

Rebel

User Manual



About This Manual

This manual contains details of the product, and information on its operation and maintenance and other helpful tips for owners. Read it carefully and familiarize yourself with the Rebel before using it to ensure safe use and prevent tragic accidents. Be sure to retain this manual as your convenient information source.

This manual contains many Warnings and Cautions concerning the safe operation and consequences if safe setup, operation and maintenance are not performed. All information in this manual should be carefully reviewed and if you have any questions you should contact us immediately. The notes, warnings and cautions contained within the manual and marked by this triangular Caution Symbol should also be given special care. Users should also pay special attention to information marked in this manual beginning with NOTICE.



Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representations about the safe use of bicycles under all conditions. There are risks associated with the use of any bicycle which cannot be predicted or avoided, and which are the sole responsibility of the rider. You should keep this manual, along with any other documents that were included with your bicycle, for future reference, however all content in this manual is subject to change or withdrawal without notice. Visit www.alteregobikes.com to download the latest version. Alter Ego Electric Bikes makes every effort to ensure accuracy of its documentation and assumes no responsibility of liability if any errors or inaccuracies appear within. Assembly and first adjustment of your Rebel requires special tools and skills and it is recommended that this should be done by a trained bicycle mechanic if possible.

Product Specification

| | | | |
|----------------------------------|--|-------------------------------|--------------------------------------|
| Battery | 48v 17.5Ah Samsung Lithium Battery | Front Fork | Front Suspension & Hydraulic Lockout |
| Motor | 750W High Speed Brushless Geared Motor | Bike Frame | 20" * 21" AL6061 M Model |
| Display | KDS-KD51C+USB LCD Display | Brake | Hydraulic Disc 180mm |
| Derailleur | Shimano-Altus-7 Speed | Charger | Standard 3.0A Smart Charger |
| Speed | 32 KPH | Freewheel | Shimano 7 Speed |
| Estimate | 80KM | Saddle | Velo |
| Pedal Assist | Intelligent 5 Level Pedal Assist | Shifter | Shimano-Tourney-yp |
| Throttle | Thumb Throttle | Tires | Kenda 20" x 4" |
| Charging Time | 6~7 Hours | Product Weight | 92 lbs |
| Recommended Rider Heights | 5.2" ~ 6.4" | Total Payload Capacity | 330 lbs |



Maximum Load Capacity
330 LBS

Seat Height
32 INCH

Tires
20X4

Motor
750W



Wheelbase
43.7 inch

Total Length
69 inch

Handlebar Reach
24 inch

Safety Checklist

NOTICE: Before every ride it is important to carry out the following safety checks.

| Safety Check | Basic Steps |
|-----------------------------------|--|
| Brakes | <ul style="list-style-type: none"> o Ensure front and rear brakes work properly. o Ensure brake pads are not over worn and are correctly positioned in relation to the rims. o Ensure brake control cables are lubricated, correctly adjusted and display no obvious wear. o Ensure brake control levers are lubricated and tightly secured to the handlebars. |
| Wheels and Tires | <ul style="list-style-type: none"> o Ensure tires are inflated to within the recommended limits displayed on the tire sidewalls. o Ensure tires have tread and have no BULGES OR EXCESSIVE WEAR. o Ensure rims run true and have no obvious wobbles or kinks. o Ensure all wheel spokes are tight and not broken. |
| Steering | <ul style="list-style-type: none"> o Ensure handlebar and stem are correctly adjusted and tightened, and allow proper steering. o Ensure the handlebar is set correctly in relation to the forks and the direction of travel. |
| Chain | <ul style="list-style-type: none"> o Ensure the chain is oiled, clean and runs smoothly. o Extra care is required in wet or dusty conditions. |
| Crank and Pedals | <ul style="list-style-type: none"> o Ensure pedals are securely tightened to the cranks. o Ensure the cranks are securely tightened and are not bent. |
| Derailleurs | <ul style="list-style-type: none"> o Check that the derailleur(s) are adjusted and functioning properly. o Ensure shift and brake levers are attached to the handlebar securely. o Ensure all brake and shift cables are properly lubricated. |
| Motor Drive Assembly and Throttle | <ul style="list-style-type: none"> o Ensure hub motor is spinning smoothly and the motor bearings are in good working order. o Ensure all power cables running to hub motor are secured and undamaged. o Make sure the hub motor axle bolts are secured and all torque arms and torque washers are in place. |
| Battery Pack | <ul style="list-style-type: none"> o Ensure battery is charged before use. o Ensure there is no damage to battery pack. o Lock battery to frame and check to see that it is secured. |

Assembly Instructions

NOTICE: *The following assembly steps are only a general guide to assist in the assembly of your Rebel Bike and is not a complete or comprehensive manual of all aspects of assembly, maintenance and repair. We recommend you consult a certified bicycle mechanic to assist in the assembly, repair and maintenance of your bicycle.*

Step 1 : Install the handle bars. Remove the four screws from the stem, ensuring the linear markings on the handlebars are centered and handlebars are adjusted to the comfortable position. Finally, tighten the screws with the assembly tool.

Step 2 : Install the headlight. Use a socket wrench to hold the nut and loosen the screw with a screwdriver and remove the screw. Install the screw pass through headlight and the bracket and adjust the headlight properly for riding conditions.

Step 3 : Remove the plastic guard from the front fork being sure not use the brake levers until the wheel is installed.
Install the front wheel and make the axle go through the centre of the wheel.
Tighten the nut on each side with the wrench included.
Install the plastic cap on each side of the axle.
Remember to verify all items are tight and torqued properly after your first couple of rides.

Step 4 : Use a bike pump with a press gauge to Inflate tires to desired PSI. The recommended pressure for this mode is 20 PSI (1.379 Bar). Do not overinflate or underinflate tires.

Step 5 : Install the pedals. The left and right pedals are marked on both ends. First, install the right pedal by tightening the pedal in clockwise direction. The left pedal is tightened by turning the pedal in counterclockwise direction. Both pedals should be tightened to 35 Newton meters by using a torque wrench.

Step 6 : Install the optional rear rack. Align the holes in the rear rack with the holes in the frame and tighten with screws.

Step 7 : Check the battery pack is locked into the frame of the Rebel . When you want to take off the battery, insert the key and turn to release the battery pack. The battery pack can be removed and charged separately. This is the charging port. Align the battery pack to the battery holder carefully and push until when you hear it click into the place.

NOTICE: *Ensure all hardware is tightened properly and all safety checks in the following sections are performed before first use. Contact us if you have any questions regarding the assembly of your bike. If you are not able to ensure all the assembly steps in the assembly instructions are performed properly, please consult a certified local bicycle service provider for assistance in addition to contacting us for help.*

Recommended Torque Values

| Hardware Location | Torque Required (Nm) |
|--|----------------------|
| Handlebar | 18-20 |
| Stem | 18-20 |
| Saddle | 18-20 |
| Front Wheel (For Bikes with Bolt on Front Wheel) | 16-25 |
| Rear Wheel | 35-40 |
| Bottom Bracket Parts | 35-55 |
| Pedals | 35 |
| Disk Mounting Bolts | 6 |
| Disk Caliper Mount | 10 |
| Crank Bolts | 40 |
| Rear Derailleur Cable Pinch | 6 |
| Front Derailleur Clamp | 7 |

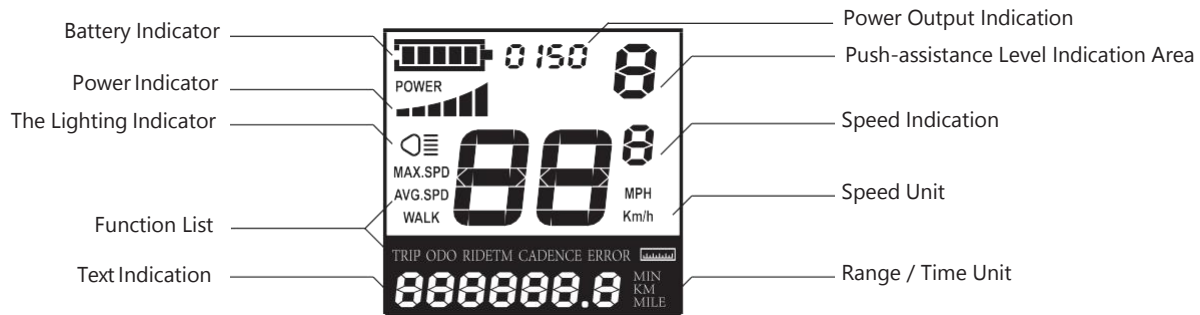
Start-Up Procedure

After the bike has been properly assembled following the unboxing video and all components are secured correctly, you may now proceed to start up the vehicle and select the power level following the next steps.

1. Hold down the centre mode button on the display remote for 2 seconds then release, the display should turn on.
2. Select your desired level of pedal assistance between level 0 through 5 using the up and down arrows on the display remote. Level 1 corresponds to the lowest level of pedal assistance, and level 5 corresponds to the highest level of pedal assistance. Level 0 indicates pedal assistance will be inactive.
3. To turn on the headlight once the LCD display are on, hold down the top and middle button located on the left side of the handlebars for 2-3 seconds.
4. With the proper safety gear and rider knowledge and understanding you may now proceed to operate your CHALLENGER Bike. You can begin by pedaling the bike in the appropriate drivetrain gear with or without pedal assistance. You may also use the throttle to accelerate and maintain your desired speed.

Display Features

The image shows the various features and information displayed on the Display.



Routine Operation

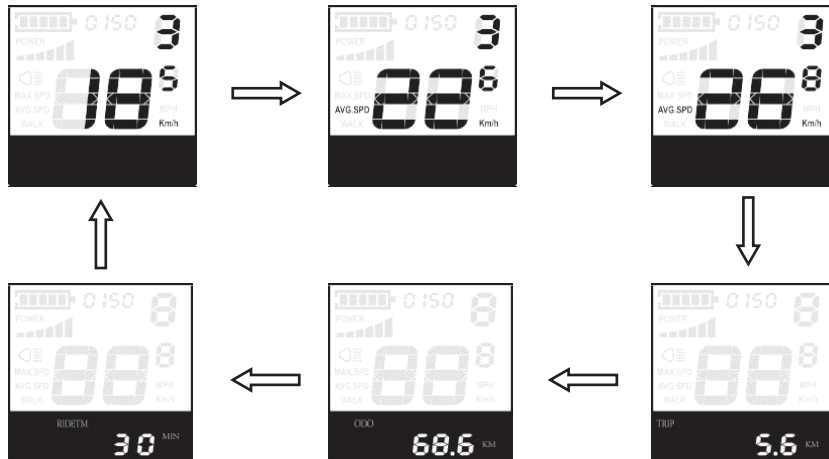
◆ Power ON/OFF

After pressing the power button for seconds, the meter starts to work and provides the working power of the controller. In the power-on mode, press and hold the power button to turn off the electric bikes power supply. In the off mode, the meter no longer uses the battery's powersupply, and the meter's leakage current is less than 1uA.

If the electric bike is not used for more than 10 minutes, the meter will automatically shut down.

◆ Display Interface

When the meter is turned on, the meter displays the real-time speed and total mileage (km) by default. Short press the "i" button to display the information in real time speed (km/h), average speed (km/h), maximum speed (km/h), single mileage (km), total mileage (km) .



◆ Help Push

Press and hold the “—” button to hold it down. After 2 seconds, the electric bike enters the power assist mode. The electric bike travels at a constant speed of 6 kilometers per hour. At the same time, the screen displays “WALK”. Release the “—” button and the electric bike will immediately stop the power output and return to the state before the boost.

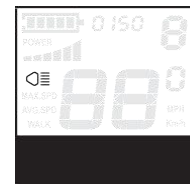


The power-saving function can only be used when the user pushes the electric bike. Do not use it while riding.



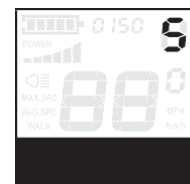
◆ Turn ON/OFF the Backlight

Press and hold the “☰” button for 2 seconds, the instrument backlight is turned on, and the controller is notified to turn on the headlights. When the external light is insufficient or driving at night, the LCD backlight can be turned on. Press and hold the “☰” button again for 2 seconds to turn off the LCD backlight and notify the controller turns off the headlights.



◆ Help Gear Selection

Press the “+” or “—” button to switch the power assist position of the electric vehicle and change the output power of the motor. The default output power range of the meter is 0-5, the 0 position is the stop power output, the 1st gear is the lowest power, and the 5th gear is the highest power. When the 5th gear is reached, press the “+” button again, the interface will still display 5, and the 5 flashings will indicate that it is the highest. After the assisted downshift reaches 0, press the “—” button again, the interface will still display 0, and flash with 0 to indicate that the current is the lowest. The default gear position for the instrument is 1 file.



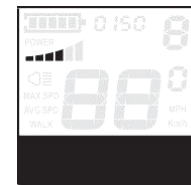
◆ Battery Capacity Display

The display on the handlebar of your Rebel features a battery capacity gauge (much like the fuel gauge on an automobile). It is recommended that users charge the bike as soon as possible once one bar is left on the display. Once the battery is fully depleted, the last remaining bar will begin to flash, communicating to the user that they should cease operation immediately.



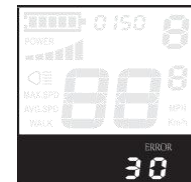
◆ Motor Power Indication

The motor output power can be known through the meter. The display mode is as shown below.



◆ Error Detection Display

Your Rebel is equipped with an error detection system integrated into the display and controller. In the case of an electronic control system fault an error code should display. The following error codes are the most common and can aid in troubleshooting.



| Error Code | Definition | Error Code | Definition |
|------------|---------------------|------------|--|
| 21 | Abnormal Current | 24 | Motor Hall Defect |
| 22 | Throttle Fault | 25 | Brake Failed or Brake Applied While Turning On |
| 23 | Motor Phase Problem | 30 | Abnormal Communication |

When the error code is displayed, please promptly remove the fault. After the fault occurs, the electric bike will not be able to ride normally.

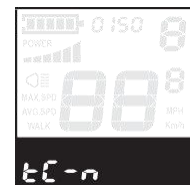
General Settings

Press and hold the power button to turn it on. In the power-on state, while the vehicle is stationary, press and hold the “+” and “-” buttons simultaneously for more than 2 seconds, and the meter enters the normal setting state.

Each setting item needs to be carried out while the e-bike is stationary.

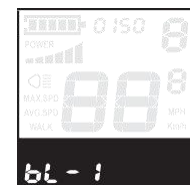
◆ Single Mileage Clear

TC stands for clearing a single mileage. Y/N can be selected by pressing the “+” or “-” button, and Y means clearing the single riding mileage. N means that the single riding distance is not cleared. Short press the “i” button to confirm and enter the backlight brightness setting state.



◆ Backlight Brightness

The single mileage clear operation interface bL represents the backlight. Parameters 1, 2, and 3 can be set to indicate backlight brightness, 1 is the darkest, 2 is the standard brightness, and 3 is the brightest. The factory default value is 1. Press the “+” or “-” button to change the backlight brightness parameter. Short press the “i” button to confirm and enter the metric unit conversion setting state. Press and hold the “i” button to confirm and exit the general setting state.



◆ Inch and Metric Conversion

U stands for unit, 1 stands for imperial system, and 2 stands for metric system. The speed and mileage units can be converted by the "+" or "-" buttons. Press the "i" button to confirm. Press and hold the "i" button to confirm and exit the normal setting. The default unit of the meter is metric.



General Parameter Settings

Press and hold the "+" and "-" buttons simultaneously for more than 2 seconds to enter the normal setting state. Press and hold the "-" and "i" buttons simultaneously for more than 2 seconds to enter the wheel diameter setting interface.

◆ Wheel Diameter Setting

LD stands for wheel diameter and can be set to 16, 18, 20, 22, 24, 26, 700C, 28. Use the "+" or "-" buttons to select the wheel diameter corresponding to the e-bike to ensure the accuracy of the meter speed display and mileage display. The factory default wheel diameter value is 26inch. Short press the "i" button to enter the speed limit setting interface.

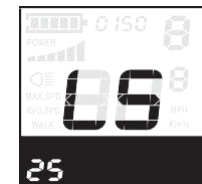


◆ Speed Limit Setting

Wheel diameter setting interface

The default value of the highest riding speed of the instrument is 32 km/h. Change this value to set the maximum riding speed of the electric vehicle. When the electric motor exceeds the set value, the controller will stop supplying power to the motor to protect the rider.

Driving safety: LS means speed limit, the maximum speed setting value can be selected from 12 km/h to 40 km/h, can be adjusted by + or "-" button; press "i" button confirm and exit the setup status.



Driving Range

The range of your Rebel is the distance the bike will travel on a single full charge of the onboard battery pack. The range values in this manual are estimates based on expected usage characteristics. Some of the factors which effect range include changes in elevation, speed, payload, and acceleration, number of starts and stops and ambient air temperatures. Tire pressure and terrain are also important variables to consider.

We suggest that you select a lower assistance level when you first get your Rebel to get to know your bike and travel routes. Once you become familiar with the range requirements of your travel routes, and the capabilities of your Rebel you can then adjust you riding characteristics if you so desire.

The following table provides general estimates and outlines various factors effecting range and their combined estimated effects on range. This table is meant to help owners understand the factors that can increase of decrease range, but Alter Ego Electric Bikes makes no claims to the range that individual users might obtain.

Best Practices for Extending Range and Battery Life

- ◆ Do not climb hills steeper than 15% in grade.
- ◆ Pedal to assist the motor when climbing hills and accelerating from a stop.
- ◆ Avoid sudden starts and stops.
- ◆ Accelerate slowly.

NOTICE: *It is recommended that users pay close attention and ride within the following limitations to ensure the hub motor does not overheat or become damaged from excessive loading.*

Parking Storage and Transport

Please follow these basic parking, storage and transport tips to ensure your bike is well cared for on and off the road.

- ◆ When pushing the vehicle manually, turn off the power to avoid accidental acceleration from the motor.
- ◆ It is recommended to park indoors.
- ◆ Switch the power off, and any lights to conserve battery. Remove the key from the bike and ensure the battery is locked to the frame or removed and brought with you for security.
- ◆ In public places, your Rebel must be parked in accordance with local rules and regulations.
- ◆ If you must park outdoors in rain, or wet conditions you should only leave your Rebel outside for a few hours and proceed to park the bike in a dry location afterwards to allow all the systems to dry out. Much like a regular bike, use in wet conditions mandates a more regular maintenance schedule to ensure your bike does not become rusty, corroded and to ensure all systems are always working safely.
- ◆ Do not park, store, or transport your Rebel on a rack that is not designed for the size and weight of the bike.
- ◆ Wide tires, as used on Rebel, cannot fit into all bike racks, please select an appropriate rack for the width of tires used on your bike.
- ◆ Locking up your bike is recommended to ensure your bike is secure and the chance of theft is reduced. Alter Ego Electric Bikes makes no claims or recommendations on the proper lock hardware or procedures to secure your bike, but we do recommend you take the appropriate precautions to keep your Rebel safe from theft.
- ◆ When storing your bike or carrying your bike on a rack for transport, you can remove the battery pack to reduce the weight of the bike and make lifting and loading easier.

Carrying Loads

The total maximum weight limit of the Rebel includes the weight of the rider as well as clothing, riding gear, cargo, etc. The kickstand is not designed to be used for loading cargo. You MUST hold onto the bike whenever loading cargo. Do not assume the bike is stable and balanced when using the kickstand, always hold onto the bike when cargo is being loaded or in place.

Total maximum payload: 125 Kilograms.

Carrying Cargo

Carrying a cargo load involves additional risks which need to be paid close attention to, users should practice riding on a flat and open area with light cargo before attempting to carry heavier loads. You must become accustomed to the braking, steering, and operational adjustments required to safely operate the Rebel with cargo. Braking, acceleration, and balancing are all significantly affected by the addition of cargo loaded on the Rebel.

The following bulleted list provides important tips for the safe operation of the Rebel when used for carrying cargo.

- Plan your route accordingly as your hill climbing ability, steering and braking are all impacted when cargo is loaded on the Rebel. Hills that are normally easy to climb and descend without cargo can become challenging and dangerous once cargo is loaded.
- Cargo should be loaded as low as possible to lower the center of gravity and improve stability, but ensure that cargo does not interfere with any moving components or the ground.
- Ensure your loads are properly secured and periodically check that nothing loosens.
- Get a feel for the cargo load in a flat and open area before riding on roads.

Do not use the front brake by itself, always apply the rear brake first followed by the front brake and be sure to use both brakes for all braking operations. Front fork failure or loss of control are plausible when the front brake is operated independently for slowing at high speed with cargo loads.



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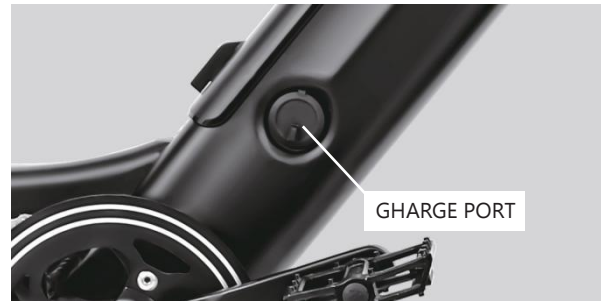


Charging Procedure

Follow these steps for charging your Rebel:

1. Turn the battery pack off using the key switch.
2. Remove the rubber cover on the charging socket on the opposite side of the battery switch.
3. With the battery on or off the bike, place the charger in a flat, secure place, and connect the DC output plug from the charger (round barrel connector) to the charging port on the side of the battery pack.

4. Then connect the input plug (110/220-volt plug) to the power outlet, charging should initiate and will be indicated by the LCD charge status light on the charger turning red.
5. After charging, indicated by the charging indicator light turning green, unplug the charger from the wall outlet first and proceed to remove the charger output plug from the bike charging port.



Always charge your battery in temperatures between 10 and 26 degrees Celsius and ensure the battery and charger are not damaged before initiating charge. If you notice anything unusual while charging, please discontinue charging and use of the bike and contact us for help.



Basic Battery Charging Tips

- ◆ The battery should be recharged after each use. There is no memory effect, so you can charge the battery after short rides without damage.
- ◆ The battery can be recharged on or off the bike.
- ◆ Remove the battery by turning the key and then pulling the battery forward and up until the battery detaches from the mating receptacle.
- ◆ The charger will automatically stop charging when the battery pack is full.
- ◆ Always charge in dry locations and indoors away from direct sunlight, dirt or debris.
- ◆ Do not cover up the charger when plugged in or charging, it air cools and needs to be left in an open space. Do not charge with the charger in the inverted position which can inhibit cooling and reduce the charger's life.
- ◆ Check the charger cables, charger and battery for damage before beginning each charge.
- ◆ The light on the charger will turn green when charge is complete and stay red while the battery charges.
- ◆ Charging normally takes 6~9hours, however it can take longer when you first receive the bike since the battery pack isbalancing.

When the Battery Is Removed

- ◆ Do not touch the "+" and "-" terminal contacts on the bottom of the battery when the battery is removed from the bike.
- ◆ Be careful not to drop or damage the battery pack when loose from the bike.

When Installing the Battery onto the Bike

- ◆ Do not force the battery onto the receptacle, slowly align and push battery down into the receptacle.
- ◆ Ensure the key is in the locked position before riding and check that the battery has been properly secured to the bike before each use by pulling upwards and testing the security of the pack.

Charging Time

When the input and output plugs of the charger are connected properly, and the battery is not fully charged, the red charging indicator light should illuminate, showing that the battery is charging. The time that the battery takes to fully charge the battery is dependent on various factors including distance traveled, riding characteristics, terrain, payload, and battery age.

NOTICE: *The battery pack can take longer to charge when fully depleted and when the battery is new. As your battery ages you might also experience increased charging times, but this is only expected after 3-5 years of regular use. If your battery does not seem to be charging normally, and taking longer to charge than expected, please discontinue charging and contact us immediately.*

Charger Safety Information

- ◆ Keep charger in a safe place away from children.
- ◆ Fully charge the battery before each use to extend the life of the battery and help to reduce the chance of over- discharging the battery pack.
- ◆ Do not charge the battery with any other chargers than what was originally supplied with your Rebel or a charger purchased directly from Alter Ego Electric Bikes for use with your specific bike serial number, as approved by Alter Ego Electric Bikes.

- ◆ The charger works on 110/220 V 50/60 Hz standard home AC power outlets, do not open the charger to select voltage input, the charger automatically detects and accounts for incoming voltage.
- ◆ Avoid charger contact with liquids, dirt/debris or metal objects.
- ◆ Store the charger in a location where it cannot suffer damage from falls/impact.
- ◆ The charger should only be used indoors in a dry ventilated area.
- ◆ If you notice a strange smell or the charger or battery are overheating, please stop charging immediately and contact us.
- ◆ Do not yank or pull on the cables of the charger. When unplugging carefully remove both the AC and DC cables by way of pulling on the plastic plugs, not pulling on the cables.

Please take special care in charging of your Rebel in accordance with the above procedures and safety information. Failure to follow proper charging procedures can result in damage to your bike, battery, and charger.



Bicycle Care

To ensure safe riding conditions you must ensure your bike is properly maintained. You should follow these basic guidelines and see your certified bicycle mechanic at regular intervals to ensure your bike is safe for use.

1. Properly maintain batteries by keeping them fully charged when not in use.
2. Never immerse the bike or any components in water as the electrical system may be damaged.
3. Periodically check wiring and connectors to ensure there is no damage and the connectors are secure.
4. To clean, wipe the frame with a damp cloth soaked in a mild non-corrosive detergent mixture. Dry with a cloth.
5. Store under shelter; avoid leaving it in the rain or exposed to corrosive materials. If exposed to rain, dry your bicycle afterwards and apply anti-rust treatment to chain and other unpainted steel surfaces.
6. Riding on the beach or in coastal areas exposes your bicycle to salt which is very corrosive. Wash your bicycle frequently and wipe or spray all unpainted parts with anti-rust treatment. Damage from corrosion is not covered under warranty so special care should be given to extend the life of your bike when used in coastal areas or areas with salty air or water.
7. If the hub and bottom bracket bearings have been submerged in water, they should be taken out and re-greased. This will prevent accelerated bearing deterioration.
8. If the paint has become scratched or chipped in the metal, use touch up paint to prevent rust. Clear nail polish can also be used as a preventative measure.
9. Regularly clean and lubricate all moving parts, tighten components and adjust as required.

Your cables, spokes and chain will stretch after an initial break in period of up to 100 km, while bolted connections can loosen. Therefore, always have a certified bicycle mechanic perform a tune-up on your Rebel after your initial break-in period of 30 days, up to 100 km (depending on total weight, riding characteristics and terrain). Regular inspections and tune-ups are particularly important for ensuring that your bicycle remains safe and problem-free.



Basic Troubleshooting

| Symptoms | Possible Causes | Most Common Solutions |
|---|---|---|
| It doesn't work | <ol style="list-style-type: none"> 1. Insufficient battery power 2. Faulty connections 3. Battery not fully seated in tray 4. Improper turn on sequence 5. Brakes are applied | <ol style="list-style-type: none"> 1. Charge the battery pack 2. Clean and repair connectors 3. Install battery correctly 4. Turn on bike with proper sequence 5. Disengage brakes |
| Irregular acceleration and/or reduced top speed | <ol style="list-style-type: none"> 1. Insufficient battery power 2. Loose or damaged throttle | <ol style="list-style-type: none"> 1. Charge or replace battery 2. Replace throttle |
| When powered on the motor does not respond | <ol style="list-style-type: none"> 1. Loose wiring 2. Loose or damaged throttle 3. Loose or damaged motor plug wire 4. Damaged motor | <ol style="list-style-type: none"> 1. Repair and or reconnect 2. Tighten or replace 3. Secure or replace 4. Repair or replace |
| Reduced range | <ol style="list-style-type: none"> 1. Low tire pressure 2. Low or faulty battery 3. Driving with too many hills, headwind, braking, and/or excessive load 4. Battery discharged for long period of time without regular charges, aged or damaged 5. Brakes rubbing | <ol style="list-style-type: none"> 1. Adjust tire pressure 2. Check connections or charge battery 3. Assist with pedals or adjust route 4. Replace the battery |
| The battery won't charge | <ol style="list-style-type: none"> 1. Charger not well connected 2. Charger damaged 3. Battery damaged 4. Wiring damaged | <ol style="list-style-type: none"> 1. Adjust the connections 2. Replace 3. Replace 4. Repair or replace |
| Wheel or motor makes strange noises | <ol style="list-style-type: none"> 1. Damaged motor bearings 2. Damaged wheel spokes or rim 3. Damaged motor wiring | <ol style="list-style-type: none"> 1. Replace 2. Repair or replace 3. Repair or replace motor |

As a parent or guardian, you are responsible for the activities and safety of your child. The Rebel is not designed for use by children.

The following safety notes provide additional information on the safe operation of your Rebel Bike and should be closely reviewed. Failure to review these notes can lead to serious injury or death.



- ◆ All users must read and understand this manual before first use. Additional manuals for components used on your bicycle may also be provided and should be read before use in addition to this manual.
- ◆ Ensure that you comprehend all instruction and safety notes/warnings.
- ◆ Ensure the bike fits you properly before first use. You may lose control or fall if your bike is too big or too small.
- ◆ Always wear an approved bicycle helmet whenever using this product and ensure that all helmet manufacturer instructions are used for fit and care of your helmet. Failure to wear a helmet when riding may result in serious injury or death.
- ◆ Ensure correct tightening and setup is performed on your bicycle before first and checked regularly.
- ◆ It is your responsibility to familiarize yourself with the laws and requirements of operation of this product in the area(s) where you ride.
- ◆ Ensure handle bar grips are not damaged and properly installed. Loose or damaged grips can cause you to lose control and fall.
- ◆ Do not use this product with standard bicycle trailers, stands or bicycle racks. Contact us to check if your equipment will work with the bicycle.
- ◆ Off-road riding requires close attention and specific skills and presents variable conditions and hazards which accompany the conditions. Wear appropriate safety gear and do not ride alone in remote areas. Check local rules and regulations if off-road riding is allowed.
- ◆ Engaging in extreme riding is extremely dangerous and should be avoided. Although many articles/advertisements/catalogues depict extreme riding this is not recommended nor permitted, and you can be seriously injured or killed if you perform extreme riding.
- ◆ Bicycles and bicycle parts have strength and integrity limitations and extreme riding should not be performed or you risk damaging the components or becoming seriously injured or killed.
- ◆ Failure to confirm proper installation, compatibility, proper operation or maintenance of any component or accessory can result in serious injury or death.

- ◆ After any incident, you must consider your bike unsafe to ride until you consult with a certified bicycle mechanic for a comprehensive inspection.
- ◆ Failure to properly charge, store or use your battery will void the warranty and may cause a hazardous situation.
- ◆ Extreme care should be taken when using the pedal assistance sensor and throttle on this product. Ensure you understand and are prepared for the power assistance to engage as soon as pedaling is underway.
- ◆ You should check the operation of the brake inhibitor switches before each ride. The brake system is equipped with an inhibitor which shuts down the power to the electric motor whenever the brakes are engaged. Check proper operation of brake switches before riding.
- ◆ User must understand the operation of the twist throttle and pedal assistance sensors before using, and take ample care in their usage in respect to traveling at speeds appropriate for usage area and user experience level. Always use the lowest assist level until you are comfortable with the bike and feel confident in controlling the power.
- ◆ Any aftermarket changes to your Rebel not expressly approved by Alter Ego Electric Bikes could void the warranty and create an unsafe riding experience.
- ◆ Because electric bicycles are heavier and faster than normal bicycles, they require extra caution and care while riding.
- ◆ Take extra care while riding in wet conditions. Feet or hands can slip in wet conditions and lead to death or serious injury from a fall.
- ◆ Do not remove front or rear reflectors, pedal reflectors or bell.

Additional Information on Wear

Components of the Rebel are subject to higher wear when compared to bicycles without power assistance. This is because the Rebel can travel at higher average speeds than regular cycles and has a greater weight. Higher wear is not a defect in the product and is not subject to warranty. Typical components affected are the tires, brake pads, suspension forks, spokes/wheels and battery pack.

When the useful life of a component is surpassed it can cause unexpected loss of function. This can result in serious injuries or even death. Therefore, pay attention to wear characteristics such as cracks, scratches or changes in the color or operation of components which could indicate useful life has been exceeded. Worn components should be immediately replaced.

