



North East Hydronic Radiant Inc.

Manufacturer of Sunboard Radiant Heat Panels

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Sunboard Pex Panels – Installation Procedure

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Substrate - Plywood Subfloor

Boards – Sunboard Silver, Graphite, Gold (3/8” & 1/2” Pex Tubing)

1. Subfloor to be cleaned – Broom swept and vacuumed, as well as vacant from any debris
2. Subfloor should be dry. If any wetting signs, leaks are to be checked and fixed prior panel installation
3. Subfloor should be inspected to confirm it is rigid and well-secured. Any areas that are squeaky/ improperly secured, are to be re-secured with Wood screws
4. The boards are to be installed on Flat surfaces. When subfloors are uneven or sloped to a certain direction , the Sunboard panels will follow, so when reaching a threshold or adjacent area with different top surface flooring , the floors may not match well (height and/or angle wise)
5. Loop layout to be reviewed, if available, provided by North East Hydronic Radiant or others
6. For the whole tubing layout area, as well as each separate loop area, define the following:
 - a. Manifold/s location
 - b. Loop supply entry point & Loop return exit point
 - c. Leaders’ path to & from the manifold (Above floor, Below floor, thru walls/ceiling etc)
 - d. Make sure that once the boards are installed, all loops can be run to/from the manifold
 - e. Cut 4 inch short stubs of tubing (1/2” or 3/8” Pex tubing) that will be used to align the boards.
Usually, one needs 2 short stubs per board
7. Once the overall job details are clear and defined, it is recommended to take a room/area that is connected to a specific manifold, and work on this area. Once done, it can be repeated with the next manifold on the job.
8. Please follow the steps as below for a selected area
 - a. Get familiarized with Sunboard panel dimensions (see attached Schematic)
 - b. Based on the tube layout, room/area dimensions, and supply/return entry/exit points, select a wall/corner where one can start laying the boards down. Select the area where one can lay whole 2ft x 4ft boards. Leave areas that need cut boards to size, for later on
 - c. Place the boards down and align board channels with 4 inch Pex short stubs. This is the easiest way to line up the boards. It is much harder to line up the boards after placing them on substrate
 - d. For all specific areas, , that cannot fit complete boards, one has to cut boards to size so board pieces can fit room geometry as well comply with tube layout
 - e. Once the room/selected area is covered with aligned board materials, please make sure that this area will be able to accommodate tubing as per layout.
 - f. Pay attention and confirm that entry/exit points of the loop/s, are accessible and well-comply with board array
 - g. Make sure that once this area is covered with boards, it will not interfere with adjacent areas (for example, Manifold # 1 area is covered with boards, however it will not allow running leaders to/from manifold # 2)



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- h. Inspect all boards and make sure boards are well-seated on the subfloor/substrate
- i. Now, Tubing loops can be installed from manifold to the floor area and back to manifold
- j. Tubing layout should specify manifold location, # of loops per manifold, Loop # and Loop length (from/to manifold) including leaders. When laying down tubing and snapping it into channels, review the footage mark on the tubing (usually every 3-5 ft) to make sure that the overall length will be within tubing layout specifications.
- k. Once all loops are installed for a specific area, make sure loops are connected to related manifold/s, where the manifold & related loops are to be pressure tested. If system does not hold pressure, look for a leak either at the tubing in the boards or manifold connections.
- l. The leak should be found and fixed while a second pressure test is to be performed to assure the manifold system and related loops are holding the pressure with no leaks.
- m. Fasten Sunboard panels to plywood subfloor with screws or staples (construction approved)
- n. See attached schematic showing suggested points of fastening