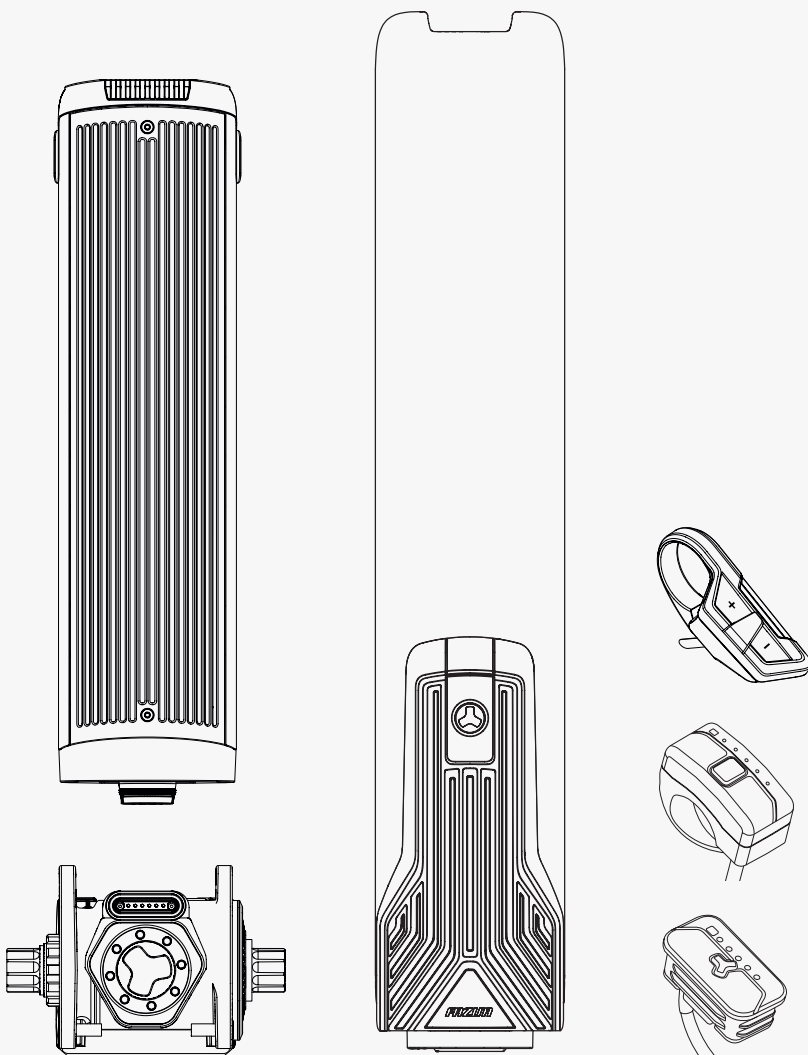


ORIGINAL INSTRUCTIONS

Edition 2021 | EN 09.2021



FAZUA RIDE 50 TRAIL/STREET



FAZUA



BASICS

1	OVERVIEW: FAZUA RIDE 50 DRIVE SYSTEM	6
2	ABOUT THESE INSTRUCTIONS	8
2.1	Terms and structure	8
2.2	Reading and retaining the instructions	8
2.3	Explanation of characters and symbols used	9
3	SAFETY	10
3.1	Functional principle & proper use	10
3.2	Symbols & pictograms of the drive system	11
3.3	General safety instructions	12
3.4	Instructions for safe riding in road traffic	18
4	USE	19
4.1	Inserting and removing components	19
4.1.1	Inserting the BATTERY into the DRIVEPACK	19
4.1.2	Inserting the DRIVEPACK into the e-bike	20
4.1.3	Removing the DRIVEPACK from the e-bike	20
4.1.4	Removing the BATTERY from the DRIVEPACK	21
4.2	Switching the drive system on and off	22
4.2.1	Switching on the drive system	22
4.2.2	Switching off the drive system	22
4.3	Instructions for driving with the drive system	23
4.4	Switching on the drive system following a standstill	24
4.5	Setting the support level	24
4.6	Charging the BATTERY	26
5	STORAGE AND TRANSPORT	27
6	OPTIONAL ACCESSORIES	28
6.1	12 V Car Charger	28
6.2	Downtube Cover	28
6.3	FAZUA App	29
7	CLEANING AND MAINTENANCE	29
7.1	Carrying out a firmware update	29
7.2	Cleaning and maintaining components	30
8	TROUBLESHOOTING	32



- 9 DISPOSAL INSTRUCTIONS..... 34**
 - 9.1 Disposing of your e-bike 34
 - 9.2 Disposal of the BATTERY 34
- 10 MANUFACTURER'S WARRANTY FOR THE EUROPEAN UNION AND UNITED KINGDOM..... 35**
- 11 SERVICE 36**
- 12 DECLARATIONS OF CONFORMITY 37**
 - 12.1 EU Conformity of the individual components or of the drive system.... 37
 - 12.2 UK Conformity of the individual components or of the drive system ... 37
 - 12.3 Special information on the remote with Bluetooth function..... 37

DRIVEPACK

- 13 MODEL VARIANTS OF THE DRIVEPACK..... 38**
- 14 DETAILED VIEW & PART DESIGNATIONS: DRIVEPACK..... 38**
- 15 TECHNICAL DATA 39**
- 16 USING THE DRIVEPACK 40**
 - 16.1 Inserting the DRIVEPACK into the e-bike..... 40
 - 16.2 Removing the DRIVEPACK from the e-bike 41
 - 16.3 Securing/locking the DRIVEPACK on the e-bike 42

BOTTOM BRACKET

- 17 DETAILED VIEW & PART DESIGNATIONS: BOTTOM BRACKET 43**
- 18 TECHNICAL DATA 44**
- 19 USING THE BOTTOM BRACKET 44**
 - 19.1 Correct position/alignment..... 44
 - 19.2 Correcting incorrect position/alignment 45

REMOTE

- 20 MODEL VARIANTS OF THE REMOTE 46**
- 21 DETAILED VIEW AND PART DESIGNATIONS:..... 46**
- 22 TECHNICAL DATA 48**
- 23 DISPLAYS ON THE REMOTE..... 48**
 - 23.1 Status display 48



23.2	Display of the charge level/support level.....	49
24	USING THE REMOTE	49
24.1	Switching the drive system on and off	49
24.2	Setting the pedal support.....	50
24.3	Support levels.....	51
24.3.1	Attack function	52
24.4	Re-starting the drive system.....	52
24.5	Rain mode.....	53
24.6	Switching the bicycle lighting on and off	54
24.7	Bluetooth® connection	54

BATTERY

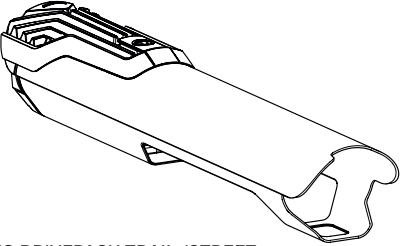
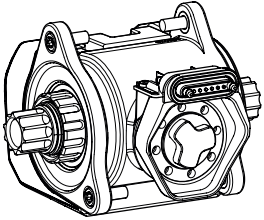



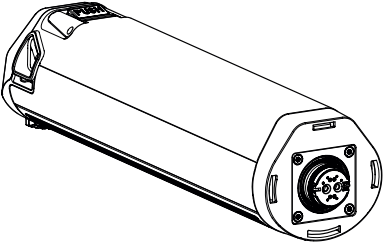

25	DETAILED VIEW & PART DESIGNATIONS: BATTERY	55
26	TECHNICAL DATA	55
27	USING THE BATTERY	56
27.1	Checking and switching on BATTERY	56
27.2	Inserting the BATTERY into the DRIVEPACK.....	56
27.3	Removing the BATTERY from the DRIVEPACK	58
27.4	Switching off the BATTERY	58
27.5	Checking the charge level and state of health (SOH) of the BATTERY... 59	
27.6	Automatic switch-off of the BATTERY.....	59
27.7	Charging the BATTERY.....	60
27.7.1	Connecting the BATTERY to the CHARGER.....	60
27.7.2	Ending the charging process	61
27.8	Charging process.....	61

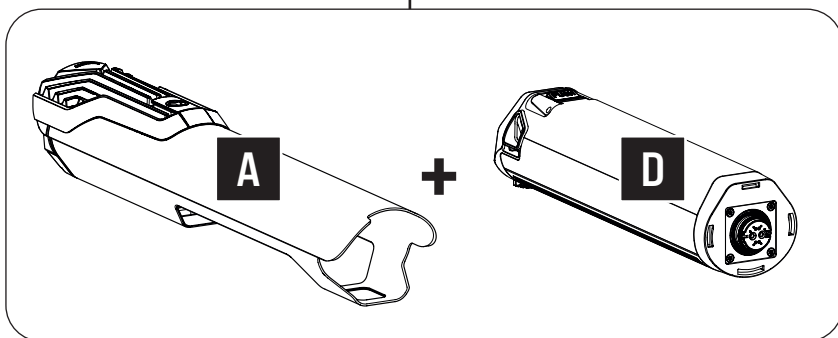
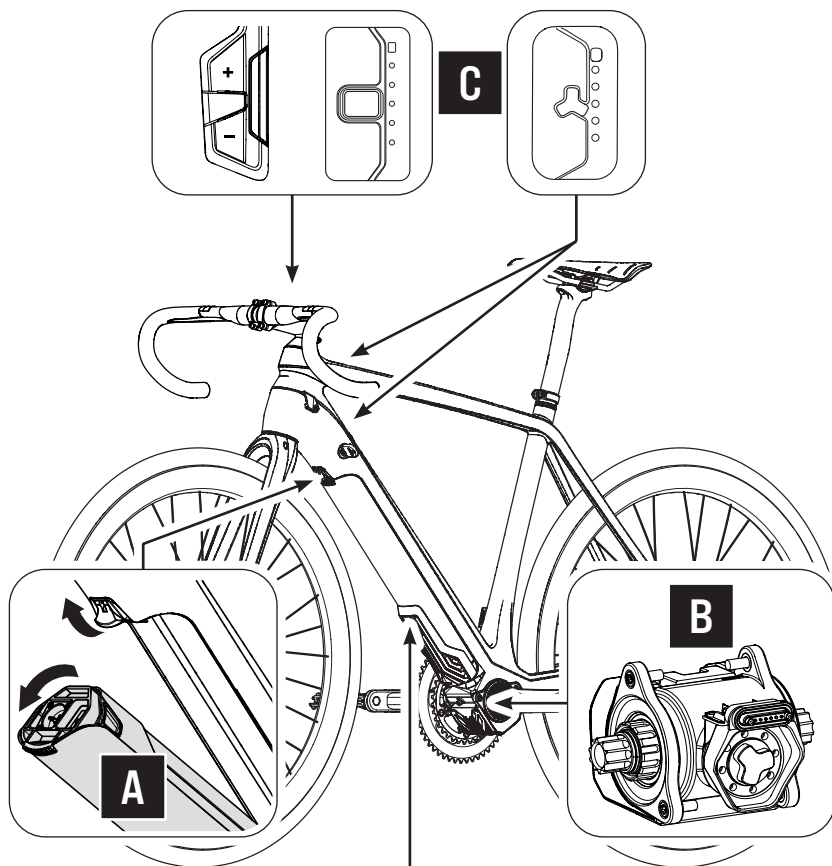
CHARGER

28	DETAILED VIEW & PART DESIGNATIONS: CHARGER.....	62
29	TECHNICAL DATA	62
30	USING THE CHARGER.....	63
30.1	Preparing the CHARGER	64
30.2	Connecting the CHARGER to the BATTERY.....	64
30.3	Disconnecting the CHARGER from the BATTERY	65



1 OVERVIEW: FAZUA RIDE 50 DRIVE SYSTEM

<p>A DRIVEPACK [Details from Page 38]</p>  <p>RIDE 50 DRIVEPACK TRAIL/STREET</p>	<p>B BOTTOM BRACKET [Details from Page 43]</p>  <p>RIDE 50 BOTTOM BRACKET</p>
<p>C REMOTE [Details from Page 46]</p>  <p>REMOTE FX</p>  <p>REMOTE BX</p>  <p>REMOTE RX</p>	
<p>D BATTERY [Details from Page 55]</p>  <p>ENERGY 250 X</p>	
<p>E CHARGER [Details from Page 62]</p>  <p>CHARGER S (EU/US)</p>	





2 ABOUT THESE INSTRUCTIONS

2.1 Terms and structure

These original instructions belong to the FAZUA RIDE 50 drive system.

To improve readability, the term “Instructions” will be used below instead of the term “Original instructions”.

To facilitate orientation within these instructions, it is divided into sections:

The first section, “Basics”, covers the drive system as a whole. Chapter 3 “Safety” contains the basic information on proper use and the general safety instructions. Chapters 4–8 [“Use”, “Storage and transport”, “Optional accessories”, “Cleaning and maintenance”, “Troubleshooting”] describe procedures and actions to be carried out. Chapters 9–12 provide information on disposal, the manufacturer's warranty, services from the manufacturer or dealer, and on EU conformity.

These sections are dedicated respectively to the individual components of the drive system. Here you will find detailed illustrations and additional or more in-depth information on the component in question. In addition, the action steps outlined in chapter 4 “Use” are described in detail, with warning notices on the specific steps.

2.2 Reading and retaining the instructions

These instructions contain all important information on safety and the use of the drive system as well as on the individual components. It is based on the standards and regulations valid in the European Union.

It is essential to read through the complete instructions carefully – in particular the “Safety” chapter – before using the drive system for the first time. If you do not observe the instructions, you or other persons may suffer serious injuries and/or the drive system or individual components may be damaged.

Keep these instructions to hand at all times for ongoing use, and include these instructions if you pass on the drive system or an e-bike equipped with the drive system.

In addition to these instructions, it is also essential to observe the manufacturer's instructions on the e-bike in which the drive system is installed.



2.3 Explanation of characters and symbols used

Certain types of notices and information in these instructions are marked by characters or symbols that are listed below together with their meanings.

WARNING

Risks that could result in death or serious injury are identified with the signal word "Warning".

CAUTION

Risks that could result in moderate or minor injuries are identified with the signal word "Caution".

NOTICE

Risks relating to actual product damage or property damage on other objects are marked with the signal word "Notice".



Useful additional information is marked with this information symbol.



3 SAFETY

3.1 Functional principle & proper use

FAZUA RIDE 50* is designed as an electric drive system for e-bikes used as a means of transport for one person. From a speed of 25 km/h, the electric pedal support switches off so that at speeds over 25 km/h without motor support, you pedal solely with your own muscle power.

The drive system as a whole comprises a variety of coordinated components operating together.

These are:

- A** → **DRIVEPACK** (= MOTOR UNIT) [including LOCKER for locking the DRIVEPACK to the e-bike frame]
[Models (DRIVEPACK): RIDE 50 DRIVEPACK TRAIL, RIDE 50 DRIVEPACK STREET | Model (LOCKER): LOCKER PX],
- B** → **BOTTOM BRACKET** [including speed sensor + spoke magnet]
[Model: RIDE 50 BOTTOM BRACKET],
- C** → **REMOTE** (= CONTROL UNIT)
[models: REMOTE FX, REMOTE BX, REMOTE RX],
- D** → **BATTERY** (= ENERGY)
[Model: ENERGY 250 X],
- E** → **CHARGER**
[Model: CHARGER S (EU/US)].

The version of the drive system installed in your e-bike, in other words the specific combination of component versions, is designed specifically for your e-bike and cannot therefore be changed. The basic principle is that the installation of the drive system as well as specific work on the system are only permitted to be carried out via the routes specified by the manufacturer or by an authorised specialist.

Information on which works you are able to carry out and which works need to be performed by an authorised specialist can be found in the separate sections on the individual components.

FAZUA accepts no liability for damage caused by incorrect or improper installation or improper use.

* FAZUA RIDE 50 builds on the technological foundations of the FAZUA evation drive system. Some of the components of the FAZUA RIDE 50 and evation drive systems are compatible with each other. If you have any questions, please contact your FAZUA certified partner.



Only use the drive system as described in these instructions. Any other usage is regarded as unintended and can result in accidents, serious personal injury and damage to the drive system.

3.2 Symbols & pictograms of the drive system

On individual components of the drive system, you will find specific symbols and pictograms which are listed along with their meanings.



This symbol indicates that the user of the drive system or the individual components must read and understand these original instructions before use.



Any devices identified with this symbol (in this case, the CHARGER) may only be used in dry indoor areas.

WARNING! When using in damp environments and on contact with liquids, there is a risk of electric shock!



An electrical device marked with this symbol corresponds to protection class II: The device has double or reinforced insulation as protection against electric shock.



This symbol is a warning against hot surfaces.

WARNING! There is a risk of burns on contact, and a risk of fire on contact with flammable materials.



These symbols indicate that the BATTERY (lithium-ion rechargeable battery) must be disposed of separately at the end of its service life and must not be disposed of with household waste.



Li-ion

For specific information, see the “Disposal” chapter.



This symbol indicates that the component marked with this symbol must be disposed of separately as electrical or electronic equipment at the end of its service life and must not be disposed of with household waste.

For specific information, see the “Disposal” chapter.



This symbol indicates products that meet all requirements for obtaining the European CE marking.

For specific information, see the “Declarations of conformity” chapter.



This symbol indicates products that meet all requirements for obtaining the European UKCA marking.

For specific information, see the “Declarations of conformity” chapter.



The “Geprüfte Sicherheit” (GS mark) seal of approval is awarded by independent certification bodies.

A device marked with the GS test seal complies with the safety-relevant requirements of the German Product Safety Act (Produktsicherheitsgesetz; ProdSG).



The “UL®-Listed” test seal is awarded by the US certification body, UL.

A device marked with the “UL®-Listed” test seal shown here complies with the safety-relevant requirements for Canada and the USA.



The FCC Seal is issued by the “Federal Communications Commission”, an independent U.S. government agency responsible for implementing and enforcing U.S. communications laws and regulations.

An electrical device bearing the FCC seal complies with U.S. electromagnetic compatibility requirements.

3.3 General safety instructions

The general safety instructions given below are to be observed at all times when using and handling the drive system.

WARNING

Dangers to e-bike users!

There are fundamentally specific dangers to users of e-bikes. Depending on the e-bike model into which the drive system is installed, additional dangers may arise that are not covered here.

► Read and follow the manufacturer's instructions for your e-bike.



- ▶ Obtain information on any relevant national standards relating to e-bikes and comply with these.

 **WARNING**

Dangers due to unauthorised modifications!

If you carry out unauthorised modifications to the drive system or to the components, you may cause an explosion, suffer an electric shock or cause serious injury to yourself or others.

- ▶ Never make any unauthorised modifications or changes to individual components of the drive system.
- ▶ Do not perform any unauthorised replacement of the drive system components.
- ▶ Never open any components of the drive system without authorisation. The components of the drive system do not require any maintenance. Only allow repairs to the drive system to be performed by authorised specialists.
- ▶ Only allow the components of the drive system to be replaced by an authorised specialist and with genuine spare parts.

 **WARNING**

Danger due to accidental start-up!

If the drive system is put into operation in inappropriate situations, this can result in accidents and serious injuries.

- ▶ Remove the DRIVEPACK from the e-bike while transporting or storing the e-bike, and during all work on the e-bike to avoid the drive system being started up accidentally.

 **WARNING**

Danger of battery explosion!

The BATTERY may explode if you use inappropriate batteries or do not handle the rechargeable BATTERY correctly.

- ▶ Only use the genuine BATTERY from FAZUA approved by the e-bike manufacturer.
- ▶ Under no circumstances use a damaged BATTERY and never attempt to charge a damaged BATTERY!



- ▶ Never open the BATTERY! Attempting to open a battery poses an increased risk of explosion!
- ▶ Keep the BATTERY away from heat (e.g. strong sunlight), naked flame or water and other fluids.
- ▶ The BATTERY must be used exclusively in e-bikes equipped with an original FAZUA RIDE 50 drive system. Never use the BATTERY for other purposes or in other drive systems.

 **WARNING**

Fire hazard due to incorrect handling!

If you handle the BATTERY and/or CHARGER improperly or use incompatible batteries and chargers together, you may cause a fire.

- ▶ Only use an original and compatible CHARGER from FAZUA to charge the BATTERY.
- ▶ Take care not to handle metal objects such as coins, paper clips, screws, etc. in the immediate vicinity of the BATTERY and store the BATTERY separately from metal objects. Metal objects can create a circuit between the terminals of the BATTERY (i.e. “short-circuiting” the BATTERY) and subsequently cause a fire.
- ▶ Never short-circuit the BATTERY.
- ▶ The BATTERY and CHARGER can heat up during the charging process or during operation. It is therefore essential to keep the BATTERY and CHARGER away from flammable materials. Take particular care on this point during the charging process, and move the BATTERY and CHARGER to a dry and fire-proof location before charging.
- ▶ Never leave the BATTERY and CHARGER unattended during charging.

 **WARNING**

Danger of chemical burns from battery acid!

The BATTERY contains battery acid. If you come into contact with this liquid, the affected area of skin and/or mucous membranes may suffer chemical burns. Contact with the eyes may result in a loss of sight.

- ▶ Never touch any liquid leaking from the BATTERY.



- ▶ If you come into contact with battery acid, immediately rinse the affected body part thoroughly under running water.
- ▶ After rinsing, seek advice from a doctor immediately, in particular on eye contact and/or if the mucous membranes are affected (e.g. nasal mucous membranes).

 **WARNING**

Health risk due to irritation of the airways!

If the BATTERY is damaged, gases may escape that can result in irritation of the airways.

- ▶ Protect the BATTERY from mechanical impact and any other type of load.
- ▶ If you notice or suspect that gas is escaping from the BATTERY, immediately ensure that there is a fresh supply of air and consult a doctor as soon as possible.

 **WARNING**

Danger of interference with medical equipment!

The magnetic connections of the BATTERY and CHARGER can impair the function of pacemakers.

- ▶ Keep the BATTERY and the CHARGER away from pacemakers or persons with pacemakers and make people with pacemakers aware of the danger.

 **WARNING**

Risk of electric shock!

Improper handling of the CHARGER or an incorrect mains connection may expose you and others to the risk of electric shock.

- ▶ Only connect the CHARGER to an easily accessible and properly installed earth contact outlet.
- ▶ Make sure that the mains voltage at the mains connection corresponds to the information on the CHARGER.
- ▶ Only use the CHARGER in dry indoor areas.
- ▶ Keep the CHARGER away from all liquids and humidity.



- ▶ Do not pull on the mains cable or charger cable to remove the respective cable from a socket or outlet, and instead always grip the corresponding plug.
- ▶ Never touch the plugs on the mains cable or charger cable with wet or damp hands.
- ▶ Take care not to bend the mains cable and charger cable or place them over sharp edges.
- ▶ Do not open the CHARGER yourself. The CHARGER may only be opened by an authorised specialist and may only be repaired with genuine spare parts.
- ▶ Before each use of the CHARGER, check all individual parts (mains adapter, mains cable, charger cable and all plugs) for damage. If the mains cable of the CHARGER is damaged, it must be replaced by the manufacturer, its customer service department or a similarly qualified person to avoid any dangers.
- ▶ Never use a damaged CHARGER. Otherwise, there is a high risk of electric shock!
- ▶ Keep the CHARGER in a clean condition. There is an increased risk of electric shock if the CHARGER is dirty or soiled.

 **WARNING**

Dangers due to unauthorised use!

There is a particular risk to children (younger than 14 years) and people with limited physical, sensory and mental abilities (e.g. physically handicapped, elderly people with limited physical and mental abilities) or a lack of experience and knowledge (e.g. older children)! If, for example, children or persons who are physically or mentally handicapped handle the BATTERY or CHARGER, there is an increased risk potential, as these user groups may not be able to correctly assess certain risks.

- ▶ The CHARGER may not be used by children or persons with limited physical, sensory or mental abilities unless they are supervised or have been instructed in the safe use of the CHARGER and have understood the resulting dangers.
- ▶ Children are not permitted to not play with the CHARGER.



- ▶ Cleaning and user maintenance must not be carried out by children without supervision.
- ▶ Keep the BATTERY and the CHARGER out of the reach of children.

CAUTION

Risk of burns!

The radiator in the DRIVEPACK can become very hot during operation, meaning you may burn yourself.

- ▶ Proceed with caution when handling the DRIVEPACK.
- ▶ Allow the DRIVEPACK to cool down completely before touching the DRIVEPACK.

NOTICE

Danger of damage!

Improper handling can damage the drive system or individual components.

- ▶ Have individual components of the drive system and the e-bike replaced only with identical or other components expressly approved by the e-bike manufacturer. In this way, you protect the other components or your e-bike from possible damage.
- ▶ Never use your e-bike without an inserted DRIVEPACK or cover when using the e-bike as a conventional bicycle without DRIVEPACK.
- ▶ Remove the BATTERY before cleaning the DRIVEPACK and allow all components to dry completely before inserting them. The BATTERY can be damaged if the BATTERY comes into contact with wet or damp DRIVEPACK contacts during insertion.
- ▶ When charging the BATTERY, make sure that the mains cable and charger cable of the CHARGER do not present a trip hazard to avoid damaging components as a result of a fall, for example.
- ▶ Always make sure that the cover flap on the BATTERY is closed correctly to prevent dust and splash water from entering the charging socket.



3.4 Instructions for safe riding in road traffic

By following the instructions listed below for safe riding in road traffic, you can reduce the risk of accidents and injuries when riding a bicycle or e-bike.



The term “road traffic” also refers to publicly accessible private areas and publicly accessible field or forest paths.

- Only ride your e-bike in road traffic if the equipment complies with national road traffic regulations. If appropriate, ask your e-bike manufacturer for further information.
- Find out about the applicable road traffic regulations of the country or region, including for example, from the Ministry of Transport. Always keep yourself informed regarding changes in the content of the valid regulations.
- Observe and follow the country-specific and regional road traffic regulations.
- When riding, use a suitable bicycle helmet that complies with the country-specific and regional regulations or that is tested according to the DIN EN 1078 standard and bears the CE mark.
- When riding, wear light-coloured clothing with reflective elements to attract the attention of other road users.
- Do not ride your e-bike if you are under the influence of alcohol, intoxicants or medication that could impair your ability to ride safely.
- Do not use mobile devices such as smartphones, MP3 players or similar while riding.
- Do not distract yourself with other activities while riding, such as turning on lights. Stop first to carry out these types of activities.
- Never drive with your hands off the handlebars. Always keep both hands on the handlebars.
- Ride carefully and show consideration for other road users.
- Ride in such a way that no-one is injured, endangered, hindered or harassed.
- Ride on prescribed lanes for bicycles, where available.



4 USE

This chapter describes chronologically how to proceed when using the drive system.

→ It is essential that you also read the detailed descriptions in the section relating to the component in question:

- before you use your e-bike equipped with the FAZUA RIDE 50 drive system for the first time,
- if you are unsure how to use it,
- if you have problems performing the steps as described here.

4.1 Inserting and removing components

4.1.1 Inserting the BATTERY into the DRIVEPACK

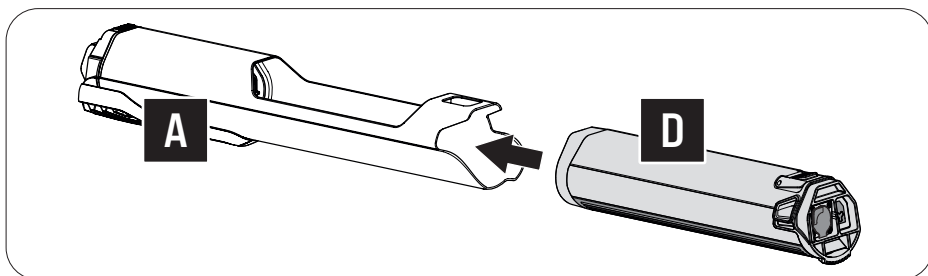
→ More detailed information can be found in chapter 27.1 “Checking and switching on BATTERY” and in chapter 27.2 “Inserting the BATTERY into the DRIVEPACK”.



On delivery, the BATTERY may only be pre-charged.

→ Fully charge the BATTERY before inserting it into the DRIVEPACK for the first time.

1. Check the BATTERY for visible damage.
2. Press the on/off button of the BATTERY 1× to turn on the BATTERY.
3. Attach the BATTERY to the battery compartment of the DRIVEPACK with the connector contact first.



4. Carefully insert the BATTERY fully into the battery holder.

The BATTERY will lock automatically if you insert it correctly. If the BATTERY does not lock into place, repeat the procedure. Do not use the drive system if the BATTERY cannot be locked in place.

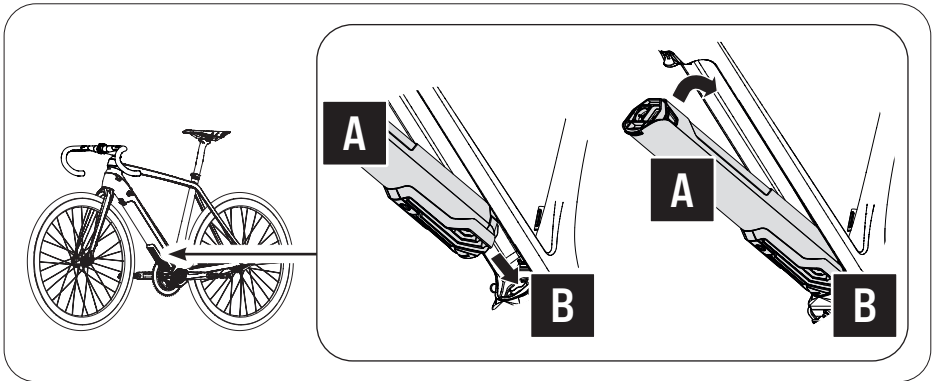


4.1.2 Inserting the DRIVEPACK into the e-bike

→ More detailed information can be found in chapter 16.1 "Inserting the DRIVEPACK into the e-bike".

1. Position the DRIVEPACK with the interface for the BOTTOM BRACKET onto the corresponding interface on the BOTTOM BRACKET.
2. Swing the upper end of the DRIVEPACK into the downtube of the e-bike.

The DRIVEPACK is automatically locked in place when the two interfaces on the DRIVEPACK and BOTTOM BRACKET are correctly interlocked and the DRIVEPACK is completely swivelled into the corresponding holder on the downtube.



3. Check the DRIVEPACK is securely in position.

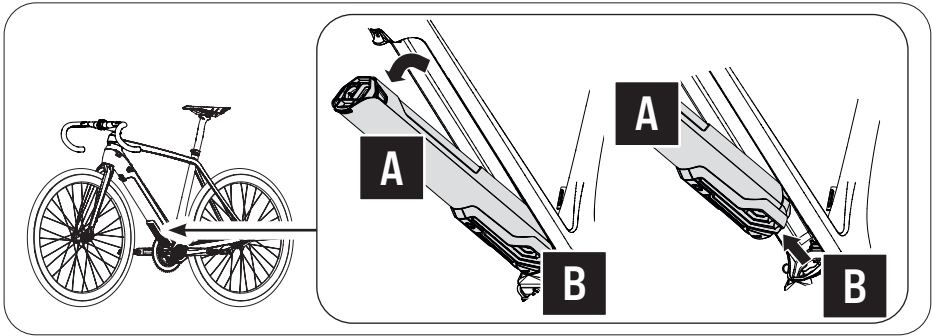
If the DRIVEPACK does not lock, repeat the procedure.

Do not use the drive system if the DRIVEPACK cannot be locked to the e-bike.

4.1.3 Removing the DRIVEPACK from the e-bike

→ More detailed information can be found in chapter 16.2 "Removing the DRIVEPACK from the e-bike".

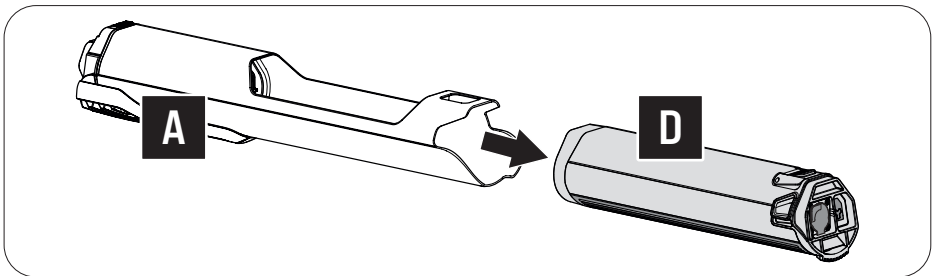
1. Secure the DRIVEPACK with one hand.
2. Move the locking lever upwards as far as possible to release the DRIVEPACK from the lock.
3. Hold the locking lever in the open position and at the same time carefully lower the DRIVEPACK.
4. Then move the locking lever back to the closed position and remove the DRIVEPACK from the interface on the BOTTOM BRACKET.



4.1.4 Removing the BATTERY from the DRIVEPACK

→ More detailed information can be found in chapter 27.3 “Removing the BATTERY from the DRIVEPACK”.

1. Secure the BATTERY with one hand.
2. Press the push button as far as it will go to release the BATTERY from the locking device.
3. Press and hold the push button and gently pull the BATTERY out of the battery holder.





4.2 Switching the drive system on and off



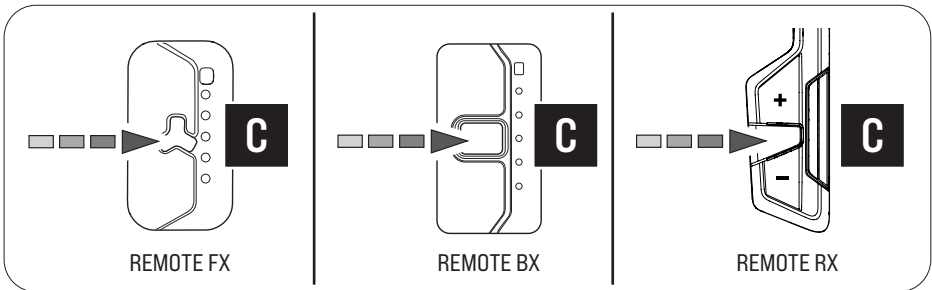
Although the model variants of the REMOTE differ visually from each other, they are identical in their handling.

→ More detailed information can be found in chapter 20 "Model variants of the REMOTE".

4.2.1 Switching on the drive system

→ More detailed information can be found in chapter 24.1 "Switching the drive system on and off".

→ Switch on the drive system using REMOTE by pressing the centre button.



4.2.2 Switching off the drive system

→ More detailed information can be found in chapter 24.1 "Switching the drive system on and off" and in chapter 4.4 "Switching on the drive system following a standstill".

You can switch off the drive system in different ways:

→ Press and hold the centre button on the BATTERY for 1 second to turn the drive system off.

or

→ Remove the DRIVEPACK from your e-bike.

or

→ Press and hold the on/off button on the BATTERY for 3 seconds to turn the BATTERY off.



FAZUA recommends switching off the BATTERY in addition to the drive system if you park your e-bike for an extended period of time (e.g. if you take a break during a longer trip).

→ More detailed information can be found in chapter 27.4 "Switching off the BATTERY".



4.3 Instructions for driving with the drive system

Follow these instructions for riding your e-bike equipped with the FAZUA RIDE 50 drive system.

Changing gear:

The gears of your e-bike are to be operated in the same way as those of a conventional bicycle. By selecting a suitable gear, the speed, power and range of your e-bike will increase while maintaining the same cadence.

The following points apply regardless of the type of gears fitted:

→ Stop pedalling when you change gear. This relieves the derailleur mechanism and the drive of your e-bike.

Range/route planning:

How long or far you can ride your e-bike before you have to recharge the BATTERY depends on several factors.

These factors include, for example:

- The set support level;
- The (riding) speed at which you move forwards;
- The way in which you change gear;
- The type of tyres and the set tyre pressure;
- The selected route and weather conditions;
- The weight of the rider and the e-bike (total weight);
- The condition and age of the BATTERY.

The following general principles apply:

→ Familiarise yourself with your e-bike step by step and stay away from roads and heavy traffic initially.

→ Test the maximum range of your e-bike under various outdoor conditions before planning longer trips. An exact statement regarding the range of your system is not possible before or during a trip.

Storage and operating temperatures

→ Observe the operating and storage temperatures for the components of the drive system and for the components of your e-bike, and in particular those for the BATTERY, as it can be damaged by extreme temperatures.

→ For more detailed information on storage and operating temperatures, see the technical data for the individual components at Page 39, Page 44, Page 48, Page 55 and Page 62, as well as in chapter 5 "Storage and transport".



4.4 Switching on the drive system following a standstill



Your e-bike will be at a standstill as soon as it is switched off.

The drive system (not the BATTERY!) switches off automatically after 15 minutes of standstill.

→ Briefly press the centre button on the REMOTE 1× to switch on the drive system again.

The BATTERY switches off automatically after 8 hours of standstill or after 3 hours of standstill if the charge level of the BATTERY is below 30% (provided no button/touch sensor is pressed during this time).

→ To switch the BATTERY back on (“wake up”), press:

1× briefly on the centre button on the REMOTE.

or

1× on the on/off button on the BATTERY.

→ After waking up the BATTERY (again), briefly press the centre button on the REMOTE 1× to switch on the drive system again.

4.5 Setting the support level

→ More detailed information can be found in chapter 24.2 “Setting the pedal support” and in chapter 24.3 “Support levels”.

The REMOTE can be used at any time to set the desired support level, including when riding.

→ Press the top touch sensor of the REMOTE to switch to the next higher support level.

→ Press the bottom touch sensor on the REMOTE to switch to the next lower support level.

“SUPPORT LEVELS” OVERVIEW TABLE

Support level	Colour	Max. motor power
None	white	No support
Breeze	green	Configurable up to max. 300 W
River	blue	Configurable up to max. 300 W
Rocket	pink	Configurable up to max. 300 W



The above mentioned values for the maximum motor power in the “Breeze”, “River” and “Rocket” support levels correspond to the maximum possible setting value. The “actual” maximum motor power in the three assistance levels is set by the manufacturer of your e-bike depending on the model; i.e., the values for your e-bike may differ from the above values.

The maximum engine power can be checked and individually adjusted via the FAZUA Toolbox or the FAZUA App.

→ For more information on the FAZUA App, see in chapter 6.3 “FAZUA App”.



In addition to the “regular” support levels, which you can use permanently*, the drive system has an additional function: The **Attack function** allows you to ride for a short time with an (increased) maximum motor power of 350 watts, which means that you have even more thrust for a short time.

→ More detailed information can be found in chapter 24.3.1 “Attack function”

* depending on the charge level of the battery.

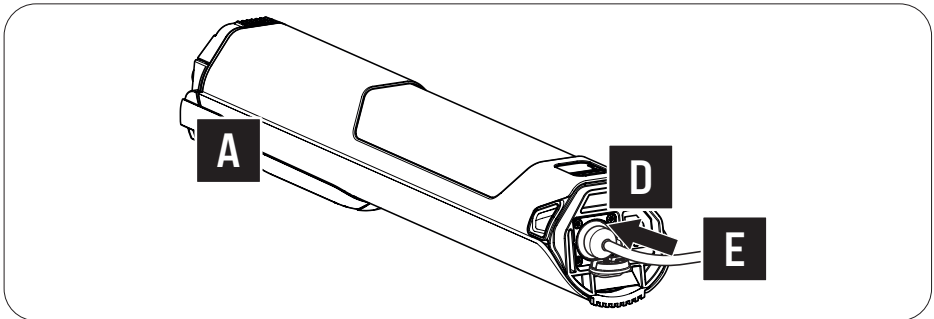


4.6 Charging the BATTERY



You can either leave the BATTERY in the DRIVEPACK during charging or remove it from the DRIVEPACK and charge it separately.

1. Before charging the BATTERY, prepare the CHARGER by connecting the mains cable to the mains adapter.
→ More detailed information can be found in chapter 30.1 “Preparing the CHARGER”.
2. Remove the DRIVEPACK from your e-bike.
→ More detailed information can be found in chapter 16.2 “Removing the DRIVEPACK from the e-bike”.
3. Insert the charging plug into the charging socket on the BATTERY.
→ More detailed information can be found in chapter 30.2 “Connecting the CHARGER to the BATTERY”.



4. Plug the power plug into a suitable wall outlet to establish the power connection.
The charging process starts automatically once the charger has been connected to the mains.
→ More detailed information can be found in chapter 27.8 “Charging process”.
5. Disconnect the CHARGER from the mains by unplugging the mains plug from the socket when charging is complete or to interrupt charging.
6. Disconnect the CHARGER from the BATTERY by removing the charging plug from the charging socket on the BATTERY.
→ More detailed information can be found in chapter 30.3 “Disconnecting the CHARGER from the BATTERY”.



5 STORAGE AND TRANSPORT

WARNING

Danger due to accidental start-up!

If the drive system is put into operation in inappropriate situations, this can result in accidents and serious injuries.

► Always remove the DRIVEPACK with the BATTERY before transporting your e-bike or stowing/storing it for an extended period of time.

→ When transporting and storing your e-bike or the components of the drive system, please observe the specified temperature ranges for the components.

→ Always transport and store the BATTERY separately from the e-bike.

Batteries are subject to hazardous goods regulations. Undamaged batteries may be transported by private persons on public roads. Commercial transport requires compliance with the regulations on the packaging, labelling and transport of hazardous goods. Open contacts must be covered and the battery securely packed. When shipping, the parcel service must be notified of the presence of hazardous goods inside the packaging.

→ Please note the following information on the charge level of the BATTERY when it is not used for an extended period of time and the information on the temperature ranges for the corresponding storage periods.

The BATTERY should have a charge level of at least 60% if you plan not to use it for an extended period of time.

Check the BATTERY charge level after 6 months of non-use: If the check shows that the charge level is 20% or less, recharge the BATTERY to at least 60% charge level.

Observe the following storage time dependent temperature ranges for the BATTERY (60% charge level):

- Storage time of < 1 month: -15 to 60 °C
- Storage time of 3 months: -15 to 45 °C
- Storage time of 1 year: -15 to 25 °C

→ If you have any questions, please contact a FAZUA certified partner or visit the official FAZUA service platform (<https://fazua.com/de/support>).



6 OPTIONAL ACCESSORIES

6.1 12 V Car Charger

The 12 V Car Charger is an original accessory for the FAZUA RIDE 50 drive system. The 12 V Car Charger serves as a mobile charger for the BATTERY. For the power supply, connect the 12 V Car Charger correctly to a 12 V electricity supply (e.g. in a vehicle).

- If you have any questions on the optional 12 V Car Charger, please contact a FAZUA certified partner or visit the official FAZUA service platform (<https://fazua.com/de/support>).
- When using the 12 V Car Charger, observe the separate original operating instructions for the 12 V Car Charger.

6.2 Downtube Cover

NOTICE

Danger of damage!

Components of the drive system may be damaged if you use the e-bike or bicycle without the DRIVEPACK inserted and the opening for the DRIVEPACK on the downtube of the frame remains unlocked.

- ▶ If using the e-bike as a conventional bike without the DRIVEPACK, close the DRIVEPACK opening on the downtube of the frame using the optional downtube cover.

You can easily use your e-bike as a conventional bike without an electric drive system by removing the DRIVEPACK.

Using the optional downtube cover, you can cover the free opening on the downtube after removing the DRIVEPACK. The remaining interior space can be used as storage space for repair kit, tools or food.

- If you have any questions on the optional downtube cover and its model variants, please contact a FAZUA certified partner or visit the official FAZUA service platform (<https://fazua.com/de/support>).



6.3 FAZUA App

Your REMOTE is equipped with a Bluetooth function. This allows you to pair a mobile device with the remote and use additional features using the FAZUA App.

You can download the FAZUA App from the FAZUA homepage. There you will also find detailed information about the FAZUA App and its functions. Scanning the following QR code will take you directly to the corresponding website:



<https://fazua.com/en/support/help-center/mobile-apps/fazua-app/>

7 CLEANING AND MAINTENANCE

7.1 Carrying out a firmware update



To update the firmware, connect the DRIVEPACK to your computer via the USB socket. For this purpose, you will need a USB cable*.

The detailed description for carrying out the firmware update can be found on the FAZUA homepage. Scanning the following QR code will take you directly to the corresponding website:



<https://fazua.com/en/support/help-center/ride-50-firmware/update-firmware/>

* The USB cable is not included in the scope of delivery.



To connect the DRIVEPACK, proceed as described below.

1. Remove the cover of the USB socket on the DRIVEPACK.

Do not use sharp-edged tools or similar to remove the cover as this could damage the DRIVEPACK or the USB socket. Instead, lift the cover with your fingers or a plastic lever.

2. Insert one USB plug into the USB socket of the DRIVEPACK and the other USB plug into the USB port of your computer.
3. Follow the descriptions for performing the firmware update on the FAZUA homepage.

After successfully carrying out the firmware update:

4. Disconnect the DRIVEPACK from your computer by pulling the USB plug out of the USB socket of the DRIVEPACK. Always hold the USB plug, not the cable, to avoid damage.
5. Then close the USB socket of the DRIVEPACK again using the cover.

IMPORTANT: Always make sure that the USB socket on the DRIVEPACK is securely closed with the cover to avoid dirt getting into the USB socket or the electronics of the DRIVEPACK and damaging them.

7.2 Cleaning and maintaining components

CAUTION

Risk of injury!

If the drive system is started up while you are working on it, you may get your fingers caught or otherwise injure yourself.

- ▶ Remove the DRIVEPACK from the e-bike when cleaning the e-bike or the components of the drive system.

NOTICE

Danger of damage!

Improper cleaning can damage the drive system or individual components.

- ▶ Never immerse the components of the drive system in water or other liquids for cleaning.
- ▶ Do not use any aggressive cleaning agents when cleaning.
- ▶ Do not use any sharp, angular or metallic objects for cleaning.



► Never clean the components of the drive system with a hard water jet or a high-pressure cleaner.

- Always keep all components of the e-bike and drive system in a clean condition.
- Clean the components gently with a cloth or soft brush.
- After cleaning, wipe all surfaces and components to dry them.
- Pay particular attention to the contacts and interfaces between the BATTERY and the DRIVEPACK and between the DRIVEPACK and the BOTTOM BRACKET: The interfaces must not be soiled or contaminated and must be completely dry before inserting the components to avoid damage.
- Clean the radiator of the DRIVEPACK regularly.

Do not clean the radiator until it is visibly or heavily soiled!

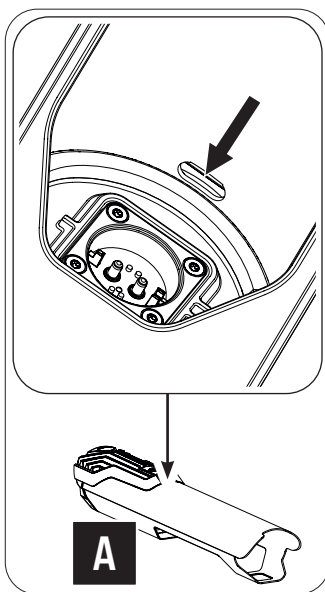
- Keep the drainage opening on the radiator clean and clear to ensure that splash water and/or condensation can drain off the DRIVEPACK without any problems.

To clean the drainage opening, first remove the BATTERY from the DRIVEPACK (see the figure with the arrow on the right). Then press out the dirt, e.g. with a plastic plunger, from the inside of the DRIVEPACK towards the outside.

IMPORTANT: Always clean the drainage hole dry; keep moisture away from the interface for the BATTERY inside the DRIVEPACK and be careful not to damage the interface. Also make sure that the USB socket on the DRIVEPACK is closed with the cover during cleaning to prevent dirt from getting into the USB socket or the electronics of the DRIVEPACK and damaging them.

- Lubricate the locker for locking the DRIVEPACK to the frame about every 2 – 3 months or at the latest as soon as it can no longer be easily operated.

- If you have any questions about cleaning and maintenance of your drive system, please contact a FAZUA certified partner or visit the official FAZUA service platform (<https://fazua.com/de/support>).





8 TROUBLESHOOTING

1. If your e-bike or the drive system does not function as desired, first check whether the fault can be rectified using the “Troubleshooting” overview table given below.
2. If necessary, please contact a FAZUA certified partner or visit the official FAZUA service platform (<https://fazua.com/de/support>) in the following cases:
 - The fault is not listed in the overview table,
 - The fault is listed in the overview table, but it is not resolved by following the instructions provided, or if you are unsure.

“TROUBLESHOOTING” OVERVIEW TABLE

Problem	Possible cause / solution
Motor power feels lower than usual.	The drive system is brand new. → Wait until the drive system is “retracted”. The drive system requires a few kilometres to produce full power.
	It is very hot and the heat management of the BATTERY and/or DRIVEPACK limits the performance.
	It is very cold, meaning the BATTERY (= lithium-ion battery) is not providing the usual performance level.
The DRIVEPACK cannot be clicked out of the downtube.	The LOCKER is defective. Dirt could be blocking the LOCKER. You might have ridden without the DRIVEPACK in bad weather conditions. → Contact a FAZUA certified partner.
The DRIVEPACK is making buzzing noises.	The polygon sleeve is moving. → Contact a FAZUA certified partner.
The DRIVEPACK is making clicking noises.	The polygon coupling has been loaded on one side. → Push the polygon coupling back into its original position to mobilise it again.



“TROUBLESHOOTING” OVERVIEW TABLE

Problem	Possible cause / solution
The upper LED on the REMOTE will light/flash red.	There is a connection error between the DRIVEPACK and BOTTOM BRACKET. There may be dirt on the interface that is obstructing the connection. → Clean the interface between the BOTTOM BRACKET and the DRIVEPACK.
The upper LED on the REMOTE lights up/flashes yellow.	There might be a bad connection between the speed sensor and BOTTOM BRACKET. → Check the position of the spoke magnet. If you do not find a fault, contact a FAZUA certified partner.
The white LEDs on the REMOTE flash.	Software update → After a new firmware update, the REMOTE will update itself automatically. In this case, please wait and do not switch off the REMOTE until the LEDs stop flashing
The REMOTE does not switch on.	The BATTERY is empty or has been switched off due to an extended idle period (standstill). → Try turning the BATTERY on using the on/off button. → Charge the BATTERY if necessary.
	The interface between the BATTERY and the DRIVEPACK may be dirty. → Clean the interface between the BATTERY and the DRIVEPACK.
The BATTERY cannot be inserted into the DRIVEPACK or snapped into the battery holder.	The interface between the BATTERY and the DRIVEPACK may be dirty. → Clean the interface between the BATTERY and the DRIVEPACK.
Sudden lack of support when riding the bike.	BMS protective function → Switch off the BATTERY by pressing the on/off button for 3 seconds and then switch it back on again.



9 DISPOSAL INSTRUCTIONS

According to the EU Directives on waste electrical equipment (Directive 2012/19/EU) and waste accumulators (Directive 2006/66/EC), the corresponding components must be collected separately and disposed of in an environmentally friendly manner.

- Before disposing of your e-bike, remove the BATTERY and any other accumulators and batteries installed on the e-bike, as well as all components and control panels containing accumulators or batteries.

9.1 Disposing of your e-bike

After you have removed all accumulators and batteries, the e-bike is considered waste electrical equipment and must be recycled.

- Please contact your city or local government (council, region) for information regarding free collection points for waste electrical equipment and/or collection points where the component or e-bike can be recycled.
- If necessary, make sure you delete any personal data stored on the device before you return the electrical or electronic device to the collection point. This task is your responsibility.

9.2 Disposal of the BATTERY

The BATTERY of the drive system is a lithium-ion battery that must be disposed of as hazardous waste.

- For disposal of the BATTERY, please refer to the following information on the disposal regulations for batteries.
- Dispose of the BATTERY of the drive system as well as any other batteries and accumulators installed on the e-bike at a recycling centre or at a collection point in your town or municipality.

The crossed-out dustbin displayed on the BATTERY (see chapter 2.3 “Explanation of characters and symbols used”) indicates that the BATTERY must not be disposed of with household waste at the end of its service life, but must be taken to a special used battery collection point for lithium-ion batteries. If a battery contains mercury (Hg), cadmium (Cd) or lead (Pb), the corresponding chemical symbol appears below the crossed-out dustbin.

In accordance with statutory obligations, the end user must return all batteries/battery packs to a suitable collection point at the end of their service life. Every end user should also contribute to preventing battery waste wherever possible. The use of long-life batteries and rechargeable batteries/power packs, as well as the careful handling of batteries/power packs and the devices powered by them is



therefore recommended. Before disposing of the product, always check whether the battery/power pack can be repaired or reconditioned.

Some batteries/power packs contain toxic substances. The collection and recycling of used batteries separately from the household waste is intended to ensure that the products are recycled or disposed of properly to prevent harmful effects on the environment and human health.

Due to their design, lithium-ion batteries also pose special risks, such as the risk of explosion and fire when exposed to heat, and must therefore be handled with special care (see also chapter 3.3 “General safety instructions”).

Batteries and battery packs can be returned to dealers or deposited at suitable collection points in the city or municipality free of charge. City councils/local authorities are able to provide information on collection points.

10 MANUFACTURER'S WARRANTY FOR THE EUROPEAN UNION AND UNITED KINGDOM

FAZUA GmbH, Marie-Curie-Strasse 6, 85521 Ottobrunn, Germany (hereinafter referred to as “Manufacturer”) guarantees to the end customer (hereinafter referred to as “Customer”) in accordance with the following provisions that the drive system and its components installed in the bicycle (hereinafter referred to as “Product”) purchased by the customer within the European Union (as of 1 January 2017) and Switzerland (hereinafter referred to as “geographical scope”) is free of design, material and processing faults and will function without restriction for a period of two years following delivery (warranty period).

Nevertheless, if a fault occurs or the drive system is not fully functional, the manufacturer will remedy this at his own discretion and expense by repairing or supplying new or reconditioned parts.

The statutory rights of the customer due to defects according to § 437 of the German Civil Code (Bundesgesetzbuch; BGB) remain unaffected and are not limited by this warranty, but the customer is additionally entitled to the rights from this warranty.

However, claims under this guarantee shall only exist if

- the product shows no damage or signs of wear and tear caused by use deviating from its normal purpose and from the manufacturer's specifications stated in the user manual,
- the product does not show any signs of repairs, that a product component has been opened, or other interventions by specialist workshops not authorised by the manufacturer, and
- the serial number has not been removed or rendered illegible.



Claims under this warranty require the customer, before sending the product, to contact either the dealer from whom he purchased the bicycle or the manufacturer and give them the opportunity to assess the fault over the telephone within a period of eight days.

Claims under the warranty can only be asserted to the manufacturer on presentation of the original invoice with date of purchase.

Claims under this guarantee can only be asserted by handing over or sending the product to the manufacturer. The manufacturer shall bear all costs for sending and returning the product. If the manufacturer or the dealer has named a specific freight company to the customer for sending the product and the customer nevertheless uses another freight company, the customer must bear the additional costs incurred.

This warranty shall apply to the extent and under the conditions set forth above, including the presentation of proof of purchase, even in the event of resale, to any subsequent future owner of the product residing within the territorial scope of this warranty.

This guarantee is subject to the law of the Federal Republic of Germany, unless and insofar as this is contradicted by mandatory consumer protection regulations in the country of the respective customer.

11 SERVICE



If possible, prepare the error description and all information on the relevant component before contacting a FAZUA certified partner or the FAZUA service team.

→ If you require customer service, please contact a FAZUA certified partner or contact the FAZUA service team.

→ Where applicable, also visit the FAZUA service platform:

<https://fazua.com/de/support>.

Here you will find comprehensive content relating to the topic of “Service”, as well as a search function for locating FAZUA certified partners in your area.



12 DECLARATIONS OF CONFORMITY

12.1 EU Conformity of the individual components or of the drive system

The individual components or the drive system as a whole complies with all applicable EC provisions of the European Economic Area.

- The EU Declaration of Conformity for the drive system can be requested from FAZUA.
- The EU Declaration of Conformity for the e-bike as a whole (including the drive system) can be requested from the manufacturer of your e-bike.

12.2 UK Conformity of the individual components or of the drive system

Each individual component, as well as the drive system as a whole, complies with the applicable regulations for obtaining the British UKCA marking.

- The UKCA Declaration of Conformity for the drive system can be requested from FAZUA.
- The UKCA Declaration of Conformity for the e-bike as a whole (including the drive system) can be requested from the manufacturer of your e-bike.

12.3 Special information on the remote with Bluetooth function

FAZUA GmbH hereby declares that this product conforms to the basic requirements and other relevant regulations of the Radio Equipment Directive 2014/53/EU, R&TTE Directive 1999/5/EC, EMC Directive 2014/30/EU, ErP Directive 2009/125/EC, Low Voltage Directive 2014/35/EC and ROHS Directive 2011/65/EC.

- The complete Declaration of Conformity and these instructions can be found online in PDF format at www.fazua.com.



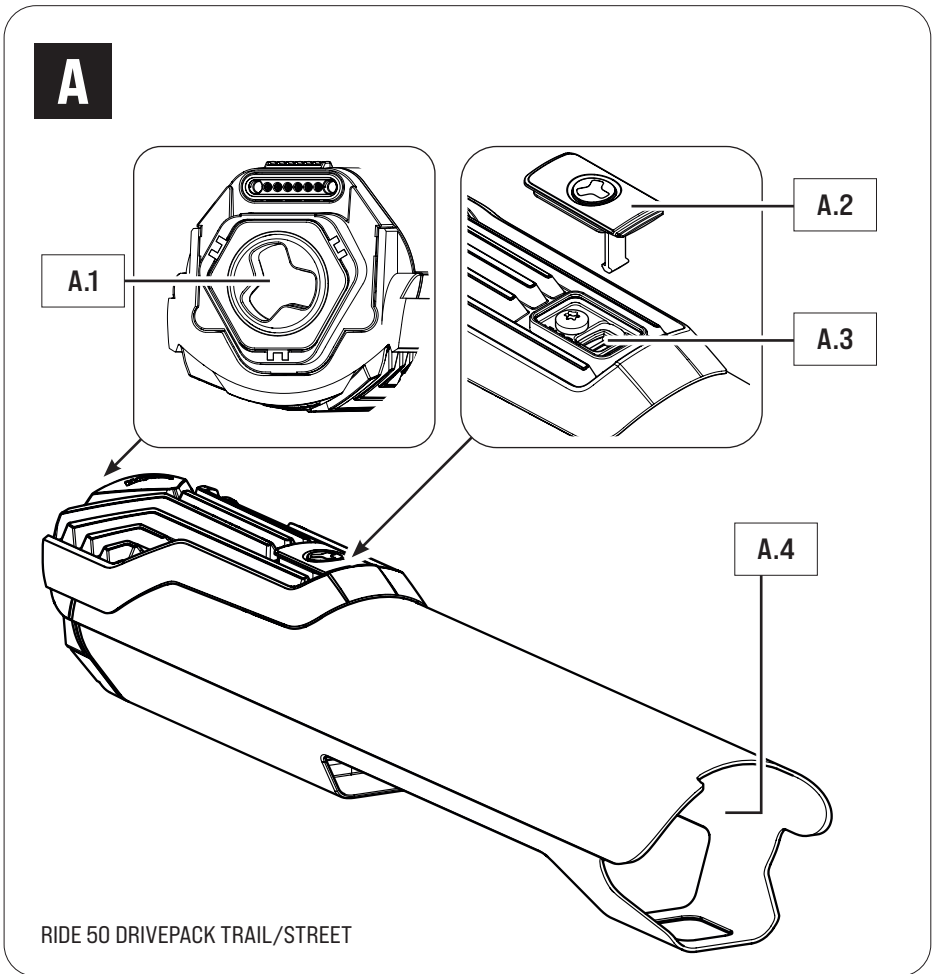
DRIVEPACK

13 MODEL VARIANTS OF THE DRIVEPACK

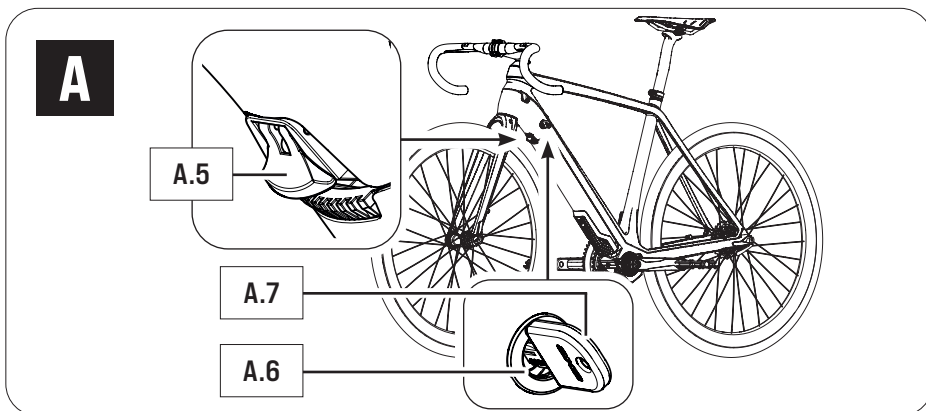
Depending on the model, the motor unit of your drive system is a RIDE 50 DRIVEPACK TRAIL or a RIDE 50 DRIVEPACK STREET.

The model variants of the DRIVEPACK differ from each other on the basis of technical details, but are identical in terms of handling and are therefore described together in this section.

14 DETAILED VIEW & PART DESIGNATIONS: DRIVEPACK



RIDE 50 DRIVEPACK TRAIL/STREET



Part designations

- A.1 → Interface (BOTTOM BRACKET)
- A.2 → Cap (USB port)
- A.3 → USB port
- A.4 → Battery holder
- A.5 → Locking lever
- A.6 → Cylinder lock*
- A.7 → Key*

15 TECHNICAL DATA

TECHNICAL DATA ON THE DRIVEPACK

Model designations	→	RIDE 50 DRIVEPACK TRAIL RIDE 50 DRIVEPACK STREET
Continuous rated power	→	250 W
Power, max.	→	350 W
Nominal voltage	→	36 V
Protection type	→	IP54
Weight, approx.	→	1.87 kg
Operating temperature	→	-5 °C to +40 °C (ambient temperature)
Storage temperature (< 1 month)	→	-15 °C to +60 °C
Storage temperature (> 1 month)	→	-15 °C to +25 °C

* The cylinder lock (incl. key) is a model-dependent installed part that may not be present on your e-bike.



16 USING THE DRIVEPACK

16.1 Inserting the DRIVEPACK into the e-bike

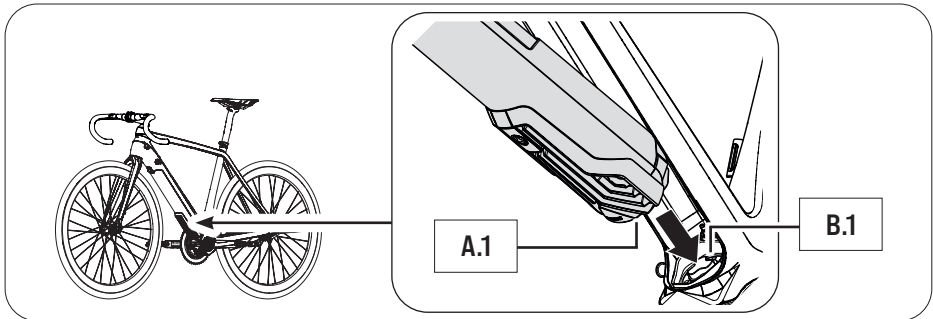
NOTICE

Danger of damage!

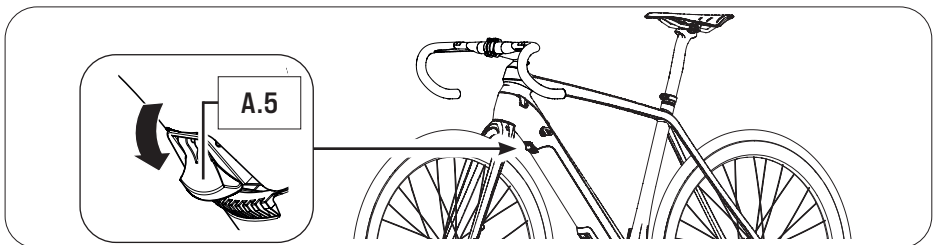
Improper handling can damage the rechargeable battery and/or the holder on the e-bike.

► Ensure that the cover flap over the charging socket on the BATTERY is closed correctly before inserting the DRIVEPACK with the BATTERY into the e-bike to avoid damaging the cover flap and/or the holder in the e-bike.

1. Set the interface [A.1] of the DRIVEPACK to the corresponding interface [B.1] on the BOTTOM BRACKET.



2. Swing the upper end of the DRIVEPACK into the downtube of the e-bike.
When you have inserted the DRIVEPACK correctly and completely into the downtube, the locking mechanism of the LOCKER built into the downtube engages in the motor mount and locks the DRIVEPACK in the correct position (audible click).
The locking lever [A.5] automatically moves to the closed position.



3. Check the DRIVEPACK is securely in position.



If the DRIVEPACK does not lock, pull it out again if necessary and then try to insert it again. Do not use the drive system if the DRIVEPACK cannot be locked to the e-bike.

16.2 Removing the DRIVEPACK from the e-bike

⚠ CAUTION

Risk of burns!

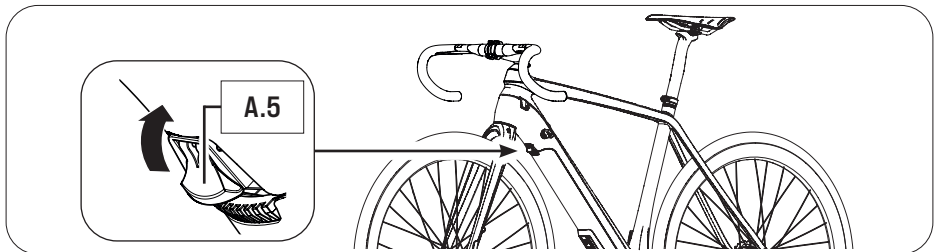
The radiator in the DRIVEPACK can become very hot during operation, which means that you may burn yourself on it.

► Allow the DRIVEPACK to cool down completely before touching it.

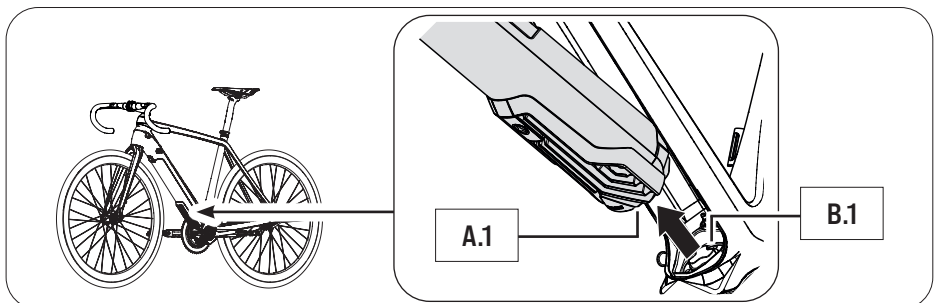


If you press the DRIVEPACK firmly against the frame before releasing the locking lever, it will be easier to release the DRIVEPACK from the locking device on the frame when removing it.

1. Secure the DRIVEPACK with one hand.
2. Press the locking lever [A.5] up fully with the other hand to release the DRIVEPACK from the locking device.



3. Hold the locking lever [A.5] in the open position whilst carefully lower the DRIVEPACK.
4. Then move the locking lever back to the closed position and remove the DRIVEPACK from the interface [B.1] on the BOTTOM BRACKET.

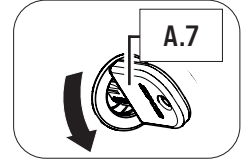




16.3 Securing/locking the DRIVEPACK on the e-bike

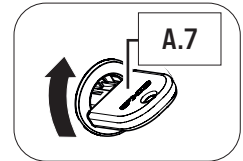
Depending on the bicycle manufacturer, a cylinder lock [A.6] is integrated into the frame of your e-bike, which you can use to lock the DRIVEPACK mounted on the e-bike and thus secure it against theft etc.

1. If necessary, make sure that the DRIVEPACK is correctly attached to the e-bike.
2. Insert the key [A.7] into the cylinder lock.
3. Turn the key anti-clockwise to lock the DRIVEPACK to the e-bike.
4. Remove the key from the cylinder lock.



If you want to unlock the DRIVEPACK again:

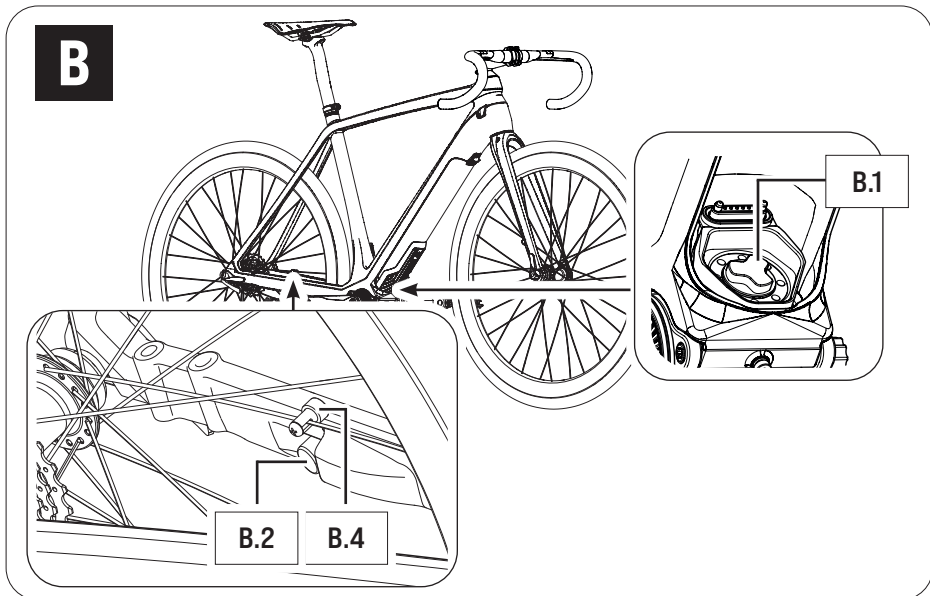
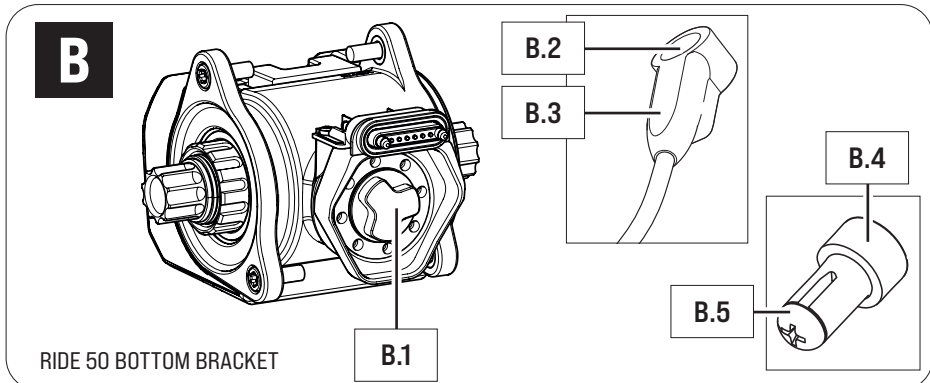
1. Insert the key [A.7] into the cylinder lock.
2. Turn the key clockwise to unlock the DRIVEPACK to the e-bike.





BOTTOM BRACKET

17 DETAILED VIEW & PART DESIGNATIONS: BOTTOM BRACKET



Part designations

- B.1 → Interface (DRIVEPACK)
- B.2 → Speed sensor
- B.3 → Marking [alignment of spoke magnet/speed sensor]
- B.4 → Spoke magnet
- B.5 → Fixing screw [spoke magnet]



18 TECHNICAL DATA

TECHNICAL DATA ON THE BOTTOM BRACKET

Model designation	→	RIDE 50 BOTTOM BRACKET
Support torque, max.	→	58 Nm
Q-factor, min.	→	135 mm (without crank arms)
Chain lines*		
4-arm BCD104	→	49 mm
4-arm BCD104 boost 148	→	52 mm
5-arm BCD 110	→	49.5 mm
Protection type	→	IP54
Weight, approx.	→	1.28 kg
Operating temperature	→	-5°C to +40°C (ambient temperature)
Storage temperature (< 1 month)	→	-15°C to +60°C
Storage temperature (> 1 month)	→	-15°C to +25°C

19 USING THE BOTTOM BRACKET

The BOTTOM BRACKET is already fitted to your e-bike on delivery. You are not permitted to make any changes to the BOTTOM BRACKET as you may affect the safety and function of the drive system.

It may be necessary to align only the speed sensor [B.2] connected to the BOTTOM BRACKET, as well as the corresponding spoke magnet [B.4] in some circumstances.

19.1 Correct position/alignment

For the drive system to function correctly, the speed sensor [B.2] and the spoke magnet [B.4] must be correctly positioned and aligned on the rear wheel.

- The spoke magnet must be positioned on the spoke so that it can move past the speed sensor freely at the height of the marking.
- If the spoke magnet and speed sensor are too close together and there is a risk of them coming into contact, the two parts could be damaged and may need to be replaced.
- The distance between the mark on the speed sensor and the spoke magnet must be in the range between 4–15 mm.

* The chain line depends on which Spider variant is installed.



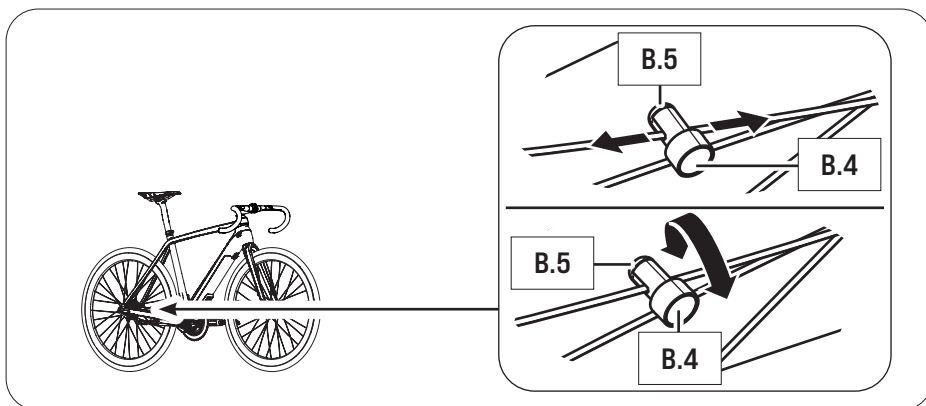
If the distance between the speed sensor and spoke magnet is outside the specified range, or the speed sensor is not correctly connected, the drive system will work in “Soft Fault” mode.

→ More detailed information can be found in chapter 23.1 “Status display”.

19.2 Correcting incorrect position/alignment

If you notice that the drive system is in “Soft Fault” mode because the speed sensor [B.2] and spoke magnet [B.4] are not correctly aligned, proceed as follows:

1. Using a screwdriver, carefully loosen the fixing screw [B.5] on the spoke magnet.
2. To set the correct distance between the mark on the speed sensor [B.3] and the spoke magnet [B.4]:
 - Move the spoke magnet vertically on its spoke (up/down) if necessary.
 - Turn the spoke magnet around its own axis if necessary.



3. If the problem cannot be solved, do not use the e-bike and contact an authorised specialist to have the fault rectified.



REMOTE

20 MODEL VARIANTS OF THE REMOTE

Depending on the model, you can operate your drive system using the:

- REMOTE FX
- REMOTE BX or
- REMOTE RX

Although the model variants of the REMOTE differ visually from each other, they are identical in their handling and are therefore described together in this section.

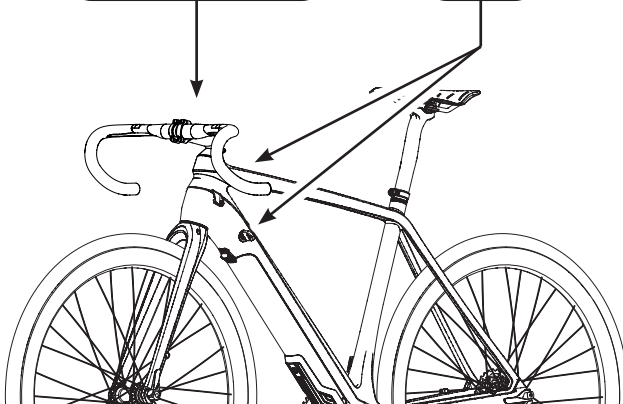
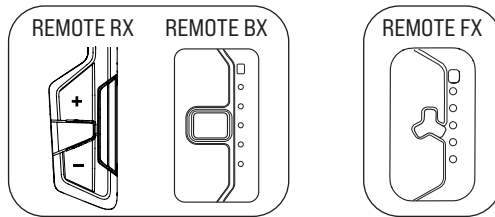
21 DETAILED VIEW AND PART DESIGNATIONS:

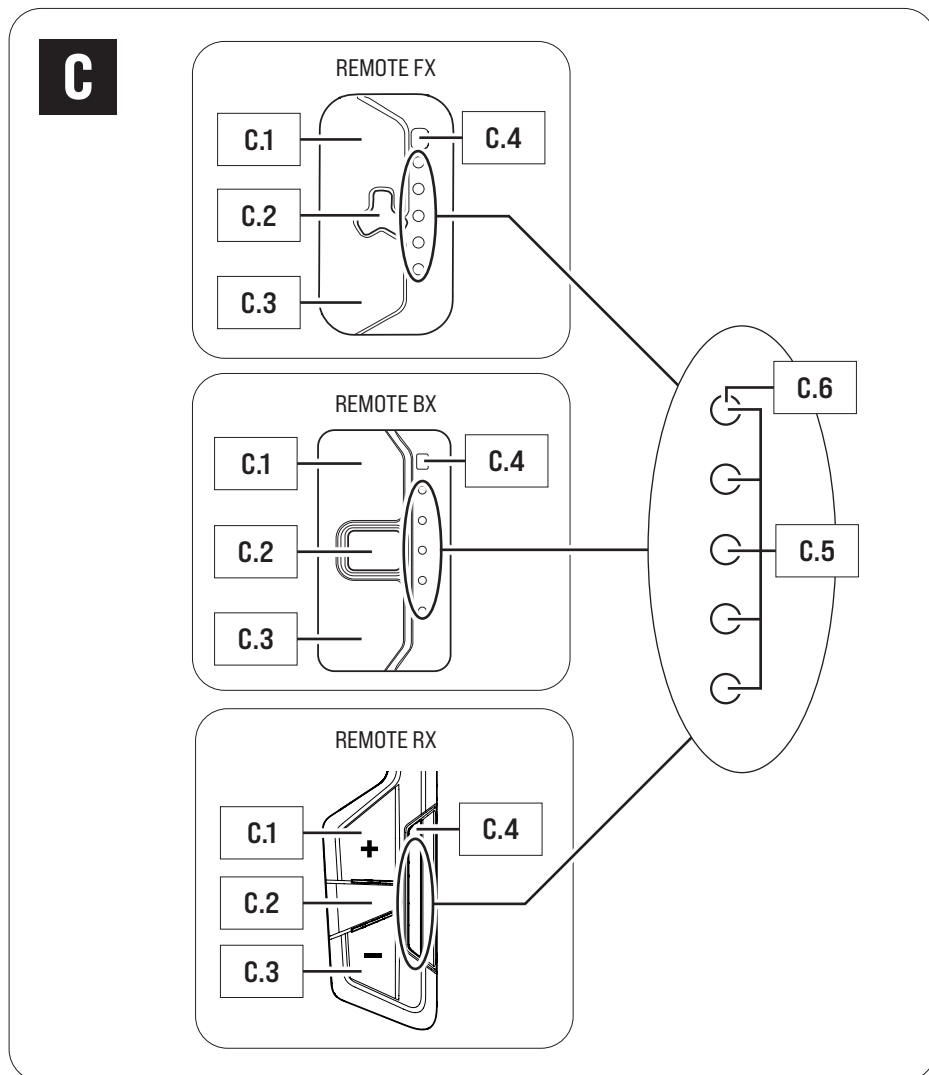


The REMOTE models are mounted in different positions:

- REMOTE FX is located on the frame (top or bottom tube),
- REMOTE BX and REMOTE RX are mounted on the handlebar.

C





Part designations

- C.1 → Top contact sensor
- C.2 → Centre button
- C.3 → Bottom contact sensor
- C.4 → Brightness sensor
- C.5 → LED indicator: Display of the charge level/support level
- C.6 → LED indicator: Status display



22 TECHNICAL DATA

TECHNICAL DATA ON THE REMOTE

Model designations	→ REMOTE FX → REMOTE BX → REMOTE RX
Protection type (in installed condition)	→ IP54
Weight, approx.	→ 0.048 kg
Operating temperature	→ -5°C to +40°C (ambient temperature)
Storage temperature (< 1 month)	→ -15°C to +60°C
Storage temperature (> 1 month)	→ -15°C to +25°C

23 DISPLAYS ON THE REMOTE

The LED indicator [C.5]/[C.6] on the REMOTE consists of 5 LEDs.

- All five LEDs together [C.5] serve as a display for the charge level and the pedal support level set.
- The upper of the five LEDs [C.6] also serves as a status indicator, informing you about the status of your e-bike.

23.1 Status display

The status display [C.5] indicates a status change or an existing fault. If no fault is detected, the status display LED functions as one of the five LEDs [C.5] to display the charge level or the support level set.

The status display LEDs light up in different colours depending on which status is displayed.

The status display [C.6]:

- **flashes green or blue*** = “Ready for operation”

Following successful installation of the DRIVEPACK into the e-bike, the status display flashes green or blue briefly, indicating that you can now switch on the drive system using the REMOTE.

- **Flashing yellow** = “Soft Fault”

If a “Soft Fault” occurs, the status display flashes yellow. In this way, the drive system indicates that there is a temporary or non-critical fault that in most cases will result in reduced performance.

* The colour for the “Ready for use” status is either green or blue, depending on the model.



If a “Soft Fault” occurs, you will be able to continue riding your e-bike, but FAZUA strongly recommends not doing so to avoid further faults or damage to the drive system or to the e-bike.

- **Flashing red = “Hard Fault”**

When a “Hard Fault” occurs, the status display flashes red. If a “Hard Fault” occurs on your e-bike, the e-bike can no longer be used and requires maintenance.

23.2 Display of the charge level/support level

The display [C.5] for the charge level or the support level shows two parameters.

- **The display for the charge level of the BATTERY:**

The charge level of the BATTERY can be read off via the number of lit LEDs. Each of the 5 LEDs here represents 20 % of the total charging capacity.

When the BATTERY is fully charged, all 5 LEDs light up. If the BATTERY is flat, the upper LED of the status indicator lights up white or no LED lights up.

- **The selected pedal support level:**

Each support level is assigned a colour, i.e. You can read off the support level currently set via the colour of the lit LEDs on the display.

→ More detailed information can be found in chapter 24.3 “Support levels”.

24 USING THE REMOTE

WARNING

Danger due to distraction during operation!

If you are distracted when using the REMOTE while riding, accidents and serious injuries can result.

- ▶ Keep away from road traffic and familiarise yourself with the functions and usage of your REMOTE before using your e-bike for the first time.
- ▶ Do not use the REMOTE whilst riding if you are distracted by it.

24.1 Switching the drive system on and off

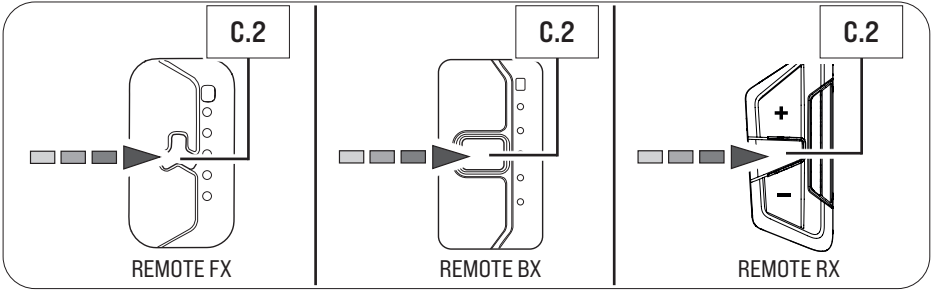
→ Switch on the drive system using REMOTE by pressing the centre button [C.2].

The LEDs of the display [C.5] first signal with a short start animation that you have switched on the drive system.

Then the display [C.5] changes to the regular mode. The LEDs of the display now light up permanently and indicate the support level and battery charge level.



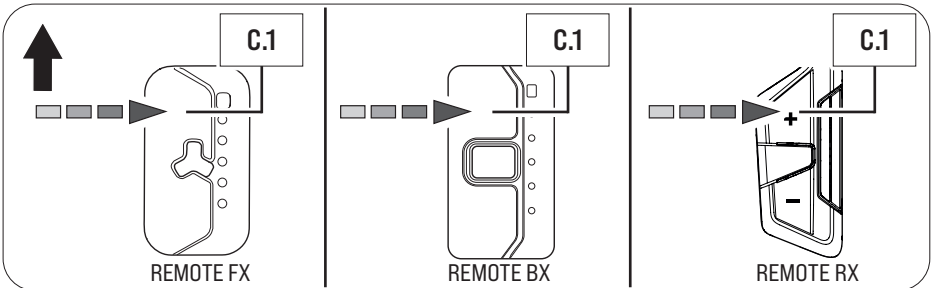
→ Switch off the drive system using the REMOTE by holding down the centre button [C.2].



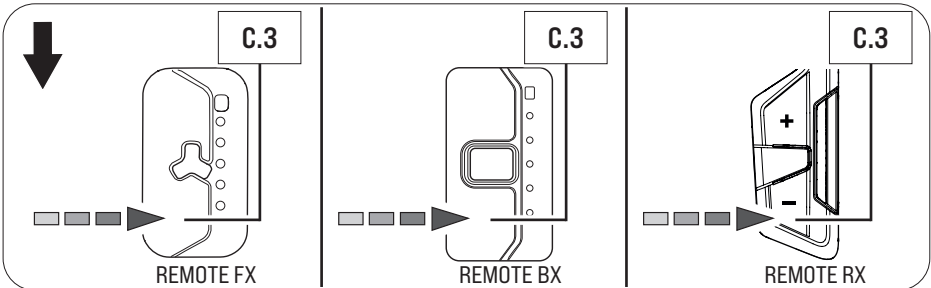
24.2 Setting the pedal support

The REMOTE can be used at any time to set the desired support level, including when riding.

→ Tap the top contact sensor [C.1] on the REMOTE to change to the next higher support level.



→ Tap the bottom contact sensor [C.3] on the REMOTE to change to the next lower support level.



If you are riding in rain mode, set the desired support level using the centre button [C.2].

→ More detailed information can be found in chapter 24.5 “Rain mode”.



24.3 Support levels

No support (white)

- The LEDs of the display [C.5] on the REMOTE are lit in white.
- You are riding without electric pedal support (like a conventional bicycle).

“Breeze” support level

- The LEDs of the display [C.5] on the REMOTE are lit in green.
- You are riding with minimal but active pedal support for maximum range.

“River” support level

- The LEDs of the display [C.5] on the REMOTE are lit in blue.
- You are riding with reliable support for most applications.

“Rocket” support level

- The LEDs of the display [C.5] on the REMOTE are lit in pink.
- You are riding with maximum support for challenging rides.

“SUPPORT LEVELS” OVERVIEW TABLE

Support level	Colour	Max. motor power
None	white	No support
Breeze	green	Configurable up to max. 300 W
River	blue	Configurable up to max. 300 W
Rocket	pink	Configurable up to max. 300 W



The above mentioned values for the maximum motor power in the “Breeze”, “River” and “Rocket” support levels correspond to the maximum possible setting value. The “actual” maximum motor power in the three assistance levels is set by the manufacturer of your e-bike depending on the model; i.e., the values for your e-bike may differ from the above values.

The maximum engine power can be checked and individually adjusted via the FAZUA Toolbox or the FAZUA App.

→ For more information on the FAZUA App, see in chapter 6.3 “FAZUA App”.



24.3.1 Attack function

In addition to the “regular” support levels, which you can use permanently*, the drive system has an additional function: The Attack function allows you to ride for a short time with an (increased) maximum motor power of 350 watts, which means that you have even more thrust for a short time.

The duration of the additional thrust provided by the attack function depends on the situation in which you activate the attack function:

- If you activate the Attack function **from a standing position**, you will be propelled with more thrust for **4 seconds**.
- If you activate the Attack function **while riding**, you will be propelled with more thrust for **12 seconds**.

To activate the Attack function:

→ Press and hold the upper touch sensor **[C.1]** on the REMOTE for 2 seconds.

The LEDs of the display **[C.5]** show a special animation during the whole function time, signalling that the attack function is active.

The attack function is automatically deactivated after the above-mentioned duration of 4 or 12 seconds or when you stop pedalling (e.g. to brake).



The Attack function cannot be activated if:

- The e-bike reaches a speed of more than 25 km/h.
- You have not selected a support level (The LEDs of the display **[C.5]** on the REMOTE light up white.).
- You have activated the rain mode of the REMOTE.

24.4 Re-starting the drive system

→ Hold down the centre button **[C.2]** of the REMOTE for 8 seconds to power down your drive system completely: All LEDs **[C.5]/[C.6]** extinguish.

If the drive system is ready for switching back on, the status display **[C.6]** will flash green or blue**: You can then start your drive system again as normal.

* Depending on the charge level of the battery.

** The colour for the “Ready for use” status is either green or blue, depending on the model.



24.5 Rain mode

Rain mode prevents rain drops from accidentally adjusting the support level of your e-bike.

If you have activated the rain mode, use the centre button to set the desired support level:

1. Activate the rain mode by **pressing and holding** the centre button [C.2] of the REMOTE **until the** LED display [C.5] on the REMOTE shows a **short blue LED animation** instead of the current charge level of the BATTERY (in the colour of the set support level).

The short blue LED animation indicates that you have successfully activated the rain mode.

Then the LED display [C.5] changes again and shows the current charge level of the battery in the colour of the set support level.

2. In rain mode, press the centre button 1× briefly to switch to the next higher support level.

By briefly pressing the centre button again, you can switch to the next higher support level in the following order:

No support → “Breeze” → “River” → “Rocket” → No support etc.

3. You switch from rain mode back to regular operating mode by **pressing and holding** the centre button **until the** LED display [C.5] on the REMOTE shows a **short yellow LED animation** instead of the current charge level of the BATTERY (in the colour of the set support level).

The short yellow LED animation signals that you have successfully deactivated the rain mode and switched back to the regular operating mode.

Then the LED display [C.5] changes again and shows the current charge level of the battery in the colour of the set support level.



24.6 Switching the bicycle lighting on and off



Depending on the model, your e-bike has a bicycle light that you can switch on and off using the remote.

IMPORTANT: The bicycle lighting can only be switched on and off in regular operating mode using the remote, not in rain mode!

1. If necessary, deactivate rain mode by holding down the centre button **[C.2]** of the REMOTE for about 2 seconds.
2. Press the centre button 1× briefly to turn on the bicycle lights.
3. Press the centre button again 1× briefly to turn off the bicycle lights.

24.7 Bluetooth® connection

You can connect your mobile phone to your drive system via the FAZUA App.

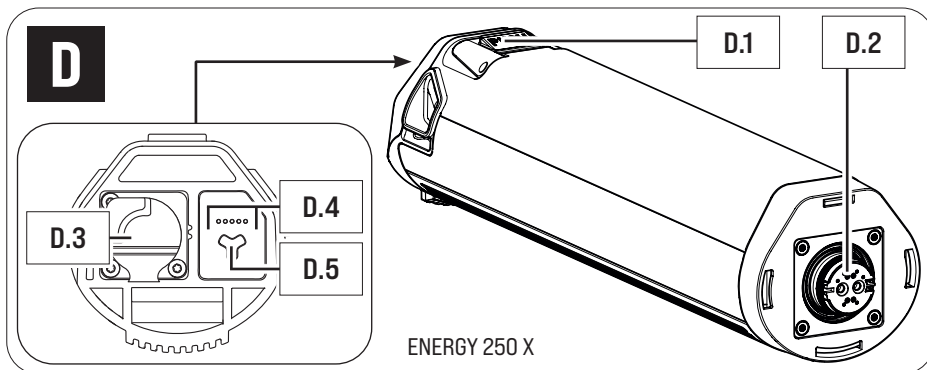
When the connection is successfully established, the 5 LEDs **[C.5]/[C.6]** on the remote display a blue animation pulsing from the centre outward.

→ For more information on the FAZUA App, see in chapter 6.3 “FAZUA App”.



BATTERY

25 DETAILED VIEW & PART DESIGNATIONS: BATTERY



Part designations

- D.1 → Push button (battery lock)
- D.2 → Interface (DRIVEPACK)
- D.3 → Charging socket (with cover flap)
- D.4 → Charge level indicator*
- D.5 → On/off button

26 TECHNICAL DATA

TECHNICAL DATA ON THE BATTERY

Model designation	→ ENERGY 250 X
Nominal voltage	→ 36 V
Nominal capacity	→ 7 Ah
Output	→ 252 Wh
Protection type	→ IP54
Weight, approx.	→ 1.4 kg
Operating temperature	→ -5 °C to +40 °C (ambient temperature)
Storage temperature (< 1 month)**	→ -15 °C to +60 °C
Storage temperature (> 1 month)**	→ -15 °C to +25 °C

* The charge level indicator of the BATTERY is only visible when the corresponding LEDs are lit, but not when the BATTERY is switched off, for example.

** Please also note the information on the storage time-dependent temperature ranges for the BATTERY in chapter 5 "Storage and transport".



27 USING THE BATTERY

27.1 Checking and switching on BATTERY

WARNING

Risk of explosion and fire!

A damaged or dirty battery may explode and/or cause a fire.

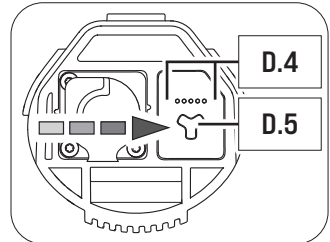
- ▶ Never insert a damaged BATTERY into the DRIVEPACK.
- ▶ Check the BATTERY for visible damage, such as cracks or burn marks, before each insertion.
- ▶ Make sure that the interfaces on the BATTERY are free of dirt before using it.



You can query the charge level of the BATTERY at any time, by pressing the on/off button [D.7] 1x: The number of illuminated LEDs on the charge level indicator [D.4] indicates the charge level. Each illuminated LED therefore corresponds to 20% of the total charging capacity. When the BATTERY is fully charged, all 5 LEDs light up.

1. Check the BATTERY for visible damage (visual inspection).
2. Press the on/off button [D.5] on the BATTERY 1x to switch on the BATTERY:

The LEDs of the charge level indicator [D.4] next to the on/off button light up and indicate the current charge level of the BATTERY.

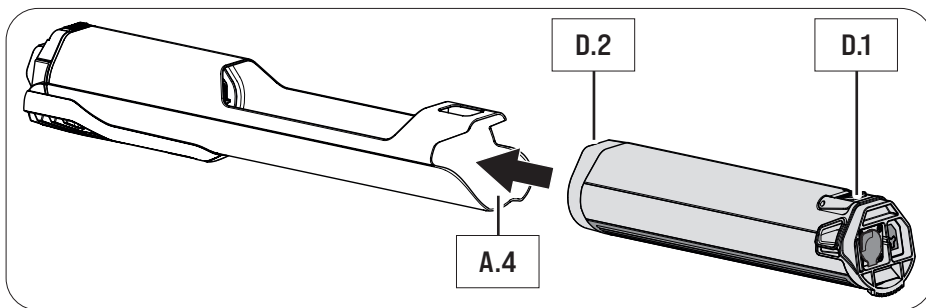


If none of the LEDs on the charge indicator light up after pressing the on/off button, this indicates that the BATTERY is damaged.

In this case, do not insert the BATTERY into the DRIVEPACK, but contact an authorised specialist.

27.2 Inserting the BATTERY into the DRIVEPACK

1. Hold the DRIVEPACK with one hand and the BATTERY with the other.
2. Position the BATTERY with the interface [D.2] forwards in front of the empty battery holder [A.4] and align it so that the battery lock push button [D.1] is on the same side as the corresponding opening on the DRIVEPACK.



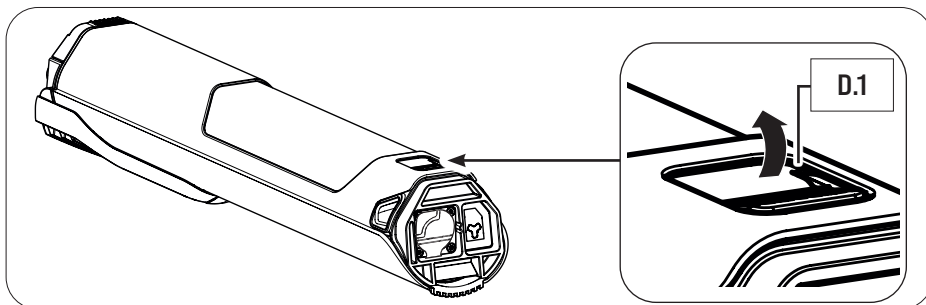
The BATTERY is designed so that it can only be inserted into the battery holder when correctly aligned. If you therefore have problems inserting the BATTERY into the battery holder, it may be because you have not aligned the BATTERY correctly. Therefore, in this case, first check the correct alignment of the BATTERY and try inserting it again.

If the BATTERY cannot be inserted into the battery holder despite correct alignment, one of the components may be damaged.

Do not use the drive system if the BATTERY cannot be inserted into the battery holder, but rather contact an authorised specialist.

- Carefully insert the BATTERY as far as possible into the battery holder of the DRIVEPACK until you hear a click.

When you have inserted the BATTERY correctly and completely into the battery holder, the push button on the BATTERY slides into the corresponding opening on the DRIVEPACK and locks the BATTERY into position. When the push button on the BATTERY engages in the opening on the DRIVEPACK, an audible engagement sound ("click") is heard.



If the BATTERY does not lock, pull it out again if necessary, make sure that there is no dirt inside the DRIVEPACK to obstruct insertion, and then try inserting the BATTERY again. Do not use the drive system if the BATTERY cannot be locked. In this case, contact an authorised specialist to have the fault rectified.



27.3 Removing the BATTERY from the DRIVEPACK

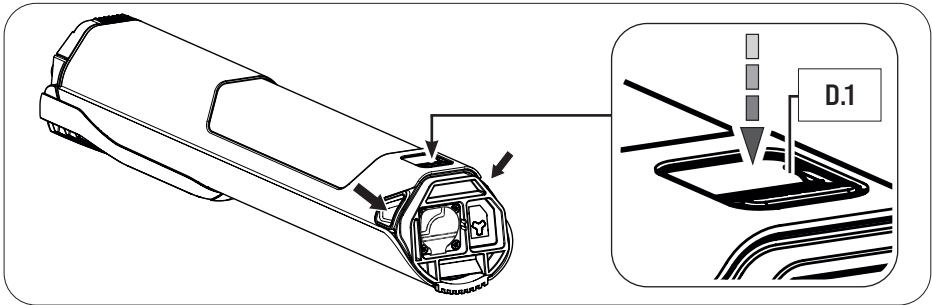
CAUTION

Pinch risk!

You can pinch your fingers when removing the BATTERY from the DRIVEPACK.

► When pressing the push button or removing the BATTERY, be careful not to pinch your fingers.

1. Hold the DRIVEPACK with one hand and secure the BATTERY with the other.
2. Press the push button **[D.1]** as far as it will go to release the BATTERY from the locking device.



3. Press and hold the push button, grasp the BATTERY on the two handles and gently pull the BATTERY out of the battery holder **[A.4]**.

The two handles are located at the side of the upper BATTERY end (see arrows).

27.4 Switching off the BATTERY

→ Turn off the BATTERY by pressing and holding the on/off button **[D.5]**.



27.5 Checking the charge level and state of health (SOH) of the BATTERY



Using the charge level indicator [D.4] of the BATTERY, you can check the current charge level of the BATTERY **before or during use** (e.g. for trip planning).

The charge level indicator is not used to detect during the charging process whether the BATTERY has already been charged to the maximum or can still be charged further. The LED display [E.8] of the CHARGER indicates this status.

→ More detailed information can be found in chapter 30.2 “Connecting the CHARGER to the BATTERY”.

After switching on the BATTERY, the charge level display [D.4] first shows a start animation and immediately afterwards the LEDs briefly indicate the current charge level of the BATTERY. The charge level indicator then extinguishes.

Querying the current charge level of the BATTERY

→ With the BATTERY switched on, press the on/off button [D.5] on the BATTERY 1× to check the current charge level (e.g. before or during a [longer] trip).

The number of LEDs varies depending on the charge level, with each LED representing 20% of the total capacity. If all five LEDs are lit, the BATTERY is fully charged.

Querying the SOH

→ Press the on/off button [D.5] on the BATTERY 2× in succession (double-click) when the BATTERY is switched on to query the “state of health” (SOH) of the BATTERY.

The SOH is displayed in 20% increments (similar to the BATTERY charge indicator): If all five LEDs are flashing, the BATTERY has a SOH of 100%, if four LEDs are flashing 80%, etc.

27.6 Automatic switch-off of the BATTERY

The BATTERY switches off automatically if the e-bike has not moved for 8 hours and no button or touch sensor has been pressed on the REMOTE. If the charge level of the rechargeable battery is below 30%, the automatic switch-off already takes place after 3 hours and not after 8 hours.

→ Press the on/off button [D.5] on the BATTERY 1× to switch on the BATTERY again (“wake up”).



27.7 Charging the BATTERY

WARNING

Fire hazard due to incorrect handling!

If you handle the BATTERY improperly or try to charge it with an incompatible CHARGER, you could cause a fire.

- ▶ Only use an original and compatible CHARGER from FAZUA to charge the BATTERY.
- ▶ The CHARGER and BATTERY heat up during charging so keep them away from combustible materials.
- ▶ Do not leave the BATTERY and CHARGER unattended during charging.

WARNING

Risk of electric shock!

Improper handling of the CHARGER or an incorrect mains connection may expose you and others to the risk of electric shock.

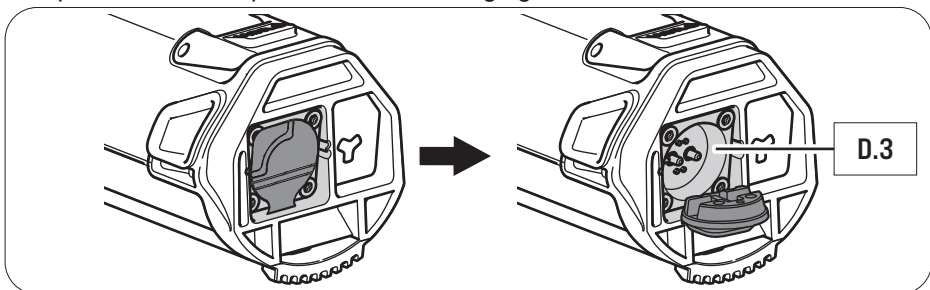
- ▶ Observe the instructions in section “CHARGER”.

You can either leave the BATTERY in the DRIVEPACK during charging or remove it from the DRIVEPACK and charge it separately. The charging process can also be interrupted at any time. You cannot charge the BATTERY if the temperature is outside the permissible charging temperature. This is not possible even if the BATTERY is connected to the CHARGER. Charging is only possible again when the permitted charging temperature has been reached.

→ Fully charge the BATTERY prior to initial operation so that you can use the full capacity of the BATTERY.

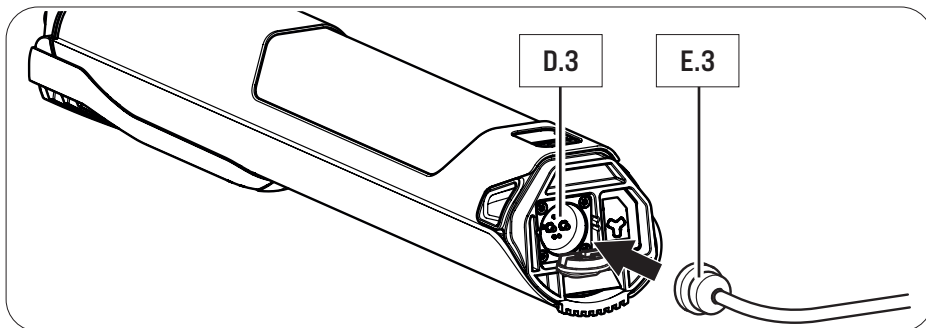
27.7.1 Connecting the BATTERY to the CHARGER

1. Open the cover flap to access the charging socket [D.3].





2. Insert the charging plug [E.3] into the charging socket on the BATTERY. Since the charging plug is magnetically coded, it can only be inserted into the intended position.



3. Insert the mains plug [E.5] into a suitable wall outlet to establish the power connection.

The charging process starts automatically once the charger has been connected to the mains.

27.7.2 Ending the charging process

1. Disconnect the CHARGER from the power supply by removing the mains plug from the socket [E.5].
2. Disconnect the CHARGER from the BATTERY by removing the charging plug [E.3] from the charging socket [D.3].
3. Close the cover flap again to close the charging socket [D.3].

Always make sure that the cover flap securely closes the charging socket when you are not charging the battery. This prevents moisture, dirt or similar from getting into the charging socket and damaging the rechargeable battery.

4. Replace the DRIVEPACK with the BATTERY correctly on the e-bike.

27.8 Charging process

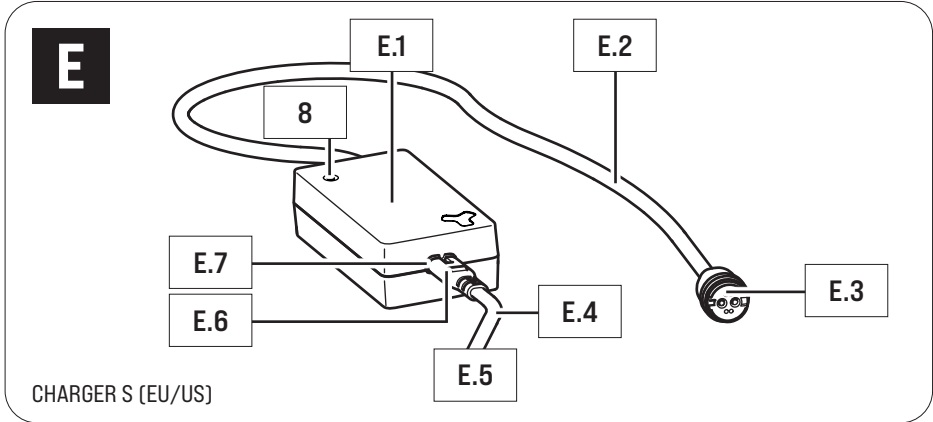
Charging begins as soon as you have connected the charging plug [E.3] of the CHARGER to the charging socket on the BATTERY and the CHARGER to the power supply.

The flashing LEDs on the charge level indicator [D.4] of the BATTERY indicate that the BATTERY is being charged.



CHARGER

28 DETAILED VIEW & PART DESIGNATIONS: CHARGER



Part designations

- E.1 → Mains adapter
- E.2 → Charger cable
- E.3 → Charging plug
- E.4 → Mains cable
- E.5 → Mains plug (power supply)*
- E.6 → Plug
- E.7 → Mains socket
- E.8 → LED display

29 TECHNICAL DATA


TECHNICAL DATA ON THE CHARGER

Model designation	→ CHARGER S (EU/US)
Nominal input voltage	→ 220–240 V AC [CHARGER S (EU)] → 90–120 V AC [CHARGER S (EU)]
Frequency	→ 50/60 Hz

* Different from country to country, therefore not pictured.



TECHNICAL DATA ON THE CHARGER

Charging current	→ 2 A
Charging time, approx.	→ 3.5 h
Protection class	→ 2 [Symbol: ]
Protection type	→ IP54
Weight, approx.	→ 0.39 kg
Operating temperature	→ 0°C to +45°C
Storage temperature	→ 0°C to +45°C

30 USING THE CHARGER

WARNING

Risk of electric shock and fire!

If you use a damaged CHARGER, you could expose yourself and others to the risk of an electric shock. If you use the CHARGER improperly or with an incompatible BATTERY, you could cause a fire.

- ▶ Therefore, check all individual part for damage before using the CHARGER.
- ▶ Never use a damaged CHARGER.
- ▶ Only use the CHARGER in dry indoor areas.
- ▶ Keep water or any liquids away from the CHARGER or all individual parts of the CHARGER.
- ▶ Since the CHARGER and BATTERY heat up during charging, keep away from combustible materials and do not leave the two components unattended during charging.
- ▶ During charging, place the CHARGER and BATTERY on a well-ventilated surface.
- ▶ Only use the CHARGER to charge the original and compatible evation BATTERY from FAZUA.
- ▶ Never attempt to charge non-rechargeable batteries!



30.1 Preparing the CHARGER

1. Take the mains adapter [E.1] and the mains cable [E.4].
2. Plug the appliance plug [E.6] of the mains cable into the socket on the mains adapter [E.7].

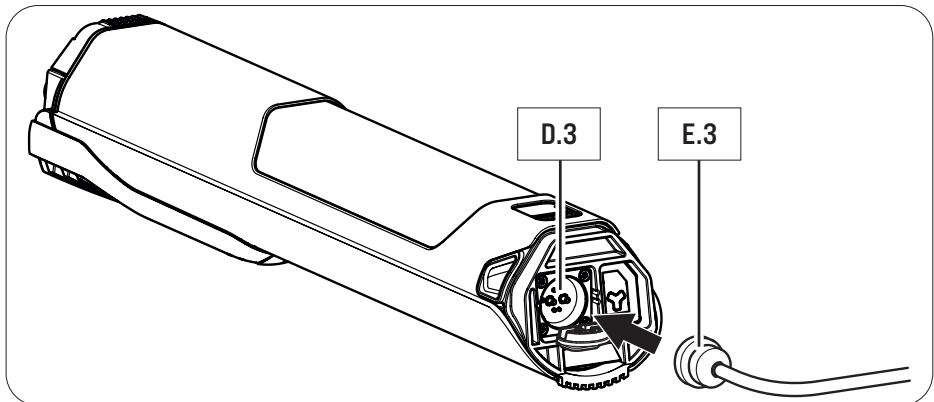
30.2 Connecting the CHARGER to the BATTERY

WARNING

Risk of electric shock!

If the mains connection is incorrect, you and others may be exposed to the risk of electric shock.

- ▶ First connect the CHARGER to the BATTERY before you connect the CHARGER to the power supply.
 - ▶ Only connect the CHARGER to an easily accessible and properly installed earth contact outlet.
 - ▶ Make sure that the mains voltage at the mains connection corresponds to the information on the CHARGER.
1. Open the cover flap to access the charging socket [D.3] of the BATTERY.
 2. Plug the appliance plug [E.3] of the CHARGER into the charging socket [D.3] of the BATTERY.



3. Insert the mains plug [E.5] into a suitable wall outlet to establish the power connection.



The charging process starts automatically once the charger has been connected to the mains.

During the charging process, the **LED indicator [E.8]** on the mains adapter lights up **red** and signals that the **BATTERY is being charged**.

When the colour of the **LED indicator** changes to **green**, this signals that the **BATTERY is fully charged**.

30.3 Disconnecting the CHARGER from the BATTERY

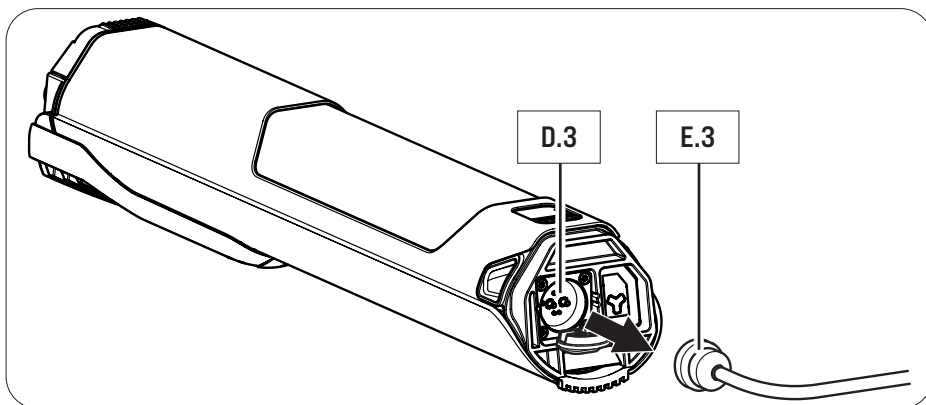
WARNING

Risk of electric shock!

If the mains connection is incorrect, you and others may be exposed to the risk of electric shock.

► First disconnect the CHARGER from the power supply before you disconnect the CHARGER from the BATTERY.

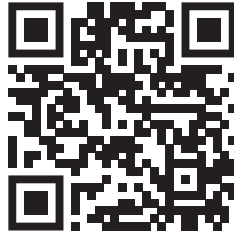
1. When charging is complete, unplug the CHARGER from the outlet [E.5] to disconnect it from the mains.
2. Disconnect the CHARGER from the BATTERY by removing the charging plug [E.3] from the charging socket [D.3].



3. Then disconnect the mains cable [E.4] from the mains adapter [E.1] and keep the two parts of the CHARGER separate from each other.



OTHER VERSIONS



CAN

CZE

DEU

ESP

FRA

ITA

NL

POL

PRT

SVN

USA

