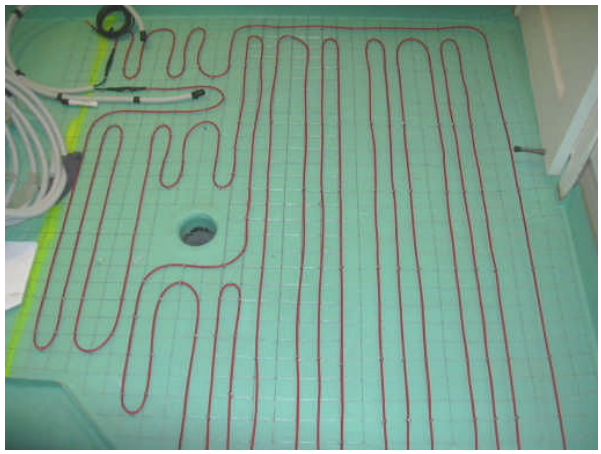
Intelligent Heating Solutions

Installation Instructions
Bathrooms In Screed

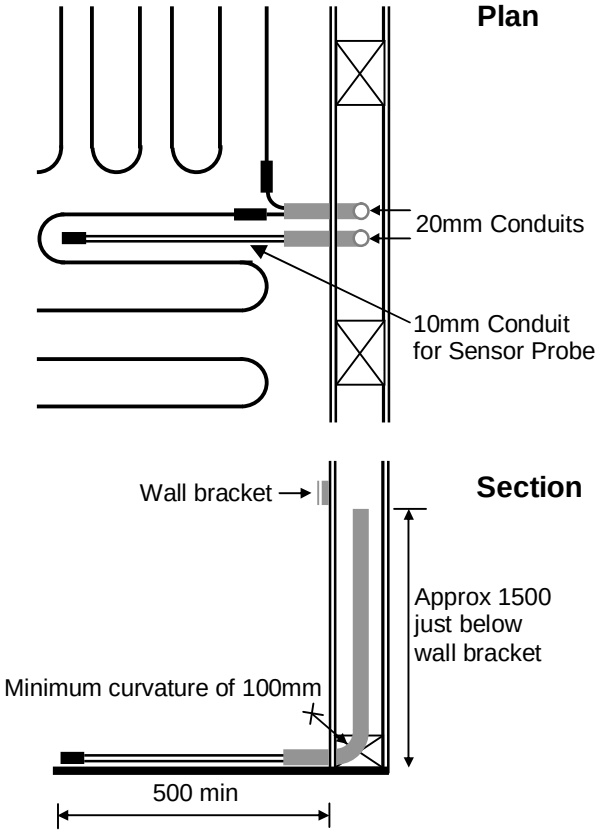
DEVI™ Heating Systems

Pre-Installation Checklist

- Determine location of thermostat and power supply
- Ensure adequate capacity of power supply circuit
- If contactors are required, ensure control wiring is in place
  Refer to relevant Contactor Connection Diagram
- Ensure all conduits are in place prior to waterproofing
  Refer to conduit installation diagram below
- In the event that two or more heater cables are required, ensure that an additional 20mm conduit has been installed for each additional heater cable
- Ensure heating circuit is protected by an RCD



Conduit Installation



- A minimum of 2 x 20mm conduits need to be installed as shown, prior to waterproofing
- Conduits only need to extend into heating zone by 100mm and should finish just below wall bracket (approx. 1500mm off floor) for easy access when connecting power and thermostat
- Avoid sharp bends in conduits (min. curvature of 100mm) and avoid multiple bends
- One conduit is to be used for cold tails
- One conduit is to be used for floor sensor
- We recommend that a 10mm flexible conduit be inserted into the 20mm floor sensor conduit and extended 500mm into the heating area and taped at the end
- The floor sensor probe (supplied with thermostat) is inserted into conduit until it reaches the end
- The floor sensor probe can be extended up to 50m using 1.5mm^2 'figure 8' cable in instances where the thermostat is remote to the bathroom

Cable Installation

Step 1 Calculate free floor area – Total room area less any fixtures such as a bath, shower, or vanity etc

Step 2 Check average cable spacing

$$\text{Average Cable spacing (mm)} = \frac{\text{Free Area (m2) x 1000}}{\text{Cable Length (m)}} \quad \text{e.g.} \quad \frac{\text{3.0 x 1000}}{\text{39}} = 77\text{mm}$$

Average cable spacing should be around 75mm –
If spacing is <60mm or >80mm then cable needs to be changed **DO NOT CUT THE CABLE AT ANY TIME**

DEVI Heating Systems - ABN 39 898 434 262
5/83 Bassett Street Mona Vale
PO Box 707 Mona Vale NSW 1660

Head Office
Phone 1800 636 091
Fax 02 9997 7852

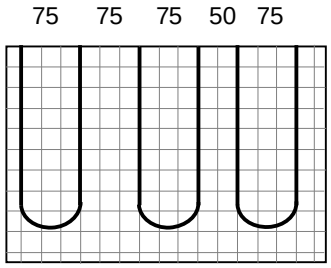
Comfort Living Solutions Pty Limited - ACN 122 894 562
Email info@devi.com.au
Web www.devi.com.au

Step 3 Cut & lay mesh over free floor area, ensuring that there are no sharp edges that will pierce the waterproofing

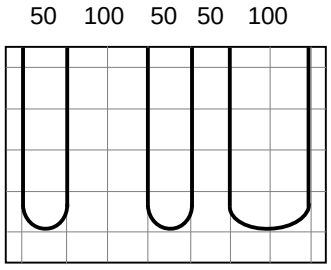
Step 4 Plan Cable layout ensuring the following:

- Before tying the cables to the mesh, ensure an even coverage across the room
- Cold tails should be positioned close to power supply
  The entire heating element **must** be embedded in the screed bed
- Sensor probe conduit should be positioned close to thermostat location
- Sensor probe conduit should be placed between two cable runs as shown below
- Spacing from walls, fixtures and floor wastes should be 50-100mm
- Cable spacing should not be less than 50mm
  In the event that several 50mm spacings are required, ensure that they are evenly spread out across the room - as shown in the diagram below
- able spacing should not be more than 100mm
  In the event that several 100mm spacings are required a larger cable size is recommended

How to achieve an average cable spacing of 70mm



If using a 25mm grid mesh



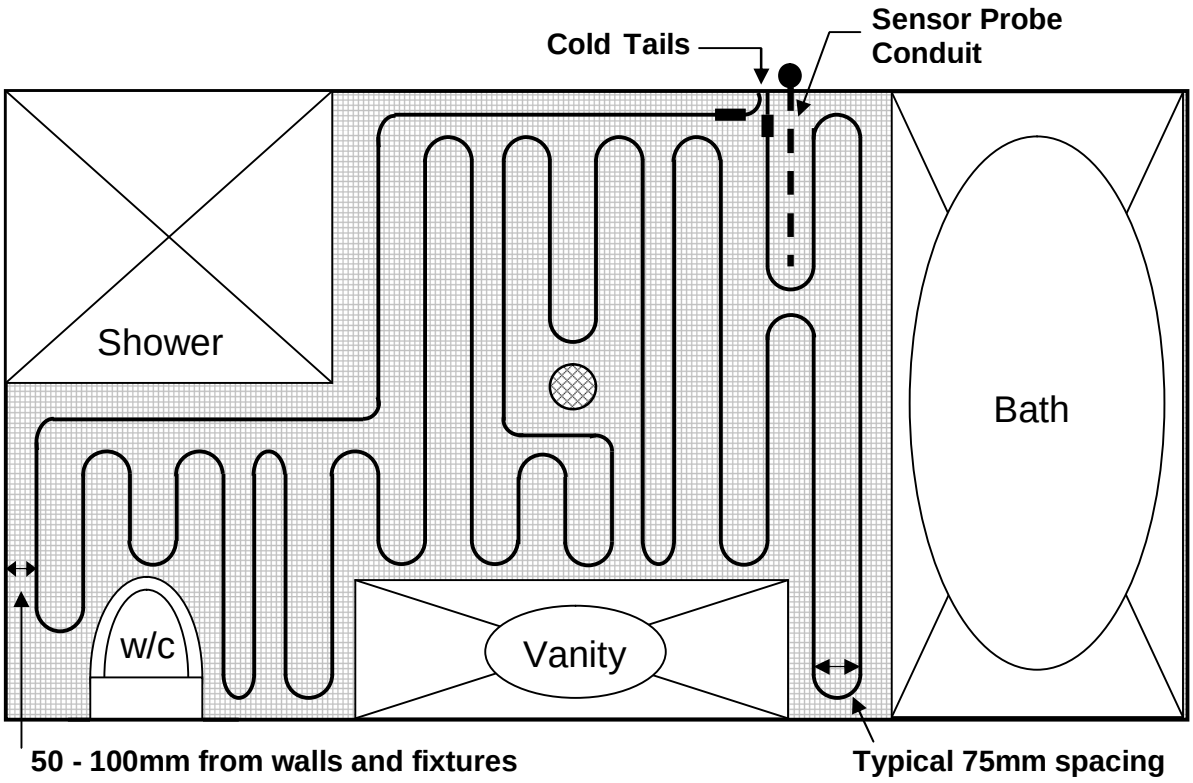
If using a 50mm grid mesh

Step 5 Use clips or cable ties to tie cable to mesh
Maximum spacing between clips or ties is to be 200mm.

Step 6 Insert cold tails up cable conduit

Step 7 Tape the end of the Sensor Probe Conduit and insert sensor probe down conduit ensuring it reaches the end. Tape the sensor probe to the top of the conduit to prevent accidental removal

Step 8 Take photos or draw cable layout for future reference



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