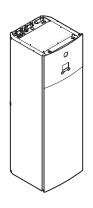


User reference guide

R32 Split Series - Domestic Hot Water Tank (1801/2301)



CKHWS180BJ ▲ V3 ▼ CKHWS230BJ ▲ V3 ▼ CKHWSU230BJ ▲ V3 ▼

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# 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 Q 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 Q 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/





#### **NOTICE**

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

#### **Breadcrumbs**

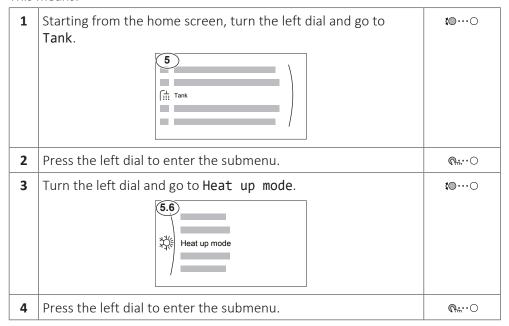
Breadcrumbs (example: **[5.6]**) help you to locate where you are in the menu structure of the user interface.

	To <b>enable</b> the breadcrumbs: In the home screen or main menu screen, press the help button. The breadcrumbs appear in the top left corner of the screen.	?
2	To <b>disable</b> the breadcrumbs: Press the help button again.	?

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

1	Go to [5.6]: Tank > Heat up mode.	<b>(</b> €○
---	-----------------------------------	-------------

#### This means:



# 1.1 Meaning of warnings and symbols



#### **DANGER**

Indicates a situation that results in death or serious injury.



#### **DANGER: RISK OF ELECTROCUTION**

Indicates a situation that could result in electrocution.



#### DANGER: RISK OF BURNING/SCALDING

Indicates a situation that could result in burning/scalding because of extreme hot or cold temperatures.



#### **DANGER: RISK OF EXPLOSION**

Indicates a situation that could result in explosion.



#### **WARNING**

Indicates a situation that could result in death or serious injury.



#### WARNING: FLAMMABLE MATERIAL



#### **CAUTION**

Indicates a situation that could result in minor or moderate injury.



#### **NOTICE**

Indicates a situation that could result in equipment or property damage.



#### **INFORMATION**

Indicates useful tips or additional information.

## Symbols used on the unit:

Symbol	Explanation
Ţ <u>i</u>	Before installation, read the installation and operation manual, and the wiring instruction sheet.
	Before performing maintenance and service tasks, read the service manual.
	For more information, see the installer and user reference guide.
	The unit contains rotating parts. Be careful when servicing or inspecting the unit.

## Symbols used in the documentation:

Symbol	Explanation	
	Indicates a figure title or a reference to it.	
	<b>Example:</b> " <b>I</b> 1–3 Figure title" means "Figure 3 in chapter 1".	
	Indicates a table title or a reference to it.	
	<b>Example:</b> "■ 1–3 Table title" means "Table 3 in chapter 1".	



# 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: MILDLY FLAMMABLE MATERIAL

The refrigerant inside this unit is mildly flammable.



#### WARNING

The appliance shall be stored so as to prevent mechanical a well-ventilated room without damage and in continuously operating ignition sources (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**

- The refrigerant inside the unit is mildly flammable, but normally does NOT leak. If the refrigerant leaks in the room and comes in contact with fire from a burner, a heater, or a cooker, this may result in fire, or the formation of a harmful gas.
- Turn OFF any combustible heating devices, ventilate the room, and contact the dealer where you purchased the unit.
- Do NOT use the unit until a service person confirms that the part from which the refrigerant leaked has been repaired.



#### **WARNING**

Air purging heating circuit for domestic hot water. Before you purge air, check if  $\triangle$  or  $\triangle$  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 heating circuit of the domestic hot water.

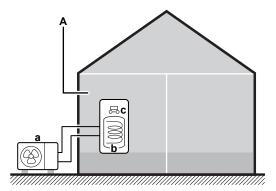


# 3 About the system

Depending on the system layout, the system can:

Produce domestic hot water

# 3.1 Components in a typical system layout



- Outdoor unit heat pump
- Domestic hot water (DHW) tank
- **c** User interface of the indoor unit
- A Technical room. Example: Garage.



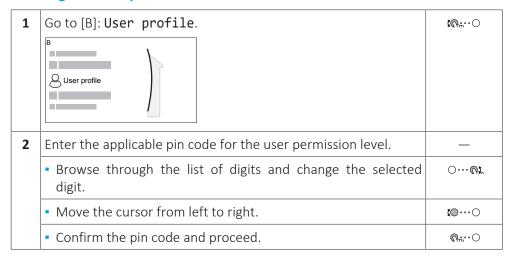
# 4 Quick guide

## 4.1 User permission level

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

## To change the user permission level



#### User pin code

The User pin code is 0000.



## Advanced user pin code

The **Advanced user** pin code is **1234**. Additional menu items for the user are now visible.





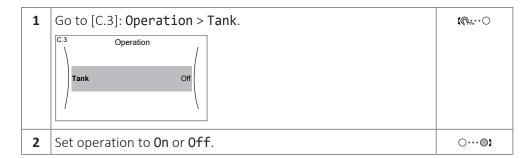
## 4.2 Domestic hot water

## To turn tank heating operation ON or OFF



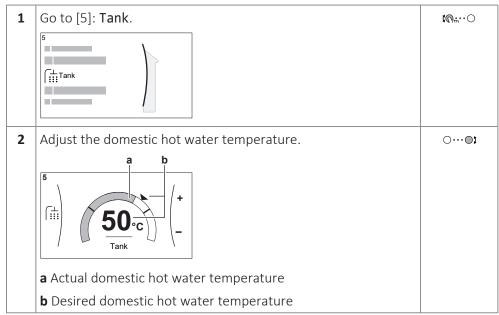
#### NOTICE

Disinfection mode. Even if you turn OFF tank heating operation ([C.3]: Operation > Tank), disinfection mode will remain active. However, if you turn it OFF while disinfection is running, an AH-00 error will occur.



#### To change the tank temperature setpoint

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



In other modes, you can only view the setpoint screen but not modify it. Instead, you can modify the settings for the Comfort setpoint [5.2], Eco setpoint [5.3] and Reheat setpoint [5.4].



#### **INFORMATION**

In situations when very low or no DHW consumption is anticipated, a tank temperature setpoint of ≤45°C can result in colder than expected DHW temperatures when using Reheat only mode. In such situations, it is recommended to switch to one of the following modes:

- Schedule only
- Schedule + reheat

#### **More information**

For more information, see also:



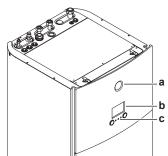
- "5.4 Turning operation ON or OFF" [ ≥ 20]
- "5.6 Domestic hot water control" [▶ 22]
- "5.7 Preset values and schedules" [▶ 26]



# 5 Operation

## 5.1 User interface: Overview

The user interface has the following components:



- Status indicator
- LCD screen
- Dials and buttons

#### **Status indicator**

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

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" [> 47] for more information.

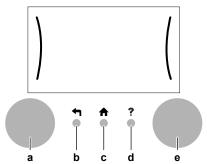
#### **LCD** screen

The LCD screen has a sleeping function. After 15 min of non-interaction with the user interface, the screen darkens. Pressing any button or rotating any dial awakens the display.

#### **Dials and buttons**

You use the dials and buttons:

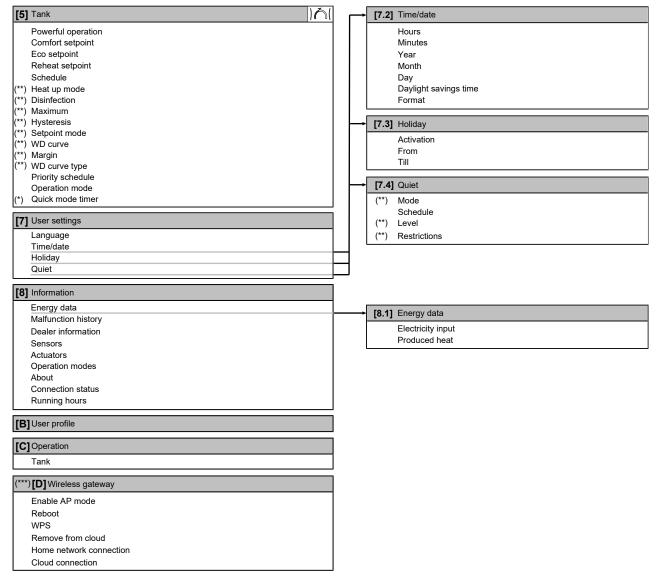
- To navigate through the screens, menus and settings of the LCD screen
- To set values





Item		Description
а	Left dial	The LCD shows an arc on the left side of the display when you can use the left dial.
		• ເດີ…○: Turn, then press the left dial. Navigate through the menu structure.
		• ∞···○: Turn the left dial. Choose a menu item.
		• • • Press the left dial. Confirm your choice or go to a submenu.
b	Back button	←: Press to go back 1 step in the menu structure.
С	Home button	♠: Press to go back to the home screen.
d	Help button	?: Press to show a help text related to the current page (if available).
е	Right dial	The LCD shows an arc on the right side of the display when you can use the right dial.
		• ○····ભ:: Turn, then press the right dial. Change a value or setting, shown at the right side of the screen.
		• O···•: Turn the right dial. Navigate through the possible values and settings.
		• O···· • Press the right dial. Confirm your choice and go to the next menu item.

## 5.2 Menu structure: Overview user settings



Setpoint screen

(\*) Only applicable when the tank Operation Mode is Quick

(\*\*) Only accessible by installer

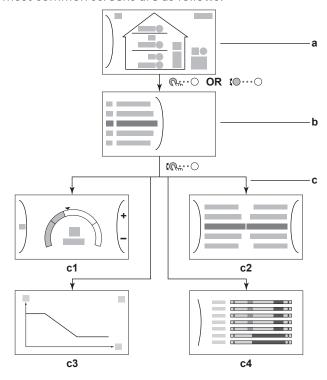
(\*\*\*) Only applicable when WLAN is installed



#### **INFORMATION**

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

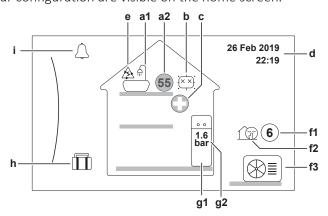
The most common screens are as follows:



- a Home screen
- **b** Main menu screen
- c Lower level screens:
  - c1: Setpoint screen
  - c2: Detailed screen with values
  - c3: Screen with weather-dependent curve
  - c4: Screen with schedule

## 5.3.1 Home screen

Press the  $\spadesuit$  button to go back to the home screen. You see an overview of the unit configuration and the room and setpoint temperatures. Only symbols applicable for your configuration are visible on the home screen.



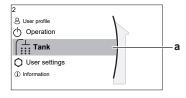
Possible actions on this screen	
<b>t</b> 00	Go through the list of the main menu.
<i>&amp;</i> "○	Go to the main menu screen.
?	Enable/disable breadcrumbs.

Item		m	Description
а	a Domestic hot water		
	a1	<u></u>	Domestic hot water
	a2	55	Measured tank temperature <sup>(a)</sup>
b	Disir	fection /	Powerful
		<u>:</u> xx:	Disinfection mode active
		<b>*</b>	Powerful operation mode active
С	Eme	rgency	
			Heat pump failure and system operates in <b>Emergency</b> mode.
d	Curr	ent date	and time
е	Sma	rt energy	,
		À	Smart energy is currently being used for domestic hot water.
f	f Outdoor / quiet mode		iet mode
	f1	6	Measured outdoor temperature <sup>(a)</sup>
	f2	10	Quiet mode active
	f3	<b>₩≡</b>	Outdoor unit
g	Indo	or unit /	domestic hot water tank
	g1	00	Domestic hot water tank
	g2	1.6 bar	Water pressure
h	h Holiday mode		
			Holiday mode active
i	i Malfunction		
		Δ	A malfunction occurred.
		$\triangle$	See "8.1 To display the help text in case of a malfunction" [> 47] for more information.

 $<sup>^{\</sup>mbox{\scriptsize (a)}}$  If the corresponding operation is not active, the circle is greyed out.

## 5.3.2 Main menu screen

Starting from the home screen, press (♠...○) or turn (♠...○) the left dial to open the main menu screen. From the main menu, you can access the different setpoint screens and submenus.



a Selected submenu



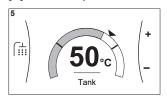
	Submenu	Description
[0]	△ or △ Malfunctioning	<b>Restriction:</b> Only displayed if a malfunction occurs.
		See "8.1 To display the help text in case of a malfunction" [> 47] for more information.
[5]	Tank	Set the domestic hot water tank temperature.
[7]	OUser settings	Gives access to user settings such as holiday mode and quiet mode.
[8]	① Information	Displays data and information about the indoor unit.
[9]	X Installer settings	<b>Restriction:</b> Only for the installer.
		Gives access to advanced settings.
[A]	<b>≜</b> Commissioning	<b>Restriction:</b> Only for the installer.
		Perform tests and maintenance.
[B]	⊗User profile	Change the active user profile.
[C]	Operation	Turn heating/cooling functionality and domestic hot water preparation on or off.
[D]	<b>☆</b> Wireless gateway	<b>Restriction:</b> Only displayed if a wireless LAN (WLAN) is installed.
		Contains settings needed when configuring the ONECTA app.

## 5.3.3 Setpoint screen

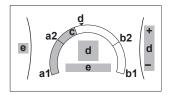
The setpoint screen is displayed for screens describing system components that need a setpoint value.

## **Example**

[5] Tank temperature screen



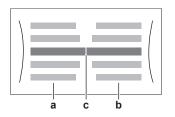
## **Explanation**



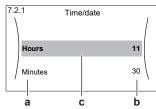
Possible actions on this screen	
<b>t</b> ○…○	Go through the list of the submenu.
$\mathscr{C}$	Go to the submenu.
O©1	Adjust and automatically apply the desired temperature.

Item	Description	
Minimum temperature limit	a1	Fixed by the unit
	a2	Restricted by the installer
Maximum temperature limit	b1	Fixed by the unit
	b2	Restricted by the installer
Current temperature	С	Measured by the unit
Desired temperature	d	Turn the right dial to increase/ decrease (for <b>Reheat only</b> mode).
Submenu	е	Turn or press the left dial to go to the submenu.

## 5.3.4 Detailed screen with values



## **Example:**



- **a** Settings
- Values
- c Selected setting and value

Possible actions on this screen		
<b>t</b> ○…○	Go through the list of settings.	
○…◎ℷ	Change the value.	
OQ.	Go to the next setting.	
<b>&amp;</b> ○	Confirm changes and proceed.	

# 5.4 Turning operation ON or OFF

#### 5.4.1 Visual indication

Certain functionalities of the unit can be enabled or disabled separately. If a functionality is disabled, the corresponding temperature icon in the home screen will be greyed out.





- a Tank operation ON
- **b** Tank operation OFF

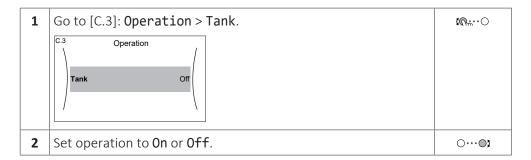
#### 5.4.2 To turn ON or OFF

## **Tank heating operation**



#### NOTICE

**Disinfection mode**. Even if you turn OFF tank heating operation ([C.3]: **Operation** > **Tank**), disinfection mode will remain active. However, if you turn it OFF while disinfection is running, an AH error occurs.



# 5.5 Reading out information

### To read out information

1 Go to [8]: Information.

#### Possible read-out information

In menu	You can read out
[8.1] Energy data	Produced energy and consumed electricity
[8.2] Malfunction history	Malfunction history
[8.3] Dealer information	Contact/helpdesk number
[8.4] Sensors	Room temperature, outside temperature, leaving water temperature,
[8.5] Actuators	Status/mode of each actuator
	Example: Unit pump ON/OFF
[8.6] Operation modes	Current operation mode
	<b>Example:</b> Defrost/oil return mode

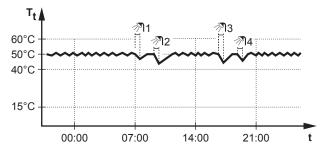


In menu	You can read out
[8.7] About	Version information about the system
[8.8] Connection status	Information about the connection status of the unit, the room thermostat and WLAN
[8.9] Running hours	Running hours of specific system components

## 5.6 Domestic hot water control

#### 5.6.1 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.



- T<sub>t</sub> DHW tank temperature
- t Time



#### **INFORMATION**

When the Priority Schedule is set to DHW (refer to "5.9 Priority schedule" [▶ 35]) and the DHW tank mode is reheat at the same time, the risk for comfort problem is significant. In case of frequent reheat operation, Air Conditioning heating/cooling function is regularly interrupted.



#### **INFORMATION**

The application of hysteresis (the amount of the temperature drop that will trigger the heat up) might vary depending on whether the target temperature is within operation range of the outdoor unit. Please consult with installer.



#### **INFORMATION**

In situations when very low or no DHW consumption is anticipated, Reheat only mode can result in colder than expected DHW temperatures. In such situations, it is recommended to switch to one of the following modes:

- Schedule only
- Schedule + reheat

#### 5.6.2 Scheduled mode

In scheduled mode, the DHW tank produces hot water corresponding to a schedule. The best time to allow the tank to produce hot water is at night, because the Air Conditioning heating demand is lower.

#### **Example:**



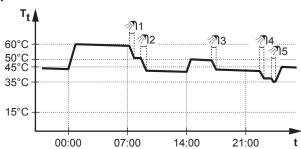
 $\mathbf{T_t}$  DHW tank temperature

- 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.

#### 5.6.3 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 tank temperature – hysteresis value; example: 35°C), the DHW tank heats up until it reaches the reheat set point (example: 45°C). This ensures that a minimum amount of hot water is available at all times.

#### **Example:**



- T, Domestic hot water tank temperature
- t Time



#### **INFORMATION**

The application of hysteresis (the amount of the temperature drop that will trigger the heat up) might vary depending on whether the target temperature is within operation range of the outdoor unit. Please consult with installer.

#### 5.6.4 Using DHW powerful operation

#### **About powerful operation**

**Powerful operation** allows the domestic hot water to be heated by the backup heater. Use this mode on days when there is more hot water usage than usual.

#### To check if powerful operation is active

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

Activate or deactivate Powerful operation as follows:

1	Go to [5.1]: Tank > Powerful operation	<b>:</b> ₩○
2	Turn powerful operation <b>Off</b> or <b>On</b> .	<b>:</b> 0::0

### 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 Comfort temperature.



#### **INFORMATION**

When powerful operation is activated, the heat pump and the backup heater will operate with maximum power. If powerful operation is activated too frequently for domestic hot water production, frequent and long Air Conditioning heating/cooling interruptions can happen.

#### 5.6.5 Disinfection

The disinfection function disinfects the domestic hot water tank by periodically heating the domestic hot water to a specific temperature.



#### **CAUTION**

The disinfection function settings MUST be configured by the installer according to the applicable legislation.

#	Code	Description
[5.7.1]	[2-01]	Activation:
		- 0: No
		• 1: Yes
[5.7.2]	[2-00]	Operation day:
		• 0: Every day
		• 1: Monday
		• 2: Tuesday
		• 3: Wednesday
		• 4: Thursday
		• 5: Friday
		• 6: Saturday
		• 7: Sunday
[5.7.3]	[2-02]	Start time
[5.7.4]	[2-03]	Tank setpoint
		60°C
[5.7.5]	[2-04]	Duration:
		40~60 minutes



**DHW** Domestic hot water temperature

 $T_{u}$  User setpoint temperature

**T<sub>H</sub>** High setpoint temperature [2-03]

t Time



#### **WARNING**

Be aware that the domestic hot water temperature at the hot water tap will be equal to the value selected in field setting [2-03] after a disinfection operation.

When the high domestic hot water temperature can be a potential risk for human injuries, a mixing valve (field supply) shall be installed at the hot water outlet connection of the domestic hot water tank. This mixing valve shall secure that the hot water temperature at the hot water tap never rise above a set maximum value. This maximum allowable hot water temperature shall be selected according to the applicable legislation.



#### **CAUTION**

Make sure that the disinfection function start time [5.7.3] with defined duration [5.7.5] is NOT interrupted by possible domestic hot water demand.



#### **NOTICE**

**Disinfection mode**. Even if you turn OFF tank heating operation ([C.3]: **Operation** > **Tank**), disinfection mode will remain active. However, if you turn it OFF while disinfection is running, an AH error occurs.



#### **INFORMATION**

In case of error code AH and no interruption of the disinfection function occurred due to domestic hot water tapping, following actions are recommended:

- When the Reheat only or Schedule + reheat mode is selected, it is recommended to program the start-up of the disinfection function at least 4 hours later than the last expected large hot water tapping. This start-up can be set by installer settings (disinfection function).
- When the Schedule only mode is selected, it is recommended to program an Eco action 3 hours before the scheduled start-up of the disinfection function to preheat the tank.



#### **INFORMATION**

Disinfection function is restarted in case the domestic hot water temperature drops 5°C below the disinfection target temperature within the duration time.

## 5.7 Preset values and schedules

## 5.7.1 Using preset values

#### **About preset values**

For some settings in the system, you can define preset values. You only need to set these values one time, then reuse the values in other screens such as the scheduling screen. If you later want to change the value, you only have to do it in one place.

## **Possible preset values**

You can set the following user-defined preset values:

Preset value		Where used
Tank target temperature,	[5.2] Comfort setpoint	You can use these preset values in [5.5] Schedule (weekly schedule screen for
Operation mode, Quick mode timer	[5.3] Eco setpoint	the DHW tank) if the DHW tank mode is one of the following:  • Schedule only  • Schedule + reheat
	[5.4] Reheat setpoint	The software uses this preset value if the DHW tank mode is  Schedule + reheat
	[5.G] Operation mode	You can select two type of DHW operation which concerns allowance of backup heater:  • Efficient  • Quick
	[5.H] Quick mode timer	This timer is only applicable if "Quick" is chosen as the Operation mode. Three preset timer can be selected: Turbo (10 minutes) Normal (20 minutes) Economic (30 minutes)

Additional to the user-defined preset values, the system also contains some system-defined preset values that you can use when programming schedules.

**Example:** In [7.4.2] User settings > Quiet > Schedule (weekly schedule for when the unit has to use which quiet mode level), you can use the following system-defined preset values: Quiet/More quiet/Most quiet.

## 5.7.2 Using and programming schedules

#### **About schedules**

Depending on your system layout and installer configuration, schedules for multiple controls may be available.

You can	See
Set if a specific control needs to act according	"Activation screen" in "Possible
to a schedule.	schedules" [▶ 27]



	You can	See	
1	Select which schedule you currently want to use for a specific control. The system contains some predefined schedules. You can:		
	Consult which schedule is currently selected.	"Schedule/Control" in "Possible schedules" [▶ 27]	
	Program your own schedules if the predefined schedules are not satisfactory. The actions you can program are control specific.	<ul> <li>"Possible actions" in "Possible schedules" [▶ 27]</li> <li>"5.7.3 Schedule screen: Example" [▶ 28]</li> </ul>	

#### **Possible schedules**

The table contains the following information:

- **Schedule/Control**: This column shows you where you can consult the currently selected schedule for the specific control. If needed, you can:
  - Program your own schedule. See "5.7.3 Schedule screen: Example" [▶ 28].
- **Predefined schedules**: (if applicable) The predefined schedule in the system for the specific control. If needed, you can program your own schedule.
- **Activation screen**: For most controls, a schedule is only effective if it activated in its corresponding activation screen. This entry shows you where to activate it.
- Possible actions: Actions you can use when programming a schedule.

Schedule/Control	Description
[5.5] Tank > Schedule	Predefined schedules: Not applicable
Schedule for the domestic hot water tank temperature for your normal domestic hot	<b>Activation screen</b> : Not applicable. This schedule is automatically activated if the DHW mode is one of the following:
water needs.	• Schedule only
	• Schedule + reheat
	Possible actions:
	• Comfort: When to start heating the tank to the user-defined preset value [5.2] Comfort setpoint.
	• Eco: When to start heating the tank to the user-defined preset value [5.3] Eco setpoint.
	• Stop: When to stop heating the tank, even if the desired tank temperature is not reached yet.
	<b>Note:</b> In <b>Schedule + reheat</b> mode, the system also takes the user-defined preset value [5.4] <b>Reheat setpoint</b> into account.

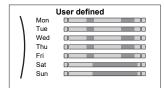
Schedule/Control	Description
[5.F] Tank > Priority schedule	<b>Predefined schedules:</b> Domestic hot water as priority for each month
Schedule for the outdoor unit to determine priority between domestic hot water tank operation and air conditioning	<b>Activation screen</b> : Not applicable. This schedule is only used when more than one indoor unit (e.g. 1 tank + 1 A/C unit) connected to outdoor unit.
	Possible actions:
	• DHW: If there are requests from multiple indoor units at the same time, the outdoor unit will prioritize domestic hot water production.
	<ul> <li>A/C: If there are request from multiple indoor units at the same time, outdoor unit will prioritize Air Conditioning (heating/cooling) operation.</li> </ul>
[7.4.2] User settings >	Predefined schedule: Not applicable
Quiet > Schedule Schedule for when the unit has to use which quiet mode level.	<b>Activation screen</b> : [7.4.1] <b>Mode</b> (only available to installers).
	<b>Possible actions</b> : You can use the following system-defined preset values:
	• Off
	- Quiet
	• More quiet
	• Most quiet
	See "About quiet mode" [▶ 38].

## 5.7.3 Schedule screen: Example

This example shows how to set a tank heat up schedule.

## To program the schedule: overview

**Example:** You want to program the following schedule:

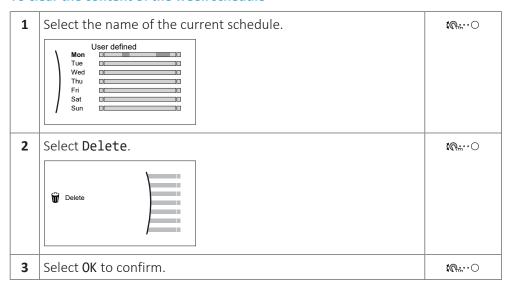


- **1** Go to the schedule.
- 2 (optional) Clear the content of the whole week schedule or the content of a selected day schedule.
- **3** Program the schedule for Monday.
- **4** Copy the schedule to the other weekdays.
- Program the schedule for **Saturday** and copy it to **Sunday**.

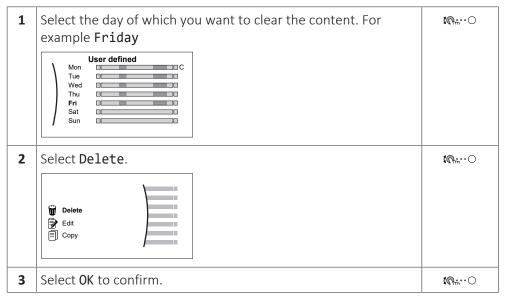
## To go to the schedule



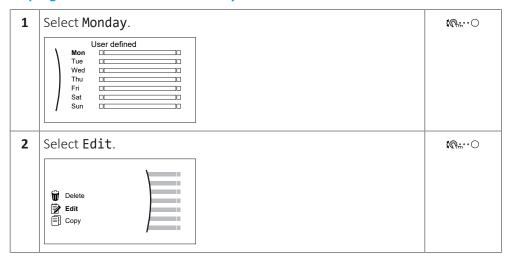
## To clear the content of the week schedule



## To clear the content of a day schedule

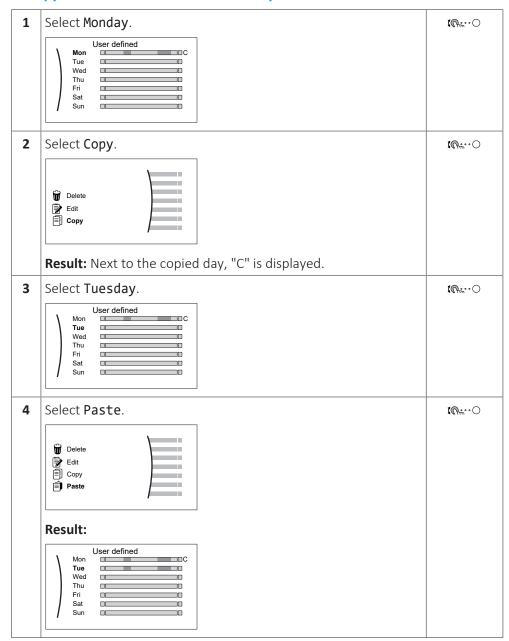


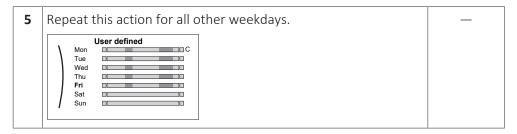
## To program the schedule for Monday



Use the left dial to select an entry and edit the entry with the  $\bigcirc \cdots \bigcirc$ right dial. You can program up to 4 actions each day.  $\bigcirc \cdots \bigcirc$ 6:00 Comfort **22:00** Eco 8:30 Eco 17:30 Comfort Note: To clear an action, set its time as the time of the previous action. Confirm the changes.  $\text{Re}...\bigcirc$ **Result:** The schedule for Monday is defined. The value of the last action is valid until the next programmed action. In this example, Monday is the first day you programmed. Thus, the last programmed action is valid up to the first action of next Monday.

#### To copy the schedule to the other weekdays





#### To program the schedule for Saturday and copy it to Sunday

1	Select <b>Saturday</b> .	<b>:</b> ₩○
2	Select Edit.	<b>€</b> 00000
3	Use the left dial to select an entry and edit the entry with the right dial.    Value of the left dial to select an entry and edit the entry with the entry with the right dial.    Value of the left dial to select an entry and edit the entry with the entry with the right dial.	(⊙…⊙)
4	Confirm the changes.	Ø#○
5	Select <b>Saturday</b> .	<i>©</i> #○
6	Select Copy.	<b>€</b> @**○
7	Select <b>Sunday</b> .	<b>:</b> ₩○
8	Select Paste.  Result:  User defined  Tue  Wed  Thu  Fri  Sat  Sun  C  Sun	<b>(</b> 0#○

# 5.8 Weather-dependent curve

## 5.8.1 What is a weather-dependent curve?

## Weather-dependent operation

The unit operates 'weather-dependent' if the desired tank 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 tank. Because it reacts more quickly, it prevents high rises and drops of the 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 tank or 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.

#### Types of weather-dependent curve

There are 2 types of weather-dependent curves:

- 2-points curve
- Slope-offset curve

Which type of curve you use to make adjustments, depends on your personal preferences. See "5.8.4 Using weather-dependent curves" [> 34].

#### **Availability**

The weather-dependent curve is available for:

Tank



#### **INFORMATION**

To operate weather-dependent, correctly configure the setpoint of the tank. See "5.8.4 Using weather-dependent curves" [▶ 34].

## 5.8.2 Slope-offset curve

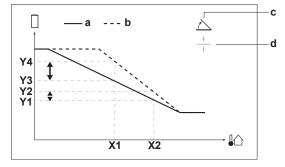
#### Slope and offset

Define the weather-dependent curve by its slope and offset:

- Change the **slope** to differently increase or decrease the target temperature of the tank for different ambient temperatures. For example, if tank water temperature is in general fine but at low ambient temperatures too cold, raise the slope so that the tank temperature is heated increasingly more at decreasingly lower ambient temperatures.
- Change the offset to equally increase or decrease the target temperature of the tank for different ambient temperatures. For example, if the tank temperature is always a bit too cold at different ambient temperatures, shift the offset up to equally increase the tank target temperature for all ambient temperatures.

## **Examples**

Weather-dependent curve when slope is selected:



Weather-dependent curve when offset is selected:



Item	Description
a	WD curve before changes.
b	<ul> <li>WD curve after changes (as example):</li> <li>When slope is changed, the new preferred temperature at X1 is unequally higher than the preferred temperature at X2.</li> <li>When offset is changed, the new preferred temperature at X1 is equally higher as the preferred temperature at X2.</li> </ul>
С	Slope
d	Offset
X1, X2	Examples of outdoor ambient temperature
Y1, Y2, Y3, Y4	Examples of desired tank temperature. The icon corresponds to the domestic hot water tank:  • Domestic hot water tank

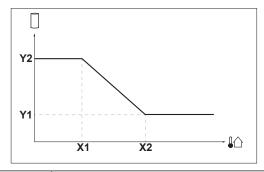
Possible actions on this screen			
€○	Select slope or offset.		
O©2	Increase or decrease the slope/offset.		
0Qm	When slope is selected: set slope and go to offset.		
	When offset is selected: set offset.		
<i>U</i> ○	Confirm changes and return to the submenu.		

## 5.8.3 2-points curve

Define the weather-dependent curve with these two setpoints:

- Setpoint (X1, Y2)
- Setpoint (X2, Y1)

## **Example**



Item	Description
X1, X2	Examples of outdoor ambient temperature

Item	Description
Y1, Y2	Examples of desired tank temperature. The icon corresponds to the domestic hot water tank:  • Domestic hot water tank

Possible actions on this screen			
<b>10</b> 0	Go through the temperatures.		
OOž	Change the temperature.		
O@m	Go to the next temperature.		
Ø#○	Confirm changes and proceed.		

## 5.8.4 Using weather-dependent curves

Configure weather-dependent curves as following:

## To define the setpoint mode

To use the weather-dependent curve, you need to define the correct setpoint mode.

Go to setpoint mode	Set the setpoint mode to		
Tank			
[5.B] Tank > Setpoint mode	<b>Restriction:</b> Only available to installers.		
	Weather dependent		

## To change the type of weather-dependent curve

To change the type of the weather-dependent curve for the tank, go to [5.E] Tank > WD curve type

**Restriction:** Only available for installers.

## To change the weather-dependent curve

Zone	Go to		
Tank	<b>Restriction:</b> Only available to installers.		
	[5.C] Tank > WD curve		



#### **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 the tank. When the maximum or minimum setpoint is reached, the curve flattens out.

## To fine-tune the weather-dependent curve: slope-offset curve

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

The domestic hot wa	Fine-tune with slope and offset:		
At regular outdoor temperatures	At cold outdoor temperatures	Slope	Offset
Hot	OK	1	<b>↓</b>



The domestic hot water temperature is		Fine-tune with slope and offset:		
At regular outdoor temperatures	At cold outdoor temperatures	Slope	Offset	
Hot	Cold	<b>↑</b>	$\downarrow$	
Hot	Hot	_	$\downarrow$	

See "5.8.2 Slope-offset curve" [▶ 32].

#### To fine-tune the weather-dependent curve: 2-points curve

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

The domestic hot water temperatures is		Fine-tune with setpoints:			
At regular outdoor temperatures	At cold outdoor temperatures	Y2 <sup>(a)</sup>	<b>Y1</b> <sup>(a)</sup>	X1 <sup>(a)</sup>	X2 <sup>(a)</sup>
OK	Cold	<b>↑</b>	_	$\uparrow$	_
OK	Hot	$\downarrow$	_	<b>↓</b>	_
Cold	OK	_	$\uparrow$	_	$\uparrow$
Cold	Cold	$\uparrow$	$\uparrow$	$\uparrow$	$\uparrow$
Cold	Hot	$\downarrow$	$\uparrow$	<b>\</b>	$\uparrow$
Hot	OK	_	<b>\</b>	_	$\downarrow$
Hot	Cold	$\uparrow$	<b>\</b>	$\uparrow$	$\downarrow$
Hot	Hot	$\downarrow$	$\downarrow$	<u> </u>	$\downarrow$

<sup>(</sup>a) See "5.8.3 2-points curve" [▶ 33].

# 5.9 Priority schedule

## Air Conditioning or domestic hot water priority

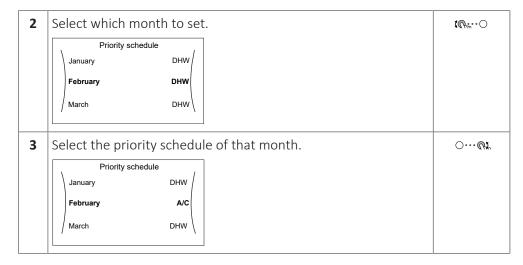
When multiple indoor units are connected to the outdoor unit, the user can set on the user interface for each month whether to put **DHW** or Air Conditioning (A/C) as priority. This will determinate how the outdoor unit will react in case multiple indoor units requested operation at the same time.

- If DHW is set as priority, the outdoor unit can decide to operate for DHW primarily, while in cooling season A/C operation is stopped or in heating season according to the heating load of the system, A/C operation is on hold or balanced. In this case, once DHW operation is finished or is no longer within operation range of the heat pump, the outdoor unit can switch to A/C (cooling or heating).
- If A/C is set as priority, the outdoor unit can decide to operate only A/C, in which
  case the backup heater can start for DHW production. Once A/C (cooling)
  operation is turned off or A/C (heating) operation is finished, heat pump outdoor
  unit can switch to DHW.

#### To select the Priority schedule

1	Go to [5.F]: Tank > Priority schedule.	<b>1</b> €○	
---	--	-------------	--





## Example of possible outcomes based on scheduled Priority schedule are as follows:

If			Then heat pump operation = (a)
Which is priority?	A/C request is	Can outdoor unit do both? <sup>(b)</sup>	
DHW	Cooling	-	DHW, while A/C is put on hold
	Heating	Yes	DHW and A/C together
		No	DHW, while A/C is put on hold
A/C	Cooling	-	A/C, while DHW is by backup heater
	Heating	Yes	DHW and A/C together
		No	A/C, while DHW is by backup heater

 $<sup>^{\</sup>mbox{\scriptsize (a)}}$  Applicable if DHW and A/C requests happen at the same time, when outdoor ambient temperature and tank target temperature are within operation range of outdoor unit.

<sup>(</sup>b) Decided by outdoor unit.



#### **INFORMATION**

If the backup heater always takes over the DHW heat load due to setting Priority schedule to A/C, electricity consumption will be considerably higher. For the months where A/C heating/cooling is less important, it is recommended to set the Priority schedule to DHW.



#### **INFORMATION**

If DHW is set as priority and frequent DHW operation is expected, there is risk for comfort problem due to interruption of A/C operation. For the months where A/C heating/cooling is more important, it is recommended to set the Priority schedule to A/C.

## 5.10 Operation mode

## **Choosing Operation mode for DHW.**

1	Go to [5.G] Tank > Operation mode	<b>:</b> ₩…○
1	Go to [5.G] rank > Uperation mode	tar



Depending on whether early backup heater operation is desired, two **DHW** operation modes can be chosen as follows:

- Efficient: Backup heater only allowed when the outdoor unit is unable to perform DHW (e.g. water temperature is outside operation range of the outdoor unit, or the outdoor unit decides to only perform A/C operation − refer to "5.9 Priority schedule" [▶ 35])
- Quick: Backup heater is allowed either after a certain amount of time has passed since the start of DHW operation (refer below) or when the outdoor unit is unable to perform DHW.

#### **Quick mode timer**

When **Quick** mode is chosen, the user can choose between 3 preset timers after which the backup heater can activate since the start of **DHW** operation:

Turbo: 10 minutesNormal: 20 minutesEconomic: 30 minutes

When Efficient mode is chosen, the Quick mode timer is not used.



#### **INFORMATION**

When tank disinfection is performed with **Efficient** mode, the backup heater can still start after 20 minutes to assist the heat pump.

### 5.11 Setting up the energy metering

- Via the user interface, you can read out the following energy data:
  - Produced heat
  - Consumed energy
- You can read out the energy data:
  - For domestic hot water production
- You can read out the energy data:
  - Per two hours (for the last 48 hours)
  - Per day (for the last 14 days)
  - Per month (for the last 24 months)
  - Total since installation



#### **INFORMATION**

The calculated produced heat and consumed energy are an estimation, the accuracy cannot be guaranteed.

### 5.11.1 Produced heat



### **INFORMATION**

The sensors used to calculate the produced heat are calibrated automatically.

- The produced heat is calculated internally based on:
  - The leaving and entering water temperature
  - The flow rate
- Setup and configuration: No additional equipment needed.



### 5.11.2 Consumed energy

You can use the following methods to determine the consumed energy:

Calculating

### **Calculating the consumed energy**

- The consumed energy is calculated internally based on:
  - The actual power input of the outdoor unit
  - The set capacity of the backup heater
  - The voltage
- Setup and configuration: To get accurate energy data, measure the capacity (resistance measurement) and set the capacity via the user interface for the backup heater (step 1).

### 5.12 Other functionalities

### 5.12.1 To configure time and date

<b>1</b> Go to [7.2] User settings > Time/date.	r O
---	-----

### 5.12.2 Using quiet mode

### **About quiet mode**

You can use quiet mode to decrease the sound of the outdoor unit. However, this also decreases the heating/cooling capacity of the system. There are multiple quiet mode levels.

The installer can:

- Completely deactivate quiet mode
- Manually activate a quiet mode level
- Enable the user to program a quiet mode schedule
- Configure restrictions based on local regulations

If enabled by the installer, the user can program a quiet mode schedule.



### **INFORMATION**

If the outdoor temperature is below zero, we recommend to NOT use the most quiet

### To check if quiet mode is active

If  $\widehat{\square}$  is displayed on the home screen, quiet mode is active.

### To use quiet mode

1	Go to [7.4.1]: User settings > Quiet > Mode.	<b>:</b> ₩○
2	Do one of the following:	_

If you want to	Then	
Completely deactivate quiet	Select <b>0ff</b> .	<b>10</b> 4○
mode	<b>Result:</b> The unit never runs in quiet mode. The user cannot change this.	



If you want to	Then	
Manually activate a quiet	Select Manual.	<b>(</b> ₩○
mode level	Go to [7.4.3] Level and select the applicable quiet mode level.  Example: Most quiet.	<b>:</b> ₩○
	<b>Result:</b> The unit always runs in the selected quiet mode level. The user cannot change this.	
• Enable the user to program a	Select Automatic.	<b>:</b> ₩○
quiet mode schedule, AND/OR  • Configure restrictions based on local regulations	<ul> <li>Result:</li> <li>The user (or you) can program the schedule in [7.4.2] Schedule. For more information about scheduling, see "5.7.3 Schedule screen: Example" [▶ 28].</li> <li>You can configure restrictions in [7.4.4] Restrictions. See below.</li> <li>The possible outcomes for the quiet mode differ depending on the schedule (if programmed) and the restrictions (if enabled/defined). See below.</li> </ul>	

### To configure restrictions

Enable the restrictions.	<b>:</b> 0:0
Go to [7.4.4.1]: User settings > Quiet > Restrictions > Enable and select Yes.	
Define the restrictions (time + level) to be used before midday (AM):	
• [7.4.4.2] AM Restricted time	
Example: From 9 a.m. to 11 a.m.	
• [7.4.4.3] AM Restricted level	
Example: More quiet	
Define the restrictions (time + level) to be used after midday (PM):	<b>t</b> ∩…○
• [7.4.4.4] PM Restricted time	
<b>Example:</b> From 3 p.m. to 7 p.m.	
• [7.4.4.5] PM Restricted level	
Example: Most quiet	
	Go to [7.4.4.1]: User settings > Quiet > Restrictions > Enable and select Yes.  Define the restrictions (time + level) to be used before midday (AM):  • [7.4.4.2] AM Restricted time  Example: From 9 a.m. to 11 a.m.  • [7.4.4.3] AM Restricted level  Example: More quiet  Define the restrictions (time + level) to be used after midday (PM):  • [7.4.4.4] PM Restricted time  Example: From 3 p.m. to 7 p.m.  • [7.4.4.5] PM Restricted level

### Possible outcomes when quiet mode is set to Automatic

If		Then quiet mode =	
Restrictions enabled?	Restrictions (time + level) defined?	Schedule programmed?	
No	N/A	No	OFF
		Yes	Follows schedule



	If		Then quiet mode =	
Restrictions enabled?	Restrictions (time + level) defined?	Schedule programmed?		
Yes	No	No	OFF	
		Yes	Follows schedule	
	Yes	No	Follows restriction	
		Yes	• During restricted time: If restricted level is stricter than scheduled level, then follows restriction. Else, follows schedule.	
			• Outside restricted time: Follows schedule.	

### 5.12.3 Using holiday mode

### **About holiday mode**

During your holiday, you can use the holiday mode to deviate from your normal schedules without having to change them. While holiday mode is active, domestic hot water operation will be turned off. Disinfection operation will remain active.

### **Typical workflow**

Using holiday mode typically consists of the following stages:

- 1 Activating the holiday mode.
- Setting the starting date and ending date of your holiday.

### To check if holiday mode is activated and/or running

If  $\square$  is displayed on the home screen, holiday mode is active.

### To configure the holiday

1	Activate the holiday mode.	_
	• Go to [7.3.1]: User settings > Holiday > Activation.    7.3.1	in○
	Select On.	<b>10</b> 40
2	Set the first day of your holiday.	_
	• Go to [7.3.2]: <b>From</b> .	<b>1</b> 044○
	Select a date.	€
		○…◎ℷ
	Confirm the changes.	Ø#O



3	Set the last day of your holiday.	_
	• Go to [7.3.3]: Till.	<b>:</b> ₩○
	Select a date.	€○
		001
	Confirm the changes.	<b>©</b> ○

### 5.12.4 Using WLAN



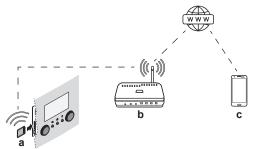
### **INFORMATION**

**Restriction:** WLAN settings are only visible when a WLAN cartridge is inserted in the user interface.

### **About the WLAN cartridge**

The WLAN cartridge connects the system to the internet. As user you can then control the system via the ONECTA app.

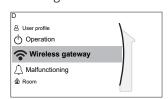
This needs the following components:



а	WLAN cartridge	The WLAN cartridge needs to be inserted in the user interface.
b	Router	Field supply.
С	Smartphone + app	The ONECTA app needs to be installed on the user's smartphone. See:  http://www.onlinecontroller.daikineurope.com/

### Configuration

To configure the ONECTA app, follow the in-app instructions. While doing this, the following actions and information are needed on the user interface:

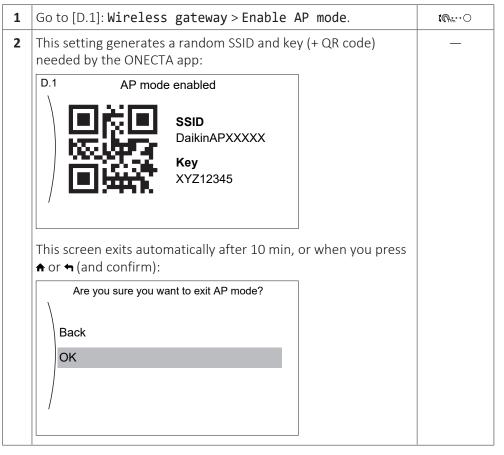


### [D] Wireless gateway

- [D.1] Enable AP mode
- [D.2] Reboot
- [D.3] WPS
- [D.4] Remove from cloud
- [D.5] Home network connection
- [D.6] Cloud connection

[D.1] **Enable AP mode**: Make the WLAN cartridge active as access point:





[D.2] Reboot: Reboot the WLAN cartridge:

1 Go to [D.2]: Wireless gateway > Reboot.		<b>€</b> 0○
2	In the Reboot the gateway screen, select OK.	<b>10</b> ***•••

[D.3] WPS: Connect the WLAN cartridge to the router:



### **INFORMATION**

You can only use this function if it is supported by the software version of the WLAN, and the software version of the ONECTA app.

1	Go to [D.3]: Wireless gateway > WPS.	<b>1</b> €○
2	In the WPS screen, select Yes.	<b>1</b> €○

[D.4] Remove from cloud: Remove the WLAN cartridge from the cloud:

1	Go to [D.4]: Wireless gateway > Remove from cloud.	<b>1</b> 000000
2	In the Remove from cloud screen, select Yes.	<b>€</b> 0○

[D.5] Home network connection: Read out the status of the connection to the home network:

1	Go to [D.5]: Wireless gateway > Home network connection.	<b>(</b> 0#○
2	Read out the connection status:	<b>1</b> 000000
	• Disconnected from [WLAN_SSID]	
	• Connected to [WLAN_SSID]	

[D.6] Cloud connection: Read out the status of the connection to the cloud:



1	Go to [D.6]: Wireless gateway > Cloud connection.	<b>10</b> 40
2	Read out the connection status:	<b>:</b> @0
	• Not connected	
	- Connected	



## 6 Energy saving tips

### Tips about DHW tank temperature

- Set the **Priority** schedule to **DHW** to minimise the usage of the electric backup heater.
- Use a weekly schedule for your normal domestic hot water needs (ONLY in scheduled mode).
- Also, by setting the heat up action to only scheduled action, interruption to A/C operation will be limited to the specific moments where A/C heating/cooling demand is less important.
  - Program to heat up the DHW tank to a preset value (Comfort = higher DHW tank temperature) during the night, because then A/C heating/cooling demand is lower (example: between 22:00 and 04:00).
  - 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 or the time when occupants are not present (example: between 09:00 and 15:00).
- 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.



### 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 [8.3]: **Information** > **Dealer information**.

**1**€...○

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 [8.4] Information > Sensors or home menu that the water pressure is above 1 bar.

### Refrigerant

This product contains fluorinated greenhouse gases. Do NOT vent gases into the atmosphere.

Refrigerant type: R32

Global warming potential (GWP) value: 675

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



#### WARNING: MILDLY FLAMMABLE MATERIAL

The refrigerant inside this unit is mildly flammable.



### **WARNING**

- The refrigerant inside the unit is mildly flammable, but normally does NOT leak. If the refrigerant leaks in the room and comes in contact with fire from a burner, a heater, or a cooker, this may result in fire, or the formation of a harmful gas.
- Turn OFF any combustible heating devices, ventilate the room, and contact the dealer where you purchased the unit.
- Do NOT use the unit until a service person confirms that the part from which the refrigerant leaked has been repaired.



#### **WARNING**

The appliance shall be stored in a room without continuously operating ignition sources (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.





### **NOTICE**

Applicable legislation on **fluorinated greenhouse gases** requires that the refrigerant charge of the unit is indicated both in weight and CO<sub>2</sub> equivalent.

Formula to calculate the quantity in  $\mathbf{CO}_2$  equivalent tonnes: GWP value of the refrigerant × total refrigerant charge [in kg]/1000

Contact your installer for more information.



# 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.

<b>1</b> Go	to [8.3]: Information > Dealer information.	<b>10</b> 4
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### 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
- <u> </u> Malfunction

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

1	Press the left dial to open the main menu and go to Malfunctioning.	<i>⊌</i> *○
	<b>Result:</b> A short description of the error and the error code is displayed on the screen.	
2	Press ? in the error screen.	
	<b>Result:</b> A long description of the error is displayed on the screen.	



### WARNING

In case F3-00, there is possible risk of refrigerant leak. Contact your installer.

### 8.2 To check the malfunction history

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

1	Go to [8.2]: Information > Malfunction history.	<b>€</b> 044○
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You see a list of the most recent malfunctions.



### 8.3 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 the DHW tank Powerful
The desired DHW tank temperature is too low.	operation. However, this consumes extra energy. See "5.6.4 Using DHW powerful operation" [ > 23].
	If the problems recurs daily, do one of the following:
	<ul> <li>Increase the DHW tank temperature preset value. See "5.7.1 Using preset values" [▶ 26].</li> </ul>
	■ Adjust the DHW tank temperature schedule. <b>Example:</b> Program to additionally heat up the DHW tank to a preset value ( <b>Eco setpoint</b> = lower tank temperature) during the day. See "5.7.2 Using and programming schedules" [▶ 26] and "5.7.3 Schedule screen: Example" [▶ 28].

### 8.4 Symptom: Heat pump failure

When the heat pump fails to operate, the backup heater 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 in the tank automatically takes over the domestic hot water production.
- When Emergency is set to Manual and a heat pump failure occurs, the domestic hot water 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.

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

Possible cause	Corrective action
, ,	See "8.1 To display the help text in case of a malfunction" [> 47].



### **INFORMATION**

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



### **INFORMATION**

To change the backup heater emergency settings, go to [9.5.1]: Installer settings > Emergency.



### 8.5 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)
Incorrect hydraulic balance.	To be performed by the installer:  If hydraulic balancing is not sufficient, change the pump limitation settings ([9-OD] and [9-OE] if applicable).
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" [▶ 47] for more information about the malfunction.

<sup>(</sup>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 heating circuit, mind the following:



#### **WARNING**

Air purging heating circuit for domestic hot water. Before you purge air, check if  $\triangle$  or  $\triangle$  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 heating circuit of the domestic hot water.

### 8.6 To force off the compressor

It is possible to force off the compressor operation and activate the **Emergency** function without any malfunction if necessary.

To force off compressor operation go to [9.5.2]: **Installer settings** > **Emergency** > **Compressor forced off** > **enabled**.



# 9 Disposal



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

### 10.1 Configuration wizard

	Setting	Fill in	
Sys	System		
	<pre>Indoor unit type (read only)</pre>		
	Backup heater type [9.3.1] (read only)		
	Voltage [9.3.2]		
	Configuration [9.3.3]		
	Capacity step 1 [9.3.4]		
	Quick mode timer [9.3.A]		
	BUH allowance schedule [9.3.B]		
	<b>Operation</b> [9.3.8]		
	Emergency [9.5]		
Tan	k		
	Heat up mode [5.6]		
	Disinfection [5.7]		
	Maximum [5.8]		
	Hysteresis [5.9]		
	Hysteresis [5.A]		
	Comfort setpoint [5.2]		
	Eco setpoint [5.3]		
	Reheat setpoint [5.4]		
	Setpoint mode [5.B]		
	WD curve type[5.E]		
	Operation modes [5.G]		

### 10.2 Settings menu

	Setting	Fill in
Inf	ormation	
	Dealer information [8.3]	

