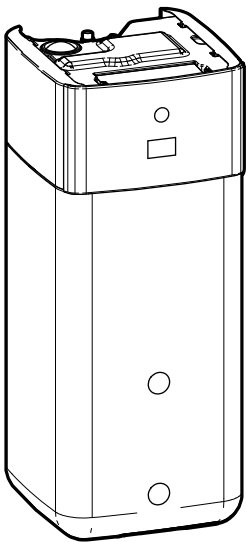




## Operation manual



## Daikin Altherma 4 H ECH<sub>2</sub>O



EPSX07P30A▲▼  
EPSX07P50A▲▼  
EPSX10P30A▲▼  
EPSX10P50A▲▼  
EPSX14P30A▲▼  
EPSX14P50A▲▼

EPSXB07P30A▲▼  
EPSXB07P50A▲▼  
EPSXB10P30A▲▼  
EPSXB10P50A▲▼  
EPSXB14P30A▲▼  
EPSXB14P50A▲▼

▲ = 1, 2, 3, ..., 9, A, B, C, ..., Z  
▼ = , , 1, 2, 3, ..., 9

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- Request that the installer inform you about the settings that were used to configure your system. Check if the installer settings tables are filled in. If NOT, ask the installer to do so.
- Keep the documentation for future reference.

### Target audience

End users

### Documentation set

This document is part of a documentation set. The complete set consists of:

- **General safety precautions:**
  - Safety instructions that you must read before installing
  - Format: Paper (in the box of the indoor unit)
- **Operation manual:**
  - Quick guide for basic usage
  - Format: Paper (in the box of the indoor unit)
- **User reference guide:**
  - Detailed step-by-step instructions and background information for basic and advanced usage
  - Format: Digital files on <https://www.daikin.eu>. Use the search function 🔍 to find your model.
- **Installation manual – Outdoor unit:**
  - Installation instructions
  - Format: Paper (in the box of the outdoor unit)
- **Installation manual – Indoor unit:**
  - Installation instructions
  - Format: Paper (in the box of the indoor unit)
- **Installer reference guide:**
  - Preparation of the installation, good practices, reference data, ...
  - Format: Digital files on <https://www.daikin.eu>. Use the search function 🔍 to find your model.
- **Configuration reference guide:**
  - Configuration of the system.
  - Format: Digital files on <https://www.daikin.eu>. Use the search function 🔍 to find your model.
- **Addendum book for optional equipment:**
  - Additional info about how to install optional equipment
  - Format: Paper (in the box of the indoor unit) + Digital files on <https://www.daikin.eu>. Use the search function 🔍 to find your model.

Latest revisions of the supplied documentation may be available on the regional Daikin website or via your installer.

The original instructions are written in English. All other languages are translations of the original instructions.

### ONECTA app



If set up by your installer, you can use the ONECTA app to control and monitor the status of your system. For more information, see:

<http://www.onlinecontroller.daikineurope.com/>



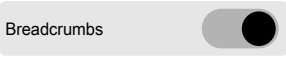
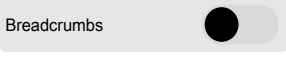
### Breadcrumbs

Breadcrumbs (example: [3.1]) help you to locate where you are in the menu structure of the user interface.

## 1 About this document

Thank you for purchasing this product. Please:

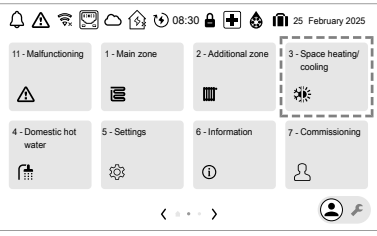
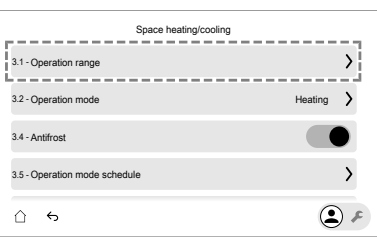
- Read the documentation carefully before operating the user interface to ensure the best possible performance.

<b>1</b>	<p>To <b>enable</b> the breadcrumbs: tap the right arrow on the home screen, then tap Settings.</p> <p>Under <b>[5.4]</b> Settings &gt; Breadcrumbs you can switch breadcrumbs ON:</p> 
<b>2</b>	<p>To <b>disable</b> the breadcrumbs: navigate to the location as described above, and switch breadcrumbs OFF:</p> 

This document also mentions these breadcrumbs. **Example:**

<b>1</b>	Go to <b>[3.1]</b> : Space heating/cooling > Operation range.
----------	---

This means:

<b>1</b>	<p>Starting from the home screen, tap the right arrow and tap Space heating/cooling.</p> 
<b>2</b>	<p>Tap Operation range. The breadcrumb (if breadcrumb setting is ON) is visible at the left side of the Operation range label.</p> 

## 2 User safety instructions

Always observe the following safety instructions and regulations.

### 2.1 General



#### WARNING

If you are NOT sure how to operate the unit, contact your installer.



#### WARNING

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction

concerning use of the appliance in a safe way and understand the hazards involved.

Children SHALL NOT play with the appliance.

Cleaning and user maintenance SHALL NOT be made by children without supervision.



#### WARNING

To prevent electrical shocks or fire:

- Do NOT rinse the unit.
- Do NOT operate the unit with wet hands.
- Do NOT place any objects containing water on the unit.



#### CAUTION

- Do NOT place any objects or equipment on top of the unit.
- Do NOT sit, climb or stand on the unit.

- Units are marked with the following symbol:



This means that electrical and electronic products may NOT be mixed with unsorted household waste. Do NOT try to dismantle the system yourself: dismantling the system, treatment of the refrigerant, of oil and of other parts MUST be done by an authorised installer and MUST comply with applicable legislation.

Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. For more information, contact your installer or local authority.

- Batteries are marked with the following symbol:



This means that the batteries may NOT be mixed with unsorted household waste. If a chemical symbol is printed beneath the symbol, this chemical symbol means that the battery contains a heavy metal above a certain concentration.

Possible chemical symbols are: Pb: lead (>0.004%).

Waste batteries MUST be treated at a specialised treatment facility for reuse. By ensuring waste batteries are disposed of correctly, you will help to prevent potential negative consequences for the environment and human health.

## 3 About the system

### 2.2 Instructions for safe operation

#### WARNING

If the supply cord is damaged, it **MUST** be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

#### WARNING

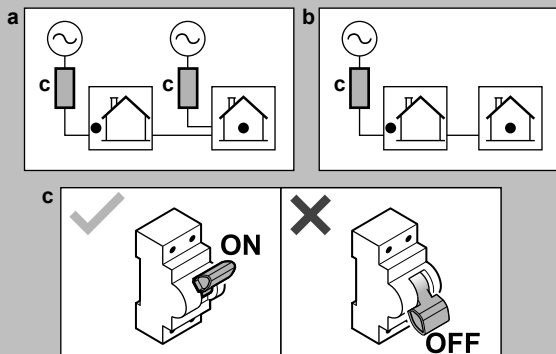
The appliance shall be stored in a room without ignition sources (neither permanent ignition sources nor ignition sources for a short period of time) (example: open flames, an operating gas appliance or an operating electric heater).

#### WARNING

- Do NOT pierce or burn refrigerant cycle parts.
- Do NOT use cleaning materials or means to accelerate the defrosting process other than those recommended by the manufacturer.
- Be aware that the refrigerant inside the system is odourless.

#### WARNING

After commissioning, do NOT turn OFF the circuit breakers (c) to the units so that the protection remains activated. In case of indoor unit supplied separately (a), there are two circuit breaker. In case of indoor unit supplied from the outdoor unit (b), there is one circuit breaker.



#### WARNING

To ensure safety in the unlikely event of a refrigerant leak:

- Do NOT bring any ignition sources within the protective zone around the outdoor unit. Neither permanent ignition sources nor ignition sources for a short period of time (example: open flames, ...).
- Do not enclose the area around the outdoor unit to avoid accumulation of refrigerant.



#### WARNING

Do NOT open the unit (especially the outdoor unit). Both indoor unit and outdoor unit have a gas leak detection sensor. When a flammable gas is detected, the outdoor unit fan will start to rotate in order to dilute the gas with the surrounding air.

#### WARNING

Do NOT use sprays containing any flammable gas inside or near the unit. This could trigger the gas leak detection and cause the outdoor unit fan to start rotating.

#### WARNING

**Air purging heat emitters or collectors.** Before you purge air from heat emitters or collectors, check if  or  is displayed on the home screen of the user interface.

- If not, you can purge air immediately.
- If yes, make sure that the room where you want to purge air is sufficiently ventilated. **Reason:** In case of a breakdown, refrigerant might leak into the water circuit, and subsequently into the room when you purge air from the heat emitters or collectors.

## 3 About the system

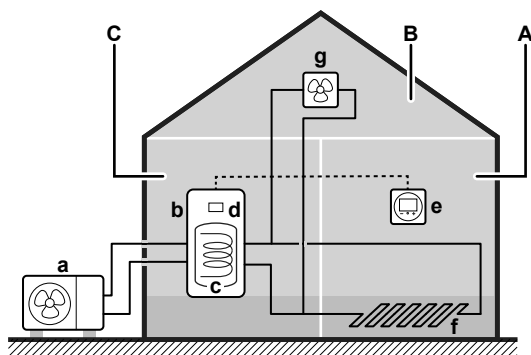
Depending on the system layout, the system can:

- Heat up a space
- Cool down a space
- Produce domestic hot water

**i** INFORMATION

If underfloor heating is installed in the main zone, then in cooling mode the main zone can only provide refreshment. Real cooling is then NOT allowed.

### 3.1 Components in a typical system layout



- A** Main zone. **Example:** Living room.
- B** Additional zone. **Example:** Bedroom.
- C** Technical room. **Example:** Garage.
- a** Outdoor unit heat pump
- b** Indoor unit heat pump
- c** Energy storage tank
- c** Domestic hot water (DHW) tank
- d** User interface of the indoor unit
- e** Dedicated Human Comfort Interface (BRC1HH used as room thermostat)
- f** Underfloor heating
- g** Radiators, heat pump convectors, or fan coil units

**i** INFORMATION

The indoor unit and the domestic hot water tank (if installed) can be separated or integrated depending on the indoor unit type.

## 4 Quick guide

### 4.1 Turning operation ON or OFF

#### Space heating/cooling operation

**!** NOTICE

**Room frost protection.** Even if you turn OFF space heating/cooling operation, room frost protection operation – if enabled – can still activate. However, for external room thermostat control, the protection is only active in case of a thermostat request.


**!** NOTICE

**Water pipe freeze prevention.** Even if you turn OFF space heating/cooling operation, water pipe freeze prevention – if enabled – will remain active.

In case you want to turn off ALL space heating/cooling:

1	Tap on the Spaces bar from the home screen.
2	Tap the  icon to turn climate control ON or OFF.
3	Confirm with the  button. <b>Result:</b> When OFF, the Space heating/cooling screen area on the home screen is greyed out.

In case you only want to turn off an individual zone:

1	<b>Restriction:</b> Turning off an individual zone is only possible in case of LWT control. Tap on the emitter icon of a zone on the home screen, OR go to: <ul style="list-style-type: none"> <li>▪ [1.17] Main zone &gt; Enable zone.</li> <li>▪ [2.15] Additional zone &gt; Enable zone.</li> </ul>
2	Switch the zone OFF:  <b>Result:</b> When OFF, the zone screen area is greyed out.

#### Tank heating operation

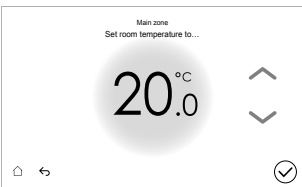
**!** NOTICE

**Disinfection mode.** Even if you turn OFF tank heating operation, disinfection mode will remain active (if enabled).

1	Go to [4.1]: Domestic hot water > Single heat-up. <b>Note:</b> Tap on the Domestic hot water bar from the home screen to quickly access [4.1].
2	Tap the  icon to turn Domestic hot water ON or OFF.
3	Confirm with the  button. <b>Result:</b> When OFF, the Domestic hot water screen area on the home screen is greyed out.

### 4.2 To change the desired room temperature

During room temperature control, you can use the room temperature setpoint screen to read out and adjust the desired room temperature.

1	Go to [1.1] Main zone > Room setpoint. <b>Note:</b> From the home screen, tap on the main zone temperature screen area to quickly access [1.1].
2	Adjust the desired room temperature: 
3	Confirm with the  button.

#### More information

For more information, see also:

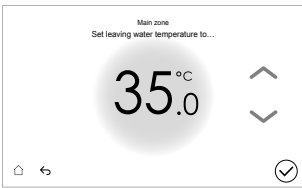
- "4.1 Turning operation ON or OFF" |> 5]
- "5.3 Space heating/cooling control" |> 10]
- "5.5 Schedules" |> 13]
- User reference guide

### 4.3 To change the desired leaving water temperature

**In case no weather-dependent curve is used**

You can adjust the fixed leaving water temperature as follows:

## 5 Operation

<b>1</b>	<p>Go to:</p> <ul style="list-style-type: none"> <li>▪ [1.39] Main zone &gt; Leaving water temp. heating</li> <li>▪ [1.42] Main zone &gt; Leaving water temp. cooling</li> <li>▪ [2.30] Additional zone &gt; Leaving water temp. heating</li> <li>▪ [2.36] Additional zone &gt; Leaving water temp. cooling</li> </ul> <p><b>Note:</b> From the home screen, tap on the main or additional zone temperature screen area to quickly access [1.39], [1.42], [2.30] or [2.36] (depending on the operation mode).</p> <p><b>Note:</b> In case of weather-dependent mode, LWT is not controlled by this setting.</p>
<b>2</b>	<p>Adjust the desired leaving water temperature:</p> 
<b>3</b>	<p>Confirm with the ✓ button.</p>

### In case weather-dependent curve is used

**Note:** For more information on weather-dependent operation, see "5.6 Weather-dependent curve" [▶ 16].

You can set a temperature shift to the weather-dependent curve leaving water temperature as follows:

<b>1</b>	<p>Go to:</p> <ul style="list-style-type: none"> <li>▪ [1.27] Main zone &gt; Leaving water shift heating</li> <li>▪ [1.28] Main zone &gt; Leaving water shift cooling</li> <li>▪ [2.22] Additional zone &gt; Leaving water shift heating</li> <li>▪ [2.23] Additional zone &gt; Leaving water shift cooling</li> </ul>
<b>2</b>	<p>Adjust the desired leaving water shift temperature.</p> <p><b>Note:</b> The temperature shift value can be set in 1°C increments.</p>
<b>3</b>	<p>Confirm with the ✓ button.</p>

### More information

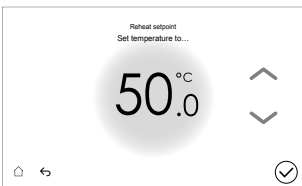
For more information, see also:

- "4.1 Turning operation ON or OFF" [▶ 5]
- "5.3 Space heating/cooling control" [▶ 10]
- "5.6 Weather-dependent curve" [▶ 16]
- "5.5 Schedules" [▶ 13]
- User reference guide

## 4.4 To change the tank temperature setpoint

### To change the tank temperature setpoint

In Reheat mode, you can use the tank temperature setpoint screen to adjust the domestic hot water temperature.

<b>1</b>	<p>Go to [4.5]: Domestic hot water &gt; Reheat setpoint.</p>
<b>2</b>	<p>Adjust the domestic hot water temperature:</p> 

### More information

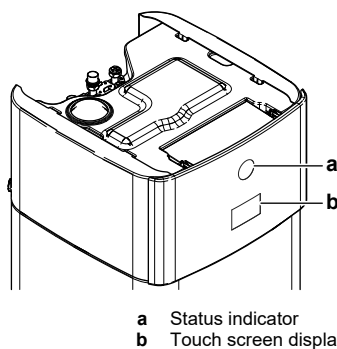
For more information, see also:

- "4.1 Turning operation ON or OFF" [▶ 5]
- "5.4 Domestic hot water control" [▶ 12]
- "5.5 Schedules" [▶ 13]
- User reference guide

## 5 Operation

### 5.1 User interface: Overview

The user interface has the following components:



#### Status indicator

The LEDs of the status indicator light up or blink to show the operating mode of the unit.




LED	Mode	Description
Blinking blue	Standby	The unit is not in operation.
Continuous blue	Operation	The unit is in operation.
Blinking red	Malfunction	A malfunction occurred. See "8.1 To display the help text in case of a malfunction" [▶ 18] for more information.

#### Touchscreen display

The backlight of the touchscreen dims after four minutes of non-interaction with the user interface, and turns off when five minutes have passed. Tapping the touchscreen turns the backlight back on.

#### Touch gestures

Interaction with the touchscreen display can be done with the following gestures:

	Gesture	Description
	Tap	Quickly tapping the touch screen on a specific item or area.
	Swipe up/down	One or more fingers touch the screen and move a short distance in up or down direction.
	Drag horizontally	Press and hold while moving in a horizontal direction.

### 5.1.1 Menu structure: Overview user settings



#### INFORMATION

Depending on the selected installer settings and unit type, settings will be visible/invisible.

**NOTICE**

When changing a setting, the operation is temporarily stopped. Operations will restart when you return to the home screen.

**[1] Main zone**

- [1.1] Room setpoint
- [1.2] Heating schedule enable
- [1.3] Heating schedule
- [1.4] Cooling schedule
- [1.5] Heating setpoint mode (Advanced user)
- [1.7] Cooling setpoint mode (Advanced user)
- [1.8] Heating WD curve
- [1.9] Cooling WD curve
- [1.10] Hysteresis
- [1.11] Emitter type
- [1.17] Enable zone
- [1.21] Zone name
- [1.22] Antifrost
- [1.23] Cooling schedule enable
- [1.24] Leaving water shift heating schedule
- [1.25] Leaving water shift cooling schedule
- [1.27] Leaving water shift heating
- [1.28] Leaving water shift cooling
- [1.29] Heating comfort setpoint (Advanced user)
- [1.30] Cooling comfort setpoint (Advanced user)
- [1.32] Room enable
- [1.33] External room sensor offset (Advanced user)
- [1.34] Heating target baseline
- [1.35] Cooling target baseline
- [1.36] Leaving water shift heating mode
- [1.37] Leaving water shift cooling mode
- [1.38] Thermostat sensor offset (Advanced user)
- [1.39] Leaving water temp. heating
- [1.42] Leaving water temp. cooling

**[2] Additional zone**

- [2.2] Heating schedule enable
- [2.3] Heating schedule
- [2.4] Cooling schedule
- [2.5] Heating setpoint mode (Advanced user)
- [2.7] Cooling setpoint mode (Advanced user)
- [2.8] Heating WD curve
- [2.9] Cooling WD curve
- [2.11] Emitter type
- [2.15] Enable zone
- [2.18] Leaving water shift heating schedule
- [2.19] Leaving water shift cooling schedule
- [2.21] Zone name
- [2.22] Leaving water shift heating
- [2.23] Leaving water shift cooling
- [2.27] Cooling schedule enable
- [2.30] Leaving water temp. heating
- [2.31] Leaving water shift heating mode
- [2.32] Leaving water shift cooling mode
- [2.36] Leaving water temp. cooling

**[3] Space heating/cooling**

- [3.1] Operation range
- [3.2] Operation mode
- [3.4] Antifrost (Advanced user)
- [3.5] Operation mode schedule

**[4] Domestic hot water**

- [4.1] Single heat-up
- [4.3] Manual setpoint
- [4.4] Powerful operation setpoint
- [4.5] Reheat setpoint
- [4.12] Hysteresis
- [4.16] Add. source take over during SH/C
- [4.17] Add. source DHW always on request
- [4.19] Reheat Trigger Threshold (Advanced user)
- [4.24] Enable reheat schedule
- [4.25] Reheat schedule
- [4.26] DHW pump schedule

**[5] Settings**

- [5.2] Quiet operation
- [5.3] Time/date
- [5.4] Breadcrumbs (on/off)
- [5.6] Capacity shortage (Advanced user)
- [5.9] Location and language
- [5.10] Timezone
- [5.12] Keyboard lay-out

- [5.13] Advanced settings
- [5.17] Display brightness
- [5.23] Emergency selection
- [5.26] Display inactivity timer
- [5.27] Holiday (Advanced user)
- [5.30] Emergency acknowledgement
- [5.31] Tank energy for space heating during defrost (Advanced user)
- [5.38] Tank support

**[6] Information**

- [6.1] Energy data
- [6.2] Dealer information
- [6.3] Sensors
- [6.4] Actuators
- [6.5] Operation modes
- [6.6] About
- [6.7] Indoor unit model name
- [6.8] Indoor unit serial number

**[8] Connectivity**

- [8.1] TCP/IP configuration
- [8.2] Connection status
- [8.3] Wireless gateway
- [8.4] Connection details
- [8.5] Daikin Home Controls
- [8.7] Modbus TCP/IP (502)
- [8.8] Modbus TCP/IP TLS (802)

**[9] Energy**

- [9.1] Electricity price (Advanced user)
- [9.2] Electricity price baseline (Advanced user)
- [9.3] Electricity price schedule enable (Advanced user)
- [9.4] Electricity price schedule
- [9.5] Gas price (Advanced user)
- [9.13] Energy price considered (Advanced user)

**[11] Malfunctioning****5.1.2 Possible screens: Overview****INFORMATION**

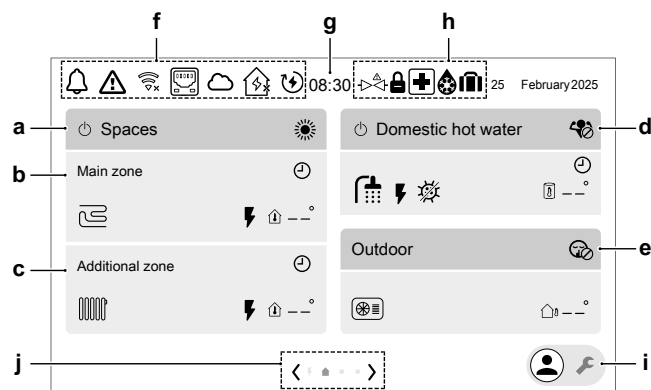
Some functions are visualised on the user interface, but are not available for your system.

The most common screens are as follows:

- Home screen
- Energy flow – System overview screen
- Main screen (two screens)
- Setpoint screen

**Home screen**

The home screen gives an overview of the unit configuration and the room and setpoint temperatures. Only symbols applicable for your configuration are visible on the home screen.



## 5 Operation

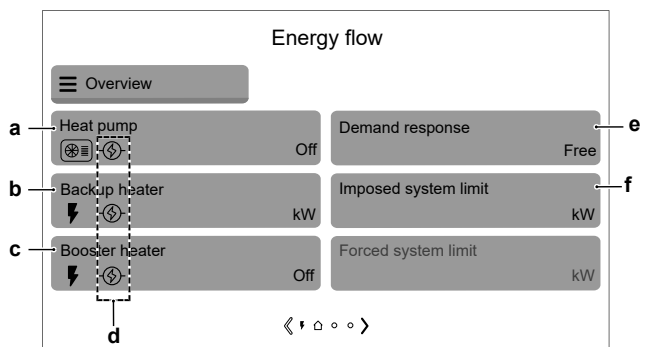
Item	Description	
<b>a</b>	Spaces Shortcut to setting [3.2].	
<b>a1</b>		Climate control ON / OFF
<b>a2</b>	Operation mode:	
		Heating
		Cooling
		Automatic
<b>b</b>	Main zone This zone can be renamed in Zone name [1.21]	
<b>b1</b>	Heat emitter type:	
		Underfloor heating
		Heat pump convector
		Radiator
<b>b2</b>		Backup heater ON
<b>b3</b>		Measured temperature (Main zone)
<b>c</b>	Additional zone This zone can be renamed in Zone name [2.21]	
<b>c1</b>	Heat emitter type:	
		Underfloor heating
		Heat pump convector
		Radiator
<b>c2</b>		Backup heater ON
<b>c3</b>		Measured temperature (Additional zone)
<b>d</b>	Domestic hot water Shortcut to setting [4.1].	
<b>d1</b>		Domestic hot water ON / OFF
<b>d2</b>	Powerful operation mode:	
		Powerful operation mode ON
		Powerful operation mode OFF
<b>d3</b>		Domestic hot water ON
<b>d4</b>		Booster heater (in case of wall-mounted units) or backup heater (in case of floor-standing or ECH <sub>2</sub> O units) ON
<b>d5</b>	DHW operation mode:	
		Disinfection mode active
		Manual mode ON
		Powerful operation mode ON
		Reheat mode active
		Schedule and reheat mode active
		Scheduled reheat mode active
<b>d6</b>		Measured tank temperature

Item	Description	
<b>e</b>	Outdoor Shortcut to setting [5.2].	
<b>e1</b>		Outdoor unit
<b>e2</b>	Quiet operation:	
		Off
		Manual
		Scheduled
<b>e3</b>	Quiet operation level:	
		Quiet
		More quiet
		Most quiet
<b>e4</b>		Measured outdoor temperature
<b>f</b>	Status icons	
<b>f1</b>		A warning occurred.
<b>f2</b>		An error occurred.
<b>f3</b>	WiFi	
		WiFi connected
		WiFi disconnected
<b>f4</b>		LAN connected
<b>f5</b>	Daikin ONECTA	
		Connected
		Not connected
<b>f6</b>	Daikin HomeHub	
		Connected
		Not connected
		Warning
<b>f7</b>		Smart energy enabled
<b>f8</b>		Demo mode active
<b>g</b>	Clock	
<b>h</b>	Special functions	
<b>h1</b>		Safety valve closed
<b>h2</b>		Holiday
<b>h3</b>		Antifrost
<b>h4</b>		Emergency
<b>h5</b>		Outdoor unit is in locked state. <b>Note:</b> Unlocking can only be performed by a trained installer.
<b>i</b>	Installer switch. To switch between user and installer mode.	
		User mode
		Installer mode
<b>j</b>	Navigation / pagination	

### Energy flow – System overview screen

Starting from the home screen, tap the left arrow to view the system overview screen.



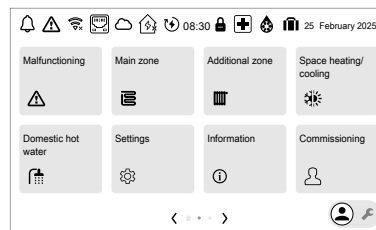


Item	Description
a	Heat pump Shows the status of the heat pump (On/Off).
b	Backup heater Shows the active capacity of the backup heater. ⚡ = electrical heater)
c	Booster heater Shows the status of the booster heater (if applicable) (On/Off). ⚡ = electrical heater)
d	Shows the demand response status (limiting status) of each actuator:
	⊖ (red) The actuator is actively forced OFF via demand response.
	⊖ (blue) The limit is active but overruled.
	⊖ (black) The limit is active and the actuator is actively limited (this can also mean that the heat source is completely switched OFF by the limit).
	No symbol No limit active.
e	Demand response Shows the current demand response mode: When [9.14.1] = Smart grid ready contacts, following modes are possible: <ul style="list-style-type: none"> <li>Free</li> <li>Forced off</li> <li>Forced on</li> <li>Recommended on</li> </ul> When [9.14.1] = Smart Meter Contact, following mode is shown: <ul style="list-style-type: none"> <li>Reduced</li> </ul>
f	Imposed system limit <ul style="list-style-type: none"> <li><b>Greyed out:</b> Not active.</li> <li><b>Not greyed out:</b> A maximum limit to the power consumption of the heat pump and the electrical heat sources is active. The limit is shown here (in kW). However, this limit can be ignored when the unit runs protective functions:                             <ul style="list-style-type: none"> <li>Defrost</li> <li>Water pipe freeze prevention</li> <li>Start-up control</li> <li>Maintenance mode</li> </ul> </li> </ul>

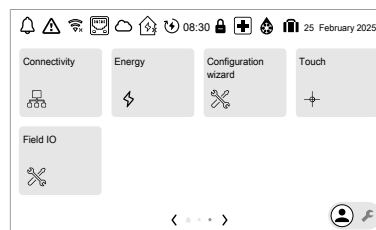
### Main menu screen

Starting from the home screen, tap the right arrow to view the first main menu screen. Tap the right arrow a second time to view the second main menu screen. From the main menu screens, you can access the different setpoint screens and submenus.

Main menu screen 1:




Main menu screen 2:



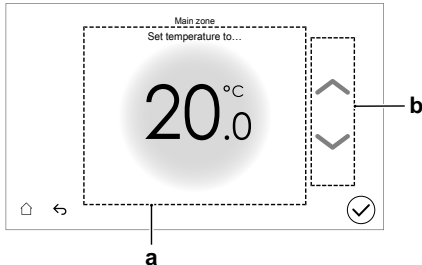
Submenu	Description
[11] Malfunctioning	<b>Restriction:</b> Only displayed if a malfunction occurs. See "8.1 To display the help text in case of a malfunction" [p 18] for more information.
[1] Main zone	Shows the applicable symbol for your main zone emitter type. Set the leaving water temperature for the main zone.
[2] Additional zone	Shows the applicable symbol for your additional zone emitter type. Set the leaving water temperature for the main zone.
[3] Space heating/cooling	Shows the applicable symbol for your unit. Put the unit in heating mode or cooling mode. You cannot change the mode on heating only models.
[4] Domestic hot water	<b>Restriction:</b> Only displayed if a domestic hot water tank is present. Set the domestic hot water tank temperature.
[5] Settings	Settings for user and installer. Installer settings are only shown in the installer mode (the installer switch is in the ⚡ position)
[6] Information	Displays data and information about the indoor unit.
[7] Maintenance mode	<b>Restriction:</b> Only for the installer. Perform tests and maintenance.
[8] Connectivity	<b>Restriction:</b> Only for the installer. Gives access to advanced settings.
[9] Energy	Shows the electricity consumption.
[10] Configuration wizard	<b>Restriction:</b> Only for the installer. For setting the most important initial settings.
[12] NOT USED	

## 5 Operation

Submenu	Description
[13]  Field IO	<b>Restriction:</b> Only for the installer. Terminal pin mapping for certain functions.

### Setpoint screen

The setpoint screen is displayed for screens describing system components that need a setpoint value.



Item	Description
a	Desired temperature.
b	Tap the up/down arrows in this area to increase/decrease the temperature.

### 5.1.3 Reading out information

#### To read out information

1	Go to [6]: Information.
---	-------------------------

#### Possible read-out information

In menu...	You can read out...
[6.2] Dealer information	Contact/helpdesk number
[6.3] Sensors	Room, tank or domestic hot water, outside, and leaving water temperature (if applicable)
[6.4] Actuators	Status/mode of each actuator <b>Example:</b> Domestic hot water pump ON/OFF
[6.5] Operation modes	Current operation mode <b>Example:</b> Defrost/oil return mode
[6.6] About	Contains: <ul style="list-style-type: none"> <li>Version information about the system</li> <li>Serial numbers</li> <li>Model name</li> <li>Build info</li> </ul>

### 5.1.4 Advanced user permission

The amount of information you can read and edit as a user in the menu structure depends on the following setting: Advanced settings.

When enabled, you can read and edit more information. Be careful because changes to advanced settings could lead to a less efficient, or even malfunctioning system.

## 5.2 Turning operation ON or OFF

### Space heating/cooling operation



#### NOTICE



**Room frost protection.** Even if you turn OFF space heating/cooling operation, room frost protection operation – if enabled – can still activate. However, for external room thermostat control, the protection is only active in case of a thermostat request.



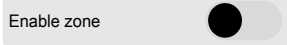
#### NOTICE

**Water pipe freeze prevention.** Even if you turn OFF space heating/cooling operation, water pipe freeze prevention – if enabled – will remain active.

In case you want to turn off ALL space heating/cooling:

1	Tap on the Spaces bar from the home screen.
2	Tap the  icon to turn climate control ON or OFF.
3	Confirm with the  button. <b>Result:</b> When OFF, the Space heating/cooling screen area on the home screen is greyed out.

In case you only want to turn off an individual zone:



1	<b>Restriction:</b> Turning off an individual zone is only possible in case of LWT control. Tap on the emitter icon of a zone on the home screen, OR go to: <ul style="list-style-type: none"> <li>[1.17] Main zone &gt; Enable zone.</li> <li>[2.15] Additional zone &gt; Enable zone.</li> </ul>
2	Switch the zone OFF:  <b>Result:</b> When OFF, the zone screen area is greyed out.

### Tank heating operation



#### NOTICE

**Disinfection mode.** Even if you turn OFF tank heating operation, disinfection mode will remain active (if enabled).

1	Go to [4.1]: Domestic hot water > Single heat-up. <b>Note:</b> Tap on the Domestic hot water bar from the home screen to quickly access [4.1].
2	Tap the  icon to turn Domestic hot water ON or OFF.
3	Confirm with the  button. <b>Result:</b> When OFF, the Domestic hot water screen area on the home screen is greyed out.

## 5.3 Space heating/cooling control

### 5.3.1 Setting the Operation mode

#### About space operation modes

Your unit is a heating/cooling model, it can both heat up and cool down a space. You have to tell the system which operation mode to use. There are two possibilities to do so:

If	Then
<p>Possibility 1: In case:</p> <ul style="list-style-type: none"> <li>There is only one zone (main zone)</li> <li>And the main zone is controlled by an external room thermostat</li> <li>And individual heating/cooling requests are sent to the unit in one of the following ways: <ul style="list-style-type: none"> <li>Via hardware (external room thermostats with dual contacts).</li> <li>Via external communication input, like Modbus or Cloud.</li> </ul> </li> </ul>	<p>Operation mode is decided by the external room thermostat</p>
<p>Possibility 2: In other cases than possibility 1</p>	<p>Operation mode is decided by settings [3.2], [3.5] (and [3.1])</p>

### To check which space operation mode is currently used

The space operation mode is displayed on the home screen:

- When the unit is in heating mode, the ☀ icon is shown.
- When the unit is in cooling mode, the ❄ icon is shown.

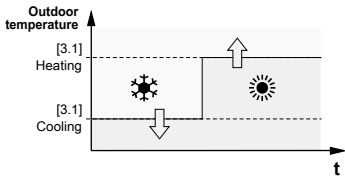
The status indicator shows if the unit is currently in operation:

- When the unit is not in operation, the status indicator will show a blue pulsation with an interval of approximately 5 seconds.
- While the unit is in operation, the status indicator will light up blue constantly.

### To set the space operation mode


Using settings [3.2], [3.5] (and [3.1]):

1	<p>Go to [3.2]: Space heating/cooling &gt; Operation mode.</p> <p><b>Note:</b> Tap on the Spaces bar from the home screen for a quick access screen where the Operation mode can be selected.</p>
2	<p>Select one of the following options:</p> <ul style="list-style-type: none"> <li>Heating: <b>Result:</b> The operation mode is <b>permanently heating</b>. This procedure is finished.</li> <li>Cooling: <b>Result:</b> The operation mode is <b>permanently cooling</b>. This procedure is finished.</li> <li>Automatic: <b>Result:</b> The operation mode depends on a <b>monthly schedule</b>. Go to the next step.</li> </ul>
3	Go to [3.5]: Space heating/cooling > Operation mode schedule.
4	Select a month.
5	<p>For each month, select one of the following options:</p> <ul style="list-style-type: none"> <li>Heating</li> <li>Cooling</li> <li>Automatic</li> </ul>
5a	<p>Heating: Use this during cold season (e.g. October, November, December January, February and March).</p> <p><b>Result:</b> For the selected month, only heating is possible.</p>
5b	<p>Cooling: Use this during warm season (e.g. June, July and August).</p> <p><b>Result:</b> For the selected month, only cooling is possible.</p>

5c	<p>Automatic: Use this between cold and warm season (e.g. April, May and September).</p> <p><b>Result:</b> For the selected month, the unit automatically switches between heating and cooling. The changeover depends on:</p> <ul style="list-style-type: none"> <li>The outdoor temperature</li> <li>The setpoints defined in [3.1] Operation Range. The difference between the two setpoints is used like a hysteresis in order to avoid frequent changeover.</li> </ul>  <p><b>Note:</b> If changeover occurs too frequent due to direct sunlight on the outdoor unit, the remote outdoor sensor (EKRSKA1) can be installed to improve the system behaviour.</p>
6	Confirm the changes.

### 5.3.2 To change the desired room temperature

During room temperature control, you can use the room temperature setpoint screen to read out and adjust the desired room temperature.

1	<p>Go to [1.1] Main zone &gt; Room setpoint.</p> <p><b>Note:</b> From the home screen, tap on the main zone temperature screen area to quickly access [1.1].</p>
2	<p>Adjust the desired room temperature:</p> 
3	Confirm with the ✓ button.

#### If scheduling is on after changing the desired room temperature

- The temperature will stay the same as long as there is no scheduled action.
- The desired room temperature will return to its scheduled value whenever a scheduled action occurs.

You can avoid scheduled behaviour by (temporarily) turning off scheduling. See "5.3.4 To enable scheduling" ▶ 12].

### 5.3.3 To change the desired leaving water temperature



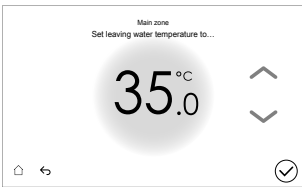
#### INFORMATION

The leaving water is the water that is sent to the heat emitters. The desired leaving water temperature is set by your installer in accordance with the heat emitter type. Only adjust the leaving water temperature settings in case of problems.

#### In case no weather-dependent curve is used

You can adjust the fixed leaving water temperature as follows:

## 5 Operation

<b>1</b>	<p>Go to:</p> <ul style="list-style-type: none"> <li>[1.39] Main zone &gt; Leaving water temp. heating</li> <li>[1.42] Main zone &gt; Leaving water temp. cooling</li> <li>[2.30] Additional zone &gt; Leaving water temp. heating</li> <li>[2.36] Additional zone &gt; Leaving water temp. cooling</li> </ul> <p><b>Note:</b> From the home screen, tap on the main or additional zone temperature screen area to quickly access [1.39], [1.42], [2.30] or [2.36] (depending on the operation mode).</p> <p><b>Note:</b> In case of weather-dependent mode, LWT is not controlled by this setting.</p>
<b>2</b>	<p>Adjust the desired leaving water temperature:</p> 
<b>3</b>	<p>Confirm with the ✓ button.</p>

### In case weather-dependent curve is used

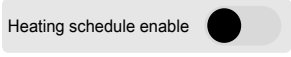
**Note:** For more information on weather-dependent operation, see "5.6 Weather-dependent curve" [p 16].

You can set a temperature shift to the weather-dependent curve leaving water temperature as follows:

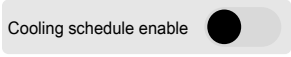
<b>1</b>	<p>Go to:</p> <ul style="list-style-type: none"> <li>[1.27] Main zone &gt; Leaving water shift heating</li> <li>[1.28] Main zone &gt; Leaving water shift cooling</li> <li>[2.22] Additional zone &gt; Leaving water shift heating</li> <li>[2.23] Additional zone &gt; Leaving water shift cooling</li> </ul>
<b>2</b>	<p>Adjust the desired leaving water shift temperature.</p> <p><b>Note:</b> The temperature shift value can be set in 1°C increments.</p>
<b>3</b>	<p>Confirm with the ✓ button.</p>

### 5.3.4 To enable scheduling

#### To enable heating scheduling

<b>1</b>	<p>Go to:</p> <ul style="list-style-type: none"> <li>[1.2] Main zone &gt; Heating schedule enable</li> <li>[2.2] Additional zone &gt; Heating schedule enable</li> </ul>
<b>2</b>	<p>Switch scheduling ON (or OFF):</p> 

#### To enable cooling scheduling

<b>1</b>	<p>Go to:</p> <ul style="list-style-type: none"> <li>[1.23] Main zone &gt; Cooling schedule enable</li> <li>[2.27] Additional zone &gt; Cooling schedule enable</li> </ul>
<b>2</b>	<p>Switch scheduling ON (or OFF):</p> 

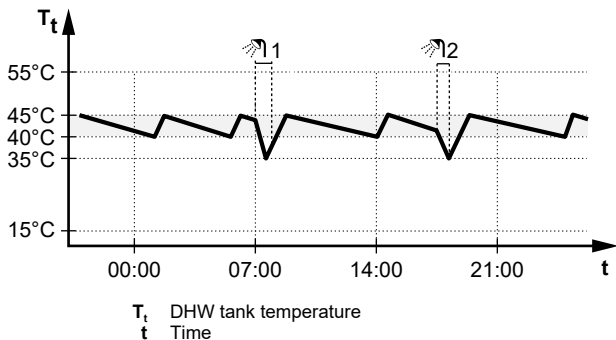
## 5.4 Domestic hot water control

### 5.4.1 Reheat mode

There are two possibilities to use the Reheat mode:

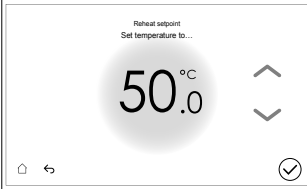
- Reheat mode: the DHW tank continuously heats up to the temperature shown on the home screen (example: 45°C).
- Reheat mode with schedule: the DHW tank set temperature varies according to the schedule.

#### Example:



#### To change the tank temperature setpoint

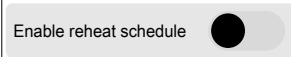
In Reheat mode, you can use the tank temperature setpoint screen to adjust the domestic hot water temperature.

<b>1</b>	<p>Go to [4.5]: Domestic hot water &gt; Reheat setpoint.</p>
<b>2</b>	<p>Adjust the domestic hot water temperature:</p> 

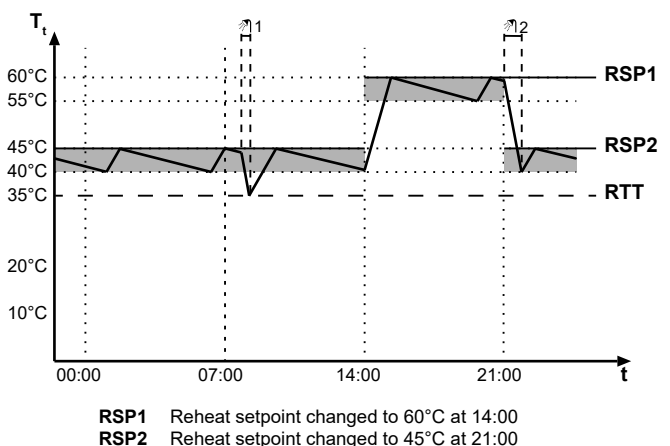
#### Reheat mode with schedule

In reheat mode with schedule, the DHW tank set temperature varies depending on the reheat setpoint defined in the schedule. DHW tank set temperature can be adjusted to the best possible requirement on the daily demand. The hysteresis and the trigger threshold for reheating are the same as for reheating without a schedule.

**Note:** The hysteresis value is always the same for each defined reheat setpoint.

<b>1</b>	<p>Go to:</p> <ul style="list-style-type: none"> <li>[4.24] Domestic hot water &gt; Enable reheat schedule</li> </ul>
<b>2</b>	<p>Switch scheduling ON (or OFF):</p> 
<b>3</b>	<p>Go to:</p> <ul style="list-style-type: none"> <li>[4.24] Domestic hot water &gt; Reheat schedule</li> </ul>
<b>4</b>	<p>Program the Reheat schedule (see "5.5.1 Using and programming schedules" [p 13]).</p>

#### Example:



<b>RTT</b>	Reheat Trigger Threshold set to 35°C
<b>T<sub>t</sub></b>	Storage tank temperature
<b>t</b>	Time

In the example 2 reheat setpoints are defined.

- At first, the reheat setpoint is programmed as **45°C**.
- Then at 14:00, the value is increased to **60°C**.
- And later at 21:00, it is lowered back to **45°C**.

With the higher temperature in the afternoon and evening, more hot water is available.

During the night and the morning where no high demand is needed, the temperature is lower.

When the temperature drops below the reheat trigger threshold, the heat pump will heat up to the reheat setpoint programmed at this time block.

## 5.4.2 Single heat-up

Single heat-up immediately starts heating up the DHW tank using one of the following two modes:

- Manual
- Powerful operation

### Manual mode

The tank heats up in an efficient way.

### Powerful operation mode

The tank heats up using the backup heater or tank boiler. For more information, see "Powerful heating mode" [▶ 13].


## Manual mode

### About Manual mode



Manual immediately starts the domestic hot water heat-up, but in a more efficient way than the Powerful heating.

Use this mode on days when there is more hot water usage than usual, and more hot water is needed in an efficient way. Manual heat-up can take longer than using Powerful heating.

### To check if Manual heat-up is active


If  is displayed on the home screen, DHW tank heat-up is ongoing. However, to see if Manual operation is active, you can follow the activate/deactivate steps as described below.

Activate or deactivate Manual as follows:

1	Go to [4.1] Domestic hot water > Single heat-up. <b>Note:</b> Tap on the Domestic hot water bar from the home screen to quickly access [4.1].
2	Turn Single heat-up ON using the  button, and select Manual.
3	Confirm with the  button.

Or alternatively:

1	Go to [4.3] Manual setpoint.
2	Press the Start button to activate the heat-up process.

**Note:** To stop an ongoing heat-up process, tap on the Domestic hot water bar from the home screen and press the  button.

## Powerful heating mode


### About Powerful heating

Powerful heating starts the domestic hot water heat-up immediately. To speed up the heat-up, the additional heat source (backup heater or tank boiler) will assist the heat pump when the heat pump has passed its start-up phase, and is operating at maximum capacity.



Use this mode on days when there is more hot water usage than usual, and more hot water is needed quickly.

The Powerful heating mode will consume more energy than the Manual mode.

### To check if Powerful heating is active


If  is displayed on the home screen, Powerful heating is active.

Activate or deactivate Powerful heating as follows:

1	Go to [4.1] Domestic hot water > Single heat-up. <b>Note:</b> Tap on the Domestic hot water bar from the home screen to quickly access [4.1].
2	Turn Single heat-up ON using the  button, and select Powerful heating.
3	Confirm with the  button.

Or alternatively:

1	Go to [4.4] Powerful operation setpoint.
2	Press the Start button to activate the heat-up process.

**Note:** To stop an ongoing heat-up process, tap on the Domestic hot water bar from the home screen and press the  button.

### Usage example: You immediately need more hot water

You are in the following situation:

- You already consumed most of your domestic hot water.
- You cannot wait for the next scheduled action to heat up the domestic hot water tank.

Then you can activate powerful operation. The domestic hot water tank will start heating up the water to the Powerful operation setpoint temperature.



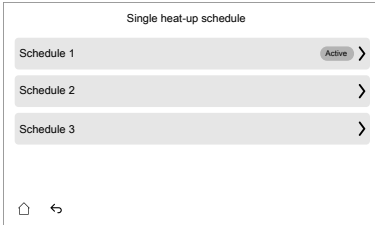
### INFORMATION

When powerful operation is active, the risk of space heating/cooling and capacity shortage comfort problems is significant. In case of frequent domestic hot water operation, frequent and long space heating/cooling interruptions will happen.

## 5.5 Schedules

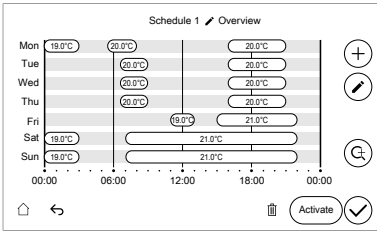
### 5.5.1 Using and programming schedules

To select which schedule you currently want to use

1	Go to the schedule related to the specific control. For an overview, see "Possible schedules" [▶ 14]. <b>Example:</b> <ul style="list-style-type: none"> <li>▪ [1.3] Main zone &gt; Heating schedule.</li> <li>▪ [1.4] Main zone &gt; Cooling schedule</li> </ul>
2	Select the schedule that you currently want to use. 

## 5 Operation

### 3 Tap the Activate button.



### 4 Confirm with the ✓ button.

#### Possible schedules

- [1.3] Main zone > Heating schedule
- [1.4] Main zone > Cooling schedule
- [2.3] Additional zone > Heating schedule
- [2.4] Additional zone > Cooling schedule
- [1.24] Main zone > Leaving water shift heating schedule
- [1.25] Main zone > Leaving water shift cooling schedule
- [2.18] Additional zone > Leaving water shift heating schedule
- [2.19] Additional zone > Leaving water shift cooling schedule
- [3.5] Space heating/cooling > Operation mode schedule
- [4.25] Domestic hot water > Reheat schedule
- [4.26] Domestic hot water > DHW pump schedule
- [5.2.2] Settings > Quiet operation > Schedule  
(OR from the home screen: tap on the Outdoor bar, and tap on Schedule)
- [9.4] User settings > Electricity price schedule

#### More information

For more information, see also:

- "5.5.2 Schedule screen: Example" ▶ 14]
- User reference guide

### 5.5.2 Schedule screen: Example

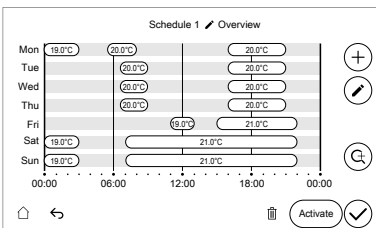
This example shows how to set a room temperature schedule in heating mode for the main zone.



#### INFORMATION

The procedures to program other schedules are similar.

#### To program the schedule: overview



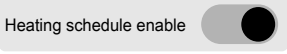
**Prerequisite:** Room temperature scheduling is only possible if room thermostat control is active. If LWT control is active, the schedule applies to the LWT instead.

**Prerequisite:** Scheduling is not possible when using an external room thermostat.

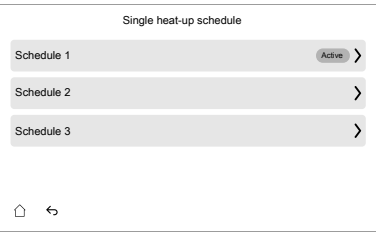

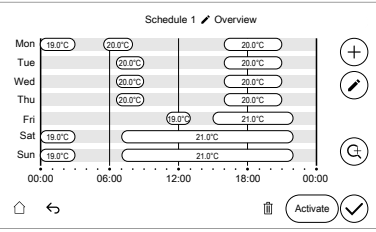
- 1 Go to the schedule.
- 2 (optional) Clear the content of the whole week schedule or the content of a selected day schedule.
- 3 Program the schedule for the weekdays.
- 4 Program the schedule for the weekend.
- 5 Give the schedule a name.

**Note:** You can set one time block for multiple days by selecting any day, workweek, weekend or every day.

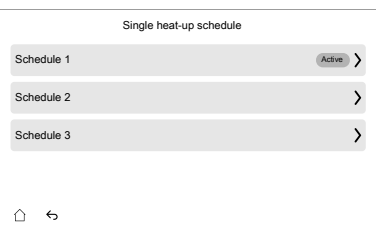

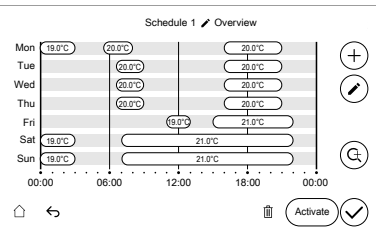
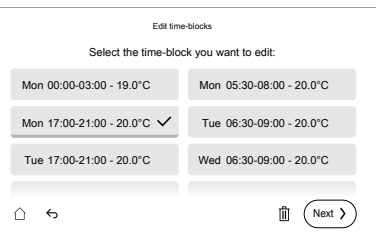

#### To go to the schedule

- 1 Go to [1.2] Main zone > Heating schedule enable.
- 2 Switch scheduling ON:  

- 3 Go to [1.3] Main zone > Heating schedule.


#### To clear the content of the week schedule

- 1 Go to the schedule you want to clear:  

- 2 Tap the  button to delete the schedule:  

- 3 Confirm with the ✓ button.

#### To clear the content of a time block in a schedule

- 1 Go to the schedule you want to edit.  

- 2 Tap the  button to edit the time blocks of the schedule:  

- 3 Select the time block you want to clear:  

- 4 Tap the  button to clear the time block.
- 5 Confirm with the ✓ button.



## To add time blocks

- 1 Tap the  button to add a time block.
- 2 Select one or more days for the time block to apply to:
 

Schedule 1


Create new schedule block



Monday	Thursday <input checked="" type="checkbox"/>	Workweek
Tuesday <input checked="" type="checkbox"/>	Friday	Weekend
Wednesday <input checked="" type="checkbox"/>	Saturday	Weeks
Sunday		




X Cancel
Next >
- 3 Tap the Next button.
- 4 Set the first schedule starting and ending time for the time block:
 

Set time-block

06 : 30 - 09 : 00





X Cancel
Next >


  - Change the time entries directly by swiping up/down or tapping the +/- signs.
  - OR use the bar, by dragging the starting time point and ending time point.
- 5 Tap the Next button.
- 6 Set the desired temperature.
- 7 Confirm with the  button.
- 8 Add more time blocks if needed.
 

**Note:** In case of room temperature scheduling, the baseline temperature will be used at times when no temperature is scheduled. To set the baseline temperature, go to:

  - [1.34] Main zone > Heating target baseline
  - [1.35] Main zone > Cooling target baseline

**Remark:** In case of LWT scheduling and LWT shift scheduling, there will be **NO operation** at times when no temperature is scheduled.



## To edit a time block

- 1 Tap the  button to edit a time block.
- 2 Select the time block you want to edit:
 

Edit time-blocks

Select the time-block you want to edit:

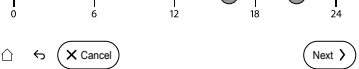
Mon 00:00-03:00 - 19.0°C	Mon 05:30-08:00 - 20.0°C
Mon 17:00-21:00 - 20.0°C <input checked="" type="checkbox"/>	Tue 06:30-09:00 - 20.0°C
Tue 17:00-21:00 - 20.0°C	Wed 06:30-09:00 - 20.0°C





X Cancel
Next >
- 3 Tap the Next button.


- 4 Set the first schedule starting and ending time for the time block:
 

Edit time-blocks

06 : 30 - 09 : 00





X Cancel
Next >




  - Change the time entries directly by swiping up/down or tapping the +/- signs.
  - OR use the bar, by dragging the starting time point and ending time point.
- 5 Tap the Next button.
- 6 Set the desired temperature.
- 7 Confirm with the  button.

## To rename a schedule

- 1 Go to the schedule you want to rename:
 




Single heat-up schedule

Schedule 1	<input checked="" type="checkbox"/> Active >
Schedule 2	>
Schedule 3	>



- 2 Tap the  icon next to the schedule name to rename the schedule:
 

Schedule 1 Overview

Mon	19.0°C	20.0°C	20.0°C	+
Tue	20.0°C	20.0°C	20.0°C	✎
Wed	20.0°C	20.0°C	20.0°C	+
Thu	20.0°C	20.0°C	20.0°C	✎
Fri	19.0°C	21.0°C	21.0°C	+
Sat	19.0°C	21.0°C	21.0°C	✎
Sun	19.0°C	21.0°C	21.0°C	+





Activate
- 3 Rename the schedule using the on-screen keyboard.
- 4 Confirm with the  button.

## To activate a schedule

- 1 Select the schedule:
 



Single heat-up schedule


Schedule 1	<input checked="" type="checkbox"/> Active >
Schedule 2	>
Schedule 3	>



- 2 Tap the Activate button:
 

Schedule 1 Overview

Mon	19.0°C	20.0°C	20.0°C	+
Tue	20.0°C	20.0°C	20.0°C	✎
Wed	20.0°C	20.0°C	20.0°C	+
Thu	20.0°C	20.0°C	20.0°C	✎
Fri	19.0°C	21.0°C	21.0°C	+
Sat	19.0°C	21.0°C	21.0°C	✎
Sun	19.0°C	21.0°C	21.0°C	+



Activate

**Note:** In the schedule overview, the active schedule will be marked with 'Active'.
- 4 Confirm with the  button.

## 5 Operation

### 5.6 Weather-dependent curve

#### 5.6.1 What is a weather-dependent curve?

##### Weather-dependent operation

The unit operates 'weather-dependent' if the desired leaving water temperature is determined automatically by the outdoor temperature. It therefore is connected to a temperature sensor on the North wall of the building. If the outdoor temperature drops or rises, the unit compensates instantly. Thus, the unit does not have to wait for feedback by the thermostat to increase or decrease the temperature of the leaving water. Because it reacts more quickly, it prevents high rises and drops of the indoor temperature and water temperature at tap points.

##### Advantage

Weather-dependent operation reduces energy consumption.

##### Weather-dependent curve

To be able to compensate for differences in temperature, the unit relies on its weather-dependent curve. This curve defines how much the temperature of the leaving water must be at different outdoor temperatures. Because the slope of the curve depends on local circumstances such as climate and the insulation of the building, the curve can be adjusted by an installer or user.

##### Type of weather-dependent curve

The type of weather-dependent curve is "2-points curve".

##### Availability

The weather-dependent curve is available for:

- Main zone - Heating
- Main zone - Cooling
- Additional zone - Heating
- Additional zone - Cooling

#### 5.6.2 Using weather-dependent curves

##### Related screens

The following table describes:

- Where you can define the different weather-dependent curves
- When the curve is used (restriction)

To define the curve, go to...	Curve is used when...
[1.8] Main zone > Heating WD curve	[1.5] Heating setpoint mode = Weather dependent
[1.9] Main zone > Cooling WD curve	[1.7] Cooling setpoint mode = Weather dependent
[2.8] Additional zone > Heating WD curve	[2.5] Heating setpoint mode = Weather dependent
[2.9] Additional zone > Cooling WD curve	[2.7] Cooling setpoint mode = Weather dependent



##### INFORMATION

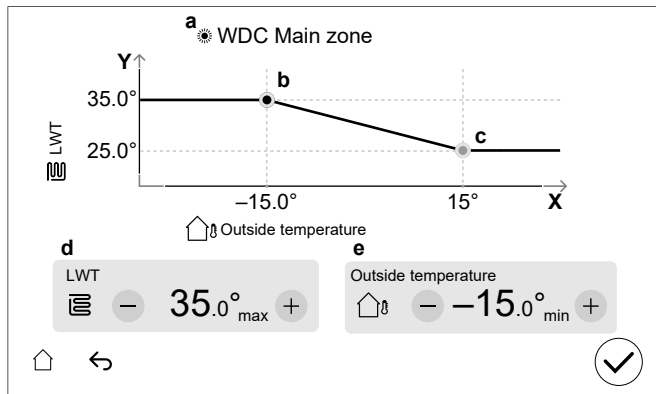
##### Maximum and minimum setpoints

You cannot configure the curve with temperatures that are higher or lower than the set maximum and minimum setpoints for that zone. When the maximum or minimum setpoint is reached, the curve flattens out.

##### To define a weather-dependent curve

Define the weather-dependent curve using two setpoints (b, c).

##### Example:



Item	Description
a	Selected weather-dependent curve: <ul style="list-style-type: none"> <li>• [1.8] Main zone – Heating (☀)</li> <li>• [1.9] Main zone – Cooling (❄)</li> <li>• [2.8] Additional zone – Heating (☀)</li> <li>• [2.9] Additional zone – Cooling (❄)</li> </ul>
b, c	Setpoint 1 and setpoint 2. You can change them: <ul style="list-style-type: none"> <li>• By dragging the setpoint.</li> <li>• By tapping the setpoint, and then using the – / + buttons in d, e.</li> </ul>
d, e	Values of the selected setpoint. You can change the values using the – / + buttons.
X-axis	Outdoor temperature.
Y-axis	Leaving water temperature for the selected zone. The icon corresponds to the heat emitter for that zone: <ul style="list-style-type: none"> <li>•  Underfloor heating</li> <li>•  Heat pump convector</li> <li>•  Radiator</li> </ul>

##### To fine-tune a weather-dependent curve

The following table describes how to fine-tune the weather-dependent curve of a zone:

You feel...		Fine-tune with setpoints:			
At regular outdoor temperatures ...	At cold outdoor temperatures ...	Setpoint 1 (b)		Setpoint 2 (c)	
		X	Y	X	Y
OK	Cold	↑	↑	—	—
OK	Hot	↓	↓	—	—
Cold	OK	—	—	↑	↑
Cold	Cold	↑	↑	↑	↑
Cold	Hot	↓	↓	↑	↑
Hot	OK	—	—	↓	↓
Hot	Cold	↑	↑	↓	↓
Hot	Hot	↓	↓	↓	↓

### 5.7 Emergency operation

If the heat pump fails, the Emergency selection setting determines how the system will act.

1	Go to [5.23] Settings > Emergency selection.
---	--



### Emergency selection

When a heat pump failure occurs, then this setting (same as setting [5.23]) defines whether the electrical heater (backup heater / booster heater / tank boiler if applicable) can take over the space heating and DHW operation.

When there is no automatic full take-over by the electrical heater, a pop-up (with the same content as setting [5.30]) appears where you can manually acknowledge that the electrical heater can fully take over (i.e. space heating to normal setpoint and DHW operation = ON).

When the house is unattended for longer periods, we recommend to use auto SH reduced/DHW off to keep energy consumption low.

[5.23]	When heat pump failure occurs, then there is ... by the electrical heater	Full take-over
Manual	No take-over: <ul style="list-style-type: none"> <li>Space heating = OFF</li> <li>DHW operation = OFF</li> </ul>	After manual acknowledgment
Automatic	Full take-over: <ul style="list-style-type: none"> <li>Space heating to normal setpoint</li> <li>DHW operation = ON</li> </ul>	Automatic
auto SH reduced/DHW on	Partial take-over: <ul style="list-style-type: none"> <li>Space heating to reduced setpoint</li> <li>DHW operation = ON</li> </ul>	After manual acknowledgment
auto SH reduced/DHW off	Partial take-over: <ul style="list-style-type: none"> <li>Space heating to reduced setpoint</li> <li>DHW operation = OFF</li> </ul>	After manual acknowledgment
auto SH normal/DHW off	Partial take-over: <ul style="list-style-type: none"> <li>Space heating to normal setpoint</li> <li>DHW operation = OFF</li> </ul>	After manual acknowledgment

### INFORMATION

If a heat pump failure occurs and Emergency selection is NOT set to Automatic, the following functions will remain active even if the user does NOT acknowledge emergency operation:

- Room frost protection
- Underfloor heating screed dryout
- Water pipe freeze prevention
- Disinfection

## 6 Energy saving tips

### Tips about room temperature

- Make sure the desired room temperature is NOT too high (in heating mode) or too low (in cooling mode), but according to your actual needs. Each saved degree can save up to 6% of heating/cooling costs.
- Do NOT increase/decrease the desired room temperature to speed up space heating/cooling. The space will NOT heat up/cool down faster.
- When your system layout contains slow heat emitters (example: underfloor heating), avoid large fluctuation of the desired room temperature and do NOT let the room temperature drop too low/rise too high. It will take more time and energy to heat up/cool down the room again.

- Use a weekly schedule for your normal space heating or cooling needs. If necessary, you can easily deviate from the schedule:
  - For shorter periods: You can overrule the scheduled room temperature until the next scheduled action. **Example:** When you have a party, or when you are leaving for a couple of hours.
  - For longer periods: You can use the holiday mode.

### Tips about DHW tank temperature

- Use a weekly schedule for your normal domestic hot water needs (ONLY in scheduled mode).
  - Program to heat up the DHW tank to a somewhat higher value during the night, because then space heating demand is lower.
  - If heating up the DHW tank once at night is NOT sufficient, program to additionally heat up the DHW tank to a somewhat lower value during the day.
- Make sure the desired DHW tank temperature is NOT too high. **Example:** After installation, lower the DHW tank temperature daily by one degree and check if you still have enough hot water.
- Program to turn ON the domestic hot water pump ONLY during periods of the day when instant hot water is necessary. **Example:** In the morning and evening.

### Tips about DHW temperature

- Make sure the desired DHW temperature, reflected by storage tank temperature, is NOT too high. **Example:** After installation, lower the tank temperature daily by 1°C and check if you still have enough hot water.
- Program to turn ON the domestic hot water pump ONLY during periods of the day when instant hot water is necessary. **Example:** In the morning and evening.

## 7 Maintenance and service

### 7.1 Overview: Maintenance and service

The installer has to perform a yearly maintenance. You can find the contact/helpdesk number via the user interface.

**1** Go to [6.2]: Information > Dealer information.

As end user, you have to:

- Keep the area around the unit clean.
- Keep the user interface clean with a soft damp cloth. Do NOT use any detergents.
- Regularly check via [6.3] Information > Sensors that the water pressure is above 1 bar.
- Carry out a visual check of the water level inside the storage tank: Check if the red level indicator is visible. If NOT, add water to the storage tank (for details see Installer reference guide).

### Refrigerant

Refrigerant type: R290

Global warming potential (GWP) value: 3

Periodical inspections for refrigerant leaks may be required depending on the applicable legislation. Contact your installer for more information.

Any repair and service work that would relate to refrigerant needs to be done by a Daikin certified technician.



### WARNING

NEVER directly touch any accidental leaking refrigerant. This could result in severe wounds caused by frostbite.

## 8 Troubleshooting

### 8 Troubleshooting

#### Contact

For the symptoms listed below, you can try to solve the problem yourself. For any other problem, contact your installer. You can find the contact/helpdesk number via the user interface.




- |   |  |
|---|--|
| 1 | Go to [6.2]: Information > Dealer information. |
|---|--|

#### 8.1 To display the help text in case of a malfunction

In case of a malfunction, the following icon will appear on the home screen depending on the severity:

- : Error
- : Warning
- : Information

You can get a short and a long description of the malfunction as follows:

- |   |  |
|---|--|
| 1 | Go to [11] Malfunctioning.<br><b>Result:</b> The ongoing malfunctions are shown with the following information: <ul style="list-style-type: none"> <li>• The Level icon: <ul style="list-style-type: none"> <li>• : Error</li> <li>• : Warning</li> <li>• : Information</li> </ul> </li> <li>• The error code</li> <li>• The Type icon: <ul style="list-style-type: none"> <li>• <b>S</b>: Safety: these are critical errors that can result in an unsafe situation (e.g. refrigerant leak).</li> <li>• <b>P</b>: Protection: these are errors related to the protection of the user or the system (eg overheating/disinfection/undercooling).</li> <li>• <b>T</b>: Technical: these are all other errors indicating a technical problem of the unit or peripherals (e.g. sensor abnormality).</li> </ul> </li> </ul> |
| 2 | Tap on the error message in the error screen.<br><b>Result:</b> A long description of the error is displayed on the screen.  |

#### 8.2 To check the malfunction history

Always check the malfunction history while troubleshooting.

**Conditions:** The user permission level is set to advanced end user.

- |   |                                  |
|---|----------------------------------|
| 1 | Go to [11]: Malfunction history. |
|---|----------------------------------|

You see a list of the most recent malfunctions.

#### 8.3 Symptom: You are feeling too cold (hot) in your living room



Possible cause	Corrective action
The desired room temperature is too low (high).	Increase (decrease) the desired room temperature. See "5.3.2 To change the desired room temperature" [ 11].  If the problem recurs daily, do one of the following: <ul style="list-style-type: none"> <li>• Increase (decrease) the room temperature preset value. See the user reference guide.</li> <li>• Adjust the room temperature schedule. See "5.5.2 Schedule screen: Example" [ 14].</li> </ul>
The desired room temperature cannot be reached.	Increase the desired leaving water temperature in accordance with the heat emitter type. See "5.3.3 To change the desired leaving water temperature" [ 11].
The weather-dependent curve is set incorrectly.	Adjust the weather-dependent curve. See "5.6 Weather-dependent curve" [ 16].

#### 8.4 Symptom: The water at the tap is too cold

Possible cause	Corrective action
You ran out of domestic hot water because of unusually high consumption.	If you immediately need domestic hot water, activate: <ul style="list-style-type: none"> <li>• [4.1] Powerful heating. This is the quickest heat-up, but consumes extra energy. See "Powerful heating mode" [ 13].</li> <li>• [4.3] Manual. This is an efficient heat-up, but can take longer than powerful operation.</li> </ul>
The desired DHW tank temperature is too low.	If the problems recur daily, do one of the following: <ul style="list-style-type: none"> <li>• Increase the DHW tank temperature preset value. See the user reference guide.</li> <li>• Adjust the DHW tank temperature schedule. <b>Example:</b> Program to additionally heat up the DHW tank to a somewhat lower value during the day. See "5.5.2 Schedule screen: Example" [ 14].</li> </ul>

#### 8.5 Symptom: Heat pump failure

When the heat pump fails, the Emergency selection setting determines how the system will act. See "5.7 Emergency operation" [ 16].

When the heat pump fails,  or  will appear on the user interface.

Possible cause	Corrective action
Heat pump is damaged.	See "8.1 To display the help text in case of a malfunction" [ 18].

**INFORMATION**

When the backup heater takes over the heat load, electricity consumption will be considerably higher.

## 8.6 Symptom: The system is making gurgling noises after commissioning

Possible cause	Corrective action
There is air in the system.	Purge air from the system. <sup>(a)</sup>
Incorrect hydraulic balance.	To be performed by the installer: <ol style="list-style-type: none"> <li>1 Perform hydraulic balancing to assure that the flow is correctly distributed between the emitters.</li> <li>2 If hydraulic balancing is not sufficient, it is recommended to increase the Delta T heating ([1.14] / [2.14]) value.</li> <li>3 If hydraulic balancing is not sufficient, it is recommended to increase the Delta T cooling ([1.18] / [2.17]) value.</li> </ol>
Various malfunctions.	Check if  or  is displayed on the home screen of the user interface. See "8.1 To display the help text in case of a malfunction" ► 18 for more information about the malfunction.

<sup>(a)</sup> We recommend to purge air with the air purge function of the unit (to be performed by the installer). If you purge air from the heat emitters or collectors, mind the following:

**WARNING**

**Air purging heat emitters or collectors.** Before you purge air from heat emitters or collectors, check if or is displayed on the home screen of the user interface.

- If not, you can purge air immediately.
- If yes, make sure that the room where you want to purge air is sufficiently ventilated. **Reason:** In case of a breakdown, refrigerant might leak into the water circuit, and subsequently into the room when you purge air from the heat emitters or collectors.

## 9 Disposal

When you want to dispose of the unit, do NOT do it yourself but contact a Daikin certified technician.

**NOTICE**

Do NOT try to dismantle the system yourself: dismantling of the system, treatment of the refrigerant, oil and other parts MUST comply with applicable legislation. Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery.

## 10 Glossary

**DHW = Domestic hot water**

Hot water used, in any type of building, for domestic purposes.

**LWT = Leaving water temperature**

Water temperature at the water outlet of the unit.

## 11 Installer settings: Tables to be filled in by installer

### 11.1 Configuration wizard

	Setting	Fill in...
[10.1]	<b>Location and language</b> [5.9]	
	Country	
	Language	
[10.2]	<b>Timezone</b> [5.10] (only for Russia)	
	Timezone	
[10.3]	<b>Time/date</b> [5.3]	
	Daylight savings time (ON/OFF)	
[10.4]	<b>System 1/4</b>	
	Number of zones	
	Bivalent [5.37]	
[10.5]	<b>System 2/4</b>	
	—	
[10.6]	<b>System 3/4</b>	
	—	
[10.7]	<b>System 4/4</b>	
	Emergency selection [5.23]	
[10.8]	<b>Backup heater</b> [5.5]	
	Grid configuration	
	Maximum capacity	
	Fuse >10A (ON/OFF)	
[10.9]	<b>Main zone 1/4</b>	
	Emitter type [1.11]	
	Control [1.12]	
[10.10]	<b>Main zone 2/4</b>	
	Heating setpoint mode [1.5]	
	Cooling setpoint mode [1.7]	
[10.11]	<b>Main zone 3/4 (Heating WD curve)</b> [1.8]	
	LWT	
	Outside temperature	
[10.12]	<b>Main zone 4/4 (Cooling WD curve)</b> [1.9]	
	LWT	
	Outside temperature	
[10.13]	<b>Additional zone 1/4</b>	
	Emitter type [2.11]	
	Control [2.12]	
[10.14]	<b>Additional zone 2/4</b>	
	Heating setpoint mode [2.5]	
	Cooling setpoint mode [2.7]	
[10.15]	<b>Additional zone 3/4 (Heating WD curve)</b> [2.8]	
	LWT	
	Outside temperature	
[10.16]	<b>Additional zone 4/4 (Cooling WD curve)</b> [2.9]	
	LWT	
	Outside temperature	

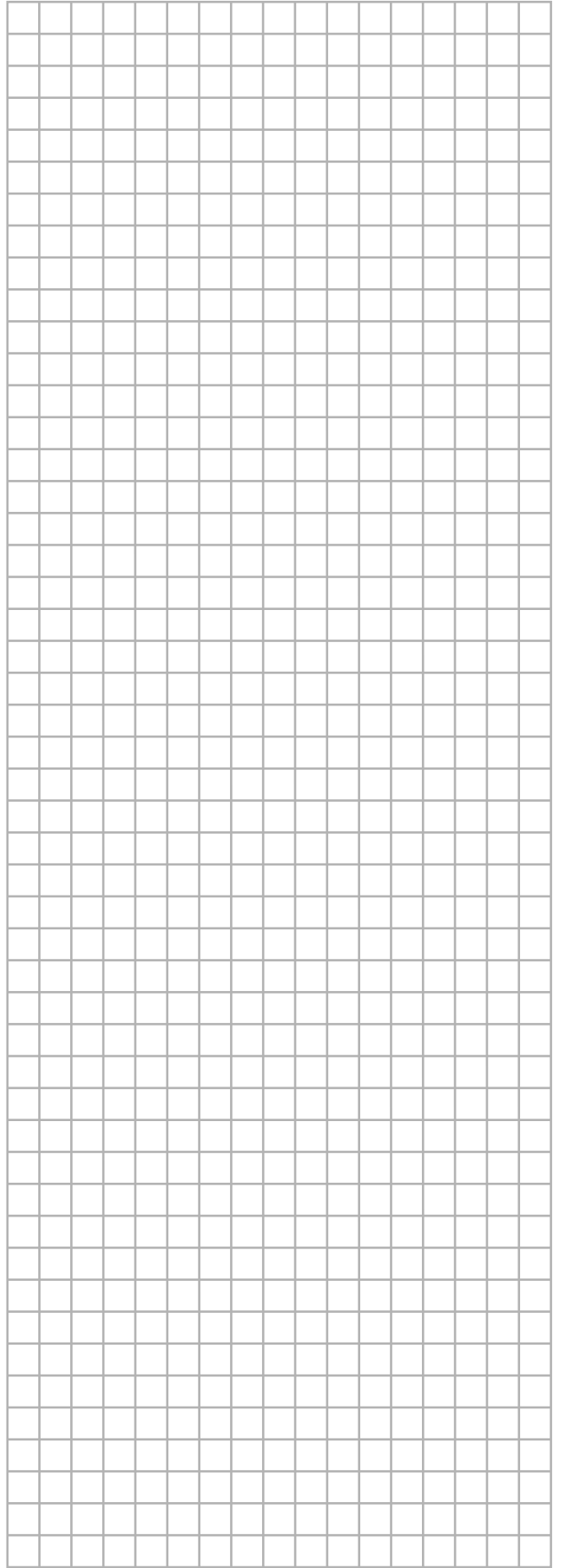
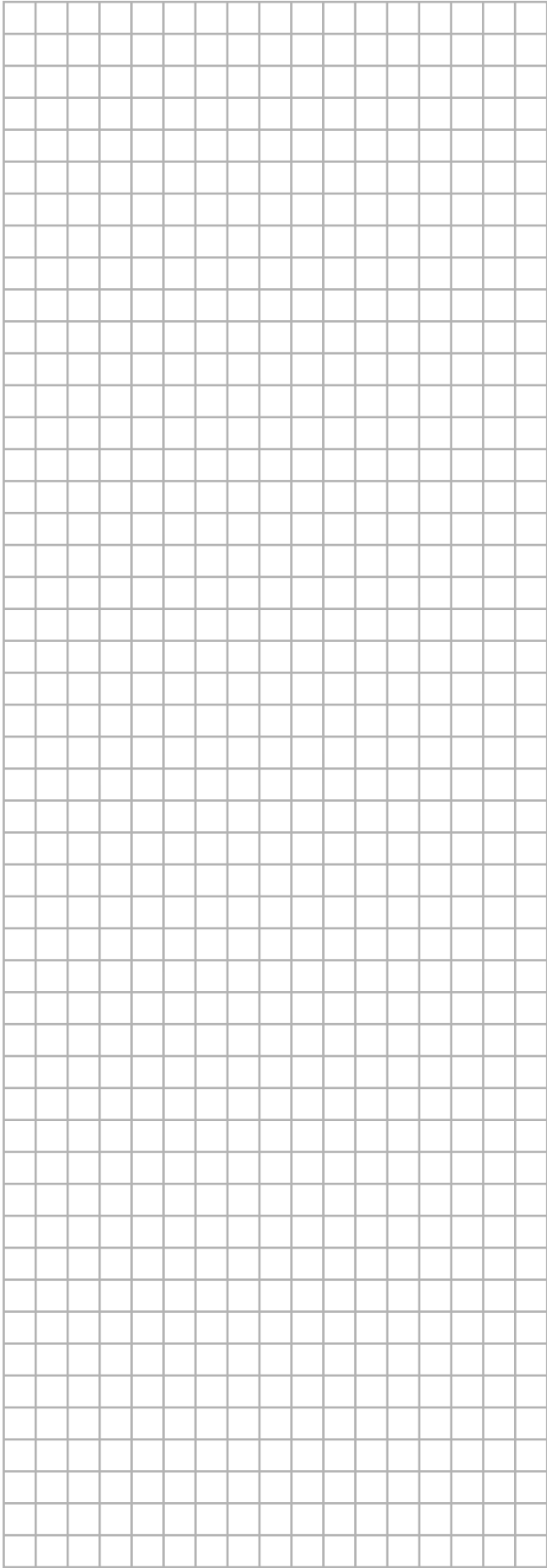
## 11 Installer settings: Tables to be filled in by installer

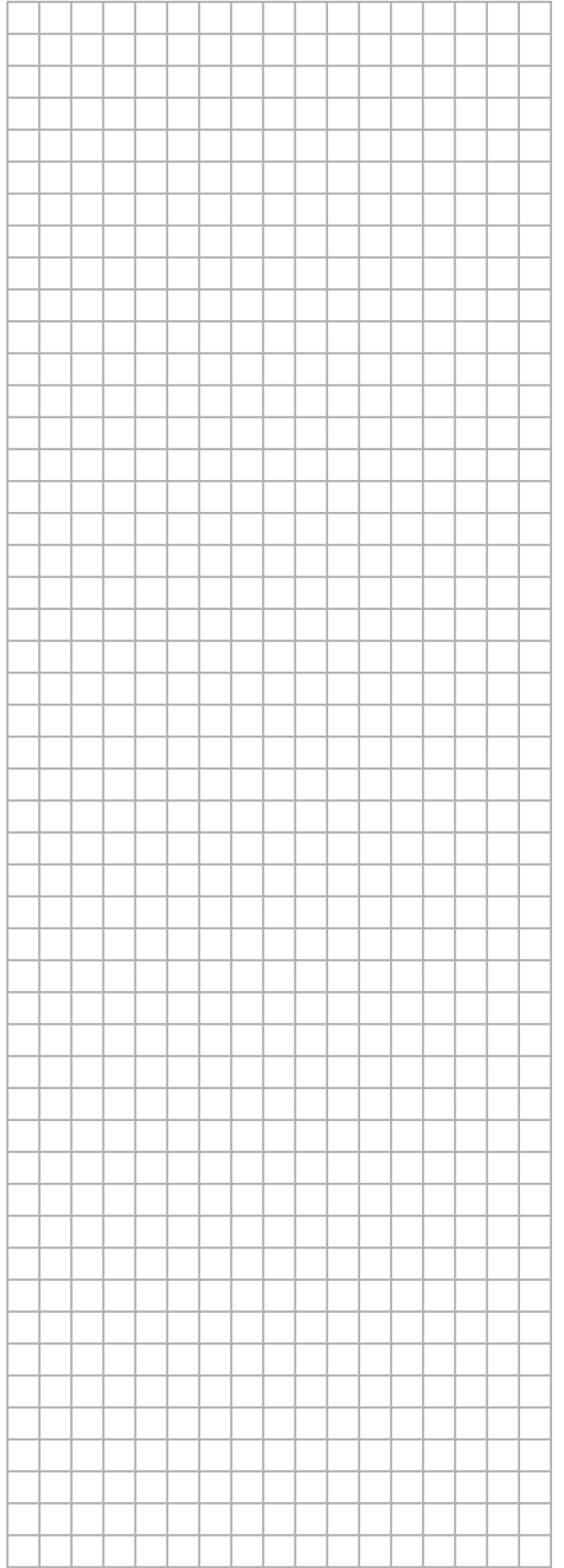
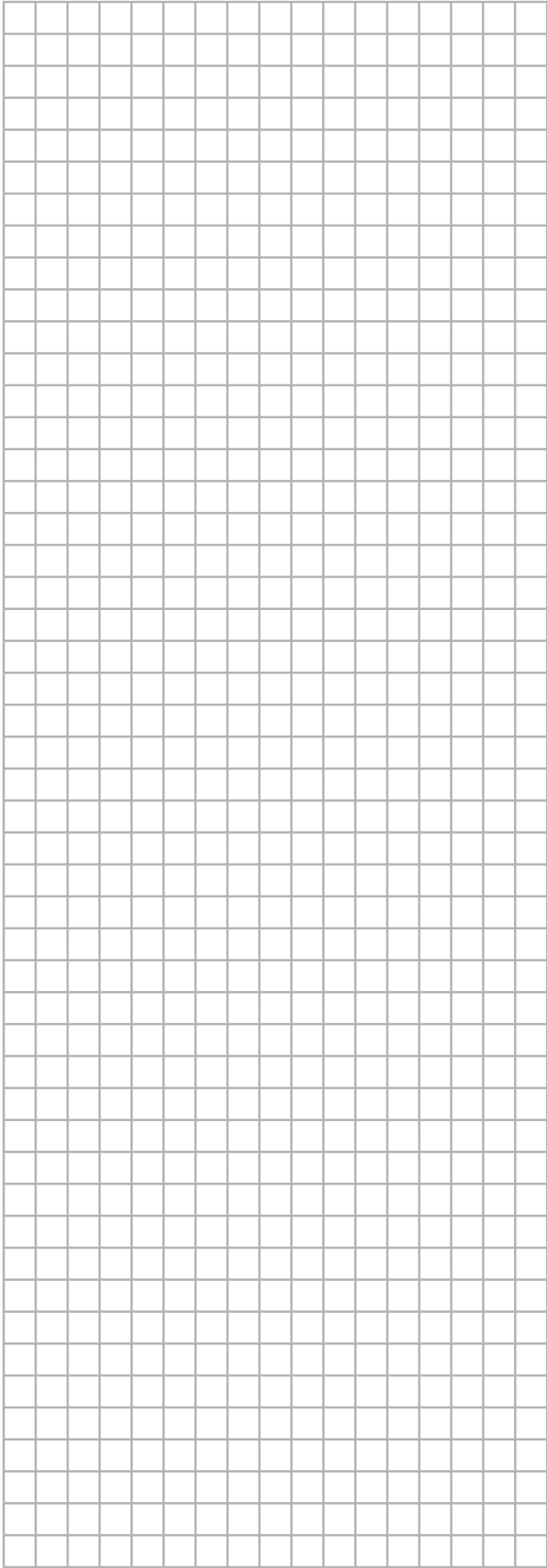
---

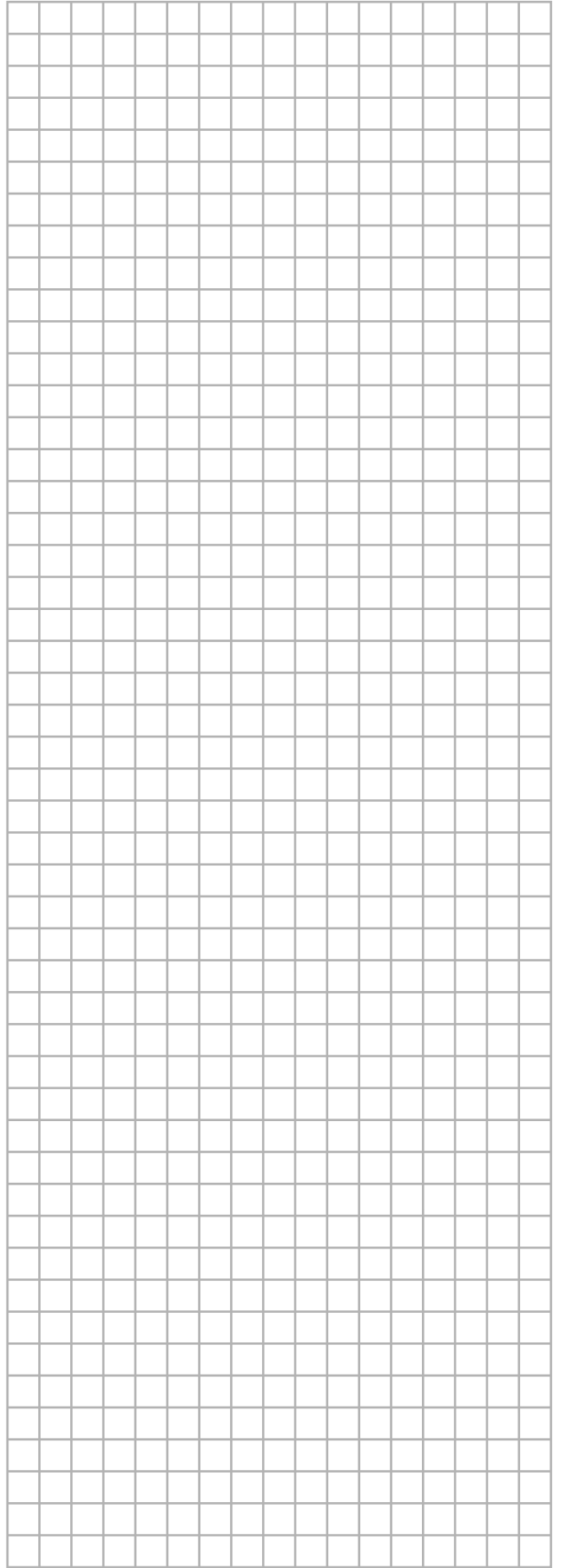
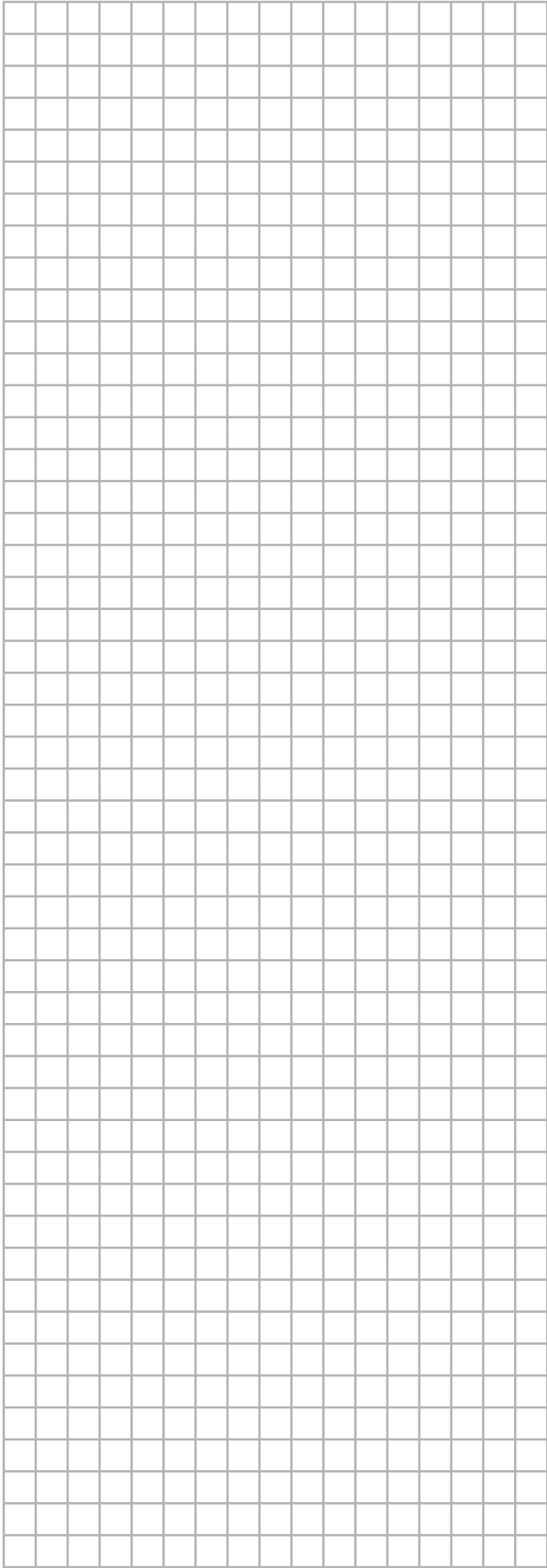
	Setting	Fill in...
[10.1 8]	<b>DHW 2/2</b>	
	Tank setpoint [4.5]	
	Hysteresis [4.12]	

### 11.2 Settings menu

	Setting	Fill in...
	Main zone	
	Ext thermostat type [1.13]	
	Additional zone (if applicable)	
	Ext thermostat type [2.13]	
	Information	
	Dealer information [6.2]	









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4P773380-1B 2025.08