Mubea
U·MOBILITY

PLEASE READ BEFORE USE

OPERATING INSTRUCTIONS MUBEA CARGO

EN I OPERATING INSTRUCTIONS I VERSION 3.0 I 20.03.2024

Introduction

We are delighted that you have decided to purchase a U-Mobility Cargo Bike. These operating instructions contain the information you need to ride your bike safely and make optimum use of it. Please read these instructions carefully before using the bike for the first time and pay particular attention to the safety instructions.

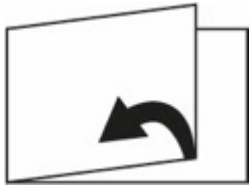
The U-Mobility Cargo Bike is a pedelec (pedal electric cycle) for transporting loads, which supports the rider with an electric motor when pedaling. Pedaling is supported up to a speed of 25 km/h. At higher speeds, the electric motor switches off. At higher speeds, the electric motor switches off.

The bicycle is referred to below as a pedelec and is legally equivalent to a bicycle in Germany. It does not have to be registered and no insurance license plate is required. The rider does not need a driver's license. 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:

You do not have to use cycle paths that are subject to mandatory use if they are "unreasonable". Reasons for this can be, for example, paths that are too narrow or poor surface conditions.

Illustrations in these instructions are for basic understanding and may differ from the actual design.



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1 About these instructions

1.1 Markings

For ease of understanding, different information is presented in these instructions as follows:

1. Action step

✓ Result of action steps

1 Item number in legends

 Item number in illustrations

- Enumeration
    - Subordinate enumeration

📖 Reference to applicable documents

Highlighting (in colored and bold font)

NOTE

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

Environmental protection

Indicates potential hazards to the environment.

1.2 Display of warnings

The warnings contain signal words 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.

ATTENTION

Indicates a potentially dangerous situation that can lead to material damage if not avoided.

1.2.1 Section-related warnings

Section-related warnings refer to an entire chapter or a section within these instructions. Example:

⚠ WARNING

Type and source of danger.

Possible consequences of ignoring the hazard.

-measures to avoid the danger.

1.2.2 Embedded warnings

Embedded warnings are situation-dependent and relate to a specific action. Such warnings are embedded in the instructions so that the reading flow is not interrupted. Example:

⚠ **WARNING** - Type of danger. Measures to avoid the hazard. Action.

2 Security

This chapter identifies hazards and provides an overview of important safety aspects.

Follow these instructions for your safety.

2.1 Intended use

The U-Mobility Cargo Bike (pedelec) is a cargo bike with an electric motor intended for the transportation of goods and merchandise. The limits specified in the "Technical data" chapter apply to the load.

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

The pedelec corresponds to category 1 according to the EN 17406 usage classification and is designed for use on public roads and paved paths. The requirements of the StVO and StVZO apply.

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

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

2.1.1 Foreseeable misuse

Incorrect use can lead to dangerous situations for persons and cause damage to property.
The following points describe a misapplication:

- Use by untrained persons
- Use outside the application limits
- Failure to comply with national traffic regulations (e.g. the StVO)
- Taking along additional persons or animals
- Riding with a damaged (technically faulty) pedelec
- Overloading or exceeding the maximum permissible total weight
- Use without superstructure (Cargo Box)
- Driving with an unsecured load and/or uneven load distribution
- Driving on unsuitable surfaces (e.g. icy roads, loose surfaces, off-road)
- Driving with overhanging load
- Use with a trailer
- Driving up and down stairs
- Driving over high kerbs (more than 14 cm)
- Driving over low kerbs at a speed of more than 4 km/h

- Driving in extreme weather conditions (e.g. dense fog, heavy rain, storms)
- Driving through deep water (deeper than 10 cm)
- Covering the lighting
- Leaving the Pedelec without applying the parking brake and activating the RFID lock
- Parking the pedelec on gradients greater than 10% without further safety measures (e.g. wheel chocks)
- Use of accessories and spare parts that are not approved by the manufacturer
- Carrying out repairs and maintenance that are not specified in the operating instructions and for which you are not qualified
- Technical modifications and/or conversions

NOTE

Claims of any kind for damages due to misuse are excluded.

2.2 Basic safety instructions

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

Children under the age of 14 should not use the pedelec. Children may be unable to cope with the pedelec.

Familiarize yourself with the operation and handling of the pedelec. Practice starting off, braking and cornering away from traffic.

Always check that the battery is sufficiently charged before riding. Without electric assistance, the Pedelec can only be used for short distances and with a great deal of effort. Riding without electric assistance is only recommended in emergency situations.

Adapt your driving style to the road and weather conditions. There is a risk of accidents. The braking distance is longer on wet and icy roads. Drive with foresight and at an appropriate speed. Behave in such a way that you do not endanger other road users. Avoid jerky steering movements.

Observe the national legal regulations. You may only ride on public roads and paths if the pedelec is roadworthy and equipped with the equipment prescribed in the respective country of use.

Wear a bicycle helmet. There is a risk of head injuries. For your own safety, never ride without a helmet, even if it is not compulsory. Make sure it fits correctly.

Keep your hands away from moving components. There is a risk of crushing due to rotating, moving or movable components. Always be attentive and ensure proper handling.

Only use the pedelec if it is in perfect technical condition. There is a risk of accident. Before every ride, check that the lights and brakes are working properly and that the moving parts can move freely. Check all parts and have worn or damaged components replaced.

Only use the pedelec with an appropriate body. There is a risk of injury, particularly to other road users, due to exposed moving parts when riding without a body.

Only use original spare parts. There is a risk of accidents. Spare parts from other manufacturers may impair the proper functioning of the Pedelec.

Observe the maximum permissible total weight. There is a risk of accidents. Overloading can lead to damage or even breakage of safety-relevant components.

Secure the transported goods. There is a risk of accidents. Ensure even loading and load distribution. Secure the transported goods so that they cannot slip or fall; see section 6.11, page 3738.

No persons may be transported on the loading area or in the cargo space.

Always park the pedelec safely. There is a risk of accidents. Make sure that the pedelec cannot roll away uncontrollably. Always activate the parking brake before leaving the Pedelec. Protect the Pedelec against unauthorized access as far as possible and always lock the Pedelec using the RFID lock before leaving it.

Certain work on the pedelec may only be carried out by persons who have the necessary knowledge and appropriate training. There is a risk of accidents and damage to property. Incorrect assembly can have serious consequences. We recommend that you have all assembly work carried out by a specialist dealer. Please also observe the applicable documents (component instructions from other manufacturers).

3 Functional description

The U-Mobility Cargo Bike is a multi-track cargo bike with electric motor assistance. The motor assistance is only provided when pedaling, up to a speed of 25 km/h. The bike therefore belongs to the "pedelec" category and is referred to as such in these instructions.

The electric motor and all electronic components of the pedelec are powered by a lithium iron phosphate battery.

The electric motor switches off automatically as soon as you stop pedaling or reach a speed of over 25 km/h.

If the battery is flat, you must move the pedelec under your own power; this should only be done in emergency situations.

You also have the option of using the maneuvering mode. The maneuvering mode works forwards by pedalling forwards and backwards by pedalling backwards. You can use the pushing aid if you require assistance from the drive when pushing the vehicle. Due to the high weight of the Pedelec, this additional function can be very useful and supports you when maneuvering or pushing the Pedelec.

4 Overview

Fig. 1 Naming the vehicle parts

Vehicle parts

1 Windshield
2 Handlebars with controls
3 Front lights left and right
4 Front indicators
5 Battery
6 Front wheel
7 Generator unit
8 Pedals
9 Saddle height adjustment
10 Saddle
11 Mirror
12 Electric motor
13 Rear wheel
14 Rear turn signal
15 Rear lights with integrated brake light
16 Cargo box (hold)

The actual design may vary

Scope of delivery

- Pedelec (1x)
- Lithium iron phosphate battery (1x)
  - Spare battery (optional)
- Charger (1x)
- Operating instructions (1x)
- Key set
  - RFID transponder for vehicle (2x)
  - for battery lock (2x)
  - for Cargo Box (load compartment) (2x)

4.1 Controls on the handlebars and steering column

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

1 Brake lever for braking the front wheels
2 Turn signal switch
3 Switch for hazard warning lights and boost gear
4 Display
5 Control element
6 Brake lever for braking the rear wheels

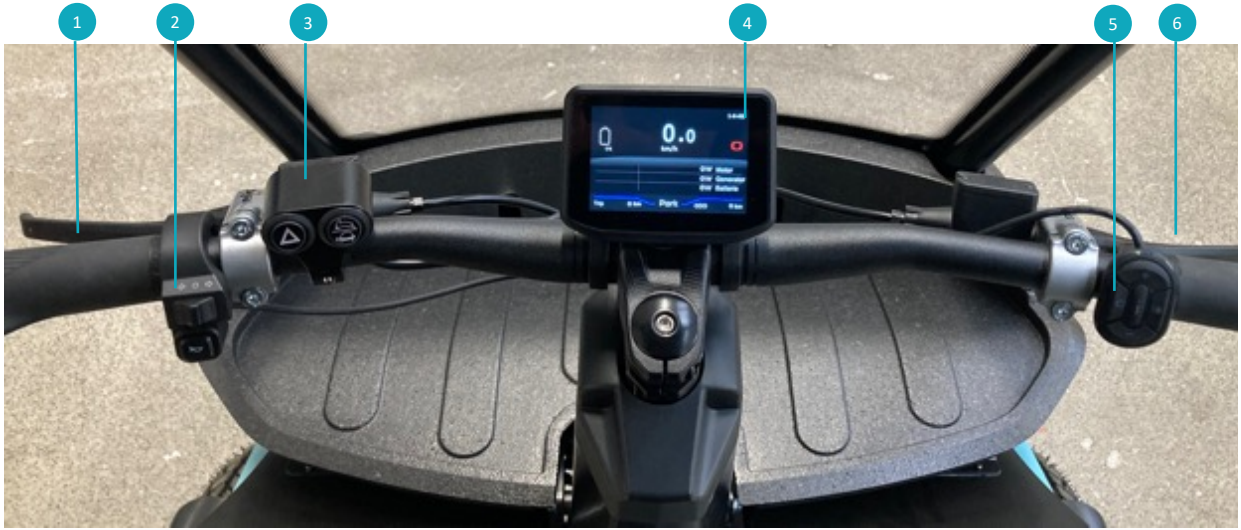

Fig. 2 Handlebars from the driver's perspective

4.2 Display

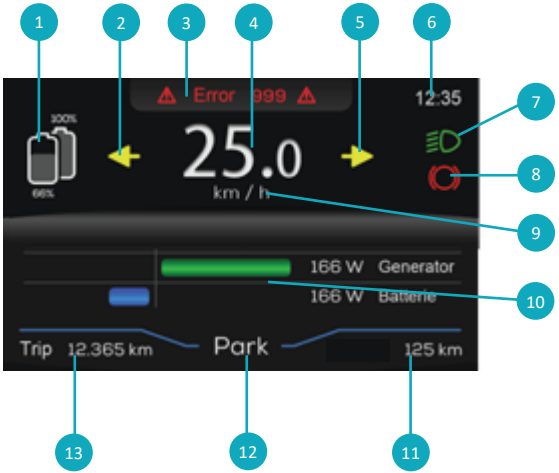

Fig. 3 Display

The display shows you all the relevant information.

1 State of charge of the battery
2 Left turn signal blinker (symbol flashes)
3 Possible error display
4 Current speed
5 Blinker right (symbol flashes)
6 Time
7 Status of the lighting
8 Parking mode display
9 Unit of speed
10 Power meter display
11 Display of total distance traveled
12 Display of assistance level or push assistance
13 Freely selectable pedelec information display: (range, daily kilometers, average engine power, average generator power or average speed)

4.3 Control element

Fig. 4 Control element

The control element is used to operate the drive system, the system settings and the light.

1 Switching the system on and off,
Cursor left

2 Switching up the assistance level,
Navigate up in the settings,
Change value high

3 Switch to system settings,
Change the pedelec information displayed,
Confirmation of password, value or setting

4 Switching lights on and off,

5 Downshifting the assistance level,
Navigate down in the settings,
Change value down

5 Technical data

General data	
Manufacturer	Muhr and Bender KG
Vehicle category	Pedelec / EPAC (Electrically Power Assisted Cycle)
Electric motor	Mubea Chainless Powertrain Pro 1
Rated continuous power	250 W [1)]
Circuit	2-speed gearbox
Max. electrically assisted speed	25 km/h [1)]
Electric starting and pushing aid	Yes - up to 4 km/h
Electric reverse maneuvering aid	Yes
Permitted total weight	585 kg
Bicycle type according to DIN EN 17406:2021-11	Category 1

[1)] according to national legislation

The maximum continuous rated power is limited to 250 W in the European Union. The rated continuous power refers to the power that a motor may deliver in its thermal equilibrium, as defined in DIN EN 15194:2018-11. The maximum - short-term - peak power for pedelecs may deviate upwards.

[2)] EPAC of category 1 according to DIN EN 17106:2021-11, concerns bicycles and EPACs used on normal, paved surfaces on which the tires are intended to maintain ground contact at average speed, with occasional drops.

General data	
Payload	up to 200 kg
External dimensions for Cargo PACK 1.9 (L x W x H) - without mirror - with mirror	 2,970 x 9.95 x 2,000 mm 2,970 x 1,063 x 2,000 mm
Wheelbase	1746 mm
Turning circle	< 6750 mm
Battery slots	Interchangeable battery system with 1 - 2 slots (lockable)
Battery capacity (per battery)	1.44 kWh (lithium iron phosphate battery, 48 V DC)
Range with one battery	up to 25 km

General data	
Charger	230 V / 4 A
Display	3.5 inch
Chassis	Double wishbone axles on front and rear axle with spring damper struts and stabilizers
Wheels	Performance tires 16" with motorcycle tires (80/80-16")
Tire pressure	2.7 to 2.9 bar (39 to 41 psi)
Brake system	Hydraulic disc brakes on all 4 wheels
Parking brake	Yes
Weather protection	Driver's cab (depending on configuration)
Windshield coating	Yes, with lotus effect (weather protection optional)

General data	
Side mirror	2 x
Bell	1 x
Headlight	2 x
Rear lights	2 x with integrated brake light
Reflector package	Yes
Turn signal	Yes
Saddle	Yes, height and tilt adjustable
Subject to approval	No [2)]
Driving license required	No [2)]
Use of cycle path	Yes [2+3)]

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

Cargo PACK 1.6 body	
Internal volume of the box (in liters)	1.600 l
Box loading area 1.6 m³ (L x W x H)	1,300 x 800 x 1,495 mm (L x W = pallet dimensions)
Side door in the box (L x H)	Special equipment
Box lock	Yes

Cargo PACK 1.9 body	
Internal volume of the box (in liters)	1.900 l
Box loading area 1.9 m³ (L x W x H)	1,500 x 800 x 1,495 mm (L x W = pallet dimensions)
Side door in the box (L x H)	Special equipment
Box lock	Yes

Cargo WORK	
Internal volume of the box (in liters)	1.600 l
Box loading area 1.6 m³ (L x W x H)	1,300 x 800 x 1,495 mm (L x W = pallet dimensions)
Side door in the box (L x H)	Two
Box lock	Yes

Limits of use	
Clearance height For all vehicles with existing weather protection (optional)	≥ 2 m
Clearance width (without mirror)	≥ 1 m
Temperature range	
-Use of the pedelec	-15 to + 55 °C
-Storage of the battery	+5 to + 25 °C
-Charging the battery	0 to + 45 °C

5.1 Type plate

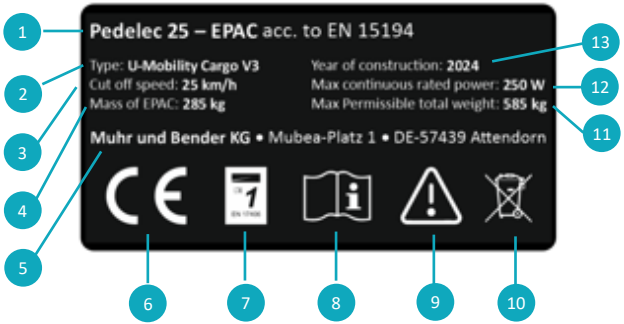

Fig. 5 Type plate

The type plate is located on the bottom right-hand side below the steering column.

1 Product name
2 Type of U-Mobility Cargo
3 Switch-off speed
4 Mass of the SHPB pedelec
5 Manufacturer address
6 CE marking
7 Intended use (category)
8 Read operating instructions
9 General danger sign
10 Do not dispose of the pedelec and its parts in household waste
11 Permissible total weight (including optional equipment, payload and driver)
12 Rated continuous power
13 Year of construction

6 Before the journey

Make sure that the pedelec is adjusted to your height and is in good working order. Familiarize yourself with the functions, operation and riding characteristics of the pedelec.

Every person who uses this pedelec must receive instruction from the customer service or operator of the pedelec.

6.1 Driving instructions

Riding a pedelec requires a certain amount of familiarization. Consider the following points:

- Vehicle length, width and turning circle
- Loading condition and weight distribution
- Traffic situation and condition of the roads and paths
- Drive with foresight

6.2 Check tire pressure

⚠ WARNING

Underinflated tires

Insufficient tire pressure impairs the durability of the tire and endangers driving safety. This applies in particular to cornering. There is a risk of accidents.

- Check the tire pressure before driving or once a day.

The recommended tire pressure is 2.7 to 2.9 bar (39 to 41 psi) and depends 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 up air until the pressure is between the minimum and maximum value.
5 Screw on the valve cap.
6 Check the tire pressure of the other tires in the same way.

✓ All tires have sufficient air pressure.

6.3 Charging the battery

6.3.1 Charge battery

DANGER

Electrical voltage

Improper handling of the charger and the battery can result in a risk to life due to electric shock and fire.

- Read and observe the separate instructions for the battery.
- The mains voltage must match the specifications on the charger's rating plate. An original charger or one approved by the manufacturer must be used.
- Never charge the battery outdoors.

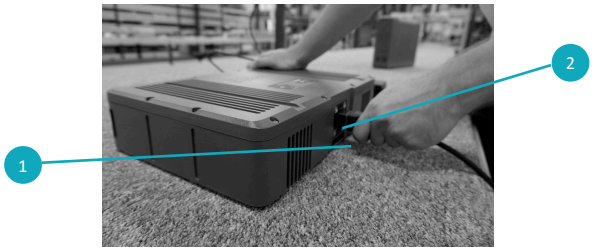

Fig. 6 Battery with charger

1 Place the battery next to the charger on a non-flammable surface. Do not cover the battery or the charger. Position the battery so that you can follow the charging progress on the charge status display.

2. ensure that you grasp the charger plug as shown in the picture. Do not hold the plug by the cable when inserting or removing it.

3. insert the plug **1** of the mains cable into the socket on the charger **2.**

4. insert the mains plug into the socket. The charging process starts as soon as the charger is connected to the battery and the mains.

6.3.2 Display of the charge status

Fig. 7 Charging status display

During the charging process

During the charging process, the charge status indicator **3** shows a lightning bolt icon on the display. In addition, the flashing battery symbol and the percentage display indicate the progress of the charging process.

Display on the inserted battery

1. Briefly press button **4** next to the charge status display.

✓ The charge status is displayed both graphically by a battery symbol with 1 to 7 bars and numerically as a percentage. The current voltage is also displayed in volts (V).

To set the charge level of a new battery, it must first be fully charged and then completely discharged.

6.4 Insert battery

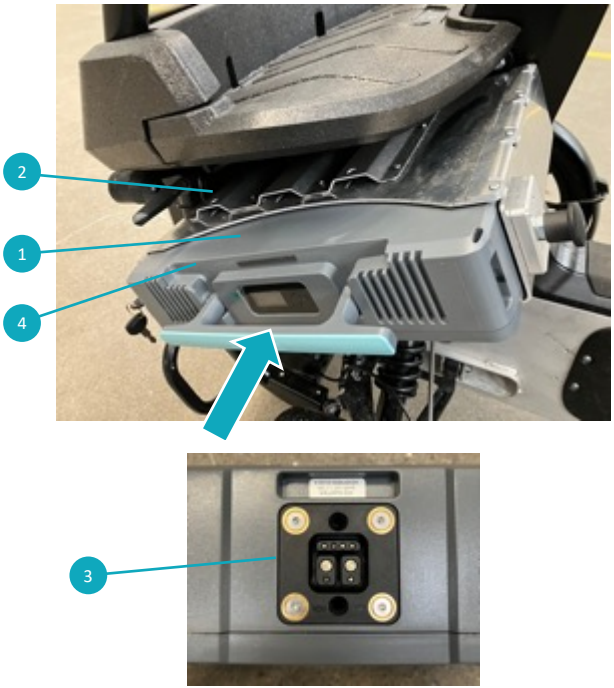

Fig. 8 Insert battery

The pedelec is equipped with a lithium iron phosphate battery, which is inserted to the left of the steering column. An additional battery is supplied as an option, which is located in the powerless holder to the right of the steering column.

1. Guide the battery **1** onto the holder **2** with both hands. Pay attention to the orientation of the battery (side with battery type plate and guide grooves facing downwards, connections **3** on the back aligned as shown).
2. Push the battery evenly and carefully into the holder until you hear it click into place.
3. Additionally secure the battery in the holder by locking the holder with the key provided **4.**
4. Remove the key and keep it in a safe place.

✓ pedelec is supplied with power.

NOTE - If present, the second battery is inserted in the same way on the right-hand side of the steering column.

NOTE - Always insert a switched-off battery into the Pedelec. Otherwise, the electronic components may be damaged.

6.5 Remove battery

Fig. 9 Remove battery

1 Switch off the system.
   – Press the On/Off button on the control element, see section 7.1, page 40.
2. Unlock the battery lock with the key provided **3.**
3 Grip the battery handle with your hand and pull the release button **4.**
4 Pull the battery **1** out of the holder **2** by the handle and support the battery from below with the other hand.
✓ battery is removed and can now be charged.

NOTE - Store the battery in a dry room.
   – When storing and charging the battery, observe section 8.1, page 55

6.6 Adjust saddle height

Fig. 10 Adjust saddle height

1 Turn the handle **1** anticlockwise until you hear a clicking sound.

2 Pull out the handle **1**.

3 Stand next to the pedelec and move the saddle up or down to hip height.

4 Allow the saddle to engage and turn the 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 Correct the saddle height if necessary.

✓ height of the saddle is adjusted to suit your height.

6.7 Move saddle

Fig. 11 Adjusting the saddle

1 Loosen the Allen screw **1**.

2 Move the saddle forwards or backwards to the desired position.

– Adjust the distance to the handlebars so that you can comfortably reach both brake levers during all steering movements.

– ⚠ **WARNING** - Risk of accident due to the saddle frame breaking. Never clamp the saddle in the bends of the saddle frame, only in area **A**.

3 Tighten the Allen screw **1** again.

– Observe the specified tightening torque; section 8.3, page 57.

4 Correct the setting if necessary.

✓ distance from the saddle to the handlebars is set according to your height.

6.8 Adjusting the brake lever

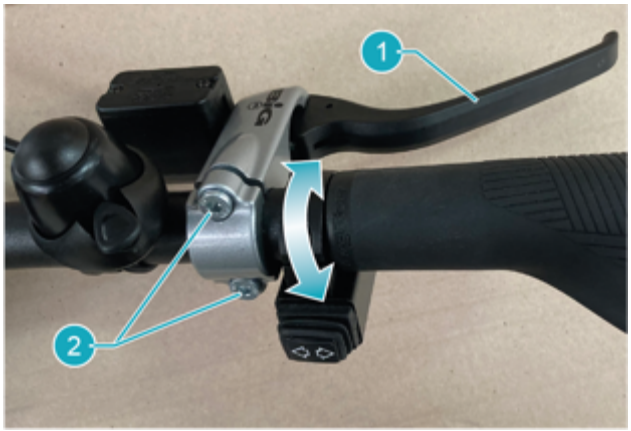

Fig. 12 Adjusting the brake lever

The inclination of the brake levers can be individually adjusted to ensure safe operation of the brake levers.

1 Turn the screws **2** one to two turns counterclockwise.

2 Adjust the angle of the brake lever **1** so that your fingers, wrist and forearm form a line.

3 Tighten the screws **2** again.

– Observe the specified tightening torque; section 8.3, page 57.

4 Adjust the second brake lever in the same way.

✓ brake levers are adjusted to suit your height.

6.9 Adjust mirror

Fig. 13 Adjusting the mirror

For safe riding, it is important to have a good view to the rear. Only adjust the mirrors once you have adjusted the seat position to suit your height. Adjust the mirrors while you are sitting on the saddle.

1 Adjust the mirrors by hand so that you have a good view of the rear area.

- Make the adjustment with both hands.
- The mirrors can be tilted in all directions.

✓ mirrors are adjusted to suit your height.

NOTE - The adjacent illustration is an example and shows a pedelec with weather protection. On pedelecs without weather protection, the mirrors are attached to the handles.

6.10 Check brakes

⚠ WARNING

Lack of braking power

Worn brake pads reduce braking performance and can lead to accidents.

- Check the function of the brakes before every journey.
- If necessary, have the brake pads replaced and the brakes adjusted by qualified personnel.

Observe the following points for your safety and the safety of other road users:

- Familiarize yourself with the brakes before using the pedelec on public roads.
- Note the assignment of the brakes.
  - The left brake lever actuates the brakes on the front wheels.
  - The right brake lever actuates the rear wheel brakes.
- Always operate both brake levers to achieve optimum braking performance and even wear of the brake pads.
- Bear in mind that the braking distance may be longer depending on the load and surface.
- New brake pads only reach their final braking force during the running-in phase.
  - Accelerate to at least 20 km/h on a flat road.
  - Brake to a standstill.
  - Repeat the braking procedure for the front and rear axle 30 times each.

6.11 Secure load

Incorrect distribution of the load (load) can impair the handling of the vehicle. In addition, the load can slip, fall 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 driving behavior.
    - Pack heavy loads downwards and forwards.
    - Pack light loads upwards and to the rear.
    - Avoid one-sided loading.
    - If possible, load the load compartment with a positive fit so that the load rests against the load compartment boundaries or other transported goods.
- Secure the load using the transport eyes and load securing aids, such as lashing straps, so that the load cannot slip or fall.
- Observe the permissible value for the payload; see Technical data, page 20.
- No objects may protrude from the sides or rear of the load compartment.
- Pay attention to clearance heights if objects, such as garden tools, protrude upwards out of the load compartment.

6.12 Checklist

þ	Pedelec is in perfect technical condition and complete.
þ	Parts such as lighting, reflectors, windshield and brakes are sufficiently clean.
þ	Lighting and thus the function of the brake lights is switched on.
þ	Tire pressure is sufficient.
þ	Pedelec is adjusted to your height.
þ	Handles have a tight fit.
þ	Battery is in perfect technical condition, not bloated, broken or warm.
þ	Battery is sufficiently charged.
þ	Power supply is established; indicators visible on the display.
þ	Front and rear brakes work perfectly.
þ	Parking brake works.
þ	Lighting works: Headlights and indicators (front and rear), brake lights.
þ	Bell works.
þ	Load is well distributed and secured.

7 Operation

7.1 Switching on and off

Fig. 14 Switching the pedelec on/off

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

-

Switch on

1 Press and hold the On/Off button **1** on the control element until the start screen **6** appears.

✓ system starts up (approx. 2 s).

Switch off

2. Press and hold the on/off button **1** on the control element

– the display switches off.

✓ system is switched off.

7.2 Unlocking or locking the vehicle

You have two options for unlocking and locking the device

1. Using the RFID function
2. Using the password function

Both variants mean that the vehicle cannot be accessed after it has been locked.

Note: The default setting is the medium RFID function

7.3 With RFID unlocking

Fig. 15 Password entry / Unlock system

If the RFID function is set, then.

1. Hold the RFID transponder **1 at** the back top left of the display,
2. the lock symbol in display **2** goes out.

NOTE - If you have lost the RFID transponder, you can unlock the vehicle by entering the master password. To do this, press and hold button **3** for five seconds.

NOTE - If the RFID function is deactivated, the main screen is displayed after the system boots up.

7.4 Password entry / unlock system

Fig. 16: Entering the password / unlocking the system

If the password function is set, the input screen for the password **6** appears after the system has booted up.

1 Press buttons **1** and **4** on the control element to move the cursor to the left or right.

2. use the (+) **2** and (-) **5** buttons to set values between 0-10.

3. confirm the password with the (i) button **3.**

✓ system is unlocked and the display switches to the main screen.

NOTE - If the password entered is incorrect, the screen with the incorrect password is displayed for approx. 2 seconds. The display then switches back to the input screen and the password can be entered again. To do this, repeat steps 1-3.

NOTE - If the password function is deactivated, the main screen is displayed after the system boots up.

To activate the password function, please refer to section 7.5.1, page 45.

7.5 Change settings

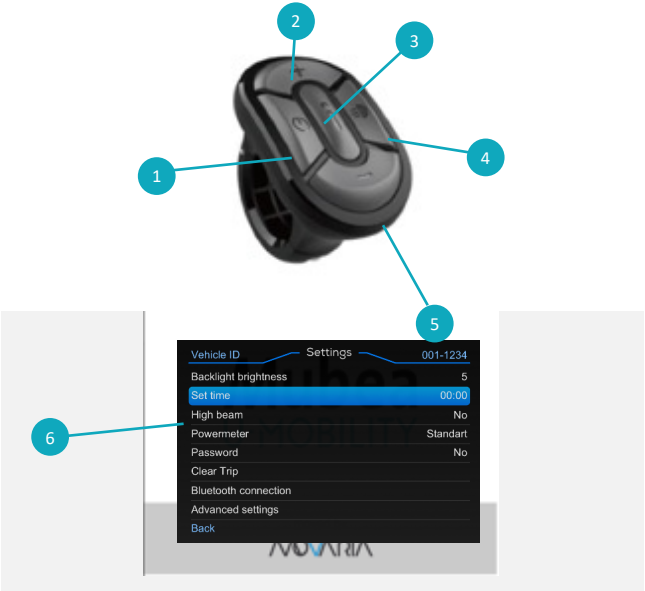

Fig. 17: Change settings

To change the system settings, press and hold the (i) button **3** until the settings display appears.

1. use the (+) **2** and (-) **5** buttons to navigate up and down in the settings menu.
2. confirm the selected setting with the (i) button **3.**

Possible setting changes are:

- Backlight brightness: Brightness of the display
- Set time: Time
- High beam: High beam (not selectable for the SHPB model)
- Power meter: Selection of the power meter display Standard or Pro
- Password: Change / set and deactivate the password (see section 7.5.1 page 45)
- Clear Trip: Resetting the daily kilometers
- Advanced settings: advanced settings

7.5.1 Change / set or deactivate password

Fig. 18: Change / activate or deactivate password

Enter the master password and confirm with the (i) button **3**. Then enter the new password. Press button **4**, the field for confirming the new password appears. Select the field and confirm with the (i) button **3**.

✓ (new) password is set.

If the wrong password is entered, the information "incorrect password" appears. In the password settings, select the function "change/set" (change/activate) **6** or "deactivate" (deactivate) **7** and confirm your selection with the (i) button **3**.

Change/set password:

✓ Enter the password again.

Deactivate password:

Use the cursor to select the "deactivate" field and confirm with the (i) button **3**.

✓ password function is deactivated. The system can be started without entering a password when it is switched on.

NOTE - Activating or changing the password requires a master password.

7.6 Set driving mode

Fig. 19: Setting the support level

You can use the (+) **2** and (-) **5** buttons to select the driving mode and change it at any time, even while driving.

1 Press button **2** to switch up one level.

2. press button **5** to switch down one level.

✓ selected support is shown on the display.

Select the speed level so that you feel comfortable pedaling and the pedal resistance does not feel too heavy. The assistance power is not affected by the speed levels.

Level 1 is more suitable for high cadences, level 5 for lower cadences

7.7 Maneuvering mode

7.7.1 Pushing aid

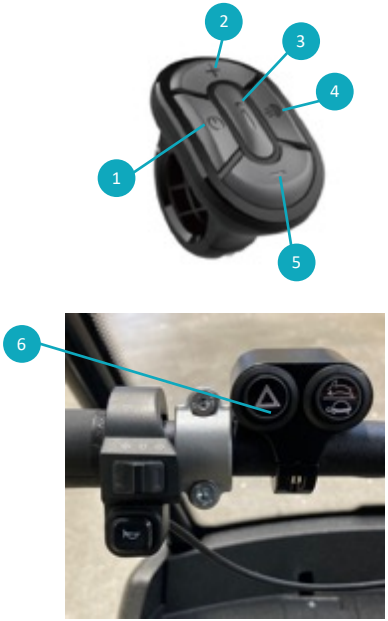

Fig. 20: Actuation of the maneuvering mode (pushing aid)

The pushing aid provides electric motor assistance when starting off or pushing the Pedelec.

The pedelec is driven up to a maximum speed of 4 km/h without pedaling power.

1. Switch on the hazard warning lights with switch **6.**

   CAUTION - Unintentional operation of the push aid can lead to injuries to the legs.
2. use buttons **2** and **5 to select** any assistance level.
3. press and hold button **5.**

✓ drive is switched on after approx. 1 s.

- As soon as button **5** is released, the drive switches off.

7.7.2 Reverse gear

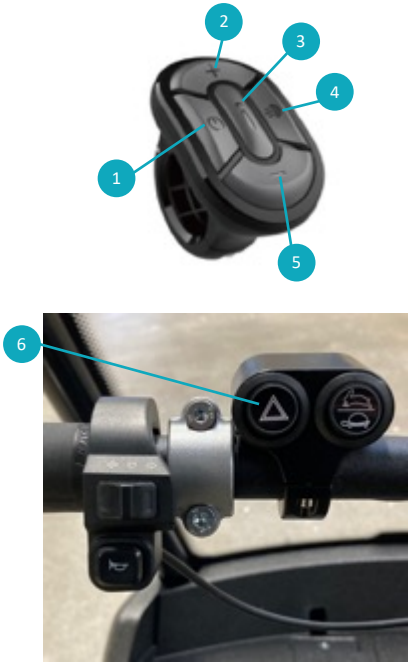

Fig. 21: Actuation of the maneuvering mode (pushing aid)

The maneuvering mode makes it possible to ride backwards and maneuver the pedelec easily even with a heavy load.

1 Switch on the hazard warning lights with switch **6**.

⚠ **WARNING** - Risk of accident when reversing due to restricted visibility. Drive at low speed and be attentive.

2. use buttons **2** and **5 to select** any assistance level.
3. pedal backwards.

✓ reversing light is switched on, a warning tone sounds and the Pedelec reverses. The speed in reverse gear is limited to a maximum of 4 km/h.

- As soon as you stop pedaling, the pedelec stops, the reversing light and the warning tone are switched off.

7.8 Boost gear

-

Fig. 22: Gear selection

If the cargo has to cope with extreme inclines with a high payload, you need the boost gear.

You can change to boost gear by pressing button **1 when** the vehicle is stationary.

The maximum speed in boost gear is 12 km/h.

As soon as you have mastered the extreme gradient, you should switch back to standard mode in order to reach the maximum speed of 25 km/h. To do this, the vehicle must be stationary again and button **1** pressed

7.9 Bell

Only use the bell to warn other road users of dangerous situations. Observe the national traffic regulations (e.g. StVO).

Fig. 23: Doorbell

1. The bell is operated by pressing button **1**

7.10 Switching indicators on and off

Fig. 24: Blinker switch

⚠ WARNING

Risk of accident

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

- Always indicate a change of direction or lane by flashing your lights in good time.
- Switch the turn signal off again after turning.

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

1 Use blinker switch **1** to switch on the left or right blinker.

- Flash left ◀
- Flash right ▶

The respective blinker symbol flashes on the display and an acoustic signal sounds.

2. Switch the blinker switch **1** back to the middle position to stop the flashing.

7.11 Hazard warning lights

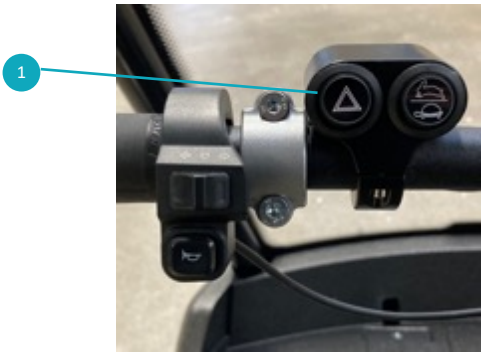

Fig. 25: Switch for hazard warning lights

Only switch on the hazard warning lights to warn other road users of dangerous situations.

Observe the national traffic regulations (e.g. StVO).

1. Switch on the hazard warning lights with switch **1**.

   Both blinker symbols flash simultaneously in the display and an audible signal sounds.
2. Switch the blinker switch **1** back to the initial position to stop the warning flashing.

7.12 Apply/release parking brake

Fig. 16 Actuate parking brake

WARNING

Rolling the pedelec away

If the pedelec rolls away unintentionally, it can cause serious injuries.

- Always activate the parking brake before leaving the pedelec.

The parking brake is activated when the pedelec is stationary. To move the pedelec, the parking brake must first be released.

Release parking brake

1 Press button **2,** the symbol **7** in the display goes out**.**

✓ parking brake is released.

Apply the parking brake

2. button **5** until the symbol 7 appears on the display

✓ parking brake is applied and the pedelec is secured against rolling away.

7.13 Towing

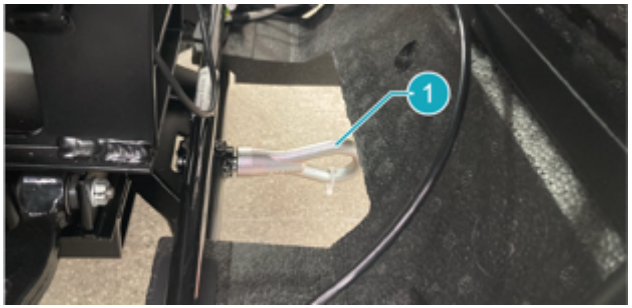

Fig. 27: Attaching the towing eye

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

Attach 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 Switch off the system, see section 7.1page 40.

4 Release the parking brake, see section 7.12page 53.

✓ pedelec is ready for towing.

8 Maintenance and care

DANGER

Electrical voltage

Improper handling of the electrical system or the battery can result in a risk of fatal electric shock.

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

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

8.1 Store battery

Store the battery in a charged state. Despite a low self-discharge rate, the battery loses charge over time. If the battery is not used, it must be fully recharged after 4 weeks.

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** - There is a risk of explosion.

Outdoor temperatures below +5 °C can temporarily reduce the capacity of the battery by up to 10 %. At low outside temperatures, the battery should therefore be stored at room temperature and only connected to the system shortly before use.

8.2 General care instructions

Environmental protection

Always use environmentally friendly auxiliary materials, cleaning and care products.

Do not use a high-pressure cleaner to clean the Pedelec. Otherwise damage may occur. Clean the Pedelec by hand with warm water and a soft, damp cloth.

Do not use any aggressive cleaning agents or abrasive cleaners. These will damage the surface. Clean the Pedelec with a soft, damp cloth.

8.3 Tightening torques

Screw connection	Tightening torque
Handlebar to stem	8 Nm
Stem to steering column	8 Nm
Brake lever	4 Nm
Display	0.2 Nm
Handles	2 Nm
Control unit	0.2 Nm
Saddle holder	23 Nm
Mirror on weather protection	4.5 Nm
Motor cover	4.5 Nm
Pedal to crank	30 Nm
Pedal crank to motor axle	42-48 Nm
Wheel to wheel hub	70 Nm
Brake caliper to brake carrier	9 Nm
Lights and indicators	6 Nm

ATTENTION

Material damage

If the bolted connections are tightened with too much force, there is a risk that parts of the Pedelec will be damaged.

- Use a torque wrench to tighten the screws.

8.4 Maintenance overview

Consistent maintenance and adherence to the intervals is important for the reliable functioning of the Pedelec. The following table lists which maintenance should be carried out, when and by whom.

The specified maintenance intervals are based on the intended use. The brake pads in particular must be checked regularly for 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 earlier.

 Users

 Specialist personnel (Mubea Service/authorized service partner)

Maintenance	Interval	Who?
Visual & functional vehicle inspection, wear part replacement: brake pads	every 2500 km or at least every 12 months	
Visual & functional vehicle inspection, replacement of wearing parts: brake pads, brake discs and tires.	every 10000 km or at least every 36 months	

9 Troubleshooting

9.1 Error table

The following table lists possible faults, their cause and how to rectify them. The last column indicates whether the user may rectify the fault themselves or whether specialist personnel are required.

 Users

 Specialist personnel (Mubea Service/authorized service partner)

Error	Cause	Remedy	Who?
Display does not work	Battery empty	Charging the battery	
	Defective battery	Replace battery	
	No contact between pedelec and battery. Connection is interrupted.	Ensure that the battery is inserted correctly.	
	Consult specialist personnel if necessary		
Control element does not work	Battery empty	Charging the battery	
	Defective battery	Replace battery	
	Consult specialist personnel if necessary		

Error	Cause	Remedy	Who?
Charger does not charge the battery	Charger defective	Replace charger	
	Defective battery	Replace battery	
	Consult specialist personnel if necessary		
Status indicator on the battery does not light up	Battery empty	Charging the battery	
	Defective battery	Replace battery	
Lack of braking power	Consult specialist personnel		
Gearshift does not shift or does not shift cleanly	Consult specialist personnel		
Lighting does not work	Battery empty	Charging the battery	
	Consult specialist personnel if necessary		

Error	Cause	Remedy	Who?
Electric motor without function (lack of motor support) / Error code shown in the display	Hard reset 1 Switch off the vehicle 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 briefly (approx. 10 seconds), push the battery back in until it clicks into place. 3 Switch on the vehicle as described in section 7.1 (press the on/off button).		
	Consult specialist personnel if necessary		
Unusual noises when driving	Loosened screw connections	Tighten the screw connections (for specifications on tightening torques, see page 57)	
	Consult specialist personnel if necessary		

10 Waste disposal

Environmental pollution due to incorrect disposal

Incorrect or careless disposal can pollute the environment. If in doubt, ask the local authorities about environmentally friendly disposal.

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

Lithium iron phosphate 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, it may cause a fire and release hazardous substances.

- Discharge the battery completely and cover the terminals with adhesive tape.

11 Customer information

11.1 Customer service

For technical information, please contact our customer service department, see overleaf.

Information on the regional contact person -can be obtained at any time by -e-mail or via the Internet.

In addition, our employees are constantly interested in new information and experiences that result from the application and can be valuable for the improvement of our products.

11.2 Limitation of liability

All information and instructions in this manual have been compiled taking into account the applicable standards and regulations, the state of the art and our knowledge and experience.

The manufacturer accepts no liability for damage caused by:

- Non-observance of these instructions and accompanying documents
- Non-intended use
- Use of the pedelec by untrained users
- Authorized conversions
- Technical changes
- Use of unauthorized spare parts

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

The actual scope of delivery may differ from the explanations and illustrations described here in the case of special versions, the use of additional ordering options or due to the latest technical changes.

The obligations agreed in the delivery contract, the general terms and conditions as well as the manufacturer's delivery conditions and the statutory regulations valid at the time the contract is concluded shall apply.

We reserve the right to make technical changes in the context of improving the performance characteristics and further development.

11.3 Data protection information

With this data protection information, we would like to inform you which personal data is collected from you when you use the vehicle and what we use this data for. This data protection information also contains a list of your rights in connection with your personal data.

I. Person responsible

The controller pursuant to Art. 4 No. 7 GDPR is:

Muhr und Bender KG
Mubea-Platz 1, 57439 Attendorn
Tel.: 02722 / 620
E-Mail: info@mubea.com

II Data Protection Officer

You can contact our data protection officer as follows:

Muhr and Bender KG

- Data Protection Officer -

Mubea-Platz 1
57439 Attendorn
Tel.: 02722 / 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 that act on the respective vehicle, including the time of impact;
- Strong inclination values of the vehicle above a defined threshold value.
- Daily kilometers driven and odometer reading.

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

The legal basis for data processing is our legitimate interest pursuant to Art. 6 para. 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 recipients of the data

The recipient of the data is a processor from the IT sector.

3. duration of data storage

The data is stored for the respective life cycle of the vehicle and then deleted, unless further processing is required and permitted for other reasons.

IV. Your rights as a data subject

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

- **Right to information**: You can request information in accordance with Art. 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 rectification in accordance with Art. 16 GDPR. If your data is incomplete, you can request that it be completed;
- **Right to erasure**: You can request the erasure of your personal data in accordance with Art. 17 GDPR;
- **Right to restriction of processing**: In accordance with Art. 18 GDPR, you have the right to request that the processing of your personal data be restricted;
- **Right to data portability**: In the event that the requirements of Art. 20 para. 1 GDPR are met, you have the right to have data that we process automatically on the basis of your consent or in fulfillment 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 data protection supervisory authority of your choice in accordance with Art. 77 para. 1 GDPR;
- **Right to object**: Pursuant to Art. 21 (1) GDPR, you have the right to object at any time, on grounds relating to your particular situation, to the processing of your personal data which is based on Art. 6 (1) sentence 1 (f) GDPR.

11.4 Copyright protection

11.5 EC Declaration of Conformity

With the EC Declaration of Conformity, we confirm that all safety requirements and applicable directives for the pedelec are fulfilled.

Index

Notizen

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