



Tile Heater Kit Installation Guide

WARNING: Failure to read this guide prior to installing the QUICKHEAT heater may result in installation problems which could void the heater warranty.

Quickheat Helpline: 1300 550 480

www.quickheat.com.au

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Introduction

Congratulations on your purchase of one of the safest and most effective floor heating systems.

Quickheat is a superior quality floor heating system that allows for tailor-made installations in any room, underneath most floor finishes.

With our flexible systems and personalized professional approach, we bring you a floor heating system to suit your lifestyle.

Please take a few minutes to read the user guide and installation instructions to ensure that you enjoy many years of trouble-free service from your QUICKHEAT tile floor heating system.

Kit Contents

1. Heater
2. Self-adhesive mesh
3. MCD4/MCD2 Thermostat
4. Floor Probe
5. KlimaGuard® monitor
6. Installation Guide



Your Quickheat kit comes with a programmable thermostat. A manual thermostat suitable for use with home automation systems is available on request.



MCD4-1999-SH



MTD-1999-SH

Important Tile Heater Guidelines

- Prior to sticking heating down, plan, measure and mark out where heating is to be installed.
- Cover the heating elements with an old carpet, underlay or ceiling board to provide protection until tiling starts.
- Use flexible tile adhesives and grouts.
- Do not allow any sharp or heavy objects to drop on, stand on, or to be dragged across the installed heating elements under any circumstances.
- Do not cut or shorten the heating element.
- Maintain a 50mm gap between the heating element runs.
- Do not cross wires or allow heating elements to touch.
- If more than one heater is installed, connect to thermostat in parallel- the cold tail leads cannot be joined.
- It is the tiler, builder and owners responsibility to ensure that the alarm monitor stays connected to the heating element at all times from installation until final connection of the heater.
- Do not switch the floor heating on until the tiling has cured for seven days after the completion of the tile grouting.
- Make sure all electrical work is done by a qualified electrician.

Tools & Materials Required

- Broom
- Chalk or pencil
- Small wood/cold chisel hammer
- Scissors
- Cloth backed tape
- Insulation tape
- Tape measure
- Flush box or C-clip
- RCD Protected circuit
- Contactor (if over 16A)

If you are laying Quickheat onto an unsealed substrate like concrete, you will also need:

- Acrylic primer
- Paint roller
- Roller tray

Electrical Requirements

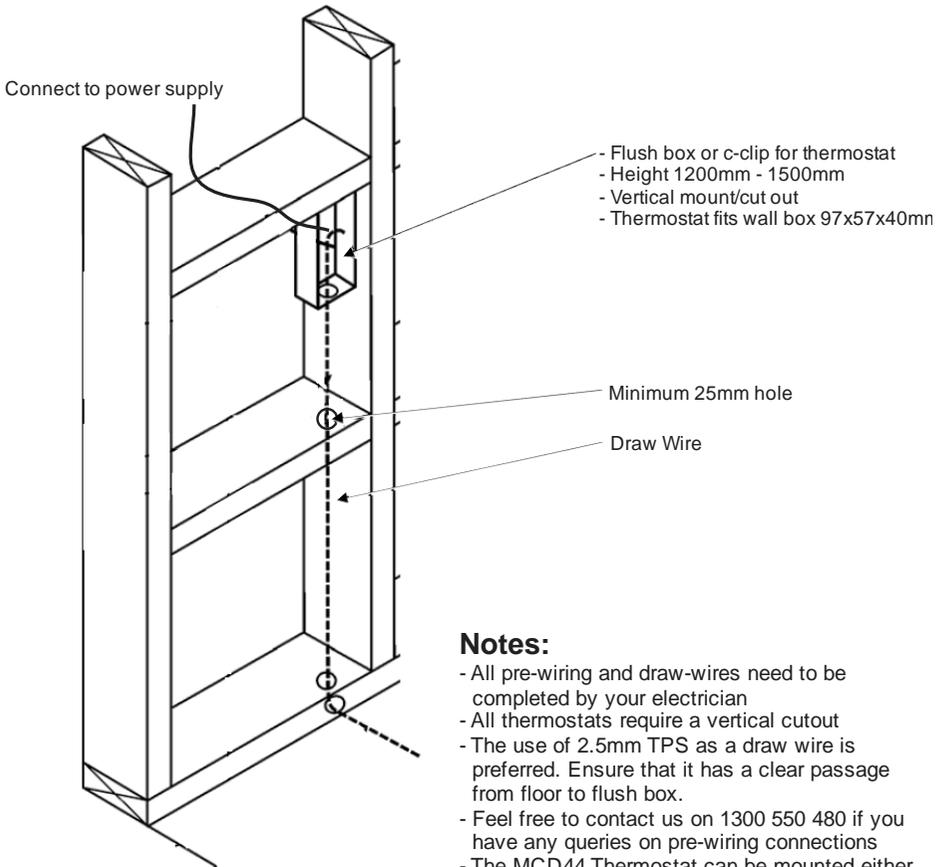
Rough in & Connection

RCD Supply

Speedheat tile/carpet installations must be connected to a supply with an approved RCD mounted in the switchboard. It is recommended you consult with your electrician to ascertain whether or not the circuit and cabling can handle the additional load and if a RCD is protecting the circuit.

Electrical Connection

All electrical connections (including thermostat) must be performed by your electrician, in accordance with current AS/NZ3000 wiring rules.



Notes:

- All pre-wiring and draw-wires need to be completed by your electrician
- All thermostats require a vertical cutout
- The use of 2.5mm TPS as a draw wire is preferred. Ensure that it has a clear passage from floor to flush box.
- Feel free to contact us on 1300 550 480 if you have any queries on pre-wiring connections
- The MCD44 Thermostat can be mounted either vertically or horizontally

Testing & Product Specifications

Warranty Validation

Our products are tested and supplied in good working order from our factory. To ensure the integrity of the system, an insulation resistance test on the heating cable should be conducted before, during and after the heater and floor installation. It is recommended that you record this information in case it's needed at a later stage.

Resistance Test

This test is carried out to ensure continuity exists in the heating element. Using a multimeter on ohm setting, place one probe on the active conductor (brown lead) and the other on the neutral conductor (blue lead). The reading in ohms should be the same as indicated on the heater.

Insulation Resistance Test

This test needs to be performed between active (Brown lead) and neutral (blue lead) on the 500 V scale of the megger.

Installation

- Ensure the floor surface is smooth and dry, unpainted and free of dust, oil, grease, tar or glue residue (Fig. 1.1).
- If installing in a bathroom/wet area ensure that the waterproofing is completely dry.
- Mark the position of the heater(s) on the floor (Fig. 1.2) and ensure you have left enough cable to return to the thermostat position.
- **Please note** that the cold tails should be in the wall and not underneath the floor finish.



Fig. 1.1



Fig. 1.2

Note: If the lead closest to the centre of the roll is hanging out, tuck it into the core to ensure the cable does not twist and cause it to shear when unrolling.

Before you unroll the heater, connect the KlimaGuard monitor (Fig. 1.3) according to the instructions in the KlimaGuard bag.



Fig. 1.3

KlimaGuard monitoring

If the monitor light is green, you can proceed with the installation.

If the monitor light is red and an alarm sounds, contact Quickheat prior to commencing. Then disconnect the monitor before installation and reconnect as soon as you have finished.

IMPORTANT:

Make sure the KlimaGuard monitor is connected during the entire tiling process.

If the KlimaGuard beeps then there may be a break in the element. In that case stop tiling immediately and call the help line. Should more than one heater be installed in a room, each heater must be tested and fitted with its own KlimaGuard. Once so fitted, the monitors cannot be interchanged between heaters.

Step by Step Installation

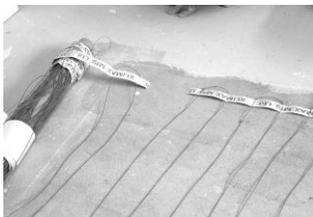
Before starting

- Carefully plan the position and layout of the heater in the area to be heated.
- **Remember** that you need to start and finish at the same spot.
- Mark heater layout on floor with chalk/pencil ensuring you leave enough heating to get back to the start spot.
- Keep 100mm away from the walls and permanent fixtures to allow a buffer around the perimeter. This will enable the heater cold tail leads to be returned to the starting point.
- For an unsealed floor, you will need to apply an acrylic primer. This is to ensure that the tape on the heater will stick. If you are unsure, peel back a little bit of the tape and test to see that it sticks.
- Cupboards, toilets, showers etc. should have been installed beforehand. If this has not been done, mark the position of bathtub, vanity, door stops etc., so they can be left free of heating (wall hung vanities are an exception).



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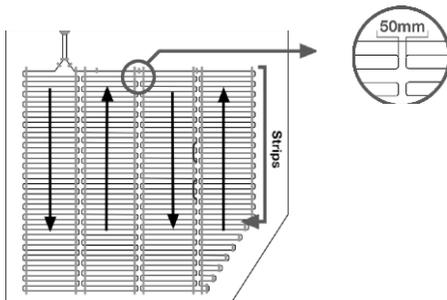
1. Starting from the floor directly beneath the thermostat location, unroll the heater until you reach the end of your first run.
2. When you reach the end of the first run, cut the tape (take care not to cut the red heating element) and turn the heater to its new position.



3. Pull the wax paper backing off the tape a little at a time and, keeping it straight, stick it to the floor.
4. Do the same with the tape on the other side of the heater, ensuring that the element is straight and under slight tension.

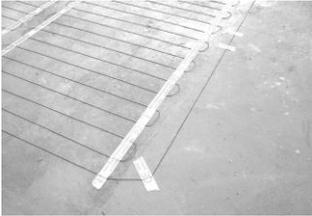


- Element wires should **NEVER** cross.
- Try maintain a gap between elements of approximately 50mm otherwise the floor will not be evenly heated or possible hot spots can occur.
- Make sure that there is enough heating element left over to take the connector blocks to the power source.



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5. Place the blocks in the cavity or in the wall and tape down. If other heaters are to be connected to the same power supply, install them in the same manner.



6. Install floor probe for thermostat (see *Fig. 3* on page 13)
7. Lay the green mesh, sticky side down, over the heater. Cut the mesh as necessary to cover the entire heating element including the individual wires to the connector blocks.
8. Press the mesh down so that it sticks to the floor and keeps the element in position. Do not overlap the mesh.



- If you are installing multiple heaters in the one area, using only one thermostat, you will need to ensure each heater starts and finishes at the same point (i.e. the thermostat position).
- Do not join the heating elements or cold tail leads together.
- Each heater needs its own KlimaGuard monitor.

After Installation

The monitor must remain connected until tiling and grouting is complete. This is to ensure that you are alerted should any damage to the element occur during the tiling and grouting process.

If the heater is damaged and this is only noticed after tiling is complete, repairs are more difficult and costly, but can be done.

Explain the risks of damage and the tiling precautions to the tiler and if possible, supervise to prevent damage.

Do not forget to install the floor probe if you wish to have the option of running heating on floor as well as ambient temperature.

Avoid any unnecessary foot traffic. Flattened cardboard boxes or carpet off-cuts are a great way to protect heating if foot traffic is unavoidable. For best protection, a flexible self-levelling compound can be applied before tiling.

Thermostat Connection

**Thermostat connection MUST be done
by a LICENSED ELECTRICIAN.**

1. Disconnect monitor from heater by untwisting the leads. Twist black & red leads together to silence the alarm.
2. Slide power button on the left down to Off. Release front cover only by inserting a small screwdriver at the sides of the front face as shown in Fig.1.

DO NOT open the thermostat by releasing the four clips on the back

3. Supply cables are connected in positions 1 & 2 neutral in 1 & active in 2.
4. Twist earth cables from heater & supply together in a screw connector.
5. Neutral cable from heater goes to position 3.
6. Active cable from heater goes to position 4.
7. The smaller off white 2 core cable is the floor sensor/probe and can be fitted either way into positions 5 and 6.
8. Mount thermostat in wall bracket ensuring that adaptor plate is properly clipped onto the thermostat.
9. Fit frame and carefully press the cover onto the thermostat making sure that both the power slide button and the power switch pin are in the down position.

Fig. 1

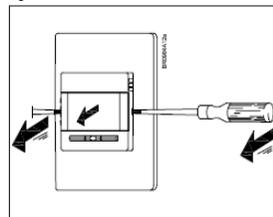


Fig. 2

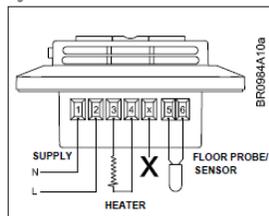
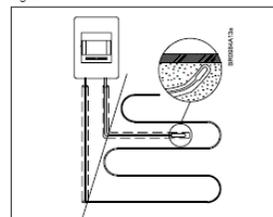


Fig. 3

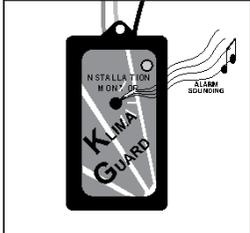


Please Note:

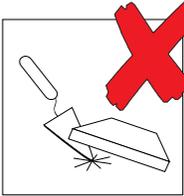
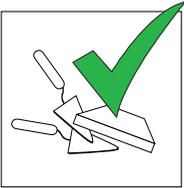
If load exceeds 16 Amps a contactor must be used. If more than one heater is to be connected to the thermostat, cables must be connected in parallel, i.e. all blue leads twisted together and all brown leads twisted together. Cold tail leads should all terminate at the thermostat and should **NOT** be joined.

Precautions

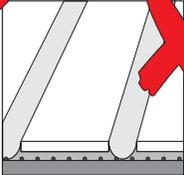
KLIMAGUARD®

 <p>If the KlimGuard® chimes.</p>	 <p>STOP TILING</p> <p>Element may be damaged</p>	 <p>1300 550 480</p> <p>Contact our helpline</p>
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TILING INSTRUCTIONS

<p>DO NOT lift tiles once tile cement has set</p> <p>If tiles have to be lifted BEFORE cement has set:</p>	 <p>Don't lift off tiles with one trowel.</p>	 <p>Use two trowels to lever off the tiles.</p>
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DO NOT

 <p>Do not use an angle grinder.</p>	 <p>Do not scrape out grouting to below the bottom of the tile.</p>	 <p>No heavy or sharp objects</p>
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Do not switch the heaters on for 7-10days, until the tile adhesive has cured.

Checking for Breaks

To determine if there is a break in the heating cable:

1. Set the multimeter to measure in 0-200 Ohms.
2. Place one probe on the active conductor and the other the neutral conductor.
3. Confirm your reading falls within +/- 15% of the recorded value before installation.
4. If you have no reading (equals infinity on your meter), then there is a break.
5. Call 1300 550 480 to organise a repair

Checking for Electrical Short

To determine if there is a short circuit in the heating cable:

1. Set the megger to 500V scale.
2. Place one probe on the active conductor and the other on the corresponding earth wire.
3. Confirm your reading is open circuit or infinity.
4. Repeat this step on the neutral conductor and its corresponding earth wire.
5. If you have continuity between either the active-earth or neutral-earth combinations, there is a short circuit in the cable.
6. Call 1300 550 480 to organise a repair

Locating a Break, Electrical Short or Cable Repair

Please contact our office for advice and support – 1300 550 480

Warranty

QUICKHEAT products are guaranteed to be defect free at the time of supply to the purchaser. The manufacturer's liability is limited to the replacement of faulty heaters.

The manufacturer and QUICKHEAT assume no responsibility for the improper installation of its products or for any consequential loss.

We recommend that QUICKHEAT floor heating be installed by an experienced installer. All electrical connections must by law, be made by a qualified electrician.

Contact Details

QUICKHEAT Help Line 1300 550 480

info@quickheat.com.au

www.quickheat.com.au



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