Installation

Step 1

First prepare the sub-floor ensuring that it is clean & free from grease, dirt or debris.

Note - if installing on a bitumen base, this must either be removed or covered with a suitable insulation board before proceeding.

The most suitable sub-floors are:
concrete, tile-backer boards, existing tiles, water-resistant timber e.g. WBP Ply.

Step 2

Prime the floor using the Neoprene primer contained in the kit. If installing over a large area or on an absorbent surface, the primer may need to be diluted with water to a maximum of two parts water to one part primer. **Leave the primer to dry (typically 1-3 hours).** Once primed avoid any foot traffic over this area. The purpose of priming is to promote greater adhesion of the mat and reduce the amount of moisture absorbed into the sub-floor.

Step 3

If fixing tile-backer boards, do so in accordance with the separate instructions provided, using tile adhesive on a concrete sub-floor & galvanised screws with washers/fixings on timber sub-floors.

Step 4

If possible test the mat before laying, using a multi-meter to ensure that the resistance is as per that given on the mat.

If you do not have a multi-meter you may proceed & lay the mat but **DO NOT** tile over without first testing it. (See Step 10)

Step 5

Plan the mat layout
This is a very important step & **MUST** be done correctly to ensure all the mat is used up.
Once it has been unrolled & cut the mat cannot be returned.

First measure the area to be heated in sqm (do not include the area taken up by fixed objects such as baths/showers & kitchen units). If the heated area is smaller than the chosen mat size **STOP** & return or exchange for the correct size.

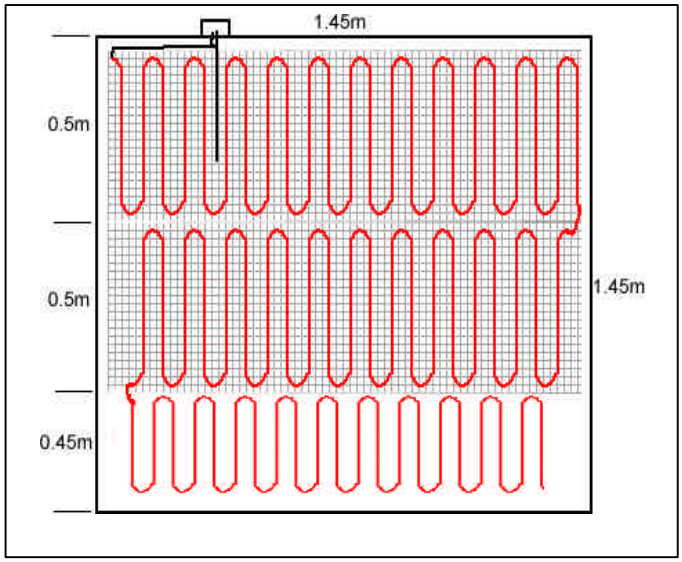


Fig 2

The mat width is 50cm & you should mark out the layout plan on a drawing – see Fig 2.

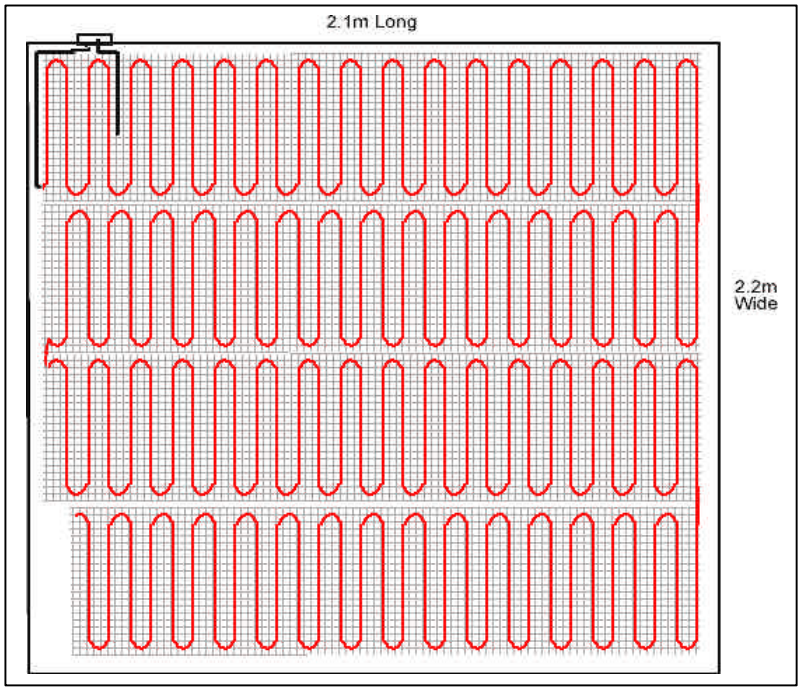
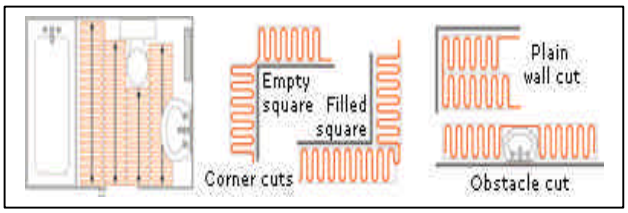


Fig 3

In Fig 2 the available floor area is 2.1sqm & a 2sqm mat is used – however in order to use all of the cable some has to be removed from the mat and laid directly onto the floor.

In Fig 3 the floor area is approx 4.6sqm & a 4 sqm mat (8 linear metres) is used – giving a comfortable spacing of 4 runs each 2 linear metres.

Some examples of mat layout & cuts are given below:



Step 6

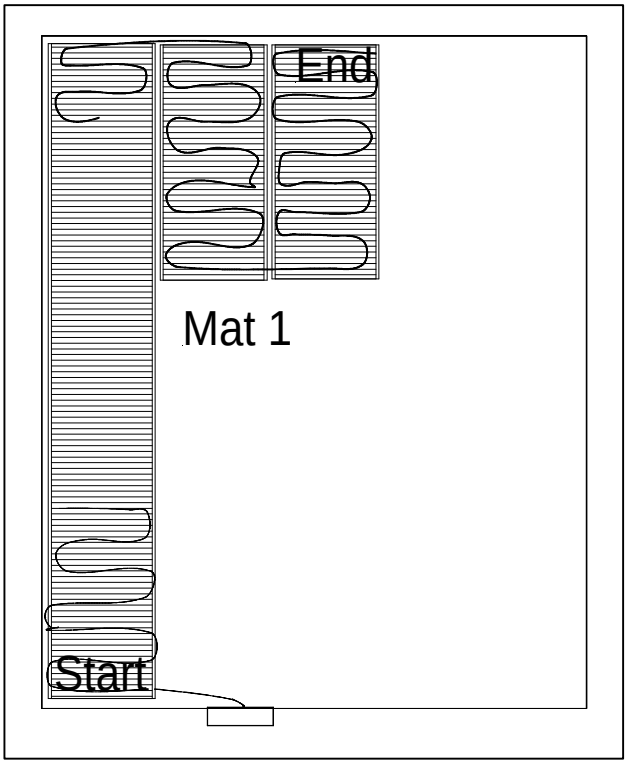
Only when you have calculated that the mat will fit into the room should you begin to lay.

Beginning at the corner closest to where you have located the thermostat, position the mat ready to start rolling out. **Important** - before rolling out check that the black cold lead will reach the location of the thermostat. If it does not you should either change the starting point, or cut a thin strip of mesh either side of the cable & run this along the edge of the room back to the thermostat. The joint between the black 'cold' cable & orange heater cable must be located under the tiles.

Step 7

From the start point roll out the mat lightly pressing it to the primed floor to hold it in place. When you reach the opposite end of the room cut through the mesh - **DO NOT CUT THE CABLE** - turn the mat through 180 degrees & roll back the other way. Continue this process until all of the mat is used up.

If you are using two or more mats try to finish off at the opposite wall so that the second mat is easier to lay – see Fig 4 and 5



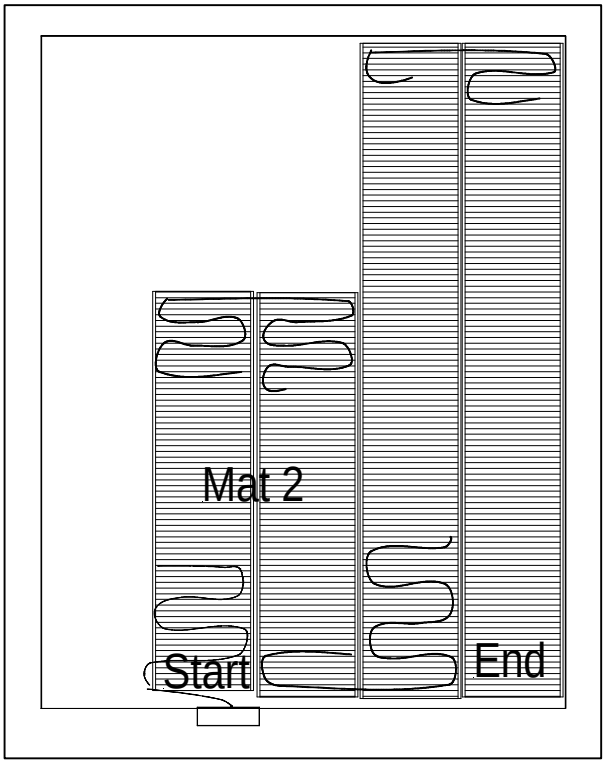
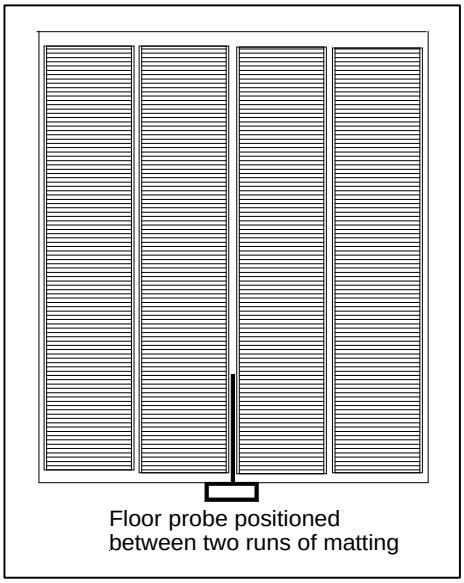


Fig 4 **Fig 5**

Please ensure that the mat is only installed in the 'free floor area' & is NOT routed below any fixed objects or drains. Note – the joint between the black 'cold' cable & the orange 'heater' cable MUST be located under the floor.

Step 8

With the mat in position, apply pressure using the roller to ensure a good adhesion to the floor before tiling.



Floor probe positioned between two runs of matting

Step 9 – Fit floor sensor

Position the sensor between two runs of mat & tape into position. The sensor wire can be shortened or lengthened, but if you do need to shorten it only cut the end containing the wires. **DO NOT** cut the end which contains the plastic sensor. The connections to the thermostat can now be made – but **DO NOT** turn the system on until it has been tiled. (See separate instructions with thermostat)

Step 10

Test the mats resistance again using a multi-meter. If you do not have access to a multi-meter, you may fit a fused plug & plug the system into a socket **'for a few minutes'** to ensure that the cable starts to heat up. **DO NOT leave the mat plugged in for more than 5 minutes & UNDER NO CIRCUMSTANCES should you plug the system in when the mats are rolled up.**

Step 11

Finally tile the floor using a flexible tile adhesive & grout as per industry standards & the manufacturer's instructions. Wait at least **ONE WEEK** before turning the heating system on to allow the adhesive time to dry. If you are using a suitable vinyl or thin carpet as the final flooring, you will need to cover the mat with a suitable latex levelling compound - we recommend a minimum of a 6mm covering over the cables to ensure even heat distribution.

NOTE – **The heating may be slow to react at first**, especially if installed on a new screed floor or in a new building – start by setting the floor temperature at around 20-22º C & build up by 1 degree per day until your desired temperature is reached. **Please see separate instructions for connection & operation of the digital thermostat.**