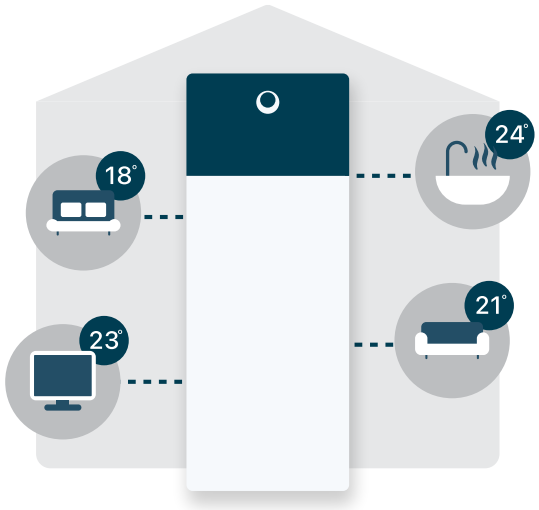
Application Guide

# Daikin Home Controls




EKRACPUR1PA
EKRACPUR1PU
EKRCTRDI2BA
EKRCTRDI3BA
EKRMIBEV1V3
EKRRVATR2BA
EKRRVATU1BA
EKRSENDI1BA
EKRSIBDI1V3
EKRUFHT61V3
EKRK

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# 1 Daikin Home Controls

## 1.1 About Daikin Home Controls (DHC)

Daikin Home Controls is a selection of accessories that extends the capabilities of your Daikin Altherma unit to offer demand-based and room-by-room control of heating (and cooling if your Daikin Altherma unit supports it) in the entire house, enabling increased living comfort.

The room temperature can be monitored via one of the DHC Room Thermostats, the DHC Radiator Thermostats, or a DHC Room Sensor.

The regulation of heating or cooling can be controlled via the DHC Floor Heating Controller or the DHC Radiator Thermostats.

The system interacts with your Daikin Altherma unit via a DHC Multi IO Box (for reversible units) or a DHC Basic IO Box (for heating only units).

The DHC accessories can communicate with each other through a wireless protocol. The DHC Access Point provides access to the ONECTA cloud and delivers an intuitive configuration of the system through the ONECTA app, offering heating/cooling schedules per room as well.

Your heating is controlled automatically and makes the everyday life easier. However, you can still react flexibly to changed conditions and adjust the desired temperature according to your needs.

### 1.1.1 Room-by-room control

In order to set up the control for a room, the following is required:

- The room MUST have a DHC controlled emitter:
  - A DHC Radiator Thermostat on a radiator,
  - A DHC Floor Heating Controller in combination with either underfloor heating, radiators, passive convectors, or active convectors; or
  - A Homematic IP pluggable switch and meter, which integrates an electric heating device.
- The room MUST have a DHC accessory that can measure the temperature:
  - a DHC Room Thermostat,
  - a DHC Room Sensor, or
  - a DHC Radiator Thermostat.

Please note that a DHC Room Thermostat is NOT mandatory in case of radiators with a DHC Radiator Thermostat. Adding a DHC Room Thermostat will however improve your comfort, because you can choose the location where the temperature is being measured. Via the ONECTA app, both accessories will be added to the room and the DHC Radiator Thermostat will follow the temperature measurements of the DHC Room Thermostat.

### 1.1.2 Schedules

In the ONECTA app, you can create and manage a house (max. 5) with a maximum of 25 rooms and up to 40 DHC accessories. For each room, a total of 6 schedules can be set:

- 3 for heating (activated when the Daikin Altherma unit is in heating mode)

- 3 for cooling (activated when the Daikin Altherma unit is in cooling mode)

Each schedule allows a maximum of 6 time slots per day. A time slot can be set by choosing a start time, a stop time and a setpoint.

The ONECTA system will learn when to activate the heating/cooling to reach the setpoint at the requested time.

### 1.1.3 Cloud connection

The cloud connection operates as a bridge between the DHC Access Point and the other DHC accessories. It allows the ONECTA app to configure and manage the different DHC accessories and devices in your ONECTA system.

In case of an interruption of the connection to the ONECTA cloud, the ONECTA app will NOT be able to manage your DHC accessories and devices, but the direct wireless link between the DHC accessories guarantees the correct heating or cooling operation.

## 1.2 About DHC wireless communication

The DHC wireless communication is based on the 868 MHz radio band. There is no interference from WLAN, Bluetooth, video streaming or other users of 2.4 GHz and 5 GHz.

#### Minimum distance

To avoid radio interference between different DHC accessories, it is recommended to keep a minimum distance of 50 cm between WLAN routers and the DHC accessories, as well as between the DHC accessories themselves.

#### Wireless range

Depending on the device type, a wireless range between 150 and 400 meters in the open air can be reached. The signal strength will vary, depending on how many obstacles are between the devices. ALWAYS avoid putting wireless devices inside metal enclosures or close to other wireless devices.

Use the RF analyser to detect range issues.

#### Unreachable devices

Devices can become unreachable for different reasons:

- Poor signal strength (you can add a HmIP-PSM to resolve this, see "7.2 Unreachable devices" [▸ 28]),
- Low battery, or
- Duty cycle limit was reached (see Duty cycle).

If possible, the ONECTA app will provide a notification that explains why a device is unreachable.

**INFORMATION**

It is recommended to keep devices nearby the DHC Access Point when adding them in the ONECTA app.

### RF analyser

To check the radio environment of your DHC accessories, you can use the EQ3-RFA radio analyser. By analysing the transmitting and receiving power of the used DHC accessories, you can better decide where to place the individual accessories for optimal results.

In case of issues, contact Daikin Service Centre.

### Duty cycle

The wireless DHC accessories operate in the following frequency bands:

- 868.000~868.600 MHz
- 869.400~869.650 MHz

In order to safeguard operation of all devices working in this range, it is legally required to limit the transmission time of devices. Limiting the transmission time minimises the risk of interference.

The 'duty cycle' is the maximum transmission time. It is the ratio of the time that a device is actively transmitting in comparison to the measurement period (1 hour), and is expressed as a percentage of 1 hour.

If the total amount of allowed transmission time is reached, the DHC accessory will stop transmitting until the time limit is reached.

For example, when a device has a duty cycle limit of 1%, it is ONLY allowed to transmit 36 seconds in 1 hour. After this, it will stop transmitting until the 1 hour limit is reached.

DHC accessories fully comply to this limitation and use 2 frequency bands with a duty cycle of respectively 1% and 10%.

During normal operation of the DHC accessories, this limit is NOT usually reached. However it is possible that the limit is reached during start-up or during a fresh installation of a system. In this case, the LED of the accessory lights up red. It may be non-responsive for a short period (max. 1 hour), until the time restriction for transmission has expired. After this period, it will operate normal again.

## 1.3 About DHC accessories

The DHC ecosystem contains 10 accessories. The table below gives a complete overview of those accessories.

| Daikin reference | Full model description |
|---|---|
| EKRACPUR1PA | DHC Access Point |
| EKRACPUR1PU | DHC Access Point (UK) |
| EKRCTRDI2BA | DHC Room Thermostat — 1 |
| EKRCTRDI3BA | DHC Room Thermostat — 2 |
| EKRMIBEV1V3 | DHC Multi IO Box |
| EKRRVATR2BA | DHC Radiator Thermostat |
| EKRRVATU1BA | DHC Radiator Thermostat (UK) |
| EKRSENDI1BA | DHC Room Sensor |
| EKRSIBDI1V3 | DHC Basic IO Box |
| EKRUFHT61V3 | DHC Floor Heating Controller — 6 zones |

### DHC Access Point & DHC Access Point (UK)

The DHC Access Point connects the ONECTA app on your smartphone via the ONECTA cloud with all DHC accessories. It transmits configuration and operating commands from the ONECTA app to the DHC accessories.


### DHC Room Thermostat — 1 & DHC Room Thermostat — 2

The DHC Room Thermostat measures the temperature and relative humidity in the room. It also enables time-controlled regulation of your conventional radiators with DHC Radiator Thermostats, or of your underfloor heating in combination with DHC Floor Heating Controllers, and adjusts heating time slots to your individual needs.


1–1 DHC Room Thermostat — 1


1–2 DHC Room Thermostat — 2

### DHC Multi IO Box

The DHC Multi IO Box connects your Daikin Altherma unit to the DHC ecosystem. The accessory allows comfortable and demand-based regulation of the room temperature for both heating and cooling according to your personal needs, provided that your Daikin Altherma unit supports it.

## DHC Radiator Thermostat

The DHC Radiator Thermostat enables time-controlled regulation of the room temperature via a heating schedule with individual time slots. For precise regulation of the room temperature, the DHC Room Thermostat can measure the actual temperature of a room and transmit the data to the DHC Radiator Thermostat.

The DHC Radiator Thermostat is compatible with M30×15 connections, adapters are included in the box. To support M28 connections, an additional eQ-3 adapter (part number 76030A1B) is needed, which is sold separately.


## DHC Radiator Thermostat (UK)

The DHC Radiator Thermostat enables time-controlled regulation of the room temperature via a heating schedule with individual time slots. You can create 3 different schedules with up to 6 time slots per day.


## DHC Room Sensor

The DHC Room Sensor measures the room temperature and humidity and transmits these values at intervals to the DHC Access Point as well as to the ONECTA app, enabling to regulate the room climate according to your needs.

### DHC Basic IO Box

The DHC Basic IO Box connects your Daikin Altherma unit to the DHC ecosystem. The accessory allows comfortable and demand-based regulation of the room temperature for heating according to your personal needs.

### DHC Floor Heating Controller — 6 zones

The DHC Floor Heating Controller offers comfortable and demand-based room-by-room control of your floor heating system, according to your personal needs, via the ONECTA app in combination with a DHC Access Point.

For more information and installation guidelines, see "9.1 Guidelines when installing a DHC Floor Heating Controller" [▸ 33].

## 1.4 About supported devices

There are a number of devices from Homematic IP that can be integrated into the DHC ecosystem. The following table gives an overview of those devices.

| Reference | Full model description |
|---|---|
| HmIP-PSM | Pluggable switch and meter |

| Reference | Full model description |
|---|---|
| HmIP-PSM-PE | Pluggable switch and meter (Pin-Earth) |
| HmIP-PSM-UK | Pluggable switch and meter (UK) |
| HmIP-PSM-IT | Pluggable switch and meter (IT) |
| HmIP-PSM-CH | Pluggable switch and meter (CH) |
| HmIP-SWDO | Window and door contact — optical |
| HmIP-SWDO-I | Window and door contact — invisible installation |
| HmIP-SWDO-PL | Window and door contact — optical, plus |
| HmIP-SWDM | Window and door contact with magnet |

### Pluggable switch and meter

The Homematic IP pluggable switch and meter can be used for various purposes. The ONECTA app supports the following functionalities:

- Emitter control: Integrate an electric heating device which, in combination with a room thermostat, can be controlled and scheduled by your ONECTA system.
- Switch control: Enable devices with an on/off switch in the ONECTA app.
- Power metering: Accurately measure power consumption.
- RF range extender: Resolve problems with unreachable devices.


1–3 Pluggable switch and meter


1–4 Pluggable switch and meter (Pin-Earth)


1–5 Pluggable switch and meter (UK)


1–6 Pluggable switch and meter (IT)


1–7 Pluggable switch and meter (CH)

## Window and door contact

The window and door contact enables the system to respond to an open door or window by adjusting the desired room temperature.

1–8 Window and door contact — optical

1–9 Window and door contact — invisible installation

1–10 Window and door contact — optical, plus

1–11 Window and door contact with magnet

# 2 Applications

The recommended way to use the DHC accessories is in combination with the DHC Access Point, which provides access to the internet. The DHC accessories will be connected to the DHC Access Point, which means they can be fully managed via the ONECTA app. For more information on how to set up and use the individual DHC accessories, see their respective manuals.

## Connecting DHC accessories

**INFORMATION**

ALWAYS keep a minimum distance of 50 cm between the accessories.

At any time you can connect DHC accessories to your DHC Access Point:

1. Open the ONECTA app.
2. Click on the plus symbol (+).
3. Select the menu item **Add Daikin Home Controls**.
4. Select **Add DHC Accessory**.
5. The ONECTA app will ask you to power on the accessory or push the DHC system button. The DHC Access Point will detect the accessory.
6. The ONECTA app will recognize the accessory and ask you to confirm the type.
7. The ONECTA app will request you to enter the last 4 digits of the unique ID of your accessory, or to scan the QR code that comes with the accessory.
8. Depending on the accessory type, the ONECTA app will guide you through configuration of the accessory and the DHC ecosystem that you are setting up.

## Heating/cooling switching

If your Daikin Altherma unit is reversible, it is ONLY possible to change the operating mode on the unit or in the ONECTA app. It is NOT possible to switch the operation mode directly on the DHC accessories.

## Holiday mode

Holiday mode can be activated in the ONECTA app to deviate from your normal schedules without having to change them. While holiday mode is active, space heating/cooling will be turned off and your system will be put in standby.

## Connection between Daikin Altherma and DHC accessories

The DHC accessories ALWAYS work with Ext. RT contacts.

| Zones | Heating/cooling | Connect to your Daikin Altherma unit via… |
|---|---|---|
| Single zone | Heating only | DHC Basic IO Box |
| | Heating/cooling | DHC Multi IO Box[(a)] |

| Zones | Heating/cooling | Connect to your Daikin Altherma unit via... |
|---|---|---|
| Bizone | Heating only | DHC Basic IO Box |
| | Heating/cooling | DHC Multi IO Box[a]<br>▪ Main zone can provide cooling via underfloor heating or convectors.<br>▪ Additional zone can ONLY have thermostatic radiator valves. They do NOT support cooling. |

[a] An extra relay [Normally open; Coil: 220~240VAC; non-corroding contacts (preferably gold-plated); minimum number of operations: 100.000] is required to connect the Daikin Altherma unit and the DHC Multi IO Box. This is because the Daikin Altherma unit provides a 230 V H/C status signal and the DHC Multi IO Box input ONLY accepts low voltage.

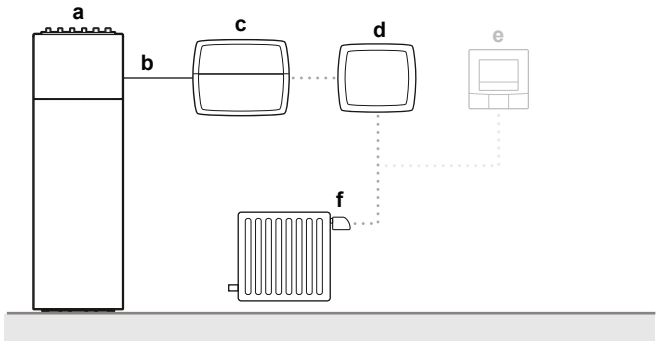
## 2.1 Single zone

### 2.1.1 Single zone heating only

**NOTICE**

The MMI settings MUST be adjusted first. See "5 User interface settings" [▶ 22].

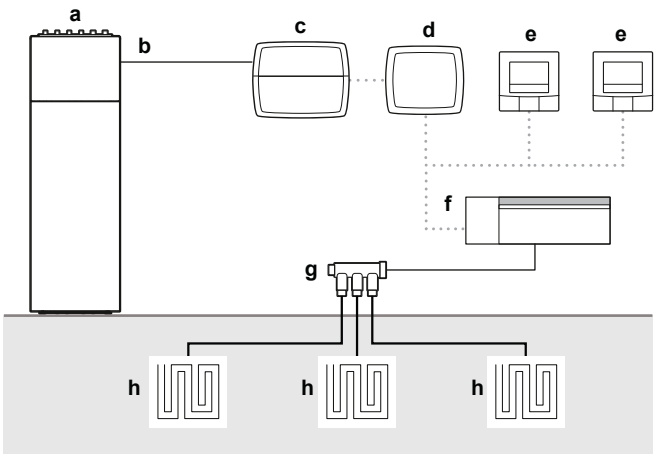
#### Radiator




**a** Daikin Altherma
**b** Radiator demand
**c** DHC Basic IO Box
**d** DHC Access Point
**e** (Optional) DHC Room Thermostat — 1 or 2
**f** DHC Radiator Thermostat

#### Underfloor heating

For this application, there MUST be one DHC Room Thermostat — 1 or 2 present per room you wish to control.



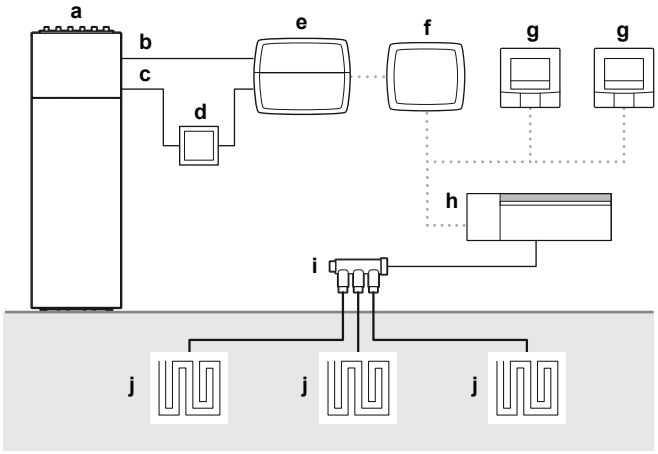

**a** Daikin Altherma
**b** Radiator demand
**c** DHC Basic IO Box
**d** DHC Access Point
**e** DHC Room Thermostat — 1 or 2
**f** DHC Floor Heating Controller
**g** Collector
**h** Underfloor heating

### 2.1.2 Single zone heating/cooling

**NOTICE**

The MMI settings MUST be adjusted first. See "5 User interface settings" [▸ 22].

For this application, there MUST be one DHC Room Thermostat — 1 or 2 present per room you wish to control.




**a** Daikin Altherma
**b** Underfloor heating demand
**c** Heating/cooling
**d** Relay
**e** DHC Multi IO Box
**f** DHC Access Point
**g** DHC Room Thermostat — 1 or 2
**h** DHC Floor Heating Controller
**i** Collector
**j** Underfloor heating

### 2.1.3 Single zone to dual zone

**NOTICE**

The MMI settings MUST be adjusted first. See "5 User interface settings" [▶ 22].

It is possible to create a dual zone application with a single zone unit. This can be done by using an extra shut-off valve, as shown in the figure.

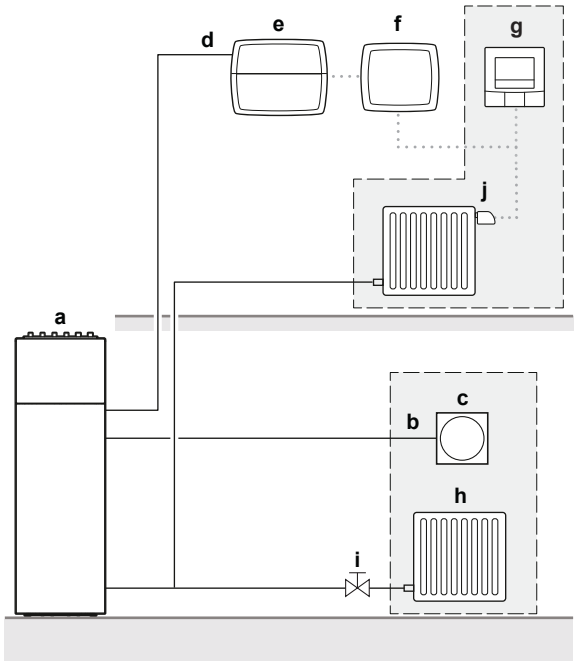
In this setup, the radiators on the ground floor are monitored by a room thermostat (HCI), the radiators on the first floor are monitored by the DHC accessories (DHC Radiator Thermostat and DHC Room Thermostat).

The shut-off valve is driven by a control signal from the Daikin Altherma that reflects the heat demand signal generated by the HCI. Depending on the configuration, this can be a normally closed or normally open valve.

If the HCI activates a heat demand, the shut-off valve will open and both loops will be supplied with warm water from the unit.

If the HCI does not activate a heat demand, the shut-off valve remains closed. In this case, the heat demand is determined by the DHC accessories and only the water circuit on the first floor receives warm water.

See the installer reference guide of your Daikin Altherma to determine which signal from X2M can be used to control the shutt-off valve in a dual zone combination.




**a** Daikin Altherma
**b** P1/P2
**c** Human Comfort Interface (BRC1HHDA)
**d** External room thermostat demand
**e** DHC Basic IO Box
**f** DHC Access Point
**g** DHC Room Thermostat
**h** Radiator
**i** Shut-off valve
**j** DHC Radiator Thermostat

### 2.1.4 Special application: Single zone reversible with dehumidifier

**INFORMATION**

This special application is ONLY available in Italy.

**NOTICE**

- Your Daikin Altherma unit MUST be connected to the internet via a WLAN adapter, NOT a LAN adapter.
- The DHC accessories need wireless communication to work. Metal can block the signal. Do NOT put any of the DHC accessories inside a metal box.

**INFORMATION**

Currently, ONLY 2 types of third-party dehumidifiers are supported:

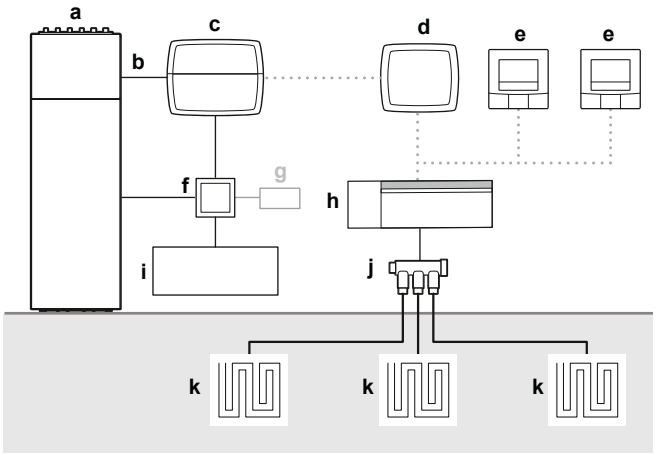
- IT.RE*
- IT.RS*

**NOTICE**

The MMI settings MUST be adjusted first. See "5 User interface settings" [▸ 22].

With a reversible Daikin Altherma unit, floor cooling can be provided. Cooling can cause condensation if the humidity level is too high. The DHC accessories provide a means to measure the relative humidity and temperature of the room and, in combination with the floor cooling connection kit (EKRK), provide a solution that will take countermeasures to prevent wet floors based upon the detected relative humidity level. The application will:

- Activate the dehumidifier when `Humidity limit 1`[(1)] is reached, and
- Stop the cooling process by closing the valves of the floor cooling when `Humidity limit 2`[(1)] is reached. The dehumidifier is still activated.




**a** Daikin Altherma
**b** Underfloor heating demand
**c** DHC Multi IO Box
**d** DHC Access Point
**e** DHC Room Thermostat — 1 or 2
**f** Floor cooling connection kit (EKRK)
**g** (Optional) Dew sensor
**h** DHC Floor Heating Controller
**i** Dehumidifier
**j** Collector

(1) For more information see "5.3 Settings for special application: Single zone reversible with dehumidifier" [▸ 24].

**k** Underfloor heating

### Configuration

The configuration is done by adding the Daikin Altherma unit in the ONECTA app. For more information on how to do so, see the manuals of the DHC Access Point.

After setting the presence of the dehumidifier and adjusting the installer mode settings on the Daikin Altherma unit, the ONECTA app will automatically take care of all configurations of the DHC accessories.

### Configuration of the dehumidifier

These settings ONLY apply to a dehumidifier of type RE*. No configuration is required for a dehumidifier of type RS*. For more detailed information on configuration, see the manual of the respective dehumidifier.

| | | | Description | Value |
|---|---|---|---|---|
| 17-IC | Treatment input | Invert logic | Used to switch on/off heating/cooling/ dehumidification functions. | No |
| 18-IC | Season input | | Used to set the season (summer/winter). | No |
| 11-14 | Dew point alarm | | Triggered when dew point alarm is reached. | No |

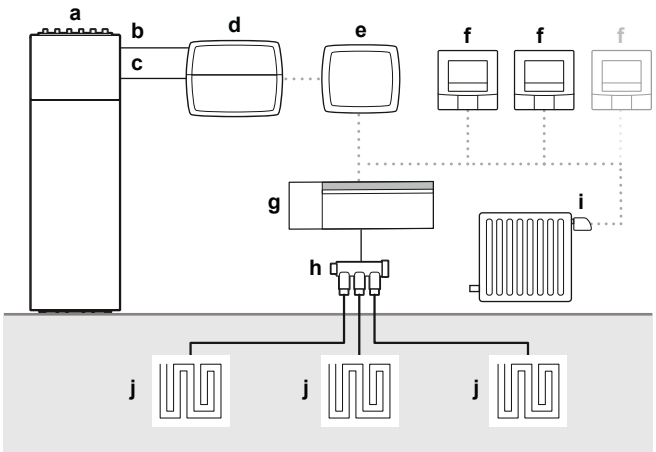
## 2.2 Bizone

### 2.2.1 Bizone heating only

**NOTICE**

The MMI settings MUST be adjusted first. See "5 User interface settings" [▶ 22].

For this application, there MUST be one DHC Room Thermostat — 1 or 2 present per room you wish to control. If there's a DHC Radiator Thermostat in the room, the DHC Room Thermostat — 1 or 2 is optional.



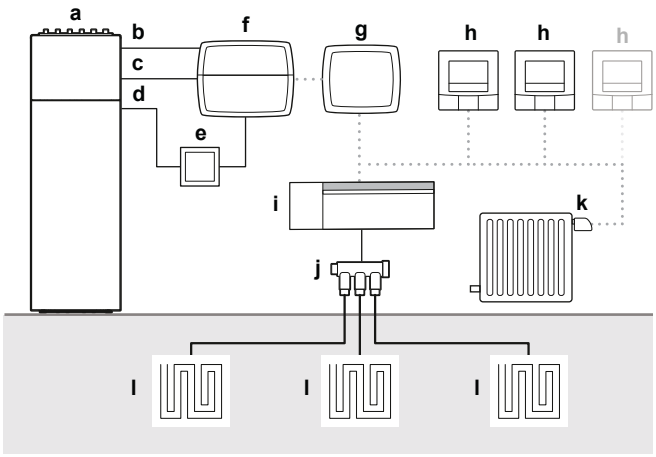

**a** Daikin Altherma
**b** Underfloor heating demand
**c** Radiator demand
**d** DHC Basic IO Box
**e** DHC Access Point
**f** DHC Room Thermostat — 1 or 2

**g** DHC Floor Heating Controller
**h** Collector
**i** DHC Radiator Thermostat
**j** Underfloor heating

### 2.2.2 Bizone heating/cooling

**NOTICE**

The MMI settings MUST be adjusted first. See "5 User interface settings" [▸ 22].



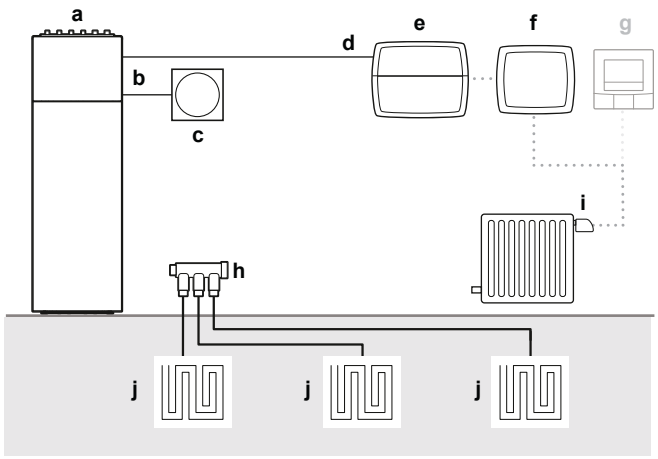

**a** Daikin Altherma
**b** Underfloor heating demand
**c** Radiator demand
**d** Heating/cooling
**e** Relay
**f** DHC Multi IO Box
**g** DHC Access Point
**h** DHC Room Thermostat — 1 or 2
**i** DHC Floor Heating Controller
**j** Collector
**k** DHC Radiator Thermostat
**l** Underfloor heating

### 2.2.3 Bizone heating only with room thermostat (Human Comfort Interface)

**NOTICE**

The MMI settings MUST be adjusted first. See "5 User interface settings" [▸ 22].

In this application, the Human Comfort Interface (BRC1HHDA) is used to control the main zone with underfloor heating.



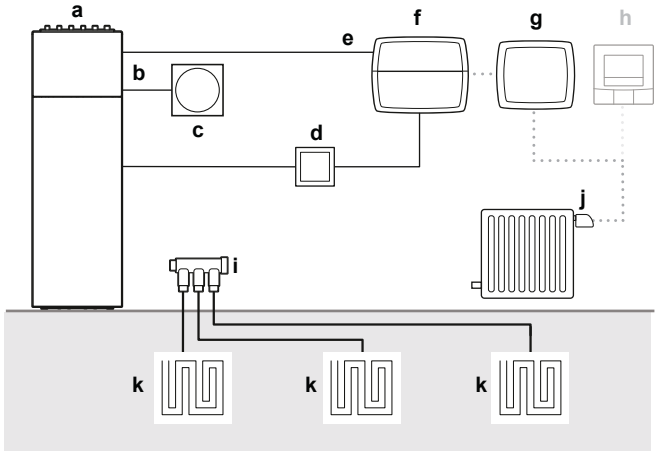

**a** Daikin Altherma
**b** P1/P2
**c** Human Comfort Interface (BRC1HHDA)
**d** Radiator demand
**e** DHC Basic IO Box
**f** DHC Access Point
**g** (Optional) DHC Room Thermostat — 1 or 2
**h** Collector
**i** DHC Radiator Thermostat
**j** Underfloor heating

### 2.2.4 Bizone reversible with room thermostat (Human Comfort Interface)

**NOTICE**

The MMI settings MUST be adjusted first. See "5 User interface settings" [▶ 22].

In this application, the Human Comfort Interface (BRC1HHDA) is used to control the main zone with underfloor heating.




**a** Daikin Altherma
**b** P1/P2
**c** Human Comfort Interface (BRC1HHDA)
**d** Relay
**e** Radiator demand
**f** DHC Multi IO Box
**g** DHC Access Point
**h** (Optional) DHC Room Thermostat — 1 or 2
**i** Collector
**j** DHC Radiator Thermostat
**k** Underfloor heating

# 3 Connections to the Daikin Altherma unit

The following DHC accessory is required for connecting to your Daikin Altherma unit:

| Unit | Single zone | Bizone |
|---|---|---|
| Heating only | DHC Basic IO Box | |
| Reversible | DHC Multi IO Box | |

# 4 Compatibility

| | Unit | Outdoor | Indoor | | | DHC compatible |
|---|---|---|---|---|---|---|
| ASHP | Daikin Altherma 3 H HT | EPRA-D2/W1(7) | F | ETVH/X/Z-E(7) | MMI2 | Yes |
| | | | $ECH_2O$ | ETSH(B)/X(B)-P-E(7) | | |
| | | | W | ETBH/X-D(7) | | |
| | Daikin Altherma 3 H MT | EPRA-E | F | ETVH/X/Z-E | | |
| | | | $ECH_2O$ | ETSH(B)/X(B)-P-E | | |
| | | | W | ETBH/X-D | | |
| | Daikin Altherma 3 R | ERGA-EV(7) | F | EHVH/X/Z-E | | |
| | | | $ECH_2O$ | EHSH(B)/X(B)-P-E | | |
| | | | W | EHBH/X-E | | |
| | Daikin Altherma 3 M | EBLA-D<br>EDLA-D | — | | | |
| | Daikin Altherma 3 R | ERLA-D | F | EBVH/X/Z-D | | |
| | | | $ECH_2O$ | EBSH/X-D | | |
| | | | W | EBBH/X-D | | |
| | Daikin Altherma 3 R | ERLA-D | F | EHFH/Z-S18D3V | EKRUDAL1 | |
| | Daikin Altherma 3 H | EPGA-DV | F | EAVH/X/Z-D | MMI | |
| | | | W | EABH/X-D | | |
| | Daikin Altherma 3 M | EBLA-E<br>EDLA-E | — | | MMI2 | |
| | Daikin Altherma M | EB/DLQ-CV3<br>EB/DLQ-CW1<br>EB/DLQ-C3V3/W1 | — | | EKRUCBL* | |
| | Daikin Altherma R HT | ERR/SQ-AV1/Y1 | EKHBRD-DV/Y17 | | — | No |
| | Daikin Altherma R Flex Type | SERHQ-BAW1 | SEHVX-BAW | | — | |
| GEO/WS | Daikin Altherma 3 GEO | — | EGSAH/X-D | | MMI | Yes |
| | Daikin Altherma GEO | | EGSQH-S18A9W | | EKRUCBL* | No |
| | Daikin Altherma 3 WS | | EWSAH/X-D9W | | MMI | Yes |
| Hybrid | Daikin Altherma R Hybrid | EVLQ-CV3 | EHYHBH-AV32 + EHYKOMB-A | | EKRUCBL* | |
| | Daikin Altherma H Hybrid | EJHA-AV3 | EHY2KOMB28/32A A | | EKRUHML* | |
| Gas | Daikin Altherma 3 C Gas W | — | D2CND-A | | — | No |
| | | | D2TND-A4 | | | |

# 5 User interface settings

**Daikin Altherma user interface (MMI) upgrade**

**NOTICE**

Upgrade the firmware of the Daikin Altherma user interface to the most recent version.

## 5.1 Settings for single zone

| Menu item | Mode | Description | Value |
|---|---|---|---|
| `Main zone` > `Control` | Installer mode ONLY | This setting defines that the main zone will be activated to produce water for space heating/cooling based on the input of the ext. RT contact(s). | `External room thermostat` |
| `Main zone` > `Ext thermostat type` | | This setting configures the external room thermostat contact for the main zone (low temperature emitters) as a single thermo request. | `1 contact` |

## 5.2 Settings for bizone

**Bizone without room thermostat**

| Menu item | Mode | Description | Value |
|---|---|---|---|
| Main zone > Control | Installer mode ONLY | This setting defines that the main zone will be activated to produce water for space heating/cooling based on the input of the ext. RT contact(s). | External room thermostat |
| Main zone > Ext thermostat type | | This setting configures the external room thermostat contact for the main zone (low temperature emitters) as a single thermo request. | 1 contact |
| Additional zone > Control | | This setting defines that the additional zone will be activated to produce water for space heating/cooling based on the input of the ext. RT contact(s). | External room thermostat |
| Additional zone > Ext thermostat type | | This setting configures the external room thermostat contact for the additional zone (high temperature emitters) as a single thermo request. | 1 contact |

**Bizone with room thermostat**

| Menu item | Mode | Description | Value |
|---|---|---|---|
| Main zone > Control | Installer mode ONLY | This setting defines that the room temperature is controlled by the dedicated Human Comfort Interface (BRC1HHDA used as room thermostat) | Room thermostat |
| Additional zone > Control | | This setting defines that the additional zone will be activated to produce water for space heating/cooling based on the input of the ext. RT contact(s). | External room thermostat |
| Additional zone > Ext thermostat type | | This setting configures the external room thermostat contact for the additional zone (high temperature emitters) as a single thermo request. | 1 contact |

## 5.3 Settings for special application: Single zone reversible with dehumidifier

| Menu item | Mode | Description | Value |
|---|---|---|---|
| `Daikin Home Controls > Enable Daikin Home Controls` | Installer mode ONLY | — | `Yes` |

| Menu item (`Daikin Home Controls > Dehumidifier > …`) | Mode | Description | Value |
|---|---|---|---|
| `Dehumidifier installed` | Installer mode ONLY | This setting defines the presence of a dehumidifier in the system. | `Yes` |
| `Dew sensor installed` | | This setting defines the presence and type of external dew sensor connected to the Floor cooling connection kit (EKRK). | ▪ `No` (in case of RS*)<br>▪ `Normally open`<br>▪ `Normally closed` (in case of RE*) |
| `Humidity limit 1` | User mode | When this level of relative humidity is reached, the dehumidifier is activated. | ▪ Range: 40-80%<br>▪ Default: 55% |
| `Humidity limit 2` | Installer mode ONLY | When this level of relative humidity is reached, the floor cooling is stopped. | ▪ Range: 41-80%<br>▪ Default: 70% |

# 6 Firmware updates

In order to keep your DHC accessories and supported devices always up to date and to be able to make use of the full range of functions, the ONECTA cloud will automatically update the device software (firmware) of the components.

As a rule, the firmware of the DHC accessories is updated in the background via radio connection. Your DHC accessories will remain active during the update.

# 7 Troubleshooting

## 7.1 Resetting to factory settings

The factory settings of your DHC accessories as well as of your entire installation can be restored.

- **Resetting a DHC accessory:** Only the factory settings of the DHC accessory will be restored. The entire installation will NOT be deleted.
- **Resetting and deleting the entire installation:** The entire installation is removed. The factory settings of your individual DHC accessories have to be restored so they can be connected again.

### 7.1.1 To reset and delete the entire installation

**INFORMATION**

During the reset, the DHC Access Point MUST be connected to the cloud so that all data can be deleted. This means that the network cable MUST be plugged in during the process and the LED MUST light up blue continuously.

To reset the factory settings of the entire installation, the DHC Access Point MUST be reset twice in succession, within 5 minutes:

1. Reset the DHC Access Point. See "7.1.2 To reset the DHC Access Point " [▸ 26].
2. Wait at least 10 seconds until the LED permanently lights up blue.
3. Immediately afterwards, perform the reset for the second time.

**Result:** After the second restart, your system has been reset.

#### DHC Access Point still visible

If the DHC Access Point is still visible in the app (status offline) after resetting, you have to manually remove it:

1. Click on the plus symbol (+).
2. Select the menu item **Add Daikin Home Controls**.
3. Check if your DHC Access Point is in the list.
4. Select **Remove**.

**Result:** Your DHC Access Point has been removed from the app.

### 7.1.2 To reset the DHC Access Point

1. Disconnect the DHC Access Point from the power supply by unplugging the mains adapter.
2. Press the system button and plug in the mains adapter again at the same time, until the LED starts flashing orange.
3. Release the system button.
4. Press the system button again, until the LED lights up green. If the LED lights up red, try again.
5. Release the system button to finish the procedure.

### 7.1.3 To reset the DHC Radiator Thermostat

1. Open the battery compartment by pulling it down.
2. Remove a battery.
3. Insert the battery again and long press the system button at the same time, until the LED quickly starts flashing orange.
4. Release the system button.
5. Long press the system button again until the LED lights up green.
6. Release the system button to finish the procedure.

### 7.1.4 To reset the DHC Radiator Thermostat (UK)

1. Open the battery compartment by pulling the cover backwards and then down.
2. Remove the batteries.
3. Insert the batteries again and long press the system button at the same time until the LED quickly starts flashing orange.
4. Release the system button.
5. Long press the system button again until the LED lights up green.
6. Release the system button to finish the procedure.

### 7.1.5 To reset the DHC Room Sensor

1. Grab the sides of the electronic unit and pull it out of the clip-on frame.
2. Remove a battery.
3. Insert the battery again and long press the system button at the same time, until the LED quickly starts flashing orange.
4. Release the system button.
5. Long press the system button again until the LED lights up green.
6. Release the system button to finish the procedure.

### 7.1.6 To reset the DHC Room Thermostat — 1

1. Grab the sides of the electronic unit and pull it from the wall mounting plate.
2. Remove a battery.
3. Insert the battery again and long press the system button at the same time, until the LED quickly starts flashing orange.
4. Release the system button.
5. Long press the system button again until the LED lights up green.
6. Release the system button to finish the procedure.

### 7.1.7 To reset the DHC Room Thermostat — 2

1. Grab the sides of the electronic unit and pull it out of the clip-on frame.
2. Remove a battery.
3. Insert the battery again and long press the system button at the same time, until the LED quickly starts flashing orange.

4 Release the system button.
5 Long press the system button again until the LED lights up green.
6 Release the system button to finish the procedure.

### 7.1.8 To reset the DHC Basic IO Box

1 Long press the system button until the LED quickly starts flashing orange.
2 Release the system button.
3 Long press the system button again until the LED lights up green.
4 Release the system button to finish the procedure.

### 7.1.9 To reset the DHC Floor Heating Controller — 6 zones

1 Long press the system button until the LED quickly starts flashing orange.
2 Release the system button.
3 Long press the system button again until the LED lights up green.
4 Release the system button to finish the procedure.

### 7.1.10 To reset the DHC Multi IO Box

1 Long press the system button until the LED quickly starts flashing orange.
2 Release the system button.
3 Long press the system button again until the LED lights up green.
4 Release the system button to finish the procedure.

## 7.2 Unreachable devices

**INFORMATION**

It is recommended to keep devices nearby the DHC Access Point when adding them in the ONECTA app.

It is possible that a device appears as unreachable in the ONECTA app after it was placed at its intended location. This indicates that the device cannot be reached by the DHC Access Point. You can verify with the EQ3-RFA if the wireless signal of the DHC Access Point is strong enough (see "RF analyser" [▸ 5]). If it is NOT, you need to add a Pluggable switch and meter (HmIP-PSM) to your ONECTA system to extend the range of the DHC wireless network (see "1.4 About supported devices" [▸ 8]) Place the HmIP-PSM in between the DHC Access Point and the desired location of the unreachable device, and activate the RF range extender function. Once you activated the RF range extender, the ONECTA app will be able to show the device in the DHC device list.

**INFORMATION**

It is NOT recommended to have more than 2 RF range extenders activated in a home.

# 8 Wiring diagram

## 8.1 DHC Basic IO Box

**Notes to go through before starting the unit**

| English | Translation |
|---|---|
| X*M | Field wiring terminal for AC |
| _.-.-.-. | Earth wiring |
| ① | Several wiring possibilities |
| [ ] | Option |
| [ ] | Not mounted in switch box |
| [ ] | Wiring depending on model |
| [ ] | PCB |

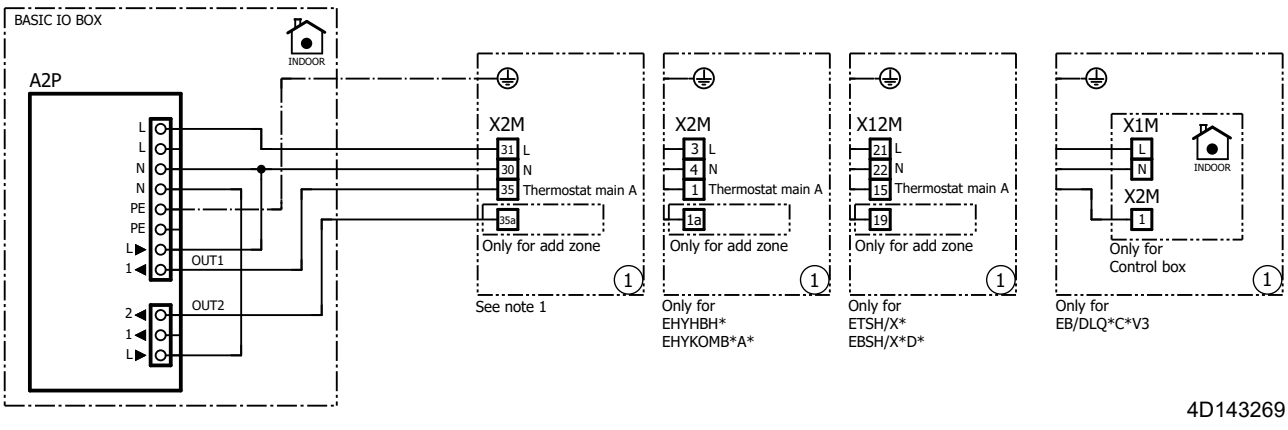
**NOTES:**

1 For applicable units see "4 Compatibility" [▸ 21].

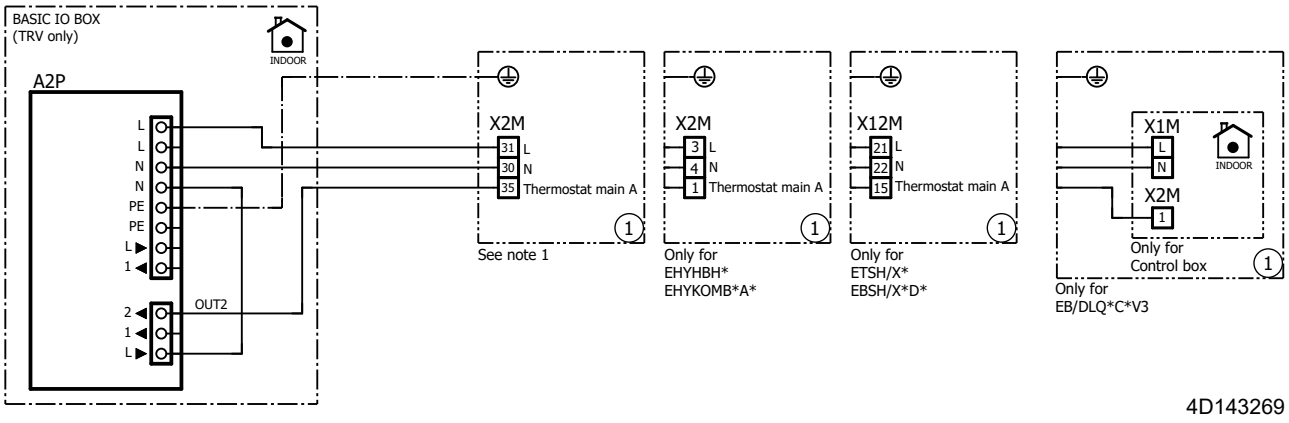
**LEGEND:**

| | |
|---|---|
| A2P | Printed circuit board (DHC Basic IO Box) |
| X*M | Terminal strip |

### Underfloor heating or combination of underfloor heating and radiator



**Radiator only**




## 8.2 DHC Multi IO Box

**Notes to go through before starting the unit**

| English | Translation |
|---|---|
| X*M | Field wiring terminal for AC |
| ⎓ | Earth wiring |
| ① | Several wiring possibilities |
| ⬚ | Option |
| ⬚ | Not mounted in switch box |
| ⬚ | Wiring depending on model |
| ▭ | PCB |

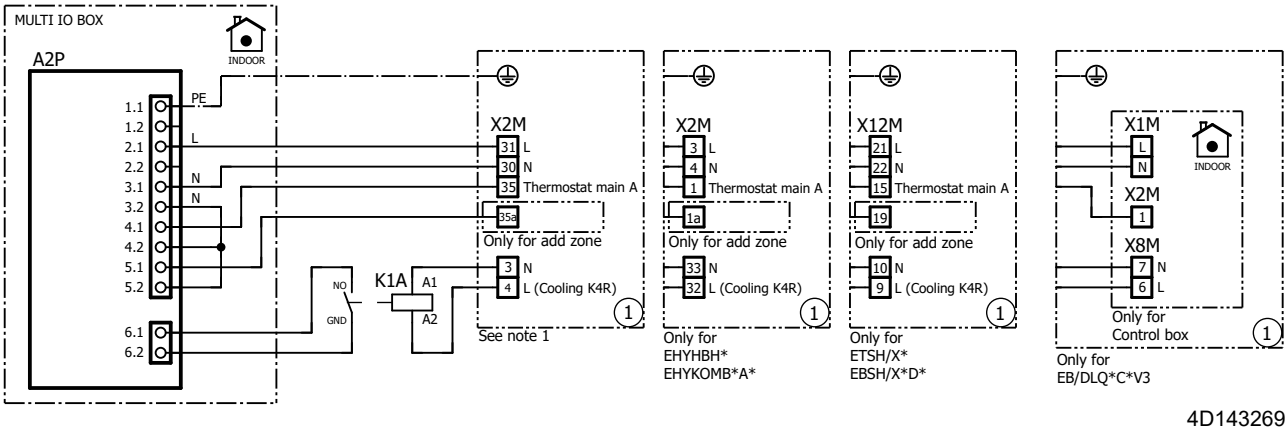
**NOTES:**

1 For applicable units see "4 Compatibility" [▸ 21].

**LEGEND:**

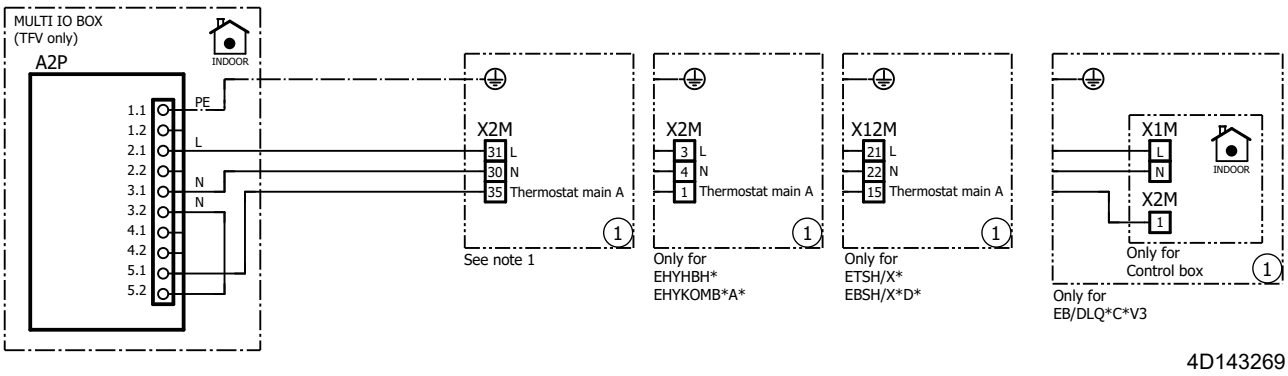
| | |
|---|---|
| A2P | Printed circuit board (DHC Multi IO Box ) |
| K1A | High voltage relay |
| X*M | Terminal strip |

## Underfloor heating or combination of underfloor heating and radiator




4D143269

## Radiator only




4D143269

## Special application: Single zone reversible with dehumidifier

### Notes to go through before starting the unit

| English | Translation |
|---|---|
| X2M, X12M | Field wiring terminal for AC |
| ⏚ | Earth wiring |
| ① | Several wiring possibilities |
| ┌ ┐ | Not mounted in switch box |
| ┌ ┐ | Wiring depending on model |
| ▭ | PCB |

**NOTES:**

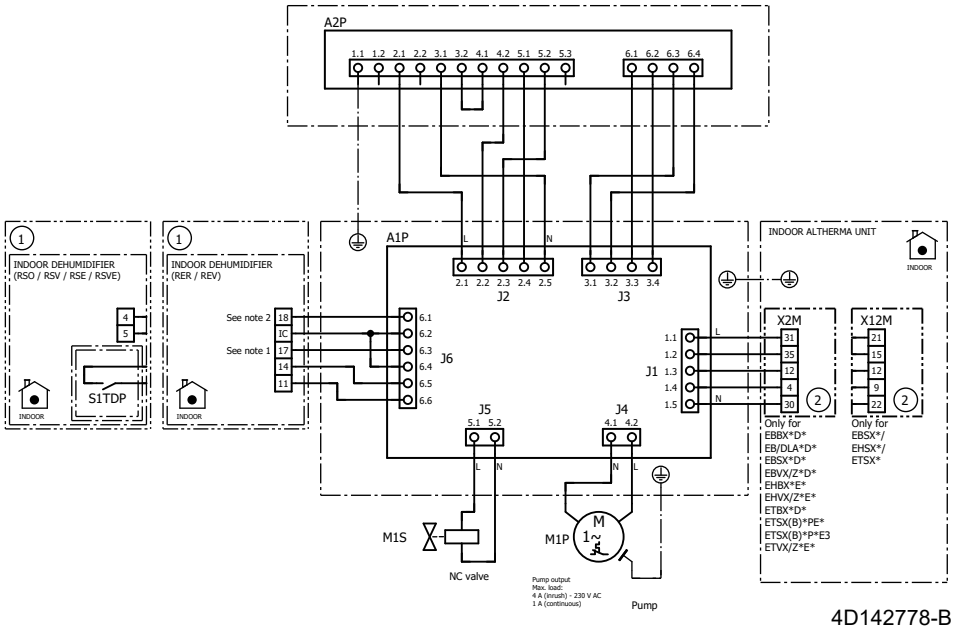
1 Configure as season input with no invert logic.

2 Configure as treatment input with no invert logic.

**LEGEND:**

| | |
|---|---|
| A1P | Printed circuit board (floor cooling connection kit) |
| A2P | Printed circuit board (DHC Multi IO Box ) |
| J* | Connector |
| M1P | Pump |
| M1S | 2-way valve for dehumidifier |

| | | |
|---|---|---|
| S1TDP | * | Dew sensor (ON/OFF) |
| X2M, X12M | | Terminal strip (hydro) |
| | * = | optional |



# 9 Appendix

## 9.1 Guidelines when installing a DHC Floor Heating Controller

### 9.1.1 Basic requirements

Unit requirements still apply and need to be considered with all valves closed:

- Is the minimum water volume still valid?
- Is the minimum flow rate still valid?

These requirements need to be inspected first when you want to extend an existing installation with DHC support.

A bypass valve is mandatory when the application of the DHC Floor Heating Controller is considered. The recommended location for a bypass valve is close to the manifold.

### 9.1.2 About multi-zoning

The DHC Floor Heating Controller provides outputs to drive up to 9 valve actuators, divided into 6 heating zones.

Via the ONECTA app, you can allocate these outputs to rooms. For every room, a DHC Room Thermostat is required to enable monitoring of the temperature and configuring a setpoint.

If the DHC Room Thermostat registers a heat demand, the DHC Floor Heating Controller will drive the actuators to send warm water to the loops with heat demand.

Closing a valve will close the underfloor heating loop and takes the respective water circuit out of the available water volume.

### 9.1.3 About the use of a DHC Floor Heating Controller

**When is it useful to install a DHC Floor Heating Controller?**

Application of the DHC Floor Heating Controller is useful if there are a few rooms with underfloor heating that have a different heat demand than the rest of the house:

- There are a few rooms with underfloor heating loops in the house with a reduced heat demand (for example unoccupied rooms, storage rooms, bedrooms, etc.). A reduced temperature in these rooms results in a smaller overall heat loss of the house, potentially saving energy.
- There are a few rooms with underfloor heating loops in the house with a particularly high heat demand (for example bathrooms, living room, etc.). This accessory allows it to reach higher temperatures in these rooms compared to others.

**When is it NOT useful to install a DHC Floor Heating Controller?**

If the desired temperature of each room in the house is more or less the same or on the same schedule, there is no need for zoning control.

A DHC Floor Heating Controller is also not recommended in case there is only one room with a particularly high heat demand:

- The minimum capacity of the unit is typically higher than the heat load of 1 room. The consequence is less efficient unit operation (ON/OFF operation because of minimum load condition).
- Due to the colder neighbouring rooms, a higher leaving water temperature setpoint is needed to reach the desired room temperature. This has a negative impact on the efficiency of the unit.

### 9.1.4 Technical specifications

Typical value of flow rate in 1 underfloor heating (UFH) loop: 1~2 l/min

- Typical value of Delta T in 1 UFH loop: 3~8°C
- Typical load of 1 UFH loop: 4.18 kJ/kgK×2 l/min×1/60 min/s×5°C=0.7 kW

Sanity check based UFH load:

- Typical UFH output: 30~100 W/m²
- Typical surface covered by 1 UFH loop: 10~20 m²
- Typical load of 1 UFH loop: 65 W/m²×15 m²≈1 kW

Typical minimum capacity of heat pump ≈ ± 3 kW[(1)]

- Continuous operation requires 3~4 open UFH loops
- 3 UFH loops open: spurious ON/OFF operation expected
- 2 UFH loops open: not very frequent ON/OFF operation expected
- 1 UFH loop open: frequent ON/OFF operation expected

**Note:** When the minimum volume and the minimum flow rate can be reached with all valves closed, there is no need to add a bypass valve to the system.

To guarantee that the minimum load corresponds with the minimum capacity of the unit, there are 2 options:

1. Keep a number of UFH loops uncontrolled (without valve actuators connected to the DHC Floor Heating Controller). The uncontrolled loops are only heated from the moment there is a heat demand from any of the controlled rooms. It is recommended to take the room that is large enough and is used most frequently.
2. The DHC Floor Heating Controller will always keep 2 heating zones active. Some heating zones offer 2 electrical outputs. If the heating zones with dual output are prioritised during allocation, the minimum capacity will be matched faster during a heat demand. In this case, 2 active heating zones will correspond with 3~4 UFH loops.

## 9.2 About non-connected solutions

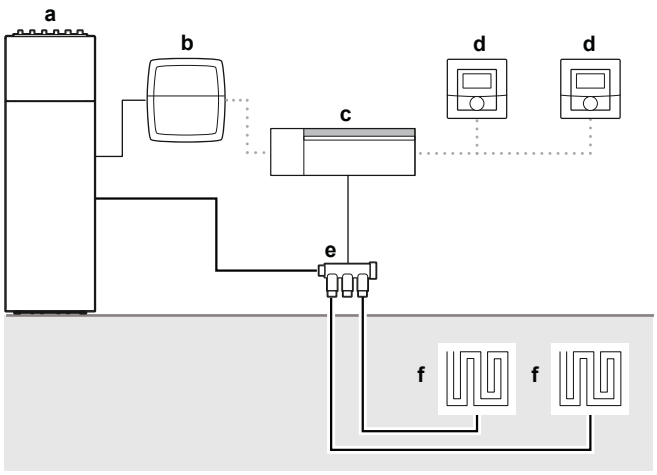
Another way to use the DHC accessories is without internet connection. This type of configuration ONLY supports specific special applications, that make use of a direct wireless connection between the accessories and are NOT using a DHC Access Point. Without a DHC Access Point, these applications do NOT offer the convenience of the ONECTA app for configuration or monitoring.

It is possible to move to a connected ONECTA based system at a later time, but this will require the purchase of a DHC Access Point and a complete recommissioning.

(1) This minimum capacity will be different for higher capacity units. A useful rule of thumb is that the minimum capacity is roughly 30-40% of the published capacity table.

If you do decide to add a DHC Access Point to your ecosystem at a later point in time, you will have to reset all accessories to factory settings. See "7.1 Resetting to factory settings" [▸ 26].

### 9.2.1 Single temperature water zone heating only unit with underfloor heating




**a** Daikin Altherma (ext RT)
**b** DHC Basic IO Box
**c** DHC Floor Heating Controller
**d** DHC Room Thermostat — 2
**e** Collector
**f** Underfloor heating

To set up the configuration, you need to:

1 Connect the DHC Floor Heating Controller to the DHC Room Thermostat — 2,
2 Connect the DHC Floor Heating Controller to the DHC Basic IO Box, and
3 Configure the DHC Room Thermostat — 2.

**To connect the DHC Floor Heating Controller to a DHC Room Thermostat — 2**

**INFORMATION**

ALWAYS keep a minimum distance of 50 cm between the accessories.

**INFORMATION**

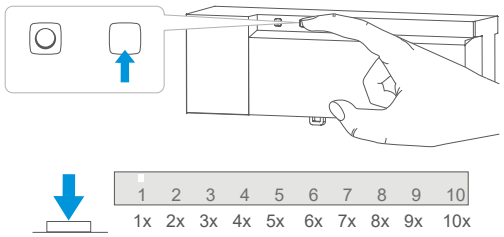
You can cancel the connecting procedure by briefly pressing the system button again. This will be indicated by the accessory LED lighting up red.

**INFORMATION**

If no connecting operations are carried out, connection mode is exited automatically after 3 minutes.

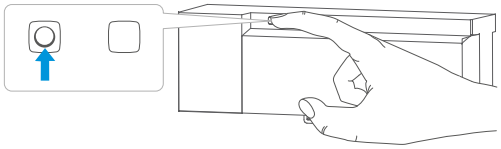
If you want to connect the DHC Floor Heating Controller to a DHC Room Thermostat — 2, the connection mode of both accessories has to be activated first. To do this, proceed as follows:

**1** Press the select button briefly to select a channel. Press once for channel 1, twice for channel 2, etc.

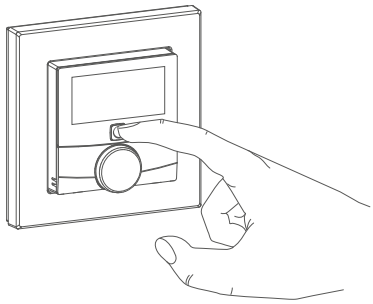



**Result:** The channel LED lights permanently for the corresponding channel.

2 Long press the system button of the DHC Floor Heating Controller until the LED quickly starts flashing orange.



3 Long press the system button of the DHC Room Thermostat — 2 until the LED quickly starts flashing orange.



**Result:** If connecting was succesful, the LED lights up green. If connecting failed, the LED lights up red. Try again.

### To connect the DHC Floor Heating Controller to a DHC Basic IO Box

**INFORMATION**

ALWAYS keep a minimum distance of 50 cm between the accessories.

**INFORMATION**

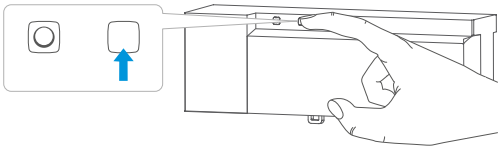
You can cancel the connecting procedure by briefly pressing the system button again. This will be indicated by the accessory LED lighting up red.

**INFORMATION**

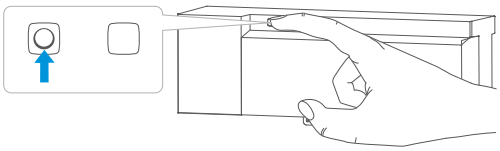
If no connecting operations are carried out, connection mode is exited automatically after 3 minutes.

If you want to connect the DHC Floor Heating Controller to a DHC Basic IO Box, the connection mode of both accessories has to be activated first. To do this, proceed as follows:

1 Press the select button of the DHC Floor Heating Controller briefly until the LEDs of all channels light up green.

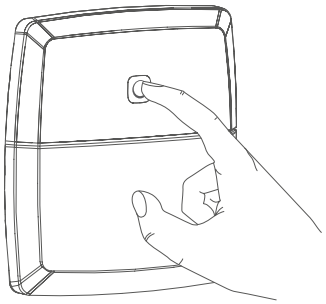


2 Long press the system button of the DHC Floor Heating Controller until the LED quickly starts flashing orange.



**Result:** Connection mode remains activated for 3 minutes.

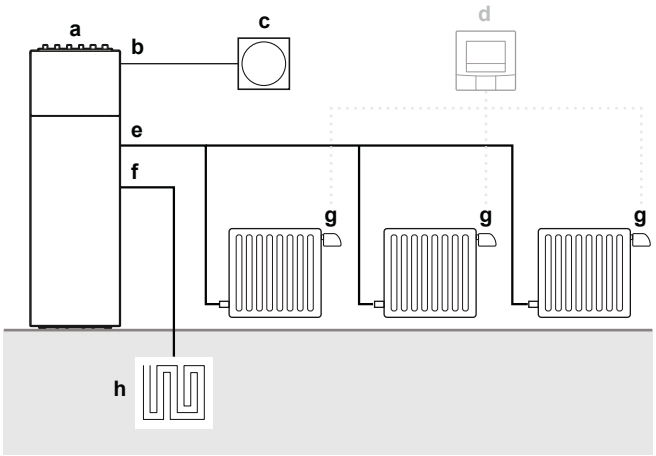
3 Long press the system button of the DHC Basic IO Box until the LED quickly starts flashing orange.



**Result:** If connecting was succesful, the LED lights up green. If connecting failed, the LED lights up red. Try again.

**Result:** The DHC Basic IO Box is now configured to provide a THERMO ON/OFF to your Daikin Altherma unit.

### 9.2.2 Bizone unit with two independent water zones




**a** Daikin Altherma (LWT)
**b** P1P2
**c** Human Comfort Interface (BRC1HHDA)
**d** (Optional) DHC Room Thermostat — 1
**e** HT water zone
**f** LT water zone
**g** DHC Radiator Thermostat

**h** Underfloor heating

> **INFORMATION**
>
> This configuration is based upon the Daikin Altherma unit operating on LWT instead of ext. RT.

The HT waterzone is equipped with radiators. Per radiator, a DHC Radiator Thermostat is added, which will regulate based upon the set temperature.

To set up the configuration, you need to:

1 Connect the DHC Radiator Thermostats,
2 (Optional) Add a DHC Room Thermostat — 1,
3 (Optional) Configure the DHC Room Thermostat — 1.

### To connect the DHC Radiator Thermostats

> **INFORMATION**
>
> ALWAYS keep a minimum distance of 50 cm between the accessories.

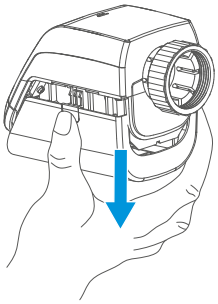
> **INFORMATION**
>
> You can cancel the connecting procedure by briefly pressing the system button again. This will be indicated by the accessory LED lighting up red.

> **INFORMATION**
>
> If no connecting operations are carried out, connection mode is exited automatically after 3 minutes.

> **INFORMATION**
>
> If you want to add another accessory to the existing ones, you first have to activate connection mode of the existing accessory and afterwards the connection mode of the new accessory.

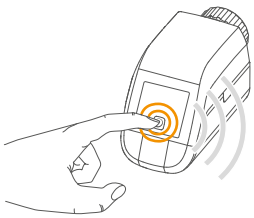
You should connect all accessories in one room with each other. You can directly connect a DHC Radiator Thermostat to another DHC Radiator Thermostat. To do so, connection mode of both accessories has to be activated. To do this, proceed as follows:

**1** Open the battery compartment by pulling it down.



**2** Remove the insulation strip from the battery compartment.

**3** Long press the system button until the LED starts to flash orange.



**Result:** Connection mode remains activated for 3 minutes.

4 Long press the system button of the accessory you want to connect until the LED starts to flash orange.

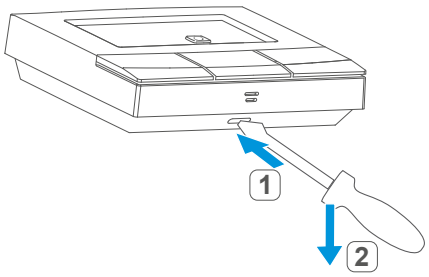
**Result:** If connecting was succesful, the LED lights up green. If connecting failed, the LED lights up red. Try again.

### To connect a DHC Room Thermostat — 1

It is possible to add a DHC Room Thermostat — 1 to a room. This provides a more efficient way to regulate the room temperature, because you can place the accessory where you want the temperature to be monitored.

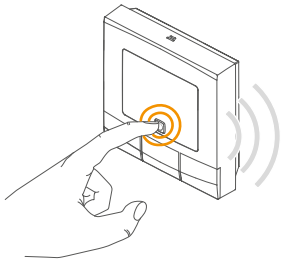
To connect a DHC Room Thermostat — 1 to a DHC Radiator Thermostat, the connection mode of both accessories has to be activated. To do this, proceed as follows:

1 Open the battery compartment of the DHC Room Thermostat — 1 using a slotted screwdriver to loosen the wall mounting plate.




2 Remove the insulation strip from the battery compartment.

3 Long press the system button until the LED starts to flash orange.



**Result:** Connection mode remains activated for 3 minutes.

4 Long press the system button of the accessory you want to connect until the LED starts to flash orange.

**Result:** If connecting was succesful, the LED lights up green. If connecting failed, the LED lights up red. Try again.

**User interface settings table**

| Menu item | Mode | Description | Value |
|---|---|---|---|
| `Main zone` > `Control` | Installer mode ONLY | This setting defines that the unit will continuously produce water for space heating on the main zone. | `Leaving water` |
| `Additional zone` > `Control` | | This setting defines that the unit will continuously produce water for space heating on the additional zone. | |

## 9.3 Configuration

### 9.3.1 DHC Room Thermostat — 1

When using the DHC Room Thermostat — 1 without the DHC Access Point, you can select the following modes via the configuration menu directly on the accessory and adjust the settings to your personal needs.

| Display symbol | Modes and settings |
|---|---|
| AUTO | Automatic mode |
| MANU | Manual mode |
| Offset | Offset temperature |
| Prg | Programming of schedules |
|  | Operating lock |
|  | Date and time |
|  | Holiday mode |

**INFORMATION**

Long press the menu button to go back to the previous level. The menu automatically closes without applying changes if there is no operation for more than 1 minute.

#### Automatic mode

In automatic mode, the temperature is controlled in accordance with the set schedule. Manual changes are activated until the next point at which the schedule changes. Afterwards, the defined schedule will be activated again.

**INFORMATION**

Switching from manual to automatic mode is ONLY possible if the date and time have been set.

### Manual mode

In manual mode, the temperature is controlled in accordance with the current temperature set via the push buttons. The temperature remains activated until the next manual change.

### Offset temperature

As the temperature is measured on the accessory itself, the temperature distribution can vary throughout a room. To adjust this, a temperature offset can be set. For example, if a temperature of 20°C is set but the room presents with ONLY 18°C, an offset of -2°C needs to be set.

### Programming a schedule

You can create a schedule with 6 heating and cooling time slots (13 change settings) according to your personal needs.

### Operating lock

Operation of the accessory can be locked to avoid settings being changed unintended (for example through involuntary touching).

### Date and time

You can set the present date and time to be displayed on the accessory.

### Holiday mode

In holiday mode, you can maintain a constant temperature for a certain period, for example during a holiday or a party.

**To activate automatic mode**

To activate the automatic mode, proceed as follows:

1. Long press the menu button to open the configuration menu.
2. Select **Auto** via the plus and minus buttons.
3. Confirm with the menu button.

**Result:** The symbol flashes twice and the accessory changes to automatic mode.

**To activate manual mode**

To activate the manual mode, proceed as follows:

1. Long press the menu button to open the configuration menu.
2. Select **Manu** via the plus and minus buttons.
3. Confirm with the menu button.

**Result:** The symbol flashes twice and the accessory changes to manual mode.

**To adjust offset temperature**

To adjust the offset temperature, proceed as follows:

1. Long press the menu button to open the configuration menu.
2. Select **Offset** via the plus and minus buttons.
3. Confirm with the menu button.
4. Select the desired offset temperature using the plus or minus button.
5. Confirm with the menu button.

**Result:** The temperature flashes twice and the accessory changes back to the standard display.

### To program a schedule

To program a schedule, proceed as follows:

1. Long press the menu button to open the configuration menu.
2. Select **Prg** via the plus and minus buttons.
3. Confirm with the menu button.
4. In the menu item **dAy**, use the plus and minus buttons to select single days of the week, all weekdays, the weekend or the entire week for your heating schedule.
5. Confirm with the menu button.
6. Confirm the start time 00:00 with the menu button.
7. Select the desired temperature and start time using the plus and minus buttons.
8. Confirm with the menu button.

   **Result:** The next time is shown in the display.
9. (Optional) Adjust the time via the plus and minus buttons.
10. Select the desired temperature for the next time period using the plus and minus buttons.
11. Confirm with the menu button.
12. Repeat this procedure until temperatures are stored for the entire period between 00:00 and 23:59.

**Result:** The time flashes twice and the accessory changes back to the standard display.

### To activate or deactivate the operating lock

#### Activating the operating lock

To activate the operating lock, proceed as follows:

1. Long press the menu button to open the configuration menu.
2. Select **Operating lock** via the plus and minus buttons.
3. Confirm with the menu button.
4. Select **On** using the plus button to activate the operating lock.
5. Confirm with the menu button.

**Result: On** flashes twice and the accessory changes back to the standard display.

**Result:** After activating the operating lock, the lock symbol is shown in the display.

#### Deactivating the operating lock

To deactivate the operating lock, proceed as follows:

1. Long press the menu button to open the configuration menu.
2. Select **Operating lock** via the plus and minus buttons.
3. Confirm with the menu button.
4. Select **OFF** using the minus button to deactivate the operating lock.
5. Confirm with the menu button.

**Result: OFF** flashes twice and the accessory changes back to the standard display.

### To set date and time

To set the date and time, proceed as follows:

1 Long press the menu button to open the configuration menu.
2 Select **Date/time** via the plus and minus buttons.
3 Confirm with the menu button.
4 Set the year, month, day, hour, and minutes using the plus or minus buttons and confirm.

**Result:** The time flashes twice and the accessory changes back to the standard display.

**To activate holiday mode**

To activate the holiday mode, proceed as follows:

1 Long press the menu button to open the configuration menu.
2 Select **Holiday** via the plus or minus buttons.
3 Confirm with the menu button.
4 Use the plus or minus buttons to select the time up to which you want to activate the holiday mode and confirm.
5 Select the date up to which you want to activate the holiday mode and confirm.
6 Select the temperature for the holiday mode and confirm.

**Result:** The symbol flashes twice and the accessory changes to holiday mode.

### 9.3.2 DHC Room Thermostat — 2

When using the DHC Room Thermostat — 2 without the DHC Access Point, you can select the following modes via the configuration menu directly on the accessory and adjust the settings to your personal needs.

| Display symbol | Modes and settings |
|---|---|
| AUTO | Automatic mode |
| MANU | Manual mode |
| Offset | Offset temperature |
| Prg | Programming of schedules |
|  | Operating lock |
|  | Date and time |
|  | Holiday mode |
| LCD | Selecting the desired temperature display |
| FAL | Configuring the DHC Floor Heating Controller |
|  | Communication test |

**INFORMATION**

Long press the control wheel to go back to the previous level. The menu automatically closes without applying changes if there is no operation for more than 1 minute.

### Automatic mode

In automatic mode, the temperature is controlled in accordance with the set schedule. Manual changes are activated until the next point at which the schedule changes. Afterwards, the defined schedule will be activated again.

**INFORMATION**

Switching from manual to automatic mode is ONLY possible if the date and time have been set.

### Manual mode

In manual mode, the temperature is controlled in accordance with the current temperature set via the control wheel. The temperature remains activated until the next manual change.

**INFORMATION**

You can fully close or open the valve by turning the control wheel as far as it will go in an anti-clockwise or clockwise direction. **OFF** or **On** is displayed.

### Offset temperature

As the temperature is measured on the accessory itself, the temperature distribution can vary throughout a room. To adjust this, a temperature offset can be set. For example, if a temperature of 20°C is set but the room presents with ONLY 18°C, an offset of -2°C needs to be set.

### Programming a schedule

You can create a schedule with up to 6 time slots (13 change settings) for each weekday separately, according to your personal needs.

- **Heating or cooling**

You can use your floor heating system to heat or cool rooms, provided your Daikin Altherma unit supports it.

**INFORMATION**

This configuration (Single temperature water zone heating only unit with underfloor heating) is heating ONLY, cooling is NOT possible.

- **Optimum start/stop function**

With the optimum start/stop you can reach the desired temperature in the room at the defined time.

- **Week schedule numbers**

You can select between the following 6 pre-configured schedules:

1 Pre-configured heating via radiator

| Monday to Friday | Temperature |
|---|---|
| 00:00 – 06:00 | 17.0°C |
| 06:00 – 09:00 | 21.0°C |

| Monday to Friday | Temperature |
|---|---|
| 09:00 – 17:00 | 17.0°C |
| 17:00 – 22:00 | 21.0°C |
| 22:00 – 23:59 | 17.0°C |

| Saturday to Sunday | Temperature |
|---|---|
| 00:00 – 06:00 | 17.0°C |
| 06:00 – 22:00 | 21.0°C |
| 22:00 – 23:59 | 17.0°C |

2 Pre-configured heating via underfloor heating

| Monday to Friday | Temperature |
|---|---|
| 00:00 – 05:00 | 19.0°C |
| 05:00 – 08:00 | 21.0°C |
| 08:00 – 15:00 | 19.0°C |
| 15:00 – 22:00 | 21.0°C |
| 22:00 -23:59 | 19.0°C |

| Saturday to Sunday | Temperature |
|---|---|
| 00:00 – 06:00 | 19.0°C |
| 06:00 – 23:00 | 21.0°C |
| 23:00 – 23:59 | 19.0°C |

3 Alternative heating schedule

| Monday to Sunday | Temperature |
|---|---|
| 00:00 – 06:00 | 17.0°C |
| 06:00 – 22:00 | 21.0°C |
| 22:00 – 23:59 | 17.0°C |

4 Alternative cooling schedule 1

| Monday to Friday | Temperature |
|---|---|
| 00:00 – 06:00 | 17.0°C |
| 06:00 – 09:00 | 21.0°C |
| 09:00 – 17:00 | 17.0°C |
| 17:00 – 22:00 | 21.0°C |
| 22:00 – 23:59 | 17.0°C |

| Saturday to Sunday | Temperature |
|---|---|
| 00:00 – 06:00 | 17.0°C |
| 06:00 – 22:00 | 21.0°C |
| 22:00 – 23:59 | 17.0°C |

5 Pre-configured cooling via underfloor heating

| Monday to Friday | Temperature |
|---|---|
| 00:00 – 05:00 | 23.0°C |

| Monday to Friday | Temperature |
|---|---|
| 05:00 – 08:00 | 21.0°C |
| 08:00 – 15:00 | 23.0°C |
| 15:00 – 22:00 | 21.0°C |
| 22:00 -23:59 | 23.0°C |

| Saturday to Sunday | Temperature |
|---|---|
| 00:00 – 06:00 | 23.0°C |
| 06:00 – 22:00 | 21.0°C |
| 22:00 – 23:59 | 23.0°C |

6 Alternative cooling schedule 2

| Monday to Sunday | Temperature |
|---|---|
| 00:00 – 06:00 | 17.0°C |
| 06:00 – 22:00 | 21.0°C |
| 22:00 – 23:59 | 17.0°C |

**INFORMATION**

This configuration (Single temperature water zone heating only unit with underfloor heating) is heating ONLY, cooling is NOT possible.

### Operating lock

Operation of the accessory can be locked to avoid settings being changed unintended (for example through involuntary touching).

### Date and time

You can set the present date and time to be displayed on the accessory.

### Holiday mode

In holiday mode, you can maintain a constant temperature for a certain period, for example during a holiday or a party.

### Selecting the desired temperature display

You can choose which temperature will be displayed on the accessory. There are 3 options:

- Display the actual temperature,
- Display the setpoint temperature, or
- Display the actual temperature and humidity alternately.

### Configuring the DHC Floor Heating Controller

You can configure your DHC Floor Heating Controller via the DHC Room Thermostat.

### Communication test

You can check the connection between your DHC Room Thermostat and the DHC Floor Heating Controller.

**To activate automatic mode**

To activate the automatic mode, proceed as follows:

1 Long press the control wheel to open the configuration menu.
2 Select **Auto** by turning the control wheel.
3 Press the control wheel briefly to confirm.

### To activate manual mode

To activate the manual mode, proceed as follows:

1 Long press the control wheel to open the configuration menu.
2 Select **Manu** by turning the control wheel.
3 Press the control wheel briefly to confirm.
4 Turn the control wheel to set the desired temperature.

### To adjust offset temperature

To adjust the offset temperature, proceed as follows:

1 Long press the control wheel to open the configuration menu.
2 Select **Offset** by turning the control wheel.
3 Press the control wheel briefly to confirm.
4 Select the desired offset temperature using the control wheel.
5 Press the control wheel briefly to confirm.

### To program a schedule

To program a schedule, proceed as follows:

1 Long press the control wheel to open the configuration menu.
2 Select **Prg** by turning the control wheel.
3 Press the control wheel briefly to confirm.
4 Turn the control wheel and select:
   - **type** for switching between heating (**HEAT**) or cooling (**COOL**),
   - **Pr.nr** to set the week schedule number (**no. 1, no. 2, … no. 6**),
   - **Pr.Ad** for individiual settings of the week schedule,
   - **OSSF** for activating (**On**) or deactivating (**OFF**) the optimum start/stop function.

**INFORMATION**

This configuration (Single temperature water zone heating only unit with underfloor heating) is heating ONLY, cooling is NOT possible.

### To program a week schedule

To program a week schedule, proceed as follows:

1 Long press the control wheel to open the configuration menu.
2 Select **Prg** by turning the control wheel.
3 Press the control wheel briefly to confirm.
4 Select **Pr.Ad.** by turning the control wheel.
5 Press the control wheel briefly to confirm.
6 Select the required schedule by turning the control wheel.
7 Press the control wheel briefly to confirm.
8 In the menu item **dAy**, select single days of the week, all weekdays, the weekend or the entire week for your heating schedule.

9 Press the control wheel briefly to confirm.

10 Confirm the start time 00:00 with the control wheel.

11 Turn the control wheel to select the desired temperature for the start time.

12 Press the control wheel briefly to confirm.

**Result:** The next time is shown in the display. You can change this time using the control wheel.

13 Turn the control wheel to select the desired temperature for the next period.

14 Press the control wheel briefly to confirm.

15 Repeat this procedure until temperatures are set for the entire period between 00:00 and 23:59.

**To activate or deactivate the operating lock**

To activate or deactivate the operating lock, proceed as follows:

1 Long press the control wheel to open the configuration menu.

2 Select **Operating lock** by turning the control wheel.

3 Press the control wheel briefly to confirm.

4 Turn the control wheel to select **On** to activate the operating lock, or **OFF** to deactivate the operating lock.

**To set date and time**

To set the date and time, proceed as follows:

1 Long press the control wheel to open the configuration menu.

2 Select **Date/time** by turning the control wheel.

3 Set the year, month, day, hour and minutes by turning the control wheel.

4 Press the control wheel briefly to confirm.

**To activate holiday mode**

To activate the holiday mode, proceed as follows:

1 Long press the control wheel to open the configuration menu.

2 Select **Holiday** by turning the control wheel.

3 Press the control wheel briefly to confirm.

4 Turn the control wheel to select the start time and date (**S**), and confirm.

5 Turn the control wheel to select the end time and date (**E**), and confirm.

6 Turn the control wheel to set the temperature that you want to maintain during the defined time and confirm.

7 Turn the control wheel to select in which rooms you want to activate the holiday mode:

- **OnE**: Holiday mode is activated for the current DHC Room Thermostat.
- **ALL**: Holiday mode is activated for all DHC Room Thermostats that are connected to the DHC Floor Heating Controller.

**To select the desired temperature display**

1 Long press the control wheel to open the configuration menu.

2 Select **LCD** by turning the control wheel.

3 Press the control wheel briefly to confirm.

4 Turn the control wheel and select:

- **ACT** to display the actual temperature,
- **Set** to display the setpoint temperature,
- **ACtH** for alternating between the actual temperature and humidity display.

5 Press the control wheel briefly to confirm.

**To configure the DHC Floor Heating Controller**

You can configure your DHC Floor Heating Controller via the DHC Room Thermostat — 2. Proceed as follows:

1 Long press the control wheel to open the configuration menu.

2 Select **FAL** by turning the control wheel.

3 Press the control wheel briefly to confirm.

4 (Optional) If the DHC Room Thermostat is connected to more than one DHC Floor Heating Controller, select the required one by using the control wheel.

5 Select if you want to configure the accessory parameters (**UnP1/UnP2**) or the channel parameters (**ChAn**).

6 Adjust the line-up, time/follow-up time, eco temperatures, intervals, etc.

**To perform a communication test**

To check the connection between your DHC Room Thermostat — 2 and the DHC Floor Heating Controller, proceed as follows:

1 Long press the control wheel to open the configuration menu.

2 Select **communication test** by turning the control wheel.

3 Press the control wheel briefly to confirm.

**Result:** Depending on the current status of the DHC Floor Heating Controller, the accessory is switched on or off for confirmation.

### 9.3.3 DHC Floor Heating Controller

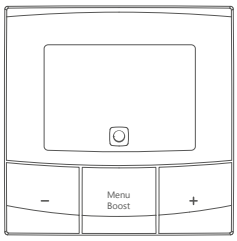
The DHC Floor Heating Controller can ONLY be configured via the DHC Room Thermostat — 2. See "To configure the DHC Floor Heating Controller" [▸ 49].

## 9.4 Manual operation

### 9.4.1 DHC Room Thermostat — 1

After connecting and mounting, simple operations are available directly on the accessory.

- **Temperature:** Use the plus and minus buttons to change the temperature. In automatic mode, manual changes are activated until the next point at which the schedule changes. Afterwards, the defined schedule will be activated again. In manual mode, the temperature remains activated until the next manual change.
- **Boost function:** Press the boost button briefly to activate the boost function. The boost function will heat up the radiator quickly and shortly by opening the valve.



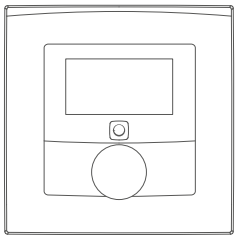

### 9.4.2 DHC Room Thermostat — 2

After configuration, simple operations are available directly on the accessory.

**INFORMATION**

If the DHC Room Thermostat is in standby mode, press the control wheel once to activate it.

- **Temperature:** Use the control wheel to change the temperature. In automatic mode, manual changes are activated until the next point at which the schedule changes. Afterwards, the defined schedule will be activated again. In manual mode, the temperature remains activated until the next manual change.
- **Boost function:** Press the control wheel briefly to activate the boost function. The boost function will heat up the radiator quickly and shortly by opening the valve.



### 9.4.3 DHC Floor Heating Controller

After configuration, simple operations are available directly on the accessory.

**To switch heating zones on or off**

For installation and test purposes, you can manually switch single heating zones on or off. Proceed as follows:

1 Select the required channel by using the select button.

2 Press the select button until the LED flashes green 3 times.

**Result:** The channel will be switched on or off for 15 minutes. Afterwards, normal operation will be continued for the heating zone.

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