



User Guide

Digital clock thermostat

uSense

Dear end user,

Thank you for choosing this uSense. You can control your home heating using the uSense or also by using an app. With this uSense, you are in the driver's seat to control the temperature of your home. It's all about your comfort, just the way you want it.

This manual contains easy to use information and is intended for installers and end users.

Use the manual menu to get quick access to the instructions you need. For your own safety and optimum performance of the uSense, we advise you to read the manual first.

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 working with the uSense.

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1 Manual menu

Fig.1 Introduction



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Introduction

This chapter introduces you to the thermostat. You will find basic information, e.g. how to use the rotary dial and buttons plus how to interpret the information on the screen.

➔ Chapter: Introduction, page 6

Fig.2 General use



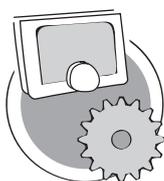
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General use

This chapter helps you with the daily use of the thermostat. You will find instructions for daily use like how to change temperatures in different modes, changing control modes.

➔ Chapter: General use, page 13

Fig.3 Customisation



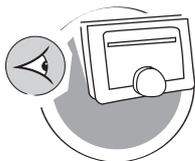
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Customisation

This chapter helps you with customising the thermostat.

➔ Chapter: Customisation, page 21

Fig.4 Messages and data



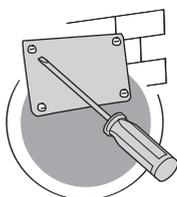
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Messages and data

This chapter helps you with navigating to information and data of the thermostat and system.

➔ Chapter: Messages and data, page 29

Fig.5 Installation



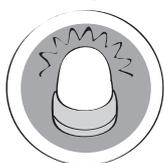
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Installation

This chapter helps you with the installation and commissioning of the thermostat.

➔ Chapter: Installation, page 32

Fig.6 Troubleshooting



AD-3001028-01

Troubleshooting

This chapter helps you when there is a problem with the thermostat, an error message will appear on the home screen.

➔ Chapter: Troubleshooting, page 36

Fig.7 Appendix



AD-3001029-01

Appendix

This chapter gives you more technical information about the thermostat.

➔ Chapter: Appendix, page 37

2 Introduction



AD-3001023-01

This chapter introduces you to the thermostat. You will find basic information, e.g. how to use the rotary dial and buttons plus how to interpret the information on the screen.

→ Next chapter: General use, page 13

🏠 First chapter: Manual menu, page 5

2.1 Symbols used in the manual

This manual uses various symbols to draw attention to special instructions. We do this to improve user safety, to prevent problems and to guarantee correct operation.



Warning

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



Caution

Risk of material damage.



Important

Please note: important information.



See

Reference to other manuals or pages in this manual.

2.2 Introducing the uSense

Intended use. The uSense is designed to operate as a room thermostat with the possibility to operate your heating system. It has a Wi-Fi connection to be able to connect to the Internet, making it possible to operate the uSense with an app on a mobile device.



Warning

Do not use the uSense for systems that are not in accordance with the intended use.

A simple user interface. Like many other interfaces you have to scroll through menus, select and enter options and confirm changes. The uSense has only two buttons that you can either short-press or long-press. There is one rotary dial to scroll forward or backward. It's as easy as that!

Controlling the temperature. Your plans change. No problem, control the temperature as you wish, in manual mode or schedule mode. You can even be flexible by switching between three schedules. Do you prefer using your mobile device anywhere in the house? The uSense app is available for iOS, Android and Windows.

What do I do when I ...? I want to ...? How do I ...? Are you going away for a holiday? Do you want to make a fire in your fireplace? Do you need a hot water boost? Or do you want a short temperature change? You can find most answers in the "General use" chapter.

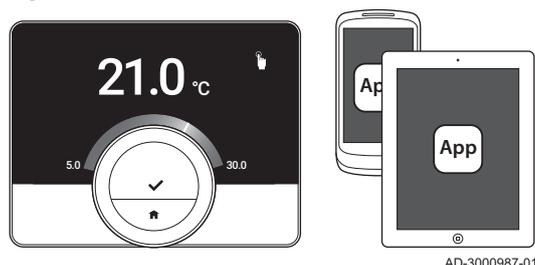


For more information, see

General use, page 13

2.3 The uSense and its app

Fig.8



The climate in your home contributes to your comfort; with the uSense you are able to control the temperature in your home the way you want it.

In case you prefer to control your climate with your mobile device (e.g. smartphone or tablet) you can download the app and connect it with your uSense.



Important

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

2.4 What's new for the uSense

This document is based on the latest software version. The list describes the new software functionalities for the uSense based on software version 1.30.X:

- Auto filling function (the availability depends on your appliance.)
- Cooling function (the availability depends on your appliance.)
- Fireplace mode (the availability depends on your appliance.)
- Check for software update
- Child lock function
- Changing name of zone
- Wi-Fi configuration screens updated



See

Technical information, page 30, for information about the current software version of your uSense.

2.5 How to use the uSense

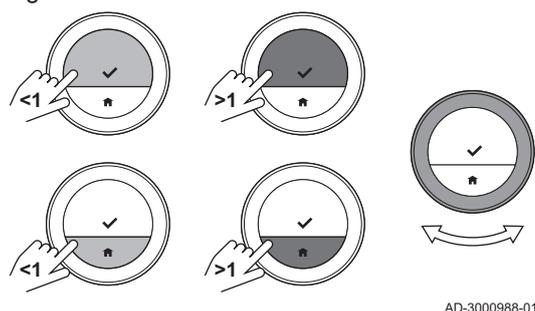
Before you can use the uSense, it first needs to be installed.



For more information, see Installation, page 32

2.5.1 Using the rotary dial and buttons

Fig.9

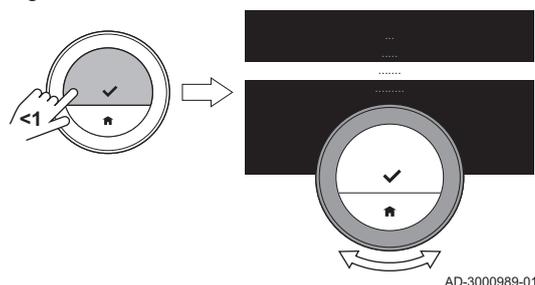


The rotary dial has two buttons: the top button is the select button, the bottom button is the home button. Pressing a button for a shorter or longer time will start different actions, as shown in this manual.

- **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.

2.5.2 Entering the main menu and menu items

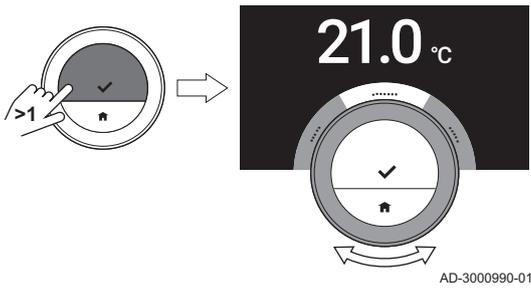
Fig.10



The main menu gives you access to all submenus 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.

Fig.11

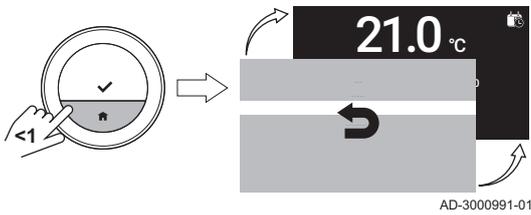


2.5.3 Entering the Quick Access menu and menu items

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.

Fig.12

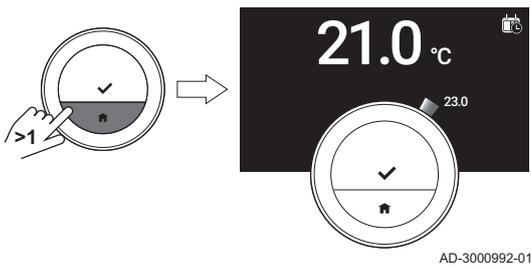


2.5.4 Returning to the previous step or home screen

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

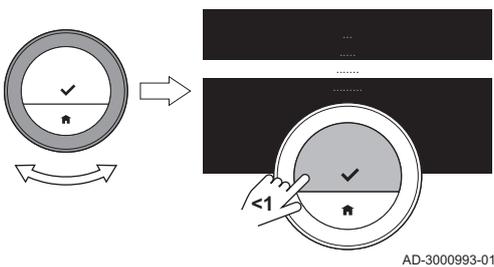
1. Short-press the home button to return to the previous step.

Fig.13



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

Fig.14

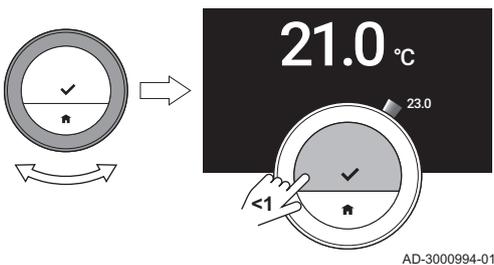


2.5.5 Scrolling through menu items and changing settings

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

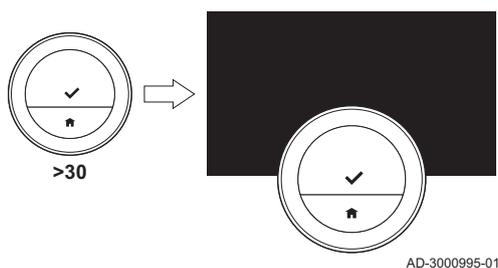
1. Turn the rotary dial to scroll through the menu items.
2. Select the menu item you want to change.
3. Short-press the select button to confirm the selection.
4. Turn the rotary dial to scroll through the submenu items.
5. Select the submenu item you want to change.
6. Short-press the select button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

Fig.15



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

Fig.16



2.5.6 Screen shows no information

When the rotary dial, select button or home button are not operated and no people are in front of the uSense for 30 seconds, the display of the uSense goes in stand-by mode and will show no information (black screen).

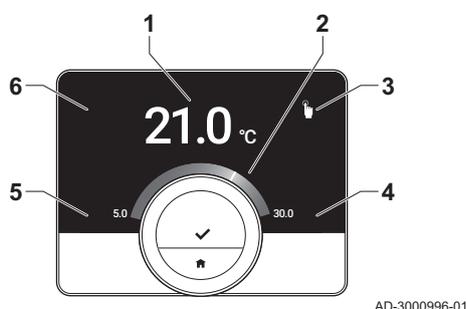
i Important

- Press a button, turn the rotary dial or use the presence sensor to activate the display.
- The uSense will display the home screen after activation of the display. Any unconfirmed setting or selection will be lost.
- On delivery the presence sensor is active. You can switch off the presence detection.

For more information, see
Presence sensor, page 23

2.6 Description of the display

Fig.17



- 1 Current temperature (or target temperature)
- 2 Temperature scale
- 3 Control mode icon
- 4 Main screen information box
- 5 Main screen information box
- 6 Zone icon

The temperature scale in the main screen shows the difference between the current and target temperature. The white line 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.

i Important

The uSense displays the current temperature in a large font by default. You can change the display of the temperature to show the target temperature.

For more information, see
Screen shows no information, page 9
Main screen setting, page 23
Changing the display settings, page 25

2.6.1 Description of the icons in the display

Possible icons in the display (depending on the configuration of the system).

Tab.1 Control mode icons

	Manual mode: Manual mode is active	See Changing the mode quickly, page 13 Changing the temperature in manual mode, page 13
	Anti-frost mode: Anti-frost mode is active	See Changing the mode quickly, page 13 Switching to antifrost mode, page 19
	Holiday period: Holiday period is active	See Changing the mode quickly, page 13 First option, page 18

	Fireplace mode: Fireplace mode is active	 See Changing the mode quickly, page 13 Activating fireplace mode, page 19
	Temperature scheduling: Temperature scheduling is active	 See Changing the mode quickly, page 13 Changing the temperature in scheduling mode, page 14
	Short temperature change: Scheduling mode is interrupted for a short temperature change	 See Changing the mode quickly, page 13 Changing the temperature for a short period in scheduling mode, page 14
	Rotary dial: You are turning the rotary dial to set the temperature	 See Changing the temperature in manual mode, page 13 Changing the temperature in scheduling mode, page 14

Tab.2 Main screen icons

	Date	 See <ul style="list-style-type: none"> Setting the time and date, page 22 Main screen setting, page 23
	Time	 See <ul style="list-style-type: none"> Setting the time and date, page 22 Main screen setting, page 23
	Outdoor temperature	 See <ul style="list-style-type: none"> Main screen setting, page 23 Outside temperature, page 29
	Boiler status: Heating demand	 See Main screen setting, page 23
	Boiler status: Heating active	 See Main screen setting, page 23
	Appliance mode: On	 See <ul style="list-style-type: none"> Switching the central heating on/off, page 20 Main screen setting, page 23
	Appliance mode: Off	 See <ul style="list-style-type: none"> Switching the central heating on/off, page 20 Main screen setting, page 23
	Appliance mode: Cooling	 See <ul style="list-style-type: none"> Switching to cooling mode, page 20 Main screen setting, page 23
	Appliance mode: Auto	 See <ul style="list-style-type: none"> Switching to auto mode, page 20 Main screen setting, page 23

Tab.3 Zone icons

	Basement	 See Changing the zone temperatures, page 17 Changing the name of a zone, page 25
	Bedroom	 See Changing the zone temperatures, page 17 Changing the name of a zone, page 25
	Kitchen	 See Changing the zone temperatures, page 17 Changing the name of a zone, page 25
	Living room	 See Changing the zone temperatures, page 17 Changing the name of a zone, page 25
	Study	 See Changing the zone temperatures, page 17 Changing the name of a zone, page 25
	Swimming pool	 See Changing the zone temperatures, page 17 Changing the name of a zone, page 25
	Generic	 See Changing the zone temperatures, page 17 Changing the name of a zone, page 25

Tab.4 Error icon

	Error display: The appliance reports an active error	 See Error messages overview, page 30 Troubleshooting, page 36
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2.6.2 Customising the main screen display

You can configure the main 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.



For more information, see

Main screen setting, page 23

Display current or target temperature, page 23

2.7 Zone selection

In case you have multiple zones in your heating system, it is possible to control temperatures in multiple zones. A zone can be a room or, for example, the ground or first floor. The zones are named CircA, CircB etc. by default. These factory names can be changed in any name you prefer. You can change the names on the uSense or in the app.

The multiple zoning options needs to be supported by a matching appliance configuration.



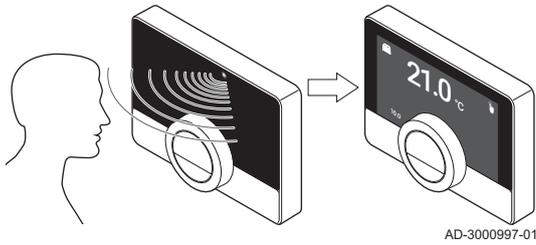
For more information, see

Changing the name of a zone, page 25

Changing the zone temperatures, page 17

2.8 Presence detection

Fig.18



The main screen of the display will light up (for 5 seconds) if the presence sensor detects that you are in front of the uSense or pass by. You can disable the presence sensor in the settings menu.



For more information, see

Presence sensor, page 23

3 General use



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This chapter helps you with the daily use of the thermostat. You will find instructions for daily use like how to change temperatures in different modes, changing control modes.

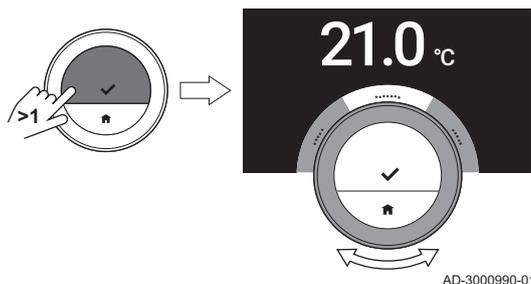
→ Next chapter: Customisation, page 21

← Previous chapter: Introduction, page 6

🏠 First chapter: Manual menu, page 5

3.1 Changing the mode quickly

Fig.19



AD-3000990-01

You can change the control mode quickly from the access menu.

1. Long-press the select button to enter the Quick Access menu.
2. Turn the rotary dial to select the desired mode.
3. Short-press the select button to confirm your choice.

Tab.5 Possible mode and description

Manual: The room temperature can be set instantly with the rotary dial.
Antifrost: The room temperature is set to the antifrost temperature setting.
Holiday: The room temperature is set to the holiday temperature setting.
Fireplace: Continue heating other rooms in the same zone while an additional heat source heats the room where the uSense is located.
Scheduling: The room temperature is controlled by a temperature schedule. ⁽¹⁾
Short Change: The scheduled room temperature is changed for a settable duration.
(1) When multiple schedules are enabled, Schedules 1 to 3 are shown.

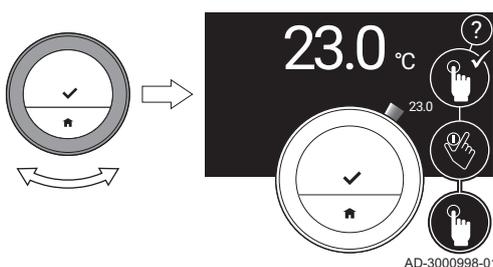


For more information, see

- Changing the temperature in manual mode, page 13
- Changing the temperature in scheduling mode, page 14
- Changing the temperature for a short period in scheduling mode, page 14
- First option, page 18
- Activating fireplace mode, page 19
- Switching to antifrost mode, page 19

3.2 Changing the room temperature

Fig.20



AD-3000998-01

3.2.1 Changing the temperature in manual mode

In manual mode you can easily change the room temperature.

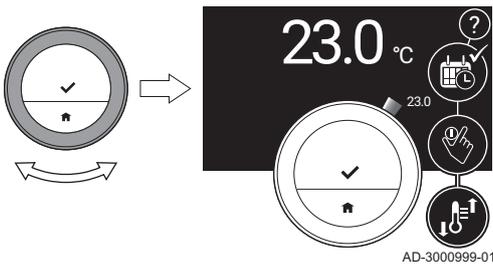
1. Check that the uSense operates in manual mode (see icon in top-right corner of main screen).
2. Turn the rotary dial to change the temperature.
 - ⇒ While you turn the rotary dial, the target temperature is displayed in light digits. After a few seconds, the uSense shows the home screen again with the current temperature (or target temperature) in bold digits.



Important

When the uSense is in manual mode, only a scheduled holiday period can automatically change the room temperature.

Fig.21



3.2.2 Changing the temperature in scheduling mode

You can temporarily change the temperature when the uSense is in scheduling mode. The set temperature will continue up to the next switch point in the schedule.

1. Check that the uSense operates in scheduling mode (see icon in top-right corner of main screen).
2. Turn the rotary dial to change the temperature.
 - ⇒ While you turn the rotary dial, the target temperature is displayed in light digits. After a few seconds, the uSense shows the home screen again with the current temperature (or target temperature) in bold digits.



Important

You can remove the set temperature by selecting **Clear Short Temperature Change** in the main menu.

3.2.3 Changing the temperature for a short period in scheduling mode

You can change the temperature for a short set period when the uSense is in scheduling mode. At the end of the time period the uSense returns to the scheduled temperature.

You can set the short temperature change via the main menu or the Quick Access menu.



Important

During the set time period you can change the temperature for the short temperature duration with the rotary dial.

■ Main menu

1. Enter the main menu.
2. Select **Short Temperature Change**.
3. Confirm the selection.
4. Adjust the time period.
5. Confirm the selection.
6. Change the temperature using the rotary dial.
7. Confirm the selection.

■ Quick Access menu

1. Change the temperature using the rotary dial.
2. Long-press the select button to enter the Quick Access menu.
3. Adjust the time period.
4. Confirm the selection.

3.3 Creating a temperature schedule to control the room temperature

A temperature schedule enables you to change the target temperature at any moment that you choose. You can set a different schedule for each day of the week.

You can customise each day schedule to your own preference:

- Change the time of a switch point.
- Choose another activity between switch points.
- Change the temperature of an activity.
- Add up to a maximum of 6 switch points per day.
- Remove switch points to a minimum of none (resulting in constant temperature all day long based on the last activity from the previous day).

You can create up to three week schedules. For example, you can create time schedules for:

- A week with normal working hours.
- A week when you are at home most of the time.
- A winter or summer schedule.

3.3.1 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 point and the activity (with its temperature) for each interval of the schedule.

1. Enter the main menu.
2. Select **Change Temperature Scheduling**, **Change Heating Temperature Scheduling** or **Change Cooling Temperature Scheduling**.

i Important
Availability of the submenus depends on your appliance.

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

i Important

- 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.22

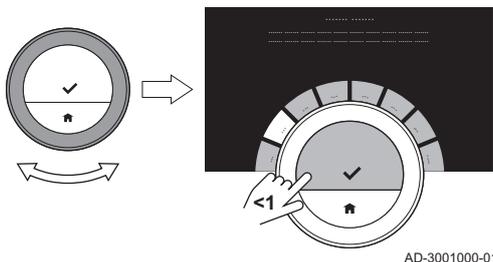
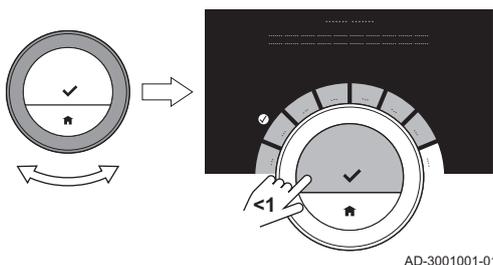


Fig.23



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

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

■ Changing an activity

The temperature of a time interval in the day schedule is set by the selected activity. By changing the activity another target temperature is set.

i Important
When you change an activity the cursors mark the item you are changing.

1. Select the activity with the rotary dial.
2. Confirm the selection.
3. Choose another activity with the rotary dial or leave it as is.
4. Confirm the selection.
5. Change the temperature of the activity or leave it as is.

i Important

- The temperature you set for an activity is the same for every day of the week where you use this activity.
- The **Custom** activity, however, can have a different temperature on each day of the week.

6. Confirm the selection.

For more information, see
Changing the name of an activity, page 24

Fig.24

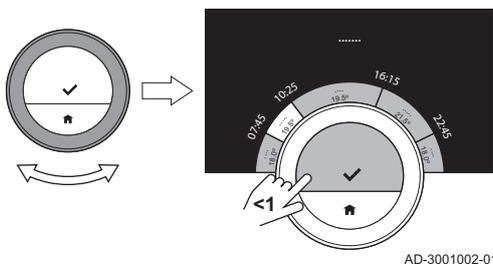
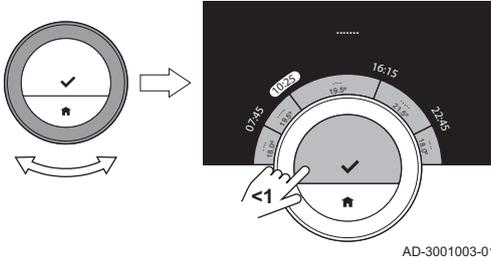
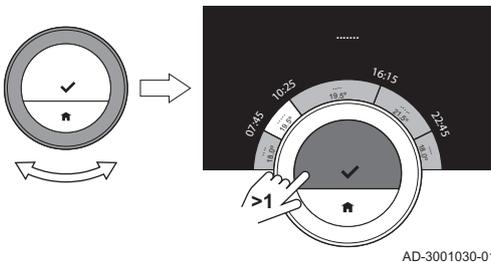


Fig.25



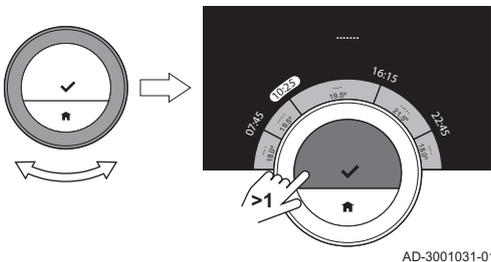
AD-3001003-01

Fig.26



AD-3001030-01

Fig.27



AD-3001031-01

■ Changing a switch time

The switch time is the start time of new activity interval in the day schedule.



Important

When you change a switch time the cursors mark the item you are changing.

1. Select the switch time with the rotary dial.
2. Confirm the selection.
3. Change the switch time.
4. Confirm the selection.

■ Adding or deleting activities and switch times

You can add or remove activity intervals from the day schedule.

1. Select an activity and long-press the select button to add an interval.
 - ⇒ An new interval is created within the start and end time of the existing activity interval.
2. Repeat step 1 to add more intervals, if required.
3. Change the activity of the new interval(s).
4. Change the switch time of the new interval(s), if required.
5. Select a switch time and long-press the select button to delete an interval.
6. Select **DONE** using the rotary dial to save the day schedule.

3.3.2 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.

1. Enter the main menu.
2. Select **Change Temperature Scheduling**, **Change Heating Temperature Scheduling** or **Change Cooling Temperature Scheduling**.



Important

Availability of the submenus depends on your appliance.

3. If multiple schedules is enabled: Select **Schedule 1**, **Schedule 2** or **Schedule 3**.
4. Select the weekday you want to copy.
5. Confirm the selected day(s) by rotating the rotary dial to **DONE** and pressing the select button.
 - ⇒ The day schedule is opened.
6. Select **Copy** using the rotary dial.
7. Confirm the selection.
 - ⇒ The week schedule is opened.
8. Select and confirm the weekday(s) on which you want to copy the day schedule.

9. Confirm the selected day(s) by rotating the rotary dial to **DONE** and pressing the select button.
 - ⇒ The day schedule is copied to the selected day(s).

3.3.3 Selecting another temperature schedule

Your weekly programme can differ from week to week. The uSense offers you three possible schedules to program. You can set which temperature schedule is active. First you have to enable the use of multiple schedules.

1. Enter the main menu.
2. Select **Settings**.
3. Select **Enable multiple schedules**.
4. Enter the main menu.
5. Select **Select Active Temperature Schedule**.
6. Select **Schedule 1**, **Schedule 2** or **Schedule 3**.
7. Confirm the selection.
 - ⇒ The selected temperature schedule becomes active, which is shown by the icon in the top-right corner of the main screen.

3.4 Changing the zone temperatures

In case you have multiple zones in your heating system, it is possible to control the temperature in multiple zones.

1. Enter the main menu.
2. Select **Zone Selection**.
 - ⇒ The available zones are displayed.
3. Select a zone.
4. Confirm the selection.
 - ⇒ The main screen is displayed with the icon of the selected zone.
5. Change the temperature using the rotary dial.
6. Confirm the selection.
7. Repeat the steps to change the temperature of another zone, if required.

3.5 Topping up your installation

When your appliance is fitted with an automatic refilling unit, it is possible to top up your installation via the uSense.

As soon as the water pressure becomes too low, the warning **Water pressure low** will appear on the main screen.

1. Press the home button.
 - ⇒ The message **Press Ok to top up your installation** is displayed.
2. Select **Ok** to confirm that the appliance can start topping up the installation.



Important

- Topping up will stop automatically when the maximum water pressure is reached.
- If topping up takes too long, filling is stopped and an error message is displayed.

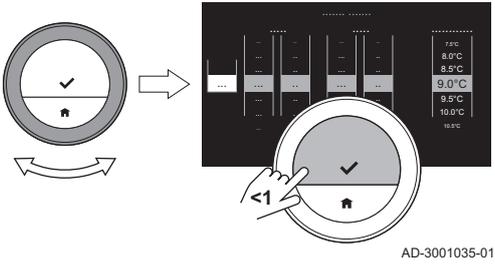
3. Select **Abort** to stop topping up before the maximum water pressure is reached.

3.6 Going on holiday

When you are away for a longer period you can decrease the room temperature to save energy. The holiday mode temperature overrules the temperature(s) set in manual mode or scheduling mode.

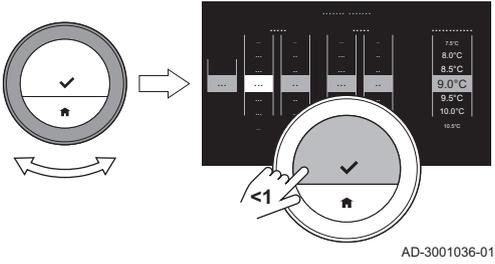
Depending on your appliance and/or gateway setting the holiday mode can be different. There are two options:

Fig.28



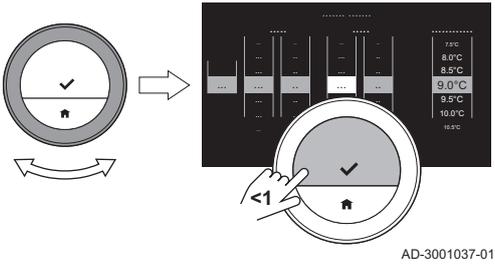
AD-3001035-01

Fig.29



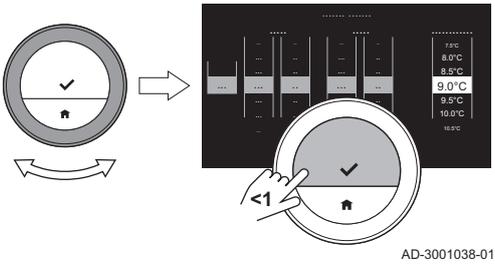
AD-3001036-01

Fig.30



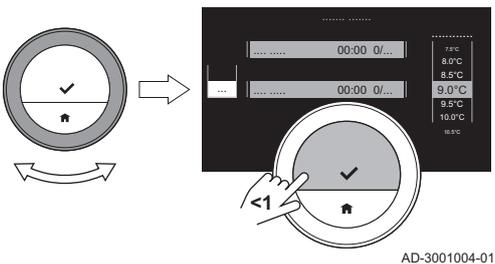
AD-3001037-01

Fig.31



AD-3001038-01

Fig.32



AD-3001004-01

3.6.1 First option

1. Enter the main menu.
2. Select **Input Holiday Period**.
3. Use the rotary dial to select the option holiday mode **On**.
4. Confirm the selection.



Important

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

5. Use the rotary dial to change the start month of the holiday period.
6. Confirm the selection.
7. Use the rotary dial to change the start day of the holiday period.
8. Confirm the selection.

9. Use the rotary dial to change the end month of the holiday period.
10. Confirm the selection.
11. Use the rotary dial to change the end day of the holiday period.
12. Confirm the selection.

13. Use the rotary dial to change the room temperature for the holiday period.
14. Confirm the selection.
 - ⇒ The holiday period is set and the holiday icon will appear in the top right corner of the main screen when the holiday period starts.



Important

- The holiday mode can also be set for any other platform your system is equipped for, such as cooling.
- You can also set the holiday period via the Quick Access menu.

When you want to clear the holiday period before the programmed end date, set the **Input Holiday Period** option to **Off**.

3.6.2 Second option

1. Enter the main menu.
2. Select **Input Holiday Period**.
3. Use the rotary dial to select the option holiday mode **On**.
4. Confirm the selection.



Important

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

Fig.33

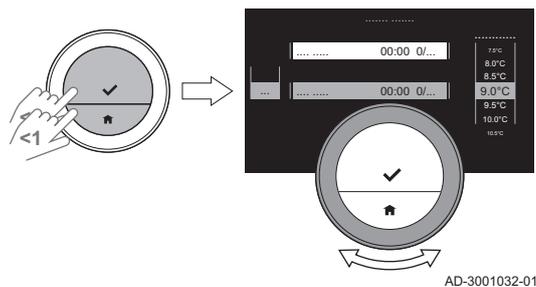


Fig.34

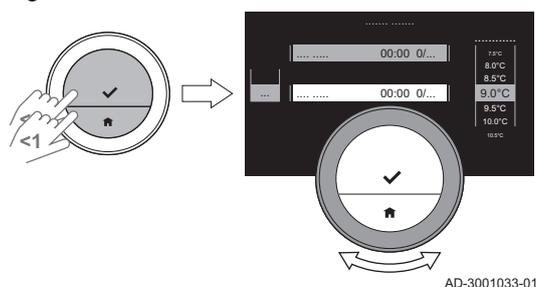
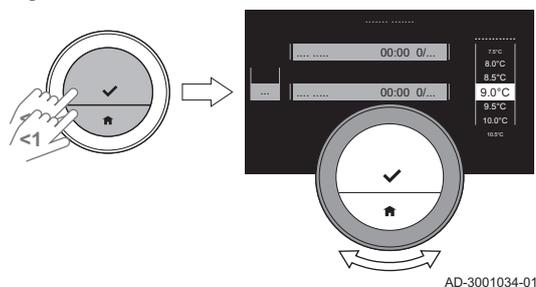


Fig.35



5. Use the select button or home button to select the **Start date**.
 - Use the rotary dial to change the start month of the holiday period.
 - Confirm the selection.
 - Use the rotary dial to change the start day of the holiday period.
 - Confirm the selection.
 - Use the rotary dial to change the start hour of the holiday period.
 - Confirm the selection.
 - Use the rotary dial to change the start minute of the holiday period.
 - Confirm the selection.
6. Use the select button or home button to select the **End date**.
 - Use the rotary dial to change the end month of the holiday period.
 - Confirm the selection.
 - Use the rotary dial to change the end day of the holiday period.
 - Confirm the selection.
 - Use the rotary dial to change the end hour of the holiday period.
 - Confirm the selection.
 - Use the rotary dial to change the end minute of the holiday period.
 - Confirm the selection.

7. Use the select button or home button to select the **Temperature**.
8. Use the rotary dial to change the room temperature for the holiday period.
9. Confirm the selection.
 - ⇒ The holiday period is set and the holiday icon will appear in the top right corner of the main screen when the holiday period starts.

i Important

- The holiday mode can also be set for any other platform your system is equipped for, such as cooling.
- You can also set the holiday period via the Quick Access menu.

When you want to clear the holiday period before the programmed end date, set the **Input Holiday Period** option to **Off**.

3.7 Activating fireplace mode

Fireplace mode enables you to continue heating other rooms that are controlled by your system while another heat source heats the room where the uSense is. For instance a fire lighted in your fireplace or a large number of people can heat the room so much, that the appliance stops heating all the rooms.

i Important

Activate the Fireplace mode before the other heat source becomes active.

1. Enter the main menu.
2. Select **Enable Fireplace**.
3. Confirm the selection.
 - ⇒ The fireplace icon appears in the top right corner of the main screen.

i Important

You can switch off fireplace mode by selecting **Fireplace disabled** in the main menu.

3.8 Switching to antifrost mode

You can activate the antifrost protection mode for central heating and hot tap water production, when you are out of the house in winter for a longer period of time. The heating system will keep the temperature just high

enough to avoid frost damage and thus save the maximum amount of energy.



Caution

Freezing can still occur in rooms that are not heated. Open radiators and zones of the central heating system to prevent freezing.

1. Enter the main menu.
2. Select **Enable Antifrost**.
3. Confirm the selection.
 - ⇒ Antifrost mode is on and the antifrost icon appears in the top right corner of the main screen.



Important

- You can switch off antifrost mode by selecting **Enable Manual Mode** or **Enable Temperature Scheduling**. In both cases antifrost mode will be disabled.
- In antifrost mode you cannot change the main temperature. If you try to do so a message will appear.

3.9 Switching the central heating on/off

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

If heating is switched off, the appliance will continue providing hot tap water (depending on the configuration of your system).

1. Enter the main menu.
2. Select **Operating mode**.
3. Select and confirm **OFF** to switch off the heating function.
4. Select and confirm **ON** to switch the heating function on again.

3.10 Switching to cooling mode

If your installation has a cooling unit, you can activate the cooling mode via the uSense.

If cooling is switched on, the appliance will continue providing hot tap water (depending on the configuration of your system).

1. Enter the main menu.
2. Select **Operating mode**.
3. Select **COOLING** to switch to the cooling mode.

3.11 Switching to auto mode

If your installation has a cooling unit and an outside temperature sensor, you can activate the auto mode via the uSense.

In auto mode, the uSense can automatically adjust the inside temperatures by activating the heating and/or cooling function of the installation. Switching between heating and/or cooling depends on the set threshold.

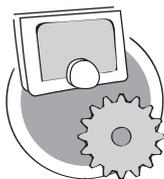
1. Enter the main menu.
2. Select **Operating mode**.
3. Select **AUTO** to switch to the auto mode.



For more information, see

Auto mode, page 28

4 Customisation



AD-3001025-01

This chapter helps you with customising the thermostat.

→ Next chapter: Messages and data, page 29

← Previous chapter: General use, page 13

🏠 First chapter: Manual menu, page 5

4.1 Hot water settings

i Important

- The hot water settings can only be changed for combi appliances. An appliance that can produce both central heating water and hot tap water.
- This menu item is not available for appliances with an on/off communication protocol.

4.1.1 Changing the hot water temperature

If you want to change the maximum temperature of the hot tap water, you have to change the hot water setpoint.

1. Enter the main menu.
2. Select **Hot Water**.
3. Select the option **Hot water setpoint**.
4. Use the rotary dial to change the hot tap water temperature.
5. Confirm the selection.

4.1.2 Setting the hot water comfort mode

If you need hot water immediately when you open the hot water tap, you can select the comfort setting. The appliance permanently keeps the tap water heated, even when you are not using the taps.

1. Enter the main menu.
2. Select **Hot Water**.
3. Select the submenu **Enable permanent comfort**.
4. Confirm the selection.

4.1.3 Setting the hot water reduced (energy-saving) mode

If you want to save energy, you can set the appliance to the hot water energy-saving mode. The appliance will only start heating tap water when you open the hot tap. In this case it will take more time before the tap water reaches the maximum temperature.

The energy saving mode can be active permanently or at scheduled times.

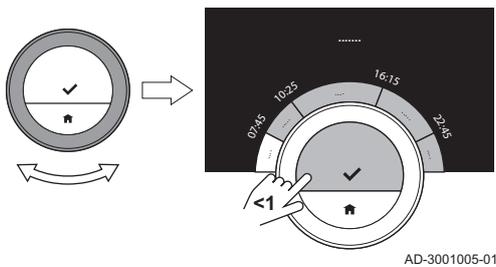
1. Enter the main menu.
2. Select **Hot Water**.
3. Select the submenu **Enable permanent reduced** to activate the energy-saving mode permanently.
4. Select the submenu **Enable scheduling** to activate the energy-saving mode at scheduled times.
5. Confirm the selection.

4.1.4 Changing the hot water schedule

In the hot water schedule you can set at which times the appliance must deliver hot water in comfort mode or reduced mode. In comfort mode hot water is delivered immediately, in reduced mode you have to wait shortly. You can set the comfort mode during periods when you need hot water immediately (e.g. for taking a shower or bath) and the reduced mode to save energy during periods when you don't need hot water (immediately).

1. Enter the main menu.

Fig.36



2. Select **Hot Water**.
3. Select the submenu **Change hot water scheduling**.
4. Select and confirm the day(s) that you want to program.

**Important**

- 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.

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

**Important**

You can change the hot water schedule in a similar way to the temperature schedules for heating.

**For more information, see**

Creating a temperature schedule to control the room temperature, page 14

4.2 uSense settings

4.2.1 Setting the time and date

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

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

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Date time settings**.
4. Select **Date time**.
5. Change the current date and time setting.
6. Confirm the settings.

**Important**

- When the uSense is connected to the internet, the time is set automatically to the current time in the time zone of the set country.
- In case of an appliance power shutdown of more than 2 minutes, you have to set time and date again if the uSense is not connected to the internet.

4.2.2 Setting country and language

You can choose the country and the language for the text on the display. When you start up the uSense for the first time, you enter automatically the menu to set the country and language.

During normal operation of the uSense you can always change the country and language settings by navigating to the menu.

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Country and language**.
4. Select your country and language.
5. Confirm your settings.

**Important**

The uSense uses the set country for the calculation of the current time zone, when connected to the internet.

4.2.3 Main screen setting

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

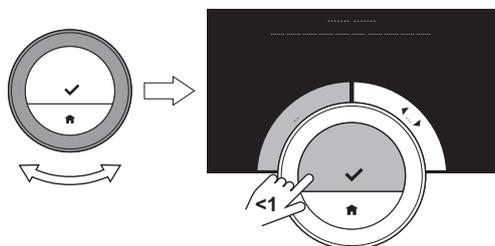
1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Mainscreen settings**.
4. Use the rotary dial to select the left information box.
5. Select one of the options.
6. Confirm the selection.
7. Use the rotary dial to select the right information box.
8. Select one of the options.
9. Confirm the selection.



Important

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

Fig.37



AD-3001006-01

4.2.4 Presence sensor

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

You can switch off the presence detection.

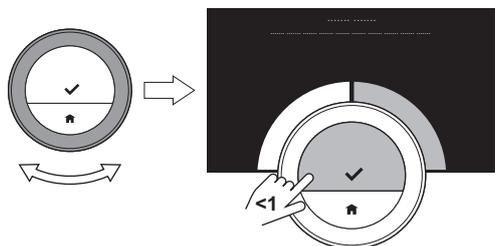
1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Presence sensor detection**.
4. Select **Off**.
5. Confirm the selection.



Important

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

Fig.38



AD-3001007-01

4.2.5 Display current or target temperature

The uSense displays the current temperature in a large font by default. The target temperature is in a small font near the temperature scale.

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

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

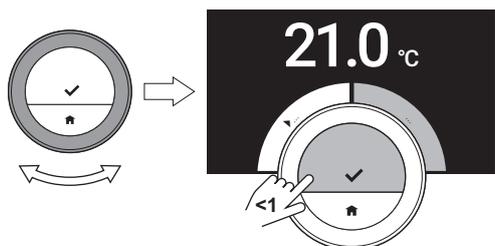
This setting will stay until you change this setting again or reset the uSense to factory settings.



Important

The instructions in this manual are based on the default setting for current temperature. Changing the display of the temperature influences the instructions given.

Fig.39



AD-3001010-01

4.2.6 Child lock

The uSense has a child lock that can be activated to prevent children changing the settings like the room temperature.

■ **Activating the child lock**

1. Enter the main menu.
2. Select **Settings**.
3. Select and confirm **Enable child lock**.
⇒ The message **Child lock enabled** will appear of the screen. The screen will be locked when the display of the uSense goes in stand-by mode.
4. Short-press a button or turn the rotary dial to reactivate the display.
⇒ The message **Screen locked** will appear of the screen.
5. Press the select button for more than 5 seconds to unlock the screen.
⇒ The message **Screen unlocked** will appear of the screen. The uSense can be operated.



Important

The child lock can also be used to prevent unwanted access to the uSense in public buildings.

■ **Deactivating the child lock**

1. Press the select button for more than 5 seconds to unlock the screen.
⇒ The message **Screen unlocked** will appear on the screen.
2. Enter the main menu.
3. Select **Settings**.
4. Select and confirm **Disable child lock**.
⇒ The message **Child lock disabled** will appear on the screen. The screen is permanently unlocked.

4.2.7 Changing the name of an activity

You can change the names of the activities for the temperature schedules. The default activity names are **Sleep, Home, Away, Morning, Evening** and **Custom**.

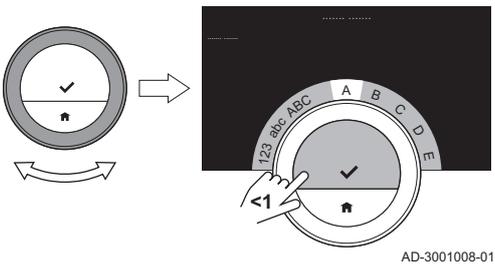


Important

The **Custom** activity can be set to a different temperature on each day of the week.

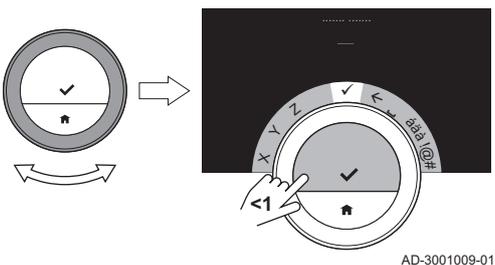
1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Change activity names**.
4. Select the name you want to change.
5. Change the name:
 - Delete the characters with the backspace ← in the character selection menu.
 - Add a space by selecting ␣ in the character selection menu.
 - Choose and confirm the characters to create the new name.
6. Use the rotary dial to select ✓ in the character selection menu and press the select button to save the new name.

Fig.40



AD-3001008-01

Fig.41



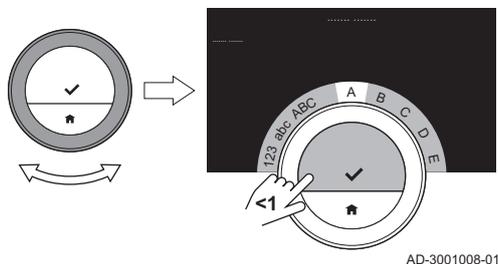
AD-3001009-01

4.2.8 Changing the name of a zone

You can change the names of the zone(s) of your heating system.

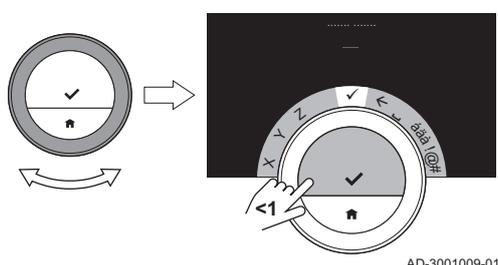
1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Change %1Zone friendly Name**.
4. Select the zone name you want to change.
5. Change the name:
 - Delete the characters with the backspace ← in the character selection menu.
 - Add a space by selecting ␣ in the character selection menu.
 - Choose and confirm the characters to create the new name.
6. Use the rotary dial to select ✓ in the character selection menu and press the select button to save the new name.

Fig.42



AD-3001008-01

Fig.43



AD-3001009-01

4.2.9 Changing the display settings

You can change the screen brightness and click sound of the rotary dial of the display.

■ Changing the display brightness

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

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Display brightness**.
4. Choose a brightness level between 10% and 100% using the rotary dial.
5. Confirm the setting.

■ Turning the click sound on/off

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

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

4.3 uSense connections (with Wi-Fi and the app)

It is possible to operate the uSense with a mobile device. You need a Wi-Fi network and a mobile device with Apple iOS, Android or Windows to make the connection.

4.3.1 Establishing the Wi-Fi connection

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

When you start up the uSense for the first time, you enter automatically 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 37

During normal operation of the uSense you can always change or reconnect to your Wi-Fi network.

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Wi-fi**.
4. Accept the **Terms and Conditions**.
5. Select your Wi-Fi network in the list of available networks.
6. Enter and confirm the password with the rotary dial and the select button.
7. Use the rotary dial to select ✓ in the character selection menu and press the select button to save the password.
⇒ The uSense is now connected to the Wi-Fi network.



Important

It is possible to connect to an invisible Wi-Fi network, if you know the name and password. You can enter the name and password by selecting **Other...** from the list.

4.3.2 Downloading the app

You can install the uSense app on your mobile device. This allows you to operate the uSense when you are not in the same room or out of the house.

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

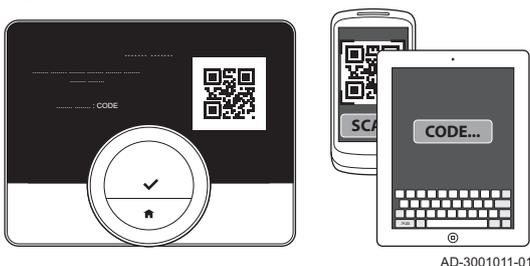
4.3.3 Connecting the app with the uSense

When you start up the uSense for the first time, you enter automatically the menu to register your mobile device. For the pairing you need an account based on your email address.

During normal operation of the uSense you can always reconnect the app with the uSense by navigating to the registration menu.

1. Open the uSense 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 uSense.
5. Select **Settings**.
6. Select the submenu **Register phone or device**.
⇒ The uSense will display a registration code and QR-code.
7. Enter the registration code or scan the QR-code with your mobile device.
8. Complete the registration process.

Fig.44



AD-3001011-01

4.3.4 Registering installer access

If you want your installer to make any changes, you can allow the installer to log in to your device.

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Register installer access**.
4. Confirm the installer access.
 - ⇒ This gives your installer access for up to 72 hours.

4.4 Advanced settings

4.4.1 Resetting to default settings

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

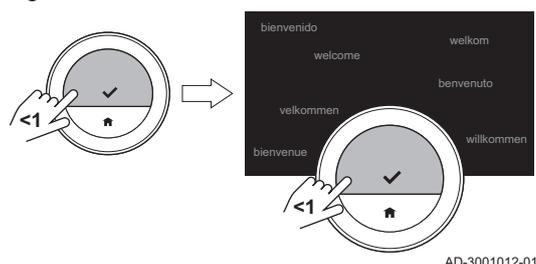
Important

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

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Reset to default settings**.
 - ⇒ The display will show 'welcome' in all languages.
4. Select **Reset**.
5. Confirm the selection.
 - ⇒ The setup procedure will start.
6. Press the select button to continue.

For more information, see Setup procedure, page 34

Fig.45



4.4.2 Check for software update

If your uSense is connected to Wi-Fi, the internet and the server, software will be updated automatically. It's possible to manually check the status of the software:

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Check for software update**.
 - ⇒ The status of the software appears on the screen.

4.4.3 Temperature calibration

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

1. Wait for a least 30 minutes after installation of the uSense.
2. Measure the actual room temperature.
3. Enter the main menu.
4. Select **Settings**.
5. Select the submenu **Temperature calibration**.
 - ⇒ The temperature measured by the uSense is shown as **Temperature detected**.
6. If the detected temperature does not match with the temperature you have measured, you can adjust the temperature in the Calibrate this temperature to field.
7. Confirm the adjustment.
 - ⇒ The calibration is completed.

i Important

- The new offset will be used over the entire temperature range.
- The application of the new offset on the **Current Temperature** takes some time.

4.4.4 Pre heat

You can choose to enable or disable pre heat depending on the your heating preferences.

i Important

- Pre heat **On** will start to warm the room up before the scheduled time.
- Pre heat **Off** will start to warm the room up on the scheduled time.

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **Pre heat**.
4. Select and confirm **Off** to switch off pre heat.
5. Select and confirm **On** to switch on pre heat.

i Important

You can adjust the time period for pre heat.

- Enter the main menu.
- Select **Technical Information**.
- Select the submenu **Advanced Parameters**.
- Select **Preheat time**.
- Adjust the time period.
- Confirm the selection.

i Important

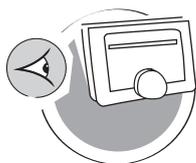
Switching the pre heat **Off** and **On** again will change the setting for **Preheat time** to a default time period. Please adjust the time period for pre heat again.

4.4.5 Auto mode

You can change the set threshold depending on your heating and cooling preferences.

1. Enter the main menu.
2. Select **Settings**.
3. Select the submenu **RedRoomTempCool Zone**.
4. Use the rotary dial to change the threshold setpoint.

5 Messages and data



AD-3001026-01

This chapter helps you with navigating to information and data of the thermostat and system.

- ➔ Next chapter: Installation, page 32
- ➔ Previous chapter: Customisation, page 21
- 🏠 First chapter: Manual menu, page 5

5.1 Outside temperature

If an external temperature sensor is connected, you are able to read the outside temperature.

1. Enter the main menu.
2. Select **Outside Temperature**.
3. Confirm the selection.
 - ⇒ The uSense will now display the current outside temperature.

5.2 Energy consumption

The uSense can display the energy that was used for heating and hot tap water supply from the moment of first use of the appliance.



Important

- This menu item is only available for combi appliances. An appliance that can produce both central heating water and hot tap water.
- This menu item is not available for appliances with an on/off communication protocol.

1. Enter the main menu.
2. Select **Energy Consumption**.
3. Confirm the selection.
 - ⇒ The uSense will now display the current energy consumption.

5.3 Installer details

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

1. Enter the main menu.
2. Select **Installer Contact Details**.
 - ⇒ The uSense will now display the contact details of your installer.



Important

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

5.4 Appliance data

The uSense can display some appliance data from your heating system. 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 **Heater**.
3. Select the submenu **Water Pressure** or **Current Boiler Temperature**.
 - ⇒ The uSense will now display the appliance data.

5.5 Technical information

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

1. Enter the main menu.
2. Select **Technical Information**.
3. Confirm the selection.

The uSense will now display:

Tab.6 Device Information

Serial Number:
Software Version:
Wifi SSID:
Wifi Connection:
Internet Connection:
Server Connection:
Register Status:
IP Address:
MAC Address:
Server up time:
Wifi up time:
date:
time:

Tab.7 Appliance information

Name:
Software Version:
Connection:
date:
time:

Tab.8 Advanced parameters

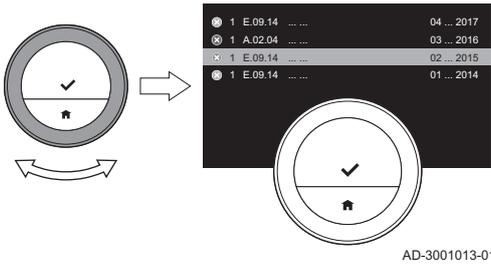
Open menu: Advanced Parameters
License Information Open

5.6 Error messages overview

You can open the error messages list from the main menu to get an overview of all error messages.

1. Enter the main menu.
2. Select **Error**
3. Confirm the selection.
 - ⇒ The list of error messages is displayed.

Fig.46

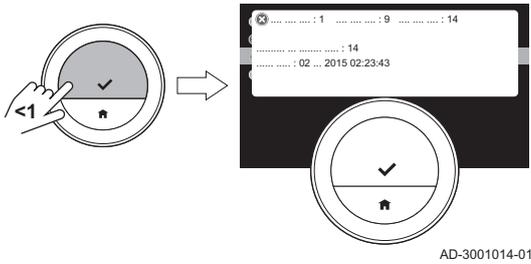


4. Scroll through the list using the rotary dial.

**Important**

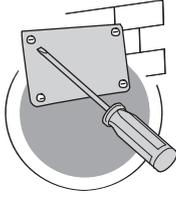
The list contains the complete history of error messages. Most of the error messages will already be solved. Only one error message can be active at a time.

Fig.47



5. Select the active error message and press the select button to read more details.
6. If you cannot solve the problem yourself: Note down the error message code and contact your installer.

6 Installation



AD-3001027-01

This chapter helps you with the installation and commissioning of the thermostat.

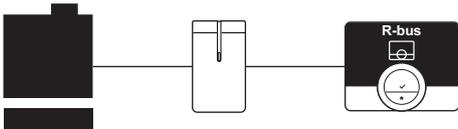
➔ Next chapter: Troubleshooting, page 36

➔ Previous chapter: Messages and data, page 29

🏠 First chapter: Manual menu, page 5

6.1 System overview

Fig.48



AD-3001019-01

6.1.1 Systems with gateway

The uSense can be connected to three types of appliances (based on the communication protocol):

- On/off protocol
- OpenTherm protocol
- BSB protocol

The communication protocol depends on the type of appliance used in your system. Consult your installer for technical details about your appliance and information how to connect the uSense with the appliance. You can connect the uSense yourself, or ask your installer.



For more information, see
Setup procedure, page 34

Fig.49



AD-3001020-01

6.1.2 System without gateway

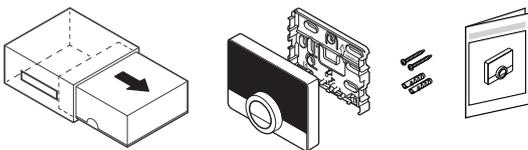
Appliances with built-in gateway are available. The uSense can be directly connected to the appliance.



See
The website of the manufacturer to find information about the available appliances.

6.2 Standard delivery

Fig.50

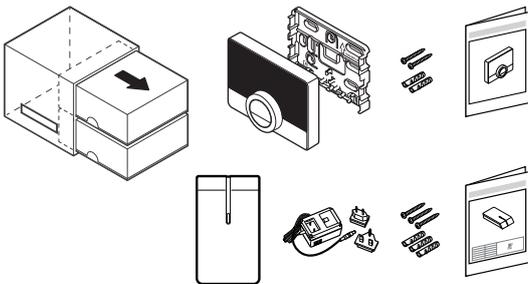


AD-3001021-01

Tab.9 uSense package

uSense room thermostat
Mounting bracket
Fasteners
Plug fittings
Quick reference guide

Fig.51



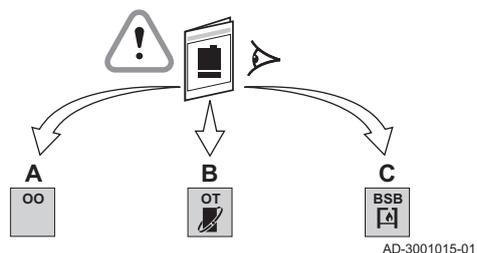
AD-3001022-01

Tab.10 uSense and gateway package

uSense room thermostat
Mounting bracket
Fasteners
Plug fittings
Quick reference guide
Gateway
230V Power supply
Installation instructions

6.3 Preparation

Fig.52



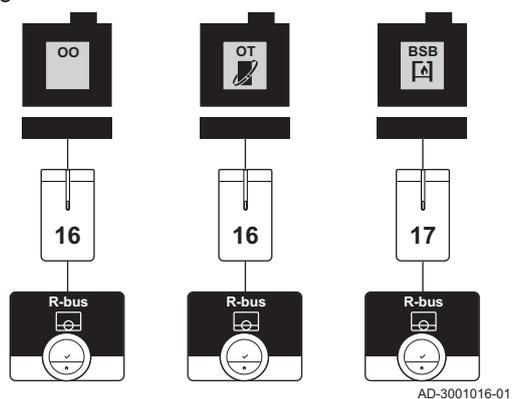
You must check which gateway is needed for the communication between the uSense and your appliance.

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

Tab.11 Communication protocol

A	On/off protocol
B	OpenTherm protocol
C	BSB protocol

Fig.53



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.

6.4 Installation of the gateway



Warning

The installation must be performed by a qualified professional.

1. Switch off the appliance.



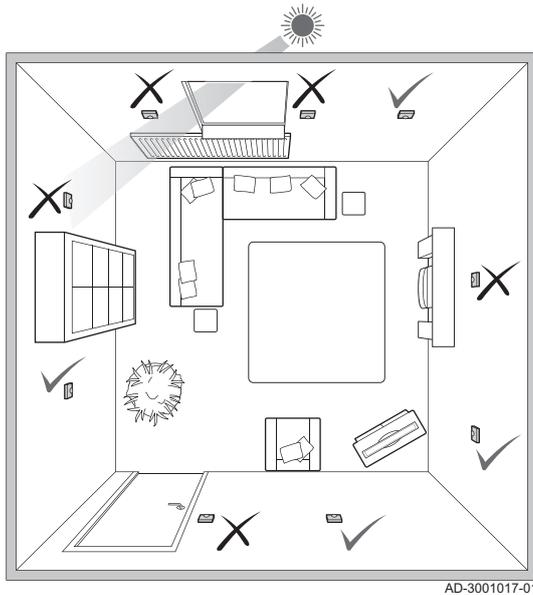
Important

Refer to the documentation of the appliance.

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

6.5 Location of the uSense

Fig.54



Choose the right location for the uSense.

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

6.6 Installation of the uSense

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

1. Mount the mounting bracket to the wall following the instructions in the Quick Start Guide.
2. Install the uSense on the mounting bracket following the instructions in the Quick Start Guide.

6.7 Setup procedure

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

1. Set the country and language.
2. Select the date and time.
3. Accept the **Terms and Conditions**.



Important

You can also decide to decline the legal **Terms and Conditions** at this point to finish the setup procedure. The setup of your Wi-Fi connection and app connection can always be done at a later time.



See

Terms and conditions, page 37

4. Establish a Wi-Fi connection.
5. Download the app.
6. Pair your mobile device with the uSense.



For more information, see

How to use the uSense, page 7
 Setting the time and date, page 22
 Setting country and language, page 22
 uSense connections (with Wi-Fi and the app), page 25

6.8 Software update

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

- Wi-Fi
- The internet
- The server

When all the connections are made the uSense 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 27

Each time the software has been successfully updated:

- The uSense will restart.
- A message will appear on the home screen.

7 Troubleshooting



AD-3001028-01

This chapter helps you when there is a problem with the thermostat, an error message will appear on the home screen.

→ Next chapter: Appendix, page 37

← Previous chapter: Installation, page 32

🏠 First chapter: Manual menu, page 5

7.1 Error messages

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

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.



For more information, see

Error messages overview, page 30

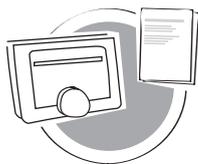
7.2 Other problems or questions

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

Tab.12 Problems and solutions

Problem	Possible cause	Solution or answer
The display does not show the temperature ring.	The uSense is in antifrost mode.	In antifrost mode the temperature does not show.
	The current temperature is equal to the target temperature.	The display will show the temperature ring when the temperatures are different.
The uSense shows the set date/time menu.	The power supply of the appliance was interrupted for more than 2 minutes.	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 uSense.	<ul style="list-style-type: none"> • Put the object at a larger distance. • Set the presence sensor to Off
The target temperature cannot be set with the rotary dial.	The uSense is in antifrost or holiday mode.	Set the uSense to manual mode or temperature scheduling mode.
The Energy Consumption menu shows no consumption information or a value that seems to be incorrect.	<ul style="list-style-type: none"> • The minimum and maximum power of the appliance is not set correctly in the parameter screen. • The appliance doesn't support this functionality. 	<ul style="list-style-type: none"> • Ask for the correct power settings of your appliance. • Scroll completely down in the Technical Information menu and enter the Advanced Parameters: <ul style="list-style-type: none"> - Set the minimum power. - Set the maximum power for central heating. - Set the maximum power for hot tap water.

8 Appendix



AD-3001029-01

This chapter gives you more technical information about the thermostat.

← Previous chapter: Troubleshooting, page 36

🏠 First chapter: Manual menu, page 5

8.1 Terms and conditions

The legal **Terms and Conditions** are for the Wi-Fi connection and use of the uSense app. Before you start to 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 uSense. You have two options to view them:

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

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

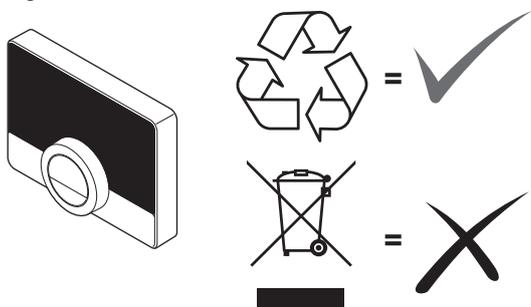
i Important
You only need to accept the **Terms and Conditions** once, unless you reset the default settings of the uSense.

You can decide to decline the **Terms and Conditions** if a Wi-Fi connection is not possible or wanted.

i Important
The software of the uSense will not be updated.

8.2 Disposal

Fig.55



AD-3001018-01

The uSense is a regular electronic device.

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

8.3 Technical specifications

Tab.13 Dimensions

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

Tab.14 Power supply

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

Tab.15 Electrical connection

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

Tab.16 Wi-Fi connection

Supported frequency band	2.4 Ghz (802.11b/g)
--------------------------	---------------------

Tab.17 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.18 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.19 Compliant with standards

EMC: 108/2004/EC, EN 55022, 55014
Immunity: EN2-6-61000
EN2-6-61000 (EMC part 6.2 Generic Standards)
ETSI-EN 17-489 301 (Electromagnetic compatibility and radio spectrum matters)
R&TTE Directive 5/1999/EC
EN 1-60950 (ITE – Safety – Part 1: General Requirements)
Low voltage directive (95/2006/EC)
WEEE directive (96/2002/EC) (disposal requirements)
Drop test: IEC 32-2-60068
Protection classification: IP21

8.4 ErP information

8.4.1 Product fiche

Tab.20 Product fiche

Baxi - uSense		uSense ⁽¹⁾	uSense ⁽²⁾	uSense ⁽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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For Baxi Customer Support, contact us at



0844 871 1525

Please note calls may be monitored or recorded



www.baxi.co.uk

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- 2** Warranty is registered with Baxi
- 3** The boiler has an annual service

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