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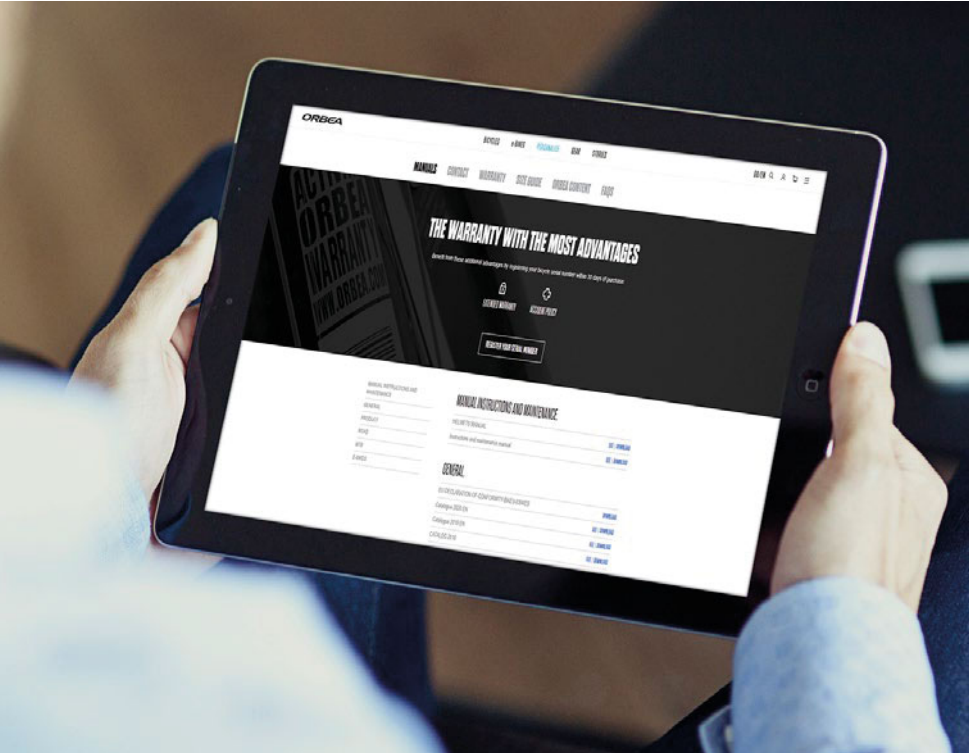
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This technical manual contains important information about your bicycle, on how to use it, its maintenance and spare parts. Read it carefully.

This document is a supplement to the General User Manual for Orbea bicycles and components, which describes the proper use and adjustment of general bicycle components in greater detail for safe riding and operation. You can view and download the User Manual, as well as the rest of the technical manuals for Orbea products, from our website:

www.orbea.com/gb-en/support/manuals

You can consult the relevant information on the use, maintenance and characteristics of the components from other manufacturers that are fitted to our bicycles, such as wheels, handlebars, pedal assist systems, suspension forks, etc., on the website of the manufacturer in question or through their dealer in your country.





01 KEY TO SYMBOLS


Throughout this technical manual, various symbols are used that indicate instructions and warnings for use, maintenance and assembly. Pay attention to these symbols to avoid dangerous situations and to ensure the correct use and assembly of all components.

The meaning of these symbols is explained below. In this manual, the symbol may be accompanied only by the relevant instruction for the component it describes. Read the following information carefully to understand its meaning.


SAFETY INSTRUCTIONS


 **DANGER:** Dangerous situation which, if not avoided, will result in serious injury or death.

 **WARNING:** Dangerous situation which, if not avoided, could result in serious injury or death.

 **CAUTION:** Dangerous situation which, if not avoided, may result in minor or moderate injury.







NOTICE Situation not related to physical injury. Relevant information.

 **RISK OF ELECTRIC SHOCK:** Hazardous situation which, if not avoided, could result in death or serious injury from electric shock.

 **SHORT CIRCUIT RISK:** Not following the instructions can lead to short circuits in the electrical components, which could cause damage to the components and fire.







The symbols **DANGER** and **WARNING** always imply a risk of accident if measures are not taken to avoid the situation they describe. An accident while riding a bicycle can always involve a risk of serious injury or even death. The risk of death will not always be repeated in this manual when these symbols appear, as the risk is detailed here.

TOOLS

	SPANNER		TORX KEY
	ALLEN KEY		SCREWDRIVER PHILLIPS
	The tool size to use appears inside the symbol		10 N.m

TIGHTENING TORQUES: The required tightening torque (in Newton metres) is shown below the symbol for the tool to be used for the item it describes.

COMPOUND TYPES

	OIL: Light lubrication of components such as chains or cables.
	GREASE: Assembly grease to avoid creaking and seizing.
	CARBON PASTE: Assembly compound to increase friction between carbon fibre components.
	LOCTITE SERIES 600: Fixing cylindrical surfaces.
	LOCTITE SERIES 200: Fixing or threadlocks. Medium resistance.
	LOCTITE SERIES 400: Instant adhesive.

02 ORBEA WARRANTY

Our continuous daily effort to provide our bicycles at the highest quality allows us to offer the following warranty coverage and conditions:

LEGAL WARRANTY

Orbea offers the original owner of the Orbea bicycle, rigid fork or OC component a statutory warranty of 3 years from the date of purchase of the items, or the period stipulated as the statutory warranty period in the country of purchase.

This warranty covers all Orbea products against manufacturing defects and/or failure to meet the standard and guarantees the repair or replacement of the defective product at no cost to the affected customer. Likewise, this warranty also covers paint, varnish and corrosion defects on all frames and rigid forks we fit to our bicycles during the period specified in the previous paragraph of this warranty.

This warranty does not, under any circumstances, cover damage as a result of inappropriate use, falls or accidents or the lack of maintenance, as well as the normal wear and tear of consumable parts, such as, by way of example, but without limitation: seals, bearings, handlebar tape, spokes, tyres, saddles, etc.

For a full description of the coverage conditions and the statutory warranty, please visit:

www.orbea.com/us-en/warranty

ORBEA LIFETIME WARRANTY

In addition to the legal warranty, Orbea offers the original buyer of the bicycle the Orbea lifetime commercial warranty, which covers the frames and rigid forks that we fit to our bicycles against manufacturing defects and material conformity issues with no time limitation, as long as they have registered their product on the Orbea website within 30 days of its purchase.

This warranty extends the original period of coverage against paint, varnish or corrosion defects on the frames and rigid forks by one additional year after the end of the legal warranty period.

Orbea's lifetime commercial warranty only covers frames and rigid forks, but not OC components.

For a full description of the warranty conditions for the lifetime warranty, please visit:

www.orbea.com/gb-en/warranty/#orbea-lifetime-warranty

REGISTER YOUR BICYCLE

In order to benefit from the Orbea lifetime warranty extension, you must register your bicycle within 30 days of its purchase at:

www.orbea.com/gb-en/acceso-registro?from=register-plate/

01. REGISTER YOUR ACCOUNT

02. REGISTER YOUR BARCODE

03. WHERE TO FIND YOUR BARCODE



WARRANTY ON ELECTRICAL ASSIST SYSTEM COMPONENTS

SHIMANO STEPS COMPONENTS

The components of the Shimano STEPS electrical system (motor, display, speed sensor, assist level change switch and Di2 wiring) are covered by a 3-year statutory warranty from the date of purchase of the article or the bicycle, or the period stipulated as the statutory warranty period in the country of purchase.

All warranty requests must be handled through Shimano or through one of the brand's authorised dealers.

EXCLUSIVE ORBEA RS COMPONENTS

Orbea's exclusive RS electrical system components (internal battery, Range Extender, battery connection harness cable, motor and charging port) are covered by a 3-year statutory warranty from the time of purchase of the item or bicycle, or the period stipulated as the statutory warranty in the country of purchase.

All warranty requests must be processed with Orbea through one of our authorised dealers.

These warranties cover all Shimano and Orbea products against manufacturing defects and/or failure to meet the standard and guarantee the repair or replacement of the defective product at no cost to the affected customer.

Under no circumstances does this warranty cover damage resulting from improper use, falls or accidents, incorrect installation or lack of maintenance or failure to observe the usage, storage, charging or other instructions in this manual.

The loss of capacity of the RS batteries (internal battery and Range Extender) due to natural ageing of the batteries through use, charging and storage is not covered by the warranty conditions.

WARRANTY CLAIMS PROCESS

All warranty claims must be processed through an authorised Orbea dealer, who will perform the initial diagnosis and send Orbea, Shimano or the manufacturer of the component subject to the claim all the necessary documentation for a full diagnosis of the claim in question. The dealer will inform the owner about the status of the process and the decision made on the warranty claim by Orbea, Shimano or the manufacturer of the component in question.

WARRANTY CLAIMS AND REPAIRS OF COMPONENTS OF THE ELECTRICAL ASSIST SYSTEM

SHIMANO: Warranty claims or repairs of the following electrical system components will be processed through Shimano:

- Shimano Motors EP801 RS and EP6 RS.
- Displays SC-EN500 and SC-EN600.
- Speed sensor.
- STEPS/Di2 specific wiring.
- SW-EN600-L shift levers.

ORBEA: Warranty claims or repairs of the following electrical system components will be processed through Orbea:

- Range Extender 252 Wh external battery. Gen2.
- Orbea RS 540Wh Gen2 internal battery.
- Harness cable for connection to the internal battery, motor and Gen 2 charging port.
- RS Gen2 Smart Charger.

We recommend that you always go to the dealer from whom you bought your bicycle to process a warranty claim, or the dealer you chose during the process of buying a bicycle that was delivered directly to your home. If you cannot go to the original dealer, you can check the list of authorised dealers on our website or contact Orbea directly so we can let you know the dealer you should go to.

www.orbea.com/gb-en/distribuidores/?country

www.orbea.com/gb-en/contacto/

03 MAINTENANCE

Orbea products are carefully designed to be long-lasting, efficient and easy to maintain. The carbon and aluminium frames and forks are extremely corrosion-resistant.

However, your bicycle components need regular maintenance in order to ensure that it works properly and safely, and to ensure its longevity.

KEEPING YOUR BICYCLE CLEAN

Clean your bicycle with mild soap and water on a regular basis to keep it working as new, and check the condition of the frame and its components. Do not use high pressure water, as it could damage components like bearings or the tubes of the frame.

Citrus-based degreasers are biodegradable and very effective in removing grease from the drivetrain components and the chain.



Built-up dirt can complicate the visual inspection of the components and hide damage that could potentially cause malfunctions or accidents.

NOTICE

Built-up dirt causes the premature wear of components and can even damage some parts of the bicycle frame such as the bearing housings and moving parts. Damage due to lack of cleaning and maintenance is not covered by the warranty.

KEEPING YOUR DRIVETRAIN LUBRICATED

Once you have cleaned your bicycle, lubricate the drivetrain, specifically the chain. Use the minimum amount necessary to lubricate the links, removing any excess to prevent it from attracting dirt, causing the drivetrain to not work properly and the premature wear of the components.



Do not use aerosol lubricants to prevent them from sticking to the brake surfaces. Always check the brakes after lubricating the drivetrain.

INSPECT YOUR BICYCLE BEFORE EACH RIDE

Perform a quick inspection before each ride to verify that your bicycle is in optimal working order. You may encounter small problems that can turn into major incidents during the ride.

FRAME: Inspect the frame and the fork, looking for cracks or other damage. You should not hear any strange noises. If there is any damage to the frame, do not use the bicycle and contact your authorised dealer for inspection.

CHAIN: Ensure it's clean and lubricated. The drivetrain should not make any abnormal noises.

BRAKES: Check that the brakes operate properly and safely. Check the tightening torques of the components.

TYRES: Check for worn tires and look for cuts on the tread or on the sides. If you spot any damage, replace the tyre. Make sure that the tyre pressure is suitable.

WHEELS: Make sure that the wheels turn smoothly and that there are no sideways movements. Pull the wheel slightly sideways to check that there is no lateral play in the bearings. Check for broken or loose spokes. Make sure that the axles and quick-release skewers are tightened securely and to the correct torque.

HEADSET: Activate the front brake and move the front part of the bicycle back and forth, applying pressure on the handlebars with the front wheel on the ground. Check for strange noises or movement of the headset, which could indicate that the bearings are worn or the headset has not been correctly tightened. Once the headset is correctly adjusted, check that it turns smoothly.

SWINGARM PIVOT POINTS: On full suspension bicycles, check that all the swingarm pivot points rotate smoothly and show no signs of play in the bearings.

Pull the swingarm from side to side on the bicycle and pay attention to any noise or play at the pivot points. If the swingarm does not operate smoothly or they show signs of play, this could be a sign that the tightening torques are incorrect or that the bearings are worn or damaged.

BEARINGS: The bearings (bottom bracket, swingarm pivot points, headset, wheels, etc.) are elements subject to wear that must be regularly inspected to ensure that they operate correctly. Bearings in poor condition can damage the components in which they are installed. Bad weather speeds up bearing wear. Bearings that have excessive play or that do not turn smoothly must be replaced immediately. If you are in any doubt, consult your authorised dealer.

NOTICE Damage to components like the frame, bicycle wheels, etc. associated with a lack of maintenance and the replacement of the bearings are not covered by the warranty.

ELECTRICAL SYSTEM: Turn on the bike and check that the electrical system is working properly. Check that there is electrical assistance and that all the components work (motor, display, assistance mode change and speed sensor).

If the electrical assist is not working, check all the connections between the components and their state as well as that of the cables (damaged cables or components must be replaced).


Check for any faults in the electrical system. The Shimano SC-EN500 or SC-EN600 displays will show the error code, if any. The SW-EN600-L remote control unit will show if there is an error in the system by a flashing red lower LED. In assemblies with SW-EN600-L remote control, you can connect the Shimano Etube Project Cyclist phone app to the electrical system via Bluetooth to find out more about the error or warning code and go to the troubleshooting method. If the electrical system still does not work after using the described method, or if there is no method that can be used by the user, please take your bicycle to an authorised dealer for diagnosis and repair.


NOTICE The Shimano SC-EN500 display does not have Bluetooth connectivity so you will not be able to connect the bicycle to the Etube Project Cyclist app. To find out how to resolve the error or warning, see the error code in the Shimano STEPS system manual or take your bike to an authorised Shimano dealer for electrical system diagnosis or replace the original display with Shimano components which are compatible with Bluetooth connectivity.

NOTICE See the sections on handlebars and electrical system in this manual for more information.

See the list of error codes and warnings of the Shimano STEPS system and their resolution methods at the following link:

<https://si.shimano.com/ER/STP0A>

 Failure to follow the recommendations outlined in this manual and riding a bicycle that shows any of the symptoms described above may cause accidents and serious injuries.


 **TIGHTENING TORQUES.** Always check the tightening torques and install the components described in this manual according to the tightening torque specifications. Follow the tightening torque specifications for components from other manufacturers installed on your Orbea bicycle. Failure to follow these specifications may lead to a malfunction of the components, accidents and even death.

MAINTENANCE PERIODS OF COMPONENTS

NOTICE The component maintenance periods indicated below are for reference, and depend largely on factors such as the weather conditions (adverse conditions considerably reduce the life of the components and maintenance times), cleanliness of the bicycle and its components (components with accumulated dirt wear out more quickly) and use (more demanding use of the bicycle will require shorter maintenance periods).

For components from other brands mounted on Orbea bicycles, you can check the recommended or mandatory maintenance periods on the manufacturer's website or by contacting that brand's dealer in your country.

NOTICE Damage to components as a result of failing to follow the recommended maintenance periods could result in damage that is not covered by Orbea's or the manufacturer's warranty.

 Failure to comply with maintenance periods could result in damage to the components and lead to malfunctions and accidents.

HEADSET:

- Inspection of its operation before every ride.
- Disassembly and inspection of the bearings after every 6 months of use.

BOTTOM BRACKET:

- Inspection of its operation before every ride.
- Disassembly and inspection of the bearings after every 6 months of use.

DRIVETRAIN:

- Inspection of its operation before every ride.
- Regular inspection of the chain wear every 500 km. A chain that is worn beyond the manufacturer's recommendations must be replaced to prevent damage to the rest of the drivetrain components. Failure to follow the manufacturer's recommendations for wear could necessitate the replacement of the rest of the parts of the drivetrain.

WHEELS:

- Inspection of its operation before every ride.
- Disassembly and manual inspection of the bearings and all components every 6 months.

SHOCKS AND SUSPENSION FORKS:

- Inspection of its operation before every ride.
- Inspection and full maintenance every 125 hours or once a year (whichever comes first) by the manufacturer's authorised dealer.

DROPPER SEATPOSTS:

- Inspection of its operation before every ride.
- Inspection and full maintenance every 125 hours or once a year (whichever comes first) by the manufacturer's authorised dealer

PIVOT POINTS ON FULL SUSPENSION FRAMES:

- Inspection of its operation before every ride.
- Disassembly of the frame and manual inspection of all bearings every 125 hours of use or once a year (whichever comes first). These times may be shorter, according to the conditions in which the bicycle is ridden. More demanding use of the bicycle or use in adverse weather or in mud requires the disassembly and inspection of the frame once every 75 hours of use or once every 6 months (whichever comes first). If a bearing does not turn smoothly or has excessive play, it must be replaced immediately.

GEAR CABLES AND HOUSING:

- Inspection of its operation before every ride.
- Replacement of gear cables every 6 months to 1 year depending on the conditions in which the bicycle is used.

BRAKES:

- Inspection of the operation and wear of the brake pads or shoes before each ride.
- Check the wear on disc brakes and the cables or hydraulic lines every 6 months to 1 year depending on the conditions in which the bicycle is used. Flush the hydraulic lines once a year.

ELECTRICAL ASSIST SYSTEM COMPONENTS:

Regularly check the connections and cables of the electric assist system components on your bicycle. The connections must be clean and free from foreign objects. The cables must be in good condition and not have any cuts or kinks that could cause short circuits and loss of electrical assist.

The exterior of components such as remote controls and batteries must show no damage that would allow water or other items to enter.

If there is any damage at all to the electrical components, go to your Orbea dealer for diagnosis and/or replacement.

NOTICE Consult the section of this manual entitled “Warnings on the Use of the Electrical Assist System” to find out how to correctly care for its components.

UPDATES TO THE ELECTRICAL SYSTEM:

Ebike electrical assistance systems can have improvements or updates that improve the operation of the system. Some updates to the Shimano STEPS System are done over Bluetooth® when your bicycle is connected to the Shimano Etube Project Cyclist smartphone app.

NOTICE When performing a system update via Bluetooth® using the Etube Project mobile app, it is always advisable to disable the connection to mobile networks and WiFi to prevent an incoming call or message from interrupting the update. If the update is interrupted and this causes the bicycle to malfunction, take it to an authorised Orbea dealer to have the update performed using the Shimano SM-PCE02 dealer interface.

Consult here the manual of the application Shimano Etube Project: <https://si.shimano.com/#/es/iUM/7J4MA/>

Other updates may need to be performed by an authorised dealer. Remind your dealer to check for any available updates for your bike when you bring it in for maintenance or repairs.

NOTICE The Shimano SC-EN500 display does not have Bluetooth connectivity so you will not be able to connect the bicycle to the Etube Project Cyclist app to carry out updates on the electrical system. See your authorised dealer to check for available updates by connecting the bike to the Etube Project Professional tool via Shimano's SM-PCE02 interface or replace the original display with compatible Shimano components with Bluetooth connectivity. See the sections on handlebars and electrical system for more information.



Some of these checks and maintenance requirements go beyond the mechanical knowledge of most bicycle users. If you are not qualified to perform the necessary maintenance, always go to an Orbea dealer for the maintenance of your bicycle and its components. Failure to perform proper maintenance can result in malfunctions and accidents with serious consequences.

NOTICE

Incorrectly performed maintenance can damage the components, which are not covered by the warranty.

SPARE PARTS

Always use original spare parts by Orbea, Shimano or the manufacturer of the component in question.



The use of non-original spare parts can cause damage resulting in breakdowns and accidents with severe consequences.



The installation of several of the parts shown in this technical manual is beyond the mechanical knowledge of most bicycle users. If you are not qualified to install these parts, always go to an Orbea dealer for your bicycle's maintenance. Failure to install spare parts properly can result in breakdowns, accidents and serious injuries.

NOTICE

The installation of non-original spare parts may cause damage to your bicycle that is not covered by the warranty.

AFTER AN IMPACT OR A CRASH

Falling off the bicycle is inherent to cycling. If you have an accident on your Orbea bicycle, make sure you are okay and seek medical attention if necessary. If you have not suffered any injuries, you should check the condition of your bicycle before continuing.

INSPECT THE FRAME AND THE BICYCLE COMPONENTS TO SEE IF THEY HAVE BEEN DAMAGED AT ALL

If you detect any problem, do not continue to ride the bicycle.

POINTS TO CHECK

Inspect the frame and the fork to identify whether either of these components have been broken or bent. If you detect any damage or cracks, you must immediately stop using the bicycle. On carbon frames, look for cracks or soft spots in the carbon. If you detect any of these symptoms, you must immediately stop using the bicycle.



The materials used on carbon frames and forks are rigid and strong, but if overloaded or if they suffer an impact, the fibres do not bend, and they will break. A sufficiently strong impact on this material could result in damage that, although not visible at first glance, could lead to material failure in the future. If you have any doubts about the consequences of a fall or accident, contact your Orbea dealer for a correct diagnosis of the materials.

Check the drivetrain and the wheels to make sure that the components operate correctly. If you discover any damage to the components, stop using the bicycle immediately.

Even if you do not notice any damage, pay close attention to the sound of your bicycle when you ride it again. Breakage and other problems may cause unusual noises. If you notice any unusual noise, stop using your bicycle immediately and contact your Orbea dealer for a correct diagnosis of the problem.

TAKE YOUR ORBEA BICYCLE TO AN AUTHORISED DEALER FOR A PROFESSIONAL INSPECTION

Some of the consequences of a fall or accident can only be detected by completely disassembling the bicycle to check for cracks or other signs of deterioration.



A crash or impact can cause serious damage to your bicycle and its components, causing them to fail or wear out prematurely. Failures can occur suddenly and without warning, causing loss of control of the bicycle, serious injury or even death.

04 URRUN USE WARNINGS

MAXIMUM TYRE WIDTH

This technical manual specifies the maximum size of the tyres that can be fitted on the frame. Always follow these guidelines when installing tyres on your bicycle.

However, the real measurements of the tyre circumference and width may change from one manufacturer to another. When installing a tyre other than that originally mounted on your Orbea bicycle, check that there is at least 6 mm between the top and the sides of the tyre and any part of the frame or fork.

NOTICE Damage to the frame or components due to the use of a tyre that does not comply with these measurements is not covered by the warranty.

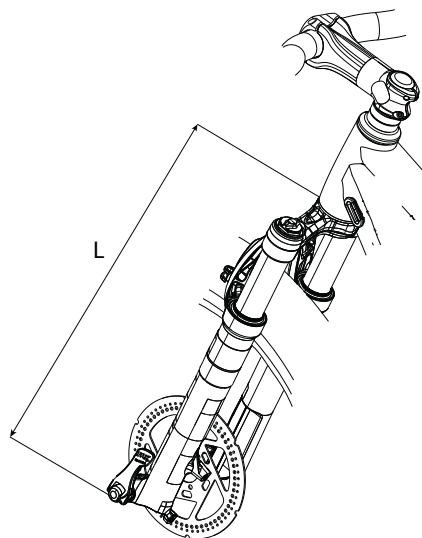
MINIMUM SEATPOST INSERTION

⚠ Always follow the minimum insertion indications given for the seatpost to be used or the frame on racing bikes with Orbea exclusive seatposts. Failure to comply with these values can stress the materials beyond the range for which they were designed and cause breakages not covered by the guarantee, as well as accidents that can cause serious injuries.

MAXIMUM FORK LENGTH (AXLE-TO-CROWN)

Always follow the maximum fork length listed in the technical specifications section of this manual. The maximum fork length refers to the distance between the fork axle and the bottom part of the headset tube (axle to crown).

⚠ Failure to follow this requirement and installing forks with a length greater than the maximum specified can force the frame beyond its design characteristics, possibly resulting in malfunctions of the material that could cause accidents and serious injuries.



MAXIMUM NUMBER OF HEADSET SPACERS

⚠ Never use more headset spacers below the stem than are specified for the frame. See the specifications tables to find the maximum number of headset spacers or the maximum stack that are acceptable for use on an Orbea frame. Installing more spacers than allowed can stress the materials beyond the range for which they were designed, which can cause accidents and serious injuries.



The length of the fork's steerer tube must always be suitable for the position of the stem in the fork. The stem must always be installed on the fork's steerer tube so that both fastening bolts in the rear area of the stem are positioned on the fork's steering tube. Never mount the stem such that the top bolt securing the stem to the steering tube is higher than the top edge of the fork's steering tube. This will force the materials beyond their intended use, potentially causing accidents and serious injuries.

INTENDED USE

The intended use of all models is ASTM Condition 3, which provides for use under conditions 1 and 2, in addition to technical and natural trails with cutting and jumps up to 61 cm.

Use on this terrain requires technical skills and can lead to injury for beginners. For all ASTM categories, please refer to the user manual.



05 WARNINGS ON THE USE OF THE ELECTRICAL ASSIST SYSTEM

CARE AND REGULATIONS OF USE OF THE ELECTRICAL COMPONENTS AND BATTERIES

NOTICE See the section called Relevant information about RS Gen2 batteries for more useful information about use, care and problem solving for the internal battery and Range Extender.

- Do not wash your bike with high pressure water or soak the bike or the electrical components. All the electrical components are protected against splashes and rain. Nevertheless, the use of high pressure water can damage components and cause short circuits.
- Avoid using your bicycle in very bad weather. All the electrical components are protected against splashes and rain. However, very bad weather can damage the components.
- Avoid transporting your bicycle on the outside of your vehicle in the rain. All the electrical components are protected against splashes and rain. However, the speeds reached by your vehicle can worsen the effects of the rain on the electrical components.

If you are going to transport the bicycle outside your vehicle, remove the bicycle's Range Extender and check that the charging port cover is properly closed.

- Do not leave your bicycle or battery exposed to high temperatures for long periods of time. The high temperatures reached could damage the electrical components. Temperatures above 70°C can cause leaks and a fire hazard.
- Respect the temperature ranges for usage (discharge), charging and storing the battery (internal battery) and Range Extender. Using, charging or storing batteries outside these temperature ranges can affect the cells and reduce their useful life and range.

The following temperature chart shows the upper limits for using, charging, and storage provided by the cell manufacturer.

In general, **using, charging and storing batteries in temperatures below 0°C will reduce the range per charge and doing so continuously can affect the useful life of the battery.**

TEMPERATURE RANGES	
Charging	0°C - 40°C
Discharging (use)	-10°C - 40°C
Storage	0°C - 35°C. Humidity: 5%-65%

- Avoid storing your bicycle (internal battery) or Range Extender for long periods of time without checking the charge level of the batteries.

If you plan to store the battery for a long time, charge the battery to about 50% of its capacity before storing it and check the charge level every 3 months (re-charge it to 50%). Never let the charge level drop below 10% in order to avoid damage to the cells.

USE OF THE BATTERY BELOW 10% CHARGE:

Avoid fully discharging the battery by continuous use below 10% charge. Charge levels below 10% can affect cell longevity and charge balancing.

- Avoid leaving the charger continuously connected to the battery for long periods of time and monitor the charging of the battery so that you can disconnect the charger if you detect any anomaly such as smoke, a burning smell or fire.

The RS smart charger is designed to stop the charging process when the battery is completely charged. This prevents damage to the cells and means you can charge the battery worry-free. However, it is always advisable

to supervise the charging process to prevent damage if the charger does not operate properly.

- Avoid impacts and falls of the internal battery and Range Extender. If after a crash or impact the external case of the battery appears damaged, do not charge or use the battery and contact an authorised dealer for diagnosis.

Always connect the cables the right way round. Connecting the cables without making sure they are the right way round can damage the terminals.

- Before each use, check that the charging port is properly closed to prevent dirt and water from entering the charging port.

Do not use metal tools to clean the charging port of any dirt or foreign body. Do not damage the charging port terminals during this process.

NOTICE See the section "Relevant information about RS batteries" for more useful information about use, care and problem solving for the internal battery and Range Extender.

See Shimano's documentation on the STEPS EP6, EP801 system and its components:

User manual:

<https://si.shimano.com/es/um/7K70A>

Dealer manual:

<https://si.shimano.com/es/dm/DUE001>

NOTICE Orbea bicycles with Shimano EP801 and EP6 RS systems are designed and tested to behave in a more similar manner to a non electric bike. Motor power delivery is limited to a maximum of 60 Nm of torque.

NOTICE Damage to components and personal items derived from limiting the motor through methods which are not approved by Orbea are not covered by the guarantee conditions and may be grounds for sanctions in the country of use if the maximum speed limitation established for pedelec systems.

RANGE

The Shimano EP801 and EP600 motors, together with Orbea RS batteries, have been designed to provide the maximum range available for a system of its reduced weight and small size.

The available range per charge depends strongly on various factors such as:

Assistance mode: Using higher assistance levels will decrease the available range.

- **Assist profile:** The assist profile selected via the Shimano Etube Project app will vary the available range. Selecting assist profile 2 means increasing the power of each assist mode, so range may be affected.

- **Customization of assist modes:** Approximate range values take into account the power values of each assist mode, according to Orbea's original settings. Customising the power delivery of each mode via the Shimano Etube Project app will affect the final battery range.

NOTICE To customise the assistance modes or select a different assistance profile on models equipped with the Shimano SC-EN500 display which does not have Bluetooth connectivity, you must connect the bicycle to the Etube Project Professional tool through the SM-PCE02 interface, since it is not possible to connect the system to the Shimano Etube Project Cyclist mobile app.

NOTICE Take your bike to an authorised Shimano dealer to make these changes or replace the original display with compatible Shimano components with Bluetooth connectivity. See the sections on handlebars and electrical system for more information.

- **Temperature:** Charging and using the battery at a low temperature will decrease the range per charge.
- **Weight of the rider and gear/luggage.**
- **How hard the cyclist pedals.**
- **Terrain and slopes:** Use on broken ground and uphill will affect the range available per charge.
- Frequent stops and starts can affect the available range.

TABLE OF APPROXIMATE RANGE:

ASSIST MODE	INTERNAL BATTERY. 540 Wh		
	ECO	TRAIL	BOOST
APPROXIMATE SLOPE (metres)	3,500	2,200	1,600
RANGE TIME/APPROXIMATE SLOPE (metres)	WITH RANGE EXTENDER. 792 Wh (540+252 Wh)		
	+50% of that achieved only with the internal battery		

TRANSPORTING THE BATTERIES OF ELECTRIC BICYCLES

The Orbea RS internal battery and the Range Extender external battery must be transported in compliance with the regulations in force by the means of transport permitted for these articles. The units must always be transported or shipped using the original approved packaging and an approved carrier. Find out about the handling and transport conditions of this type of item in your country.

If the Range Extender or internal battery have to be sent to Orbea for repair or diagnosis, it must be sent in its original approved packaging and a carrier qualified for batteries must be used. Orbea can provide information about your best option.

If you need the safety documentation for the RS batteries (MSDS) for transport, or the shipping company requests this documentation, contact Orbea and we will provide it.

TRANSPORTING ELECTRIC BIKES

If you plan to travel with your electric bike, find out the conditions of carriage for batteries or battery-installed electric bikes of the airline you plan to use to transport your bike. Most commercial airlines do not allow the transport of batteries with a capacity greater than 100Wh.

If you need the safety documentation for the RS batteries (MSDS) for transport, or the shipping company requests this documentation, contact Orbea and we will provide it.

06 USE OF URRUN

This section describes the basic operation of the Shimano STEPS EP801 and EP600 systems in Urrun and the unique features of Orbea's EP801 and EP600 RS systems. See also the user manual for the Shimano EP801 system here: <https://si.shimano.com/es/um/7K70A>

You can access all user and dealer manuals for Shimano components at:

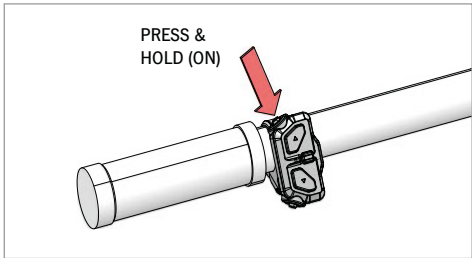
<https://si.shimano.com>

Enter the component name in the search field to access user and dealer manuals, spare parts, etc.

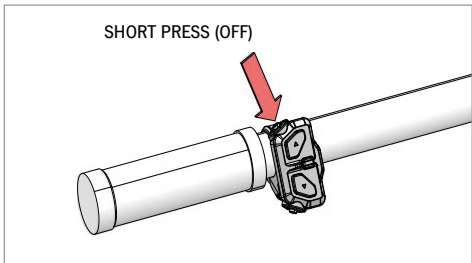
SWITCHING URRUN ON/OFF

WITH SW-EN600-L SWITCH UNIT

To turn on Urrun, press the top button on the Shimano SW-EN600-L switch unit for 2 seconds until the battery charge level is displayed.

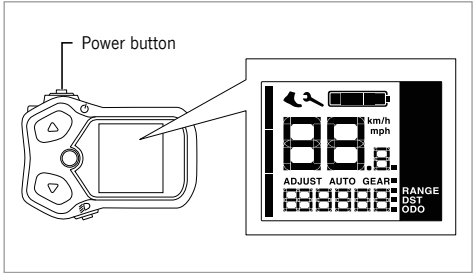


To turn off Urrun, press the top button on the Shimano SW-EN600-L switch unit for 0.5 seconds until the LEDs on the switch unit turn off.

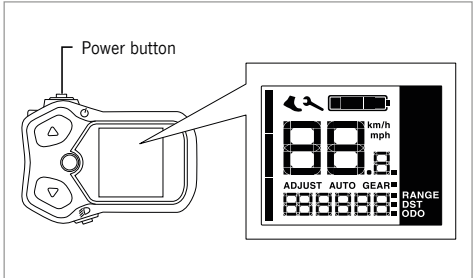


WITH SC-EN500 CYCLE COMPUTER

To turn on Urrun, hold the top button until the screen lights up.



To turn off Urrun, press the same button.



DISPLAYING THE CHARGE LEVEL OF THE BATTERY

Urrun's battery level can be displayed in several ways, depending on the mounting option that is chosen.

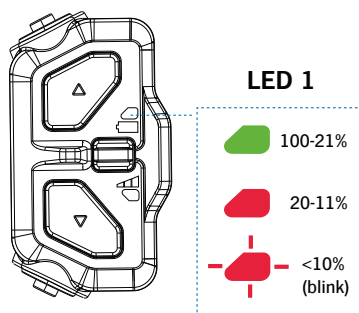
CHARGE LEVEL OF BOTH THE INTERNAL BATTERY AND THE RANGE EXTENDER TOGETHER:

When a Range Extender is connected to the bicycle, the system will calculate the total capacity of both batteries (internal battery and Range Extender). The charge level shown by the methods described below shall be the remaining charge level of both batteries together, taking into account the system's total capacity.

· SW-EN600-L switch unit

With the bicycle switched on, LED 1 on the SW-EN600-L switch unit will show the charge level of the battery(ies).

Do not repeatedly discharge the battery(ies) below 10%. Keeping levels below 10% on a continuous basis can affect the useful life of the cells.



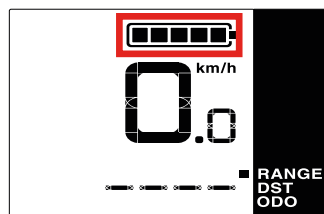
The manual for the SW-EN600-L switch unit can be found here:

<https://si.shimano.com/es/manual/search?model=SW-EN600-L>

· Shimano SC-EN500 displays

On mounts with a SC-EN500 display, the charge level of the battery(ies) will be displayed on the screen.

The level of the battery(ies) is displayed at 5 levels. The battery level indicator blinks when the battery level is low.



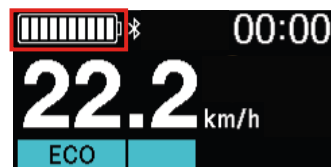
The manual for the Shimano SC-EN500 display can be found here:

<https://si.shimano.com/es/um/7K50A>

· Shimano SC-EN600 displays

On mounts with a SC-EN600 display, the charge level of the battery(ies) will be displayed on the screen.

The level of the battery(ies) is displayed at 10 levels. When the level is 10% or lower it is displayed in red.



The manual for the Shimano SC-EN600 display can be found here:

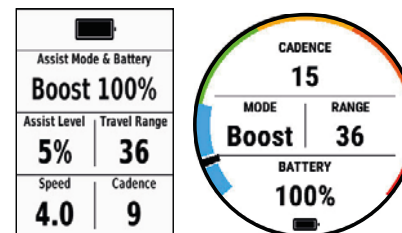
<https://si.shimano.com/es/um/7JD0A>

COMPATIBLE GARMIN DEVICES. ORBEA RS TOOLBOX

The Orbea RS Toolbox app allows relevant Urrun data to be displayed on your compatible Garmin device, including the charge level of the battery(ies) as a percentage.

NOTICE If the remaining battery percentage is not visible in the Orbea RS Toolbox during cycling, it will become visible again when the remaining battery level decreases by 1%. At this time, the EP8 system will once again communicate the battery level to the Garmin unit through ANT Private and the battery level will be displayed on the unit. You can also turn the bicycle off and on again (with your Garmin device on) to reset the connection and display the battery level on your Garmin device.

See the specific section of this manual for how to download and install the Orbea RS Toolbox app on your Garmin device.



NOTICE The Shimano SC-EN500 display does not have ANT Private connectivity, so models equipped with this display will not be able to connect to Garmin devices that have the Orbea RS Toolbox data field installed. To connect these models to Garmin devices, replace the original display with compatible Shimano components with Bluetooth connectivity. See the sections on handlebars and electrical system for more information.

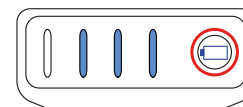
ORBEA RS GEN2 BATTERIES

· 540Wh internal Battery. Gen2.

Urrun's internal battery has no LEDs showing the charge level. To find out the charge level of the internal battery, it must be connected to the electrical assist system so that the charge level can be checked using the methods described above.

· Range Extender 252Wh. Gen2.

Press the main button on Urrun's Range Extender battery once to check the charge level. The LEDs will light up for 5 seconds in 25% segments to show the current charge level, from right to left.



NOTICE The Range Extender of Urrun 2023 is not compatible with the models Urrun 2022, Kemen 2022, Rise Carbon 2021-2022 and Rise Hydro 2022. See the RS component compatibility table in the corresponding annex of this manual.

CHARGING THE BATTERIES

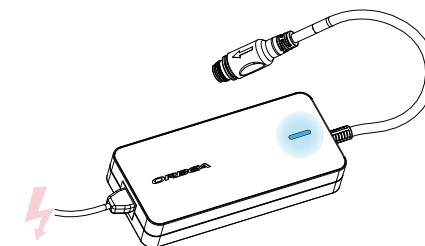
NOTICE Fully charge the internal battery or Range Extender before using the bicycle for the first time.

· Orbea RS 540Wh Gen2 internal battery

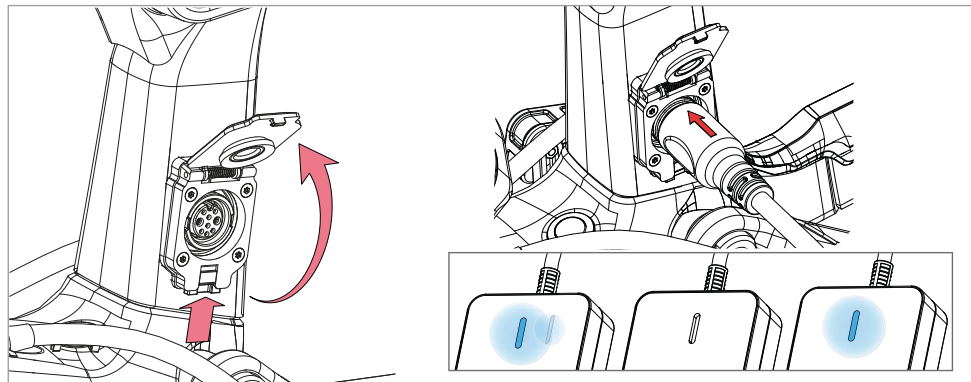
NOTICE The RS Gen2 smart charger for Urrun 2023 is not compatible with Rise Carbon 2021-2022, Rise Hydro 2022, Kemen 2022 or Urrun 2022.

See the RS component compatibility table in the corresponding annex of this manual.

To charge the Urrun internal battery, connect the charger to a power outlet. The charger LED will flash blue when the charger is not connected to the bicycle.



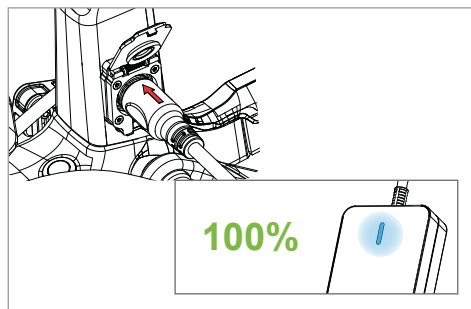
Open the Urrun charging port cover and connect the charger by correctly aligning the connector with the charging port. The arrow on the charging connector must line up with the top of the charging point.



The charger's LED will light up in steady blue for 2 seconds and will then start to turn on and gradually fade off in a cyclical manner until the battery is fully charged.

When the battery is fully charged, the LED on the charger will light up again in steady blue.

NOTICE If the LED on the charger lights up in red when the charger is plugged into a socket or during charging, there is a problem. Immediately disconnect the charger and see the charger troubleshooting section of this manual. If the problem persists, contact an authorised Orbea dealer.



ERROR!



Disconnect the charger from the Urrun charging port by carefully pulling on the charger connector. Make sure that the charging port cover is properly closed.

The bicycle cannot be switched on while the charger is connected to the charging port. If you want to know the exact remaining charge percentage, disconnect the charger from the charging port, turn on the bicycle and check the charge level on the SW-EN600-L switch unit, the SC-EN500 or SC-EN600 display or connect the bicycle to RS Toolbox to find out the battery charge level.

Avoid charge levels of lower than 10% on a regular basis.

· Avoid leaving the charger continuously connected to the battery for long periods of time and monitor the charging of the battery so that you can disconnect the charger if you detect any anomaly such as smoke, a burning smell or fire.

The RS smart charger is designed to stop the charging process when the battery is completely charged. This prevents damage to the cells and means you can charge the battery worry-free. However, it is always advisable to supervise the charging process to prevent damage if the charger does not operate properly.

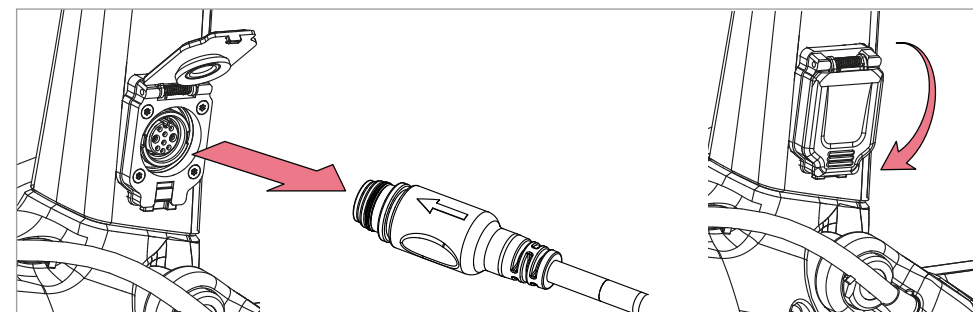
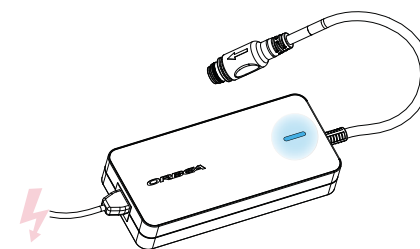
Lithium batteries are temperature-sensitive during the charging process. Always observe the temperature ranges described in this manual for charging, discharging and storage.

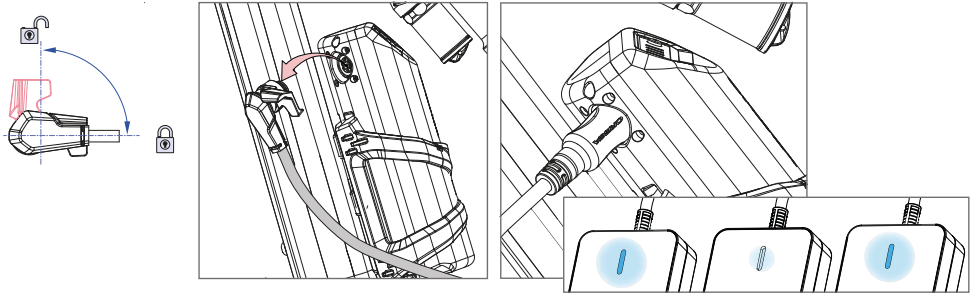
· 252Wh Gen2 Range Extender external battery

NOTICE The RS Gen2 smart charger for Urrun 2023 is not compatible for charging the Range Extender Gen0 for Rise Carbon 2021-2022 or the Range Extender Gen1 for Rise Hydro 2022, Urrun 2022 or Kemen 2022.

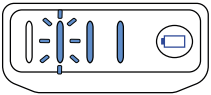
See the RS component compatibility table in the corresponding annex of this manual.

To charge the Range Extender internal battery, connect the charger to a power outlet. The charger LED will flash blue when the charger is not connected to the bicycle.



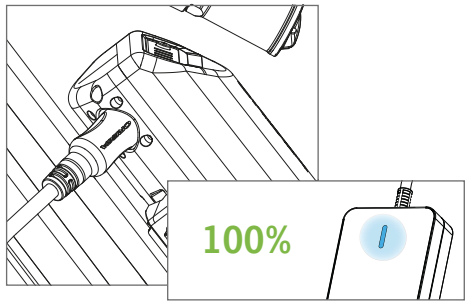


Disconnect the cable connecting the Range Extender to the bicycle charging point (if connected) by first turning the Range Extender's cable locking tab and then pulling on the cable. Connect the charger to the Range Extender by correctly aligning the charging port's pins with the pins on the charger's connector. The charger's LED will light up in steady blue for 2 seconds and will then start to turn on and gradually fade off in a cyclical manner until the battery is fully charged. When the battery is fully charged, the LED on the charger will light up again in steady blue.



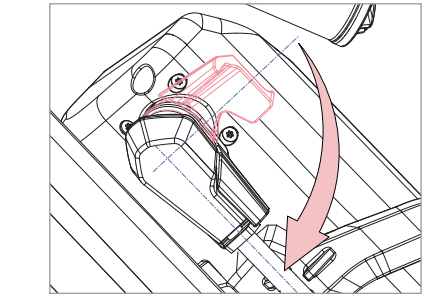
When the battery is fully charged, disconnect the charger from the charging port by carefully pulling on the charger's connector.

If you are going to use the Range Extender on the bicycle, open the locking tab and connect the Range Extender's cable to the bicycle's battery and charging port. Once the cable is properly connected, close the locking tabs for a secure connection.



While the Range Extender is charging, the battery charge indicator LEDs will show the current charge level.

The flashing LED shows the percentage (in 25% segments) that is being charged.



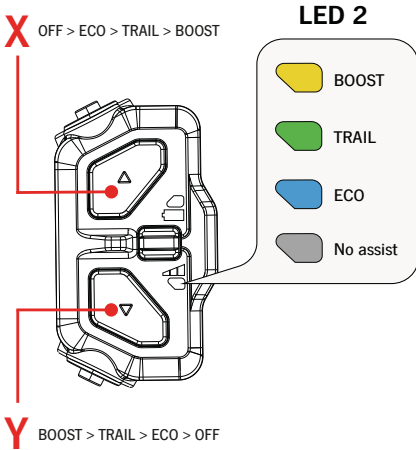
Avoid charge levels of lower than 10% on a regular basis.

· Avoid leaving the charger continuously connected to the battery for long periods of time and monitor the charging of the battery so that you can disconnect the charger if you detect any anomaly such as smoke, a burning smell or fire.

The RS smart charger is designed to stop the charging process when the battery is completely charged. This prevents damage to the cells and means you can charge the battery worry-free. However, it is always advisable to supervise the charging process to prevent damage if the charger does not operate properly.

Lithium batteries are temperature-sensitive during the charging process. Always observe the temperature ranges described in this manual for charging, discharging and storage.

NOTICE See the section "Relevant information about RS batteries" for more useful information about use, care and problem solving for the internal battery and Range Extender.



CHANGING THE ASSIST LEVEL

WITH THE SHIMANO SW-EN600-L LEVER

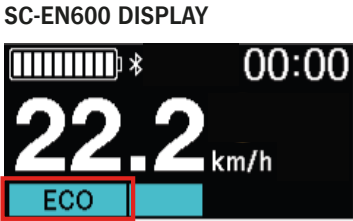
To change the assist mode to pedalling with the SW-EN600L lever, press the X button to increase the assist level to the maximum available (Boost).

Press the Y button to lower the assist level to the level without electrical assist.

The available assist modes are:

- OFF (no electrical assist)
- ECO
- TRAIL
- BOOST

When the assist mode is changed, the LED2 on the lever will change colour to show the current assist level. In assemblies with a display, the name of the current level will be shown on the display.

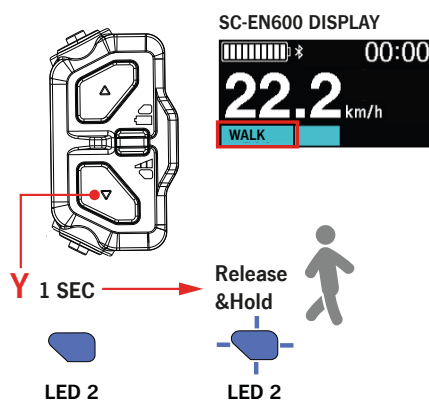


WALK ASSIST

To activate the Urrun walk assist mode, press and hold the Y button on the SW-EN600L switch unit for 1 second until the word "WALK" appears on the display or the LED 2 lights up in blue on the switch unit.

Release the Y button on the remote control and press it again to activate the walk assist. The system will keep the walk assist activated as long as you keep pressing the Y button on the remote. While the walk assist is activated, the LED on the remote control will flash blue.

To cancel the WALK mode, press the X button on the remote control.



The manual for the SW-EN600-L switch unit can be found here:

<https://si.shimano.com/es/manual/search?model=SW-EN600-L>

The manual for the Shimano SC-EN600 display can be found here:

https://si.shimano.com/es/manual/search?input_model=sc-en600

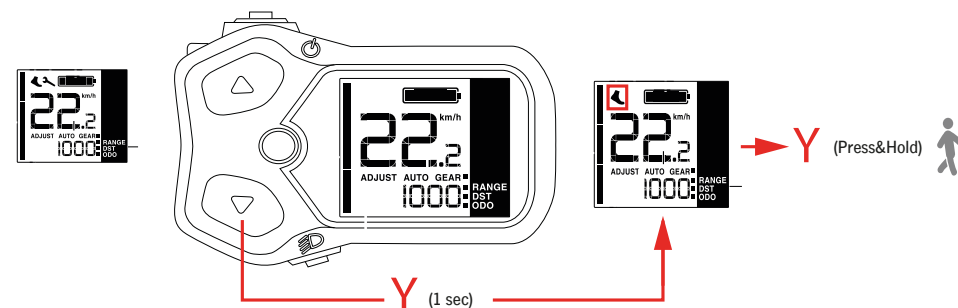
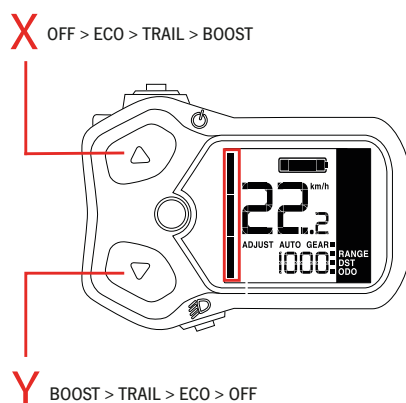
With display with the Shimano SC-EN500 integrated change switch

To change the assist mode to pedalling with the SW-EN500 display and change switch, press the X button to increase the assist level to the maximum available (Boost). Press the Y button to lower the assist level to the level without electrical assist.

The available assist modes are:

- OFF (no electrical assist)
- ECO
- TRAIL
- BOOST

The assistance mode will be reflected on the left of the screen by means of bars. The greater the number of bars displayed (maximum 3), the more powerful the level of assistance selected.



WALK ASSIST

To activate the walk assist mode in Urrun, press and hold the Y button on the SC-EN500 remote control for 1 second until the walk assist icon is displayed on the screen.

Release the Y button on the remote control and press it again to activate the walk assist. The system will keep the walk assist activated as long as you keep pressing the Y button on the remote.

To cancel the WALK mode, press the X button on the remote control.

CUSTOMISING THE PROFILES AND ASSIST LEVELS

On bicycles with an SW-EN600-L assist remote with or without an SC-EN600 display, the power levels of each assist level can be changed via the Shimano Etube Project Cyclist mobile app for a more customised experience.

The Shimano EP801 RS motor has two electrical assist profiles, within each of which the ECO, TRAIL and BOOST electrical assist levels can be independently customised using the Shimano Etube Project Cyclist mobile app.

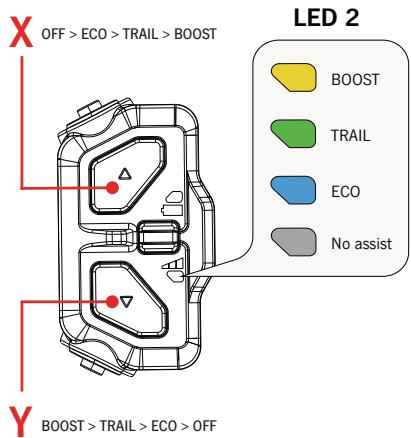
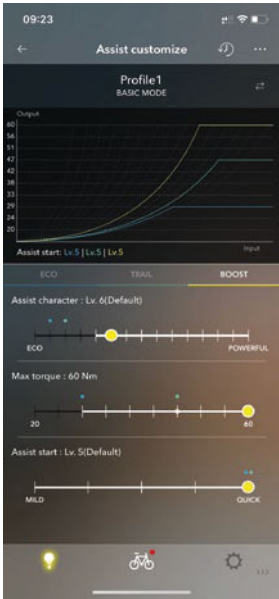
Each assist profile can be activated as a BASIC or FINE TUNE profile:

· **BASIC:** Within the profile there are only three assist levels that can be selected (ECO, TRAIL and BOOST). The assist and maximum torque characteristics of each level can be modified separately.

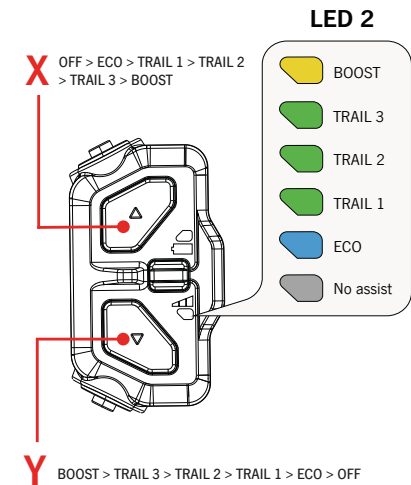
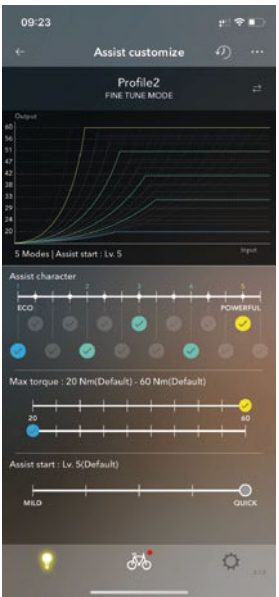
· **FINE TUNE:** Up to 15 levels of assist can be selected by remote control and activated within the profile. Each level is activated within a preset assist character, and the maximum and minimum motor torque can be modified. All intermediate levels that are activated from the first two levels onwards will be visible as TRAIL on the remote control (green light on LED 2).

See the section of this manual on the Shimano Etube Project app for information about how to change the profiles and assist levels.

BASIC MODE



FINE TUNE (example)



See Shimano's full manual for the Etube Project Cyclist app at the following link:

<https://si.shimano.com/es/um/7J4MA>

NOTICE Models equipped with the Shimano SC-EN500 display, which does not have Bluetooth connectivity, cannot be connected to the Etube Project Cyclist mobile application to customise the power delivery of the assistance levels. If you wish to modify the assistance levels on these models, please take your bike to an authorised Shimano dealer to connect the bike to the Etube Project Professional tool via the SM-PCE02 interface and make the necessary changes or replace the original display with compatible Shimano components with Bluetooth connectivity. See the sections on handlebars and electrical system in this manual for more information.

TURNING ON/OFF THE LIGHTS (OPTION)

If your Urrun model has been assembled in Orbea with the Lezyne front headlamp option, you can activate the light through the Shimano SW-EN600-L control or the SC-EN500 display.

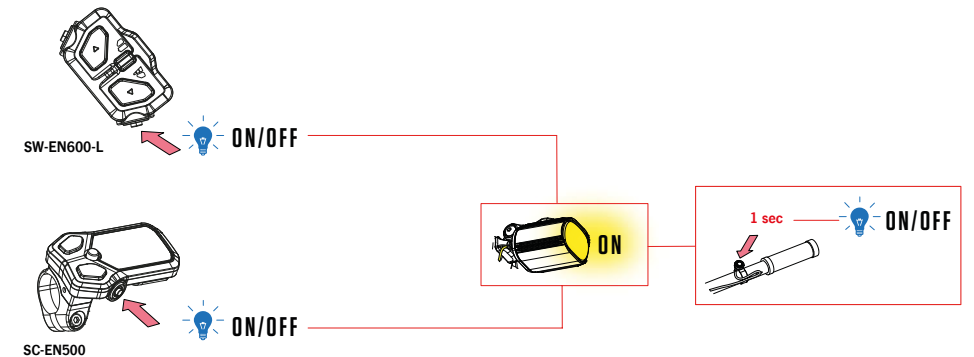
On both SW-EN600-L controls and Shimano SC-EN500 displays, use the light button to turn the light on or off.

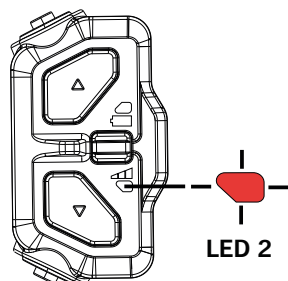
Once you have activated the light via the display, you can use the Lezyne spotlight's handlebar remote to power the front light on or off without using the display. Press and hold the button on the remote to turn the front light on or off.

With the front light on, press the handlebar remote to access the different High Beam and Low Beam modes of the headlamp.

If you are not going to use the light on your ride with Urrun, it is advisable to deactivate the light through the remote control or display so that the motor does not send power to the headlamp if it is not in use.

NOTICE The Shimano EP801/EP6 motor allows the connection of a rear light cable. The rear light is activated by the method described above. Orbea does not offer rear light assemblies on Urrun models, so it cannot be held responsible for the feasibility of these assemblies if the user or dealer decides to mount a rear light on Urrun models.





SYSTEM ERRORS/WARNINGS

· With the Shimano SW-EN600-L lever

When an error or warning is detected in the system, LED 1 on the remote control will flash red. In assemblies with SC-EN600 displays, the error or warning code will be shown on the display. Restart the bicycle and connect it to the Shimano Etube Project Cyclist app. The identified error and its solution can be seen in the Maintenance>Error Log section. You can also refer to the Shimano EP8 system manual for information about error codes and their solutions.

· With display with the Shimano SC-EN500 integrated change switch

When an error or warning is detected in the system, the SC-EN500 display will show the error or warning code on the screen.

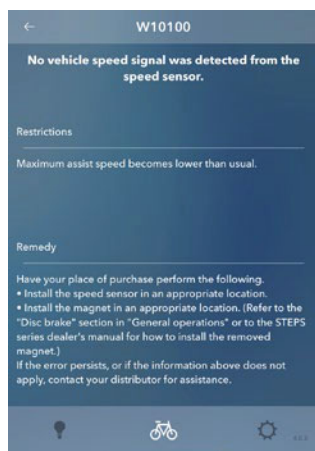
SC-EN500	
ERROR	
WARNING	

NOTICE

The Shimano SC-EN500 display does not have Bluetooth connectivity so you will not be able to connect the bicycle to the Etube Project Cyclist app. To find out how to resolve the error or warning, see the error code in the Shimano STEPS system manual or take your bike to an authorised Shimano dealer for electrical system diagnosis or replace the original display with a Shimano SW-control. EN600-L.

See the list of error codes and warnings of the Shimano STEPS system and their resolution methods at the following link:

<https://si.shimano.com/es/error>



07 SHIMANO ETUBE PROJECT CYCLIST

CUSTOMISATION OF THE ELECTRICAL ASSIST SYSTEM

NOTICE

Models equipped with the Shimano SC-EN500 display, which does not have Bluetooth connectivity, cannot be connected to the Etube Project Cyclist mobile application to customise the power delivery of the assistance levels. If you wish to modify the assistance levels on these models, please take your bike to an authorised Shimano dealer to connect the bike to the Etube Project Professional tool via the SM-PCE02 interface and make the necessary changes or replace the original display with compatible Shimano components with the SW-EN600-L assist command.

The Shimano EP801 and EP6 system, via the Etube Project Cyclist smartphone app, allows customisation of the assist levels so that you can adjust the system to your needs.

The EP8/EP6 transmission units allow the configuration of two assistance profiles. Each of the ECO, TRAIL and BOOST electrical assist levels can be customised independently using the Shimano Etube Project mobile app.

Each assist profile can be activated as a BASIC or FINE TUNE profile:

- **BASIC:** Within the profile there are only three assist levels that can be selected (ECO, TRAIL and BOOST). The assist and maximum torque characteristics of each level can be modified separately.
- **FINE TUNE:** Up to 15 levels of assist can be selected by remote control and activated within the profile. Each level is activated within a preset assist character, and the maximum and minimum motor torque can be modified.

All intermediate levels that are activated from the first two levels onwards will be visible as TRAIL on the remote control (green light on LED 2).

See the “Changing the assist level” section of this manual.

The full manual for the Etube Project smartphone app can be found in the Shimano documentation. The Etube Project app also provides you with functions such as the customisation of remote controls, generation of error reports, component firmware updates, etc. See the full manual for the Etube Project Cyclist app here:

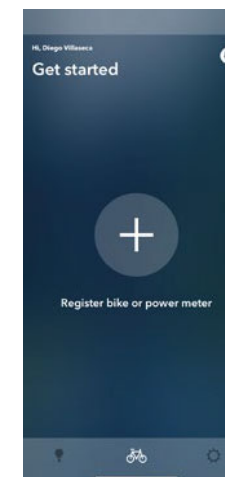
<https://si.shimano.com/#/es/iUM/7J4MA>

Download and install Etube Project on your smartphone from Google Play or Apple Store.

1. Open Etube Project on your smartphone.

Turn on the bicycle and open the app on your phone

2. Select Register Ebike.



3. Select the unit to be paired.

If the unit is not visible on the display after a few seconds, press one of the buttons on the assist level change switch to activate the connection.

4. Register your bicycle in Etube Project.

You can choose a password so that only you can make changes to your bicycle. If you do not wish to change the password, continue to the next step.

5. Select the "Assist" option in the Customise tab.

6. Change the maximum torque and assist characteristics of each profile assist mode.

See the method for creating and customising assist profiles in Etube Project Cyclist for the Shimano EP801 and EP6 motors here:

https://si.shimano.com/es/um/7J4MA/customize_Ebike_settings

- Remember to apply the changes for each modification you make to the system in the Etube Project app.

The assist profile that is active when the bicycle is disconnected from the app will be the one that is selected on the app's display when exiting the app.

On models fitted with the Shimano SC-EN600 display, the assist profile can be changed via the display menu (as well as through the Etube Project Cyclist app as described in the previous paragraph).

- Settings menu screen (press and hold button A on the display while the bike is stopped) → [Assist profile].

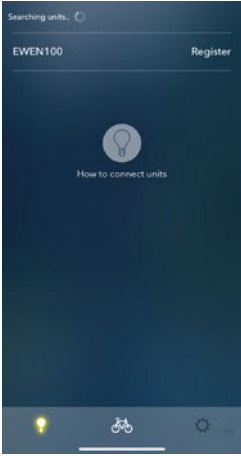
See the full manual for the Shimano SC-EN600 displays in Si.Shimano:

<https://si.shimano.com/es/um/7JD0A>

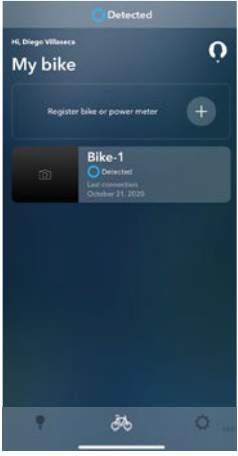
VIEWING ERRORS IN THE SYSTEM

If there are errors in the electrical assist system, Etube Project Cyclist allows you to view the error codes and the method for checking and repairing the error.

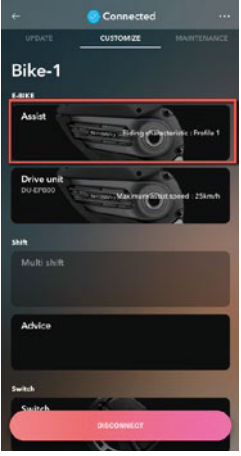
See the "System Errors/Warnings" section of the Using Urrun section of this manual for the ways in which the system displays an error or warning and how to connect to Etube Project Cyclist to find out about the codes and error resolution methods.



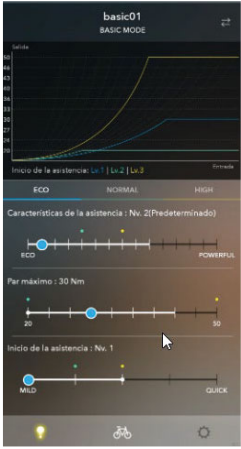
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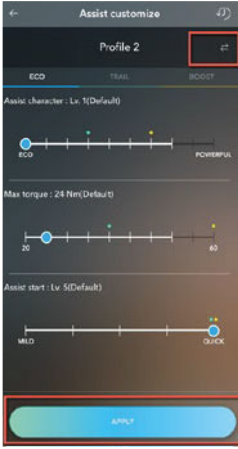
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5



6



6

08 ORBEA RS TOOLBOX

DATA FIELD FOR GARMIN DEVICES

INSTALLING AND UNLOCKING THE ORBEA RS TOOLBOX ON GARMIN DEVICES. GARMIN EXPRESS (PC/MAC)

Orbea RS Toolbox is an exclusive app for Garmin devices for owners of Orbea bicycles with Shimano EP801 and EP6 motors that is added to your compatible unit as a data field, and allows you to view relevant information about your bicycle during your ride.

NOTICE Models equipped with the Shimano SC-EN500 display do not have ANT Private connectivity, so will not be able to connect to Garmin devices that have the Orbea RS Toolbox data field installed. In order to connect these models to Garmin devices, it is necessary to replace the SC-EN500 display with the SW-EN600-L assist command.

NOTICE The Orbea RS Toolbox must be unlocked and installed on compatible Garmin units through the Garmin Express PC/Mac app, following the method described below.



IT IS NOT POSSIBLE TO UNLOCK AND INSTALL THE RS TOOLBOX USING THE GARMIN CONNECT MOBILE APP.

Download and install Garmin Express for PC or Mac:

www.garmin.com/en-US/software/express/windows/

An Internet connection is required to complete the unlocking and installation process.

NOTICE Unlocking the Orbea RS Toolbox requires the registration on the Orbea website of the registration number of your new Orbea bike with a Shimano EP801 or EP6 motor, which will also allow you to enjoy the conditions of the Lifetime Warranty. Go to the website and complete your registration after creating a user account if you do not have one.

www.orbea.com/us-en/access-register

MY ACCOUNT

- ORBEA TOOLBOX
- PERSONAL INFORMATION
- CHANGE PASSWORD
- NEWSLETTERS
- OPPORTUNITIES
- WARRANTY REGISTRATION**
- ORDERS
- YOUR SAVED BIKES
- BIKE REQUESTS

WARRANTY REGISTRATION

Enter bike's registration number and start enjoying your Orbea warranty.

REGISTRATION NUMBER * DATE OF PURCHASE *

LEVEL OF SATISFACTION

HOW SATISFIED ARE YOU WITH THE ORDERING PROCESS? * HOW SATISFIED ARE YOU WITH THE PRODUCT? *

☐ I want to subscribe to Orbea's news bulletins and I confirm that I have read and I accept the [privacy policy](#)

☐ I have read and I accept the [terms and conditions](#) of the Orbea warranty and the [privacy policy](#) *

* Required fields

ACTIVATE REGISTRATION NUMBER

Your bicycle's registration number is an 11 digit code that you will find on the frame:



1. Connect your Garmin device to your PC or Mac using the cable included with the device.

2. Run Garmin Express on your computer.



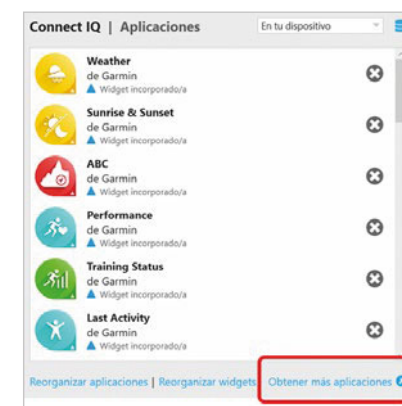
3. Select the device on which you want to install RS Toolbox.



4. Select "Apps".



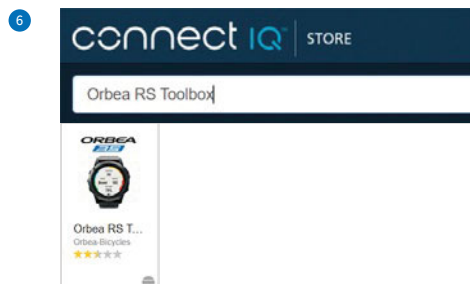
5. Select "Get more apps".



6. The Garmin Connect IQ store will open in the browser.

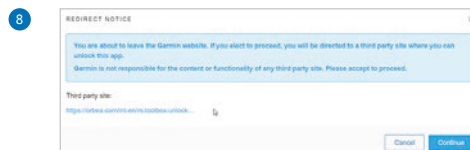
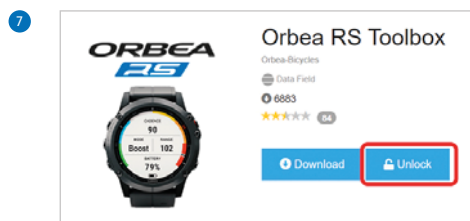
In Connect IQ, search for and select Orbea RS Toolbox.

NOTICE If you cannot see the Orbea RS Toolbox app in the Garmin IQ store, your device is not compatible with the app. We are working every day to include more compatible devices. Please contact Orbea if you require more information.



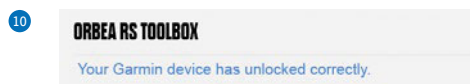
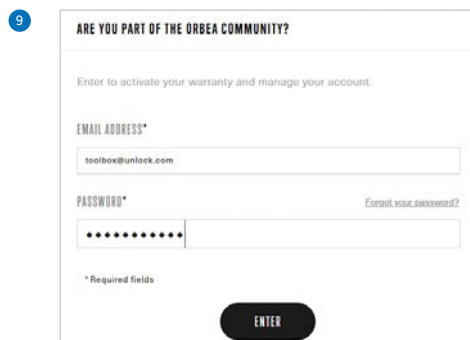
7. Select the RS Toolbox "Unlock" button.

8. Accept going to the Orbea website to perform the unlocking.



9. Enter your user account login details on the Orbea website.

10. If you had previously registered the registration number of your Orbea bike with a Shimano EP801 or EP6 motor in your user account, the website will display the message that your Garmin device has been successfully unlocked.

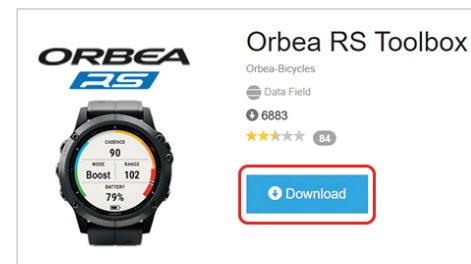
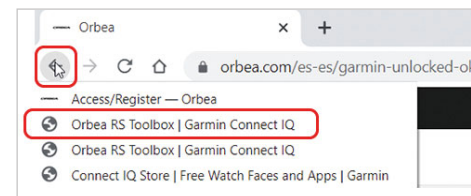


11. In your browser, go back to the RS Toolbox page in the Connect IQ store.

12. You will see that the "Unlock" button has disappeared on the RS Toolbox page in Connect IQ. The Orbea RS Toolbox has been unlocked.

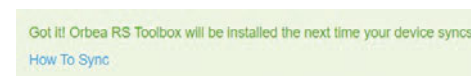
Click "Download" to install RS Toolbox on your device.

- If the "Unlock" button is still visible, RS Toolbox has not been unlocked. Do not click "Download". Retry the unlocking process.



13. A message will tell you that RS Toolbox has been correctly downloaded, and that it will be installed on your device when you synchronise it.

14. Close the browser and return to the Garmin Express app. Your device should synchronise automatically. If not, synchronise your device before disconnecting it from your PC or Mac.



Disconnect your device from your computer.

If you have downloaded and installed the Garmin Connect app on your smartphone from Google Play or the Apple Store, connect your Garmin device to the app and select it at the top right of the screen. You will see Orbea RS Toolbox in:

Activities and App Management > Data Fields

If Toolbox is visible but not installed, synchronise your device.

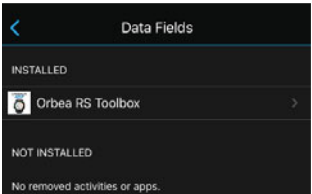
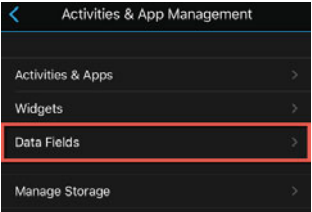
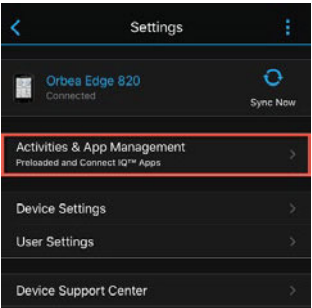
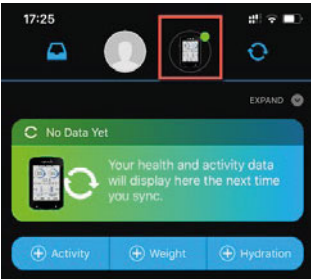
Read on to find out how to view RS Toolbox on your device.

VIEWING THE ORBEA RS TOOLBOX ON YOUR DEVICE

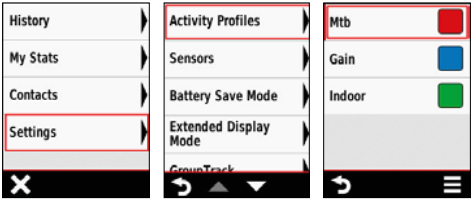
After downloading and unlocking the Orbea Toolbox app using Garmin Express (PC or Mac) and synchronising your device, enable the display of data fields on your compatible device.

Below is described the process for viewing the data field for Garmin wristband devices and compatible Edge units.

NOTICE The Orbea RS Toolbox is not compatible with the simultaneous use of the native Garmin Edge Shimano STEPS application in Edge 530, 830, 1030 and 1030 Plus devices. Before each use, disconnect or remove the bicycle from your Garmin device's sensor list before attempting to use the Orbea RS Toolbox. This limitation does not depend on the Toolbox but is put in place by Garmin.



1. Turn on your bicycle and the Garmin device on which you have installed Orbea RS Toolbox, which will pair automatically.
2. Go to Profiles in the Settings menu of your device and choose the activity profile from which you want to access your bicycle data.

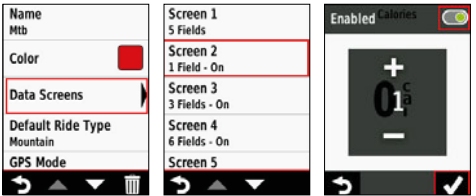


Garmin Edge devices



Garmin wrist devices

3. Select "Data Screens" and the activity profile page on which you want to view the Toolbox data. Activate the data page and select the display of a single data field.



Garmin Edge devices



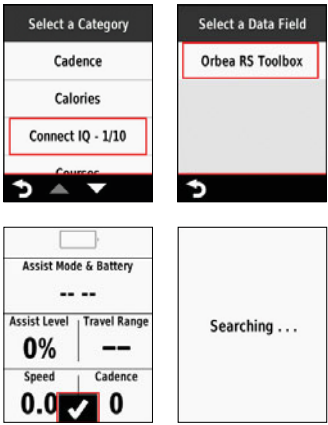
Garmin wrist devices

4. Select the information you want to view in the data field.

Select Connect IQ and press Orbea RS Toolbox.

If you did not connect the bicycle before selecting the data field view, the device will display the message "Searching..." after selecting the Orbea RS Toolbox data field. When you turn on the bicycle and access the selected page in the activity profile on your device, the Toolbox data will be visible.

NOTICE If when you select Orbea RS Toolbox the screen displays the message "Unlock in Connect IQ", the downloaded version has not been unlocked correctly. Perform the unlock and download process again through Garmin Stress as described in the previous section.

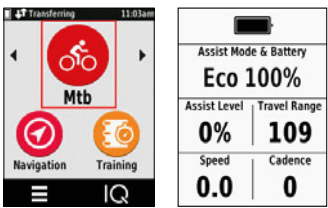


Garmin Edge devices



Garmin wrist devices

5. While the bicycle is on, access the selected activity profile for viewing the Toolbox data or start an activity in this profile. Go to the data page where you have selected the Orbea RS Toolbox view to access your bicycle's information.



Garmin Edge devices



Garmin wrist devices

USE OF THE ORBEA RS TOOLBOX

NOTICE The Orbea RS Toolbox is not compatible with the simultaneous use of the native Garmin Edge Shimano STEPS application in Edge 530, 830, 1030 and 1030 Plus devices. Before attempting to use Orbea RS Toolbox, disconnect or remove the bicycle from your Garmin device's sensor list. This limitation does not depend on the Toolbox but is put in place by Garmin.

CONNECT YOUR BICYCLE TO THE ORBEA RS TOOLBOX

Always turn on your Garmin device first and browse to the RS Toolbox screen and then turn on your bicycle so that the remaining battery data appears in Toolbox right away. Otherwise, the remaining battery level will be displayed once a certain distance has been ridden and the battery level has decreased by 1%.

When Toolbox is started up, it will connect to the bicycle with the strongest signal (usually the closest) and once connected will pair permanently with that bicycle. If you experience connection problems, make sure that your

Urrun is the only one that is turned on to facilitate the connection.

The connection between Urrun and Orbea RS toolbox is done through the automatic ANT Private protocol. If the Urrun data is not displayed on the active data field of your Garmin device, try pressing the buttons to change the assist level. If the Toolbox data are still not visible, turn the bicycle off and on again to reset the connection.

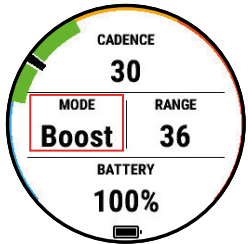
During an activity, the Orbea RS Toolbox data field will be accessible in the same way as any other data field within the activity profile in which your bicycle is being used.

URRUN'S VISIBLE DATA IN ORBEA RS TOOLBOX

ASSIST MODE: Displays the system's current assist mode from among the four available modes: Off, Eco, Trail, Boost.

Assist mode display options (on wristband devices): Orbea RS Toolbox allows the selected assist mode to be displayed in two ways. See the **Customisation of Data Fields** section for the information selection method for each field.

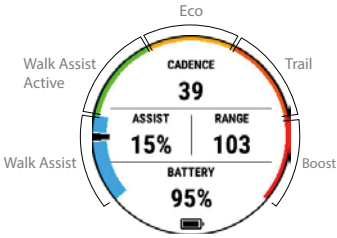
You can select the assist mode view by selecting it through one of the data fields on the display, where the name of the current assist level will be displayed.



It is also possible to view the selected MOTOR assist modes using the external circular Toolbox line. When an assist mode is selected, the corresponding portion will be highlighted.

The colour codes are:

- BLUE:** Walk Assist selected but not active
- GREEN:** Walk Assist operating.
- YELLOW:** Eco
- ORANGE:** Trail
- RED:** Boost



BATTERY: Battery charge level displayed as a percentage.

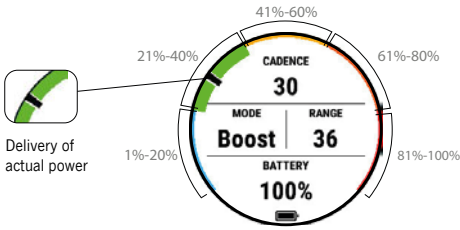
If an external Range Extender battery is connected, the system will take into account the total combined capacity of the internal battery and the Range Extender (612 Wh) and the Toolbox will display the remaining battery percentage, taking into account the charge of both batteries.

NOTICE If the remaining battery percentage is not visible in the Orbea RS Toolbox during cycling, it will become visible again when the remaining battery level decreases by 1%. At this time, the EP8 or EP6 system will once again communicate the battery level to the Garmin unit through ANT Private and the battery level will be displayed on the unit.

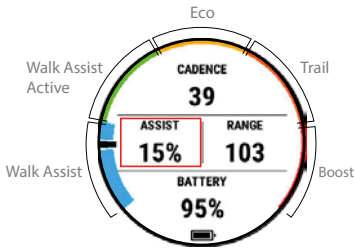
ASSIST LEVEL: The motor's electrical assist delivery level, depending on the current assist mode. It is displayed as a percentage of the total available motor power.

Assist level display options on wristband devices: Orbea RS Toolbox allows the current assist level to be displayed in two ways. See the Customisation of Data Fields section for the information selection method for each field.

You can select the motor assist level view using the external circular line of the Toolbox. In this case, the assist level will be displayed by a black line running through the motor power zones (1%-100%). By default, the different assist modes will allow access to certain motor power zones. For example, only the most powerful assist modes will allow the motor to deliver close to 100% power.



It is also possible to view the assist level through the Assist data field, which will display the current power as a percentage of the motor's total available power.



RANGE: Range (in km or miles) in assist mode and current battery level. This data will change depending on the power delivered by the rider, and also takes into account the previous use of the bicycle.

SPEED: The bicycle's current speed.

RATE: The cyclist's pedalling rate.

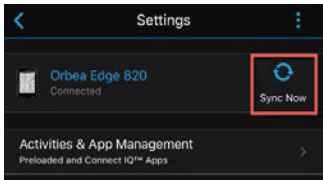
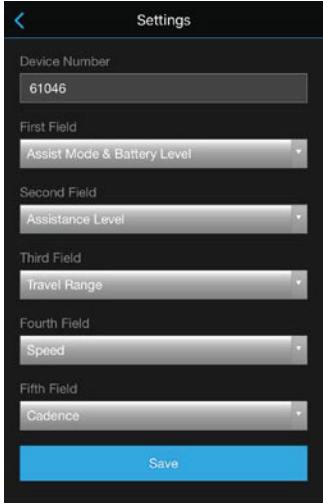
CUSTOMISATION OF THE DATA FIELDS

The order in which system data are displayed on the compatible device's Toolbox screen can be customised through Garmin Express or the Garmin Connect mobile app.

1. Open Garmin Connect on your smartphone and connect your device.
2. Access your device through the app and browse to the Orbea RS Toolbox Settings menu:
App Management> Data fields> Orbea RS Toolbox> Settings
3. Select which data you want to see in each Orbea Toolbox field using the drop-down menus, and press Save.
4. Go back to the app's main screen and select Synchronise now.

When you reconnect your device to Urrun, you will see that the data is organised according to your saved settings.

If the device was connected to Urrun when you saved the changes, you will see the new settings immediately.



GARMIN EXPRESS (PC AND MAC)

Visible fields can also be customised using the Garmin Express app for PC or Mac.

Connect your device to your computer using the cable and go to Installed Apps. Click on the Orbea RS Toolbox Settings button and select the data you want to view in each field.

Save the changes and synchronise the device.

CONNECTION TO ANOTHER BICYCLE

Once RS Toolbox is installed and visible on your device, you can connect to any Orbea bike with a Shimano EP8/EP6 motor.

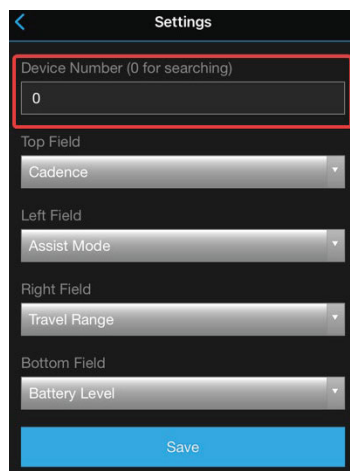
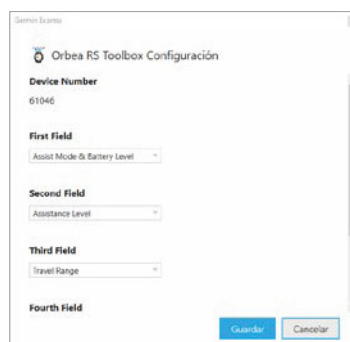
1. Open Garmin Connect on your smartphone and connect your device.
2. Access your device through the app and browse to the Orbea RS Toolbox Settings menu:

App Management > Data fields > Orbea RS Toolbox > Settings

3. In the “Device Number” field, enter “0” (zero) and save the changes.
4. Go back to the main Connect screen and synchronise your device.
5. Perform the process to connect to the new bicycle by following the steps described at the start of this section.

You will need to perform this process when you want to connect your device to a different bicycle.

If pairing does not work with the new bicycle, uninstall Toolbox and reinstall it through the Garmin Connect app before trying to pair the new bicycle again. It may be necessary to re-select the data field on your device.



DATA LOGGING OF URRUN GARMIN CONNECT ACTIVITY

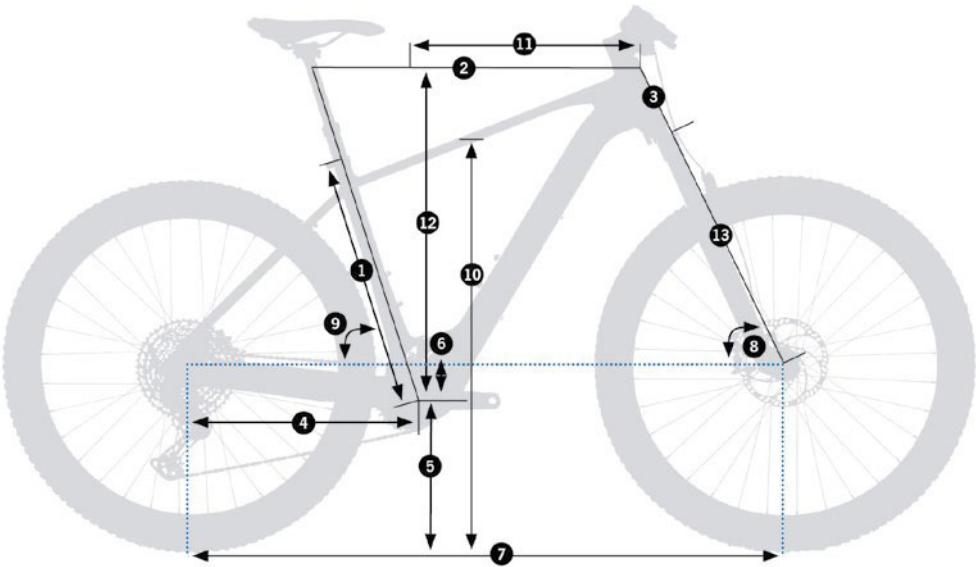
When you record an activity with Urrun using the Orbea RS Toolbox on your compatible Garmin device, the Toolbox data is recorded along with all of the other activity parameters. This allows you to access data on the assist level, range, battery charge, pedalling rate, etc. when saving this activity.

View Orbea RS Toolbox data during the activity through Garmin Connect in the same way as you view other data recorded by your Garmin device.



09 GEOMETRY AND ERGONOMICS

URRUN



SIZE	S	M	L	XL
1 - Seat tube (C-T)	400	453	483	533
2 - Top tube (EFF)	565	579	608	645
3 - Head tube	110	115	132	153
4 - Chainstay	445	445	445	445
5 - BB height	322	320	320	320
6 - BB drop	54	56	56	56
7 - Wheelbase	1143	1150	1173	1220
8 - Head angle	65,5°	66°	66°	66°
9 - Seat angle	74,8°	74,6°	74,6°	74,5°
10 - Standover	798	826	848	882
11 - Reach	395	405	440	460
12 - Stack	631	628	647	666
13 - Fork length	533.5	533.5	533.5	533.5
14 - Rake	44	44	44	44
15 - Trail	123	119	119	119

HEIGHT (CM)	HEIGHT (IN)	SIZE*
155-170	61.1"-66.9"	S
165-180	65.0"-70.9"	M
175-190	70.1"-74.8"	L
185-200	72.8"-78.74"	XL

* The measurements on the sizing table are for guidance only. The best way to find the correct frame size for you is to try a bike at one of our authorised dealers.

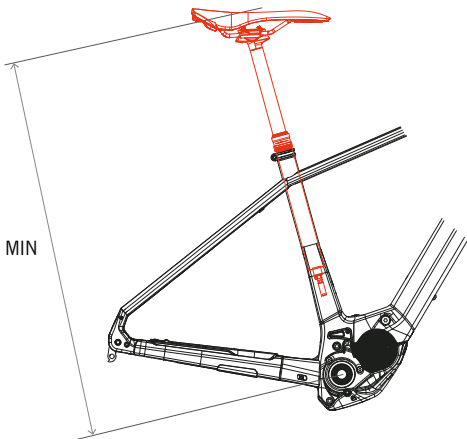
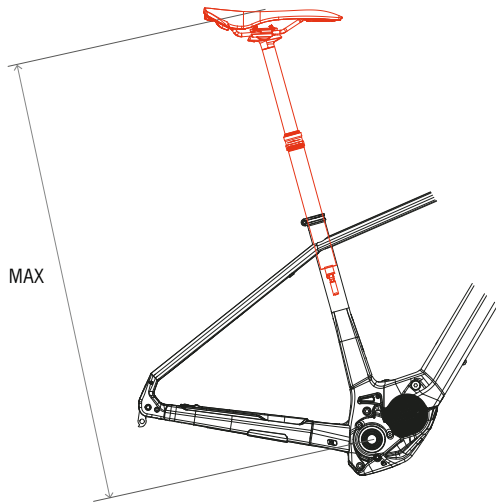
MAXIMUM AND MINIMUM SADDLE HEIGHTS WITH DROPPER SEATPOST

The following table gives the maximum and minimum seat heights with the dropper seatpost in the extended position for each frame size.

Maximum saddle height refers to the height of the saddle with the seatpost installed at its minimum insertion, defined by the seatpost.

Minimum height refers to the height of the saddle with the seatpost installed at its maximum insertion, defined by the frame.

Maximum and minimum heights are only given for the dropper seatpost and saddle options assembled by Orbea for a specific frame. For these dimensions when using a different dropper seatpost, see the seatpost manufacturer's specifications and refer to the maximum frame insertion measurements in the technical specifications section of this manual.



NOTICE

The dimensions on the following table define the distance between the centre of the bottom bracket shell and the middle of the upper part of the saddle (saddle models assembled by Orbea).

Different saddles on the market can change the dimensions given by +/- 5 mm depending on the height of the saddle model. If your seat height differs from a given dimension by less than 5 mm, it is possible to adjust this height by installing a different model of saddle available on the market.

If your seat height differs from the given dimensions by more than 5 mm, you should choose a longer or shorter travel dropper seatpost.

FRAME/SIZE

DROPPER SEATPOST MODEL	EXTENDED SADDLE HEIGHT	URRUN (S)	URRUN (M)	URRUN (L)	URRUN (XL)
OC DP-MC20 31.6 50mm	Minimum height saddle extended	570mm*	619mm*	649mm*	701mm*
	Maximum height saddle extended	649mm*	699mm*	726mm*	780mm*
OC DP-MC20 31.6 75mm	Minimum height saddle extended	594mm*	644mm*	674mm*	725mm*
	Maximum height saddle extended	669mm*	722mm*	752mm*	806mm*
OC DP-MC20 31.6 100mm	Minimum height saddle extended	619mm*	670mm*	709mm*	751mm*
	Maximum height saddle extended	720mm*	773mm*	804mm*	854mm*
OC DP-MC20 31.6 125mm	Minimum height saddle extended	657mm*	696mm*	724mm*	776mm*
	Maximum height saddle extended	770mm*	821mm*	852mm*	902mm*
OC DP-MC20 31.6 150mm	Minimum height saddle extended	706mm*	719mm*	752mm*	800mm*
	Maximum height saddle extended	819mm*	873mm*	901mm*	952mm*
OC DP-MC20 31.6 170mm	Minimum height saddle extended	746mm*	746mm*	770mm*	821mm*
	Maximum height saddle extended	858mm*	912mm*	945mm*	996mm*

* The dimensions may vary by +/-5mm depending on the height of the saddle model.

10 TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS OF URRUN

FRAME MATERIAL	Triple Butted Hydroformed Aluminium 6061
RECOMMENDED USE	E-MTB. ASTM Condition 3
SIZES	S, M, L, XL
FORK TRAVEL	100 mm and 120 mm
MAXIMUM FORK LENGTH (AXLE-TO-CROWN)	535 mm
FORK OFFSET	44 mm
HEADSET	Orbea ICR HS01. Internal wiring
HEADSET BEARINGS	Top: 1" 1/2 (with adaptor 1-1/2" to 1-1/8" for internal cabling)
	Bottom 1" 1/2
MAXIMUM STACK HEADSET SPACERS	20 mm
HANDLEBARS	OC HB-MP31 Specific STEPS internal cabling and light remote
BOTTOM BRACKET	Shimano EP8/EP6 motor axle
CHAINLINE	Boost. 53 mm
WHEEL SIZE	29"
	29 x 2.6"
MAXIMUM REAR TYRE WIDTH	Maximum external diameter covered: 758 mm
	Maximum covered width: 64 mm
MAXIMUM FRONT TYRE WIDTH	Depends on fork.
	Fox 34 & Marzocchi Bomber Z2, SR Suntour X1: 29 x 2.4"
SPEED SENSOR MAGNET INSTALLATION**	On the rear brake disc (see the Electrical System Components section)
REAR AXLE STANDARD	Boost 12 x 148
REAR AXLE MEASUREMENTS	12x180 mm
REAR AXLE THREAD PITCH	1.5 mm
REAR AXLE THREAD LENGTH	14 mm
SEATPOST DIAMETER	31.6 mm
SEATPOST CLAMP DIAMETER	34.9 mm

MAXIMUM SEATPOST INSERTION	
S	220mm
M	270 mm
L	203 mm
XL	353mm
DROPPER SEATPOST INTERNAL CABLING COMPATIBLE	Yes
FRONT DERAILLEUR	No. Single chainring only
COMPATIBLE CHAINRINGS	With Shimano EP8/EP6 splined axle. 11-12V. Chainline 53 mm.
MAXIMUM CHAINRING SIZE	36T. Maximum Orbea 34T chainguide
MINIMUM SIZE OF CHAINRING	30T
COMPATIBLE WITH OVAL CHAINRING	No
BRAKE TYPE	Disc*
REAR BRAKE CALIPER STANDARD	Post Mount
MAXIMUM REAR DISC SIZE	180 mm
MINIMUM REAR DISC SIZE	160 mm
MAXIMUM FRONT DISC SIZE	Depends on the fork. Fox 34 2022 / Marzocchi Bomber Z2 / SR Suntour X1: 180 mm
MINIMUM FRONT DISC SIZE	Depends on the fork. Fox 34 2022: 180 mm. Marzocchi Bomber Z2 & SR Suntour X1: 160 mm
COMPATIBLE CHAINGUIDE	Yes. Chainguide for Shimano EP8/EP6 motors
ICGS	No
CABLING	Rear derailleur and rear brake: Internal in headset, downtube and chainstay. Complete sheath
	Ebike system: Internal in headset, downtube and chainstay
	Dropper seatpost: Internal in headset, downtube and seat tube. Full housing.
BOTTLE HOLDER	2. On all sizes.
	Downtube: Range Extender bracket mount or standard bottle holder. Seat tube: Only standard bottle holder.

TECHNICAL SPECIFICATIONS
OF URRUN

DRIVETRAIN COMPATIBILITY	MTB. 10V, 11V and 12V
COMPATIBLE SHIMANO DI2	Yes. Rear derailleur
COMPATIBLE SRAM AXS	Yes. Specific freehub body.
POWERMETER COMPATIBLE	No
REAR RACK COMPATIBLE	Yes. Compatible with standard rear racks. Upper fixing point: Thread on the inside of seatstays. Lower fixing point. Thread on the inside of dropouts.
KICKSTAND ASSEMBLY	Yes. Ursus Mooi
MUDGUARD ASSEMBLY	Rear: With seatstays bridge adapter. The maximum tyre width may be affected. Front: Assembled suspension forks not compatible
COMPATIBLE CHILDSEAT	In rear racks. Consult specifications of available rear racks with manufacturers.
MAXIMUM RECOMMENDED WEIGHT LIMIT (Rider + gear + luggage)	See the document Orbea Product Maximum Recommended Weights on our website.
TRAILER COMPATIBLE	Yes. See detail**

* Not all disc and caliper models on the market are compatible with the frames. All the Orbea specified assemblies have been checked. For aftermarket fittings, check the dimensions and tolerances before purchase.

· COMPATIBLE BRAKE DISCS: See the Electrical System Components section for brake disc compatibility options.

** COMPATIBILITY WITH TRAILERS FOR CHILDREN

Below are the trailer axle models with which the frame is compatible. Orbea does not market these items and is not responsible for their future availability or possible incompatibilities due to changes in manufacturer specifications.

TRAILER MANUFACTURER	AXLE MEASUREMENTS	MANUFACTURER'S AXLE REFERENCE	COMPATIBLE TRAILER MODELS	MOUNTING INSTRUCTIONS
THULE	M12 x 178 x 1.5	20110734	See Thule	See Thule
FOLLOW ME	M12 x 178 x 1.5	121125	See Follow Me	See Follow Me
BURLEY	M12 x 178 x 1.5	960121	See Burley	See Burley
CROOZER	M12 x 178 x 1.5	122500418	See Croozer	See Croozer
HAMAX	148 mm M12xP1.5 mm	936012	See Hamax	See Hamax

TECHNICAL SPECIFICATIONS SHIMANO
EP801 RS AND EP600 RS

NOTICE As a general rule, Shimano components mounted on 2023 bicycle models marked Gen2 are not compatible with first generation components.

See the compatibility information in the manufacturer's documentation:

<https://productinfo.shimano.com/#/com>

See the user manual of the Shimano EP801 and EP600 systems here:

<https://si.shimano.com/es/um/7K70A>

You can access all user and dealer manuals for Shimano components at Si.Shimano. Enter the component name in the search field to access user and dealer manuals, spare parts, etc.

<https://si.shimano.com>

Remember that RS batteries are exclusive to Orbea.

SHIMANO EP801 RS MOTOR.

RATED POWER	250 W
VOLTAGE	36 V
TYPE	Brushless DC
MAXIMUM TORQUE	60 N.m
TOP SPEED	25 kph (EU) 20 mph (US)
WEIGHT	2,7 kg
ASSIST PROFILES	2 (can be selected and changed through the Etube Project app)
ASSIST MODES (FOR EACH PROFILE)	3 (ECO, TRAIL, BOOST) Can be changed through the Etube Project app
WALK ASSIST	Yes
STEPS/DI2 CABLE STANDARD	EW-SD300
LIGHTS CONNECTION	Yes. 12V DC. See the Light section of this manual
MOTOR MOUNTING ANGLE	32°

TECHNICAL SPECIFICATIONS SHIMANO
EP801 RS AND EP600 RS

SHIMANO EP600 RS MOTOR.

RATED POWER	250 W
VOLTAGE	36 V
TYPE	Brushless DC
MAXIMUM TORQUE	60 N.m
TOP SPEED	25 kph (EU)
	20 mph (US)
WEIGHT	3.0 kg
ASSIST PROFILES	2 (can be selected and changed through the Etube Project app)
ASSIST MODES (FOR EACH PROFILE)	3 (ECO, TRAIL, BOOST) Can be changed through the Etube Project app
WALK ASSIST	Yes
STEPS/DI2 CABLE STANDARD	EW-SD300
LIGHTS CONNECTION	Yes. 12V DC. See the Light section of this manual
MOTOR MOUNTING ANGLE	32°

SW-EN600-L ASSIST SHIFT LEVERS

FUNCTIONS	Switching the bicycle on/off
	Changing the assist mode
	Walk Assist activation
	Shimano display screens navigation (assembly option)
ASSEMBLY	Handlebar (Clamp diameter 22.2 mm)
STEPS/DI2 CABLE STANDARD	EW-SD300
CONNECTIVITY	Bluetooth LE (Shimano Etube Project app)
	ANT Private
MANUFACTURER'S MANUAL	https://si.shimano.com/es/dm/SCSW002

DISPLAY/CONTROLLER SC-EN500

FUNCTIONS	Switching the bicycle on/off
	Charge level display
	Assistance level display
	Error display
	Changing the assist mode
	Switching the lights on and off (see Light section)
CONNECTIVITY	Walk Assist activation
	Bluetooth: No
	ANT Private: No
ASSEMBLY	On handlebar (35 mm clamp)
STEPS/DI2 CABLE STANDARD	EW-SD300
MANUFACTURER'S MANUAL	https://si.shimano.com/es/um/7K50A

DISPLAY SC-EN600 (ON SELECTED MODELS)

FUNCTIONS	See manufacturer's information: https://bike.shimano.com/en-EU/product/component/ep6-ep600/SC-EN600.html
	Bluetooth LE (Shimano Etube Project app)
CONNECTIVITY	ANT Private
ASSEMBLY	On handlebar (35 mm clamp)
MANUFACTURER'S MANUAL	https://si.shimano.com/es/um/7JD0A

STEPS/DI2 EW-SD300 CABLE STANDARD

MANUFACTURER'S MANUAL	https://si.shimano.com/es/um/7JD0A
MAGNET	On the rear brake disc (see the Electrical System Components section)
STEPS/DI2 CABLE STANDARD	EW-SD300

TECHNICAL SPECIFICATIONS.
ORBEA EBIKE SYSTEM GEN2

ORBEA RS INTERNAL BATTERY 540WH GEN2

VOLTAGE	36 V
CAPACITY	540 Wh
WEIGHT	Approx 2.7 Kg
CELLS	Lithium ion. Samsung 21700-50E
CHARGING TIME 100% (4A) With RS Smart Charger Gen2	4.5 hours
CHARGING TIME 80% (4A) With RS Smart Charger Gen2	3 hours
ASSEMBLY	Internal. In downtube. Not user removable.
CONNECTION	Cable harness to motor and charging port
SEALING	IPX6
CERTIFICATIONS	ISO13849 > ISO13849-1:2015 IEC62133 > IEC62133:2017 UN 38.3
COMPATIBILITY	Compatible with Orbea Ebike System Gen2 systems on Orbea models with Shimano EP801/EP6 motor from 2023 range onwards

EXTERNAL BATTERY RANGE EXTENDER RS 252WH GEN2

VOLTAGE	36 V
CAPACITY	252 Wh
WEIGHT	1.5 Kg
CELLS	Lithium ion. Samsung 18650
CHARGING TIME 100% (2A) With RS Smart Charger	3.5 hours
ASSEMBLY	Specific bottle holder on downtube
CONNECTION	Cable Range Extender GEN1/2 to Urrun charging port. 275mm
SEALING	IPX5
CERTIFICATIONS	ISO13849 > ISO13849-1:2015 IEC62133 > IEC62133:2017 UN 38.3
COMPATIBILITY	Compatible with Orbea Ebike System Gen2 systems on Orbea models with Shimano EP801/EP6 motor from 2023 range onwards

RS 2A-4A GEN2 SMART CHARGER

INPUT	100-240V. 50-60Hz. AC
OUTPUT	42V 4A DC
INTERNAL BATTERY RS 540Wh CHARGING CURRENT	4 A
RANGE EXTENDER RS 252Wh CHARGING CURRENT	2A The Smart Charger RS recognises which battery is connected and adapts the charging current
CHARGING TEMPERATURE RANGE	0°C - 40°C
CHARGE DISPLAY	Charging process and errors display LED
CERTIFICATIONS	CB: IEC60335-1, IEC60335-2-29 CE: EN60335-1, EN60335-2-29 RCM, SAA: AS/NZS 60335.2.29 UKCA: BS/EN60335-1, BS/EN60335-2-29 FCC: FCC PART 15B IC: ICES-003-Issue 7 CE: UKCA-EN55014-1/2, EN610003-3/2 C-TICK:AS/NZS CISPR 14.1
COMPATIBILITY	Compatible with Orbea Ebike System Gen2 on Orbea models with Shimano EP801/EP6 motor from 2023 range onwards

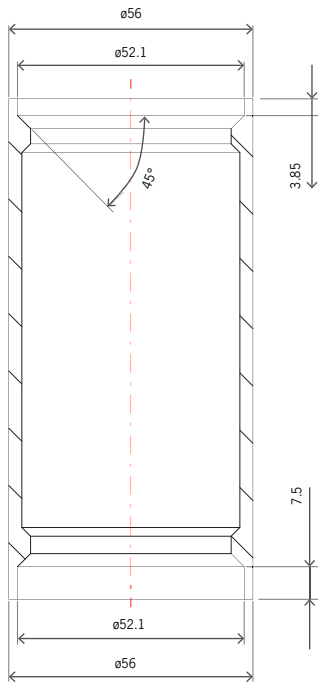
ORBEA RS WIRING. GEN2

CABLE HARNESS RS 2022. Internal battery-motor-charging point connection	Communication protocol: Shimano STEPS Gen2 Sealing: IP66
COMPATIBILITY	Compatible with Orbea Ebike System Gen2 on Orbea models with Shimano EP801/EP6 motor from 2023 range onwards

COMPONENTS. EXPLODED VIEWS, ASSEMBLY,
USE AND SPARE PARTS

11 HEADSET

HEAD TUBE DIMENSIONS

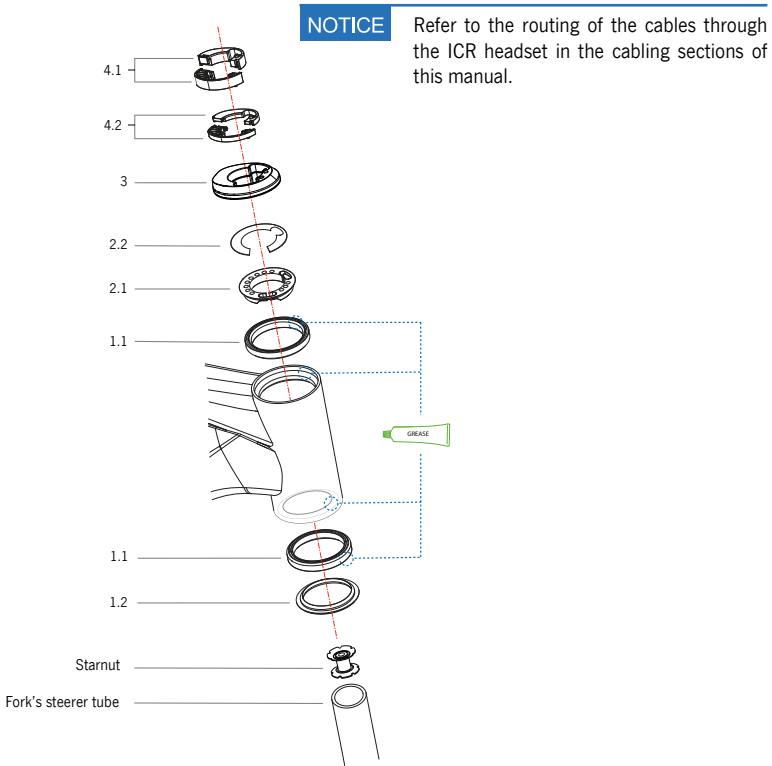


HS01 HEADSET SPECIFICATIONS

	TYPE	ID*	OD**	Headset race angle	Preload ring ring/fork crown race angle	SHIS CODE	Bearing code FSA	Bearing dimensions
TOP	1-1/8" Integrated 1-1/2" bearing with ICR 1-1/8" adapter	52.1 mm	56mm	45°	45°	IS52/40	TH-070E ACB 45°x45° 1.5 dualS MR170	Angular contact bearing 52 x 40 x 7 mm
BOTTOM	1-1/2" Integrated	52.1 mm	56mm	45°	45°	IS52/40	TH-070E ACB 45°x45° 1.5 dualS MR170	Angular contact bearing 52 x 40 x 7 mm

* ID: Headset tube internal diameter. ** OD: Headset tube outer diameter.

HEADSET EXPLODED VIEW AND ASSEMBLY



01 ICR 2022 HEADSET BEARINGS

PART No.: XA41	QUANT.
1.1 Headset bearing 1.5 (52 x 40 x 7 mm. 45°/45°)	2
1.2 Fork crown race 1.5 45°. FSA H6106	1

03 HEADSET SPINBLOCK ICR Ø56-8mm

PART No.: XA70	QUANT.
Headset spinblock ICR Ø56-8mm	1

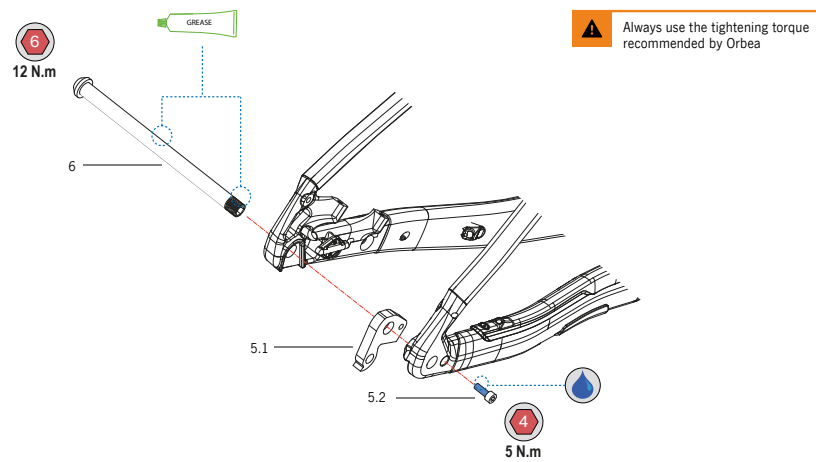
02 COMPRESSION RING 1-1/8 ICR HS01 MTB 2022
+ SPACER

PART No.: XB08	QUANT.
2.1 Compression ring 1-1/8 ICR 2022 MTB	1
2.2 ICR compression ring spacer	1

04 ICR HEADSET SPACER KIT. ROUND

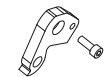
PART No.: X078	QUANT.
4.1 ICR headset spacer 10mm ring	2
4.2 ICR headset spacer 5mm ring	2

12 REAR AXLE AND DERAILLEUR HANGER



05 DERAILLEUR N°36 X12 MTB STD M5x14

PART No.: X757	QUANT.
5.1 Derailleur N°36 X12 STD	1
5.2 M5x14 DIN912 bolt	1



06 BOOST THRU-AXLE 12x148 HOLLOW (12x180x1.5x14)

PART No.: XB09	QUANT.
Boost thru-axle 12x148 hollow (12x180x1.5x14)	1

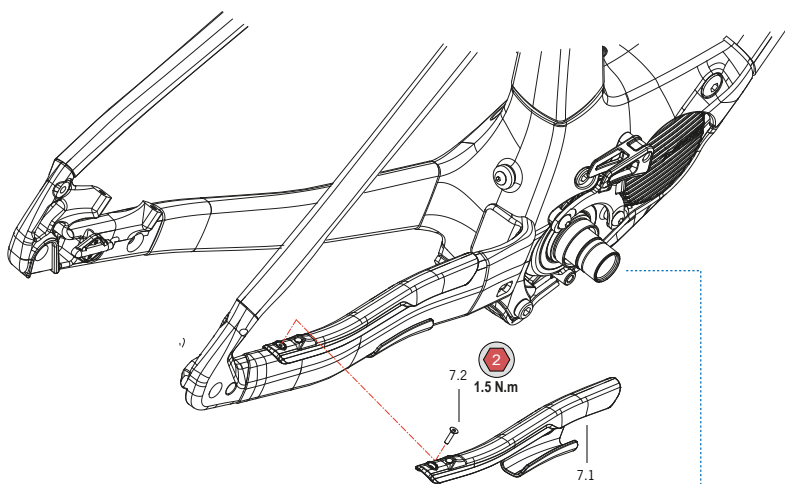


COMPATIBILITY WITH TRAILERS FOR CHILDREN

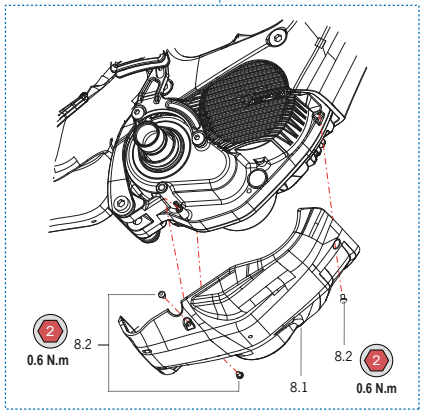
Below are the trailer axle models with which the frame is compatible. Orbea does not market these items and is not responsible for their future availability or possible incompatibilities due to changes in manufacturer specifications.

	TRAILER MANUFACTURER	AXLE MEASUREMENTS	MANUFACTURER'S AXLE REFERENCE	COMPATIBLE TRAILER MODELS	MOUNTING INSTRUCTIONS
	THULE	M12x178x1.5	20110734	See Thule	See Thule
	FOLLOW ME	M12x178x1.5	121125	See Follow Me	See Follow Me
	BURLEY	M12x178x1.5	960121	See Burley	See Burley
	CROOZER	M12 x 178 x 1.5	122500418	See Croozer	See Croozer
	HAMAX	148 mm M12xP1.5 mm	936012	See Hamax	See Hamax

13 PROTECTORS

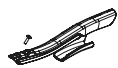


Always use the tightening torque recommended by Orbea



07 KEMEN/URRUN CHAINSTAY PROTECTOR

PART No.: XB10	QUANT.
7.1 Kemen/Urrun base seal protector	1
7.2 M3x12 DIN 7991 bolt	1

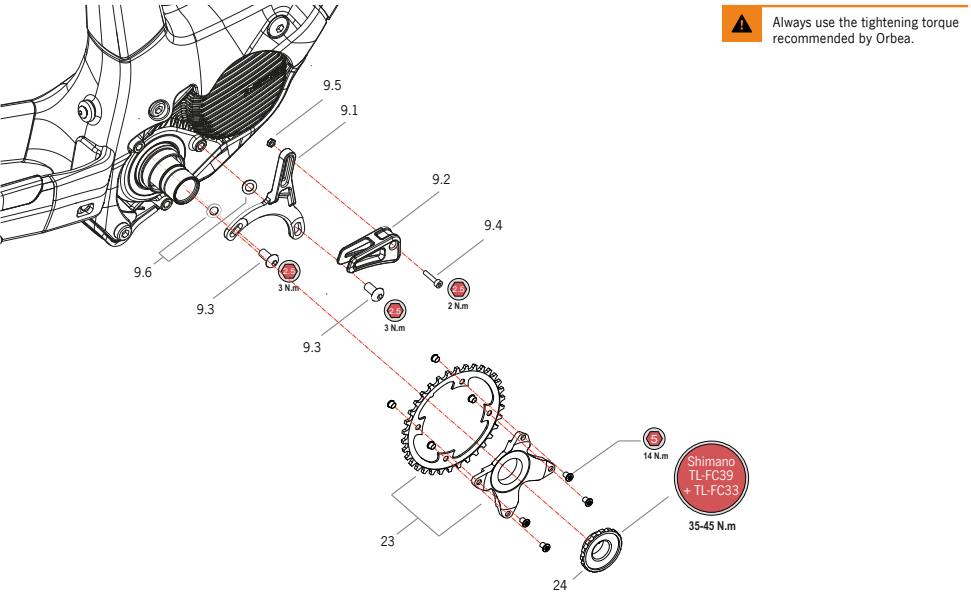


08 PROTECTOR MOTOR EP8/EP6 KEMEN/URRUN

PART No.: XB11	QUANT.
8.1 Shimano EP8/EP6 Kemen/Urrun plastic protector	1
8.2 Motor protector attachment bolt	3



14 CHAINGUIDE AND CHAINRING



09 URRUN CHAINGUIDE KIT 34T 22

PART No.: XB12		QUANT.
9.1	Urrun 34T Max chainguide support.	1
9.2	Chainguide	1
9.3	EP8 motor fixing bolt	2
9.4	Bolt M3x15 DIN 912	1
9.5	Chainguide attachment nut M3	1
9.6	Washer M6	2

NOTICE The chainguide assembled on Urrun models allows the mounting of a chainring with a maximum of 34 teeth. The frame allows you to mount a chainring with up to 36 teeth. If mounting a chainring with more than 34 teeth, it will be necessary to install a chainguide compatible with the new chainring available on the market. Orbea does not sell a chainguide compatible with 36-tooth chainrings. Orbea does not recommend mounting chainrings of a different size to those installed at the factory, since the motor is programmed to work optimally with a 32T chainring.

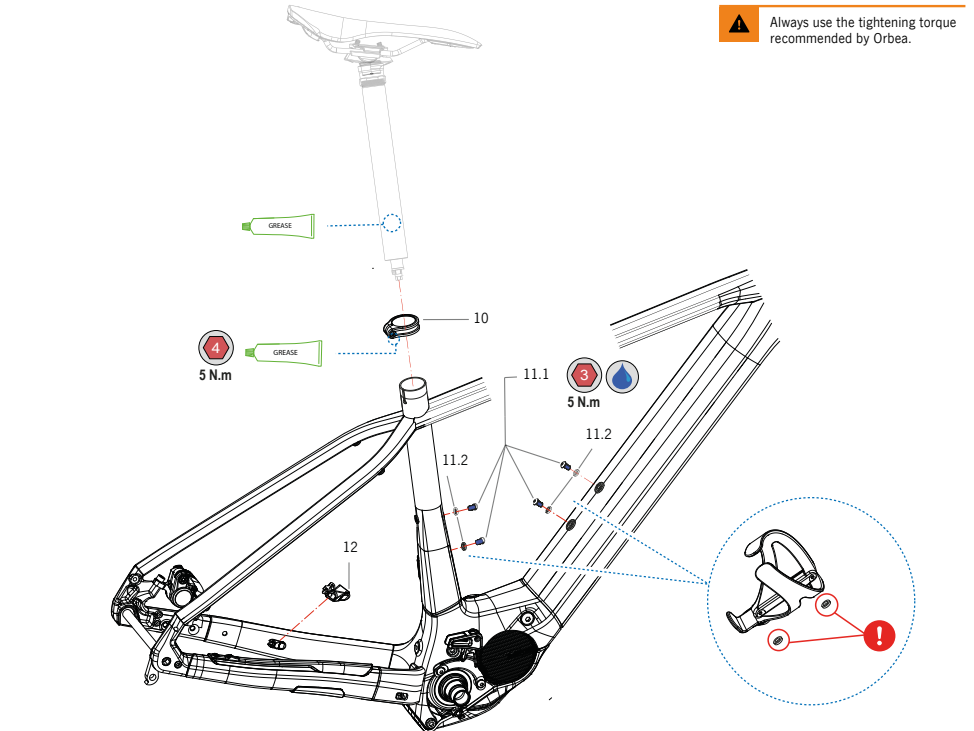
23 32T CHAINRING + SPIDER PROWHEEL NWS32T-S16-53

PART No.: XB13		QUANT.
23.1	Chainring Prowheel NWS32T. 104BCD. Narrow-Wide	1
23.2	Spider Prowheel S16-53 Shimano EP800 plate. 104BCD. Boost 53	1
Compatible chainrings Narrow-Wide 104BCD. Spider / Chainrings compatible splined Shimano EP8 Boost 53mm		

24 LOCKRING CHAINRING EP8 SHIMANO MOTOR

CODE SHIMANO: Y78N00085	QUANT.
Lockring chainring EP8 Shimano Motor	1

15 OTHER EXPLODED VIEW OF THE FRAME



! When installing an Urrun bottle holder on the seat tube or downtube, make sure that a sufficient length of the bottle holder bolt threads is inserted into the threads of the frame inserts. If there is insufficient length, remove 2 of the supplied washers to achieve the secure attachment of the bottle holder and avoid damaging the frame threads.

10 SADDLE CLAMP 34.9mm BLACK
With screw

PART No.: X202	QUANT.
Saddle clamp 34.9mm Black. With bolt	1

11 KEMEN/URRUN BOTTLE HOLDER BOLT KIT 22

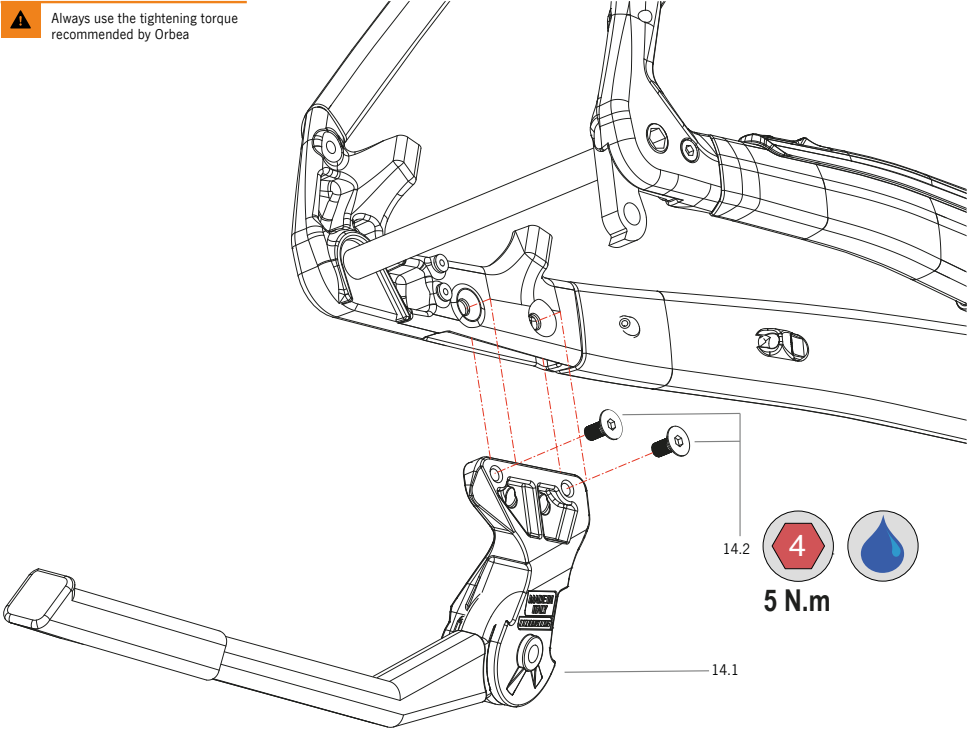
PART No.: XB14	QUANT.
11.1 Bolt M5x10	4
11.2 5.5x10x2 washer	4

12 CHAINSTAY STOP CLIP BRAKE

PART No.: X502	QUANT.
Chainstay stop clip brake	1

16 KICKSTAND (OPTION)

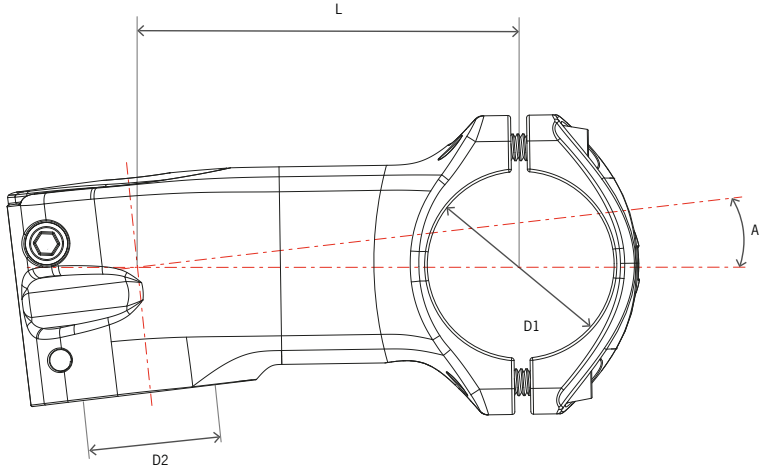
Always use the tightening torque recommended by Orbea



14 KEMEN/URRUN KICKSTAND KIT

PART No.: XB15	QUANT.
14.1 Rear Adjustable Ursus Mooi kickstand	1
14.2 Countersunk Bolt M6x12	2

17 STEM



ORBEA URBAN ICR STEM35 mm

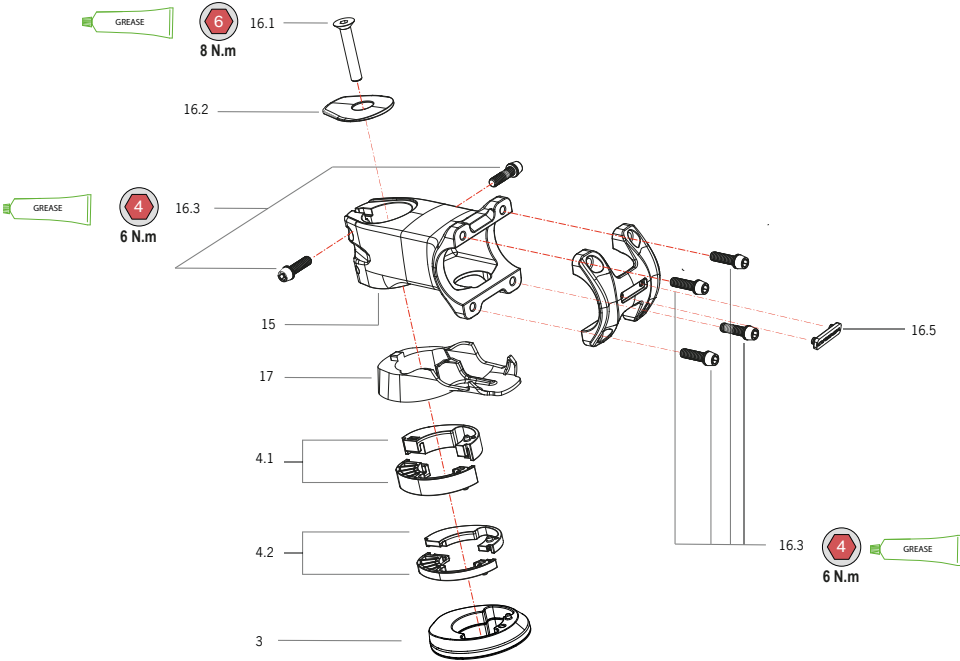
MATERIAL	Aluminium
Ø HANDLEBAR (D1)	35 mm
Ø FORK (D2)	1 1/8"
INTERNAL CABLING (ICR)	Rear derailleur, rear brake, STEPS cable, remote seatpost dropper, light (with lower cover and ICR headset spacers)
SHIMANO STEPS	Internal cabling Shimano display
CYCLE COMPUTER HOLDER	In faceplate (IFC01 standard)
LIGHT ADAPTER	Yes. See Light section
AVAILABLE LENGTHS (L)	70 mm
ANGLE (A)	-6°
HEADSET SPACERS	5mm and 10mm.Orbea ICR round.
TOPCAP	Orbea Specifications

NOTICE Urrun 2023 is only compatible with the Orbea Urban ICR 35 stem. This is designed to be used together with the lower cover for internal wiring in the ICR headset in Urrun 2022 and has a machining in its lower part that allows the cables to be guided towards the headset.

NOTICE Refer to the routing of the cables through the ICR headset in the cabling sections of this manual.

EXPLODED VIEW AND ASSEMBLY
ORBEA URBAN ICR 35 STEM

⚠ Always use the tightening torque recommended by Orbea.



15 ORBEA URBAN ICR 35 STEM. 70mm
Topcap not included

PART No.: XB16	QUANT.
Orbea Urban ICR 35 stem. 70mm Topcap not included	1

17 LOWER CABLING STEM COVER URBAN ICR 35 RING

PART No.: XB17	QUANT.
Lower cabling stem cover Urban ICR 35 Ring	1

04 ICR HEADSET SPACER KIT. ROUND

PART No.: X078	QUANT.
4.1 ICR headset spacer 10mm round	2
4.2 ICR headset spacer 5mm round	2

16 EXPLODED VIEW STEM OC ST-RP21 KIT

PART No.: X069	QUANT.
16.1 Bolt M6x35 Bolt DIN7991 Topcap	1
16.2 Topcap Stem OC1 Road	1
16.3 Bolt M5x15 DIN912 Headset and Faceplate	6
16.4 Bolt M3x10 DIN7991 (not used in Urban ICR 35 headset)	2
16.5 Logo Orbea Faceplate	1

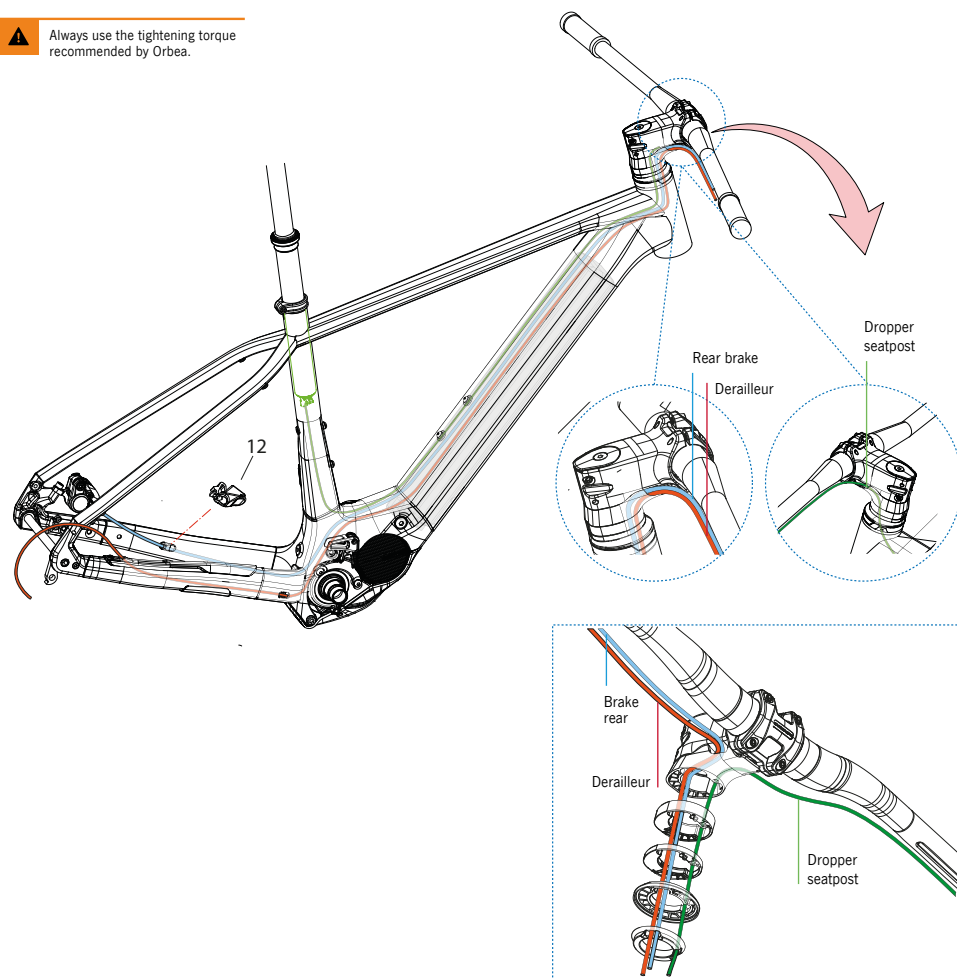
03 HEADSET COVER ICR Ø56-8mm

PART No.: XA70	QUANT.
Headset spinblock ICR Ø56-8mm	1

18 CABLING OF MECHANICAL ELEMENTS

DERAILLEUR - REAR BRAKE - REMOTE DROPPER SEATPOST

⚠ Always use the tightening torque recommended by Orbea.



12 CHAINSTAY STOP CLIP BRAKE

PART No.: X502	QUANT.
Chainstay stop clip brake	1



19 ELECTRICAL ASSIST SYSTEM COMPONENTS

NOTICE

Installation of power assist system components requires advanced knowledge and may be beyond the skill of most users.

Always go to an official dealer for the diagnosis, repair and installation of the components of the Urrun electrical system. Damage to components resulting from incorrect installation could void the warranty on those components.

NOTICE

COMPATIBILITY NOTICE. GEN2 ELECTRICAL SYSTEM COMPONENTS

The Orbea electrical system components (internal battery -540Wh or 360Wh-, Range Extender, cable harness and Smart Charger) identified as Gen2, are not compatible with Rise, Kemen or Urrun models from ranges prior to 2023 with Orbea Gen0 and Gen1 electrical system components.

These Orbea Ebike Systems components from the 2023 range are designed to guarantee compatibility with Shimano EP801 and EP6 motors, and Shimano Gen2 components. See the Orbea Ebike Systems Compatibility Table to find out about the compatibility of all Orbea components with our different bicycle models.

COMPONENT CONNECTION DIAGRAM

Depending on the mounting option for the assistance control or display in each Urrun model (Shimano SW-EN600-L assistance control, Shimano SC-EN500 display or Shimano SW-EN600-L assistance command and SC-EN600 display), the wiring configuration from the motor to the displays/remotes changes.

The Shimano EP801 and EP6 motors use a Di2/STEPS EW-SD300 wiring standard.

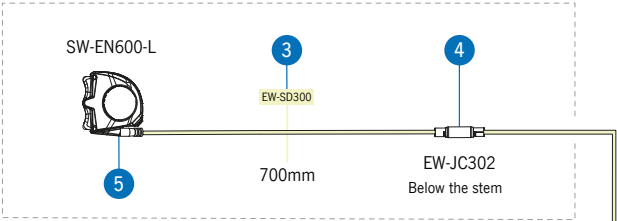
On assemblies with a Shimano SW-EN600-L assist command, a 1200mm EW-SD300 cable connects the motor to an EW-JC302 connector housed inside the stem. A 700mm EW-SD300 cable connects the SW-EN600-L command to the JC302 connector inside the stem.

On assemblies with a Shimano SC-EN500 display, a 1200mm EW-SD300 cable connects the motor to an EW-JC302 connector housed inside the stem. A 700mm EW-SD300 cable connects the SC-EN500 display to the JC302 connector inside the stem.

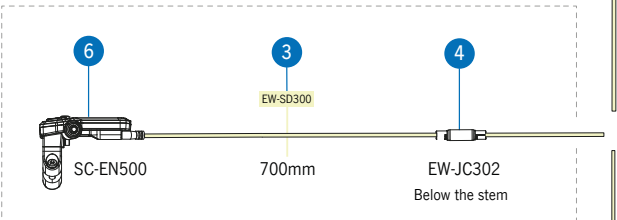
On assemblies with an SC-EN600 display, a 1200mm EW-SD300 cable directly connects the motor with the display. The display is connected to the SW-EN600-L handlebar remote control via a 700mm EW-SD300 cable.

COMPONENT CONNECTION DIAGRAM

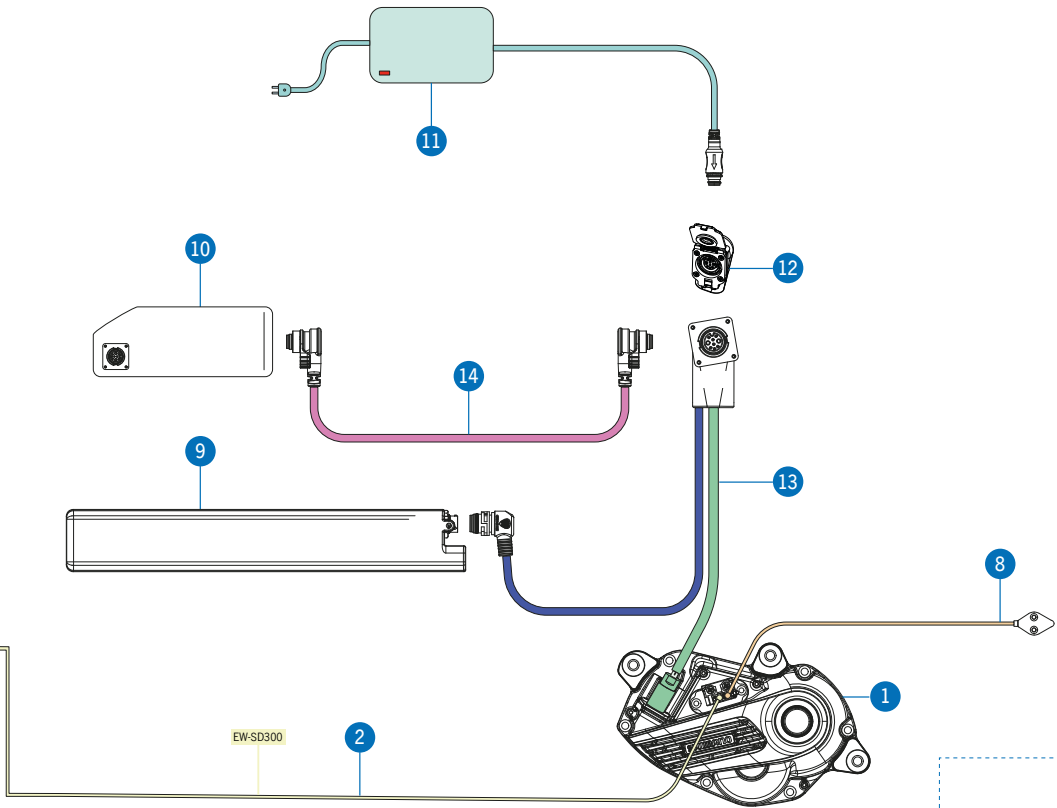
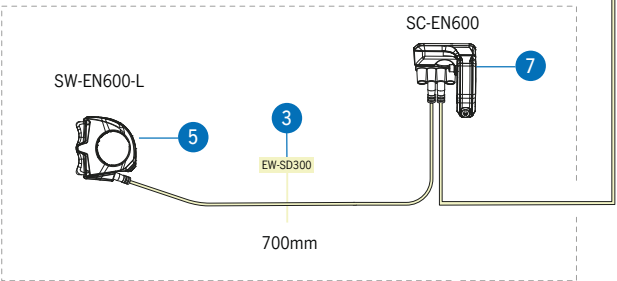
Option 1: Shimano SW-EN600-L remote



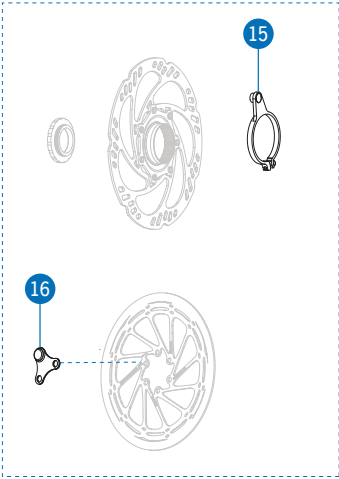
Option 2: Shimano SC-EN500 display+remote



Option 3: Shimano SC-EN600 display & SW-EN600-L remote



SEE THE LIST OF COMPONENTS
AT THE END OF THIS SECTION



! See rotor compatibility

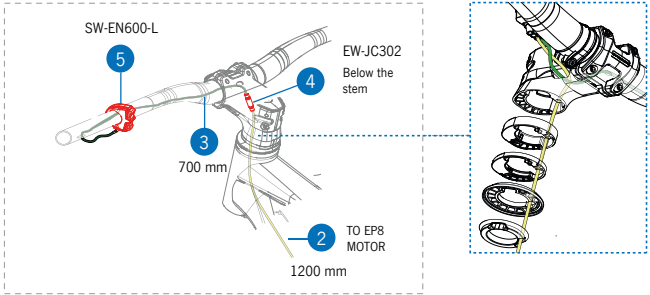
CABLING OF SHIMANO COMPONENTS IN THE FRAME

NOTICE

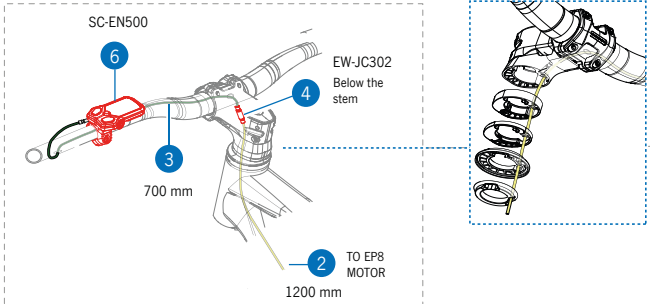
Installation of power assist system components requires advanced knowledge and may be beyond the skill of most users. Always go to an official dealer for the diagnosis, repair and installation of the components of the Urrun electrical system. Damage to components resulting from incorrect installation could void the warranty on those components.

See the following section for installation and connection options for components on the stem and handlebars.

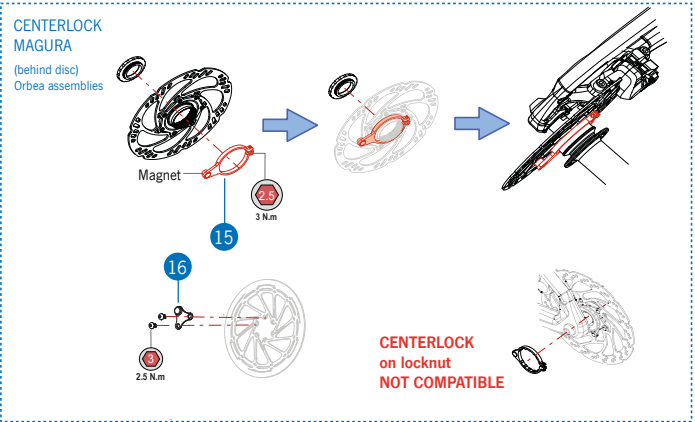
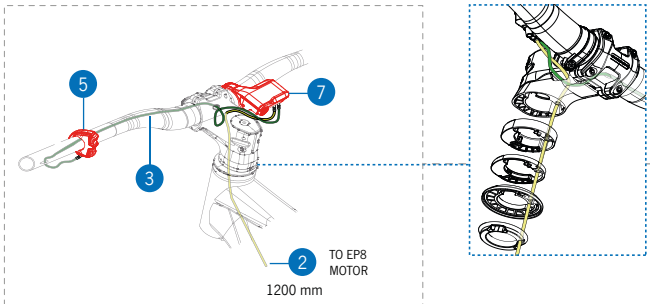
Option 1: Shimano SW-EN600-L remote



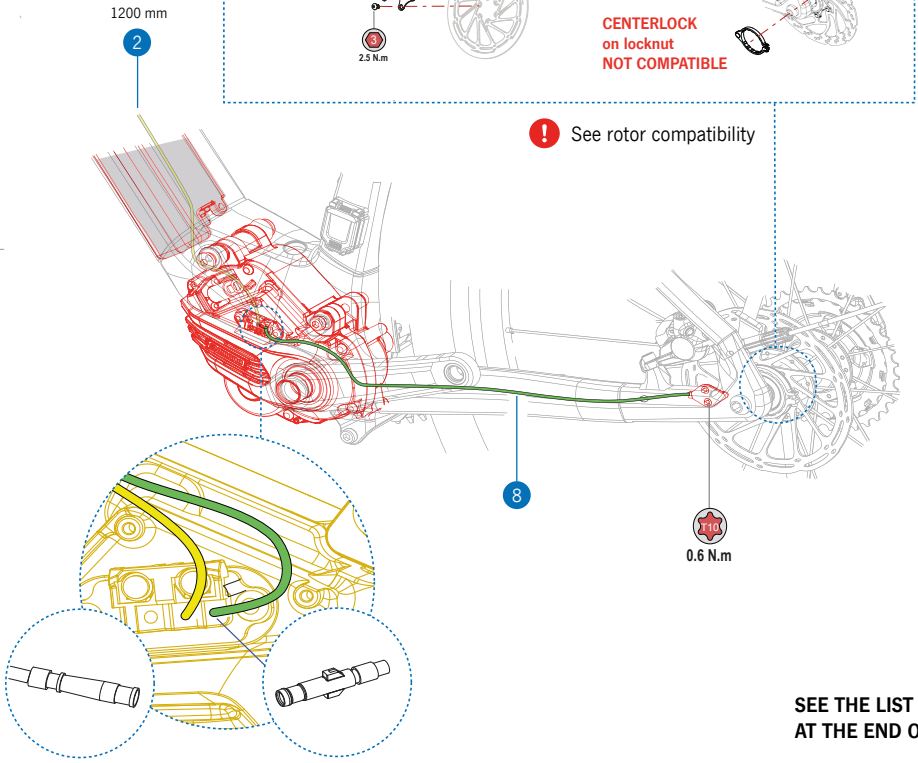
Option 2: Shimano SC-EN500 display & assist



Option 3: Shimano SC-EN600 display & SW-EN600-L remote



! See rotor compatibility



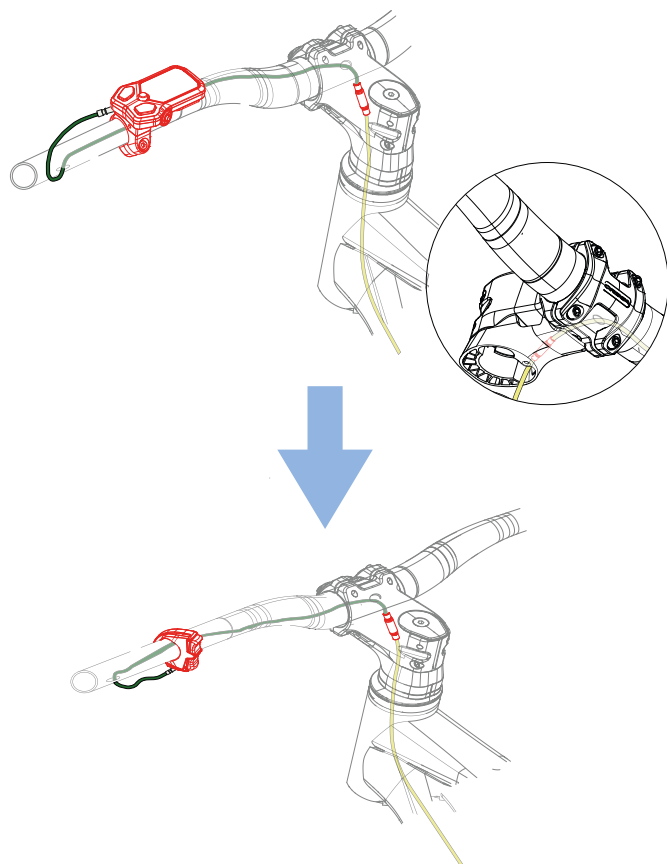
SEE THE LIST OF COMPONENTS AT THE END OF THIS SECTION

INSTALLATION OF SW-EN600-L ASSISTANCE CONTROL (WITH OR WITHOUT SC-EN600 DISPLAY) IN ASSEMBLIES WITH SC-EN500 DISPLAY BLUETOOTH AND ANT PRIVATE CONNECTIVITY

NOTICE The Shimano SC-EN500 display does not have Bluetooth or ANT Private connectivity, so assemblies with this display will not allow the connection of the system to the Shimano Etube Project Cyclist mobile application for the configuration of the EP8 system.

Nor will it be possible to connect to Garmin devices compatible with the Orbea RS Tool-box data field for displaying data from the running system.

It is possible to replace the original SC-EN500 display in these assemblies with an SW-EN600-L assistance remote to provide the Bluetooth and ANT Private connectivity system. To do this, it will suffice to replace both devices using the same EW-SD300 connection cable.

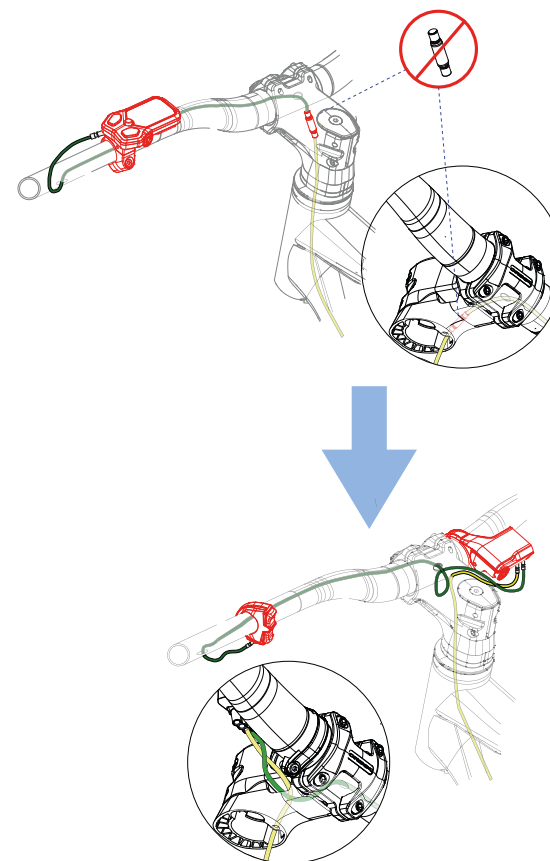


It is also possible to install an SC-EN600 display together with the SW-EN600-L remote control.

To do this, it will be necessary to discard the EW-JC302 connector located inside the stem in the original assembly. The stem must be removed from the fork in order to access the connector and remove the cable that goes to the motor.

Connect the 1200mm EW-SD300 motor cable to the new SC-EN600 display. Also connect the other 700mm SW-SD300 cable to the new display. This connects it to the SW-EN600-L assistance command.

The system will recognise newly installed components when the bike is turned back on.

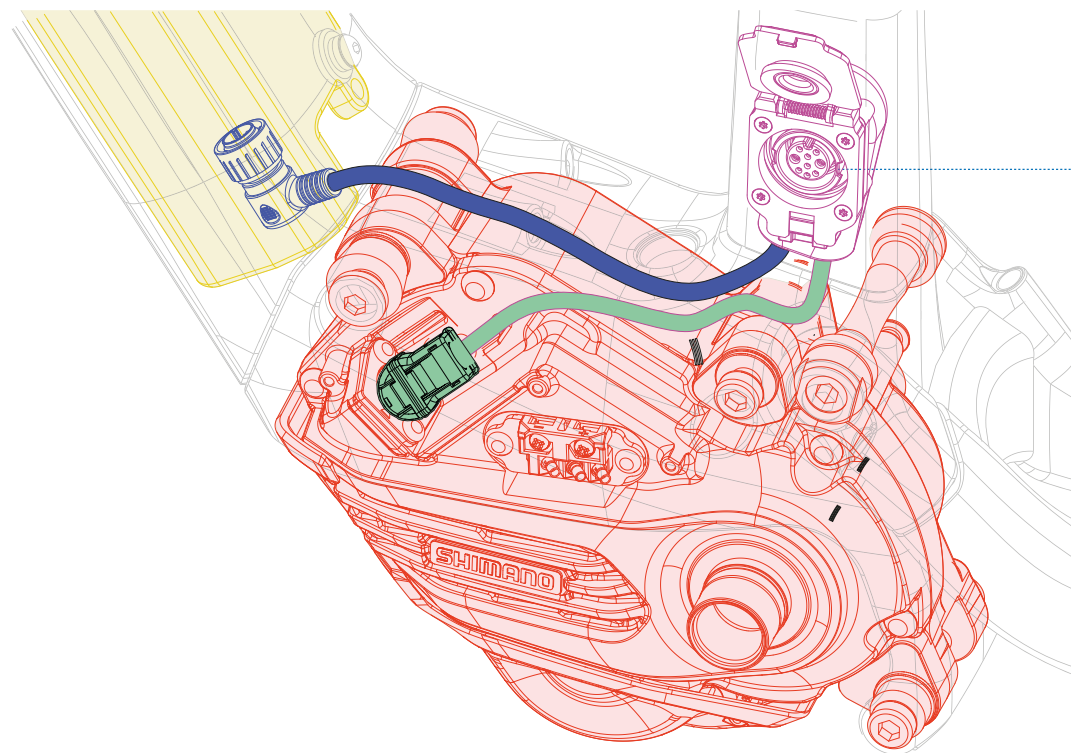


CABLING OF ORBEA EBIKE SYSTEM GEN2 COMPONENTS IN THE FRAME

NOTICE



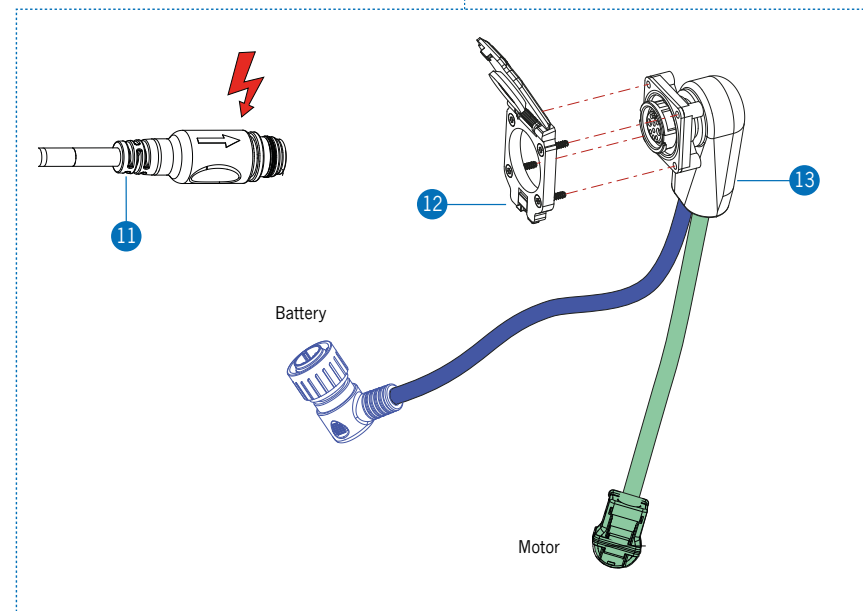
Installation of power assist system components requires advanced knowledge and may be beyond the skill of most users. Always go to an official dealer for the diagnosis, repair and installation of the components of the Urrun electrical system. Damage to components resulting from incorrect installation could void the warranty on those components.



NOTICE

COMPATIBILITY NOTICE. GEN2 ELECTRICAL SYSTEM COMPONENTS

The Orbea electrical system components (internal battery -540Wh or 360Wh-, Range Extender, cable harness and Smart Charger) identified as Gen2, are not compatible with Rise, Kemen or Urrun models from ranges prior to 2023 with Orbea Gen0 and Gen1 electrical system components. These Orbea Ebike Systems components from the 2023 range are designed to guarantee compatibility with Shimano EP801 and EP6 motors, and Shimano Gen2 components. Consult the Orbea Ebike Systems Compatibility Table to find out about the compatibility of all Orbea components with our different bicycle models.



SEE THE LIST OF COMPONENTS
AT THE END OF THIS SECTION

CONNECTION OF THE CABLE HARNESS TO THE INTERNAL BATTERY ORBEA GEN2

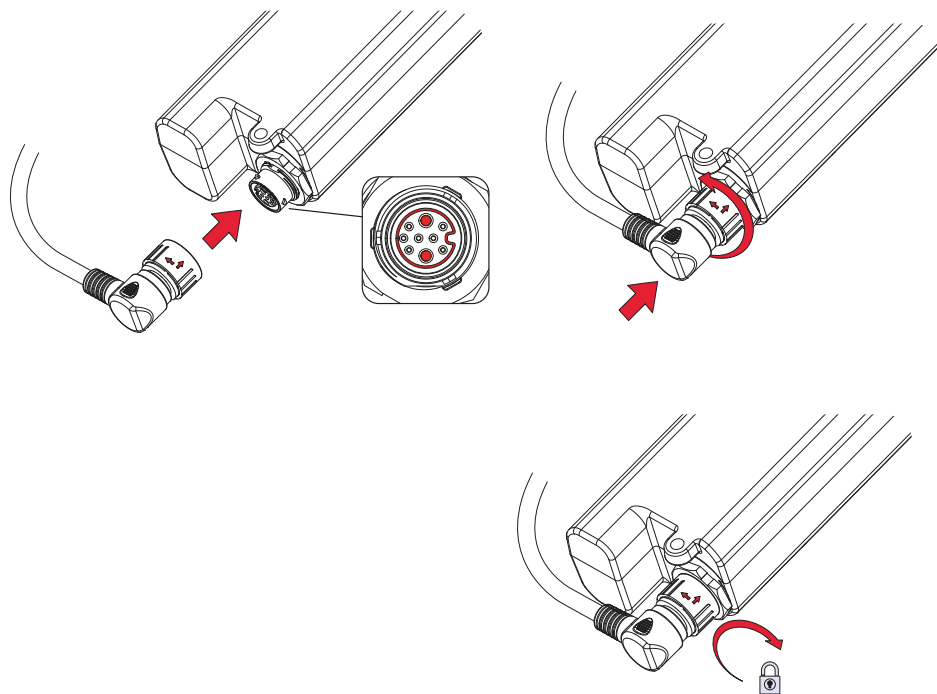
To connect the cable harness to the internal battery (having first disassembled the EP801/EP6 Shimano motor) make sure that the pins and tab on the cable and the battery port match up in the correct position.

Once the cable harness connector and battery connector make contact, turn the locking ring on the cable harness connector anti-clockwise and press the cable connector into the battery connector.

When the connection between the cable and the battery is complete, release the locking ring so that it returns to the original position and secures the connection.

If the locking ring does not return to its original position when released, the connection is not secure. You can pull gently on the cable harness connector to check that it is securely attached to the internal battery.

See the internal battery extraction and installation method in this manual.

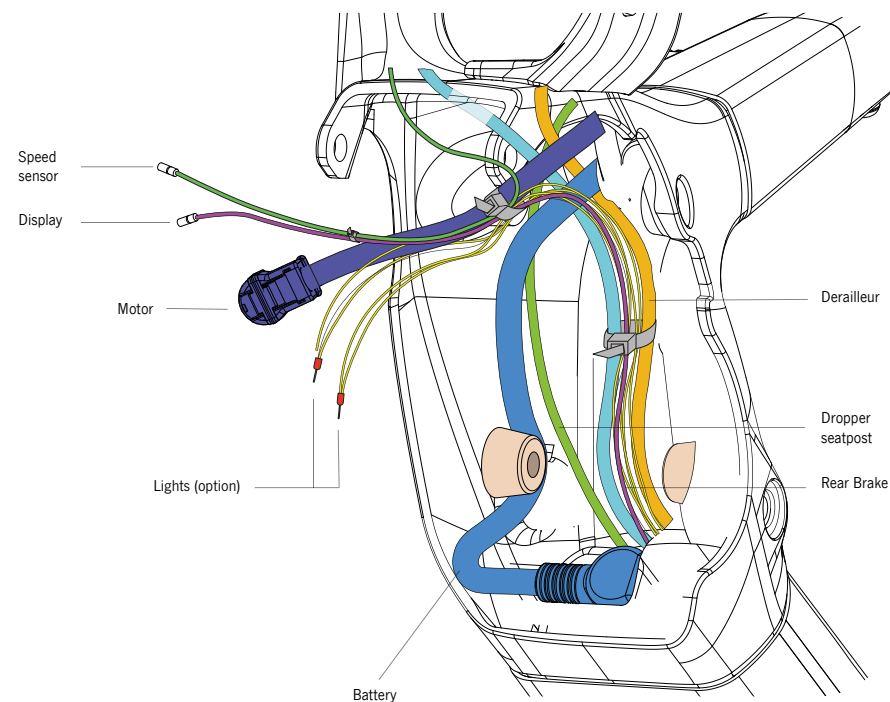


CABLE ROUTING IN THE MOTOR COMPARTMENT AND DISASSEMBLY OF THE CABLE HARNESS AND TURN OFF BUTTON

The battery cable must be routed over the left inner motor attachment bushing to allow installation of the motor.








It is necessary to remove the motor from the frame to replace the cable harness.

See the section of this manual covering the disassembly of the internal battery for the motor removal method for accessing the cable harness and the start button.










SHIMANO AND ORBEA RS GEN2
ELECTRICAL SYSTEM COMPONENTS

SHIMANO COMPONENTS*

	1 SHIMANO EP8 RS OR EP6RS MOTOR
	2 SHIMANO STEPS-DI2 EW-SD300 CABLE 1200 mm
	3 SHIMANO STEPS-DI2 EW-SD300 CABLE 700 mm
	4 SHIMANO JUNCTION EW-JC302
	5 SW-EN600-L LEFT ASSIST SWITCH
	6 35mm SC-EN500 SHIMANO DISPLAY
	7 SC-EN600 SHIMANO DISPLAY
	8 SPEED SENSOR SHIMANO EW-SS301. 760mm cable. With bolts

* Shimano components are available from one of the manufacturer's dealers.

COMPONENTS ORBEA RS GEN2

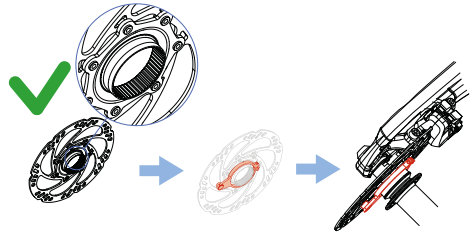
	9 ORBEA RS INTERNAL BATTERY 540Wh Gen2	X974
	10 ORBEA RS RANGE EXTENDER BATTERY 252Wh Gen2 275mm cable	Y045
	11 ORBEA RS SMART CHARGER 2A-4A Gen2 EU/US/UK/AUS	X977
	12 CHARGE PORT COVER with screws	XA83
	13 HARNESS CABLE RS BATTERY AND CHARGE POINT GEN2	X976
	14 RS RANGE EXTENDER CABLE 2022 275mm Gen 1 / Gen2	XA86
	15 SPEED SENSOR MAGNET ORBEA CENTERLOCK MAGURA (behind disc)	XB18
	16 SPEED SENSOR MAGNET ORBEA 6-BOLT	X240
	17 SPEED SENSOR MAGNET ORBEA CENTERLOCK SHIMANO (on locknut)	X095 NOT COMPATIBLE

COMPATIBILITY OF DISC BRAKES

! Urrun is designed so that the speed sensor magnet is assembled in the rear disk brake. Original Orbea Urrun assemblies use brake discs Magura Centerlock MDR-C CL and Shimano SM-RT30. The magnet for the speed sensor in Orbea assemblies is article 15 (XB18), which is installed on the inside of the brake disc. On Magura MDR-C CL and Shimano SM-RT30 brake rotors, the Centerlock mounting interface has a surface on the inside of the rotor into which the Orbea XB18 magnet is installed before mounting the brake rotor on the hub. Other Shimano brake rotors do not have this mounting surface and are therefore not compatible with the use of the XB18 magnet. Only Magura MDR-C CL or Shimano SM-RT30 brake discs are validated by Orbea for use with the XB18 magnet. If you want to mount another model of brake discs without an integrated magnet, it is the user/distributor's responsibility to check the feasibility of mounting.

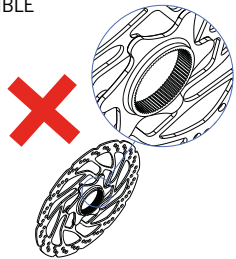
CENTERLOCK DISCS WITH SURFACE TO INSTALL
XB18 MAGNET

COMPATIBLE



CENTERLOCK DISCS WITHOUT SURFACE TO INSTALL
(XB18) MAGNET

NOT COMPATIBLE



Urrun is compatible with Magura and Shimano brake discs with magnet integrated into the brake disc:

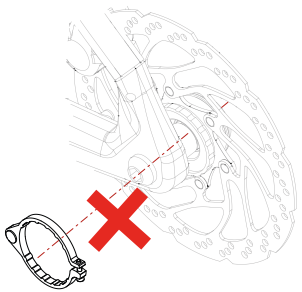
Urrun is not compatible with Shimano brake discs with a magnet integrated in the Centerlock locking nut.

NOTICE



Urrun is not compatible with the use of the Orbea X095 Centerlock magnet. This magnet is mounted on the Centerlock lock nut on the outside of the brake disc. In Urrun, the magnet of this reference makes contact with the speed sensor, which will cause the speed sensor to break.

Damage to the components through using the X095 magnet is not covered by the warranty conditions.










WHEELS/DISCS 6-BOLT: In case of mounting standard 6-bolt brake disc wheels, Urrun is compatible with the use of the Orbea 6-bolt X240 magnet.

TABLE OF COMPATIBILITY
OF DISC BRAKES



The following table shows some brake disc options on the market as a guide. Not all options are reflected. Orbea is not responsible for the feasibility of mounting brakes and brake discs other than those originally assembled by Orbea. The user/distributor will be responsible for checking the feasibility of the installation.

COMPATIBLE OPTIONS




CENTERLOCK	ORBEA INSTALLATIONS	
	DISC	MAGNET
		
	MAGURA MDR-C CL See installation in cabling section Shimano Components	ORBEA XB18 See installation in cabling section Shimano Components
	AFTERMARKET OPTIONS	
	DISC	MAGNET
		
	SHIMANO SM-RT30 Shimano Brakes	ORBEA XB18 See installation in cabling section Shimano Components
		
	MAGURA MDR-P CL Magura Brakes	MAGURA 2701966
		INTEGRATED IN DISC
	SHIMANO With magnet integrated into the disc Various models. Shimano Brakes	

To ensure the compatibility of the components, Orbea always recommends using discs from the manufacturer's brand of the mounted brakes. The user/distributor is responsible for checking the feasibility of other installations.

COMPATIBLE OPTIONS

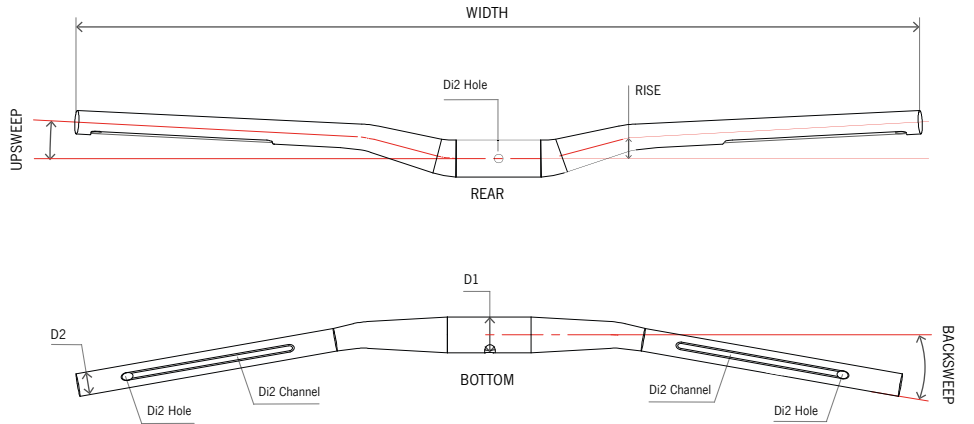
6-BOLT	DISC	MAGNET
		
	6 SCREWS	ORBEA X240

NON-COMPATIBLE OPTIONS

CENTERLOCK	DISC	MAGNET
		NOT COMPATIBLE
	SHIMANO Without integrated magnet Without rear surface mount Centerlock. Various models	
		
	SHIMANO Without integrated magnet With magnet integrated in Centerlock nut	In Centerlock nut

OC MC31 HANDLEBAR

NOTICE Urrun uses an OC HB-MP31 35mm handlebar specific for internal wiring of STEPS/Di2 components and remote lights (see the Lights section of this manual). Urrun is compatible with other 35mm handlebars without internal wiring, although in case of using another model of handlebar without internal wiring option, the cable to the display and to the light remote (if this option is mounted) must be guided on the outside of the handlebar.



TECHNICAL SPECIFICATIONS OC HB-MC31 35mm

MATERIAL	Aluminium Al6069
RECOMMENDED USE	Urban / MTB. ASTM Condition 5
WEIGHT	385 gr
WIDTH	800 mm
RISE	20 mm
UPSWEEP	3°
BACKSWEEP	9°
STEM DIAMETER (D1)	35 mm
EXTREMITIES DIAMETER (D2)	22.2 mm
COMPATIBLE DI2/STEPS	Yes. Internal wiring. Hole in the back of the stem mooring area. Compatible with ICR headsets and stems (internal cabling) Hole and channel at the ends for Di2/STEPS cable outlet

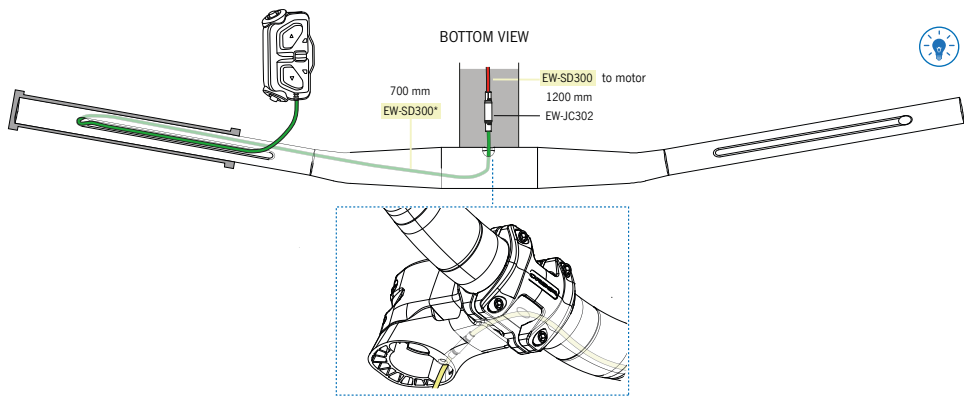
INTERNAL CABLING OF COMPONENTS OF THE ELECTRICAL SYSTEM IN URRUN 2023

NOTICE Installation of power assist system components requires advanced knowledge and may be beyond the skill of most users. Always go to an official dealer for the diagnosis, repair and installation of the components of the Urrun electrical system. Damage to components resulting from incorrect installation could void the warranty on those components.

NOTICE Orbea does not guarantee the compatibility of components not specified in original Orbea assemblies. Check the feasibility of mounting new components before installing them.

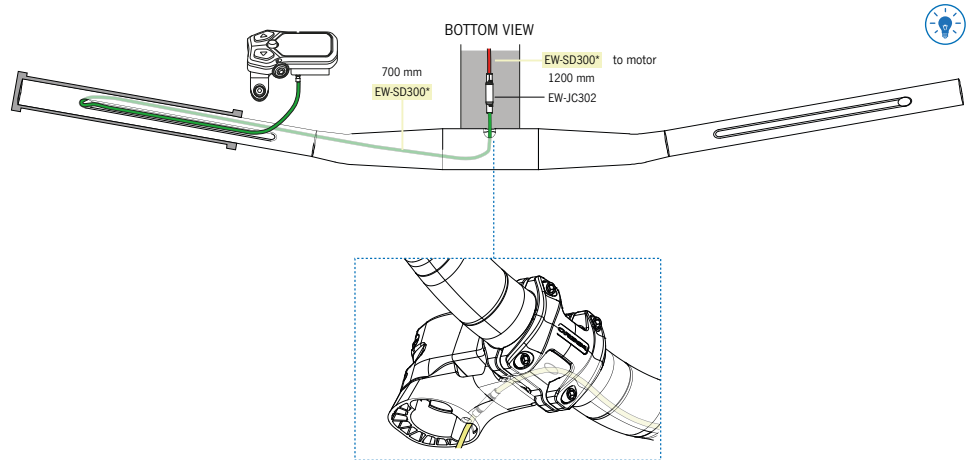
Personal injury and property damage resulting from non-compatible components and/or incorrect installation are not covered by the warranty conditions.

MOUNTS WITH SW-EN600-L ASSIST SWITCH



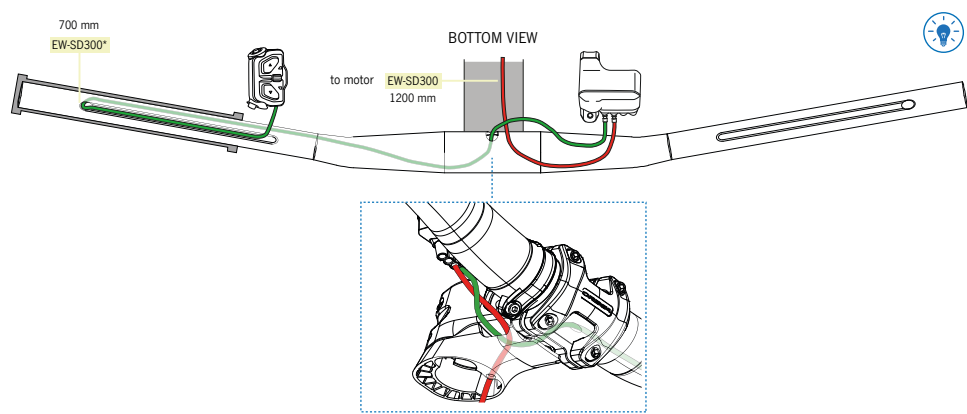
See the Lights section of this manual to discover how to wire the front light remote on mounts with this option.

MOUNTS WITH SHIMANO SC-EN500 DISPLAY



See the Lights section of this manual to discover how to wire the front light remote on mounts with this option.

MOUNTS WITH SW-EN600-L SWITCH AND SHIMANO SC-EN600 DISPLAY



See the Lights section of this manual to discover how to wire the front light remote on mounts with this option.

18 OC HB-MC31 HANDLEBAR. 35/780. RISE 20

Compatible Di2 internal wiring

PART No.: XB19

QUANT.



OC HB-MC31 Handlebar. 35/780. Rise 20.
Compatible Di2 Internal wiring

1

LIGHTS (OPTION)

Orbea offers, as an option in Urrun models, the assembly of the front light. This option is not available as an after-market option from Orbea for Urrun models that did not have the option at the time of purchase. If you want to mount a front light on Urrun models without this option, read the specific paragraph in this section, which explains what is necessary to mount aftermarket lights on Urrun models.

The dealer/user is responsible for checking the compatibility and assembly of lights on Urrun models which do not mount the front lights option from Orbea.

FRONT LIGHT SPECIFICATIONS LEZYNE SUPER HB STVZO E1000 (ORBEA ASSEMBLIES)

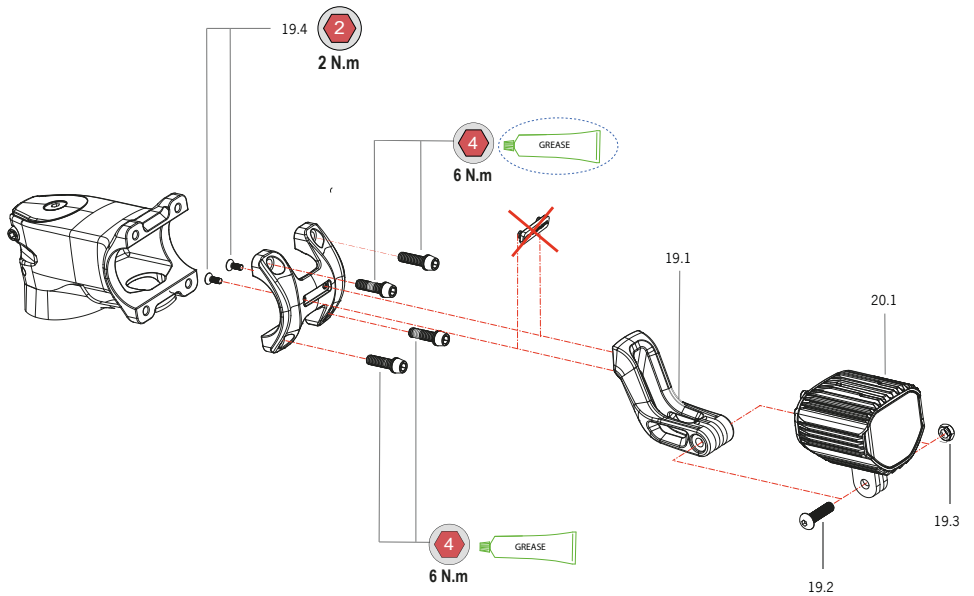
MANUFACTURER	LEZYNE
MODEL	EBIKE SUPER HB STVZO E1000
LIGHT OUTPUT POWER	HIGH BEAM: 1000 LUMEN LOW BEAM: 600 LUMEN
LIGHT TYPE	LED
CHASSIS MATERIAL	CNC ALUMINIUM
SAFETY STANDARD	STVZO GERMANY Light beam cut at the top. Avoids dazzling other road users
PROTECTION	Safety thermal protection. Automatically reduces the power
INPUT VOLTAGE	11-15V
OUTPUT POWER	HIGH BEAM: 16W LOW BEAM: 8.5W
EBIKE SYSTEM CONNECTION CABLE	50cm Orbea assemblies with JST connector installed
REMOTE HANDLEBAR	Yes. Included. Cable 30cm
AVAILABILITY	Through the Lezyne distributor for aftermarket assemblies

* The specific model or specifications of the front light mounted as an option by Orbea may change without prior notice.
** Warranty claims or the purchase of Lezyne spare parts must be processed through a Lezyne dealer.

FRONT LIGHT ASSEMBLY ONTO THE STEM
ORBEA OPTIONS ASSEMBLIES

NOTICE The adapter for mounting the front light on the Orbea Urban ICR 35mm stem is an Orbea item. It can be used to mount aftermarket lights with standard GoPro mounts.

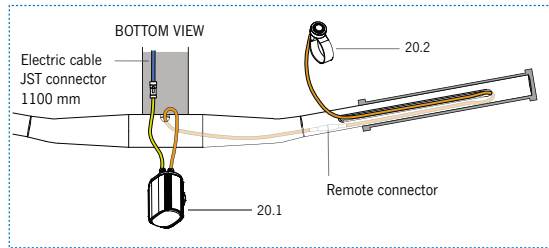
For use with aftermarket lights not fitted as standard by Orbea, it will be the responsibility of the dealer/user to check the feasibility of mounting.



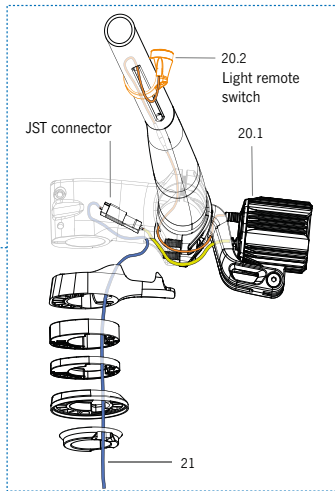
SEE THE LIST OF COMPONENTS AT THE
END OF THIS SECTION

CABLING OF COMPONENTS ON THE FRAME,
HEADSET, STEM AND HANDLEBAR

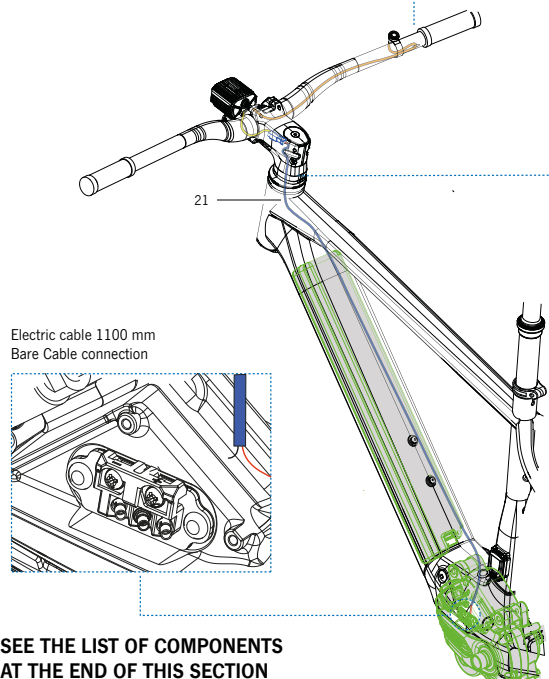
MOTOR LIGHT CABLE
FRONT LIGHT POWER CABLE
REMOTE IN HANDLEBAR



OC HB-MP31 handlebar cable routing
· Light with remote Orbea assemblies ·



Headset and stem cable routing
· Light with remote Orbea assemblies ·



SEE THE LIST OF COMPONENTS
AT THE END OF THIS SECTION

AFTERMARKET* LIGHT ASSEMBLY

For mounting lights on Urrun models that did not have the standard front light option from Orbea, the user/dealer is responsible for checking the feasibility and compatibility of mounting the components.

Any components mounted by Orbea on models equipped with this option are not available from Orbea as aftermarket items.

On Urrun models which do not have the front light option as standard, the motor light connection port is disabled by default, so it will be necessary for a Shimano dealer to activate it if a front light connected to the motor is installed.

The motor to front light connection cable on Orbea mounts has a JST connector pre-fitted on the front end for use with the option mounted front light.

For aftermarket mounts, check the connection of the chosen front light and select a connection cable to the motor with the same connection standard. The connection cable

to the motor from the front light must be at least 1100 mm in length.

The connection to the Shimano EP600 and EP801 motors is always bare wire.

NOTICE The Shimano EP801 and EP600 motors allow the connection of a rear light cable.

Orbea does not offer rear light assemblies on Urrun models, so it cannot be held responsible for the feasibility of these assemblies if the user or dealer decides to mount a rear light on Urrun models. Activation of the light port must be done by connecting the bike to the Etube Project Professional dealer tool via the Shimano SM-PCE02 interface. See the section on connecting to Etube Professional in this manual.

COMPONENTS FRONT LIGHT ASSEMBLY

19 ORBEA URBAN ICR LONG POWER FRONT LIGHT
ADAPTER 35mm

PART No.: XB20	QUANT.
19.1 Front light support faceplate stem Urban ICR. GoPro. Largo	1
19.2 M5x20 ISO7380 bolt	1
19.3 M5 DIN985 blocking nut	1
19.4 M3x8 DIN 7991 bolt	2

21 LIGHT CABLE 1100mm
Bare wire to JST connector

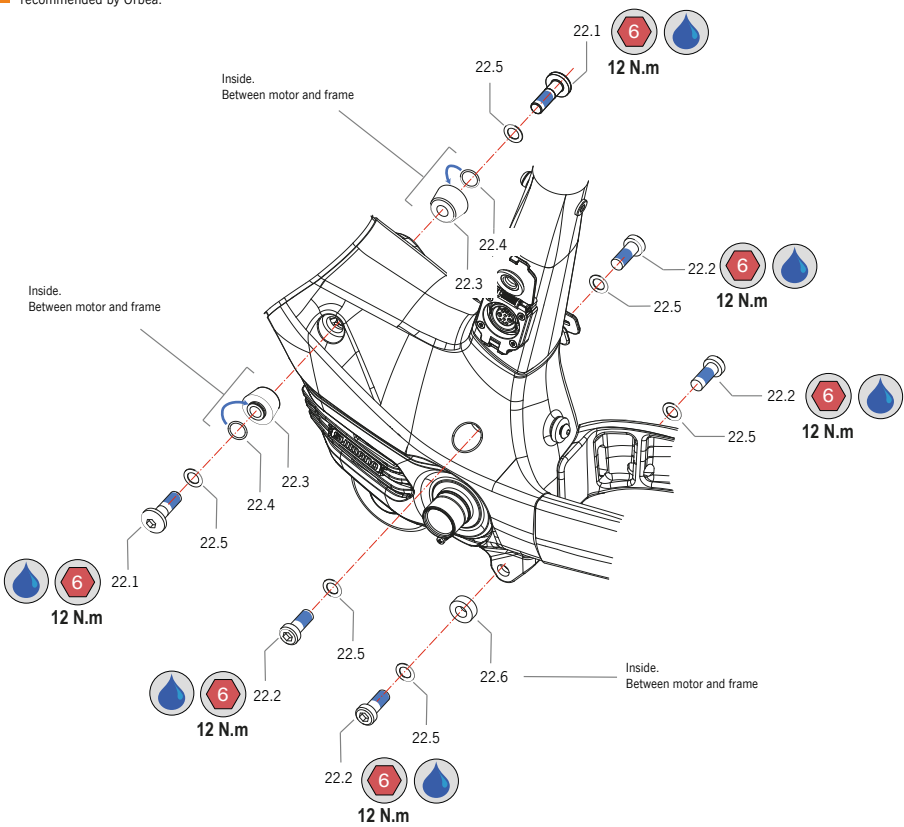
PART No.: XB22	QUANT.
20.1 Light cable 1100mm Bare wire to JST connector	1

20 EBIKE SUPER HB STV20 E1000 FRONT LIGHT
Cable 50cm with JST connector (only Orbea mounts)
Remote handlebar cable 30cm included

PART No.: * NOT AVAILABLE AS AN AFTERMARKET OPTION FROM ORBEA	QUANT.
20.1 Front light Ebike Lezyne Super HB STV20 E1000. JST connector	1
20.2 Lezyne remote handlebar. Cable 30cm	1

ATTACHMENT OF THE EP801/EP6 RS MOTOR

Always use the tightening torque recommended by Orbea.



22 MOTOR CLAMPING EP8/EP6 ALLOY KIT

PART No.: XA87		QUANT.
	22.1 Motor mounting bolt EP8 M8x26	2
	22.2 Motor mounting bolt EP8 M8xP1.25	4
	22.3 Front motor spacer 8x22x12	2
	22.4 O-ring seal 10x1	2
	22.5 8x13x0.5 washer	6
	22.6 Rear motor spacer 8x16x6.5	1

INTERNAL BATTERY RS 540WH GEN2

NOTICE Refer to the RS battery maintenance, usage, charging and storage recommendations in the sections of this manual entitled “Maintenance” and “Warnings on the Use of the Electrical Assist System” of this manual.

See also the process for charging, switching on and checking the level of the batteries in the “Using Urrun” section of this manual. See the section Relevant information about RS GEN2 batteries for more useful information about use, care and problem solving for the internal battery and Range Extender.

COMPATIBILITY NOTICE. GEN2 ELECTRICAL SYSTEM COMPONENTS

The Orbea electrical system components (internal battery -540Wh or 360Wh-, Range Extender, cable harness and Smart Charger) identified as Gen2, are not compatible with Rise, Kemen or Urrun models from ranges prior to 2023 with Orbea Gen0 and Gen1 electrical system components. These Orbea Ebike Systems components from the 2023 range are designed to guarantee compatibility with Shimano EP801 and EP6 motors, and Shimano Gen2 components.

See the Orbea Ebike Systems Compatibility Table to find out about the compatibility of all Orbea components with our different bicycle models.

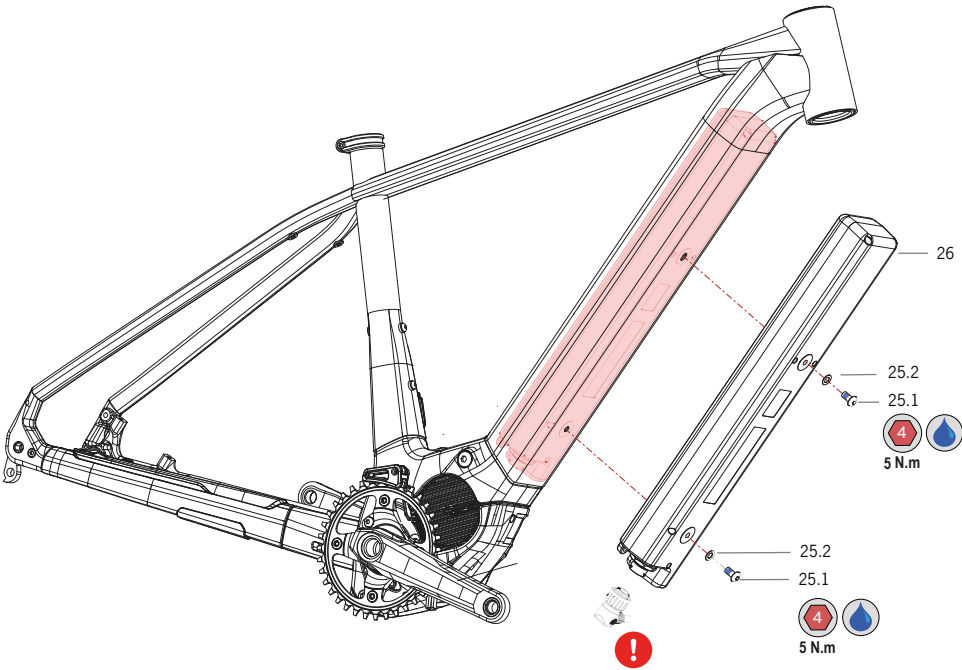
TECHNICAL SPECIFICATIONS OF THE INTERNAL BATTERY RS GEN2

VOLTAGE	36 V
CAPACITY	540 Wh
WEIGHT	2.7 kg
CELLS	Lithium ion. Samsung 21700
CHARGING TIME 100% (4A) With RS Smart Charger	4.5 hours
CHARGING TIME 80% (4A) With RS Smart Charger	3 hours
ASSEMBLY	Internal. In downtube. Not user removable.
CONNECTION	Cable harness to motor, charging port and power button.
SEALING	IP66
CERTIFICATIONS	ISO13849 > ISO13849-1:2015 IEC62133 > IEC62133:2017 UN 38.3
COMPATIBILITY	Compatible with Orbea Ebike System Gen2 in Orbea models with Shimano motor EP801/EP6 from 2023 range

ATTACHMENT OF THE RS INTERNAL BATTERY TO THE FRAME

Always use the tightening torque recommended by Orbea.



Use only original Orbea bolts to attach the internal battery to the Urrun frame.



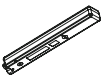
NOTICE See the internal battery removal and installation section for the complete mounting process.

See the section entitled Wiring of Electrical System Components and the section on the installation of the internal battery for how to connect the cable harness to the internal battery.

25 INTERNAL BATTERY 540WH RS FIXING KIT

PART No.: XA88		QUANT.
	25.1 Aluminium battery clamping bolt M6x9	2
	25.2 Battery attachment washer 6x11x0.5 mm	2

26 INTERNAL BATTERY RS 540WH 36V GEN2

PART No.: X974		QUANT.
	Internal battery RS 540WH 36V GEN2	1

DIAGNOSTICS OF INTERNAL BATTERY ERRORS
RS 540Wh

(INFORMATION FOR DEALERS)

Orbea RS 540Wh Gen2 internal batteries do not have LEDs to display battery error codes and troubleshooting cannot be performed using E-Tube Professional. If there is a problem with the Urrun electrical system, use E-Tube Professional to check that the problem is not in another Shimano component of the electrical system.

Contact Shimano to provide a system report through a claim. If Shimano informs you that the problem is related to the internal battery, contact Orbea via a claim.

DISASSEMBLY OF THE RS GEN2 INTERNAL BATTERY INFORMATION FOR ORBEA DEALERS

NOTICE

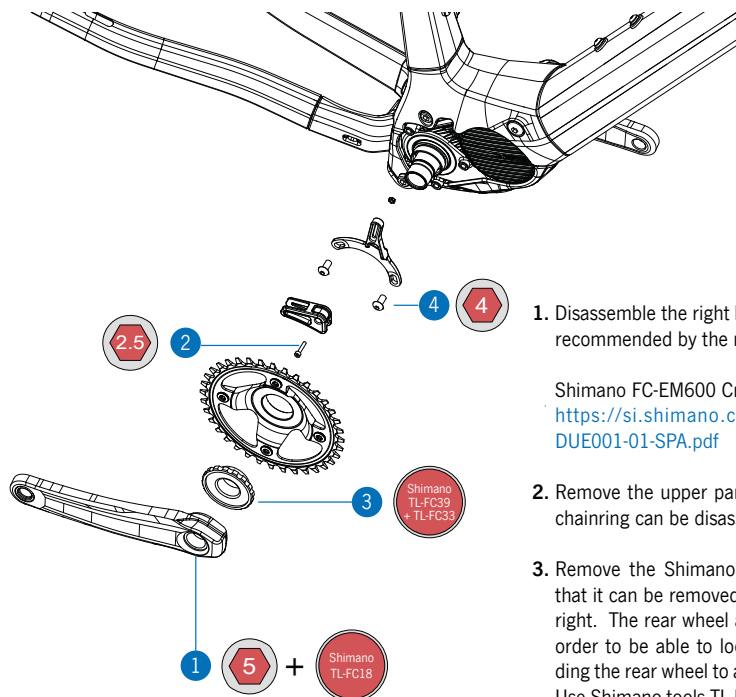
Installation of power assist system components requires advanced knowledge and may be beyond the skill of most users.



Always go to an official dealer for the diagnosis, repair and installation of the components of the Urrun electrical system. Damage to components resulting from incorrect installation could void the warranty on those components.



Orbea recommends that internal batteries only be replaced by authorised Orbea dealers, as the process requires the removal of major components of the bicycle and the electrical system. If you are going to travel with your bicycle and need to remove the battery, always take your bike to an Orbea dealer to avoid damage to the materials and to ensure that all of the components work correctly and safely. Incorrect installation of components can cause them to fail, which can lead to serious accidents and injuries.

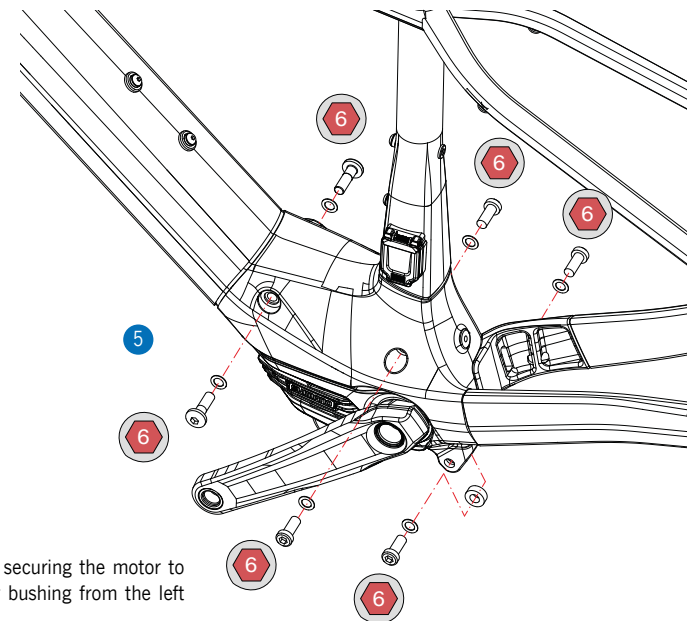


1. Disassemble the right hand crank following the process recommended by the manufacturer.

Shimano FC-EM600 Cranks:

<https://si.shimano.com/es/pdfs/dm/DUE001/DM-DUE001-01-SPA.pdf>

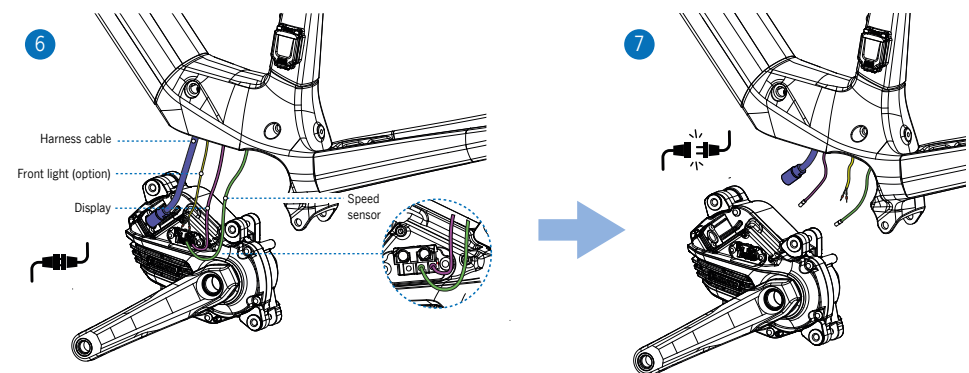
2. Remove the upper part of the chain guide so that the chainring can be disassembled.
3. Remove the Shimano locking from the chainring so that it can be removed. The locking is loosened to the right. The rear wheel and chain need to be installed in order to be able to lock the chainring rotation by holding the rear wheel to allow the locking to be loosened. Use Shimano tools TL-FC39 and TL-FC33 to remove the locking.
4. Remove the chainguide body to gain access to the motor attachment bolts.



5. Remove the bolts and washers securing the motor to the frame, as well as the lower bushing from the left hand lower attachment point.

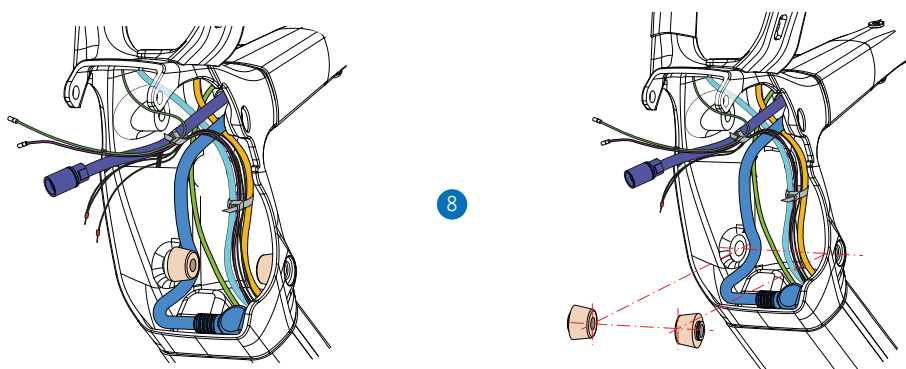
6. Carefully remove the motor from the frame to avoid damaging the cables.

7. Disconnect the cable running from the battery to the motor, and the speed sensor and display cables. If the bike has lights connected to the motor, disconnect the wire(s) from the motor with a Phillips screwdriver.

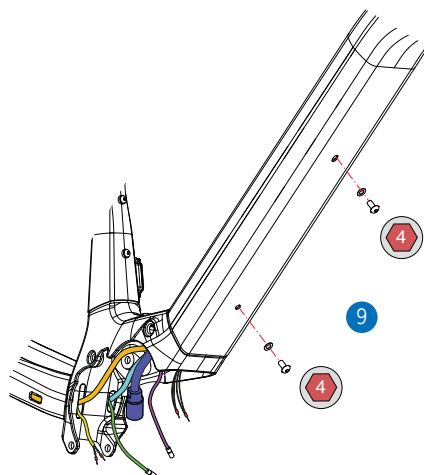


8. Remove the upper motor attachment bushings.

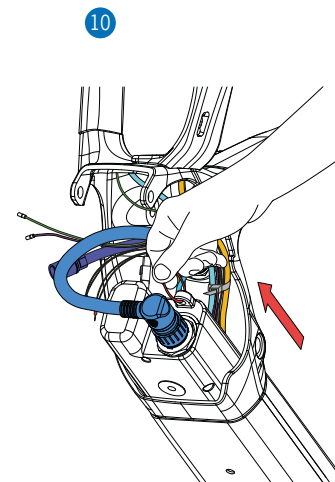
Remember, when re-installing the bushings when installing the motor, the battery connection cable must be routed over the left bushing to allow the motor to be installed.



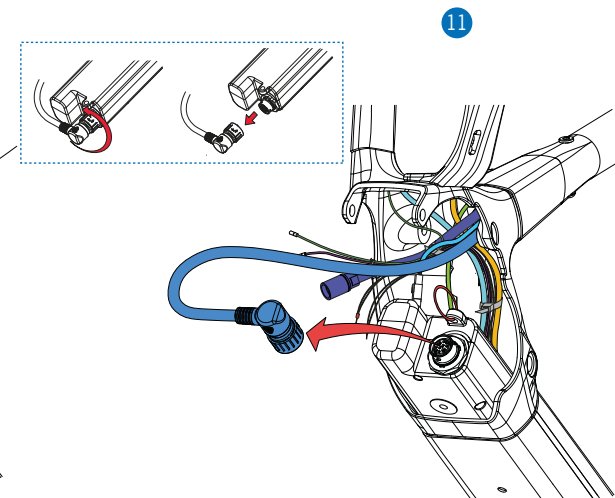
9. Remove the bolts and washers securing the internal battery to the downtube.



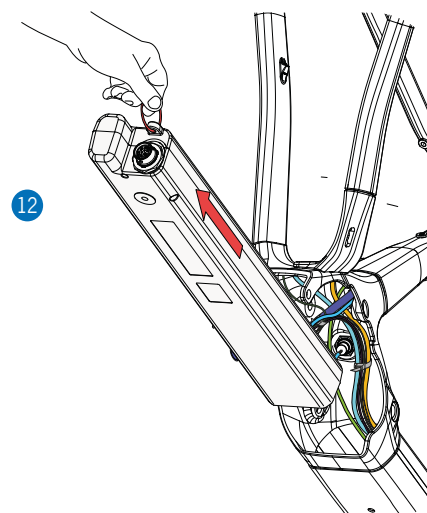
10. Pull on the battery cable tie to remove the battery from the downtube, until the battery cable connector is easily accessible.



11. Disconnect the battery cable by turning the locking ring to the left and pulling on the connector.



12. Remove the battery from the downtube.



INSTALLING THE INTERNAL BATTERY

To reinstall the internal battery, follow the opposite process to removing it.

Check the cable routing and tightening torques of all components in the sections of this manual for each element. For the correct installation of the Shimano locking on the chainring and cranks, please refer to the manufacturer's documentation.

Shimano FC-EM600 Cranks:

<https://si.shimano.com/es/pdfs/dm/DUE001/DM-DUE001-01-SPA.pdf>

RANGE EXTENDER RS 252WH GEN2

The Orbea Range Extender RS Gen2 external battery is connected to the assistance system to provide 252 Wh of additional capacity to it, increasing the total capacity of Urrun, together with the internal battery, to 792 Wh. Thus, the Range Extender battery will increase the range achieved with the internal battery by approximately 50%.

NOTICE Refer to the RS battery maintenance, usage, charging and storage recommendations in the sections of this manual entitled “Maintenance” and “Warnings on the Use of the Electrical Assist System” of this manual.

See also the process for charging, switching on and checking the level of the batteries in the “Using Urrun” section of this manual.

See the section “Relevant information about RS batteries” on access and for more useful information about using and caring for the internal battery and Range Extender.

NOTICE COMPATIBILITY NOTICE. GEN2 ELECTRICAL SYSTEM COMPONENTS

The Orbea electrical system components (internal battery -540Wh or 360Wh-, Range Extender, cable harness and Smart Charger) identified as Gen2, are not compatible with Rise, Kemen or Urrun models from ranges prior to 2023 with Orbea Gen0 and Gen1 electrical system components.

These Orbea Ebike Systems components from the 2023 range are designed to guarantee compatibility with Shimano EP801 and EP6 motors, and Shimano Gen2 components.

See the Orbea Ebike Systems Compatibility Table to find out about the compatibility of all Orbea components with our different bicycle models.

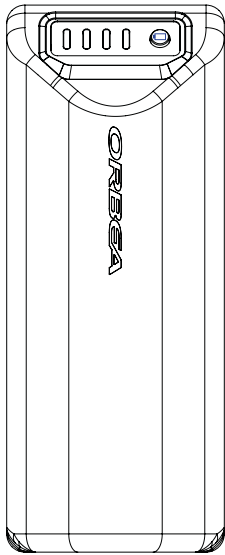
NOTICE IMPORTANT INFORMATION:
Completely charge the Range Extender before using it for the first time.

Charge the Range Extender as soon as you get it.

If you are not going to use the Range Extender, make sure to charge it to at least 50% capacity every 2-3 months.

TECHNICAL SPECIFICATIONS OF THE RANGE EXTENDER RS GEN2 BATTERY

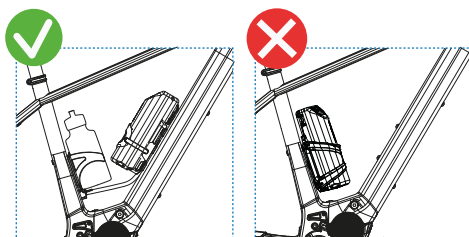
VOLTAGE	36 V
CAPACITY	252 Wh
WEIGHT	1.5 Kg
CELLS	Lithium ion. Samsung 18650
CHARGING TIME 100% (2A) With RS Smart Charger	3.5 hours
ASSEMBLY	Specific bottle holder on downtube
CONNECTION	Cable Range Extender 2022/2023 to Urrun charging port. 275mm
SEALING	IPX5
CERTIFICATIONS	ISO13849 > ISO13849-1:2015 IEC62133 > IEC62133:2017 UN 38.3
COMPATIBILITY	Compatible with Orbea Ebike System Gen2 systems in Orbea models with Shimano EP801/EP6 motors from the 2023 range The length of the cable must be 275 mm.



MOUNTING THE RANGE EXTENDER

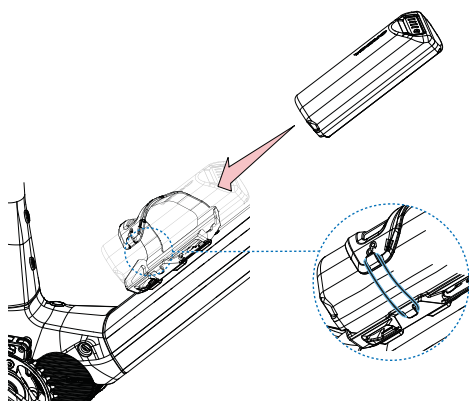
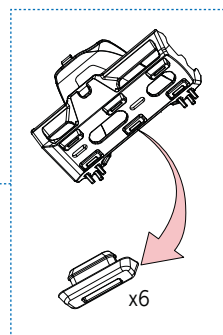
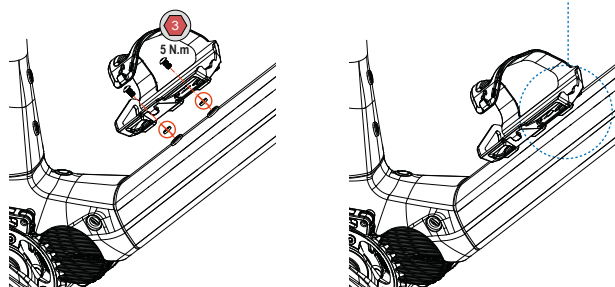
NOTICE The Range Extender battery should always be installed on the down tube.

Do not install the Range Extender on the Urrun seat tube.



Install the Range Extender specific bottle holder on the downtube of Urrun by installing the attachment bolts with a tightening torque of 5Nm.

When installing the Range Extender bottle holder, remove the two washers pre-mounted on the frame and check that, once installed, the six contact points of the bottle holder are correctly supported by the downtube.



Install the Range Extender battery in the bottle holder and secure it with the rubber safety band.

The Range Extender mounting is compatible with the use of standard bottles when the Range Extender is not mounted on the bicycle.

CONNECTING THE RANGE EXTENDER TO URRUN

Lift the locking tabs on the Range Extender's connection cable before connecting it to the battery.

Connect the cable to the Range Extender's charging port. Open the Urrun seat tube charging port and connect the Range Extender cable.

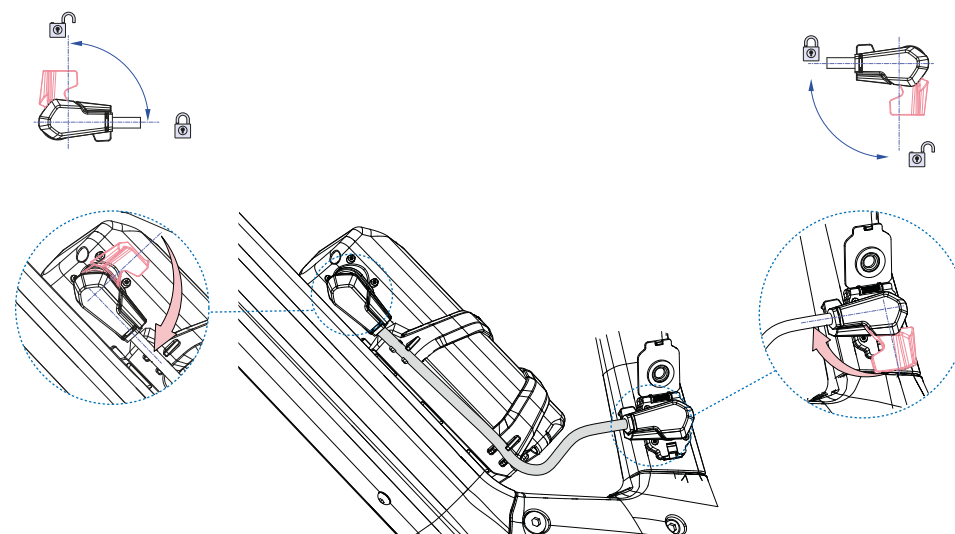
Urrun uses the 275mm connection cable of Range Extender.

Lower the locking tabs at both ends of the cable to secure the connection.

To disconnect the Range Extender cable to remove or charge the battery, first lift the cable's locking tabs and then carefully pull on the connector.

NOTICE If the bicycle was on when the Range Extender was connected to the bicycle's charging port, the electrical system will turn off and you will need to turn the bicycle back on. This behaviour is because the system needs to re-boot to recognise the Range Extender battery as part of the power system. If you were recording an activity through Garmin Connect using the Orbea RS Toolbox app, this will have no effect on Urrun's data log on Garmin Connect. Activity data will continue to be recorded when you start using Urrun again.

Once you switch on the bicycle with the Range Extender connected, the Range Extender will be operational. It is not necessary to switch on the Range Extender. If the Range Extender is disconnected from the bicycle while the bicycle is switched on, the bicycle will switch off and will need to be switched on again for the system to recognise that only the internal battery is powering the system.



OPERATION OF THE RANGE EXTENDER

The Range Extender feeds the Shimano EP6 and EP801 RS motors directly. When using Urrun with the Range Extender connected, only the Range Extender will supply power to the motor until the Range Extender's charge is exhausted.

Once the Range Extender has run out, the internal battery will switch to providing power to the motor if it has any remaining charge. At this moment, the display will switch to showing the charge level of the internal battery only.

CHARGE LEVEL DISPLAY

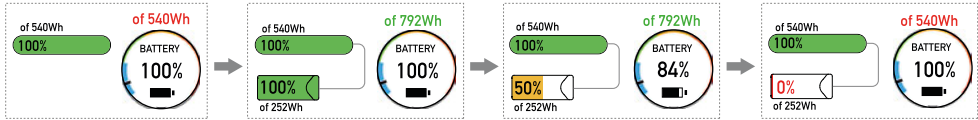
Joint charge level:

With the Range Extender connected to Urrun (after switching on the bike after connecting the Range Extender), the system will calculate the total capacity of both batteries (792 Wh) and information on the remaining charge in the system will be given by the sum of the charge levels and capacities of both batteries.

BATTERY	LEVEL OF BATTERY CHARGE	LEVEL OF SYSTEM CHARGE
Internal battery RS Gen2 (540Wh)	50% (270Wh)	50% 396 Wh of 792 Wh
Range Extender Gen2 (252 Wh)	50% (126 Wh)	

BATTERY	LEVEL OF BATTERY CHARGE	LEVEL OF SYSTEM CHARGE
Internal battery RS Gen2 (540Wh)	100% (540Wh)	84% 666 Wh of 792 Wh
Range Extender Gen2 (252 Wh)	50% (126 Wh)	

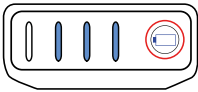
When the Range Extender is connected to the bicycle and runs out of charge, the system will once again use the available display mode (displays, or Orbea RS Toolbox data field for Garmin) to only show the available charge of the internal battery, taking into account the total capacity of the internal battery and not of the internal battery and Range Extender as a whole.



See the Viewing the battery charge level paragraph of the Using Urrun section of this manual for details of the different ways of viewing the battery charge level on the Urrun.

Range Extender charge level separately:

Press the main button on the Range Extender battery once to check the charge level. The LEDs will light up for 5 seconds in 25% segments to show the current charge level, from right to left.



CHARGING THE RANGE EXTENDER

See the Battery Charging paragraph of the Using Urrun section of this manual on how to charge the Range Extender and internal battery.

NOTICE See the section "Relevant information about RS batteries" for more useful information about use, care and problem solving for the internal battery and Range Extender. See the section "Relevant information about RS batteries" for more useful information about use, care and problem solving for the internal battery and Range Extender.

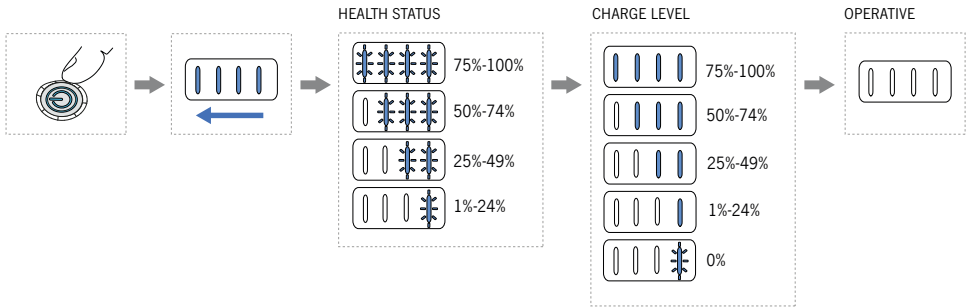
CHECKING THE STATE OF HEALTH OF THE RANGE EXTENDER

The state of health (service life) of lithium-ion batteries is reduced by charging cycles and usage conditions over the life of the battery.

Under normal usage conditions, observing the usage, charging and storage conditions described in the "Relevant information about RS batteries" section of this manual, the service life of RS batteries will be reduced by approximately 20% after 500 full charging cycles.

NOTICE This battery health data is given for ideal usage conditions. It can be affected by usage conditions, charging and storage in very cold temperatures, by storing the battery for long periods of time without topping up the charge level, by repeatedly using the battery at very low charge levels, etc.

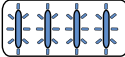
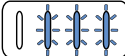
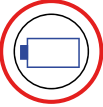
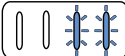
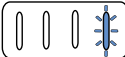
To check the state of health of your Range Extender, connect the battery to a compatible bicycle (the bicycle will turn off if it was on) and turn on the bicycle with the Range Extender connected. The Range Extender's four LEDs will sweep to the left and then flash to show the battery state of health for 2 seconds. They will then remain on steadily to show the current battery charge level, and will then turn off.



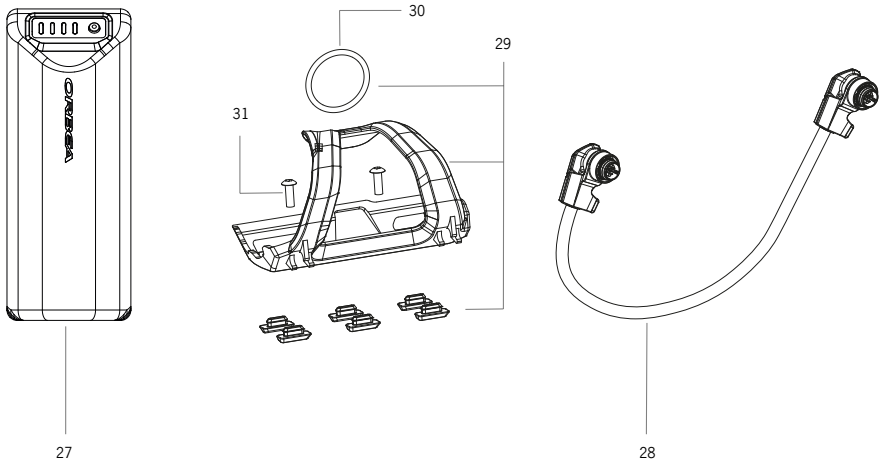
RANGE EXTENDER LED ERROR CODES

If the Range Extender does not charge or does not supply power to the motor, press the Range Extender main button once. If an error is detected in the battery, the LEDs will display the error code. See the table below to find out about the error and how to solve it:

NOTICE When the following table mentions "Contact Orbea", this applies if a dealer is performing the battery diagnostics. If an end user is unable to resolve an error or malfunction by following the instructions on the following table, he/she should contact an authorised Orbea dealer, who will process the claim with Orbea.

PRESS	LED CODES	ERROR	SOLUTION
		Cell or hardware error.	Contact with Orbea.
		Short circuit or current too high. The bicycle turns off to protect the components of the electrical system.	Disconnect the external battery. Inspect the cable and charging port for dirt, moisture or foreign objects. Reconnect the external battery to the bicycle and switch it on.
		Temperature protection. The Range Extender stops supplying power and the motor switches to draw power from the internal battery.	Wait for the temperature to be within the usage range. If the problem does not disappear contact Orbea
		Voltage too low. The Range Extender stops supplying power and the motor switches to draw power from the internal battery.	Charge the battery with the RS Gen2 Smart Charger.

RANGE EXTENDER SPARE PARTS



27 RANGE EXTENDER RS 252WH GEN2

PART No.: YD45	QUANT.
Includes everything required for installing the Range Extender battery	
· Battery Range Extender 252Wh	1
· Range Extender bottle holder mounting	1
· Rubber protections	6
· Charging port connection cable	1
· Rubber safety band	1

29 SUPPORT RANGE EXTENDER
Compatible with standard bottle holder

PART No.: X223	QUANT.
29.1 Range Extender bottle holder mounting	1
29.2 Rubber protectors	6
29.3 Rubber safety band	1

31 KEMEN/URRUN BOTTLE HOLDER BOLT KIT RANGE
EXTENDER RS

Urrun only uses 1 washer per screw

PART No.: XA80	QUANT.
31.1 Bolt M5x10	2
31.2 Washer 6.2x10x2	4

28 RANGE EXTENDER 2022 GEN1 / GEN2 275mm
CONNECTION CABLE

PART No.: XA86	QUANT.
Range Extender 2022 GEN1 / GEN2 275mm connection cable	1

30 RANGE EXTENDER RUBBER SAFETY BAND KIT

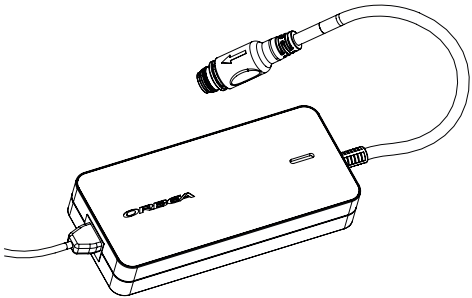
PART No.: X224	QUANT.
Rubber safety band 40x3.5	4

SMART CHARGER RS 2A-4A GEN2

COMPATIBILITY NOTICE. GEN2 ELECTRICAL SYSTEM COMPONENTS

The Orbea electrical system components (internal battery -540Wh or 360Wh-, Range Extender, cable harness and Smart Charger) identified as Gen2, are not compatible with Rise, Kemen or Urrun models from ranges prior to 2023 with Orbea Gen0 and Gen1 electrical system components. These Orbea Ebike Systems components from the 2023 range are designed to guarantee compatibility with Shimano EP801 and EP6 motors, and Shimano Gen2 components.

Do not use the Gen2 charger to charge batteries from previous Orbea systems.



TECHNICAL SPECIFICATIONS OF THE RS 2A-4A GEN2 SMART CHARGER

INPUT	100-240V. 50-60HZ. AC
OUTPUT	42V 4A DC
INTERNAL BATTERY RS 540WH CHARGING CURRENT	4 A
RANGE EXTENDER RS 252WH CHARGING CURRENT	2A
INTERNAL BATTERY RS 540Wh CHARGING TIME (4A)	4.5 hours
	3.5 hours
RANGE EXTENDER RS 252Wh CHARGING TIME (2A)	The Smart Charger RS Gen2 recognises which battery is connected and adapts the charging current
CHARGING TEMPERATURE RANGE	0°C - 40°C
CHARGE DISPLAY	Charging process and errors display LED
OPTIONS OF POWER CABLE	EU, UK, US, AUS
CERTIFICATIONS	CB: IEC60335-1, IEC60335-2-29 CE: EN60335-1, EN60335-2-29 RCM, SAA: AS/NZS 60335.2.29 UKCA: BS/EN60335-1, BS/EN60335-2-29 FCC: FCC PART 15B IC: ICES-003-Issue 7 CE: UKCA: EN55014-1/2, EN610003-3/2 C-TICK: AS/NZS CISPR 14.1"
COMPATIBILITY	Compatible with Orbea Ebike System Gen2 systems on Orbea models with Shimano EP801/EP6 motor from 2023 range onwards


VARIABLE CHARGING CURRENT

The RS Smart Charger recognises which battery it is connected to (540Wh internal battery or 252Wh Range Extender) and adapts the charging current accordingly.

The charging current of the internal battery is 4A (100-240V). The charging speed of the internal battery up to a charge level of 80% is higher (3 hours) and slows down until the 100% charge level is reached.

The charging current of the Range Extender is 2A (100-240V).

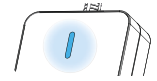
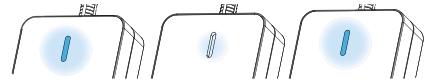
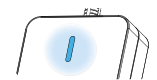
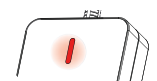
32 ORBEA RS 4A-2A 42V GEN2 SMART CHARGER
power cable options EU, US, UK, AUS

PART No.: X977	QUANT.
	Smart Charger Orbea RS 4A-2A 42V GEN2. power cable options EU, US, UK, AUS 1

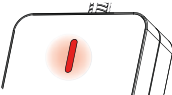
USING THE RS GEN2 SMART CHARGER

NOTICE See the RS battery charging section in the Using Urrun chapter of this manual for the complete process of using the Smart Charger to charge the internal battery and the Range Extender in Urrun.

MEANING OF THE SMART CHARGER LED

LED	BEHAVIOUR	STATE
	Blue LED flashing	Charger receiving power but not connected to the battery
	Blue LED lights up and fades cyclically	Charger charging the battery
	LED steady blue	Charge completed
	Steady red LED	Error. See the error resolution table


TROUBLESHOOTING RS GEN 2 SMART CHARGER


LED	POSSIBLE ERROR (Follow solutions in descending order)	SOLUTION
	Protection for current which is too high	<ul style="list-style-type: none">· Disconnect the battery.· Inspect the cable and charging port for dirt, moisture or foreign objects.· If the problem does not disappear, contact an Orbea dealer.
	Short-circuit protection	<ul style="list-style-type: none">· Disconnect the battery.· Inspect the cable and charging port for dirt, moisture or foreign objects.· If the problem does not disappear, contact an Orbea dealer.
	Temperature protection current protection	<ul style="list-style-type: none">· Wait until the charger temperature is within the charging range.· If the problem does not disappear, contact an Orbea dealer.
	Inaction protection	The amount of time connected to the power supply or battery without effectively charging exceeds the set limit by far.
	Abnormal communication protection	Contact an Orbea dealer.
	Protection for voltage which is too high	<ul style="list-style-type: none">· The battery voltage is too high.· Contact an Orbea dealer.

SMART CHARGER RS
USE WARNINGS

See the section entitled “Relevant information about RS batteries” for more useful information on using and caring for the RS Smart Charger.

RELEVANT INFORMATION ON ORBEA
RS LITHIUM-ION BATTERIES

 For your safety, read the entire User Manual before using Orbea RS batteries and chargers.

 Contact Orbea or an authorised dealer for information on installing and adjusting products not found in the User Manual. The instructions below must be followed at all times to avoid injury or damaging the equipment and the environment.

The information in the following manual applies to both the internal battery and the Range Extender.

BATTERY SAFETY INSTRUCTIONS
AND WARNINGS

- Use only the specific RS Gen2 charger and follow the specified charging conditions when charging the battery. Failure to do so may result in overheating, explosion or ignition of the battery.
- Do not leave the battery near heat sources such as heaters, vehicles or any hazardous location.
- Do not heat the battery or throw it into a fire.
- Do not deform, modify or disassemble the battery or apply solder directly to it.
- Do not connect the (+) and (-) terminals and other terminals with metal objects. Do not carry or store the battery with metal objects such as necklaces or hairpins. This can cause short circuits, overheating, burns or other injuries.
- Do not immerse the battery in water and do not allow the battery terminals to get wet. Failure to do so may result in overheating, explosion or ignition of the battery.
- Do not puncture or crush the battery.
- If the battery leaks and the fluid comes into contact with the eyes, skin or clothing, immediately rinse the affected areas with abundant fresh water and seek medical attention immediately. Battery fluid can damage your eyes and skin.

- If the battery is not fully charged within the designated charging time of 5 hours plus an additional 2 hours (3.5 hours + 2 hours for the Range Extender), unplug the battery from the charger and contact an authorised dealer immediately.
- Do not use the battery if it has any external damage.
- Do not use the battery if it is leaking, discoloured, deformed or if it has any other anomaly.
- Do not charge the battery in wet or very humid places or outdoors.
- Do not plug in or unplug the battery if it is wet. Doing so can cause an electric shock. If water comes out of the socket, dry it thoroughly before plugging it in.
- Do not store the battery in direct sunlight or in excessively hot places (such as inside a car). Keep it away from heat and flames. This can cause leaks in the battery.
- Use both hands when handling the product to avoid hazards and injuries.
- If an error occurs during discharging or charging, stop using the battery immediately and refer to the User Manual. If you are unsure, please consult Orbea or an authorised dealer.
- Do not clean the battery with high pressure water.
- Do not use alcohol, solvents or abrasive cleaners to clean the battery or charger. Use a dry or slightly damp cloth.
- Children should be supervised to ensure that they do not play with the battery and charger.
- If the battery explodes, contact the fire service immediately and carefully remove other batteries if possible. Evacuate all persons from the area of the fire immediately and use plenty of cold water (at least 10 times the weight of the battery) to extinguish the fire.

BATTERY STORAGE CONDITIONS

- Store batteries in a safe place out of reach of babies and pets.
- Storing the battery at temperatures outside this range may result in fires or damage to the battery.
- **Storage temperature range: 0°C ~ 35°C. Avoid large changes in temperature. Humidity: 5%-65%.**
- If you are not going to use it for a long period of time, store it with approximately 50% of the battery capacity remaining. Charge every 3 months to 50% to avoid damaging the battery.
- Store the battery or bicycles fitted with batteries in cool, enclosed areas (approx. 0°C~35°C) in places not exposed to direct sunlight or rain. Low or high storage temperatures reduce the battery's performance and the range per charge may decrease as a result. After not using the battery for a period of time, be sure to charge it before use.
- Temperatures above 70° can cause leaks and a fire hazard.

BATTERY USAGE CONDITIONS

- The battery operating temperature ranges are listed below. Do not use the battery in temperatures outside these ranges.
- Using the battery at temperatures outside these ranges may cause fires, injuries or damage.
- **Only use the battery within the discharge temperature range: -10 ° C ~ 40 ° C.**
- **Only charge the battery within the charging temperature range: 0 ° C ~ 40 ° C.**
- The battery should be charged at room temperature, on a dry, non-flammable surface, away from any heat source, moisture or flammable materials.

- If the battery has been charged in a low temperature environment (0°C or below), less range will be available per full charge.
- If you wish to transport the battery, please note that it is considered as hazardous goods under current regulations. Use approved packaging and carriers.

BATTERY ASSEMBLY CONDITIONS

- Do not use the battery immediately after receiving the battery or the bicycle. Make sure that it is fully charged before the first use.
- Always switch off the battery and/or the bicycle before inserting or removing the battery from the bicycle.

CHARGING CONDITIONS AND SAFETY INSTRUCTIONS

- The battery is not fully charged at the time of purchase. Before cycling, make sure you fully charge the battery.
- Use only the original RS charger to charge the battery.
- Always switch off the bicycle and/or the battery before connecting or disconnecting the charger to the charging port.
- Make sure the bicycle's charging port and plugs are always clean and dry before connecting the charger.
- Never use the charger if you suspect it is damaged or know it is broken.
- Do not dismantle or modify the battery charger.
- Always keep the charging port cover closed if you are not charging the battery.
- Do not insert metal objects into the battery charging port.
- Do not allow the battery charger to get wet and do not use the charger while it is wet. Do not carry or hold it with wet hands to avoid electric shocks.

- Do not use the charger when it is covered with a cloth or other material.
- Do not touch the metal parts of the batteries or charger to avoid electric shocks.
- Do not use the charger to charge the battery outdoors or in high humidity environments, and avoid exposure to rain or wind.
- To avoid damaging the cable, do not carry the charger by the cable and avoid wrapping the cable around the charger body when storing it.
- Do not pedal or perform any type of battery discharging operation while charging the battery.
- Always remove the Range Extender before washing the bike with water or any other type of liquid.
- Wait for one hour if you want to charge the battery after use, as the battery temperature may be too high.
- It is advisable to charge the battery in an area with a smoke detector.
- It is not recommended to connect the battery permanently to the charger to avoid damaging the battery in the event of a malfunction of the charging cut-off circuits.

RECYCLING

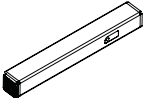





- Batteries, accessories and packaging should be sorted for environmentally friendly recycling.
- Lithium-ion batteries are a valuable and recyclable resource. Follow the regulations in your area for information on used batteries. If you are unsure, please consult Orbea or an authorised dealer.
- Do not dispose of the battery as household waste. It will be accepted at the point of sale and properly disposed of.

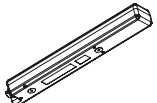
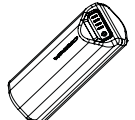
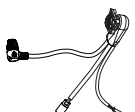

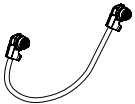
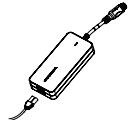
WARRANTY INVALIDATION CONDITIONS

- Charge the battery at least every 3 months to approximately 50% of its capacity, even when the bicycle is not in use.
- The warranty does not cover products against natural wear and tear and deterioration from normal use and ageing.
- Battery life will vary depending on factors such as storage method, usage conditions, the environment and the characteristics of each battery.
- If the battery is completely discharged, charge it as soon as possible. If the battery is not charged, it may deteriorate and become unusable.
- Do not disassemble the battery or other related parts, including the label, as this may void the battery's warranty.
- See the Warranty section of this manual for more details on the Orbea product warranty and the warranty claims process.

COMPATIBILITY OF ORBEA EBIKE
SYSTEMS RS COMPONENTS

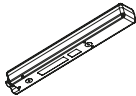





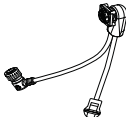
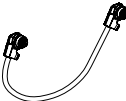
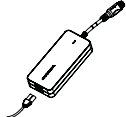
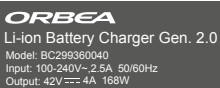
Some changes have been made to the different ranges of Orbea RS electrical components of the Rise, Kemen and Urrun models to make sure that they are compatible with the Shimano EP600 RS, EP800 RS and EP801 RS systems. To ensure correct operation of the electrical system, all of the indicated components must be of the same generation. Check the following table to identify the components that correspond to your bicycle model.

GEN 0	COMPONENTS	REFERENCE	MODEL ID	LABEL	RISE CARBON 2021/22	RISE HYDRO 2022	KEMEN 2022	URRUN 2022	RISE CARBON 2023	RISE HYDRO 2023	KEMEN 2023	URRUN 2023
	360WH 36V RS GEN 0 INTERNAL BATTERY	X222		TPS-001 -50SD <div>TRENDPOWER Rechargeable Li-Ion Battery Pack Model: TPS-001 -50SD Rated Capacity: 9.8Ah Nominal Voltage/Energy: 36Vdc/355Wh Max. Charge Voltage/Current: 42V/4A Max. Discharge Current: 20A 10INR22/71-2</div>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RANGE EXTENDER 252WH RS GEN 0	Y022		ORB-001-35SD <div>ORBEA RS RANGE EXTENDER Patent pending (R) Rechargeable Li-Ion Battery Pack Model: ORB-001-35SD 10INR19/66-2 Voltage: 36VDC Capacity: 6.7Ah/252Wh</div>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CHARGING PORT + CABLE HARNESS RS GEN 0	X238			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RS GEN 0 FRAME ON/OFF BUTTON	X236			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RS GEN 0 RANGE EXTENDER CONNECTION CABLE	X225			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2A 36V RS GEN 0 CHARGER	X232		Li-ion Battery Charger MODEL-DZL (M) 3710A0 INPUT: 100-240V 1.8A 50-60Hz OUTPUT 42.0V 2.0A 84W 36V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	COMPONENTS	REFERENCE	MODEL ID	LABEL	RISE CARBON	RISE HYDRO	KEMEN	URRUN	RISE CARBON	RISE HYDRO	KEMEN	URRUN
					2021/22	2022	2022	2022	2023	2023	2023	2023
GEN 1	540WH 36V RS GEN 1 INTERNAL BATTERY	XA81		EBT360-150SAI7F ORBEA Patent pending (R) Rechargeable Li-ion Battery Pack Model: EBT360-150SAI7F Voltage: 36VDC Capacity: 15Ah/540Wh	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RANGE EXTENDER 252WH RS GEN 1	Y041		EBT360-070P3D9A ORBEA RS RANGE EXTENDER Patent pending (R) Rechargeable Li-ion Battery Pack Model: EBT360-070P3D9A 10INR19/66-2 Voltage: 36VDC Capacity: 7Ah / 252Wh	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	*	*	*	*
	CHARGING PORT + CABLE HARNESS RS GEN 1	XA84			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RS GEN 1 FRAME ON/OFF BUTTON	XA85			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CABLE CONNECTION RANGE EXTENDER RS GEN 1 - GEN 2	XA86			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	SMART CHARGER 4A-2A 42V RS GEN 1	XA82		BC299360040 ORBEA Li-ion Battery Charger Model: BC299360040 Input: 100-240V~ 2.5A 50/60Hz Output: 42V--- 4A 168W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Although the Range Extender Gen1 will power the EP801/EP600 motor on bicycles with a Gen2 electrical system, the Gen2 Smart Charger may cause a gradual self-discharge of the RE if it remains connected after reaching a full charge. We always recommend using components of the same generation.

** Although the Gen2 Range Extender will power the EP800 motor on bicycles with a Gen1 system, the light on the Gen1 Smart Charger will flash once the full charge has been reached (instead of remaining on). We always recommend using components of the same generation.

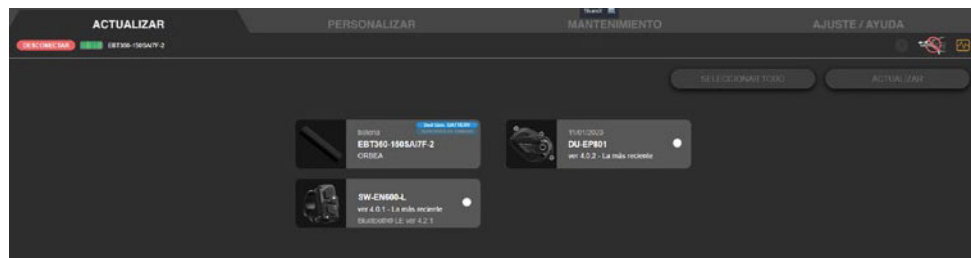
COMPONENTS	REFERENCE	MODEL ID	LABEL	RISE CARBON 2021/22	RISE HYDRO 2022	KEMEN 2022	URRUN 2022	RISE CARBON 2023	RISE HYDRO 2023	KEMEN 2023	URRUN 2023
GEN 2	540WH 36V RS GEN 2 INTERNAL BATTERY	X974	 EBT360-150SAI7F GEN2  Patent pending (R) Rechargeable Li-Ion Battery Pack Model: EBT360-100SAIxF Voltage: 36VDC Capacity: 9.8Ah/360Wh	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	360WH 36V RS GEN 2 INTERNAL BATTERY	X975	 EBT360-100SAIxF  Patent pending (R) Gen2 Rechargeable Li-Ion Battery Pack Model: EBT360-150SAI7F 10INR22/71-3 Voltage: 36VDC Capacity: 15Ah/540Wh	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RANGE EXTENDER 252WH RS GEN 2	Y045	 EBT360-070P3D9A GEN2  RS RANGE EXTENDER GEN. 2 Patents pending (R) Rechargeable Li-Ion Battery Pack Model: EBT360-070P3D9A 10INR18/66-2 Voltage: 36VDC Capacity: 7Ah/252Wh	<input type="checkbox"/>	**	**	**	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	CHARGING PORT + CABLE HARNESS RS GEN 2	X976		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	CABLE CONNECTION RANGE EXTENDER RS GEN 1 - GEN 2	XA86		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	SMART CHARGER 4A-2A 42V RS GEN 2	X977	 BC299360040 GEN2  Li-Ion Battery Charger Gen. 2.0 Model: BC299360040 Input: 100-240V~ 2.5A 50/60Hz Output: 42V --- 4A 168W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

* Although the Range Extender Gen1 will power the EP801/EP600 motor on bicycles with a Gen2 electrical system, the Gen2 Smart Charger may cause a gradual self-discharge of the RE if it remains connected after reaching a full charge. We always recommend using components of the same generation.

** Although the Gen2 Range Extender will power the EP800 motor on bicycles with a Gen1 system, the light on the Gen1 Smart Charger will flash once the full charge has been reached (instead of remaining on). We always recommend using components of the same generation.

CONNECTION OF THE EP801 AND EP6 SYSTEMS ON URRUN TO ETUBE PROFESSIONAL USING THE SM-PCE02 INTERFACE

(INFORMATION FOR DEALERS)



NOTICE

Authorised dealers must perform the process of connecting and troubleshooting the Shimano STEPS system using the Etube Professional tool. As a user, remember that you can use the Etube Project mobile app to connect your bicycle, customise the system and perform certain types of troubleshooting. In models whose components do not have Bluetooth connectivity (with Shimano SC-EN500 display), a dealer must connect the bicycle to Etube Project Professional to make changes to the assistance system, such as modifying the power delivery of the different levels support or choosing a different support profile.

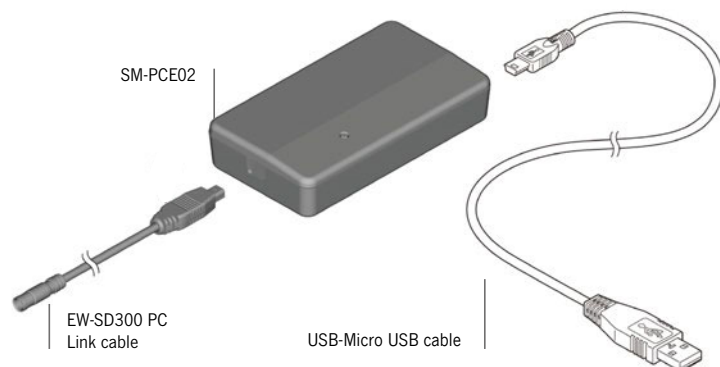
To access all Shimano EP8 information on Etube, update your Etube Project software to the latest version:

<https://bike.shimano.com/en-EU/e-tube/project.html>

The Shimano SM-PCE02 interface is required to connect the Shimano EP8 electrical system to Etube Professional.

It is also possible to connect and troubleshoot components individually. Please see the E-Tube Professional tool manual:

<https://si.shimano.com/en/um/7J4WA>



NOTICE

USING THE SHIMANO SM-PCE02 INTERFACE

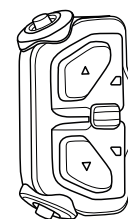
The system can also be connected to Etube Professional using the SM-PCE02 Shimano diagnostic tool although some functions may not be available. To connect using the SM-PCE02, it is necessary to connect to Etube Professional version 4.

Etube version 5 is not compatible with the SM-PCE02 interface. You can download Etube Professional versions 4 and 5 from the Shimano website.

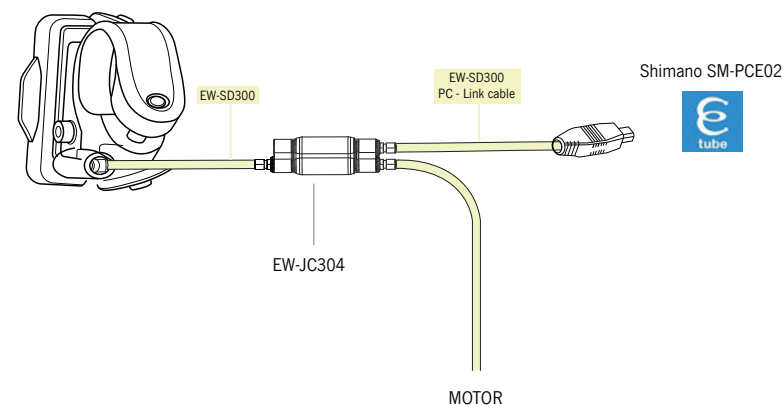
CONNECTION OF ASSEMBLIES WITH SW-EN600-L SWITCH UNIT

For these assembly options it is necessary to create a free connection point to connect the entire system to the SM-PCE2 interface. To do this, disconnect the Di2 SD300 cable from the SW-EN600-L switch unit and use a Shimano EW-JC304 four-port connector and an extra SD300 cable of any length to create a free port in the system.

Connect the EW-SD300 PC-Link cable to the free port of the EW-JC304 connector, and this connector to the SM-PCE2 interface.

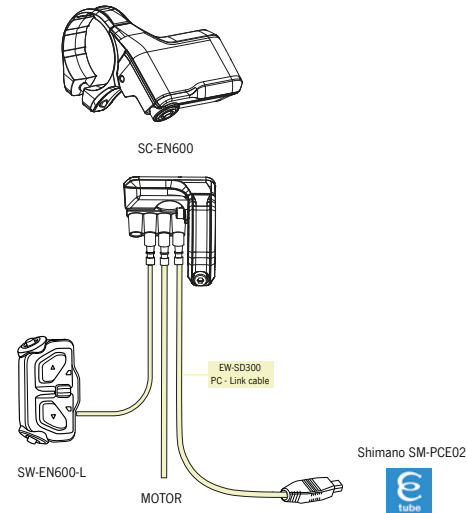


SW-EN600-L



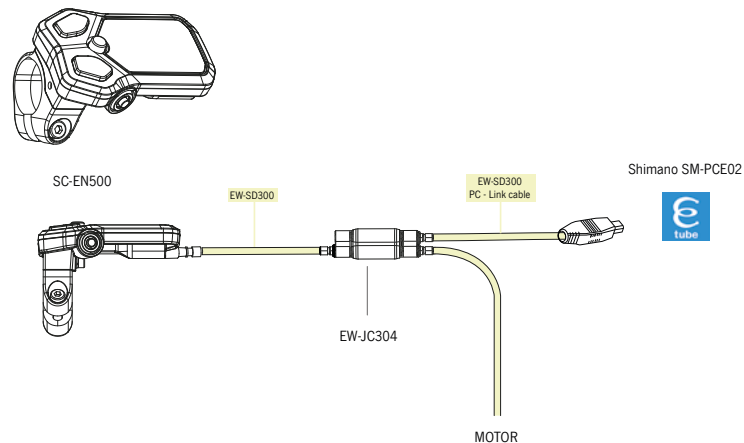
CONNECTION OF ASSEMBLIES WITH SW-EN600 REMOTE AND SC-EN600 DISPLAY

In the assembly option with the SC-EN600 display, you can directly connect the EW-SD300 standard PC-Link cable to the free port of the display and connect the PC-Link cable to the SM-PCE2 interface.



CONNECTION OF ASSEMBLIES WITH SC-EN500 DISPLAY

For these assembly options it is necessary to create a free connection point to connect the entire system to the SM-PCE2 interface. To do this, disconnect the Di2 SD300 cable from the SW-EN600-L switch unit and use a Shimano EW-JC304 four-port connector and an extra SD300 cable of any length to create a free port in the system. Connect the EW-SD300 PC-Link cable to the free port of the EW-JC304 connector, and this connector to the SM-PCE2 interface.



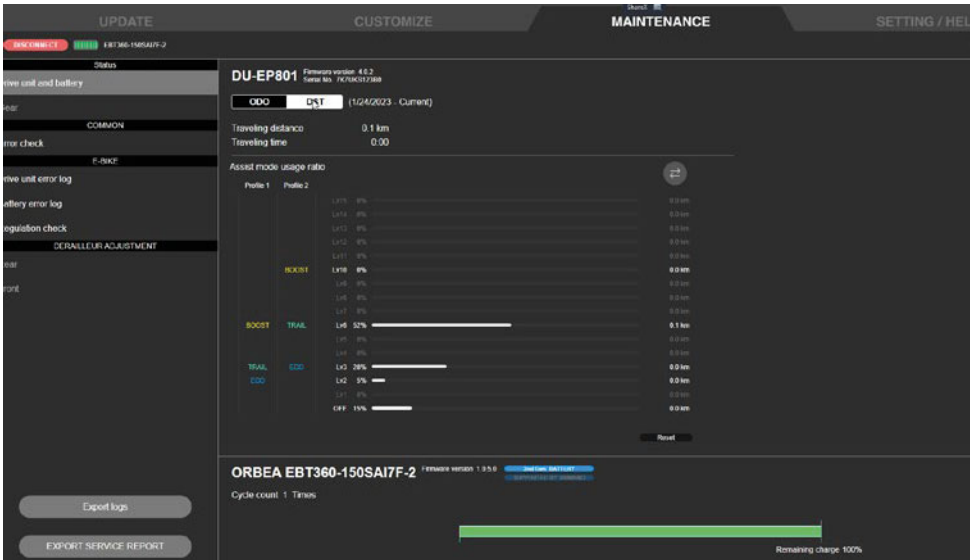
ORBEA RS GEN2 BATTERIES IN ETUBE PROFESSIONAL

The Orbea RS Gen2 battery is visible as part of the Shimano EP801 RS system when the system is connected to Etube Professional using the Shimano diagnostic tool SM-PCE02.

You can use the SM-PCE02 diagnostic tool, to access relevant information about the battery, such as the firmware version and charging cycles, under the Maintenance tab.

Orbea RS Gen2 internal batteries cannot be diagnosed by E-Tube Professional. If there is a problem with the Urrun electrical system, use E-Tube Professional to check that the problem is not in another Shimano component of the electrical system.

Contact Shimano to provide a system report through a claim. If Shimano informs you that the problem is related to the internal battery, contact Orbea via a claim.



20 SUSPENSIONS

ADJUSTING MARZOCCHI AND FOX FORKS

MANUFACTURER'S MANUALS

GENERAL USER MANUAL OF MARZOCCHI FORKS:

<https://cdn.shopify.com/s/files/1/1640/5435/files/Marzocchi-Fork-Owners-Guide.pdf?1344>

MANUAL OF FORK SETTING MARZOCCHI BOMBER Z2 120 QR15X110 E-BIKE OPTIMIZED:

https://cdn.shopify.com/s/files/1/1640/5435/files/605-00-207_RevA_Z2_TuningGuide-Bomber-z2.pdf?1344

MANUAL OF FORK SETTING FOX 34 FLOAT PERFORMANCE 120 GRIP 3-POSITION QR15X110 E-BIKE OPTIMIZED:

<https://www.ridefox.com/fox17/help.php?m=bicycle&id=1143>

MANUAL OF SUNTOUR FORK SETTINGS:

<https://www.srsuntour.com/es/servicio/zona-de-descarga/descargas-de-consumidores/bike/manuales-de-propietarios/manual-general-de-horquilla/>

FOX AND MARZOCCHI FORK SAG AND AIR PRESSURE ADJUSTMENT SUGGESTIONS

The following tables give approximate values, they may vary depending on the riding style and terrain conditions.

RECOMMENDED SAG MEASUREMENTS	Fork total travel	15% SAG (Firm)	20% SAG (Soft)
Marzocchi Bomber Z2	120 mm	18mm	24 mm
Fox 34 Float	120 mm	18mm	24 mm

RECOMMENDED SAG ADJUSTMENT STARTING AIR PRESSURE

MARZOCCHI BOMBER Z2			FOX 34 FLOAT		
Weight of rider + gear (Kg)	Weight of rider + gear (Lb)	Pressure (psi)	Weight of rider + gear (Kg)	Weight of rider + gear (Lb)	Pressure (psi)
54-59	120-130	58	54-68	120-150	64-74
59-64	130-140	63	68-82	150-180	78-83
64-68	140-150	68	82-95	180-210	92-102
68-73	150-160	72	95-113	210-250	106-120
73-77	160-170	77			
77-82	170-180	82			
82-86	180-190	86			
86-91	190-200	91			
91-95	200-210	96			
95-100	210-220	100			
100-104	220-230	105			
104-109	230-240	110			
109-113	240-250	114			

MARZOCCHI AND FOX FORK AIR VOLUME ADAPTERS

You can adjust the progressiveness of your fork's air chamber with volume reducers, which can be purchased at an authorised Fox dealer.

	Reducer configuration (10 cc reducers)		
	Travel	Factory fitted	Maximum No of reducers
Marzocchi Bomber Z2	120 mm	2	5
Fox 34 Float	120 mm	3	6

MARZOCCHI AND FOX FORK REBOUND
ADJUSTMENT SUGGESTIONS

The rebound setting depends on the air pressure. The higher the air pressure, the more closed the rebound circuit should be.

Use your fork's final air pressure to find your rebound setting. Turn the rebound dial to the closed position (turn clockwise).

Then count as many "clicks" as appear on the table in an anti-clockwise direction.

RECOMMENDED REBOUND SETTING MARZOCCHI BOMBER Z2		
Weight of rider+ luggage (kg)	Weight of rider + gear (lb)	Clicks
54-59	120-130	13
59-64	130-140	10
64-68	140-150	9
68-73	150-160	9
73-77	160-170	8
77-82	170-180	8
82-86	180-190	7
86-91	190-200	7
91-95	200-210	7
95-100	210-220	6
100-104	220-230	5
104-109	230-240	3
109-113	240-250	2

FOX 34 FLOAT GRIP RECOMMENDED REBOUND SETTING		
Weight of cyclist + luggage (kg)	Weight of rider + gear (lb)	Clicks
54-59	120-130	13
59-64	130-140	12
64-68	140-150	11
68-73	150-160	10
73-77	160-170	9
77-82	170-180	8
82-86	180-190	7
86-91	190-200	6
91-95	200-210	5
95-100	210-220	4
100-104	220-230	3
104-109	230-240	2
109-113	240-250	1

FOX AND MARZOCCHI FORK COMPRESSION
ADJUSTMENT SUGGESTIONS

Fox recommends starting with a standard high- and low-speed compression setting, then progressing to adjusting the high- and low-speed compression dials according to the terrain and riding style.

Turn the rebound dial to the closed position (turn fully clockwise). Then count as many "clicks" anti-clockwise as appear below.

MARZOCCHI BOMBER Z2 FORK COMPRESSION
SETTING

The cartridge has three compression setting positions: Open and Firm.

Marzocchi recommends starting in the Open position and using the other positions according to the terrain.

The intermediate positions between the three settings Open and Firm are usable to finely adjust the compression to your requirements.

FOX 34 FLOAT GRIP FORK COMPRESSION
ADJUSTMENT

The 3-position cam (Open, Medium, Firm) is useful for making quick adjustments to suit the terrain. You can use Open for demanding descents, Medium for undulating terrain and Firm for ascents on firm ground.

Fox recommends starting in the Open position and using the other positions according to the terrain.

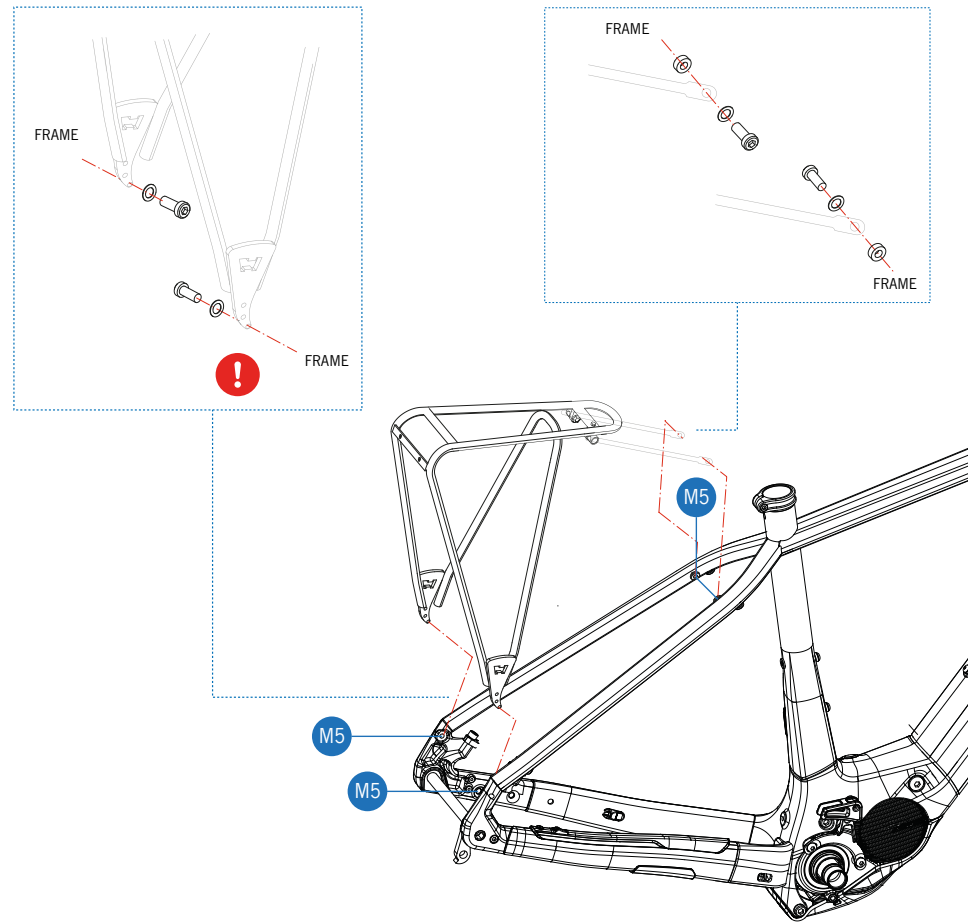
The intermediate positions between the three settings Open, Medium and Firm are usable to finely adjust the compression to your requirements.

21 INSTALLATION OF RACKS

Urrun is compatible with standard aftermarket racks. The upper fixing points are the M5 threads on the inside of the braces. It may be necessary to use a nylon washer between the rack arms and the frame to align the components correctly. Follow the manufacturer's rack installation method.

The lower fixing points are the M5 threads on the inside of the dropouts.

! When installing the rack with the necessary bolts and washers (follow the rack manufacturer's installation instructions), check for interference with the chain or sprockets before riding the bike with the rack installed.



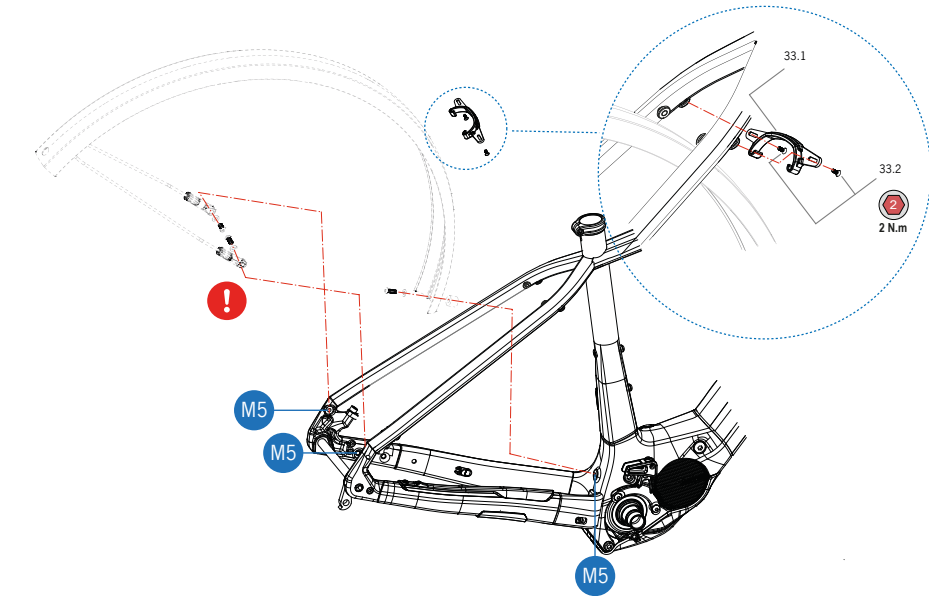
22 FENDERS

Urrun is compatible with the installation of rod rear fenders. The lower fixing points are the M5 threads on the inside of the dropouts and on the lower part of the seat tube. For the fixing point to the braces, you must use the fender bridge (art. 33), which is fixed to the M4 threads on the front part of the braces.

NOTICE Orbea does not offer standard fender assemblies on Urrun nor does it sell aftermarket fenders for Urrun. It might be necessary to modify the upper fixing point of the fender to be mounted.

! When installing the fender with the necessary bolts and washers (follow the fender manufacturer's installation instructions), check for interference with the chain or sprockets before riding.

See an authorised dealer for the feasibility of mounting aftermarket mudguards. Orbea is not responsible for the feasibility of mounting aftermarket fenders. See an authorised dealer for front fender mounting options on mounted suspension forks.





33 REAR FENDER BRIDGE 65mm KEMEN/URRUN

PART No.: XB23	QUANT.
33.1 Kemen/Urrun rear fender bridge	1
33.2 M4x12 DIN 7991 bolt	2



23 DECLARATION OF CONFORMITY





DECLARACIÓN DE CONFORMIDAD CE
EC DECLARATION OF CONFORMITY

El fabricante / The manufacturer: Orbea S. Coop.
 Polígono Industrial Goitondo s/n
 48269, Mallabia (Bizkaia) - Spain

Declara que los siguientes productos / Declares that the following products:

Descripción / Description	: EPAC
Marca / Make	: ORBEA
Modelos / Models	: EMX 24, GAIN, KATU, KEMEN, KERAM, OPTIMA, RISE H, RISE M, URRUN, VIBE and WILD

Año de construcción / Year of manufacture : 2021 and 2022

Cumplen con las siguientes Directivas Europeas / Fulfills the following European Directives:

- Directiva 2006/42/CE / Directive 2006/42/EC
- Directiva 2004/108/CE / Directive 2004/108/EC
- Directiva 2011/65/CE / Directive 2011/65/EC

Las siguientes normas armonizadas han sido completamente aplicadas / The following harmonized standards have been fully applied:

De acuerdo con la Directiva 2006/42/CE / According to Directive 2006/42/EC

- EN 12100

De acuerdo con la Directiva 2004/108/CE / According to Directive 2004/108/EC

- EN 61000-3-2	- EN 61000-3-3	- EN 61000-6-1
- EN 61000-6-3	- 61000-4-2	


Las siguientes normas nacionales y otras especificaciones (o partes de las mismas) han sido aplicadas / The following national standards and other specifications (or parts thereof) have been applied:

- EN 15194	- EN 14764
------------	------------

Persona autorizada para elaborar el expediente técnico / Authorized person to elaborate the technical file:

Nombre / Name : Aitor Juaristi (Quality Manager)
 Dirección / Address : Polígono Industrial Goitondo s/n
 48269, Mallabia (Bizkaia) - Spain

02 / 09 / 2021



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 orbea@orbea.com - www.orbea.com

2015
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 2023

24 ADDITIONAL INFORMATION

ORBEA actively participates on Facebook and Twitter with its fantastic global community of cyclists. Are you looking for a place to ride a bike or spend your holidays? Someone will assuredly give you some interesting ideas:

FACEBOOK

www.facebook.com/OrbeaBicycles

TWITTER

www.twitter.com/Orbea/

YOUTUBE

Visit the Orbea channel on YouTube; There you will find various very useful technical and configuration videos:

www.youtube.com/user/OrbeaBicycles

INSTAGRAM

www.instagram.com/orbeabicycles

ORBEA CONTENT

View and download photos, videos, and documents.

content.orbea.com/gb-en/

ORBEA BLOG

www.orbea.com/gb-en/blog/

ORBEA DEALERS

Our dealers are highly specialised, so they will help you configure and maintain your Orbea bicycle. You can find a complete list of Orbea distributors on our website:

www.orbea.com/gb-en/dealers/?country=INT

CONTACT

Access our data and contact form at:

www.orbea.com/gb-en/contacto

USA:

www.orbea.com/gb-en/contact/