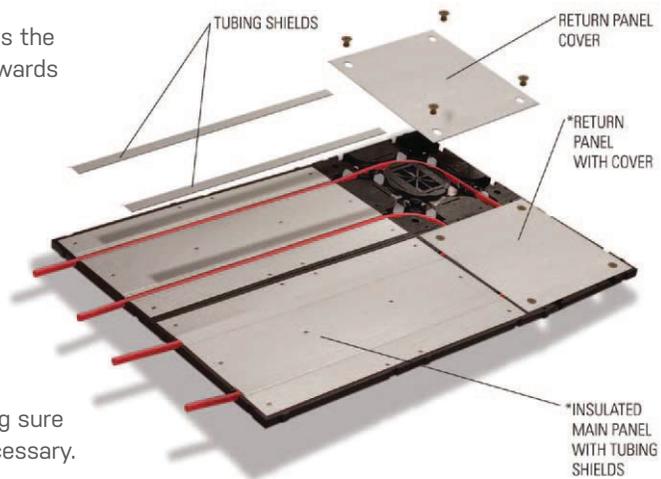


## RETRO PANEL ON EXISTING CONCRETE

*NOTE: Use MrPEX® Design Software to establish heat loss for the structure, and to calculate output, surface temperature, water temperature and tubing/manifold pressure drops.*

- › Review layout and start by identifying the manifold location. If the manifold is located behind a stud wall, cut out the bottom plate and about 1.5" of the sheet rock at the bottom.
- › Make sure concrete floor is level, clean, and knock down or grind off any bumps or high spots that may interfere with the panels. If necessary, do a skim coat of self leveling concrete as per manufacturers instructions.
- › Cover complete area where the panels will be with a 2 mil vapor barrier. It is helpful to hold the vapor barrier in place with tape.
- › Start in a far corner by laying the RetroPanels across the width of the room row by row building the layout towards the manifold.
- › Once the layout is complete for that room, slide the RetroPanel floor assembly so that it has at least 3" around the perimeter of the whole assembly. Typically one or two sides will be bigger than the other two. If there is an uneven spot where there's too much movement. Use tapcon masonry screws as necessary to tighten down the panels.
- › Complete the remaining rooms the same way making sure to follow the design layout. Make adjustments if necessary.



- › To start the tube installation, run the end of the PEX coil under the sheetrock wall and up about 3'-4' up the wall at the manifold location. Keep tubes organized and labeled.
- › Follow the design walking the tubing into the groove of the RetroPanel. Use work boots or other hard-sole shoes to push the tubing to make it seat fully in the groove.

*NOTE: Do not use a rubber mallet as it may dent or deform the metal.*

- › Once back at the manifold, estimate the tubing needed to complete the run, cut it and run it under the wall and tie it together with the supply for that loop.
- › Complete all the loops in the same fashion.
- › Once all the loops are installed, mount the manifold and connect the tubes, perform a pressure test of 40-60 psi for 24 hrs to ensure that the tubing has not been damaged during installation. Leave the pressure on until all construction is completed.
- › Use 3/4" green treated plywood to fill in the areas not covered by the RetroPanels. Plan a 1/4" gap between the panels and the plywood to accommodate any movement. When securing the plywood to the concrete, use tapcon masonry screws or ramsets to adequately secure the plywood.

- › For the area around the manifold, organize the tubes and make sure they lay flat. Use conduit clamps screwed to the concrete if necessary. Then fill in the area with self-leveling patching concrete to the level of the panels and let fully harden over night. Touch up if necessary.
- › Attach covers for the turn-around panels using supplied plastic clips. Place tube shields over the exposed tubing in the straight panels. Use packing tape to secure the tube shields. Make sure the panels are clean prior to taping to ensure adequate adhesion.
- › For carpeting, make sure the carpet installer is aware of where the tubes are when installing the tack-strips. In areas close to the tubing, use construction glue and let harden over night. Install carpet and pad as usual.
- › For tile, it is only recommended to use in smaller areas such as bathrooms or in front of sliding doors etc. Use 1/4" cement backer board or similar. Pay close attention to where the tubes are located before gluing and screwing down the backer board. Follow tile installer recommendations.
- › Only floating wood floors are recommended. Follow wood floor manufacturers recommendations.

