Installer’s Manual

ECOGENICA

Model numbers

Eco-ZR02FC (Outback 5kW)

Eco-ZR03FC (Outback 8kW)

Eco-ZR04FC (Outback 11kW)

Eco-ZR04FC 3 Phase (Outback 16kW)

PLEASE NOTE:

Installation, maintenance and any repairs must be undertaken by qualified persons.

Always follow the safety instructions.

Adhere to the maintenance schedule and only use genuine spare parts.

Failure to comply with the instructions set out in this manual will invalidate the warranty.

Contents

1. Safety

The Outback range of heat pumps has been designed and manufactured in accordance with all relevant safety standards and regulations.

When used as described in the Installer's and Homeowner's Manuals, they are safe for their intended purpose. However, using the heat pump in ways not intended can result in serious injury, death, or damage to the unit and surrounding property.

The Outback range of heat pumps is intended solely for domestic and small commercial applications within their specified operating limits.

Wherever possible, use accessories provided by Ecogenica as Ecogenica cannot be held responsible for safety issues when combined with third-party accessories.
Installers should be trained and qualified heat pump installers and should read and follow this Manual before undertaking any work.

Installers must comply with all applicable national, regional and local safety, environmental and trade regulations whilst following all relevant accident-prevention requirements.

Installers should use appropriate personal protective equipment and tools for all handling and movement of the heat pump – heat pumps are heavy (85 to 198 kgs), so you will need lifting equipment to move the unit safely. A heat pump mover or trolley is recommended.
If you suspect that the unit has been dropped, tipped or damaged, contact Ecogenica's Technical Support Team immediately.

Check the refrigerant circuit for leaks before starting work, as sparks or static discharge could be dangerous.

Store outdoor units in well-ventilated areas of appropriate size. The refrigerant is colourless and odourless, making leaks hard to detect.

Do not make any changes to the:

– product itself
– supply lines
– drain pipework
– expansion relief valve for the heat source circuit
– constructional conditions that may affect the operational reliability of the product

There is a risk of injury and material damage due to maintenance and repairs carried out incorrectly or not carried out at all.

Never attempt to carry out maintenance work or repairs on this product unless you are qualified to do so. Faults and damage should be immediately addressed and eliminated by a qualified person.Adhere to the maintenance intervals specified.

There is a risk of material damage caused by freezing. Ensure that the heating installation always remains in operation during freezing conditions and that all rooms are sufficiently heated. If you cannot guarantee this, have a qualified person drain the heating installation.

SAFETY ZONE
This product contains the combustible refrigerant R290. In the event of a leak, escaping refrigerant may mix with air to form a flammable atmosphere. There is a risk of death from fire and explosion if there is a leak in the refrigerant circuit.

A Safety Zone is defined for the area around this product. The safety zone requires a minimum 250 mm clearance at the back,1500 mm at the front and 250 mm on each side. As can be seen from the below diagram, the designated Safety Zone must be free from any structural openings such as windows, doors, light wells, skylights, and air inlets or outlets of ventilation systems.

2. Unpacking and Positioning

The unit comes screwed to a pallet, and you will need a 10 mm spanner to unbolt it:

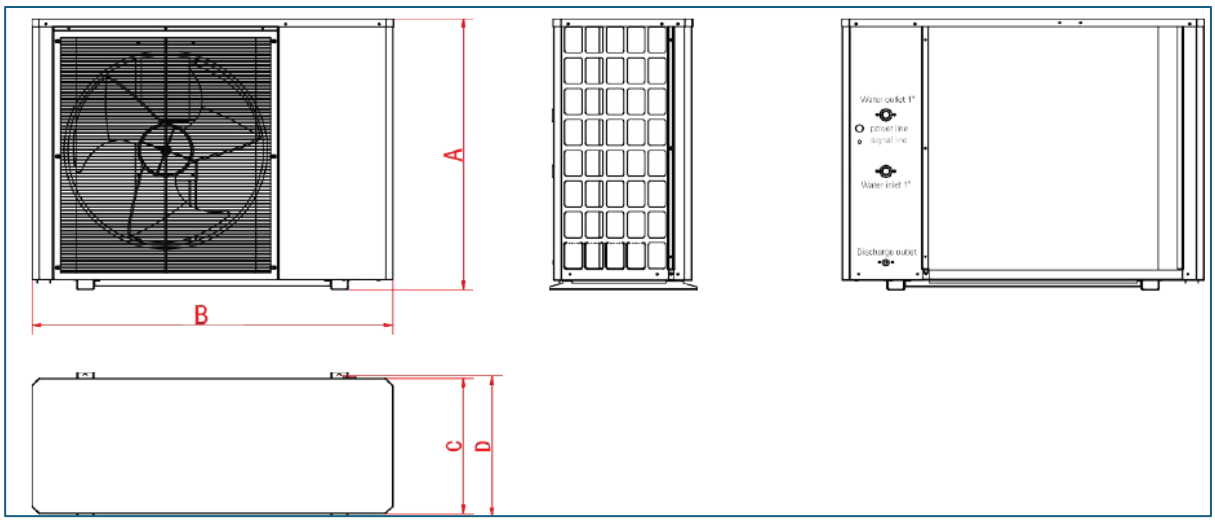
Note: When moving the unit, there is a drainpipe at the back. It protrudes 40 mm, so be careful not to knock it:

The manuals, controller, controller wire, hot water cylinder thermistor and a buffer thermistor are delivered in a separate box:

Note: The unit is heavy, so you will need lifting equipment to move the unit safely. A heat pump mover or trolley is recommended.

The units have the following dimensions and net weights:

Unit	Height A	Width B	Depth C	Depth D *(incl. unit feet)*	Weight
Outback 5kW	805 mm	1045 mm	400 mm	415 mm	85 kg
Outback 8kW	845 mm	1205 mm	475 mm	490 mm	119 kg
Outback 11kW	1015 mm	1205 mm	475 mm	490 mm	137 kg
Outback 16kW (3 phase)	1435 mm	1205 mm	475 mm	490 mm	198 kg



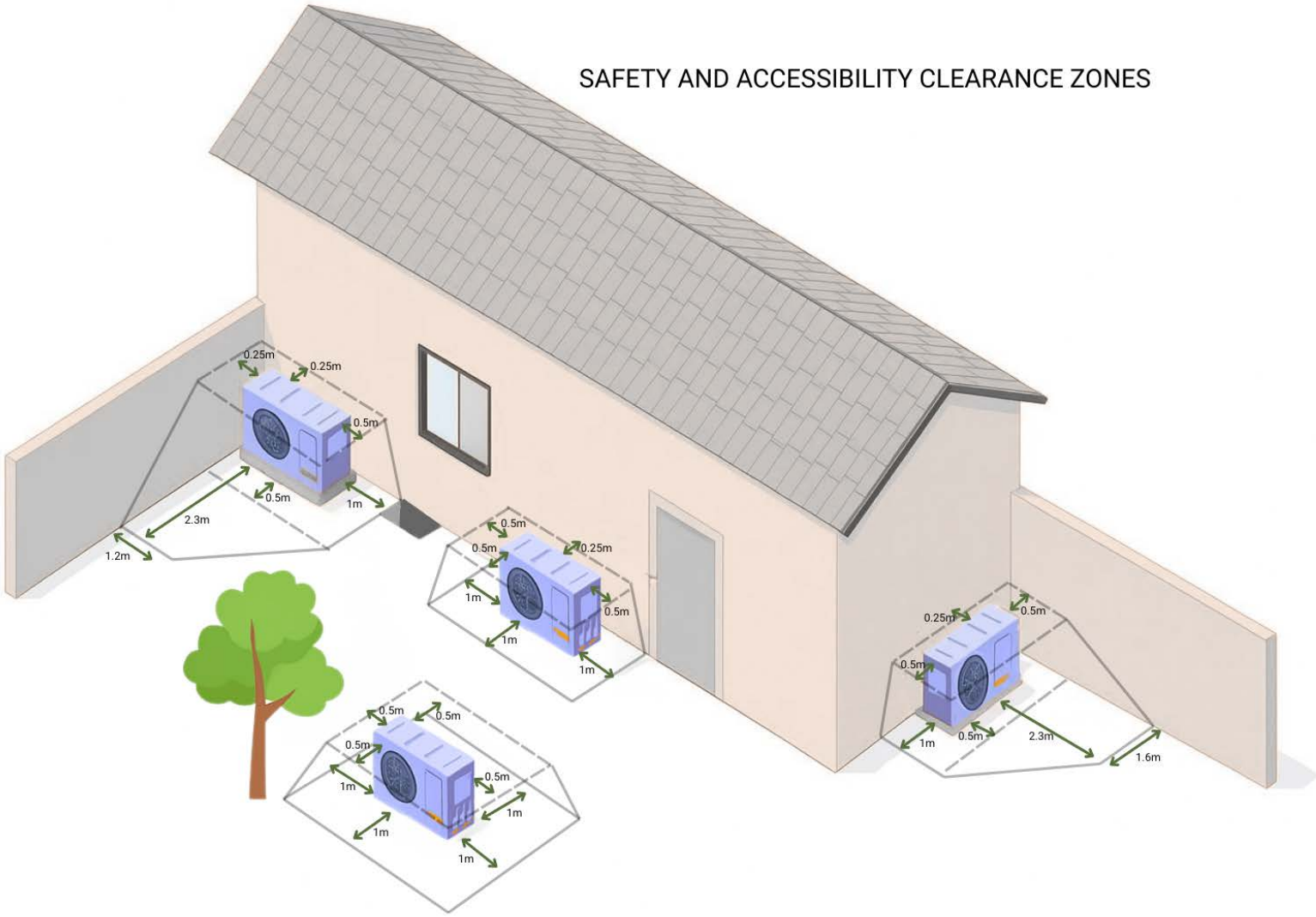
SAFETY ZONE

All units need a safety zone, consisting of a minimum 250 mm clearance at the back, 1500 mm at the front and 250 mm on each side.

Placing a unit in a restricted space will reduce performance, increase running costs and void the warranty.

This unit must be installed away from hazards in a safety zone.

As illustrated in the below diagram, this zone must be free from any structural openings such as windows, doors, light wells, skylights, and air inlets or outlets of ventilation systems.



R290 refrigerant, being denser than air, tends to sink and accumulate at ground level. Therefore, there must be no depressions or excavations within the safety zone.

This zone should not encroach upon intact buildings or public areas. Once established, the safety zone must not be altered in any way that contravenes established safety regulations.

All units need to be mounted 100 mm off the ground using flexi-feet supplied in the Heat Pump Accessory Kit:

The base and unit need to be level and allow for drainage. A concrete plinth at least 100 mm thick can be built if you require it, but any flat ground is suitable. Avoid areas where water will pool and freeze, causing trip hazards.

Drainage needs to be provided under the unit to capture condensation, up to 6 litres per hour. It drains out of the holes in the bottom of the unit.

The feet are bolted to the bottom of the unit using the bolts supplied (see above). Ensure the unit is level. The feet are not adjustable, so they need to go on flat ground.

3. Connections for Electricians

The power and wiring terminals are all inside the unit. You must remove the access panel to access the terminals. You need to take off the access panel on the side of the unit using a Phillips No. 2 screwdriver. There are 10 screws to remove. They all have a plastic washer to avoid scratching the unit.

A power supply is needed at the outdoor unit. A 32 Amp Isolator is provided in the Heat Pump Accessory Kit. It must be within 1 m of the unit.

Do not secure the Isolator to the unit itself and avoid any drilling into the casing of the unit - there are glands on the back of the unit for cable entry/exit.

The power connection to the unit needs to be made using the power terminals as follows:

Unit	Power Supply
Outback 5kW	16 Amp
Outback 8kW	25 Amp
Outback 11kW	32 Amp
Outback 16kW (3 Phase)	16 Amp

The controller, its 10 m long cable, and the buffer and cylinder thermistors come in a separate box from the unit:

When the side cover of the unit is removed you can see 3 leads hanging down, these are for the controller and two sensors:

The controller plugs into the unit using a black plug on a grey cable. It has a 10 m grey extension cable. The controller needs to be installed inside the property in a heated space. Note the plug on the controller wire is 16 mm across so you will need to drill 16 mm holes to get this into the house.

The hot water cylinder sensor plugs into a lead, which is black and labelled T8. It is 10 m long.

The buffer sensor is not normally used so you don't need to plug it in. It can be stored in the bottom of the unit. If you want to use the buffer sensor, it plugs into another black flying lead labelled T5.

For wiring in additional components, please see the wiring diagrams in sections 7 and 8. We include a Wiring Center/Junction Box in the Heat Pump Accessory Kit to allow connections to be made safely in the house between the heat pump and the valves, pumps, controller, etc.

The 3-way Valve needs to wire into Terminal 6 Live and Terminal 8 Neutral. Note if the 3-Way Valve is installed backwards, you can reverse its operation by moving the Live to Terminal 7.

The room thermostats need to wire across Terminals 3 and 4 and are 240V.

If using secondary heating zone pumps installed after the buffer, they need to be wired to Terminal 18 Live and Terminal 19 Neutral.

The immersion heater can be wired Live to Terminal 20 and Neutral to Terminal 21 if it is less than 2000 Watts. If the immersion heater is more than 2000 Watts, you cannot use these terminals as it will destroy the PCB and void the warranty.

4. Connections for Heating Engineers

The water pipe connections are on the rear of the unit. The top connection is the flow (outlet), and the bottom is the return (inlet):

On the Outback 5 and 8kW units, the connection is 1" BSP female. You will need a 1" BSP male-to-male connector to connect the flexi-hoses. This is included in the Heat Pump Accessory Kit with fibre washers:

On the Outback 11 and 16kW units, the connection is 1¼" BSP female. You will need a 1¼" to 1" BSP male-to-female connector to connect the flexi-hoses. This will be included in the Heat Pump Accessory Kit for these 2 units, together with fibre washers.

On the Outback 16kW unit, all pipework will need to be 35 mm copper - there are no flexi-hoses for this unit.

The Outback 5, 8 and 1kW units must have flexi-hoses fitted before connecting to 28 mm copper or plastic pipes. The flexi-hoses fit on the back of the unit using the fibre washers and have a compression fitting to 28 mm copper/plastic. Do not kink the flexi-hoses - they need to be installed with sweeping curves.

All external pipework must be insulated with no bare metal visible - bare pipework violates the MCS rules and the warranty on this unit.

This unit will protect itself from freezing in cold weather, but ONLY if the power is switched on. In a power cut, the unit cannot protect itself. Freeze up is the installers responsibility and is not covered by the warranty. There are 3 options:

- Use food-grade propylene glycol/anti-freeze in the water at 15% concentration.
- Use the Anti-Freeze Valve (see below) supplied in the Heat Pump Accessory Kit, installed outside on the inlet pipe of the unit so it can drain the water from the lowest point in the unit.
- Use neither of the above and rely on the electrical backup system in the house, assuming the property has a battery providing backup power.

Once the pipework has entered the property, we recommend using 28 mm Ball Valves, supplied in the Heat Pump Accessory Kit, for isolating the heat pump for flushing and repair purposes:

We insist on a Magnetic Filter being installed on the return to the unit. One is included in the Heat Pump Accessory Kit. We recommend it is installed inside the property on the return pipework. It comes with 28 mm compression connections, fibre washers and a spanner to open the filter.

There is no expansion vessle in the monobloc outdoor unit, so you will need to use a Robokit, which is also included in the Heat Pump Accessory Kit:

5. Accessory Kits

There are 3 Accessory Kits available:

1. Heat Pump Accessory Kit - this comes with every heat pump as it will provide you with everything you need to install the heat pump. It includes:

Feet x 2
Flexi-Hoses x 2 with insulation
Heat Pump Adapters x 2
Magnetic Filter
Robokit 18L
Anti-Freeze Valve
32A Isolator
Auto Air Vent x 2
Ball Valve x 2
Drain Valve
Wiring Centre

All connection adapters are supplied and include fibre washers. Kits for the Outback 11 and 16kW will also include the 1¼”-1” adapter.

2. Cylinder Accessory Kit - this comes with every Ecogenica hot water cylinder so you can connect it to the heat pump. It includes:

Expansion Vessel 12L
G3 Combination Valve
3-Way Valve
Switch13 Amp

All connection adapters are supplied and include fibre washers.

3. Buffer Accessory Kit - if you are using our buffer or integrated cylinder with buffer, you will receive these accessories:

Water Pump
Pump Valves x 2

All connection adapters are supplied and include fibre washers.

6. System Types – Open Zone and Multi-Zone

This Manual covers 2 standard heating and hot water installation types – Open Zone and Multi-Zone.

It is important you install the system as it was designed.

Only use the schematics and instructions for the system you are installing.

Check this with your system designer before starting.

Open Zone

In this system, all radiators come on together when the heating is running and you will be removing any thermostatic radiator valves (TRVs) from the radiators (although a TRV on 1 out of every 5 radiators is permitted). An open system is simpler to connect and can offer significant savings.

In an Open Zone system, we rely on the water in the system to make up our minimum system volume.

Multi-Zone

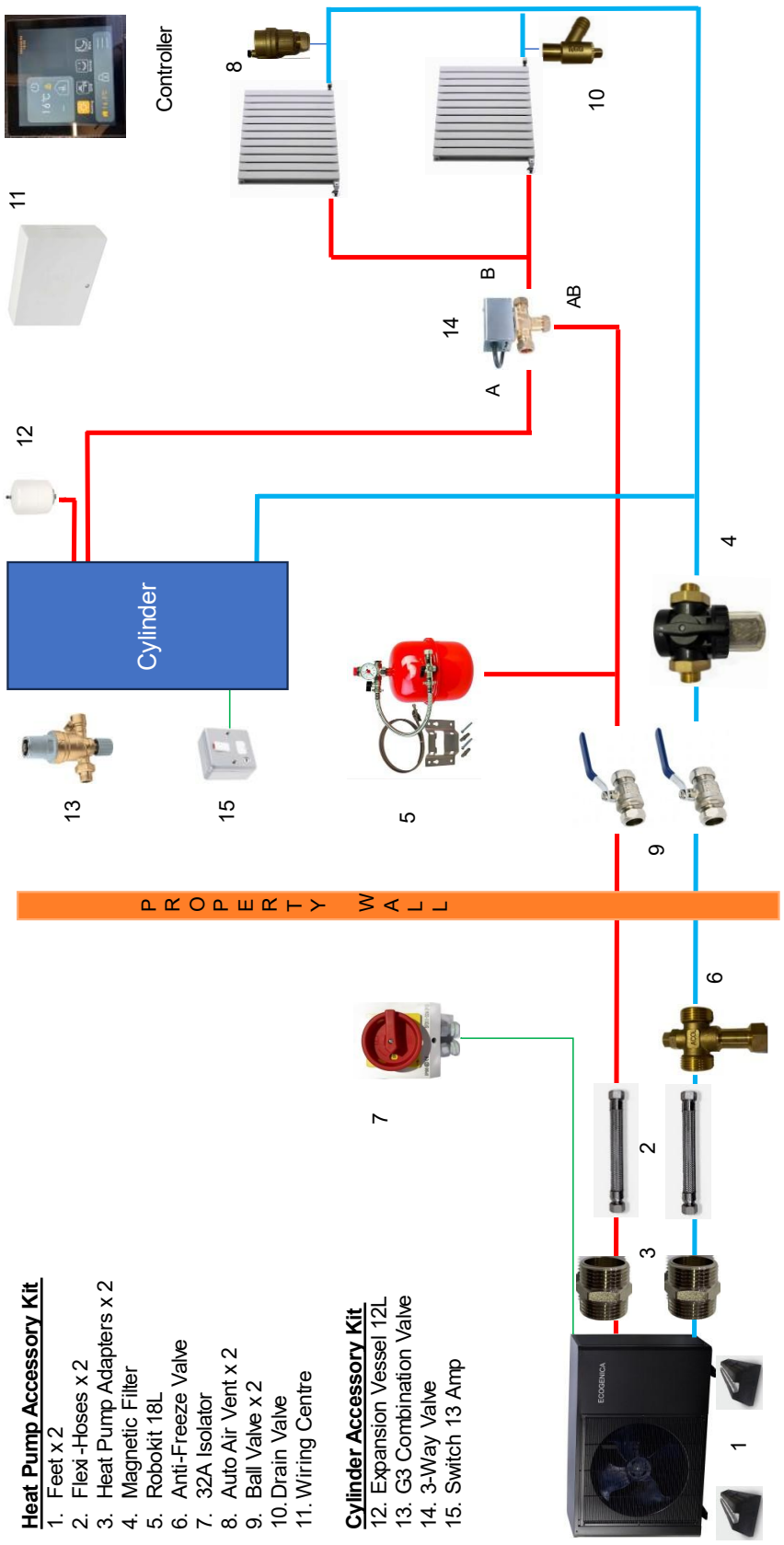
If the homeowner wants to zone the house or heat one floor or area at a time, they will need more than one thermostat, in which case you must use a buffer and a Multi-Zone system.

In a Multi-Zone system you can zone the house and run just a few radiators or some underfloor heating as the buffer will provide the system volume required.

Note: Ecogenica offers the buffer as a stand-alone item (50 L) or as an “all-in-one” unit combined at the bottom of the hot water cylinder. The pipe work, wiring and set up are the same for all units with buffers.

7. Open Zone - Schematics, Set-Up and Testing

Open Zone Heating and Hot Water



Heat Pump Accessory Kit

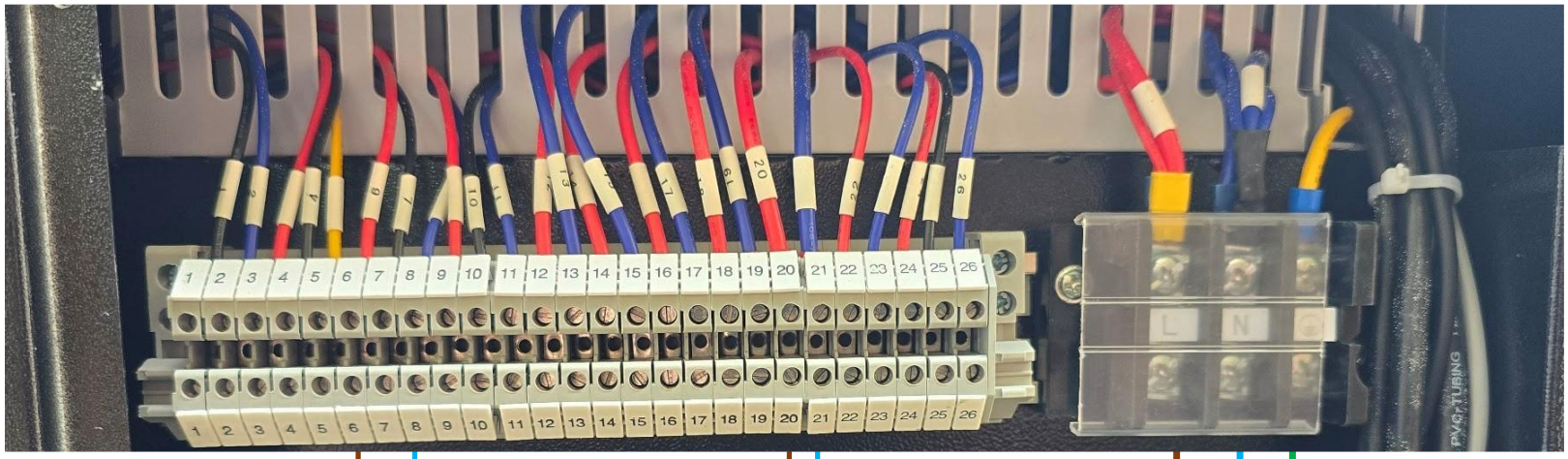
1. Feet x 2
2. Flexi-Hoses x 2
3. Heat Pump Adapters x 2
4. Magnetic Filter
5. Robokit 18L
6. Anti-Freeze Valve
7. 32A Isolator
8. Auto Air Vent x 2
9. Ball Valve x 2
10. Drain Valve
11. Wiring Centre

Cylinder Accessory Kit

12. Expansion Vessel 12L
13. G3 Combination Valve
14. 3-Way Valve
15. Switch 13 Amp

Note: 1. In Open Zone systems (no buffer) the controller is the room thermostat. 2. TRVs cannot be used on the radiators.

Open Zone Heating and Hot Water



Hot water cylinder sensor plugs into T8. The sensor is 10 m long. It must go in the cylinder above the immersion heater.

If 3-Way Valve port A is connected to the cylinder, wire 6 to live and 8 to neutral.
If 3-Way Valve port B is connected to the Cylinder wire 7 to live and 8 to neutral.
7 is live, 8 is neutral in Heating.
6 is L and 8 is N in DHW mode.

Immersion heater L to 20 and N to 21 in cylinder, but ONLY if under 2000 Watts.

Controller (10 m)

Unit	Power Supply
Outback 5kW	16 Amp
Outback 5kW	25 Amp
Outback 5kW	32 Amp
Outback 5kW	16 Amp (3 phase)

Notes: 1. In Open Zone systems (no buffer) the controller is the room thermostat 2. TRVs cannot be used on the radiators .

Set-Up

The table below shows the minimum system water content recommended for each unit. To ensure proper operation of the heat pump, this minimum content must be met.

	Outback 5kW	**Outback 8kW**	**Outback 11kW**	**Outback 16kW** (3 phase)
Water Volume	65	100	150	200
Radiators	6	10	12	15

Before you start heating, fill the system with water to 1-2 Bar. Ensure you get all the air out - there is an Auto Air Vent in the heat pump, which will help.

Make sure you also bleed all the air out of the radiators.

The heat pump comes configured for Open Zone heating with a hot water cylinder.

Power it up and you will see a screen like the below:

You have to make a few settings to the unit before you can start heating.

Press the menu symbol  .

Press Setting  , then **Modify parameters**. It asks you to input a password, it is 2345, then Press **OK**.

Go to **01 DHW parameters setting.**

If you have wired the immersion heater from the heat pump, set **002 Disinfection** to 1, if not set to 0.

Note: The cylinder needs to get to 60C once a week, so you will need to set the immersion heater to do this.

Go to **011 T8S-d1** and set the legionella temperature to 60C.

Return to the **Modify parameter** screen, press **03 Heating parameter** setting, scroll to **003 H_ModeTAo Max**, press and set this to 20C. This tells the heat pump to stop heating the house in warm weather.

Return to the **Modify parameter** screen, press **05 Temperature parameter** setting, scroll to **02 Ta Enable,** press and set this to 1. This tells the heat pump to use the Ecogenica controller as the room thermostat.

Press the **house** symbol  to return to the main screen.

Weather Compensation

You should tell the unit to operate in “weather compensation” as this saves the home owner 20-30% on the run cost by running the radiators at lower temperatures on warm days and higher temperatures on cold days.

Press the menu symbol  .

Press **Service** and then **Climate curve**.

Move the slider to switch on heating, it goes orange when it is on.

Now press **Zone 1**, **High Temperature Heating** and then **Customisation.**

In the **customised curve** screen, slide the switch right so it goes orange.

Press **T5SetH1**, type in 50, press **OK**.

Press **T5SetH2**, type in 35, press **OK**.

Press **TaoH1**, type in -2, press **OK**.

Press **TaoH2**, type in 15, press **OK**.

Press the symbol of a floppy disk  , then press  to return to the home screen.

Now turn off the power for 30 seconds - the unit will reboot with your new settings.

Testing Heating Mode

First we will start the unit in heating mode.

Press the power button on the left to switch the heating on/off.

Note the picture of the house and the temperature, this is the temperature in the room.

When the unit is off, it shows the current room temperature, when it is running it shows the temperature it is trying to get to. The unit takes 3 minutes to start.

Once it is running the home symbol will go orange to tell you it is in heating mode.

At the bottom of the controller in orange is the current room temperature. To increase the room temperature press **+**, to reduce it press **–**.

At the top of the controller screen a circle with a triangle will appear, this tells you the water pump is on.

After 3 minutes the compressor will appear top left in orange, now the heating is running.

Leave the system on for 15 minutes then check that every radiator is warm and all of them are the same temperature.

Make sure the radiators are balanced properly and make sure there are no TRV heads on any of the radiators (a maximum of 1 TRV for every 5 radiators is however allowed).

If the Date/Time needs changing or the beeping from the controller/brightness needs adjusting, see Section 9.

If the system is set up or wired up incorrectly a fault code will appear at the bottom of the screen (see Section 11).

Testing Hot Water Mode

Press the power button on the right to switch the hot water on/off.

On screen it tells you the current water tank temperature.

When the unit is off it shows the current cylinder temperature.,The unit takes 2 minutes to start. Once its running the tap symbol will go orange to tell you it is in hot water mode.

To increase the cylinder temperature, press **+,** to reduce it press **–**. We recommend setting this to 50C.

Note the unit's priority is hot water - if the cylinder falls 5 degrees C in temperature it will automatically reheat. It cannot do heating and hot water at the same time so in hot water mode, the heating is stopped.

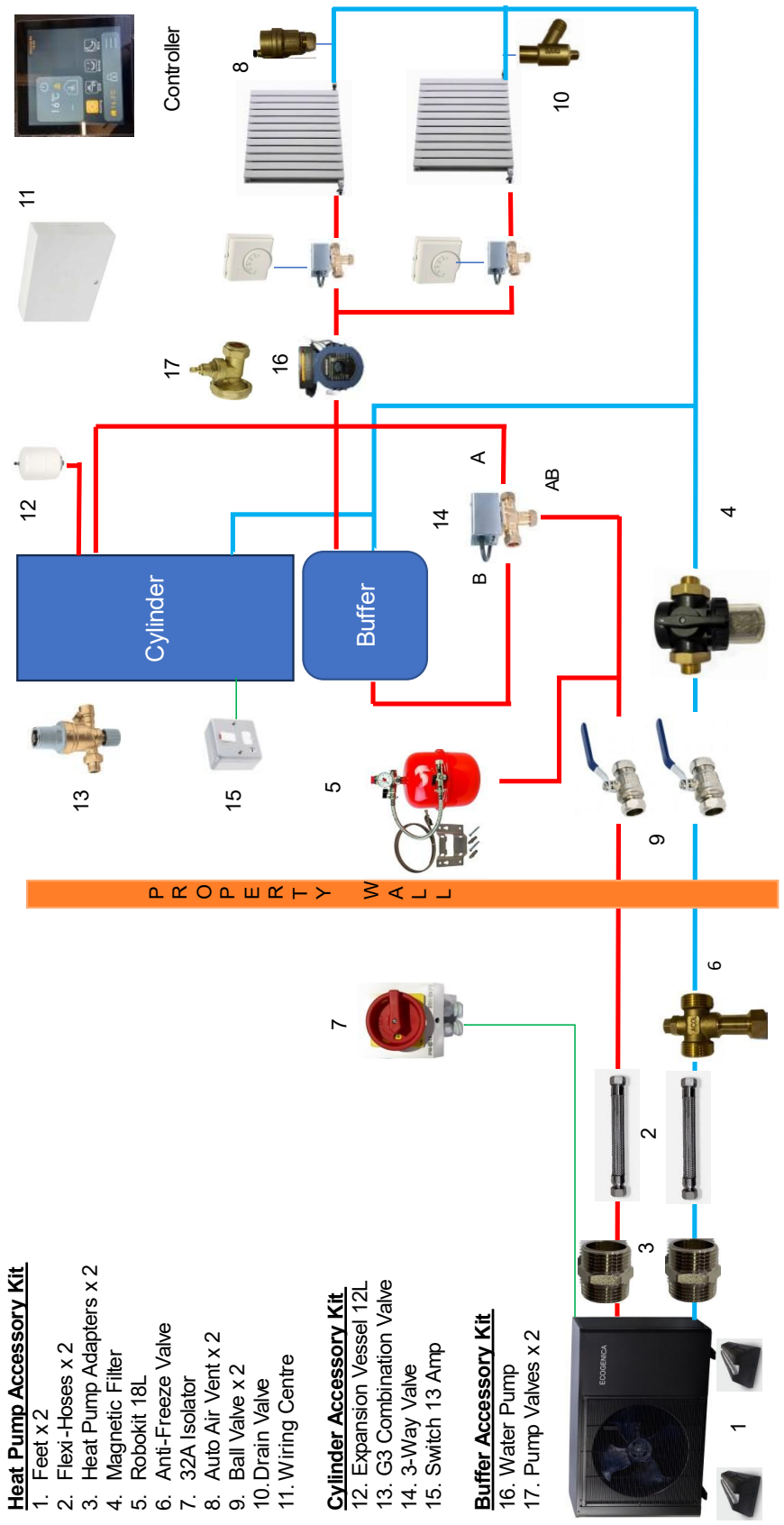
Note in hot water mode the 3-Way Valve points towards the cylinder. Check that when it is in hot water mode, the cylinder temperature rises. It's a good idea to do a 30-minute hot water cycle to prove it is working.

To set cylinder timers, see Section 9.

Once you are happy the unit operates well in both modes, you can hand over to the customer and complete the warranty registration (Section 12).

8. Multi-Zone – Schematics, Set-Up and Testing

Multi-Zone Heating and Hot Water



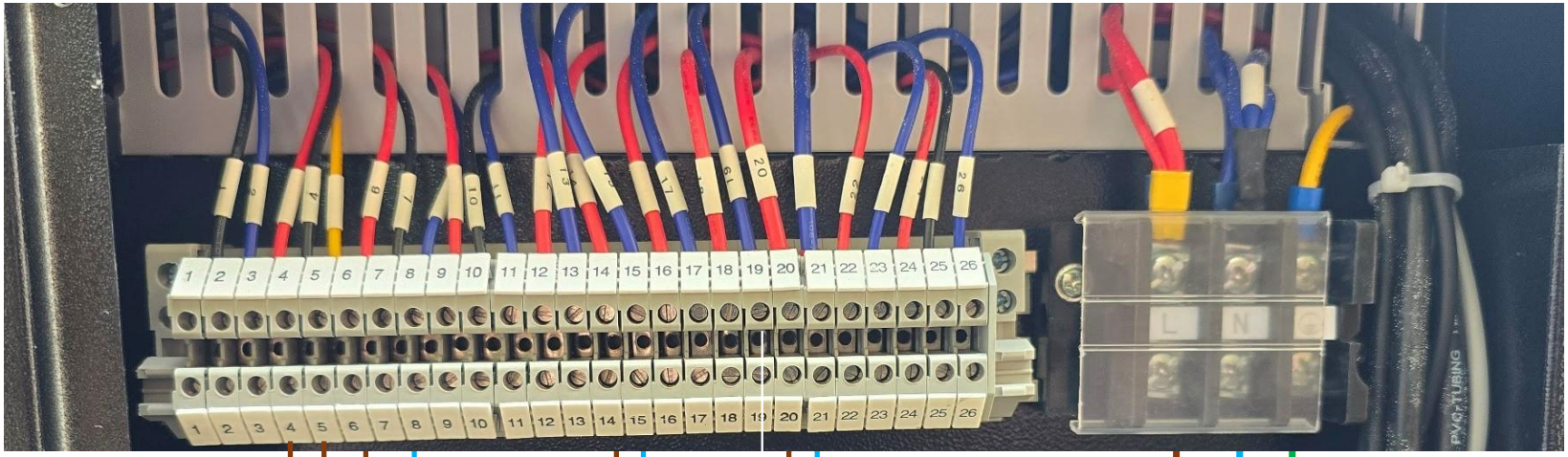
Heat Pump Accessory Kit
1. Feet x 2
2. Flexi -Hoses x 2
3. Heat Pump Adapters x 2
4. Magnetic Filter
5. Robokit 18L
6. Anti-Freeze Valve
7. 32A Isolator
8. Auto Air Vent x 2
9. Ball Valve x 2
10. Drain Valve
11. Wiring Centre

Cylinder Accessory Kit
12. Expansion Vessel 12L
13. G3 Combination Valve
14. 3-Way Valve
15. Switch 13 Amp

Buffer Accessory Kit
16. Water Pump
17. Pump Valves x 2

Note: 1. In Multi-Zone systems using a buffer, the controller cannot be the room thermostat. 2. Room thermostats need to be supplied by the installer. 3. TRVs are allowed on the radiators. 4. Always use 22 mm pipe on the Outback 5kW, 28mm on the Outback 8 & 11kW, and 35mm on the Outback 16 kW.

Multi-Zone Heating and Hot Water



The hot water cylinder sensor plugs into T8. The sensor is 10 m long. It must go in the cylinder above the immersion heater.

Room thermostats wire from 4 to 5, unit runs in heating when link is made.

If 3-Way Valve port A is connected to the cylinder, wire 6 to live and 8 to neutral.
If 3-Way Valve port B is connected to the Cylinder wire 7 to live and 8 to neutral.
7 is live, 8 is neutral in Heating. 6 is L and 8 is N in DHW mode.

Pump after buffer. Wire 14 Live, 15 Neutral, it only runs in heating mode

Immersion heater wire Live to 20 and Neutral to 21 in cylinder, but ONLY if under 2000 Watts.

Unit	Power Supply
Outback 5kW	16 Amp
Outback 8kW	25 Amp
Outback 11Kw	32 Amp
Outback 16kW	16 Amp (3 phase)

Controller (10 m)

Set-Up

The table below shows the minimum system water content recommended for each unit. To ensure proper operation of the heat pump, this minimum content must be met.

	Outback 5kW	**Outback 8kW**	**Outback 11kW**	**Outback 16kW** (3 phase)
Water Volume	65	100	150	200
Radiators	6	10	12	15

Before you start heating, fill the system with water to 1-2 Bar. Make sure you get all the air out - there is an Auto Air Vent in the heat pump which will help.

Make sure you also bleed all the air out of the radiators.

The heat pump comes configured for Open Zone heating with a hot water cylinder.

Power it up and you will see a screen like the below.

You have to make a few settings to the unit before you can start heating.

Press the menu symbol .

Press Setting , then **Modify parameters**. It asks you to input a password, it is 2345, then Press **OK**.

Go to **01 DHW parameters setting.**

If you have wired the immersion heater from the heat pump, set **002 Disenfection** to 1, if not set to 0.

Note: The cylinder needs to get to 60C once a week, so you will need to set the immersion heater to do this.

Go to **011 T8S-d1** and set the legionella temperature to 60C.

Return to the **Modify parameter** screen, press **03 Heating parameter** setting, scroll to **003 H_ModeTAo Max**, press and set this to 20C. This tells the heat pump to stop heating the house in warm weather.

Scroll to **003 H_ModeTAo Max**, press and set it to 20C. This tells the heat pump to stop heating the house in warm weather.

Press return  , then press the right arrow and go to **6** on **room thermostat setting**.

Press **001 thermostat**, set to 1, this disables the on/off button on the controller, and so the unit now operates using the room thermostats.

Weather Compensation

You should tell the unit to operate in “weather compensation” as this saves the homeowner 20-30% on the run cost by running the radiators at lower temperatures on warm days and higher temperatures on cold days.

Press the menu symbol  .

Press **Service** and then **Climate curve**.

Move the slider to switch on heating, it goes orange when its on.

Now press **Zone 1**, **High Temperature Heating** and then **Customisation.**

In the **customised curve** screen, slide the switch right so it goes orange.

Press **T5SetH1**, type in 50, press **OK**.

Press **T5SetH2**, type in 35, press **OK**.

Press **TaoH1**, type in -2, press **OK**.

Press **TaoH2**, type in 15, press **OK**.

Press the symbol of a floppy disk  , then press  to return to the home screen.

Now turn off the power for 30 seconds - the unit will reboot with your new settings.

Testing Heating Mode

With the remote controller disabled, the heating is completely controlled by your external thermostat/thermostats.

If you try to use the power button on the controller it will let you press on/off but 10 seconds later it will switch off again.

Turn any thermostat up in the house to give the unit a start signal, the unit will start in heating. When the unit is off it shows the current room temp, when its running it shows the temperature its trying to get to. The unit takes 3 minutes to start. Once its running the house will go orange to tell you it is in heating mode.

At the bottom of the controller in orange is the current room temperature.

At the top of the controller a circle with a triangle will appear  , this tells you the water pump is on.

After 3 minutes the compressor will appear top left in orange  , now the heating is running.

Leave the system on for 15 minutes then check every radiator is warm and all of them are the same temperature.

Make sure the radiators are balanced properly and make sure there are no TRV heads on any of the radiators (we do however allow a maximum of 1 TRV for every 5 raidators).

If the Date/Time needs changing or the beeping from the controller/brightness needs adjusting, see Section 9.

If the system is set up or wired up incorrectly a fault code will appear at the bottom of the screen (see Section 11).

Testing Hot Water Mode

Press the power button  on the right to switch the hot water on/off.

On screen it tells you the current water tank temperature.

When the unit is off it shows the current cylinder temperature. The unit takes 2 minutes to start. Once its running the tap symbol will go orange to tell you it is in hot water mode.

To increase the cylinder temperature, press **+,** to reduce it press **–**. We recommend setting this to 50C.

Note that the unit's priority is hot water - if the cylinder falls 5 degrees C in temperature it will automatically re heat. It cannot do heating and hot water at the same time so in hot water mode, the heating is stopped.

Note in hot water mode the 3-Way Valve points towards the cylinder. Check that when it is in hot water mode the cylinder temperatue rises. It's a good idea to do a 30 minute hot water cycle to prove it is working.

To set cylinder timers see Section 9 of this Manual.

Once you are happy the unit operates well in both modes, you can hand over to the customer and complete the Warranty registration (Section 12).

9. Settings - Clock, Controller and Timers

Clock

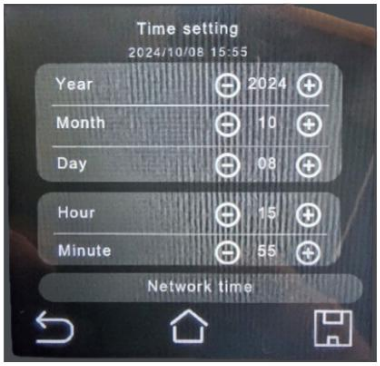
Press Menu .

Then press Schedule .

Then press Timer .

Now, adjust year, month, day, hour and minute.

Press the floppy disk to save, then press home to exit.



Controller

Press menu .

Press Display .

In this screen you can adjust the brightness, sound level and how long the screen stays on for after being touched.

Press the floppy disk to save, then press home to exit.

Timers

Press menu .

Press Schedule . Press Timer .

Set the top timer (Timer 1) first.

Note you can have as many timers as you need (Timer 1, Timer 2 etc.).

Each timer can have heating or hot water or both. In the above example, note the top timer is active and so is orange (use the slider to activate/deactivate it) and is for both heating and hot water.

To adjust each timer simply select it.

You can adjust the start or boot time, the shutdown or off time.

Note which zone of heating you are controlling – in the above it is Zone 1  .

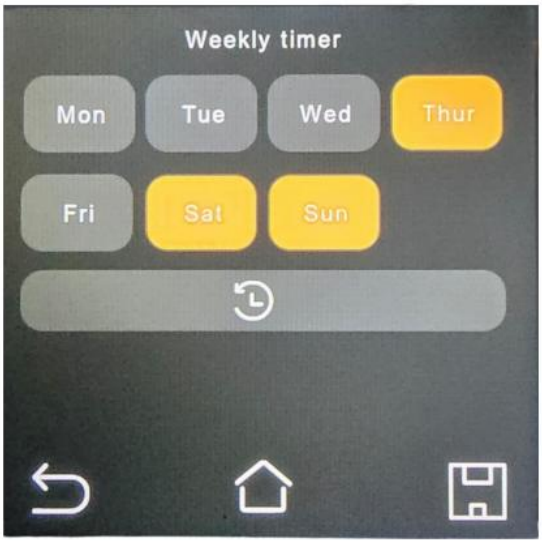
Make sure it is on heating - it shows a sun symbol  not an icicle  .

Set the temperature you want to achieve.

Likewise you can turn on the hot water and set its temperature too.

Press save before exiting.

If you want to have different timers on different days, go to **Schedule Setting** and press the the **Weekly timer** and you will be able to set times by each day of the week.



10. Performance Check

Press menu then press Setting **.**

Press **Operating parameters.**

003 Sv3 is the position of the 3-Way Valve - off is heating, on is hot water.

Press the right arrow twice.

Look at 014 T5, this is the flow temperature.

Look at 015 water flow, this is the flow rate.

1.2 m^3 per hour is ideal for the Outback 5kW unit, 1.6 m^3 per hour for the Outback 8kW, and 2.4 m^3 per hour is ideal for the Outback 11kW.

Energy Consumption

Press Menu , then press **Consumption** .

At the top is the instantaneous energy consumption, this is best ignored as it varies all the time.

Below it however is the total energy the unit has consumed since new, the heat it has produced and the COP (Coefficient Of Performance). The COP indicates the system's efficency - if your COP is over 3 that's good, over 4 is amazing.

11. Fault Codes

If a fault occurs it will show in the bottom left of the controller, for example, F05 in the below:

Three fault codes could appear within the installation process:

FO1 indicates that the hot water cylinder temperature sensor is not plugged in at the heat pump. Check the flying lead and that the sensor cable has not been cut.

F08 indicates that the temperature sensor for zone 2 is not plugged in. Is the unit set up for 2 zones? If yes, you must plug in a second temperature sensor. We recommend only ever setting the unit to 1 zone. If you reset to 1 zone in the controller, the error will disappear.

F05 indicates that the water is not moving quickly enough around the system. It is possible the filters are dirty, there is air in the system, flexi-hoses are kinked or a valve is shut blocking the system. Check all of these and restart the unit to see if the error code has now disappeared.

For a full list of fault codes, their meanings and recommended actions, please see https://ecogenica.co.uk/products/.

If you cannot resolve any fault, please ring our Technical Support Team on +44 116 409 1869 or email info@ecogenica.co.uk.

How do you clear a fault code after the fault has been rectified? Some faults can be cleared by switching the controller off and on again. If this does not work, reset the power, switch it off for 15 seconds, then switch it on again.

To see a full history of the fault codes that the unit has reported, press menu then press Setting and **Fault code**.

12. Warranty

At Ecogenica, we stand by the quality of our heat pumps. Every heat pump and controller is supplied with a manufacturer's warranty designed to protect your investment and give you confidence in your purchase.

Ecogenica offers 2 warranties:

Standard Warranty

This is included in the purchase price of the heat pump. The standard warranty provides a 2-year parts warranty which covers the replacement of any parts deemed by Ecogenica to be defective due to a manufacturing fault.

The Standard Warranty is activated by the installer on registering the heat pump at Ecogenica's Product Registration page (https://ecogenica.co.uk/warranty). Product registration must be completed by the installer and must include the following photos:

1. Nameplate on the side of the unit stating model type, date of manufacture etc.
2. Outdoor unit installed including feet.
3. Drainage area for the unit.
4. Pipework behind the unit.
5. Hot water cylinder.
6. Heat pump controls wiring.
7. Pipework going to cylinder.
8. Weather compensation curve setting on the controller.
9. Hot water setting on the controller.

If the photos are not acceptable, the installer will be asked to re-take and re-submit them.

The warranty cover will only be activated once these photos have been submitted to the required quality and no issues are detected.

Lastly, to comply with warranty requirements, the heat pump should be serviced once a year by the installer or an Ecogenica approved heating engineer and the homeowner should keep a log of all servicing work in the event of any warranty claim (see section 13).

Premium Warranty

For added peace of mind, you can extend the Standard Warranty by a further 3 years to a total of 5 years for a non-refundable and non-transferable charge of £350. The upgrade to Premium Warranty needs to be paid within 2 weeks of the heat pump commission date.

Scope of Cover

Both warranties apply only to the heat pump and controller and cover only parts resulting from a manufacturing fault identified by Ecogenica. It does not cover therefore:

- Ancillary items such as pipework, valves, filters, brackets, seals, cages, or third-party accessories such as cylinders, tanks, radiators etc.
- Issues caused by incorrect installation, misuse, lack of servicing, or contaminated water.
- External damage (power supply, weather damage, flooding, fire, vandalism, etc.).

Making a Claim

If you believe your heat pump is not working as it should:

1. Contact your installer or Ecogenica's Technical Support Team to identify a qualified heating engineer.

2. If a product fault is confirmed to be defective due to a manufacturing fault, Ecogenica will provide the replacement parts free of charge.

3. If the issue is due to a problem with the installation, misuse or any accessories or ancillary items, a call-out fee will be charged and if requested, a quote can be given to rectify the issue.

Warranty Status

To check the activation date and type of warranty cover, please email warranty@ecogenica.co.uk.

13. Maintenance

The heat pump should be serviced **ONCE A YEAR** to comply with the warranty.

The installer should provide the homeowner with evidence of all servicing so that the homeowner can keep a log in the event of any warranty claim.

Maintenance should be covered by the installation contractor. If the installer is not available another Ecogenica qualified contractor can take over the maintenance and warranty.

The annual service should include the following:

1. Stop the unit, clean the Magnetic Filter and replace the strainer.

2. If Glycol or an anti-freeze is in the system, test the level using a Glycol tester - the level should be 25%. If you don't have a glycol tester, a glycol tester/refractometer can be bought from your heat pump supplier or online.

3. Refill the unit, pressure should be 0-3 bar, open all valves.

4. The operation of the unit against the hot water cylinder needs to be tested. First, draw off 50 litres of water - run a couple of taps for 5 mins to achieve this. The unit should start up automatically in hot water mode. If it does not, press the DHW power button on the controller. In 3-4 mins it will start heating the cylinder and a compressor symbol will show at the top of the remote controller. The heat pump should be able to achieve 50C cylinder temperature without using the immersion heater.

5. While running, check the outdoor unit for damage and debris.

6. Clean the coil. We recommend that an approved air conditioning or heat pump cleaning chemical be used - your distributor will stock this. Instructions are given on the bottle.

7. Clean and polish the outside casing - we recommend car wax or ACF50 to do this.

8. Measure the temperature of the flow using the remote controller (See Section 10).

9. Measure the flow rate from the flow meter (See Section 10).

10. With the unit running flat out, measure the temperature of the air as it enters the coil and the temperature of the air in the garden. They should both be the same. Check that cold air is not recirculating.

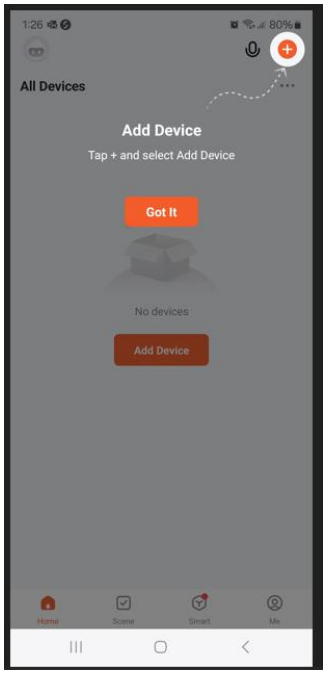
14. Wi-Fi App

The App is called TuyaSmart and can be found on the App Store or Google Play.

Once downloaded you need to find your heat pump.

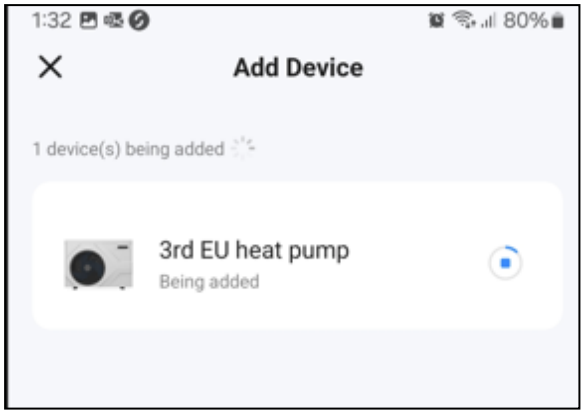
First turn the power off to your heat pump for 30 seconds – it is only in pairing mode after the power is restored.

On the App start searching for a new device by pressing the orange +.



Important: On the heat pump controller, press , press Wi-Fi then **Reset**.

The App will now show you a list of the units it can see. You are looking for a 3rd EU heat pump.



Once you have successfully paired the unit to the phone, click on it. Now enter the Wi-Fi password and hold your phone near the heat pump so it will be added to the network.

The App will search again and once it is found, press Done.

Then you are away and can start, stop, set temperatures etc.

Contact Us

Should you have any questions or require further information or support, please do not hesitate to contact us at:

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