

simple to fit.
simple to use.
simply smarter.

ride the WAVE to smarter
heating and hot water control

www.worcester-bosch.co.uk/wave





Are you ready to ride the Wave?

Wave goodbye to inefficient heating

With the market for smart controllers having grown substantially over the last 12 months, there is clearly a customer need for controllers that offer far more than typical room thermostats or timers do. The Wave will launch later this month allowing us to boost our range of energy efficient heating and hot water technologies.

In light of the new product developments introduced by manufacturers and the growing demand for technologically advanced products in the home, heating controls are now under the spotlight for the first time. As installers, it is important that you feel empowered to help customers heat their homes for less. With the awareness of intelligent

heating controls rising rapidly, a number of your customers are sure to ask you about the options available and how they can make the most of smart technology for the good of their energy bills.

With the introduction of our brand new smart device, we hope to provide you with the knowledge

and confidence you need to bring intelligent heating control to your customers' properties with ease – enhancing your reputation in the process.

The Wave is an exciting addition to our product portfolio and enhances our already successful range. Crucially, we've developed the Wave to offer a solution no other manufacturer is able to provide by equipping our most advanced control system to date with both load and weather compensation. This, combined with presence detection, ErP directive compatibility, and simple connectivity gives us a product unrivalled by any competitor model on the market.

Introducing the Wave

The sleek black glass wall-mounted panel is simple to install and allows you to connect to the boiler using a low voltage two wired connection directly to the boiler PCB.

Compatible with a wide range of our award-winning Greenstar gas-fired boilers, the Wave is a sophisticated device which allows heating and

hot water to be adjusted from a smartphone or tablet using a wireless internet connection. Its intuitive and modern design ensures easy programming and control of the boiler resulting in a much simpler handover with the end-user.

The Wave App also features a demo mode, which allows the homeowner to familiarise themselves with its functionality and layout even before the Wave is installed at their property.

Complete control, the smarter way

Through the easy-to-use Wave App, your customers can take complete control of their heating and hot water, whether at home, at work, or on holiday. The App not only allows remote adjustment of heating and hot water performance, but also provides the homeowner with valuable information on their gas consumption for both heating and hot water, helping them manage their bills more effectively during a time of rising energy costs.

The Wave is compatible with an Apple iOS or Android device across any Wi-Fi, 3G or 4G network connection*.

Users simply download the Wave app to their device to take control of their heating system from anywhere in the world where an internet connection is available.

Our intuitive device combines a room thermostat and programmable control in one stylish unit. Intuitive and easy to use, with just a touch, the Wave can show your customer the current temperature of their home, their desired settings and whether the heating is running at its most efficient.

Smarter ErP compatibility

Unlike other smart room temperature controllers on the market, the Wave really is smart in that it is the only thermostat of its type that can adjust the flow temperature of the boiler to the minimum level required to enhance condensing operation yet still maintain the homeowner's required room temperature level. Under the forthcoming ErP directive, controllers of this type are rewarded with a 3% uplift in system efficiency over a non-compensating thermostat.

Importantly, the Wave is future proof with easy to use features which will

be continually updated. The new technology enables you to offer your customers enhanced levels of heating controllability, backed up by the quality and reliability of the Worcester brand.

Smarter efficiency

Unlike many other smart controls on the market, the Wave boasts load compensation; taking into account the current room temperature and only firing the boiler at the necessary level for more efficient use of fuel, to maintain peak efficiency levels. An optional weather compensation feature meanwhile, boosts efficiency even further by referencing the property's postcode to determine local weather conditions. This negates the need to install a north facing sensor externally to the property, making installation simple.

The control can also use presence detection via smartphone location to adjust heating levels in line with attendance at home and the desired personal comfort settings.

*see website for more details.

**Wi-fi connectivity required

Simple connectivity: a step-by-step installation guide



1 Firstly, remove the box from the sleeve and check the contents. These include the Installation & operating manual, the Worcester Wave, the Wall mounting plate, and screw & wall plug pack. Read the installation and operating manual to get started. Before installation, check that your Worcester boiler and the Worcester Wave are a compatible combination. You will find a list of compatible boilers on the Worcester website.



2 Next you must ensure that the power to your Greenstar boiler is isolated.



3 If you have an existing room thermostat please ensure that power to the thermostat is also isolated and then remove it from the wall.



4 The Wave wall mounting plate can then be fitted directly onto the wall. Clip the thermostat cable to the cable clamps on the wall plate. Please note that the connections are not polarity sensitive.



5 Then, simply hook the thermostat to the back of the wall plate.



6 When you hear a click the thermostat is then locked in place. The plastic film can now be removed.



7 Next refer to the boiler's installation instructions and connect the thermostat cables to the boiler's EMS bus connections (under no circumstances must the thermostat be connected to the boiler's 230V connections or external 230V supply).



8 Now turn on the boiler- this provides power to the thermostat. Your Wave is installed and ready to be connected to your boiler and wi-fi network.

Getting to grips with Wave

To help you get to grips with the product, we have produced a series of helpful videos designed to assist you which are now available on YouTube.



- 1. How to install the Wave**
- 2. Commissioning the Wave**
- 3. Wave touch screen operation & programming heating and hot water with the Wave app**
- 4. Controlling heating and hot water using the Wave app**
- 5. Everything you need to know about Wave settings**
- 6. Cleaning the Wave touch screen**

Worcester WAVE

Compatible boilers and devices

The Worcester Wave is a smart, internet-connected programmable controller for central heating and hot water.

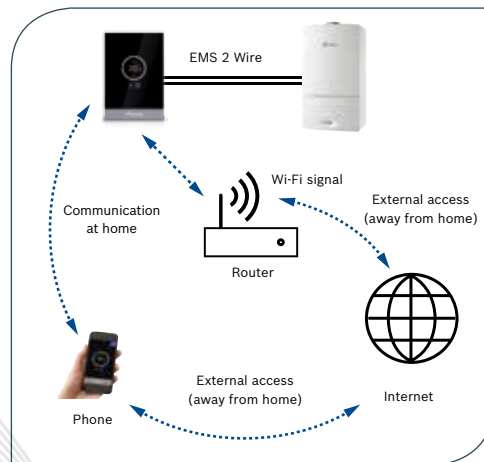
The Wave is easy to install, requiring just a low voltage hardwired 2-core connection between the controller and the boiler.

All other connections are via the Wi-Fi network. Unlike standard weather compensation controls, the Wave does not need an external wired sensor.

Instead, the Wave uses online data which significantly reduces installation time and cost to the end user.

All you need is:

- Worcester Wave controller
- Compatible Worcester boiler
- Wi-Fi enabled broadband router
- The Wave app (available on one of the following devices)
 - Apple® devices running iOS 5.1 and higher*
 - Android™ devices running 2.2, 2.3 or 4.0 and higher†



Compatible Worcester boilers‡

Combi	System*
Greenstar i Junior**	Greenstar 12i System - 24i System^
Greenstar Si Compact	Greenstar 27i System - 30i System
Greenstar CDi Compact	Greenstar CDi Classic System†
Greenstar CDi Classic†	
Greenstar Highflow CDi	

* Provided optional integral diverter valve is installed **Manufactured after July 2013 †Manufactured after 16th January 2007 with software version CF12.10 onwards. ‡Manufactured after February 2011. †Correct at the time of printing

For information about your boiler's manufactured date and software version please contact Technical Support on 0330 123 3366.

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The Wave Product Clinic

With the Wave being one of our most technologically-advanced products to date, Martyn Bridges, Director of Marketing and Technical Support, answers some questions which may arise as you get to grips with a new generation of heating control.

1. Which smart phone applications will work with the Wave app?

Apple iOS (from 5.1) and Android (from 2.2), Froyo, Gingerbread, IceCream Sandwich and Jelly Bean and KitKat.*

2. How much is the Wave app?

The Wave app including all future updates is free of charge.

3. Does the Wave come with a guarantee?

Yes, the Wave comes with a 2 year guarantee however it will also carry the same guarantee as the boiler, if the two are installed at the same time.

4. If there is no Wi-Fi available is it possible to connect the Wave to a personal hotspot via 3G or 4G?

Yes that's possible but only for a short time due to data charges. The personal hotspot will be shown as a Wi-Fi network in the list of networks. Simply select the personal hotspot and enter the corresponding password and the Wave will then be connected to your hotspot.

5. Can someone hack the Wave?

The data connection is encrypted, this means that your Wave is very secure.

6. Does my customer need a Worcester boiler to use the Wave?

Yes, there is a comprehensive list of compatible boilers on the Worcester website.

7. Where is the best place to install the Wave in the home?

The Wave operates by sensing the air temperature therefore it's important that it is in a clear flow of air that is representative of the house. Industry guidance and good practice is to locate the thermostat in the hall or landing away from direct sunlight or secondary heating.

8. What happens if my customer loses their internet connection?

If the connection is lost, the Wave can be operated manually. However the timed heating and hot water programme will not function until the internet connection is re-established.

9. If my customer loses their smart phone can they still operate their heating?

Yes, the Wave can be controlled manually without the smart phone.

10. Does the Wave switch between British summer and winter time automatically?

Yes. When the Wave is first installed it will establish your location and set the time and date automatically. GMT updates also happen automatically.

11. My customer has advised that they have lost their password and login details and no longer have their manual. What now?

The serial number and access code are printed on the back of the Wave. If the password is lost then it's important to reset the Wave. This can be done by placing a paperclip in the small hole on the left of the thermostat. After the reset all data will be cleared and all devices will have lost their connection to the Wave. The first smart device to be connected again after a reset will have to enter a new password for the Wave app and any subsequent new devices will also need this password.



12. My customer has asked where the data is stored, what should I advise them?

One of the advantages of the Wave is that the data is not stored on the server- everything is stored on the Wave itself. Therefore the homeowner owns their own data. The Wave automatically checks the server every night to see if any updates are available. These updates are then installed automatically meaning that you benefit from all updates to features and functionalities.

13. How can I calibrate the Wave?

This should not be necessary as the Wave's internal temperature sensor is very accurate. However the temperature can be altered via the app with an accuracy of 0.10°C

14. How many smart devices can be linked to the Wave and which one does the Wave 'listen' to?

The Wave can be linked with up to 8 devices, the one with the highest central heating temperature requirement takes priority.

15. After programming hot water times to control the combi boiler pre-heat function, the boiler does not appear to be pre-heating hot water at all, why is this?

The boiler pre-heat function must be enabled to allow the Wave to take control of your hot water. Refer to your combi boiler user guide to enable the pre-heat function; i.e. turn the ECO function off.

16. My customer does not want the Wave to pre-heat my combi hot water. How do I achieve this?

Either disable the combi boiler pre-heat function or select 'custom programme' within the hot water page in the Wave app and remove all hot water set points.

*Correct at the time of printing. Please refer to the website for further details

Wave hello to our latest training module



To ensure you are able to bring yourself fully up to speed with our latest product we have incorporated it into our existing training offering. Phil Bunce, our Training Manager, talks through the options available to you.

“The main benefit of Wave is that it is self-intuitive, therefore it is easy to understand. To give you plenty of opportunities to use the product we have installed an operational Wave controller and iPad in the reception area of our Worcester Training Academy. This means when you come along for any training course it is there for you to interact with before committing to any installation work.

“Alongside the Wave control module we have also installed a cutaway boiler which will be activated by the Wave and different components will illuminate when the controller is in use. The intention of this is that you will be able to see how each function works.

“In addition, we will be including the Wave into our existing gas-fired boiler and accessories training courses. To support this we have installed the Wave into the training labs, giving you further opportunities to get ‘hands-on experience’ with the product. All of our trainers will have the app., so they will be able to run through parameters of the product and allow you to fully understand its application.

“These training sessions will cover details of the load and weather compensation features as well as presence detection. We will explain how to replace your customer’s existing room thermostat with the Wave and the factors which need to be taken into consideration.

“Additionally, we will also run through the key benefits for the end-user, ensuring you are fully equipped with the knowledge needed to sell the Wave controller to your customers and capitalise on the business opportunities that follow.

“The training will take place at our Worcester, Wakefield and West Thurrock Training Academies. For those unable to access those areas we also have seven mobile training vehicles which are now equipped with the Wave and can visit sites to offer remote training.

“We have also created a series of helpful videos which have been designed to offer support after you have attended the training sessions, whilst our technical support team is able to help you with any queries you might have during or after an installation.

“As this is one of the most revolutionary and technically advanced products we have developed to date we want to ensure you are fully versed in its full capabilities prior to installing and the training we have developed has been designed to do just that.”

The training sessions which will include Wave

- Greenstar CDi Compact gas-fired condensing combi boiler course
- Greenstar CDi Classic gas-fired condensing combi boilers course
- Greenstar i System and regular gas-fired condensing boilers course
- Greenstar i Junior gas-fired condensing combi boiler course
- Greenstar system and regular gas-fired condensing boilers course
- Greenstar floor-standing gas-fired condensing combi boiler course
- FX controls course

WIN A WAVE

Having given five of you the chance to be amongst the first to get your hands on a Wave in our July/August issue, this special edition Installer’s Choice sees us take things to the next level, with a further 20 up for grabs.



The installation of a Wave smart thermostat gives you chance to bring the following benefits to your customers’ homes:

Easy to install: Wave is easy to install, requiring just a low voltage hardwired 2-core connection between the controller and the boiler. All other connections are via the Wi-Fi network.

Remote control of heating AND hot water via the free app.

Energy Graphs, Presence Detection and many more features come as standard to ensure increased comfort and energy savings.

Load & Weather Compensation via the internet (no outdoor sensor required), ERP class VI controller which achieves an additional seasonal space heating efficiency gain of 4%.

Intuitive & modern design ensures easy programming and control of the boiler, resulting in a simple hand over with the end-user.

No subscription fees or chargeable app add-ons.

To be in with a chance of winning one of our new smart heating controls, simply answer the following question correctly:

Name:

Business Name:

Business Address:

Daytime Telephone Number:

Email:

Q. Do you need to wire an external weather sensor to the Wave?

Your Answer: _____

Q. What is the maximum number of devices the Wave can be linked to?

Your Answer: _____

Q. Can the Wave be operated manually?

Your Answer: _____

Q. Is the Wave a load compensator, weather compensator, or both?

Your Answer: _____

Send your entry back to our editorial office: **Installer’s Choice WAVE Special Competition**, Willoughby PR, 43 Calthorpe Road, Edgbaston, Birmingham, B15 1TS. Closing date: Friday 31st October 2014. Terms and Conditions apply, visit www.worcester-bosch.co.uk for more information.