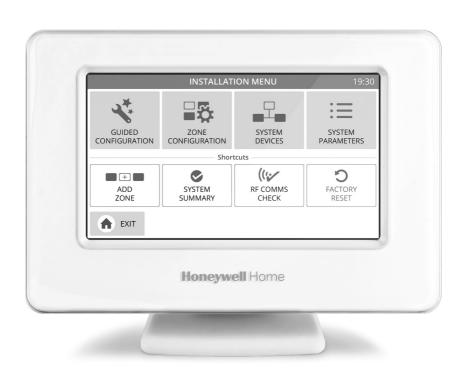
Honeywell Home

evohome WiFi MultiZone Controller R3 EN Installer Guide





Icon key





Wireless Room Unit (DTS3xRF/DTS4xRF)

Equipment Interface Module (EIM) (R9H911RF)





Underfloor Heating Controller (HCC100)



Radiator Controller (HR93)



Cylinder Thermostat Strap on and Insertion Sensors (ATFDHWSENSOR)

Thanks for choosing evolome

Please follow these instructions to set up the **evohome** system. Devices that need to be connected to the mains electricity supply should be installed by a competent person.

Before you start

Make sure you have all the devices you need for your system. If you used our 'Design your **evohome** system' guide, match each device to the room or zones in your plan. It's a good idea to carry out all the mains electrical and other wiring work first.

In this guide

Step 1: Wire up the heating system

Step 2: Set up your evohome Controller

Step 3: Power up and bind devices

Step 4: System test

Configuration and modification

Appendix

Step 1: Wire up the heating system

Before powering up the **evohome** Controller and installing the radiator controllers, it's best to install any devices which are mains powered or need specific installation.

evohome communicates with other system components using wireless on a robust encyrpted 868Mhz signal that is unaffected by common remote controls or WiFi. This version of evohome will not communicate with older accessories used with older versions (pre2025) because of the encryption.

Some devices need mains power or to be connected to external equipment and it's best to wire up these items first to simplify the wireless binding process later in the setup. The **evohome** controller will give on screen instructions when these should be powered up.

In this section

Equipment Interface Module (EIM) (R9H911RF) Stored Hot Water Sensor (ATFDHWSENSOR) Underfloor Heating Controller (HCC100)

Equipment Interface Module (EIM) (R9H911RF)



Turn off at mains and isolate the supply before starting





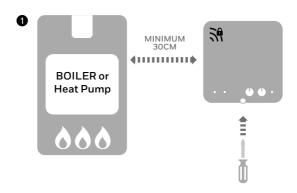




If you're wiring an EIM to your Boiler (On/Off or Opentherm), zone valve or Sundial Valve.

- Mount the EIM on a non-metal surface at least 30cm from your boiler, other wireless devices or metallic large metal objects.
- 2 Undo the screw on the front to open the cover.
- 3 Follow the wiring diagram (see Appendix Figures (page 26) to connect the EIM to your boilers thermostat terminals, Opentherm connection, zone valve or sundial valve, and to the mains and electricity supply.
- 4 Replace the EIM cover.

Refer to boiler or Heat Pump instruction to locate the room thermostat terminals, determine if the boiler requires a permanent live supply.





Stored hot water sensor (ATFDHWSENSOR)



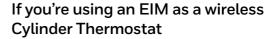
If this sensor is used in an unvented hot water storage application, the cylinder manufacturer's sensors must not be removed

Fit the ATF sensor in a second pocket or if possible without moving the original sensors in the same pocket.

The cylinder instructions must be followed to ensure compliance with all safety regulations.



Only the R9H911RF version of the EIM (pack with a Evotouch unit or available as a spare with the) will



Select one of the two sensors (Strap on Sensor or Insertion Sensor).



To fit the Strap-on Sensor

- Cut away a section of cylinder insulation slightly larger than the sensor unit.
- 2 Clean the exposed cylinder surface.
- 3 Place the sensor on the cylinder surface and secure t using the fixing strap cut the strap to size if it's too long.



To fit the Insertion Sensor

- Fit in the cylinder immersion well with suitable fittings to provide strain relief and prevent accidental removal.
- **5** If the sensor doesn't fit tightly in the immersion well fill the space with heat-conductive compound to ensure maximum heat transfer.



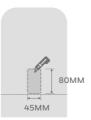
Install the EIM

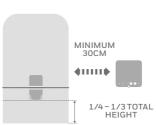
- **6** Install the EIM in a suitable location close enough for the cable from the sensor to reach.
- Connect the cable from the sensor to the EIM terminals S and S1.



The older CS92 will not work with the secure version of Evo. If you need to replace an older Evotouch room unit this can be done please contact customer support for assistance







Wire to EIM





Underfloor Heating Controller (HCC100)





If fitting an Underfloor Heating Controller (HCC100)

Download the PRO configuration App and create an account ready for the HCC100 configuration step later in the setup

Install/wire the HCC100 controller as shown in its instructions















Step 2: Set up your evohome Controller

The **evohome** Controller has a guided configuration process to help you set up the zones for a single type of system. For mixed systems (i.e. Under Floor Heating zones plus Radiator zones) use Guided Configuration for the larger system then "Add Zones" in the installer menu.

To add a stored hot water system use the guided configuration Stored Hot Water option in the installer menu.

Some Heat Pumps can cool as well as heat, only select the cooling option if it is available.

The following instructions cover the full configuring process for a zone, but if you are using Guided Configuration your **evohome** Controller will give you on-screen instructions to bind the other components to the **evohome** Controller – just follow the bind instruction for each device in this manual.

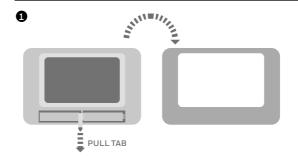
In this section

Powering up your evohome Controller Language selection and WiFi configuration Set-up the evohome controller for your system



First, power up the evohome Controller

- Remove the cover, remove the battery tab and replace the cover
- 2 Place it on the table stand or wall bracket.
- Once the batteries are fully charged, the evohome Controller can be easily removed from the table stand or wall bracket for ease of programming. After 30 minutes the evohome Controller will emit a beep to indicate that it should be replaced on the stand or wall bracket.



Language selection and WiFi configuration



wifi network details, or the homeowner doesn't require remote access you can skip the WiFi configuration and proceed with setting up the heating system. WiFi can be configured later in the SETTINGS > WIFI SETTINGS menu.



Select a language for the **evohome**Controller and connect to WiFi network

- Select a language for the evohome controller user interface
- 2 Follow the on-screen instructions to connect to a WiFi network. This enables automatic setting of the date and time for your location, as well as enabling remote connectivity via an Apple or Android Smartphone.

To configure WiFi you will need the home WiFi network password.

Instruct the homeowner / user to visit international. mytotalconnectcomfort.com to create an account, register the evohome Controller and download the app.





Select your store

Total Connect Comfort Int

To create an account and register the evolome controller the homeowner will need the MAC ID and CRC which can be found:

- On a label behind the front cover of the evohome Controller
- On screen during the WiFi set-up
- In the SETTINGS > WiFi SETTINGS menu after set-up has been completed



Set-up the evolome controller for your system



You may need to refer to the wiring diagrams in the Appendix.



The EIM in a
Connected Pack is
bound as a boiler
controller. If you
intend to use it as a
S-Plan/Y-Plan valve
controller the binding
must be cleared from
the EIM first - as



For a Connected Pack* and NO additional un-bound devices we recommended pressing 'Home' – then go to "Step 4: System test" on page 19



For an un-bound evohome Controller, PLUS addition un-bound devices. We recommended pressing "Guided Configuration" to add the un-bound devices and follow "step 3: Power up and bind devices" on page 11"



For a Connected Pack*, PLUS additional un-bound devices we recommended pressing "Installation Menu" to add the un-bound devices and follow *step 3: Power up and bind devices on page 11

*A Connected Pack contains devices which are already bound to the evohome Controller. Choosing "Guided Configuration" will delete the binding from evohome Controller and will require to be bound again.

The Equipment Interface Module (EIM, R9H911RF) in a Connected Pack is bound to a **boiler/heat pump** controller. If you intend to use it as a Zone Valve, S-Plan/Y-Plan (Sundial) Valve controller, the binding **must** be cleared by factory resetting the EIM first

Step 3: Power up and bind devices

If you bought a Connected Pack only - your devices are already bound. Go to Step 4.

Follow the instructions for the device(s) you're going to bind. When you bind a device to the evohome Controller the devices permanently store the connection and there should never be a need to rebind them again – even after a power cut.

In this section

Radiator Controllers (HR93)

EIM (R9H911RF) as a Cylinder Sensor and Stored Hot Water relay

- to control a Boiler or heat pump
- to control a Heat/Cool Change Over device
- to control an OpenTherm boiler
- to control a Zone Valve

Underfloor Heating Controller (HCC100)

Radiator Controllers (HR93)



evohome

If you are NOT following GUIDED CONFIGURATION follow these speeps on your evohome Controller display first:

- 2. Press the greer tick
- 3. Press ADD ZONE
- 4. Type a name for the new one and press the green tick
- 5. Press RADIATOR
- 6. If you want to control the zone temperature with the evohome Controller (which needs to be located in that zone) press YES, otherwise press NO

You must repeat these steps for each radiator controller



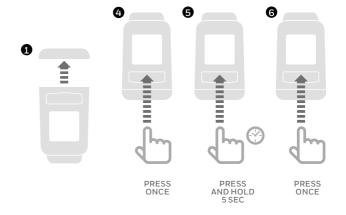
The older HR92 and HR91 controllers will not work with this version of evolutions.



Power up and bind your Radiator Controllers (HR93)

Bind the Radiator Controllers (HR93)

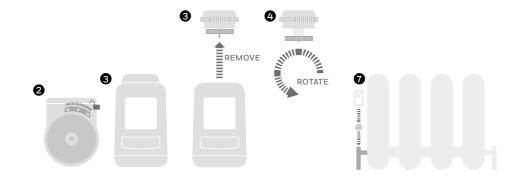
- Remove the circular top cover
- 2 Open the battery clip and insert the AA batteries supplied
- 3 Close the clip and replace cover
- Press the button once it should say UNBOUND
- **⑤** Press and hold the button for a further 5 seconds until it says BIND.
- 6 Press the button once it should say BINDING
- 7 You should receive a SUCCESS message on the evohome Controller (if not go back and re-bind)
- 3 The name of the allocated zone should appear on the HR93 display when you press the ⊞ button
- 9 Either press the green tick to add another radiator to the zone. Or press the red cross if you don't need to add another radiator to the zone.





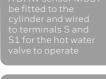
Install the Radiator Controllers (HR93)

- 1 Locate the room (zone) for the radiator controller
- 2 Slide the locking mechanism to the unlock position
- **3** Remove the adaptor from the bottom of the controller
- 4 Unscrew the black wheel fully anti-clockwise
- **5** Remove any existing control on the radiator valve
- **6** Screw the white end of the adaptor on to the radiator valve
- Push the controller fully on to the adaptor with the screen facing towards you
- **3** Slide the locking mechanism to the locked position



EIM (R9H911RF) as a Cylinder Sensor and Stored Hot Water relay



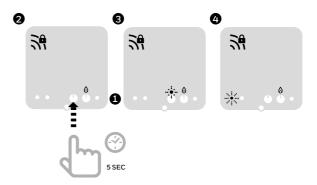




Power up and bind the EIM relay controlling the hot water valve

- If you are changing the function of the EIM first reset the device to clear previous bindings Using a small pointed object (such as a paperclip), press and hold the button located inside the small hole on the bottom right side of the EIM for 2 seconds, until both LED lights start flashing orange.
- Having previously decided which relay to wire and bind, press and hold button on the EIM for 5 seconds.
- 3 When the LED starts blinking, press bind on the evotouch screen.
- 4 You should receive a SUCCESS message on the evohome Controller (if not go back and re-bind)

Binding the hot water valve automatically binds the hot water sensor



EIM (R9H911RF) to control a Boiler or heat pump



If you are NOT following GUIDED CONFIGURATION follow these steps on your evohome Controller display first:

- Press and hold "settings"

 for 3 seconds.
- 2. Press the greer tick
- 3. Press SYSTEM DEVICES
- 4. Press APPLIANCE
- 5. Press WIRELESS



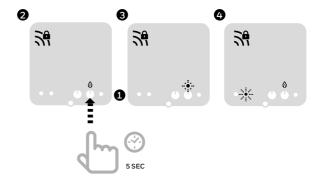
with evohome it is prebound as a Boiler to the left relay and this step is not required (look for the green Rf symbol)

Power up and bind one of the EIM relays.

Make sure the EIM is wired to the boilerand powered up

To bind the FIM

- If you are changing the function of the EIM first reset the device to clear previous bindings Using a small pointed object (such as a paperclip), press and hold the button located inside the small hole on the bottom right side of the EIM for 2 seconds, until both LED lights start flashing orange.
- Having previously decided which relay to wire and bind as the hot water valve press and hold button on the EIM for 5 seconds.
- 3 When the LED starts blinking, press bind on the evotouch screen.
- 4 You should receive a SUCCESS message on the evohome Controller (if not go back and re-bind)



EIM (R9H911RF) to control a Heat/Cool Change Over Device



If you are NOT following GUIDED CONFIGURATION follow these steps on your evohome Controller display first:

- Press and hold "settings" for 3 seconds.
- 2. Press the green tick
- 3. Press GUIDED CONFIG
- 4. Press HEAT/COOL CONFIG
- 5. Press SYSTEM
 TYPE as HEAT/COOL



The Wireless Relay
Box in a Connected
Pack is bound as a
boiler controller. If you
intend to use it as a
heat/cool changeover
the binding must
be cleared from
the Wireless Relay
Box first – as
described in step 1.

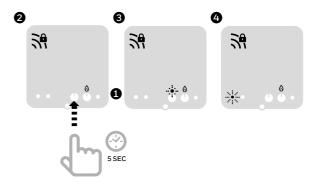
Power up and bind one of the EIM relays

Make sure the EIM is wired to the appliance and powered up



To bind the EIM

- 1 If you are changing the function of the EIM first reset the device to clear previous bindings Using a small pointed object (such as a paperclip), press and hold the button located inside the small hole on the bottom right side of the EIM for 2 seconds, until both LED lights start flashing orange.
- 2 Having previously decided which relay to wire and bind as the hot water valve press and hold button on the EIM for 5 seconds.
- When the LED starts blinking, press bind on the evotouch screen.
- You should receive a SUCCESS message on the evohome Controller (if not go back and re-bind)



EIM (R9H911RF) to control a zone valve



If you are NOT following GUIDED CONFIGURATION follow these steps on your evohome Controlle display first:

- 1. Press and hold "settings" ❖ for 3
- 2. Press the green tick
- 3. Press ADD ZONE
- 4. Type a name for the new one and press the green tick
- 5. Press ZONE

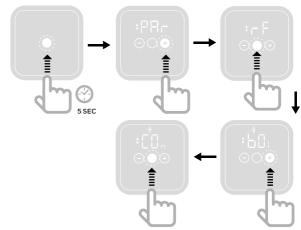


All of the remote room sensors will automatically exit from their binding menu after a short period



To bind the Digital Room Sensor (DT3RF or DT4RF)

- 1 Press the centre button to wake the sensor
- 2 Press again for 5 seconds it should say PAr
- 3 Press the button twice it should say bOi
- 4 Press the right button it should say COn
- **6** Press the centre button to bind
- **6** You should receive a SUCCESS message on the evohome Controller (if not go back and re-bind)

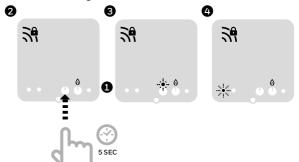




Power up and bind one of the EIM relays to control a Zone Valve

Make sure the EIM is wired to the Zone Valve and powered up. If you want to control the zone temperature with the

evolome Controller (the evolome Controller needs to be located in that zone) press YES, otherwise press NO and bind a sensor (Digital Room Sensor DT3RF or DT4RF).



Underfloor Heating Controller (HCC100)



Controlle

If you are NOT following GUIDED CONFIGURATION follow these steps on your evohome Controller display once the underfloor heating controller and sensors have been fitted:

- 1. On the evohome controller, press and hold "settings
 - for 3 seconds.
- 2. Press the green tick
- 3 Press ADD ZONE
- 4. Type a name for the new one and press the green tick
- 5. Press UNDERFLOOR HEATING
- 6. You need to install a sensor (DT4R OR WIRED SENSORS) ineachzonecontrolled by the underfloor controller and bind it to the evohome Controller.



you're adding on the evohome Controller corresponds to the correct underfloor heating zone.



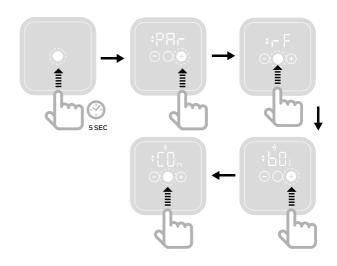
Power up and bind an Underfloor Heating Controller (HCC100)

If you want to control the zone temperature with your evolume Controller (the evolume Controller needs to be located in that zone) press YES, otherwise press NO and bind a sensor on DT4R device.



To bind the Digital Room Sensor (DT3RF or DT4RF)

- Press the centre button to wake the sensor
- 2 Press again for 5 seconds it should say PAr
- 3 Press the button twice it should say bOi
- 4 Press the right button it should say COn
- **6** Press the centre button to bind
- **6** You should receive a SUCCESS message on the evohome Controller (if not go back and re-bind)



Step 4: System test

Now that all the devices are bound to your **evohome**Controller and installed in their final locations, check that
the system works properly and that all the devices are
responding to commands from the **evohome** Controller.

You can perform a simple functional check of the heating system by overriding the temperature of each zone to their minimum and maximum while listening for a response from the radiator (or zone) controllers and boiler. To save power the battery devices only communicate with the **evohome** Controller every four minutes therefore the system may not respond immediately to a manual temperature change.

In this section

Advanced RF communication check Mains Powered Wireless Devices Battery Powered Devices

Advanced RF communication check



battery devices only communicate with the evohome Controller every four minutes therefore the system may not respond immediately to a manual change.



To check the RF signal strength between the wireless devices and the evohome Controller go to RF COMMS CHECK in the evohome Controller Installer Menu and test each wireless device.

- 1 On the evolome Controller press and hold "settings" for 3 seconds
- 2 Press the green tick
- 3 Press RF COMMS CHECK
- 4 Choose the device you want to test

Mains Powered Wireless Devices

Mains powered devices do not need to be put into test mode and will automatically respond to the test message sent from the evohome Controller:



Equipment Interface Module (EIM)

 The Relay Box will flash the LED from 1 flash (poor) to 5 flashes (excellent) – no flashing means the Relay Box has not received



Underfloor Heating Controller (HCC100)

The distributor controller shows on the Pro app in the menu "System status + Further" for each zone only the current signal strength of the evohome control panel with the antenna of this HCC100 controller. The wireless zone thermostats communicate via the evohome control panel.



Battery Powered Wireless Devices

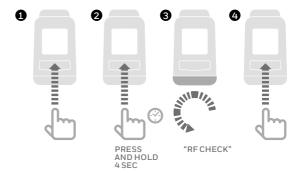
Battery powered devices need to be put into test mode to send and receive a test signal:

Radiator Controller (HR93)

- Press the button, the zone name is displayed

 Description

 D
- 2 Press and hold the button again for 5 seconds until it says BIND.
- 3 Turn the dial to display RF CHECK
- 4 Press and hold the button, the display should flash CHECKING
- Fress and hold the button again, the display should flash SIGNAL and will display a signal strength bar and a rating from 1 (poor) to 5 (excellent) − 0 means the Radiator Controller has not received a test signal from the evohome Controller.



Advanced RF communication check continued



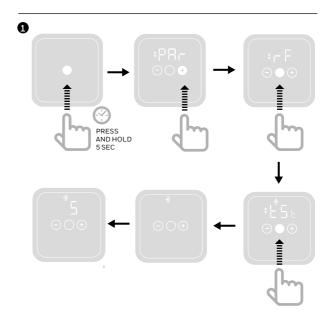
Digital Room Thermostat (DT3R/DT4R)

- 1 Press and hold to wake the sensor (1)

- 2 Press + button
- 3 Select rF and tSt

The evolome Controller will display the signal strength (poor to excellent) and the Room Thermostat will display a signal strength rating from 1 (poor) to 5 (excellent) – 0 means the Room Thermostat has not received a test signal from the evolome Controller.

6 To exit test mode, press off on Room Thermostat for 5 seconds. It will exit automatically after 10 seconds.



Configuration and modification

Once you've completed the steps, you're ready to start using your **evohome** system. You can also make parameter adjustments in the **evohome** Controller to match the exact requirements of the heating system. The operation and functions of the each zone can also be adjusted. These can be found in the Installer Menu.

Components can be added or replaced by editing the zones or system in the Installer menu.

In this section

Parameters and Control features Configuring a zone with multiple rooms Adding or replacing components in an existing system

Parameters and Control Features

Once you've completed these steps you're ready to start using evo. The user guide gives you instructions for personalising the settings on the evohome Controller.

You can also make parameter adjustments on your evolome Controller to match the exact requirements of the heating system. These can be found in the Installer Menu.

- On the evolome Controller press and hold "settings" for 3 seconds
- 2 Press the green tick
- **3** Press SYSTEM PARAMETERS and choose the parameter you want to adjust.
 - Internal Sensor Offset
 - Cvcle Rate
 - Minimum On Time
 - Fail Safe
 - Hot Water Parameters

For more details on parameters visit info.honeywellhome.com/evohome

Configuring a zone with multiple rooms



does not support separate remote temperature sensors (such as DT4R) Room temperature sensing is done by the radiator controllers.

evohome allows you to create a zone with multiple rooms (i.e. Bedrooms) that are controlled together as one group. It does this by letting all the radiator controllers bound to that zone to independently measure room temperature and control a radiator. This means you can locate the radiator controllers in separate rooms without them all being controlled by one temperature sensor like a single room zone does.

To create multiple room zone either:

 Add a new zone and bind the radiator controllers for all the rooms. Go to the parameters menu and select multiple room zone.

OR

 Go to Zone Configuration and edit an existing zone's parameters. Any bound radiator controllers already bound to that zone will now work independently.

Parameters and Control Features



To add or replace a zone device such as a Radiator Controller or Temperature Sensor

- 1 On the evolome Controller press and hold "settings" for 3 seconds
- 2 Press the green tick
- 3 Press 70NF CONFIGURATION
- 4 Select required zone
- **6** Press RF DEVICE BINDING then follow the instruction to bind this device.

To replace a system device such as an EIM, System Valve, or Hot Water component

- ① On the evolome Controller press and hold "settings" for 3 seconds
- 2 Press the green tick
- 3 Press SYSTEM DEVICES
- Select the type of device and follow the instruction to bind.

Appendix

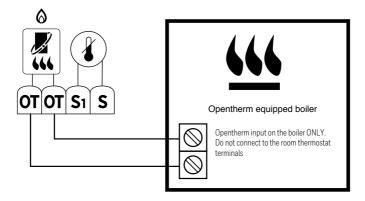
Heating System schematics. Wiring diagrams.

In this section

Sample evolome systems

Connecting an OpenTherm Appliance

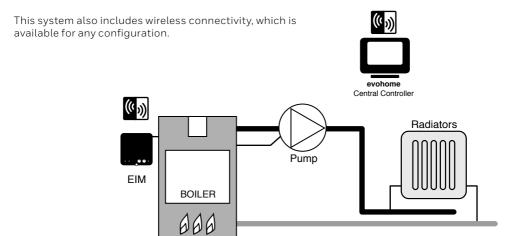
Wiring the EIM to an OpenTherm appliance.



EIM (R9H911RF) to control a Boiler

Single zone or thermostat operation

The evohome controller is the sensor for thewhole home which is controlled to the same time and temperature schedule.

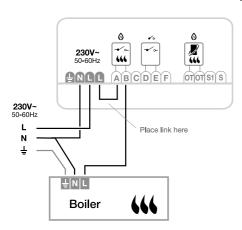


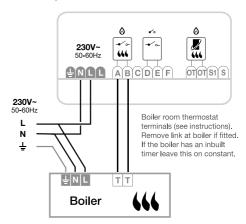
230vac Basic Boiler

Wiring for a basic boiler (not requiring a pump overrun). The relay powers the boiler live input

Boiler that requires a permanent live operation

For use with boilers that require permanent live (this is a typical combi boiler wiring) but please check manufacturers instructions. This can be used for boilers with low voltage or 230vac room thermostat inputs

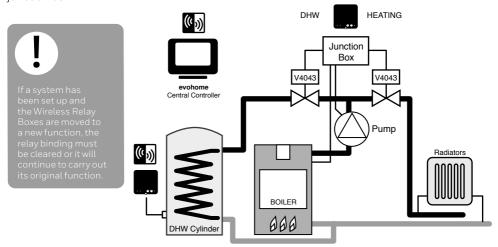




Sample evohome system

S Plan 2 two-port valves

There are two zone valves – one for stored hot water one for central heating. The evohome Controller is the sensor for the whole home which is controlled to the same time and temperature schedule. The valves open when needed and the boiler is operated via a wired junction box.



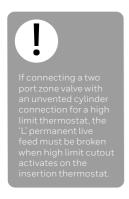
Connecting a two port zone valve

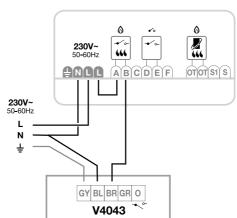
G/Y: Green/Yellow Earth wire **BL:** Blue Motor Neutral

BR: Brown Motor Live

GR: Grey end Switch (if used) Permanent Live **O:** Orange End Switch (if used) In wired system this typically feeds the boiler

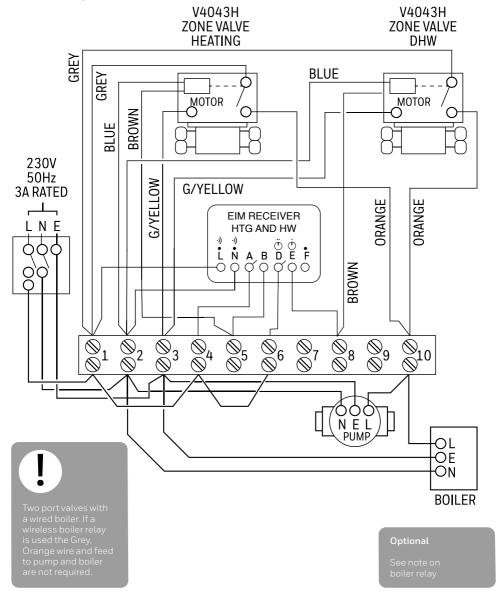
When a wireless boiler relay is fitted, the end switch is not required





Sundial or system valves

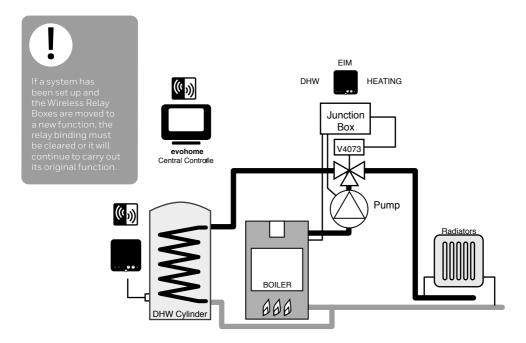
S Plan: 2 two-port valves with a wired boiler



Sample **evohome** system

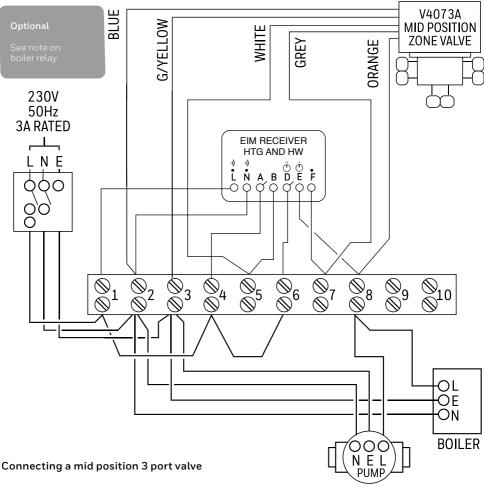
Y Plan 1 three-port mid-position valve

The operation is identical to the S plan but it uses a single three-port or mid position valve.



Y Plan: Three-port Mid position valve with a wired boiler

If a wireless boiler relay is used the Orange wire and feed to pump and boiler are not required.



G/Y: Green/Yellow Earth wire BL: Blue Motor Neutral W: White Heating Relay GR: Grey Hot Water Relay

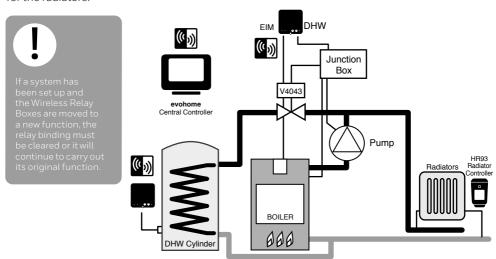
O: Orange End switch (if used). In wired system, this typically feeds the boiler. When a wireless boiler relay is fitted the end switch is not required..

When a wireless boiler relay is fitted, the end switch is not required

Sample evohome system

Stored hot water and zoned heating

Stored hot water and zoned heating system. This system needs HR93s or other zoning solutions for the radiators.

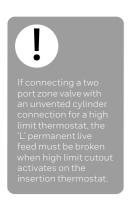


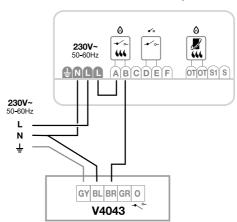
Connecting a two port zone valve

G/Y: Green/Yellow Earth wire BL: Blue Motor Neutral BR: Brown Motor Live

GR: Grey end Switch (if used) Permanent Live **O:** Orange End Switch (if used) In wired system this typically feeds the boiler

When a wireless boiler relay is fitted, the end switch is not required

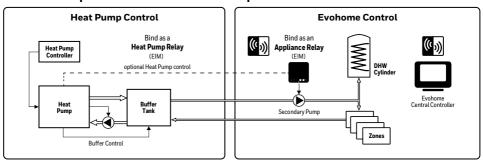




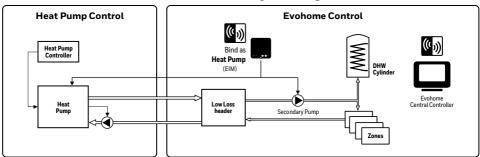
Heat Pump Diagrams

The EIM/R9H911RF can now be used to control boilers or heat pumps. The diagram shows when it should be bound as a heat pump to increase the range of setting parameters.

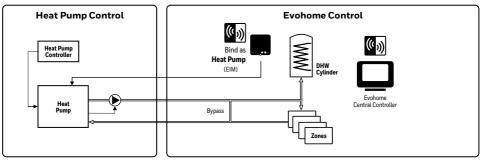
Heat Pump with buffer tank - separate control



heat pump with low loss heder only - integrated control



Heat Pump Direct control, no hydronic seperation *use with caution



^{*}Always refer to appliance manufacturers advice for configuration and integration settings

evohome

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