

Electric Radiant Floor Warming / Precautions



Electric floor warming is a popular choice and is included in many of the remodeling projects that Castle completes. It is especially popular under tile and other cold and harder flooring surfaces that conduct heat efficiently. Kitchens and bathrooms are the most common rooms where electric floor warming is installed. Typically electric floor warming systems come with a programmable thermostat that allows the systems to turn on about an hour before peak usage times to allow time for the floor to warm up and turn off at preset times. Castle prefers to install electric cables (vs. mats) in a poured mud base because we believe they are more durable. Because electric floor warming mechanical systems are literally sealed into the concrete floor they are nearly impossible to fix if an issue arises. Castle's lifetime warranty does not apply to electric floor warming. Below are some common issues with in-floor heat and precautions that are necessary to ensure your in-floor heat lasts as long as possible.

Warning: Do not use in-floor heat for 30 days while grout cures.

Floor Mats

For the highest quality it is best to use non-rubber backed floor mats. The rubber floor mats can trap too much heat and cause the heating to fail. This is a precaution you should especially be aware of with bathroom floor mats.

Carpet and Heated Floor

The Carpet and Rug institute commissioned a study on Carpet and Heated Floors. Hydronic radiant floor manufacturers recommend that you consider the carpet depth and material type when placing over heated floors. Most conventional carpets are suitable for use over heated floors, but it is recommended that you consult with the manufacturer first to see if the backing is suitable for long periods of low heat.

GFI Trips are a common issue – Tips on how to fix:

A loose connection can cause a GFI trip. Check all wire connections between the breaker in the breaker panel and the floor warming system.

Some devices unrelated to the floor warming system can cause nuisance GFI trips of your control, often instantly when the other device is turned on. If your control will operate for a little while before the GFI trip occurs, the actual source of the problem may be an electric motor or a ballasted lighting system in the house. This is a fairly common problem when using a shared circuit for the floor warming system. We recommend a dedicated circuit to provide power for our systems whenever possible.

The floor warming cable may have a short to ground, which will cause a GFI trip.

Disconnect the system's power leads from the control. Use a digital multi-meter to test for a short to ground or short to circuit as described in our installation manuals. If you detect a short circuit to the ground wire, contact the manufacturer before trying to locate the damage or make a repair.

If the GFI does not trip immediately when it starts delivering power to the floor the system may have a "GFI conflict" with a component in the power supply circuit or a device that shares this power supply circuit with the warming system.

Some electric motors and various other electrical devices can cause nuisance GFI trips when nothing is wrong with the floor warming system. Try to determine if the GFI trip of the control happens at the same time something else in the home has just turned on. Whenever possible, we recommend using a dedicated circuit to provide power for out floor warming systems, which helps avoid most nuisance GFI trip problems.