gaia

Operation and Maintenance Guide for
your wet underfloor heating system

www.gaia.co.uk

Your home has been installed with a Gaia wet under floor heating system. The system delivers a warm and luxurious floor surface in the heated areas and also providing a total heating solution. Floor finishes like tile, laminate or wood will be transformed into warm comfortable surfaces.

This document, along with the controller user guide provides full operating instructions. Although with the Gaia system installed there are some key points to consider.

Heating components

Sensors

- The air sensor is in-built into the room thermostats

Gaia Heating Pipework

- Screed: The heating pipe is 16mm diameter for screeded floors situated on top of insulation and then embedded within the floor screed, beneath the floor.
- TImber Plates: The heating pipe is 16mm diameter for timber joist constructions, situated on aluminium diffusion plates fixed to an insulated timber joist floor, beneath the floor finish.
- Overlay Board: The heating pipe is 16mm diamater for overlaying over a floor construction. Pipe is situated within a grooved insulation, beneath the floor finish.

Gaia does not recommend that any fixings that require drilling into the floor are installed.

Please refer to the user guide included with this document for full operating instructions

THERMOSTATS

Devireg 550 Thermostat

- The Devireg 550 thermostat (within dry areas) is positioned in an area where the air sensor cannot be affected by any external factors, e.g. Sun-light & external walls etc. This should be considered if changing the position of the thermostat.
- The Devireg 550 thermostat (within wet areas) is positioned outside of the room and will operate on floor sensor only, due to health and safety regulations. This should be considered if changing the position of the thermostat.
- After the system has been programmed, the Devireg 550 retains the times that you require heat in each individual room.

Devireg Touch Thermostat

- The Devireg Touch thermostat (within dry areas) is positioned in an area where the air sensor cannot be affected by any external factors, e.g. Sun-light & external walls etc. This should be considered if changing the position of the thermostat.
- The Devireg Touch thermostat (within wet areas) is positioned outside of the room and will operate on floor sensor only, due to health and safety regulations. This should be considered if changing the position of the thermostat.
- After the system has been programmed, the Devireg Touch retains the times that you require heat in each individual room.

Danfoss RET 230NSB and TS715

- The Danfoss RET 230NSB thermostat (within dry areas) is positioned in an area where the air sensor cannot be affected by any external factors, e.g. Sun-light & external walls etc. This should be considered if changing the position of the thermostat.

- The Danfoss TS715 is positioned as a convenient timer switch as specified by the electrical contractor.

Devilink System

- The Devilink RS thermostat (within dry areas) is positioned in an area where the air sensor cannot be affected by any external factors, e.g. Sun-light & external walls etc. This should be considered if changing the position of the thermostat.

- The Devilink FT thermostat (within wet areas) is positioned outside of the room and will operate on floor sensor only, due to health and safety regulations. This should be considered if changing the position of the thermostat.

- The Devilink CC Master Control Panel is normally positioned centrally within the property and communicates wirelessly with the RS and FT units. Due to wireless communication restrictions in some instances the quantity of required units may have to be considered. Please contact Gaia for further advice.

FLOOR FINISHES & COVERINGS

The underfloor heating system is compatible with the following most common floor finishes.

Ceramic - Carpet - Solid/Laminate Wood Flooring - Vinyl

The manufacturer of the floor finish should always be consulted when determining the suitability of the floor finish with underfloor heating systems. Manufacturer's guide-lines should always be followed.

In all cases the manufacturer recommends that the floor covering has a maximum Tog value of 2, irrelevant of the flooring i.e carpet, timber, stone/ceramic. (This also includes the possible underlay if any e.g. plywood).

Gaia advises the following on the most common floor finishes.

Carpet

In most cases, it is advised that carpets with high wool content should be used; normally 80% wool 20% synthetic. Avoid rubber or foam backed carpets. Natural fibre backing and carpets issued with a low TOG rating are preferable (Max. 2 Tog). Although the manufacturer of the carpet should always be consulted with regards to the suitability for use with underfloor heating. **Any products with a particularly high thermal value or tog rating such as a rubber backed carpet should be avoided.** The more resistive the material is, the longer the floor will take to heat and as a result may use slightly more energy.

Timber

When installing natural wood floors it is recommended that soft wood floors should not exceed 20mm (Soft wood is 400-500 kg/m^3, =0,15 W/m K) in thickness. Hard wood floors should not exceed 30mm (Hard wood is >600 kg/m^3, =0,25 W/m K) in thickness. However the thicknesses of wood should be less if you have an underlay of plywood.

The more resistive the material is, the longer the floor will take to heat as a result may use slightly more energy.

Stone / Ceramic

Stone or ceramic flooring is a very good conductor of heat, so this is very suitable for use with underfloor heating. Again, remember - the thicker the material, the longer the heat up period.

It is difficult to measure the effects of specific floor covering as thermal values of such products can vary. It is also important to remember that floor coverings should not be installed directly above the floor sensor. Any products with a particularly high thermal value such as a rubber backed rugs should be avoided. Gaia recommends that there is 60mm air gap from floor to furniture above any underfloor heated areas. If there is any uncertainty with the viability of a particular product we will endeavour to offer advice. However, always follow guidelines issued by the manufacturer of the floor covering.

Please note that thermally resistive items should not be installed onto underfloor heating in a way where heat can become trapped. This trapped heat could cause failure if left without due care or attention. Possible examples of thermal restrictive items could be heavy rugs, bean bags or a mattress laid in direct contact with the floor. Some items of furniture that do not allow air flow could cause concern. If you are unsure please contact Gaia.

The manufacturer's warranty for this system is as follows: the pipe comes with a 10 year product replacement warranty and a 30 year replacement guarantee. The manifolds, actuators and thermostats come with a 2 year warranty.

Contacts

If you have any further enquiries regarding the Gaia system, please do not hesitate to visit our website www.gaia.co.uk alternatively please send us an email.

technical@gaia.co.uk

Gaia also provides a technical helpline. All members of our technical team will be able to assist with any queries that you may have,

0845 343 9991, choose Option 2 for Technical

Opening Hours

Monday - Thursday 0800-17.30 Friday 08.00 - 17.00

N.B Standard telephone charges apply