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Finnish innovation  
**COMFORTTEMP 880**

The stylish and the most effective  
way to make an energy efficient electric heating installation



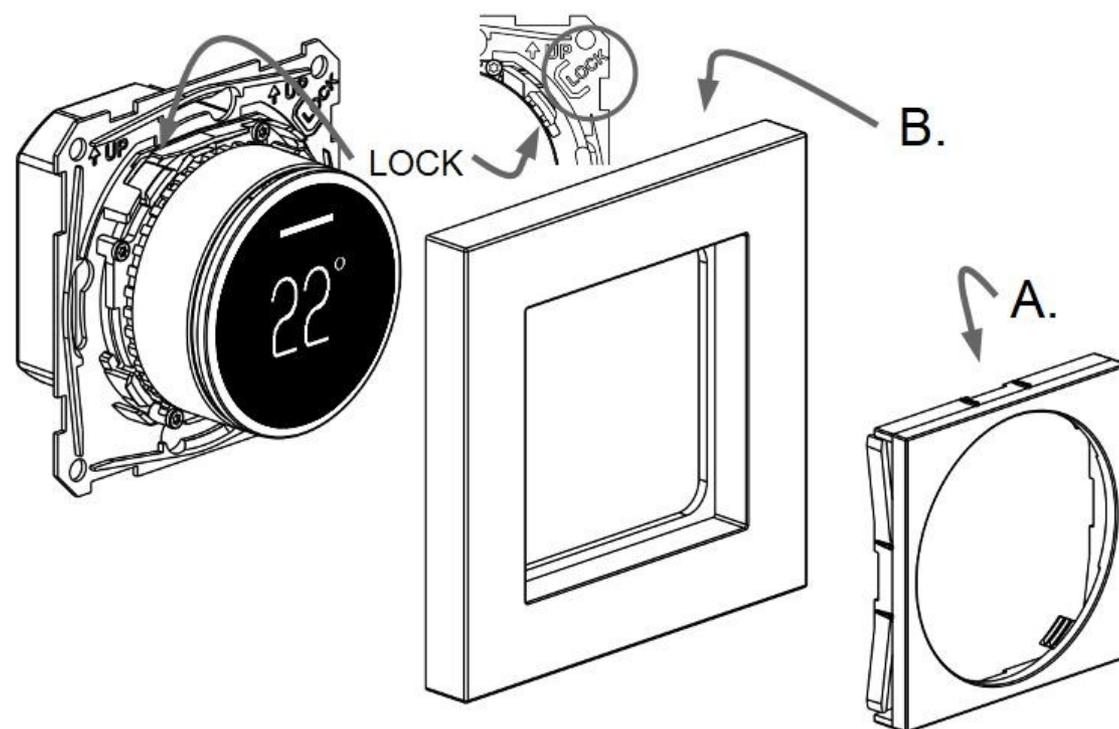
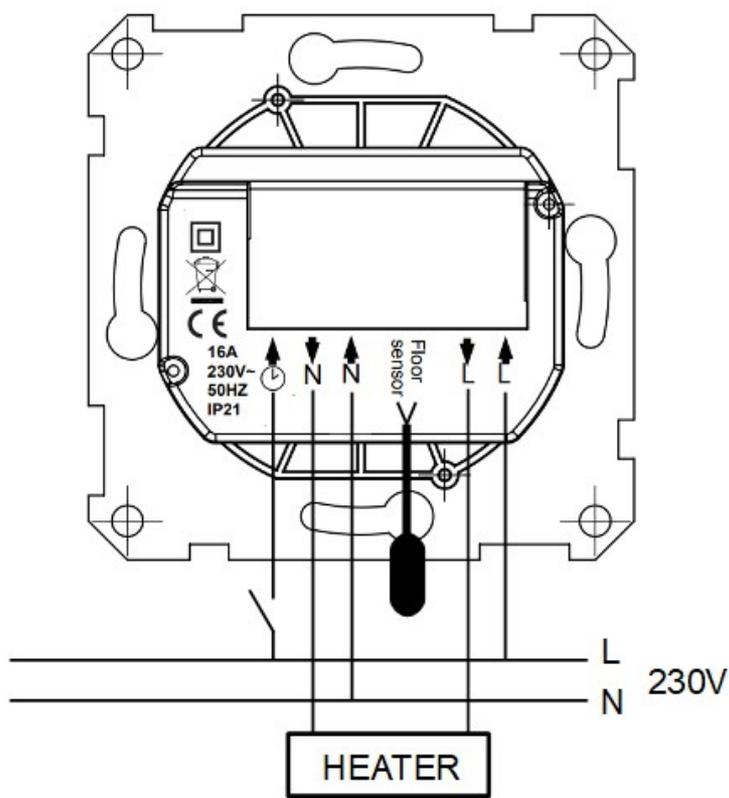
## SPECIFICATIONS

16A, IP21, floor, room, dual, PWM, snow melting  
Exxact, Elko, Merten, Impressivo, Jussi, Gira compatible  
The best possible ecodesign rating (40%)  
CE certified, Bluetooth



## INSTALLATION

- Connect the wires and push the frame and frame adapter into place.
- The thermostat automatically selects a mode. If a floor probe is connected at first start-up → floor mode. Otherwise room thermostat mode.



**INSTALLATION IS READY!**

# BASIC USE

## Measured temperature

1. Use knob C° to activate display
2. Use knob C° to modify setpoint

Or

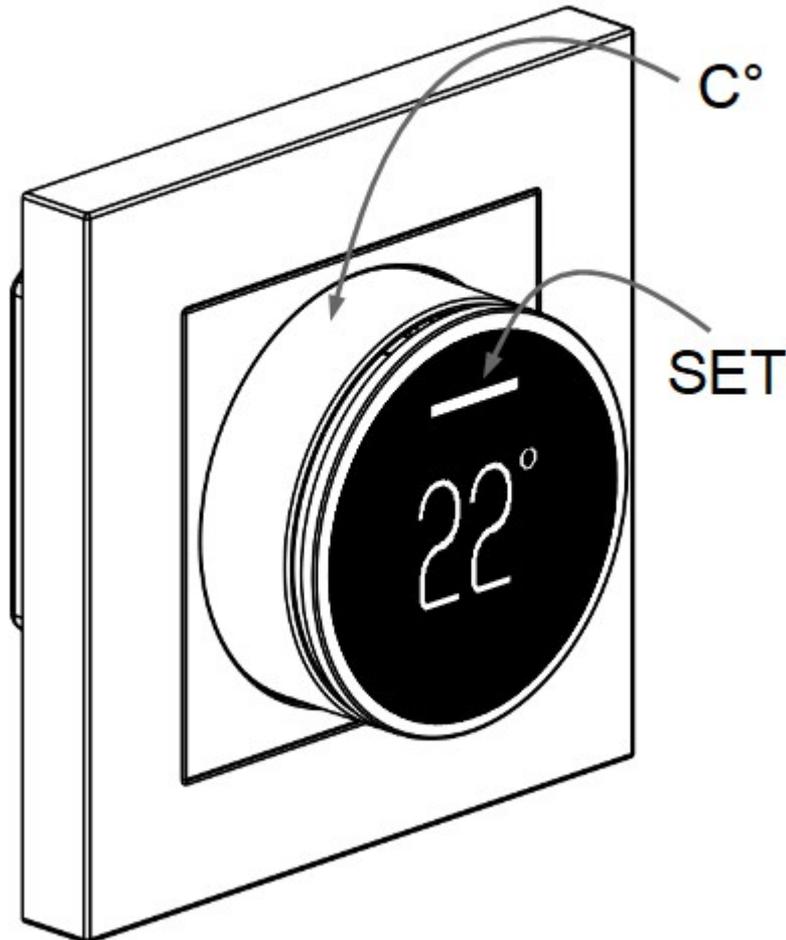
2. use SET to go menu

## Setpoint

1. Use knob C° to adjust setpoint
2. Use SET to accept

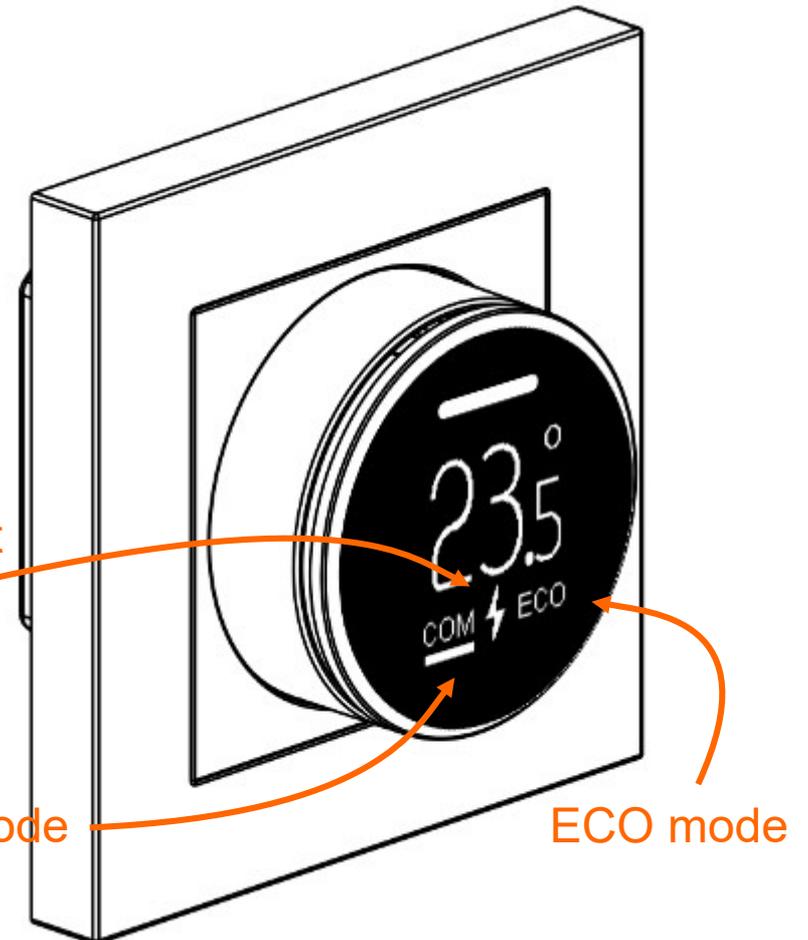
Or

2. wait 60 seconds for automatic exit



Call for heat  
symbol

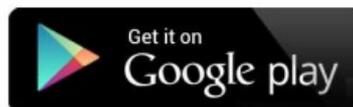
Comfort mode



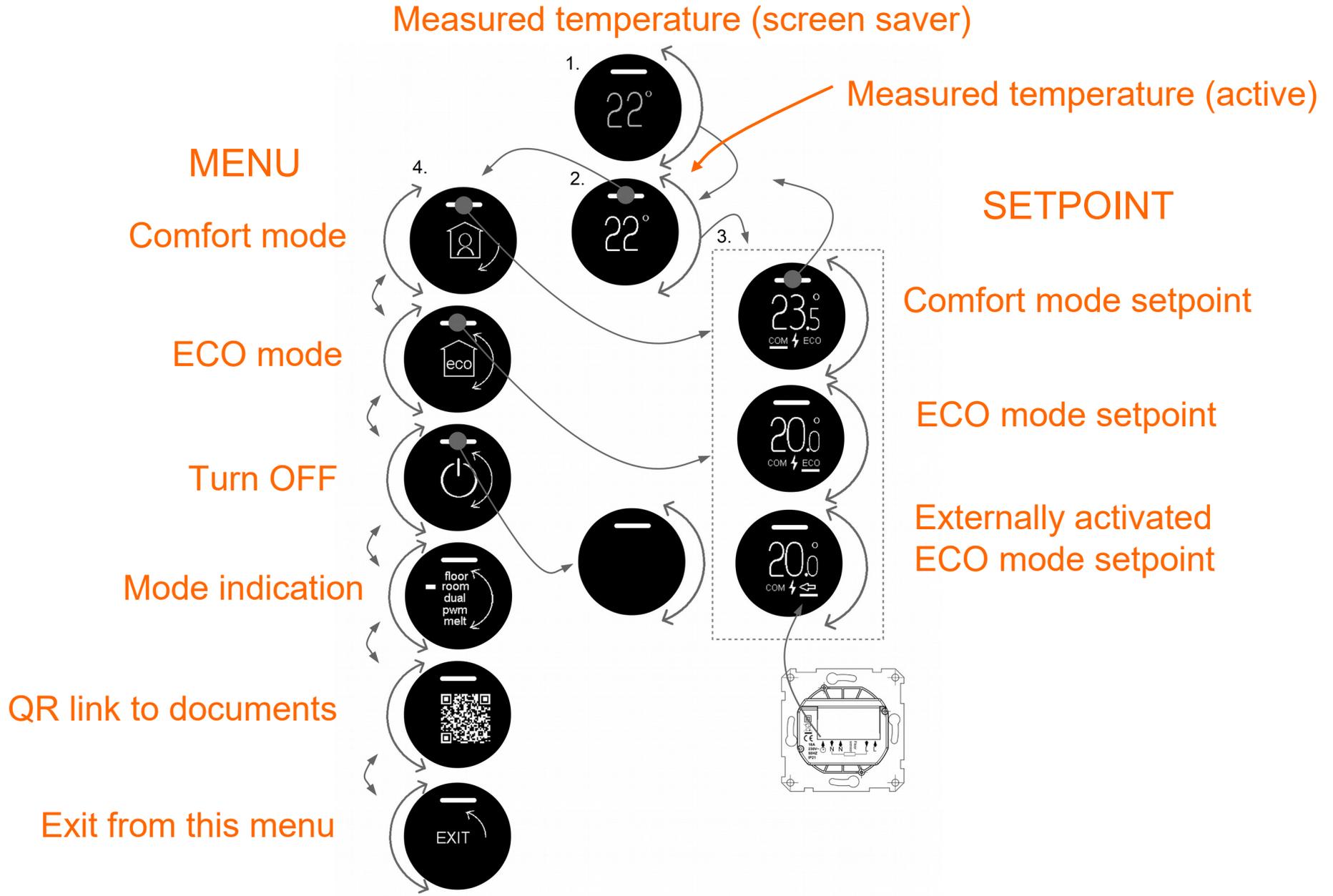
ECO mode

## BLUETOOTH

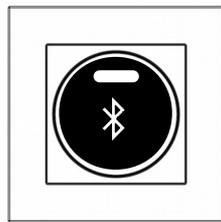
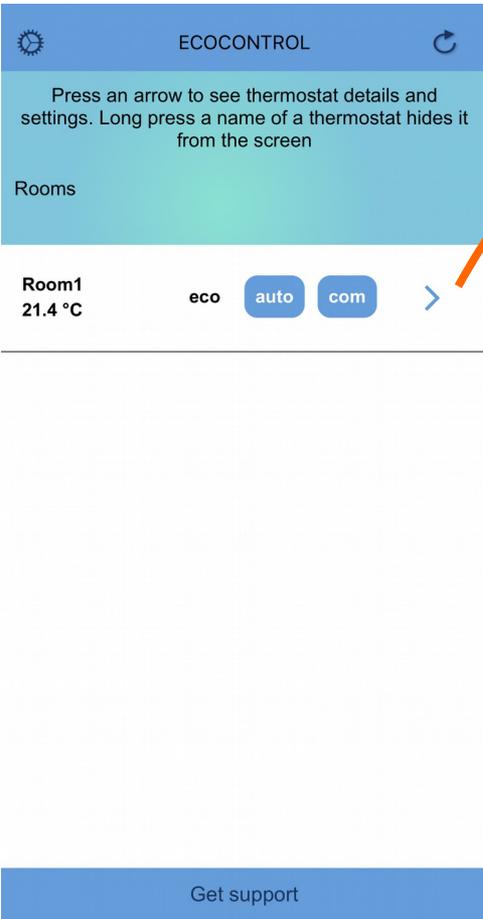
**IF an installer or user wishes, he can perform several advance functions with the free ecoControl app.**



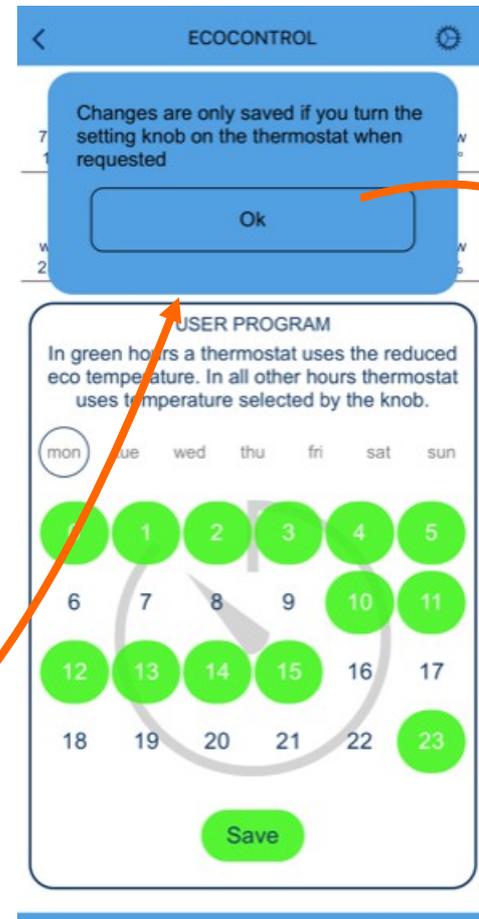
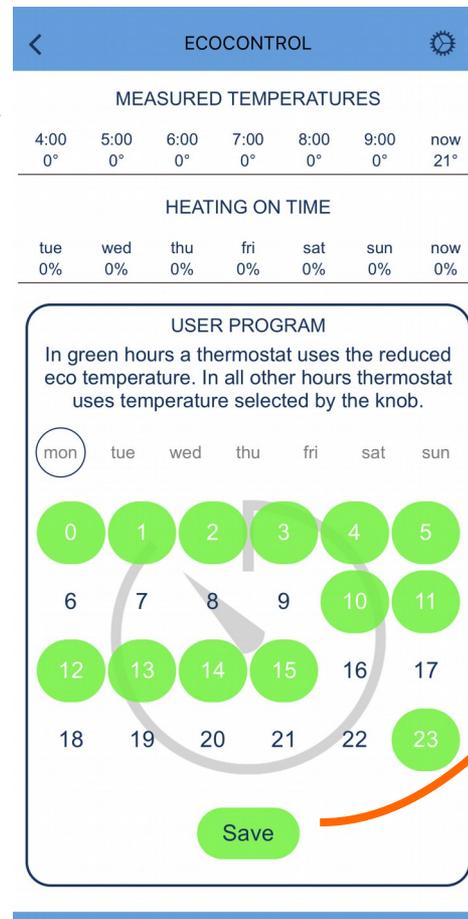
# User Interface



# USER PROGRAMMING



Symbol indicates connection



Accept within 10 sec. No passwords!

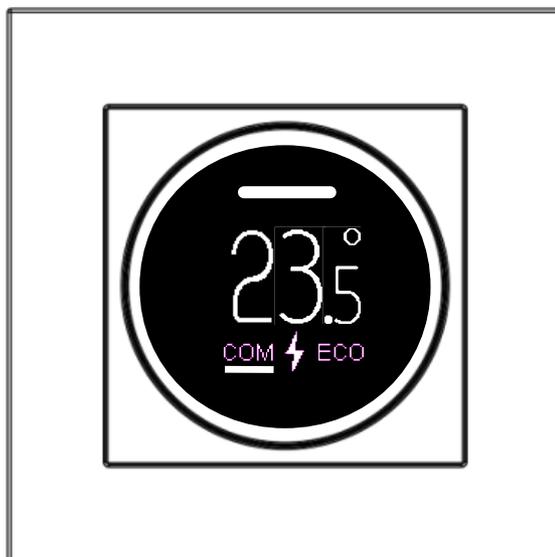
1. Select a thermostat

2. Modify your program

3. Save and accept

**User program is ready! Also set AUTO mode from settings!**

## USER PROGRAM ON (AUTO)



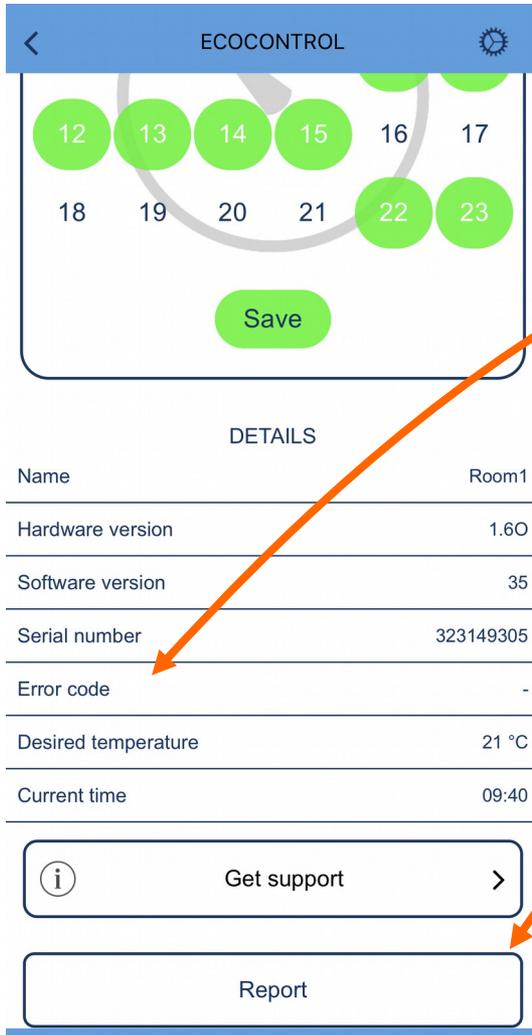
Comfort hour of user program.



Eco hour of user program.

Internal real time clock has a 3h backup. If a power shortage is longer, real time will be corrupted. **IF** the user program is in AUTO mode the thermostat will use the comfort setpoint until the next app connection, which automatically updates the clock. A corrupted clock is indicated by error message.

## In case of an ERROR



User may read an error code AND generate an email report. The report includes detailed information which the manufacturer can use to give remote assistance.

Note! Error code 10 indicates a real time clock error. Real time clock is updated (and thus an error removed) automatically at every app connection.

# You can follow temperatures and energy consumption

The screenshot shows the ECOCONTROL app interface. At the top, there is a blue header with a back arrow, the text 'ECOCONTROL', and a gear icon. Below the header is a light blue box with the text 'Check thermostat details and create your individual power saving program'. The main content area is divided into three sections: 'MEASURED TEMPERATURES', 'HEATING ON TIME', and 'USER PROGRAM'.

**MEASURED TEMPERATURES**

4:00	5:00	6:00	7:00	8:00	9:00	now
0°	0°	0°	0°	0°	0°	20.5°

**HEATING ON TIME**

tue	wed	thu	fri	sat	sun	now
0%	0%	0%	0%	0%	0%	0%

**USER PROGRAM**

In green hours a thermostat uses the reduced eco temperature. In all other hours thermostat uses temperature selected by the knob.

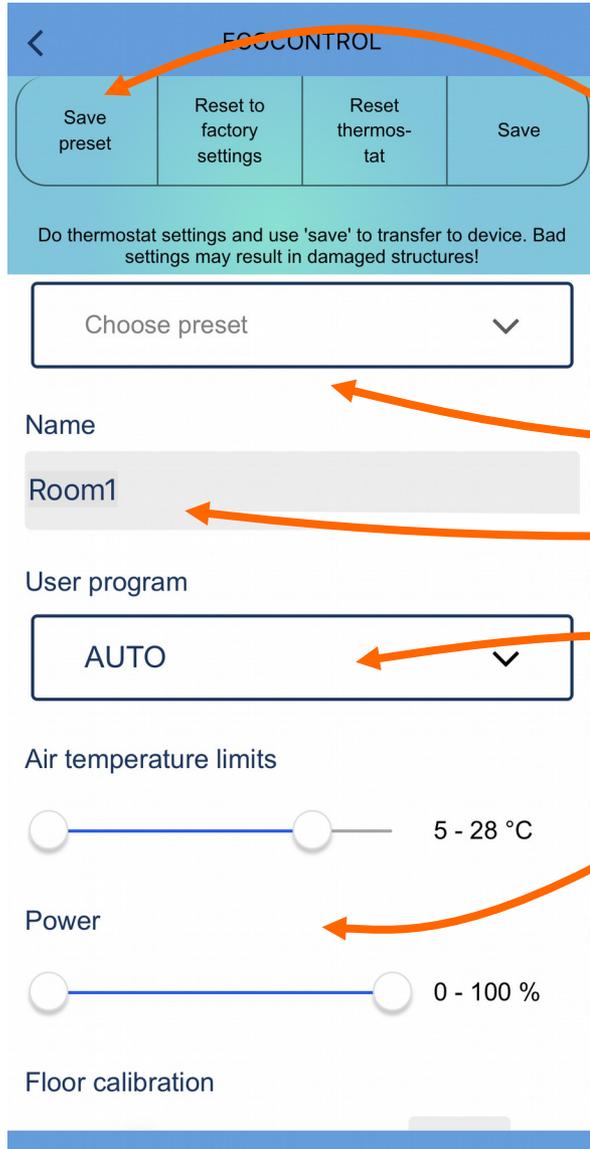
mon	tue	wed	thu	fri	sat	sun
0	1	2	3	4	5	
6	7	8	9	10	11	
12	13	14	15	16	17	
18	19	20	21	22	23	

Move to the thermostat settings

Log temperature during the last 7 hours

Follow the impact of your user program. '%' tells what percentage of the day a heater has emitted heat. I.e. 100% means maximum energy consumption.

# THERMOSTAT SETTINGS



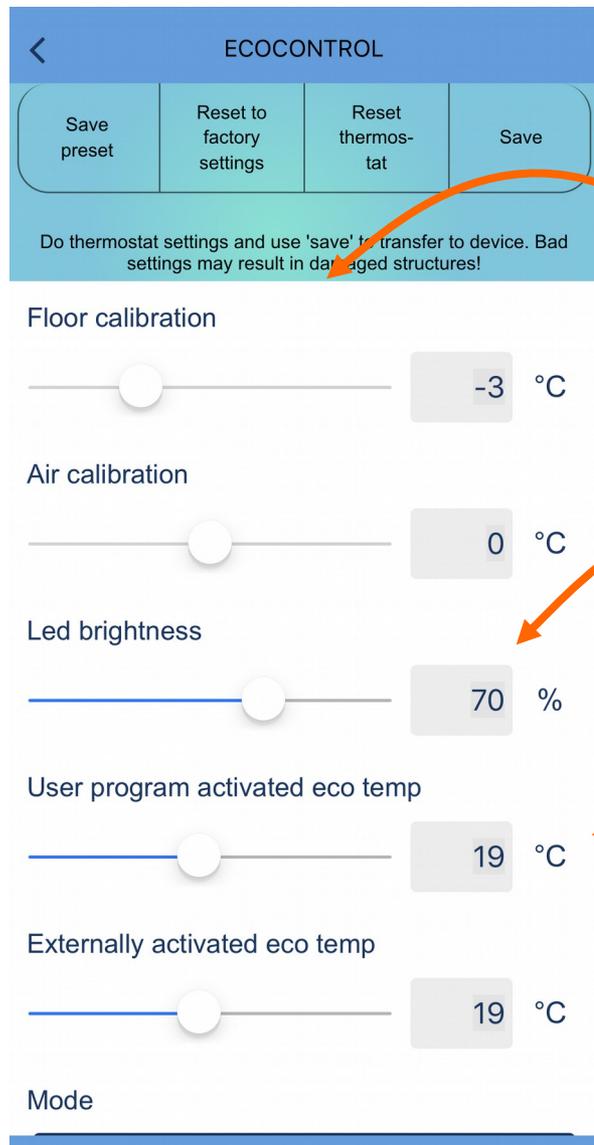
Save settings on the screen as a preset and transfer to other thermostats!

Give a name for the thermostat

Set user program OFF or AUTO

Set air and floor minimum and maximum temperature limits.  
NOTE: Air max limit is used also in floor mode  
NOTE: PWM max limit is used in all modes

# THERMOSTAT SETTINGS



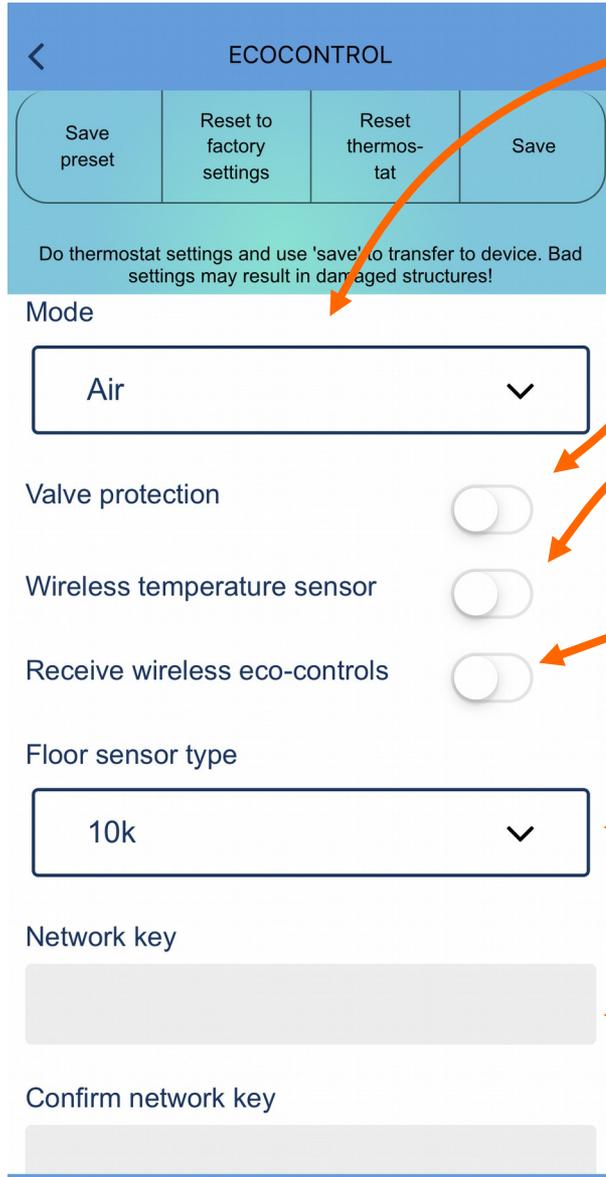
You may calibrate a floor sensor and a room sensor

Set the brightness of Display

Set the temperature for eco hours of user program

Set the temperature for external control activated eco mode

# THERMOSTAT SETTINGS



Select mode : Floor, Room, Dual, PWM, Snow melting

Valve protection activates a valve once per week on Tuesday including summer. This prevents sticking in water circulation heating systems.

You can replace the main temperature sensor with a 3<sup>rd</sup> party wireless IP65 remote sensor. Check page 14!

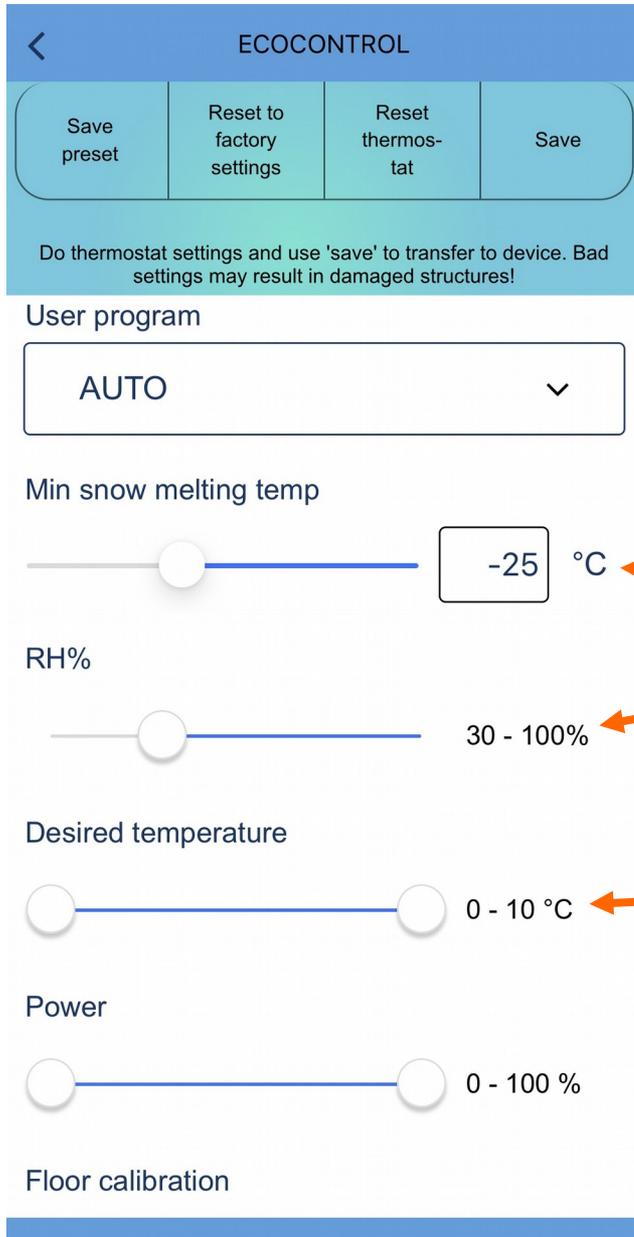
If a wireless eco-control is enabled, thermostats with the same NETWORK KEY share an external setback. You may, e.g., connect a smart home wifi relay to the setback input of one thermostat and this feature wirelessly propagates the control to all thermostats. This mode also doubles the RF range. **You can enable the mode just to extend the range.**

You may also use a competitor's floor sensor probes. Available types are (@25C) 2k, 10k, 12.5k, 15k, 33k

Network key is your own secret password (wireless eco-controls), wireless sensor pairing code or lock code to prevent all modifications in public installations (Ask for more information!)

# SNOW MELTING

Snow melting uses floor sensor or Wireless sensor

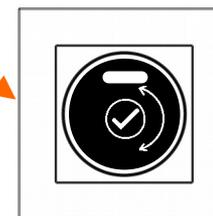
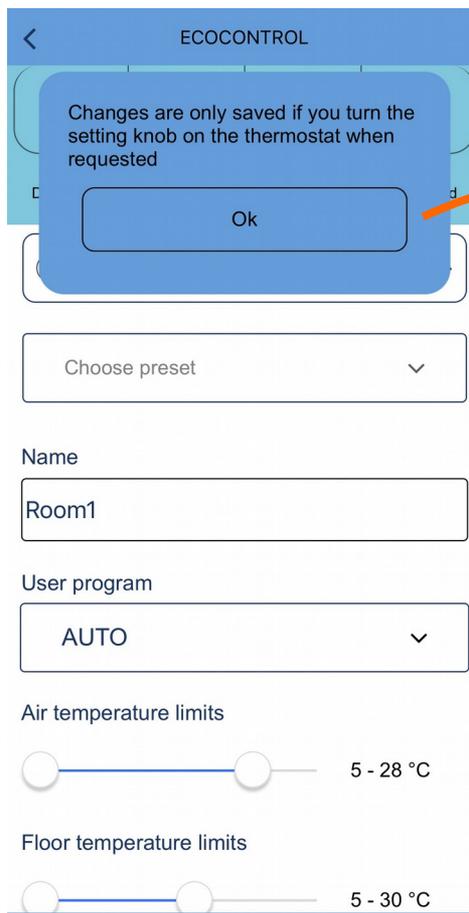
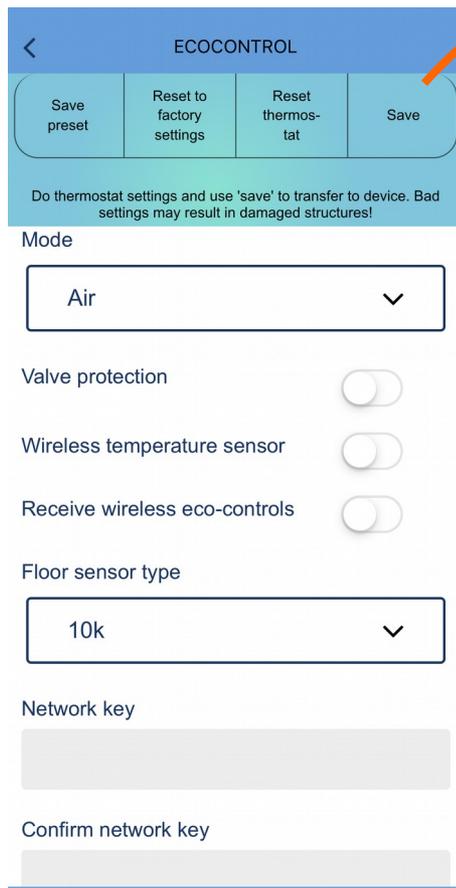


Below this temperature thermostat doesn't heat

If wireless sensor is connected thermostat heats only in selected RH% area.

Setpoint limits of Snow Melting mode

# SAVE SETTINGS



Accept within 10 sec. No passwords!

## WIRELESS SENSOR

You can replace the main sensor of the mode by a wireless IP65 battery sensor. Wireless sensor is very accurate and sometimes can be placed better than a thermostat from the temperature measurement point of view.

< ECOCONTROL

Save preset    Reset to factory settings    Reset thermostat    Save

Do thermostat settings and use 'save' to transfer to device. Bad settings may result in damaged structures!

Mode

Air

Valve protection

Wireless temperature sensor

Receive wireless eco-controls

Floor sensor type

10k

Network key

Confirm network key

Turn 'Wireless temperature sensor' ON

Write and confirm a network key of your wireless sensor

You can find a network key and QR code from the sensor.

Open a sensor lid and remove a plastic protector from battery.

Thermostat blinks an error mode until it reads the first value. This can take a few minutes.

You can later check a paired sensor by **hardly shaking** a sensor. The paired thermostat error blinks some time as an indication.

## WIRELESS ECO CONTROLS

The screenshot shows the 'ECOCONTROL' settings page. At the top, there are four buttons: 'Save preset', 'Reset to factory settings', 'Reset thermostat', and 'Save'. Below these is a warning: 'Do thermostat settings and use 'save' to transfer to device. Bad settings may result in damaged structures!'. The 'Mode' is set to 'Air'. There are three toggle switches: 'Valve protection' (off), 'Wireless temperature sensor' (off), and 'Receive wireless eco-controls' (off). An orange arrow points to the 'Receive wireless eco-controls' toggle. Below the toggles, 'Floor sensor type' is set to '10k'. At the bottom, there are two empty text input fields for 'Network key' and 'Confirm network key'.

Thermostats wirelessly share an external setback signal if 'Receive wireless eco controls' is ON.

Only thermostats with the same 'network key' share an external setback signal.

You can use any word as your secret network key.

Wireless eco control is quite a slow and can take up to minute to propagate a signal through a whole house.

**NOTE!** You can double the RF-range to a mobile phone by turning this feature ON.

## PUBLIC SPACE LOCKING

The screenshot shows the ECOCONTROL app interface. At the top, there is a blue header with a back arrow and the text "ECOCONTROL". Below the header are four buttons: "Save preset", "Reset to factory settings", "Reset thermostat", and "Save". A warning message reads: "Do thermostat settings and use 'save' to transfer to device. Bad settings may result in damaged structures!". The "Mode" section has a dropdown menu set to "Air". The "Valve protection" section has a toggle switch that is turned off. The "Wireless temperature sensor" section has a toggle switch that is turned off. The "Receive wireless eco-controls" section has a toggle switch that is turned off. The "Floor sensor type" section has a dropdown menu set to "10k". The "Network key" section has a greyed-out input field. The "Confirm network key" section has a greyed-out input field. A blue horizontal line is at the bottom of the screen.

Thermostat can be locked so that **A.** Buttons are not working and **B.** It is not possible to change any parameters.

You need a special LOCK and UNLOCK code from the supplier to do this operation.

Supplier needs the REPORT from the thermostat to generate codes.

Codes are valid about 30 days and works only in the specified thermostat unit.

Locking and unlocking is made by setting a code to Network key and Confirm network key fields.



## QR-CODE

'Network key' can be read from QR-code!

The screenshot shows the 'ECOCONTROL' app interface. At the top, there is a blue header with a back arrow and the title 'ECOCONTROL'. Below the header is a row of four buttons: 'Save preset', 'Reset to factory settings', 'Reset thermostat', and 'Save'. A warning message reads: 'Do thermostat settings and use 'save' to transfer to device. Bad settings may result in damaged structures!'. Below this are two toggle switches: 'Wireless temperature sensor' (turned on) and 'Receive wireless eco-controls' (turned on). A 'Floor sensor type' dropdown menu is set to '10k'. There are two empty text input fields labeled 'Network key' and 'Confirm network key'. At the bottom, there is a button with a camera icon, which is highlighted by an orange arrow pointing from the text above.