

# Installation Guide

## for under tile floor heating kits



### Important things to remember

Please read these instructions carefully before installing your Customheat underfloor heating kit

- A licensed electrician must be the person who connects the heating kit to the power supply
- It is important to install and test the floor sensor and thermostat to the heating mat so that the floor will not overheat while running
- Never cut or damage the element
- Never allow the element to cross itself
- Do not have any part of the element or cold tail join in the air while the element is running. If this occurs the element may fail through over-heating and your warranty will be void
- Make sure the element and cold tail join are covered in tile adhesive, cement screed or concrete
- Install under free walking spaces only. Do not install heating under areas where room fixtures will be installed
- Do not turn your floor heating on until the tile adhesive, cement or concrete has cured correctly according to manufactures advice
- Flexible tile adhesive must be used and be cement based not solvent based
- If heating is to be used in a wet area or if pouring a slurry over the heating, coat the end joint (black heat shrink) and the cold tail joint (heat shrink section where blue element joins to black flex power lead) in waterproofing, sikaflex or silicone so that any moisture will not enter the connections
- Also, If the heating is to be installed in a wet area, it is important to install the heating under a waterproofing membrane
- Please take some pictures during the installation process and retain your electricians details to aid in case of any future warranty claim. Without proof of correct installation we cannot replace any products under warranty
- Please refer to our 'Terms and Conditions' on our website for our full terms of sale
- Use the information in this manual as a guide only. Always seek and follow the directions of your licensed builder and electrician. Always check with the relevant licensed personal for installation details such as using suitable building materials including correct waterproofing products with this heating product. Also, relevant building and electrical codes and rules should be checked as these are updated from time to time, so it is important to seek advice from the relevant qualified authority.

### Installing

- Install wall conduits and switch bracket as per 'electrical setup' page in this manual
- Draw up a plan of the room you are installing the heating into. Mark in the permanent items that will be installed into the room (toilet, bath, shower, vanity, etc)

- Calculate the free floor area that will be heated, then check that the heating mat you have is of the same or lesser size
- Lay out the heating mat, cutting the red matting (with a pair of scissors, not a knife) and swivel up to 180 degrees to continue running in the next direction (be very careful not to cut the blue heating cable)
- Staying 50-80mm off the wall is generally good practice. Please allow for the space the wall tiles will take up if the wall tiles have not been installed yet
- When heating around a floor waste, other obstruction or creating a custom shape, simply cut the red matting into small sections with the heating cable still attached and position in a custom fashion
- After you have laid the heating out and confirmed it is in the correct position, remove the attached double sided tape and stick down. You may adjust and cut the red matting several times as it is there solely to aid in the installation process
- Install the floor temperature sensor probe tube supplied in the kit. This tube allows the sensor to be replaced in the future if required. The supplied sensor tube can be placed in a standard rigid 20-25mm electrical conduit to keep it straight
- It is best to install the floor sensor 30mm to 60mm from one of the floor heating loops for accurate temperature sensing. For example, if the top of your tile will be 50mm from the heating wire, then place the sensor 50mm from the heating wire.

### If screeding over heating

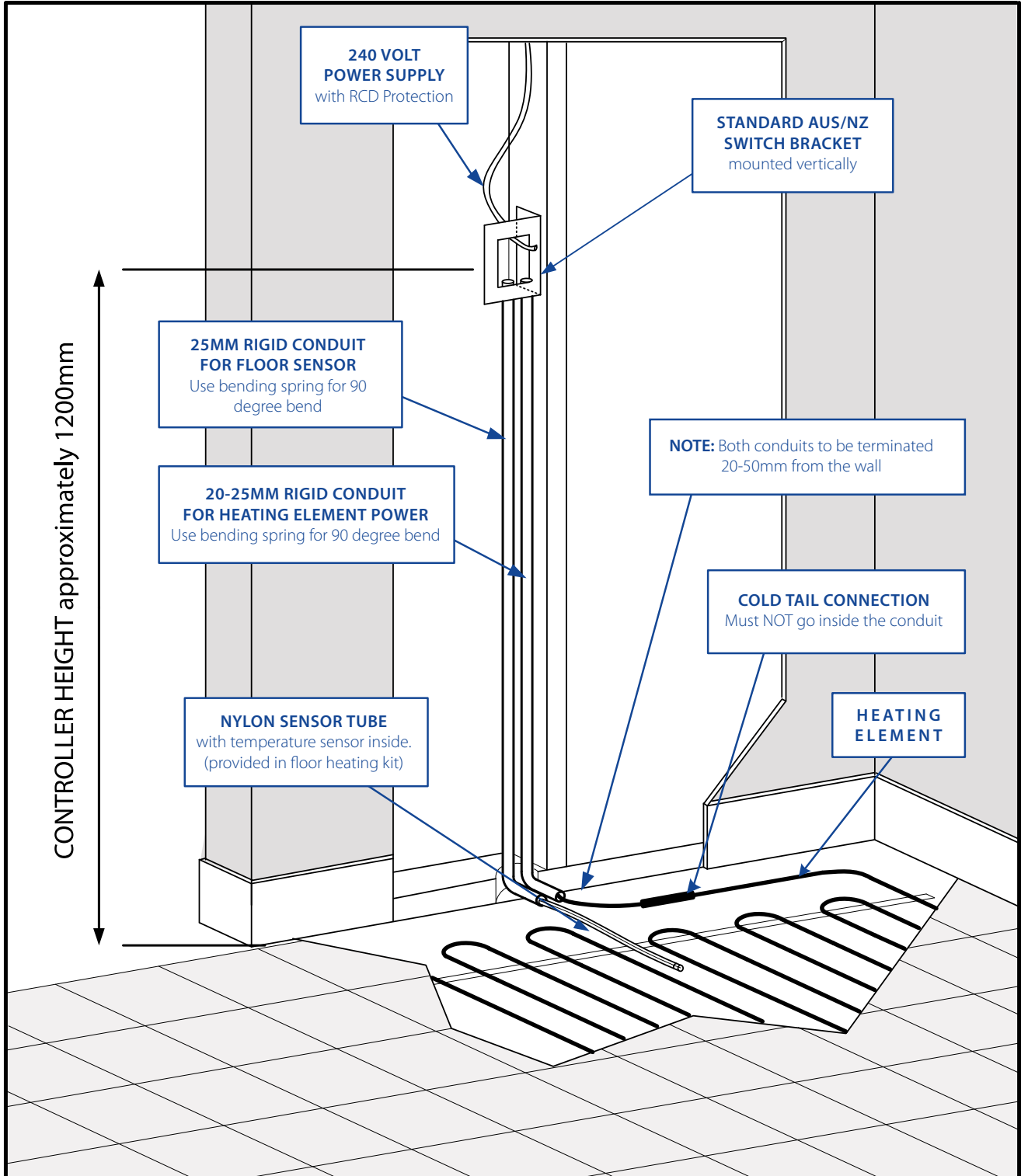
- A screed bed of up to 35mm thickness may be installed over the heating element
- The floor may be then tiled over with a recommended maximum tile thickness of 10mm and glue thickness of 4mm
- Keep in mind that the closer the heating element is to the under side of the tile the more efficient and responsive your underfloor heating system will perform
- If the heating has greater than the recommended coverage on top of the heating element, your floor heating system may not produce adequate heat to the top surface of the tile

### If tiling over heating

- Before laying the tiles, the element may be initially covered with a thin layer of tile adhesive (just enough to cover the heating element)
- It is then recommended to use a plastic notch trowel or applicator (generally available from Bunnings or your local hardware store) to ensure the element will not be damaged during tiling. Avoid the use of metal trowels over your floor heating as these can be sharp and easily damage the floor heating element.

# Electrical setup

## for under tile floor heating

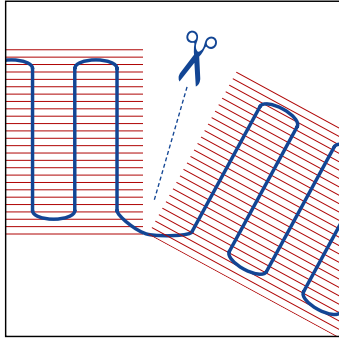


For tile over heating element installations, the floor may need to be chased to allow the sensor tube and cold tail connection to sit low enough to be tiled over.

**NOTE:** All electrical work must comply with the current electrical regulations in your area.

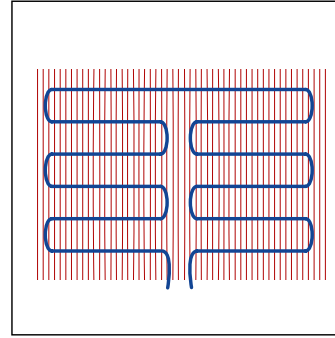
# Shaping the Heating

## Techniques Explained



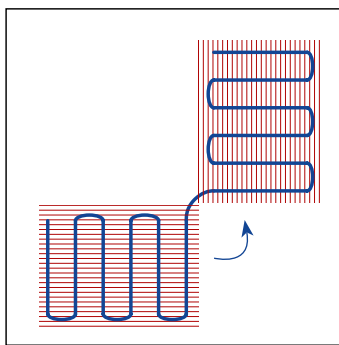
### CUTTING THE MESH

Use scissors to carefully cut the red mesh.  
Do not use a knife.



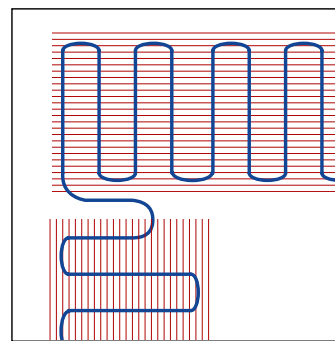
### TURN 180°

Turn the mesh through 180° parallel to the first run.



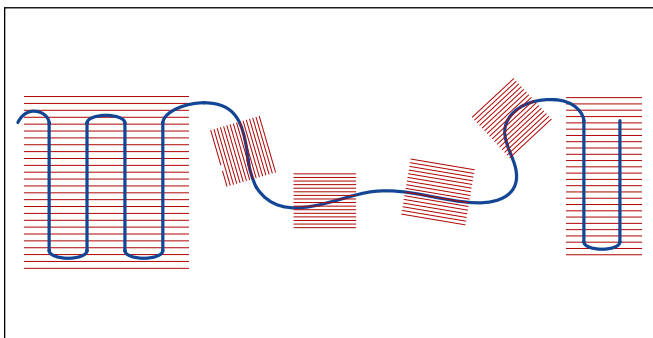
### TURN 90°

Turn the mesh 90° for a more simple turn.



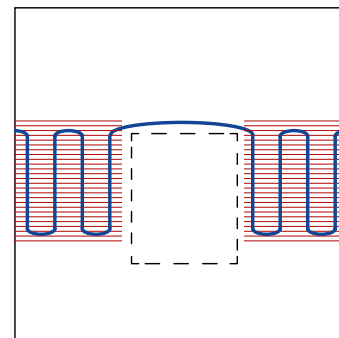
### ALTERNATIVE 90°

Release cable from the mesh for an alternative 90° turn.



### CREATE A CUSTOM SHAPE

Heating element can be custom shaped by cutting the mesh into squares while leaving attached to the heating element.

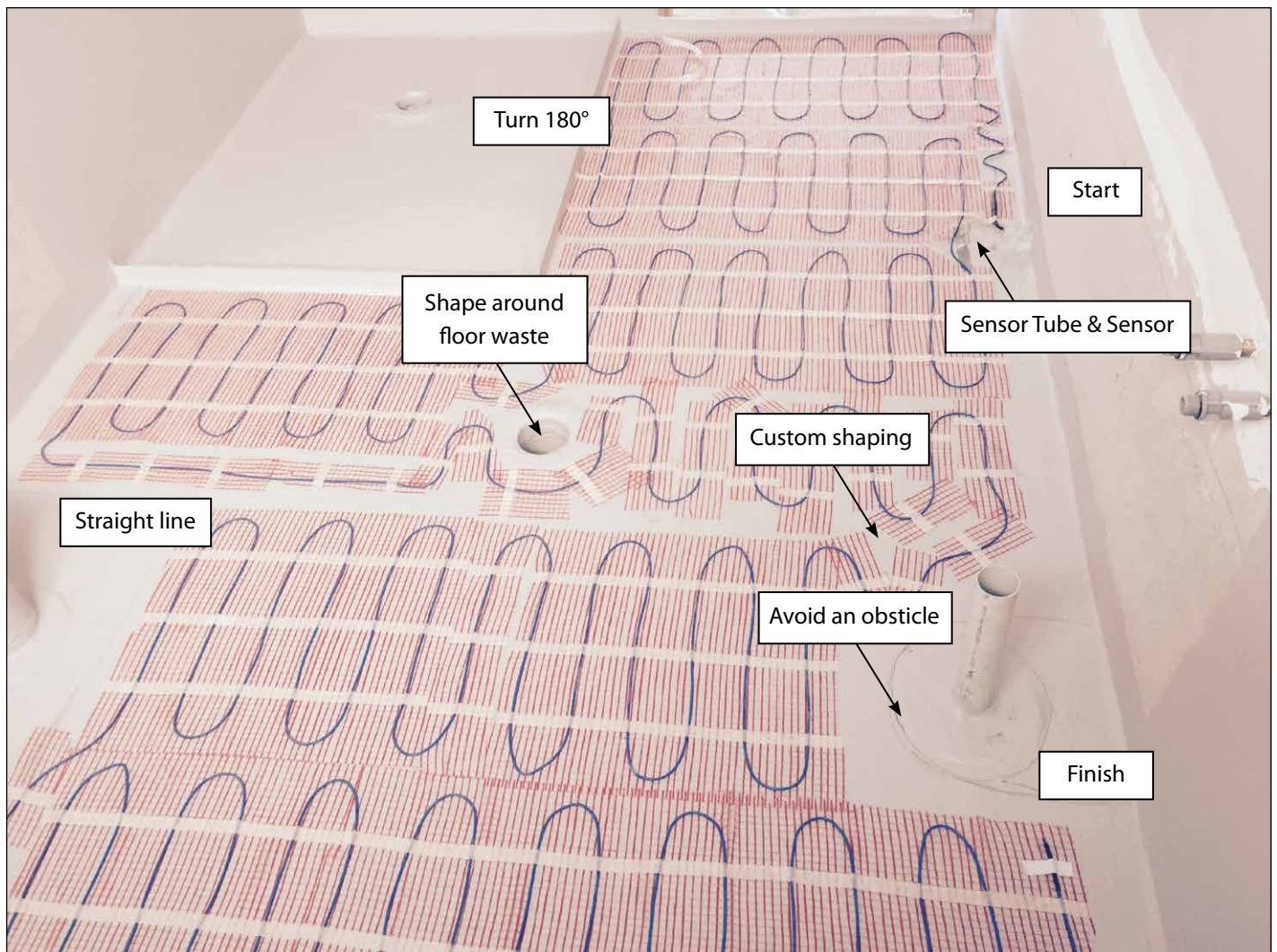


### AVOID AN OBSTACLE

Shape the heating to avoid permanent fixtures.

# Floor Heating Installation

## Example



# Sensor Tube System

## for under tile heating installations

The sensor tube system allows for the easy installation & removal of the in-floor temperature sensor. Should the sensor need replacing any time in the future, the sensor tube system will make this an easy task.

### LOCATION

The sealed sensor tube end should be located in the floor between the heating cables so that the sensor will measure a typical floor temperature.

The sensor tube should not pass over or under the heating cable.

### TUBE INSTALLATION

Install the sensor tube in one conduit from the floor up with the sealed end located at the floor. Ensure all bends are large radius and smooth to allow the sensor to easily slide down the tube.

The sealed end of the sensor tube should be suitably located to allow the sensor to measure the typical floor temperature.

Secure the sensor tube in place on the mesh with cable ties. Any excess tube at the controller point can be trimmed back to the bottom of the switch bracket.

### TIP

To make sure the sensor tip does not slide away from the end of the tube, once it is in place wrap some tape around the top of the tube. This will hold the sensor in place within the sensor tube, stopping it being accidentally pulled back.

### TILE OVER / NO SCREED INSTALLATIONS

In tile over installations where no screed bed is being installed, the floor may need to be chased to allow the sensor tube to be recessed into the floor. The top half of the conduits protruding from the wall into the floor can also be cut off prior to installing the sensor and heating element to provide a further reduction in height.

