GYROCOPTERS.CA

E-BIKE USER GUIDE

IMPORTANT INFORMATION

TOTAL PERMISSIBLE PAYLOAD 120Kg
This includes any child seats, carriers or trailers.

IF A CHILD SEAT OR TRAILER IS FITTED, ANY COIL SPRINGS (I.E. IF YOU HAVE FITTED A SUSPENSION SEAT POST) MUST BE SUITABLY COVERED TO PREVENT TRAPPED FINGERS

SPARE TYRES, TUBES AND BRAKE PADS CAN BE FOUND ON OUR WEBSITE GYROCOPTERS.CA OR FROM YOUR AUTHORISED GYROCOPTERS DEALER

ANY TAMPERING OR BREAKING OF WARRANTY SEALS, INCLUDING INSTALLING NON-ORIGINAL REPLACEMENT PARTS, OR INSTALLING PARTS POORLY WILL INVALIDATE WARRANTY
We recommend using an authorised Gyrocopters dealer for any repairs and for purchasing any spare parts.

THE A-WEIGHTED EMISSION SOUND PRESSURE LEVEL AT THE DRIVER EARS IS LESS THAN 70 DB(A)

Customer Services Email: Customerservice@Gyrocopters.ca
visit Gyrocopters.ca for more products and accessories

CONTENTS

1. WELCOME

Thank you for your purchase of your brand new Gyrocopters electric bike.
This manual is designed for our PAS specific electric bike systems. PAS is an acronym for “Pedal Assist System”.
No pedaling, no power: The complete electric system comprises of a battery, motor, controller, sensor, display and cables, and is designed to follow the legal laws within North America. This means that the electric system will only engage and provide power when pedaling.
When the rider stops pedaling, or applies the brakes, the power to the motor will cut-off. The amount of power that is sent to the motor depends on the assist level selected on the handlebar display. Your electric bike is designed for 5 levels assist, level 1 providing the least power, level 5 the highest. It is worth noting that riding in a higher level will drain your battery much faster than riding in a lower level, so it is a good idea to get used to when and where the extra power is required.
The system is also designed by law to cut-off if pedaling speed reaches 25km/h (15.5 mph). Once the speed drops below 25km/h (15.5 mph), the power to the motor will re-engage if pedaling, or once pedaling commences again.
Your electric bike can also be used and ridden with the electric system switched off, just like a regular bike. It will work exactly in the same manner when the electric system is disabled.
Please note that this manual provided with your purchase is not intended as a comprehensive maintenance, service or repair manual. We always recommend that your electric bike is regularly serviced by a qualified service bike mechanic. If ever in doubt about the state or service of your electric bike, always consult a qualified bike shop and/or mechanic.
Throughout this instruction manual we will alert you to certain warnings and cautions, where we recommend attention to maintenance, inspection of condition, or the need to follow safe cycling practices. These alerts will be marked with the following symbol:

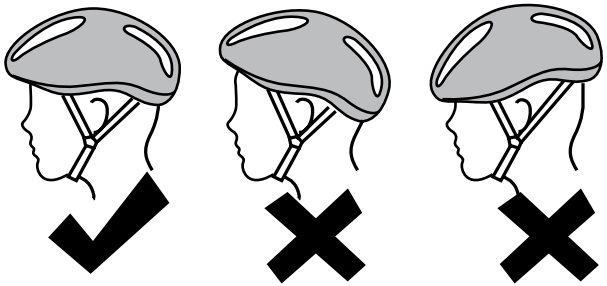
These warnings and cautions are there to advise you that “you may lose control and fall”. As any fall can result in serious injury or death, this warning is not always repeated.
It is impossible to anticipate all situations or conditions when you are riding, so this manual makes no representation about the safe use of the electric bike under every condition or circumstance.
There are risks associated with the use of any electric bike, which cannot be anticipated, and thus is the sole responsibility of the rider.

It is illegal for any children under the age of 14 to ride an electric bike**.**

2. SAFETY

Firstly, we would like to bring to your attention some very important safety information, whether you are a seasoned cyclist, or new to cycling. As a brand that prides itself on safety we cannot over-stress the importance of wearing a bike **helmet when riding your e-bike. The Highway code strongly advises wearing a helmet *"which conforms to current regulations, is the correct size and securely fastened."***

Always wear a cycling helmet which meets the latest certification standards, and is appropriate for the type of riding you do. Always follow the helmet manufacturer's instructions for its fitting, use, and care. A properly fitted helmet should cover the forehead when riding an e-bike. Most serious e-bike injuries involve head injuries, which might have been avoided if the rider had worn an appropriate helmet.



Safety equipment is also available to protect knees, elbows, back, shoulders and your eyes. Use of such gear is highly recommended. You should ensure you always wear appropriate clothing that is bright, visible, and not too loose. Loose clothing may snag in moving parts, causing you to lose control and fall. Be sure to dress in accordance with weather conditions. Your footwear should be able to grip the pedals and should not have loose laces. When night riding, or in dark weather, ensure you conform to all laws regarding lighting and clothing, and be aware that cyclists are often difficult to spot for both drivers and pedestrians.

Local Traffic Laws:
Make sure you know all local traffic laws and conform to them. You are sharing the road with others, and you should always assume that they haven't seen you. Use caution on busy roads and around large vehicles. Cycling is no different to any other sport, there is always a risk of injury to yourself, others or property. The responsibility of the risk is yours, so please make yourself aware of the rules and regulations as a road user. Riding off-road may require extra attention and specific skills. Get to know your e-bike well before using increased speed or riding over difficult terrain.

Visibility:
Your e-bike is fitted with front & rear reflectors, pedal reflectors, as well as 2 wheel reflectors. These are specifically designed to assist with evening/night riding. All these reflectors are produced to British Standards, and are designed to reflect street lights and car head lights in order to help recognise you as a moving cyclist. Always check that these reflectors are properly fitted, fixing bolts tightened, and any damaged parts must be replaced by a cycle shop.
If you have fitted any lights to your e-bike, please make sure that they are working properly, and that they conform to legal requirements. Please take care when riding at night time, and that you are visible to others.

Any form of jump, stunt, wheelies, race/competition, or extreme riding of any kind will invalidate your warranty.

We recommend that your first ride is taken in a controlled format, away from vehicles, obstacles and other cyclists etc., to ensure you become familiar with the controls and features of your new electric bike**, in particular, the brake performance. If you feel anything about the electric** bike **is not as it should be, consult a qualified** bike **mechanic.**

Be aware that during wet / snowy / icy conditions, braking efficiency of ALL road traffic is greatly reduced.

3. RIDING

It is vital you understand your new electric bike by reading this manual carefully before your first ride. Do this, and you will be capable of achieving better performance, comfort, and pleasure from your new e-bike.

Regular maintenance and proper use of your electric bike **will also reduce risk of injury or damage to property.**

Do not allow water to get into the electric components, including rain, and water formations such as puddles, potholes, streams & rivers, and including spillages such as drinking water, coffee, etc..

Tips for riding your new e-bike, to help save your battery:

1. **The battery makes a difference.** Properly maintaining your battery, and charging it correctly will help to prolong it's lifespan. Don't keep your battery stored in cold conditions, as this will degrade it, and frozen conditions can permanently damage it.
2. **Terrain makes a difference.** The smoother the surface of the terrain, the less energy will be expended by the battery compared to riding on rough terrain.
3. **The weather makes a difference.** Cold temperatures can reduce the performance of the battery, just as headwinds reduce the performance of the rider.
4. **Elevation makes a difference.** Riding up hills and slopes will drain the battery much quicker compared to flat surfaces, and more so than downhill slopes.

5. **The rider can make a difference.** Helping the electric system by using lower levels of power assist, and instead using your legs to power the e-bike more, will help the battery life last longer while riding.
6. **Braking makes a difference.** Practice using your brakes to get used to their power and how they control the e-bike. The less you brake and stop/ start, the less energy is wasted by having to increase speed up again. **This by no means that you should ride your e-bike in an unsafe manner without braking properly.**
7. **Weight makes a difference.** The advertised range of the e-bike is based on the average rider weight of 75kg. The more weight or cargo on the e-bike, the more the battery will drain quicker.
8. **Maintenance makes a difference.** The better maintained your electric bike, the better it will work and reduce wasted energy.
9. **Tyres make a difference.** Make sure your tyres are inflated to the correct PSI and have no issues with wear and tear. Tyres with low amounts of air, or damage to the tread will cause more friction, which requires more energy from the battery.

Your GYROCOPTERS **battery, the heart of your e-bike:**
Your battery is one of the most important and expensive components on your e-bike. Looking after your battery properly will ensure longevity of its life, and it will continue to perform at the levels it should.

Ensure that your battery is fully charged before first use. For more information on battery removal and charging please refer to section 4.10 BATTERIES, starting on page 51.

Please note, ensure that your battery is at least 50% full before leaving it for long periods of time. You must charge your battery at least once a month, otherwise the battery cells can disperse their energy over such time, and not be able to re-charge again.

For a better commuting experience, many users will purchase a second battery or a fast charger. Such accessories can be found on our online store at: **gyrocopters.ca**

4. ASSEMBLY

Important: Pedal Assembly – Please read pedal assembly guide on page 18, as failure to assemble correctly may result in cross-threading key components causing irreparable damage not covered by warranty.

Remove all packaging materials. Please keep these materials until you are satisfied that your e-bike is set up correctly, and in good working order. **If you make the decision to dispose of the packaging before such time, there may be costs incurred** for new packaging if the product needs to be returned to us.
When opening the carton containing your electric bike, please take care not to puncture through the cardboard and damage your e-bike. Also take care with plastic handles, staples, and carton banding.
Prepare by setting all parts aside for assembly.
Whether a folding, or non-folding model, some minimal assembly will be required to prepare your e-bike for riding. Please follow the guidelines over the next few chapters for correct assembly instructions.

- Tools provided include: 4/5/6mm hex (allen) keys, 8/10/14/15mm spanner
- Tools required may include: crosshead screwdriver, cutters/pliers.

4.1. RIDING POSITION

Firstly, it is very important that you can mount, dismount, and ride your e-bike safely, and ride in a comfortable position whilst enabling you to access its features and safety components (such as brakes, gears and display) without obstruction. The following section will help you to achieve that perfect riding position.

Start off by standing over your e-bike, with the frame between your legs, and saddle positioned behind you. If you are using a ladies specific frame with a sloped top tube, try to imagine the top tube a little higher as you would see on a gents model.

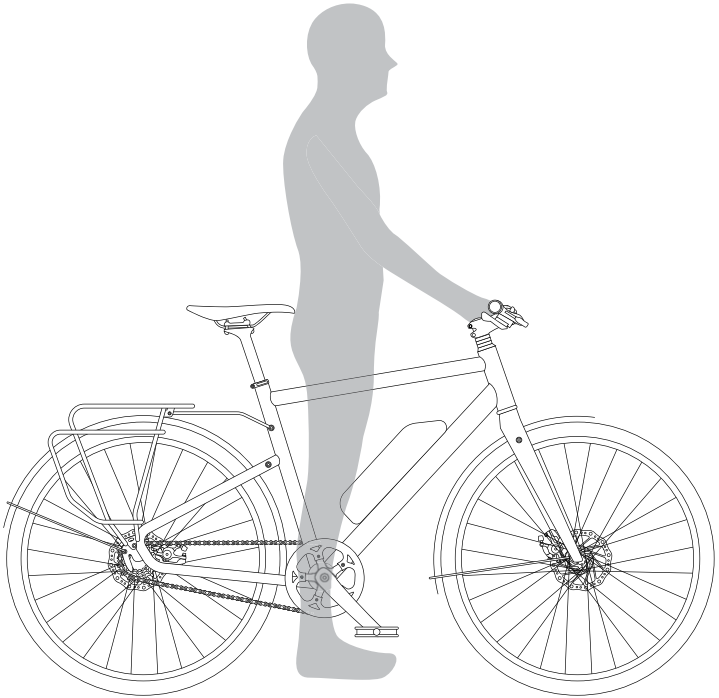
Depending on your requirements you can use the clearance levels below to guide you:

Flat, road, paved surfaces should require a 5mm clearance from top tube to groin.

For more uneven surfaces, such as canal paths, it is better to have a clearance of around 7.5mm from top tube to groin.

If you decide to take your e-bike off road, it is recommended to give yourself a little more clearance of 10mm from top tube to groin.

When riding, you should make sure that your elbows are slightly bent, your legs do not over-extend - locking your knees - and that your knees should not go past a 90-degree angle past your thighs when coming back up though the pedal cycle. To help achieve this you can adjust your saddle height so that foot to pedal (not foot to floor) your leg should be almost straight with your knee slightly bent. From this position you



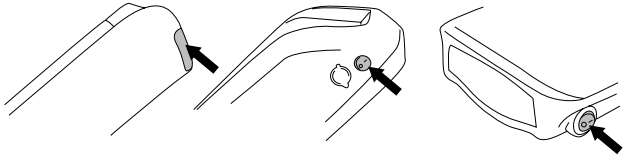
may not be able to reach the floor, but by just moving back and forth off from the saddle you can easily do so comfortably.
It is important to set up your saddle height in order to avoid unnatural movements of your legs, and more specifically your knees, if positioned too low. If the saddle is positioned too high, then your knees can lock out causing pain and long-term injury. In both instances, it is far more difficult to control your e-bike, which puts you and others around you in danger.
To adjust the saddle height, please refer to page 46 of this manual.

When setting your riding position, it is very important that you do not exceed the "minimum insertion" mark on your seat post or stem (where applicable). You will find warnings on these along with diagrams throughout the assembly section of the manual.

On some GYROCOPTERS models the stem can be adjusted also to help find the most comfortable position for you. If your bike is not equipped with an adjustable stem they may be available to purchase from your local GYROCOPTERS stockist or at **gyrocopters.ca**

4.2. POWERING UP YOUR E-BIKE

PLEASE NOTE:
You are required to switch the battery on first. The switch is located clearly on the side of the battery case. On the internal model it is a button located near the top of your battery.

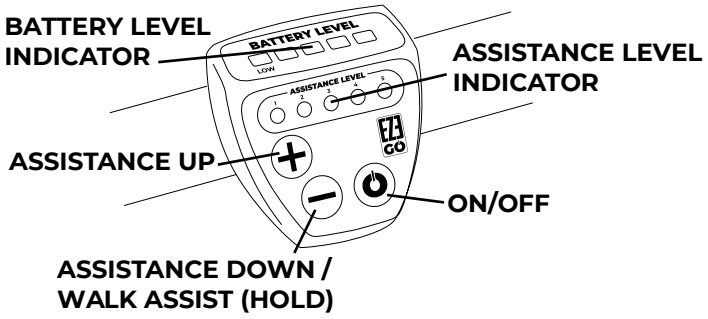


To switch on your e-bike push the Power button on your handlebar mounted display until it lights up.

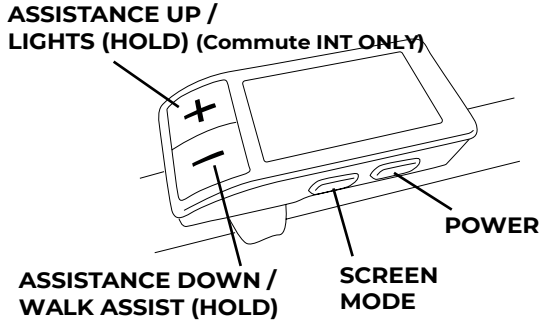
Engaging the Power System:

Once the power system is switched completely on, and you are ready in your riding position, when you start to pedal you will feel the motor kick in with power, and the electric system assisting you. For safety reasons, the system is designed so that there will always be a slight delay between starting to pedal and the power assisting the motor.

LED DISPLAY



LCD DISPLAY



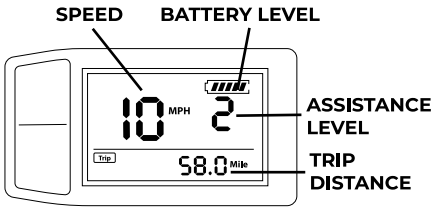
You have 5 levels of assistance. Power assistance can be adjusted by selecting the + or – buttons. The higher the level of assistance (level 5) the more power will be supplied to the motor, and the lower the level of assistance the less power respectively. Again, it is worth noting that riding in a higher level will drain your battery much faster than riding in a lower level, so it is a good idea to get used to when and where the extra power is required.
Don't forget you can you use the conventional gears supplied with your e-bike to achieve better speeds and cadence.
Your e-bike also has a "walk-assist" function, and when engaged the motor will be powered at 6km/h. This function is designed to help in 2 ways. The first is to assist you if you are walking with your bike and want some help to push it along. The second is to assist you from a standing start, such as on an incline or traffic lights. The walk assist is enabled by holding down the - button. For safety reasons, the system is designed so that there will always be a slight delay between depressing the walk assist button and the power assisting the motor.

Please refer to the battery section of this manual on page 51 for more information on the electric system.

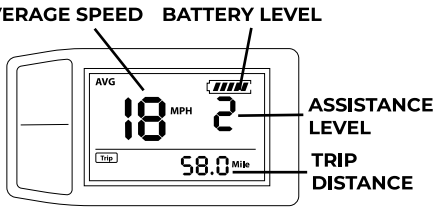
You should only charge your battery with the charger supplied or purchased from GYROCOPTERS. Using a different charger can result in damaging the battery, or even fire, and will void your warranty.

LCD Display Screen Mode:
By pressing the mode button you can access different information on your screen. Below you will see each of the screens available with a description of the information:

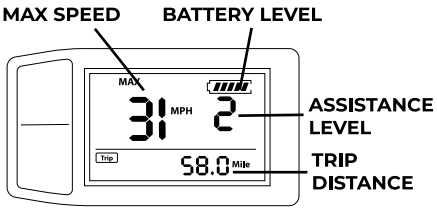
SCREEN 1



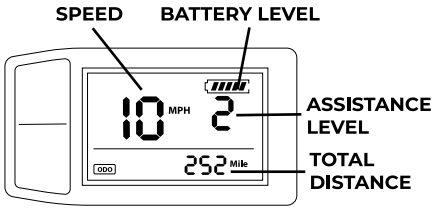
SCREEN 2



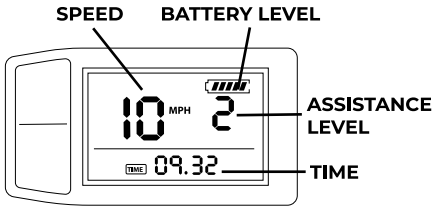
SCREEN 3



SCREEN 4



SCREEN 5



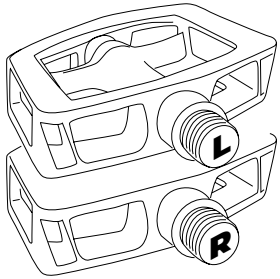
Please refer to the display section of this manual on page 58 for more information on how to set and reset your display.

4.3. PEDAL ASSEMBLY

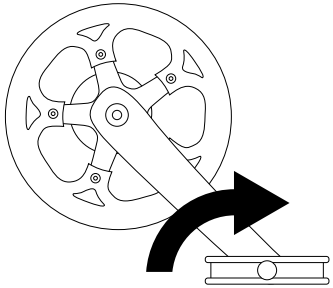
As previously mentioned, attaching the pedals to your e-bike needs careful attention. If the pedals are attached onto the wrong crank arm, the crank arms can be cross-threaded and not covered by warranty. Cross threaded crank arms will then require new expensive components to be assembled at a competent bike dealer/shop.
Pedals, whether they are folding or standard, are clearly marked. R = right, L = left.

1. An R or L sticker will be clearly shown on each pedal.
2. In instances where the stickers have fallen off the pedals, R or L will be stamped onto the end of the axle.

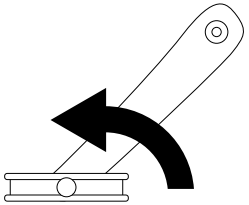
As mentioned, the correct pedal needs to be attached to the correct crank arm, left pedal to the left crank arm, right pedal to the right crank arm. If you were to sit on the e-bike in a riding position, the right crank arm and pedal is on the right, and the left crank arm and pedal on the left.
Pedals will screw into the crank arms in the opposite directions. They are designed this way so that they do not fall off when pedaling. The right pedal is screwed in clock-wise, the left pedal is screwed in anti-clock-wise. Use a 15mm spanner to tighten the pedals, and always check and double check the tightness of your pedals regularly.



RIGHT - CLOCK-WISEL



EFT - ANTI-CLOCK-WISE

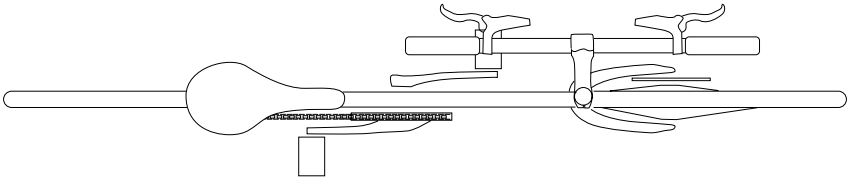


4.4. HANDLEBARS AND STEMS

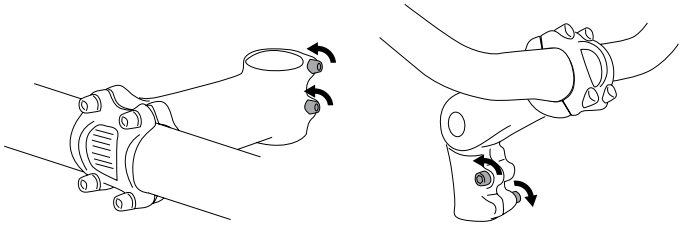
There is some small assembly required to setup the handlebars & stem.

The first step is to always make sure that the forks of the e-bike are facing in a forward direction, and that the cables are not tangled tight as a result. To confirm that the fork is facing in the correct position, the disc brake rotor should be on the left hand side as you sit on your e-bike.

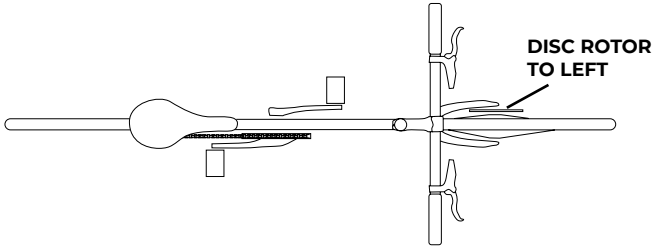
Your will have noticed your bike comes packaged in the box with the stem and handlebar installed, but turned 90-degrees in order to reduce carton size.

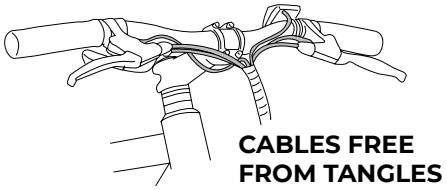


To turn the stem / handlebar into the correct position, you will first need to loosen the pinch bolts by turning them anti-clock-wise using the hex key provided.
The diagram shows both types of stem used across the GYROCOPTERS range.

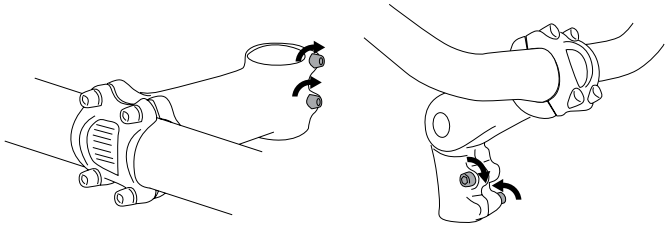


You can now turn your handlebar so that it is at a 90-degree angle from the front wheel.
Tip: Clamp the front wheel between your legs and look down at the stem / handlebar assembly. Ensure the stem is fully in line with the front wheel.





You can now tighten the pinch bolts back up by turning clock-wise using the hex key provided.



On some models there may be one pinch bolt either side of the stem.

Always make sure that the 2 hex (allen) key bolts are tight before riding. You can check this by clamping the front wheel between your legs and attempting to turn the handlebar.

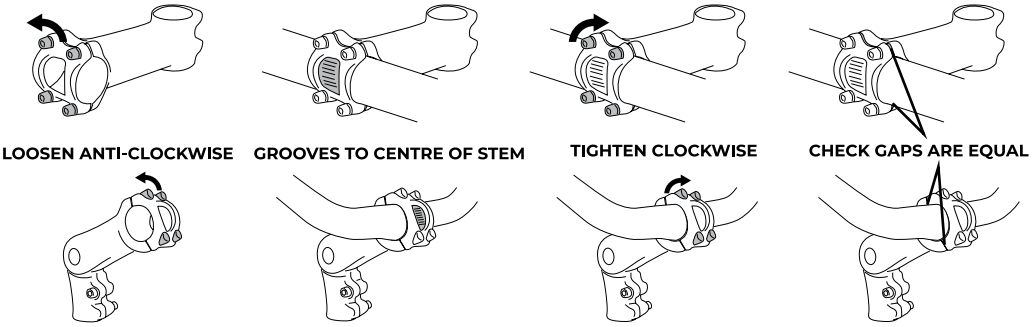
Removing or installing new handlebars to the stem.

Commute / Step:

For these models, remove all 4 hex (allen) key bolts that hold the front plate onto the main part of the stem. Once removed, the handlebar can be positioned into the stem, making sure that the handlebars are the correct way up and facing frontwards. Adjust the handlebars so that they are positioned in the middle of the stem (there are grooves in the handlebar to help you locate the middle perfectly).

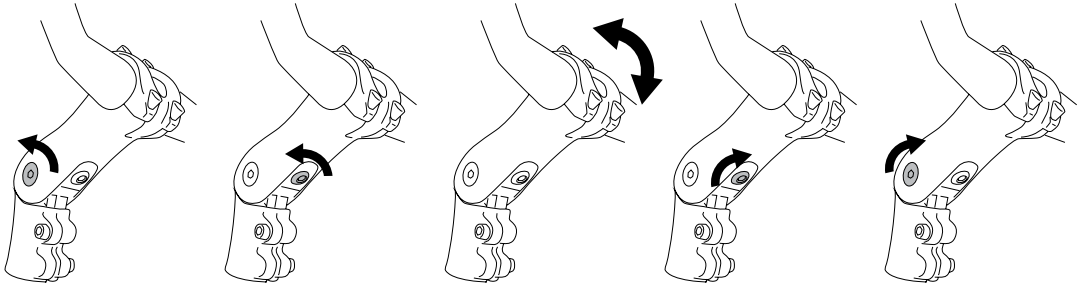
Once in position, replace the front plate in the same position as when it was removed. Insert the 4 bolts back into the front plate and stem, and begin to tighten in an X pattern (for example: top left, bottom right, bottom left, top right). Do this in equal measures to make sure that the front plate clamps into the stem correctly (do not tighten up one screw completely before moving on to the next).

When tightening, make sure you adjust the angle of the handlebars to suit your riding style and comfort. Once fully tight, check to make sure the gap between the front plate and the stem is even on the top and bottom, and that the handlebars cannot be twisted or moved when attempted.



Always make sure that the 4 hex (allen) key bolts are tight before riding, and that the gap between the front plate and the stem is even on the top and bottom. It's important to re-check before first use, and as part of your regular e-bike maintenance. Failure to do so could result in serious injury while riding.

Step Stem angle adjustment:
Using the allen key provided, loosen the nut on the right-hand side of the stem. Then, using the same allen key, loosen the nut underneath the moveable part of the stem.
You can now move the stem up and down. Once you have the stem in a comfortable riding position, tighten the nut underneath the stem, followed by the right-hand nut by turning clock-wise.



Always make sure that all nuts are tight and stem will not move. Check and re-check! Failure to do so could result in the stem moving whilst riding.

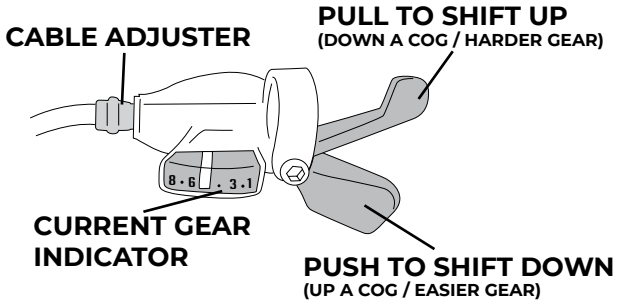
4.5. GEARS

Should your e-bike have any problems with the gear settings, we always recommend that they are serviced by a qualified bike mechanic, especially if you are unsure about any of the following steps.

The gears setup is different depending on which model of GYROCOPTERS you have purchased. Make sure you are comfortable with how to operate the gears before riding on public roads.
The gears on your e-bike will be set up during production at the factory. However, due to cables stretching slightly during the first 100kms or so, the gears may need some slight adjustment. There should never be any slack in the cable when set in the highest gear (read on for information about which is the highest gear), otherwise the gears will not function properly. The gears should change and shift quietly and with ease. If this is not the case, then they require some adjustment. Later in this section we will show you how to make basic adjustments depending on which model of GYROCOPTERS e-bike you have purchased. **If you are unsure on how to adjust your gears, always seek help from a qualified bike mechanic.**

Commute, Fold and Trail Destroyer gear lever:
As your e-bike is fitted with just a rear derailleur mechanism, you will notice that there is only one gear shifter, located on the right side of the handlebar. As you ride your e-bike and change the gears, the rear derailleur mechanism will shift the chain up or down, depending on which way you shift them, on the rear cassette cog.
The largest cog on the cassette is what we call the lowest gear and easiest to pedal. The smallest cog is what we call the highest gear and is hardest to pedal. Low gears for hills, high gears for speed etc..
It is recommended to use a low gear when setting off from a standing start, especially if you are not

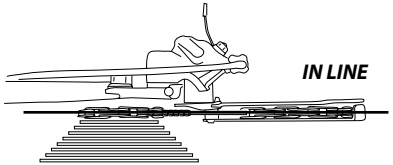
using the electric system. Always make sure you read the upcoming terrain and prepare to select your gear to suit, as leaving it too late can cause you to struggle to pedal, resulting in loss of speed and potential loss of control.
Your gear shifter on your handlebar is fitted with an optical number indicator to let you know exactly which gear you are currently in, the lower the number, the lower your current gear.



With these models, you should never use the gear shifters to change gears while the e-bike is stationary, as this will cause damage and/or alignment issues and the gears will need re-adjusting by a qualified mechanic.

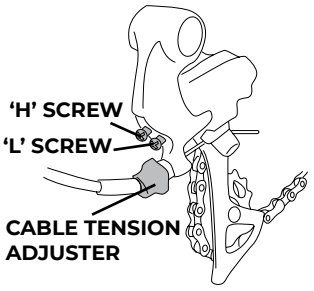
Turning your e-bike upside down and resting it on the handlebars and saddle is not recommended, as you may incur damage to the saddle and to the gear shifters and brake levers.

do line up. You will need to screw clock-wise or anti-clock-wise depending on however the chain lines up.

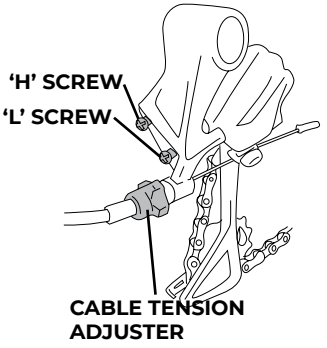


3. Once point 2 is complete, change the shifter down one position (up one cog) whilst turning the pedals, to see if the chain moves up the cog with ease. If the chain changes too many cogs, or does not change at all then you need to adjust the screw for the cable tension (see diagram). Adjust the screw in half turns whilst pedaling until the chain is sat in the correct desired cog.
4. Once point 3 is complete, turn the pedals, and using the gear shifter on the handlebar, select the lowest number (largest cog).
5. Similar as point 2, check that the rear derailleur and largest cog are now lined up. If they are not aligned, adjust the screw located on the rear derailleur marked "L" very slightly until they are aligned without any play.

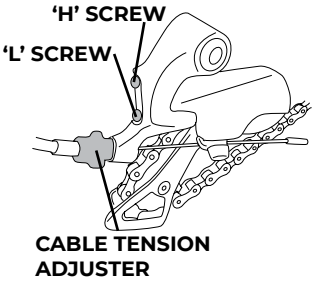
COMMUTE EX MODELS



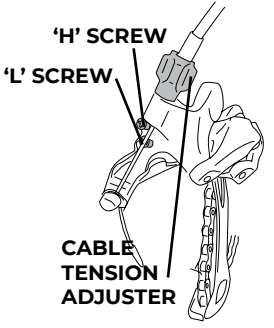
COMMUTE INT MODELS



FOLDING MODELS



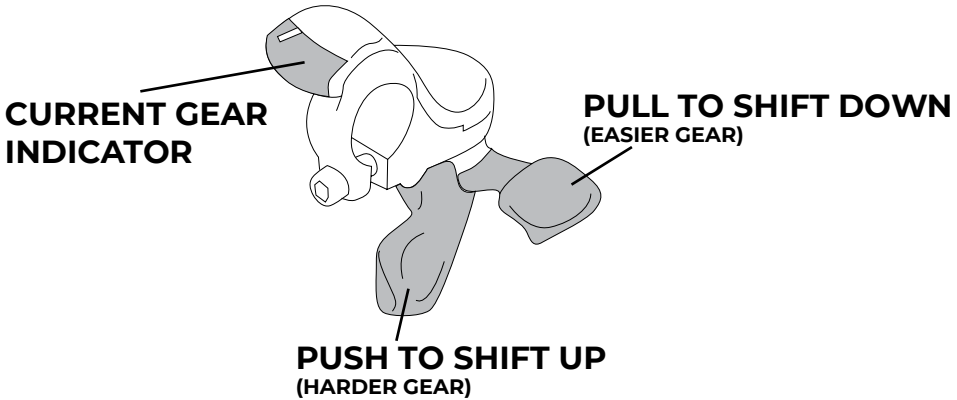
EMTB



If you have any doubts about how to adjust any part of the gears, always seek help from a serviced by a qualified bike **mechanic.**

Step gears:
The rear gear section on the Step model is assembled inside your wheel hub. It is designed this way to require very little maintenance to it. As the gears are internal, there are no outside forces that can cause issues with the gears, unless the e-bike is dropped or in an accident etc.. Therefore, we do not recommend opening, and/or adjusting any of the rear gear properties. In general, NEXUS gears are very reliable, and only require small maintenance every so often. **Any maintenance to the NEXUS gear system should be carried out by a qualified Shimano NEXUS** bike **mechanic.**

Step gear lever:
Your gear shifter is located on the right-hand side of the handlebar, and is fitted with an optical display to show you which number gear you are in. We refer to this kind of shifter as EZ-Fire (Easy Fire) on account of how simple they are to use.
The uppermost shifter, closest to your brake lever, is used to shift the gears upwards to the lowest/easiest gear by pulling it towards you using your index finger. Using your index finger will allow you to keep control of your e-bike while shifting gears, and you will find it to be the most comfortable and natural.
The shifter below, closest to your body, is used to shift the gears upwards to the hardest/fastest gear by pushing it away from you using your thumb. Using your thumb will allow you to keep control of your e-bike while shifting gears, and you will find it to be the most comfortable and natural.

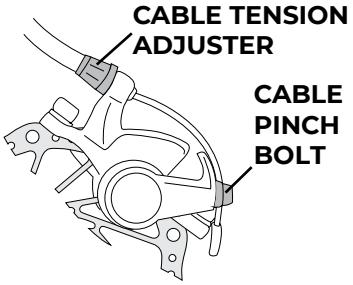


4.6. DISC BRAKES

All of our GYROCOPTERS electric bicycles are fitted with powerful disc brake systems, as an e-bike requires a lot more stopping power than a regular bike. All gyrocopters models have mechanical (cable actuated) disc brakes.

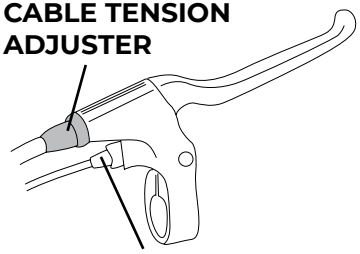
IF YOU HAVE PURCHASED A MODEL WITH HYDRAULIC BRAKES PLEASE VISIT A QUALIFIED BIKE MECHANIC FOR BRAKE ADJUSTMENTS

Get to know your brake system. In the North America we use the right brake lever for the front brake, and the left brake lever for the rear brake. It is always safer to double check which brake is which before riding any bike. Simply squeeze the right brake lever, and you should see the front caliper moving to lock onto the rotor. The same can be done for the left brake lever and the rear caliper. You should take some time away from public roads to get used to your brake system. Make sure that your fingers can reach the brake levers, and can squeeze them comfortably. If for any reason you cannot reach the brakes comfortably, consult with your local bike shop on how the reach of the lever can be adjusted, or even replace the levers to fit your reach.



Applying too much power to the front brake at high speeds can cause the rider to fall over the front of the handlebars, or on uneven surfaces, the front wheel can slide resulting in loss of control, and the rider to fall off causing serious injury or worse.

It should also be noted that using too much power on the rear disc brake will force the rear wheel to lock up, causing loss of control, and damage to the rear tyre.



Disc brakes basically work the same way as on a motor vehicle, but obviously a smaller scale. As you pull the brake lever, the cable connected will pull the caliper into a closing position, which in turn creates friction between the caliper pads and the rotor disc, slowing the e-bike.

Before riding, always check to make sure there is no grease, dirt, lubricants etc. either on your disc rotors, or in your calipers. Failure to do so will reduce friction, and decrease stopping power, potentially causing accident and/or serious injury.

You disc brakes are designed to control speed, not just for stopping. It is always a good idea to practice using your brakes to slow down, and stop smoothly without locking up the wheels. Locking up is where the wheel stops rotating, and in doing so decreases stopping force, and results in a potential loss of control and/or serious injury. Gently squeezing the brakes, and applying small amounts of pressure to the lever progressively to come to a controlled stop, is known as **progressive braking**. It is a good idea to study and learn this method away from public roads until you are comfortable with the technique.

Please note, applying the brakes while the electric system is functioning will cut all power to the motor. This is an added safety feature so that the rider is not fighting against the power of the motor while braking. The motor will re-engage once the brakes are released and pedaling has resumed.

If at any time you feel your wheel or wheels locking up, simply release the pressure a little to allow the wheel to keep rotating, just shy of locking up. As mentioned above, practicing braking at different speeds and on different surfaces will allow you to become accustomed to your e-bike's braking power. You can even practice this technique whilst walking with your e-bike, to see exactly what pressure forces the wheels to lock up.

Another technique to practice, especially if this is your first time riding an e-bike, is body weight transfer,

which can affect speed control and safe stopping. As you apply the brake or brakes, you will notice that your body will want to continue moving forwards at the same speed travelling before applying the brakes. This weight transfer can be very dangerous, as it can send the rider over the top of the handlebars causing serious injury. As your body shifts weight onto a specific wheel, that wheel will require greater braking pressure. For example, if you find that your body weight is shifting forward when braking, try leaning back a little, re-distributing your weight. Shifting your weight to the back will decrease the burden of braking force needed to be applied to the front wheel, allowing you to increase the rear brake force, and decrease the front brake force. we advise you to practice using your front suspension e-bike before riding in public locations.

When riding on loose surfaces, such as gravel, or wet surfaces, greater care must be taken as stopping distances increase dramatically. The traction in your tyres will also reduce, making cornering more difficult, braking less powerful, and increasing risk of wheel lock up. **Always use your e-bike at slower speeds in these types of conditions.**

If you have any doubts about any parts of your braking system, you should always seek help from a qualified bike **mechanic before riding again.**

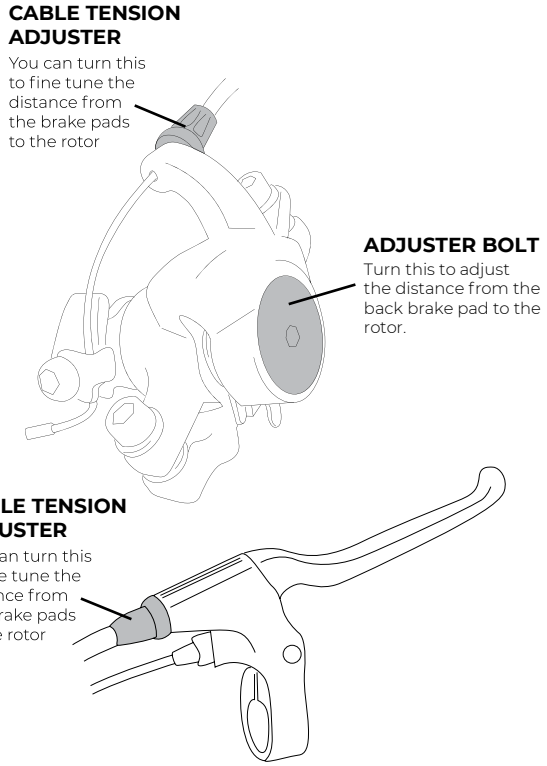
Disc Brake Maintenance:

As mentioned previously, disc brakes work by caliper pads squeezing against the rotor. You must keep the brakes, and especially the pads, serviced regularly by a qualified bike mechanic.

After the first 100kms or so of riding, the cables connecting the brake levers to the calipers may stretch a little. This is normal. Here is a simple guide on how to adjust your disc brakes if you feel comfortable doing so.

If you do not feel comfortable, please seek help from a qualified bike **mechanic.**

Make sure that when applying pressure to the levers, the lever should be around 30% depressed before the pads make contact with the rotor.
When checking your disc brakes, keep the brakes open (don't apply pressure to the brake levers), and begin to spin the wheel. It is important to check that while spinning the wheel, the rotor runs freely through the brake caliper without contact to the brake pads. Look closely and the rotor should be centered in the caliper between the brake pads.
If the caliper is out of position, and the rotor is touching the pads, or not in the middle of the caliper, it can be adjusted if you feel comfortable to do so. **If you don't feel confident that you can adjust your brakes, take them to a qualified** bike **mechanic.**



If your brake pads are worn, they must be replaced immediately. If in doubt contact a qualified bike **mechanic.**

Disc brakes can get very hot during, and after use. Never touch the rotor or pads straight after use. These parts can also have sharp edges, so caution should be used when handling them. Never touch the rotor or caliper while the wheel is turning to avoid trapping your fingers.

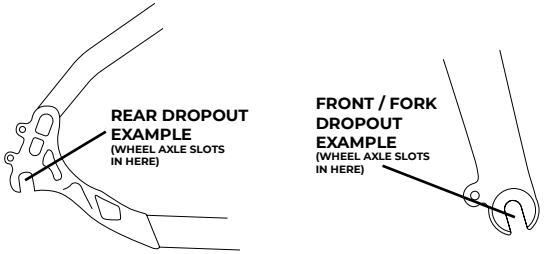
To clean your disc brakes we recommend using rubbing alcohol. Never use oil to clean your disc brakes to avoid poor braking performance. After cleaning your brakes it is recommended that you ride gently for the first 15kms, and avoid descents and slopes during this time.

Always keep you brakes serviced by a qualified bike **mechanic.**

IF YOU HAVE PURCHASED A MODEL WITH HYDRAULIC BRAKES PLEASE VISIT A QUALIFIED bike **MECHANIC FOR BRAKE ADJUSTMENTS**

4.7. WHEELS

A dropout is a part of the frame or fork where the axle of the wheel sits. Dropouts can work with all different types of axles. GYROCOPTERS e-bikes are fitted with quick release axles (or spindles) on the forks , although some models have solid axles with lock nuts, or a thru axle. Instructions for installing, removing and releasing these axles are detailed in this section.



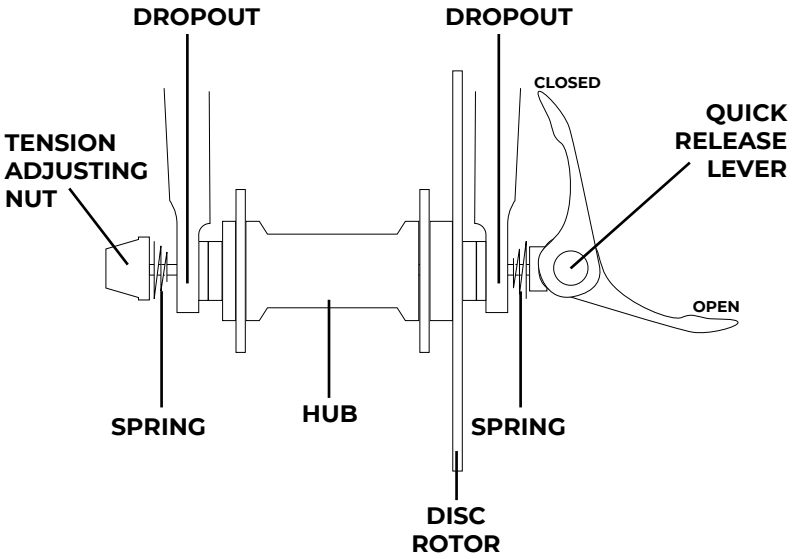
Hubs, and how to assemble the wheels into the dropouts:

Front Hub (Quick release axle**)**

For these particular models, your front hub is fitted with a quick release axle. The quick release lever mechanism clamps the wheel into place by force, pulling the lever part, and the tension adjusting nut on the other end of the axle, together. The amount of force depends on the tension adjust nut.

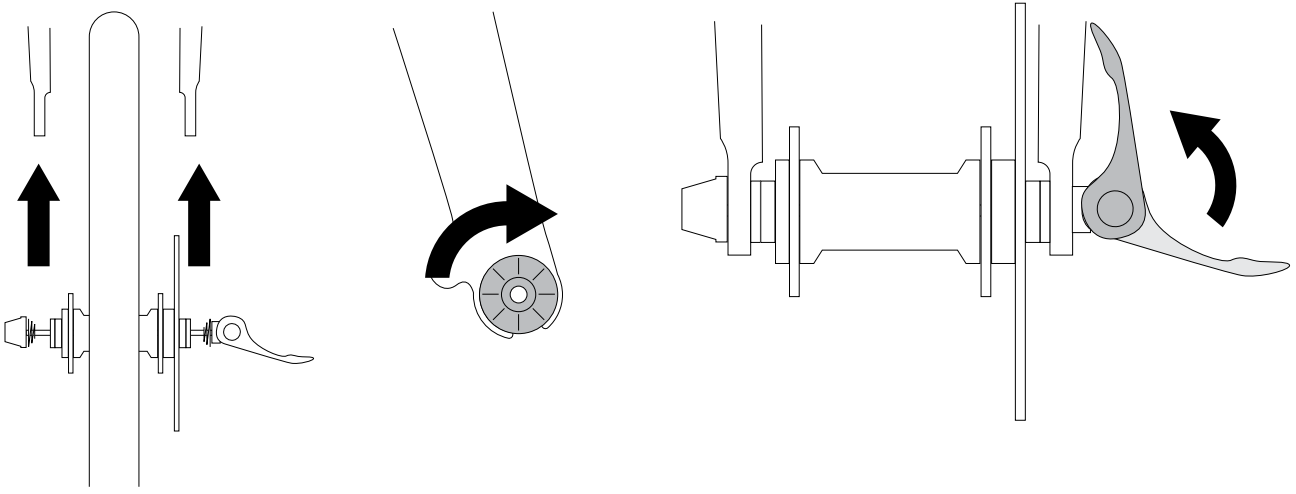
Installation and adjustment of front quick release hub

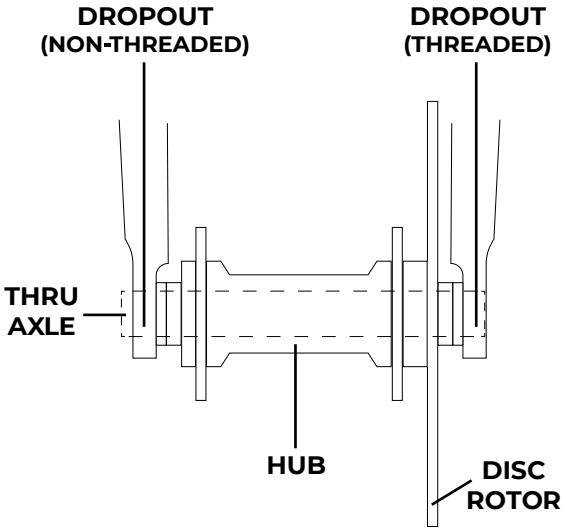
The quick release system is made up of a tension adjusting nut on one end, and a quick release lever & saddle on the other. Next to each of these components is a small spring, which should be positioned with the widest part of it on the outside, getting smaller towards the middle. Between all these components is the axle (or spindle) which as attached to the quick release lever.



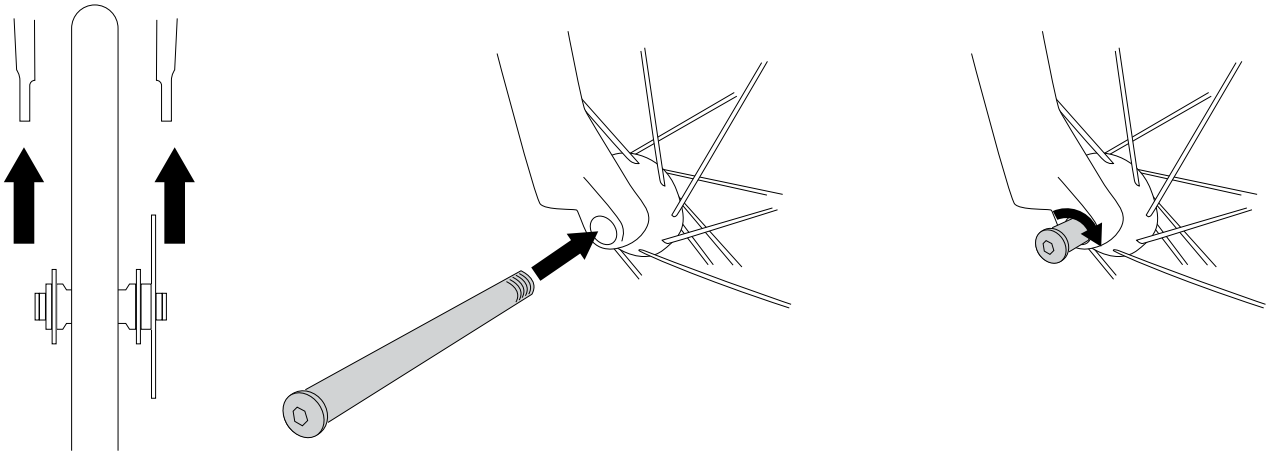
When the wheel is placed into position, the edges of the hub rest into the dropout. You will notice that the hub is actually hollow. This is to allow the axle (or spindle) to slide through to come out the other side. The spring and tension adjusting nut can now be screwed onto the axle. Always make sure that the lever part of the system is on the left side of the dropout if you were sat on the e-bike (disc rotor side). The tension adjusting nut will be on the right.

Turning the tension adjusting nut clock-wise, while keeping the lever from rotating, increases the clamping force.
Turning it anti-clock-wise, while keeping the lever from rotating, reduces the clamping force.
Even just half a turn of the tension adjusting nut can make the difference between safe clamping force and unsafe clamping force. The tension adjusting nut should be tightened until it is finger tight. The quick release lever can then be closed to secure the wheel into the dropouts.
Before finally clamping the wheel in place, make sure that the wheel is sat in the middle of the forks, and that the brake rotor is sat inside the brake caliper. Always make sure that when the quick release lever is in its final position that it is pointing upwards. This is for safety to avoid anything catching the lever, pushing it upwards, and unlocking the wheel. **To ensure your wheel is safely locked in place, when closing the quick release lever it should leave an imprint on your palm. If this doesn't happen, you need to open the quick release lever, turn the tension adjusting nut clock-wise, and close the quick release lever again.**
To remove the wheel simply reverse these steps.





When the wheel is placed into position, the edges of the hub rest into the dropout. You will notice that the hub is actually hollow. This is to allow the axle (or spindle) to slide through to screw into the other side. Always make sure that the axle in inserted through the right, and screwed into the left side of the dropout if you were sat on the e-bike (disc rotor side).



Before finally clamping the wheel in place, make sure that the wheel is sat in the middle of the forks, and that the brake rotor is sat inside the brake caliper.
To remove the wheel simply reverse these steps.

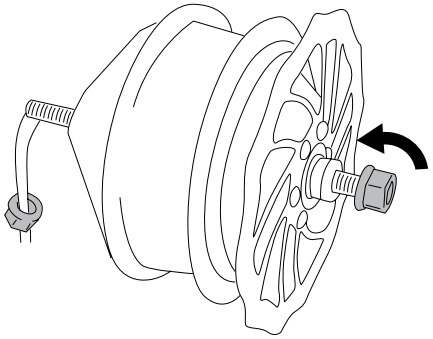
Turning your e-bike upside down and resting it on the handlebars and saddle is not recommended, as you may incur damage to the saddle and to the gear shifters and brake levers. We always recommend using a bike stand for maintenance work on your e-bike.

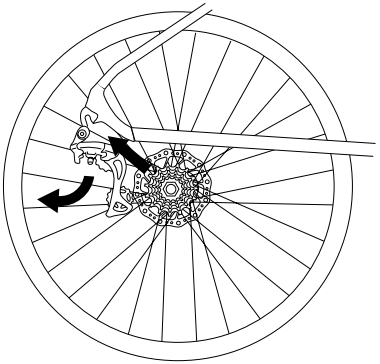
Rear Hub

Installation and adjustment of rear hub motor

When inserting or removing the rear wheel, always make sure that the rear gear is set in the highest gear (the smallest cog). Also ensure the wheel nuts are loosened enough for the axle to be able to sit in the dropouts. You may need to remove the right-hand (gear side) nut completely in order for the wheel to pass the derailleur.

To place the wheel into position, hold the rear derailleur mechanism and push it backwards towards the rear of the bike allowing the chain to slacken. Position the wheel so that the cassette cogs are now inside the chain boundary. Push the wheel into the dropout, and this will start to take the slack from the chain. Finally push it all the way into the dropouts, making sure that the brake rotor is inside the brake caliper. When the wheel is placed into position, the axle of the hub rests in the dropout.



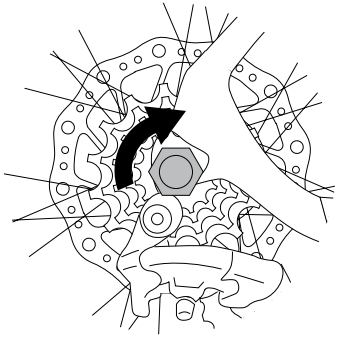


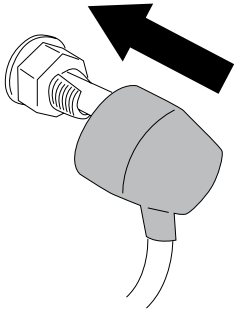
Replace the wheel nuts onto the axle and make them finger tight against the dropout. Using an 18mm spanner, begin to tighten the nuts. Start on one side, and then move to the other, bit by bit (don't tighten up just one side first fully and then the other). Finally tighten the nuts fully all the while holding the wheel with one hand making sure that the wheel is sat in the middle of the frame, and that the brake rotor is sat inside the brake caliper.

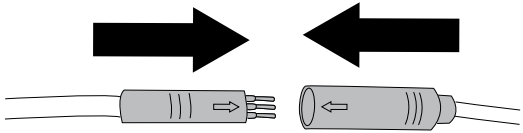
Before fully tightening the wheel nuts, make sure that the wheel is sat in the middle of the frame, and that the brake rotor is sat inside the brake caliper.

You can now place the cable protector over the right-hand wheel nut and connect the motor to the electric system using the quick connect cable male/female adaptors. **Line up the arrows on the connectors to help you connect in the correct position, as failure to do so maybe bend or break the male prongs..**

To remove the wheel simply reverse these steps.



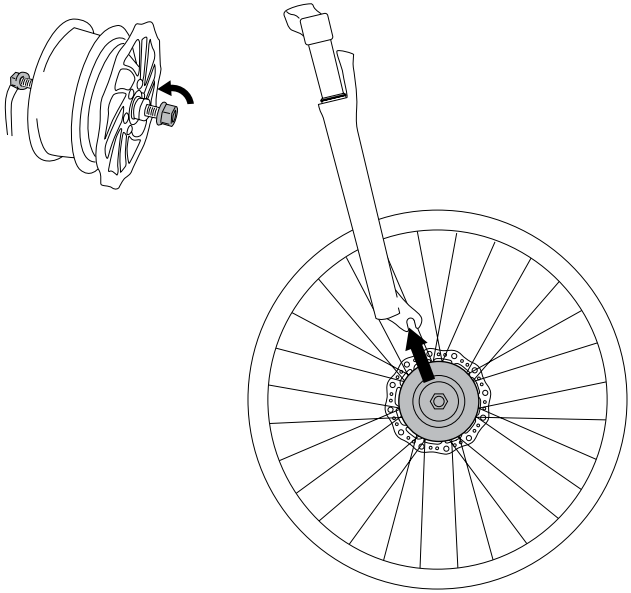




Turning your e-bike upside down and resting it on the handlebars and saddle is not recommended, as you may incur damage to the saddle and to the gear shifters and brake levers. We always recommend using a bike stand for maintenance work on your e-bike.

Front Hub (Skip this section if your model is not a Front hub motor model**)**
For this particular model, your front hub is the motor with solid axle, which requires the use of an 18mm spanner. Make sure to connect the motor using the quick connect male/female adaptors. **Line up the arrows on the connectors to help you connect in the correct position, as failure to do so maybe bend or break the male prongs.**

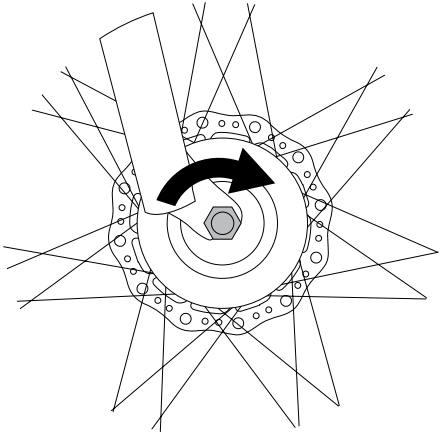
Installation and adjustment of front hub motor
Ensure the wheel nuts are loosened enough for the axle to be able to sit in the dropouts. When the wheel is placed into position, the axle of the hub rests into the dropouts. Replace the wheel nuts onto the axle and make them finger tight against the dropout.
Using an 18mm spanner begin to tighten the nuts. Start on one side, and then move to the other, bit by

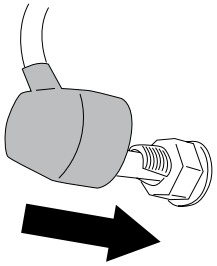


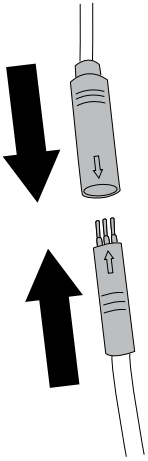
bit (don't tighten up just one side first fully and then the other). Finally tighten the nuts fully, all the while holding the wheel with one hand making sure that the wheel is sat in the middle of the forks, and that the brake rotor is sat inside the brake caliper.

Before fully tightening the wheel nuts, make sure that the wheel is sat in the middle of the forks, and that the brake rotor is sat inside the brake caliper.

You can now place the cable protector over the right-hand nut and connect the motor to the electric system using the quick connect cable male/female adaptors. **Line up the arrows on the connectors to help you connect in the correct position, as failure to do so maybe bend or break the male prongs.** To remove the wheel simply reverse these steps.







Turning your e-bike upside down and resting it on the handlebars and saddle is not recommended, as you may incur damage to the saddle and to the gear shifters and brake levers. We always recommend using a bike stand for maintenance work on your e-bike.

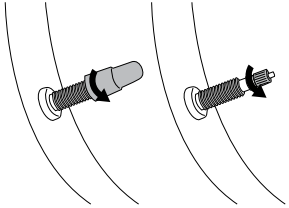
Installation and adjustment of rear Nexus hub
We wouldn't recommend any work being carried out on these wheels unless by a fully qualified cycle mechanic.

Should you decide to carry out your own work on a Nexus hub you may cause damage to gears not covered by warranty, causing them to fail.

Tyre Inflation
Your tyres are specifically designed for the extra strength required for electric bicycles. The wall of your tyre will tell you what PSI it should be inflated to, which direction it should rotate, as well as its size, make and model number.

Before riding always make sure that your tyres are inflated to the correct PSI stated on the wall of the tyre, that there are no bulges, and no excessive wear. Recommended tyre and pressure/inflation check should be once a week.

Inside the tyre is your inner tube, which is fitted with a Presta (French style) valve. Before you are able to inflate these you will need to remove the dust cap and loosen the acorn nut. Remember to re-tighten this and replace the dust cap when your tyre is inflated, or you could gradually lose air pressure.



Never inflate the tyre higher than the PSI stated on the wall of your tyre, as the tyre could burst or fall off the rim, leading to loss of control, and resulting in a potential accident and serious injury.

Never use a garage forecourt or any other type of compressor to inflate the tyre.

Replacing a tyre

If you are not confident in the following steps, seek help from a qualified bike mechanic.

1. Remove the wheel from your e-bike using the information provided in the previous section.
2. Remove the dust cap, then disperse the air from the tube so that it is as flat as possible, and remove the securing circular bolt holding the valve in place.
3. Using a couple of tyre levers (easily purchased from any decent bike shop), prise the tyre from the rim by inserting the levers between the rim and tyre, and start sliding the tyre lever across the rim wall.
4. The tyre can now be fully removed from the rim.
5. Check to see if your new tyre has a directional pattern by looking for an arrow on the wall of the tyre. If there is an arrow, make sure your new tyre is fitted in specified direction.
6. Check there is no dirt or debris inside the tyre.
7. Insert the tube into the tyre.
8. With a little bit of air inside the inner tube (to help it sit better), install it into the tyre with the valve coming through the valve hole. Secure the valve using the circular nut.

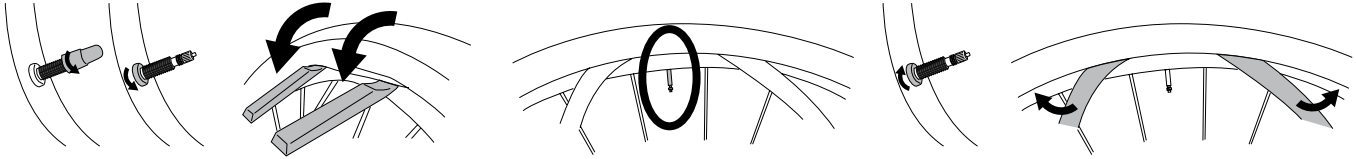
9. Starting away from the valve, start to feed the other side of the tyre into the rim until it sits fully into the rim.
10. Check to make sure that the tube is not trapped, and that the tyre is sat correctly.
11. Inflate the inner tube to the instructed PSI on the wall of the tyre, and replace the dust cap.
12. Check again that the tyre is sat correctly.
13. Return the wheel back into position on the e-bike using the information provided in the previous section

Replacing an inner tube

If you are not confident in the following steps, seek help from a qualified bike mechanic.

1. Remove the wheel from your e-bike using the information provided in the previous section
2. Remove the dust cap, then disperse the air from the tube so that it is as flat as possible, and remove the securing circular bolt holding the valve in place.
3. Using a couple of tyre levers (easily purchased from any decent bike shop), prize the tyre from the rim by inserting the levers between the rim and tyre, and start sliding the tyre lever across the rim wall.
4. Remove the inner tube from the wheel.
5. Check there is no dirt or debris inside the tyre.
6. With a little bit of air inside the new inner tube (to help it sit better), install it into the tyre with the valve coming through the valve hole. Secure the valve using the circular nut.
7. Starting away from the valve, start to feed the other side of the tyre into the rim until it sits fully into the rim.
8. Check to make sure that the tube is not trapped, and that the tyre is sat correctly.
9. Inflate the inner tube to the instructed PSI on the wall of the tyre, and replace the dust cap.

10. Check again that the tyre is sat correctly.
11. Return the wheel back into position on the e-bike using the information provided earlier in this section.



It is recommended that you always carry a spare inner tube with you whenever you are out cycling on your e-bike. Don't rely solely on puncture repair kits as they will only get you so far and are not a long-term fix.

Never use a screwdriver or any sharp objects to remove the tyre from the rim. Tyre levers are available from any decent bike **shop.**

4.8. SADDLE AND SEATPOST

Previously in the manual we touched upon how it is important it is to set the correct riding position for you.
It is important to set up your saddle height in order to avoid unnatural movements of your legs, specifically your knees if positioned too low. If the saddle is positioned too high, then your knees can lock out causing pain and long-term injury. In both instances, it is far more difficult to control your e-bike, which puts you and others around you in danger.

The following will show you how to install your saddle and seat post depending on which GYROCOPTERS model you have.

Seat post installation (Fold models)

Your Fold e-bike is equipped with a quick release seat clamp. When in a loose position, the seat post is ready to be inserted or removed as required. Set your saddle at the correct height for you, before you start clamping it into position.

The quick release system is made up of a tension adjusting nut on one end, and a quick release lever on the other, integrated into a clamp that fits over your seat tube. It is designed this way to enable you to quickly make the e-bike compact for storage or travelling.

Turning the tension adjusting nut clock-wise, while keeping the lever from rotating, increases the clamping force.

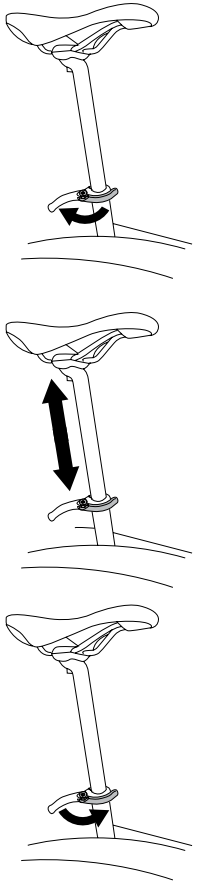
Turning it anti-clock-wise, while keeping the lever from rotating, reduces the clamping force.

Even just half a turn of the tension adjusting nut can make the difference between safe clamping force and unsafe clamping force. The tension adjusting nut should be tightened until it is finger tight. The quick release lever can then be closed to secure the seat post into the seat tube.

Before finally clamping the seat post in place, make sure that the saddle is sat in line with the top tube, pointing directly at the stem.

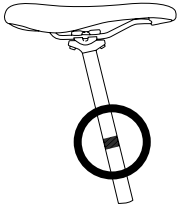
To ensure your seat post is safely locked in place, when closing the quick release lever it should leave an imprint on your palm. If this doesn't happen, you need to open the quick release lever, turn the tension adjusting nut clock-wise, and close the quick release lever again.

To remove the seat post simply reverse these steps.



When clamping the quick release mechanism shut, make sure it is as tight as possible. Clasp your hand around the frame to get extra leverage, and once the lever is locked in place it should have left a small indentation in the palm of your hand to make sure it is tight enough.

It is very important that you do not exceed the “minimum insertion” mark on your seat post. When the seat post is inserted into the seat tube part of the frame, this “minimum insertion” mark must not be visible. Failure to follow this warning can result in component failure, and/or loss of control resulting in injury.

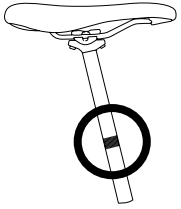


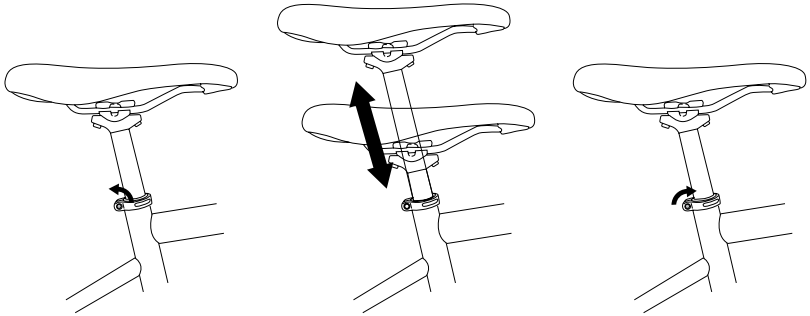
Seat post installation

Your e-bike is equipped with a hex (allen) key seat clamp. To tighten the clamp, or loosen it off, requires a hex (allen) key. When in a loose position, the seat post is ready to be inserted or removed as required. Set your saddle at the correct height for you, before you start clamping it into position.

Before finally clamping the seat post in place, make sure that the saddle is sat in line with the top tube, pointing directly at the stem. **Always make sure that the seat post is clamped as tight as possible to avoid accident or serious injury.**

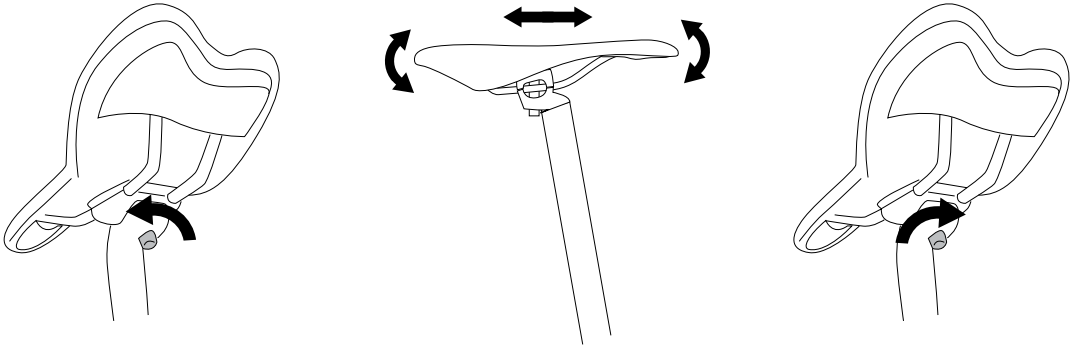
It is very important that you do not exceed the “minimum insertion” mark on your seat post. When the seat post is inserted into the seat tube part of the frame, this “minimum insertion” mark must not be visible. Failure to follow this warning can result in component failure, and/or loss of control resulting in injury.





Saddle micro-adjustments
All our GYROCOPTERS models are fitted with the ability to micro adjust the saddle to get the perfect set up for each rider. Using this adjuster enables the rider to move the saddle backwards and forwards, as well as the angle of the saddle. It is worth noting that the angle of the saddle should be flat, with the nose of the saddle pointing directly at the handlebar stem.
It is very important that you can mount, dismount, ride your e-bike safely, and ride in a comfortable position, whilst enabling you to access its features and safety components (such as brakes, gears and display) without obstruction. You should adjust your saddle height in order to avoid unnatural movements of your legs, and more specifically your knees if positioned too low. If the saddle is positioned too high, then your knees can lock out causing pain and long-term injury. In both instances, it is far more difficult to control your e-bike, which puts you and others around you in danger.

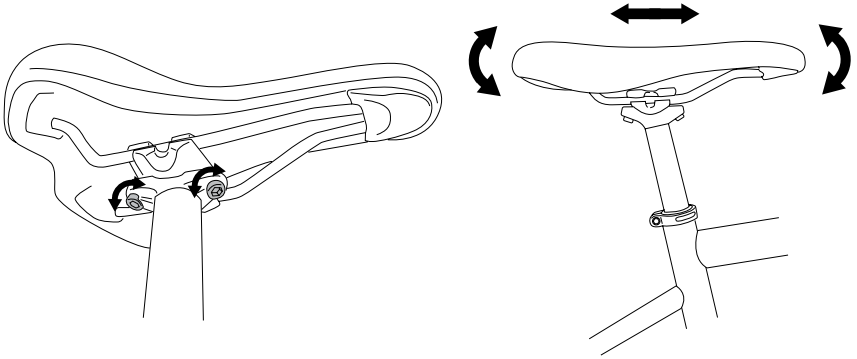
Fold saddle adjustment
To adjust the saddle, unscrew the hex (allen) key bolt located on the underside of the seat post. There is no need to screw it all the way out, just until the saddle is slightly loose. Now the saddle can be adjusted forwards, backwards, and even the angle. Once your saddle is in the desired position, re-tighten the hex (allen) key bolt. For NM torque tightening references, please refer to page 63 of this manual.



Saddle adjustment

To adjust the saddle, unscrew the hex (allen) key bolts located on the underside of the seat post. There is no need to screw them all the way out, just until the saddle is slightly loose. Now the saddle can be adjusted forwards, backwards.

To adjust the saddle angle, you can loosen one bolt and tighten the other. The side you loosen will tilt down and the side you tighten will tilt up. Once your saddle is in the desired position, re-tighten the hex (allen) key bolts. For NM torque tightening references, please refer to page 63 of this manual.



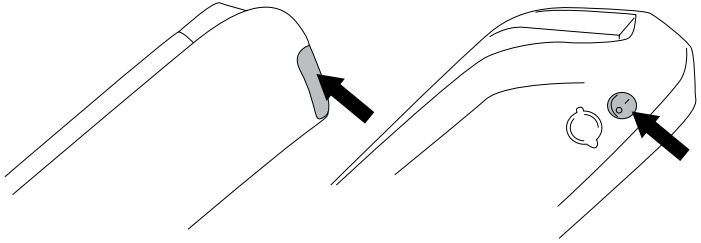
4.9. BATTERIES

Your GYROCOPTERS battery is the heart of your e-bike. When properly maintained, your battery should provide you with approx. 60kms of travel. (60kms is based on an average rider weight and normal conditions / terrain).
Your battery will arrive to you partially charged. It is recommended that you **give your battery a full charge before riding** your e-bike. Your battery type depends on which GYROCOPTERS model you have.

Lithium-ion batteries can be dangerous if not looked after properly, with risk of fire or explosion.

External batteries also equipped with a power level indicator, which will show you how much power your battery has left in increments of 25%. All models will also indicate battery level on the handlebar mounted display.

Switching on, and off, the Power System
You are required to switch the battery on first. The switch is located clearly on the outside of the battery case.



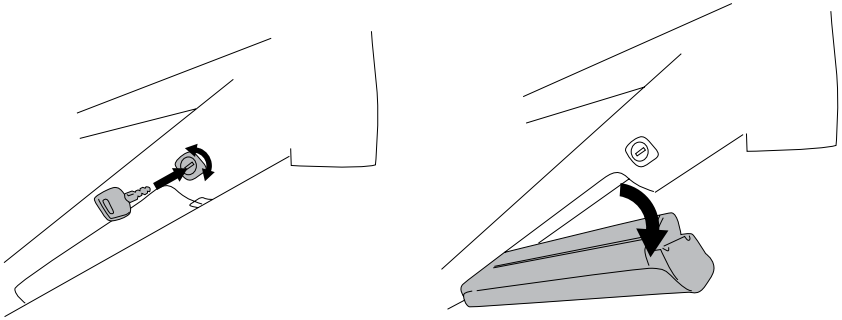
Looking after your battery properly will ensure longevity of its life, and it will continue to perform at the levels it should.

Ensure that your battery is fully charged before first use.

Please note, ensure that your battery is at least 50% full before leaving it for long periods of time. You must charge your battery at least once a month, otherwise the battery cells can disperse their energy over such time, and not be able to re-charge again.

Battery removal – Integrated downtube type battery

For these models, your battery is located securely under your down tube, and can be charged either in this position, or with the battery removed. To remove the battery, turn the keys into the unlocked position, and you will be able to remove your battery by pulling it downwards. Always make sure that the battery is fully locked back into position before using your e-bike, and make sure there are no wires or cables protruding from the casing.



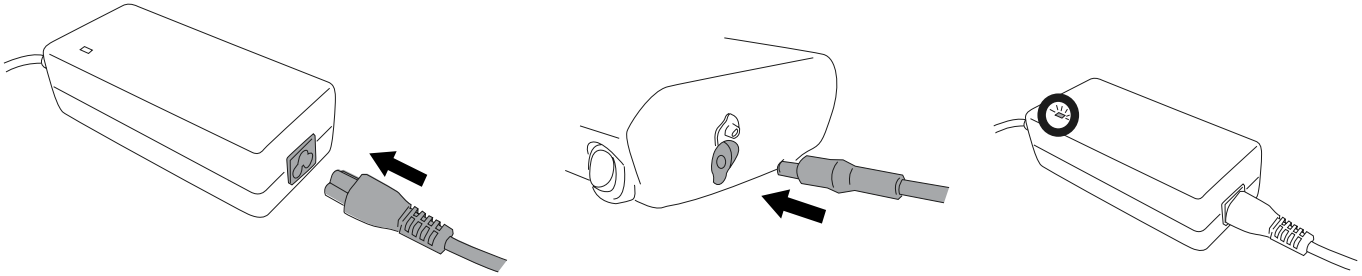
Charging your battery

To re-charge your battery, make sure that the battery is switched off, plug your GYROCOPTERS charger into the wall socket, and then connect the charger to your battery. The battery will start charging automatically so long as there is power. A full charge from empty should take around 5 hours. When the red light “low power” indicator appears on the battery, this is the time to charge it. However, your battery has a smart management system, and therefore can be charged at any time for your convenience. Once the charging cycle has been completed, switch off the power at the wall socket, and unplug the charger from the battery. Your charger has a built in LED light:

1. When plugged into the wall, but not the battery, the charger will show a green light to signal to you that there is power to the charger.
2. When the charger is then connected to the battery, it will change to a red light, to signal to you that the battery is charging, and not yet full.
3. A green light while the charger is connected to the battery confirms that the battery is now fully powered.

Always securely fasten the rubber waterproof cap back into the charging port after charging to avoid any water damage to the battery.

Please note, ensure that your battery is at least 50% full before leaving it for long periods of time. You must charge your battery at least once a month, otherwise the battery cells can disperse their energy over such time, and not be able to re-charge again.



Remember, if you are performing a long commute, take your charger with you just in case. For a better commuting experience, a lot of users will purchase a second battery, and even a second charger to keep in another location. Such accessories can be found in our online store at: **gyrocopters.ca**

Battery warranty notes
Your battery & charger is covered with a 12 months warranty period, however the following points will void this warranty:

1. Neglect of battery and/or charger will void warranty, all returned batteries are tested for charging / discharging history etc.
2. Never stick metal or sharp objects into any of the holes on the battery, as this will damage the battery.
3. Only use the charger provided, or a charger provided by GYROCOPTERS to charge your battery. Any other charger will void warranty.
4. Never drop the battery and/or charger from a great height or hit them with extreme force.
5. Do not allow the battery and/or charger to get wet due to risk of electric shocks or shorting out resulting in permanent damage.
6. Don't allow the battery and/or charger to get close to extreme temperatures or an open flame, and avoid storing it near inflammable, explosive, or corrosive gas.

7. Never open the battery and/or charger casing or make modifications. The case is sealed with a warranty sticker.
8. Always keep the battery and charger well ventilated while charging the battery, never cover these components while in use, or hot.
9. Make sure that both the plugs on the charger are dry, and that they are both securely connected.
10. Always make sure that your battery and charger are never in reach of any children.
11. When charging, plug into the wall before plugging into the battery. When unplugging, turn off wall socket, remove from battery, and then remove from wall socket. Avoid having the charger connected for longer periods than necessary.

If you notice any abnormal behavior from the battery or the charger, switch them off immediately, removing all plugs. This includes strange smells and overheating. In this case, contact the store you purchased from directly.

Please note, ensure that your battery is at least 50% full before leaving it for long periods of time. You must charge your battery at least once a month, otherwise the battery cells can disperse their energy over such time, and not be able to re-charge again.

4.10. DISPLAYS

LED Display

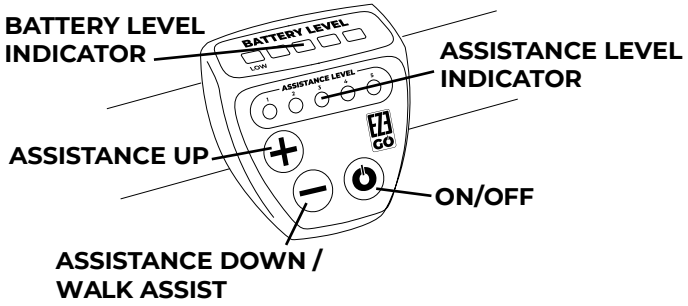
If your bike is equipped with an LED handlebar display module, this is how the rider controls the electric system while riding their e-bike. The module is connected to the electric system, via quick connect cable with a male / female adaptor, for easy maintenance. Always make sure this connection is secure before switching the system on.

On the module you will see 5 power bars. These power bars tell you exactly how much power your battery has, in increments of 20%. Power levels go from left to right, as you can see the left side of these power bars is marked “low”.

There are also 5 LED lights marked 1,2,3,4,5 from left to right. This tells the rider what level of power assist they are in, 1 being low power assist, and 5 being high power assist. High power assist will supply the most power while you pedal.

The last 3 buttons located on the module are:

1. The power button, for switching the module and electric system on and off (except the battery, the battery has its own switch).
2. “+” button, which is used to shift up the power assist level.
3. “-“ button, which is used to shift down the power assist level. This button will also engage the 6km/h walk assist mode when depressed.



LCD Screen Display

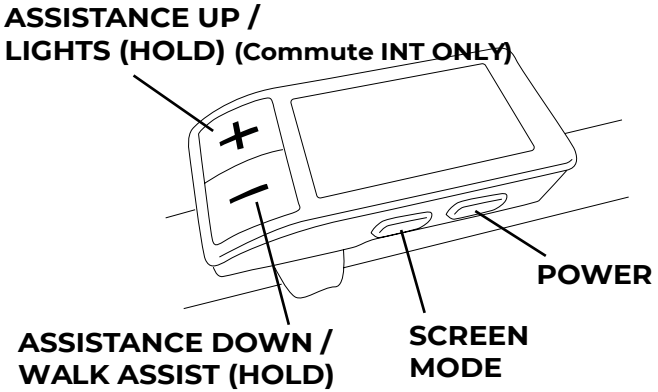
If your bike is equipped with an LCD handlebar display module, this is how the rider controls the electric system while riding their e-bike. The module is connected to the electric system, via quick connect cable with a male / female adaptor, for easy maintenance. Always make sure this connection is secure before switching the system on.

You can alter the information shown on the screen by pressing the mode button underneath the display module. You will always have on display the battery level, and the level of assist in use.

These are numbered 1,2,3,4,5 from left to right. This tells the rider what level of power assist they are in, 1 being low power assist, and 5 being high power assist. High power assist will supply the most power while you pedal.

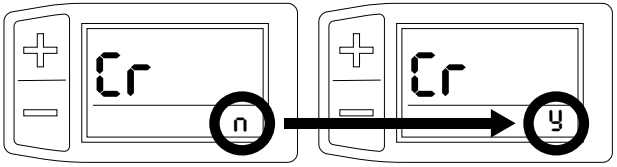
The 4 buttons located on the module are:

1. The power button, for switching the module and electric system on and off.
2. "+" button, which is used to shift up the power assist level. This button will also switch on the lights on the Commute INT model when depressed.
3. "-" button, which is used to shift down the power assist level. This button will also engage the 6km/h walk assist mode when depressed.
4. "Mode" button. This button will switch between the different screens for different information

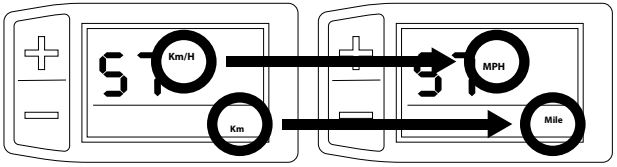


Display Parameter Settings
Press the Mode button (press no less than 2 seconds) to get into the setting menus.
Short pressing the Mode button will then switch to next item.
Pressing the Mode button (press no less than 2 seconds) will exit from menu.

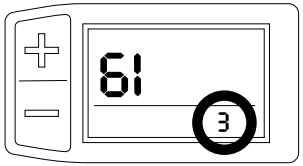
SETTINGS SCREEN 1 - RESET TEMPORARY INFORMATION
You will see the flashing “n” in the bottom right of the screen. Press either the + or the - button and this will change to a “y”. If you exit the settings mode with the “y” flashing, your temporary data (Trip, ride time, max speed, average speed) will be reset.



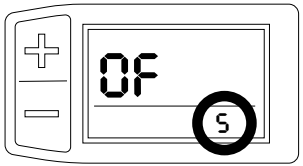
SETTINGS SCREEN 2 - SWITCH BETWEEN MPH AND KPH
You will see the units your speed / distance is currently being displayed in flashing. Pressing the + or - buttons will switch between the two. Whichever is flashing when you exit the settings mode will be the one you are set in.



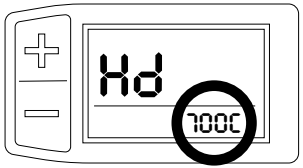
SETTINGS SCREEN 3 - BACKLIGHT BRIGHTNESS
You will see a number flashing in the bottom right-hand side of your screen. Pressing + / - will increase or decrease the brightness of back light of the display.



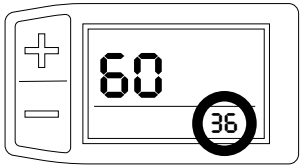
SETTINGS SCREEN 4 - AUTO SWITCH-OFF TIME
You will see a number flashing in the bottom right-hand side of your screen. Pressing + / - will change the auto power off time from 0 to 15. The number represents time (minutes) to shutdown, OFF means disable auto-off function, default value is 5 minutes.



SETTINGS SCREEN 5 - WHEEL SIZE
You will see the wheel size setting in the bottom right-hand side. Pressing + / - will switch between wheel size setting.
This is not recommended as it will cause the display to mis-read speed and distance information from the motor. Please note this will not increase the speed of assistance from the motor.



SETTINGS SCREEN 6 - VOLTAGE SETTING
You will see the voltage setting in the bottom right-hand side. Pressing + / - will switch between voltage setting.
This is not recommended as it will cause the display to mis-read information from the system. Please note this will not increase the speed of assistance from the motor.



4.11. READY TO RIDE - FINAL INSPECTION

Please make sure you check and understand the points below, just to double confirm that your e-bike is ready for its first ride:

1. The electric bike is fully assembled, and there are no components left in the carton, only packaging products. Don't forget to keep the packaging until your warranty period has passed.
2. The chain is lubricated well.
3. All fixings, including the wheel fixings, are fitted as instructed and tight.
4. Wheels are running true, and the tyre pressure is as stated on the tyre wall.
5. Saddle is correct height and comfortable for the rider, and not beyond the minimum insertion mark.
6. Handlebar is comfortable to your riding position.
7. Brakes are setup and functioning properly as instructed, and the rider is able to reach the brake levers comfortably.
8. Gears are setup and functioning properly as instructed, and the rider is able to work the gear shifter comfortably.

4.12. TORQUE SPECIFICATIONS

When tightening up the bolts and screws on your e-bike, it is highly recommended that you follow the below guide. This confirms what each screw or bolt for each component on the electric bike must be tightened up to in Newton Metres (Nm). This is why we always recommend you using a qualified bike mechanic.
If the screws are too loose they can fatigue more easily and move around. If too tight they can become distorted and stretch.
A mistake can result in a failure of the component which would result in an accident and/or serious injury.
Torque wrenches are available at a good bike shop, or a car accessory store. Always follow the guidelines and instructions.

Threaded Headset Locknut	***16-24 Nm (142-212in-lb)***
Stem Expander Bolt (quill type)	***17-22 Nm (150-195in-lb)***
Handlebar Binder Bolt (quill type)	***17-22 Nm (150-195in-lb)***
Stem Binder Bolt (threadless)	***13.5-16 Nm (120-144in-lb)***
Compression Cap	***2-3 Nm (20-26in-lb)***
Stem Faceplate Bolts	***13.5-19 Nm (120-168in-lb)***
Pedal	***34.5-40 Nm (307-354in-lb)***
Crank Arm	***45-50Nm (398-442in-lb)***
Axle Nut	***30-42 Nm (260-372in-lb)***
Seat Post Binder	***4-6.5 Nm (36-60in-lb)***
Seat Rail Binder	***18-34 Nm (160-300in-lb)***
Shift Lever	***6-8 Nm (53-70in-lb)***
Rear Derailleur Mounting Bolt	***8-10 Nm (70-86in-lb)***
Rear Derailleur Cable Pinch Bolt	***4-5 Nm (35-45in-lb)***
Rear Derailleur Pulley Wheel Bolt	***3-4 Nm (27-36in-lb)***
Disc Brake Rotor To Hub	***4-7 Nm (36-60in-lb)***
Disc Brake Caliper Mount	***6-9 Nm (52-84in-lb)***

Brake Caliper Mount to Frame (side/dual)	***8-9.5 Nm (70-85in-lb)***
Brake Caliper Mount to Braze-on Linear Pull/ Cantilever	***5-7 Nm (44-60in-lb)***
Brake Pad (Threaded Stud, Dual Pivot/Sidepull)	***5-7 Nm (44-60in-lb)***
Brake Pad (Smooth Stud)	***8-9 Nm (70-78in-lb)***
Brake Cable Pinch Bolt (Linear Pull)	***6-8 Nm (53-69in-lb)***
Brake Cable Pinch Bolt (Sidepull/ Dual Pivot)	***6-8 Nm (53-69in-lb)***
Brake Caliper Arm Pivot (Dual Pivot)	***8-9.5 Nm (70-85in-lb)***
Sidepull/Dual Pivot Brake Pad Bolt	***5-7 Nm (44-60in-lb)***
Cantilever Straddle Wire Pinch 5 x 0.8 Thread	***4-5 Nm (35-43in-lb)***
Brake Caliper Wire Pinch Linear Pull	***5.5-8.5 Nm (50-75in-lb)***
Brake Lever (MTB type)	***6-8 Nm (53-69in-lb)***
Brake Lever (Drop Bar Type)	***6-8 Nm (53-69in-lb)***
Mudguard Bolts	***6-9 Nm (53-78in-lb)***
Mudguard Bracket Bolts	***2.5-4 Nm (25-35in-lb)***
Base Clip Bolts	***2.5-4 Nm (25-35ft-lb)***
Mount Bracket Bolts	***2.5-4 Nm (25-35ft-lb)***
Strut Bolts	***2.5-4 Nm (25-35ft-lb)***

4.13. MAINTENANCE OF YOUR INVESTMENT

As you use your electric bike, be sure to keep it well cleaned and maintained. Here are some tips to help look after your new investment.

1. Try to avoid puddles, and be careful on damp roads for potholes. Water and the electric system will not mix, and will more than likely end up failing.
2. Keep your electric bike in shelter, and avoid rain at all costs.
3. Riding around coastal areas exposes your e-bike to salt which is very corrosive to the majority of the components on your e-bike. Take care in these areas and carefully clean your e-bike after use.
4. Clean your e-bike regularly.
5. If you are caught in the rain, clean you e-bike once you are home. You can also anti-rust treatment, and touch-up paint on any chips or scratches you pick up over the years to protect any areas without their protective paint coat. Clear nail polish is also a secret tip for covering these areas after touch-up paint has been applied.
6. Keep your components, especially your drive / gear system well lubricated. Keep lubrication away from the disc rotors and calipers.
7. Before lubrication, always wash off dirt and muck before application.
8. Be careful of over-lubrication, wipe off any excess with an old cloth.

It is also worth reminding you that components such as gear & brake cables, and spokes take a little time to bed in, and therefore cables may stretch etc.. We recommend taking your electric bike for a checkup after one month of riding, or 20 hours, just to make sure everything is working as it should be.

Below is a guideline for what components you should be looking at and approximately how often you should do so.

After every long or hard ride, or after every 10 to 20 hours of riding, check the following:

1. Squeeze the front brake and rock the bike forward and back. Everything feel solid? If you feel a clunk with each forward or backward movement of the bike, you probably have a loose headset.
2. Lift the front wheel off the ground and swing it from side to side. Feel smooth? If you feel any binding or roughness in the steering, you may have a tight headset.
3. Grab one pedal and rock it toward and away from the centerline of the bike. Then do the same with the other pedal. Anything feel loose? If so, have a qualified bike mechanic check it.
4. Take a look at the brake pads. Starting to look worn or not hitting the wheel rim squarely? They may need adjusting or repairing, see the brakes section of this manual.
5. Carefully check the control cables and cable housings. Any rust? Kinks? Fraying? If so, have a qualified bike mechanic replace them.
6. Squeeze each adjoining pair of spokes on either side of each wheel between your thumb and index finger. Do they all feel about the same? If any feel loose, have the wheel checked for tension and trueness.
7. Check the tyres for excess wear, cuts or bruises.
8. Check the wheel rims for excess wear, dings, dents and scratches. If present, ask a qualified bike mechanic if they need replacing.
9. Check to make sure that all parts and accessories are still secure, and tighten any which are not.
10. Check the frame (particularly in the area around all tube joints), handlebars, stem, and the seat post for any deep scratches, cracks or discoloration. These are signs of stress-caused fatigue, and indicate that a part is at the end of its useful life, and needs to be replaced

As required:

1. If either brake fails, don't ride the e-bike. Have your local bike mechanic check the brakes.
2. If the chain won't shift smoothly and quietly from gear to gear, the derailleur is out of adjustment, take it to a qualified bike mechanic.
3. It is recommended that every 25 (hard off-road) to 50 (on-road) hours of riding, take your e-bike to a qualified bike mechanic for a complete checkup.

6 Week Inspection
It is recommended that after this period you should inspect your e-bike, as things will slacken off and need re-tightening.
Every 6 Months
It is recommended that every 6 months you complete a full service on your e-Bike to keep it in excellent working condition.
Periodically check the wiring and connectors to ensure there is no damage, and that the connectors have good continuity.
Caring for your Battery
Properly maintain the batteries by keeping them fully charged when not in use. When stored and not in use, please remove the battery and store in a cool dry place, charging periodically, **you must ensure that the battery is charged AT LEAST once a month while it is not being used.**
Failure to do this will result in the battery falling into a dormant state, rendering the battery unrepairable.
Please Note: It is ok to oil the chain and front or rear axle (depending if you have front or rear hub motor), but **THE MOTOR SHOULD NOT BE LUBRICATED.**
If you have an accident
First, check yourself for injuries, and take care of them as best you can. Seek medical help if necessary.
Next, check your e-bike for damage. After any crash, take your bike to your local mechanic for a thorough check. Carbon composite components, including fames, wheels, handlebars, stems, crank sets, brakes, etc., which have sustained an impact must not be ridden, until they have been disassembled, and thoroughly inspected by a qualified mechanic.

5. WARRANTY

Subject to the following provisions, Gyrocoptors, warrants that the goods will correspond with their specification at the time of purchase, and will be free from defects, in materials, and in workmanship.

Gyrocoptors offers a 1 year warranty on steel frames, and 1 year on aluminium frames, for any problems relating to manufacturer workmanship, or arising from the material defects, including breakages, or cracking caused while riding (other than rider misuse).

All other components are guaranteed for 3 months, for problems related to manufacturer workmanship, or arising from material defects, with the exception of consumable components, for example: brake blocks, brake pads, tyres and inner tubes.

Gyrocoptors offers this warranty to the original purchaser of the product. This warranty is not transferable to a third party.

Transport and labour charges in relation to warranty supplied parts are not subject to the terms of this guarantee, and shall be the responsibility of the owner.

The original bill of sale, or proof of purchase, must be presented to the approved dealer, prior to obtaining warranty services.

The above guarantee is in addition to your statutory rights.

Please Note: This guarantee does not cover failure experienced during activities such as any form of jump, stunt, wheelies, race/competition or other extreme riding of any kind, and will invalidate your warranty. If the bike has been used for rental use this will result in invalidating the warranty. Poor maintenance, or modifications that no longer comply with regulations or original specifications, will also invalidate the warranty.

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