

## Busch-Watchdog® PRO

6851/9-xxx

Busch-Watchdog® 90° BT

6851/22-xxx

Busch-Watchdog® 220° BT

6851/22S-xxx

Busch-Watchdog® 220° select

Commissioning and operation via the app Busch-free@home® Next App

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## 1 Notes on the instruction manual

Please read through this manual carefully and observe the information it contains. This will assist you in preventing injuries and damage to property and ensure both reliable operation and a long service life for the device.

Please keep this manual in a safe place.

If you pass the device on, also include this manual along with it.

Busch-Jaeger accepts no liability for any failure to observe the instructions in this manual.

If you require additional information or have questions about the device, please contact Busch-Jaeger or visit our Internet site at:

[www.BUSCH-JAEGER.de](http://www.BUSCH-JAEGER.de)

## 2 Trademarks

Die Wortmarke Bluetooth® und die Bluetooth®-Logos sind eingetragene Marken von Bluetooth SIG, Inc.. Jede Verwendung dieser Marken durch Busch-Jaeger Elektro GmbH erfolgt unter Lizenz. Andere Marken und Handelsnamen sind Eigentum ihrer jeweiligen Eigentümer.

### 3 Overview

This instruction manual supplements the product manual Busch-Watchdog® PRO

6851/9-xxx

6851/22-xxx

6851/22S-xxx

to configure and operate the function of the Busch-free@home® Next App .

**Notice**

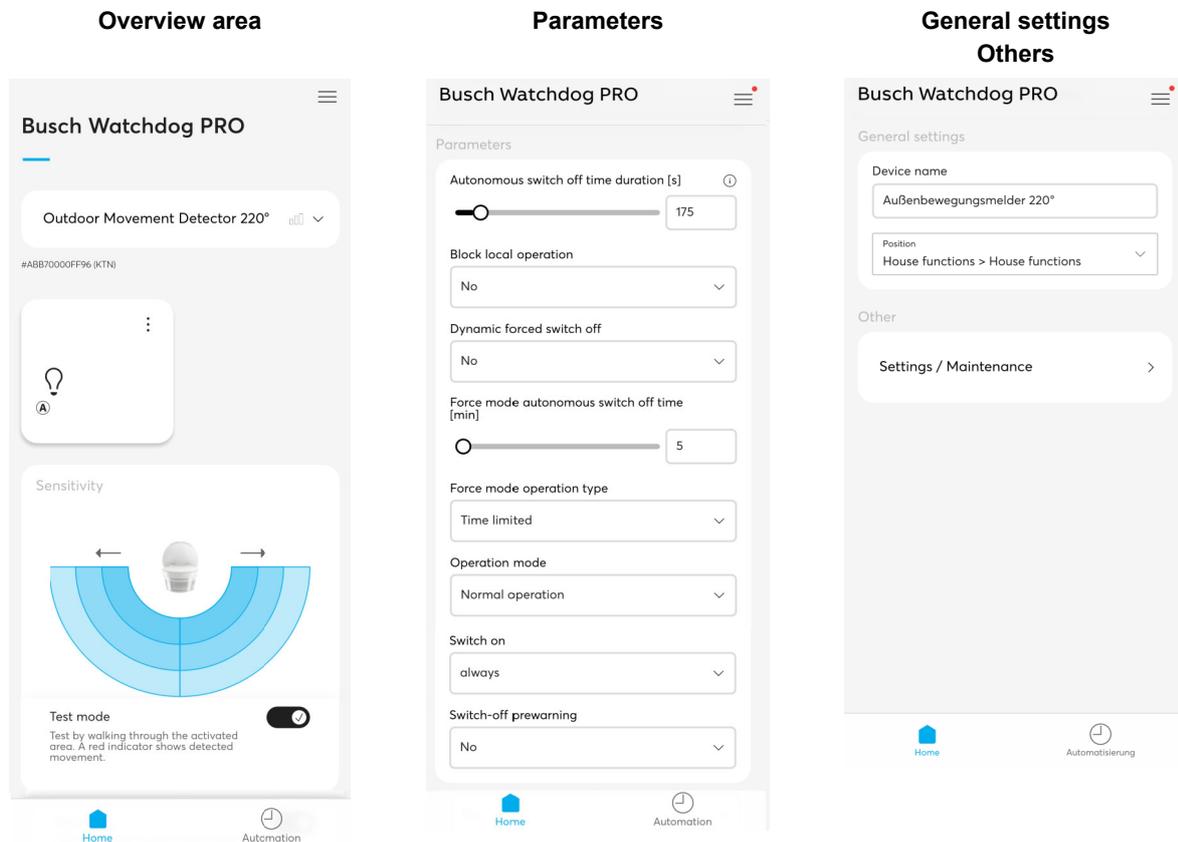
The devices are configured with the app Busch-free@home® Next App. The networking is carried out via Bluetooth®, wireless and via network functions.

The configuration should ideally be made in close proximity and with visual contact to the device.

Large radio transmission ranges only serve to ensure an excellent connection.

### 3.1 Overview Busch-free@home® Next App / Busch-Watchdog® PRO

In the following you see the function and operating areas of the app for the Busch-Watchdog® devices.

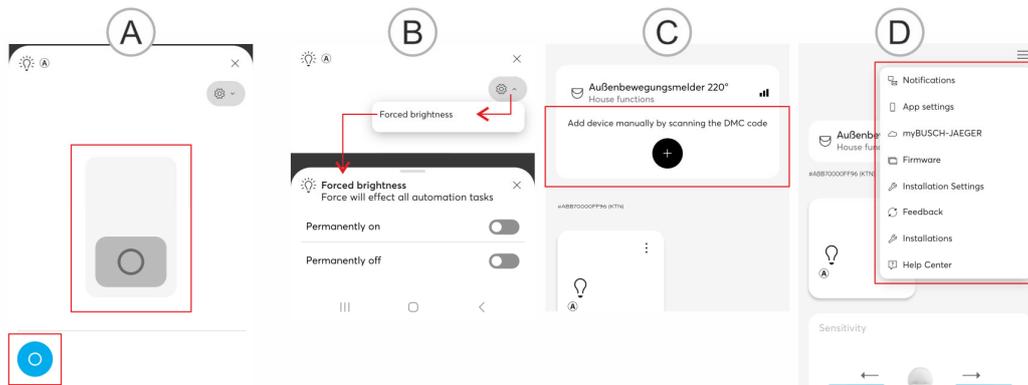


- Display of the current device
- Display of the switching state
- Switching of loads
- Setting the sensitivity
- Test mode/Activation test

- Setting the device parameters

- Change of device name and the position
- Information about the device and maintenance
- Display of the software version of the device
- Reset device to factory settings
- Assign a device password

### 3.2 Overview of start screen



	<p><b>[A] Three-point menu</b> The switch menu opens by tapping on the three-point menu.</p> <ul style="list-style-type: none"> <li>Here you can switch the load via the sliding switch / switch.</li> <li>Additionally, the "Permanent mode" function can be opened via the toothed-wheel icon. It can be used to switch loads permanently on or off. Notice: For this the permanent operating mode parameter "Operating mode" must be activated.</li> </ul>
	<p><b>[B] Add device</b> By tapping the arrow, the pull-down menu for adding an additional device opens.</p>
	<p><b>[C] Hamburger menu</b> Tapping on the Hamburger menu the function overview of the Busch-free@home® Next App. opens</p>
	<p><b>[1]</b> Name of the selected installation</p>
	<p><b>[2]</b> Name of the currently selected device within the selected installation</p>
	<p><b>[3] Switching</b> The load can be switched by tapping the lamp icon.</p>
	<p><b>[4] Sensitivity</b> The sensitivity can be adjusted and the detection range reduced by tapping on the individual fields See "Reducing the detection range / the sensitivity" on page 21</p>
	<p><b>[5] Home button</b> Back to start page of the device</p>
	<p><b>[6] Automation / Timer</b> See "Automation/Timer" on page 24</p>
	<p><b>[7] Test mode</b> Activate the test mode / activation test via the sliding switch, See "Test mode / Activation test" on page 19.</p>
	<p><b>[8] Signal strength</b> Bluetooth signal strength of the currently selected device.</p>

Table 1: Overview of start screen

### 3.3 Possible access versions of the app

Permanent access via the app	Temporary access via the app
<p>With this version the main focus of the use is on the end user. Access to the device via the app is possible at all times.</p>	<p>With this version the main focus is on the use by the fitter. Access to the device via the app is possible only temporary for the installation and initial parameter setting. For a renewed connection with the device, a master reset must be performed after the expiry of the initial visibility of 30 minutes.</p>
<ul style="list-style-type: none"> <li>- The access to the device is, if necessary, password-protected and is possible only by the authorised end user.</li> </ul>	<ul style="list-style-type: none"> <li>- Direct access</li> </ul>
<ul style="list-style-type: none"> <li>- The project can be divided and transferred to others.</li> </ul>	<ul style="list-style-type: none"> <li>- Within the first 30 minutes the fitter and then also end user can access the device. The end user is responsible for setting up a permanent access to the device.</li> </ul>
<ul style="list-style-type: none"> <li>- The name of the device can be adjusted.</li> </ul>	

Table 2: Access versions of the app

### 3.4 Busch-free@home® Next AppFunction overview / selector switch

Function overview 6851/9-xxx / 6851/22-xxx / 6851/22S-xxx

Function		 	Settings
Channel	X	–	– On – Off
Continuous mode	X	–	– Permanently switched on – Continuous off
Sensitivity (0,1,2,3)	X	–	– 0% – 25% – 75% – 100%
Test mode	X	X	– On – Off
Switch-off pre-warning	X	–	– Yes – No
Operation type	X	X	– Standard operation – Short-time pulse
Permanent operating mode	X	–	– Time limited – Continuous
Dynamic forced switch-off	X	–	– Yes – No
Switch-on	X	X	– Always
	X	X	– Threshold value
	X	–	– Takeover of the current brightness as threshold value
	X	X	– During darkness
	X	–	– Never
Switch-off delay seconds	X	X	– Seconds
Switch-off delay permanent mode	X	–	– Minutes
Block local operation	X	–	– Yes – No
Settings / maintenance	X	–	– Device restart – Read device in again – Change device name and position – Information about the device – Firmware update
Timer	X	–	– Create timer – Repetition – Settings

Table 3: Overview of functions 6851/9-xxx / 6851/22-xxx / 6851/22S-xxx

### 3.5 Priority behaviour at operation via the app or via the device

The last entry has priority irrespective of whether this was made via the selector switch or via the app. For some settings the "Save" button is to be tapped at the end of the page (e.g. change of the sensitivity of a sensor area).

**Notice**

This does not apply when the local operation was blocked on the device via the function in the app.

### 3.6 System integration

The Busch-Watchdog® PRO devices 6851/9-xxx / 6851/22-xxx and 6851/22S-xxx cannot be integrated in other systems, such as Busch-free@home®.

Networking with other devices in the app Busch-free@home® Next App is not possible. The connection is made point to point via Bluetooth.

**Notice**

A configuration of the Busch-Watchdog® PRO devices 6851/9-xxx / 6851/22-xxx and 6851/22S-xxx is possible only as "Smart device" since they are configured exclusively via Bluetooth. The devices of the app are not found in the "Smart room" mode.

### 3.7 System requirements

A mobile terminal device is required for commissioning via the app Busch-free@home® Next App.

In the following the designation "Smartphone" is used representatively.

Prerequisites:

- The current version of the app Busch-free@home® Next App is installed on your smartphone, at least however, version 2.4.
- The smartphone has a Bluetooth function.
- The device is located in the radio range of the smartphone.
- The device is connected to the power supply.

The Busch-free@home® Next App app can be downloaded free of charge from the Apple App Store and from Google Play (see Chapter 4.1 "Downloading and installing the app" on page 10).

## 4 Initial steps

### 4.1 Downloading and installing the app

Download the app Busch-free@home® Next App from the respective store and install it on your smartphone.



Android



IOS



#### **Notice**

When updating the operating system of your Apple smartphone, it can happen that the coupling to the Busch-Watchdog® device is lost. If this is the case, uncouple the device and reconnect it again.

## 4.2 Commissioning

The possible procedures for commissioning via the app are described in the following.

The following methods are available for commissioning the device:

- “Standard commissioning“ on page 11
- “Commissioning by scanning the QR code“ on page 13



### Notice

- After being activated, the device is in teaching mode and is automatically visible in the app for 30 minutes.
- After a power reset, the device is visible again.

### Standard commissioning

To connect the device with the app, proceed as follows.

1. Activate the Bluetooth on your smartphone and connect the device to the power supply.

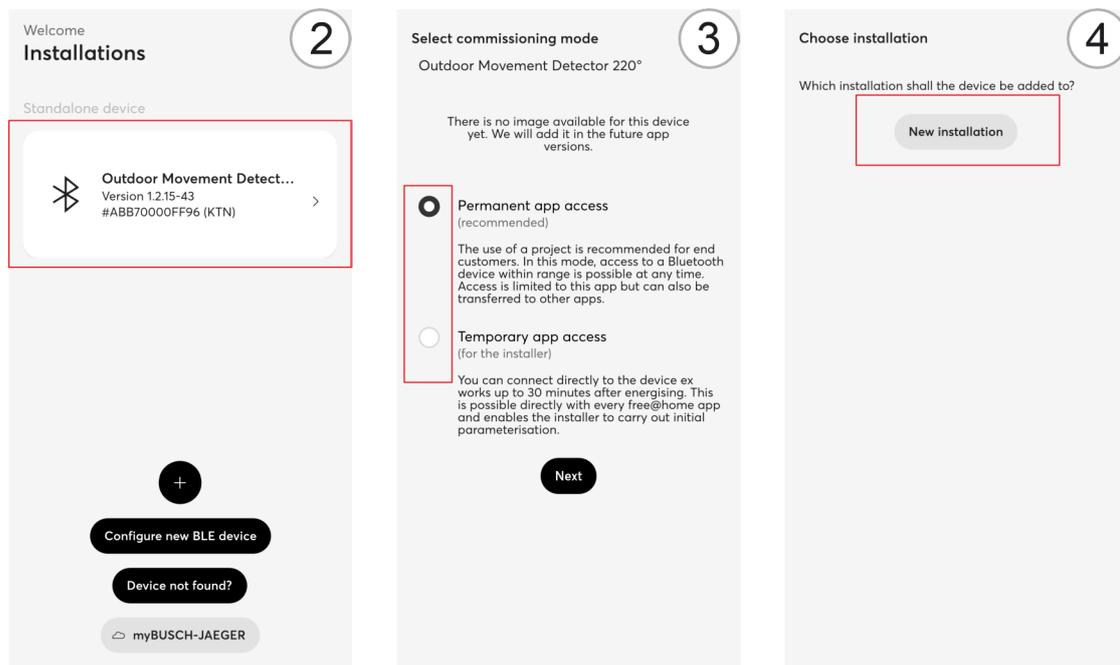


Fig. 1: Integrating the device [2] - [4] (example illustration)

2. Open the app Busch-free@home® Next App and tap on the displayed device in section "Independent device".
3. Select the desired access version and confirm with "Continue".



### Notice - Access version

- Permanent access via the app  
Access to the device is possible at all times.
  - Temporary access via the app  
Mode for setting up by the fitter.
- For this See “Possible access versions of the app “ on page 6.

#### 4. Select an installation or create a new installation.



#### Notice

If already available, an existing installation can be used.

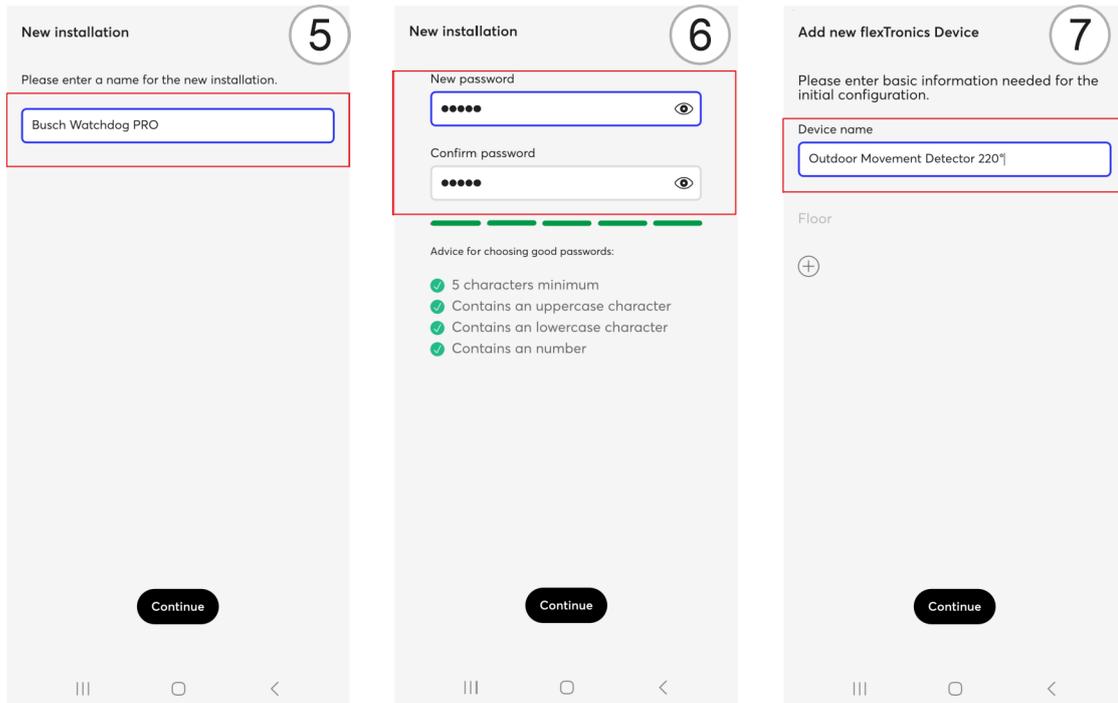


Fig. 2: Integrating the device [5] - [7] (example illustration)

5. Assign a new device name for the new installation and select "OK".
6. Assign a password for the new installation and confirm with "Continue".
7. Assign a new device name and position the device inside the installation with the help of the plus icon. Then confirm the settings with "Continue".

The device is connected with the app Busch-free@home® Next App and can be configured via the parameters.

## Commissioning by scanning the QR code



### Notice

- The QR code is located on the rear side of the sensor head of the device.
- This method can also be used if the device is not connected to the power supply. However, one needs to be near the device with the system after the power is connected to add the device automatically.

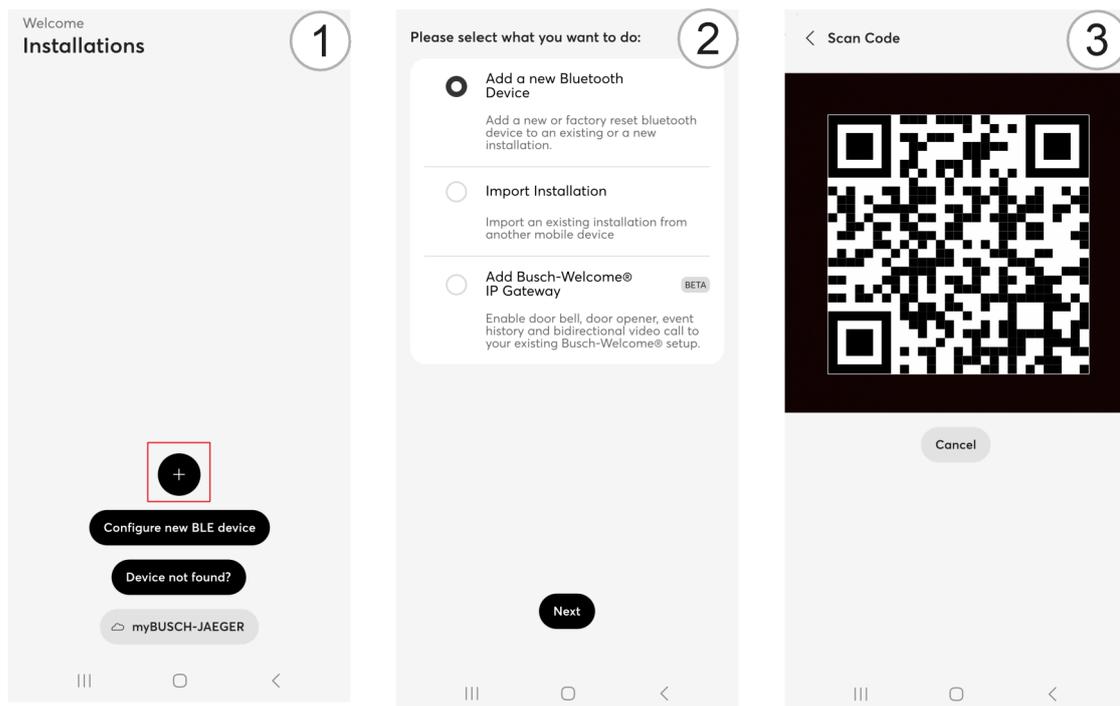


Fig. 3: Integrating the device [1] - [3] (example illustration)

1. Tap on the "+".
2. Select "Add a new Bluetooth device" and confirm with "Continue".
3. Use the camera of your smartphone to scan the printed QR code on the rear side of the sensor head of the device.



### Notice

To be able to scan the QR code via the app Busch-free@home® Next App, you must allow access to the camera when you are requested.

4. Select an installation or create a new installation.



### Notice

If already available, an existing installation can be used.

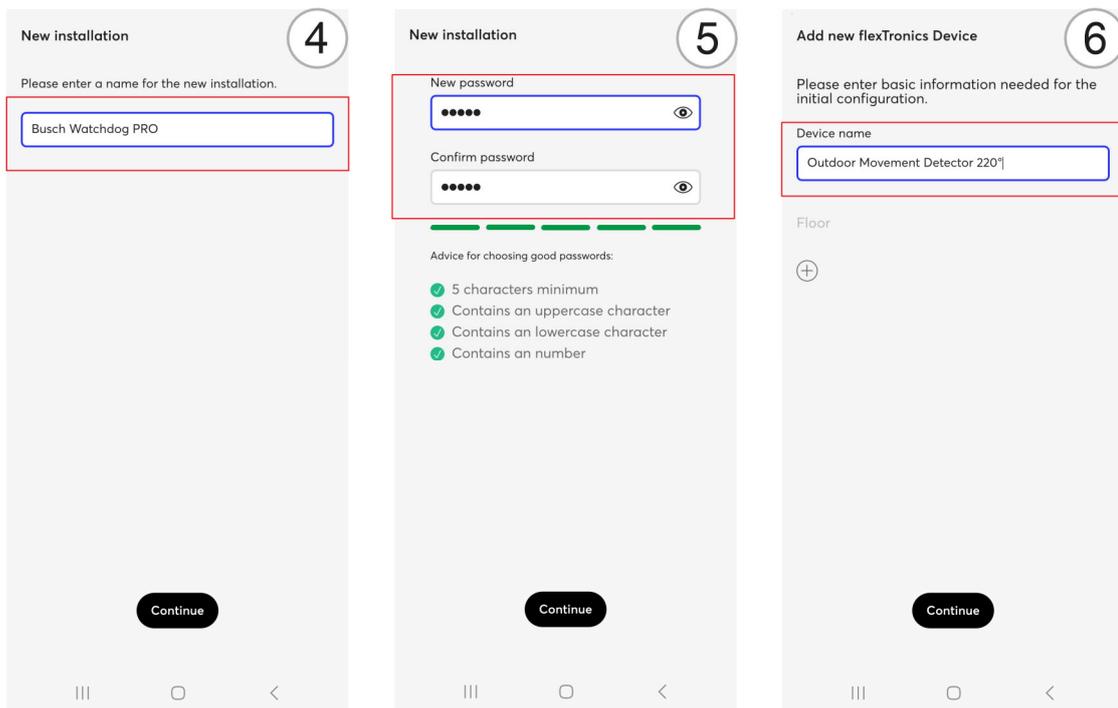


Fig. 4: Integrating the device [4] - [6] (example illustration)

5. Assign a new device name for the new installation and select "OK".
6. Assign a password for the new installation and confirm with "Continue".
7. Assign a new device name and position the device inside the installation with the help of the plus icon. Then confirm the settings with "Continue".

The device is connected with the app Busch-free@home® Next App and can be configured via the parameters.

### 4.3 Transfer of the installation

For individual control (expansion stage device control) the project can be easily transferred from one app to the other by scanning a 2D code.

#### Fitter:

1. Call up menu item "More" via the Hamburger menu and in the area "Installation", change to the "Installation settings".
2. In area "Service, select menu item "Transfer to other app".
  - A 2D code is generated that can be read in from the user app.
  - As alternative, a file can also be created and sent via "Share as file". Then the file can be imported or opened in the user app.

#### User:

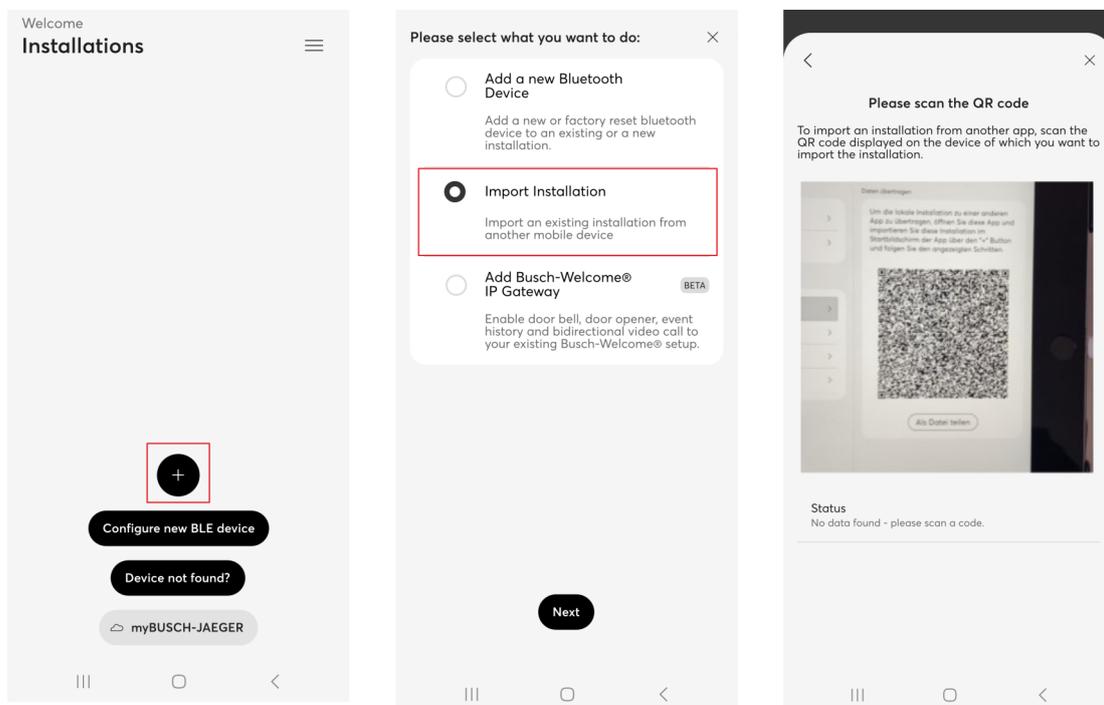


Fig. 5: User transfer

1. Tap on the "+" icon in the app Busch-free@home® Next App .
2. Select "Import installation" and confirm with "Continue".
3. Scan 2D code.



#### Notice

- The project in the fitter app must be removed manually after the successful transmission.
- To be able to scan the QR code via the app Busch-free@home® Next App, you must allow access to the camera when you are requested.

## 5 Operation

### 5.1 Overview of parameters

For the configuration of the parameters, select the installation and the desired device. Then scroll down to the parameters.

The overview shows the individual parameters in their sequence of appearance during operation.



#### Notice

Some changes must, if necessary, be saved via the "Save" button for them to become effective.

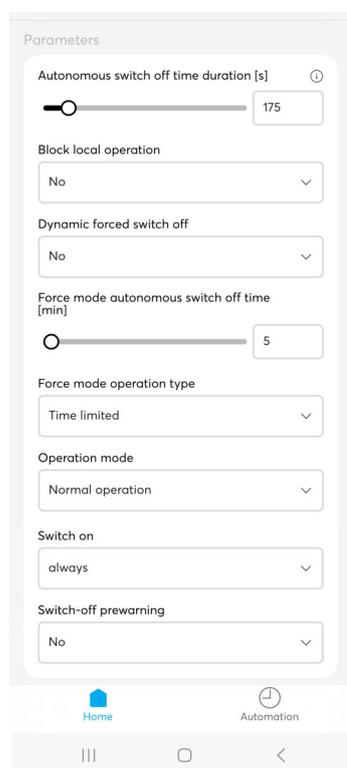


Fig. 6: Parameters section (example illustration)



#### Notice

In the description of parameters, the preselected standard values are underlined. These standard values are used when neither a value is entered nor a setting is made.

<b>Switch-off pre-warning</b>	
Yes	<p>Before switching off the light, the end of the illumination period is displayed via the connected load (e.g. an LED lamp). The switch-off pre-warning is only active during the switch-off delay, not at a manual switch-off.</p> <p>Phase of switch-off pre-warning:</p> <ol style="list-style-type: none"> <li>1. The device is switched on</li> <li>2. The device switches itself off for 1 second</li> <li>3. The device switches itself on for 9 seconds</li> </ol> <p>The process is repeated twice. The 30 seconds are added as switch-off delay. This means that the device switches itself off after 30 seconds.</p>
<u>No</u>	The switch-off pre-warning is deactivated.

<b>Operation type</b>	
<u>Standard operation</u>	Switching duration for a period of 10 seconds - 30 minutes.
Short-time pulse	<p>Short-time pulse of 1 second for activating e.g. door bells, staircase lighting timer switches.</p> <p>At constant movement, the short-time pulse is repeated every 10 seconds (1 s on, 9 s off).</p>

<b>Permanent operating mode</b>	
<p>This parameter relates to the "Permanent mode" function. Here the light retains the current status independent of movement, brightness and operation. When the "Permanent mode" function is activated, the LED on the MD lights up permanently red.</p>	
<u>Time limited</u>	The permanent mode is active for the time set under the "Switch-off delay permanent mode".
Continuous	The permanent mode is continuously active.

<b>Dynamic forced switch-off</b>	
Yes	<p>Depending on the set switch-off delay, or after 90 minutes at the latest, the movement detector switches the light off for approx. two seconds and determines the current ambient brightness value. It is then switched back on in dependence of the movement detected and the set brightness switching threshold.</p>
<u>No</u>	The dynamic forced switch-off is deactivated.

Switch-on	
Different settings can be preselected. If the ambient brightness drops below the selected criterion, a movement detection leads to the switch-on of the connected lamp.	
Always	– independent of the brightness
<u>Threshold value</u>	<ul style="list-style-type: none"> <li>– 15 lx (factory setting)</li> <li>– Takeover of the current threshold value</li> <li>– Adjusts the switching on to the currently set brightness (see threshold value parameter)</li> </ul>
During darkness	– Function similar to the moon icon on the selector switch, corresponds to 0.5 lux
Never	– The switching on can only be triggered via a push-button or via app.

Switch-off delay [seconds]	
10 sec. - <u>60 sec.</u> - 1800 sec.	Period the movement detector waits after the last detection of movement until the light is switched off again.

Switch-off delay permanent mode [minutes]	
5 minutes - 600 minutes	<p>This parameter relates to the "Permanent mode" function. It is only available when the parameter "Permanent operating mode" is parameterized to "Time limited".</p> <p>The permanent mode is active for the time set under the "Switch-off delay permanent mode".</p>

Threshold value [lx]	
0.5 lx ... <u>15 lx</u> ... 100000 lx	<p>This parameter is only available if parameter "Switching on" has been parameterized to "Threshold value".</p> <p>It serves for fixing the brightness threshold value in lux for parameter "Switching on - Threshold value".</p>
Current value	<p>The button "Current value" can be used to take over the current brightness value as setting.</p> <p>By tapping, the brightness is measured (all loads are switched off briefly) and the measured result is then transferred to the parameter.</p>

Block local operation	
Yes	<p>With this function the operation can be deactivated via the selector switch on the device. Operation is then only possible via the app.</p> <p><b>Notice:</b> A master reset via the selector switch is also NOT possible when the local operation has been blocked.</p>
<u>No</u>	Local operation is possible.

## 5.2 Individual operating functions

### Test mode / Activation test

The activation test serves for checking the detection range by means of pacing off. A switch-off delay of two seconds is activated during the activation test, the device operates independent of brightness.

#### Activating the activation test

The device is in the activation test for 10 minutes (the red status LED flashes fast with 5 Hz):

- Initial at first voltage supply.
- When the selector switch is briefly set on "Test".
  - After activating the activation test, set the selector switch to the desired brightness value.
- By activating the switch in the Busch-free@home® Next App.

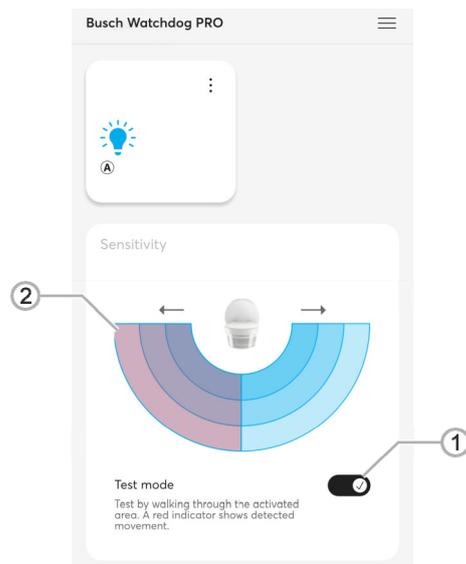


Fig. 7: Test mode activated (example illustration)

[1] Test mode switch

[2] Indication of the detected movement (red)

1. Activate the sliding switch [1] by tapping.
  - The device is now in test mode for 10 minutes (daytime operation, 2 seconds switch-off delay). The test function is exited automatically.
  - The detection of movement [2] is displayed in red.
  - In addition, each detection is indicated on the device by the status LED flashing quickly.

### **Performing the activation test**

1. Pace off the detection range.
  - Each detection is indicated by the status LED flashing quickly.
2. Adjust the detection range according to your needs and test the adjustment by means of renewed pacing off.

### **Ending the activation test**

The device ends the "Activation test" function under the following prerequisites:

- Automatically 10 minutes after the start of the activation test when the selector switch is set on a desired brightness value.
- Manually ending the activation test:
  - Turn the selector switch to any desired brightness value and then briefly to setting "Test".
  - Now set the desired brightness value.
- Deactivate the test mode by tapping the sliding switch in the Busch-free@home® Next App

### Reducing the detection range / the sensitivity



#### Notice

The limitation of the detection range can also take place directly on the device. The detection angle can be specifically limited by gluing on the enclosed foil.

The detection range of the Busch-Watchdog® amounts to 90° or 220°. It can be practical to limit the detection range due to special local circumstances.



#### Notice

The detection range of the bottom lens can only be limited by gluing on the device, since the detection takes place via a mirror. The Busch-Watchdog® PRO 220° does not have a bottom lens.

The sensitivity of the respective areas can be adjusted or the detection range can be deactivated. The possible scope of the reduction depends on the device.

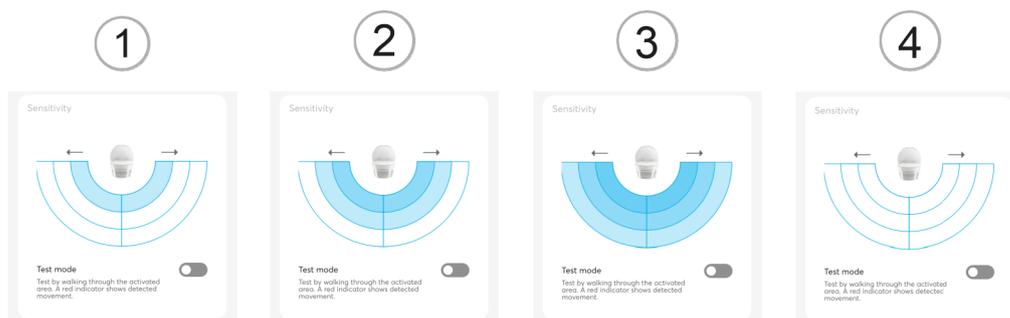


Fig. 8: Sensitivity areas

- [1] Low sensitivity
- [2] Mean sensitivity
- [3] High sensitivity
- [4] Detection range deactivated

Setting the sensitivity 6851/9-xxx

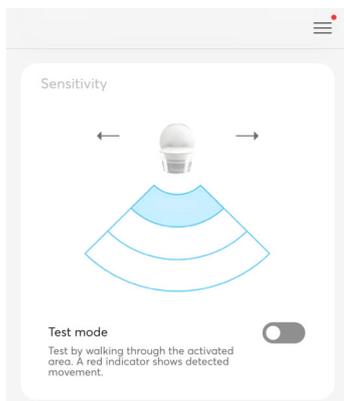


Fig. 9: Sensitivity 6851/9-xxx



**Notice**

The detection with the bottom lens cannot be reduced via the app, since it takes place via a mirror.

Setting the sensitivity 6851/22-xxx

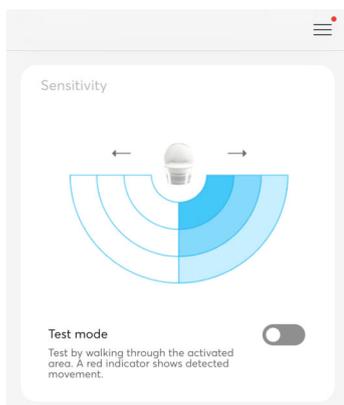


Fig. 10: Sensitivity 6851/22-xxx



**Notice**

The detection with the bottom lens cannot be reduced via the app, since it takes place via two mirrors.

Setting the sensitivity 6851/22S-xxx

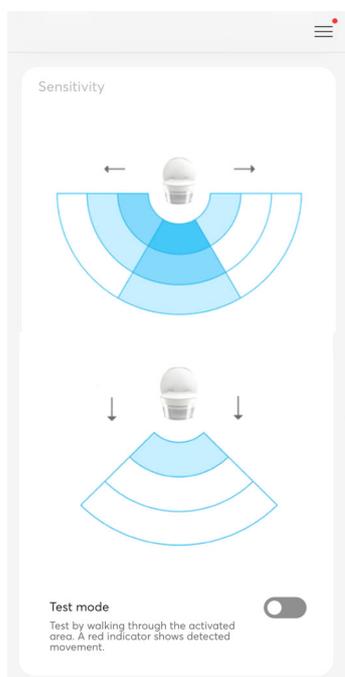


Fig. 11: Sensitivity 6851/22S-xxx

5.3 Automation/Timer



**Notice**

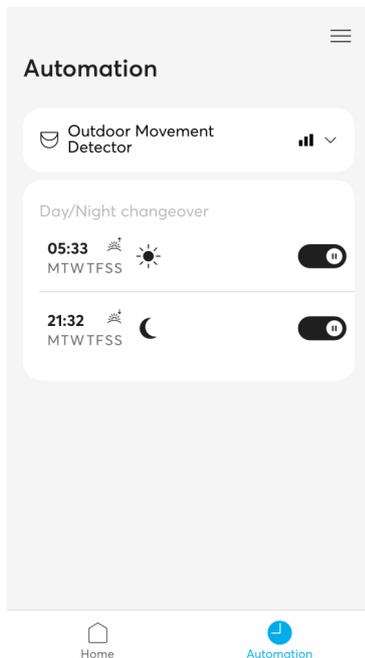
The device is not equipped with batteries.

- Time programs are stopped at a power failure.
- The time in the device is synchronized again only at the next connection with the app.

Up to 28 switching times can be programmed via the automation. Each starting time has a weekday function and can be programmed for one or several weekdays.

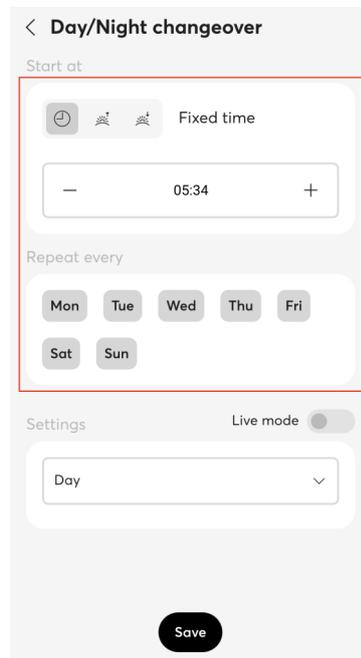
In the following you see the function and operating areas of the "Automation" app area.

**Automation overview area**



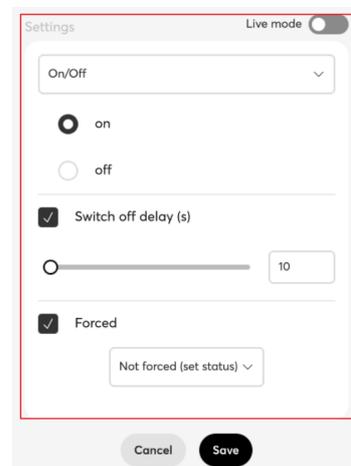
- Display of the number of configured timers
- Display of the defined switching times
- Activation / deactivation of timers

**Automation Typification**



- Specification of the type (specified time, day- and night-dependent)
- Specification of repetition for weekdays
- Activation of live mode

**Automation Settings**



- Specification of switch function
- Activation / deactivation of functions
- Display of the software version of the device

**Notice:** The available settings are dependent on the typification.

### 5.3.1 Automation/Timer settings

Different switching times can be programmed in the automation area.

The following overview shows the setting options and parameters in their sequence of appearance during operation.



**Notice**

Performed changes must, if necessary, be saved via the "Save" button for them to become effective.



**Notice**

The respective standard values in the overview are underlined>. These standard values are used when neither a value is entered nor a setting is made.

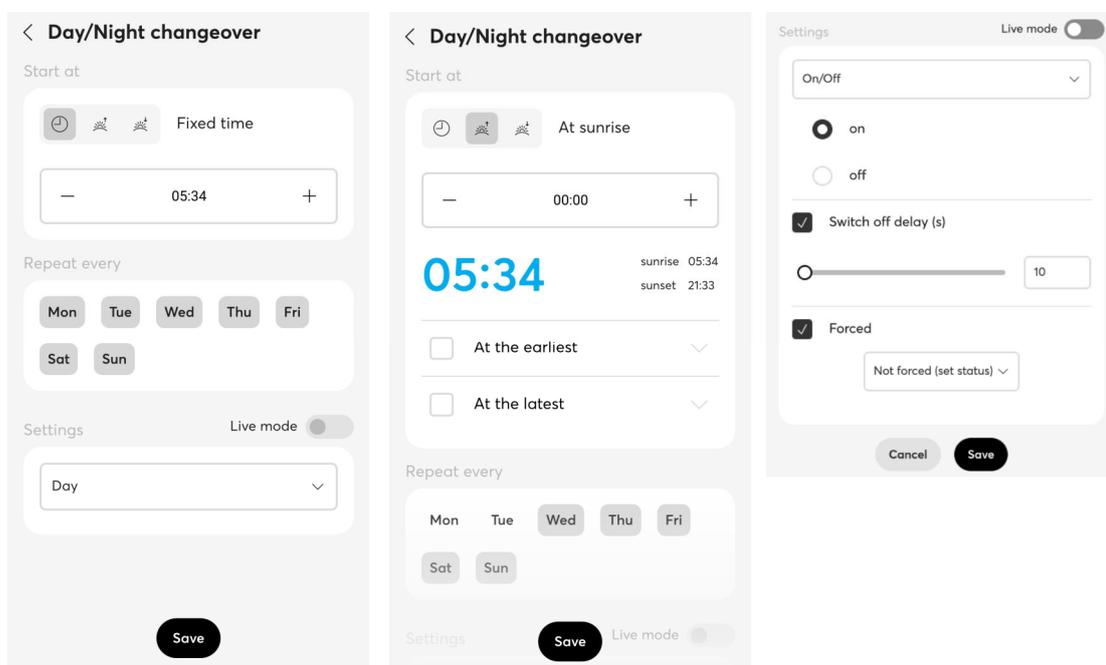


Fig. 12: Automation settings

Start at	
<u>Specified time</u>	The timer starts at a previously specified time.
xx.xx after sunrise	Astro timer, at which the starting time to a fixed offset is relative to the sunrise. <ul style="list-style-type: none"> <li>Astro function, 00:00 to 23:50</li> </ul>
xx.xx after sunset	Astro timer, at which the starting time to a fixed offset is relative to the sunset. <ul style="list-style-type: none"> <li>Astro function, 00:00 to 23:50</li> </ul>
At the earliest	Specifying the earliest time at which the astro timer is to start.
At the latest	Specifying the latest time at which the astro timer is to start.

Repetition on every	
Mon/Tue/Wed/Thu/Fri/Sat/Sun	Specifying the weekdays at which the timer is to repeat itself.
<u>Switching on all weekdays</u>	The standard setting. The timer switches on all weekdays at the same time.

Live mode	
On	If the controller of the live mode option is set on "On", the actuator takes on the status specified in the timer.
<u>Off</u>	If the controller of the live mode option is set on "Off", the actuator does not take on the status specified in the timer.

Switching state	
<u>On</u>	At detected movement the switching state of the actuator is set to on.
Off	There is no change of the switching state.

Switch-off delay (s)	
- 10 sec. - <u>60 sec.</u> - 1800 sec.	The switch-off delay stored in the actuator is continuously overwritten by the new value.

Continuously locked	
<u>Continuous switching deactivated (set status)</u>	With this function an active continuous switching is ended and the selected switching state (ON/OFF) is stopped.
Continuous switching deactivated (last status)	With this function an active continuous switching is ended and the last switching state of the actuator is stopped.
Permanently switched on	With this function the movement detector is blocked and switched on for the time command.
Permanently off	With this function the movement detector is blocked and switched off for the time command.

## 5.4 General settings

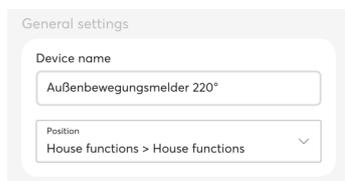


Fig. 13: General settings

The name of the device can be changed in the "General settings" and the position (floor/room) inside the house can be defined.

## 5.5 Settings / maintenance

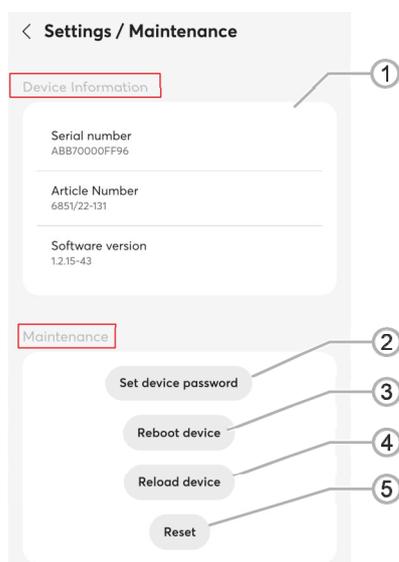


Fig. 14: Other - Settings / Maintenance

### Information about the device

[1] Overview of the device data

### Maintenance

[2] Setting and changing device password

[3] Rebooting the device

[4] Rereading in Data/Information

[5] Resetting the device

## 5.6 Firmware update

The Busch-free@home® Next App on the start page shows the notification "Device update available" when a new firmware is available for your device.

To perform the update, proceed as follows:

1. Under the notice "Device update available" tap on "Update now".
2. In the next window, tap on "Update".
  - The update starts and a progress bar indicates the progress.
  - After the update is concluded, the device restarts.
  - The message "Update successful" appears in the app.

## 5.7 Factory settings



### Notice

Local operation can be blocked via the Busch-free@home® Next App. In this case both the operation and the master reset are deactivated via the selector switch on the device.

The blockage can only be cancelled via the app.

To perform a master reset, proceed as follows:

1. Open the Burger menu and select "Manage Bluetooth devices".
2. Select the desired device.
3. Tap on "Reset".
  - The device is reset to the factory settings and must then, if desired, be reconnected anew with the app.

## 6 Notes

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