andantte
benelli

USER MANUAL

IMPORTANT :

This manual contains important safety , performance and service information.
Read it before you take the first ride on your new bicycle ,and keep it for reference.

Dear Customer,

In purchasing this bicycle you have chosen a product of high quality and technology. Each component of your new bicycle has been designed, manufactured and assembled with great care and expertise.

These operating instructions contain a wealth of information on the proper use of your bicycle, its maintenance and operation as well as interesting information on bicycle design and engineering. Please read these instructions thoroughly. We are sure that even if you have been cycling all your life you will find useful and detailed information.

Bicycle and pedelec technology has developed at a very rapid pace during recent years. Therefore, before setting off on your new bicycle, be sure to read at least the chapter “Quick start” first.

The individual steps are subsequently explained in detail, supplemented by illustrations and diagrams.For more detailed information on your Pedelec, refer to “Technical data”.

Even a manual as big as an encyclopedia could not describe every possible combination of bicycle models and components or parts on the market. These operating instructions therefore focus on your newly purchased bicycle and standard components and provide useful information and warnings.

When doing any adjusting or servicing, be aware that the detailed instructions and information provided in these operating instructions only refer to this city/trekking/mountain bicycle or pedelec

The information included here is not applicable to any other bicycle type. As bicycles and pedelecs come in a wide variety of designs with frequent model changes, the routines described may require complementary information. Comply also with the instructions of the parts manufacturers, which you can find on the enclosed information.

Be aware that these instructions may require further explanation, depending on the experience and/or skills of the person doing the work. For some jobs you may require additional (special) tools or supplementary instructions. This manual cannot teach you the skills of a bicycle mechanic.

This manual cannot teach you how to ride. Please be aware that cycling is a hazardous activity that requires the rider to stay in control of his or her bicycle at all times.

Like any sport, cycling involves the risk of injury and damage. Keep this in mind. When you decide to ride a bicycle or pedelec you need to accept the risk inherent to cycling.

Warning:

This symbol indicates an imminent risk to your life or health, unless you comply with the corresponding handling instructions, given or take preventive measures.

Caution:

This symbol warns you of incorrect actions that could result in damage to property and the environment.

Note:

This symbol provides you with information about how to handle the product or refers to a passage in the operating instructions that deserves your special attention.

Content

The bike and its components

The bike and its components

CITY ZERO

Whole Vehicle Mark

1. Motor 2. Tire 3. Rim 4. Front fork 5. Brake 6. Stem 7. Frame 8.Foldable locker 9. Saddle post 10. Saddle 11. Battery frame 12. Battery 13. Rear light 14. Mud guard 15. Mud guard stay 16. Spoke 17. Nexus 3 internal Derailleur 18. chain 19. **Chain wheel** 20. **Crank** 21. **Pedal** 22.

Preface

Keep in mind that every bicycle type is built for a specific intended use. Be sure to use your bicycle only according to its intended use, as it may otherwise not withstand the stress and would fail and cause an accident with unforeseeable consequences!

1. City/trekking bicycle are intended for hard–surface roads, i.e. for tarred roads and bicycle lanes or gravel field tracks. Observe the traffic rules when cycling on public roads. City/trekking bicycle are not suitable for off–road use. Using bicycle off–road can result in crashes with unforeseeable consequences.

2. Mountain bike are suitable for off–road use; they are, however, not designed for dual, dirt, downhill and free–ride cycling etc.

3. pedelecs (pedal electric cycles) or epacs (electrically power assisted cycles) are bicycles with an auxiliary motor that only switches on when the pedals are moved by the rider. When you stop pedaling, the motor switches off.

A driving license is not required for riding a pedelec if the motor assistance switches off automa–tically at a speed of 25 kmh/15mph. You do not need an operating license and need not insure the pedelec either.

All regulations that apply to bicycles, also apply to pedelecs, i.e. they are allowed to or must use cycle paths without any restrictions. Wearing a helmet is recommended, but not compulsory.

I.SAFETY WARNINGS

I-1.Basic safety information

Please read all the warnings and information in this User Manual carefully before using the bicycle. Keep this User Manual near your bicycle for ready reference. If you lend this bicycle over to someone else, don't forget to give them the User Manual as well.

I-2.For your own safety

Warning:

- Wear bright clothing or reflective elements so that other road users can see you in good time.
- Wear shoes with a stiff, and whenever possible, non–slip sole.
- Wear close–fitting clothing on your legs, or wear trouser clips.
- Wear protective clothing such as robust shoes and gloves.

I-3.Information for parents and legal guardians

Note:

- Make sure that your child has been taught, and also understands, how to handle the bike safely and responsibly in the environment in which it is going to be used.
- Explain to your child how to operate all the brakes, and also how they work and any special features.
- As the legal guardian, you are responsible for the safety of your child and any damage he/she may cause when cycling. You should therefore make absolutely sure that the bike is in technically sound condition and adjust it regularly to the size of the child.

I-4.Safety in road traffic

Note:

- Observe the applicable traffic regulations.
- Never ride with no hands!
- In some countries children below a certain age must ride on the pavement and must also dismount when crossing the road. Please familiarize yourself with the applicable regulations.
- Adjust your handling on wet or slippery roads; ride more slowly and brake carefully and in good time as you will require a much greater braking distance.
- Adopt a speed that reflects the terrain as well as your riding ability.
- Do not listen to music through headphones when cycling.

●Do not cycle when using a mobile phone.

●Use designated cycle paths when not using public roads.

●Be ready to brake, especially if you are not sure what lies ahead or are riding downhil.l

I-5 Bike safety

Note:

●Only bikes that have been approved for use in public places, as per the applicable regulations (e.g. StVZO in Germany), may be used.

●Observe the maximum permitted gross weight of the various bike types, as this could otherwise lead to breakage or failure of safety–relevant components. The brake system is also only designed for the maximum permitted gross weight of the bike. For a list of the maximum permitted gross weights, refer to bike "Technical data".
The gross weight is the sum of the weight of the bike + weight of the rider + weight of the luggage. The gross weight also includes towed weights such as trailers.

●If you notice that a part is damaged or warped, do not use the bike until you have had the part replaced as otherwise parts that are important to operation of the bike may fail.

●Observe the maximum load–carrying capacity of the rack. This is marked on the rack directly.

●If you make technical changes to your bike, take the national traffic regulations and applicable standards into account. Bear in mind that this could render your warranty invalid.

●Only replace electrical components on your bike with type–tested parts. Disassemble the battery pack and modify the unit or your warranty will be void and you will be responsible for the modification.

●Only ride with suitable lighting in unfavorable lighting conditions such as fog, rain, dawn light or in the dark.

●Perform care and maintenance on your bike regularly. In doing so, check important components, particularly the frame, fork, wheel suspension, handlebar, handlebar stem, seat post and brakes for warping and damage. If you notice changes such as cracks, bulges or warping, have your bike checked by a specialist cycle shop before using again.

II. Quick Start Guide:

8 steps to getting on the road (Before the first ride)

CAUTION: Pedelec Owners:

Do not use the battery for the first time until it has been fully charged at least once or you may decrease its perform–ance (see instructions below).

1. Unpack the bike and check the contents

Carefully remove your bicycle and all other items from the box. You may find it easier to open the side of the box and roll the bike out. Ask for assistance if required.
Please check that the following contents, as well as any accessories you may have ordered, are present:
– Correct model, size and style of bicycle
– Pair of pedals (marked L and R on the end of the spindle) (Except Foldable Bike)
– Bike manuals, Warranty Registration Card
– Battery Charger (Pedelec Only)
– Set of 2 keys for your bike (used to unlock battery holder)
Store your spare keys in a safe place. Goccia/Benelli cannot replace them!

2. Charge the battery (Pedelec Only)

Once the bike is out of the box, put the kickstand down. You can charge the battery pack on or off the bike. To remove the battery, insert key into the keyhole near the battery and turn to unlock, pick out battery.

NOTE: Connect the charger to the bicycle when it is not used. This will lengthen the life of the battery pack.

1. Connect the charger to the mains voltage. The charge indicator of charger will show green.
2. Connect the plug of the charger to the contact point of battery pack, the charge indicator of charger will show red.
3. When the charge indicator of charger show from red to green. The battery pack is full.
4. Remove the charger before you start cycling.

NOTE: The battery does not have to be completely discharged before it is recharged. The Lithium battery has no 'memory' and therefore can be charged at any time. It is perfectly acceptable to recharge the battery after a short ride so that the battery is fully charged before the next ride.

3. Attach the pedals (If need)

Screwing the right pedal into the left crank arm and/or vice versa will seriously damage pedal and/or crank arm threads and void the warranty.
Apply grease to the threaded end of each pedal. Take care to put the correct pedal on each crank arm (Land R are marked on the ends of the pedal spindle) and carefully tighten using the supplied pedal wrench. Both pedals (each side L and R) thread toward the front of the bike to tighten, and toward the back of the bike to loosen.

4. Adjust the handlebars

Holding the tire in place, straighten the handlebars by loosening the nut(s) on top of the handlebar stem or the two nuts on either side of handlebar stem with an Allen key. Then align the handlebars with the frame and front tire.
Tighten the single nut at top of the handlebar stem or tighten the two nuts on either side of handlebar stem depending on your model. To adjust the handlebar tilt or height, loosen the nut(s) on the side or front of the handlebar joint and adjust the handlebars to a comfortable position before tightening. Consult the manual to determine the correct handlebar height. Check to make sure the brake levers, gear shifts, displayer, bar ends and other parts attached to the handlebars are positioned comfortably. These can all be adjusted using one of the included Allen keys.

5. Adjust the seat

Using an Allen key, loosen the nut on the side of the seat post clamp. Straighten and set the saddle to the correct height and tighten the seat post clamp. If you are not sure what the ideal height is, refer to the manual for guidance. Do not set the seat so high that the max guide line on the seat post is visible.

6. Check and adjust the tire pressure

Check the tire pressure and inflate to proper pressure marked on the tire sidewall.

7. Power on the bike (Pedelec only)

Before you ride, insert the battery in the battery holder until it locks in place, and remove the key. Turn on the bike’s pedal assist system the handlebar control unit. You should not be pedaling when turning on the power. If the battery is fully charged, all lights next to the power button will be lit . See manual for more information on modes. As you pedal, the motor will provide assistance at the selected power level

8. Check the lights

Check light function. See manual for more information on how to turn on/off.

After its initial break–in period, you might notice that the shifting and braking need adjustment. This is typical of all new bicycles and simply reflects that cables have stretched or their housings have seated themselves into final position. To keep running at peak performance, we recommend that you take your bicycle to your local bike shop as soon as you notice inconsistencies in your gears or brakes or experiencing any other difficulties.

Ⅲ: Setting up the bike for the rider

Ⅲ-1:Fitting the pedals

●Coat both pedal threads with lubricant (grease).

NOTE: The left pedal has a left–handed thread which is normally indicated by an "L" embossed on the axle. The right pedal has a right–handed thread which is normally indicated by an embossed "R".

●Screw the left pedal anticlockwise into the left crank.

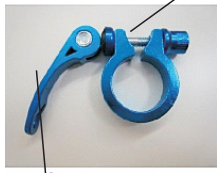
●Screw the right pedal clockwise into the right crank (on the side of the bike chain).

Ⅲ-2:Adjusting the seat position

Ⅲ-2.1 :Adjusting the bike saddle

The seat position is decisive for your well–being and cycling performance

Ⅲ-2.2 :Operating the quick-release device



1.Quick–release lever
2.Adjusting nut

Warning:

●All quick–release devices must be tightened securely before you set off. Check this before every journey.

●If you leave your bike unattended, check that all quick–release devices are correctly secured before setting off again.

●When closing the quick–release lever to lock it, it must be necessary to apply a force that causes you to make a first with your hand as otherwise the quick–release device could come loose.

To open the quick-release device, proceed as follows:

●Throw back the quick–release lever so that its inner face or the lettering

●Open the quick–release device as far as possible.

●Turn the adjusting nut anticlockwise to further slacken the quick–release device.

To close the quick-release device, proceed as follows:

●Adjust the clamping strength by turning the adjusting nut.

●If the quick–release device closes too easily, open it again and turn the adjusting nut clockwise.

●If the quick–release device still closes too easily repeat the previous step.

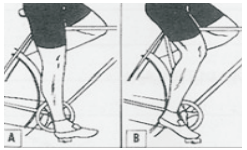
●If the quick–release device is too difficult to close, turn the adjusting nut anticlockwise.

●Turn back the quick–release lever from the OPEN position so you can see the outer side of the lever or the lettering CLOSE.PEN is visible.

Warning:

When closed, quick–release levers must lie flat against the frame, fork and saddle clamp. Make sure that quick–release devices for the hubs point backwards when closed as otherwise they could snag on obstructions when the bike is moving and open. This could lead to serious accidents.

Ⅲ-2.3 :Determining the correct saddle height



●Sit on the bike saddle.

●Try to reach the pedal with your heel when it is in the bottom position. Your knee should be more or less fully straightened out.

●Place the balls of your feet on the centre of the pedal.If your knee is now slightly bent, the saddle height is correct.

Warning:

Never tighten the seat post if the maximum mark or stop mark is above the top of the seat tube as otherwise you could injure yourself or damage the seat post. Always observe the specified tightening torques.

Caution:

The minimum insertion depth is marked on the seat post. If this is not the case, the minimum insertion depth must be 7.5 cm. In frames with long seat tubes that project beyond the top tube, the minimum insertion depth is 10 cm.

Ⅲ-2.4 : Adjusting the saddle angle

Adjusting the saddle angle

- Your bike saddle should be as close as possible to horizontal.
- You can make use of longer bike rides to find out what your most comfortable seat position is. If you want to tilt the saddle, try tilting it very slightly forwards. If you tilt the saddle back, this can quickly lead to pain or physical injury.

Adjust the saddle angle as follows:

- Turn the clamping screw anticlockwise to loosen it.
- Tilt the bike saddle to the required angle.
- Turn the clamping screw clockwise to tighten it.

Ⅲ-2.4.1 With a seat post saddle clamp

If the saddle is attached to the seat post by a clamp, the clamping nut will be at the side. Adjust the saddle angle as follows:

Seatpost saddle clamp

- Turn the clamping nut anticlockwise to loosen it. You may need to counter the nut on the other side.
- Using another wrench.
- Tilt the bike saddle to the required angle.
- Turn the clamping nut clockwise to tighten it. You may need to counter the nut on the other side using another wrench. Use the correct tightening torque.

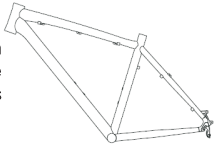
Ⅲ -3 Adjusting the handlebar position by stem with quick-release device

Release the ①stem clip, the height of the stem can be adjusted up or down

Ⅳ: Frame

The form of the frame depends on the bike type and function. Frames are manufactured from different materials– steel or aluminum alloys or carbon (carbon fiber), for example.

NOTE:



The frame number of the bike is stamped on the seat tube, the head tube or the bottom bracket housing. It may also be found on the motor suspension in Pedelecs. The bike can be identified by the frame number if it is stolen. To identify the bike properly, it is important to note down the whole number in the right order

Warning:

Never ride your bike if the frame is warped or cracked. On no account should you attempt to repair damaged parts. This can lead to accidents. Replace defective parts before you ride the bike again.
After an accident or crash, have your bike checked by a professional bike workshop before riding it again. If defects on the frame or components go unnoticed this can lead to accidents.
If your bike does not roll forwards easily in a straight line, this could mean that the frame is warped. In this case, have the steering stability checked by a professional bike workshop.

Ⅴ: Headset

The headset is the bearing for the bike fork in the frame. If the headset has been properly adjusted, it will turn easily. In doing so, no play should be evident.
The headset is subject to a large amount of stress due to impacts with the road surface.
This can cause it to come loose or affect its setting. Have the play and ease of movement of the headset checked regularly by your specialist cycle shop.

Warning:

Checking the headset
If you do not adjust the headset properly or tighten it too tightly, this could cause bre–akages.
This should therefore always be carried out by a professional bike workshop.
If you ride with the headset loose, this could damage the bearing shells or fork.

Ⅵ: Fork

The front wheel is held in place by the bike fork. The bike fork consists of two fork blades, the fork crown and steering tube.
The suspension fork is a feature of most mountain bikes, trekking bikes and city bikes. They can be adjusted in different ways and provide a greater degree of riding comfort.Specific information on your suspension fork is provided in the manufacturer's operating instructions which you can find on the CD or the manufacturer's website.

Warning:

Never ride with a damaged bike fork. Do not attempt to repair a defective bike fork. This can lead to serious accidents. If you notice that the bike fork is warped or otherwise damaged, replace it before using the bike again.
Avoid sudden changes in ground level and riding off high kerb stones. This can damage the fork and lead to serious accidents.
Check regularly that the screws on the bike fork are securely fastened. If screws are allowed to come loose, this can cause serious accidents.

VII: Chain rings

Chain rings are wear parts. Their service life depends on various factors, e.g.

- maintenance and care,
- type of use and distance travelled.

VIII: Bottom bracket and cranks

Warning:

The cranks must be securely fastened as this could otherwise damage the crank set.

- The cranks can come loose which is why you should regularly check whether they are securely fastened by attempting to rock
- If there is play in the cranks, have the bike checked and the cranks fastened securely by a professional bike workshop.

IX: Wheels

IX-1: Checking the wheels

The wheels connect the bike with the surface you are riding on. The wheels are subject to a particularly high level of stress due to unevenness of the riding surface and the weight of the rider.
The wheels are carefully checked and trued prior to delivery. However, the spokes may settle when you ride the first kilometer on your bike.

- Have the wheels checked again and trued if necessary after the first 100 kilometer by a specialist cycle shop.
- You should subsequently regularly check the tension in the spokes and have loose or damaged spokes replaced, and/or have the wheel trued, by a specialist cycle shop.
- The wheel can be attached to the frame and fork in a number of different ways. In addition to the standard systems in which the wheel is held on by axle nuts or quick–release devices, different types of floating axles exist. These can be held in place by a screw connection or different types of quick–release devices. If your bike has a floating axle, please also refer to the enclosed manufacturer's user manual or visit the web pages of the relevant manufacturer in the Internet.

Warning:

Tighten all screws to the prescribed torque as otherwise screws could shear o' and components could come loose or detach altogether.

IX-2: Checking the hubs

To check the hub bearings, proceed as follows:

- Lift the wheel and spin it.
- Check whether the wheel continues to turn through several revolutions before it stops moving. If it stops suddenly, the bearing is damaged. This does not apply for front wheels with hub dynamos.
- To determine whether there is play in the hub bearing, try rocking the wheel in the bike fork or rear triangle backwards and forwards perpendicular to the direction of travel.
- If you notice that there is play between the bearings or if you encounter resistance when turning the wheel, have the hub bearing adjusted by a specialist cycle shop.

IX-3: Checking the rims

If you are using a rim brake, the rim is subject to a higher degree of wear.

Warning:

If a rim is worn it loses stability which makes it more susceptible to damage. If the rim is deformed, cracked or broken this can lead to serious accidents. If you notice changes in a rim on your bike, do not ride on it. Have the problem checked by a professional bike workshop.

IX-4:Tyres

A large number of different tyre types exist. The bike's off–road capability and rolling resistance depend on tread profile.

Warning:

Only inflate the tyre to the maximum permissible tyre pressure as otherwise it may burst.Inflate the tyre at least to the specified minimum air pressure. If the tyre pressure is too low, the tyre may detach from the rim.
The maximum permissible tyre pressure, and normally also the minimum permissible pressure, can be found on the tyre sidewall.
Always replace the tyre with a tyre of the same type, dimension and profile as otherwise the ride characteristics may be adversely affected. This can lead to accidents.

Caution:

Tyres are wear parts. Check the tread depth, tyre pressure and condition of the tyre sidewalls regularly. Replace worn tyres before using the bike.

Note:

Note the dimension of the fitted tyre. Standard designations are used when stating the tyre dimension.

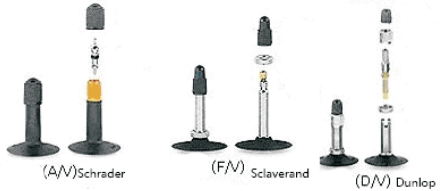
- Example 1: "46–622" means the tyre is 46)mm wide and the rim diameter is 622)mm.
- Example 2: "28 × 1.60 inches" means that the tyre diameter is 28 inches and the tyre width is 1.60 inches.
- The tyre pressure is frequently stated in PSI. Technical data" contains a table which you can use to convert tyre pressures from PSI into bar.

IX-4.1: Inner tubes

The inner tube is necessary to maintain the pressure inside the tyre. It is inflated via a valve.

Three valve types exist:

All three have a cap to protect them from ingress of dirt.
To inflate an inner tube with a Sclaverand or road valve, proceed as follows:



- Unscrew the valve cap anticlockwise with your fingers.
- Unscrew the knurled nut anticlockwise.
- Push the knurled nut with your finger briefly into the valve until air escapes.
- Inflate the inner tube using a suitable tyre pump.
- Screw the knurled nut back down.
- Screw the cap clockwise back onto the valve.

Note:

Ask a specialist cycle shop for advice on which tyre pump is suitable for your valve.
To inflate an inner tube with a Dunlop/Woods valve or
Schrader/car valve proceed as follows:

- Unscrew the valve cap anticlockwise.
- Inflate the inner tube using a suitable tyre pump.
- Screw the cap clockwise back onto the valve.

XI. Brake, brake levers and brake systems

This User Manual describes the maintenance and handling of typical, commercially available brake components for MTB, ATB, cross and road bikes. For other components, refer to the separate information or enclosed instructions. If you have questions on installation, adjustment, maintenance and operation, please consult a specialist cycle shop.

XI.1 Important information and precautionary measures

Warning:

Have maintenance work on the brakes carried out by a professional bike workshop.
Do not allow fluids containing oils to come into contact with the brake pads, brake contact surfaces on the rim, brake blocks or brake disc as this could otherwise impair the effectiveness of the brake.
Brake blocks and brake pads are wear parts. Check the wear condition of these parts regularly. This can be identified by a marking. On the brake block, for example, the grooves will no longer be visible. Always replace both brake blocks at the same time.
Use genuine spare parts only as otherwise you could impair the functions of the bike or damage it.
To obtain correct friction pairing, only use brake pads that are suitable for the rim as otherwise the braking distance would be extended and wear increased. With carbon rims in particular, only brake pads that are expressly intended for this purpose should be used.
Rubber brake blocks and brake pads must not come into contact with oil or grease. If the rubber brake blocks and brake pads come into contact with oil or grease, this drastically reduces their braking performance and they must be replaced.

Warning:

Tighten all screws to the prescribed torque as otherwise screws could shear o' and components could come loose or detach altogether (see Technical data").

Note:

Brake cables are wear parts. You should check the wear condition of the brake cables regularly and replace these if necessary. Check the brake cable for rust and fraying and replace the cable if it is faulty. If you do not, the brakes could malfunction.
There are different types of brakes, the type of brake depends on what it is used for:

- hub brakes
- disc brakes and
- rim brakes

The brakes can be operated mechanically or hydraulically.

Warning:

With hub gears, the brake lever that operates the front wheel brake is normally on the right–hand side, and with derailleur gears it is on the left. Remind yourself of the position of the brake lever before you ride off.
If you wish to attach the brake lever on the opposite side of the handlebar, follow the manufacturer's user manual or ask your specialist cycle shop to do this.

XI .2: Brake lever

Standard brake lever

The bike is equipped as standard with a suitable brake lever. Check regularly that when you operate the brake lever it does not reach the handlebar and make contact with it. With the brake lever pulled, push the bike forward and check whether the braking performance is sufficient. If the bike rolls slightly forwards, you will need to have the brake cable readjusted or the brake pads replaced.

XI.3: Rim brakes

Warning:

V–brakes produce an extremely high braking force. You should therefore familiarize yourself with the V–brake and only apply the brake gradually. Practice emergency braking until you are sure you will be able to remain fully in control of your bike if you have to apply the brakes with force.
If additional suspension elements in the brake system (power modulators) are used improperly, this can lead to serious accidents. The required spring strength of the power modulator depends on the gross weight of the bike.
If the brake blocks are so worn that you can no longer see notches, have them replaced by a professional bike workshop.

XI.4.1: Readjusting the brake

The brakes on your bike are set correctly at the factory or by your cycle dealer. The gap between the brake block and the rim is roughly 1 – 1.5)mm. However, as the brake blocks wear down the gap steadily increases and the brake lever must travel a greater distance to achieve the same braking effect. You should therefore inspect the brake at regular intervals and adjust it if the brake lever travel distance is too great or the brake is not working properly.

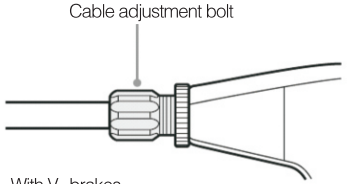
Check the brake as follows:

- Pull the front wheel and then the rear wheel hand brake lever with the same amount of force as you would apply when braking sharply during a ride. Then push the bike forwards.
- The rear wheel should lock and the front wheel should decelerate so rapidly that the bike starts to tip forwards.

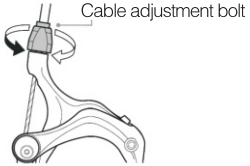
XI.4.2: Adjusting the brake-pad clearance in relation to the rim

Turn the cable adjustment bolt to adjust the clearance between the brake pad and the rim. Turn the bolt inwards (clockwise) to increase the brake–pad clearance. Turn the bolt outwards (anticlockwise) to reduce the brake–pad clearance. The clearance between the brake blocks and rim should be roughly 1)mm.

Adjusting the cable-pull



With V–brakes



With side pull brakes

XI.4.3: Wear of brake pad

Most brake pads for rim brakes come with grooves or notches.

New brake pad

Worn brake pad

If these grooves are worn and can no longer be seen, this is normally a sign that the brake pad is worn.

Warning:

Do not ride your bike if the brake pads are worn. Have them replaced by a professional bike workshop instead.
If required, you can readjust the rebound force via the spring adjustment screw so that both brake arms move symmetrically. Once you have done this, check that the brake is working properly (see "Readjusting the brake").

Warning:

If the brake is still not working properly, or the brake pad is so worn that it is not possible to readjust it, have your bike checked at a professional bike workshop and replace the brake block.

XII: Bike gears

XII.1: Derailleur gears

This User Manual describes the handling of typical, commercially available gear–shift components for MTB, ATB, cross . Separate instructions are provided for other components on the CD or on the web pages of the relevant manufacturer in the Internet. If you have questions on installation, adjustment, maintenance and operation, please consult a specialist cycle shop.

Warning: If gear–shift components are loose, worn, damaged or adjusted incorrectly, this poses a risk of injury to the rider. Have the derailleur gears adjusted at a professional bike workshop.

Note: Always contact your specialist cycle shop if the chain jumps o' the chain rings or sprockets when riding or you hear unusual noises or you cannot change gears easily or the rear derailleur, front derailleur or other gear–shift components are loose, damaged or distorted or • chain links are defective or worn.

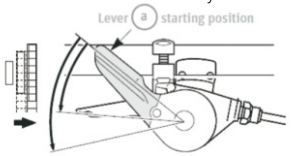
Warning: The bike chain must not be on the smallest chain ring at the front and the small outer rear sprocket wheel simultaneously. The bike chain must not be on the largest chain ring at the front and large inner sprocket wheel at the rear simultaneously. Otherwise the bike chain could jump off.
Never pedal backwards when changing gears as you could damage the gear–shift mechanism.
Only make changes to the gear–shift system carefully and in small increments. If settings are made incorrectly, the bike chain could jump off the sprocket wheel and cause you to fall o' the bike.If you are unsure about what to do, have this work carried out by a professional bike workshop.

Note: Even if the gear system is perfectly adjusted, it can produce noise if the chain is running at an extremely sharp angle. This does not mean it is defective and does not damage the drive. As soon as the chain is at a more shallow angle, the noise will disappear.

XII.2: shifting lever

XII.2.1: Standard shifting lever

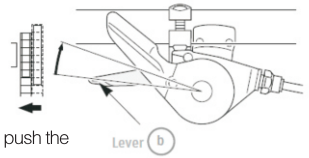
Both levers a and b always revert to the initial position after they are pressed. The crank must always be turned when a lever is pressed.



Operating the front derailleur shifting lever

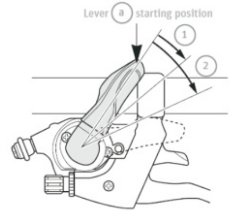
Shifting from a small to a large chain ring
Press lever a once to move the chain from a small to a larger chain ring.

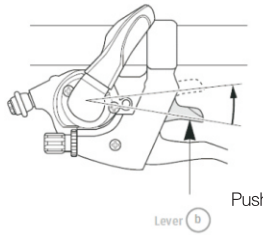
Shifting from a large to a smaller chain ring
Press lever b once to move the chain from a large to a smaller chain ring.



Operating the standard rear derailleur shifting lever

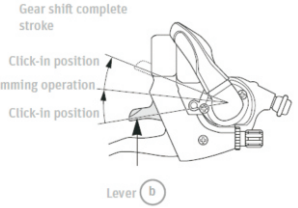
Shifting from a small to a larger sprocket
To shift by one gear only, push lever a to position 1. To shift by two gears, push the shifting lever to position 2.
You can shift a maximum of 3 gears using this method.
Shifting from a large to a smaller sprocket

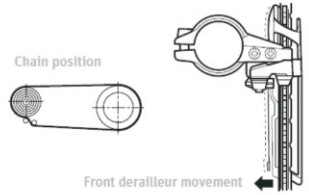




Push once to shift to a smaller sprocket.

When lever b is operated, there is one click where trimming (the noise prevention mechanism) engages, and a second stronger click when the gear shift stroke is complete. The noise prevention mechanism no longer clicks once the trimming operation is complete which means that only the click–in positions will be heard when shifting between sprockets.

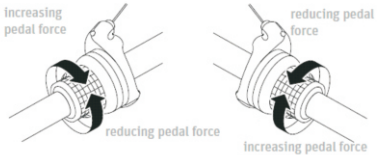




If the chain is on the large chain ring and the large sprocket, the chain will rub the front derailleur producing a characteristic noise. When this happens, press lever b lightly to the point where it clicks, this causes the front derailleur to move slightly towards the smaller chain ring, thereby eliminating the noise.

XII.2.2: Twist-grip shifters

To shift up or down one gear only, turn the twist–grip shifter by one increment forwards or backwards.



If you wish to shift up or down several gears at once, continue turning the shifting lever by the required number of shift positions and in the required direction.

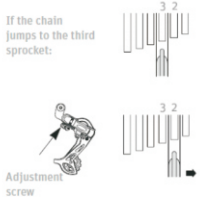
XII.3: Rear derailleur

Note:

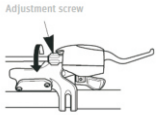
Have your specialist cycle shop carry out maintenance on the derailleur gears, or replace or adjust them.

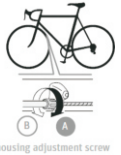
XII.3.1:Precision adjustment / rear derailleur

Operate the shifting lever to shift the chain from the smallest sprocket to the second sprocket. Then take up the slack in the shifting cable with the shifting lever and turn the crank.



Turn the screw anticlockwise until the chain rubs against the third sprocket.

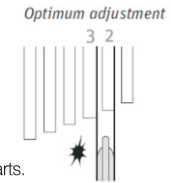




Note:

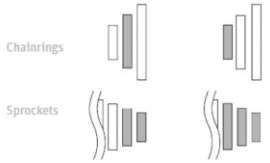
The adjustment screw may also be on the shifting lever or on the frame.

Once the slack in the shifting cable has been taken up by the shi fting lever, the chain should ideally rub the third sprocket and produce a noise.
Release the shifting lever in second gear and turn the crank.
If the chain rubs the third sprocket, turn the adjustment screw clockwise slightly until the grinding noise stops.
To ensure problem–free SIS operation, you will need to lubricate all power–transmitting parts.



Note:

If the chain is in the position shown, it could rub against the chain rings or the front derailleur and make a noise. If this is the case, you can shift the chain onto the second or next largest sprocket.



XII.3.2: Cleaning

- Whenever possible, avoid using cleaning agents on the chain. If you use cleaning agents, such as rust remover, this may wash lubricant out of the chain which could lead to malfunctions.
- The chain rings and sprockets should be cleaned regularly using a neutral cleaning agent.
- You should clean the derailleur and lubricate the moving parts (mechanism and rollers) at regular intervals.

XII.4: Hub gears

This User Manual describes the handling of typical, commercially available gear–shift components of a gear hub on a city or trekking bike. For other components, refer to the separate information or enclosed instructions.
If you have questions on installation, adjustment, maintenance and operation, please consult a specialist cycle shop.

Warning:

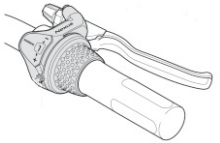
If the hub is mounted on the frame, the correct fixing washers must be used on both sides and the hub nuts must be tightened to the prescribed torque (see "Technical data").
If the fixing washers are used on one side only or the hub nuts are tightened incorrectly, the hub may mal–function: It could rotate. This could cause the shifting cable to pull the handlebar to one side and cause a serious accident.

Note:

The gears can be changed when the pedals are turning. Very occasionally, the hub may produce a harmless noise which is caused by its internal cogs and stop notches.
If you encounter resistance when turning the wheel, t he brake pads will need to be replaced or the hub will need to be lubricated. This should be done by a professional bike workshop.
If the chain jumps off the the sprockets when you are riding, the slack in the chain must be taken up immediately. If there is no further scope for adjustment, the sprockets and chain must be replaced.

XII.4.1: Operating the hub gears

Shimano 3–speed shift lever



- Turn the twist–shift lever to select all3 gears.
- Increasing pedal force (increasing resistance)
- indicator towards

●Decreasing pedal force (decreasing resistance) indicator towards 1

These instructions on operation of the Shimano twist–shift grips also apply for other makes of twist–shift grips.

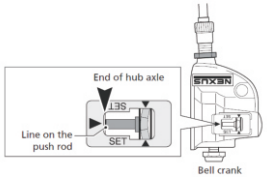
XII.4.2: Adjusting gears with Shimano hub gears

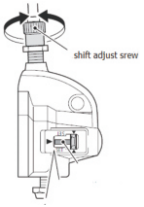
●Example shown is a 3 speed hub.

●Select shift lever position 2

●Check whether the red marking lines Inside two yellow line.

●If don’ t see red line inside two yellow line,adjust the shift adjust screw.





XIII: Bike chain

There are two types of bike chain:

●A wide bike chain (½ × 3/ 32") for hub gears

●A narrow bike chain for derailleur gears. These are available in different widths, depending on how many sprockets are on the cassette. Only use chains that are approved for precisely the number of sprocket wheels on your bike.

●Clean and lubricate your bike chain regularly.

●To prevent premature wear of the bike chain when using derailleur gears, select gears that keep the chain skew as marginal as possible.

To check the wear in the bike chain, proceed as follows:

●Take the section of the chain that rests on the front chain ring between your thumb and forefinger.

●Pull the bike chain o' the chain ring. If the bike chain can be lifted by a significant amount, it is worn and must be replaced by a new one.

●With hub gears, the chain tension must be adjusted so that vertical play of one to two centimeters is present in the unsupported chain span between the chain ring and sprocket wheel.

●To take up the slack in the bike chain, proceed as follows:

●Loosen the rear wheel nuts.

●Pull the wheel back into the dropouts until only the permissible amount of play is present in the bike chain.

●Tighten all screw connections carefully clockwise.

Warning:

Tighten all screws to the prescribed torque as otherwise screws could shear o' and components could come loose or detach altogether (see "Technical data").

Maintenance of bike chains:

Bike chains are wear parts. Bike chains with hub gears wear out after roughly 2000km, and after roughly 1000km with derailleur gears.

Warning:

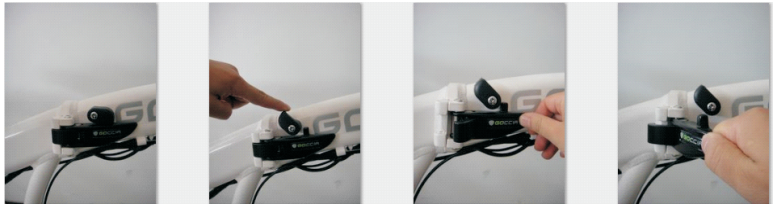
If the bike chain is worn, it can break and cause a crash. If your bike chain is worn, have it replaced by your specialist cycle shop before using the bike again.

XIV.Vehicle folding

1.Loosen the seat tube clamp Handle, push the seat tube down to the bottom, re–tight the seat tube clamp handle. (Picture 1)

2.Push the pedal toward the inner， then pull downward by using index and middle fingers; fold both foot petals; adjust the left crank at the direction of 7 o'clock.

3.Turn the safety hook of the foldable locker on the frame, release the folder and pull down the foldable locker to the one side of the horizontal tube.(Picture 3)



4.Release the safety locker of the stem, release the quick release holder of stem, turn the stem and handle bar down to right side.

5.In this way, the vehicle folder is finished, and if need to unfold the vehicle, only need to reverse the operation following the above steps.

XV: Electric system

XV.1: Pedelec fundamental legal principles

The fundamental idea behind the Pedelec is not only to be able to cover greater distances more quickly, but also do this comfortably. You can choose to relax and let the bike do the work, exert yourself more physically, or simply to get from A to B as fast as possible. You can decide this yourself by choosing an appropriate assist level.This gives you more confidence on the road, as the powerful acceleration gives you more control and a greater degree of security. Your Pedelec assists you with up to 250 watts of power which takes you up to the speed of 25(km / h). In some EU countries, the Pedelec, like all other bikes, must comply with certain regulations, the Road Traffic Licensing Regulations (StVZO) in Germany for example. Please observe the relevant explanations and general information provided in the General User Manual.

These statutory requirements apply for a Pedelec:

- The motor is designed only to provide edaling assistance, i.e. it can only “assist” the rider when he/she turns the pedals.
- The average motor output must not exceed 250 W.
- As the speed increases, the rate at which the motor output reduces must also increase more intensely.
- The motor must switch off once the bike reaches a speed of 25(km / h).
- The motor must switch off once the brake work

XV.2.1: Meaning for the rider

You do not legally have to wear a helmet. In the interest of your own safety, however, you should never ride without a helmet.

- You do not legally have to have a driving license.
- You do not legally have to have insurance.
- No age restriction applies for a Pedelec.

The regulations governing the use of cycle paths are the same as for normal bikes. These regulations apply to you wherever you are in the European Union. It is possible that different regulations exist in other countries, also inside the EU in individual cases. Before using your Pedelec abroad, find out about the legal situation in the relevant country.

XV.2.2: Pushing assistance

You can have your specialist cycle shop fit what is known as "pushing assistance" to your bike.
The pushing assistance moves the Pedelec slowly at a maximum speed of 6km / h without you having to turn the pedals, e. g. if you are maneuvering in a tight space or are pushing your Pedelec out of a basement garage.
The pushing assistance is not suitable for use as starting assistance.

3.Turn the safety hook of the foldable locker on the frame, release the folder and pull down the foldable locker to the one side of the horizontal tube.(Picture 3)

XV.3: Control panel (display)

XV.3.1: Twist Shift type displayer （LED）

The use of the turning handle type LED instrument

3.1.1 Description of the Parts see Picture 1:

①Battery Power indicator ;

②Power–assisted level indicator;

③hidden magnetic switch button;

④Power shifting handle

Picture 1

Picture2

3.1.2 Turn on / off

Use the key with magnetic to stay hidden magnetic switch button ③at about 1 seconds, the electric system turn on, then battery power indicator① and the power assisted indicator② is lit.

（See Picture 2,which means the power–assisted level is at 1 level）

After use, when you need to turn off, Use the key with magnetic to stay hidden magnetic switch button ③ at about 2 seconds, turn off the electric system turn off––then all the instrument lights will turn off.

Attention:

When the electric system turn on/off, please remove the key with to stay hidden magnetic switch button in time, to avoid switching repetitive movements.

3.1.3 Power display

The battery charge state is indicated by power display window ①;

When the battery capacity is high, the four leds are all light. When the battery is in low voltage, the last battery led will flash. It indicates that the battery is severely low in voltage condition and needs to be recharged immediately.

3.1.4 Power assisted level adjustment

Twist Power shifting handle forward or backward rapidly then return home fault to change the output power of the motor. The power ranges from Level 0 to Level 4. Level 1 is the minimum power, level 0 is no power assisted. Level 4 is the maximum power. The default level is Level 1

3.1.5 Front/rear light turn on/off(according to the electric system)

Twist Power shifting handle forward at about 2 seconds then return home fault, the front/rear light turn on.

After use, when you need to turn off, Twist Power shifting handle forward at about 2 seconds then return home fault, the front/rear light turn off

3.1.6 6km/h pushing assistance

Twist Power shifting handle backward at about 2 seconds and keep this status, get into power assist mode, and the bike will travel at fixed speed 6Km/h.

Twist Power shifting handle return home fault, get out power assist mode.

3.1.7 Automatic switch-off

If you stop and do not move your Pedelec for 5minutes, the system switches off automatically. If you subsequently want to ride using the assistance, you will have to switch it back on via the displayer.

XV.3.2 Twist Shift type displayer（LCD）

The use of the turning handle type LCD instrument

3.2.1Description of the Parts see Picture 1:

①Battery Power indicator ;

②Power–assisted level indicator;

③Speed

④Mileage

⑥Hidden magnetic switch button;

⑦Power shifting handle

Picture 1

3.2.2 Turn on / off

Use the key with magnetic to stay hidden magnetic switch button ③at about 1 seconds, the electric system turn on, then battery power indicator① and the power assisted indicator② is lit.

（See Picture 2,which means the power–assisted level is at 1 level）

After use, when you need to turn off, Use the key with magnetic to stay hidden magnetic switch button ③ at about 2 seconds, turn off the electric system turn off––then all the instrument lights will turn off.

Attention:

When the electric system turn on/off, please remove the key with to stay hidden magnetic switch button in time, to avoid switching repetitive movements.

Picture2

3.2.3 Power display

The battery charge state is indicated by power display window ①;
When the battery capacity is high, the four segments are all light. When the battery is in low voltage, the last battery segment will flash. It indicates that the battery is severely low in voltage condition and needs to be recharged immediately.

3.2.4 Power assisted level adjustment

Twist Power shifting handle forward or backward rapidly then return home fault to change the output power of the motor. The power ranges from Level 0 to Level 4. Level 1 is the minimum power, level 0 is no power assisted. Level 4 is the maximum power. The default level is Level 1

3.2.5 Backlight and front/rear light turn on/off(according to the electric system)

Twist Power shifting handle forward at about 2 seconds then return home fault, the front/rear light turn on.
After use, when you need to turn off, Twist Power shifting handle forward at about 2 seconds then return home fault, the front/rear light turn off

3.2.6 Mileage

After the power on ,The Mileage display window ④will show the bikes have distance.
Attention: The range of maximum display of the Mileage display window is 999 kilometer. when reach maximum display, it starts from zero to display.

3.2.7 Speed display

After the power on, the battery power display window ③ will show automatically. when the bike does not move ,it will show zero. Along with the mobile speed ,The displayed value increase.

3.2.8 6km/h pushing assistance

Twist Power shifting handle backward at about 2 seconds and keep this status, get into power assist mode, and the bike will travel at fixed speed 6Km/h.
Twist Power shifting handle return home fault, get out power assist mode.

3.2.9 Automatic switch-off

If you stop and do not move your Pedelec for 5minutes, the system switches off automatically. If you subsequently want to ride using the assistance, you will have to switch it back on via displayer.

XV.4. Assistance by the electric motor

4.1 Operating principle of assistance

The motor provides support as soon as you switch the assistance on and start pedaling.

The thrust delivered by the motor depends on three factors:

●Your own pedaling effort
The motor adapts to the force you apply. If you pedal harder, e.g. uphill or when setting off, the power sensor detects this and increases the thrust accordingly. However, the thrust is limited by the maximum motor output.

●The assist level you have selected
With the higher assist level , the power delivered by the motor is added your own effort.

●The speed at which you are currently travelling
When you set off on your Pedelec, the assistance increases as you build up your speed until your bike reaches its maximum speed of 25km / h. and switches off at roughly 25km / h. This happens irrespective of the gear you are using.

4.2 Distance

The distance you can travel using the power assist with the battery fully charged depends on several factors:

●Ambient temperature
If it is colder, you will travel a shorter distance with the same battery charge.
To maximize the distance you can travel, keep the battery in a heated room so that it is at room temperature when you fit it on your Pedelec.
As the battery discharges when the motor is in use, it generates enough of its own heat to not lose too much of its power at low temperatures.

●Selected assist level
If you want to cover a large distance assisted by the motor, select the lower gears, i.e. the ones that are easier to pedal. Also change to lower assist level

●Handling
If you are riding in gears that are harder to pedal and select a high level of assistance, e. g. when riding uphill, the motor will provide support with plenty of power. However, this leads to higher consumption, as with driving a car at high speed on the motorway. You will therefore have to recharge the battery sooner. You can conserve energy when riding your bike not just by turning the pedals, but also by applying even pressure throughout each crank revolution.

●Technical condition of your Pedelec
Make sure the tyre pressure is correct. If you ride your bike with too little air in the tyres, this can significantly increase the rolling resistance. The distance you can travel also decreases if the brakes are rubbing.

XV.5.Battery

Your battery is a lithium cobalt battery, the ideal type of lithium–ion (Li–ion) battery for this application. One of the main benefits of this type of battery is its low weight combined with a high capacity. Li–ion batteries only weigh half as much as comparable nickel metal hybrid or nickel–cadmium batteries. This means you carry less battery weight and more battery power.

5.1 Straightforward charging

- There is no memory effect. You can therefore fully recharge your battery after every trip.
- Recharge the battery after every trip. This means you can set off immediately the next time you use your bike and you also increase the service life of the battery.
- If you are not using the battery, you must recharge it after 3 months at the latest.

5.2 High degree of safety due to battery management

- The battery cannot be damaged as a result of a short–circuit. If this were to happen, the battery management would switch off the battery.
- You can simply leave the battery standing in the charger as it prevents overcharging.

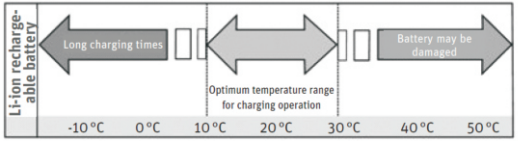
5.3 Straightforward storage

- If you do not need your battery for a while, store it at a temperature of +10 ℃ at three quarters of its full charge capacity.
- The battery enters sleep mode to prevent it from totally discharging.
- These benefits are available due to highly effective battery management that has been adapted to this specific application and by tuning the battery for operation with a 250 watt motor.

Note:

Observe the following points to increase the service life of your Pedelec battery:

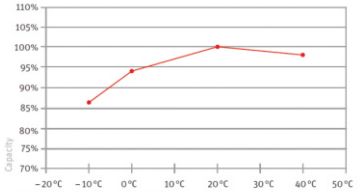
- Make sure that the battery is fully charged before you ride your bike for the first time or after you have not used it for a while.
- You should run the battery all the way down to empty for the first three charging cycles. This allows the battery to reach its maximum capacity.
- If you continuously run the battery to empty during normal operation, this reduces its service life.
- If you partially recharge the battery frequently during normal operation, this has a favourable effect on its service life.
- You should therefore partially recharge the battery whenever possible: Try not to run the battery all the way down to empty and recharge it even after a short period of operation.
- If you are having problems with the battery, place it in the charger for one minute. A reset occurs, during which the battery management disables sleep mode for example. After this, the battery will work again.
- Ideally you should charge the battery at a temperature of between +10 ° C and +30 ° C. It takes longer to charge the battery at low temperatures, the battery will not charge up at temperatures higher than +30 ° C. Ideally, you should charge and store the battery inside your house or in a warm garage when the outside temperature is low. In this case you should only fit the battery on your bike just before using it.
- If you are transporting your Pedelec by car, take the battery out of its holder and transport it separately.
- The battery is ideally stored for longer periods charged to 75% of its capacity at a temperature of +10 ℃.



Charging times at different temperatures

5.4 Battery information system

There is a control panel with four LEDs and a button ("Push") on the side of the battery that faces outwards.The LEDs light up if you press the "Push" button. Information about the battery and its charge state is provided based on the number of LEDs that light up and the way in which they light up.



Capacity curve at different temperatures

5.5 Service life and warranty

5.5.1 The electric drive

The electric drive is a fully–developed durable and maintenance–free electric drive. It is a wear part for which a two –year warranty applies.

5.5.2 The battery

Batteries are wear parts. Wear parts also come with a two year warranty.
If the battery develops a fault during this period, your specialist cycle shop will of course replace it. A fault does not constitute normal ageing and battery wear.

The service life of the battery depends on different factors. The most important wear–relevant factors are：

- the number of charge cycles and
- the age of the battery.

When you have fully charged and discharged your battery 400 times, it will still have 80% of its initial capacity,

Providing it has been well looked after:

From a technical standpoint therefore, the battery is "used" at this point. It also goes without saying that the battery ages. Even if you do not use your battery, its capacity reduces.
Providing you can still cover the journey distances with this remaining battery capacity, you can of course continue using it. If the capacity is no longer sufficient, you can take your battery to a specialist cycle shop who will dispose of your battery and supply you with a new one.
＞You can extend the service life of the battery by fully recharging it after every journey, even if it is small. The li–ion cobalt battery has no memory effect.
＞You can also extend the service life of the battery by using the assistance selectively. Avoid, for example, using gears that make pedaling difficult with the most powerful assist level.

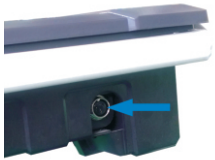
5.6 Battery Holder

Embedded type I

Batteries Remove: open the lock of the battery box, seize the end of the battery box upward, and pull it out (as left picture);

Install the battery out: put down the front of the battery box aligned to the card slot, and then press down the end handle, and then lock (as right picture).

Charging the position: To connect the charger interface in this location.



XV.6. Charger

Read the two stickers on the charger before using it for thefirst time.

Warning：

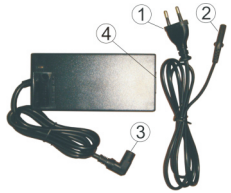
Do not use other chargers. Only charge the battery using the charger provided,

Note：

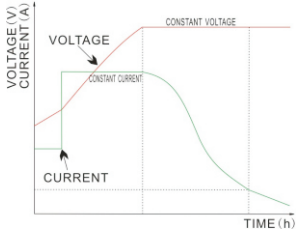
if used incorrectly, the device may be damaged or inflict injuries.
＞Before cleaning the charger, always pull the plug out of the socket to avoid a short–circuit and/or physical injury.
＞Only use the charger in dry rooms.
＞Only place the charger in a secure stable position on a suitable surface.
＞Do not cover the charger or place any objects on it as otherwise it could overheat and catch fire.

6.1 Structure Diagram of Charger

①power cord plug ②power cord terminal③charging port ④Charger



6.2 Charge Curve Graph



XVI.Care and maintenance of the bike

XVI.1 Care

Warning:

Do not allow care products or oils to come into contact with brake pads, brake discs and the rim's brake contact surfaces. This could reduce the effectiveness of the brake.

Note:

Do not use a powerful water jet or high–pressure cleaner. If water under high pressure is directed at the bike, it can enter the bearings. This can dilute the lubricant which increases friction. This leads to rusting and irreparable damage to the bearings.

Do not clean your bike with:

- acids
- grease
- hot oil
- brake cleaners (apart from brake discs) or
- fluids containing solvents

These substances attack the surface of the bike and accelerate wear.
Dispose of used lubricants, cleaning agents and care products in an environmentally sound manner. Do not pour these substances into the domestic waste, down the drain or into natural water bodies or the soil.

How well the bike works and how long it lasts depends on how well you look after it.

- Clean your bike regularly using hot water, a small amount of cleaning agent and a sponge.
- You should also always take this opportunity to check your bike for cracks, dents or material deformation.
- Have defective parts replaced before you ride the bike again.
- Touch up damaged paintwork.

Treat all parts that are susceptible to corrosion more frequently than other parts with preservatives and care products, especially during the winter and in aggressive environments such as coastal regions as otherwise your bike will corrode (rust) more powerfully and quickly.
Clean all galvanized and chrome–plated parts as well as stainless–steel components regularly.Preserve these parts after cleaning with spray wax. Make sure that wax does not come into contact with brake discs and rims.If you stop using your bike for a while, in the winter for example, store it in a dry place at a constant temperature.Before putting your bike into storage, inflate both tyres to the prescribed tyre pressure.
To find out more important information on looking after your bike, visit the Internet pages of the relevant component manufacturer.

XVI.2 Wear parts

Your bike is a technical product that must be regularly checked.
Many parts on your bike are subject to a higher degree of wear due to their function and depending on their use.

Note: Have your bike checked regularly at a professional bike workshop and have the wear parts replaced.

XVI.3 Tires

Due to their function, bike tires are subject to wear. This depends on how the bike is used and the rider can influence this significantly.
Do not brake so sharply that the wheels lock.

- Check the tire pressure regularly. The maximum permissible tire pressure, and normally also the minimum permissible pressure, can be found on the tire wall.
- If necessary, inflate the tire up to the specified value. This reduces wear.
- Do not expose the tires to things that can damage them such as sunlight, petrol, oil, etc.

XVI.4 Rims in conjunction with rim brakes

Owing to the interaction of the rim brake with the rim, not only the brake pad but also the rim is subject to function related wear. If fine cracks appear or the rim flanges deform when the tire pressure increases, this indicates increased wear. Wear indicators on the rim allow its wear condition to be easily identified.
Check the wear condition of the rim at regular intervals.

XVI.5 Brake pads

The brake pads on rim, roller, drum and disc brakes are subject to wear, the extent of which depends on how the bike is used. If the bike is ridden in hilly regions, or use din a sporty manner, the brake pads may need to be replaced more often. Check the wear condition of the pads regularly and, if necessary, have them replaced by a professional bike workshop.

XVI.6 Brake discs

Brake discs also wear out as a result of intensive braking, or during the course of time. Find out from the manufacturer of your brakes or your specialist cycle shop about the respective wear limits. You can have worn brake discs replaced at a professional bike workshop.

XVI.7 Bike chains or toothed belts

The bike chain is subject to function–related wear the extent of which depends on care/maintenance and how the bike is used (mileage, rain, dirt, salt, etc.).

- To increase the service life of the bike, clean the bike chains and toothed belts regularly and lubricate the chain.
- Have the chain replaced by a professional bike workshop once its wear limit has been reached (20 "Bike chain").

XVI.8 Chain rings, sprocket wheels and jockey wheels

In bikes with derailleur gears, the sprocket wheels, chain rings and jockey wheels are subject to function–related wear. The extent of the wear depends on care/maintenance and how the bike is used (mileage, rain, dirt, salt, etc.).

●To increase the service life of the bike, you should clean and lubricate these parts regularly.

●Have them replaced by a professional bike workshop once their wear limit has been reached.

XVI.9 Lamps of lighting set

Bulbs and other lamps are subject to function–related wear and therefore may need to be replaced.

●In case you need to replace damaged bulbs, always carry spare ones with you.

XVI.10 Handlebar tapes and handle grips

Handlebar tapes and handle grips are subject to function related wear and therefore may need to be replaced.

●Check regularly that the handles are securely seated.

XVI..11 Hydraulic oils and lubricants

The effectiveness of hydraulic oils and lubricants decreases over time. If lubricants are not replaced, this increases the wear of the relevant components and bearings.

●Clean and reduplicate all relevant components and bearings regularly.

●Have the brake fluid for disc brakes checked regularly, and replaced if necessary.

XVI.12 Gear-shift and brake cables

Carry out regular maintenance on all Bowden cables.
Have defective parts replaced at a professional bike workshop. This may be necessary especially if the bike is often left outdoors and is exposed to the effects of the weather.

XVI.13 Paint finishes

Paint finishes require regular care, this also ensures that your bike looks good.

●Check all painted surfaces regularly for damage and touch up immediately if required.

●Consult your specialist cycle shop for advice on how to care for your bike's surface finishes.

XVI.14 Bearings

All bearings on the bike, such as the headset, wheel hubs, pedals and bottom brackets, are subject to function–related wear which depends on the intensity and duration of use and how well the bike is looked after.

●Check these parts regularly.

●Clean and lubricate them regularly.

XVII. Regular inspections

It is advisable to have your Pedelec serviced regularly after bedding–in phase. The schedule given in the table below is rough guide for cyclist who ride their bicycle between 1.000 and 2,000km or 50 to 100 hours of use a year. If you consistently ride more or if you ride a great deal on poor road surface. The maintenance periods will shorten accordingly.

Component	What to do	Before every ride	Monthly	Annually	Other Intervals
Lighting	Check function	●			
Tyres	Check pressure	●			
	Check tread and side wall		●		
Brake	Check lever travel, wear of brake pads, position of pads relative to rim, test brake in stationary	●			
Brake pads	Clean		●		
Suspension fork	Check and retighten bolts, if necessary			●	
	All–inclusive service(change oil or grease elastomers			●	
Rim	Check thickness, replace if necessary				●After second set of brake pads at the latest
Bottom bracket	Check for bearing play		●		
	Dismount and regrease (cups)			●	
chain	Check and grease, if necessary	●			
	Check wear, replace, if necessary				●After 800km or 40 hours of use
crank	Check and retighten , if necessary		●		
Painted/anodized surface	polish				●at least every 6 months
Wheels/spokes	Check for trueness and tension		●		
	True or retighten				●if necessary
Handlebars and stem	Check and replace, if necessary				

headset	Check for bearing play		●		
	Regrease			●	
Metal surface	Polish(except :rim sides of rimbrake, rotors)				●at least every 6 months
Hubs	Check for bearing play		●		
	Regrease			●	
Pedals	Check for bearing play		●		
Seat post/stem	Check bolts		●		
	Disassemble and regrease			●	
Derailleur	Clean and grease		●		
Bots and nuts	Check and retighten , if necessary		●		
Valves	Check seat	●			
Cable gears/Brake	Dismount and checkseat			●	

If you have a certain degree of mechanical skills, experience and suitable tools. Such as torque wrench, you should be able to do checks mark●by yourself .if you will come across any defects. take appropriate measures without delay ,if you are doubt or if you have any question, Contact our dealer.

XVIII.Technical data

XVIII .1 Maximum permitted gross weight of bike

The maximum permitted gross weight of the bike comprises the weight of the bike, the weight of the rider and the weight of the luggage. It also includes the laden weight of a trailer.

BIKE TYPE	MAXIMUM PERMITTEDGROSS WEIGHT	WEIGHT OF RIDER
Pedelec–City	130KG	105KG
Pedelec–treking	130KG	105KG
Pedelec–MTB	130KG	110KG

XVIII.2 Tightening torques for screw connections

WARNING:

Only use a suitable tool, a torque wrench for example, to tighten the screw connections as otherwise the screws could shear off or break.

NOTE:

If you tighten screws too tightly, this could damage the components You should therefore always observe the prescribed tightening torque.

SCREW CONNECTION	THREAD	TIGHTENING TORQUE (NM)
Crank arm	M8x1	30
Pedal	9 / 16"	30
Axle nuts, front	gen.	25
Axle nuts, rear	gen.	30
Stem expander bolt wedge	M8	23
Stem, A–head, handlebar clamping fixture	M5 / M6 / M7	M5: 5 / M6: 10 / M7: 14
Stem, A–head, head tube	M5 / M6 / M7	M5: 5 / M6: 10 / M7: 14
Bar end, outer clamp	M5 / M6	M5: 5 / M6: 10
Seat post, clamp	M8 / M6	M8:20 / M6:10
Seat post, saddle clamping bracket	M7 / M8	M7: 14 / M8: 20
Front derailleur clamp	M5	5
Brake, pad	M6	10
Brake, cable clamp	M6	10
Sidewall dynamo, fixing	M6	10
Disc brake calliper	M6	8 to 10
Shifting lever clamp	M5	5
Brake lever clamp	M5	5
V–brake, fastening screw	M6	10
Freewheel fastening screw	n. a.	40
Cassette, lock ring	n. a.	30

NOTE: These value are reference value, observe the values in the enclosed operating instruction of the component manufacture.

XVIII.3 Tires and tire pressure

The tires should be pumped up to within the range stated on the sidewall. This should be regularly checked as running with the correct pressures will ensure maximum range from the battery.

XIX: Warranty conditions

Read chapter "Care and maintenance of the bike carefully. Comply with the inspection and maintenance intervals specified in Chapter "Regular inspections". Compliance with the service intervals is a prerequisite for the assertion of warranty claims.
The statutory warranty period is two years. This starts when the bike is handed over by the specialist cycle shop who is also your contact partner for warranty claims.
As proof of purchase and date of handover, please retain the handover document signed by both parties and record of purchase, such as the invoice and/or sales receipt, for the duration of the warranty period.

XIX.1 Prerequisites for the validity of warranty claims

- Manufacturing, material or information error.
- The problem or error already existed at the time of handover to the customer.

XIX.2 Warranty exclusions

A warranty claim applies only for the initial faultiness of the defective part.
The following are excluded from the:

warranty:

- Damage caused by use in competitions, improper use and force majeure
- All parts that are subject to function–related wear, providing this is not a production or material fault.
- Damage caused by incorrect or insufficient care and unprofessional repairs, conversions or replacement of components on the bike. This User Manual contains detailed information on how to look after your bike.
- Accident damage or damage caused by other external factors, providing this is not attributable to incorrect information or a product error.
- Repairs carried out with used parts or damage that occurs as a consequence of this.
- Special equipment or accessories or non–standard equipment; especially technical changes, i.e. to the Gear shift system or the bike fork and frame geometries.
- Non–compatible add–on components that were not part of the scope of delivery at the time the product was handed over, or damage caused by unprofessional installation of these add–on components.