IMPORTANT NOTICE!
PLEASE READ

Please ensure that you have read all the fitting instructions in your User Manual before attempting installation.
It is the responsibility of competent professional heating engineer to install this heat pump following all installation instructions.
Failure to adhere to the above conditions may deem your warranty invalid

Useful Information

Your User manual, controller and set temperature sensor is situated behind the wire hole panel. You will need to remove 2 screws at the bottom of the panel to remove.

Sighting of the Heat Pump

Your heat pump can be situated inside a garage or in an outbuilding. However the fan does produce cooled air while heating water and needs to get rid of this therefore the fan side would need to be butted up to the wall with a hole knocked through for the expelled air to escape.

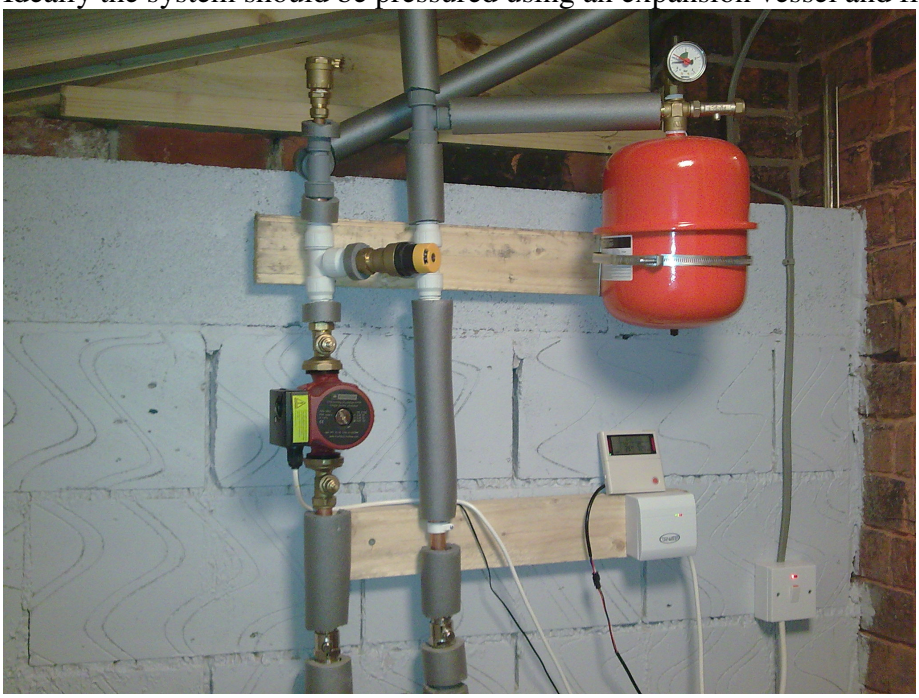
If your heat pump is going to be positioned outside then the rear and sides must be 30cm, at least, away from any wall. The front should have NO obstruction. You should also have a shelter built over the top to protect the heat pump from and rain and snow that could affect its performance. This will give an extended life to the heat pump. Instructions are towards the end of your heat pump manual.

Underneath the heat pump there is a condensing water outlet pipe. Please be aware the condensed water will run from this pipe. Appropriate action needs to be taken to ensure that the water extracted is directed to a suitable outside drain.

Plumbing

The heat pump has NO circulation pump.
The heat pump requires a none restricted heavy flow of water otherwise the compressor will overheat, for the 11.9KW heat pump we recommend a 15-60 pump at least and for the 8.3KW a 15-50 they will need to be run on speed 3.

Fitting your heat pump with an existing non-combi boiler in series
Your existing return pipe to your boiler needs to be broken and fed into the input of the heat pump. The connections on the input are ¾ male BSP you can use either plastic or copper pipe or a full bore flexi. The output of the heat pump needs to be connected to the return of the existing boiler.
If you are using the existing circulation pump then you will need to fit an automatic bypass valve between the input and output pipes from the heat pump.
Ideally the system should be pressured using an expansion vessel and filling kit.



Fitting your heat pump to an existing combi boiler
Same as above however the circulation pump will need to be fitted before the automatic bypass valve on the output side of the heat pump (see pic above)

Heat pump only
Same as combi
Your output for the boiler acts as the flow
Input acts as the return

Electrical Connections

11.9KW – If your heat pump is further than 5metres away from your consumer unit then the cable needs to be 6mm twin and earth. Less than 5 metres away and 2.5mm are sufficient. You should fit a 20amp fuse at the consumer unit.

8.3KW – comes already connected with a plug. Up to 13amp fuse is sufficient

To connect the circulation pump open the side panel (wire hole side) and remove the cover plates. The live wires to the circulation pump need to be connected to the terminal labelled PUMP, the neutral need to be connected to the terminal labelled N1 and the earth to the earth terminal.

The heat pump controller needs to be connected to the 4 pin adapter supplied. The controller comes with a 5metre lead; the controller is for controlling/setting the water temperature required and diagnostics. This is not to be used for programming on and off times. The controller only needs rare attention therefore does not need to be located in a prime spot.

For external controls i.e. room stats or volt free switching from zone valves you need to connect to the 2 white wires to the connection labelled VOLT FREE on the PCB. To activate the external controls, dipswitch 2 of the 4 pin dipswitch block (located in the middle of the PCB) should be switched on (up). If you do not require external controls please ensure that dipswitch 2 is switched off (down).

Water Temperature Sensor

The water temperature sensor needs to be connected top the 2 pin adapter supplied, this also has a 5metre lead, this sensor keeps the water to which temperature you set on the set temperature controller.
If using a thermal store or buffer tank this sensor needs to be plugged into either one. If not using a thermal store or buffer tank then the sensor needs to be taped onto the input pipe of the heat pump inside the building and insulated.

Commissioning Heat Pump

1. Firstly make sure there is no air in the system, bleed all radiators for air and top up the expansion vessel to 1.4Bar pressure.
2. Make sure all isolation valves are open.
3. Turn the power onto the unit.
4. If the controller has a moon symbol displayed then the volt free switch is off and the unit won't power on, you will need to activate your external controls or turn dip switch 2 off on the heat pump PCB.
5. The temp in the display is the temp of the sensor you have plugged into your source i.e. thermal store or taped onto the input of the heat pump. Press the power

button to turn the HEAT mode off, you then need to hold down the F button for 3-5 seconds, you can now go into the programming of the heat pump, scroll up and down with the up and down arrow buttons. P1 is the temp that the external sensor reads what ever you set this temp to the heat pump will stop when this temp is reached and start again when drops by 3C (default is 55) P2 is the defrost time, this is the time the heat pump will sit with frost on the coils until it with automatically defrosts, set too long and the heat pump may freeze, set too short and it will affect performance in cold weather.

6. Once your happy with the settings make sure the controller says HEAT on the bottom left of the screen if not press the power button to turn on.
7. The heat pump should take around 1 minute to power on when it does hold down the up and down arrow buttons and check the temp sensors they range from D1-D11, you are only interested in D1-D7.

D1 intake temp, this is the temp of the intake gas it should be slightly less than ambient temp and anything down to 0 is normal.
D2 coil temp, this is the temp of the evaporation coil again slightly less than ambient temp and anything down to 0 is normal.
D3 opening of expansion valve, this figure changes from time to time and is usual to be in the hundreds
D4 release temp, this is probably the most important one to check this is the temp in which the compressor is getting to (keep an eye on this for at least 20 mins to make sure it does not go above 90C) normal operating temp is between 70-85 the lower you can keep this the longer the heat pump will last, it is affected by the water flow through the heat pump you will see the temp rise if you slow the circulation pump down and lower as you speed it up. Any pipe restrictions, closed valves and air locks will make this temp rise, turn the heat pump off and check for these.
D5 water temp, this is the temp of the external sensor
D6 outdoor temp, this is the environment temp.
D7 outlet water pipe temp, this is the temp of water that the heat pump is making

180 Day Lockout

The 180 day lock out code is enabled this is a good time to check the heat pump over. Make sure all the fins are clean if not hose down, check the drain off hose is clear and water tray under fan is clean. To reset the unit the code is 333 to enter the code use the up and down arrow keys and when complete hold the F button for 3-5 seconds.