



Installation instruction heatapp! gateway



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EN

Installation instruction heatapp! gateway

English

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Note

Due to system updates, it may happen that the installation instructions presented here do not correspond to the current software version. All current installation instructions can be found at www.heatapp.de/downloads. Please check if you have the latest version of the manual.

1 Safety instructions

1.1 General information

The device is not suitable for children and must not be used as a toy.

Store packaging material safely away from children or dispose of it.

Do not dismantle the device; it does not contain any user-serviceable parts. If defects occur, please contact your installer.

1.2 Structure of the warning instructions



DANGER

Brief description of the hazard

The signal word **DANGER** indicates a directly threatening hazard.

Non-observation leads to severe injuries or death.



WARNING

Brief description of the hazard

The signal word **WARNING** indicates a possible hazard.

Non-observation may result in severe injuries or death.



CAUTION

Brief description of the hazard

The signal word **CAUTION** indicates a possible hazard.

Non-observation can result in slight or moderate injuries.



ATTENTION

Brief description

The signal word **Attention** indicates possible property damage.

Non-observation can lead to damage to the device or plant.



Note

The signal word **note** indicates further information about the device or its use.

1.3 Personnel qualifications

The electrical installation, initial operation and servicing of the device may only be performed by qualified electrical technicians who have been authorised by the operator.

The technicians must have read and understood these operating instructions and follow their procedures.

Requirements to be met by a qualified electrical technician:

- Knowledge of general and special safety and accident prevention regulations.
- Knowledge of the relevant electrical regulations (e.g. DIN VDE 0100 Part 600, DIN VDE 0100-722) plus the relevant national regulations.
- Ability to identify risks and avoid possible hazards.

1.4 Warranty conditions

Improper use, non-observation of these instructions, use of inadequately qualified personnel and independent changes exclude any liability on the part of the manufacturer for the resulting damage. The manufacturer's warranty becomes void.



ATTENTION

Impairment of device function if incorrect spare parts are used!

If unauthorised parts are used correct functioning is not assured. Use spare parts authorised by customer service.

2 heatapp! gateway

heatapp! gateway is the main wireless interface of the single room heat regulation. **heatapp! gateway** wirelessly sends and receives information to all radio components for control of the radiators (**heatapp! drive**), underfloor heating system (**heatapp! floor**) and for room temperature measurement (**heatapp! sense and heatapp! sense control**) and serves as a message interface for **heatapp! base/heatapp! base T2B and heatcon! EC**.

heatapp! gateway communicates with the radio components, which are located in the individual rooms via the Z-wave wireless protocol. Communication with **heatapp! base / heatapp! base T2B / heatcon! EC** takes place via the home network of the customer.



Note

As an individual device without **heatapp! base / heatapp! base T2B / heatcon! EC** and without radio components, the **heatapp! gateway** has no uses for the customer.

2.1 The Z-Wave wireless system

The Z-Wave wireless system is a wireless communication standard specially for use in the smart home sector. The wireless communication is optimised for low energy consumption and maximum communication safety.

Z-wave uses two-way communication with acknowledgement. Only confirmed telegrams are classed as sent successfully. If a communication error occurs, the transmit process is repeated three times.

Z-Wave has implemented the feature of a mesh-networking technology in which every mains operated device can send telegrams to other devices in its own network. The resultant meshed network is controlled by **heatapp! gateway** and the routes updated upon changes to the network.

heatapp! floor, heatapp! single floor and heatapp! repeater are constantly active in the wireless network and can therefore serve as Z-Wave routers. Battery operated devices such as **heatapp! drive** and **heatapp! sense** are mainly inactive, only waking periodically to receive and send commands. They cannot be used as routers.



2.2 Radio coverage

The radio coverage depends on the building type and the building properties and condition. To achieve good radio coverage, it may be necessary to use repeaters. Radio coverage can be improved or worsened by changes in the object. As the manufacturer, we are responsible for the functionality of the goods produced by us. The radio network is set up through the installation and therefore does not form part of the supplied goods.

If you have questions on the installation, radio and network technology, please contact our technical support or visit our heatapp! training events.

3 Technical Requirements

You can use the **heatapp!** system with your underfloor or radiator heating as well as with electric heaters, irrespective of what sort of heat source you have. To be able to operate **heatapp!** conveniently from anywhere, you require:

- Your own residential Internet connection (broadband, cable, fibre optic, LTE)
- A wired or wireless home network (LAN, Wi-Fi) and
- A smartphone or tablet with 3G/4G mobile (UMTS, LTE) and local wireless.

The **heatapp! app** is currently available for iOS (iPhone, iPad and iPod) and Android.

You do not require any knowledge of heating technology because **heatapp!** is installed by experts for you.

3.1 Installation accessories

The installation of the **heatapp!** system takes place via the Internet browser of your laptop, tablet or smartphone. In order to access the **heatapp!** Web interface, you need to set up a **heatapp! installation kit** or a **heatapp! Installation stick**, which are available as an accessory.

A The **heatapp! installation kit** consists of

- 1 USB LAN adapter
- 1 Patch cable
- 1 Transport bag

B **heatapp! Installation-Stick (WLAN)**

3.2 Conditions and requirements

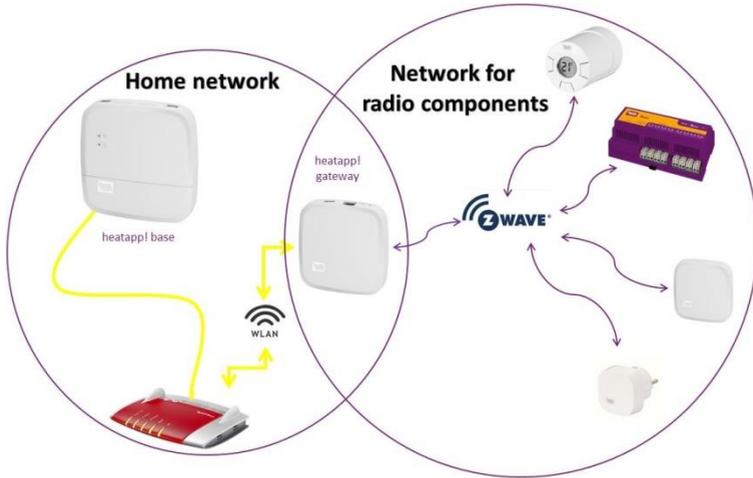


Fig. 1: Network

The **heatapp!** system works with two different networks. **heatapp! base** and **heatapp! gateway** communicate with each other via the home network. The radio components communicate via Z-Wave radio with the **heatapp! gateway**.

To operate a **heatapp!** system, an Ethernet network (LAN / WLAN) is required. In most applications this is provided through use of an Internet connection and an appropriate router.

When connecting to the energy generator, you need a network connection in the boiler room. We recommend to connect the **heatapp! base** via LAN cable with the router. Ensure that a network connection is available; if necessary via a switch or Powerline Adapter.

heatapp! was developed in conjunction with the Institute for Internet Security. All data is stored centrally in your **heatapp! base** in your home. To protect the system from unauthorised access, the **heatapp!** system can only be operated with a user name and password. The access data is created during the installation. Ensure to keep your access data in a safe place, because without it, your system is no longer operable. You can record the access data in the chapter 10 at the end of this installation manual.

4 Installation and initial operation

► Note

By single room control please adhere to the specified sequence for installation and initial operation of the **heatapp! base** and **heatapp! gateway**.

1. Firstly, completely configure **heatapp! base**,
2. Then configure **heatapp! gateway**.
3. **heatapp!** radio components

For initial operation of a **heatapp!** system a standard laptop and the **heatapp! installation kit** comprising the **heatapp! USB-LAN adapter** or a **heatapp! Installations-Stick** and a network cable are required.

4.1 Setting up

The **heatapp! gateway** is designed to be set up as a table-top unit.

Find a suitable installation location for the **heatapp! gateway** that fulfils the following requirements:

- A 230 V outlet must be available at the installation location of the **heatapp! gateway**.
- A LAN connection to the customer's home network must be available at the installation location of the **heatapp! gateway**.

Or alternatively

- The installation location must be within range of the customer's Wi-Fi network so that the Wi-Fi module integrated in the **heatapp! gateway** can be used.

Position the **heatapp! gateway** at the selected installation location.



Note

If you favour wall fastening for the **heatapp! gateway**, we recommend double-sided adhesive strips, e.g. Powerstrips. Screw-fastening is not possible.

The **heatapp! gateway** should be positioned as centrally as possible between the radio components. Avoid room corners or positions near to the floor, so that propagation of the radio waves is not obstructed. Find out more about heatapp! and Z-wave radio communication under <https://learning.heatapp.de>

4.2 Connection

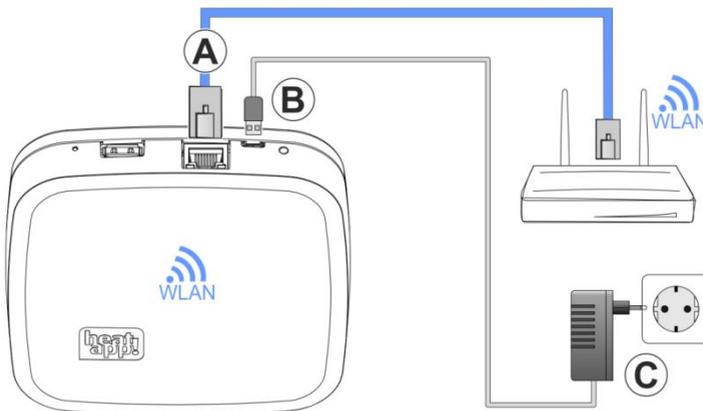


Abb.2: heatapp! gateway

A Connect the **heatapp! gateway** to the customer's LAN network:

- Via a network cable plugged into a free Ethernet port on the customer's internet router or switch. The maximum total cable length from the **heatapp! gateway** to the next switch or router must not exceed 100 m.
- Alternatively via Wi-Fi connection using the Wi-Fi module integrated in the **heatapp! gateway**. Ask the customer for the access data for their Wi-Fi network. You will require this in the following set-up steps. Moreover, inform the customer that future changes to their Wi-Fi network (new router, changed password, etc.) can impair the operation of **heatapp!** and many require an adjustment to the **heatapp!** set-up.

B Connect the supplied plug power supply unit to the **heatapp! gateway**.

C Plug the power supply unit into a power outlet.

4.3 Initial operation / initial configuration

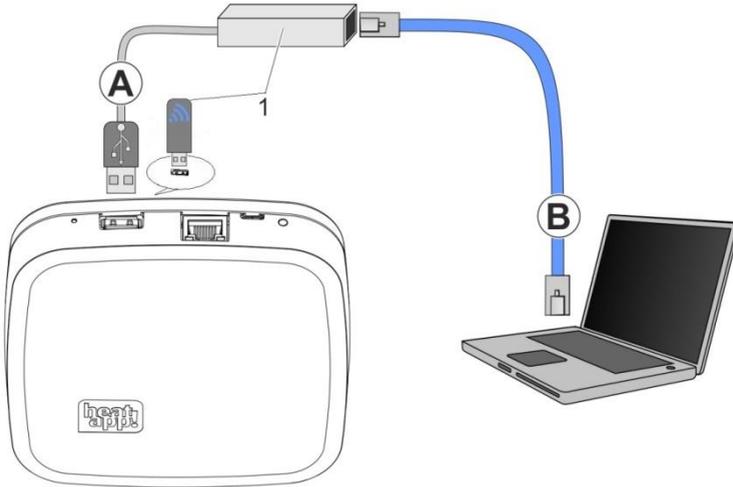


Fig. 3: Initial set-up heatapp! gateway

1 heatapp! USB-LAN Adapter or heatapp! Installation-Stick

The initial set-up of the **heatapp! gateway** is performed based on a menu control system via the set-up assistant via the browser of the connected PC / laptop.

DHCP must be activated in the network settings of the PC / laptop (automatic address allocation) and no proxy server must be activated.

► Note

Through updating of the device software by downloading via the Internet additional costs may be charged depending on the customers actual internet tariff.

1. Connect the **heatapp! USB-LAN adapter** from the installation kit to the **heatapp! gateway** and the PC / laptop:

A Plug the **heatapp! USB-LAN adapter** into the USB port on the top side of the **heatapp! gateway**..

B Start the PC / laptop. Connect the **heatapp! USB-LAN adapter** to the network port of the PC / laptop..

or

Plug the **heatapp! installation stick** into the USB port on the top of the **heatapp! gateway**. The displayed network name is generated by the **heatapp! gateway**:

- heatapp! gateway[xxxxxxxx]

The last 6 digits of the Mac address of **heatapp! gateway** (located on the nameplate) are shown in brackets.

Connect your laptop, tablet or smartphone via WLAN to the **heatapp! gateway** network.

Shortly thereafter, the set-up assistant starts automatically in the browser window of your laptop. If the set-up assistant does not start automatically, enter the address <http://10.0.0.1> in the address line of the browser.



Step 1 - Login

Login with your password to **heatapp! gateway**



Note

It is not necessary to login with a password for the initial configuration.

Step 2 – Network

For installation you require a functioning home network.

However, if you do not have an Internet connection you can only use **heatapp!** with your smartphone or tablet within your own home, not when you are underway.

Moreover you will not be able download any updates for **heatapp! base** or **heatapp! gateway**. Therefore we strongly recommend connection of the **heatapp!** system to the Internet.

Creating a network connection

- A LAN connection via DHCP is recommended (automatic setup of an Internet connection)
- LAN connection with manual settings (optional)
- Setup of a Wi-Fi connection (optional)
- Setup of a proxy connection (optional)

After an Internet connection has been created, the **heatapp!** system checks if an update is available.

- If a system update is available, an installation request appears. If the update is not installed, a setup cannot be performed.

Step 3 – Connection **heatapp! base**

Here select the **heatapp! base** that you want to connect to the **heatapp! gateway**.

Step 4 – Password

Enter a password for access to the **heatapp! gateway**.



ATTENTION

It is not possible to access the menu of the **heatapp! gateway** without a password. Make a note of the access data in your installation instructions in the appropriate form in the chapter 10 and keep it carefully.

After set-up the **heatapp! gateway** is successfully connected to the customer network, the **heatapp! base** and the Internet if the LED on the side **heatapp! gateway** remains a steady GREEN.

After initial set-up using the set-up wizard, you enter the **heatapp gateway** menu. Here you can include the **heatapp!** radio components (see section 6)

5 LED State heatapp! gateway

LED	Description
Steady white	Start sequence step 1 -power supply switched on Boot error - If both LEDs light up in white after switch on for more than two minutes, disconnect the heatapp! gateway from the power supply and wait for one minute. Reconnect the heatapp! gateway to the power supply.
Steady yellow	Start sequence step 2 -starting of the operating system
Flashes green	Start sequence step 3 -create network and Internet connection
Steady green	Network and Internet connection created
Steady yellow	Network connection made, no heatapp! base found. Check network configuration
Steady red	No network connection possible. LAN: No network cable connected? Wi-Fi: Incorrect access data?
Flashes red	System fault - update via Internet necessary.

6 heatapp! radio components

Include the radio components close to the **heatapp! gateway**. Including of new radio components is completed with the room assignment. An interview between the **heatapp! gateway** and the **heatapp!** radio components follows, to determine the functions of the new modules. During this process, battery-operated devices may change to sleep mode; if this occurs, they must be manually woken by pressing the learn key. The **heatapp! gateway** indicates (Include button is released) when the interview has ended.

If the **heatapp! gateway** is missing important information for a radio component, you receive a message – Link to the connection status page. The radio component concerned is marked with an orange spot. Continue to press the learn key at intervals of a second until the status point goes green.

6.1 Including of radio components

If not already done, connect the **heatapp! USB-LAN adapter** from the installation kit with the **heatapp! gateway** and the PC / laptop. Shortly thereafter the **heatapp! gateway** menu is displayed in the browser window of your PC. If the menu does not display automatically, enter the address <http://10.0.0.1> in the address line of the browser.

1. Login with your password from the installation.
2. Select the Radio component menu and then Include and Exclude.
3. Select the Include button.
4. If the gateway is ready, you are requested to press the learn key of the radio component (for operation of the radio component, please see the enclosed manual).
5. If the **heatapp! gateway** recognises the radio component you are requested to enter a name. Dependent on the radio component used, you are requested to select a room.
6. To complete the Include interview, you are requested to press the radio component learn key again.

Multiple radio components can be assigned to each room. This may be up to four **heatapp! drive** or **heatapp! floor** channels or a mixture of both.

If multiple **heatapp! drive** are registered, because for example multiple radiators are present, then the first registered **heatapp! drive** is the master component, whose temperature is subsequently displayed in the app.



► **Note**

The **heatapp!** system also supports other manufacturers' Z-wave components (e.g. actuators and repeaters). The basic functions of these third-party components can be controlled via the **heatapp! gateway** under "*Settings / System / Gateway / Radio modules / Manage*" dependent on the function in question.

Other information concerning the use of other manufacturers' radio modules can be found in section 7.1 and 7.2 .

6.2 Excluding of radio components

Excluding is performed analogously to including. Instead of the button "*Include*", use the "*Exclude*" button and perform the previously described steps.

7 Connection test and Repair radio system

The **heatapp! gateway** communicates with all radio components via Z-Wave wireless. In the Z-wave wireless standard, a meshed network is created within a few days. The functions "Connection test" and "Repair radio system" are provided for checking and repairing the radio network.

You can find the functions in the menu of the **heatapp! gateway** under Radio components > Connection status.

► **Note**

The **heatapp! gateway** menu is only available in the local network. In the app, select Settings > Gateway > Radio components.

Alternatively, you can also open the gateway menu via the IP address in the Internet browser of your PC.

7.1 Function Repair radio system

The function Repair radio system is executed after installation and/or if there is a wireless malfunction.

The radio components must find their routes to the **heatapp! gateway** and save them.

1. In your PC's browser, select menu item "*Connection status*". You can now see a list of the included radio components and their connection status.
2. Click on the button "*Radio system*" and then "*Repair radio system*".
3. The **heatapp! gateway** now requests all radio components, to redefine their routes to the **heatapp! gateway**. Each radio component can define and save up to three routes.

► **Hinweis**

Dependent on the number of included radio components, repair of the radio system may take a variable length of time. The function is executed in the background and the system continues working without limitation.

7.2 Connection test

1. In your PC's browser, select menu item "*Connection test*". You can now see a list of the registered radio modules and their connection state.
2. Click on the button "*Connection test*" and then "*Start connection test*".

The status of all radio components is now „wait“.

3. Press the learn key on a fitted radio module to wake it up.
4. Repeat step 3 for all radio modules.

As an alternative to points 3 and 4, simply wait until the radio components signal as part of their automatic cycle. See also chapter 7.3

A green dot and an actuality time stamp are shown for each radio module with a successful connection to the **heatapp! gateway**. If you still do not have a working connection to one or more radio modules, then the wireless range is still insufficient!

- Relocate the **heatapp! gateway** or the aerial of the **heatapp! floor** to another location so that all radio modules can be reached. Repeat the connection test.
- When using **heatapp! repeater** and/or **heatapp! floor**, select the button “Radio system” and then “Repair radio system”. With this function all accessible radio components become aware of each other and create new radio routes.
- If this does not work, add a **heatapp! repeater** to improve radio coverage. Repeat the repair of the radio system and then the connection test.

7.3 Time stamp of the radio components

All radio components report cyclically to the **heatapp! gateway**. In the connection status of the gateway menu you can recognize the last message of the radio component by the time stamp next to the status point.

The time stamps are used in the connection test to check the radio coverage. The time stamp is updated by briefly pressing the buttons on the radio components. If the time stamp is not updated within 60 seconds, a critical radio coverage is to be assumed. Please look for a better position for the **heatapp! gateway** or / and register a **heatapp! repeater** to improve radio coverage. Then execute the "Repair radio system" function so that all radio components can redefine their routes.

05.05.2017 11:21:44



A current time stamp and green status point indicate that the radio component has a good connection to the **heatapp! gateway**

05.05.2017 11:18:52



An orange status point indicates that the including interview is not complete. Please continue to press the learn key on the radio component at intervals of a second until the status point goes green.

05.05.2017 07:31:23



A red status point indicates that the radio component has not been connected to the **heatapp! gateway** for at least 90 minutes. Perform the function “Repair radio system” and then a “Connection test” (see chapter 7.1 and 7.2).

Reporting cycles of the radio components:

heatapp! drive	Every 5 minutes
heatapp! sense	Every 5 minutes
heatapp! sense control	Every 5 minutes
heatapp! floor	Every 10 minutes
heatapp! single floor	Every 15 minutes
heatapp! repeater	Every 15 minutes
Window sensor	Every 5 minutes

8 Third party radio modules

The **heatapp! gateway** uses the established Z-Wave standard for digital home wireless systems for the radio connection of **heatapp! drive**, **heatapp! floor**, **heatapp! sense** and **heatapp! repeater** and other **heatapp! radio** components.

In addition, the **heatapp!** system also operates some commercially available Z-wave components to be able to fulfil certain heating-relevant functions (e.g. **heatapp!** single floor or window contacts). These components are marked as **heatapp! checked**. They can be assigned to a room and adopt corresponding functions.

Therefore other Z-Wave certified devices can be programmed into the **heatapp! gateway**. They then appear in the radio modules management of the gateway menu under "*Other radio modules*".

Dependent on whether the third party device offers any heating-relevant functions, it can also be operated from here. Operation of such devices directly from the home screen of the **heatapp! app** is not possible.

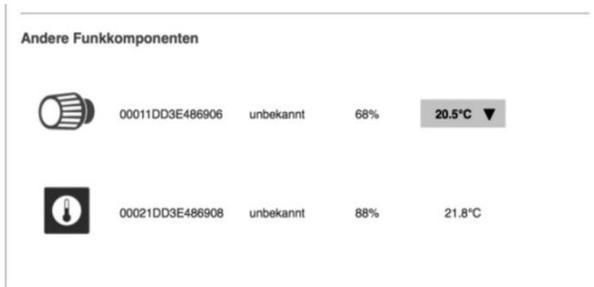


Fig.4: Representation of third party components

8.1 Include and operating foreign components

Registering of foreign devices:

1. Login into your system as Expert or Owner from a tablet using the **heatapp! app**. Go to the "Settings" area, scroll the icons down and select "Gateway" If necessary, login to the **heatapp! gateway** using the gateway password created during the initial setup.
2. Open the "Radio components" menu.
3. Click on the tab, "Include and exclude" and start the registering process by clicking on the "Include" button. You are now requested, to trigger the registration process on the desired radio module. This is mainly implemented via a button on the device. For details please see the operating instructions of the third party device..
4. If the device has been successfully detected, you will now see it on the "Manage" tab under "Other radio modules"

You can also control Z-Wave components from here (basic functions). For example, with actuators, you can set the temperature.

In Fig.4: , it is apparent that another manufacturer's actuator and room sensor have been registered. The actuator makes it possible to set the desired room temperature via the drop-down field.

At this point the room sensor merely transfers the measured temperature. It cannot be used to control the heating.

Note

The **heatapp!** system makes possible complete single room heat regulation from anywhere. This is only possible using original **heatapp!** components. To offer you maximum ease of use and convenience, we are constantly expanding our system.

For the latest news, make sure to check from time to time under www.heatapp.de.

Third party components can only be controlled if they are in the same network as the **heatapp!** system. Control via the home screen is not possible.

9 Technical data

heatapp! gateway is the main wireless interface of the single room heat regulation. **heatapp! gateway** wirelessly sends and receives information to all radio components for control of the radiators (**heatapp! drive**), underfloor heating system (**heatapp! floor**), electric heating systems (**heatapp! single floor**) and for room temperature measurement (**heatapp! sense and heatapp! sense control**) and serves as a message interface for **heatapp! base/heatapp! base T2B** and to **heatcon! EC**.

Scope of delivery:

- **heatapp! gateway**
- Ethernet cable
- Power supply unit

Artikelnummer: 9600200000

Installation	Table device
Operating system	Linux
Wireless System	Z-Wave, Static Controller
WLAN	802.11b/g/n
Connectionse	
• extern	<ul style="list-style-type: none">• USB 2.0• RJ45 Ethernet
Power supply	Euro plug power supply unit 5 V DC, 1 A
Power input	1,7 W
Ambient conditions	
• Storage temperature	-25 ... +60 °C
• Operating temperature	-10 ... +50 °C
Dimensions	124 x 124 x 27,5 mm (LxBxH)
Weight	170 g
Colour	Traffic white RAL 9016



10 Login data

10.1 Note the login data to your heatapp! system here:

User level	User name	Password
Expert	_____	_____
Owner	_____	_____

heatapp! gateway	
Password:	_____

► Note

After the installation is complete, create a establishment protocol and a data backup in the menu of heatapp! base (see installation instructions for heatapp! base at www.heatapp.de/downloads)

10.2 Access data lost

If you have lost the access data, a reset of **heatapp! base** and/or **heatapp! gateway** must be initiated. This requires an empty USB memory stick.

1. Use a blank USB memory stick with VFAT formatting
2. Create a blank text document and name it "Reset"
 - Open the USB stick on your PC / Laptop
 - Right-click
 - New
 - Text document
 - Rename it to "Reset.txt"
3. Disconnect **heatapp! gateway** from the LAN connection to the home network.
4. Connect **heatapp! gateway** to the power supply.
5. Insert the USB stick with the Reset.txt file in the **heatapp! gateway**.
6. Wait until the red network LED light is on.

The reset function erases all data from the devices. The data cannot be retrieved any more. Further use requires an entirely new set-up.

► Note

If the **heatapp! gateway** is reset, all other included radio components must be reset too. Without resetting, the radio components cannot be included again.

11 Declaration of Conformity

EG-Konformitätserklärung



The company
EbV Elektronikbau- und Vertriebs GmbH
Heisterner Weg 8-12
57299 Burbach

declare under sole responsibility the conformity of the product

Productname: Roomcontrol radio gateway
Type: heatapp! gateway

with the standards listed below:

EMV 2004/108/EC	EN 301-489-1 V1.9.2:2011 EN301-489-3 V1.6.1:2013
R&TTE 1999/5/EG	EN 300-220-2- V2.3.1:2010
Niederspannung 2006/95/EG	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011
RoHS 2011/65/EU	

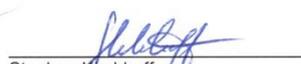
We declare that the product designated as an independent unit corresponds to the above standards, guidelines and technical specifications.

The technical documentation is available for inspection at the above mentioned address.

Burbach, den 06.07.2015

Elektronikbau- und Vertriebs- GmbH


Burkhard Nöh
Prokurist


Stephan Kirchhoff
Director R&D



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