
# homematic HmIP-WTH-1 Wall Thermostat with Humidity Sensor Instruction Manual



Contents



## homematic HmIP-WTH-1 Wall Thermostat with Humidity Sensor


**Specifications**

- Product Name: Wall Thermostat with Humidity Sensor
- Model: HmIP-WTH-1
- Version: 1.1 (08/2023)

## Product Usage Instructions

**Installation**
To install the wall thermostat with humidity sensor, follow these steps:

1. **Mounting:**
    - **Adhesive Strip Mounting:** Attach the thermostat using the adhesive strips.
    - **Screw Mounting:** Secure the thermostat using screws.

It is recommended to seek assistance from a qualified electrician for installation.

**Operating Modes and Configuration**
The wall thermostat is compatible with frames from the following manufacturers:

| Manufacturer | Frames |
|---|---|
| Berker | S.1, B.1, B.3, B.7 Glass |
| ELSO | Joy |
| GIRA marten | System 55, Standard 55, E2, E22, Event, Esprit 1-M, Atelier-M, M-Smart, M-Arc, M-Star, M-Plan |
| JUNG | A 500, AS 500, A plus, A creation |

**Operation**
**Battery Replacement:** To replace the batteries of the wall thermostat, follow these steps:

**Frequently Asked Questions (FAQ)**

- **Q: How can I reset the device to factory settings?**
  **A:** To restore the factory settings of the wall thermostat, follow these steps:
- **Q: What do the different blinking codes indicate on the device?**
  **A:** The blinking codes indicate various statuses of the device such as low battery, activation of humidity sensor, etc. Refer to the user manual for detailed explanations.

**Information about this manual**

- Please read this manual carefully before operating your Homematic IP components. Keep the manual so you can refer to it at a later date if you need to.
- If you hand over the device to other persons for use, please hand over this manual as well.

**Symbols used:**

-  **Attention!**
  This indicates a hazard.
-  **note**
  This section contains important additional information!

## Hazard information

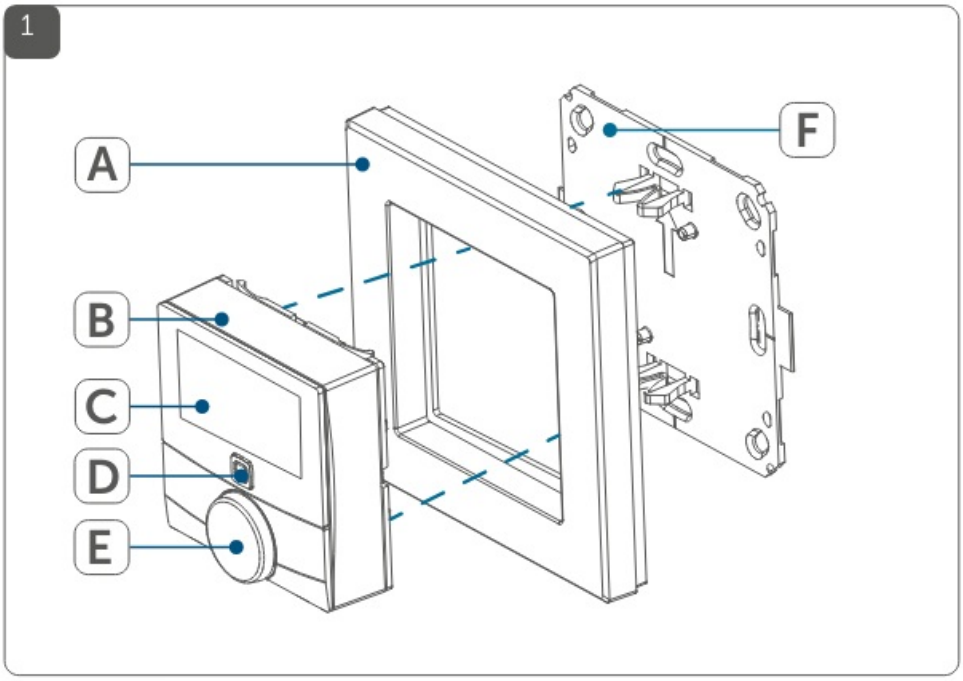
- Caution! There is a risk of explosion if the batteries are not replaced correctly. Replace only with the same or equivalent type. Never re-charge non-rechargeable batteries. Do not throw the batteries into a fire. Do not expose batteries to excessive heat. Do not short-circuit batteries. Doing so will present a risk of explosion.
- Contact with batteries that are dead or damaged can cause skin irritation. Use protective gloves in this case.
- Do not open the device. It does not contain any parts that need to be maintained by the user. In the event of an error, please have the device checked by an expert.
- For safety and licensing reasons (CE), unauthorized change and/or modification of the device is not permitted.
- The device may only be operated in dry and dust-free environment and must be protected from the effects of moisture, vibrations, solar or other methods of heat radiation, cold and mechanical loads.
- The device is not a toy: do not allow children to play with it. Do not leave packaging material lying around. Plastic films/bags, pieces of polystyrene, etc. can be dangerous in the hands of a child.
- We accept no liability for damage to property or personal injury caused by improper use or failure to observe the hazard warnings. In such cases, all warranty claims are void. We accept no liability for any consequential damage.
- The device must only be operated within residential buildings.
- Using the device for any purpose other than that described in this operating manual does not fall within the

scope of intended use and will invalidate any warranty or liability.

### Function and device overview

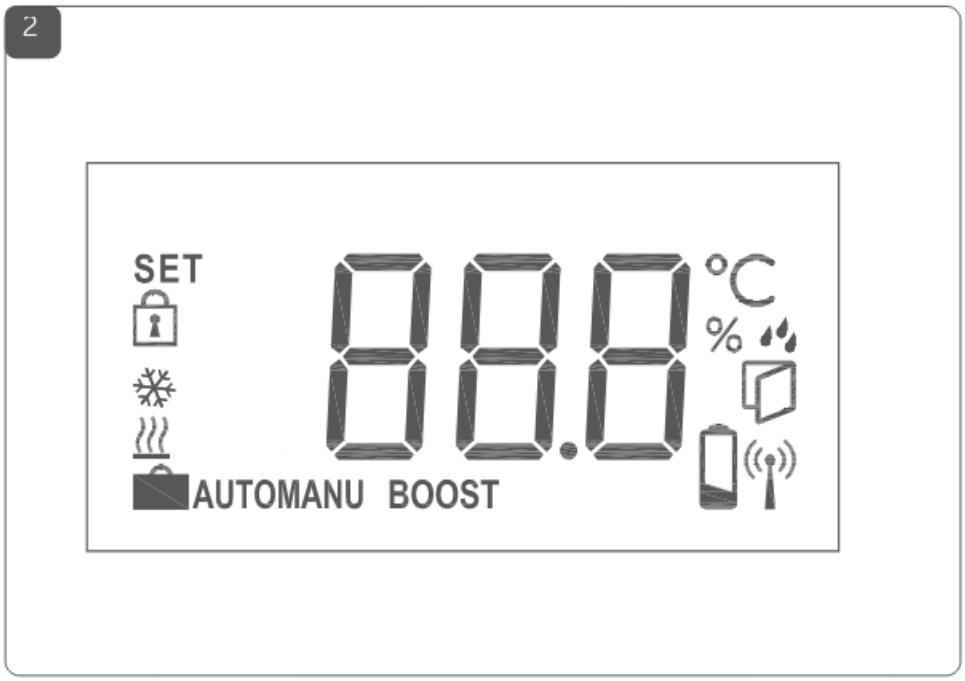
- The Homematic IP Wall Thermostat offers time-controlled regulation of floor heating systems in connection with Homematic IP Floor Heating Actuators or conventional radiators using Homematic IP Radiator Thermostats according to individually tailored heating phases.
- The wall thermostat serves to measure the temperature and humidity in a room. The data is cyclically transmitted to a floor heating actuator or radiator thermostats in order to regulate the room temperature precisely.
- You can pair the wall thermostats with a Homematic IP CCU3 or connect it to the Homematic IP access point in order to control the device com-fortably via the Homematic IP app.
- Thanks to battery operation, the device is highly flexible where mounting and selecting a mounting location are concerned. The device is mounted  and removed very easily with the supplied clip-on frame using screws or adhesive strips. It is compatible with a number of different surfaces including furniture, brick walls, tiles or glass. It is also possible to integrate the wall thermostat into existing switches.

Device overview (see figure 1):




- (A) Clip-on frame
- (B) Electronic unit (thermostat)
- (C) Display
- (D) System button (pairing button and LED)
- (E) Control wheel
- (F) Mounting plate

**Display overview (see figure 2):**




| | |
|---|---|
| °C | Set/actual temperature |
| % | Humidity |
| | Warning about condensation |
| | Open window symbol |
| | Battery symbol |
| | Radio transmission |
| BOOST | Boost function |
| MANU | Manual operation |
| AUTO | Automatic mode |
| | Holiday mode |
| | Heat |
| | Cool |
| | Operating lock |
| SET | Setpoint temperature |

More detailed descriptions of the symbol functions can be found in the chapter see „6 Operating modes and configuration“ on page 38.

### General system information

This device is part of the climate control solution of Homematic IP and works with the Homematic IP radio protocol. All devices of the climate control solution can be configured comfortably and individually with a smartphone via the Homematic IP app. The available functions provided by the Homematic IP system in combination with other components are described in the Homematic IP User Guide. All current technical documents and updates are provided at [www.homematicip.com](http://www.homematicip.com).

### Start-up

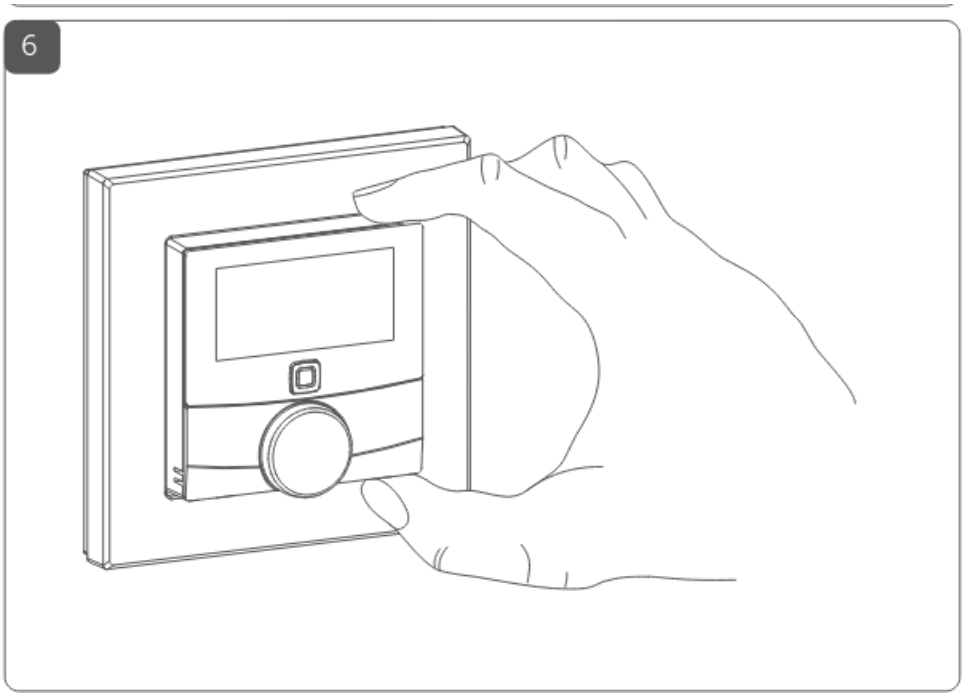
Please read this entire section before starting the pairing procedure.

- The wall thermostat must first be added in order to be able to communicate with other devices in your system. To control your heating, you can teach the wall thermostat to the
- Homematic IP Access Point as described in see „5.1 Pairing the Homematic IP Access Point“ on page 33.
- For more information on teaching and setting up the wall thermo-stat using a CCU3, please refer to the WebUI manual on our home page at **www.homematicip.com.**

**Pairing the Homematic IP Access Point**

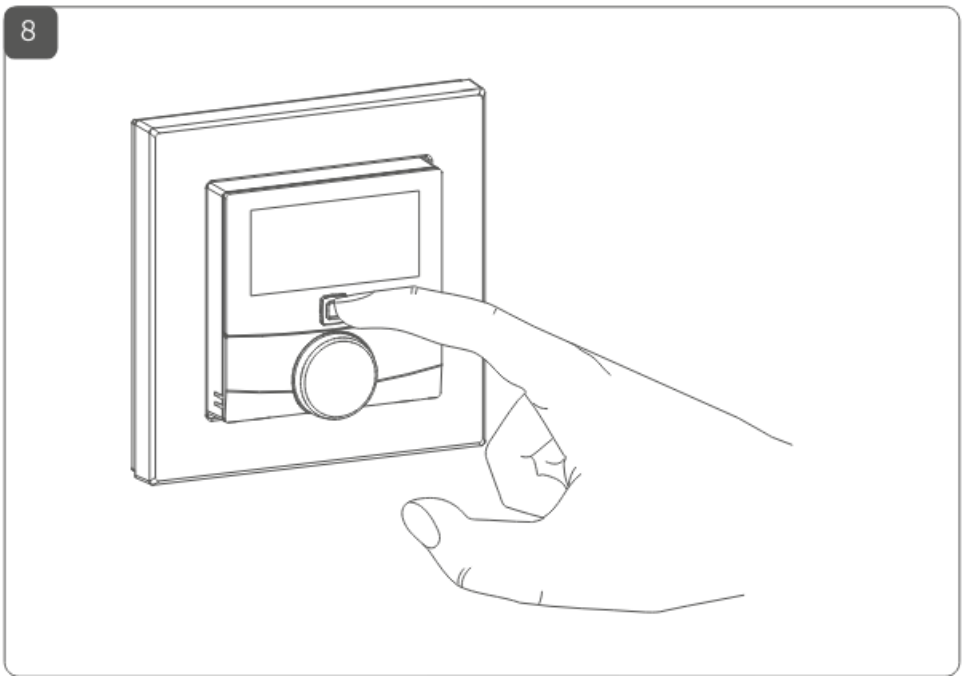
First set up your Homematic IP Access Point via the Homematic IP app to enable operation of other Homematic IP devices within your system. For further information, please refer to the Access Point operating manual.

- Open the Homematic IP app on your smartphone.
- Select “Add device”.
- To remove the electronic unit (B) from the frame, take hold of the sides of the electronic unit and pull it out (see figure 6).




- Turn over the electronic unit (B).
- Remove the insulation strip from the battery compartment of the wall thermostat.
- The pairing mode is active for 3 minutes.

You can manually start the pairing mode for another 3 minutes by pressing the system button (D) briefly (see figure 8).




- Your device will automatically appear in the Homematic IP app.
- To confirm, enter the last four digits of the device number (SG-TIN) in your app, or scan the QR code. The device number can be found on the sticker supplied or attached to the device
- Wait until pairing is completed.
- If pairing was successful, the LED lights up green. The device is now ready for use.
- If the LED lights up red, please try again.
- Select the desired solution for your device.
- Allocate the device to a room and give the device a name.

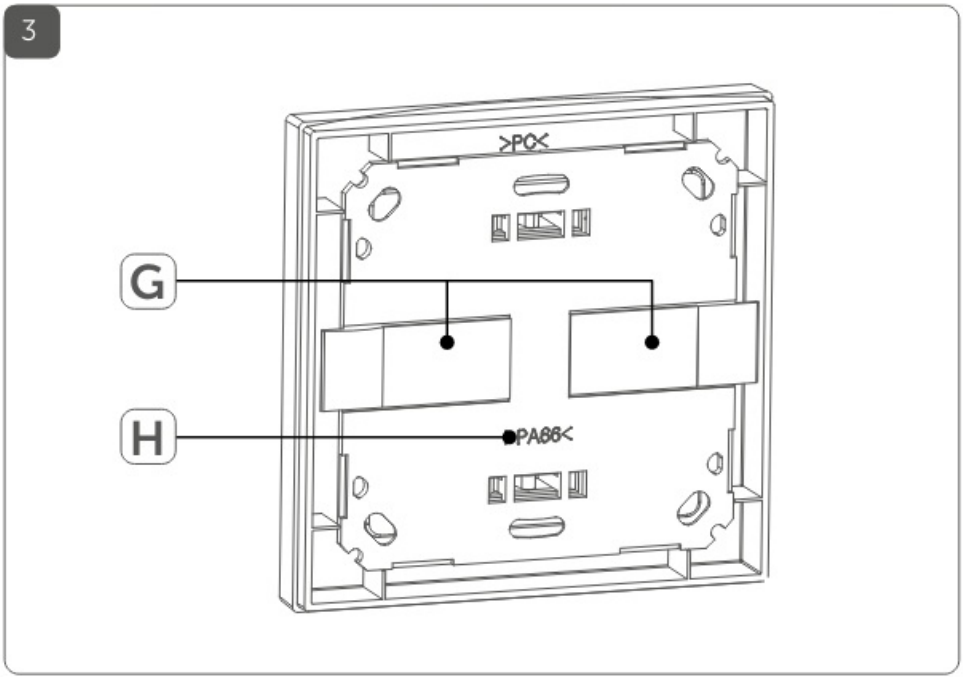
**Installation**

Please read this entire section before starting the installation.
You can use the supplied clip-on frame (A) to mount the wall thermostat or easily integrate it into an existing switch (see see „5.2.4 Installation in multiple combinations“ on page 37).
If you want to mount the wall thermostat with the supplied clip-on frame, you can use

- the supplied double-sided adhesive strips or
- the supplied screws
- You can also mount the wall thermostat on a flush-mounting box.

**Adhesive strip mounting**

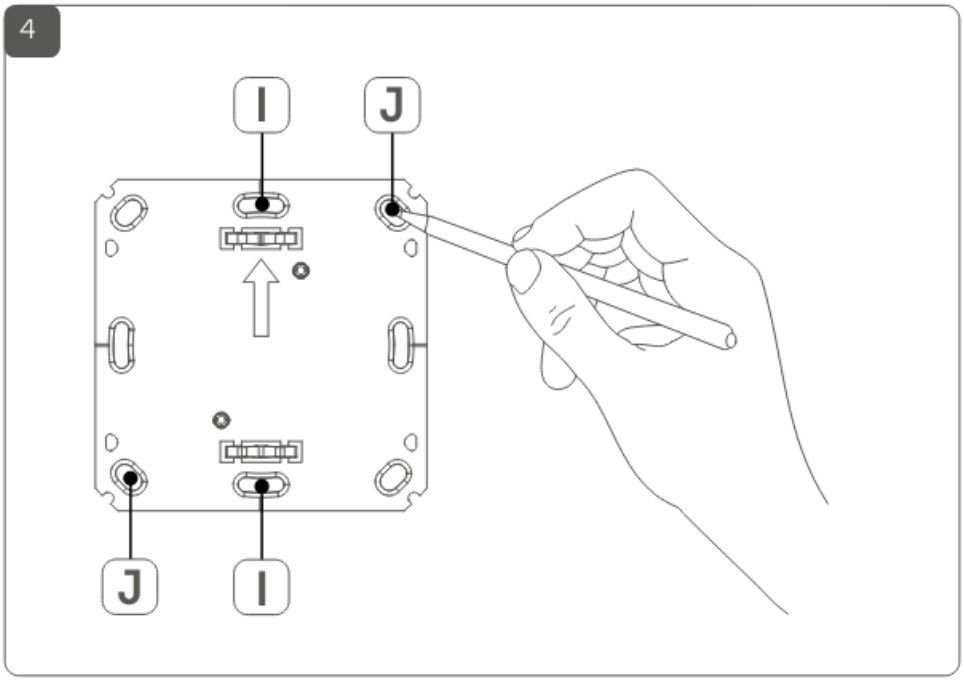
- For mounting the assembled wall thermostat with the adhesive strips, please proceed as follows:
- Choose a site for installation.
- Make sure that the mounting surface is smooth, solid, non-dis-turbed, free of dust, grease and solvents and not too cold to ensure long-time adherence.
- Fix the adhesive strips (G) on the back side of the mounting plate (F) in the provided area. Make sure that you can read the letters on the back side (H) (see figure 3) and that the clips on the mounting plate latch into the openings on the wall thermostat.




- Remove the protective film from the adhesive strips.
- Press the assembled wall thermostat with the back side to the wall in the position where it should subsequently be attached.

**Screw mounting**

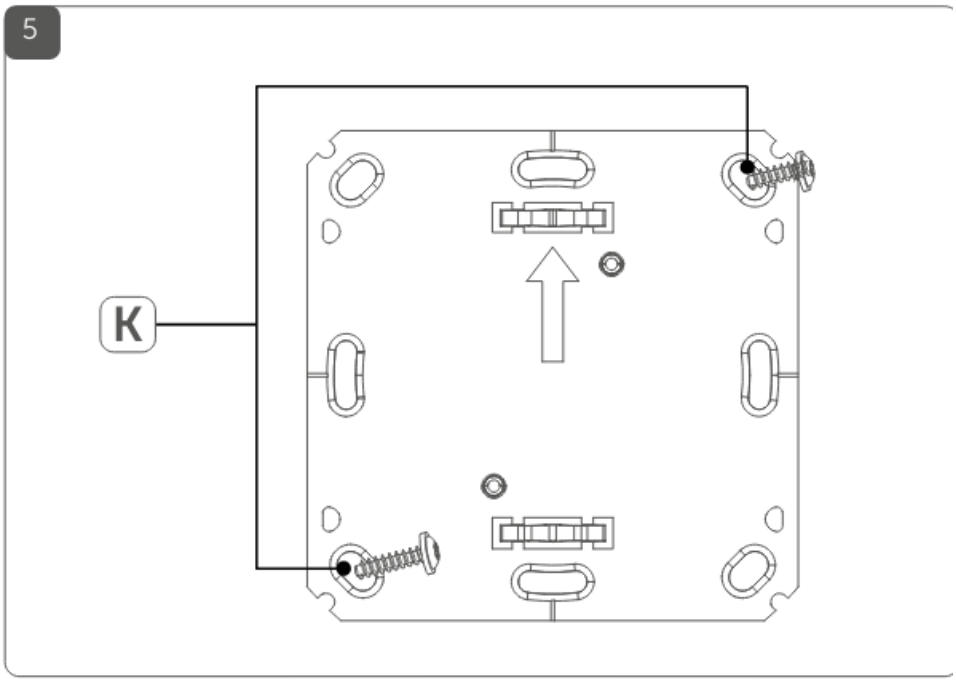
- For mounting the wall thermostat by screws, please proceed as follows:
- Choose a site for installation.
- Make sure that no electricity or similar lines run in the wall at this location!
- Position the mounting plate (F) on the desired site on the wall. Make sure that the arrow on the mounting plate is pointing up-wards.
- Use a pen to mark the positions of bore holes (J) (diagonally opposite) in the mounting plate on the wall (see figure 4).




- Now drill the bore holes.
- If you are working with a stone wall, use a 5 mm drill bit for the wall plugs supplied. If you are working with

wooden walls, you can use a 1.5 mm drill bit to make it easier to screw in the screws.

- Use the supplied screws and plugs (K) to fasten the mounting plate to the wall (see figure 5).




- Attach the clip-on frame (A) to the mounting plate.
- Place the electronic unit (B) back into the frame (see figure 1). Make sure that “TOP” and the arrows on the back side point up-wards and that the clips on the mounting plate latch into the openings on the electronic unit.

Mounting on flush-mounted boxes
You can mount the wall thermostat on flush-mounting/installation boxes using the holes (I) (see figure 4).

- If the device is mounted to a flush-mounting box, there may be no open conductor ends.
- If changes or works have to be made on the house installation (e.g. extension, bypass of switch- or socket inserts) or the low-voltage distribution for mounting or installing the device, the following safety instruction must be considered:
- Please note! Only to be installed by persons with the relevant elec-tro-technical knowledge and experience!*

**Incorrect installation can endanger**

- your own life,
- and the lives of other users of the electrical system.
- Incorrect installation also means that you are running the risk of serious damage to property, e.g. from fire. You risk personal liability for personal injury and property damage.

**Consult an electrician!**

- Specialist knowledge required for installation:
- The following specialist knowledge is particularly important during installation:
- The “5 safety rules” to be used:disconnect from mains; safeguard from switching on again; check that no voltage is present in system; earth and short circuit; cover or cordon off neighbouring live parts;
- Select suitable tool, measuring equipment and, if necessary, personal safety equipment;

- Evaluation of measuring results;
- Selection of electrical installation material for safeguarding shut-off conditions;
- IP protection types;
- Installation of electrical installation material;
- Type of supply network (TN system, IT system, TT system) and the resulting connecting conditions (classical zero balancing, protective earthing, required additional measures etc.).

**Installation in multiple combinations**

- You can mount the wall thermostat with the attachment frame (A) provided or use it with frames of other manufacturers as well as integrate the electronic unit (B) into a multi-gang frame. You can flexibly fix the mounting plate (F) to the wall using adhesive strips or screws. For mounting with multiple combinations, make sure that the mounting plate of the wall thermostat is seamlessly aligned to the already fixed mounting plate/retaining ring.
- The wall thermostat is designed to fit into frames supplied by the following manufacturers:

| **Manufacturer** | **Frame** |
|---|---|
| Berker | S.1, B.1, B.3, B.7 glass |
| ELSO | Joy |

| | |
|---|---|
| GIRA | System 55, Standard 55, E2, E22, Event, Esprit |
| merten | 1-M, Atelier-M, M-Smart, M-Arc, M-Star, M-Plan |
| JUNG | A 500, AS 500, A plus, A creation |

## Operating modes and configuration

After pairing and mounting the device, you can individually adjust the settings to your personal needs via the configuration menu. To do this, proceed as follows:

- Press and hold down the control wheel (E) to open the configuration menu.
- Select the desired symbol by turning the control wheel and pressing it briefly if you want to adjust the settings of the following menu items.
- Press and hold down the control wheel to get back to the previous level.
  The menu automatically closes without applying changes if there is no operation for more than 1 minute.

| | | |
|---|---|---|
| 6.1 | AUTO | Automatic mode |
| 6.2 | MANU | Manual operation |
| 6.3 | LCD | Selecting the desired temperature display |
| 06:10 |  | Communication test |

**Automatic mode**

In automatic mode, the temperature is controlled in accordance with the set week profile (see see „6.6.1 Week profile“ on page 40). Manual changes that are set via the control wheel (E) are activated until the next point at which the profile changes. Afterwards, the defined heating schedule will be activated again. To activate the automatic mode, please proceed as follows:

- Press and hold down the control wheel (E) to open the configuration menu.
- Select the AUTO Symbol by turning the control wheel and confirm by pressing the control wheel briefly.

**Manual operation**

In manual mode, the temperature is controlled in accordance with the current temperature set via the control wheel (E). The temperature remains activated until the next manual change. To activate the manual mode, please proceed as follows:

- Press and hold down the control wheel (E) to open the configuration menu.
- Select the MANU symbol by turning the control wheel and confirm by pressing the control wheel briefly.
- Turn the control wheel to set the desired temperature.

**Selecting the desired temperature display**
You can adjust the temperature to be displayed. You can also define whether the humidity value shall be displayed or not.

- Press and hold down the control wheel (E) to open the configuration menu.
- Select the LCD symbol by turning the control wheel and confirm by pressing the control wheel briefly.
- Turn the control wheel and select
- ℃ to display the actual temperature,
- **SET** to display the setpoint temperature,
- "%" and ℃ for alternating between the actual temperature and humidity display and confirm by pressing the control wheel briefly.
- Please note that the settings described below (chapter 6.4 to chapter 6.9) can only be set up via the Homematic IP App or WebUI. For more information, see the user manual on our homepage at [www.homematicip.com.](http://www.homematicip.com)

**Holiday mode**
The holiday mode can be used if you want to maintain a fixed temperature for a certain period (e.g. during your holidays or a party).

**Operating lock**
Operation of the device can be locked to avoid settings being changed unintended (e.g. through involuntary touch).

**Programming of heating schedules**

- You can use this menu item for configuring heating and cooling profiles and to adjust the week profiles according to your personal needs.
- If the selected schedule is a heating schedule, the room is heated as soon as the temperature falls below the defined value. If the selected profile is a cooling profile, the room is cooled as soon as the temperature increases the defined value.
- **Week profile**
  In the week schedule, for each weekday up to 6 heating schedules(13 change settings) can be set separately. The programming is carried out for the selected days, whereby temperature settings have to be set for the entire period between 00:00 and 23:59h.
- **Optimum start/stop function**
  To reach the desired temperature in the room at the defined time you can activate the optimum start/stop function.

**Date and time**
You can set the year, month, day and time.

**Offset temperature**
As the temperature is measured on the wall thermostat, the temperature distribution can vary throughout a room. To adjust for this, a temperature offset of ±3.5 °C can be set. If, for example, 18 °C is measured instead of the 20 °C set, an offset of -2.0 °C must be set. An offset temperature of 0.0 °C is set in the factory settings.

- **Linking the floor heating actuator**
- To use a Homematic IP floor heating actuator with the Homematic IP wall thermostat, it must first be taught to the Homematic IP Access Point and then linked to the wall thermostat.
  For more information on the configuration options, please refer to the operating instructions of the Homematic IP floor heating actuator and the Homematic IP user manual.
- **Communication test**
- You can check the connection between your Homematic IP Wall Ther-mostat and the Homematic IP Floor Heating Actuator. During this test, the wall thermostat transmits a switching command to the floor heating actuator. Depending on the current status of the actuator, the device is switched on or off for confirmation after receiving the command.
  - Press and hold down the control wheel (E) to open the configuration menu.
  - Select the  symbol by turning the control wheel and confirm by pressing the control wheel briefly.

## Operation

After configuration, simple operations are available directly on the device.
If the wall thermostat is in standby mode, please press the control wheel (E) once before operation to activate the device.

- **Temperature:** Turn the control wheel (E) to the right or to the left to manually change the temperature. In automatic mode, the manually set temperature will remain the same until the next point at which the schedule changes. Afterwards, the defined heating schedule will be activated again. During manual operation, the temperature remains activated until the next manual change.
- Boost function for Homematic IP Radiator Thermostats: Press the control wheel (E) of the wall thermostat briefly to activate the boost function for heating up the radiator quickly and briefly by opening the valve. There will be a pleasant room temperature right away because of the radiated heat.

**Changing the batteries**

If the symbol for empty batteries ( ) appears in the display or in the app, please replace the used batteries by two new LR03/micro/AAA batteries. You must observe the correct battery polarity.
To replace the batteries of the wall thermostat, please proceed as follows:

- Once mounted, the electronic unit (B) can easily be pulled out of the frame (A) and removed from the mounting plate (F). To remove the electronic unit from the frame, take hold of the sides of the electronic unit and pull it out (see figure 6). You do not need to open the device.
- Turn the electronic unit over to remove or insert the batteries.
- Insert two new 1.5 V LR03/micro/batteries into the battery compartment, making sure that you insert them the right way round (see figure 7).
- Put the electronic unit back into the frame. Make sure that “TOP” and the arrows on the back side of the electronic unit point up-wards and that the clips on the mounting plate latch into the openings on the electronic unit.
- Please pay attention to the flashing signals of the device LED while inserting the batteries (see see „9.4 Error codes and flashing sequences“ on page 44).
- Once the batteries have been inserted, the wall thermostat will perform a self-test/restart (approx. 2 seconds). Afterwards, initialisation is carried out. The test display will indicate that initialization is complete: orange and green lighting.
- Caution! There is a risk of explosion if the batteries are not replaced correctly. Never recharge non-rechargeable batteries. Do not throw the batteries into a fire. Do not expose batteries to excessive heat. Do not short-circuit batteries. Doing so will present a risk of explosion.
- Leaking or damaged batteries can cause burns if they come into contact with the skin, so use suitable protective gloves in this case.
- Used batteries should not be disposed of with regular domestic waste! Instead, take them to your local battery disposal point.

## Troubleshooting

1. **Low battery**
   Provided that the voltage value permits it, the wall thermostat will remain ready for operation also if the battery voltage is low. Depending on the particular load, it may be possible to send transmissions again repeatedly

once the batteries have been allowed a brief recovery period.

If the voltage drops too far during transmission, the empty battery symbol ( ) and the corresponding error code will be displayed on the device (see see „9.4 Error  and flashing sequences“ on page 44). In this case, replace the empty batteries by two new batteries (see see „8 Changing the batteries“ on page 42).

**Command not confirmed**

If at least one receiver does not confirm a command, the device LED lights up red at the end of the failed transmission process. The failed transmission may be caused by radio interference (see see „12 General information about radio operation“ on page 46). This may be caused by the following:

- Receiver cannot be reached.
- Receiver is unable to execute the command (load failure, mechanical blockade, etc.).
- Receiver is faulty

**Duty cycle**

- The duty cycle is a legally regulated limit of the transmission time of devices in the 868 MHz range. The aim of this regulation is to safeguard the operation of all devices working in the 868 MHz range.
- In the 868 MHz frequency range we use, the maximum transmission time of any device is 1% of an hour (i.e. 36 seconds in an hour). Devices must cease transmission when they reach the 1% limit until this time restriction comes to an end. Homematic IP devices are designed and produced with 100% conformity to this regulation.
- 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. If the duty cycle is exceeded, this is indicated by three slow flashes of the device LED, and may manifest itself in the device temporarily working incorrectly. The device starts working correctly again after a short period (max. 1 hour).

## Error codes and flashing sequences

| Error and flashing codes | Meaning | Solution |
|---|---|---|
| Battery symbol  | Battery voltage too low | Replace the batteries of the device (see see „8 Changing the batteries“ on page 42). |
| Antenna symbol flashing  | Communication error with H omematic IP access point/ fl oor heating actuator | Please check the connection to the Homematic IP access point/floor heating actuator. |
| Flashing humidity symbol “%” | Humidity limit (60 %) in the r oom is exceeded | Ventilate the room and switch from cooling to he ating mode, if required |
| Flashing condensation and co oling symbol  | Humidity input of Multi IO B ox has been activated | Ventilate the room and switch from cooling to he ating mode, if required |
| Lock symbol  | Operating lock activated | Deactivate the operating lock via the app |

| | | |
|---|---|---|
| Short orange flashes | Radio transmission/attempting to transmit/data transmission | Wait until the transmission is completed. |
| 1x long green flash | Operation confirmed | You can continue operation. |
| 1x long red flash | Operation failed | Try again (see **see „9.2 Command not confirmed“ on page 43).** |
| Short orange flashes (every 10 seconds) | Pairing mode active | Please enter the last four numbers of the device serial number for confirma- tion (see **see „5.1 Pairing the Homematic IP Access Point“ on page** 33). |
| Short orange lighting (after green or red confirmation) | Batteries empty | Replace the batteries (see **see „8 Changing the batteries“ on page** 42). |
| 1x long red flash | Transmission failed or duty cycle limit is reached | Please try again **(see „9.2 Command not confirmed“ on page 43** or **see „9.3 Duty cycle“ on page** 44). |
| 6x long red flashes | Device defective | Please see your app for error message or contact your retailer. |
| 1x orange and 1x green light ( after inserting batteries) | Test display | After the test display has stopped, you can continue |

### Restoring factory settings

The factory settings of the device can be restored. If you do this, you will lose all your settings.
To restore the factory settings of the wall thermostat, please proceed as follows:

- To remove the electronic unit (B) from the frame, take hold of the sides of the electronic unit and pull it out (see figure 6).
- Remove one battery.
- Insert the battery ensuring that the polarity is correct (see figure 7) and press and hold down the system button (D) for 4s at the same time, until the LED will quickly start flashing orange (see figure 8).
- Release the system button.
- Press and hold down the system button again for 4 seconds, until the LED lights up green.
- Release the system button again to conclude the procedure.

The device will perform a restart.

### Maintenance and cleaning

The device does not require you to carry out any maintenance other than replacing the battery when necessary. Leave any maintenance or repair to a specialist.

Clean the device using a soft, clean, dry and lint-free cloth. You may damp-en the cloth a little with lukewarm water in order to remove more stubborn marks. Do not use any detergents containing solvents, as they could corrode the plastic housing and label.

### General information about radio operation

Radio transmission is performed on a non-exclusive transmission path, which means that there is a possibility of interference occurring. Interference can also be caused by switching operations, electrical motors or defective electrical devices.

- The range of transmission within buildings can differ greatly from that available in the open air. Besides the transmitting power and the reception characteristics of the receiver, environmental factors such as humidity in the vicinity play an important role, as do on-site structural/ screening conditions
- eQ-3 AG, Maiburger Straße 29, 26789 Leer, Germany hereby declares that the radio equipment type Homematic IP HmIP-WTH-1 is compliant with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: **www.homematicip.com**

## Technical specifications

- Device short description: HmIP-WTH-1
- Supply voltage: 2x 1.5 V LR03/micro/AAA
- Current consumption: 50 mA max.
- Battery life: 2 years (typical)
- Protection rating: IP20
- Ambient temperature: 0 to 35 °C
- Dimensions (W x H x D):
- Without frame: 55 x 55 x 23.5 mm
- Including frame: 86 x 86 x 25 mm
- Weight: 100 g (including batteries)
- Radio frequency: 868.3 MHz/869.525 MHz
- Receiver category: SRD category 2
- Typical range in open space: 250 m
- Duty cycle: < 1 % per h/< 10 % per h
- Method of operation: Type 1
- Pollution degree: 2

Subject to modifications.

**Instructions for disposal**

Do not dispose of the device with normal domestic waste! Electronic equipment must be disposed of at local collection points for waste electronic equipment in compliance with the Waste Electrical and Electronic Equipment Directive.

## Information about conformity

- CE The CE mark is a free trademark that is intended exclusively for the authorities and does not imply any assurance of properties.
- For technical support, please contact your retailer

Free download of the Homematic IP app!

Download on the App Store

ANDROID APP ON Google play

## Documents / Resources

| | |
|---|---|
|  | homematic IP Installations- und Bedienungsanleitung Installation and operating manual Notice d'installation et mode d'emploi Manual de instalación y uso Istruzioni per l'installazione e l'uso Installatie- en bedieningshandleiding DE Wandthermostat mit Luftfeuchtigkeitssensor S. 2 EN Wall Thermostat with Humidity Sensor p. 33 FR Thermostat mural p. 64 ES Termostato de pared p. 82 IT Termostato a parete p. 106 NL Wandthermostaat met luchtvochtigheidssensor p. 130 HmIP-WTH-1 **homematic HmIP-WTH-1 Wall Thermostat with Humidity Sensor** [pdf] Instruction Manual HmIP-WTH-1 Wall Thermostat with Humidity Sensor, HmIP-WTH-1, Wall Thermostat with Humidity Sensor, Thermostat with Humidity Sensor, Humidity Sensor, Sensor |

## References

- Home page | Homematic IP
- Startseite - eQ-3
- Home page | Homematic IP
- User Manual