

Nailed Down Hardwood Installation From Warmup®

This procedure applies to all types of wood planks, wide planks, and Bamboo floors.

Warmup heating cables are UL/CSA approved for installation under all brands of wood flooring. Several manufacturers specifically recommend heating cables as a suitable heat source under their flooring material.

Warmup has done extensive testing for the application of heating cables under nailed hardwood and bamboo floors. We have found that following the proper procedures below result in no drying, cracking or shrinking of the wood as radiant heat does not affect the humidity levels in the room like other heat sources can.

For applications involving glued-down wood planks or floating wood and laminate floors, refer to the other Warmup solutions below:

Can I have Underfloor Heating?

At Warmup® one of the most common questions asked by customers is whether a certain type of floor is suitable for Underfloor Heating.

The answer is that there is a product to suit almost any type of floor.

Use the table below to find out which product will best suit your floor type. Please contact us at 1-888-927-6333 with any other questions.

WARMUP PRODUCTS	Mat 120/240V	Loose Wire 120/240V	Carbon 120/240V	Foil 120/240V	Inslab 120/240V
Page number	12	14	16	18	20
FLOORING TYPE					
Tile & Stone	✓	✓			✓
Hardwood	✓	✓			✓
Carpet	✓	✓		✓	✓
Laminate	✓	✓	✓	✓	✓
Vinyl	✓	✓			✓

All Warmup® Underfloor Heating Systems have been stringently tested and approved to meet and exceed current standards.

Considerations

There are two Warmup products applicable under nailed down wood and bamboo floors. The **Warmup USDW floor heating cables** and the **Warmup WODG primary heating cables**. Both are UL and/or CSA approved for the application below and have proven to provide great results without any harm or damage to the wood floors over time.

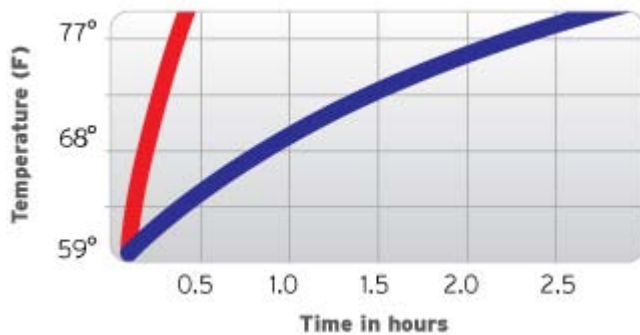
Installations on Slabs

When installing over a concrete slab, discuss the sleeper-method below with your installer. Additionally, slabs tend to be a drain for heat and result in less efficient solutions when installing radiant heat. The application of the Warmup Insulation Boards (3/8" thick) between the sleepers provides the necessary thermal break to ensure most of the heat generated goes upwards into the room. Contact your Warmup representative for more details on the Warmup insulation boards.



Primary Heating

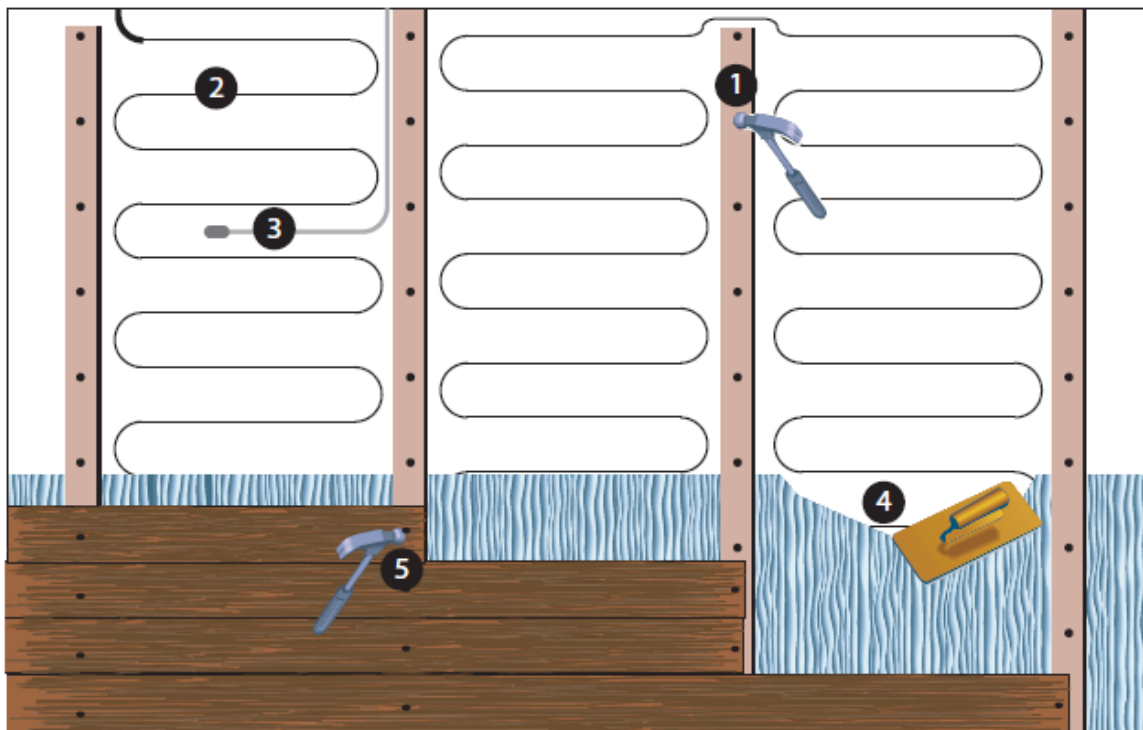
Primary heating can be achieved both with the WODG and the USDW cables, however the WODG cables can achieve this on concrete with no insulation boards. Discuss your project and goals with a Warmup representative to make sure we select the perfect solution for your project. Most applications call for the USDW cables at 3" spacing over a wood subfloor. Variances of this typical set-up are discussed below.



Installations on Wood subfloors

While Warmup Insulation Boards are always a welcome addition to the efficiency of any heated floor, they are not necessary for comfort heating applications over wood subfloors. If you are working over an unheated space, crawlspace or if the goal is to provide primary heating in the room, make sure to review the Warmup Insulation Boards and discuss your options with our representative.

Nailed Down Hardwood Installation Steps From Warmup®



Installation

The installation steps below pertain to the application of the heating cables under nailed down wood. Make sure to refer to your wood supplier's installation instructions to determine any specifics on vapor barriers, application of glue, spacing of nails, etc. The information below refers to a 'typical' installation. Call Warmup® with any questions.

When using Warmup Insulation Boards, cut the boards on about 8 or 9" widths and apply in between the wood strips. Make sure to account for the 3/8" of the boards when selecting strip heights. In most cases, 1" (2.54cm) thick strips, 1.5-2" (3.81cm - 5.08cm) wide will be ideal.

In specific situations, we may have advised you to use our WODG cables for primary heating or in high heat-loss situations. When using WODG cables, space the cables at 4" (10.16cm) centers, using 2 runs in each 10" (25.4cm) gap. Apply the cable with the provided clip-strips, or simply with duct tape or similar. Remember to adjust your sleeper height, and further

Step 1: Install Wood Sleepers.

Nail down wooden sleepers of strips about 3/8" (0.95cm) thick and 1" (2.54cm) wide in a direction that is perpendicular to the planned layout of the wood planks. When using the WARMUP in-slab cables WODG, use 1/2" thick (1.27cm) sleepers. Nail the sleepers down on 10" (25.4cm) centers. Leave a 1" (2.54cm) gap at the edge of the room.

Step 2: Install Heating System.

Install the heating cable USDW on 3" (7.62cm) spacing allowing for 3 runs of cable in between each strip or gap. Apply the cable parallel to the sleepers using the provided Warmup tape. After 3 runs have been laid, bridge over to the next gap through the 1" (2.54cm) clearance at the edge of the room and continue to the next area.

Step 3: Install Floor Probe.

Place the probe wire containing the capped sensor evenly between two space heating cables at least 12" (30.48cm) from the wall into the heated area. At no time should the probe wire cross the heating cable.

Step 4: Embed Heater in Leveling Compound.

In order to create a "heat bank" for the cable to perform effectively, fill the 3/8" (0.95cm) gaps with a self-leveling compound such as Versabond, Mapei Quickset or similar. A 50lbs (22.68kg) bag covers approximately 25 sqft of room space. As much as possible, level the compound to the strips, but do not cover the strips. As you move along the room, wipe the strips clean of leveler with a dry cloth. Let set for the recommended curing time by the cement manufacturer, usually overnight in a well ventilated room.

Do not skip this step as it would create an air-gap between the cables and the wood. While this represents no particular hazard from the cable standpoint, the air exposure reduces the lifetime of the cable and drastically limits the efficiency of any heat going into the room. Always create the heat bank as described above with a thinset or self leveling compound.

Step 5: Install Hardwood Flooring.

When leveling compound has cured, hardwood flooring may be installed by nailing into wood sleepers only. Warmup always recommends the use of the WatchDog™ continuity tester during installation.

Make sure to refer to any specific directions as per the wood manufacturer's specifications.

Thermostat and controls

The Warmup thermostat offers a dual-sensor feature specifically targeted at hardwood heating applications. The ambient sensor will be the main active sensor providing a comfortable heat level in the room, and the floor sensor will act as a "limiter" to ensure that the heating system doesn't go past a certain temperature. Most manufacturers consider the 80 to 85 degrees F (26.7°C - 29.4°C) to be an acceptable upper range. Warmup recommends to set your thermostat at 80 degrees (26.7°C) and adjust from that point on.

The location of the thermostat is therefore important. Please refer to the programming manual of the thermostat in order to select the Ambient/Floor Limiter function specific to nailed down wood floors.

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