..step by step



ecoheat TCT | EN

ecoheat TCT Thermostat Manual

The ecoheat TCT thermostat is designed to control Infrared heating systems, but can also be used for any other electrical heater. Unlike standard home thermostats, ecoheat TCT has two or more separate and wirelessly connected units (thermostat + receiver(s)) and the mobile application ecofort ThermoControl that allows monitoring and controlling of the heating system.

The receiver is a switching device used to connect heating systems, and a thermostat is a portable control unit for handling and setting the temperature. The units communicate with each other using a radio signal. The receiver also communicates with the mobile app using WiFi. The advantage of the system is the variability and easier availability of temperature control.

Important notes

- Read the user manual not only for the thermostat, but also the heating system.
- Turn off the power supply before installing the thermostat.
- We recommend installation by a qualified technician.
- Be aware of the required standards for installation.
- The electrical circuit should be secured with a fuse that does not exceed 20 A.

EN

Specifications

Thermostat

Power supply	3 V DC, 2 AA baterries
Mounting	Wall or portable
RF Communication	*CS, FEC
Manual control	Full
Frost protection	Yes
Window open detection	Yes
Weekly mode	Yes
Sensitivity	0.5 °C
Temperature setting	5 °C – 35 °C
Temperature measurement	5 °C – 40 °C
Dimensions	86x86x29 mm



Power supply	230 V AC
Maximum switching power	2000 W
Output/Input	Lin, N, PE, Lout, N, PE
Communication frequency	433 MHz and 2.4 GHz
Dimensions	149x85x25 mm
WiFi	2.4 GHz
Data encryption	TLS (SSL)
Ingress protection rating	IP20
Operating temperature	0 °C – 70 °C
Maximum number of receiv	ers 6

Mobile app

Hysteresis settings	0.2 °C – 5 °C
Temperature sensor co	libration -5 °C – 5 °C
Weekly mode	Yes
Platform A	Android 5.0 / iOS 5 or higher
Download and update	Free Free







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Safety

Risks due to poor handling

Due to poor handling of the product you can harm yourself and cause material damage.

• Read the accompanying instructions carefully, especially the chapter on safety and important notes.

Danger of malfunctioning

• Ensure that the air in the room can circulate freely around the thermostat and that the thermostat is not covered by furniture, curtains and other objects.

• Only operate the heating system if it is in technically perfect condition.

Behaviour in case of loss of wireless communication

Low voltage in the batteries that power the thermostat may result in interruption of wireless communication. In the event of a loss of wireless communication between the receiver (heating system switching unit) and the thermostat (room control unit):

• On the receiver: orange light is off.

• On thermostat's display: time and current temperature are shown. The symbol "--" is shown instead of the set temperature.

If the battery icon is shown on the thermostat that means that the batteries have reached the voltage limit for which the device can operate without any problem. In this case it is highly advised to replace the current batteries with new ones. The thermostat can still function with these batteries, but it is much more error-prone.

 \bigwedge NOTE: In case when communication is lost, the receiver immediately switches off the heating. After that, the heating can be turned on via the mobile app by applying a set temperature higher than 5.0 °C.

When the power supply comes back after the power outage the receiver remains in its last state. If after 12 minutes the communication with the thermostat is not established, it will turn off the heating. In this case the heating can be turned on and controlled only via mobile app by setting the set temperature higher than 5.0 °C.

Freezing damage due to too low room temperature

If the room temperature is set too low in some rooms, the heating system can be damaged due to freezing.

- Ensure that during the frost period the heating system remains in operation and that all rooms during your absence are sufficiently heated.
- The frost protection only activates when the thermostat is turned off. Default frost protection temperature is 5 °C and can be changed in the range from 0 to 17 °C. Frost protection can be enabled or disabled via mobile app.

Proper use of the device

Improper use can result in health and life hazards to the plant operator or third parties.

This product is not intended for use by persons (including children) with limited physical, sensory or intellectual abilities or persons without experience and / or knowledge, unless they are under the supervision of a person in charge of their safety or have been instructed by that person to use the product.

Children must be supervised to ensure that they do not play with the product.

Intended use includes:

- Following the included instructions for use, installation and maintenance of the device, as well as all other system components.
- Compliance with all inspection and maintenance requirements stated in the instructions.

This thermostat can be used to control an electrical heating system. It's especially suited to control an infrared heating panel / radiator.

Use that is different from the one described in this manual or use that goes beyond the scope of the use described here will be considered as non-intended.

It is not intended for any direct commercial or industrial use.

Overview of command elements

Room thermostat

1 - Display

2 – Rotary push button (increase/ decrease value or confirm selection)

3 – Side button: backlight, thermostat on/off button, step back



Receiver

- 1 Receiver ON/OFF Button
- 2 Green light signal
 - On if receiver is turned on
- 3 Red light signal
 - On when heating request is active
 - Blinks quickly if the device is in SmartPairing mode



- 4 Orange light signal
 - Off in case there is no communication between the thermostat and the receiver
 - . On in case communication is established between the thermostat and the receiver
 - · Blinks quickly if the device is in SmartConfig mode
 - · Blinks two times in case the receiver receives a message from the thermostat

Display description

Description of the basic display



Thermostat ON/OFF

When the thermostat is off, it extends the battery life.

1. Press and hold the turn ON/OFF button (on the right) for 3 seconds.

2. The thermostat is successfully turned ON or OFF.

Please note that by turning the thermostat off, the heating is turned off, unless anti frost protection turns it on.

Setting the working mode

Program mode

Program mode can only be entered if an internet connection is established.

1. Press the rotary push button.

2. The upper left end of the screen shows the symbol **②**.

3. PROGRAM MODE successfully activated.

Manual mode

1. Press the rotary push button.

2. The upper left end of the screen shows the symbol **b** .

3. MANUAL MODE successfully activated.



Program mode is active



Manual mode is active

Set temperature setting

Set temperature can only be set in manual mode.

1. Rotate the rotary push button to set the desired temperature.

2. Rotating clockwise increases the set temperature.

3. Rotating counterclockwise decreases the set temperature.

Opening the settings display

 Hold down the rotary push button for 6 seconds until the settings display opens.
Release the rotary push button.

Setting the antifrost temperature

1. Open the settings display.

2. Rotate the rotary push button, select the frost protection symbol 🕲 and press the rotary push button to enter the antifrost temperature setting.

3. Rotate the rotary push button and set the desired temperature.

4. Press the rotary push button to save the setting.

5. Antifrost temperature can be changed in the range from 0 to 17 °C.

Setting the eco temperature

1. Open the settings display.

2. Rotate the rotary push button, select symbol and press the rotary push button to enter the economic temperature setting.

3. Rotate the rotary push button and set the desired temperature.

4. Press the rotary push button to save the setting.

5. Eco temperature can be changed in the range from 10 to 30 $^\circ\mathrm{C}.$



Overview of the screen for setting the eco temperature

Setting the comfort temperature

1. Open the settings display.

2. Rotate the rotary push button, select the symbol and press the rotary push button to enter the comfort temperature setting.

3. Rotate the rotary push button and set the desired temperature.

4. Press the rotary push button to save the setting.

5. Comfort temperature can be changed in the range from 15 to 35 $^\circ\mathrm{C}.$



Overview of the screen for setting the comfort temperature

Setting the weekly program

Program can be set for each day in a week separately. The program bar will show the current program. Icons ANTIFROST/ECO/COM and the set temperature will show which one of them is active for the selected half an hour.

1. Open the settings display.

2. Rotate the rotary push button, select program symbol **P i** and press the rotary push button to enter the program setting.

3. Rotate the rotary push button, select the DAY for which you want to set the program and press the rotary push button. The days Monday to Sunday are represented by the numbers 1 to 7, respectively.

4. Rotate the rotary push button to change for which half an hour you want to set the temperature.

5. Press the rotary push button to change between ANTIFROST/ECO/COM temperature for the selected half hour.

6. Repeat steps 4 and 5 for each hour in a day.

7. Repeat all steps for each day of a week.

8. Click the On/Off button to go back.

Setting the time

Setting the time is only enabled if the device does not have an internet connection. Otherwise, time is synchronized with internet time.

1. Open the settings display.

2. Rotate the rotary push button, select the time symbol, and briefly press the rotary push button to enter the clock setting.

3. Rotate the rotary push button, set the current MINUTE, and briefly press the rotary push button.

4. Rotate the rotary push button, set the current HOUR, and briefly press the rotary push button.5. Rotate the rotary push button, set the current

DAY, and briefly press the rotary push button.

6. Briefly press the side button to go a step back to exit the settings display.



SmartPairing mode

SmartPairing allows easy connection of the thermostat with up to 6 receivers.

1. Open the settings display.

2. Rotate the rotary push button, select the **SP** and hold the rotary push button to enter SMART PAIRING.

3. The thermostat then connects with devices that are put on a factory reset.

4. Symbol **5P** is blinking and the number of connected device is shown (maximum 6 devices).5. Hold the rotary push button to exit manually until the screen for choosing the primary device shows up.

6. To exit to the same screen automatically, wait for 30 seconds after the last added device, or 3 minutes if there is no added device.



Symbol **5P** starts to blink when entering the SmartPairing mode.

Primary receiver

If multiple devices are connected through SmartPairing, the primary receiver can be changed. Only the primary receiver is connected to the Internet.

1. Open the advanced settings display.

2. Rotate the rotary push button, select the ADVANCED and hold the rotary push button to enter advanced menu

3. Press rotary push button to select the symbol P I.

4. Rotate the rotary push button to select the primary receiver.

5. The orange light signal of the currently active receiver blinks fast

6. Briefly press the side button to exit the advanced settings display, or wait for 3 minutes.



Overview of the primary receiver setting screen

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Overview of the factory reset screen

Factory reset

Factory reset sets all values on the thermostat to their initial state, as well as unpairs the thermostat with all the paired receivers.

1. Open the advanced settings display.

2. Rotate the rotary push button, select the ADVANCED and hold the rotary push button to enter advanced menu.

3. Hold down the rotary push button.

4. Release the rotary push button when all the symbols are displayed.

5. Wait for the thermostat to restart and return to the main screen.

6. Briefly press the side button to exit the advanced settings display or wait for 3 minutes.

For a factory reset of individual receivers it is necessary to go to each one of the paired receivers. Hold the on/ off button for 10 seconds. The indicator for a successful reset is when only the red light signal shines. Then release the on/off button. The receiver restores all its data to its factory settings as well as disconnects from the WiFi and unpairs with the thermostat. After the reset the red signal light starts blinking and indicates that the receiver is in its factory state.

SmartConfig Mode

SmartConfig allows easy connection of the thermostat to the Internet. The device has an option of changing the WiFi network in SmartConfig mode.

- 1. Open the settings display.
- 2. Rotate the rotary push button, select the
- **5C** and hold the rotary push button.

3. When symbol **SE** starts to blink again and is the only displayed option, release the rotary push button.

4. Open the mobile app and click the symbol + in the upper right corner.

5. Click SMART CONFIG, and then START SMART CONFIG.

6. Enter the WiFi password of the network your mobile device is connected to.

7. Click CONNECT and wait.

8. A message on the device's connection status will be displayed on the mobile app screen.

To exit SmartConfig, hold the rotary push button until the basic display on the thermostat is shown, or wait 3 minutes when the devices will automatically exit the SmartConfig mode.





Symbol **SE** starts to blink when entering the SmartConfig mode

Ecofort ThermoControl App

Creating an account

Creating an account is possible with the mobile app.

- 1. Open Google Play / AppStore.
- 2. Search for the ecofort ThermoControl.
- 3. Click download.
- 4. After installing it, open the mobile app.
- 5. Choose CREATE ACCOUNT.
- 6. Enter data in corresponding fields.
- 7. Click REGISTER.

8. Check the email used to create a new account and confirm registration via the confirmation link.

9. Go back to the main screen in the mobile app.

10. Enter your username and password in corresponding fields.

11. Click LOG IN.

12. The application is ready to use.

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COFOI ThermoCont	rt rol
First name	1
Last name E-mail address	
Username	
Password Re-type password	Ê
REGISTER	
ALREADY HAVE AN ACCOUNT?	
0	



Overview of the register screen

Overview of the log in screen

Add new device

By adding a new device the first connection of the device with the internet is established. This is done via the mobile app.

1. Activate SmartConfig Mode on the thermostat as explained before.

2. Turn on the location function on mobile device.

3. Open the mobile app.

4. Log in to the account you previously created.

5. Click on ADD NEW DEVICE.

6. You can also add a new device by clicking the symbol + in the upper right corner.

7. Select SMART CONFIG.

8. Select START SMART CONFIG.

9. Enter the password of the WiFi network you are currently connected to and then click CONNECT.

10. Wait for the mobile app to recognize your device.

11. A message on the device's connection status will be displayed on the mobile app screen.



Overview of the screen Overview of the screen without connected devices

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ecofort ThermoControl +
25. °
ecoheat
DEVICES PROFILE
\bigcirc

with connected device

Share device

It is possible to share already connected device with other accounts (e.g. with family members) by using the mobile app.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device you want to share.
- 4. Click the symbol 🔅 in the upper right corner.
- 5. Select SHARE DEVICE.
- 6. Use the other mobile phone to scan

QR-code from the screen of your device.



Share device option in the menu

Add existing device

It is possible to add a device connected to other accounts (e.g. family member) by using the mobile app. This is related to the previously explained sharing of the device.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Click the symbol + in the upper right corner.
- 4. Choose SCAN QR.
- 5. Scan QR-code from other device's screen.

6. A message on the device's connection status will be displayed on the mobile app screen.a



Overview of the screen for adding a device

Rename device

It is possible to rename the device via mobile app.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device you want to rename.
- 4. Click the symbol 🔅 in the upper right corner.
- 5. Select RENAME DEVICE.

6. Choose RENAME if you want to rename the device or CANCEL if you don't want to rename the device.



Overview of the screen for renaming a device

Delete device

It is possible to delete the device from mobile app. If the device is shared with multiple accounts, it will only be deleted from your account.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device you want to share.
- 4. Click the symbol 🙆 in the upper right corner.
- 5. Select DELETE DEVICE.

6. A message will be displayed; choose DELETE if you want to delete the device or CANCEL if you don't want to delete the device.



Overview of the screen for deleting a device

Settings Menu

Child Lock

With Child Lock turned on, the thermostat can only be controlled via mobile app while changing the settings on the thermostat itself is disabled. The Child Lock will turn on immediately but the information will be displayed on the thermostat a few minutes later (Max. 3 minutes).

Thermostat

The status of the thermostat is shown on the right side, whether it is active or inactive.

Battery

The battery level of the thermostat is shown on the right side.

Software version

The software version shows the current version of the software installed on the thermostat and receiver. The status UPDATE means the newer version is available, otherwise it shows UP TO DATE.

Temperature sensor calibration

The temperature sensor calibration can be done via mobile app.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device.
- 4. Click the symbol 🔅 in the upper right corner and then click SETTINGS.
- Choose SENSOR CALIBRATION and set desired value between -5 °C and +5 °C.
 Click SAVE.



Overview of the screen for calibrating the temperature sensor

Setting the hysteresis

Hysteresis is the value for which the current temperature must be lower than the set temperature in order to switch the heating on. Hysteresis setup is possible via mobile app.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device.
- 4. Click the symbol 🔅 in the upper right corner and then click SETTINGS.

5. Choose HYSTERESIS and set desired value between 0.2 °C and 5 °C.

6. Click SAVE.





Overview of the screen for setting the hysteresis

Sensor overheat

The status of the thermostat is shown on the right side. In case of overheating, the heating turns off until the heater cools down to normal working temperature. Standard overheat temperature is 75 $^{\circ}$ C.

Window open detection

Window open detection is a feature that detects whether your window is open. It can only be detected when the heater is turned on. If window open has been detected the heater will automatically be turned off for next 10 minutes, unless you apply some change to any of your general settings which will temporarily disable window open detection for the next 30 minutes. Also after 10 minutes have passed since the window open has been detected, this will also temporarily disable window open detection for the next 30 minutes. Window open detection can be enabled or disabled via mobile app at any given time.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device.
- 4. Click the symbol 🔅 in the upper right corner and then click SETTINGS.

5. Press on the slider to turn on/off window open detection.

Antifrost

Setting the frost protection temperature can be done via mobile app. Frost protection can also be enabled or disabled.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device.

4. Click the symbol \bigotimes in the upper right corner and then click SETTINGS.

 Choose ANTIFROST and set the desired value between 0 °C and 17 °C.
Click SAVE





Overview of the screen for setting the antifrost temperature

Setting the eco temperature

Setting the ECONOMIC temperature is possible by using the mobile app. The symbol is displayed on the thermostat.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device.

4. Click the symbol 🔅 in the upper right corner and then click SETTINGS.

5. Choose ECONOMIC temperature and set desired value.

6. Click SAVE.





Overview of the screen for setting the economic temperature

Setting the comfort temperature

Setting the COMFORT temperature is possible by using the mobile app. The symbol **(i)** is displayed on the thermostat.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device.
- 4. Click the symbol 😥 in the upper right corner and then click SETTINGS.

5. Choose COMFORT temperature and set desired value.

6. Click SAVE.



Overview of the screen for setting the comfort temperature

Adaptive program

Setting the adaptive automatic program is possible by using the mobile app. It enables the user to turn on the heating several minutes before it is scheduled in 7 Days program, so that the desired room temperature is achieved at the scheduled time.

- 1. Open the mobile app.
- 2. Log in to the account you previously created.
- 3. Select the device.

4. Click the symbol **(**) in the upper right corner and then click SETTINGS.

5. Choose ADAPTIVE PROGRAM and set the desired value desired value between 1 and 60 minutes, or OFF.

6. Click SAVE.



Overview of the screen for setting the adaptive program

Setting the weekly program

The program can be set for each day in a week separately or for the whole week at once. During one day for every half an hour comfort temperature is being set. Economic temperature is set by default in other half-hour intervals. To setup the whole week, swipe all the way to the right.

- 1. Open the mobile app.
- 2. Log in to the acccost you previously created.
- 3. Select the device.
- 4. Click the symbol in the upper right corner and then click SETTINGS.
- 5. Choose SEVEN DAYS PROGRAM.
- 6. Choose half-hour intervals in which you want to have COMFORT temperature activated, for each day separately or the whole week at once.

NOTE: First setup the time for the entire week, then if necessary adjust the time for each day.



Overview of the screen for setting the weekly program

Maintenence

Battery replacement

If the battery symbol appears on the screen, change the batteries:

1. Remove the thermostat from the thermostat mount.

2. Replace the batteries with two Alkaline AA 1.5V batteries.

 Place the thermostat on the thermostat mount.
Set TIME by following the manual: SETTING TIME.

The thermostat is ready to continue operating. All set programs and advanced options have been preserved.







Interference detection and correction

Condition: The room thermostat display is off

- Make sure the thermostat is on.
- Check that the room thermostat batteries are properly inserted into the battery compartment.
- Check the correct polarity of the batteries.
- Make sure the batteries are not empty.

Condition: The thermostat cannot establish communication with the receiver

- Turn the receiver off/on by clicking on the on/off button.
- Press on/off button on the thermostat for a refresh.
- Turn the thermostat off and on again.

Condition: The receiver activated the heating request, but the heating system did not activate

- Check that all other conditions for activating the heating are fulfilled.
- Check that the receiver is properly attached to the bracket.

• Make sure the receiver is properly connected to the heating system.

Condition: Unable to smart config a device.

- Make sure that you have entered the right password, check with the show password option if necessary.
- Exit smart config via thermostat and also via mobile app, then enter it again for another try.

Handling and maintenance

The device is designed to operate reliably for many years with appropriate handling. Here are some tips to handle it properly:

1. Before using the product, read the manual carefully.

2. Do not expose the product to direct sunlight, extreme cold and humidity, and sudden changes in temperature. This lowers the measurement accuracy.

3. Do not place the product in a place subject to vibration or shocks - it may cause damage.

4. Do not expose the product to excessive pressure, shocks, dust, high temperature or humidity - this can cause degradation of product functionality, reduced energy endurance, batteries damage and deformation of plastic parts.

5. Do not expose the product to rain or moisture, dripping or splashing water.

6. Do not place any open flames on the device, such as a lit candle, etc.

7. Do not place the device in places where there is insufficient air-flow.

8. Do not place any objects in the vents of the unit.

9. Do not touch the internal power openings of the device - they may be damaged and thus automatically void the warranty. Only a gualified person should operate the device.

10. Use a slightly damp cloth to clean it. Do not use thinners or cleaners - they could scratch the plastic parts and damage the power lines.

11. Do not immerse the product in water or other liquids.

12. In case of damage or malfunction of the device, do not make any repairs yourself. Have your device repaired at the shop where you bought it.

13. This product is not intended for use by persons (including children) with limited physical, sensory or intellectual abilities or persons without experience and / or knowledge, unless they are under the supervision of a person in charge of their safety or

have been instructed by that person to use the product. Children should be supervised to ensure that they do not play with the device.

Do not dispose the device or batteries at the end of their lifetime as unsorted municipal waste; use waste collection centers. By properly disposing the waste, you will avoid a negative impact on human health and the environment. Recycling contributes to the protection of natural resources. More information about recycling this product will be provided by the municipality, your household waste disposal organization, or the point of sale where you purchased the product.

NOTE: The contents of this manual are subject to change without notice - due to limited printing, the displayed symbols may be slightly different from the on-screen display - the contents of this manual may not be copied without prior consent

ecofort ag declares that ecoheat TCT (thermostat + receiver) meets the essential requirements and other relevant provisions of Directive 2014/53/EU. The device can be used freely in the EU.

ecoheat TCT

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