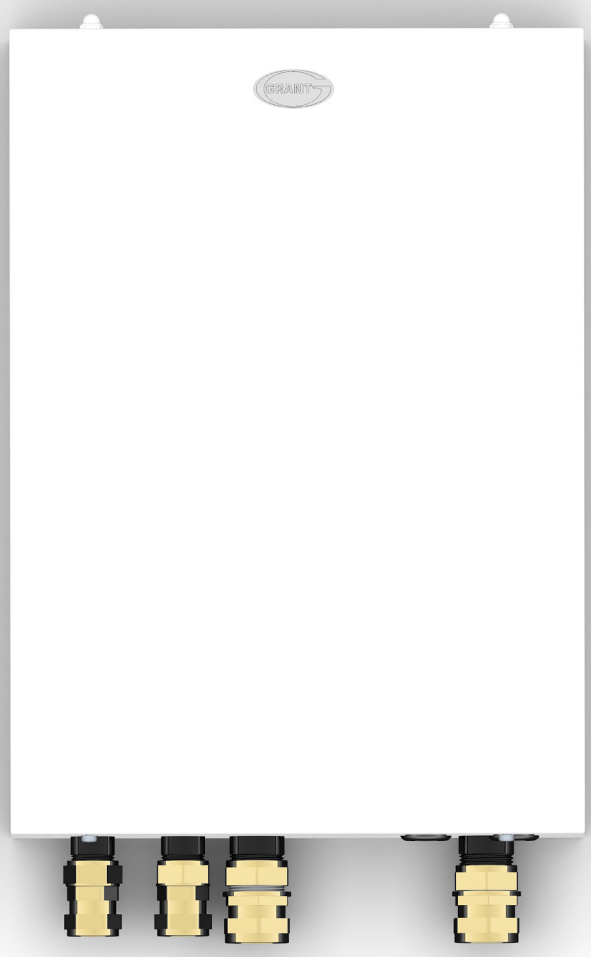
Grant EvoLink Smart

Hybrid System Hub

Installation & Operating Instructions



UK | DOC 0209 | Rev 1.2 | December 2025

IMPORTANT NOTE FOR INSTALLERS

These instructions are intended to guide installers on the installation and commissioning of the Grant EvoLink Smart hybrid system hub, intended for use with the Grant Aerona air source heat pump range used in conjunction with another heating appliance. After installing the unit, leave these instructions with the user.

SPECIAL TEXT FORMATS

The following special text formats are used in these instructions for the purposes listed below:

! WARNING !

Warning of possible human injury as a consequence of not following this instruction.

! CAUTION !

Caution concerning likely damage to equipment or tools as a consequence of not following this instruction.

! NOTE !

Used for emphasis or information not directly concerned with the surrounding text but of importance to the reader.

PRODUCT CODES & SERIAL NUMBERS

The serial numbers used on the product consist of a 15 digit numerical code with the final three digits being the product identifier.

For example:

XXXXXXXXXXX812

This serial number can be found on a label attached to the side of the unit.

These instructions cover the following product codes and serial numbers:

Product code	Serial number identifier
EVOLINKSMART	812

! CAUTION !

Electric shock may cause serious personal injury or death.

All electrical work must be undertaken by a competent person. Failure to observe this legislation could result in an unsafe installation and will invalidate all guarantees.

All electrical connections made on-site are solely the responsibility of the installer.

CUSTOMER SUPPORT CENTRE

Grant UK provides an online support centre for heating professionals and homeowners to access post-installation care, advice and maintenance support for Grant products. Follow the QR codes below to access your relevant Customer Support Centre.

SUPPORT HUB

Homeowner

SUPPORT HUB

Professional

GRANT ENGINEERING (UK) LIMITED

Frankland Road, Blagrove Industrial Estate, Swindon, SN5 8YG

Tel: +44 (0)1380 736920 Fax: +44 (0)1380 736991

Email: info@grantuk.com www.grantuk.com

Contents

1 INTRODUCTION 4
- 1.1 General 4
- 1.2 How it Works 4
- 1.3 Touchscreen User Interface 4
- 1.4 Product Contents 4

2 TECHNICAL DATA 5
- 2.1 EvoLink Smart Technical Data 5
- 2.2 Dimensions 5

3 INSTALLATION 6
- 3.1 General 6
- 3.2 Regulations and Standards 6
- 3.3 Location 6
- 3.4 Clearances 6
- 3.5 Metering 6
- 3.6 System Cleaning 6
- 3.7 Pipe Connections 6
- 3.8 EvoLink Smart Installation 7
- 3.9 Installation Procedure 7
- 3.10 System Diagrams 8

4 ELECTRICAL 10
- 4.1 General 10
- 4.2 Electrical Connections 10
- 4.3 Boiler Connection 10
- 4.4 Electrical Schematics 11

5 COMMISSIONING 13
- 5.1 Commissioning 13
- 5.2 Enabling EvoLink functionality 13
- 5.3 Adjusting the EvoLink Smart 14

6 EVOLINK SMART OPERATION 15
- 6.1 Introduction 15
- 6.2 Operation 16
- 6.3 Heat pump (MHS) Override 16

7 DECLARATION OF CONFORMITY 18

8 HEALTH AND SAFETY INFORMATION 19
- 8.1 General 19
- 8.2 Insulation Materials 19
- 8.3 Sealant and Adhesive 19

9 GUARANTEE 20

ONLINE RESOURCES 22

NOTES 23

1 Introduction

1.1 GENERAL

The Grant EvoLink Smart is a unique means of utilising a Grant Aerona 290 or Aerona³ air source heat pump with an existing wet domestic heating system, where a heat pump alone would be unable to meet the design heat demand of the property.

Used in conjunction with any existing gas, oil-fired, LPG, electric or biomass* boiler, the Grant EvoLink Smart can be used on systems with a space heating demand of up to 28kW, allowing the end user to benefit from the highly efficient, low carbon operation of an Aerona heat pump to provide space heating and hot water for a large part of the year, with the boiler used only as a supplementary heat input to assist the heat pump during colder periods.

In warmer times, the higher outdoor temperatures reduce the heat demand of the property allowing this to be met with lower water flow temperatures in the heating system that may be met by the heat pump alone or with a smaller contribution from the boiler.

The Grant EvoLink Smart control system both determines the required flow temperature, either fixed or using weather compensation, and controls how it is achieved either with the heat pump alone or with some contribution from the boiler.

Using the boiler as a supplementary heater in this way, under the control of the Grant EvoLink Smart and Aerona Smart Controller, allows the existing heating system to be retained. However Grant advise that a range of measures should be considered to reduce dependency on the boiler and maximise the use of the heat pump. These can be implemented when the EvoLink Smart is installed, or in stages following the installation to spread the cost involved.

These measures would include, where applicable, reducing the building heat loss by improving the building insulation, fitting or improving double glazing, etc. and improving the efficiency of the heating system by resizing radiators and pipework such that the heat demand can be met with a maximum flow temperature of 55°C.

The Grant EvoLink Smart is enclosed in a wall mounted casing with a removable front panel and is designed to be installed internally.

*Automatic modulating biomass boilers only

1.2 HOW IT WORKS

The Grant EvoLink Smart control system allows a air source heat pump to be used in conjunction with an existing gas or oil-fired domestic heating boiler on an existing domestic heating system. This includes standard, system and combi boilers.

Both the heat pump and boiler are controlled by the Grant Aerona Smart Controller in response to either a space heating or hot water demand from the heating system controls. Refer to your supplied installation and operating instructions:

- DOC 0203 - for systems without Grant QR pre-plumbed cylinder.
- DOC 0205 - for systems with Grant QR Smart pre-plumbed cylinder
- DOC 0217 - for systems with Grant QR2 Smart pre-plumbed cylinder.

1.2.1 SPACE HEATING

The EvoLink Smart operates to produce space heating and can be weather compensated with the compensation curve parameters set via the Aerona Smart controller touchscreen user interface. Refer to Section 7 of the Grant Aerona Smart Controller manual for details on the weather compensation settings.

The EvoLink Smart control system uses the heat pump and, when necessary, the boiler to achieve the required target flow temperature. As the outdoor air temperature changes, so will the heat demand and thus the required target flow temperature.

The boiler is operated when the heat pump alone cannot achieve the required target flow temperature to the system. Refer to Section 6.2.1 for details on Space Heating control.

The EvoLink Smart can be configured to disable the heat pump and operate the boiler only, if the ambient temperature falls to a level that would make the heat pump uneconomical in attempting to meet the total space heating demand for the property.

1.2.2 HOT WATER

If the Grant EvoLink Smart is used in conjunction with a combi boiler, the DHW is produced directly from the combi boiler and it is not controlled by the Grant EvoLink Smart Control system.

For all other boilers (standard or system boilers, etc.), the boiler is operated when the heat pump alone cannot achieve the required target flow temperature to the hot water cylinder. Refer to Section 6.2.2 for details on Hot Water control.

Note that there is no weather compensation control for the water flow temperature when the EvoLink Smart is operating in response to a hot water demand.

In response to a hot water demand, the Grant EvoLink Smart control system provides hot water priority. When operating in response to a heating demand, should a hot water demand occur, the control system will immediately stop the heating operation and give priority to hot water operation, i.e., switch from a weather compensated flow temperature to the fixed setpoint set for hot water.

1.3 TOUCHSCREEN USER INTERFACE

The EvoLink Smart is managed via the Grant Aerona Smart Controller touchscreen and is designed to be used to:

- Set the EvoLink Smart delta set-point, time counters and parameters.
- Disable the heat pump when uneconomical to operate.
- Display which demand is present (space heating or hot water)
- Display whether the heat pump or boiler (or both) are operating.
- Display the electricity consumed by the heat pump.
- Access the diagnostic features of the EvoLink Smart control system.
- Display real time data including flow, return and outside temperatures.
- Manage the properties heating and DHW demands.
- Allow remote access for servicing and monitoring.

For further details on the use of the touch-screen user interface, refer to Section 7 of your supplied Grant Aerona Smart Controller manual.

1.4 PRODUCT CONTENTS

The Grant EvoLink Smart is supplied already fully assembled in a carton which is carefully packed with packing materials.

Table 1-1: Product contents

Quantity	Item
1	**EvoLink Smart unit**
1	Wall mounting plate
1	Installation instructions
2	Brass 3/4" female to 22mm compression connector*
2	Brass 1" female to 28mm compression connector*

* supplied factory fitted

2 Technical Data

2.1 EVOLINK SMART TECHNICAL DATA

Table 2-1: EvoLink Smart Technical Data

Property	Value
Weight - empty	18.2 kg
Weight - full	20.8 kg
Water content	2.6 litres

2.2 DIMENSIONS

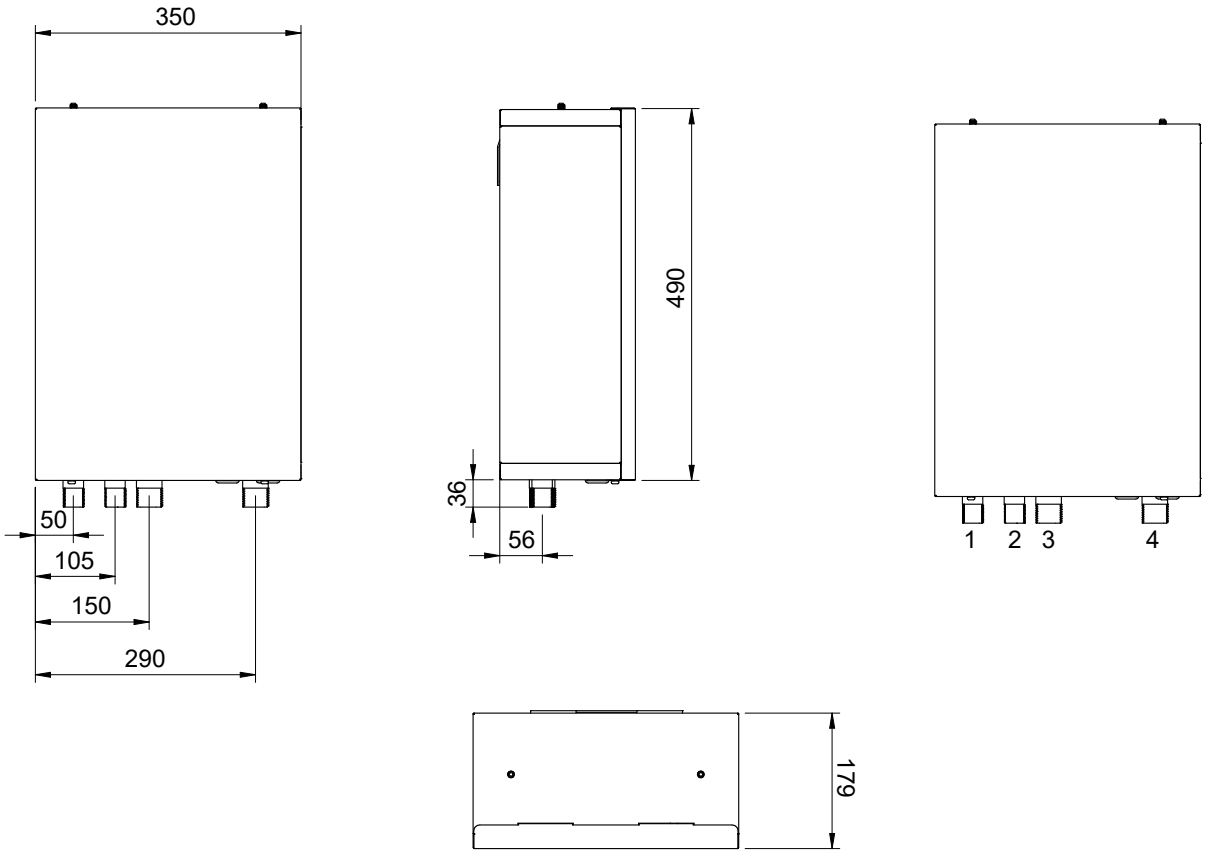


Figure 2-1: EvoLink Dimensions

Table 2-2: EvoLink Smart pipe connections

No.	Connection	Size
1	Boiler flow	22mm compression
2	Boiler return	22mm compression
3	Heat pump flow	28mm compression
4	System flow	28mm compression

3 Installation

3.1 GENERAL

This section gives details of the installation process for the Grant EvoLink Smart.
These installation instructions must be read in conjunction with:

- The supplied air source heat pump installation instructions (provided with the unit).
- The installation instructions for the boiler.

Before starting to install the Grant EvoLink Smart, please read the Health and Safety information given in Section 8 of these installation instructions.

Similarly, before starting any installation work on the Grant Aerona air source heat pump, please read the Health and Safety information given in the manual supplied with your air source heat pump.

3.2 REGULATIONS AND STANDARDS

The installation of the Grant EvoLink Smart, the Grant Aerona air source heat pump and the existing boiler must be in accordance with the following recommendations, as applicable:

- Building Regulations for England and Wales, and Building Standards for Scotland
- Local Bylaws (check with the Local Authority for the area)
- Water Supply (Water Fittings) Regulations 1999
- MCS Installer Standards (if applying for the Renewable Heat Incentive)
  - MIS3005-D The heat pump Standard (Design)
  - MIS3005-I The heat pump Standard (Installation)
  - MCS020 MCS Planning Standard

The installation should also be in accordance with the latest edition of the following standards and Codes of Practice:

- BS7671 and amendments
- BS EN 12831

3.3 LOCATION

The Grant EvoLink Smart is enclosed in a wall mounted casing designed to be installed internally.

The wall onto which the EvoLink Smart is to be fixed must be flat, vertical and of a suitable construction firm enough to support the weight of the unit.

Do NOT install the EvoLink Smart in any of the following locations:

- Externally. It must be installed inside the property.
- In damp conditions within the property, e.g. any locations subject to steam and condensation such as a bathroom.
- In a position subject to heat, e.g. above a boiler, cooker, or radiator or where it will be in direct sunlight.
- Where it can be reached and tampered with by children.

The EvoLink Smart must be positioned such that there are sufficient clearances all round it for installation, maintenance and to allow the front cover to be removed. Refer to subsection 3.4 - Clearances.

3.4 CLEARANCES

The minimum clearances given below must be used to enable the EvoLink Smart to be easily commissioned, serviced, and maintained.

Sides: 30mm

Above: 50mm

Below: 300mm

In front: 600mm

3.5 METERING

The Grant EvoLink Smart control system can be configured to display the electrical consumption of the heat pump (in kWh) via the touchscreen interface either as part of the COP or power consumption meters.

Refer to System settings section of your Aerona Smart controller manual (UK DOC 0203 or UK DOC 0205) for further information.

3.6 SYSTEM CLEANING

! CAUTION !

Grant recommends that the existing system be thoroughly cleaned prior to commencing the installation of the Grant EvoLink Smart.

For optimum performance, and to avoid the danger of dirt and foreign matter entering the EvoLink Smart and Aerona air source heat pump, the complete heating system should be thoroughly flushed out before starting the EvoLink Smart installation.

This should be carried out in accordance with the guidelines given in BS 7593 ‘Treatment of water in domestic hot water central heating systems’. This must involve the use of a proprietary cleaner, such as Sentinel X300 or X400 or Fernox Restorer.

Grant also strongly recommends that a Grant MagOne Duo in-line magnetic filter (or equivalent*) is fitted in the heating system return pipework to the heat pump when installed. This should be installed and regularly serviced in accordance with the filter manufacturer’s instructions.

*The Grant MagOne Duo magnetic filter has a Gauss measurement of 12000.

3.7 PIPE CONNECTIONS

The Grant EvoLink Smart is supplied with four pipes protruding vertically downwards through the casing base panel – refer to Section 2.2 – Dimensions.

These pipes are factory fitted with female iron to compression connections with pipe sizes as follow from left to right (viewed from the front of the EvoLink Smart):

- Boiler flow connection – 22mm copper
- Boiler return connection – 22mm copper
- Heat pump flow connection – 28mm copper
- Heating system flow connection – 28mm copper

3.8 EVOLINK SMART INSTALLATION

Remove the Grant EvoLink Smart from its packaging and place it back panel downwards, on a clean, flat, level floor and prepare it for installation as follows:

- Remove the front casing panel. Unscrew and remove the two screws on the underside of the front casing panel and lift the bottom-edge of the front panel and slide towards the top of the unit and lift it off.
- Remove the wall fixing plate from the supplied fittings pack.
- Position the wall fixing plate on the wall where the EvoLink Smart is to be installed with the outward facing edge at the top.

  To ensure that the final position of the EvoLink Smart is as required, position the wall fixing plate as follows:

  Bottom edge of wall fixing plate:

  104mm below the top surface of EvoLink Smart casing

  Edge of wall fixing plate:

  75mm in from side surface of EvoLink Smart casing

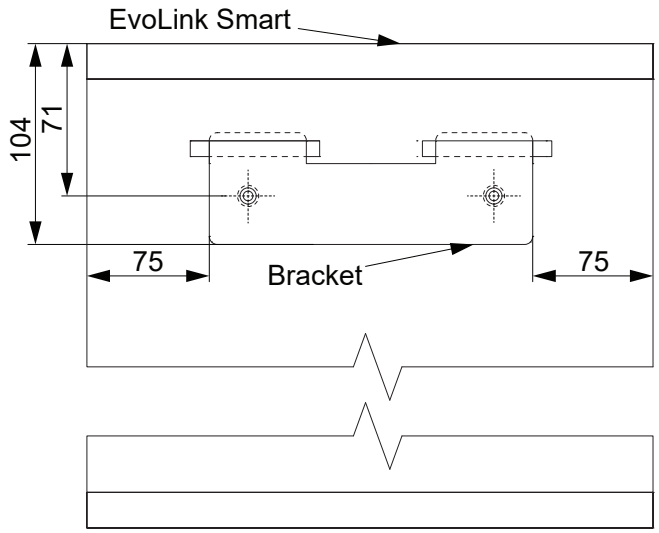


Figure 3-1: Mounting plate

- Using a spirit level, check the wall mounting plate is level and use it as a template to mark the centres of the two fixing holes on the wall.
- Remove the mounting plate from the wall. Drill and fit suitable wall plugs for the type of wall construction concerned.
- Securely fix the wall mounting plate to the wall using suitable screws and check again it is level.
- Lift the EvoLink Smart into place on the wall, ensuring that the top rear of the EvoLink Smart back panel is correctly located into the wall mounting plate.

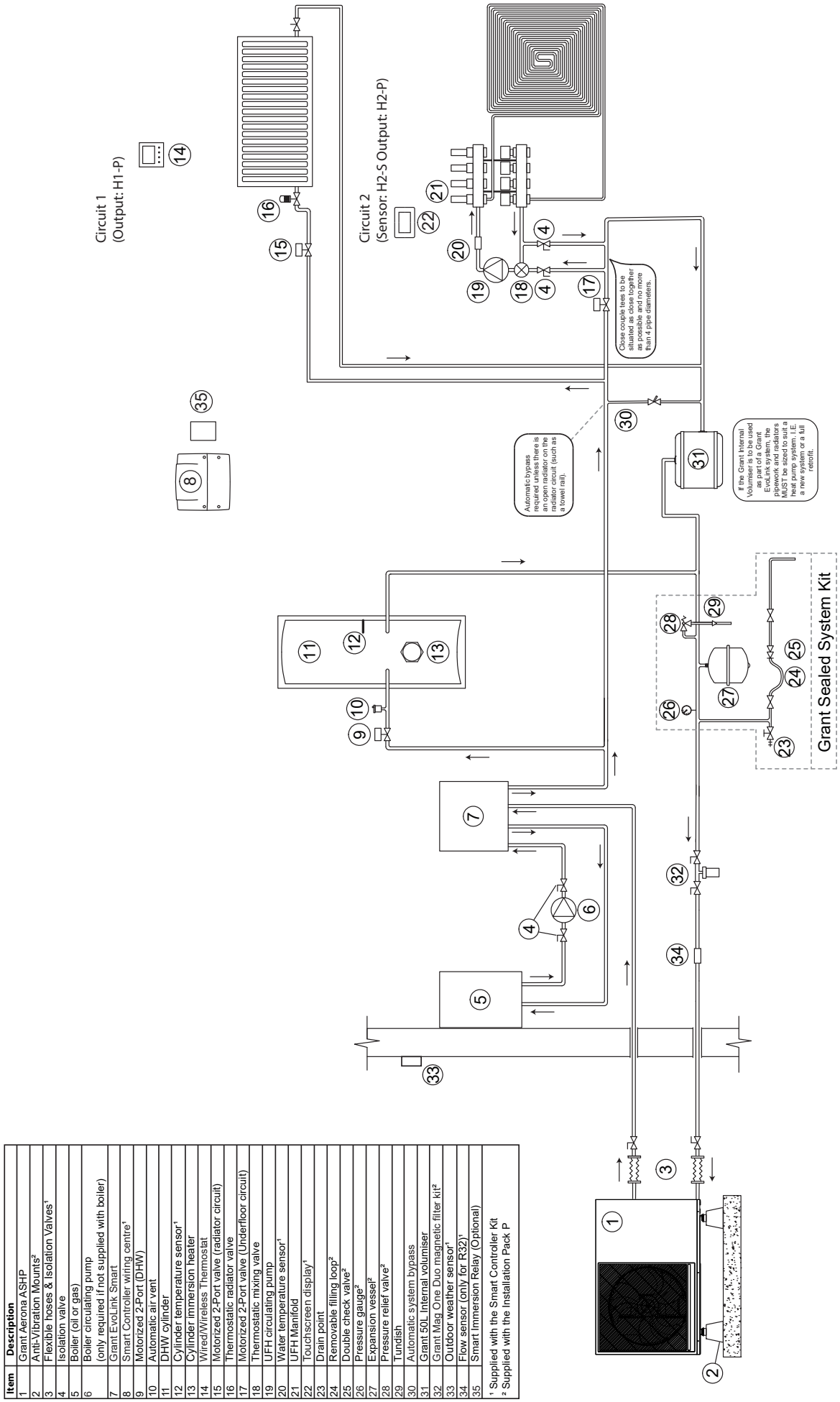
  It may be necessary to slide the EvoLink Smart to one side or another on the wall mounting plate, to position it exactly as required on the wall. There is approx. 20mm of adjustment available.
- Connect the pipework to the four pipe connections, projecting below the base panel. Refer to Section 2.2 & 3.7 for details.

3.9 INSTALLATION PROCEDURE

- Thoroughly flush the existing heating system and boiler.
- Switch off existing heating system and isolate electrical supply to the controls and boiler.
- Fully drain down the existing heating system.
- Disconnect the boiler from heating system controls.
- Disconnect the flow and return connections from the existing boiler.
- Install the Grant EvoLink Smart unit on the wall in the chosen position, having carefully considered the location. Refer to Section 3.9 - EvoLink Smart installation.
- Connect the flow and return from the existing boiler to the correct pipe connections on the EvoLink Smart. Refer to Section 2.2 and Figure 6-1.
- Ensure a Grant MagOne Duo in-line magnetic filter (or equivalent) is installed in the heating system return pipework to the heat pump.
- Connect the existing heating system flow to the correct pipe connections on the EvoLink Smart. Refer to Section 2.2 and Figure 6-1.
- Install the Aerona air source heat pump in accordance with the installation instructions supplied with the unit.
- Connect the flow from the air source heat pump to the correct pipe connection on the EvoLink Smart. Refer to Section 2.2 and Figure 6-1.
- Fit manual or automatic air vents at the highest point of both flow and return pipework.
- With the electrical supply still isolated, connect the electrical supply, heating system controls, and electrical controls connection to the air source heat pump. Refer to Section 4 of these instructions.
- Fill and vent the heating system and check for leaks. Refer to the air source heat pump installation instructions for details of the requirements for anti-freeze & corrosion protection (if required) and prevention of biological growth.
- Check for leaks at all joints on the EvoLink, i.e. on the PWM pump and the fittings on the four pipes, as they may have become loose or damaged in transit.
- Commission the EvoLink Smart installation as detailed in Section 5 of these instructions.

3.10 SYSTEM DIAGRAMS

3.10.1 NON COMBI BOILER S-PLAN

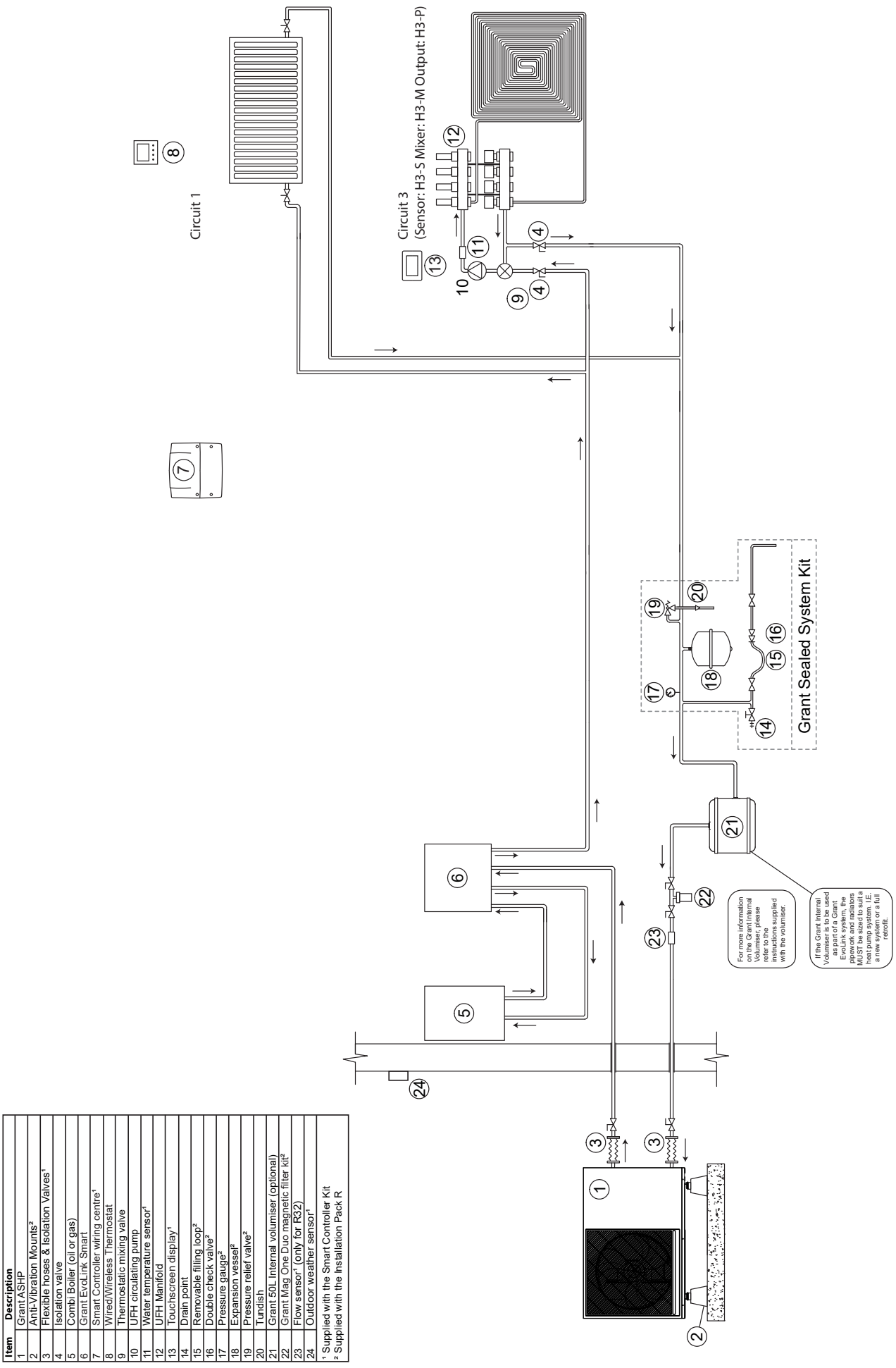


Item	Description
1	Grant Aerona ASHP
2	Anti-Vibration Mounts²
3	Flexible hoses & Isolation Valves¹
4	Isolation valve
5	Boiler (oil or gas)
6	Boiler circulating pump (only required if not supplied with boiler)
7	Grant EvoLink Smart
8	Smart Controller wiring centre¹
9	Motorized 2-Port (DHW)
10	Automatic air vent
11	DHW cylinder
12	Cylinder temperature sensor¹
13	Cylinder immersion heater
14	Wired/Wireless Thermostat
15	Motorized 2-Port valve (radiator circuit)
16	Thermostatic radiator valve
17	Motorized 2-Port valve (Underfloor circuit)
18	Thermostatic mixing valve
19	UFH circulating pump
20	Water temperature sensor¹
21	UFH Manifold
22	Touchscreen display¹
23	Drain point
24	Removable filling loop²
25	Double check valve²
26	Pressure gauge²
27	Expansion vessel²
28	Pressure relief valve²
29	Tundish
30	Automatic system bypass
31	Grant 50L Internal volumiser
32	Grant Mag One Duo magnetic filter kit²
33	Outdoor weather sensor¹
34	Flow sensor (only for R32)¹
35	Smart Immersion Relay (Optional)

¹ Supplied with the Smart Controller Kit
² Supplied with the Installation Pack P

Figure 3-2: System Schematic - Non Combi Boiler - Pack P

3.10.2 COMBI BOILER S-PLAN



Item	Description
1	Grant ASHP
2	Anti-Vibration Mounts²
3	Flexible hoses & Isolation Valves¹
4	Isolation valve
5	Combi Boiler (oil or gas)
6	Grant EvoLink Smart
7	Smart Controller wiring centre¹
8	Wired/Wireless Thermostat
9	Thermostatic mixing valve
10	UFH circulating pump
11	Water temperature sensor²
12	UFH Manifold
13	Touchscreen display¹
14	Drain point
15	Removable filling loop²
16	Double check valve²
17	Pressure gauge²
18	Expansion vessel²
19	Pressure relief valve²
20	Tundish
21	Grant 50L Internal volumiser (optional)
22	Grant Mag One Duo magnetic filter kit²
23	Flow sensor¹ (only for R32)
24	Outdoor weather sensor¹

¹ Supplied with the Smart Controller Kit
² Supplied with the Installation Pack R

Figure 3-3: System Schematic - Combi Boiler - Pack R

4 Electrical

! WARNING !

Electric shock may cause serious personal injury or death.

All electrical work must be undertaken by a competent person.

Failure to observe this legislation could result in an unsafe installation and will invalidate all guarantees.

All electrical connections made on-site are solely the responsibility of the installer.

4.1 GENERAL

The Grant EvoLink Smart uses the same power supply as the Grant Aerona Smart Controller and as such does not require an additional independent power supply.

4.2 ELECTRICAL CONNECTIONS

The Grant EvoLink Smart is manufactured to require only the following connections from the Grant Aerona Smart Controller to function.

230V Connections

- 230V Live: Terminal 19 of the Smart Controller wiring centre
- Neutral: Terminal 4 of the Smart Controller wiring centre
- Earth: Use the supplied earth bar in Smart Controller wiring centre.

All 230V wiring should be fed through the right of the two grommets in the underside of the EvoLink Smart unit and secured using the cable clamp provided.

12V Connections

- Terminals 33 & 34: PWM pump feedback signal
- Terminals 37 & 38: EvoLink flow water temperature sensor (connected to the system flow pipe)
- Terminals 45 & 46: Additional heat source (boiler) flow water temperature sensor (connected to the flow pipe from the boiler to the EvoLink Smart)

The terminals inside the EvoLink Smart are clearly labelled to allow for quick and easy connection.

All 12V wiring should be fed through the left of the two grommets in the underside of the EvoLink Smart unit and secured using the cable clamp provided..

! WARNING !

Close attention must be paid to the high and low voltage connections of the EvoLink Smart to avoid damage to the unit and injury to the user.

4.3 BOILER CONNECTION

The boiler (AHS) power supply should be supplied from the Grant Aerona Smart Controller wiring centre.

4.3.1 Permanent Live

The boiler (AHS) permanent live (if required) should be connected Terminal 20 of the Smart Controller wiring centre.

The neutral should be connected to Terminal 4 in line with the EvoLink Smart hub PWM pump.

Refer to Section 4.4 for electrical schematics.

4.3.2 Switched live demand

The boiler (AHS) switched live should be connected to Terminal 19 of the Smart Controller wiring centre.

Refer to Section 4.4 for electrical schematics.

Volt free demand

For a boiler that requires a ‘volt free’ contact to close to create a demand for heating or hot water, you will need to install a suitable relay to create the connection.

This relay should be switched by the live from Terminal 19 and the Neutral from Terminal 4 of the Smart Controller wiring centre (or any neutral labelled terminal in the Smart Controller wiring centre).

4.4 ELECTRICAL SCHEMATICS

4.4.1 PACK P NON-COMBI BOILER

Notes: Some Neutral and Earth connections have been excluded for clarity.

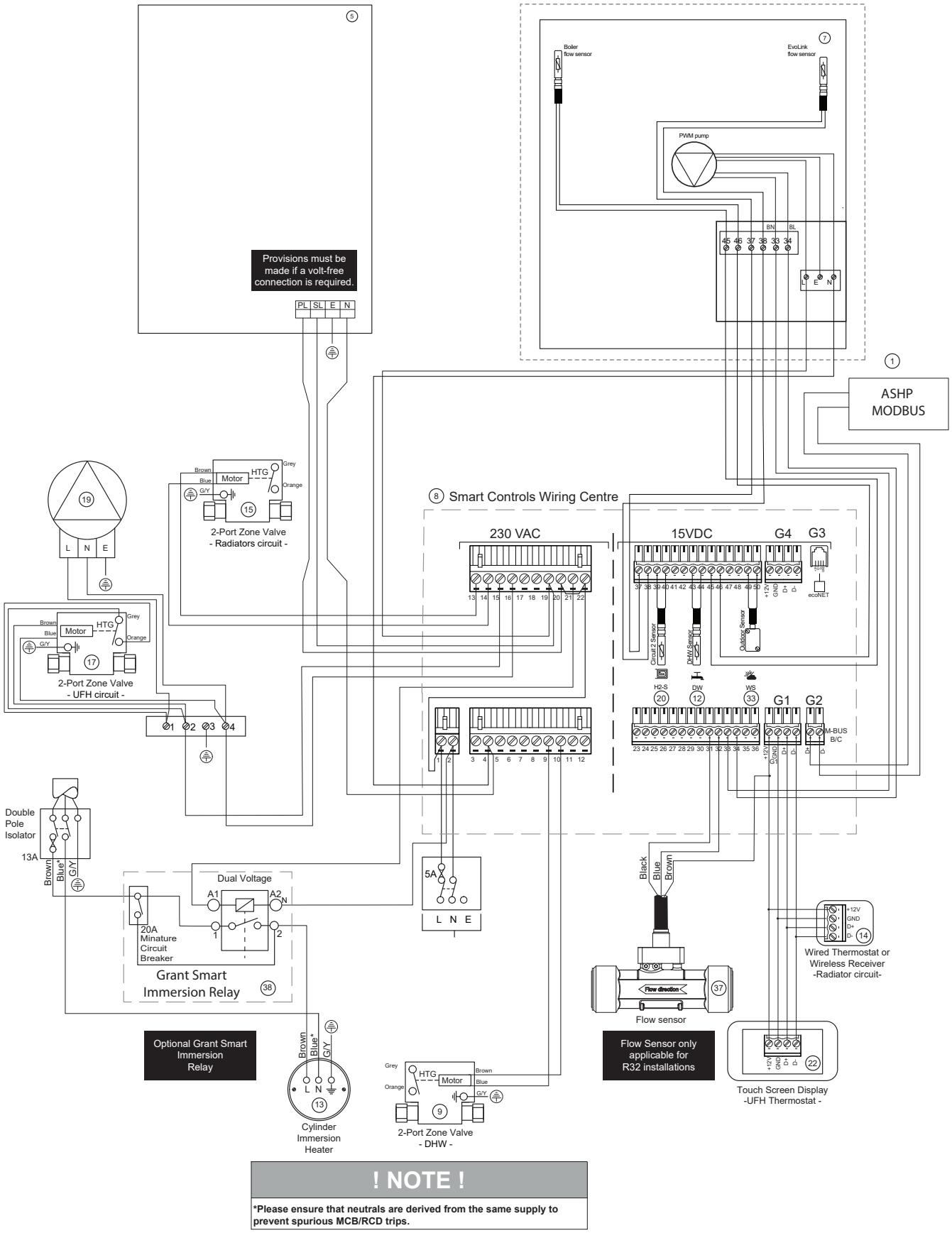
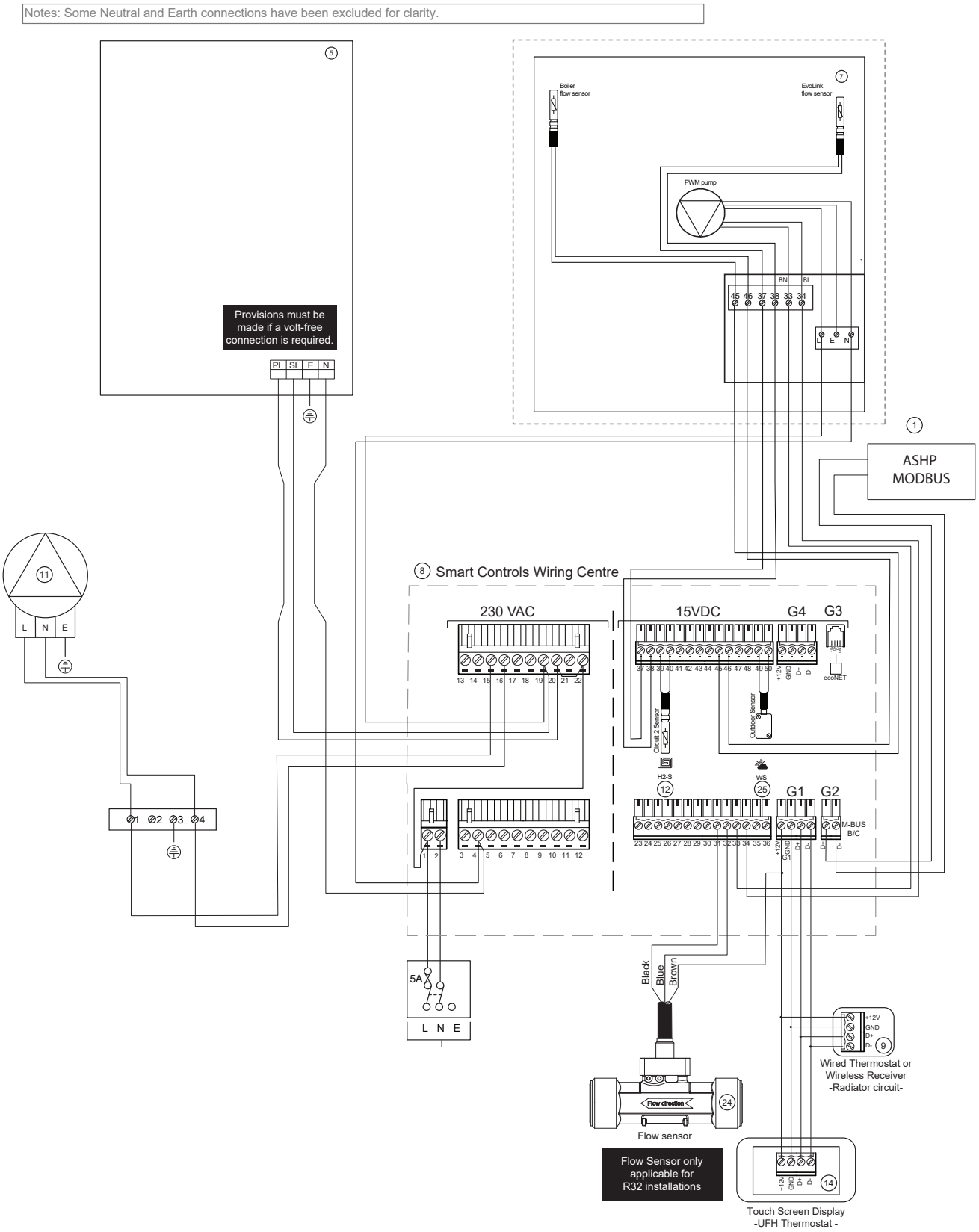


Figure 4-1: Hybrid Electrical Schematic - Non Combi - Pack P

4.4.2 PACK R COMBI BOILER



! NOTE !

***Please ensure that neutrals are derived from the same supply to prevent spurious MCB/RCD trips.**

Figure 4-2: Hybrid Electrical Schematic - Combi - Pack R

5 Commissioning

5.1 COMMISSIONING

Before starting to commission the Grant EvoLink Smart, the installation, including the Aerona Smart Controller and air source heat pump, must be completed.

! NOTE !

In order to commission the EvoLink Smart installation, the following information must be used in conjunction with the installation instructions supplied with the heat pump.

For further information on:

- Grant Aerona Smart Controller. Refer to UK DOC 0203.
- Grant QR Smart Pre-plumbed cylinder. Refer to UK DOC 0205.
- Grant QR2 Smart Pre-plumbed cylinder. Refer to UK DOC 0217.
- Grant QR Pre-plumbed cylinder. Refer to UK DOC 0180.
- Grant Aerona 290 heat pump: Refer to UK DOC 0204.
- Grant Aerona^3 heat pump: Refer to UK DOC 0136.

5.2 ENABLING EVOLINK FUNCTIONALITY

The EvoLink Smart control options can be enabled as part of the System configuration wizard or from the system settings menu of the Aerona Smart controller.

In either case the individual settings will need to be configured from the system settings menu.

To access the 'Additional Heat Source' menu within the system settings of the Aerona Smart controller:

1. Tap the Settings menu icon.

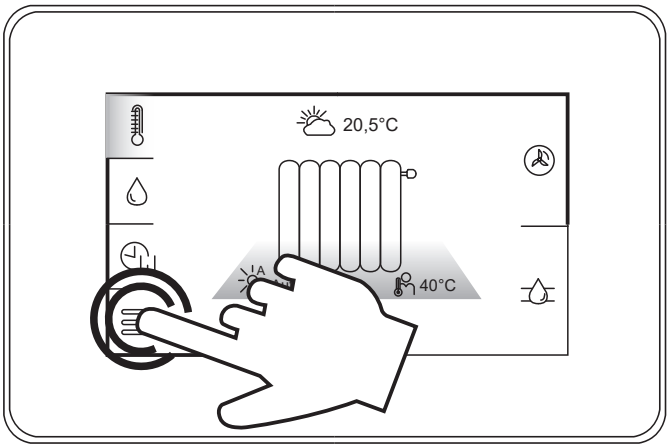


Figure 5-1: Main screen.

2. Tap 'Service settings' and enter the password: 0000 and confirm.

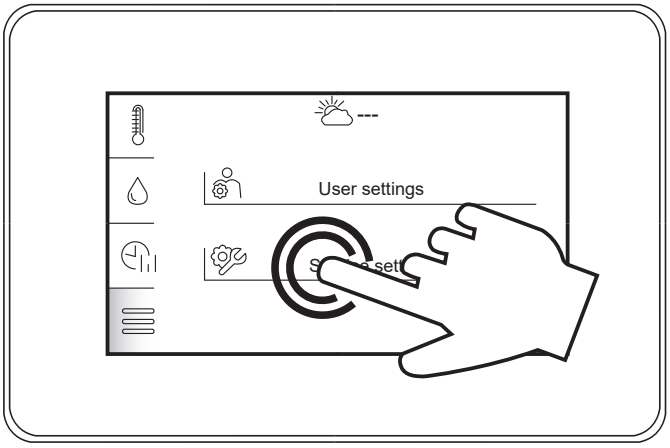


Figure 5-2: Settings menu

3. Tap 'Installation controller'.

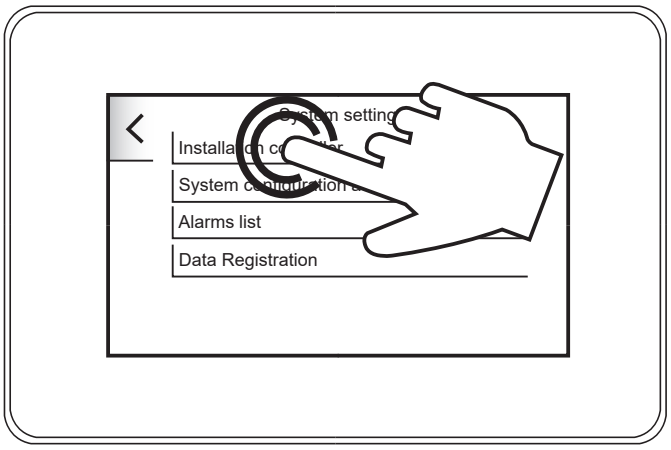


Figure 5-3: System settings menu

4. Swipe up on the touchscreen and tap 'Additional Heat sources'.

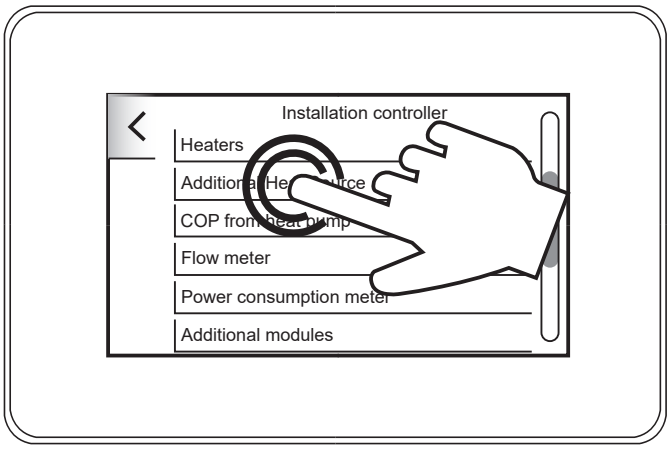


Figure 5-4: Additional Heat Source

5. Tap the toggle button to enable.

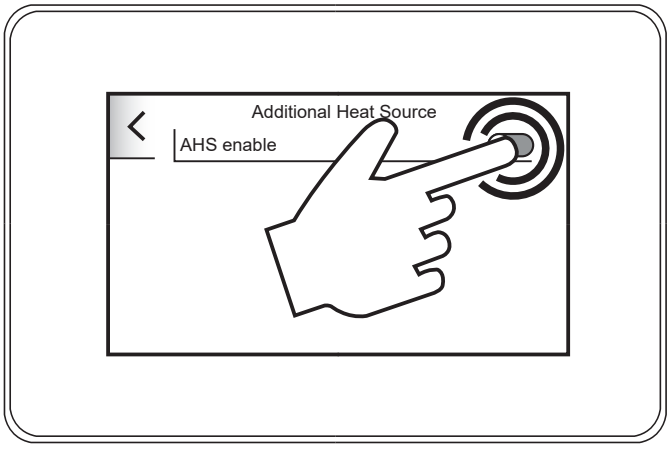


Figure 5-5: Additional Heat source menu

! NOTE !

This will be already enabled if 'Additional Heat source' was confirmed during the system configuration process. Refer to Section 6 of your supplied Aerona Smart Controller manual.

5.3 ADJUSTING THE EVOLINK SMART

The default settings for the EvoLink Smart (Refer to Table 5-1 & 5-2) have been created as a base to operate the heat pump (**MHS**) and boiler (**AHS**) in an efficient manner.

Prior to adjusting any of the settings, it is advised to contact Grant UK for further guidance as any adjustments made from these default settings may lead to increased costs from energy used.

- **MHS Stop temp:** Adjust the temperature where the AHS becomes the only heat source. Ensure the **'MHS Start temp'** is also adjusted accordingly to avoid conflicts.
- **MHS below setpoint delta - CH/HDW:** Adjust the temperature delta value that the heat pump needs to meet the target flow demand. An increase will enable the boiler sooner.
- **MHS below setpoint time - CH/HDW:** Adjust the time in which the heat pump needs to meet the target flow demand before the boiler is activated. A decrease will enable the boiler sooner.

! CAUTION !

Parameters in 'AHS Pump settings' must not be adjusted.

Table 5-1: AHS (Boiler) settings menu - Smart Controller

Parameter	Description	Default	Units
AHS Enable	Toggle icon to activate or deactivate AHS (Boiler) support. **This will be ON if it was configured during System configuration creator.**		
AHS Pump settings	Sub menu for PWM pump control. (Refer to Table 5-2)		
Work in alarms	Allow EvoLink Smart to operate when MHS (Heat Pump) in Alarm state.	N	
MHS below setpoint delta - CH	Temperature below setpoint the MHS (Heat Pump) needs to achieve in setpoint time to activate AHS (Boiler) for space heating demands	3	°C
MHS below setpoint time - CH	Time value in which MHS (Heat Pump) should reach setpoint delta value for space heating demands upon start to activate AHS (Boiler)	45	Mins
MHS below setpoint time again - CH	Time value counter from first setpoint in which the MHS (Heat Pump) should reach setpoint delta to activate AHS (Boiler)	15	Mins
MHS below setpoint delta - HDW	Temperature below setpoint the MHS (Heat Pump) needs to achieve in setpoint time to activate AHS (Boiler) for DHW demands	3	°C
MHS below setpoint time - HDW	Time value in which the MHS (Heat Pump) should reach setpoint delta value for DHW demands to activate AHS (Boiler)	10	Mins
MHS stop temp	Toggle icon to enable MHS (Heat Pump) to stop supplying heat at configured temperatures		
MHS stop temp	Temperature value at which the MHS (Heat Pump) stops supplying heat for demands	-5	°C
MHS start temp	Temperature value at which the MHS (Heat Pump) starts supplying heat for demands	-4	°C
Stop AHS - pump power threshold	PWM pump speed to start under threshold counter to turn off AHS (Boiler) during a demand for space heating	32	%
Stop AHS - time under threshold	Time counter for pump power threshold to be under value to turn off AHS (Boiler) during a demand for space heating	20	Mins
Stop MHS - return reached delta	Temperature value of delta between flow and return of the MHS (Heat Pump) to stop MHS (Heat Pump) compressor	2	°C
MHS pump power when AHS only	MHS PWM pump speed when AHS only	100	%

Table 5-2: AHS (Boiler) Pump settings sub menu - Smart Controller

Parameter	Description	Default	Units
Pump characteristic	Configure pump type for operation H:Heating S: Solar	H	
Startup percentage	PWM startup power.	17	%
Minimum power	Minimum power setting of PWM pump	17	%
Maximum power	Maximum power setting of PWM pump	100	%
Max power step change	PWM power adjustment for temperature adjustments	10	%
Adjustment time	Time for PWM power step to be adjusted	15	Sec
PID: Kp	PID Controller settings	2	
PID: Ti		160	
PID: Td		30	
AHS-MHS temp difference to start	Temperature delta between AHS (Boiler) flow and MHS (Heat Pump) flow for PWM pump to start mixing.	5	°C
AHS-MHS temp difference to stop	Temperature delta between AHS (Boiler) flow and MHS (Heat Pump) flow for PWM pump to stop mixing.	0	°C

6 EvoLink Smart Operation

6.1 INTRODUCTION

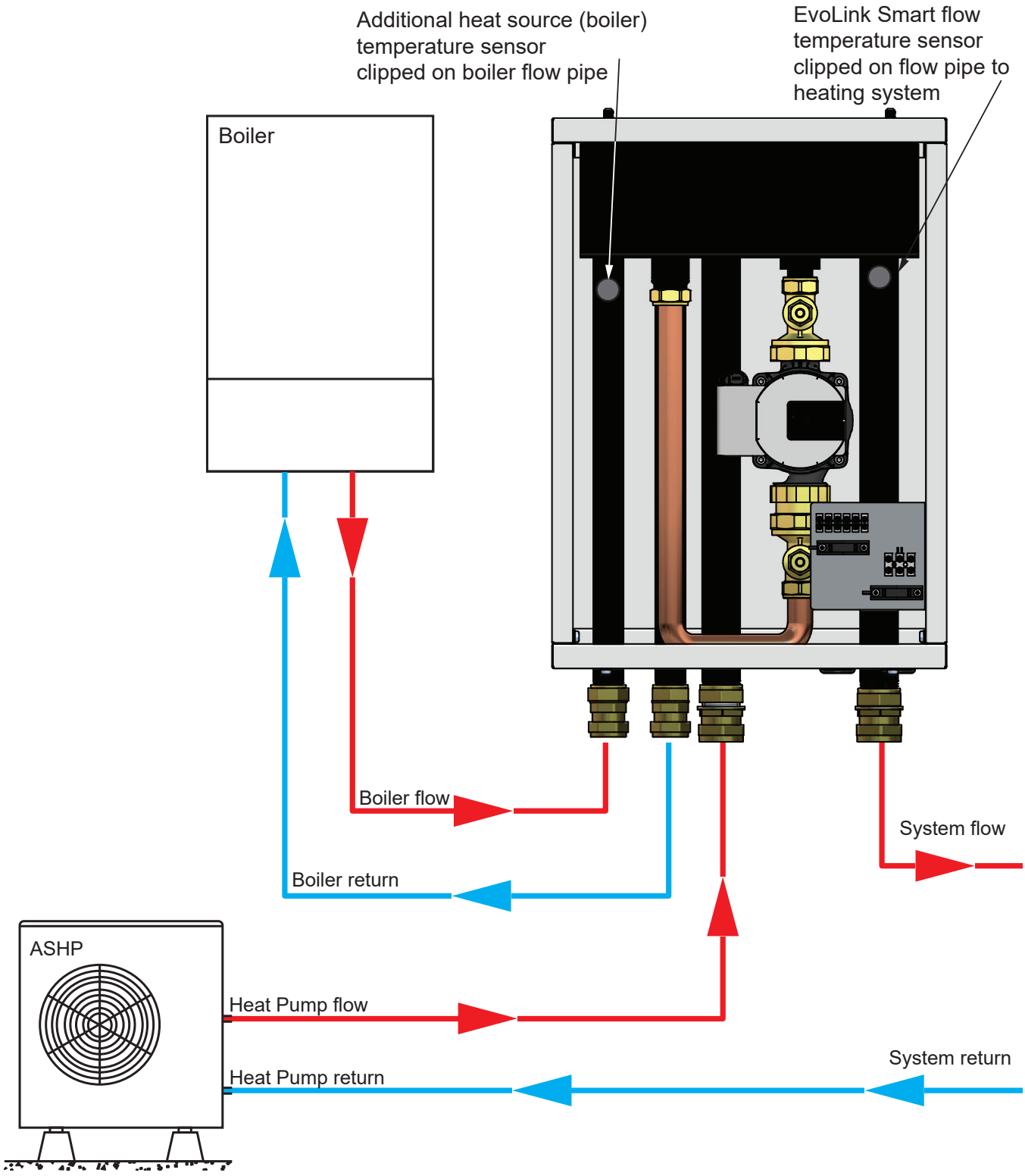


Figure 6-1: EvoLink System Connections

6.2 OPERATION

The EvoLink Smart is managed by the Aerona Smart Controller to utilise a Grant Aerona heat pump as the main heat source **(MHS),** and an additional heat source **(AHS)** e.g. a boiler, to provide heated system water in the most economical way possible.

Refer to Section 5 for further information on commissioning and parameters for the operation of the EvoLink Smart..

! NOTE !

AHS (boiler) flow temperatures will not be managed from the Smart Controller and will need to be set manually.

The Smart Controller will also not manage the modulation of the boiler.

6.2.1 SPACE HEATING

If there is a space heating demand, the Aerona Smart Controller will operate the MHS (heat pump) as designed for the circuit or circuits configured on the smart controller.

- The output flow temperature measured on the EvoLink system flow pipe (refer to Figure 6-1) is determined by the highest required flow temperature from the configured system. This will include weather compensated or set point temperature and any configured temperature corrections.
- If the MHS (heat pump) is not able to reach the target flow temperature, or be within the **'MHS below setpoint delta - CH'** within a the period of time **'MHS below setpoint time - CH'**, the Aerona Smart Controller will activate the AHS (boiler) and the boiler flow is circulated through the left hand section of the EvoLink header.
- If the MHS (heat pump) achieves the target flow temperature as above, this is again checked at regular intervals of **'MHS below setpoint time again - CH'**. If it is not within the **'MHS below setpoint delta - CH'** the Aerona Smart Controller will activate the AHS (boiler) and the boiler flow is circulated through the left hand section of the EvoLink header.
- When the boiler flow temperature on the AHS (boiler) flow pipe (left hand pipe, refer to Figures 6-1) is above the EvoLink flow sensor temperature by the amount **'AHS-MHS temp difference to start'**, the PWM mixing pump will start, pulling the boiler flow into the right hand section of the header and mixing it with the MHS (heat pump) flow to achieve the required weather compensated flow temperature.
- As the ambient outside temperature falls, and the heat demand on the system increases, the required higher target weather compensated flow temperature in the mixing tank is achieved by using a greater amount of the AHS (boiler) flow until the weather compensated flow temperature is achieved.
- This may be at the maximum flow temperature from the AHS (boiler).
- If the temperature difference between the MHS (heat pump) flow and return is **'Stop MHS - return reached delta'**, the MHS (heat pump) will be automatically switched off.
- Once started, even when the required weather compensated flow temperature has been achieved, the AHS (boiler) will remain in operation until either,
  a) The end of that heating demand, i.e., until the room thermostat or programmer switches off.
  or
  b) When the % PWM of the EvoLink PWM pump is at or below the **'Stop AHS-pump power threshold'** value for the period **'Stop AHS-time under threshold'**, the PWM pump is switched off as the system no longer requires further assistance from the (AHS) boiler and the (MHS) heat pump can maintain target flow temperature.

6.2.2 HOT WATER

- If there is a hot water demand from the Smart Controller, any space heating demands will be cut, causing any valves or pumps associated to space heating to close/stop and valves/ pumps associated with DHW supply to open/start.
- The MHS (heat pump) operates to achieve the calculated flow temperature to the DHW cylinder. This will be calculated based on configured cylinder set point and any additional temperature corrections.
- If the MHS (heat pump) is not able to reach the desired flow temperature **'MHS below setpoint delta - HDW'** within a period of time '**MHS below setpoint time - HDW'**, the Aerona Smart Controller will activate the AHS (boiler) and the boiler flow is circulated through the left hand section of the EvoLink header.
- When the boiler flow temperature on the boiler flow pipe (left hand pipe, refer to Figures 6-1) is above the Evolink flow sensor temperature by the configured amount **'AHS-MHS temp difference to start'**, the PWM mixing pump will start, pulling the boiler flow into the right hand section of the header and mixing it with the heat pump flow to achieve the required target flow temperature.
- As the ambient outside temperature falls, and the heat demand on the system increases, the required higher flow temperature in the mixing tank is achieved by using a greater amount of the boiler flow until the temperature is achieved.
- This may be at the maximum flow temperature from the boiler.
- Once started, even when the required flow temperature has been achieved, the boiler will remain in operation until the end of that DHW demand, i.e.,controller ends demand.

6.2.3 BOILER ONLY (SPACE HEATING & DHW)

- When there is a Space heating or DHW demand and the outside air temperature is below or falls to below the '**MHS stop temp'** setting, the AHS (boiler) will be automatically started and become the 'lead' heat source. The MHS (heat pump) circulating pump will be activated by the Aerona Smart Controller but the compressor and fans will not operate as it will be inefficient for it to do so at this low outside air temperature.
- If the outside temperature rises to above the '**MHS start temp'** setting, the AHS (boiler), and the EvoLink circulating pump, will be automatically switched off and the MHS (heat pump) will start up as lead heat source.
- Should the occupier feel the system is not performing sufficiently for their own comfort, the '**MHS stop temp'** can be adjusted to initiate the AHS (boiler) only function at a higher ambient temperature (default: -5°C). The '**MHS start temp'** will need to be adjusted accordingly to ensure no conflict in parameters.

6.3 HEAT PUMP (MHS) OVERRIDE

The Grant EvoLink Smart Control system has the ability to operate the AHS (boiler) only, without the heat pump to:

- allow the AHS (boiler) to be serviced or repaired.
- allow the operation of the AHS (boiler) only to be used at times deemed uneconomical for the MHS (heat pump).

The AHS (boiler) will respond to system demands from the Smart Controller as the only available heat source. For example, when servicing the AHS (boiler), the thermostats can be increased to create the demand and in turn activate the boiler.

6.3.1 ENABLING HEAT PUMP OVERRIDE

To enable only the AHS (boiler) to respond to demands created by the Aerona Smart controller.

! NOTE !

Ensure you have enabled 'Additional heat source' to allow for the heat pump to be overridden. Refer to Section 5.2.

1. Tap the heat pump diagram from the Heat pump status screen. Refer to Figure 6-2.

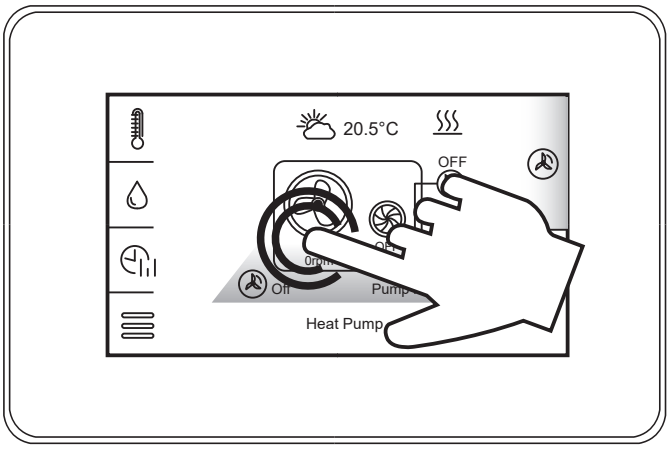


Figure 6-2: Access heat pump

2. Tap the toggle icon to enable 'Override mode'. Refer to Figure 6-3.

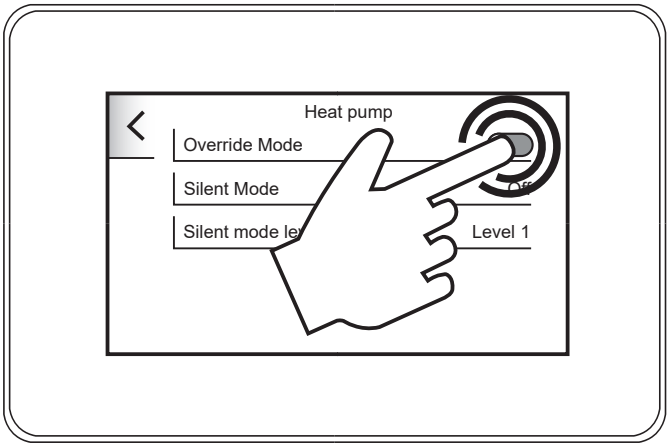


Figure 6-3: Override Mode

3. Tap '<' to exit and return to the previous screen.

6.3.2 DISABLE HEAT PUMP OVERRIDE

To disable MHS (heat pump) override follow the steps described in Section 6.3.1 and Tap the toggle for 'Override Mode" Off.

7 Declaration of Conformity

UKCA - Safety Declaration of Conformity

This declaration is made under the sole responsibility of the following Manufacturer. The Manufacturer declares that the following product conforms to the requirements of the UK Legislation and Regulations as detailed below.

The Technical Construction Files are retained at the Manufacturer's location.

Product: Grant Evolink Smart

Model: GRANT EVOLINK SMART

In accordance with the following directive(s) or Regulation(s), provided that the products are installed and used in accordance with our instructions:

S.I. 2016/1101: Electrical Equipment (Safety) Regulations 2016

S.I. 2016/1091: Electromagnetic Compatibility Regulations 2016

S.I. 2012/3032: The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

following the provisions of:

2014/35/EC Conforms with the safety objectives of the Low Voltage Directive. (EN60335-1:2023+A11:2023 Household and similar electrical appliances – Safety Part1: General requirements)

2014/30/EC Conforms with the essential protection requirements of the Electromagnetic Compatibility Directive and its amending directives.

Place of Issue: United Kingdom
Date of issue: 21 October 2025

Technical File Compiler and Authorised Signatory

Neil Sawers
Commercial Technical Manager

Grant Engineering (UK) Ltd
Frankland Road | Blagrove | Swindon | SN5 8YG
+44(0)1380 736920 | info@grantuk.com | www.grantuk.com

8 Health and Safety Information

8.1 GENERAL

The Health and Safety information given in this section relates to the EvoLink only.

For details of the Health and Safety Information for the heat pump, refer to Section 14 of the Aerona³ installation and servicing instructions supplied.

For details of the Health and Safety Information for any other heating appliances being used, refer to the instructions supplied with the appliance.

Under the Consumer Protection Act 1987 and Section 6 of the Health & Safety at Work Act 1974, we are required to provide information on substances hazardous to health (COSHH Regulations 1988).

Adhesives, sealants and paints used in the manufacture of the product are cured and present no known hazards when used in the manner for which they are intended.

See section 8.2 for other materials present in the product.

8.2 INSULATION MATERIALS

Material Types:

Mineral wool.

Description:

Foil faced insulation.

Known Hazards:

May cause temporary irritation or rash to skin. High dust levels may irritate eyes and upper respiratory system.

Precautions:

Avoid inhalation and contact with skin and eyes.

After handling always follow normal good hygiene practices.

Protection:

Use disposable gloves, face mask and eye protection.

First Aid:

Eyes

If irritation occurs, wash eyes with copious amounts of water.

If symptoms persist, seek immediate medical advice.

Skin

If irritation occurs, wash under running water before washing with soap and water.

Inhalation

Remove to fresh air, drink water to clear throat and blow nose to remove dust/fibres.

Ingestion

Drink plenty of water.

8.3 SEALANT AND ADHESIVE

Material Types:

Paste - a mixture of saponified mineral and vegetable oils and inert mineral powders.

Description:

Thread sealant.

Known Hazards:

Under normal conditions of use this product does not present a health hazard.

Precautions:

Avoid contact with eyes and prolonged or repeated contact with skin.

Store away from sources of ignition. Keep containers closed.

After handling, always follow normal good hygiene practices.

Protection:

Use eye protection. Rubber or plastic gloves should be worn.

Avoid inhalation in case of fumes.

First Aid:

Eyes

Flush eyes with water for a few minutes. If pain or redness persists seek immediate medical attention.

Skin

Rinse and wash with soap and water.

Inhalation

At high temperatures product may produce hazardous vapours.

Remove immediately to fresh air.

Ingestion

If ingested do not drink fluids, do not induce vomiting, go immediately to hospital.

9 Guarantee

You are now the proud owner of a Grant EvoLink Smart hybrid system hub from Grant Engineering (UK) Limited which has been designed to give years of reliable, trouble free operation.

Grant Engineering (UK) Limited guarantees the manufacture of the EvoLink Smart including all electrical and mechanical components for a period of **twelve months from the date of installation[4]**, provided that the EvoLink Smart has been installed in full accordance with the installation instructions issued.

This will be extended to a total period of **two years** if the EvoLink Smart is registered with Grant Engineering (UK) Limited within **thirty days of installation** and it is inspected when the heat source/heating system is serviced at twelve month intervals[3]. See main Terms and Conditions below.

Registering the product with Grant Engineering (UK) Limited

Please register your Grant EvoLink Smart with Grant Engineering UK Limited **within thirty days of installation**. To do so visit:

www.grantuk.com/support/product-registration

You can register your EvoLink Smart for a further twelve months guarantee (giving **two years** from the date of installation[4]). This does not affect your statutory rights[1].

If a fault or defect occurs within the manufacturer's guarantee period

If your EvoLink Smart should fail within the guarantee period, you must contact Grant Engineering (UK) Limited who will arrange for the repair under the terms of the guarantee, providing that the EvoLink Smart has been correctly installed, commissioned and inspected when the heat source/heating system is serviced (if the product has been installed for more than twelve months) by a competent person and the fault is not due to tampering, debris, system water contamination, misuse, trapped air or the failure of any external components not supplied by Grant Engineering (UK) Limited, e.g. circulating pump, motorised valve, etc.

This two year guarantee only applies if the EvoLink Smart is registered with Grant Engineering (UK) Limited within thirty days of installation[4] and is inspected after twelve months[3], when the heat source and/or heating system is serviced.

In the first instance

Contact your installer or commissioning engineer to ensure that the fault does not lie with the system components or any incorrect setting of the system controls that falls outside of the manufacturer's guarantee, otherwise a service charge could result. Grant Engineering (UK) Limited will not be liable for any charges arising from this process.

If a fault covered by the manufacturer's guarantee is found

Ask your installer to contact Grant Engineering (UK) Limited Service Department on +44 (0)1380 736920 who will arrange for a competent service engineer to rectify the fault.

Remember - before you contact Grant Engineering (UK) Limited

- Ensure the EvoLink Smart has been installed, commissioned and inspected by a competent person in accordance with the installation instructions.
- Ensure the problem is not being caused by the heating system or its controls.

Free of charge repairs

During the two year guarantee period no charge for parts or labour will be made provided that the EvoLink Smart has been installed and commissioned correctly in accordance with the manufacturer's installation instructions, it was registered with Grant Engineering (UK) Limited within thirty days of installation[4] and, for a EvoLink Smart over twelve months old, details of inspection when the heat source and/or heating system is serviced are available[3].

The following documents must be made available to Grant Engineering (UK) Limited on request:

- Proof of purchase
- Commissioning Report Form
- Service documents
- System Design Criteria

Chargeable repairs

A charge may be made (if necessary following testing of parts) if the breakdown is due to any fault(s) caused by the plumbing or heating system, e.g. contamination of parts due to system contamination, sludge, scale, debris or trapped air. Refer to 'Extent of manufacturer's guarantee'.

Extent of manufacturer's guarantee

The manufacturer's guarantee does NOT cover the following:

- If the EvoLink Smart has been installed for over two years.
- If the EvoLink Smart has not been installed, commissioned, or inspected by a competent person in accordance with the installation instructions.
- Instances where the serial number has been removed or made illegible.
- Fault(s) due to accidental damage, tampering, unauthorised adjustment, neglect, misuse or operating the EvoLink Smart contrary to the manufacturer's installation instructions.
- Damage due to external causes such as bad weather conditions (flood, storms, lightning, frost, snow, or ice), fire, explosion, accident or theft.
- Fault(s) due to incorrectly sized expansion vessel(s), incorrect vessel charge pressure or inadequate expansion on the system.
- Fault(s) caused by external electrics and external components not supplied by Grant Engineering (UK) Limited.
- Product servicing, de-scaling or flushing.
- Checking and replenishing system pressure.
- Electrical cables and plugs, external controls not supplied by Grant Engineering (UK) Limited.
- Heating system components, such as radiators, pipes, fittings, pumps and valves not supplied by Grant Engineering (UK) Limited.
- Instances where the EvoLink Smart has been un-installed and re-installed in another location.
- Use of spare parts not authorised by Grant Engineering (UK) Limited.
- Consumable items including, but not limited to, antifreeze and biocide inhibitor.

Terms of manufacturer's guarantee

- The Company shall mean Grant Engineering (UK) Limited.
- The EvoLink Smart must be installed by a competent person and in full accordance with the relevant Codes of Practice, Regulations and Legislation in force at the time of installation.
- The EvoLink Smart is guaranteed for two years from the date of installation[4], providing that every twelve months the annual service has been completed[3] and the EvoLink Smart registered with the Company within thirty days of installation. Any work undertaken must be authorised by the Company and carried out by a competent service engineer.
- This guarantee will be invalid if the EvoLink Smart is not inspected when the heat source/heating system receives its annual (every twelve months) service and will then be limited to twelve months from the date of installation[4].
- The EvoLink Smart is operated correctly, in accordance with the Installation instructions.

- Grant Engineering (UK) Limited strongly recommends that a Grant Mag-OneDuo in-line magnetic filter/s (or equivalent[5]) is fitted in the heating system pipework. This should be installed and regularly serviced in accordance with the filter manufacturer's instructions. We reserve the right to ask for proof of installation – failure to provide this may result in the guarantee becoming invalid.
- Proof is provided that the system has been flushed or chemically cleaned where appropriate (refer to BS 7593) and that the required quantity of a suitable corrosion inhibitor added.
- Proof of annual servicing (including the checking of any expansion vessels and pressure relief valves) must be provided if and when requested by the Company.
- This guarantee does not cover breakdowns caused by incorrect installation, neglect, misuse, accident or failure to operate the EvoLink Smart in accordance with the manufacturer's installation instructions.
- The EvoLink Smart is registered with the Company within thirty days of installation. Failure to do so does not affect your statutory rights[1].
- The balance of the guarantee is transferable providing the installation is serviced prior to the dwelling's new owners taking up residence. Grant Engineering (UK) Limited must be informed of the new owner's details.
- The Company will endeavour to provide prompt service in the unlikely event of a problem occurring, but cannot be held responsible for any consequences of delay however caused.
- This guarantee applies to Grant Engineering (UK) Limited EvoLink Smarts purchased and installed on the UK mainland, Isle of Wight, Channel Islands and Scottish Isles only[2]. Provision of in-guarantee cover elsewhere in the UK is subject to agreement with the Company.
- All claims under this guarantee must be made to the Company prior to any work being undertaken. Invoices for call out/repair work by any third party will not be accepted unless previously authorised by the Company.
- Proof of purchase and date of installation, commissioning and service documents must be provided on request.
- If a replacement EvoLink Smart is supplied under the guarantee (due to a manufacturing fault) the product guarantee continues from the installation date of the original EvoLink Smart and not from the installation date of the replacement[4].
- The EvoLink Smart must be connected to a mains water supply (installations utilising a private water supply are not covered by this guarantee).
- Breakdown/failure due to lime scale will not be covered by this guarantee.
- The replacement of an EvoLink Smart under this guarantee does not include any consequential costs.
- The EvoLink Smart must not be sited in a location where it may be subjected to frost.

Foot notes

1. Your statutory rights entitle you to a one year guarantee period only.
2. The UK mainland consists of England, Scotland and Wales only. Please note that for the purposes of this definition, Northern Ireland, Isle of Man and Scilly Isles are not considered part of the UK mainland.
3. We recommend that your heating system is serviced every twelve months, and that your EvoLink Smart is inspected at the same time (even when the guarantee has expired) to prolong the lifespan and ensure it is operating safely and efficiently.
4. The guarantee period will commence from the date of installation, unless the installation date is more than six months from the date of purchase, in which case the guarantee period will commence six months from the date of purchase.
5. As measured by gauss. The MagOne Duo magnetic filter has a gauss measurement of 12,000.

Online Resources

AERONA SMART CONTROLLER - HOW TO PLAYLIST

QR CODE	Description
	How to video guides playlist for the Grant Aerona Smart Controller. The playlist offers a number of helpful guides on how to set individual elements of the Grant Aerona Smart controller and is monitored and updated to ensure the best possible assistance is available. Can't find something specific? Email info@grantuk.com or contact your local sales representative for further assistance.

SCHEMATICS

QR CODE	Description
	Grant UK online portal for approved schematic drawings. The schematics provided give a generalised idea on how to hydraulically and electrically design an installation using the Grant Aerona Smart controller. For further information or queries please contact into@grantuk.com or your local sales representative.

Notes

GRANT ENGINEERING (UK) LIMITED

Frankland Road, Blagrove Industrial Estate, Swindon, Wiltshire, SN5 8YG
Tel: +44 (0)1380 736920 Fax: +44 (0)1380 736991
Email: info@grantuk.com www.grantuk.com