

EN



ORIGINAL INSTRUCTIONS

BOSCH

GHOST



1. LED Remote
2. Display Mount
3. Kiox 300
4. PowerTube 750
5. Charger
6. Drive Unit Performance Line CX

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LED Remote

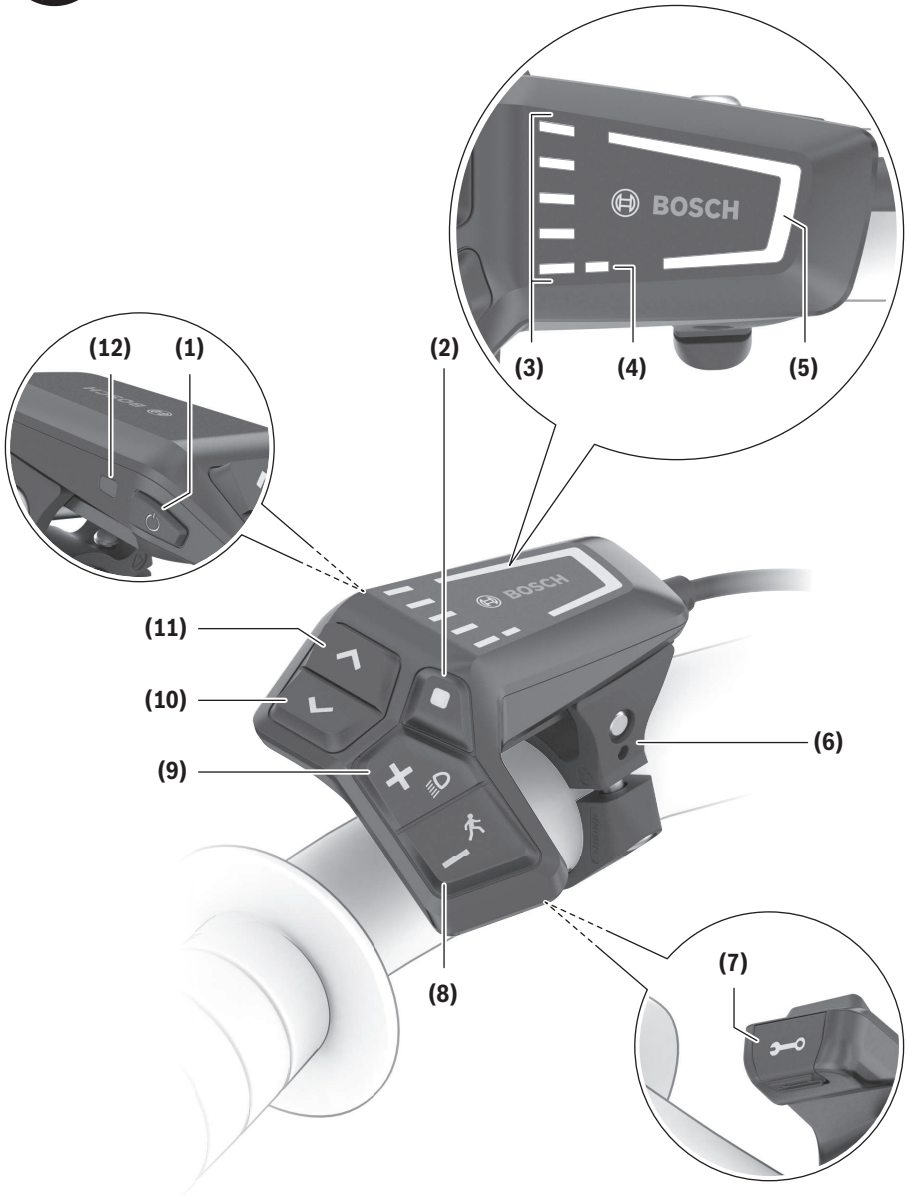
BRC3600



1

GHOST





Safety instructions



Read all the safety information and instructions. Failure to observe the safety information and follow instructions may result in electric shock, fire and/or serious injury.

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.

- ▶ **Do not attempt to secure the display or operating unit while riding.**
- ▶ **The push assistance function must only be used when pushing the eBike.** There is a risk of injury if the wheels of the eBike are not in contact with the ground while using the push assistance.
- ▶ **When the push assistance is activated, the pedals may turn at the same time.** When the push assistance function is activated, make sure that there is enough space between your legs and the turning pedals to avoid the risk of injury.
- ▶ **Do not stand your bicycle upside down on its handlebars and saddle if the operating unit or its holder protrude from the handlebars.** This may irreparably damage the operating unit or the holder.
- ▶ **Do not connect a charger to the eBike system if the eBike system displays a critical error.** This may result in damage to your battery. The battery may catch fire, thereby resulting in serious burns and other injuries.
- ▶ **The operating unit features a wireless interface. Local operating restrictions, e.g. in aeroplanes or hospitals, must be observed.**
- ▶ **Caution!** When using the operating unit with *Bluetooth®*, this may cause interference that affects other devices and systems, aeroplanes and medical devices (e.g. pace-makers, hearing aids). Likewise, injury to people and animals in the immediate vicinity cannot be excluded entirely. Do not use the operating unit with *Bluetooth®* in the vicinity of medical devices, petrol stations, chemical plants, areas with a potentially explosive atmosphere or on blast sites. Do not use the operating unit with *Bluetooth®* in aeroplanes. Avoid operation near your body for extended periods.
- ▶ The *Bluetooth®* word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Bosch eBike Systems is under licence.
- ▶ **Observe all national regulations which set out the approved use of eBikes.**
- ▶ **Read and observe the safety warnings and directions contained in all the eBike system operating instructions and in the operating instructions of your eBike.**

Privacy notice

When you connect the eBike to the **Bosch DiagnosticTool 3**, data about Bosch drive unit (e.g. energy consumption, temperature, etc.) is transferred to Bosch eBike

Systems (Robert Bosch GmbH) for the purposes of product improvement. You can find more information about this on the Bosch eBike website at www.bosch-ebike.com.

Product description and specifications

Intended use

The **LED Remote** operating unit is designed to control a Bosch eBike system and control an on-board computer. The **eBike Flow** app can be accessed via *Bluetooth®*.

Product features

The numbering of the components shown refers to the illustrations on the graphics pages at the beginning of the manual.

All illustrations of bike parts except for the drive unit, on-board computer (including operating unit), speed sensor and the corresponding holders are a schematic representation and may differ on your eBike.

- (1) On/off button
- (2) Select button
- (3) LEDs for battery charge indicator
- (4) ABS LED (optional)
- (5) Assistance level LED
- (6) Holder
- (7) Diagnostics connection (for servicing purposes only)
- (8) Button for decreasing support level –/ walk assistance
- (9) Button for increasing support level +/ bike lights
- (10) Button to reduce brightness/go back
- (11) Button to increase brightness/go forward
- (12) Ambient light sensor

Technical data

Operating unit		LED Remote
Product code		BRC3600
Max. charging current of USB port	mA	600
USB port charging voltage	V	5
USB charging cable ^(A)		USB Type C ^(B)
Charging temperature	°C	0 to +45
Operating temperature	°C	–5 to +40
Storage temperature	°C	+10 to +40
Diagnostic interface		USB Type C ^(B)
Internal lithium-ion battery	V mAh	3,7 75

Operating unit		LED Remote
Protection rating		IP54
Dimensions (without fastening)	mm	74 × 53 × 35
Weight	g	30
<i>Bluetooth® Low Energy 5.0</i>		
– Frequency	MHz	2400–2480
– Transmission power	mW	1

A) Not included as part of standard delivery

B) USB Type-C® and USB-C® are trademarks of USB Implementers Forum.

Declaration of Conformity

Robert Bosch GmbH, Bosch eBike Systems, hereby declares that the **LED Remote** radio communication unit complies with the Radio Equipment Regulations 2017 (SI 2917/1206). The full text of the UK Declaration of Conformity can be accessed at the following Internet address: <https://www.ebike-connect.com/conformity>.



Operation

Prerequisites

The eBike system can only be activated when the following requirements are met:

- A sufficiently charged battery is inserted (see battery operating instructions).
- The speed sensor is connected properly (see drive unit operating instructions).

Operating unit power supply

If a sufficiently charged eBike battery is inserted into the eBike and the eBike system is switched on, then the operating unit battery is powered and charged by the eBike battery.

If the state of charge of the internal battery is very low, you can charge the internal battery via the diagnostics connection **(7)** with a USB Type C® cable using a power bank or another suitable power source (charging voltage **5 V**; charging current max. **600 mA**).

Always close the flap of the diagnostics connection **(7)** so that no dust or moisture can enter.

Switching the eBike system on/off

To **switch on** the eBike system, briefly press the on/off button **(1)**. After all LEDs briefly light up, the state of charge of the battery is displayed in colour with the battery charge indicator **(3)** and the set assistance level with the **(5)** display. The eBike is ready to ride.

The display brightness is controlled by the ambient light sensor **(12)**. Therefore, do not cover the ambient light sensor **(12)**.

The drive is activated as soon as you start pedalling (except at assistance level **OFF**). The motor output depends on the settings of the assistance level.

As soon as you stop pedalling when in normal operation, or as soon as you have reached a speed of **25 km/h**, the eBike drive switches off the assistance. The drive is automatically reactivated as soon you start pedalling again and the speed is below **25 km/h**.

To **switch off** the eBike system, press the on/off button **(1)** briefly (< 3 s). The battery charge indicator **(3)** and the assistance level LED **(5)** go out.

If no power is drawn from the eBike drive for about **10 minutes** (e.g. because the eBike is not moving) and no button is pressed on the on-board computer or the control unit of the eBike, the eBike system will switch off automatically.

Battery charge indicator

The battery charge indicator **(3)** displays the eBike battery's state of charge. The state of charge of the eBike battery can also be checked on the LEDs of the battery itself.

In the **(3)** display, each ice-blue bar represents 20 % capacity and each white bar represents 10 % capacity. The top-most bar shows the maximum capacity.

Example: Four ice-blue bars and one white bar are displayed. The state of charge is between 81 % and 90 %.

If capacity is low, both of the lower displays change colour:

Bar	Capacity
2 × orange	30 % to 21 %
1 × orange	20 % to 11 %
1 × red	10 % to reserve
1 × red flashing	Reserve to empty

If the eBike battery is being charged, the topmost bar on the battery charge indicator **(3)** flashes.

Setting the assistance level

On the operating unit using the **(8)** and **(9)** buttons, you can set how much the eBike drive assists you while pedalling. The assistance level can be changed at any time, even while cycling, and is displayed in colour.

Level	Colour	Notes
OFF	None	Motor support is switched off. The eBike can just be moved by pedalling, as with a normal bicycle.
ECO	Green	Effective support with maximum efficiency, for maximum range
TOUR	Blue	Steady support, long range for touring
eMTB/SPORT	Purple	Optimal support whatever the terrain, rapid acceleration when starting from a standstill, improved dynamics and top performance

Level	Colour	Notes
TURBO	Red	Maximum support even at a high cadence, for sport cycling

The designations and configuration of the assistance levels can be preconfigured by the manufacturer and selected by the bicycle retailer.

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 that you briefly reduce the pressure on the pedals when changing gear. This will aid gear shifting 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.

Switching bike lights on/off

Check that your bike lights are working correctly before every use.

To **switch on** the bike lights, press the **(9)** button for more than 1 s.

You can use the **(11)** and **(10)** buttons to control the brightness of the LEDs on the operating unit.

Switching the push assistance on/off

The push assistance aids you when pushing your eBike. The speed in this function depends on the selected gear and can reach a maximum of **6 km/h**. The lower the selected gear, the lower the speed of the push assistance function (at full power).

► **The push assistance function must only be used when pushing the eBike.** There is a risk of injury if the wheels of the eBike are not in contact with the ground while using the push assistance.

To **start** walk assistance, press the **(8)** button for more than 1 s and keep it pressed. The battery charge indicator **(3)** goes out and a white moving light in the direction of travel shows that it is ready.

To **activate** walk assistance, one of the following actions must occur within the next 10 s:

- Push the eBike forwards.
- Push the eBike backwards.
- Perform a sideways tilting movement with the eBike.

After activation, the motor begins to push and the continuously filling white bars change colour to ice-blue.

If you release the **(8)** button, walk assistance is paused. You can reactivate walk assistance within 10 s by pressing the **(8)** button.

If you do not reactivate walk assistance within 10 s, walk assistance automatically switches off.

Walk assistance is always ended if:

- the rear wheel jams;
- the bicycle cannot move over ridges;

- a body part is blocking the bike crank;
- an obstacle continues to turn the crank;
- you start pedalling;
- the **(9)** button or on/off button **(1)** is pressed.

The push assistance function is subject to local regulations; the way it works may therefore differ from the description above, or the function may even be deactivated completely.

ABS – anti-lock braking system (optional)

If the bicycle is equipped with a Bosch eBike ABS, the ABS LED **(4)** lights up when the eBike system starts.

If the eBike reaches a speed of **6 km/h**, the ABS LED **(4)** goes out.

In the event of a fault, the ABS LED **(4)** lights up together with the orange flashing assistance level LED **(5)**. You can acknowledge the error with the select button **(2)**; the flashing assistance level LED **(5)** goes out. The ABS LED **(4)** continues to light up to show that the ABS system is not in operation.

For details on the ABS and how it works, please refer to the ABS operating instructions.

Establishing a smartphone connection

In order to be able to use the following eBike functions, a smartphone with the **eBike Flow** application is required.

Connection to the app occurs via a **Bluetooth®** connection.

Switch on the eBike system and do not start riding the eBike. Begin **Bluetooth®** pairing by long pressing (> 3 s) the on/off button **(1)**. Release the on/off button **(1)** as soon as the top-most bar on the battery charge indicator shows the pairing process by flashing blue.

Confirm the connection request in the app.

Activity tracking

In order to record activities, it is necessary to register and log into the **eBike Flow** app.

To record activities, you must consent to the storage of your location data in the app. Without this, your activities cannot be recorded in the app. For location data to be recorded, you must be logged in as the user.

Lock function

The lock function can be set up and configured via the **eBike Flow** app. This stores a digital key on the smartphone, which is required to start the eBike system.

Once the lock function is switched on, the eBike can only be put into operation if:

- the configured smartphone is switched on;
- the smartphone has sufficient battery charge;
- and the smartphone is in the immediate vicinity of the operating unit.

Otherwise, motor support remains switched off.

If the key is not verified immediately, the search for the key is shown by the battery charge indicator **(3)** and the assistance level LED **(5)** flashing white. If the key is found, after flashing white the state of charge of the battery and the last set assistance level is displayed.

If the key cannot be found on the smartphone, the eBike system automatically switches off. The displays on the operating unit go out.

Since the smartphone functions only as a contactless key when switching on, the eBike battery and on-board computer can still be used on a different, unlocked eBike.

Software updates

Software updates are transferred to the operating unit in the background of the app as soon as it is connected to the app. During the update process, a green flashing on the battery charge indicator **(3)** shows the progress. The system is then restarted.

You can control the software updates via the **eBike Flow** app.

Error messages

The operating unit shows whether critical errors or less critical errors occur in the eBike system.

The error messages generated by the eBike system can be read via the **eBike Flow** app or by your bicycle retailer.

Via a link in the **eBike Flow** app, information about the error and support for rectifying the error can be displayed.

Less critical errors

Less critical errors are shown by the assistance level LED **(5)** flashing orange. Pressing the select button **(2)** confirms the error and the assistance level LED **(5)** once again continuously shows the colour of the set assistance level.

You can use the following table to rectify the errors yourself if necessary. Otherwise, please contact your bicycle retailer.

Number	Troubleshooting
0x523005	The indicated error numbers show that there is interference when the sensors detect the magnetic field. See whether you have lost the magnets while riding.
0x514001	
0x514002	
0x514003	If you are using a magnet sensor, check that the sensor and magnet have been properly installed. Make sure too that the cable to the sensor is not damaged.
0x514006	
	If you are using a rim magnet, make sure that you do not have any magnetic field interference in the vicinity of the drive unit.

Critical errors

Critical errors are shown by the assistance level LED **(5)** and the battery charge indicator **(3)** flashing red. In the event of a critical error, visit a bicycle retailer as soon as possible. **Do not connect a charger to the system.**

Maintenance and servicing

Maintenance and cleaning

The operating unit must not be cleaned with pressurised water.

Keep the operating unit clean. Dirt can cause faulty brightness detection.

Clean your operating unit using a soft cloth dampened only with water. Do not use cleaning products of any kind.

► **Have all repairs performed only by an authorised bike dealer.**

After-sales service and advice on using products

If you have any questions about the eBike system and its components, contact an authorised bicycle dealer.

For contact details of authorised bike dealerships, please visit www.bosch-ebike.com.

Disposal



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.



In accordance with Directive 2012/19/EU and Directive 2006/66/EC respectively, electronic devices that are no longer usable and defective/drained batteries must be collected separately and recycled in an environmentally friendly manner.

Please return Bosch eBike components that are no longer usable to an authorised bicycle dealer.

Subject to change without notice.



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Display Mount

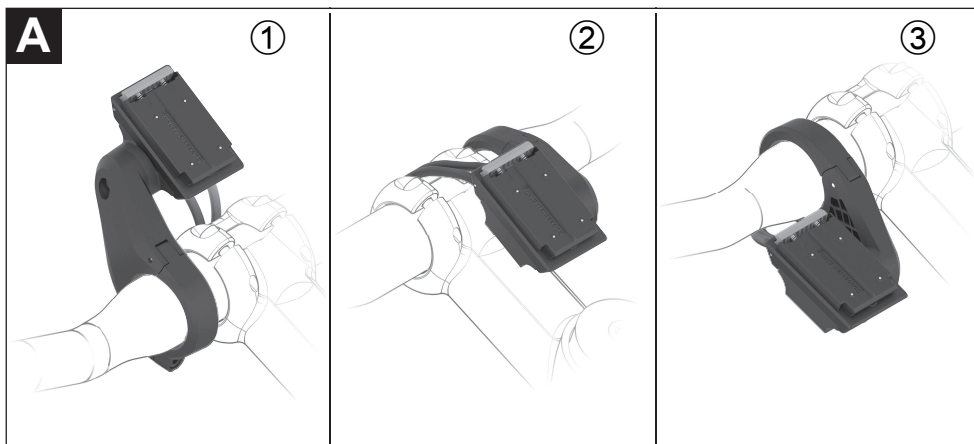
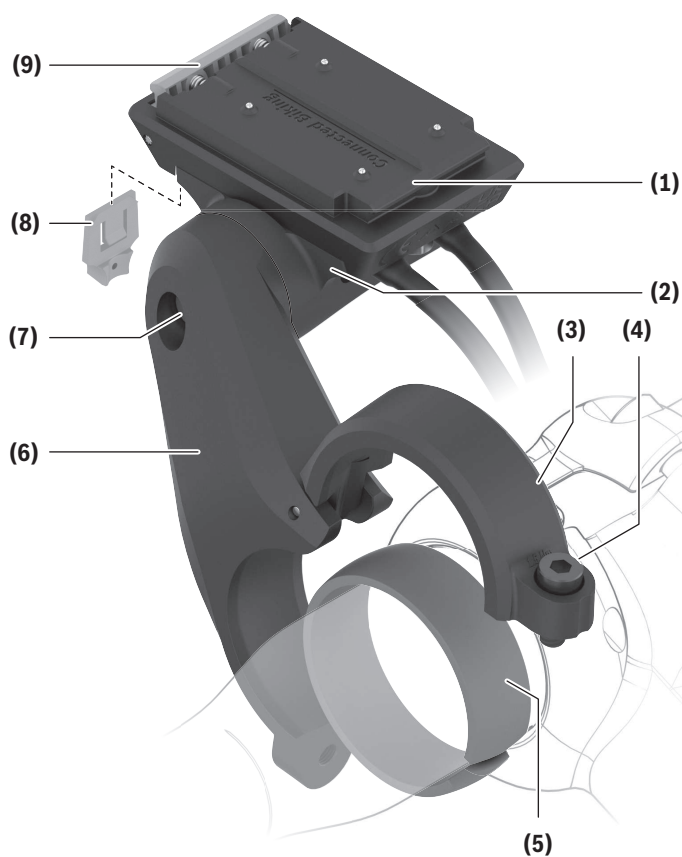
BDS3210 | BDS3250 | BDS3620 | BDS3630

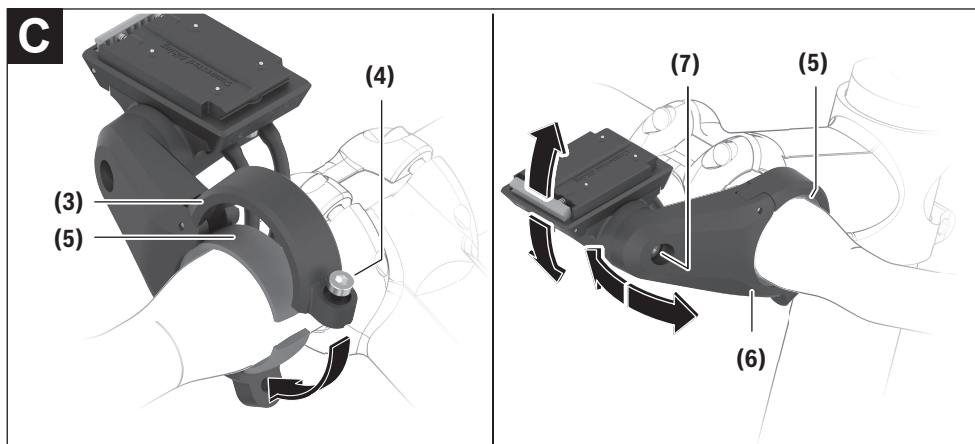
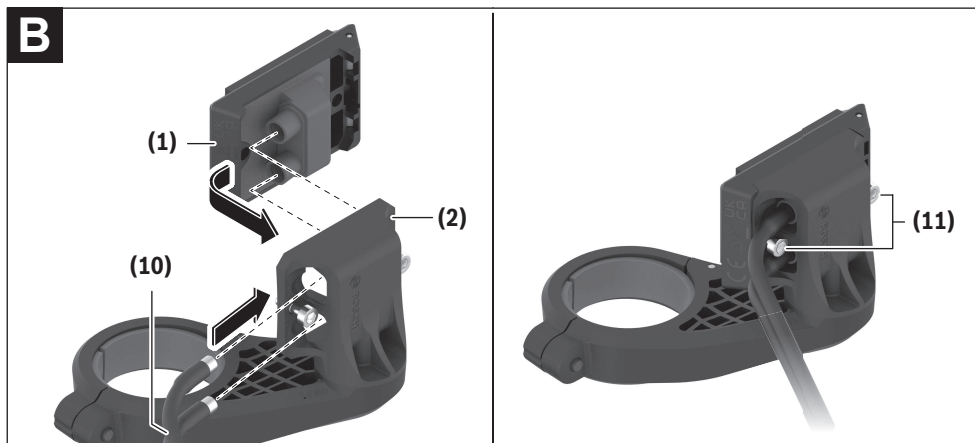


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GHOST







Safety instructions



Read all the safety information and instructions. Failure to observe the safety information and follow instructions may result in electric shock, fire and/or serious injury.

Save all safety warnings and instructions for future reference.

- ▶ **The contact surfaces of the display holder may become very hot (> 60 °C). Allow the contact surfaces to adjust to the ambient temperature before you touch them.** This is particularly important when using a SmartphoneGrip.
- ▶ **Keep swallowable small parts away from small children.** There is a risk of serious injury.
- ▶ **Never short-circuit the pins.** The display holder may be irreparably damaged and must then be replaced.
- ▶ **Ensure that the contacts are free of dirt.** By doing this, you prevent malfunctions or damage.
- ▶ **After a fall, check the display holder for sharp edges.** Replace it if required.
- ▶ **Do not stand your bicycle upside down on its saddle and handlebars if the on-board computer or its holder protrude from the handlebars.** This may irreparably damage the on-board computer or the holder. Also remove the on-board computer before placing the bicycle on a wall mount to ensure that the on-board computer does not fall off or become damaged.
- ▶ **Observe all national regulations which set out the approved use of eBikes.**
- ▶ **Read and observe the safety warnings and directions contained in all the eBike system operating instructions and in the operating instructions of your eBike.**

Product description and specifications

Intended use

The display holder is intended to establish the mechanical and electrical connection to a display or on-board computer. Only original Bosch eBike components can be connected to the display holder.

A display holder is not required for an eBike system to function.

Product features

The numbering of the components shown refers to the illustrations on the graphics pages at the beginning of the manual.

- (1) Display mount
- (2) Adapter tray
- (3) Clamp for holder
- (4) Clamp screw

- (5) Round rubber spacer
- (6) 1-arm socket
- (7) Screw for adjusting tilt
- (8) Removal blocker
- (9) Snap-in hook
- (10) Connection cables
- (11) Fastening screws for display mount

The display mount (1) can also be embedded in the bicycle design.

Technical data

Display holder		
Product code		BDS3210 BDS3250 BDS3620 BDS3630
Output voltage	V	4.75 to 5.4
Output current, max.	A	1.5
Operating temperature	°C	-5 to +40
Storage temperature	°C	+10 to +40
Protection rating		IP54



Fitting

Installation positions (see figure A)

The 1-arm socket can be mounted at three different positions on the handlebars:

- In front of the handlebars ①
- Over the stem ②
- In the triangle between the stem and handlebar ③

Note: In order to ensure clean cable routing, the appropriate display mount must be used for each of the three different positions: The BDS3210 display mount for in front of the handlebars (electrical connections at the rear); the BDS3250 display mount for over the stem or in the triangle between the stem and handlebar (electrical connections at the front).

If you want to change the installation position and you have the correct display mount (1), you must first remove the 1-arm socket (6) and re-mount it afterwards.

Note: Please be aware that there are two different handlebar diameters (31.8 mm and 35 mm). Your bicycle retailer will help you to select the correct components.

Mounting the display mount (see figure B)

Insert the display mount (1) into the adapter tray (2). Ensure that it is in the required installation position. Secure the display mount (1) from below using the screws (11). When

doing so, be aware of the torque specified on the adapter tray (2).

Connect the connection cables that come out of the drive unit and the control unit. It does not matter which cable is connected to which connection for the functions to work. When connecting the cables, ensure that the markings on the connector and on the cable match.

Securing on the handlebars (see figure C)

Note: The display holder must only be secured in the cylindrical area of the handlebars and not in the tapered area. To clamp a display in the centre, the handlebars must have a cylindrical area of at least 90 mm in width.

Open the clamp and bring the 1-arm socket (6), together with the round rubber spacer (5), into the required position. Gently tighten the clamp screw (4) so that the 1-arm socket (6) can still move.

Adjust the tilt for the display mount by loosening and tightening the screw (7). Preferably adjust the tilt without the display or on-board computer.

In the connection between the 1-arm socket (6) and the adapter tray, there are interlocking teeth, which means that it is only possible to align the adapter tray in predefined positions. Before tightening the screw (7), make sure that the teeth engage in one another correctly. In addition, be aware of the torque specified on the 1-arm socket (6).

Bring the 1-arm socket (6) into its final position and tighten the clamp screw (4). Be aware of the torque specified on the 1-arm socket (6) here too.

Thanks to the round rubber spacer (5), it is possible to move the 1-arm socket (6) in all directions.

Removal blocker

A device attached to the display holder can be secured using the removal blocker (8). Usage is described in the operating instructions for the respective device.

Maintenance and servicing

Maintenance and cleaning

The display holder must not be cleaned with pressurised water.

Use a soft cloth dampened only with water for cleaning. Do not use cleaning products of any kind.

► **Have all repairs performed only by an authorised bike dealer.**

After-sales service and advice on using products

If you have any questions about the eBike system and its components, contact an authorised bicycle dealer.

For contact details of authorised bike dealerships, please visit www.bosch-ebike.com.

Disposal



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.



In accordance with Directive 2012/19/EU and Directive 2006/66/EC respectively, electronic devices that are no longer usable and defective/drained batteries must be collected separately and recycled in an environmentally friendly manner.

Please return Bosch eBike components that are no longer usable to an authorised bicycle dealer.

Subject to change without notice.



BOSCH

Kiox 300

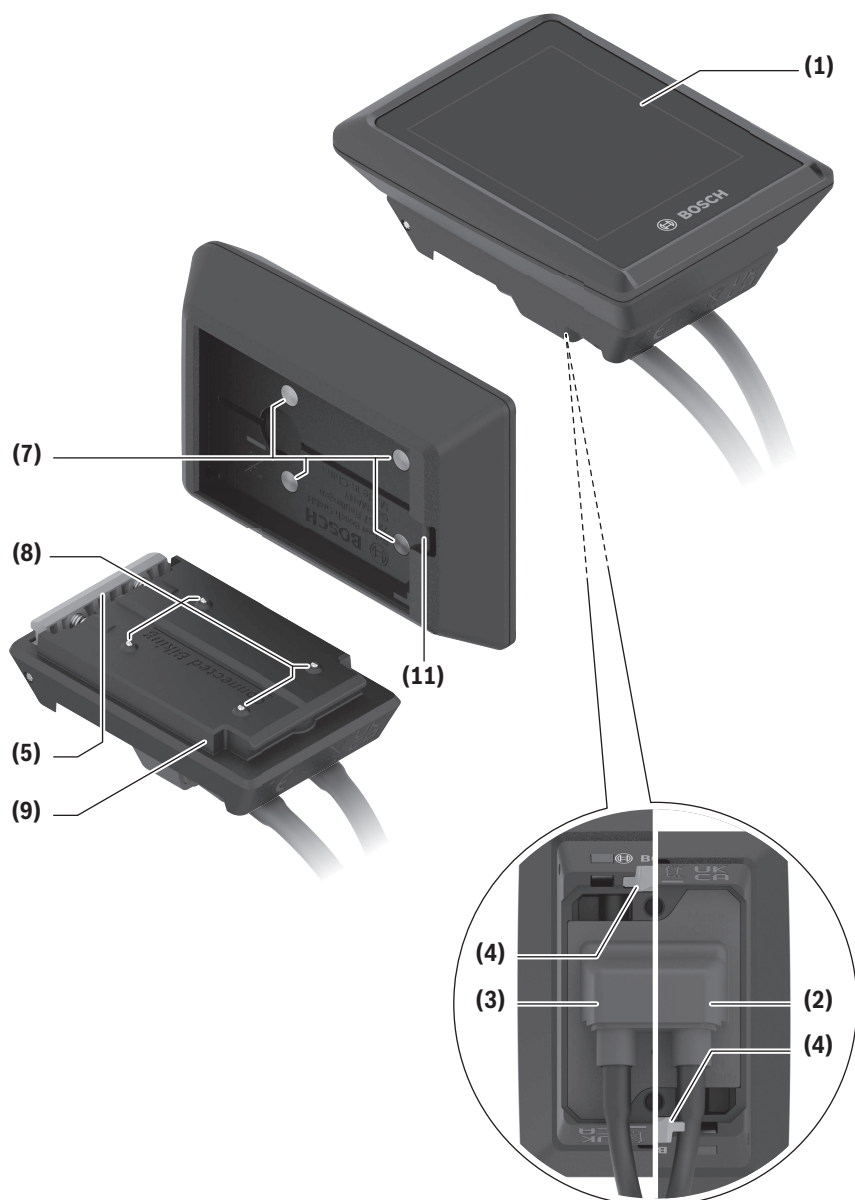
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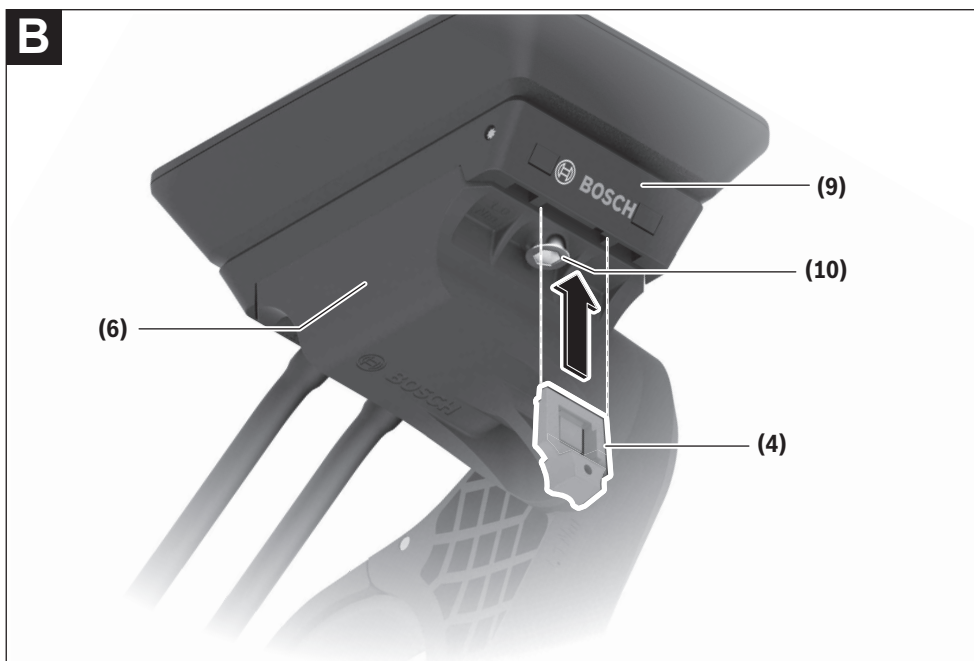
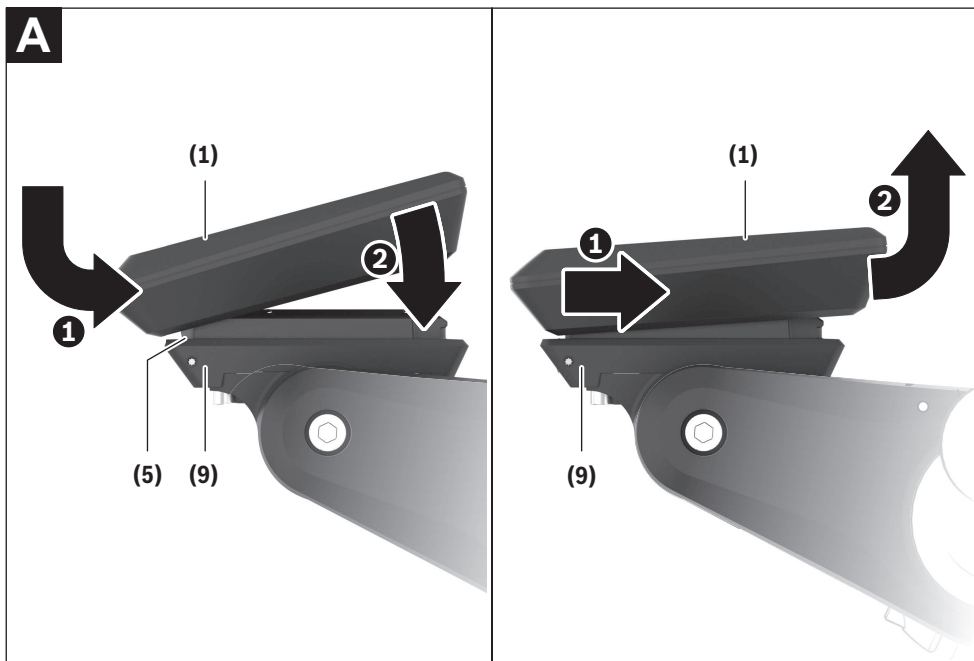


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GHOST







Safety instructions



Read all the safety information and instructions. Failure to observe the safety information and follow instructions may result in electric shock, fire and/or serious injury.

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.

- ▶ **Do not attempt to secure the display or operating unit while riding.**
- ▶ **Do not allow yourself to be distracted by the on-board computer's display.** If you do not focus exclusively on the traffic, you risk being involved in an accident. If you want to make entries in your on-board computer other than switching the assistance level, stop and enter the appropriate data.
- ▶ **Set the display brightness so that you can adequately see important information such as speed and warning symbols.** Incorrectly set display brightness may lead to dangerous situations.
- ▶ **Do not open the on-board computer.** Opening the on-board computer may damage it beyond repair and void any warranty claims.
- ▶ **Do not use the on-board computer as a handle.** Lifting the eBike up by the on-board computer can cause irreparable damage to the on-board computer.
- ▶ **Do not stand your bicycle upside down on its saddle and handlebars if the on-board computer or its holder protrude from the handlebars.** This may irreparably damage the on-board computer or the holder. Also remove the on-board computer before placing the bicycle on a wall mount to ensure that the on-board computer does not fall off or become damaged.

Privacy notice

If the on-board computer is sent to Bosch Service because it requires servicing, the data stored on the on-board computer may be transmitted to Bosch.

Product description and specifications

Intended use

The **Kiox 300** on-board computer is designed to display cycling data.

To access the full functionality of the **Kiox 300** on-board computer, you will need a compatible smartphone installed with the **eBike Flow** app (available from the Apple App Store or the Google Play Store).

Product features

The numbering of the components shown refers to the illustrations on the graphics pages at the beginning of the manual.

- (1) Display
- (2) Front cable outlet
- (3) Rear cable outlet
- (4) Removal blocker
- (5) Snap-in hook
- (6) Adapter tray
- (7) Display contacts
- (8) Holder contacts
- (9) Display mount
- (10) Display mount fastening screw
- (11) Bridge for retaining strap

Technical data

On-board computer		Kiox 300
Product code		BHU3600
Operating temperature ^{A)}	°C	-5 to +40
Storage temperature	°C	+10 to +40
Protection rating		IP54
Weight, approx.	g	32

A) Temperatures outside of this range may cause faults in the display.

UK
CA

Assembly

Inserting and Removing the Display (see figure A)

To **fit** the display (1), attach the display (1) to the front edge of the display mount (9) in the direction of travel, on the snap-in hook (5) ❶ and press the rear side of the display (1) on the display mount (9) ❷.

To **remove** the display (1), pull the display (1) towards you ❶ until you are able to lift off the display (1) ❷.

A retaining strap can be secured to the bridge (11).

Inserting the Removal Blocker (see figure B)

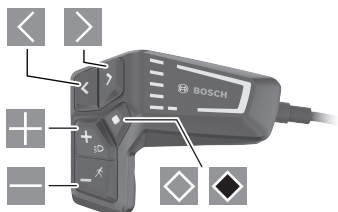
Insert the removal blocker (4) into the adapter tray (6) from below until you hear the removal blocker (4) click into place. From this point onwards, you can no longer lift off the display (1) from the display fixture (9) without removing the display mount (9) from the adapter tray (6) by loosening the two fastening screws (10).

Note: The removal blocker (4) is not an anti-theft device.

Operation

The displays are operated and the indicators are controlled via a control unit.

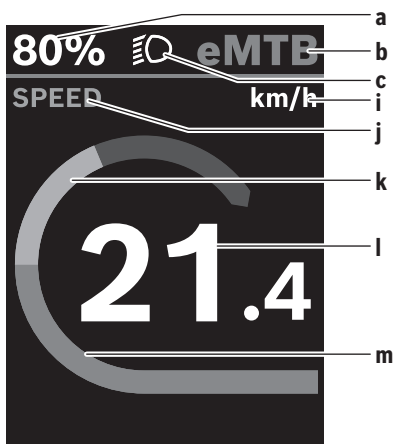
The meaning of the buttons on the operating unit for the display indicators can be found in the following overview. Depending on how long it is pressed for, the select button has two functions.



- Scroll to the left
- Scroll to the right
- Scroll up
- Scroll down
- Change to the second page level (press briefly)
- Open page-related options (e.g. <Reset trip>)
- Open the settings menu (Press and hold > 1 s)

Start page

If you did not select another page before the last time you switched off, you will be shown this page.



- a** Battery charge
- b** Assistance level
- c** Bicycle lights
- i** Unit of speed indicator
- j** Indicator name
- k** Your performance

l Speed

m Motor output

The **a ... c** indicators form the status bar and are shown on every page.

You can use the button to change from this page to the status page or press the button to access additional pages. Your statistical data, the battery range and the average values are displayed on these pages.

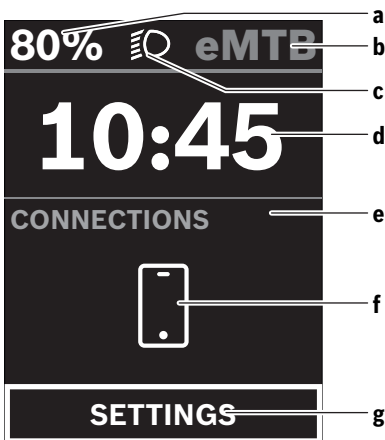
From each of these pages, you can access the second level of data by pressing the button.

If the user is on a different page to the start page when they switch off, the most recently displayed page will appear again when the eBike is switched on.

Pressing and holding the select button enables you to reset the statistical data for your journey or excursion (not on the <SETTINGS> page).

Status page

From the start page, you can access the status page by pressing the button.



- a** Battery charge
- b** Assistance level
- c** Bicycle lights
- d** Time
- e** Connection indicator
- f** Smartphone connection
- g** Settings Menu

You can access the settings menu from this page by pressing the button.

Note: The settings menu cannot be called up while riding.



The <SETTINGS> settings menu contains the following menu items:

– <My eBike>

You can find the following menu items here.

▪ <Range reset>

The value for the range can be reset here.

- **<Auto trip reset>**
The settings for automatic reset can be adjusted here.
 - **<Wheel circumf.>**
The value of the wheel circumference can be adjusted or reset to the standard setting here.
 - **<Components>**
The components used with their version numbers are displayed here.
 - **<System>**
You can find the following menu items here.
 - **<Language>**
You can select your preferred system language here.
 - **<Units>**
You can choose between metric or imperial measurements here.
 - **<Time>**
You can set the time here.
 - **<Time format>**
You can select one of the two time formats here.
 - **<Brightness>**
You can set the display brightness here.
 - **<Settings reset>**
You can reset all of the system settings to the default values here.
 - Under the **<Information>** menu item, you will find the contact details (**<Contact>**) and certificates (**<Certificates>**).
- You can leave the settings menu by pressing the  button.
Press the  button to access the start page.

Maintenance and servicing

Maintenance and cleaning

Do not clean any of the components with pressurised water. Keep the screen of your on-board computer clean. Dirt can cause faulty brightness detection.

Clean your on-board computer using a soft cloth dampened only with water. Do not use cleaning products of any kind.

Have your eBike system checked by an expert at least once a year (including mechanical parts, up-to-dateness of system software).

In addition, the bicycle dealer may base the service date on the distance travelled and/or on a period of time. In this case, the on-board computer displays a message telling you when the service date is due each time it is switched on.

Please have your eBike serviced and repaired by an authorised bicycle dealer.

- **Have all repairs performed only by an authorised bike dealer.**

After-sales service and advice on using products

If you have any questions about the eBike system and its components, contact an authorised bicycle dealer.

For contact details of authorised bike dealerships, please visit www.bosch-ebike.com.

Transport

- **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.**

Disposal



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.



In accordance with Directive 2012/19/EU and Directive 2006/66/EC respectively, electronic devices that are no longer usable and defective/drained batteries must be collected separately and recycled in an environmentally friendly manner.

Please return Bosch eBike components that are no longer usable to an authorised bicycle dealer.

Subject to change without notice.



BOSCH

PowerTube 750

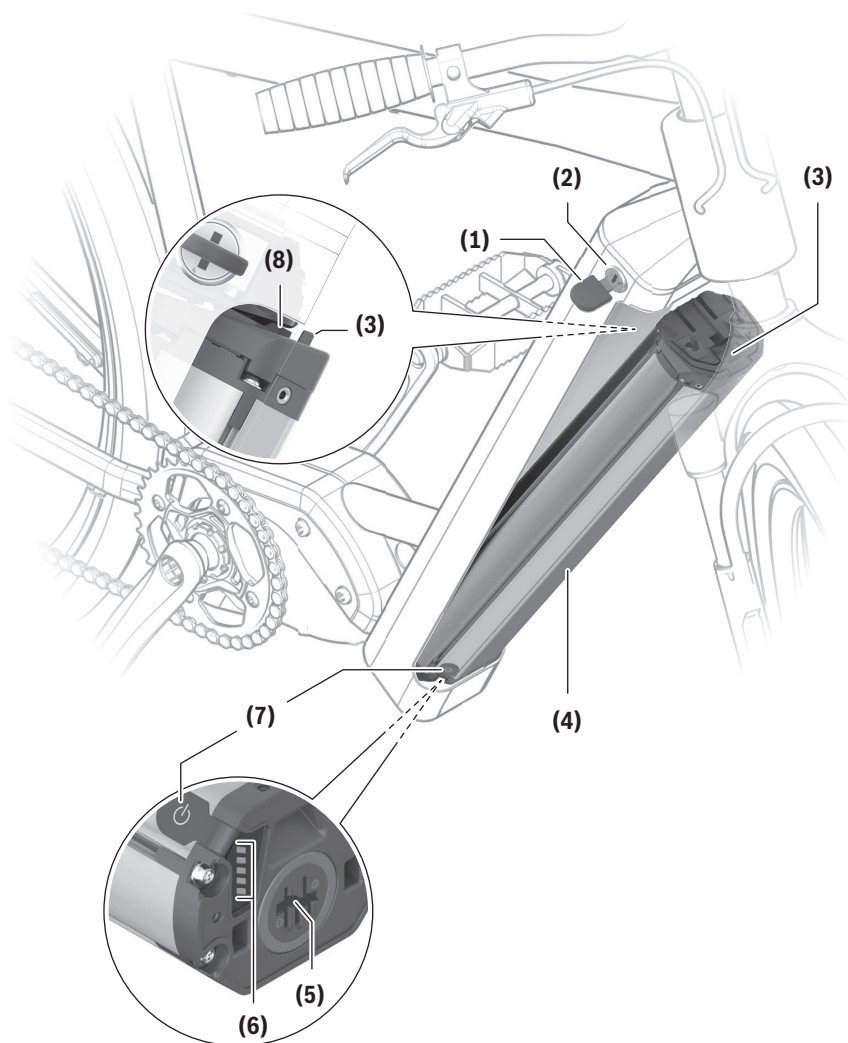
BBP3770 | BBP3771

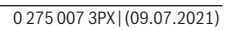


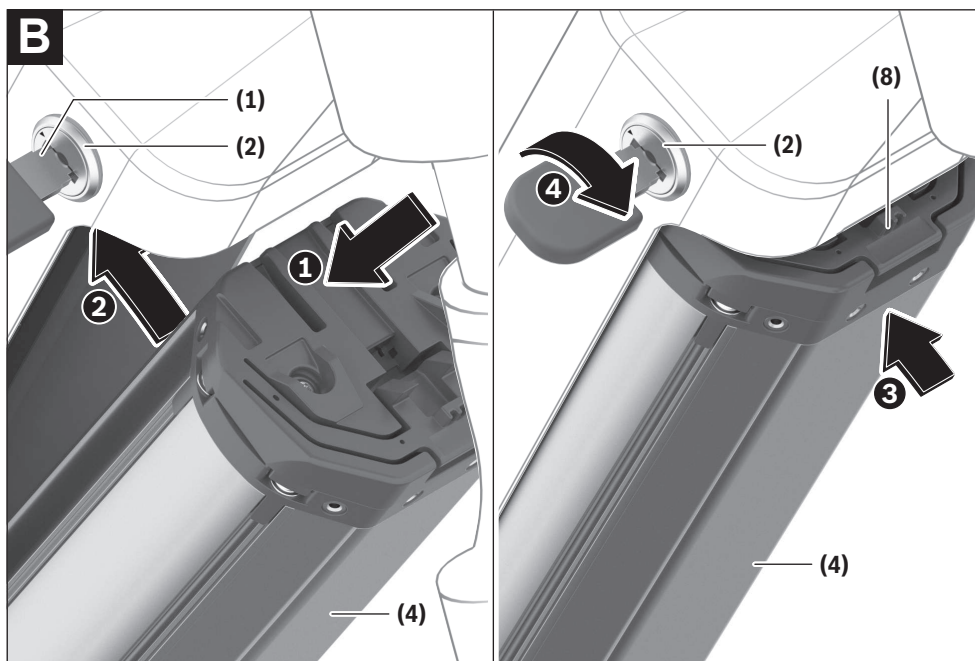
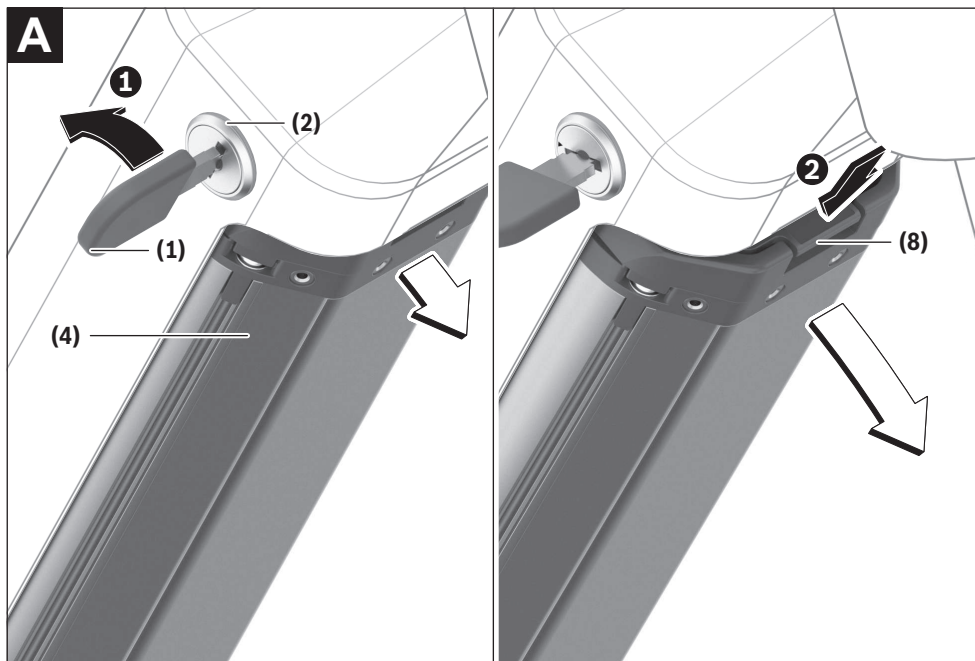
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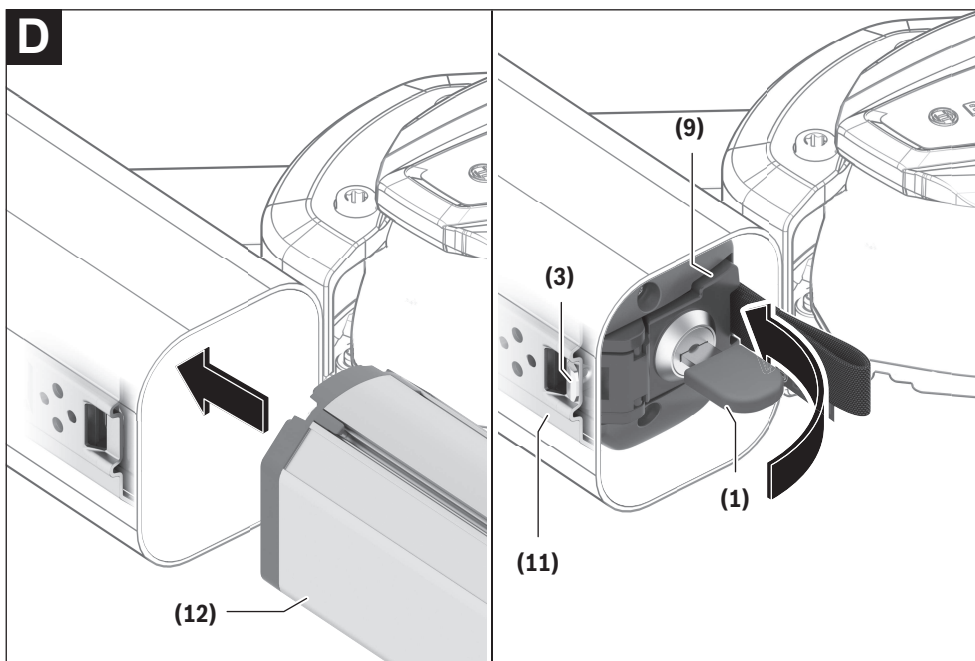
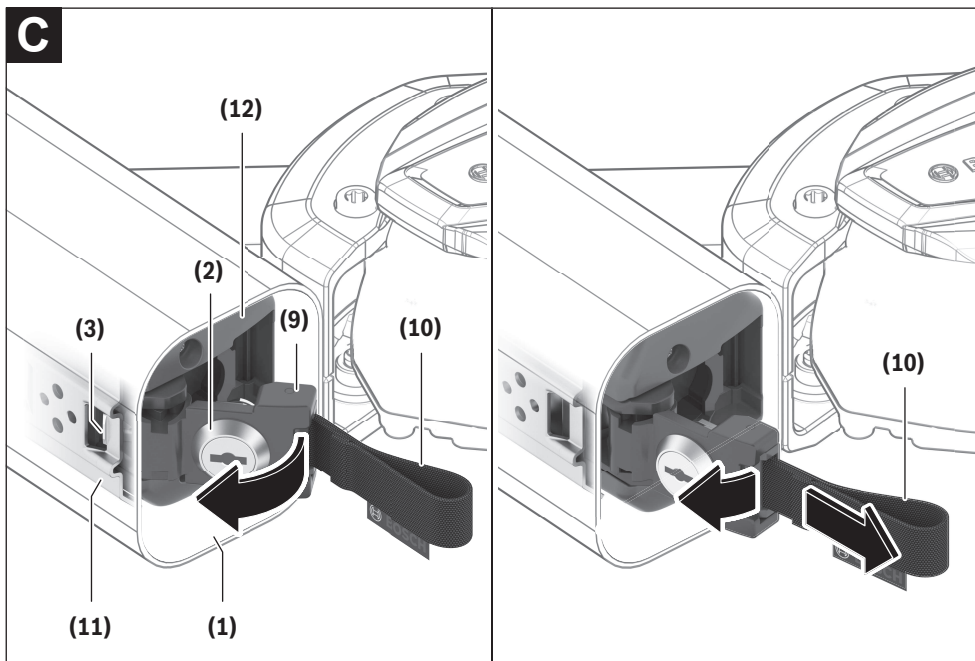
GHOST











Safety instructions



Read all the safety and general instructions.

Failure to observe the safety and general instructions may result in electric shock, fire and/or serious injury.

The contents of lithium-ion battery cells are flammable under certain conditions. You must therefore ensure that you have read and understood the rules of conduct set out in these operating instructions.

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.

- ▶ **Remove the battery from the eBike before beginning work (e.g. inspection, repair, assembly, maintenance, work on the chain, etc.) on the eBike, transporting it with a car or aeroplane, or storing it.** Unintentional activation of the eBike system poses a risk of injury.
- ▶ **Do not open the battery.** There is a risk of short-circuiting. Opening the battery voids any and all warranty claims.
- ▶ **Protect the battery against heat (e.g. prolonged sun exposure), fire and from being submerged in water. Do not store or operate the battery near hot or flammable objects.** There is a risk of explosion.
- ▶ **When the battery is not in use, keep it away from paper clips, coins, keys, nails, screws or other small metal objects that could make a connection from one terminal to another.** A short circuit between the battery terminals may cause burns or a fire. Short circuit damage which occurs in this instance voids any and all warranty claims against Bosch.
- ▶ **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 the battery near flammable materials. Ensure the battery is completely dry and placed on a fireproof surface before charging.** There is a risk of fire due to the heat generated during charging.
- ▶ **The eBike battery must not be left unattended while charging.**
- ▶ **If used incorrectly, liquid may leak from the battery. Contact with this liquid should be avoided. If contact occurs, rinse off with water. If the liquid comes into contact with your eyes, seek additional medical attention.** Liquid leaking from the battery may cause irritation or scalding.
- ▶ **Batteries must not be subjected to mechanical shock.** There is a risk of the battery being damaged.
- ▶ **The battery may give off fumes if it becomes damaged or is used incorrectly. Ensure the area is well ventilated and seek medical attention should you experience any adverse effects.** The fumes may irritate the respiratory system.

- ▶ **Only charge the battery using original Bosch chargers.** When using chargers that are not made by Bosch, the risk of fire cannot be excluded.
- ▶ **Use the battery only in conjunction with eBikes that have original Bosch eBike drive systems.** This is the only way in which you can protect the battery against dangerous overload.
- ▶ **Use only original Bosch batteries that the manufacturer has approved for your eBike.** Using other batteries can lead to injuries and pose a fire hazard. Bosch accepts no liability or warranty claims if other batteries are used.
- ▶ **Keep the battery away from children.**
- ▶ **Read and observe the safety warnings and directions contained in all the eBike system operating instructions and in the operating instructions of your eBike.**

The safety of both our customers and our products is important to us. Our eBike batteries 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. If a fault occurs (which may not be detectable from the outside), in very rare cases and under unfavourable conditions, lithium-ion batteries can catch fire.

Privacy notice

When you connect the eBike to the **Bosch DiagnosticTool 3**, data about the eBike batteries (e.g. temperature, cell voltage, etc.) is transferred to Bosch eBike Systems (Robert Bosch GmbH) for the purposes of product improvement. You can find more information about this on the Bosch eBike website at www.bosch-ebike.com.

Product description and specifications

Intended Use

The Bosch eBike rechargeable batteries are intended exclusively for the power supply of your Bosch eBike drive unit and must not be used for any other purpose.

Product features

The numbering of the components shown refers to the illustrations on the graphics pages at the beginning of the manual.

All representations of bicycle parts, apart from the batteries and their holders, are schematic and may differ from those on your own eBike.

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

- (1) Key for the battery lock
- (2) Battery lock
- (3) PowerTube battery safety hook

- (4) PowerTube battery (pivot)
- (5) Socket for charging connector
- (6) Operation/battery charge indicator
- (7) On/off button
- (8) PowerTube battery safety restraint
- (9) Locking mechanism
- (10) Pull strap
- (11) Axial rail
- (12) PowerTube battery (axial)
- (13) Upper axial PowerTube holder

Technical data

Li-ion battery	PowerTube 750	
Product code	Horizontal	BBP3770
Product code	Vertical	BBP3771
Rated voltage	V=	36
Nominal capacity	Ah	20.1
Energy	Wh	750
Operating temperature	°C	-5 to +40
Storage temperature	°C	+10 to +40
Permitted charging temperature range	°C	0 to +40
Weight, approx.	kg	4.4
Protection rating		IP54

UK
CA

Fitting

- **Ensure the battery is placed on clean surfaces only.**
Avoid getting dirt, e.g. sand or soil, in the charging socket and contacts in particular.

Testing the battery before using it for the first time

Test the battery before charging it for the first time or using it in your eBike.

To do this, press the on/off button (7) to switch the battery on. If none of the LEDs on the battery charge indicator (6) light up, the battery may be damaged.

If at least one (but not all) of the LEDs on the battery charge indicator (6) lights up, the battery will need to be fully charged before using it for the first time.

- **Do not charge or use batteries if they are damaged.**
Contact an authorised bicycle dealer.

Charging the battery

- **A Bosch eBike battery must only be charged using an original Bosch eBike charger.**

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

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

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

The battery has a temperature monitoring function which only allows it to be charged within a temperature range of **0 °C to 40 °C**.



If the temperature of the battery is outside this charging range, three of the LEDs on the battery charge indicator (6) will flash. Disconnect the battery from the charger and let it acclimatise.

Do not reconnect the battery to the charger until it has reached the correct charging temperature.

Battery charge indicator

The five green LEDs on the battery charge indicator (6) indicate the battery's state of charge of when the battery is switched on.

Each LED represents approximately 20 % of the charging capacity. When the battery is fully charged, all five LEDs will be lit.

The battery's state of charge when switched on is also shown on the display of the on-board computer. Read and follow the instructions in the operating manuals for the drive unit and on-board computer.

If the battery capacity is less than 5 %, all the LEDs on the battery charge indicator (6) on the battery will go out. The display function of the on-board computer, however, will carry on working.

Once charging is complete, disconnect the battery from the charger and the charger from the mains.

Inserting and removing the battery

- **Always switch off the battery and the eBike system when inserting the battery into the holder or removing it from the holder.**

Removing the PowerTube battery (pivot) (see figure A)

- ❶ To remove the PowerTube battery (4), open the lock (2) using the key (1). The battery will be unlocked and fall into the safety restraint (8).
- ❷ Press on the safety restraint from above. The 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 battery may need to be inserted and removed using a different method. Read the operating instructions of the eBike manufacturer.

Inserting the PowerTube battery (pivot) (see figure B)

In order for the battery to be inserted, the key (1) must be inserted into the lock (2) and the lock must be open.

- ❶ To insert the PowerTube battery (4), place it so that its contacts are in the lower holder of the frame.
- ❷ Push the battery upwards until it is held by the safety restraint (8).
- ❸ Hold the lock open with the key and press the battery upwards until you hear it click into place. Check that the battery is secure in all directions.
- ❹ Always secure the battery by closing the lock (2) – otherwise the lock may open and the battery may fall out of the holder.

Always remove the key (1) from the lock (2) after locking it. This prevents both the key from falling out and the battery from being removed by unauthorised third parties when the eBike is not in use.

Removing the PowerTube battery (axial) (see figure C)

- ❶ To remove the PowerTube battery (12), open the lock (2) using the key (1), remove the key (1) and fold the locking mechanism (9) to the side.
- ❷ Use the pull strap (10) to pull the battery (12) out of the frame.

Note: As a result of **varying** designs, the battery may need to be inserted and removed using a different method. Read the operating instructions of the eBike manufacturer.

Inserting the PowerTube battery (axial) (see figure D)

In order for the battery to be inserted, the locking mechanism (9) must be folded to the side. At this point, the key (1) must not be inserted in the battery lock (2).

- ❶ To insert the PowerTube battery, insert it into the frame with the socket for the charging connector (5) facing upwards until the battery clicks into place.
- ❷ Close the locking mechanism (9), insert the key (1) into the battery lock (2) and secure the battery. Make sure that the safety hook (3) is hooked in at the opening of the axial rail (11).
- ❸ Check that the battery is secure in all directions.

Always remove the key (1) from the lock (2) after locking it. This prevents both the key from falling out and the battery from being removed by unauthorised third parties when the eBike is not in use.

Operation

Start-up

► **Use only original Bosch batteries that the manufacturer has approved for your eBike.** Using other batteries can lead to injuries and pose a fire hazard. Bosch accepts no liability or warranty claims if other batteries are used.

Switching on/off

Switching on the battery is one way to switch on the eBike system. Read and follow the instructions in the operating manuals for the drive unit and on-board computer.

Before switching on the battery, i.e. the eBike system, make sure that the lock (2) is closed.

To **switch on** the battery, press the on/off button (7). Do not use any sharp or pointed objects to press the button. The LEDs on the indicator (6) will light up, indicating the battery's state of charge at the same time.

Note: If the battery capacity is less than 5 %, none of the LEDs on the battery charge indicator (6) will light up. Whether the eBike system is switched on is only visible on the on-board computer/control unit.

To **switch off** the battery, press the on/off button (7) again. The LEDs on the indicator (6) will go out. This will also switch the eBike system off.

If no power is drawn from the eBike drive for about 10 minutes (e.g. because the eBike is not moving) and no button is pressed on the on-board computer or the control unit of the eBike, the eBike system will switch off automatically.

The battery is protected against deep discharge, overloading, overheating and short-circuiting by the "Electronic Cell Protection (ECP)". In the event of danger, a protective circuit switches the battery off automatically.



If a fault is detected in the battery, two of the LEDs on the battery charge indicator (6) will flash. Contact an authorised bicycle dealer if this happens.

Recommendations for optimal handling of the battery

The service life of the battery can be extended if it is looked after well and especially if it is stored at the correct temperature.

As it ages, however, the capacity of the battery will diminish, even with good care.

A significantly reduced operating time after charging indicates that the battery has deteriorated. You can replace the battery.

Recharging the battery before and during storage

When you are not going to use the battery for an extended period (longer than three months), store it at a state of charge of around 30 % to 60 % (when two to three of the LEDs on the battery charge indicator (6) are lit).

Check the state of charge after six months. If only one of the LEDs on the battery charge indicator (6) is lit, charge the battery back up to around 30 % to 60 %.

Note: If the battery is stored with no charge for an extended period of time, it may become damaged despite the low self-discharge and the battery capacity could be significantly reduced.

Leaving the battery permanently connected to the charger is not recommended.

Storage conditions

If possible, store the battery in a dry, well-ventilated place. Protect it against moisture and water. When the weather conditions are bad, it is advisable to remove the battery from the eBike and store it in a closed room until you use it next, for example.

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

To ensure an optimum service life, store the eBike batteries at temperatures between **10 °C** and **20 °C**. Never store them at temperatures below **-10 °C** or above **60 °C**.

Make sure that the maximum storage temperature is not exceeded. Do not leave the battery in your car in the summer, for example, and store it away from direct sunlight.

Leaving the battery on the bicycle for storage is not recommended.

Action in the event of a fault

The Bosch eBike rechargeable battery must not be opened, including for repairs. There is a risk of the Bosch eBike rechargeable battery catching fire, e.g. as a result of a short circuit. This risk continues to apply on any Bosch eBike rechargeable battery **ever** opened, even at a later point in time.

In the event of a fault, do not have your Bosch eBike rechargeable battery repaired; instead, have it replaced with an original Bosch eBike rechargeable battery by your specialist retailer.

Maintenance and servicing

Maintenance and cleaning

- **The battery must not be submerged in water or cleaned using a jet of water.**

Keep the battery clean. Clean it carefully with a soft, damp cloth.

Clean and lightly grease the connector pins occasionally.

Please contact an authorised bicycle dealer if the battery is no longer working.

After-sales service and advice on using products

If you have any questions about the batteries, contact an authorised bicycle dealer.

- **Note down the key manufacturer and number on the key (1).** Contact an authorised bicycle dealer if you lose the key. Give them the name of the key manufacturer and the number on the key.

For contact details of authorised bicycle dealers, please visit www.bosch-ebike.com.

Transport

- **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.**

The batteries are subject to legislation on the transport of dangerous goods. Private users can transport undamaged batteries by road without having to comply with additional requirements.

When batteries are transported by commercial users or third parties (e.g. air transport or forwarding agency), special requirements on packaging and labelling (e.g. ADR regulations) must be met. When preparing items for shipping, a dangerous goods expert can be consulted as required.

Do not ship batteries if the housing is damaged or the rechargeable battery is not fully functional. Use only the original Bosch packaging for transport. Apply tape over exposed contacts and pack the battery such that it cannot move around inside the packaging. Inform your parcel service that the package contains dangerous goods. Please also observe any additional national regulations should these exist.

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

Disposal



Batteries, accessories and packaging should be recycled in an environmentally friendly manner.

Do not dispose of batteries along with household waste.

Apply tape over the contact surfaces of the battery terminals before disposing of batteries.

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



In accordance with Directive 2012/19/EU and Directive 2006/66/EC respectively, electronic devices that are no longer usable and defective/drained batteries must be collected separately and recycled in an environmentally friendly manner.

Please return batteries that are no longer usable to an authorised bicycle dealer.



Li-ion:

Please observe the information in the section on (see "Transport", page English – 4).

Subject to change without notice.



BOSCH

Charger

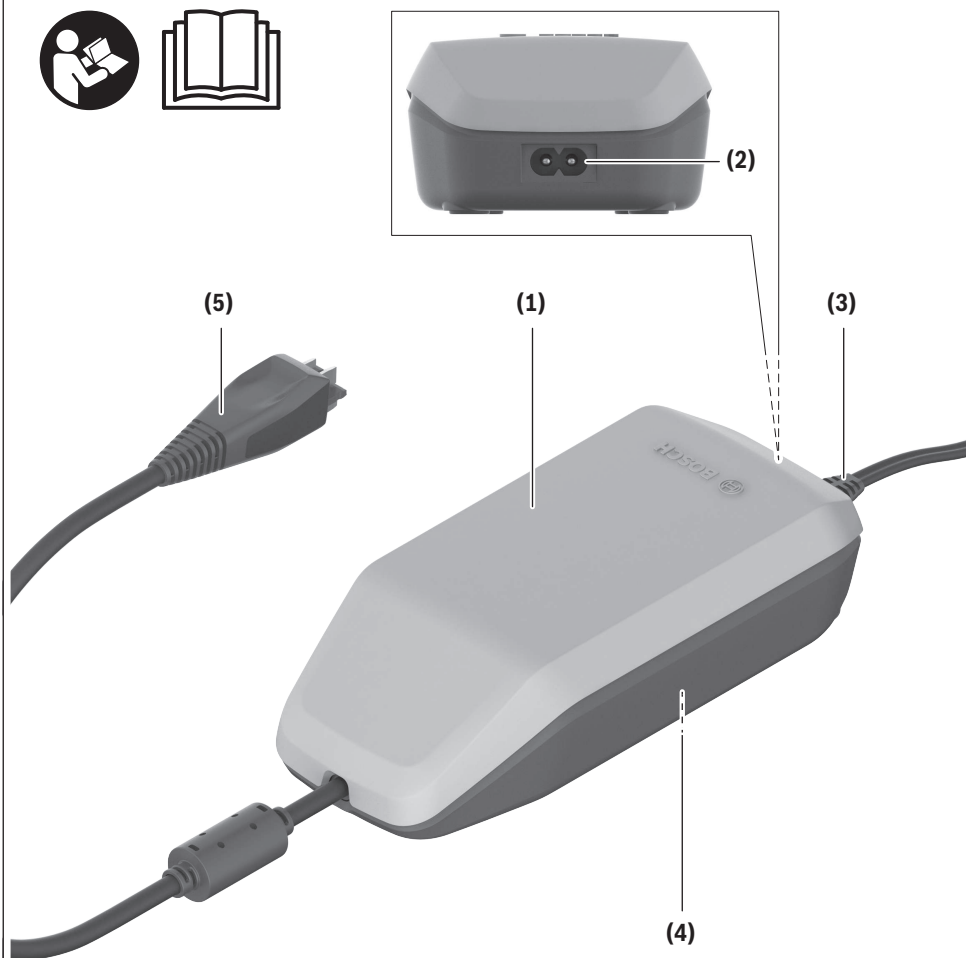
BPC3400



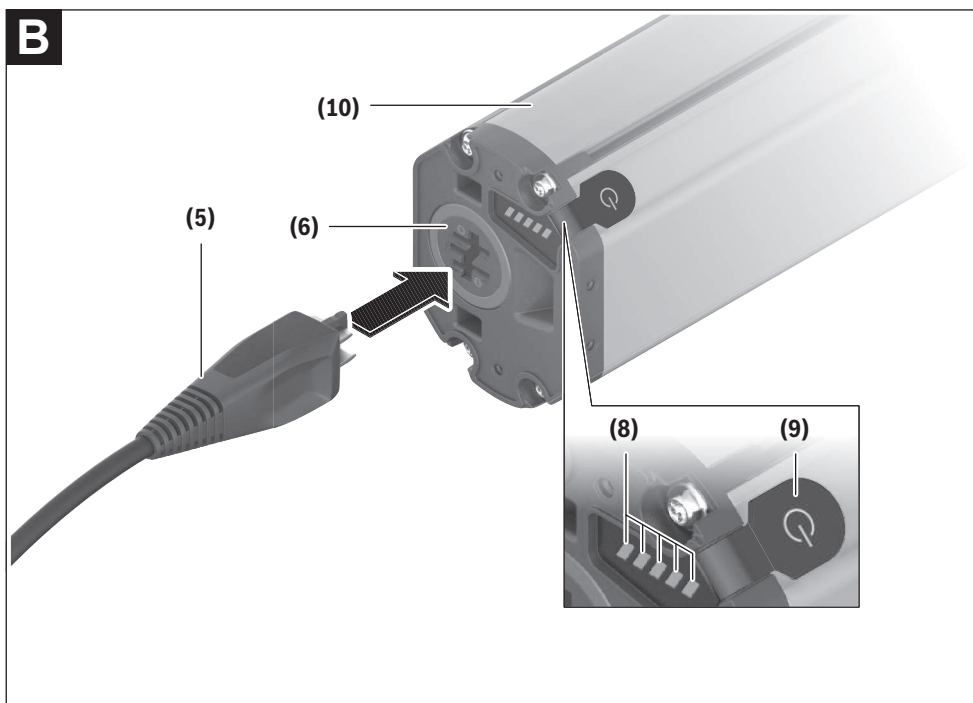
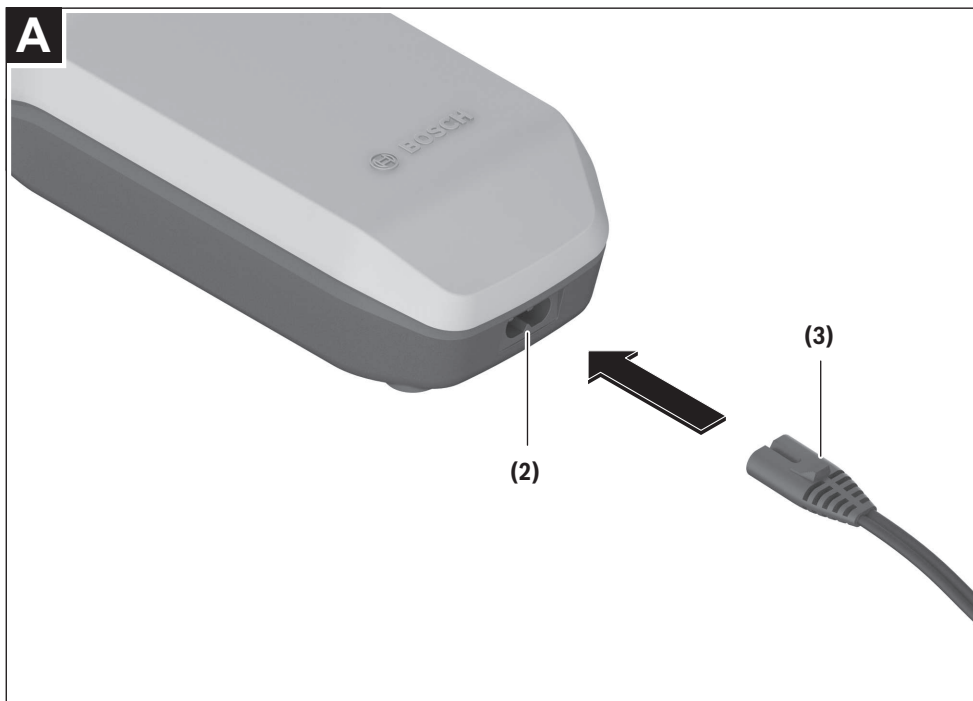
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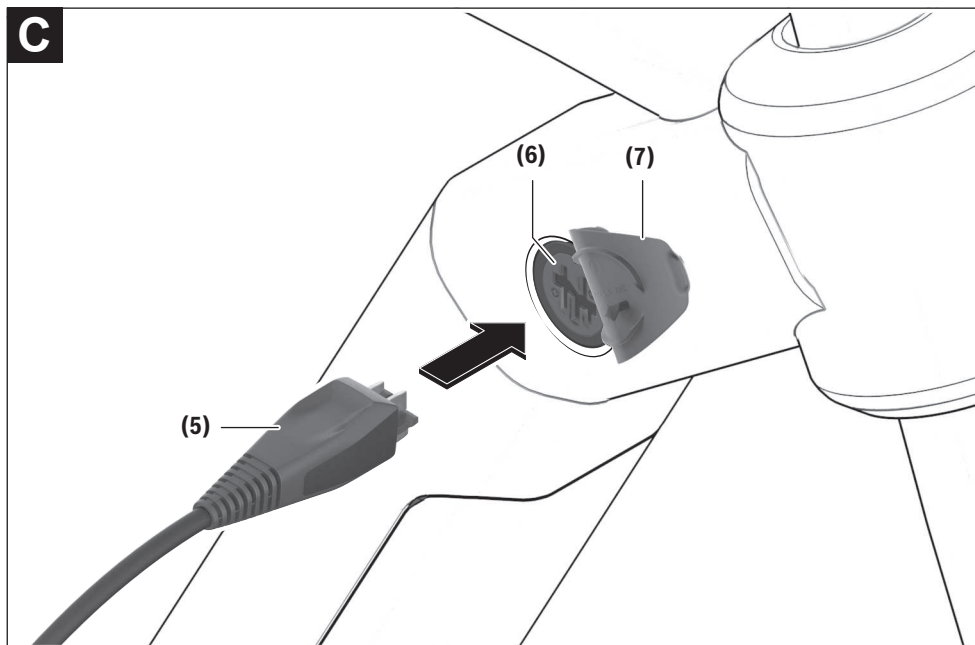
GHOST





4A Charger





Safety instructions



Read all the safety and general instructions. Failure to observe the safety and general instructions may result in electric shock, fire and/or serious injury.

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.



Do not expose the charger to rain or wet conditions. If water enters a charger, there is a risk of electric shock.

- ▶ **Charge only Bosch lithium-ion batteries that are approved for use in eBikes. The battery voltage must match the battery charging voltage of the charger.** Otherwise there is a danger of fire and explosion.
- ▶ **Keep the charger clean.** Dirt poses a risk of electric shock.
- ▶ **Always check the charger, cable and plug before use. Stop using 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 charger on an easily ignited surface (e.g. paper, textiles, etc.) or in a flammable environment.** There is a risk of fire due to the charger heating up during operation.

- ▶ **Take care if you touch the charger while it is charging. Wear protective gloves.** The charger can get very hot, especially when the ambient temperature is high.
- ▶ **The battery may give off fumes if it becomes damaged or is used incorrectly. Ensure the area is well ventilated and seek medical attention should you experience any adverse effects.** The fumes may irritate the respiratory system.
- ▶ **The eBike battery must not be left unattended while charging.**
- ▶ **Supervise children during use, cleaning and maintenance.** This will ensure that children do not play with the charger.
- ▶ **Children or persons who, owing to their physical, sensory or mental limitations or to their lack of experience or knowledge, are not capable of safely operating the charger may only use this charger under supervision or after having been instructed by a responsible person.** Otherwise, there is a danger of operating errors and injuries.
- ▶ **Read and observe the safety warnings and directions contained in all the eBike system operating instructions and in the operating instructions of your eBike.**
- ▶ A sticker in English is adhered to the bottom of the charger (marked **(4)** in the diagram on the graphics page). This says:

Use ONLY with BOSCH lithium-ion rechargeable batteries!

eBike Battery Charger BPC3400

4A Charger

EB12.110.001

Input: 220-240 V ~ 50-60 Hz 1.65 A

Output: 36 V= 4 A

Made in Vietnam

Robert Bosch GmbH

72757 Reutlingen, Germany

Li-Ion

Use ONLY with BOSCH Li-Ion batteries



ESV210013



Product description and specifications

Intended Use

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

The Bosch eBike chargers are intended exclusively for charging Bosch eBike batteries and must not be used for any other purpose.

Product features

The numbering of the components shown refers to the illustrations on the graphics pages at the beginning of the manual.

Individual illustrations in these operating instructions may differ slightly from the actual conditions depending on the equipment of your eBike.

- (1) Battery charger
- (2) Device socket
- (3) Device connector
- (4) Charger safety instructions
- (5) Charging connector
- (6) Socket for charging connector
- (7) Charging socket cover
- (8) Operation/battery charge indicator
- (9) Battery on/off button
- (10) PowerTube

Technical data

Charger	4A Charger	
Product code		BPC3400
Rated voltage	V~	198 to 264
Frequency	Hz	47 to 63
Battery charging voltage	V=	36
Charging current (max.)	A	4
Charging time for PowerTube 750, approx.	h	6
Operating temperature	°C	0 to 40
Storage temperature	°C	10 to 40
Weight, approx.	kg	0.7
Protection rating		IP40

The specifications apply to a rated voltage [U] of 230 V. These specifications may vary at different voltages and in country-specific models.



Operation

Start-up

Connecting the charger to the mains (see figure A)

- **Pay attention to the mains voltage.** The voltage of the power source must match the voltage specified on the rating plate of the charger. Chargers marked 230 V can also be operated at 220 V.

Plug the device connector **(3)** of the power cable into the device socket **(2)** on the charger.

Connect the power cable (country-specific) to the mains.

Charging the removed battery (see figure B)

Switch the battery off and remove it from its holder on the eBike. When doing so, read and observe the operating instructions of the battery.

- **Ensure the battery is placed on clean surfaces only.**

Avoid getting dirt, e.g. sand or soil, in the charging socket and contacts in particular.

Plug the charging connector **(5)** of the charger into the socket **(6)** on the battery.

Charging the battery on the bike (see figure C)

Switch the battery off. Clean the cover of the charging socket **(7)**. Avoid getting dirt, e.g. sand or soil, in the charging

socket and contacts in particular. Lift the cover of the charging socket **(7)** and plug the charging connector **(5)** into the charging socket **(6)**.

- **There is a risk of fire due to the charger heating up during charging. Ensure the battery on the bike is completely dry and placed on a fireproof surface before charging.** If this is not possible, remove the battery from the holder and charge it in a more suitable location. When doing so, read and observe the operating instructions of the battery.

Charging process

The charging process begins as soon as the charger is connected to the battery or charging socket on the bike and to the mains.

Note: The charging process is only possible when the temperature of the eBike battery is within the permitted charging temperature range.

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

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

When the on-board computer is connected, a charging notification appears on the display.

The state of charge is displayed by the battery charge indicator **(8)** on the battery and by the bars on the on-board computer.

The LEDs on the battery charge indicator **(8)** flash during the charging process. Each solid illuminated LED represents approximately 20 % of the charging capacity. The flashing LED indicates the next 20 % currently charging.

Once the eBike battery is fully charged, the LEDs go out immediately and the on-board computer is switched off. The charging process is terminated. The state of charge can be displayed for 5 seconds by pressing the on/off button **(9)** on the eBike battery.




Disconnect the charger from the mains and the battery from the charger.

When the battery is disconnected from the charger, the battery is automatically switched off.

Note: If you have charged the battery on the bike, carefully close the charging socket **(6)** with the cover **(7)** after charging, 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 state of charge of the battery and begin the charging procedure again if necessary.

Errors – causes and corrective measures

Cause	Corrective measures
 <p>Battery defective</p>	<p>Two LEDs flash on the battery.</p> <p>Contact an authorised bike dealership.</p>
 <p>Battery too warm or too cold</p>	<p>Three LEDs flash on the battery.</p> <p>Disconnect the battery from the charger until the charging temperature range has been reached.</p> <p>Do not reconnect the battery to the charger until it has reached the correct charging temperature.</p>
 <p>The charger is not charging.</p>	<p>No LEDs flashing (one or more LEDs will remain permanently lit depending on the state of charge of the eBike battery).</p> <p>Contact an authorised bike dealership.</p>
Charging not possible (no indicator on battery)	
Connector not attached properly	Check all connections.
Battery contacts dirty	Carefully clean the battery contacts.
Plug socket, cable or charger defective	Check the mains voltage, have the charger checked over by a bike dealership.
Battery defective	Contact an authorised bike dealership.

Maintenance and servicing

Maintenance and cleaning

If the charger fails, please contact an authorised bike dealership.

After-sales service and advice on using products

If you have any questions about the eBike system and its components, contact an authorised bicycle dealer.

For contact details of authorised bike dealerships, please visit www.bosch-ebike.com.

Disposal

Chargers, accessories and packaging should be recycled in an environmentally friendly manner.

Do not dispose of chargers along with household waste.

Only for EU countries:



According to the European Directive 2012/19/ EU on Waste Electrical and Electronic Equipment and its implementation into national law, chargers that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

Subject to change without notice.



BOSCH

Drive Unit

BDU3740 | BDU3741

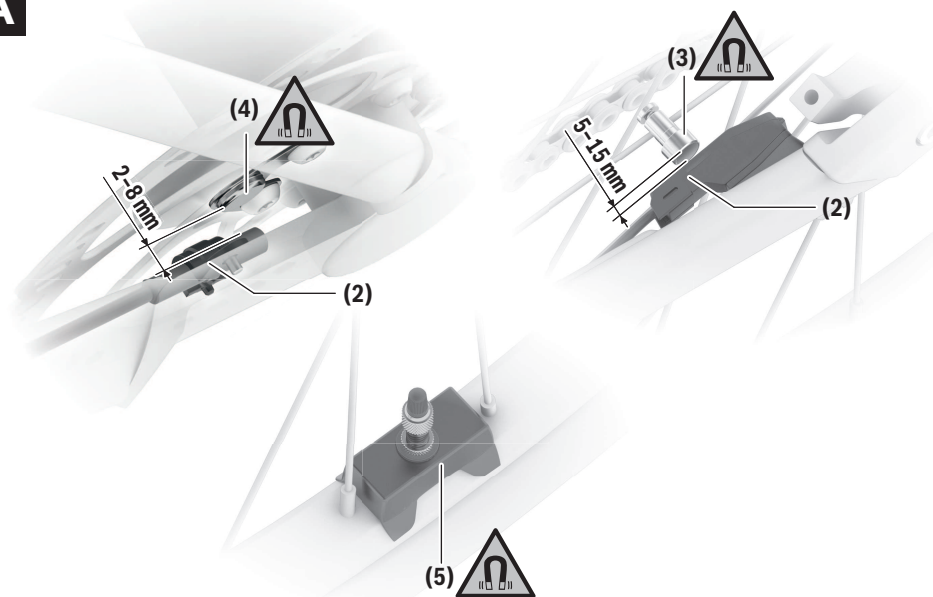


6

Performance Line CX

GHOST




A


Safety instructions



Read all the safety information and instructions. Failure to observe the safety information and follow instructions may result in electric shock, fire and/or serious injury.

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.

- ▶ **Do not attempt to change – and especially increase – the power of your drive or the maximum speed that it supports.** Doing this may put yourself and others at risk, and you may also breach statutory regulations.
- ▶ **Do not make any modifications to your eBike system or fit any other products that might increase the performance of your eBike system.** Doing so will generally reduce the service life of the system and risks damaging the drive unit and the bike. You also run the risk of losing the guarantee and warranty claims on the bicycle you have purchased. By handling the system improperly you are also endangering your safety and that of other road users, thus running the risk of high personal liability costs and possibly even criminal prosecution in the event of accidents that can be attributed to manipulation of the bicycle.
- ▶ **Do not open the drive unit yourself. The drive unit must only be repaired by qualified personnel using only original spare parts.** This will ensure that the safety of the drive unit is maintained. Unauthorised opening of the drive unit will render warranty claims null and void.
- ▶ **All components fitted to the drive unit and all other components of the eBike drive (e.g. chainring, chainring receptacle, pedals) must only be replaced with identical components or components that have been specifically approved by the manufacturer for your eBike.** This will protect the drive unit from overloading and becoming damaged.
- ▶ **Remove the battery from the eBike before beginning work (e.g. inspection, repair, assembly, maintenance, work on the chain, etc.) on the eBike, transporting it with a car or aeroplane, or storing it.** Unintentional activation of the eBike system poses a risk of injury.



On sections of the drive, temperatures > 60 °C may occur in extreme conditions, e.g. when carrying consistently high loads at low speed when riding up hills or transporting loads.

- ▶ **After a ride, do not allow your unprotected hands or legs to come into contact with the housing of the drive unit.** Under extreme conditions, such as continuously high torques at low travel speeds, or when riding up hills or carrying loads, the housing may reach a very high temperature.

The temperature that the drive unit housing may reach is influenced by the following factors:

- Ambient temperature

- Ride profile (route/gradient)
- Ride duration
- Assistance modes
- User behaviour (personal effort)
- Total weight (rider, eBike, luggage)
- Motor cover on the drive unit
- Heat dissipation properties of the bicycle frame
- Type of drive unit and type of gear-shifting

- ▶ **Use only original Bosch batteries that the manufacturer has approved for your eBike.** Using other batteries can lead to injuries and pose a fire hazard. Bosch accepts no liability or warranty claims if other batteries are used.



Keep the magnet away from implants and other medical devices, e.g. pacemakers or insulin pumps. The magnet generates a field that can impair the function of implants and medical devices.

- ▶ **Keep the magnet away from magnetic data carriers and magnetically sensitive devices.** The effect of the magnets may lead to irreversible data losses.
- ▶ **Observe all national regulations which set out the approved use of eBikes.**
- ▶ **Read and observe the safety warnings and directions contained in all the eBike system operating instructions and in the operating instructions of your eBike.**

Privacy notice

When you connect the eBike to the **Bosch DiagnosticTool 3**, data about Bosch drive unit (e.g. energy consumption, temperature, etc.) is transferred to Bosch eBike Systems (Robert Bosch GmbH) for the purposes of product improvement. You can find more information about this on the Bosch eBike website at www.bosch-ebike.com.

Product description and specifications

Intended use

The drive unit is intended exclusively for driving your eBike and must not be used for any other purpose.
In addition to the functions shown here, changes to software relating to troubleshooting and functional modifications may be introduced at any time.

Product features

Individual illustrations in these operating instructions may differ slightly from the actual conditions depending on the equipment of your eBike.

The numbering of the components shown refers to the illustrations on the graphics pages at the beginning of the manual.

- (1) Drive unit
- (2) Speed sensor^{a)}
- (3) Spoke magnet
- (4) CenterLock magnet^{b)}
- (5) Rim magnet

a) different sensor type and installation position is possible

b) different installation position is possible

Technical data

Drive unit	Drive Unit Performance Line CX	
Product code		BDU3740 BDU3741
Continuous rated power	W	250
Torque at drive, max.	Nm	85
Rated voltage	V=	36
Operating temperature	°C	–5 to +40
Storage temperature	°C	+10 to +40
Protection rating		IP 54
Weight, approx.	kg	3

The Bosch eBike system uses FreeRTOS
(see <http://www.freertos.org>).

Bicycle lights ^{A)}		
Voltage approx. ^{B)}	V=	12
Maximum power		
– Front light	W	17.4
– Tail light	W	0.6

A) Depends on legal regulations, not possible in all country-specific models via the eBike battery

B) When changing the bulbs, ensure that they are compatible with the Bosch eBike system (ask your bicycle dealer) and are suitable for the specified voltage. Bulbs must only be replaced with bulbs of the same voltage.

Inserting a bulb incorrectly can cause it to blow.

Assembly

Checking the speed sensor (see figure A)

Speedsensor (slim)

The speed sensor (2) and its CenterLock magnet (4) or spoke magnet (3) are mounted ex works in such a manner that the magnet, after a turn of the wheel, moves past the speed sensor with a clearance of at least 2 mm, yet no more than 15 mm.

If any structural changes are made, the correct distance between the magnet and the sensor must be complied with (see figure A).

Note: Make sure you do not damage the sensor or the sensor holder when fitting or removing the rear wheel.

When changing a wheel, make sure that the sensor cable is routed so that it is not under tension and has no kinks.

The CenterLock magnet (4) can only be removed and reinserted up to five times.

Rim magnet

When installing a rim magnet, no sensor is required to detect a wheel turn. The drive unit itself detects when the magnet is close to it and calculates the speed and any other data required from the frequency of the emergence of the magnet field.

Since the drive unit is sensitive to magnetic fields, avoid other magnetic fields in the vicinity of the drive unit (e.g. magnetic clipless pedals, magnetic cadence sensors, etc.) in order to prevent disruption to the drive unit.

Operation

A control unit is required for the starting operation of the eBike system. Observe the starting operation for the eBike system and drive unit control in the control unit operating instructions.

Notes on cycling with the eBike system

When does the eBike drive work?

The eBike drive assists your cycling only when you are pedalling. If you do not pedal, the assistance will not work. The motor output always depends on the pedalling 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 **25 km/h**. When the speed falls below **25 km/h**, 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 pedalling. 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 pedalling 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.

Gaining initial experience

We recommend that you gain initial experience with the eBike away from busy roads.

Test the various assistance levels, beginning with the lowest level. As soon as you feel confident, you can ride your eBike in traffic like any other bicycle.

Test the range of your eBike in different conditions before planning longer and more demanding trips.

Influences on range

The range is affected by a number of factors, such as:

- Assistance level
- Speed
- Gear shifting behaviour
- Tyre type and tyre 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.

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).

Maintenance and servicing

Maintenance and cleaning

When changing the bulbs, ensure that they are compatible with the Bosch eBike system (ask your bicycle dealer) and

are suitable for the specified voltage. Bulbs must only be replaced with bulbs of the same voltage.

Do not immerse any components, including the drive unit, in water or clean them with pressurised water.

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 authorised bicycle dealer.

After-sales service and advice on using products

If you have any questions about the eBike system and its components, contact an authorised bicycle dealer.

For contact details of authorised bike dealerships, please visit www.bosch-ebike.com.

Disposal



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.



In accordance with Directive 2012/19/EU and Directive 2006/66/EC respectively, electronic devices that are no longer usable and defective/drainable batteries must be collected separately and recycled in an environmentally friendly manner.

Please return Bosch eBike components that are no longer usable to an authorised bicycle dealer.

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