

Controlling Electric Underfloor Heating (or Wet Underfloor with a sensitive floor covering)

Unlike wet underfloor heating, electric underfloor heating cannot be controlled with just an Electric Switch and a Room Sensor/Thermostat. This is due to the temperature of wet underfloor heating being limited by the boiler output temperature, and a mixing valve on the manifold. For Electric Underfloor heating, should it be left on constantly, it will continue to heat up the floor, and may damage the surface or injure the occupant of the room. Therefore a floor-limiting thermostat must be installed to stop the floor from getting too hot.

The Genius Hub system can control these types of underfloor to a schedule measuring against the air temperature, whilst providing floor temperature limiting. This is done by using the [Powered Room Thermostat](#). It is a wired thermostat which can control up to 16A (230V) of electric underfloor heating, or a zone valve/circulation pump for wet underfloor heating. As well as an internal air sensor, a floor sensor can be purchased (separately) to enable the floor limiting feature. The floor limit is set to 28°C.

On the app, you can set the schedule to control the air temperature throughout the day, and the Powered Room Thermostat retains local control of the floor limiting, to ensure it doesn't overheat should there be a communication problem between the thermostat and the Genius Hub.



The Electric Switch must **not** be used as a floor limiting device, as the control of the relay is done by the Genius Hub and so the floor may overheat if communication is lost between the 2 devices.

If you are going to use the Electric Underfloor Heating in a bathroom or wet room location please find below some tips:

1. All wiring must be in accordance with the current I.E.E. (BS 7671) Wiring Regulations.
2. The Powered Room Thermostat must be placed inside the room it is controlling, as it measures and controls to the air temperature. If the thermostat will be placed inside a bathroom it needs to comply with the wiring regulations in the UK please [see this example](#).

Related Information:

- [Technical Documents](#)
- [Adjustments you can make with our Genius Hub Devices to fine tune your setup](#)
- [Controlling a Plinth Heater](#)
- [14. Adding new devices](#)
- [Powered Room Thermostat error codes](#)