

## **Floor Heating Application**

Electrical Install Kit with Conduit Installation

Conduit from

Sensor Wire

Black

**Breaker Box** 



This kit contains enough conduit for protection of line voltage wires and sensor wires.

## PLEASE CONSULT YOUR LOCAL CODE AUTHORITY FOR REQUIREMENTS.

- 1. Have an electrician supply power to the thermostat box location with a dedicated, 20 Amp 120V or 240V circuit (determined by the voltage of the product ordered), controlled by a non-GFCI breaker.
- 2. Place the 4"x4" dual gang box against a stud, approximately 50 inches above the floor. At this time, it is important to know the thickness of the drywall that will be installed. The box needs to be mounted so that the raised portion of the single-gang mud-ring that will be placed onto the box will be flush with the final wall surface. Once that depth is determined, hammer two, box-mounting nails through the box into the stud. Break the tabs/knockouts at the applicable location of the box and insert the power supply wires and/or conduit into and through the conduit knock-outs.



- The sill plate or bottom plate of the wall may need to be notched with a wood chisel directly below the location of the thermostat to allow placement of the conduit for the coldlead and sensor (if required). There should be a conduit for the cold lead and a separate conduit for the sensor if the local code requires low voltage wires be protected by conduit.
  Never run the sensor wire in the same conduit as the cold lead!
- 4. If conduit is required by the local code, install the approved conduit now between the thermostat box and the notch cut into the bottom plate at the base of the wall. Use approved conduit anchors and bushings to protect the cold lead wire and sensor wires as they are fed up the wall and into the thermostat box. The supplied conduit may need to be shortened at this time to fit properly. Test the thermostat sensor wire up the other conduit and into the thermostat box. Install the floor sensor (if applicable) as shown in the instructions.





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FLOOR HEATING

SYSTEM



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SENSOF

5. Once the electric radiant heating system has been installed, test the system with a digital ohm meter as described in the installation manual. If the system tests good, run the cold lead up the conduit and into the thermostat box.



6. Once the wires are run up to the thermostat box, install the cable protector plate so it covers the wires at the bottom plate. This will protect the wires from stray nails.





7. Place the smurf/ENT tube over the sensor wire to protect it from the high voltage wires.





8. Install the single gang mud-ring at this time. Verify that the drywall being used is 1/2" thick. If it isn't, the mudring included in the kit will need to be replaced with a locally sourced mud-ring of the appropriate depth, that corresponds to the thickness of the drywall being used.



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drywall and the mud-ring.

9. When the drywall is installed, the raised portion of the mud-ring mounted on the square box should be flush with the finished wall's face and ready for mud to be applied into the gap between the

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Make connections to line and load wires at the back of the thermostat. Place sensor wires into and through the top hole of the



 Place the thermostat on the front of the white cover plate and line up all of the holes. Use the included screws to attach the power base and white cover plate to the silver mud-ring. Center and level the thermostat and then tighten the screws to hold the pieces in place. Install thermostat's faceplate onto the power base.





