

*Lee*

**Forte**

**Owner's Manual**

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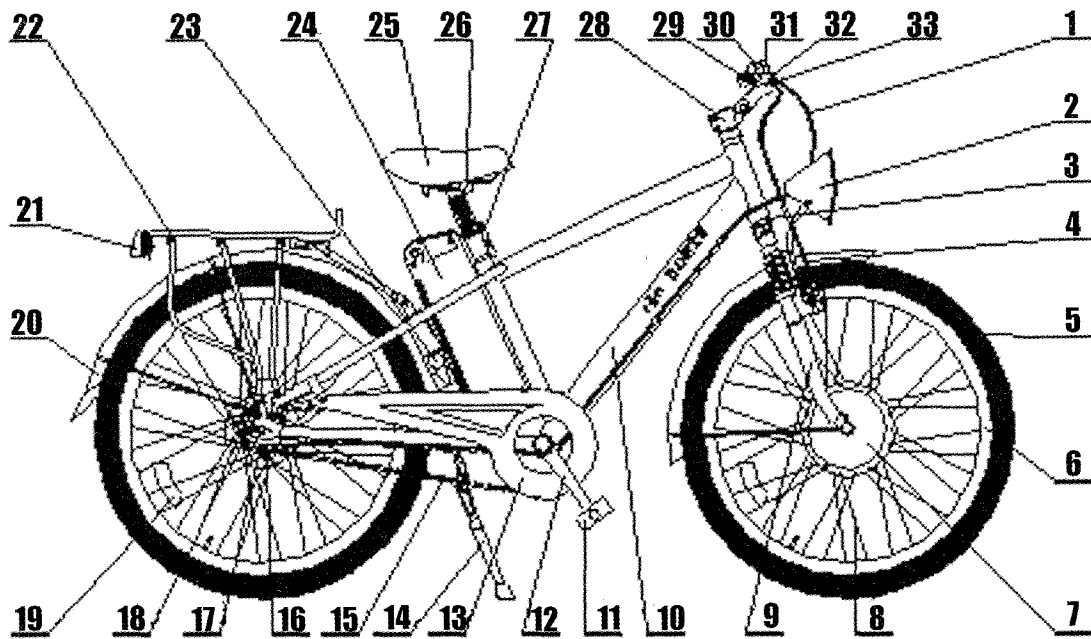
## **Forte in the fast lane**

Thank you and congratulations on purchasing your very own eZee Forte. This manual will help you familiarize with the assembly, usage and maintenance of your bicycle. It is however not a comprehensive manual for all situations you might face throughout the lifetime of the product. While owning an eZee Forte will be great fun, please understand that this is a complicated piece of machinery. You should never attempt to repair, adjust the bicycle unless you are sure that you are doing it properly. If there are any doubts, please consult your local professional bicycle mechanic, contact your local distributor or email us at

[ezeebike@gmail.com](mailto:ezeebike@gmail.com)



Practice handling your bike in a safe area before using it in public traffic. Do not underestimate the power of the little motor and the speed at which are riding. With a total weight reaching or exceeding 100 kgs (220 lbs) and a speed of 25 kmh (16 mph), riding this bike can be considered extreme cycling, you should always brake with both front and rear brakes together.



### Parts Identification

- |   |                               |
|---|-------------------------------|
| 1. Brake Cable  | 18. Tensioning bolt and plate |
| 2. LED head lamp  | 19. Reflector                 |
| 3. Bearing race   | 20. Mudguard / fender         |
| 4. V-brake  | 21. Rear LED light            |
| 5. Tyre 26" x 1.9"  | 22. Rear carrier              |
| 6. Rim  | 23. Rear support              |
| 7. Hub motor  | 24. Battery pack              |
| 8. Spokes 13G   | 25. Saddle                    |
| 9. Suspension front fork                                    | 26. Saddle fixing bracket     |
| 10. Frame Al alloy  | 27. Sear post clamp QF        |
| 11. Pedal   | 28. Threadless Head set       |
| 12. Crank   | 29. Head stem                 |
| 13. Chainguard  | 30. Bell                      |
| 14. Central kick stand                                      | 31. Battery level gauge       |
| 15. Rust resistant chanin $\frac{1}{2} \times \frac{3}{32}$ | 32. Handle bar                |
| 16. Shimano Nexus Inter 8 Hub gear                          | 33. Brake lever               |
| 17. Shimano Nexus BR IM 70R roller brake                    |                               |

## About your eZee Forte

eZee bicycles are designed for your comfort and safety. It is a zero emission environmentally friendly vehicle, an ergonomically designed bicycle for comfortable cycling and an economically efficient vehicle, giving you ideal mileage and mobility at a fraction of regular transportation costs. The electrical consumption is about 1.0 Kwh for 100 km (62 miles) on e-bike mode.

Our pledge to quality ensures that our components are durable and reliable. Despite this, it is also your responsibility to understand all the safety implications and possible risks when riding a bicycle. Therefore please take some time to read and understand this manual thoroughly before riding your eZee Forte. Due to us constantly improving our products, the parts or the structure of the bike may vary from those illustrated in this manual. We kindly ask for your understanding in this aspect of the changes.

The motor is brushless and is therefore not subjected to wear of carbon brushes as in a normal DC motor, this is a state of the art technology called Pulse Wave Modulation (PWM) control. Planetary reduction gears are incorporated inside the motor hub giving it a very strong torque. The motor under normal cruising conditions (26km/h or 16mph on level roads) draws about 5 amps at 140 watts power with 5 Nm torque and has an efficiency of about 80%.

The motor power in the front wheel working with the Shimano Nexus 8 internal gear hub can take you up a 10% grade easily with little stress.

## How to assemble



**Please read instructions carefully before proceeding. Do not attempt to fix the bicycle until you are sure. Any damage on the bicycle resulting from proper assembly will not be covered under our warranty scheme.**

It is your bicycle. You'll enjoy using it over and over again, so please start by assembling it correctly.

**1. Tools required check:** Ensure that you have the correct tools for the job. If you are not sure please do not attempt the assembly. Proper tools are the first step in safe assembly. You will need

Screwdriver Philips #1 and #2  
Allen / Hex Keys metric set  
Open-ended flat wrenches with metric measurements  
6mm – 17mm

**2. Get ready:** Begin removing bicycle from packaging and lay it on a clean flat surface, be sure to remove any part packages that comes along with the bicycle. Discard the box and packaging material only.

**3. Front wheel:** Make sure the front wheel is securely inserted into the front fork. Tighten the nuts alternatively on both sides until the wheel is secured, do not tighten one side only with huge force. Tightening torque 35 Nm.

**4. Seat Installation:** Take the seat post and insert it into the seat tube of the bicycle frame and align the seat accordingly while tightening the seat clamps. Ensure that the seat is securely fastened to the bracket of the seat post. For your own safety and comfort do not adjust the seat post beyond its "Maximum Ext." mark.



An over-extended seat post can result in fracture and breakage of the seat tube due to stress exceeding design load. Warranty of the frame will be voided in such cases.

**5. Installing handlebar / stem / threadless headset:** The handlebar and stem comes pre-assemble. Remove packaging material, loosen all 3 bolts on the stem, turn the handle bar assembly so that it is perpendicular to the frame.

**First** tighten the stem bolt located at the top with hex key, then tighten the 2 side bolts. Wrong or reversed procedure will not enable the fork to be securely seated on the crown / bearings.

**6. Installing the pedals:** There are 2 pedals, each of them are marked with either "R" or "L" indicating right and left pedals respectively. Screw in clockwise for the right

pedal and counter-clockwise for the left, then tighten both with a wrench. The thread in the crank is made of Al Alloy and could be easily damaged during riding if the pedals are not tightened.

**7. Front mudguard:** The supports are attached to the sides and the top of the front fork, ensure all nuts and bolts are fastened. The mudguards are made from high quality polycarbonates and should not rattle when securely fastened.

**8. Brakes:** Brakes are one of the most important safety features on the bicycle. Please ensure that the brakes on your bicycle are always set right in order to minimize your risk being injured. Tighten brakes and ensure that the V-Brake pads are parallel to the rim and that the distance between rim and brake pad should not exceed by more than 2mm. Test by squeezing brakes and check for firmness. You may continue to fine tune with a Philips screwdriver. If you are unsure, we recommend that you visit your local professional bike mechanic to help you. The front brake is a rim brake / V-brake and the rear brake is a Shimano Roller brake. Ensure brakes are firm and working well. Please refer to the attached Shimano manual.

**9. Accessories:** Install any accessories options that you have purchased together or is all ready provided with your package.

**10. Battery:** Your bicycle comes with a steel seat post with suspension of which the saddle could be flipped upwards for easy removal of the battery. Release the saddle by pressing up on the cache located at the underside of the saddle. Place the battery into the battery slot holder following the slot guidelines then press the battery down firmly. Always lock the battery in the holder until you have a purpose of remove it (e.g. Charging or changing battery). Ensure that the key is in the "Off" position until you are ready to ride the bicycle.

For people with a charging A/C outlet conveniently located where the bicycle is parked you will not need to remove the battery in the case of charging it. An option of a lighter standard Al alloy seat post is available to those who would like one but in this case removal and installation of the battery would involve removing the seat post by releasing the clamps.

**11. Tyres:** Ensure that the tyres are inflated to the correct pressure of 40 psi. For a smooth and safe ride, do not over-inflate nor under-inflate the tyres. The Forte has 26" x 1.95" inch tyres with puncture resistant K-Shield, reflective bands but it is not puncture proof.

## **Before Riding**

Check that your bicycle has met with all safety precautions before riding off. The following checklist is designed to be a rough guide to follow:

### **Frame and Fork**

Visually check to see that the frame and fork are not amaged. Bent or fractured frames or fork will pose a serious safety hazard.

### **Wheels and Tyres**

Check to see that your bicycle wheels have no missing or damaged spokes. Feel the spokes to ensure they are tight. If your wheels are not true (straight) take it to a professional for calibration. Check the tyres to see that they are properly inflated to the recommended tyre pressure. Tighten bolts and nuts accordingly.

### **Handlebar and Stem**

Make sure that the handlebar and stem are correctly positioned to the 'face forward' position. Check the grips to ensure they do not slip.

### **Brakes**

Check by squeezing the brake levers, your brake pads should not exceed beyond 2mm away from the rim. Make sure your brake cables are not interfered by other cables or accessories.

### **Chain**

Turn the crank arms to ensure chain runs smoothly. Ensure that the chain is lubricated and clean. Tension of the chain can be changed by tightening or loosening the chain adjuster (located at the end of the frame by the rear wheel)

### **Electronics**

Ensure that all wires through the electronic system are securely fastened and in place. Loose wires ay result in power failure and might even be cause of a short circuit, damaging sophisticated electronics beyond repair.

### **Gears**

eZee Forte comes with Shimano Inter 8, 307% high low difference, 12,14,16,20,24,27,31,38T with Roller brake or for coaster brake with 60% more braking power than any other CB. Please consult the operation manual regarding gears that is provided with your purchase.

## Night Riding

Riding a bicycle at night is many times more dangerous than during the day. You should not ride during dawn, dusk and night unless absolutely necessary.

In consideration of your safety eZee bikes have double installed high quality wide angle reflectors at the front, sides and rear. Front and rear light as connected to the main battery and a switch on the handlebar for "on and off"

## Be Safe

If you are not sure that your bicycle will operate safely and efficiently, take the bicycle to a professional bicycle service centre for proper adjustment. We strongly advise that you wear a helmet whenever you ride the bicycle.



If your seat post projects from the frame beyond the Maximum Extension mark, the seat tube may break which could cause you to lose control and fall. The Maximum Extension label must not be visible after installation.



After any saddle adjustment, be sure to tighten the saddle adjusting mechanism properly before riding. A loose saddle clamp or seat post binder can cause damage to the seat post, causing you to lose control and fall. A correctly tightened saddle adjusting mechanism will allow no saddle movement in any direction. Periodically check to make sure saddle adjusting mechanism is properly tightened.



The shorter the brake lever reach, the more critical it is to have correctly adjusted brakes, so that the full braking power can be applied within available brake lever travel. Brake level travel insufficient to apply full braking power can result in loss of control, which may result in serious injury and death.



Many countries require specific safety devices. It is your responsibility to familiarize yourself with the laws of the country where you ride and to comply with all applicable laws, including properly equipping yourself and the bike as the law requires.



### Pushing the bike.

If you have e-bike mode, the motor could be activated accidentally if you have the switch on and if your hand is resting on the throttle while pushing the bike. To avoid this do not turn the power on until you are ready to mount the bike. Always switch off the power key lock or the throttle switch as soon as you get down from the bicycle.



**Never inflate a tyre beyond maximum pressure marked on the tyre's sidewall. Exceeding the recommended tyre pressure may blow the tyre off the rim, which could cause damage to the bike and injury to the rider and bystanders.**



**Riding at dawn, at dusk, after dark or at times of poor visibility without a bicycle lighting system which meets local and state laws and without reflectors is illegal, dangerous and can result in serious injury or death.**

## **Safe and Responsible Riding**

Like any sport, bicycling involves risk of injury and damage. By choosing to ride a bicycle, you assume the responsibility for that risk, not the people who sold you the bicycle, not the people who made it, nor the people who distribute it. Nor the people who manage the roads you ride on, but YOU. So you need to know – and to practice – the rules of safe and responsible riding.

Because the eZee Forze is designed as a comfort city bike, they are made for commuting purposes. We strongly do not recommend you treat this bicycle for other purposes such as going on mountain trails, speed cycling, downhill and stunt biking. There are other bicycles designed for such purpose, and the purpose of an eZee Forza is for quiet, easy and efficient commuting with fun.

### **The Basics**

1. Always do mechanical and electronics inspections of the bicycle before you get on.
2. Always wear a cycling helmet which meets the latest Snell, ANSI or other approved standards.
3. Be careful to keep body parts away from the sharp teeth of the chainwheel, the moving chain; the turning pedal and cranks; and the spinning wheels of the bicycle.
4. Always wear shoes that will stay on your feet and will grip the pedals. Never ride barefooted or wearing sandals.
5. Be thoroughly familiar with controls of your bicycle.
6. Wear bright, visible clothing that is not so loose that it will catch onto the moving parts of the bicycle or be snagged by objects at the side of the road.
7. Think about your speed and keep your speed at a consistent level that meets with road conditions.
8. Be reminded that during wet weather conditions, brake distance will vary quite differently from dry weather conditions. We advise you pay extra attention during these conditions and brake earlier than you usually do during dry weather conditions.
9. Always follow road safety regulations in the country you are riding in, especially those applicable to bicycles. Avoid as much as possible riding a bicycle in wet

- weather conditions and in poor visibility conditions such as night cycling or cycling in a fog.
10. The electronic controls are installed with overload protections. When the power gets cut off in an overload situation, you have to turn the power off with the keys and start again. The second level overload protection is the 30 amps fuse installed at the battery box. If restarting fails, check the fuse. Replace fuse if it has blown, or otherwise check the number of blinks on the red LED with the self diagnostic system of the controller.
  11. Low voltage protection. To prevent the battery from deep discharge that will irreversibly damage the battery, the power will cut off when it reaches a certain low voltage protection. When you see that the battery level indicator shows the yellow/orange warning light it is necessary to charge your battery again. When the minimum battery level is reached the electric motor will not function smoothly

### **The working of the EPAC (electric power assist cycle)**

It is important for your enjoyment and safety to understand how things work on your bicycle. Even if you're an experienced cyclist, don't assume that the way things work on your new bike is the same as how they work on older bikes. Especially in the case of power assisted cycles. Be sure to read and understand this section of the manual. If you even have the slightest doubt as to whether you understand something, please consult us.

### **Battery Charging Operations**

As there are different battery types and they use different chargers ensure that you are using the right charger for the battery.

Nicket metal hydride (NiMH) 36V 9Ah  
Lithium ion (Li+) 36V 10Ah



**Ensure that the charger and a/c outlet is the same voltage type.**

Plug the charging pin into the battery charging socket, and then the power cord to the a/c outlet (and then turn on the power on the a/c outlet if there is one) and then the power "on" switch of the charger. It is very important to follow this protocol.



**Please ensure that the grooves on the charging pin must match the socket, failure to do so may result in short circuiting and the irreversible damage of electronic components. Always handle the charging plug by the metal piece. Do not take the plug off the battery by pulling the cord, always grab it by the charging socket head.**

Connect the charger to an a/c outlet. Always ensure that the connection is secure and in place before turning the charger on. Check the charging indicator for the following:

Red	-	Indication that charger is connected to an a/c outlet.
Yellow	-	Charging
Green	-	Full

On occasions, the charger might switch to green when there is a temporary disconnection. To verify that your battery has a full charge, turn off the charger power, wait till the LED lights go off and then switch it back on again. The battery will continue to charge if its not full, but if it goes off to green within a minute or 2, the battery is full. The battery may be charged on the bicycle or off it. However, when it is attached to the bicycle, ensure that the bicycle is switched off before charging.

When the fuse is blown, the battery will not charge. Remove the fuse cap and the blown fuse (if the wire in the fuse has snapped) and replace the blown fuse. While spare fuses will be provided with the purchase of your bicycle, you may wish to purchase extra 30 A fuses from any electrical hardware store. If you are unsure of which fuse to buy, we strongly recommend you call up your distributor for advise.

The charging is automatic and there is no danger of over charging. There is no memory effet and the battery can be charged at any battery level. However, we advise disconnecting the battery and turning off the charger as soon as the charging process has been completed.

**Recharge the battery as frequently as possible for a long service life.**

**New batteries must be conditioned with 2 or 3 full discharge and charge cycles before it comes on to full stated capacity.**



**Never charge the battery in wet conditions. Short circuitry might occur resulting in irreversible damage to electronic components. Fire and electrocution may also pose a serious safety hazard that might result in injury or death.**



**Never allow children to play with the battery or charger unit. Charging should only be done by adults or under direct aduly supervision.**



**Do not leave your battery in a fully discharged state under long durations of storage. The battery will continue to self discharge resulting in irreversible damage.**