

Prounderfloor

Heating Made Easy

High Quality Underfloor Heating Solutions

- Underfloor heating packs for screed floors
- Easy to select
- Packs suitable for areas up to 112m²
- All components in one pack including bevelling tool and pipe cutter
- Bespoke system quotations available
- Technical helpline 01455 552330



Quality, Reliability and Value!

Visit our website
www.prounderfloor.co.uk

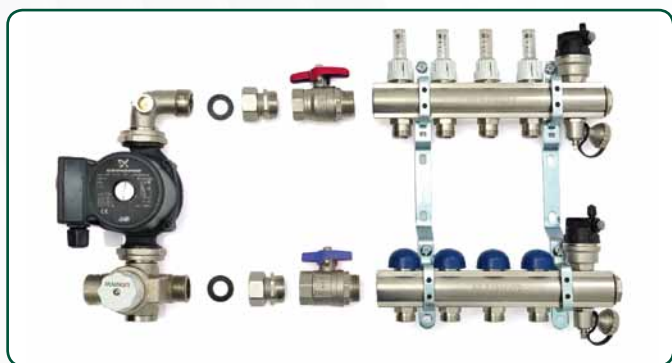
Prounderfloor – Heating Made Easy

Prounderfloor heating packs offer a quick and easy solution for new build and renovation projects. Available in a range of sizes and designed to suit screed floors, the packs include all the necessary components to install an underfloor heating system. Simple to select the pack is ordered via one product code and delivered within three working days

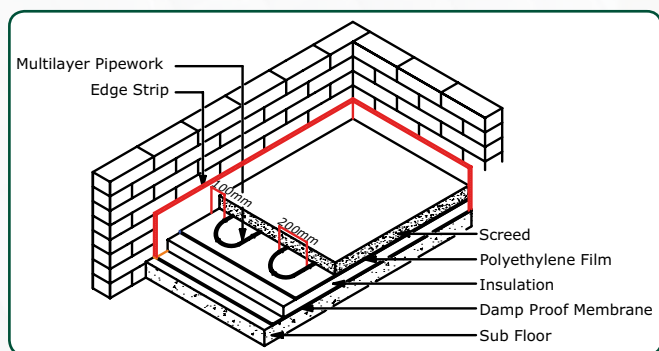
Introduction to underfloor heating

Water based underfloor heating systems work by pumping warm water through a network of pipes laid within the floor. The floor will warm up and act as the heat emitter, transferring the heat into the room and create the effect of a large low temperature radiator. Since the floor area is far greater than that of a radiator, a lower temperature is required, which offers an even heat distribution throughout the room.

Underfloor heating requires a low water temperature, usually 35-45°C. To stabilise the temperature, the water taken directly from the boiler must be blended (boiler flow is circa 80°C) with the low temperature return water from the underfloor heating circuit. To achieve this, a blending valve control pack is supplied, ready to be bolted onto the manifold. The manifold is the distribution point to connect the flow and return pipes from the underfloor heating circuit.



A high quality multilayer pipe is connected to the manifold. The pipe contains a continual aluminium sleeve to prevent any ingress of air into the system. The additional benefit of no memory ensures the novice and experienced installer can easily position and fix the pipe with no spring back. The pipe is positioned 200mm apart and secured by hand to floor grade insulation* with barbed pipe clips. Once all the pipes have been laid the system should be pressure tested and left under pressure while the screed is poured. The schematic below shows a typical build up of a screed floor.



Air Temperature Controls

Thermostat(s) are used to control the temperature of each room or zone. A zone is defined as an area that has one or more coils dedicated to heating it. One coil can heat an area up to 14m², so larger areas will require two or more coils. Packs are available with a programmable thermostat for heating single room, or multiple thermostats for controlling multiple rooms. In a bathroom or an en suite, a thermostatically controlled towel rail is recommended to supplement the heat. This is due to the reduced available floor area and increased ventilation rates required, the UFH within a bathroom or an en suite should be controlled with the nearest adjacent zone. For example, an en suite should be controlled with its corresponding bedroom. A bathroom should be controlled by the hall or landing thermostat.

**Not supplied with the pack. Available from Independent Merchants, we recommend rigid foil back grade insulation compliant with Part L of the Building Regulations*

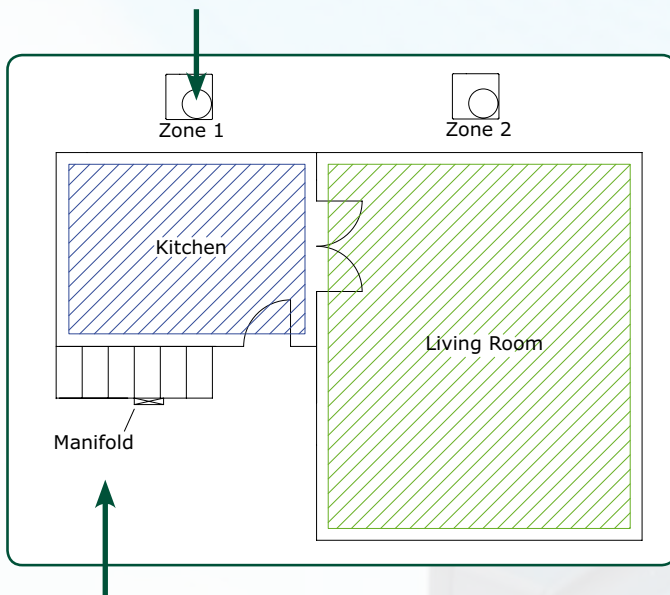
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How to Select a Single Room Pack

If you require a pack for a single room, select the pack based on the floor area (m²).

Thermostats Required

A zone / room is an area that requires its own thermostat to control the room temperature. In the example the drawing below has 2 zones and hence 2 thermostats.

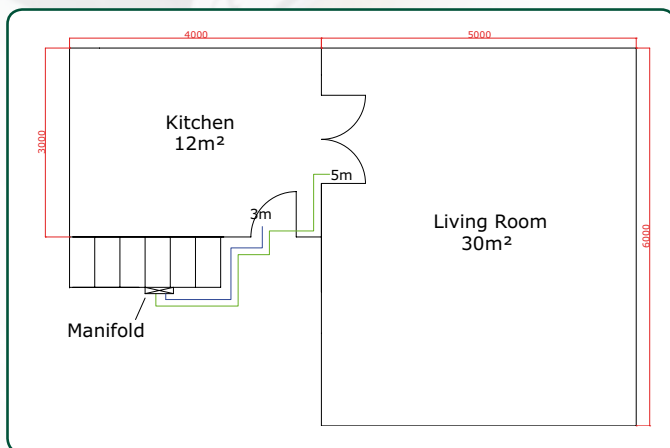


Positioning the Manifold

The manifold is the distribution point for the underfloor heating system. When positioning the manifold, consider the length of pipe runs from the boiler to the manifold. Ideally the manifold will be centrally located to minimise pipe feeds to the heated rooms. If two floors require heat, two manifolds will be required, one per floor. Typical manifold positions include under the stairs and airing cupboards.

Calculate Coils Required

Each coil of pipe will cover a maximum floor area of 14m². The distance from the manifold to the heated area is part of the calculation to determine the correct pack size. In the example, the lounge is 30m² and is 5m from the manifold. From the graph we can see that 3 coils of pipe are required to heat the lounge. The kitchen is 12m² and is 3m from the manifold. From the graph we can see that 1 coil will be required to heat the kitchen.



For further information visit
www.prounderfloor.co.uk

Underfloor Heating Made Easy

How to Select a Multiple Room Pack

Step 1

- A) Insert room name and floor area (length x width)
- B) Measure the distance from the manifold to the heated room
- C) Calculate the number of coils for each room using the graph (follow horizontal lines for the room area (m²) and vertical lines for metres from manifold, read off number of coils where the lines intersect).

Step 2

Having calculated the number of coils, use table 1 below to find the product code for the pack that you require. Select the number of heated rooms (across the top of the table) and the number of coils (down the left hand side of the table). You will find your product code where the two meet.

Room	Room Name	Floor Area (m ²)	Distance From manifold (m)	Calculate no. of coils from graph
1	Living Room	30	5	3
2	Kitchen	12	3	1
3				
4				
5				
6				
Total no. of Rooms	2		Total no. of coils	4

Table 1

No. of coils	No. of Rooms					
	1	2	3	4	5	6
1	135210					
2	135211	135212				
3	135213	135214	135215			
4	135216	135217	135218			
5	135219	135220	135221	135222		
6	135223	135224	135225	135226	135227	
7	135228	135229	135230	135231	135232	
8	135233	135234	135235	135236	135237	135238

Single Room Packs - One Thermostat

1 Room

Code

135210	14m ²	1 Coil
135211	28m ²	2 Coils
135213	42m ²	3 Coils
135216	56m ²	4 Coils
135219	70m ²	5 Coils
135223	84m ²	6 Coils
135228	98m ²	7 Coils
135233	112m ²	8 Coils

Multi Room Packs - Multiple Thermostats

2 Rooms

Code

135212	2 Coils
135214	3 Coils
135217	4 Coils
135220	5 Coils
135224	6 Coils
135229	7 Coils
135234	8 Coils

3 Rooms

Code

135215	3 Coils
135218	4 Coils
135221	5 Coils
135225	6 Coils
135230	7 Coils
135235	8 Coils

4 Rooms

Code

135222	5 Coils
135226	6 Coils
135231	7 Coils
135236	8 Coils

5 Rooms

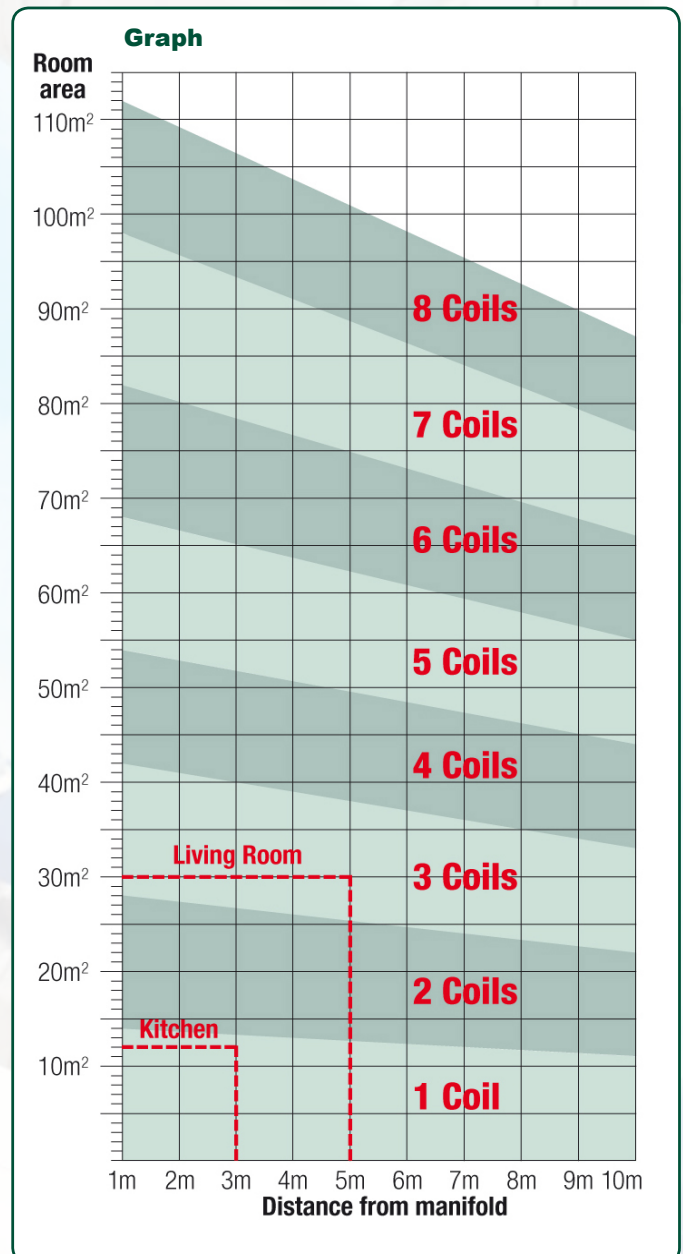
Code

135227	6 Coils
135232	7 Coils
135237	8 Coils

6 Rooms

Code

135238	8 Coils
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Components Listing

Common Components - for both the Multi Room Packs and Single Room Packs



16mm MLC Pipe
(PE-RT/AL/PE-RT) supplied in a 75m coil, overlap welded aluminium multilayer 100% barrier composite pipe.



UFH Manifold and Control Pack
Comes complete with flow meters for ease of commissioning, also included within the manifold arrangement are fill and drain ports, automatic air vents and fixing brackets. The control pack comes pre-assembled and includes a blending valve and a pump.



16mm Manifold Pipe Adaptor
Connect the 16mm multilayer pipework to the manifold.



1" Straight Ball Valve
For complete manifold isolation.



22mm 2 Port Zone Valve
Offers complete isolation over the UFH System.



Pipe Staples
Used to fix pipework to a minimum of 25mm of insulation.



Edge Insulation
Utilised around the internal and external walls to absorb screed expansion and reduce heat loss to the walls.



Tools
The 3 Size Bevelling Tool is used to chamfer and reform the pipe after cutting. The Pipe Cutter is used for cutting the multilayer pipe.

Installation Guide

Installation and operation information for the underfloor heating system.

Additional Components for Single Room Packs

Time and temperature is controlled by a programmable thermostat supplied in the pack.



Programmable Thermostat
The TP5000 is a 5/2 day programmable thermostat which gives the user time and temperature control over the heating system.



Junction Box
For connecting the pump, zone valve and programmable thermostat.

Additional Components for Multi Room Packs

The multi room packs include 2 (or more) thermostats which offer temperature control over each individual room. The time control is managed by a time clock supplied with the pack.



230V Actuators
Provide control of the underfloor heating circuits by opening and closing upon demand from the thermostat.



Single Channel Time Clock
Enables the system to be controlled for timed operations.



230V Wiring Centre
For the connection of thermostats and actuators. Includes two relays for running the secondary pump and for firing the boiler



230V Thermostat
For temperature control

Contact Details

Technical Helpline: 01455 552330

Design Service

If your project is too large for a **prounderfloor** pack, a full design and quotation service is available. Please send a copy of your plans to your local independent merchant.

Web: www.prounderfloor.co.uk

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