and pull to separate the cover.

It is.

Insert the battery with the + side facing inward, and the top of the memory card

After inserting it into the slot facing the inside of the device, close the battery cover.

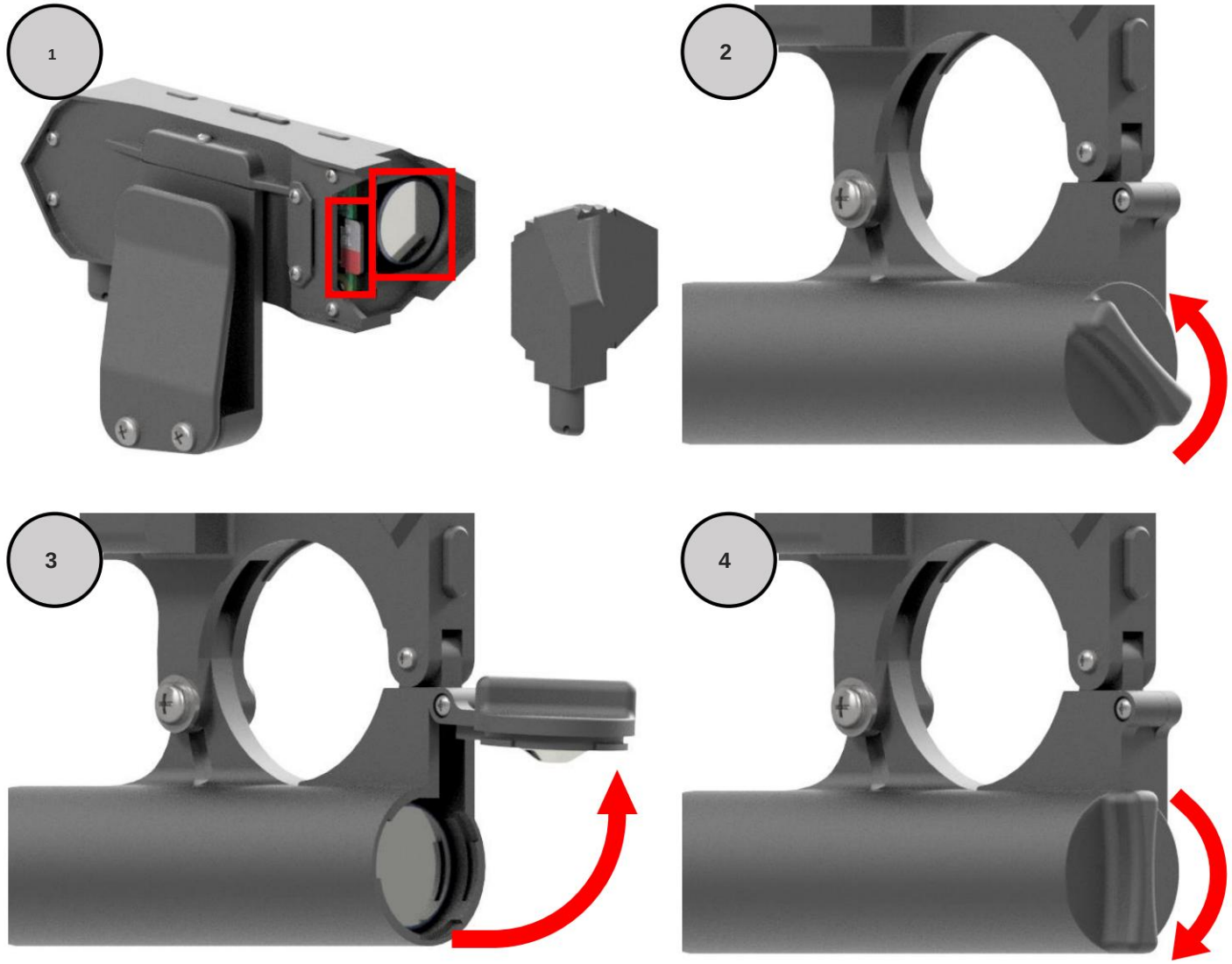
2. Turn the handle on the remote control battery cover 45 degrees counterclockwise.

3. Open the remote control battery cover and insert the batteries with the + side facing inward.

Yes.

4. Close the battery cover and turn the handle clockwise so that it is aligned up and down.

Turn it until you feel a click.



caution!

Always insert the battery with the positive side facing inward.

When attaching the main body battery cover, make sure the internal module pins are engaged.

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1. Press the power button on the main body once to turn it on, and press it twice in succession.

Press to turn off the power. The remaining battery level is indicated by the red light on the battery gauge.

Displayed with 4 lights (100%/75%/50%/25%, low power blinking)

2. Charge the battery installed in the main body through the USB-C terminal at the bottom of the main body.

It can be turned on while charging and can be turned off.

doesn't exist.

3. When you push the power switch on the remote control up, the power turns on, and when you push it down,

The power goes off.

4. Charge the battery installed in the remote control via the USB-C terminal on the back of the remote control.

If the battery is charging, the red LED will light up and the battery

The blue LED lights up when waiting without charging or when charging is complete.

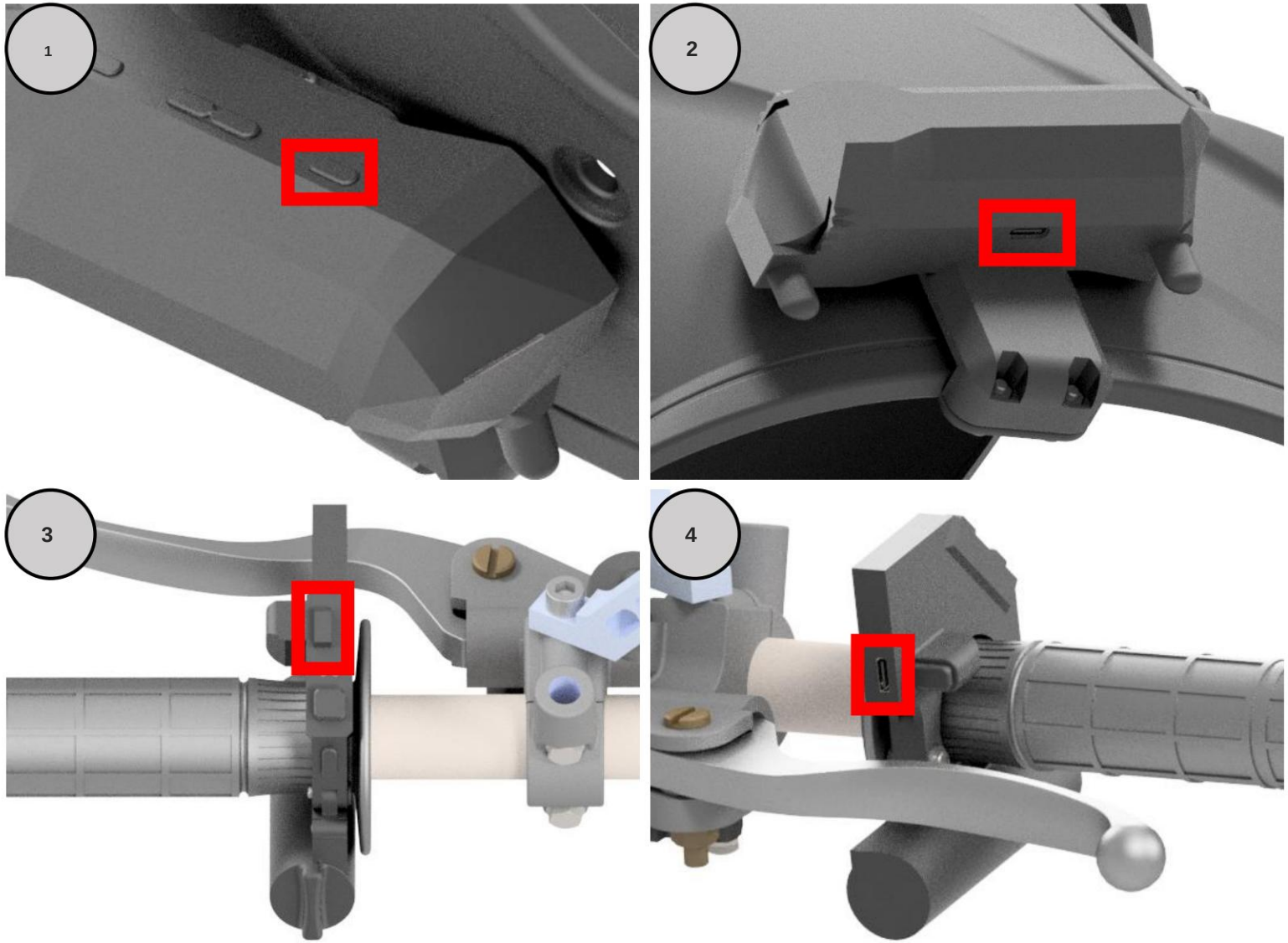
When you connect the USB charging terminal of the bike to the remote control, the main body and battery are charged.

It can act as a charging station to exchange the battery, allowing you to charge your device even during long drives.

It is available for use.

There is no indication that the remote control is turned on, so the battery is

To prevent electric shock, make sure to turn off the power after use.



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1. Get a Raspberry Pi that matches your PC operating system from www.raspberrypi.com

   Download and install the Imager program, then run it.

2. Connect the memory card, select Delete in the Operating System tab, and select Storage.

   Click on the memory card in the tab and then click Write to format the memory card.

   It is.

3. Download the img file of the desired software from vudev.net,

   On the Operating Systems tab of the Raspberry Pi Imager, click Use Custom

   After that, select the downloaded img file.

4. Select the memory card in the Storage tab and click Write to write to the memory card.

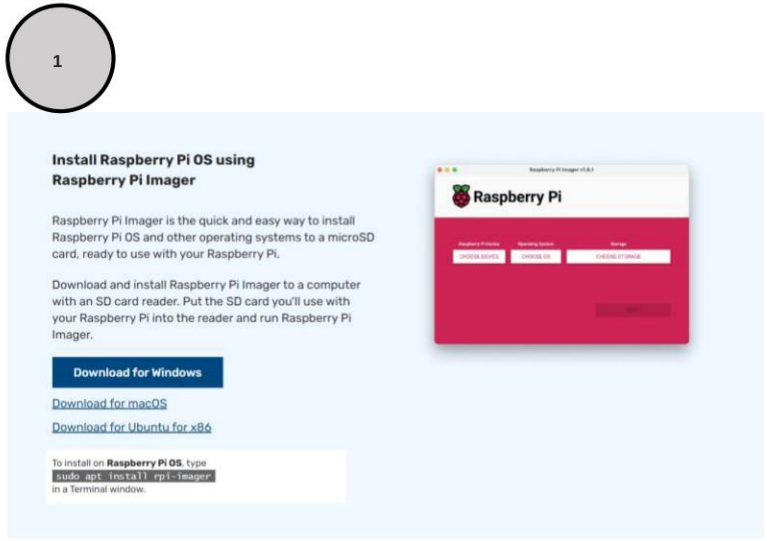
   The software installation will begin. Once the installation is complete, insert it into the device.

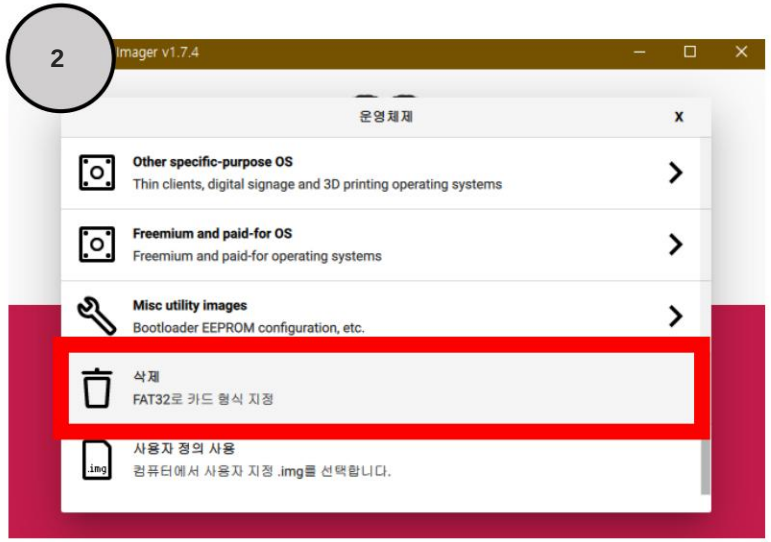
   Please use it.

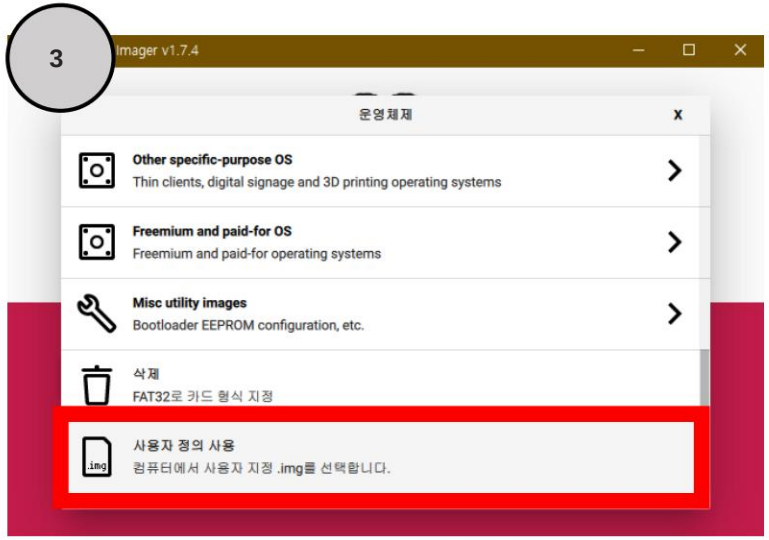
If you remove the memory card during a write operation or terminate the program,

Format errors may occur. This can be resolved using methods such as diskpart.

there is.







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5.1 Main body operation problems

• If the battery gauge light comes on but the display does not work, check the main body and the display.

Check the connection of the splay terminal.

• If the battery gauge light comes on but the boot screen does not appear, the memory card is not working properly.

Make sure it is inserted into .

• If the battery gauge light does not come on, check that the batteries are properly inserted.

Please do it.

• If video is saved/deleted continuously, the life of the memory card will end after a certain period of time.

The device may not work properly. In this case, replace the memory card and

Reinstall the software.

5.2 Remote control charging light issue

• When the remote control is turned on and the battery is fully charged, the red and blue lights turn on at the same time,

An alternating on and off phenomenon may occur, but this is normal operation.

5.3 Display Fixation Issues

• If the display is not firmly attached and moves easily, replace the display mount and free

Adjust the tension bolt on the handle to adjust the holding force.