

Mubea
U·MOBILITY



READ CAREFULLY BEFORE
USE

USER MANUAL

MUBEA U-MOBILITY CARGO

EN | ORIGINAL USER MANUAL | VERSION 1.0 | 2022-10-28

Introduction

Thank you for purchasing the U-Mobility Cargo Bike. This user manual contains important information you need to ride your bike safely and to enjoy it to the full. Before using the bike for the first time, please read this manual carefully and pay particular attention to the safety instructions.

The U-Mobility Cargo Bike is a pedelec (pedal electric cycle) for transporting loads that supports the rider when pedalling with electric powered motor assist. Pedalling is supported up to a speed of 25 km/h. At higher speeds, the electric motor switches off. You can ride faster than 25 km/h under your own power with no assistance from the electric motor.

The bicycle is referred to in the following as a pedelec and is legally equivalent to a bicycle in Germany. It does not need to be registered and no insurance certificate is required. The rider does not need a driving licence. We recommend that you always wear a suitable helmet for protection.

As the pedelec is a multi-track vehicle, the following applies in contrast to a single-track vehicle:

Mandatory cycle paths do not have to be used if they are deemed to be “unacceptable”. Reasons may include, for example, pathways that are too narrow or have poor surface conditions.

Illustrations in this manual are provided for basic understanding and may differ from the actual pedelec version.

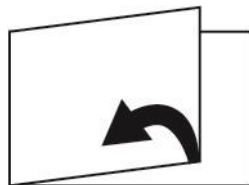


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1 About this manual

1.1 Markups

For easy understanding, different information is categorised and depicted in this manual as follows:

- 1. Instruction for action
- ✓ Result of the action
- 1 Item number in legends
- 1 Item number in figures
- Bulleted lists
 - Subordinate list
-  Reference to applicable documents

Emphasis (in coloured and bold font)

NOTE

Indicates useful tips and recommendations for efficient and trouble-free operation.

Environmental protection

Indicates possible hazards for the environment.

ABOUT THIS MANUAL

1.2 Explanation of warnings

The warnings are introduced by keywords that express the extent of the hazard.

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in property damage.

1.2.1 Section-specific warnings

Section-specific warnings refer to an entire chapter or section within this manual. For example:

⚠ WARNING

Nature and source of the hazard.

Possible consequences if the hazard is not observed.

- Measures to avoid the hazard.
-

1.2.2 Embedded warnings

Embedded warnings are situational and relate to a specific action. These warnings are embedded in the instructions for action so as not to interrupt the reading flow. For example:

⚠ WARNING – Type of hazard. Measures to avoid the hazard. Handling.

2 Safety

This chapter highlights hazards and gives an overview of important safety aspects.

Following these instructions is for your safety.

2.1 Intended use

The U-Mobility Cargo Bike (pedelec) is a cargo bike with an electric motor designed for transporting goods and products. The limit values specified in the “Technical data” chapter apply to the load.

The pedelec may only be used according to the information in this manual, in particular in compliance with the limits of use specified in the technical data.

The pedelec is classified as a category 1 bicycle according to EN 17406 and is designed for use on public roads and paved pathways. In Germany, the requirements of the Road Traffic Regulations (StVO) and Road Traffic Licensing Regulations (StVZO) apply.

Intended use also includes compliance with the maintenance and care instructions as well as applicable national laws.

Any use beyond the intended use or any other use is considered misuse.

2.1.1 Foreseeable misuse

Misuse can lead to dangerous situations for persons and cause damage to property.

The following points describe misuse:

- Using by persons who have not received instruction
- Using outside of the limits of use
- Ignoring the Road Traffic Regulations (StVO) and national traffic regulations
- Carrying additional persons or animals
- Riding a damaged pedelec (not in perfect technical condition)
- Overloading or exceeding the maximum permissible overall weight
- Using without the platform (platform, cargo box)
- Riding with an unsecured load and/or uneven load distribution
- Riding on unsuitable surfaces (e.g. icy roads, loose terrain, off-road)
- Riding with a protruding load
- Using a trailer
- Riding on steps
- Riding over high kerbs (more than 14 cm)
- Riding over kerbs at a speed of more than 6 km/h

SAFETY

- Riding in extreme weather conditions (e.g. thick fog, heavy rain, storms)
- Riding through deep water (deeper than 15 cm)
- Obscuring the lights
- Leaving the pedelec without applying the parking brake
- Using accessories and spare parts that are not approved by the manufacturer
- Carrying out repairs and maintenance that are not specified in the user manual and for which you are not qualified
- Technical modifications and/or conversions

NOTE

Any claims for damages due to misuse are excluded.

2.2 Basic safety information

Observe the basic safety information and warnings in this manual to reduce health hazards and to avoid dangerous situations.

Children under the age of 14 should not use the pedelec. Children can feel overwhelmed when using the pedelec.

Familiarise yourself with the pedelec's operation and riding characteristics. Practise starting off, braking and going round corners away from traffic.

Adapt your riding style to the road and weather conditions. There is a risk of an accident. Take into consideration the longer braking distances needed on wet or icy roads. Think ahead, anticipating the actions of other road users and ride at an appropriate speed. Act in such a way that does not endanger other road users. Avoid sudden jerky movements of the handlebars. Only ride the pedelec with adequate lights.

Comply with national legal requirements. You may ride on public roads and pathways only if the pedelec is roadworthy and fitted with the equipment stipulated in the respective country of use.

Wear a bike helmet. There is a risk of a head injury. For your own safety, never ride without a helmet, even if there is no legal obligation to wear one. Ensure it is properly fitted.

Keep your hands away from moving parts. There is a risk of crushing due to rotating, moving or movable parts. Be alert at all times and ensure proper handling.

Only use the pedelec when it is in perfect working order. There is a risk of an accident. Check the lights and the brakes work and that moving parts can move freely before every ride. Check all parts and replace any that are worn or damaged.

Only use the pedelec with an appropriate platform. When riding without the platform, there is a risk of injury, especially to other road users, due to exposed moving parts.

Only use original spare parts. There is a risk of an accident. Replacement parts from other manufacturers can impair the proper function of the pedelec.

Adhere to the maximum overall weight permitted. There is a risk of an accident. Overloading can lead to damage or even breakage of parts that are relevant for safety.

Secure the goods to be transported. There is a risk of an accident. Make sure the load is distributed evenly. Secure the goods to be transported so that they cannot slip or fall down; see section 6.11, page 39.

People must not be transported on the platform area or in the load compartment.

Always park the pedelec safely. There is a risk of an accident. Make sure that the pedelec cannot roll away accidentally. Always apply the parking brake before leaving the pedelec. Protect the pedelec from unauthorised use as much as possible and always lock the pedelec before leaving it.

Certain work on the pedelec may only be carried out by persons who have the necessary knowledge and training. There is a risk of an accident and property damage. Incorrect assembly can have serious consequences. We recommend that all assembly work is carried out by a dealer. Also follow the applicable documents (component guides from other manufacturers).

3 **Functional description**

The U-Mobility Cargo Bike is a multi-track cargo bike equipped with electric powered motor assist. Motor assist supports pedalling up to a speed of 25 km/h. This means that the bicycle belongs to the pedelec category and will be referred to as such in this manual.

The electric motor and all electronic components of the pedelec are powered by a lithium-ion battery. The amount of motor power depends on the assist level selected (Assist Mode).

The electric motor switches off automatically as soon as you stop pedalling or reach a speed of over 25 km/h. When assist mode is switched off, when the battery is flat or if you want to ride faster than 25 km/h, you must use your own pedalling power to move the pedelec.

You also have the option of using start and push assist. By pressing a button on the control element, the pedelec is powered without the need to pedal. The starting aid and push assist works in forwards and in reverse. Due to the high dead weight of the pedelec, this additional function can be very useful and, as the name suggests, provides you with support when starting off, pushing or manoeuvring the pedelec.

4 Overview



Fig. 1: Designation of vehicle parts

Vehicle parts

- | | | | |
|----|------------------------------|----|--|
| 1 | Windscreen | 17 | Mirrors |
| 2 | Display | 18 | Cargo box (load compartment) |
| 3 | Indicator switch | 19 | Rear light with integrated brake light |
| 4 | Bell | 20 | Rear indicator |
| 5 | Brake lever for rear wheels | 21 | Rear wheel |
| 6 | Brake lever for front wheels | | |
| 7 | Parking brake | | |
| 8 | Front light | | |
| 9 | Battery | | |
| 10 | Front indicator | | |
| 11 | Front wheel | | |
| 12 | Electric motor | | |
| 13 | Pedals | | |
| 14 | Saddle height adjustment | | |
| 15 | Saddle | | |
| 16 | Control element | | |

Scope of supply

- Pedelec (1x)
- Lithium-ion battery (1x)
 - Spare battery (optional)
- Battery charger (1x)
- User manual (1x)
- Key set (2x) for battery lock

The actual equipment varies depending on the design variant.

4.1 Variants

The pedelec is available in the following versions:

CARGO
BASE



CARGO
PICK-UP



CARGO
PACK



CARGO
WORK



Fig. 2: Variants

4.2 Controls on the handlebar and steering column

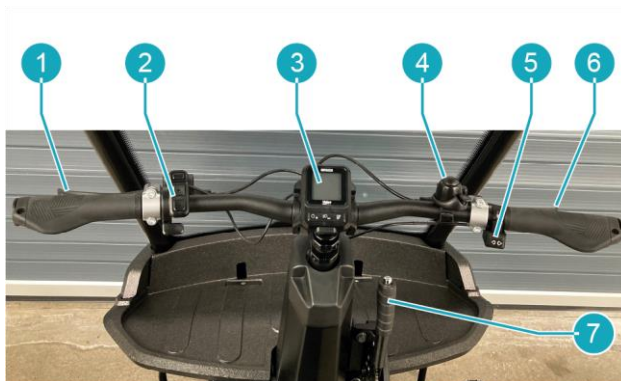


Fig. 3: Handlebars as seen from the rider

The pedelec is operated mainly via the controls on the handlebars.

- 1 Brake lever for braking the front wheels
- 2 Control element for operating the drive system and gear shifter
- 3 Display with multifunction display
- 4 Bell
- 5 Indicator switch
- 6 Brake lever for braking the rear wheels
- 7 Parking brake

OVERVIEW

4.3 Display

4.3.1 Elements

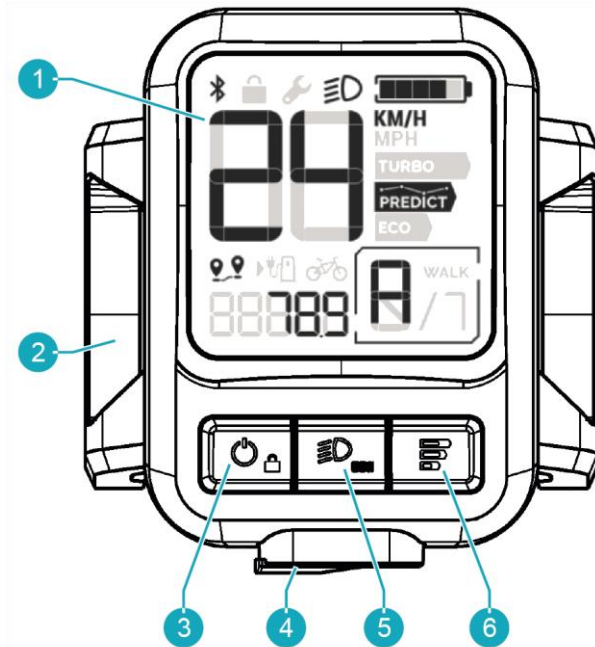


Fig. 4: Display elements

The display shows you all the relevant information.

- 1 Multifunction display
- 2 Display holder
- 3 ON/OFF
- 4 USB-C port
 - for charging a mobile phone with max. 5 V and 2 A
 - for connecting the diagnostic device
- 5 Lights/changing the display for range and distance
 - switch lights on/off is deactivated; constant lighting as soon as the pedelec is switched on.
 - long button press: switch between range, total distance and trip distance
 - pressing buttons 5 and 6 simultaneously for 2 sec resets the trip counter to “0”
- 6 Selection of the assist level

4.3.2 Display

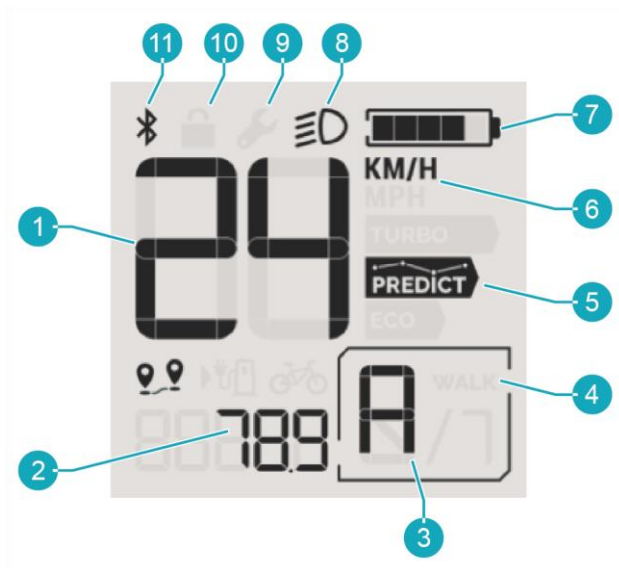


Fig. 5: Display

The display shows you all the relevant information.

- 1 Current speed
- 2 Displays the total distance ridden, the trip distance or the range
- 3 Gear position
- 4 Starting aid and push assist
- 5 Assist level
- 6 Unit of speed
- 7 Battery charge level
- 8 Status of lights
- 9 Maintenance mode
- 10 Lock mode
- 11 Bluetooth status

4.4 Control element

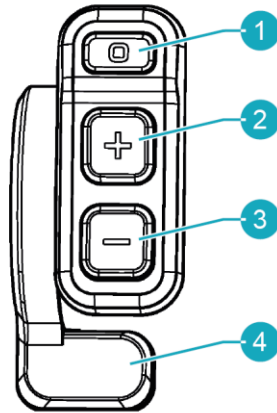


Fig. 6: Control element

The control element is used to operate the drive system and the gear shifter.

- 1 Selection of gear mode (Auto – Manual)
long button press: Reverse gear
- 2 Shift gear up *
– Gear up
- 3 Shift gear down *
– Gear down
- 4 Increase throttle for thrust (staring aid and push assist)

* Only in "Manual" gear mode

5 Technical data

| General data | |
|---|--|
| Manufacturer | Muhr und Bender KG |
| Vehicle category | Pedelec / EPAC (Electrically Power Assisted Cycle) |
| Electric motor | Valeo Cyclee Go7 |
| Continuous rated power | 250 W ¹⁾ |
| Gearshift | 7-speed automatic transmission |
| Max. electrically supported speed | 25 km/h ¹⁾ |
| Electrical starting aid and push assist | Yes – up to 6 km/h |
| Electric reverse maneuvering aid | Yes |
| Permitted total weight | 500 kg |

¹⁾Subject to national legislation

The European Union has a max. continuous rated power limit of 250 W. The continuous rated power is the power that a motor may deliver when it reaches its thermal equilibrium, as defined in DIN EN 15194:2018-11. The maximum – temporary – peak output of pedelecs may exceed this.

TECHNICAL DATA

| General data | |
|--|--|
| Payload incl. special equipment | |
| – Cargo BASE | up to 250 kg (incl. special body) |
| – Cargo PACK/WORK | up to 200 kg |
| – Cargo PICK-UP | up to 230 kg |
| External dimensions (L x W x H) | |
| – incl. weather protection | 2770 x 995 ²⁾ x 1990 mm |
| – without superstructures and without weather protection | 2770 x 995 ²⁾ x 1320 mm |
| | Variant Cargo PACK with box 1.9 m ³ is longer; L = 2970 mm |
| | The following applies to the variant Cargo WORK: vehicle height is without additional tool holders on the roof of the superstructure |
| Wheel base | 1746 mm |
| Turning circle | < 5500 mm |
| Rechargeable battery slots | Replaceable battery system with 2 slots (lockable) |
| Rechargeable battery capacity (per battery) | 1.24 kWh (lithium-ion rechargeable battery, 48 V DC) |
| Range with 1 rechargeable battery | up to 50 km (35 km fully charged with 700 hm) |

²⁾ without mirror; total width with mirror: 1063 mm

| General data | |
|---------------------------|--|
| Battery charger | 230 V / 4 A |
| Display | 1.9 inch |
| Chassis | Double wishbone suspension at front- and rear-axle with damper-strut and stabilizer bars |
| Wheels | 16" performance wheels with motorbike tyres (80/80-16") |
| Tyre pressure | 2.7 to 2.9 bar (39 to 41 psi) |
| Braking system | Hydraulic disc brakes on all 4 wheels |
| Parking brake | Yes |
| Weather protection | |
| – Cargo BASE/PACK/PICK-UP | Driver's cab or half-front shield (optional) |
| – Cargo WORK | Driver's cab |
| Coating, front screen | Yes, with lotus effect (weather protection optional) |

TECHNICAL DATA

| General data | |
|--------------------------|----------------------------------|
| Mirrors | 2x |
| Bell | 1x |
| Headlights | 2x |
| Back lights | 2x with integrated braking light |
| Cat's eyes | Yes |
| Indicators | Yes |
| Saddle | Yes, height- and tilt adjustable |
| Subject to authorisation | No ³⁾ |
| Licence required | No ³⁾ |
| Use of cycle path | Yes ⁴⁾ |

³⁾ The use of cycle paths is permitted in most EU countries. The current national legislation applies.

| | |
|--------------------------------------|--|
| Body | |
| Cargo PACK | |
| Box interior volume (in litres) | Choice of 1300 l / 1600 l / 1900 l |
| Truck bed, box | L x W = pallet dimensions |
| – Box 1.3 m ³ (L x W x H) | 1300 x 800 x 1115 mm |
| – Box 1.6 m ³ (L x W x H) | 1300 x 800 x 1495 mm |
| – Box 1.9 m ³ (L x W x H) | 1500 x 800 x 1495 mm |
| Side door in the box (L x H) | Yes, optional left or right (650 x 1000 mm) |
| Easy Cargo Package Box | Optional choice: 1 x interior lighting (USB), 2 x airline lashing rails, 2 x lashing straps with airline fitting, 1 x functional hook for 95-degree lock on door, 1 x document retainer net, 1 x 270-degree magnetic lock on the rear door |
| Box lock | Yes, manual |

TECHNICAL DATA

| Body | |
|---|---|
| Cargo WORK | |
| Equipment box | Lockable with folding lid |
| Truck bed (L x W) | 1270 x 907 mm (not incl. equipment box, width between wheel houses = 804 mm) |
| Height of end wall | 330 mm |
| Height of left and right side walls | 960 mm |
| Dimensions, opening, rear loading space (H x W) | 1490 x 830 mm |
| Dimensions, equipment box (H x W x L) | 340 x 907 x 300 mm |
| Removable aluminium side walls | Yes, left and right |
| Foldable rear wall | Yes, folds back |
| Special body equipment | Assembly set with 4 tool holders, 1 grab boy holder, 2 lashing eyes on fixed aluminium end wall |
| Cargo PICK-UP | |
| Truck bed (L x W x H) | 1300 x 910 x 330 mm (width between wheel houses = 804 mm) |
| Loading space opening | Foldable rear wall |

| Limits of use | |
|--|----------------|
| Clearance height (without superstructures) for all vehicles with existing weather protection (optional) <i>CAUTION!</i> The Cargo WORK variant can be higher due to additional tool holders on the roof of the superstructure. | ≥ 2 m |
| Clearance width (without mirror) | ≥ 1 m |
| Temperature range | |
| – Using the pedelec | -15 to + 55 °C |
| – Storing the battery | -20 to + 25 °C |
| – Charging the battery | 0 to + 45 °C |

5.1 Nameplate

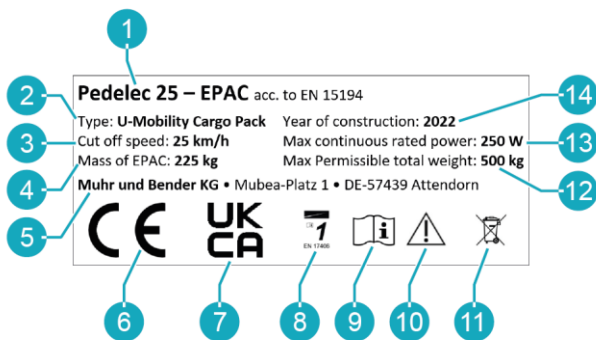


Fig. 7: Nameplate (example)

The nameplate is located at the bottom right-hand side of the steering column.

- 1 Product designation
- 2 Type U-Mobility Cargo
- 3 Cut-off speed
- 4 Mass of the pedelec in the basic version for the type
- 5 Manufacturer's address
- 6 CE marking
- 7 UKCA marking
- 8 Intended use (category)
- 9 Read user manual
- 10 General hazard sign
- 11 Do not dispose of the pedelec and its parts in household waste
- 12 Permissible total weight (including optional equipment, payload and rider)
- 13 Continuous rated power
- 14 Year of manufacture

6 Before riding

Make sure that the pedelec is adjusted to your height and is in operational condition. Familiarise yourself with the pedelec's functions, operation and riding characteristics.

Anyone using this pedelec must receive instruction from customer service or the operator of the pedelec.

6.1 Notes on cycling

Riding a pedelec requires a certain familiarisation. Take the following points into consideration:

- Vehicle length, width and turning circle
- Loading condition and weight distribution
- Traffic situation and condition of roads and pathways
- Think ahead, anticipating the actions of other road users

6.2 Checking the tyre pressure

WARNING

Tyre pressure too low

Tyre pressure that is too low affects the durability of the tyre and endangers driving safety. This applies especially to cornering. There is a risk of an accident.

- Check the tyre pressure before riding or once a day.

The recommended tyre pressure is 2.7 to 2.9 bar (39 to 41 psi) and is dependent on the load of the pedelec.

1. Unscrew the valve cap.
 2. Connect an air pump with pressure gauge to the valve.
 3. Check the air pressure.
 4. Pump with air until the pressure is between the minimum and maximum values.
 5. Screw on the valve cap.
 6. Check the tyre pressure of the other tyres in the same way.
- ✓ All tyres have sufficient air pressure.

6.3 Charging the battery

DANGER

Electrical voltage

Incorrect handling of the battery charger and the battery may result in danger to life due to electric shock and fire.

- Read and follow the separate manual for the battery charger.
- The mains voltage must match the specifications on the charger nameplate.

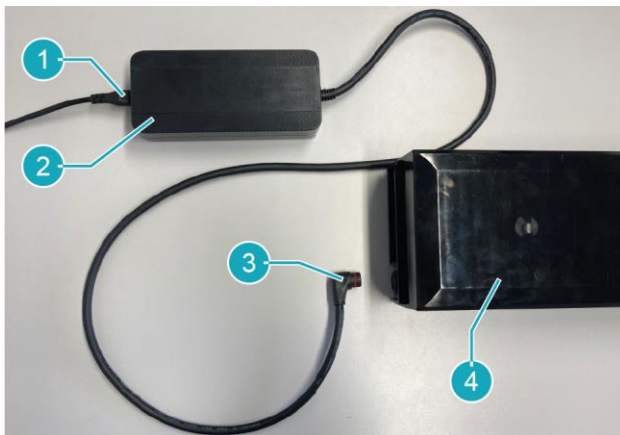


Fig. 8: Battery with charger

1. Insert the connector **1** of the mains cable into the socket on the battery charger **2**.
 2. Insert the connector **3** from the charger cable into the socket of the battery **4**.
 3. Insert the mains plug into the socket.
 - Charging begins as soon as the charger is connected to the battery and the power supply.
 - During the charging process, the LEDs of the status indicator light up. The LEDs go out when the battery fully charged.
- ✓ The battery is fully charged and ready for use.

6.4 Inserting the battery

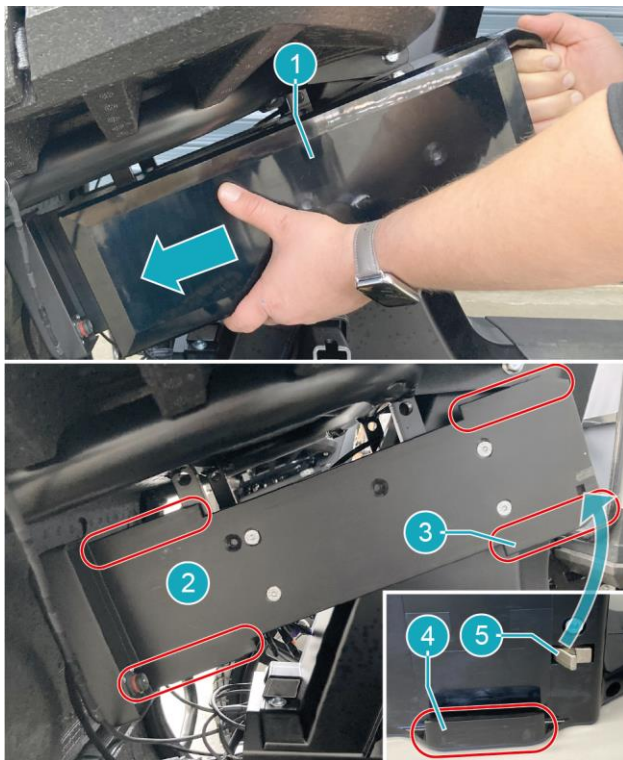


Fig. 9: Inserting the battery

The pedelec's equipment includes a lithium-ion battery that is inserted to the left of the steering column. A spare battery is supplied as an option, which can be stored in the battery holder located to the right of the steering column.

1. Hold the fully charged battery **1** with one hand by the handle and with the other hand underneath the battery.
 2. Insert the battery into the holder **2** so that the four tabs **4** on the back of the battery engage behind the metal edges **3**.
 3. Push the battery as far as it will go so that the locking hook **5** engages in the recess of the holder.
 4. Insert the second battery, if available, in the same way to the right of the steering column.
- ✓ The pedelec is powered by the battery.

NOTE – The battery is locked after being inserted and does not need to be locked separately.

6.5 Removing the battery

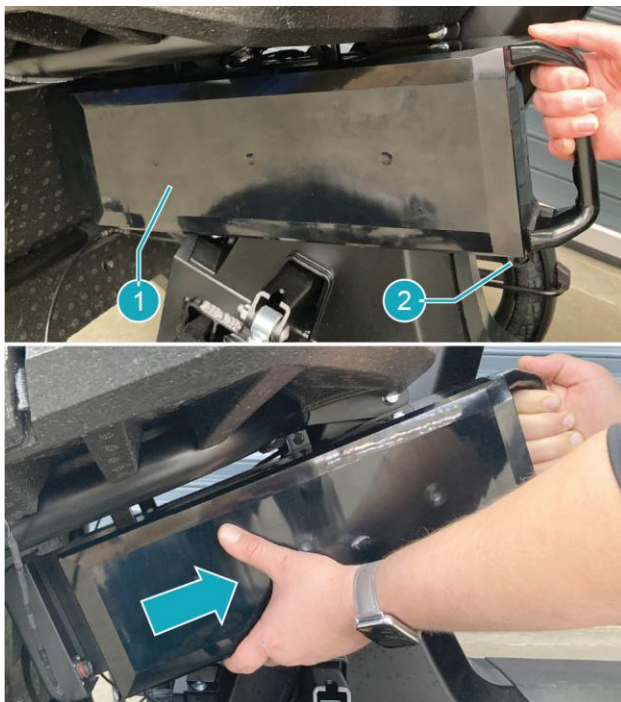


Fig. 10: Removing the battery

1. Switch off the battery.
 - Press the ON/OFF button on the display or on the battery, see section 7.1, page 41.
 2. Insert the key **2** into the battery lock.
 3. Grasp the handle of the battery with your hand.
 4. Turn the key with your other hand to unlock the battery.
 5. Pull the battery **1** out of the holder by the handle.
 6. Store the battery in a dry room.
 - For storing and charging the battery, see section 8.1, page 52.
- ✓ The battery is removed and can now be charged.

6.6 Adjusting the saddle height



Fig. 11: Adjusting the saddle height

1. Turn screw clamp handle **1** anticlockwise until you hear a click.
 2. Pull out the screw clamp handle **1**.
 3. Stand next to the pedelec and raise or lower the saddle to your hip.
 4. Allow the saddle to lock into place and turn screw clamp handle **1** clockwise hand-tight.
- Check the saddle height:
- Sit on the saddle.
 - Place your heel on the lower pedal.
 - Your leg should now be fully extended.
5. Adjust the saddle height if necessary.
- ✓ The height of the saddle is adjusted to your height.

6.7 Moving the saddle



Fig. 12: Adjusting the saddle

1. Loosen the allen screw **1**.
 2. Move the saddle forward or backward to the desired position.
 - Adjust the distance to the handlebars so that you can comfortably reach both brake levers when moving the handlebars in all directions.
 - **⚠ WARNING** – Danger of accident due to breakage of the saddle frame. Never clamp the saddle in the curve of the saddle rail; only do it in section **A**.
 3. Tighten the allen screw **1** firmly again.
 - Observe the specified torque setting; section 8.3, page 54.
 4. Adjust the setting if necessary.
- ✓ The distance from the saddle to the handlebars is adjusted to your height.

6.8 Adjusting the brake levers

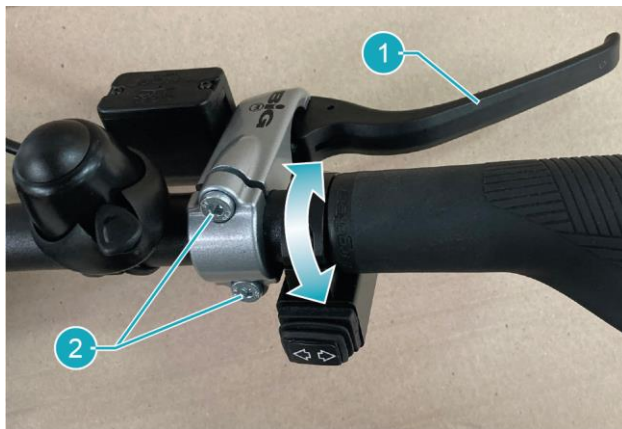


Fig. 13: Adjusting the brake levers

The angle of the brake levers can be individually adjusted to operate the brake levers safely.

1. Turn the screws **2** one to two turns anticlockwise.
 2. Adjust the angle of the brake lever **1** so that your fingers, wrist and forearm form a line.
 3. Tighten the screws **2** firmly again.
 - Observe the specified torque setting; section 8.3, page 54.
 4. Adjust the second brake lever in the same way.
- ✓ The brake levers are adjusted to your height.

6.9 Adjusting the mirrors



Fig. 14: Adjusting the mirrors

In order to cycle safely, it is important to have a good view to the rear. Only adjust the mirrors once you have adjusted the saddle position to suit your height. Adjust the mirrors while sitting on the saddle.

1. Adjust the mirrors by hand so that you have a good view of the rear area.
 - Use both hands to make the adjustment.
 - The mirrors can be tilted in all directions.
- ✓ The mirrors are adjusted to your height.

NOTE – The figure opposite is an example and shows a pedelec with weather protection. On pedelecs without weather protection, the mirrors are attached to the handles.

6.10 Testing the brakes

WARNING

Lack of braking power

Worn brake pads reduce braking performance and can cause accidents.

- Before every ride, check that the brakes are working.
 - If necessary, have the brake pads replaced and the brakes adjusted by a specialist.
-

For your safety and the safety of other road users, observe the following:

- Familiarise yourself with the brakes before using the pedelec on public roads.
- Note which brake lever operates which brake.
 - The left brake lever operates the front wheel brake.
 - The right brake lever operates the rear wheel brake.
- Always operate both brake levers to achieve optimum braking performance and the most even wear of the brake pads.
- Take into consideration the longer braking distances needed depending on the load and the surface.
- New brake pads only reach their final braking power during the bedding-in phase.
 - Accelerate to at least 20 km/h on level ground.
 - Slow down to a standstill by applying the brakes.
 - Repeat braking for the front and rear axle 30 times each.

6.11 Securing the load

Incorrect distribution of the load can affect the handling of the pedelec. In addition, the load can slip, tip over or fall down. To avoid accidents and damage, observe the following points:

- Make sure that the load is evenly distributed so as not to negatively influence the handling of the pedelec.
 - Put heavy loads at the bottom and at the front.
 - Put light loads on top and at the back.
 - Avoid overloading on one side.
 - Where possible, load the load compartment as tightly as possible so that the load rests against the load compartment walls or other goods being transported.
- Secure the load using the transport lugs and load securing aids, such as lashing straps, so that the load cannot slip or fall down.
- Adhere to the permissible value for the payload; see Technical data, page 21.
- No objects must protrude from the sides or rear of the load compartment.
- Note the clearance heights when objects, such as garden tools, protrude upwards and out of the load compartment.

6.12 Checklist

| | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Pedelec is in perfect technical condition and complete. |
| <input checked="" type="checkbox"/> | Parts such as lights, reflectors, windscreen, brakes are sufficiently clean. |
| <input checked="" type="checkbox"/> | Tyre pressure is sufficient. |
| <input checked="" type="checkbox"/> | Chain is not dirty. |
| <input checked="" type="checkbox"/> | Pedelec is adjusted to the user's height. |
| <input checked="" type="checkbox"/> | Handles are firmly fixed. |
| <input checked="" type="checkbox"/> | Battery is in perfect technical condition, not swollen or warm. |
| <input checked="" type="checkbox"/> | Battery is sufficiently charged. |
| <input checked="" type="checkbox"/> | Power supply is established; indications are visible on the display. |
| <input checked="" type="checkbox"/> | Front and rear brakes work perfectly. |
| <input checked="" type="checkbox"/> | Parking brake works. |
| <input checked="" type="checkbox"/> | Lights work: headlight and indicators (front and rear), brake lights. |
| <input checked="" type="checkbox"/> | Bell works. |
| <input checked="" type="checkbox"/> | Load is well distributed and secured. |

7 Operation

7.1 Switching on/off

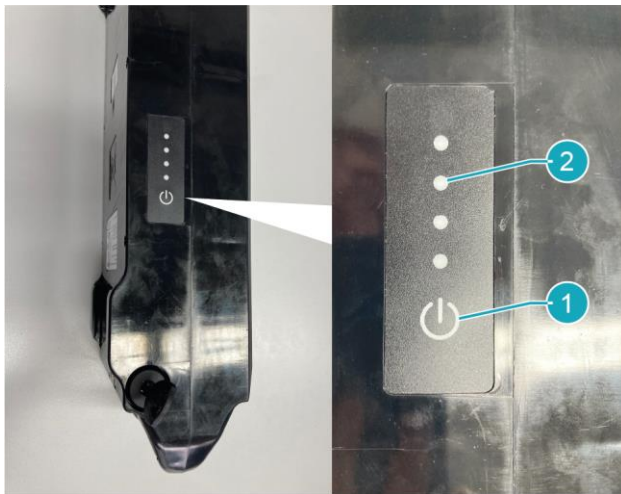


Fig. 15: Switching the battery on/off

The pedelec system can only be activated if a sufficiently charged battery has been inserted.

NOTE – The system can be switched on or off using the ON/OFF button on the battery and on the display.

Switching on at the battery

The ON/OFF button is located on the underside of the battery.

1. With the battery inserted, press the ON/OFF button **1**.
 - The LED charge status indicator **2** lights up.
- ✓ The system is switched on.

Switching off at the battery

2. Press the ON/OFF button **1**.
 - The LED charge status indicator **2** goes out.
- ✓ The system is switched off.



Fig. 16: Switching the system on/off

Switching on at the display

1. Briefly press the ON/OFF button **1**.
 - The display lights up.
- ✓ The system is switched on.

Switching off at the display

2. Press the ON/OFF button **1**.
- ✓ The pedelec is switched off.

NOTE – If the pedelec is not moved for some time or no energy is drawn from the battery, the system switches itself off.

CAUTION – Always switch off the system i.e. the battery before removing or inserting the battery.

7.2 Using Assist Mode

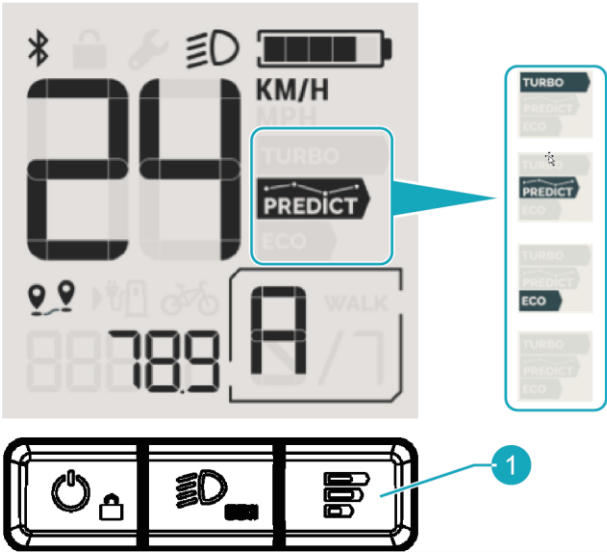


Fig. 17: Selecting the assist level

You can use the display to set how much the drive assists you when pedalling. The assist level (Assist Mode) can be changed at any time, even while riding.

1. Press button **1** to change the assist level.
- ✓ When assist mode is activated, the selected assist mode is highlighted in black on the display.

The assist modes follow one another in this order:

| Display | | | | |
|-------------|-----------|---------------------------------------|------------------------|----------------|
| Assist Mode | OFF | ECO | PREDICT | TURBO |
| | No assist | Saves battery power for long journeys | Intelligent adaptation | Maximum assist |

NOTE – In Predict mode, the system adjusts the assist level according to the rider's cadence and power. In Predict mode, the gearbox is always set to automatic and cannot be shifted manually.

7.3 Activating starting aid and push assist

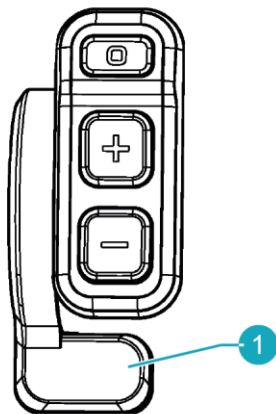


Fig. 18: Engaging the drive when starting off/pushing

Starting aid and push assist

The starting aid and push assist provides power from the electric motor when starting off or pushing the pedelec.

The pedelec is powered up to a maximum speed of 6 km/h without the need to pedal.

Push assist

1. **⚠ CAUTION** – Unintentional operation of push assist can cause leg injuries.
 - Hold down the throttle lever **1**. The drive force can be controlled by adjusting the lever position.
- ✓ The drive is switched on.
 - The drive switches off as soon as the throttle lever is released.

Starting aid (Boost mode)

Boost mode makes it easier to start off.

1. Hold down the throttle lever **1** when starting off.

7.4 Gear selection

The gears can be shifted manually by the rider or automatically by the pedelec system. The mode selected is shown at the bottom right of the display. In manual mode, you have control over the gear shifting and can therefore adjust the cycling cadence at different speeds. There are 7 gears; the selected gear is shown at the bottom right of the display as the number "N/7".

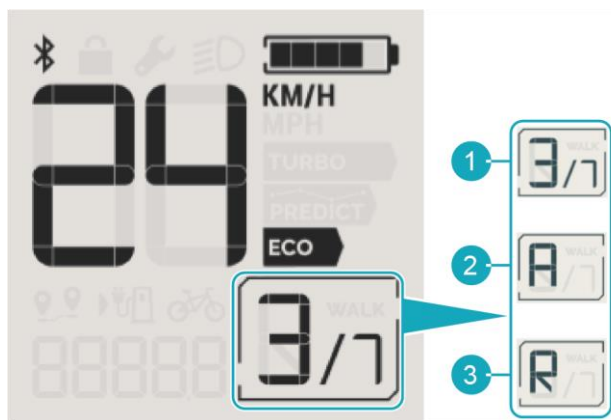


Fig. 19: Gear modes

Gear modes

- 1 Manual [3/7], in this example: 3rd gear of 7
 - Display flashes* = gear shifting in process
 - Continuous display = gear engaged
- 2 Automatic [A]
- 3 Reverse gear [R]

*** NOTE** – If the selected gear flashes on the display, it means that the system is not able to shift into that gear. Stop pedalling briefly so that the gear engages and then start pedalling again.

If this error occurs frequently, contact Mubea service or an authorised service partner.

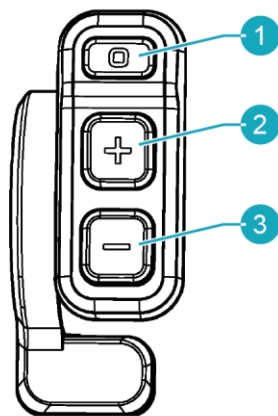


Fig. 20: Manual mode

To switch between gear modes, press button **1** on the control element. A long press shifts the system into reverse gear.

Changing gear modes

1. Press button **1** on the control element.
 - Switch between "Automatic" and "Manual".
2. Press and hold button **1** longer to shift into reverse gear.

Manual mode

1. Press the (+) button **2** to shift to a higher gear.
2. Press the (-) button **3** to shift to a lower gear.

Select low gears for riding uphill, high gears for riding on level ground and for higher speeds. The higher the gear selected, the more power you need to apply.



Fig. 21: Automatic mode

Automatic mode

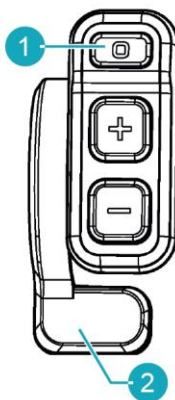
In automatic mode, the intelligent pedelec system selects the best available gear according to your cycling cadence and the terrain profile.

In automatic mode, "A" is shown at the bottom right of the display.

NOTE – In the PREDICT assist mode, the pedelec system always sets the gearbox to automatic.



Fig. 22: Reverse mode



Reverse mode

The manoeuvring aid function makes it possible to reverse and manoeuvre the pedelec easily, even with a heavy payload.

1. Press and hold button **1** longer to shift into reverse gear.
 - "R" is shown at the bottom right of the display.
2. **⚠ WARNING** – Risk of accident when reversing due to limited visibility. Ride at low speed and be alert. When backing up or reversing, use the push assist only.
 - Press the throttle lever **2** gently to reverse. The drive force can be controlled by adjusting the lever position.
 - The drive switches off as soon as the throttle lever is released.

7.5 Switching the indicators on/off



Fig. 23: Indicator switch



⚠ WARNING

Risk of an accident

Failure to use the indicators can make other road users feel unsafe. This also applies if the indicators are not switched off again, which can result in accidents and serious injuries.

- Always signal a change of direction or lane by indicating in good time.
- Switch off the indicator again after turning.

Use the indicators to signal to other road users that you want to turn left or right.

1. Use indicator switch **1** to switch on the left or right indicator.
 - Left indicator flashing 
 - Right indicator flashing 
2. Move the indicator switch **1** back to the middle position to stop the indicator flashing.

7.6 Applying / releasing the parking brake



Fig. 24: Applying the parking brake

⚠ WARNING

Pedelec rolling away accidentally

Accidental rolling away of the pedelec can cause serious injuries.

- Always apply the parking brake before leaving the pedelec.

The parking brake must only be applied when the pedelec is stationary. To be able to move the pedelec, the parking brake must first be released.

Releasing the parking brake

1. Press button **1** and move lever **2** to position **A**.
- ✓ The parking brake is released.

Applying the parking brake

2. Move lever **2** to position **B**.
- ✓ The parking brake is applied and the pedelec is secured against rolling away.

7.7 Towing

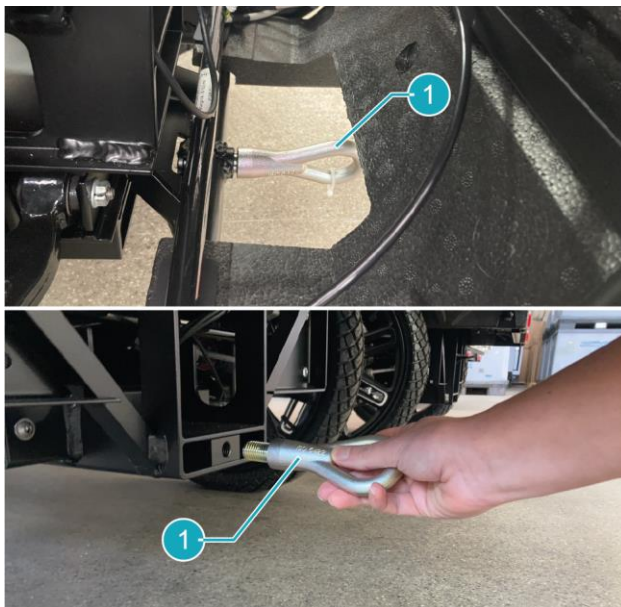


Fig. 25: Attaching the towing eye

The towing eye can be used to tow the pedelec if necessary. The towing eye can be attached to the front and rear of the pedelec.

- Fig. above = view from front
- Fig. below = view from behind

Attaching the towing eye

1. Screw the towing eye **1** into the threaded hole as far as it will go.
2. Attach the towing aid to the towing eye and to the recovery vehicle.
3. Set the assist mode to OFF.
4. Release the parking brake.
- ✓ The pedelec is ready for towing.

8 Maintenance and care



Electrical voltage

Incorrect handling of the electrical system or the battery may result in danger to life due to electric shock.

- Work on the electrical system must only be carried out by qualified personnel.

Remove the battery before cleaning the pedelec. This prevents the battery from being switched on accidentally.

8.1 Storing the battery

Store the battery with a charge level of at least 50%. Despite being a low self-discharge type, the battery will lose charge over time. Therefore, if the battery is not being used regularly, check the charge level after three months and recharge the battery if necessary.

Store the battery in a dry, well-ventilated place, away from heating appliances. Protect the battery from direct sunlight.

CAUTION – Risk of damage.

Keep the battery away from hot or flammable objects.  **DANGER** – Risk of explosion.

8.2 General notes on care



Environmental protection

Always use environmentally friendly supplies, cleaning agents and care products.

Do not use a pressure washer to clean the pedelec. Otherwise it may result in damage. Clean the pedelec by hand with warm water and a damp soft cloth.

Do not use aggressive cleaning agents and abrasive aids. These will corrode the surface. Clean the pedelec with a damp soft cloth.

8.3 Torque settings

| Bolt connection | Torque setting |
|--------------------------------|----------------|
| Handlebars to stem | 8 Nm |
| Stem to steering column | 8 Nm |
| Brake lever | 4 Nm |
| Display | 0.5 Nm |
| Handles | 2 Nm |
| Saddle mount | 23 Nm |
| Mirror on weather protection | 4.5 Nm |
| Motor cover | 4.5 Nm |
| Pedal to pedal crank | 30 Nm |
| Pedal crank to motor axle | 57-64 Nm |
| Wheel to wheel hub | 70 Nm |
| Brake caliper to brake carrier | 9 Nm |
| Lights and indicators | 6 Nm |

CAUTION

Property damage

When tightening the bolt connections, there is a risk of damaging the pedevec parts if too much force is applied.

- Use a torque spanner to tighten the bolts.
-

8.4 Maintenance overview

Regular maintenance and adherence to the maintenance intervals are important for the reliable function of the pedelec. The following table lists which maintenance activities must be carried out, when and by whom.

The specified maintenance intervals are based on the intended use. The brake pads in particular should be checked on a regular basis for their remaining pad thickness. In the event of improper use (e.g. unequal use of the brake units on the front and rear axles), it may be necessary to replace the brake pads sooner.



User





Specialist personnel (Mubea service/authorised service partner)








| Maintenance | Interval | Who? |
|---|--|------|
| Visual & functional inspection of the pedelec, replacement of wearing parts: Brake pads | every 2500 km or at least every 12 months | |
| Visual & functional inspection of the pedelec, replacement of wearing parts: Brake pads, brake discs, gear oil, tyres. Chain set and sprockets as required. | every 10000 km or at least every 36 months | |










9 Troubleshooting

9.1 Error table






The following table lists possible errors, their causes, and the corrective action to take. The last column indicates whether the user may rectify the error themselves or whether specialist personnel are required.

 User  Specialist personnel (Mubea service/authorised service partner)

| Error | Cause | Corrective action | Who? |
|-------------------------------|--|---|---|
| Display does not work | Battery is flat | Charge the battery |  |
| | Battery is defective | Replace the battery |  |
| | No contact between pedelec and battery. Connection is interrupted. | Make sure that the battery is inserted correctly. |  |
| | If necessary, consult a specialist | |  |
| Control element does not work | Battery is flat | Charge the battery |  |
| | Battery is defective | Replace the battery |  |
| | If necessary, consult a specialist | |  |

| Error | Cause | Corrective action | Who? |
|--|------------------------------------|---------------------|---|
| Battery charger does not charge the battery | Charger is defective | Replace the charger |  |
| | Battery is defective | Replace the battery |  |
| | If necessary, consult a specialist | |  |
| Battery status indicator does not light up | Battery is flat | Charge the battery |  |
| | Battery is defective | Replace the battery |  |
| Lack of braking power | Consult a specialist | |  |
| Gear shifter does not shift gears or does not shift smoothly | Consult a specialist | |  |
| Lights do not work | Battery is flat | Charge the battery |  |
| | If necessary, consult a specialist | |  |

TROUBLESHOOTING

| Error | Cause | Corrective action | Who? |
|---|---|---|---|
| <p>Electric motor does not work (no motor assist)</p> <p>Error code is shown on display</p> | <p>Hard reset</p> <ol style="list-style-type: none"> 1. Switch off the pedelec as described in section 7.1 (press the ON/OFF button). 2. Disconnect the battery connector. To do this, pull the battery halfway out, wait for a short period (approx. 10 seconds), then push the battery back in until it engages. 3. Switch on the pedelec as described in section 7.1 (press the ON/OFF button). | |  |
| | If necessary, consult a specialist | |  |
| <p>Unusual noises when riding</p> <ul style="list-style-type: none"> • Chain noise Cracking, knocking or grinding • Creaks or other | Chain not sufficiently lubricated | Lubricate the chain |  |
| | Loosened bolt connections | Tighten the bolt connections (for specifications on torque settings, see page 54) |  |
| | If necessary, consult a specialist | |  |

10 Disposal

Environmental pollution due to incorrect disposal

Incorrect or careless disposal can pollute the environment. If in doubt, consult your local municipal authorities about disposing of the product in an environmentally friendly manner.

The pedelec must not be disposed of with normal household waste at the end of its service life. Dispose of the pedelec and its components at designated collection points. This way, raw materials are recycled and pollutants are disposed of properly. This conserves natural resources and protects the climate.



Lithium-ion battery contains recyclable material



Do not dispose of in household waste

WARNING

Fire hazard and health risk

If the battery is not disposed of properly, fire may occur and hazardous substances may leak out.

- Fully discharge the battery and tape/cap the terminals.

11 Customer information

11.1 Customer service

For technical information, please contact our customer service, see last page of this manual.

Information on the contact person responsible for each region can be obtained at any time by e-mail or the web.

Furthermore, our team members are always interested in new information and experiences that arise from use and can be valuable for improving our products.

11.2 Limitations of liability

All of the information and notes in this manual have been compiled in accordance with applicable standards and regulations. They reflect best engineering practice and our years of experience.

The manufacturer accepts no liability for damages in the following instances:

- Failure to observe these instructions and accompanying documents
- Non-intended use
- Using the pedelec by users who have not received instruction
- Unauthorised modifications
- Technical modifications
- Use of unlicensed spare parts

Any modifications to the vehicle or the superstructure will invalidate the CE Declaration of Conformity and void any liability for the consequences arising therefrom.

The actual scope of delivery may differ from the explanations and illustrations described here in the event of special versions, the use of additional ordering options or as a result of the latest technical changes.

The obligations stipulated in the supply agreement, our general terms and conditions of business, the manufacturer's terms and conditions of supply and the statutory regulations in force at the time of contract conclusion apply.

We reserve the right to make technical changes in the framework of improvement of the handling features and further development.

11.3 Privacy information

With this Privacy Notice, we would like to inform you about the personal data that is collected from you when you use the vehicle and what we use this data for. This Privacy Notice also contains a list of your rights in relation to your personal data.

I. Responsible party

The responsible party according to Article 4 (7) GDPR is:

Muhr und Bender KG

Mubea-Platz 1, 57439 Attendorn, Germany

Tel.: + 49 2722 / 620

E-mail: info@mubea.com

II. Data Protection Officer

You can reach our data protection officer as follows:

Muhr und Bender KG

- Data Protection Officer -

Mubea-Platz 1

57439 Attendorn, Germany

Tel.: + 49 2722 / 620

E-mail: info@mubea.com

(Keyword: Data Protection Mubea U-Mobility Cargo)

III. Data processing

1. Purposes and legal basis of data processing

When you use this vehicle, the following personal data is processed by means of a sensor installed in the vehicle:

- Vehicle identification number and sensor ID;
- G-forces above a defined threshold acting on the respective vehicle, including the time of impact;
- Strong inclination values of the vehicle above a defined threshold.
- Daily kilometres ridden and odometer reading.

The processing of the G-force data is used to detect strong impacts on the vehicle and to remedy any resulting damage to the vehicle. Processing of the tilt inclination value data is carried out to detect an accident or possible vehicle tampering.

The legal basis for data processing is our legitimate interest pursuant to Article 6 (1) sentence 1 lit. f) GDPR.

Our legitimate interest lies in the improvement of product safety, product monitoring and, if necessary, the clarification of warranty cases.

2. Categories of data recipients

The recipient of the data is an IT data processor.

3. Duration of data storage

Data is stored for the respective life cycle of the vehicle and then deleted unless further processing is necessary and permissible for other reasons.

IV. Rights of the data subject

As a data subject, you can assert the following rights against us:

- **Right to information:** You can request information according to Article 15 GDPR about your personal data that we process;
- **Right to rectification:** If the information concerning you is not (or no longer) accurate, you can request a correction in accordance with Article 16 GDPR. If your data is incomplete, you may request that it be completed;
- **Right to deletion:** You can demand the deletion of your personal data in accordance with Article 17 GDPR;
- **Right to restriction of processing:** According to Article 18 GDPR, you have the right to request restriction of the processing of your personal data;
- **Right to data portability:** In the event that the conditions of Article 20 (1) GDPR are met, you have the right to have data that we process automatically on the basis of your consent or in fulfilment of a contract handed over to you or to third parties;
- **Right to lodge a complaint:** If you believe that the processing of your personal data violates data protection law, you have the right to lodge a complaint with a supervisory authority of your choice in accordance with Article 77 (1) GDPR;
- **Right to object:** Under Article 21 (1) GDPR, you have the right to object at any time to the processing of your personal data on the basis of Article 6 (1) sentence 1 lit. f) GDPR for reasons arising from your particular situation.

11.4 Copyright

This manual is protected by copyright. It may not be transferred to third parties, reproduced in any form or by any means, including excerpts, nor may its contents be used and/or communicated without the written permission of the publisher.

Any breach or infringement will result in liability for damages. We reserve the right to assert any further claims.

11.5 EU declaration of conformity

The EU declaration of conformity confirms that we have complied with all of the safety requirements of the regulations applicable to the pedelec.

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