Bosch DiagnosticTool 3

Manual for bicycle manufacturers from version 2.0

31.01.2022

Table of Contents

1 Introduction

This manual provides an overview of Bosch DiagnosticTool 3. All the information contained in this manual is based on the latest production information that was available at the time the document went to print. Bosch DiagnosticTool 3 is designed to be used by trained technicians to program, configure and diagnose Bosch eBike components for the smart system. We have done our utmost to ensure that the information contained herein, based on the information available at the time of going to press, is technically complete and accurate. However, Robert Bosch GmbH reserves the right to make any changes without prior notice.

To familiarise yourself with Bosch DiagnosticTool 3, all its functions and how to use them, read through the manual carefully before you start working.

2 Warning texts

In this manual:

- CAUTION: Indicates a possible risk of injury for the user or other persons.
- NOTES: Refers to particular functional features in the program or its requirements.

3 Installation of Bosch DiagnosticTool 3

Bosch DiagnosticTool 3 is provided to you by your Bosch Global Technical Manager. Start the installation via the **Bosch DiagnosticTool3.exe** file and follow the specified installation steps. If a previous version of Bosch DiagnosticTool 3 is already installed on your computer, you will be prompted to confirm the uninstallation.

3.1 System requirements

Hardware

Processor:

- Minimum: Intel® CoreTM i3-3217U or equivalent processor.
- Recommended: Intel® CoreTM i5-8250U or equivalent or higher performance processor.

Disk space:

- Minimum: 4 GB RAM
- Recommended: 8 GB RAM
- Available hard disk space: Minimum 2 GB

USB:

- USB 2.0 and later
- 2 free USB ports

Operating system:

- Windows 10, 64 bit
- Windows 11, 64 bit

3.2 Installation note

During the installation process, you will be asked if you want to install the TeamViewer program. If you have not already installed this program, it is recommended that you carry out the installation simultaneously.

4 Uninstallation

The following procedures are available for uninstalling Bosch DiagnosticTool 3:

- Go into the folder via the Windows Programs menu **Bosch DiagnosticTool 3.** Right-clicking on the Bosch DiagnosticTool 3 opens the context menu and you can then select the 'Uninstall' option. Follow the instructions.

Or

- Choose the program you want to uninstall by selecting **Start – Settings – Apps – Apps and Features** in the Start menu.

5 Using Bosch DiagnosticTool and Bosch DiagnosticTool 3 on a computer

NOTE: In order to use both programs on your computer, you must have a valid account for both of them.

The Bosch DiagnosticTool 3 cannot read older generation eBikes. You will therefore still require the Bosch DiagnosticTool. Once one of the two programs has started, the program will automatically determine whether the connected eBike is a new or old generation eBike. If a program is not installed, you will be prompted to install it.

6 DiagnosticTool 3 Dongle

NOTE: We recommend that you directly connect the DiagnosticTool 3 Dongle to your computer. Inserting a USB hub could lead to connection problems.

The DiagnosticTool 3 Dongle must be certified. Bosch DiagnosticTool 3 cannot be used without a valid certificate. The certificate expires after approx. 1.5 years and then has to be renewed. You will receive the first reminder for certificate renewal 90 days before expiry. If you do not arrange the renewal straight away, you will receive the reminder on a daily basis from the 30th day.

If you have any questions or issues, please contact your Bosch Global Technical Manager.

6.1 Certificate renewal

To renew the certificate, you require internet access and must be logged into DiagnosticTool 3 with your Bosch ID. You can start the certificate renewal process either in the reminder shown or in the Bosch DiagnosticTool 3 settings via 'Renew certificate'. This process may take some time.

6.2 Safety recommendations

- Clearly mark your DiagnosticTool 3 Dongle to avoid confusion with other dongles.
- Limit access to the DiagnosticTool 3 Dongle to only those persons who require access to the dongle.
- Clearly specify how usage of the DiagnosticTool 3 Dongle is to be tracked and monitored.
- Define clearly marked storage areas for the DiagnosticTool 3 Dongle both for during and outside of usage periods.
- Make sure that the DiagnosticTool 3 Dongle has a valid certificate to ensure its service availability.
- Ensure that users of the DiagnosticTool 3 Dongle are trained in how to use it and know the rules.
- Decommissioning the DiagnosticTool 3 Dongle: The DiagnosticTool 3 Dongle must be returned to Bosch eBike at the end of the tool's service life or at the end of the contract term.

7 User account –Bosch ID

7.1 Register

NOTE: Internet access is required for registration.

After starting the program, you will be prompted to log in with your Bosch ID (see Fig. 1). Click on 'Bosch ID login' even if you do not yet have a Bosch ID. You will then be automatically forwarded to the Bosch ID login in the browser. You can either register here with your existing Bosch ID or you can create an account via 'Not registered yet?'. You will then receive an e-mail with your activation link. Go to 'Activate user account' to complete registration.

7.2 Bosch ID login

NOTE: Internet access is required for registration.
NOTE: To stay logged in to the Bosch DiagnosticTool 3 for up to 30 days, activate the 'Stay logged in' option in the Bosch DiagnosticTool 3 before logging in on the browser.

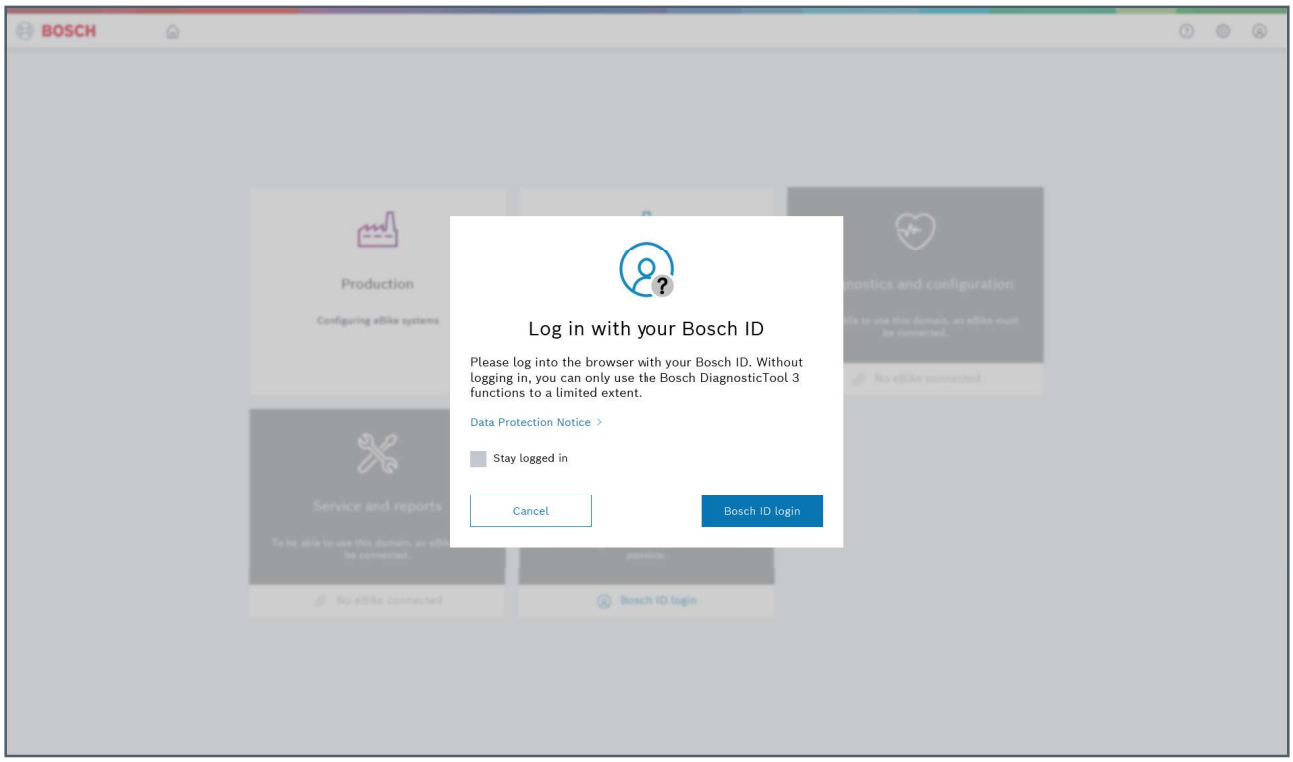

Fig. 1: Logging in to the Bosch DiagnosticTool 3

After starting the program, you will be prompted to log in with your Bosch ID. Click on 'Bosch ID login'. You will then be automatically forwarded to the Bosch ID login in the browser.
Without logging in, you can only use the Bosch DiagnosticTool 3 functions to a limited extent. Functions such as uploading production data or downloading containers from the Bosch server are not possible.

8 Assembler functions

The assembler has limited functions: The online functions (configuration change requests, downloading containers, uploading production data, online eBike updates) are not available with the assembler.

9 Starting the program

9.1 Log in

Insert a DiagnosticTool 3 Dongle in a free USB port on your computer. If no DiagnosticTool 3 Dongle is detected when starting the application, only limited use of Bosch DiagnosticTool 3 is possible. After a DiagnosticTool 3 Dongle has been connected to the computer, additional functions will become accessible.

If a login prompt appears, please log into the browser with your Bosch ID. Without logging in, you can only use the Bosch DiagnosticTool 3 functions to a limited extent.

9.2 Connecting the eBike

NOTE: We recommend that you directly connect the eBike to your computer using a USB-C compatible cable. Inserting a USB hub could lead to connection problems.

Connect the eBike to the computer on which you installed Bosch DiagnosticTool 3. To do so, connect a USB-C compatible cable to a free USB port on your computer and connect the other end to the USB-C port on the eBike. This is located on the control unit. You can obtain USB-C compatible cables from your Bosch Global Technical Manager.

The 'Production', 'Configuration management' and 'Online services' areas are available to you even without an eBike connected.

Once the eBike has been connected to the computer, the 'Diagnostics & configuration' and 'Service & reports' areas are activated.

9.3 Start menu

The start menu provides an overview of the individual function areas of the Bosch DiagnosticTool 3 (see Fig. 2).

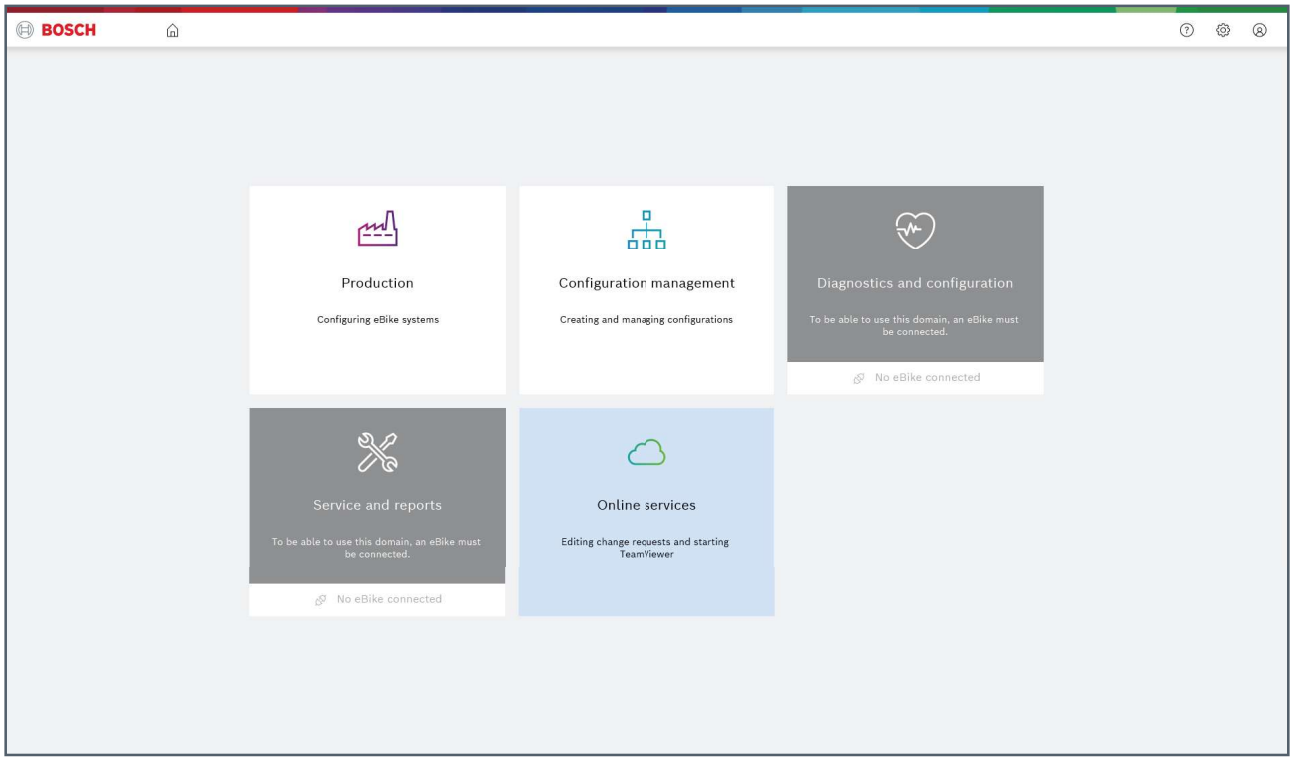

Fig. 2: Start menu of the Bosch DiagnosticTool 3

Production: In the 'Production' area, you can program and configure connected Bosch eBike systems.

Configuration management: In the 'Configuration management' area, you can download and manage your production containers, as well as creating and editing configurations.

Diagnostics & configuration: If an eBike is connected, you can perform diagnostics here, read eBike parameters and error messages and make certain changes to the configuration. If no eBike is connected, this area will not be available to you.

Service & reports: If an eBike is connected, you can carry out service inspections in this area, and also print and save customer and manufacturer reports. If no eBike is connected, this area will not be available to you.

Online services: When you are logged in with your Bosch ID, you can edit change requests for configurations from retailers and start remote diagnostics. If you are not logged in, this function is not available to you.

The individual functions are described in detail in the sections below.

10 Settings

NOTE: If you make changes in the Bosch DiagnosticTool 3 settings, you have to save them. Otherwise the changes will be discarded when you exit the view.

You can go to the settings by clicking on the cogwheel icon at the top right (see Fig. 3).

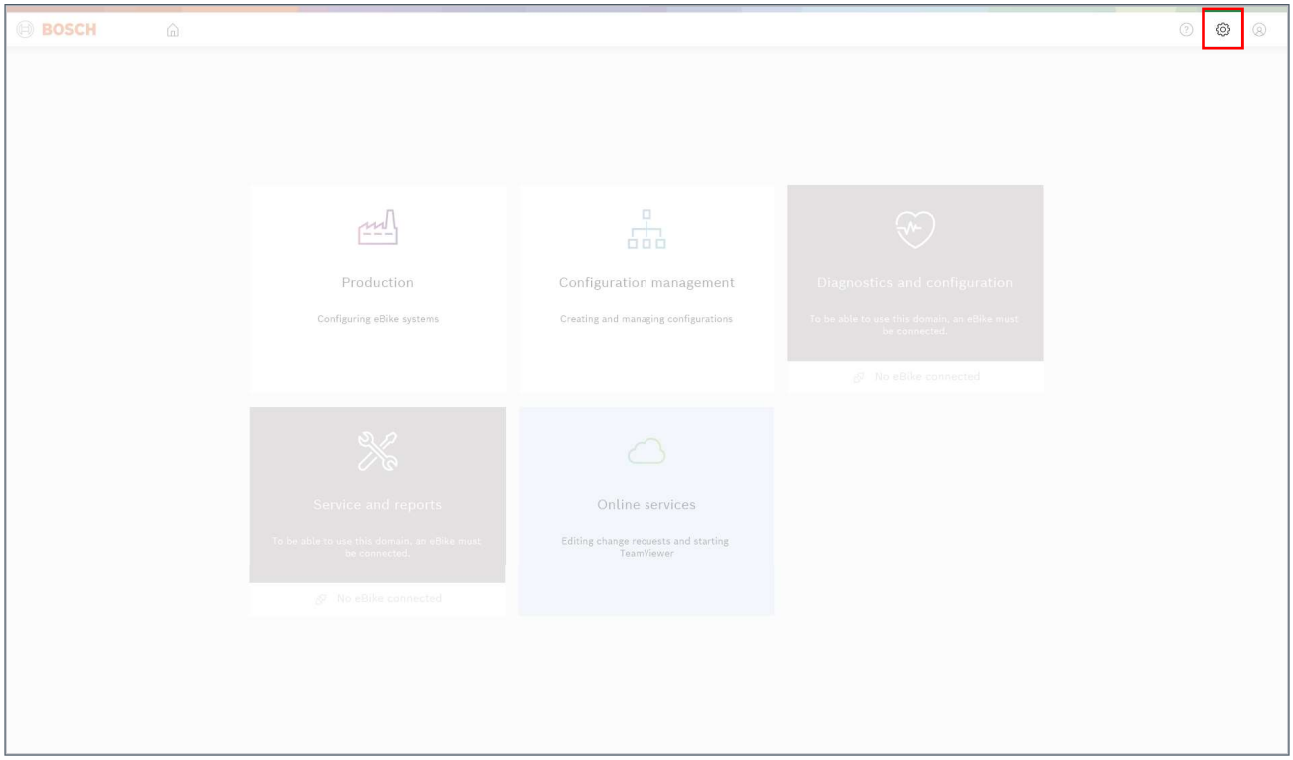

Fig. 3: Accessing settings via the cogwheel icon at the top right

10.1 Basic settings– general

You can set the physical units for length, temperature units and the system language for Bosch DiagnosticTool 3.

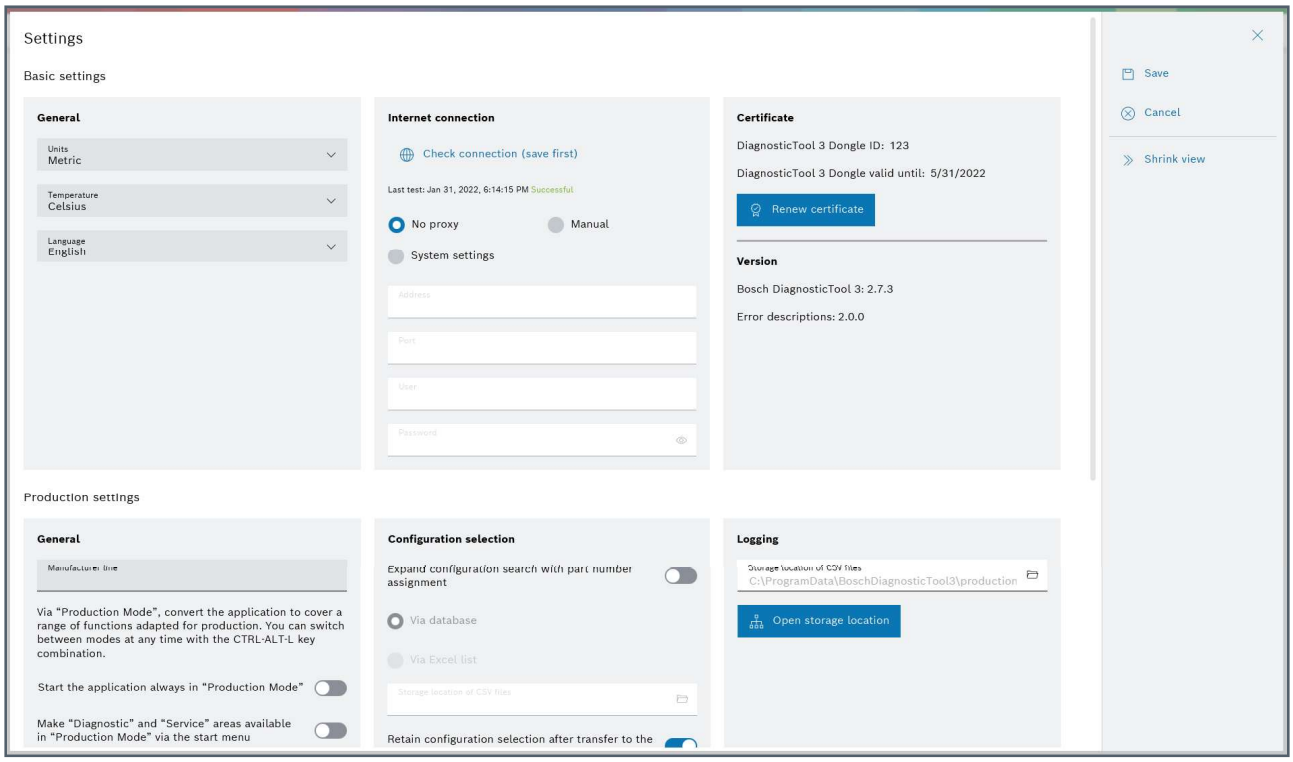

Fig. 4: Dialogue 'Settings'

10.2 Internet connection

You can check your Internet connection by clicking on 'Check connection'. 'Last test' shows you the last time a connection test was performed.

The following options are available for the Internet settings:

- No proxy– do not use a proxy server. No other settings are required.
- System settings– if you are unsure, select these settings. Your Windows system settings for a proxy server are then applied.
- Manual– manual entry of the server address, port and user data for the proxy server. If you do not know your proxy settings, contact your network administrator.

10.3 Certificate

Here, you can see the details of your DiagnosticTool 3 Dongle and the version numbers for various Bosch DiagnosticTool 3 files. You can also renew your certificate here.

DiagnosticTool 3 Dongle ID: The ID of your Bosch DiagnosticTool 3 Dongle.
Valid until: The expiry date of the certificate for your DiagnosticTool 3 Dongle.
Bosch DiagnosticTool 3 version: The software version of the installed Bosch DiagnosticTool 3.
Error description: The version number of your error description file.
URL tab file: The version number of your URL tab file.

Certificate update of the Bosch DiagnosticTool 3 Dongle
If the certificate for the connected Dongle is valid for fewer than 90 days, you will be informed of this in the Bosch DiagnosticTool 3.
You can start the certificate renewal process from the settings (see Fig. 3)). An Internet connection is required to do this.
NOTE: Make sure that you promptly update certificates before they expire. It is NOT possible to program with an expired certificate.

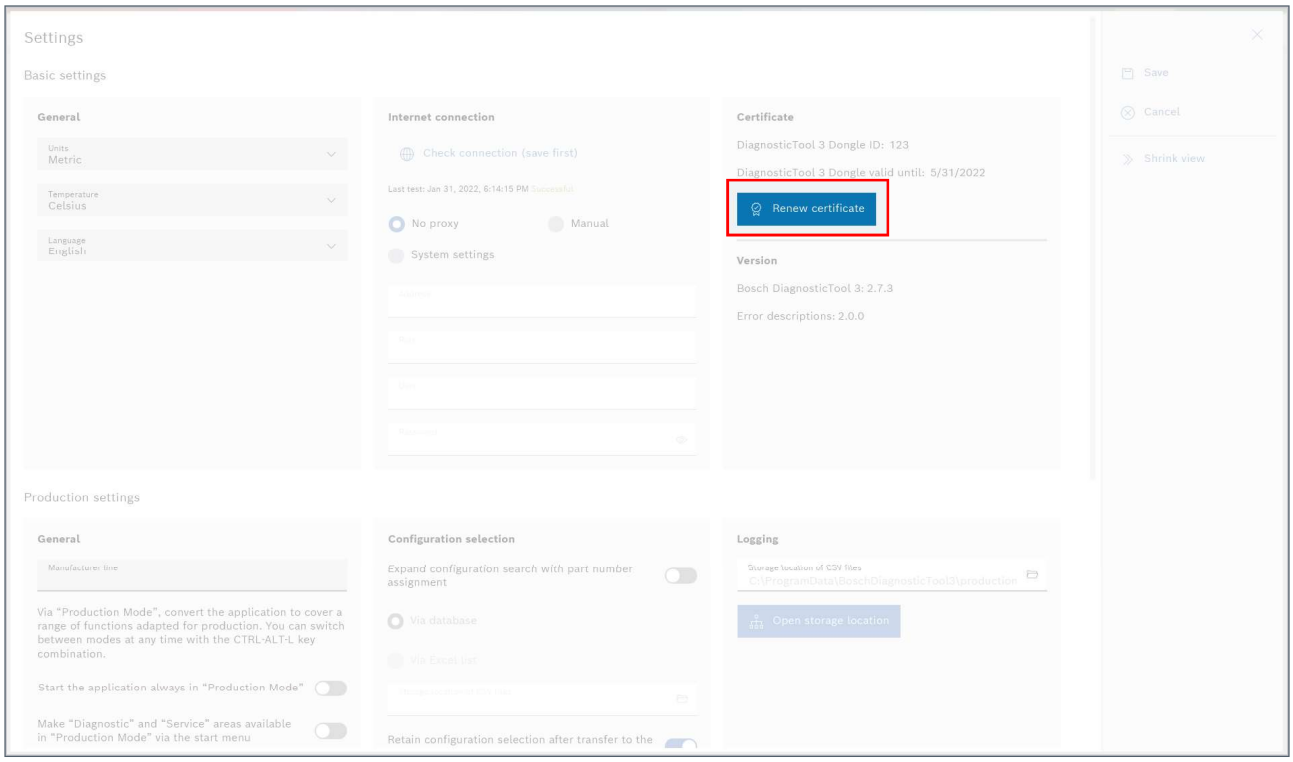

Fig. 5: Certificate renewal of the Bosch DiagnosticTool 3 Dongle

10.4 Production settings –general

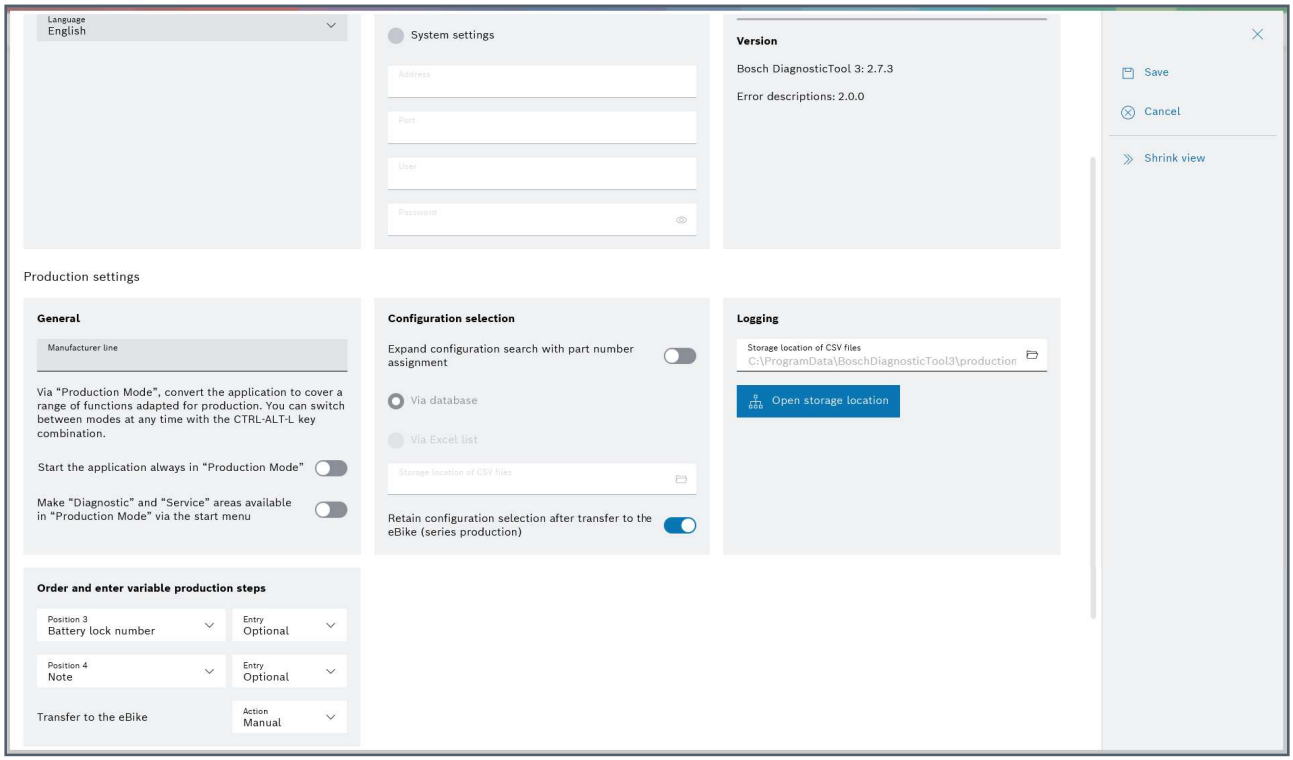

Fig. 6: Dialogue 'Production settings –general'

Manufacturer line: Set a name for your manufacturer line (no special characters permitted). This will be saved in the log file.

Production mode: Via 'Start the application always in production mode', convert the application to cover a range of functions adapted for production after starting the program. You can switch between production mode and full mode at any time using the CTRL-ALT-L key combination.

Start the application always in 'Production mode': If this setting is activated, the Bosch DiagnosticTool 3 will always start in production mode.

Make 'Diagnostics' and 'Service' areas available in 'Production mode'via the start menu: This setting allows you to add the 'Diagnostics & reports' and 'Service & reports' areas to production mode or to remove them.

10.5 Configuration selection

Expand configuration search with part number assignment: You must activate this option to go directly to a configuration from an entered part number in production.

- **Via database:** Activate this option to make the part number assignment available in the local database of the Bosch DiagnosticTool 3.

Or

- **Via Excel list:** Activate this option to make the part number assignment available by means of an Excel list (CSV file).

Storage location of CSV files: Enter a storage location for the CSV files of the eBike specification tables. To do this, select the required file path under ‘Storage location of CSV files’.

The CSV file must contain at least two columns.

- **OEMArticleNo:** Must be unique and must not be empty.
- **OEMConfigurationName:**
  Entry structure: <Brand >\<ReleaseSet >\<Configuration Name >;
  Example: Bosch\MY22_REL03\MyFirstBike
  NOTE: The path can be copied directly from configuration management.

Retain configuration selection after transfer to the eBike (series production): If you activate this function, the previous configuration selection will be retained and it will no longer be necessary to make another selection. This allows faster programming of multiple eBikes with the same configuration in succession.

10.6 Logging

Storage location of CSV files: To change the storage location of CSV files for the production log, click on the folder and select the required storage location.

Open storage location: Clicking on ‘Open storage location’ takes you to your specified storage location in the file manager where the CSV files are saved.

NOTE: If the specified storage location cannot be reached, a new log file is created and your data will be temporarily saved until the connection to the storage location you have entered can be restored.

10.7 Order of production steps

These settings are used to customise your production steps.

You can individually adjust the following settings:

Battery lock number:

- **Mandatory:** The battery lock number must be entered before programming.
- **Optional:** The battery lock number can be entered before programming an eBike.
- **Hide:** The battery lock number does not need to be entered.

Note:

- **Mandatory:** A note must be entered before programming an eBike.
- **Optional:** A note can be entered before programming an eBike.
- **Hide:** A note cannot be entered.

Transfer to the eBike:

- **Automatic:** Programming is started automatically as soon as you have completed all programming dialogue fields correctly and have connected a compatible eBike.
- **Manual:** In this case, programming does not start automatically and must be started manually via ‘Start transfer’.

10.8 Configuration database setting

NOTE: We recommend regularly making a backup copy of your database. To do this, close the Bosch DiagnosticTool 3.

Local database: You can see the storage location for the local database here and amend it if necessary. If you select a different storage location, the Bosch DiagnosticTool 3 must be **restarted**. If there is no existing database, a new database will be generated at the selected storage location.

11 Profile

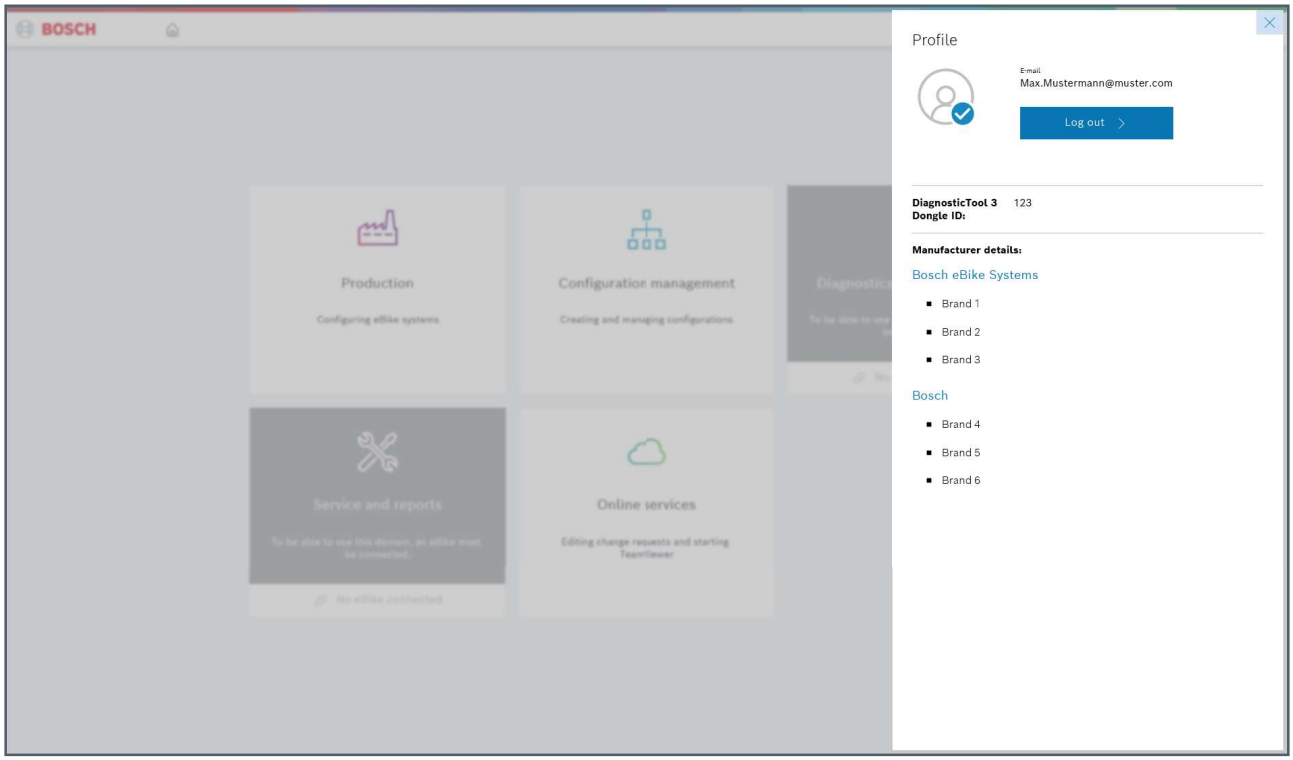

Fig. 7: Profile

Once you have logged into the browser for Bosch DiagnosticTool 3 with your Bosch ID, you can view the profile details you saved with your Global Technical Manager by clicking on the avatar icon at the top right.

To log out from your Bosch ID account, click on ‘Log out’.

12 Help and documents

Under ‘Help & documents’, you can find:

- The Bosch DiagnosticTool 3 user manual,
- An overview of the error codes as a PDF, which is available in different languages,
- The log file for the program,
- An option to start up TeamViewer and
- The legal notes for the Bosch DiagnosticTool 3.

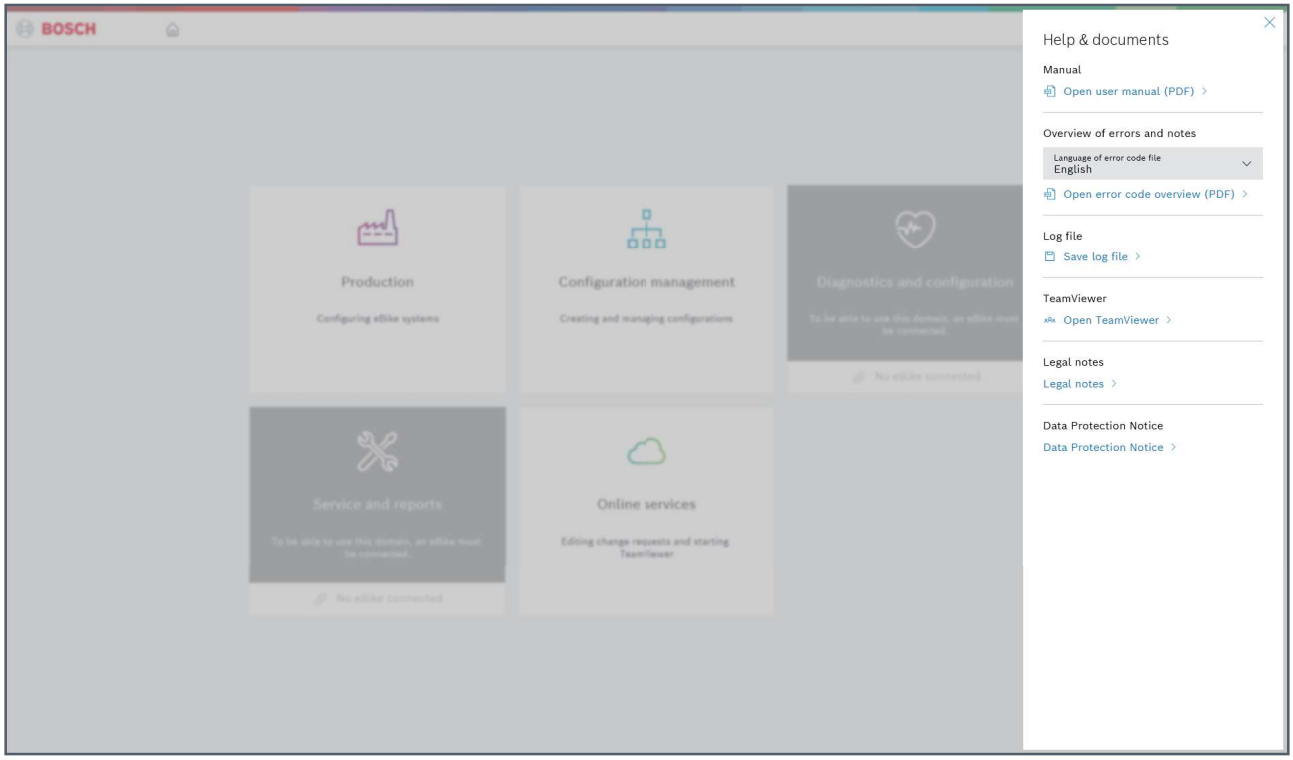

Fig. 8: Help and documents

13 Production

Programming: eBike-specific information is required for guided programming. For this purpose, a configuration has to be selected (mandatory), an eBike ID entered (mandatory) and, depending on the setting, see section Settings, a battery lock number and a note entered.

There are the following statuses for the entries:

Mandatory field

Entry is valid

Field is being edited

Entry is invalid

You can use the Tab key on your keyboard to skip to the next entry. You can also use your mouse or a scanner.

Select a configuration: Click on the 'Configuration' field and enter the name of the required configuration. While making your entry, you will be shown a list of suggested matches. If you have already used a configuration several times, this will appear under 'Top matches'. If you are still not shown the required configuration, you can open an extended selection under 'Advanced search'. Here you can select the available production containers and configurations.

To simplify your search, you can use the free-text search or sort the listed segments into ascending or descending order using the arrows. You can confirm selection of a configuration using the Enter key or via 'Confirm'. Selecting a configuration causes the advanced search to close automatically. Otherwise, you can return to the production overview via 'Cancel'.

On successful selection of a configuration, you can then continue directly with entering the eBike ID.

eBike ID: This field is mandatory. Enter a valid eBike ID (no special characters permitted).

Battery lock number: Depending on the option you saved in the settings for the field, this field may be mandatory, optional or hidden. If the field is a mandatory field, you have to enter a value.

Notes: Depending on the option you saved in the settings for the field, this field may be mandatory, optional or hidden. If the field is a mandatory field, you have to enter a value. The content of this field is also transferred to the eBike and can only be read by bicycle manufacturers or Bosch service partners at a later point.

NOTE: Do not enter identical values for the eBike ID, battery lock number and notes. The values must be different.

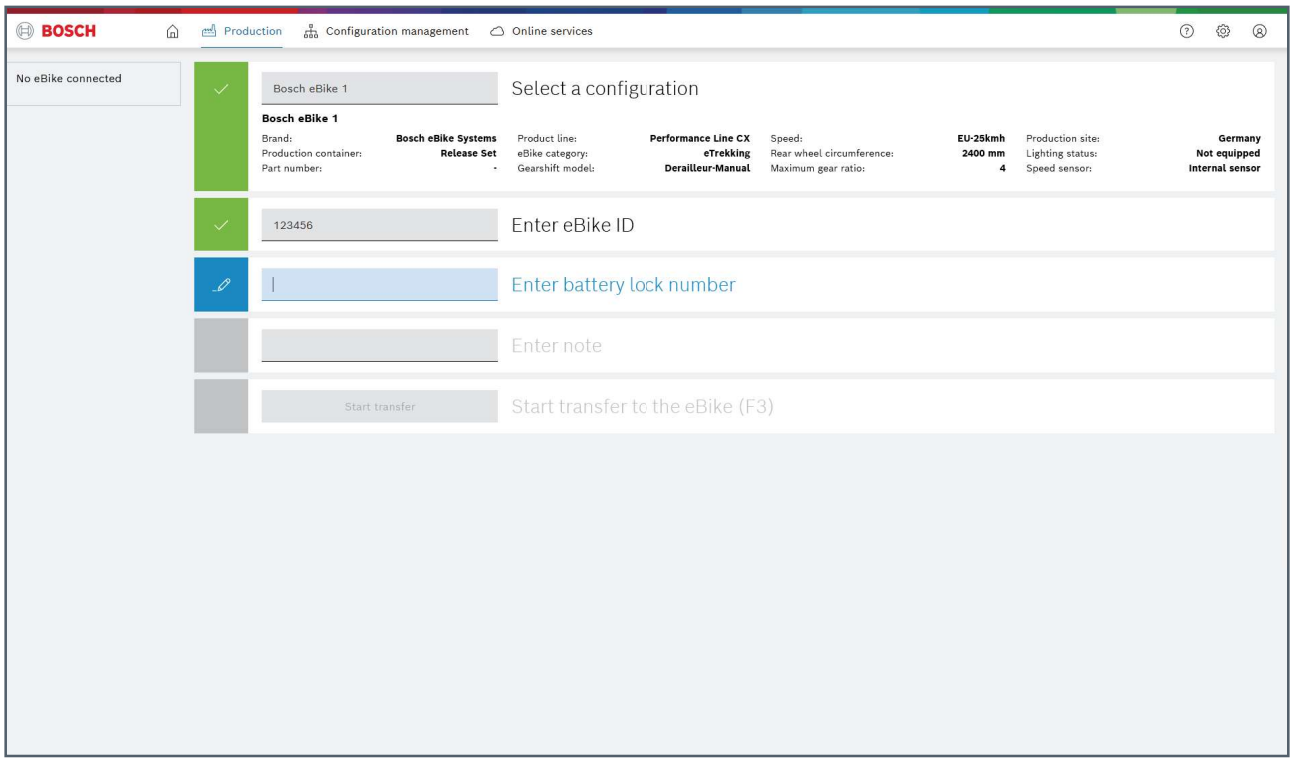

Fig. 9: Guided programming

Transfer to the eBike:

NOTE: You can use the Ctrl + Alt + A key combination to force a new software update even if it is already in its latest version.

NOTE: The F3 key can be used to transfer details to the eBike once the information has been successfully entered in its entirety.

Once all values have been entered correctly and a valid configuration has been selected, the programming can be started via ‘Start transfer’. If you have set ‘Transfer to the eBike’ to ‘automatic’ in the settings, the programming will start automatically as soon as all values have been entered, provided that these are valid. You must not disconnect the eBike during the transfer.

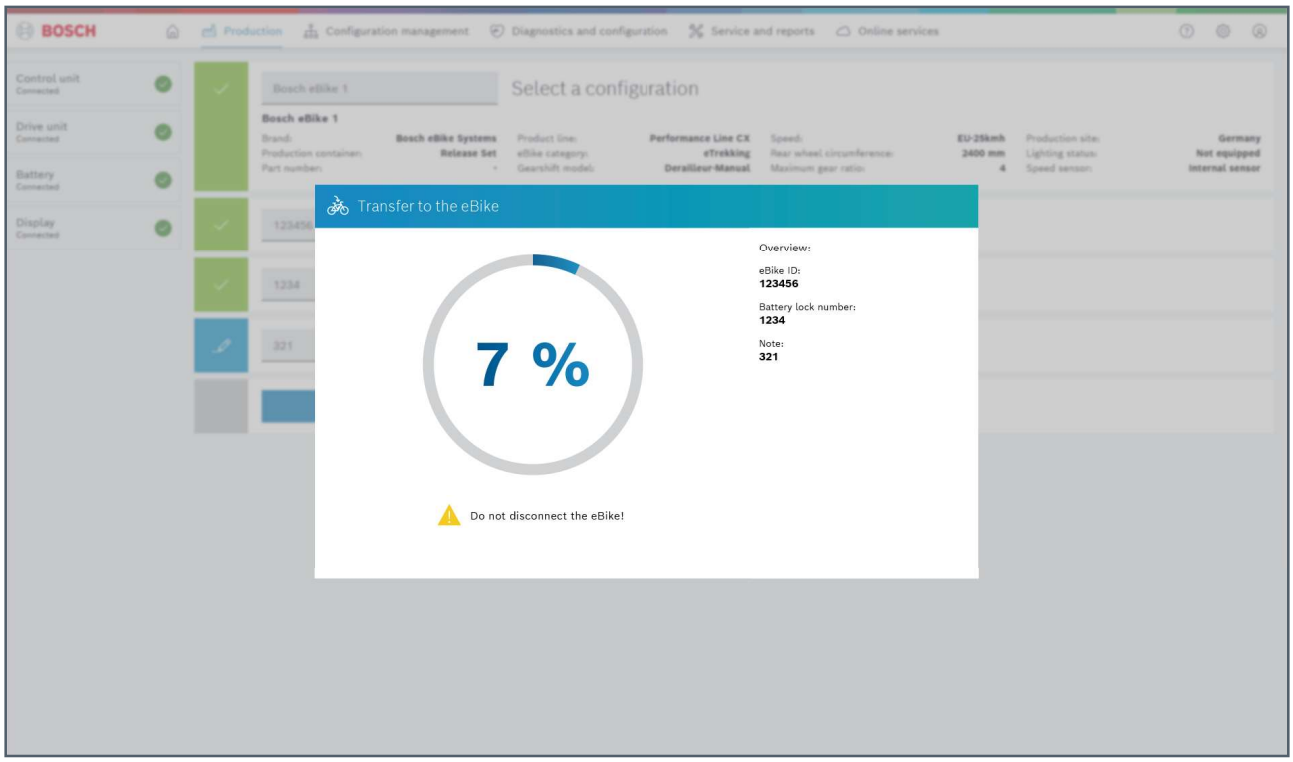

Fig. 10: Transfer to the eBike

The following instructions are also displayed:

Do not disconnect the eBike!

Transfer to the eBike successful

Transfer to the eBike failed

14 Configuration management

14.1 Importing containers

To import a production container, click on ‘Import container’. Two options are available:

Load local file: If you have saved the production containers you would like to import on your computer or a USB stick, select the option 'Load local file'.

You can select one or more production containers via 'Select file' or drag & drop it directly in the window from the file system.

Load from server: To import a production container from the Bosch server, select the required brand name and container.

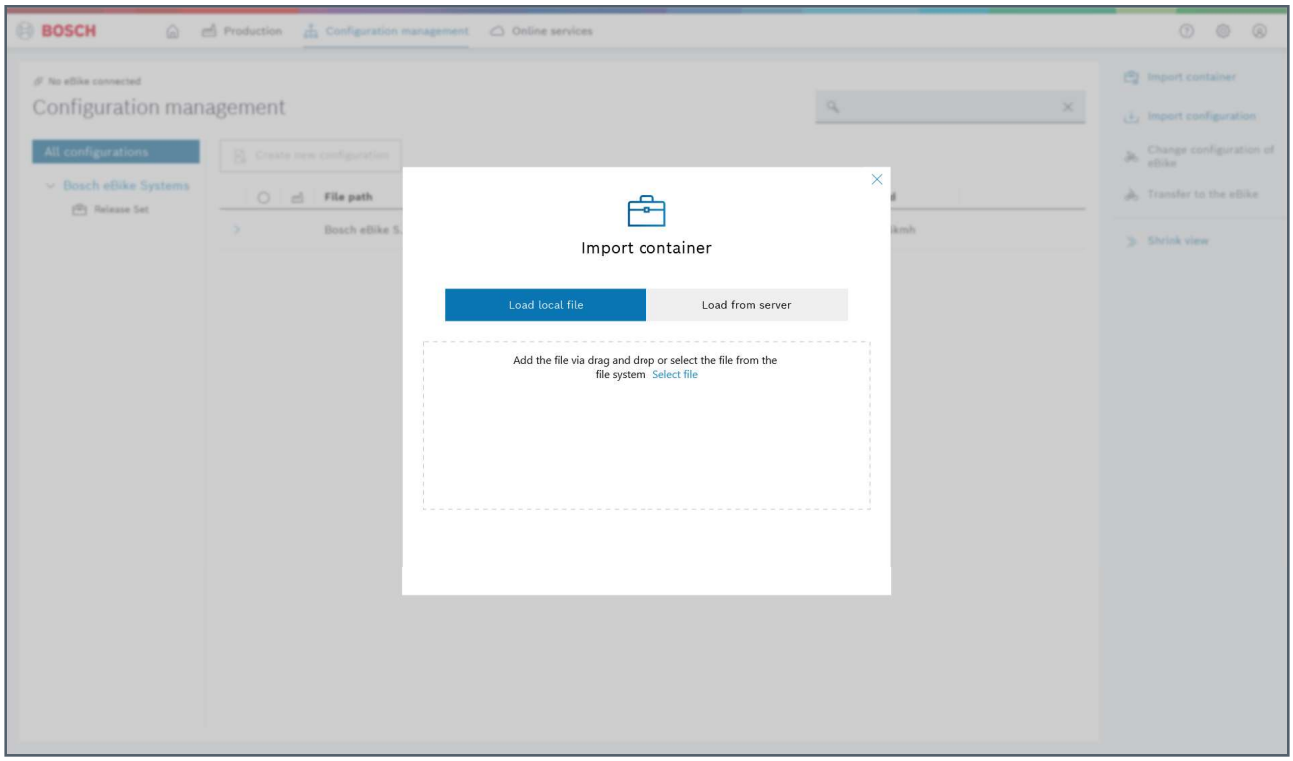

Fig. 11: Import container

14.2 Configurations

NOTE: A configuration can only exist in relation to a production container.

Within a production container, you have various options for managing configurations and adding new configurations.

Import existing configurations:

To import a configuration, click on 'Import configuration'. Then in the file system, select the folder containing the configuration that is to be imported. This may be on your computer or on a USB stick. After making your selection, click on 'Open'.

Change configuration of a connected eBike: Via the 'Change configuration of eBike' setting, you can view the configuration of the connected eBike, save it or make a change and transfer it to the eBike.

14.3 Create new configuration

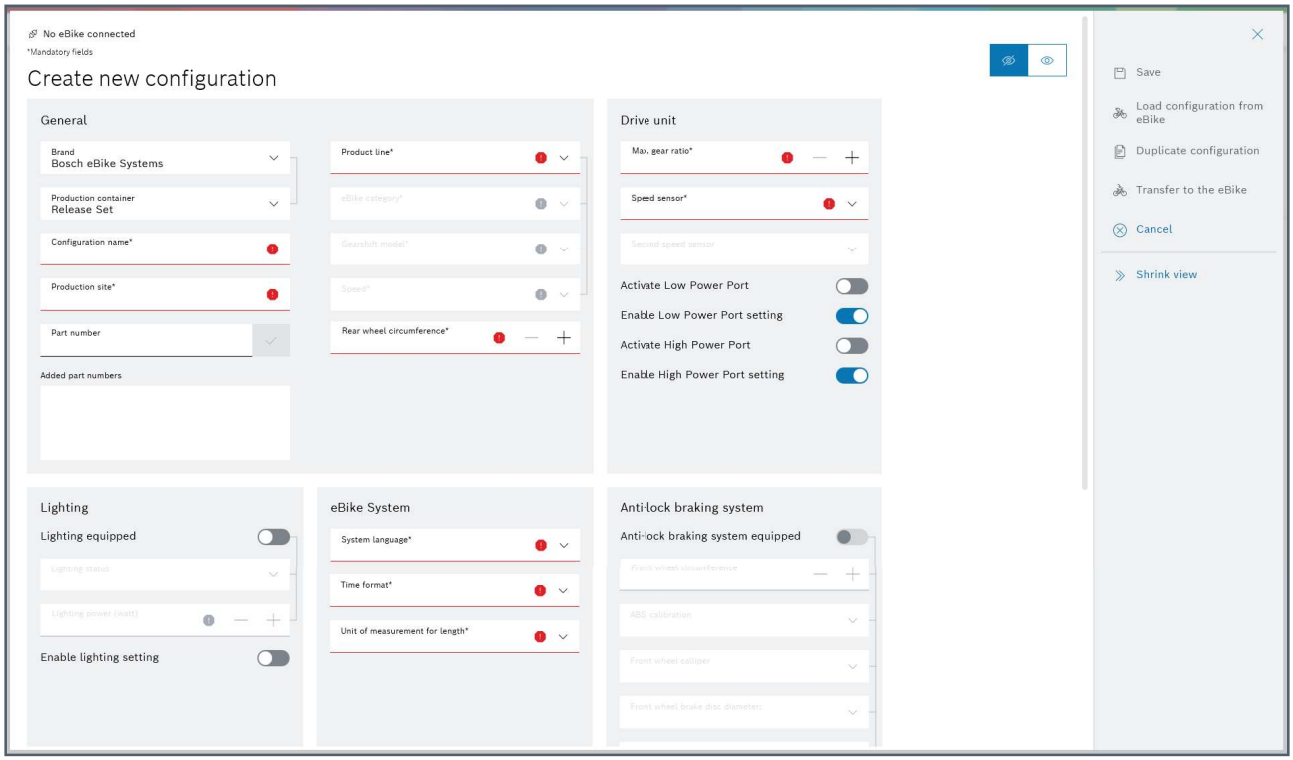

Fig. 12: Create new configuration

To create a new configuration, select a container in configuration management (see Fig. 12) where you would like to create the new configuration. Then click on ‘Create new configuration’.

The form displayed for creating new configurations offers you the following setting options:

General:

- Brand and production container (mandatory fields, are applied automatically): The brand that you have selected and the corresponding production container are displayed here.
- Configuration name (mandatory field): Enter a suitable, unique configuration name.
- Production site (mandatory field): eBike production site
- Part number: To be able to reference configurations via part numbers, you must enter the required part numbers for this configuration here and add them via the ‘tick’. The added part numbers are then displayed under ‘Added part numbers’.
- Product line (mandatory field): Selection of the eBike product line, e.g. Performance CX
- eBike category (mandatory field): Selection of the bicycle category, e.g. Touring
- Gearshift model (mandatory field): Selection of the installed gearshift model, e.g. derailleur system
- Speed (mandatory field): Selection of the maximum speed, e.g. 25 km/h
- Rear wheel circumference (mandatory field): Entry of the wheel circumference

Drive unit:

- Maximum gear ratio (mandatory field)
- Speed sensor (mandatory field): Selection of the installed sensor which is used to calculate the speed.
- Second speed sensor: Specification of the second speed sensor for Speed Pedelec.
- Activate Low Power Port: Here you can activate or deactivate the Low Power Port on the drive unit. If a wired speed sensor has been selected, the Low Power Port is automatically activated. (This setting cannot be adjusted.)
- Activate High Power Port: Here you can activate or deactivate the High Power Port on the drive unit.
- Enable settings: Via these settings you can specify whether the bicycle retailer is permitted to adapt the settings of the High Power Port and Low Power Port at a later point.

Lighting: If you are planning to fit lighting, activate 'Lighting equipped'. You can then specify the 'Lighting status' and 'Lighting output' lighting settings.

- Lighting status: Select which status should be initially active.
- Lighting power (watt): Enter how high the power of the installed lighting is. Valid values are 1 to 18 watts.
- Enable lighting setting: Via these settings you can specify whether the bicycle retailer is permitted to adapt the lighting settings at a later point.

eBike system: You can set the eBike's language, time format and unit of measurement for length here. These settings are transferred to a connected on-board computer. These settings are necessary even without a connected on-board computer.

Anti-lock braking system: If you are planning to fit an anti-lock braking system, activate 'Anti-lock braking system equipped'. You can then configure the settings for the anti-lock braking system.

- Front wheel circumference (mm): Please note that only certain wheel circumferences are permitted for the anti-lock braking system.
- ABS calibration
- Front wheel calliper
- Front wheel brake disc diameter

NOTE: The values specified for the anti-lock braking system affect safety.

eBike support modes:
Available support modes which are available in the production container for this configuration are displayed here. You can select up to eight support modes, which will also be written to the eBike during programming. These will then be shown under 'Available support modes' on the control unit. The four standard Bosch modes cannot be deselected. A total of up to 12 eBike support modes can therefore be saved.

Via the 'Lock mode against later changes' setting, you can determine whether other modes than those already available on the eBike can be added at a later point.
Deactivated means that no new modes can be added.
However, updates for the modes saved on the eBike are permitted.
NOTE: The IBD or end customer can always change the combination of modes on the control unit.

Available support modes on the control unit: Out of the modes you selected that are transferred to eBike, in this setting you can select which of these modes are to be activated on the control unit. Up to four modes can be activated on the control unit.
NOTE: Available modes are not preset by default. To save the configuration, a selection must be made. The selection will be reset if one of the following parameters is changed in the configuration: Product line, eBike category, gearshift model, speed.

14.4 Manage configurations

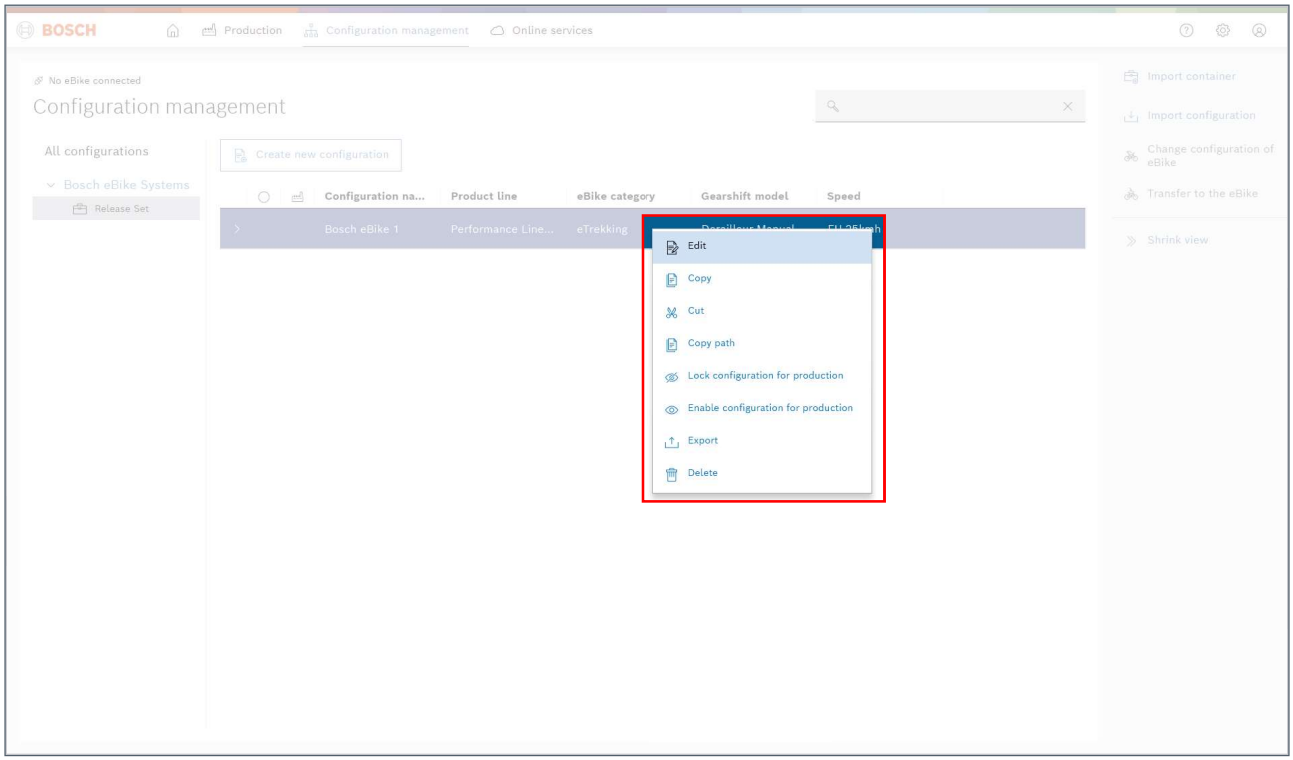

Fig. 13: Editing configurations

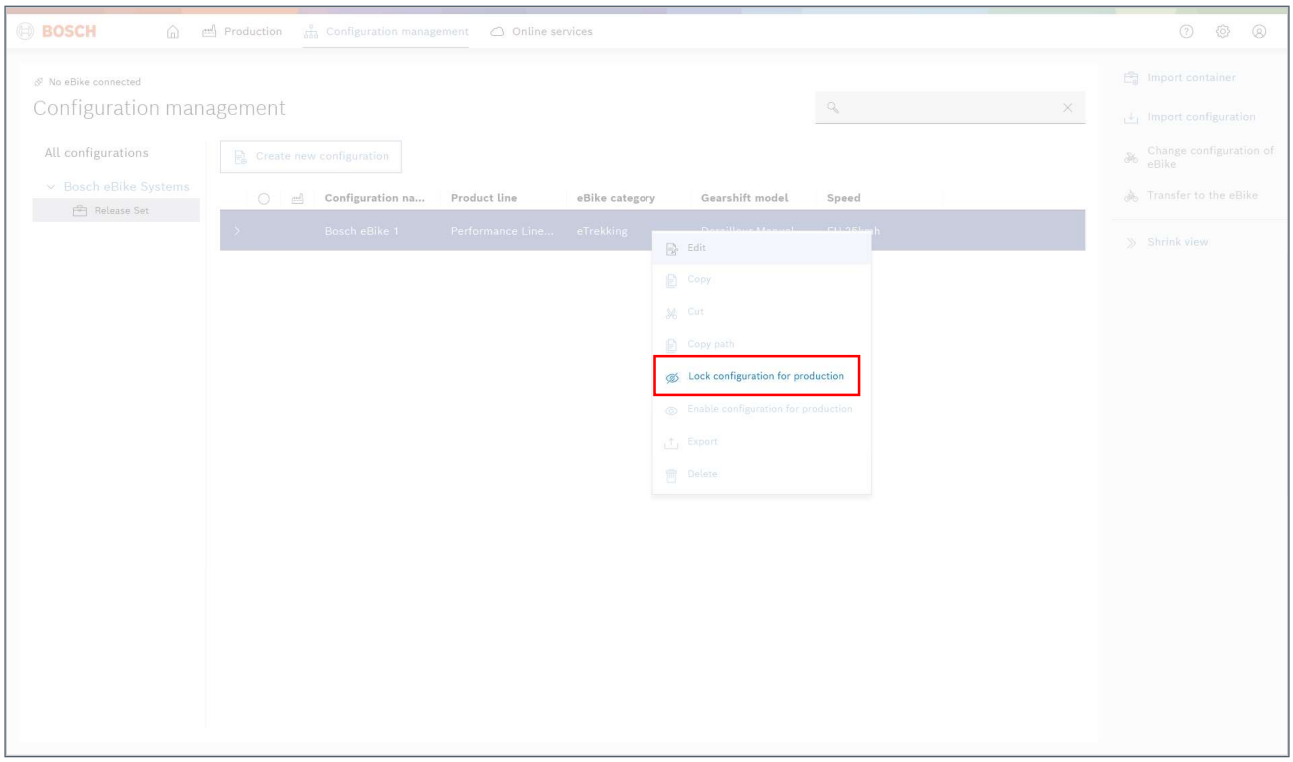

Fig. 14: Enabling/locking configurations for production

Copy existing configurations: Configurations can be copied
1. within a container
2. into another container.

For 1.: The copied file is saved with the same name and a counter in the same directory of the reference file.
For 2.: The original name is retained but can be changed.

To copy a configuration, right-click on the configuration and select the option 'Copy'. It is also possible to select multiple items by clicking on the required configurations using CTRL + Left Click. Use CTRL + A to select all configurations.

Edit configurations: To be able to edit a configuration, find the required configuration in the overview and open this by double-clicking or pressing the Enter key. You can also select the 'Edit' function by right-clicking on the required configuration.

Load configurations from the eBike: To display the configuration of the connected eBike, click on 'Load configuration from eBike'. You then have the option to make changes and transfer these back to the eBike or save the loaded configuration.

Delete configurations/containers: To delete a configuration or container, right-click on the configuration/container and select the option 'Delete'. Once you have clicked on 'Delete', you have to confirm the deletion process. After confirming, the configuration/container will be deleted.

Before deleting a container, you have the option to export the container.

Duplicate configuration: Configurations can be duplicated in the 'Edit configuration' view in the menu on the right-hand page. The duplicate file is saved with the same name and a counter in the same directory of the reference file.

Enabling/locking configurations: Configurations can be enabled (multiple items can be selected) or locked (hidden) for production by right-clicking on an individual configuration. You can enable or lock all of the configurations in a configuration container by right-clicking on the container.

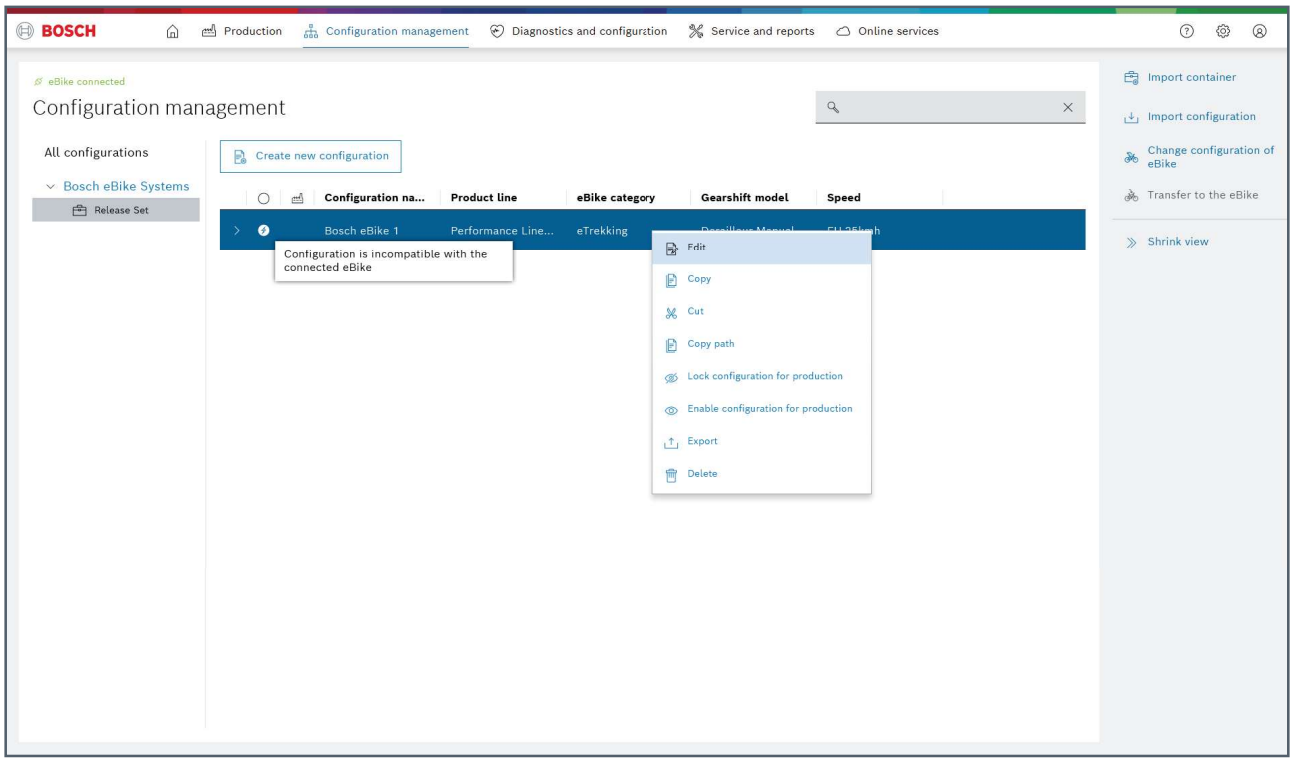

Fig. 15: Incompatible configurations display

14.5 Incompatible configurations

When an eBike is connected, incompatible configurations are displayed in the configuration management with a note (see Fig. 15).

14.6 Exporting containers or configurations

To export a production container or configuration, right-click on the configuration or container and select the option ‘Export’. Then select the storage location and click on ‘Save’.

If a configuration is exported, the corresponding production container is always also exported.

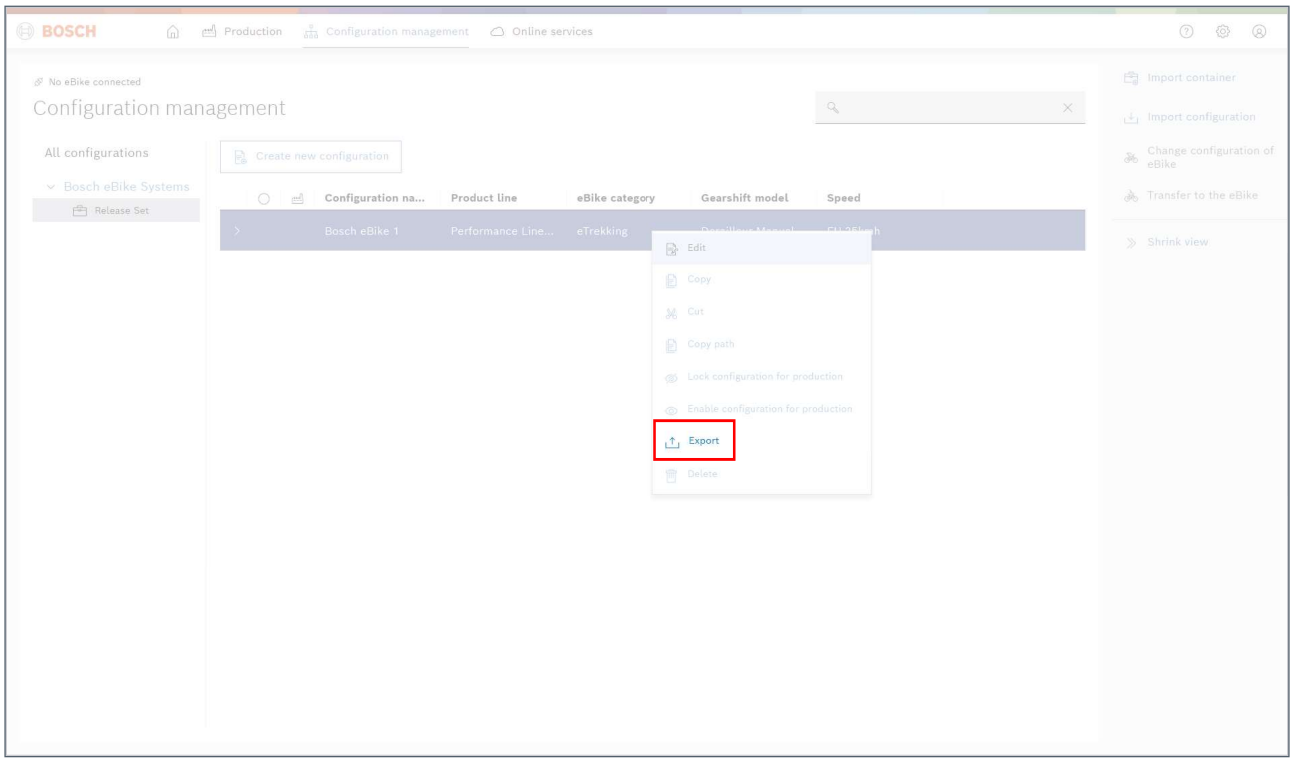

Fig. 16: Exporting configurations

14.7 Selection of the database for configurations

By default, the Bosch DiagnosticTool 3 manages the configurations in a local database. The storage location for your local database can be changed in the settings under ‘Configuration database’.

14.8 Making configurations available on production computers

- Option 1: Configuration via export/import function (see section 14.6) using a removable storage device or storage on the network.
- Option 2: Copy the local database (configurations.mv.db). A folder must be created on the network drive of each production computer. This folder must be saved in the settings folder of each respective computer. At the time of copying, the Bosch DiagnosticTool 3 must be closed on both computers.

15 Diagnostics and configuration

NOTE: The ‘Diagnostics & configuration’ area can only be used with a connected eBike.

In the ‘Diagnostics & configuration’ area, you have the options to update the software for the connected components, perform a component test or edit the configuration of the eBike, among other things.

15.1 Overview of components

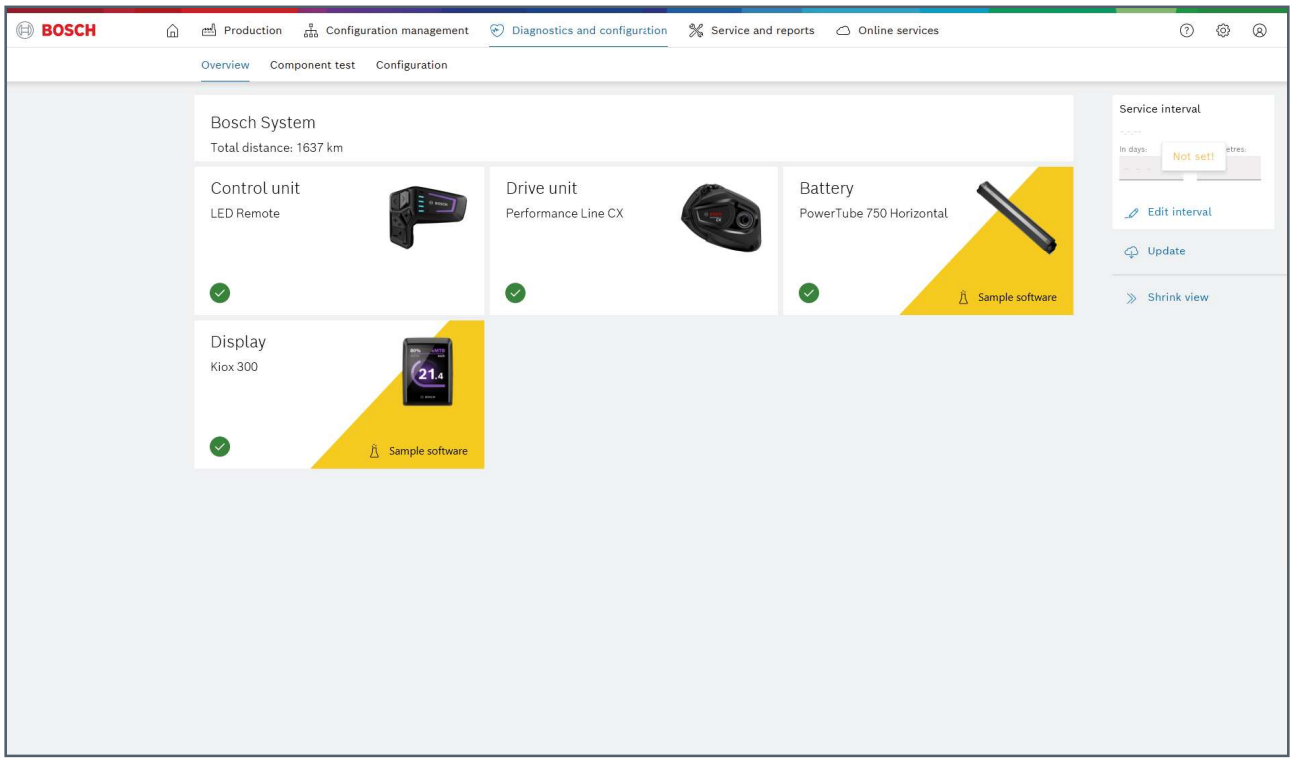

Fig. 17: Overview of components

Here you can see which components are connected or not connected, whether errors are present and whether special cases, such as ‘Manipulation’, have occurred.

You can see the following information on a component tile:

- Component designation
- Product line
- Product image
- Error status
- Special case (if present)

Meaning of the icons

Critical error: An error is present which may be safety-relevant. Urgent action required.

Error: The system is impaired in some way. Action required.

Warning: An abnormality has been detected. Action only partially required.

Information: Notification about events.

Everything is OK: No entries are present.

Description of the special cases

Several special cases may occur for a component at the same time. In this case, the overview shows you the most important special case. You can view all other special cases in the detailed view for the component.

- **Not connected:** If a component is marked as 'Not connected', it is not detected or is missing.
- **ID conflict:** The Bosch system IDs for the control unit and the drive unit do not match. You can find measures to resolve this conflict in the section 'Resolving a Bosch system ID conflict'.
- **Manipulated:** This component has been manipulated. You can reset the manipulation detection in the detailed view.
- **Not programmed:** No software is available on the component. Should problems arise during programming, please contact your Bosch Global Technical Manager.
- **Not configured:** The bicycle manufacturer has not configured this component. Carry out programming of the eBike.
- **Sample software:** No series software is installed for this component. You can update the software in order to install software ready for series production. Should problems arise during programming, please contact your Bosch Global Technical Manager.
- **Sample hardware:** This concerns a hardware component that has not yet been released. Please contact your Bosch Global Technical Manager.

Software update for the components

You can start a software update directly via 'Update' on the right-hand side of the screen. All components are updated at the same time. To perform a new software update (when already using the latest software version), go to 'Update', activate the option 'Force update' and perform the update.

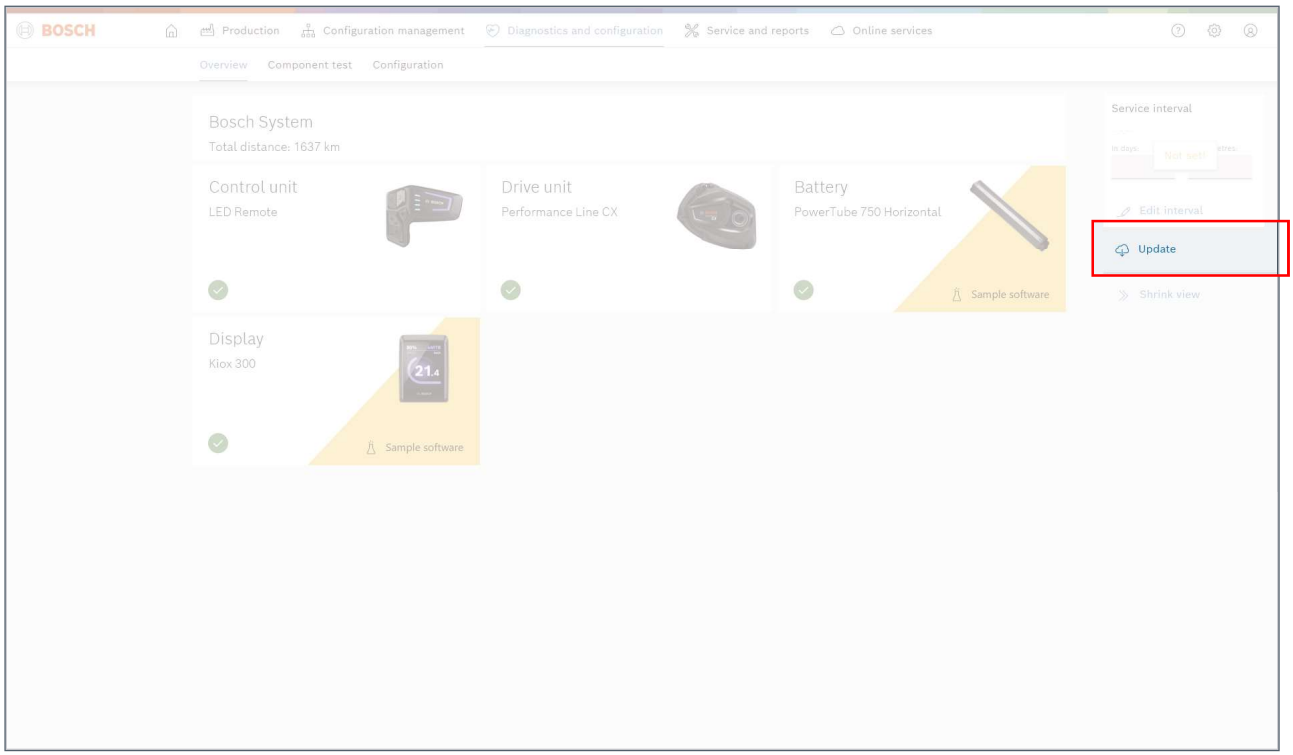

Fig. 18: Software update for the components

The software update is downloaded from the Bosch server and is the same software version as that made available to the bicycle retailer.

Shrink view/Enlarge view

You can shrink or enlarge the view on the right-hand side of the screen. You can therefore create more space for content in the central area of the application.

15.2 Remove missing components

You can remove components that are not connected by clicking on ‘Remove’ on the respective component tile in the overview. If the component is connected again, it will be visible again.

15.3 Setting the service interval

By setting a service interval, the bicycle owner is notified of the next service on the on-board computer or in the Bosch eBike app. To set or edit the service interval, click on ‘Edit interval’.

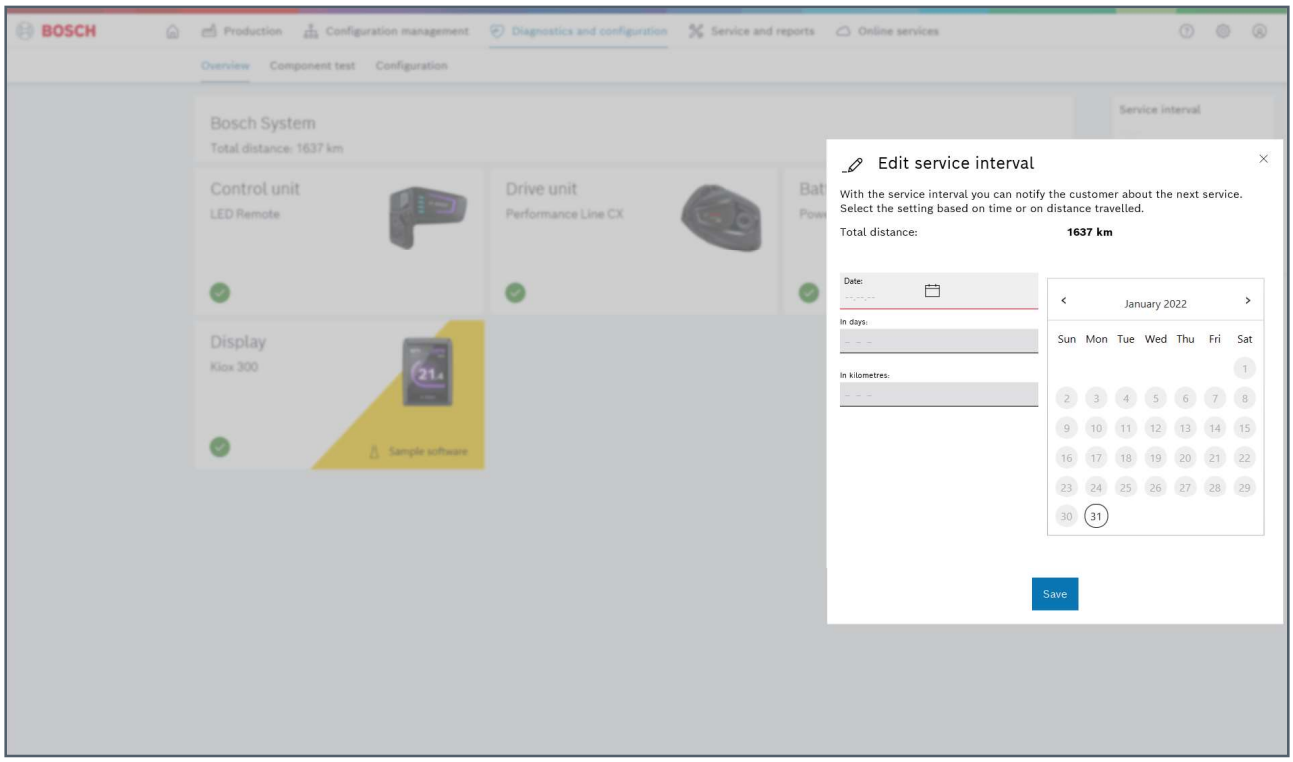

Fig. 19: Edit service interval

You can now enter when the customer should be alerted about the next service, either in kilometres or in days. If you enter the days, the date is calculated automatically. You can also directly enter a date for the next service. If you enter days, a date and kilometres, the customer will be notified depending on which value is reached first.

If you do not want to set a service interval, delete all of the information. The service interval is then labelled as 'Not set'.

15.4 Detailed view of components

In order to receive more information about the components, click on a component tile in the overview. The detailed view for the component opens. You can view the error memory and additional component-specific information here.

Diagnostics

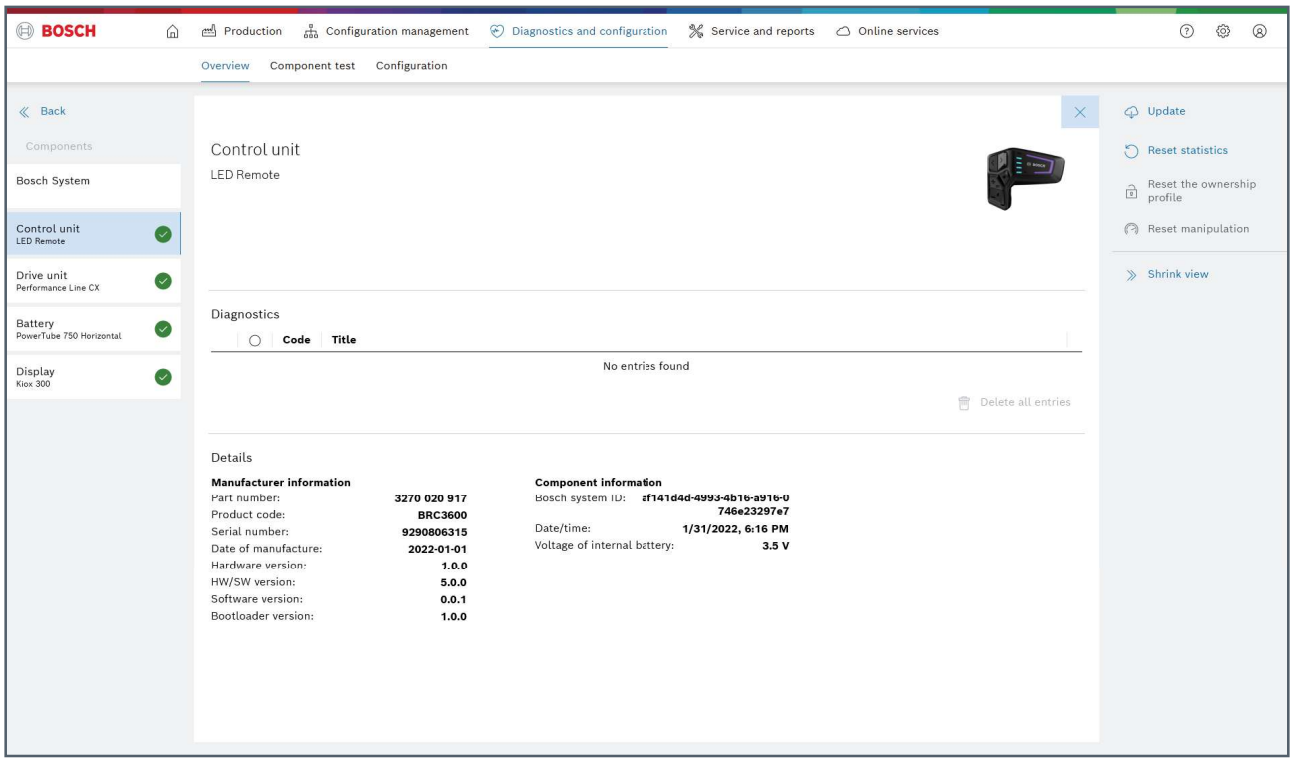

Fig. 20: Detailed view of components

Under ‘Diagnostics’, you can find the error memory for the component. The entries are sorted in descending order based on their priority. Open the entry to see further information.

The information for an error is:

- Category of the entry (critical error, error, warning, information)
- Code of the error
- Title of the error
- Description of the error
- Frequency of the error occurring
- Last time the error occurred
- Suggested solutions & actions for troubleshooting

You can use ‘Delete all entries’ to delete the error memory for the respective component.

NOTE: There are error entries which cannot be deleted. ‘Delete all entries’ can only be used to delete entries that can be deleted. If this is the case, please contact your Bosch Global Technical Manager.

eBike information

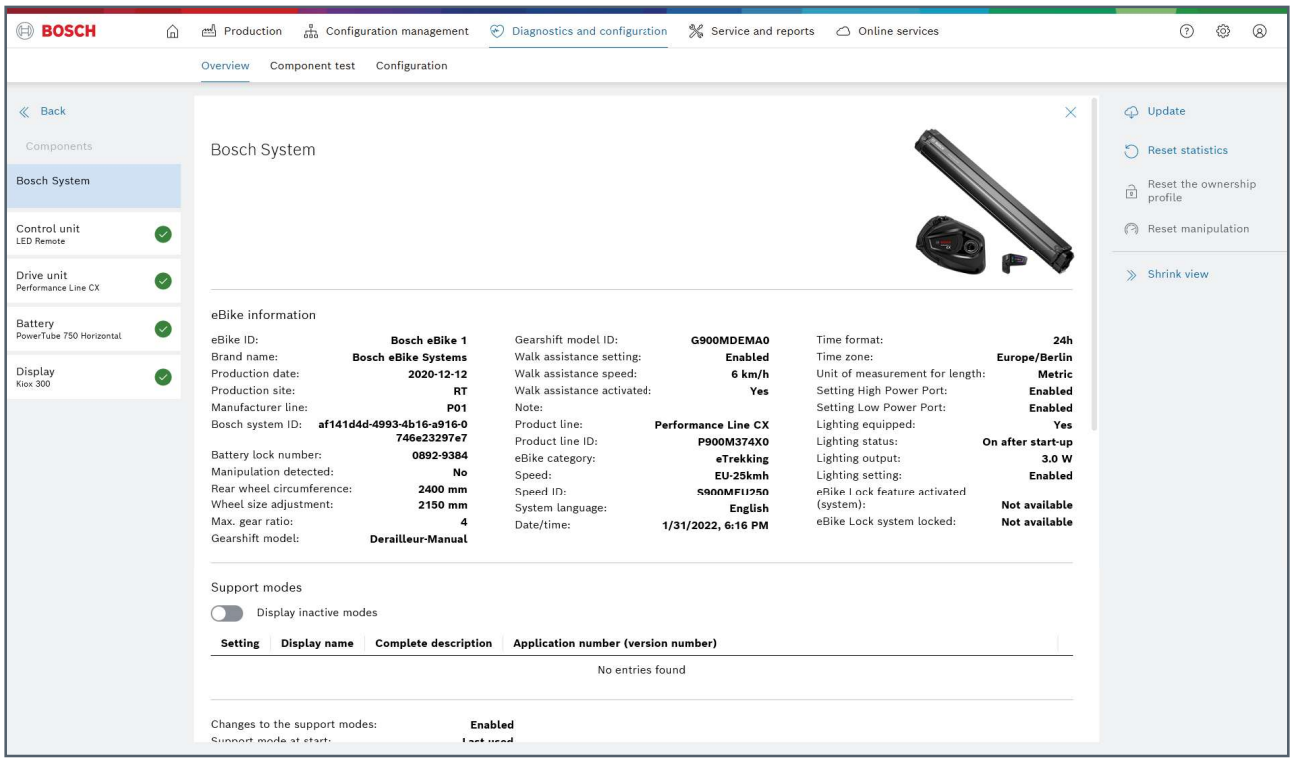

Fig. 21: Detailed view of the Bosch system

NOTE: This section is only available in the detailed view of the Bosch system.

In the ‘eBike information’ section, you can find all of the general eBike parameters, such as the product line, the battery lock number and the manufacturer details for the connected eBike.

Support modes

NOTE: This section is only available in the detailed view of the Bosch system.

This section contains an overview of the available support modes for the connected eBike. Via the ‘Display inactive modes’ setting, you can show or hide the inactive eBike modes.

The following information is available:

- Setting:‘Active’ means that this mode is currently available on the control unit. ‘Inactive’ means that this mode is available for this eBike but is not currently active on the control unit. This setting can be changed in the ‘Configuration’ area (see section Configuration).
- Display name: The name of the support mode that is shown on the display.
- Complete description: Complete name for the support mode.
- Application number (version number): Application number and the corresponding version number.

Support modes that are marked with a * have been finely adjusted by the bicycle owner using the Bosch eBike app.

General statistics

NOTE: This section is only available in the detailed view of the Bosch system.

You can view the general statistics for the connected eBike here, such as the total distance, the total operating time and the manipulation detection.

Ride statistics
NOTE: This section is only available in the detailed view of the Bosch system.

In the 'Ride statistics' section, you can view information, such as the kilometres driven and the energy consumption for the connected eBike **since the last time the statistics were reset**.

Furthermore, the energy consumption and driven kilometres (divided into the support modes used) are displayed in the form of a bar chart.

The 'OTHER' section contains the support modes that are currently inactive but which have been used in the respective time period.

Manufacturer information
The manufacturer information contains parameters, such as the serial number.

Component settings
You can view the component-specific settings here, such as the brightness of the control unit.

Component information
You can view the component-specific parameters here, such as the Bosch system ID or the battery voltage.

15.5 Error memory/Delete entries

NOTE: There are error entries which cannot be deleted. 'Delete all entries' can only be used to delete entries that can be deleted.

Under 'Diagnostics', the detailed view for a component contains the 'Delete all entries' function. You are guided through the deletion process.

15.6 Update for the components

NOTE: You cannot disconnect the eBike during the software update.

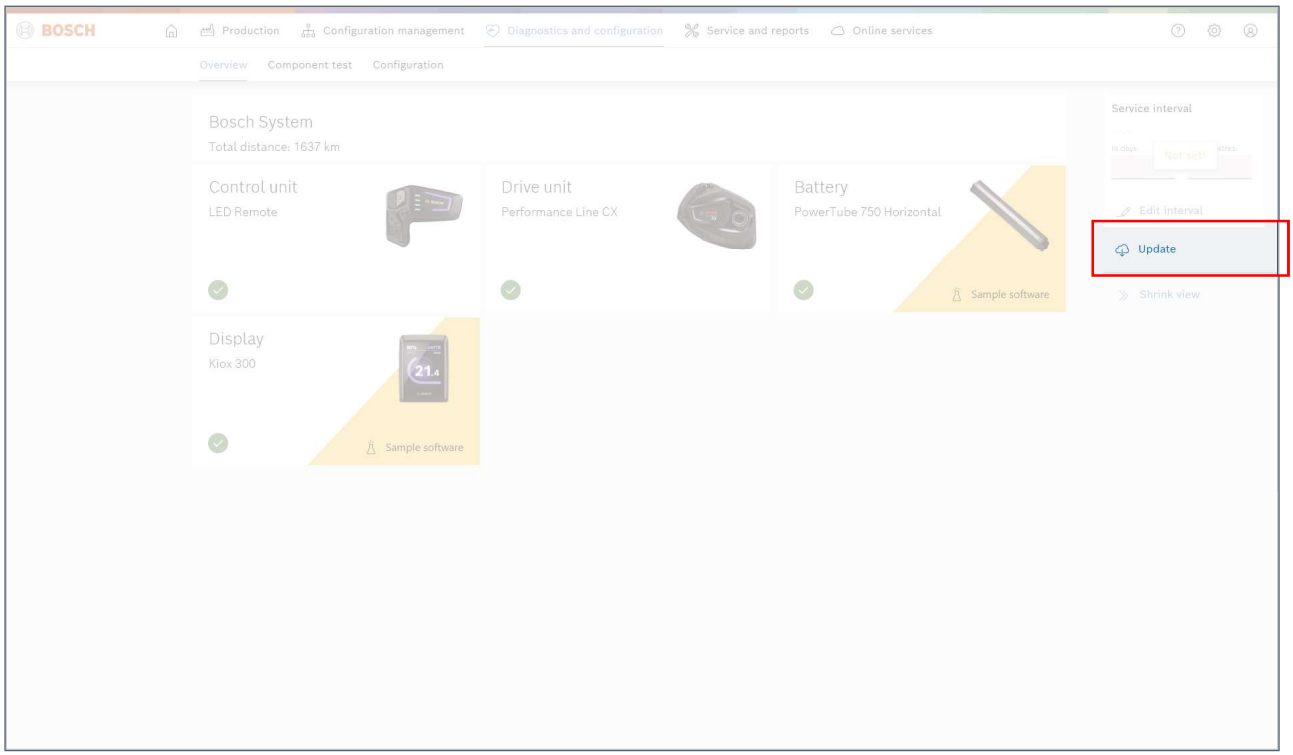

Fig. 22: Software update for the components

You can use 'Update' to start a software update both in the overview and in the detailed view for the components. All of the components are updated at the same time. You are then guided through the update.

The software update is downloaded from the Bosch server and is the same software version as that made available to the bicycle retailer.

To perform a new software update when already using the latest software version, go to 'Update', activate the option 'Force update' and perform the update.

15.7 Resetting the manipulation detection

To reset the manipulation detection, click on 'Reset manipulation' in the detailed view. You are then guided through the process. The eBike is reset during the process.

15.8 Reset statistics

To reset the statistics for the eBike, click on 'Reset statistics ' in the detailed view. You are then guided through the process. The eBike is reset during the process.

15.9 Resolving a Bosch system ID conflict

NOTE: Only confirm the Bosch system ID if you are permanently replacing the component. This step is not necessary for testing through replacement.

It may be the case that the Bosch system IDs for the control unit and the drive unit do not match, due to a cross-swap, for example. In this case, a Bosch system ID conflict is displayed. You have the following option for resolving the conflict: Confirm the ID for the drive unit on the control unit. To do this, you can use 'Resolve system ID conflict' in the detailed view for the control unit to transfer the system ID of the drive unit to the control unit. You are then guided through the process. The eBike is reset during the process.

15.10 Time synchronisation with the Bosch server

If a control unit with a time set in the future is connected to the Bosch DiagnosticTool 3, the time must be synchronised with the Bosch server. The Bosch DiagnosticTool 3 can only be used to read and edit the connected eBike once synchronisation has been carried out. The time difference is automatically detected after a control unit is connected. You are then guided through the synchronisation process.

15.11 Configuration

In the 'Configuration' area, you can view all of the configuration settings, such as the wheel size adjustment, the walk assistance or the eBike lighting setting for the eBike and make adjustments.

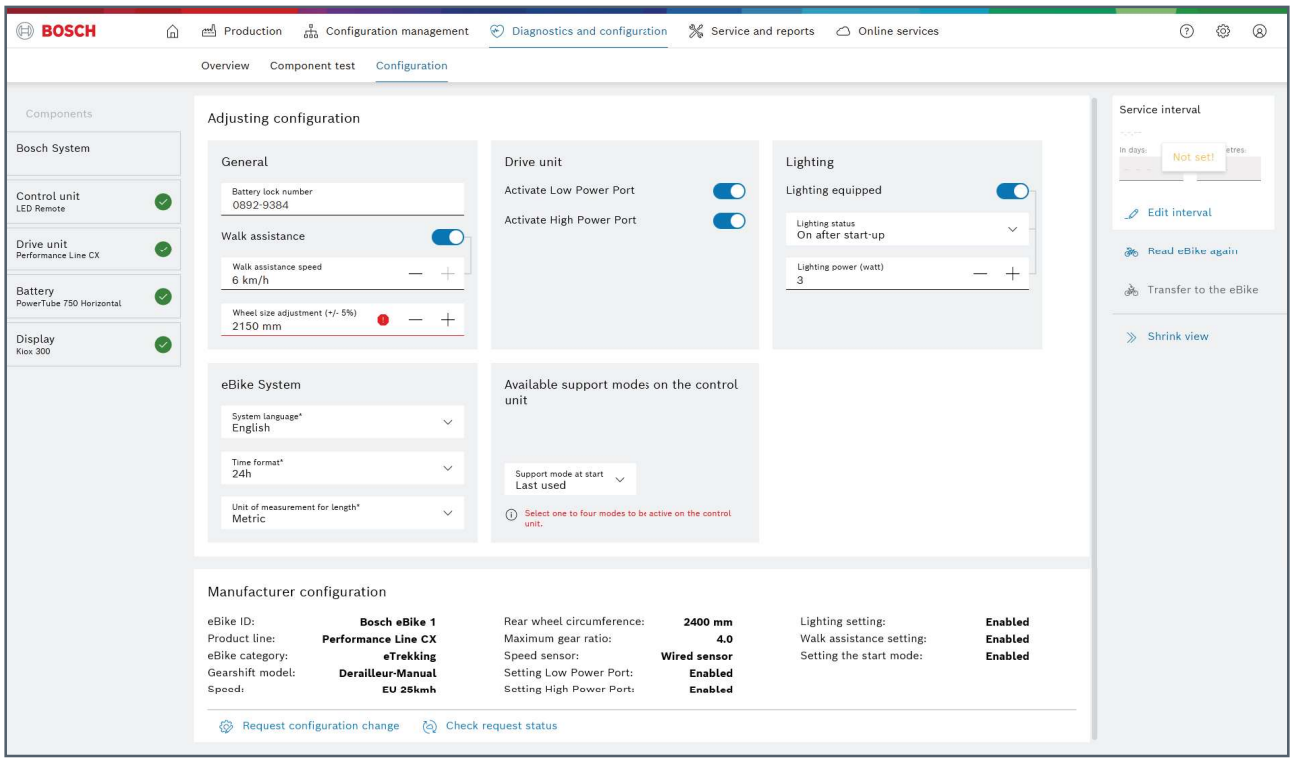

Fig. 23: Adjusting configuration

The following fields can be edited in Adjusting configuration:

General:

- Battery lock number
- Walk assistance: You can activate or deactivate the walk assistance. Depending on the region,. this setting cannot be changed.
- Walk assistance speed: ‘Walk assistance’ must be active in order to select the speed.
- Wheel size adjustment: You can adjust the rear wheel circumference here by pressing +/- 5%.

Drive unit:

NOTE: If a wired speed sensor is installed, the Low Power Port is always active and the setting cannot be changed.

- Activate/deactivate Low Power Port
- Activate/deactivate High Power Port

Lighting:

- Lighting equipped: Activate the parameter if lighting is fitted to the eBike.
- Lighting status: ‘Lighting equipped’ must be active in order to change the status.
- Lighting power (watt): ‘Lighting equipped’ must be active in order to change the lighting power.

eBike system:

- System language: Select the system language for your on-board computer.
- Time format
- Unit of measurement for length

Available support modes on the control unit:

Under this
setting, you can select which modes are to be activated on the control unit. Up to four modes can be activated on the control unit.

Transfer configuration to the eBike

NOTE: The eBike must remain connected during this process.

To transfer the configuration to the eBike, click on 'Transfer to the eBike'. You are then guided through the configuration of the eBike. Ensure that the eBike remains connected during the process.

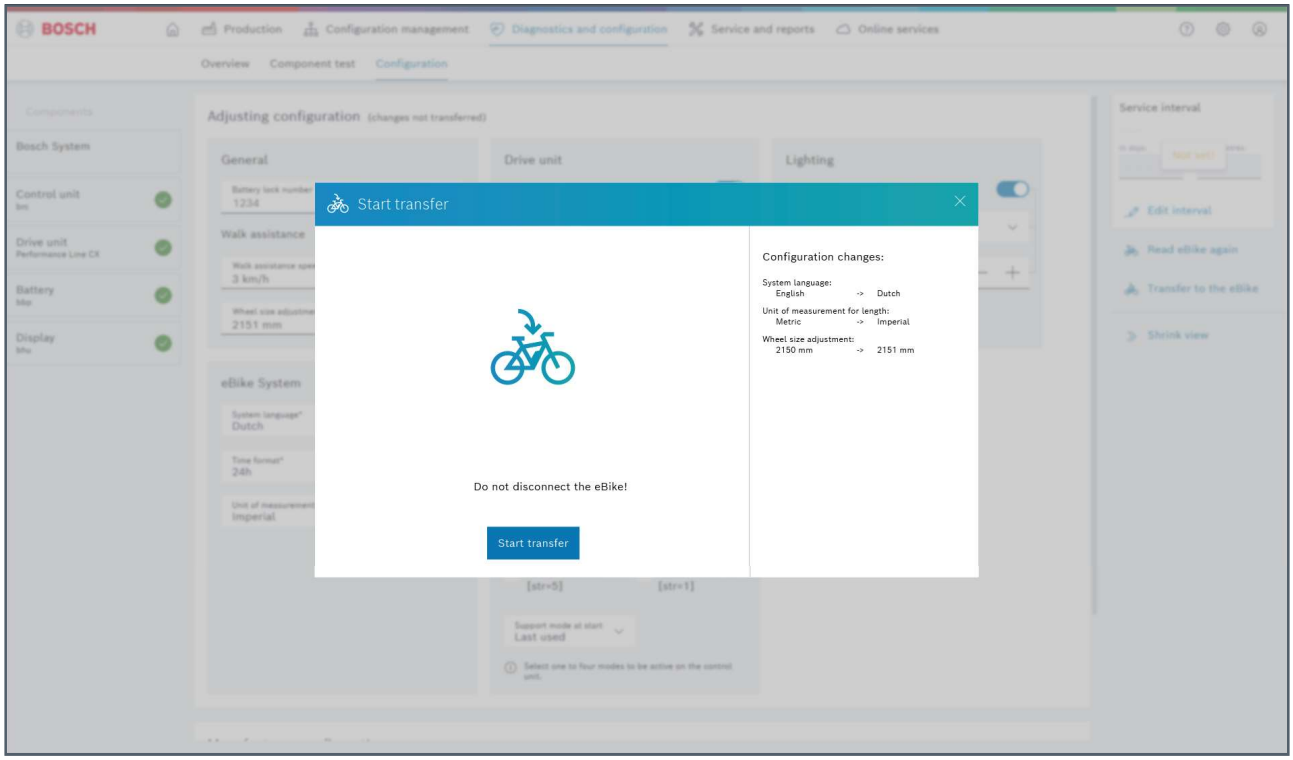

Fig. 24: Transferring the configuration to the eBike

Manufacturer configuration

Here, you can see all of the parameters for the connected eBike which have been set by the bicycle manufacturer and which cannot be adjusted by the bicycle retailer.

15.12 Change request to the bicycle manufacturer

For configuration changes, such as a change to the gearshift model, you can make a request to the bicycle manufacturer via ‘Request change’ in the ‘Configuration’ area under the ‘Manufacturer configuration’ section.

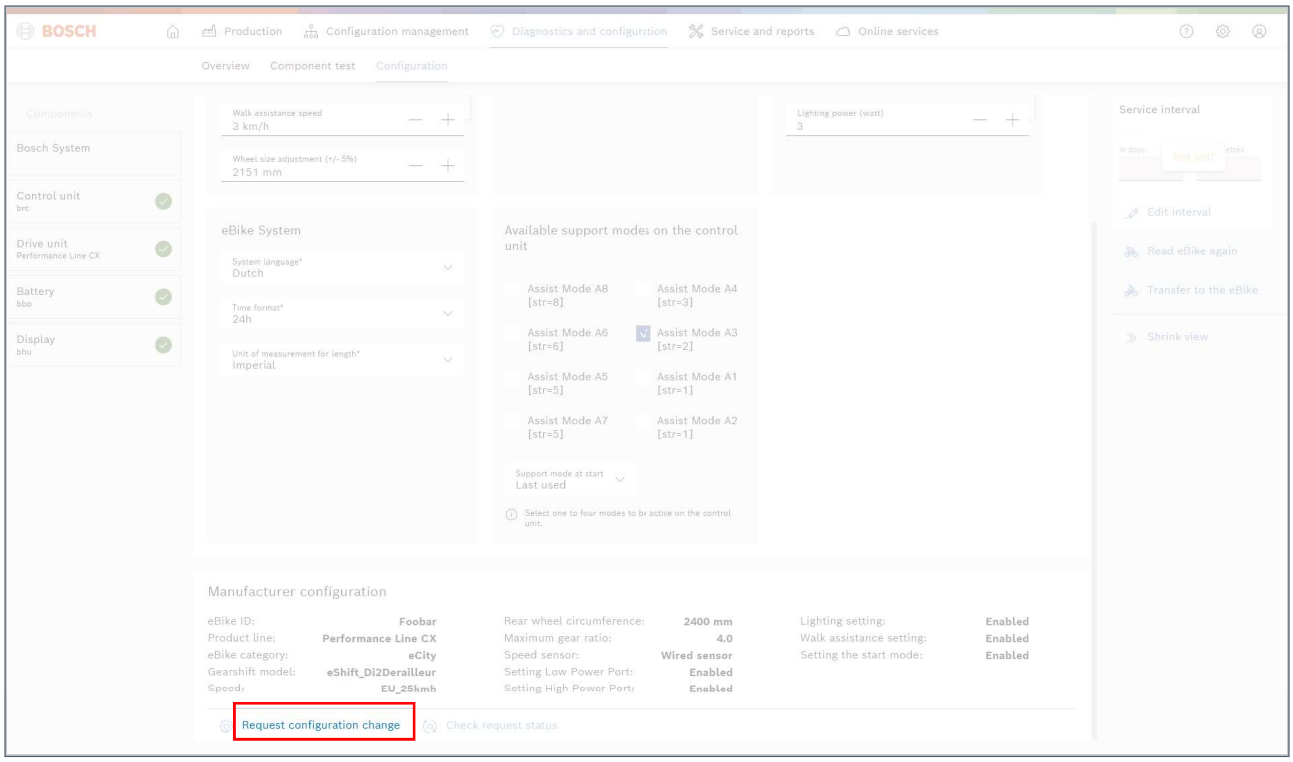

Fig. 25: Change request to the bicycle manufacturer

Describe your request under ‘Change request’ and enter an e-mail address for the request summary. To submit the request, go to ‘Submit request’.

You will then obtain a transaction number, which you must submit to the bicycle manufacturer.

If you want to check whether the bicycle manufacturer has already made a change for a submitted change request, go to ‘Check request status’ and enter your transaction number. If an update is available, you can transfer this directly to the eBike.

16 Service and reports

NOTE: The ‘Service & reports’ area can only be used with a connected eBike.

In the ‘Service & reports’ area, you have the option to carry out a service inspection and to save and print a customer and manufacturer report.

16.1 Carry out service inspection

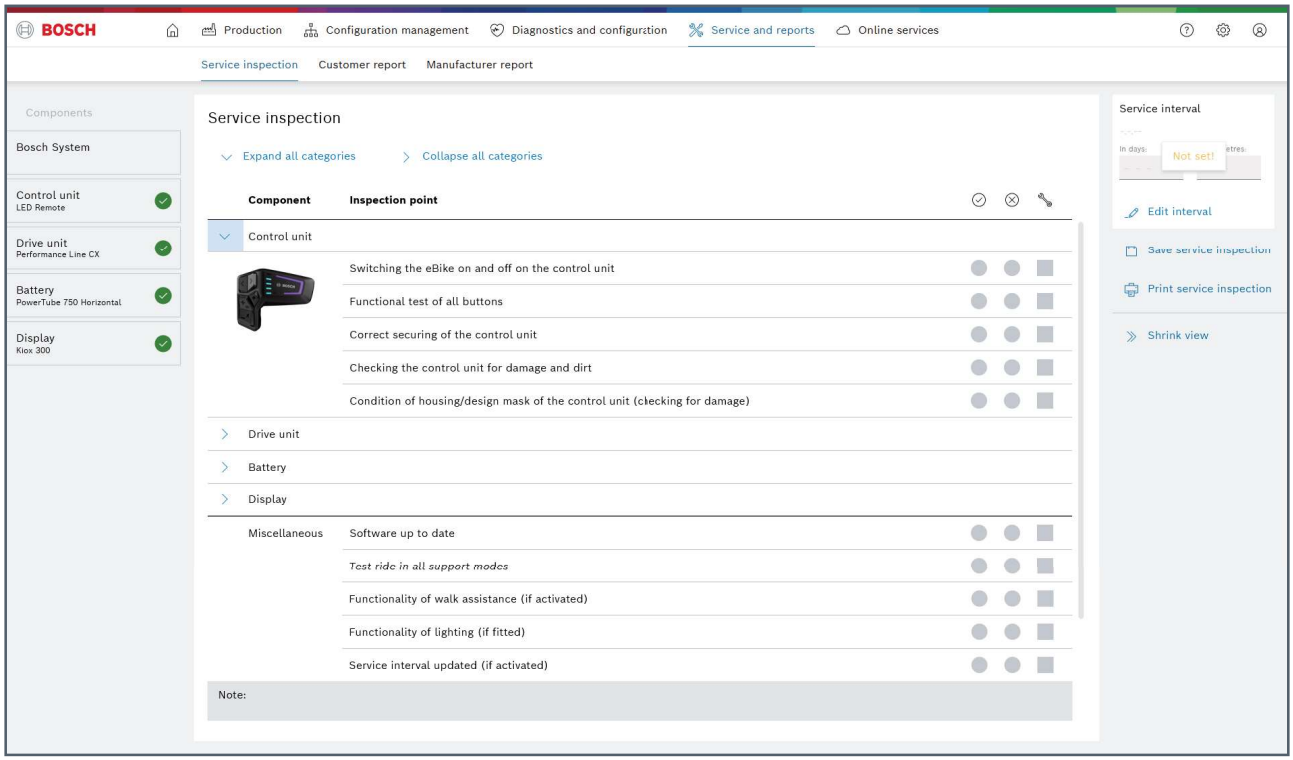

Fig. 26: Service inspection

NOTE: Save or print the service inspection before disconnecting the eBike.

To carry out a service inspection, go to the ‘Service inspection’ area. Here, you can see a list of all of the components and the corresponding inspection steps which can be carried out during an inspection.

To open the inspection steps for a category, click on the arrow icon next to the category name. To have all of the inspection steps displayed at once, go to ‘Expand all categories’.

There are three options available for completing the inspection steps:

Everything is OK

Not OK

Repaired

Once you have marked all of the inspection steps for a category, the category will be marked as ‘Complete’. If you want to add a comment to the inspection, you can do so under ‘Note’.

You can save the service inspection locally as a PDF file via ‘Save inspection’ or you can print it out straight away via ‘Print inspection’.

16.2 Print or save customer report

To save or print a customer report for the connected eBike, open the ‘Customer report’ area. You can save the report locally as a PDF file via ‘Save report’ or you can print it out straight away via ‘Print report’.

16.3 Print or save manufacturer report

To save or print a manufacturer report, open the ‘Manufacturer report’ area. You can save the report locally as a PDF file via ‘Save report’ or you can print it out straight away via ‘Print report’.

17 Online services

17.1 Viewing and processing configuration change requests from bicycle retailers

NOTE: You need a transaction number to process change requests for configurations. You can obtain this from the originator of the request.

Open the ‘Online services’ area of the Bosch DiagnosticTool 3. You need a valid transaction number to be able to view or process a configuration change request. You will usually have received this from a bicycle retailer by e-mail or phone. Enter the transaction number and click on ‘Load request’. The request and the corresponding configuration are then loaded from the Bosch server. You are now able to make changes to the configuration.

Once you have finished making changes via ‘Upload changes’, the bicycle retailer can download them on their side. They also need the transaction number to do so.

If you do not process a change request, it will be discarded automatically after 14 days.

17.2 Remote access and remote maintenance

The TeamViewer program is available to you for remote diagnostics. The program is supplied when installing Bosch DiagnosticTool 3. TeamViewer must be installed to be able to start remote diagnostics. Click on ‘Open TeamViewer’ and follow the instructions.

18 Safety recommendations

NOTE: While the following recommendations are based on Windows 10, they can be applied to other operating systems.

We recommend that you take several precautionary measures to protect your computer against attacks and malware. If applicable, use the hardware and software provided by your IT department and follow their recommendations.

18.1 Recommendation for your Windows usage

- If possible, use two-factor authentication for your Windows login. In addition to your password, use another mechanism, such as a fingerprint reader, as a second factor.
- Activate encryption of your hard drive, where this is available.
- Use an antivirus software, such as Microsoft Defender.
- Carry out regular updates on your operating system or set it to auto-update. **TIP:** A method commonly used by computer attackers is to exploit vulnerabilities in your operating system or in the installed software. Performing regular updates limits the opportunities for attack.
- Only use administrator rights if necessary and do so with caution. By running an application with administrator rights, you are increasing the potential for damage in the application. Using administrator rights during an attack can lead to a greater risk to your system and data.
- If you do not already have one, develop a concept for the need to use privileged or administrative Windows accounts and how they are to be used. Also pay attention to the access rights for these accounts, such as the rights for creating, deleting and updating Windows accounts.
- Regularly create backup copies of your data. This minimises the damage that could be caused by a ransomware attack or hardware failure.
- Regularly reduce the number of installed applications on your computer. Every installed application represents a potential point of attack.
- Use a secure, wired Internet connection, for instance which is protected by an IEEE 802.1X authentication mechanism.

18.2 Recommendations for creating passwords

- Use a different password for every service you use
- We recommend following these guidelines for creating passwords:
  - Do not use full words or common character sequences (e.g. ABCD)
  - Do not use combinations with incremental changes (e.g. months, years)
  - Include lower case and upper case letters, numbers and maybe also special characters
  - Passwords should be a minimum of 12 characters in length
  - Do not use any private details or information which can be guessed
  - Do not use the default password
  - Do not share your password with others

TIP: One way of creating a safe and memorable password is to think of a sentence, take the first letter of each word and convert some of letters into numbers and special characters that resemble letters.