

## 4 USAGE

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

### ⚠ DANGER

Incorrect or improper handling may result in explosion, fire or accidents and serious injury.

► You must read the detailed descriptions in the section for the relevant component:

- before you use your e-bike equipped with the evation drive system for the first time,
- if you are unsure how to use it,
- if you have problems carry out the handling steps described here.

### 4.1 Attaching and removing components

#### 4.1.1 Inserting the battery into the drivepack

→ More detailed information can be found in chapter 31.1 "Checking and switching on battery" and in chapter 31.2 "Inserting the battery into the drivepack".



On delivery, the battery may only be precharged.

► Fully charge the battery before inserting it into the drivepack for the first time.

### ⚠ DANGER

#### Risk of explosion and fire!

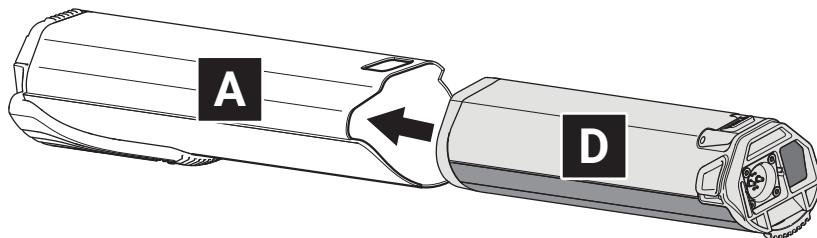
A damaged or dirty battery may explode and/or cause a fire.

- 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.

1. Check the battery for visible damage.

2. Press the on/off button on the battery once to turn on the battery.

3. Place the battery with the connecting contact first on the battery holder of the drivepack.



4. Carefully insert the battery as far as possible into the battery holder until you hear a click.

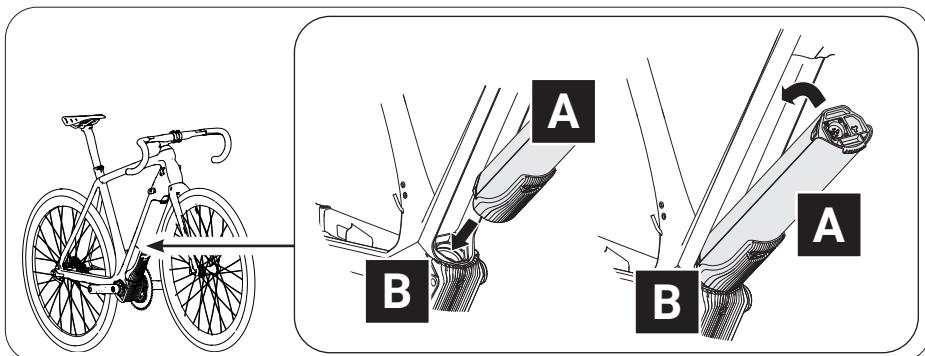
The battery is automatically locked when you have inserted it correctly. If the battery does not lock, repeat the procedure. Do not use the drive system if the battery cannot be locked. If the unlocked battery falls out of the e-bike holder while riding, this can lead to an accident/fall and damage the battery.

#### 4.1.2 Mounting the drivepack on the e-bike

→ More detailed information can be found in chapter 15.1 "Mounting the drivepack on the e-bike".

1. Place the drivepack with the interface for the bottom bracket in front of the corresponding interface on the bottom bracket.
2. Swing the upper end of the drivepack into the down tube of the e-bike.

The drivepack is automatically locked in place when the two interfaces on the drivepack and the bottom bracket are correctly engaged and the drivepack is fully swiveled into the intended position on the down tube.



### 3. Check the drivepack makes a tight fit.

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. If the unlocked drive unit falls out of the e-bike holder while riding, this can lead to an accident/fall and damage the drive unit or the battery.

#### 4.1.3 Remove drivepack from e-bike

→ More detailed information can be found in chapter 15.2 "Remove drivepack from e-bike".

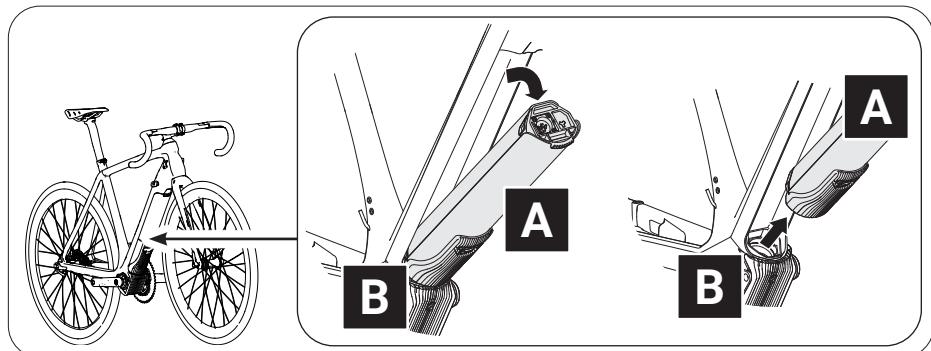
#### ⚠ WARNING

##### Risk of burns!

The radiator in the drivepack can become very hot during operation so that you can burn yourself on it.

► Let the drivepack to cool down completely before touching the drivepack.

1. Secure the drivepack with one hand.
2. Press the push button or move the locking lever upwards as far as possible to release the drivepack from the lock.
3. Press and hold the push button and carefully lower the drivepack. The locking lever automatically remains in the open position.
4. 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 31.3 "Removing the battery from the drivepack".

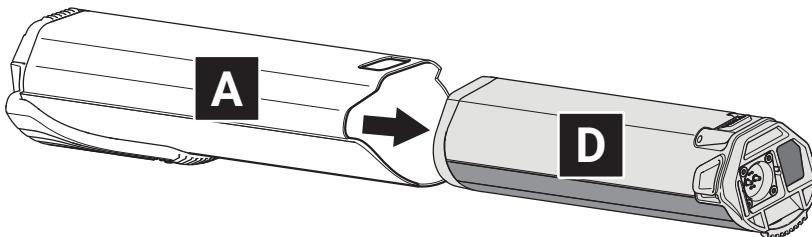
### ⚠ CAUTION

#### 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. Secure the battery with one hand.
2. Press the push button as far as it will go to release the battery from the lock.
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



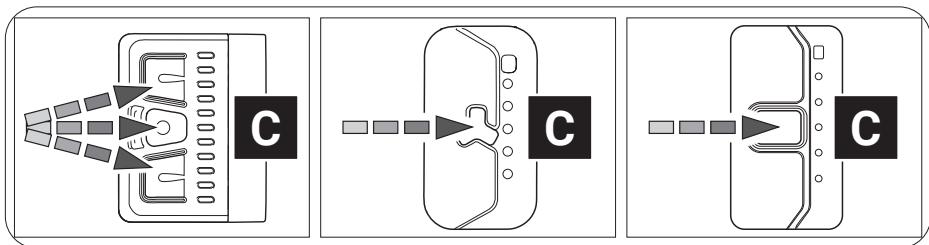
Appearance and handling of the model-dependent remotes differ to some extent.

→ More detailed information can be found in chapter 19 "Model variants of the remote".

- ▶ Pay attention to that information which applies precisely to your remote from the whole list here. If none of the model variants is explicitly mentioned, the descriptions refer to all remotes.

### 4.2.1 Switch on drive system

- More detailed information can be found in chapter 23.1 "Switching the drive system on and off" or in chapter 27.1 "Switching the drive system on and off".
- Turn on the drive system using the Remote b by pressing one of the three buttons.
- or
- Turn on the drive system using the Remote fX or Remote bX by pressing the center button.



### 4.2.2 Switch off drive system

- More detailed information can be found in chapter 23.1 "Switching the drive system on and off" or in chapter 27.1 "Switching the drive system on and off" as well as in chapter 4.4 "Switching on the drive system after standstill" as .

You can switch off the drive system in various ways:

- Press and hold the center button on the remote for 2 seconds (Remote b) or 1 second (Remote fX and Remote bX) to turn off the drive system.
- or
- Remove the drivepack from your e-bike.
- or
- Turn off the battery by pressing the on/off button.



In addition to the drive system, Fazua also recommends switching off the battery if you park your e-bike for a longer period of time (e.g. if you take a break during a trip).

- More detailed information can be found in chapter 31.4 "Switching off the battery"

## 4.3 Instructions for riding with the drive system

Observe the following instructions for riding your e-bike equipped with the evation drive system.

### Gear change:

The gearshift of your e-bike can be operated in the same way as that of a conventional bicycle. Selecting a suitable gear increases the speed, power and range of your e-bike while maintaining pedal frequency.

Irrespective of the type of gearshift mounted, the following applies:

- ▶ Stop pedaling when you change gears. This relieves the load on the rear derailleur and the drive of your e-bike.

### Range/trip planning:

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

These factors include, but are not limited to:

- the set support level;
- the (riding) speed with which you move;
- your gear changing;
- the type of tire and the tire pressure set;
- the chosen route and weather conditions;
- the weight of driver and e-bike (total weight);
- the condition and age of the battery

The following therefore applies as a matter of principle:

- ▶ Familiarize yourself with your e-bike step by step and away from roads and heavy traffic.
- ▶ Test the maximum range of your e-bike under various external conditions before planning longer trips. An exact statement about the range of your system is neither possible before nor 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 - especially for the battery, as it can be damaged by extreme temperatures.

## DANGER

If you do not handle the battery properly, the battery may explode!

## 4.4 Switching on the drive system after standstill



Your e-bike will come to a standstill as soon as it is switched off.

- After 15 minutes of standstill, the drive system (not the battery!) switches off automatically.

The drive system can be turned on again by briefly pressing the center button on the control panel.

- The battery switches off after 8 hours of standstill (provided no button/touch sensor is pressed during this time).
- After 3 hours of standstill (provided that the charge level of the battery falls below 30 % and no button/touch sensor is pressed during this time), the battery switches off.

► Switch on the Battery 250 X by pressing the on/off button to be able to use the drive system again after the battery has automatically switched off due to a standstill.

## 4.5 Set support level

→ More detailed information can be found in chapter 23.2 "Setting the pedal support" or in chapter 27.2 "Setting the pedal support" as well as in chapter 23.3 "Levels of support" or in chapter 27.3 "Levels of support".

With the help of the remote you can set the desired support level at any time - even while riding.

- ▶ Press the upper button/touch sensor on the remote to switch to the next higher support level.
- ▶ Press the lower button/touch sensor on the remote to switch to the next lower support level.

OVERVIEW TABLE "SUPPORT LEVELS"		
Support level	Color	max. motor power
none	white	0 W
Breeze	green	400 W*
River	blue	400 W*
Rocket	pink	400 W*

\* The values given here are the "theoretical" maximum motor power.

The "actual" maximum motor power is configured by the manufacturer of your e-bike, depending on the model.

## 4.6 Using "Pushing support" mode



If your e-bike is equipped with a Remote b, it has the "Pushing support" mode, which you can use when pushing the e-bike.

→ More detailed information can be found in chapter 23.4 "Pushing support" mode".

### ⚠ WARNING

#### Danger from accidental starting!

Starting the drive system in unsuitable situations can result in accidents and serious injury.

- ▶ Use the "Pushing support" function only when pushing the e-bike.
- ▶ When the pushing support is activated, hold the e-bike securely with both hands and make sure that the wheels are in contact with the ground.

### ⚠ CAUTION

#### Risk of injury!

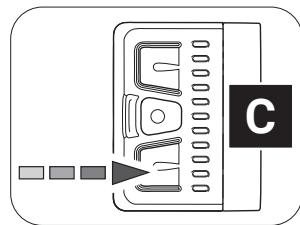
If you push the e-bike with the pushing support activated, the pedals rotate slowly and you may be injured.

- ▶ Be careful not to injure yourself on the rotating pedals when using the "Pushing support" function.

1. If necessary, change to the support level "none".
2. Press and hold the lower button on the Remote b to activate the pushing support mode.

After 2 seconds the pushing support is activated and sets the e-bike in motion as long as you keep the button pressed.

3. Guide the e-bike with both hands and, if necessary, brake the speed of the e-bike to your own walking speed by holding or restraining the e-bike while pushing.
4. Switch off the pushing support by releasing the lower button.



## 4.7 Charging the battery

### ⚠ DANGER

#### Risk of electric shock and fire!

If you use the charger improperly, you and others may be exposed to the risk of electric shock or you could cause a fire.

- ▶ Read and follow the handling-specific warnings in the section for the charger and the battery.

### ⚠ WARNING

#### Risk of burns!

The radiator in the drivepack can become very hot during operation so that you can burn yourself on it.

- ▶ Let the drivepack to cool down completely before touching the drivepack.



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 power cord to the power supply.

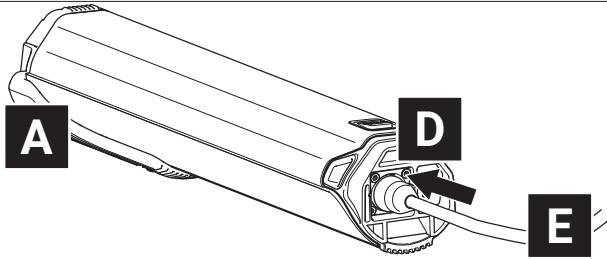
→ More detailed information can be found in chapter 35.1 "Prepare charger".

2. Remove the drivepack from the e-bike.

→ More detailed information can be found in chapter 15.2 "Remove drivepack from e-bike".

3. Insert the charging plug into the charging socket on the battery.

→ More detailed information can be found in chapter 35.2 "Connector charger to the battery".



4. Plug the power plug into a suitable wall outlet to establish the power connection.

The charging process starts automatically after connection to the mains.

→ More detailed information can be found in chapter 31.6 "Charging process" and in chapter 31.7 "Battery charge level indicator".

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 pulling the charger plug out of the charging socket on the battery.

→ More detailed information can be found in chapter 35.3 "Unplug charger from battery".

## 5 STORAGE AND TRANSPORT

### ⚠ WARNING

#### Danger from accidental starting!

Starting the drive system in unsuitable situations can result in accidents and serious injury.

- ▶ Always remove the drivepack with the battery before transporting your e-bike or stowing/storing it for a longer period of time.
- ▶ When transporting and storing your e-bike or the components of the drive system, observe the specified temperature ranges for the components.
- ▶ Always transport and store the battery separately from the e-bike.

Batteries are subject to the dangerous goods regulations. Undamaged batteries may be transported by private individuals in road traffic. Commercial transport requires compliance with the rules on the packaging, labeling and transport of dangerous goods. Open contacts must be covered and the battery securely packed. When sending, the parcel service must be informed of the presence of dangerous goods in the packaging.

- ▶ Please note the following information on the charge level of the battery during prolonged non-use 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 charge status of the battery after 6 months of non-use: If the test shows that the charge level is 20 % or less, recharge the battery to at least 60 % charge level.

Consider the following storage time-dependent temperature ranges for the battery (charge level 60 %):

- < 1 month storage time: 5 to 140 °F (-15 to 60 °C)
- 3 months storage time: 5 to 113 °F (-15 to 45 °C)
- 1 year storage time: 5 to 77 °F (-15 to 25 °C)

- ▶ If you have further questions, please contact a Fazua Servicepartner or visit the official Fazua service platform ([www.fazua.com/help](http://www.fazua.com/help)).

## 6 OPTIONAL ACCESSORIES

### Downtube Cover

#### NOTICE

##### Risk of damage!

If you use the e-bike or bicycle without the drivepack inserted and the opening for the drivepack on the down tube of the frame remains unlocked, components of the drive system may be damaged.

- When using the e-bike as a conventional bicycle without a drivepack, close the opening for the drivepack on the down tube of the frame using the optional Downtube Cover.

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

You can use the optional Downtube Cover to cover the free opening in the down tube after removing the drivepack. You can use the remaining internal space as storage space, e.g. for repair kit, tools or food.

- If you have any further questions about the optional evation Downtube Cover, please contact a Fazua Servicepartner or visit the official Fazua service platform ([www.fazua.com/help](http://www.fazua.com/help)).

#### Fazua Rider App by CoModule:

Depending on the model, your remote is equipped with a Bluetooth® function. This enables you to connect a mobile device (e.g. your smartphone) to the remote and to display and evaluate certain ride data etc. with the help of the Fazua Rider App.

- If you have any questions about the Fazua Rider App, please contact a Fazua Servicepartner or visit the official Fazua service platform ([www.fazua.com/help](http://www.fazua.com/help)).

All remotes with the serial number 1805113000 or higher are Bluetooth® compatible ex works.

- Contact a Fazua Servicepartner if the control you have installed is not Bluetooth®-enabled.

## 7 CLEANING AND MAINTENANCE

### CAUTION

#### Risk of injury!

If the drive system is set in motion while you are handling it, you may jam your fingers or otherwise injure yourself.

- Remove the drivepack from the e-bike when cleaning the e-bike or the drive system components.

### NOTICE

#### Risk of damage!

Improper cleaning may damage the drive system or individual components.

- Never immerse the drive system components in water or other liquids for cleaning.
- Do not use aggressive cleaning agents for cleaning.
- Do not use sharp, angular or metallic cleaning objects when cleaning.
- Never clean the drive system components with a hard water jet or a high-pressure cleaner.
- Always keep all components of the e-bike and the drive system in a clean condition.
- Clean the components gently with a cloth or soft brush.
- Wipe all surfaces and components dry after cleaning.
- Pay particular attention to the contacts and interfaces between battery and drivepack and between drivepack and bottom bracket: The interfaces must not be soiled or contaminated and must be completely dried before inserting the components to avoid damage.
- Clean the radiator of the drivepack regularly.  
Do not clean the radiator only when it is visible or heavily soiled!

- ▶ Keep the drainage opening on the colling body clean or clear to ensure that splash water and/or condensate can drain easily from the drivepack.  
The drainage opening is located on the radiator directly above the USB port or the corresponding cover (see illustration on the right).
- ▶ Lubricate the locker for locking the drivepack to the frame approximately every 2-3 months or at the latest as soon as it is no longer convenient to operate.
- ▶ For more information on cleaning and maintaining your drive system, contact a Fazua Servicepartner or visit the Fazua service platform ([www.fazua.com/help](http://www.fazua.com/help)).

## 8 TROUBLESHOOTING

1. If your e-bike or drive system does not function as desired, first check whether the fault can be rectified using the following overview table "Troubleshooting".
2. If necessary, contact a Fazua Servicepartner or visit the Fazua service platform ([www.fazua.com/help](http://www.fazua.com/help)), if:
  - the error is not listed in the overview table,
  - the error is listed in the overview table, but it cannot be corrected in the way described here or you are unsure.

OVERVIEW TABLE "TROUBLESHOOTING"	
Problem	possible Reason / Solution
The engine feels weaker than usual.	The drive system is brand new. ► Wait until the drive system is "run in". The drive system needs a few miles to develop its full power.
	It is very hot and the heat management of the battery and/or drivepack limits the performance.
	It is very cold, so the lithium-ion battery does not provide the usual performance.
The drivepack cannot be clicked out of the down tube.	The locker is defective. Dirt could block the locker. Maybe you rode without a drivepack in bad weather conditions. ► Contact a Fazua Servicepartner.
The drivepack makes buzzing noises.	The polygon sleeve moves. ► Contact a Fazua Servicepartner.
The drivepack makes clicking noises.	The polygon coupling was loaded on one side. ► Push the polygon coupling back into its original position to mobilize it again.
The upper LED on the remote lights up/ flashes red.	There is a connection error between drivepack and bottom bracket. Contamination at the interface may prevent the connection. ► Clean the interface between the bottom bracket and the drivepack.

OVERVIEW TABLE "TROUBLESHOOTING"	
Problem	possible Reason / Solution
The upper LED on the remote lights up/ flashes yellow.	<p>There may be a bad connection between the speed sensor and the bottom bracket.</p> <ul style="list-style-type: none"> <li>▶ Check the position of the spoke magnet. If you cannot find a fault, contact a Fazua Servicepartner.</li> </ul>
The white LEDs on the remote flash.	<p>Software update</p> <ul style="list-style-type: none"> <li>▶ After a new firmware update, the remote is updated automatically. In this case, please wait and do not switch off the remote until the LEDs stop flashing.</li> </ul>
The remote cannot be switched on.	<p>The battery is flat or has switched off due to a longer rest period (standstill).</p> <ul style="list-style-type: none"> <li>▶ Try turning on the battery using the on/off button.</li> <li>▶ Charge the battery if necessary.</li> </ul>
	<p>The interface between the battery and the drivepack may be dirty.</p> <ul style="list-style-type: none"> <li>▶ Clean the interface between the battery and the drivepack.</li> </ul>
The battery cannot be inserted into the drivepack. It does not lock into the battery compartment.	<p>The interface between the battery and the drivepack may be dirty.</p> <ul style="list-style-type: none"> <li>▶ Clean the interface between the battery and the drivepack.</li> </ul>
The pedal support suddenly fails during the ride	<p>BMS protection function</p> <ul style="list-style-type: none"> <li>▶ Turn off the battery by pressing the on/off button for 3 seconds and then turn it on again.</li> </ul>

## 9 DISPOSAL INSTRUCTIONS

According to the EU Directives for waste electrical and electronic equipment (Directive 2012/19/EU) and spent batteries (Directive 2006/66/EC), the relevant components must be collected separately and disposed of in an environmentally sound manner.

- ▶ Before disposing of your e-bike, remove all batteries and all components and controls that contain batteries.

### 9.1 Disposal of your e-bike

After you have removed all batteries, the e-bike is considered an old electrical appliance and must be recycled.

- ▶ Find out from your city or municipal administration (municipality, district) about free collection points for old electrical appliances and/or collection points, via which the components or the e-bike can be recycled.
- ▶ When disposing of the product, observe the requirements of the United States Environmental Protection Agency ([www.epa.gov](http://www.epa.gov)).
- ▶ If necessary, make sure to delete any personal data stored on the device before you return the electrical or electronic equipment to the collection point. This task is your responsibility.

### 9.2 Battery disposal

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

- ▶ Dispose of the battery of the drive system and any other batteries installed in the e-bike at a recycling center or a collection point in your town or municipality.
- ▶ If required, visit the website of call2recycle: [www.call2recycle.org](http://www.call2recycle.org). You will find extensive content here on the subject of "Recycling batteries", as well as a search function for collection points in your area.

## 10 CONSUMER WARRANTY

FAZUA GmbH, warrants to the end Customer (hereinafter referred to as the "Customer"), in accordance with the provisions set forth below, that the drive system integrated in the bicycle purchased by the Customer, including the components of the drive system, (hereinafter collectively referred to as the "Product") will remain free of construction, material and manufacturing defects and be fully functional for a period of two years following delivery to you (warranty period).

However, in the event that a defect should occur, or if the drive system does not remain fully functional, the FAZUA GmbH shall, at its own discretion, remedy the defect(s) at its own expense by either performing repairs or providing new or refurbished parts.

However, claims under this warranty shall only be deemed valid if:

- The Product does not exhibit any damage or signs of wear caused by a form of use deviating from normal intended use or the specifications provided by FAZUA GmbH in the user manual.
- The Product does not exhibit any signs indicating that repairs or other procedures were performed by anyone not authorized by FAZUA GmbH.
- The damage is not due to improper assembly or follow-up maintenance or lack of skill, competence or experience of the user or assembler.
- The Product was assembled or serviced by an authorized Fazua dealer.
- The Product has not been modified, neglected, used in competition, or for commercial purposes such as rental, courier, police, security, etc., misused or abused, involved in accidents or anything other than normal use.
- There was no installation of components, parts, or accessories not originally intended for use with or compatible with Fazua Products.
- The serial number has not been removed or rendered illegible.
- Notice of the defect has been given within fourteen (14) days of the discovery of the defect.

Claims under this warranty require that,

- prior to returning the Product, the Customer contact either the dealer from whom the Customer purchased the bicycle or FAZUA GmbH, and that the Customer gives the dealer or FAZUA GmbH an opportunity to perform a fault analysis over the telephone within a period of eight days.
- the Product is delivered or returned to FAZUA GmbH.
- the original invoice containing the date of purchase is presented.
- the shipping is carried out by a carrier designated by FAZUA GmbH. The Customer may use a different carrier at his own expense.

In the event of resale, this warranty shall also apply within the aforementioned scope, and under the conditions stated above (including the requirement to provide proof of purchase) to any subsequent future owner of the Product. Each new owner assumes the warranty based on the time remaining from the original date of purchase.

In consideration of the above warranties by FAZUA GmbH, the buyer agrees to and accepts the following conditions:

- This warranty is subject to the law of the US, provided that mandatory consumer protection regulations in the country of the respective Customer are not in conflict therewith.
- That this warranty is in lieu of all other warranties, expressed or implied.
- That ALL WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED AND/OR WAIVED.
- That this remedy is in lieu of all other remedies or claims for damages, consequential or otherwise, which the buyer may have against FAZUA GmbH.
- FAZUA GmbH shall have no liability for any loss or injury caused, in whole or in part, by its actions, omissions, or negligence, or for contingencies beyond its control.

## 11 SERVICE



**Authorized specialists** for repair and maintenance work can be found with the official Fazua Servicepartners. Contact the Fazua service team or visit the Fazua service platform to find Fazua Servicepartners for your region.



If possible, prepare the error image and all information on the relevant component before contacting a Fazua Servicepartner or the Fazua service team.

- ▶ If service is required, contact a Fazua Servicepartner or the Fazua service team.
- ▶ Visit the Fazua service platform: [www.fazua.com/help](http://www.fazua.com/help).