



1 Operating Instructions for download

Use the link www.conrad.com/downloads (alternatively scan the QR code) to download the complete operating instructions (or new/current versions if available). Follow the instructions on the web page.

2 Intended use

The product is a heating thermostat. The product is intended to send temperature control signals to a compatible heating control system.

The product is compatible with the heating control system “**Sygonix SY522 Underfloor Heating Control**” (Item no. 3402838).

The product is intended for indoor use only. Do not use it outdoors. Contact with moisture must be avoided under all circumstances.

If you use the product for purposes other than those described, the product may be damaged. Improper use can result in short circuits, fires or other hazards.

The product complies with the statutory national and European requirements. For safety and approval purposes, you must not rebuild and/or modify the product.

Read the operating instructions carefully and store them in a safe place. Make this product available to third parties only together with the operating instructions.

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3 Delivery content

- Wireless thermostat with backplate
- Operating instructions
- 2x Screws

4 Description of symbols

The following symbols are on the product/appliance or are used in the text:



Read the operating instructions carefully.



The symbol warns of hazards that can lead to personal injury.



The symbol warns of dangerous voltage that can lead to personal injury by electric shock.



This product must only be used in dry, enclosed indoor areas. It must not become damp or wet.

5 Safety instructions



Read the operating instructions carefully and especially observe the safety information. If you do not follow the safety instructions and information on proper handling in this manual, we assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.

5.1 Expertise required

- This product must only be installed and configured by a professional with the necessary knowledge of heating control systems. Unintended installation and misconfiguration might lead to hazards, might cause injury and might cause property damage.

5.2 General information

- The device is not a toy. Keep it out of the reach of children and pets.
- Do not leave packaging material lying around carelessly. This may become dangerous playing material for children.
- If you have questions which remain unanswered by these operating instructions, contact our technical support service or other technical personnel.
- Maintenance, modifications and repairs must only be completed by a technician or an authorised repair centre.

5.3 Handling

- Please handle the product carefully. Jolts, impacts or a fall even from a low height can damage the product.

5.4 Operating environment

- Do not place the product under any mechanical stress.
- Protect the appliance from extreme temperatures, strong jolts, flammable gases, steam and solvents.
- Protect the product from high humidity and moisture.
- Protect the product from direct sunlight.
- Do not switch the product on after it has been taken from a cold to a warm environment. The condensation that forms might destroy the product. Allow the product to reach room temperature before you use it.
- Never operate the product in direct proximity of strong magnetic or electromagnetic fields or transmitter aerials or HF generators. Doing so can prevent the product from functioning properly.

5.5 Operation

- Consult an expert when in doubt about the operation, safety or connection of the appliance.
- If it is no longer possible to operate the product safely, take it out of operation and protect it from any accidental use. DO NOT attempt to repair the product yourself. Safe operation can no longer be guaranteed if the product:
 - is visibly damaged,
 - is no longer working properly,
 - has been stored for extended periods in poor ambient conditions or
 - has been subjected to any serious transport-related stresses.

5.6 (Rechargeable) batteries

- Correct polarity must be observed while inserting the (rechargeable) batteries.
- The (rechargeable) batteries should be removed from the device if it is not used for a long period of time to avoid damage through leaking. Leaking or damaged (rechargeable) batteries might cause acid burns when in contact with skin, therefore use suitable protective gloves to handle corrupted (rechargeable) batteries.
- (Rechargeable) batteries must be kept out of reach of children. Do not leave (rechargeable) batteries lying around, as there is risk, that children or pets swallow them.
- All (rechargeable) batteries should be replaced at the same time. Mixing old and new (rechargeable) batteries in the device can lead to (rechargeable) battery leakage and device damage.
- (Rechargeable) batteries must not be dismantled, short-circuited or thrown into fire. Never recharge nonrechargeable batteries. There is a risk of explosion!

5.7 Drilling

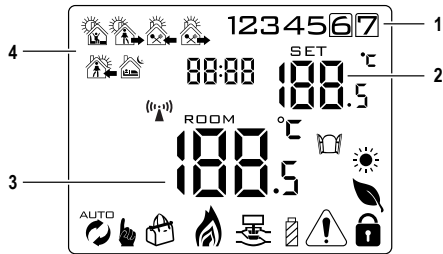


When penetrating the surface e.g. drilling or inserting fasteners, make sure no cables or pipes are damaged. Inadvertently penetrating electric cables causes the life-threatening danger of an electric shock!

5.8 Connected devices

- Also observe the safety and operating instructions of any other devices which are connected to the product.

6 Product overview



- 1 Selected interval period scheme (weekdays + rest days) / Current weekday
- 2 Target temperature / Error codes
- 3 Actual room temperature / Valve position
- 4 Currently activated day period

6.1 Display symbols

Operating modes

Indication	
	Thermostat operates in heating mode

Control modes

Indication	
	Manual mode is activated
	Weekly schedule is activated
	Weekly schedule is manually overwritten by the user
	Holiday mode is activated
	Comfort mode is activated
	Energy saving mode is activated

Operational status

Indication	
	A window is open and heating is reduced
	Rapid heating is activated
	Low battery
	Keypad is locked

Connectivity

Indication	
	Flashing: Thermostat is sending pairing signals to the heating controller system for pairing
	Steady: Heating controller system and thermostat are paired

Errors

Indication	
Errors are indicated by an error message (example: "E2")	

6.2 Keys and functions

Key	Function description
OK	Short press to set the time
SET	- Short press to check the valve status - Short press to confirm settings while changing settings in the menu
Power	Short press to switch the thermostat on or off
▲ Up arrow	- Short press to increase a value. - Long press for 3 seconds to activate rapid heating
▼ Down arrow	- Short press to decrease a value - Long press for 3 seconds to lock or unlock the keypad
SET + ▼	- If the display is on, press and hold for approx. 3 seconds to enter the menu settings - If the thermostat is off, press and hold for approx. 3 seconds to enter the menu settings
SET + ▲	If thermostat is switched off, press and hold for approx. 3 seconds to enter the communication settings

7 Getting started

7.1 Installing the batteries

Install the batteries to power the thermostat. The batteries provide the main power for the product.

Note:
If the battery symbol shows on the display, replace the batteries immediately.

- At the pry slot, pry the base plate off of the thermostat.
- Insert two AA batteries into the battery compartment, observing the correct polarity inside the compartment.
- Clip the thermostat onto the baseplate again.
→ The thermostat is operational.

7.2 Locking and unlocking the keypad

Lock the keypad to prevent unintended or accidental changes to the settings. The keypad can be locked and unlocked while the thermostat is switched on or off.

Note:
Refer to the "Advanced settings" to change the keypad locking behaviour.

- To lock the keypad, press and hold the key ▼ for approximately 3 seconds.
→ If the display is locked, the lock icon shows.

7.3 Switching the thermostat on and off

If the thermostat is switched off, no temperature control takes place.

- Press the power key to switch the thermostat on and off.

Tips:

- To lock the product in the off state, switch it off and then lock the keypad.
- To lock the product in the on state, switch it on and then lock the keypad.

7.4 Setting the time and weekday

Set the current time and day of the week so that the thermostat's weekly schedule program can function accurately.

- ✓ The thermostat must be on and in normal operating mode.
- Press the key OK.
 - Press the key ▲ or ▼ to adjust the minutes.
 - Press the key OK to save the setting.
 - Press the key ▲ or ▼ to adjust the hours.
 - Press the key OK to save the setting.
 - Press the key ▲ or ▼ to adjust the day of the week (1=Monday ... 7=Sunday).
 - Press the key OK to save the setting.
- The time and weekday are set and the thermostat returns to normal operation.

8 Mounting

8.1 Transmission range

The transmission range of radio signals between the thermostat and a receiver is influenced by the context in which they are installed. Before installing, consider factors that can lead to poor reception and limited range.

The range can be considerably reduced due to the following factors:

- Walls, reinforced concrete ceilings, and metal-framed drywalls.
- Coated or metallized insulated glass.
- Proximity to metal and other conductive objects, such as radiators.
- Proximity to the human body.
- Other devices that use the same frequency for communication, such as wireless head-phones and wireless speakers.
- Proximity to electric motors, appliances, transformers, power supplies, and computers.

8.2 Mounting the thermostat

1. At the pry openings, pry the base plate off of the thermostat.
2. Use the base plate as a template and mark drill holes at the installation location. Consider that you must have access to the pry openings after installation to replace the batteries.
3. Drill holes and insert wall plugs, if required.
4. Fix the base plate using the supplied screws.
5. Clip the thermostat onto the baseplate.

9 Configuring thermostat and heating system

9.1 Pair the thermostat with the heating controller

Pair the thermostat with the heating controller to enable wireless communication and control of your heating system.

The thermostat can send control signals to multiple heating controllers at the same time. Every heating controller must be paired to the thermostat with an identifier (IP) that acts as the communication address and a corresponding channel (CH) that is linked to the valve zone.

The IP in thermostat must be same as the IP in the heating controller. The CH in thermostat must be equal to the corresponding zone in the heating control.

Setting	Description	Setting range
IP	Identifier; communication address	00–99
CH	Channel; valve zone #	01–12

To pair the thermostat with a heating controller:

1. Refer to the heating controller operating instructions and put it into pairing mode.
2. Switch the thermostat off by pressing the power key .
3. Press and hold the keys **SET** and  until "CH" shows on the display and a channel flashes (example: 03).
4. Use the keys  and  to set the required channel CH.
5. Press the key **SET** to confirm the setting.
 - The menu item "IP" is activated.
 - The indicator  lights up steady.
6. Use the keys  and  to set an identifier IP between 0 - 99. The IP on the heating controller and the thermostat must be identical.
7. Save the setting and leave the menu by pressing the power key .
- The thermostat is paired with the heating controller.
- You can now control the heating controller with the thermostat.

9.2 Setting the valve type

Set the valve type to define how the thermostat controls the heater valves.

Setting	Valve mode
00	Thermostat controls valve (standard mode)
01	Valve is open permanently
02	Valve is closed permanently

1. If the backlight is off, press any key to turn it on.
2. Press and hold the keys **SET** and  until a menu item "XX" flashes.
3. Use the keys  or  to select the menu item "06" (Valve mode).
4. Press the key **SET** to activate the menu item.
5. Use the keys  or  to select the desired valve mode.
6. Press the key **SET** to confirm your selection.
7. Save changes and leave the menu by pressing the power key .
- The valve mode is set to your selection.

10 Heating modes

The product supports the following heating modes.

#: Indicates under which menu items to configure/activate/deactivate the mode

#	Description
 01	Manual mode: You set the temperature manually by pressing the keys  and  . Switch to another mode to deactivate it.
 01	Weekly schedule: The thermostat controls the temperature according to a preset schedule.
 01	Holiday mode: The thermostat maintains a constant temperature over a specified number of days (max. 30 days).
 01, 02	Comfort mode: The temperature is maintained at a user-preset temperature. Heating is more aggressive to reach the desired temperature to maintain comfort.
 01, 03	Energy saving: The temperature is maintained at a user-preset temperature. The heating system attempts to preserve as much power as possible while maintaining the desired temperature. Heating is slower.

10.1 Setting and activating comfort or energy saving mode

1. If the backlight is off, press any key to turn it on.
2. Press and hold the keys **SET** and  until a menu item "XX" flashes.
3. Use the keys  and  to select the menu item "02" (comfort mode) or "03" (energy saving mode).
4. Short press the key **SET** to enter the mode settings.
5. Use the keys  and  to adjust the desired temperature.
6. Confirm the setting by pressing the key **SET**.
7. Use the keys  and  to select the menu item "01".
8. Short press the key **SET** to enter the mode settings.
9. Use the keys  and  to select the comfort mode  or energy saving mode .
10. Save changes and leave the menu by pressing the power key .

10.2 Operating on a weekly schedule (auto mode)

In auto mode, the thermostat follows a weekly schedule that you can program to suit your needs. Using weekly schedules requires the following steps:

- Selecting an interval period scheme. An interval period scheme divides 7 days into 2 separately configurable sets (working days + rest days).
- Defining parameters for 6 time periods that divide a single day.
- Activating the weekly schedule.

10.2.1 Selecting an interval period scheme

Interval period schemes divide 7 days into 2 individually configurable sets of days (example: 5 + 2). The following interval period schemes are available:

- 5 working days + 2 rest days ('12345')
- 6 working days + 1 rest day ('12345[6]')
- 7 working days ('12345[67]')

To set a scheme:

1. If the backlight is off, press any key to turn it on.
2. Press and hold the keys **SET** and  until a menu item "XX" flashes.
3. Use the keys  and  to select the menu item "07" (interval settings).
4. Select the desired interval (example: '12345') using the  and  keys.
5. Press the key **SET** to confirm the selected interval.
6. Save changes and leave the menu by pressing the power key .
- You have selected an interval period scheme.

10.2.2 Defining parameters for 6 time periods

Time periods divide a single day into 6 programmable periods. You can configure working days and rest days separately by setting starting hours/minutes and temperature.

Wake up	Leave home	Return home
6:00 20°C	8:00 15°C	11:30 15°C
Leave home	Return home	Go to bed
13:30 15°C	17:00 15°C	22:00 15°C

To configure a period:

- ✓ The thermostat must be on and in normal operating mode.
- 1. If the backlight is off, press any key to turn it on.
- 2. Press and hold the keys **SET** and **▼** until a menu item "XX" flashes.
- 3. Use the keys **▲** and **▼** to select the menu item "08" (time periods).
- 4. Short press the key **SET** to set the hours for the first period of the working day. Observe the displayed symbol that indicates the time period of the day.
- 5. Press the key **▲** or **▼** to adjust the hour value.
- 6. Press the key **SET** to set the minutes. Adjust the value using the keys **▲** and **▼**.
- 7. Press the key **SET** to set the target temperature. Adjust the value using the keys **▲** and **▼**.
- 8. Press the key **SET** to set the time for the next period.
- 9. Configure the remaining periods for the working days and rest days.
- 10. Save changes and leave the menu by pressing the power key **⏻**.
- You have defined the parameters for the day time periods.

10.2.3 Activating and deactivating the weekly schedule

After you have selected an interval period scheme and defined parameters for the day time periods, you can activate and deactivate the weekly schedule anytime.

- 1. If the backlight is off, press any key to turn it on.
- 2. Press and hold the keys **SET** and **▼** until a menu item "XX" flashes.
- 3. Use the keys **▲** and **▼** to select the menu item "01" (modes).
- 4. To activate or deactivate the weekly schedule, short press the key **SET**, then use the keys **▲** and **▼** to select the schedule mode (to activate it) or a non-schedule mode to deactivate it.
- 5. Save changes and leave the menu by pressing the power key **⏻**.

10.3 Configuring and activating holiday mode

Use the holiday mode to define the target temperature to maintain and the number of days the mode will be active.

- 1. If the backlight is off, press any key to turn it on.
- 2. Press and hold the keys **SET** and **▼** until a menu item "XX" flashes.
- 3. Use the keys **▲** and **▼** to select the menu item "05" (number of holidays).
- 4. Press the key **SET** to activate the menu item.
- 5. Press the keys **▲** and **▼** to set the number of holidays.
- 6. Press the key **SET** to confirm the setting.
- 7. Use the keys **▲** and **▼** to select the menu item "04" (holiday temperature).
- 8. Press the key **SET** to activate the menu item.
- 9. Press the keys **▲** and **▼** to set the temperature to maintain during absence.
- 10. Press the key **SET** to confirm the setting.
- 11. Use the keys **▲** and **▼** to select the menu item "01" (modes).
- 12. Press the key **SET** to activate the menu item.
- 13. Use the keys **▲** and **▼** to select the holiday mode to activate it or any other mode to deactivate it.
- 14. Save changes and leave the menu by pressing the power key **⏻**.

11 Manually overwriting modes

11.1 Using rapid heating

To speed up heating, you can engage the rapid heating mode temporarily. An internal timer stops rapid mode after it elapses.

Note: Configure the timer duration to your desired length. See "Advanced settings".

- 1. If the backlight is off, press any key to turn it on.
- 2. To start rapid heating, press and hold the **▲** key for approx. 3 seconds until the symbol (rapid heating) shows on the display.
 - The countdown timer shows on the display.
 - If the timer elapses, the rapid heating stops.
- 3. While the display is on, disable rapid heating anytime by pressing any key.

11.2 Overriding the weekly schedule

You can manually override the weekly schedule to make temporary adjustments to the temperature without changing the schedule.

- 1. If the backlight is off, press any key to turn it on.
- 2. Use the keys **▲** and **▼** to adjust the temperature.
 - The symbol shows on the display.
- 3. (If required) remove the manual overwrite by re-activating the weekly schedule .

12 Settings

#: Menu item

Regular settings

#	Description	Options	Default setting
01	Mode	Mode selection	Manual mode
04	Holiday temperature	5 – 35°C	15°C
05	Number of holidays	1 - 30 days	1
06	Valve mode	0: Work normally 1: Valve is kept open 2: Valve is kept closed	0
07	Weekly schedule	Scheme selection: 0: 5 working days + 2 rest days 1: 6 working days + 1 rest day 2: 7 working days	0

Advanced settings

#	Description	Options	Default
A1	Temperature calibration	-9 to +9°C	-1 °C
A2	Window opening function parameter	Window opening temperature setting range: 5–25°C Running time of the window-opening function: 5–60 min To disable: Press the down key ▼ to lower the temperature below 5°C and the display shows "-" (off).	Off
A3	Keypad auto-lock	0: Closed auto-lock function, unlock/lock manually using the key ▼ 1 : Open auto-lock function (automatically lock after 10 minutes of inactivity)	0
A4	Lowest temperature	The lowest selectable temperature in other menu settings. +1 to +15 °C	+5 °C
A5	Highest temperature	The highest selectable temperature in other menu settings. +16 to +70 °C	+35 °C
A6	Rapid heating mode activation time	100 – 900 s	300 s
A7	Start/stop working temperature difference setting	0.5–1.5 °C	+1 °C
A8	Valve selection	00: PID type 1: Analogue type 2: ON/OFF type	2
A9	Low-temperature protection	+1 to +10 °C To disable: Increase the temperature beyond 10°C using the up key ▲ until the display shows - (off).	+5 °C
AA	Factory reset	Reset all parameters to factory default	

To access advanced settings:

- 1. Switch the product off by pressing the power key **⏻**.
- 2. Press and hold the keys **SET** and **▼** until a menu item "XX" flashes.
- 3. Repeatedly press the key **SET** to scroll through the menu items.
- 4. Use the key **▲** or **▼** to adjust settings.
- 5. Press the key **SET** to confirm the settings.
- 6. Save changes and leave the menu by pressing the power key **⏻**.

Communication settings

#	Description	Options	Default setting
CH	Channel; valve zone #	01–12	01
IP	Identifier; communication address	00–99	01

Error codes

#	Description	Details/Solution
E1	Temperature sensor failure alarm	The temperature sensor is faulty. Contact a professional.
E2	Actuator fault alarm	Perform the following checks: 1. Check that the cable of the actuator is properly connected to the heating controller. 2. Check that the actuator is correctly installed on the valve. Contact a professional if the error cannot be resolved.

13 Performing a factory reset

By performing a factory reset, you restore the default settings of the thermostat.

1. Switch the thermostat off by pressing the power key .
 2. Press and hold the keys **SET** and  until a menu item “XX” flashes.
 3. Repeatedly press the key **SET** until “AA” (factory reset) shows.
 4. Reset all settings to default by pressing the key **SET**.
 5. Save changes and leave the menu by pressing the power key .
- The thermostat settings are reset to their default values.

14 Cleaning and care

Important:

- Do not use aggressive cleaning agents, rubbing alcohol or other chemical solutions. They damage the housing and can cause the product to malfunction.
- Do not immerse the product in water.

1. Clean the product with a dry, fibre-free cloth.

15 Disposal

15.1 Product



This symbol must appear on any electrical and electronic equipment placed on the EU market. This symbol indicates that this device should not be disposed of as unsorted municipal waste at the end of its service life.

Owners of WEEE (Waste from Electrical and Electronic Equipment) shall dispose of it separately from unsorted municipal waste. Spent batteries and accumulators, which are not enclosed by the WEEE, as well as lamps that can be removed from the WEEE in a non-destructive manner, must be removed by end users from the WEEE in a non-destructive manner before it is handed over to a collection point.

Distributors of electrical and electronic equipment are legally obliged to provide free take-back of waste. Conrad provides the following return options **free of charge** (more details on our website):

- in our Conrad offices
- at the Conrad collection points
- at the collection points of public waste management authorities or the collection points set up by manufacturers or distributors within the meaning of the ElektroG

End users are responsible for deleting personal data from the WEEE to be disposed of.

It should be noted that different obligations about the return or recycling of WEEE may apply in countries outside of Germany.

15.2 (Rechargeable) batteries

Remove batteries/rechargeable batteries, if any, and dispose of them separately from the product. According to the Battery Directive, end users are legally obliged to return all spent batteries/rechargeable batteries; they must not be disposed of in the normal household waste.



Batteries/rechargeable batteries containing hazardous substances are labelled with this symbol to indicate that disposal in household waste is forbidden. The abbreviations for heavy metals in batteries are: Cd = Cadmium, Hg = Mercury, Pb = Lead (name on (rechargeable) batteries, e.g. below the trash icon on the left).

Used (rechargeable) batteries can be returned to collection points in your municipality, our stores or wherever (rechargeable) batteries are sold. You thus fulfil your statutory obligations and contribute to environmental protection.

Batteries/rechargeable batteries that are disposed of should be protected against short circuit and their exposed terminals should be covered completely with insulating tape before disposal. Even empty batteries/rechargeable batteries can contain residual energy that may cause them to swell, burst, catch fire or explode in the event of a short circuit.

16 Declaration of Conformity (DOC)

Conrad Electronic SE, Klaus-Conrad-Straße 1, D-92240 Hirschau hereby declares that this product conforms to the 2014/53/EU directive.

- Click on the following link to read the full text of the EU declaration of conformity:
www.conrad.com/downloads

Enter the product item number in the search box. You can then download the EU declaration of conformity in the available languages.

17 Technical data

Power supply 2 x 1.5 V AA batteries (not included)
Memory..... Non-volatile
Surface mounting Yes
Display accuracy 0.5 °C
Sensor (probe)..... NTC (10k) 1%
Frequency range 433.04 - 434.79 MHz
Transmission power..... max. 10 dBm
Transmission distance max. 100 m (open area)
Operating conditions..... 0 to +50 °C; 40 - 85 % RH
Storage conditions..... -10 to +60 °C; 40 - 85 % RH
Display size (W x H) 64 x 49 mm
Dimensions (W x H x D) 86 x 86 x 27 mm
Weight (approx.) 112 g