Ignite **LITE**

Ignite Lite - 2ch
Ignite Lite - 4ch (All Variants)

www.inspirehomeautomation.co.uk

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.

WHAT'S IN THE BOX

Ignite Smart
Sensor*
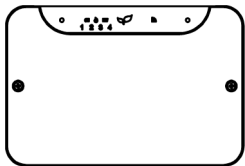
1 x Ignite Wireless
Receiver
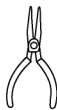
Screw Pack*

AAA
Batteries*

TOOLS REQUIRED

Drill + 5mm
Drill Bit

Phillips
Screwdriver

Flat Blade
Screwdriver

Long
Nose Pliers

Boiler
Manual

Multimeter

Smart
Device

Wire
Cutters

*If Applicable, and quantity will vary depending upon variant.

INTRODUCTION

The Ignite Lite - 2ch series is designed to control a typical domestic central heating system. The system can switch two independent channels, Central Heating and Hot Water (if applicable).

The Ignite Lite - 4ch series is designed to control a zoned domestic central heating system. The system can switch up to four independent channels. This would usually be a combination of Central Heating, Hot Water and/or Towel Rails.

If you do not have a typical gas / oil fired central heating system, please see **www.inspirehomeautomation.co.uk/other_heating** for further information. The central heating channel(s) are switched on and off in response to commands from the supplied Smart Sensor.

The hot water channel(s) (if applicable) are switched on and off at the programmed time intervals that the user sets. (When in Auto Mode)
Once installed, each heating zone can be boosted from the Smart Sensor. Central heating and hot water can also be switched on and off remotely using a computer or Smart Phone.

SPECIFICATION

Ignite Wireless Receiver
Power Supply: 230V~ 50Hz, 3W (Max)
Switch Type (2ch Series): 1 x SPDT (HW), 1 x SPST (CH)
Switch Type (4ch Series): 4 x SPST
Switch Rating: 3 Amps Total load on all Channels
Radio Frequency: 2.4 GHz (WiFi) & 868 MHz (Smart Sensor to Receiver)
Dimensions: 156 x 105 x 29 mm
Ignite Smart Sensor
Power Supply: 2 x AAA Alkaline Batteries
Temperature Range: 0 – 40°C
Humidity Range: 0 – 100% Rh
Motion Sensing Range: 50°@ 5 Metres - Horizontal, 40°@ 5 Metres - Vertical
Frost Protection: 5°C
Radio Frequency: 868 MHz (Smart Sensor to Receiver)
Dimensions: 68 x 68 x 23 mm

RADIO SIGNAL AND LOCATION

Consideration for location of your Smart Sensor and Receiver, 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.

If you have a large number of **WiFi** devices in the property or you cannot get a good WiFi signal at your Receiver location (you can use your phone to get a good indication of WiFi signal strength), then we would strongly recommend that you upgrade your WiFi Network. Please see **www.inspirehomeautomation.co.uk/wifi** for further help and advice.

Unlike the Receiver, that connects via WiFi, the Smart Sensor connects to the Receiver via its internal low power radio. (RF).

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

If the above is not possible, consider adding an Ignite Signal Booster to increase the range. (please see **www.inspirehomeautomation.co.uk/signal_booster**)

Fig 1, shows three possible Sensor locations, and the path that the signal will travel to communicate between the Receiver and the Sensor. If the Sensor is located at "A", the signal will need to go through two external walls.

The Sensor located at "B" will have the signal travelling entirely through a solid wall. This will create a very poor signal, or no signal at all.
If the Sensor is located at "C", it will have a significantly better signal as it will only have to travel through one internal wall.
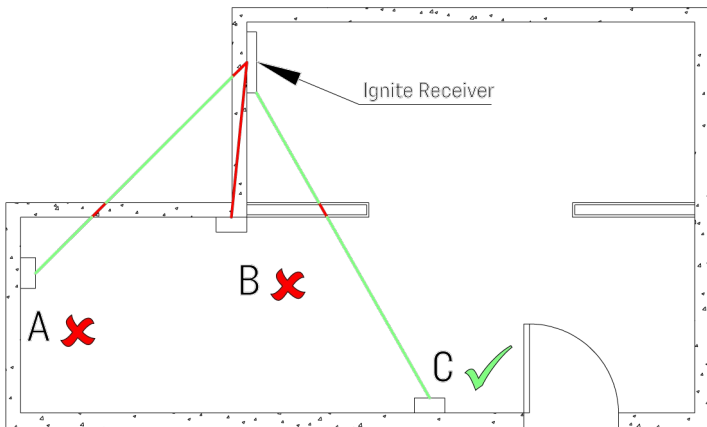
Fig 1
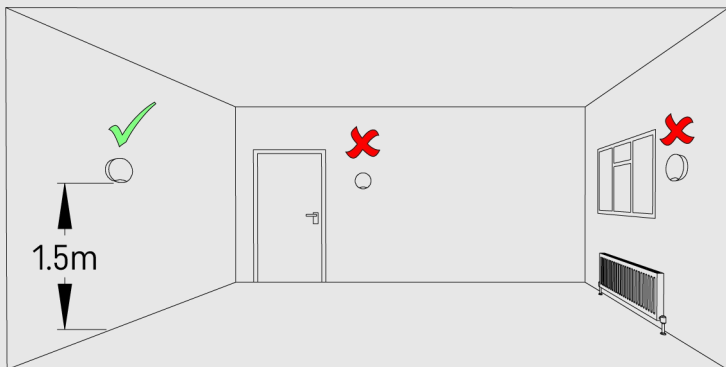
As shown in **Fig 2**, ideally the Smart Sensor should be mounted on an **internal wall** at a height of 1.5m and in a high traffic area. Avoid locating near draughts such as the front door or windows. Do not position above heat sources and avoid direct sunlight.

The Smart Sensor **must not** be installed in areas of high humidity, such as bathrooms or shower rooms. When creating steam in these room, temperature readings can become erratic, and condensation can form within the unit causing irreparable damage and significantly shortening its lifespan. Additionally, if condensation forms on the batteries this can cause rust and short circuits.

The rooms where the Smart Sensors are located must have a working radiator and the Thermostatic Radiator Valve (TRV) **must be removed** if present.

Most TRV's can be removed by turning it up to the maximum setting, gently pushing down from the top and undoing the metal collar. Once undone, it will lift off the radiator.
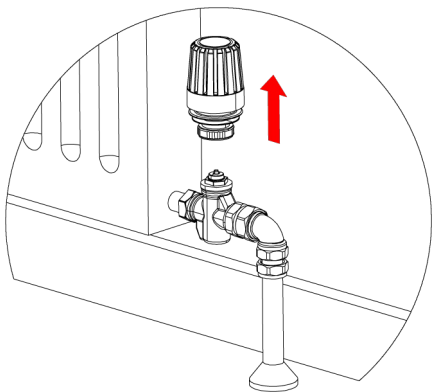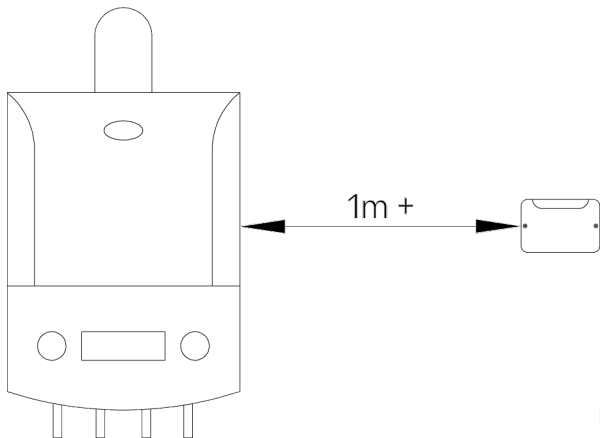
Fig 3

1m +

Fig 4

We recommend placing the Receiver at least 1 metre away from metal objects such as boilers, hot water cylinders etc (**Fig 4**). To avoid potential water damage, **do not** install underneath the boiler.

The Receiver **must not** be installed in areas of high humidity, such as bathrooms or shower rooms. When creating steam in these rooms condensation can form within the unit causing irreparable damage and significantly shortening its lifespan.

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INSTALLATION

Before commencing work, isolate the existing power supply.
To remove the front cover, undo the two screws on the Receiver, then lift off.

This unit is designed for fixed wiring only. If running surface mount cable, use cutters to break out the tab underneath and secure cable(s) with the supplied cable clamp. Surface mount cable should be clipped to the wall or run in suitable trunking, 1mm^2 cable is recommended and no bare copper should be visible outside the connector block. All wiring must conform to the current IEEE wiring regulations.
The Ignite Receiver is a class 2 device and does not require an earth. You may need to join existing earth leads together using a terminal strip to maintain earth continuity to the rest of the circuit. Ensure that the circuit is protected by a 3 amp fuse.

INSTALLATION - 2CH SERIES
## COMBI BOILER WITHOUT ROOM THERMOSTAT OR TIMER

(No hot water cylinder, Boiler switches on when hot tap is opened)
Install the Ignite Receiver as described in **Installation - Receiver** on page 13.

We recommend that any internal timers are disconnected if possible.
Please consult your boiler installation manual for guidance on how to wire in external controls. Usually, there will be a wire link to remove on the boiler terminal block, then these two terminals are wired to terminals 3 & 4 on the Inspire Terminal board as shown in **Fig 5**.
Connect the Receiver Live(L) and Neutral(N) to the same fused spur as the boiler.

REMOVE WIRE LINK

Lr
Ls

L
N

FROM ISOLATOR

OT1 - NOT USED
OT2 - NOT USED
5
4
3
2
1
L
N
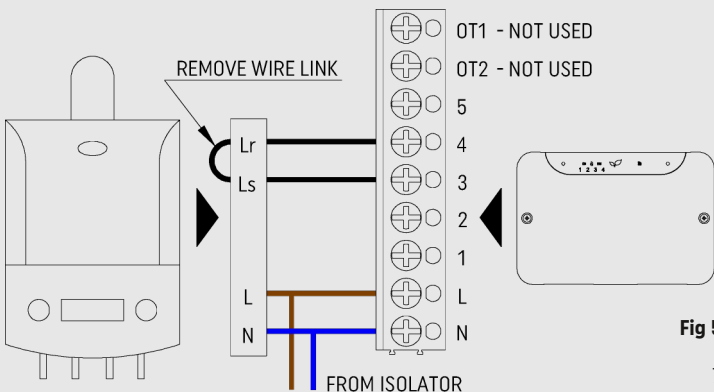
Fig 5

The majority of combi boilers can be wired using the 4 wire installation method. If your boiler manual suggests a 3 wire install, then refer to **Fig 6**, remembering to remove the link wire in the boiler (if required) and add a link wire between terminals 4 & 5 on the Receiver.

After the wiring has been completed, replace the front cover and secure using the two screws - **DO NOT OVERTIGHTEN**. Restore power to the circuit.

ADD WIRE LINK

OT1 - NOT USED
OT2 - NOT USED
5
4
3
2
1
L
N

SW
L

L
N

FROM ISOLATOR
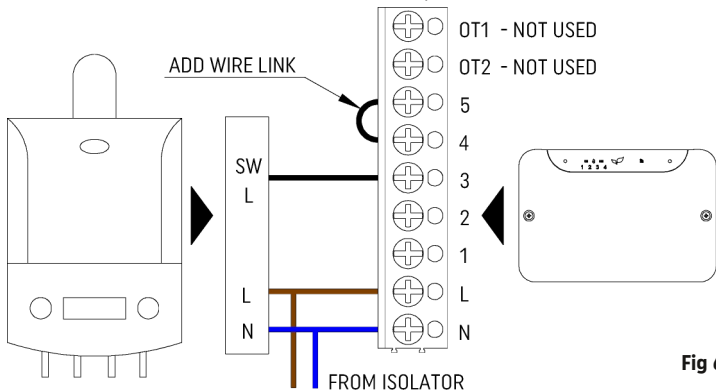
Fig 6

COMBI BOILER WITH EXISTING ROOM THERMOSTAT

Wired Thermostat
Remove the existing Thermostat wiring from the boiler, then follow the steps on page 7 for **"Combi Boiler without Room Thermostat or Timer"**.

Wireless Thermostat with built in receiver
Wireless Thermostats with a receiver built into the front panel of the boiler, (e.g. Drayton LP10RF) this MUST be removed from the boiler. Then follow the steps on page 7 for **"Combi Boiler without Room Thermostat or Timer"**.

Wireless Thermostat with external receiver
Make a careful note of the locations of the existing wiring at the receiver, then remove the old receiver.
Install the Ignite Receiver as described in **Installation - Receiver** on page 13.
Install the previously identified wires into the appropriate terminals on the Ignite Receiver. If 4 wires are present, see **Fig 5**. If only 3 wires, then see **Fig 6**, remembering to add the link wire between terminals 4 & 5.

After the wiring has been completed, replace the front cover and secure using the two screws - **DO NOT OVERTIGHTEN**. Restore power to the circuit.

SYSTEM BOILER WITH EXISTING CONTROLS

System Boiler with existing 2 channel programmer and optional Thermostat

Before commencing, take clear photos of the existing programmer wiring

S Plan (2 x 2 port zone valves, usually near hot water cylinder)
Usually 4 Wires to existing programmer, Live, Neutral, CH ON, HW ON. (CH OFF and HW OFF not used)

Y plan (1 x 3 port zone valve, usually near the hot water cylinder)
Usually 5 wires to existing programmer, Live, Neutral, CH ON, HW ON, HW OFF. (CH OFF not used)

Existing programmers will usually have 6 or 8 terminals (Plus possibly an earth terminal)
There should also be a wiring schematic on the existing programmer (see Fig 7). Using this schematic, identify and label each wire according to its function, e.g. Live, Neutral, CH ON/OFF, HW ON/OFF etc. If the programmer has 8 terminals, with 'C', 'Com' or 'Common' AND these terminals are linked to Live, then ignore the links and identify the remaining wires. If the existing programmer uses the notation NO (Normally Open) & NC (Normally Closed), NO = ON and NC = OFF
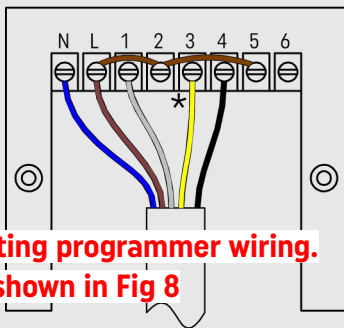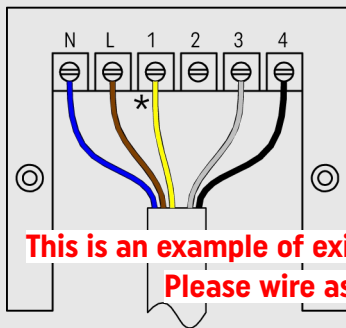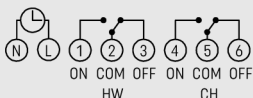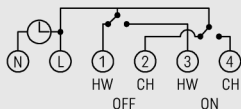
This is an example of existing programmer wiring. Please wire as shown in Fig 8

Colours shown are for indication only, and may vary in your installation.
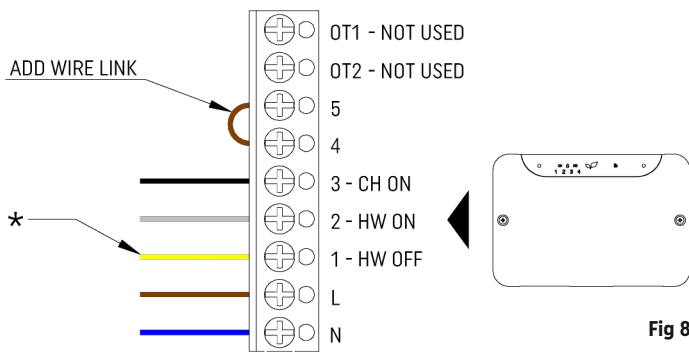* Note, if you have an S-Plan system, this cable will not be present

Fig 7

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Once each wire is identified, remove the existing wires from the old programmer and install the Inspire Ignite Receiver as described in **Installation - Receiver** on page 13.

Install the previously identified wires into the appropriate terminals (see **Fig 8**). As an example, the black wire in terminal 4 of the old programmer is identified as "CH ON" from the existing programmer schematic. This would go into terminal 3 "CH ON" on the new Ignite Receiver.

Finally, add a link wire between terminals 4 & 5 on the Receiver.

After the wiring has been completed, replace the front cover and secure using the two screws - **DO NOT OVERTIGHTEN**. Restore power to the circuit.

ADD WIRE LINK

OT1 - NOT USED
OT2 - NOT USED
5
4
3 - CH ON
2 - HW ON
1 - HW OFF
L
N

*

Fig 8

* Note, if you have an S-Plan system, this cable will not be present

Important
If the existing installation has a wired Room Thermostat, the wiring for this **MUST BE REMOVED** at the wiring centre and the thermostat terminals Live and Switched Live/Call linked.

INSTALLATION - 4CH SERIES

The Ignite receiver can control up to four zones. These can be either hot water cylinders(s) or heating zones. Heating zones are controlled by the supplied Smart Sensor(s). Each Sensor will be paired to a zone, starting from zone 1 . e.g. if you have purchased two Smart Sensors, they will be paired to zones 1 & 2. Three Smart Sensors would be paired to zones 1 ,2 & 3 etc. Any remaining zones without Smart Sensors will default to timed (Hot Water) zones.

SYSTEM/COMBI BOILER WITH EXISTING CONTROLS

Before commencing, take clear photos of the existing programmer wiring

A multi zone setup will usually be wired as an "S Plan Plus" (One 2 port zone valve per zone, usually near the hot water cylinder or boiler)
There will be 2 wires for power and 1 additional wire per zone to the existing programmer. e.g. Live, Neutral, CH1 , CH2, CH3, HW.

Existing programmers will usually have 6 or 8 terminals (plus possibly an earth terminal)

There should also be a wiring schematic on the existing programmer - see **Fig 9**

Using this schematic, identify and label each wire according to its function, e.g. Live, Neutral, CH1, CH2, HW etc. If the programmer has 8 terminals, with 'C', 'Com' or 'Common' AND these terminals are linked to Live, then ignore the links and identify the remaining wires.

Once each wire is identified, remove the existing wires from the old programmer and install the Inspire Ignite Receiver as described in Installation - Receiver on page 13.

**This is an example of existing programmer wiring.
Please wire as shown in Fig 10**
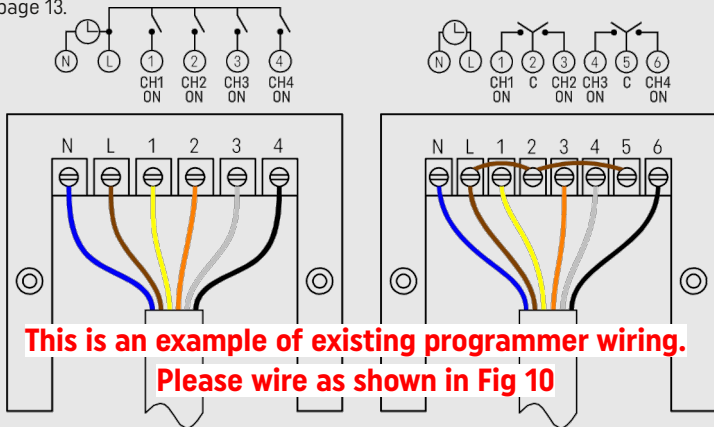
Fig 9

Colours shown are for indication only, and may vary in your installation.

Install the previously identified wires into the appropriate terminals (see Fig 11).

For example, the Yellow wire in terminal 1 of the old programmer is identified as "CH1 ON" from the existing programmer schematic. This would go into terminal 1 "CH1" on the new Ignite Receiver.

NOTE that the "HW indicator LED" refers to Zone 4, therefore we strongly recommend that the Hot Water Zone is wired to terminal "CH4/HW.

For example. If you have an existing 3 zone timer, and zones 1 and 2 are heating zones and hot water is on zone 3. You would transfer zones 1 & 2 to CH1 and CH2, but zone 3 (The hot water zone) would be moved to CH4/HW in the inspire system. CH3 in this case would not be used.

After the wiring has been completed, replace the front cover and secure using the two screws - DO NOT OVERTIGHTEN. Restore power to the circuit.
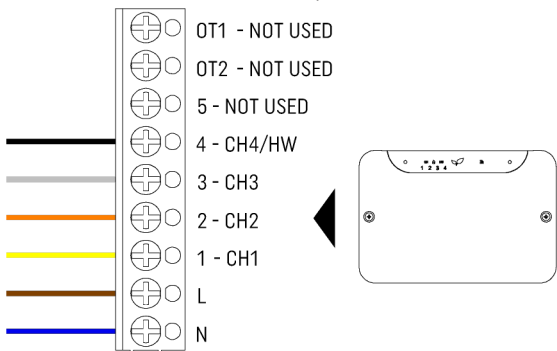

OT1 - NOT USED
OT2 - NOT USED
5 - NOT USED
4 - CH4/HW
3 - CH3
2 - CH2
1 - CH1
L
N

Fig 10

Important
If the existing installation has a wired Room Thermostat(s), the wiring for this **MUST BE REMOVED** at the wiring centre and the thermostat terminals Live and Switched Live/Call linked.

NEW HEATING SYSTEM WITHOUT EXISTING CONTROLS

If this is a new heating system and you do not have any existing controls, we would recommend this is wired as an "S or Y Plan" (2ch series) or "S Plan Plus" (4ch series).
See **www.inspirehomeautomation.co.uk/newboiler** for more information.

INSTALLATION - RECEIVER

If you have a single gang back box, secure the receiver to this using two of the M3.5 screws provided.

If you do not have an existing back box, use the receiver as a template and 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 receiver to the wall using appropriate wall plugs and screws. **WARNING be aware of any buried cables before drilling.**

INSTALLATION - SMART SENSOR

Preparing your new Smart Sensor

1) Whilst holding the back plate, rotate the outer cover anticlockwise and remove in direction shown in **Fig 11**.

2) Fit supplied batteries

3) Secure outer cover by following Step 1 in reverse

4) Test the signal strength (see page 14)

5) Remove outer cover by repeating step 1

6) Remove batteries, hold the device in the desired position and mark screw mounting positions.

Fig 11

7) Drill holes and locate supplied wall plugs (see **Fig 12**)

8) Mount the device using supplied screws

9) Fit batteries

10) Secure outer cover by following step 1 in reverse.

Fig 12

11) Ensure the sensor can fire the boiler by boosting the heating.
  • Press the up arrow **twice**, the boiler should switch
  • Press the down arrow **twice**, the boiler should switch off.
Note: This assume that the heating is unregistered. If it has already been registered, ensure the heating is set to Off within the App.
The boost is **defaulted to 24 degrees**. If the room is warmer than this, then you will need to adjust the boost temperature within the App.
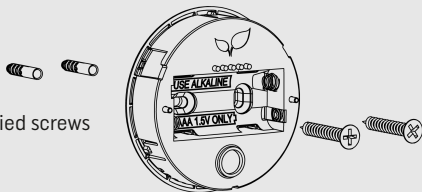
TESTING THE SYSTEM

Signal
Hold the Smart Sensor in your desired location. Press and hold '∧' arrow button for 5 seconds. The Smart Sensor will enter signal strength testing mode.

A sweeping LED will be displayed whilst the signal detection is in progress.

If a signal is detected, the strength will be measured from 1 - 5 by lighting LEDs accordingly. To work effectively, the signal should be a minimum of two LEDs.

Central Heating and/or Hot Water outputs
Press and hold both keys on the receiver for 5 seconds. '1' and the 'WiFi' light will slowly flash. Cycle the left key until '1,2,3 and 4' all flash at the same time, then press the right key.
The unit is now in test mode and either 'CH' (2ch series) or '1' (4ch series) will flash.
Use the left key to switch between zones (CH / HW or 1 – 4).
Use the right key to switch the zone On and Off (The flame will light when the zone is on).
You can exit this mode by pressing and holding both keys. Test mode will automatically exit after 10 minutes with no key presses.
If the boiler does not fire up when testing a hot water zone, you may already have a full tank of hot water. In which case, temporarily increase the cylinder stat to max for this test.

If one of the above tests fail, then please see Troubleshooting on page 16.
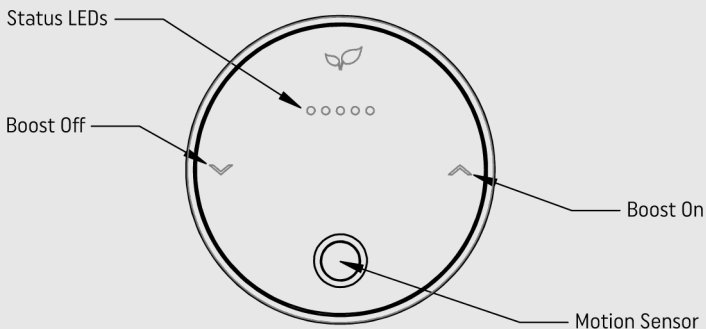
CONNECTING THE SYSTEM

Search "Inspire Home Automation" in the **app store**, install our app, then follow the instructions. If this is an additional system, Tap the menu icon, then select Tools -> Register Thermostat from within the app. Or scan the QR code at the front of the manual for further assistance.
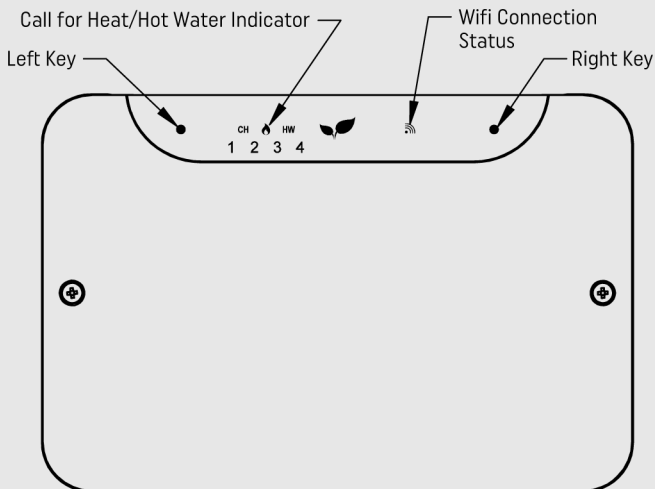
Download on the
 App Store

GET IT ON
Google Play

Important
You will need to be in the same location as the inspire system to complete the initial setup.

IGNITE SMART SENSOR

Status LEDs

Boost Off

Boost On

Motion Sensor

Note: Press button twice to Boost Heating On or Off.

IGNITE RECEIVER

Call for Heat/Hot Water Indicator

Wifi Connection Status

Left Key

Right Key

CH 🔥 HW
1 2 3 4

ALSO AVAILABLE
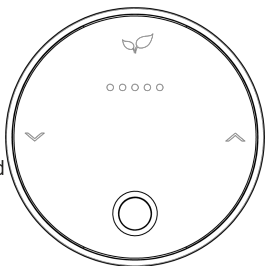
Additional Smart Sensors
Concerned about high humidity causing mould?
Are some rooms colder than others?
Require additional motion detectors?
If the answer is YES to any of these, find out how
additional Smart Sensors can keep you informed and
get you back in control. Visit
www.inspirehomeautomation.co.uk/smart_sensor

Ignite Signal Booster
Is your signal strength poor on your
Smart Sensor?
Do you have an old Victorian property
with thick walls?
Do you want to position your Smart
Sensor further away from the Receiver?

Fix poor radio signals with our Ignite
Signal Booster. Find out more by visiting
www.inspirehomeautomation.co.uk/signal_booster

VIDEO TUTORIALS
Please go to **www.inspirehomeautomation.co.uk/videos** to get started on using
your new Inspire system.

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www.inspirehomeautomation.co.uk/apps or search for "Inspire Home
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TROUBLESHOOTING
Please visit our website for further help and assistance:
www.inspirehomeautomation.co.uk/help

Please check out our **FAULT FINDING GUIDE** and **FAQ** for assistance, there will also
be information here on how to contact us.

PLEASE LEAVE THIS MANUAL WITH THE USER.