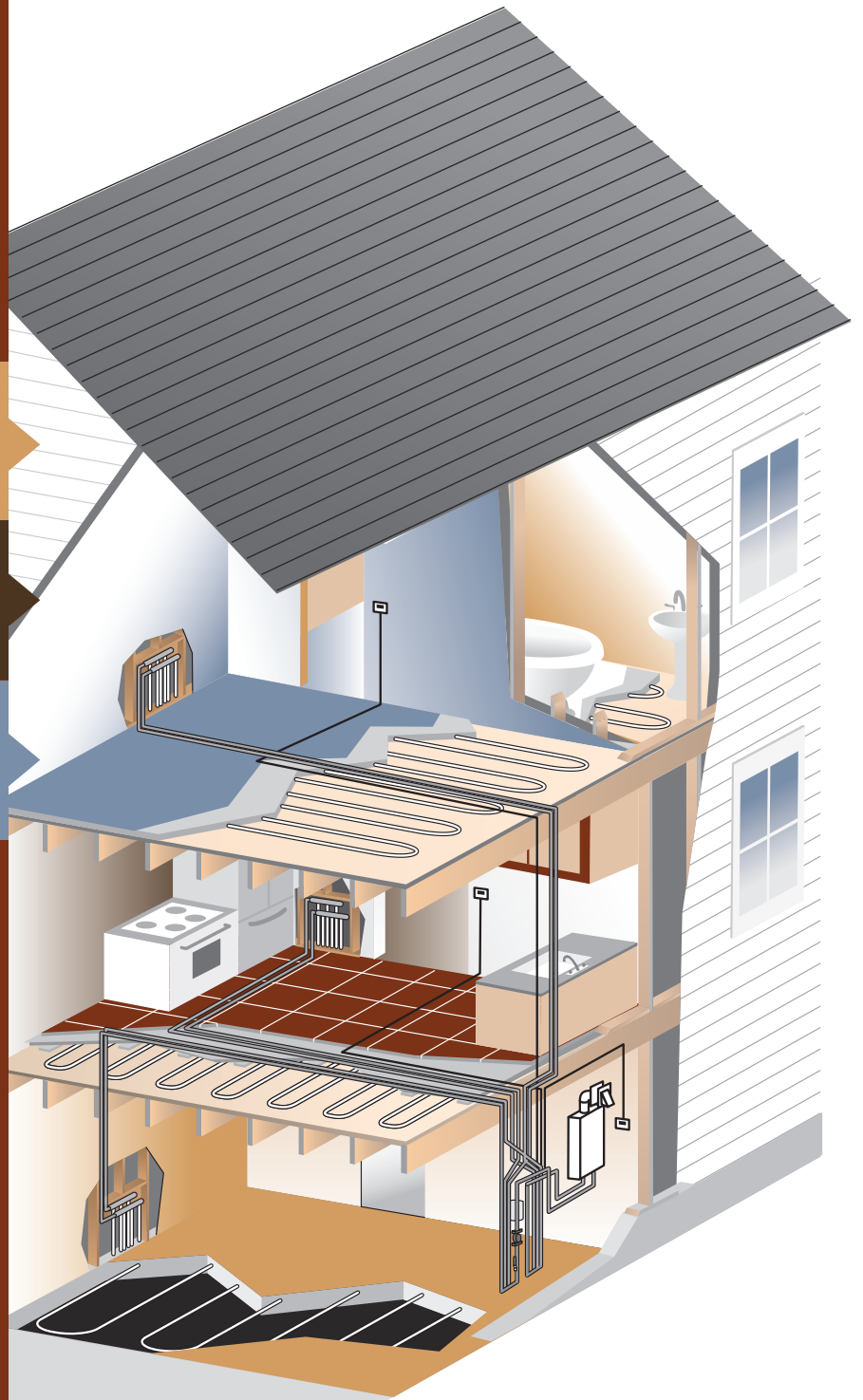


A DO-IT-YOURSELF GUIDE

Step-By-Step Instructions

Easy to Read Drawings



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# INSTALLATION GUIDE

for Radiant Heating

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## INTRODUCTION

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Thank you for purchasing a radiant heating system from the Janes Company. We know you will enjoy many years of heating comfort with your new system.

This manual is intended for the home owner or builder who has purchased a radiant heating system from the Janes Company and intends to do some or all of the installation themselves. This manual offers advice and tips on many of the procedures involved in the installation.

It is assumed that you have planned your installation with a Janes Company representative and have in hand an Installation Package. This package contains a customized layout of the radiant heat tubing, water heater, mechanical panel, manifold boxes, and thermostats. Consult the layout as you install your radiant heating system.

Before you start, it is recommended that you read both this manual and the installation manual for your water heater, whether it is a tankless on-demand heater, a standard water heater, or a Bradford White CombiCor®. The manual for the water heater contains important information about locating and venting the heater and connecting gas and water lines and should be read and followed carefully.

Along with your Installation Package, you have received most or all of the major parts needed for installation. Any supplemental materials, such as copper pipe or venting, can be obtained at a local hardware store or home improvement center.

### DISCLAIMER

While the Janes Company provides a warranty on the parts, it provides no guarantee for your work. In addition, it is your responsibility to abide by local, state, and national codes and to obtain the proper local permits.

### SAFETY

Always wear safety glasses or other eye protection whenever you are working with tubing or connecting pipes. Staples can ricochet off a nail head or other objects and bounce up in your face. Tubing has a certain amount of coiled energy that can strike quickly and unexpectedly.

Ear protection, particularly when using an air compressor, is also recommended.

Knee pads are helpful for attaching tubing to the floor or working on manifolds.

### LIST OF MATERIALS

Check your list of materials against the contents of the boxes that you received to ensure that you received everything you paid for. Call the Janes Company at 1-800-974-5884 immediately if anything is missing.

### TOOLS

Depending on the type of installation you are doing, you will likely need a number of specialized tools, ranging from an air compressor to a tubing cutter. Specialized tools needed for a particular job are listed in this manual in the relevant sections.

Some tools, such as a tubing cutter, may be included with your package of materials. Other tools, such as staple guns, can be rented from the Janes Company or from a local tool rental company.

## INSTALLATION STEPS

The steps required to install your radiant heating system depend on your particular situation. If you are building a new house and installing tubing in a concrete slab, the first step is to lay the tubing for the slab. However, if you are adding radiant heating to an existing house, then building the manifold box may come first.

Of prime importance is knowing what needs to be done when the walls are open (ROUGH-IN), and what gets done after the walls are finished and painted (TRIM-OUT).

### **ROUGH-IN**

- Build the manifold box
- Lay the tubing
- Install the supply and return lines
- Install the thermostat wires
- Rough in the vent for the water heater
- Ensure that there is an electrical outlet near the water heater and the mechanical panel
- Attach the manifolds to the floor tubing and the supply and return lines
- Pressurize the tubing and supply and return lines

### **TRIM-OUT**

- Attach and wire the thermostat
- Attach the mechanical panel to the wall
- Install and vent the water heater
- Connect all the pipes and wire the mechanical panel
- Fill the system with water

The exact order of these steps depends on your situation.

▶ **IMPORTANT** *Give yourself time—stretch, take rest breaks, and find a friend to help you. Installing a radiant heating system can be rewarding, but it is also labor-intensive. Stapling or attaching tubing to the floor, whether you are bending over or reaching for the ceiling, is tough, repetitive work.*

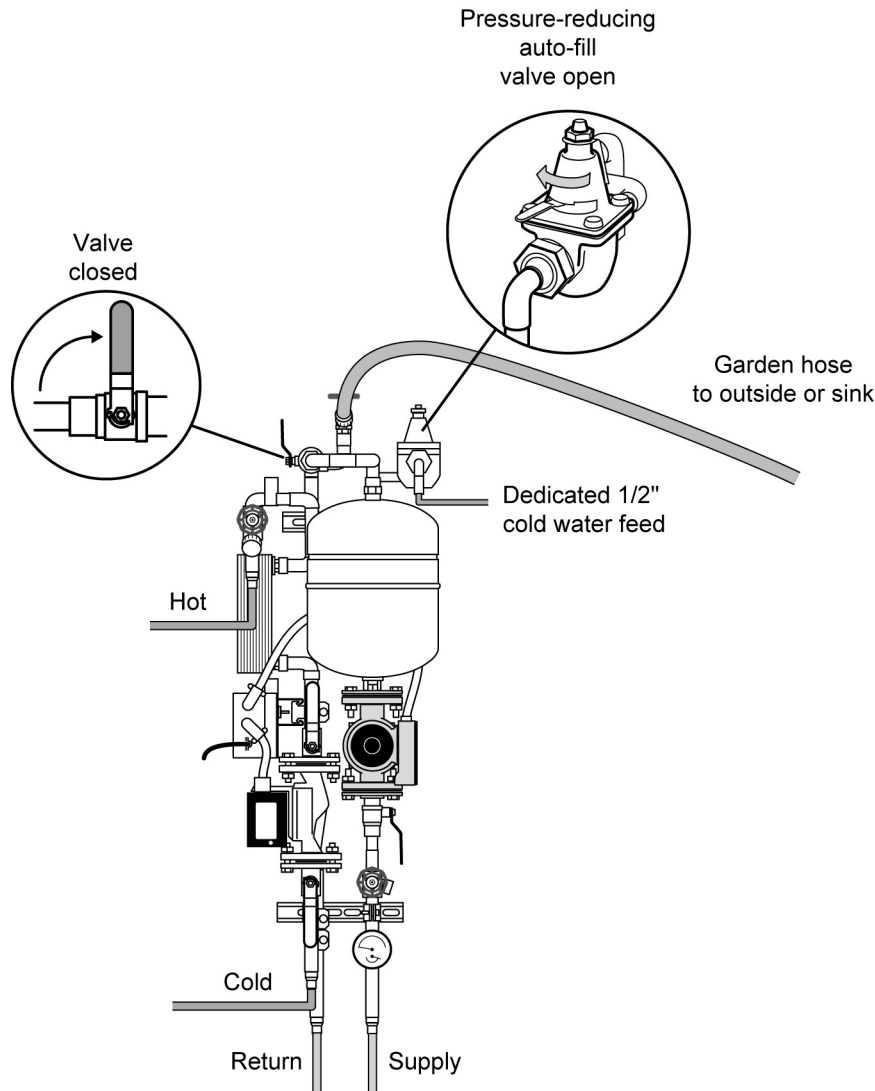


FIGURE 56 FILLING THE SYSTEM WITH WATER

7. If the water is not already running into the radiant heating system through the pressure-reducing auto-fill valve, open the valve that is preventing the water from running. This may be back along the cold water line somewhere.

8. Now turn the fast fill lever to fast fill, so the water flows through the pressure reducing valve at full speed.

The water will fill the tubing. This may take a few minutes, depending on the amount of tubing.

9. After the system is filled, water will flow out the drain hose. The rush of air and water out of this hose can cause it to thrash around, so make sure it is secured. You may want to turn down the water at this point, but leave it flowing to allow you to purge the air from the system.

10. Starting at the manifold that is farthest from the mechanical panel, begin purging each tubing circuit individually. First take note of the circuit that you left open, and make sure the water is flowing smoothly through it with no turbulence.