:: CLIMECON

01.24

ECO-T
INSTRUCTIONS

TABLE OF CONTENTS

1. Introduction

ECO-T is an electronic room control unit specially designed for ECO air heating systems. Among others, the room control unit has the following features:

- A touchscreen display with backlight.
- An easy-to-follow menu-driven operation.
- Energy-saving schedule: A standard or customized timer program including fully flexible day and time pattern that lets you preset the temperature to energy-saving levels, e.g. while you are at work or asleep - and with optimum heating start/stop to reach the desired temperature at the right time.
- Vacation setting: Suspension of normal program schedule for specified periods of time.
- Easy connectivity to building automation via Modbus.
- Quick-access button to features such as away function.

1.1 Safety Instructions

Please observe the following guidelines:

- Do not cover the thermostat, e.g. by hanging towels or similar items in front of it! This will impair the ability of the thermostat to sense and adjust the room tempera-ture correctly.
- Do not spill liquids of any kind into the thermostat.
- Do not open, disassemble, or tamper with the thermo-stat in any way.
- If the thermostat is installed in a place frequented by small children, use the safety lock.
- Do not interrupt the power supply to the thermostat.
- The installation of the thermostat must be done by an authorized and qualified installer according to local regulations.

2. Settings

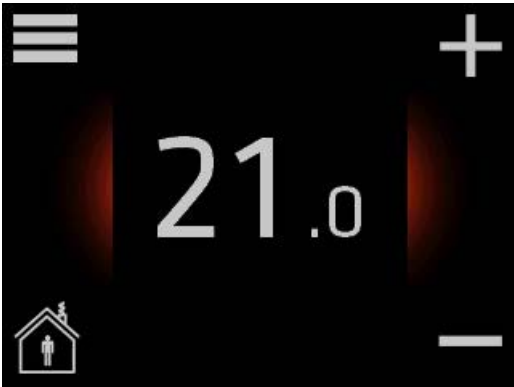## Basic instructions for changing thermostat settings

Stand-by screen display

Screen is inactive and shows the actual temperature measured in the room. Screen can be activated by touching it.
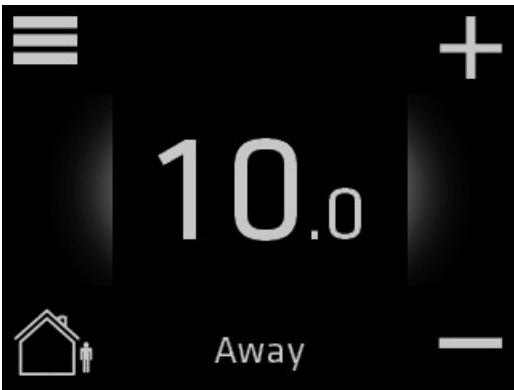
20.0
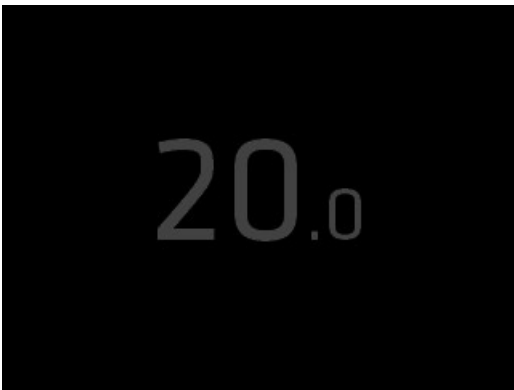
Main screen display

Screen is active and shows the desired temperature (the temperature you have set).

21.0

Away mode display

Away mode is on. Screen shows the temperature you have set for the time away.

10.0
Away

|	
Accessing main menu	Press ☰ in the top left corner of the main screen.
Accessing and changing settings	Use the up and down arrows in main menu to access different settings and functions. Press the function of your choice and use the left and right arrows to change the value of the chosen setting.
Returning to main menu and to main screen	Press ☰ to return to main menu from different settings and to main screen from main menu.

2.1 Language

How to select language

1. Touch the main screen to activate it, then press ▤ to go to main menu.
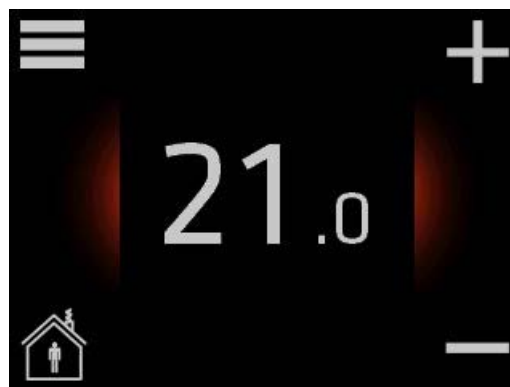
2. Use the up and down arrows on the right to go to **Display settings**, and press.
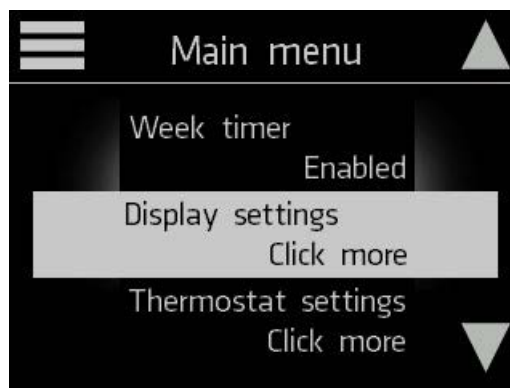
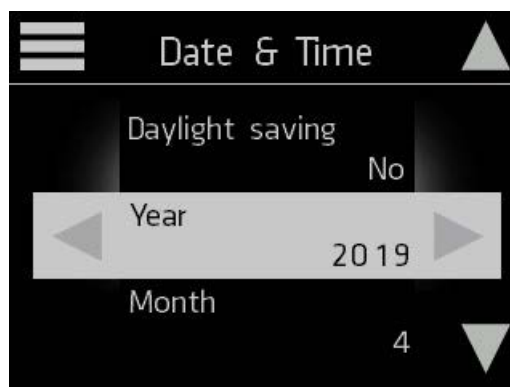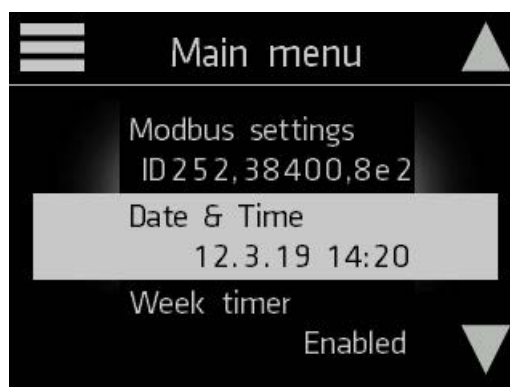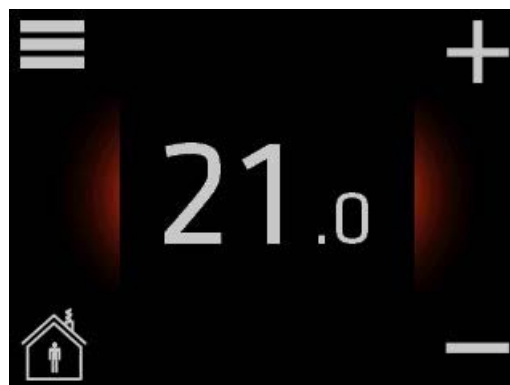**3.** Use the right and left arrows to change and set the language.
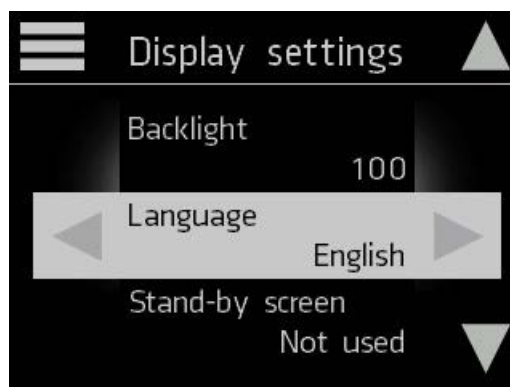
To return to the main screen, press ▤ in the upper left corner of the screen until you get to the main screen.

2.2 Time and Date

How to set the time and date

1. Touch the main screen to activate it, then press ▤ to go to main menu.

2. Use the arrows on the right to go to **Date & Time**, and press.

3. Use the left and right arrows to set the year.

.

4. Use the up and down arrows on the right to access **Month**. Use the left and right arrows to set the month.

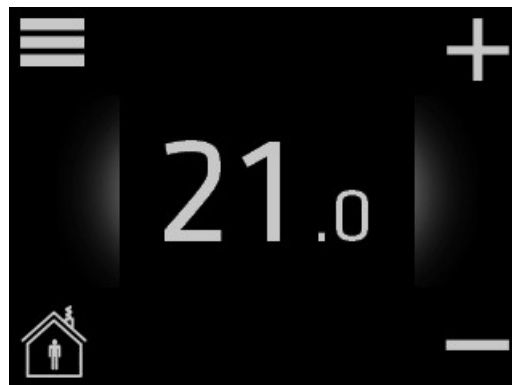Set also the day, hour, minute and daylight saving option accordingly.

To return to the main screen, press ▤ in the upper left corner of the screen until you get to the main screen.

2.3 Setting Temperature

When the display is inactive, it shows by default the actual temperature measured in the room.
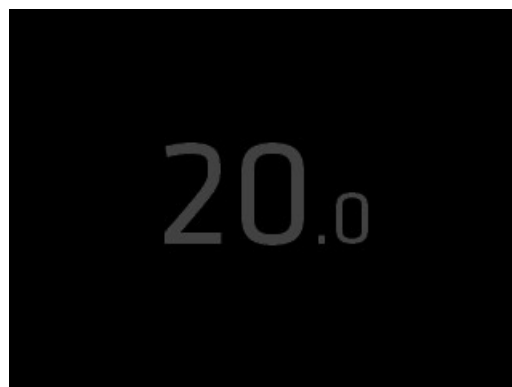
When you activate the display by touching the screen, it shows the desired temperature (the temperature you have set).


If your set temperature is higher than the actual temperature measured in the room, the system is heating up and the background of the main screen will appear red.
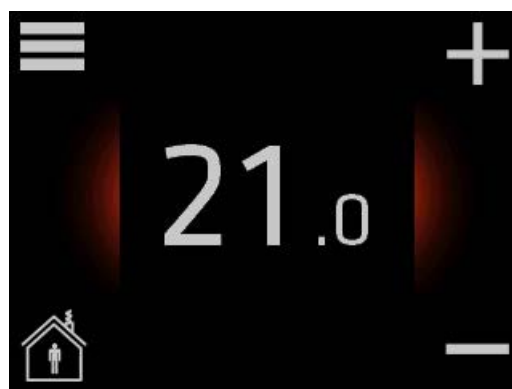
How to lower or raise the temperature

1. Press the + symbol in the top right corner of the main screen to raise the temperature and – symbol in the bottom right corner to lower the temperature.

   You can set the temperature maximum to 28 and minimum to 10 degrees.
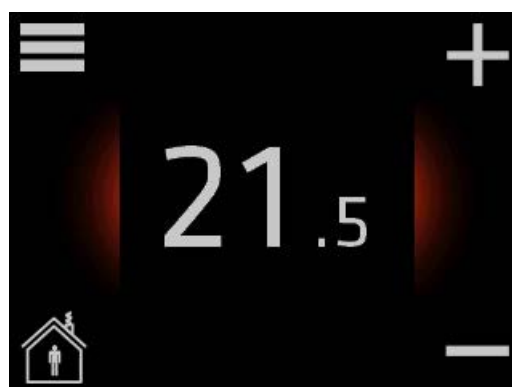
To return to the main screen, press ▤ in the upper left corner of the screen until you get to the main screen.

2.4 Periods with Lowering or Raising of Temperature

You can set the thermostat to keep a constant temperature, or let the thermostat automatically switch between periods with a lower temperature (also called economy temperature) and periods with comfort temperature.
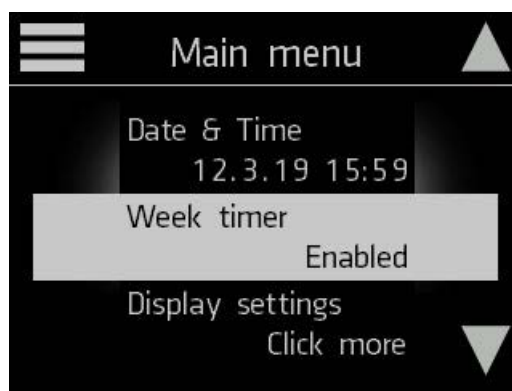
Use the thermostat week timer to set the comfort and economy temperatures and periods. Note: In order to switch between comfort and economy temperatures, the week timer function must be enabled (ON).
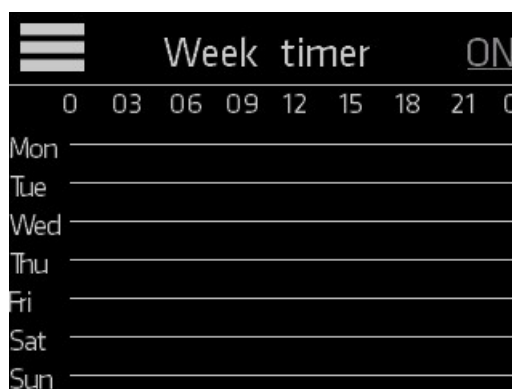
How to define comfort and economy periods

1. Touch the main screen to activate it, then press ▤ on the main screen to go to main menu.
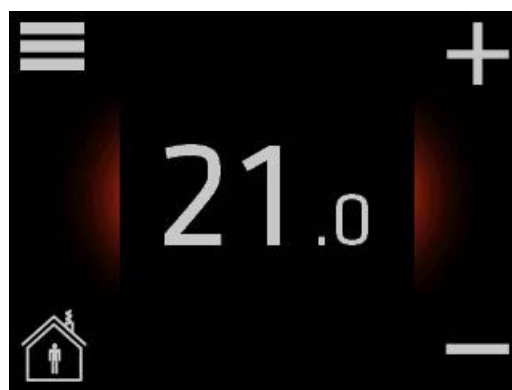
2. Press **Week timer**.

3. You can enable and disable the week timer by pressing **ON** or **OFF** in the top right corner of the screen. Make sure that the week timer is switched on (it shows **ON** in the top right corner of the screen) and press the screen below the uppermost line to set a comfort time program.

4. Press **Comfort time** to set the comfort time.

5. Choose the starting and ending time for the comfort time using the up and down arrows.

All time intervals outside the defined comfort periods are automatically regarded as economy periods. Press **OK** to confirm the comfort time. You can return to previous display without saving changes by pressing ⬑.

6. Press **Comfort temperature** to set the comfort temperature.

7. Choose the comfort temperature using up and down arrows and press **OK** to confirm the temperature. Set economy temperature similarly, and press OK to confirm.

You can return to previous display without saving changes by pressing ⬑.
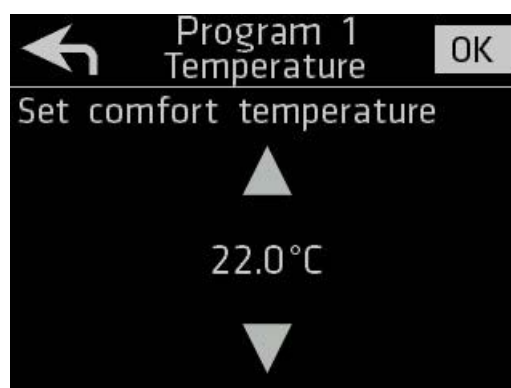
8. Select the weekdays for the program by pressing the days at the bottom of the screen. Selected days will appear in a lighter color.

Select at least one day to activate the program. By deselecting all days, the program will be turned off.

**9.** To set another comfort period program press the right arrow.

10. Repeat steps 5 to 8 to set times, temperatures and days. Note that you can only set one comfort period program per day. The days that are already selected in another program will appear with a program number on them and cannot be selected.

11. You can set up to 7 different programs with different comfort times and temperatures. Navigate between the programs using the right and left arrows.

To return to week timer press the left arrow until you reach the week timer view. A graphical overview of the defined comfort periods will now appear in the week timer.
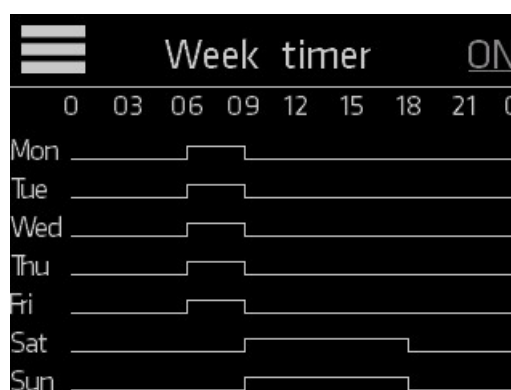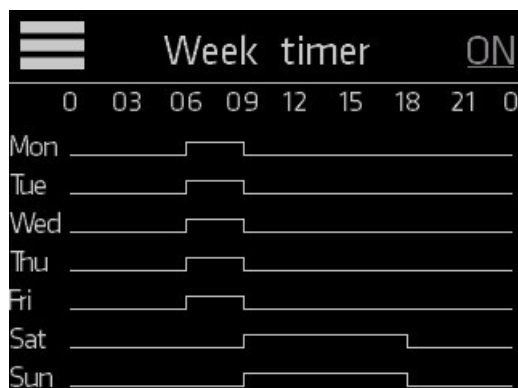

To return to the main screen, press ▤ in the top left corner of the screen until you get to the main screen.

How to turn the week timer function on and off

1. You may for instance want to turn the timer function off temporarily if a short extension of the comfort period is needed.

To turn the timer off go to Week timer and press **ON** in the top right corner of the screen.

2. The timer is disabled when the text **OFF** appears in the top right corner of the screen. You can turn the timer back on by pressing the **OFF** text.
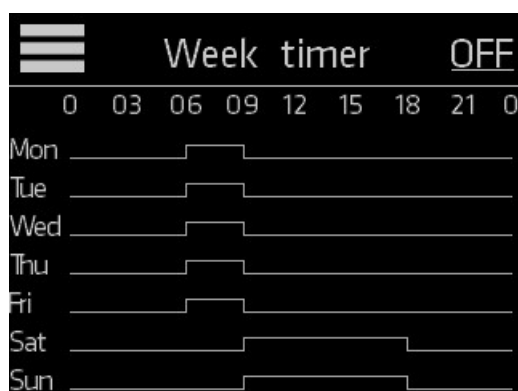
2.5 Away

How to suspend normal temperature settings

You can turn the Away mode on to suspend the normal temperature settings for your chosen time. Whatever temperature you set will be maintained 24 hours a day for the whole time the away function is activated. When you deactivate the away mode, normal temperature settings will resume.

1. Touch the screen to activate it. Press symbol in the bottom left corner of the main screen to activate the away mode.
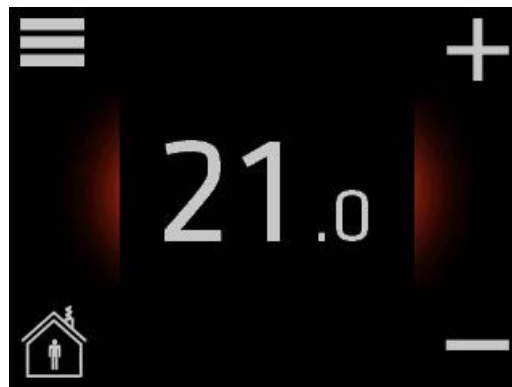

2. When the away mode is on and normal temperature settings are suspended, Away text and symbol will appear at the bottom of the main screen.

    Use + and – symbols on the right to set the temperature you want to maintain in the room while you are away.
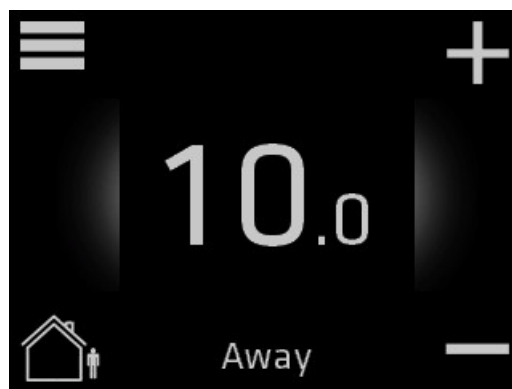
How to deactivate the away function

You can deactivate the away mode anytime. The normal temperature settings will resume immediately when the away mode is deactivated.

1. Touch the screen to activate it, then press symbol in the bottom left corner.
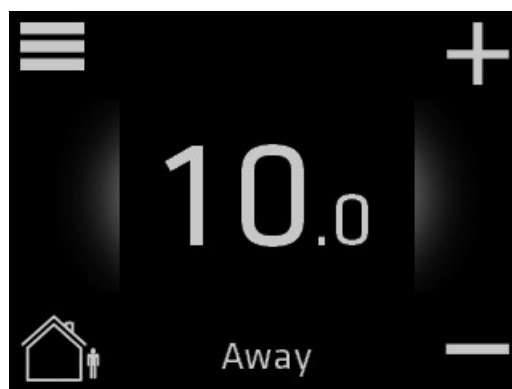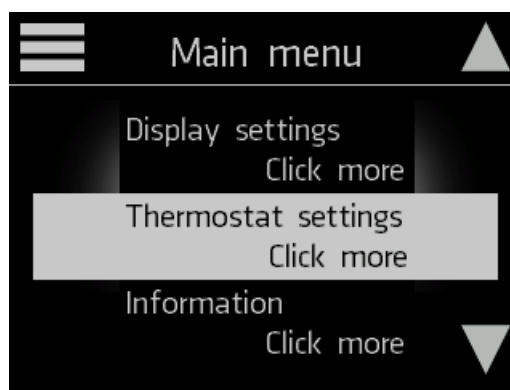
2.6 Setting the Max. temperature

Setting the maximum temperature is a good feature for example rental properties and Airbnb-type solutions. It can be limited in the settings.
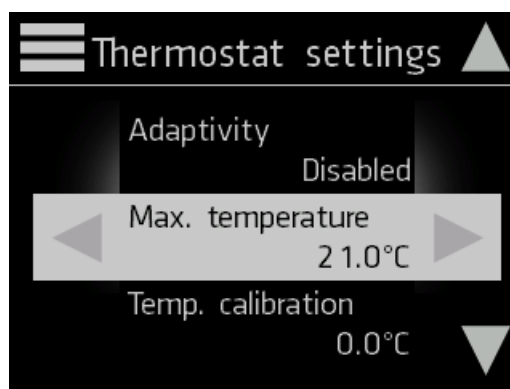
1. Activate the screen by touching it and go to the main menu by pressing the icon ▤ in the top left corner of the home screen.
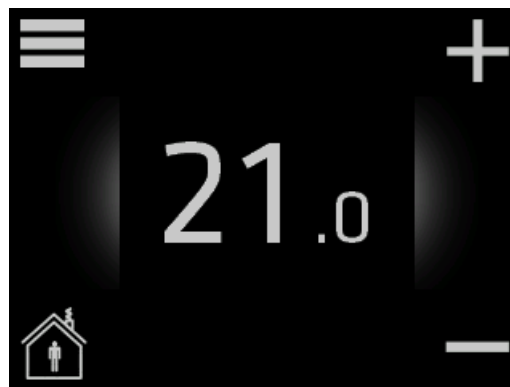
2. With the arrow keys on the right of the screen, go to **Thermostat settings** and press.

3. Set the Max. temperature by using the arrows.

Return to the main menu from the thermostat settings and to the home screen from the main menu by pressing the icon ▤.
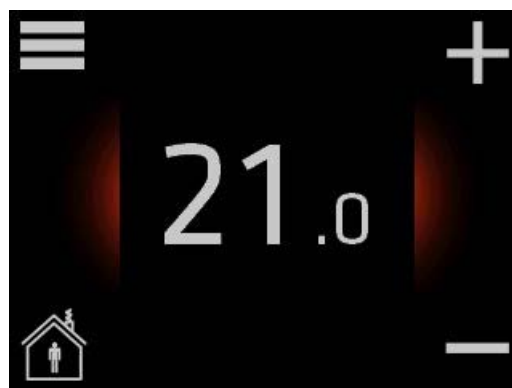
2.7 Stand-by Screen
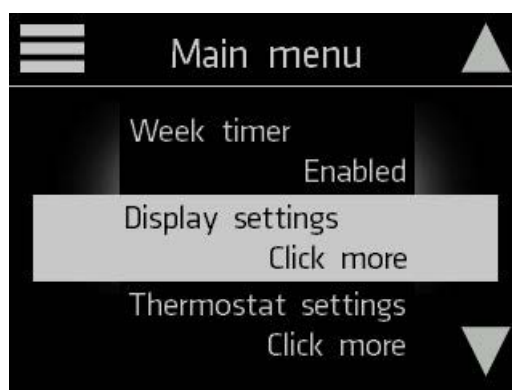
How to change the stand-by screen settings

Stand-by screen settings define the display of the inactive main screen.
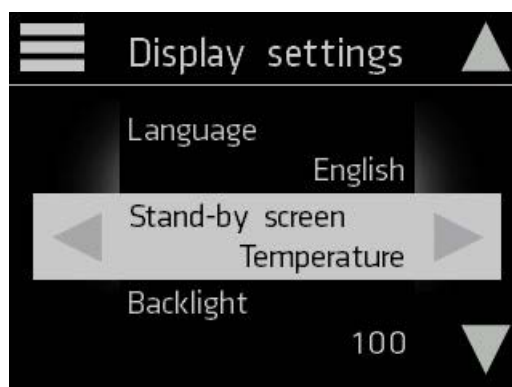By default, the stand-by screen shows the actual temperature of the room.

1. Touch the main screen to activate it,
   then press ▤ to go to main menu.

2. Use the up and down arrows
   to go to **Display settings**,
   and press.

3. Use the up and down arrows to go
   to **Stand-by screen**. Use the left
   and right arrows to change the view
   of the stand-by screen.

To return to the main screen, press ▤ in the top left corner of the screen until you get to the main screen.
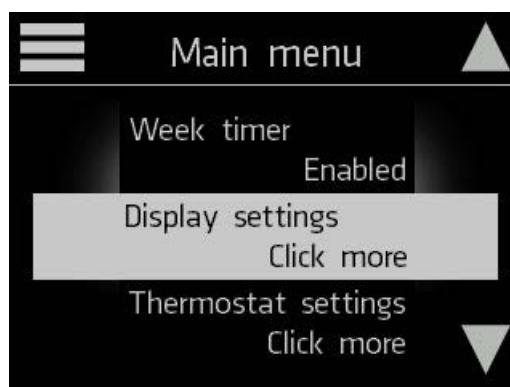
2.8 Backlight Level

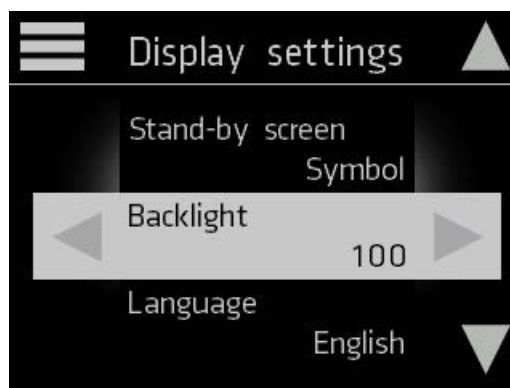## How to change the backlight

1. Touch the screen to activate it, then press ▤ to go to main menu.

2. Use the up and down arrows to go to **Display settings**, and press.

3. Use the up and down arrows to go to **Backlight**. Use the left and right arrows to change the backlight level.
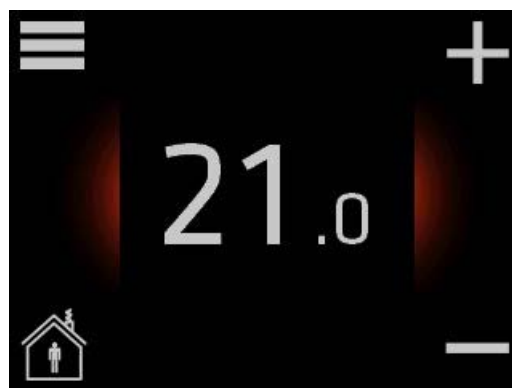
To return to the main screen, press ▤ in the top left corner of the screen until you get to the main screen.

2.9 Adaptivity

How to disable or enable the adaptivity of the thermostat

When Adaptivity is enabled, the control unit learns the temperature behavior of the room and optimizes heating.

1. Touch the screen to activate it, then press ▤ to go to main menu.

2. Use the up and down arrows to go to **Thermostat settings**, and press.
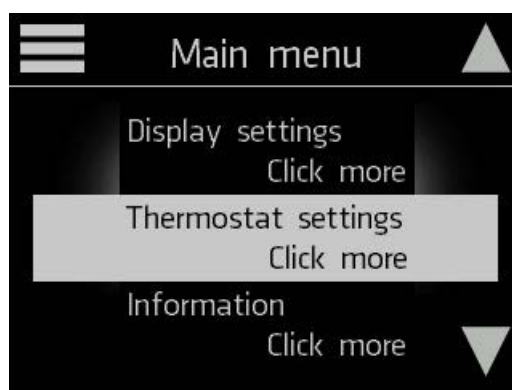
3. Use the left and right arrows to enable or disable adaptivity.

To return to the main screen, press ▤ in the top left corner of the screen until you get to the main screen.

2.10 Temperature calibration

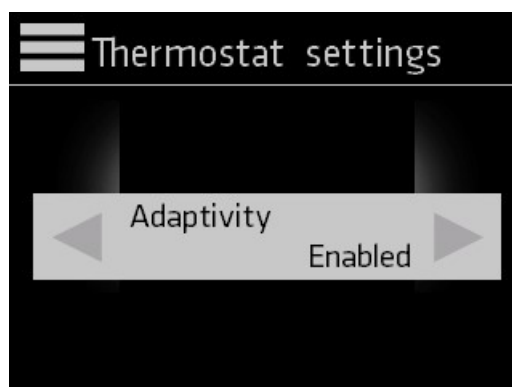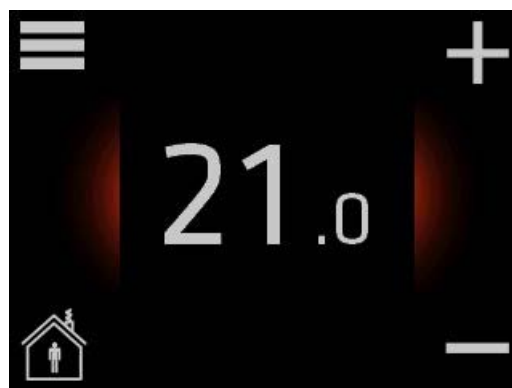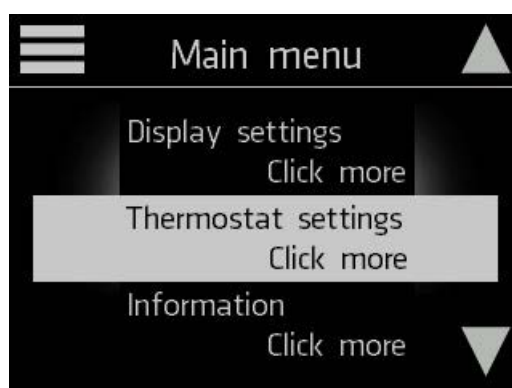The temperature in the living area may slightly vary from the temperature measured by the ECO-T control unit close to the wall. With the calibration, the temperature shown by ECO-T can be made to correspond with the temperature in the living area.

Before making the thermostat calibration settings, measure the temperature in the middle of the room. After measuring the difference in temperature between ECO-T and the living area, set the direction and quantity of the difference from the control unit's settings.

1. Activate the screen by touching it and go to the main menu by pressing the icon ▤ in the top left corner of the home screen.

2. With the arrow keys on the right of the screen, go to **Thermostat settings** and press.

3. In **Temperature calibration**, set the temperature difference between the living area and ECO-T with the left and right arrow keys. You can calibrate the temperature within 0.1 °C.

Return to the main menu from the thermostat settings and to the home screen from the main menu by pressing the icon ▤.

2.11 Setting the PIN code

You can set a PIN code to prevent access to the settings. By default, the PIN code query is off. Even if the PIN code inquiry is on, you can adjust the temperature and set the status as Home/Away.
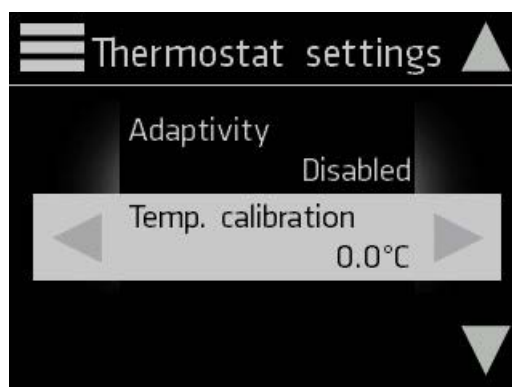
1. Activate the screen by touching it and go to the main menu by pressing the icon ▤ in the top left corner of the home screen.
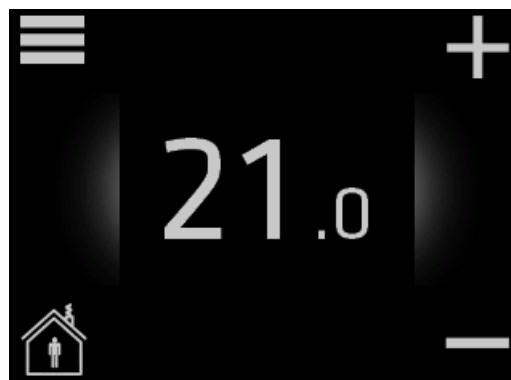
2. With the arrow keys on the right of the screen, go to **PIN code,** and press.
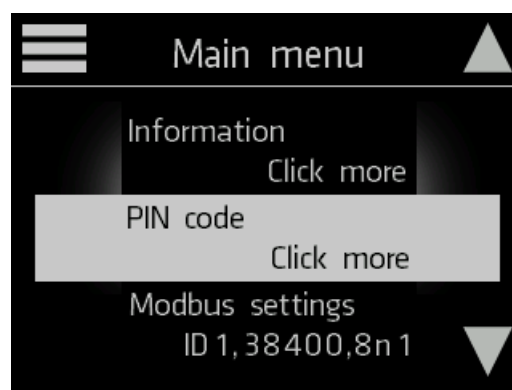
3. Use the left and right arrows to enable **PIN code**.
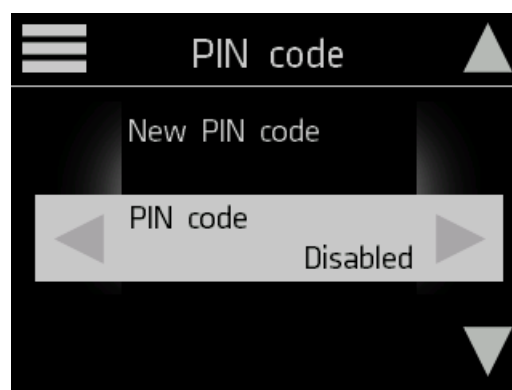
4. Go to new **PIN code**.

5. Set your **PIN code**.
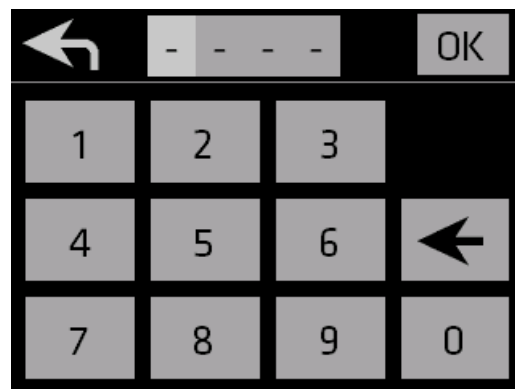
Return to the main menu from the PIN code settings and to the home screen from the main menu by pressing the icon ▤.

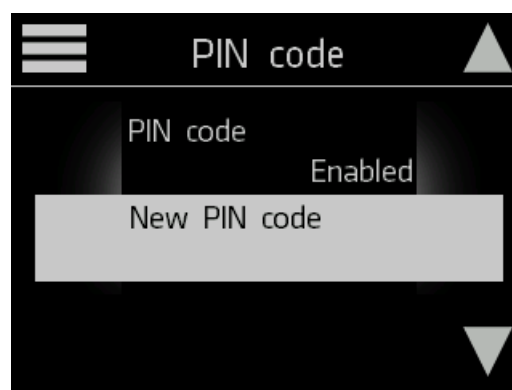# 2.12 Modbus Settings

How to change Modbus settings

In Modbus settings you can change **Modbus ID, Baudrate, Data bits, Parity and Stop bits**.

1. Touch the main screen to activate it, then press ▤ to go to main menu.
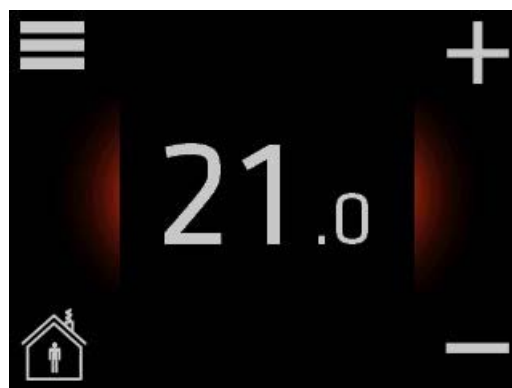
2. Use the up and down arrows to go to **Modbus settings**, and press.
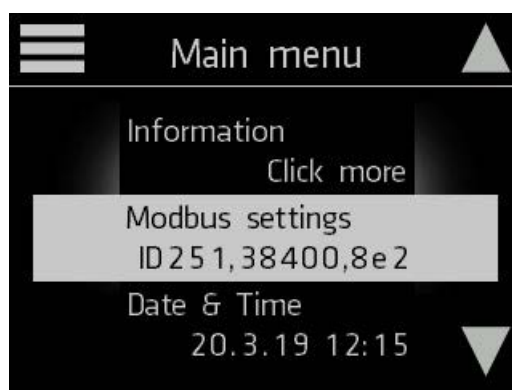
3. Use the up and down arrows to go to different Modbus settings. Change the values of the settings by using left and right arrows.
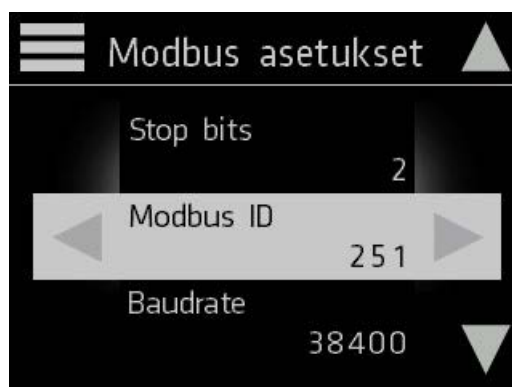
To return to the main screen, press ▤ in the top left corner of the screen until you get to the main screen.

2.13 Information

How to view thermostat information

1. Touch the main screen to activate it, then press ▤ to go to main menu.

2. Use the up and down arrows to go to **Information**, and press.
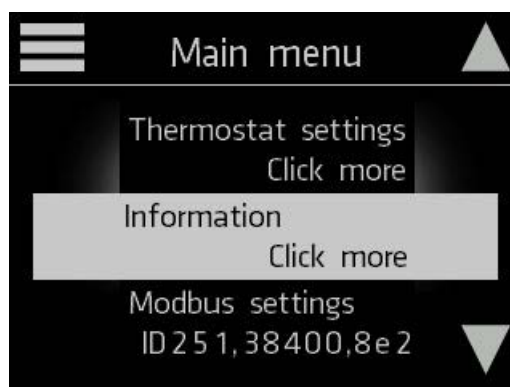
Thermostat information will appear on the screen.
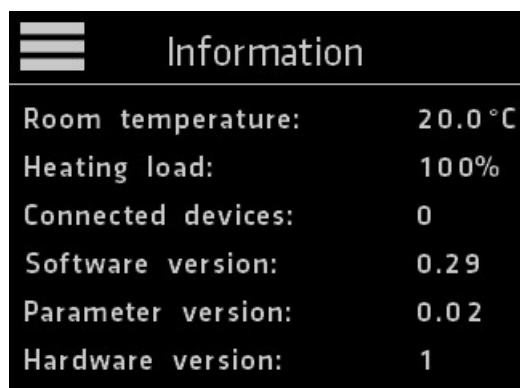
To return to the main screen, press ▤ in the top left corner of the screen until you get to the main screen.

3. Installation

Installation manual ECOT, controller

Components of the ECO controller
1. Bottom
2. Cover plate
3. Locking piece
4. Touch screen

Controller installation:
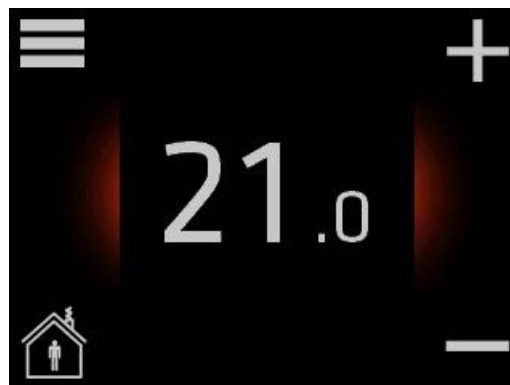**1.** Lead the controller cable (KLMA) from the terminal device to the junction box.

2. Detach the touch screen (1) from the locking piece (2).

3. Detach the locking piece from the bottom (4) with a small screwdriver, for example.

4. Fasten the bottom (4) to the junction box.

5. Install the cover plate (3).

6. Install the locking piece (2).

7. Connect the cables to the touch screen connectors as shown in Figures 2.1–2.3.

8. Push the touch screen (1) into the locking piece (2) until you hear a click.

Connection

1. NOTE! Lead the 230 V supply voltage to the device through a double-pole switch. Connect the supply voltage to connectors N and L in the electronics section of the terminal device, as shown in Figures 2.1–2.3.

2. Connect the ground to the terminal device's separate ground connector as shown in Figures 2.1–2.3.

3. Connect the ECO series terminal device to the controller with the Modbus cable as shown in Figures 2.1–2.3.

4. Connect the bus cables as shown in the figures.

5. Activate the terminator by moving the termination jumper to the ON position in the first and last device of the bus.

NOTE! Electrical connections may only be made by a professional electrician.

WARNING! The supply air device carries a voltage of 230 V.

U = 230V   In = 1,7 A

Room unit and vent

Figure 2.1

Building automation and vent

Figure 2.2

Room unit, vent and building automation

Figure 2.3

Chaining room controllers through the Modbus connection

Figure 2.4

4. Warranty

The product has a 24 months warranty.

5. Disposal Instruction