

Information &  
Operating Guide:  
**Demand Floor  
Heating Systems**



## **Customer Information & Operating Guide: Demand Floor Heating Systems**

### **Demand Floor Heating**

A SunRay electric floor heating system has been installed in your home. It has been designed to give you all-over warmth, comfort and safety. Special insulated electric floor heating cables have been laid just below the floor covering of the heated areas within the screed/glue bed. In-screed/under tile heating is connected to a 24-hour demand tariff to provide you with warmth at any time of the day. When connected to a 24-hour tariff, a timer permits the heating to operate only when required, such as the morning or evening periods. Warm-up and cool-down times are usually within one to two hours, however each instance depends on the exact nature of each type of installation.

### **Suitable Floor Coverings**

The usual operating temperature of an uncovered SunRay heated floor is between 24-27°C (floor temperature), which is quite acceptable for most floor finishes. Typical floor coverings include: ceramic, marble and terracotta tiles, slate, carpet (with rubber or felt underlay), vinyl, cork, parquet, wood block and strip flooring. Should you require further advice please contact SunRay Comfort Heating.

### **Controlling your Heating System**

#### **Switching on and off**

Switching your demand heating system on or off at the beginning or end of the heating season, or isolating the heating, is usually carried out at each individual thermostat (please refer to the detailed timer operating instructions for the controller provided) or at the switchboard. The switching methods used are usually tailor made for each installation and therefore it is difficult to give further detailed advice. If you have any doubts on how to switch on or off please consult your installer or SunRay Comfort Heating.

You will have either individual thermostats installed in each room or just one thermostat controlling a heated zone. Once the heating has been switched on, the thermostats provide automatic control. If a thermostat/timer control is installed, please refer to the detailed timer operating instructions for the controller provided. If after reading the instructions, you still have difficulties, contact SunRay Comfort Heating.

#### **Adjusting a Thermostat**

When making temperature adjustment to any thermostat, do so using small, 1-2°C increments, then allow sufficient time (2-3 hours) to lapse before assessing the need for further adjustments. The time taken for the room to warm up to the set temperature is not shortened by turning the temperature to the highest setting.

### **Recommended Air Temperatures**

**Living areas:** 18-21°C (air temp)

**Bedrooms:** 16-18°C (air temp)

**Bathrooms and hallways:** 22-25°C (air temp)

Note: The higher hall temperature may allow for bleed off heating to other rooms. Where a thermostat is set up for floor sensing only, the floor set-point temperature is usually 2-4 degrees higher than the required air temperature.



## Maintenance and Repairs

Since there are no moving parts or surfaces hot enough to deteriorate under normal use, one of the best features of the floor radiant heating system is the lack of maintenance.

Your heating system is designed to give many years of reliable service and should be maintenance-free provided the cables below the floor surface are not damaged by penetrating the floor surface. Floors should never be penetrated without first checking with your installer.

Should you require any assistance or repairs to your heating system, please contact SunRay Comfort Heating. Any remedial work to your heating system should only be carried out by a suitably trained and qualified electrician.

### Flooding

Flooding of any floor heated area should not affect the heating cables in any way, however, the connections at the wall mounted connecting box/thermostat will need to be checked by a qualified electrician along with all other electrical connections and equipment.

### Caution

With a floor heating system, the surface must be kept relatively free of restrictions that would inhibit heat output. The usual items of furniture such as tables, chairs and couches are okay but always avoid placing items like bean bags, piles of clothing, thick rugs or anything offering high resistance to heat output over any area of the heated floor.

To avoid damage to floor or floor coverings, SunRay floor heating systems should be switched on **no earlier than 8 weeks after concrete is poured** or **6 weeks after tiles are laid for undertile heating**. The heating should initially be switched on at a very low temperature setting (16°C is recommended) with increments of 1-2°C, working up to full comfort loading within 8-10 days.

*Failure to heed the above warning can, in extreme cases, lead to cable damage and discolouring of some floor coverings due to the high temperature created.*

## Helpful Tips

- Do not overheat your room! High room thermostat settings will increase running costs so keep your settings as low as is comfortable. Remember, increasing your temperature by just 1°C will add 10-15% to your running costs.
- Your home should be insulated to the recommended local standards. For example, at least 75mm of insulation in the ceiling space and cavity insulation in external cavity walls is recommended. If heating a suspended slab, the underside of the slab should be insulated to prevent heat loss.
- Ensure that windows and doors are effectively draught proof.
- Windows and doors left open unnecessarily are throwing heat and money away.
- Glass areas allow considerable heat loss. Drawing your curtains will make a significant difference.
- Do not obstruct your wall thermostats.

**Remember - running costs are very much in your hands**