



INDEX

01 INTRODUCTION	3
SYMBOLS	3
02 BH WARRANTY	4
LIFETIME FRAME WARRANTY	4
EXTENDED WARRANTY OF UP TO 5 YEARS ON BH MOTORS	5
EXTENDED WARRANTY FOR BH BATTERIES	5
REGISTERING EXTENDED WARRANTIES	6
WARRANTY OF PARTS OF THE ELECTRICAL ASSISTANCE SYSTEM	6
SUBMITTING A WARRANTY CLAIM	6
CONDITIONS THAT MAY VOID THE WARRANTY OF ELECTRICAL COMPONENTS	6
03 MAINTENANCE	7
INSPECT THE BICYCLE BEFORE USE	7
KEEP THE BICYCLE CLEAN	7
KEEP THE TRANSMISSION LUBRICATED AT ALL TIMES	7
PART MAINTENANCE	7
SPARE PARTS	8
AFTER A FALL, BLOW OR IMPACT	9
04 WARNINGS ON USE	9
MAXIMUM TYRE SIZE	9
MINIMUM AND MAXIMUM INSERTION LENGTH OF THE SEAT POST	9
MAXIMUM FORK LENGTH (AXLE-TO-CROWN)	9
MAXIMUM NUMBER OF STEERING SPACERS	9
POSITION OF THE SPINDLE INSIDE THE FORK TUBE	9
INTENDED USE	9
05 WARNINGS ON USE OF THE ELECTRICAL ASSISTANCE SYSTEM	10
CARE AND INSTRUCTIONS FOR USE OF THE ELECTRICAL COMPONENTS AND BATTERIES	10
RECOMMENDATIONS TO MAXIMISE THE BATTERY LIFE	10
WARNINGS ON THE USE OF BATTERIES	10
UNSUITABLE CHARGING AND DISCHARGING ENVIRONMENTS AND SOLUTIONS	10
RECYCLING	10
MOTOR	10
06 PEDAL ASSISTANCE SYSTEM OPERATION	11
COMPONENTS OF THE PEDALING ASSISTED SYSTEM	11
PEDAL ASSISTANCE SYSTEM	11
PARTS OF THE CONTROL PANEL	11
SWITCHING THE PEDAL ASSISTANCE SYSTEM ON AND OFF	11
SELECTING THE PEDALING ASSIST MODE	12
START OF PEDALLING	12
DISPLAYING THE BATTERY CHARGE LEVEL	12
EXTENDED SYSTEM DATA	13
MENU FUNCTIONS	13
BATTERY CHARGING	14

XPRO DUAL DISCHARGE BATTERY	15
XPRO DUAL DISCHARGE BATTERY CHARGE LEVEL DISPLAY	15
XPRO DUAL DISCHARGE BATTERY CHARGE AND DISCHARGE	15
BATTERY AND CHARGER	15
XPRO DUAL DISCHARGE BOTTLE CAGE	16
ENERGY SAVING MODES	16
OPERATION WITH THE GARMIN DEVICE	16
ERROR CODES	17
SETTING UP THE SEG AUTOMOTIVE EBIKE SYSTEMS APP	18
DESCRIPTION GENERAL DEL I-BUTTON	20

07 SIZES AND DIMENSIONS	20
--------------------------------	-----------

08 TECHNICAL SPECIFICATIONS	21
------------------------------------	-----------

09 ASSEMBLY AND SPARE PARTS	23
DIMENSIONS OF THE STEERING TUBE	23
HEADSET	23
EVO MONOCOQUE ACR STEM	24
SMR STEM	24
BUILT-IN BH SEAT POST CLAMP	25
HANGER	25
FRONT DERAILLEUR BRACKET	26
MOTOR	26
BATTERY HOLDER	27
CHARGING PORT	27
DI2 BATTERY	27
XPRO DUAL DISCHARGE HOLDER	28
SPEED SENSOR MAGNET	28
CABLING OF THE MECHANICAL PARTS	29
CABLING OF THE ELECTRICAL SYSTEM'S PARTS	30
WIRING DIAGRAM OF THE ELECTRICAL SYSTEM'S PARTS	31

10 DECLARATION OF CONFORMITY	32
-------------------------------------	-----------

11 HELP AND ADDITIONAL RESOURCES	32
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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 **iRS1 (EC167 / EC157 / EC147 / EC127)**. 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.
- 

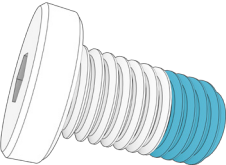
GREASE: assembly grease.
- 

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](http://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 OF UP TO 5 YEARS ON BH MOTORS

Activating the LIFETIME FRAME extended warranty will automatically activate a 5-year extended warranty for all BH motors. Through its authorised stores, BH Bikes provides the original buyer with a commercial policy to cover any manufacturing defects in BH motors for a period beyond that specified in the product's statutory warranty, pursuant to the following clauses:

- The BH motor extended warranty solely applies to BH motors 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.
- The BH motor 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.
 - When components or accessories have been installed that are not intended for/compatible with the use for which the bicycle was designed, and when the motor has been tampered with and/or de-limited.
 - 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).
 - Motors that have been used in competitions, demos or in rentals.
 - Motors mounted on bicycles of the MONTY range.

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:

- 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.
- 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:

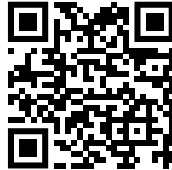
- **LIFETIME FRAME WARRANTY + 5 YEARS WARRANTY ON BH ENGINES**

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:

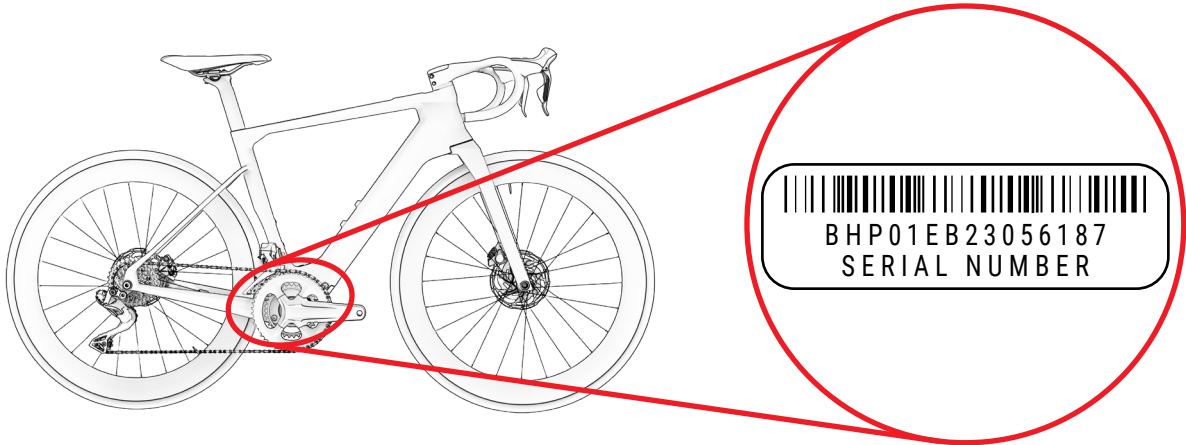
https://www.bhbikes.com/es_INT/registro-garantia-vida-bh/extension-garantia-bateria

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

<https://youtu.be/sINzdFBygMM>



⚠ The serial number required to register the bicycle is located on the bottom of the bicycle, on the seat tube, above the 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 **iRS1 (EC165 / EC155 / EC145 / EC125)**. 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>

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

<https://www.bhbikes.com/manuals>

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:

This is a set of components designed for road use. The wheels must remain in constant contact with the asphalt to ensure the structural longevity of the frame and fork.

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 70°C, 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

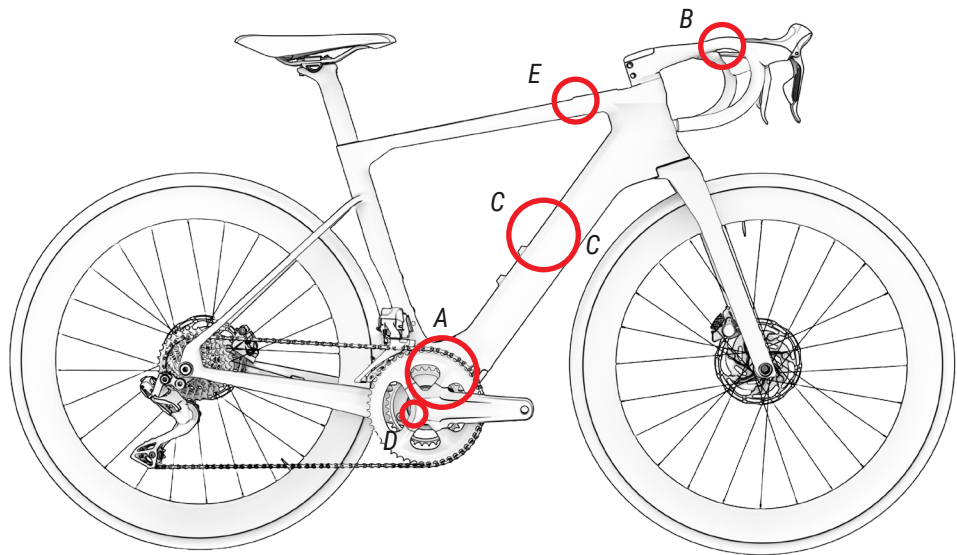
The DC motor is located on the bottom bracket axle. The motor's service life depends on its use, as in the case of any other part of the bicycle. Under normal conditions, the motor can last for 10 to 20 years, or up to 100,000 km.

06 PEDAL ASSISTANCE SYSTEM OPERATION

COMPONENTS OF THE PEDALING ASSISTED SYSTEM

The BH Bikes pedal assisted system consists of the following elements:

- **A.** A **motor SEG BLM-80**, which propels the bicycle.
- **B.** An **ibutton**, which activates the system's functions.
- **C.** A **battery**, which powers the motor.
- **D.** A **torque sensor**, which reads the force exerted on the pedal by the user.
- **E.** A **display SEG BLM**, which shows relevant system information and allows the user to select the assistance mode.



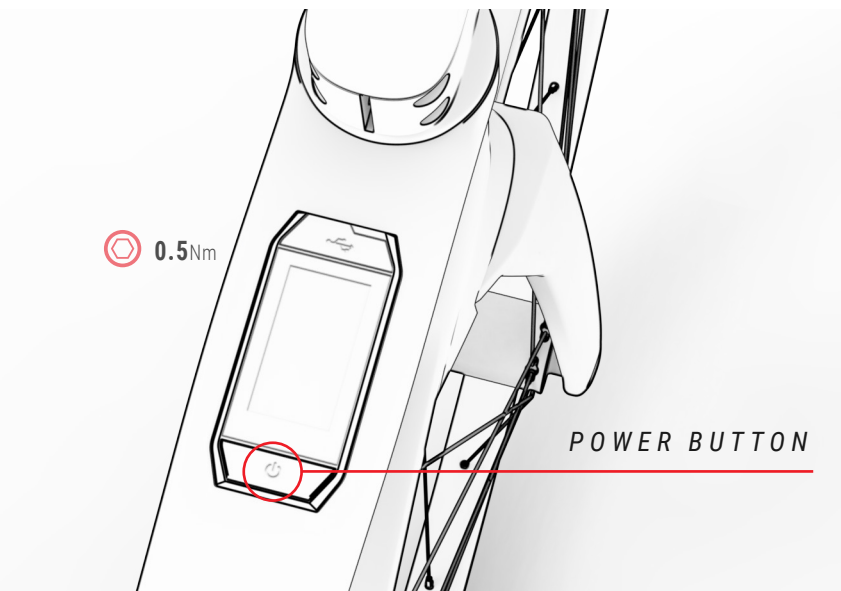
PEDAL ASSISTANCE SYSTEM

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.

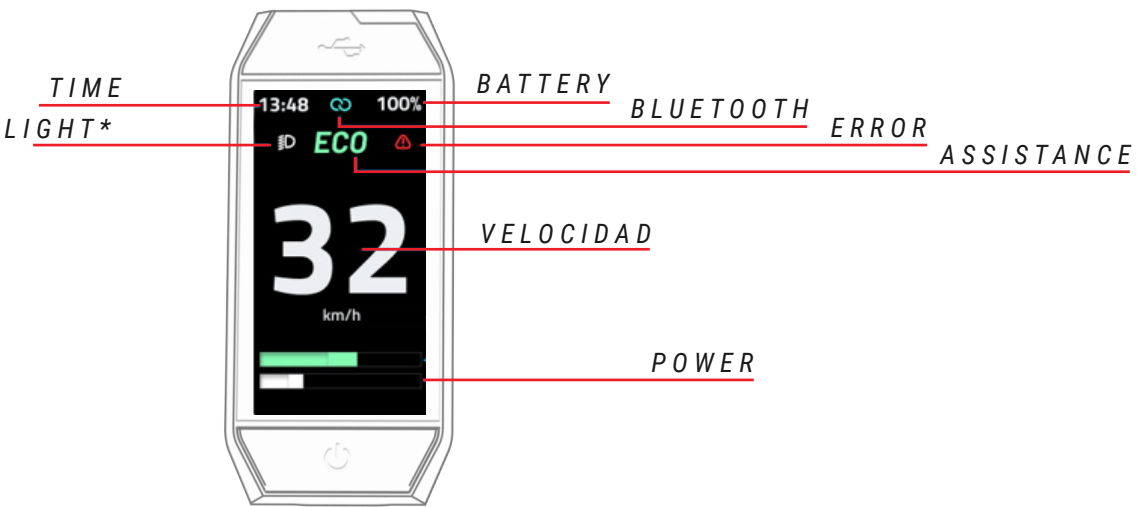
PARTS OF THE CONTROL PANEL

The BLM display consists of a rectangular screen integrated into the device and a button, located at the bottom, which acts as a control knob:



SWITCHING THE PEDAL ASSISTANCE SYSTEM ON AND OFF

The pedal-assist system is activated from the BLM display located on the top tube of the bicycle. Pressing the power button once will start the system. The BLM display will then light up, showing the main screen with the following information: battery level, Bluetooth connection status, error message, current assist mode, current speed, power output (motor and rider), light indicator, and current time.



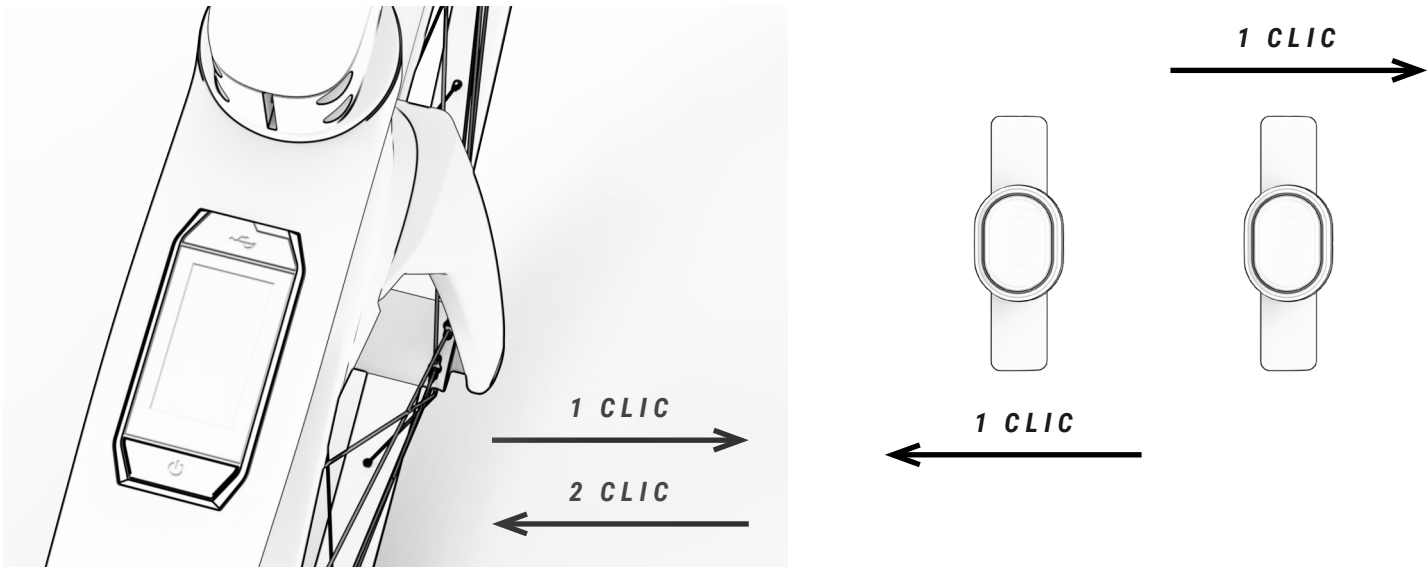
*To turn on/off, press and hold the left ibutton or click the power button three times.

SELECTING THE PEDALING ASSIST MODE

The system offers the following pedal assist modes:

- **Boost:** Use when you want to get the system's maximum power.
- **Sport:** Use when climbing difficult terrain.
- **Tour:** Use when riding on flat terrain at a comfortable pace.
- **Eco:** Use when you want to travel as far as possible.
- **Walk:** Use when you want to carry the bicycle without riding it.
- **No assist:** Use when you want to travel without power assistance. You can continue to use the other functions of the control unit.

To cycle through the assistance modes, the user must press the power button once to increase the assistance level and twice to decrease it. Alternatively, the assistance mode can be changed using the iButtons: a right click to increase the level and a left click to decrease it.



Damage to or failure of the display caused by improper installation or use is not covered by the after-sales warranty.

- ⚠ Be sure to turn off the power before installing or removing the display, as permanent damage may occur.
- ⚠ Do not use the USB charging function in the rain and ensure the USB connector is closed.
- ⚠ Do not immerse the display in water. You can clean it with a soft, damp cloth, but do not use chemical liquids or cleaners.
- ⚠ When attaching the display to the e-bike, ensure that the tightening torque of the tool never exceeds 0.6 Nm.
- ⚠ Excessive torque will damage the display structure.

In order to increase the life of the battery and prevent a full discharge which may damage it, the assistance modes are limited based on the state of charge of the battery:

- Battery charge above 20%: 100% of the highest assistance level is available.
- Battery charge between 10% and 20%: assistance level limited to 50% of the highest assistance level.
- Battery charge between 5% and 10%: assistance level limited to 25% of the highest assistance level.
- Battery charge between 1% and 5%: assistance is not permitted. Only the lights can be turned on.

START OF PEDALLING

Before resting your feet on the pedals, you must sit on the saddle and hold the handlebars firmly. Special care should be taken if you start pedalling when using a high assistance mode (TRAIL and BOOST modes), as the motor will respond with maximum thrust and you may lose control. To facilitate acceleration, the motor provides an additional initial thrust as soon as you start pedalling. Therefore, minimal force is required to put the bicycle in motion, helping you to join the traffic quickly and safely.

⚠ Start pedalling with a short gear ratio (higher gears) and low assistance mode (ECO mode). As well as providing greater control and safety on the bicycle, it requires less energy consumption and, therefore, ensures a longer range. Starting to pedal with a higher assistance mode (TRAIL and BOOST modes) may put the user at risk.

⚠ When the user pushes the bike while walking alongside it, they must make sure that the system is disconnected.

DISPLAYING THE BATTERY CHARGE LEVEL

A 100% charge can provide a range of up to 190 km. The battery charge level can be displayed in different ways. The battery charge level indicator shows the estimated remaining battery capacity in all cases:

- **Garmin devices:** Garmin devices also display the battery level on their interface:



EXTENDED SYSTEM DATA

The BLM display includes four interchangeable interfaces and a bottom dot bar indicating the current navigation. To navigate to the next screen, press and hold the power button for 2 seconds or double-click the right i-button; to go back, double-click the left i-button.

The three secondary screens detail the following information:

- **Cadence:** Displays the current pedaling cadence in revolutions per minute (RPM).
- **Torque:** Displays the current level of motor torque assistance or power output.
- **Time on route:** Displays the elapsed travel time since the current trip began.
- **Distance traveled:** Displays the distance traveled since the current trip began.
- **Motor/Rider Power:** Displays the current power output provided by the motor or generated by the rider while pedaling.



MENU FUNCTIONS

The main menu provides access to all system settings and information sections. Users can adjust system parameters, manage the electric bike's settings, and view system information. It also allows you to exit the menu interface.

- To increase the selected value, click the left i-button or double-click the display's power button.
- To decrease the selected value, click the right i-button or the display's power button.
- To confirm and save the changes, double-click the left i-button or press and hold the display's power button for 3 seconds.
- To exit the menu, press both the left and right i-buttons or click the display's power button four times.

The following system settings can be edited by the user:

Main menu settings.

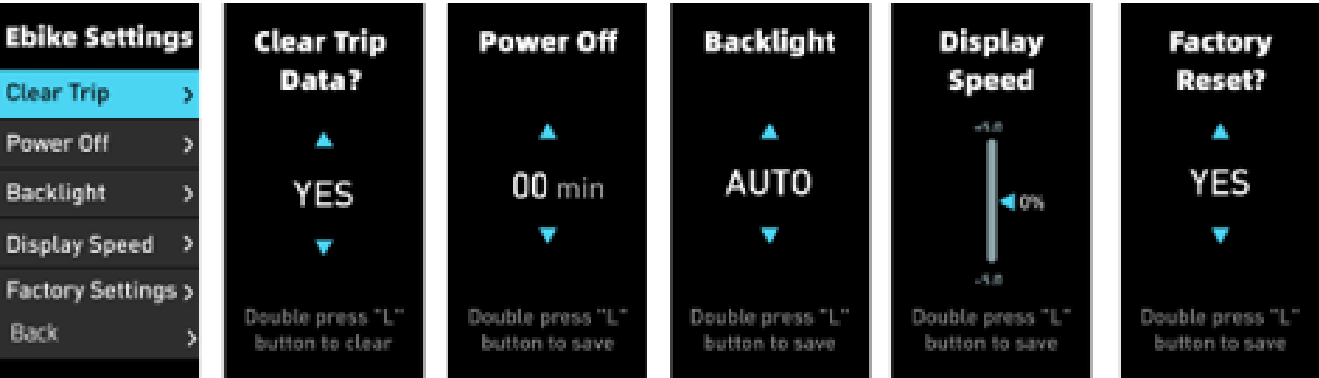
The basic settings allow you to adjust general system parameters, such as display preferences and basic configuration options. The e-bike settings provide access to specific settings, such as assistance levels, motor settings, and riding modes. It also includes information about the firmware version, hardware status, and diagnostic data.

The basic information includes options such as language, time format, time, and unit of measurement.



Ebike settings.

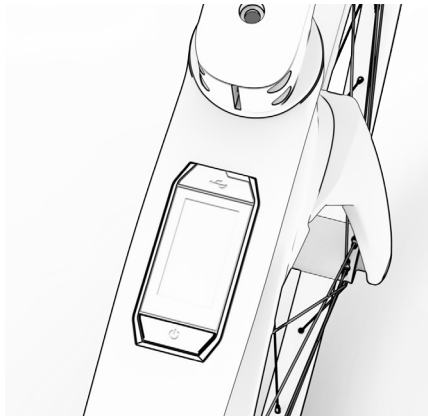
The device allows manual deletion of route data (mileage, time, speed, and calories) and features an automatic shut-off that can be set to 3, 5, 10, 30, or 60 minutes, or disabled. The backlight brightness can be adjusted from level 1 to 5 (the brightest), while the speed display function calibrates the indicator using a percentage to match the wheel size. Finally, the factory reset option restores all display settings to their default parameters.



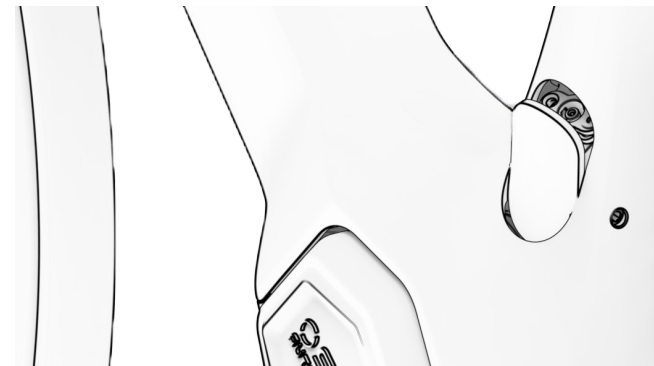
BATTERY CHARGING

Thanks to its advanced Lithium-Ion technology, it is not necessary to wait for the battery to fully discharge before connecting it to the charger. Likewise, it is not necessary to fully charge it before using it again. However, please note that to achieve maximum operating range, it is advisable to fully charge it.

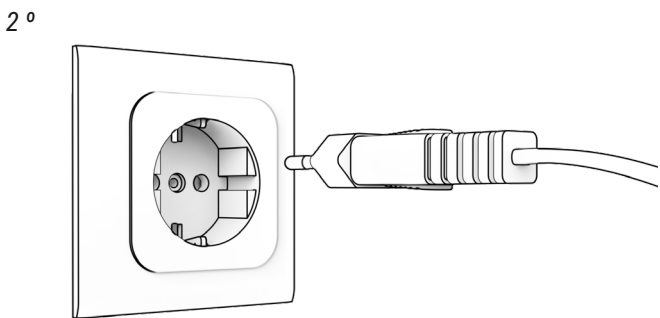
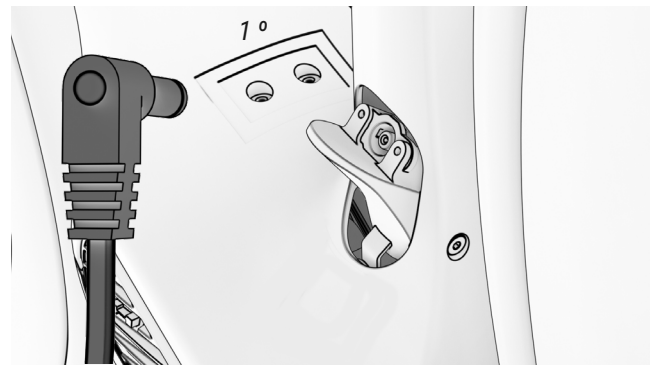
1. TURN ON THE DISPLAY. IT WILL NOT CHARGE IF IT IS OFF.



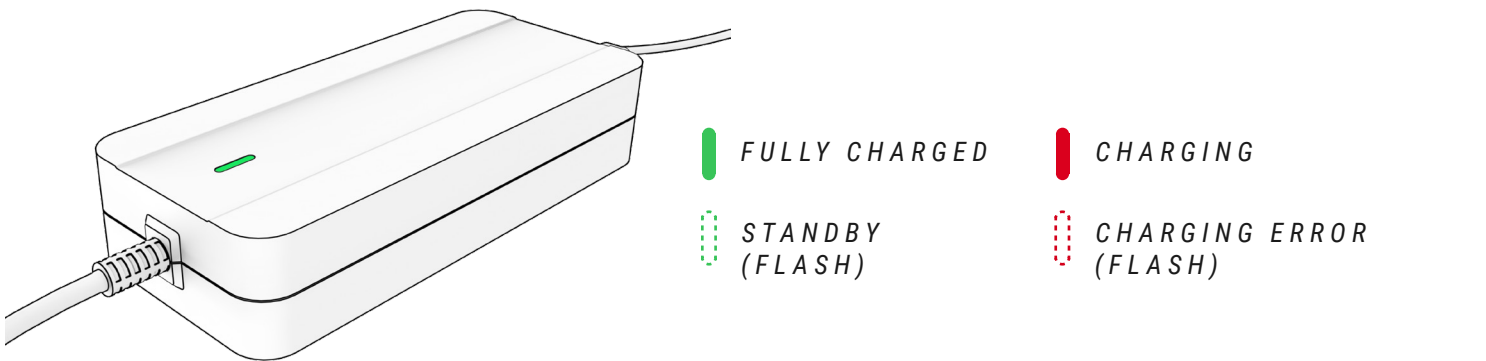
2. OPEN THE COVER THAT PROVIDES ACCESS TO THE CHARGING PORT, LOCATED ON THE LOWER LEFT SIDE OF THE FRAME.



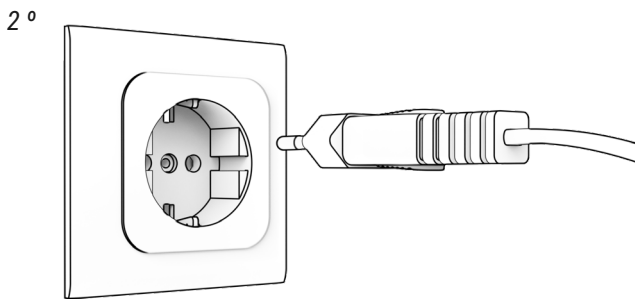
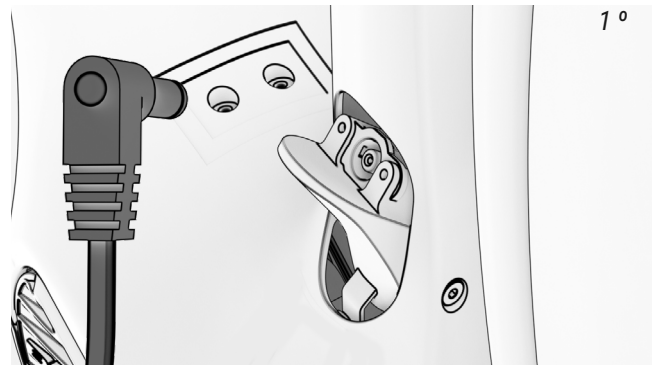
3. ALWAYS CONNECT TO THE BATTERY FIRST AND THEN TO THE POWER SUPPLY.



4. VIEW LOAD STATUS AND ERRORS.



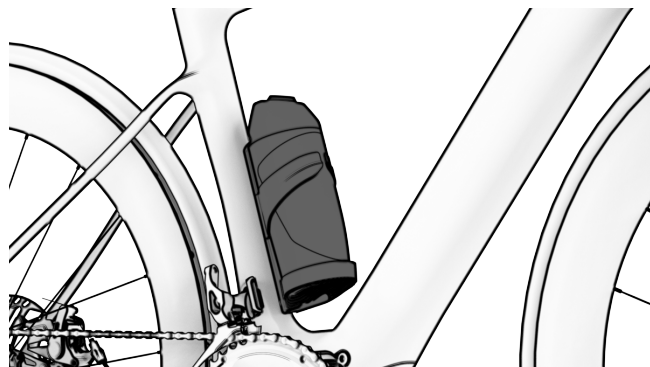
5. ALWAYS DISCONNECT THE BATTERY CHARGER FIRST, AND THEN THE POWER SUPPLY.



6. CAREFULLY CLOSE THE CHARGING PORT COVER TO PREVENT DIRT AND MOISTURE FROM ENTERING.



7. THE XPRO DD BATTERY WILL CHARGE IF IT IS IN THE BOTTLE CAGE AND THE BIKE IS CHARGING AND THE DISPLAY IS ON.



- ⚠ 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.

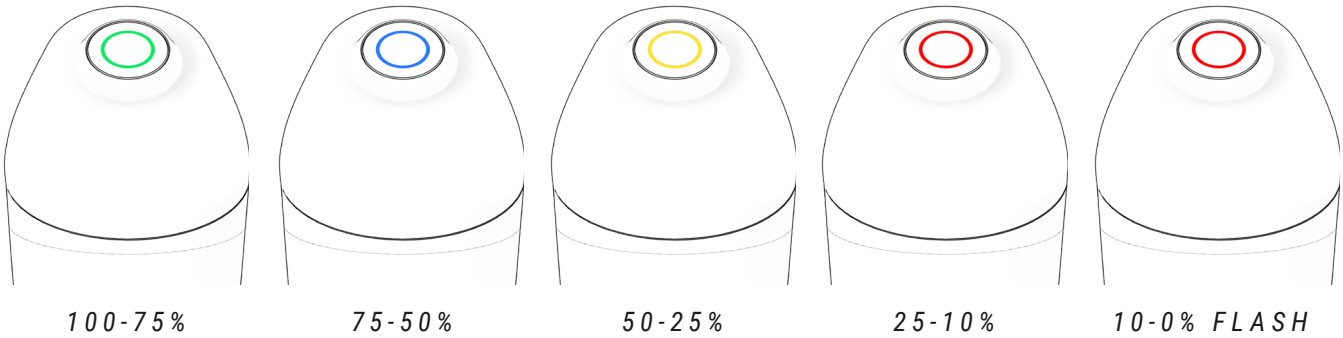
XPRO DUAL DISCHARGE BATTERY

The Xpro DD extender battery allows you to extend the bike's range. It's an external 180Wh bottle-shaped battery that fits into a specific bottle cage, which must be installed and properly connected to the system by an authorized retailer. Once the bottle cage is installed, the external battery connects to the system simply by inserting it into the cage. In other words, it's a plug-and-ride battery that requires no additional connection or work to function.



XPRO DUAL DISCHARGE BATTERY CHARGE LEVEL DISPLAY

The XPRO DD external battery extends the standard range to 250km, up from 190km. Pressing the button on the XPRO DD battery will illuminate a ring around it. The color of this ring indicates the battery percentage range: green (100-75%), blue (75-50%), yellow (50-25%), red (25-10%), and a flashing red (10-0%).



XPRO DUAL DISCHARGE BATTERY CHARGE AND DISCHARGE

The XPro DD battery will charge if it's in its bottle cage and the bike is charging. Both the internal and external batteries will charge and discharge simultaneously, or in parallel. This way, the discharge capacities of the batteries are combined.

BATTERY AND CHARGER

The battery in your BH 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 lithium-ion batteries is that they lack a "memory effect" and are unaffected by incomplete discharges.
- It loses its charge naturally and gradually with use. The battery can be fully discharged (100%) approximately 500 times, with a maximum battery degradation of 20%. In the case of partial discharges, only the discharged portion is considered. For example, if we charge the battery every time its charge level drops by 25%, we can charge it to 100% of its initial capacity up to 2,000 times. In conclusion, the guaranteed battery lifespan with a maximum degradation of 20% is at least 20,000 km.

XPRO DUAL DISCHARGE BOTTLE CAGE

The bottle holder contains a connector designed to be waterproof, thus ensuring the system's protection. Therefore, the user can either attach a standard water bottle to the holder or leave it empty.

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.

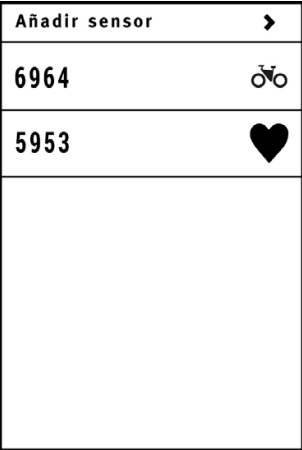
- Deep Sleep mode:** In order to protect the battery during long periods of inactivity or storage (for example, during the winter), the battery automatically switches to Deep Sleep mode. This happens automatically when any of the following situations occur:
 - If the charge level of the battery is below 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 14 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 30 days.

The user can exit this Deep Sleep mode by pressing the power or multifunction button. 2 flashes will appear with all LEDs in Stand By mode and 1 flash in Deep Sleep mode.

OPERATION WITH THE 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. TAP ON "ADD SENSOR".



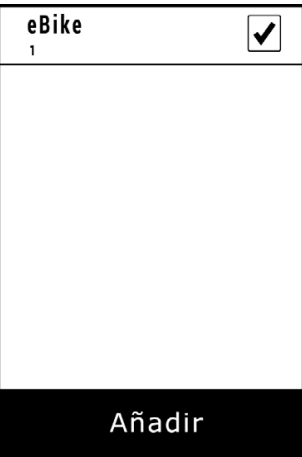
2. TAP ON "E-BIKE".



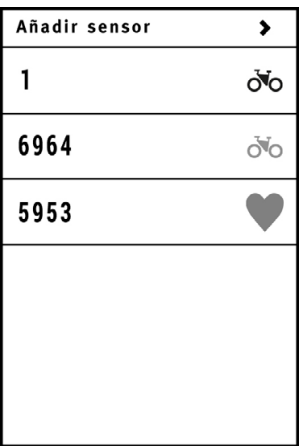
3. PAIR WITH YOUR GARMIN DEVICE.



4. SELECT THE E-BIKE.



5. SELECT THE SENSOR YOU HAVE CREATED.

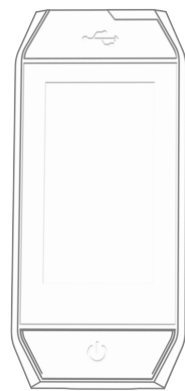


6. GARMIN CONNECTED.



ERROR CODES

When an error occurs, it will be displayed. Below are the errors and actions to take on Core displays. On models equipped with the Core display, errors will be indicated by LEDs. The number of LEDs lit and unlit will indicate a specific error. The following is a description of the possible problems:



ERROR DESCRIPTION

No.	Code	Description	Action required
1	ERROR 1	Motor communication error	No communication was detected with the motor's Hall sensors. Turn the e-bike system off and then back on. If the error persists, contact an authorized e-bike dealer.
2	ERROR 2	Overcurrent protection	The motor current has exceeded the permissible limit. Reduce the motor load and restart the system. If the error persists, contact an authorized electric bicycle dealer.
3	ERROR 3	Motor controller overtemperature	The motor controller temperature is too high. Stop using the bicycle and allow the system to cool down. Restart the system. If the error persists, contact an authorized e-bike dealer.
4	ERROR 4	Motor starting error	The motor was unable to complete the start-up procedure successfully. Ensure the wheel spins freely and restart the system. If the error persists, contact an authorized e-bike dealer.

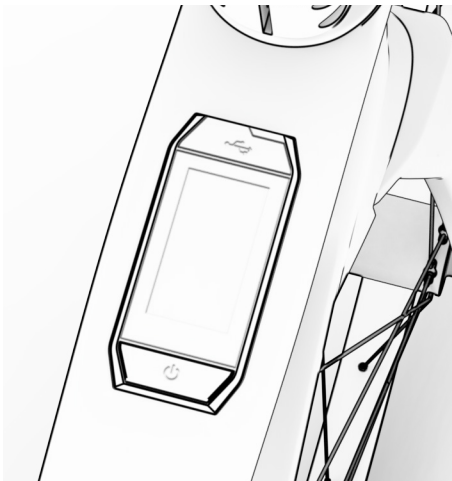
ERROR DESCRIPTION

No.	Code	Description	Action required
5	ERROR 5	Overvoltage protection	Excessive voltage has been detected. Power cycle the system. If the problem persists, contact an authorized electric bicycle dealer.
6	ERROR 6	Motor rotation error	An abnormal motor rotation has been detected. Power cycle the system. If the problem persists, contact an authorized electric bicycle dealer.
7	ERROR 7	Overcurrent warning	Excessive current consumption in the motor has been detected. Reduce the assistance level and engine load. If the warning remains active, reboot the system. If the problem persists, contact an authorized electric bicycle dealer.
8	ERROR 8	Overcurrent error	A critical current has been detected in the motor. Engine assist has been disabled for safety reasons. Power cycle the system. If the error persists, contact an authorized e-bike dealer.
9	ERROR 9	System overtemperature	The internal controller temperature is too high. Stop riding the bike and allow the system to cool. Reboot the system. If the error persists, contact an authorized e-bike dealer.
10	ERROR 10	Speed sensor error	No valid speed signal detected. Check the speed sensor area for damage or obstructions and reset the system. If the error persists, contact an authorized e-bike dealer.
11	ERROR 11	Cadence sensor error	No valid cadence sensor signal detected. Power cycle the system. If the error persists, contact an authorized e-bike dealer.
12	ERROR 12	Torque sensor error	No valid torque sensor signal detected. Power cycle the system. If the error persists, contact an authorized e-bike dealer.

SETTING UP THE SEG AUTOMOTIVE EBIKE SYSTEMS APP

The process to link the BLM display with the APP and access its settings is as follows:

1. TURN ON THE DISPLAY BY PRESSING THE POWER BUTTON.



2. DOWNLOAD THE APP.



The app allows you to customize the settings of the pedal-assist system; among other things, it's used to modify the assistance parameters for each mode and the power output of each mode.

Download the app on iOS or Android and follow these steps to pair your bicycle:

App Store:

<https://apps.apple.com/es/app-seg-automotive/id6444347837>

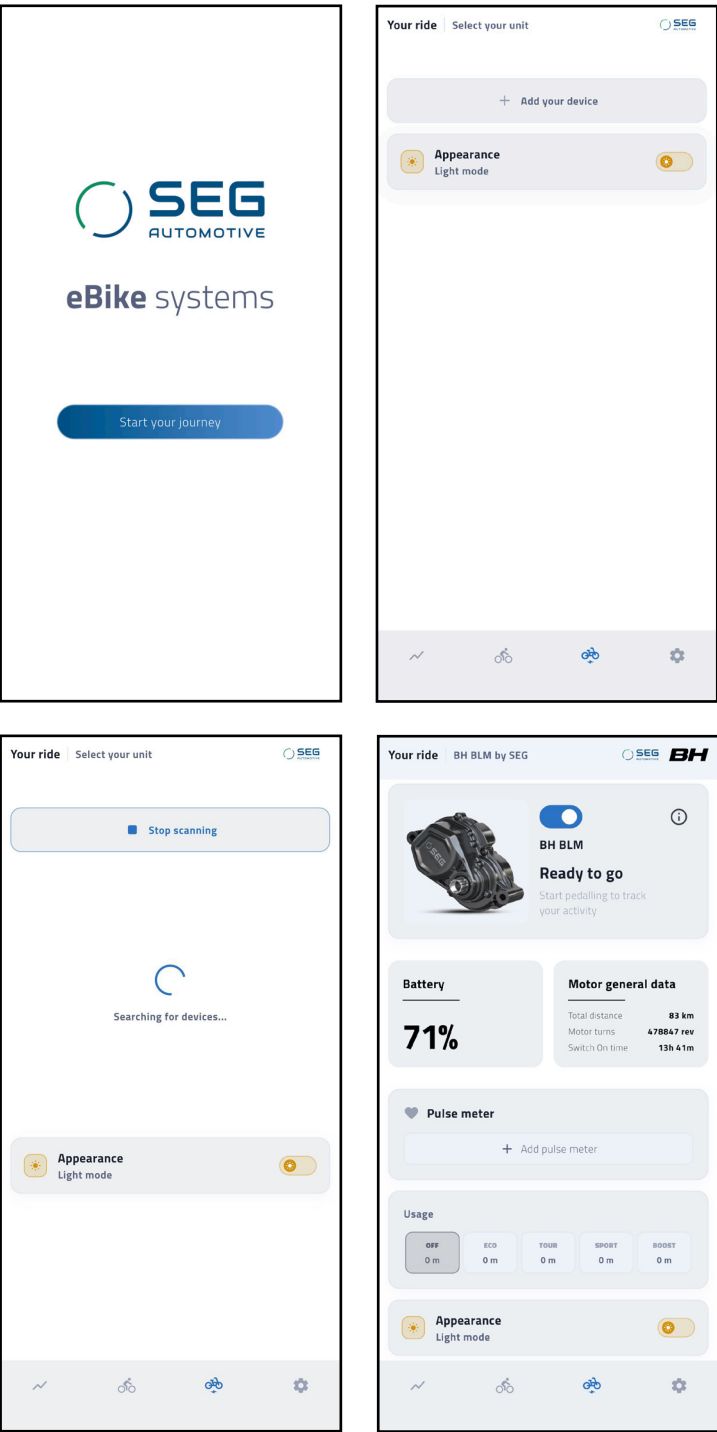


Google Play:

https://play.google.com/store/apps/details?id=com.segautomotive.a18092023&hl=es_419

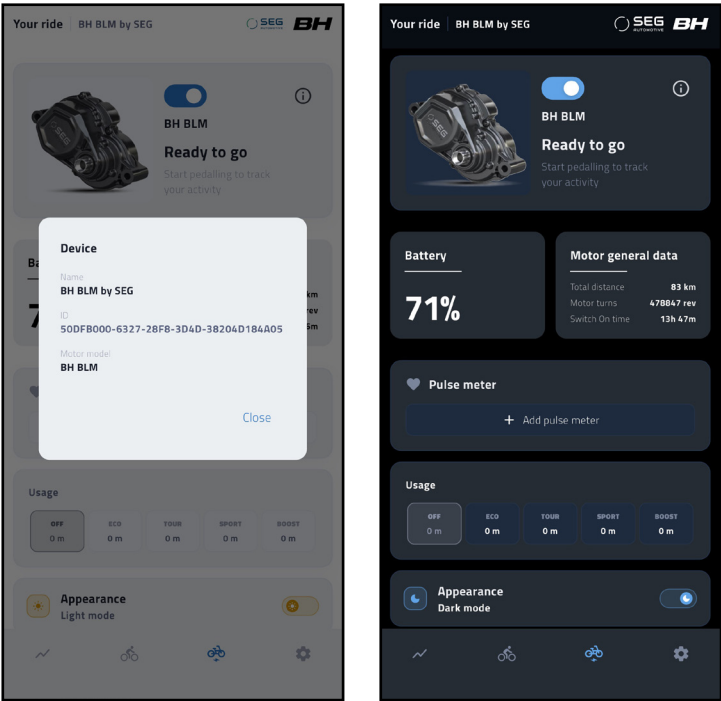


3. OPEN THE APP AND PRESS "ADD DEVICE" TO CONNECT TO THE DISPLAY VIA BLUETOOTH.

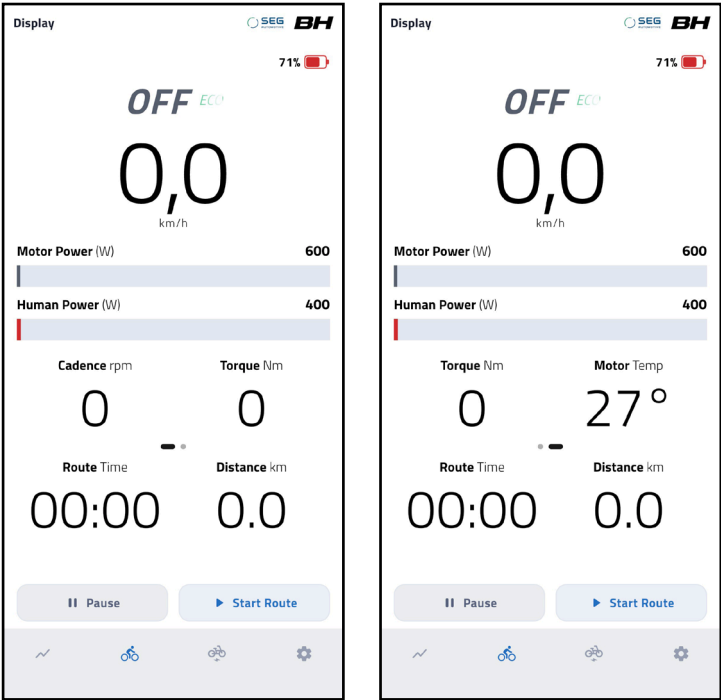


4. TO EXPLORE SYSTEM DETAILS AND THE ENGINE ID, TAP THE INFORMATION ICON.

CHANGE THE APPEARANCE TO "DARK MODE" TO NAVIGATE IN NIGHT MODE.

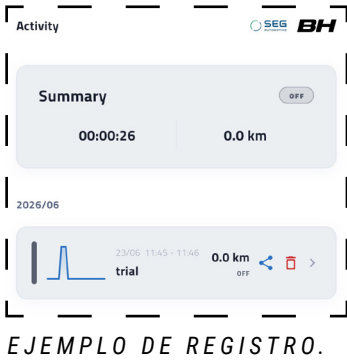


5. KEEP THE "DISPLAY" SCREEN OPEN WHILE ON THE ROUTE TO SELECT THE DESIRED ASSISTANCE MODE AT ANY TIME.



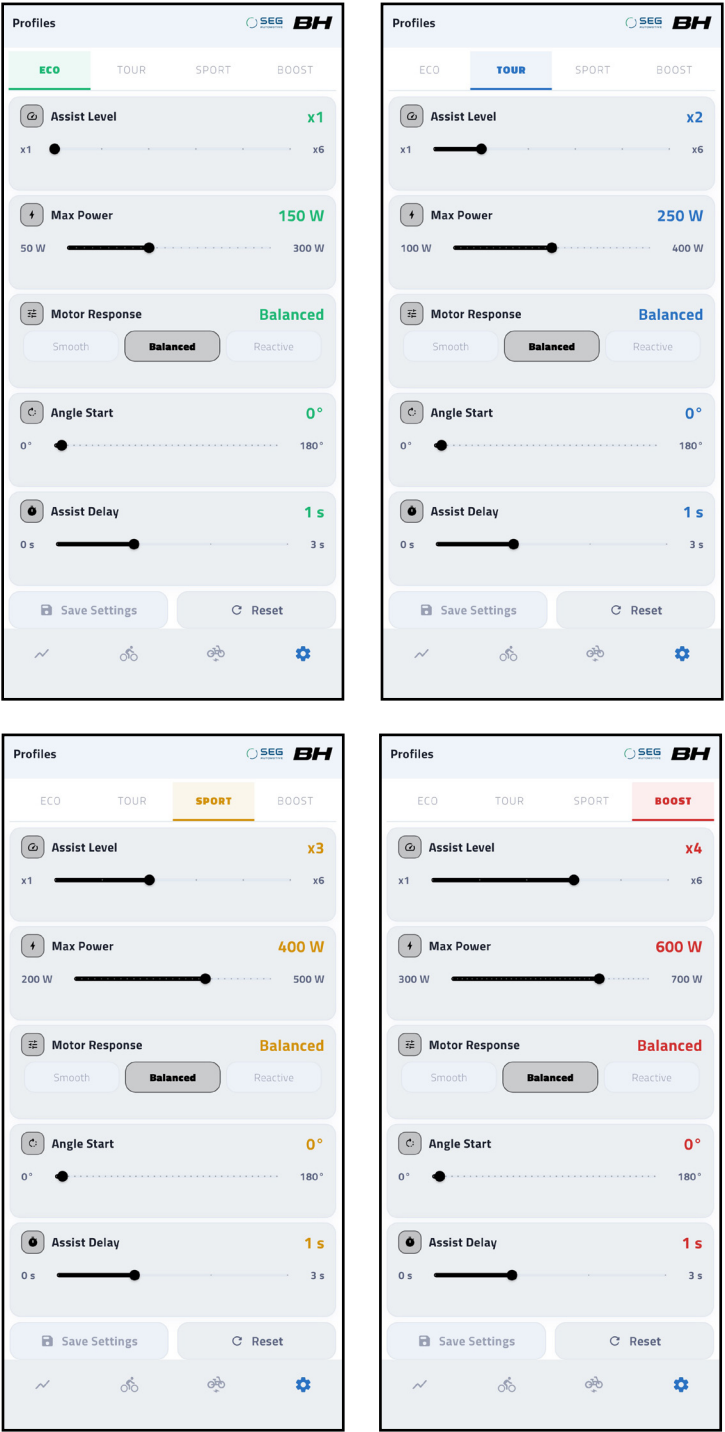
IN ADDITION TO VIEWING THE ROUTE PARAMETERS IN REAL TIME, YOU CAN GENERATE AN ACTIVITY HISTORY WITH ALL TRACKED ROUTES.

PLEASE PRESS "START ROUTE" TO START TRACKING AND REMEMBER TO "SAVE" WHEN YOU REACH YOUR DESTINATION.

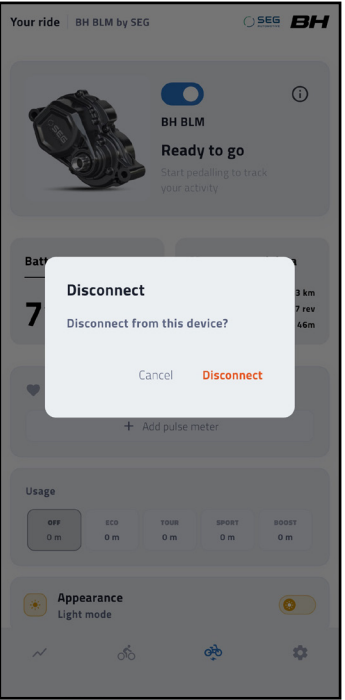


6. ACCESS THE LAST MENU WINDOW TO VIEW THE ASSISTANCE MODE PARAMETERS: ECO, TOUR, SPORT, OR BOOST.

MODIFY AND SAVE THE CHANGES FOR CUSTOMIZED PERFORMANCE, OR RESTORE FACTORY SETTINGS.



7. SLIDE THE BLUE BUTTON TO DISCONNECT THE APPLICATION FROM THE SYSTEM.



DESCRIPTION GENERAL DEL I-BUTTON

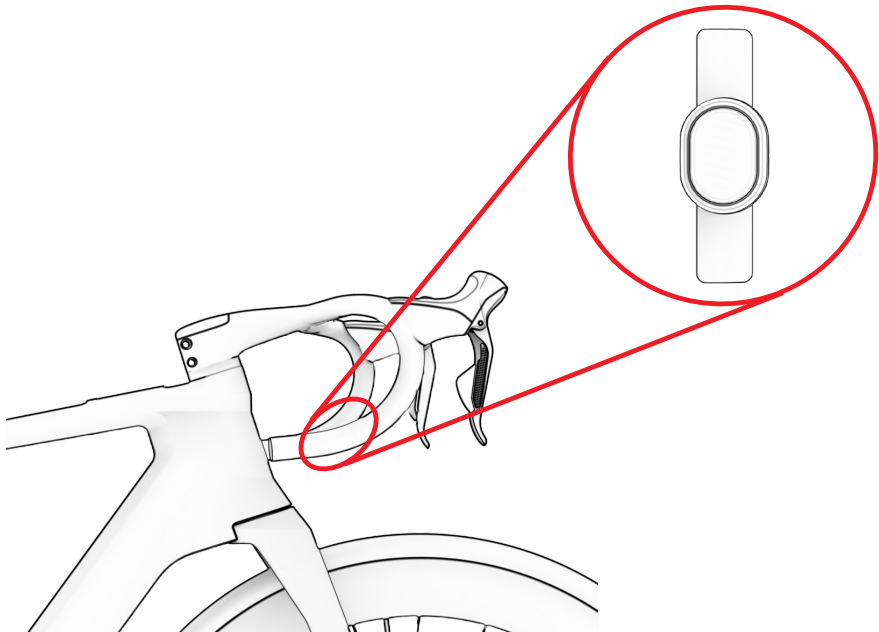
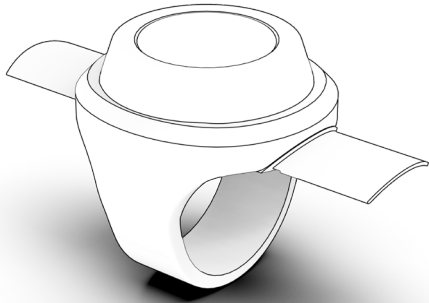
The **IRS1** family of bicycles (**EC167 / EC157 / EC147 / EC127**) incorporates iButton devices on both handlebar grips, which, along with the power button, control the electrical system.

These compact devices are designed to be mounted using only the handlebar tape, without the need for additional tools. Thanks to their flexible mounting system, each iButton can be positioned according to the rider's ergonomic comfort, facilitating intuitive use while pedaling. As explained in the electrical diagram, each iButton device contains a cable that runs along the handlebar and integrates into the frame for connection to the display.

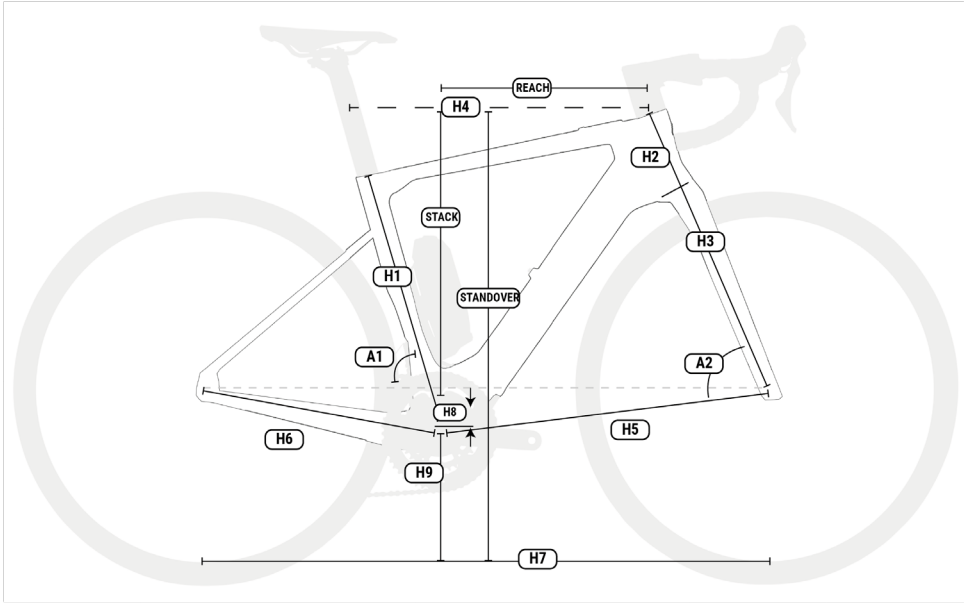
There are three different activation modes for the functions:

- a short press (quick press)
- a double press (double press)
- a long press (long press)

The iButton functions can include, for example, turning the bike light on or off (left long press), activating walk mode (right long press) or increasing or decreasing the assistance (quick press).



07 SIZES AND DIMENSIONS



EC167 EC157 EC147
IRS1 CARBON 1.6 / 1.5 / 1.4

	h1	h2	h3	h4	h5	h6	h7	h8	a1	a2	Stack	Reach
SM	460	130	389	536	590	420	1000	70	74,0	71,5	548	378
MD	483	148	389	562	596	420	1006	70	73,0	72,5	569	388
LA	504	160	389	577	606	420	1016	70	73,0	73,0	582	399
XL	527	182	389	603	621	420	1031	70	72,25	73,25	604	409

EC127
IRS1 1.2

	h1	h2	h3	h4	h5	h6	h7	h8	a1	a2	Stack	Reach
SM	460	152	374	547	602	420	1011	70	74,0	71,5	555	388
MD	483	163	374	566	600	420	1010	70	73,0	72,5	569	392
LA	504	175	374	577	606	420	1017	70	73,0	73,0	582	399
XL	527	197	374	594	621	420	1031	70	73,0	73,3	604	409

08 TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATIONS

Characteristics	Models	Specification
Frame material	EC167 / EC157 / EC147	Carbon
	EC127	Aluminum
Recommended use	All	Road
Sizes	All	See section "07 Sizes and dimensions"
Fork travel	All	45mm
Maximum height of steering spacers	All	2x15 + 1x10mm (already cut)
Fork steering tube	All	Full carbon 1.5", cónico
Wheel size	All	700C
Maximum size of the tyre	All	32 mm
Pedalion	All	BB386
Bottom bracket width	All	86,5 mm
Inner diameter of bottom bracket shell	All	46 mm
Standard front dropouts	All	Thru Axle
Standard front axle	All	100 mm
Front axle pitch thread	All	12x1.0mm
Standard rear dropouts	All	Thru Axle
Standard rear axle	All	142mm
Rear axle pitch thread	All	1mm
Seat post clamp diameter	EC167 / EC157 / EC147	Integrated
	EC127	31.8
Seat post diameter	All	RS1 model

Characteristics	Models	Specification
Maximum insertion length of the seat post		
S	All	200mm
M	All	200mm
L	All	220mm
XL	All	220mm
Headset	All	Varies according to the model.
Chain line	All	Varies according to the model.
Wheel size	All	28"
Maximum size of the rear tyre	All	2.4" (61mm)
Maximum size of the front tyre	All	Depends on the type of fork.
Speed magnet assembly	All	On the rear wheel spokes.
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	Disco
Standard rear brake calliper	All	Post Mount
Maximum rear disc size	All	203mm
Minimum rear disc size	All	180mm
Compatible with chain guides	All	Yes
ICGS	All	No
Cabling	All	Internal through DT and CS. Full housing
Compatible with left rear brake cabling	All	Yes

Potentiometer compatibility	All	Yes
Compatible with trailers	All	No
Pannier rack assembly	All	No
Mudguard assembly	All	No
Child seat assembly	All	No
Maximum recommended weight (cyclist+equipment+bags)	All	165Kg

SPECIFICATIONS OF THE MOTOR SEG BLM-80

Characteristics	Specification
Rated power	250W
Voltage	36V
Type	Brushless DC
Assistance	Up tp 25km/h
Maximum torque	80Nm
Weight	2200g
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

SPECIFICATIONS OF THE DISPLAY SEG BLM

Characteristics	Specification
Functions	Changing assistance mode. / Power on/off. / Displaying the charge level. / Electrical system data.
Watertightness	IP66

BATTERY SPECIFICATIONS

Characteristics	Specification
Voltage	36V
Capacity	810Wh
Weight	2200g (+1000g XPRO DD)
Cell pack	630Wh + 180Wh: 10S3P + 10S1P
Charge level	With battery inside the frame.
Dimensions	462x67x49mm
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	0°C - 40°C
Display of the charging progress	With the LED built into the charger

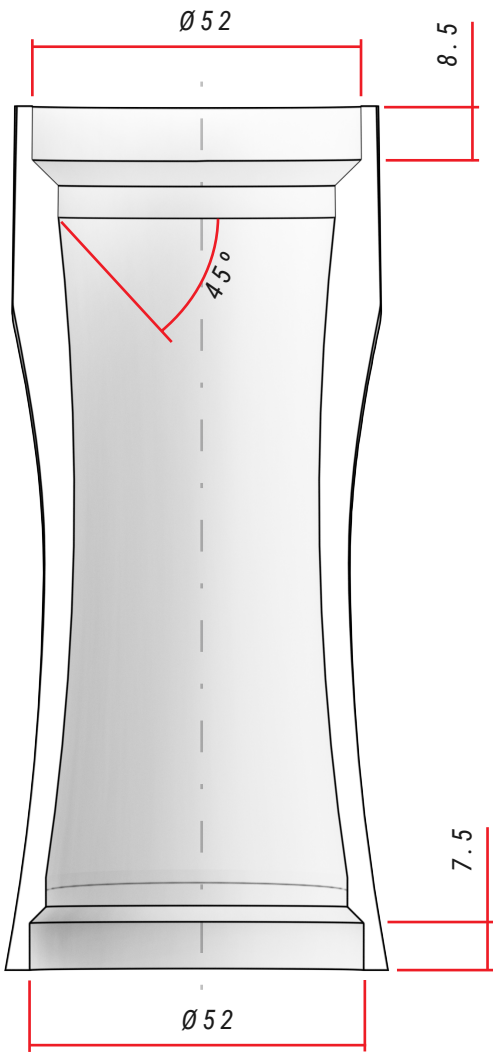
SPEED SENSOR SPECIFICATIONS

Characteristics	Specification
Assembly	On the left chainstay. External cable routing.
Magnet	On the brake disc.

09 ASSEMBLY AND SPARE PARTS

DIMENSIONS OF THE STEERING TUBE

ALL MODELS

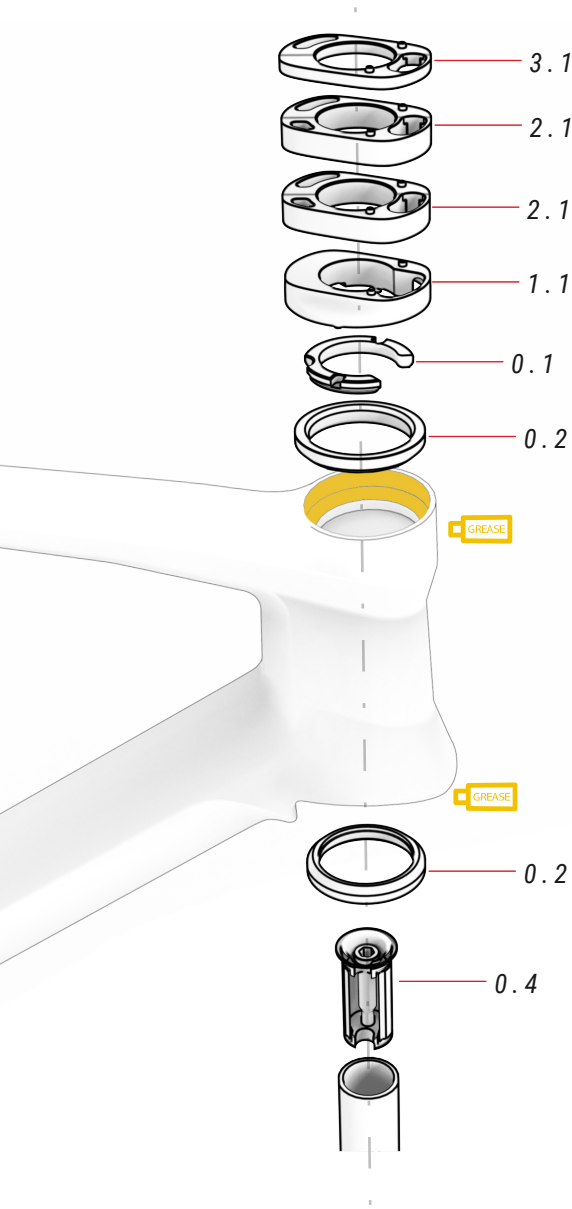


STEERING SPECIFICATIONS

Type		Contact angle with the compression ring / fork track	Bearing dimensions
Upper	1.5" Steerer	45°	52x40x7
Lower	1.5" Steerer	45°	52x40x7

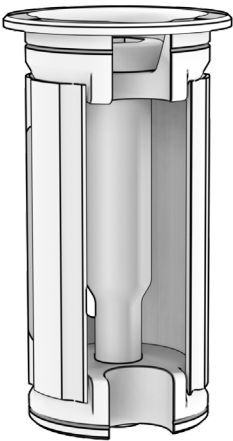
HEADSET

ALL MODELS



00 HEADSET ref.: 383240700

No.	Item	Quantity
0.1	Compressor	1
0.2	Bearing	2
0.3	Washer (do not assembly)	1
0.4	Expander	1



⚠ Carbon forks should never be mounted with a star nut. The star nut puts stress on the fork that it wasn't designed to withstand. This can lead to breakage and accidents. Always use spacers.

01 STEERING COVER ACR ref.: 383240800

No.	Item	Quantity
1.1	Steering cover 10mm	1

02 ACR SPACER ref.: 383240900

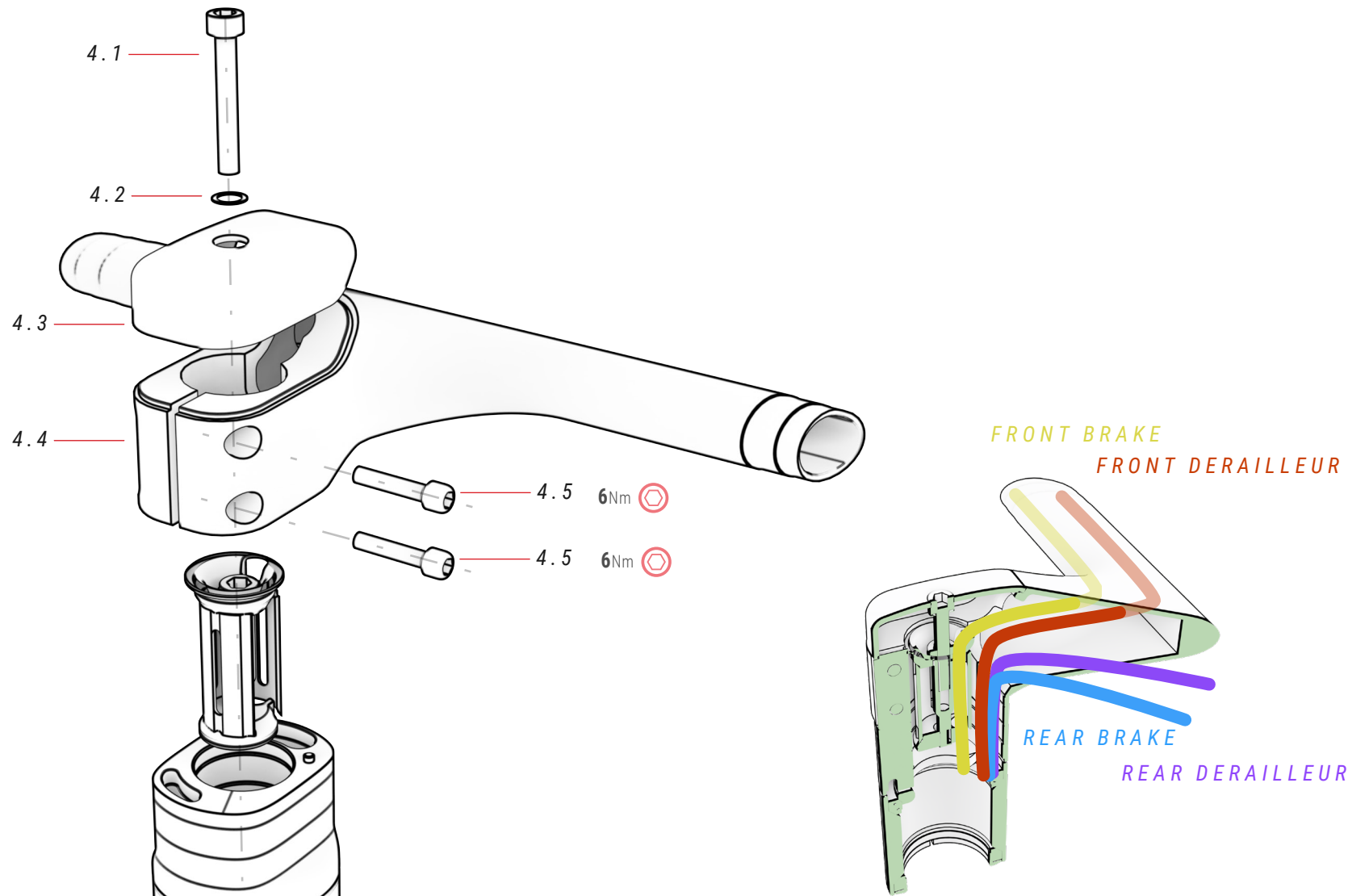
No.	Item	Quantity
2.1	10mm spacer	2

03 ACR SPACER ref.: 383241000

No.	Item	Quantity
3.1	5mm spacer	1

EVO MONOCOQUE ACR STEM

EC167

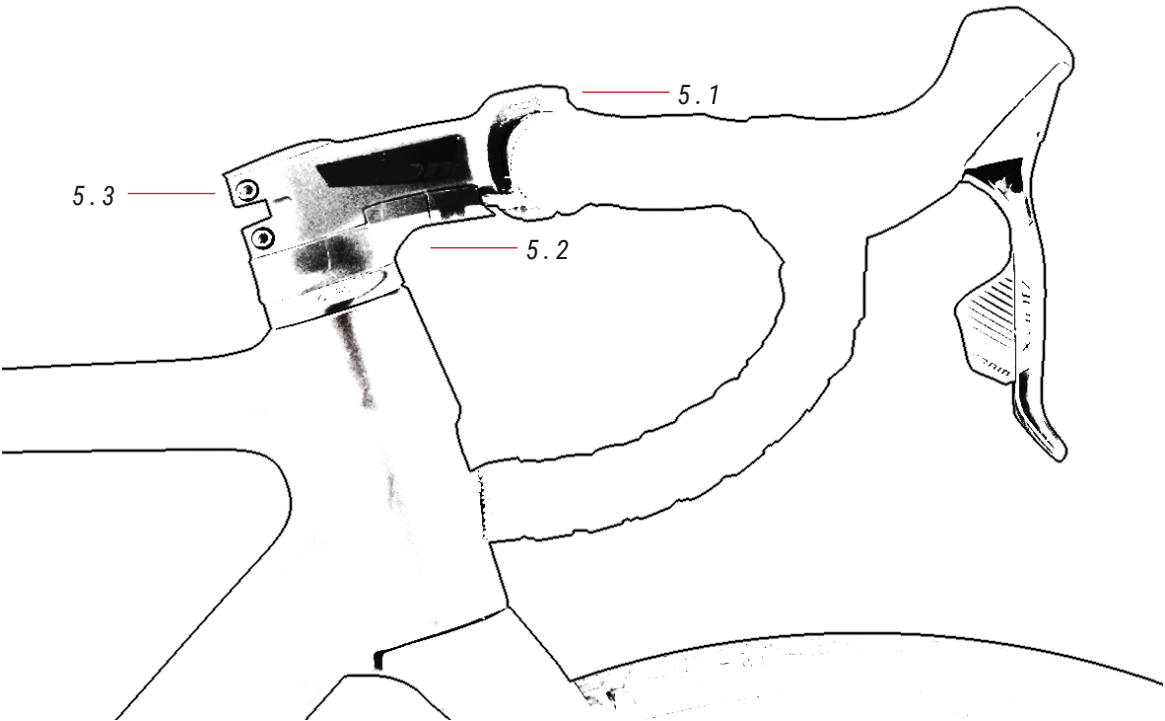


04 BH STEM AERO ACR ref.: 391845000

No.	Item	Quantity
4.1	Bolt	1
4.2	Washer	1
4.3	Stem cap	1
4.4	Stem	1
4.5	Bolt	2

SMR STEM

EC157 / EC147 / EC127

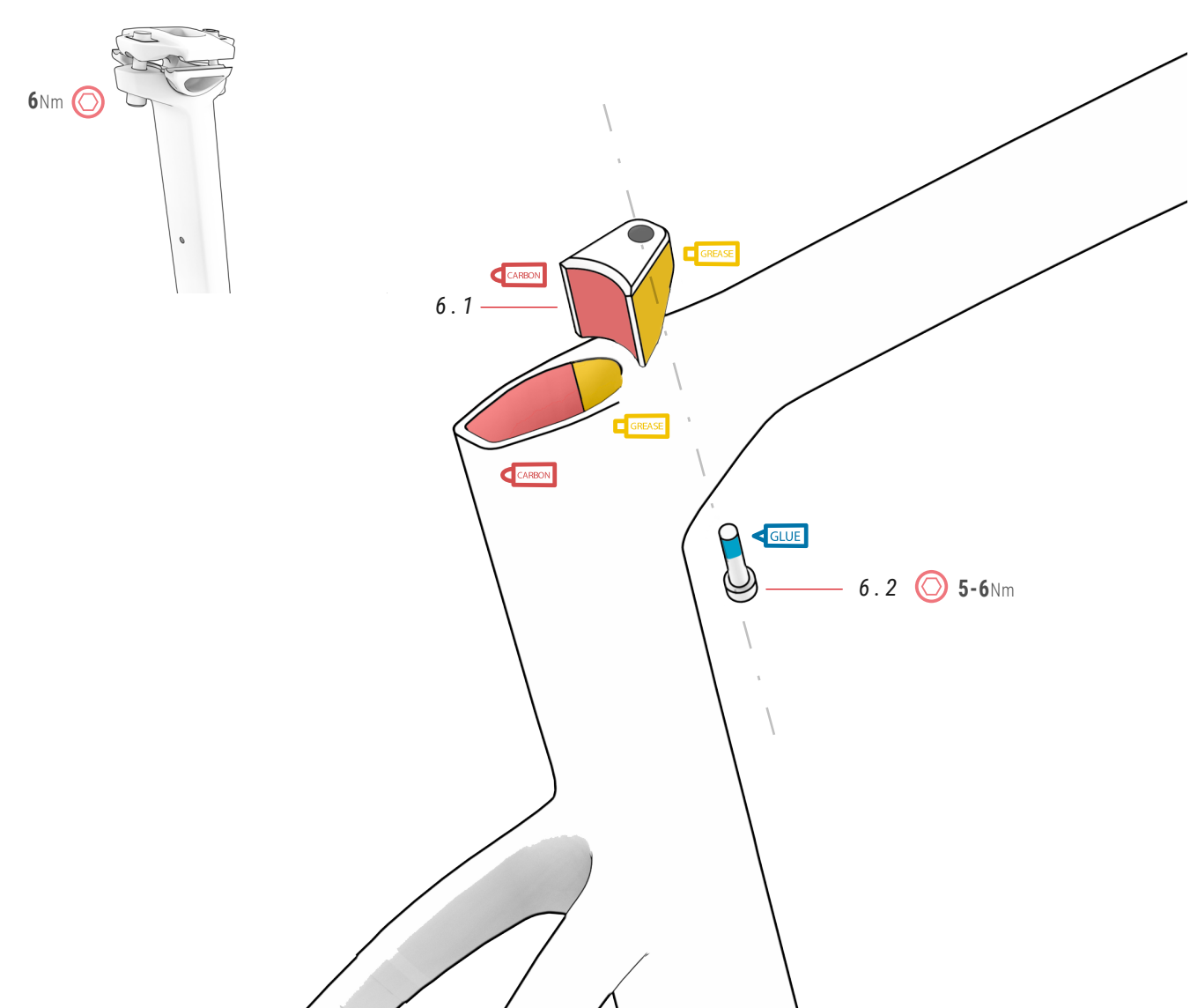


05 STEM ref.: 363300600

No.	Item	Quantity
5.1	Stem	1
5.2	Cap	1
5.3	Bolt	2

BUILT-IN BH SEAT POST CLAMP

EC167 / EC157 / EC147

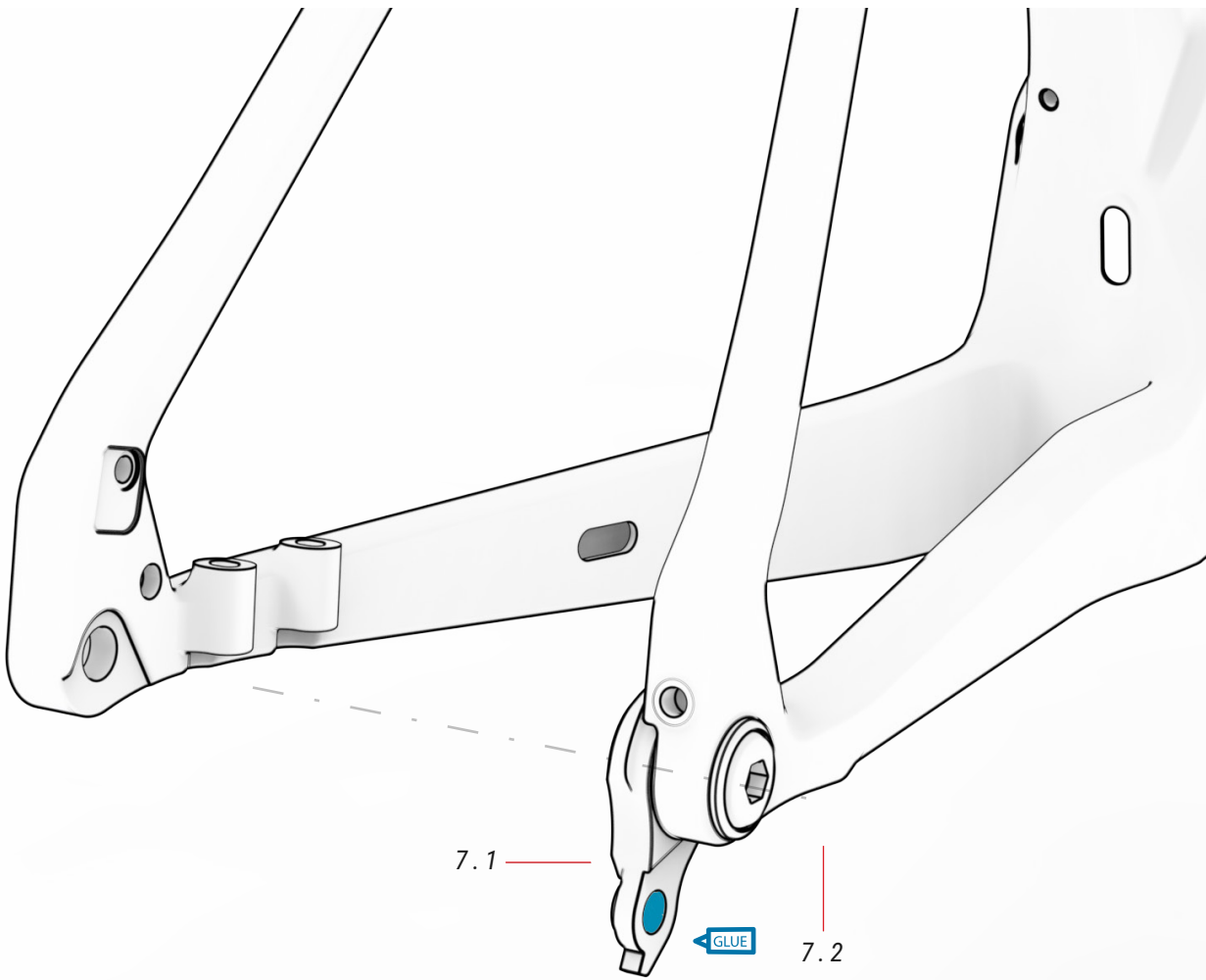


06 CLAMP ref.: 391854300

No.	Item	Quantity
6.1	Shim	1
6.2	Bolt M6xP1.0x25mm	1

HANGER

EC167 / EC157 / EC147



07 HANGER

No.	Item	Quantity
7.1	Hanger	1
7.2	Bolt	1

ref.: 391780000

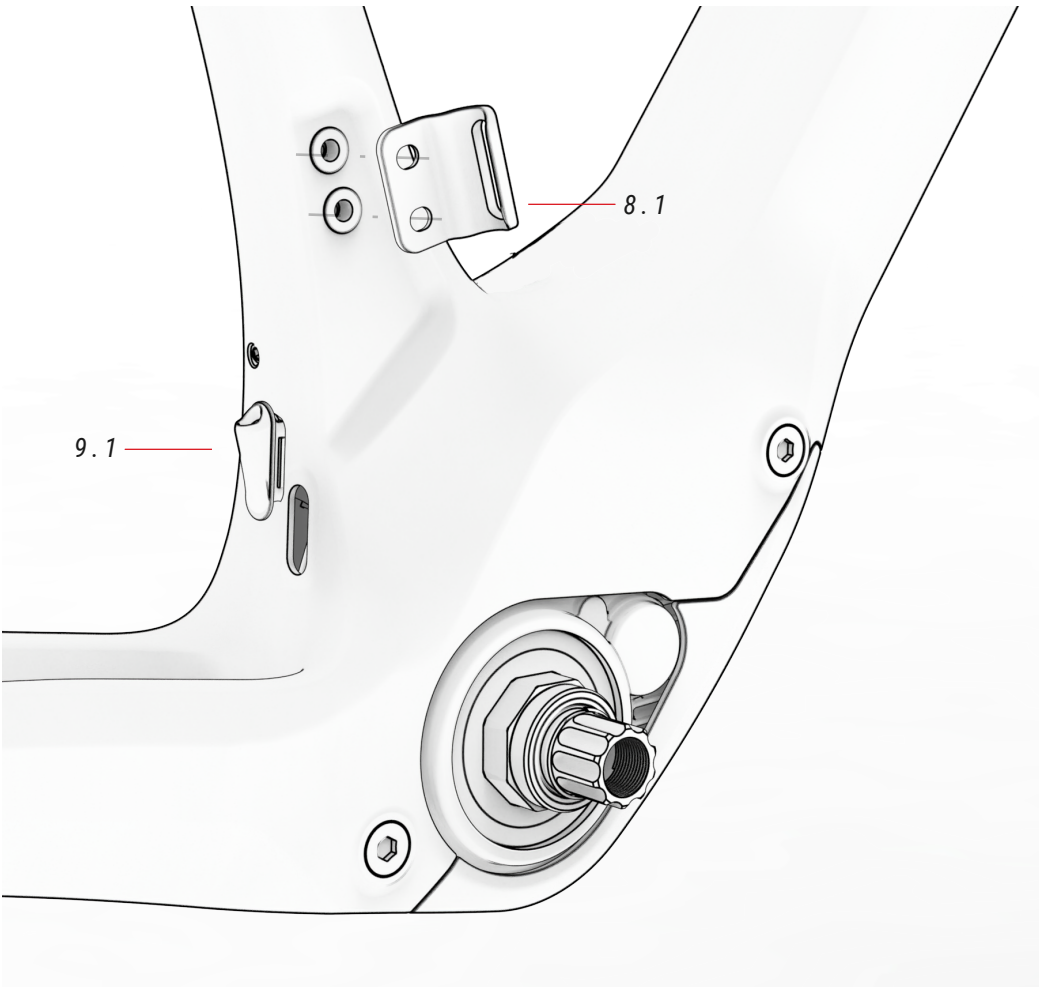


ref.: 391780100



FRONT DERAILLEUR BRACKET

EC167 / EC157 / EC147



08 DERAILLEUR HOLDER ref.: 391854200

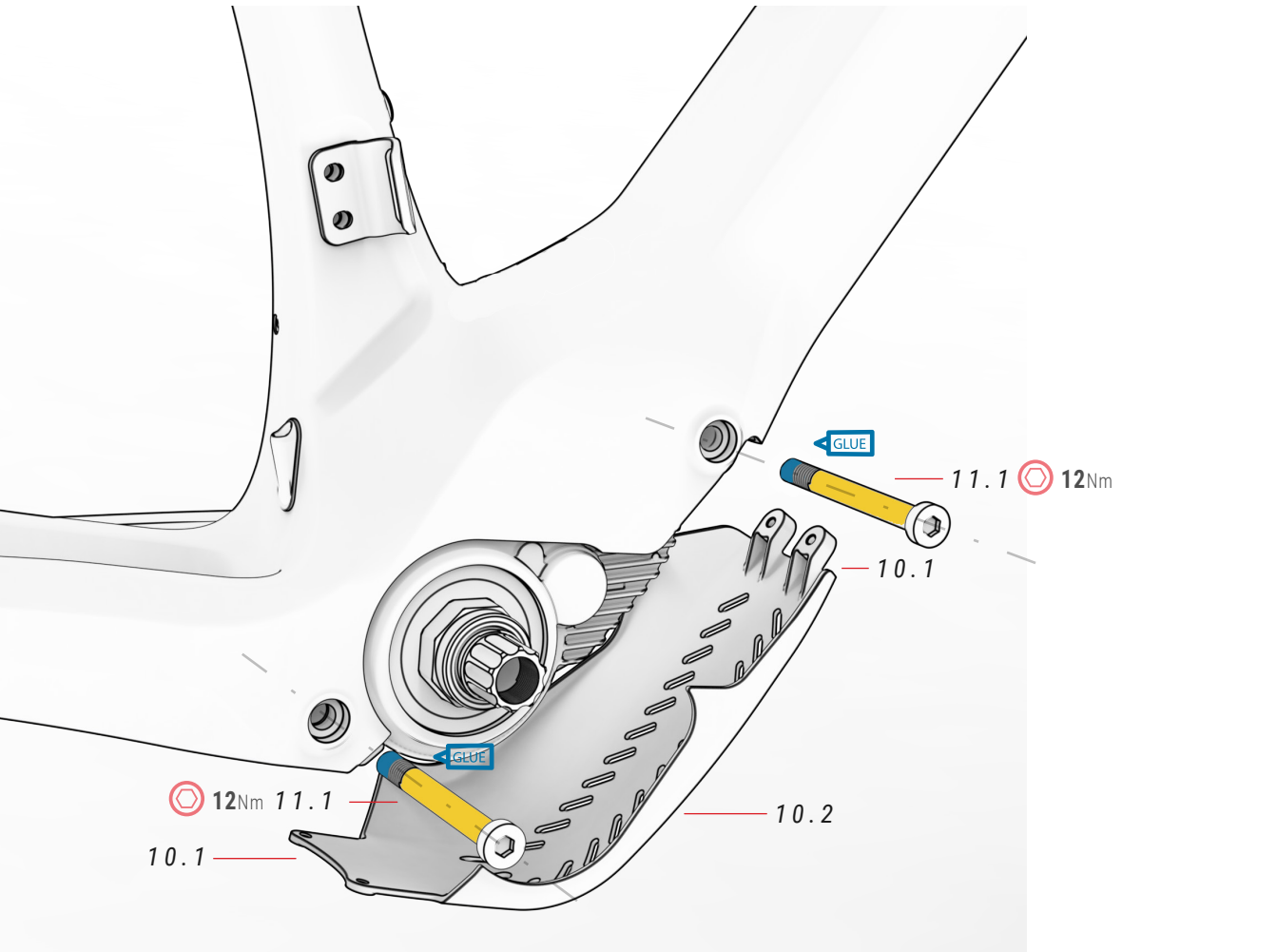
No.	Item	Quantity
8.1	Front derailleur holder	1

09 WIRING COVER ref.:

No.	Item	Quantity
9.1	Cover	1

MOTOR

EC167 / EC157 / EC147



10 MOTOR COVER ref.:

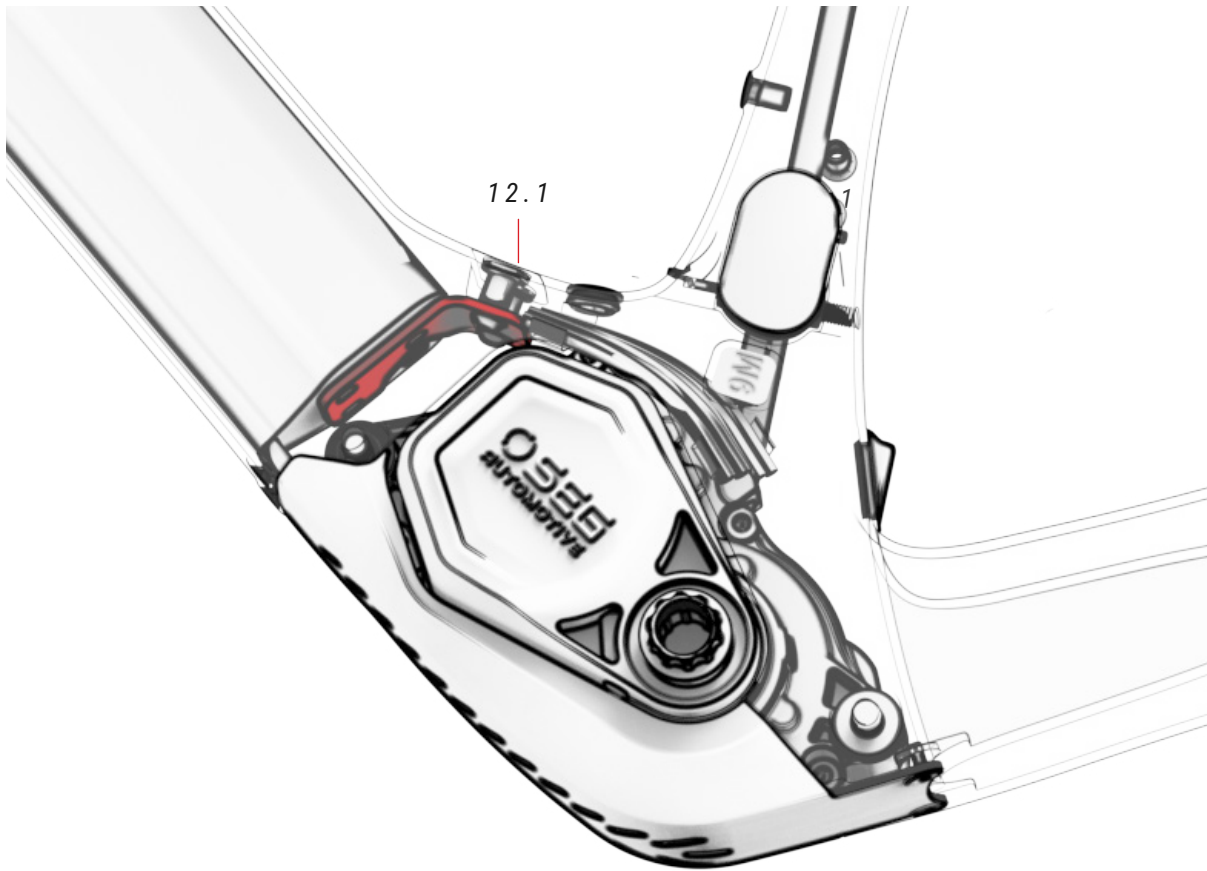
No.	Item	Quantity
10.1	Motor cover bolt M4xP0.7x10mm	4
10.2	Motor cover	1

11 MOTOR BOLTS ref.:

No.	Item	Quantity
11.1	ø13*4.4/ø8/M8*P1.25*23/65	1
11.2	ø13*4.4/ø8/M8*P1.25*18/88.5	2

BATTERY HOLDER

ALL MODELS



12 BATTERY HOLDER

ref.:386221400

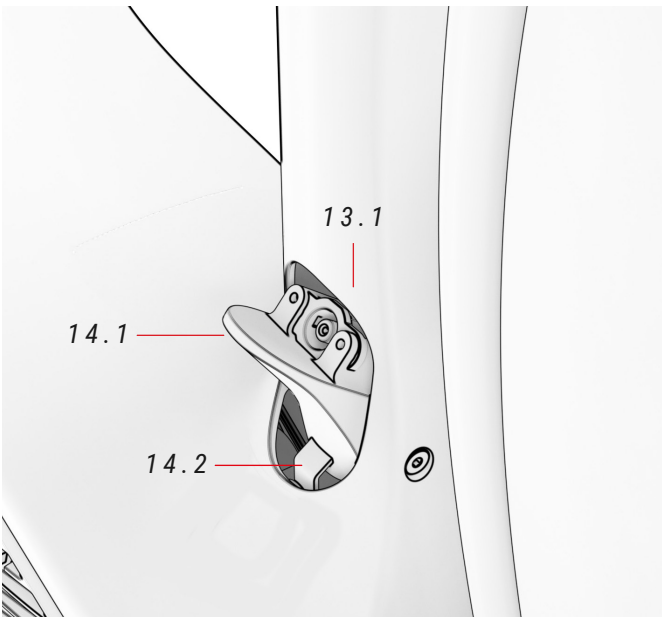
ref.:387462900

No.	Item	Quantity
12.1	Battery holder	1



CHARGING PORT

EC167 / EC157 / EC147



13 CHARGING PORT

EC127 ref.:386136800

ref.:386136200

No.	Item	Quantity
13.1	Charging port	1

14 CHARGING PORT COVER

ref.:391836400

No.	Item	Quantity
14.1	Cover	1
14.2	Holder	1
14.3	Bolt	1

DI2 BATTERY

EC167 / EC157



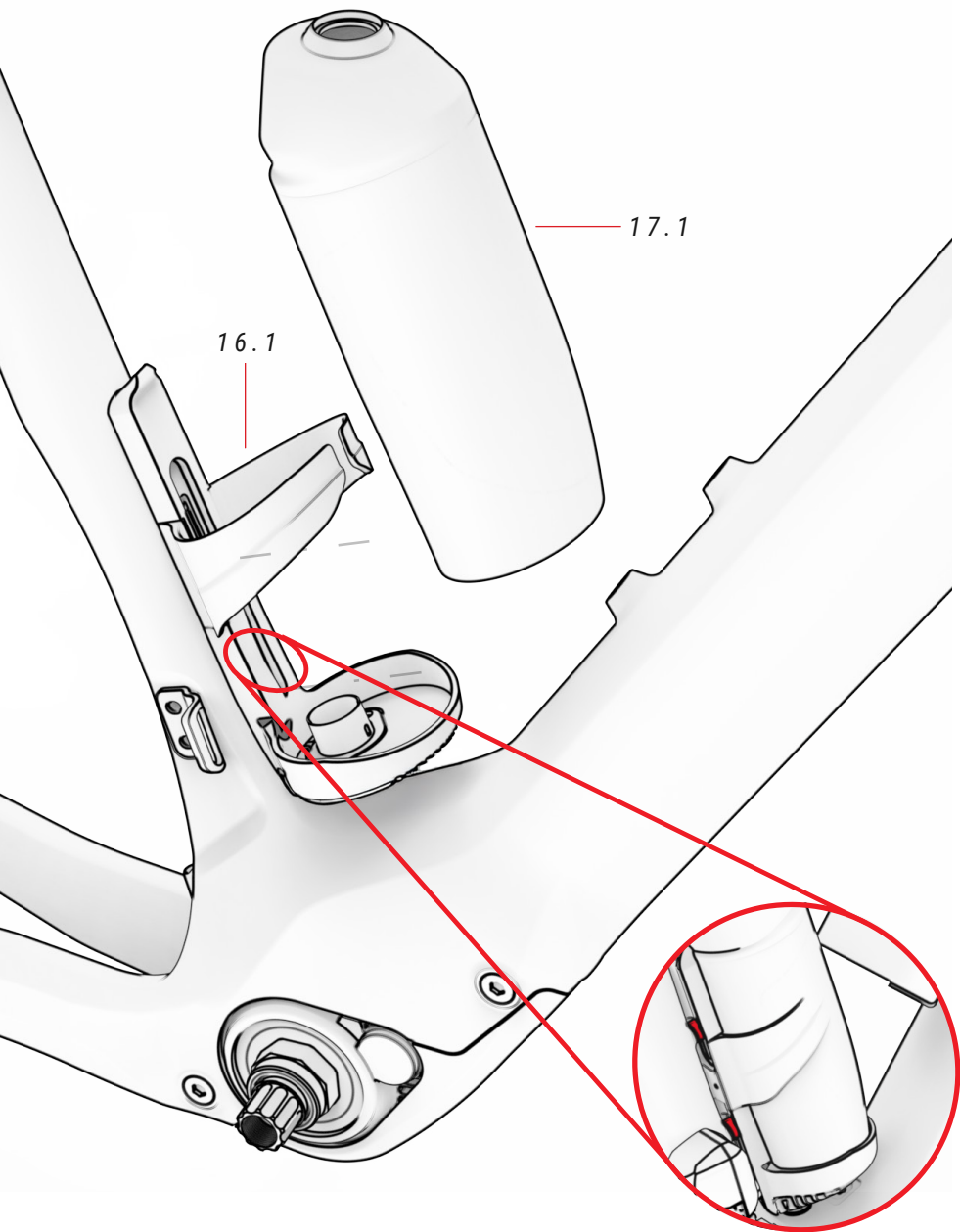
15 DI2 HOLDER

ref.:387211100

No.	Item	Quantity
15.1	Di2 holder	1
15.2	Bolt	1
15.3	Nut	2

XPRO DUAL DISCHARGE HOLDER

ALL MODELS



16 XPRO DD BOTTLE HOLDER KIT ref.:

No.	Item	Quantity
16.1	XPRO DD bottle holder	1

17 XPRO DD BOTTLE ref.:

No.	Item	Quantity
17.1	XPRO DD bottle	1

XPRO DD BOTTLE HOLDER
ASSEMBLY VIDEO



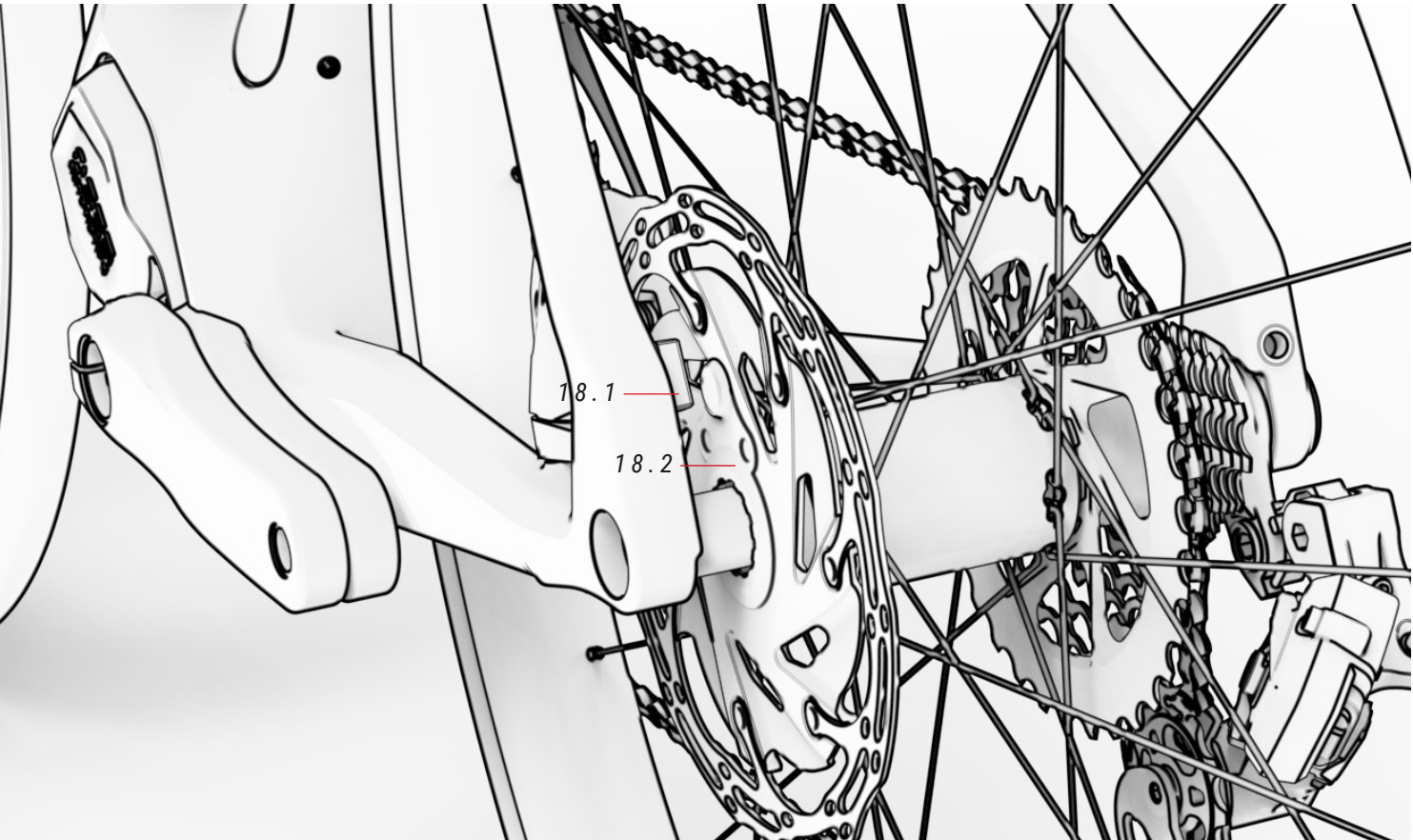
0

<https://youtu.be/UrMfZvXCPnA>

- ⚡ Check the "Electrical System Components Diagram" section of this manual to see how all electrical components should be correctly assembled.
- ⚠ Screws in the downtube that are longer than the specified length may cause battery damage not covered by the warranty. Never overtighten the screws.
- ⚡ Check that the bottle cage includes two 5mm spacers for correct system operation.

SPEED SENSOR MAGNET

ALL MODELS



18 SPEED SENSOR MAGNET ref.:

No.	Item	Quantity
18.1	Speed sensor	1
18.2	Magnet	1

CABLING OF THE MECHANICAL PARTS

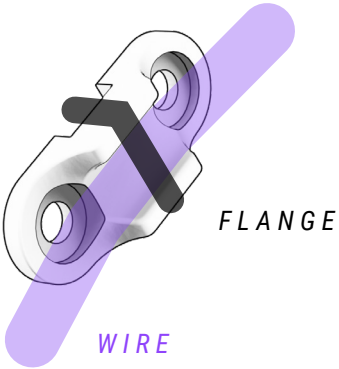
The images below show the routing configuration for the mechanical component cables. The cables will remain protected inside the frame triangle until they come out through the motor cover for ease of maintenance.

ALL MODELS

FRONT DERAILLEUR

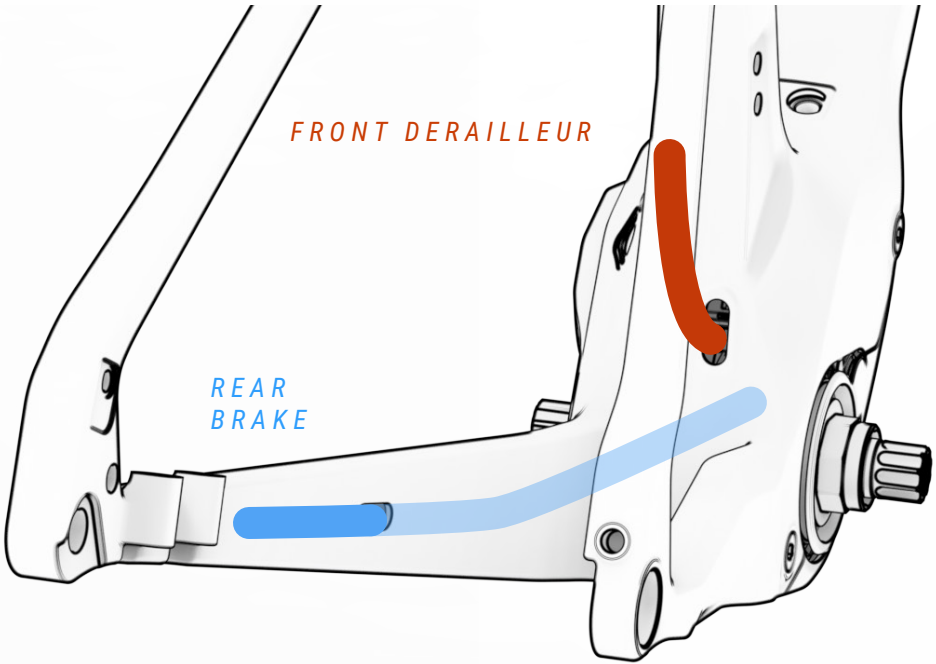
REAR BRAKE

REAR DERAILLEUR



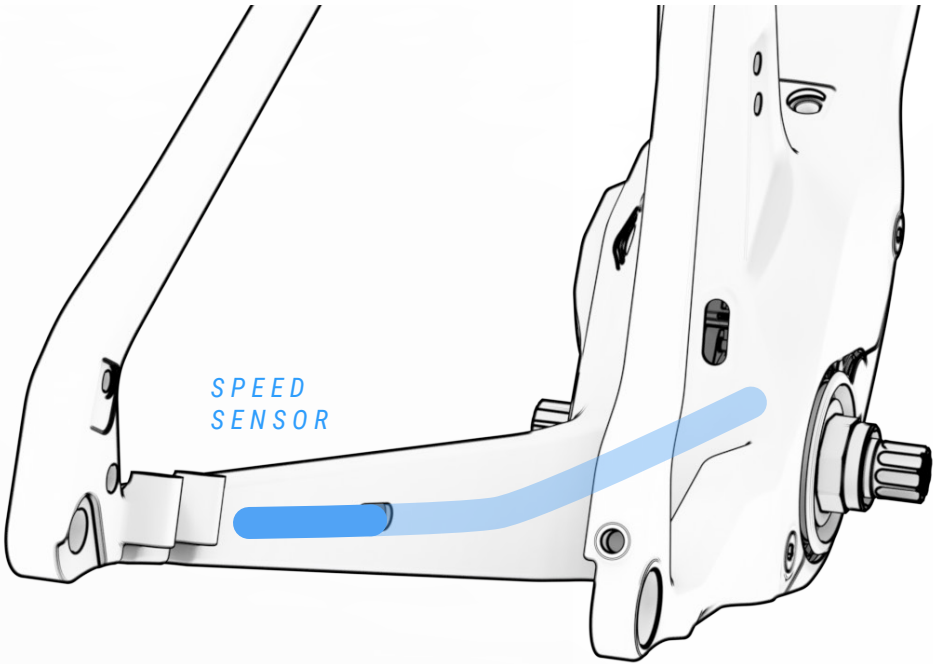
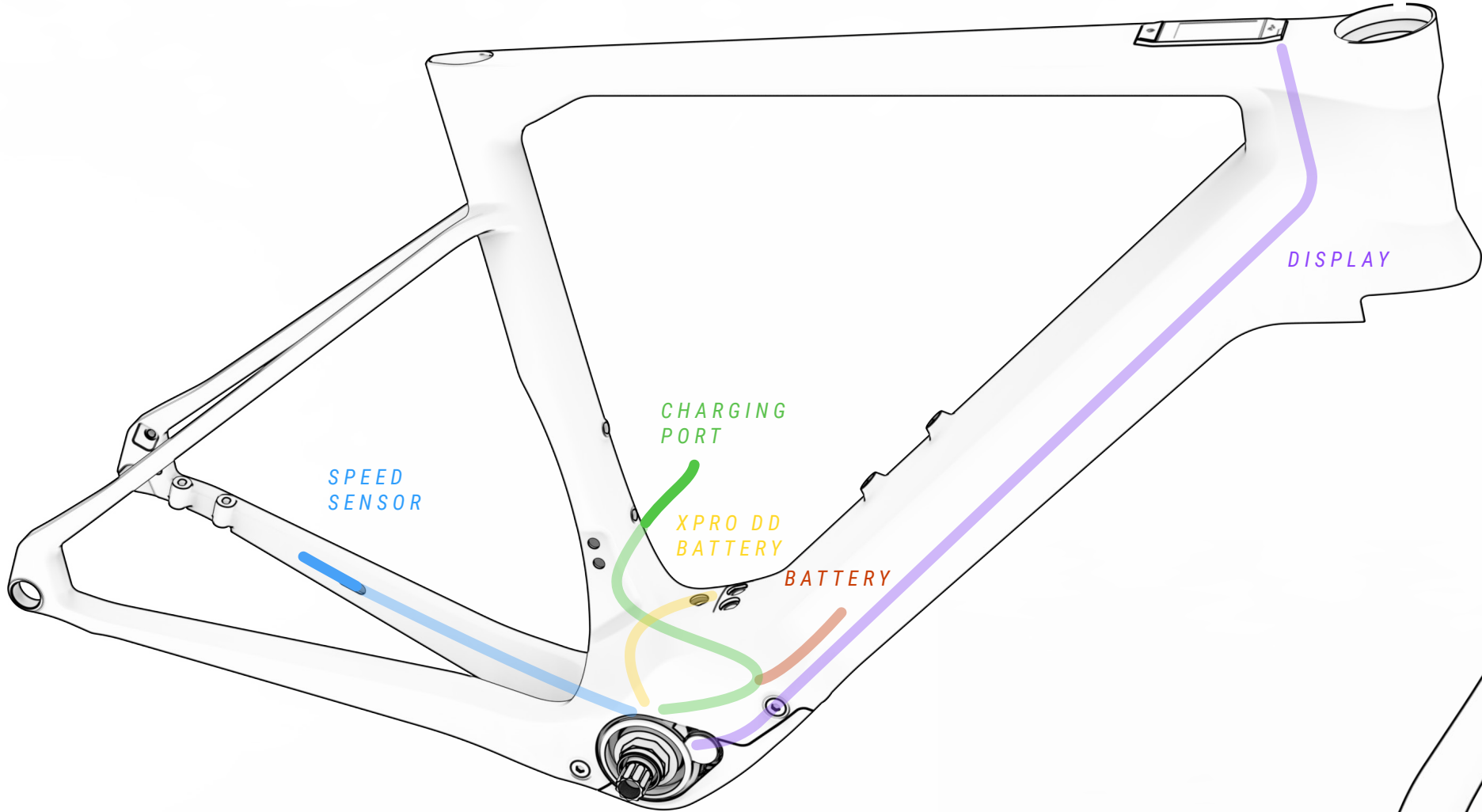
! Cable guides are located in the engine housing area to properly route the wiring. BH recommends using them to prevent potential damage to components.

If the guide is open, the correct way to use it is to secure the wiring harness to it. It is important not to completely restrict the movement of the cables for proper system operation.



CABLING OF THE ELECTRICAL SYSTEM'S PARTS

ALL MODELS

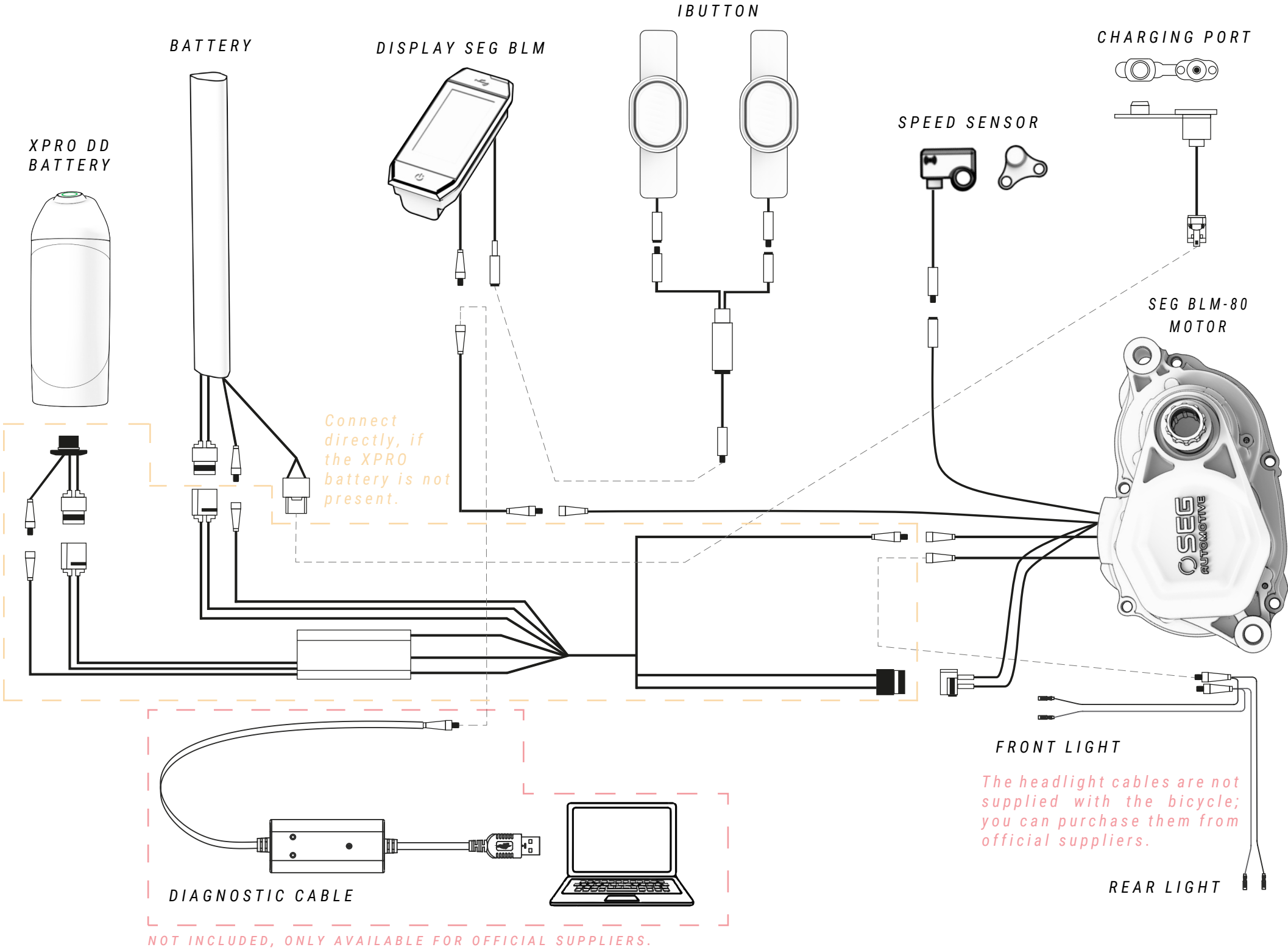


 Incorrect handling of the electrical components may cause damage, which will not be covered by the warranty. Such damage may cause serious injuries or even death.

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

ALL MODELS



⚠ 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.



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