

# CarpetMate™

*Hard-wired Electric Radiant Heating Panels for under Carpeting*



**Models:**

USP.120.11.470 · USP.120.11.370

USP.120.11.165w · USP.120.11.165l · USP.120.11.065

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**Installation Instructions and Operating Safety Advice**

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**IMPORTANT**

***Please Read Carefully Before Continuing***

**Speedheat US**  
[www.speedheat.us](http://www.speedheat.us)

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**Caution:** This equipment shall only be installed according to installation instructions. All electrical connections must be made by a licensed, qualified electrician according to installation instructions.

**Caution:** Installation of this heating panel system shall be in accordance with the regulations of all authorities having jurisdiction.

### WARNINGS: PRE-INSTALLATION

1. Follow the **TESTING and TROUBLESHOOTING** instructions to **make sure that the heater is operating correctly** and **there are no folds or creases** in the heating panel.
2. Cushion or padding under heating panel should be at least 1/8 inch in thickness. **If not, replacement is advised.**
3. Firmly fasten heating panel to pad and sub-floor. Make sure heating panel is securely in place and cannot move.
  - **Do not proceed** if the carpet that is to cover the heating panel is more than 1 inch thick.
4. Power supply outlet must be grounded and operating correctly. If not, call an electrician for repair.
5. NEVER operate without GFCI protection.
  - This heating panel must be used with its attached, approved, ground fault circuit interrupter (GFCI) or approved GFCI-protected thermostat.
6. Keep heating panel at least 8 inches from heating supply ducts, other heating panels, any other heating appliances, or other source of heat.
7. Heating panel should not bridge expansion joints.
8. The floor beneath the heating panel must be smooth and flat.
9. **Carefully read all warning labels** included in the package, and make sure that all parties involved **clearly understand instructions** regarding these labels before installation.

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## **Warnings: Pre-installation (continued)**

### **Have on hand the following tools and materials:**

- Protective eyewear
- Screwdriver – small flathead
- Screwdriver – small Phillips head
- Hammer – 3 lb
- Chisel – wood
- Chisel – concrete
- Carpet shears
- Wire cutters – small
- Razor knife
- Vacuum cleaner
- Double-faced adhesive tape
- Concrete nails if sub-floor is concrete.

**FAILURE to OBSERVE WARNINGS and INSTALLATION INSTRUCTIONS  
WILL INVALIDATE all WARRANTIES EXPRESS or IMPLIED**



**After reading ALL instructions, if you do not fully understand  
any of these instructions**

**DO NOT PROCEED!**

Please call 1 888 WARM FLOOR ext. 201 for technical support.

You may also wish to visit [www.speedheat.us](http://www.speedheat.us) for more information and further installation and operation information.

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## Installation Instructions - New Wall-To-Wall Carpets

### 1. POSITIONING of the HEATING PANELS

- Determine best layout or refer to your complimentary heating system design layout provided by Speedheat® during your quotation. This layout is based on drawings and dimensions provided by your customer or you during the quotation process.
  1. Measure the room
  2. Take into consideration,
    - Intended use of the room
    - Walkways
    - Location of the power supply outlet or thermostat.
    - Furniture or fixed objects, such as cabinetry, etc.
  3. Heating panels should not be closer than 8 inches to:
    - Heating supply ducts, other heating panels, any other heating appliances, or other sources of heat.
  4. Make sure that the intended location of the heating panel does not bridge expansion joints.
  5. Make sure that the floor beneath the intended location of the heating panel is smooth and flat.

### 2. PADDING SPECIFICATION and INSTALLATION

#### CUSHION or PAD INSPECTION

- Make sure that inspection of the cushion or carpet padding can take place soon after installation and prior to installation of the heating panel.
- Gently and slowly, check the cushion or pad with your hands for foreign objects, such as needles, nails, stones etc. either in or on the floor surface immediately beneath the cushion or pad.
- Vacuum-clean the cushion or pad as an added precaution.

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### For best results:

- If carpeting is placed over a hard surface, such as ceramic tile or wood, padding should be used for thermal insulation that exceeds 1/8 inch.
- If the subfloor is **ceramic tile AND installed over a concrete slab**, a thermal insulation pad must be used to ensure acceptable heating performance of the CarpetMate™ heating panels. Speedheat® offers these for your convenience, or you may use any non-slip thermal insulation padding that you prefer.

### 3. HEATING PANEL PREPARATION

#### a. TESTING and TROUBLESHOOTING

1. Remove the CarpetMate™ from the box.
2. Write down model number and serial number of the CarpetMate™ on packing slip or invoice for future reference.
3. Unfold the panel completely, stretching it so that there are no creases.

#### b. Before Installation, check that the CarpetMate™ heating panel is working properly (only applicable if GFCI plug is attached).

- Plug unfolded heater in to a **3-prong outlet**.
- Press **TOP “Reset”** button.
  - You should notice a **RED LIGHT** on GFCI plug.
    - If not, **press BOTTOM button** then, **“Reset”** again.
    - If red light still does not come on, plug another appliance such as a lamp in to outlet to test if outlet is operating correctly. If outlet is working properly with lamp, call Speedheat® Technical Support at 1-888-WARM FLOOR (888-927-6356) ext. 201.



#### 4. Wait 2-3 minutes after plugging in with red light illuminated.

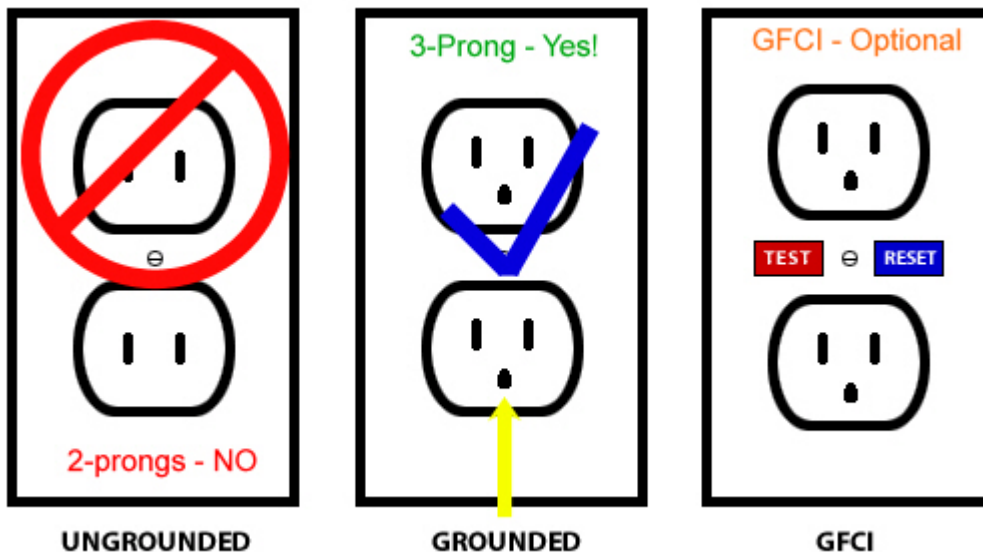
- Place your hand on the unfolded panel, and you should feel heat coming from the element wire. If there is no heat, disconnect the heating panel and call Speedheat Technical Support at 1-888-WARM FLOOR (888-927-6356) ext. 201.

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5. If CarpetMate™ is working properly, disconnect it from the outlet, and continue with installation.



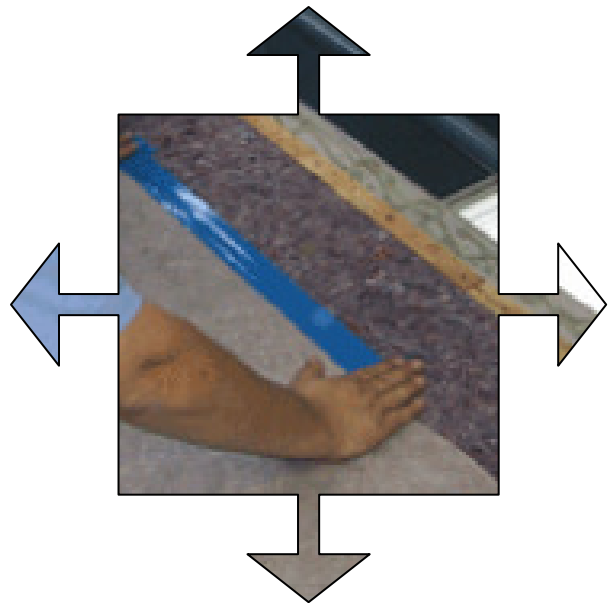
### CarpetMate™ HEATING PANEL INSTALLATION

5. Place the heating panel over the cushion or pad in the desired position, ensuring that **HEATING PANEL IS COMPLETELY FLAT** with no creases or folds.

**Note:**

- **DO NOT** cut the heating panel unless following specific instructions from Speedheat. Element must never be severed.
- There is no top or bottom of the CarpetMate™. You can flip the heating panel whichever way is most convenient for your installation.

6. **Secure the Panel** to the pad or cushion with a strong adhesive tape at each corner and in at least one additional place along each edge.



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## **Tape at:**

- Each corner
- At least one additional place along each edge.

## **Note:**

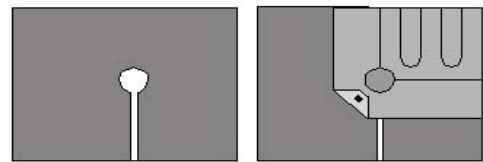
- The supply cord must never be plugged in under the area rug.
- The supply cord must never be looped under the area rug to take up excess length.
- Additional protective layers are necessary for reversible and extremely high value rugs. Heating panels should not be placed under irreplaceable rugs.

## **IMPORTANT!**

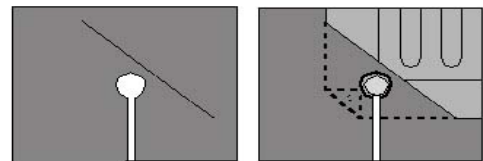
- **NEVER Fold over the CarpetMate™ while in operation or allow it to operate unless it is completely flat with NO CREASES or FOLDS!**

## **4. Connector Block and Supply Cable**

- The connector block and the supply cable should be sunk into a section cut out of the cushion or pad.
- Avoid placing the block and cable in a walkway or heavy traffic area if possible.
- The supply cable must lie in a groove cut into the cushion or pad from the edge of the heater to the edge of the cushion or pad. The depth of the groove should be the full thickness of the cushion or pad or the thickness of the supply cable, whichever is the lesser, and wide enough to provide a tight fit for the supply cable.



Cut for block face down.



Cut for block face up.

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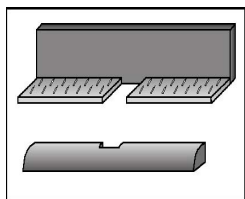
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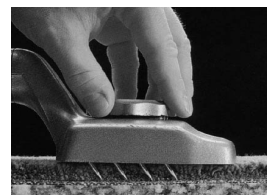
## Installation Instructions - New Wall-To-Wall Carpets (continued)

### 5. Connector Block and Supply Cable (continued)

- NEVER join the supply cable under the carpet.
- NEVER loop the supply cable under the carpet to take up excess length.
- NEVER cross supply cables over other panels or other supply cables.
- NEVER allow panels to overlap each other.
- The connector block should be as close as possible to the power supply but should not be closer than 1 ft to the nearest wall to avoid potential damage from carpet installing equipment.
- At the point where the supply cable meets the wall, there may be sharp objects (grippers) attached to the floor. These are required to fasten the carpet but will cause damage to the cable if left in place. Remove enough of the gripper to create a gap of 3/4 inch on either side of the cable.



The depth of the teeth of carpet stretchers should be adjusted to avoid contact with the heating panel.



### 6. Carpet Installation

- Install carpeting as quickly as possible to avoid excessive traffic over unprotected heating panels.
- Inform carpet installer of precautions necessary to keep from damaging the heating panel.
- Point out the location of each heating panel to the carpet installer (even though this may seem obvious).
- Special care is necessary when cutting and joining carpeting.
- Only top quality joining tape is to be used in accordance with the tape manufacturer's instructions to avoid separation of the join during normal operation of the heating panel.
- Adjust the depth of the teeth of carpet stretchers to avoid contact with the heating panel during stretching.

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## **Installation Instructions – Retrofit - Existing wall-to-wall Carpets**

### **1. Furniture Removal**

- Remove all furniture from the room.

### **2. Carpet Inspection**

- Existing wall-to-wall carpeting must be in good condition.
- Inspect the carpet before rolling out of the way of the area where heating panel will be installed.
- If the carpet is old, the backing may be brittle and removal could damage the carpet.
- If the carpeting does not pass inspection, it may still be useable, but you should not install CarpetMate™ unless replaced. You may look into using the panel as a RugBuddy™ instead, which is a plug-in, portable panel that you can place under an area rug on top of the carpeting.

### **3. Carpet Removal**

- When removing wall-to-wall carpeting, wooden gripper strips and the carpet backing should be marked clearly during removal to make sure re-installation in the correct position.

### **4. Install according to new wall-to-wall carpeting instructions (page 1).**

- After heating panel installation, proceed below.

### **5. Re-Installation of the Carpet**

- In general, re-installing the carpet covering will only require the use of carpet stretching equipment if the carpet was initially installed less than 6 months prior to the heater installation. Knee kickers may be required.

### **6. Returning Furniture to the Room**

**Care must be taken when returning the furniture to the room.**

**DO NOT DRAG FURNITURE OVER HEATER**

**This exposes the heating panel system to damage. Sliders are recommended.**

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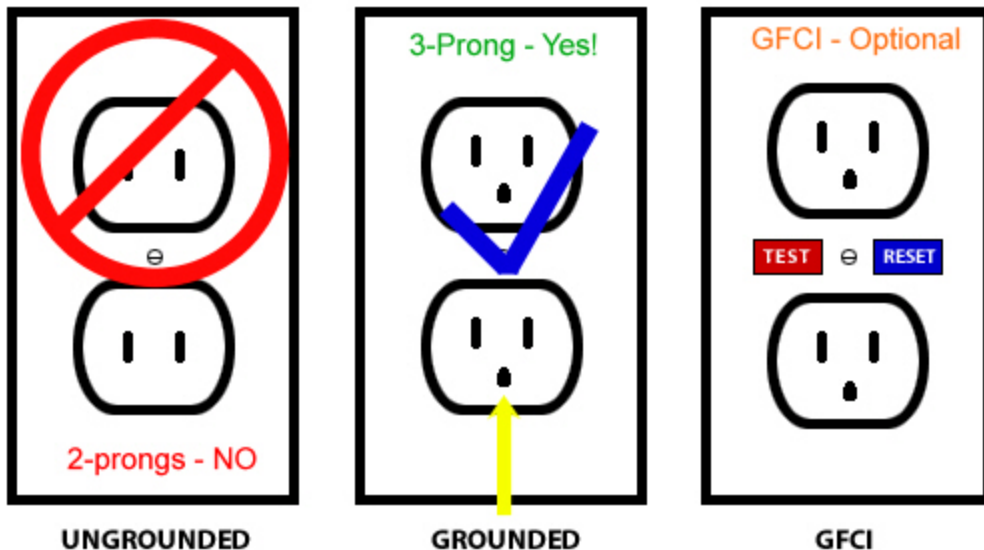
### Ground Fault Circuit Interrupter (GFCI) Location Instructions

**\*\* Not applicable if hard-wiring into an approved GFCI-protected thermostat, such as Speedheat's SmartStat™.**

- CarpetMate™ heating panels are equipped with an approved GFCI plug.
- GFCI plug MUST be plugged into a **grounded** power supply outlet (see below).
- If the supply cable attached to the carpet heating panel is modified in any way (modifications may only be made by an authorized electrician), it may only be plugged into one of the following:
  - a grounded supply outlet incorporating an approved Class A type manual reset GFCI socket unit.
  - a grounded supply outlet protected by a Class A type manual reset GFCI installed in the main distribution board.
  - an approved plug-in Class A type GFCI receptacle AND plugged into a grounded supply outlet.
- Affix ALL warning labels referring to the GFCI in the locations specified.



GFCI Plug



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## Thermostat Installation Instructions

(Optional equipment, not included with the heating panel)

- Thermostat must be installed by a licensed, qualified, professional electrician.
- Thermostat must:
  - Incorporate a Class A type GFCI device either as an integral component of its construction
  - or**
  - Be connected to an in-line GFCI device as described above.
- Affix ALL warning labels referring to the GFCI in the locations specified.
- Timers and other temperature control devices must be installed in accordance with the manufacturer's instructions.



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### Warning Labels

- Two sets of warning labels are included in the package containing this heating panel and refer to the GFCI device (included with the heating panel) and an optional thermostat (not included with the heating panel).
- All warning labels shall be affixed in the positions specified **without covering any existing markings** either on the specified devices or adjacent thereto.

**GFCI warning label** must be placed **on, or adjacent to**, the **electrical service panel board**, adjacent to the branch circuit of the heating panel system.

**If a thermostat is installed to this electric, under carpet heating element, the warning label must be affixed on or adjacent to the thermostat controls.**

### Warnings: Post-Installation:

1. **When heater is not in use:**
  - a. Unplug cord from power supply outlet.
2. **Do not** place furniture that has zero clearance to the floor, on top of the carpet covering the heating panel.
3. **Do not** place any items that have a high thermal insulation value (in excess of RSI 2) on top of the carpet that covers the heating panel. This includes rugs, beanbags, duvets, comforters, pillows, and mattresses.
4. **Do not** cut, punch, or nail on top of the carpet that covers the heating panel.
5. **Do not** penetrate the carpet that covers the heating panel with nails, screws, or similar devices.
6. **Do not** use the heater to dry carpets, which have become wet because of cleaning or flood.
7. **Do not repair** the heating panel if damaged. Contact Speedheat® technical support.

**After reading ALL instructions,**

**If you do not fully understand any of these instructions,**

**Please call 1-888-WARM FLOOR for technical support, ext. 201**

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## CarpetMate™ Technical Specifications

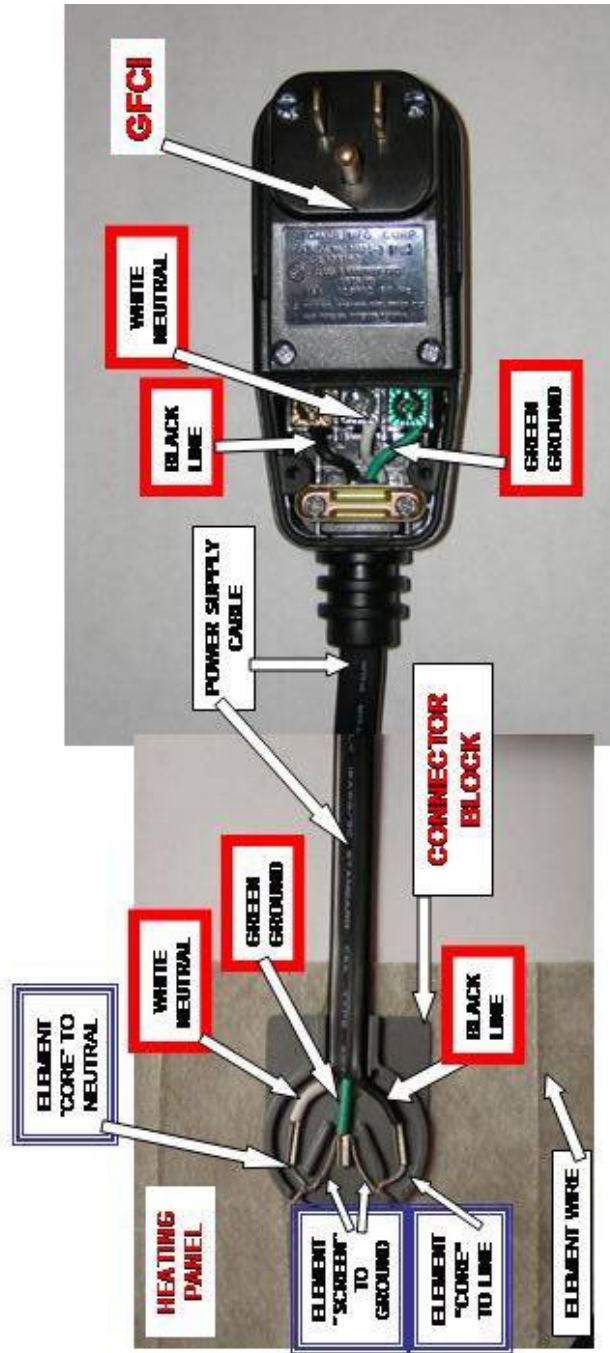
<b>120 Volt, 11 watts per sq. ft.</b>						<b>Area</b>	
	<b>Watts</b>	<b>BTU's</b>	<b>Amps</b>	<b>Width</b>	<b>Length</b>	<b>Element</b>	<b>Min. Floor</b>
<b>USP.120.11.470</b>	<b>470</b>	<b>1604</b>	<b>3.92</b>	<b>5ft. 6in.</b>	<b>8ft. 0in.</b>	<b>44.0</b>	<b>50.0</b>
<b>USP.120.11.370</b>	<b>370</b>	<b>1262</b>	<b>3.08</b>	<b>5ft.</b>	<b>7ft. 0in.</b>	<b>35.0</b>	<b>40.0</b>
<b>USP.120.11.165W</b>	<b>165</b>	<b>563</b>	<b>1.38</b>	<b>3ft.</b>	<b>5ft.</b>	<b>15.0</b>	<b>17.0</b>
<b>USP.120.11.165L</b>	<b>165</b>	<b>563</b>	<b>1.38</b>	<b>2ft.</b>	<b>7ft. 6in.</b>	<b>15.0</b>	<b>17.0</b>
<b>USP.120.11.065</b>	<b>65</b>	<b>222</b>	<b>0.54</b>	<b>3ft.</b>	<b>2ft.</b>	<b>6.0</b>	<b>7.0</b>

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**UNDER CARPET RADIANT  
ELECTRIC HEATING PANEL  
MODEL USP120/11/370  
MODEL USP120/11/470  
WIRING DIAGRAM**



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Please feel free to contact us at 1-888-WARM FLOOR or [info@speedheat.us](mailto:info@speedheat.us) with any questions or concerns.

Sincerely,

*Speedheat US*

Your Speedheat® US Team

## **CarpetMate™ Warranty**

*This product is manufactured exclusively for Speedheat® by Klimax Mfg. Ltd.*

The manufacturer, Klimax Manufacturing Ltd, guarantees this under area rug electric radiant heating panel against failure from any manufacturing defects as well as normal wear and tear for a period of 5 years from date of installation. If the installation date cannot be determined, the invoice date to the customer or manufacturing date will be considered the installation date.

There are no other express or implied warranties. Liability is limited to the repair or replacement of the heating panel only, and does not extend to thermostats or any other accessories. No liability for consequential damages will be accepted.

### **The warranty is subject to the following conditions:**

1. That the customer retains proof of payment and returns a fully completed warranty registration form for each heating panel purchased to the address shown on the reverse side of the warranty registration form.
2. That the installation has been carried out in accordance with the installation instructions. Any work carried out by a qualified electrician must be supported by written evidence of such work
3. That the heating panel is used in accordance with the operating instructions and precautions.

**Serial Number:**

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### **CarpetMate™ Warranty Registration Form**

*Please complete this form and mail or fax to Speedheat®.*

**Serial Number:**

I hereby acknowledge that I have read, understood, and complied with the installation instructions and operating precautions accompanying the heating panel bearing the serial number quoted above, and I accept the terms of the warranty as expressed on the page above this registration form.

\_\_\_\_\_  
First name

\_\_\_\_\_  
Middle

\_\_\_\_\_  
Last name

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



**COMFORT FROM  
THE GROUND UP**

*The World Leaders in Electric Radiant Floor Heating*

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**CarpetMate™ Warranty Registration Form**

*Please place this form in a stamped envelope and mail or fax to:*

**SPEEDHEAT US, LLC**  
**Attention: CarpetMate Warranty Registration**  
120 Arnold Mill Park, Suite 100  
Woodstock, GA 30188

**Toll-free: 1-888 WARM FLOOR**

**Fax: 1-888-927-6357**

**[www.speedheat.us](http://www.speedheat.us)**