Product manual | **24.06.2024**

Busch-Watchdog® PRO

6851/9-xxx
Busch-Watchdog® 90° BT
6851/22-xxx
Busch-Watchdog® 220° BT
6851/22S-xxx
Busch-Watchdog® 220° select BT

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

BUSCH-JAEGER

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1 Overview

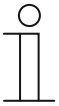
These instructions supplement the product manual Busch-Watchdog® PRO

6851/9-xxx

6851/22-xxx

6851/22S-xxx

to the functionality of the Busch-free@home® Next App app for configuration and operation.



Notice

The devices are configured using the app Busch-free@home® Next App. No network functions are used.

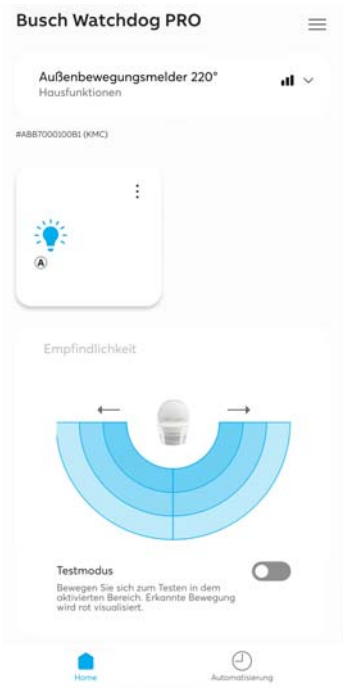
Ideally, the configuration should take place in close proximity and with a line of sight to the device.

Long radio ranges are only used to ensure a good connection.

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

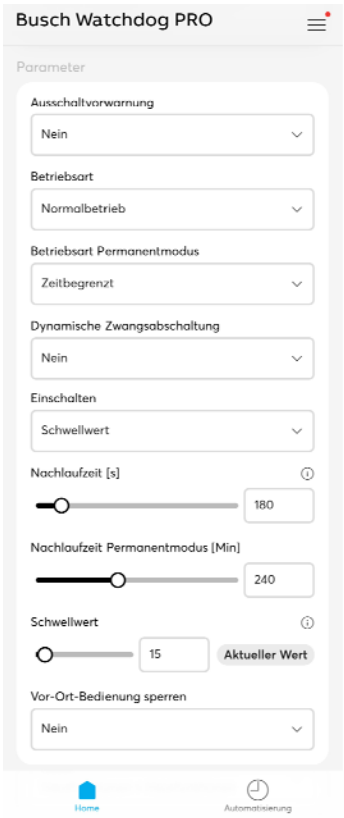
Below you can see the functional and operating areas of the app for the Busch-Watchdog® devices.

Overview area



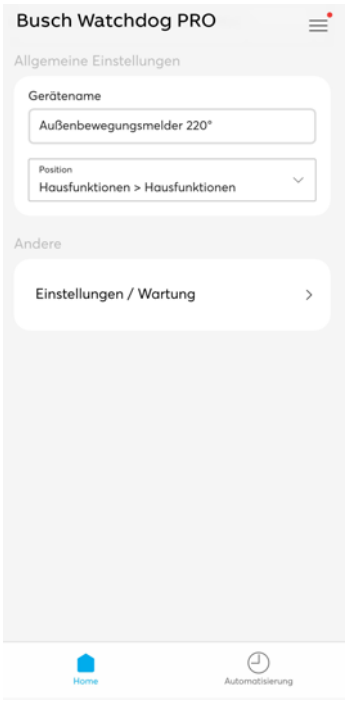
- Display of the current device
- Display of the switching status
- Switching loads
- Setting the sensitivity
- Test mode/walking test

Parameters



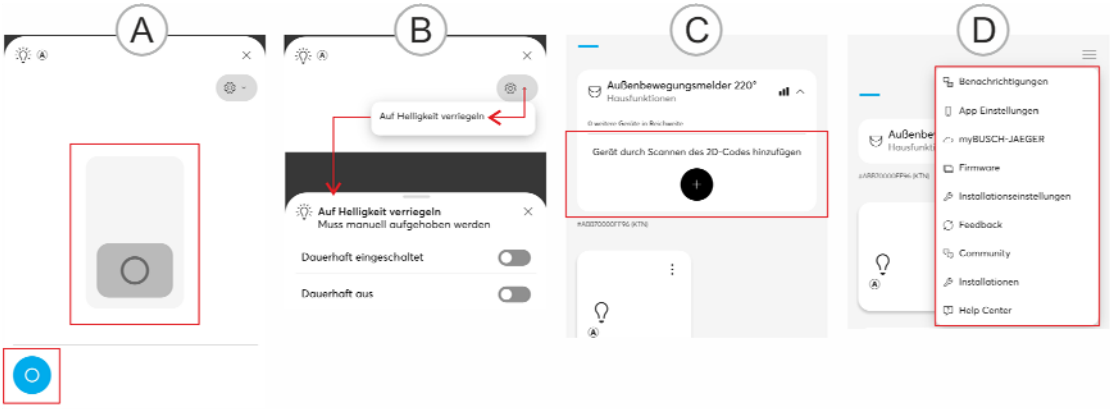
- Setting the device parameters

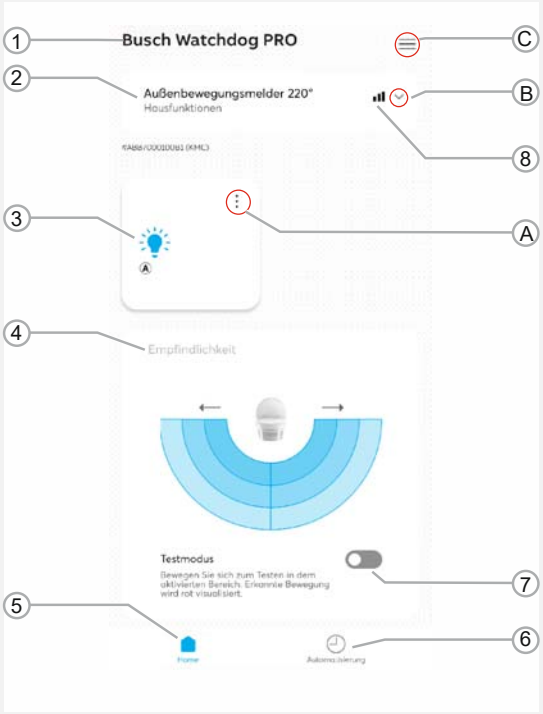
Global settings
Others



- Changing the device name and position
- Information on the device and maintenance
- Display the software version of the device
- Reset device to factory settings
- Assign device password

1.2 Overview start screen





[A]	**Three-point menu** Tapping the three-dot menu opens the switch menu. – Here you can switch the load using the slide switch / switch. – The "Permanent mode" function can also be opened using the cogwheel symbol. This allows the load to be switched on or off permanently. Note: The "Permanent mode" parameter must be activated for this.
[B]	**Add device** Tap the arrow to open the pull-down menu for adding another device.
[C]	**Hamburger menu** Tapping the hamburger menu opens the function overview of the Busch-free@home® Next App.
[1]	Name of the selected installation
[2]	Name of the currently selected device within the selected installation
[3]	**Switching** The load can be switched by tapping the lamp symbol
[4]	**Sensitivity** The sensitivity can be adjusted and the detection area restricted by tapping the individual fields, see "Reduction of the detection range / sensitivity" on page 20
[5]	**Home button** Back to the start page of the device
[6]	**Automation / Timer** see "Automation/timer " on page 23
[7]	**Test mode** Activate test mode / walking test using the slide switch, see "Test mode / walking test" on page 18.
[8]	**Signal strength** Bluetooth signal strength of the currently selected device.

Tab. 1: Overview start screen

1.3 Possible access variants of the app

Permanent access via the app	Temporary access via the app
With this variant, the focus of use is on the end user. Access to the device via the app is possible at any time.	With this variant, the focus is on use by the installer. Access to the device via the app is only possible temporarily for installation and initial parameterisation. To reconnect to the device, a master reset must be carried out after the initial visibility period of 30 minutes has expired.
– Access to the device is password-protected and is only possible by the authorised end user.	– Direct access
– The project can be shared and handed over to others.	– The installer and then the end user can dial into the device within the first 30 minutes. It is the responsibility of the end user to set up permanent device access.
– The name of the device can be customised.	

Tab. 2: Access variants of the app

1.4 Overview of functions Busch-free@home® Next App / Selector switch

Overview of functions 6851/9-xxx / 6851/22-xxx / 6851/22S-xxx

Function	free@home BUSCH-JAEGER		Settings
Channel	X	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
Operating mode Permanent mode	X	–	– Time limited – Permanent
Dynamic forced switch-off	X	–	– Yes – No
Switch-on	X	X	– Always
	X	X	– Threshold value
	X	–	– Adopting the current brightness as the threshold value
	X	X	– In the dark
	X	–	– Never
Follow-up time sec.	X	X	– seconds
Run-on time permanent mode	X	–	– minutes
On-site operation Locking	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

Tab. 3: Function overview 6851/9-xxx / 6851/22-xxx / 6851/22S-xxx

1.5 Priority behaviour when operating via the app or via the device

The last entry has priority, regardless of whether it was made via the selector switch or the app. For some settings, tap the "Save" button at the bottom of the page (e.g. changing the sensitivity of a sensor range).

Notice
This does not apply if local operation of the device has been blocked using the function in the app.

1.6 System integration

The Busch-Watchdog® PRO devices 6851/9-xxx / 6851/22-xxx and 6851/22S-xxx cannot be integrated into 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
The Busch-Watchdog® PRO devices 6851/9-xxx / 6851/22-xxx and 6851/22S-xxx can only be configured as a "smart device", as they are only configured via Bluetooth. In "Smart Room" mode, the devices are not found by the app.

1.7 System requirements

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

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

Prerequisites:

- The latest version of the app Busch-free@home® Next App is installed on the smartphone, but at least version 2.4
- The smartphone has a Bluetooth function.
- The device is within radio range of the smartphone.
- The device is connected to the power supply.
- You can download Busch-free@home® Next App free of charge from the Apple App Store and Google Play.

2 Initial steps

2.1 Download and install the app

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

Android

IOS

Notice

When updating the operating system of your Apple smartphone, the pairing to the Busch-Watchdog® device may be lost under certain circumstances. If this is the case, unpair the device and reconnect it.

2.2 Commissioning

The possible procedures for commissioning via the app are described below.

The following methods are available for commissioning the device:

– "Standard commissioning" on page 10
– "Commissioning by scanning the QR code" on page 12

Notice

– After activation, the device is in teach-in mode and is automatically visible in the app for 30 minutes.
– The device becomes visible again after a power reset.

Standard commissioning

Proceed as follows to connect the device to the app.

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

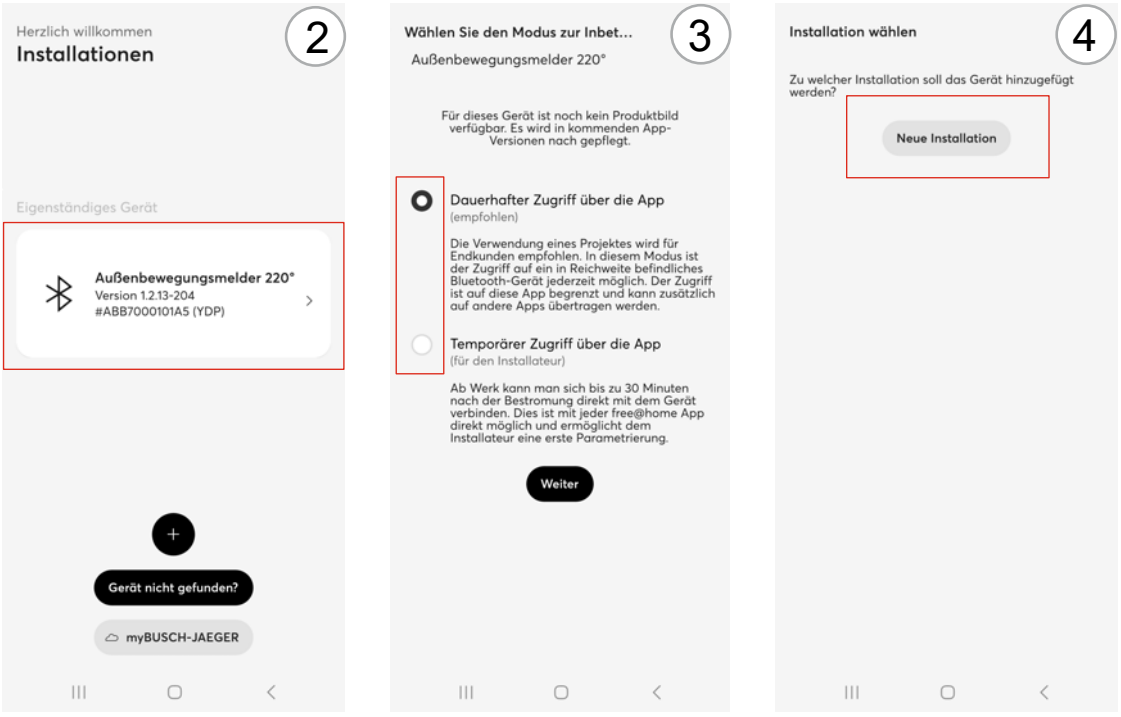


Fig. 1: Integrate device [2] - [4] (example illustration)

2. Open the app Busch-free@home® Next App and tap on the displayed device in the "Standalone device" section.

3. Select the desired access variant and confirm with "Next".

Note - Access variant

– Permanent access via the app
  The device can be accessed at any time.
– Temporary access via the app
  Mode for set-up by the installer.

For more information, see "Possible access variants of the app " on page 6.

4. Select an installation or create a new installation.

Notice

If already available, an existing installation can also be used.

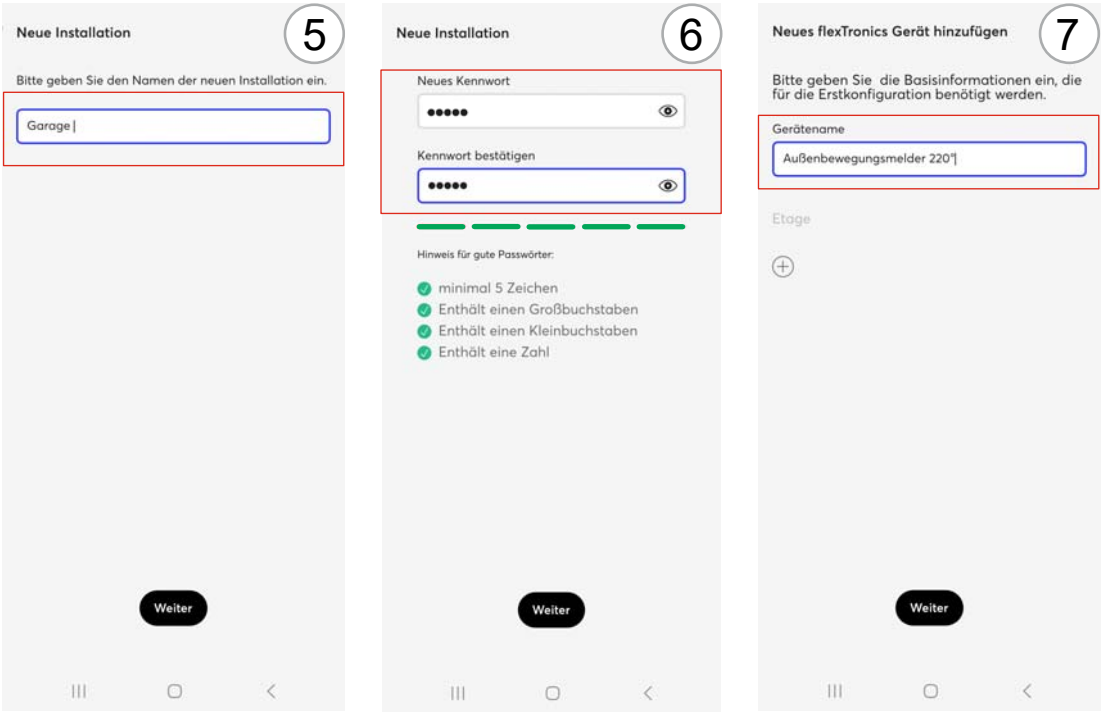


Fig. 2: Integrate device [5] - [7] (example illustration)

5. Assign a device name for the new installation and select "OK".
6. Enter a password for the new installation and confirm with "Next".
7. Assign a device name and position the device within the installation using the plus symbol. Then confirm the settings with "Next".

The device is connected to 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 back of the sensor head of the device.
- This method can also be used if the device is not energised. To do this, you must connect to the system once in the vicinity of the device after connecting the voltage, then the device will be added automatically.

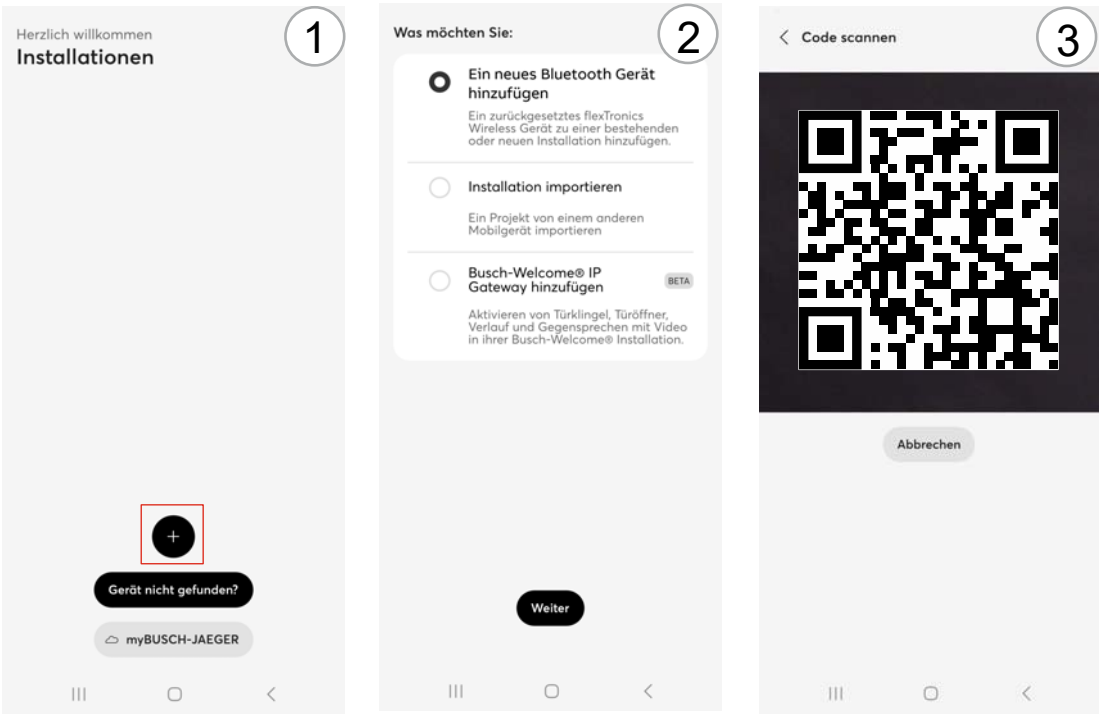


Fig. 3: Integrate device [1] - [3] (example illustration)

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

Notice

To be able to scan the QR code via the Busch-free@home® Next App app, you must authorise access to the camera when prompted to do so.

4. Select an installation or create a new installation.

Notice

If already available, an existing installation can also be used.

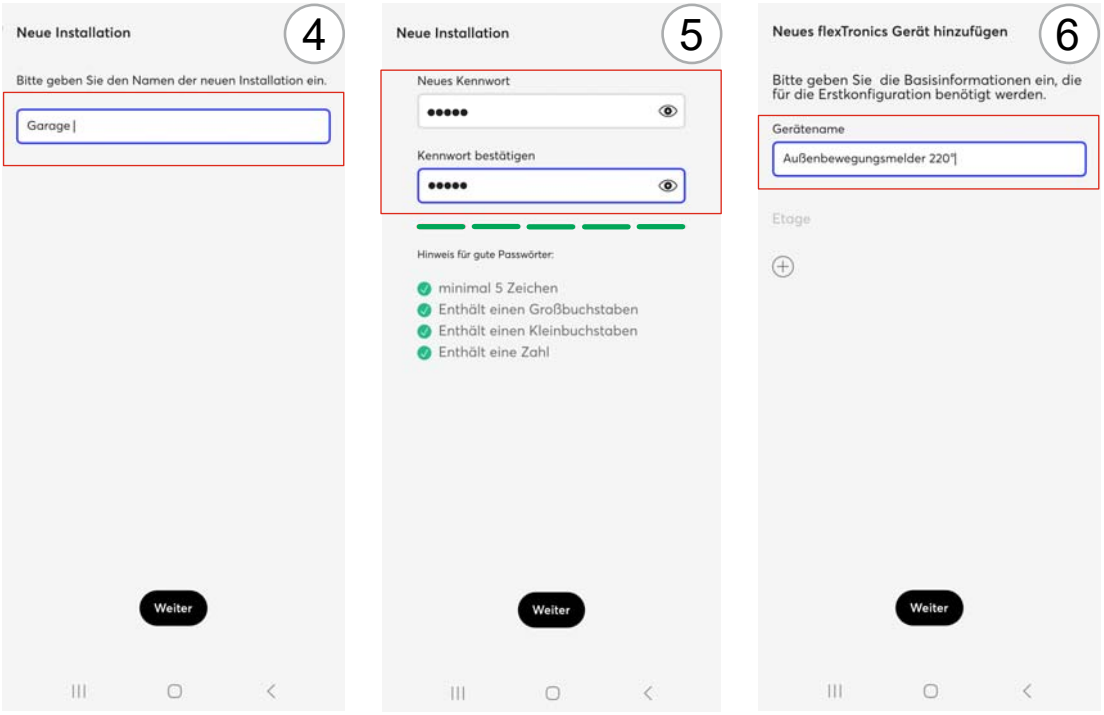


Fig. 4: Integrate device [4] - [6] (example illustration)

5. Assign a device name for the new installation and select "OK".
6. Enter a password for the new installation and confirm with "Next".
7. Assign a device name and position the device within the installation using the plus symbol. Then confirm the settings with "Next".

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

2.3 Handover of the installation

Project handover for individual control

With individual control (device control), the project can be easily transferred from one app to another by scanning a 2D code.

Fitter:

1. Call up the "More" menu item via the hamburger menu and switch to the "Installation settings" in the "Installation" area.
2. In the "Service" area, select the menu item "Transfer to another app".
   – A 2D code is generated, which can be read by the user app.
   – Alternatively, a file can also be created and sent via "Share as file". The file can then be imported or opened in the user app.

User:

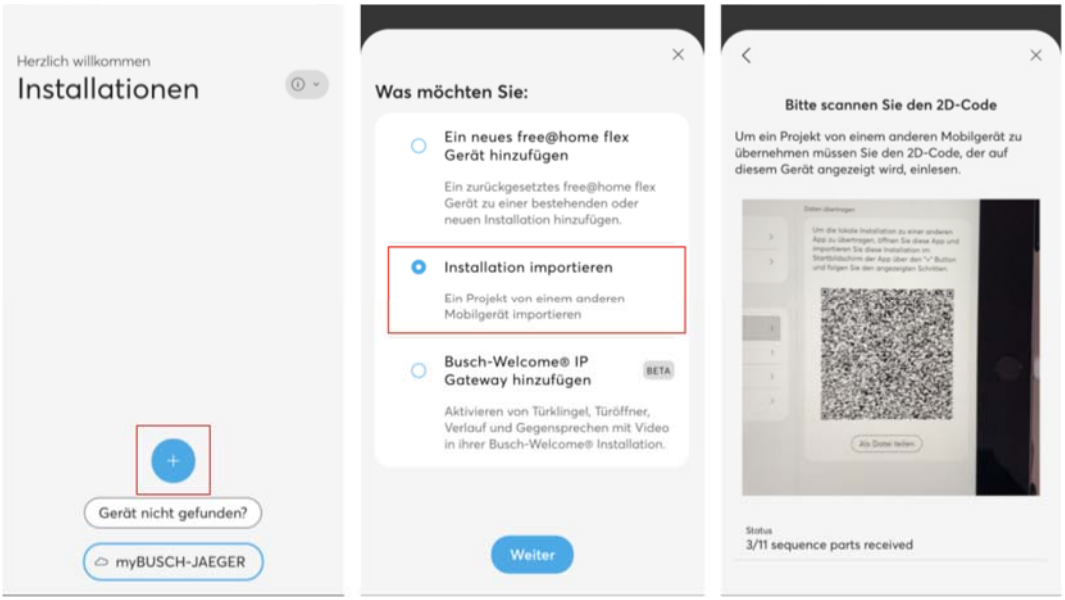


Fig. 5: User transfer

1. In the app Busch-free@home® Next App tap on the "+" symbol.
2. Select "Import installation" and confirm with "Next".
3. Scan 2D code.

Notice

– The project in the installer app must be removed manually after successful transfer.
– To be able to scan the QR code via the app Busch-free@home® Next App, you must authorise access to the camera when you are prompted to do so.

3 Operation

3.1 Parameter overview

To configure the parameters, select the installation and the desired device. Then scroll down to the parameters.

The overview shows the individual parameters in the order in which they appear during operation.

Notice
Some changes may need to be saved using the "Save" button for them to take effect.

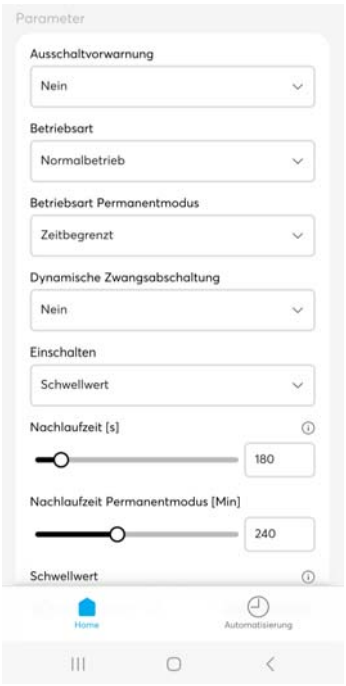


Fig. 6: Parameters section (example illustration)

Notice
The preselected default values are underlined in the parameter description. These default values are used if neither a value is entered nor a setting is made.

Switch-off pre-warning	
Yes	Before the light is switched off, the end of the lighting time is indicated via the connected load (e.g. an LED light source). The switch-off pre-warning is only active when the run-on time has elapsed, not when switching off manually. Expiry of the switch-off warning: 1. The device is switched on 2. The device switches off for 1 second 3. The device switches on for 9 seconds The process is repeated twice. The 30 seconds are added to the run-on time. This means that the appliance switches off after 30 seconds.
No	

Operation type	
Standard operation	Switching duration for a period of 10 seconds ... 30 minutes.
Short-time pulse	Short-time pulse of 1 second for activating e.g. door bells, staircase light timers. With continuous movement, the short-time pulse is repeated every 10 s (1 s on, 9 s off).

Operating mode Permanent mode	
This parameter refers to the "Permanent mode" function. Here, the light retains its current state regardless of movement, brightness and operation. If the "Permanent mode" function is activated in the app, the LED on the BW lights up red continuously.	
Time limited	Permanent mode is active for the time set under "Permanent mode run-on time".
Permanent	Permanent mode is permanently active.

Dynamic forced switch-off	
Yes	Depending on the set run-on time, but after 90 minutes at the latest, the motion detector switches the light off for approx. two seconds and determines the current ambient brightness value. The light is then switched on again depending on the movement detected and the set brightness switching threshold.
No	The dynamic forced switch-off is deactivated.

Switch-on	
Various settings can be preselected. If the ambient brightness falls below the selected criterion, motion detection causes the connected light to switch on.	
Always	– independent of the brightness
Threshold value	– 15 lx (factory setting) – Acceptance of current threshold value – Adjusts the switch-on to the currently measured brightness (see Threshold value parameter)
In the dark	– Function similar to the moon symbol on the selector switch, corresponds to 0.5 lux
Never	– Switching on can only be triggered via a button or app.

Follow-up time [sec.]	
10 sec ... 60 sec... 1800 sec.	Period of time that the motion detector waits after the last motion detection until the light is switched off again.

Run-on time permanent mode [min.]	
5 min ... 600 min	This parameter refers to the "Permanent mode" function. It is only available if the "Permanent mode" parameter is parameterised to "Time-limited". Permanent mode is active for the time set under "Permanent mode run-on time".

Threshold value [lx.]	
0.5 lx ... 15 lx... 1000 lx	This parameter is only available if the "Switch on" parameter is parameterised to "Threshold value". Used to set the brightness threshold value in lux for the "Switch on - Threshold value" parameter.
Current value	The current brightness value can be accepted as a setting using the "Current value" button. The brightness is measured by tapping (all LEDs are switched off briefly) and the measurement result is then transferred to the parameter.

Block local operation	
Yes	This function can be used to deactivate operation via the selector switch on the appliance. Operation is only possible via the app. **Note**: A master reset via the selector switch is also NOT possible if local operation has been disabled.
No	On-site operation is possible.

3.2 Operating functions in detail

Test mode / walking test

The walking test is used to check the detection range by pacing. A run-on time of two seconds is activated during the walking test; the device operates independently of brightness.

Activating the walking test

The device is in the walking test for 10 minutes (red status LED flashes quickly at 5 Hz):

- After an interruption in the operating voltage supply lasting longer than 15 seconds.
- When the selector switch is briefly set to "Test".
  - After activating the walking test, set the selector switch to the desired brightness value.
- By activating the switch at Busch-free@home® Next App.

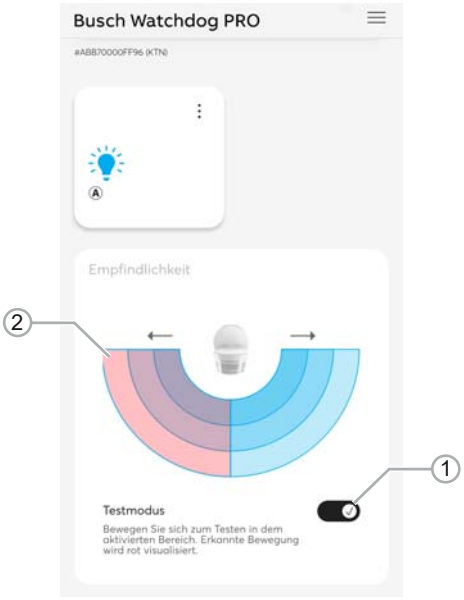


Fig. 7: Test mode activated (example illustration)

[1] Test mode switch

[2] Display of the detected movement (red)

1. Activate the slide switch [1] by tapping on it.
   - 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 the movement [2] is displayed in red.
   - In addition, each detection is indicated by the status LED on the device flashing rapidly.

Carrying out the walking test

1. Walk through the detection area.
   - Each detection is indicated by the status LED flashing quickly.
2. If necessary, adjust the detection area and test the adjustments by walking through it again.

Completing the walking test

The device terminates the "Walk test" function under the following conditions:

- Automatically 10 minutes after the start of the walking test if the selector switch has been set to any brightness value.

Manual termination of the walking test:

  – Turn the selector switch to any brightness value and then briefly to the "Test" position.
  – Now set the desired brightness value.

- Deactivate test mode by tapping the slide switch at Busch-free@home® Next App.

Reduction of the detection range / sensitivity

Notice
The detection area can also be restricted directly on the device. The detection angle can be specifically limited by gluing on the enclosed foil.

The detection range of the Busch-Watchdog® is 90° or 220° horizontally. Due to local conditions, it may make sense to restrict the detection area.

Notice
The detection range of the floor lens can only be restricted by masking the device, as detection is 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 area deactivated by tapping the fields. The possible extent of the reduction depends on the device.

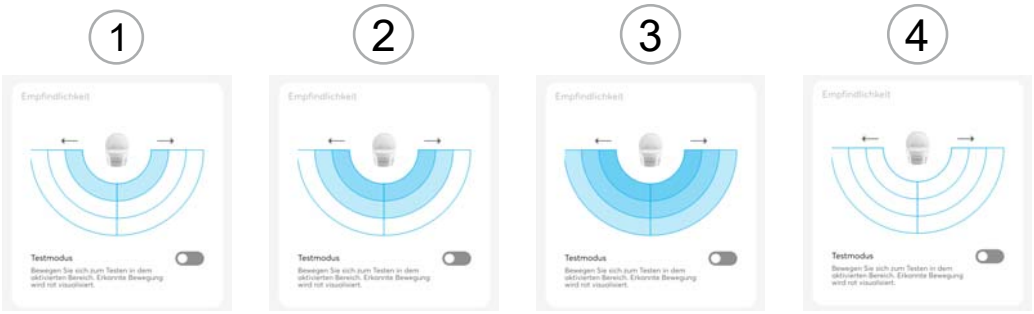


Fig. 8: Sensitivity ranges

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

Setting the sensitivity 6851/9-xxx

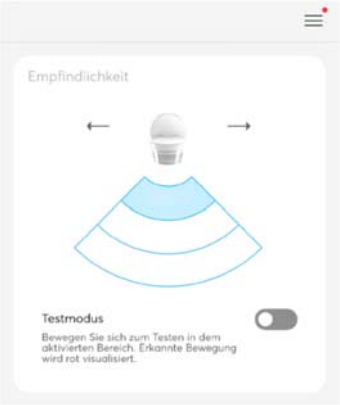


Fig. 9: Sensitivity 6851/9-xxx

Notice
Detection by the floor lens cannot be reduced via the app, as this is done with a mirror.

Setting the sensitivity 6851/22-xxx

Fig. 10: Sensitivity 6851/22-xxx

Notice
Detection by the floor lens cannot be reduced via the app, as this is done with two mirrors.

Setting the sensitivity 6851/22S-xxx

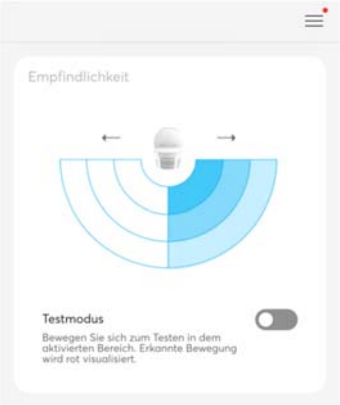


Fig. 11: Sensitivity 6851/22S-xxx

3.3 Automation/timer

Notice

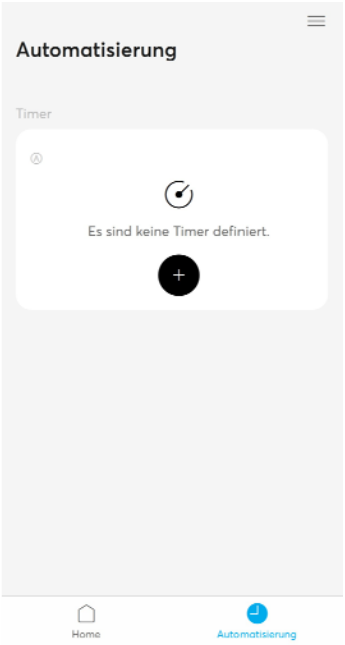
The device is not equipped with batteries.

– Time programmes are stopped in the event of a power failure.
– The time in the device is only synchronised again the next time you connect to the app.

Up to 28 switching times can be programmed via the automation. Each start time has a day of the week function and can be programmed for one or more days of the week.

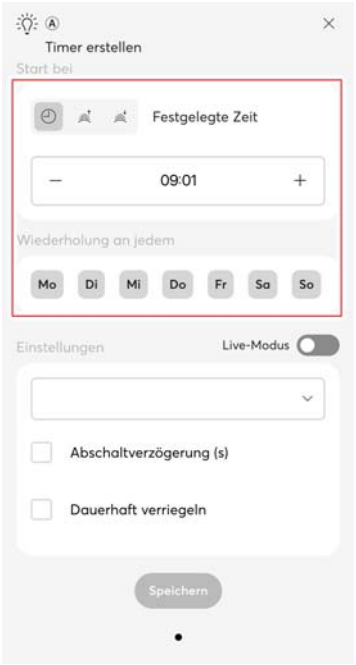
Below you can see the function and operating areas of the "Automation" app section.

Automation overview area



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

Automation Typing



- Determination of the type (fixed time, day and night-dependent)
- Definition of repetitions for weekdays
- Activation of the live mode

Automation Settings

- Definition of the switching function
- Activation / deactivation of functions
- Display the software version of the device

Note: The available settings depend on the typing.

3.3.1 Automation/timer settings

You can programme various switching times in the automation area.

The following overview shows the individual setting options and parameters in the order in which they appear during operation.

Notice
Any changes made must be saved using the "Save" button for them to take effect.

Notice
The respective default values are underlined in the overview. These default values are used if neither a value is entered nor a setting is made.

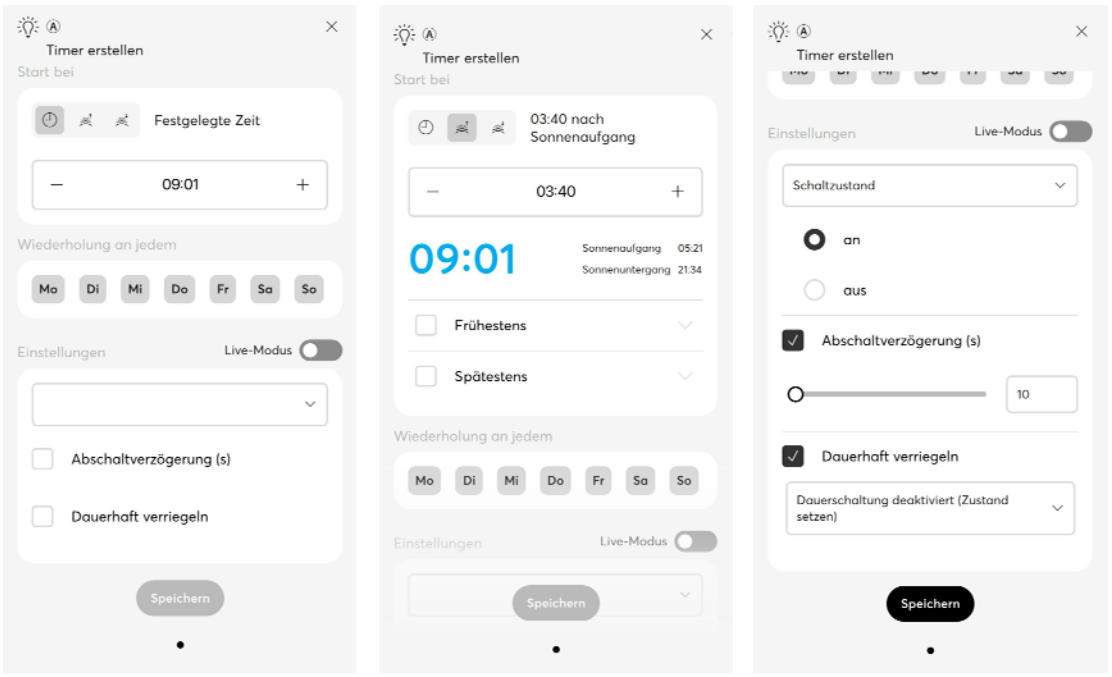


Fig. 12: Automation settings

Start with	
Fixed time	The timer starts at a predetermined time.
xx.xx after sunrise	Astrotimer where the start time is at a fixed offset relative to sunrise. Astro function 00:00 to 23:50
xx.xx after sunset	Astrotimer where the start time is at a fixed offset relative to sunset. Astro function 00:00 to 23:50
At the earliest	Specify the earliest time at which the timer should start.
At the latest	Specify a time at which the timer should start at the latest.

Repetition at every	
Mon, Tue, Wed, Thu, Fri, Sat, Sun	Specify the days of the week on which the timer should repeat.
Switch on every day of the week	The default setting. The timer switches at the same time every day of the week.

Live mode	
On	If the Live mode option slider is set to "On", the actuator assumes the state defined in the timer.
Off	If the Live mode option slider is set to "Off", the actuator does not assume the state defined in the timer.

Switching state	
On	The switching status of the actuator is set to on when movement is detected.
off	There is no change in the switching status.

Switch-off delay (s)	
10 sec ... 60 sec.... 1800 sec	Period of time that the motion detector waits after the last motion detection until the light is switched off again.

Continuously locked	
Permanent switching deactivated (set state)	This function activates the selected switching state in permanent mode. The permanent switching of the motion detector is permanently locked.

3.4 Global settings

Fig. 13: General settings

In the "General settings", the device name can be changed and the position (floor/room) within the house can be defined.

3.5 Settings / Maintenance

Fig. 14: Other - Settings / Maintenance

Information about the device

[1] Overview of the device data

Maintain

[2] Set and change device password

[3] Rebooting the device

[4] Read in new data/information

[5] Resetting the device

3.6 Firmware update

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

To carry out the firmware update, proceed as follows:

1. Tap "Update now" under the message "Device update available".
2. In the next window, tap on "Update".
   – The update is started, a progress bar shows the progress of the update.
   – Once the update is complete, the device restarts.
   – The message "Update successful" appears in the app.

3.7 Factory settings

Notice
Local operation can be disabled via Busch-free@home® Next App. In this case, both operation and the master reset via the selector switch on the device are deactivated.
The lock 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, if desired, must then be reconnected to the app.

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