

# **Operation manual**

## Daikin Altherma 3 R F



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### 1 About this document



#### **INFORMATION**

This unit is a heating only model. Therefore, all references to cooling in this document are NOT applicable.

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**

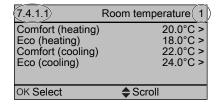
This document is part of a documentation set. The complete set consists of:

- · 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 <a href="https://www.daikin.eu">https://www.daikin.eu</a>. 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 <a href="https://www.daikin.eu">https://www.daikin.eu</a>. Use the search function Q 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 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.

#### Breadcrumbs



Breadcrumbs help you to locate where you are in the menu structure of the user interface. This document also mentions these breadcrumbs.

**Example:** Go to [7.4.1.1]: ■ > User settings > Preset values > Room temperature > Comfort (heating)

## 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.

### 

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.

#### 

- 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 damage and in a well-ventilated 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.

## **№ 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.

### 3 About the system

Do NOT use the unit until a service person confirms that the part from which the refrigerant leaked has been repaired.

## **. WARNING**

Air purging heat emitters or collectors. Before you purge air from heat emitters or collectors, check if an error or 10 is displayed on the home pages 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: 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



#### INFORMATION

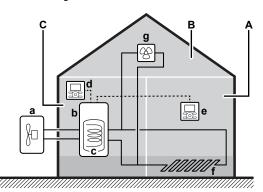
This unit is a heating only model. Therefore, all references to cooling in this document are NOT applicable.



#### **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



- Main zone. Example: Living room.
- Additional zone. Example: Bedroom.
- Technical room. Example: Garage.
- Outdoor unit heat pump
- Indoor unit heat pump b
- Domestic hot water (DHW) tank
- User interface of the indoor unit
- User interface used as room thermostat

- Underfloor heating
- Radiators, heat pump convectors, or fan coil units

## **Operation**



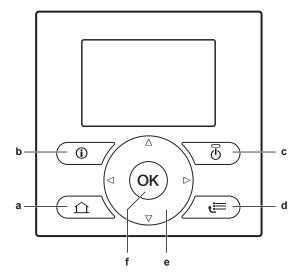
#### **INFORMATION**

This unit is a heating only model. Therefore, all references to cooling in this document are NOT applicable.

#### 4.1 User interface: Overview

#### 4.1.1 **Buttons**

#### Overview



- Home pages
- Malfunction information
- On/Off
- Menu structure/Back
- Navigating/Changing settings

#### Home pages —

- If you are on a home page, press to switch to another home page.
- If you are in a menu structure, press to go to the default home page.

#### Malfunction information — 1

If a malfunction occurs, i) is displayed on the home pages. Press to display more information about the malfunction.

#### On/Off —

Turn ON or OFF one of the controls (room temperature, leaving water temperature, DHW tank temperature).

#### Menu structure/Back — 😉

- If you are on a home page, press to open the menu structure.
- If you are navigating through a menu structure, press to go up 1 level.
- · Press to go back 1 step, for example when you are programming a schedule

#### Navigation/Change of settings —

- Navigate the cursor on the display.
- Navigate through the menu structure.
- Change the value of a setting.
- Select a mode.

#### OK — **□**

- · Confirm a selection.
- If you are on a home page:
  - press to switch between displaying actual and desired values, or (if applicable) between actual and offset values.
  - press for more than 5 seconds to activate or deactivate button lock.
- If you are in a menu structure, press to enter a submenu.
- If you are in the main menu of a menu structure, press for more than 5 seconds to activate or deactivate a function lock
- If you are programming a schedule, go to the next step.



#### **INFORMATION**

If you press or while changing settings, the changes will NOT be applied.

#### 4.1.2 Status icons

| Icon        | Description   |
|-------------|---|
| **          | Space operation mode = Heating.   |
| *           | Space operation mode = Cooling.   |
| 0           | Unit is operating.  |
| $\Diamond$  | Desired room temperature = preset value (Comfort; daytime).   |
| (           | Desired room temperature = preset value (Eco; nighttime).   |
| <b>a</b>    | <ul> <li>On the room temperature home page: Desired<br/>room temperature = according to the selected<br/>schedule.</li> </ul> |
|             | On the DHW tank temperature home page:     DHW tank mode = Scheduled mode.  |
| <b>P</b>    | DHW tank mode = Reheat mode.  |
| <b>P</b>    | DHW tank mode = Scheduled + reheat mode.  |
| <i>₹</i> ¶  | Domestic hot water operation.   |
| ŀ           | Actual temperature.   |
| <b>*</b>    | Desired temperature.  |
|             | At the next scheduled action, the desired temperature will increase.  |
| <b>→</b>    | At the next scheduled action, the desired temperature will NOT change.  |
| 7           | At the next scheduled action, the desired temperature will decrease.  |
| <b>6</b>    | The preset value (Comfort or Eco) or scheduled value is temporarily overruled.  |
| *           | The DHW tank powerful operation is active or ready to be activated.   |
| 13          | Quiet mode is active.   |
|             | Holiday mode is active or ready to be activated.  |
| a           | Button lock mode and/or function lock mode is active.   |
| \$          | An external heat source is active. <b>Example:</b> Gas burner.  |
| <u>(××)</u> | The disinfection mode is active.  |
| i           | A malfunction occurred. Press  to display more information about the malfunction.   |
| 0           | Weather-dependent mode is active.   |
| ß           | User permission level = Installer.  |

| Icon                           | Description                        |  |
|--------------------------------|------------------------------------|--|
|                                | Defrost/oil return mode is active. |  |
| <i></i>                        | Hot start mode is active.          |  |
| Emergency operation is active. |                                    |  |

#### 4.1.3 User Permission level

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

- End user: Default user mode.
- Adv. end user: As an advanced end user, you can read out and edit more information.

#### To set the user permission level to Advanced end user

- 1 Go to the main menu or any of its submenus:
- 2 Press for more than 4 seconds.

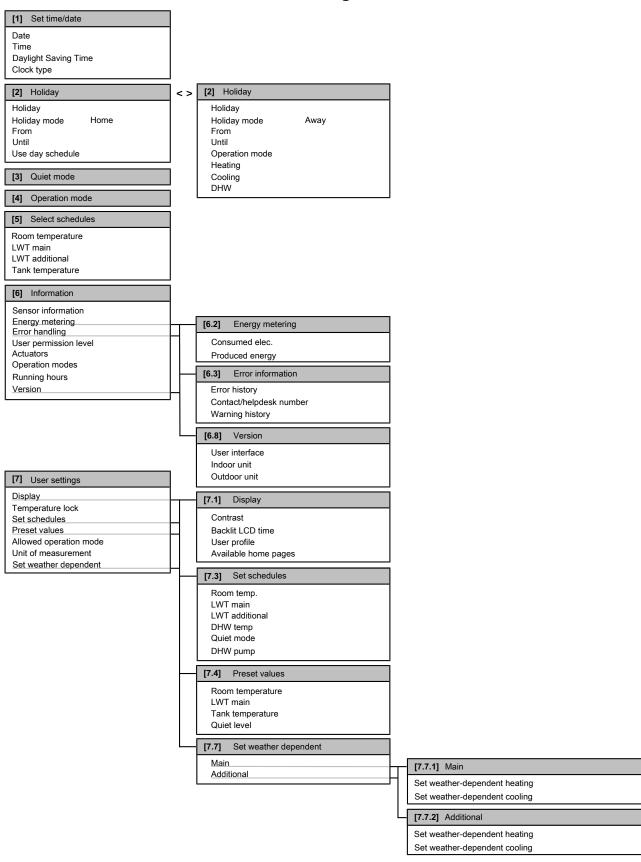
**Result:** Your user permission level is now Adv. end user. The user interface displays additional information and a "+" is added to the menu title. The user permission level stays in Adv. end user until manually set otherwise.

#### To set the user permission level to End user

1 Press for more than 4 seconds.

**Result:** Your user permission level is now End user. The user interface displays the default home page.

### 4.2 Menu structure: Overview user settings



i

#### INFORMATION

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

### 4.3 Space heating/cooling control



#### NOTICE

Room frost protection. Even if you turn OFF the leaving water temperature (main + additional) control via the home pages (LWT main + LWT add), room frost protection —if enabled— will remain active.

#### 4.3.1 Setting the space operation mode

#### About space operation modes



#### **INFORMATION**

This unit is a heating only model. Therefore, all references to cooling in this document are NOT applicable.

Depending on your heat pump model, you have to tell the system which space operation mode to use: heating or cooling.

| If a heat pump model is installed | Then   |
|-----------------------------------|--|
| Heating/cooling                   | The system can heat up and cool down a space. You have to tell the system which space operation mode to use.                     |
| Heating only                      | The system can heat up a space, but NOT cool down a space. You do NOT have to tell the system which space operation mode to use. |

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

| You can   | Location   |
|---|--|
| Check which space operation mode is currently used. | Home pages:  Room temperature  Leaving water temperature (main + additional) |
| Set the space operation mode.                       | Menu structure   |
| Restrict when automatic changeover is possible.     |  |

#### To set the space operation mode

- **1** Go to [4]: > Operation mode.
- 2 Select one of the following options and press OK:

| If you select | Then the space operation mode is  |
|---------------|---|
| Heating       | Always heating mode.  |
| Cooling       | Always cooling mode.  |
| Automatic     | Automatically changed by the software based on the outdoor temperature (and depending on installer settings also the indoor temperature), and taking monthly restrictions into account. |
|               | <b>Note:</b> Automatic changeover is only possible under certain conditions.  |

#### To restrict automatic changeover operation mode

**Prerequisite:** You switched the permission level to Advanced end user.

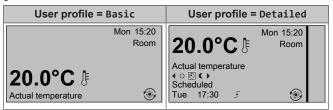
Prerequisite: You switched the space operation mode to automatic.

- 1 Go to [7.5]: > User settings > Allowed operation mode.
- 2 Select a month and press OK.
- 3 Select Heating only, Cooling only or Heating/Cooling, and press @M.

## 4.3.2 Room thermostat control - Using the room temperature home pages

#### Typical room temperature home pages

Depending on the user profile, the user interface gives you either a basic or a detailed home page. To set the user profile, refer to Configuring user profile and home pages in the user reference guide.



## To read out the actual and desired room temperature

1 Go to the room temperature home page (Room).

2 Press OK.

Result: You can read out the desired temperature.

22.0°C †

Desired temperature

## To temporarily overrule the room temperature schedule

- 1 Go to the room temperature home page (Room).
- 2 In the detailed home page (user profile = Detailed), select the scheduled room temperature mode (☼②€) by pressing ← or ...

Result: The room temperature follows the scheduled value.

3 Use ☐ or ☐ to adjust the temperature.

Result: The room temperature follows the manually adjusted value (6), but will return to the scheduled value at the next scheduled action.

## To change the mode from scheduled to preset value

Prerequisite: User profile = Detailed.

- 1 Go to the room temperature home page (Room).
- 2 Press **□** or **□** to select a preset value (○ or **ℂ**).

**Result:** The room temperature follows the preset value (Comfort or Eco), but will return to the scheduled value after the overrule period (= Temperature lock: 2/4/6/8 hours or permanent).

3 If necessary, you can overrule the preset value by using or to adjust the temperature.

**Result:** The room temperature follows the manually adjusted value ( $^{\circ}$ ), but will return to the scheduled value after the overrule period (= Temperature lock: 2/4/6/8 hours or permanent).

### To set the overrule period

**Prerequisite:** You switched the permission level to Advanced end user.

- 1 Go to [7.2]: > User settings > Temperature lock.
- 2 Select a value and press OK:

- Permanent
- hours (2, 4, 6, 8)

## 4.3.3 Room thermostat control - Using the leaving water temperature home pages



#### **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. **Example:** Underfloor heating is designed for lower leaving water temperature than radiators and heat pump convectors and/or fan coil units. You only have to adjust leaving water temperature settings in case of problems.

For more information about the leaving water temperature, see the user reference guide.

### 4.4 Domestic hot water control

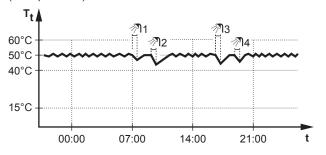


#### **NOTICE**

**Disinfection mode**. Even if you turn OFF domestic hot water operation via the DHW tank temperature home page (Tank), disinfection mode will remain active.

#### 4.4.1 Reheat mode

In reheat mode (⑤),the DHW tank continuously heats up to the temperature shown on the DHW tank temperature home page (example: 50°C).



T<sub>t</sub> Domestic hot water tank temperature

t Time



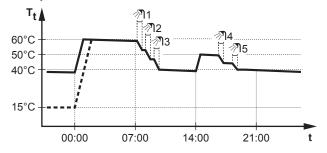
#### **INFORMATION**

When the DHW tank mode is reheat, the risk for capacity shortage and comfort problem is significant. In case of frequent reheat operation, space heating/cooling function is regularly interrupted.

### 4.4.2 Scheduled mode

In scheduled mode (①), 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 space heating demand is lower.

#### Example:



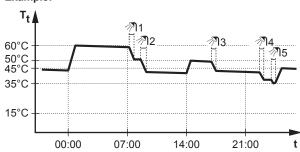
T<sub>t</sub> Domestic hot water tank temperature

#### Time

#### 4.4.3 Scheduled + reheat mode

In scheduled + reheat mode ( $\P$  @), 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:



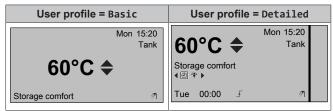
T<sub>t</sub> Domestic hot water tank temperature

t Time

## 4.4.4 Using the DHW tank temperature home page

#### Typical DHW tank temperature home pages

Depending on the user profile, the user interface gives you either a basic or a detailed home page. The examples in the illustrations below are in DHW tank mode = Scheduled.



## To read out and adjust the desired reheat temperature (in scheduled and reheat mode)

1 Go to [7.4.3.3]: ■ > User settings > Preset values > Tank temperature > Reheat.

Result: You can read out the desired reheat temperature.

To read out and overrule the active or next scheduled desired temperature (in scheduled mode or scheduled + reheat mode)

1 Go to the DHW tank temperature home page (Tank).

Result: 60°C ♦ is displayed.

**Note:** If the desired temperature is weather-dependent, you cannot change it on the home page.

### 4.4.5 Using the DHW tank powerful operation

To activate the DHW tank powerful operation (user profile = Basic)

- 1 Go to the DHW tank temperature home page (Tank).
- 2 Press of for more than 5 seconds.

To activate the DHW tank powerful operation (user profile = Detailed)

- 1 Go to the DHW tank temperature home page (Tank).
- 2 Press 

  to select ♥.

## 4.5 Schedules: Example



#### **INFORMATION**

The procedures to program other schedules are similar.

In this example:

- Room temperature schedule in heating mode
- Monday = Tuesday = Wednesday = Thursday = Friday
- Saturday = Sunday

#### To program the schedule

- 1 Go to [7.3.1.1]: > User settings > Set schedules > Room temp. > Set heating schedule.
- 2 Select Empty and press OK
- 3 Program the schedule for Monday. See below for more details.
- **4** Copy from Monday to Tuesday, Wednesday, Thursday and Friday. See below for more details.
- 5 Program the schedule for Saturday.
- 6 Copy from Saturday to Sunday.
- 7 Save the schedule and give it a name. See below for more details.

#### To program the schedule for Monday

- 1 Use and to select Monday.
- 2 Press to enter the schedule for Monday.
- 3 Program the schedule for Monday:
  - Use and to select an entry.
  - Use 

     and 

     to change the value of an entry.

#### To copy from one day to another

- Select the day from which you want to copy and press S. Example: Monday.
- 2 Select Copy day and press OK.
- 3 Set the days you want to copy to Yes and press **3. Example:** Tuesday = Yes, Wednesday = Yes, Thursday = Yes and Friday = Yes.

#### To save the schedule

- 1 Press OK, select Save schedule and press OK.
- 2 Select User defined 1, User defined 2 or User defined 3 and press ☑.
- 3 Change the name and press . (Only applicable for room temperature schedules). **Example:** MyWeekSchedule

#### To select which schedule you currently want to use

- **1** Go to [5]: > Select schedules.
- 2 Select for which control you want to use a schedule. Example: [5.1] Room temperature.
- 3 Select for which operation mode you want to use a schedule. Example: [5.1.1] Heating.
- 4 Select a predefined or user-defined schedule and press OK.

## 5 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 the desired room temperature to speed up space heating. The space will NOT heat up 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. It will take more time and energy to heat up 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. 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. Example: When you stay at home during your holiday, or when you go away during your holiday.

#### 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 (Storage 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 (Storage 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.

## 6 Maintenance and service

# 6.1 Overview: Maintenance and service

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

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 if 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.

DAIKIN



#### 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  $CO_2$  equivalent tonnes: GWP value of the refrigerant × total refrigerant charge [in kg]/1000

Contact your installer for more information.

# 6.2 To find the contact/helpdesk

Prerequisite: You switched the permission level to Advanced end

1 Go to [6.3.2]: □ > Information > Error handling > Contact/helpdesk number.

## 7 Troubleshooting

If a malfunction occurs, ① is displayed on the home pages. You can press ② to display more information about the malfunction.

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.

### 7.1 To check the error history

 $\label{eq:precedental} \textbf{Prerequisite:} \ \ \textbf{Only available if } \ \ \textbf{\o} \ \ \textbf{is displayed on the home pages}.$ 

1 Go to [6.3.1]: □ > Information > Error handling > Error history.

**DAIKIN** 

# 7.2 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 "4.3.2 Room thermostat control - Using the room temperature home pages" [> 7].  |
|   | If the problem recurs daily, do one of the following:   |
|   | <ul> <li>Increase (decrease) the room<br/>temperature preset value. See<br/>the user reference guide.</li> </ul>  |
|   | Adjust the room temperature schedule. See "4.5 Schedules: Example" [ 9 ].   |
| The desired room temperature cannot be reached. | Increase the desired leaving water temperature in accordance with the heat emitter type. See "4.3.3 Room thermostat control - Using the leaving water temperature home pages" [ 8]. |
| The weather-dependent curve is set incorrectly. | Adjust the weather-dependent curve. See the user reference guide.   |

# 7.3 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.  The desired DHW tank temperature is too low. | If you immediately need domestic hot water, activate the DHW tank powerful operation. However, this consumes extra energy. See "4.4.5 Using the DHW tank powerful operation" [> 8].  |  |
|  | If you can wait, overrule (increase) the active or next scheduled desired temperature so that more hot water will be produced exceptionally. See "To read out and overrule the active or next scheduled desired temperature (in scheduled mode or scheduled + reheat mode)" [▶ 8]. |  |
|  | If the problem recurs daily, do one of the following:  |  |
|  | Increase the DHW tank<br>temperature preset value. See<br>the user reference guide.  |  |
|  | Adjust the DHW tank temperature schedule.     Example: Program to additionally heat up the DHW tank to a preset value (Storage eco = lower tank temperature) during the day. See "4.5 Schedules: Example" [▶ 9].   |  |

### 7.4 Symptom: Heat pump failure

When the heat pump fails to operate, the backup heater can serve as an emergency heater and either automatically or non-automatically take over the heat load.

- When auto emergency is activated and a heat pump failure occurs, the backup heater will automatically take over the heat load
- When auto emergency is not activated and a heat pump failure occurs, the domestic hot water and space heating operations will stop and need to be recovered manually. The user interface will then ask you to confirm whether the backup heater can take over the heat load or not.

When the heat pump fails, ① will appear on the user interface.

| Possible cause        | Corrective action  |
|-----------------------|--|
| Heat pump is damaged. | <ul> <li>Press  to view a description<br/>of the problem.</li> </ul>                         |
|                       | <ul> <li>Press  again.</li> </ul>  |
|                       | <ul> <li>Select OK to allow the backup<br/>heater to take over the heat<br/>load.</li> </ul> |
|                       | <ul> <li>Call your local dealer to get<br/>the heat pump fixed.</li> </ul>                   |



#### **INFORMATION**

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

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

| Possible cause               | Corrective action   |  |
|------------------------------|---|--|
| There is air in the system.  | Purge air from the system. <sup>(a)</sup>   |  |
| 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, change the pump limitation settings ([9-0D] and [9-0E] if applicable). |  |
| Various malfunctions.        | Check if ① is displayed on the home pages of the user interface. You can press ② to display 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 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 an error or ① is displayed on the home pages 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: Refrigerant might leak into the water circuit, and subsequently into the room when you purge air from the heat emitters or collectors.

## 8 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.

## 9 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.

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

#### 10.1 Quick wizard

| _  |                                       |         |  |
|----|---------------------------------------|---------|--|
|    | Setting                               | Fill in |  |
| Fo | orced off contact [A.2.1.6]           |         |  |
|    | Forced off contact                    |         |  |
| Sį | pace heating/cooling settings [A.2.1] |         |  |
|    | Unit control method                   |         |  |
|    | User interface location               |         |  |
|    | Number of LWT zones                   |         |  |
|    | Pump operation mode                   |         |  |
| D  | omestic hot water settings [A.2.2]    |         |  |
|    | DHW operation                         |         |  |
|    | DHW tank type                         |         |  |
|    | DHW pump                              |         |  |
| Tł | Thermostats [A.2.2]                   |         |  |
|    | Contact type main                     |         |  |
|    | Contact type add.                     |         |  |
|    | External sensor                       |         |  |
| Di | gital I/O PCB [A.2.2.6]               |         |  |
|    | Ext. backup heat src                  |         |  |
|    | Alarm output                          |         |  |
|    | Bottom plate heater                   |         |  |
| De | emand PCB [A.2.2.7]                   |         |  |
|    | Demand PCB                            |         |  |
| Εı | nergy metering [A.2.2]                |         |  |
|    | External kWh meter 1                  |         |  |
|    | External kWh meter 2                  |         |  |
| С  | apacities (energy metering) [A.2.3]   |         |  |
|    | BUH: step 1                           |         |  |
|    |                                       | ·       |  |

## 10.2 Space heating/cooling control

|  | Setting  | Fill in |  |
|--|--|---------|--|
| Le   | Leaving water temperature: Main zone [A.3.1.1] |         |  |
|  | LWT setpoint mode                              |         |  |
| Leaving water temperature: Additional zone [A.3.1.2] |  |         |  |

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

| Setting   |                   | Fill in |  |
|---|-------------------|---------|--|
|   | LWT setpoint mode |         |  |
| Leaving water temperature: Delta T source [A.3.1.3] |                   |         |  |
|   | Heating           |         |  |
|   | Cooling           |         |  |
| Leaving water temperature: Modulation [A.3.1.1.5]   |                   |         |  |
|   | Modulated LWT     |         |  |
| Leaving water temperature: Emitter type [A.3.1.1.7] |                   |         |  |
|   | Emitter type      |         |  |

## 10.3 Domestic hot water control [A.4]

| Setting          | Fill in |
|------------------|---------|
| Туре             |         |
| Maximum setpoint |         |



#### **INFORMATION**

When the DHW tank 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.

## 10.4 Contact/helpdesk number [6.3.2]

| Setting                 | Fill in |
|-------------------------|---------|
| Contact/helpdesk number |         |

















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