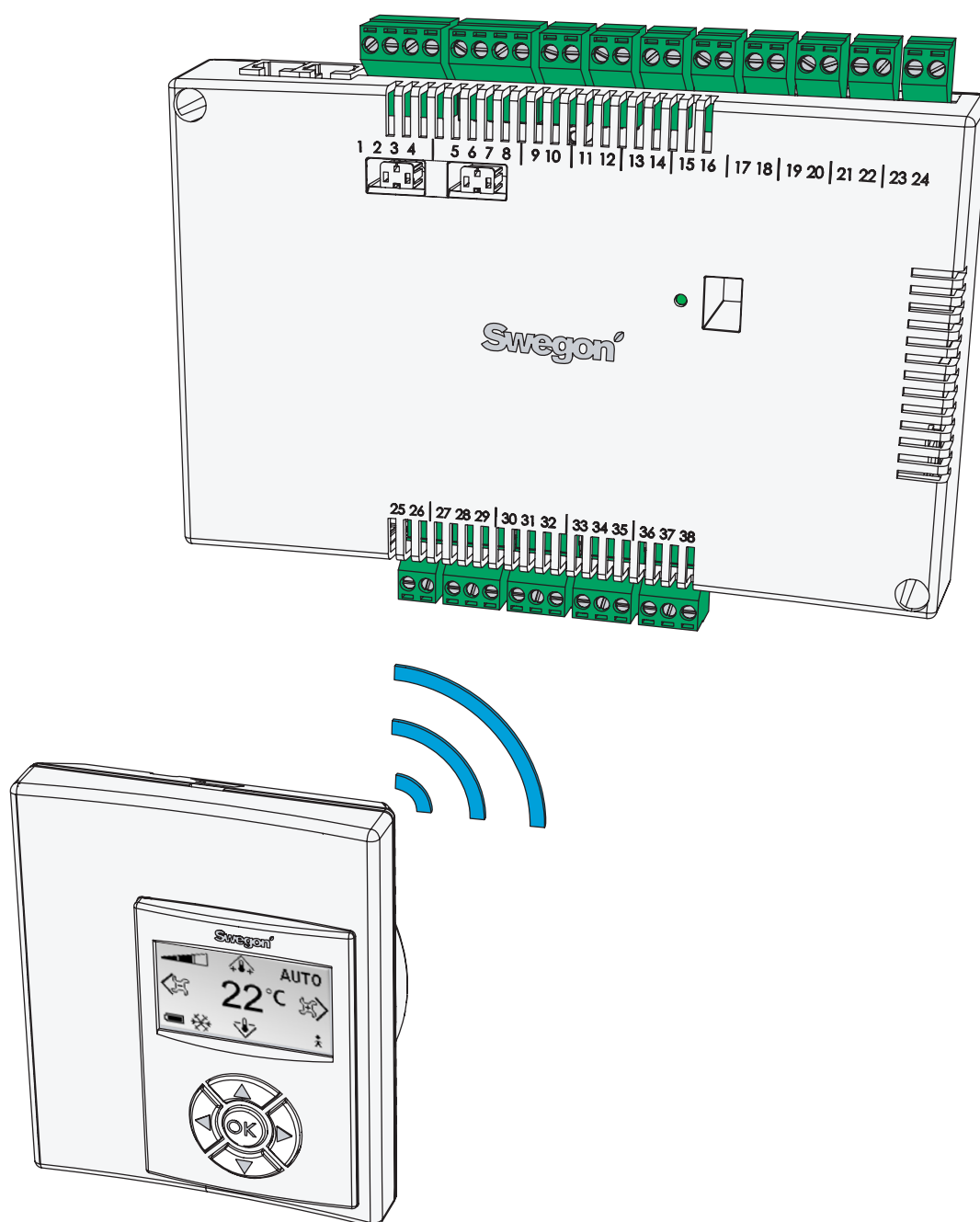


# User manual CONDUCTOR

## LEVEL 2





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## About the CONDUCTOR

CONDUCTOR is a control system for the individual control of the room temperature and airflow, especially designed for partitioned offices and hotel rooms. The control system consists of a controller and a room unit, both with built-in temperature sensors (the sensor in the controller is only used if room unit is not present in the room). The controller is equipped with inputs for connection of a condenser sensor, window contact or other normally closed contact, and outputs for the connection of an actuator for valves and air dampers.

The instructions in this installation and operation manual are intended for you who are accountable for the local climate system (LEVEL 2) and they describe how you:

- connect, start up, and adjust the CONDUCTOR RE controller and the CONDUCTOR RU room unit,
- easily adjust the heating, cooling and airflow by means of the room unit, and
- configure the functions and settings of the system.

## Applications

These instructions deal with two different applications: W1 and W3. W indicates that the two applications are applicable to water-based climate systems.

A water-based system provides the room with water-based heating and cooling. The air-based systems, which can be controlled in W3 by means of connected damper actuators, are only used to satisfy the demands on air quality, while the temperature of the supply air and extract air is kept constant.

Depending on the status of connected sensors, the controller adjusts the outputs from any of several possible operating conditions. The various operating conditions described here are based on the presence of occupants in the room and the status of the window contact and condensation sensor.

### W1

W1 is a standard solution for offices, mainly designed for partitioned offices, but which also can be used in large rooms, as with open-plan offices. The application is suitable for so called CAV systems (Constant Air Volume), which implies that the airflow in the room is constant and that no damper actuators are needed. Only two outputs are used, one for actuators that control cooling and one for actuators that control heating. There is provision for connecting a condensation sensor and a temp sensor.

**Table 1. Operating conditions for application W1**

Condensation	Cooling	Heating
Yes	Off	Normal
No	Normal	Normal

### W3

The W3-application can be used either for offices or for hotel rooms. It is designed for systems with variable airflow (VAV) with both supply air and extract air. Four outlets are used in order to control heating, cooling, supply and extract air. The damper motors are adjusted depending on the generated airflow and duct pressure in both the supply and extract air ducts. Three inputs are used; for condensation sensors, window contacts and presence detectors. The principal is to use minimal, normal or high airflow, depending on presence and sensor status.

**Table 2: Operating conditions for application W3**

Presence	Window	Condensation	Cooling	Heating	Supply air	Extract air
Yes	Open	Yes	Off	Frost protection	Min.	Min.
Yes	Open	No	Off	Frost protection	Min.	Min.
Yes	Closed	Yes	Off	Normal	Max.	Max.
Yes	Closed	No	Normal	Normal	Normal	Normal
No	Open	Yes	Off	Frost protection	Min.	Min.
No	Open	No	Off	Frost protection	Min.	Min.
No	Closed	Yes	Off	Normal/Energy saving	Min.	Min.
No	No	No	Normal	Normal/Energy saving	Min.	Min.

## Operating modes

The controller has six operating modes: One manual mode, MAN, three automatic modes, AUTO, ECON and BOOST, as well as one standby mode, STOP, and an emergency mode, EMERG.

### Manual control

Whenever the CONDUCTOR registers the presence of occupants in the room (in response to signals from a presence detector or a key card reader), the user can regulate the temperature and airflow rate by means of the room unit. When the user enters a new desired value, the controller switches over to the manual operating mode (MAN).

For application W3, you can manually adjust the airflow to one of three different levels (see **Set the desired airflow**, p. 14). The controller controls the damper motors which operate the supply air and extract air dampers by means of three different voltage levels, which open the dampers to different positions depending on the selection made (see **Advanced airflow and temperature settings**, p. 15-16). W1 lacks provision for adjusting the airflow.

### Automatic control

There are three different automatic modes: a normal mode, AUTO, an energy-save mode, ECON, and a boost mode, BOOST. The latter is specific for W3.

When the user pulls the key card out of the card reader and leaves the room, the controller automatically decreases the supply air flow to a low rate and the system returns to the AUTO mode. The system normally also changes to AUTO eight hours after the user has entered the latest room temperature or airflow adjustment (see **Timed set point resetting**, below).

When the controller is set to automatic control, the valve actuator for cooling or hot water and the supply air or extract air dampers are adjusted in response to presence in the room and the status of the window contact and condensation sensor. See the operating conditions for each application (p. 4). (Boosting function – running, see below, is an exception from the operating condition tables.)

The automatic control system controls the airflow, cooling and heating until the user manually sets the airflow or temperature.

On condition that the energy-save function is enabled, the system automatically changes to the energy-save mode (ECON), when the room temperature has been stabilized within predefined limits and no presence is registered for a normal period of 20 minutes. The system returns to the AUTO mode when presence is again registered.

In the energy-save mode, the valve actuator is controlled to cooling or heating water according to the status on other sensors in the room, but with a greater permissible difference between actual value and set point than in the AUTO mode.

The controller changes to the BOOST operating mode, when presence is registered in the room and the difference between factual and desired room temperature exceed a predefined level, which normally implies that the airflow in the room increases in order to speed up the temperature adjustment. The system again returns to AUTO when no presence is registered, or when the room temperature again is within predefined limits.

The level on the power outlets of the supply air and the extract air dampers can be adjusted for each AUTO mode (see **Advanced airflow and temperature settings**, p. 15-16).

### Standby and emergency level

The controller is set to STOP, when the system registers an input indicating that a window is open and the controller returns to AUTO when the window has been shut. The cooling is shut off and the frost monitor is switched on, when the controller is in the STOP mode.

The EMERG operating mode can only be enabled and disabled by a main control system via Modbus. In the EMERG mode, cooling and heating are always switched off, supply air and extract air are **normally** switched off.

## Functions

There are a variety of functions built into the CONDUCTOR. In this instruction, special emphasis is placed on three of them. The "first open" function and timed set point resetting, which are related to all the applications, and timed boost which is specific for the W3 application.

### First open

The water valve is of NO type, normally open, and the actuators are on delivery locked in the open position, making it easier to vent the system when you start it up. The "First open/open actuators" function should then be enabled via the room unit, in order to unlock the actuators and in this way ensure correct function.

### Timed set point resetting

The manually preset temperature at LEVEL 1 (p. 14) is normally in effect for eight hours after the controller has returned to the automatic operating mode. Then the room temperature returns to the sustained temperature setting (see **Advanced airflow and temperature settings**, p. 15-16).

### Timed boost

Provided that the boost function is enabled and presence is registered in the room, the controller adjusts the air dampers to a pre-adjusted high flow setting in order to quickly reach desired temperature. The unit normally operates in the boost mode for five minutes or until the user enters a new setpoint.

Overview  
Controller

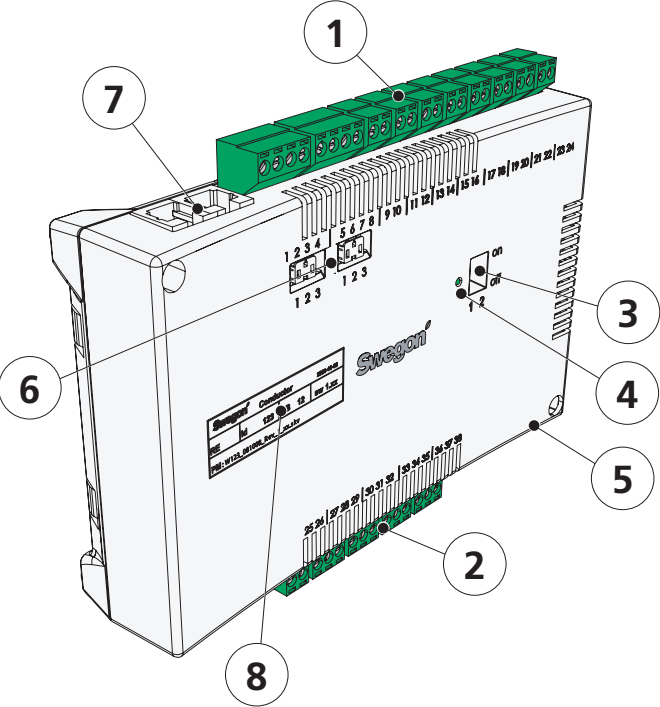


Figure 1: CONDUCTOR RE Controller

Room unit

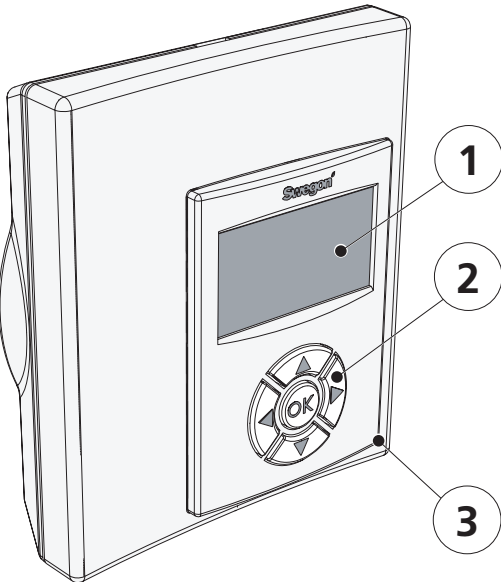


Figure 2: CONDUCTOR RU Room unit

- 1 Inputs**  
Connection terminals for the connection of sensors.
- 2 Outputs**  
Connection terminals for the connection of valve and damper actuators.
- 3 DIP switch for Modbus**
  - 1 (=on) boosts the controller to Modbus address 1
  - 2 (=on) access to Modbus register via BMS system (requires a restart of the controller)
- 4 LED**  
Shows the status of the controller.

Flashing green light	function ok
Quick flashing green light	saves parameter file after change
Flashing green/red light	room unit not found, make new connection
Flashing red light	alarm, see display
Steady green light	requires a restart of the controller
- 5 In/output for signal to external relay**  
Enables unit to send and receive signals to/from external relay.
- 6 Termination resistance**
  - 1 The unit is the last node in the network
  - 2 The unit is the first node in the network
  - 3 The unit is situated between the first and last nodes
- 7 Modular connector**  
Is used for communication and voltage supply, when a wired room unit is used.
- 8 Product marking**  
Provides misc. details about the controller.

- 1 Display**  
Presents information about the system and shows what the user is doing and can do.
- 2 Key set**  
The navigation keys are used for navigating the system and for changing the values.
- 3 Temperature sensor**  
Placed inside the capsule.

## Installation

The installation instructions refer to the CONDUCTOR RE controller and the CONDUCTOR RU room unit. The installation can either be made in connection with the new installation of a comfort module, or as an addition for a previously fitted module.

For a new installation, both the controller and the room unit should be supplied together with the comfort module.

### Preparations

Before installing the CONDUCTOR see to the following:

- that the comfort module, pre-fitted valve actuators for cooling and heating water, are mounted in the ceiling;
- required sensors (e.g. presence detector, window contact and condensation sensor) are installed in the room;
- required damper actuators are mounted in both the supply air and extract air ducts for application W3 and
- cables from all the peripheral units are marked and run up to the comfort module, or alternative location for the controller.

You should have the following tools close at hand for installing the equipment:

- Ordinary screw driver or electric screw driver
- Electric drill

### Product marking

The product marking affixed to the front of the controller, indicates rated data, the ID-number, which you will need when you install the CONDUCTOR.

<b>Conductor RE W1</b>
<b>Modbus Address 2</b>
<b>Part no: 942334001</b>
<b>RF id: 00350</b>

Figure 3. The product identification label of the controller.

- 1 Product name and type of unit
- 2 Modbus address
- 3 Part number
- 4 ID number

### Step 1: To install the controller

If a DIN rail is mounted on the comfort module or at another suitable location, the controller should be fastened to this rail.

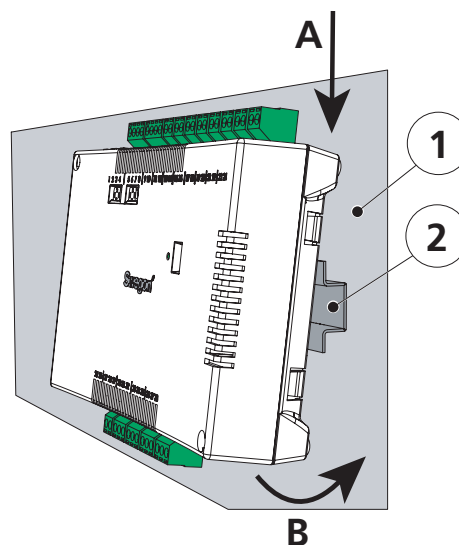


Figure 4. Mounting the controller on a DIN rail.

1. Supporting surface, e.g. comfort module

2. DIN rail

#### A Hitch on

Fasten the two plastic hooks on the backside of the controller in the grip edge of the DIN rail (on top).

#### B Press to fasten

Press to fasten the snap locking devices on the backside of the controller against the grip edge of the DIN rail (at the bottom).

If DIN rail is not available pre-mounted or at hand, the controller can be appropriately mounted above a ceiling (**not** on the module) with two suitable screws, in the fastening holes in the enclosure of the upper left and lower right corner of the controller.

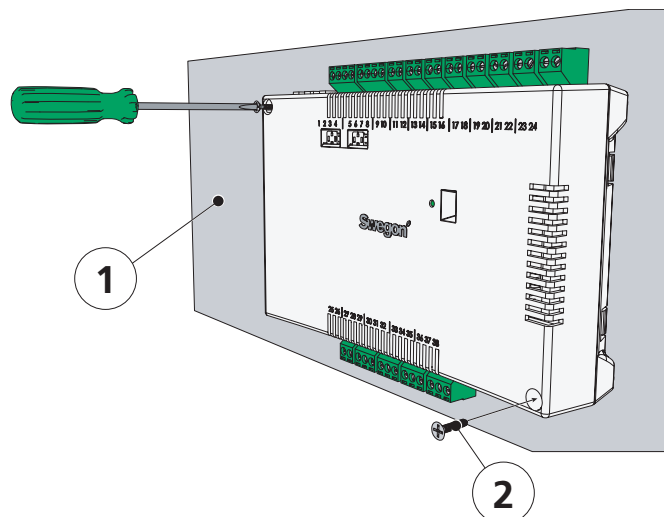


Figure 5. Alternative installation of controller.

1. Supporting surface (**not** comfort module)

2. Appropriate screw for the supporting surface



## Step 2: Connect peripheral units

Transformer, sensors and actuators are to be connected to the detachable connecting terminals. These are in turn connected to the controller's interconnection card.

**Table 3. Indicates units accessible for each application.**

	Units that can be installed							
Application	A	B	C	D	E	F	G	H
W1	Yes	Yes	No	No	Yes	Yes	No	No
W3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

### A Transformer

Connect the transformer with the cables of the secondary side to controller terminal no. 23 (black cable) and 24 (black and white cable) respectively.

**N.B.!** Connect the transformer's primary section to the mains power supply first after the system has been vented.

### B Condensation sensor

Connect the condensation sensor to controller terminal no. 17 (brown cable) and terminal no. 18 (white cable) respectively.

### C Window contact

Connect normally closed (or normally open) window contact to controller terminal no. 10 and terminal no. 25 (both black cables) respectively.

### D Presence detector

Connect a normally closed contact from the key card holder and other presence detector to terminal no. 12 and terminal no. 26 respectively on the controller (both black cables).

### E Valve actuator for cooling water

Connect actuator for cooling water to controller terminal no. 27 (blue cable) and terminal no. 29 (brown cable) respectively.

### F Valve actuator for heating water

Connect the valve actuator for heating water to controller terminal no. 30 (blue cable) and terminal no. 32 (brown cable) respectively.

### G Damper motor for supply air (W3)

Connect the motor for the supply air damper to controller terminal no. 33, GO (blue cable), terminal no. 34, 0-10V signal (red cable) and terminal no. 35, 24V (brown cable) respectively.

### H Damper motor for extract air (W3)

Connect the motor for the extract air damper to controller terminal no. 36, GO (blue cable), terminal no. 37, 0-10V signal (red cable) and terminal no. 38, 24V (brown cable) respectively.

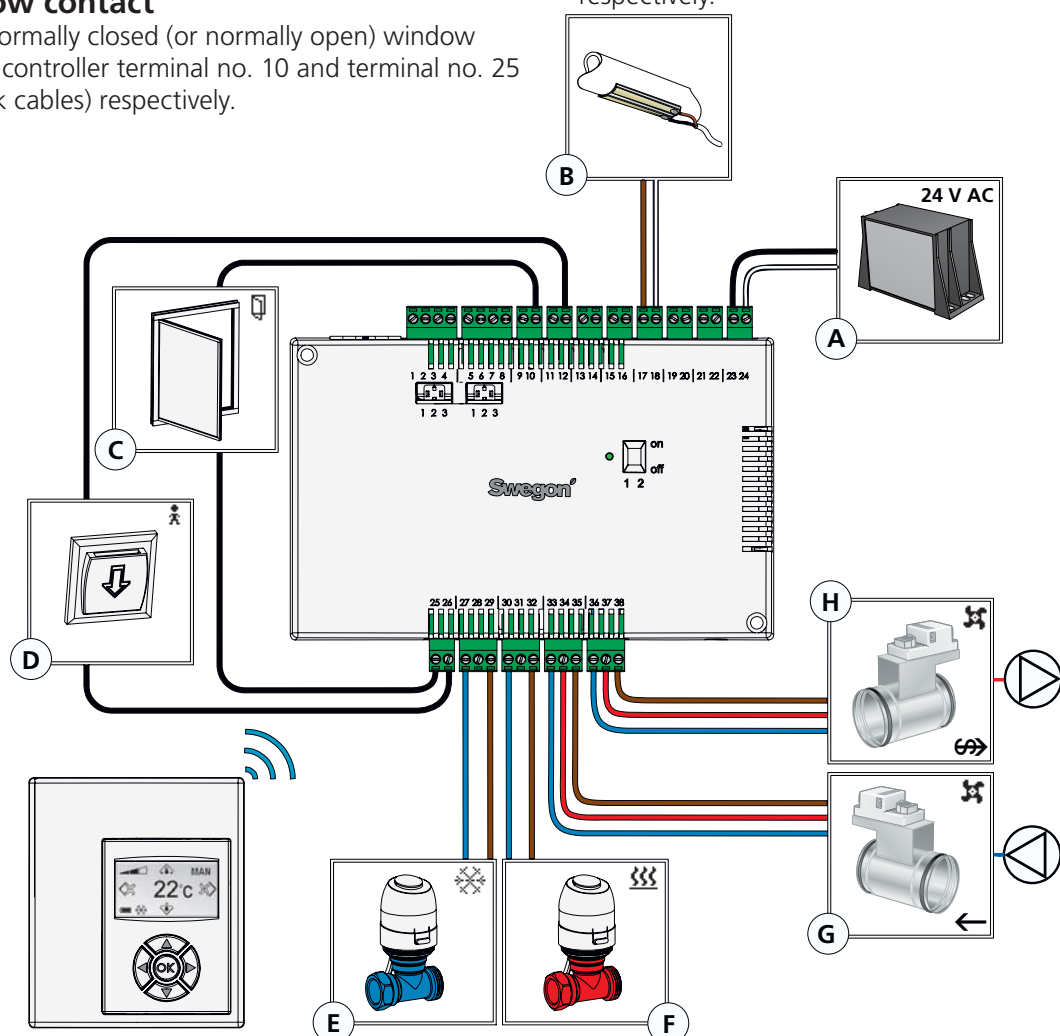


Figure 6. Peripheral units.



### Step 3: To start up

After all the required units for the current application have been connected to the controller and the system has been vented, the CONDUCTOR should be started as follows:

#### 1 Connect the mains power supply cable

Connect the transformer's main power supply cable to an electric outlet.

#### 2 Put batteries into the room unit

The room unit is normally supplied with current from four size AAA batteries.

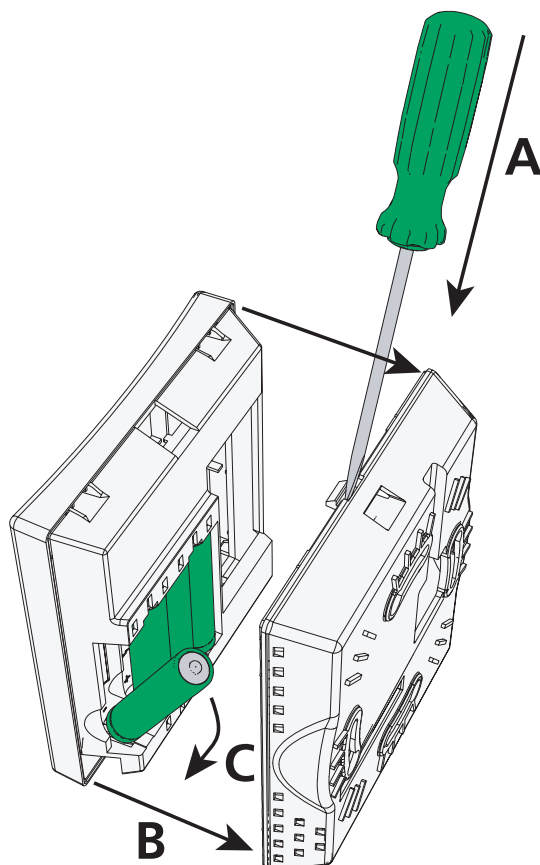


Figure 7. To change the batteries.

##### A To open the snap lock

Open the snap lock by pressing a screw driver in the notch between the front and back of the room unit.

##### B Remove the back

Maintain the pressure on the snap lock and remove the back

##### C Insert batteries into the battery compartment

Insert the batteries with the poles turned according to the relief markings in the battery compartment.

As alternative to batteries, the room unit can be energised from the controller, via a 6-pole cable with RJ12 modular connector (see **Overview**, p. 6).

**N.B.!** If the room unit is energised via a cable the unit must be connected at this point.

### 3 Booting

The system boots as quickly as the controller and the room unit is energised.

The following image (the main image) shows that the system has finished booting.



Figure 8. The display after start up.

The controller is always set to the AUTO operating mode, when the system has finished booting.

### 4 Select language

On delivery, the room unit has factory-preset English language settings.

In order to change the language of the texts that appear in the images, see **Language settings**, p. 18.

### 5 Check the factory settings

You can check the system's settings in **the info image** (see **System information**, p. 16).

Make sure that the current application setting (upper row) is in agreement with units connected to the controller (compare with **Step 2**:

**Connect peripheral units**, p. 8).

### 6 Connect the units

In order for the communication between the room unit and the controller to function properly, they must be connected up to one another. This is done by means of the function **Connect units** (see p. 17).

The address to be entered is the ID or serial number of the controller, shown on the label (see **Product marking**, p. 7) or **the Info image** (see **System information**, p. 16). The three-digit number should be preceded by two zeros (00).

**N.B.!** If the room unit is energised via cable, you need not carry out the "Connect units" step.

### Step 4: Mount the room unit

The room unit contains a temperature sensor used for measuring the current room temperature. A correct measurement of the temperature is decisive for enabling the controller to control the room temperature to meet the desired temperature. It is therefore important that the room unit is placed at a location that is representative for the room.

When mounting the room unit on a wall, first remove the back piece of the unit (see **Step 3: Start up**, p. 9). Then tighten the back piece with two countersunk screws, appropriate for the supporting surface.

**N.B.!** Use the right and left fastening holes only.

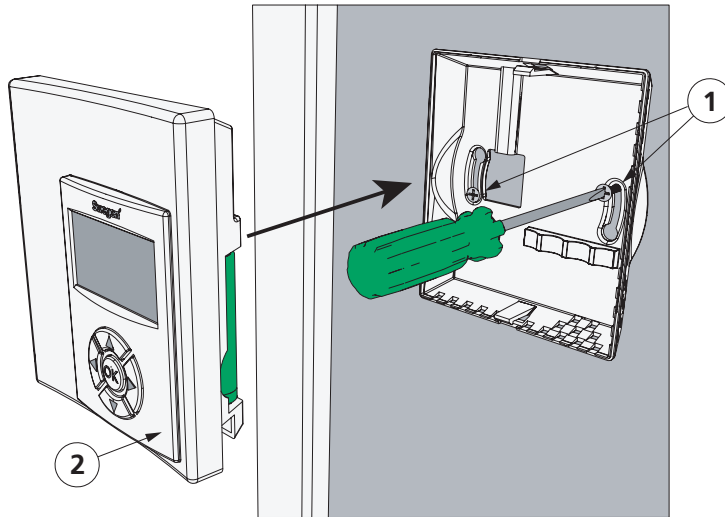


Figure 9. Installing the room unit.

1. Appropriate screw for the supporting surface
2. The front of the room unit

# Basic handling

This section describes the basics for how to use the room unit.

## User levels and access protection

CONDUCTOR applies a system with three different user levels (LEVEL 1, LEVEL 2 and LEVEL 3), each adapted to any of three user roles, daily users (office workers or hotel guests), caretakers and staff trained by Swegon.

LEVEL 2 and LEVEL 3 are access protected levels. In order to gain access to the sections of the system with limited access, which is intended for your user role, you must enter an access code. This is done in **the Code entering image** (p. 12).

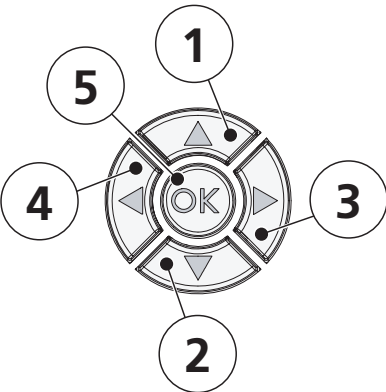


Figure 10. The key set.

	Designation	Navigating	Change
1	▲ UP	Go upward	Increase value
2	▼ DOWN	Go downward	Decrease value
3	► RIGHT	Go forward / Select	(Increase the airflow)
4	◄ LEFT	Go back	(Decrease the airflow)
5	OK CONFIRM	Select / Go forward	Confirm

## Navigating in the system

You configure and adjust the functions and settings available for your user level in the images you can reach via a number of menus.

You can advance from one menu to the next and other images by pressing the navigation keys on the room unit. In order to advance in sequences of images you press on ► RIGHT, or OK CONFIRM. If you want to return to the previous image, press ◄ LEFT.

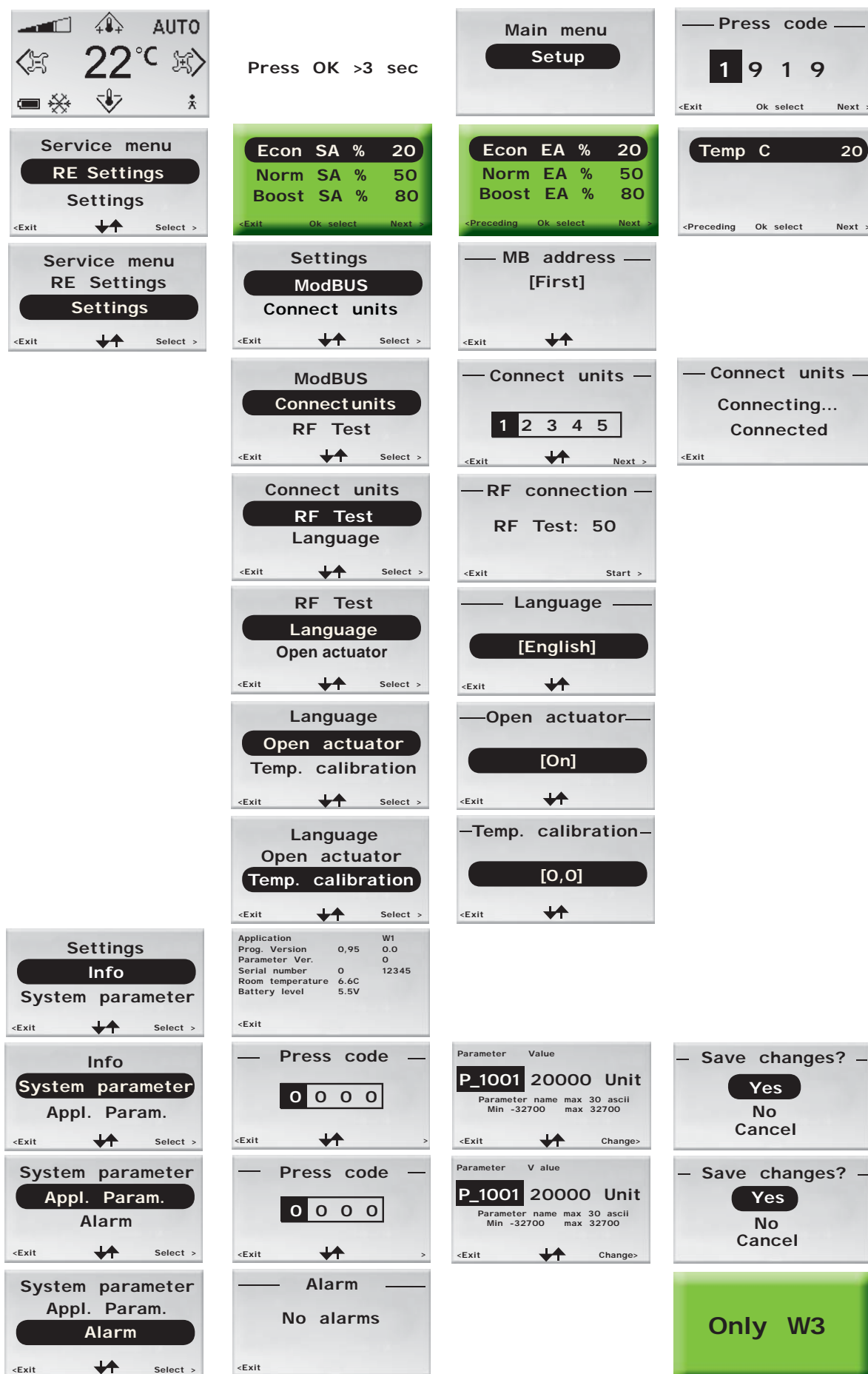
You can navigate in menus by pressing ▲ UP in order to move upward and ▼ DOWN in order to move downward. In order to select a marked alternative press OK CONFIRM or ► RIGHT. If you want to return to the previous image, press ◄ LEFT.

## Change of values

In order to change a value, you normally use the ▲ UP and ▼ DOWN keys, press ▲ UP to increase the value and ▼ DOWN to decrease the value (the only exception is adjustment of airflow, p. 14).

Each time you press the key, the value is changed one step. By holding the key pressed down, you can alter the value several steps at a time. After you have pressed and held down the key for approx. 5 seconds, the speed of change increases in order to make it easier for you when you wish to make larger changes. In order to confirm a change, press OK CONFIRM. If you do not want to confirm a change, press ◄ LEFT (not possible if you are adjusting temperatures and airflows, p. 14).

## Menu overview



## Menu overview

You can reach all the room unit's adjustable settings from any of the unit's menus or from the main image. In addition to the Main image and the other menus, this section also describes how you can enter the access code for the system's access-protected sections.

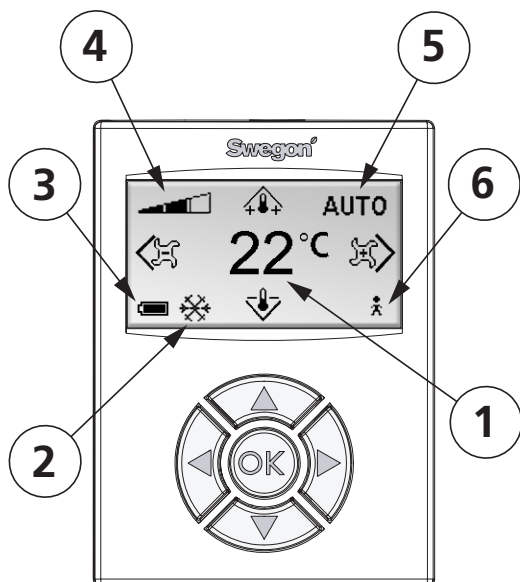


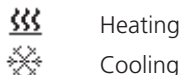
Figure 11. The Main image.

### 1 Current temperature

The field shows the present temperature setting. Can be read in °C.

### 2 Heating/cooling

The field shows whether the climate system is heating or cooling.



Heating

Cooling

### 3 Battery level/window status

The field shows the battery level. If a window is open in the room this will be visible on the screen.



Good battery status.

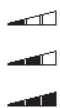
Medium good battery status

Bad battery status. Change battery!

Open window.

### 4 Current airflow

The indicator shows the present airflow setting.



Low airflow

Normal airflow

High airflow

### 5 Operating mode

The field shows current operating mode of the climate system.  
**N.B.!** The field is empty in manual level.

AUTO Automatic

ECON Economy

STOP Standby

EMERG Emergency

### 6 Presence status



There is an occupant in the room.

## Main image

**The Main image** shows the current status of the climate system and the temperature and airflow settings.

The image consists of several fields each of which show the status of the climate system in text or symbol form.

## Main menu

You will come to **the Main menu** from the main image by pressing and holding down **OK CONFIRM** for approx. 3 seconds.

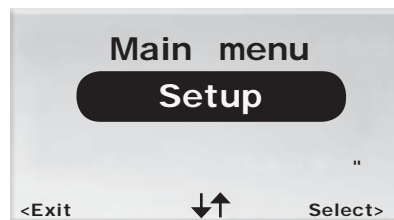


Figure 12. The Main menu.

From **the Main menu** if you have access to LEVEL 2 you can move on to **the service menu** (via **the code entering image**) by selecting "Setup".

## Entering codes

**The code entering image** is the gateway to LEVEL 2. In order to gain access to this level, an access code must be entered, which you do from this image. You will automatically come to **the code entering image** by selecting "Setup" in **the Main menu**.

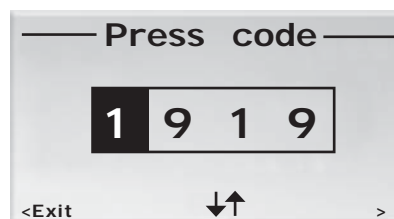


Figure 13. The code entering image.

The access code consists of four digits and must be keyed in on the keyset. You can change the digit in the high-lighted digit position with the **▲ UP** and **▼ DOWN** keys.

You mark the next digit position by pressing on **OK CONFIRM** or **► RIGHT**. You go back to the preceding position by pressing **◄ LEFT**.

From the last digit position, you press **OK CONFIRM** or **► RIGHT** when desired password has been entered, if the combination is correct, you will move on to **the Service menu**. If you have entered the wrong code you will automatically return to **the Main menu**.

You can return to **the Main menu** if you decide to do so by highlighting the first digit position and pressing down **◄ LEFT**.

Service menu

You will come to **the Service menu** by selecting "Setup" in **the main menu**. Before you will have access you must confirm your authorization by entering a unique access code (see above).

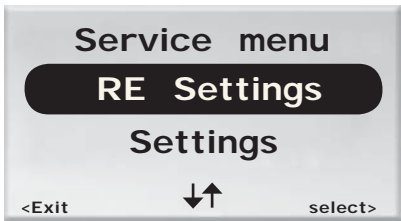


Figure 14. Service menu. More selections can be displayed by pressing the ▼ key.

The following functions and settings can be configured and displayed from **the Service menu**.

Designation in the menu	Operation
RE Settings	Control supply and extract air, and room temperature respectively
Info	Show information about the system
Alarm	Show information about current alarms

The "System parameter" and Appl. Param. selections are intended for staff that have been trained by Swegon and that have been assigned special authorization (LEVEL 3).

The selection "Settings" will take you further to **Settings**.

Settings

You will come to **Settings** by selecting "Settings" in **the Service menu**.

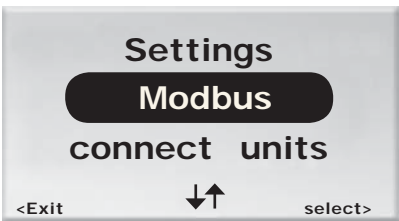


Figure 15. The Settings menu. More selections can be displayed with by pressing the ▼ key.

The following settings can be configured from the **Settings menu**.

Designation in the menu	Operation
ModBUS	Change Modbus address
Connect units	Connect the room unit and the controller
RF Test	Test the quality of the radio connection
Language	Change the language in the images
Open the actuator	Enable and disable the "first open" function
Temp. Calibration	To correct the measured temperature.

## Handling the functions

This section provides information and describes the settings, which to the daily user (LEVEL 1) and the caretaker (LEVEL 2) can be displayed and performed respectively.

Each digit indicates a section in a sequence of instructions, a small letter indicates that there are several selection options within a section.

### LEVEL 1

Here settings that the daily user, an office worker or hotel guest, has authorization to carry out are described here. It is basic settings of:

- room temperature, and
- airflow (not W1).

### To set desired room temperature

1. In the main image, press on any of the following keys:  
▲ UP or ▼ DOWN.

The first press of the key takes the user to the temperature setting image, but does not affect the temperature setting.



Figure 16. The temperature adjustment image, LEVEL 1.

As in the main image, the desired room temperature can be read in °C in the centre of the display.

2. Press
  - a. ▲ the UP key to raise the temperature.
  - b. ▼ the DOWN key to decrease the temperature.
3. When the desired temperature is shown in the image, press **OK** CONFIRM to confirm the entered setting and return to the main image.

N.B.! If confirmation with OK is not entered, the setting will not be changed. The image will then automatically after 60 sec return to the main menu.

### Adjust desired airflow

If application W3 are run in the controller, the user can adjust the airflow in three steps. If W1 is operating, airflow adjustment is not available.

1. In the main image, press on any of the following keys:  
► RIGHT or ◀ LEFT.

The first press of the key will take the user to the airflow adjustment image, without changing the desired airflow.

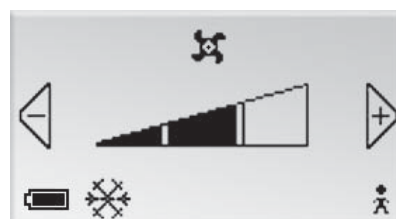


Figure 17. The airflow adjustment image, LEVEL 1.

The airflow rate can be read on the triangular indicator in the centre of the image.

Depending on your comfort needs, one of three different levels can be selected: low, normal or high.

- ◀ Low airflow
- ◀ Normal airflow
- ◀ High airflow

Low airflow corresponds to the automatic level ECON, normal airflow corresponds to AUTO and high airflow corresponds to BOOST (see **Operating modes**, p. 5 and **Advanced airflow and temperature settings**, p. 15-16).

2. Press
  - a. Press the ► key to increase the airflow.
  - b. Press on the ◀ key to decrease the airflow.
3. When desired temperature is shown in the image, press **OK** CONFIRM in order to confirm performed setting and return to the main image.

N.B.! If confirmation with OK is not entered, the setting will not be changed. After 60 sec., the image will automatically return to the main menu.



## LEVEL 2

You who maintain the ventilation system, in addition to entering the daily adjustments that the daily user is authorized to enter, can also do the following:

- enter advanced supply and extract airflow and room temperature settings,
- show information about the system,
- show active alarms,
- change the unit's Modbus address,
- connect units to one another,
- test the quality of the radio connection,
- change the language of the text in the images,
- enable and disable the "first open" function and
- calibrate the temperature sensor.

### Advanced airflow and temperature settings

Below "RE settings" in the **service menu** you can adjust the degree of aperture (A) of the supply air dampers for low, normal and high airflow; the degree of aperture (B) of the extract air dampers for low, normal and high airflow.

**N.B.!** The degree of aperture of the supply and extract air dampers is only accessible for adjustment if the applications W3 is operated on the controller.

Low airflow also corresponds to the automatic mode ECON, normal airflow corresponds to AUTO and high airflow corresponds to the flow level for boost, BOOST (see **Operating modes**, p. 5).

You can also permanently set the room temperature (C).

#### A To adjust the supply air damper

In the first submenu in **RE settings** you can choose to control flow levels for **the supply air damper**.

1. In the **Service menu**, select "RE settings".

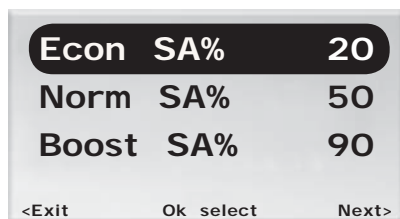


Figure 18. Submenu for supply air adjustment.

2. You can then choose to do any of the following:
  - a. Select (highlight and press on **OK CONFIRM**) "Econ SA %" in order to adjust the damper position for the supply air for low flow (ECON), "Norm EA %" for the damper position for normal flow (AUTO) and "Boost EA %" for the position for high flow (BOOST).
  - b. In order to adjust **the extract airflow**, press ► RIGHT.
  - c. In order to return to **the Service menu**, press ◀ LEFT.

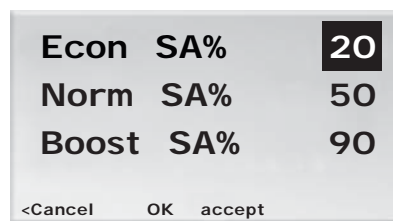


Figure 19. Adjusting image for supply air. Adjusting the economy level selected in the example.

3. After performed adjustments of the supply airflow:
  - a. Press **OK CONFIRM** in order to confirm and save adjusted value.
  - b. If you do not wish to save the adjusted value, press ◀ LEFT.

Both alternatives take you back to the submenu for supply air adjustment.

#### B Adjust the extract air damper

In the other submenu in **RE settings** the flow levels should be regulated for **the extract air damper**.

1. In the submenu for supply air adjustment, press ► RIGHT.

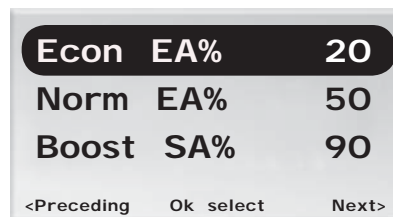


Figure 20. Submenu for extract air adjustments.

2. There are three possible selections in the submenu for extract air adjustment:
  - a. Select (highlight and press **OK CONFIRM**) "Econ SA %" in order to adjust the damper position for extract air for low flow (ECON), "Norm EA %" for the damper position for normal flow (AUTO) and "Boost EA %" for the position for high flow (BOOST).
  - b. To advance further and adjust the temperature, press ► RIGHT.
  - c. To return to the submenu for **supply air adjustment**, press ◀ LEFT.

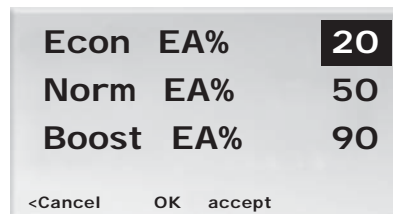


Figure 21. Adjusting image for extract air. Adjusting of economy mode selected in the example.

3. After performed adjustments:
  - a. Press **OK** CONFIRM in order to confirm and save adjusted value.
  - b. If you do not wish to save the adjusted value, press **◀ LEFT**.

Both alternatives take you back to the submenu for extract air adjustment.

### C Adjusting the room temperature

On the third submenu in **RE settings** the existing room temperature is adjusted (see **Timed setpoint resetting**, p. 5).

1. In the submenu for extract air adjustment, press **▶ RIGHT**.

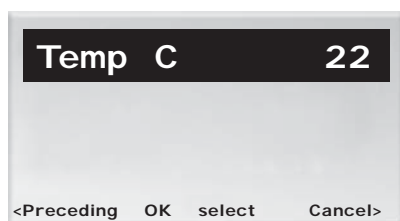


Figure 22. Submenu for temperature adjustment.

2. There are three possible selections in the submenu for temperature adjustment:
  - a. In order to adjust the temperature, press on **OK** CONFIRM.
  - b. In order to go to **the Service menu**, press **▶ RIGHT**.
  - c. To return to the submenu for extract air adjustment, press **◀ LEFT**.

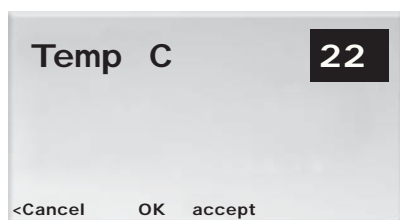


Figure 23. Adjusting image for temperature.

3. After performed adjustments:
  - a. Press **OK** CONFIRM in order to confirm and save adjusted value.
  - b. If you do not wish to save the adjusted value, press **◀ LEFT**.

### System information

Below "Info" in **the Service menu** you will find information about the room unit and the controller.

Application		W3
Prog. version	123	123
Parameter ver.		4
Serial number	123	321
Room temperature	23.0 C	
Battery levelapprox	5.2V	
<Exit		

Figure 24. The Info Image.

The following information about the system is displayed in **the Info image**

Application	Current application
Prog. version	The version number of each software
Parameter ver.	Current version of the parameter list
Serial number	The serial number of each of the units
Room temperature	Current room temperature
Battery level	The battery level of the room unit (when the unit is powered by batteries).

Current data which is specific for the room unit is displayed in the left column. Controller data is displayed in the column to the right.

Press **◀ LEFT** in order to return to **the Service menu**.

### Alarm

Below "Alarm" in **the Service menu** all active alarms are displayed.

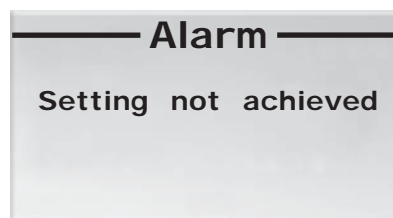


Figure 25. The Alarm image. Example of an alarm, "Setting not achieved".

Press **◀ LEFT** in order to return to **the Service menu**.

## Change Modbus address

The unit must be assigned an address in order for it to be connected to Modbus, when the room unit is connected via cable. You can change the Modbus address of the unit below "ModBUS" in **Settings**.



Figure 26. The MB address image.  
Example of connection to Address 101.

1. Use the ▲ UP and ▼ DOWN keys to change the address of the unit.  
Select "First" if the unit is the first room unit in the room, select "Second" if the unit is the second room unit, select "System manager" if you desire to connect and adjust parameters in a system manager.
2. After you have made your adjustments:
  - a. Press **OK CONFIRM** to save the new address and return to **Settings**.
  - b. In order to return to **Settings** without saving the address, press ◀ LEFT.

## Connect units

In order for you to control the controller with the hand-held terminal, the units must first be connected. You can do this below "Connect units" in **Settings**.

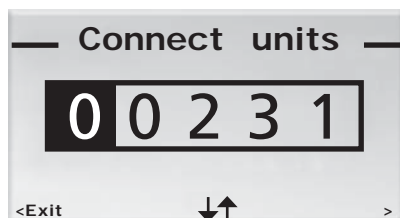


Figure 27. The Connect units image.  
Example of connection with Serial number 231.

The address consists of five digits and is displayed by means of the keypad. You change the digit in the high-lighted digit position by pressing the ▲ UP and ▼ DOWN keys.

You highlight the next digit position by pressing **OK CONFIRM** or ► RIGHT. You go back to the preceding position by pressing ◀ LEFT.

From the last digit position you press **OK CONFIRM** or ► RIGHT in order to connect the room unit using the given address.

In order to return to **Settings**, highlight the first digit position and press ◀ LEFT.

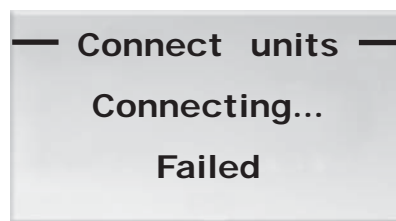


Figure 28. Failed connection.

The above image displays a failed connection.

Press ◀ LEFT to return to **Settings**. Your changes will then not be saved.

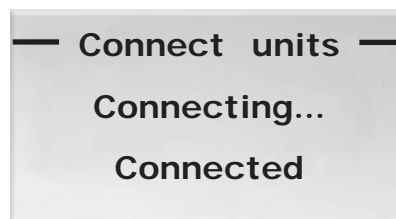


Figure 29. Confirmed connection.

If the connection was successfully made the above image will be displayed.

You return to **Settings** by pressing ◀ LEFT.

## Testing the radio connection

If no cable is connected between the controller and the room unit, no communication via radio signals will take place. You can test the connection quality between the room unit and the controller below "RF Test" in **Settings**.

During the test, 100 messages are sent between the controller and the room unit. The room unit calculates the number of successful transmissions and displays them in the image.

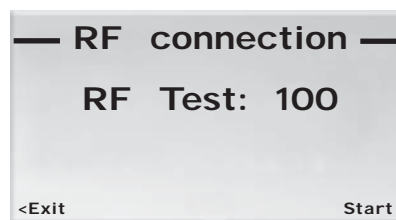


Figure 30. RF connection, the start image.

1. In order to:
  - a. start the test, press ► RIGHT.
  - b. To return to **Settings**, press ◀ LEFT.

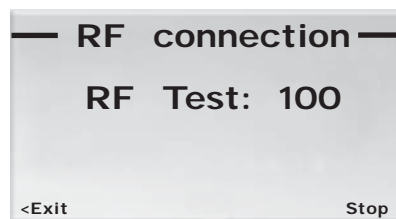


Figure 31. RF connection, the stop image.

2. In order to then:
  - a. stop test in progress, press ► RIGHT.
  - b. To exit and return to **Settings**, press ◀ LEFT.

## Language setting

Below "Language" in **Settings** adjust the language to be displayed in the images.

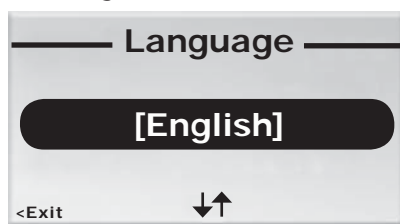


Figure 32. The Language image.

1. Select the language desired in the image. You can select between Swedish, Finnish (select Suomi) and English (select English).
2. In order to:
  - a. save your language setting and return to the **Settings** menu, press **OK CONFIRM**.
  - b. To return to the **Settings** menu without saving your changes, press **◀ LEFT**.

## The "First open" function

Below "Open actuators" in **Settings** you can enable and disable the "First open" function (see "**First open" function**", p. 5).

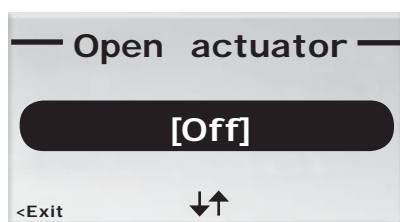


Figure 33. "First Open" image.

1. You can choose to have the "First open"-function enabled ("[On]") or disabled ("[Off]").
2. In order to:
  - a. save your language selection and return to **Settings**, press **OK CONFIRM**.
  - b. To return to the **Settings** menu without saving your changes, press on **◀ LEFT**.

## Temperature calibration

In order to adjust the measured temperature so it will represent the actual temperature of the room better, select "Temp. Calibration" in **Settings**.

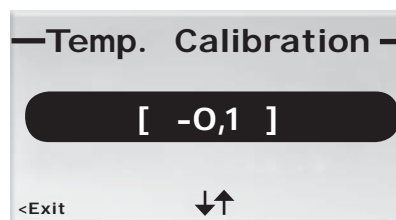


Figure 34. The Temperature calibration image. Example of calibration with -0.1 °C.

1. Use the **▲ UP** key to increase the desired adjusted degree of measured temperature and the **▼ DOWN** key to decrease the degree.
2. After performing the temperature changes:
  - a. Press **OK CONFIRM** to save the new calibration temperature and return to **Settings**.
  - b. In order to return to **Settings** without saving the calibration temperature, press **◀ LEFT**.