

# Warmup®

The world's best-selling electric floor heating brand™



## Installation Manual: Carbon Floor Heating System



### IMPORTANT

Read this manual before attempting to install your heating system. Incorrect installation could damage the heating system and will invalidate your warranty.

**TECHNICAL HELPLINES**  
**US:1-888-927-6333**  
**Canada:1-888-592-7687**

# INTRODUCTION

## READ ALL THE INSTRUCTIONS BEFORE STARTING

Warmup's Electric Floor Heating Systems for Laminate Floors is a unique heating system that is installed under the floor to provide either primary or supplementary heat. Completely unseen, the thermostatically controlled heating panel sets warm the floor surfaces up to 80°F/26.5°C for unparalleled comfort. The 12 watts per square foot may not be adequate for primary heat source in some areas; consult an architect if you are unsure.

There are three sections of this manual:

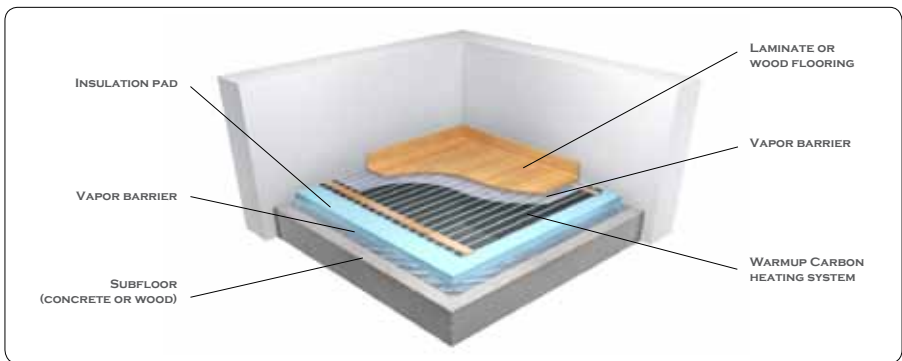
Part 1 - Designing the System.

Part 2 - The Installation

Part 3 - Inspection – Testing - Completion

## POINTS TO NOTE:

1. Read this entire manual before installing the heating system. The designer and installer should be familiar with all details of the installation.
2. A qualified electrician must be used for all electrical work.
3. Heating elements should not be installed at or below 32°F (0°C).
4. The installation of this heating product shall be in accordance with the following instructions and the regulations of the authority having jurisdiction.



**USA:** The installation of this heating product shall be in accordance with Article 424, Part J, of the National Electrical Code, ANSI/NFPA 70.

**Canada:** The installation of this heating product shall be in accordance with Section 62 of the Canadian Electrical Code, Part I.

## PART 1 - DESIGN CRITERIA

This portion of the work will generally be done prior to ordering the material. The designs and drawings completed during this stage must be made available to the installer(s). Measure the area to be heated. Allow 6" (15cm) clearance from any heating source, pipe, appliance and/or wall.

1. Determine the location of the thermostat. It should be located approximately 60" (120 cm) from the floor on an inside wall.
2. The element panels should be laid out so the cold leads (wires) are as near as possible to the wall on which the thermostat is located (see note below). The junction box should be located about 12" to 18" from the floor below the thermostat.
3. Determine how the cold leads from the element will be run to the junction box.
  - i. Elements are supplied with 12' of cold leads that may be cut to desired length.
  - ii. Cold leads are normally run inside a conduit to the junction box.

Note 1: If the wires are dropped into the basement, the junction box can be located there and house wiring used to run up to the thermostat.

### Thermostat Requirements

The Warmup thermostat comes complete with a GFCI (ground fault circuit interrupter) that meets the Electrical Code(s). The thermostat is rated at 1,800 watts @120 volts. If this thermostat is not used, a ground fault (GFI) circuit breaker must be used.

- The sensor for the thermostat (shipped with the thermostat) must be located between the element strips.
- The National Electrical Code and Canadian Electrical Code specify that each branch circuit used in conjunction with a heating system must be for the exclusive use of the heating system. If the loading is higher than 1,800 watts, a contactor/relay may be used.
- Do not connect lights, outlets, etc. to any branch circuit used with Warmup's Heating System for Laminate Floors.
- Tools and materials required for a typical installation:
  - Wire cutters
  - Various screwdrivers
  - Wire strippers
  - Hammer
  - Utility knife
  - Masking tape
  - Electrical Tape
  - Chisel
  - Drill



## PART 2 - INSTALLATION

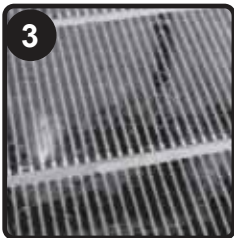


Clear the floor of all debris, nails, etc. giving you a smooth floor. a) If the cold lead wires are to be dropped into the basement, drill holes into the floor. b) If the wires are to be run on the surface of the floor, you may need to cut a small groove into the floor.

If the wires are run side by side and are not allowed to cross over one another, the water-proof insulation should be thick enough to allow the wires to run under the laminate floor without raising the floor level.



Lay down the vapor barrier, then the waterproof insulation. Tape into place to prevent movement. The vapor barrier is not required if you use Warmup Insulation Boards.



Roll out the pre-cut panel(s). Be careful to follow the plan under 'Design'. Your element should be supplied to allow:

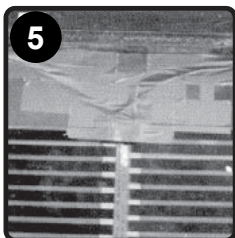
- 6" (15 cm) clearance at each end of the element.
- 6" (15cm) clearance from any heating source, pipe, appliance and/or wall.

- Do not overlap the element at any time.
- If the element needs to be cut due to measurement error, see instructions in Appendix B.

**Note: Panels MUST be installed with copper side up.**



Cut away the sections of the waterproof floor insulation to accommodate the sealed electrical connections where the element is connected to the cold leads (wires).



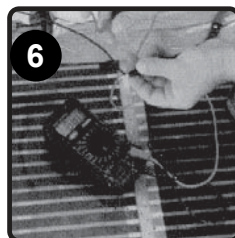
Each element has a set of wires, black and white. These should be run individually as shown to the junction box. Do not allow wires to cross over any panels or each other. Secure the wires to the floor with masking tape so they will not move out of position.

Secure the thermostat sensor between two panels to ensure accurate temperature measurement.

Check individual lengths for resistance using an Ohmmeter. These readings should be recorded on page 6 of this manual for reference to ensure there are no changes after the installation has been completed.

All local electrical codes and regulations must be followed.

Install the 2nd layer of vapor barrier.

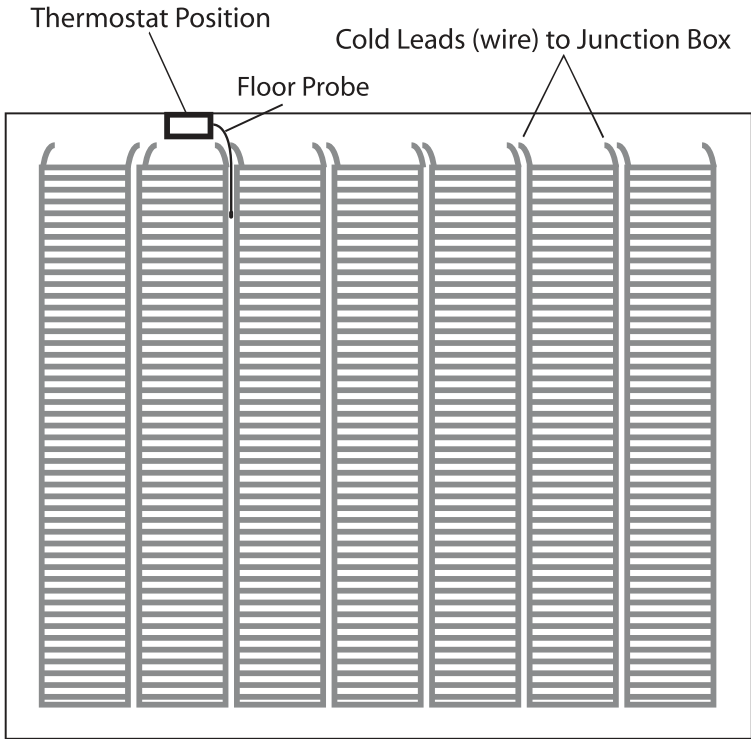
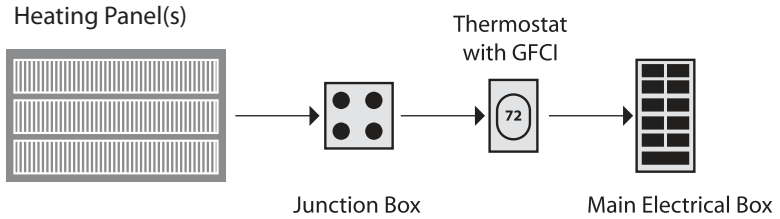


If you believe one or more of your panels is damaged, call Warmup on these **toll free numbers**:

**1-888-927-6333 (US)**

**1-888-5-WARMUP (CA)**

**Typical room layout and wiring:**





Mounting the junction box.

Suggested height is about 12" to 18" from the floor.

The pictures show mounting the boxes in a new construction. If the installation is done in finished room, holes must be cut into the sheet rock and the wires 'fished' into the boxes.

Mounting the thermostat box. Suggested height is about 60" from the floor.



The cold leads wires from the panel(s) should be run up to the junction box inside a flexible conduit. The wire from the junction box to the thermostat is ordinary 12/2 house wiring .

Connections in the junction box should be made with the wire nuts supplied.



**NOTE: All installations must be in accordance with local wiring regulations, and all electrical work must be performed by a qualified electrician.**

**RECORD OF RESISTANCES (Ohm) READINGS:**

|          | Ohm Readings<br>prior to flooring being<br>installed | Ohm Readings<br>after flooring is<br>installed |
|----------|--|--|
| Panel 1: | _____  | _____  |
| Panel 2: | _____  | _____  |
| Panel 3: | _____  | _____  |
| Panel 4: | _____  | _____  |
| Panel 5: | _____  | _____  |
| Panel 6: | _____  | _____  |
| Panel 7: | _____  | _____  |

**NOTE:**

Each Warmup Heating Panel has been individually tested at our factory, and each carries an individual label with its own factory-registered resistance reading. This reading should match the readings you get when using a multi-meter (+5% / -10%) both before and after installation of flooring on top of the heating system.

*Readings must be taken when the heating system is at room temperature.*

**A visual and electrical check must be performed on the heating panels prior to activation.**

**VISUAL INSPECTION:**

When visually inspecting the panels, look for any signs of damage, wear or scratching that might have occurred during installation. If any portions of a panel set appear damaged, replace the entire panel set.

**ELECTRICAL TEST:**

After any remedies have been performed for open or short circuits, the system must be retested.

If any cold lead connectors must be replaced, ensure that the heating panel has not been damaged by removing the original connector. If it has, then the entire panel set must be replaced. Any element connectors which are removed must be replaced. A connector may only be crimped once.

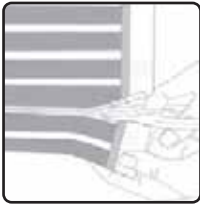
# APPENDIX A - USING WIRE NUTS IN THE JUNCTION BOX

## APPENDIX A - USING WIRE NUTS IN THE JUNCTION BOX

Strip the wires to the length suitable for the connector. Some wires are stranded, some solid. It is important to ensure a good connection. The wire needs to be twisted together with a pair of pliers to ensure a good connection before using the supplied wire nuts.



## APPENDIX B - SHORTENING AN ELEMENT PANEL



Determine where the element must be cut.

**DO NOT cut in the black area EVER.**

**Cut in the clear part only.**

Cut straight across the panel to remove the extra panel piece.



Lay a length of UL-approved electrical tape on the table (sticky side up). Then lay the element onto the electrical tape.

Lay the element  $\frac{1}{2}$  over the tape, leaving the other  $\frac{1}{2}$  of the tape exposed.



Now flip the exposed tape over covering the element, sealing the element end.



Smooth the tape down so that the end of the element is well sealed.

Apply a second layer of electrical tape to complete the alteration.

# WARMUP 30-YEAR WARRANTY

## **Models:**

120/240Volt USCL Carbon heating panels sold by Warmup, Inc.

THE WARMUP 30-YEAR WARRANTY DOES NOT EXTEND TO THERMOSTATS, WHICH ARE COVERED BY A ONE-YEAR GUARANTEE FROM THE DATE OF ORIGINAL PURCHASE.

GOVERNING LAW. Unless otherwise governed by applicable state law, this warranty shall be interpreted and enforced in accordance with the laws of the State of Connecticut.

This 30-Year Warranty applies:

1. Only to the original homeowner(s) from the date of purchase
2. Only if the unit is registered with Warmup within thirty (30) days after purchase. Filling out the card accompanying this warranty in its entirety will complete registration. In the event of a claim, proof of purchase is required, i.e.: invoice and receipt. Such invoice and receipt should state the exact model that was purchased; and
3. Only for the duration of the Lifetime of the floor covering under which it was originally installed if the purchaser of the heating system remains the owner of the residence in which it is installed.
4. Only if the heating system is protected by a GROUND FAULT CIRCUIT INTERRUPTOR (GFCI) at all times.

## **COVERAGE**

1. The warranty period begins on the date of purchase. Registration is effective only when a letter of confirmation is sent by Warmup, Inc.
2. Warmup's Carbon Heating System is guaranteed by WARMUP, INC. ("Warmup") to be free from defects in materials and workmanship under normal use and maintenance for thirty (30) years, provided the Product is installed in accordance with the accompanying Warmup installation manual, any special written design or installation guidelines by Warmup, Inc. for a particular project, the National Electrical Code (NEC) and all applicable local building and electrical codes; and
3. Provided Warmup heating systems are installed under laminate, wood and cork surfaces.
4. During the period of Warranty, Warmup will arrange for the heating system to be repaired or (at its discretion) have parts replaced free of charge. The costs of repair or replacements are your only remedy under this Warranty. Such cost does not extend to any cost other than direct cost of repair or replacement by Warmup and does not extend to costs of relaying, replacing or repairing any floor covering or floor.
5. If Warmup, Inc. determines the repair of the product is not feasible; we will replace the product with equal or similar features and functionality at Warmup's sole discretion (see over for "Exclusions").

# WARMUP 30-YEAR WARRANTY

## EXCLUSIONS

Warmup, Inc. shall in no event be liable for incidental or consequential damages, including but not limited to extra utility expenses or damages to property. This Warranty is null and void if

1. The floor covering over the heating system(s) is damaged, lifted, replaced, repaired or covered with subsequent layers of flooring.
2. The heating system fails due to damage caused during installation or flooring installation, unless damage is caused directly an employee of Warmup. It is therefore essential to check that the heating system is working (as specified in the installation manual) prior to flooring installation.
3. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Warmup, Inc.
4. Use of components or accessories not compatible with Warmup heating systems
5. Warmup products installed outside the United States.
6. Parts not supplied or designated by Warmup, Inc.
7. Damage or repair required as a result of any improper use, maintenance, operation or servicing.
8. Failure to start due to interruption and/or inadequate electrical service
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the product that does not affect its performance.
11. The owner, or his/her designated representative, attempts to repair the product without receiving prior authorization from Warmup. Upon notification of a repair problem, Warmup, Inc. will issue an Authorization to Proceed under the terms of this Warranty.

If Warmup is required to inspect or repair any defects caused by any exclusions referenced above, all work will be fully chargeable at Warmup's inspection and repair rates then in effect.

WARMUP, INC. DISCLAIMS ANY WARRANTY NOT PROVIDED HEREIN, INCLUDED ANY IMPLIED WARRANTY OF THE MERCHANTABILITY OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. WARMUP, INC. FURTHER DISCLAIMS ANY RESPONSIBILITY FOR SPECIAL, INDIRECT, SECONDARY, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING FROM OWNERSHIP OR USE OF THIS PRODUCT, INCLUDING INCONVENIENCE OR LOSS OF USE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE FACE OF THIS DOCUMENT. NO AGENT OR REPRESENTATIVE OF WARMUP, INC. HAS ANY AUTHORITY TO EXTEND OR MODIFY THIS WARRANTY UNLESS SUCH EXTENSION OR MODIFICATION IS MADE IN WRITING BY A CORPORATE OFFICER.

DUE TO DIFFERENCES IN BUILDING AND FLOOR INSULATION, CLIMATE AND FLOOR COVERINGS, WARMUP, INC. MAKES NO REPRESENTATION THAT THE FLOOR TEMPERATURE WILL ACHIEVE ANY PARTICULAR TEMPERATURE OR TEMPERATURE RISE.

UL STANDARD LISTING REQUIREMENTS LIMIT THE HEAT OUTPUT OF WARMUP CARBONE HEATING SYSTEM, AS SUCH, USERS MAY OR MAY NOT BE SATISFIED WITH THE FLOOR WARMTH THAT IS PRODUCED. WARMUP DOES WARRANT THAT ALL HEATING SYSTEMS WILL PRODUCE THE RATED WATT OUTPUT LISTED ON THE HEATING SYSTEM NAMEPLATE, WHEN OPERATED AT THE RATED VOLTAGE. TERMS AND CONDITIONS.

## Shipping Discrepancies:

Incoming materials should be inventoried for completeness and for possible shipping damage. Any visible damages or shortages must be noted prior to accepting the material. Any discrepancy concerning type or quantity of material shipped, must be brought to the attention of your Warmup® reseller within 15 days of the shipping date entered on the packing slip for the order.

## Miscellaneous:

The terms of this Limited Warranty are exclusive and supercede any other warranty or terms and conditions relating to the subject matter whether included in a purchase order for this product or in any other document or statement.

Complete and submit the warranty form online at  
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