



QR CODE

OWNER'S MANUAL

Model: Pro-S / Pro-SS



An Important Message from E Ride Pro

Dear Customers,

Congratulations and thank you for purchasing the 2024 E Ride Pro Electric Motorcycle. We welcome you to the community of ERP Electric Motorcycle Riders. This manual is designed to provide you with a better understanding of the operation, inspection and basic maintenance requirements of this electric motorcycle.

ERP continually seeks advancements in product design and quality. Therefore, this manual contains the most current product information available at the time of printing. Because technology is constantly changing, your motorcycle may differ from the information supplied in this owner's manual. No legal claims can be made on the basis of data in this manual. When it comes time to sell your ERP, please ensure that this manual stays with the electric motorcycle; it is, by law, an important part of the vehicle. If you have any questions concerning the operation or maintenance of your electric motorcycle, please contact your local ERP dealer.

Vehicle Identification Number (VIN) & Motor Number

- The VIN is a 17-digit number stamped on the head tube of the frame. Do not alter or remove this number as it is the legal identifier for your electric motorcycle.
- The motor number is stamped on the motor enclosure.



Table of Contents

001	Important Message and VIN Number
003	Components
006	Protective Equipment
007	Charging and Warning Information
013	Components Function
020	Quick Installation Guide
028	How To Ride
030	Technical Specifications
032	Errors and Solutions
034	Circuit Diagram



Components

Please refer to the illustrations below to identify the components and become familiar with your electric motorcycle.

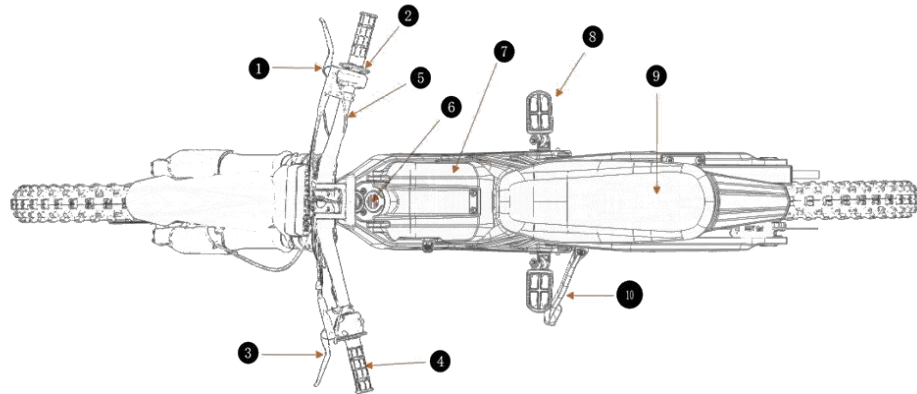


Illustration 1

1-1 Front Brake Lever

1-3 Rear Brake Lever

1-5 Handlebar

1-7 Battery Pack Holder Cover

1-9 Seat

1-2 Throttle Control

1-4 Handle Grips

1-6 Key Switch

1-8 Foot Pedal

1-10 Side Kickstand

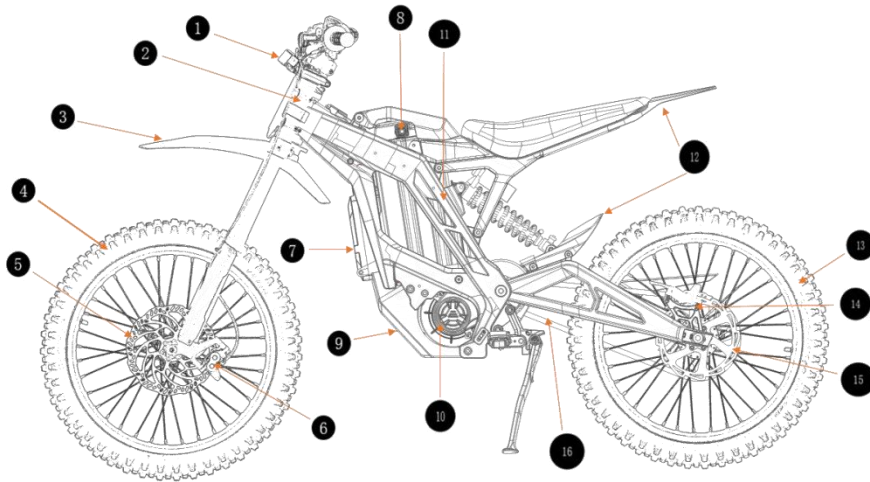


Illustration 2

- 2-1 Headlight
- 2-3 Front Fender
- 2-5 Front Disc Brake
- 2-7 Controller
- 2-9 Skid Plate
- 2-11 Frame
- 2-13 Rear-Wheel
- 2-15 Rear Disc Brake

- 2-2 Front Fork
- 2-4 Front Wheel
- 2-6 Front Brake Caliper
- 2-8 Battery Pack Charging Port
- 2-10 Belt Pulley Cover
- 2-12 Rear Fenders
- 2-14 Rear Brake Caliper
- 2-16 Rear Swingarm

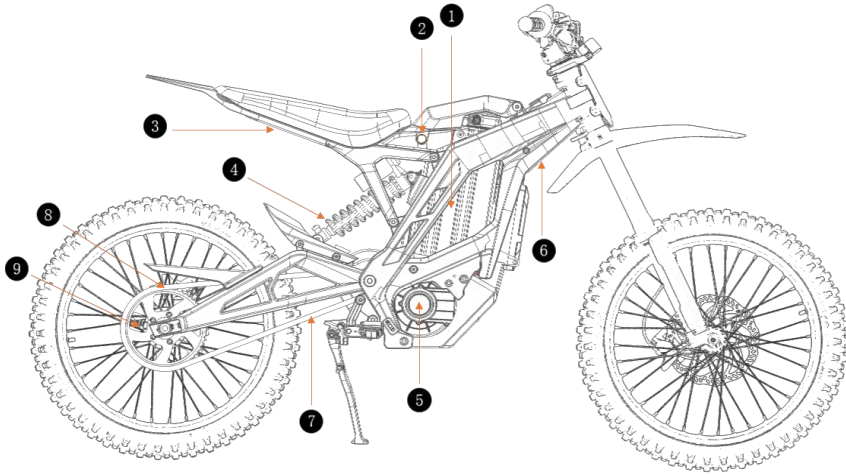


Illustration 3

3-1 Battery Pack

3-3 Tail Light

3-5 Motor Assembly

3-7 O-Ring Chain

3-9 Sprocket

3-2 Battery Pack Holder Lock

3-4 Rear Shock

3-6 Horn

3-8 Chain Guard



Protective Equipment

Why Should You Purchase Motorcycle Riding Gear?

Unlike cars, motorcycle riding requires a set of gear to protect the rider from injuries in the event of an accident. It typically includes a helmet, gloves, boots, riding suit, riding pants, and armor.

1. Helmet:

Off-road helmets are different from regular motorcycle helmets. They cover your full head, face, mouth and chin and are lighter weight than many motorcycle helmets. Off-road helmets and goggles have a detachable design that provide better eye protection, and there is a sun visor on the top of the helmet to block the sunlight and reduce splashes of mud and rain.

2. Armor and Riding Suit:

The human body is fragile, especially the joints. Therefore, full-body armor is essential for off-road riding. It provides protection to the chest, back, shoulders, elbows, knees, and shins. Riders usually wear a long-sleeved off-road shirt and pants over the armor which can resist dirt, mud, gravel and other debris during off-road riding.

3. Gloves:

Full-fingered gloves are also crucial for off-road motorcycle riding. The palm area should use non-slip fabric, and the joints should have good flexibility. The back of the hand should also be able to prevent hand injuries in case of a fall and prevent blisters during long rides.

4. Boots:

Off-road motorcycle riding boots are mostly made of hard plastic. They are taller and stiffer than regular boots and provide better protection to your feet and ankles than regular boots or tennis shoes.

5. Travel Gear:

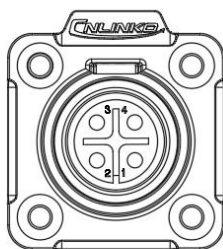
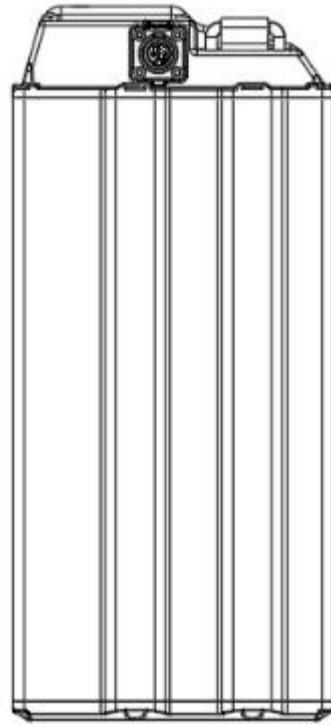
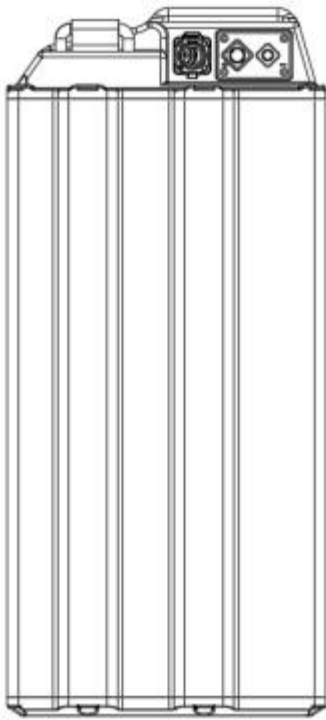
A backpack may be needed for short or long distances.

6. Rain Gear:

If you have to ride in rainy weather, it is advisable to wear a raincoat or waterproof riding suit. For long rides, it is recommended to carry rain gear. Staying dry will be more comfortable and keep the rider more alert.



Charging and Charger Information



Safety Procedures and Instructions:

Before using the battery, please read the user manual and the markings on the battery surface carefully.

Please charge the battery in a normal, indoor environment.

During use, keep away from heat sources, high voltage, and prevent children from playing with the battery.

Do not drop or strike the battery.



Do not short-circuit the positive and negative terminals of the battery. Do not disassemble or install the battery by yourself and do not let the battery get damp to avoid any danger.

To prevent damage to the battery, do not turn on the device while the battery is short-circuited.

Do not short-circuit the charging interface of the battery while it is being charged to avoid damaging the battery.

When not in use for a long time, please store the battery properly. Keep the battery in a partially charged state, neither fully charged nor completely discharged. Wrap the battery with non-conductive material to avoid direct contact with metal which may damage the battery. Store the battery in a cool and dry place.

Dispose of the battery safely and properly. Do not throw it into fire or water.



Warning:

Please charge the battery above 0°C. Since charging below 0°C will cause battery damage, we have set up battery protection to prevent charging below 0°C.

Avoid using and storing the battery in environments below -20°C or above 50°C. If not used for more than 30 days, please fully charge it first, store it in a cool and dry place, and fully charge it every 60 days, otherwise the battery may be damaged.

Do not throw it into fire or water. Disassembling the battery pack is prohibited.

Portable Charging:

Sequence for separately charging lithium batteries: Before removing the battery, first turn off the battery power switch (press and hold the switch for 3 seconds. The LED lights will go out one by one). Press down on the battery cover with your left hand and insert the key into the cover hole. Twist it to the left to open the battery cover, then insert the DC charger head into the battery charging port. Finally, plug the AC charger plug into the main power interface. When the battery is fully charged, first unplug the AC charger plug and then unplug the DC charger plug.





Charging the Entire Vehicle:

Sequence for charging the lithium battery while connected to the entire vehicle: First switch off the breaker switch (**Illustration 4**), then insert the DC charger head into the battery charging port and finally plug the AC charger plug into the main power interface. When the battery is fully charged, first unplug the AC charger plug, and then unplug the DC charger plug.



Illustration 4

Precautions:

1. The charger will perform charging detection and abnormality identification during the first 15 seconds after powering on. The fan will stop rotating during detection, and normal charging will begin after detection is successful.
2. Charging the battery below 0°C is prohibited. The battery will not activate the charging function below 0°C. The charging temperature range is 0°C to 45°C.
3. When charging the battery, please place it in a safe place out of reach of children.
4. It is prohibited to touch all interfaces of the battery with hands as it may cause personal injury.
5. It is prohibited to touch all interfaces of the battery with metal objects as it may damage the battery.
6. If you smell any unusual odor or notice excessive heat during the charging process, or if the battery still cannot display full charge after a long time, please stop charging immediately and send it to a repair center for inspection.

Only approved ERP chargers should be used to charge the ERP battery pack. Any other unauthorized chargers may damage the battery pack and pose serious risks.

Check the charger to ensure that the input voltage matches the local power supply voltage (AC 110V / AC 220V) as indicated on the charger.



The battery pack can be charged either installed on the electric motorcycle or directly by removing the battery pack.

During charging, the red indicator light will blink. Once the battery pack is fully charged, the green indicator light will remain on. Typically, it takes about 4 hours for the battery pack to fully charge.

Once the battery pack is fully charged, the charging will automatically shut off. However, for safety reasons, it is recommended to disconnect the AC power cord from the power outlet within 6 hours after the battery pack is fully charged.

Unauthorized and inexperienced personnel are not allowed to disassemble the battery pack; doing so may cause damage to the battery pack and pose serious risks.

Transportation:

The battery should be packaged in a box in a semi-charged state (50%~60% charged). During transportation, it should be protected from severe vibration, impact, or compression, and should be protected from exposure to sunlight and rain. It can be transported by car, train, ship, airplane, or other common means of transportation.



Danger Warning:

The battery has internal protective mechanisms and circuits to prevent hazards. Improper disassembly will damage the protective functions and may cause the battery to overheat, smoke, deform, or ignite.

Do not connect the positive and negative terminals of the battery with metal and do not store or move the battery together with metal objects. If the battery is short-circuited, a large current will flow, damaging the battery and causing it to overheat, smoke, deform, or ignite.

Heating and burning the battery will melt the battery's insulation, disable safety functions, or burn the electrolyte. Overheating will cause the battery to overheat, smoke, deform, or ignite.

Do not use the battery near a fire source, oven, or in an environment exceeding 75°C. Overheating will cause a short circuit inside the battery, resulting in overheating, smoking, deformation, or ignition.



Do not get the battery wet, and never immerse the battery in water. Doing so may cause the loss of the internal protective circuit function and abnormal chemical reactions, leading to the battery overheating, smoking, deforming, or igniting.

Avoid charging the battery near a fire source or under direct sunlight, as it may cause the loss of the internal protective circuit function and abnormal chemical reactions, shorten the battery life, and potentially cause failure, overheating, smoking, deformation, or ignition.

Use a dedicated charger and charge correctly. Charging the battery with a non-dedicated charger can be dangerous. Charging under abnormal conditions may cause the loss of the internal protective circuit function and abnormal chemical reactions, leading to overheating, smoking, deformation, or ignition of the battery.

Prohibited actions include using metal tools to pry, hammer, or strike the battery, or any other methods to damage the battery.

Directly connecting the battery to a power outlet is strictly prohibited. High voltage and large current will pass through the battery, causing damage or overheating, smoking, deformation, or ignition of the battery.

The battery should not be used with non-matching approved devices. Improper usage conditions can damage the battery's performance, reduce its lifespan, and even cause overheating, smoking, deformation, or ignition of the battery.

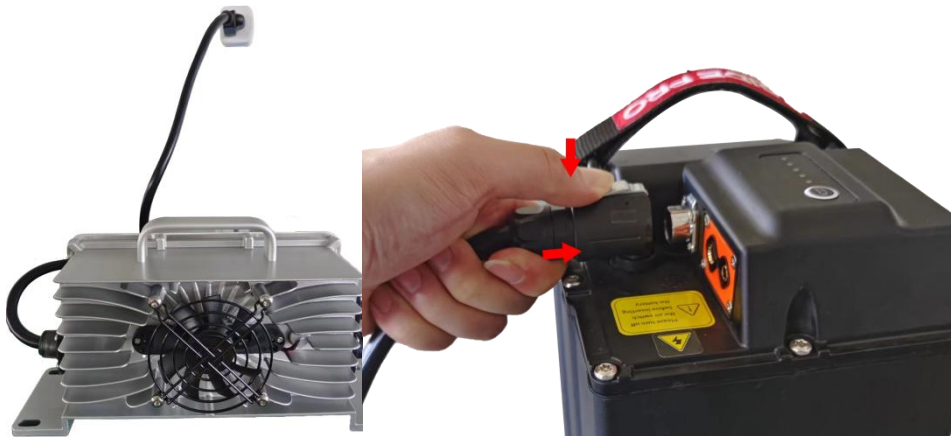
Other Matters:

The above descriptions can serve as an agreement framework for both the supply and demand sides regarding the performance and inspection rules of the battery product. If there are no new written agreements or change notices, this can be followed. This technical specification is based on customer requirements, cell specifications, and other relevant standards.



Battery Charger Information:

Connect the AC110 socket and then connect the battery charging port.



Safety Tips for Electrical Use:

It is necessary to use a power source with reliable grounding. The ground wire of the power source should be insulated and should not be connected to shared facilities such as water pipes. Distinguish between the ground wire and neutral wire of the power source and do not connect these two conductors together. For the safety of you and your family, if there are any areas in your home where the electrical system does not meet the above requirements, please make improvements as soon as possible.



TFT Instrument Panel Instructions



Headlights: The headlight indicator lights up when the high beam is turned on.

Left Turn Signal: The left turn signal lights up when the left turn signal is activated.

USB: Charging connection indicator, the indicator light stays on when charging with a charger or charging station.

Error Coding: A code that can be detected or corrected by the receiving end after an error occurs during transmission.

Time: The driving time after starting the vehicle.

Gear: Economy/Sport mode.

Motor Failure: When the M light is on, it indicates a malfunction in the motor.



Right Turn Signal: The right turn signal lights up when the right turn signal is activated.

Speed Value: Displays your current speed.

Power: Shows the remaining battery power at any time.

Keyboard Instructions:



#1: Long press to enter the settings interface, confirm the selected function, long press within the settings panel to return to the interface.

#2: In the settings panel, you can cycle through the upper selected functions.

#3: In the settings panel, you can cycle through the lower selected functions.



Specific Function

The left hand controls the switch located on the left side.

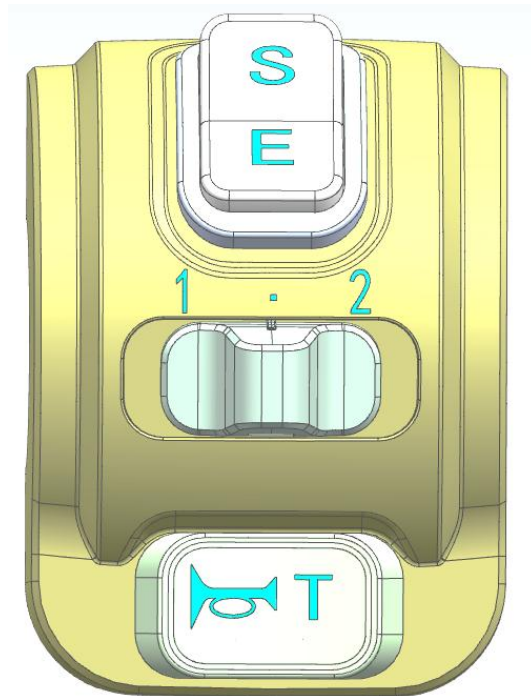


Illustration 6



Serial Number	Function	Function Introduction	Remark
1	Pattern Switch	S mode is the sport mode, E mode is the energy-saving mode. S and E modes can be freely switched, with the system defaulting to the energy-saving mode.	
2	Regeneration Mode 1=Mild Regeneration 2=Strong Regeneration	1. Mild momentum kinetic energy recovery systems 2. Strong momentum kinetic energy recovery systems	
3	Horn Button Switch (T) Turbo Switch	The left horn is marked as a horn function. Press the horn shortly to activate the horn sound. Press the T button on the right once to enter the maximum power state, where the vehicle will have a 10-second limit acceleration mode. The cooling time is 1 minute, and the vehicle can be restarted after 1 minute.	



Special Attention:

- When you choose the ECO mode, the power output and speed acceleration are not as active, which is suitable for novice riders and riders who want a longer range.
- When you choose the "SPORT" mode, the power output and speed acceleration are active, suitable for experienced riders. In this case, for your safety, please make sure you are skilled and prepared.
- When the speed in S/E mode reaches its limit, press T, and the speed will reach 60 miles within 10 seconds.

Front Forks

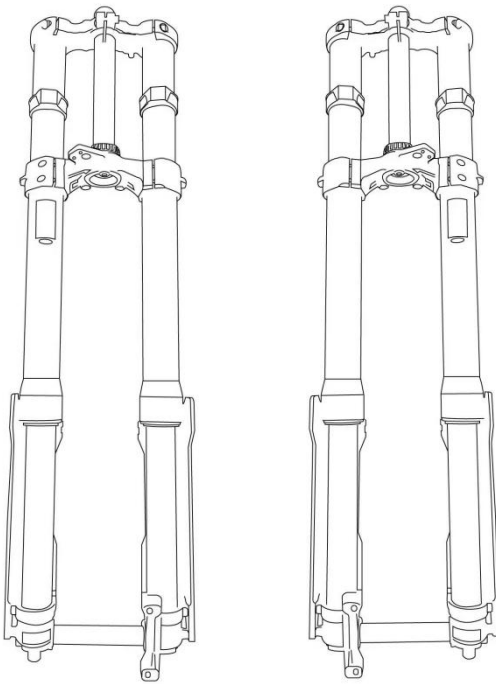


Illustration 7

Front Fork Inspection:

Hold the handlebars and compress the front fork a few times to check if it works smoothly.

Check for any leaks on fork assembly such as oil, scratches, and friction noise on the working area of the front fork legs.

Inspect if there is any mud or sand sticking to the rear shock assembly after riding. If there is, it needs to be cleaned; otherwise, it may cause damage to the oil seal and lead to oil leakage.



If any issues are found with the shocks, contact the ERP after-sales service center for inspection and replacement.

Rear Shock Adjustment:

The rear shock absorber is already adjusted to the optimal state when the vehicle leaves the factory, suitable for the majority of situations. Please do not adjust it by yourself.

Front Fork Maintenance and Care:

Before each ride, check the following:

1. Ensure that the quick release mechanism is properly adjusted and secured.
2. Wipe and clean the inner stanchions, and check the entire fork for any obvious damage.
3. Check if the headset is properly adjusted.
4. Ensure that the front brake hydraulic line is properly configured and adjusted for brake assembly clearance to avoid rubbing in critical areas.
5. Check the torque of the stem caps and bolts.

Note: The steering tube and inner stanchions of the fork must be kept parallel. (After heavy impact, the fork may exhibit signs of bending forward.)

Front Fork Maintenance:

1. Disassemble the fork and clean and lubricate each component.
2. Inspect all parts for damage such as fractures, dents, and normal wear. If any parts are found to be damaged or excessively worn, do not use the fork until the damaged parts are replaced. If all parts are in usable condition, proceed to step three:
3. Apply appropriate lubricating oil to the spring, upper and lower bushings, inner stanchions, and valve components. Fill the clean oil seal with a sufficient amount of lubricating fork oil. Replace the worn bushings if there is excessive play between the inner and outer stanchions.
4. All forks that have been used for more than 5 years should be regularly inspected and maintained (at least once a year) to ensure their safety.



Belt Maintenance Precautions:

- Check the belt tension within a fixed mileage. If it is below the lower limit, the belt needs to be tightened again and checked to see if the tension adjustment is abnormal. For specific operation standards, consult a qualified retailer.
- If the belt deviates or wears at the edges, check if the axis parallelism is abnormal and readjust the belt alignment.
- After riding in harsh environments, check the transmission system. If there is sediment accumulation in the system, rinse it with clean water before riding again.
- If foreign objects enter the wheel system and cause abnormal damage to the belt, replace the belt promptly and check the condition of the pulley. If the pulley is damaged, replace it.

Attention:

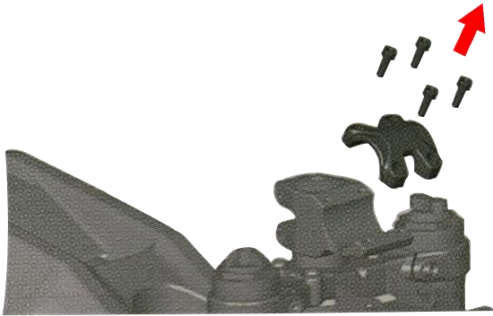
Check all screws if they are tightened. Check screws once a month.



Quick Installation Guide

Install the Handlebars:

1. Use a #4 hexagon wrench to loosen and remove the 4 cover stem cap bolts.



2. Attach the left and right front brake lever assemblies and throttle assembly to the handlebars as shown in the illustration below.



⚠ Don't tighten yet.

3. Install the handlebars, fix the vertical cover, and adjust the angle and position of the handlebars according to personal riding style.



4. Tighten the 4 bolts, and the torque values to 6~8N.m



Install the Front Instrument Display:

1. After installing the instrument display, recenter the throttle grip with 2mm of end play to ensure proper throttle function.



⚠ If 2mm is not achieved, the throttle rotation will become stuck and could cause serious injury.

2. The front brake levers needs to be tilted forward about 35°.



3. Lock the grip assembly and front brake lever with a #4 and #5 hexagon wrench. Rotate the throttle assembly to ensure freedom and natural movement.



Attach and Secure Cables as Shown:

1. Use the supplied zip-tie to secure the cables as shown in picture below. Trim the end of the zip-tie when satisfied that all cables are secured.



1. Secure brake line and cable with tie wrap to the appropriate location.
2. After the cables are securely placed, test the rotation back and forth with the handlebars to ensure that all the wiring harnesses are relaxed without pulling and tightening.



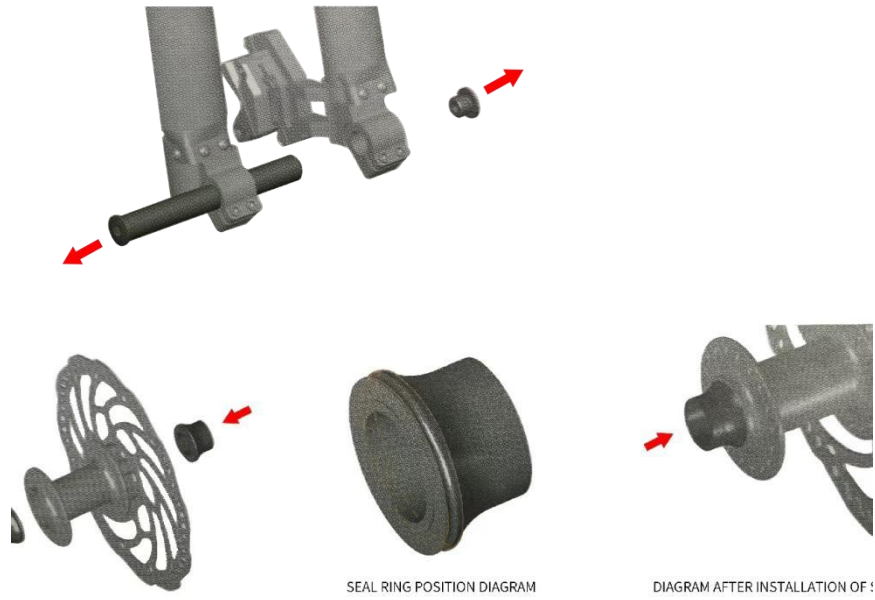
3. Avoid wrapping all cables together to avoid binding and unwanted cable pulling. Pay special attention to the front headlight wiring while considering freedom of all cables.

Install Front Wheel:

1. Release the 4 front wheel axle lock bolts at the lower end of the front fork with a # 4 inner hexagon wrench.



2. Remove the locking nut on one side of the front wheel through axle with a # 8 inner hexagon wrench. Tap gently with a rubber hammer and remove the front wheel axle.

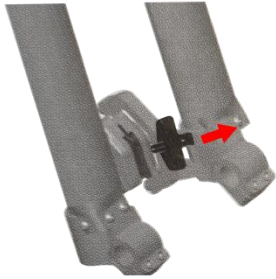


3. Install the front wheel through axle bushings on both sides of the wheel hub. Slowly rotate the bushings. Completely insert the bushings and securely seat inside the hub assembly. Check freedom of



bushing rotation before installing.

4. Remove the front brake caliper and place the front wheel onto the mounting locations.



⚠ Caution: Make sure you remove the plastic brake pad insert (shown with red arrow) before installing the front wheel.

5. Install the front wheel axle through the hub so that it passes completely through until completely seated.



⚠ Do not use the front brake before the front wheels are installed.

6. Tighten the left locking nut while securing the right side through axle with a #8 hexagon wrench.



⚠ Note: After the through axle and nut are securely tightened, the final step is to tighten the four locking bolts with a #4 hexagon wrench on the axle caps.



7. After front wheel assembly is complete, go back and double check that all fasteners are securely tightened and safe for use.



Install Front Fender:

Remove the 3 bolts shown in the figure below. Install the front fender and lock the bolts with a # 4 inner hexagon wrench to ensure that the front fender is fastened without loosening.





Rear Shock Absorber Installation Diagram:



Illustration 1



Illustration 2



Illustration 3



Illustration 4



Illustration 5

Begin by unscrewing the bolts from the rear shock as shown in pictures 1 and 2. Lift the bike and insert the rear shock absorber into the installation port, referring to pictures 3 and 4. Finally, secure the shock in place by attaching and tightening the screws onto the swingarm, as illustrated in picture 5.



Cable Routing



Front view and the handlebars zip tie demonstration illustrations.



Front fender and rear shock absorber zip tie demonstration illustrations.



Controller and front brake zip tie demonstration illustrations.



Learn How to Ride

How to start the battery power

After opening the battery compartment cover as shown in Illustration 5-1, you will find that the battery is in sleep mode.

To begin with, as shown in Illustration 5-2, you need to flip the breaker switch.

As shown in Illustration 5-3, press and hold the power display button, and wait for all 5 lights to turn on, indicating that it is in the on state.



Illustration 5-1

Illustration 5-2

Illustration 5-3

Insert the key as shown. Rotate to arm and disarm unit.





Check that all systems are active and functioning before use.



Before starting the unit, rotate the kickstand into the riding position as shown in the picture below. Slowly rotate throttle to safe riding speed.





Main Specs of SS

MOTOR TYPE:	PMSM (PERMANENT MAGNET SYNCHRONOUS MOTOR)
MOTOR WEIGHT:	8.0KG
MOTOR EXTERNAL DIAMETER:	Φ180mm
MOTOR AXIAL LENGTH:	120mm
MOTOR PEAK EFFICIENCY:	92%
MOTOR COOLING METHOD:	AIR-COOLED
CONTROLLER TYPE:	FOC
CONTROLLER PEAK EFFICIENCY:	92%
NORMINAL VOLTAGE:	72V
NORMINAL POWER:	5000W
PEAK POWER:	12000W (16HP)
PEAK TORQUE:	55N.m
TORQUE ON REAR WHEEL:	471.35N.m (58T Sprocket)
GEAR RATIO:	8.57 (58T Sprocket)
BATTERY PACK:	72V / 40Ah
BATTERY CELL:	21700 Lithium-ion Samsung Cell
DASH:	TFT
RE-GEN ADJUST METHOD:	Level 1, Level 2 Gear Adjustment
HEADLIGHT:	LED
WHEEL TYPE & SIZE:	SPOKE WHEELS, FRONT 19inches/REAR 18inches
TIRE SIZE:	FR.: 80/100-19; RR.: 100/90-18
TIRE BRAND:	CST BRAND TIRE
TOP SPEED:	≥ 96KM/H (60MPH) (With 58T Sprocket)
SPEED:	0-30MPH in 2.36 Seconds
RANGE:	≥ 50MILES @ 25MPH / ≥ 90MILES @15MPH
SEAT HEIGHT:	830MM
WHEELBASE:	1260MM
HANDLE BAR LENGTH:	780MM
GROUND CLEARANCE:	280MM
Weight:	63KG (139LB)



Main Specs of S

MOTOR TYPE:	PMSM (PERMANENT MAGNET SYNCHRONOUS MOTOR)
MOTOR WEIGHT:	8.0KG
MOTOR EXTERNAL DIAMETER:	Φ180mm
MOTOR AXIAL LENGTH:	120mm
MOTOR PEAK EFFICIENCY:	92%
MOTOR COOLING METHOD:	AIR-COOLED
CONTROLLER TYPE:	FOC
CONTROLLER PEAK EFFICIENCY:	92%
NORMINAL VOLTAGE:	72V
NORMINAL POWER:	3000W
PEAK POWER:	8000W(10.6 HP)
PEAK TORQUE:	45N.m
TORQUE ON REAR WHEEL:	385.65N.m (58T Sprocket)
GEAR RATIO:	8.57 (58T Sprocket)
BATTERY PACK:	72V / 30Ah
BATTERY CELL:	21700 Lithium-ion Samsung Cell
DASH:	TFT
RE-GEN ADJUST METHOD:	Level 1, Level 2 RE-GEN Adjustment
HEADLIGHT:	LED
WHEEL TYPE & SIZE:	SPOKE WHEELS, FRONT/REAR 17inches
TIRE SIZE:	FR.: 70/100-17; RR.: 70/100-17
TIRE BRAND:	CST BRAND TIRE
TOP SPEED:	≥ 80KM/H (50MPH) (With 58T Sprocket)
SPEED:	0-30MPH in 2.56 Seconds
RANGE:	≥ 41MILES @ 25MPH / ≥ 62MILES @15MPH
SEAT HEIGHT:	830MM
WHEELBASE:	1260MM
HANDLE BAR LENGTH:	780MM
GROUND CLEARANCE:	255MM
Weight:	59KG (130LB)

Notice:

ERP continually seeks advancements in product design and quality. Therefore, the above specs are based on the current product information available at the time of printing. Because of this, your motorcycle may differ from the above specs. Please note this.



Trouble Shooting:

Turn on the Key Switch

Possible Reasons	Solutions: Motor Does Not Work
1. Discharge wire that's loose.	Properly fix the discharge wire connection.
2. Throttle control connector has fallen off.	Properly plug the connector back in.
3. Motor wires are loose or have fallen off.	Reconnect the motor wires properly.
4. The brake lever does not return or the brake sensor fails.	Inspect the brake lever and brake sensor. Solve the problem by repair or replacing the relevant parts.

Throttle Control Failure

Possible Reasons	Solutions: Reach Top Speed
Low battery voltage.	Fully charge the battery.
Failure of throttle control.	Contact your local dealer to replace the throttle control.

Charger Does Not Charge the Battery Pack.

Possible Reasons	Solutions
The plug of the charger is loose or falls off.	Please properly connect the charger plug with the battery pack charging interface.
Failure of the charger.	Repair the charger. If it's not repairable, replace it with a new charger.



Abnormal Noise and Vibration Found During the Riding.

Possible Reasons	Solutions
Wrong chain tension.	Chain tension needs to be properly adjusted.

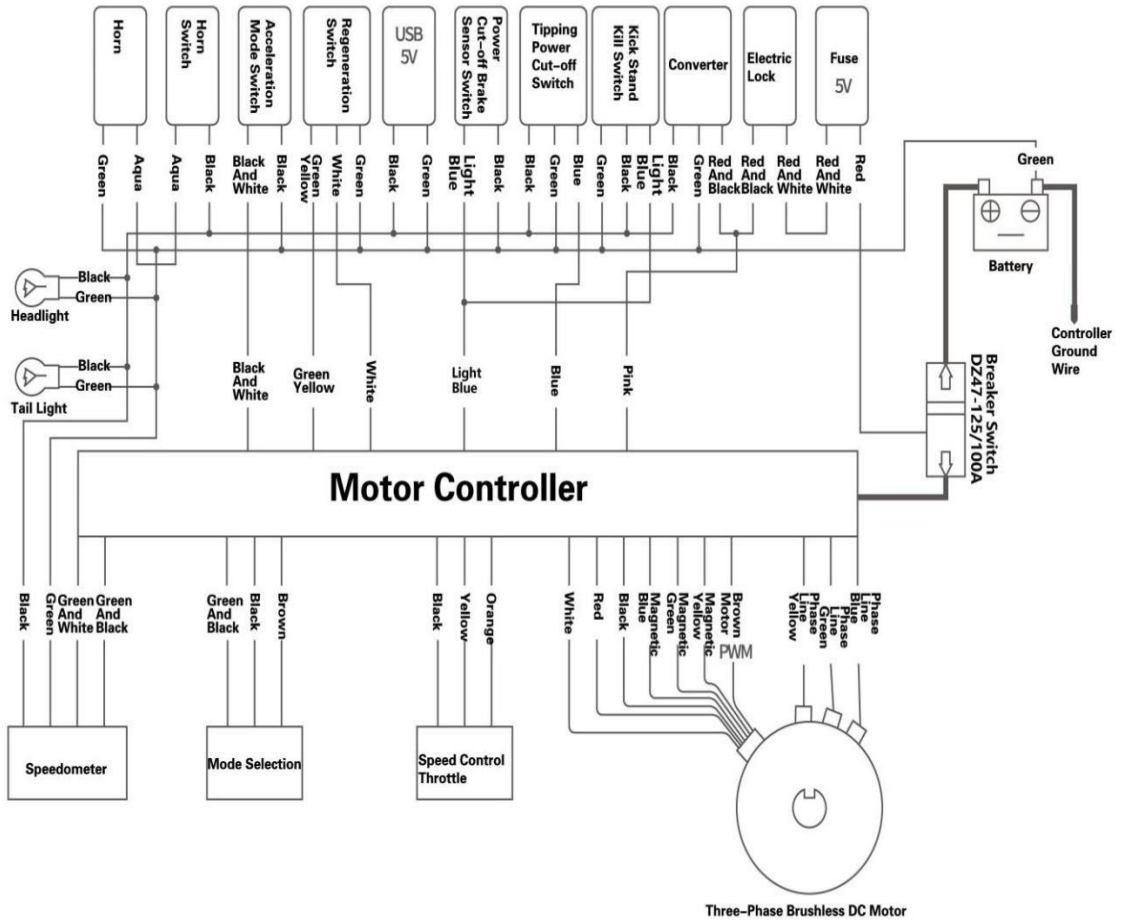
Other errors:

If you have any errors that are not mentioned above, or which you cannot identify, please contact your local dealer to get a professional inspection and maintenance performed.




Circuit Diagram:

Attached: Vehicle electrical schematic diagram



E RIDE PRO INC

: pros@eridepros.com

: www.eridepros.com