

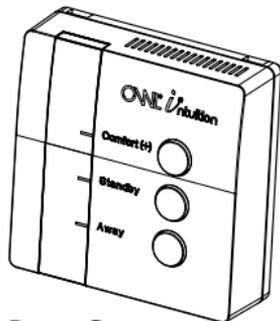
# ONNL<sup>®</sup> *i*ntuition

## Room Sensor [RBT-3C]

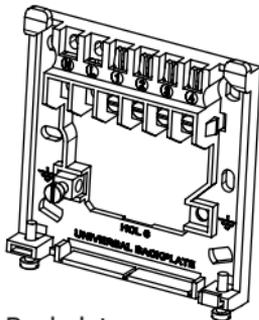
### Installation Instructions

Room Sensor to replace existing wired room thermostat. Provides programmer / time clock functionality. Requires Network OWL to operate.

#### IN THE BOX:



Room Sensor



Backplate



Safety Cover



2 x AAA  
alkaline battery

## Introduction

This Room Sensor is a part of the OWL Intuition range of cloud connected monitoring and control products. Its operation is dependant upon being paired to the broadband Internet connected Network OWL (supplied separately).

This version of the Room Sensor is designed for use with a Combi boiler with existing wiring to the Room Sensor location (see Installation Instructions).

The Room Sensor provides both room thermostat and programmer / time clock functionality.

Basic day-to-day user operation changes can be made using the three buttons. Additionally there is a comprehensive yet intuitive, easy to use controls via the OWL Intuition web dashboard, from any Internet connected computer anywhere in the World. iPhone and Android smartphone apps are also available for free download.



**It is recommended that this product is installed by a suitably qualified heating engineer, plumber or electrician.**

## Installation Instructions

### Network OWL installed and online

The Network OWL should already be installed. Refer to the Network OWL Getting Started guide for guidance if required. Check that it is powered-up and connected to the OWL servers (the top green LED should be flashing in a “triple blip pattern”).

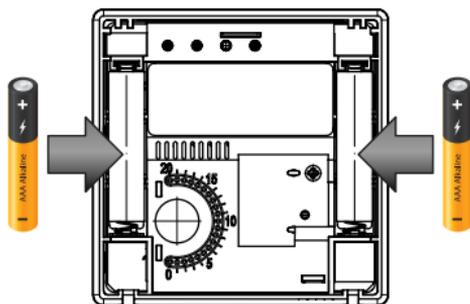
### Upgrade Network OWL firmware

1. Log in to the OWL Intuition account at **<https://www.owlintuition.com>** (this is a secure connection). You will then see the OWL Intuition web dashboard.
2. Click on the Devices menu. The Network OWL will appear in the list of devices. Click on Network OWL image to open a new window. If an upgrade is required, an Update Device button will be visible. Click on this button then wait for approximately 4 minutes for the upgrade to complete. You should check that the upgrade was successful before proceeding by repeating this instruction.

### Steps Before Installing

#### 1. Pair Room Sensor with Network OWL

- a. Put the batteries into the Room Sensor. The 3 LEDs will start flashing together indicating that



- the Room Sensor is ready to be paired.
- b. Power down the Network OWL by removing the power connector. Then after 10 seconds re-insert the power connector into the Network OWL and wait. The 3 LEDs on the Room Sensor will stop flashing indicating that it is now paired to the Network OWL.
  - c. Now wait until the Network OWL is connected to the OWL servers (the top green LED should be flashing in a “triple blip pattern”).
  - d. Log in to the OWL Intuition account at **<https://www.owlintuition.com>** (this is a secure connection). You will then see the OWL Intuition web dashboard.
  - e. A message box will pop-up indicating that a new device has been detected and requesting you to log out and log back in.
  - f. When you log back in you will now have a Heating widget within your web dashboard.

## 2. Configure Account Settings

Select the Settings menu. Select an appropriate Energy Performance Certificate (“EPC”) rating for this property. Enter the actual EPC rating if you have one, if not just estimate how you would rate the energy efficiency of the property on the A to G scale below. Be sure to click the “Save” button before closing the window.

### Property EPC / Energy Efficiency Rating

Rating	Score	Description
A	92+	Exceptional
B	81 - 91	Above Average
C	69 - 80	
<b>D</b>	<b>55 - 68</b>	<b>UK Average</b>
E	39 - 54	
F	21 - 38	Below Average
G	1 - 20	

#### 3. Configure Heating Settings

You can make any necessary changes to the various Heating settings by clicking on the “gear wheels” icon on the grey Heating widget title bar.

#### 4. Configure Time Clock

The Heating Time Clock defines the periods during which the home is automatically heated and to what temperature. These periods are called Comfort Periods. OWL Intuition will intelligently calculate what time to switch the boiler on and off to maintain the target temperature for the whole of the Comfort Period. Each day of the week can

be programmed with up to 10 different Comfort Periods.

The preset heating 'Comfort' Time Clock settings are shown in the table below. These can be modified using the OWL Intuition web dashboard.

- a. On the Heating widget click on the "Clock" icon. This opens the Heating Time Clock widget.
- b. Select the day you wish to amend, then click an option on the line you wish to amend.
  - i. Pencil icon to edit the line.
  - ii. Cross icon to delete the line.
- c. Amend details within the Edit box as required then click on the Tick icon to update the table.
- d. To add a new line simply fill in the Add box with the required details and click on the Tick icon.
- e. When you are happy with your changes you can use the Copy Current Day feature to quickly duplicate to other days.
- f. **IMPORTANT:** When you have finished making changes you must save them to your Network OWL by clicking on the "Save To Network OWL" button.

### Preset Heating 'Comfort' Time Clock Settings

<b>Monday to Friday</b>		
<b>Start Time</b>	<b>End Time</b>	<b>Temperature</b>
07:00	08:30	18°C
16:30	22:30	20°C
<b>Saturday &amp; Sunday</b>		
<b>Start Time</b>	<b>End Time</b>	<b>Temperature</b>
07:30	10:00	18°C
16:30	22:30	20°C

Note: Outside of these preset heating 'Comfort' periods, the Room Sensor will be in Standby mode (15°C - configurable).



5°C Partly Cloudy

Humidity: 87% Wind: 8 mph Cloud Cover: 75%



The Gables

System Online



# 18.1 °C

Status **Standby**

Until **15:00, Today**

Required **15.0 °C**







**Heating**




Time Clock Day:

Sunday

	Start Time	End Time	Temperature	Options
1	07:30	09:00	20.5°C	 
2	09:00	13:00	19.0°C	 
3	13:00	17:00	19.5°C	 
4	17:00	21:30	20.7°C	 
Add	00:00	00:00	0.0°C	 

**Options**

Copy Current Day To: Save To Network OWL Download From Network OWL

Sunday

Copy

**Please Note:** Times should be set for your Comfort periods, when the set temperature should be maintained. OWL Intuition will automatically calculate and apply Warm Up and Cool Down times to help reduce your energy consumption.

**Heating Time Clock**


## OWL Intuition Web Dashboard - Heating and Time Clock widgets

## Installing the Room Sensor

The Room Sensor should be located on an internal wall approximately 1500mm above floor level using the backplate provided. It should be positioned away from draughts, direct heat and sunlight. The backplate is suitable for both direct wall mounting and mounting on to a single gang flush wiring box complying with BS4662, using two M3.5 screws.

- 1. Check Signal Strength** - With the Room Sensor at the chosen installation location you should now check the signal strength icon shown on the web dashboard Heating widget. The signal should be at least 2 bars and preferably more. Try moving the Network OWL closer to the Room Sensor if you have a signal strength problem.
- 2. Ensure** there will be enough space to allow easy screwdriver access to the two captive screws located at the base of the backplate.
- 3. Electrical Connections:**

**WARNING: ISOLATE THE MAINS SUPPLY BEFORE COMMENCING INSTALLATION**

*For existing installations,* remove the old room thermostat to expose the wiring back to the boiler. **Check the wiring at both ends to correctly identify which wire is Live and which is Switched Live.**

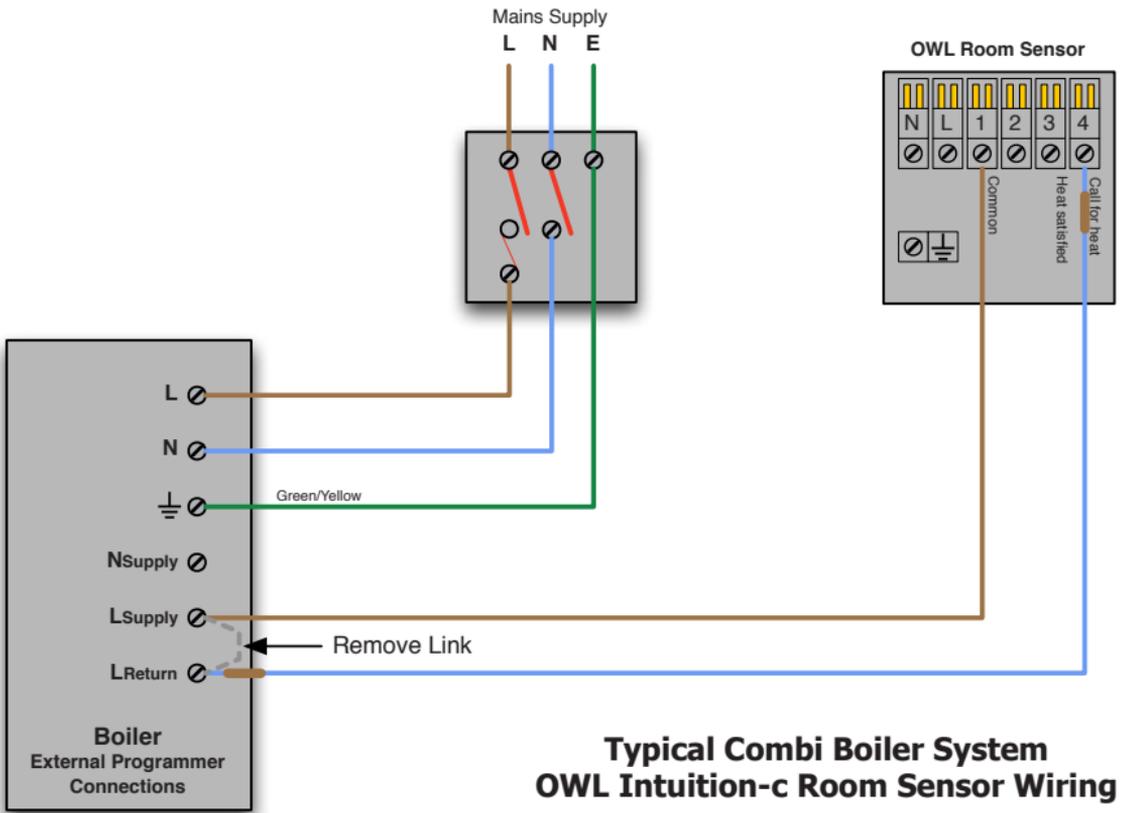
*For new installations,* run a new cable between the boiler and chosen Room Sensor Location. The recommended cable size is 1.0mm<sup>2</sup>. See diagram below.

- a. Fix the backplate** - Offer the backplate to the wall in the position where the Room Sensor is to be mounted (with the cable through the central aperture of the backplate) and mark the fixing positions through the slots in the backplate. Drill

and plug the wall, then secure the plate into position. The slots in the backplate will compensate for minor misalignment of the fixings.

**b. Wiring** - All necessary electrical connections should now be made.

- The Room Sensor is double insulated and does not require an earth connection.
- An earth connection block is provided on the backplate for terminating any cable earth conductors.
- Earth continuity must be maintained and all bare earth conductors must be sleeved.
- If one of the existing wires is a Neutral supply then this should be 'parked' on the terminal labelled 'N'.
- Ensure that no conductors are left protruding outside the central space enclosed by the backplate.
- Refer to the diagram and table shown below for the wiring arrangement for a typical combi boiler system. This diagram is schematic and should be used for guidance only.
- Please ensure that all installations comply with the current IEE regulations.
- Please consult the boiler manufacturers installation instructions before making these connections and note that a link may need to be removed when connecting external controls.



**Typical Combi Boiler System  
OWL Intuition-c Room Sensor Wiring**

- 4. Fit Safety Cover** - Check all of the wiring is safely attached to the appropriate backplate terminals and the screws are tight. Then fit the Safety Cover by clipping it into place over the wiring terminals.
- 5. Complete** the installation by mounting the Room Sensor to the backplate. To do this engage the Room Sensor on the lugs at the top of the backplate, then carefully swing the Room Sensor down and push it carefully back into its plug-in terminal connectors. Locate over the captive screws at the base of the backplate and tighten them so that the Room Sensor is locked into position.
- 6. Existing Programmer / Time Clock** - any existing programmer or time clock is now redundant. You should either program it to be permanently on (24/7) or preferably remove it, ensuring that the two wires it was switching are safely electrically linked together, preferably by installing a link wire within the boiler. Please check boiler manufacturers wiring instructions for further details.
- 7. Finally** check that the Room Sensor is functioning correctly and switching the boiler on and off correctly. A simple test for this is to press and hold the Comfort (+) button for 5 seconds. This will activate the Boost mode and turn the boiler on. Check that the web dashboard Heating widget is now showing that the Boost is activated and the boiler is running (Red-glow around house icon at top of Heating widget).
- 8. Handover** - Please ensure you handover this document to the householder and direct them to the User Instructions available for download by clicking on Support & Manuals on the web dashboard (lower right).

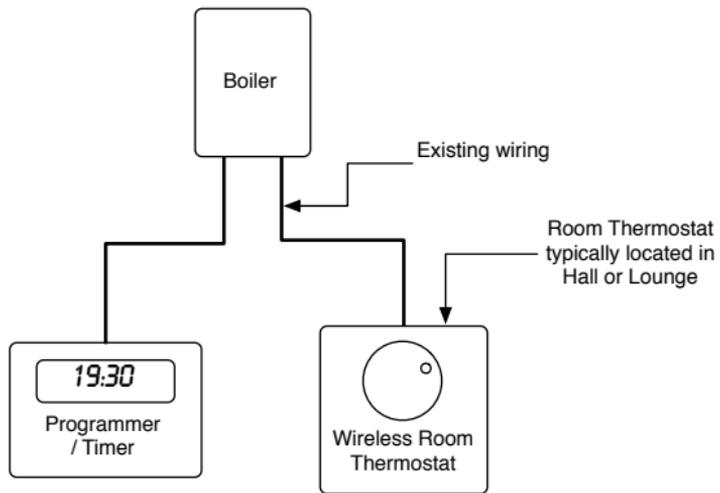
## Additional Installation Information

### OWL Intuition-c Room Sensor Backplate Wiring

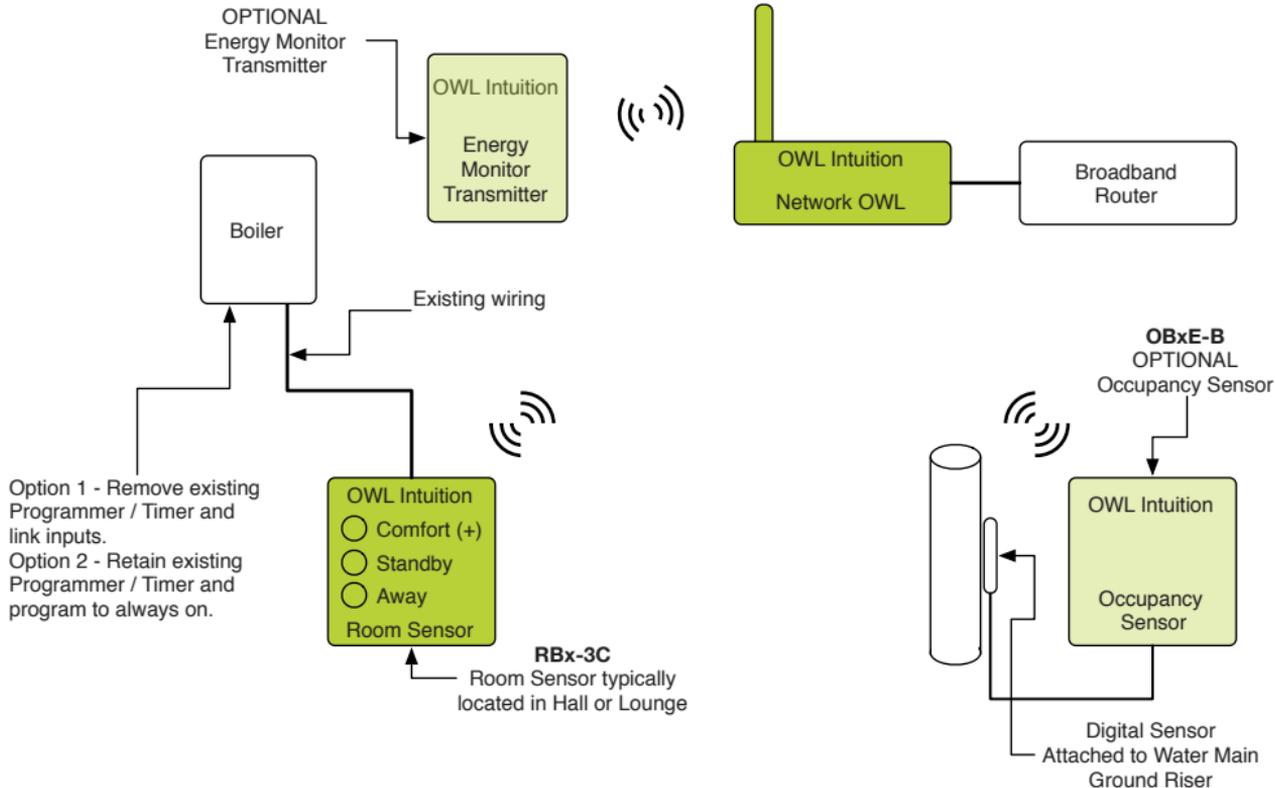
Terminal	Description
N	Neutral - Not used, may be used to 'park' unused neutral wire.
L	Live - Not used, may be used to 'park' unused live wire.
1	Common terminal of Room Sensor latching relay
2	Not used
3	'Heat Satisfied' - Normally closed terminal of Room Sensor latching relay
4	'Call for Heat' - Normally open terminal of Room Sensor latching relay
	Earth continuity connection

#### Room Sensor Factory Reset:

You can factory reset the Room Sensor by pressing both the Standby and Away buttons together for a minimum of 10 seconds. The 3 LEDs will start flashing indicating that it is in pairing mode. Refer to Getting Started with OWL Intuition Network Gateway guide if you need to factory reset the Network OWL.



## BEFORE: Typical Existing Combi Boiler Installation



## **Customer Support**

If you have any further questions please check our frequently asked questions at:

**<http://www.theowl.com/faqs.html>**

You can also email us at: **customer.services@theowl.com**

(please ensure you state your Network OWL MAC ID)

**2 Save Energy Limited operate a policy of continuous development and improvement, therefore the content of this document is subject to change without notice.**

Document Version 1.0 - December 2012