



Ignite Wireless Installation Guide *Rev 1.4*



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 (IEEE Wiring Regulations), or to another equivalent standard.

What's in the box

- 1 x Assembled Room Thermostat consisting of
 - 1 x Room Thermostat
 - 1 x Battery Cover
 - 1 x Wall Mount
 - 1 x Wall Blanking Plate
- 1 x Assembled Relay Module consisting of
 - 1 x Control Board
 - 1 x Wall Mount
 - 1 X Front Cover
- 1 x Screw Pack
- 2 x Batteries

Introduction

The Ignite Wireless series is designed to control a typical domestic central heating system. The Relay module can switch two independent channels. This would usually be the Central Heating and the Hot Water (if applicable).

The central heating channel is switched on and off in response to commands from the supplied Wireless Thermostat.

The Hot Water channel (if applicable) is switched on and off at the programmed time intervals that the user sets. (When in Auto Mode)

****Please note, the wiring has changed from previous versions****

Specifications

Relay Module

Power Supply: 230V~ 50...60Hz, 2.5W (Max)

Switch Type: 1 x SPDT (HW), 1 x SPST (CH)

Switch Rating: 3 Amps Total load on all Channels

Radio Frequency: 2.4 GHz WiFi & 868 MHz

Dimensions: 160 x 100 x 18 mm (35mm including recessed wallmount)

Thermostat

Power Supply: 2 x AA Alkaline Batteries

Controllable Temperature Range: 10 – 30°C

Frost Protection: Programmable from 0.5 - 30°C

Radio Frequency: 868 MHz

Dimensions: 103 x 103 x 45 mm (max)

Radio Signal

Consideration for location of your new system components and the affects that this may have on the radio signal is extremely important. The signal will travel between units in a straight line and will degrade both with distance and (much more importantly) objects that it has to pass through.

The Relay Module uses WiFi, so you need a WiFi signal where the Relay Module is located.

You can use your phone to get a good indication of signal strength, hold this against the wall where the Relay Module is located.

If you cannot get a good signal, consider using a Wifi Range extender to help boost the signal around the property.

The Thermostat needs to connect to the Relay Module via its internal low power radio.

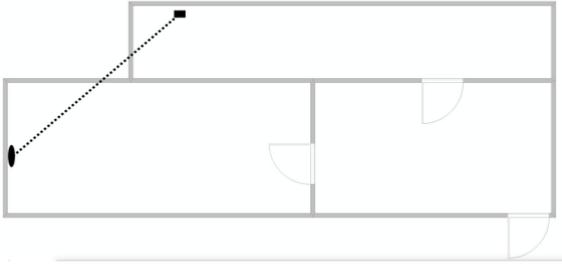
Every house is different and this is NOT a gaurantee, but as a guide, the units should be able to communicate with each other through two single skin brick or stud walls.

If the above is not possible then consider moving one or more of the system components.

Also, the radio can be adversely affected by large metal objects such as your boiler, hot water cylinder, radiators and mirrors. For best performance, ensure that your units are placed at least 1 metre away from such objects.

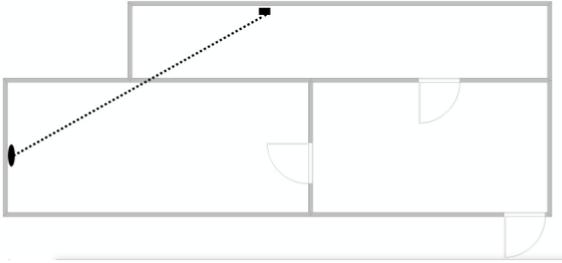
Bad Positioning

The below image shows the path that the signal will travel to communicate between the Relay Module and Thermostat. This is an example of badly positioned items for the following reasons.



The signal travels between 2 external walls.

Good Positioning



Simply by moving the Thermostat slightly to the right we have greatly improved the signal. The signal will now only travel through one internal wall

Installation - Relay Module

Tools Required (Not supplied)

Philips screwdriver

Flat blade screwdriver

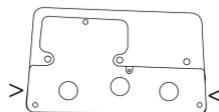
Long nosed pliers

BS4662 back box

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 Relay Module will replace most existing programmers on the market.

Remove the front cover from the Relay Module, this should easily lift off the unit. If the unit has been 'clicked' in place, then grip the recessed part of the rear and pull the chrome part of the front cover off.

Pull out the control panel from the wall mount by placing two fingers on either side whilst holding the wall mount and pulling apart.



Then secure the wall mount onto the single or double gang back box using the two M3 screws provided. If you are not using an existing back box then you will either need to sink a backbox into the wall, or use an external back box. You can find these in all good hardware stores.

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, on the back cover, may be of assistance.

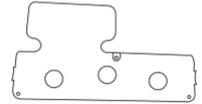
All diagrams are in schematic form and earths have been omitted on the drawings for clarity. The Relay Module is a class 2 device and does not require an earth. Ensure that you do not break earth continuity to the rest of the circuit. You may need to join the existing earth leads together using a terminal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

If you 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.

For guidance please refer to the wiring diagrams below, and/or the Wiring Conversions on pages 10 and 11.

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.



Wiring Diagrams

Combi Boilers

If the combi boiler is new / did not have a Thermostat previously, there will most likely be a wire link that needs to be removed before wiring in the Relay Module.

Single Zone

Fig 3 (Volt Free)

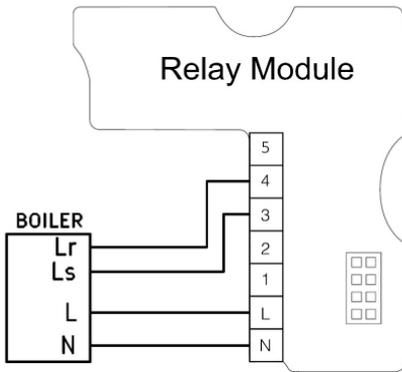
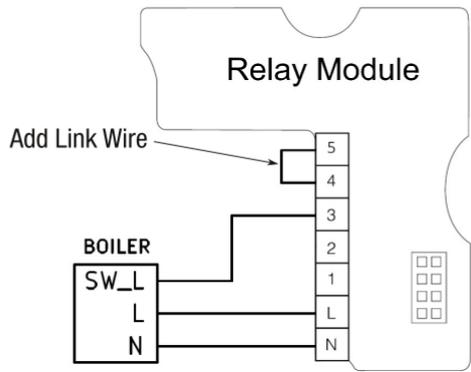


Fig 4 (230v)



Two Zone

Fig 5 (Volt Free)

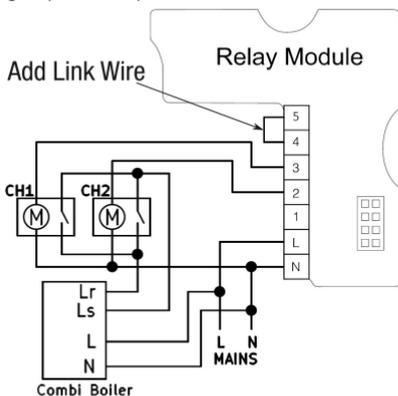
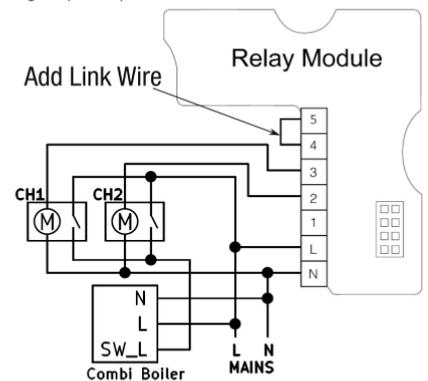


Fig 6 (230v)

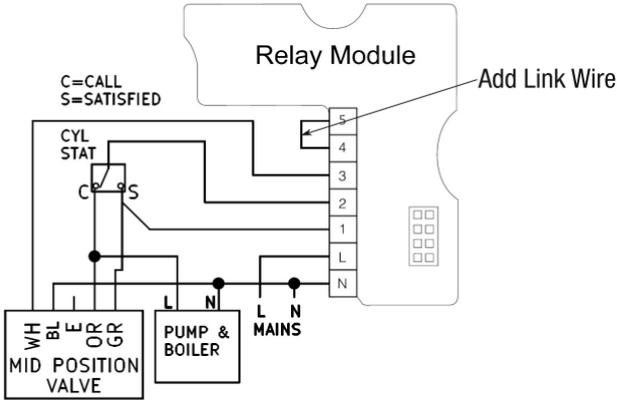


Wiring Diagrams (Continued)

System/Conventional Boilers

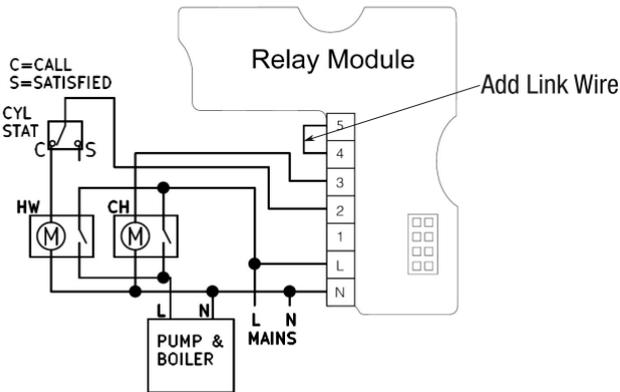
Y Plan

Fig 7



S Plan

Fig 8



Installation - Thermostat

Preparing your new Thermostat

There is a back panel that can be used to fully cover single gang back boxes. If this is not required, it can be removed from the wallmount by twisting it anti-clockwise. (Fig 9)

Pull the thermostat away from the wall mount. (Fig 10)

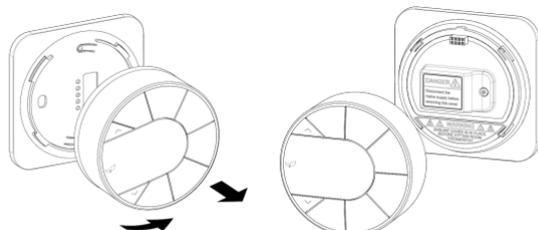


Fig 9

Fig 10

Installing the Wall Mount

If you have a single gang back box, secure the wall mount to this using the two M3 screws provided.

If you do not have an existing back box then, using the wall mount as a template, mark the location of the two holes on the wall. For reference, the two holes are 60.3 mm apart. Drill suitable holes (5mm diameter for the supplied wall plugs) and fix the wall mount to the wall using appropriate wall plugs and screws. **WARNING** be aware of any buried cables before drilling.

Install the Batteries in the Thermostat, then place the Thermostat over the wall mount, this will click into place. (Fig 11)

If you purchased our secure version, then secure the Thermostat to the wall mount using the three small pozi screws provided.

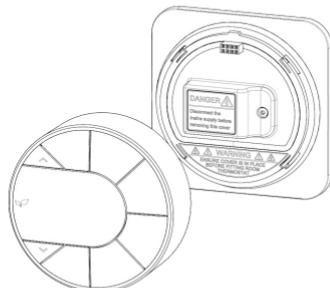


Fig 11

Testing the system

Testing the Hot Water (if applicable)

On the Thermostat - Press the 'HW MODE' key until the HW Selector hovers over Man.
Or on the Relay Module - The HW 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 same button again to turn the channel off.

Testing the Central Heating

Press the 'CH MODE' key until the CH Selector hovers over Man.
Press the '^' key until the temperature is above the room temperature.

You should see a flame icon appear and the CH light on the Relay module should start to flash Green. Check that the boiler has fired up and any zone valves have moved to their appropriate positions.

Press the 'CH MODE' key again. The flame icon will go out, the CH Light on the Relay Module should turn Green and boiler should no longer be on (please allow a few minutes for the boiler to switch off).

Once you have ascertained that the unit is functioning correctly, push the front cover over the Relay Module until it clips into place.

Please leave this installation manual with the user.

Are you an installer who is interested in fitting more of our Smart Thermostats?

Register for a trade account today and benefit from exclusive trade pricing, 30 days interest free credit and a free listing on our installer directory.

Find out more at <https://www.inspirehomeautomation.co.uk/trade>

Pairing

Your units were all pre paired before they left the factory. If they do not connect up correctly, and you have waited for at least 10 minutes, the most likely reason is radio range, see the section on 'Radio Signal' above.

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

To Pair the Thermostat to the Relay Module

- Press the pairing button(Middle) on the Relay Module, this will make all three lights flash green. Then press the appropriate button (CH) to pair the central heating channel to a thermostat, this will start the light flashing.
- Press and hold the 'CH MODE' and 'ADV HW' keys on the Room Thermostat until the C1 is displayed.

Once paired the flashing light on the relay module will turn green and the signal indicator will show a connection strength.

Wiring Conversions

For Single Channel systems, eg combi or heat only systems

Ignite	Neutral	Live	Not Used		CH			Comments
	N	L	1	2	3	4	5	
DANFOSS RANDALL FP975	N	L			4	5		
DANFOSS RANDALL FP975	N	L			4	Link	Link	If 5 is Linked to L
DANFOSS RANDALL FP715Si	N	L			4	Link	Link	
DANFOSS RANDALL 4033	7	6			2	Link	Link	
HORSTMANN 425 DIADEM, TIARA. CORONET, CHANNELPLUS XL SERIES 2	N	L			4	5		
HORSTMANN 425 DIADEM, TIARA. CORONET, CHANNELPLUS XL SERIES 2	N	L			4	Link	Link	If 5 is Linked to L
HIVE (Single Channel)	N	L			3	1		
HIVE (Single Channel)	N	L			3	Link	Link	if 1 is Linked to L
HIVE (Dual Channel)	N	L			4	Link	Link	
HONEYWELL ST669	N	L			3	5		
HONEYWELL ST669	N	L			3	Link	Link	if 5 is Linked to L
HONEYWELL ST6300, ST6400, ST900A, C, ST9400A, C, S	N	L			4	Link	Link	
HONEYWELL ST9100A, C	N	L			4	1		
HONEYWELL ST9100	N	L			4	Link	Link	If 1 is linked to L
INVENSYS LIFESTYLE LP241, LP522, LP722	N	L			4	Link	Link	
POTTERTON EP2000, EP3000	N	L			4	Link	Link	
RANDALL 702	N	L			1	Link	Link	
SALUS EP200	N	L			4	Link	Link	
SMITHS IND CENTROLLER 1000	N	L			4	Link	Link	
SWITCHMASTER 800, 805,900, 9000, 9001	N	L			1	Link	Link	

Table 1

Please note: Where link is specified above, a link wire must be inserted to join together terminals 4 and 5. If this is not in place, then the heating will not work!

Wiring Conversions

For Heating and Hot Water e.g. Separate Hot Water Tank

Ignite	Neutral	Live	HW		CH		
			Off	On	On		
	N	L	1	2	3	4	5
DANFOSS RANDALL FP975	N	L	3	1	4	Link	Link
DANFOSS RANDALL FP715Si	N	L	1	3	4	Link	Link
DANFOSS RANDALL 4033	7	6	5	4	2	Link	Link
HORSTMANN 425 DIADEM, TIARA, CHANNELPLUS XL SERIES 2	N	L	3	1	4	Link	Link
HIVE (Dual Channel)	N	L	1	3	4	Link	Link
HONEYWELL ST669	N	L	7	6	3	Link	Link
HONEYWELL ST6300, ST6400, ST900A, C, ST9400A, C, S	N	L	1	3	4	Link	Link
INVENSYST LIFESTYLE LP241, LP522, LP722	N	L	1	3	4	Link	Link
POTTERTON EP2000, EP3000	N	L	1	3	4	Link	Link
RANDALL 702	N	L	4	3	1	Link	Link
SALUS EP200	N	L	1	3	4	Link	Link
SMITHS IND. CENTROLLER 1000	N	L	1	3	4	Link	Link
SWITCHMASTER 800, 805, 900, 9000, 9001	N	L	1	3	1	Link	Link

Table 2

Please note: When using hot water systems, a link wire must be inserted to join together terminals 4 and 5. If this is not in place, then the heating will not work!