



Operator's Manual BOB



Machine Type
Version
Date
Language

BOB5, BOB10, BOB14
5
09/2024
[en-US]

California Proposition 65 Warning



WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.



WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.



WARNING

Cancer and Reproductive Harm
www.P65Warnings.ca.gov



WARNING

Batteries, battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. WASH HANDS AFTER HANDLING.



1 Best practice

General instructions

- Do not open, take apart or deform rechargeable batteries.
- Do not short-circuit rechargeable batteries.
- Use the rechargeable battery for its intended purpose and protect it from damage.
- Carry out a visual inspection of the rechargeable battery before using it (external damage).
- Check the correct function of the control lights before use/charging. If an error message (red control light) appears or the control lights flicker or do not work at all, contact your service partner immediately and do not use/charge the rechargeable battery in the meantime.
- In case of fire, extinguish with water only, do not use a direct water jet.
- The best compromise between performance and service life is achieved by operating at room temperature.
- Repairs only by service partners.

Cleaning

- Do not clean the rechargeable battery with a high-pressure cleaner or steam jet cleaner.
- Keep the rechargeable battery clean and dry and do not bring it into contact with water.
- Clean dirty connections with a dry and clean cloth.

Starting the machine

- After inserting the rechargeable battery into the machine, wait until all control lights have gone out.
- After switching on the rechargeable battery, wait until its charge condition is permanently displayed and all other control lights have gone out.
- Switch-on and start-up behavior can differ for each machine. Further information can be found in the respective operator's manuals for the machines.

Storage

- Store the rechargeable battery in accordance with the applicable guidelines of the respective country; in particular, fire protection requirements (e.g. safety cabinet) must be observed.
- Observe the recommended storage temperature between +5 °C and +25 °C.
- Do not expose the rechargeable battery to heat or fire.
- Avoid storage in direct sunlight.
- Recommended charging capacity for storage: 2-3 lit control lights (about 3% self-discharge per month, deep discharge must be avoided, recharge the battery if necessary).
- Store the rechargeable battery in the battery transport box.
- Store the rechargeable battery in a dust-free and dry place.
- Do not store the rechargeable battery outdoors.
- Store away from combustible materials (min. distance 2.5 m).

Transportation

- When transporting the rechargeable battery, use the battery transport box provided for this purpose (applicable guidelines of the respective country must be observed).
- Do not transport damaged rechargeable battery.

Charging

- Use one of the chargers approved by the manufacturer to charge the battery.
- Do not charge a damaged or defective rechargeable battery.
- After the charging cycle is complete, the rechargeable battery must be disconnected from the charger.
- Ambient temperature for charging: 0 to 45°C.
- If only one indicator lamp lights up during operation, the charge level is already below a range of 20%. To avoid excessive discharges, recharge the battery.

If you have any questions, please contact your service partner.

This is an excerpt of the operator's manuals and information on best practice, which can have a positive effect on the service life of the rechargeable battery. This information may deviate from the limits in the operator's manual.

The above information does not replace the machine's operator's manual, which must be read and understood before using the rechargeable battery.

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2 Declaration of conformity

EU-Konformitätserklärung**Erzeuger**

BMZ Germany GmbH, Zeche Gustav 1, 63791 Karlstein am Main (DE)
www.bmz-group.com | mail@bmz-group.com

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Erzeuger.

Produkt	BOB10, BOB14
Produkt-Art	Akkumulator
Kategorie	Industriebatterie
Serialnummer	B05xx0..., B06xx0...

Richtlinien und Normen

Hiermit erklären wir, dass dieses Produkt den einschlägigen Bestimmungen und Anforderungen folgender Richtlinien und Normen entspricht:

EU 2023/1542 • 2014/53/EU • EN 62841-1:2015 + AC:2015 • ETSI EN 301 489-1 V2.2.3

ETSI EN 301 489-17 V3.1.1 • EN IEC 61000-6-2:2019 • EN IEC 61000-6-3:2021

EN 62479:2010 • EN 301 489-17 V3.2.4 • ETSI EN 300 328 V2.2.2

Karlstein am Main (DE), 21.06.2024



Sven Bauer
CEO

EU Declaration of Conformity**Manufacturer**

BMZ Germany GmbH, Zeche Gustav 1, 63791 Karlstein am Main (DE)
www.bmz-group.com | mail@bmz-group.com

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Product	BOB10, BOB14
Product type	Accumulator
Category	Industrial battery
Serial number	B05xx0..., B06xx0...

Directives and standards

We hereby declare that this product complies with the relevant provisions and requirements of the following directives and standards:

EU 2023/1542 • 2014/53/EU • EN 62841-1:2015 + AC:2015 • ETSI EN 301 489-1 V2.2.3

ETSI EN 301 489-17 V3.1.1 • EN IEC 61000-6-2:2019 • EN IEC 61000-6-3:2021

EN 62479:2010 • EN 301 489-17 V3.2.4 • ETSI EN 300 328 V2.2.2

Karlstein am Main (DE), 21.06.2024

Sven Bauer
CEO

EU Declaration of Conformity

No. 2024-0004

Manufacturer

Wamtechnik SP. Z o.o., 2 Techniczna Street, building H, 05-500 Piaseczno (PL)

www.wamtechnik.pl | office@wamtechnik.pl

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Product	BOB5, BOB10, BOB14
Product type	Accumulator
Category	Industrial battery
Serial number	W04xx0..., W05xx0..., W06xx0...

Directives and standards

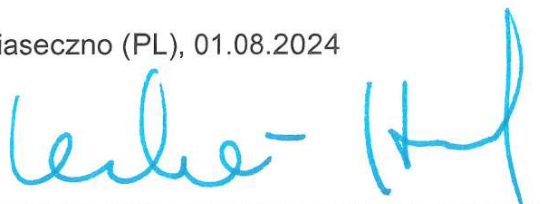
We hereby declare that this product complies with the relevant provisions and requirements of the following directives and standards:

EU 2023/1542 • 2014/53/EU • EN 62841-1:2015 + AC:2015 • ETSI EN 301 489-1 V2.2.3

ETSI EN 301 489-17 V3.1.1 • EN IEC 61000-6-2:2019 • EN IEC 61000-6-3:2021

EN 62479:2010 • EN 301 489-17 V3.2.4 • ETSI EN 300 328 V2.2.2

Piaseczno (PL), 01.08.2024

Katarzyna Kerschke-Habeck

Managing Director

Original Declaration of Conformity

BOB5, BOB10, BOB14_CE_en

EU Declaration of Conformity

No. 2024-0005

Manufacturer

Wamtechnik SP. Z o.o., 2 Techniczna Street, building H, 05-500 Piaseczno (PL)
www.wamtechnik.pl | office@wamtechnik.pl

This declaration of conformity is issued under the sole responsibility of the manufacturer.

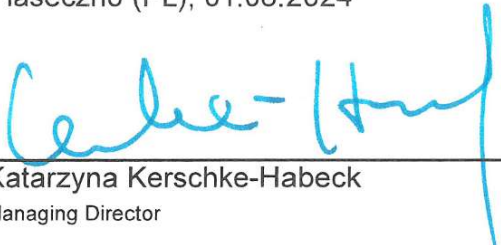
Product	BOB10
Product type	Accumulator
Category	Industrial battery
Serial number	W05xx9...

Directives and standards

We hereby declare that this product complies with the relevant provisions and requirements of the following directives and standards:

EU 2023/1542 • 2014/35/EU • 2014/30/EU • EN 62841-1:2015 + AC:2015
EN IEC 61000-6-2:2019 • EN IEC 61000-6-3:2021 • EN 62479:2010

Piaseczno (PL), 01.08.2024


Katarzyna Kerschke-Habeck
Managing Director

Original Declaration of Conformity

BOB10_CE_en



Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information

Manufacturer

Wamtechnik SP. Z o.o., Al. Wilanowska 7/3, 02-765 Warsaw (PL)

BMZ Germany GmbH, Zeche Gustav 1, 63791 Karlstein am Main (DE)

Product	BOB5, BOB10, BOB14
Product type	Accumulator
Modular component	U-Blox ANNA-B112
FCC Identifier	XPYANNAB1

Responsible Party - U.S. Contact Information

Wacker Neuson Corporation

N92 W15000 Anthony Avenue

Menomonee Falls, WI 53051-1504

technical.support@wackerneuson.com

FCC Compliance Statement

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This product may not cause harmful interference, and (2) this product must accept any interference received, including interference that may cause undesired operation.

Note: This product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a commercial environment. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the operator's manual, may cause harmful interference to radio communications. Operation of this product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the product.



Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information

Copy of the Compliance Information Statement

18.08.2022, 15:51

FCC - OET TCB Form 731 Grant of Equipment Authorization

TCB

**GRANT OF EQUIPMENT
AUTHORIZATION**

TCB

Certification
Issued Under the Authority of the
Federal Communications Commission
By:

PHOENIX TESTLAB GmbH
Koenigswinkel 10
32825 Blomberg,
Germany

Date of Grant: 10/01/2018

Application Dated: 10/01/2018

u-blox AG
Zuercherstrasse 68
Thalwil, CH-8800
Switzerland

Attention: Giulio Comar , Certification Manager

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is
VALID ONLY for the equipment identified hereon for use under the Commission's
Rules and Regulations listed below.

FCC IDENTIFIER: XPYANNAB1

Name of Grantee: u-blox AG

Equipment Class: Digital Transmission System

Notes: Wireless Communication System Module

Modular Type: Single Modular

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
	15C	2402.0 - 2480.0	0.002		

Output power listed is max conducted. This modular transmitter is approved for use in any stand-alone configurations and meets SAR test exclusion for host applications, where the radiating part is 5 mm or less away from the human body. This module can only be used with a host antenna circuit trace layout design in strict compliance with the OEM instructions provided. This module is also approved with a fixed onboard antenna. Only those antenna(s) tested and documented with this device or similar antenna types with equal or lesser gain and identical in- and out-band characteristics may be used with this transmitter. The antenna used for this transmitter module must not transmit simultaneously with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures. The integrator is responsible for the final compliance of the end-product with the integrated transmitter module. When the conditions of this filing cannot be met installation of this device into specific final products may require the submission of a permissive change application containing appropriate data demonstrating compliance, or a new application for equipment authorization. This device supports Bluetooth BLE 5 with different data rates (1 MBit/s, 2 MBit/s) as documented.

3 Foreword

3.1 Introduction

This operator's manual contains important information and procedures for the safe, proper and economical operation of this machine. Careful reading, understanding and observing it helps to avoid hazards, reduce repair costs and downtimes and thus increase the availability and service life of the machine.

This operator's manual is not a manual for extensive maintenance or repair work. Such work must be carried out by the service partner or by technically trained personnel. The machine must be operated and maintained in accordance with the instructions in this operator's manual. Improper operation or maintenance can cause hazards.

Defective machine parts must be replaced immediately!

The manufacturer is always available to answer questions about operation or maintenance.

3.2 Storage Location of the Operator's Manual

This operator's manual must be kept in the immediate vicinity of the machine and accessible to personnel at all times.

If a second copy of this operator's manual is lost or required, the following options are available for obtaining a replacement:

- Contact the service partner

3.2.1 Understanding These Instructions

This section helps to understand the operator's manual and the illustrations used therein.

Target group





People working with this machine must be regularly trained with regard to the dangers and risks occurring when using this machine.

This operator's manual is aimed at:

- Operating personnel:
 - These people have been instructed in working with the machine and about possible dangers and risks arising due to improper behavior.
- Technically trained personnel:
 - These people have a professional training as well as additional knowledge and experience. They are capable of assessing the tasks assigned to them and recognizing any possible risks and dangers.

Explanation of symbols

Symbol	Explanation
1., 2., 3...	Indicates an activity. The sequence of the steps must be observed.
⇒	Indicates a result or an intermediate result of an action.
✓	Indicates prerequisites that must be established for the activity.

Symbol	Explanation
•	Indicates a list, e.g. if several components are named one after the other.
-	Indicates a sub-list, e.g. if components consist of further components
	Identifies a position, usually a component or control element, in a graphic. The numbering may be sequential or in Roman numerals.
1; A	Indicates the naming of components in explanatory texts. It is identical with the adjacent positions in the illustrations.
 	Indicates a direction of movement or different positions for switches.
	Indicates the avoidance of hazards in warning notices.
[▶52]	Indicates a cross-reference in tables. Here e.g. reference to page 52

3.2.1.1 Explanation of symbols

The symbols used in the operator's manual are explained below. The symbols are used exclusively in warning or environmental instructions or information. Warnings must always be observed to protect the operator and third parties from personal injury and damage to property.



Symbol for warnings

This symbol marks general warnings. It is used to alert you of possible hazards, e.g. risks of injury or accidents.



Symbol for indications of technical damage

This symbol is a warning symbol that indicates a danger of technical damage. It is used to indicate situations where damage to the machine or third-party property may occur.



Symbol for environmental information

This symbol indicates environmental information. It is used to warn of possible environmental hazards.



Symbol for information

This symbol indicates information. This information can include tips on operation, for example. It helps to better understand and use the machine.

3.3 Accident Prevention Regulations

In addition to the notes and safety instructions in this operator's manual, the local accident prevention regulations and the national industrial safety regulations apply.

3.4 Contact person

Depending on the country, the contact person is a service partner, a subsidiary or a dealer.

3.5 Limitation of liability

In the event of the following infringements, the manufacturer disclaims any liability for personal injury and damage to property:

- Actions contrary to this operator's manual.
- Non-designated use
- Deployment of untrained personnel.
- Use non-approved spare parts and accessories.
- Improper handling.
- Structural changes of any kind.
- Non-observance of the General Terms and Conditions (GTC).

3.6 Use of the operator's manual

This operator's manual:

- must be regarded as an integral part of the machine and must be kept in a safe place throughout its service life.
- must be passed on to each subsequent owner or operator of this machine.
- applies to various machine types from one product range. For this reason, some illustrations may differ from the appearance of the purchased machine. Variant-dependent components that are not included in the scope of delivery can also be described.

The manufacturer reserves the right to change the information in this operator's manual without notice.

It must be ensured that any changes or additions made by the manufacturer are immediately incorporated into this operator's manual.



Information

Compatible chargers!

Only use the following chargers:

- ▶ BOC7
- ▶ BOC13

Group - Type
BOB5
BOB10
BOB14
Rechargeable battery transport box BOX1

3.7 Applicable documents

Read, understand and keep the operator's manual for the individual machines:

- Operator's manual Zero Emission for machines.
- Operator's manual chargers.
- Operator's manual for accumulators.

4 Usage

4.1 Designated use

Designated use also includes observing all notes and safety instructions in this operator's manual and observing the prescribed care and maintenance instructions.

Any other use or use that goes beyond this is considered improper use. The manufacturer shall not be liable or liable for any damage resulting therefrom. The risk is borne solely by the operator.

The rechargeable battery:

- Only use in machines intended for this purpose.
- Only charge with the manufacturer's approved charger.

4.2 Unintended use

The manufacturer is not liable for personal injury or damage to property resulting from unintended use. The following activities, among others, are not intended:

- Connecting non-permitted components.
- Operating the machine outside the performance data.
- Operation contrary to the notes and safety instructions contained in the operator's manual attached to the machine.
- Operation in potentially explosive atmospheres.
- Operation in the vicinity of open flames.

5 Safety

5.1 Safety symbols and signal words

The following symbol identifies safety instructions. It is used for warning against potential personal risk or danger.



⚠ DANGER

DANGER identifies a situation causing death or serious injury if it is not avoided.

Consequences in case of non-observance.

- Avoidance of injury or death.



⚠ WARNING

WARNING identifies a situation that can cause death or serious injury if it is not avoided.

Consequences in case of non-observance.

- Avoidance of injury or death.



⚠ CAUTION

CAUTION identifies a situation that can cause injury if it is not avoided.

Consequences in case of non-observance.

- Avoidance of injury.



NOTICE

INFORMATION identifies a situation that causes damage if it is not observed.

Consequences in case of non-observance.

- Avoidance of damage to property.

5.2 Principle

The machine has been designed and built in accordance with latest state-of-the-art standards and the recognized safety regulations.

Warning! Risk of injury due to improper use.

Improper use can result in danger to life and limb for the operator and third parties or machine and other property damage.

- Read and observe the notes and safety instructions in this operator's manual. Failure to follow these instructions may result in electric shock, fire and/or serious injury, as well as damage to the machine and/or other objects.
- Keep safety instructions and information for the future.

5.3 Structural changes

Warning! Risk of injury due to structural changes.

Unauthorized structural changes to this machine can pose a risk to operators and/or third parties, as well as damage to the machine and/or other property.

- Do not make any structural changes without the manufacturer's written consent.

In particular, a structural change shall be deemed to have occurred:

- When opening of the machine and permanent removal of components.
- Installation of spare parts that do not come from the manufacturer or are not equivalent in design and quality to the original parts.
- Attachment of accessories of any kind that do not originate from the manufacturer.

The manufacturer's liability and warranty are also void in the event of unauthorized structural alterations.

Spare parts or accessories from the manufacturer can be installed or removed safely.

5.4 Responsibility of the operator

The operator is the person who operates this machine himself for commercial or economic purposes or who leaves it to a third party for use/application and bears the legal product responsibility for the protection of personnel or third parties during operation.

- The operator must make the operator's manual accessible to the personnel at all times and ensure that the operator has read and understood the operator's manual.
- The operator's manual must be kept ready to hand at the machine or at the place of use.
- The operator must hand over the operator's manual to any other operator or subsequent owner of the machine.
- The country-specific regulations, standards and directives on accident prevention and environmental protection must also be observed. The operator's manual must be supplemented by further instructions for compliance with operational, official, national or generally applicable safety guidelines.

5.5 Obligations of the operator

- Know and implement applicable health and safety regulations.
- In a risk assessment, identify hazards arising from working conditions at the place of use.
- Create operating instructions for the operation of this machine.
- Regularly check whether the operating instructions correspond to the current status of the regulations.
- Clearly regulate and define responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- Train personnel at regular intervals and inform them about possible dangers.
- Refresh instruction at regular intervals.
- Keep records of the training received and make them available to the competent authority on request.
- Provide personnel with the necessary protective equipment.

5.6 Qualification of staff

Warning! Risk of injury due to misuse.

In the event of misuse, abuse or operation by untrained personnel, there is a risk to the health of the operator and/or third parties, as well as damage or total failure of the machine and/or other property damage.

- The machine may only be commissioned and operated by trained personnel.

In addition, the following requirements apply to the operator:

- Physical and mental suitability.
- Minimum age 18 years.
- No influence on reactivity by drugs, alcohol or medication.
- Familiarity with the safety instructions in this operator's manual.
- Familiarity with the intended use of this machine.
- Instructed in the independent operation of the machine.

5.7 General safety instructions

The safety instructions in this chapter contain the "General safety instructions", which must be listed in the operator's manual in accordance with the applicable standards. It may contain instructions which are not relevant for this machine.

5.8 Specific rechargeable-battery-related safety instructions

5.8.1 External influences

Warning! Risk of fire due to damage or short-circuiting of the rechargeable battery.

A short-circuited battery can catch fire. Persons can suffer severe burns and property damage can be caused.

- Do not expose the rechargeable battery to heat or fire.
- Do not store the battery in direct sunlight.
- Do not expose the rechargeable battery to mechanical shocks.
- Keep rechargeable battery away from paper clips, coins, keys, nails, screws or other small metal objects that could cause bridging of the contacts.
- Do not insert any objects into the openings of the rechargeable battery.
- Do not expose the rechargeable battery to microwaves.
- Do not expose the rechargeable battery to high pressure.

Warning! Fire and explosion hazard.

Storage with other hazardous substances may lead to fire or explosion due to dangerous interaction.

- Store separately from other hazardous materials.
- Store away from other flammable materials.
- Keep a minimum distance of 2.5 m.

Note! Damage to the rechargeable battery.

Improper cleaning can damage the rechargeable battery.

- Keep the rechargeable battery clean and dry.
- Do not clean the rechargeable battery with high pressure or steam jet cleaners.
- Do not use direct water jets, sharp cleaning agents or pointed objects.
- Protect the rechargeable battery from chemicals and salts.
- Clean dirty connections with a dry and clean cloth.

Note! Property damage due to improper transport.

The rechargeable battery is not protected against all environmental influences. If the rechargeable battery is exposed to certain environmental influences, the rechargeable battery may be damaged and material damage may occur.

- Do not transport a damaged rechargeable battery.
- When transporting the battery, use the battery transport box provided for this purpose,
- Observe the regulations for the transport of dangerous goods.

5.8.2 Operational safety

Warning! Fire hazard due to defective rechargeable batteries.

Damaged rechargeable batteries can catch fire. Persons can suffer severe burns and property damage can be caused.

- Do not take apart, open or deform rechargeable batteries.
- Do not short-circuit rechargeable batteries.
- Use rechargeable batteries for their intended purpose and protect them from damage.

Warning! Risk of serious injury, death and property damage from smoke development and fire.

A damaged or defective rechargeable battery can smell unusual, smoke or burn. Persons may be seriously injured or killed and property damage may occur.

- Do not use the rechargeable battery and separate it from combustible materials if it smells or smokes unusually.

Warning! Risk of burns/risk of poisoning.

A burning rechargeable battery causes great heat generation and formation of toxic gases/vapors. Persons can suffer severe burns and inhalation of gases can lead to poisoning and respiratory tract irritation.

- In the event of fire:
 - Immediately take the machine out of operation.
 - Get injured and other people out of the danger zone.
 - Stay away from vapors and gases, observe wind direction!
 - Extinguish only with water, do not use a direct stream of water.

Caution! Damage to health from rechargeable battery liquid.

The rechargeable battery contains liquid which is irritating to eyes, mucous membranes and skin.

- If a rechargeable battery is leaking, the fluid must not come into contact with mucous membranes, skin or eyes.
- If contact has been made, wash the affected area with plenty of water and seek immediate medical attention.

Note! Damage to the rechargeable battery.

Improper use can damage the rechargeable battery.

- Rechargeable batteries may only be used in the machine specified by the manufacturer for this purpose.
- Do not use rechargeable batteries that are not intended for the machine.

Note! Damage to the rechargeable battery.

Improper charging can damage the rechargeable battery.

- To charge the rechargeable batteries, only use the battery charger approved by the manufacturer.
- Charge rechargeable batteries before use. In this context, make sure that the correct charging procedure is used [see Start-up on page 30](#).
- Do not charge a damaged or defective rechargeable battery.
- After charging is complete, disconnect the battery from the charger.

Note! Damage due to improper use.

Improper use can damage the rechargeable battery.

- Use rechargeable batteries only in those applications for which they are intended.
- Remove the rechargeable battery from the machine when it is not in use.
- Take the rechargeable battery out of the machine when it is being loaded and transported.

Note! Loss of rechargeable battery capacity.

Improper storage can lead to a loss of rechargeable battery capacity.

- In the event of prolonged storage, remove the rechargeable battery from the machine and store it in the battery transport box.
- Store the rechargeable battery in a dry and well-ventilated room.
- Observe storage temperature, [see technical data on page 39](#).

Environment! Environmental damage due to improper disposal.

Improper disposal of rechargeable batteries can lead to significant environmental damage.

- Dispose of the rechargeable battery and packaging in accordance with regulations and in an environmentally friendly manner. Information on disposal is available from a service partner.

Environment! Environmental damage caused by rechargeable battery contents.

Rechargeable battery contents are highly harmful to the environment.

- If a rechargeable battery leaks, do not allow the contents to reach ground water, sewage system or soil.

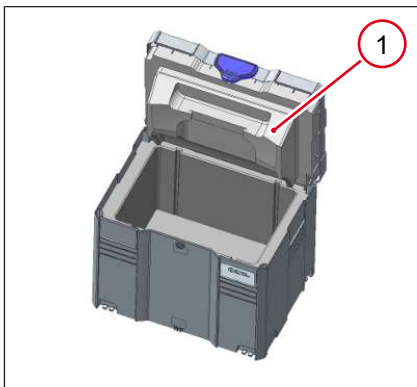
5.9 Safety features

Warning! Risk of injury due to modified or removed safety devices.

Modified or removed safety devices lose their protective function. People can be injured as a result.

- Operate the machine only when the safety devices are correctly installed and functional.
- Do not change or remove safety devices.
- Reattach safety and protective devices removed for maintenance/service (e.g. V-belt protection).

Lithium-ion batteries are classified as dangerous goods in international transport law and are subject to the international regulations for the transport of dangerous goods with regard to classification, packaging and marking.



Cover insert 1 is a special insert for transporting dangerous goods.

Information Regulations for transporting dangerous goods.

If the cover insert is removed, the rechargeable battery transport box no longer complies with the UN regulations for transporting dangerous goods.

- Do not remove the cover insert.

5.10 Service

Warning! Risk of injury from defective machine.

Machines that are not or improperly maintained/repared may have defects that go unnoticed. This can cause personal injury and property damage.

- Observe maintenance intervals according to maintenance plan.
- Only have the machine repaired or serviced by technically trained personnel.
- Have work not listed in the maintenance plan carried out by the service partner.
- Replace worn or damaged machine parts immediately.
- Only use original spare parts and accessories. The operational safety of the machine is thus maintained.
- Carry out maintenance work in a clean and dry environment (e.g. workshop).
- Replace any missing, damaged or illegible safety labels immediately. Safety and information labels contain important information for the protection of the operator.
- Keep the machine clean.

Warning! Risk of injury due to modified or removed safety devices.

Modified or removed safety devices lose their protective function. People can be injured as a result.

- Operate the machine only when the safety devices are correctly installed and functional.
- Do not change or remove safety devices.
- Reattach safety and protective devices removed for maintenance/service (e.g. V-belt protection).

6 Description of the Machine

6.1 Type plates and labels

6.1.1 Type label

A type label is permanently attached to the machine.

Symbols on the type label

Various symbols and markings for national and international approvals can be shown on or next to the nameplate.

6.1.1.1 Labeling on the machine

Type label data

The type label contains information that uniquely identifies this machine. This information is required for ordering spare parts and for technical queries.

Enter the data on the machine in the following table:

Designation	Your details
Serial number	
Year of construction	

6.1.2 Safety and information labels Accumulator

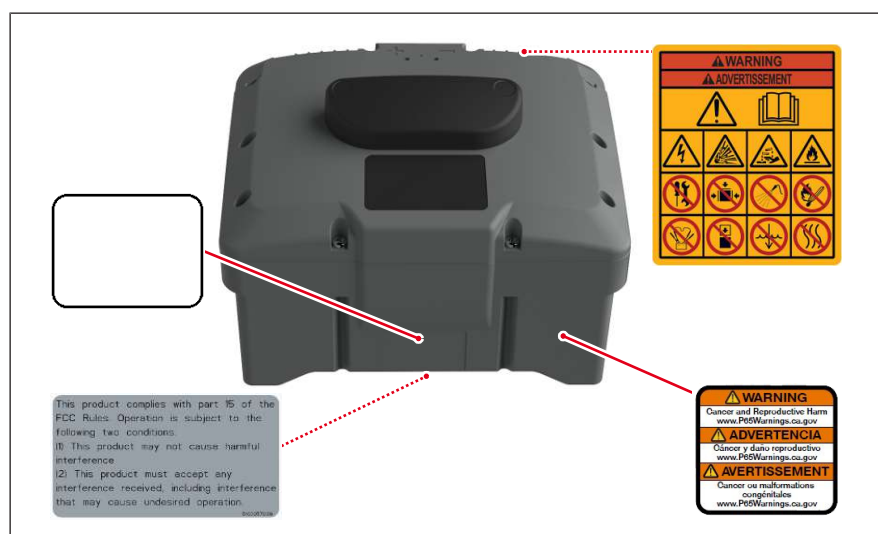


⚠ WARNING

Injury hazard due to missing or damaged labels and signs!

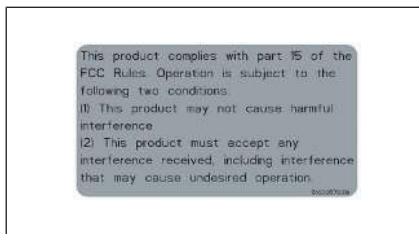
Safety labels contain important information to protect the operator.

- Keep all safety, warning and operating instructions on the machine in a clearly legible condition.
- Replace missing or damaged labels and signs immediately.





Type label.



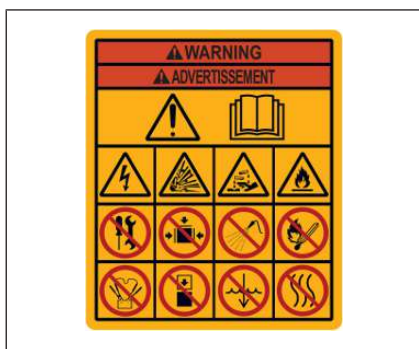
The machine complies with part 15 of the FCC regulations (valid for US market).



Warning of health risks

WARNING! CALIFORNIA: Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

For more information: www.P65Warnings.ca.gov



Warning: Damage to health and property.

Read the operator's manual.

Caution: Electric current.

Do not open the rechargeable battery.

Do not short-circuit rechargeable batteries.

Attention: Danger of explosion.

Do not crush the rechargeable battery (do not subject it to pressure).

Do not stack rechargeable battery

Attention: Danger of chemical burns.

Do not expose the rechargeable battery to water.

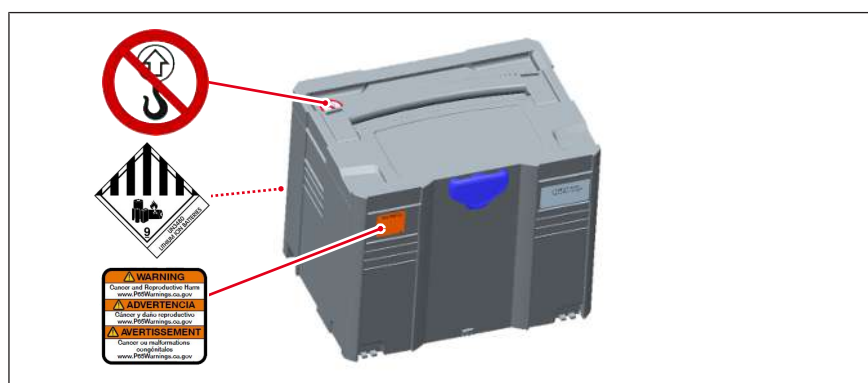
Do not immerse the rechargeable battery in liquid.

Attention: Fire hazard.

Do not expose rechargeable battery to fire.

Do not expose the rechargeable battery to heat.

6.1.3 Safety and information label Battery transport box





No lifting point.

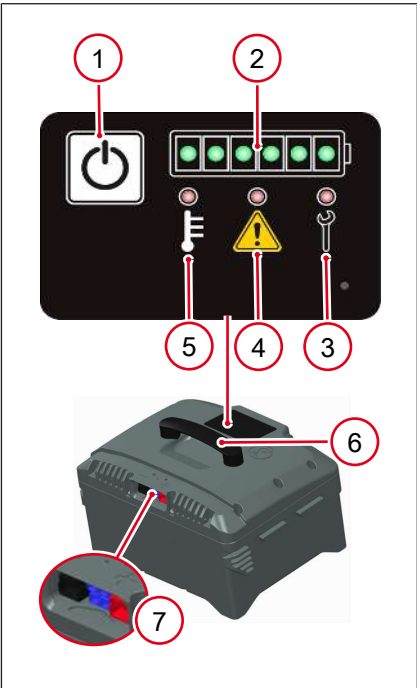


Dangerous goods class 9A, UN 3480: Lithium-ion batteries.
Observe transport regulations.



Warning of health risks
WARNING! CALIFORNIA: Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
For more information: www.P65Warnings.ca.gov

6.2 Components and control elements accumulator



- 1 Start button: Activation/deactivation
- 2 Control light Charge condition
- 3 Control light diagnosis
- 4 Control light rechargeable battery error
- 5 Control light overtemperature/undertemperature
- 6 Handle
- 7 Connections (contact strip)

7 Transportation

7.1 Safety instructions for transport



NOTICE

Material damage due to improper transport!

The rechargeable battery is not protected against all environmental influences. If the rechargeable battery is exposed to certain environmental influences, the rechargeable battery may be damaged and material damage may occur.

- ▶ Do not transport a damaged rechargeable battery.
- ▶ Transport the rechargeable battery in electrically non-conductive packaging.
- ▶ Observe the regulations for the transport of dangerous goods.

7.2 Packing and transporting rechargeable battery



NOTICE

Material damage due to improper transport!

- ▶ Pack the rechargeable battery in the rechargeable battery transport box.
- ▶ Do not remove the cover insert of the rechargeable battery transport box.
- ▶ Observe the regulations for the transport of dangerous goods.

Lithium-ion batteries are classified as dangerous goods in international transport law and are subject to the international regulations for the transport of dangerous goods with regard to classification, packaging and marking.

1. Ensure proper transport and load securing.
2. Take the rechargeable battery out of the machine when it is being loaded and transported.
3. When transporting the rechargeable battery, use the battery transport box provided for this purpose.

8 Commissioning

8.1 Safety instructions for operation



⚠ WARNING

Risk of serious injury, death and property damage due to smoke development and fire!

A damaged or defective rechargeable battery can smell unusual, smoke or burn. Persons may be seriously injured or killed and property damage may occur.

- ▶ Do not use the rechargeable battery and separate it from combustible materials if it smells or smokes unusually.
- ▶ In case of fire, extinguish with water only, do not use a direct water jet.

8.2 Tests before commissioning



Information

Further information and detailed descriptions, [see Maintenance on page 33](#).

Perform the following checks:

- Check machine and components for damage.
 - Do not put the damaged machine into operation. Damages and defects must be repaired immediately.
- Check the charge state of the accumulator.

8.3 Charge the rechargeable battery



NOTICE

Damage to the machine or the accumulator.

Only use chargers and rechargeable batteries from the manufacturer.



Information

Information about commissioning!

Detailed and illustrated information can be found in the operator's manual of the battery charger.



Information

Cell temperature information

If the rechargeable battery's cell temperature is above the permissible temperature when it is connected to the charger, the overtemperature lamp lights up next to the green charging status indicator lamps. The rechargeable battery then remains active for a maximum of 60 minutes. If a fan is installed in the charger, this can also be active.

If the rechargeable battery has cooled down sufficiently during this time, the overtemperature light goes out and the charging process starts automatically.

Charge the rechargeable battery

1. Place the battery charger and rechargeable battery on a dry and clean working area.
2. Connect the battery charger to the power source.
3. Then connect the rechargeable battery to the battery charger.
4. Check the charge condition regularly [see Operation on page 32](#).
5. If the rechargeable battery is completely charged, unplug the battery from the charger and disconnect the battery charger from the power source.

8.4 Install the rechargeable battery



NOTICE

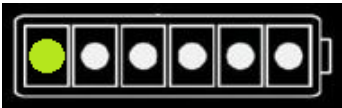

Damage to the machine or the accumulator.

Connections and contact area of the accumulator must be clean and dry.

9 Operation

9.1 Check charge state of rechargeable battery

Checking the charge condition of the rechargeable battery during operation on a regular basis.

Number of illuminated control lights:	Charge condition of the rechargeable battery
	Charge condition < 15 %
	charge condition > 85 %

Charge condition between 15% and 85% is evenly distributed among the other control lights

If only one control light is still on, the charge condition is already below a range of 15 %. To avoid an excessively severe discharge, recharge the battery.



During charging, an additional control light flashes. The number of illuminated control lights indicates the current charging status. When the rechargeable battery is fully charged (100 %), the rechargeable battery and the charger switch off. All control lights go out.

Two illuminated control lights show a charge status of less than 30%.

9.2 Starting the rechargeable battery and the machine

1. After inserting the rechargeable battery into the machine, wait until all control lights have gone out.
2. After switching on the rechargeable battery, wait until its charge status is permanently displayed and all other control lights have gone out.
3. Switch-on and start-up behavior can differ for each machine. Further information can be found in the respective operator's manual for the machine.

10 Maintenance

10.1 Safety instructions for maintenance



⚠ WARNING

Danger of serious injury and death due to independent troubleshooting and repair!

If the accumulator is not repaired correctly, components may no longer function properly and safety devices may be disabled. Persons may be seriously injured or killed.

- ▶ Do not repair rechargeable batteries yourself.
- ▶ If the rechargeable battery is damaged, contact the service partner.



⚠ WARNING

Danger from electric current.

Risk of injury from electric current in the event of improper work.

- ▶ Repairs and a subsequent safety check may only be performed by a qualified electrician according to the applicable guidelines.

10.2 Maintenance plan

Activity	Daily before operation	After operation
Visual check for damage.	•	
Clean the rechargeable battery.		•

10.3 Maintenance work

10.3.1 Cleaning the rechargeable battery.



NOTICE

Damage due to cleaning work!

Penetrating water can damage electrical operating elements or components of the rechargeable battery. Penetrating moisture can lead to total failure.

- ▶ Do not clean the rechargeable battery with a high-pressure or steam jet cleaner!
- ▶ Do not use direct water jets, sharp cleaning agents or pointed objects.
- ▶ Remove moisture (e.g. rain) with a cloth and then allow the rechargeable battery to dry.
- ▶ Only use dry and clean cloths.



NOTICE




Information on damage to the components!

Contact service representative if accumulator or charger is damaged.

1. Clean the rechargeable battery with a dry and clean cloth.
2. Check for damage after cleaning.

11 Troubleshooting

11.1 Troubleshooting rechargeable battery

Pictogram	Status control light	Possible cause	Remedy
	Control light rechargeable battery error is lit.	Engine switch was in ON position when rechargeable battery started.	Set machine switch to OFF position. Activate the rechargeable battery, then start the machine.
		The machine is switched on too quickly.	Do not switch on the machine until the charge condition control lights light up continuously (5 seconds).
		Rechargeable battery not properly connected to the machine, safety bar not closed.	Check plug contacts and replace if necessary (rechargeable battery and machine).*
		Hardware or software error.	Disable and re-enable the rechargeable battery. Have the rechargeable battery repaired.*
	Overtemperature/undertemperature control light lights up.	Temperature error (too high or too low temperature).	Operate the rechargeable battery only within the permissible temperature range.
			Allow the rechargeable battery to cool down or heat up.
			Activate rechargeable battery again.
	Diagnosis control light lights up.	Rechargeable battery has been deactivated and blocked due to a malfunction.	Have the rechargeable battery repaired.*

* Have this work carried out by a service partner.

12 Shutdown

12.1 Temporary decommissioning



⚠ WARNING

Fire and explosion hazard!

Storage with other hazardous substances may lead to fire or explosion due to dangerous interaction.

- ▶ Store separately from other hazardous materials.
- ▶ Store away from other flammable materials.
- ▶ Keep a minimum distance of 2.5 m.



NOTICE

Property damage due to self-discharge of the rechargeable battery!

The self-discharge rate is approx. 3 % per month. Deep discharge can cause damage to the cells or loss of capacity.

- ▶ Check charge condition every six months.



Information

Further information and detailed descriptions, [see Maintenance on page 33](#).

Storage requirements

- Store dust-free and dry.
- Do not store outdoors.
- Protect from direct sunlight.
- Store in a locked place that is not accessible to children.

If the machine is stationary for more than 1 month, perform the following measures:

Rechargeable battery	<ul style="list-style-type: none">• Clean thoroughly.• Check the charge condition, store at a state of charge of approx. 30%.• Store the rechargeable battery separately from the machine.
----------------------	--

12.2 Final shutdown

12.2.1 Disposal of rechargeable batteries and starter batteries

For customers in EU countries

This battery is subject to the European directive on batteries and used batteries, as well as the relevant national laws. The battery directive provides the framework for an EU-wide treatment of batteries.

The battery is marked with the crossed-out garbage bin symbol. Furthermore, a marking of the pollutants used is included, where "Pb" stands for lead and "Cd" stands for cadmium.

Disposable batteries and rechargeable battery containing lithium can be recognized by the marking "Li" or "Li-Ion" for lithium.

Batteries must not be disposed of with normal household waste! End users must dispose of used batteries exclusively through the manufacturers and retailers or, if necessary, collection points specially set up for this purpose (legal return obligation). Retailers and manufacturers are obliged to take these batteries back and recycle them properly or dispose of them as hazardous waste (legal obligation to take them back).

The general business conditions (GBC) contain further specifications and must be observed.

For customers in other countries

The manufacturer recommends that the battery be disposed of in an environmentally friendly manner in a separate collection rather than in the normal household waste. National laws or regional regulations may also require batteries to be disposed of separately. Disposal of the battery in accordance with national regulations must therefore be ensured.

13 Accessories

13.1 BatteryOne App

The batteries associated with serial numbers beginning with W04xx0 to W06xx0 and B04xx0 to B06xx0 contain a Bluetooth-Modul.

The free BatteryOne App offers the option of calling up battery data via a Bluetooth® Low Energy connection and updating the batteries' firmware.

Connect battery to the BatteryOne App to gain access to all BatteryOne App functions.

Country-specific approval instructions for the radio equipment are included in the BatteryOne App.



BatteryOne App in AppStore.



BatteryOne App in GooglePlayStore.

13.2 Rechargeable battery transport box



Battery transport box accommodates the battery with a perfect fit.

14 Technical Data

14.1 General instructions



Information

For system technical reasons, empty columns can be displayed in the technical data, and numbers and letters that written in superscript or subscript may be displayed incorrectly, e.g:

- ▶ Sound power level LWA instead of L_{WA}
- ▶ Sound pressure level LpA instead of L_{pA}
- ▶ Vibration total value ahv instead of a_{hv}
- ▶ Carbon dioxide CO2 instead of CO_2
- ▶ Unit m/s2 instead of m/s^2

14.2 Rechargeable battery



Information

Compatible chargers!

Only use the following chargers:

- ▶ BOC7
- ▶ BOC13

Type	BOB5
Rated voltage [V]	50,4 ¹ 51,8 ²
Type of current (output)	DC
Length [mm]	296
Width [mm]	396
Height [mm]	322
Weight [kg]	6,45
Labeling	14INR19/66-4
Rechargeable battery type	Lithium-ions
Energy content [Wh]	504 ¹ 518 ²
Capacity [Ah]	10
Protection class	IP2X
Storage temperature range [°C]	-20 - +50
Operating temperature range [°C]	-10 - +50
Operating temperature range charging [°C]	0 - +45
Charging time 100% [min] BOC13	50
Charging time 80% [min] BOC13	35
Charging time 100% [min] BOC7	90
Charging time 80% [min] BOC7	70

Type	BOB5
¹ applies to serial numbers x0504...	
² applies to serial numbers x0505...	

Type	BOB10
Rated voltage [V]	50,4 ¹ 51,8 ²
Type of current (output)	DC
Length [mm]	296
Width [mm]	396
Height [mm]	322
Weight [kg]	9,7
Labeling	14INR19/66-8
Rechargeable battery type	Lithium-ions
Energy content [Wh]	1008 ¹ 1036 ²
Capacity [Ah]	20
Protection class	IP2X
Storage temperature range [°C]	-20 - +50
Operating temperature range [°C]	-10 - +50
Operating temperature range charging [°C]	0 - +45
Charging time 100% [min] BOC13	95
Charging time 80% [min] BOC13	70
Charging time 100% [min] BOC7	160
Charging time 80% [min] BOC7	140
¹ applies to serial numbers x0504...	
² applies to serial numbers x0505...	

Type	BOB14
Rated voltage [V]	50,4 ¹ 50,89 ²
Type of current (output)	DC
Length [mm]	296
Width [mm]	396
Height [mm]	322
Weight [kg]	9,96
Labeling	14INR19/66-8
Rechargeable battery type	Lithium-ions
Energy content [Wh]	1351 ¹ 1425 ²
Capacity [Ah]	26,8 ¹ 28,0 ²
Protection class	IP2X
Storage temperature range [°C]	-20 - +50
Operating temperature range [°C]	-10 - +50

Type	BOB14
Operating temperature range charging [°C]	0 - +45
Charging time 100% [min] BOC13	140
Charging time 80% [min] BOC13	105
Charging time 100% [min] BOC7	255
Charging time 80% [min] BOC7	200
¹ applies to serial numbers x0606...	
² applies to serial numbers x0603...	

