



Underfloor Heating Installation Guide



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Key Design Information

200

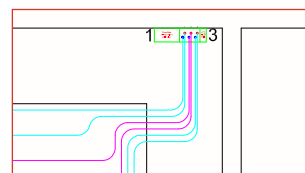
M1 - Loop 3 - 110m
Dlner

| Manifold M1 | | |
|--------------|--------|--------|
| Circuit | Length | Coil |
| 1 | 53 | 200(1) |
| 2 | 78 | 200(1) |
| 3 | 84 | 200(2) |
| 4 | 86 | 200(3) |
| 5 | 86 | 200(4) |
| 6 | 110 | 200(2) |
| 7 | 110 | 200(3) |
| 8 | 49 | 200(4) |
| 9 | 49 | 200(4) |
| 10 | 55 | 200(1) |
| 11 | 59 | 100(1) |
| Total | 819 | |

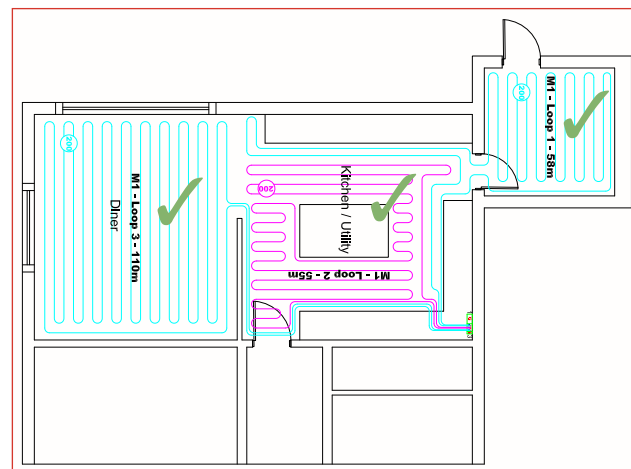
[illegible]

| Coil | Qty | |
|------|-----|--|
| 100 | 1 | |
| 200 | 4 | |

Confirm the manifold is located in the correct position



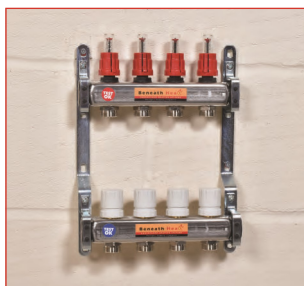
Confirm underfloor heating has been drawn in all the correct areas



Manifold & Pump Assembly

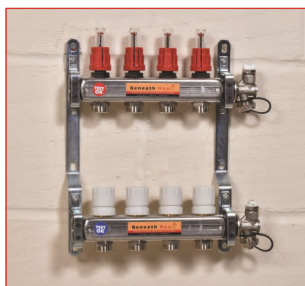
Step One:

Mount the manifold on the wall 400mm from finished floor level



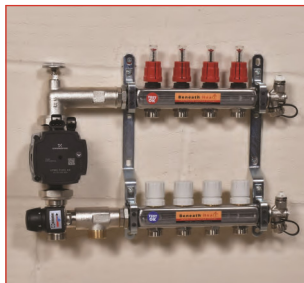
Step Two:

Insert & tighten fill & drain point



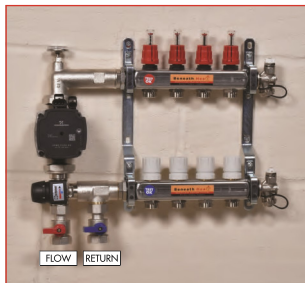
Step Three:

Connect pump pack to manifold & tighten



Step Four:

Connect & tighten ball valves



Staple System Installation

It is important that your entire work area is swept of debris & clear of other traders prior to beginning your installation.

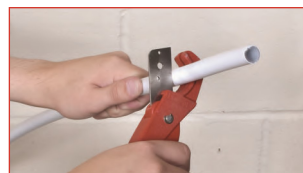
Important Notes

** All floor insulation should be laid prior to the below commencing**

** If a liquid flow screed is being used polythene should be laid & taped prior to the below commencing**

Step One:

Cut the underfloor heating pipe with a guillotine cutter.



Step Two:

Calibrate the underfloor heating pipe with the calibration tool.



Step Three:

Insert the eurocone nut over the pipe, slide the split olive over the pipe & then in push in the insert & connect to the manifold.



Step Four:

Begin to unspool the pipework inserting the pipe staple around the pipe & into the insulation below every 500mm. continue following your underfloor heating design.



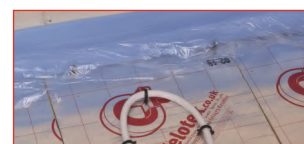
Step Five:

Once the loop has been fully laid as per the underfloor heating design return back to the manifold & repeat step three.



Step Six:

Edge insulation will be supplied this need to be installed around all perimeter walls – internal & external. This can be fixed in place by using the pipe staples by piercing the edge insulation every 1.5m and pressing into the insulation.



Once all the loops have been laid please refer to page 14 & 15 'Filling & Testing The System'

Clip & Rail System Installation

It is important that your entire work area is swept of debris & clear of other traders prior to beginning your installation.

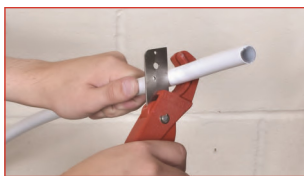
Important Notes

All floor insulation should be laid prior to the below commencing

** If a liquid flow screed is being used polythene should be laid & taped prior to the below commencing**

Step One:

Cut the underfloor heating pipe with a guillotine cutter.



Step Two:

Calibrate the underfloor heating pipe with the calibration tool.



Step Three:

Insert the eurocone nut over the pipe, slide the split olive over the pipe & then push in the insert & connect to the manifold



Step Four:

Clip rails interlock to span the width of the room, they also have an adhesive strip to secure in the floor insulation. Clip rails need to be set out 1000mm apart from one another.

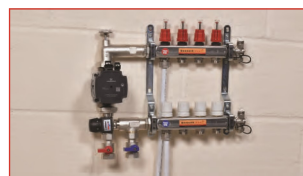
Step Five:

Begin to unspool the pipework inserting the pipe into the clip rail. Staple are also to be used on the pipe bends & between each strip of rail following your underfloor heating design.



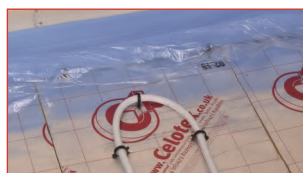
Step Six:

Once the loop has been fully laid as per the underfloor heating design return back to the manifold & repeat step three.



Step Seven:

Edge insulation will be supplied this need to be installed around all perimeter walls – internal & external. This can be fixed in place by using the pipe staples by piercing the edge insulation every 1.5m and pressing into the insulation.



Once all the loops have been laid please refer to page 14 & 15 'Filling & Testing The System'

Tacker Panel System Installation

It is important that your entire work area is swept of debris & clear of other traders prior to beginning your installation.

Important Notes

All floor insulation should be laid prior to the below commencing

** If a liquid flow screed is being used polythene should be laid & taped prior to the below commencing**

Step One:

The Tacker Panel will need to be laid across the entire floor area before pipe laying can begin. The Tacker Panels interlock into one another.



Step Two:

Cut the underfloor heating pipe with a guillotine cutter.



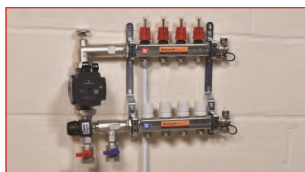
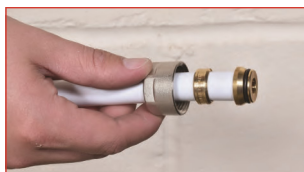
Step Three:

Calibrate the underfloor heating pipe with the calibration tool.



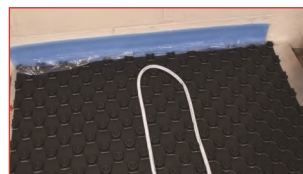
Step Four:

Insert the eurocone nut over the pipe, slide the split olive over the pipe & then in push in the insert & connect to the manifold



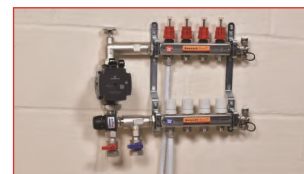
Step Five:

Begin to unspool the pipework inserting the pipe into the Tacker Panel following your underfloor heating design



Step Six:

Once the loop has been fully laid as per the underfloor heating design return back to the manifold & repeat step three.



Step Seven:

Edge insulation will be supplied this need to be installed around all perimeter walls – internal & external. This can be fixed in place by using the pipe staples by piercing the edge insulation every 1.5m and pressing into the insulation.



Once all the loops have been laid please refer to page 14 & 15 'Filling & Testing The System'

Plate System Installation

It is important that your entire work area is swept of debris & clear of other traders prior to beginning your installation.

Important Notes

- **Insulation should be inserted between each joist – offset by 17mm from the top of the joist**
- ** 20mm x 20mm Notches need to be made at each end of the joist to enable pipework to pass from joist to joist**

Step One:

The Aluminium Plates provided need to be rested onto the top of the joist & secured in place using a heavy duty staple gun. Each plate should be 20mm apart from one another & not touching.



Step Three:

Calibrate the underfloor heating pipe with the calibration tool.



Step Five:

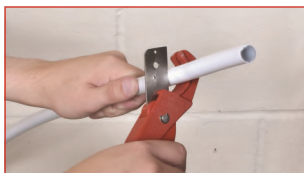
Begin to unspool the pipework inserting the pipe into the grooves within the plate - following your underfloor heating design.



Once all the loops have been laid please refer to page 14 & 15 'Filling & Testing The System'

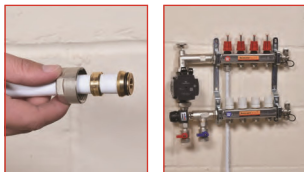
Step Two:

Cut the underfloor heating pipe with a guillotine cutter.



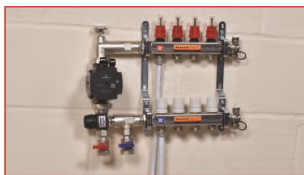
Step Four:

Insert the eurocone nut over the pipe, slide the split olive over the pipe & then in push in the insert & connect to the manifold



Step Six:

Once the loop has been fully laid as per the underfloor heating design return back to the manifold & repeat step four.



Pug System Installation

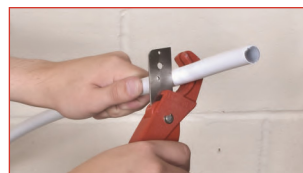
It is important that your entire work area is swept of debris & clear of other traders prior to beginning your installation.

Important Notes

- **Batten supported Insulation should be inserted between each joist – offset by 20-25mm from the top of the joist**
- ** 20mm x 20mm Notches need to be made at each end of the joist to enable pipework to pass from joist to joist**

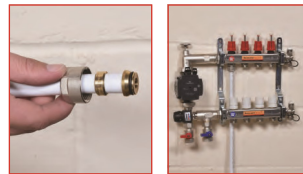
Step One:

Cut the underfloor heating pipe with a guillotine cutter.



Step Three:

Insert the eurocone nut over the pipe, slide the split olive over the pipe & then in push in the insert & connect to the manifold.



Step Five:

Once the loop has been fully laid as per the underfloor heating design return back to the manifold & repeat step three.



Once all the loops have been laid please refer to page 14 & 15 'Filling & Testing The System'

Step Two:

Calibrate the underfloor heating pipe with the calibration tool.



Step Four:

Begin to unspool the pipework inserting the pipe staple around the pipe & into the insulation below every 500mm. continue following your underfloor heating design.



Step Six:

The pipe is now ready to be covered with the dry screed mix [this is to be three parts sand & one parts cement 3:1]



20mm Floating Floor System Installation

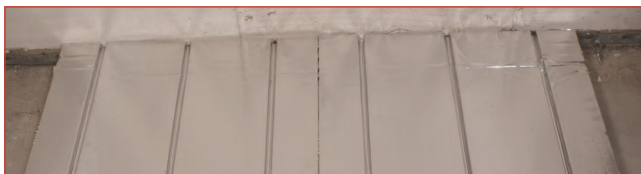
It is important that your entire work area is swept of debris & clear of other traders prior to beginning your installation.

Important Notes

20mm Floating Floor panels can be laid directly on an existing solid or joisted sub floor
 Tiles CANNOT be directly laid onto the 20mm Floating Floor panels – a minimum of 9mm ply or tile backer board will need to be installed first to give a solid flat surface prior to tiling

Step One:

The 20mm Floating Floor Panel will need to be laid across the entire floor area before pipe laying can begin. Refer to your underfloor heating design to ensure the panels are laid in the correct direction.



Step Two:

To gain the best outcome roller diluted PVA glue onto the underside of the 20mm Floating Floor Panel & leave to dry.

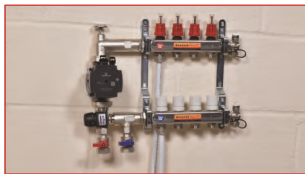
Step Three:

Begin to unspool the pipework inserting the pipe into the grooves within the panel - following your underfloor heating design.



Step Four:

Once the loop has been fully laid as per the underfloor heating design return back to the manifold & repeat step three.



Once all the loops have been laid please refer to page 14 & 15 'Filling & Testing The System'

15mm Slim Clip System Installation

It is important that your entire work area is swept of debris & clear of other traders prior to beginning your installation.

Important Notes

15mm Slim Clip is designed to be covered in a 15mm selflevelling compound once fully installed

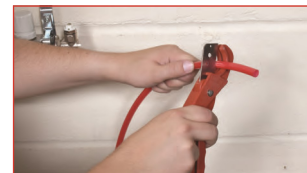
Step One:

The Slim Clip Panel will need to be laid across the entire floor area before pipe laying can begin. The Slim Clip panels interlock into one another – these will also need to be screwed to the subfloor.



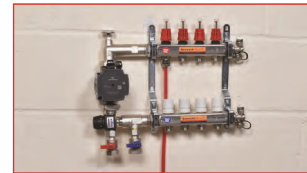
Step Two:

Cut the underfloor heating pipe with a guillotine cutter.



Step Three:

Insert the eurocone nut over the pipe, slide the split olive over the pipe & then in push in the insert & connect to the manifold.



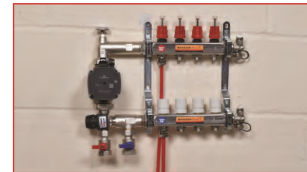
Step Four:

Begin to unspool the pipework inserting the pipe into the Slim Clip Panel following your underfloor heating design.



Step Five:

Once the loop has been fully laid as per the underfloor heating design return back to the manifold & repeat step three.



Once all the loops have been laid please refer to page 14 & 15 'Filling & Testing The System'

15mm Slim Board System Installation

It is important that your entire work area is swept of debris & clear of other traders prior to beginning your installation.

Important Notes

- ** 15mm Slim Board Floor panels can be laid directly on an existing solid or joisted sub floor**
- ** 15mm Slim Board Floor Panels CAN be tiled directly on top of with a flexible adhesive**

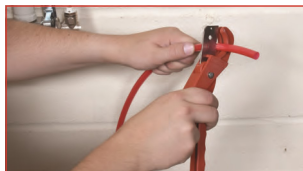
Step One:

The Slim Board Panel will need to be laid across the entire floor area before pipe laying can begin. The Slim Board panels will need to be screwed into the subfloor or fixed in place using a flexible tile adhesive



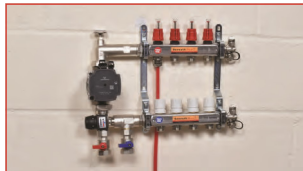
Step Two:

Cut the underfloor heating pipe with a guillotine cutter.



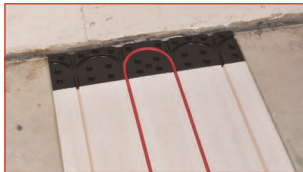
Step Three:

Insert the eurocone nut over the pipe, slide the split olive over the pipe & then in push in the insert & connect to the manifold.



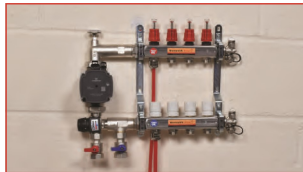
Step Four:

Begin to unspool the pipework inserting the pipe into the Slim Board Panel following your underfloor heating design.



Step Five:

Once the loop has been fully laid as per the underfloor heating design return back to the manifold & repeat step three.



Once all the loops have been laid please refer to page 14 & 15 'Filling & Testing The System'

Filling & Testing The System

Step One:

Connect the mains via a hose to the fill point on the flow manifold.

Step Two:

Connect another hose to the drain point on the return manifold.

Step Three:

Turn the ball valves until they are fully closed.

Step Four:

Twist all flow meters clockwise so they are fully closed.

Step Five:

Twist all isolation caps clockwise so they are fully closed.

Step Six:

Open the first circuit flow meter & isolation cap so they are fully open by twisting anticlockwise clockwise so they are fully closed.

Step Seven:

Open the fill & drain point valves using the cap & turn on the mains water.

Step Eight:

Let the mains flow through the circuit for a few minutes so there is a constant flow of water then isolate the circuits flow meter & isolation cap.

Step Nine:

Repeat all of the above on the remaining circuits.

Step Ten:

Turn off the mains water, close the fill & drain point valves then remove the hose's

Step Eleven:

Pressurise up to 5 Bar for one hour then reduce to 3 Bar & close the fill point valve

Step Twelve:

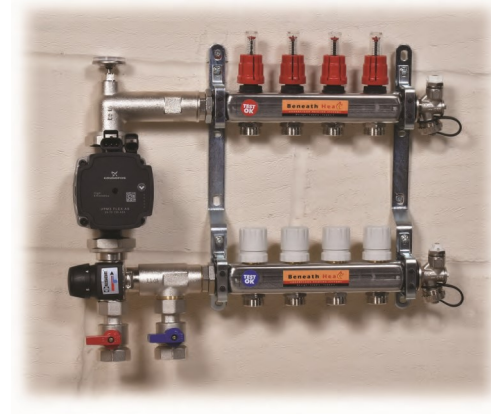
Open the fill point valve

Step Thirteen:

Open all flow meters & isolation caps by twisting anti clockwise

Step Fourteen:

Connect a pressure test pump to the fill points valve



Commission The System

It is important that screed has been left to dry for a minimum of 21 days before any heat is circulated through the system.

Initial Turn On

Step One:

Turn the blend valve down to minimum.

Step Two:

All thermostats will need to be turned up to higher than current room temperature, so that all actuator valves are open – this can take a few minutes.

Step Three:

Increase the flow rate of the flow meters by clicking off the red shrouds. Twist the flow meter anticlockwise setting the flow rate to 2 litres per minute.

Step Four:

The system will need to be left running for three days, you can then increase the flow temperature as per your design – increasing the flow temperature by no more than 5 DEG C per day.



Setting Of Flow Rates

Step One:

Refer to your underfloor heating design.

Step Two:

Increase the flow rate of the flow meters by clicking off the red shrouds. Twist the flow meter to achieve desired flow rate as per your underfloor heating design.

Step Three:

Push the red shrouds back over the flow meters to lock in position.





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