

[idealheating.com](http://idealheating.com)

HALO

Halo Combi Wi-Fi Installation Guide

## HALO COMBI WI-FI

Product Code: 222142

Internet connected wireless single zone combi Programmable Room Thermostat (PRT)

ERP Class VI Boiler+ Compliant

Compatible with the following boilers serial letter code AFQ onwards: Logic Combi C, Logic Combi C IE, iMini, Logic Combi ESP1, Logic Code Combi ESP1, Logic+ Combi C, Logic Max Combi C, Logic Max Combi C IE, Vogue Gen2 Combi, Vogue Max Combi, Vogue Max Combi IE.

To install Halo with older boilers a separate bracket is required (Product Code: 220366), for further details on the compatibility of older boilers with Halo plus installation details please go to [idealheating.com](http://idealheating.com)

The Ideal Halo Combi Wi-Fi is a wireless PRT that is paired with the Halo Smart Interface installed in the boiler. The Halo Smart Interface plugs into the front aperture on the boiler and communicates to the boiler via OpenTherm. The Halo unit is powered by 4 AA batteries and communicates with the Smart Interface through Zigbee, a local RF protocol.

The Smart Interface is Wi-Fi enabled and can be linked to the home Wi-Fi network to allow app controlled heating through the Halo app.

## SAFETY INFORMATION

The Ideal Halo Combi Wi-Fi must be installed by a competent person with the appropriate safety qualifications. Please read the instructions carefully. Failure to follow these instructions can damage the product or cause a hazardous condition.

These instructions are applicable to the Ideal Boiler models stated and must not be used with any other make or model of boiler. This product must be installed to all applicable standards.

Always isolate the mains supply before installing or working on any components relating to the boiler electronics.

## GETTING STARTED

The Halo app is available to download from the Apple App Store and on Google Play. To save time the householder may want to download the app and set up the account whilst the thermostat is being installed.



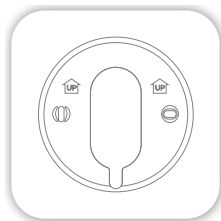
## A. KIT CONTENTS



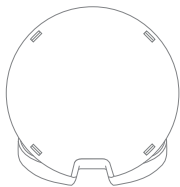
1. Ideal Halo Combi Wi-Fi display unit



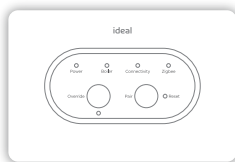
2. Rear housing



3. Trim plate



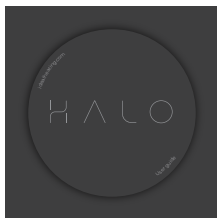
4. Desk stand



5. Smart Interface



6. Installation guide



7. User guide



8. SAP registration label



9. 4 x AA batteries



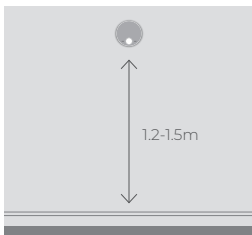
10. Screws & Rawlplugs™

## B. LOCATION GUIDELINES

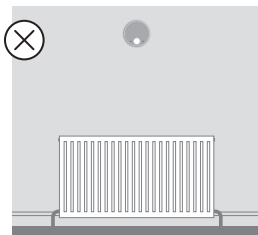
The Halo uses wireless Zigbee communication between the control and the Smart Interface, up to a maximum range of 30 metres. Occasionally house construction and materials can reduce this communication range and it is advisable, where possible, to try and avoid directing communication through metal frames or solid concrete walls.

If the distance between the Halo and Smart Interface is above 30 metres or the install location is challenging, consider using the Ideal Zigbee Booster (Product Code: 221132) or mounting the Smart Interface externally to the boiler using a bracket (Product Code: 220366). Further details on this at [idealheating.com](http://idealheating.com)

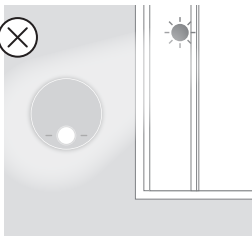
The Halo control system connects to the home Wi-Fi network through a Wi-Fi chip in the Smart Interface. The home Wi-Fi router should be positioned no more than 30 metres from the Smart Interface. Where possible avoid directing Wi-Fi communication through metal frames or solid concrete walls.



1. Mounted 1.2-1.5m above the floor



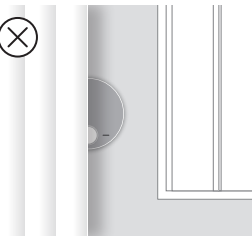
2. Not above a radiator/heat source



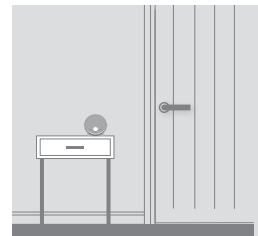
3. Not in direct sunlight



4. Away from any drafts



5. Not fitted behind curtains



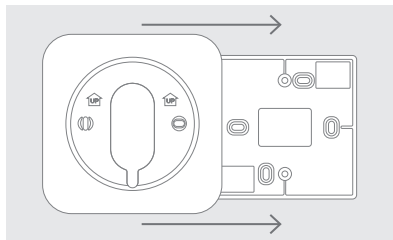
6. Internal use only

## C. INSTALLATION OF THE HALO

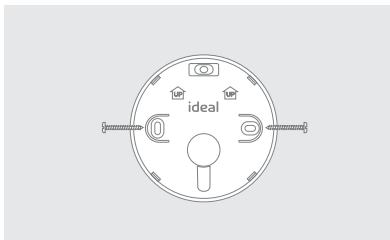
The Halo can be either wall mounted or desk mounted.

### Wall mounting the Halo

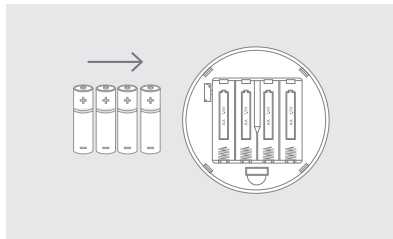
If there are any concerns regarding signal strength and location of the wall mounted Halo it is advisable to pair the control (section E) and check signal strength before fixing to the wall.



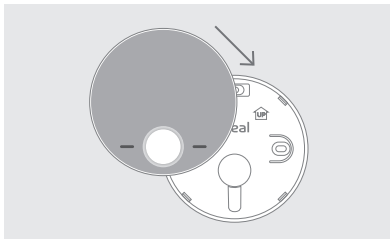
1. The Halo can be installed with or without the provided trim plate.



2. If no trim plate is required, use the rear housing of the Halo to position the unit on the wall, alternatively secure rear housing to trim plate. Take care not to overtighten the screws.

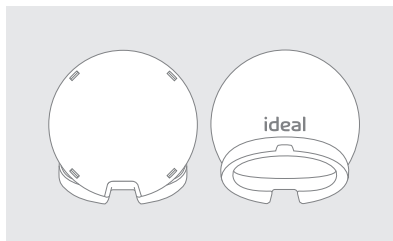


3. Insert the 4 AA batteries provided into the front housing of the Halo. Pay close attention that the orientation of the batteries is as indicated in the housing.

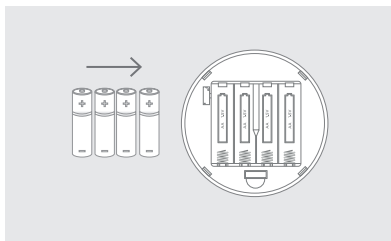


4. Locate the front housing (display) in position parallel to the rear housing and clip into place.

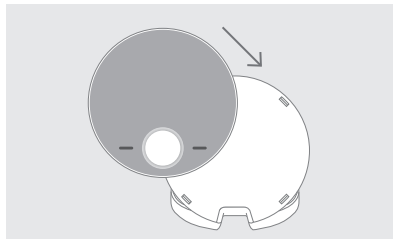
## Desk mounting the Halo



1. The Halo has an integrated rear housing and desk stand.



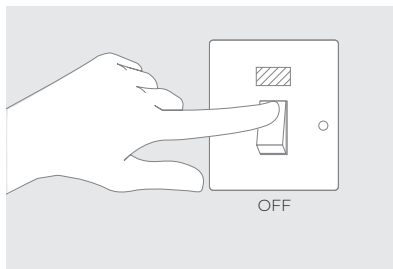
2. Insert the 4 AA batteries provided into the front housing of the Halo. Pay close attention that the orientation of the batteries is as indicated in the housing.



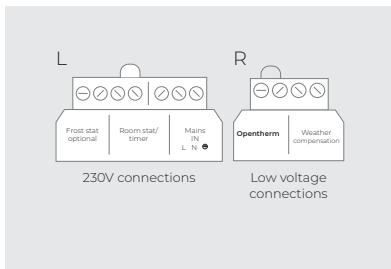
3. Clip the combined rear housing and desk stand into place.

## D. INSTALLATION OF THE SMART INTERFACE

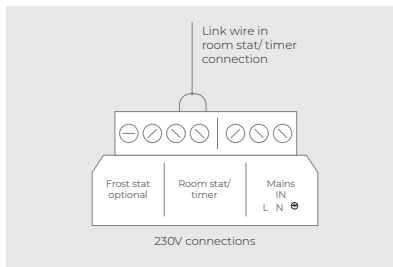
To install the Halo Smart Interface into a new boiler with serial letter code AFQ (found on the data plate) follow the steps below. For further details on the compatibility of older boilers and how to install the Smart Interface into a bracket and wire into the boiler please go to [idealheating.com](http://idealheating.com)



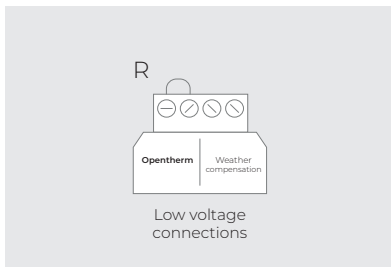
1. Isolate mains supply to boiler.



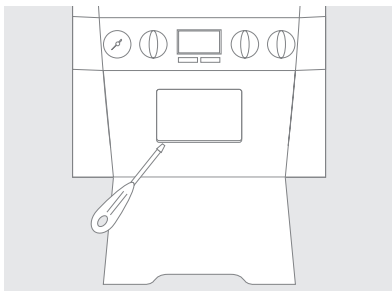
2. Locate the wiring terminals (230V connections are on the left and low voltage on the right).



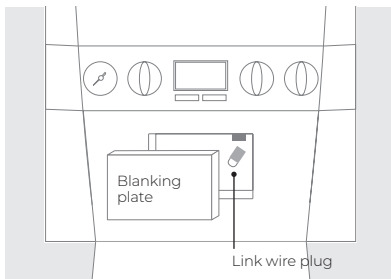
3. If existing 230V device is already installed remove wiring from the 230V connections and add the link wire into the room stat/timer connection (see diagram). On brand new boilers the link will already be in this position.



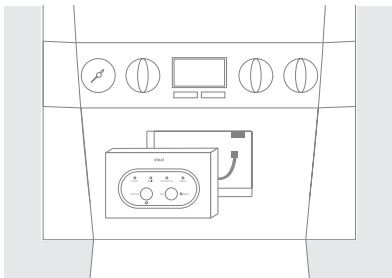
4. If an existing Opentherm device has been used, ensure its removal and add the link wire into the "opentherm" connection (see diagram) On brand new boilers the link should already be in place



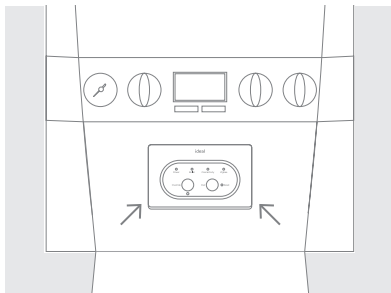
5. Locate the blanking plate on the front of the boiler and remove carefully with a small flat bladed screwdriver.



6. Remove link wire plug and keep in a safe place.

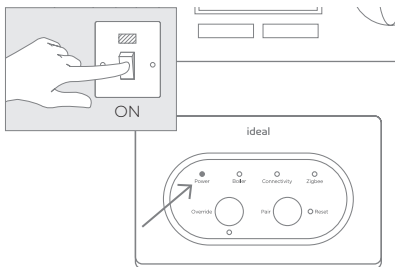


7. Connect the plug on the Halo Smart Interface to the connector in the aperture.



8. Push fit the Halo Smart Interface into the boiler aperture.

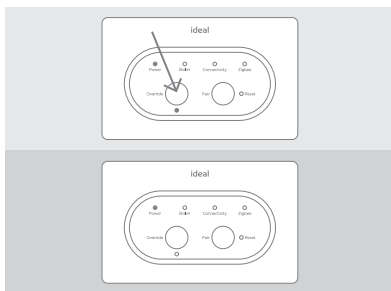




9. Switch on the boiler, the Halo Smart Interface will power up and begin setup, this can take up to 90 seconds. Once setup is complete the green Power LED should be the only LED illuminated.



11. **Press and hold** the Pair button on the Smart Interface until the Zigbee LED starts flashing red to begin the pairing process with the Halo.



10. Check the Smart Interface connection to the boiler by pressing the Override button. The Override LED should be green and the boiler will fire. Press the Override button again to switch off the boiler, the Override LED should now go out.

## E. PAIRING OF THE HALO

The Halo unit now needs to be paired with the Smart Interface installed in the boiler.

**Ensure the Halo Smart Interface is in pairing mode and the Zigbee LED is flashing red.**

1. After the batteries are inserted, the Halo will power up automatically.
2. The device will prompt pairing with the Halo Smart Interface using an easy step-by-step process.
3. Simply follow the on screen guide to select the type of boiler and number of zones. In this case select Combi boiler and single zone.
4. The Halo screen will show "Pairing in Progress", then "Synchronisation in Progress" and then "Pairing Complete" when the Halo has successfully connected to the Smart Interface.
5. The device will automatically prompt set up of the time and date.
6. There is the opportunity to add an installer contact phone number into the device at this stage, if not changed this will default to the Ideal Heating Customer Service number.
7. The home screen will be displayed showing the current and target temperature and the temperature bar. The Zigbee communication icon will also be visible on the display.
8. **Press and hold** the Pair button on the Halo Smart Interface until the Zigbee LED goes from flashing red to solid green.



## F. CONNECTING THE HALO TO THE INTERNET

1. Check the home router is connected to the internet.
2. Ensure 2.4GHz is enabled on the home Wi-Fi router.
3. If it has not been done already, download and install the Ideal Halo app onto the householders phone. (Available on Google Play or the Apple App Store.)
4. Open the Ideal Halo app, tap on create an account and follow the in-app instructions.
5. Once an account has been set up the app will automatically guide the user through connection of the Halo. This will involve using the app to link the Halo Smart Interface to the home Wi-Fi network by following the instructions on the screen.
6. The householder will need the name of their home Wi-Fi network and the password or network key to complete the setup.



**Minimum operating requirements**  
Smart Phone/Tablet - iOS 9 Android 4.4.3  
PC latest version of Chrome, Safari, Firefox or Internet Explorer on Mac OS or Windows 7

## G. HALO FEATURES AND CONFIGURATION

To enter the settings menu press the menu button.

Menu options	Action
Holiday	Holiday mode allows the device to be switched off for a pre-defined period of time then automatically returns to the pre-programmed heating schedule.
Timed heating schedule	Set a heating schedule with up to 6 periods per day.
Support	Includes information such as software version and key contact numbers.
Fault page	Shows the latest fault code and fault description.
Time and date	Time and date are set on power up and can be adjusted via the menu.
Advanced settings	Advanced features of the device setup should be set by a competent person.
Landlord settings	Specific settings for landlords.

## SMART INTERFACE LED KEY

LED	Status	LED	Status
Power	Green - Power ON No illumination - No Power	Zigbee	No illumination - No Zigbee network Green - Zigbee network active Green flashing - Identify function Red flashing - Pairing Red flashing then orange - Zigbee network deletion Orange for 30s - Factory reset
Boiler	Green - Demand No illumination - No Demand	Override	Green - Override active* Green flashing - Failsafe active* No illumination - Override OFF*
Connectivity	No illumination - Cloud connection not configured Red - No connection Blue - Connection to Wi-Fi network OK, no Cloud connection Green - Connection to Wi-Fi and Cloud OK Blue flashing – Access point mode		

\*Override and Failsafe only active when communication is lost between Halo and Halo Smart Interface. See Halo User Guide for more information.


## ADVANCED SETTINGS



Advanced settings should only be adjusted by a competent person, the wrong configuration can have a detrimental effect on the thermostat and the heating system.

Description	Factory setting	New setting
<b>Optimised start</b> Boiler starts heating in advance of schedule so heating reaches the required temperature at the time specified.	OFF	
<b>Optimised stop</b> Boiler stops heating in advance of schedule so heating reaches the required temperature at the time specified.	OFF	
<b>Delayed start</b> If the room temperature is close to target temperature the heating start time is delayed to save energy.	OFF	
<b>Display tolerance</b> Select the display tolerance of the room temperature, this can be set at increments of 0.5° or 0.1°C.	0.1°C	
<b>Temperature offset</b> Fine tune the room temperature display -2.5° to 2.5°C.	0	
<b>Daylight saving time</b> Automatically move to daylight saving.	ON	
<b>Frost protection</b> The temperature that will be used to protect your home when the thermostat is off. Can be set 5°C.	5°C	
<b>Service phone number</b> Opportunity to input Installer contact number for service reminders.	Ideal Heating number	

## COMMISSIONING CHECKLIST

When the Halo is set up use this commissioning checklist to check and complete the install.

Description	Confirmed	
Use the "Identify" function to confirm successful pairing has taken place. Short press on the Pair button on the Smart Interface. Press Pair button again to exit "Identify" function.	Zigbee LED on Smart Interface flashes green	
	Halo home screen flashes to indicate successful pairing	
Halo is positioned in the homeowners chosen location if desk mounted.		
Check RSSI (Received Signal Strength Indication) of the Zigbee wireless connection via support page on the PRT (access via the menu).	Target RSSI between 0 and -65 and text green	
Check RSSI (Received Signal Strength Indication) of the Zigbee wireless connection and the Wi-Fi connection via the support information in the Halo app.	Target RSSI between 0 and -65 and text green	
On the Halo set the mode to AUTO then increase the temperature to 30°C (repeat using Halo app).	Flame ON	
	Boiler ON	
	Boiler LED on Smart Interface ON (Green)	
On the Halo set the mode to AUTO then decrease the temperature to 5°C (repeat using Halo app).	Flame OFF	
	Boiler OFF	
	Boiler LED on Smart Interface OFF	
Check the Smart Interface indication is correct.	Power LED green Zigbee LED green Connectivity LED green	
Full battery level indication on Halo home screen.		

Description	Confirmed
Zigbee network icon is present on the Halo home screen.	
Cloud network icon is present on Halo home screen.	
Time and date correct.	
Installer contact details inputted if required.	
Suitable schedule has been entered for the user.	
General overview of operation provided to user - refer to use guide.	
Any advanced settings changes have been recorded.	
Remember to leave this guide with the householder.	

## TROUBLE SHOOTING

No power LED on Smart Interface	<p>Check Smart Interface is securely plugged into boiler aperture. Check boiler power is on.</p>
Boiler fails to fire when increasing target temperature on the Halo	<p>Check the target temperature is above current temperature. Check Smart Interface power LED is green. Check Smart Interface is securely plugged into boiler aperture.</p>
Halo screen shows failed to pair	<p>Check Smart Interface is in pairing mode (Zigbee LED flashing red). Check distance between Smart Interface and Halo (see section B). Reset Smart Interface by inserting a paperclip or pen tip into reset button. Start pairing mode again on the Smart Interface and press retry on the Halo. If the situation persists then consider using Zigbee Booster (available separately) or mounting the Smart Interface externally to the boiler using a bracket (further details on <a href="http://idealheating.com">idealheating.com</a>).</p>
Halo screen shows Replace Halo	<p>If you have no other Halo thermostats connected to the Smart Interface or are not replacing an existing Halo then press accept.</p>

## TROUBLE SHOOTING (CONT.)

In the support page the Zigbee RSSI is lower than -65 and text red	Consider moving the Halo closer to the Smart Interface. If the situation persists then consider using Zigbee Booster (available separately) or mounting the Smart Interface externally to the boiler using a bracket (further details on <a href="http://idealheating.com">idealheating.com</a> ).
Smart Interface will not connect to home Wi-Fi	Check Smart Interface is in Access Point (AP) mode (refer to setup sequence in app). Check Wi-Fi router configuration, check Wi-Fi security is set to WPA/WPA2. Check range <30M between Smart Interface and Wi-Fi router. If the situation persists then consider using a Wi-Fi Booster or mounting the Smart Interface externally to the boiler using a bracket (further details on <a href="http://idealheating.com">idealheating.com</a> ).
Deleting Halo from the Zigbee Network	On the Halo press the dial and the right hand key together for 15 seconds, this will delete the Halo from the Zigbee network and factory reset the device.
Deleting Zigbee Network	To delete all devices from the Zigbee network, press and hold the Pair button on the Halo Smart Interface. The Zigbee LED on the Smart Interface will flash red then orange to confirm the devices have been deleted from the network.
Factory reset of the Halo Smart Interface	Press and hold the Pair button and the Override button for 20 seconds. The Halo Smart Interface will delete all Zigbee devices from the network, this will take approximately 20 seconds and detach from the Wi-Fi network if the control is a connected control. On disconnection, the Smart Interface will automatically begin the setup process as per section D6 of the installation guide.

Hereby, Ideal Boilers Ltd declares that this device (model 222142) is in compliance with: Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address [idealheating.com](http://idealheating.com)



UIN: 223828 A03

RF frequency: 2405 – 2480MHz Max.  
RF output power: 10dBm

**ideal**  
HEATING

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