



## INSTALLATION & MANUALS



NS1001 Plus  
NS1001 LV Plus  
NS1001 HL  
NS1001 Plus Zones  
NS1001 LV Plus Zones  
NS1001 HL Zones

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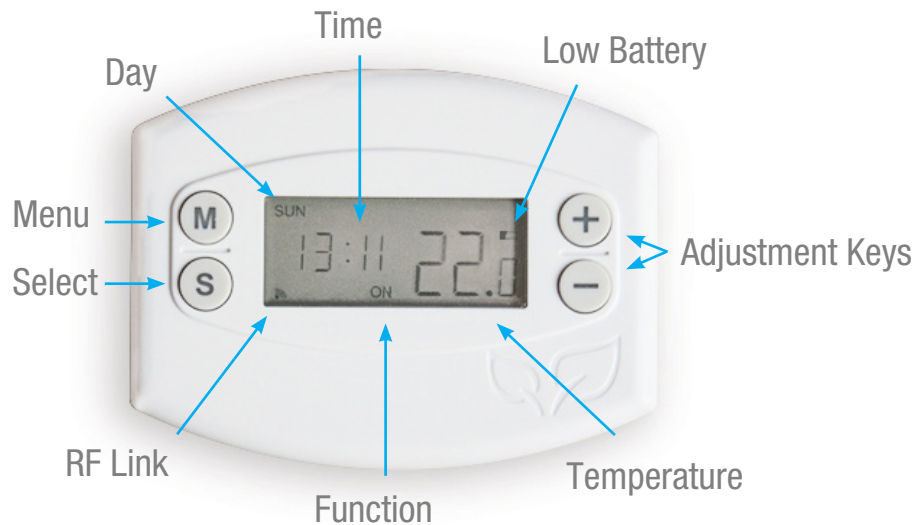
## What's in the box

Inside the box you will find the following

- 1 x Assembled Room Thermostat consisting of
  - 1 x Room Thermostat
  - 1 x Wall Mount
  - 1 x Wiring Cover
- 1 x Internet Gateway
- 1 x Network Cable
- 1 x Power Supply
- 2 x AA Batteries
- 2 x Screws
- 2 x Wall Plugs



# Your Thermostat



## Time

Current Time / Program Times.

## Day

Current Day / Program Days.

## Current Function

The current selected function.

## Temperature

Current room temperature / Set temperature.

## RF Link

This icon is displayed when the Room Thermostat has a connection to the Internet Gateway.

## Low Battery

If this icon displays then it is time to replace the batteries.

## Menu / Advance

Enter the programming menu or activate program advance. (PLUS unit only)

## Select / Boost

Multipurpose, changes function and cycles menu options. Activates the Boost function. (PLUS unit only)

## Adjustment Keys

Multipurpose, these are used to adjust the desired temperature and program times.

## Your Gateway

Your gateway box connects your Room Thermostat to the Internet. This box should be left powered on and connected to your router via an Ethernet cable at all times.

Your Room Thermostat will still function without a gateway box, however you will not be able to control it from our website or from the smartphone app.

## Setup

### Internet Gateway

Plug in the supplied power cable and connect to your router via the network cable.

### Pairing and Connecting

This is the process by which the Room Thermostat and the Gateway are programmed to recognise each other. Your new Room Thermostat should already be paired to your gateway at the factory, so they should automatically recognise each other and connect.

Power up the gateway and wait until the Power Light is green. Then power up the Room Thermostat. Within a few seconds, the connection should be established, confirmed by the Radio symbol on the Room Thermostat and the RF Light on the Gateway switching to green.

If the gateway was switched on after the Room Thermostat, then it may take up to 10 minutes to establish the connection. If you do not wish to wait this long, reset the Room Thermostat by pressing and holding all four buttons for 5 seconds. Upon reset, the connection should be made within a few seconds.

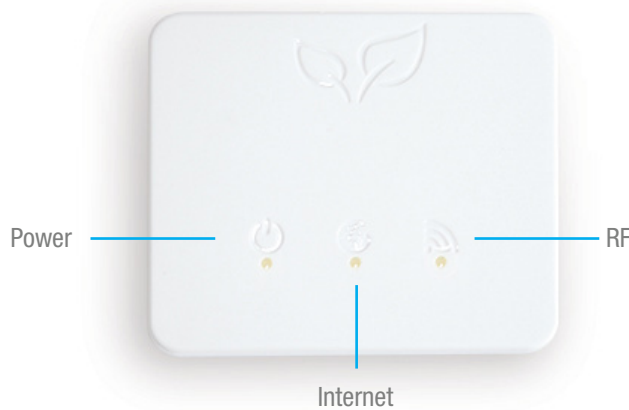
If you have received a replacement unit, an additional unit to create a Multizone setup, or they will not connect, they will need to be paired. Switch on both units, wait for the Internet Gateway Power light to go green, then press the Pairing Button on the back of the Gateway. The RF Link light will begin to flash Amber.

Next press and hold 'M' and 'S' simultaneously on the Room thermostat for 5 seconds. This will make a connection icon, located in the bottom left hand corner, flash. This icon will stay on permanently once a connection has been established.

## Status Lights

Your Gateway box has multiple status lights for your reference. There are 3 multipurpose lights on your gateway, the Power light on the left, Internet light in the middle and RF light on the right.

	Off	Flashing amber	Amber	Green
<b>Power light</b>	No power		Initialising	Ready
<b>Internet light</b>	No connection	Unregistered	Establishing Connection	Connection Established
<b>RF Light</b>	No device paired	Pairing	Thermostat not connected	Connection Established



## Test your Inspire Thermostat

We test all of our products before they leave the factory so let's make sure it's arrived in the same way it left us.

1. Ensure wall mount is still present in the Thermostat.
2. Insert the batteries and check the screen illuminates.
3. Press and hold **+** and raise the temperature to 30 degrees.
4. Press **S** and cycle through the functions until the Thermostat reads 'ON'. You should hear the relay 'click' on.
5. Press **S** again so 'OFF' is displayed, you should hear the relay 'click' off.
6. Remove the batteries.

## Test the connection

Before you install your new Inspire Thermostat on the wall we recommend you test the connection between the Thermostat and the Gateway box.

1. Unpack the power supply and plug in the Gateway.
2. Use the supplied Ethernet cable and plug it into the back of the Gateway, connect the other end to your router.
3. For optimal performance, ensure that your Gateway box is placed minimum 1m from your router. Do not place the Gateway box on top of your router.
4. Wait until the power light (left hand light) is solid green.
5. Insert your batteries into the Thermostat and place minimum of 1m away from your Gateway box.
6. Leave the Gateway box and Thermostat to establish a connection. Once connected the right hand light on the Gateway box will turn green and the RF Indicator on the Thermostat will show in lower left hand corner.

N.B If your Thermostat was switched on before your Gateway then it could take up to 10 minutes to connect.



If this an additional Thermostat to add to an existing Inspire Home Automation system, then you will need to pair the Thermostat to the Gateway. Please see section on pairing.

## Activation

Whilst your Gateway box and Thermostat are establishing a connection use this time to create your online account. We recommend activating your new Thermostat in the same property as installation.

Visit [www.inspirehomeautomation.co.uk/client](http://www.inspirehomeautomation.co.uk/client) click the 'Register' link and set up your online account. You will then be asked to validate your account through your email.




Once you have validated your email you will be asked to enter an activation code.

## Activation code

Once you have activated your online account you will need to add a device to your account.

If your computer or phone is connected to the same network as your Gateway box then this should be automatically detected.

If not then you will need to enter a registration code online. You need to get the this code from your Thermostat.

1. Start by checking your Gateway is in 'Activation mode'. The outside two lights will be green and the middle light will be flashing.
2. Make sure your Thermostat has the  symbol in the lower left corner of the screen.
3. Press and hold  and  for 5 seconds, 7 dashes will be displayed, followed by an activation code.
4. Enter this code into the website.

Please note: This activation code is only valid for 1 hour. If it is left longer you will need to obtain another code from the Thermostat.

## Unit Codes

If you purchased the Landlord or Holiday Let Model, you should have been emailed an activation code to unlock the extra functionality. Click the 'Setup' tab, then scroll down to 'Unit Codes' Copy and paste your activation code here to unlock the extra features.

If you have purchased a Zoned Landlord / Holiday Let system, you should have received a code for each Thermostat. You will need to enter one code for each Thermostat. To switch Thermostats, click the number in the top right of web page, then select a different unit from the drop down list.

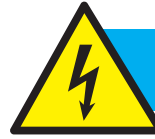


If the code did not show please try the following:

- Ensure the Gateway box lights are displayed as described above.
- Re-start the process by unplugging your Gateway box, remove your Thermostat batteries, leave for 5 minutes. Insert the power cable back into the Gateway and wait for the left hand power light to become solid green. Insert the batteries into the Thermostat, leave for 5 minutes and try accessing your activation code again.



## Installing your Thermostat



CAUTION: High Voltage Wires

Warning Electricity is dangerous. Before commencing work, ensure that you read and understand these instructions and isolate the relevant circuits. If in any doubt whatsoever, do not continue with installation and consult a qualified electrician or heating engineer.

This unit must be installed in accordance to BS 7671 (IEE Wiring Regulations), or to another equivalent standard.

## Before you start

### **Do I need to install my Inspire Thermostat somewhere new?**

We find that most Thermostats are located in rooms that have limited use. The position of these Thermostats mean the temperature could be warmer or colder than the homeowners feel. If you need to move your existing Thermostat, contact a trained electrician to carry out the work before installation or consider our Wireless option.

## Preferred place for your Inspire Thermostat.

### Location is important.

Your Inspire Thermostat needs to communicate efficiently with the Gateway box for best performance. Radio range is approximately 40 metres in open air, however, this signal will degrade rapidly for each object that it has to pass through.

- We recommend installing your Inspire Thermostat in a room that is used often. This will give you an accurate temperature reading and make heating your home more effective.
- Position - To get the optimum readings place your Inspire Thermostat correctly using the following:

*The homes construction and arrangement may affect the communication so consideration is needed.*

- Place your Inspire Thermostat so you can easily access and read the on screen display.
- Install on an interior wall.
- Make sure your Thermostat is away from any drafts.
- Install 1.2m - 1.5m from the floor.
- Do not place behind doors or any other objects.
- Place away from radiators.
- Place away from large mirrors
- Do not install in a Kitchen
- There must not be a Thermostatic Radiator Valve (TRV) in the room where the Thermostat is installed. If there is one present the TRV head should be removed by unscrewing it from the valve body.

## Removal of your old Thermostat

1. Ensure that your electrical supply is isolated or switched off.
2. Remove your old thermostat ensuring you make a note of which wires go to which connections. Please note: the wire colours may not be standard.
3. Tape the wires together to stop them from falling back into the wall and continue to remove your old Thermostat.

## Prepare you new Inspire Thermostat

1. Remove the two securing screws from the bottom edge of the Thermostat and lift the Thermostat off the wall mount.
2. Remove the Wiring cover from the wall mount by removing the two securing screws.



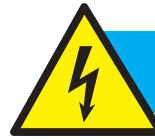
## Install the wall mount

The wall mount comes supplied with fixings for a solid wall. If you are installing on another type of wall then alternative fixings may be needed. If you are using different screws, ensure they are pan or round head so when sitting flush they do not protrude from the Thermostat.

**Warning** *be aware of hidden wires and pipes before drilling.*

1. Using the wall mount as a template, position the mount as described in the 'preferred place for your Thermostat' section.
2. Insure the wall mount is level and mark the location of the two holes on the wall. For reference the holes are 75.5mm apart.
3. Drill suitable holes with a 6mm drill bit (for supplied wall plugs) and insert the wall plugs.
4. Screw the wall mount into place.

## Wiring your Inspire Thermostat



CAUTION: High Voltage Wires

Your new Thermostat is a two wire Thermostat. It requires only the Live (L) and the Switched Live (SL) wire. It does not matter which wire is connected to which terminal.

**Note:** Great care must be taken to ensure that your room thermostat is wired correctly. Incorrect wiring can be dangerous and could result in a blown fuse and / or a damaged room thermostat. Inspire Home Automation will not accept any liability whatsoever for damage caused to your central heating system and/or electrical system as a result of the incorrect wiring of the thermostat. Also damage to the thermostat due to incorrect wiring is not covered by your guarantee.

*If you are in any doubt whatsoever about the wiring, we strongly recommend that you consult a qualified electrician or heating engineer.*

1. Identify the Live and Switched Live wires.
2. Make all wires that are not used for this installation safe.
3. Prepare the two wires to be connected by stripping 5mm off the wire ends.
4. Connect the Live and Switched Live wires to your Inspire Thermostat and tighten the connector screws.
5. Check the wires are secured in your Thermostat by gently tugging on them. If they stay in place they are secure.
6. Make sure no bare wire is out of the connector block. If bare wire is showing remove the wire and cut a small part of the bare wire off. Re-insert and connect the wire.
7. Fit and screw the wiring cover to the wall mount using the supplied screws.



### Important

- Ensure you do not breach the earth continuity of the circuit.
- Ensure the circuit is protected by a 3 amp fuse.

## Install the Thermostat

Now that your wall mount and wiring is complete, it is time to finish the installation by mounting your thermostat.

1. Install the supplied batteries into the back of your Thermostat and check the screen illuminates.
2. Start the securing screws off before placing it onto the wall. This will make it easier to install. Be sure the screws do not protrude into the Thermostat.
3. Carefully slide your thermostat over the wall mount taking care not to damage the spring pins at the back. Do not force the Thermostat at this stage, if the Thermostat does not slide easily check the following:
  - Securing screws do not protrude into the Thermostat.
  - The wiring cover is correctly installed.
  - Wall mount screws are the correct size.
4. Secure the Thermostat by holding in place and lightly tighten the screws underneath to secure the unit. **Do not over tighten.**



**Congratulations! You're all done.**

## Using your new Thermostat

If you have previously followed the instructions to activate your account then you have finished installation and your Inspire Thermostat will be ready to use.

1. Make sure your Gateway box is connected and switched on.
2. Using your online account or through the mobile app. Test your thermostat by setting the preferred temperature and turning your heating to 'ON'.
3. Your Thermostat should respond within 10-20 seconds.



If you have not yet activated your account please see the 'Activation' part of this guide.

## Basic Functions

### Adjusting the Temperature

Use the **+** and **-** buttons to set the desired room temperature.

Pressing the **S** key will cycle through the following program functions:

#### Off

Your heating will be switched off.

#### P1 (Profile 1)

Your heating will follow the temperature profile

The default is:

15 Degrees between 00:00 and 06:00

20 Degrees between 06:00 and 08.30

17 Degrees between 08:30 and 17:00

22 Degrees between 17:00 and 22:30

15 Degrees between 22:30 and 00:00

#### P2 (Profile 2)

Your heating will follow the temperature profile

The default is:

16 Degrees between 00:00 and 07:00

20 Degrees between 07:00 and 23.00

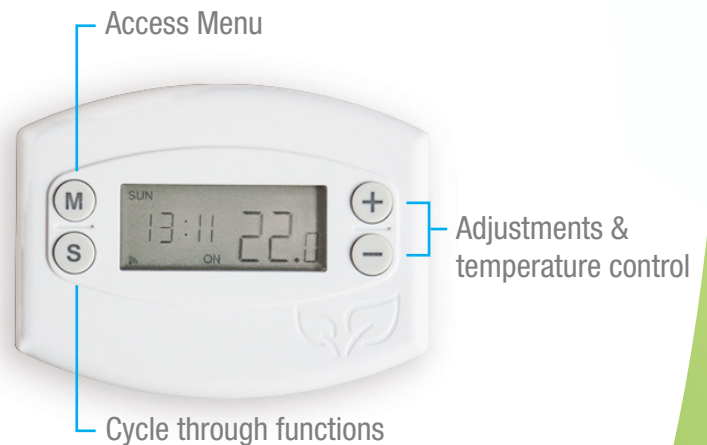
16 Degrees between 23:00 and 00:00

#### On

Your heating will be switched on.

#### Menu

The Menu button is used to set the clock. However, if you have an Internet connection this will be done automatically. If you are outside of the United Kingdom then you can specify your time zone on the 'Setup' page within your online account.



## Functions continued. . .

Press the **(M)** button to enter the menu, pressing **(M)** again will cycle through the following options (If program advance is enabled, you will need to hold down the **(M)** key for 3 seconds to enter the menu.)

To exit the menu press the **(M)** and **(S)** buttons simultaneously.

### Setting the clock

To set the clock manually Press **(M)** then use the **(+)** and **(-)** keys to set the hours then press **(S)** this will take you to the minutes and then the days which are set in a similar way.

### Boost Mode

This is used if you would like to switch your heating on for a set period of time. To use this feature you need to activate it on our website in the 'Setup' section within your account.

Once activated, the boost function is enabled by pressing and holding the **(S)** button for 3 seconds. The 'ON' will flash to show that boost is currently active, and it will switch your heating on for the programmed length of time, at the programmed Boost Temperature (If set.) After this time has expired, the Thermostat will return to the previous state.

### Program advance

This is used if you would like to 'jump' your thermostat to the next profile temperature. To use this feature you need to activate it on our website in the 'Setup' section within your account.

Press the **(M)** key to 'jump' to the next Temperature in your schedule. It will only have an effect if the Thermostat is in profile mode (P1 or P2).

Pressing the **(M)** key a 2nd time will cancel the program advance and the unit will revert back to the set temperature.

## Installing additional Thermostats

If you would like to add additional Thermostats to your account then install the thermostat as described in the installation guide and then go to your account, select 'Setup', scroll down to the additional units section and click 'Add Device'.

You can also name your units within this section.

## Specification

### Room Thermostat

Thermostat Power Supply	2x AA batteries
Output	2 wire Volt-Free Switch
Switch Rating (Max)	240v ac, 5A.
Controllable Temperature Range	10 – 30C
Frost Protection	5C
Radio Frequency	2.4 GHz
Dimensions	119 x 88 x 22 mm

### Gateway

Power input	5V 1A
Internet Connection	Wired Ethernet Cable
Radio Frequency	2.4 GHz
Dimensions	94 x 79 x 24 mm



# Troubleshooting

Problem	Solution
The Room Thermostat display is blank.	<p>Is the unit in power saving mode? (Set via the setup tab on the website)            Pressing a key will bring the display back on for the set period of time.</p> <p>Unit Malfunction. Reset the unit by pressing and holding all four buttons for 5 seconds.</p> <p>Batteries exhausted. Replace the batteries.</p> <p>Battery polarity wrong. Replace batteries noting the correct battery orientation (Both batteries have positive towards the top of the Room Thermostat)</p>
The Thermostat Display occasionally dims.	<p>Incorrect batteries installed. Your Room Thermostat should only be used with Alkaline batteries. Please note that so called "Heavy Duty" batteries are not alkaline batteries. Also, NiMH or NiCad rechargeable batteries are not suitable either.</p>
The room thermostat does not switch the central heating on/off.	<p>Is the thermostat calling for heat? Ensure "ON" is displayed and press the "+" button to make sure that the temperature set point is higher than the current room temperature.</p> <p>Battery very low. If the battery symbol is flashing on the display, the batteries may be too low to function correctly. Replace the batteries.</p> <p>Does the relay click on? Ensure the set temperature is higher than the room temperature, then switch the function to "ON" You should hear an audible click as the Room Thermostat switches on. Did you hear the click? Yes – The thermostat is working correctly.</p> <p>With reference to the installation manual, check the wiring is secure underneath the wiring cover. Also if your boiler has a programmer, ensure that the central heating is switched to "ON" If this does not solve the problem, then the fault may lay in the wiring or the boiler. Contact a heating engineer.</p> <p>No – Possible faulty connection between the Room Thermostat and the Wall Mount. Ensure that screws used are correct, see Installation section. Ensure that the pads on the wall mount are free grease and fingermarks. Replace the Thermostat and try to switch on again.</p>
My room thermostat will not pair, or repeatedly loses connection to the gateway	<p>This is usually caused by interference or distance between the two units. The connection can be improved by trying the following.</p> <p>Both units contain a radio aerial. Ensure that there are no metal objects near the unit.</p> <p>Do not place the unit on the floor.</p> <p>Note that your internet router will also most likely contain a radio transmitter (WiFi) Therefore ensure that your Gateway and internet router are separated. Move the Gateway closer to your Room Thermostat. This can normally be achieved by using Home Plugs or a longer network cable.</p>

## Troubleshooting continued. . .

Problem	Solution
<p>I cannot connect to my Thermostat from my phone / website.</p>	<p>Check the status lights on the gateway box. All three should be green. If the Room Thermostat or the gateway box has only just been switched on, it can take a few minutes after all lights go to green, before the website or mobile app will allow a successful login. If the lights are not all green, then this indicates a problem.</p> <p>All three lights out: No Power. Ensure power adapter is fully inserted into the socket and the socket is switched on. Ensure the dc power plug is fully inserted into the back of the gateway. Does the socket have power? Check by plugging in another device.</p> <p>Power light Amber: This should only happen for a short period at power up. Wait 30 seconds and this light should now be green. If it is not, try resetting the gateway by removing power, wait 30 seconds, then apply power. This should now initialise correctly.</p> <p>Internet Light Amber: Establishing connection with the server. This should shortly change to green. If there is no Room Thermostat connected, the internet light will periodically change to Amber, then back to green.</p> <p>Internet Light out: No connection to the server. This is usually indicative that the gateway does not have a valid internet connection. Check that the network cable is securely connected between the gateway and your internet router. Check that the router/modem is switched on and connected to your phone line / Internet connection point. Can other devices such as your pc connect to the internet using a wired cable? Try using all of the available ports on the rear of the router. (Note BT Homehubs will only work with some ports)</p> <p>Internet Light flashing Amber: This is indicative that your gateway is not registered with our website. This could also be caused if the Room Thermostat was inadvertently put into registration mode. Follow the steps in the section "Registering your Room Thermostat" above to register your system.</p> <p>RF Link light out: No pairing information. Refer to section "Pairing and Connecting" to pair your Room Thermostat with your Gateway.</p> <p>RF Link Light Amber: No connection to the Room Thermostat. Check that the Room Thermostat is powered up, the low battery indicator is not flashing, and that the RF Link on the Thermostat is displayed. Check the "My Thermostat will not pair or repeatedly loses connection" above for information on how to improve this.</p>

## EC Declaration of Conformity

in accordance with EN ISO 17050-1:2004

We Inspire Home Automation Limited  
of 13 Barrow Way, Bournemouth, Dorset, BH8 0HZ

*In accordance with the following Directives:*

2006/95/EC	The Low Voltage Directive
2004/108/EC	The Electromagnetic Compatibility Directive

*Hereby declare that:*

Equipment	Internet Room Thermostat
Model number	NS1001 (All Variants)

*Is in conformity with the applicable requirements of the following documents*

<i>Ref. No.</i>	<i>Title</i>	<i>Edition/date</i>
BS EN 61000-6-1	Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light-industrial environments	2007
BS EN 60730-1	Automatic electrical controls for household and similar use. General requirements	2011

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all applicable Essential Requirements of the Directives.

Signed:



Name:	Gavin Smith
Position:	Technical Director
Location:	Bournemouth
On:	15 October 2012

