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User Guide

Digital clock thermostat

Mago

Dear Customer,

Thank you for choosing the Mago thermostat.

This manual contains information intended for installers and end users. We advise you to read the manual first, for your own safety and optimal performance of the thermostat.

The manual is subject to change, the online version is always the latest. If you are using a printed copy, please check the website for the latest version. See contact details on the front or back cover.

We hope you will enjoy using the Mago.

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1 Introduction

1.1 Symbols used in the manual

This manual contains special instructions, marked with specific symbols. Please pay extra attention when these symbols are used.

Warning
Risk of dangerous situations that may result in minor personal injury.

Caution
Risk of material damage.

Important
Please note: important information.

The symbols mentioned below are of lower importance, but they can help you navigate or give useful information.

See
Reference to other manuals or pages in this manual.

Helpful information or extra guidance.

Direct menu navigation, confirmations will not be shown. Use if you are familiar with the system.

1.2 Introducing the Mago

Intended use. The Mago is a modulating room thermostat with which you can control your heating and cooling system. It has a cable connection to the appliance. You can connect it to the internet via a Wi-Fi connection, so you can operate the thermostat with an app on your mobile device.

A simple user interface. You can scroll through menus, select options and make changes. The thermostat has two buttons that you can either short-press or long-press. There is one rotary dial to scroll up or down in the menu.

Controlling the temperature. Control the temperature in manual mode or schedule mode. You can create and save up to three heating schedules. You can switch between the schedules. All of these functions are also available via the app.

See also
General use, page 11

1.3 What's new for the thermostat

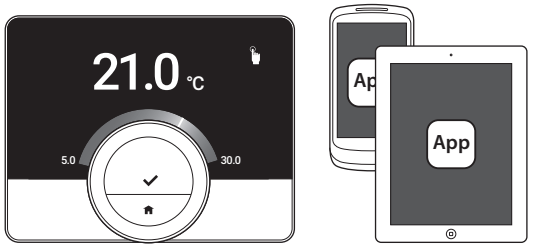
This document is based on software version 1.93 for the thermostat.

These are the new possibilities of use:

- New settings and schedules for the combination boiler or hot water tanks.
- Save and switch between schedules for the combination boiler or hot water tanks.
- Set a target temperature for the combination boiler or hot water tanks.

1.4 The Mago and its app

Fig.1 The thermostat and its app



AD-3000987-01

If you prefer to control your climate with your mobile device (e.g. smartphone or tablet) you can download the Mago app and connect it with your thermostat. You can also connect your home automation application with the thermostat.

Important
The thermostat needs a reliable connection with other devices (e.g. appliance, Wi-Fi router) in your home.

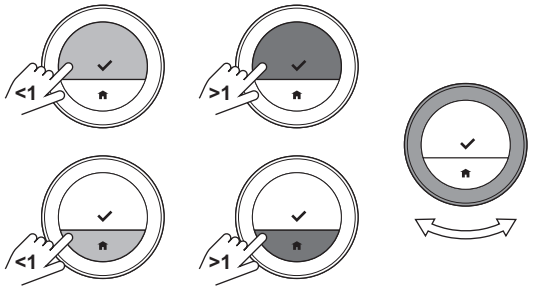
1.5 How to use the thermostat

Before you can use the thermostat, it first needs to be installed.

See also
Installation, page 44

1.5.1 Using the rotary dial and buttons

Fig.2 The rotary dial and buttons



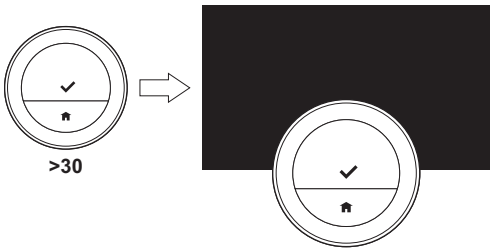
AD-3000988-01

The rotary dial has two buttons: the top button is the select button, the bottom button is the home button. Pressing a button for a shorter or longer time will start different actions, as shown in this manual.

- **Short button press**: Press less than a second on the button (<1).
- **Long button press**: Press longer than a second on the button (>1).
- **Rotary dial**: Turn the rotary dial to choose and adjust menus, submenus and settings.

1.5.2 Activating the thermostat

Fig.3 Stand-by mode



AD-3000995-01

The display turns off after 30 seconds if:

- nobody operated the rotary dial;
- nobody operated the select button or the home button;
- nobody was in front of the thermostat.

After these 30 seconds the display is turned off, but the thermostat is still active and no information is lost.

If the rotary dial and the buttons were not operated for three minutes, the thermostat is in standby mode. Any unconfirmed setting or selection is lost. If the child lock is enabled, the thermostat is now locked.

To activate the thermostat:

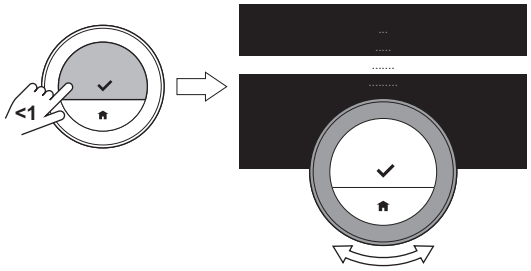
1. Awaken the thermostat (without child lock):
   1.1. Go near to the thermostat to activate the presence sensor.
   1.2. Press a button.
   1.3. Turn the rotary dial.
   ⇨ The display shows the home screen for 30 seconds if you stay near the thermostat.
2. Unlock the thermostat: when you awaken the thermostat, the display may show **Screen locked**.
   2.1. Press the select button for five seconds.
   ⇨ The display shows **Screen unlocked**.
3. Press the select button to enter the main menu.

If you do not enter the main menu while the display shows the home screen, the display turns off again after 30 seconds.

See also
Child lock, page 30

1.5.3 Entering the main menu and menu items

Fig.4 Main menu and menu items selection

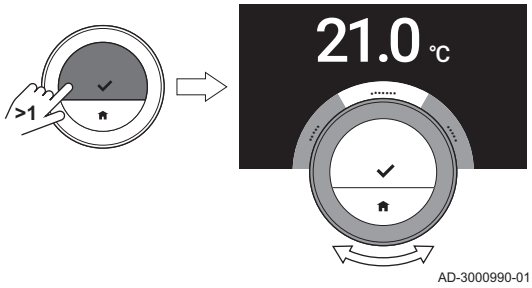


The main menu gives you access to all sub-menus and settings.

- Short-press the select button to enter the main menu from the home screen.
- Turn the rotary dial forward or backward to select a menu item.
- Short-press the select button to confirm the selection.

1.5.4 Entering the Quick Access menu and menu items

Fig.5 Quick Access menu



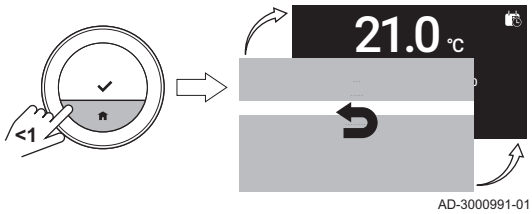
The Quick Access menu gives you access to a selection of menu items.

- Long-press the select button to enter the Quick Access menu from the home screen.
- Turn the rotary dial forward or backward to select a menu item.
- Short-press the select button to confirm the selection.

1.5.5 Returning to the previous step or home screen

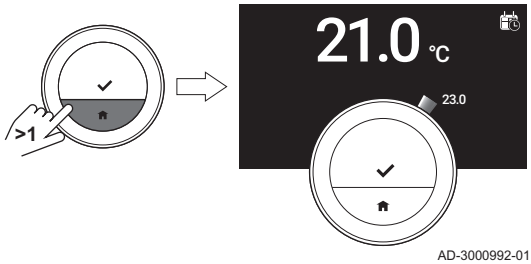
You can return to the previous step of the menu or return immediately to the home screen.

Fig.6 Returning to previous step



1. Short-press the home button to return to the previous step.

Fig.7 Returning to home screen

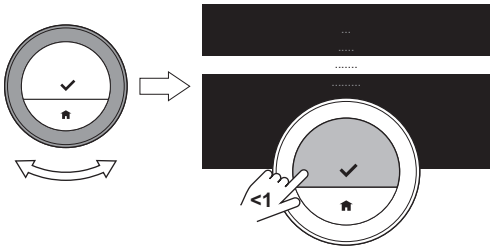


2. Long-press the home button to return to the home screen.

1.5.6 Scrolling through menu items and changing settings

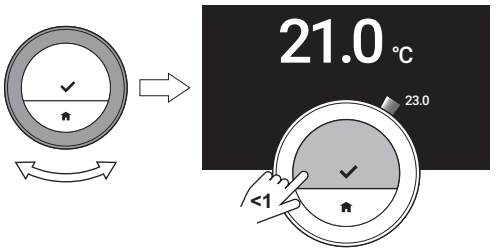
With the rotary dial you can scroll through menu items and change values, temperatures and time settings.

Fig.8 Scrolling through menu



1. Turn the rotary dial to scroll through the menu items.
2. Select the menu item you want to change.
3. Short-press the select button to confirm the selection.
4. Turn the rotary dial to scroll through the submenu items.
5. Select the submenu item you want to change.
6. Short-press the select button to confirm the selection.

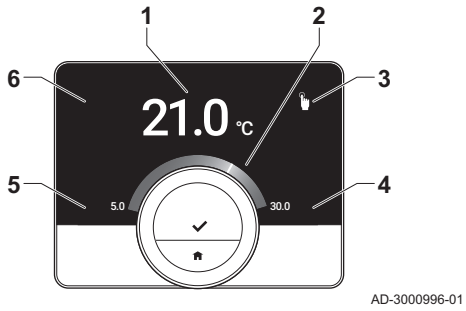
Fig.9 Change a setting



7. Turn the rotary dial to change the setting.
8. Short-press the select button to confirm the selection.

1.6 Description of the display

Fig.10 Display of the thermostat



1 Current temperature (or target temperature)
2 Temperature scale
3 Control mode icon
4 Home screen information box
5 Home screen information box
6 Filling needed icon, Zone icon or Error icon

The temperature scale in the home screen shows the difference between the current and target temperature. The white line around the dial represents the current temperature. The target temperature is displayed in small digits next to the scale. The temperature scale is visible when the current temperature differs from the target temperature.

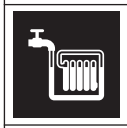
The display shows the current temperature in a large font by default. You can change the display of the temperature to show the target temperature. It will display the current temperature around the dial.

1.6.1 Description of the icons in the display

Possible icons in the display (the display shows an icon only if your installation is fit for the related function).

Tab.1 Control mode icons

	Manual mode: Manual mode is active	See Manual mode, page 12 Entering the Quick Access menu and menu items, page 7
	Frost protection mode: frost protection mode is active	See Frost protection, page 15 Entering the Quick Access menu and menu items, page 7
	Holiday period: Holiday period is active	See Holiday mode, page 13 Entering the Quick Access menu and menu items, page 7
	Fireplace mode: Fireplace mode is active	See Fireplace mode, page 14 Entering the Quick Access menu and menu items, page 7

	Temperature scheduling: Temperature scheduling is active	See Scheduling mode, page 12 Entering the Quick Access menu and menu items, page 7
	Short temperature change: Scheduling mode is interrupted for a short temperature change	See Short temperature change, page 13
	Topping up: manual or automatic refill for the installation.	See Low water pressure, page 47
	Rotary dial: You are turning the rotary dial to set the temperature.	See Manual mode, page 12 Start short temperature change, page 13

Tab.2 Home screen icons

	Date	See • Setting the date and time, page 28 • Home screen setting, page 31
	Time	See • Setting the date and time, page 28 • Home screen setting, page 31
	Outdoor temperature	See • Home screen setting, page 31 • Outdoor temperature, page 41
	Appliance status: Heating demand	See Home screen setting, page 31
	Appliance status: Heating active	See Home screen setting, page 31
	Appliance mode: On	See • Enable heating, page 12 • Home screen setting, page 31
	Appliance mode: Off	See • Disable heating, page 17 • Home screen setting, page 31
	Appliance mode: Cooling	See • Central cooling, page 18 • Home screen setting, page 31
	Appliance mode: Auto	See • Enable heating, page 12 • Enable cooling, page 18 • Home screen setting, page 31

Tab.3 Zone icons

	Basement	
	Bedroom	
	Kitchen	
	Living room	
	Study	
	Swimming pool	
	Generic	

Tab.4 Error icon

	Error display: The appliance reports an active error	**See** Messages overview, page 42 Troubleshooting, page 47
	Error display: The thermostat has no internet connection	**See** Thermostat connections, page 32

1.6.2 Customising the home screen display

You can configure the home screen of the display by adding two information boxes on the screen, one to the left and one to the right of the rotary dial.

The information boxes can show:

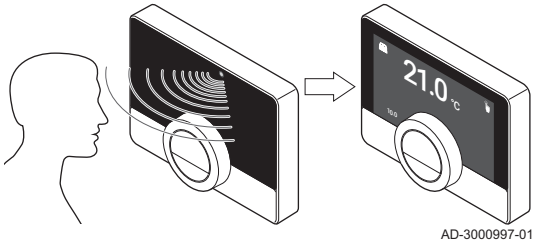
- Time and date
- Detailed information about your system

You can also change the display of the temperature to show the current or target temperature.

See also
Home screen setting, page 31
Display current or desired temperature, page 31

1.7 Presence detection

Fig.11 Presence detection



The home screen of the display will light up (for 5 seconds) when the presence sensor detects that a person is in front of the thermostat or passes by. You can disable the presence sensor in the settings menu.

See also
Presence sensor, page 30

1.7.1 Messages on the display

The display of the thermostat can show several messages:

Tab.5 Messages on the display

Message	Meaning
Help message	The display can show a help message after you change to a different mode. The message informs you about the use of the quick access menu.
Service message	The display shows a service message when the appliance needs maintenance.
Error message	The display shows an error message when the appliance has an error.

Important
The error code in the error message comes from the appliance.

See also
Show help messages, page 32
Service message, page 43
Messages overview, page 42

1.8 Zones control

If you have multiple zones in your heating and cooling installation, you can control the temperatures in several zones.The number of zones depends on the communication protocol of the appliance:

- Rub protocol: you can control an unlimited number of zones. You need one thermostat for every zone. You do not need a gateway.
- BSB protocol: you can control up to three zones. You need one thermostat and one gateway 17 for every zone.
- On/off protocol or OpenTherm protocol: you cannot control multiple zones. You need one thermostat and one gateway 16 for the entire installation.

A zone can be a specific room or a floor, for example.

If your installation can control multiple zones and has a cooling system, you can set one zone to heating and another one to cooling.

The zones are named CircA, CircB etc. by default. You can change the names in the app.

2 General use

2.1 Central heating

You can activate and deactivate the heating function for the zone.

You can control the heating of the zone with several modes: manual, scheduling, holiday, frost protection and fireplace mode. The display of the thermostat shows the heating icon when heating is active.

Check if the displayed temperature is correct. You can find the steps to calibrate the device in "Temperature calibration"

See also
Temperature calibration, page 35

2.1.1 Enable heating

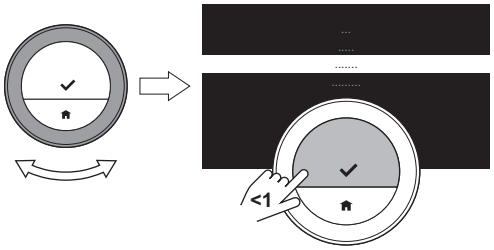
If your installation has a heating and a cooling appliance, you can enable the heating mode from the thermostat.

The display only shows the option **AUTO** if:

- the appliance has a cooling function;
- the appliance also has an outdoor sensor or is connected to an internet weather service.

▶▶ Main menu > **Operating mode** > **AUTO**

Fig.12 Use the rotary dial and buttons



1. Enter the main menu.
2. Select **Operating mode**.
3. Confirm the selection.
4. Select **AUTO**.
5. Confirm the selection.
   ⇨ The thermostat activates the heating function when the outdoor temperature becomes lower than the set threshold temperature. The thermostat deactivates the heating function when the outdoor temperature becomes higher than the threshold temperature.

2.1.2 Control heating

You can choose from five control modes for heating:

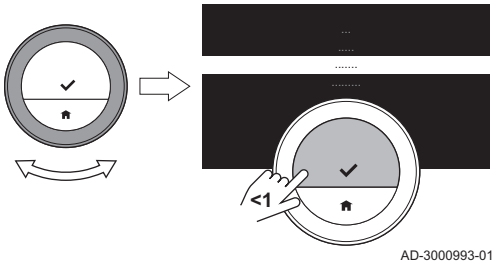
- manual mode
- scheduling mode, which can be interrupted by a short temperature change
- holiday mode
- frost protection mode
- fireplace mode.

■ Manual mode

In manual mode you can change the desired temperature instantly.

▶▶ Main menu > **Enable Manual Mode** > Choose temperature

Fig.13 Enter the main menu



1. Check that the thermostat does not operate in manual mode: see the icon in the top-right corner of the home screen.
2. Enter the main menu.
3. Select **Enable Manual Mode**.
4. Confirm the selection.
   ⇨ The display shows the manual mode icon.
5. Turn the rotary dial to change the desired temperature.

You can also select the manual mode from the Quick Access menu.

■ Scheduling mode

In scheduling mode a week schedule controls the appliance. You can choose from three week schedules, if you selected **Enable multiple schedules** in the **Settings** menu. You can interrupt the active schedule for a short period.

▶▶ Main menu > **Enable Temperature Scheduling** > Choose schedule

1. Check that the thermostat does not operate in scheduling mode: see the icon in the top-right corner of the home screen.

2. Enter the main menu.
3. Select **Enable Temperature Scheduling**.
4. Confirm the selection.
5. Select the desired week schedule.
6. Confirm the selection.
   ⇨ The display shows the temperature scheduling mode icon and the number of the selected schedule.

You can also select the schedule from the Quick Access menu.

If you want the zone to be heated at the start of the scheduled heating periods, you have to set the preheat period.

See also
Enable multiple schedules, page 17
Activating preheating, page 36
Setting the heating rate, page 38
Setting the cooling rate, page 38
Change a temperature schedule, page 16

■ Short temperature change

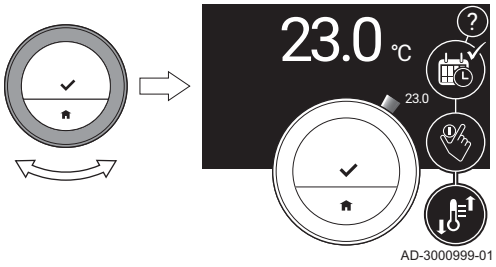
The short temperature change interrupts the scheduling mode for up to 24 hours.

– Start short temperature change

While the thermostat is in scheduling mode, you can select a different target temperature for a short period. At the end of the period the thermostat will return to the scheduled temperature.

▶▶ Rotary dial > Long-press select button

Fig.14 Turn the rotary dial



1. Check that the thermostat operates in scheduling mode: see the icon in the top-right corner of the home screen.
2. Change the temperature with the rotary dial.
   ⇨ The display shows the selected temperature and the end time (max. 24 hours from now).
3. Long-press the select button if you want to change the end time.
4. Change the period between 0 and 24 hours.

If you change it to 0 hours, the short temperature change is deleted.

   ⇨ The display shows the short temperature change icon and the selected end time.
5. Confirm the change.

– Stop short temperature change

The short temperature change will stop at the end of the period.
If you want to stop the short temperature change immediately:

▶▶ Main menu > **Clear Short Temperature Change**

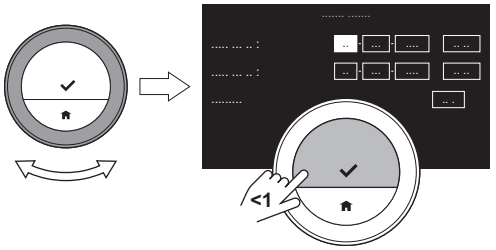
1. Check that the thermostat operates in short temperature change mode: see the icon in the top-right corner of the home screen.
2. Enter the main menu.
3. Select **Clear Short Temperature Change**.
4. Confirm the selection.
   ⇨ The display shows the temperature scheduling mode icon again.

■ Holiday mode

When you will be away for a longer period you can lower the desired temperature to save energy. During the holiday period this desired temperature will overrule the temperature(s) set in scheduling mode or manual mode.

During the holiday period you cannot change the desired temperature. If you try to do so, the display shows a message.

Fig.15 Set dates and temperatures



– Create a holiday schedule

▶▶ Main menu > **Input Holiday Period** > Set dates > Set temperatures

1. Enter the main menu.
2. Select **Input Holiday Period**.
3. Confirm the selection.
4. Set the starting date and end date of the holiday period:
   4.1. Select an item.
   4.2. Confirm the selection.
   4.3. Turn the rotary dial to change the item.
   4.4. Confirm the change.
5. Set the desired temperature for the holiday period:
   5.1. Turn the rotary dial to select **Temperature**.
   5.2. Confirm the selection.
   5.3. Turn the rotary dial to change the temperature.

The heating appliance in your installation determines what the minimum temperature is for the holiday period.

   5.4. Confirm the change.
   ⇨ The display shows: **Holiday period set**.
   The display will show the holiday icon in the top right corner of the home screen when the holiday period starts.

The holiday mode can also be set for any other appliance in your installation, such as a cooling appliance or a hot water generator.

You can create a holiday schedule also from the Quick Access menu.

– Change the holiday schedule

▶▶ Main menu > **Input Holiday Period** > **Edit** > **Save**

1. Enter the main menu.
2. Select **Input Holiday Period**.
3. Confirm the selection.
4. Select **Edit**.
5. Confirm the selection.
6. Change the period and/or temperature.
7. Select **Save**.
8. Confirm the change.

You can change the holiday schedule also from the Quick Access menu

– Delete the holiday schedule

1. Enter the main menu.
2. Select **Input Holiday Period**.
3. Confirm the selection.
4. Select **Clear**.
5. Confirm the selection.

You can delete the holiday schedule also from the Quick Access menu.

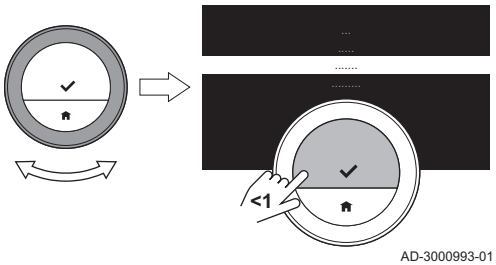
■ Fireplace mode

Activate the Fireplace mode before the other heat source starts heating the room. It may be wise to close the radiators in the warm room during the fireplace mode.

When, for example, a fire is lighted in your fireplace or there is a large number of people in the room, the thermostat in this room will signal to the appliance that it must stop heating. The unwanted effect will be that the other rooms will become cold.

The fireplace mode prevents this effect: the appliance continues to heat on the basis of the heat demand in earlier days.

Fig.16 Enter the main menu



– Activate fireplace mode

▶▶ Main menu > **Enable Fireplace**

1. Enter the main menu.
2. Select **Enable Fireplace**
3. Confirm the selection.
   ⇨ The display shows the fireplace icon in the top right corner of the home screen.

– Deactivate fireplace mode

▶▶ Main menu > **Disable Fireplace**

1. Enter the main menu.
2. Select **Disable Fireplace**.
3. Confirm the selection.
   ⇨ The display shows the icon of the control mode that was active before the fireplace mode.

You can open the radiators again.

■ Frost protection

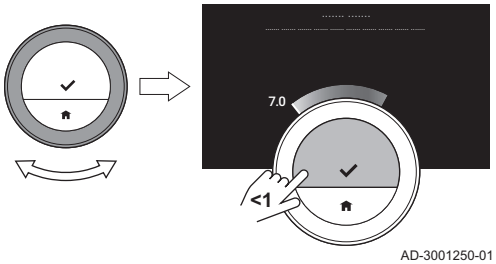
You can activate the frost protection mode for central heating and the production of hot tap water. The heating system will keep the temperature just high enough to help against frost damage to the house and to the installation. The heating appliance will heat the installation when the thermostat or a sensor in the appliance measures a temperature below the set frost protection temperature.

Freezing can still occur in rooms that are not heated or places without sensors. Open all radiators and zones of the central heating system to protect against freezing.

– Activate frost protection mode

▶▶ Main menu > **Enable Frost Protection** > Long-press Select button > Choose temperature

Fig.17 Enable frost protection



1. Enter the main menu.
2. Select **Enable Frost Protection**.
3. Confirm the selection.
   ⇨ The display shows a message that you can change the frost protection temperature.
4. Long-press the select button while the message is visible.
5. Select the desired frost protection temperature.

The heating appliance determines what the minimum temperature is for the frost protection mode.

6. Confirm the selection.
   ⇨ The frost protection mode is active and the display shows the frost protection icon in the top right corner of the home screen.

While the thermostat is in frost protection mode you cannot change the target temperature. If you try to do so, the display shows a message.

– Deactivate frost protection mode

1. Enter the main menu.
2. Select **Enable Manual Mode** or **Enable Temperature Scheduling**
   ⇨ The display shows the icon of the selected mode.

2.1.3 Temperature schedules

A temperature schedule enables you to control your heating and cooling appliance in a planned way. You can set a week schedule with several periods during each day of the week. For heating you can set three different week schedules.

■ Change a temperature schedule

When you start the thermostat for the first time, you see one schedule for cooling and three schedules for heating. You can change these schedules to your own preferences.

You can customise each day schedule:

- Change the switch time.
- Choose a different activity between two switch times.
- Change the temperature of an activity.
- Add switch times.
- Remove switch times to a minimum of none (resulting in constant temperature all day long based on the last activity from the previous day).

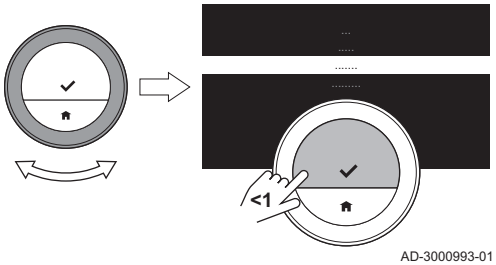
You can change the three week schedules for central heating. For example, you can create time schedules for:

- A week with normal working hours.
- A week with different working hours.
- A week when you are at home most of the time.

– Copying a weekday of a temperature schedule

You can copy the schedule of one weekday to other weekdays, to speed up the creation of a temperature schedule.

Fig.18 Enter the main menu



1. Enter the main menu.
2. Select
   - for changing the heating schedule: **Change Heating Schedule**
   - for changing the cooling schedule: **Change Cooling Schedule**

   The display shows these options only if your installation is fit for them.
3. If multiple schedules is enabled for heating: Select **Schedule 1**, **Schedule 2** or **Schedule 3**.
4. Confirm the selection.
5. Select the weekday you want to copy.
6. Confirm the selected day: rotate the rotary dial to **DONE** and pres the select button.
   ⇨ The day schedule is opened.
7. Select **Copy** using the rotary dial.
8. Confirm the selection.
   ⇨ The selected day schedule has been copied.
9. Select and confirm the weekday(s) on which you want to copy the day schedule.
10. Confirm the selected day(s): rotate the rotary dial to **DONE** and press the select button.
    ⇨ The day schedule has been copied to the selected day(s).

– Changing the weekdays of a temperature schedule

You can change, add or delete temperature intervals in one or more weekdays of a timer program. For example, you can lower the temperature during the night and when you are out of the house. You can set the switch time and the activity (with its temperature) for each interval of the schedule.

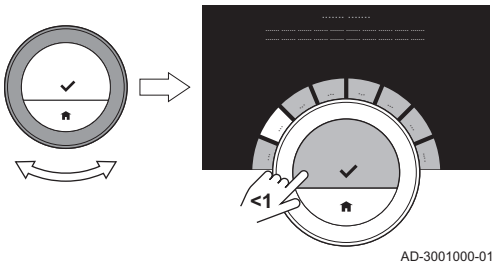
1. Enter the main menu.

2. Select
   - for changing the heating schedule:
     Change Heating Schedule
   - for changing the cooling schedule:
     Change Cooling Schedule

The display shows these options only if your installation is fit for them.

3. If multiple schedules is enabled: Select **Schedule 1**, **Schedule 2** or **Schedule 3**.
4. Confirm the selection.
5. Select and confirm the day(s) that you want to program.

Fig.19 Select and confirm the days



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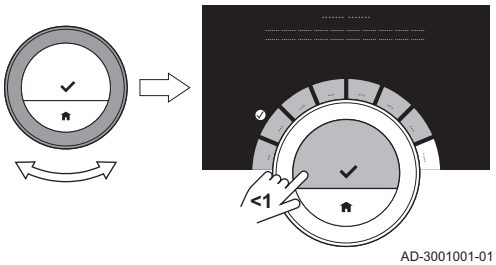
- When you select more than one day, the days will be assigned the same day schedule.
- Help text on the display above the schedule helps you perform changes.

Fig.20 Change times and activities



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6. Confirm the selected day(s) by rotating the rotary dial to **DONE** and pressing the select button.
7. Change, add or delete activities and switch times.

You can short-press the home button to go back one step.

■ Multiple schedules

You can control the central heating with three different week schedules if the option for multiple schedules is enabled.

You can enable and disable this option.

– Enable multiple schedules

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Enable multiple schedules**.
5. Confirm the selection.

– Disable multiple schedules

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Disable multiple schedules**.
5. Confirm the selection.

2.1.4 Disable heating

You can switch off the central heating function of the appliance to save energy during e.g. the summer period.

The display only shows **Operating mode** if your installation has a heating appliance that can be switched off or a cooling appliance.

▶▶ Main menu > **Operating mode** > **Off**

1. Enter the main menu.
2. Select **Operating mode**.
3. Confirm the selection.

4. Select **Off**.
5. Confirm the selection.
   ⇨ When heating is switched off, the appliance will continue providing hot tap water (if your installation is fit for it) and it will produce heat for frost protection.

2.2 Central cooling

If your installation has a cooling appliance, you can enable the cooling function from the thermostat.

You can control the cooling of the zone with two modes: manual and scheduling mode. The display of the thermostat shows the cooling icon when cooling is active.

When cooling is activated, the appliance will continue providing hot tap water if it is fit for it.

You can deactivate the cooling function.

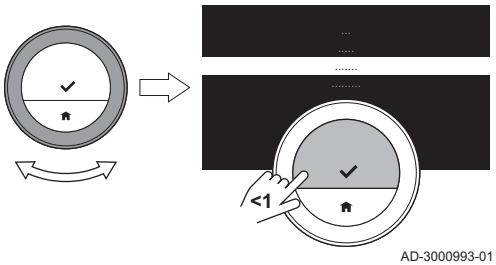
2.2.1 Enable cooling

If your installation has a heating and a cooling appliance, you can enable the cooling mode from the thermostat in two ways.

The display only shows the option **AUTO** if

- the appliance also has a heating function
- the appliance has an outdoor sensor or is connected to an internet weather service.

▶▶ Main menu > **Operating mode** > **COOLING** or **AUTO**



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1. Enter the main menu.
2. Select **Operating mode**.
3. Confirm the selection.
4. Select **COOLING** or select **AUTO**.
5. Confirm the selection.
   ⇨ If you select **COOLING**, the appliance starts cooling and the display shows the cooling icon.
   If you select **AUTO**, the thermostat will activate the cooling function when the outdoor temperature becomes higher than the selected threshold temperature. The thermostat will deactivate the cooling function when the outdoor temperature becomes lower than the threshold temperature. The display shows the auto mode icon.

When cooling is active, the appliance will continue supplying hot tap water (if your installation is fit for it).

See also
Setting the threshold for auto mode, page 36

2.2.2 Control cooling

You can choose from two control modes for cooling:

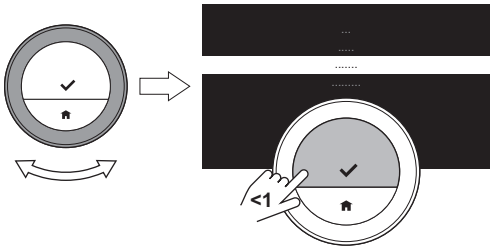
- manual mode
- scheduling mode, which can be interrupted by a short temperature change

■ Manual mode

In manual mode you can change the desired temperature instantly.

▶▶ Main menu > **Enable Manual Mode** > Choose temperature

Fig.21 Enter the main menu



1. Check that the thermostat does not operate in manual mode: see the icon in the top-right corner of the home screen.
2. Enter the main menu.
3. Select **Enable Manual Mode**.
4. Confirm the selection.
   ⇨ The display shows the manual mode icon.
5. Turn the rotary dial to change the desired temperature.

You can also select the manual mode from the Quick Access menu.

■ Scheduling mode

In scheduling mode the week schedule controls the appliance. You can interrupt the active schedule for a short period.

▶▶ Main menu > **Enable Temperature Scheduling**

1. Check that the thermostat does not operate in scheduling mode: see the icon in the top-right corner of the home screen.
2. Enter the main menu.
3. Select **Enable Temperature Scheduling**.
4. Confirm the selection.
   ⇨ The display shows the temperature scheduling mode icon.

See also
Change a temperature schedule, page 16

■ Short temperature change

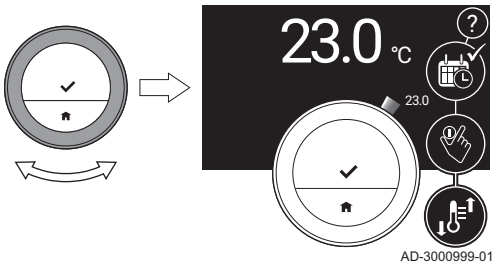
The short temperature change interrupts the scheduling mode for up to 24 hours.

– Start short temperature change

While the thermostat is in scheduling mode, you can select a different target temperature for a short period. At the end of the period the thermostat will return to the scheduled temperature.

▶▶ Rotary dial > Long-press select button

Fig.22 Turn the rotary dial



1. Check that the thermostat operates in scheduling mode: see the icon in the top-right corner of the home screen.
2. Change the temperature with the rotary dial.
   ⇨ The display shows the selected temperature and the end time (max. 24 hours from now).
3. Long-press the select button if you want to change the end time.
4. Change the period between 0 and 24 hours.

If you change it to 0 hours, the short temperature change is deleted.

   ⇨ The display shows the short temperature change icon and the selected end time.
5. Confirm the change.

– Stop short temperature change

The short temperature change will stop at the end of the period.
If you want to stop the short temperature change immediately:

▶▶ Main menu > **Clear Short Temperature Change**

1. Check that the thermostat operates in short temperature change mode: see the icon in the top-right corner of the home screen.
2. Enter the main menu.
3. Select **Clear Short Temperature Change**.
4. Confirm the selection.
   ⇨ The display shows the temperature scheduling mode icon again.

2.2.3 Disable cooling

You can switch off the central cooling function of the appliance to save energy during e.g. the winter period, if the appliance is fit for it.

The display only shows **Operating mode** if your installation has a heating appliance that can be switched off or a cooling appliance.

▶▶ Main menu > **Operating mode** > **Off**

1. Enter the main menu.
2. Select **Operating mode**.
3. Confirm the selection.
4. Select **Off**.
5. Confirm the selection.

2.3 Hot water

Your installation may have one or several hot water tanks and/or a combination boiler for supplying hot water. You can control the water temperature in several ways with the thermostat. If the thermostat has a hot water tank, you have the option to use the **Hot water tank boost**.

Some installations may have limited Hot water settings.

2.3.1 Hot water tank

A hot water tank contains a quantity of hot water at a chosen temperature. When the tank is in comfort mode, this temperature is high and the tap will deliver the hot water fast. When the tank is in eco mode, the water temperature is lower, which saves energy.

The thermostat can control several hot water tanks separately.

Eco mode will sometimes be referred to as reduced mode in the settings. They are the same thing.

■ Select hot water tank

When your installation has several hot water tanks, you first have to select a specific tank before you can change settings or view the water temperatures in the tank.

▶▶ Main menu > **Hot water settings** > Select a hot water tank

1. Enter the main menu.
2. Select **Hot water settings**
3. Confirm the selection.

When your installation has several hot water tanks, the display shows a list of tanks.
When your installation has a combination boiler and several hot water tanks, the display shows the combination boiler as the first tank in the list.
When your installation has a combination boiler or just one tank, the display does not show a selection screen. It will directly show the hot water settings of the tank.

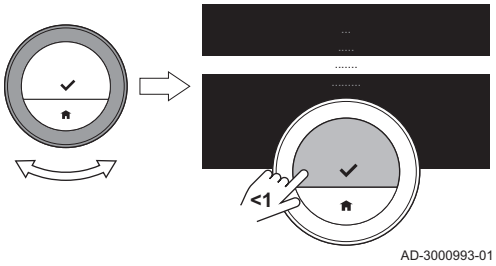
4. Select a hot water tank.
   ⇨ The display shows **Hot water settings** on the screen. in this menu you can control the tank in several ways.

■ Activate comfort mode

After you selected a specific hot water tank, you can activate the comfort mode.

▶▶ **Mode** > **Comfort mode (ON)**

Fig.23 Activate comfort mode



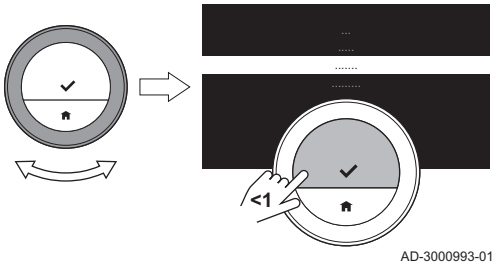
1. Select **Mode**.
2. Confirm the selection.
3. Select **Comfort mode (ON)**.
4. Confirm the selection.
   ⇨ The tap will deliver the hot water fast

■ Activate eco mode for tank

After you selected a specific hot water tank, you can activate the eco mode.

▶▶ **Mode > Eco mode (OFF)**

Fig.24 Activate eco mode



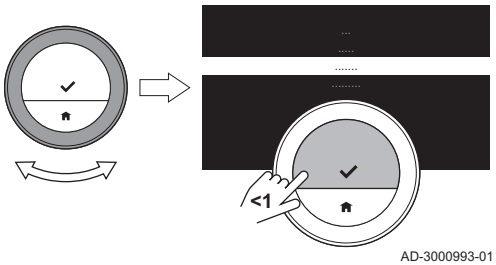
1. Select **Mode** .
2. Confirm the selection.
3. Select **Eco mode (OFF)**.
4. Confirm the selection.
   ⇨ The tap will deliver the hot water less quickly but save energy.

■ Activate scheduling mode for tank

After you selected a specific hot water tank, you can activate the scheduling mode.

▶▶ **Mode > Schedule mode**

Fig.25 Activate scheduling mode



1. Select **Mode**.
2. Confirm the selection.
3. Select **Schedule mode**.
4. Confirm the selection.
   ⇨ The hot water tank maintains the hot water at the comfort or the eco temperature according to the schedule that you select.

■ Activating holiday mode for tank

When you are going away for a longer period of time you can set the tank to **Holiday mode**. During this time the hot water tank will only use the **Eco mode (OFF)** mode, which will save energy.

Important
This holiday mode is not linked to the central heating holiday schedule, and needs to be started separately.

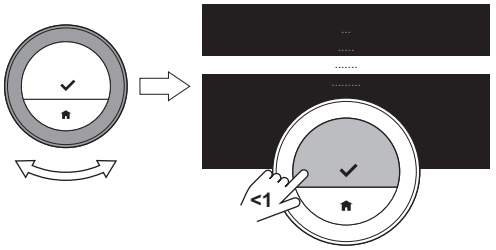
– Create a holiday schedule for tank

After you selected a specific hot water tank, you can activate the holiday mode.

▶▶ **Mode > Holiday mode > Save**

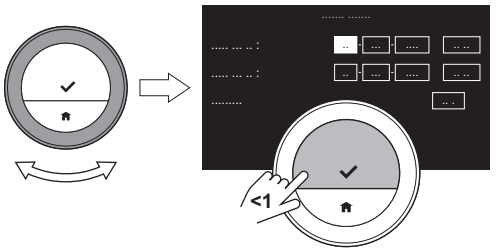
1. Select **Mode**.
2. Confirm the selection.

Fig.26 Activate Holiday mode



3. Select **Holiday mode**.

Fig.27 Set dates and temperatures



4. Set the starting date and end date of the holiday period:
   4.1. Select an item.
   4.2. Confirm the selection.
   4.3. Turn the rotary dial to change the item.
   4.4. Confirm the change.

5. Confirm the selection with Save

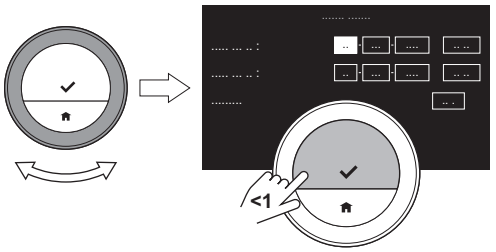
– Change the holiday schedule for tank

After you selected a specific hot water tank, you can change the holiday mode.

▶▶ **Mode** > **Holiday mode Edit** > **Save**

1. Select **Mode**.
2. Confirm the selection.
3. Select **Holiday mode**.
4. Confirm the selection.
5. Select **Edit**
6. Confirm the selection.
7. Set a new starting date and end date of the holiday period:
8. Select **Save**.
9. Confirm the change.

Fig.28 Set dates and temperatures



– Delete the holiday schedule for tank

After you selected a specific hot water tank, you can change the holiday mode.

▶▶ **Mode** > **Holiday mode Clear**

1. Select **Mode**.
2. Confirm the selection.
3. Select **Holiday mode**.
4. Confirm the selection.
5. Select **Clear**
6. Confirm the selection.

After you delete the holiday schedule, the thermostat will use the mode it was on before the **Holiday mode**

■ Select hot water schedule

After you selected a specific hot water tank, you can select a hot water schedule for this tank.

▶▶ **Active schedule** > Select schedule

1. Select **Active schedule**.
   ⇨ The display shows the active schedule.
2. Confirm the selection.
3. Select a different schedule.
4. Confirm the selection.

■ Change the hot water schedule

After you selected a hot water tank and a hot water schedule, you can change this schedule.

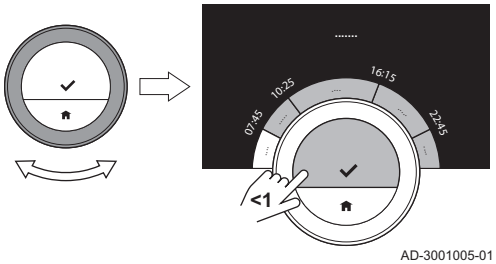
▶▶ **Change schedule** > Select days > Choose time and modes > Copy and paste if needed

1. Select **Change schedule** .
2. Confirm the selection.
3. Select and confirm the days that you want to program.

- When you select more than one day, the same day schedule will be assigned to these days.
- Help text on the display above the schedule helps you perform changes.

4. Confirm the selected days by rotating the rotary dial to **DONE** and pressing the select button.
5. Create the day schedule with the switching times and hot water settings (comfort or reduced).
6. Confirm the selection.
7. Copy the schedule to other weekdays, if required.

Fig.29 Creating a day schedule



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■ Set water temperature for comfort mode

After you selected a specific hot water tank, you can set the hot water temperature for comfort mode in this tank.

▶▶ **Set desired comfort temperature** > Rotary dial

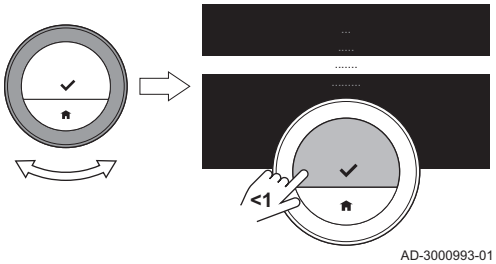
1. Select **Set desired comfort temperature**.
2. Confirm the selection.
3. Change the temperature.
4. Confirm the selection.
   ⇨ The hot water tank will maintain the selected temperature when it is in comfort mode.
   If you want to change the hot water temperature for the eco mode, you have to do that on the heating appliance.

■ View water temperatures

After you selected a specific hot water tank, you can view the water temperatures at several levels in the tank.

The sensors determine at which places you can view a temperature.

Fig.30 Select hot water tank



1. Select **Temperatures hot water tank** .
2. Confirm the selection.
   ⇨ Sensor 1 is at the top of the tank, the other ones are located at lower positions.

if the temperatures are too low for the hot water usage in the next hours, you can activate the **Hot water tank boost**.

■ Activate tank boost mode

When the temperatures of the hot water tank are too low to support the hot water usage for the next hours, you can activate the **Hot water tank boost**. The appliance will heat up the tanks to the comfort mode temperature. The tank boost mode is active for 30 minutes. During this period the appliance cannot heat the rooms temporarily.

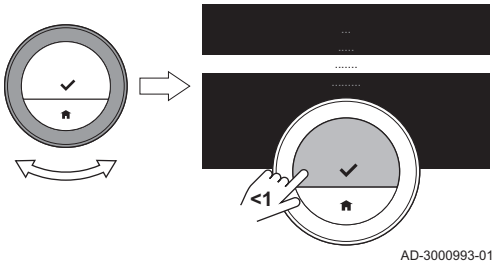
You can activate the tank boost mode in two ways: in the hot water settings menu and directly in the main menu.

– Activate tank boost in hot water settings

After you selected a specific hot water tank, you can activate the hot water tank boost mode.

▶▶ **Mode** > **Hot water tank boost**

Fig.31 Select mode



1. Select **Mode**.
2. Confirm the selection.
3. Select **Hot water tank boost**.
4. Confirm the selection.
   ⇨ You can view the remaining boost period in this screen.

– Activate tank boost in main menu

▶▶ Main menu > **Hot water tank boost**

1. Enter the main menu.
2. Select **Hot water tank boost**
3. Confirm the selection.
   ⇨ You can view the remaining boost period when you select **Mode** in the **Hot water settings** menu.

2.3.2 Combination boiler

When your installation has only a combination boiler for supplying hot water, you can control the water temperature in several ways.

The combination boiler contains a small quantity of hot water at a high temperature when it is in comfort mode. The tap will deliver the hot water quickly.

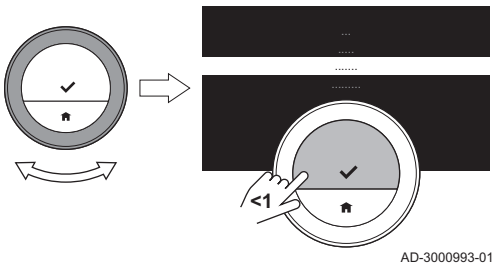
When the combination boiler is in eco mode, it does not contain any hot water. The tap will take more time to deliver hot water.

■ Activate comfort mode for combination boiler

▶▶ Main menu > **Hot water settings** > **Mode Comfort mode (ON)**

1. Enter the main menu.
2. Select **Hot water settings**.

Fig.32 Select mode



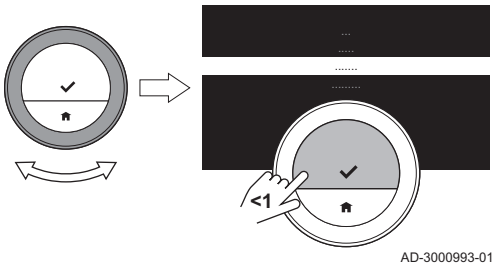
3. Confirm the selection.
4. Select **Mode**.
5. Confirm the selection.
6. Select **Comfort mode (ON)**.
7. Confirm the selection.
   ⇨ The tap will deliver the hot water quickly.

■ Activate eco mode for combination boiler

▶▶ Main menu > **Hot water settings** > **Eco mode (OFF)**

1. Enter the main menu.
2. Select **Hot water settings**.
3. Confirm the selection.
4. Select **Mode**.
5. Confirm the selection.
6. Select **Eco mode (OFF)**.
7. Confirm the selection.
   ⇨ The tap will deliver the hot water less quickly, but saves energy.

Fig.33 Select mode

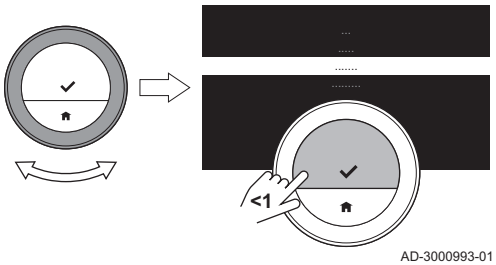


■ Activate scheduling mode for combination boiler

▶▶ Main menu > **Hot water settings** > **Mode** > **Schedule mode**

1. Enter the main menu.
2. Select **Hot water settings**.
3. Confirm the selection.
4. Select **Mode**.
5. Confirm the selection.
6. Select **Schedule mode**.
7. Confirm the selection.
   ⇨ The combination boiler contains a small quantity of hot water at the comfort temperature when the schedule is set to comfort mode. The combination boiler contains almost no hot water when the schedule is set to eco or reduced mode.

Fig.34 Select mode



■ Activate holiday mode for combination boiler

When you are going away for a longer period of time you can set the combination boiler to **Holiday mode**. During this time the combination boiler will only use the **Eco mode** mode, which will save energy.

Important
This holiday mode is not linked to the central heating holiday schedule, and needs to be started separately.

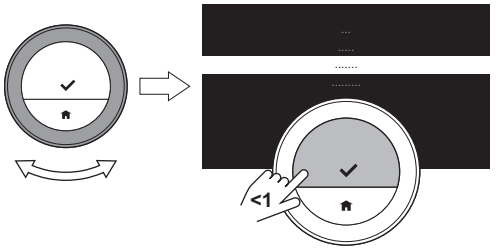
– Create a holiday schedule for combination boiler

After you selected a combination boiler, you can activate the holiday mode.

▶▶ **Mode** > **Holiday mode** > **Save**

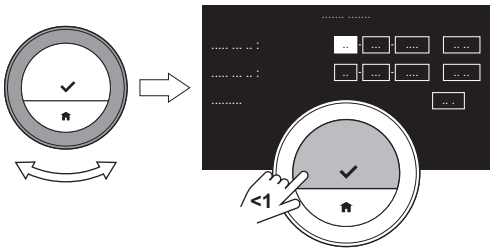
1. Select **Mode**.
2. Confirm the selection.

Fig.35 Activate Holiday mode



3. Select **Holiday mode**.

Fig.36 Set dates and temperatures



4. Set the starting date and end date of the holiday period:
   4.1. Select an item.
   4.2. Confirm the selection.
   4.3. Turn the rotary dial to change the item.
   4.4. Confirm the change.

5. Confirm the selection with Save

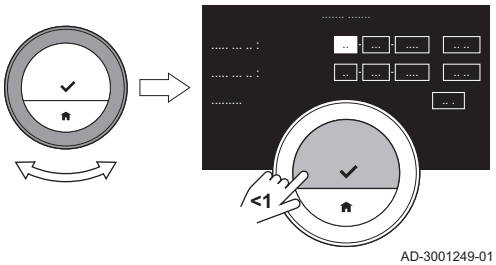
– Change the holiday schedule for combination boiler

After you selected a combination boiler, you can change the holiday mode.

▶▶ **Mode** > **Holiday mode Edit** > **Save**

1. Select **Mode**.
2. Confirm the selection.
3. Select **Holiday mode**.
4. Confirm the selection.
5. Select **Edit**
6. Confirm the selection.
7. Set a new starting date and end date of the holiday period:
8. Select **Save**.
9. Confirm the change.

Fig.37 Set dates and temperatures



– Delete the holiday schedule for combination boiler

After you selected a combination boiler, you can change the holiday mode.

▶▶ **Mode** > **Holiday mode Clear**

1. Select **Mode**.
2. Confirm the selection.
3. Select **Holiday mode**.
4. Confirm the selection.
5. Select **Clear**
6. Confirm the selection.

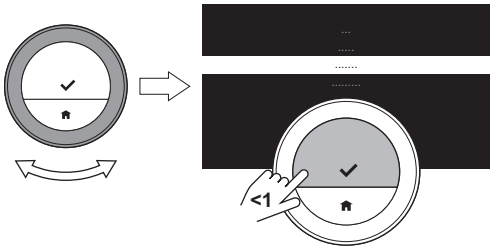
After you delete the holiday schedule, the thermostat will use the mode it was on before the **Holiday mode**

■ Select hot water schedule for combination boiler

▶▶ Main menu > **Hot water settings** > **Mode** > **Active schedule** > Choose schedule

1. Enter the main menu.
2. Select **Hot water settings**.
3. Confirm the selection.

Fig.38 Select mode

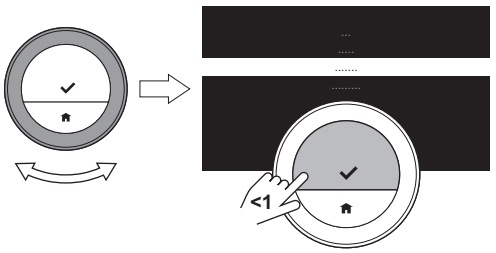


4. Select **Mode**.
5. Confirm the selection.
6. Select **Active schedule**.
7. Confirm the selection.
   ⇨ The display shows the active schedule.
8. Select a different schedule.
9. Confirm the selection.

■ Change the hot water schedule for combination boiler

▶▶ Main menu > **Hot water settings** > **Mode** > **Change Schedule** > Select days > Select mode

Fig.39 Select mode

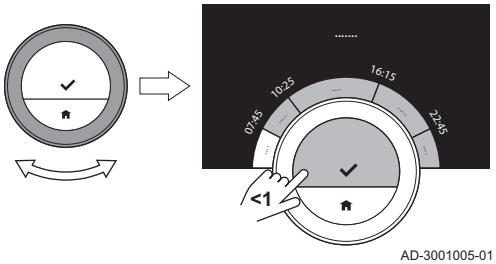


1. Enter the main menu.
2. Select **Hot water settings**.
3. Confirm the selection.
4. Select **Mode**.
5. Confirm the selection.
6. Select **Change Schedule**.
7. Confirm the selection.
8. Select and confirm the day(s) that you want to program.

Important
- When you select more than one day, the same day schedule will be assigned to these days.
- Help text on the display above the schedule helps you perform changes.

9. Confirm the selected day(s) by rotating the rotary dial to **DONE** and pressing the select button.
10. Create the day schedule with the transition times and hot water settings (comfort or reduced/eco).
11. Confirm the selection.
12. Copy the schedule to other weekdays, if required.

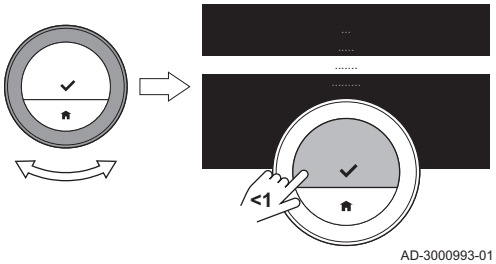
Fig.40 Create a schedule



■ Set the hot water temperature for combination boiler

▶▶ Main menu > **Hot water settings** > **Mode** > **Desired comfort temperature** > Choose temperature

Fig.41 Select mode



1. Enter the main menu.
2. Select **Hot water settings**.
3. Confirm the selection.
4. Select **Mode**.
5. Confirm the selection.
6. Select **Desired comfort temperature**.
7. Confirm the selection.
8. Change the temperature.
9. Confirm the selection.
   ⇨ The combination boiler will maintain the selected temperature when it is in comfort mode.

3 Customisation

3.1 Thermostat settings

3.1.1 Setting country and language

You select the country where you are and the language for the text on your display.

When you start up the thermostat for the first time, you enter automatically the menu to set the country and language.

During normal operation of the thermostat you can change the country and language settings at a later moment by navigating to the menu.

▶▶ Main menu > **Settings** > **Country and language** > Choose country > Choose language

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Country and language**.
5. Confirm the selection.
6. Select your country.
7. Confirm the selection.
8. Select your language.
9. Confirm the selection.

3.1.2 Date and time settings

You can select several date and time settings for your thermostat:

- set the date and time
- enable or disable time synchronisation by internet
- enable or disable automatic switching to summer time and winter time.

■ Setting the date and time

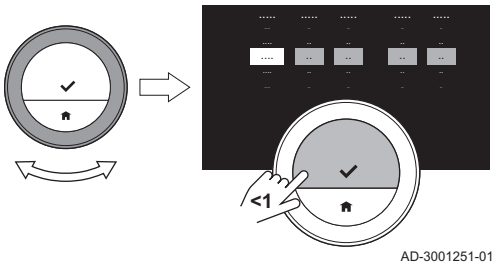
When you start up the thermostat for the first time, you enter automatically the menu to set the time and date.

You enter this menu also when there has been a power outage and the thermostat has no internet connection.

During normal operation you can change the date and time settings by navigating to the menu.

▶▶ Main menu > **Settings** > **Date time settings** > **Date time** > Set date > Set time

Fig.42 Choose date and time



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1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Date time settings**.
5. Confirm the selection.
6. Select **Date time**.
7. Confirm the selection.
8. Change the date and time setting.
9. Confirm the change.

■ Enabling time synchronisation by internet

You can enable or disable the time synchronisation of your thermostat with a NTP server on the internet.

▶▶ Main menu > **Settings** > **Date time settings** > **Time setting from internet** > **On** or **Off**

1. Enter the main menu.
2. Select **Settings**.

3. Confirm the selection.
4. Select **Date time settings**.
5. Confirm the selection.
6. Select **Time setting from internet**.
7. Confirm the selection.
8. Select **On** or **Off**.
9. Confirm the setting.

■ Enabling daylight saving

You can enable or disable automatic switching to summer time and winter time if your appliance system is fit for this option.

Main menu > **Settings** > **Date time settings** > **Enable daylight save** > **On** or **Off**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Date time settings**.
5. Confirm the selection.
6. Select **Enable daylight save**
7. Confirm the selection.
8. Select **On** or **Off**.
9. Confirm the setting.

3.1.3 Changing the name of an activity

You can change the names of the activities for the temperature schedules. The default activity names are dependant on the appliance in your installation.

The **Custom** activity can be set to a different temperature on each day of the week, but cannot be changed in name.

▶▶ Main menu > **Settings** > **Change Activity Name** > **Activity names for cooling** or **Activity names for heating** > Select name > Change name

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Activity names for cooling** or **Activity names for heating**.
5. Confirm the selection.
6. Select the name you want to change.
7. Confirm the selection.
8. Change the name:
   - 8.1. Select the backspace ← in the character selection menu.
   - 8.2. Confirm the selection to delete the character.
   - 8.3. Delete more characters until you can start with the new name.
   - 8.4. Select ␣ in the character selection menu.
   - 8.5. Confirm the selection to add a space to the name.
   - 8.6. Select a character for the new name.
   - 8.7. Confirm the selection to add the character to the name.
   - 8.8. Add more characters until you finish the name.
9. Select ✔ in the character selection menu.
10. Confirm to save the new name.

Fig.43 Change a name

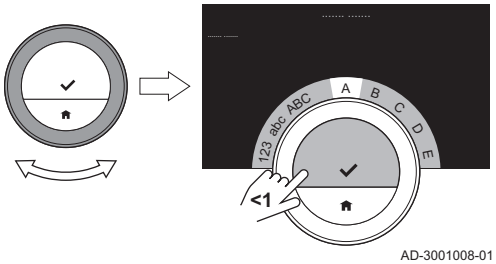

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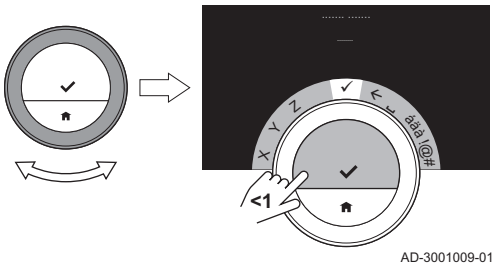
Fig.44 Save a name



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3.1.4 Changing unit system

You can choose the unit system in the display: the metric system shows temperature in °C and water pressure in bar. The imperial system shows temperature in °F and pressure in psi.

▶▶ Main menu > **Settings** > **Change unit system** >

Metric or **Imperial**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Change unit system**.
5. Confirm the selection.
6. Turn the rotary dial to select **Metric** or **Imperial**.
7. Confirm the selection.

3.1.5 Presence sensor

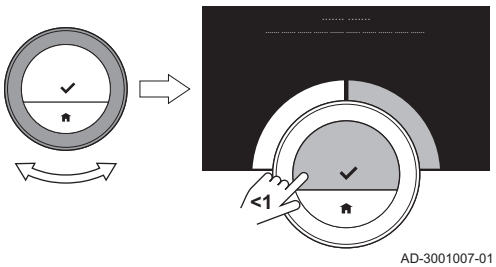
The thermostat has a sensor for presence detection. When you pass by or approach the thermostat, the home screen of the display will light up for 5 seconds. This setting is on by default.

You can switch off the presence detection.

▶▶ Main menu > **Settings** > **Presence sensor detection** > **On** or **Off**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Presence sensor detection**.
5. Confirm the selection.
6. Select **Off**.
7. Confirm the selection.

Fig.45 Select **Off**



- With the presence sensor switched off, you need to press a button or turn the rotary dial to activate the display. The home screen of the display will light up for 30 seconds.
- Set **Presence sensor detection** to **On** to activate the presence sensor again.

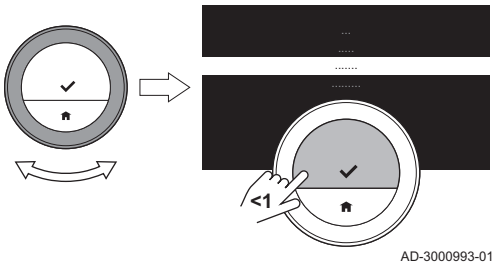
3.1.6 Child lock

The thermostat has a lock function to prevent unwanted access to settings like the desired temperature.

■ Activating the child lock

▶▶ Main menu > **Settings** > **Enable child lock**

Fig.46 Select **Settings**



1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Enable child lock**.
5. Confirm the selection.

It may take some time before the thermostat uses the lock function for the first time.

⇨ The display shows **Child lock enabled**. The thermostat will be locked when it goes into standby mode.
If you press a button or turn the rotary dial to reactivate the display, the display shows **Screen locked**.

6. Press and hold the select button for more than 5 seconds to unlock the thermostat.
   ⇨ The display shows **Screen unlocked**.
   You can use the thermostat and it will be locked again when it goes into standby mode.

■ Deactivating the child lock

▶▶ Main menu > **Settings** > **Disable child lock**

1. Press the select button for more than 5 seconds to unlock the screen.
   ⇨ The display shows **Screen unlocked**.
2. Enter the main menu.
3. Select **Settings**.
4. Confirm the selection.
5. Select **Disable child lock**.
6. Confirm the selection.
   ⇨ The display shows **Child lock disabled**. The screen is permanently unlocked.

3.1.7 Display settings

You can change the display settings in several ways.

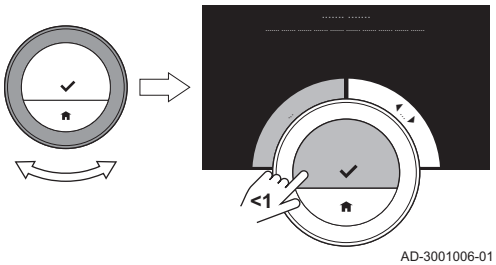
■ Home screen setting

You can add two information boxes on the home screen, one to the left and one to the right of the rotary dial.

▶▶ Main menu > **Settings** > **Information boxes** > Select information boxes

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Information boxes**.
5. Confirm the selection.
   ⇨ The left information box is active.
6. Select one of the options.
7. Confirm the selection.
8. Select the right information box.
9. Confirm the selection.
10. Select one of the options.
11. Confirm the selection.

Fig.47 Select options for information boxes



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You can short-press the home button to go back one step.

■ Display current or desired temperature

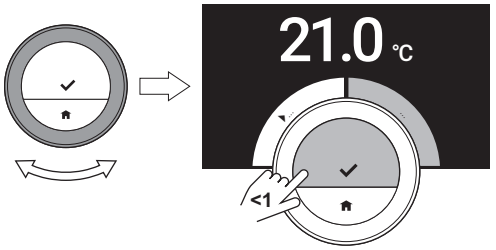
The display shows the current temperature in a large font by default. The desired temperature is in a small font near the temperature scale.

You can change the display of the temperature to show the desired temperature in large font and the current temperature in a small font.

▶▶ Main menu > **Settings** > **Display current or target temperature** > **Current Temperature** or **Target Temperature**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Display current or target temperature**.
5. Confirm the selection.

Fig.48 Choose temperature setting



6. Select **Current Temperature** or **Target Temperature**.
7. Confirm the selection.

This setting will stay until you change this setting again or reset the thermostat to factory settings.

■ Changing the display brightness

You can change the brightness of the display. The brightness can be set to any value between 10% and 100%.

▶▶ Main menu > **Settings** > **Display brightness** > Choose brightness

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Display brightness**.
5. Choose a brightness level using the rotary dial.
6. Confirm the setting.

■ Show help messages

When you have just started to use the thermostat, the display shows a help message after you change to a different mode. The message informs you about the use of the quick access menu. The display will stop showing these messages after some time.

If you wish to see the messages again:

▶▶ Main menu > **Settings** > **Show help messages**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Show help messages**.
5. Confirm the selection.
   ⇨ The display shows **Show help messages enabled** and the help messages will appear again for some time.

3.1.8 Turning the click sound on/off

When you turn the rotary dial the thermostat makes a click sound at every change. You can choose to turn this click sound off (or on again).

▶▶ Main menu > **Settings** > **Click sound** > **On** or **Off**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Click sound**.
5. Confirm the selection.
6. Select **Off** or **On**.
7. Confirm the setting.

3.2 Thermostat connections

You can operate the thermostat with the Mago app on a mobile device or with a home automation application. This allows you to control the appliance(s) in your installation when you are not near the thermostat. You need a wi-fi network and a mobile device with Apple iOS or Android to make the connection.

3.2.1 Establishing the Wi-Fi connection

To be able to connect the thermostat to your mobile device, you must first connect the thermostat to your Wi-Fi network.

When you start up the thermostat for the first time, you will first enter the menu to connect to your Wi-Fi network. Before you start to set your Wi-Fi connection you have to approve the **Terms and Conditions**.

See
Terms and conditions, page 49

During normal operation of the thermostat you can decide to change or reconnect to your Wi-Fi network at a later moment.

▶▶ Main menu > **Settings** > **Wi-fi** > **Terms and Conditions** > Select network > Enter password

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Wi-fi**.
5. Confirm the selection.
6. Accept the **Terms and Conditions**.

The display only shows the option to accept the Terms and Conditions when you declined them or when you reset the thermostat to default settings.

7. Select your Wi-Fi network in the list of available networks.
8. Confirm the selection.
9. Enter the password with the rotary dial and the select button.
10. Select ✔ in the character selection menu to confirm the password.
    ⇨ The thermostat is now connected to the Wi-Fi network.

■ Connecting the thermostat to an access point

You can connect the thermostat to an access point in your Wi-Fi network.

1. Select **WPS Button** in the list of available networks.

If you select **Back**, the display shows the previous screen.

2. Activate the **WPS** on your router (if the router has this option).
    ⇨ The thermostat is now automatically connected to the access point.

■ Connecting the thermostat to a hidden network

You can connect to a hidden wi-fi network, if you know the name and password.

1. Select **Other...** in the list in the list of available networks.
2. Enter the network name with the rotary dial and the select button.
3. Select ✔ in the character selection menu.
4. Confirm the selection to save the network name.
5. Select the security mode.
6. Confirm the selection.
7. Enter the password with the rotary dial and the select button.
8. Select ✔ in the character selection menu.
9. Confirm the selection to save the password.
    ⇨ The thermostat is now connected to the hidden wi-fi network.

3.2.2 Downloading the app

You can install the Mago app on your mobile device.

1. Download the free app in the App Store or Google Play. Refer to the information on the box of the thermostat.
2. Start the app and follow the instructions on your mobile device until the app requests a registration code from the thermostat.

3.2.3 Connecting the app with the thermostat

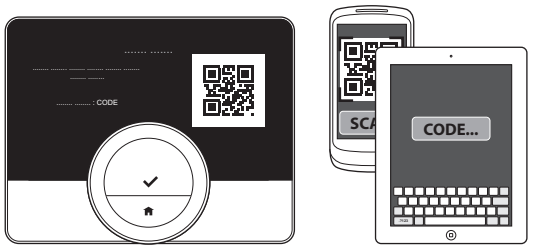
When you start up the thermostat for the first time, you have to register your app or home automation application. You can also connect the thermostat with the app at a later moment.

1. Open the app and create an account in the settings menu.
   ⇨ If you create a new account, you will receive an email message for confirmation.
2. Read the email message.

Check your spam folder if the email does not appear in your inbox.

3. Confirm your account on the website.
4. Enter the main menu of the thermostat.
5. Select **Settings**.
6. Confirm the selection.
7. Select **Register device or service**.
8. Confirm the selection.
   ⇨ The thermostat displays a registration code and QR code.
9. Enter the registration code in the app or scan the QR code with your mobile device.
10. Complete the registration process.

Fig.49 Scan or enter the QR code



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3.2.4 Connecting your home automation application with the thermostat

When you start up the thermostat for the first time, you will enter the menu to register the app first. You can also connect to Energeasy, from Rexel; Alexa, from Amazon; and Google Assistant from Google. Your home automation application can be connected if it can communicate with the IFTTT protocol.

You need an account based on your email address for the connection. During normal operation of the thermostat you can decide to connect or reconnect the home automation application with the thermostat at a later moment.

1. Open the home automation application.
2. Create an account for the thermostat.
3. Read the email message.
   ⇨ Check your spam folder if the email does not appear in your inbox.
4. Confirm your account on the website of the manufacturer of the thermostat.
5. Enter the main menu of the thermostat.
6. Select **Settings**.
7. Confirm the selection.
8. Select **Register device or service**.
9. Confirm the selection.
   ⇨ The display shows a registration code and a QR-code.
10. Enter the registration code in the home automation application or scan the QR-code with your mobile device.
11. Complete the registration process.

3.2.5 Registering installer access

If you want your installer to make any changes or if the service engineer needs information from the installation, you can allow access to your thermostat.

▶▶ Main menu > **Settings** > **Invite installer for 3 days** > Scan QR code

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Invite installer for 3 days**.
5. Confirm the selection.
   ⇨ The display shows the QR code with number and letter code.
6. The installer or service engineer scans the QR code or enters the number and letter code on his app.
   ⇨ The installer or service engineer now has access to the thermostat for up to 72 hours.

3.3 Advanced settings

3.3.1 Resetting to default settings

You can reset most of the thermostat settings to their default settings at the same time.

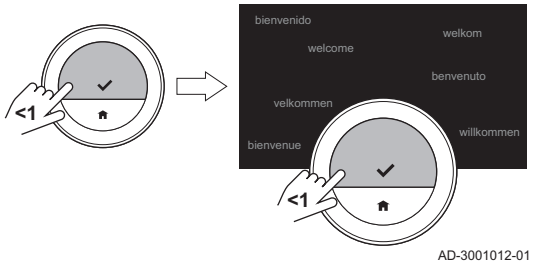
Important

- All connection settings for communication will be deleted
- The temperature schedules, control mode and holiday period will not be reset.

▶▶ Main menu > **Settings** > **Reset to default settings** > **Reset** > Select button

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Reset to default settings**.
5. Confirm the selection.
6. Select **Reset**.
7. Confirm the selection.
   ⇨ The display will show ‘welcome’ in all languages.
8. Press the select button to continue.
   ⇨ The setup procedure will start.

Fig.50 Select **Reset**



See also
Setup procedure, page 46

3.3.2 Check for software update

If your thermostat is connected to wi-fi, the internet and the server, software will be updated automatically. You can check the status of the software:

▶▶ Main menu > **Settings** > **Check for software update**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Check for software update**.
5. Confirm the selection.
   ⇨ The display shows the status of the software.

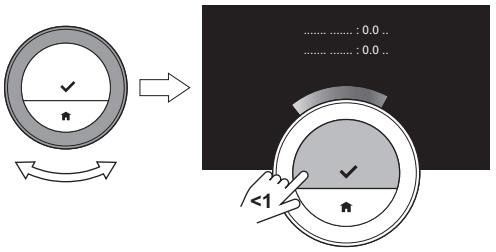
3.3.3 Temperature calibration

You can manually calibrate the temperature if the thermostat displays a temperature that does not correspond with the actual room temperature. This procedure should normally not be necessary.

▶▶ Wait 30 minutes after installation > Main menu > **Settings** > **Temperature calibration**

1. Wait for at least 30 minutes after installation of the thermostat.
2. Measure the actual room temperature.
3. Enter the main menu.
4. Select **Settings**.
5. Confirm the selection.
6. Select **Temperature calibration**.
7. Confirm the selection.
   ⇨ The display shows the temperature measured by the thermostat as **Temperature detected**.
8. If the detected temperature does not match with the temperature you have measured: turn the rotary dial to change the temperature at **Calibrate this temperature to**.
9. Confirm the change.

Fig.51 Select temperature



AD-3001252-01

Important

- It may take some time before the thermostat shows the new offset on the **Current Temperature**.
- The new offset will be used over the entire temperature range.

3.3.4 Activating preheating

You can choose to preheat the room or a zone for a set period to give it a set temperature at the start time of the scheduled heating period.

▶▶ Main menu > **Settings** > **Preheat**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Preheat**.
5. Confirm the selection.
6. Turn the rotary dial to change the preheat period.

If you turn the rotary dial to 0 minutes, the preheat function is deactivated.

7. Confirm the change.

3.3.5 Setting the threshold for auto mode

You can set the threshold temperature for switching between heating and cooling.

▶▶ Main menu > **Settings** > **Threshold temperature**

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Threshold temperature**.
5. Confirm the selection.
6. Use the rotary dial to change the threshold temperature.
7. Confirm the change.

3.4 Installer settings

When you enter the Installer menu, the display shows a warning that the settings in the Installer Menu may affect the performance of your appliance. It may be a better idea that your installer does these settings.

3.4.1 Changing the heating curve

The heating curve relates the water temperature of the heating system to the outside temperature. With a good heating curve the installation can maintain a constant temperature in the room.

▶▶ Main menu > **Installer** > **Yes** > **Heating Curve** > Change the heating curve

1. Enter the main menu.
2. Select **Installer**.
3. Confirm the selection.
4. Select **Yes** to continue.
5. Confirm the selection.
6. Select **Heating Curve**.

The display shows **Heating Curve** only if your installation is fit for this option.

7. Confirm the selection.
   ⇨ The display shows the heating curve diagram.
8. Short-press the select button to select the central curve point.
9. Use the rotary dial to move the central curve point over the oblique line in order to see the outside temperatures and the related water temperatures in the bottom-left corner.
10. Short-press the select button to deselect the central curve point.
11. Use the rotary dial to select **Min:** (the minimum water temperature of the appliance).
12. Confirm the selection.
13. Use the rotary dial to change the temperature.
14. Confirm the change.
15. Use the rotary dial to select **Slope:** (the steepness of the heating curve).
16. Confirm the selection.
17. Use the rotary dial to change the steepness.
18. Confirm the change.
19. Use the rotary dial to select **Save** at the bottom-right corner of the display.
20. Confirm to save the changes in the heating curve.

Fig.52 Select **Heating Curve**

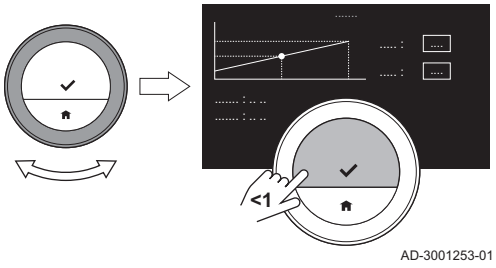
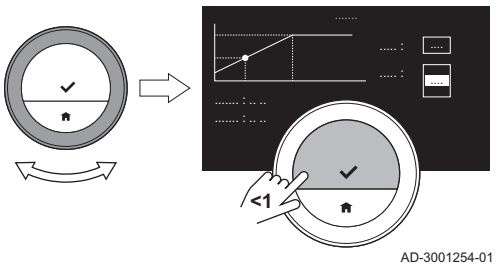


Fig.53 Change the steepness



3.4.2 Setting the control strategy

The control strategy determines the way in which the heating of the room or a zone is controlled.

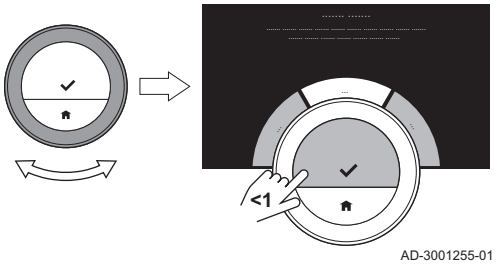
▶▶ Main menu > **Installer** > **Yes** > **Control Strategy** > Choose a **Control Strategy**

1. Enter the main menu.
2. Select **Installer**.
3. Confirm the selection.
4. Select **Yes** to continue.
5. Confirm the selection.
6. Select **Control Strategy**.

Important
The display shows **Control Strategy** only if your installation is fit for this option.

7. Confirm the selection.

Fig.54 Select **Control Strategy**



8. Select the **Control Strategy** that you want:
   - **Room**: the thermostat controls the heating on the basis of the room temperature measured by the thermostat.
   - **Outside**: the thermostat controls the heating on the basis of the outdoor temperature sensor or an internet weather service.
   - **Room & Outside**: the thermostat controls the heating on the basis of the outdoor temperature and the room temperature.
   - **Automatic**: the thermostat chooses one of the control strategies.

If your installation has no outside temperature sensor and no internet weather service has been selected, the display only shows **Room**.

9. Confirm the selection.

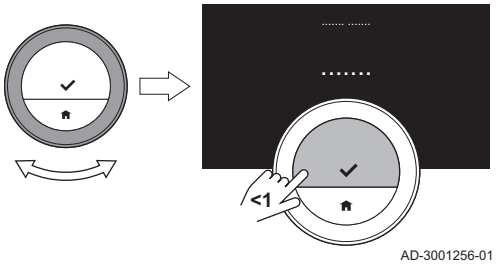
3.4.3 Setting the heating rate

The heating rate determines how slow or fast the installation will heat up the room or zone at the start time of the scheduled heating period.

▶▶ Main menu > **Installer** > **Yes** > **Heating rate** > Select heating rate

1. Enter the main menu.
2. Select **Installer**.
3. Confirm the selection.
4. Select **Yes** to continue.
5. Confirm the selection.
6. Select **Heating rate**.

Fig.55 Select **Heating rate**



Important
The display shows **Heating rate** only if your installation is fit for this option.

7. Confirm the selection.
8. Select the heating rate that you want.

The list of available speed indications depends on the appliance in your installation.

9. Confirm the selection.

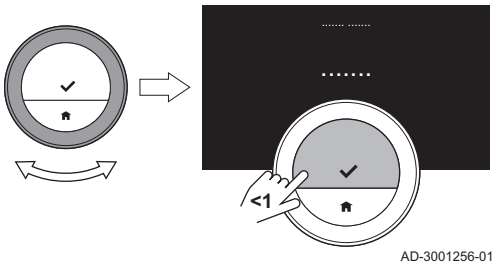
3.4.4 Setting the cooling rate

The cooling rate determines how slow or fast the installation will allow the room or zone to cool to the lower desired temperature after the switch time in the heating schedule. This means cooling by losing heat, not by active cooling.

▶▶ Main menu > **Installer** > **Yes** > **Cooling rate** > Select cooling rate

1. Enter the main menu.
2. Select **Installer**.
3. Confirm the selection.
4. Select **Yes** to continue.
5. Confirm the selection.
6. Select **Cooling rate**.

Fig.56 Select **Cooling rate**



Important
The display shows **Cooling rate** only if your installation is fit for this option.

7. Confirm the selection.
8. Select the cooling rate that you want.

The list of available speed indications depends on the appliance in your installation.

9. Confirm the selection.

3.4.5 Setting the minimum power

The minimum central heating power determines what is the lowest heating capacity of your appliance.

You can set the minimum central heating power if your installation has:

- a gateway 16
- the OpenTherm communication protocol.

The thermostat needs the minimum central heating power setting and some other settings to show the total energy consumption.

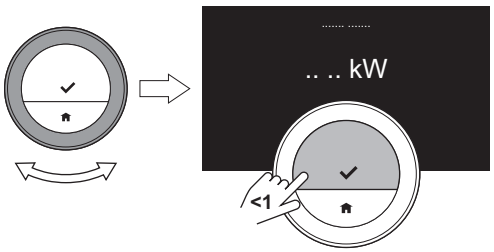
▶▶ Main menu > **Installer** > **Yes** > **Min. power** Choose number of kW

1. Enter the main menu.
2. Select **Installer**.
3. Confirm the selection.
4. Select **Yes** to continue.
5. Confirm the selection.
6. Select **Min. power**.

Important
The display shows **Min. power** only if your installation is fit for this option.

7. Confirm the selection.
8. Turn the rotary dial to select the number of kW.
9. Confirm the selection.

Fig.57 Choose number of kW



3.4.6 Setting the maximum central heating power

The maximum central heating power determines what is the highest heating capacity of your appliance.

You can set the maximum central heating power if your installation has:

- a gateway 16
- the OpenTherm communication protocol.

The thermostat needs the maximum central heating power setting and some other settings to show the total energy consumption.

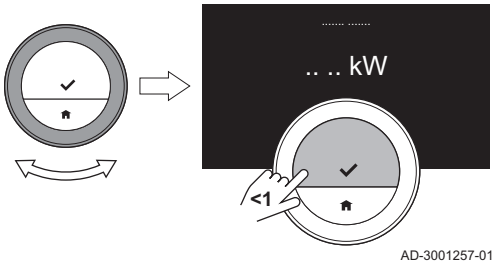
▶▶ Main menu > **Installer** > **Yes** > **CH Max. power** > Change number of kW

1. Enter the main menu.
2. Select **Installer**.
3. Confirm the selection.
4. Select **Yes** to continue.
5. Confirm the selection.
6. Select **CH Max. power**.

Important
The display shows **CH Max. power** only if your installation is fit for this option.

7. Confirm the selection.
8. Turn the rotary dial to select the number of kW.
9. Confirm the selection.

Fig.58 Select **CH Max. power**



3.4.7 Setting maximum power for hot tap water

The maximum power for hot tap water determines what is the highest heating capacity of your appliance.

You can set the maximum power for hot tap water if your installation has:

- a gateway 16
- the OpenTherm communication protocol.

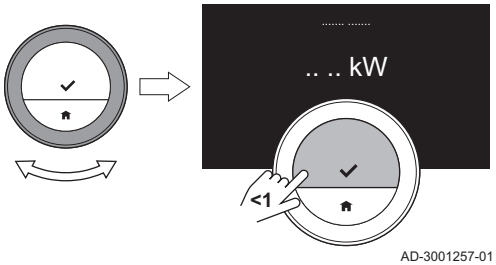
The thermostat needs the maximum power setting for hot tap water and some other settings to show the total energy consumption.

▶▶ Main menu > **Installer** > **Yes** > **DHW Max. power** > Change number of kW

1. Enter the main menu.
2. Select **Installer**.
3. Confirm the selection.
4. Select **Yes** to continue.
5. Confirm the selection.
6. Select **DHW Max. power**.

Important
The display shows **DHW Max. power** only if your installation is fit for this option.

Fig.59 Change number of kW



7. Confirm the selection.
8. Turn the rotary dial to select the number of kW.
9. Confirm the selection.

3.4.8 Register predictive maintenance

The installer or the service engineer can register the thermostat to the central server. The server will receive data from the thermostat and the appliance. At some moment the server will give a signal to the installer or the service engineer that he should execute a timely service activity. In this way good functioning of the appliance is ensured and unnecessary costs for the user are prevented.

▶▶ Main menu > **Settings** > **Register predictive maintenance** > Use QR code

Instruction for the installer:

1. Enter the main menu.
2. Select **Settings**.
3. Confirm the selection.
4. Select **Register predictive maintenance**.
5. Read the registration code or scan the QR code.
6. Register the code in the app connected to the central server.

Once a month the thermostat will send data about the functioning of the appliance to the server. For instance the number of operating hours, water pressure, temperature, etc. The thermostat will send instantly a message to the server when the appliance has an error. The server will send a signal to the installer when maintenance is necessary.

The data and messages are only sent to the server if:

- The appliance is fit for this option.
- The user has agreed on the data exchange after reading the Privacy Policy on the app.
- The user has connected the thermostat to the app.

4 Messages and data

4.1 Outdoor temperature

You can view the outdoor temperature if your installation has an outdoor temperature sensor or if the appliance receives the outdoor temperature from an internet weather service.

You will see the outdoor temperature from a weather service when:

- the heating appliance does not have a connection to an outdoor sensor;
- the app has established the location of the thermostat; and
- the appliance settings state 'Internet' as the type of outdoor sensor.

1. Enter the main menu.
2. Select **Outside Temperature**.
3. Confirm the selection.
   ⇨ The display shows the current outdoor temperature.

4.2 Energy consumption

The thermostat can display the energy that was used by the appliance for central heating, central cooling and hot tap water from the moment of first use.

Important

- The display does not show **Energy Consumption** if your appliance has an on/off communication protocol.
- The display only shows the number for **Domestic Hot Water** if you have a combi appliance in your installation. An appliance that can produce both central heating water and hot tap water.
- The display only shows the number for **Cooling** if you have a cooling appliance in your installation.

1. Enter the main menu.
2. Select **Energy Consumption**.
3. Confirm the selection.
   ⇨ The display shows the energy consumption from the moment of first use of the appliance(s).

4.3 Installer details

The thermostat can display the name and telephone number of the installer for ease of contact.

1. Enter the main menu.
2. Select **Installer Contact Details**.
3. Confirm the selection.
   ⇨ The display shows the contact details of your installer.

Important
The installer contact details can be edited in the app on your mobile device.

4.4 Appliance data

The thermostat can display some appliance data from your heating installation. If your appliance supports this function, you can read the water pressure and water temperature.

Important
This menu item is not available for appliances with an on/off communication protocol.

1. Enter the main menu.
2. Select **Appliance**.

3. Select **Water pressure** or **Current appliance temperature**.
   ⇨ The display shows the selected appliance data.

4.5 Technical information

The thermostat can display various built-in properties and parameters.

1. Enter the main menu.
2. Select **Technical Information**.
3. Confirm the selection.
   ⇨ The display shows:

Tab.6 Device Information

Serial Number:
Software Version:
Wi-fi SSID:
Wi-fi Connection:
Internet Connection:
Server Connection:
Register Status:
IP Address:
MAC Address:
Connection up time:
Wi-fi up time:
date:
time:
Time server:

Tab.7 Appliance Information

Name:
Software Version:
Connection:
date:
time:

Tab.8 Miscellaneous

License Information Open
Logging Send to Server

4.6 Messages overview

You can open a list of service messages, warnings and error messages.

1. Enter the main menu.
2. Select **Error History**.
3. Confirm the selection.
   ⇨ The display shows the list of service messages, warnings and error messages.

   Important
   The list contains the complete history of the appliance. Only one error message can be active at a time and it is situated at the top of the list.

4. Select the active service message, warnings or error message.

Fig.60 Select **Error History**

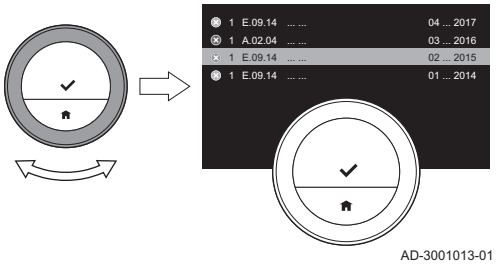
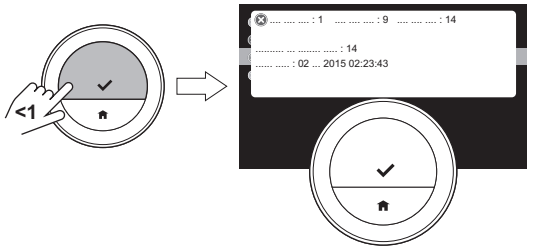


Fig.61 Read the error message



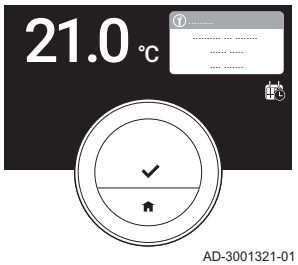
AD-3001014-01

5. Confirm the selection and read the item for more details.
6. If it is an error message and you cannot solve the problem yourself: Note down the error message code and contact your installer.

4.7 Service message

The thermostat shows a service message **Please contact maintainer with service code: %1** in the top right hand corner of the display when the appliance needs maintenance.

Fig.62 Service message example

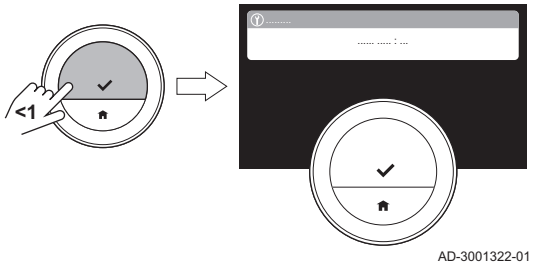


AD-3001321-01

Important
The service code is:

- **A**: Minor maintenance required.
- **B**: Medium maintenance required.
- **C**: Major maintenance required, including component replacement.
- **Custom**: The appliance is from an unknown brand. The extent of the required maintenance is unknown.

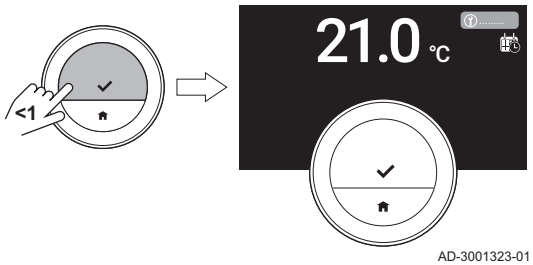
Fig.63 Short press select button



AD-3001322-01

1. Short-press the select button.
   ⇨ The thermostat shows the message in the top of the display.

Fig.64 Short press select button



AD-3001323-01

2. Short-press the select button.
   ⇨ The thermostat shows a small message in the top right hand corner of the display.

Every time you start the thermostat, it will show the service message in the top right hand corner of the display again until the maintenance has been executed. Repeat the steps to view the content of the service message.

4.8 Sending error information to manufacturer

When the thermostat or the appliance has an error, you can send error information to the manufacturer.

Important
If predictive maintenance has been registered, the thermostat will send an automatic message when the appliance has an error.

1. Enter the main menu.
2. Select **Technical Information**.
3. Confirm the selection.
4. Select **Send to Server**.

5. Confirm the selection.
   ⇨ The thermostat will send information to the manufacturer:
   - The error code.
   - Usage data of the thermostat and the appliance from maximum the last four days.

   The display will show a message: **The logging will be sent to the server.**
   If there is also a problem with the internet connection, the display will show: **No server connection: the logging will not be sent to the server.**
6. When the information has been sent, inform the customer service center of the manufacturer about the problem.
   ⇨ The customer service center can analyse the error code and usage data to assess the problem and advise about the solution.

5 Installation

5.1 System overview

5.1.1 System without gateway

Fig.65 System without gateway

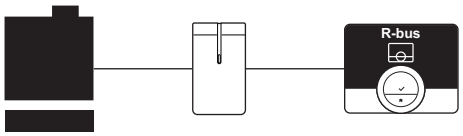
AD-3001020-01

If your heating appliance has the R-bus protocol, you can connect the thermostat directly to the appliance. The appliance and the thermostat will present the maximum number of functions with this protocol.

You can connect the thermostat yourself, or ask your installer.

5.1.2 System with gateway

Fig.66 System with gateway



AD-3001019-01

If your heating appliance does not have the R-bus protocol, you need a gateway to connect the thermostat to the appliance. The gateway then offers three communication protocols:

- On/off protocol
- OpenTherm protocol
- BSB protocol

The communication protocol depends on the requirements of the appliance.

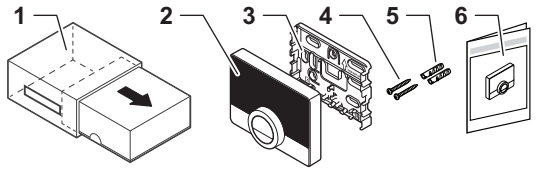
Consult your installer for technical details about your appliance and information on how to connect the thermostat to the appliance.

You can connect the thermostat and the gateway yourself, or ask your installer.

See also
Setup procedure, page 46

5.2 Standard delivery

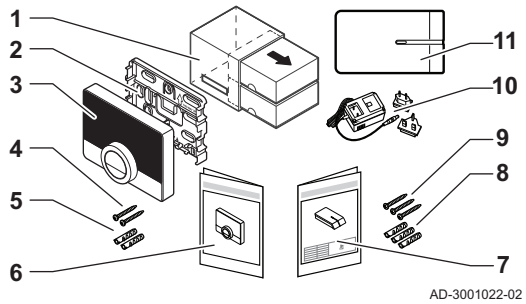
Fig.67 Delivery without gateway



AD-3001021-02

1	Delivery package
2	Mago room thermostat
3	Mounting bracket
4	Screws
5	Wall plugs
6	Quick reference guide

Fig.68 Delivery with gateway

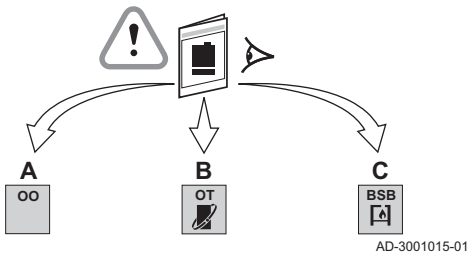


1	Delivery package
2	Mounting bracket
3	Mago room thermostat
4	Screws for the thermostat
5	Wall plugs for the thermostat
6	Quick reference guide for the thermostat
7	Installation instructions for the gateway
8	Wall plugs for the gateway
9	Screws for the gateway
10	230 V Power supply
11	Gateway

5.3 Preparation

You must check which gateway is needed for the communication between the thermostat and your appliance.

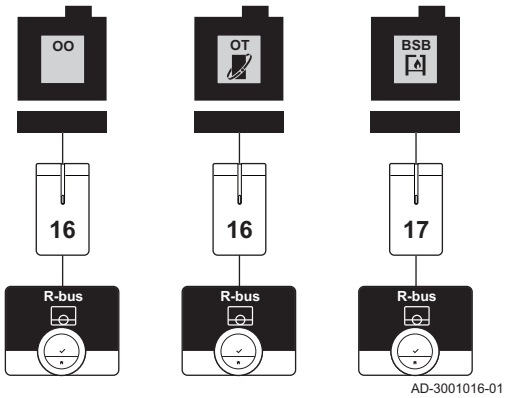
Fig.69 Communication protocols



1. Check the documentation to know which communication protocol is used for the control of your appliance:
   Tab.9 Communication protocol

A	On/off protocol
B	OpenTherm protocol
C	BSB protocol

Fig.70 Gateway with matching protocols



2. Use the diagram to determine which gateway matches the communication protocol of your appliance: Gateway 16 or 17

Important
If your appliance supports the R-bus communication protocol, you don't need a gateway.

5.4 Installation of the gateway

Warning
The installation must be performed by a qualified professional.

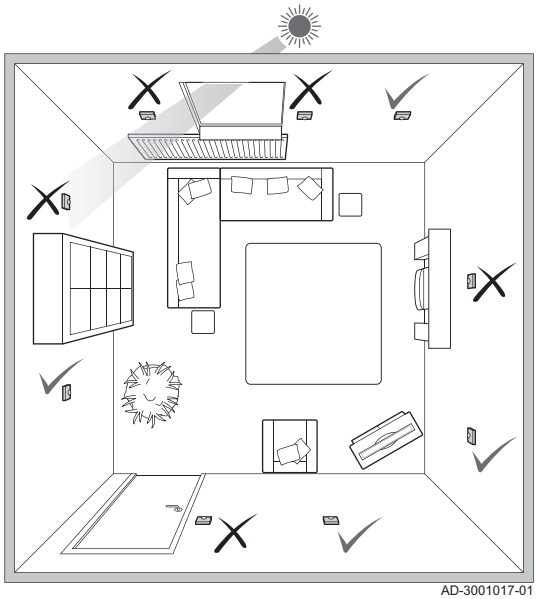
1. Switch off the appliance.

Important
Refer to the documentation of the appliance.

2. Install the gateway following the instructions in the gateway documentation.

5.5 Location of the thermostat

Fig.71 Suitable locations for the thermostat



Choose the right location for the thermostat.

1. Choose the room where you spend most of your time.
2. Choose a suitable place on the wall:
   2.1. Away from heat sources (fire place, radiator, light, candles, direct sunlight, etc.).
   2.2. Away from draughts (windows, doors, air-conditioning, fans, air-vents, etc.).
3. Check that the distance between the thermostat and the appliance or gateway does not exceed 50 m (maximum cable length).

5.6 Installation of the thermostat

The installation of the thermostat is described in the Quick Start Guide that is delivered in the thermostat package.

1. Mount the mounting bracket to the wall following the instructions in the Quick Start Guide.
2. Install the thermostat on the mounting bracket following the instructions in the Quick Start Guide.
3. If the thermostat is to control a specific zone, connect the thermostat to the control module.

5.7 Setup procedure

When the thermostat is connected to the electrical power, the display shows the welcome screen within one minute. The thermostat guides you through the setup procedure.

1. Select the country.

Important
You must select the country where you are to ensure that all functions of the thermostat work well.

2. Select the language.
3. Confirm the selected country.
4. Accept the **Terms and Conditions**.

Important
If you decline the legal **Terms and Conditions** you proceed to the date and time setting and finish the setup procedure. At a later time you can still accept the **Terms and Conditions** and set up your wi-fi connection and app connection.

5. Establish a wi-fi connection.
6. Download the app.
7. Connect your mobile device and/or home automation application with the thermostat.

Important
After you read the Privacy Policy on your app, the thermostat will be connected to the internet.

See also
How to use the thermostat, page 6
Setting the date and time, page 28
Setting country and language, page 28
Thermostat connections, page 32
Terms and conditions, page 49

5.8 Software update

Software updates are available for your thermostat. To update the software the thermostat must be connected to:

- Wi-Fi
- The internet
- The server

When all the connections are active, the thermostat will automatically update the software.

Important
The first software update will be available within one day.

It's also possible to manually check the status of the software.

See
Check for software update, page 35

Each time the software has been successfully updated:

- The thermostat will restart.
- The home screen will show a message.

6 Troubleshooting

6.1 Error messages

If there is a problem, an error message will appear in the display of the thermostat.

1. Press the select button to see more details about the error.
   ⇨ The error icon will remain visible in the display until the problem is solved.
2. Open the error messages list to find details on the active error.
3. Solve the problem(s).
4. Reset the error on the appliance. Refer to the manual of the appliance for more information.
   ⇨ The error icon will disappear from the home screen.

See also
Messages overview, page 42

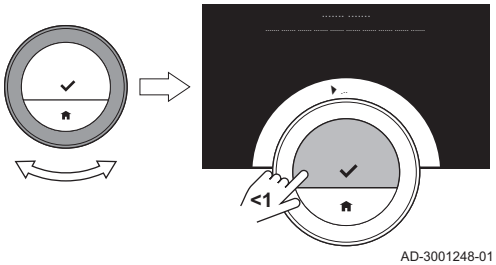
6.2 Low water pressure

When the display shows a message that the water pressure in your installation is low, you must top the installation up soon. If the installation is fitted with a refill device, you can top up your installation in two ways: automatic and manual. You select the automatic or manual topping up option via the Mago app or the control panel on your appliance.

6.2.1 Topping up manually

As soon as the water pressure becomes too low, the display shows a warning: **Water pressure is too low. Top up your installation via the auto-fill menu**.

Fig.72 Select **Ok**



▶▶ Main menu > **Water pressure low** > **Ok**

1. Enter the main menu.
2. Select **Water pressure low**.
3. Confirm the selection.
4. Select **Ok** to confirm that the appliance can start topping up the installation.

Important
- Topping up stops automatically when the maximum water pressure is reached.
- Topping up stops automatically and the display shows an error message when topping up takes too long.

5. Select **Abort** when you want to stop topping up before the maximum water pressure is reached.

6.2.2 Topping up automatically

As soon as the water pressure becomes too low, the automatic refill device starts topping up the installation. Topping up stops automatically when the maximum water pressure is reached. The display shows a message **Congratulations! Your installation has been topped up successfully.**

Important
When topping up takes too long it stops automatically and the display shows an error message.

6.3 Reset after appliance error

In a specific situation you may have to reset the heating appliance in your installation:

- your appliance and thermostat are connected by a gateway 17
- the appliance has an error that may be resolved by a reset from the thermostat.

The display of the thermostat shows the error in the top left corner.

▶▶ Main menu > **Installer** > **Yes** > **Reset the appliance** > **Yes**

1. Enter the main menu.
2. Select **Installer**
3. Confirm the selection.
4. Select **Yes** to continue.
5. Confirm the selection.
6. Select **Reset the appliance**.
7. Confirm the selection.
8. Select **Yes** to continue.
9. Confirm the selection.
   ⇨ The display shows a black screen when the reset is in progress. When the reset is not successful, the display shows a message: **Appliance reset failed. Please try again.**

Contact your service engineer when you cannot solve the problem.

6.4 Other problems or questions

If you have problems or questions about certain situations, please refer to the table below before you contact your installer for help.

Tab.10 Problems and solutions

Problem	Possible cause	Solution or answer
The temperature displayed is too high or too low	• The surroundings of the thermostat affect the reading. • The available place to install the thermostat has an affect on the temperature reading.	• Check for potential problems around the placement of the thermostat. Remove any movable objects that could influence the temperature of a thermostat. • Calibrate the thermostat. you can find how to do this in "Temperature calibration" inside "Advanced settings"
The display does not show the temperature ring.	The thermostat is in frost protection mode.	In frost protection mode the temperature does not show.
	The current temperature is equal to the desired temperature.	The display will show the temperature ring when the temperatures are different.
The thermostat shows a wrong date and time setting.	• The power supply of the appliance was interrupted for more than 2 minutes, • or the wi-fi connection does not function, • or the thermostat has no connection to time synchronisation on the internet (**NTP**).	• Connect the thermostat to the wi-fi network • and to the internet • and to the time synchronisation • Or: set the current date and time.
The display does not go black after 30 seconds.	The presence sensor is set to **On** and an object is in front of the thermostat.	• Put the object at a larger distance. • Set the presence sensor to **Off**.
The desired temperature cannot be set with the rotary dial.	The thermostat is in frost protection or holiday mode.	Set the thermostat to manual mode or temperature scheduling mode.
The **Energy Consumption** menu shows no consumption information or a value that seems to be incorrect.	• The minimum and maximum power of the appliance is not set correctly in the **Installer** menu. • Your installation is not fit for this option.	• Ask for the correct power settings of your appliance. • Enter the **Installer** menu and set: - minimum power for central heating. - maximum power for central heating. - maximum power for hot tap water.

7 Maintenance

7.1 Cleaning

When the thermostat needs cleaning:

1. Take a soft cloth, preferably micro fiber.
2. Moist it with a mild (non-abrasive, not-alcoholic) detergent.
3. Wipe the surface of the thermostat gently.

8 Appendix

8.1 Terms and conditions

The legal **Terms and Conditions** are for the Wi-Fi connection and use of the app. Before you setup your Wi-Fi connection and app connection you have to approve the **Terms and Conditions**.

The **Terms and Conditions** cannot be viewed on the thermostat. You have two options to view them:

- Visit the website of the manufacturer.
- Open the app on your mobile device.

Approve the **Terms and Conditions** after you have read and agreed to them.

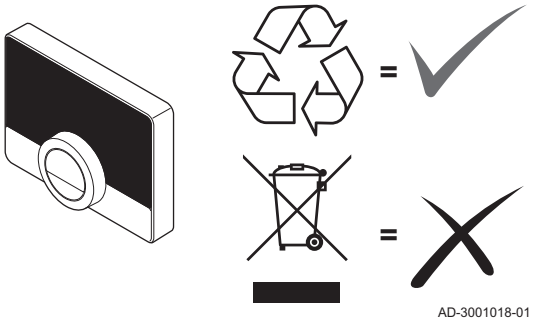
If you decide to accept the **Terms and Conditions** you have four extra features with the thermostat:

- You can control your heating (and cooling) system via your mobile device and/or home automation application.
- The thermostat will automatically restore the right date and time after a power outage.
- The thermostat will receive automatic updates with new functions.
- You will be able to report errors of your system to the manufacturer.

You have to accept the **Terms and Conditions** only once, unless you reset the default settings of the thermostat.

8.2 Disposal

Fig.73 Disposal



The thermostat is a regular electronic device.

Dispose of the thermostat in an environmentally friendly way and in accordance with local regulations.

8.3 Technical specifications

Tab.11 Dimensions

Width x height x depth (maximum dimensions)	121 x 90 x 29 mm

Tab.12 Power supply

Bus connection voltage	24 V ± 5%
Maximum power consumption	2 W

Tab.13 Electrical connection

Maximum cable length for dedicated Mago bus	50 m
Maximum cable resistance	2 x 5 ohm

Tab.14 Wi-fi connection

Supported frequency band	2.4 Ghz (802.11b/g)

Tab.15 Ambient conditions

Storage temperature	from - 25 °C to 70 °C
Relative humidity	from 5 % to 95 % Condensation is not allowed
Operating conditions	from 0 °C to 60 °C

Tab.16 Temperature

Room temperature measurement range	from 0 °C to 50 °C (1)
Temperature control area	from 10 °C to 30 °C (1)
(1) Depends on appliance.	

Tab.17 Compliant with standards

Directive	Standard
2014/35/EU Electromagnetic Compatibility Directive (EMC)	EN 55022 Information technology equipment
	EN 55014 Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus
	EN 61000-6-2 Generic standards - Immunity for industrial environments
2014/53/EU Radio Equipment Directive (RED)	ETSI-EN 301 489-17 Electromagnetic compatibility and radio spectrum matters
	EN 60950-1 (ITE – Safety – Part 1: General Requirements)
2014/30/EU Low Voltage Directive (LVD)	
2012/19/EU Waste Electrical & Electronic Equipment (WEEE)	
	IEC 60068-2-32 Drop test
	IP21 Protection classification

8.4 ErP information

8.4.1 Product fiche

Tab.18 Product fiche

Baxi - Mago		Mago(1)	Mago(2)	Mago(3)
Class		IV	V	VI
Contribution to space heating energy efficiency	%	2	3	4

(1) Combined with On/Off appliance
(2) Combined with modulating appliance
(3) Combined with modulating appliance and outdoor sensor

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