DRB

POWER ASSISTED CYCLING

Assembly Guide & Maintenance Manual

Model: MALVERN

Assembly Guide

IMPORTANT!

PLEASE REMEMBER THAT IT IS IMPORTANT TO KEEP THE CARTON YOUR BIKE ARRIVED IN , COURIERS CANNOT COLLECT YOUR BIKE WITHOUT A CARTON SHOULD YOU HAVE NEED TO RETURN IT TO US.

Firstly may we congratulate you on the purchase of your new E-bike.

IMPORTANT! Please take time to read this Assembly Guide & Maintenance manual together with the Controller manual, by understanding how your bike works and by following the safety tips and regular bike maintenance, you will ensure that you fully enjoy your cycling experience for many years to come.

Check List

1. Your complete E.bike
2. Saddle & Seatpost
3. Box containing:
   - Battery Charger and power lead.
   - Pedals
   - Tool Kit in Bag
4. 2 Keys: these are attached to handlebars
5. This Manual and Controller Manual

Need assistance?

Please call our
Technical help line:
(weekdays 9am-5pm)

01702 208187

(standard call rate charge applies)

or contact us on:
warranty@evolvingsports.co.uk

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Assembly Section

Maintenance Section

Firstly may we congratulate you on purchasing your new electric power assisted e.bike.

Please take time to read your manual. We have tried to write it in a way that is simple and easy to follow, whilst explaining how your bike works and how it is maintained.
At any point if you feel you need help we have a tehnical helpline for support.

Welcome to power assisted cycling

Essentially your new electric bike works exactly the same as a standard bike, pedalling to propel the bike forward using the gears to suit the terrain and the speed you want to go....only now you have an electric power assistance at your fingertips to take the strain out of those tough uphill struggles and making cycling a much more pleasant experience.

Simply explained this is how your electric bike works.

1. Switch the power on by pressing the 'POWER' button on your controller on the handlebars.
2. As you begin to pedal a sensor will read the level of effort needed to turn the wheels of your bike.
3. After one complete turn of the pedal the electric motor kicks in making pedaling much easier.
4. There are 5 setting on your controller on the handlebar, allowing you to set the level of assistance you require. For example: Riding up a hill you'll probably use 'level 3 - 5', modes.
5. Change the level of assistance you need, any time and as often as you wish.
6. The motor works to assist pedalling, stop pedalling and the motor stops too.
7. Applying the brakes cuts the motor
8. You can also choose to switch the assist OFF and ON on the controller at any point in your journey. This helps to save battery power if its not needed.

The more you use the assist, the more power it uses, each rider is different so figures can vary considerably with different rider weight and the terrain you ride. Generally with normal use, you should be able to obtain around 20 miles, before you need to re-charge your battery.

We Recommend that you get used to your new e.bike and the level of assist you place on it, you'll soon be able to work out how long a journey you can make and safely return under assist. You can of course ride as you would a normal bike if the charge runs out.

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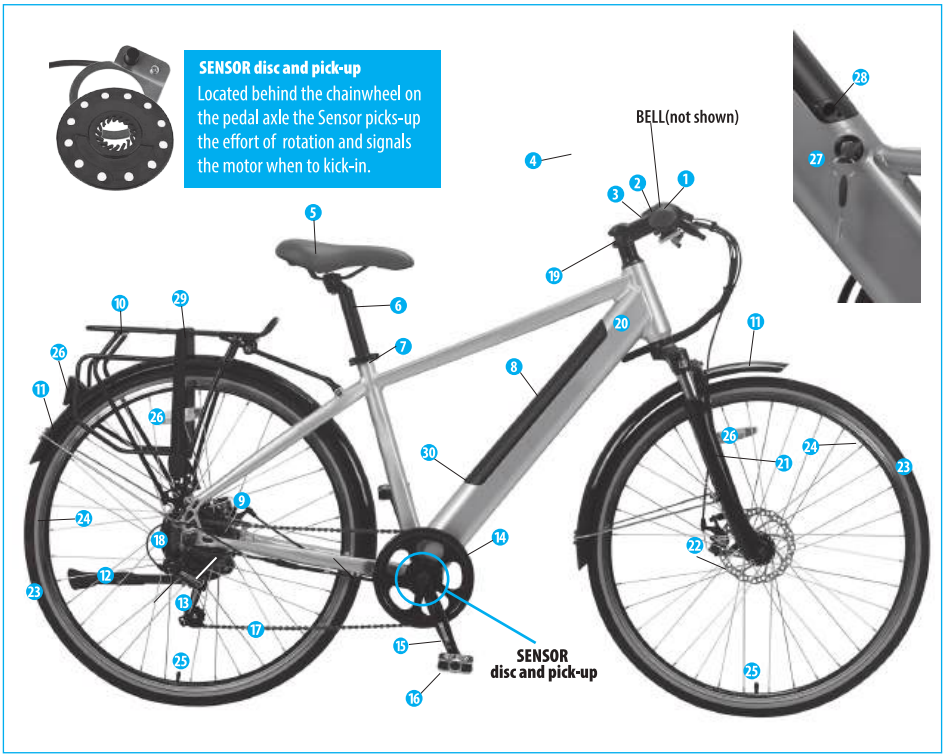
Schematic of your new bike

We realise that not everyone is an ardent cyclist and for some of you this might be your first real step back into cycling so we have added a diagram of your bike below to give you a little better understanding of the parts on your bike, and where they can be found.



1. Controller
2. Gear changer
3. Grip
4. Brake Lever
5. Saddle
6. Seatpost
7. Quick release Seat clamp
8. Battery
9. Rear Disc-Brake
10. Rear Carrier
11. Mudguard
12. Kickstand (folded up)
13. Derailleur
14. Chainguard
15. Crank Arm
16. Pedal
17. Chain
18. Motor
19. Handlebar Stem
20. Bike Frame
21. Suspension Fork
22. Front Disc-Brake
23. Tyre
24. Wheel Rim
25. Innertube Valve
26. Reflector
27. Battery lock
28. Charging port
29. Bungie Straps
30. Battery power indicator button

Handy Tip: *Its a good idea to rest your bike on the bike stand which is attached to the rear chainstay, this makes it much easier and leave your hands free to make adjustments to other parts.*

Unpacking your new bike

Your bike comes 85% assembled in the Carton,

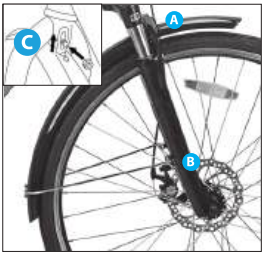
1. Before you begin to unpack your e.bike we recommend you get another person to assist you as it s much easier with 2 persons to lift out of the box.
2. Remove all the packing materials checking to make sure there has not been any damage in transit. (If you find anything missing or damaged, contact the Technical helpline below.

Make sure the disc slots into the brake mechanism.

4 Bolt Alen key stem cap.

Setting up your e.bike

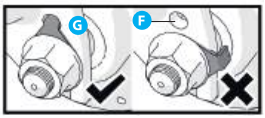
Fitting the Front Mudguard



Feed the fixing bolt through the fork steerer tube from the front and offer the mudgaurd from the back of the fork as shown in C screw nut finger tight. You can then screw the two arms of the mudguard brackets to the fork legs at B
Once you have fitted the wheel adjust the clearence from the tyre as required and tighen the fittings.

Fitting the Front Wheel

1. Place the wheel axle in the fork drop-outs making sure the axle is seated properly.
2. It is important that the brake disc on the wheel slots into the disc brake mechanism on the fork blade.
3. Locate the safety washers G on each side into the location holes F and tighten the nuts by hand to hold in place.
3. Making sure the wheel is central in the forks,tighten the wheel nuts to 22-25Nm



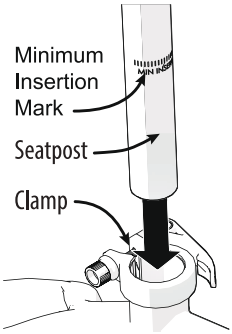
Spin the wheel to check the wheel is running true.

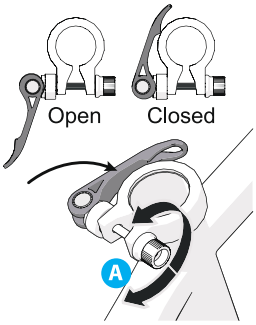
Fitting the handlebar assembly

Stand the frame up on rear wheel, bike stand and front forks, being careful not to damage the fork ends (drop outs).

1. Remove the 4 stem bolts and place the handlebar centrally in the cup of the stem, replacing the cap and the 4 bolts.
2. Tighten the 4 bolts equally in sequence 1-3-4-2.
3. Before final tightening rotate the handlebar so that the brake levers are angled down approx 45˚, fully tighten to 8-10Nm.
4. It's important to fit the cap to the stem squarly with an equal gap at points **A.**

Bolting stem to fork steerer tube





Adjusting seat calmp

NOTE:
The Seat post must be inserted at least to the minimum insertion mark stamped on the lower part of the seat post.
If no minimum insertion mark can be found , make sure at least 3 inches of th post is inside the bicycle frame tube.

Squaring the handlebar to the wheel

Although pre-set in the factory you may need to square the handlebars at 90˚ to the wheel.

1. To do this simply slacken slightly the allen key bolts (**B**). You should be able to adjust but may need to slacken alen key bolt (**C**).
2. Once you are happy with the alignment tighten bolt **C** taking care to only nip tight, **do not overtighten,** then fully tighten Bolts **B.**

Fitting the saddle assembly

The Saddle and Seatpost are already fitted together.

1. Slide the seatpost into the seatbube and close the tension lever on the quick release clamp to lock your seat in place.
2. Adjust the saddle height to suit you by releasing the clamp and tightening when at the correct height.
3. If the clamp does not tighten enough to hold the saddle in position simply open the tension lever to release and turn a quater turn of the adjustment nut **A** clockwise and close the tension lever. Repeat as necessarry.

a. Turn crank to place it in it's lowest position.
b. Place heel on pedal with foot parallel to the ground.
c. Position saddle so that tos of other foot can touch the ground. Saddle should also be parallel to the ground.
d. Tighten seat post bolt.

Recommended torque is 150 in/lbs

Fitting the Pedals

Match left pedal to left crank, and right pedal to right crank.
Left Pedal - Tightens **Anti-clockwise**
Right Pedal - Tightens **Clockwise**
Tighten pedals as far as possible with your fingers. Use the tool provided to tighten them firmly. Push the pedal towards the bike frame and fold down when in transit or storage.

Check battery for charge by pressing the power indicator button on the battery

Press the power button

Applying the brakes activates the brake sensor which cuts the power to the motor.

Pre-Ride Checks

IMPORTANT NOTE:
The total permissible weight of the Rider + Luggage is **125Kg**

Complete these checks before every ride

1. Check to make sure all nuts/fastenings are tight
2. Check that your tyres are inflated sufficiently (see tyre wall)
3. Check that the brakes are working correctly. (These are set by the factory and should not require adjusting).
4. Check your battery for charge by pressing the power indicator button on the battery or simply read the readout on the Controller when you switch on.
   (Note: Your new battery is supplied with a partial charge)

Getting Started

1. Check that your battery is securely locked in place
2. Press the POWER button on the Controller on your handlebars A
3. 'MODE' is set on '1' - This is a default setting.
   THAT'S IT.....You're ready to go.

4. To start , simply begin to pedal. Once the crank is turning you will feel the motor kick-in and the electric system begin to assist you.
5. You have 5 levels of assist and its a good idea to try all levels to give you a feel of the effect this has on your riding.
6. Remember, stopping pedalling or braking cuts the motor assist, so you can always feel safely in total control.

Applying the brakes activates the brake sensor which cuts the power to the motor.

Press to switch ON/OFF

Press to increase assist levels 1-5

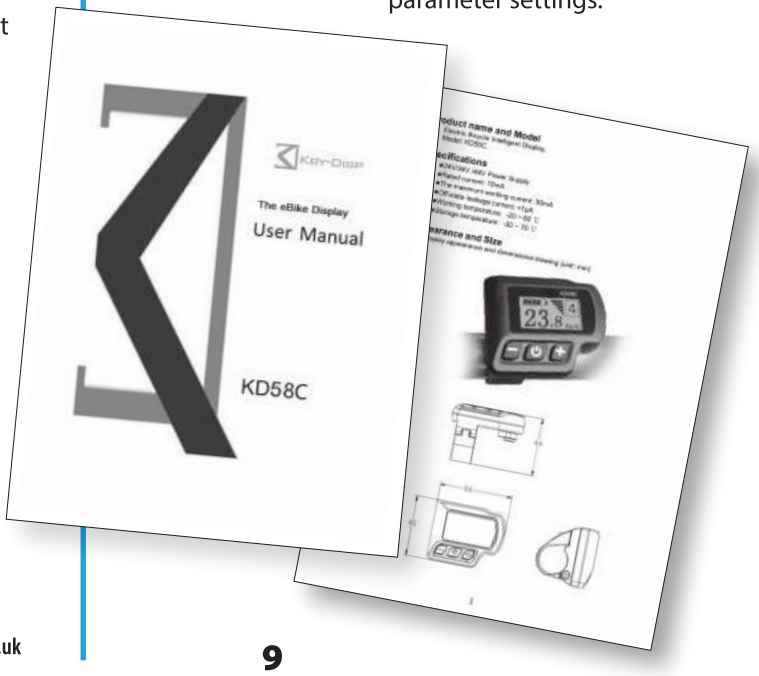
Press to reduce assist level 5-1.

Holding down this button activates the 'WALK MODE' which engages the motor from a standing start upto around 4 mph which is a great way to set of from traffic lights, or when walking with your bike.

Understanding your controller

Your intelligent LCD Display Controller has many functions yet is relatively simple and easy to operate. The basic operations are listed on the left.

Your Owners Manual comes complete with a User Manual for your E.Bike Intelligent LCD Display Controller which fully explains the many functions such as: General operations, Setting plus options for personalized parameter settings.



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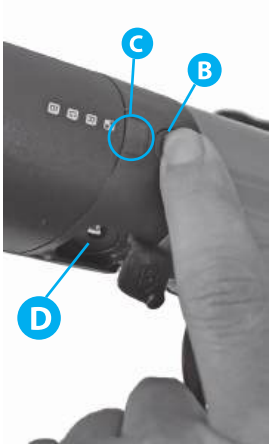
When the key is turned to release the spring lock the battery lifts out slightly as shown, it can then be removed.

Press the power button



D Rubber Bung removed showing charging port

Understanding your battery

1. Security

1. You are supplied with 2 keys to secure your battery to your bike. It is advisable to seperate the keys as they **CANNOT BE REPLACED IF LOST.**
2. The key secures your battery to the bike, to remove the battery insert the key and unlock, releasing the internal spring clip which raises the lower end of the battery which can then be lifted up and out of the frame lower end first.
3. To replace simply reverse the procedure, insert the battery into the frame top end first, pressing the bottom of the battery to click in place. Lock with the key.

2. Battery operation

Once the battery is in place the power is available to the bike by switching the power on using the button on the Controller on the handlebars. A
Remember to swith OFF when not in use as this will drain the battery.

To check the power level of the battery simply press the power Indicator button B at the base of the battery the light above the button C will light-up indicating the battery power level.
NOTE! The Continuous Red light, will light without pressing the power indicator button

The power light indicate the level of power

LED POWER DISPLAY	POWER CAPACITY
Blue Light	75% -100%
Green Light	50% - 75%
Red Light	50% - 25%
Continuous Red light	Under 25% (low power)

To fully charge your battery takes approx. 2-3 hours

The Battery charging point can be located on the bottom left side of the battery casing as shown here.

Battery Charger

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3. Battery Charger

1. **NOTE:** Only charge your battery with the Charger supplied with your FREEGO bike.
   The charger is set to 220/240V. Never use 110v setting.
2. Avoid dropping the Charger as this may damage the sensitive electronics within the casing.
3. You can leave the battery charging, it will stop charging by itself when it has reached full charge, but it is not recommended to leave charging for any considerable time over what is required.

Charging your Battery

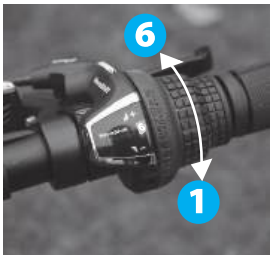
Your Lithium Battery arrives partially charged.

The Battery can be charged on or off your bike.

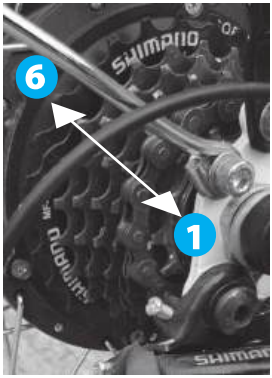
1. Firstly, connect the charger to the battery using the lead provided.
2. Then plug your charger into the mains power socket
3. Switch on.
4. The LED light on the charger will illuminate RED to to indicates it is charging.
5. Once Fully charged the LED light on the charger changes to GREEN indicting the battery is fully charged.

Basic rules to follow when charging your battery

1. Do not cover charger with any material of substance that may restrict airflow to the charger. The charger needs to 'Breath' to keep cool.
2. Charging your battery each time you use it no matter how far the trip, will prolong the life of the battery.
3. DO NOT leave the battery discharged for long periods.
4. Never open the charger or change settings on charger.



Gripshift Gear changer



Rear Cogs

Rear Derailleur

Understanding how the Gears work

The Gears work exactly as a normal bike and are independent of the electric motor.

The Revoshift gear changer is fitted to the right side of the handlebars. It consists of a large gripped ring which you turn away from you (forwards) to select the higher gears (6) and towards (downwards) to select the lower gears (1).

You have a series of 6 gears to choose from depending on the suitability for either speed or terrain.

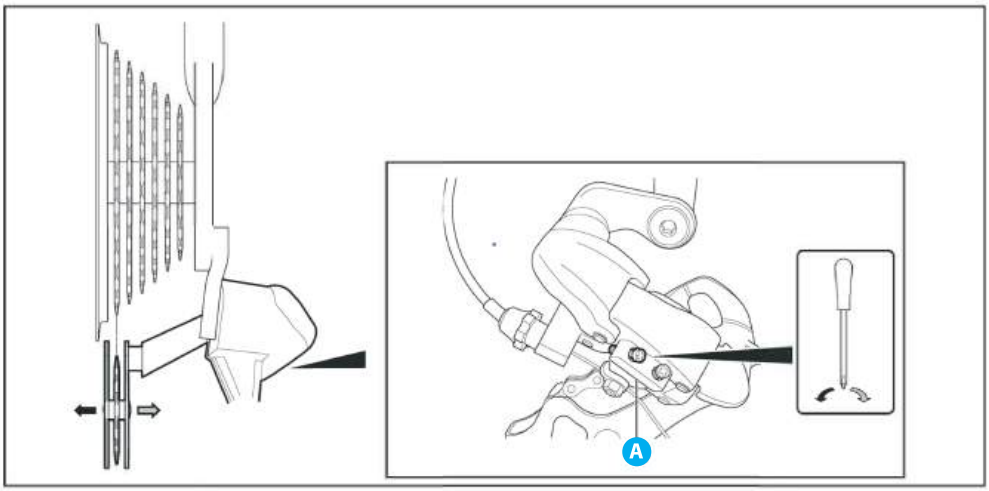
The gears are pre-set in the factory so should not need adjusting.

However, over a period of use the cables will stretch and may need adjustment which is probably done at your 3 month service.
Your local bike shop or specialist e.bike shop will offer this service at a very reasonable price.

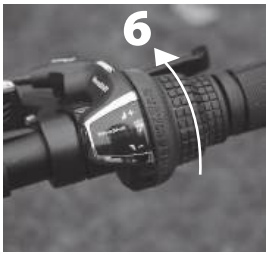
You can of course adjust and maintain your bike yourself, if so, please follow the adjustment instructions.

Adjusting the Rear Derailleur

Step1



PLEASE NOTE:
The LOWEST gear is always the largest.



1a. Select the lowest Gear.

Whilst raising the rear of the bike and rotating the pedals by hand, use your right hand to twist the shifter to select the lowest gear (number 6 on the indicator).

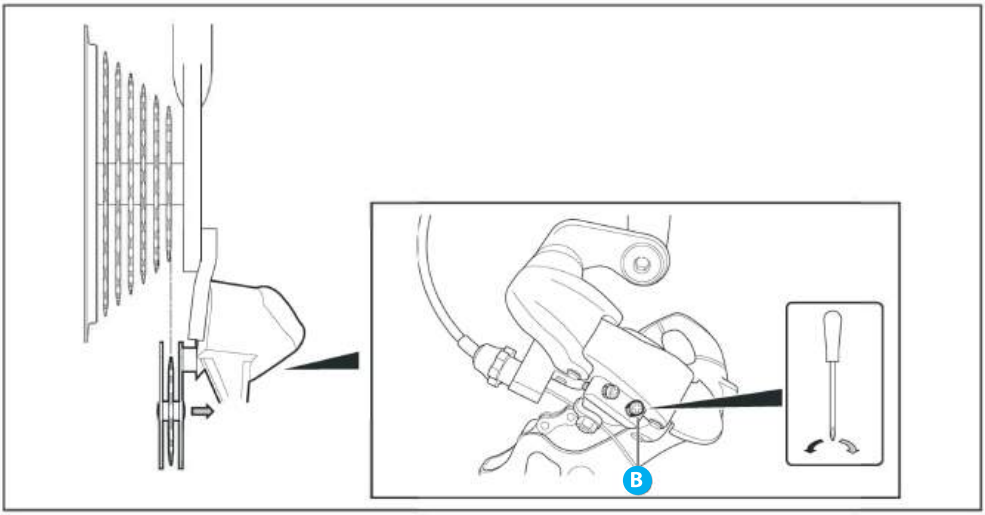
1b. Set the position of the Lower Limit Screw.

The Lower Limit Screw (A) controls the position of the rear derailleur when the lowest gear is selected. Using a suitable screwdriver, turn the lower limit screw (A) until the small gears of the derailleur are vertically aligned below the lowest gear.

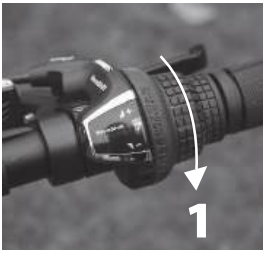
When viewed from the back of the bike, turn the lower limit screw,
Clockwise to move the derailluer to the **right** and **Anti-clockwise** to turn the derailleur to the **left.**

Adjusting the Rear Derailleur

Step2



PLEASE NOTE:
The HIGHEST gear is always the smallest.



2a. Select the Highest Gear.

Whilst raising the rear of the bike and rotating the pedals by hand, use your right hand to twist the shifter to select the highest gear (number 1 on the indicator).

1b. Set the position of the Lower Limit Screw.

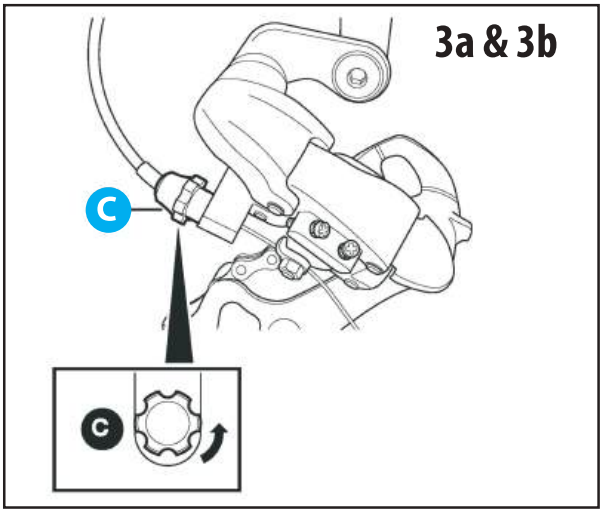
The Lower Limit Screw (B) controls the position of the rear derailleur when the highest gear is selected. Using a suitable screwdriver, turn the lower limit screw (B) until the small gears of the derailleur are vertically aligned below the highest gear.

When viewed from the back of the bike, turn the lower limit screw,
Clockwise to move the derailluer to the **left** and
Anti-clockwise to turn the derailleur to the **right.**

Adjusting the Rear Derailleur

Step3

Rear Derailleur



3a. Check the Gear Change

Whilst raising the rear of the bike and rotating the pedals by hand, use your right hand to twist the shifter to change from the highest (smallest) to Lowest (largest) gear one at a time. The gears should change quickly without any grinding noises.

If they do not operated correctly, carry out step 3b

3b. Check the Cable Tension

Gears change correctly between Lowest to Highest but not between lowest to highest gears, the cable tension should be increased.

Rotate the barrel adjuster C a quater turn anti-clockwise

Check the Gear change by repeating step 3a.

Continue to check the gear change, increasing by a quater turn at a time until the gears operate correctly.

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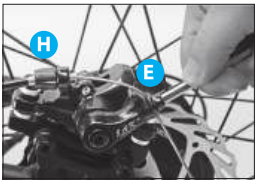
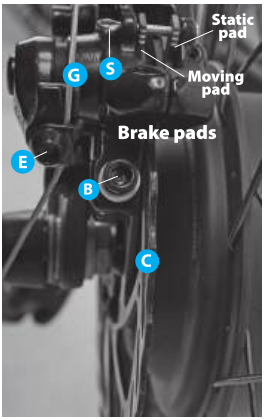
Disc Brakes have gained popularity due to their better braking performance and especially in bad weather or muddy conditions where they perform much better than traditional rim brakes.



(fig.2) When pulling the cable through for re-tightening make sure NOT to raise the Caliper Arm as this will reduce effective braking



(fig.3) When replacing wheels with Disc Brakes take care to make sure that Rotor fits cleanly between the two brake pads and is aligned properly

Adjusting the Mechanical Disc Brakes

1. Checking the Brake Rotor

To check the Rotor either place your bike upside down or place in a bike stand so that you can turn your wheel freely. Spin the wheel whilst looking down the thin edge of the rotor disk to see any lateral movement. Slight bends in the disc C can be straightened with a rotor tool or an adjustable spanner by gently bending back into shape. Any major distortion would be best corrected by replacing the disc.

2. Tightening the brake cable.

Begin by turning the barrel adjuster H fully in (clockwise), then loosen the cable pinch bolt E , pull the cable taught and re-tighten the pinch bolt taking care not to lift the caliper lever.

3. Aligning the Caliper correctly.

Loosen the two caliper bolts allowing the Caliper body to float, then turn the Inner Pad Adjuster P all the way in (clockwise) then back off a 1/4 turn. Pull and hold the brake lever tight which then aligns the caliper body to the Rotor Disc. Tighten the Caliper mounting bolts B and back off the Inner pad adjuster P another 1/4 turn or further until the pads are not catching.

4. Brake lever travel

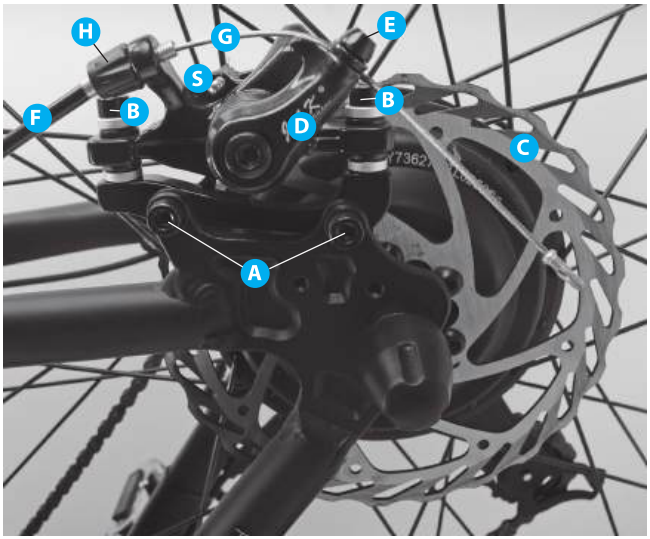
Pull the lever a few times checking that the brake fully contacting with the brake lever is around half the travel distance. Too short and it will be difficult to apply the brake sufficiently to long the brake engages and the lever may hit the grip before full braking is achieved, meaning you won't stop. This can be adjusted by turning the inner Pad Adjuster. P

WARNING! Avoid contact with the Brake disc after heavy use as can generate consdierable heat to the rotor.

Main Disc components

- A Caliper to Frame bolts
- B Caliper Mount bolts
- C Rotor - Breaking Disc
- D Caliper Arm
- E Cable pinch bolt
- F Break Cable outer
- G Inner Break cable
- H Barrel Adjuster
- P PAD Adjustment bolt
- S Split-pin holding the Break pads

PLEASE NOTE: H
The Barrel Adjuster on the brake cable should not be used to close the gap on the brake pads as this will also effect the travel of the brake lever. The Barrel Adjuster should be used to tighten the taughtness of the brake cable.



Mechanical Break disk on rear wheel

5. final check

Spin the wheel and check the pads are not rubbing, if not, check the Caliper mount bolts B and cable pinch bolt E are fully tightened. If the pads appear parallel but the pads are still rubbing loosen one of the mount bolts and move the body of the caliper out slightly, then repeat with the other mount bolt in order to keep the caliper body parallel to the rotor, re-tightening the mount bolts.

5. Brake Pad wear

Your brake pad wear will depend on the amount of riding, the terrain and the weather conditions, so it is important to check pad wear regularly. You can turn the inner pad adjuster clockwise to close the pad to disc gap but you will need to re-centre the caliper body position by repeating stage 3.

Brakes on the Handlebar

As you sit on your bike and take hold of tha handlebar it is important to know that the right-hand brake lever controls the **FRONT** brake and the left-hand lever the **REAR** brake.

It is important to regularily check your wheels, rims and tyres

The Wear Line is machined into the Rim side to give a visible warning of excessive rim wear.

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Inspecting & Maintaining the Wheels

It is essential that you regularily inspect and maintain your wheels, especially if you bike feels unstable or vibrates while riding.

Inspecting the trueness of the wheels

Over time wheels may begin to run out of true. This is when the wheel buckles from side to side. To check this, lift the bike up and spin the wheel. If the wheel wobbles, it is out of true and will need repairing.
This requires qualified bike technicians to who have the specialist tools to correct.

Inspecting the wheel rim for wear

Each Rim features a wear groove machined into the rim, if the wear groove is no longer visible the Rim must be replaced immediately. If riding in poor wet and muddy conditions wear can happen quite quickly so its important to check the wear line regularily.
Your model uses Disc Brakes so as such the wear line does not come into play , unless however at some point your bike is converted to V-Brakes.

Inspecting the wheel bearings

Over the life of your bike the whell bearing may become worn and require servicing. To check, hold the bike securely, grab the front or rear wheel at the tyre and vigorously move from side to side, if the wheel moves at the wheel hub (centre of wheel) then the bearing are probably worn and need replacing. This requires a qualified bike mechanic to repair.

Your wheels use schrader valve innertubes, you can use a standard bicycle pump to inflate your tyres. Firstly unscrew the dust cap to see the valve inside, this allows air to be added or removed. After you inflate to the required pressure simply remove the pump, the valve self seals. Release pressure by pressing the centre pin of the valve. Replace the dust cap to keep the valve clean.

Schrader Valve with Cap.

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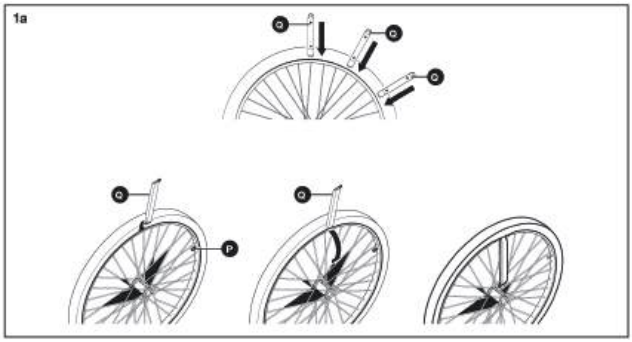
Changing/replacing the tyre/ innertube



Remove the wheel from the bike, fully deflate the tyre. Using your thumb depress the tyre opposite to the innertube valve. Insert a tyre lever between the wheel rim and the tyre wall. **CAUTION!** be careful not to trap the innertube between the tyre lever and wheel.
Pull the hooked end of the tyre lever ut and down sliding the hook under a spoke to hold in place, repeat with the other 2 levers at suitable points around the rim as shown.

Once the tyre is removed from one side of the wheel rim carefully remove the innertube starting at the valve.

Before replacing the innertube check the inner surfaces tyre and rim for any signs of damage or foreign matter i.e. thorns or small stones. Check the rim tape making sure it is covering the spoke nipples.
Partially inflating the new innertube using a bike pump. Carefully feed the innertube into the tyre starting at the valve fitting through the hole in the wheel rim.
Using your thumb push the tyre back into the rim a small section at a time until too tight to fit by hand, using the tyre levers to fit the last section.
As you inflate to full pressure, check by lightly bouncing the wheel around the tyre, to ensure the innertube is not trapped at any point between tyre and rim.

TYRE PRESSURE - Min 50 - Max 85psi

Safety on your bike

This bike is designed for general use and not designed to be used off-road or for sporting activity. Incorrect use could potentially cause serious injury.

Getting used to your new electric bike is always a wise step to take.

It therefore makes common sense, for your first few rides, to choose somewhere away from major roads with traffic, people and obstacle whilst you become familiar with the controls and gain confidence in how your electro- assist works.

It is now compulsary to always wear a Helmet when riding a bike but there are also other items of protection you might consider ....not forgetting your eyes.

Most serious cycling accidents involve head injuries, some which may have been avoided had the rider worn a correct helmet.
Check your helmet meets the correct classification standards appropriate for the riding you're doing. (Check with your local Cycle specialist)

Please make sure you wear clothing and footwear appropriate for riding, loose clothing and loose shoe laces can cause accidents if caught in moving parts on your bike.

Remember this is the UK, and the weather is changable, either wear or pack waterproof clothing.

IMPORTANT!

PLEASE REMEMBER THAT IT IS IMPORTANT TO KEEP THE CARTON YOUR BIKE ARRIVED IN , COURIERS CANNOT COLLECT YOUR BIKE WITHOUT A CARTON SHOULD YOU HAVE NEED TO RETURN IT TO US.

Safety on the Roads

When you join the road system you must obey the Traffic Laws like the rest of the vehicles travelling along that road.

Always excercise maximum caution on busy roads especially around large vehicles as you are not always seen.

Be aware that in wet conditions your brakes stopping power (and those of other road users) is greatly reduced.

When riding at night make sure your bike conforms to the lighting laws as cyclists are often hard to spot for drivers and pedestrian, especially in the winter months where hours of daylight are reduced.
Your trip out may be in daylight...your trip back may not.

Extra caution should be taken when braking in wet weather, where one should allow for increased braking distances.

Keeping your e.bike well maintained, wearing the right clothing, and following some common sense rules will reward you with many hours of fun and enjoyment for many years to come....

....Happy Cycling.

Warranty

Subject to the following, Evolving Sports.co.uk warrants that the goods will correspond with their specification at the time of purchase and will be free from defects in material and workmanship.
Evolving Sports.co.uk offer a 2 year warranty on the frame from any problems relating to manufacturer workmanship or arising from material defects including breakages or cracking caused whilst riding (other than rider misuse).

Evolving Sports.co.uk offer a 12 months warranty on the battery and motor for any problems relating to manufacturers workmanship or arising from material defects.
The warranty does not cover misuse or failure to follow the manufacturer's operational instructions correctly.
All other components are guaranteed for 1 year for problems related to manufacturer workmanship or arising from material defects with the exception of consumable components for example brake blocks, pads, grips, tyres and tubes.

Evolving Sports.co.uk offer this warranty to the original purchaser of the product. This warranty is not transferable to a third party.

PLEASE NOTE:
Any figures quoted regarding battery performance or distances which can be obtained per single charge are based on standrard test conditions. Diverse terrain and rider weight will of course produce varying results from those stated.

Need assistance?

Please call our
Technical help line:
(weekdays 9am-5pm)

01702 208187

(standard call rate charge applies)

or contact us on:
warranty@evolvingsports.co.uk

WARNING!

We would draw your attention the effects of the intensive use of this bike and recommend periodic inspections of the frame, fork, suspension joints (if any), and composite components (if any).

As with all mechanical components, some are subject to wear and high stresses.
Different materials and components may react to wear or stress fatigue in different ways.
If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider. Any Form of Crack, or change of colouring in high stressed areas indicate that the life of the component has been reached and it should be replaced.

Also in the event of impact damage you must have the bike checked over by a qualified Bike Mechanic as damage cannot always be visable.

Please Note: Models of some of the components used in the building of your bike may vary slightly from those pictured in the this instruction manual. However, this is purely cosmetic and therefore the adjustment and instructions for those components remain exactly the same.

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Please Note:
This bike is built to comply with the required standards.

EPAC according to EN 15194
and EN ISO 4210

Imported by
MTF Enterprises Ltd

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warranty@evolvingsports.co.uk

Evolving Sports Distribution
Unit 11 -13 Park farm
Junction Road
Bodiam
TN32 5XA
Telephone: 0208 0161 829
Email: sales@evolvingsports.co.uk

General

1. Wipe your bike over with a dry cloth, or neutral detergent.
2. Use lubrication oil for metal parts. i.e. chain, axles.
3. Wipe down Plastics and paint coated parts with quality cloth.
4. Increase the frequency of lubricating oil at wet or hummid areas (Recommend 30SAE lubricating oil)

IMPORTANT!

You need to clean the Disc and Sensor regularly especially if you've been riding in muddy conditions as dried on mud will prevent the sensor from picking-up the signal from the disc, causing problems.

PLEASE NOTE:
If you do not feel that you can complete the maintenance of your bike, please take it to your local bicycle workshop where they will be able to assist you.
(standard call rate charge applies)

Routine Maintenance

Before and after each ride

Check to ensure it is safe to use and operating properly.

1. Check all fixtures and fitting are tight.
2. Check that your tyres are inflated correctly.
3. Check that your brakes are operating correctly.
4. Check your gears work correctly.
5. Remember if your journey means you will arrive back in the evening that you have working lights.
6. Check your bike is clean.

Every Month

You should make these checks once a month or after any long rides

1. Check the bike is clean and suitably lubricated

Thoroughly clean and de-grease your bike. Ensure the Chain, Gears, Rear derailleur are adequately lubricated using a suitable lubricant.
(Recommend 30SAE lubricating oil)
Clean off any excess lubricant as this attracts dirt and may prevent the bike from operating correctly.

2. Check the all parts of the bike are securely fitted

Its essential for your safety that all securing nuts and bolts are fully tightened. Pat particular attention to Pedals, wheel nuts, seat post and saddle, and the stem bolts.

Whilst holding the bike with one hand vigorously shake the crank arms and wheels to check for any sideways movement which would indicate worn bearings.
(This would require qualified bike technician help.)

IMPORTANT!

PLEASE REMEMBER THAT IT IS IMPORTANT TO USE APPROPRIATE SPARES, i.e. TYRES, INNERTUBES, BRAKE PADS, WHICH ARE SUITABLE FOR YOUR BIKE.

CALL ON 02080 161829 AND SPEAK TO OUR TEAM OF ADVISORS WHO WILL BE ABLE TO ADVISE YOU TO ENSURE YOU FIT ONLY SUITABLE PARTS.
THIS ALSO APPLIES TO ANY ACCESSORIES YOU MAY WISH TO ADD TO YOUR BIKE.
FITTING COMPONENTS UNSUITABLE FOR YOUR BIKE MAY VOID YOUR WARRANTY.

Every Month (cont.)

3. Check that the tyres are in good condition

Check the outside of each tyre for signs of damage, cuts, deformations, excessive wear or bald spots. If your tyres some any of these signs of damage, it must be replaced immediately. Do not attempt to ride the bike with damaged tyres.

4. Check the wheel spokes are tight

Check the tightness of the spokes. This can be done by gently squeezing two spoke together at the same time. If you notice any movement, the spokes may need tightening. Repairing wheels and tightening spokes requires specialist tools and best undertaken by a qualified bike mechanic. Contact your local bike Dealer.

Every 3 Months

5. 3 Month Inspection

We recommend after 3 months you complete a full service on your bike to keep it in excellent working order. The cables will stretch requiring adjustment to brakes and gear cables. The simplest way is to take into your local bike shop where a qualified bike mechanic will give your bike a quick checkover and make the necessary adjustments. Giving you peace of mind.

When stored and not in use remove the battery and store in a cool, dry place, charging periodically as the battery will discharge over time of non use. Failure to do this will result in the battery falling into a dormant state rendering the battery unrepairable.

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or contact us on:
warranty@evolvingsports.co.uk

Lubrication information

Frequency	Component	Lubricant	How to Lubricate
Weekly	Chain	Chain lube or light oil	Brush on or squirt
	Derailleur wheels	Chain lube or light oil	Brush on or squirt
	Derailleurs	Oil	Oil can
	Brake calipers	Oil	3 drops from oil can
	Brake levers	Oil	2 drops from oil can
Monthly	Shift levers	Lithium based grease	
Every Six Months	Freewheel	Oil	2 squirts from oil can
	Brake cables	Lithium based greas	Disassemble
Yearly	Bottom bracket	Lithium based greas	Disassemble
	Pedals	Lithium based greas	
	Derailleur cables	Lithium based greas	Disassemble
	Wheel bearings	Lithium based greas	Disassemble
	Headset	Lithium based greas	Disassemble
	Seat pillar	Lithium based greas	

NOTE: The frequency of maintenance should increase with the use in wet or dusty conditions. Do not over lubricate, remove excess lubrication to prevent dirt build-up.

Never use degreaser to lubricate your chain (WD40).

WARNING!
Should excess lubricant get onto rims, tyres or brake pads/shoes it will reduce control and breaking performance causing rider injury.

A helpfull List of recommended tightening levels of some of the main bike fastenings.

Part	Toque (Nm)
Front Wheel Nuts	22-25 Nm
Rear Wheel Nuts	25-29 Nm
Handlebar Clamp Nuts	16-18 Nm
Stem Bolt	17-19 Nm
Seat Clamp Bolt or Nuts	16-18 Nm
Seat Post Clamp Allen bolt	8-10 Nm
Brake Cable Pinch Bolt	6-8 Nm
Crank Bolt or Nut	45 Nm
Pedals	40 Nm
Quick Release	Tight Enough to secure (150-200N)
V-Brake Brake Blocks	8-10 Nm

Simple Troubleshooting

In reality there are not many things that can go wrong with an electric bicycle so generally speaking any problems you may have, should be easy to resolve.

Problem :	Make these checks :
Power indicator on the Controller does not light up	Has the battery been switched on? Does the battery have a charge?
Power indicator on the Controller lights up but the motor doesn't start.	Check that all the cables are connected. Check that the sensor and sensor disc are not damaged or dirty
The Battery is showing no charge	check that your battery is switched on before you press the charge indicator button.
My charger is not charging the battery	Check the fuse in the charger plug. Check that the cabled are connected properly.

If you make the checks outlined above and your electric bike is still not working then please call our technical helpline for assistance.

Should you ever need to remove or replace your pedals it is important to know that left-hand pedal screws in ANTI-CLOCKWISE and the right-hand pedal screws in CLOCKWISE. Pedals are normally stamped on the ends of the axle of the pedal as in the photo, L and R.