



SMART HOME COMFORT
THERMOSTAT

SMART ONE



Welcome to your smart home comfort

What is SmartOne	04	Home/Away mode	11
Installation procedure	05	Holiday	11
Mode Select / Factory Reset	06	Off	11
Wifi setup	07	Lock/unlock screen	12
Pairing with Smart365 app	07	User Preferences	13
Display and symbols	08	Advanced options	15
Programming	09	Messages and alerts	17
Setting the temperature	10	Cloud platform	18
Temperature Hold function	10		



Download the Smart365 App:

Register your system to enable remote control functions.





Optimized for radiant heating and cooling systems



Self-learning feature with geolocation aimed at energy saving



Secure remote connection and automatic updates



Innovative regulation strategies for energy saving



The system learns the amount of time required to warm up or cool down every room



Remote control with Apps iOS and Android



Cloud platform for supervision and statistics



Intuitive graphics, tutorials and online support



Weather forecast to anticipate external condition changes



Air quality sensor

Get to know your SmartOne

What is SmartOne

SmartOne is a smart thermostat. As a programmer, it allows you to set comfortable temperature periods during the day to suit your lifestyle, while keeping a eco-friendly temperature level while away and overnight.

As a room thermostat, it works by sensing air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off when the set temperature has been reached.

The thermostat also works in cooling.

So a programmable room thermostat lets you choose what times you want the heating or cooling to be on, and what temperature it should reach while it is on. It will allow you to select different temperatures in your home at different times of the day (and days of the week) to meet your particular needs and preferences.

Setting a programmable room thermostat to a higher temperature will not make the room heat up any faster, as how quickly the room heats up depends on the design and size of the heating and cooling system. Similarly reducing the temperature setting does not affect how quickly the room cools down.

Setting a programmable room thermostat to a lower temperature will result in the room being controlled at a lower temperature, and saves energy.

Here is where the smart thermostat comes in. The thermostat computes how long it takes to heat up or cool down the room, and it starts heating or cooling before it's needed to reach the comfort temperature just in time.

In addition, multiuser geofencing provided by the Smart365 app automatically adjusts the thermostat to a lower value when occupants have left home.

The way to set and use your programmable room thermostat is to find the lowest temperature settings that you are comfortable with at the different times you have chosen, and then leave it alone to do its job.

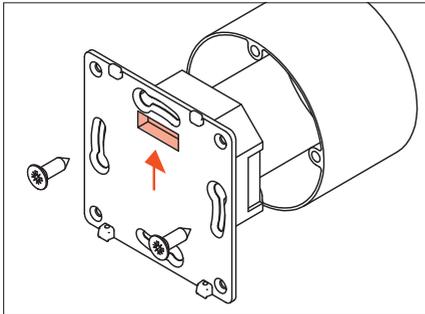
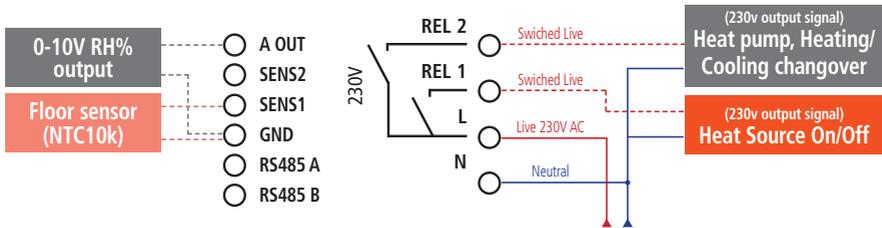
The best way to do this is to set the room thermostat to a low temperature – ie. 18°C and then turn it up by 1°C each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will be inefficient and consume excessive energy.

You are able to temporarily adjust the heating program by overriding or using the temperature hold feature. Programmable room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby heat sources, televisions, wall or table lamps may also prevent the thermostat from working accurately.

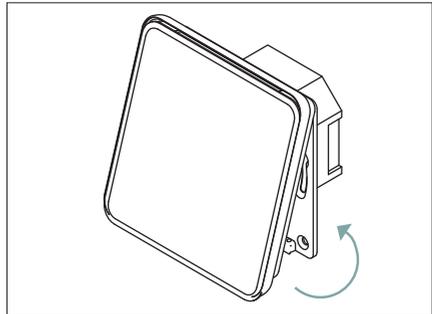
Installation procedure

Mount the SmartStat at eye level. Read the instructions fully so you get the best from our product. This SmartStat is designed to be flush mounted and requires a euro flush box with 60mm fixing centers and 40 mm (minimum depth) to be fitted in the wall prior to installation. This product must only be installed by a qualified electrician and comply with local installation regulations.

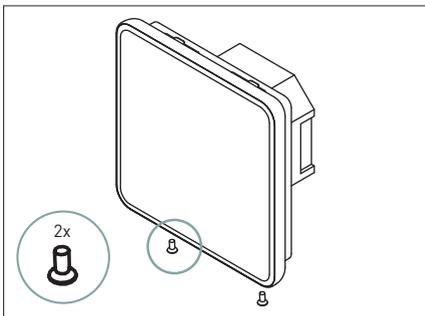
Wiring diagram (backplate)



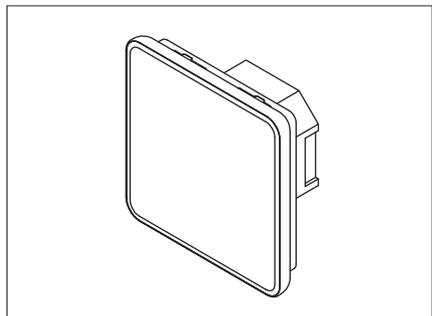
Screw the backplate of the thermostat securely into the back box. The right position is indicated in the picture.



Clip the front display onto the backplate as indicated in the picture, starting from the upper site.



Using a small screwdriver you can securing it in place.



Ready to manage your indoor comfort.

Mode Select

This thermostat can be used for heating only, heating and cooling, cooling only. Heating and Cooling is the default setting.

To change thermostat mode follow these steps:

- Enter Menu and select Advanced
- Input Tech password and confirm
- Select Setup -> Type
- Select the desired option

The thermostat will restart in the selected mode.

☰ Menu → Advanced → Inout password → Setup → Type

Factory reset

To reset thermostat parameters to factory default follow these steps:

- Enter Menu and select Advanced
- Input Tech password and confirm
- Press the option Factory reset and hold 10 seconds
- The thermostat will reset all parameters and restart in the default mode.

Setup and pairing processes must be repeated after the restart has completed.

☰ Menu → Advanced → Inout password → Factory reset

WiFi setup

WiFi connection is not mandatory for the device to operate, but it is required for interactions by app and cloud services, and suggested to keep the device updated to last new features.

NOTE: only 802.11 b/g/n 2.4 GHz WiFi networks are supported



WiFi setup

To connect the SmartOne with the WiFi network follow these steps:

- Enter Menu and select Network
- Select WiFi, then Scan network
- Select the preferred network
- Input access credentials and confirm

The connection handling may take some seconds, until a confirmation message appears.

 Menu → Network → WiFi → Scan network → ... select your home network

To check the communication to WiFi and cloud services, follow these steps:

- Enter Menu and select Network
- Select Check connections

 Menu → Network → WiFi → Check connections

Pairing with Smart365 app

Download the free Smart365 app from Apple App Store or Google Play Store. Be sure SmartOne is connected to WiFi and reach out cloud services.

- On SmartOne, enter Menu and select Cloud
- Select Pairing
- Select Pair now, a QR code will be shown



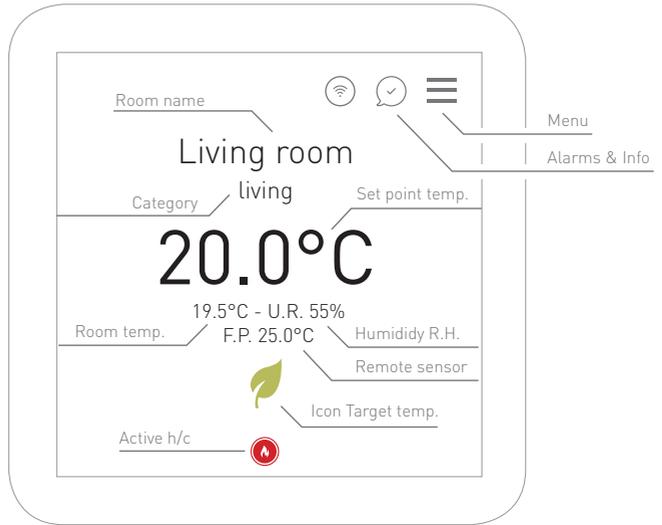
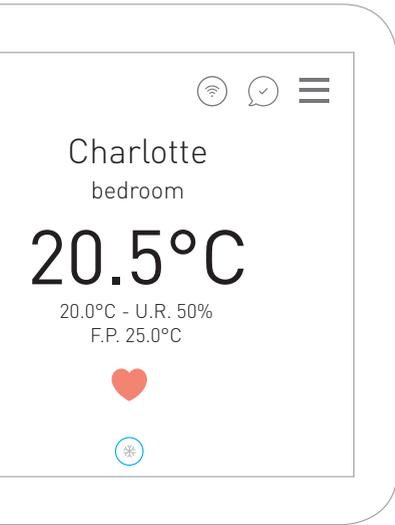
 Menu → Cloud → Pairing → Pair now

Open the Smart365 app, register your device and create your new account. Both the App and SmartOne will confirm once the pairing is successful. To pair more SmartOne to the same account, select Add zone from the app and follow the same procedure above.

Pairing with the app allows you to check and control the thermostat from remote, to visualize historical data, to share thermostat control with other users and to activate Away mode by geofencing.

A subscription may be request to access advanced services.

Display and symbols



Symbology

-  Comfort temperature
-  Night temperature
-  Eco temperature
-  Manual
-  Temporary manual
-  Party (+2 h comfort temperature)
-  Early bird (activate comfort temp.)
-  Good night (activate night temp.)
-  Floor limit
-  Heating/cooling active (relay ON)
-  Heating/cooling not active (relay OFF)
-  Heating/cooling (optimum start)

Room/zone name:

You can customize the name of each room.

Room category:

Give each room a category to have a preset standard schedule, which you can simply modify and adapt to your specific needs.

Target temperature:

You can automatically set up three target temperatures or each room to be programmed and managed within a day.

Current temperature:

Room current temperature and relative humidity, Room floor probe temperature: SmartOne can be configured for different sensor options such as built-in air sensor, floor sensor or both. When the thermostat is set to use both the air & the floor sensor, the room temperature will be displayed by default, and F.P. indicates the floor temperature.

Programming

The SmartOne offers 24h - 7 days program mode. The thermostat is supplied with comfort levels already programmed based on room type, but these can be changed easily.

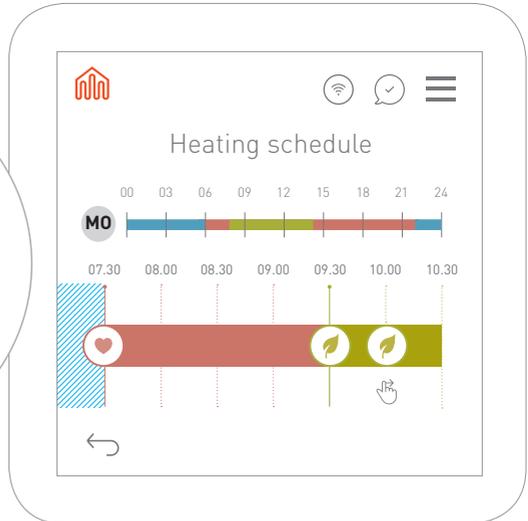
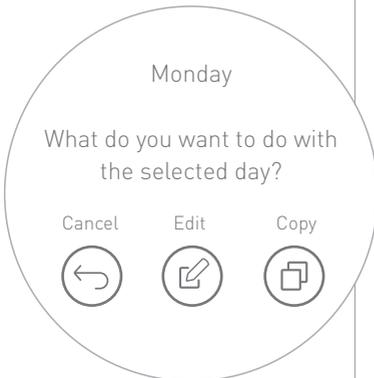
To program comfort levels:

- From main view, scroll down and set the room to Automatic mode scroll down one more time and adjust the values for Comfort, Eco, Night temperature levels.



- Scroll down and set the week scheduling

 Long press on day button



- Tap on one day to edit. Drag the icons to modify the time slots, or tap and input from-to hours
- Tap on day icon / long press on the schedule will allow day to day copy

Setting the temperature

The SmartOne allows you to adjust the current set temperature and to apply it indefinitely.

To set the temperature, please follow these steps:

- From main view, scroll down and set the room to Manual mode
- Set the temperature
- Select “fixed” option



Fixed Manual

Set the room with a manual temperature.

Temporary manual

Choose a period for the fixed temperature. After this time, the system returns to automatic mode.

Temperature Control

Once you have set up the manual mode, you can change easily the target temperature using the symbols -/+ on the home screen



Temperature Hold function

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

To set the temperature, please follow these steps:

- From main view, scroll down and set the room to Manual mode
- Adjust the temperature
- Select “Temporary” option and set the end time

Note: now you can adjust temperature setpoint from main view

This new temperature is maintained only until the expire time. At this time, the thermostat will revert back to the programmed levels.

Home/Away mode

Home mode is the default operating mode. The room follows the programmed mode or manual temperature setpoint.

Away mode automatically decrease the programmed temperature levels from Comfort to Eco for efficiency. Away mode can be activated by the app through the geofencing option. The thermostat will recover back to Home when you (and any of the invited users) are returning home.

To set Away mode, follow these steps:

→ From main view, scroll left and select Away
To recover from Away mode, select Home.



Holiday mode

SmartOne maintains a desired temperature up to your return date. This function is helpful for example to maintain a lower temperature, still suitable for animals and plants, during the holiday period. Then return to the programmed settings once the holiday period is finished. The function works for heating and cooling.

Note: Minimum/maximum floor temperature will not be maintained while this mode is active.

To set Holiday mode, follow these steps:

→ From main view, scroll left and select Holiday
→ Select a return date from the calendar
→ Set a desired temperature
To recover from Holiday mode, select Home.



A holiday period starts immediately and runs until 00:00 of return date.

Off mode

SmartOne maintains a lower temperature to give frost protection.

Note: Minimum floor temperature will not be maintained while this mode is active. In cooling mode, the frost protection cannot operate.

To set Off mode, follow these steps:

→ From main view, scroll left and select Off
To recover from Off mode, select Home.



Operating mode

The SmartOne is able to switch between heating and cooling mode. This will reverse cycle the heat pump as a result.

To set a different operating mode:

- From main view, scroll left, then scroll down
- Select heating or cooling

Locking/Unlocking

The SmartOne has a touchscreen lock utility.

To activate the lock follow these steps:

- Enter Menu and select Lock
- Select "Lock it now"
- Enter your secret code on both text fields for confirmation

 Menu → Lock → Lock it now → Enter your secret code

Note: You'll be asked to input a Code reminder, which is aimed to help you to remember the secret code. Optionally, you can enable to ask for secret code when resuming from a screen-saver.

To unlock, follow these steps:

- Touch the thermostat touchscreen
- Enter the secret code and confirm

User preferences

☰ Menu → Preferences → ...

Brightness

The SmartOne allows to customize the display brightness. Low brightness is selected by default. High brightness is suggested for thermostats in bright rooms.

Screensaver

The SmartOne can show a screensaver. By default, the screensaver is not active (option No screensaver is selected).

Other options are:

- Blank screen: this option disables screen backlight
- Clock (digital, analog): this option shows current time
- Rooms loop: this option shows room data

To take control of the thermostat when screensaver is shown, just touch the touchscreen to activate the thermostat or enter the user set code to unlock (see unlock).

Language

English is the default language. To change language follow these steps:

- Enter Menu and select Preferences
- Select Language
- Select the preferred language

Note: this option does affect only the thermostat, not app or cloud services.

Setting date&time

When the thermostat is connected to WiFi, the time & date settings are automatically synchronised according to the time zone setting.

To set the time zone, please follow these steps:

- Enter Menu
- Select Preferences, then Date time
- Select Time zone, choose the preferred timezone and confirm

Note: you can change the time format between am/pm and 24h format by switching Use 24-hour format in the same menu

Room settings

The SmartOne adapts to the room usage, thus it is helpful to define correctly which room it is operating into,

To change room settings, follow these steps:

- Enter Menu
- Select Preferences, then Room settings
- Select the preferred room

Name: you can edit room name

Type: choose the right room type. This will help the thermostat to adapt to specific room usage. You will be prompted for changing the current schedule accordingly.

Bookmark: reserved for future use

Reset schedule: You will be prompted for reset room settings to default according to selected room type.

Party/early bird/good night mode

The SmartOne lets you choose special room modes that lets you change the program occasionally.



Party: when selected, the thermostat sets the temperature level to Comfort for a user defined time.

To set the duration, follow these steps:

- Enter Menu
- Select Preferences, then Party mode
- Select the preferred duration

Early bird: when you wake up early in the morning, you can set the thermostat to disregard night mode and move to the next temperature level scheduled for the morning

Good night: when you going to bed earlier than usual, you can set the thermostat to disregard the scheduled temperature level and move to night temperature level.

Note: This new temperature is maintained only until the next programmed temperature level. At this time, the thermostat will revert back to the programmed levels.

Advanced

☰ Menu → Advanced → ...

Software update

We suggest to keep the device connected to WiFi. Software updates will be received from time to time and installed automatically by the thermostat. During the update process, the thermostat may show a message “Updating...” and it may restart. Powering off the thermostat while the update process is ongoing may damage the thermostat.

Home automation

The SmartOne can be easily integrated as a thermostat in a home automation system / BMS. Available interfaces are:

→ Serial bus RS485 (Modbus RTU protocol)

→ WiFi (Modbus TCP protocol)

Note: refer to specific documentation for further instructions on how to interface

Switching type

The SmartOne supports two different ways for activating the heat source.

ON/OFF: the heat source is ON until the setpoint temperature is reached. A switching differential is considered to prevent from frequent restart. Default.

Advanced modulation (PID): the heat source operates intermittently rather continuously, over a 15 minutes duty cycle. This provides a better temperature regulation, but some heat pumps or boilers may suffer from frequent restarts.

Switching differential: A switching differential is considered to prevent frequent restart. When setpoint temperature is reached, the thermostat will not activate the heat source until the temperature deviates from the setpoints of the switching differential value.

Sensor selection

The thermostat comes with a built-in temperature/humidity/VOC sensor and it supports an optional remote temperature probe. You can select which sensor should be used for temperature reference. You can select between built-in (air temperature only), floor sensor only (floor temperature), or both. When you enable both sensors, the floor sensor is used as a floor limiting sensor and is designed to prevent the floor from overheating, as well as allowing you to set minimum floor temperature.

Room temperature

Sensor offset/calibration: The thermostat allows for calibrating the built-in temperature sensor.

NOTE: the thermostat has a self-compensation algorithm which may take up to 30 minutes to adapt, especially after frequent device restarts. Do not calibrate the temperature sensor before 30 minutes since last power on.

Floor temperature

This function is available when the built-in and floor sensor mode is enabled. The SmartOne continuously monitors floor temperature, and eventually activates/deactivates the heating/cooling if floor temperature limitations are reached.

Min (heating) / Max (heating): these limits will maintain the floor temperature in range.

Note: these model **MUST NOT** be used to control electric underfloor heating

Min (cooling) / Max (cooling): these limits will maintain the floor temperature in the selected range.

Dew point check: if enabled, the thermostat will stop cooling if floor temperature drops below the dewpoint, for condensation prevention

Dew point offset: an offset can be applied to the dew point calculation.

Setpoint

You can set a minimum and a maximum value for the setpoint

Optimum start

Optimum start will delay the startup of the heating system to the latest possible moment to avoid unnecessary activation, while ensuring the building is comfortable at the programmed time.

Humidity

Dehumidification threshold: not applicable to this model

Sensor offset: The thermostat allows for calibrating the built-in humidity sensor.

NOTE: the thermostat has a self-compensation algorithm which may take up to 30 minutes to adapt, especially after frequent device restarts. Do not calibrate the temperature sensor before 30 minutes since last power on.

Information

☰ Menu → Info → ...

You can get information on thermostat status, legal information and assistance contacts by following these steps:

To access information, follow these steps:

→ Enter Menu

→ Select Info

Status: information on the thermostat model and serial number, connectivity and other useful information that you will be asked to report in case of assistance request

Legal: the device contains open source software with different OSS licensing. The list of included packages and respective licenses are shown. A link to software sources is also provided under “Software licences”.

Help: shows contacts for assistance

Messages and alerts

The SmartOne may show some messages and alarms. To access the list and read the message content, from the main view select the Notification icon on top right corner.

NOTE: if an alarm is shown, the Notification icon turns red. Alarms are shown while a fault is active. If an alarm persists for more than 30 minutes, check the information contained in this manual. If unable to solve, please contact us for assistance. Serial number and information contained in Info/Status menu.

Note







Central Heating New Zealand Ltd

52 Pilkington Way, Christchurch

Ph: 0800 357 1233

info@centralheating.co.nz

centralheating.co.nz