

INSTALLATION METHOD OF FLOOR HEATING SYSTEM 1.

Make the electrical provision as per the diagram Fig.3.

The circuit must incorporate a 30mA RCD protection.

For installations below 13Amp, A fused spur or combined Spur/RCD is recommended.

For installations over 13Amp a suitable isolated supply should be provided incorporating 30mA RCD protection

Note: all the circuit connections should be applied with the standard IP65, Melted isolation (Rayhem preferred).

The thermostat rating is 15amps & this is capable of controlling approx 3450watts of heating plates (most domestic installations are within this figure). If the system supplied is over 3.45kW it will be subject to a more comprehensive electrical installation. (Your electrician will be able to advise you on this).

Note: all electrical connections should be made in compliance with the regulation Part “P” and the IEE 16th Edition.

Starting from the point furthest from the connection box, run the cold tails from each element along the room perimeter, fixing them to the exposed double sided tape or if tape is not used lay the carefully in the gape between the plate.

DO NOT run the cold tails under the heating system

Step9 Once the cold tails are in position a resistance test needs to be performed on each individual element for a second time. The desired resistance readings for each element are listed on the enclosed room data sheet.

Record the actual reading in the box provided on the data sheet.

THIS IS A REQUIREMENT OF THE GUARANTEE AND MUST BE PERFORMED AT THIS STAGE. The data sheet needs to be retained on the site with the heating system.

NOTE. The cold cables are double insulated, a coloured outer and a clear inner.

Step 10. The cold tails can now be joined in parallel at the junction box using 8 way electrical connectors provided.

The junction box should be a double gang blank fronted box of a minimum 25mm depth. Fig11

The paralleled cold tails should be routed to the junction box and connected to a suitably cable from the thermostat. See fig 2 and page 3

NOTE. The cold cables are double insulated, a coloured outer and clear inner.

Step 11. Position the floor sensor. If installing Heat-Pak under the Plate referred fig12., Refer to separate instructions regarding the floor sensor.

For standard installation, the tip of the sensor should be approximately 300-500mm form the edge of the room with the tail of the probe running back to the thermostat via the 50mm cold tail gap.fig12.

The sensor wire can be shortened or if required lengthened up to 50m with a minimum 0.75mm² 2-core flex cable. This connection should be located above the floor level ideally within the cold

tail junction box.

It is advisable to mark on the installed location of the sensor tip, on the floor plan for future reference.

Test the resistance of the floor probe. Refer to the label on the floor probe wrapper for the desired resistance readings.

Make a Note for the readings.

Step 12. Once the floor finish has been laid, perform resistance test on the floor probe and across the feed cable that connects the thermostat to the junction box, to ensure that no elements have been damaged during the flooring installation. The desired resistance reading for the heating system is at the bottom of the room test data sheet and should be within the tolerance of +10 -5 %.

Record the final readings on the guarantee certificate. Once this test has been completed, final connections to the thermostat can be made. See separate installation instructions for the thermostat.

NOTES

- Electric underfloor heating is designed to run at low temperatures and can have a slightly slower warm-up time than conventional heating. This can be countered by using the features of the programmable thermostat instead of switching the system on or off.
- If installed in new buildings and especially conservatories, the heating period may be affected by the moisture content within the building. All the floor constructions and new buildings should be fully dried out before starting the FHS1 system.
- The FHS1 system is primarily designed to heat standard living rooms, sleeping rooms and bathroom. With such material that are used in the housing project it is important to control the temperature to which they are heated. The industry standard for most plate (Qeramik, Porcelan) is max 32 Grades Celsius. Be aware that the FHS1 is capable of heating above this temperature and is only limited by the thermostat and the temperatures that it is set to operate to.

ELECTRICAL NOTES

To satisfy the requirements of acceptable EU Standards a double sheathed single core to BS.6004 must be used underfloors. All our cold cables comply to this standard.

Each individual heating element is designed to accommodate a current carrying capacity of up to 10 Amps and should be connected in parallel at the junction box.

Consideration must be given by the electrical contractor in respect of the individual heating circuit ratings relative to the thermostat rating, circuit breakers, interconnecting cable sizing and switched contactors where the load of the heating system exceeds the rating of a single thermostat. Good wiring practice must be observed and the wiring must comply with the IEE 16th edition regulations.

The electrical installation must incorporate a 30mA RSD protection.

Trouble shooting and Facts!

Q. When i perform the resistance test on the heating element i cannot get a reading ?.

A: Check the test equipment you are using is set to read Ohm and that both the inner and outer cable insulation sheaths have been removed.

Q. what size of the cable should be used to connect the thermostat to the junction box?

A. The Size of the cable will vary depending upon the electrical load required for the heating system. Therefore this cable needs to be correctly sized by the electrician.

FOR HELP AND ADVISE PLEASE CONTACT VI E-POST
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