Owner's Manual - The Bosch Drive System

Drive Unit | On-board computer | Battery | Charger (20 mph)

BDU280P | BDU280P CX | BDU330 | BDU380 | BU210 | BU215 | BU225 | BU250 | BU330 | BBS261 | BBS266 | BBS271 | BBS276 | BBR261 | BBR266 | BBR271 | BBR276 | BBP280 | BBP281 | BBP285 | BBP286 | BCS210 | BCS230

This manual contains important safety, performance and service information. Read and understand it along with the information provided to you by your bicycle manufacturer before using the product, and keep it for reference.

Age: 16+

Robert Bosch GmbH
Bosch eBike Systems
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GERMANY

www.bosch-ebike.com

This notice contains important safety information, performances and the maintenance. Read and understand it along with the information provided by your bicycle manufacturer before using the product, and keep it for reference.

Este manual contiene información importante de seguridad, rendimiento y mantenimiento. Léalo y asegúrese de entenderlo junto con la información que le ha facilitado el fabricante de su bicicleta antes de usar el producto; guárdelo a modo de referencia.
Introduction

Thank You for Purchasing a Bosch Drive System Equipped Bicycle!
Your Bosch eBike Systems team appreciates having you as a customer and wishes you many years of safe and satisfied use of your bicycle.

About Warnings
This manual contains many DANGER, WARNING, and CAUTION indicators concerning the consequences of failure to use, assemble, maintain, store, inspect and dispose of a Bosch-equipped eBike in a safe manner.
- The combination of the safety alert symbol and the word DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.
- The combination of the safety alert symbol and the word WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.
- The combination of the safety alert symbol and the word CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

General Warnings

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in death or serious injury.

Save all safety warnings and instructions for future reference.
The term battery pack used in these operating instructions refers to all original Bosch eBike battery packs.

⚠️ WARNING ⚠️
- The Bosch Drive System is intended for use by persons 16 years of age and above. Riders must have the physical coordination, reaction and mental capabilities to control a bike and manage traffic, road conditions, and sudden situations, as well as to respect the laws and instructions governing bicycle use.
- This manual contains important safety, performance and service information. Read it before you take the first ride on your new bicycle, and keep it for reference. The manual can also be found online at www.bosch-ebike.com.
- This manual is intended to be read together with the separate user manual provided with your bicycle. Be sure to read all provided documents including labels on the product before your first ride.
- Read ALL accompanying manuals before riding the bike for the first time. Your Bosch Drive System comes with additional manuals and documents provided by the manufacturer of the bicycle and other components. Failure to read and understand safety information can result in death or serious injury.
- Take responsibility for your own SAFETY. If you have any questions or do not understand something, consult with your dealer or the bicycle or component manufacturer.
- Some eBike accessories may present a choking hazard to small children. Keep these accessories away from children.

⚠️ CAUTION ⚠️
- The Bosch Drive System adds weight to your bicycle which you may not be used to lifting. Avoid injury, use proper lifting techniques.
Using Your Operator’s Manual

Your operator’s manual consists of several parts:
- Operating instructions for the Bosch eBike system (this manual)
- Operating instructions for the drive unit
- Operating instructions for the on-board computer
- Operating instructions for the charger
- Operating instructions for the battery

► Read and observe the safety warnings and instructions in all operating instructions of the eBike system and your eBike.

Graphics
The bicycle shown in this manual may differ slightly from your bicycle, but will be similar enough to help you understand our instructions.
RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the bicycle will travel when going forward. When you see a broken line (-----), the item referred to is hidden from view.
Bosch Drive System Overview

Bicycle View (Standard)

Bosch Drive System Components
All representations of bike components are schematic and can deviate from your eBike.

(1) On-board computer
(2) Standard battery "PowerPack"
(3) Drive unit
(4) Charger
Bicycle View (Rack-Type)

Bosch Drive System Components
All representations of bike components are schematic and can deviate from your eBike.

(1) On-board computer
(2) Rack-mounted battery "PowerPack"
(3) Drive unit
(4) Charger
**Bicycle View (PowerTube)**

**Bosch Drive System Components**
All representations of bike components are schematic and can deviate from your eBike.

1. On-board computer
2. Frame-mounted battery "PowerTube"
3. Drive unit
4. Charger
Operating your Bosch Drive System

Getting Ready to Ride

⚠️ WARNING ⚠️

- Read and understand all safety warnings and instructions. Failure to follow the below warnings could result in death or serious injury.
- Protect others from death or serious injury. Prevent unauthorized use. Always remove battery from the bicycle when not in use and store in a secure location. Failure to secure your bicycle from unauthorized use can result in death or serious injury to others.
- Read and understand the influences on the operating range when planning your ride (see "Influences on range", page English – 8).

Before your first ride

Check your bicycle owner’s manual for important information about the bike components like brakes, pedals, gears, shifting, etc.

⚠️ WARNING ⚠️

- While riding, do not become distracted by the onboard computer and always remain alert to all riding conditions. The on-board computer should only be used in a stationary and safe start-up position. Utilize the operating unit to change motor assistance levels while riding.
- Check your bicycle manual for maximum riding weight of your bicycle. Overloading your bicycle can result in component failure which can result in death or serious injury. Typically maximum riding weight is defined by the sum of the rider’s weight plus the weight of any luggage.

Intended Use

⚠️ WARNING ⚠️

- Understand your bike and its intended use by consulting your bicycle owner’s manual. Using your bike the wrong way and for a purpose it was not designed can result in death or serious injury.

The Bosch Drive System components are intended exclusively for your eBike and must not be used for other purposes.

Your Bosch drive unit is not intended for towing another bicycle. For trailer towing, consult your bicycle owner’s manual and trailer owner’s manual for towing instructions and towing compatibility.

Safe Start-up Procedure

⚠️ WARNING ⚠️

- Follow the safe startup procedure below. Failure to follow safe startup procedure can result in death or serious injury.

Preparations

Before starting check the following:
- Check that you have unplugged the battery charger
- Your battery pack is locked in place (Pull on the battery pack to ensure it is locked in place)
- Remove the battery pack key

Start Riding

- Sit in the saddle with both feet touching the ground and two hands on the handlebars.
- Once you are in a stable position, turn on the Bosch on-board computer. The Bosch Drive System will always start up in OFF mode.
- Place both hands on the handlebars and begin pedaling.
Notes on cycling with the eBike system

When does the eBike drive work?
The eBike drive assists your cycling only when you are pedaling. If you do not pedal, the assistance will not work. The motor output always depends on the pedaling force you apply.
If you apply less force, you will receive less assistance than if you apply a lot of force. This applies irrespective of the assistance level.
The eBike drive automatically switches off at speeds over 20 mph. When the speed falls below 20 mph, the drive automatically becomes available again.
An exception applies to the push assistance function, in which the eBike can be pushed at low speed without pedaling. The pedals may rotate when the push assistance is in use.
You can also use the eBike as a normal bicycle without assistance at any time, either by switching off the eBike system or by setting the assistance level to OFF. The same applies when the battery is drained.

Interaction between the eBike system and gear-shifting
The gear-shifting should be used with an eBike drive in the same way as with a normal bicycle (observe the operating instructions of your eBike on this point). Irrespective of the type of gear-shifting, it is advisable to briefly stop pedaling when changing gear. This will facilitate the gear change and reduce wear on the powertrain.
By selecting the correct gear, you can increase your speed and range while applying the same amount of force.
Test the range of your eBike in different conditions before planning longer and more demanding trips.
➤ Read and understand the influences on the operating range when planning your ride (see "Influences on range", page English – 8).

Influences on range
The range is affected by a number of factors, such as:
- Assistance level
- Speed
- Gear shifting behavior
- Tire type and tire pressure
- Age and condition of the battery
- Route profile (gradients) and conditions (road surface)
- Headwind and ambient temperature
- Weight of eBike, rider and luggage
For this reason, it is not possible to predict the range accurately before and during a trip. However, as a general rule:
- With the same assistance level on the eBike drive:
  The less energy you need to exert in order to reach a certain speed (e.g. by changing gears optimally), the less energy the eBike drive will consume and the higher the range per battery charge will be.
- The higher the selected assistance level under otherwise constant conditions, the smaller the range will be.
Note: Plan your routes so that you can always reach your destination without motor assistance.
Transport

**WARNING**

- If you transport your eBike attached to the outside of your car, e.g. on a bike rack, remove the on-board computer and the eBike battery to avoid damaging them.
- Always remove the battery pack from the bicycle before transporting the bicycle on a vehicle bike rack. Failure to remove the battery pack when using a vehicle bike rack can lead to death or serious injury. The battery may detach during transport and cause an accident to following vehicles.
- Always use an approved and compatible bicycle rack when transporting your eBike. The Bosch drive system adds weight to the bicycle. Refer to your bicycle rack manual to be sure your eBike is compatible. Overloading a bike rack can result in death or serious injury.
- Use proper lifting techniques as electric bikes are generally heavier than bicycles.

Ship batteries only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging. Inform your parcel service that the package contains dangerous goods. Please also observe possibly more detailed national regulations. Always check state and federal regulations before attempting to ship your battery.

If you have any questions about transporting the batteries, contact an authorized bicycle dealer. You can also order suitable transport packaging from the dealer.

Maintenance/Cleaning

**WARNING**

- Do not open any of the components. Service should only be carried out at an authorized Bosch eBike dealer. Failure to follow above warning can cause death or serious injury. Refer to your bicycle manual or component manual for all non-Bosch drive system components.
- Always remove the battery pack before performing any bicycle inspection, maintenance or repair. Failure to remove the battery pack before performing bicycle inspection, maintenance or repair can lead to serious injury.
- If you suspect that something is loose, do not ride your bike. See your Bosch eBike dealer, only a qualified service provider should perform work on your Bosch Drive System. All nuts, bolts, screws require the correct tightening force. Too little force and the fastener may not hold securely. Too much force and the fastener can strip threads, stretch, deform or break. Either way, incorrect tightening force can result in component failure, which can cause you to lose control and fall.
- If replacing your battery, buy only a genuine Bosch battery pack from an approved source. See your Bosch eBike dealer for original Bosch parts.
- Always switch the battery pack off, when inserting or removing it from the holder. Never attempt to insert or remove the battery pack while riding the bike.
- Do not charge or use your eBike in any area with a potentially explosive atmosphere, such as at a fueling area, or in areas where the air contains chemicals or particles (such as grain, dust, or metal powders). Obey all signs and instructions.
- Do not submerge your eBike components in water, or wash with pressurized hose. Your Bosch drive unit is designed to be water tight to rain water or non-pressure hose washing.
- Note down the manufacturer and the number of the key. In case of loss of the keys, please refer to an authorised Bosch eBike dealer. Please provide the name of the manufacturer and the number of the key.
Do not paint any components of the Bosch drive system as they may cause premature failure of the component.

Taking care of your eBike
Please observe the operating and storage temperatures of the eBike components. Protect the drive unit, on-board computer and battery against extreme temperatures (e.g. from intense sunlight without adequate ventilation). Extreme temperatures can cause the components (especially the battery) to become damaged.
Have your eBike system checked by an expert at least once a year (including mechanical parts, up-to-dateness of system software).
Please have your eBike serviced and repaired by an authorized bicycle dealer.

After-sales service and advice on using products
If you have any questions about the eBike system and its components, contact an authorized bicycle dealer.
For contact details of authorized bike dealerships, please visit www.bosch-ebike.com
Please contact an authorized bicycle dealer if the battery is no longer working.

Cleaning
Do not submerge your eBike components in water, or wash with pressurized hose. Your Bosch drive unit is designed to be water tight to rain water or non-pressure hose washing.
Keep all components of your eBike clean, especially the battery-pack contacts and corresponding holder contacts. All components including the drive unit may not be immersed in water or cleaned with a high-pressure cleaner. Keep all components of your eBike clean, especially the batterypack contacts and corresponding holder contacts. Clean them carefully with a soft, damp cloth (using only mild soap and water).
Battery Recycling Program

The drive unit, on-board computer incl. operating unit, battery, speed sensor, accessories and packaging should be disposed of in an environmentally correct manner.
Do not dispose of eBikes and their components with household waste.

You may recycle your Bosch battery pack by calling 1.800.822.8837.
This manual contains important safety, performance and service information. Read and understand it along with the information provided to you by your bicycle manufacturer before using the product, and keep it for reference.
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Introduction

Thank You for Purchasing a Bosch Drive System Equipped Bicycle!

Your Bosch eBike system team appreciates having you as a customer and wishes you many years of safe and satisfied use of your bicycle.

General Warnings

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in death or serious injury.

Save all safety warnings and instructions for future reference.

The term “battery pack” used in these operating instructions refers to all original Bosch eBike battery packs.

About Warnings

This manual contains many “DANGER”, “WARNING”, and “CAUTION” indicators concerning the consequences of failing to use, assemble, maintain, store, inspect and dispose of a Bosch-equipped eBike in a safe manner.

The combination of the safety alert symbol and the word “DANGER” indicates a hazardous situation that, if not avoided, will result in death or serious injury.

The combination of the safety alert symbol and the word “WARNING” indicates a hazardous situation that, if not avoided, could result in death or serious injury.

The combination of the safety alert symbol and the word “CAUTION” indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

This manual contains important safety, performance and service information. Read it before you take the first ride on your new bicycle, and keep it for reference. The manual can also be found online at www.bosch-ebike.com.

This manual is intended to be read together with the separate user manual provided with your bicycle. Be sure to read all provided documents including labels on the product before your first ride.

Read ALL accompanying manuals before riding the bike for the first time. Your Bosch Drive System comes with additional manuals and documents provided by the manufacturer of the bicycle and other components. Failure to read and understand safety information can result in death or serious injury.

Take responsibility for your own SAFETY. If you have any questions or do not understand something, contact your Bosch eBike dealer or the bicycle or component manufacturer.

Some eBike accessories may present a choking hazard to small children. Keep these accessories away from children.

Using Your Operator’s Manual

Graphics

The bicycle shown in this manual may differ slightly from your bicycle, but will be similar enough to help you understand our instructions.

RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the bicycle will travel when going forward. When you see a broken line (-----), the item referred to is hidden from view.
Operating your Bosch Drive Unit

Safety Rules

Read and understand all safety warnings and instructions. Failure to follow the warnings below could result in death or serious injury.

Save all safety warnings and instructions for future reference.

The term “battery pack” used in these operating instructions refers to all original Bosch eBike battery packs.

▶ Do not open the drive unit yourself. The drive unit must be repaired only by qualified experts and only with original spare parts. This will ensure that the safety of the drive unit is maintained. Unauthorized opening of the drive unit will void warranty claims.

▶ All components attached to the drive unit and all other components of the eBike drive (e.g., the chainwheel, chainwheel seat, pedals) may be replaced only with identical components or components specifically approved for your eBike by the bicycle manufacturer. This protects the drive unit against overload and damage.

▶ Remove the battery pack from the eBike before beginning work (e.g. inspection, repair, assembly, maintenance, work on the chain, etc.) on the eBike, transporting it by car or plane, or storing it. Unintentional activation of the eBike system poses a risk of injury.

▶ The eBike system can switch itself on when the eBike is pushed backwards.

▶ Using the walk assistance function is only recommended when pushing the eBike. There is risk of injury if the wheels of the eBike are not in contact with the ground while using the walk assistance.

▶ While using the walk assistance, the pedals will rotate on bikes with back-pedaling function. Due to the risk of injury, please make sure that your body is a sufficient distance away from the rotating pedals.

▶ Use only original Bosch battery packs approved for your eBike by the manufacturer. Using other battery packs can lead to injuries and pose a fire hazard. When using other battery packs, the warranty is void and Bosch shall not assume any liability.

▶ Do not make any modifications to your eBike system or attach any other products which would be suitable for increasing the performance of your eBike system. Unauthorized modification of the system could result in death or serious injury.

▶ Please follow all local, state and federal regulations when registering and using eBikes.

▶ Read and observe the safety warnings and instructions in all operating instructions of the eBike system and your eBike.
Product Description and Specifications

Intended Use
The drive unit is intended only for driving your eBike and must not be used for other purposes.

Technical Data

<table>
<thead>
<tr>
<th>Drive unit</th>
<th>Drive Unit Cruise</th>
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<tr>
<td>Article number</td>
<td>0 275 007 065</td>
</tr>
<tr>
<td>Rated continuous power</td>
<td>W 250</td>
</tr>
<tr>
<td>Torque at drive, max.</td>
<td>Nm 63</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>V25 36</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°F +23 ... +104</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>°F +14 ... +122</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 54 (dust and splash water protected)</td>
</tr>
<tr>
<td>Weight, approx.</td>
<td>lb 8.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drive unit</th>
<th>Drive Unit CX</th>
</tr>
</thead>
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<tr>
<td>Article number</td>
<td>0 275 007 038</td>
</tr>
<tr>
<td>Rated continuous power</td>
<td>W 250</td>
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<td>Nm 75</td>
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<tr>
<td>Rated voltage</td>
<td>V25 36</td>
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<tr>
<td>Operating temperature</td>
<td>°F +23 ... +104</td>
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<tr>
<td>Storage temperature</td>
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</tr>
<tr>
<td>Weight, approx.</td>
<td>lb 8.8</td>
</tr>
</tbody>
</table>

Bike lights 1)

| Voltage, approx. 2)3) | V25 6/12 |
| Maximum output | |
| – Front light | W 8.4/17.4 |
| – Rear light | W 0.6/0.6 |

1) Not possible via the eBike battery pack in all country-specific versions, depending on the statutory regulations
2) The voltage level is preset and can be changed only by the eBike dealer.
3) When changing the bulbs, ensure that the bulbs are also compatible with the Bosch eBike system (ask your eBike dealer) and that the specified voltage matches. Bulbs must be replaced only with bulbs of the same voltage.

Assembly

Inserting and removing the battery pack
To insert or remove the battery pack in/from the eBike, please read and follow the battery pack operating instructions.

Checking the Speed Sensor

17 Speed sensor
18 Spoke magnet for the speed sensor

The speed sensor 17 and its spoke magnet 18 must be attached in such a way that the spoke magnet, after a turn of the wheel, moves past the speed sensor with a clearance of at least 5 mm, yet no more than 17 mm.

Note: If the clearance between the speed sensor 17 and the spoke magnet 18 is too small or too large, or if the speed sensor 17 is not properly connected, the speed indicator will fail, and the eBike drive unit will operate in the emergency mode. In this case, loosen the screw for the spoke magnet 18 and fasten the spoke magnet to the spoke in such a way that it runs past the mark of the speed sensor at the correct clearance. If the speed is still not being indicated on the speed indicator after this is done, please contact an authorized Bosch eBike dealer.
Operation

Initial Operation

Requirements
The eBike system can only be activated when the following requirements are met:
- A sufficiently charged battery pack is inserted (see battery pack operating instructions).
- The on-board computer is properly inserted in the holder (see on-board computer operating instructions).
- The speed sensor is connected properly (see “Checking the Speed Sensor”, page English – 4).

Switching the eBike System On/Off

Options for switching on the eBike system:
- If the on-board computer is already switched on when inserted into the holder, then the eBike system will be switched on automatically.
- When the on-board computer and the eBike battery pack are inserted, briefly press the On/Off button of the on-board computer once.
- When the on-board computer is inserted, press the On/Off button on the battery pack.

Once it is switched on, the eBike system is in the “OFF” mode. Select the desired assistance level and take off. The drive is activated as soon as you put pressure on the pedals. The assistance level depends upon the on-board computer settings.

As soon as you stop pedaling when in normal operation, or as soon as you have reached a speed of 20 mph, the assistance from the eBike drive unit is switched off. The motor assistance is automatically re-activated as soon you start pedaling again and the speed is below 20 mph.

Options for switching off the eBike system:
- Press the On/Off button of the on-board computer.
- Switch off the eBike battery using its On/Off button (bicycle manufacturer-specific solutions are possible whereby there is no access to the battery On/Off button; see the bicycle manufacturer operating instructions).
- Remove the on-board computer out of its holder.

If the eBike is not moved and no button is pressed on the on-board computer for 10 minutes, the eBike system will shut down automatically in order to save energy.

eShift (optional)
eShift is the integration of electronic gear shifting systems into the eBike system. The eShift components are electrically connected to the drive unit by the manufacturer. The separate operating instructions describe how to operate the electronic gear-shifting systems.

Setting the Assistance Level

With the on-board computer you can set how much the eBike drive assists you while pedaling. The assistance level can be changed at any time while the system is on, even while cycling.

Note: For individual versions, it is possible that the assistance level is preset and cannot be changed. It is also possible that fewer assistance levels are available for selection than listed here.

When the eBike is configured in “eMTB Mode” by the manufacturer, the assistance factor and torque are dynamically adjusted as a function of the force you exert on the pedals. “eMTB Mode” is only available for Performance Line CX drives.

The following assistance levels (max.) are available:
- “OFF”: The motor assistance is switched off and the eBike can be moved by pedaling. The walk assistance cannot be activated in this assistance level.
- “ECO”: Effective assistance at maximum efficiency for maximum cruising range
- “TOUR”: Uniform assistance, for touring with long cruising range
- “SPORT”/“eMTB”
  “SPORT”: Powerful assistance for sporty off-road riding, as well as for urban traffic
  “eMTB”: Optimal assistance whatever the terrain, rapid acceleration when starting from a standstill, improved dynamics and top performance.
- “TURBO”: Maximum assistance, supporting the highest speed for sporty riding
The motor output requested appears on the display of the on-board computer (not on Purion). The maximum motor output depends on the selected assistance level.

### Assistance Level

<table>
<thead>
<tr>
<th>Assistance Level</th>
<th>Assistance Factor(^1) (Derailleur)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cruise</td>
</tr>
<tr>
<td>“ECO”</td>
<td>55 %</td>
</tr>
<tr>
<td>“TOUR”</td>
<td>120 %</td>
</tr>
<tr>
<td>“SPORT”/“eMTB”</td>
<td>190 %</td>
</tr>
<tr>
<td>“TURBO”</td>
<td>275 %</td>
</tr>
</tbody>
</table>

1) The assistance factor may vary on the individual versions.
2) Maximum value

Once it is switched on, the eBike system is in the “OFF” mode.

### Switching the Walk Assistance On/Off

The walk assistance can make it easier for you to push the eBike. The speed of this function depends on the selected gear and can reach a maximum of 3.7 mph. The lower the selected gear, the lower the speed of the walk assistance function (at full capacity).

Using the walk assistance function is only recommended when pushing the eBike. There is risk of injury if the wheels of the eBike are not in contact with the ground while using the walk assistance.

To activate the walk assistance function, briefly press button “WALK” on your on-board computer. After activation, press button “+” within 3 s and keep it pressed. The eBike drive is switched on.

**Note:** The walk assistance cannot be activated in the “OFF” assistance level.

The walk assistance is switched off as soon as one of the following occurs:
- you release the button “+”.
- the wheels of the eBike are stopped (e.g. by actuating the brakes or impacting against an obstacle),
- the speed exceeds 3.7 mph.

**Note:** On some systems the walk assistance function can be started directly by pressing the “WALK” button.

### Switching bike lights On/Off

On the version which has bike lights powered by the eBike system, the front and rear lights can be switched on and off at the same time via the on-board computer.

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1) The assistance factor may vary on the individual versions.
2) Maximum value

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**Bosch eBike Systems**

0 275 U07 PDC | (9.5.17)
Maintenance/Cleaning

**WARNING**

- Do not open any of the components. Service should only be carried out at an authorized Bosch eBike dealer. Failure to follow the above warning may result in death or serious injury. Refer to your bicycle manual or component manual for all non-Bosch Drive System components.

- Always remove the battery pack before performing any bicycle inspection, maintenance or repair. Failure to remove the battery pack before performing bicycle inspection, maintenance or repair can lead to serious injury.

- If you suspect that something is loose, do not ride your bike. See your Bosch eBike dealer; only a qualified service provider should perform work on your Bosch Drive System. All nuts, bolts, screws require the correct tightening force. Too little force and the fastener may not hold securely. Too much force and the fastener can stretch, deform or break, or the threads can be stripped. Either way, incorrect tightening force can result in component failure, which can cause you to lose control and fall.

- If replacing your battery, only buy a genuine Bosch battery pack from an approved source. See your Bosch eBike dealer for original Bosch parts.

- Always switch the battery pack off when inserting or removing it from the holder. Never attempt to insert or remove the battery pack while riding the bike.

- Do not charge or use your eBike in any area with a potentially explosive atmosphere, such as at a fueling area, or in areas where the air contains chemicals or particles (such as grain, dust, or metal powders). Obey all signs and follow all instructions.

- Do not submerge your eBike components in water, or wash using a pressurized hose. Your Bosch drive unit is designed to be water tight in regards to rain water and non-pressurized hose washing. All components including the drive unit may not be immersed in water or cleaned with a high-pressure cleaner. Keep all components of your eBike clean, especially the battery pack contacts and the corresponding holder contacts. Clean them carefully with a soft, damp cloth (using only mild soap and water).

- **Note down the manufacturer and the number of the key.** In case the keys are lost, please contact an authorized Bosch eBike dealer. Please provide the name of the manufacturer and the number of the key.

- Do not paint any components of the Bosch Drive System as this may cause premature failure of the components.

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**Careful Handling of the eBike**

Please observe the operating and storage temperatures for the eBike components. Protect the drive unit, on-board computer and battery pack against extreme temperatures (e.g., from intense sunlight without adequate ventilation). The components (especially the battery pack) can become damaged because of extreme temperatures.

It is recommended to have your eBike system checked by an expert at least once a year (including mechanical parts and to update the system software).

Please contact an authorized bicycle dealer for service or repairs to the eBike.

**After Sale Service and Customer Assistance**

In case of questions concerning the eBike system and its components, please contact an authorized Bosch eBike dealer.

Contact data for authorized Bosch eBike dealers can be found at [www.bosch-ebike.com](http://www.bosch-ebike.com)

When the battery pack is no longer operative, please contact an authorized Bosch eBike dealer.

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**Cleaning**

- Do not submerge your eBike components in water, or wash using a pressurized hose. Your Bosch drive unit is designed to be water tight in regards to rain water and non-pressurized hose washing.

Keep all components of your eBike clean, especially the battery pack contacts and the corresponding holder contacts.

---
This manual contains important safety, performance and service information. Read and understand it along with the information provided to you by your bicycle manufacturer before using the product, and keep it for reference.

Active Line/Active Line Plus/Performance Line

Este manual contiene información importante de seguridad, rendimiento y mantenimiento. Léalo y asegúrese de entenderlo junto con la información que le ha facilitado el fabricante de su bicicleta antes de usar el producto; guárdelo a modo de referencia.

Battery

BBS261, BBS266, BBS271, BBS276, BBR261, BBR266, BBR271, BBR276, BBP280, BBP281
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Introduction

Thank You for Purchasing a Bosch Drive System Equipped Bicycle!
Your Bosch eBike system team appreciates having you as a customer and wishes you many years of safe and satisfied use of your bicycle.

General Warnings

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in death or serious injury.

Save all safety warnings and instructions for future reference.
The term “battery pack” used in these operating instructions refers to all original Bosch eBike battery packs.

About Warnings
This manual contains many “DANGER”, “WARNING”, and “CAUTION” indicators concerning the consequences of failing to use, assemble, maintain, store, inspect and dispose of a Bosch-equipped eBike in a safe manner.
The combination of the safety alert symbol and the word “DANGER” indicates a hazardous situation that, if not avoided, will result in death or serious injury.
The combination of the safety alert symbol and the word “WARNING” indicates a hazardous situation that, if not avoided, could result in death or serious injury.
The combination of the safety alert symbol and the word “CAUTION” indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

WARNING

- This manual contains important safety, performance and service information. Read it before you take the first ride on your new bicycle, and keep it for reference. The manual can also be found online at www.bosch-ebike.com.
- This manual is intended to be read together with the separate user manual provided with your bicycle. Be sure to read all provided documents including labels on the product before your first ride.
- Read ALL accompanying manuals before riding the bike for the first time. Your Bosch Drive System comes with additional manuals and documents provided by the manufacturer of the bicycle and other components. Failure to read and understand safety information can result in death or serious injury.
- Take responsibility for your own SAFETY. If you have any questions or do not understand something, contact your Bosch eBike dealer or the bicycle or component manufacturer.
- Some eBike accessories may present a choking hazard to small children. Keep these accessories away from children.

CAUTION

- The Bosch Drive System adds weight to your bicycle which you may not be used to lifting. Avoid injury; use proper lifting techniques.

Using Your Operator’s Manual

In addition to the functions shown here, changes to software relating to troubleshooting and functional enhancements may be introduced at any time.

Graphics
The bicycle shown in this manual may differ slightly from your bicycle, but will be similar enough to help you understand our instructions.

RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the bicycle will travel when going forward. When you see a broken line (-----), the item referred to is hidden from view.
On-Product Warning Labels

A

WARNING No User Serviceable Parts, Do NOT Open
• Read and understand owner’s manual before using

WARNING Avoid Serious Injury or Death
• Remove battery when using vehicle bike rack!
• Remove battery before performing bike inspection\repair!

DANGER Explosion
• Do NOT expose above 140°F (60°C).
• Do NOT crush or puncture!

B

Safety warnings, “PowerPack”
Safety warnings, “PowerTube”

Warning labels have been placed on the Bosch eBike System for your protection. Read and follow the instructions of the labels on the product carefully. If a label becomes illegible or comes off, contact your Bosch bicycle dealer to obtain a replacement. Replacement safety labels are provided by Bosch at no charge.
Handling the lithium-ion battery pack

Safety warnings for Bosch eBike batteries

Read and understand all safety warnings and instructions. Failure to follow the warnings below could result in death or serious injury.

Save all safety warnings and instructions for future reference.

The term “battery pack” used in these operating instructions refers to all original Bosch eBike battery packs.

⚠️ DANGER ⚠️
- Do not puncture or crush the battery pack. Do not subject the battery pack to mechanical impacts or modify it in any way. Do not use the battery pack if it shows visible damage. Otherwise, there is the risk of a fire or an explosion, which can cause death or serious injury.

Protect the battery pack against heat (e.g., temperature > 140 °F), fire and immersing into water. Otherwise, there is the risk of an explosion.

⚠️ WARNING ⚠️
- Use only original Bosch battery packs approved for your eBike by the manufacturer and purchased from a trusted source. Use of non-approved or counterfeit battery packs can lead to death or serious injury.

- Remove the battery pack from the eBike before beginning work (e.g., inspection, repair, assembly, maintenance, work on the chain, etc.) on the eBike, transporting it by car or plane, or storing it. Unintentional activation of the eBike system poses a risk of injury.

- Do not open the battery pack. There is a risk of a short circuit. Opening the battery pack voids any and all warranty claims.

- If it is not being used, keep the battery pack away from paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another. Shorting the battery pack terminals together may cause burns or a fire. For any damage caused by shorting the terminals in this way, any and all warranty claims through Bosch shall be invalid.

- Avoid mechanical loads and exposure to high temperatures. These can damage the battery cells and cause the flammable contents to leak out.

- Do not place the charger or battery pack near flammable materials. Charge battery packs only when dry and in a fireproof area. There is a risk of fire due to the heat generated during charging.

- The eBike battery must not be left unattended while charging.

- If it is abused, then liquid may be ejected from the battery pack. Avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery pack may cause skin irritations or burns.

- Battery packs must not be subjected to mechanical impacts. There is a risk that the battery pack will be damaged causing vapors to escape. The vapors can irritate the respiratory system. Provide for fresh air and seek medical attention in case of complaints.

- The battery may give off fumes if it becomes damaged or is used incorrectly. Provide a fresh air supply and seek medical advice in the event of pain or discomfort of being exposed to these fumes. These fumes may irritate the respiratory tract.

- Charge the battery pack only with original Bosch battery chargers. When using non-original Bosch chargers, the risk of fire cannot be excluded.

- Use the battery pack only together with eBikes that have an original Bosch eBike drive system. This is the only way to protect the battery pack against dangerous overload.
Use only original Bosch battery packs approved for your eBike by the manufacturer. Using other battery packs can lead to injuries and pose a fire hazard. When using other battery packs, the warranty is void and Bosch shall not assume any liability.

Do not use the rack-type battery pack as a handle. Lifting the eBike up by the battery pack can cause damage to the battery pack.

Read and observe the safety warnings and instructions in all operating instructions of the eBike system and your eBike.

Keep the battery pack out of reach of children.

The safety of both our products and customers is important to us. Our battery packs are lithium-ion batteries which have been developed and manufactured in accordance with the latest technology. We comply with or exceed the requirements of all relevant safety standards. When charged, these lithium-ion batteries contain a high level of energy. In the case of a fault (which may not be detectable from the outside), lithium-ion batteries can, in very rare cases and under unfavourable conditions, catch fire.

When the eBike is connected to the Bosch DiagnosticTool, data are sent to Bosch eBike Systems (Robert Bosch GmbH) for purposes of product improvement for the use of Bosch components (including temperature, cell tension, etc.). More detailed information is provided on the Bosch eBike website www.bosch-ebike.com.
Product Description and Specifications

Product Features PowerPack
All representations of bike components, with the exception of the battery packs and their holders, are schematic and can deviate from your eBike.

1. Holder for the rack-type battery pack
2. Rack-type battery pack
3. Operation and charge-control indicator
4. On/Off button
5. Key for the battery pack lock

6. Battery pack lock
7. Upper holder for the standard battery pack
8. Standard battery pack
9. Bottom holder for the standard battery pack
10. Cover lid (Supplied only on eBikes with 2 battery packs)
11. Battery charger
12. Socket for charge connector
13. Charge socket cover
Product Features PowerTube

All representations of bike components, with the exception of the battery packs and their holders, are schematic and can deviate from your eBike.

3 Operation and charge-control indicator
4 On/Off button
5 Key for the battery pack lock
6 Battery pack lock

11 Battery charger
12 Socket for charge connector
13 Charge socket cover
14 PowerTube safety restraint
15 PowerTube battery
16 PowerTube safety hook
Technical Data

<table>
<thead>
<tr>
<th>Lithium-ion battery pack</th>
<th>PowerPack 400</th>
<th>PowerPack 500</th>
<th>PowerTube 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>BBS261/BBS266</td>
<td>BBS271/BBS276</td>
<td>BBP280 – horizontal</td>
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<td>BBR261/BBR266</td>
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<td>BBP281 – vertical</td>
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<td>Wh 400</td>
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<td>Storage temperature</td>
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<td>+14…+140</td>
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<td>Permitted charging</td>
<td>°F +32…+104</td>
<td>+32…+104</td>
<td>+32…+104</td>
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<tr>
<td>temperature range</td>
<td>5.5/5.7</td>
<td>5.7/6.0</td>
<td>6.2</td>
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<td>Weight, approx.</td>
<td>Ip 54 (dust and splash water protected)</td>
<td>IP 54 (dust and splash water protected)</td>
<td>IP 54 (dust and splash water protected)</td>
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<tr>
<td>Degree of protection</td>
<td>IP 54 (dust and splash water protected)</td>
<td>IP 54 (dust and splash water protected)</td>
<td>IP 54 (dust and splash water protected)</td>
</tr>
</tbody>
</table>

S) Standard battery pack  
R) Rack-type battery pack

This device is in compliance with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device must not cause harmful interference, and  
(2) this device must accept any interference that is received, including interference that may cause undesired operation.

This device is in compliance with CAN ICES-3(B)/NM B-3(B).

Assembly

- Put the battery pack down only on clean surfaces. In particular, avoid getting the charge socket and the contacts dirty, e.g., with sand or soil.

Checking the Battery Pack Before Using for the First Time

Check the battery pack before charging it or using it with your eBike for the first time.

To do this, press the On/Off button 4 to switch on the battery pack. If no LED for the charge-control indicator 3 lights up, then the battery pack may be damaged.

When at least one of the LEDs, but not all, for the charge-control indicator 3 is lit, then fully charge the battery pack before using it for the first time.

- Do not attempt to charge or use a damaged battery pack. Please contact an authorized Bosch eBike dealer.

Charging the Battery Pack

- Only use the Bosch charger provided with your eBike or an identical original Bosch charger. Only this charger is matched to the lithium-ion battery pack used in your eBike.

Note: The battery pack is supplied partially charged. To ensure full battery pack capacity, completely charge the battery pack in the charger before using it for the first time.

To charge the battery pack, read and follow the operating instructions for the charger.

The battery can be charged at any level of charge. Interrupting the charging process does not damage the battery pack.

The battery pack is equipped with a temperature control indicator, which enables charging only within a temperature range between 32 °F and 104 °F.

When the battery pack is not within the charging temperature range, three LEDs of the charge-control indicator 3 flash. Disconnect the battery pack from the charger until its temperature has adjusted.

- CAUTION: Do not connect the battery pack to the charger until it has reached the permissible charging temperature.
Charge-control Indicator
When the battery pack is switched on, the five green LEDs for the charge-control indicator 3 indicate the charge condition of the battery pack. Here, each LED indicates approx. 20% capacity. When the battery pack is completely charged, all five LEDs light up. The charge-control for the switched on battery pack is also indicated on the display for the on-board computer. Read and follow the operating instructions for the drive unit and the on-board computer.
When the capacity of the battery pack is below 5%, all LEDs for the charge-control indicator 3 on the battery pack turn off; however, the on-board computer does provide an additional indicator function.
After charging, disconnect the battery from the charger and the charger from the network.

Using Two Battery Packs for One eBike (optional)
An eBike can also be equipped with two battery packs by the manufacturer. In this case, one of the charge sockets is not accessible or is sealed by the eBike manufacturer with a sealing cap. Charge the battery packs only at the accessible charge socket.
▶ Never open charge sockets that have been sealed by the manufacturer. Charging at a previously sealed charge socket can lead to irreparable damage.
If you have an eBike that is designed for two battery packs and you want to use it with only one battery pack, cover off the contacts of the unused socket using the cover lid 10 provided because otherwise the open contacts pose a risk of short-circuiting.

Charging with Two Battery Packs Inserted
If two battery packs are mounted on one eBike, both battery packs can be charged using the unsealed connection. First, the two batteries are charged one after the other up to 80 – 90%, and then they are fully charged in parallel (The LED of each battery will flash).
Both battery packs are discharged alternately during operation.
If you take the battery packs out of the holders, you can charge each battery pack individually.

Charging with One Battery Pack Inserted
If only one battery pack is inserted, then you can charge only the battery pack that has the accessible charge socket on the bike. You can charge the battery pack with the sealed charge socket only when you take the battery pack out of the holder.

Inserting and removing the battery pack
▶ Always switch off the battery pack and the eBike system when you insert the battery pack into the holder or when you take it out of the holder.

Inserting and removing a standard battery
In order for the battery pack to be inserted, the key 5 must be inserted into the lock 6 and the lock must be unlocked.
To insert the standard battery pack 8, place it with the contacts on the lower holder 9 on the eBike (the battery pack can be inclined up to 7° to the frame). Tilt it into the upper holder 7 until it engages.
▶ Always check that the battery pack is locked in place. To do this, pull on the battery pack (after the key has been removed).
Check if the battery pack is tightly seated. Always lock the battery pack with lock 6; otherwise the lock can open and the battery pack could fall out of the holder.
After locking, always remove the key 5 from the lock 6. This prevents the key from falling out and the battery pack from being removed by unauthorized persons when the eBike is parked.
To remove the standard battery pack 8, switch it off and unlock the lock with the key 5. Tilt the battery pack out of the upper holder 7 and pull it out of the lower holder 9.
Inserting and removing a rack battery

In order for the battery pack to be inserted, the key 5 must be inserted into the lock 6 and the lock must be unlocked.

To **insert the rack-type battery pack 2**, slide it with the contacts facing ahead until it engages in the holder 1 of the rear rack/carrier.

- **Always check that the battery pack is locked in place.** To do this, pull on the battery pack (after the key has been removed).

Check if the battery pack is tightly seated. Always lock the battery pack with lock 6; otherwise the lock can open and the battery pack could fall out of the holder.

After locking, always remove the key 5 from the lock 6. This prevents the key from falling out and the battery pack from being removed by unauthorized persons when the eBike is parked.

To **remove the rack-type battery pack 2**, switch it off and unlock the lock with the key 5. Pull the battery pack out of the holder 1.

Removing a PowerTube battery

1. To remove the PowerTube battery, **15** open the lock 6 using the key 5. The battery will be unlocked and fall into the safety restraint 14.

2. Press on the safety restraint from above. The PowerTube battery will be unlocked completely and fall into your hand. Pull the battery out of the frame.

**Note:** As a result of **varying** designs, the PowerTube battery may have to be inserted and removed using a different method. In this case, consult the bicycle documentation provided by your bicycle manufacturer.
Inserting a PowerTube battery

In order for the battery pack to be inserted, the key 5 must be inserted into the lock 6 and the lock must be unlocked.

1. To insert the PowerTube battery, 15 place it so that its contacts are in the lower bracket of the frame.
2. Push the battery upwards until it is held by the safety restraint 14.
3. Press the battery upwards until you hear it engage.
4. Always secure the battery by closing the lock 6 – otherwise, the lock may open and the battery may fall out of the bracket.

Always check that the battery pack is locked in place. To do this, pull on the battery pack (after the key has been removed).

After locking, always remove the key 5 from the lock 6. This prevents the key from falling out and the battery pack from being removed by unauthorized persons when the eBike is parked.

Operation

Initial Operation

- Use only original Bosch battery packs approved for your eBike by the manufacturer and purchased from a trusted source. Use of non-approved or counterfeit battery packs can lead to death or serious injury.

Switching On and Off

Switching the battery pack on is one of the ways of starting the eBike system. Read and follow the operating instructions for the drive unit and the on-board computer.

Before switching on the battery pack or the eBike system, check that the lock 6 is locked.

To switch on the battery pack, press the On/Off button 4. The LEDs for indicator 3 light up and, at the same time, indicate the charge condition.

Always check that the battery pack is locked in place. To do this, pull on the battery pack (after the key has been removed).

Note: When the battery pack capacity is below 5 %, none of the LEDs for charge-control indicator 3 will light up. Only the on-board computer will indicate if the eBike system is switched on.

To switch off the battery pack, press the On/Off button 4 again. The LEDs for indicator 3 go out. This also switches off the eBike system.

When no power output from the eBike drive unit is requested for approx. 10 minutes (e.g., because the eBike is parked) and no button for the drive on-board computer or operating unit is pressed, then the eBike system, and thus the battery pack, automatically switches off to save energy. The battery pack is protected against deep discharging, overcharging, overheating and short-circuiting by the “Electronic Cell Protection (ECP)”. In case of hazardous situations, a protective circuit automatically switches off the battery pack.

When a defect in the battery pack is detected, two LEDs for the charge-control indicator 3 flash. In this case, please contact an authorized Bosch eBike dealer.
Transport

**WARNING**
- Always remove the battery pack from the bicycle before transporting the bicycle on a vehicle bike rack. Failure to remove the battery pack when using a vehicle bike rack can lead to death or serious injury. The battery may detach during transport and cause an accident to following vehicles.
- Always use an approved and compatible bicycle rack when transporting your eBike. The Bosch Drive System adds weight to the bicycle. Refer to your bicycle rack manual to be sure your eBike is compatible. Overloading a bike rack can result in death or serious injury.
- Use proper lifting techniques because electric bikes are generally heavier than bicycles.

Ship batteries only when the housings are undamaged. Tape or mask off open contacts and pack up the battery in such a way that it cannot move around in the packaging. Notify your parcel service that the package contains dangerous goods. Please also follow possibly more detailed national regulations. Always check the state and federal regulations before attempting to ship your battery.

In case of questions concerning transport of the battery packs, please contact an authorized Bosch eBike dealer. Bosch eBike dealers can also provide suitable transport packaging.

Maintenance/Cleaning

**WARNING**
- Do not open any of the components. Service should only be carried out at an authorized Bosch eBike dealer. Failure to follow the above warning may result in death or serious injury. Refer to your bicycle manual or component manual for all non-Bosch Drive System components.
- Always remove the battery pack before performing any bicycle inspection, maintenance or repair. Failure to remove the battery pack before performing bicycle inspection, maintenance or repair can lead to serious injury.
- If replacing your battery, only buy a genuine Bosch battery pack from an approved source. See your Bosch eBike dealer for original Bosch parts.
- Always switch the battery pack off when inserting or removing it from the holder. Never attempt to insert or remove the battery pack while riding the bike.
- Do not charge or use your eBike in any area with a potentially explosive atmosphere, such as at a fueling area, or in areas where the air contains chemicals or particles (such as grain, dust, or metal powders). Obey all signs and follow all instructions.
- Do not submerge your eBike components in water, or wash with pressurized hose. Your Bosch battery is designed to be water tight to rain water or non-pressure hose washing.
- Note down the manufacturer and the number of the key. In case the keys are lost, please contact an authorized Bosch eBike dealer. Please provide the name of the manufacturer and the number of the key.
- Do not paint any components of the Bosch Drive System as this may cause premature failure of the components.

After Sale Service and Customer Assistance

In case of questions concerning the eBike system and its components, please contact an authorized Bosch eBike dealer.

Contact data for authorized Bosch eBike dealers can be found at [www.bosch-ebike.com](http://www.bosch-ebike.com)

When the battery pack is no longer operative, please contact an authorized Bosch eBike dealer.

Cleaning

- Do not submerge your eBike components in water, or wash with pressurized hose. Your Bosch battery is designed to be water tight to rain water or non-pressure hose washing.

Keep all components of your eBike clean, especially the battery pack contacts and the corresponding holder contacts.

All components including the drive unit may not be immersed in water or cleaned with a high-pressure cleaner. Clean them carefully with a soft, damp cloth (using only mild soap and water).
Storing

Notes for Optimum Handling of the Battery Pack

The battery pack life can be extended if properly maintained and especially if operated and stored at the right temperatures.

With increasing age, however, the battery pack capacity will diminish, even if properly maintained.

A significantly reduced operating period after charging indicates that the battery pack is worn out and must be replaced. You can replace it yourself by purchasing a genuine Bosch PowerPack from an authorized Bosch eBike dealer.

Recharging the Battery Pack Before and During Storage

When not using the battery pack for a longer period (>3 months), store it at approx. 30 % to 60 % charge status (2 to 3 LEDs lit on the charge-control indicator 3).

Check the charge condition after 6 months. When only one LED on the charge-control indicator 3 lights up, recharge the battery pack again to approx. 30 % to 60 %.

Note: When the battery pack is stored discharged (empty) for longer periods, it can become damaged despite the low self-discharging feature, and the battery pack capacity may be strongly reduced.

It is not recommended to have the battery pack connected permanently to the charger.

Storage Conditions

Store the battery pack in a dry, well-ventilated location. Protect the battery pack against moisture and water. Under unfavorable weather conditions, it is recommended e.g., to remove the battery pack from the eBike and store it in an enclosed location until it is used again.

Store the eBike batteries in the following locations:
- in a room with a smoke alarm
- away from combustible or easily flammable objects
- away from heat sources

Store the batteries at temperatures between 32 °F and 68 °F. Never store them at temperatures below 14 °F or above 140 °F. To ensure that the lifetime is as long as possible, storage at approx. 68 °F (room temperature) is recommended.

Make sure that the maximum storage temperature is not exceeded. As an example, store the battery pack out of direct sunlight and do not leave it in a vehicle during the summer. It is recommended to not store the battery pack on the bike.

# Troubleshooting

<table>
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<tr>
<th>Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery pack defective</td>
<td><strong>Two LEDs of the battery pack flashing</strong></td>
</tr>
<tr>
<td>Three LEDs of the battery pack flashing</td>
<td><strong>Battery pack too warm or too cold</strong></td>
</tr>
<tr>
<td>Disconnect the battery from the charger until the charging temperature range has been reached. Do not connect the battery to the charger until it has reached the permissible charging temperature.</td>
<td></td>
</tr>
<tr>
<td>No LED flashes (one or more LEDs light up continuously depending on the charging state of the eBike battery pack)</td>
<td><strong>The charger is not charging.</strong></td>
</tr>
<tr>
<td>Contact an authorized bicycle dealer.</td>
<td><strong>Plug not inserted correctly</strong></td>
</tr>
<tr>
<td>Check all plug connections</td>
<td><strong>Contacts of battery pack dirty</strong></td>
</tr>
<tr>
<td>Carefully clean the contacts on the battery pack.</td>
<td><strong>Socket outlet, cable or charger defective</strong></td>
</tr>
<tr>
<td>Check household voltage; have charger checked through bicycle dealer</td>
<td><strong>Battery pack defective</strong></td>
</tr>
<tr>
<td>Contact an authorized bicycle dealer.</td>
<td><strong>Contact an authorized bicycle dealer.</strong></td>
</tr>
</tbody>
</table>
Battery Recycling Program

General Warnings

Disposal

The drive unit, on-board computer (incl. the operating unit), battery pack, speed sensor, accessories and packaging should be sorted for environmentally-friendly recycling.

Do not dispose of eBikes and their components with the household waste!

Tape or mask off the contact surfaces of the battery pack’s terminals with adhesive tape before disposing of battery packs.

Do not touch heavily damaged eBike batteries with your bare hands. Electrolyte may escape and cause skin irritation. Store the battery in a safe location outdoors. Cover the pins if necessary and inform your dealer. They will help you to dispose of it properly.

You may recycle your Bosch battery pack by calling 1-800-822-8837.
Active Line/Performance Line

This manual contains important safety, performance and service information. Read and understand it along with the information provided to you by your bicycle manufacturer before using the product, and keep it for reference.

Active Line/Performance Line

Este manual contiene información importante de seguridad, rendimiento y mantenimiento. Léalo y asegúrese de entenderlo junto con la información que le ha facilitado el fabricante de su bicicleta antes de usar el producto; guárdelo a modo de referencia.

Owner’s Manual – The Bosch Drive System
Charger

BCS210: 0 275 007 906 | BCS230: 0 275 007 915

en Original instructions
fr Notice originale
es Manual original

This manual contains important safety, performance and service information. Read and understand it along with the information provided to you by your bicycle manufacturer before using the product, and keep it for reference.
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Introduction

Thank You for Purchasing a Bosch Drive System Equipped Bicycle!

Your Bosch eBike system team appreciates having you as a customer and wishes you many years of safe and satisfied use of your bicycle.

General Warnings

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in death or serious injury.

Save all safety warnings and instructions for future reference.

The term “battery pack” used in these operating instructions refers to all original Bosch eBike battery packs.

About Warnings

This manual contains many “DANGER”, “WARNING”, and “CAUTION” indicators concerning the consequences of failing to use, assemble, maintain, store, inspect and dispose of a Bosch-equipped eBike in a safe manner.

The combination of the safety alert symbol and the word “DANGER” indicates a hazardous situation that, if not avoided, will result in death or serious injury.

The combination of the safety alert symbol and the word “WARNING” indicates a hazardous situation that, if not avoided, could result in death or serious injury.

The combination of the safety alert symbol and the word “CAUTION” indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

This manual contains important safety, performance and service information. Read it before you take the first ride on your new bicycle, and keep it for reference. The manual can also be found online at www.bosch-ebike.com.

This manual is intended to be read together with the separate user manual provided with your bicycle. Be sure to read all provided documents including labels on the product before your first ride.

Read ALL accompanying manuals before riding the bike for the first time. Your Bosch Drive System comes with additional manuals and documents provided by the manufacturer of the bicycle and other components. Failure to read and understand safety information can result in death or serious injury.

Take responsibility for your own SAFETY. If you have any questions or do not understand something, contact your Bosch eBike dealer or the bicycle or component manufacturer.

Some eBike accessories may present a choking hazard to small children. Keep these accessories away from children.

WARNING

The Bosch Drive System adds weight to your bicycle which you may not be used to lifting. Avoid injury; use proper lifting techniques.

Using Your Operator’s Manual

In addition to the functions shown here, changes to software relating to troubleshooting and functional enhancements may be introduced at any time.

Graphics

The bicycle shown in this manual may differ slightly from your bicycle, but will be similar enough to help you understand our instructions.

RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the bicycle will travel when going forward. When you see a broken line (-----), the item referred to is hidden from view.
On-Product Warning Labels

A

- For safe operation, see manual.
- Risk of electric shock.
- Indoor use only.
- Charge only batteries for the Bosch eBike Systems. Other batteries may burst causing personal damage.
- Do not replace the plug assembly as risk of fire or electric shock may result.

B

- For safe operation, see manual.
- Risk of electric shock.
- Indoor use only.
- Charge only batteries for the Bosch eBike Systems. Other batteries may burst causing personal damage.
- Do not replace the plug assembly as risk of fire or electric shock may result.
Operating the charger “Charger”

Safety Instructions

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS –
This manual contains important safety and operating instructions for this battery charger.

Before using battery charger, read all instructions and cautionary markings on battery charger, battery, and product using battery.

CAUTION: To reduce risk of injury, charge only batteries of the Bosch eBike Systems. Other types of batteries may burst causing personal injury and damage.

Read and understand all safety warnings and instructions. Failure to follow the warnings below could result in death or serious injury.

Save all safety warnings and instructions for future reference.
The term “battery pack” used in these operating instructions refers to all original Bosch eBike battery packs.

DANGER

Only charge eBike-approved Bosch lithium-ion battery packs. The battery pack voltage must match the battery pack charging voltage of the charger. Otherwise, there is risk of fire and explosion.

Keep the charger away from rain and moisture. The penetration of water into a battery charger increases the risk of an electric shock.

WARNING

Use only the original Bosch battery charger supplied with your eBike or one approved for your eBike by the manufacturer and purchased from a trusted source. Bypassing the battery charger or the use of a non-approved or counterfeit battery charger can lead to death or serious injury.

Keep the battery charger clean. Contamination can lead to the risk of an electric shock. Clean only with the use of a damp cloth (mild soap/water).

Always check the charger, cable and plug before use. Do not use the charger if you discover any damage. Do not open the charger. Damaged chargers, cables and plugs increase the risk of electric shock.

Do not operate the battery charger on easily flammable surfaces (e.g., paper, textiles, etc.) or in combustible environments. There is danger of fire due to the heating of the battery charger during charging.

Use caution when touching the charger during the charging procedure. Wear protective gloves. Especially in high ambient temperatures, the charger can heat up considerably.

The battery may give off fumes if it becomes damaged or is used incorrectly. Provide a fresh air supply and seek medical advice in the event of pain or discomfort of being exposed to these fumes. These fumes may irritate the respiratory tract.

Do not place the charger or battery pack near flammable materials. Charge battery packs only when dry and in a fireproof area. There is a risk of fire due to the heat generated during charging.

The eBike battery must not be left unattended while charging.

Battery packs must not be subjected to mechanical impacts. There is a risk that the battery pack will be damaged causing vapors to escape. The vapors can irritate the respiratory system. Provide for fresh air and seek medical attention in case of complaints.

Keep the battery charger away from children. This will ensure that children do not play with the charger.

Persons who are not capable of safely operating the charger because of their physical, sensory or mental limitations, or because of their lack of experience or knowledge, may only use this charger under supervision or after having been instructed by a responsible person. Otherwise, there is a risk of operating errors and injuries.

Read and observe the safety warnings and instructions in all operating instructions of the eBike system and your eBike.
Product Description and Specifications

Product Features
1 Battery charger
2 Charger socket
3 Plug-in connector
4 Safety warnings, charger
5 Charge connector
Technical Data

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<tr>
<th>Battery Charger</th>
<th>Wide Range Charger (36–4/100-230)</th>
<th>Compact Charger (36–2/100-240)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article number</td>
<td>0 275 007 906</td>
<td>0 275 007 915</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>V– 90...264</td>
<td>90...264</td>
</tr>
<tr>
<td>Frequency</td>
<td>Hz 47...63</td>
<td>47...63</td>
</tr>
<tr>
<td>Output voltage</td>
<td>V+= 36</td>
<td>36</td>
</tr>
<tr>
<td>Charging current</td>
<td>A 4</td>
<td>2</td>
</tr>
<tr>
<td>Charging time, approx.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– PowerPack 400</td>
<td>h 3.5</td>
<td>6.5</td>
</tr>
<tr>
<td>– PowerPack 500</td>
<td>h 4.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°F +32...+104</td>
<td>+32 ...+104</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>°F +14...+122</td>
<td>+14 ...+122</td>
</tr>
<tr>
<td>Weight, approx.</td>
<td>lb 1.8</td>
<td>1.3</td>
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<tr>
<td>Degree of protection</td>
<td>IP 40</td>
<td>IP 40</td>
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</table>

Power cord

<table>
<thead>
<tr>
<th>Article number</th>
<th>1 270 020 343</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated-voltage – Cable</td>
<td>V– 300</td>
</tr>
<tr>
<td>Rated-voltage – Connectors/plug-in- connectors</td>
<td>V– 125</td>
</tr>
<tr>
<td>Rated-current – Connectors/plug-in- connectors</td>
<td>A 10</td>
</tr>
<tr>
<td>Material – Cable</td>
<td>PVC</td>
</tr>
<tr>
<td>Safety standard – Cable</td>
<td>UL62</td>
</tr>
<tr>
<td>Safety standard – Connectors/plug-in- connectors</td>
<td>UL817</td>
</tr>
<tr>
<td>Length, approx.</td>
<td>m 1.8</td>
</tr>
</tbody>
</table>

Operation

Initial Operation

Connecting the Charger to Household Electricity

- Note the household voltage! The voltage of the power supply must correspond to the specifications given on the battery charger nameplate.

Plug the charger plug 3 of the power cord into the charger socket 2 of the charger.

Connect the power supply cable (country-specific) to the household electricity supply.

Use only the supplied input connection: standard AC power cord (3 in the diagram) when connecting to the household electrical supply.
Charging the Removed Battery

5 Charge connector
6 Socket for charge connector
8 Rack-type battery pack
9 Operation and charge-control indicator
10 Battery On/Off button
11 Standard battery pack

Switch the battery pack off and remove it from the holder of the eBike. To do this, read and follow the operating instructions for the battery pack.

Put the battery pack down only on clean surfaces. In particular, avoid getting the charge socket and the contacts dirty, e.g., with sand or soil.

Insert the charger plug 5 for the battery charger into the socket 6 on the battery pack.

Charging the Battery on the Bike

Switch the battery off. Clean the cover of the charge socket 7. In particular, prevent the charge socket and the contacts from getting dirty, e.g., with sand or soil. Lift the cover of the charge socket 7 and plug the charge connector 5 into the charge socket 6.

Charge the battery only in accordance with all safety instructions. If this is not possible, remove the battery from the holder and charge it in a more suitable location. When doing so, read and follow the operating instructions for the battery.
Charging with Two Battery Packs Inserted
If two battery packs are mounted on one eBike, both battery packs can be charged using the unsealed connection. The charging process will charge both battery packs alternately, automatically switching between both battery packs numerous times. The charging times add up. Both battery packs are also discharged alternately during operation.
If you take the battery packs out of the holders, you can charge each battery pack individually.

Charging Procedure
The charging procedure begins as soon as the charger is connected to the battery or the charge socket on the bike and the main power supply.

Note: The charging procedure is only possible when the temperature of the eBike battery pack is within the permissible charging temperature range.

Note: The drive unit is deactivated during the charging procedure.

The battery can be charged with or without the on-board computer. When charging without the on-board computer, the charging procedure can only be observed on the battery charge-control indicator.

If the on-board computer is connected, a corresponding message will be output on the display.

The charging state is displayed by the battery charge-control indicator 9 on the battery and by the bars on the on-board computer.

During the charging procedure, the LEDs for charge-control indicator 9 on the battery pack light up. Each continuously lit LED is equivalent to a charge capacity of approx. 20%. The flashing LED indicates the charging of the next 20%. Once the battery is fully charged, the LEDs extinguish immediately and the on-board computer is switched off. The charging procedure is terminated. The charging state can be displayed for 3 seconds by pressing the On/Off button 10.

Disconnect the charger from the main power supply and the battery pack from the charger.
When disconnecting the battery pack from the charger, the battery pack is automatically switched off.

Note: If you have charged on the bike, carefully close the charge socket 6 with the cover 7 after the charging procedure so that no dirt or water can get in.
If the charger is not disconnected from the battery after charging, after a few hours the charger will switch itself back on, check the charging state of the battery and begin the charging procedure again if necessary.

Maintenance/Cleaning

⚠️ WARNING

➤ Do not open any of the components. Service should only be carried out at an authorized Bosch eBike dealer. Failure to follow the above warning may result in death or serious injury. Refer to your bicycle manual or component manual for all non-Bosch Drive System components.

➤ Do not charge or use your eBike in any area with a potentially explosive atmosphere, such as at a fueling area, or in areas where the air contains chemicals or particles (such as grain, dust, or metal powders). Obey all signs and follow all instructions.

➤ Do not submerge your eBike components in water, or wash using a pressurized hose. Your Bosch drive unit is designed to be water tight in regards to rain water and non-pressurized hose washing.

➤ Do not paint any components of the Bosch Drive System as this may cause premature failure of the components.

After Sale Service and Customer Assistance
In case of questions concerning the eBike system and its components, please contact an authorized Bosch eBike dealer.
Contact data for authorized Bosch eBike dealers can be found at www.bosch-ebike.com
When the battery pack is no longer operative, please contact an authorized Bosch eBike dealer.
# Troubleshooting

<table>
<thead>
<tr>
<th>Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two LEDs of the battery pack flashing</td>
<td>Battery pack defective</td>
</tr>
<tr>
<td>Three LEDs of the battery pack flashing</td>
<td>Three LEDs of the battery pack flashing</td>
</tr>
<tr>
<td>Battery pack too warm or too cold</td>
<td>Disconnect the battery from the charger until the charging temperature range has been reached. Do not connect the battery pack to the charger until it has reached the permissible charging temperature.</td>
</tr>
<tr>
<td>No LED flashes (one or more LEDs light up continuously depending on the charging state of the eBike battery pack).</td>
<td>The charger is not charging.</td>
</tr>
<tr>
<td>No charging procedure possible (no indication on the battery pack)</td>
<td>No charging procedure possible (no indication on the battery pack)</td>
</tr>
<tr>
<td>Plug not inserted correctly</td>
<td>Check all plug connections</td>
</tr>
<tr>
<td>Contacts of battery pack dirty</td>
<td>Carefully clean the contacts on the battery pack.</td>
</tr>
<tr>
<td>Socket outlet, cable or charger defective</td>
<td>Check household voltage; have charger checked through bicycle dealer</td>
</tr>
<tr>
<td>Battery pack defective</td>
<td>Battery pack defective</td>
</tr>
</tbody>
</table>
Battery Recycling Program

General Warnings

Disposal

The drive unit, on-board computer (incl. the operating unit), battery pack, speed sensor, accessories and packaging should be sorted for environmentally-friendly recycling.

Do not dispose of eBikes and their components with the household waste!

You may recycle your Bosch battery pack by calling 1-800-822-8837.
Active Line/Performance Line

Este manual contiene información importante de seguridad, rendimiento y mantenimiento. Léalo y asegúrese de entenderlo junto con la información que le ha facilitado el fabricante de su bicicleta antes de usar el producto; guárdelo a modo de referencia.

Owner’s Manual – The Bosch Drive System
Purion

This manual contains important safety, performance and service information. Read and understand it along with the information provided to you by your bicycle manufacturer before using the product, and keep it for reference.

en Original instructions
fr Notice originale
es Manual original
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</table>
Introduction

Thank You for Purchasing a Bosch Drive System Equipped Bicycle!
Your Bosch eBike system team appreciates having you as a customer and wishes you many years of safe and satisfied use of your bicycle.

General Warnings

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in death or serious injury.

Save all safety warnings and instructions for future reference.
The term “battery pack” used in these operating instructions refers to all original Bosch eBike battery packs.

About Warnings

This manual contains many “DANGER”, “WARNING”, and “CAUTION” indicators concerning the consequences of failing to use, assemble, maintain, store, inspect and dispose of a Bosch-equipped eBike in a safe manner.
The combination of the safety alert symbol and the word “DANGER” indicates a hazardous situation that, if not avoided, will result in death or serious injury.
The combination of the safety alert symbol and the word “WARNING” indicates a hazardous situation that, if not avoided, could result in death or serious injury.
The combination of the safety alert symbol and the word “CAUTION” indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

This manual contains important safety, performance and service information. Read it before you take the first ride on your new bicycle, and keep it for reference. The manual can also be found online at www.bosch-ebike.com.

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Read ALL accompanying manuals before riding the bike for the first time. Your Bosch Drive System comes with additional manuals and documents provided by the manufacturer of the bicycle and other components. Failure to read and understand safety information can result in death or serious injury.

Take responsibility for your own SAFETY. If you have any questions or do not understand something, contact your Bosch eBike dealer or the bicycle or component manufacturer.

Some eBike accessories may present a choking hazard to small children. Keep these accessories away from children.

Using Your Operator’s Manual

Graphics

The bicycle shown in this manual may differ slightly from your bicycle, but will be similar enough to help you understand our instructions.

RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the bicycle will travel when going forward. When you see a broken line (------), the item referred to is hidden from view.
Operating your Bosch Drive System

Safety Rules

Please read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Please save all safety warnings and instructions for future reference.

The term “battery” is used in these instructions to mean all original Bosch eBike rechargeable battery packs.

- Make sure to not be distracted by the display of the on-board computer while riding the eBike. If you do not focus exclusively on the riding environment you risk being involved in an accident.

- Read and observe the safety warnings and instructions in all operating instructions of the eBike system and your eBike.
Product Description and Specifications

Product Features
1. On/Off button for on-board computer
2. Push assistance button “WALK”
3. Fastening screw for on-board computer
4. Holder for on-board computer
5. Decrease assistance level button “−”
6. Increase assistance level button “+”
7. Display
8. Protective cap for USB port
9. USB diagnostic socket (for servicing purposes only)

On-board Computer Information
a. Speed indicator
b. km/h unit indicator
c. mph unit indicator
d. Total distance indicator “TOTAL”
e. Range indicator “RANGE”
f. Service indicator
f. Battery charge-control indicator
h. Light indicator
i. Assistance level indicator/value indicator
j. Trip distance indicator “TRIP”
Technical Data

<table>
<thead>
<tr>
<th>On-board computer</th>
<th>Purion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article number</td>
<td>1 270 020 916/917</td>
</tr>
<tr>
<td>Batteries</td>
<td>2 x 3 V CR2016</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>°F</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>°F</td>
</tr>
<tr>
<td>Protection type</td>
<td>IP 54 (dust and splash water protected)</td>
</tr>
<tr>
<td>Weight, approx.</td>
<td>lb</td>
</tr>
</tbody>
</table>

1) We recommend using the batteries offered by Bosch. You can purchase them from your eBike dealer (part number: 1 270 016 819).
2) When USB cover is closed

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

Note: Always switch off the eBike system when you park the eBike.

Note: If the batteries of the on-board computer are empty, you can still switch on your eBike using the bike’s battery pack. It is, however, recommended that you replace the internal batteries as soon as possible in order to avoid damage.

Indications and Settings of the on-board computer

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔔</td>
<td>short button press (less than 1 second)</td>
</tr>
<tr>
<td>🔔</td>
<td>medium button press (between 1 second and 2.5 seconds)</td>
</tr>
<tr>
<td>🔔</td>
<td>long button press (longer than 2.5 seconds)</td>
</tr>
</tbody>
</table>

Energy supply of the on-board computer

The on-board computer is supplied with voltage by two CR2016 button cells.
Changing the Batteries

If the on-board computer shows “LOW BAT” on the display, remove the on-board computer from the handlebars by unscrewing the fastening screw 3 of the on-board computer. Open the battery lid 10 using a suitable coin, remove the used batteries and insert new CR 2016 batteries. You can obtain the batteries recommended by Bosch from your eBike dealer.

Pay attention to the correct polarity when inserting the batteries.

Close the battery compartment again and fasten the on-board computer to your eBike’s handlebars using the fastening screw 3.

Battery charge-control indicator

The battery charge-control indicator g displays the charge level of the eBike battery pack. The charge level of the eBike battery pack can also be checked on the LEDs of the battery pack itself.

On indicator g, each bar of the battery pack symbol is equivalent to a capacity of approx. 20 %:

- [ ] The eBike battery is fully charged.
- [ ] The eBike battery should be recharged.
- [ ] The LEDs of the charge-control indicator on the battery extinguish. The capacity for assisting the drive has been used up, and assistance is gently switched off. The remaining capacity is made available for the lighting. The indicator flashes.
- [ ] The capacity of the eBike battery pack is enough for about 2 hours of lighting.

Switching the Walk Assistance On/Off

The walk assistance can make it easier for you to push the eBike. The speed of this function depends on the selected gear and can reach a maximum of 3.7 mph. The lower the selected gear, the lower the speed of the walk assistance function (at full capacity).

- Using the walk assistance function is only recommended when pushing the eBike. There is risk of injury if the wheels of the eBike are not in contact with the ground while using the walk assistance.

To activate the walk assistance function, short-press the button “WALK” on your on-board computer. After activation, press button “+” within 3 s and keep it pressed. The eBike drive is switched on.

Note: The walk assistance cannot be activated in the “OFF” assistance level.

The walk assistance is switched off as soon as one of the following occurs:

- you release the button “+” 6,
- the wheels of the eBike are stopped (e.g. by actuating the brakes or impacting against an obstacle),
- the speed exceeds 3.7 mph.

Note: On some systems the walk assistance function can be started directly by pressing the “WALK” button.
Setting the Assistance Level

On the on-board computer you can set how much the eBike drive assists you while pedaling. The assistance level can be changed at any time, even while cycling.

**Note:** For individual versions, it is possible that the assistance level is preset and cannot be changed. It is also possible that fewer assistance levels are available for selection than listed here.

Once it is switched on, the eBike system is in the “OFF” mode.

When the eBike is configured in “eMTB Mode” by the manufacturer, the assistance level “SPORT” is replaced by “eMTB”. In “eMTB Mode”, the assistance factor and torque are dynamically adjusted as a function of the force you exert on the pedals. “eMTB Mode” is only available for Performance Line CX drives.

The following assistance levels (max.) are available:

- **“OFF”**: The motor assistance is switched off, the eBike can be operated as a normal bicycle through pedaling.
- **“ECO”**: Effective assistance at maximum efficiency for maximum cruising range
- **“TOUR”**: Uniform assistance, for touring with long cruising range
- **“SPORT”/“eMTB”**: “SPORT”: Powerful assistance for sporty off-road riding, as well as for urban traffic “eMTB”: Optimal assistance whatever the terrain, rapid acceleration when starting from a standstill, improved dynamics and top performance.
- **“TURBO”**: Maximum assistance, supporting the highest speed for sporty riding

To increase the assistance level, short-press the button “+” 6 on the on-board computer repeatedly until the required assistance level appears in indicator i. To decrease the assistance level, short-press the button “−” 5.

Switching bike lights On/Off

In the version which has the bike lights powered by the eBike system, medium-press the button “+” to switch on the front and rear lights at the same time. To switch off the bike lights, long-press the button “+”.

The lighting symbol h is displayed when the light is on.

Switching the driving light on and off has no effect on the backlighting for the display. The backlighting for the display is active as soon as the system or the display is switched on.

The speed indicator a always displays the current speed. Indicator i always displays the last setting as standard. Repeatedly medium-press the button “−” to display the trip distance “TRIP”, the total distance “TOTAL” and the range of the battery pack “RANGE” one after the other. (Short-pressing the button “−” will decrease the assistance level!)

The trip distance “TRIP” is reset by simultaneously long-pressing the buttons “+” and “−”. The display will initially show “RESET”. If you continue to press both buttons, the trip distance “TRIP” will be set to “0”.

You can switch the displayed values from kilometers to miles by holding down button “−” and briefly pressing the On/Off button 1.

The versions of the subsystems can be displayed for the purposes of servicing. With the system switched off, simultaneously press buttons “−” and “+” and then press the On/Off button 1.
The USB socket is reserved for connecting diagnostic systems. The USB socket does not have any other function.

- **The USB connection must always be completely sealed with the protective cap 8.**

<table>
<thead>
<tr>
<th>Action</th>
<th>Buttons</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch on on-board computer</td>
<td></td>
<td>Any</td>
</tr>
<tr>
<td>Switch off on-board computer</td>
<td></td>
<td>Any</td>
</tr>
<tr>
<td>Increase assistance</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Decrease assistance</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Display &quot;TRIP&quot;, &quot;TOTAL&quot;, &quot;RANGE&quot;, assistance modes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch on bike lights</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Switch off bike lights</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Reset trip distance</td>
<td>- +</td>
<td></td>
</tr>
<tr>
<td>Activate walk assistance</td>
<td></td>
<td>1. WALK</td>
</tr>
<tr>
<td>Perform walk assistance</td>
<td>+</td>
<td>2. Any</td>
</tr>
<tr>
<td>Switch from kilometers to miles</td>
<td>-</td>
<td>1. Hold</td>
</tr>
<tr>
<td>Display the versions (^1)2)</td>
<td>- +</td>
<td>1. Hold</td>
</tr>
<tr>
<td>Set display brightness (^3)</td>
<td>- +</td>
<td>1. Hold</td>
</tr>
</tbody>
</table>

1) The eBike system must be switched off.
2) The information is shown as scrolling text.
3) The display must be switched off.
# Troubleshooting

## Error Code Indicator

The components of the eBike system are continuously and automatically monitored. If an error is detected, the corresponding error code will appear in the speed indication. Depending on the type of error, the drive unit is automatically shut off, if required. Continued travel without assistance from the drive unit is possible at any time. However, have the eBike checked before attempting new trips.

- **Troubleshooting actions may be performed by the owner except those explicitly noted as “Contact your Bosch eBike dealer”.**

<table>
<thead>
<tr>
<th>Code</th>
<th>Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>410</td>
<td>One or more buttons of the on-board computer are blocked.</td>
<td>Check if any buttons are blocked, e.g., by dirt or debris. Clean the buttons, if required.</td>
</tr>
<tr>
<td>414</td>
<td>Operating unit connection problem</td>
<td>Have connections and contacts checked.</td>
</tr>
<tr>
<td>418</td>
<td>One or more buttons of the operating unit are blocked.</td>
<td>Check if any buttons are blocked, e.g., by dirt or debris. Clean the buttons, if required.</td>
</tr>
<tr>
<td>419</td>
<td>Configuration error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>422</td>
<td>Drive unit connection problem</td>
<td>Have connections and contacts checked.</td>
</tr>
<tr>
<td>423</td>
<td>EBike battery pack connection problem</td>
<td>Have connections and contacts checked.</td>
</tr>
<tr>
<td>424</td>
<td>Communications error among the components</td>
<td>Have connections and contacts checked.</td>
</tr>
<tr>
<td>426</td>
<td>Internal time-out error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer. In this error status, it is not possible to display or adjust the wheel circumference in the basic settings menu.</td>
</tr>
<tr>
<td>430</td>
<td>Internal battery pack of on-board computer empty</td>
<td>Charge on-board computer (in holder or via USB port).</td>
</tr>
<tr>
<td>431</td>
<td>Software version error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>440</td>
<td>Internal error in the drive unit</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>450</td>
<td>Internal software error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>460</td>
<td>Error at USB connection</td>
<td>Remove the cable from the USB connection of the on-board computer. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>490</td>
<td>Internal error in the on-board computer</td>
<td>Have the on-board computer checked.</td>
</tr>
<tr>
<td>500</td>
<td>Internal error in the drive unit</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>502</td>
<td>Bike lighting error</td>
<td>Check the light and the associated wiring. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>503</td>
<td>Error of the speed sensor</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>510</td>
<td>Internal sensor error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>511</td>
<td>Internal error in the drive unit</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>Code</td>
<td>Cause</td>
<td>Corrective Action</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>530</td>
<td>Battery pack error</td>
<td>Switch off the eBike, remove the eBike battery pack and reinsert the eBike battery pack. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>531</td>
<td>Configuration error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>540</td>
<td>Temperature error</td>
<td>The eBike is outside of the permissible temperature range. Switch off the eBike system and allow the drive unit to either cool down or heat up to the permissible temperature. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>550</td>
<td>An improper load was detected.</td>
<td>Remove the load. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>580</td>
<td>Software version error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>591</td>
<td>Authentication error</td>
<td>Switch off the eBike system. Remove the battery pack and reinsert it. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>592</td>
<td>Incompatible component</td>
<td>Insert a compatible display. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>593</td>
<td>Configuration error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>595, 596</td>
<td>Communication error</td>
<td>Check the wiring to the transmission and restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>602</td>
<td>Internal battery pack error while charging</td>
<td>Unplug the charger from the battery pack. Restart the eBike system. Plug the charger into the battery pack. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>602</td>
<td>Internal battery pack error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>603</td>
<td>Internal battery pack error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>605</td>
<td>Battery pack temperature error</td>
<td>The eBike is outside of the permissible temperature range. Switch off the eBike system and allow the drive unit to either cool down or heat up to the permissible temperature. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>605</td>
<td>Battery pack temperature error while charging</td>
<td>Unplug the charger from the battery pack. Allow the battery pack to cool. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>606</td>
<td>External battery pack error</td>
<td>Check the wiring. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>Code</td>
<td>Cause</td>
<td>Corrective Action</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>610</td>
<td>Battery pack voltage error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>620</td>
<td>Charging error</td>
<td>Replace the charger. Contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>640</td>
<td>Internal battery pack error</td>
<td>Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>655</td>
<td>Multiple battery pack errors</td>
<td>Switch off the eBike system. Remove the battery pack and reinsert it. Restart the system. If the problem persists, contact your Bosch eBike dealer.</td>
</tr>
<tr>
<td>656</td>
<td>Software version error</td>
<td>Contact your Bosch eBike dealer so that he can perform a software update.</td>
</tr>
<tr>
<td>7xx</td>
<td>Transmission error</td>
<td>Please observe the operating instructions provided by the transmission manufacturer.</td>
</tr>
<tr>
<td>No display</td>
<td>Internal error in the on-board computer</td>
<td>Restart your eBike system by switching it off and back on.</td>
</tr>
</tbody>
</table>
Battery Recycling Program

General Warnings

Disposal

The drive unit, on-board computer (incl. the operating unit), battery pack, speed sensor, accessories and packaging should be sorted for environmentally-friendly recycling. Do not dispose of eBikes and their components with the household waste!

You may recycle your Bosch battery pack by calling 1-800-822-8837.