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# OWNER'S MANUAL

**Read Instructions Before Using Your New E-bike**

**Papa Grande E-Trike**



# Ristar Bicycle

Model: RSEB-706 (48V)			
Frame	6061 Alloy	Color	Any color is available
Fork	Suspension	Motor	500W front motor Bafang
Brake lever	Tektro	Display	LCD bigstone with USB
Brake	Tektro Disc Brake	Battery	LG 48V20.2AH
Handlebar/Stem	Alloy	Charger	Sans
Saddle Post	Suspension	Light	LED Prius
Pedal	VP	Speed	30kph
Derailleur	Shimano 7speed Tourney	Range	80km more
Shiftlever	Shimano 7speed		
Freewheel	Shimano 7speed	Net Weight	35kg
Tire/Tube	Kenda F/24" R/20"*2	Gross Weight	45kg
Wheel/Rim	Al double rim	Max Load	200kg



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Quick Start:

## 1, Charging:

Before plug in charger, please make sure that the charger's plug can be properly used in your area.

Examine the charger plug-in to make sure it suits your local regulation:



U.S. Standard: The United States, Canada, Japan, Brazil, Philippines, Thailand and other countries and Taiwan



Europe Standard: France, Netherland, Denmark, Finland, Norway, Poland, Portugal, Austria, Belgium, Hungary, Spain, Sweden and other European countries and South Korea, Russia and other countries.



British Standard: Hong Kong and the UK, India, Pakistan, Singapore, Malaysia, Vietnam, Indonesia, Maldives and Qatar.



Switzerland



Australia



Israel

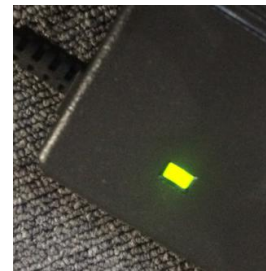
You can charge your battery installed in bike or uninstalled. If you want to uninstall the battery, push the key and twist anticlockwise until hear “Click”. Before take out the battery, you may need to take out the seat post firstly, with quick release.



Move the cover on battery:

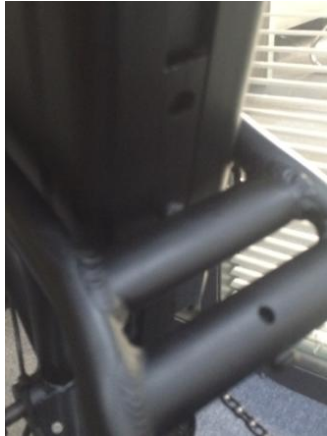


Charging:



Charging Finished:

Install the battery: please make sure that the lead rail on frame get into the slot in battery. And make sure the battery is placed completely upon the conductive contact on the bottom.



**2, Ready to Go:**



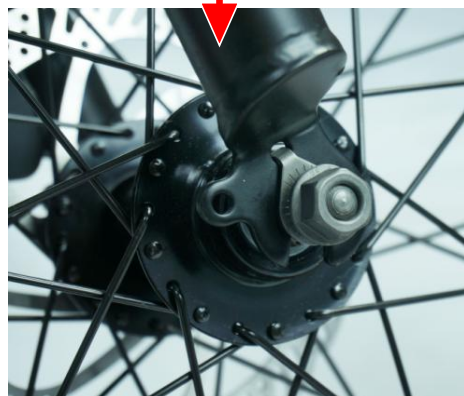
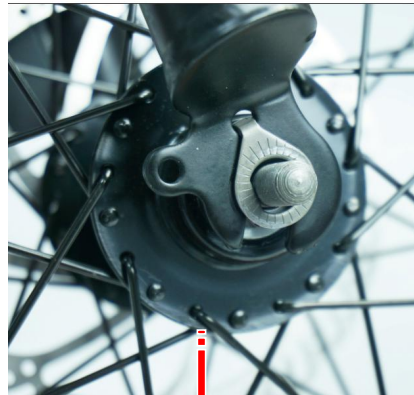
1, Twist the key clockwise to "ON" position:



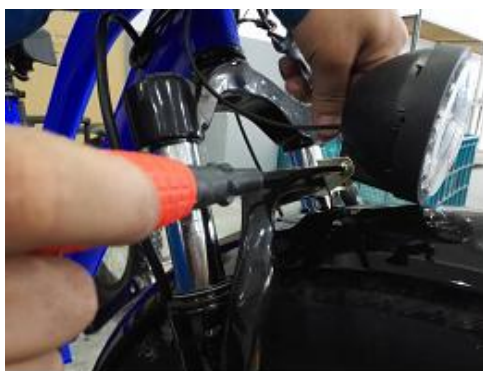
**LCD display**

2, **Hold** power **ON&OFF** (M)button and you can adjust the speed with "▲" and "▼"

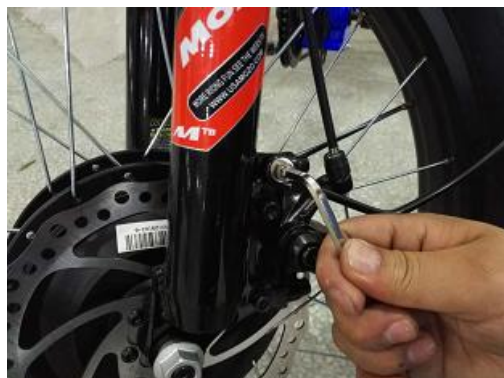
### 3, Front Wheel assembling



Fix the pads, put screws on hubs then tight the screws on both sides.



Fix the front light and top screw of the mudguard.



Fix the 2 screws of the support of the mudguards



Connect the wires of the motor and controller

(Pay attention of the two Arrow marks)

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## Before You Ride

### About this Manual

It is important for you to understand your new bicycle. By reading this manual before you go out on your first ride, you will know how to get better performance, comfort, and enjoyment from your new bicycle.

It is also important that your first ride on your new bicycle is taken in a controlled environment, away from cars, obstacles, and other cyclists.

### General Warning

Bicycles can be hazardous activity even under the best of circumstances. Proper maintenance of your cycles is your responsibility as it helps reduce the risk of injury. This manual contains many "Warnings" and "Cautions" concerning the consequences of failure to maintain or inspect your bicycle. Many of the warning and cautions say "you may lose control and fall." Because any fall can result in serious injury or even death, we do not repeat the warning of possible injury or death whenever the risk of falling is mentioned.

### A Special Note for Parents

It is a tragic fact that most bicycle accidents involve children. As a parent or guardian, you bear the responsibility for the activities and safety of your minor child. Among these responsibility are to make sure that the bicycle which your child is riding is properly fitted to the child; that is in good repair and safe operating condition; that you and your child have learned, understand and obey not only the local motor vehicle, bicycle, and traffic laws, but also the common sense rules of safe and responsible bicycling , As a parent, you should read this manual before letting your child ride the bicycle. Please make sure that your child always wears and ANSI, ASTM, SNELL approved helmet when riding.

### Safety Checklist

Before you ride, it is important to carry out the following safety checks:



#### 1. Brakes

Ensure front and rear brakes work properly

Ensure brake shoe pads are not over worn and are correctly position in relation of the rims .



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Ensure brake control cables are lubricated, correctly adjusted and display no obvious wear.  
Ensure brake control levers are lubricated and tightly secured to the handlebar.



## 2. Wheel and Tires

Ensure tires are inflated to within the recommended limit as displayed on the tire sidewall

Ensure tires have tread and have no bulges or excessive wear.

Ensure rims run true and have no obvious wobbles or kinks.

Ensure all wheels spokes are tight and not broken.

Check that axle nuts are tight. If your bicycle is fitted with quick release axles, make sure locking levers are correctly tensioned and in the closed position.



## 3. Steering

Ensure handlebar and stem are correctly adjusted and tightened, and allow proper steering.

Ensure that the handlebars are set correctly in relation to the forks and direction of travel.

Check that the headset locking mechanism is properly adjusted and tightened.

If the bicycles is fitted with handlebar end extensions, ensure they are properly position and tightened.



## 4. Chain

Ensure chain is oiled, clean and runs smoothly.

Extra care is required in wet or dusty conditions.



## 5. Bearing

Ensure pedals are securely tightened to the cranks.

Check headset, wheel bearings, pedals bearing and bottom bracket bearings.



## 6. Cranks and Pedals

Ensure pedals are securely tightened to the cranks  
Ensure cranks are secure to axle and are not bent.



## 7. Derailleurs

Check that front and rear mechanisms are adjusted and function properly.

Ensure shift and brake levers are attached to the handlebar.

Ensure derailleur, shift levers and shift and brake cables are properly lubricated.



## 8. Frame and Fork

Check that the frame and fork are not bent or broken  
If either are bent or broken, they should be replaced.



## 9. Accessories

Ensure that all reflectors are properly fitted and not obscured.

Ensure all other fittings on the bike are properly and securely fastened, and functioning.

Ensure the rider is wearing a helmet.



## 10. Motor Drive Assembly and Throttle

Ensure all motor drive components are correctly mounted and functioning properly.



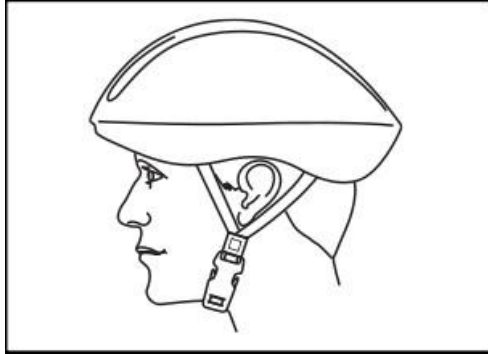
## 11. Battery Pack

Ensure the batteries are in good operation condition and kept fully charged and properly secured and locked.

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## Helmets

It is strongly advised that a properly fitting, ANSL or SNELL approved, bicycle safety helmet be worn at all times when riding your bicycle. In addition, if you are carrying a passenger on a child safety seat, they must also be wearing a helmet.



The correct helmet should:

- be comfortable
- be lightweight
- have good ventilation
- fit correctly
- cover forehead



Always wear a properly fitted helmet which covers the forehead when riding a bicycle. Many states require specific safety devices. It is your responsibility to familiarize yourself with the law of the state where you ride and to comply with all applicable laws, including properly equipping yourself and your bikes as the law requires. Reflectors are important safety devices which are designed as an integral part of your bicycle. Federal regulations require every bicycle to be equipped with front, rear, wheel, and pedal reflectors. These reflectors are designed to pick up and reflect street lights and car lights in a way that helps you to be seen and recognized as a moving bicyclist. Check reflectors and their mounting brackets regularly to make sure they are clean, straight, unbroken and securely mounted, Have your dealer replace damaged reflectors and straighten or tighten and that are bent or broken.

## Battery Gauge

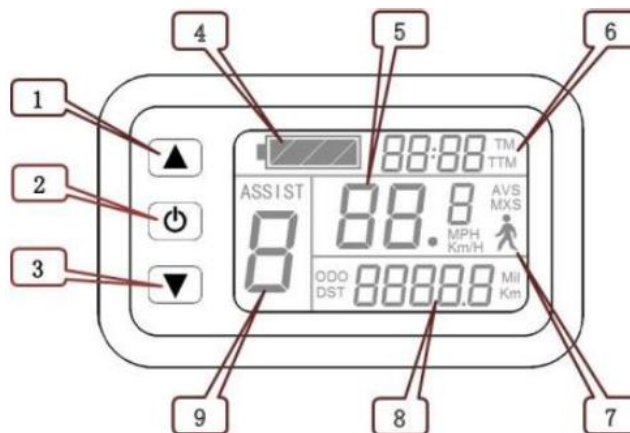
When the throttle or sensor is engaged (Powering the motor) and the bicycle is in motion, the LED's on the battery gauge (on the throttle or separate unit) indicate instantaneous line voltage as measured at the battery terminals- and not the available energy in the battery pack.

The line voltage will fluctuate depending on the instantaneous load that the motor is under. For example ,when starting out from a dead stop, or going up a steep hill, the motor will be under a high load and may show a reduced number of LED's.

When the throttle is disengaged (i.e. no power to the motor due to the bicycle being stationary or coasting) the LCD display will indicate the voltage of the battery pack. The voltage of the battery pack will rise when no load is on the motor. The best indication of how much battery life is remaining is to check the LCD display, after reaching cruising speed, on a flat straight road as this will allow the battery voltage to stabilize and give a much more accurate reading.

### LCD-1

#### ● Functions and Display



1		UP Button	6	TM	Single trip time
2		SW Button		TTM	Total trip time
3		DOWN Button	7		6Km/H push power assist
4		Battery capacity indicator	8	Km	Distance(metric)
5	Km/H	Riding speed(metric)		Mi	Distance (imperial)
	MPH	Riding speed ( <b>imperial</b> )		DST	Trip distance
	MXS	MAX speed		ODO	Total distance
	AVS	Average speed	9	ASSIST	Pas level

#### ● Operation

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#### 1. ON/OFF

Hold ON/OFF button to startup; hold ON/OFF button for a second time to turn off the meter. After 5 minutes of motor or meter not working, the LED display will be turned off automatically and cut off the power supply.

#### 2. Headlight

After turn on the display, hold ▲ to turn on the headlight. Take same operation to turn off the headlight.

#### 3. Assist Ratio Gear(Assist) Switch

Hold ▲ and ▼ shortly to switch 1-5 virtual gear. Gear 1 is for the minimum power while 5 is for the highest. Gear 0 is without boost function.

#### 4. 6KM/H Assist Function

Hold ▼ button, the vehicle drives at the speed no more than 6KM/H. Release ▼ button, the function is invalid.

#### 5. Error Code Display

Electronic control system failure will display(flashing) fault code. Once the fault is resolved, it will stop flashing.

Error Code	Definition
01_info	Throttle Abnormality
03_info	Motor hall signal Abnormality
04_info	Torque sensor signal Abnormality
05_info	Axis speed sensor Abnormality(only applied to torque sensor)
06_info	Motor or controller has short circuit abnormality

**(Sometimes we will use different LCD display, please check the extra attached LCD manuals)**

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## Throttles

Throttles, are equipped on some models of electric bicycles. Throttles operate by rotating the throttle much like a motorcycle. They generally are the inner half of the right side handlebar grip and may also contain a battery gauge. The more you twist the throttle, the faster the motor system will propel bicycle.



TAG Throttle

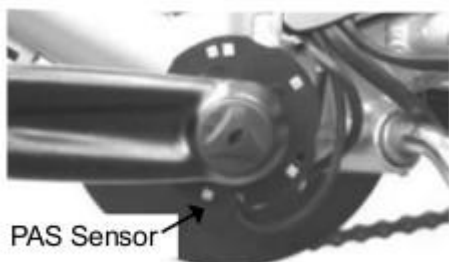
### TAG (Twist and Go)

Before you begin riding, turn the main power switch on, then start riding as you would ride a regular, non-motor assisted bicycle. After you have begun to ride, slowly twist/push the throttle (on equipped models). The more you twist the throttle, the more motor power will be applied to the wheels. You may feel the pedals get a “lighter” feel than riding without the motor assisting you. Once you have twisted the throttle all the way, the motor will accelerate you to its full speed of about 15mph (24km/h).

### PAS (Pedal Activated System)

Electric bicycles with this system have a throttle that is only active when the pedals are in forward motion. A sensor ring on the bottom bracket spindle rotates and a sensor reads this rotation.

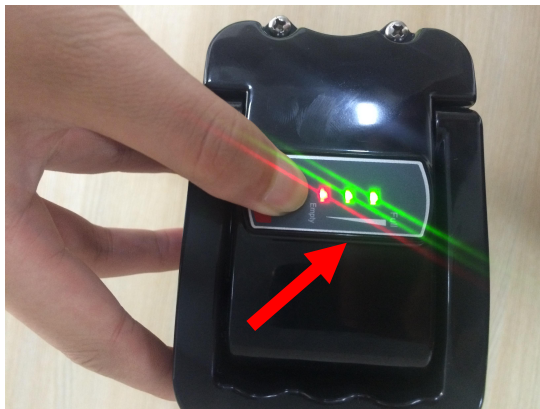
Begin by first riding as if you are on a normal non-electric bicycle, then while the pedal are in motion slowly twist the throttle towards you to activate the motor power.



## Taking Care of Your Batteries

Proper maintenance of the batteries will maximize their lifespan and available ride time.

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- We use Li-Ion (Lithium Ion) batteries in all of our electric bicycles. These are very user friendly types of batteries when cared for properly.
  - Batteries should be fully charged immediately when they are received for the recommended charge times. **FULLY CHARGE BATTERIES BEFORE FIRST USE.** Below are the recommended charge times for each type of the batteries.
    - Li-Ion(Lithium Ion) batteries 4-6 hours
  - Charge batteries at least every 90 days for Li-ion.
  - Always store bicycle with fully charged batteries.
  - Never charge the batteries for more than 24 hours
  - Always disconnect the charger from the wall outlet and bicycle when charging is complete (as indicated by the status on the charger) before storing the bicycle.
  - Do not store the batteries below 50°Fahrenheit and never allow batteries to freeze (Below 32°Fahrenheit)**
  - Li Bikes are equipped with a 5 seconds sleep mode .If do not use the battery for a long time we suggest you to keep the button above the battery for 5 seconds till the light flash then it will go into "Sleep Mode" and if you want the Li battery working then do same before.



- Always be sure to turn the bike "OFF" after each use via the ON/OFF power switch. If you have left the power switch on or your product have not been charged for a long period of time, the batteries may reach a stage at which it will no longer hold charge.
- Be friendly to the environment! Be sure to recycle your old batteries at a local battery recycling center. Do not throw them in the garbage.
- Frequent "stops and starts" will drain a battery more quickly than sustained. long term use.
- Even with proper care, rechargeable batteries do not last forever. Average battery life depends on use and conditions.
- The Li-Ion battery rear lights power is directly on the rear of battery .
- The Battery power switch is the Red Button under the rear battery (beneath LED Light).
- The Li-Ion battery charger connector is covered by a rubber cover when you lift the battery handle.



## ATTENTION

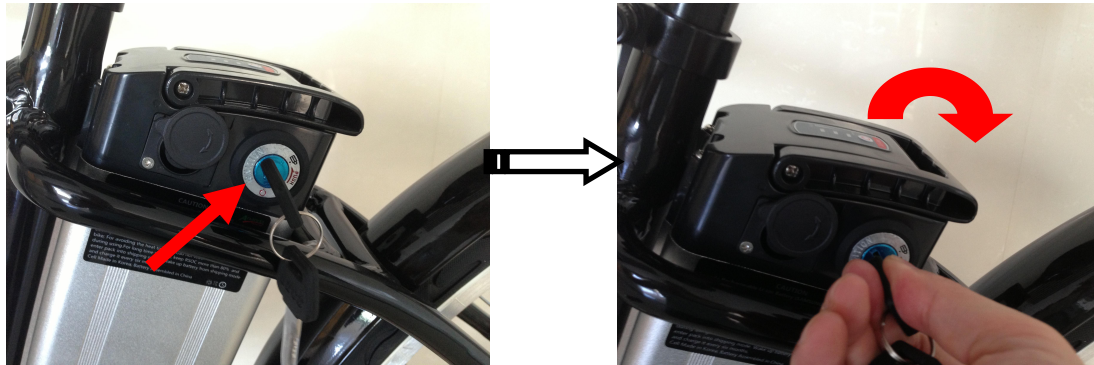
- Be sure to charge battery pack at least every 90 days even if not used. Doing so will help to maximize the life of your battery pack.
- Always be sure to turn the bike "OFF" after each use via the On/Off power switch.



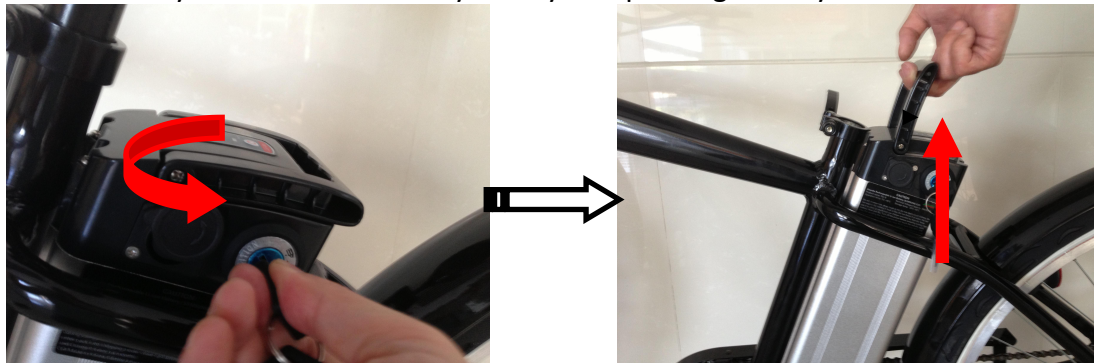
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## Li battery model

1. Push the battery box into the compartment along the rail, turn the key to lock the box first then second turn on the power.



2. Turn the key to unlock the battery box by first pushing the key.



## Charger

The electric bike comes with its own “Smart Charger” that connects with an easy-access charger port for recharging the batteries. This charger has lights which show the battery charge status.

Batteries work best when they have a full charge, so always be sure to recharge them fully after each ride. If you leave them in a run-down condition, without recharging them, it will shorten their life expectancy.

Li-Ion (Lithium ion ) batteries –charge for 4-6 hours

The charger may get warm to the touch, so make sure you charge they are in an open area and do not lay anything on the charger unit while charging. Although you cannot over-charge the batteries using the “Smart Charger”, We recommend that you do not leave the charger plugged in for more the 24 hours.

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If your charger shows a solid green light after charging for a short period of time, your battery may have been only partially discharged (Short ride), or this may be the sign of a partially worn out battery reduced charge capacity. Continue charging for the full time, to cover all the bases. If the battery still has not charged, you may need to replace it.

Even with Proper care, a rechargeable battery dose not last forever. Average battery life depends of use and conditions.



The charger and charger port should be regularly inspected for damage (Cord, plug, enclosure, etc.). If damage is found stop using until the damage part can be repaired or replaced.

### How to use the Li-ion battery charger



#### CAUTION

RISK OF ELECTRIC SHOCK, DRY LOCATION USE ONLY. SEE INSTRUCTION MANUAL FOR USE.



1. Red light means charging
2. Green light means charge-full
3. Input: AC100-240V~, 1.6A (Max) 50/60Hz
4. Output: 42.00V—2.0A
5. Plug the charger into the outlet and turn the charger “ON” via the switch on the black side. The red power light on the front of the charger will illuminate when the charger is working properly.
6. Insert the XLR plug into the charger port on the bike being sure the charger plug is fully seated in the charger port. The second light will start to flash orange for several seconds while the charger is “seeking” the battery.

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7. Once the charger has “found” the battery the blinking orange light will stop flashing and turn solid orange and cooling fan will start. At this point the charger process has begun.
  8. Once the battery reaches full charger, the orange light will turn solid green.
  9. When charging is complete, unplug the charger from the wall before removing it from the charger port.

Charge for the full time. If the battery still has not charged, you may need to replace it.



**Use only Drummer International ,LLC Authorized Li-Ion chargers with bicycles equipped with Li-Ion batteries.  
Using any other charger will damage the batteries and void your warranty.**

## Battery Care

### Battery Storage

#### **How to store your battery for a extended time?**

Charge the battery every 3 months to avoid capacity loss. Batteries slowly self-discharge when left unused for a long time; if battery cells are allowed to reach a critically low voltage, their lifespan and capacity will be permanently reduced.

Always disconnect your charger from the wall outlet and battery before storing the battery.

Avoid storing your battery in extreme temperatures, whether hot or cold.

Batteries are best kept in a cool, dry place. Do not allow batteries to accumulate condensation, as this could cause shorting and corrosion.

The recommended storage temperature for Li-ion batteries is between 32~77° F.

Avoid exposing the battery to extreme heat (104° F or higher) for long time.

### Battery FAQ'

Q; Do I need to charge the batteries before using them?

A; Yes, You should charge the batteries fully before first using them.

Q: Do I need to “break-in” my batteries?

A: Yes, the batteries will need to have a “break-in” cycle consisting of-three discharge/charge cycles before then will reach optimum performance. This involves three complete discharges and three complete recharges. After this initial “break-in” cycle batteries will have maximum possible performance and less line voltage fluctuations under load.

Q: How long will the batteries hold their charge?

A: All batteries will self-discharge when not in use. The self-discharge rate depends on the temperature at which they are stored. Excessively cold or hot storage

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temperature will drain the batteries faster than normal. Ideally the batteries should be stored at room temperature.

Q: Why should I recharge my batteries at least 90 days (Li-ion) when I am not using them?

A: Batteries naturally lose their charge over time. To keep batteries in optimal condition and extend their life, it is recommended that a top-off recharge be performed at least every 90 days for Li-ion batteries.

Q: Will I get more performance for my bike if I leave the batteries to charge longer?

A: No, once the batteries are fully charged ( as indicated by the light on the charger) it is best to unplug them from the charger, leaving the batteries charging longer than necessary is called "overcharging" and will not increase performance. Our bikes supplied chargers are designed to avoid over-charging a battery. Still we recommended that you always unplug a charger after the units is fully charged to avoid the possibility of unanticipated circumstances such as an unexpected power surge from a lightning strike(or other power line anomaly) potentially causing damage. Only use Ristar supply chargers.

Q; Is it normal that the batteries get warm when recharging?

A: Yes, it is normal that the batteries will become warm to the touch during the recharging process. This is because the increase of internal resistance and less energy conversion efficiency from electric energy to chemical energy.

Q; How long will my batteries last before needing replacement?

A; Average battery life depends on use and conditions. Even with proper care, recharge batteries does not last forever.

## BATTERY DISPOSAL

Please recycle your old batteries

- Do not dispose of batteries in a fire due to risk of explosion.
- In the event of disposal, dispose only in accordance with federal, state and local regulations.



## ATTENTION

In the unlikely event that you suspect fluid is leaking from your SLA battery follow the precautions below.

- Internal exposure: If battery acid is ingested give water, milk of magnesia or egg whites immediately. Never give emetics or induce vomiting. Contact a physician immediately.
- External exposure: If battery acid comes in contact with skin or eyes flush immediately with cool water for 15 minutes. Contact a physician immediately

If the battery develops a leak avoid contact with the fluid (battery acid). Place leaking battery into a plastic bag and dispose of safely and properly.

## DO NOT DISPOSAL BATTERY



Li-ion



Pb

## Seat Adjustment

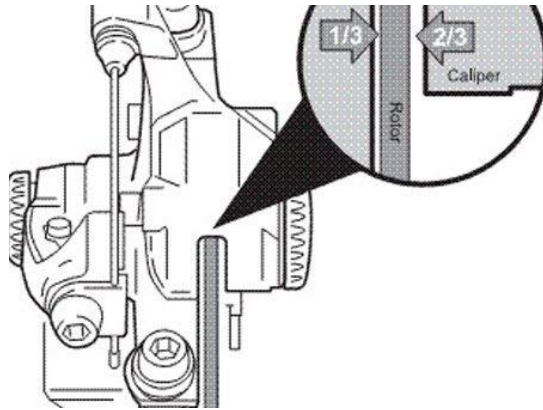
Use the quick release to adjust the height of the seat post.



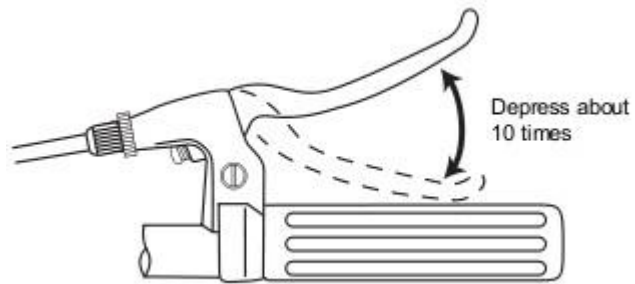
You can lift the seat and take out of the battery to recharge separately.

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## Braking Adjustment



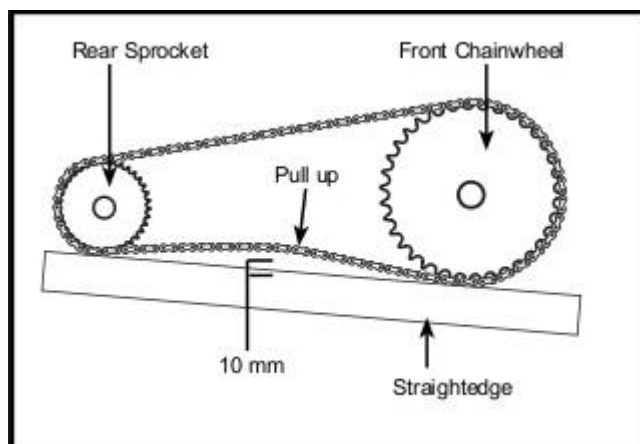
Depress the brake lever about 10 times as far as the grip to check that everything is operating correctly and that the shoe clearance is corrected before riding the bike.



## Chain Adjustment

### Inspection

The chain must be kept clean, rust free and frequently lubricated in order to extend its life as long as possible. It requires replacement if it stretches, breaks, or causes inefficient gear shifting. Make sure that there are no stiff links, they must all move freely.



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## Lubrication

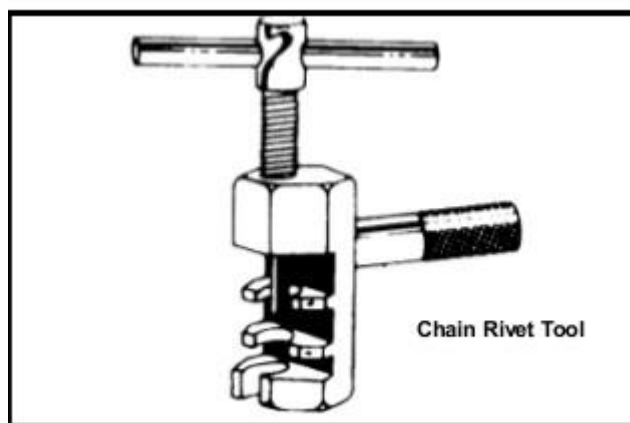
The chain should be lubricated with light oil at least every month, or more often in wet, muddy, or dusty conditions. Take care to wipe off excess oil, and not to get oil on the tires or rim braking surfaces

## Adjustment and Replacement

On derailleur geared bicycles the rear derailleur automatically tensions the chain. To adjust the chain on single speed freewheel, coaster hub braked or 3 speed hub geared bicycles:

1. Loosen the rear axle nuts ( and coaster brake arm clip ) and move the wheel forward to loosen , or backward to tighten, in the frame.
2. When correctly adjusted, the chain should have approximately 10mm(3/8") of vertical movement when checked in the center between the chain wheel and rear sprocket. Center the wheel in the frame and re-tighten the axle nuts after any adjustment. Bicycles which have a single speed freewheel, coaster brake or 3- speed hub, generally use a wider type chain than derailleur geared bicycles. These chains can be disconnected by way of a special U-shaped joining link, that can be pried off of the master link with a screwdriver. To replace, feed the chain around the chain wheel and rear sprocket, fit the master link into the rollers into each end of the chain, position the master link side plate, and slip on the U-shaped snap-on plate. Make sure the open end of the U-shaped plate is trailing as the link approaches the chain wheel when pedaling forward.

Derailleur geared bicycle use narrower chains and require a special tool to fit and remove chain links, or to change the length. To remove, fit the rivet tool so that punch pin is centered over any one of the chain rivets. Push the rivet almost all the way out, then back out the punch and remove the tool. Holding the chain on both sides of the punched rivet, bend it slightly to release link form the rivet. To install, feed chain around chain wheel, rear sprocket and derailleur cage with rivet facing away from the bicycle. Bring the two ends together within the special tool and punch the rivet into place. Be sure not to push rivet too far through side plate.



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## Fuse

All Ristar electric bicycles are equipped with fuse. The fuse may be located, depending on the model of the bike, in the following locations:



In the event of an overload the fuse will pop and need to be replaced. In this instance replace only approved part from Ristar



Risk of fire. Do not bypass fuse.



## Troubleshooting

<b>Failure symptoms</b>	<b>Cause of Problem</b>	<b>Solution</b>
The battery indicator light on the meter is off, and the motor does not work	Battery voltage is too low	Immediately charge
	Battery is not providing proper power	Replace the battery
	The battery lock does not work, preventing battery from being properly secured	Replace of the battery lock
Motor is operating when battery lock is unlocked	The throttle handle is connected incorrectly to the controller	Reconnect per wiring diagram
	Controller is damaged	Replace the controller
The motor stops intermittently	Poor or loose battery connection	Adjust or clean contacts
	Battery moving due to vibration	Check or replace Battery lock
Reduced Ride Time	Battery is unable to hold charge properly	Replace of the battery
	Battery supplying lower voltage	Battery maintenance or replacement
Battery is not fully charging	Battery has gone bad	Replace the battery
	The charger has no output	Check connections or Replace the charger
	Poor contact between the charger plug and the charger socket	Clean or Replace charger socket
Headlights doesn't work	Switch of the headlights doesn't work or connection	Replacing of the switch, check connection
Controller does not function	short-circuit in the controller	Replacing of the controller