User Guide

May 2022

homematic IP

Smart Living, Simply Exciting.

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1 CURRENT ISSUES

This user manual will inform you, on the one hand, about the technology, installation, commissioning and functioning of Homematic IP. On the other hand, you will find numerous answers to questions for everyone who is in home automation and Homematic IP in general.
You will furthermore be provided with basic information on the topic of smart home and radio technology, giving you valuable tips for planning and the optimum operation of the Homematic IP System.

2 INTRODUCTION

A smart home offers automation of recurring day-to-day operations and tasks in houses or flats: While using an appropriate system, different (technical) devices and functionalities can be connected within one household in order to control them as comfortably as possible and for the automation of recurring tasks.

In the following pages, you will find detailed information on Homematic IP in general, for start-up and for the control of your system.

2.1 eQ-3 - a Company

On the smart home market, eQ-3 counts among the innovation and technology leaders, and it is considered a pioneer especially in the home control area. In 2021, eQ-3 was thus elected - for the fifth time running - the European market leader[1]by Berg Insight, the renowned Swedish market research institute. With its own brands and OEM products, eQ-3 has a 40 % share of the installed base of all whole-home systems in Europe. Moreover, the manufacturer has more than 200 product types and thus the broadest portfolio in the smart home sector industry-wide. More than 2 million households were equipped to date with over 36 million radio solutions.

2.2 Overview of Homematic IP

Homematic IP helps turn your regular home quickly and easily into a smart home. The system will win you over, in particular, with its simplicity and reliability.
The steadily increasing product range comprises the areas of indoor climate, light and shading, safety and alarm as well as weather, environment and access. The practical starter sets offer the easiest way to get started. They can be flexibly expanded at any time. The system is thus suitable for any application: whether new construction or renovation, your own house or a rental accommodation.
Installation of the system is fast and simple, without prior knowledge, via the free Homematic IP smartphone app and a Homematic IP Access Point. The free of charge Cloud service enables control of the system via one or several smartphones – even while en route. Other operating options are directly available on Homematic IP equipment, via practical remote controls or by voice command via Amazon Alexa/Google Assistant.

The easiest way into the smart home – set up swiftly and intuitively
Homematic IP offers various possibilities for setting up a smart home. The Cloud solution of Homematic IP provides the ideal solution for everybody.

The easiest and most economical way of starting into the smart home is the **Homematic IP Access Point**. As a gateway, it provides the connection between the Homematic IP devices and the Homematic IP Cloud in which the setup and configuration of the system is anonymously stored — required is only recording the IP address for technical reasons. The free Homematic IP smartphone app is available as the operating element to download for Android operating systems and iOS. The combination of cloud and app enables a particularly swift, simple and secure setup and operation of the smart home.

1 Smart Homes and Home Automation Study (02/2021) Berg Insight concerning "Whole Home" systems

Single devices are configured by the free Homematic IP Cloud Service, which is run exclusively on servers located in Germany and therefore complies with European and German data protection guidelines. Furthermore, all communication between the Access Point, cloud and app is encrypted. Neither during nor after installation of the app, you will need to provide private data such as name, email address or mobile phone number.

All products communicate via the robust and reliable 868 MHz Homematic IP Wireless Protocol. There are no interferences caused by WLAN, Bluetooth or other radio standards operating within the 2.4 GHz frequency band.

Anonymity for maximum data protection
Your home is the most crucial private area. This is where you want to feel not only at ease and secure but safe as well. Accordingly, the decision for a smart home should certainly not come at the cost of any compromises in the areas of data protection and security.
Homematic IP can also be relied upon at this point. Because your privacy is already protected in a first step: No personal data are queried or recorded for the system setup – aside from the technically necessary IP address. Moreover, all data saved in the Homematic IP Cloud are provided on servers in Germany and are thus subject to the German and European data protection guidelines. Homematic IP is the only smart home system whose protocol, IT and data security has been certified by VDE.

In addition to the security of your data, the transmission security also ranks first. The communication of Homematic IP is secure and cannot be manipulated. Any reading or changing of data or other kinds of attack are impossible. Approved procedures are used for it which are also applied in online banking.

Offline operation – direct communication of devices without the internet
"A cloud-based smart home does not work without the internet" – that's just one of the innumerable prejudices concerning smart home systems, and for some providers, this might even be true. Homematic IP proves just the opposite: Owing to the use of the IPv6 protocol, every Homematic IP device has its own IPv6 address for communication within the system. Thus, storage of information and device status is enabled directly in the devices themselves – without use of the cloud. Such direct communication among themselves results in a high fail safety and very low latencies, thus remarkably fast execution of commands.
While an internet connection is required for the setup and control, the basic functions are working offline anytime. This comprises the direct operation on the devices (for example, to switch on the light), the execution of heating, time and shading schedules, as well as local alarms in the security area.

Homematic IP received several awards already
Homematic IP is convincing in every respect and also scores all around the important security standards. This is confirmed by independent institutes: In March 2020, the AV TEST Institute distinguishes Homematic IP already for the third time running as a data protection-friendly, smart home solution.
Moreover, Homematic IP is the first smart home system whose protocol, IT and data security has been certified by VDE. In this respect, the tests concern not only the total system but also, in detail, the Access Point, the backend version, the respectively valid iOS and Android app versions as well as the wireless-based protocol.

In examinations by the German product testing foundation 'Stiftung Warentest', Homematic IP products also achieved time and again top marks in the tests. These products include, among others, various radiator thermostats.

Yet more possibilities thanks to open interfaces

Homematic IP covers many user wishes with the product portfolio. Moreover, the system can be operated with Amazon Alexa and Google Assistant which not only enables comfortable voice control, but also the preparation of individual, multi-vendor scenarios. The open system interfaces are additionally used for tying in other IoT platforms, such as Home Connect + or mediola. That's how the smart home will become even more individualized and more extensive.

* Smart Homes and Home Automation study (02/2021). Berg Insight on whole-home systems.

2.3 Application areas

Room climate
Homematic IP offers demand-based control of radiators room-by-room in the entire house, enabling increased living comfort and energy savings of up to 30 %. The Homematic IP Window / Door Contact detects open windows and doors and automatically turns down the heating during ventilation. In addition, efficient floor heating control that offers operation via app can be realised with Homematic IP. The system detects the required heating demand for individual rooms and – unlike conventional heating circuit control systems – intelligently circulates the hot water into the different heating zones. This provides load balancing and efficient energy distribution thanks to the continuous flow of heating water. The room temperature can be regulated via radiator thermostats, an installed wall thermostat or simply via app. Also, individual heating schedules can be created with Homematic IP. Afterwards, your heating is controlled automatically and makes everyday life easier. However, you can still react flexibly to changed conditions and adjust the desired temperature according to your needs.

Security and alarms
No movement goes unnoticed with Homematic IP security components. Our security and alarm products increase the protection against break-ins and the sense of security inside one's own four walls.
In alarm mode, users are informed whenever windows and doors are opened. Motion detectors offer reliable monitoring for inside and outside areas while sirens trigger an alarm in case of break-ins.
Just a quick glance at the app is all it takes to see that everything is as it should be at home. So you no longer need to worry about windows and doors being left open. And that even if you're thousands of miles away.
The alarm mode can be easily activated via app or Homematic IP Key Ring Remote Control. If the presence mode is activated, the system triggers an alarm as soon as windows or doors are opened unauthorised, for example. If the absence mode is activated, sensors for indoor areas like the motion detectors are additionally included. In case of an alarm, an audio signal can be triggered not only via the Homematic IP Siren; a push notification can also be sent to all registered smartphones. The event protocol provides an overview of all activities in your home at any time.

Access
With Homematic IP, you can easily make your front door smart and turn your smartphone into a digital key. The door can thus be opened at any time via the free smartphone app or via the practical remote control.
Thanks to configurable access authorizations, access to the smart home can be individually managed – regardless of the day of the week or the point in time. The front door can only be opened when you want it to. Thus, for example, cleaning personnel or nursing care services can access the house only at specific times and via Key Ring Remote Control.
Is the front door really locked? Thanks to scheduled locking and unlocking, this question is moot. You can schedule the front door to lock automatically at any desired time (e.g. over night) This not only increases the security of your smart home, but it also saves you from having to go check the front door. For those who want to play it safe, you can also schedule the front door – after each unlocking action – to automatically relock the door immediately again.

Light and shade
Comfortable switching and dimming of lights creates a sense of well-being at your home. Thus, a comfortable atmosphere for TV evenings is created via the app as the ceiling light is dimmed to a desired brightness level while the floor lamp is switched on. Also, the sense of security is increased with an illuminated driveway or house façade in the evening.
Shutters and blinds darken rooms; they create a sense of privacy and increase security. With our shutter and blind actuators, the window coverings can be set up with just a few turns of the hand via the Homematic IP App. Afterwards, they can be raised or lowered automatically.
The actuators are conveniently controlled via individual week-long profiles that also factor in sunrise and sunset. Furthermore, active shutters and blinds make the home look inhabited even if you are not at home. In addition to the anti-burglary effect of shutters, our solution thus actively increases security. Another advantage: In case of increased room temperatures due to strong sunlight, shutters or blinds are automatically lowered to prevent the rooms from heating up.
The Homematic IP Blind Actuators also allow the exact adjustment of the slats position of exterior and interior blinds. If necessary, awnings can also be integrated into the smart home using our products. The automatic storm protection avoids damage to shutters, interior blinds, or awnings during unfavourable weather conditions and thus raises or lowers the window coverings.

Weather & the environment
With the weather sensors, the Homematic IP smart home system is automatically adjusted to the particular weather condition. In connection with other Homematic IP devices, the sensors can automatically trigger commands for moving awnings, interior blinds or shutters up or down in case of certain weather conditions, providing active protection of your home. In this respect, users have almost unlimited possibilities for creating individual rules. Thus, it is possible for example, in case of strong sunlight and inactive security mode, that the awning is automatically extended to 80 % or that, with a previously defined rainfall volume, the drainage pump is activated for a certain period of time.

2.4 Summary – Discover why Homematic IP is the first choice

- **Simplicity**
  The entire solution can be intuitively set up and comfortably controlled via smartphone app. Single devices are configured by the Homematic IP cloud service. As the devices communicate via radio, they can be retrofitted into houses really easily and also expanded at any time.
- **Interference immunity**
  Homematic IP is based on the 868 MHz radio band. There is no interference whatsoever from WLAN, Bluetooth, video streaming or other users of 2.4 GHz.
- **Superior range**
  Reliable communication between Homematic IP devices works even over a distance of a few 100 meters. Even for remote places, you need not worry about the functionality of your chosen smart home solution.
- **Uncompromising security**
  Already during installation of the system the communication of Homematic IP is secure and cannot be manipulated. During operation, all radio packages are encrypted and authenticated. Reading, changing or repeating data or other kind of attacks are impossible. Similar to online banking, the universally accepted AES-128 and CCM standards are used. The Homematic IP Cloud operates exclusively on German servers. Homematic IP is the first smart home system for which VDE certified not only the IT and data security from smartphones via the cloud all the way to a gateway inside the house, but for which certification of security was also realised for the wireless protocol.
- **Battery operation**
  Homematic IP focusses, among others, on battery operated devices in order to enable smart home installations also in existing buildings. The products can be easily screwed on to radiators or stuck to walls. Thanks to the low energy consumption of the devices, batteries usually only need to be replaced every two years, or even less frequently.
- **Reliability**
  The radio communication between Homematic IP devices is always going on bidirectionally. The receiver confirms every radio command that is sent to him and reports to the sender that a command was recognised and executed. Thanks to IPv6 , the system has a secure future and is optimally prepared for the internet of things. Bidirectional communication offers increased reliability for every system. On the other hand, and based on the type of feedback, you are informed about the current status of the devices involved at any time (e.g. window status or switching state).
- **Privacy policy**
  For setting up the system, no personal data has to be provided, except the IP address. The Homematic IP Cloud is only operated on servers located in Germany. The operation does therefore comply with European and German privacy policies.
- **Experience**
  Homematic IP is the smart home solution and technology by eQ-3 AG. Based on long-term experience in developing wireless smart home products, eQ-3 has established itself as the European market leader*[2] in home control.

2 * according to Berg-Insight (02/2021). Installed base of whole-home devices.

3 COMPONENTS OF THE HOMEMATIC IP SYSTEM

3.1 Homematic IP devices

The devices of the Homematic IP system are characterised by an attractive, uniform product design. Largely determinative were the main aspects of ergonomics and usability. This applies to the individual devices whose design and functional elements were reduced to the essentials, which significantly simplifies the operation.

Detailed information about the single Homematic IP devices can be found in the product datasheets of the Homematic IP devices, available for download at the website *www.homematic-ip.com*.

3.2 Homematic IP Cloud

The **Homematic IP Cloud** enables communication between the app and the Access Point as well as saving and managing of system relevant data. This encompasses e.g. information about which devices have been added or connected, as well as details about the configuration.

All communication between the Access Point, *cloud* and app is encrypted. The system can be put safely into operation without entering any private data – exclusively by scanning the QR code and pressing the button at the Access Point; solely the IP address is necessary for technical reasons.

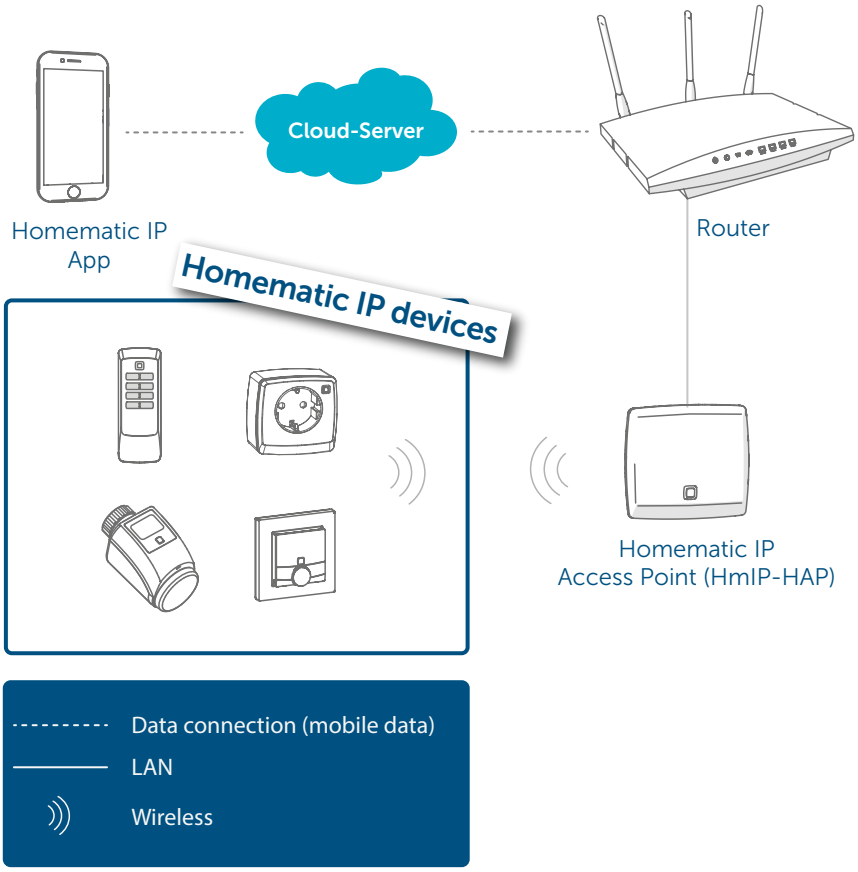
3.3 Homematic IP smartphone app

Via the **Homematic IP smartphone app** you can set-up your smart home solution. The app offers step-by-step guidance through the entire installation process. All necessary links between the devices are established automatically.
After set-up, the app takes over the function of a central control unit, enabling you to control and configure your entire Homematic IP system. In addition, the app informs you about the current status of your devices at all times.

No matter where you are:
With the free smartphone app, you have everything in sight. Control your smart home at any time from any place.

Simply comfortable.

3.4 Operating principle of Homematic IP



All data stored in the Homematic IP Cloud are completely anonymous. That means they do not permit any conclusions about the user's identity and the individual user behaviour – it is only required to record the IP address for technical reasons. The identification of a Homematic IP user is – even theoretically – only possible as part of a criminal prosecution and based on a court order.

The Homematic IP smartphone app – together with the cloud and the Access Point – enables the setup, programming and controlling of your smart home system. A scan function in the app makes integration of individual Homematic IP components into the system very easy by scanning the device QR code. To make sure that the system continues to run even in case of an internet failure, all necessary links among the devices are determined by the Homematic IP Cloud Service and created automatically. Thanks to direct links among the devices, it is ensured that the operation still continues even during an internet failure.

All communication between the Access Point, *cloud* and app is encrypted. Neither during nor after installation of the app, you will need to provide private data such as name, email address or mobile phone number.

4 HOME CONTROL BY WIRELESS TECHNOLOGY

4.1 Wireless range

eQ-3 benefits from more than 40 years of experience in the field of wireless technology for smart home applications. Homematic IP is based on particularly effective and robust wireless technology like Homematic and has proven its market success with millions of devices.

The wireless range of Homematic IP exceeds the standard requirements of a typical installation. Depending on the device type, a wireless range between 150 and 400 meters in the open air can be reached. Experience shows that, in less than 1 % of the installations, repeaters are used to extend the wireless range.

Radio waves behave in a similar way as sound waves. They can penetrate walls and spread out in all directions. Similar to the volume of sound, the energy of radio waves decreases with distance. Thus, the range of radio waves is limited.

In practice, there are factors that can influence the radio signal in a positive and negative way, compared to the range in the open air.

Information on the extension of the wireless range is found in section *(see section "4.2 Advanced routing" on page 16).*

Information on the extension of the wireless range is found in(see section "4.2 Advanced routing" on page 16).

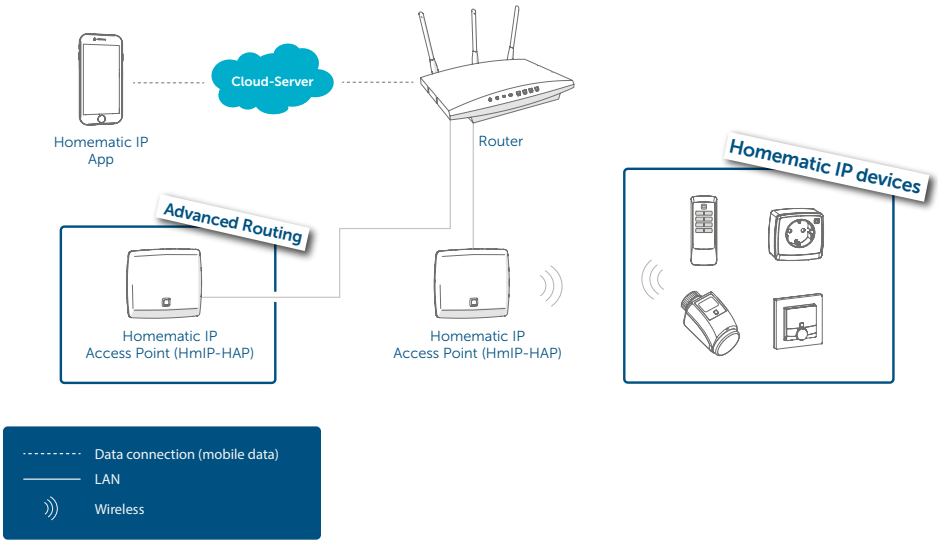
The following table gives an overview of the damping effects of individual building materials:

Building material	Damping
Pumice stone/autoclaved aerated concrete	◐○○
Gypsum and gypsum plasterboard	◐○○
Uncoated glass	◐○○
Metallised glass	●●○
Wood	◐○○
Metal grille (e.g. in plaster)	●●●
Press boards	○○○
Stone slabs	●○○
Brick	●○○

4.2 Advanced routing

Due to the extension of the Homematic IP Protocol with advanced routing, the Homematic IP system will become even more flexible and provides the following advantages:

- ✓ Extension of the wireless range via additional Access Points to practically any arbitrarily sized buildings or in more remote living areas, such as e.g. the garden house.
- ✓ Fail safety for direct links between Homematic IP devices by tying in an additional Access Point.



4.2.1 Range extension

Generally, Homematic IP wireless components communicate – owing to their open field range of about 150 to 400 meters – trouble-free even over considerable distances within buildings. However, it cannot be excluded that the range is impaired in case of larger buildings, unfavourable structural conditions or non-ideal placement of components.
In order to optimise the wireless range in these cases, Homematic IP principally offers two possibilities:

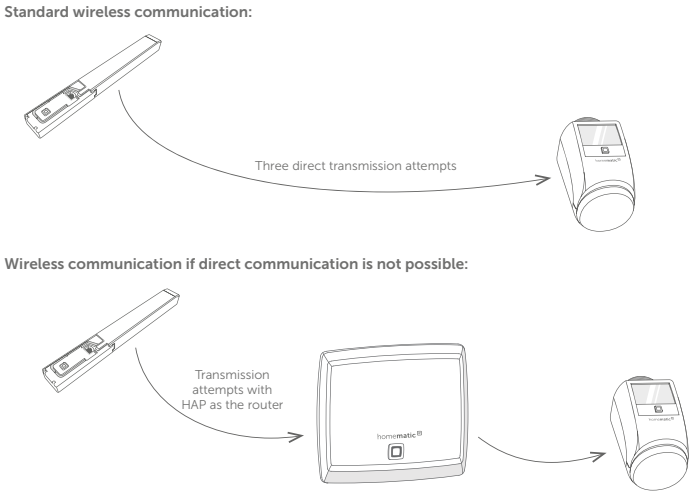
- Range extension by an additional Access Point (HmIP-HAP)
- Range extension by Pluggable Switches or Pluggable Switches and Meter, respectively

4.2.1.1 Range extension by an additional Access Point

Expansion of the Homematic IP Protocol renders it possible to tie in an additional Access Point into a Homematic IP installation. Thanks to advanced routing, the wireless range can be significantly increased, if necessary; for example, if the optimum wireless covering over several floors or in larger buildings is concerned.
In a comparison regarding range extension with Homematic IP Pluggable Switches or, respectively, Pluggable Switches and Meter, the use of an additional Homematic IP Access Point is to be preferred. This provides the advantage that the duty cycle[3] of an installation – due to increased radio communications – is not reached as fast if an additional Access Point is used than in case

3 The duty cycle is a legally regulated limit of the transmission time of devices in the 868 MHz range. In the 868 MHz frequency range which we use, the maximum transmission time of any device is 1% of an hour (i.e. 36 seconds in an hour). When they reach the 1 % limit, the devices must cease transmission until this time restriction comes to an end. During normal operation, the duty cycle is not usually reached. However, repeated and radio-intensive pairing processes mean that it may be reached in isolated instances during start-up or initial installation of a system. The device will start working correctly again after a short period (max. 1 hour).

of the use of Pluggable Switches or, respectively, Pluggable Switches and Meter.
After you set up a range extension and checked the functionality, the position of the Homematic IP components, whose signal was to be strengthened, as well as that of the Access Point should not be changed if at all possible.



4.2.1.2 Range extension with Homematic IP Pluggable Switches or, respectively, Pluggable Switches and Meter

In addition to switching connected consumers with the "range extension" function, Homematic IP Pluggable Switches (HmIP-PS) or, respectively, Pluggable Switches and Meter (HmIP-PSM) may also be used, if necessary, for further transmission of radio commands. In this case, after three unsuccessful sending attempts by the sender to the receiver, the sending command is sent to the pluggable switch and meter acting as a router; and from there, it is further transmitted to the receiver.

Not more that two Pluggable Switches or, respectively, Pluggable Switches and Meter, that are configured for range extension, can be used in a row as routers.
After the range extension has been set up and the functionality been verified, the position of the Homematic IP components whose signal was to be strengthened, as well as the Pluggable Switches or, respectively, Pluggable Switches and Meter should not be changed any more, if at all possible. Please keep this in mind especially for mobile devices like Homematic IP Remote Controls.

Proceed as follows to activate the range extension:

- Tap on the main menu symbol "... More" and there on „Overview of devices".
- In the overview of devices, select an installed Homematic IP Pluggable Switch or Homematic IP Pluggable Switch and Meter.
- Tap on "Range extension".
- In the following screen tap on "Activate". By tapping on "Done", the range extension will be activated.

Only activate the range extension if it is really required to avoid any unnecessary routing or radio traffic. You can deactivate the range extension again via the app at any time.

The Pluggable Switch or, respectively, the Pluggable Switch and Meter can continue to be used for normal operation and switching of connected loads, even after activation of the range extension.

Activation of the range extension via the Homematic IP Pluggable Dimmer is not possible.

4.2.2 Use of several Access Points/device limits

The number of possible devices which can be simultaneously operated in a Homematic IP system is determined by the number of Access Points in the system. Operation of the first Homematic IP Access Point (HmIP-HAP) enables the use of a maximum of 80 devices. With an additional Access Point, another 40 devices can be added, thus increasing the number of maximum devices per installation to 120.

The Access Points act as routers and provide for maximum fail safety in the system and practically unlimited wireless range. If several Access Points are used in an installation, Homematic IP devices now automatically select the path with the best connection quality when sending commands or status information. This is advantageous, for example, for installations in larger buildings or on several floors. If the Access Point is placed on the ground floor for example, another Access Point may be used to expand the range for communication with devices on the upper floor or in the garden house.

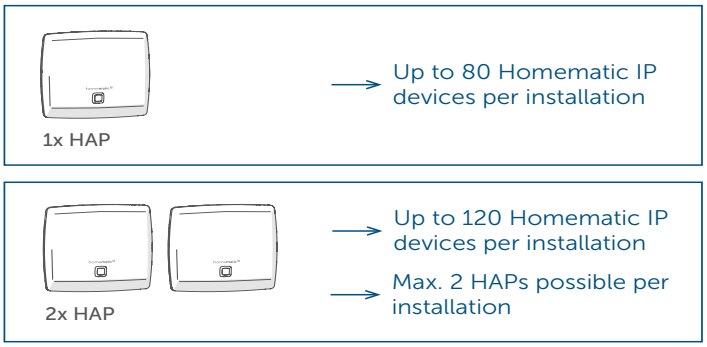


Figure 1: Combination and limits of Access Points

5 SETTING UP THE HOMEMATIC IP SYSTEM

5.1 First steps

You can easily and intuitively set up your Homematic IP installation using the smartphone app "Homematic IP"; this was developed exclusively for the configuration and control of the Homematic IP smart home system. Individual Homematic IP devices are started in operation as presented in the respective operating instructions.
In just a few steps, your system is already installed:

- ✔ Check the system prerequisites.
- ✔ Install the free smartphone app.
- ✔ Set up the Access Point.
- ✔ Register the Access Point to the server.

You can now train by smartphone app all Homematic IP devices you want to use in your installation; you can subsequently configure your system.

5.1.1 System requirements

For setting up the system, you will need the following components:

- Homematic IP Access Point
- Smartphone with current Android or iOS version
- Router with active internet connection

5.1.2 Download the free app

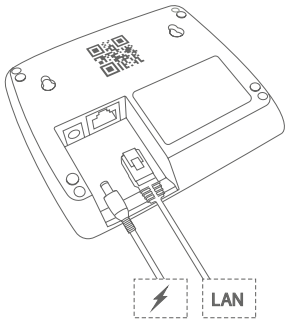
The free app can be downloaded in the Google Play Store (for Android smartphones) or in the iTunes store (for iPhones) directly to your smartphone.

- Start the Homematic IP App on your smartphone.
- Confirm the General Terms and Conditions as well as the Data Privacy Statement via the button "Confirm" (Android) or "Accept" (iOS).

5.1.3 Set up your Access Point

The following step-by-step instructions describe the startup of a Homematic IP system by means of a Homematic IP Access Point (HmIP-HAP).

- The menu item "Set up your Access Point" is displayed in the app.
- Follow the instructions and connect your Homematic IP Access Point using the supplied network cable to your router.
- Provide power to your Access Point using the supplied plug-in mains adapter.



As soon as power is supplied, the Access Point establishes a connection to the server. Different flashing sequences of the device LED inform the user during set-up about the current status of the Access Point.

During the initial startup of the system, there might possibly be a direct update of the device software (firmware) of the Access Point. This results in a more frequent change of the device's flashing action.

Information regarding the LED flashing sequences of the Homematic IP devices are found in the section *"Overview flashing behaviour of Homematic IP devices" on page 117*.

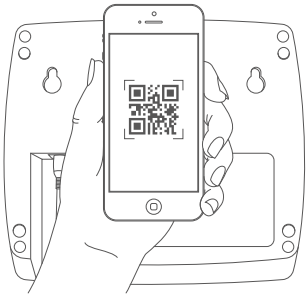
In case of an active internet connection, the flashing sequence is generally as follows upon startup of the Access Point:

Flashing code	Meaning	Solution
Permanent orange lighting	Homematic IP Access Point starts up	Please wait until the device has started and observe the subsequent flashing behaviour.
Fast blue flashing	Connection to the server is being established	Wait until the connection is established and the LED lights permanently blue.
Permanent blue lighting	Connection to the server is being established	Standard mode - you can continue operation.

Additional flashing codes which can be shown via the LED of the Access Point:

Flashing code	Meaning	Solution
Permanent turquoise lighting	Connection to the server is active; display of a secondary Access Point	Standard operation upon the use of more than one Access Point.
Fast yellow flashing	No connection to network or router	Connect the Access Point to the network or the router, respectively.
Permanent yellow lighting	No internet connection	Please check the internet connection and firewall settings.
Alternately long and short orange flashing	Update is carried out (only if required)	Please wait until the update has been completed.

5.1.4 Register Access Point to the server



If the connection to the server is established, you can register your Access Point to the server.

- In the app, tap on the “Scan” button.
- Scan the QR code on the back of your Access Point. To this end, position the QR code in the centre of the frame of your QR scanner integrated in the app.

After scanning the QR code, “QR code detected” is displayed in the app for confirmation.

Alternatively, you can manually enter the individual device number (SGTIN) of your Access Point. This can be found under the QR code on your device. To do this, tap on the button “Enter”; enter the last four numbers of your SGTIN manually and confirm after entering all numbers with .

- Tap on “Yes” if the device LED of your Access Point lights up permanently blue.

If this is not the case, tap on “No” and follow the instructions in the app.

- The Access Point is registered to the server. For confirmation, press the system button of your Access Point.
- After successful registration, the Access Point is set-up immediately ready for use. Tap on “Done” and you will get to the homescreen of the app.

With existing installations, the Access Point appears in the app’s overview of devices in the room “Access Points” and can be moved from there into another room if necessary. The room “Access Points” can be activated or deactivated, for presentation in the home screen, in the main menu under settings, home screen, display of rooms. For new installations, add the Access Point to a desired room.

You have the opportunity to adjust the brightness of the system LED on the Access Point (0 - 100 %). To do this, go to overview of devices in the main menu and select the Access Point there. The function “brightness system LED” is here available for configuration.

5.1.5 Adding a new smartphone

In order to add a new smartphone to an existing installation, proceed as described in the following. Please note that the new smartphone must be close to the Access Point.

- Install the Homematic IP App on your smartphone.
- Open the app; follow the instructions. As soon as the app instructs you to, please scan the QR code of the Access Point and press the system key. If a PIN was already assigned beforehand for the installation, please enter it now.
- The already installed system is displayed on the new smartphone.
- Subsequently, go to settings – user overview in the main menu. You can there delete the old smartphone, if necessary.

If you start up a new smartphone and use a backup for restoring your smartphone profile, the Homematic IP App must first be uninstalled and subsequently reinstalled. The data of your Homematic IP system do not get lost and, after new installation of the app and a renewed registration with the Access Point, they will be restored.

5.1.6 Deleting a smartphone from the installation

Proceed as follows to delete a smartphone from your installation:

- Tap on the main menu symbol "... More" at bottom right on the home screen, and there on "Settings".
- Tap on "User overview" to view the list of all linked smartphones.
  Delete the desired smartphone by swiping to the left in the relevant line (iOS) or long-tapping on the line (Android) and then selecting "Delete".

After deleting the smartphone, the user can no longer access the app of the Homematic IP system.

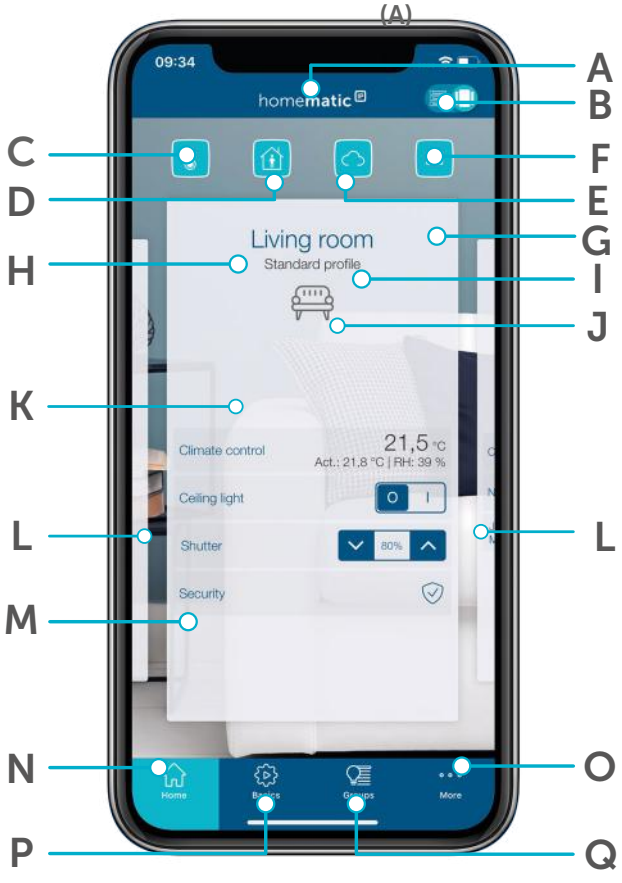
5.2 Homematic IP App

5.2.1 Home screen

Using the button top right in the home screen, you are able to select between a tile view and a list view.

5.2.1.1 Tile view

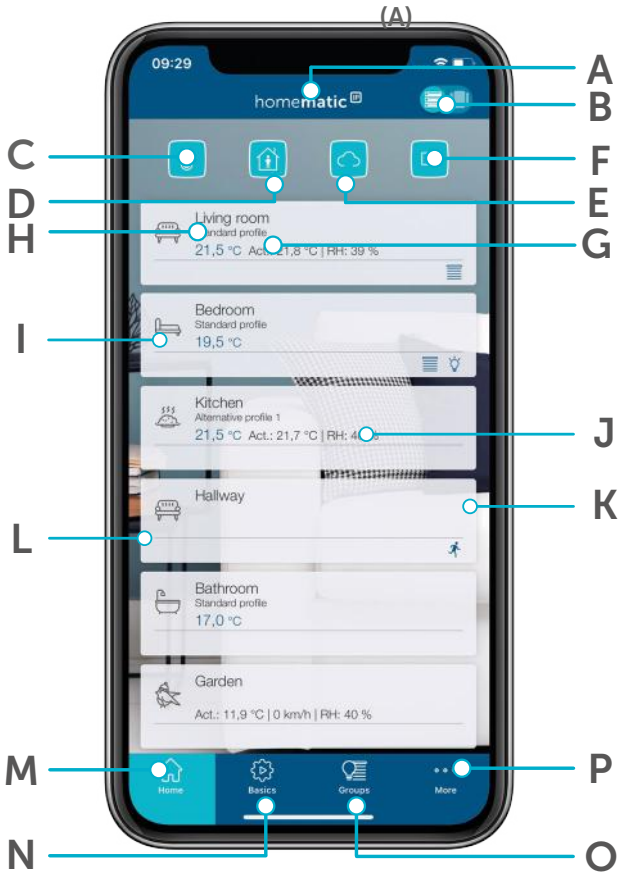
In the tile view, every room created is individually presented via a central tile which can be individually covered with up to four Home favourites. In this view, all essential information of a room are gathered at a glance. Using horizontal wipe gestures, you can swiftly and intuitively change from room to room.



(A) Optional: Multi Home administration (change to another Homematic IP system while using several Access Points)
(B) Button for changing between the tile and the list view
(C) Operating mode for heating schedules (eco, automatic, holiday)
(D) Alarm mode (fuzzy, presence mode, absence mode)
(E) Local and weather information as well as display of the values of outside sensors
(F) Window status (display about opened windows)
(G) Warning and informational notes symbols
(H) Room name
(I) Current heating schedule
(J) Room icon (adjustable via room menu)
(K) Room tile
(L) Additional rooms (view by wiping to the left or right)
(M) Home favourites (individual adjustment for quick access to selected functions; only available in tile view)
(N) Home button for access to the home screen
(O) Main menu
(P) Basics (managed arrangement of basic functions, such as PIN allocation, adjustment of location or registering a first device)
(Q) Groups (operation of switching and shading groups)

5.2.1.2 List view

The list view shows the rooms individually one below the other. Several rooms can be simultaneously clearly presented in the home screen. The nominal temperature is shown in rooms with radiator thermostats. If a wall thermostat is installed in a room, the currently measured actual temperature as well as the humidity are presented in addition to the nominal temperature. Moreover, if relevant information is available, warning and information symbols are shown in the pertinent room. Tap on the room tile to invoke other configuration settings for the room.



Optional: Multi Home administration (change to another Homematic IP system while using several Access Points)

(B) Button for changing between the tile and the list view

(C) Operating mode for heating schedules (eco, automatic, holiday)

(D) Alarm mode (fuzzy, presence mode, absence mode)

(E) Local and weather information as well as display of the values of outside sensors

(F) Window status (display about opened windows)

(G) Current heating schedule

(H) Room name

(I) Room icon (adjustable via room menu)

(J) Display of nominal temperature in the room (when using a radiator thermostat) as well as actual temperature and humidity of the air (when using a wall thermostat)

(K) Status symbols as well as warning and infor mation symbols

(L) Room tile

(M) Home button for access to the home screen

(N) Basics (managed arrangement of basic functions, such as PIN allocation, adjustment of location or registering a first device)

(O) Groups (operation of switching and shading groups)

(P) Main menu

5.2.2 Room menu

Tapping on the room name (both in the tile and the list view) will open the room menu. Further adjustments can here be made for the pertinent room.
The room menu is structured according to the solution areas available for the pertinent room (e.g. here room climate, light, shading, security). For every solution, different settings can be provided, such as e.g. selection of the heating schedule.

Figure 2:Screenshot room menu

It is possible – through the selection "processing" – to provide configuration settings for the pertinent solution, to process Home favourites (only in the tile view), change the room icon, to rename the room, to sort anew the standard view in the room menu or to delete the room. Tapping on "devices" will show all devices allocated to the selected room.

5.2.2.1 Determine individually the home favourites

In the **tile view** you are able to individually determine your home favourites for a room. Up to four favourites can be determined per room. This enables the control of numerous room-specific functions (e.g. switching the lights or moving shutters up and down) directly above the tile view.

- Tap on the room name to access the configuration menu.
- Determine via *processing – processing home favourites* which information in the pertinent tile is to be presented in the home screen.

The selection of favourites differs depending on the installed system components. In the list view, it is not possible to determine home favourites.

5.2.2.2 Changing room icon

Depending on the selected room designation, Homematic IP allocates icons as a standard already for the various rooms. Via the menu item "Change room icon", you have the option to select, at any time, its own icon for the room tile in the home screen.

5.2.2.3 Rename room

Within the Homematic IP App, there are different possibilities to change the name of a room. Please proceed as follows in the room menu:

- Tap on the room name.
- Tap on "Processing" in the room menu.
- Tap on "Rename room".
- Please enter a new name. After tap on "Confirm", the new name will be saved.

5.2.2.4 Default view

You can determine under Processing – Default view which solution is to be shown first (room climate, light, shading, security or access) for the default view in the selected room when the room view is opened.

5.2.2.5 Delete room

Within the Homematic IP App, there are different possibilities to delete a room. In the room menu, use the menu item "Delete room" under "Processing".

If there are still devices assigned to a room, you first have to delete all devices in the device overview of the room.

5.2.3 Overview of symbols

In the device overview, as well as in parts on the home screen, certain information on the devices is indicated via symbols.

General and status symbols	
	Eco mode
	Cooling mode
	Party mode
	Holiday mode
	Window tilted
	Door locked
	Door unlocked/opened
	Garage door opened
	Garage door closed
	Garage door in ventilation position
	Light on
	Sunset
	Sunrise
	Shutter/blind moved down (from 1 % shutter level)
	A time profile has been allocated to the device.
	Shutters/blind moves or, respectively, door lock drive is locked or unlocked
	Slat position
	Multi-channel display

Warnings	
	Battery voltage low
	Water alarm
	Sabotage message
	Motion detected
Error messages	
	Radio interference
	Voltage supply faulty
	Bus connection faulty
	Connection to cloud faulty
	Connection to Access Point faulty

The device overview additionally shows to which solution a device was added. The presentation is provided via the blue icons on the right in the list of devices (= climate control, = light and shade, = security and alarms, = access control, = weather and environment).

5.2.4 Pairing of devices

You can integrate, without any problems, additional Homematic IP devices into your smart home solution. To do this, you must register, i.e. pairing, the devices at the Access Point. After you add the devices, they appear in the app and can be configured.

You are at liberty to choose the sequence of pairing the devices. In order to keep track of things, it is recommended to:

- proceed room after room;
- add devices bit by bit;
- install them subsequently;
- configure them conclusively.

The pairing procedure is identical for all Homematic IP devices:

- Tap on the main menu symbol "... More" on the bottom right in the home screen.
- Tap on "Add device".
- Follow the app request "Activate device" (supply voltage to the device)
  - Battery-operated devices: Insert batteries or remove insulation strips
  - Power-supplied device: Plug into outlet
- If the energy supply is active, the device is displayed in the app.
- Follow the instructions in the app.
- All devices of your Homematic IP system are registered either via scanning the QR code or by entering the last four digits of the device number (SGTIN).
- Confirm your entry with ✔.
- In the next step, allocate the just pairing device to one or more **solutions** (e.g. security, room climate and/or light and shading).

QR code and SGTIN can be found on the supplied device stickers and on the back of the Access Point. With battery supplied devices, you will additionally find the SGTIN in the battery compartment. Please keep the stickers in a safe place.

Devices that can be used in one solution only (e.g. the Homematic IP Radiator Thermostat) are automatically allocated to one solution (e.g. room climate). In this case, the request for allocation is skipped. For devices with several possible solutions (e.g. Homematic IP Window and Door Contact), please select in which applications (e.g. room climate and/or security) you want to use the device.

- Allocate the device to a **room** . Select a room that is already available or create a new room by tapping on "New room" (Android) or "Create new room" (iOS).
- Assign a **name** for the device. You can optionally supplement the device name automatically generated by the system or assign a new name.

Select the designations for devices and rooms such that a unique and unambiguous allocation will be subsequently possible. Via the app, you have the opportunity to rename the devices and rooms at any time.

As soon as you add additional devices, the app will suggest already existing rooms to you. Select one of these rooms or create a new room via "New room". The newly added device automatically appears in the device overview of the app under the correspondingly selected room.

5.2.5 Location and weather information

Query of the location is required for utilisation of the weather data as well as the location-dependent sunrise and sunset times.

Depending on the location of the smartphone, upon the initial setup, the time zone is set and transmitted to the system as well as to the Homematic IP components. The changeover from summer to winter time is effected automatically.

The app obtains the values shown via the online service OpenWeatherMap or directly via measurements of your own Homematic IP Weather Sensors and makes them available to other functions. Shutters / blinds / awnings are thus automatically controlled.
Via the "Sort" button at the top right of the screen you can determine the weather view order.

- Tap on "Determine weather location". In the search field, enter the name of the city or the postcode.
- Select the location for your weather data and tap on the left arrow at the the top left screen and confirm your selection (Android) or tap on "Done" (iOS).

After tapping on the weather symbol, numerous location -dependent items of information will be available to you. This includes, aside from the outside temperature, the times of sunrise and sunset, as well as the humidity and wind velocity including the prevailing direction of the wind.

If you have additional Homematic IP products installed from the category of weather and environment, you will be correspondingly shown additional weather data.

5.2.6 Determine system PIN

Assign a PIN for the protection of your system. By setting up a system PIN, you protect your Homematic IP installation from unlawful access by unauthorised persons. It is thus recommended to deposit a system PIN already at the beginning of the installation.
Always keep this system PIN in a well-protected place since resetting the PIN is not possible.

You will need the PIN for the following administrative functions within the Homematic IP system:
- Adding a new smartphone and deleting an existing smartphone
- Changing the PIN
- Deleting the event protocol
- Exchanging an Access Point
- Preparing couplings with additional services, such as Amazon Alexa
- Setting up access authorisations in the access solution or configuration of the Homematic IP Door Lock Drive.

- In the field "Define PIN", enter an at least 4-digit combination of digits of your choice.
- Tap on the left arrow at the top left screen and confirm your selection (Android) or tap on "Done" (iOS).

After the PIN has been provided in the setup screen, the code can also be subsequently changed in the main menu under More, Settings, PIN.

6 GENERAL CONFIGURATION OF THE SYSTEM

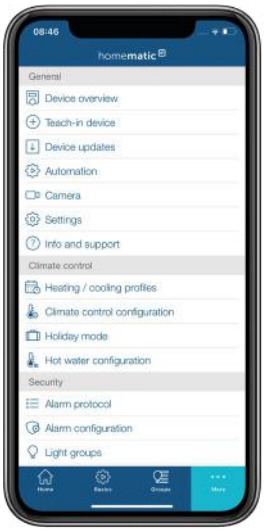
6.1 Main menu

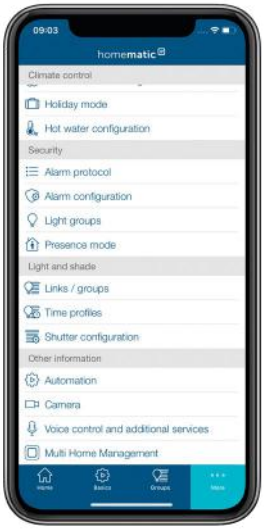
In the main menu you can make the settings for your Homematic IP system.

- Tap on the main menu symbol "... More" on the bottom right in the home screen.

Depending on the configuration of the system, you will have the following options in the main menu:

- General
  - Device overview
  - Add device
  - Device updates
  - Automation
  - Camera
  - Settings
  - Info and help
- climate control
  - Heating / cooling schedules
  - Climate control configuration
  - Holiday mode
  - Hot water configuration
- Security
  - Alarm protocol
  - Alarm configuration
  - Light groups
  - Presence mode
- Light and shade
  - Links/ groups
  - Time profiles
  - Shutter configuration
- Other information
  - Automation
  - Camera
  - Voice control and additional services
  - Multi home administration





Please note that only menu items are displayed for which devices are available in your system. If, for example, you are not using devices of the security solution, the menu item "Security" is not displayed.

6.1.1 Device overview

In the app, you manage your Homematic IP devices via the main menu symbol "... More" in the "overview of devices". You will find all added devices displayed, allocated according to rooms. Devices which were paired without room allocation are displayed in a pop-up window on the home screen.
All rooms follow in alphabetical order or in the sorting order that you specified in the settings under the menu item "Display of rooms".
Via a tap on "All" (Android) or "Filter" (iOS), you have the option to filter your devices according to individual rooms.

In the overview of devices, you can adjust individual device settings. Configuration possibilities result depending on the device. Basically, you can change – with all devices – the **allocation to a room** or the **name of the** device.

- For this, select a device in the overview of devices. Tap on the name of the device.
- Select the menu item "Allocation" to push the device into another room and to change the name.

Depending on the type of device, the different possibilities of settings are differentiated. For example, for devices with a push button or a rotary knob, an **operating lock** can be activated or deactivated.

Devices for which the operating lock is activated can be operated only via the app, not, however, via the device itself.

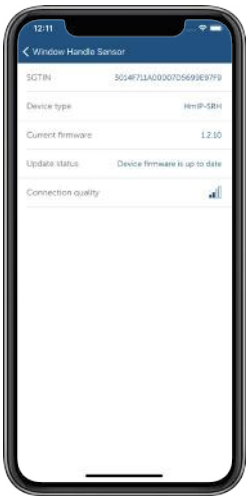
Deactivation of the operating lock is possible only via the app.

Moreover, you can adjust e.g. a temperature offset for radiator thermostats to balance out temperature deviations. Should you operate a wall thermostat in a room, only the temperature offset is to apply which was adjusted with the wall thermostat. For window contacts, an individual message delay between 0 and 60 seconds can be defined.

A message delay can be useful if a window is opened only shortly without the heating to be turned down with it.

By means of a tap on the device designation, you will find – via the information icon at the top right of the edge of the screen – additional information for every device in the following sequence:

- SGTIN: Individual device number
- Device type: Short designation of the device
- Current firmware: Installed firmware version of the device
- Update status: Availability of current updates for devices and firmware
- Connection quality: Informative bar chart about the connection quality between Access Point and device



6.1.2 Multi-channel view

In devices with several channels, the multi-channel view enables the allocation and designation of individual channels to individual rooms and solutions. This concerns multi-channel devices by Homematic IP, such as floor heating controllers, contact interfaces or multi-channel switch actuators. After adding multi-channel devices, the allocation of individual channels to rooms will be automatically queried.

The allocation of individual channels can be effected at any time via the display of the device overview:

- Tap on the main menu symbol "...More" and there on "Device overview".

In terms of devices whose channels can be allocated to different rooms, the already allocated channels are displayed in the device overview under the pertinent room. One example for this type of device are floor heating controllers which frequently control heating circuits in different rooms. These channels are designated by the multi-channel symbol .

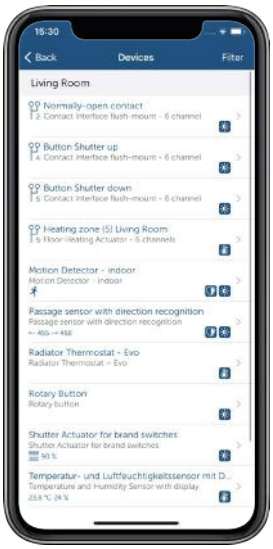


Figure 3:Screenshot device overview, multi-channel devices (1)

- The multi channel view indicates all devices and related channels.
- Tap on the device in the device overview. In case of multi-channel devices, you get automatically into the multi-channel view – in the area "Channels" of the menu "Device configuration".

Moreover, non-allocated channels are here shown in grey. In the future, you can directly provide channel-specific configurations from the multi-channel view by selecting the desired channel.

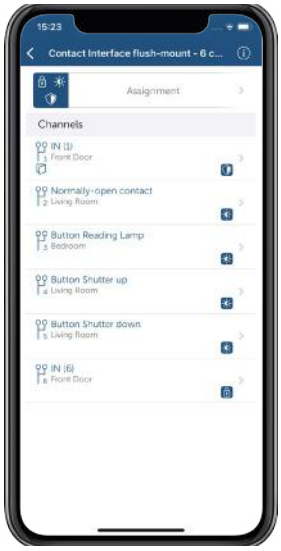


Figure 4: Screenshot device overview, multi-channel devices (2)

6.1.3 Configuration of individual buttons and pairs of buttons

As a standard, the buttons of Homematic IP remote controls and wall push buttons are defined as pairs of buttons. That means,using one button, you can switch on / dim up /power up another Homematic IP device, and via the second button of the pair of buttons, you can switch off /dim down /power down that device.
The predefined button pairs of remote controls and wall push buttons can also be easily split into individual buttons. This allows you to configure your smart home system even more individually and use the easy-to-use toggle function, for example, to switch devices on or off using just one button.
In order to subdivide the pairs of buttons into individual buttons, please proceed as follows:

- Tap on the main menu symbol "...More" and there on "Device overview". Alternatively, you can also invoice the desired device via "Devices" in the room overview.
- Select the desired device from the list.
- Tap on "Configuration of pairs of buttons and individual buttons".

Figure 5: Configuration of individual buttons and pairs of buttons

If you allocated the device or, respectively, the pair of buttons before already to a group, you cannot divide the pair of buttons into individual buttons. To this end, first delete the allocation of the pair of buttons to the corresponding group.

The individual channels of the button pairs must be assigned to the same solution.

- Select whether you want to use the buttons of the device as individual buttons or as pairs of buttons.
- Tap on "Save" to conclude the configuration.

If you defined the buttons as individual buttons, you can use the toggle function via the individual buttons to execute two functions (e. g. switching on and off) via one button. To be able to use the toggle function, please proceed as follows:

- In the home screen, tap on "Groups" and subsequently on "Processing".
- Create a new group by means of the + symbol.
- Select the type of the group to be created (e.g. "switching group" or "shading group").
- Select the devices or channels for the group and tap on "Done".
- Via the following menu, you can determine the action under "Toggle" which is to be executed upon actuation of the button.

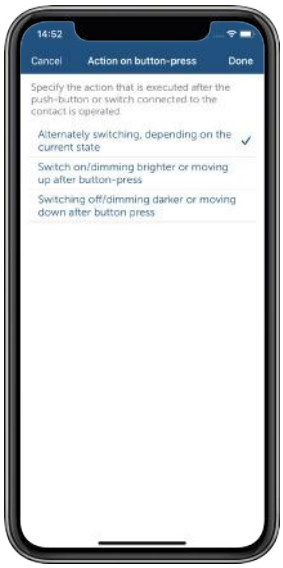


Figure 6: Action upon actuation of the button

- Tap on "Done" to save the configuration.

6.1.4 Rename and delete devices

All devices displayed in the device overview can be renamed or deleted here.

Rename devices
Android
- Tap and hold down the device you want to rename.
- Tap on the pen symbol ( ) in the menu bar.
- Enter a new name. After tapping on "Confirm", the new name will be saved.

iOS
- Select the device you want to rename, swipe from right to left and tap on "Rename".
- Enter a new name into the text box. After tapping on "Confirm", the new name will be saved.

Delete devices
Android
- Tap and hold down the device you want to delete.
- Tap on the trash symbol ( ) in the menu bar.
- Confirm by tapping on "Delete" that you really want to delete the device.

iOS
- Select the device you want to delete, swipe from right to left and tap on "Delete".
- Confirm by tapping on "Delete" that you really want to delete the device.

If you delete a device, the factory settings of the device have to be restored in order to add it again and thus continue to use it. For further information, please refer to the user manual of the corresponding devices.

6.1.5 Device updates

In order to keep your Homematic IP devices always up to date and to be able to enjoy the full range of functions, Homematic IP offers the opportunity to update the device software (firmware) of the components.
As a rule, the background update is used with the Homematic IP devices. In that case, the firmware of the device is updated in the background via radio connection. Some other devices are brought up to date via a live update which must be performed directly in the Homematic IP App.

If you want to update the device software of your Homematic IP components, you can select between two options available via the main menu under "Settings", "General settings", "Device update mode": You can select between manual and automatic updates.

Please note that the functionality of your devices is limited during the update. For some Homematic IP devices, it is principally necessary to press the system button on the device so that the update can be directly performed. In this case you are explicitly informed via the app.

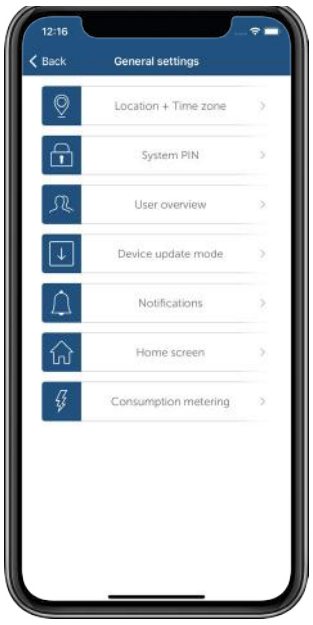
6.2 "General settings"

In the menu item "Settings", you have the option to adjust general settings for the operation of your system.

- Tap on the main menu symbol "... More".
- Tap on "Settings".

The following menu items are here available to you:

- **Change the location for weather data and time** zone *(see section "5.2.5 Location and weather information" on page 29)*
- **PIN** to be assigned or changed for the app *(see section "5.2.6 Determine system PIN" on page 29)*
- **User overview** to be viewed with all smartphones registered in the system
- **Device update mode** to be selected *(see section "6.1.5 Device updates" on page 36)*
- **Determine notifications** and **notification sounds** which you want to receive on your smartphone *(see section "8.3 Alarm messages in the app" on page 56)*
- Background picture, selection of the rooms as well as sequence of rooms for presentation in the **home screen**
- Settings for the **consumption measurement**
- Upon the use of biometric features (e.g. touch or face ID) instead of a PIN in the access solution, the use of **biometrics** can be deleted again.



6.2.1 Replacing the Access Point

If it should be necessary to replace your Homematic IP Access Point, this can be done without difficulty. In that case, the new Access Point takes over all data of your installation. Your previously used Access Point will be put out of operation.

Please note that your new Access Point must be in factory condition. You will find instructions on how to restore the factory settings in the user manual of your Access Point.

Access points can only be exchanged with variants of the same type; thus, e.g. HmIP-HAP with HmIP-HAP or HmIP-WLAN-HAP with HmIP-WLAN-HAP. If you want to exchange your current Access Point for an Access Point of another type, the existing devices of your installation must first be reset and subsequently paired new.

- Disconnect your old Access Point from the power supply.
- In the app home screen, tap on the main menu icon "... More" and select "Info and help" from the main menu.
- In the menu "Info and help" tap quickly five times on the version line displayed in grey on the bottom of the screen.
- Tap "Continue" and follow the instructions in the app step by step.

After the exchange procedure is finished, your new Access Point is set up and immediately ready for use.

6.2.2 Multi-home management

Multi-home management gives you the option of setting up several separate Homematic IP systems with one Homematic IP App. This allows you to control and configure your home as well as an additional holiday home with your Homematic IP app. Homematic IP Access Points (HmIP-HAP) as well as WLAN Access Points (HmIP-WLAN-HAP) can be used for the multi-home management.

- Tap on the main menu symbol.
- Select the menu item "Multi-home management".
- In the following window, tap on the + sign.
- Select a new name for the system you want to install (for example "holiday home") and tap on "Confirm".
- pair your new Access Point. Follow the instructions in the app.

After adding the new Access Point, you can directly see in the home screen which installation you are currently viewing and switch to another installation by tapping on the installation's name (e.g. "My home").
Alternatively, the menu item "Multi-home management" lets you select which Homematic IP system you want to control with your Homematic IP smartphone app.
The Access Points or installations integrated into the app can be renamed and deleted via the menu at any time.

6.3 Restoring the factory settings of the Access Point

The factory settings of the Access Point and the entire installation can be restored. The operations differ as follows:

- Resetting the Access Point:
  Only the factory settings of the Access Point are restored here. The installation remains in place, along with all the settings made.
- Resetting and deleting the entire installation
  This resets the entire Homematic IP installation and deletes all settings. The app must then be uninstalled and reinstalled. The factory state of your individual Homematic IP devices must also be restored in order to enable them to be paired again.

6.3.1 Resetting the Access Point

To restore the factory settings of the Access Point, please proceed as follows:

- To restore the factory settings of the Access Point, please proceed as follows:
  Disconnect the Access Point from the power supply. Therefore, unplug the mains adapter.
- Plug-in the mains adapter again and press and hold down the system button for 4s at the same time, until the LED will quickly start flashing orange.
- Release the system button.
- Press and hold down the system button again for 4 seconds, until the LED lights up green. If the LED lights up red, please try again.
- Release the system button again to conclude the procedure.

The device restarts and the Access Point is reset.

6.3.2 Deleting an Access Point from the installation

If you want to delete one of several Access Points from your Homematic IP installation, proceed as follows:

- In the app home screen, tap on the main menu icon "... More" and then on "Overview of devices". The paired Access Point(s) is/are displayed in the device list..
- Delete the desired Access Point by swiping to the left in the relevant line (iOS) or long-tapping on the line (Android) and then selecting "Delete".

If a secondary Access Point is deleted from the installation, all system data remains in place.

The primary Access Point cannot be deleted from the installation as previously described. If you want to delete the primary Access Point and thus the entire installation, proceed as described in "6.2.2 Resetting and deleting the entire installation".

7 CLIMATE CONTROL SOLUTION

For which heating systems can the Homematic IP climate control solution be used?

- **Heating system with conventional, water-based radiators**
  The Homematic IP climate control solution is optimised for the application in connection with this currently still most widespread heating system. The manually operated conventional radiator thermostats are replaced by electronic radiator thermostats. The room temperature is regulated time-controlled via the Homematic IP smartphone app according to individual needs.

- **Electric heaters**
  Many households additionally use one or more electric heaters to heat remote rooms separately from central heating, such as garden houses or individual rooms which are rarely used. For this system, the climate control solution is also ideal: In connection with the Homematic IP pluggable switch or pluggable switch and meter and a wall thermostat, the temperature in rooms with electric heaters can be adjusted precisely and based on your demands. Another advantage: Thanks to the measuring function in the device you can always use the Homematic IP smartphone app to monitor the energy consumption and the energy costs.

- **Floor heating and surface heating systems**
  With the growing spread of alternative energy sources such as heat pumps and solar collectors, floor heating systems are also becoming increasingly popular. Because in this combination, it provides its full benefits, such as the possibility of operating in the low-temperature range. Floor heating systems are often considered to be very comfortable, and they also provide more freedom when it comes to furnishing and designing rooms.
  The Homematic IP Floor Heating Controller offers you the opportunity to control your floor heating room by room comfortably and demand-based, thus adapting the room temperature to your individual needs.
  As a basic solution, a Floor Heating Controller is sufficient already which can be connected directly via radio – i.e. without any cable – with one or more battery-operated wall thermostats (HmIP-WTH-2) for time-controlled regulation of the room temperature. In connection with your Homematic IP Access Point, you can control your floor heating at any time and almost anywhere via a smartphone app. If you use a mixed heating system, the app takes control of both the floor heating and conventional radiators.
  The system is suitable for the first installation as well as for retrofitting an existing floor heating system. The Homematic IP Multi IO Box or the Switch Actuator for heating systems also provide a separate control unit for switching boilers, circulating pumps and heat pumps.

7.1 Configuring the climate control solution for each room

After you have installed and set-up your solution as described in section *„5.2.4 Pairing of devices“* , you can configure the climate control solution and adapt it to your individual needs.

Homematic IP room climate control devices, such as a radiator thermostat, window and door contact and wall thermostat, are automatically linked to each other after being assigned to the same room and act with each other. An electric heater that is connected to the Homematic IP system via a switch socket for example can also be controlled automatically via a wall thermostat if it has been assigned to the „Room climate“ solution and to the same room.

7.1.1 Operating modes

Automatic operation using heating schedules

You can configure individual heating schedules for each room, in order to automatically control room temperature. Further information on this matter can be found under *“Heating or cooling schedules” on page 44*

Manual operation

If you select the profile “Manual” for a room, you have the option to select a room temperature that is kept constant within the defined minimum and maximum temperature. The stored heating schedule of the corresponding room is not active in the meantime.

- In the home screen, tap on the room for which you want to activate the profile “Manually”.
- Tap on the currently activated profile.
- In the “Delete visible schedules” pop-up window, tap “Manual” and select the desired room temperature using the control dial.
- Tap on Back to return to the home screen of the app.

Party mode

For parties or similar events, a changed temperature can be desired for a certain period of time. You can use the party mode to adjust the room temperature for a precisely defined period of time.

- In the home screen, tap on the room for which you want to activate the profile “Party mode”.

Figure 7: Screenshot Selecting the party mode

- Tap on the currently activated profile.
- In the pop-up window "Visible schedules", tap on "Party mode".
- Select the time for activating the party mode and tap "Continue".
- Use the control dial to select the desired room temperature.
- Tap on Back to return to the home screen of the app.

After the time defined for the party mode has expired, the room temperature is controlled according to the profile that has been selected last.

Holiday mode

By activating the holiday mode you have the option to reduce the room temperature until a defined point in time to a freely selectable temperature value in case of longer absence and thus to save energy.

In contrast to the eco mode, the temperature in the holiday mode is reduced in all rooms, i.e. also in rooms which are heated exclusively with a floor or wall surface heating system.

Even after your Homematic IP device has been restarted (for example after a battery change or device update), the device's last profile status is now automatically restored. For example, a radiator thermostat's last selected heating schedule will continue to be run after the restart.

Activating the holiday mode

- Tap the operating mode icon on the app home screen and select the operating mode "Holiday".

Figure 8: Screenshot Select holiday mode

- Swipe to the right and select the date and the time of day.
- Swipe to the right once again, to use the control dial to set the room temperature for the holiday mode and confirm your selection with "OK".

The set temperature is maintained until the selected time. Afterwards, the system changes back to automatic mode with the stored heating schedule for the single rooms.

Deactivating the holiday mode

- In the app home screen, tap on the operating mode icon on the top left of the screen. When switching to a different operating mode (e.g. Automatic), the holiday mode will be deactivated automatically.

If the eco mode is activated you are asked via the app to confirm the change between the eco mode to the holiday mode. The same applies to the change from holiday mode into eco mode.

7.1.2 Room Menu

- Select a room via the app home screen. Tap on the upper part of the room tile and subsequently on "Edit". Here you can choose multiple menu items, depending on your system configuration.

Figure 9: Screenshot room menu item

7.1.3 Configuration

Via the menu item "Configuration" you can configure the rooms of your choice.

The minimum / maximum temperature configured is also valid if a higher or lower temperature should be selected in one or more heating phases of the selected heating schedule.

Configuration option	
Minimum / maximum temperature	The "Minimum / Maximum temperature" is configured using the control dial. After tapping on "Confirm" (Android) or "Done" (iOS) the selected minimum / maximum temperature is stored in the system.
Open-window temperature	The "Open-window temperature" determines to which value the temperature set on the radiator thermostat will be reduced. After tapping on "Confirm" (Android) or "Done" (iOS), the selected open-window temperature is stored in the system.
Boost duration	The "Boost duration" selects the duration of time for which the valve of the radiator unit is to be fully opened. It can be configured in the app or on the thermostat. Tap "Boost duration" and select the desired boost duration via the control dial. After tapping on "Confirm" (Android) or "Done" (iOS), the selected boost duration is stored in the system.

n case of rapidly decreasing temperatures (1.5 °C in 3 min) due to an open window, the radiator thermostat will automatically reduce the temperature of the radiator to 12 °C for 15 min ("Temperature drop detection"). After 15 min, the radiator thermostat will change back again to the current heating schedule. The installation location of the radiator thermostat (below window sills, behind furniture or curtains) or external temperatures may influence the open-window detection. For optimum open-window detection, it is thus advisable to use the Homematic IP door and window contacts.

Heating system (available when using Floor Heating Controller)
This menu item allows you to select the heating system that you want to control with your Floor Heating Controller. You can select between the following five options:

- **1. Standard**
  Select this mode for standard floor heating systems in conventional buildings.

- **2. Low energy**
  Select this mode if you use a floor or wall surface heating system with a very low flow temperature, for example in an energetically renovated building or new building with low energy requirements.

The remaining three options are reserved for special areas of application and are not relevant for floor and wall surface heating systems.

- **3. Radiator**
  With this mode, it is possible to regulate water-based radiators via a channel of the Floor Heating Controller. For this, a wired thermal actuator on the radiator is required.

- **4. Passive convector**
  Select this mode only when using underfloor convectors, such as those used in front of large window areas.

- **5. Active convector**
  This mode is applied only when fan coils are used, which are mainly used in office and industrial buildings.

Humidity limit
When using a Homematic IP Multi IO Box with connected dehumidifier, the humidity value from which the dehumidifier is activated in order to avoid condensation problems can be set here. In the case of floor heating systems with active cooling operation, the corresponding cooling circuit is also closed.

7.2 System-wide settings for the climate control solution

7.2.1 Heating or cooling schedules

Heating and cooling schedules provide you with the option to tailor the heating control for each room to your personal needs and individual routines. Automatic control of the room temperature allows you to always have your desired temperature.
For each room, the app can define up to three different heating or cooling schedules (if you are using Floor Heating Controllers). Within these heating schedules, you can set different minute-to-minute switching times for each day of the week and thus regulate the room temperature in a time-controlled manner - with up to six freely definable heating phases per day and a temperature selection with a precision of up to 0.5°.

All defined heating schedules can be selected under the corresponding rooms with a fingertip.

Figure 10: Screenshot Selection of heat profile

When using Floor Heating Controllers, it is possible to pair them with the Homematic IP Multi IO Box in order to control the boiler and to switch from heating to cooling operation. Just as for heating schedules, individual cooling schedules can also be created. The floor heating system can thus even cool rooms down to a pleasant level in summer.

7.2.1.1 The standard schedule

In the app, up to three heating schedules can be created and configured for each room. The standard profile is explained in more detail below:
Specified as a default is a *base temperature* of 17 °C. The *base temperature* indicates which constant temperature is to be kept in the room if the heating schedule is neither in a heating nor in a lowering phase.
In addition, a room temperature of 21 °C is specified from 6:00 am to 9:00 am and from 5:00 pm to 9:00 pm for the weekdays. For Saturdays and Sundays, a room temperature of 21 °C is pre-set from 6:00 am to 10:00 pm.

Figure 11: Screenshot Standard profile

7.2.1.2 Adjusting the heating schedules

You have six options for adjusting the heating schedules:

- Rename profiles
- Changing the *base temperature*
- Changing the predefined heating phases
- Deleting and adding heating phases
- Copying switching times to other weekdays
- Copying profiles to other profile positions (transferring complete week profile to other rooms)

Selecting profiles

- Access the main menu and tap on "Heating schedules".
- In the "Heating schedules" menu, select the schedule of the room you want to adjust by tapping "Standard schedule" under the relevant room. The profile is loaded and the profile overview opens with the reset heating schedules for every day of the week.

Rename profile

- In the "Heating schedules" menu, mark the profile of the room you want to adjust.

- iOS:
  - In the profile overview, select the profile that you want to rename by swiping from right to left. Tap on "Rename".

- Android:
  - Select the profile by tapping and holding.
  - Tap on the pen symbol in the menu bar.

- Enter a new name and confirm the entry.

After confirming the entry you will automatically get back into the "Heating schedules" menu.

Changing the base temperature

The base temperature indicates which constant temperature is to be kept in a room, if the heating schedule is neither in a heating phase nor in a lowering down phase.

- Tap on the top profile bar (Monday).
- Tap on "Base temperature"; then adjust the *base temperature* using the control dial. After tapping on the left arrow in the top left corner of the screen (Android) or "Done" (iOS), the entry will be stored.

Figure 12: Screenshot Changing the base temperature

Changing heating phases

- Tap on the heating phase you want to change. You can now change the corresponding fields beginning (left), setpoint temperature (middle) and end (right) of the selected heating phase. For saving the changes of the profile, tap three times on "Back" (❮) and afterwards on "Save" (Android) or "Done" (iOS).

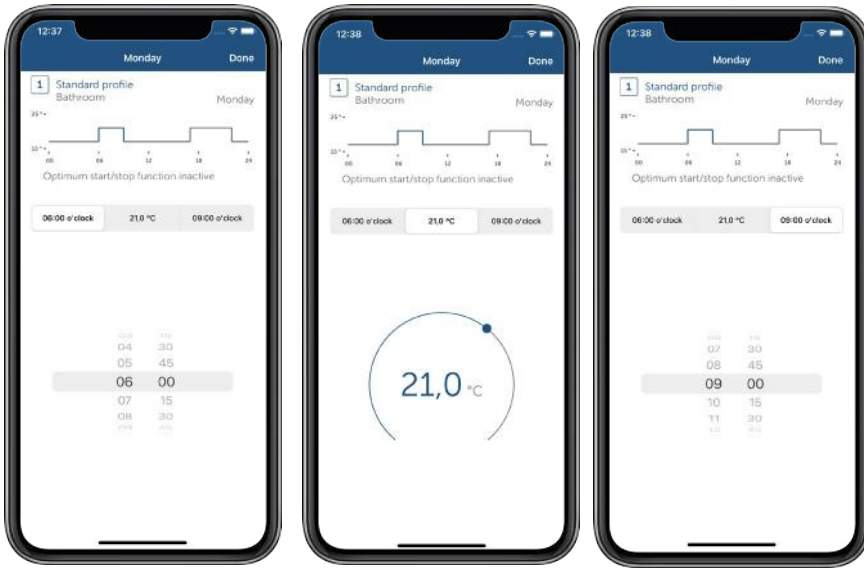


Figure 13: Screenshot changing heating phases

Adding heating phases

- In the profile overview of a room, select a day profile and tap on the + sign. A new heating phase is opened that you can individually adjust (refer to "Changing heating phases").

Deleting heating phases

- To delete a heating phase, tap on ✕ (Android) or swipe from right to left in the field of the selected heating phase and tap on "Delete" (iOS). The heating phase will be deleted.

Copying switching times to other weekdays
With this function, you can transfer switching times which you defined for a weekday, to one or several additional weekdays. Subsequently, you can further adjust the heating schedules for the selected weekdays.

Android:
- Select in the profile overview the day profile you wand to copy by pressing and holding. Tap on .
- Select the desired week day and tap on "Confirm".

iOS:
- Select in the profile overview the day profile you want to copy, swipe from right to left and tap on "Copy".
- Select the desired week day and tap on "Done".

Transferring heating schedules to other rooms.
This function enables comfortable copying of one of your defined weekly profiles to other rooms.

Android
- Select in the "Heating schedules" menu the profile that you want to copy to the other profile positions by pressing and holding. Tap on .
- Select the profile positions via the check box and tap on "OK".

iOS
- In the profile overview, select the profile that you want to copy to other profile positions by swiping from right to left. Tap on "Copy".
- Select the desired profile position by tapping and tap on "Done".

Creating additional heating schedules
In the app you can define up to three heating schedules for each room via the menu "Heating schedules".
- Tap on the unfold icon of the desired room (⌄).
- In the "Visible schedules" window select at least one additional visible schedule and tap "Confirm" (Android) or "Done" (iOS).
- Tap on the selected alternate profile. In the profile overview you can define this profile and if required one additional profile as described above.

Also for this feature it is very useful to copy the switching time to other week days.

7.2.2 Climate control configuration

Via the climate control configuration you will be able to adjust further settings for the regulation of the room temperature. Depending on your components, different configuration possibilities will be displayed.

- In the app Home screen, tap on the main menu icon "... More" and select "Climate control configuration" in the main menu.

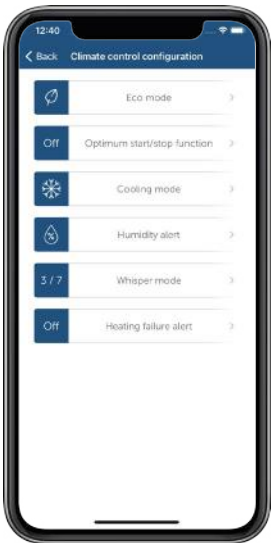


Figure 14: Screenshot Overview climate control configuration

7.2.2.1 Eco mode configuration

- Click on "Eco mode", to access the various settings pertaining to the eco mode.
- Via the menu item "Rooms in eco mode" you can determine in which rooms the temperature is to be lowered to eco temperature during the active eco mode.

The eco mode can be activated by default for all rooms, which are heated by conventional or electric heaters. Rooms that are heated by a floor heating system only cannot be operated in eco mode. In these rooms, temperature reduction can be configured for a certain period of time using the holiday mode.

- You can deselect single rooms by deactivating the check box.
- Confirm your selection afterwards with "OK" (Android) or "Done" (iOS).
- Select the desired room temperature for the eco mode using the control dial in the menu item "Eco temperature".
- After tap on "Confirm" (Android) or "Done" (iOS) the selected temperature is stored in the system.
- Use the menu item "Eco duration (for wall-mount remote control)" to determine the duration of the eco mode after pressing the wall-mount remote control.
- You can select between 2, 4 and 6 hours as well as the option "Permanent eco mode (∞)" and date.
- Save your selection with "Confirm".

If you switch from the automatic to the eco mode on the app home screen, you will be asked automatically how long the eco mode is to be valid (2, 4, 6 hours or permanent eco mode).

Figure 15: Screenshot Eco duration via home screen

In addition, you have the option to define a period of up to one year after tapping on the time limit for the duration of the eco mode.

7.2.2.2 Optimum start/stop function

If the optimum start/stop function is activated, the required lead time for heating or cooling a radiator heating or floor heating is calculated automatically. The selected heating schedule will here be evaluated proactively, based on the calculations of heating lead times for the previous days. This offers the advantage that the desired room temperature is reached already at the set time and kept for the required period of time.

You can activate the optimum start/stop function as follows:

- Tap the main menu icon on the app home screen and select “Climate control configuration” in the main menu.
- In the “Climate control configuration” menu, tap on “Optimum start/stop function”.
- Activate the function by tapping on the radio button “On” (Android) or via the slider (iOS) and confirm your selection by tapping on “Confirm” (Android) or “Done” (iOS).

The function is subsequently activated for conventional radiators or floor heating systems. In mixed operation, the function is activated for both systems in parallel. Should you activate this function retroactively, please keep in mind that you have to adjust your heating schedules respectively.

Please note that in the first 2-3 days following the activation of the optimum start/stop function, the system will be “learning” your heating system’s features. During this time the temperature setting may possibly be reached some minutes sooner or later. When this process is completed, you no longer have to take into account any heating or cooling lead times in the heating schedules. However, if the optimum start/stop function is activated, a clearly noticeable reduction in temperature might already come about up to one hour prior to the reduction specified by the heating schedule.

7.2.2.3 Humidity warning

Optimum humidity in living spaces has a positive effect on one's well-being; it also protects the basic structure of the building and helps to prevent mould.
The "Humidity warning" function allows you to set individual threshold values for humidity in selected rooms. If the defined values are exceeded or not reached, a humidity warning appears on the homescreen of the Homematic IP App, optionally also as push notification on your smartphone.
Moreover, you will receive a recommendation, whether or not opening a window would be advisable to improve the room climate.

- Tap the main menu icon on the app homescreen and select "Climate control configuration" in the main menu.
- Tap on "Humidity warning".
- Tap on the + symbol in the following window and select a room for which you want to activate the humidity warning.
- The default humidity thresholds are 40% and 60%. If necessary, you can edit these values after tapping on the respective rooms.
- Repeat this procedure to select and configure additional rooms.
- Then select the data source for the weather data. This can be one of the Homematic IP Weather Sensors, a Homematic IP Temperature and Humidity Sensor or an online data source.
- Return to the previous overview to save the settings.

7.2.3 Summer break for heating control

In the summer, the heating schedule can be switched to "manual" in the individual rooms so that the heating schedules are no longer executed.
If the heating system is switched off in the summer, the nominal temperature is to be set to 30 °C so that the valves are fully opened. If the heating system remains switched on in the summer (e.g. in multi-family dwellings), the room temperature should be set to 5 °C so that the valves are fully closed.

7.3 Heating system control and hot water supply with HmIP-MIOB / HmIP-WHS2

With the Homematic IP Multi IO Box (HmIP-MIOB) or the Homematic IP Switch Actuator for heating systems - 2 channels (HmIP-WHS2), a smart active heat demand control of the boiler can also be realised for installations with Homematic IP Radiator Thermostats and for mixed installations. The devices provide an assessment of the heat demand and control the boiler according to the requirements. In this case, the heat demand is determined via the radiator thermostats of one or more selected rooms or - depending on the configuration - via a room thermostat with the option to additionally integrate rooms with radiator thermostats to determine the heat demand. Furthermore, both devices can also be used to control hot water treatment.

7.4 Floor heating control

With the integration of one of the Floor Heating Controllers into your system you can comfortably configure and control your floor heating and other water-based surface heating in connection with one or more Homematic IP wall thermostats via the Homematic IP App. In addition, several Floor Heating Controllers can be used in the house and are integrated into the Homematic IP system.

The Homematic IP floor heating control can be realised using Floor Heating Controllers as well as one or more Homematic IP wall thermostats (depending on the number of rooms equipped with floor heating). Different device versions are available in this respect.

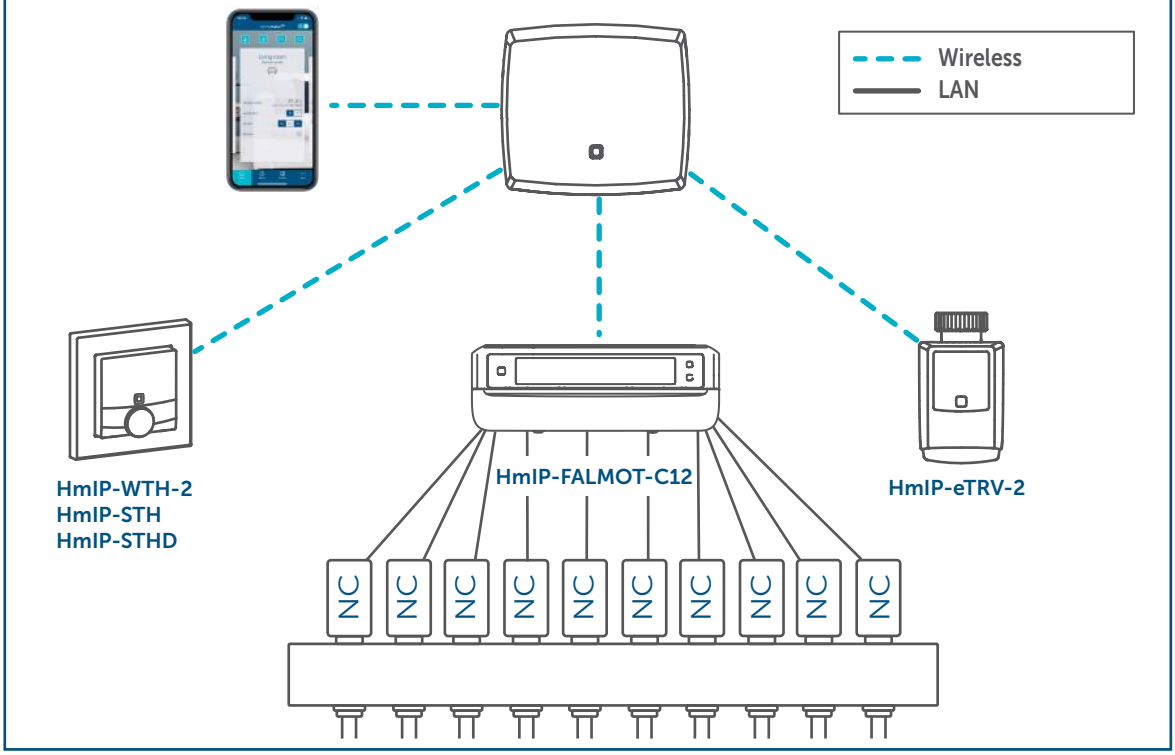
With the Homematic IP Floor Heating Controller, you can control standard floor heating systems with 6 or 10 heating zones as well as a circulating pump. In this case, the circulating pump must be connected directly to heating zone 1 (HZ1) of the Floor Heating Controller.

In connection with the Homematic IP Multi IO Box, additional functions and devices can be integrated. This includes e.g. humidity and temperature limiting functions, external timers as well as switching from heating to cooling operation for floor heating system with cooling function.

7.4.1 Options for controlling the floor heating system

Configuration and operation via app

- When using the Homematic IP Access Points, setup, configuration and temperature setting are conveniently provided via the Homematic IP smartphone app
- Needs-based regulation of the temperature in rooms with floor heating and with conventional radiators can be provided in parallel



7.4.2 Configuration options for Floor Heating Controllers

The Homematic IP Floor Heating Controller is pre-configured in such a way that it is generally not necessary to change the configuration settings after learning-in. If necessary, the configuration options of the Floor Heating Controller allow you to edit various parameters.

Explanations about the various terms or terminology regarding floor heating control can be found in the *"Glossary" on page 118.*

Figure 16: Screenshot device configuration Floor Heating Controller

Allocation
Here, you can subsequently change the room allocation of the device, the device name as well as the assignment of heating circuits.

Local pump control
In the default settings, the local pump control is deactivated, i.e. the integrated pump of your heatingsystem takes care of the circulation. If a heat pump is directly connected to the Floor Heating Controller via heating zone 1 (HZ1), activate the local pump control.

- Tap on "Local pump control".
- Tap on "On" and confirm.

Valve type
Usually, in your heating manifold valve drives of the valve type "normally closed" (NC) are installed. This complies with the default settings.
If valve drives of the valve type "normally open" are installed in your manifold, please select the option "NO (normally open)". For further information, please contact your plumbing and heating installer.

Emergency operation cooling
If the radio communication between the wall thermostat and the Floor Heating Controller fails for a longer period of time, the cooling mode is deactivated or the valve changes back to a defined value. In the default settings, a reduction of the cooling mode to 0 % is set.

Emergency operation heating
The valve opening duration is recalculated every 15 minutes. If the radio communication between the wall thermostat and the Floor Heating Controller fails for a longer period of time, e.g. if a battery is empty, all valve are controlled automatically. In the default settings, the valve is opened for 225 seconds (25 % for 15 minutes). When the radio communication is recovered the system changes back to normal operation.

Frost protection temperature
To avoid freezing of the system, the Floor Heating Controller is regulated to a room temperature of 8 °C as setpoint value (default). If required, you can use the control dial to deactivate the frost protection ("Off") or to select a room temperature between 2 °C and 10 °C in 0.5 °C steps.

Heating zone control
When selecting "Load balancing" (default), the heating zones will be controlled in a staggered way if possible, to provide a continuous flow of heating water.
When selecting "Load collection", the heating zones are controlled collectively (if possible).

Valve protection function
Thanks to the valve protection function, in time periods without temperature regulation, e.g. during the summer, the valve drives are triggered regularly to prevent the valves from sticking. Here, you can define the time interval (off, 1-28 days) as well as the duration for triggering (0-10 minutes).

Balancing heating zones
Determines if with small openings of the valve (< 15 %), triggering is to be effected in pulse width modulation. This allows for a uniform heating of corresponding heating zones with multiple heating circuits, if major differences are detected here. In order to achieve a better energy balance, the function should be deactivated if no noticeable differences are to be detected.

This function is only available for the motorized floor heating controller (HmIP-FAL-MOT-C12).

Valve position switching value
Determines as of which valve position all heating zones will be switched over to pulse width modulation, in order to reduce possible noise emission at the heating circuit distributor.
In order to achieve a better energy balance, the option should be deactivated if no noise development is detected.

This function is only available for the motorised floor heating controller (HmIP-FAL-MOT-C12).

Pump lead time
Here you will define the pump lead time with active local pump control.

Pump lag time/pump protection function
In case of activated local pump control - i.e. a pump is connected directly to the Floor Heating Controller - you can adjust a switch on or switch off delay of 0 to 20 minutes in 2 minutes steps for the circulating pump, if required. Furthermore, this allows you to activate the time interval and the duty cycle of the pump protection function to prevent damage to the pump in case of longer standstill periods.

You can find further information on the individual steps for the startup in the following chapters or in our tutorial:

8 SECURITY SOLUTION

Homematic IP will reliably alert you in case of an emergency! This is not only smart, but it also increases the feeling of security – no matter if you are at home or on the road. Because the free app allows you to always have an eye on your home and be alerted via push message. This is triggered, for example, via window contacts as soon as a window is opened while the system is in activated alarm mode. Even in the case of your home's internet connection or power supply being severed, local alerting via siren will be ensured by the direct link between the devices. All devices can be installed quickly and easily and flexibly combined with products from other areas of application.

8.1 Installation instructions

If possible, position your security components such that they are not detectable at first glance from the outside. A motion detector for monitoring rooms should be positioned so that a burglar is reliably recognised on his way through the house/flat, e.g. in the area of an entrance or terrace door.

8.2 Configuration of the Homematic IP Water Sensor (HmIP-SWD)

For the configuration of the water sensor, please proceed as follows:

- Select the water sensor in the device list of the app. You can select between different configuration possibilities.

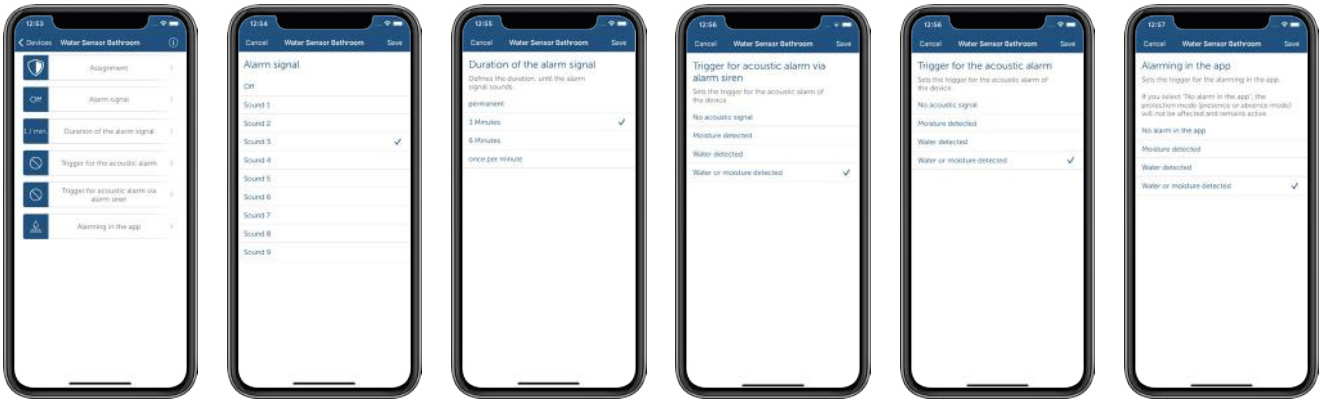


Figure 17: Configuration of the Homematic IP Water Sensor (HmIP-SWD)

Allocation
You have already assigned your water sensor to a room during pairing. If you want to position the water sensor in another room, you can change the room allocation here.

Alarm signal
Via this menu item you can select between nine different signal tones for acoustic signalling via the Homematic IP Water Sensor or deactivate the acoustic signalling.

- In the menu, select the desired signal sound by selecting the radio button (Android) or tapping on the desired sound (iOS). You can select "Off" to deactivate the acoustic signal.

Duration of the alarm signal
Use this menu item to define the duration of the alarm signal.

- In the menu, select the desired duration (permanent, 3 minutes, 6 minutes or once per minute) via the radio buttons (Android) or by tapping on the desired option (iOS).

Trigger for the acoustic alarm
Here, you can define the trigger for the acoustic alarm of the device.

- No acoustic signal: When selecting this option, no acoustic signal is triggered.
- Humidity detected: An acoustic signal is triggered only if humidity is detected.
- Water detected: An acoustic signal is triggered only if water of at least 1.5 mm is detected.
- Water or humidity detected: An acoustic signal is triggered, if water or humidity are detected.

Trigger for acoustic alarm via alarm siren

This menu item is only displayed when using a Homematic IP Alarm Siren (HmIP-ASIR).

In addition to alarming via the integrated siren, the water alarm can also be signaled via the Homematic IP Alarm Siren (HmIP-ASIR) at any other location in the home. Here, you can define the trigger for the acoustic alarm of an additional alarm siren.

Alarm in the app
In this menu item you can deactivate the alarm in the app or determine under which prerequisites an alarm in the app is to be triggered.

- In the menu, select the desired option via the radio buttons (Android) or by tapping on the desired option (iOS).

Even with deactivated alarming in the app, the conditions can still be used in the automation function.

If you deactivate alarming in the app for the Homematic IP Water Sensor, the protection mode of the security solution (presence or absence mode) is not affected and remains activated.

8.3 Alarm messages in the app

By sending push messages to the smartphone, the Homematic IP App offers reliable alarms – even when you are en route. In alarm situations, the message is sent directly to the smartphones of the users even if the app was not actively opened.

Advanced Routing offers the advantage that the system will be additionally secured. Should a Homematic IP Access Point fail, a second Access Point within the range will automatically take over the function of the failed one and establish the connection to the cloud within the shortest time possible. The system's functionality and accessibility is ensured at any time.

Please keep in mind that your smartphone requires an active internet connection to receive push messages. Alarm messages which are triggered while your smartphone has no internet connection can only be delivered once your smartphone is again connected with the internet.

It is distinguished between a burglar alarm and a hazard alarm.

Burglar alarms are triggered, for example, via activated motion sensors or window contacts. For this, it is necessary to activate the protection mode, thus the absence mode or the presence mode. If movement is detected after activation – e.g. in case of a burglary – the user immediately receives a message on the smartphone.

Hazard alarms are detected at any time and transmitted to the user. Activation of the protection mode is not necessary for this. Hazard alarms include, for example, water occurring which is detected by a water sensor.

You can determine individually which **alarm messages** you want to receive by push message.

- Open the main menu and tap on Settings, Notifications, Messages.
- Select among the message options for
  - Battery voltage low
  - Smartphone added
  - Maintenance work
  - Protection mode changes (will be effected when the protection mode presence or absence is activated or deactivated)
  - Alarms and activation errors for the protection mode (is effected if e.g. the activation of a function or device settings failed)
  - Humidity warning

You can individually configure the **alarm sound** for your smartphone upon receipt of a message in case of an alarm.

- Open the main menu and tap on Settings, Notifications, Alarm sounds. Different sounds are here available to you.

8.4 Alarms via Homematic IP devices

Thanks to the direct link between the devices, Homematic IP provides the advantage that the communication between sensors and actuators is ensured even if there might be no connection to the internet or to the cloud. This is particularly advantageous concerning devices with security applications.

If, for example, you have installed a Homematic IP Motion Detector and an Alarm Siren in your system, a direct link between both devices will be automatically generated during the pairing process. If movement is then subsequently detected by the motion detector while the protection mode is activated (e.g. presence mode), the alarm siren will automatically trigger a loud alarm. Even if, for example, a burglar were to destroy the Access Point or router, the link would remain active and you would be warned in good time upon motion detection.

With security solution devices, it is recommended not to establish any links between devices via automation, since such links always require an active connection to the cloud as well.

8.5 Activate alarm mode

After you have add the devices for the security solution using the app, the symbol for the protection mode is displayed in light blue on the app's home screen. Via this symbol you are able at any time to quickly select the alarm mode (disarmed, presence mode, absence mode).

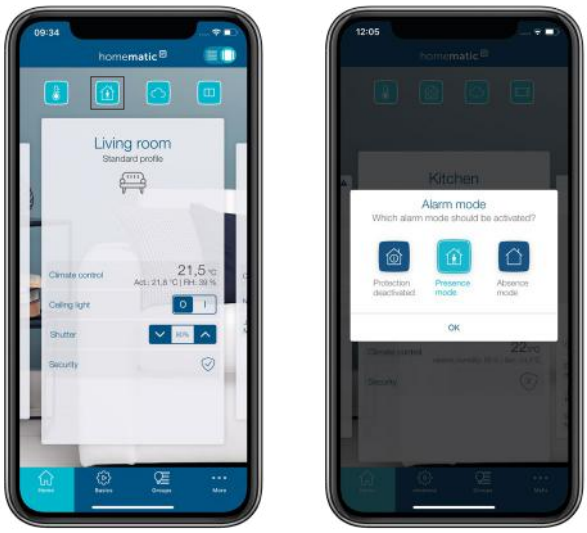


Figure 18: Select alarm mode

- Tap on the alarm mode symbol.
- Select the desired alarm mode by tapping on the corresponding symbol.
- Confirm your selection with "OK".

Protection deactivated: The alarm mode of the system is deactivated. All security functions are deactivated.

Presence mode: The security functions of all devices that you have selected for the presence mode are activated.

Absence mode: The security functions of all components of the security solution are activated.

As soon as an alarm mode is triggered during activated presence mode or absence mode, e.g. in case of unauthorised opening of windows and doors or detected motion via the motion detector, you are immediately informed by a push notification on your smartphone with an alarm message. The alarm message indicates which device triggered an alarm and at what time. It will here be distinguished whether a burglar alarm or a hazard alarm is concerned. Burglar alarms are only detected if the protection mode was activated. Hazard alarms are detected at any time, as, for example, in case of water damage which is detected by a water sensor.

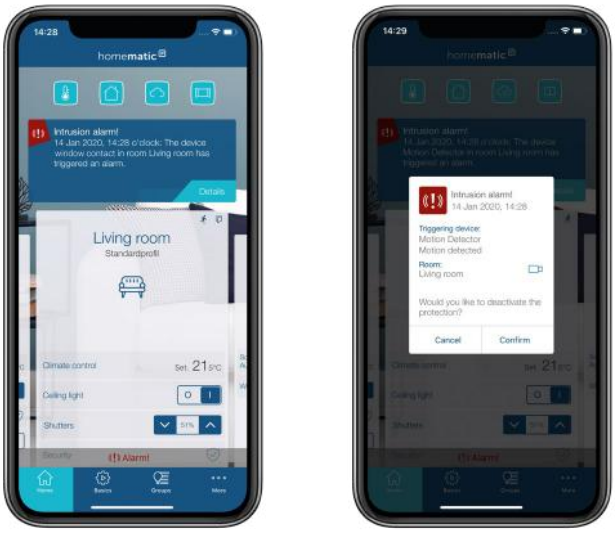


Figure 19: Security mode settings

- Tap on the button “Cancel” to close the alarm message and to leave the previously selected protection mode activated.
- Tap on the button “Confirm” to close the alarm message and deactivate the protection mode.

If you tap on “Cancel” in the alarm message, the alarm will be deferred. This will block new incoming alarm messages. You will thus receive no further push notifications and in-app notifications in the event of a new alarm.

If you have integrated an alarm siren into your system, an additional alarm sound is triggered via the siren in accordance with the alarm message on your smartphone.

If in a system using multiple smartphones an alarm message has already been confirmed by another user, said alarm message will be shown with a grey background on all other smartphones.

8.6 Configure security solution

After setting up the Access Point *(see section “5.1.3 Set up your Access Point” on page 20)* and add the security components *(see section “5.2.4 Pairing of devices” on page 28)* , please select in the next step in which application you want to use the added device. By selecting the option “Security”, these devices are available for security functions.

Add the device in the main menu via “Adding devices”. After registration at the Access Point, the assignment options of the device are requested.

- If you are offered this option, select by tapping on one or more symbols in which **solution** you want to use the device and tap on “Continue”.

For devices that are used for the security solution only, e.g. the alarm siren, this step is skipped as the device is assigned automatically.

- If the option is displayed, select the room in which you want to use the device.
- Enter the device name and tap “Continue”. You can optionally supplement the device name automatically generated by the system or assign a new name.
- After pairing has been successful, tap “Done”.

Please provide further configuration of your security components via the main menu under “Security” through the menu items **Alarm configuration**, **Light configuration** and **Presence mode** (see below).

Some devices can be used in several applications at the same time. When correspondingly selected, the Homematic IP door and window contact can, for example, take over functions in heating control as well as security functions. If required, you can subsequently change or delete again, at any time, the allocations already selected via the device overview.

For a pluggable switch or a pluggable switch and meter that you want to use for light control within the security solution, select the option “Light and shading”

Figure 20: Selecting an application allocation

8.7 Alarm configuration

This menu offers an overview about the current configuration of the alarm functions of your security solution as well as individual, demand-based configuration possibilities.

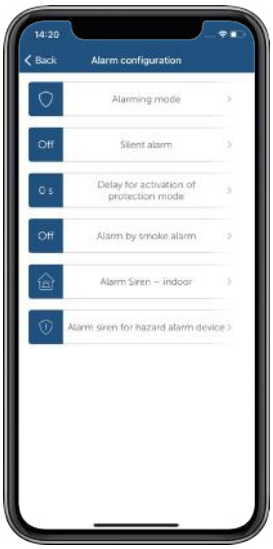


Figure 21: Screenshot Alarm configuration

Alarming mode
In the menu item 'Alarming mode', two options are available:

- Alarming pro: This mode is set as default and should not be changed. The alarm mode - presence as well as absence mode - can be activated only via the app or the Key Ring Remote Control – alarm (HmIP-KRCA) – if all sensors are in normal mode (e.g. window closed, housing cover mounted, or the like) and within the wireless range. If the battery status of one of the devices is low - this will be displayed in the homescreen of the app - the batteries of the corresponding devices have to be replaced. Moreover, the Homematic IP Access Point must be online at the time of activating the alarm.
  If an alarm siren (HmIP-ASIR) is used, it will be triggered even if there is no connection to the Homematic IP cloud (with a delay of 10 seconds). You will receive a push notification with an alarm message on your smartphone as soon as the connection to the Homematic IP cloud is active again.

  Via the Homematic IP Key Ring Remote Control - alarm (HmIP-KRCA), it is also possible to deactivate the alarm mode in case of an inactive connection to the Access Point.
  That means the security solution still works properly even with a non-active internet connection – for example, during an update of the router software by the provider.

- Alarming basic: The alarm mode can be activated via the app or Key Ring Remote Control – alarm (HmIP-KRCA) if single sensors cannot be activated (e.g. if a window is open, the device cover is not mounted or a device is not within the wireless range, etc.). If an alarm siren (HmIP-ASIR) is used, it will be triggered only if an active connection to the Homematic IP cloud is established. It is recommended to use the mode "Alarming pro" as a default setting in order to ensure reliable alarming.

The alarm mode “Presence/Absence” can be activated using “Alarming pro” only via the app, if all security-relevant Homematic IP devices are updated with the current firmware versions offered. After tapping on the main menu symbol, information about the offered device updates can be found in the menu item ‘Device updates’.

Silent alarm

- If the silent alarm is activated, the indoor siren and the alarm light will not be triggered. In case of alarm, the system does only send a push-notification to the app.

Delay in arming the alarm system

- In this menu item you can define the delay for activating the protection mode of the system. A delay in arming the alarm system makes especially sense if you leave the house via an area that is monitored by a motion detector or where a window/door contact is mounted on the front door.

Alarm sirens – indoors

This menu item allows you to configure the settings for your indoor siren(s).

- Duty cycle of the siren: You can here determine the duty cycle of the indoor siren. The default setting is 3 minutes; other options to choose from are 4, 5 and 6 minutes.
- Alarm signal (acoustic) Under this menu item you can select from among nine different signal sounds for acoustic signalling by the Homematic IP alarm siren; and acoustic signalling can also be deactivated.
  - In the menu, select the desired signal sound via the radio buttons (Android) or by tapping on the desired sound (iOS). You can select “Off” to deactivate the acoustic signal.
  - Confirm your selection by tapping on “Confirm” (Android) or “Done” (iOS).

  After confirmation, the app automatically returns to the menu “Alarm configuration”.

After tapping on “Test alarm” after selection of the sound, the alarm siren plays the selected signal sound with a function check.

- Alarm signal (optical) You can select between four light signal variants or deactivate the optical alarm signal.
  In the menu, select the desired light signal by selecting the radio button (Android) or tapping on the light signal (iOS). You can select “Off” to deactivate the optical signal.
  - Confirm your selecting by tapping “Confirm” (Android) or “Done” (iOS).

  The app automatically returns back to the menu item “Alarm configuration”.

If you tap “Test alarm” after selecting a light signal, the alarm siren shows the selected light signal for function check.

You have the option to configure the Alarm Sirens for inside and outside separately from each other. You will have the same menu items at your disposal as for the Alarm Siren - indoor.

- Acoustic confirmation of the siren: After activating this option, the siren confirms the change of the protection mode with a short sound sequence.

Figure 22: Screenshot acoustic confirmation of siren

9 SHUTTER CONTROL

9.1 Putting shutter and blind actuators into operation

After successful pairing of your Shutter/Blind Actuator, the calibration run will be performed to finalize putting into operation.

9.1.1 Manual calibration run

You have the option of manually determining the movement times of your shutter element. When using a Homematic IP Shutter Actuator – flush-mount (HmIP-FROLL) or Homematic IP Blind Actuator – flush-mount (HmIP-FBL), the calibration run is carried out manually by default. To do this, proceed as follows:

- Following adding of the actuator, tap on “calibration run”.

Figure 23: Screenshot Selection manual calibration run

- Tap on “Continue”. Your shutter/blind element is moved to the initial position (completely darkened). If the initial position is reached and the motor stops, tap on “Continue”.

- Tap on “Start”. You shutter/blind is moved up completely. If the run is finished confirm the time that is needed for the brightening run right after the motor is switched off by pressing the “Stop” button.

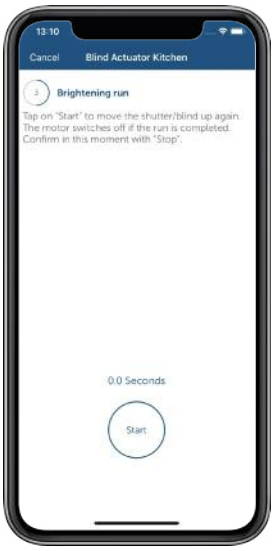


Figure 24: Screenshot brightening run

- To detect the time needed for the darkening run, tap on “Start”. Youf shutter/blind element is moved down completely. If the run is finished confirm the time that is needed for the darkening run right after the motor is switched off by pressing the “Stop” button.
- The recorded movement times will then be displayed to you. Tap on “Continue”. The movement times are transmitted to the actuator as soon as the calibration is finished in the next window with a tap on “Done”.
- You still have the option to adjust the movement times manually. The data is transferred after tap on “Done” or “Confirm”.

Figure 25: Screenshot Adjusting movement times manually

Tap on the button “Direct entry” in the menu item (manual) “Calibration run” to directly enter the movement times for the darkening and brightening run. Tap “Confirm” to save the selected movement times directly. In the following window, you can finish the calibration with a tap on “Finish”.

9.1.2 Device settings

The device settings for shutter and blind actuators give you the option of making individual settings for your shading control. Subsequently, please find information on the individual configuration options:

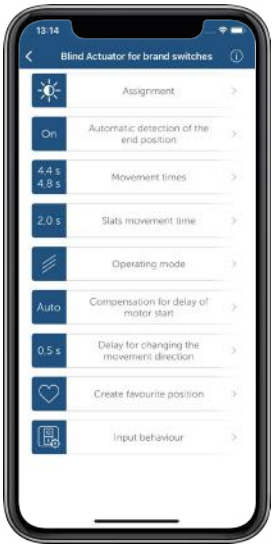


Figure 26: Screenshot Device settings shutter and blind actuators

Movement times
After tapping on "Direct entry", you can here subsequently change the movement times of the shutter/blind element. This is the time that is required for your shutter/blind element to completely move up (brightening run) or down (darkening run).

Slats movement time
Adjust the time that is required for completely changing the slat position of the blinds. This function is only available for blinds actuators (not for shutter actuators)

Operating mode
This function is only available for blinds actuators (not for shutter actuators) Via the operating mode can be defined whether the display for controlling the slats positions is to be effected with blinds actuators or not.

Compensation for the delay of motor start
This allows to set a delay time for running the motor (max. 12.6 seconds), where necessary. By default this value will be automatically determined.

Delay for changing the movement direction
Here, you can subsequently define the delay time that is at least needed for your shutter/blind to change the movement direction.

Selecting favourite position
This menu item allows for setting a favourite position for specific third-party remote controls that are compatible with Homematic IP.

9.2 Shutter groups

With the function "Shutter groups" you can summarise Shutter Actuators in the app. All shutter/blind elements allocated to a group controlled via the selected Shutter/Blind Actuators can subsequently be comfortably moved to its pre-defined position (up/down) at the push of a button.

9.2.1 Creating shutter groups

- In the main menu, select "Allocations/Groups" in the menu item "General".
- Subsequently, tap on the + symbol and select the option "Shutter group".

Figure 27: Screenshot Select shutter group

- Please enter the name of the shutter group. Tap on "Continue".
- Select the shutter/blind actuators that you want to combine to a shutter group. Tap on "Continue".
- Select the devices this shutter group is to switch, as for example a remote control or a wall switch. Tap on "Done" (iOS) or "Continue" (Android).
- Define in the next step the upper position to which the shutter/blind is moved after short button press of the button "Up". Tap on "Done".

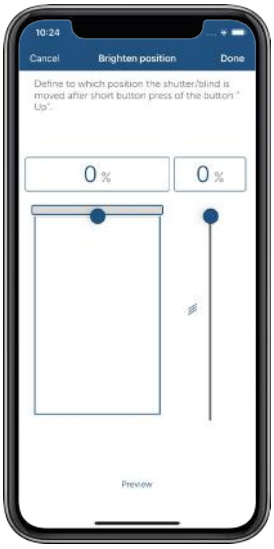


Figure 28: Screenshot defining the upper position

- Define in the next step the lower position to which the shutter/blind is moved after short button press of the button “Down”. After tap on “Done”, the configuration of the shutter group is finished.

9.2.2 Manual control of shutter elements in groups

- In the home screen of the app, tap on “Groups” and select the desired shutter group.

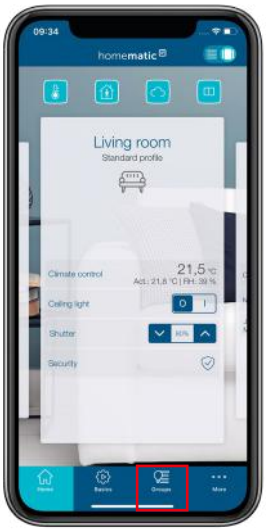


Figure 29: Screenshot Control of groups in the home screen

- Here you can define the shutter level of all shutters and blinds that are combined in this room.

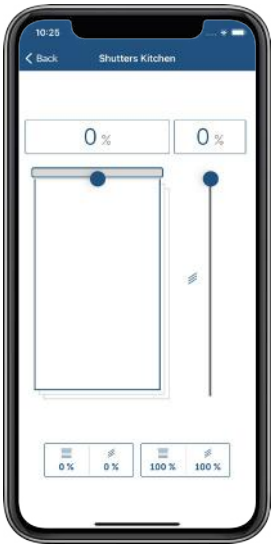


Figure 30: Screenshot switching the shutter group

9.3 Shutter profiles

Via the Homematic IP App you can create individual shutter profiles and control your shutters/ blinds flexibly and according to your needs - even depending on the sunrise and sunset.

Creating time profile

- In the main menu under “Light and shade”, select the menu item “Time profiles”.
- Subsequently, tap on the + symbol and select the option “Shutter profile”.

Figure 31: Screenshot Setting up a shutter profile

- Enter the name of the shutter profile. Tap on “Continue”.
- Subsequently, tap on the + symbol and select one or one after the other all shutter and blind actuators that you want to allocate to this shutter profile. After having finished your selection, tap on “Continue”.

Selection “Switching time”

- In the overview, select the menu item “Time profile” and subsequently tap on the + sign.
- In the following window select “Switching time” and tap on “Switching time” (iOS) or “Confirm” (Android).
- Select the weekday(s) for which the corresponding switching time should apply.

Figure 32: Screenshot Setting the shutter profile

- Subsequently, select the switching time and the hanging level to which your shutter or blind element should be moved at the selected switching time. If your blinds are controlled by a blind actuator, you can also exactly adjust the slats position which your blinds are to take at the defined switching time.

Selection “Sunrise” / “Sunset”

You can also add a time-depended condition to to your set switching times:

- **No condition**: If you select the option “Sunrise” or “Sunset” for your shutter profile instead of a switching time, your shutter/blind element is moved to the defined position at sunrise/sunset if you selected the option “No condition”.
- **Earliest at**: If you select the option “Earliest at”, your shutter/blind is moved into its defined position at sunrise, but not earlier than the selected point in time. Alternatively, you can define how many minutes before or after the sunrise your shutter/blind element is to move into its selected position, e.g. 30 minutes before sunrise, but earliest at 06:00 o’clock.
- **Latest at**: If you select the option “Latest at”, your shutter/blind is moved into its defined position at sunset, but latest at the selected point in time. Alternatively you can define, how many minutes before or after the sunset your shutter/blind element is to move into its selected position, e.g. 30 minutes after sunset, but latest at 21:00 hrs.

Figure 33: Screenshot Selection of condition

After configuration of the shutter profile you can create additional shutter profiles with a tap on the + symbol.

Even after your Homematic IP device has been restarted (for example after a battery change or device update), the device's last profile status is now automatically restored. For example, a shading actuator's last selected time profile will continue to be run after the restart.

9.4 Shutter configuration

After adding the Shutter and Blind Actuators *(see section "5.2.4 Pairing of devices" on page 28)* you have the option to adjust the further configuration of your shutter/blind components in the main menu under "Light and shade" via the menu item "Shutter configuration".

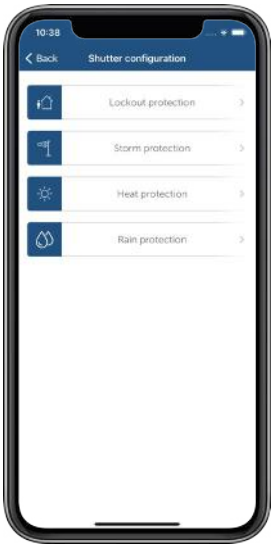


Figure 34: Screenshot shutter configuration

Please note that for this function the Homematic IP system has to be fully operational. This includes the Homematic IP Access Point with active connection to the Homematic IP cloud and the corresponding Homematic IP devices that are integrated into the installation.

9.4.1 Lockout protection

The following devices are to be installed, in order to use this function: Homematic IP Shutter or Blind Actuators, as well as Homematic IP Window and Door Contact or Window Handle Sensor

With opened balcony or terrace door, the lockout protection will prevent unwanted automatic downwards movement of shutters and blinds which are controlled as a functionof time or, respectively, depending on sunrise/sunset. This can be useful, for instance, if you are on the terrace and want to prevent any unwanted lockout.
A Homematic IP Window Contact or Window Handle Sensor mounted to the corresponding door or window detects whether the door/window is open and ensures that your shutters or blinds element is not moved down.

Please note that lockout protection does not prevent downward movement of shutters and blinds, if such downward movement was triggered manually (e.g. via a switch or remote control) or by automation.

Please note that skipped switching times are not repeated.

To activate the lockout protection, please proceed as follows:

- In the menu item “Shutter configuration”, tap on “Lockout protection”.
- By tapping on the + icon, select the actuator(s) controlling the shutter or blind element for which the lockout protection is to be activated.
- Tap on the +-icon and allocate the shutter or blind actuator to the window or door contact or the window handle sensor which activates the lockout protection and thus avoids moving down the shutter or blind element.
- Tap on “Done”. The configuration of the lockout protection is thus concluded.

9.4.2 Storm protection

The following devices are to be available in order to use this function: Homematic IP Shutter or Blind Actuator. Additionally, for the weather data, Homematic IP weather sensors or wind data about the location in your app.

In case of strong wind, it is important to protect shutters, awnings and blinds as well as windows effectively from any damage caused by the weather.
Depending on the wind resistance class of the blinds installed, they must be moved up completely in case of a storm. Conventional shutters can be moved down in case of strong wind to protect the windows from storm damage.
The storm protection function integrated in the Homematic IP App ensures that this is carried out automatically as soon as a selected wind threshold value is exceeded. The app will gather the current wind speed via a Homematic IP Weather sensor or alternatively via the online weather data for the deposited location.

Set the location in your app to enable correct data collection for your installation. Tap in the menu on "Settings" and there on "Location + Time zone" to adjust your location settings by entering your town/city or postcode.

To activate the storm protection function, please proceed as follows:

- In the menu item "Shutter configuration", tap on "Storm protection".
- Tap on the +-icon to select the shutter actuator(s) that you want to activate for the storm protection.

You can adjust further settings for the storm protection afterwards.

- Via the button "Wind sensor - Online weather data" you can define the data source for the detection of the wind threshold value. If you have installed a wind/weather sensor, it will also be available to you as a data source.
- Tap on the button "Wind threshold value". Select the wind threshold value at which the shutter or blind element should be moved if the threshold is exceeded. Subsequently, tap on "Done" or "Confirm".
- Select the movement direction. When selecting "move up", the shutter or blind is moved up. The same applies for the option "move down". After tapping on "Done" or "Confirm", the configuration of the storm protection is finished.

If the value falls below the defined wind threshold, the shutters and blinds elements remain – until the next switching time in the time profile – in the position it moved to during the storm protection.

If lockout protection has been activated the storm protection cannot be activated.

Please note that the wind velocity of the online service may differ from the current weather conditions at your location as the data is based on calculations of the nearest measuring stations and is not updated live.

Please note that skipped switching times will not be repeated.

9.4.3 Heat protection

In order to use this function, the following devices must be installed: Homematic IP Shutter or Blind Actuators as well as Homematic IP Wall Thermostat or Temperature Sensor.

The heat protection function enables automatic control of shutters and blinds to avoid or reduce unintended heating due to strong sunlight. When exceeding an adjustable temperature threshold value, shutters, awnings or blinds are moved into a predefined position. In addition, it can be defined via th app, in which time period the heat protection is to be activated, e.g. to prevent that shutters are moved up during night.
To activate the heat protection function, please proceed as follows:

- In the menu item "Shutter configuration", tap on "Heat protection".
- Tap on the +-icon and select one or more rooms for which you want to configure the heat protection function. Only rooms are displayed that include the necessary devices. Tap on "Done" or "Confirm".

You can adjust further settings for the heat protection afterwards.

- The function "upper threshold value" can be used to define from which degree (Celsius) the shutter or blind is moved into the position defined.
- The function "lower threshold value" can be used to define at which room temperature the shutter or blind is moved into the previously set normal position.
- Tap "shutter position" to define the value in percent to which the shutter or blind is moved.
- In the menu item "valid from or valid until" you can define in which period of time the heat protection is activated. You can either select "Sunrise" or "Sunset" so that the heat protection starts with the sunrise or sunset that currently applies for your location. Alternatively, select the desired time of day here.
- After tapping on "Done" or "Confirm", the configuration of the heat protection is finished.

The time profile is active simultaneously and, like manual operation, has priority over the settings of the heat protection. Settings you have configured in the app for heat protection, will only become effective if you selected the mode "Automatic operation" under "Time profiles" for the shutter/blind elements.

If lockout protection or storm protection have been activated, the heat protection cannot be activated.

The heat protection can only be used in connection with indoor temperature sensors (e.g. HmIP-WTH-2 or HmIP-STHD).

9.4.4 Rain protection

The following devices are to be installed in order to use this function: Homematic IP Shutter or Blind Actuator as well as Homematic IP Weather sensor – plus or pro.

The rain protection function enables the automated retraction of awnings if rain starts to fall. The awnings will be fully retracted, as soon as a rain sensor starts to detect rain. The app can be used to determine the direction of movement in this event. After the shutter or blind actuator has moved in the respective position following the detection of rain, the actuator will remain in that position and will not move back automatically. Renewed extension will be prompted by manual operation via the app.

To activate the rain protection function, please proceed as follows:

- In the menu item "Shutter configuration", tap on the button "Rain protection".
- Tap on the +-icon and select one or more shutter or blind actuators for which you want to configure the rain protection.
- In the next step, please select a rain sensor.
- Tap on "Done" or "Confirm".
- Determine the desired direction of movement.

10 LIGHT

10.1 Configuration of the light solution

After adding the light components *(see section "5.2.4 Pairing of devices" on page 28)* select the option "Light" to allocate your device to the light solution.

For devices that are used for the light solution only, this step is skipped as the device is assigned automatically.

Further configuration of your light solution is possible via the main menu by selecting the menu items links / groups and Time profiles .

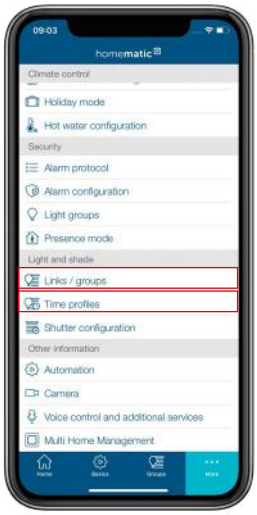


Figure 35: Selecting the assignment to a solution

10.2 Switching groups

With the function "Switching groups" you can combine devices like the Homematic IP Pluggable Switches, Motion Detectors or Switch Actuators and Meter into groups. All devices that are allocated to a group can subsequently be comfortably switched on and off at the push of a button. Additionally, light sources that are controlled with the Homematic IP Dimming Actuators can be dimmed to a certain dimming level.
The group symbol in the home screen of the app allows you quick access to all switching, shutters, as well as garage door groups of your system. Via this menu item, you can switch on and off all devices of your switching group at the same time.

10.2.1 Creating a switching group

- In the app home screen, tap on the main menu icon "... More" and select the menu item "Allocations /Groups" under "General" in the main menu.
- Tap on the +-symbol and select the option "Switching group". Enter the name of the switching group.

Figure 36: Screenshot creating a switching group

- Tap on "Return" (iOS) or "Enter" (Android) and afterwards on "Continue".
- Tap on the +-icon and select one after the other all devices you want to allocate to this switching group (receiver).
- After finishing your selection, tap on "Continue".
- Subsequently, select the devices for switching your switching group (trigger, e.g. motion detector).

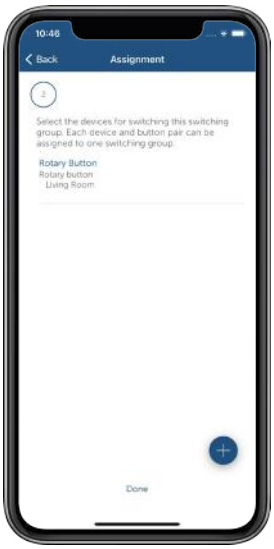


Figure 37: Screenshot Selecting trigger for switching group

Each device and button pair can be assigned to one switching group only.

- Confirm the system button of all triggering devices to confirm the configuration. Afterwards, tap on OK.

10.2.2 Rename or delete switching groups

- In the app home screen, tap on the main menu icon "... More" and select "Allocations / Groups" in the main menu.
- Subsequently, select the switching group by pressing the switching group for a longer time (Android) or swipe from right to left (iOS).
- Tap the pen icon in the headline (Android) or "Rename" (iOS), enter the new name of the switching group and tap "Confirm".
- For deleting a switching group, tap on "Delete" and subsequently confirm the deletion process.

10.2.3 Selecting the dimming value

If one or more dimming actuators are integrated into a switching group, you can use the menu item "Dimming value" to adjust the dimming value for all dimming devices of this group.

- In the menu "Allocations / Groups" select the desired switching group by tapping on it.
- Tap on "Dimming value" and select the dimming value using the control dial. Furthermore, you can switch the actuators to the last dimming value used.
- Tap on "OK" (Android) or "Done" (iOS).

10.2.4 Defining the switch-on time

- In the menu "Allocations / Groups" select the desired switching group by tapping on it.
- Tap "Switch-on time" and select the switch-on time (1 second to 30 hours or infinitely).
- Tap on "OK" (Android) or "Done" (iOS).

Figure 38: Screenshot Select trigger for switching group

10.3 Create switching profile/ time profile

With the "Time profiles" function you can set up switching profiles for your light control You can thus switch on and off e.g. switch actuators at certain periods of time or depending on sunrise and sunset. Or you can use dimming actuators to dim lights for defined periods of time to a desired brightness value.

- In the app home screen, tap on the main menu icon "... More" and select the menu item "Time profiles" under "Light and shade" in the main menu.
- Tap on the + symbol and select the option "Switching profile". Enter the name of the switching profile.
- Tap on "Return" (iOS) or "Enter" (Android) and then on "Continue".
- Tap on the +-icon and select one after the other all devices you want to allocate to this switching profile.
- After finishing your selection, tap on "Continue".

Each device and button pair can be assigned to only one switching profile.

- You can now adjust further settings for your time profile. Tap on "Time profile" to set-up the switching times and dimming values.

Selection "Switching time"

- In the overview, select the menu item "Time profile" an tap on the + sign afterwards.
- In the following window select "Switching time" and tap on "Switching time" (iOS) or "Confirm" (Android).
- Select the weekday(s) to which to the corresponding switching time should be applied.

Figure 39: Screenshot Adjusting the switching profile

- Afterwards, select the switching time and the switching status (on/off) of your actuator to the selected switching time.

Selection “Sunrise” / “Sunset”
You can also add a time-depended condition to to your set switching times:

- **No condition**: If you select the option “Sunrise” or “Sunset” for your switch actuator instead of a switching time, your actuator is switched into the defined status at sunrise/sunset, if you have selected the option “No condition”.
- **Earliest at**: If you select the option “Earliest at”, your actuator is switched to sunrise; at the earliest, however, to the selected point in time in your defined status. Additionally, you can define via “Time shift”, by how many minutes before or after the sunrise your actuator is to start switching, e.g. 30 minutes before sunrise, but at the earliest at 06:00 o’clock.
- **Latest at**: If you select the option “Latest at”, your actuator is switched at sunset; at the latest, however, to the selected point in time in your defined status. Additionally, you can define via “Time shift”, by how many minutes after or before the sunset your actuator is to start switching, e.g. 30 minutes after sunset, but at the latest at 21:00 o’clock.

The following example presents a switching profile for outdoor lighting which is switched on from Monday to Friday from sunset to 23:00 o’clock, but not before 19:00 o’clock:

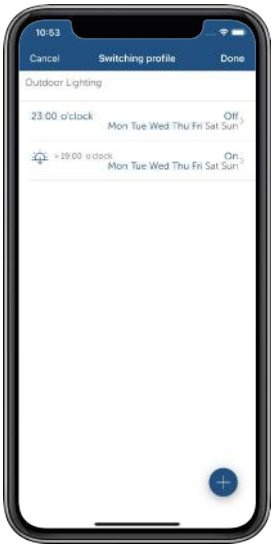


Figure 40: Screenshot Example outdoor lighting

After configuration of the switching profile you can create additional time profiles by tapping on the + symbol.

Even after your Homematic IP device has been restarted (for example after a device update), the device’s last profile status is now automatically restored. For example, a switching or dimming actuator’s last selected time profile will continue to be run after the restart.

Note that a switch actuator’s last switching state (on/off) is not automatically restored after a restart. You can define the actuator’s behaviour after power is restored in the the respective device’s settings under “Action on power supply”.

10.4 Special characteristics regarding switching with motion detectors/ presence sensors

Motion detectors and presence sensors are available as triggering devices for switching groups only if the device allocation of the device the application “Light and shade” has (also) been selected.

If the switching group is switched via a motion detector or presence sensor, the switch-on time should be at least 4 minutes.

Owing to the dusk sensor integrated into the motion detector or presence sensor, you can select – in the configuration of a switching group – two brightness threshold values for triggering the detector/sensor. You can individually determine a value between 0 and 255. In general, a low preset value means that the motion detector or presence sensor will react in darkness. In case of a higher preset value, it will also react in case of brighter lighting conditions. In addition, you can take over the current brightness value of the surroundings as brightness threshold for the sensor.

The first brightness threshold value indicates the brightness setting at which the sensor is to be triggered. The second value indicates when the sensor is to remain active, i.e. should continue triggering if the light is already switched on. This is to ensure that the motion detector or presence sensor will not be deactivated by the light that it has switched on, and that the light will remain switched on for as long as the detector detects movements.

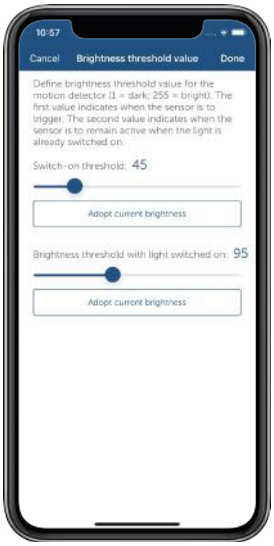


Figure 41: Screenshot Configuration group with motion detector / presence sensor

10.4.1 Measuring power consumption

Devices such as the Homematic IP Pluggable Switch and Meter allow both switching on and off as well as the display of the consumed energy costs of connected devices (“consumers”), for example via the Homematic IP smartphone app.

Setting the consumption parameters
So that the energy costs of your connected device will be displayed correctly and in the desired currency,
it is necessary to first enter the price
per kilowatt-hour applicable for your household. You will receive the relevant information on your current rates by your energy provider.

Optionally, you can also adjust the currency. To do this, proceed as follows:

- Tap on the main menu symbol "... More" and there on "Settings".
- Select the menu item "Consumption metering" in the "General settings" menu.
- Under "Price / kWh", enter your current rate in Euro per kilowatt hour.

After tapping on the left arrow in the top left corner of the screen, the entry will be stored.

You can adjust the currency if required following "Settings", via "Consumption metering" under
"Currency". In the default settings, the energy costs are displayed in Euro (EUR).

You can display the measured consumption values via the room in which the device is located. Under the menu item "Consumption metering" you will see the consumed energy in kWh as well as the energy costs in the selected currency – individually and in total.

You can reset the measured consumption values in the device view at any time. Please note that consumption values will no longer be available after such a reset.

10.4.2 Special characteristics regarding switching with motion detectors/presence sensors

Motion and presence sensors are available as triggering devices for switching groups only if the application "Light and shade" for the device was (also) selected in its device allocation.

If a switching group is to be switched via a motion detector or presence sensor, the switch-on time should be at least 4 minutes.

- Owing to the integrated twilight sensor, the brightness threshold value of the motion or presence sensor can be adjusted in the app to a value between 0 and 255. A low value means that the motion or presence sensor switches on only during darkness. In case of higher values, it also reacts during daylight. In addition, you have the option of taking over the current brightness value of the sensor as brightness threshold.

10.5 Configuration options for motion detectors and presence sensors

Figure 42: Screenshot Setting options, motion detector and presence sensor

10.5.1 Brightness filter

If the motion detector/presence sensor detects movement, current brightness is also simultaneously determined. If no motion is detected over a longer period of time, the lowest value of several measurements is ascertained for a determination of the brightness value. In the app, the number of measurements can be specified via the device configuration of the motion detector in the menu item “Brightness filter”. The brightness filter has the function to determine the current brightness value as realistically as possible. The more measured values are used, the larger will be the period for determination of the brightness value. The default are “8 measured values”. With a non-detected movement, a measurement is taken at an interval of about 6 minutes; in that case, the smallest value determined over a period of about 48 minutes is transmitted as the brightness value. For 7 measured values, the period of time would be about 42 minutes, etc. This has the advantage that short-term brightness fluctuations (e.g. headlights of a passing car) only have a very low impact on the determination of the brightness value. For the use of a motion detector/presence sensor, it is recommended, for instance, to set fewer measured values to keep the period of time for measurement as low as possible and thus taking faster into account any shutters moving upwards, for example.

10.5.2 Minimum transmission interval for motion detection

The motion detector/presence sensor immediately reports the first detected movement. After that, the motion detector remains in the status “motion detected” for a certain period of time. If motion occurs again within that period of time, this motion does not trigger any reporting. Default setting is a transmission interval of 4 minutes which is sufficient for most applications and, at the same time, goes easy on the batteries of the device. The transmission interval should always be smaller than the duty cycle of the lighting. However, for special cases, the transmission interval can be adjusted in the app via the device configuration of the motion detector – under the menu item “Minimum transmission interval for motion detection”. This may be, for example, very short desired operating times for lighting. However, it is to be noted here that a reduction of the transmission interval might have a considerable impact on the battery life.

10.5.3 Buffer detected movements

If you control the light exclusively with a motion detector/presence sensor, it is reommended to activate the function "Buffer detected movements" in the device configuration of your motion detector. In this setting, the sensor of the motion detector still continues to be active after a detected movement and will report any further movement independent of the selected minimum transmission interval.

Use a motion detector/presence sensor to control light in combination with remote controls by means of which you can manually switch off the light should this function be deactivated. This prevents the light from being switched on again unintentionally.

10.6 Light configuration

10.6.1 Alarm light

In this menu item you can define, if and which light source is switched on in case of alarm.

- In the "Light configuration" menu, tap on "Alarm light".
- Select the devices listed under the individual rooms for switching on connected light sources in case of alarm.
- Tap on "OK" (Android) or "Done" (iOS).

You can activate one or more devices for this function.

Figure 43: Screenshot alarm light

10.6.2 Panic light

Here you can select the light source(s) that are switched after pressing the Wall-Mount Remote Control.

- In the "Light configuration" menu, tap on "Panic light".
- Select the devices listed under the individual rooms which are to switch on connected light sources upon pressing the wall-mount remote control.
- Tap on "OK" (Android) or "Done" (iOS).

You can activate one or more devices for this function.

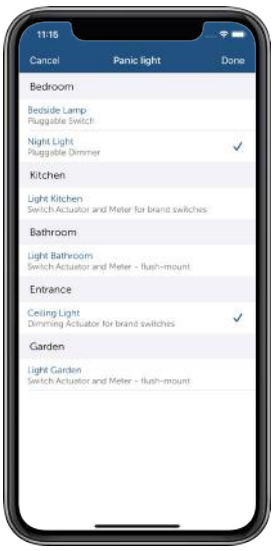


Figure 44: Screenshot panic light

10.6.3 Coming home light

The coming home light which provides e.g. light for dark spots in the entrance area is switched via the light button of a Homematic IP Key Ring Remote Control.

- In the “Light configuration” menu, tap on “Coming home light”.
- Select the devices listed under the individual rooms which are to switch on connected light sources after pressing the light button of the Key Ring Remote Control.
- Tap on “Done”.

You can activate one or more devices for this function. The coming home light is switched off again by a long button press of the remote control light button.

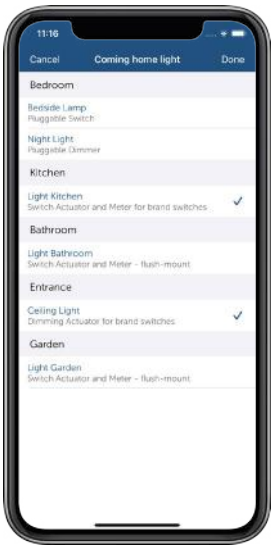


Figure 45: Screenshot Coming home light

11 ACCESS

11.1 Add/startup of the Homematic IP Door Lock Drive

To integrate the device into your system and to enable control via the Homematic IP App, the device must first be paired to the Homematic IP Access Point.

- Open the Homematic IP App on your smartphone.
- Add the Homematic IP Door Lock Drive as usual on the Homematic IP App. For further information, please refer to the section *„5.2.4 Pairing of devices"* or to the operating manual of the device.

The app automatically queries whether the device was already installed or not. If the device was not yet installed, the installation wizard starts in the app with step-by-step instructions for the installation on the cylinder lock of the door.

As the following is concerned with security-relevant functions, the system PIN is requested before certain steps are taken (pairing, deleting or editing of access authorizations); i.e. the PIN which you had assigned upon setting up the Homematic IP App on your smartphone.

- Enter the system PIN and confirm your entry.
- Allocate the device in the app to a room and give the device a name. Tap on "Continue".
- Select the closing direction of the door. Take care that the position of door lock and door lock drive determines the closing direction when you look onto the door from the inside. Tap on "Continue".
- In the next window, select the type of door handle on the outside of the door. The choice of door handle also has its effect on the function of the door lock drive. Accordingly, please note diligently the explanations in the app.
- Make your choice and tap on "Continue".
- In the following window, select the neutral position of your key. This is the position in which the key can be inserted or, respectively, removed.
- In the following step, you will check how many full turns are required to completely lock the door from an originally unlocked position.

11.1.1 Closing times

By defining closing times, you are able to determine points in time as of which the door is automatically locked (e.g. over night):

- Tap on "Add new point in time".
- Select one or several day(s) of the week as well as the closing time and confirm your selection with "OK". You can define, at any time, additional points in time and change or delete closing times.

11.1.2 Access authorisations

By awarding access authorisations, you tie in the door lock drive with smartphones trained in the Homematic IP system and with Homematic IP devices, such as Key Ring Remote Control – access. That means, the control of door look drive – i.e. opening, unlocking and locking of the door – is exclusively possible with devices for which an access authorisation had been awarded.

Limits per access authorisation	Maximum number
Door lock drives in access authorisation	3
Key ring remote controls for controlling a door lock drive *	18 (Buttons / button pairs)
Smartphones for controlling an access authorisation	42

* Pushbutton, remote control or user channels for controlling a door lock drive

Up to 8 access authorisations per door lock drive may be created per door lock drive.

Preparation of access authorisations

- In the pairing menu, tap on "Preparation of access authorisations" to prepare an access authorisation.

If you already prepared an access authorisation, use the menu item "Add to existing access authorisation".

You may subsequently create or edit additional access authorisations at any time via the main menu and the menu item "Access authorisations".

- Provide a meaningful name for the access authorisation, e.g. "access authorisation, family" or "iPhone Max". Tap on "Continue".
- Did you prepare already an access authorisation via the main menu, select the door lock drive(s) to be controlled.
- Select in the following window which smartphones or devices are to control the door lock drive and tap on "Continue".
- Award an access authorisation PIN to protect the control of the door lock drive. Without awarding an access authorisation PIN, even unauthorised persons are able to control the door lock drive via the corresponding smartphone. The PIN moreover prevents the accidental operation via the app. Choose a PIN with 4 – 10 digits and keep the PIN in a safe place.

11.1.3 Time profiles

By default, any newly defined device with access authorisation has temporarily unlimited access to the door lock drive. Accordingly, anybody with such a device is able to access your home around the clock. However, you can limit the access possibility in time through the definition of a time profile. As is the case e.g. with time profiles in light and shading control, the time profiles can be deleted, changed or copied to other weekdays at any time via the main menu under access authorisations – time profile.
As an example, brief instructions are here presented for access, limited in time, in the morning and in the evening:

- Tap on the menu item "Edit time profile" and select Monday in this case.
- After tapping on the plus symbol on the lower right corner of the screen, select the starting point and the end point of the first block of time (e.g. mornings from 06:30 to 08:30 hrs) and tap on "Save".
- After tapping again on the plus symbol in the lower right corner of the screen, select the starting point and the end point of the second block of time (e.g. evenings from 18:30 to 20:30 hrs) and tap again on "Save".

- Go back to the time profile. By swiping the Monday profile to the right, you have the option to copy the before defined time profile to one, several or all weekdays or to individually determine times for every weekday.

Figure 46: Screenshot time profile – copy/delete point in time

- After your selection, tap on "Save".
- If you scroll down in the menu "Time profile", you can activate or deactivate the access to the door lock drive for all days by tapping on one of the buttons. In that case, the adjusted time profile will be deleted.
- After setting a time profile, tap on "Done".
- The door lock drive was added and the access authorisation for the device was successfully deposited
- Tap on "Done" to conclude the setting.
- Alternatively, tap on "Jump to the menu item Access authorisation" to edit access authorisations or to set up additional ones.

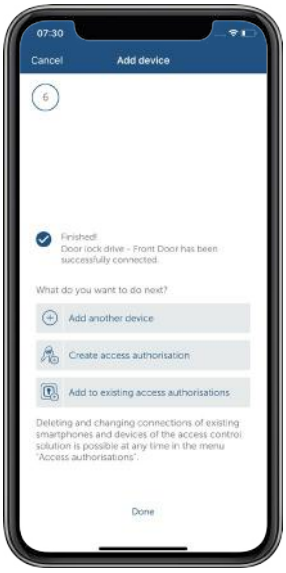


Figure 47: Screenshot paired Door Lock Drive

11.2 Pairing and tying the Key Ring Remote Control

The Key Ring Remote Control – access, optimised for the Homematic IP Door Lock Drive is paired as any other Homematic IP device. Detailed information in this respect is found here in the instruction manual of the device. In order to use the Key Ring Remote Control for controlling the Door Lock Drive, an access authorisation must be established for the remote control, as also for a smartphone, for example. To do this, proceed as follows:

- In the pairing menu, tap on "Preparation of access authorisation".

If you already prepared an access authorisation, use the menu item "Add to existing access authorisation".

You may subsequently create or edit additional access authorisations at any time via the main menu and the menu item "Access authorisations".

- Award a meaningful name for the new access authorisation, for example "Key Ring Remote Control, Max".
- Select the door lock drive(s) which are to be controlled. Tap on "Continue".
- Select the desired Key Ring Remote Control for controlling the door lock drive.

Alternatively, the door lock drive can also be controlled via a smartphone, wall pushbutton, contact interface or input module. In order to be able to use the devices in the access authorisation, they must first be assigned to the access solution.

- After tapping on "Continue", the access authorisation will be prepared.

In the following window, you can prepare, if necessary, a time profile for remote control access to the Door Lock Drive *(see section "11.1.3 Time profiles" on page 86)*.

- The Key Ring Remote Control was successfully added and the access authorisation for the device was successfully deposited.
- Tap on "Done" to conclude the setting.
- Alternatively, tap on "Jump to the menu item Access authorisation" to edit access authorisations or to set up additional ones.

11.3 Configuration for devices with access authorisation

In the main menu under "access authorisations", you can see for which smartphones and devices access authorisations had already be prepared. The system PIN is required for access to this menu item. By tapping on a corresponding smartphone or device you get to the settings options for the pertinent access authorisation. The following settings can there be adjusted:

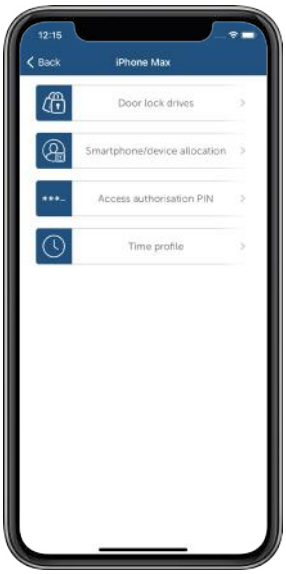


Figure 48: Screenshot Configuration access authorisations

- In the menu item "**Door lock drives**", select the door lock drives which are to be controlled.
  - Tap on one or several of the listed door lock drives and confirm the selection with "Done".

- Under the item "**Smartphone/device allocation**" you have the option to select or deselect individual devices and voice assistants which are to control the door lock drive. In order to enable the allocation, devices such as e.g. Key Ring Remote Controls must be add as usual. For the selection of smartphones, those smartphones are available which are connected with your Homematic IP System. Selected additional smartphones are designated with a key symbol in the menu "access authorisations" under the devices with access authorisation.

- In the menu item "**PIN**", you can assign for the users of this access authorisation at any time a new access authorisation PIN to protect the control of the door lock drive. The PIN must comprise a total of 4 to 10 digits. If you want to eliminate this combination of numbers, leave the fields unfilled when the PIN is to be entered and tap on "Done". You will find further information regarding the PIN in the section „11.5 PIN protection and biometrics".

- Under "**Time profile**", a time limit is created for access by users of this access authorisation, if necessary. You will find details on setting up the time profile in the section „11.1.3 Time profiles".

11.4 Device settings, door lock drive

Via the overview of devices and after selection of the Door Lock Drive, you will get to the device settings. Numerous options are here available to you:

- Open the main menu under “More...”, tap on “Device overview” and select the Door Lock Drive.
- Enter the system PIN. The device settings are displayed.

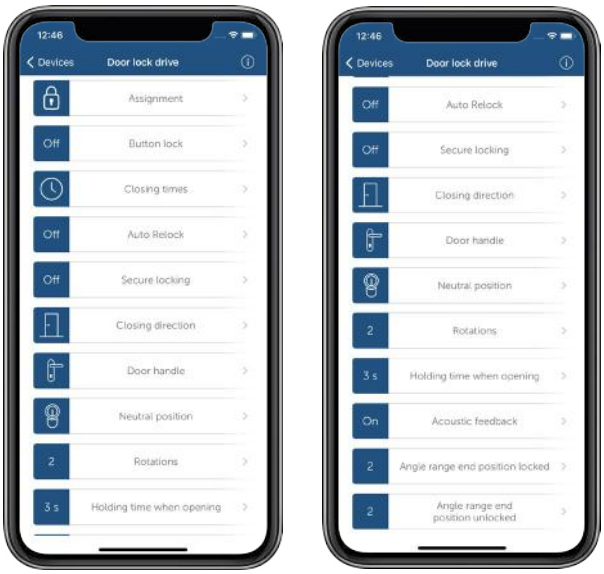


Figure 49: Screenshot Device settings, door lock drive

- Under “**Allocation**”, you can select or subsequently change a room as well as a device name for your door lock drive. Additionally, after a quick access to the menu item “Access authorisations” (see above), you have the option to create, extend or delete access authorisations.
- In case of an activated “**Key lock**”, the door lock drive can no longer be directly operated on the device by means of the two keys. Manual operation via the handwheel remains possible.
- Via the menu “**Closing times**”, you can establish closing times for door lock drives *(see section “11.1.1 Closing times” on page 85)* as of which it is to be automatically locked, for example every evening at 22:00 hrs.
- Via the menu item “**Auto relock**”, you can deposit a time span for automatic locking of the door lock drive. With activated Auto relock, a selected door will be automatically relocked again after having been opened – following a delay period between one minute and up to 30 minutes which you had specified. The standard setting is
  - a delay period of five minutes and
  - all weekdays are deactivated.

  Starting from the standard setting, you can
  - change the delay period of 5 minutes to a value of between 1 minute and 30 minutes, and you can also
  - specify individually on which weekdays and at which times of the day the “auto relock” function is to be active.

  The determination of active times is effected analogously with the preparation of time profiles *(see section “11.1.3 Time profiles” on page 86)*.
  Scroll down in the menu “Auto relock” and you can – by tapping on one of the buttons

– activate or deactivate the function for all weekdays, or you can restore the standard settings. In all cases, the time profile set beforehand will be deleted.

- If you are not personally on location to check whether your door stands open – upon locking via a door lock drive – you may use the "**Secured locking**" in combination with a door and window contact or with an entrance module configured as such. The contact is simply installed on the same door as the door lock drive and thus checks upon locking whether the door is open or closed. In case of an opened door, you will receive a push message on your smartphone as well as an alarm message in the Homematic IP App.

The contact mounted on the door must be allocated, in the app, to the room in which the door lock drive is also located and must be allocated the function via the before explained menu entry of the door lock drive.

For the door and window contact, you must not activate any message delay since the message delay impacts the secured locking.

The secured locking is compatible with the following types of devices: HmIP-SWDO, HmIP-SWDM.

You already specified the other parameters – **closing direction, door handle, neutral position and revolutions –** in the course of the pairing process of the door lock drive. Here, you have the opportunity to change these parameters if necessary.

11.5 PIN protection and biometrics

For entering the area of "Access authorisations", it is recommended to enter the system PIN which was attributed upon setting up the smartphone app. A special access authorization PIN prevents unauthorised persons from controlling the door lock drive via your smartphone. The access authorization PIN protects the control of the door lock drive via smartphone. This is to ensure that unauthorized opening, unlocking or locking is only possible if you know the appropriate PIN. This makes it impossible for unauthorized persons to control the front door.

The access authorization PIN is not to be confounded with the system PIN. You will find details on the system PIN in the section *„5.2.6 Determine system PIN".* There can only be one system PIN, but multiple access authorization PINs.

If an access authorization PIN was deposited, you will be asked to enter it in the home screen when opening the door lock drive via smartphone.
Upon the initial request of the access authorization PIN, a special window is opened by means of which you can enter and confirm the PIN. As a second option you can "Connect PIN with Biometrics". With smartphones supporting this function, you can here tie in the Touch ID or Face ID here and quite comfortably control the door via Touch or Face ID.

Figure 50: Screenshot PIN query prompt door control

If you have connected the access authorization PIN with biometric functions of a smartphone, the menu item “Settings” in the main menu of the Homematic IP smartphone app will be expanded by the menu item “Biometrics”. Here you can delete again the biometric link if you prefer again the use of an access authorization PIN.

11.6 Controlling garage door drives

In connection with the modules for Hörmann or Novoferm drives or the Homematic IP Garage Door Controller, it is quite simple to integrate the smart control of garage door drives into the Homematic IP system. The garage or entrance door can be easily opened, closed, stopped or moved to a ventilation position when using the app, the garage door controller or a remote control. Controlling with the app allows for flexibility, via home favourites, in the room view under “Access” or via garage door groups.

Garage doors can currently not be controlled by voice commands.

You have two options regarding the smart control of garage doors in the Homematic IP system:

11.6.1 Controlling the garage door via modules for Hörmann or Novoferm drives

Many different models of Hörmann or Novoferm garage door drives can be controlled with the Homematic IP App or with a Homematic IP remote control in connection with a Homematic IP Hörmann or Novoferm module. These modules can be integrated into the door drives without the need for tools due to the use of plug connectors and will be supplied with power by the drive. You will find further information in the operating manual of the corresponding module.

The garage door status (moving, open, closed, partial opening, e.g. for ventilation) can be seen any time in the Homematic IP App. Additionally, the light integrated in the garage door drive can be comfortably switched on or off via the app as well.

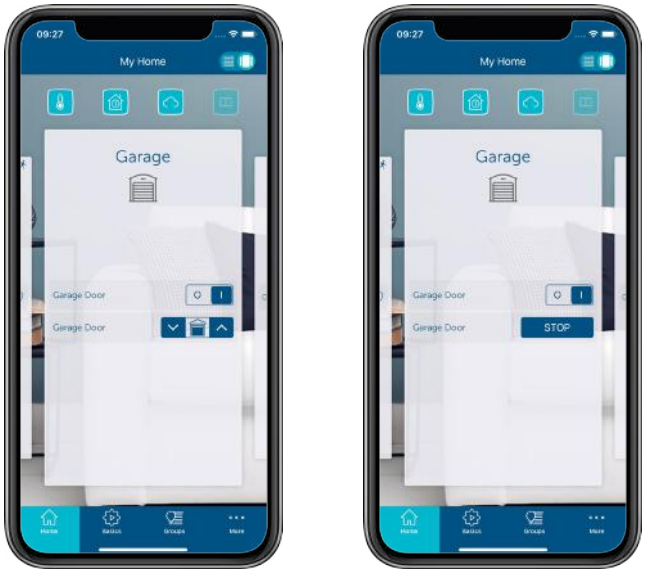


Figure 51: Screenshots Garage door drive and status display via Hörmann or Novoferm module

11.6.2 Controlling the garage door with the Homematic IP Garage Door Controller

The Homematic IP Garage Door Controller can easily be retrofitted to comfortably open and close the garage door or to stop it in motion with the push of a button. The controller can be directly connected to all regular garage door drives via the integrated switching contact, thus replacing the conventional button for manual garage door control. Depending on the installation environment, voltage is supplied by batteries, a plug-in power supply unit or directly from the garage door drive, if necessary. For further information, please refer to the operating manual of the garage door controller. On-site, the garage door can be controlled directly by using the garage door controller, via a remote control or you can control it any time en route via the Homematic IP App.

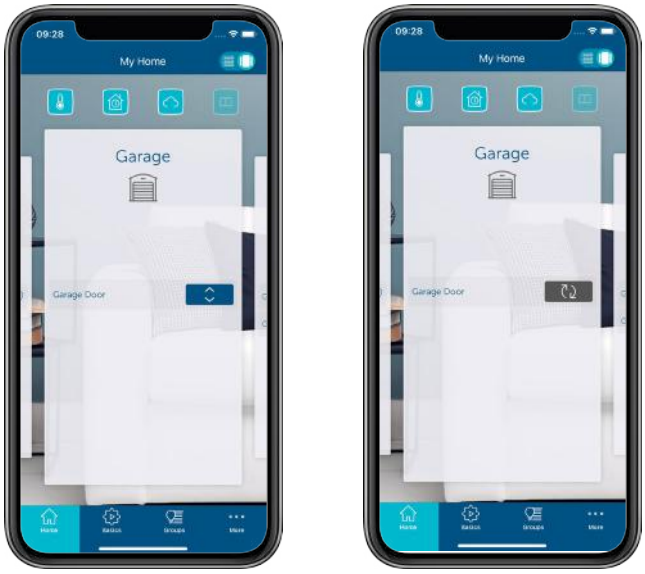


Figure 52: Screenshots garage door control by garage door controller

By default, the pulse duration for closing the contact at the garage door drive, and thus for controlling the garage door, is set to 0.4 s. If a different pulse duration should be necessary for controlling your garage door drive, you can easily edit the value in the device settings of the garage door controller's output.

Figure 53: Screenshot garage door controller pulse duration

The garage door controller is not able to detect the garage door's current status (moving, open, closed). The garage door can be controlled by using buttons in the app, but it cannot be moved in a specific direction or stopped via the app.

11.6.3 Garage door groups

Please note: Update the chapter on groups (shutter groups, switching groups) in the manual!
By using the garage door groups, the relevant devices for controlling the garage door can be combined quickly and easily. The group function allows it to combine in a group for example garage door controllers or modules for Hörmann or Novoferm drives with remote controls or controllers for garage door opening and closing. Due to the direct links between the devices, the door drives can be reliably controlled via remote control or controller, even without active internet connection.

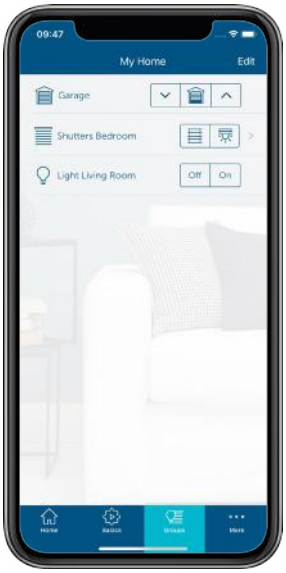


Figure 54: Screenshot groups overview

To create a garage door group, proceed as follows:

- In the app home screen, tap on the main menu icon "... More" and select the menu item "Allocations /Groups" under "General" in the main menu.
- Tap on the + symbol and select the option "Garage door group".

Figure 55: Screenshot selection "Garage door group"

- Please enter the name of the garage door group.
- Tap on “Return” (iOS) or “Enter” (Android) and subsequently on “Continue”.
- Tap on the +-icon and select one after the other all devices you want to allocate to this group (receiver, e.g. module for garage door drives or garage door controller).
- After finishing your selection, tap on “Continue”.
- Subsequently, select the devices that are to be switched by this group (trigger, e.g. controller or remote control) and tap on “Done”.
- Please select which action (e.g. opening or closing of the door) is to be performed when pushing the button. This selection depends on the type of triggering device.
- Confirm the system buttons of all battery-operated triggering devices to transmit the configuration. Subsequently, tap on “OK”.

12 GROUPS, TIME PROFILES AND AUTOMATION

Apart from the basic functions, your Homematic IP system offers a wide range of possibilities for facilitating the control of components. The selection of menu items **Groups**, **Time profiles** and **Automations** allow for the connection of Homematic IP devices with each other or the performance of automatic actions.
In contrast to time profiles and groups that remain activated even without internet connection, active internet and cloud connection is required for proper performance of the "Automation" function as the automation rules are verified via the Homematic IP cloud.

12.1 Links / groups

With the "**Links / groups**" function, you can use the app to create direct links between devices. Direct links means, that even if at some point in time there is no connection to the internet or the cloud, the communication between the devices remains guaranteed.
It is possible to create switching, shutter, or garage door groups; all depending on the available components. In this way you can combine for example Homematic IP Pluggable Switches, Motion Detectors, or Switch Actuator and meters into a switching group, thereby triggering the switching on and off of lights via motion detection. You can also group shutters and blinds into shutter groups and comfortably control your actuators at the push of a button.
Controlling and editing previously created groups can be done in the home screen via the tab "Groups" (at the bottom).

Figure 56: Screenshot groups in the home screen

12.2 Time profiles

With the "**Time profiles**" function for light and shutter control, you can switch on and off e.g. switch actuators at certain points of time or depending on the sunrise and sunset. Furthermore, you can use dimming actuators to dim lights for defined duration to a desired brightness value. The similar case also applies for the "Shutter profiles" function

Details on the creation of a time profile for switching or shutter actuators can be found in section *"Create switching profile/ time profile" on page 78* or *"Creating time profile" on page 69.*

12.3 Automations (activation and deactivation)

For all functionalities that can neither be set up via groups nor via time profiles, the automation function can be used. You can use the "**Automation**" function of the Homematic IP App to automate numerous tasks within your Homematic IP system. Additionally, operations can be connected across all solution variants (light control, heating control, security, etc.).

For the automation of tasks for automatic execution, it is necessary to create rules. These rules always include at least one trigger and one action that starts if the condition for the trigger(s) is/ are fulfilled, e.g. if a room temperature falls below a certain threshold value. Furthermore, the function offers the possibility to define additional conditions that must be fulfilled to introduce the action desired.

Activation and deactivation of automations

In the default settings, all automations defined by you are activated and will be executed in case of an active Internet connection. However, you can deactivate and deactivate the automations at any time if required.

- To activate or deactivate the automation, open the corresponding automation. Use the controller "Active" to activate the automation or to deactivate the execution of your automation.

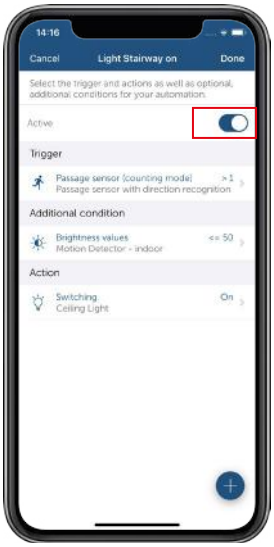


Figure 57: Activation and deactivation of automation

13 VOICE CONTROL AND ADDITIONAL SERVICES

13.1 Comfortable voice control for your smart home

The connection of Amazon Alexa or Google accounts with your Homematic IP smart home system provides the possibility to control a large number of Homematic IP devices and functions via voice commands in connection with a compatible loudspeaker with integrated voice assistant.

Apart from this, you can also use smartphone apps like Google Assistant for controlling your smart home system via voice commands - even without a Google Home loudspeaker.

The functionalities supported by Amazon Alexa so far include heating control and the activation of alarm functions as well as light control (switching on/off and dimming) and shutter control (moving shutters up and down). Also activation and deactivation of the eco mode and controlling of switching groups is supported. Due to security reasons, alarm functions can be activated but not deactivated via voice commands. The system is already preconfigured such that voice command devices do not even execute any voice commands concerning further Homematic IP functions during activated absence mode and activated presence mode. Via the Homematic app you can configure your system such that voice commands can still be executed for Homematic IP functions also during active presence mode or active absence mode.

Also the Google Assistant app offers various functionalities. In connection with the Homematic IP App, Google allows for the switching on and off of light control switching and dimming actuators, the dimming and switching of light groups, heating control including selection of the desired room temperature, as well as querying of current settings and the current room temperature, or activating and deactivating the eco mode. Finally, also the absence and presence mode can be activated. Also in this case, deactivation is not possible in the standard settings for security reasons.

Requirements for using the voice control

Amazon Alexa:

- Homematic IP system with Homematic IP Access Point and devices that support language control
- Compatible smartphone (Android or iOS) with the current version of the Homematic IP App
- Amazon user account
- A loudspeaker supporting the Amazon voice service (e.g. Amazon Echo Dot, Amazon Echo, Amazon Echo Plus or Amazon Echo Show)
- An active internet and cloud connection

Google Home:

- Homematic IP system with Homematic IP Access Point and devices that support language control
- Compatible smartphone (Android or iOS) with the current version of the Homematic IP App
- Current version of the Google Home app or alternatively the latest version of the Google app (only Android)
- Google account

- Compatible smartphone or tablet (the minimum requirements to the operating system for running the Google Home app must be fulfilled)
- An active internet and cloud connection
- Google Home device (optional)

Voice control services always require an active internet and cloud connection as well and thus should be complemented by additional direct links with Homematic IP devices, in order to guarantee device control in the event of an internet failure for example.

13.2 Voice control with Amazon Alexa

13.2.1 Setting up Amazon Alexa

- Connect your Alexa-enabled loud speaker via the mains cable to the power supply.
- Download the free Alexa app to your smartphone.
- Start the Alexa app and log into your Amazon account with your login data.

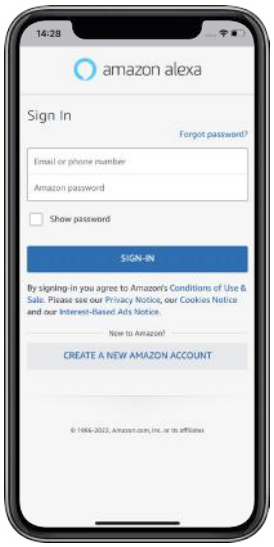


Figure 58: Screenshot Amazon Alexa login

- Tap on the device symbol .
- Tap on the + symbol in the upper right corner of the screen and subsequently on “Add device”.
- Tap on “Amazon Echo”, select the Echo device you want to set up and connect your Amazon Alexa-enabled loud speaker with your WiFi. Follow the instructions in the app.
- This will be followed by the message: “You are now connected. Please go back to the Alexa app.”
- Tap on “Continue”.
- Choose the WiFi and tap on “Connect”.
- Tab the “Continue” button if the setup is completed.

13.2.2 Connecting your Homematic IP smart home system with Alexa

Automatic procedure (recommended)

- Open the Homematic IP App. Under “More...” in the app’s main menu, select the menu item “Voice control and additional services” and select “Amazon Alexa”.
- Tap on “Link Alexa (automatic procedure)”.

Figure 59: Automatic linking procedure screenshot

- Tap on “Link to Alexa app” to create the link.

If links with Alexa have already been made, you can delete them if necessary by clicking on the button “Cancel all Alexa links”.

- If you have assigned a system PIN, you must enter it. Then tap on “Query”.
- Activate the Alexa Skill by tapping on “Link”.

Figure 60: Link with Alexa Skill screenshot

- A notice appears that the link was successful.

Manual procedure (alternative)

- Open the Homematic IP App.
- In the app's main menu, under "More..." select the menu item "Voice control and additional services" and access the menu item "Amazon Alexa".
- Tap on "Coupling". Get the activation key for connecting the Amazon Alexa app with the Homematic IP smart home skill and copy said key.

Figure 61: Screenshot Copy the activation key

- Tap on "Copy" (iOS) or the icon (Android).

Activation the Homematic IP smart home skill in the Amazon Alexa app:

- In the Alexa app, tap on the main menu symbol in the upper left corner of the screen and select "Skills and games".
- Tap on the magnifying glass symbol and enter "Homematic IP" into the search bar.
- Choose the Homematic IP skill by tapping, and tap the "Activate for use" button.

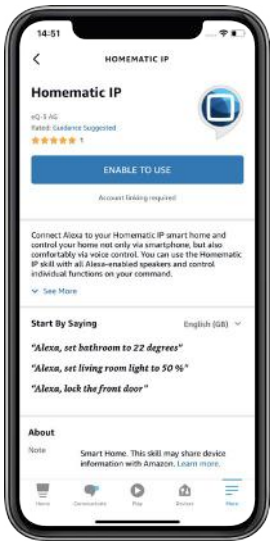


Figure 62: Screenshot searching the Homematic IP skill

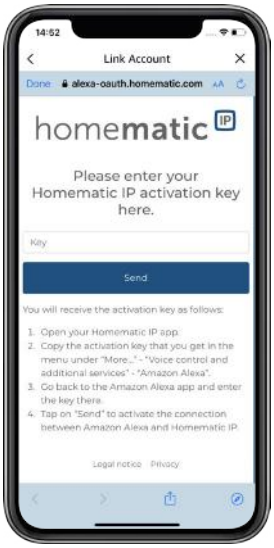


Figure 63: Screenshot Enter the activation key

- Enter the activation key into the request field. Therefore, keep the entry field pressed and tap on "Enter".
- Press the "Send" button to establish the account linking.

13.2.3 Setting up your Homematic IP devices

- Close the window and open the Alexa app.
- Tap on the main menu icon and there on "Add device".
- Under the menu item "Which type of device are you setting up?", select the option "Other" and tap on "Scan for devices". This will start the scanning process.

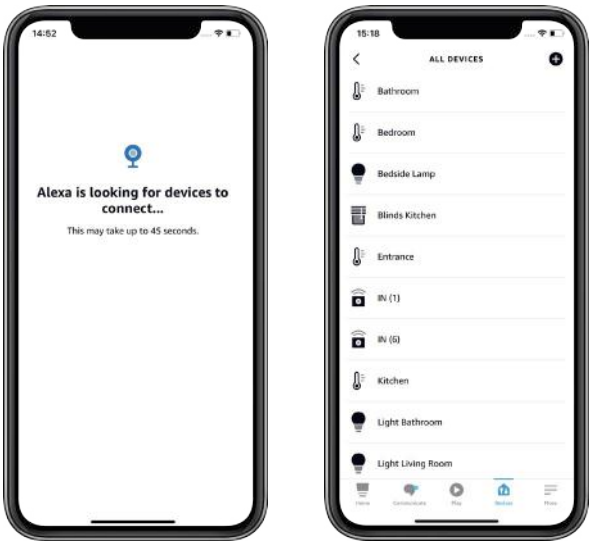


Figure 64: Screenshot scanning for devices and device overview

- In the Alexa app, you will find in the menu item "Smart Home" all groups, devices and scenes that Alexa has found and can control. The descriptions of devices and functions are automatically adopted from the Homematic IP App.

You will now be able to control a large number of functions and devices of your Homematic IP smart home system via voice control.

13.2.4 General information about Alexa and Homematic IP

Amazon Alexa-enabled devices only react to voice commands if you say the wake word. The wake word "Alexa" can be changed in the Alexa app if necessary.

*"**Alexa**, set bathroom to 29 degrees."*

You should use unique names for all Homematic IP devices, functions and switching groups as well as groups in the Alexa app. Only in this way Alexa will be able to assign them correctly.

Avoid descriptions with a similar beginning. For example, the description "Bedroom light" can be interpreted by Alexa as voice command for a similar heating group that is named "Bedroom" and can thus not correctly allocate the command. In contrary, if you select a description like "Lights bedroom", this will cause less errors by Alexa.

To avoid confusion with voice commands, you can adjust the device and group names in the Homematic IP App. Update device list in the Alexa app afterwards.

Word-letter combinations like "Guest WC" or word-number combinations like "Kitchen 1" may under certain conditions not be processed correctly by Alexa.

13.2.5 Devices and functions supported by Amazon Alexa

The following Homematic IP devices and functions are currently supported:

Device/function	On/ Up	Off/ Down	Set %	Raise %	Lower %	Set °C	Raise °C	Lower °C	Values/Status retrieval	Lock / Open
Switch actuators	✓	✓								
Dimming actuators	✓	✓	✓	✓	✓					
Shutter and blind actuators	✓	✓	✓	✓	✓					
Temperature sensors									✓	
Weather sensors									✓	
Door lock drives									✓	✓
Module for garage door drive									✓	✓
Switching groups	✓	✓								
Heating groups						✓	✓	✓	✓*	
Shutter groups			✓							
Presence mode	✓									
Absence mode	✓									
Eco mode	✓	✓								

* Setpoint and actual temperatures

The deactivation of presence mode and absence mode via voice commands is only possible if the option “In every mode” is selected under “Settings”, “Voice control”, “Control with active protection” in the Homematic IP App.

13.2.6 Deleting the connection between Homematic IP and Alexa

The connection between your Homematic IP App and the Alexa app can be deleted as follows:

- Open the Homematic IP App and in the menu, tap “Settings” in the “General” section.
- Select “User overview”. In the next window, choose the “Amazon Alexa Client”.
- With a swipe to the left (iOS) or long press on the name (Android) a window is opened for deleting the client. Tap on “Delete” (iOS) or the icon (Android). The connection between Homematic IP and Amazon Alexa is deleted.

Open the Alexa app and deactivate the Homematic IP skill here:

- Open the left navigation area in the Alexa app and tap on “Smart Home”. Scroll to the bottom of the screen and tap on “MY SMART HOME SKILLS”. Tap on the Homematic IP button and on “DEACTIVATE SKILL” in the following window. This will delete the account linking.
- Tap on the button “Homematic IP” and subsequently on “Deactivate skill”.

13.3 Voice control with Google Assistant/Home

13.3.1 Setting up Google Home

- Connect your Google Home-enabled loud speaker via the mains cable to the power supply.
- Download the free Google Home app to your smartphone.
- Open the Google Home app and tap on “Start now”.
- Select the Google account you want to use with the Google Home app and confirm your selection. This will prompt a scan for Google Home-enabled loud speakers.
- Connect your Google compatible loud speakers with your Google account and set up your Google Home compatible loud speakers. Follow the instructions in the app.

To connect Google Home with your Homematic IP system, proceed as follows:

- Open the Homematic IP App and tap in the main menu on “Settings”, “Voice control and additional services” and there select “Google Assistant/Home” and “Coupling”.
- After tapping on “Retrieve”, the next window will show you the activation key.

Figure 65: Screenshot copying the activation key

- Tap on the icon (Android) or "Copy" (iOS).
- Tap on the "+" symbol in the upper left corner of the Google Home app. In the next window tap on "Set up device".
- Tap on "You already have set up devices?" in the setup menu and select "Homematic IP" from the list of services.
- Under certain circumstances, you have to log-in with your Google account information again.
- In the next window you will have to enter the previously copied Homematic IP Activation Key.

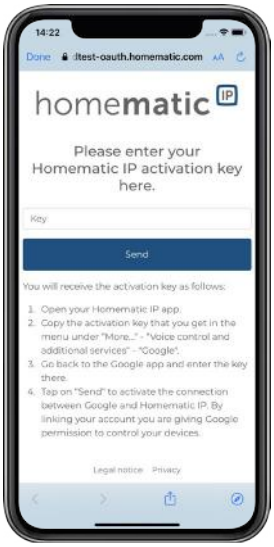


Figure 66: Screenshot entering the activation key

- Enter the activation key into the request field. Therefore, keep the entry field pressed and tap on "Enter".
- Press the "Send" button to establish the account linking.
- Your Homematic IP service will be connected with Google Home and all available devices currently supported by Google Home will be shown in the next window.

Figure 67: Screenshot devices overview

You will now be able to control a large number of functions and devices of your Homematic IP smart home system via voice control. First, assign the devices and functions to rooms, in order to make later allocation easier.

13.3.2 General information about Google and Homematic IP

Google-enabled devices only react to voice commands if you say the wake word, e.g.:

*"**Ok Google**, set bathroom to 29 degrees."*

You should use unique names for all Homematic IP devices, functions and Homematic IP switching groups. Only in this way Google will be able to assign them correctly.
If voice commands are not executed correctly you can adjust device and group names in the Google Home app with the function "Set a nickname" or "Nickname", to optimize the detection and allocation of voice commands.

13.3.3 Devices and functions supported by Google

The following Homematic IP devices and functions are currently supported:

Device/ Function	On/ Up	Off/ Down	Set %	Raise %	Lower %	Set °C	Raise °C	Lower °C	Retrieve values/ status	Lock/ open
Switch actuators	✓	✓								
Dimming actuators	✓	✓	✓	✓	✓					
Shutter and blind actuators	✓	✓	✓	✓	✓					
Door lock drives									✓	✓
Module for garage door drive									✓	✓
Switching groups	✓	✓	✓							
Heating groups						✓	✓	✓	✓	
Absence mode	✓*									
Presence mode	✓*									
Eco mode	✓*	✓*								

13.3.4 Deleting the connection between Homematic IP and Google Home

It may be or become necessary to cancel to account linking between Homematic IP and Google Home. To do this, proceed as follows:

- Open the Homematic IP App and in the menu, tap “Settings” in the “General” section.
- Select “User overview”. In the next window, choose the user “Google Assistant Client”.
- With a swipe to the left (iOS) or long press on the name (Android) a window is opened for deleting the client. Tap on “Delete” (iOS) or the waste basket icon (Android).
- Open the Google Home App .
- Tap on the account symbol in the lower right corner of the main screen .
- Please ensure that the listed Google account is connected to your device. Click on the downwards arrow, if you wish to switch to another account.
- In the Google Homes app, tap on “Settings”.
- Under Google Assistant services, please select “Other settings”.
- Tap on the “Assistant” tab and select “Smart home control”.
- In the “Devices” tab, tap on the ‘kebab’ [three vertical dots] menu in the upper right corner and select “Manage accounts”.
- Under “Linked” select “Homematic IP”, tap on “Unlink account” and confirm the account’s unlinking.

The connection between Homematic IP and Google Assistant/Home is deleted.

13.4 Voice control with active protection

For security reasons, alarm functions can be activated but not deactivated via voice commands. The system is already preconfigured such that voice command devices do not even execute any voice commands concerning further Homematic IP functions during activated absence mode and activated presence mode. However, via the app, you can configure your system such that voice commands can still be executed for Homematic IP functions even during active presence mode/absence mode. To do this, proceed as follows:

- Open the Homematic IP App.
- Tap on "Settings" in the menu, and under the menu item "Voice control and additional services", tap on "Control during active protection".

Here you can select between three options:

- **Protection deactivated**: When selecting this option, voice control is enabled only during active alarm mode "protection deactivated".
- **Protection deactivated and presence mode** When selecting this option, voice control is enabled in alarm modes "protection deactivated" and "presence mode".
- **in every mode** Voice control is enabled in each alarm mode.

13.5 Home Connect Plus

Home Connect Plus is a cloud-based smart living platform, enabling you to link with each other – entirely individually – your Homematic IP devices as well as devices from other manufacturers, and to also control them centrally. In addition to Homematic IP, numerous products and services by other manufacturers can already be integrated into the Home Connect Plus platform.
In order to be able to use the scope of functions of the Home Connect Plus platform, it is necessary to link your Homematic IP System with Home Connect Plus.

- Install the app "**Home Connect Plus**" on the smartphone on which you also have the Homematic IP smartphone app installed. Please follow the instructions on the screen.

Please note that prior to first use of the app you must register for SingleKey ID. You only need a valid email address for this.

- After conclusion of the registration and acceptance of the Terms of Use as well as the Privacy Protection Policy, you get into the main menu of the "Home Connect Plus" app.
- Open the **Homematic IP App**.
- In the app homescreen, tap on the main menu symbol ( ) and select under "Miscellaneous" the menu item "Voice control and additional services".
- Tap on "Home Connect Plus".
- Tap on status reports and agree with the transmission of status reports to the Home Connect Plus online service. This is necessary for use of the full scope of functions in connection with Home Connect Plus.
- Tap on "Done".
- Tap on "Coupling". Query the activation key for coupling with Home Connect Plus and copy or, respectively, note the key.
- In the menu "My board" of the "**Home Connect Plus**" app, tap on "Devices" at the lower right edge of the screen.
- Tap on the button "Connect new devices" and in the following window on "Further".

- In the following window, enter the before noted Homematic IP Activation Key and click on “Send”.
- The menu “Devices” shows a list with all your Homematic IP devices which you can now use for connecting them with other supported devices from other manufacturers.

13.6 Notes on data security

In what concerns Homematic IP as a stand-alone system, all of the data saved in the Homematic IP Cloud do not allow any conclusions regarding the identity of the user and the individual user behaviour. There is principally no transmission of data to third parties. In linking Homematic IP with Home Connect Plus, selected data are transmitted which are, however, also completely anonymised. For connecting Homematic IP with the IoT-Plattform Home Connect Plus, a temporary activation key (i.e. limited in time) is required which can be generated in the Homematic IP App. After successful activation, an individual authentification key is generated by means of which certain data can be gathered by Residential IoT Services GmbH, to convert your applied control commands when using IoT Plattform Home Connect Plus Further information can be found in the privacy statement

14 APPENDIX

14.1 Function overview for active and inactive Internet connection

Room climate	With Internet connection	Without Internet connection
Change settings via the Homematic IP App	✓	X
Heating schedule is active	✓	✓
Reduction of the room temperature by window contacts when opening windows	✓	✓
Transmission of room temperature settings from radiator thermostats or wall thermostats to devices in the room	✓	✓
Activation of eco mode via wall-mount remote control	✓	X
Activation of manual mode	✓	✓
Activation of boost function	✓	✓
Activation of party mode for one room	✓	X
Deactivation of operating lock via app	✓	X
Security and alarms		
Change settings via the Homematic IP App	✓	X
Changing the alarm status (absence mode, presence mode, not activated)	✓	✓
Switching the coming home light via the Key Ring Remote Control	✓	✓
Alarming via app	✓	X
Alarming via alarm siren	✓	✓
Switching panic light	✓	✓
Switching alarm light	✓	X
Shutter control		
Change settings via the Homematic IP App	✓	X
Switching of shutter groups via a remote control or push-button	✓	✓
Executing time profiles for shutters and blinds	✓	✓
Shutter functions lockout protection, storm protection, heat protection, rain protection	✓	X
Light		
Change settings via the Homematic IP App	✓	X
Switching of switching groups on and off via a remote control or push-button	✓	✓
Switching of switching groups via motion detectors	✓	✓
Dimming of dimming actuators via a button pair of a switching group	✓	✓
Executing time profiles for switch actuators	✓	✓
Additional functions		
Execution of functions prepared via automations	✓	X
Voice control via Amazon Alexa or Google Assistant/home	✓	X

Troubleshooting check-list

We have created the following check-list to find out possible malfunctions and its trouble-shooting based on a list of questions.

Malfunctions	Check box
Internet connection For setup and operation of your Homematic IP system, active Internet connection between the Access Point and the Homematic IP cloud is required. **Note:** If the Homematic IP Access Point should not be able to connect to the Internet for a longer period of time, disconnect the device for more than 10 seconds from the power supply and try again.	
Have you verified if your Internet connection is working correctly?	☐
Is the Access Point connected to the router using the supplied network cable?	☐
Does the system button of your Access Point light permanently blue?	☐
Power supply For all Homematic IP devices, correct power supply has to be established. In case of problems with single or several devices, please check the following:	
Is your Access Point plugged into a socket with the plug-in mains adapter?	☐
Are all mains operated Homematic IP devices of your system voltage-supplied (e.g. pluggable switches correctly plugged into the socket)?	☐
Did you make sure, that the batteries of battery operated devices have been inserted the right way around?	☐
Did you remove the insulation strip between the battery and the battery contact of the corresponding devices, e.g. window / door contacts or radiator thermostats?	☐
Are all batteries working correctly?	☐
Start-up To make sure that your Homematic IP system is working correctly, your Homematic IP Access Point and other components must be registered to the Homematic IP server first. Please check the following indications for incorrect or not (yet) performed registration:	
Does an error message appear in the app and did you follow the instructions for troubleshooting?	☐
The registration has not been finished successfully. For devices with display this is indicated by a flashing radio signal symbol ((•)). Did you remove all sources for radio interferences *(see section "4.1 Wireless range" on page 15)*?	☐

The registration has not been finished successfully. For devices without display this is indicated by long red lighting of the device LED. Did you remove all sources for radio interferences *(see section "4.1 Wireless range" on page 15)*?	
Radio problems In case of unfavourable locations for radio components *(see section "4.1 Wireless range" on page 15)* , reception problems may be caused by disturbed radio communication. Please check the following indications for reception problems:	
The radio signal has not been transferred successfully. For devices with display, this is indicated by a flashing radio signal symbol ( ). Did you remove all sources for radio interferences *(see section "4.1 Wireless range" on page 15)?*	☐
The radio signal has not been transferred successfully. For devices without display this is indicated by long red lighting of the device LED. Did you remove all sources for radio interferences*(see section "4.1 Wireless range" on page 15)?*	☐
Does an error message appear in the app and did you follow the instructions for troubleshooting?	☐

Reception problems can be avoided from the very beginning if you verify the signal transmission quality with a test setup. Often, it is caused by building materials with high attenuation values. Also *active sources of interference* like microwave ovens and wireless phones close to radio components can influence on the radio communication. Important information for remedying radio problems by means of Advanced Routing can be found in section *"Advanced routing" on page 1616*.

LIMITS WITHIN A HOMEMATIC IP SYSTEMS	
System limits: - **HmIP-HAP**: max. 80 devices Recommendations: - max. 20 rooms - max. 15 smartphones	Switching groups in the solution "Light and shading": - max. 10 sensors or 5 push-button pairs in one switching group - max. 10 actuators in one shading group - max. 10 sensors or push-button pairs in one shading group - max. 10 actuators in one shading group Range extension with pluggable switch or, respectively, pluggable switch and meter: - max. 2 in one system

Solution	Maximum number of devices in a room / system		
Room climate	within a room	1	Wall Thermostat
		8	Radiator thermostats
		8	Switch actuators for two-point control
		10	Floor heating controller (channels)
		8	Door/window contacts
	within a system	2	Push-button pairs for eco function
		2	Heating demand function (e.g. output at MIOB)
		1	Dehumidifier function (e.g. connection to MIOB)
		2	Multi IO box or, respectively, switch actuator for heating systems
Security	within a room	8	Door/window contacts
		8	Motion detector
	within a system	2	Push-button pair for panic light
		4	Alarm Siren
		4	Pluggable switches or, respectively, pluggable switches and meter
		8	Key Ring Remote Control - alarm
Light and shade	within a room	8	Motion detector
		8	Switch actuators / Switching and meter actuators/ Dimming actuators
		8	Shutter and blind actuators
		8	Push-button pairs of remote controls
Weather	within a room	10	Light sensors – outdoors
	within a system	10	Weather sensors
		10	Temperature and humidity sensors – outdoors

14.2 Homematic IP radio protocol and receive modes

Security
Your privacy is already protected in a first step: For setting up the system, no personal data has to be queried or recorded, except the technically required IP address. Moreover, all data saved in the Homematic IP Cloud are provided on servers in Germany and are thus subject to the German and European data protection guidelines. Homematic IP is the only smart home system whose protocol, IT and data security has been certified by VDE.
In addition to the security of your data, the transmission security also ranks first. The communication of Homematic IP is secure and cannot be manipulated. Any reading or changing of data or other kinds of attack are impossible. Approved procedures are used for it which are also applied in online banking.

Optimising the battery operation
If Homematic IP devices are not directly triggered, they remain in "sleep mode" or stand-by-mode, which has positive influence on the battery consumption.
The system works with to different frequencies. For normal radio operation between Homematic IP device, the 868.3 MHz band is used. Special functions like wake on radio – thus "waking" of battery operated devices – and updates of the device software update (OTAU) use an additional frequency (869.525 MHz) *(see section "14.2.1 Device software update (OTAU)" on page 116)115*.

Range
The range of devices based on radio communication depends on numerous factors, especially in buildings. This is why radio signals can be attenuated by special local structures, high humidity, barriers like inappropriately positioned furniture or metal covered surfaces. These are called attenuation. For indicating the range of radio signals, the so called open area radio frequency has been established. It describes the range of radio signals outside, i.e. without interfering influences, and with Homematic IP, it is at 150 m to 600 m depending on the device. The range in buildings is smaller due to the attenuation ; however, it is sufficient in most cases to ensure reliable radio communication. This especially applies, if the instructions of chapter „4.1 Wireless range" are considered for positioning the radio components.

Receive modes
Homematic IP differentiates three different receive modes:

- **Always listening** is a mode in which the devices are listening permanently, i.e. they are ready to receive radio signals at any time. This is the case for all Homematic IP devices that are connected to the mains voltage. The low energy that is required for permanent reception of radio signals, plays a subordinated role in comparison the battery operated devices. Examples are pluggable switches and pluggable switch and meter.
- **Cyclical reception** describes a receive mode for battery-powered devices, where a radio connection is established at regular intervals. For instance, the Homematic IP Radiator Thermostat is changing to receiving mode on a regular basis, e.g. to recall the current temperature from the Homematic IP Wall Thermostat.
- Another receive mode, especially for battery operated Homematic IP devices is called **wake on radio**. In this case, the receiver is "woken up" to receive radio data. During the remaining time, the receiver stays in energy saving "sleeping mode". Due to this function, e.g. the Homematic IP Window / Door Contact can immediately reduce the temperature of radiator thermostat, if an open window has been detected. If the signals are directed to another Homematic IP device, the receiver will go back to the energy saving "sleeping mode".

During the development of Homematic IP, the wake on radio function of Homematic has been further improved. In Homematic, all devices "wake up" as soon as the radio communication is active on the 868.3 MHz band. For Homematic IP, this function has been moved to another frequency (869.525 MHz). However, devices that support wake on radio are woken up from "sleeping mode" only if this is really required. Another advantage is that this function does not influence on the *duty cycle limit* of the corresponding device.

All three methods are proven in millions of devices by eQ-3 and protected by patents for devices with battery operation.

14.2.1 Device software update (OTAU)

To keep your Homematic IP devices up to date, Homematic IP offers the opportunity to update the device software (firmware) of the components. The device firmware controls all functionalities of your Homematic IP devices. The OTAU method (Over The Air Update) is an especially comfortable method to provide new firmware to single devices, e.g. radiator thermostats, via radio communication.
In a Homematic IP solution, the devices software updates are performed in the background (background OTAU). In the server (Homematic IP cloud) a device list with the relevant serial numbers and firmware versions is provided. If for one or more of your Homematic IP devices a new device software is available, the Homematic IP cloud forwards this information to your Homematic IP Access Point. This transfers with every send radio telegram a part of the new firmware file into the memory of the device.

14.2.2 Duty cycle

Like various other radio based devices, also Homematic IP components are subject to legal regulations regarding the transmission time of radio signals (*Duty cycle limit*). The aim of this regulation is to ensure a high level of transmission security of all devices working in a defined frequency range using the short transmission times. Homematic IP devices operate in the 868.3 MHz and 869.525 MHz frequencies. The second frequency is mainly used for Wake On Radio *(see section "14.2 Homematic IP radio protocol and receive modes" on page 115).114*

In the 868.3 MHz frequency range that is used for radio transmission of Homematic IP devices, the maximum transmission time of any device is 1 %, i.e. 36 seconds in an hour. If this limit is exceeded, the corresponding device may transmit only after the maximum transmission time falls below the limit, for example after the hour expired.

The relatively low duty cycle value of 1 % offers the benefit that the radio channels are not continuously occupied due to the short transmission times. Thus, there is a very high security level at all times. This also has positive effect on the radio wave impact *(see section "4.1 Wireless range" on page 15)*.

During normal operation, the *duty cycle* is not usually reached. However, during setup or first installation of a system, repeated and wireless-intensive pairing processes mean that the *duty cycle limit* can be exceeded. This is usually indicated by the device temporarily working incorrectly and the flashing code of the device LED, as further transmission by the devices is prevented. The devices start working correctly again after a short period (max. 1 hour).

14.2.3 Lazy config

Due to the 'lazy config' function, configuration of Homematic IP devices is particularly easy. If configuration data is changed in the app, the Homematic IP Access Point "remembers" the data. Upon the next operation of the device, e.g. pressing the wall-mount remote control or – in case of an installed windows and door contact – upon opening the window, the data is transmitted automatically. Manual operation of the system button is not required.

14.3 Overview flashing behaviour of Homematic IP devices

Flashing code	Meaning	Comment
Short orange flashing (followed by green or red lighting)	Attempting to transmit, e.g. on button press of a remote control	Please wait, until transmission has been confirmed (long red lighting) If the LED lights up long red, the radio transmission failed.
1 x long green lighting	Transmission confirmed	You can continue operation.
1 x long red lighting	Transmission failed (e.g. device can not be accessed or duty cycle limit is reached)	Please try again.
Short orange lighting (after green or red confirmation)	Low battery	Replace the batteries.
Fast orange flashing	Configuration data is transmitted	Wait until the transmission is completed.
Short orange flashing (every 10 seconds)	Pairing mode active (for 3 minutes)	Add the device.
Long and short orange flashing (alternating)	Software update (OTAU)	Wait until the update is completed.
Fast orange flashing (after long button-press)	Stage before resetting to factory settings	To start reset, press and hold down the system button again until the LED starts flashing green. Short button press will cancel reset.
6 x long red flashes	Device defective	Please see your app for error message or contact your retailer.

14.4 Glossary

AES-128	AES (Advanced Encryption Standard) is an established, globally valid standard for the encryption of important information. The numbers indicate the used length of keys in bits.
Always Listening	Receiving mode in which the devices are listening permanently, i.e. they are ready to receive radio signals at any time. This is the case for all Homematic IP devices with their energy provided by the mains supply.
Automatic operation	Operating mode in which the room temperature is controlled – as opposed to the eco operation – in accordance with the heating schedule selected in the Homematic IP smartphone app.
Base temperature	A base temperature of 17 °C is specified as a default. The base temperature indicates which constant temperature is to be kept in the room when the heating schedule is neither in a heating nor in a lowering phase.
Boost function	The boost function enables quick, short-term heating up of the radiator by opening the valve. This provides immediately a pleasant feeling of warmth in the room.
Cloud	Cloud: Virtual storage space where different users can access data and programs after he or she has been authorised via an internet browser or software, such as the Homematic IP smartphone app for example.
CO (Changeover)	Change between the operating mode heating/cooling. In heating systems with a cooling function, CO provides the option of changing between the cooling and heating operation via an external switch connected to the Multi IO Box.
Damping	Differently pronounced attenuation of radio signals due to obstacles within buildings – such as walls and ceilings – depending on forward angle, material thickness and materials used.
Duty cycle limit	Statutory limitations of the air time of radio-based devices to increase their transmission safety.
Eco mode	Contrary to automatic operation, an operating mode in which the room temperature for all or for selected rooms is lowered down for either a short term, for a scheduled period or permanently in order to save energy.
Eco function	The eco function can be activated per zone. For heating, the eco temperature is 19 °C as a standard. For cooling, the eco temperature is 23 °C as a standard. You have the option of changing between automatic mode and eco temperature, e.g. by an external timer connected to the Multi IO Box. The wall thermostat mode has no impact in this respect.
Dehumidifier function of the Multi IO Box	The humidity can be influenced by the Multi IO Box. With the dehumidifier function, a threshold value can be defined as of which the Multi IO Box controls a fan or a dehumidifier device.
Open-window function	If a window is open, e.g. during ventilation, the Homematic IP system automatically reduces the temperature to save heating energy and costs. In connection with a Homematic IP window contact, opening is detected at the precise time and it will be regulated accordingly. After closing the window, the Homematic IP radiator thermostat changes back to the original mode. When changing into auto mode, the temperature is regulated according to the desired temperature set in the program for the week.
Humidity input	Only in cooling operation – when the input is active, all zones stay closed and the pump remains off. For signalling, the device LED of the Multi IO Box starts flashing or the drop/cooling symbol appears on the wall thermostat.
Heating phase	A heating phase designates a period of time within a day for which a specific setpoint temperature is defined. Homematic IP can realise up to six freely definable heating phases per day.

Heating schedule	With freely programmable heating schedules, you can define the desired temperature per room at any time. Per room, up to three heating schedules can be set up with up to six heating and cooling phases per day.
Presence mode	The security functions of all devices that you have selected for the presence mode are activated.
Interference	Failure in radio communication in which two or more radio waves are superposed.
IPv6	The Internet protocol version 6 (IPv6) is the successor of the widespread Internet protocol IPv4 for transmission of data packages across different networks. Aside from the extension of the address space, the new protocol provides numerous technical improvements.
Actual temperature	Shows the current temperature measured by the wall thermostat in the room.
LAN	The Internet protocol version 6 (IPv6) is the successor of the widespread Internet protocol IPv4 for transmission of data packages across different networks. Aside from the extension of the address space, the new protocol provides numerous technical improvements.
Load balancing	Shows the current temperature measured by the wall thermostat in the room.
Load collection	As far as possible, the heating zones are collectively controlled for load collection. This increases the probability that the boiler is switched off at the end of a PWM cycle.
Lazy config	Function facilitating the configuration of Homematic IP devices. If the configuration data of a certain device is changed in the app, the Homematic IP Access Point "remembers" the data. Such data are automatically transmitted when the device is operated the next time. Manual operation of a system button is not required.
Message delay	The message delay for Homematic IP window / door contacts enables a delayed transmission of radio control commands. This function is suitable e.g. for the installation of window contacts on terrace doors which are used as passages and, at the same time, as windows for ventilation. During that time, the temperature of radiators is not regulated down.
Emergency operation	The duration of the valve opening is recalculated every 15 minutes. If the radio communication between the wall thermostat and the floor heating control fails for a longer period of time – for instance due to an empty battery – valves will be controlled automatically. In default setting, the valve is opened for 225 seconds (25 % of 15 minutes). When radio communication is restored, the system changes back to normal operation.
OTAU	'Over the Air Update': Particularly convenient method to update the device software via radio connections.
Powerline	Technology which uses existing power lines for data transmission.
Primary Access Point	The primary Access Point establishes communication with the Homematic IP cloud server. If the primary Access Point fails, a secondary Access Point (if available) automatically takes over this role (see also "Secondary Access Point").
Pump, local	A pump is connected to heating zone 1. Thus, heating zone 1 can no longer be used for controlling a heating zone.
Pump protection function	Activation of the pump every 14 days for 1 minute
PWM cycle	Time for controlling the active valves. The cycle time is 15 minutes.

Secondary Access Point	A secondary Access Point is any additional Access Point that is added to the system. It is normally used as a range extender (router). If the primary Access Point cannot be reached, the secondary Access Point steps in and takes over the task of the primary Access Point (see also “Primary Access Point”).
Router	Network device connecting several networks with each other. Collects status information about the network and uses this in
Setpoint temperature	Defines the temperature which is to be kept in a room.
Silent alarm	If the silent alarm is activated, the indoor siren and the alarm light will not be triggered. In case of alarm, the system only sends a push message to the app.
Summer break	In the summer, you can switch the heating schedule in the rooms to "manual" so that the heating schedules are no longer executed. If the heating system is switched off in the summer, the nominal temperature is to be set to 30 °C to fully open the valves. If the heating system remains switched on in the summer (e.g. in multi-family dwellings), you should set the room temperature to 5 °C to fully close the valves.
Sources of interference	Factors which can attenuate radio signals.
Temperature limiter	Only in heating operation – if the input is active, all zones stay closed and the pump remains off. For signalling, the device LED of the Multi IO Box flashes.
Temperature offset	If the radiator thermostat is installed at a disadvantageous place (e.g. behind a curtain or cupboard), the temperature measured on location may deviate slightly from that in the room. The thermostat is possibly unable to compensate for it so that a general adjustment by means of temperature offset must be made. This offset can be individually adjusted for every thermostat in the room in a range between +/- 3.5 °C. For example, if 18 °C are measured instead of the set 20 °C, an offset of -2.0 °C is to be set. An offset temperature of 0.0° is set in the factory settings.
Detection of temperature drop	If a window is opened, e.g. for ventilation, in a room without window contact, the radiator thermostat automatically detects the sharply declining temperature. In that case, the room temperature is automatically turned down for 15 minutes to the set open-window temperature in order to save heating energy and costs. After the window is closed, the radiator thermostat is switched back to the original mode (manual operation or the active heating schedule).
Valve protection function	The radiator thermostats have a decalcifying run once a week to protect against the calcification of valves.
Absence mode	The security functions of all components of the security solution are activated.
Lead time	For this time, output is actively switched with a delay for when there is any heating/cooling demand.
Wake on radio	Receive mode especially for battery operated devices; the receiver is woken up from ‘sleep mode’ to receive radio data. During the remaining time, the receiver stays in energy-saving sleep mode.
Cyclical reception	Describes a receive mode for battery-powered devices, where a radio connection is established at regular intervals.

homematic IP

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