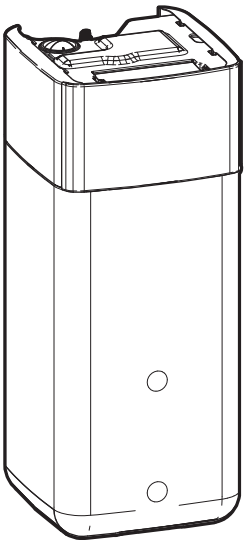
Operation manual

Daikin Altherma 4 H ECH$_2$O



EPSX10P30A▲▼
EPSX10P50A▲▼
EPSXB10P30A▲▼
EPSXB10P50A▲▼
EPSX14P30A▲▼
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EPSXB14P30A▲▼
EPSXB14P50A▲▼

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

Operation manual
Daikin Altherma 4 H ECH$_2$O

English

Table of contents

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.
- Request the installer to inform you about the settings that he used to configure your system. Check if he has filled in the installer settings tables. If NOT, request him 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

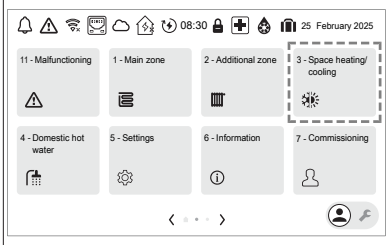
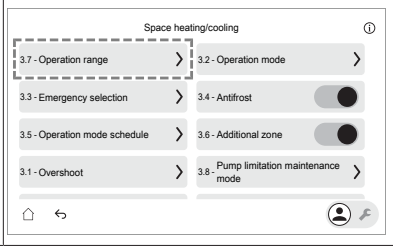
Breadcrumbs (example: **[3.1]**) help you to locate where you are in the menu structure of the user interface.

1	To **enable** the breadcrumbs: swipe left from the home screen, then tap `Settings`. Under `Settings` > `Breadcrumbs` you can switch breadcrumbs ON: 
2	To **disable** the breadcrumbs: navigate to the location as described above, and switch breadcrumbs OFF: 

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

1	Go to **[3.1]**: `Space heating/cooling` > `Operation range`.

This means:

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

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.

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

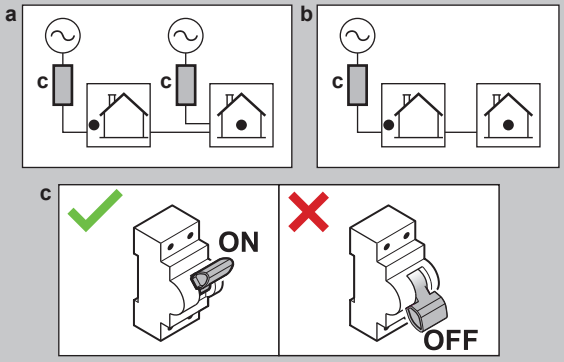
The appliance shall be stored in a room without ignition sources (neither permanent ignition sources nor ignition sources for a short period of time) (example: open flames, an operating gas appliance or an operating electric heater).

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

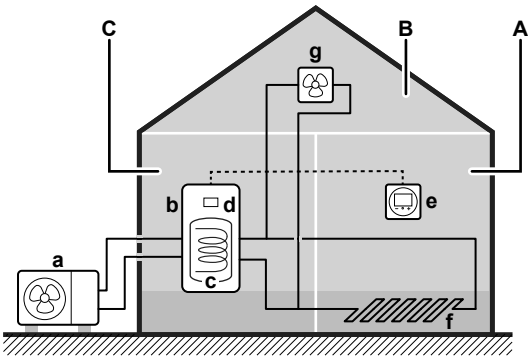
Depending on the system layout, the system can:

- Heat up a space
- Cool down a space
- Produce domestic hot water (if a DHW tank is installed)

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** 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

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 Advanced user permission

The amount of information you can read and edit in the menu structure depends on your user permission level:

- `User`: Standard mode
- `Advanced user`: You can read and edit more information

4.2 Space heating/cooling

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:

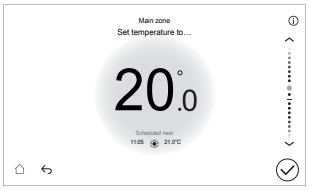
1	In the home screen, tap the ⏻ icon in the `Space heating/cooling` bar. **Result:** When OFF, the `Space heating/cooling` screen area is greyed out.

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

1	Go to: ▪ [1.17] `Main zone` > `Enable zone`. ▪ [2.15] `Additional zone` > `Enable zone`.
2	Switch the zone OFF:  **Result:** When OFF, the zone screen area is greyed out.

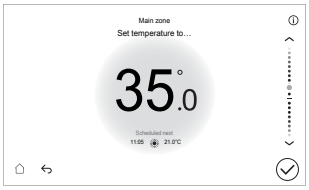
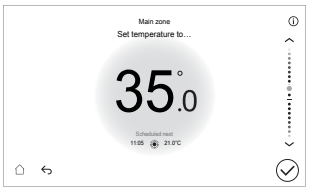
To change the desired room temperature

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`. OR from the home screen: tap on the heat emitter icon of the zone you want to change.
2	Adjust the desired room temperature: 

To change the desired leaving water temperature

In case no weather-dependent curve is used, you can adjust the desired leaving water temperature as follows:

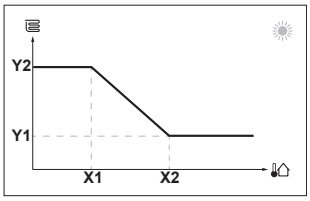
For the `Main zone` without `Room thermostat` / For the `Additional zone`	
1	Go to: ▪ [1.1]: `Main zone` > `Leaving water temp`. ▪ [2.1] (or [2.30]): `Additional zone` > `Leaving water temp`. OR from the home screen: tap on the heat emitter icon of the zone you want to change.
2	Adjust the desired leaving water temperature: 
For the main zone with `Room thermostat` (i.e. [1.12] = `Room thermostat`):	
1	Go to [1.39] `Leaving water temp`
2	Adjust the desired leaving water temperature: 

To change the weather-dependent curve for the space heating/cooling zones

1 Go to the applicable zone:

Zone	Go to …
Main zone – Heating	[1.8] `Main zone` > `Heating WD curve`
Main zone – Cooling	[1.9] `Main zone` > `Cooling WD curve`
Additional zone – Heating	[2.8] `Additional zone` > `Heating WD curve`
Additional zone – Cooling	[2.9] `Additional zone` > `Cooling WD curve`

2 Change the weather-dependent curve.



X1, X2 Outdoor ambient temperature
Y1, Y2 Desired leaving water temperature

More information

For more information, see also:

- "5.4 Turning operation ON or OFF" [▶ 10]
- "5.6 Space heating/cooling control" [▶ 10]
- "5.8 Schedule screen: Example" [▶ 12]
- "5.9 Weather-dependent curve" [▶ 14]
- User reference guide

4.3 Domestic hot water

Tank heating operation

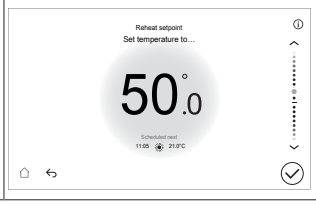
NOTICE

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

1	In the home screen, tap the ⏻ icon in the `Domestic hot water` bar. **Result:** When OFF, the `Domestic hot water` screen area is greyed out.

To change the tank temperature setpoint

In `Reheat only` and `Schedule + reheat` mode, you can use the tank temperature setpoint screen to adjust the domestic hot water temperature.

1	Go to [4.5]: `Tank` > `Reheat setpoint`.
2	Adjust the domestic hot water temperature: 

Note: In `Schedule only` mode, you can modify the settings for: [4.3] `Manual setpoint` and [4.4] `Powerful operation setpoint`.

More information

For more information, see also:

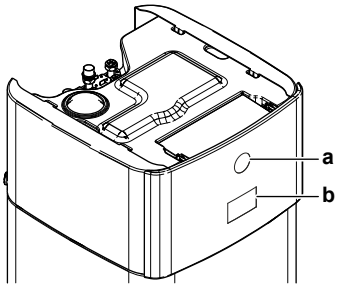
- "5.4 Turning operation ON or OFF" [▶ 10]
- "5.7 Domestic hot water control" [▶ 11]
- "5.8 Schedule screen: Example" [▶ 12]
- User reference guide

5 Operation

5.1 User interface: Overview

The user interface has the following components:

a Status indicator
b Touch screen display



a Status indicator
b Touch screen display

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" [▶ 16] for more information.

Touchscreen display

The backlight of the touchscreen dims after two minutes of non-interaction with the user interface, and turns off when three 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.
	Double tap	Quickly tapping the touch screen twice on a specific item or area.
	Press and hold	Touching the screen on a specific item or area and staying in place for a short period of time.
	Swipe left/right	One or more fingers touch the screen and move a short distance in left or right direction.
	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.

5.2 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 temporary stopped. Operations will restart when you return to the home screen.

[1] Main zone

[1.1] Room setpoint / Leaving water temp

[1.2] Heating schedule

[1.3] Heating schedule (enable/disable)

[1.4] Cooling schedule

[1.5] Heating setpoint mode

[1.6] Setpoint range

[1.7] Cooling setpoint mode

[1.8] Heating WD curve

[1.9] Cooling WD curve

[1.12] Control

[1.17] Enable zone

[1.21] Zone name

[1.23] Cooling schedule (enable/disable)

[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

[1.30] Cooling comfort setpoint

[1.31] Daikin room thermostat

[1.32] Space heating enable

[1.33] External thermostat offset

[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] Room sensor offset

[2] Additional zone

[2.1] Leaving water temp

[2.2] Heating schedule

[2.3] Heating schedule (enable/disable)

[2.4] Cooling schedule

[2.5] Heating setpoint mode

[2.6] Setpoint range

[2.7] Cooling setpoint mode

[2.8] Heating WD curve

[2.9] Cooling WD curve

[2.12] Control

[2.15] Enable zone

[2.18] Set 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

[2.24] Heating comfort setpoint

[2.25] Cooling comfort setpoint

[2.26] Space heating enable

[2.27] Cooling schedule (enable/disable)

[2.28] Heating target baseline

[2.29] Cooling target baseline

[2.31] Leaving water shift heating mode

[2.32] Leaving water shift cooling mode

[3] Space heating/cooling

[3.1] Operation range

[3.2] Operation mode

[3.6] Additional zone (present/not present)

[4] Domestic hot water

[4.1] Powerful operation

[4.2] Manual tank heat-up

[4.3] Manual setpoint

[4.4] Powerful operation setpoint

[4.5] Reheat setpoint

[4.6] Schedule

[4.7] Heat up mode

[4.8] Heat-up efficiency

[4.10] Disinfection

[4.11] Operation range

[4.16] Add. source DHW always on request

[4.17] Add. source take over during SH/C

[4.21] Comfort setpoint

[4.22] Eco setpoint

[4.24] Enable reheat schedule

[4.25] Reheat schedule

[5] Settings

[5.3] Time/date

[5.4] Breadcrumbs (on/off)

[5.12] Keyboard lay-ouy

[5.13] Advanced settings

[5.14] Bivalent

[5.15] Reset to factory default

[5.17] Display brightness

[5.26] Display inactivity timer

[5.27] Holiday

[5.28] Balancing

[5.30] Smart meter limit

[5.31] Room thermostat present

[5.32] Tank Boiler

[6] Information

[6.1] Energy data

[6.2] Dealer information

[6.3] Sensors

[6.4] Actuators

[6.5] Operation modes

[6.6] About

[8] Connectivity

[8.1] TCP/IP configuration

[8.2] Connection status

[8.3] Wireless gateway

[8.4] Connection details

[9] Energy

[9.1] Electricity price

[9.2] Electricity price (baseline)

[9.3] Electricity price schedule (enable/disable)

[9.4] Electricity price schedule (overview)

[9.5] Gas price

[9.6] Electricity input

[9.7] Produced heat

[9.8] Reset energy data

[9.9] Legal disclaimer

[11] Malfunctioning

[12] Touch

[12.1] Touch pointer

[12.4] Clean the screen

5.3 Possible screens: Overview

INFORMATION

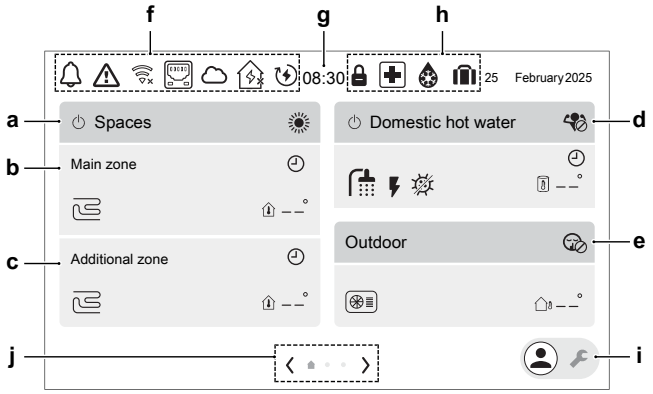
Some functions are visualised on the user interface, but are not available for your system.

The most common screens are as follows:

- Home screen
- Main screen (two screens)
- Setpoint screen

5.3.1 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.



Item			Description
a	Spaces		
	a1		Climate control ON / OFF
	a2	Operation mode:	
			Heating
			Cooling
			Automatic

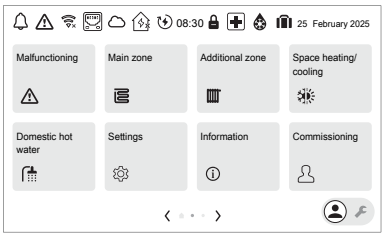
Item			Description
b	Main zone This zone can be renamed in Zone name [1.21])		
	b1	Heat emitter type:	
			Underfloor heating
			Fancoil unit
			Radiator
	b2		Measured temperature (Main zone)
c	Additional zone This zone can be renamed in Zone name [2.21])		
	c1	Heat emitter type:	
			Underfloor heating
			Fancoil unit
			Radiator
	c2		Measured temperature (Additional zone)
d	Domestic hot water		
	d1		Climate control ON / OFF
	d2	Powerful operation mode. Shortcut to setting [2.4].	
			Powerful operation mode ON
			Powerful operation mode OFF
	d3		Domestic hot water icon
	d4		Booster heater ON
	d5	DHW operation mode:	
			Disinfection mode active
			Powerful operation mode ON
			Reheat mode active
			Schedule and reheat mode active
			Scheduled reheat mode active
	d6		Measured tank temperature
e	Outdoor		
	e1		Outdoor unit
	e2	Quiet operation:	
			Off
			Manual
			Scheduled
	e3	Quiet operation level:	
			Quiet
			More quiet
			Most quiet
	e4		Measured outdoor temperature

Item			Description
f	Status icons		
	f1		An error occurred.
	f2		A malfunction occurred.
	f3	WiFi	
			WiFi connected
			WiFi disconnected
	f4		LAN connected
	f5	Daikin ONECTA	
			Connected
			Not connected
	f6	Daikin HomeHub	
			Connected
			Not connected
			Warning
	f7		Smart energy enabled
	f8	DEMO	Demo mode is active
g	Clock		
h	Special functions		
	h1		Holiday
	h2		Antifrost
	h3		Emergency
	h4		Outdoor unit is in locked state. **Note:** Unlocking can only be performed by a trained installer.
i	Installer switch. To switch between user and installer mode.		
			User mode
			Installer mode
j	Navigation / pagination		

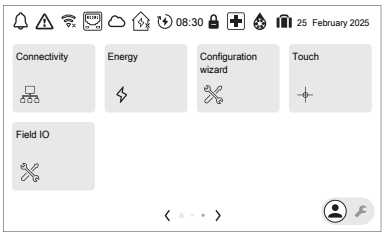
5.3.2 Main menu screen

Starting from the home screen, swipe left to view the first main menu screen. Swipe left 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:



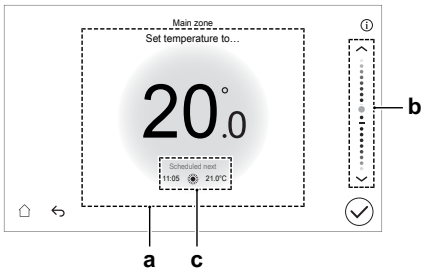
Main menu screen 2:



Submenu		Description
[11]	Malfunctioning	**Restriction:** Only displayed if a malfunction occurs. See "8.1 To display the help text in case of a malfunction" [▶ 16] 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	**Restriction:** 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]	Commissioning	**Restriction:** Only for the installer. Perform tests and maintenance.
[8]	Connectivity	**Restriction:** Only for the installer. Gives access to advanced settings.
[9]	Energy	Shows the electricity consumption.
[10]	Configuration wizard	**Restriction:** Only for the installer. For setting the most important initial settings.
[12]	Touch	Touchscreen options and testing.
[13]	Field IO	**Restriction:** Only for the installer. Terminal pin mapping for certain functions.

5.3.3 Setpoint screen

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



Item	Description
a	Desired temperature. Tap in the upper or lower area to increase/decrease the temperature. **Note:** As an alternative you can use the slider area (**b**).
b	Slider. Swipe up/down or tap the up/down arrows in this area to increase/decrease the temperature.

Item	Description
c	Scheduled next (if scheduling is enabled).

5.4 Turning operation ON or OFF

5.4.1 To turn 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	In the home screen, tap the ⏻ icon in the `Space heating/cooling` bar. **Result:** When OFF, the `Space heating/cooling` screen area is greyed out.

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

1	Go to: ▪ [1.17] `Main zone` > `Enable zone`. ▪ [2.15] `Additional zone` > `Enable zone`.
2	Switch the zone OFF: Enable zone **Result:** 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.

1	In the home screen, tap the ⏻ icon in the `Domestic hot water` bar. **Result:** When OFF, the `Domestic hot water` screen area is greyed out.

5.5 Reading out information

To read out information

1	Go to [6]: `Information`.

Possible read-out information

In menu…	You can read out…
[6.1] `Energy data`	Produced energy and consumed electricity.
[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 **Example:** Domestic hot water pump ON/OFF
[6.5] `Operation modes`	Current operation mode **Example:** Defrost/oil return mode
[6.6] `About`	Contains: ▪ Version information about the system ▪ Serial numbers ▪ Model name ▪ Build info

5.6 Space heating/cooling control

5.6.1 Setting the space 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.

To tell the system which space operation to use, you can:

You can…	Location
Check which space operation mode is currently used.	Home screen
Set the space operation mode permanently.	Main menu
Restrict automatic changeover according to a monthly schedule.	

To set the space operation mode

1	Go to [3.2]: `Space heating/cooling` > `Operation mode`
2	Select one of the following options: ▪ `Heating`: Only heating mode ▪ `Cooling`: Only cooling mode ▪ `Automatic`: The operation mode changes automatically between heating and cooling based on the outdoor temperature. Restricted per month according to the `Operation mode schedule` [3.5].

Remark: The operation mode (heating or cooling) will be decided by the external room thermostat in case:

- there is only one zone (main zone),
- and the main zone is controlled by an external room thermostat,
- and the external room thermostat has individual heating/cooling signals (dual contacts).

To restrict automatic changeover according to a schedule

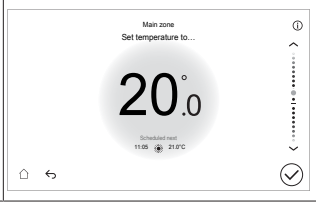
Conditions: You set the space operation mode to `Automatic`.

1	Go to [3.5]: `Space heating/cooling` > `Operation mode schedule`.
2	Select a month.
3	For each month, select an option: ▪ `Automatic`: Not restricted ▪ `Heating`: Restricted ▪ `Cooling`: Restricted
4	Confirm the changes.

5.6.2 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`. OR from the home screen: tap on the heat emitter icon of the zone you want to change.

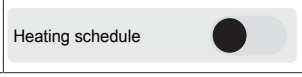
2	Adjust the desired room temperature: 

If scheduling is on after changing the desired room temperature

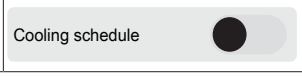
- The temperature will stay the same as long as there is no scheduled action.
- The desired room temperature will return to its scheduled value whenever a scheduled action occurs.

You can avoid scheduled behaviour by (temporarily) turning off scheduling.

To turn off room temperature scheduling (for heating)

1	Go to [1.2]: `Main zone` > `Heating schedule`.
2	Switch scheduling OFF: 

To turn off room temperature scheduling (for cooling)

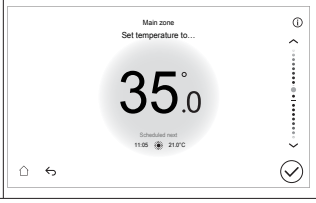
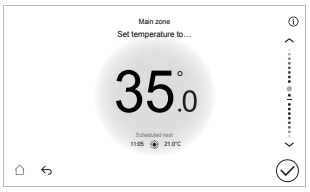
1	Go to [1.23]: `Main zone` > `Cooling schedule`.
2	Switch scheduling OFF: 

5.6.3 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.

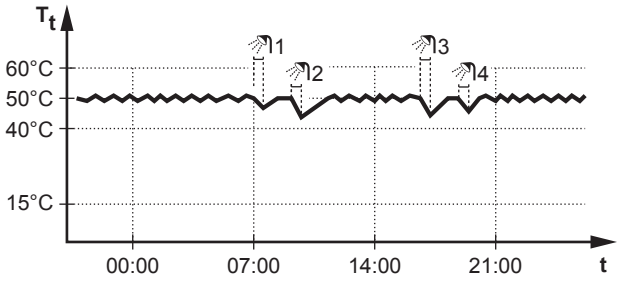
In case no weather-dependent curve is used, you can adjust the desired leaving water temperature as follows:

For the `Main zone` without `Room thermostat` / For the `Additional zone`	
1	Go to: ▪ [1.1]: `Main zone` > `Leaving water temp`. ▪ [2.1] (or [2.30]): `Additional zone` > `Leaving water temp`. OR from the home screen: tap on the heat emitter icon of the zone you want to change.
2	Adjust the desired leaving water temperature: 
For the main zone with `Room thermostat` (i.e. [1.12] = `Room thermostat`):	
1	Go to [1.39] `Leaving water temp`
2	Adjust the desired leaving water temperature: 

5.7 Domestic hot water control

5.7.1 Reheat mode

In reheat mode, the DHW tank continuously heats up to the temperature shown on the home screen (example: 50°C) when the temperature drops below a certain value (reheat setpoint [4.5] – hysteresis [4.12]).



T_t DHW tank temperature
t Time

INFORMATION

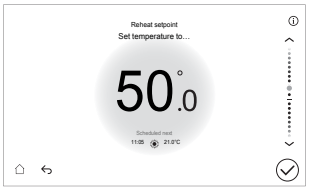
Risk of space heating capacity shortage for domestic hot water tank without internal booster heater: In case of frequent domestic hot water operation, frequent and long space heating/cooling interruption will happen when selecting `Operation mode` = `Reheat` (only reheat operation allowed for the tank).

To set the DHW Reheat mode

1	Go to [4.7] `Domestic hot water` > `Heat up mode`.
2	Set `Heat up mode` to `Reheat`.

To change the tank temperature setpoint

In `Reheat only` and `Schedule + reheat` mode, you can use the tank temperature setpoint screen to adjust the domestic hot water temperature.

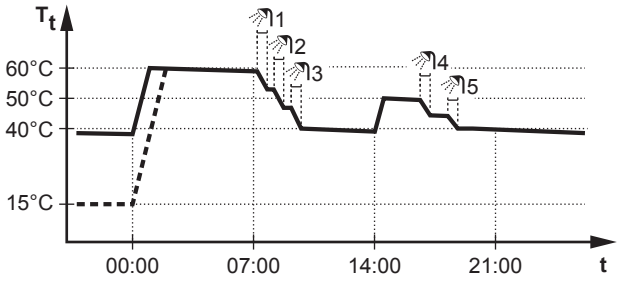
1	Go to [4.5]: `Tank` > `Reheat setpoint`.
2	Adjust the domestic hot water temperature: 

Note: In `Schedule only` mode, you can modify the settings for: [4.3] `Manual setpoint` and [4.4] `Powerful operation setpoint`.

5.7.2 Scheduled mode

In scheduled mode, the DHW tank produces hot water corresponding to a schedule.

Example:



T_t DHW tank temperature
t Time

- Initially, the DHW tank temperature is the same as the temperature of the domestic water entering the DHW tank (example: **15°C**).
- At 00:00 the DHW tank is programmed to heat up the water to a preset value (example: `Comfort` = **60°C**).
- During the morning, you consume hot water and the DHW tank temperature decreases.
- At 14:00 the DHW tank is programmed to heat up the water to a preset value (example: `Eco` = **50°C**). Hot water is available again.
- During the afternoon and evening, you consume hot water again and the DHW tank temperature decreases again.
- At 00:00 the next day, the cycle repeats.

To set the DHW Scheduled mode

1	Go to [4.7] `Domestic hot water` > `Heat up mode`.
2	Set `Heat up mode` to `Scheduled`.

Related settings:

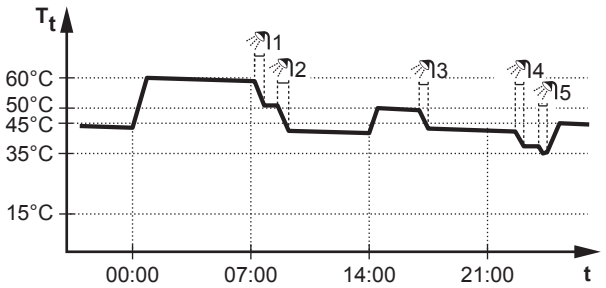
[4.24] `Enable reheat schedule`

[4.25] `Reheat schedule`

5.7.3 Scheduled + reheat mode

In scheduled + reheat mode, the domestic hot water control is the same as in scheduled mode. However, when the DHW tank temperature drops below a preset value (=reheat setpoint [4.5] – hysteresis [4.12] ; example: 35°C), the DHW tank heats up until it reaches the reheat setpoint (example: 45°C). This ensures that a minimum amount of hot water is available at all times.

Example:



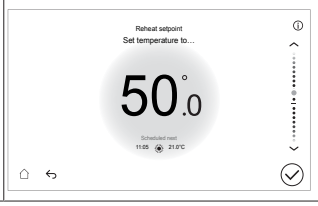
T_t Domestic hot water tank temperature
t Time

To set the Scheduled reheat mode

1	Go to [4.7] `Domestic hot water` > `Heat up mode`.
2	Set `Heat up mode` to `Scheduled reheat`.

To change the tank temperature setpoint

In `Reheat only` and `Schedule + reheat` mode, you can use the tank temperature setpoint screen to adjust the domestic hot water temperature.

1	Go to [4.5]: `Tank` > `Reheat setpoint`.
2	Adjust the domestic hot water temperature: 

Note: In `Schedule only` mode, you can modify the settings for: [4.3] `Manual setpoint` and [4.4] `Powerful operation setpoint`.

5.7.4 Using DHW powerful operation

About powerful operation

`Powerful operation` allows the domestic hot water to be heated by the backup heater or tank boiler (in case of a bivalent unit). Use this mode on days when there is more hot water usage than usual.

To check if powerful operation is active

If is displayed on the home screen, powerful operation is active.

Activate or deactivate `Powerful operation` as follows:

1	Go to [4.1]: `Domestic hot water` > `Powerful operation`.
2	Turn powerful operation `Off` or `On`.

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.

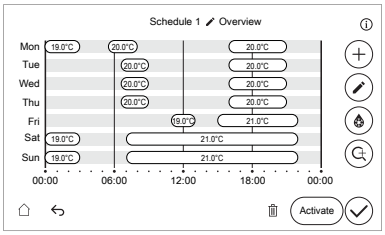
5.8 Schedule screen: Example

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.

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 `Monday`.

4 Copy the schedule to the other weekdays.

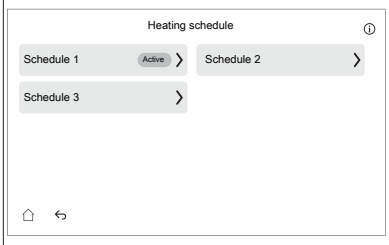
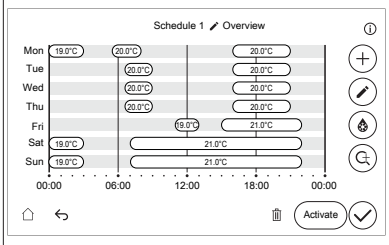
5 Program the schedule for `Saturday` and copy it to `Sunday`.

6 Give the schedule a name.

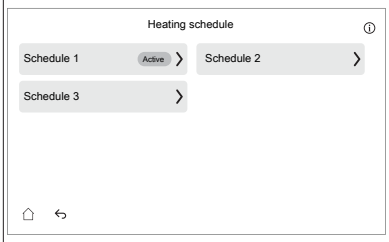
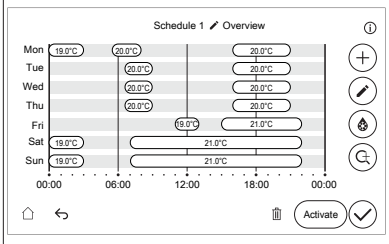
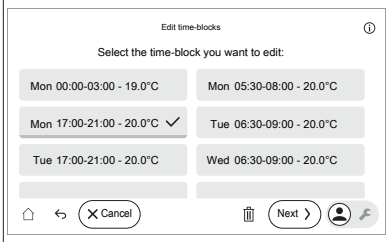
To go to the schedule

1	Go to [1.2]: `Main zone` > `Heating schedule`.
2	Switch scheduling ON: 
3	Go to [1.3]: `Main zone` > `Heating schedule`.

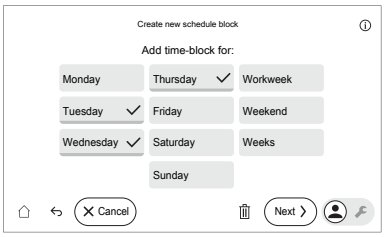
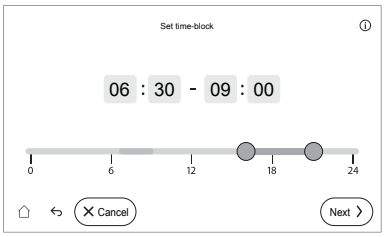
To clear the content of the week schedule

1	Go to the schedule you want to clear: 
2	Tap the 🗑 button to delete the schedule: 
3	Confirm with the ✓ button.

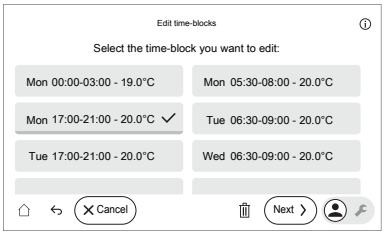
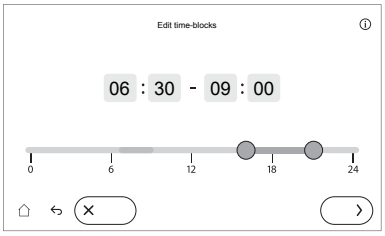
To clear the content of a time block in a schedule

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.

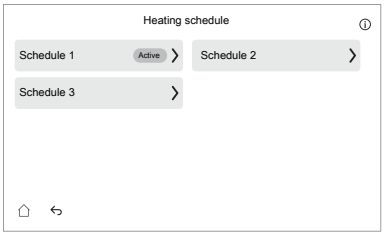
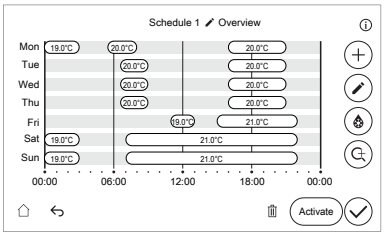
To add time blocks

1	Tap the + button to add a time block.
2	Select one or more days for the time block to apply to: 
3	Tap the `Next` button.
4	Set the first schedule starting and ending time for the time block:  ▪ 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. (explain meaning of blue and red color?).
5	Tap the `Next` button.
6	Set the desired temperature (for a DHW schedule you can choose between the setpoints `Eco` and `Comfort`).
7	Confirm with the ✓ button.
8	Add more time blocks if needed.

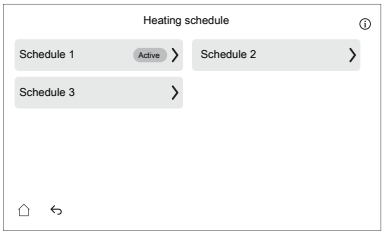
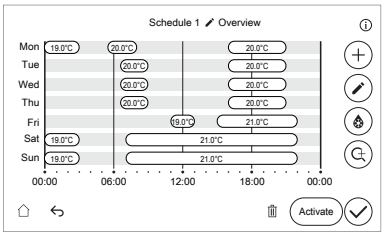
To edit a time block

1	Tap the ✎ button to edit a time block.
2	Select the time block you want to edit: 
3	Tap the `Next` button.
4	Set the first schedule starting and ending time for the time block:  ▪ 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. (explain meaning of blue and red color?).
5	Tap the `Next` button.
6	Set the desired temperature (for a DHW schedule you can choose between the setpoints `Eco` and `Comfort`).
7	Confirm with the ✓ button.

To rename a schedule

1	Go to the schedule you want to rename: 
2	Tap the ✎ icon next to the schedule name to rename the schedule: 
3	Rename the schedule using the on-screen keyboard.
4	Confirm with the ✓ button.

To activate a schedule

1	Select the schedule: 
2	Tap the `Activate` button:  **Note:** : In the schedule overview, the active schedule will be marked with 'Active'.
4	Confirm with the ✓ button.

5.9 Weather-dependent curve

5.9.1 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

5.9.2 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`

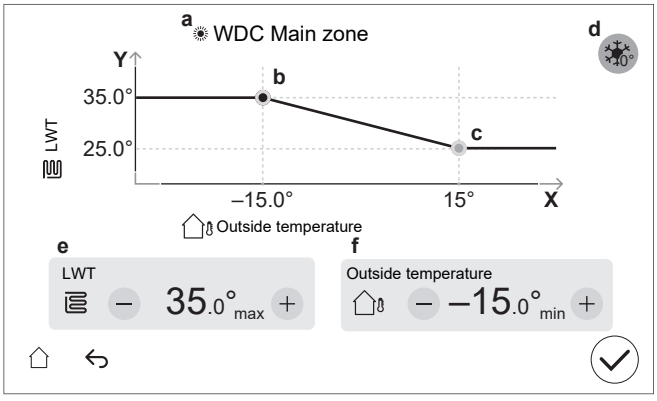
INFORMATION

Maximum and minimum setpoints

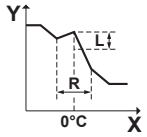
You cannot configure the curve with temperatures that are higher or lower than the set maximum and minimum setpoints for that zone. When the maximum or minimum setpoint is reached, the curve flattens out.

To define a weather-dependent curve

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



Item	Description
a	Selected weather-dependent curve: ▪ [1.8] Main zone – Heating (☀) ▪ [1.9] Main zone – Cooling (❄) ▪ [2.8] Additional zone – Heating (☀) ▪ [2.9] Additional zone – Cooling (❄)

Item	Description
b, c	Setpoint 1 and setpoint 2. You can change them: ▪ By dragging the setpoint. ▪ By tapping the setpoint, and then using the – / + buttons in **e, f**.
d	`Increase around 0°C` (same as setting [1.26] for main zone, and [2.20] for additional zone). Use this setting to compensate for possible heat losses of the building due to the evaporation of melted ice or snow. (e.g. in cold region countries). In heating operation, the desired leaving water temperature is locally increased around an outdoor temperature of 0°C.  **L**: Increase; **R**: Span; **X**: Outdoor temperature; **Y**: Leaving water temperature Possible values: ▪ `No` ▪ `increase 2°C, span 4°C` ▪ `increase 2°C, span 8°C` ▪ `increase 4°C, span 4°C` ▪ `increase 4°C, span 8°C`
e, f	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: ▪ : Underfloor heating ▪ : Fan coil unit ▪ : Radiator

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	↓	↓	↓	↓

6 Energy saving tips

Tips about room temperature

- Make sure the desired room temperature is NEVER too high (in heating mode) or too low (in cooling mode), but ALWAYS 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 preset value (`Comfort` = higher DHW tank temperature) 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 preset value (`Eco` = lower DHW tank temperature) during the day.
- Make sure the desired DHW tank temperature is NOT too high. **Example:** After installation, lower the DHW 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 [6.3]: `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.

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

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 [6.3]: `Information` > `Dealer information`.

8.1 To display the help text in case of a malfunction

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

- 🔔: Error
- ⚠: Malfunction

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

1	Go to [11] `Malfunctioning`. **Result:** A short description of the error and the error code is displayed on the screen.
2	Tap on the error message in the error screen. **Result:** A long description of the error is displayed on the screen.

8.2 To check the malfunction history

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 "5.6.2 To change the desired room temperature" [▶ 10]. If the problem recurs daily, do one of the following: ▪ Increase (decrease) the room temperature preset value. See the user reference guide. ▪ Adjust the room temperature schedule. See "5.8 Schedule screen: Example" [▶ 12].
The desired room temperature cannot be reached.	Increase the desired leaving water temperature in accordance with the heat emitter type. See "5.6.3 To change the desired leaving water temperature" [▶ 11].
The weather-dependent curve is set incorrectly.	Adjust the weather-dependent curve. See "5.9 Weather-dependent curve" [▶ 14].

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: ▪ [4.1] `Powerful operation`. However, this consumes extra energy. See "5.7.4 Using DHW powerful operation" [▶ 12]. ▪ [4.3] `Manual tank heat-up`. If the problems recur daily, do one of the following: ▪ Increase the DHW tank temperature preset value. See the user reference guide. ▪ Adjust the DHW tank temperature schedule. **Example:** Program to additionally heat up the DHW tank to a preset value (`Eco setpoint` = lower tank temperature) during the day. See "5.8 Schedule screen: Example" [▶ 12].
The desired DHW tank temperature is too low.	

8.5 Symptom: Heat pump failure

When the heat pump fails to operate, the backup heater or boiler can serve as an emergency heater. It then takes over the heat load either automatically or by manual interaction.

- When `Emergency` is set to `Automatic` and a heat pump failure occurs, the backup heater or boiler automatically takes over the domestic hot water production and space heating.
- When `Emergency` is set to `Manual` and a heat pump failure occurs, the domestic hot water heating and space heating stops.

  To manually recover it via the user interface, go to the `Malfunctioning` main menu screen and confirm whether the backup heater can take over the heat load or not.
- Alternatively, when `Emergency` is set to:
  - `auto SH reduced/DHW on`, space heating is reduced but domestic hot water is still available.
  - `auto SH reduced/DHW off`, space heating is reduced and domestic hot water is NOT available.
  - `auto SH normal/DHW off`, space heating operates as normally but domestic hot water is NOT available.

  Similarly as in `Manual` mode, the unit can take the full load with the backup heater or boiler if the user activates this via the `Malfunctioning` main menu screen.

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" [▶ 16].

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.[a]

Possible cause	Corrective action
Incorrect hydraulic balance.	To be performed by the installer: 1 Perform hydraulic balancing to assure that the flow is correctly distributed between the emitters. 2 If hydraulic balancing is not sufficient, it is recommended to increase the Delta T heating ([1.14] / [2.14]) value.
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" [▶ 16] for more information about the malfunction.

[a] 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…
System	
Number of zones	
Bivalent [5.14]	
DHW Tank	
DHW Tank type	
Emergency selection [5.23]	
Backup heater	
Grid configuration	
Maximum capacity	
Fuse >10A	
Main zone	
Emitter type [1.11]	
Control [1.12]	
Heating setpoint mode [1.5]	
Cooling setpoint mode [1.7]	
Heating WD curve [1.8]	
Cooling WD curve [1.9]	
Additional zone (only if dual zone)	
Emitter type [2.11]	
Control [2.12]	
Heating setpoint mode [2.5]	
Cooling setpoint mode [2.7]	
Heating WD curve [2.8]	
Cooling WD curve [2.9]	
DHW (if applicable)	
Heat-up efficiency [4.8]	
Operation mode [4.7]	
Tank setpoint	
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]	
Domestic hot water	
Comfort setpoint [4.21]	
Eco setpoint [4.22]	
Information	
Dealer information [6.2]	

4P773380-1 0000000Q

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4P773380-1 2024.11