

Radiator Installation Instructions

Horizontal Radiators

1. Radiators are boxed together in as few crates as possible. A box of brackets is included as a separate piece, and it is marked to denote brackets. Inside the crates, each panel is wrapped in foam sheeting. Saving this foam to re-wrap the panel once it is wall mounted will protect it from construction site damage.
2. Each radiator is tagged with a label that indicates the project name, model type, color, connection code, bracket type & quantity and tag number. The tag number will usually designate a floor level and room number for easier placement on the job. Locate each radiator as required.
3. Carefully place each radiator face down on a smooth level surface (e.g. floor or table). Distribute the K12 wall brackets for each radiator. The tag on the radiator indicates the quantity of brackets. Mount the brackets securely on wall studs, spacing them as evenly as possible at 2 to 4 feet apart, with a bracket at least 12 inches from each end of the panel. Allow a minimum of 3 inches below each panel radiator to facilitate cleaning and to assure proper output. For baseboard models, 2 inches or even 1 inch above the floor is permissible with little loss of heat output.
- 4A. **RADIATORS WITH FINS (BACK SIDE OF PANEL)**

With the radiator face down, attach each K12 clip to the fins at the stud location. With the radiator still face down, thread the K45 offset bolts (5/16" carriage bolts) into the bottom threaded positions with a crescent wrench. Once the bolts have cleared the paint away, they should turn easily by hand. Attach the K12 bracket to the wall stud with 2 lag bolts. Hang the panel onto the brackets to determine if the K45 offset bolts are properly adjusted. Check that the panel is level.
- 4B. **RADIATORS (NO FINS ON BACK SIDE OF PANEL)**

With the radiator face down, attach each K12 clip to the radiator's perforated steel mounting channel at the K12 stud locations. With the radiator still face down, thread the K45 offset bolts (5/16" carriage bolts) into the bottom threaded positions with a crescent wrench. Once the bolts have cleared the paint away, they should turn easily by hand. Hang the panel onto the brackets to determine if the K45 offset bolts are properly adjusted. Check that the panel is level.
5. Remove the radiator from the wall, and thread the supply and return fittings into the connections on the panel. The sealing tape or pipe dope used is the installer's choice – make sure the connections are leak tight. One quarter of a turn past hand tight is usually sufficient. Use the foam wrap as a pad for the face of the panel while tightening up the fittings. Each radiator needs to be fitted with a 1/8" air vent prior to startup.
6. **FLOOR POST & PEDESTAL MOUNTED RADIATORS**

When using floor posts, each post must line up with a corresponding K45 offset bolt attached to the back side of the radiator. Using this spacing as a guide, securely fasten each floor post to the floor, using appropriate fasteners. The K12 wall bracket is attached to the floor post, and the K12 clip to the radiator, as described in step #4. The nut and bolt used to attach the K12 bracket to the floor post is to be supplied by others.

For pedestal mounting, the pedestals should be arranged so that the end pedestals sit within 12 inches of each end of the radiator, with the remainder spaced evenly along the radiator's length. Each pedestal should be securely fastened to the floor using appropriate fasteners. Radiators sit on the pedestals, with the "fingers" of the pedestals sticking up between the fins to provide stability.
7. Radiators expand a maximum of 0.016 inch per linear foot of length if heated to 215°F. Piping attached to the radiator must provide the necessary expansion compensation.
8. Once the radiators are installed, the system can be tested to 50 psi. **DO NOT OVER-PRESSURIZE THE RADIATORS** as permanent damage may be done.

**Standard Pressure Panels
Maximum 56 psi**

**Medium Pressure Panels
Maximum 85 psi**

**High Pressure Panels
Maximum 128 psi**

When the system has been shown to hold 50 psi maximum air, the piping and radiators can be filled with water. As water fills the system and radiators, air is forced to the vent fittings. Vent as much air as possible before turning on the circulating pump(s).

9. When the system is filled, operate the circulator(s) to force the remaining air to the high points of the system. With the system pressurized, turn off the circulator(s) to vent the panels. Each radiator should be individually bled of air. Once cold venting has been completed, heat the system to design temperature and repeat the venting procedure as many times as necessary to remove all air from the system.