



SACHS
MICRO MOBILITY



Cargo Battery LV 814.01

Operating Instructions

Identification

Product

Model: Cargo Battery LV 814.01

- Art. No. 34247 [...]
- Art. No. 40604 [...]

Country of Origin: Germany

Mark: CE

Customer Service

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Document

Operating Instructions Cargo Battery LV 814.01

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Subject to change.

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Important notes on this document

 WARNING	
Non-compliance with safety advice can lead to severe personal injury.	
Non-compliance with safety advice can cause explosion, fire and electric shock. Injury through chemical substances is also possible.	
► Carefully read the operating instructions before using the e-bike battery.	

These instructions are directed towards all users of the battery. Keep this manual accessible to all users for future reference.

Description of Illustration

Signal	Description
 WARNING	Non-compliance can lead to severe injury or death.
 CAUTION	Non-compliance may lead to slight or less severe personal injury.
NOTICE	Non-compliance can lead to property damage.
	Tips, additional information

Contents

1	Product Description	5
1.1	Overview	5
1.2	Intended Use	5
1.3	Conformity	5
1.4	Scope of Delivery	5
1.5	Optional Equipment	5
1.6	Technical Data	5
1.6.1	Performance	5
1.6.2	Compatible Chargers	6
1.6.3	Mounting Sets	6
1.6.4	Environmental Conditions	6
1.6.5	Dimensions and Weight	6
1.7	State of Charge Display	6
1.8	Labelling	6
1.9	Factors Influencing Range	7
2	Safety	7
2.1	Safety Advice	7
2.1.1	General Safety Advice	7
2.1.2	Safety Advice for Charging	7
2.1.3	Safety Advice for E-Biking	7
2.1.4	Safety Advice for Cleaning	7
2.1.5	Safety Advice for Storage	7
2.1.6	Safety Advice for Implant Carriers	8
2.2	Emergency Information	8
2.2.1	First-Aid Measures	8
2.2.2	Fire Fighting Measures	8
3	Operation	8
3.1	Inserting the Battery	8
3.1.1	Safety Advice	8
3.1.2	Akku einsetzen	8
3.1.3	Removing the Battery	8
3.2	Switching on the Battery	8
3.3	Charge Battery	9
3.4	Switching off the Battery	9
3.5	Troubleshooting	9
3.6	Cleaning	9
4	Storage and Transport	9
4.1	Storage	9
4.2	Transport	9
4.2.1	Dispatch	9
4.2.2	Transport on Public Roads	9
5	Disposal	9

1 Product Description

1.1 Overview

- A socket for charging and discharging
- B label
- C state of charge display with on/off button
- D release button

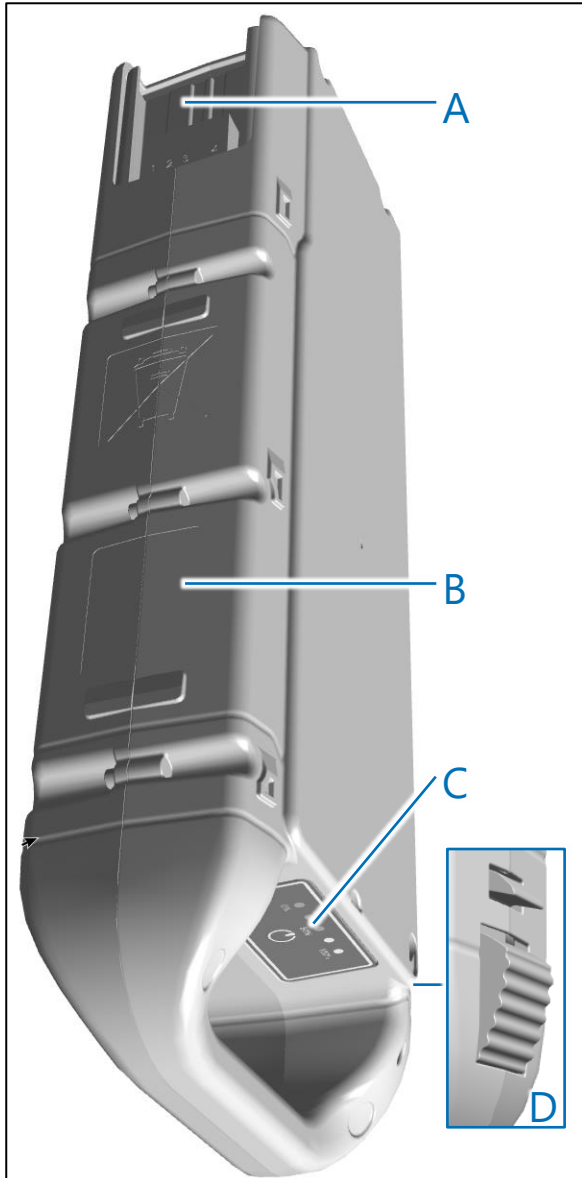


Figure 1: Full view of battery

- E battery holder (C profile)
- F external charging port (optional)
- G charging plug (displayed without cable)

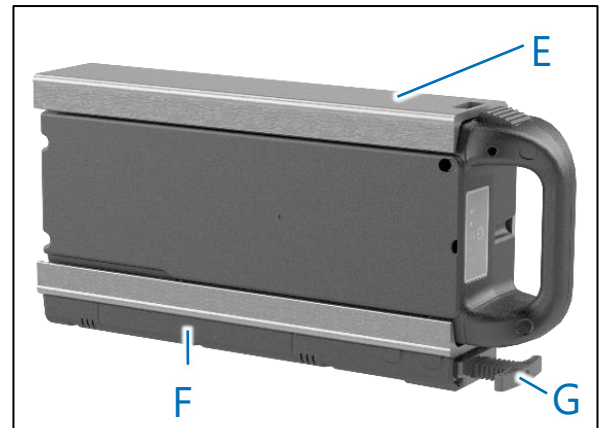


Figure 2: Battery in battery holder with charging port

1.2 Intended Use

The battery supplies drive systems. It may only be used with drive systems and chargers approved by BMZ.

Any other use is not intended and voids the warranty.

1.3 Conformity

- IEC 62133-2: 2017
- CE mark

1.4 Scope of Delivery

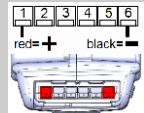
- Cargo Battery LV 814.01
- Operating Instructions

1.5 Optional Equipment

- mounting set incl. motor plug (see 1.6.3)
- compatible chargers (see 1.6.2)
- charging port for charging in the e-bike

1.6 Technical Data

1.6.1 Performance

Cargo Battery	34247, 40604
cell connection (type: BMZ 18650 35E)	13S5P
voltage (nom)	47.19 V
capacity (nom)	17.25 Ah
energy	814 Wh
discharge current (nom)	≤ 35 A
charge current (max)	10 A
end of charge voltage	54.6 V
socket	

1.6.2 Compatible Chargers

- Art. No. 27413-6 (4 A)
- Art. No. 31778 (10 A)

1.6.3 Mounting Sets

- Art. No. 40102
- Art. No. 40105 (with external charge port)

1.6.4 Environmental Conditions

- discharge: -4...140 °F [-20...60 °C]
- charge: 32...113 °F [0...45 °C]
- storage: -4...113 °F [-20...45 °C]
(for best life span 50...77 °F [10...25 °C])
- Humidity 0...80 %

1.6.5 Dimensions and Weight

- Dimensions (W x H x L): 6.02" x 3.23" x 15.47"
[153 x 82 x 393 (mm)]
- weight: appr. 10.4 lbs [4.7 kg]

1.7 State of Charge Display

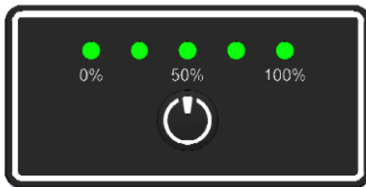


Figure 3: state of charge display with on/off button

Explanation of Symbols

Symbol	Meaning
●	LED on
○	LED off
*	LED flashing (50 % on, 50 % off)

State of Charge Display

LED 1, 2, 3, 4, 5	State of Charge
●●●●●	100...84 %
●●●●○	83...68 %
●●●○○	67...51 %
●●○○○	50...34 %
●○○○○	33...16 %
*○○○○	15...0 % Charge after two days at the latest to avoid permanent damage.
*****	Battery defective. Please contact dealer.

1.8 Labelling

Labels



Figure 4: sample label

Nutzungshinweise / Gewährleistung

- Bei Öffnung des Akkus erlischt die Garantie, ein Stromschlag ist möglich
- Verwenden Sie nur das vorgeschriebene Ladegerät
- Akku vor Erstinbetriebnahme vollständig laden
- Akku vor Nässe und Schmutz schützen
- Akku nicht mit Dampf-/Hochdruck Reiniger säubern
- Akku bei Nicht-Nutzung aus dem Fahrzeug entnehmen
- Akku mit äußeren Beschädigungen sofort außer Betrieb nehmen
- Akku bei Nichtgebrauch alle 2 Monate mindestens 3 Stunden laden

Bei Nicht-Beachtung der Nutzungshinweise erlischt der Garantieanspruch!

Figure 5: Label with instructions for use opposite the handle

Translation of Label

Instructions for use / Warranty

- Opening the battery voids the warranty.
- Use only specified chargers.
- Protect the battery from moisture and dirt.
- Do not clean the battery with a steam cleaner / high pressure cleaner.
- Remove the battery from the vehicle when not in use.
- Do not operate a damaged battery. Battery with external damage should be taken out of operation immediately.
- Charge the battery for at least 3 hours every 2 months when not in use.

Failure to observe the instructions for use will invalidate the warranty claims.

Explanation of Signs

Symbol	Meaning
	general warning sign
	danger of explosion and fire, caused by short circuit, overheating, or other electrical/mechanical abuse
	Do not expose to open flame, fire, open ignition source. Danger of explosion and fire.

Symbol	Meaning
	Do not immerse in liquids.
	Do not throw into fire.
	Do not charge defective batteries.
	Follow operating instructions.
	Complies with relevant European directives.
	Complies with China RoHS: Product contains no hazardous substances.
 Li-ion	lithium-ion battery symbol (contains recyclable materials)
	Do not dispose of in domestic or commercial waste.

1.9 Factors Influencing Range

Temperature

The maximum range is achieved at 68±9 °F [20±5 °C].

Age of Battery Cells

Over time, the capacity of the battery will decrease even when not in use. Charging and discharging accelerates the process.

Storage

Improper storage can permanently reduce capacity.

2 Safety

When misused, lithium-ion batteries pose a threat of explosion, fire and electric shock. Adhere to safety advice to minimize risks and to avoid misuse.

2.1 Safety Advice

2.1.1 General Safety Advice

- Remove battery from e-bike and disconnect from charger when not in use.
- Remove battery from e-bike for handling (i. e. maintenance), transportation or storage. Unintentional activation of the e-bike poses risk of injury and/or damage.
- Use the battery and equipment only if in proper condition.
- Never use a damaged or broken battery.
- Only use the battery that is approved for your e-bike.
- Pe Persons (including children) with reduced physical, sensory or mental abilities or lack of experience and knowledge may not use the battery, unless they are supervised and instructed by a person responsible for their safety.
- Do not short-circuit the battery.
- Do not expose the battery to strong mechanical impacts. It poses a risk of damage to the battery.
- Do not allow children to play with the battery.
- Do not open or dismantle the battery.
- Do not expose the battery to drastic temperature changes.
- Protect the battery from temperatures above 140 °F (60 °C), direct sunlight, and fire. Excessive heat may result in battery leakage and damage to the casing.
- Do not immerse the battery in any liquid. Do not clean with high-pressure cleaner.
- Do not use the battery if contacts are damaged. Do not use with damaged power cables.
- Do not dispose of in household waste. (See chapter 5 for disposal.)

2.1.2 Safety Advice for Charging

- Before charging read charger instructions.
- Charge the battery before use. Only use suitable chargers (cf. 1.6.2).

2.1.3 Safety Advice for E-Biking

- Before your ride check that the battery is tightly fit.
- At a charge level of 0 %, the lighting is switched off. Observe road traffic ordinance.

2.1.4 Safety Advice for Cleaning

- Keep the battery and its contacts clean and dry. Clean with a clean and dry cloth.
- Do not use any solvents (i. e. dilution, alcohol, oil, anti-corrosives), detergents, or running water to clean the battery.
- Do not clean with water hose, high pressure cleaner or steam cleaner.

2.1.5 Safety Advice for Storage

- Store battery in a dry, well-ventilated place away from flames and food.

- Do not store battery near heaters; protect from direct sunlight.
- Do not store the battery near hot or flammable objects. There is a risk of explosion.
- Temperature: -4...113 °F [-20...45 °C]
- Humidity: 0 to 80 %.
- Keep small metal objects away from the battery. Short circuit hazard.

2.1.6 Safety Advice for Implant Carriers

- For technical reasons, electromagnetic (non-ionising) radiation is generated on the electrical lines. Implant carriers must not be in close proximity of the radiation.

2.2 Emergency Information

2.2.1 First-Aid Measures

Medical aid will be required in case of symptoms caused by combustion gases or leakage.

After inhalation

In case of damage or improper use chemical gases may leak. Leave area immediately and breath fresh air. Seek medical advice in case of any symptoms. Gases may cause respiratory irritation.

After skin contact

Remove solid parts immediately. Flush affected areas with plenty of water (at least for 15 min). Carefully pad dry affected areas– do not rub. Remove contaminated clothes immediately. Seek medical advice if skin shows redness or irritation.


After eye contact

Flush eye gently with plenty of water (at least for 15 min). Shield unaffected eye. Seek medical advice immediately.

After ingestion

Drink plenty of milk or water and induce vomiting. Seek medical advice immediately.

2.2.2 Fire Fighting Measures

⚠ WARNING	
	<p>Inhaling smoke can cause poisoning.</p> <ul style="list-style-type: none"> ▶ When facing the fire, position yourself with wind in your back. ▶ If possible, use breathing protection.

- If possible, remove other batteries carefully.
- Evacuate all persons from immediate area of fire.
- To fight the fire use plenty of water or a class D fire extinguisher.
- Call the fire department if fire cannot be extinguished or controlled.

3 Operation

3.1 Inserting the Battery

3.1.1 Safety Advice

⚠ WARNING	
<p>Damaged batteries may burn or explode.</p> <ul style="list-style-type: none"> ▶ Never use dropped or damaged battery. ▶ Keep dropped battery in a non-combustible container. ▶ Return a dropped battery to your dealer. 	

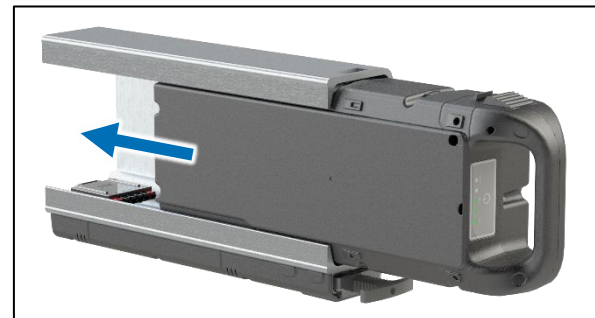
⚠ CAUTION	
<p>Incorrect installation may cause the battery to fall out of the e-bike.</p> <ul style="list-style-type: none"> ▶ Before your ride check whether the battery is tightly fit. 	

Only insert or remove the battery into the e-bike when it is switched off.

3.1.2 Akku einsetzen

Slide the battery into the battery holder until the release button snaps into place.

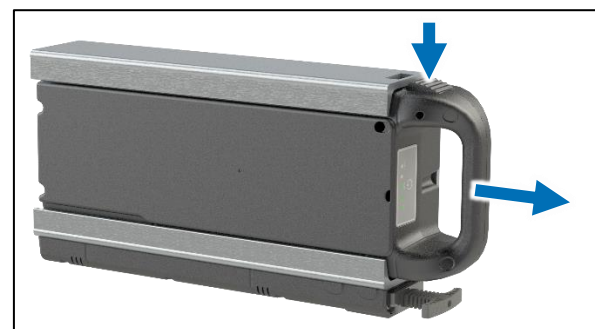
Check whether the battery is tightly fit in the battery holder.



3.1.3 Removing the Battery

Press the release button.

When pulling out, make sure that the battery does not fall down.



3.2 Switching on the Battery

Press the button to switch on the battery. LEDs light up one after the other and go out.

The battery switches on automatically when it detects an e-bike or charger.

3.3 Charge Battery

Follow the instructions for the charger.

LED display during charging:

LED 1, 2, 3, 4, 5	State of Charge
*○○○○	0...33 %
●*○○○	34...50 %
●●*○○	51...67 %
●●●*○	68...83 %
●●●●*	84...99 %
●●●●●	100 %

Table 1: State of charge display during charging

3.4 Switching off the Battery

Long-press the button to switch off the battery. LEDs light up and go out one after the other.

The battery switches off automatically when it does not detect an e-bike or charger.

3.5 Troubleshooting

Error	Possible Solution
All LEDs flashing	Battery defective. ⇒ Please contact dealer.
First LED flashing	Battery empty. ⇒ Charge battery.
LEDs off	⇒ Switch on battery. ⇒ Check connection to e-bike / charger
The battery doesn't charge	⇒ Check connections from charger to socket and to battery
The battery doesn't supply power	⇒ Switch on battery. ⇒ Check connection to e-bike.
Mechanical defect	⇒ Have battery checked by dealer.
Battery doesn't work.	⇒ Please contact your dealer.

3.6 Cleaning

Keep the battery and its contacts clean and dry. If necessary, clean with a dry cloth.

4 Storage and Transport

4.1 Storage

Safety Advice

Please refer to chapter 2 Safety.

Recommendations for best life span

- Store battery with a charge level of 50 %. Check charge level every three months and recharge to 50 %, if necessary.
- Temperature: 50...77 °F [10...25 °C]

4.2 Transport

4.2.1 Dispatch

The battery is categorized as a dangerous good and may only be packaged and dispatched by especially trained personnel. Contact your dealer for more information.

4.2.2 Transport on Public Roads

Private users may transport their battery on public roads without any restrictions.

Commercial users or third parties transporting lithium-ion batteries need to adhere to respective dangerous goods regulations.

5 Disposal

Do not dispose your old battery with your household waste. In EU countries it is mandatory to return batteries. Returning old batteries is free of charge. To avoid a short circuit, fully discharge the battery and cover its poles with adhesive tape.

If batteries are not disposed of properly, they pose a risk of fire, health and environmental hazards.

Drop-off Points

- Manufacturer
- E-bike dealer
- Local recycling centers