
Black

ELECTRIC BIKE MANUAL

All Terrain Bike (ATB)



CONTENTS

- 1. Attention**
- 2. Check before use**
- 3. Bike Parts**
- 4. Adjustments**
 - 4.1 Adjusting the Handlebar Position**
 - 4.2 Adjusting the Saddle Position**
 - 4.3 Adjusting the Wheels**
 - 4.4 Adjusting and Maintaining the Brakes**
 - 4.5 Adjusting the Derailleur**
- 5. How to use the Bike Display**
 - 5.1 Bike Display & Thumb Control at a Glance**
 - 5.2 Turning the Bike On/Off and illuminating the display**
 - 5.3 Increasing/Decreasing Assistance**
 - 5.4 Odometer & trip information**
 - 5.5 Walk Mode**
 - 5.6 Battery Charge Indicator**
 - 5.7 Error Codes**
- 6. Battery**
 - 6.1 Charging the Battery**
 - 6.2 Battery & Charger Maintenance**
 - 6.3 Battery Precautions**
 - 6.4 Charger Precautions**
- 7. Common Fault Checking and Solutions**
 - 7.1 Bike Without Motor Assistance**
 - 7.2 Display Does Not Turn On**
- 8. Bicycle Inspection and Care**
 - 8.1 Regular Cleaning & Storage**
 - 8.2 Regular Maintenance**
 - 8.3 Lubricating the Bike**

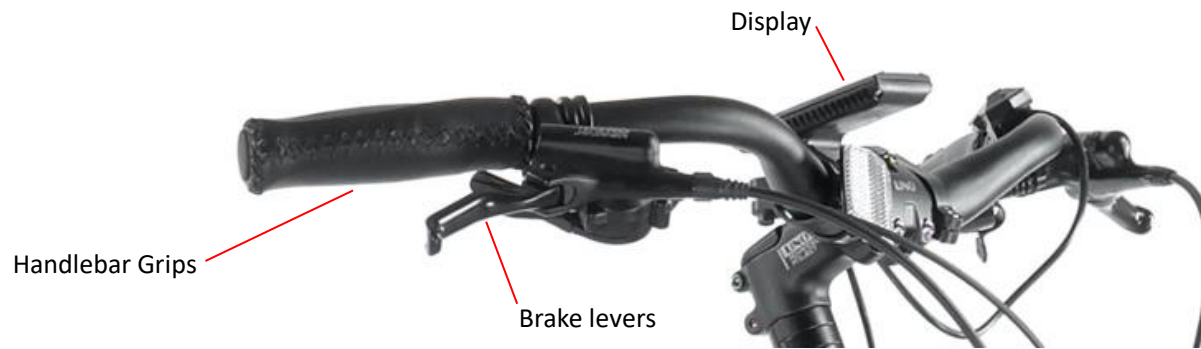
1. Attention

- Illustrations in this manual are for demonstration purposes only and may not reflect the exact appearance of the actual product. Specifications are subject to change.
- Do not operate the electric bike without fully reading and understanding this manual.
- Before each ride, ensure that all parts are in good working order. If you have any questions or concerns, please contact your dealer.
- Ensure you observe all local road rules and regulations when using this electric bike.
- Passengers cannot be carried, unless they are in an approved child seat, and do not exceed the weight limit for the child seat or the bike carrier rack or bike frame.
- When riding in rain, snow or slippery conditions, reduce your speed and increase the distance between yourself and other vehicles.
- Pay attention to the increased braking distance required in rainy and snowy conditions as well as when you are riding downhill or on gravel.
- We advise against performing maintenance operations that involve removing parts or components. This may invalidate warranty. Please contact your local dealer.
- Do not ride through deep puddles. Water could enter the hub motor, causing short circuits and irreparable damage.
- Do not allow an individual who is unfamiliar with the features and functions of this electric bike to operate it without proper instruction.
- Do not modify the electric bike unless through an authorised dealer.
- Do not submerge any of the electrical parts/connectors in water or other liquid.
- Switch the e-bike off when not in use.

2. Check Before Use

- Is the tyre pressure correct for the type of ride you will be doing? 2.8-4.5 bar (40-65 PSI)
- Are the brakes working correctly?
- Is the battery sufficiently charged for the ride you intend?
- Is the handlebar and its fittings and the seat post correctly set and tightened?
- Are the wheel hub quick-releases correctly tightened?
- We recommend you always wear an approved bicycle helmet (less than 3yrs old), gloves and have high-visibility clothing/equipment when riding.

3. Bike Parts



4. Adjustments

4.1 Adjusting the Handlebar Position

- a) Place the handlebar onto the handlebar stem, place the cover on and fix the 4 screws with an Allen Key, torque should not be less than 5Nm.



- b) To align the handlebar, face your bike and hold the front wheel between your legs. Turn the handlebar so it is perpendicular to the front wheel.

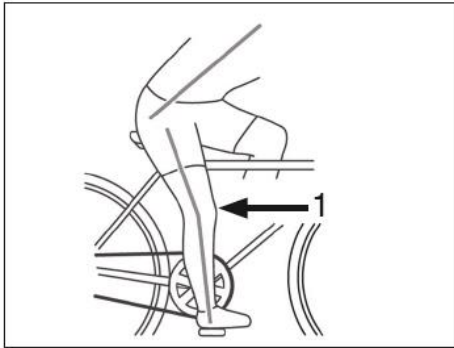


- c) Tighten the two screws that fix the handlebar stem to the steerer tube. The torque should not be less than 8Nm.



4.2 Adjusting the Saddle Position

- a) To ensure comfort and safe handling, adjust the saddle to suit your body size. The saddle height is correct if when seated your leg is not quite fully extended at the bottom of the pedal stroke. You should also be able to touch the ground with your toe when seated.



- b) The saddle can be also be inclined and adjusted forwards and rearwards for best fit. Loosen the screw (1) tilt the saddle to the desired horizontal position and/or move forwards or rearwards and tighten screw (1). To avoid discomfort, the saddle should be set as horizontal as possible.

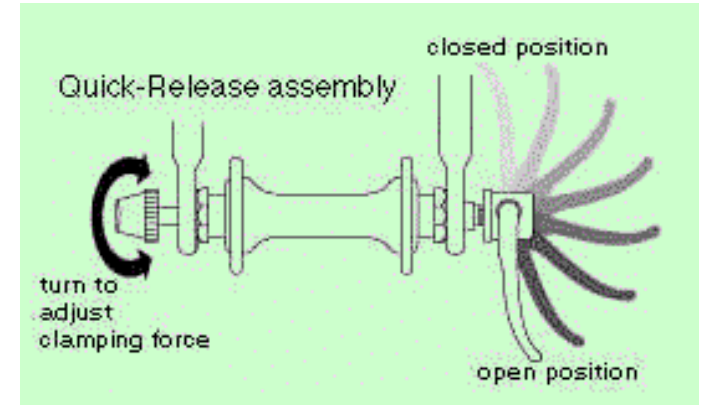


- c) To adjust saddle height. Release the quick-release lever (1), determine your preferred saddle height and tighten the quick-release lever. By adjusting the nut (2) on the quick-release lever you can adjust the clamping force required. The quick-release lever (1) must close with noticeable back pressure. The seat post must always be inserted to at least the safety mark engraved on the seat post. **WARNING: If the quick release lever is not properly closed it may open during riding. This can allow the saddle to move downwards which could lead to accident and injury. Closing of the quick release lever should also be firm enough to stop the saddle from being able to be twisted. Only then is the tension sufficient.**



4.3 Adjusting the Wheels

- The quick-release skewers consists of two handling components (see diagram on right):
 - 1) The closing lever located on one end of the hub exerts a clamping force through a cam.
 - 2) The pre-tension of the axle is adjusted with the clamping nut located on the opposite side of the hub.
- For the correct use of the quick-release skewer, follow these steps:
 - To open, move the lever towards the 'Closed' marking on the lever. Once open you will be able to read the 'Open' side of the lever. Then release the pressure on the cam by undoing the nut at the other end of the skewer until the hub clears the fork drop out.
 - To close, move the lever towards the 'Open' marking on the skewer. Once closed you will be able to read the 'Closed' side of the lever. When closing adjust the tension with clamping nut at the other end of the skewer. It should close easily until about halfway then should tighten for the second half of the operation. Open and close the lever several times, adjusting the nut about half a turn until the clamping force is correct.



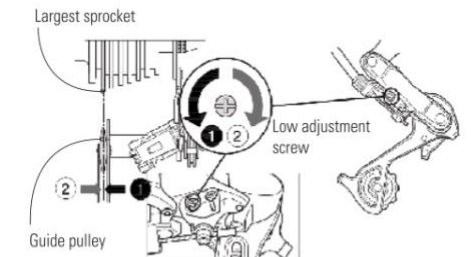
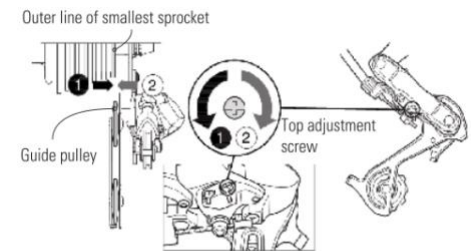
4.4 Adjusting and Maintaining the Brakes

a) Adjust the gap between the pads and disc rotor by adjusting the position of the brake caliper to achieve uniformity on both sides of the disc rotor.	b) Adjust the brake lever with the adjustment screw so the wheel begins to brake at 1/3 position.	c) The wheel should be completely stopped when the brake handle is pulled to the half-way position. If this cannot be achieved the brakes may need new pads and/or bleeding; take your bike to your dealer for professional service.
		

- Make sure the rotors are true. Spin the wheel and sight against the brake pads, watching for wobbles in the rotor. If the rotor clears the pads and caliper, the rotor is true enough even if there are slight wobbles. If you spot a warp in the rotor, straighten it by clamping a clean adjustable wrench along the rotor and bending gently toward true.
- Make sure everything that touches the rotor is perfectly clean. Any grease/oil/other contamination will reduce braking grip and may cause brake squealing.
- If your brakes squeal, and no obvious contamination is present on the brake pads, something may be loose. Check all bolts holding the rotor on, as well as the caliper bolts and adapter bolts (if your bike is fitted with one).
- If everything's snug, the rotor and pads should be cleaned with isopropyl alcohol or similar to remove contamination. If brake squealing continues, take your bike to your dealer for professional service.
- Regularly check the performance of the brakes and contact your dealer for a brake service if you notice a performance reduction.

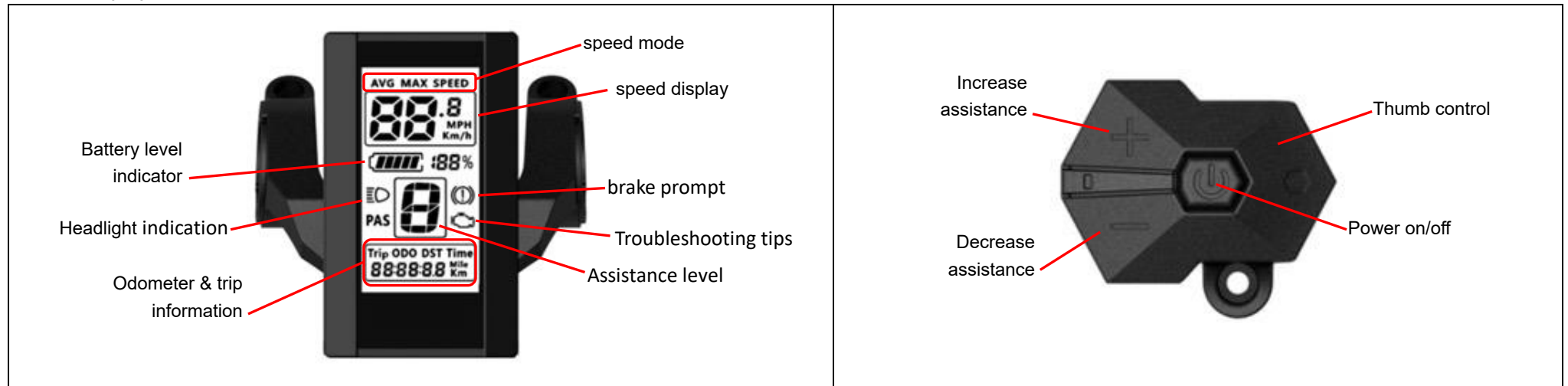
4.5 Adjusting the Derailleur:

- Adjust the lower adjustment screw to make the guide wheel move to the smallest sprocket on the free-wheel; Align the center of the guide pulley and the outer line of the smallest sprocket, then tighten the gear shift cable with the nut on the derailleur:
- Turning the front chain-wheel, operate the gear lever to shift to the largest sprocket.
- Turn the upper adjustment screw so that the guide pulley moves to a position directly below the largest sprocket.
- By turning the screw inwards you shorten the travel of the derailleur, moving the guide pulley towards the centre of the free wheel. By turning the screws outwards you increase the travel of the derailleur towards the frame or the spokes. When the stop screws are adjusted correctly the chain will not come off the smallest cog into the frame or off the largest cog and into the spokes.
- Once the stop screws are correctly adjusted the cable tension can be adjusted by turning the barrel nut on the derailleur cable entry point until the gears operate smoothly when selected with the gear lever.



5. How to use the Bike Display

5.1 Bike Display & Thumb Control at a Glance



5.2 Turning the Bike On/Off and illuminating the display

- Push and hold the Power on/off button on the thumb control for 2 seconds to switch the bike on or off. Note that if you do not use the bike for more than 5 minutes, the display will automatically shut off to conserve power.
- Press and hold the '+' button on the thumb controller for 2 seconds to turn on the display background light and turn on the head light (if fitted) at the same time which is suitable for riding at night.
- Press and hold the '+' button on the thumb controller again for 2 seconds to turn off the back light.
- To operate your bike it first has to be turned on, then you can ride your bike in any assistance level from 0-to-5 and any gear from 1-to-9. The motor will assist your riding effort depending on what gear and assist level you have selected and the riding conditions at the time, i.e. high load and level (5) equals maximum assistance. The mid-drive motor senses the load you are applying to the crank by pedaling and apportions torque proportionately.



5.3 Increasing/Decreasing Assistance

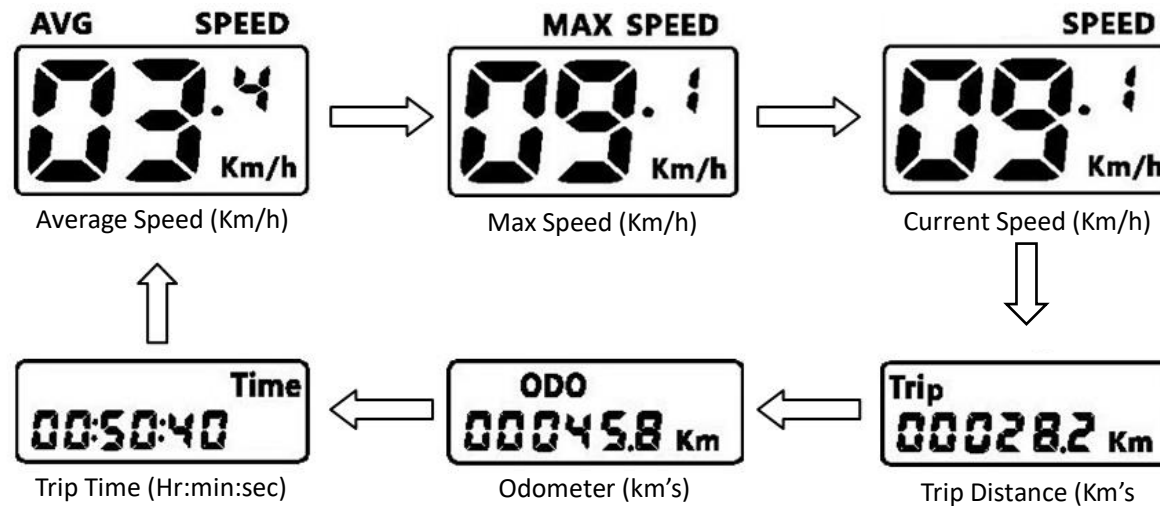
- Press the '+' button on the thumb controller to increase the assistance level and the '-' button to decrease the assistance level.
- When you have selected the highest gear (9) and highest assist level (5) you will reach maximum assisted speed (32km/h) quickly. However, this will use the most power and

therefore reduce the distance you can travel (range) before running out of battery power. To increase the range select a lower gear and lower assist level, to reduce the amount of battery power being used.

- You can use your bike in any combination of assistance and gear selection. It is recommended you start with a low level of assist to get used to the effect of the motor until you become confident in its use.

5.4 Odometer & trip information

While riding, to change the indicated information on the display press and release the Power On/Off button repeatedly to display information in-turn as below:



Note: Each information state will display for 5 seconds and then the display will automatically return to the current speed reading.

5.5 Walk Mode

- Stand at the side of bike with both hands on the handlebar and make sure the way in front of you is clear. Press and hold the '-' button on the thumb controller to start walk assist status. Walk assist will start after 2-3 seconds of pressing the '-' button and the bike will keep at an even speed of 6km/h until the button is released.
- When operating in Walk Mode the display will show a 'P' (see right).
- **WARNING: Walk assist should only be used when pushing the bike; do not use this function when riding.**



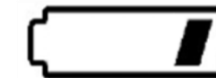
5.6 Battery Charge Indicator

- When the battery is fully charged, all five bars will be displayed, and when the battery is under voltage, the last bar will flicker, indicating that the battery is seriously under voltage and needs to be charged immediately.
- **WARNING: Try to avoid letting your battery indicator get to the last bar often as repetitive low-charge states will reduce the battery life.**

Battery is full



Battery requires charging



Battery requires charging immediately



5.7 Error Codes

- If something goes wrong an error code may show on the display. Contact your dealer, let them know the error code that is displayed and arrange to take your bike in to them for professional service:
 - **01E** - Communication error.
 - Check whether the plugs between the display, controllers and buses are loose or damaged, and whether any connector pins are bent. Contact your dealer.
 - **34E** - Throttle error.
 - There is no throttle fitted to this bike. Contact your dealer.
 - **35E** - Motor error. Contact your dealer.

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- **36E** - Motor hall sensor error. Contact your dealer.
 - **33E** - Inner protection of controller error.
 - Check whether the plug between the motor and the controller is loose or damaged, and whether any connector pins are bent. Contact your dealer.
 - **37E** - Brake error:
 - Check the connection of the brake handle switch plug and whether any connector pins are bent. Contact your dealer.

6. Battery

BEFORE CHARGING THE BATTERY, FULLY READ AND UNDERSTAND SECTIONS 6.1, 6.2, 6.3 AND 6.4 OF THIS MANUAL. IF YOU HAVE ANY QUESTIONS, CONTACT YOUR DEALER.

6.1 Charging the Battery

- To charge the battery, use the key to unlock the battery from the frame and pull it out. Charge the battery and, after charging, reinsert the battery into the frame and lock it in place securely.
- **WARNING: Always check the battery is securely locked in place before moving/riding the bike.**

6.2 Battery and Charger Maintenance

- Only ever use the charger supplied with the bike. Use of any other charger risks battery explosion and fire.
- Whenever possible, only charge the battery from an outlet with a surge protector installed or plugged in.
- Charge the bike for at least 12 hours before you ride it for the first time and the following two times you charge.
- If the bike is not to be used for an extended period, the battery should be kept at around 50% state of charge and should be placed in a dry well-ventilated area.
- The battery must be recharged for 2-3 hours at least every two months when in storage to avoid it shutting down completely.
- If the battery is not in use for around 1 month, it will enter sleep mode and will need to be activated by charging for a few seconds before using.
- Batteries like to be charged frequently, the ideal range is to keep your battery between 20-80% charged.
- The bike and charger should be kept in a clean, dry and well-ventilated area. Avoid contact with corrosive substances and keep away from excessive heat and open flames.
- Try and keep your battery at room temperature and avoid exposing it to extreme temperatures as this can shorten its life.
- Avoid leaving your battery/bike in direct sunlight where possible.
- The charger must always be disconnected from the bike when not charging.

6.3 Battery Precautions

- Never short circuit and discharge the battery.
- Keep the bike/battery away from fire and excessive heat. Never put the bike or its battery into a fire.
- To avoid damage to the battery, never subject the bike to intense physical shock, severe vibration or impact.

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- Protect the bike from water and moisture. Protect the discharge and charge terminals of the battery from rain or water logging.
 - Keep the battery away from children.
 - Never disassemble the bike or its battery.
 - If the battery shows any signs of damage, DO NOT charge it or use it in the bike and return it to your dealer asap for assessment.
 - If you have any questions about the bike's battery or its usage, contact your dealer.
 - **WARNING: Never attempt to open the battery casing under any circumstances. Contact your dealer.**

6.4 Charger Precautions

- Make sure the charger is at least 1m away from computers, TVs, fridges, washing machines and other electric appliances while charging.
- **WARNING: Only ever use the charger supplied with the bike. Use of any other charger risks battery explosion and fire.**
- Connect the charger to the battery and wall socket before switching on the power to charge.
- Once charging is complete disconnect the plug from the wall first, and then disconnect the charger from the battery.
- Charge out of the reach of children.
- Never disassemble or refit the charger.
- Never put anything on the charger while charging and ensure it is in a well ventilated area when charging.
- Do not disconnect the battery output while charging.
- Do not switch on the bike while charging.
- **WARNING: Never leave your battery on charge unattended.**

7. Common Fault Checking and Solutions

- If the bike is without power and the display cannot be turned on, and you believe the battery to be charged, remove the battery from the bike and then reinstall it on the bike, making sure that it is properly attached and installed. If you still cannot get the bike to turn on, contact your dealer for professional service.

7.1 Bike Without Motor Assistance

- If the display lights up, but the motor doesn't work if you turn the crank or use walk mode:
 - Check whether the controller and the connecting cable are loose or damaged, or whether the plug is inserted correctly and that the pins are not bent/broken.
 - Check whether the motor connection is loose or damaged, or whether the plug is inserted correctly and that the pins are not bent/broken.
 - If no fault is found, take the bike to your dealer to check if the controller and/or motor are faulty.

7.2 Display Does Not Turn On

- Use a Multimeter to check the battery discharge voltage (the battery voltage should generally read more than 31.5 volts – if below this, take to your dealer).

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- Check whether the battery plug is properly installed, and whether the positive and negative electrodes are installed correctly.
 - If no fault is found, take the bike to your dealer to check if the display and/or controller and/or harness are faulty.

8. Bicycle Inspection and Care

Regularly clean your bike. It's a good way to notice any problems before they cause damage.

8.1 Regular Cleaning & Storage

- Wipe any dirty painted or plastic parts with a soft, damp cloth and a neutral cleaning solution. Carefully dry the parts with a soft, dry cloth to finish.
- DO NOT use water to clean the electrical components as this could result in personal injury or malfunction of the bicycle.
- DO NOT grease or use a greasy cloth to wipe down the electrical connectors, brake pads, wheels, tyres or plastic parts.
- DO NOT use a pressure washer as this can force water into the electrical components.
- Always dry the bike with a soft, dry cloth after riding in or exposure to rain.
- Keep your e-bike in a dry and well-ventilated area when not in use.

8.2 Regular Maintenance (every 1-2 months)

- Regularly check the handlebar, stem, saddle, pedal, crank and freewheel mounting bolts are torqued correctly.
- Check the seat post is correctly inserted (past the minimum insertion line) and tightened.
- Check the wheel quick releases are correctly tightened.
- Check the wheel rims are not cracked and that no spokes are loose or broken.
- Check the tyres are not worn or cut and are correctly inflated for the type of riding you do.
- Check the front and rear brakes operate correctly.
- Check the cables are sufficiently greased, and that the brake pads are in good condition.
- Check the frame welds are in good condition and are free from corrosion or oxidation.
- **WARNING: Never open the motor casing should you have a malfunction. Contact your dealer.**

8.3 Lubricating the Bike

- To maintain your electric bike in proper working order, be sure to carry out regular lubrication.
- The axles, bottom bracket, freewheel and the headset should not be hosed with water. Gently clean with soft, damp cloth and neutral cleaner. If necessary, add grease or oil.
- Use specific transmission lubricant for the chain, freewheel and gears every month, or if the drive train is dry at any time.
- Do not lubricate or grease the brake pads, wheel rims, tyres or plastic parts.
- A general application of anti-corrosion lubricant can also be used on all other steel parts, to avoid rust.

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- Where possible, we recommend using non-petroleum based environmentally friendly cleaners and lubricants; ask your dealer for advice.

Component to lubricate	Frequency*	Recommended Lubricant
Front fork attachment	Once a year	Lightly Coat (lithium base grease)
Front and back axles	Once a year	Lightly Coat (lithium base grease)
Middle axle	Once a year	Lightly Coat (lithium base grease)
Pedal axle	Once a year	Lightly Coat (lithium base grease)
Chain	Once every two weeks	Light oil
Interior of freewheel	Once a month	Light oil
Brake handle	Once a month	Light oil
* Note that frequency depends greatly on how many kms the bike is riding, what sort of riding (dry, wet, dust, etc) it is doing and how it is stored. The frequency stated in this table is for a guide only. Your dealer can provide advice and also will carry out lubrication at regular service intervals.		