

EnergoControl

Touchscreen Thermostat - T60 Series

User Guide

version 2.86et



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LCD Main Display




Overview

- 01** Wi-Fi indicator - Displayed when connected to a Wi-Fi network (T60-EW/SW only).
- 02** Hold: Temperature Hold / Timer Function.
- 03** Adjusting the optional settings.
- 04** Day Indicator and Clock.
- 05** Home/Away: Allows a preset set-back temperature while away from the premises.
- 06** OPT (Optimum): Displayed ON/OFF of the “Adaptive/Optimum Start”.
- 07** Air Humidity:
 - If humidity value less than 30%, the pointer will be in the Red area
 - If humidity value is between 30% and 60%, the pointer will be in the Green area
 - If humidity value is more than 60%, the pointer will be in the Grey area
- 08** Power - ON/OFF.
- 09** Holiday: Displayed when thermostat is in holiday mode.
- 10** Schedule: Programmable operation.
- 11** Menu button / Feature settings.
- 12** Decrease the Setting Temperature / Previous Page in Feature Settings.
- 13** Increase the Setting Temperature / Next Page in Feature Settings.
- 14** Setting temperature display.
- 15** Room temperature display.
- 16** °C or °F display.
- 17** Displayed “heating flame” when heat is required.

Getting Started - General

When the thermostat has been installed and powered on for the first time, you must set the Language, Time Zone, Date/Time and the Daylight Saving Time.



Whenever the use of the icons ◀ ▶ is mentioned in this user guide, you can also swipe navigate  on the main display.

- 01** Set the **language** to be used on the thermostat display, see page 11.
- 02** Set the **time zone** in which the thermostat is located, see page 11.
- 03** Set the current **date** and **time**, see page 11.
- 04** Set the region you are in, to ensure correct use of **daylight saving time**, see page 18.
- 05** The T60 is now ready for basic use in thermostat mode and will control your heating system according to the set temperature. If you want to program a heating schedule, instructions are given in the section titled **Schedule** on page 9.

The T60 series is versatile with several functions, options and settings. Read this user guide and learn more.

Mode Selection

The T60 can either be used as a Thermostat (default) or a Time-clock.

Thermostat Mode – The thermostat can be fully programmed with predetermined times/periods and individual temperatures. The T60 provides three basic schedules with different program options.

Time-Clock Mode – The thermostat allows only a time-clock setting to switch the heating ON or OFF. This mode ignores any set temperature.

To change between the two modes, see page 18.

Startup Wizard - Wi-Fi




This page applies only if you have purchased the Wi-Fi version, T60-EW or SW, of the thermostat



Use only the 2.4GHz band, if you have a selectable dual-band router.







- 01** Download and install the free T60 App **MyComfort House** on your smart device, via App Store or Google Play Store.



- 02**  Open the app and register an account. The account is necessary in order to set up the thermostat for connection to a wireless network, through which the thermostat is able to connect to our thermostat cloud server. Server connectivity enables control of the thermostat remotely using the app. The account also holds the settings if a new or if multiple devices are used.

- 03** On the thermostat: set up a Wi-Fi connection, see and the follow the steps on page 13.

When you have successfully set up a Wi-Fi connection on your thermostat, you can pair and connect it to the **MyComfort House** app in the following way:


- 04** On the app: log in to your account.
- 05** Press the icon  Add.
- 06** Press 'Location Name' to add the property, for example Home or Office etc.
- 07** Press the icon  to confirm the location/property name and then press 'Next'.
- 08** Add Device: the options are Scan QR Code, Smart Config and Manual Entry. Tap and select 'Smart Config'  and then tap on 'Add device location'.
- 09** Wi-Fi configuration: Enter the password to the earlier selected network name (SSID) for your wireless network and tap on 'Next'. The app will now start a search for the thermostat.
- 10** On the thermostat: press the icon  and enter Feature Settings. Find then the "Pairing to App (Smart Config)" option, press it and an automatic scanning will start. Wait for the devices to pair. The communication may take a few minutes.
- 11** When the matching is done and successful, the thermostat will return to "Feature Settings". Press the icon  to return to the main display.
- 12** On the App / Add Device: select device type 'Heating Thermostat'  and then tap on 'Add device location'.
- 13** On the App / Add device location: select a setting location, room name, by choosing from the pre ready list or enter it manually.
- 14** Press 'Next' and the setup is done. The thermostat is now and ready to operate!

MODE 1 - THERMOSTAT MODE / Operation of Main Display



Home/Away Mode



- 01** The Home/Away Mode is a shortcut button to easily change to a preset temperature when leaving the premises. The range is +7°C to +35°C, default is +7°C.
- 02** In Away Mode, the thermostat will only turn the heating ON, if/when the room temperature drops below the set Away temperature. This is configured in  Feature Settings. If the heating is turned on, the flame symbol will be displayed.





Optimum Start / Adaptive Start




The thermostat features an optimum/adaptive function that automatically changes heating start times, to ensure that the required set point temperature has been reached during a programmed period.

The thermostat collects data and calculates how much earlier the heating system must be turned on/off, to achieve the required set point temperature. The fixed rate of change is 15 minutes, the number of minutes for 1°C temperature rise.

- 01** Select/tap “OFF”  in the OPT Optimum box, if you simply want the heating to start at the beginning of a set point, default function.
- 02** Select/tap “ON”  in the OPT Optimum box, if you want the heating to run with optimum/adaptive function.



Air Humidity

-  Shows the indoor air humidity. When tapping on the icon, the display will simultaneously show the temperature and humidity. The rate can be calibrated in Feature Settings, section Humidity Sensor.



Hold Mode (Timer Function)

The Temperature Hold function allows you to manually override the current operating program and set a different temperature for a desired period.



- 01** Press the button “Hold”.
- 02** Press the first column of “Hold Temp”, use the icons ◀ ▶ to set the desired hold temperature. The temperature range is +5°C to +45°C.
- 03** Press the second/third columns of Hours/Minutes, use the icons ◀ ▶ to set the desired hold time.
- 04** Press the icon ↶ to save and return to main display, or press the “Cancel ”to delete the setting.

The indication “Hold *C, Left **:.” is displayed on top of the screen. The time will count down the duration and then revert to the normal program.**



Holiday Mode

The T60 will maintain the set temperature for the duration of the holiday and will then automatically return to the program mode on your return.

- 01** Press the button “Holiday” and switch the mode  to .
- 02** For Holiday Start, press the column of Year / Month / Day. Use the icons ◀ ▶ to set the Year / Month / Day values under Holiday Start.
- 03** For Holiday End, press the column of Year / Month / Day. Use the icons ◀ ▶ to set the Year / Month / Day values under Holiday End.
- 04** Press the icon ↶ to save and return to main display.



The indication “Holiday until **/ **:.” is displayed on top of the screen.**




Schedule

- 01** Press the button “Schedule” and select one of the four different options: **Weekday/Weekend, 7 Days, 24 Hours or None.**







For example: setting an option to a 7 Days mode.

- 02** Press the icon  in the front of 7 Days, and it will turn to .
- 03** Press the icon ↶ to save and return to main display.

- 04** Press the “Schedule” again on the main display and enter the setting interface. On the edit page, Monday to Sunday can now be selected.
- 05** Press “Monday” and select a time period: **Morning / Day / Evening / Night**. Each time period has  options, On/Off.

In the program of Monday:

Morning

- 01** Press the first column of ‘Time’, use the icons   to set desired “Hour”. Press the second column of ‘Time’, use the icons   to set desired “Minute”. Press the third column of ‘Temperature’, use the icons   to set desired room temperature.

For example: The setting time is **08 (Hour): 00 (Minute)**

For example: The setting temperature is **21°C**

Day

- 02** The same as Program Morning procedures.
- For example:** The setting time is **09 (Hour): 30 (Minute)**
- For example:** The setting temperature is **16°C**

Evening

- 03** The same as Program Morning procedures.
- For example:** The setting time is **16 (Hour): 30 (Minute)**
- For example:** The setting temperature is **22°C**

Night

- 04** The same as Program Morning procedures.
- For example:** The setting time is **23 (Hour): 00 (Minute)**
- For example:** The setting temperature is **17°C**

Four Time Periods - Four Temperatures





08:00-09:29 - During this time period the temperature will remain at 21°C

09:30-16:29 - During this time period the temperature will remain at 16°C

16:30-22:59 - During this time period the temperature will remain at 22°C

23:00-07:59 - During this time period the temperature will remain at 17°C






If you want to change to another Schedule option:

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Schedule” submenu and press 
Make your new choice of one of the four options: **Weekday/Weekend, 7 Days, 24 Hours or None.**

Feature Settings








Language

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Language” submenu and press .
- 03** Select your desired language.
- 04** Press the icon  twice to save and return to main display.












Time Zone Selection

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Time Zone Selection” submenu and press .
- 03** Select the time zone you desire. **UTC -12 to +12 hour.**
- 04** Press the icon  twice to save and return to main display.









Clock Setting




To set the Date and Time, follow these steps:

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Clock Setting” submenu and press .
- 03** **For Date**, press the columns of **Year / Month / Day**, use the icons   for the desired setting
- 04** **For Time**, press the columns of **Hour / Minute**, use the icons   for the desired setting.
- 05** Press the icon  twice to save and return to main display.










Backlight Setting

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Backlight” submenu and press .
- 03** Use the icons   to adjust to the desired brightness.





Ambient Light Dimming: When this function is enabled, the light sensor will detect when to dim the back-light if the ambient light levels drop. If you turn the room lights off, the back-light will dim so the T60 does not light up the room.


- 04** Ambient Light Dimming is in  Mode:
Automatic adjustment of the backlight brightness.
- 05** Ambient Light Dimming is in  Mode:
Manual adjustment of the backlight brightness.
- 06** Press the icon  twice to save and return to main display.

Standby Screen

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Standby Screen” submenu and press .
- 03** There are four choices, **3 Min / 10 Min / Just Night / Never**, to control the standby screen time. For example, setting the standby time for 10 minutes: press the icon  in the front of “10 Min” and it will turn to .
- 04** The screen can also go black after standby by changing mode  to mode .
- 05** Press the icon  twice to save and return to main display.









Screen Lock


- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Screen Lock” submenu and press .

Option  Inactive PIN code

Option  Active PIN code

For example, set your personal pin code to **5209**

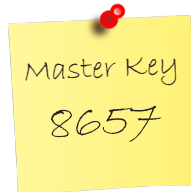
- 03** Press the first column, use the icons   to set to **5**
Press the second column, use the icons   to set to **2**
Press the third column, use the icons   to set to **0**
Press the fourth column, use the icons   to set to **9**

- 04** Press the icon  twice to save and return to main display.


The setting will be effective after the thermostat has been in stand-by mode.






To unlock the thermostat, enter your four digit PIN code.

And if you forget your PIN code...








Network Setting

 Applies only for T60-EW/SW








- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Network Setting” submenu and press 
- 03** Find your network and mark it.
- 04** Press the icon  twice to save and return to main display.

Pairing to App (Smart Config) Applies only for T60-EW/SW

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Pairing to App” submenu and press  for automatic scanning.
- 03** Wait for the devices to pair. The communication may take a few minutes. When the pairing is done and successful, the thermostat will return to the Feature Settings. Press the icon  to return to the main display.












Temperature Format

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Temp Format” submenu and press 
- 03** There are two options °C / °F. Celsius / Fahrenheit.
- 04** Press the icon  in the front of °C or °F and it will turn to 
- 05** Press the icon  twice to save and return to main display.










Temperature Limit

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Temp Limit” submenu and press 
- 03** Press the first column, use the icons   to adjust min. temp. between 5-44°C.
- 04** Press the second column, use the icons   to adjust max. temp. between 6-45°C.
- 05** Press the icon  twice to save and return to main display.




Schedule

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Schedule” submenu and press 
There are four options: **Weekday/Weekend, 7 Days, 24 Hours** or **None**.
- 03** Press the icon  in the front of the desired option, and it will turn to 
- 04** Press the icon  twice to save and return to main display.



Switch Diff

-  This function allows you to adjust the switching differential of the thermostat. The

system defaults to 0.5°C, meaning that when the temperature is set to 20°C, the heating will start at 19.5°C and stop at 20°C. If the value is set to 1°C, the heating will start at 19°C and stop at 20°C.

The switching differential is settable between 0.5°C - 3.0°C .










Output Delay

- i** To prevent rapid switching, an output delay can be entered. This can be set from 0-15 minutes. The default is 0, meaning no delay. This function helps to prevent system “short cycling”.



Away

There is a preset temperature while you are away from the house. The default is +7°C. To change/set the temperature, follow these steps:

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Away” submenu and press .
- 03** Use the icons   to adjust the temperature. The range is 7-35°C
- 04** Press the icon  twice to save and return to main display.






Defrost

The thermostat automatically enter the Defrost Mode when the room temperature drops below the set defrost temperature. The range is 7-17°C. The default is +7°C and is suitable for most applications.

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Defrost” submenu and press .

Temperature   Options.

- 03** Use the icons   to adjust the temperature.
- 04** Press the icon  twice to save and return to main display.

NTC Sensor Selection and Calibration

Sensor Selection. You can select which sensor should be used, there are five options:

- Built in Sensor (default)
- Remote Air Sensor (external sensor)
- Floor Sensor Only (external sensor)
- Built in & Floor Sensor
- Remote Air & Floor Sensor


Note: When you enable “Remote Air & Floor Sensor”, the floor sensor is used as a floor limiting sensor and is designed to prevent the floor from overheating.


Note: The Remote Air Sensor must not be used for controlling electric underfloor heating. Only designated floor sensors or both (Remote Air & Floor Sensor) should be used.

If the optional air- or floor sensor is not supplied by Energotech, an 10 k Ω sensor must be used together with the thermostat.

01 Press the icon  Feature Settings.

02 Browse   to the “Sensor Selection” submenu and press 


03 Press the icon  of which sensor you require.

04 Press the icon  twice to save and return to main display.

Temperature Calibration of the Sensors. You can calibrate the sensors with $\pm 5^{\circ}\text{C}$ in steps of 0.5°C , in the following way:

01 Press the icon  Feature Settings.



02 Browse   to the “Sensor Selection” submenu and press 

03 Press the icon  of which of the following sensors you want to calibrate:

Built in Sensor (Default)

Remote Air Sensor (external sensor)

Floor Sensor Only (external sensor)

04 Select the chosen value, you must then offset the thermostat to reflect the temperature actually measured, air or floor, by pressing the icons  








05 Press the icon  twice to save and return to main display.



Humidity Sensor - Calibration

This option allows you to calibrate the humidity sensor. You should only calibrate the sensor if the reading differs from the actual air humidity.

You can calibrate the sensor with $\pm 30\%$ in steps of 1% in the following way:








- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Humidity Sensor” submenu and press .
- 03** Press the icons   to adjust and set the measured room humidity.
- 04** Press the icon  twice to save and return to main display.



Open Window Function

Function description: The thermostat turns the heat off for 15 minutes, if it detects that the temperature drops by more than three degrees in less than one minute.







You can enable or disable the this function in the following way:


- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Open Window Function” submenu and press .
- 03** Press the icon  or  to enable or disable the function.
- 04** Press the icon  twice to save and return to main display.



Floor Temperature Limit

The function is available when the floor sensor is enabled. You can set a floor temperature limit between 20-45°C, the default is 28°C.

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Floor Temp Limit” submenu and press .
- 03** Press the icons   to set the temperature.

04 Press the icon  twice to save and return to main display.

OPT Optimum Start / Adaptive Start

 The function is selected in the main display.





Daylight Saving Time (DST)


01 Press the icon  Feature Settings.

02 Browse   to the “Daylight Saving Time DST” submenu and press .

03 Press the icon  or  to enable or disable the function.


There are three options: **European Union / US & Canada / Australia & New Zealand**

04 Press the icon  in the front of your choice and it will turn to .

05 Press the icon  twice to save and return to main display.



Work Mode Selection




 This is where you select if you want the thermostats to work in **Heating Mode** or **Timer Mode**.



Note! Be sure you know how the different modes work. Description of the **Timer Mode** (Mode 2 - Time Clock) on page 20 in the user guide.

To change between the two modes, follow these steps:






01 Press the icon  Feature Settings.

02 Browse   to the “Work Mode Selection” submenu and press .





03 Select ‘Heating Mode’ or ‘Timer Mode’ by pressing on one of the dialog boxes.

04 The thermostat will now automatically restart and enter the desired mode.

System Information

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “System Information” submenu and press .
- 03** The version number and ID number could come in handy in case of a warranty.
- 04** Press the icon  to exit.

Reset To Factory Settings

- 01** Press the icon  Feature Settings.
- 02** Browse   to the “Reset To Factory Settings” submenu and press .
- 03** Press ‘Reset’ for factory settings.
- 04** The thermostat will now automatically restart.

 **Warning! When reset, all current settings on the device will be lost.**

MODE 2 - TIME CLOCK



Setting the Time Clock

To program the time clock times, follow these steps:



01 Press the button “Schedule” on the main display.



02 Press on **Weekday**  or **Weekend** 

Four time periods, **Morning / Day / Evening / Night**, can be selected to set.
Each period has the options   **ON/OFF**.


03 Press the ‘Hour’ column of the **ON** time and use the icons   to set to the desired hours.

04 Press the ‘Minute’ column of the **ON** time and use the icons   to set to the desired minutes.

05 Press the ‘Hour’ column of the **OFF** time and use the icons   to set to the desired hours.

06 Press the ‘Minute’ column of the **OFF** time and use the icons   to set to the desired minutes.

07 Repeat above steps to set the selected time periods.

08 Press the icon  twice to save and return to main display.






Boost Mode

The Boost function allows you to override all operations of the thermostat.

In Boost mode, the heating is constantly activated for a desired length of time. To activate this function, follow these steps:

01 Press the button “Boost” on the main display.

02 Select your desired Boost Mode **ON** or **OFF**.

- 03** Press the 'Hours' column and use the icons   to set the desired Boost time.
- 04** Press the 'Minutes' column and use the icons   to set the desired Boost time.
- 05** Press the icon  to save and return to the main screen.
- 06** The indication **"Boost On Left **:**"** is displayed on top of the screen.
- 07** To cancel Boost Mode, press "Boost" on the main display and then press 'Cancel'.

Notes

This image shows a full page of white paper with horizontal orange lines, typical of notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings present.

Operating voltage / Power supply	85-230VAC, 50/60Hz
Standby power	< 1.0W
Rated Current / Relay	16A resistive load, 230V
Setting range, temperature	5-45°C
Floor limitation, temperature range	20-45°C
On/Off differential	±0.5°C
Humidity sensor, air	0-100%
Operating modes	<p>Three programming modes: Weekday/Weekend (5 + 2) - edit/set 4 time periods per day Seven day programming (7) - edit/set 4 time periods per day 24 hours mode - edit/set 4 time periods</p> <p>Hold/Timer mode: - activate and adjust a boost period of up to 24h, by optional setting range temperature</p> <p>Home/Away mode: - the thermostat will turn on the heating, if the room temperature drops below the set value</p> <p>Holiday mode: - calendar based and programmable in advance</p> <p>OFF mode: - frost protection included, by adjustable temperature range</p>
Battery backup	2 months
Wireless standard, for T60-EW/SW	Wi-Fi 802.11 b/g/n (2.4G)
Appliance and protection class	Class II - IP20
Size, dimensions (H/W/D)	86/96/44 mm, versions T60-E and EW, flush mount 86/96/32 mm, versions T60-S and SW, surface mount
Build-in depth	30 mm, versions T60-E and EW, flush mount
Hole pitch (center to center)	60 mm
Terminals	2.5 mm ² , screw cage clamp
Terminal wire size	max. 2.5 mm ²
Display size	3.5" - Color capacitive touch
Display resolution	480x320 TFT
Optional external floor sensor	NTC (10 kΩ), Class II, 3 meter
Optional external room/air sensor	NTC (10 kΩ), Class II, 3 meter
Max. length sensor cable	50 m, 2 x 1.5 mm ²
CE marking	- Low Voltage Directive 2014/35/EU - EMC Directive 2014/30/EU - RoHS Directive 2011/65/EU - Radio Equipment Directive 2014/53/EU

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