



Installation, Operation & Maintenance Instructions for the PRIER P-RH4 Sanitary Roof Hydrant and Universal Bracket

Build With Purpose

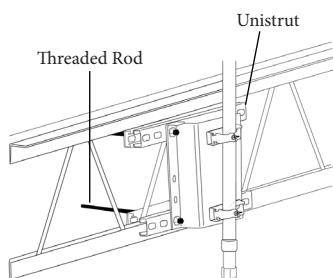
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The PRIER Heavy Commercial Sanitary Roof Hydrant provides a wide variety of installation options suitable for all types of roofs and structures. The PRIER Universal Roof Hydrant Mounting Bracket (P-RMB) attaches to a structural member of the building, not simply the skin of the building; this provides a stronger and safer installation. Additionally, the hydrant is installed through a small single hole penetration in the roof, ensuring a simple installation and years of leak-free operation. The PRIER design is adjustable for all types of roofs up to a 2/12 pitch.

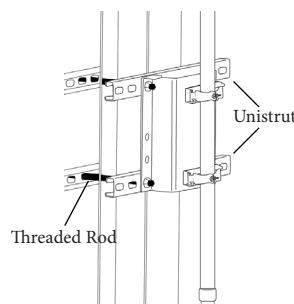
Depending on your installation, standard building materials may be required, including Unistrut, threaded rod, and additional fasteners.

TYPICAL INSTALLATIONS

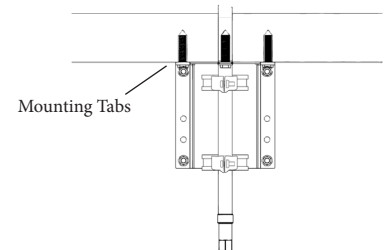
Truss (Purlin) Installation



I-Beam (Column) Installation



Concrete Roof Installation



BRACKET INSTALLATION INSTRUCTIONS

1. Select a location for the installation of your PRIER Roof Hydrant. A good location is near rooftop equipment requiring water and within proximity of structural members under the roof.
2. Determine the type of installation you will use to install the Universal Roof Hydrant Mounting Bracket (P-RMB) to the structure of the building. Typical installations are shown above. The P-RMB can be installed on any of the structural supports on the building. * Some installations may require additional strut, threaded rod, and fasteners.
3. If mounting to a concrete roof, assure that the vertical mounting tabs are in the “UP” position.
4. Mount the P-RMB to the desired structure.

Truss (Purlin) Installation Instructions:

1. For a truss installation, you will need to use strut and fasteners that are not provided with the P-RMB.
2. Cut two sections of the strut that are approximately 24” in length, making sure the strut is long enough to cover enough of the webbing to ensure a secure connection. Using threaded rods, secure the pieces on either side of the truss (purlin).
3. Mount the P-RMB to the struts using the ½” bolts provided.

I-Beam (Column) Installation Instructions:

1. For a column I-beam installation, you’ll need to use strut, threaded rod, washers and nuts that aren’t provided with P-RMB.
2. Cut four sections of the strut that are approximately 8” longer than the width of the I-beam. Using threaded rods, secure the strut pieces on either side of the I-beam.
3. Mount the P-RMB to the struts using the ½” bolts provided.

Concrete Roof Installation Instructions:

1. For a concrete roof, use ½” concrete wedge anchors, not provided with the P-RMB.
2. Using the top tabs on the P-RMB as a template, mark the concrete where the holes for the concrete wedge anchors should be drilled. Drill and install concrete wedge anchors per manufacturer’s instructions.
3. Mount the P-RMB to the wedge anchors installed in step two and torque to manufacturer requirements.



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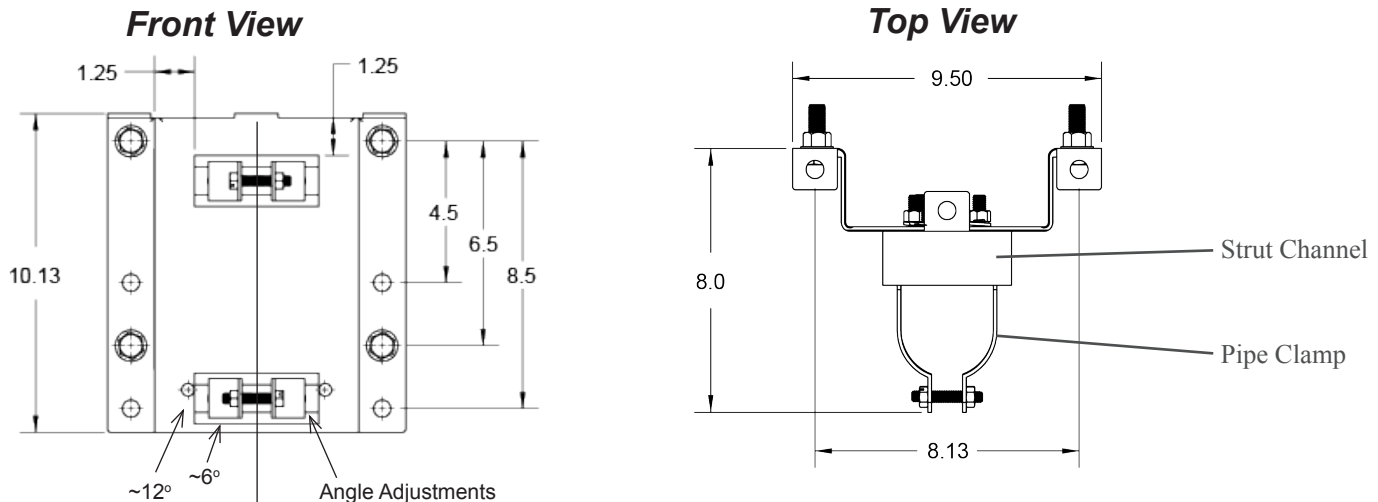
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ROOF PITCH OPTIONS

The Sanitary Roof Hydrant should be perpendicular to the floor (plumb) for proper operation. These adjustments have been accounted for in the P-RMB design.

The angle of the roof hydrant can be adjusted by changing the position of the strut channel according to the pitch of the roof. Simply loosen or remove the bolt securing each of the strut channels to the P-RMB.



HYDRANT INSTALLATION INSTRUCTIONS

1. Loosely install the pipe clamps and mark the roof directly above the pipe clamps. Use a laser pointer, weight and string or scrap pipe through the pipe clamps to ensure the hole in the roof is marked in the proper location. Using a long $\frac{1}{4}$ " drill bit, drill a small pilot hole through the roof. Insert a rod through the roof extending through the loosely mounted pipe clamps to ensure proper location. If there is misalignment, re-drill pilot hole. Drill a $3 \frac{5}{8}$ " hole through the roof at the marked location.
2. If using an adapter to connect to the 1" Female NPT inlet, install this adapter on the ground before inserting the hydrant into the drilled hole. Use some form of thread sealant when installing adapter. When tightening the adapter to the hydrant, use the hex provided at the inlet of the hydrant to prevent damage. IMPORTANT: When tightening into PVC plastic, be careful to not over tighten and apply just enough torque to seal, typically finger tight plus 1 to 2 turns.
3. Install the hydrant from the rooftop through the hole drilled in step one. If a one-man-install, let the hydrant rest at the cast iron cap or use a $2 \frac{1}{2}$ " riser clamp mounted directly below the cast iron cap to set the hydrant height. If a two-man-install, the hydrant can be held to the correct height while the pipe clamps are tightened underneath. Make sure the bottom of the cast iron cap is 1-2" above the roof line, as marked by the label, for future hydrant servicing.
4. Secure the hydrant to the P-RMB by tightening the bolts through the pipe clamps, make sure to rotate the hydrant to the desired orientation before tightening. In some cases, a pipe clamp might need to be tightened around the brass canister. In this case wrap the canister with thin metal or thick tape to increase the diameter by $\frac{1}{8}$ " (about $2 \frac{7}{8}$ " diameter.)
5. Make the inlet water connection using the 1" Female NPT inlet or the adapter installed in step 2. IMPORTANT: Be careful to not over tighten the 1" NPT connection into the PVC plastic inlet and apply just enough torque to seal, typically finger tight plus 1 to 2 turns.
6. There is no need to install a drain line to the hydrant as water is drained and stored in a sanitary canister in the heated portion of building.



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ROOF SEAL

Roof penetration should be sealed by a roofing contractor with acceptable roofing construction methods. PRIER recommends either a poured in place pitch box, leaded roof flashing, or roof putty sealed by the roofing contractor, as they would for any other rooftop pipe penetrations. As mentioned previously, the bottom of the cast iron cap needs to be 1-2" above the roof line as marked by the label and a seal must be made around the PVC plastic not cast iron cap for ease of future hydrant servicing.

OPERATION

Unlike many roof hydrants, this sanitary hydrant is designed so that a drain line installation is not required. When the valve is turned to the off position, water from the valve drains into the sanitary canister below the roof line.

The head is marked "L" for Low Flow and "H" for High Flow. Close the hydrant handle slightly to reduce flow or close completely to stop flow and re-open the sanitary canister. This allows water to drain and be stored below the roof line.

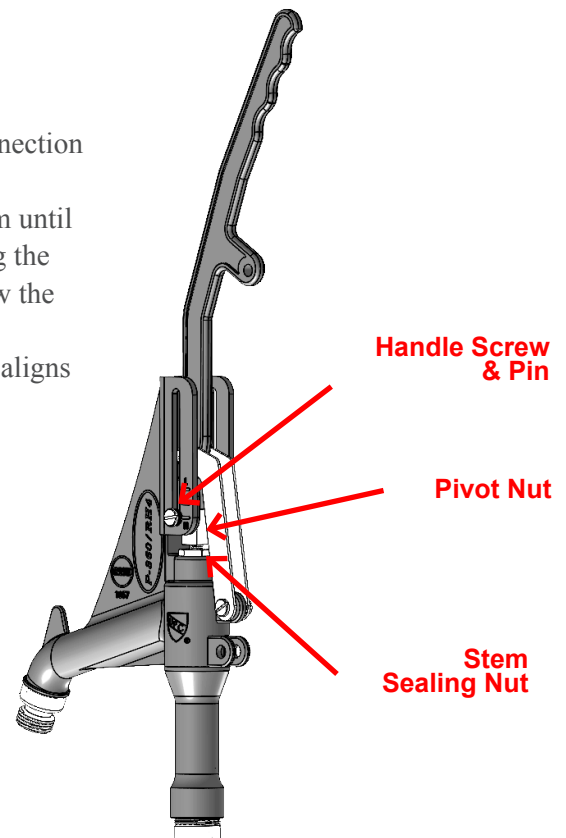
*Water stored in the sanitary canister is the first to exit when re-opening the hydrant.

MAINTENANCE (TROUBLESHOOTING)

This hydrant does NOT have to be winterized. Drain water stored in the sanitary canister is pumped back into the galvanized pipe and hydrant head before flowing. PRIER's sanitary roof hydrant is fully maintainable from the roof without removing the cast iron head from the galvanized pipe.

If the hydrant has poor flow, the stem travel may need to be adjusted:

1. Turn off water to the hydrant and fully open hydrant.
2. Remove the handle pin screw and handle pin at the handle stem connection to disengage the handle.
3. Unscrew the Pivot Nut a few revolutions and press down on the stem until it does not go any further. Ensure that the Pivot Nut is not contacting the Stem Sealing Nut. If there is no space between the two nuts, unscrew the Pivot Nut further.
4. Screw the Pivot Nut back down so the through-hole in the pivot nut aligns with the bottom of the slot in the hydrant head.
5. Reinstall the handle pin and handle screw.





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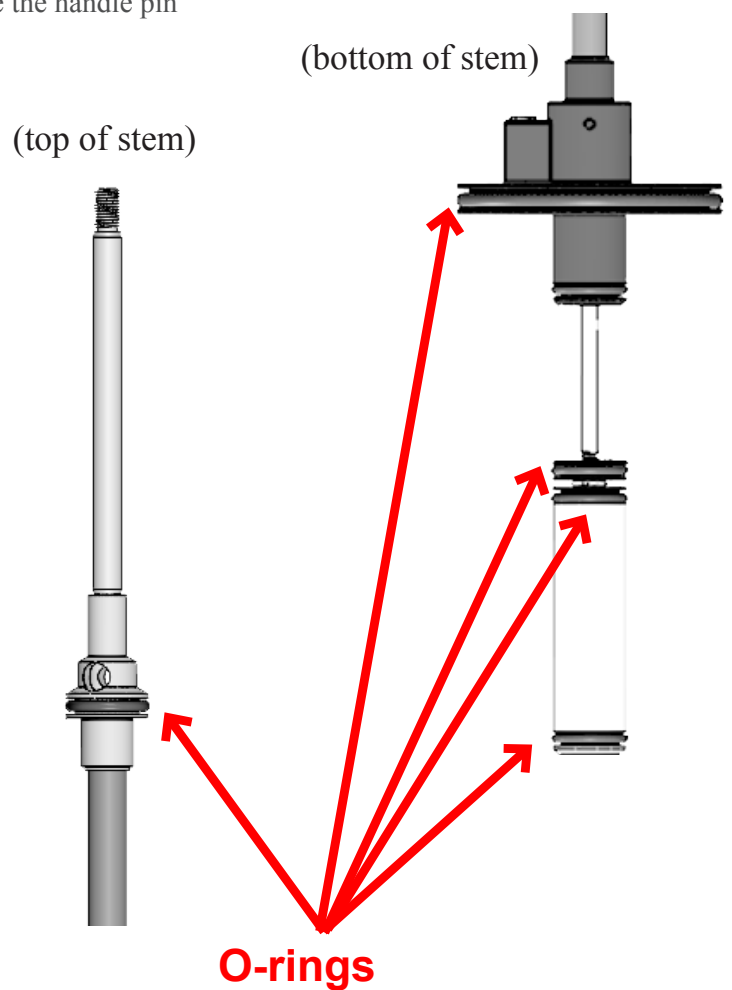
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MAINTENANCE (CONTINUED)

If water leaks out where the galvanized pipe connects to the head during normal operation or the hydrant does not shut off when closed, it may be necessary to remove the stem and replace the seals:

1. Turn off water to the hydrant.
2. Unscrew the cast iron Pipe Cap from the PVC pipe of the hydrant that is below the roof line.
3. Carefully pull the galvanized pipe, head and inner stem straight out from the below roof line portion of the hydrant.
*The stem below the roof line is around 2' long so pull straight up to avoid damaging the stem.
4. Once the stem is removed, cover or plug the opening to the below roof portion of the hydrant to prevent any debris from entering the bottom of the hydrant.
5. Lay the stem and body assembly on a flat surface. Remove the handle pin screw and handle pin to disengage the handle.
6. Unscrew the Pivot Nut completely and pull the stem assembly from the bottom of the hydrant out of the body and head.
7. Replace all o-rings using the seal kit. Lubricate the o-rings with a silicone-based plumber's grease.
8. Reinstall the stem into the head. Reinstall the Pivot Nut but leave the handle pin and screw apart until later.
9. Apply threaded sealant to the threads on the PVC pipe protruding from the roof.
10. Carefully install the assembly straight into the portion of the hydrant below the roof line.
11. Tighten the cast iron pipe cap using the hex provided.
12. Follow the stem travel adjustment procedure on the previous page to correctly set the stem length.
13. Turn on the water and test hydrant for leaks and proper operation.



If water is leaking from the stem sealing nut on the top of the head:

1. Remove the handle pin screw and handle pin to disengage the handle.
2. Remove the Pivot Nut completely.
3. Remove the Stem Sealing Nut and replace the two o-rings, one outside and one inside. Lubricate o-rings.
4. Reinstall components, refer to the stem travel adjustment above when reinstalling the Pivot Nut.