



How To Install Just Roaming's Columbia Flooring System

Background

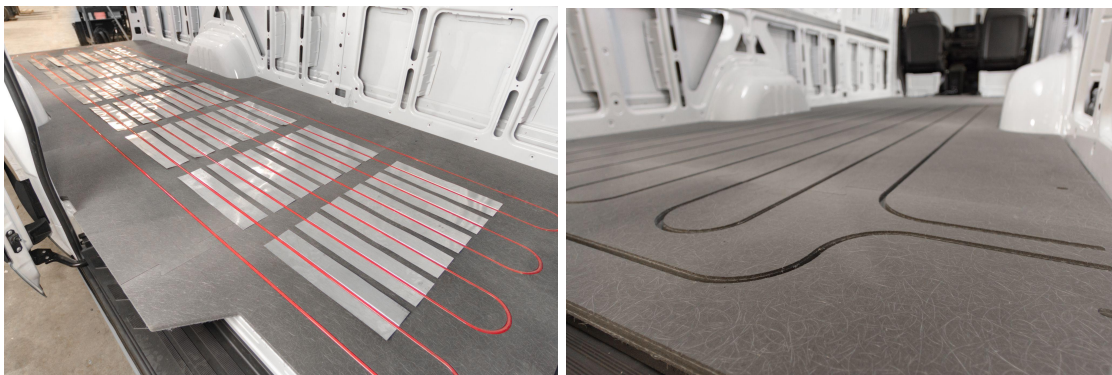
The Columbia Hydronic Heating System is a 4 season heating solution that is the epitome of efficiency and comfort. It is an efficient, all-inclusive solution that allows you to push the boundaries in extreme conditions, providing **plumbing freeze protection, low temperature lithium charging capabilities and cabin heat.**

We use a $\frac{3}{4}$ " fiberglass-reinforced closed cell foam to house the PEX piping and aluminum heat transfer plates. A $\frac{1}{4}$ " overlay is placed on top to provide a smooth surface to accept your finish floor. This overlay is CNC mapped with the positioning of the PEX piping and the aluminum heat transfer plates. These slight engravings allow for builders and DIYers alike to make penetrations through the floor with confidence, mitigating a puncture through the PEX pipe.

Our product is half the finish height of comparable hydronic housings on the market.

The foam substrate we use has the following beneficial properties:

- Up to 60% the weight of plywood
- High density to accept traditional fasteners
- Dimensionally stable
- 0 rot
- 3 x more insulating than plywood, no need for additional insulation
- Sound deadening properties, no need for additional butyl mat



How to Install

Your kit includes the following materials:

- Fiberglass-reinforced closed cell foam (3-4 pieces depending on the length of your vehicle)
- Plywood overlay (3-4 pieces depending on the length of your vehicle)
- Adhesive
- Aluminum heat transfer plates
- 100ft $\frac{3}{8}$ PEX piping
- *Transits Only: Additional support pucks for low points on factory floor*

Step by step installation:

Safety: To avoid contact with fiberglass, wear long sleeves and gloves while handling the foam board. If you are cutting, sanding or removing any material wear a respirator.

1. Wipe down and clean the bare floor of your vehicle with denatured alcohol .
2. Starting from the rear of your vehicle and working your way to the front, lay down the adhesive at the high points of the floor **one panel width at a time**. Squeeze extra adhesive where the seams lay, including in the low points dispensing enough to fill the gaps so that when the adhesive dries, the panel will rest on a flat line of adhesive. You do not need to run adhesive along the face where the two panels seam.
 - a. *Transits Only: Space the pucks evenly in the indents of the floor and near the step by the slider door. This provides additional support on the low points of the floor. You can secure these with the adhesive.*
3. Once all panels have been glued down, make sure that slotted bolt points line up with the corresponding holes. You can adjust by leveraging a screwdriver, but be careful not to damage the threads on the inside.
4. Apply even weight or clamping pressure overnight. Isolate the seams and any high points.
5. The next morning, make sure you don't have any high points at the seams. If there are, you can feather them out with a sander and 80 grit sandpaper. Be careful not to remove too much. **Wear a respirator during this process as you are sanding fiberglass.**
6. Once you have even seams, press in the heat transfer plates, aligning them with the mapped engravings.
7. Leaving 2-feet of excess pipe, press in the PEX. Be careful not to allow any kinks. You can use a rubber mallet or your shoes to press it in.
8. Lay the plywood overlay on top, feeding the PEX through the exit holes. Staple the top layer down using $\frac{3}{4}$ " crown staples. **Be careful not to hit pex lines underneath. You can easily avoid the PEX by following the engravings on the overlay, which map where the piping runs below.**
9. Make all penetrations through the floor before you put your finish floor on to ensure you don't puncture the pex at a later date.

Watch the install video on YouTube: <https://youtu.be/EAjCjTBe8g>

Please contact info@justroamingdesign.com if you have questions. Thank you!