# 1. Remove material from packaging and inspect.

Inspect Gold Heat<sup>™</sup> mat for correct size and shape. Mat should fit the floor with the wires against the sub-floor and fabric up. Do not install if the wires are damaged or separated from the mesh backing. Install between 50°F and 120°F to ensure the mat has adequate flexibility.

# 2. Perform Electrical Test #1.

Test the resistance of the heating wire. The resistance should match the value shown on the label attached to the cold lead within 5%. Also, check for continuity between the ground wire and either heating wire. Document these values in Table 1.





Heating Wire Check

#### **3.** Connect Fault Detection Device.

Connect a circuit-checker to continuously monitor the condition of the mat while installing the flooring. Follow device directions for proper connection and operation.

# 4. Mark floor.

Lay mat on floor. Do not attach mat to the floor yet. Locate and mark the position of the temperature probe; locate the probe in the space between two heating wires. Mark any place where the heating wires will cross the temperature probe. Also, mark the location of the cold Lead.





# 5. Prepare Floor.

Remove the heat mat from the area just marked. Using a chisel or router, create depressions in the sub-floor for the temperature probe, crossing points, and the cold lead.



#### 6. Install temperature probe.

Install temperature probe per manufacturer's instructions. See the design requirements in the owner's manual for more information regarding the placement of the sensor.



# 7. Anchor mat to floor.

Using staples, hot glue, or double face tape; start at the cold lead and secure mat to the sub floor. Work your way across the mat, pulling slightly to prevent wrinkles. Secure at least 12" on center.

### DO NOT STAPLE ACROSS WIRES



Correct



#### Incorrect

# 8. Perform Electrical Test #2.

Repeat the electrical test performed during step #2 to verify that the wire has not been damaged. The resistance must match the values measured in step #2. Document this value in Table 1.

# 9. Install Tile.

Install floor tile using normal materials and procedures. It is recommended that you use latex or acrylic modified mortar. During installation use the flat side of the trowel to press the mortar through the mesh of the heating mat. This will ensure proper contact and bond with the sub-floor before combing with a notched trowel. Apply grout and complete installation using normal materials, procedures, and cure schedules. It is recommended that you use latex or acrylic type grout.

# **10.** Perform Electrical Test #3.

Repeat the electrical test performed during step #2 to verify that the wire has not been damaged. The resistance must match the values measured in step #2. Document this value in Table 1.

### 11. Make electrical connection.

Connect the cold leads to the thermostat controller. Follow manufacturer's directions for connection to thermostat.

### 12. Label circuit box.

Affix the enclosed adhesive label to the electrical distribution panel identifying the branch circuit dedicated to electric radiant floor heat.

Check	Resistance (Ohms)
Gold Heat™ Label	
Electrical Test #1	
Electrical Test #2	
Electrical Test #3	

Table 1

### DO'S

- o Clean the floor of all debris before placing the mat on the floor.
- Make sure there are no protruding objects; such as nails or staples, on the subfloor that could damage the heat mat.
- Use rubber soled shoes if you need to walk over the unprotected heat mat.
- Keep traffic to a minimum on the heat mat until the leveling compound or final floor covering is installed.
- o Measure and record heat mat resistance as per instructions.
- Install floor sensor before installing flooring material or leveling compound.
- Make sure all components of the system are rated for the same voltage.
- Have all electrical work completed by a professional electrician in accordance with all local and national codes.
- Connect the heat mat to a dedicated electrical circuit.
- Use a GFCI protection device in the supply circuit of the heat mat.

#### DON'T

- **DON'T** cut the heating wire.
- **DON'T** cut the cold lead; the correct length should be determined during the design process.
- **DON'T** drop or bang any tools (i.e. trowel) on the heating wires.
- o **DON'T** hit the heating wires with any sharp objects.
- **DON'T** install any fasteners such as nails, screws, etc. through any area covered by the heating mat.
- **DON'T** install the heating mat under cabinets, built-in appliances, etc. to avoid excessive heat from building in these areas.
- o **DON'T** install mats over expansion joints.
- o **DON'T** install heating mats in or under walls.
- **DON'T** overlap heating mats or allow any wires to cross or touch each other.
- **DON'T** place rubber backed area or throw rugs over the heated area to avoid excessive heat from building in these areas.
- **DON'T** attempt to repair the heating wire without the proper instructions and repair kit.
- **DON'T** install the heating mat in glues other than tile-setting or self leveling materials.

#### WARNINGS

RISK OF ELECTRIC SHOCK AND FIRE DAMAGE TO SUPPLY CONDUCTOR INSULATION MAY OCCUR IF CONDUCTORS ARE ROUTED LESS THAN 2 INCHES (51MM) FROM THIS HEATING PRODUCT. REFER TO INSTALLATION INSTRUCTIONS FOR RECOMMENDED MEANS OF ROUNTING SUPPLY CONDUCTORS.

THE INSTALLATION OF THIS HEATING PRODUCT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE REGULATIONS OF THE AUTHORITY HAVING JURISDICTION. FAILURE TO COMPLY WILL VOID THE WARRANTY AND MAY CREATE A HAZARD FOR FIRE OR ELECTRICAL SHOCK.

THIS EQUIPMENT SHALL BE INSTALLED ONLY BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE APPARATUS AND THE RISKS INVOLVED.

THE RADIANT HEATING PANEL SET MUST BE INSTALLED IN ACCORDANCE WITH ARTICLE 424, PART J OF THE NATIONAL ELECTRIC CODE, ANSI/NFPA 70.

FAILURE TO FOLLOW THE INSTRUCTIONS IN THIS MANUAL MAY VOID THE OWNER'S WARRANTY ON THE INSTALLED RADIANT HEATING PANEL SET.

THIS PRODUCT IS SOLD AND WARRANTED ONLY FOR PERMANENT INSTALLATION UNDER INTERIOR FLOORING MATERIALS USING A MORTAR BED OR SELF-LEVELING COMPOUND WITH A MINIMUM THICKNESS OF 3/8"

THIS PRODUCT MUST BE CONNECTED TO A GFCI PROTECTED CONTROL DEVICE. TEMPERATURE LIMITS FOR INSTALLATION 50°F TO 120°F COMPONENT

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# Gold Heat<sup>™</sup> Floor Heat System Quick Install Instructions



Aries Engineering Inc., 2123 NW Aloclek Dr. Suite #1205, Hillsboro, OR 97124 Service: 877-789-HEAT Sales: 866-935-7782

