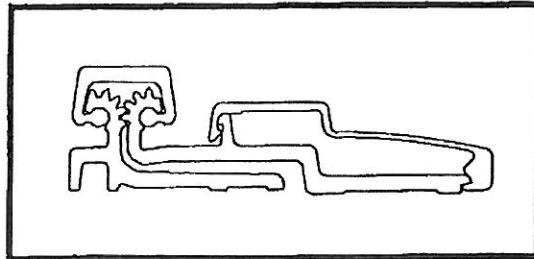


Installation Instructions for ROTON U.L. Fire-Rated Hinge Studs

Models 780-210 and 780-210HD (1/32" inset) are full-surface hinge models. Use the following instructions when installing these hinges.



780-210/210HD

The fire-rated hinge fastener package contains four (4) stainless steel studs. **To comply with U.L. requirements, all four (4) studs must be used.**

1. Install the hinge in accordance with the standard installation instructions for each model, allowing a 1/8" door-to-frame gap.
2. Using the chart below to locate the holes, mark four horizontal centerlines. The measurements are from the top of the hinge to the centerline of the first hole. The second, third and fourth holes are measured from centerline to centerline. Mark a vertical centerline 5/8" in from each face of the door. Drill a 3/4" dia. hole at each intersection. Trim out the metal left between each horizontal pair of holes to create a 3/4" x 1-1/4" slot in the door edge.

Hinge Length	79"	83"	85"	95"	119"
Hole #1	13-9/16"	13-9/16"	13-9/16"	13-9/16"	13-9/16"
Hole #2	15-1/8"	15-1/8"	15-1/8"	21-1/4"	25-3/8"
Hole #3	21-5/8"	25-5/8"	27-5/8"	25-3/8"	41-1/8"
Hole #4	15-1/8"	15-1/8"	15-1/8"	21-1/4"	25-3/8"

3. Using the face of the frame as the reference point to locate the holes, drill and tap four (4) holes in the frame rabbet in the same locations shown above for the 12-24 studs, 5/8" in from the face of the frame when installing on 1-3/4" thick doors. For any other door thickness, please consult the sales office for dimensioning information.
4. Insert one stud into each of the four (4) frame holes drilled in 3.) above. Tighten securely.
5. Close the door slowly to assure that the studs are properly aligned. Any interference can be cleaned up with a "rat-tail" file.

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