TekDoc

USER MANUAL

2024

ATOMe

V0.0

BH

CONTENTS

01 INTRODUCTION

This user manual contains important information for proper use and maintenance of the bicycle. In particular, this document contains specific information about the **ATOMe (ES434, ES454, ES474, ES484, ES494, ES524, ES534, ES624, ES804, ES824)**. Please read the entire manual carefully. The user manuals of all BH models can be consulted on the website at the following address:

https://www.bhbikes.com/manuals

Keep in mind that the manuals on the BH BIKES website are updated on a regular basis. Make sure you have downloaded the latest version from the website. You can check the version on the front page.

This document contains additional information to the general user manual, available at:

https://www.bhbikes.com/es_INT/quienes-somos/manuales-descargas

You can check the characteristics, recommendations and warranties of third-party parts on their corresponding official websites.

SYMBOLS

This document contains different icons that refer to use, maintenance and assembly warnings. Carefully read the meaning of each one to prevent improper handling or hazardous situations that may result in serious personal injuries or fatal accidents.

SAFETY

DANGER: refers to a hazardous situation that, if not avoided, will lead to serious injuries or even a fatal accident.

WARNING: refers to a hazardous situation that, if not avoided, could lead to serious injuries or even a fatal accident.

ATTENTION: refers to a hazardous situation that, if not avoided, could cause minor or moderate injuries.

RISK OF ELECTRIC SHOCK: refers to a hazardous situation that, if not avoided, could cause serious injuries due to electric shock or even death.

RISK OF SHORT CIRCUIT: refers to a hazardous situation that, if not avoided, could cause short circuits in the electrical components. Short circuits may cause damage to the electrical components and fire.

TOOLS

FLAT WRENCH

ALLEN KEY

TORX KEY

PHILLIPS SCREWDRIVER

10Nm **TIGHTENING TORQUES:** on one side of each tool symbol, the tightening torque will be indicated in newton metre.

TYPE OF ASSEMBLY COMPOUND

OIL: light lubrication for elements such as chains and cables.

GREASE: assembly grease.

CARBON PASTE: assembly paste used to increase the friction of the carbon elements.

ADHESIVE: use medium strength thread lock.

Adhesive is used to fasten bolts and make sure that they do not come loose due to vibrations when using the bicycle. Add a drop of thread lock to the tip of the screw thread in all cases. Never apply more than one drop around the thread, since this will make it very hard to remove the bolt.

02 BH WARRANTY

BH BIKES undertakes to offer long-lasting bicycles, in compliance with the highest standards of quality. Therefore, in addition to the statutory warranty, BH BIKES offers an additional coverage and warranty. This section defines the different types of warranty and the process that must be followed to register for the additional "LifeTime Frame" warranty.

STATUTORY WARRANTY

The statutory warranty covers the original purchaser in the event of manufacturing defects and/or non-conformities. This warranty applies to frames and components manufactured by BH BIKES. The warranty period will be established according to the current laws of the country where the bicycle was purchased, and will start on the date of purchase. During this period, the holder of the warranty will be entitled to have all manufacturing defects repaired or replaced free of charge, including the reimbursement of transport expenses and any losses caused as a result of this. Different conditions must be met in order to be covered by the warranty:

- This warranty does not affect the consumer's applicable rights, according to the current laws in each country.
- Faulty bicycles or parts will be covered by warranty upon the decision of our Technical Service.
- The warranty does not include the replacement of parts prone to wear and arising from normal use of the bicycle.
- The warranty does not cover defects or broken parts due to improper use of the bicycle, use for competitions, mounting of non-original accessories or improper handling and incorrect maintenance work.
- The warranty does not apply if the inspection before delivery and the corresponding inspection intervals included in this document have not been carried out, observed, documented as required and stamped by an authorised BH dealer.
- Should the repair not be satisfactory and not ensure that the optimum conditions are met according to the intended use, the holder of the warranty will be entitled to request the replacement of the purchased item or faulty part with one of identical characteristics, or to receive a refund of the amount paid for the damaged item or part.
- The warranty period will be interrupted during the repairs or, in the event of replaced items or components, it will be renewed.
- Any claim against this warranty shall expire six months after the end of the warranty validity period.
- All warranty claims must be processed by an authorised dealer.
- Geographical scope: refer to the User Manual or www. BHbikes.com

Visit the following link to read the terms and conditions:

https://www.bhbikes.com/es_INT/registro-garantia-vida-bh/registra-tu-bici-garantia-de-por-vida

LIFETIME FRAME WARRANTY

Through its authorised stores, BH Bikes provides the original buyer with a commercial policy to cover any manufacturing defects in frames for a period beyond that specified in the product's statutory warranty, pursuant to the following clauses:

1. **The LIFETIME warranty solely applies to BH frames and bikes that are sold through stores that are authorised by BHBIKES EUROPE S.L.**
   - The buyer must register the LIFETIME warranty online, with the information duly completed, within 30 calendar days of the purchase date, as it appears on the invoice issued by the authorised store.
   - This warranty cannot be transferred to subsequent buyers and it is cancelled when the bicycle is sold to a third party. Original buyer means the individual who registers the warranty at the time of the purchase; the commercial warranty cannot be transferred to third parties who are not the original buyer.
   - It shall be compulsory to have the bicycle serviced in an establishment that is authorised by BHBIKES EUROPE and according to the instructions in the user manual.
2. **The LIFETIME warranty does not cover:**
   - The rear swingarms of the double suspension models, fork, kids' bikes, defects and/or fading of the original paint, or rust caused by natural deterioration.
   - Defects or breakages resulting from an accident or improper and/or negligent use of the bicycle.
   - When components or accessories that are not intended for or are not compatible with the use for which the bicycle was designed have been installed.
   - Defects resulting from improper handling.
   - Scratches, discolouration, or stains caused by the use of abrasive fluids, sharp items, clamps and/or prolonged exposure to sunlight or other weather conditions.
   - Defects caused by the bicycle's normal wear and tear, including those due to material fatigue. Fatigue damage is a sign that the frame has been damaged by normal use, so it is the user's responsibility to regularly inspect the bicycle.
   - Improper use and/or maintenance of the product (carefully read the recommendations for use and cleaning).
   - Frames that have been used in competitions, demos or as rentals.

Read the full terms and conditions at:

https://www.bhbikes.com/es_INT/registro-garantia-vida-bh/registra-tu-bici-garantia-de-por-vida

EXTENDED WARRANTY FOR BH BATTERIES

In a constant effort to improve our customer services on a daily basis, BH offers the best warranty conditions and the possibility of acquiring an extended warranty for its e-Bike range (an additional one or two years). Through its authorised stores, BH Bikes provides the original buyer with a commercial policy to cover any manufacturing defects in BH batteries for a period beyond that specified in the product's statutory warranty, pursuant to the following clauses:

1. **The BH battery extended warranty solely applies to BH batteries installed in BH bikes and sold through stores that are authorised by BHBIKES EUROPE S.L:**
    - The buyer must register the warranty online, with the information duly completed, within 30 calendar days of the purchase date, as it appears on the invoice issued by the authorised store, on which the bike's serial no. must be specified.
    - This warranty cannot be transferred to subsequent buyers and it is cancelled when the bicycle is sold to a third party. Original buyer means the individual who registers the warranty at the time of the purchase; the commercial warranty cannot be transferred to third parties who are not the original buyer.
    - It shall be compulsory to have the bicycle serviced in an establishment that is authorised by BHBIKES and according to the instructions in the user manual.
2. **The BH battery extended warranty shall not ever cover:**
    - Fading paintwork and a loss of original colour, or corrosion caused by normal wear and tear.
    - Defects or breakages resulting from an accident or improper and/or negligent use of the bicycle.
    - Deterioration or natural degradation due to age, even without use. Deterioration after 500 full charging and discharging cycles if it is below 30% of the nominal capacity (read the recommendations in the user manual carefully).
    - When components or accessories have been installed that are not intended for/compatible with the use for which the bicycle was designed.
    - Defects resulting from improper handling.
    - Scratches, discolouration, or stains caused by the use of abrasive fluids, sharp items, clamps and/or prolonged exposure to sunlight or other weather conditions.
    - Improper use and/or maintenance of the product (carefully read the recommendations for use and cleaning).
    - Batteries that have been used in competitions, demos or in rentals.
    - Auxiliary batteries (extenders).

Read the full terms and conditions at:

https://www.bhbikes.com/es_INT/registro-garantia-vida-bh/extension-garantia-bateria

REGISTERING EXTENDED WARRANTIES

You must register the bicycle within 30 days after purchase to enjoy the BH BIKES additional warranties. The process to activate the extended warranties is described below:

- **LIFETIME FRAME WARRANTY + 5 YEARS WARRANTY ON BH ENGINES**

You must register the bicycle on the BH BIKES website to enjoy the LIFETIME FRAME extended warranty:

https://www.bhbikes.com/es_INT/registro-garantia-vida-bh/registra-tu-bici-garantia-de-por-vida

Watch this video to find out what you need to do:

https://youtu.be/47aLVgUI248

- **EXTENDED WARRANTY FOR BH BATTERIES**

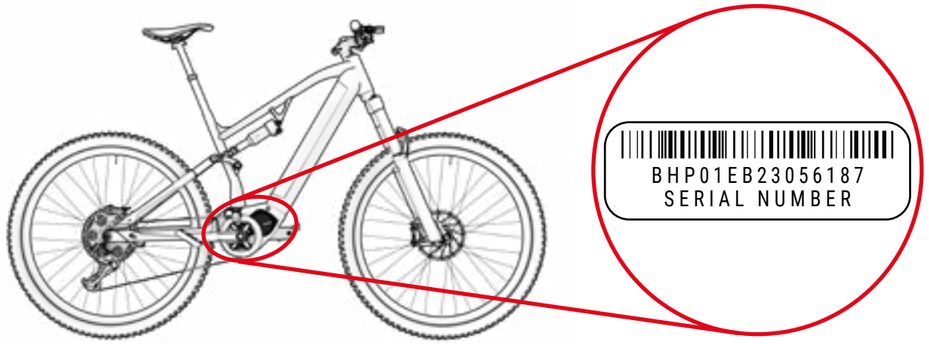
You must register the bicycle on the BH BIKES website to enjoy the BH BATTERY extended warranty:

https://www.bhbikes.com/es_INT/registro-garantia-vida-bh/extension-garantia-bateria

Watch this video to find out what you need to do:

https://youtu.be/slNzdFBygMM

The serial number required to register the bicycle is located on the bottom of the bicycle, on the seat tube, above the bottom bracket:bottom bracket:



WARRANTY OF PARTS OF THE ELECTRICAL ASSISTANCE SYSTEM

As in the case of BH BIKES frames and parts, all electrical components made exclusively for BH will be covered by the statutory warranty (BH motors feature an extended 5-year warranty after the LIFETIME FRAME warranty is activated). The warranty period will be established according to the current laws of the country where the bicycle was purchased, and will start on the date of purchase.

During this period, the holder of the warranty will be entitled to have all manufacturing defects repaired free of charge, including the reimbursement of transport expenses and any losses caused as a result of this. The terms and conditions are as described in the section "Statutory Warranty" and can be read at:

https://www.bhbikes.com/manuals

Under no circumstances shall the warranty cover the wear and natural ageing of batteries due to use, charging and storage. Likewise, the buyer must contact the original manufacturer to use the warranty of third-party parts.

SUBMITTING A WARRANTY CLAIM

All warranty claims must be channelled through an official BH dealer. The dealer will analyse the claim to identify its scope and perform a preliminary assessment of the incident. The dealer will submit and process the claim directly with BH. Once BH has defined the corrective measures required, the dealer will send this information to the customer.

All claims must be processed by the official dealer from which you purchased your bicycle. If this is not possible, please contact us directly. We will help you find an authorised dealer near you:

https://www.bhbikes.com/es_INT/quienes-somos/contacto

CONDITIONS THAT MAY VOID THE WARRANTY OF ELECTRICAL COMPONENTS

The BH battery and electrical components are covered by the statutory warranty, but the following requirements must be met:

- No electrical components must be removed or tampered with.
- The service life will vary according to the use, charging and storage conditions.
- Keep the battery charged at all times. Otherwise, the battery may deteriorate faster than normal.

03 MAINTENANCE

This user manual contains important information for **ATOMe (ES434, ES454, ES474, ES484, ES494, ES524, ES534, ES624, ES804, ES824)**. Please read the entire manual carefully. The user manuals of all BH models can be consulted on the website at the following address:

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This document contains additional information to the general user manual, available at:

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You can check the characteristics and recommendations of third-party parts on their corresponding official websites.

INSPECT THE BICYCLE BEFORE USE

Bicycles are inspected several times throughout the manufacturing process and then at the BH workshop during the final check. As the bicycle's operation may be affected during transport or third parties may have modified the bicycle before its sale, the following must be checked before each trip:

- **FRAME:** no cracks, damage or strange noises.
- **CHAIN:** it must be lubricated and the transmission system must not make any strange noises.
- **BRAKES:** the brakes must be working properly. When stopped, press the brake lever with enough strength and check that it does not touch the handlebars.
- **TYRES:** the pressure must be correct and there must be no cuts on the tread or on the sides. Also check that the wear level does not exceed the maximum recommended level.
- **WHEELS:** the wheels must rotate freely in order to check how they rotate. Also check the space between the brake lining and the rim, as well as the space between the frame and tyre.
- **STEERING:** the steering must turn smoothly and with no strange noises.
- **SWINGARM ROTATION POINTS:** when weight is exerted on the bicycle, the suspension must work as expected and with no strange noises. If it is not working properly or there is play between the moving parts, this might mean that the tightening torques are incorrect or that the bearings are worn.
- **BEARINGS:** the bearings must work properly and with no strange noises. The bearings are subject to wear and must be replaced to prevent damage to the components on which they are installed.
- **ELECTRICAL SYSTEM:** if the bicycle features an electrical system, check that it is functioning properly by ensuring that the electrical assistance mode is running and that all parts are functioning properly (motor, display, change of assistance mode and speed sensor). If there is no electrical assistance, check that all connections are correct and show no signs of damage.

Do not ride your bicycle if it does not meet any of these points! A faulty bicycle may cause serious accidents! If you are unsure or have any queries, please contact your nearest BH workshop!

Check the tightening torques to make sure that they are as described in the recommendations in the user manuals. Failure to observe these recommendations may result in accidents and even death.

The effect of the ground and the forces exerted on the wheel subject the bicycle to a lot of stress. The different parts will be subject to fatigue and wear because of these dynamic loads. Check the bicycle at regular intervals to look for signs of wear, scratches, bent parts, wear on the finish or the formation of cracks. Parts may fail suddenly after their service life has expired. Take your bicycle to an authorised BH workshop regularly to have these parts replaced if needed.

KEEP THE BICYCLE CLEAN

We recommend you follow these basic prevention measures to make sure that the bicycle is in perfect working order. Failure to observe these recommendations may lead to premature wear or even breakages in specific areas, such as gaskets or moving parts.

- Clean the dust and mud with a damp sponge and a gentle and neutral cleaning product.
- Plastic parts must only be washed with soapy water.
- Tyres can be washed with a sponge or brush and soapy water.
- After cleaning the bicycle, dry it by rubbing it firmly with a smooth cloth.
- After each cleaning, lubricate the transmission elements.

Dirt may cause damage that can result in accidents or even death.

Never use pressure washers or steam cleaners.

KEEP THE TRANSMISSION LUBRICATED AT ALL TIMES

After washing the bicycle, the chain transmission's lubrication may have also been washed off. Inspect and lubricate the chain's links, if needed. Excess lubrication may attract more dirt, causing premature wear and incorrect functioning of the system.

Never use pressure washers or steam cleaners.

PART MAINTENANCE

The bicycle requires regular maintenance and a minimum number of regular inspections. The frequency of the maintenance operations depends on the type of vehicle (leisure, road or mountain bike), as well as the frequency and conditions of use.

PART MAINTENANCE CALENDAR

Part	Action required	Before each outing	Monthly	Annually
Lighting	Functional check.	■		
Tyres	Pressure check.	■		
	Inspect the height of the profile and sides.		■	
Brakes (on the rim)	Check the lever travel, lining strength and rim position.	■		
	Brake test when stopped.	■		
	Clean the brake pads.		■	
Brake cables	Visual inspection.		■	
Brakes (disc brakes)	Change the brake fluid (DOT fluid).			■
Suspension fork	Check the bolts and the corresponding tightening torque.			■
	Change the oil and lubricate the elastomer.			■
Saddle seat post with suspension	Maintenance.			■
	Play check.		■	
Rims on rim brakes	Inspection and replacement, if needed, of the wall linings.	At the latest after the second part of the brake lining.		
Bottom bracket axle	Check the play.		■	
	Re-lubrication.			■
Chain	Check and lubrication.	■		
	Check and replacement.	After 800 km.		
Chainsets	Check and tightening.			■
Wheels / Spokes	Check wheel spin and spoke tension.		■	
Headset	Inspection of the headset.		■	
	Re-lubrication.			■
Metal surfaces	Maintenance.	At least once every six months.		
Hubs	Bearing inspection.		■	
	Re-lubrication.			■
Pedals	Bearing inspection.		■	
	Lubrication, cleaning the anchoring mechanism.		■	

Part	Action required	Before each outing	Monthly	Annually
Saddle seat post / Stem	Inspection of the fastening screws.			
Rear derailleur / Derailleur	Cleaning, lubrication.			
Quick-release mechanism / Thru-axle	Efficacy check.			
Nuts and bolts	Check and tightening.			
Spokes	Tension check.			
Stem / Saddle seat post	Removing and applying new assembly paste.			
Circuit / Brakes	Disassembly and greasing.			
Components of the electrical assistance system	Check the connections.			
	Check there is no dirt.			

You do not need to take the bicycle to an expert if you are skilled, experienced and have the appropriate tools. Immediately implement the corrective measures if you detect problems. If you are unsure or have queries, please contact BH.

The tasks described above must only be carried out by a trusted bike repair expert.

SPARE PARTS

Original parts must be used to ensure the optimum performance of your bicycle and the utmost safety. Failure to use original parts may cause damage that is not covered by the warranty.

The most common spare parts are parts prone to wear. The most common ones are tyres, inner tubes, brake pads, disc brakes and brake pads, as well as rims, when these are part of the brake unit, headlights, position lights, batteries and accumulators.

- **TYRES:** Replace them with an equivalent type of tyre. Check the marking on the outside of the tyre (ETRTO standard). Keep in mind that using a tyre with a larger outer diameter than the recommended one may cause the tip of the foot to touch the front wheel or rear wheel guard when the handlebars turn. The cyclist may lose control of the bicycle and suffer an accident with serious consequences. This can also occur when the pedal chainset is replaced with a longer one.
- **INNER TUBES:** Replace them with a suitable type of inner tube, according to the type of tyre. Refer to the information on the outside of the inner tube (ETRTO standard).
- **DISC BRAKES AND BRAKE PADS:** Follow the instructions supplied by the manufacturer.
- **HEADLIGHTS AND POSITION LIGHTS:** Replace the bulb with one of the same type. Check the indication on the metal area.
- **CHAIN, COG AND CHAIN RINGS:** Follow the instructions supplied by the manufacturer.
- **BATTERIES AND ACCUMULATORS:** Change for the same type. Check the indication on the outer area.

⚠ Remember that the failure to use original parts may cause damage that is not covered by the warranty.

AFTER A FALL, BLOW OR IMPACT

If you suffer a fall, blow or impact, first make sure that you are okay to continue cycling. Do not use the bike if you are injured and ask for medical assistance if needed.

If you are okay to continue cycling, check the bicycle to make sure that it is in perfect working order:

- Check that the wheels are firmly secured and that the rims are in the centre of the frame and fork. Turn the wheels. If they cannot be centred in situ because the gap is too small, separate the brakes from the rim so it can move freely.

⚠ In this case, keep in mind that the braking efficacy will be less.

- Check whether the handlebars or the front of the frame are twisted or broken. Check that the front is firmly seated on the fork, holding the front wheel firmly between your legs and trying to twist the handlebars with respect to the front wheel.
- Check that the chain is fitted correctly. If the bicycle fell onto the transmission side, check that it is working properly. Ask for help to place the bicycle on its saddle and change gears. When the chain fits on the largest cog, check the distance between the gear and the spokes. If the gear or bracket are bent, the first one may become stuck on the spokes - Danger of falling! The gear, rear wheel or frame may be damaged. Check the derailleur. If it has shifted, the chain may come off the gear. The bicycle's transmission will become less effective (also refer to the "Traction" section).
- Check the saddle, upper tube or the bottom bracket box to make sure that there are no defects.
- Lift the bicycle slightly and let it drop onto the ground. If there are any noises, inspect the bicycle for any loose bolts.
- Inspect the entire bicycle again to check for bent areas, worn finish or cracks.
- Ride again carefully if no problems have been detected during the inspection. Do not brake or accelerate suddenly or pedal when going uphill. If you are unsure, wait for a car to pick you up instead of risking an accident. Once home, you should inspect the bicycle carefully again. If you are still unsure or have any queries, please contact your nearest BH workshop!

⚠ Bent aluminium parts must not be straightened, i.e., they must not be repaired. Even afterwards, there is a high risk of breakage, especially in regards to the fork, handlebars, front part, chainsets and pedals. Replace them for greater safety.

04 WARNINGS ON USE

MAXIMUM TYRE SIZE

If you install a tyre of a different size on your bicycle, check and make sure that there are at least 6 mm between the tyre and other parts of the frame and fork.

MINIMUM AND MAXIMUM INSERTION LENGTH OF THE SEAT POST

Failure to observe the maximum and minimum seat post insertion dimensions indicated in this manual may cause a lever effect on the frame. The pressure exerted could damage the frame and cause serious accidents. The warranty does not cover the damage generated by failing to observe these indications.

MAXIMUM FORK LENGTH (AXLE-TO-CROWN)

Observe the maximum length between the fork axle and the lower part of the steering tube (axle-to-crown). If this maximum length is not observed, the frame could be damaged due to withstanding a greater load than that for which it was designed and may cause serious accidents.

MAXIMUM NUMBER OF STEERING SPACERS

This manual specifies the maximum number of steering spacers that can be fitted under the stem. If this maximum quantity is not observed, the materials could be damaged due to withstanding a greater load than that for which they were designed and may cause serious accidents.

POSITION OF THE SPINDLE INSIDE THE FORK TUBE

No steering spacers must be fitted above the stem. Otherwise, the materials could be damaged due to withstanding a greater load than that for which they were designed and may cause serious accidents.

INTENDED USE

Each bicycle has been designed according to a specific intended use. The models described in this manual meet the requirements associated with their intended use:

ES804, ES824: Trail.

ES624: Sport, mixed use between mountain, trails and roads.

ES434, ES454, ES474, ES484, ES494, ES524, ES534: Designed for city use.

05 WARNINGS ON USE OF THE ELECTRICAL ASSISTANCE SYSTEM

CARE AND INSTRUCTIONS FOR USE OF THE ELECTRICAL COMPONENTS AND BATTERIES

All BH products and parts have been designed to withstand splashed liquids and rain. However, some practices may cause damage to the parts and short circuits. Do not do the following:

- Wash the bicycle with pressure devices.
- Use the bicycle under adverse weather conditions.
- Transport the bicycle on the outside of a vehicle when it is raining.
- Expose the batteries to very high temperatures. If the temperature exceeds 70ºC, this could cause leaks and there could be a risk of fire.
- Fail to observe the working temperature, storage and charging range of the bicycle.

RECOMMENDATIONS TO MAXIMISE THE BATTERY LIFE

We recommend the following to maximise the battery life:

- Charge it on a flat and stable surface.
- Make sure that it is not exposed to direct sunlight.
- Make sure that there are no children or pets near.
- Make sure that there is no rain or dampness.
- The place must be well ventilated and dry.
- The temperature must be between 15-25°C.
- Do not use the battery with a charge of less than 10%. The useful life of the cells may be affected below this charge level.

⚠ Any unauthorised handling of the electrical system's components may cause serious accidents and will void the warranty.

WARNINGS ON THE USE OF BATTERIES

Improper use of the batteries may cause damage and serious accidents. Follow these recommendations to prevent this:

- Always use the original battery charger.
- Never leave the battery near sources of heat.
- Do not heat the battery or throw it into a fire.

- Prevent the battery connections from coming into contact with metal objects.
- Do not submerge the battery in water and prevent splashes and dampness.
- Do not hit or drill holes into the battery.
- Make sure that the battery liquid does not touch your hands or eyes in the event of a leak.
- Do not use it if there are external signs of damage.
- Only clean the battery with a dry or damp cloth.

UNSUITABLE CHARGING AND DISCHARGING ENVIRONMENTS AND SOLUTIONS

The hot and cold environments described below may lead to charging entering standby or sleep mode without fully charging the battery.

- **Winter discharging sleep mode or DUT (Discharge Under Temperature):** Battery discharging will enter the deep sleep mode if the temperature is below -20°C, stopping the pedal assistance system from working and protecting the battery. In such cases, sleep mode will automatically be disabled when the battery exceeds -20°C.
- **Winter charging sleep mode or CUT (Charge Under Temperature):** Battery charging will enter sleep mode if the temperature is below 0°C. If charging starts and the temperature falls below this level due to night cooling or other factors, charging will stop and sleep mode will be activated to protect the battery. In such cases, sleep mode will automatically be disabled when the battery exceeds 0°C.
- **Noise on televisions/radios/computers:** Charging near televisions, radios or similar devices may cause static electricity, flickering images and other interference. If this happens, recharge somewhere that is away from the television or radio (e.g. in another room).

RECYCLING

Ion-lithium batteries can be recycled but they may harm the environment if they are not managed properly after the end of their service life. Follow these steps after the end of their service life:

- Classify and recycle each electrical component in a place prepared for the sustainable recycling of such parts.
- Check and make sure that the applicable regulations of your country are observed with regards to batteries.

MOTOR

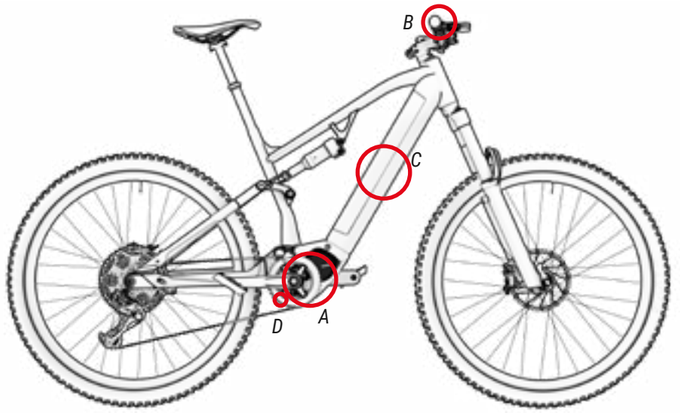
The DC motor is located on the bottom bracket axle. The motor's service life depends on its use, as in the case of any other part of the bicycle. Under normal conditions, the motor can last for 10 to 20 years, or up to 100,000 km.

06 PEDAL ASSISTANCE SYSTEM OPERATION

COMPONENTS OF THE PEDAL ASSISTANCE SYSTEM

The BH Bikes pedal assistance system is made up of the following components:

- **A.** A **motor**, which drives the bicycle.
- **B.** A **control unit**, which, among other things, allows you to select the assistance mode.
- **C.** A **battery**, which powers the motor and can be located in different places.
- **D.** A **torque sensor**, which reads the force applied to the pedal by the user.



PEDAL ASSISTANCE SYSTEM

The pedal assistance system is designed to provide the optimal amount of assisted power. It provides assistance within a standard range, based on factors such as the pedalling force, the speed of the bicycle and the transmission. The system does not provide assistance in the following situations:

- If the control panel is off.
- When travelling at 25 km/h or faster.
- If you are not pedalling and the throttle function is released at 6 km/h.
- If there is no remaining battery capacity.
- If the assistance mode selected is 0% assistance.

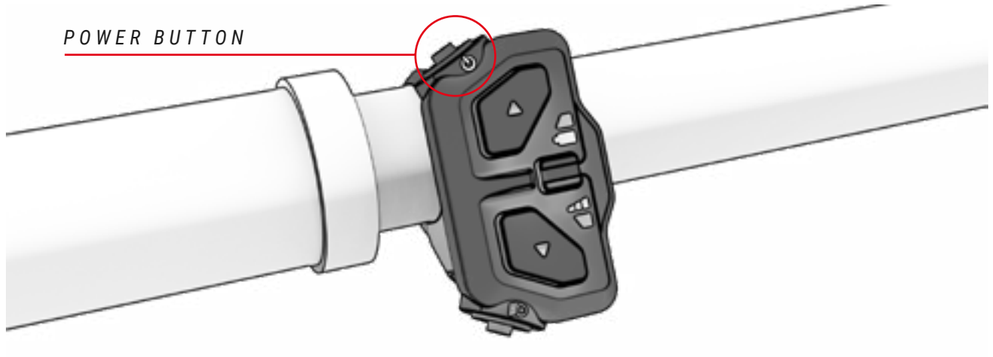
ACTIVATION AND DEACTIVATION OF THE PEDAL-ASSIST SYSTEM

The pedal-assist system is activated using the power button located at the top of the control unit (see lower image). Pressing the power button once will start the system. The LEDs on the control unit will light up to indicate that the system has been turned on.

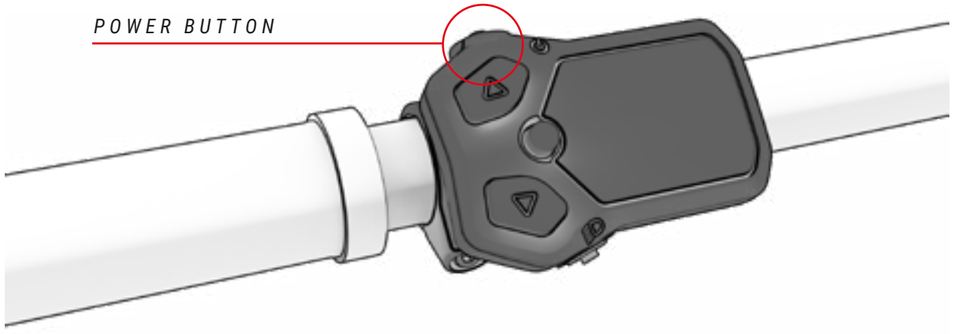
Similarly, to turn off the system, you need to hold down the power button for 3 seconds. The LEDs on the control unit will turn off, indicating that the system is disconnected

- After turning on the system, be cautious when starting to ride without checking the assistance mode. By default, the unit starts in the assistance mode that was selected before it was last turned off.
- Wait for 3 seconds after turning on the system before starting to pedal. During this 3-second period, the assistance system is initializing and calibrating the torque sensor. If you don't wait and start pedaling before this period ends, it could weaken the assistance, and you may even see error code 14 on the display (See Error Codes Section). To resolve it, you need to turn off and restart the system without pressing the pedals during the 3-second period.

ES804 / ES824



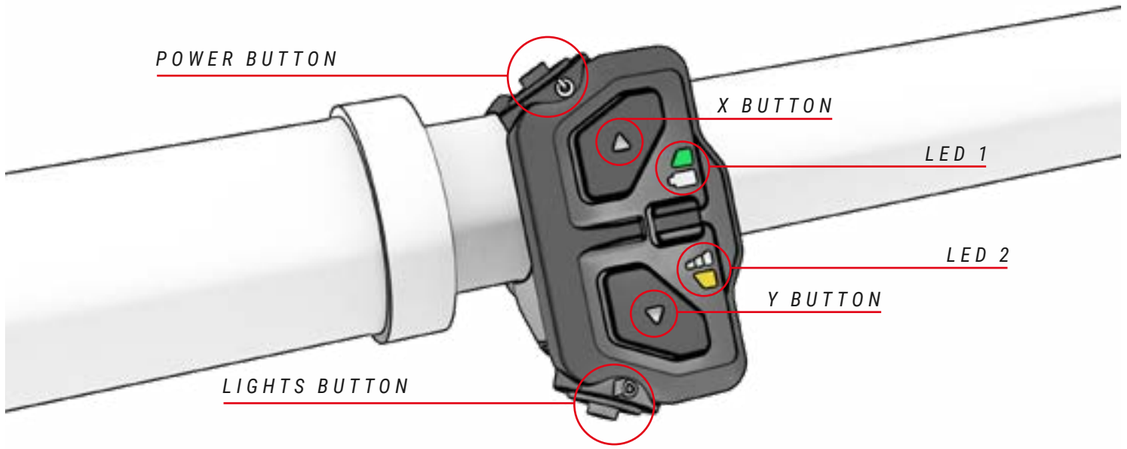
ES434 / ES454 / ES474 / ES484 / ES494 / ES524 / ES534 / ES624



PARTS OF THE CONTROL UNIT

ES804 / ES824

The general control unit SW-EN600-L is located on the left side of the handlebar next to the grip. The control unit consists of 6 parts:

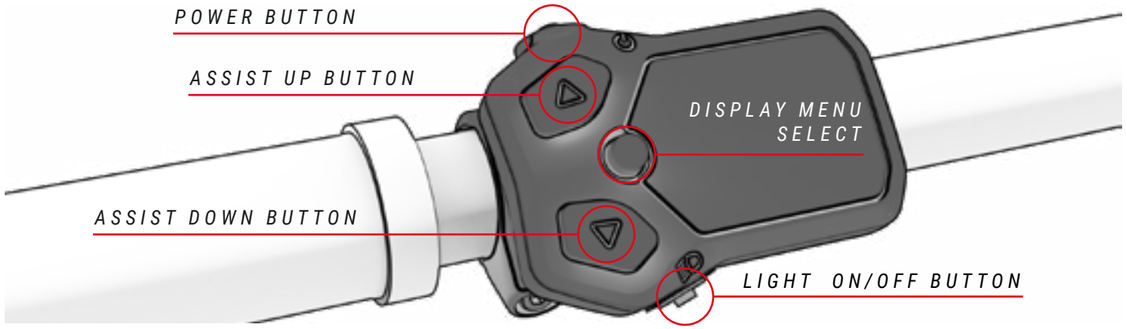


This manual only displays the main details of the SW-EN600-L control unit. Refer to the Shimano-specific manual for all the details:

https://si.shimano.com/en/pdfs/um/0NM0A/UM-0NM0A-000-ENG.pdf

ES434 / ES454 / ES474 / ES484 / ES494 / ES524 / ES534 / ES624

The general control unit SC-EN500 is located on the left side of the handlebar next to the grip. The control unit consists of 5 parts:



ASSISTANCE TYPE

The pedal assistance system offers different modes for assistance, and here's how you can navigate through them:

- **Boost Mode:** Use this mode when you want to get the maximum power from the system.
- **Trail Mode:** Use this mode when you want progressive power based on your pedaling effort.
- **Eco Mode**: Use this mode when you want to travel as far as possible with assistance.
- **No Assist:** Use this mode when you want to ride without pedal assistance. You can still use other functions of the control unit.

Walk Assist: Use this mode when you need assistance in transporting the bike while not riding it.

To switch between the assistance modes, press the (X) button to increase the assistance level and the (Y) button to decrease it. The lower LED will change color to indicate the selected assistance mode

BOOST
YELLOW

TRAIL
GREEN

ECO
LIGHT BLUE

OFF
NO LIGHT

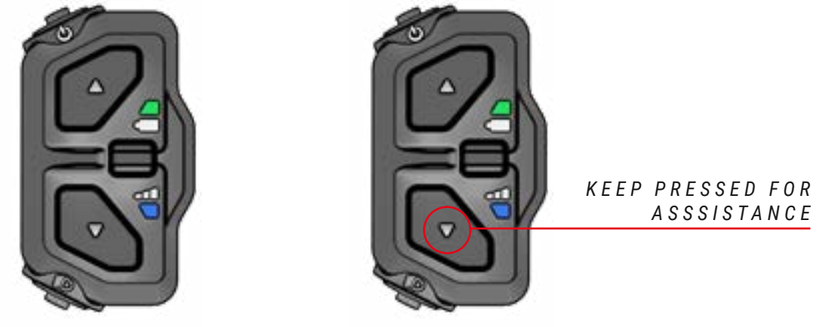
WALK ASSIST
DARK BLUE

In order to increase the battery's lifespan and prevent it from a complete discharge that could damage it, the assistance modes are limited based on the battery charge level:

- Battery charged above 20%: 100% of the maximum assistance level is available.
- Battery charged between 10 and 20%: assistance level limited to 50% of the maximum assistance level.
- Battery charged between 5 and 10%: assistance level limited to 25% of the maximum assistance level.
- Battery charged between 1 and 5%: no assistance is allowed. Only the lights can be turned on.

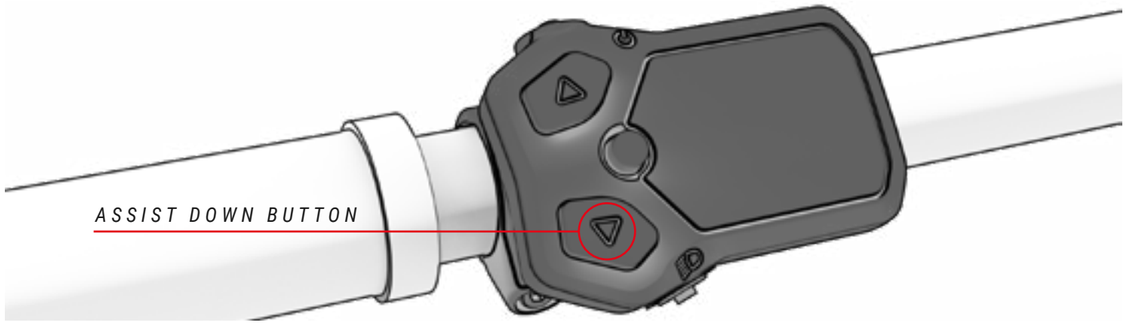
WALK ASSIST MODE

To activate the walk assist mode, you need to press and hold the Y button for 1 second until the LED on the lower part of the control handle turns dark blue. Once the mode is activated, release and press the Y button again for it to start assisting. Keep the button pressed for assistance and release it to stop assisting



SELECTED
DARK BLUE

ASSISTING
FLASHING DEEP BLUE



START OF PEDALING

The user should position themselves on the saddle and firmly grip the handlebars before applying pressure to the pedals. Special attention should be paid if starting to pedal in a mode with higher assistance (TRACK and BOOST mode) because the motor will react with maximum thrust, posing a risk of loss of control. To facilitate acceleration, the motor provides an additional initial push as soon as pedaling begins. This makes the effort required to set the bike in motion minimal, helping to integrate into traffic more quickly and safely.

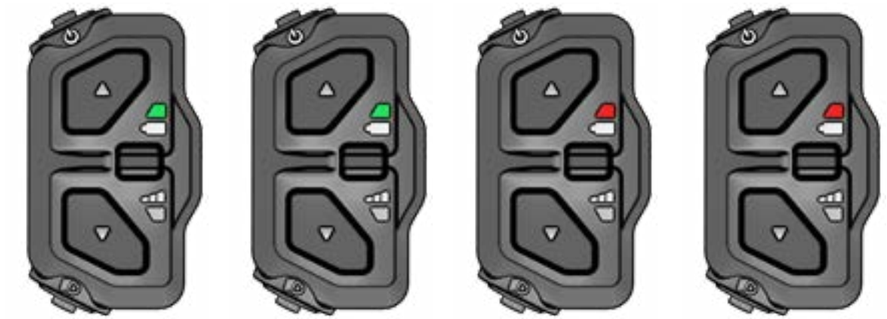
Start pedaling with a lower gear (higher gears) and in a lower assistance mode (ECO Mode). In addition to greater control and safety on the bike, this will require less energy consumption and, therefore, provide greater range. It is advised that starting in a higher assistance mode (TRACK and BOOST modes) can pose a safety risk to the user.

When the user pushes the bicycle while walking alongside it, they should make sure that the system is turned off.

BATTERY CHARGE LEVEL DISPLAY

The battery charge level can be displayed in three different ways: through the control unit, the internal battery, or a Garmin device. In all cases, the battery charge level indicator shows an estimate of the remaining battery capacity:

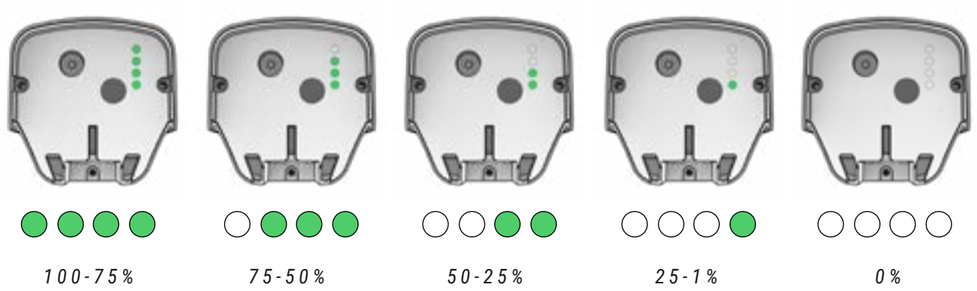
- **Remote control:** The upper LED on the control unit will indicate the charge level depending on the color and whether it's blinking:



100-51% *GREEN* | *50-26%* *FLASHING GREEN* | *25-11%* *RED* | *10%>* *FLASHING RED*

The system's range will vary depending on, among other factors, the following riding conditions: frequent starts and stops, gear ratio, steep inclines, poor road conditions, heavy cargo loads, strong headwinds, low ambient temperature, battery deterioration, use of integrated lighting, improper tire pressure, chain, or brakes adjustment

- **Battery:** the battery features 5 LEDs, as shown in the image. These indicate the battery charge level, according to whether the LEDs are on or off. Press the power button on the battery to turn on the LEDs:



100-75% | *75-50%* | *50-25%* | *25-1%* | *0%*

- **Garmin Device:** Garmin devices also allow you to view the battery level on their own interface (only compatible with control unit SW-EN600):

BATTERY AND CHARGER

The battery in your BH product contains lithium-ion cells and represents the most advanced technology in terms of energy density (energy stored per kilogram of weight and per cubic centimeter of volume)

- Lithium-ion batteries have the following characteristics:
- Their performance decreases in extremely hot or cold environments.
- An additional feature of BH's lithium-ion batteries is that they lack the "memory effect" and are not affected by incomplete discharges.

- They naturally and progressively lose their charge with use. The battery can be fully discharged (100%) approximately 500 times, with a maximum deterioration of up to 20% in battery capacity. In the case of partial discharges, only the discharged portion is considered. For example, if we charge the battery each time its charge level reaches a certain percentage, the remaining capacity is not affected.
- If it decreases by 25%, we can charge it to 100% of its initial capacity up to 2,000 times. In conclusion, the assured durability of the battery with a maximum degradation of 20% amounts to a minimum of 20,000 km.

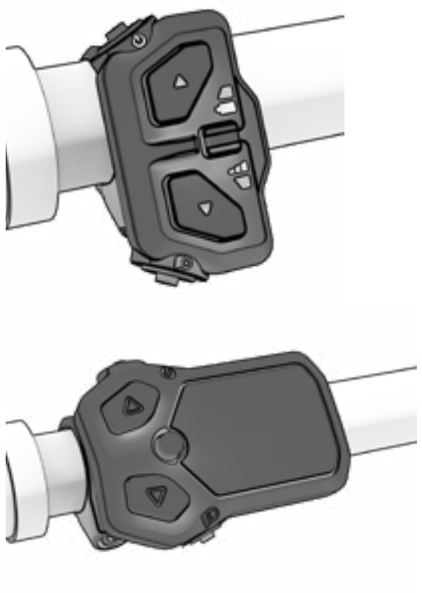
BATTERY CHARGING

Due to its advanced lithium-ion technology, there is no need to wait for the battery to completely discharge before connecting it to the charger. Likewise, it is also not necessary to charge it to 100% before using it again. But bear in mind that, in order to achieve a maximum operating range, a full charge is recommended.

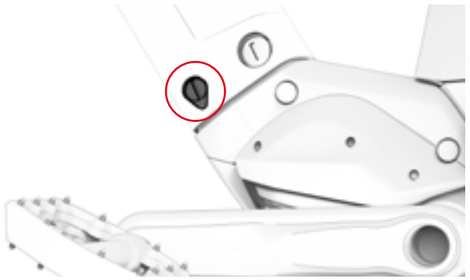
The battery can be charged while mounted on the bicycle and when it is removed from the frame. The steps that must be followed to charge the battery correctly in both cases are described below:

CHARGING THE BATTERY INSIDE THE FRAME.

1. *TURN OFF THE CONTROL SYSTEM.*

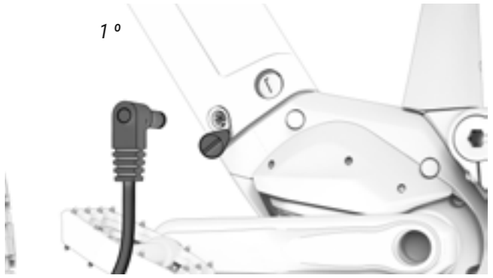


2. *TURN OFF THE CONTROL SYSTEM AND OPEN THE COVER OF THE CHARGING PORT ON THE LOWER LEFT SIDE OF THE FRAME.*

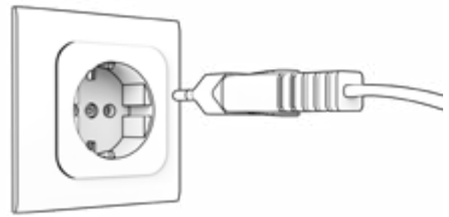


3. *CONNECT THE BATTERY FIRST AND THEN PLUG INTO THE POWER SOCKET.*

1º



2º



4. *VIEW THE STATE OF CHARGE AND ERRORS.*

100% CHARGED

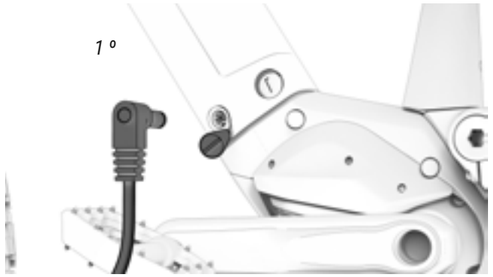
CHARGING

STANDBY (FLASH)

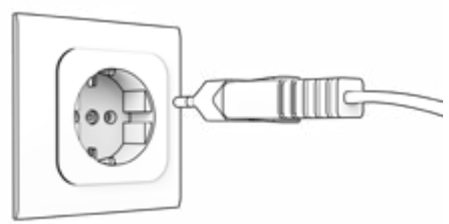
CHARGING PROBLEM (FLASH)

5. *ALWAYS DISCONNECT THE BATTERY CHARGER FIRST AND THEN REMOVE THE PLUG FROM THE POWER SOCKET.*

1º



2º

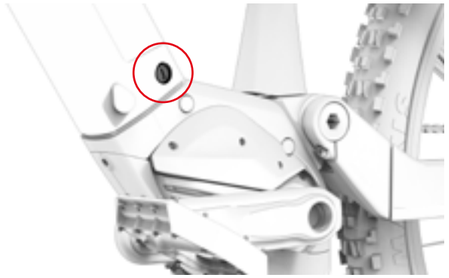


6. CAREFULLY CLOSE THE CHARGING PORT COVER, MAKING SURE NO DIRT OR WATER ENTERS.

CHARGING THE BATTERY OUTSIDE THE FRAME.

1. TURN OFF THE DISPLAY.

2. OPEN THE LOCK ON THE LOWER LEFT OF THE FRAME TO RELEASE THE BATTERY.

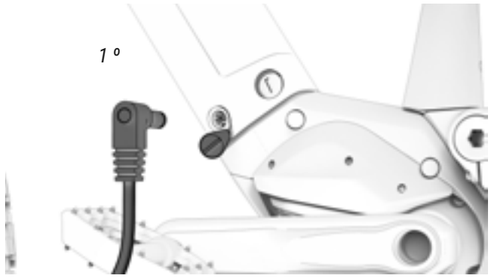


3. LIFT THE BATTERY FROM THE BOTTOM, SO IT PIVOTS ON THE TOP PART, BEFORE REMOVING IT COMPLETELY.

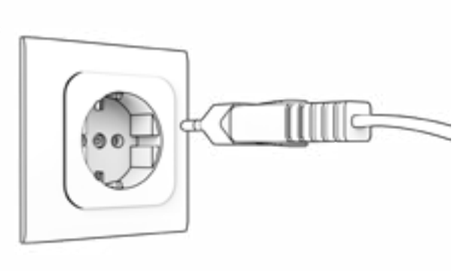
4. CONNECT THE ADAPTOR TO THE CHARGER, SO IT CAN BE CONNECTED TO THE BATTERY.

5. CONNECT THE BATTERY FIRST AND THEN PLUG INTO THE POWER SOCKET.

1º



2º

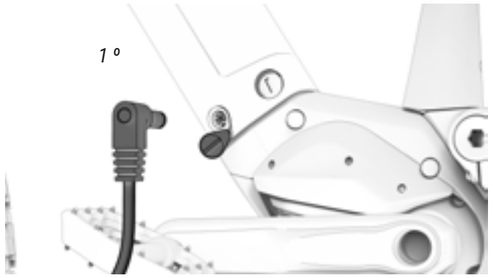


6. VIEW THE STATE OF CHARGE AND ERRORS.

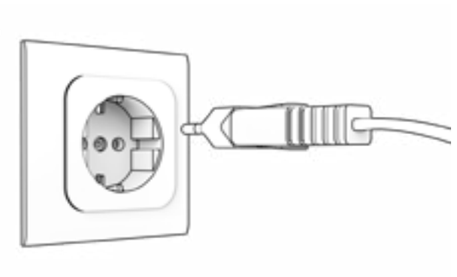
- 100% CHARGED
- CHARGING
- STANDBY (FLASH)
- CHARGING PROBLEM (FLASH)

7. ALWAYS DISCONNECT THE BATTERY CHARGER FIRST AND THEN REMOVE THE PLUG FROM THE POWER SOCKET.

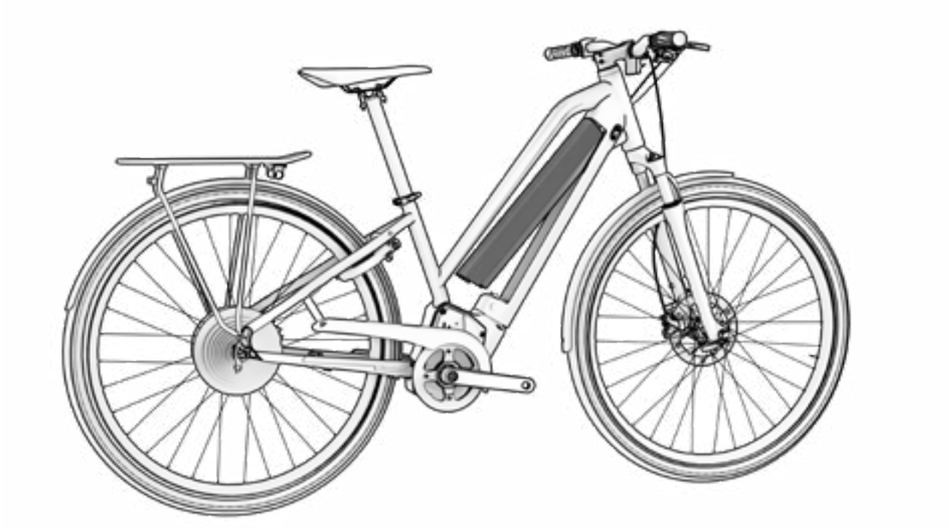
1º



2º



***8.** FIT THE BATTERY INTO THE FRAME, BY FITTING IT INTO THE TOP OF THE FRAME FIRST. PIVOT IT FROM THIS POINT UNTIL IT IS FITTED INTO THE BOTTOM PART.*



⚠ Never charge or use a damaged battery.

⚠ Be careful not to touch the charger during the charging process. It may be hot, especially in high ambient temperatures.

⚠ If a fault occurs while the battery is being charged, remove the charger's power plug from the socket and wait for the battery to cool down.

⚠ Never touch the power plug, charging plug or contacts with wet hands.

⚠ Make sure that there is no foreign matter on the battery's contacts before placing it on the bicycle.

❗ Do not connect the charger's power plug to the battery or bicycle's charging port if it is wet or damp. Make sure that you only connect the power plug when the battery or bicycle's charging port is completely dry.

❗ Do not apply excessive force on the power plug or pull the cable with the power plug connected to the battery.

❗ Turn off the pedal assistance system before removing the battery from the bicycle.

❗ Use both hands to remove the battery, taking special care not to drop it. Dropping the battery on your foot could cause injury and may damage the battery.

ENERGY SAVING MODES

The battery has been designed to ensure a long service life. This is possible thanks to the energy saving modes that prevent inefficient battery consumption:

- **Transport mode:** In order to minimise internal consumption while transporting the bicycle from the factory to the store, the battery is in Transport mode. The user can finally exit this Transport mode by charging the battery to 100% before its first use.

  If the battery does not charge fully, the Transport mode will not deactivate, repeatedly entering this mode quickly for its protection. Remember to fully charge the battery to finally deactivate the Transport mode.

- **Standby mode:** In order to minimise internal consumption, the battery automatically switches to Standby mode. This happens automatically when the system detects no charging, no discharging and no communication with the battery for a period of 10 minutes. So, for example, this mode will automatically turn off the control panel after 10 minutes without use, if the user has left it on after parking.

The user can exit this Standby mode by simply turning on the bicycle's control panel.

- **Deep Sleep mode:** In order to protect the battery during long periods of inactivity or storage (for example, during the winter), the battery automatically switches to Deep Sleep mode. This happens automatically when any of the following situations occur:
  - If the charge level of the battery is below 1%, the battery goes into Deep Sleep mode when the battery has continuously been in Standby mode for 10 minutes.
  - If the charge level of the battery is below 10%, the battery goes into Deep Sleep mode when the battery has continuously been in Standby mode for 48 hours.
  - If the charge level of the battery is below 40%: Deep Sleep mode is activated when the battery has continuously been in Standby mode for 3 days.
  - If the charge level of the battery is below 80%: Deep Sleep mode is activated when the battery has continuously been in Standby mode for 5 days.

The user can exit this Deep Sleep mode by pressing and holding the battery's SOC button (which checks the charge level) for 5 seconds or by starting to charge the battery with the charger. All LEDs will flash twice in the Standby mode and once in the Deep Sleep mode.

APP SHIMANO ETUBE PROJECT

The specific Shimano Etube Project app allows, among other things, customizing the level of assistance for each pedal-assist mode. This manual describes the main features and functionalities of this app. For more information, refer to Shimano's specific user manual via the following link:

https://si.shimano.com/en/um/7J4MA

This app also serves to update the firmware of components and diagnose problems in case of anomalies.

The app is available for download on both Google Play and the Apple Store. Once downloaded, follow these steps to start using it:

1. Open the app on your smartphone.
2. Register your e-bike.
3. Select the unit to pair. Press a button on the control unit to activate the connection if it's not available.
4. Register the bike with the password of your choice.

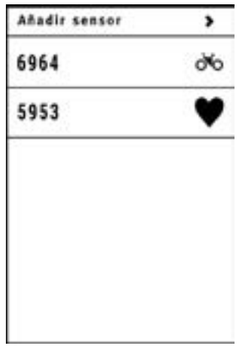
After completing the registration process, you can change the pedal-assist level and configure up to two profiles with specific pedal-assist settings for each. Profile 1 will be the default, but you can switch between profiles from the display itself:

https://si.shimano.com/en/pdfs/um/7J4MA/UM-7J4MA-008-ENG.pdf

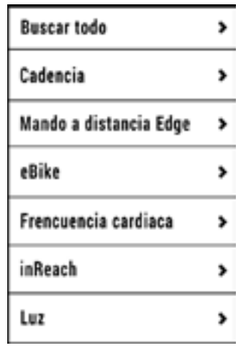
OPERATION WITH GARMIN DEVICE

The ANT+ connection to a Garmin device grants you access to additional assistance display and control functions. The Heart Rate strap connects via the Garmin device. The steps that must be followed to connect iRemote to the Garmin device are described below. The image in the sixth step shows that the Garmin device can be used to check the bicycle's battery status and to select the desired pedal assistance level.

1. *PRESS"ADD SENSOR".*

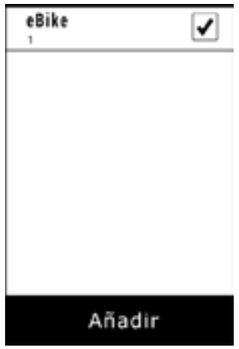


2. *PRESS "EBIKE".*

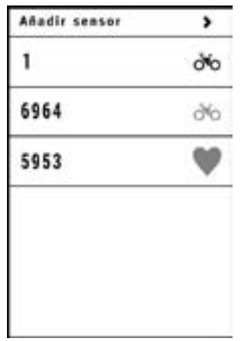


3. *PAIRING WITH GARMING.*

4. *SELECT THE EBIKE.*



5. *SELECT THE CREATED SENSOR.*



6. *GARMIN CONECTED.*

ELECTRIC SYSTEM UPDATE

System electrical updates are performed through the Shimano Etube app when connected to your bicycle via Bluetooth. If the update process is interrupted for any external reason, such as an incoming call on your mobile phone, it will be necessary to take the bicycle to an authorized dealer to install the update correctly.

The complete manual for the app can be consulted at the following link:

https://si.shimano.com/en/um/7J4MA

It is recommended that as part of regular maintenance or repairs with an authorized dealer, the status of updates is checked and necessary actions are carried out.

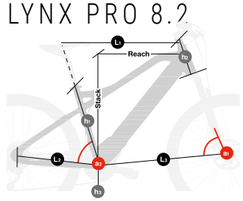
Please remember that some actions require advanced knowledge, and incorrect handling can lead to serious accidents. In addition, improper manipulations are not covered by the warranty

https://si.shimano.com/en/error

07 SIZES AND DIMENSIONS

ES824

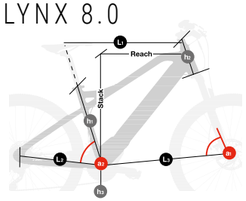
ATOMe LYNX PRO 8.2



	h1	h2	h3	L1	L2	L3	a1	a2	Stack	Reach
SM	400	120	345	580	464	740	66	74,5	624	427
MD	400	130	345	605	464	769	66	74,5	633	455
LA	440	140	345	623	464	790	66	74,5	642	475

ES804

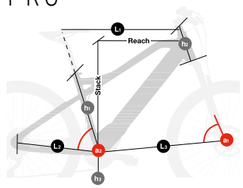
ATOMe LYNX 8.0



	h1	h2	h3	L1	L2	L3	a1	a2	Stack	Reach
SM	400	120	345	580	464	740	66	74,5	624	427
MD	400	130	345	605	464	769	66	74,5	633	455
LA	440	140	345	623	464	790	66	74,5	642	475

ES624

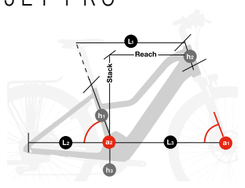
ATOMe PRO



	h1	h2	h3	L1	L2	L3	a1	a2	Stack	Reach
SM	400	120	310	580	445	671	69	73,75	628	397
MD	440	120	310	600	445	691	69	73,75	628	417
LA	480	135	310	624	445	716	69	73,75	642	437

ES534

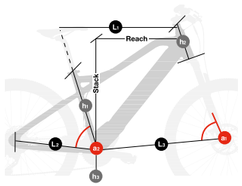
ATOMe JET PRO



	h1	h2	h3	L1	L2	L3	a1	a2	Stack	Reach
SM	400	140	305	564	455	651	70	72,5	557	425
MD	440	150	305	570	455	668	70	72,5	536	438
LA	480	160	305	585	455	682	70	72,5	546	450

ES524

ATOMe CROSS PRO



	h1	h2	h3	L1	L2	L3	a1	a2	Stack	Reach
SM	450	150	305	573	455	658	71	72,5	570	433
MD	500	160	305	578	455	662	71	72,5	580	438
LA	550	170	305	606	455	694	71	72,5	590	460

ES494

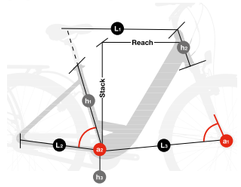
ATOMe SUV PRO-SE

ES484

ATOMe SUV PRO-S

ES474

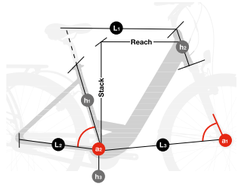
ATOMe SUV PRO



	h1	h2	h3	L1	L2	L3	a1	a2	Stack	Reach
MD	450	135	297	575	460	650	69	73	615	420
LA	480	450	297	595	460	672	69	73	629	440

ES454

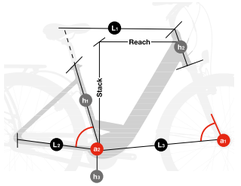
ATOMe DIAMOND WAVE PRO



	h1	h2	h3	L1	L2	L3	a1	a2	Stack	Reach
MD	500	160	297	600	460	700	69	75,2	640	431
LA	550	160	297	610	460	710	69	75,2	640	441

ES434

ATOMe CITY WAVE PRO



	h1	h2	h3	L1	L2	L3	a1	a2	Stack	Reach
MD	480	170	297	596	460	685	70	75,1	653	423
LA	480	180	297	626	460	715	70	75,1	662	450

08 TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATIONS

Characteristics	Models	Specification
Frame materials	All	Aluminium
Recommended use	ES824 / ES804	Trail
	ES624	Sport
	ES534 / ES524 / ES494 / ES484 / ES474 / ES454 / ES434	Hybrid/Urban
Sizes	All	See section "07 Sizes and dimensions"
Suspension design	ES534 / ES524 / ES484 / ES474 / ES454 / ES434	Front suspension
	ES824 / ES804 / ES494	Double, Split Pivot
Fork travel	ES824	150mm
	ES804	140mm
	ES534 / ES524 / ES494 / ES484 / ES474	120mm
	ES624	100mm
	ES454 / ES434	63mm
Fork offset	All	Contact the model's supplier.
Shock absorber dimensions	All	Contact the model's supplier.
Compatibility with spring shock absorbers	All	Depends on the shock absorber and spring dimensions. Contact the manufacturer.
Steering	ES804 / ES624 / ES534 / ES524 / ES494 / ES484 / ES474 /	1.5" - 1/8" Steerer
	ES824 / ES454 / ES434	1/8" - 1/8" Steerer

GENERAL SPECIFICATIONS

Characteristics	Models	Specification
Chain line	All	52mm
Wheel size	ES824 / ES804 / ES624	29"
	ES454 / ES434	28"
	ES534 / ES524 / ES494 / ES484 / ES474	27.5"
Maximum size of the rear tyre	ES824 / ES804 / ES534 / ES524 / ES494 / ES534 / ES524	2.4" (61mm)
	ES624	2,35"
	ES454/ ES434	2"
Maximum size of the front tyre	All	Depends on the type of fork.
Speed magnet assembly	ES824 / ES804	On the rear rotor disc.
	ES624/ ES534 / ES524 / ES494/ ES484 / ES474 / EA454 / ES434	On the rear wheel spokes.
Standard rear axle	ES824 / ES804 / ES624 / ES534 / ES524 / ES494 / ES484 / ES474	Boost 12x148
	ES454 / ES434	135mm
Rear axle pitch thread	All	1mm
Length of the rear axle	ES824 / ES804 / ES494	192mm
	ES624 / ES534 / ES524 / ES484 / ES474	175mm
	ES4543 / ES433	135mm

Characteristics	Models	Specification
Seat post diameter	All	31.6mm
Seat post clamp diameter	All	Integrated
Maximum insertion length of the seat post		
S	All	200mm
M	All	220mm
L	All	240mm
XL	All	240mm
Compatible with a telescopic seat post with internal cabling	All	Yes
Front derailleur	All	No. Only 1X
Maximum chain ring size	All	38t
Minimum chain ring size	All	30t
Compatible with the oval chain ring	All	No
Type of brakes	All	Disc brakes
Standard rear brake calliper	All	Post Mount
Maximum rear disc size	All	203mm
Minimum rear disc size	ES824 / ES804 / ES494	180mm
	ES534 / ES524 / ES484 / ES474 / ES454 / ES434	They accept up to 160 mm
Compatible with chain guides	All	Yes
ICGS	All	No
Cabling	All	Internal throught DT and CS. Full housing
Compatible with left rear brake cabling	All	Yes

GENERAL SPECIFICATIONS

Characteristics	Models	Specification
Bottle holder	ES624 / ES524	Yes, standard bottle holder.
	ES824 / ES804 / ES534 / ES494 / ES484 / ES474 / ES454 / ES434	No
Potentiometer compatibility	All	No
Compatible with trailers	All	No
Pannier rack assembly	ES624 / ES534 / EA524 / ES494 / ES484 / ES474 / ES454 / ES434	Yes
Montaje de guardabarros	ES624 / ES534 / EA524 / ES494 / ES484 / ES474 / ES454 / ES434	Yes
Montaje asiento niño	ES624 / ES534 / EA524 / ES494 / ES484 / ES474 / ES454 / ES434	No
Peso máximo recomendado (ciclista+equipación+equipaje)	All	165Kg

SHIMANO SCEN500 AND SW-EN600-L CONTROL UNIT SPECIFICATIONS

Characteristics	Specification
Functions	Change of assistance mode. On and off. Display of the charge level. Display of errors.

SHIMANO EP6 MOTOR SPECIFICATIONS

Characteristics	Specification
Rated power	250W
Voltage	36V
Type	Brushless DC
Assistance	Up to 25 km/h
Maximum torque	85Nm
Weight	3700g
Pedal assistance modes	4
Walk assist	Yes (by pressing and holding the - button)
Cadence range	130/min.
Sensors	Cadence / Torque / Speed
System technology	CAN bus

BATTERY SPECIFICATIONS

Characteristics	Specification
Voltage	36V
Capacity	720 WH: ES824 / ES624 / ES534 / ES523 / ES494 / ES484 /ES474 / ES454 / ES434 500WH: ES804
Weight	720WH: 3200g y 500WH: 3900g
Cell pack	40 (10S4P)
Charge level	With the battery mounted on the frame or outside the frame.
Dimensions	465x70x70mm
Connection	Cable connected to the motor and charging port.
Watertightness	IP65

CHARGER SPECIFICATIONS

Characteristics	Specification
Input	100-240V. 50-60Hz. AC
Output	42V
Charging current	4A
Charging temperature range	0ºC - 40ºC
Display of the charging progress	With the LED built into the charger.

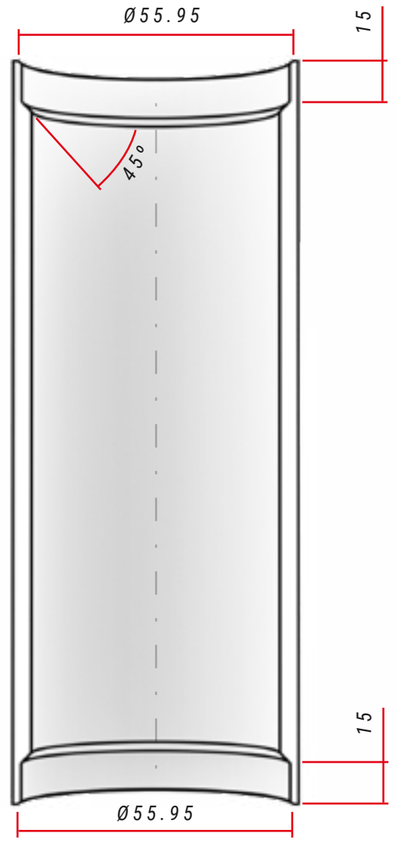
SPEED SENSOR SPECIFICATIONS

Characteristics	Specification
Assembly	On the left chainstay. Outer cabling.
Magnet	On the rear wheel spokes.

09 ASSEMBLY AND SPARE PARTS

DIMENSIONS OF THE STEERING TUBE

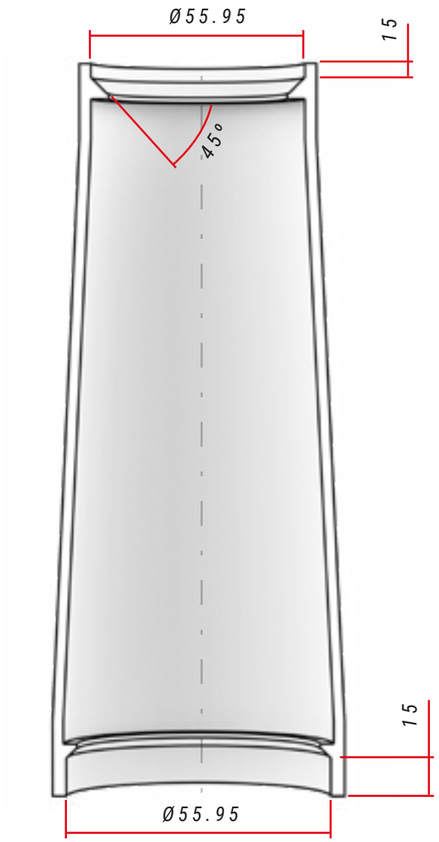
ES824 / ES804 / ES494



STEERING SPECIFICATIONS

	Type	Contact angle with the compression ring / fork track	Bearing dimensions
Upper	11/8" Steerer	45º	-
Lower	11/8" Steerer	45º	-

ES534 / ES524 / ES484
/ ES474 / ES454 / ES434

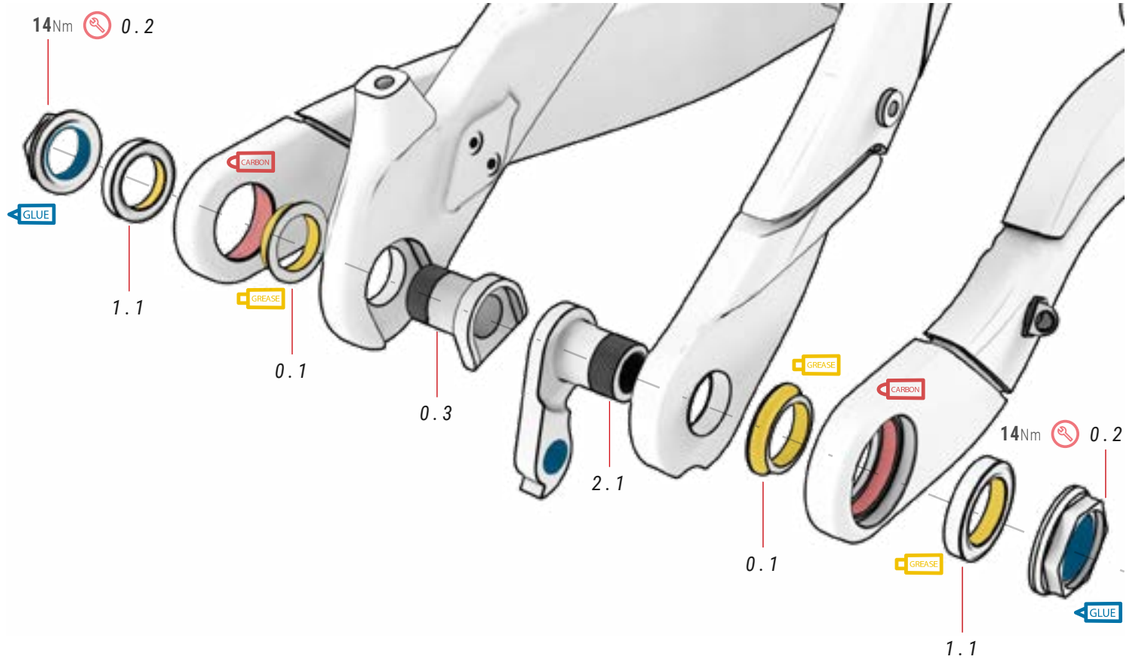


STEERING SPECIFICATIONS

	Type	Contact angle with the compression ring / fork track	Bearing dimensions
Upper	11/8" Steerer	45°	-
Lower	1,5" Steerer	45°	-

REAR AXLE SPLIT PIVOT AND DERAILLEUR

ES804 / ES824



00 SPLIT PIVOT

ref.: *381215400*

No.	Item	Quantity
0.1	Spacer	2
0.2	Nut	2
0.3	Bolt	1

01 SPLIT PIVOT BEARING

ref.: *381215500*

No.	Item	Quantity
1.1	Bearings 17x26x5 mm	2

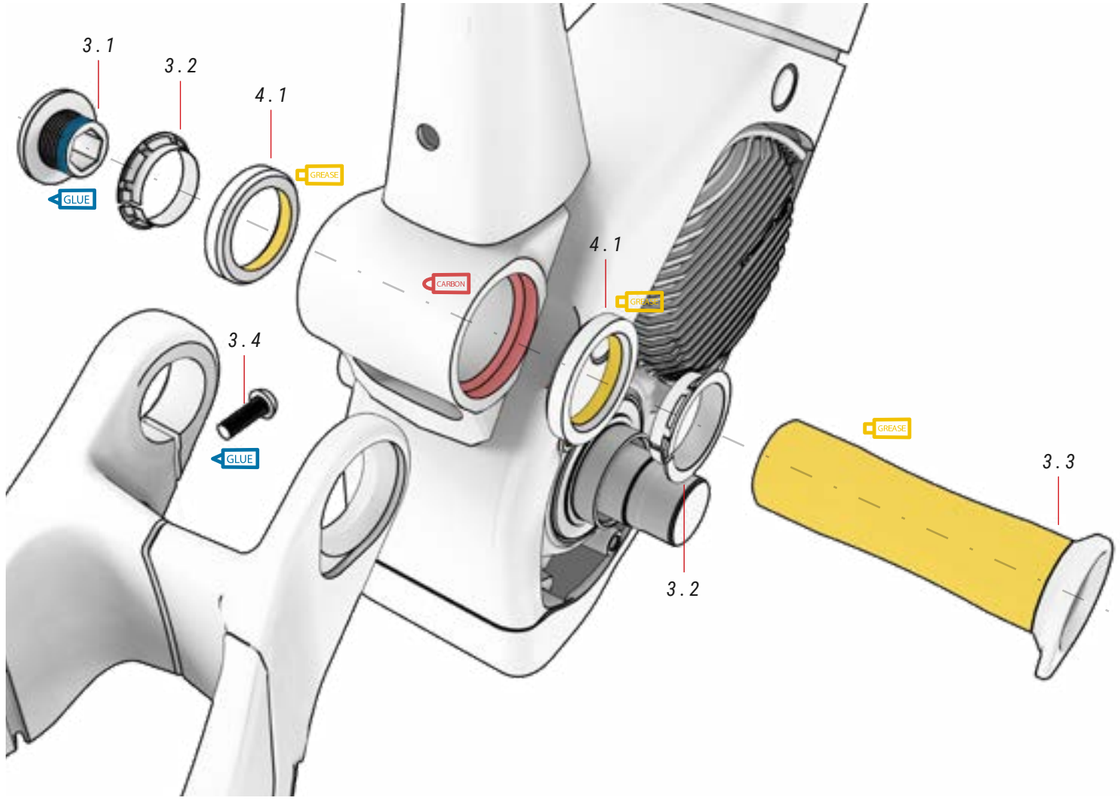
02 DROPOUT - HANGER

ref.: *381521400*

No.	Item	Quantity
2.1	Dropout - Hanger	1

MAIN PIVOT ASSEMBLY

ES804 / ES824



03 MAIN PIVOT AXLE ref.: *381553600*

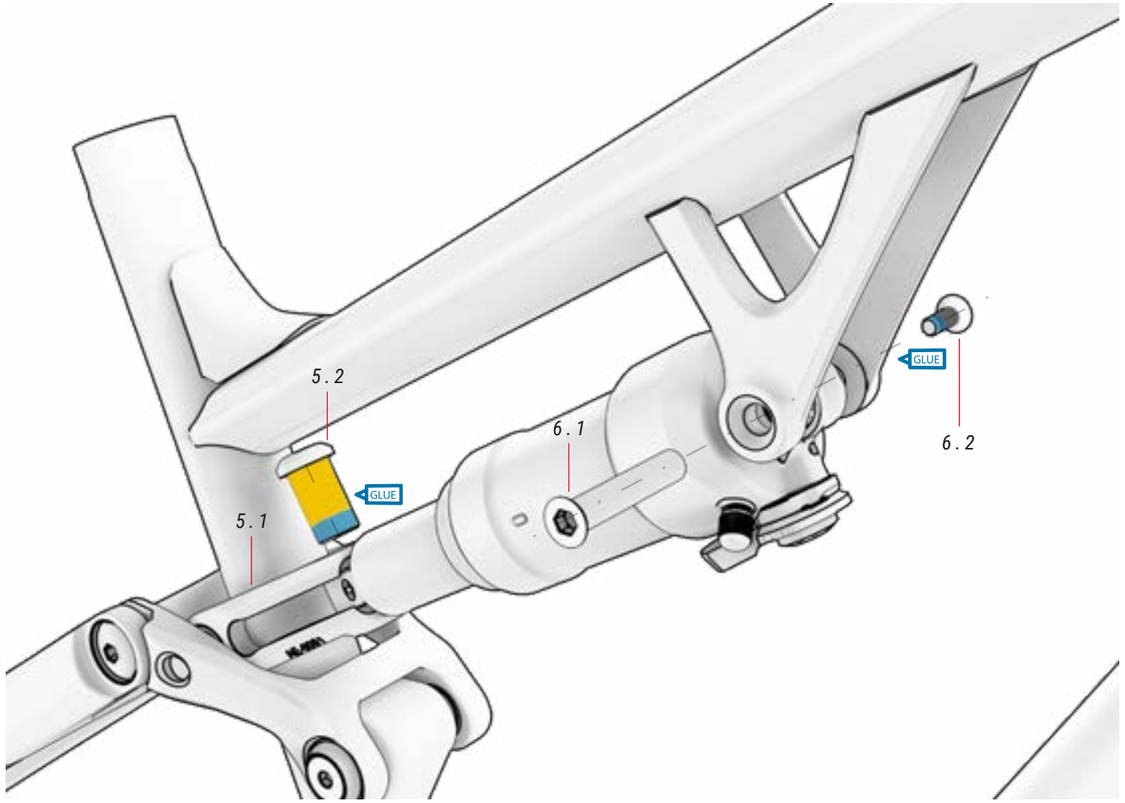
No.	Item	Quantity
3.1	Nut	1
3.2	Compression ring	2
3.3	Main Axle	1
3.4	Bolt	1

04 MAIN PIVOT BEARING ref.: *391839200*

No.	Item	Quantity
4.1	Bearings Ø27.15 x Ø38 x 6.5mm	2

SHOCK ABSORBER ASSEMBLY

ES804 / ES824



05 CLEVIS ref.: *381558700*

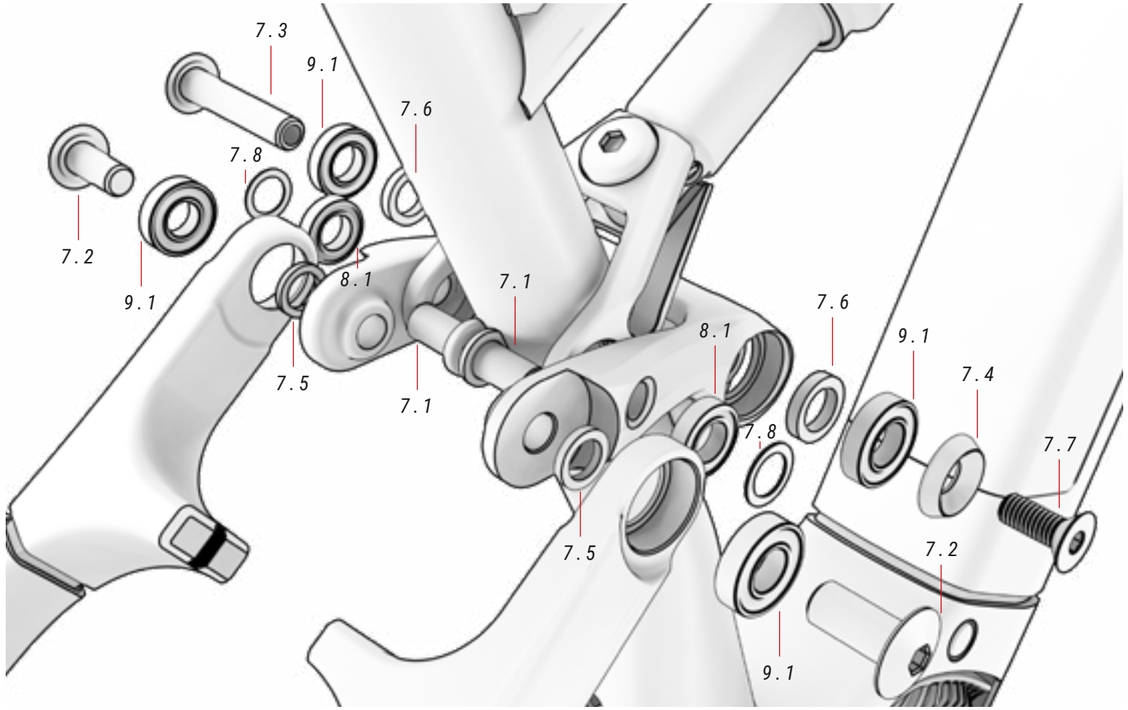
No.	Item	Quantity
5.1	Clevis	1
5.2	Bolt	1

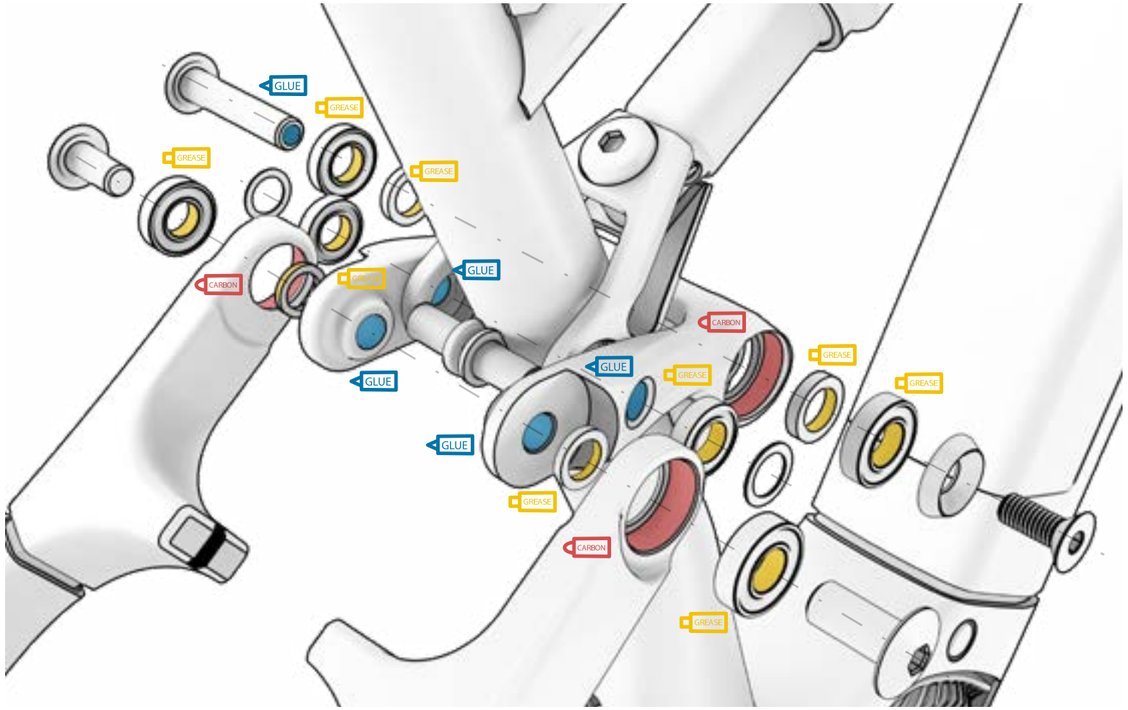
06 SHOCK UPPER FIXING BOLT AND SCREW ref.: *381558800*

No.	Item	Quantity
6.1	Axle	1
6.2	Bolt	1

EXPLODED VIEW OF THE ROCKER

ES804 / ES824





07 CLEVIS BOLT SET

ref.: *381558900*

No.	Item	Quantity
7.1	Pivot screw M10 x L20	2
7.2	Pivot screw M10xL25	2
7.3	Bolt M12xL61.5	1
7.4	Washer Ø22xØ9xT5.25	1
7.5	Washer T2.5xØ15xØ10	2
7.6	Washer Ø19xØ12.2	2
7.7	Pivot screw M8x20	1
7.8	Washer T1.0xØ16xØ10.3	2

08 CLEVIS BEARING

ref.: *384679300*

No.	Item	Quantity
8.1	Clevis bearing 61800V-2RS 10x19x5	2

09 ROCKER BEARING

ref.: *384679400*

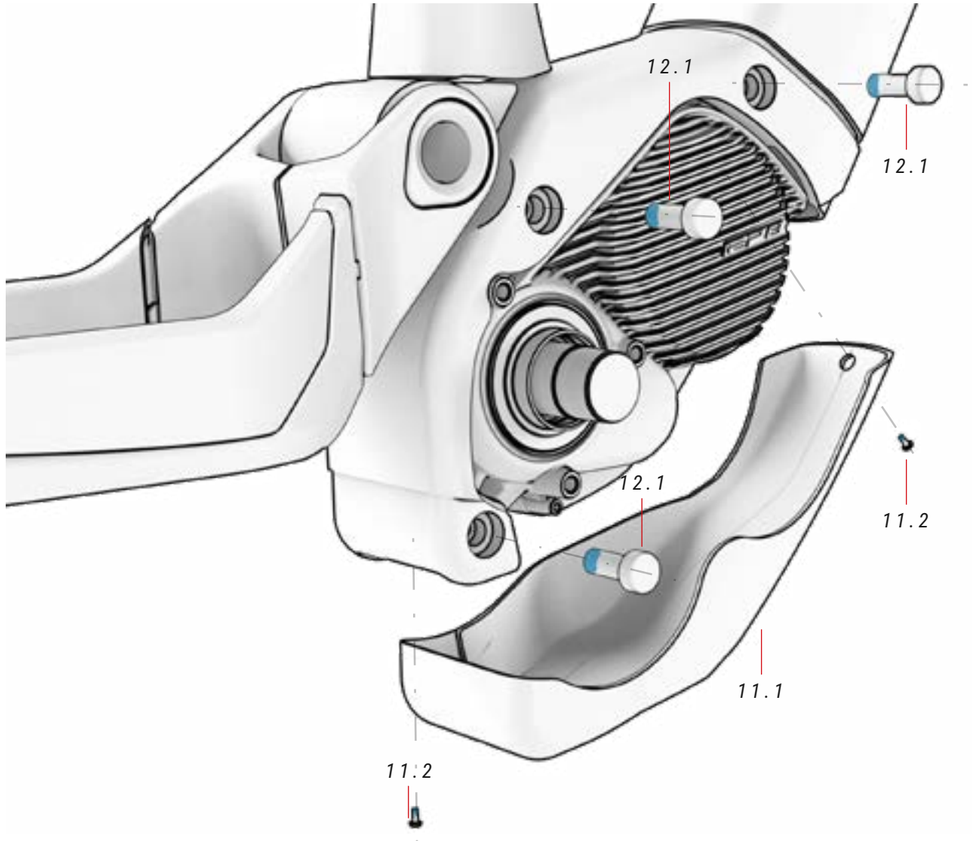
No.	Item	Quantity
9.1	Rocker bearing 61901V-2RS 12x24x6	2

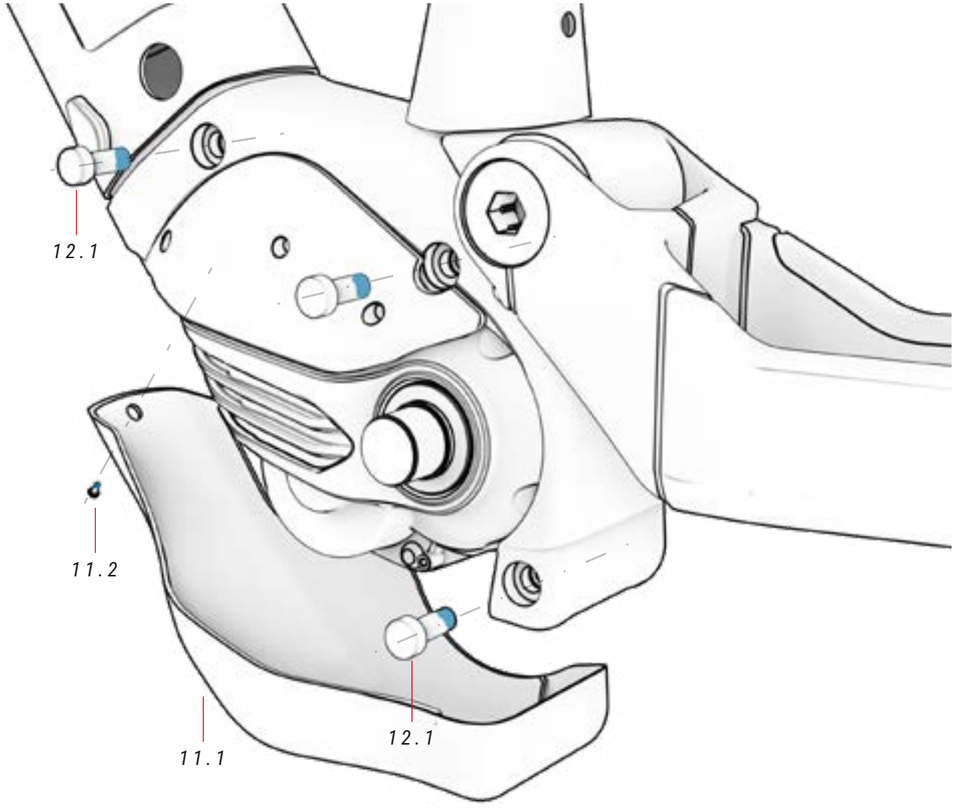
10 MAIN PIVOT BEARING

ref.: *391839000*

No.	Item	Quantity
10.1	SS-rocker bearing 10X22X6	2

MOTOR ASSEMBLY





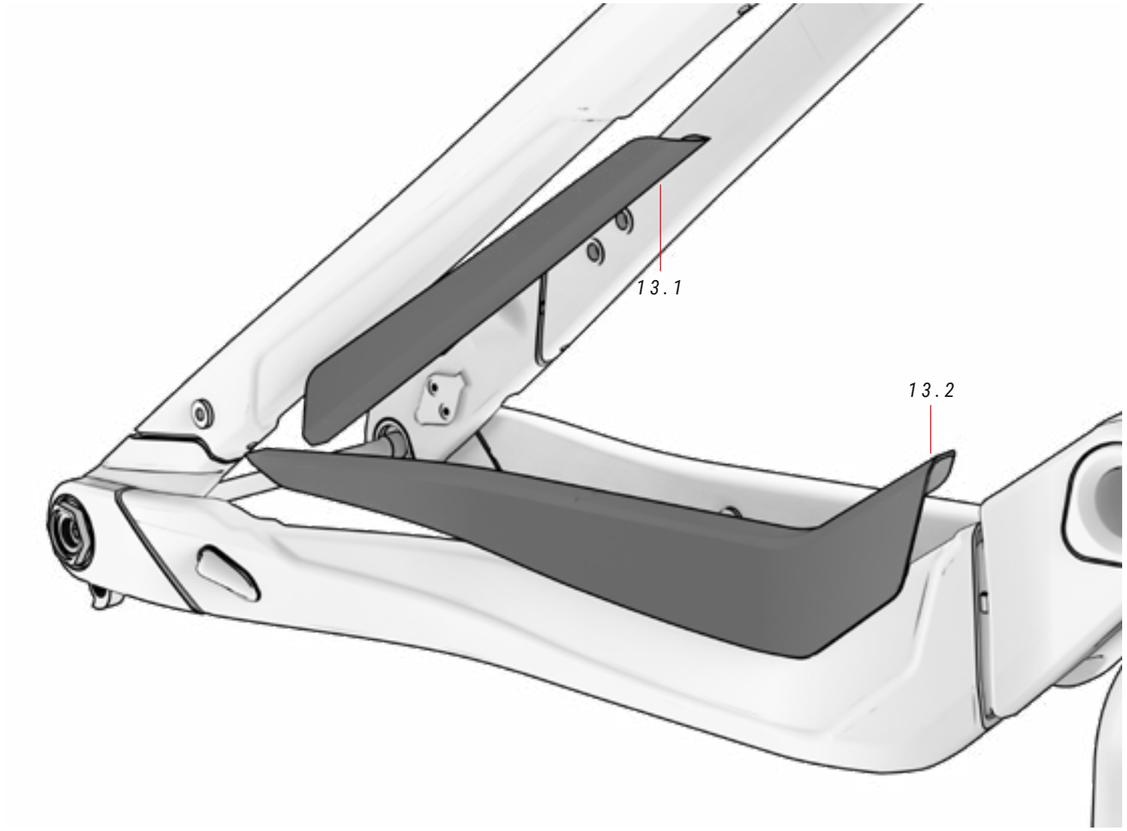
11 MOTOR COVER ref.: *393236100*

No.	Item	Quantity
11.1	Motor cover	1
11.2	Bolt	2

12 MOTOR BOLTS ref.: --

No.	Item	Quantity
12.1	Motor bolts, included with motor package	1

CHAINSTAYS AND SEATSTAYS PROTECTOR

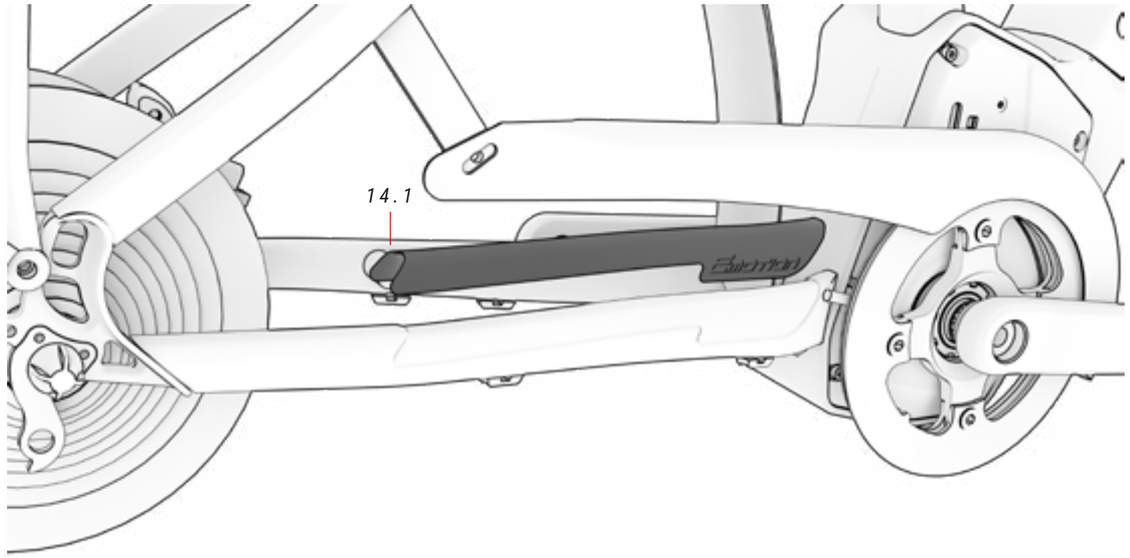


13 PROTECTORS ref.: *393232300*

No.	Item	Quantity
13.1	Seatstays protector	1
13.2	Chainstays protector	1

CHAIN GUARD FOR CHAINSTAY

ALL MODELS

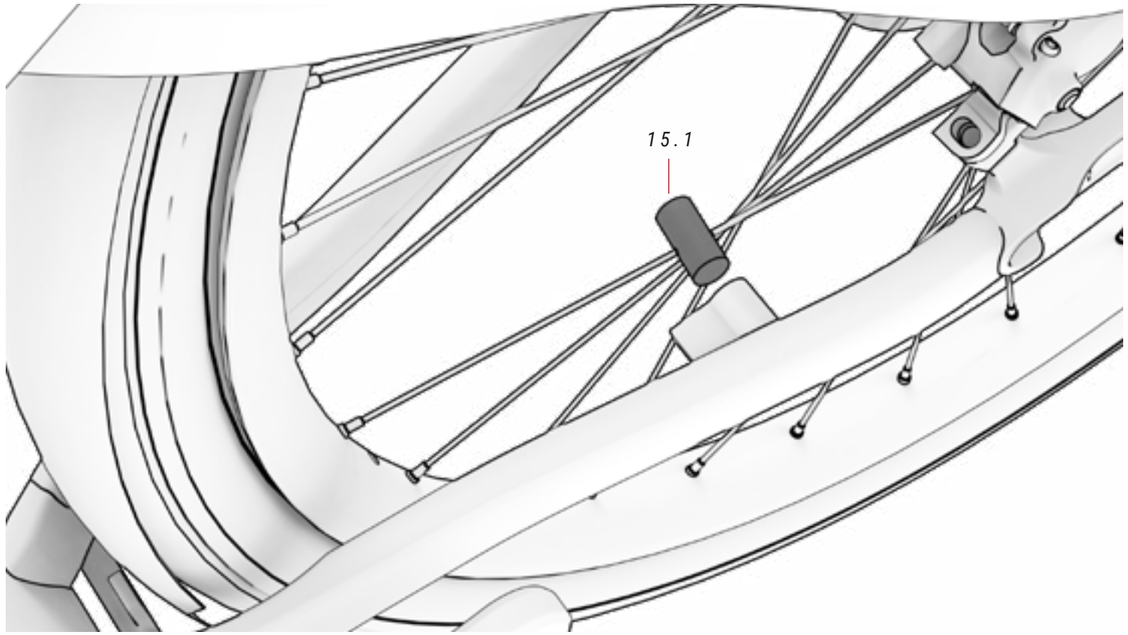


14 CHAIN GUARD FOR CHAINSTAY ref.: *393230500*

No.	Item	Quantity
14.1	Chain guard for chainstay	1

SPEED SENSOR MAGNET

ES624 / ES434 / ES454 / ES474 / ES484 / ES494 / ES524 / ES534



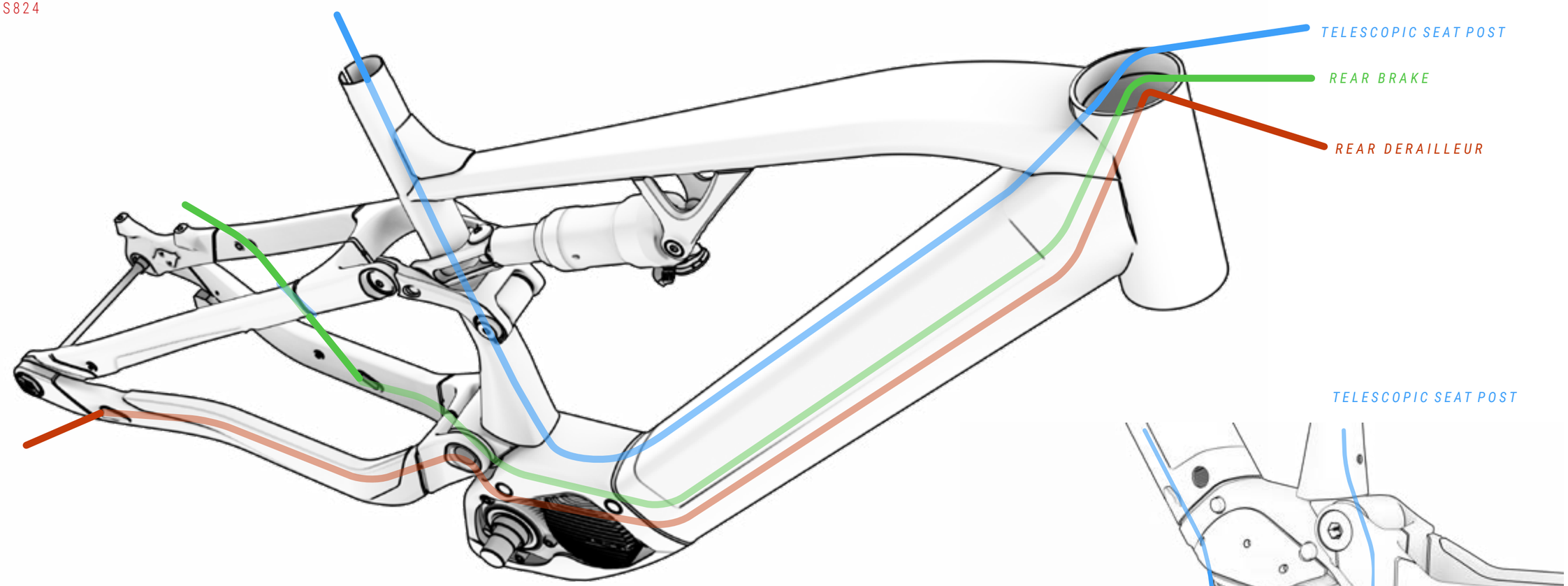
15 SPEED SENSOR MAGNET ref.:*Shimano spare part*

No.	Item	Quantity
15.1	Speed sensor magnet	1

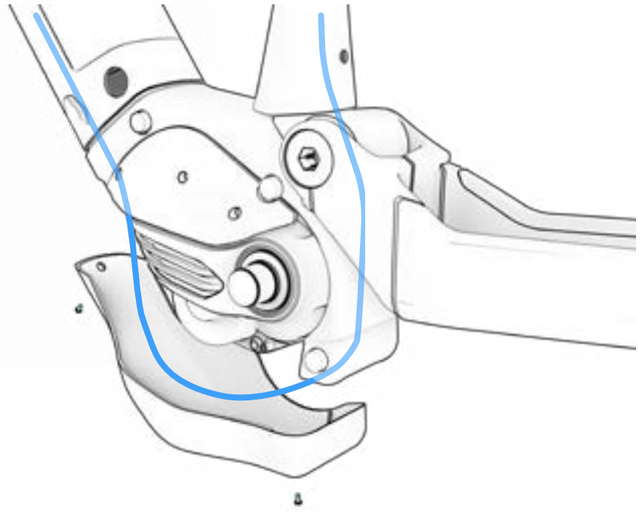
CABLING OF THE MECHANICAL PARTS

The images below show the routing configuration for the mechanical component cables. The cables will remain protected inside the frame triangle until they come out through the motor cover for ease of maintenance.

ES804 / ES824



TELESCOPIC SEAT POST

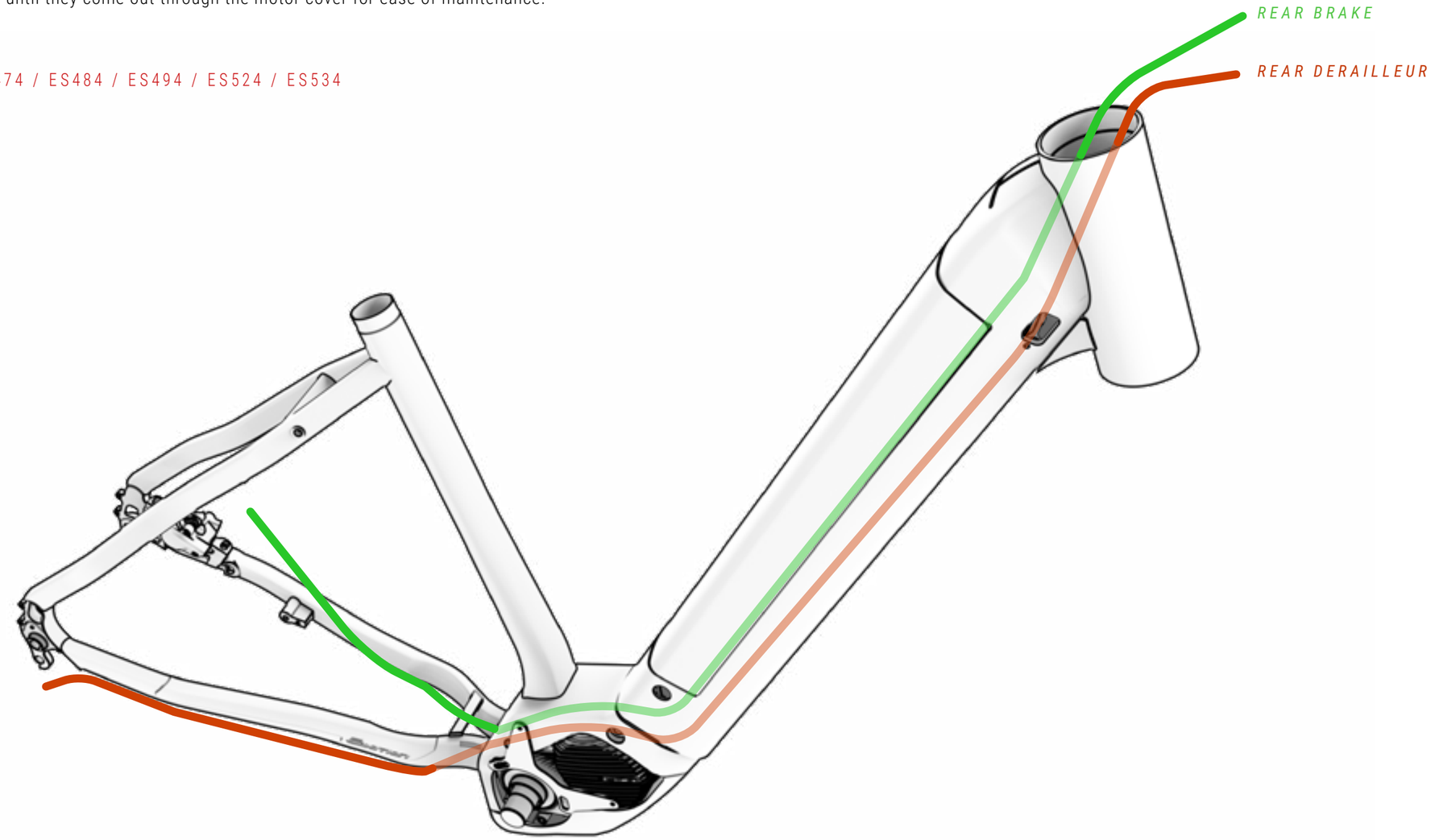


⚠ Remove the lower cover of the engine to install or repair the telescopic post, the case remains accessible for correct manipulation without having to disassemble the engine from the bicycle.

CABLING OF THE MECHANICAL PARTS

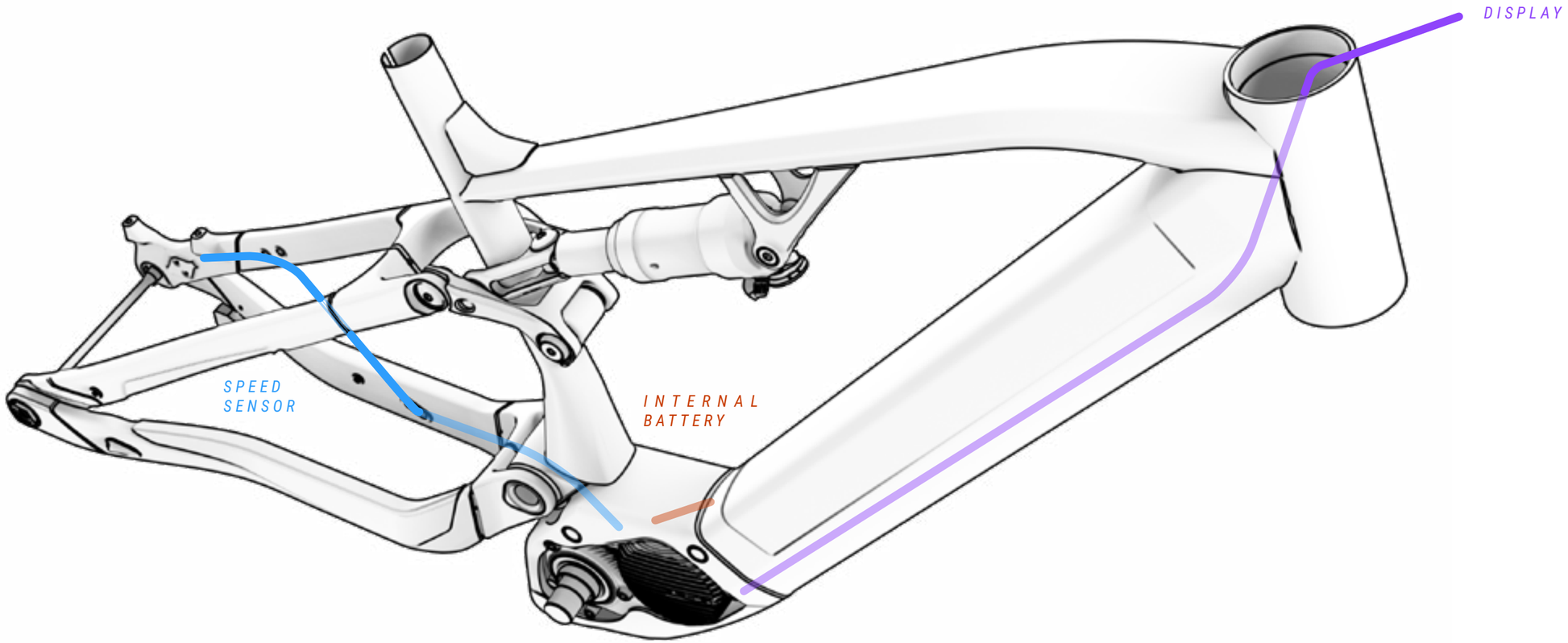
The images below show the routing configuration for the mechanical component cables. The cables will remain protected inside the frame triangle until they come out through the motor cover for ease of maintenance.

ES624 / ES434 / ES454 / ES474 / ES484 / ES494 / ES524 / ES534



CABLING OF THE ELECTRICAL SYSTEM'S PARTS

ES804 / ES824

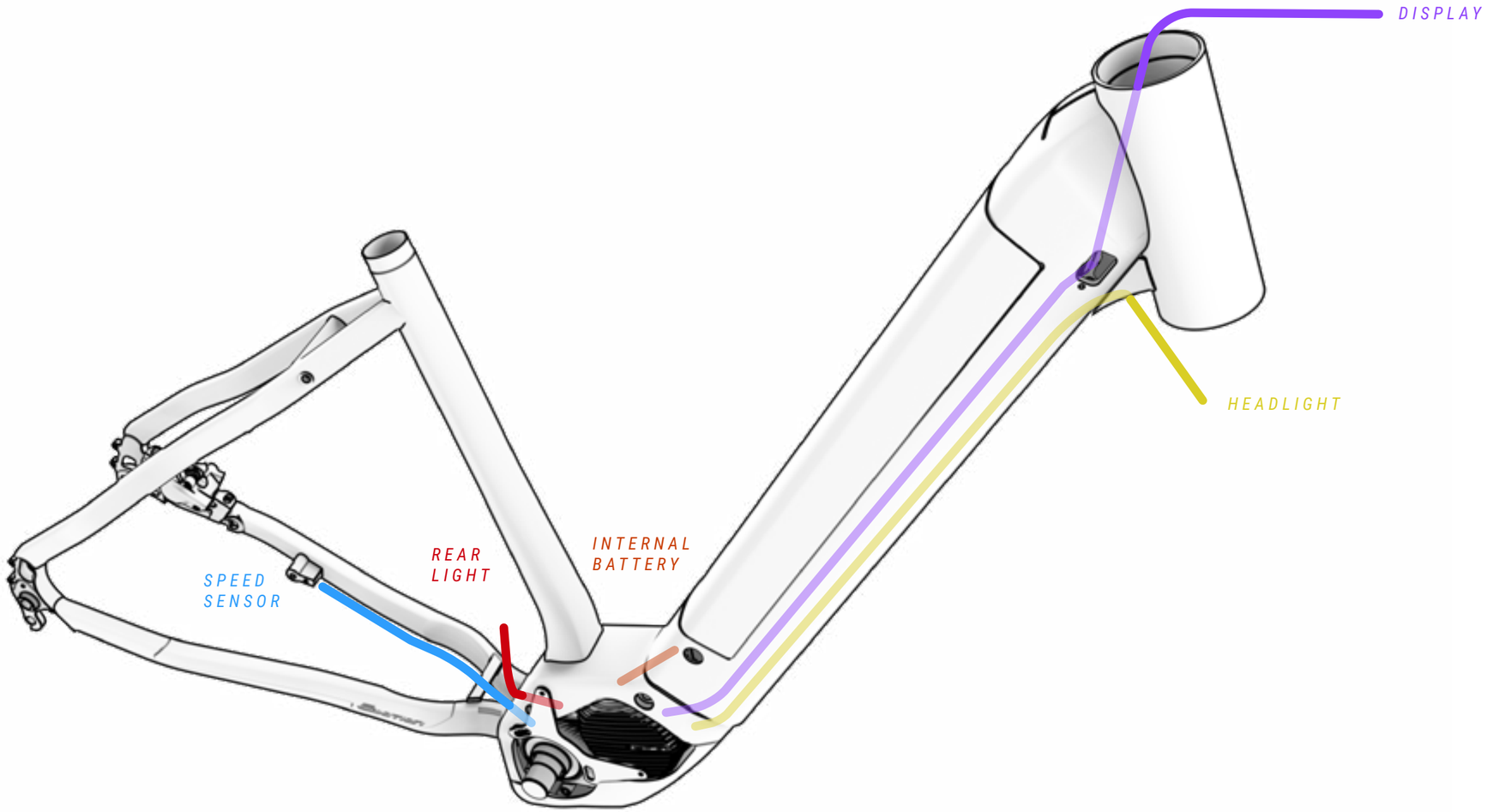


⚠ Incorrect handling of the electrical components may cause damage, which will not be covered by the warranty. Such damage may cause serious injuries or even death.

BH recommends going to an official dealer when a diagnosis, repair or installation of electrical components is required. These tasks require advanced technical knowledge.

CABLING OF THE ELECTRICAL SYSTEM'S PARTS

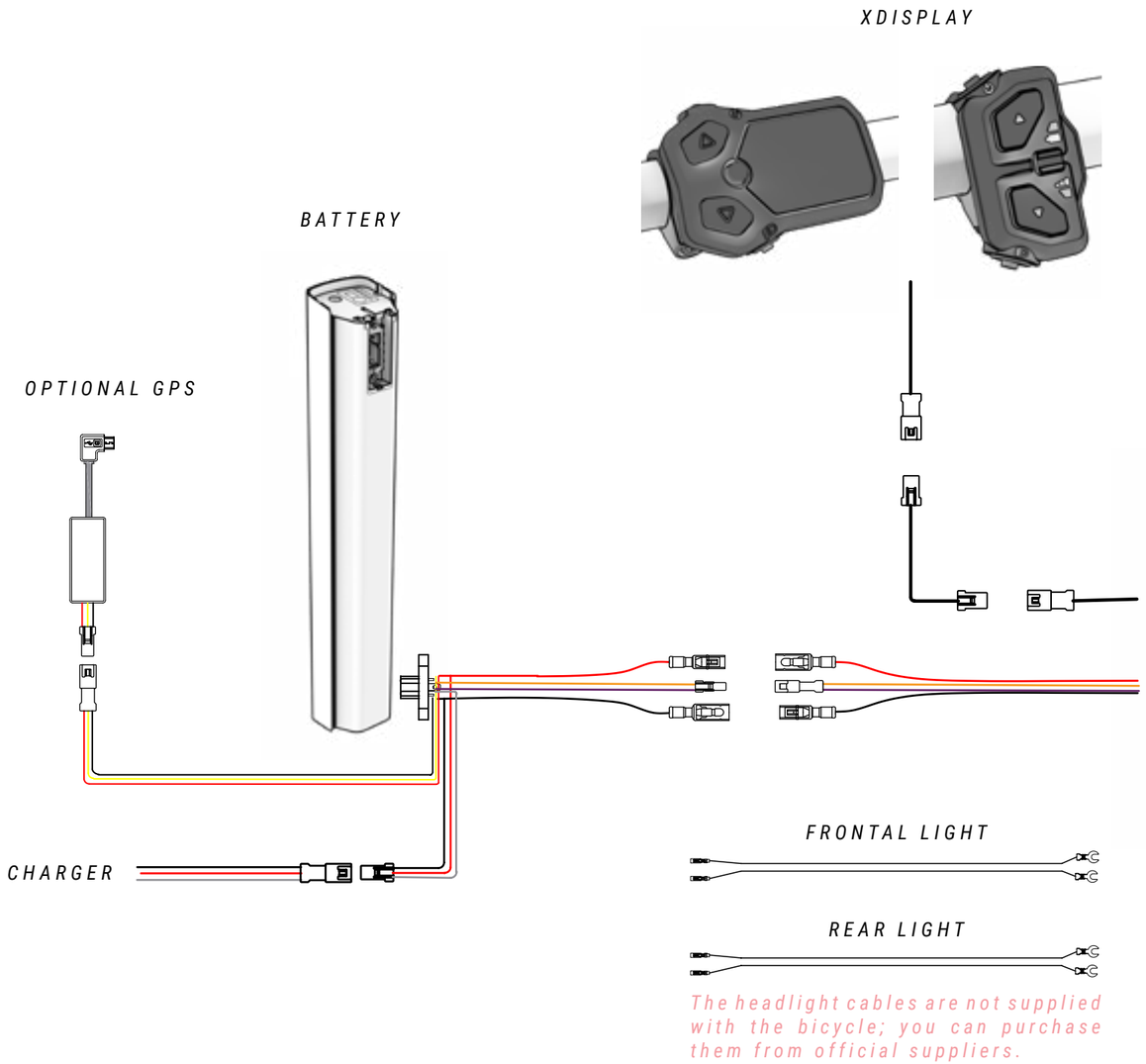
ES624 / ES434 / ES454 / ES474 / ES484 / ES494 / ES524 / ES534



⚠ Incorrect handling of the electrical components may cause damage, which will not be covered by the warranty. Such damage may cause serious injuries or even death.

BH recommends going to an official dealer when a diagnosis, repair or installation of electrical components is required. These tasks require advanced technical knowledge.

WIRING DIAGRAM OF THE ELECTRICAL SYSTEM'S PARTS



The headlight cables are not supplied with the bicycle; you can purchase them from official suppliers.

⚠ Incorrect handling of the electrical components may cause damage, which will not be covered by the warranty. Such damage may cause serious injuries or even death.

BH recommends going to an official dealer when a diagnosis, repair or installation of electrical components is required. These tasks require advanced technical knowledge.

⚠ When electrical connections come into contact with damp spots or are clogged due to external contamination, a chemical reaction occurs, causing a build-up of lead sulphate crystals in the connections. In other words, the copper on the contacts will rust, resulting in conductivity problems.

The warranty does not cover damage caused by incorrect maintenance of the bicycle's connections. To prevent rust, simply clean the connections (male and female) at regular intervals, using dielectric deoxidisers like the one shown in the image above.

10 DECLARATION OF CONFORMITY

EU Declaration of Conformity CE

The manufacturer: BH BIKES EUROPE, SL
c/ Perretagana 10,
01015 Vitoria, Spain

Hereby declares that the following products:

Product description: BH Cycles –Electrically power assisted cycles –EPAC Bicycles

Models designation:

iLYNX+ ENDURO 9.9, iLYNX+ ENDURO 9.8, iLYNX+ ENDURO 9.7, iLYNX+ SL ENDURO 9.6, iLYNX+ SL ENDURO 9.5, iLYNX+ SL ENDURO 9.4, iLYNX+ TRAIL 8.9, iLYNX+ TRAIL 8.8, iLYNX+ TRAIL 8.7, iLYNX+ SL TRAIL 0.0, iLYNX+ SL TRAIL 8.6, iLYNX+ SL TRAIL 8.5, iLYNX+ SL TRAIL 8.4.

ATOMe LYNX PRO 8.2, ATOMe LYNX 8.0.

iLYNX TRAIL CARBON 8.9, iLYNX TRAIL CARBON 8.8, iLYNX TRAIL CARBON 8.7.

iLYNX TRAIL 8.2, iLYNX TRAIL 8.1, iLYNX TRAIL 8.0.

iLYNX RACE 7.9, iLYNX RACE 7.8, iLYNX RACE 7.7.

iAEROLIGHT 1.9, iAEROLIGHT 1.8, iAEROLIGHT 1.7.

iRS1 CARBON 1.6, iRS1 CARBON 1.5, iRS1 CARBON 1.4, iRS1 1.2.

iGRAVELX CARBON 2.9, iGRAVELX CARBON 2.8, iGRAVELX CARBON 2.7, iGRAVELX 2.4, iGRAVELX 2.2.

ATOMe PRO, ATOMe JET PRO, ATOMe CROSS PRO, ATOMe SUV PRO-SE, ATOMe SUV PRO-S, ATOMe SUV PRO, ATOMe DIAMOND WAVE PRO, ATOMe CITY WAVE PRO.

CORE PRO, CORE 29, CORE JET PRO, CORE CROSS PRO, CORE JET, CORE CROSS, CORE CITY WAVE, CORE STREET.

ATOM LYNX PRO 8.2, ATOM LYNX 8.1, ATOM LYNX 8.0, ATOM PRO, ATOM 29, ATOM JET PRO, ATOM CROSS PRO, ATOM JET, ATOM CROSS, ATOM SUV PRO, ATOM DIAMOND WAVE PRO, ATOM CITY WAVE PRO, ATOM CITY WAVE, ATOM CITY, ATOM STREET.

ATOMX LYNX 9.9, ATOMX LYNX 9.8, ATOMX LYNX 9.7, ATOMX LYNX 8.7.

ATOMX LYNX 9.2, ATOMX LYNX 9.0, ATOMX LYNX 8.4, ATOMX LYNX 8.2, ATOMX CROSS

Year of manufacture: 2024 and 2025

Comply with all of the relevant requirements of the Machinery Directive (2006/42/EC).
Comply with Low Voltage Directive (LVD) 2014/35/EU
Comply with all of the relevant requirements of RD 339/2014, de 9 de Mayo.

Furthermore, the machine complies with all of the requirements of the Electromagnetic Compatibility Directive 2014/30/EU.

The production control is assured by our Quality Management System, which fulfills the requirements of the standard ISO 9001

The following harmonized standards have been applied:
DIN EN 15194 Cycles – Electrically power assisted cycles – EPAC bicycles;
DIN ISO 4210-1/2/3/4/5/6/7/8/9 Safety requirements for bicycles

Technical documentation filed at:
BH BIKES EUROPE, SL
c/ Perretagana 10,
01015 Vitoria, Spain

Prepared and reviewed by the BH Quality Department (Headquarters)

Rev.18 03/07/2024 Page 1 of 1

11 HELP AND ADDITIONAL RESOURCES

BH offers different channels to resolve your queries. In addition, you can join our global cyclist community on our social media.

TECHNICAL RESOURCES

You can find all of the resources you need to fine-tune your bicycle on the BH Bikes website. Click on the link below to access the user manuals, apps, warranties, display update files and videos that explain different operations:

https://www.bhbikes.com/manuals

You can also check out our step-by-step tutorials to learn how to maintain and fine-tune your bicycle on our specialised Youtube channel:

https://www.youtube.com/user/ServicioTecnicoBH

CONTACT US

Our authorised dealers have the necessary knowledge and resources to help you with anything you need in relation to your bicycle. Don't hesitate to contact your nearest store. You can find it by clicking on the link below:

https://www.bhbikes.com/es_INT/tiendas/buscador-de-tiendas

To contact us directly:

Tel.: + 34 945 13 52 02

info@bhbikes.com

P.I. Jundiz- Perretagana 10, 01015 Vitoria, Alava (Spain)

SOCIAL MEDIA

Join our global cyclist community. Discover the BH experiences of other cyclists and share yours.