

# **Kiox** Online-Version (BUI330)



en Original operating instructions

## English – 1

Safety instructions 3
Privacy notice 5
Congratulations
Product description and specifications
Intended use 6
Product features 8
Technical data
Declaration of Conformity
Fitting 10
Fitting and removing the on-board computer (see figure A) 10
Operation 12
Before initial commissioning       12         Switching the on-board computer on/off       12         Battery charge indicator       12         Selecting system settings       13
Setting up the eBike system       14         Requirements       14         Switching the eBike system on/off       14
Energy supply of the on-board computer
Storage mode/resetting the Kiox
Displays and settings of the on-board computer 17
Operating logic 17
Screen sequence
Start page 19
Status page 20
<b><settings></settings></b>

## English – 2

## **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 pack** used in these operating instructions refers to all original Bosch eBike battery packs.

- Do not allow yourself to be distracted by the display of the on-board computer. If you do not concentrate exclusively on the traffic around you, you risk being involved in an accident. If you want to change any settings on the on-board computer other than the assistance level, always stop before entering the relevant data.
- ► Do not open the on-board computer. Opening the on-board computer can result in irreparable damage and void your warranty.
- 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.
- Caution! Using the on-board computer with *Bluetooth®* and/or WiFi can interfere with the operation of other devices and systems, including airplanes and medical devices (e.g. pacemakers, hearing aids). Similarly, the possibility that this may cause damage to humans and animals in the immediate vicinity cannot be completely excluded. Do not use the on-board computer with *Bluetooth®* in the vicinity of medical devices, service stations, chemical plants, blasting areas or other areas where there is a risk of explosion. Do not use the on-board computer with *Bluetooth®* in airplanes. Avoid using the device in close proximity to your body over an extended period of time.

#### English - 4

- The Bluetooth<sup>®</sup> 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.
- The on-board computer is fitted with a radio interface. Local operating restrictions, e.g. in airplanes or hospitals, must be adhered to.

NOTICE: This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

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

**NOTICE:** Changes or modifications made to this equipment not expressly approved by the Robert Bosch GmbH may void the FCC authorization to operate this equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment of and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Radiofrequency radiation exposure Information:** The radiated output power of the device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized.

## **Privacy notice**

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

# Congratulations

Congratulations on purchasing your eBike computer.

Kiox controls your eBike and reliably displays all your key ride data.

- eBike on-board computer with separate operating unit
- Can be connected via Bluetooth® to a heart rate monitor

## Updates

Kiox's range of functions is always being expanded.

 $\label{eq:linear} In \cdot addition \cdot to \cdot the \cdot functions \cdot shown \cdot here, \cdot changes \cdot to \cdot software \cdot relating \cdot to \cdot troubleshooting \cdot and \cdot functional \cdot enhancements \cdot may \cdot be \cdot introduced \cdot at \cdot any \cdot time.$ 

# Product description and specifications

## Intended use

The Kiox on-board computer is designed to control Bosch eBike systems and display riding data.

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

A smartphone app and an online portal will also be available for the Kiox onboard computer at a later date.

To find out more, visit: www.Bosch-eBike.com.

## English – 7



#### English - 8



#### Product features

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

- (1) On-board computer
- (2) Display
- (3) Bike light button
- (4) On/off button for on-board computer
- (5) Holder for on-board computer
- (6) USB port
- (7) Operating unit
- (8) Next page/scroll right button >
- (9) Select button
- (10) Scroll button backwards/to the left <
- (11) Decrease assistance level button -/ Scroll down on the button
- (12) Increase assistance level button +/ Scroll up on the button

- (13) Push assistance button
- (14) Drive unit contacts
- (15) Locking screw for on-board computer
- (16) Headset screw
- (17) USB port protective cover<sup>A)</sup>
- (18) Magnet holder
- A) Available as spare part

## **Technical data**

	Kiox
	BUI330
mA	1000
V	5
	1 270 016 360
C°	-5 to +40
°C	0 to +40
C°	-10 to +50
V mAh	3.7 230
	IP x7 (dustproof, wa- tertight)
g	60
MHz	2400-2480
mW	< 10
	mA V °C °C °C V mAh g MHz mW

- A) At an ambient temperature of < 25 °C
- B) Not included as part of standard delivery
- C) When the USB cover is closed

## **Declaration of Conformity**

Robert Bosch GmbH, Bosch eBike Systems, hereby declares that the **Kiox** radio communication unit complies with Directive 2014/53/EU. The full text

#### English - 10

of the EU Declaration of Conformity can be accessed at the following Internet address: <u>https://www.ebike-connect.com/conformity</u>

# Fitting



- (1) On-board computer
- (5) Holder for on-board computer
- (14) Drive unit contacts
- (15) Locking screw for on-board computer
- (16) Headset screw
- (18) Magnet holder

## Fitting and removing the on-board computer (see figure A)

Fit the lower part of the Kiox into the holder **(5)** first and tilt it forward gently until you can feel that the on-board computer is firmly fixed in the magnetic holder.

**Note:** To prevent the on-board computer falling out of the holder in the event of impact, the on-board computer can also be secured with a securing strap (available as an option).

To remove the on-board computer, hold it by the top end and pull it towards you until it disengages from the magnetic holder.

#### ▶ When you park up the eBike, remove the on-board computer.

The on-board computer can be secured in place to prevent it from being removed from the holder. To do this, loosen the headset screw **(16)** until the Kiox holder can be swivelled sideways. Put the on-board computer in the holder. Screw the locking screw (M3 thread, 6 mm long) from below into the thread provided in the on-board computer (using a longer screw may damage the on-board computer). Swivel the holder back into place and tighten the headset screw in accordance with the manufacturer's specifications.

# Operation

## Before initial commissioning

The **Kiox** is supplied with a partially charged battery. Before using it for the first time, this battery must be charged for at least one hour via the USB port (see "Energy supply of the on-board computer", page English – 15) or via the eBike system.

The control unit should be attached such that the buttons are almost perpendicular to the handlebars.

When turning on the on-board computer for the first time, the language selection is displayed and then you can use the menu item **<Intro to (Introduction to) [name of BUI]>** to find out more about the main functions and displays. You can access this menu item again at a later time via **<Set-**tings>  $\rightarrow$  **<Information>**.

#### Switching the on-board computer on/off

To **switch** the on-board computer **on** and **off**, briefly press the on/off button **(4)**.

#### **Battery charge indicator**

The battery charge indicator of the eBike battery **d** can be read on the status page and the status bar. The eBike battery's state of charge is also indicated by the LEDs on the eBike battery itself.

Colour of the in- dicator d	Explanation	
White	The eBike battery is over 20% charged.	
Yellow	The eBike battery is over 5% charged.	
Red	The capacity for assisting the drive has been used up, and assistance is switched off. The remaining capacity will be provided for the bike lights and the on-board computer. The remaining capacity of the eBike battery is enough for about 2 hours of lighting. This does not ac- count for other consumers (e.g. eShift gear changing, charging external devices using the USB port) which could reduce the duration.	

If the eBike battery is being charged on the wheel, a corresponding notification will be displayed. If the on-board computer is removed from the holder **(5)**, the state of charge that was last displayed for the battery is saved.

#### Selecting system settings

Fit the on-board computer in the holder and proceed as follows with the bicycle stationary:

Go to the status page (use the < (10) button on the operating unit to get to the first display) and call up the <**Settings>** with the select button (9).

You can use the – (11) and + (12) buttons to select the setting you want. You can open the settings, as well as any additional sub-menus, using the select button (9). You can use the < button (10) to go back to the previous menu from any settings menu.

The following settings can be changed in the **<Sys settings>**:

#### - <Brightness>

The brightness can be adjusted in ten increments from 0% to 100%. You can set the required brightness using the **</>>** buttons, and make your selection using the **+/**- buttons. If the **<Automatic>** option is selected, the brightness will adjust automatically according to the ambient light.

- <Time>

You can set the time using the </> buttons, and make your selection using the +/- buttons.

- <Date [DD.Mon.YYYY]>

This is where you can set the current date.

- <Time zone [Current value]>

This is where you can set the relevant time zone.

- <24h form>

This time format can be switched on or off.

- <Light backg.>

The light background can be switched on or off.

- <Imperial>

If this option is selected, Anglo-American (imperial) units are displayed (e.g. miles rather than kilometers).

- <Language [Current language]>

Here you can choose the interface language from a choice of nine different languages.

#### English - 14

#### - <Factory reset>

You can select this menu item to restore the on-board computer to factory settings.

#### Setting up the eBike system

#### Requirements

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

- A sufficiently charged eBike battery is inserted (see battery operating instructions).
- The on-board computer is properly inserted in the holder.

#### Switching the eBike system on/off

The following options are available for **switching on** the eBike system:

- Put the on-board computer in the holder (5).
- When the on-board computer and the eBike battery are inserted, briefly press the on/off button (4) of the on-board computer.
- With the on-board computer inserted, press the on/off button on the eBike battery (some bicycle manufacturer-specific solutions prevent access to the battery on/off button; see the battery operating instructions).

The drive is activated as soon as you start pedaling (except for in the push assistance function or with the assistance level **OFF**). The motor output depends on which assistance level is set on the on-board computer.

As soon as you stop pedaling when in normal operation, or as soon as you have reached a speed of **20/28mph**, the eBike drive unit switches off the assistance. The drive is automatically re-activated as soon you start pedalling again and the speed is below **20/28 mph**.

The following options are available for **switching off** the eBike system:

- Briefly press the on/off button (4) of the on-board computer.
- Switch off the eBike battery using its on/off button (some bicycle manufacturer-specific solutions prevent access to the battery on/off button; see the bicycle manufacturer operating instructions).
- Remove the on-board computer from its holder.

If no power is drawn from the eBike drive for about ten minutes (e.g. because the eBike is not moving) and no button is pressed on the on-board computer or the operating unit of the eBike, the eBike system, and therefore also the battery, will switch off automatically to save energy.

## Energy supply of the on-board computer

If the on-board computer is in the holder **(5)**, a sufficiently charged eBike battery is inserted in the eBike and the eBike system is switched on, the onboard computer battery will be powered by the eBike battery.

If the on-board computer is removed from the holder **(5)**, the device will be powered by the on-board computer battery. If the on-board computer battery is running low on power, a warning message will be shown on the display.

To charge the on-board computer battery, put the on-board computer back in the holder **(5)**. Note that if you are not charging the eBike battery, the eBike system will automatically switch off after 10 minutes if it is not activated. If this happens, the on-board computer battery will also stop charging.

You can also charge the on-board computer via the USB port. To do this, open the protective cap **(17)**. Connect the USB port **(6)** of the on-board computer via a micro USB cable to any commercially available USB charger (not included with the product as standard) or the USB port of a computer (max. 5 V charging voltage, max. 500 mA charging current).

If the on-board computer is removed from the holder **(5)**, all values of the functions are saved and are still displayed.

If the Kiox battery is not recharged, the date and time will be retained for up to six months.

Note: The Kiox only charges while it is switched on.

**Note:** If the Kiox is switched off during charging via a USB cable, the Kiox can only be switched on again once the USB cable has been disconnected.

**Note:** To maximize the lifespan of the on-board computer battery, it should be recharged for one hour every three months.

## Storage mode/resetting the Kiox

The on-board computer has an energy-saving storage mode which minimizes the rate at which the internal battery discharges. Setting to this mode erases the date and time.

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English - 16
```

This mode can only be activated by pressing and holding the on/off button (4) of the on-board computer (for at least eight seconds).

If the on-board computer does not start when the on/off button **(4)** is pressed briefly, the on-board computer is in storage mode.

You can deactivate storage mode by pressing the on/off button (4) for at least two seconds.

The on-board computer detects whether it is in fully working order. If you press and hold the on/off button **(4)** for at least eight seconds while the onboard computer is in fully working order, it will go into storage mode. If, contrary to expectations, the Kiox is not in working order and cannot be operated, pressing and holding the on/off button (for at least eight seconds) will reset it. After being reset, the on-board computer will restart automatically after approx. 5 seconds. If the Kiox does not restart, press the on/off button **(4)** for two seconds.

To reset the Kiox to its factory settings, select **<Settings>**  $\rightarrow$  **<Sys settings>**  $\rightarrow$  **<Factory reset>**. All user data will be lost.

# Displays and settings of the on-board computer

**Note:** All interface displays and texts on the following pages correspond to the release status of the software. The interface displays and texts may change slightly following a software update.

## **Operating logic**

You can use the < (10) and > (8) buttons to switch between the different riding value information pages (even while riding). This way, you can keep both hands on the handlebars while cycling.

You can use the + (12) and - (11) buttons to increase or decrease the assistance level. If you are in a list (e.g. the **<Settings>** menu), you can use these buttons to scroll up or down in the list.

The **<Settings>** that can be accessed via the status page cannot be changed while riding.

You can use the select button (9) to perform the following functions:

- You can access the quick menu while riding.
- You can access the settings menu from the status page while stationary.
- You can confirm values and acknowledge informative hints.
- You can exit a dialogue.

If the on-board computer is removed from its holder and not switched off, it will display information regarding the last journey, as well as status information, on loop.

If no button is pressed after the on-board computer is removed from the holder, it will switch itself off after one minute.

#### Screen sequence

You can access the following displays, one after the other, when you begin at the start screen:

- 1. Start page
- 2. Time and range
- 3. Distance and ride time
- 4. Power and cadence
- 5. Average speed and maximum speed
- 6. Distance, range, power and heart rate
- 7. Heart rate
- 8. Status page

#### Start page

When you fit the on-board computer in the holder while it is switched on, it will display the start page.



- a Time/speed indicator
- b Assistance level indicator
- c Lighting indicator
- d Battery charge indicator for eBike battery
- e Speed unit display<sup>A)</sup>
- f Speed
- g Navigation bar
- h Motor output
- i Your performance
- j Average speed
- k Performance evaluation
- A) Can be changed via the **<Settings>** status page.

#### English - 20

The **a** and **d** indicators form the status bar and are shown on every page. If the speed is already being displayed on the screen itself, the **a** indicator will change to the current time in hours and minutes. The status bar displays:

- Speed/time: The current speed in km/h or mph/current time
- Assistance level: Indicates the current level of assistance using a colour code
- Light: A symbol that indicates whether the light is on
- eBike battery state of charge: Indicates the current state of charge as a percentage

The performance evaluation **k** graphically displays your current speed (white bar) in comparison to your average speed **j**. The graphic shows you whether your current speed is faster or slower than your average speed (left of the black line = lower than average value; right of the black line = higher than average value).

The navigation bar **g** indicates which page you are on. Your current page is highlighted. You can use the **(10) <** and **(8) >** buttons to go to different pages.

From the initial start page, you can access the status page via the < (10) button.

#### Status page



As well as the status bar, the status page also shows you the current time and the state of charge of all your eBike's batteries.

It may also display symbols to indicate an activated *Bluetooth*<sup>®</sup> function or a device connected via *Bluetooth*<sup>®</sup> (e.g. a heart rate monitor).

You can access the **<Settings>** from the bottom section.

## <Settings>

You can access the settings menu via the status page. The **<Settings>** cannot be accessed or changed while riding.

You can use the – (11) and + (12) buttons to select the setting you want. You can open the settings, as well as any additional sub-menus, using the select button (9). You can use the < button (10) to go back to the previous menu from any settings menu.

You can find the following superordinate sections on the first navigation level:

- <My eBike> - Your eBike settings

You can reset the counters (such as the number of kilometers traveled that day or average values) to zero either automatically or manually, and you can reset the range. You can change the wheel circumference value that was preset by the manufacturer by  $\pm 5\%$ . If your eBike features **eS**-**hift**, you can also configure your eShift system here. The bike retailer can schedule the service based on a mileage and/or a time period. The bike versions for each component in addition to other key data which is relevant for the components.

- <Reset> This displays the time and date of the last reset. Ride distance and average values can be reset.
- <Auto. reset> Select between <Off>, <Once a day> or <After 4h>
- <Reset range calculation> This is where the value can be reset to default settings.
- · <eShift> This is where the cadence and starting gear can be set.
- <Wheel circum.Min. [xx] [unit], max. [xx] [unit])> This is where the wheel circumference value can be adjusted or reset to the default setting.
- <Next Service: [DD. Mon.YYYY] or at [xxxxx] [km]> is only visible if the manufacturer or retailer has entered a date for the service.
- Components>

#### English - 22

#### - <Bluetooth [current setting]> - Switching the Bluetooth<sup>®</sup> function on or off:

Connected devices are displayed.

<Settings> -> <Bluetooth [current setting]> can be used to add a new device or remove a device that is no longer required.

The following heart rate monitors are recommended:

- Polar H7
- Polar H10 Heart Rate Sensor
- Runtastic Heart Rate Combo Monitor
- Wahoo TICKR Heart Rate Monitor
- · BerryKing Heartbeat chest strap
- · BerryKing Sportbeat arm strap
- May also be compatible with other devices.

#### - <Sys settings>

You can display the speed and distance in kilometers or miles, display the clock in 12- or 24-hour format, adjust the time, date and time zone and select your preferred language. You can reset the Kiox to its factory settings, run a software update (if available) and choose between a black or white design.

#### - <Information>

- <Registration>
- FAQs>
- Intro to Kiox>
- <Certifications>
- <License info>

#### Quick menu

Selected settings are displayed on the quick menu. These settings can also be changed while riding.

You can access the quick menu via the select button (9). It cannot be accessed from the status page.

The following settings can be changed via the quick menu:

#### - <Reset trip data?>

All data on the distance traveled so far is reset to zero.

#### - <eShift>

This is where you can set the cadence.

## Setting the assistance level

On the operating unit (7), you can set the level of assistance you want the eBike drive to provide you with while pedalling. The assistance level can be changed at any time, even while cycling.

**Note:** In some models, the assistance level may be preset and cannot be changed. There may also be fewer assistance levels available than stated here.

If the manufacturer has configured the eBike with **eMTB Mode**, the assistance level **SPORT** is replaced by **eMTB**. In **eMTB Mode**, the assistance factor and torque are dynamically adjusted according to the force you exert on the pedals. **eMTB Mode** is only available for Performance Line CX drives.

The following assistance levels are available as a maximum:

- OFF: Motor assistance is switched off. The eBike can just be moved by pedaling, as with a normal bicycle. The push assistance cannot be activated at this assistance level.
- ECO: Effective assistance with maximum efficiency, for maximum range
- TOUR: Steady assistance, long range for touring
- SPORT/eMTB:

**SPORT:** Powerful assistance, for mountain biking and for cycling in urban traffic

eMTB: Optimum assistance whatever the terrain, rapid acceleration when starting from a standstill, improved dynamics and top performance

TURBO: Maximum assistance even at high pedaling speeds, for biking sports

To **increase** the assistance level, press the **+ (12)** button on the operating unit repeatedly until the desired assistance level appears on the display. To **decrease** the assistance level, press the **- (11)** button.

The requested motor output appears on the display  ${\bf h}.$  The maximum motor output depends on the selected assistance level.

If the on-board computer is removed from the holder **(5)**, the assistance level that was last displayed for the battery is saved.

## Switching the push assistance on/off

The push assistance aids you when pushing your 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 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 activate the push assistance function, briefly press button **(13)** on your on-board computer. After activation, press the + button within three seconds and keep it pressed. The eBike drive is switched on.

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

- You release the + button;
- The wheels of the eBike are locked (e.g. by applying the brakes or hitting an obstacle);
- The speed exceeds 3.7 mph.

After releasing the + button, the push assistance remains on standby for another three seconds. If you push the + button again within this time frame, the pushing assistance will be reactivated.

**Note:** On some systems, the push assistance can be started directly by pressing the **WALK** button.

Note: The push assistance cannot be activated at assistance level OFF.

## Switching bicycle lights on/off

On the model in which the lighting is 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 using the bike light button **(3)**.

If the light is switched on, a symbol is displayed in the status bar of the display.

Switching the bike lights on and off has no effect on the backlighting of the display.

## 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.

## Powering external devices from the USB port

The USB port can be used to run or charge most devices that can be powered via USB (e.g. various cell phones).

In order for charging to work, the bike must be fitted with the on-board computer and a sufficiently charged battery.

Open the protective cap (17) on the USB port of the on-board computer. Use the Micro A–Micro B USB charging cable (available from your Bosch eBike dealer) to connect the USB port of the external device to the USB port (6) of the on-board computer.

Once the electronic device has been removed, carefully replace the protective cap (17) on the USB port.

Attention: Any electrical devices connected can reduce the range of the eBike.

### Fault code display

The components of the eBike system are continuously monitored automatically. If a fault is detected, the corresponding fault code will appear on the on-board computer.

The drive may also be switched off automatically depending on what type of fault has occurred. You can continue riding at any time without assistance from the drive, but you should have your eBike checked before completing any more journeys.

#### ▶ Only have repairs performed by a certified bicycle dealer.

Code	Cause	Remedy
410	One or more buttons on the on-board computer are jammed.	Check whether dust and dirt, for exam- ple, are causing the buttons to stick. Clean the buttons if this is the case.
414	Operating unit connec- tion problem	Have all the connections checked
418	One or more buttons on the operating unit are jammed.	Check whether dust and dirt, for exam- ple, are causing the buttons to stick. Clean the buttons if this is the case.
419	Configuration error	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
422	Drive unit connection problem	Have all the connections checked
423	eBike battery connection problem	Have all the connections checked
424	Communication error be- tween components	Have all the connections checked
426	Internal timeout error	Restart the system. If the problem per- sists, contact your Bosch eBike dealer. If this error occurs, it is not possible to view or adjust the wheel circumference in the basic settings menu.
430	On-board computer in- ternal battery drained	Charge the on-board computer (in the holder or via the USB port)

Code	Cause	Remedy
431	Software version error	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
440	Internal fault in the drive unit	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
450	Internal software error	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
460	USB port fault	Remove the cable from the USB port of the on-board computer. If the problem persists, contact your Bosch eBike dealer.
490	Internal fault in the on- board computer	Have the on-board computer checked
500	Internal fault in the drive unit	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
502	Bike light fault	Check the light and the wiring connect- ing it. Restart the system. If the problem persists, contact your Bosch eBike dealer.
503	Speed sensor fault	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
510	Internal sensor fault	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
511	Internal fault in the drive unit	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
530	Battery fault	Switch the eBike off, take the eBike bat- tery out and put it back in. Restart the system. If the problem persists, contact your Bosch eBike dealer.
531	Configuration error	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
540	Temperature error	The eBike is outside the tolerable tem- perature range. Switch the eBike sys- tem off to let the drive unit cool down or

## English – 28

Code	Cause	Remedy
		warm up to a tolerable temperature. Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
550	An unauthorized con- sumer has been de- tected.	Remove the consumer. Restart the sys- tem. If the problem persists, contact your Bosch eBike dealer.
580	Software version error	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
591	Authentication error	Switch the eBike system off. Take the battery out and put it back in. Restart the system. If the problem persists, contact your Bosch eBike dealer.
592	Incompatible compo- nents	Use a compatible display. If the problem persists, contact your Bosch eBike dealer.
593	Configuration error	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
595, 596	Communication error	Check the wiring to the gearbox and restart the system. If the problem per- sists, contact your Bosch eBike dealer.
602	Internal battery fault when charging	Disconnect the charger from the bat- tery. Restart the eBike system. Attach the charger to the battery. If the prob- lem persists, contact your Bosch eBike dealer.
602	Internal battery fault	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
603	Internal battery fault	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
605	Battery temperature er- ror	The eBike is outside the tolerable tem- perature range. Switch the eBike sys- tem off to let the drive unit cool down or warm up to a tolerable temperature.

Code	Cause	Remedy
		Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
605	Battery temperature er- ror during charging	Disconnect the charger from the bat- tery. Leave the battery to cool down. If the problem persists, contact your Bosch eBike dealer.
606	External battery fault	Check the wiring. Restart the system. If the problem persists, contact your Bosch eBike dealer.
610	Battery voltage fault	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
620	Charger fault	Replace the charger. Contact your Bosch eBike dealer.
640	Internal battery fault	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
655	Multiple battery faults	Switch the eBike system off. Take the battery out and put it back in. Restart the system. If the problem persists, contact your Bosch eBike dealer.
656	Software version error	Contact your Bosch eBike dealer and ask them to update the software.
7xx	Gearbox fault	Please read the operating manual pro- vided by the gearbox manufacturer.
800	Internal ABS fault	Contact your Bosch eBike dealer.
810	Implausible signals at the wheel speed sensor	Contact your Bosch eBike dealer.
820	Fault in the line to the front wheel speed sensor	Contact your Bosch eBike dealer.
821 826	Implausible signals at the front wheel speed sensor	Restart the system and carry out a test ride for at least two minutes. ABS indi-
	Sensor disc potentially unavailable, faulty or in- correctly mounted; sig-	cator light should switch off. If the prob lem persists, contact your Bosch eBike dealer.

## English – **30**

Code	Cause	Remedy
	nificant difference be- tween front and rear tire diameter; extreme rid- ing, e.g. riding on the rear wheel	
830	Fault in the line to the rear wheel speed sensor	Contact your Bosch eBike dealer.
831 833	Implausible signals at the rear wheel speed sensor Sensor disc potentially	Restart the system and carry out a test ride for at least two minutes. ABS indi- cator light should switch off. If the prob-
000	unavailable, faulty or in- correctly mounted; sig- nificant difference be- tween front and rear tire diameter; extreme rid- ing, e.g. riding on the rear wheel	dealer.
840	Internal ABS fault	Contact your Bosch eBike dealer.
850	Internal ABS fault	Contact your Bosch eBike dealer.
860, 861	Power supply fault	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
870, 871 880 883 885	Communication error	Restart the system. If the problem per- sists, contact your Bosch eBike dealer.
889	Internal ABS fault	Contact your Bosch eBike dealer.
890	ABS indicator is faulty or missing; ABS potentially not functioning.	Contact your Bosch eBike dealer.
Display is blank	Internal fault in the on- board computer	Switch your eBike system off and on again.

## Maintenance and servicing

## Maintenance and cleaning

Do not clean any of the components with pressurized 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).

The bike retailer can also schedule the service based on a mileage and/or a time period. 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 authorized bicycle dealer.

• Only have repairs performed by a certified 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

## 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 authorized bicycle dealer.

Subject to change without notice.

#### Robert Bosch GmbH

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