

*Lomate*

Comfort All the Way

CT/CC

Installation and User Manual

# Welcome to Comate

Thank you for choosing Comate e-bikes! We are delighted that you are a part of the Comate community and can experience the advantages of our products.

Comate e-bikes are designed to provide you with the ultimate comfort, quality and cycling pleasure with the unique design, the latest technology and high-quality components. Whether you are commuting, touring or exploring, our e-bikes will make your ride easier, faster and more fun.

Comate e-bikes are also beneficial for the planet. By riding Comate e-bikes, you are contributing to help our world move towards a greener future with technology and passion.

Please read this user manual carefully before using your e-bike and follow the instructions and tips. If you have any questions or feedback, please contact us at [service@comatebikes.com](mailto:service@comatebikes.com) or visit our website [www.comatebikes.com](http://www.comatebikes.com).

Thank you again for choosing Comate e-bikes. Happy riding!

## 1. Overview of Comate C series – CT/CC



- ① Bell
- ② Head light
- ③ Front reflector
- ④ Front carrier screw holes
- ⑤ Battery key
- ⑥ Battery rubber button
- ⑦ Removable battery
- ⑧ Rear reflector on rear carrier
- ⑨ Tail light
- ⑩ Ring-lock screw holes

## 2.1 Assembly – Unwrap the box

Steps:

1. Take the bike and tool box out of the cardboard box.
2. Dispose of and recycle all wrapping materials.

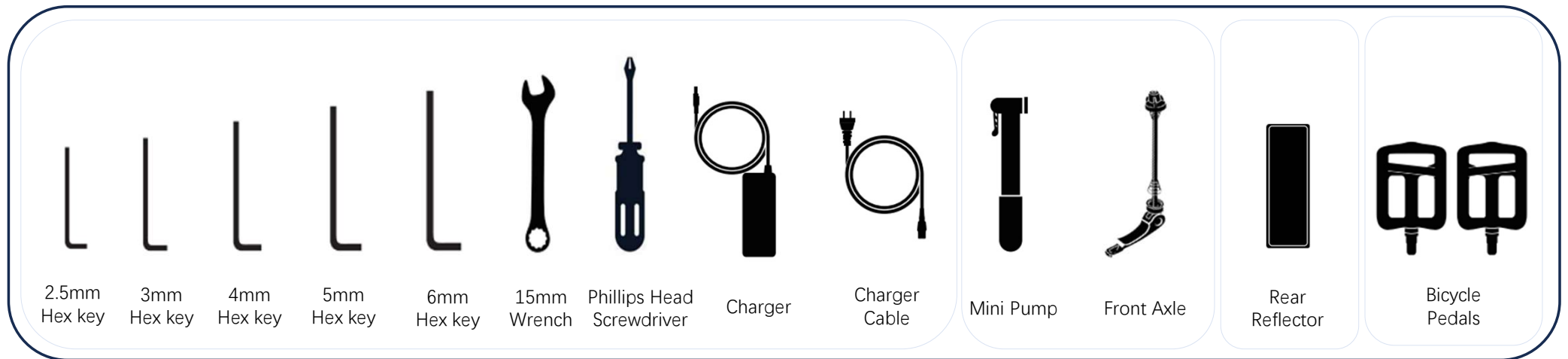
Tips:

1. There are two ways to remove the bike from the cardboard box: the first one is from the top and the second one is from the front side, which is easier.
2. Look for the side of the cardboard box with the paper strip zipper. Pull the paper strip along the side of the carton to open it. You can then take out the bike.



## 2.2 Assembly – Tool box check list

### The Tool and Accessory Box



## 2.3 Assembly – Front wheel installation



Steps:

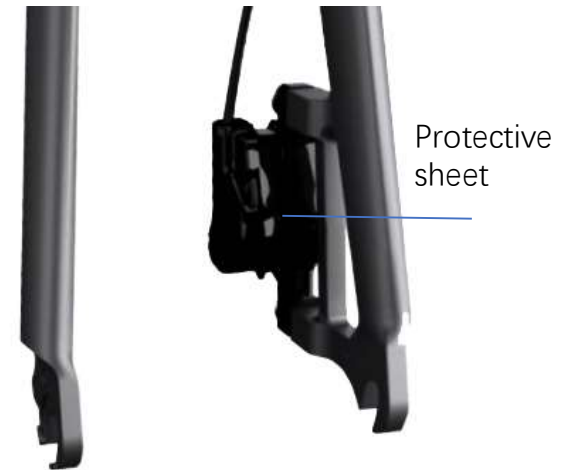
1. A plastic supporter is attached to the front fork to protect it. Use the 15mm wrench to detach the front fork from the supporter.
2. Use the scissors or razor to cut the ribbons between the front wheel and the frame.
3. Find the front axle in the tool box.
4. If you have a quick release axle, install it on the front wheel as shown, then tighten the nut and set the axle lever to the open position. If you have a Suntour Q-Loc thru axle, Please go to step5. *Notes: 1, Cruiser model with Suntour suspension fork has a Q-Loc thru axle; Elite model has a quick release axle. 2, When installing the quick release spring, make sure that the orientation is the same as when you removed it.*



Step 1



Step 4



Step 6

## 2.3 Assembly – Front wheel installation

Steps:

5. If you have a Suntour Q-Loc thru axle, follow the instructions below to insert the axle correctly. If you have a quick release axle, skip this step.



6. Take off the protective sheets from the brake clamps.
7. Install the front wheel, making sure that the brake disc is aligned with the center of the brake clamps.

Tips:

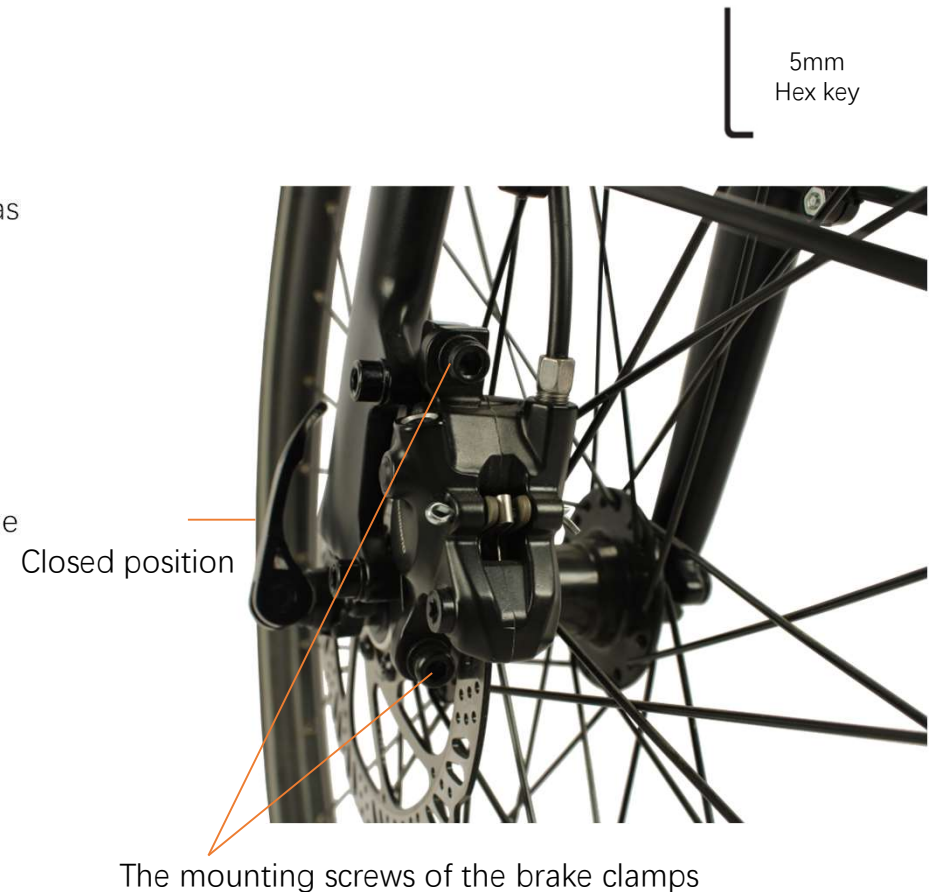
1. For Suntour Q-Loc thru axle, follow the below instructions to remove the front axle if you want to uninstall the front wheel.



## 2.3 Assembly – Front wheel installation

Steps:

8. Tighten the quick release nut, and then turn it to the closed position as shown in the figure.
9. Press the brake and push the bike back and forth to check if the front wheel wobbles. If so, please repeat step 8 until you feel enough resistance when closing the quick release lever.
10. Turn the front wheel by hand and check if there are any signs of scraping between the brake disk and the brake pads.
11. If yes, please follow the steps below to make adjustments:
  - 1) Use the 5 mm Hex Key to slightly loosen the mounting screws of the brake clamps to make sure that they can move slightly.
  - 2) Press the front brake 3 to 5 times.
  - 3) Hold the front brake and tighten the mounting screws of the brake clamps.
  - 4) Turn the front wheel by hand and listen for the sound of friction.
  - 5) If there is friction, loosen the mounting screws of the brake clamps.
  - 6) Manually adjust the position of the brake clamps to center the disc, and then re-tighten the mounting screws.



Step 8 / Step 11



## 2.4 Assembly – Handlebar alignment



Steps:

1. Slightly loosen both stem clamping screws with the 5 mm hex key.
2. Twist the head of the handlebar so that it faces forward. *Notes: To straighten the handlebar, stand upright over the top tube, facing the front wheel.*
3. Tighten the two stem clamping screws with the 5 mm hex key at no less than 15Nm torque. *Notes: this step is very important!*
4. Adjust the angle of the brake levers to 45 degree with horizontal and then fasten the screws of the brake levers with the 5 mm hex key.
5. Adjust the angle of the bell to the most convenient position and then fasten the screws of the bell with a Phillips head screw driver.
6. Adjust the angle of the head light holder to make sure the head light is at the right position and height as shown below, then fasten the screws of the head light holder with the 4 mm hex key. *Notes: the height of the head light should be lower than the top edge of the screen by ~10mm.*
7. Adjust the angle of the front reflector after the head light is fixed.

Tips: The screws of the components which need to be adjusted are half-fastened, if you find it's hard to adjust the components when you need, please unfasten the screws accordingly.



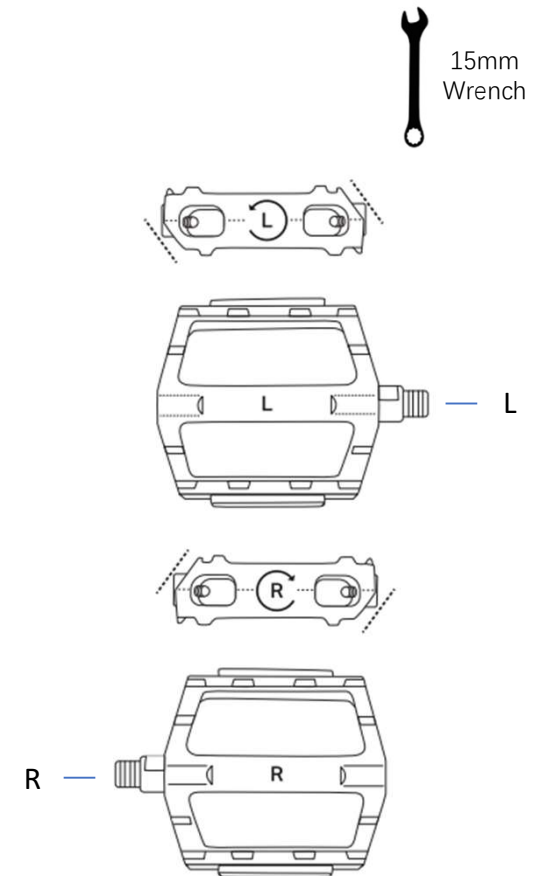
## 2.5 Assembly – Mount the pedals

Steps:

1. The pedals are marked R (right) and L (left) on the shaft side.
2. Place the corresponding pedal on each side of the cranks.
3. Screw the pedals in. Turn in the first few threads by hand.
4. When the first several threads have been screwed in by hand, use the 15 mm wrench to tighten the pedals via the spanner flats between pedal thread and pedal body.

Tips:

1. Mind that the L marked left pedal has a left-hand thread and therefore needs to be screwed in counterclockwise, the marked right pedal needs to be screwed in clockwise.
2. When doing so, align the thread of the pedal with the crank arm and do not tilt or skew it when screwing it in. If it is difficult or impossible to screw in: Check whether the correct pedal is selected for the pedal side. Check whether the thread has been incorrectly set at an angle when screwing it in.



## 2.6 Assembly – Adjust the height of the saddle cushion



Steps:

1. Take the seat post out of the mid-tube and discard the paper sleeve.
2. Insert the seat post in the mid-tube, adjust it to the suitable height.
3. Adjust the direction of the saddle to align with the handlebar.
4. Fasten the screw with the 5mm hex key for CT models, and by hand for CC models.
5. For the e-bike without a rear carrier, take the rear reflector out from the tool box and attach it under the saddle.

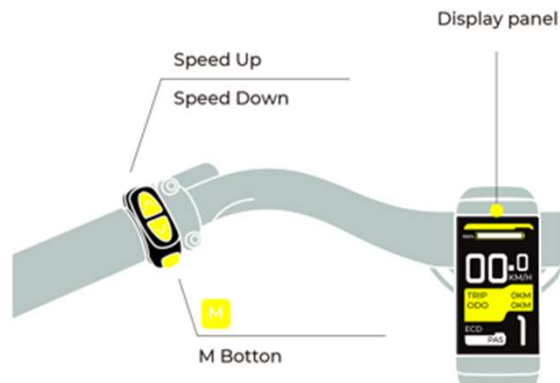
Tips:

1. Do not pull out the seat post further than the minimum insertion mark.
2. For CT model, be careful avoid scratching the paint on the upper edge of the mid-tube with the seat post.

## 3.1 Display operations – Turn on the panel

### Turn on the panel:

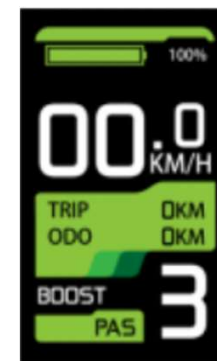
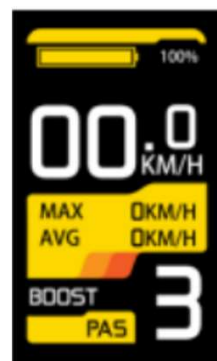
1. Turn on or off the panel by press and hold the on/off button (M button). *Notes: Please press the rubber button on the right side of the battery to wake up the battery before turning on the bike, if the bike has not been used for more than 30 minutes.*
2. The panel will automatically shut down if it's not used for more than 10 minutes.



### Display interface:

The following information is displayed on the default main display:

1. Battery percentage
2. Speed
3. Trip and total distance
4. PAS level



### Background color change:

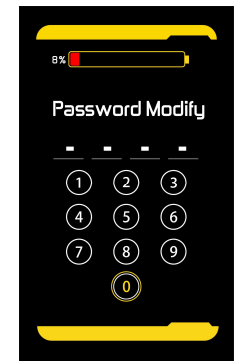
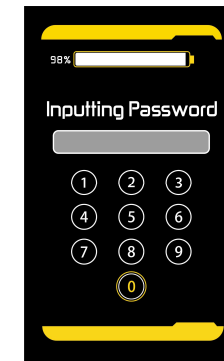
The panel can show three different background colors: yellow, green and blue.

By short pressing up/down at the same time to switch among different colors.

### Password setup:

The default password is set to 0000.

1. Press and hold up/down to access the setup page, then enter the password change screen to setup new password or turn it off.
2. Long press M to save and exit.
3. Remember your new password.



## 3.2 Display operations – Main interface switch

### Adjust the assistance level:

1. The default level when the power applies is level 0, which means no power assistance.
2. You can press the up and down buttons on the control panel to select levels 1 to 3.
3. Level 1 provides the lowest assistance level, and level 3 provides the highest assistance level.

### Switch between the two main interfaces:

1. Long press the M button to switch from the TRIP and ODO interface to the AVG and MAX interface.
2. The AVG and MAX interface shows the average speed and the maximum speed.

### Reset trip distance:

1. Press and hold the M and DOWN buttons at the same time to reset the trip distance in the TRIP/ODO interface.
2. The trip time will also be reset if you reset the distance.



### 3.3 Display operations – Light control and walk assist mode

#### Turn on the head light and tail light:

1. Press and hold the up button for 3 seconds to turn on/off the head light and tail light.
2. The head light and tail light will be turned on and off simultaneously.



#### Turn on walk assist mode:

1. Press and hold the down button for 3 seconds to turn on/off the walk pushing mode.
2. The walk assist mode can only be used when you're walking and pushing the e-bike.



## 3.4 Display operations – Error code

Error code	Definition	Description/Possible reasons
07	Overvoltage protection	The battery voltage level does not meet system (software) settings.
08	Motor Hall signal missing or abnormal	1. The motor connection is loose/poor contact/damage. 2. Motor Hall plate failure. 3. Hall signal chain has fault in controller.
10	Abnormal operating temperature in controller	The system continues to run under overload, causing the temperature rise to exceed the alarm threshold.
12	Current sensor fault	1. The system connection wire harness is damaged, resulting in short circuit and other faults. 2. Motor, battery or controller circuit/internal insulation damage, resulting in short circuit and other overcurrent faults.
21	Abnormal motor speed data	1. The wheel diameter set by the system does not match the actual diameter. 2. Motor wheel speed signal is abnormal.
30	Abnormal communication between display and controller	1. Communication wiring harness definition error/loose. 2. Display/Controller is damaged.

### Tips:

1. If an "ERROR" message appears on the screen, we suggest you stop using the e-bike until the error is resolved or you get a confirmation from Comate service.
2. Please contact Comate customer service immediately and provide the error code information. We will help you solve the problem as soon as possible.

## 4.1 Bike usage – Before your first ride

1. Charge the battery fully before your first ride. When charging the e-bike:
  - (1) Charge the battery indoors and keep it away from direct sunlight, rain or snow.
  - (2) Do not charge the bike with non-Comate chargers.
2. Check the tire pressure by hand or with a gauge and ensure the pressure is within a range of 44-58 PSI/3.0-4.0 bar.
3. Press the driving belt to check whether the belt tension is proper (you should be able to press the middle part of the belt down 10-15 mm if the tension is moderate).
4. If using your e-bike on public roads, please ensure that you comply with local riding regulations.
5. Make sure that you wear the appropriate protective equipment. Always wear a helmet and make yourself visible to others.
6. The height of saddle should be properly adjusted to suit your personal preference.
7. Check and ensure that the front wheel quick release, rear wheel, handlebar, brakes, pedals, and other related parts of the e-bike are properly fastened before you start to ride.



## 4.1 Bike usage – Before your first ride

8. The brake settings vary by country/region. Check which brake levers acts on which brake first, and if it does not comply with your habits, we recommend that you ask an expert to change the settings so that you can accurately brake the front and rear wheels if an emergency occurs while you're riding. If you encounter any problems while riding, please brake first (please brake the two wheels at the same time to stop within the shortest possible distance).
9. Check the maneuverability of the handlebar; the steering has a crucial impact on braking and riding safety.
10. We recommend that you purchase appropriate insurance for bikes or e-bike riding in your area so that you can contact your insurance company or agency promptly to get adequate protection in the event of an accident.
11. For Cruiser models, the fork air spring is adjustable. Inflate or deflate the spring suspension up to the desired pressure. [Notes: Never exceed the recommended maximum air pressure.](#)



## 4.2 Bike usage – Routine maintenance

### 1. Daily inspections

1) Before riding, check whether the screws in the following key parts are properly tightened:

- (1) Screws between the handlebar and the front fork stem.
- (2) Screws between the stem and the handlebar.
- (3) Screws between the brake lever and the handlebar.
- (4) Screws between the brake clamps and frame or front fork.
- (5) Screws between the discs and bottom brackets.

2) Use the tools provided to tighten any loose screws.

3) If you live near the seaside, apply a tiny bit of oil around the bolts regularly to prevent rusting.

4) After all screws are properly tightened before the first ride, check if they maintain the same fastening performance when your e-bike reaches a 200 km riding distance and at every 1,000 km after the initial 200 km.

5) It is recommended to check the fastening performance of screws at every 600 km if you usually ride under complex road conditions.

### 2. Battery maintenance

1) The proper working temperature of the lithium battery is 0°C to 30°C.

2) It is recommended that the lithium battery be stored in an environment where the temperature is 0°C to 30°C, and the humidity is  $65 \pm 20\%$  RH.

3) The performance of lithium batteries is affected by the ambient temperature. Don't worry if the performance of your battery degrades during cold weather. The battery performance will resume when the temperature rises.

4) Fully charge the battery every 3 - 6 months if it is not used for a long time.

## 4.2 Bike usage – Routine maintenance

### 3. Brakes maintenance

- 1) The new brake blocks and discs feature relatively smooth surfaces. Braking power will improve after you ride 100 km or brake on long downhills 3-5 times, when these surfaces will become roughened.
- 2) Check screws between the brake lever and the handlebar, as well as screws between the brake clamps and frame or front fork:
  - (1) Check if these screws maintain the same fastening performance when your e-bike reaches a 200 km riding distance.
  - (2) Check the fastening performance at every 1,000 km after the initial 200 km.
  - (3) It is recommended to check the fastening performance of screws every 600 km if you often ride under complex road conditions.
- 3) The wear degree of brake blocks should be checked after you've ridden on normal roads for 1,000 km, or 600 km if the road conditions are complex. The blocks should be replaced promptly when two thirds or more are worn.
- 4) Contact a professional store and ask a technician to refill the lubricant after you confirm that there is no sign of oil leakage on the brakes when you feel that they are obviously softened, even if the brake blocks' degree of wear is still acceptable.
- 5) Contact a professional store and ask technicians to diagnose and fix the cause of any abnormal noise during riding which persists after you have cleaned any oil from the brake blocks and discs.

## 4.2 Bike usage – Routine maintenance

### 4. Check and maintenance in professional store

It is recommended to go to a professional store for maintenance 1 – 2 times per year, or after every 3,000 km of riding. The following items should be checked during such maintenance:

- 1) Performance of the hydraulic brakes.
- 2) The tightness of screws, especially the key parts related to safety.
- 3) The wear degree of the front fork parts.
- 4) The wear degree of the front hub bearings.
- 5) The wear degree of the pedal pivots.
- 6) The professional store's technicians should lubricate the internal pivots to ensure the smoothness of pivots in front fork parts, front hub bearings, bottom bracket, and other parts.
- 7) The wear degree of the tires.
- 8) The fastening performance of the bottom bracket torque sensor, battery, controller, motor, and other electronic control parts.

### 5. Lubrication

Since we equip the C series with the Gates carbon belt system, which requires less maintenance than other belt or chain drives on the drive system. We recommend lubricating the following parts with a suggested frequency or when they show signs of wear: Bottom bracket: every 1.5 years; Pedals: every 1.5 years; Headset: every 1.5 years; Seat pillar: every 1.5 years.

## 5.1 Battery and charger – Key parameters

### Battery

Cell type	Lithium-ion
Voltage	36V
Capacity	360Wh
Weight	2.1Kg
Certificate	EN13849/RoHs

### Charger

Voltage mains supply	110V-240V A/VC; 50/60Hz
Voltage output	Max. 44V
Current output	Max. 3.0A
Certificate	EN60335/EN62233/UL/RoHs



Rubber button  
right side of the battery

### Tips:

1. Working temperature of the lithium-ion battery is 0°C to 30°C.
2. It is recommended that the lithium-ion battery be stored in an environment where the temperature is 0°C to 30°C, and the humidity is 65 ± 20% RH.
3. The performance of lithium batteries is affected by the ambient temperature.
4. Fully charge the battery at least every 3 - 6 months if it is not used for a long time.
5. The range depends on several factors including: weight, assistant level, speed, road conditions, traffic conditions, weather, etc.
6. Tips to extend range: use level1, reduce frequency of brake and stop, ride at moderate speed etc.
7. The battery has a deep sleep mode to conserve energy when the bike is not used for more than 0.5 hours. Please press the rubber button on the right side of the battery to wake up the battery before turning on the bike.

## 5.2 Battery and charger – Charge the battery

The batteries of Comate C series e-bikes are removable, could be charged on the bike or separately.

1. Lift the charging port cover and insert the charger plug into the charging socket on the left side of the battery.
2. Insert the power plug into the mains socket.
3. A red LED light on the charger means charging, a green LED light means fully charged.
4. Unplug the charger from the mains socket.
5. Unplug the charger from the battery.

Tips:

1. It is best advised to store the charger indoors and Use the charger indoors only.
2. The time from empty to fully charged takes approx. 3 hours.
3. Do not charge the battery continuously for more than 24 hours to prevent overcharging.
4. To charge, connect the charger to the battery charging port, then connect the other end to an electrical outlet.
5. To remove the charger, disconnect the charger first from the electrical outlet, then disconnect the other end from the battery charging port.

## 6.1 Important reminder – FAQ

Q: What terrains are the CT/CC e-bike targeted at?

A: The model C series is designed for city use, in which the Cruiser is suitable for flat road and unpaved roads, the Elite is intended for urban pavement or slightly potholed roads. Either Cruiser or Elite is not designed for mountain roads.

Q: What is the riding distance of one battery charge?

A: 70 km to 150 km.

Q: What is the proper belt tension?

A: The tension value should stay within 45 to 60 Hz (35 to 45 lbs), which means the middle part of the belt should sink 10 mm to 15 mm when pressed down by hand.

Q: What is the overall noise level of this product while riding?

A: This product has passed the relevant certification of EN15194-2017, meaning the rider will hear sound lower than 60 dB from this e-bike during riding.

Q: What should I do if any parts are damaged or any abnormality occurs during use?

A: Please contact Comate customer service immediately, or turn to relevant professionals for inspection and maintenance.

Q: What are the torque value for each screw and bolt?

A: The recommended torque value of each screw and bolt: handlebar to stem ~8Nm; Stem to steerer tube ~15Nm; Saddle to seatpost mount ~15Nm; Seatpost pinch bolt ~6Nm; brake lever ~ 6Nm; Pedals into cranks ~ 32Nm;

## 6.2 Important reminder – Warranty

1. The Comate C models have passed the relevant certification of EN15194:2017.
2. All original components except for the battery and parts listed in item 6 are covered by warranty for a period of five years from the date of delivery.
3. The battery is warranted for 2 years.
4. Claims under this warranty must be made directly to Comate and a proof of purchase is required.
5. The warranty applies to original owners only.
6. The warranty does not cover:
  - (1) An incorrect assembly or installation of the product by the user.
  - (2) An improper or negligent use, operation or transformation of the product.
  - (3) Maintenance activities contrary to the maintenance instructions of the product.
  - (4) Normal wear and tear, like scratches and cosmetic issue of the frame.
  - (5) Defects inherent to the normal useful life.
  - (6) Consumable parts including tires, saddle, grips, etc.



## 6.3 Important reminder – Warnings

1. This Comate C series are designed for urban riding. Do not use it for racing, mountain biking, or other non-urban usage scenarios. It is important to understand your e-bike and its intended use, as personal safety incidents may occur when you use it in the wrong usage scenarios.
2. Inspection and maintenance are very important to the safety and service life of your e-bike. You should check the brakes, tires, handlebar, and rims regularly. Any unmaintained parts may break or perform poorly, possibly causing life-threatening accidents.
3. Improper fitting, installation, operation and maintenance of any accessories and parts may cause serious personal injuries or even death. Do not modify the frame or original components in any way. Mismatched accessories or incorrect installation can affect product performance and make riding unsafe.
4. Like all mechanical parts, bikes are also subject to wear and stress. Different materials and components may react to wear or stress fatigue in different ways. Make sure you have spare parts ready for tires, brake blocks, and other fragile parts. If the design life of a component has been exceeded, it may suddenly fail, causing injuries to the rider.
5. Please only use genuine replacement parts for safety-critical components. If you use fake or unsuitable parts, you risk harming your e-bike or yourself.
6. Extra caution should be exercised when you install any third-party accessories on your bike, this may increase the possibility of injury.
7. Ride with extra caution on slippery surfaces. Ride slowly and brake lightly to allow for longer braking distances.
8. Your riding speed should fit the road conditions, your capabilities, and local laws and regulations.

## 6.3 Important reminder – Warnings

9. Do not modify or tamper with the motor and built-in computer system of the bike. Modification or tampering of any kind will void your warranty and may cause a life-threatening accident.
10. The brake settings vary by country/region. Check which brake lever acts on which brake first. If it does not comply with your habits, we recommend that you ask an expert to change the settings.
11. Do not touch the brake discs while the front and rear wheels are still turning. You may be injured or burned.
12. A deep concentration is required when you're riding. Uncontrolled or sudden braking or steering may result in an accident.
13. Ensure that all lights function properly and are not blocked. We recommend the use of lights in all environments to ensure maximum visibility.
14. Do not charge the bike with any non-Comate chargers.
15. Do not place the bike in a strong magnetic field, or put any magnetic objects near the bottom bracket.
16. The bike is designed to withstand a maximum weight of 140 kg, exceeding this weight may cause a life-threatening accident.
17. Do not attempt to open or touch the internal components of the e-bike, as this may cause permanent damage.
18. Your Comate e-bike is not a toy. Do not let children handle your Comate e-bike without detailed instructions or leave them unattended at any time. Please follow the regulations for minimum age of use that are valid in your country. Please don't ride your Comate e-bike after drinking alcohol or you feel your body in weakened conditions.

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[www.comatebikes.com](http://www.comatebikes.com)