

Carefully read through the ENTIRE installation instructions before starting work

Do the same for the next run. The cable must not be installed under permanent fittings, toilets, and the like. Note the screw holes for the toilet.

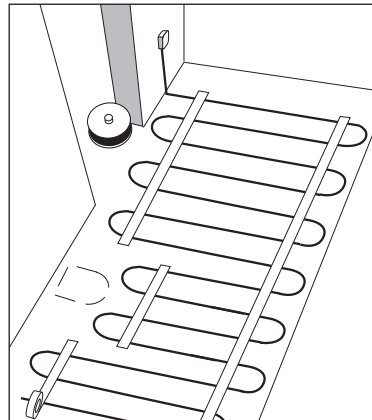


Fig 8

Route the cable as shown in figure 9 around floor drains and similar obstacles.

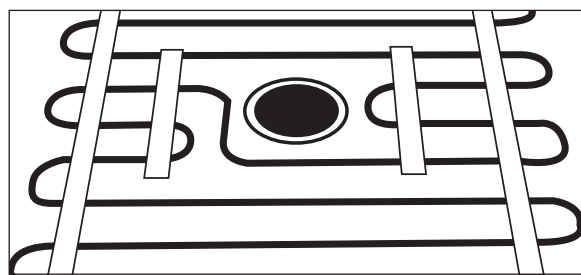


Fig 9

Once the cable has been laid, lay new strips of tape inside and parallel to the first strips of tape at a centre-to-centre distance of about 17 cm (this gives 6 strips per metre). Also tape the outside of the first strips about 2 cm from the cable bend. See figures 10, 11.

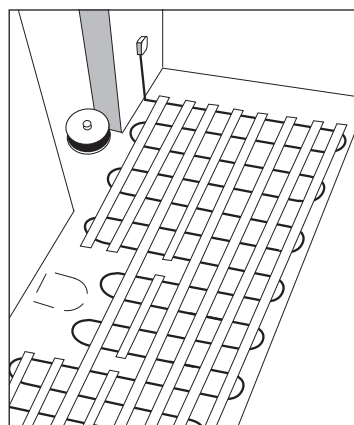
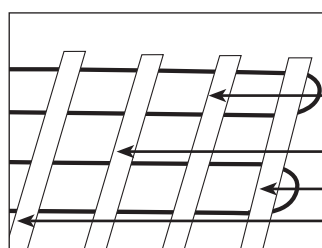


Fig 10 and 11



First tape strip  
Additional tape strips both on outside and inside of the first tape

Press the tape down to ensure it is secured correctly. This is extremely important on coarse surfaces such as concrete. (Figure 12-13).

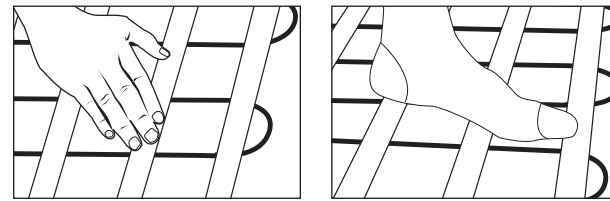


Fig 12-13

Measure the insulation and resistance values of the cable again and note them in the test protocol. Record the position of the cable with sketches or photographs and keep these next to the main distribution box. Screed over the cable either with a flexible tile adhesive or a proprietary self-levelling flexible screed. (Figure 14)

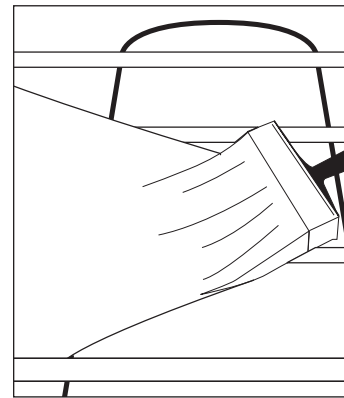


Fig 14

Once again measure the insulation and resistance values. This is to ensure the cable has not been damaged during screeding. Lay the tiles according to the manufacturer's instructions. Use flexible tile adhesive and grout.

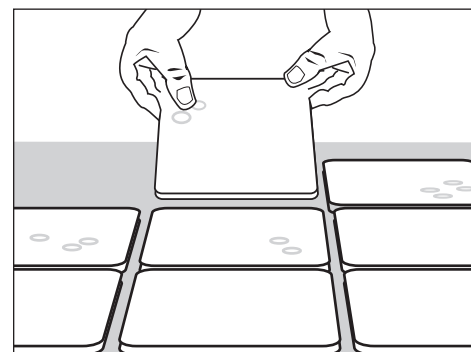


Fig 15

Insulation and resistance measure the cable once again and note the values in the test protocol.

Refer to applicable industry regulations of manufacturer's directives for floor structures, screeding, sealing layer, tiling, grouting, etc.



# Cable Kit Installation Instructions

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### General Instructions

**Cable Kit** is a complete floor heating system consisting of a thin heating cable, fixing tape, thermostat and spiral hose. A reel holder is supplied for quick and easy installation. The system can be used to heat most floor types including: tiles, stone, timber, laminate, thin carpet tiles and vinyl. The diameter of the cable is only 3.5 mm and the system is only connected from one end. The electrical and electromagnetic fields are negligible. The system is laid in a flexible screed or the flexible tile adhesive (thickness min. 5 mm) on the existing floor structure such as, concrete, plasterboard, high compression strength insulation board or chipboard.

- Cable spacing - Minimum distance 60 mm, Maximum 120 mm.
- The installation is controlled by thermostat TR81671.
- The system must be connected to a 230V supply via an earth-fault breaker 30mA.
- The heating cable must not be cut. Only the cold connection cable may be cut.
- Lowest installation temperature +5°C. At lower temperatures the adhesive capacity of the tape will decrease.
- Measure the insulation and resistance values of the cable three times: before laying, after fixing and after floor laying. Note down the values in the test protocol. The 10 year warranty is invalid without this protocol and the signature of a qualified installer.
- Wait 1 week before the heating is switched on, then increase the heating gradually.
- The completed floor must not be covered with thick insulating carpets, beanbag seating or similar as this can result in temperatures harmful to the floor.

Installation must be carried out according to electrical regulations and under the supervision of a qualified electrician.

### Heater Cable Power, Length & Resistance values (Resistance tolerances: +10%)

Part no.	Power (W)	Heater cable length (m)	Resistance (Ohms)	Area (m <sup>2</sup> ) At c-c 7 cm & Output 150 W/m <sup>2</sup> Conservatories	Area (m <sup>2</sup> ) At c-c 9 cm & Output 120 W/m <sup>2</sup>	Area (m <sup>2</sup> ) At c-c 12 cm & Output 90 W/m <sup>2</sup> Wood Floor
TR 602 60D	140	14.0	340	0.9	1.3	1.6
TR 602 62D	200	19.0	265	1.3	1.7	2.2
TR 602 64D	250	24	215	1.7	2.1	2.8
TR 602 66D	330	31	160	2.2	2.8	3.7
TR 602 67D	400	37	135	2.7	3.3	4.4
TR 602 68D	470	44	113	3.1	3.9	5.2
TR 602 69D	530	49	100	3.5	4.4	5.9
TR 602 70D	640	60	83	4.3	5.3	7.1
TR 602 71D	790	74	67	5.3	6.6	8.8
TR 602 72D	940	88	56	6.3	7.8	10.7
TR 602 73D	1170	108	46	7.8	9.8	13.0
TR 602 74D	1360	126	39	9.1	11.3	15.0
TR 602 76D	1700	159	31	11.3	14.0	19.0
TR 602 78D	2050	190	26	13.7	17.0	23.0

Min. insulation value 10 MΩ

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### Sub Floor

Make sure the floor is solid, without any springiness and clear of any dirt or residue. Wooden or chipboard flooring with more than 30 cm between the joists needs to be reinforced to prevent cracking and the floor tiles from releasing. This also applies without underfloor heating.

### Reel Holder

The kit contains a spindle consisting of a plastic tube and a disc to make cable laying easier. Insert the plastic tube through the disc and place the plastic tube with the disc in the perforated hole underneath the packaging. Fit the cable reel on the plastic tube and place a weight on top of the packaging. Now when you pull the cable the reel will turn. (Figures 1-3)

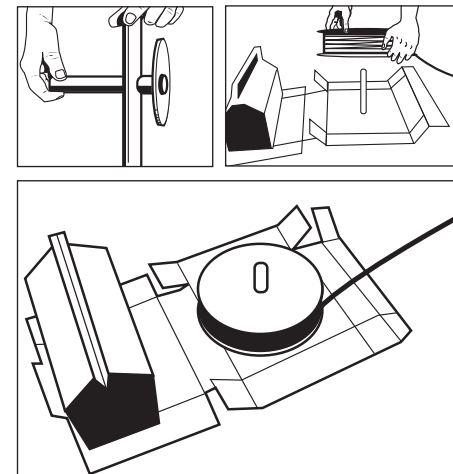


Fig. 1-3

### Installation

Cut a groove in the floor for the spiral hose, which will house the thermostat sensor cable. The hose should be terminated in a position that will not be covered by a carpet or any furniture, around 50 cm into the heated area of the room. The sensor must be placed so that it will lie in the middle of two cable runs. If the hose is bent too sharply it will be difficult to insert the sensor. Ensure any bends are gentle! Tape over the end of the hose (See figure 4). The cable joint must also be in the floor. Make a cut-out in the floor so that the height of the cable joint is not greater than the height of the cable.

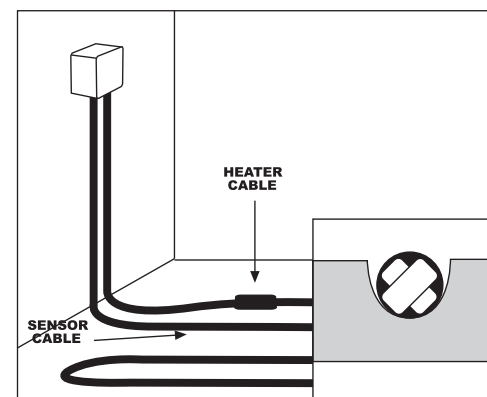


Fig. 4

Prime the floor with a PVA adhesive (5 parts water to 1 part PVA) or any commercial concrete sealer as per the manufacturers instructions and allow to dry. Fig 5.

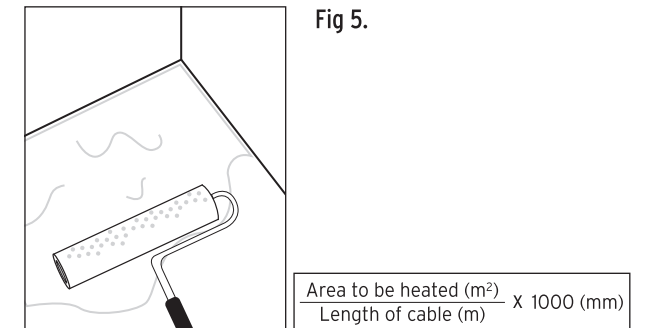


Fig. 5.

Measure the insulation and resistance values of the cable and note them in the test protocol. **Dividing the area to be heated (m<sup>2</sup>) by the length of the heater cable (m) and multiplying by 1000 can easily calculate the centre-to-centre distance. This gives the c-c distance in mm.** Mark out the c-c distance on the floor, approximately 15 cm from the walls. Fix the rolls of tape, one on each side of the floor, by the first mark (figure 6). **NOTE!** Take care when making the calculations and marking out the floor to ensure that the cable exactly fits the area.

**THE PURPLE HEATER CABLE MUST NOT BE CUT UNDER ANY CIRCUMSTANCES!**

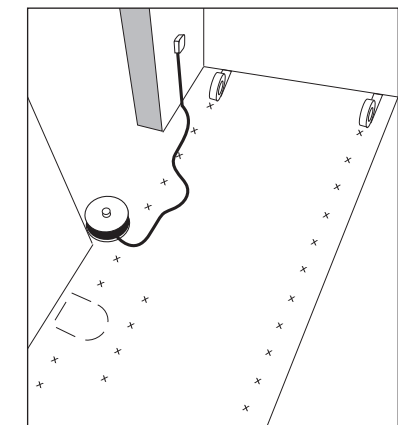


Fig. 6

Pull out the first run of the cable and fix with the tape approx. 15 cm from the bend as shown in figure 7. Let the rolls of tape stay as they are. Min. cable distance to wall 3 cm.

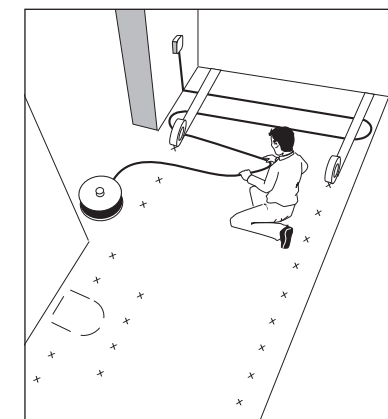


Fig. 7