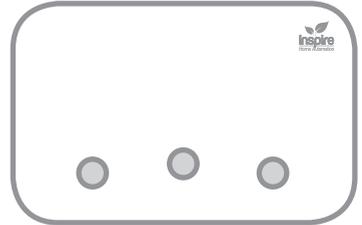




CAUTION: High Voltage Wires

WARNING Electricity is dangerous. Before commencing work, ensure that you read and understand these instructions and isolate the relevant circuit. **This product should only be installed by a qualified electrician or heating engineer** and should be installed in accordance to BS 7671 (IEE Wiring Regulations), or to another equivalent standard.



Introduction

The NS1002 series is a 2 channel programmer for controlling up to 2 zones. Each zone can be configured to be either a timed zone (eg hot water circuit, towel rail circuit) or a central heating zone by adding our Wireless Thermostat to that channel. The unit will replace most existing programmers and will fit over a standard single or double BS4662 back box.

Specifications

Power Supply:	230V~ 50...60Hz, 2.5W (Max)
Switch Type:	2 x SPDT
Switch Rating:	3 Amps Total load on all Channels
Number of programmes:	Up to 10 switch points per day per channel, configurable as every day, 5/2 day or 7 day.

Installation	Tools Required (Not supplied)
	Philips screwdriver
	Flat blade screwdriver
	Long nosed pliers

Isolate the existing supply, then remove the existing Programmer (if fitted). Make a careful note of all wiring locations of the existing programmer before removing any wires. The NS1002 will replace most existing programmers on the market.

Then secure the wall mount onto the single or double gang back box using the two M3 screws provided.

This unit is designed for fixed wiring only. Wire the unit up following the appropriate circuit schematic for your heating system type, ensuring that all wires are securely held and that no bare copper is visible

outside the connector block. For ease of wiring, we recommend 1mm² cable, although 1.5mm² can also be used. All wiring should conform to the current IEEE wiring regulations. When replacing an existing programmer, the wiring conversion table (Table 1) may be of assistance.

All diagrams are in schematic form and earths have been omitted on the drawings for clarity. The NS1002 is a class 2 device and does not require an earth. **Ensure that you do not break earth continuity to the rest of the circuit.** You may need to join the existing earth leads together using a terminal strip. Ensure that the circuit is protected by a 3 amp fuse.

If you have an NS1002 with our Wireless Thermostat

If you are replacing an existing Wired Thermostat with our Wireless Thermostat.

The Wired Thermostat should be removed from the circuit and the Thermostat wiring made safe by disconnecting the wiring and bridging

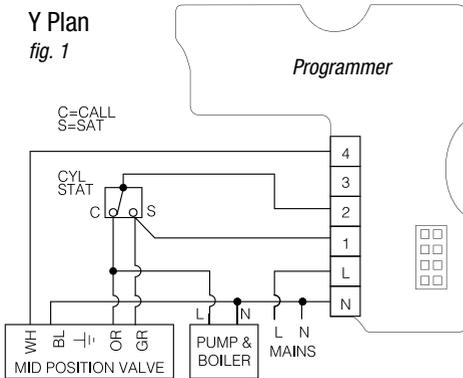
the connections if required. Depending on your existing system, the

wired Thermostat may be wired back to either your programmer, the wiring centre / junction box, a zone valve or the boiler itself.

Wiring Diagrams

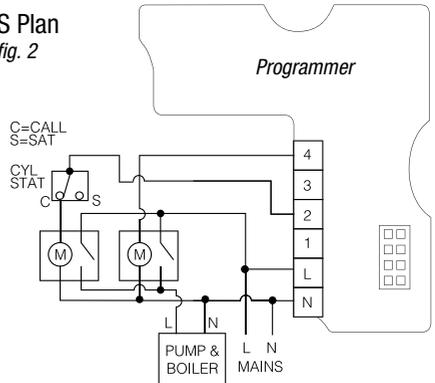
Y Plan

fig. 1



S Plan

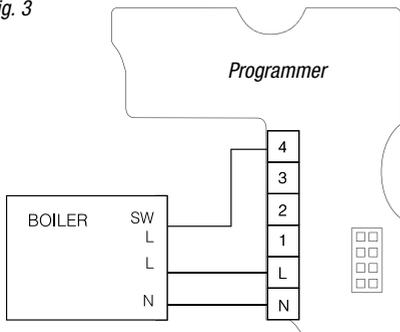
fig. 2



Combi Boiler

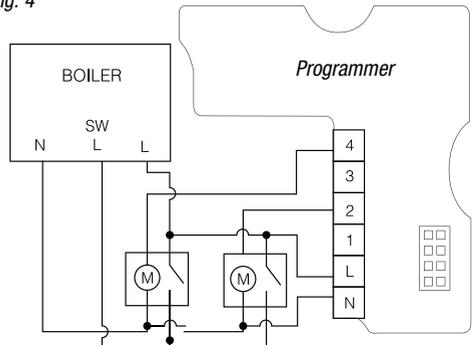
Single Zone

fig. 3



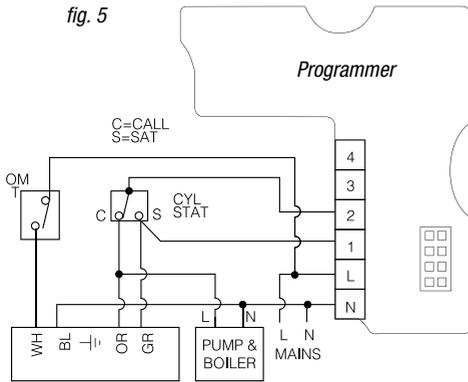
Two Zone

fig. 4



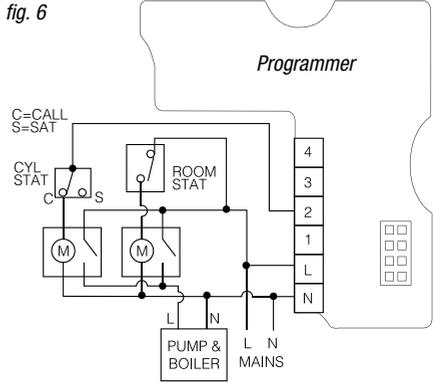
Y Plan

fig. 5



S Plan

fig. 6



Adding a NS1002 to an existing Inspire Home Automation System with a NS1001 Wired Thermostat

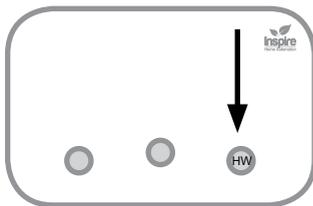
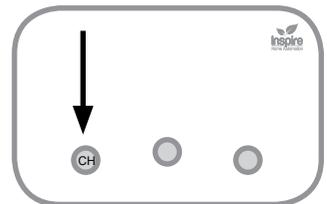
In this case, the Thermostat circuit should bypass the programmer so that the time control is done entirely by the Thermostat. See wiring diagrams fig. 5 and fig. 6.

After the wiring has been completed, Push the control board assembly into place and secure using the 4 screws. Before putting on the front cover, we suggest that you test the unit for correct operation.

Ensure that any supplied Wireless Thermostats have their batteries removed, then switch the power back on to the central heating system. One or more lights should light up on the programmer, depending on the whether Wireless Thermostats are paired and/or connected.

Testing the heat

CH. The light should be red. Press the CH button once, the light should start to flash red and the unit will call for heat on the CH circuit. Check that the boiler has fired up and any zone valves have moved to their appropriate positions. Press the button again to turn the channel off.



Testing the hot water

HW. The light should be out. Press the HW button twice to switch it on. It will light green and the unit will call for heat on the HW circuit. Check that the boiler has fired up and any zone valves have moved to their appropriate positions. Press the button again to turn the channel off.

Once you have ascertained that the unit is functioning correctly, push the front cover over the unit until it clips into place. Finally remove the protective film from the cover.

Setting up the rest of the system.

Plug the Wireless Internet Gateway into a spare port in your router and plug in the supplied power cable. After the unit has powered up, you should have a green Power LED, a flashing Amber Internet LED, and the RF LED should go green when a unit has connected to it.

Select a suitable location for your wireless Thermostat, taking into account the following.

Do not mount the Thermostat in draughty areas, direct sunlight or places subject to high levels of humidity / heat, such as a kitchen or bathroom. The optimum place is 1.5 metres from the ground, on an internal wall and either in a living room or hallway.

Also consider the radio signal and that the Wireless Thermostat must communicate with both the Internet Gateway and the Wireless Receiver. Before mounting the unit, we recommend checking that the unit can communicate correctly.

Preparing your new thermostat

Remove the two securing screws on the bottom edge of the thermostat and lift the thermostat off the wall mount.

Installing the Wall Mount

The wall mount is supplied with fixings suitable for a solid wall. If you are fixing to another type of wall, then different fixings may need to be obtained. If you use different screws, ensure that they are the pan head or round head type and that when the screws are flush, the heads are not protruding above or to the sides of the surrounding surface.

Using the wall mount as a template, mark the location of the two holes on the wall. For reference, the two holes are 75.5 mm apart. Drill suitable holes (6mm diameter for the wall plugs supplied), insert wall plugs and screw the wall mount to the wall.

WARNING be aware of any buried cables before drilling.

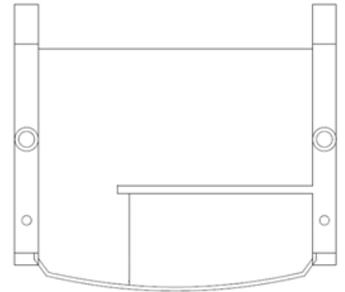
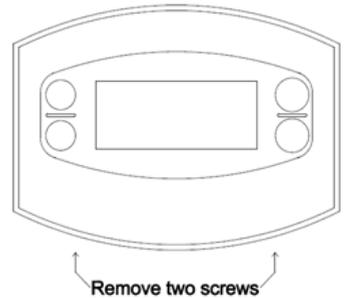
Install two AA Alkaline batteries (Supplied) into the back of the room thermostat, and ensure that the display is illuminated.

It is easiest to start the two securing screws off before placing it on the wall, however do ensure that these screws do not protrude inside the room thermostat.

Carefully locate the room thermostat over the wall mount. The room thermostat should slide over the wall mount with little effort. If it does not, do not force it, but check the following then try again

- Securing screws do not protrude into the thermostat
- Wall mount screws are the correct size

Hold the room thermostat in place and lightly tighten the screws underneath to secure the unit – these screws only need the lightest of pressure and must not be over tightened



Operating

The unit has two distinct modes, depending upon if there is a thermostat paired to the channel.

With a Thermostat paired (CH Channel).

Colour	Status	Button Function
Green	Thermostat connected	No operation
Flashing green	Thermostat connected and calling for heat from the boiler	No operation
Red	Thermostat not connected	Override (defaults to On/Off)
Flashing red	Thermostat not connected, controller calling for heat	Override - Switch channel off.

The override is active in the event that a thermostat has lost connection to the controller. The operation of this can be set within the setup page on the website.

Without a thermostat paired (HW Channel)

Colour	Status	Short button press	Long press
Off	Hot water switched off	Switch to Profile Mode	Boost
Orange	Hot water in profile mode	Switch to On Mode	Boost
Flashing orange	Hot water within an active profile.	Switch to On Mode	Boost
Green	Hot water switched On	Switch to Off Mode	Boost
Flashing green	Hot water within Boost	Switch to previous Mode	No operation

The middle button is used for pairing.

Colour	Status	Button Function
Red	Not paired to Gateway	Enter Pairing Mode
Orange	Not connected to Gateway	Enter Pairing Mode
Green	Connected to Gateway	Enter Pairing Mode

Connecting & Pairing

Your unit should come ready paired to the Gateway and Thermostat.

When all units are connected, you should see:-

Gateway - Green RF light. At least one device is connected to the Internet Gateway.

Thermostat - RF symbol lit in bottom left corner. Connected to Gateway.

Programmer - Green CH light. Thermostat connected to Programmer.

Programmer - Green Centre Light. Programmer connected to Gateway.

If the lights are not as described above, ensure all units are in radio range of each other, and wait 10 minutes if units have just been switched on.

In the unlikely event that you need to pair the units to each other then:

To Pair the Programmer to the Internet Gateway.

Press the pairing button on the back of the gateway, (The RF light will flash amber)

Press the pairing button twice on the programmer.

To Pair the Thermostat to the Internet Gateway.

Press the pairing button on the back of the gateway, (The RF light will flash amber)

Press and hold the M & S keys on the Thermostat for 5 seconds, the RF symbol, bottom left should start to flash.

To Pair the Thermostat to the programmer (Only possible after both Thermostat and programmer are connected to the Internet Gateway)

Press the pairing button on the programmer, this will make all three lights flash. Then press the appropriate button (CH) to pair the central heating channel to a thermostat, this will start the light flashing,

Software Version 4.xx (Units purchased from November 2015) press and hold the 'S' and '-' keys on the Room Thermostat until the RF indicator in the lower left hand corner starts to flash.

Software Version 3.xx press and hold the 'M' and 'S' keys on the Room Thermostat until the RF indicator in the lower left hand corner starts to flash.

Setting up and using your Room Thermostat

This is an online guide and can be found at

<http://www.inspirehomeautomation.co.uk/manuals>



Inspire Home Automation

www.inspirehomeautomation.co.uk

contact@inspirehomeautomation.co.uk

01202 798390

Wiring Conversions

NS1002	Neutral	Live	HW OFF	HW ON	CH OFF	CH ON	Comments
	N	L	1	2	3	4	
DANFOSS RANDALL FP975	N	L	3	1	6	4	Only if Terminals L,2,5 are Linked
DANFOSS RANDALL FP715Si	N	L	1	3	2	4	
DANFOSS RANDALL 4033	7	6	5	4	3	2	
HORSTMANN 425 DIADEM, TIAGRA	N	L	3	1	6	4	Only if Terminals L,2,5 are Linked
HORSTMANN 425 CORONET	N	L			6	4	Only if Terminals L,2,5 are Linked
HORSTMANN CHANNELPLUS XL SERIES 2	N	L	3	1	6	4	Only if Terminals L,2,5 are Linked
HONEYWELL ST669	N	L	7	6	4	3	
HONEYWELL ST6300, ST6400	N	L	1	3	2	4	
HONEYWELL ST900A, ST900C	N	L	1	3	2	4	
INVENSYS LIFESTYLE LP241, LP522, LP722	N	L	1	3	2	4	
POTTERTON EP2000, EP3000	N	L	1	3	2	4	
RANDALL 702	N	L	4	3	2	1	
SALUS EP200	N	L	1	3	2	4	
SMITHS IND. CENTROLLER 1000	N	L	1	3	2	4	
SWITCHMASTER 800, 805, 900, 9000, 9001	N	L	4	3	2	1	

Table 1



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**Our hot water controller is a perfect partner for
our wireless Thermostats.**

Find out more online!