RERODE R1+

Electric Motorcycle User Manual

ELECTRIC MOTORCYCLE – L1e version

Please read the user manual carefully before using this product. Do not use this product until you understand its features.

Keep the manual for future reference.

Always wear a helmet with the latest ECE certification and protective clothing when riding and obey the road rules when using the motorcycle.

Do not ride the motorcycle when the battery compartment is not fully closed.

Do not drive the motorcycle into water, water may damage the battery and motor, and may cause personal injury.

Always remove the battery before washing the motorcycle. Do not use the high-pressure washer directly on the battery or other electrical parts.

THANK YOU FOR CHOOSING OUR RERODE PRODUCT.

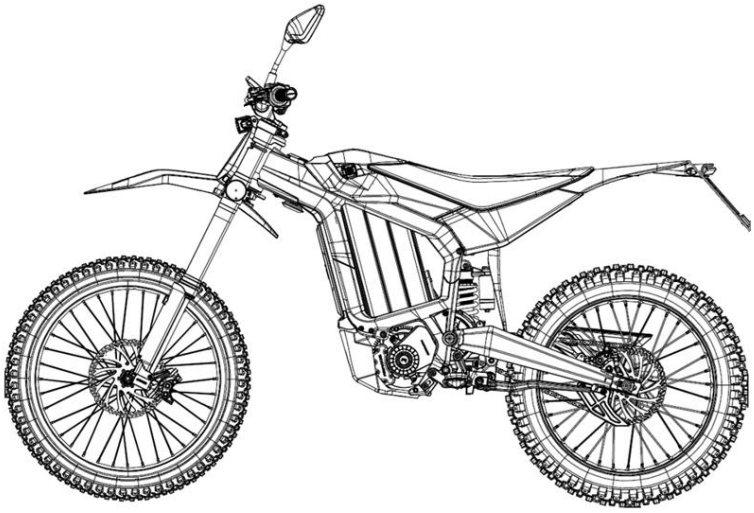
WE INVITE YOU TO AN EPIC MOTORCYCLE JOURNEY.

TABLE OF CONTENTS:

1. Welcome
    a. VIN number
    b. Label Positions
2. Safety Instructions
3. Requirements for driving conditions
4. Pre-Ride Inspection
5. Driving Instructions
6. Instructions for use
7. Display, its functions, motorcycle modes
    a. Drive mode switch
    b. Hidden display settings
8. Motorcycle details
9. Menus and error codes
10. Component installation – reflector
11. Component installation – steering wheel assembly
12. Throttle cable assembly
13. Front Fender Installation
14. Front wheel mounting
15. Front Plate Mounting
16. Footrest Assembly
17. How to ride
18. Commissioning and operation
19. Braking
20. Battery Assembly
21. Parking
22. Prepare before you ride
    a. Check your tires
    b. Check the display, horn, and brakes
    c. Check the handlebars
    d. Adjusting the cushioning
23. General activities
    a. Working conditions
    b. Low Power Mode
    c. Driving on water
24. How to charge
    a. Charging
    b. Charging the battery outside the motorcycle
25. Charging Precautions
26. Specification
27. Other Statements
28. Electrical diagram
29. Troubleshooting and mitigations
30. Maintenance Guidelines
    a. Check Parts
    b. Check the operation of the devices
    c. Check the battery
    d. Charging and Using the Charger
    e. Motor and controller use and maintenance
    f. Fuse
31. Warranty conditions

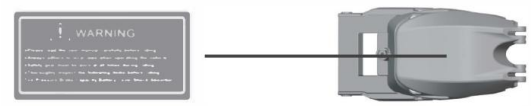
WELCOME!

Thank you for choosing the RERODE electric motorcycle.



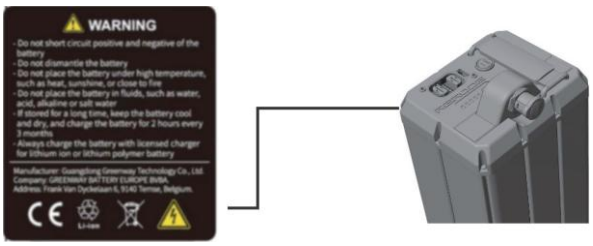
For your safety, please read this manual carefully before riding your motorcycle. Keep this manual. Do not use your motorcycle until you are fully familiar with the manual. Do not use your motorcycle until you are familiar with its performance, operation, and maintenance. All pictures in this manual are for reference only. The word WARNING appears in this manual to indicate danger. It also contains the word CAUTION, which indicates things that may damage your motorcycle.

Label position

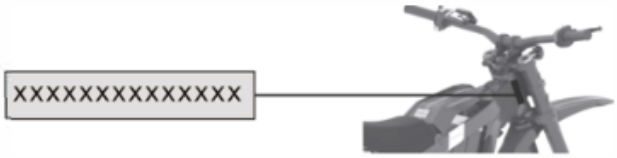


Warning label

Controller Label



Battery warning label



VIN number

SAFETY INSTRUCTIONS

- Before using the motorcycle off-road, check your local laws and regulations.

- To ride this motorcycle, you are required to know the traffic rules and obey them.

- The motorcycle is intended for people who have a license to ride motorcycles of the L1e category.

- To use this motorcycle, it is recommended that you have the right motorcycle riding skills after professional training.

- Before using the motorcycle, read all additional warnings and product instructions contained in this user manual and the safety label. To fully understand the motorcycle, master the basic riding skills and learn about its capabilities, which is the premise of safe riding, it is recommended to find an open and safe place to exercise,

- Never allow a bystander to drive your motorcycle without proper instructions. Do not lend your motorcycle to people who do not know it.

- You take all the responsibility when riding a motorcycle.

- When riding, use motorcycle clothing with ECE certificates (including goggles, safety shoes and a helmet with the latest ECE certificate).

- Do not park inside the building, escape stairs, footbridges and emergency exits.

- Do not charge or park in residential buildings. Charging should be away from combustible materials and never overcharge the motorcycle's battery.

REQUIREMENTS FOR DRIVING CONDITIONS

- The motorcycle is intended for use by one person only, it is not intended for the carriage of passengers.

- It is not recommended to leave the motorcycle in the rain. It is recommended to protect the motorcycle from rain and water.

- It is recommended to remove the battery before washing the motorcycle. It is forbidden to wash the battery or other electrical parts with a high-pressure washer.

- Do not immerse the battery in water as this risks damaging the battery. The wading depth in the water must not exceed the axis of the wheel, otherwise the water may damage the battery and cause serious injury. The recommended maximum wading depth is 20cm. It is forbidden to charge the battery under the above circumstances, as otherwise it will cause fire, burns to the body or even explode the battery.

- For your safety, please do not modify this product without the manufacturer's permission. The manufacturer does not take responsibility for modifications to the motorcycle. If parts in the motorcycle need to be replaced, please contact your local authorized dealer.

- If an alarm or warning code is triggered, stop using the motorcycle immediately and head to your dealer.

- It is not recommended to ride a motorcycle in extreme weather conditions or in poor health. When riding in rain or snow, the braking distance is extended and there is a risk of skidding with the motorcycle overturning, which can cause serious injury or even death.

- Drive slowly and be aware of complicated road conditions. When riding a motorcycle at high speed over obstacles such as uneven, wet, loose terrain, a steep slope or a sharp turn, you may lose control of the motorcycle, which can lead to a fall, injury or even death threatening.

- The working temperature of the product is -10~45°C.
- The storage temperature is -10~45°.
- The recommended temperature for riding a motorcycle is 10°C to 30°C.

User Requirements: (the following people are not allowed to use the product)

- People under 18 years of age.
- Pregnant women or people unable to engage in intense physical activity due to illness. Sick.
- People under the influence of alcohol or drugs.
- Personnel exceeding a certain weight limit.

PRE-RIDE INSPECTION

- Check the tires for cracks, improper abrasion, damage, or foreign objects in the seat.
- For normal driving, a tyre pressure of 2bar is recommended.
- Check that all screws are tightened.
- Check that the steering wheel and the front and rear wheels are properly attached and have no play.
- Check that all lights are working properly.
- Check that all electrical connections are free of damage.
- Make sure the battery capacity meets the driving requirements.
- Check that the braking system at the front and rear is working normally and that there is no damage.
- Check the tightening torque of the spokes: tighten it immediately if they are loose (1.5-2.5Nm).
- Check that the throttle is smooth, does not stutter, and can return to normal idling.
- Check the condition of the chain: the chain has its floating space under normal conditions.
- Check the condition of the strap for damage.
- Check the shock absorbers for cleanliness.

DRIVING INSTRUCTIONS

- Do not use your mobile phone, camera, headphones, earplugs, etc., while riding to avoid distractions.

- It is recommended to ride a motorcycle in a closed and safe place, wearing appropriate protective equipment. When riding on public roads, remember to follow the road rules.

- During normal riding, do not accelerate or brake sharply to save battery power, protect motorcycle parts, increase range, and extend the life of your motorcycle.

- If you experience any abnormalities while driving, stop driving immediately. Do not use this product until the cause of the abnormality has been identified and rectified. Contact your local authorized dealer immediately

INSTRUCTIONS FOR USE

Always place the motorcycle on a flat surface before or after use. Do not forget to turn off the motorcycle if it is not going to be used and place the motorcycle on the footrest. Otherwise, if the motorcycle is stationary on an inclined or loose surface, the motorcycle may tip over.

Use the manufacturer's lithium-ion charger that came with your motorcycle. The input voltage of the charger is 110V–220V. Store the product safely before charging. Do not charge the motorcycle if the charger and charging port are damaged.

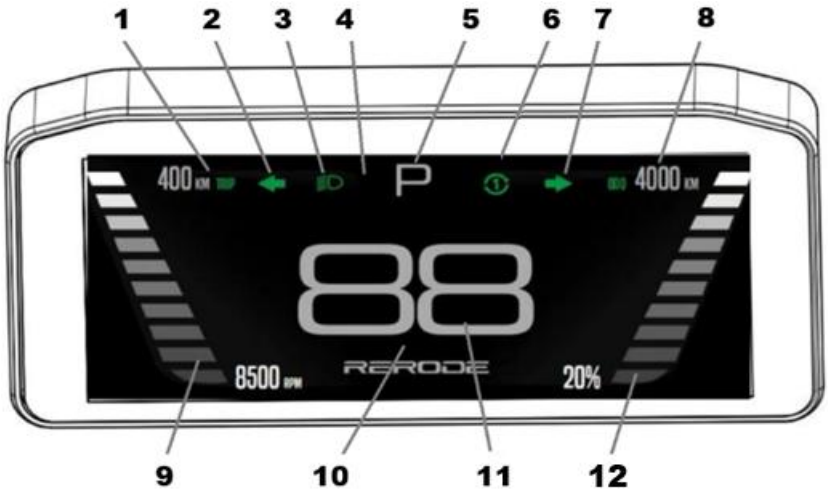
- Make sure the motorcycle is away from flammable materials when charging, and disconnect the power supply when fully charged.

- Do not charge the battery at a temperature below 0°C, as the battery cells will be damaged. Charge the battery at a temperature suitable for charging.

DISPLAY, ITS FUNCTIONS, MODES

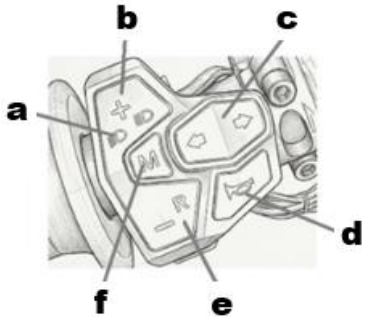
Make sure to identify all parts of the motorcycle according to the markings in the picture and familiarize yourself with the motorcycle. When the vehicle is started, the message "READY" will flash on the dashboard. When you turn the key in the ignition, the vehicle is in parking mode (P) and the electronic throttle is off. Press the gear button P next to the electronic throttle to turn off the parking mode.

1. Current mileage
2. Left turn signal
3. Low beam/position lights
4. High beam
5. Driving mode (P-Parking, E-Eko, S-Sport, S+ - Sport+)
6. Engine Brake Force Indicator (EABS)
7. Right turn signal
8. Total mileage
9. Engine speed
10. Where the error appears
11. Driving speed indicator
12. Battery level



Driving mode switch:

a. High beam / low beam button
b. Drive mode button
c. Turn signal button
d. Horn button
e. Reverse/Drive Mode Button
f. Display settings selection button



To enable:

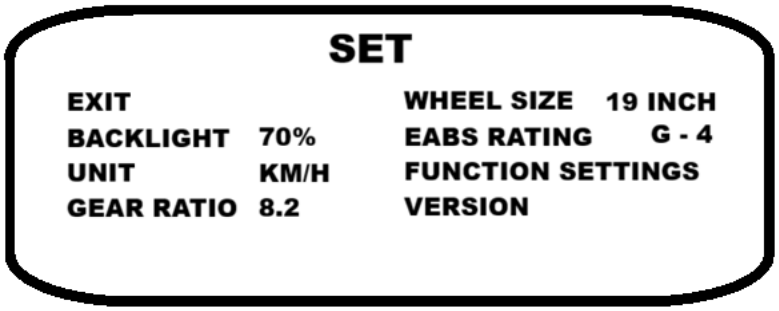
- Mode selection – press the PLUS + "b" or MINUS – "e" button to select the desired driving mode E,S,S+
- High beam – press and hold the "a" button for at least 2 seconds to return to the low beam – press and hold the button again for min 2 seconds
- Turn signal – press the "c" button, left or right depending on the driving selection, to deactivate the turn signal press the "c" button again.
- Horn – press the "d" button, release to turn off
- Display data – press the "f" button to select the data: engine temperature, distance traveled/total, controller/battery temperature
- Reverse – press and hold the "e" button, then gently turn the throttle lever to exit reverse – release the "e" button

CAUTION! Use caution when engaging reverse gear and reversing.

Hidden display settings

Turn the key, after the display turns on, press and hold the display settings selection button "f" (letter M on the switch) for at least 2 seconds to enter the settings interface:

Select the desired setting option with the PLUS and MINUS buttons, then confirm (with the "f" button to save and exit.

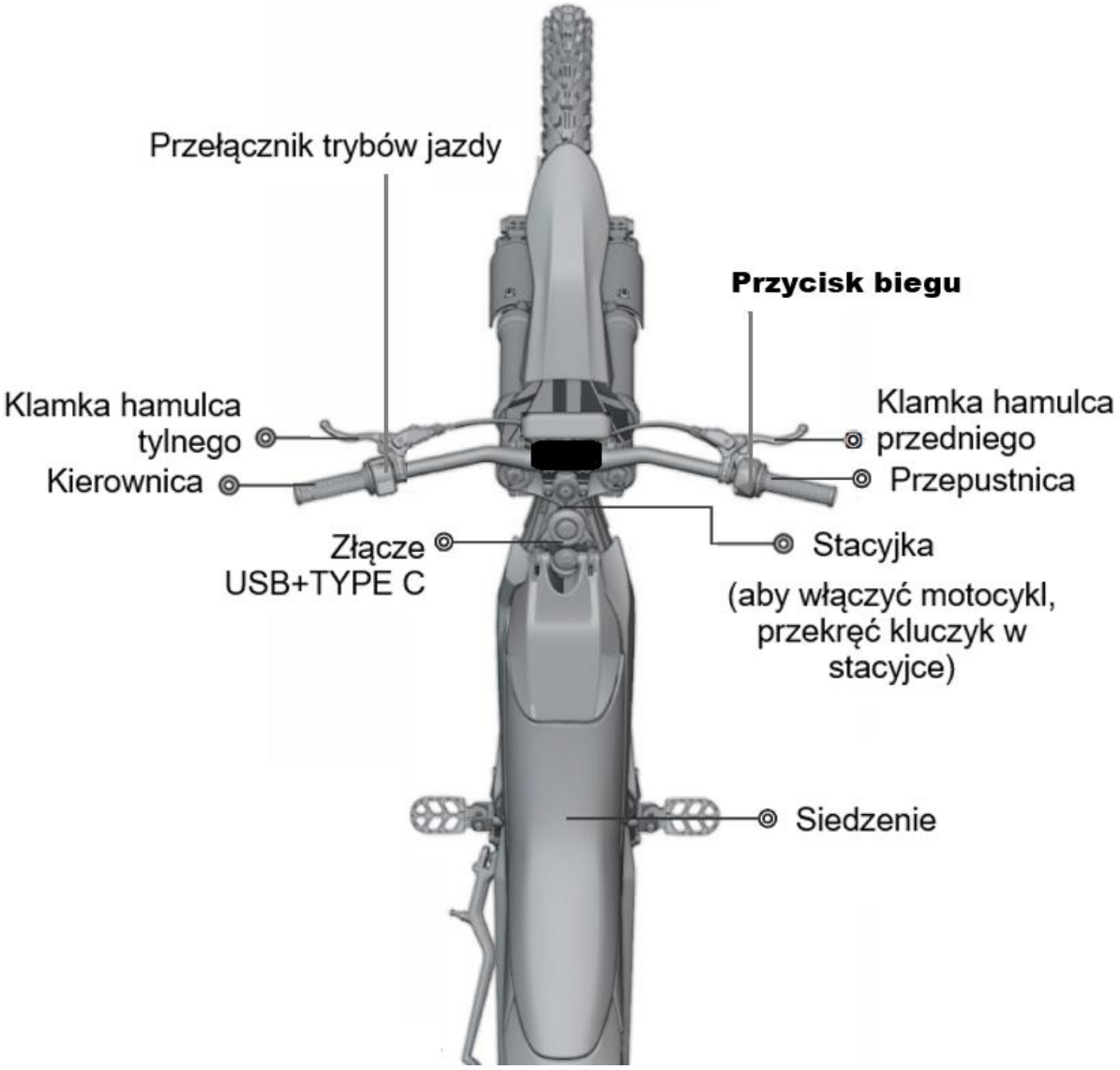


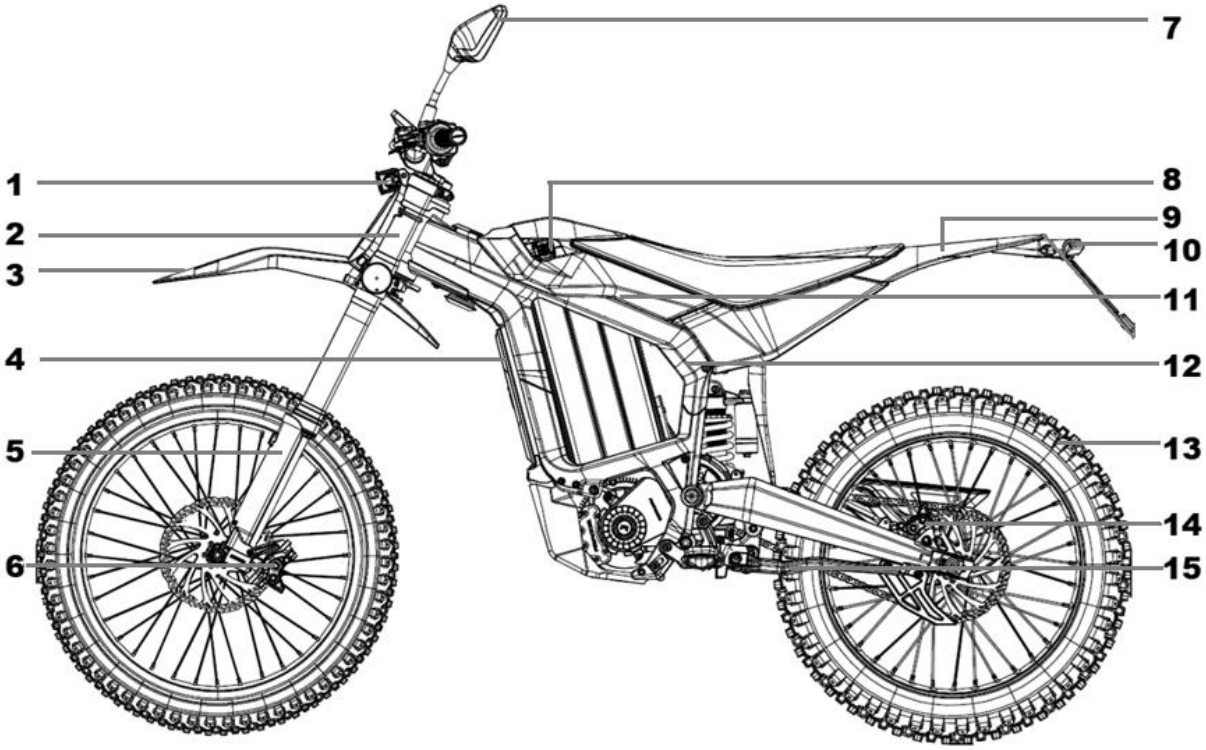
1. EXIT – allows you to exit the hidden MENU
2. BACKLIGHT (0-100%) - display backlight (100% strongest backlight)
3. UNIT (KM/H, MPA/H) – setting 2 speed units KM/H (kilometers/hour), or MPA/H (miles/hour)
4. GEAR RATIO (6-16) – Setting the motorcycle's gear ratios(default set to 8.2)
5. WHEEL SIZE (18-20 INCH) – Wheel Size Setting
6. EABS RATING (G0-G4) – Setting the engine braking force (G4 is the highest level)
7. FUNCTION SETTINGS (ON/OFF) – on or off settings
8. VERSION – Software version number

ATTENTION!

CAREFULLY READ THE MANUAL ON HOW TO HANDLE THE MOTORCYCLE AND THE INDIVIDUAL RIDING MODES OF THE MOTORCYCLE. CHANGE THE RIDING CONTROL MODES WITH YOUR EXPERIENCE ON THE MOTORCYCLE. ALWAYS ADJUST THE RIDING MODE TO YOUR SKILLS AND EXPERIENCE ON MOTORCYCLES.

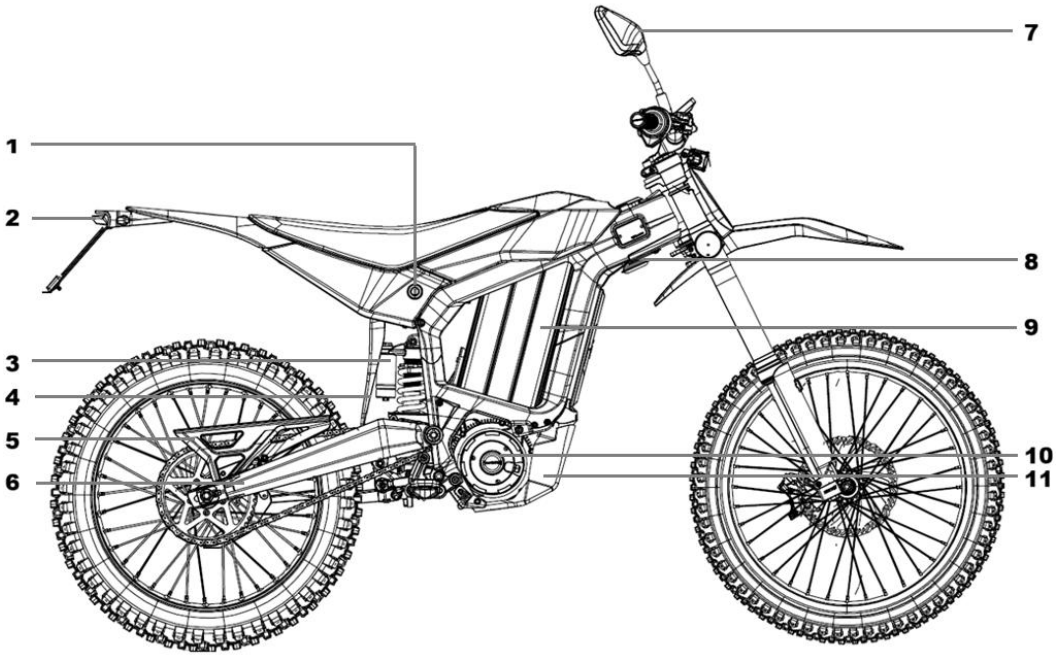
MOTORCYCLE DETAILS





1. Front light
2. VIN number
3. Front fender
4. Driver
5. Front shock absorber
6. Front brake
7. Mirror
8. Charging port
9. Rear fender
10. Rear light
11. Battery space
12. Frame
13. Rear wheel
14. Rear brake
15. Kickstand (*The kickstand has a sensor, when it is lowered it is not possible to ride a motorcycle).

NOTE: If the temperature of the engine or controller is too high or the battery level is too low, the motorcycle will automatically reduce the power to protect the motorcycle.



1. Seat key ignition / battery access
2. Rear light
3. Rear shock absorber
4. Rear mudguard
5. Chain guard
6. Rear Suspension
7. Mirror
8. Horn
9. Battery
10. Engine
11. Engine cover

NOTE: Each motorcycle has its own unique VIN and engine number. The VIN is located on the steerer tube, and the engine serial number is engraved on its body.

MENUS AND ERROR CODES

BATTERY:

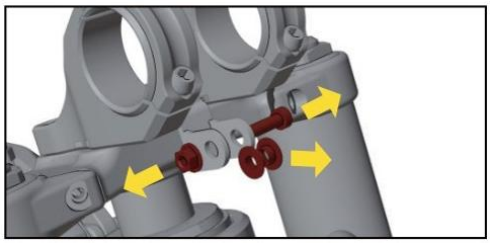
- ERR-01 : IC protection system error.
- ERR-02 : The battery cell connecting wire is disconnected.
- ERR-03 : The voltage of the battery cells is not balanced.
- ERR-04 : Battery Capacity Measurement Error.
- ERR-05 : Storage error.
- ERR-06 : Time display error.
- ERR-07 : MOS discharge error.
- ERR-08 : MOS loading error.
- ERR-09 : Overload error.
- ERR-10 : Level 1 Error - Over-Discharge.
- ERR-11 : Level 2 Error - Over-Discharge.
- ERR-12 : Level 1 error - discharge current too high.
- ERR-13 : Level 2 Error - Discharge Current Too High.
- ERR-14: Charging current too high error.
- ERR-15 : Software Startup Error.
- ERR-16 : Preload timeout error.
- ERR-17 : MOS Temperature Sensor Error.
- ERR-18 : Battery cell temperature sensor error.
- ERR-19 : Battery discharge error due to overheating.
- ERR-20 : Battery overheating error.
- ERR-21 : Battery discharge error - too low temperature.
- ERR-22 : Battery Low Charging Temperature Error.
- ERR-24 : Battery charging, MOS overheat error.
- ERR-23 : Battery discharge, MOS overheat error.
- ERR-25 : Soft start system overheating error.
- ERR-26 : ROM error.
- ERR-27 : Discharge fuse error.
- ERR-28 : Charging fuse error.
- ERR-29 : Level 3 error - exceeding the permissible amperage.
- ERR-30 : Level 4 Error - Overcurrent.
- ERR-31 : Setting error.
- ERR-32 : Hidden.

ENGINE:

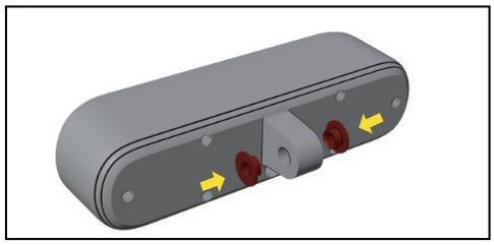
- ERR-33 : Excessive current error in the phase wire of the controller.
- ERR-34 : Driver Bus Over Current Error.
- ERR-35 : MOS Controller Error.
- ERR-36 : Tip Sensor Error.
- ERR-37 : Throttle error.
- ERR-38 : Low voltage protection error.
- ERR-39 : Surge Protection Error.
- ERR-40 : Engine error.
- ERR-41 : Error: motor phase wire failure.
- ERR-42 : Engine overheating error.
- ERR-43 : Engine Temperature Sensor Error.
- ERR-44 : Controller overheating error.
- ERR-45 : Controller overheating error.
- ERR-46 : Current sensor error.
- ERR-47 : No motor phase error.
- ERR-48 : Motor impeller lock protection error.

COMPONENT INSTALLATION - Headlight

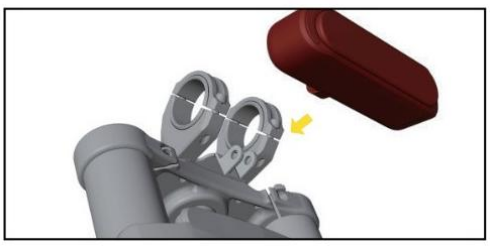
Remove the screws and gasket from the fixing bracket.



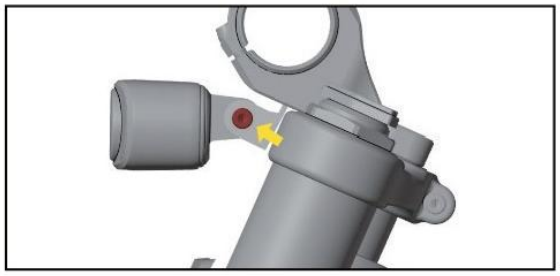
Place the gasket in the headlight mounting hole.



Insert the reflector into the mounting location of the mount.

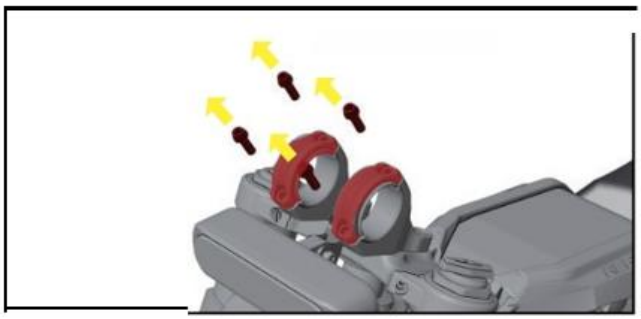


Adjust the position and tighten the screws on both sides with a 4mm and 8mm Allen wrench.

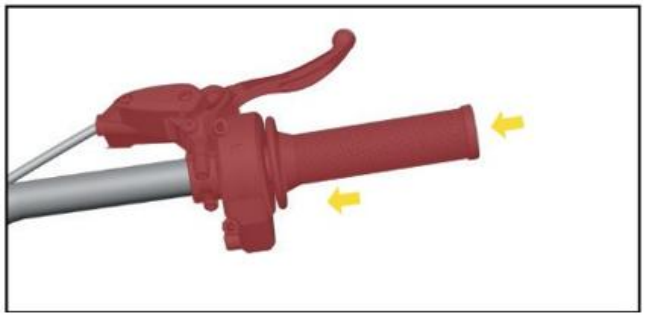


COMPONENT INSTALLATION - Steering wheel assembly

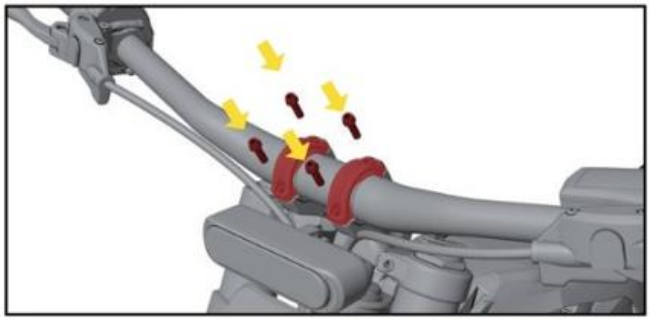
Tighten and unscrew the four screws that hold the handlebar clamp with a 4mm Allen wrench, then remove the handlebar.



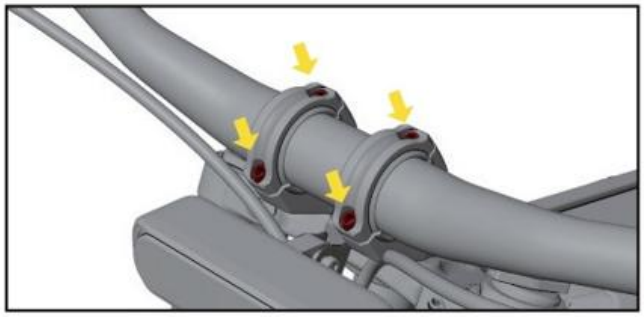
Install the front brake lever and throttle on the handlebars. *Do not tighten them.



Install the handlebar, attach the handlebar clamp, and adjust the position and angle of the handlebar to suit your riding preferences.

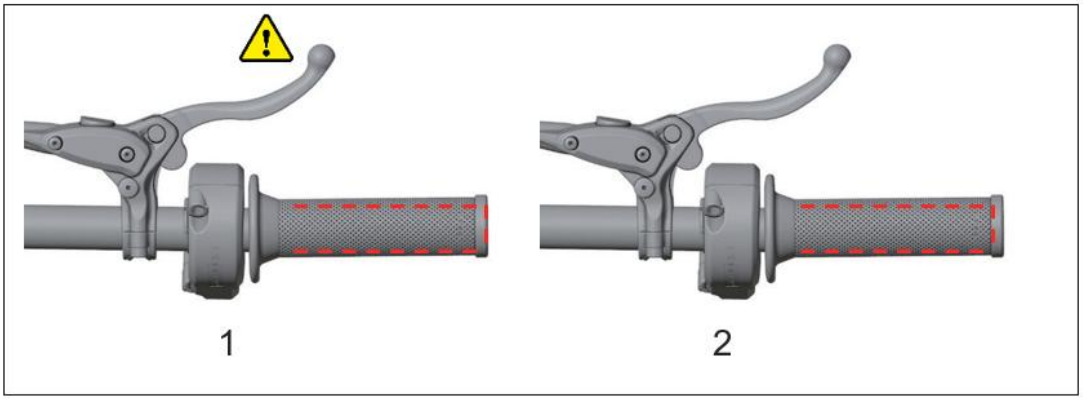


Tighten the four screws with a maximum tightening torque of 6 Nm.



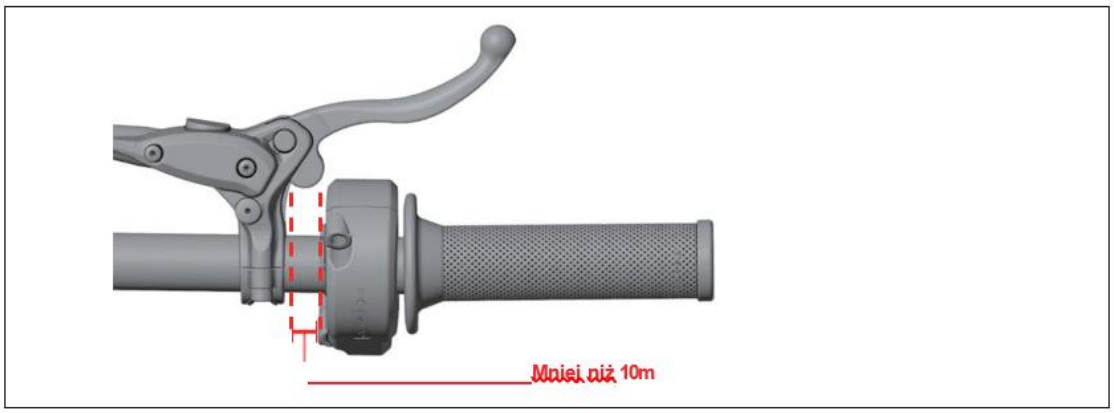
FRONT BRAKE/THROTTLE LEVER ASSEMBLY

As shown in the figure below, you need to adjust the front brake lever and throttle all the way down, and then move it back 2mm from the end of the handlebar.



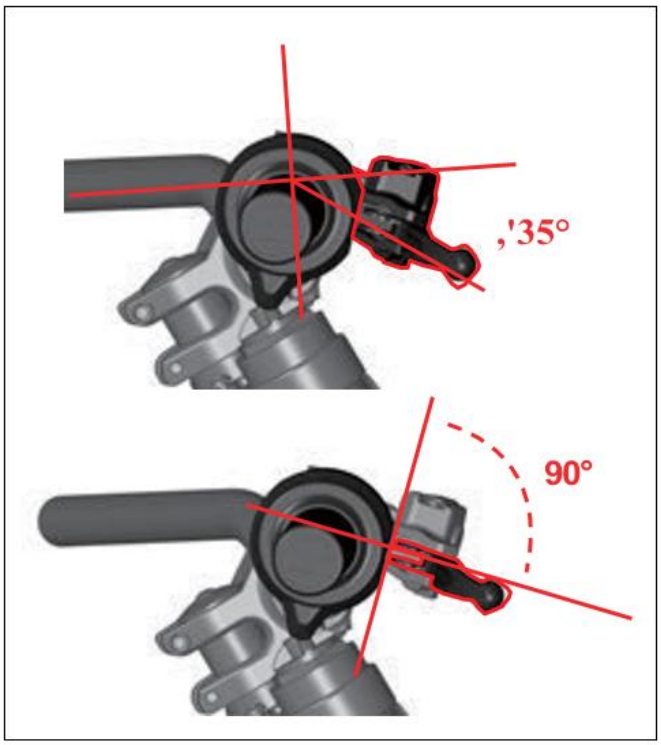
If you don't move the throttle back 2mm when it touches the end of the steering wheel, it may cause it to jam when turning.

As shown in the figure, the gap between the front brake lever and the throttle handle should not be less than 10mm (adjustable according to personal preference).



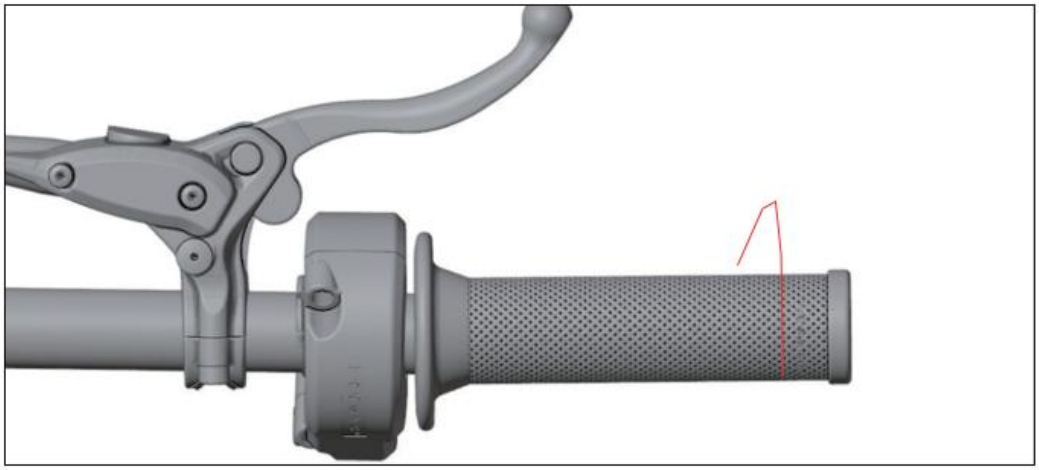
It is recommended to install the front brake lever with a forward inclination of approximately 35° (adjustable according to individual needs).

The front brake lever should be positioned perpendicular to the vertical plane in front of the throttle to avoid any interference during its use.



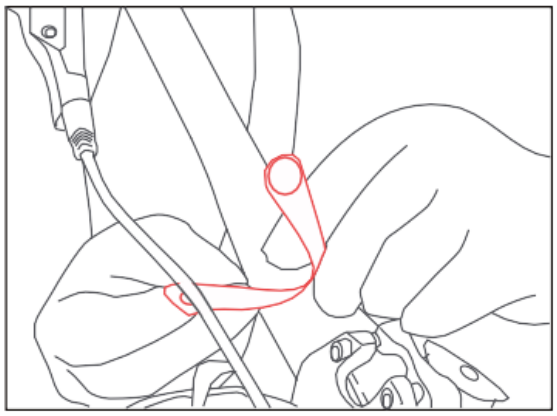
Tighten the throttle and brake lever with a 4mm Allen wrench. Once the throttle is fully tightened, release it to ensure it returns smoothly and effortlessly.

** In the event of a jam, check the mounting position of the throttle lever and the direction of the internal cable routing.*



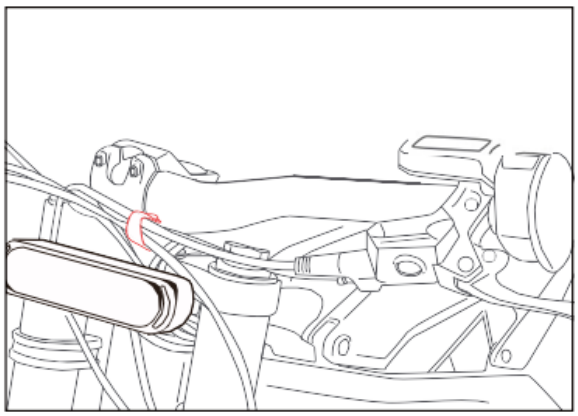
THROTTLE CABLE ASSEMBLY

Fix the brake cable and mode switch cable with a rubber cable clamp.

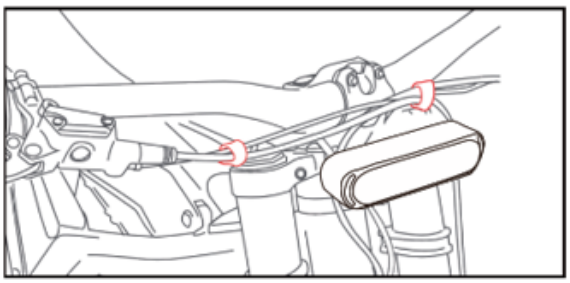


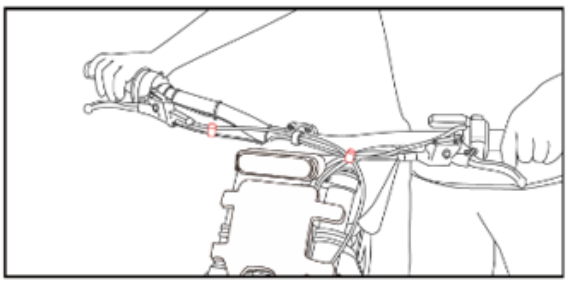
Arrange the cables so that the brake hose runs smoothly.

** Do not bend the brake fluid line and the brake signal wire.*



** After attaching the cables, turn the handlebar and check that all the cables are loose and not stretched/without any tension.*



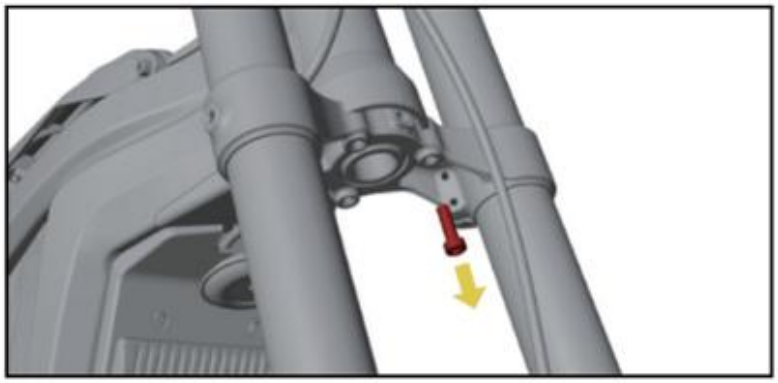


NOTE

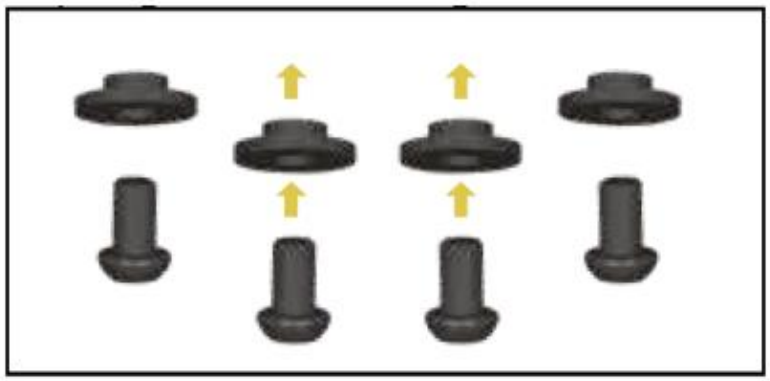
When installing the headlight, front brake lever and throttle lever, do not twist or wrap their cables properly.

INSTALLING THE FRONT FENDER

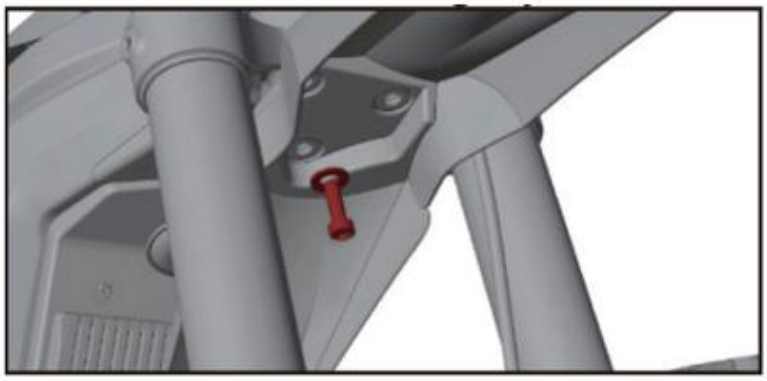
Remove the 4 screws and remove the T-shaped gasket.



Install the T-shaped gaskets on the 4 screws. Make sure the direction of the T-shaped gasket follows the diagram.

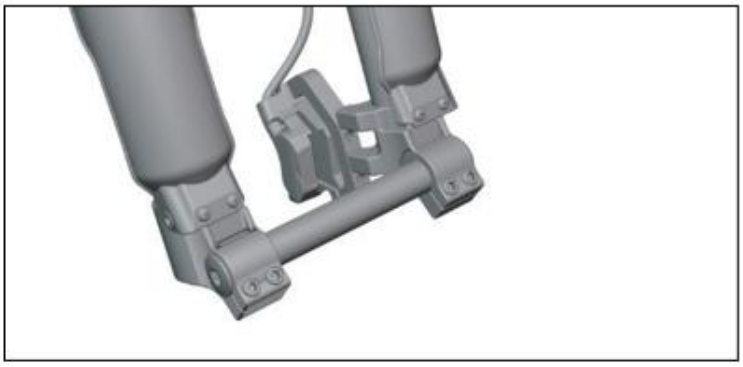


Install the front fender with a 4mm Allen wrench with 5Nm torque and make sure the front fender is firmly attached.



MOUNTING THE FRONT WHEEL

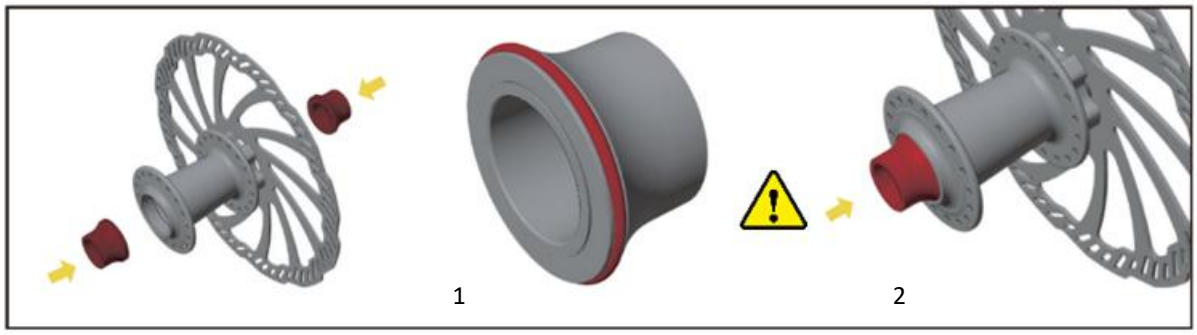
Remove the 4 locking screws under the front shock absorber using a 4mm Allen wrench.



Unscrew the lock nuts located on either side of the front wheel axle using an 8mm Allen wrench and gently tap the axle to remove it.

Separately install the front wheel bushing on both sides of the front wheel axle, make sure the bushing is installed correctly and all the seals are well positioned, and the bushing can move freely.

**Do not damage the sealing ring.*

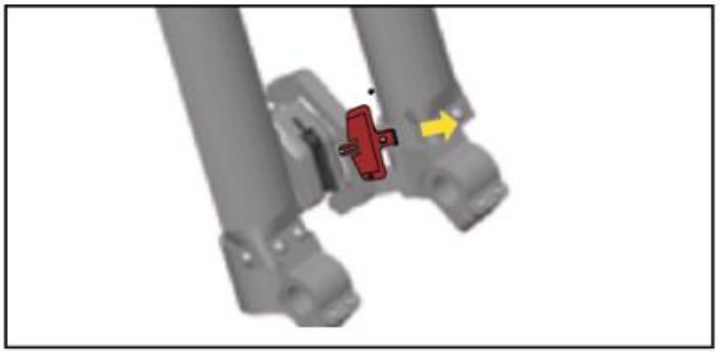


Sealing ring after installation

1. Sealing ring
2. The sealing ring must be fully latched into place in the mounting position

Remove the brake caliper block and place the front wheel into the front suspension mounting position.

** When mounting, please note the compatibility with the disc brake caliper.*

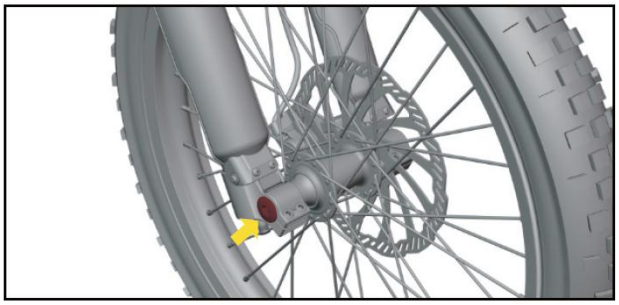


Install the axle through the front wheel axle and shock mount passage.

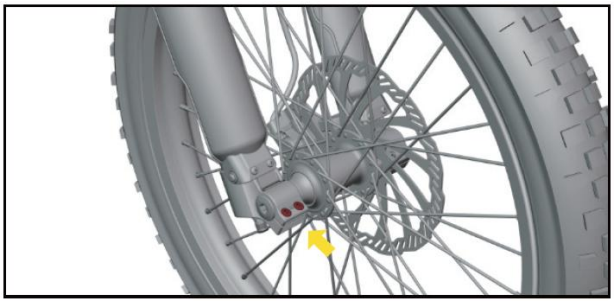
** Do not use the front brake until the front wheel is fitted.*

Tighten the locking nuts on both sides with an 8mm hex wrench.

** Tighten the 4 locking nuts in case of slipping.*

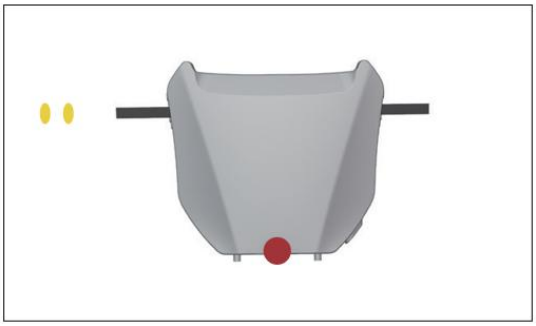


Tighten the 4 locking screws below the front shock using a 4mm internal hex wrench with 6 to 8 Nm of torque.



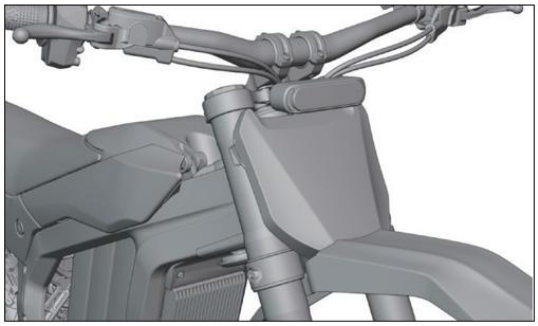
MOUNTING THE FRONT PANEL

As shown in the figure, loosely attach the 2 200mm bands to the board. Remove the screw on the bottom of the board and save them for later.



Install the plate on the front fork.

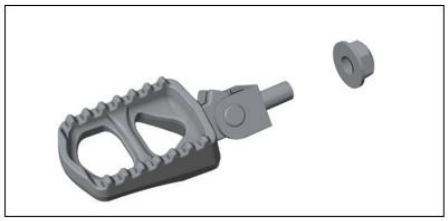
** Hide the cable ties behind the board.*



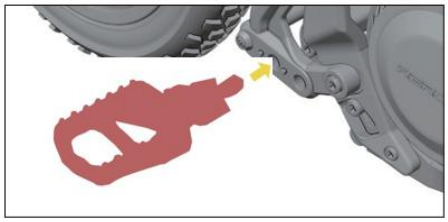
Use the screw from the first step to attach the boards to the front fender. Tighten the board bands.

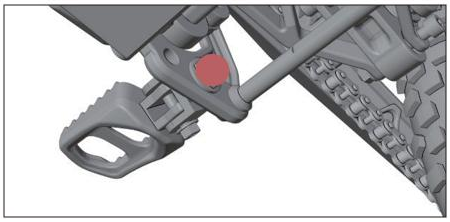
ASSEMBLING THE FOOTRESTS

Remove the screw from the footrest.



Insert the footrest into the hole in the support plate.





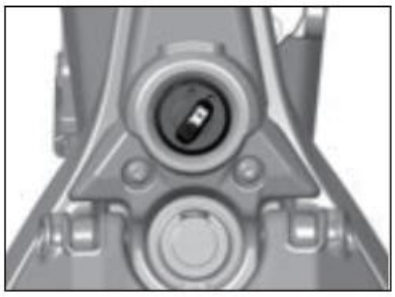
Tighten the screws with an 18mm open-end wrench with a torque of 35Nm.

HOW TO RIDE

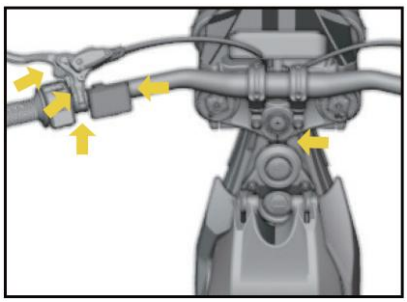
FOR YOUR SAFETY, WEAR A FULL SAFETY HELMET AND PROTECTIVE EQUIPMENT. TAKE ALL PRECAUTIONS. DO NOT RENT A MOTORCYCLE OR ALLOW PEOPLE WHO DO NOT KNOW THE MOTORCYCLE AND DO NOT KNOW HOW TO RIDE IT. NOT HOLDING THE HANDLEBARS WHILE RIDING IS DANGEROUS. TO PREVENT ACCIDENTS, DO NOT TURN THE GRIP FIRMLY. THE SIDE STAND IS ONLY USED TO SUPPORT THE MOTORCYCLE. DO NOT LIFT THE SIDE STAND UNTIL YOU ARE SEATED ON THE MOTORCYCLE. ACCELERATE SMOOTHLY AND GENTLY. DO NOT ALLOW DAMAGE TO PARTS OF THE MOTORCYCLE. IT IS RECOMMENDED TO USE THE ECO MODE WHEN RIDING FOR THE FIRST TIME. USE THE SPORT MODE ONCE YOU ARE FAMILIAR WITH THE MOTORCYCLE.

COMMISSIONING AND OPERATION

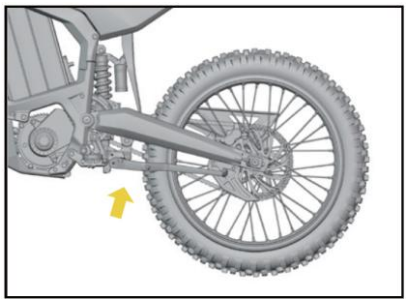
Insert the key into the ignition and turn the key



Check that each switch button is working properly.



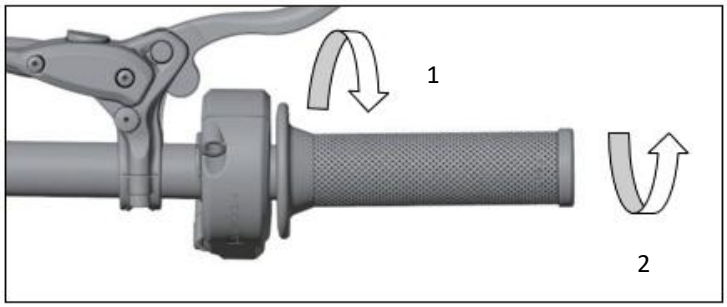
Lift the side stand before starting the motorcycle.



Slowly turn the shifter or subtract the side stand to release.

** Press the P-GEAR* ***button before starting work.***

1. Acceleration
2. Stop acceleration



BRAKING

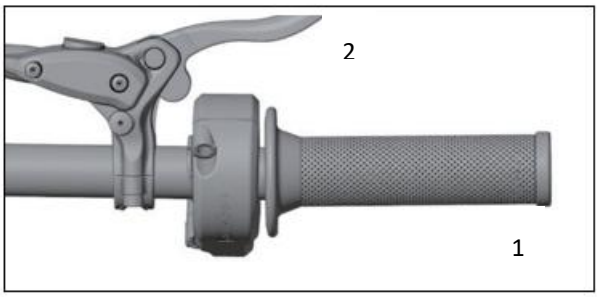
CONTROL THE GRIP FORCE OF THE BRAKE LEVER ACCORDING TO THE SITUATION AND GRADUALLY INCREASE THE FORCE. DO NOT BRAKE WITH EXCESSIVE FORCE WHEN THE WHEEL IS LOCKED CAN CAUSE SERIOUS DAMAGE. ASSESS THE CONDITION OF THE ROAD IN ADVANCE AND AVOID ABRUPT, EXCESSIVE BRAKING, AND CONTROL THE HANDLEBARS OF THE MOTORCYCLE WHEN BRAKING SO AS NOT TO CAUSE SLIPPING AND FALLING, ESPECIALLY ON RAINY DAYS WHEN THE ROAD IS SLIPPERY AND VERY DANGEROUS.

IT IS NORMAL TO TURN ON THE DRIVETRAIN TILT SWITCH IF THE MOTORCYCLE OVERTURNS WHILE RIDING (THE POWER SUPPLY IS CUT OFF, THE POWER CAN BE RESTORED WHEN THE MOTORCYCLE IS PLACED IN AN UPRIGHT POSITION). FOR YOUR SAFETY, MAKE SURE THE KEY IN THE IGNITION IS IN THE ZERO POSITION BEFORE LIFTING THE MOTORCYCLE TO AVOID ACCIDENTALLY TWISTING THE SHIFTER AND CAUSING SERIOUS INJURY.

Release the throttle (1) and pull the brake lever (2) to reduce speed and stop the motorcycle.

- When riding, sudden, excessive braking with the right front brake lever can lead to the motorcycle overturning.

- When riding, sudden, excessive braking with the left rear brake lever can lead to skidding.

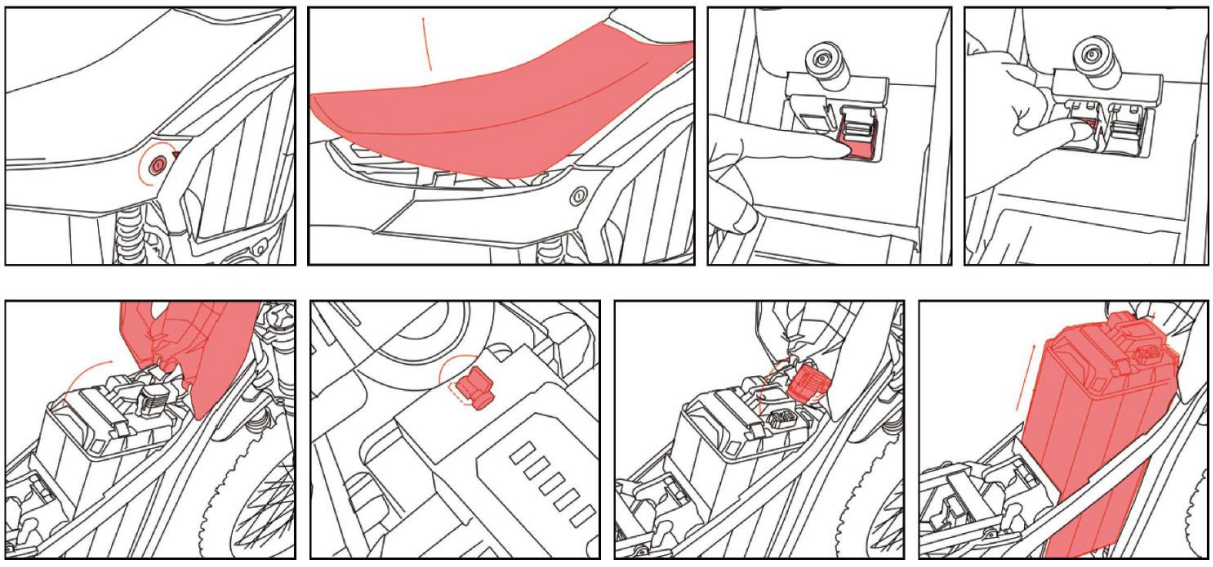


BATTERY ASSEMBLY

TO AVOID DAMAGE OR DANGER, DO NOT DISCONNECT THE BATTERY WITHOUT MAKING SURE THAT THE KEY IS IN POSITION 0 AND THE MAIN SWITCH IS OFF.

Insert the key into the battery compartment lock and turn counterclockwise to unlock. Open the seat, unlock the battery cover locks, and lift the cover. Make sure the main switch is off.

1. Place the battery in the battery compartment cover.
    - *Battery Orientation: The charging port should always be facing left.*
2. Plug in the main power plug.
3. Turn on the main switch, close the battery compartment cover and lock with locks, close the seat (make sure the seat is securely installed) and remove the key.



PARKING

TO AVOID DAMAGE OR DANGER, DO NOT DISCONNECT THE BATTERY AND MAKE SURE THE KEY IS IN POSITION 0.

Pay attention to the condition of the road. Always park on a flat, hard surface. Once the motorcycle has stopped, turn the key to zero and remove the key. Fold the side stand to support the motorcycle.

NOTE:

- Be careful and drive slowly in difficult road conditions. Transporting people and objects on a motorcycle is prohibited. Do not ride when you are tired or there are extreme weather conditions.
- Do not ride in water, as this may damage the battery and even cause personal injury.
- Hold the handlebars with both hands and adjust the speed to the existing conditions.
- Slow down before turning.
- Do not use mobile phones, cameras, headphones, earplugs, etc. while driving.

PREPARE BEFORE RIDING:

Make sure you read all the details in this manual carefully and check the following items carefully.

Check your tires

- Make sure both tires are in good condition. Normal tire pressure is 2bar. Low tire pressure leads to excessive wear, poorer handling, lower speed, and reduced range.
- Extremely high tire pressure leads to excessive wear, poorer driving comfort and even tire explosions.

Check the display, horn, brakes

- Check that all instrument functions are displayed correctly.
- Check that the horn is working properly.
- Hold down the left and right brakes respectively to check that the front and rear brakes are working properly.

Check the handlebars

- The handlebars should be screwed to the right moment and turn smoothly.

Adjusting the cushioning

- Adjust the front and rear suspension according to your riding conditions and weight.

GENERAL ACTIVITIES

The power supply in the motorcycle is cut off (when the power is on but the engine is not running):

- Side Stand Switch (When the Side Stand is lowered, there is no power output when turning the throttle)
- Tilt switch (1-2 seconds after the motorcycle is overturned, the tilt switch cuts off the power output)
- Engine overheating occurs
- Battery overheating occurs
- Battery capacity is low
- Controller overheating

Working conditions

- When the temperature drops below 0°C, the battery capacity may correspond to 80% of the normal capacity, and driving in SPORT mode is not recommended.
- When the temperature exceeds 40°C, it is recommended to ride at full power for a long time.

Low Power Mode

- When the battery capacity is less than 15%, the controller reduces its power to protect it, and then SPORT mode can no longer be used.
- The battery percentage display may be inaccurate due to the condition of the battery.
- When the battery level drops below 5%, for heavy loads (such as sudden acceleration or driving uphill), the controller can activate the protection, resulting in the vehicle stopping. If the battery is not charged quickly, it can enter the over-discharge protection at any time (over-discharge protection effectively protects the cells and requires a restart with the charger). For detailed reactivation methods, please refer to the "Troubleshooting" page
- When the controller overheats (exceeding the operating temperature of 0°C), the vehicle experiences a drop in power. If the overheating persists and exceeds 105°C, the output power will be cut off).
- When the engine overheats (exceeding the operating temperature of 150°C), the vehicle experiences a drop in power. If the overheating persists and exceeds 160°C, the power output will be cut off.

Driving on water

The electrical parts of the motorcycle are designed to have basic water resistance. The wading depth must not exceed 20 cm and cannot be underwater for a long time, especially when the engine has a high temperature. When the motorcycle is underwater, its internal air contracts, leading to seals, and the absorption of water from the oil seal and cable position to the interior.

The following is the IP level of each component:

BATTERY, MOTOR: IP65 CONTROLLER: IP67 CONNECTOR: IP55

HOW TO CHARGE:

Do not charge the battery below 0°C, otherwise it will be damaged. Wait until the temperature is suitable for charging. Instructions for recycling and using batteries: A damaged or used battery must not be disassembled without the manufacturer's permission and should be handed over to the manufacturer or designated after-sales service centers for recycling or maintenance. Do not dispose of the battery.

- If the motorcycle is not used for more than a month, be sure to turn off the main switch or unplug the power plug and store the motorcycle when fully charged.
- Close the battery compartment cover in the charging port when not charging.

Always use the lithium-ion charger provided by the manufacturer. When replacing the charger, it should match the motorcycle model. Turn off the main switch before mounting or removing the battery from the motorcycle. Disconnecting or plugging in the plug while the power cable is connected may shorten battery life. Connecting the power cable with the main switch undisconnected is risky. When the switch is turned on, it can cause a spark and damage to the motorcycle or even the battery.

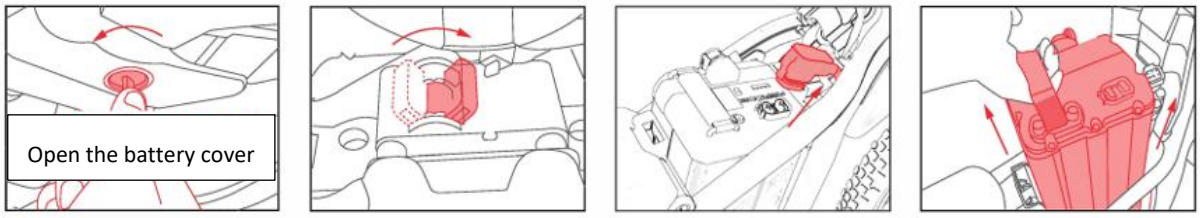
Charging

Plug the charger into the charging port and plug it into an outlet.

It is not recommended to charge the battery immediately after driving due to the high temperatures of the battery. Immediate charging in these conditions can lead to potential lithium battery failures. It is recommended to wait until the temperature drops before proceeding with the charging process.

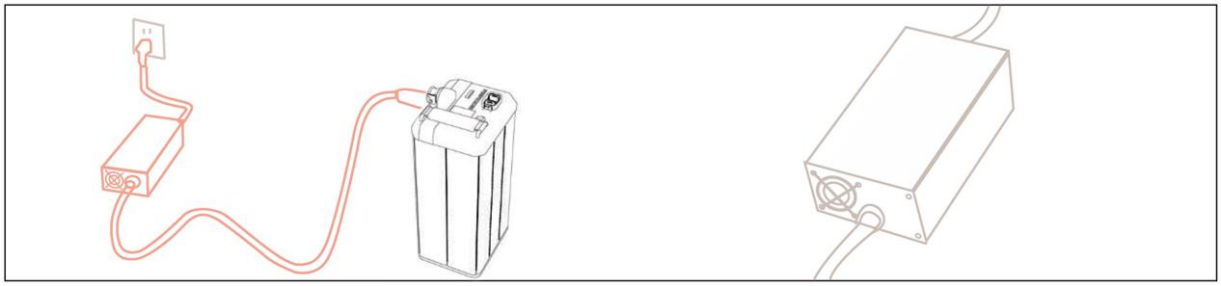
Battery Orientation: The charging port faces the left side of the vehicle.

Charging the battery outside the motorcycle



1. Make sure the ignition key is in position 0. Insert the key into the battery compartment lock, turn the key counterclockwise, open the seat and lid, and turn off the main switch.
2. The compartment has a strong grip on the lock, you may not be able to open it. When this happens, you need to press the cap of the battery compartment before opening.
   Note: After using the battery for a long time, if there is space between the bottom of the battery and the frame, you can add a foam pad and stick it to the bottom of the battery compartment to keep it stable.
3. Pull out and remove the plug vertically from the battery.
4. Remove the battery pack and close the battery compartment.
5. Plug the charger into the battery charging port first and then into the power adapter on the other side.

**The charger LED flashing red indicates that the charger is charging. When the battery is fully charged, the green LED will illuminate. Be sure to cut off the power when it is fully charged. Remember to turn on the main switch after installing the battery and connecting the battery to the motorcycle.*



CHARGING PRECAUTIONS

When charging, keep the battery in a safe place where children have no range.

Do not cover the charger while charging. This charger is designed for indoor use, use it in a dry, well-ventilated area.

If you feel something strange or notice that the temperature of the charger or battery is too high, or the full charge indicator does not appear after a few hours, immediately pause charging and send the battery to your local authorized dealer for inspection and maintenance.

SPECIFICATION

PRODUCT	E-MOTORCYCLE		
BRAND	RERODE R1+	**PEAK POWER**	4 kW
SIZE	1907 x 779 x 1080 mm	**BATTERY TYPE**	REPLACEABLE LITHIUM-ION BATTERY 40Ah/72V
WHEELBASE	1280 mm	**FRAME**	STOP ALUMINIUM
GROUND CLEARANCE	268 mm	**ENGINE**	LPMSM
SHOCK STROKE	200 mm /85 mm		FOC SINE WAVE CONTROLLER
SEAT HEIGHT	845 mm	**CHARGING PORT**	USB+ TYPE-C DUAL PORT
MAXIMUM LOAD	100 kg	**TIRE**	FRONT: 70/100-19
NET WEIGHT	68 kg		REAR: 90/90-18
MAXIMUM MILEAGE	120 km (25 km/h)	**DRIVING MODES**	E-ECO, S-SPORT, S+ - SPORT+
PEAK MOMENT	500 Nm	**FRONT / REAR BRAKES**	HYDRAULIC DISC BRAKE 220mm / 203mm
MAXIMUM SPEED	45 KM/h	**EXPOSURE**	2''TFT SCRENN, APPLICATION
CHARGING TIME	4H	**CHARGING TYPE**	DC-72V
WATERPROOF	IP65	**AUXILIARY FUNCTIONS**	RE-GEN

OTHER STATEMENTS

The manufacturer is constantly improving the quality and performance of the product. Therefore, this manual contains the latest available product information at the time of printing. For this reason, it is possible that your motorcycle differs from the information in this user manual. If there is any difference between the logo or image in the manual and the actual product, please refer to the actual product.

To the extent permitted by law, the Manufacturer reserves the right to interpret and clarify the statements contained in this manual.

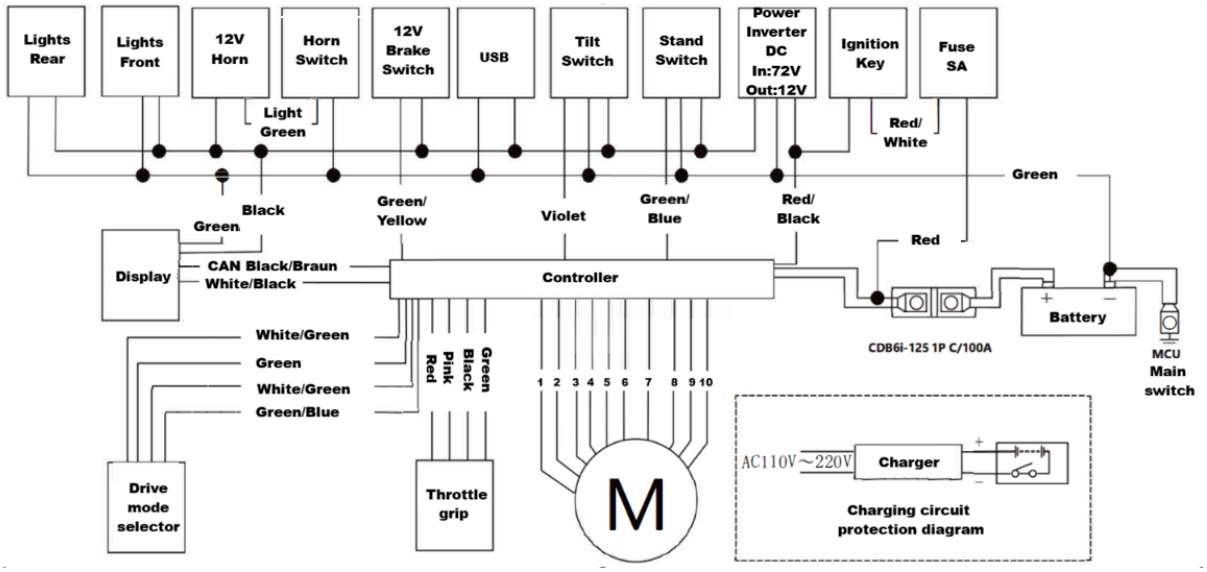
The manufacturer is not responsible for any claims, liabilities and losses caused or likely to result from a breach of the conditions set out in the manual. The user of the motorcycle is responsible for unforeseeable or unavoidable risks while riding. In the event of any personal injury caused by such risks, the manufacturer, importer, distributor and dealer of the brand do not accept any liability. Persons who are unwilling or unable to take responsibility for their own actions are advised to avoid using this product. During the operation of the motorcycle, the user bears full responsibility for his actions. The seller is not responsible for misuse or negligence of the user.

Modification of a motorcycle may make the vehicle unsafe and potentially lead to serious personal injury. The user is responsible for unauthorized modifications.

When selling or giving away this motorcycle, make sure that you also pass on this manual, as it is an essential part of the product.

The three-phase electrical system (motor, controller and battery) is an electrical device with high precision and high risk. There may be some hazards during use, which the user fully understands and accepts. In the event of personal injury caused by such hazards, the manufacturer assumes no liability.

ELECTRICAL DIAGRAM



1. Phase – yellow
2. Phase – green
3. Phase – Blue
4. PWM Magnetic Encoder – Black/Blue
5. Magnetic Encoder Z – Blue
6. Magnetic Encoder B – Green
7. Magnetic encoder A – yellow
8. Engine temperature control – white
9. Magnetic encoder N – black
10. Magnetic encoder P – red

TROUBLESHOOTING AND MITIGATIONS

Problem	Cause	Solution
Turning on the vehicle does not work	The battery plug is loose or disconnected	Check the plug and insert the plug firmly
	Activated low battery protection	Charge the battery
	The battery is protected against overheating	Wait for the motorcycle temperature to return to normal
	Blown main cable fuse	Check the wiring harness and replace the fuse
	Key switch connector is not stable	Insert the key firmly or replace the ignition switch
	The converter is damaged	Replace the converter
	The battery is damaged	For repair or replacement of the battery, contact your designated service center.
	Side foot switch protection (foot)	Fold the side leg (foot).
	The brake lever does not return to the rest position or is damaged	Check the brake lever.
	Tilt sensor protection activated	Stand the vehicle upright, turn off the ignition with the key, and then turn it back on.
	Protection: throttle grip did not retract when the power was turned on	Adjust the throttle range of motion (make sure it retracts completely).
	Low battery protection	Charge the battery.
	Motor thermal protection (engine overheating)	Wait for the engine temperature to return to normal.
	Thermal protection of the controller (controller overheating)	Wait for the controller temperature to return to normal.
	Damaged side foot switch (feet)	Disconnect the side foot switch plug or replace the switch with a new one.
	Damaged brake cut-off sensor (brake lever sensor)	Disconnect the brake cut-off switch or replace it with a new one.
	Damaged tilt sensor	Unplug the tilt sensor or replace it with a new one.
	Fault / damage to the accelerator throttle	Replace the throttle with a new one.
	The driver plug is loose or disconnected	Reconnect the driver plug.
	The motor encoder plug is loose or disconnected	Reconnect the motor encoder plug.
	Motor controller or encoder malfunction	Contact an authorized service center for repair or replacement.
	The charge level indicator plug is loose or unplugged	Contact an authorized service center for repair or replacement (or check the plug connection).
	Battery level indicator malfunction	Contact an authorized service center for repair or replacement.
Charger does not work	Battery in thermal protection mode	Wait for the battery temperature to return to normal.
	The charger plug/connector is loose or unplugged	Disconnect and reconnect the charger.
	Charger fault	Activate/excite the battery.
	Battery fault	Contact your designated service center for repair or replacement.
	Deep battery discharge	Activate/excite the battery.
USB socket not working	The USB connector is loose or unplugged	Reconnect the USB connector.
	Damaged USB converter	Replace the USB converter.

The drive modes function does not work or the vehicle's power has decreased	Low battery protection	Charge the battery.
	Battery in thermal protection mode	Wait for the battery temperature to return to normal.
	Motor in thermal protection mode	Wait for the engine temperature to return to normal.
	Defective drive mode switch	Replace the drive mode switch.
Insufficient range on a single charge	Too low tire pressure	Inflate the tires to the correct operating pressure.
	Charger fault	Check that the charger connector is not loose or disconnected (if necessary, replace the charger).
	Incorrect brake pad adjustment	Adjust/adjust the brake pads correctly.
	The battery is worn out (worn) or damaged	Replace the battery with a new one.
	Frequent uphill riding, frequent acceleration and braking	Normal (driving style and terrain affect range).
Unusual sound/noise while driving	Improper secondary chain tension	Adjust the tension of the secondary chain.
	Incorrect main strap tension	Adjust the tension of the drive belt
	Brake system installed incorrectly	Clean the discs and pads of dust/dirt; check that the brake calipers are not loose or poorly installed.
Other issues	In the event of a fault that cannot be removed or repaired. The motor, controller, charger and battery are damaged	If the above situation occurs, please contact your local dealer. Do not disassemble the above parts without authorization, otherwise the warranty may be voided.

MAINTENANCE GUIDELINES

In general, the first inspection (also known as the first maintenance) can be carried out after 10-30 km if the motorcycle is used normally.

WARNING

During the entire maintenance process, the motorcycle must not be switched on, which means that maintenance cannot be carried out with the engine running.

Attention

Front and rear brakes are disc brakes. If the brake pads are heavily worn, they should be replaced as soon as possible. During daily use, keep the disc brake system clean and avoid long-term deposits of deposits, especially oil contaminants.

Check Parts

1. Spoke tension on the front and rear wheels.
2. Is there a gap in the rudders.
3. Check the chain tension.
4. Check the belt tension. (There may be some friction on the new belt, which can be lubricated on both sides of the belt.)
5. Suspension adjustment. Check for oil leaks and that the compression and rebound damping is in the correct position. (Do not turn the adjustment knob to the extreme position when adjusting.)
6. Check that all steering wheel bolts are tight.

Be extra careful during the inspection. Choose a wide, flat area to park your motorcycle.

If necessary, it should be carried out in a safe place, paying particular attention to the surroundings.

If there are any abnormalities during the inspection, please correct them before driving. If the problem is difficult to solve, contact your local authorized dealer.

Check the operation of the device

Attention

The belt tension has been adjusted before delivery. Do not adjust it without permission.

Hold the brake lever firmly. If the braking performance is still not good, check the discs for cleanliness. If the problem cannot be resolved, contact your local authorized dealer for an inspection.

1. Check that the suspension is not bent, deformed, or damaged:
2. Check the front fork for damage, looseness, oil leaks, and other malfunctions. Shake the handlebars up and down to see if there are any unusual noises due to the front fork malfunction. If the front fork is damaged, contact your local authorized dealer.
3. Check the brakes: Check that the brake lever clearance is within the specified range (15-30 mm). Adjust if it does not meet the requirements after measurement.
4. Check that the brakes are working properly: Drive at a low speed on a dry, flat road for inspection and use the front and rear brakes respectively to check their braking performance.
4. Check your tires: Tires can be damaged by glass, rocks, and other objects on the ground. When driving, pay attention to the condition of the road. Avoid driving in places where tires can be damaged. In addition, you should check your tires frequently for clear cracks and other damage.
    a. Check the tire pressure with a pressure gauge when the tires are cold.
    b. Check for cracks, damage, or excessive wear.
    c. Check that the wheel spokes are not loose.
    d. Check the chain tension. Up and down 10-20 mm.
5. Check the depth of the tire grooves: Check the tire wear and groove depth. If the wear has reached 2/3 of the convex block, the tire should be replaced. In case of abnormal sound or tire swaying, contact your local authorized dealer for inspection and maintenance. The locking torque of the rotary shaft nut should be 30 Nm and the locking torque of the rear axle nut should be 40 Nm. The locking torque of the front axle bolt depends on the front fork.

Check the battery

Before installing or removing the battery, turn the ignition key to position 0, turn off the main switch and close the sealing cap of the battery charging port.

If the battery cannot be inserted into the compartment, remove it and check that it is not blocked by other objects such as wiring harness, etc.

It is recommended that the room temperature be higher than 0°C (32°F) when storing the battery in winter, and that the battery level be checked regularly.

1. Check the power supply:

The motorcycle is powered by a sealed lithium-ion battery. The battery should be fully charged before inspection. Use a multimeter to measure the positive and negative voltage of the discharge port. The normal maximum voltage should be 83.6-84V.

2. Check the appearance of the battery:

Check that the top and bottom battery caps and the LCD screen are not damaged. Damage to the gasket may cause water to enter the battery. If the battery case or cap is damaged, contact your local authorized dealer.

Charging and Using the Charger

1) Use the original charger when charging. Do not use third-party chargers as this may damage the battery and cause serious injury.
2) Check that the input voltage of the charger is the same as the supply voltage.
3) When the battery is fully charged, the charger will automatically stop charging. Avoid plugging the charger into power for extended periods of time.
4) It is forbidden to disassemble the battery. Disassembling the battery without permission can cause serious injury.
5) The battery is protected against over-discharge, and must be reactivated if over-discharged. For information on the activation method, see the "Troubleshooting" section.

Motor and controller use and maintenance

Warning: Do not cross the wheel axis when driving through water. Prolonged exposure to water may cause the engine to malfunction.

Attention

If the temperature of the engine and controller is too high or the battery capacity is too low, the motorcycle will automatically reduce the power to protect the drivetrain

1) Check the engine bolts regularly for tightness.
2) Regularly check the insulation condition of the motor and controller.
3) Check the condition of the fuses regularly.
4) Do not wade in deep water as this may affect the operation of the engine.

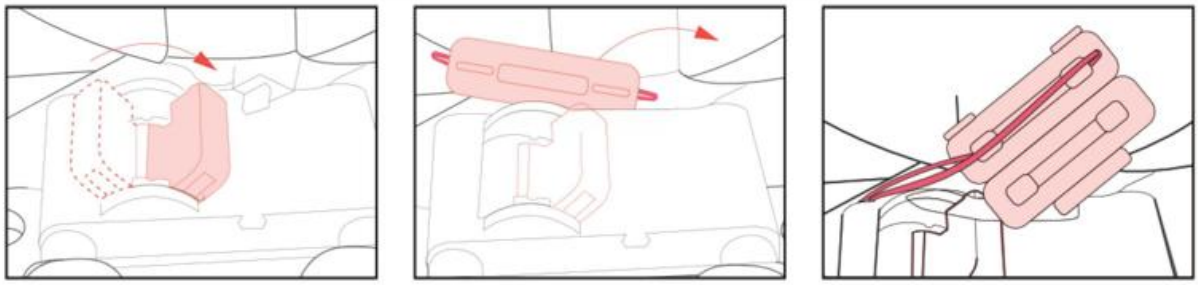
Fuse

1) The fuse should be securely and stably fixed in the fuse socket. If the fuse connecting element is loosened, it may cause the fuse to heat up rapidly and consequently lead to other faults and dangers.
2) Replace the fuse with an element with the correct technical parameters (specifications). If the fuse does not meet the requirements, it may not provide adequate protection for the system.
3) If the fuse blows (melts) again after replacement, check all related wires for possible short circuits.
4) Avoid directing the pressure washer jet directly onto the fuse.

If the main switch (circuit breaker/circuit breaker) and ignition switch do not work when the main switch (circuit breaker/circuit breaker) is turned on, the fuse may have blown.

If the fuse needs to be replaced, the main switch must be switched off first. The procedure is as follows:

Open the battery compartment cover, turn off the main circuit breaker (circuit breaker), remove the battery. The fuse box is in front of the main circuit breaker - open it (the fuse box is wrapped in black insulating tape).



Turn off the main switch, find the fuse, replace the fuse.

WARRANTY CONDITIONS

RERODE Polska hereby warrants that a new motorcycle purchased from an authorized RERODE dealer is free from defects in materials and workmanship for the period specified herein, subject to the limitations indicated. This warranty is valid only under the condition that the motorcycle has been properly prepared and inspected prior to release (zero) by an authorized RERODE dealer.

The warranty only applies if the motorcycle has been used and serviced in accordance with the owner's manual or other RERODE documentation provided with the vehicle. This warranty is void if the OWNER REGISTRATION/DEALER PRE-SALES INSPECTION form is not fully completed and submitted to the RERODE importer within 7 days of purchase by the original seller's dealer.

RERODE EUROPE