Model REL-PIW-388 Post Indicator, Wall-Type

cULus Listed, FM Approved

Product Description

Reliable Model REL-PIW-388 Wall Post Indicators are cULus Listed and FM approved for use with NRS (Non-Rising Stem) gate valves equipped with a crane nut, to indicate valve position (open, shut, or in-between) for a water supply valve to a fire protection system. The Wall Post Indicator is suitable for valves sized 2-1/2" to 12". The Wall Post Indicator's critical internal components are manufactured from corrosion-resistant alloys and pre-lubricated with an anti-seizing compound for use in an outdoor environment.

Maintenance

The owner is responsible for maintaining the fire protection system in proper operating condition. Any system maintenance or testing that involves placing a control valve out of service will eliminate the fire protection that is provided by the fire protection system.

The Reliable Wall Post Indicator shall be periodically given a thorough inspection and test. NFPA 25, "Inspection, Testing, and Maintenance of Water Based Fire Protection Systems" provides minimum maintenance requirements. Inspect the wall post indicator for corrosion, damage, and wear as required and repair or replace as necessary. Increase the frequency of inspections when the wall post indicator is exposed to corrosive environmental conditions or chemicals.

If the maintenance program determines that re-application of lubricant to the operator screw and carrier nut is required, a silver anti-seize compound such as Loctite®* LB 8150 or equivalent should be used. This lubricant should be applied to both the external thread of the operator screw and the internal thread of the flag carrier nut. Anti-seize may also be used on fasteners at the discretion of the installer.

In the event the wall post indicator becomes inoperable, a repair kit (Part Number 7M99003220) that includes the cap, operator screw, and flag carrier nut with flags is available (see Figure 2). Removal of the non-functional assembly and replacement utilizes installation steps 4, 5, 7, 8, 9, and 10.

Guarantee

For Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

*Loctite® is a registered trademark of Henkel Corporation.

Ordering Information

Specify the following when ordering:

Reliable Model REL-PIW-388 Post Indicator, Wall-Type

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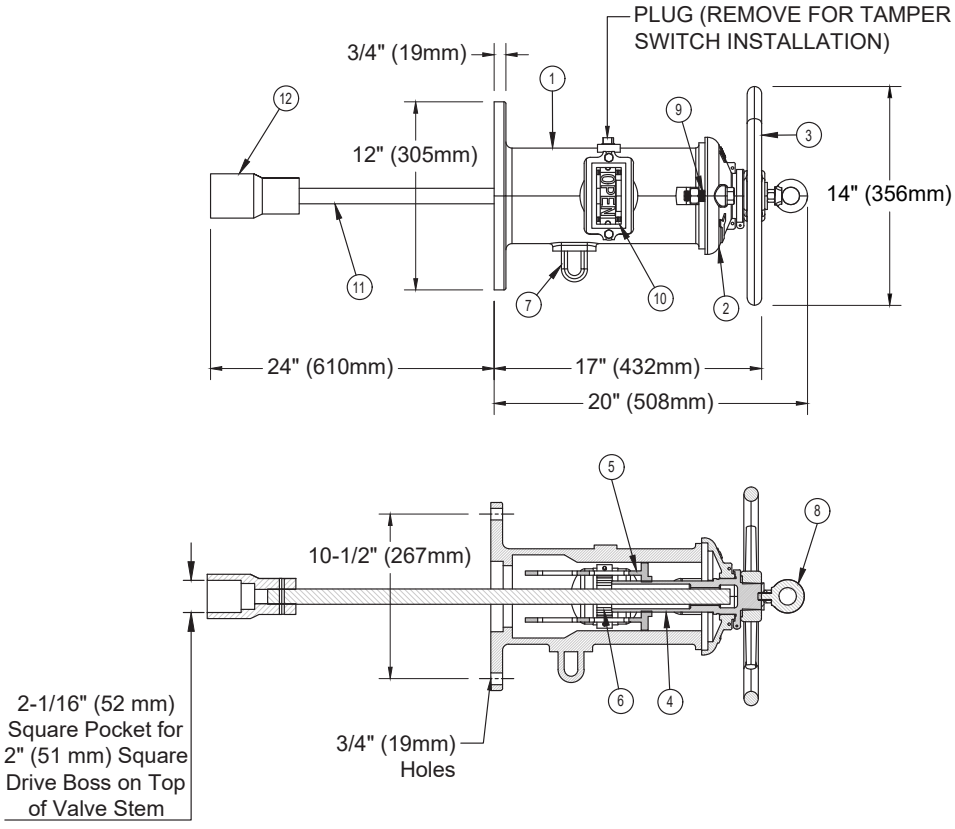
Technical Specifications
Valve Compatibility:
2-1/2" to 12" Reliable L388 NRS Gate Valves or equivalent equipped with a crane nut

Material Specifications
Body: ASTM A536 Ductile Iron
Cap: ASTM A536 Ductile Iron
Handwheel: ASTM A536 Ductile Iron
Operator Screw: ASTM A351 Grade CF8 (equivalent to AISI 304 Stainless Steel
Carrier Nut for Valve Position Flags: ASTM A351 Grade CF8 (equivalent to AISI 304 Stainless Steel)
Valve Position Flags: ASTM B108 Aluminum Alloy
Body Lifting Ring: ASTM 307B Carbon Steel for Fasteners
Handwheel Lifting Eye Bolt: Zinc-Plating ASTM A105
Cap Retention Nuts/Bolts: Zinc-PLated ASTM A105
Window Glass Material: Lexan-UM Polycarbonate
Operating Rod: ASTM A830 (equivalent to AISI 1045 Carbon Steel)
Crane Coupling: ASTM A536 Ductile Iron

Listings and Approvals
cULus Listed
FM Approved

Applications
Indoor and outdoor use

Model REL-PIW-388 Post Indicator, Wall-Type Dimensions and Components **Figure 1**

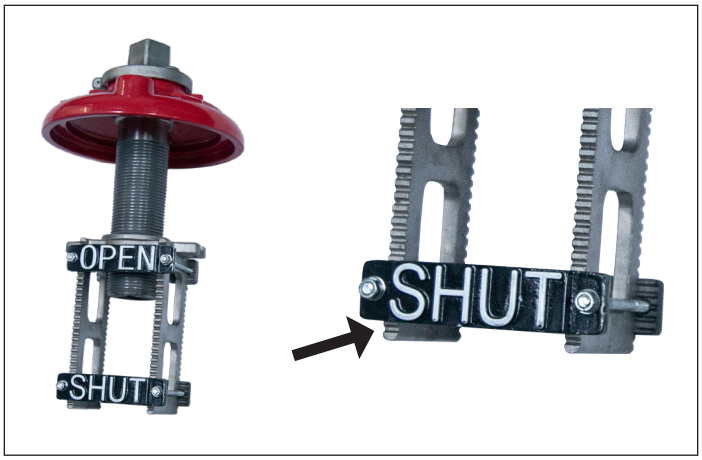


Item Number	Item Description
1	Body
2	Cap
3	Handwheel
4	Operator Screw
5	Carrier Nut for Valve Position Flags
6	Valve Position Flags
7	Body Lifting Ring
8	Handwheel Lifting Eyebolt
9	Cap Retention Bolts/Nuts
10	Window Glass
11	Operating Rod
12	Crane Coupling

Flag Position **Table A**

Nominal Valve Size in (mm)	Center-to-Center Distance Between Flags in (mm)	Notches Visible Between Flags
2-1/2 (65)	1-9/16 (40)	3
3 (80)	1-15/16 (50)	5
4 (100)	2-3/8 (60)	7
6 (150)	3-9/16 (90)	13
8 (200)	2-3/8 (60)	7
10 (250)	2-3/4 (70)	9
12 (300)	3-9/16 (90)	13

Proper "Shut" Flag Position **Figure 2**



Installation Instructions

1. Ensure the NRS valve is in the full open position. This must be verified visually to ensure that the gate is fully recessed into the valve body and not by opening the valve until the handwheel locks. Opening the valve until the handwheel locks will cause the flag positions to be incorrect when the wall post is installed.

2. Drill a hole in the wall at the mounting location, centered on NRS valve stem. Hole diameter must be between 4-3/4" (120 mm) and 7" (180 mm).

3. Insert the factory-assembled operating rod assembly (operating rod, cotter pin, and crane coupling) through the hole in the wall and fully engage with the operating nut on the NRS valve. With the crane coupling fully engaging the operating nut of the NRS valve, measure and mark the operating rod at a dimension of 11-1/2" to 12" from the face of the exterior wall where the post indicator will be installed.

4. Remove the two nuts and bolts that secure the cap assembly and remove the cap assembly (This may be done without removing the handwheel at the discretion of the installer). The cap assembly includes the cap, operator screw, carrier nut that holds the valve position flags, and the flags. Notice that the operator screw threads have been lubricated with a silver anti-seize compound (Loctite LB-8150 or equivalent). Place the cap assembly to the side taking care to prevent contamination of the lubricated operator screw.

5. Saw cut the operating rod at the mark made in step #3. Take care to remove any burrs created by the sawing process. Re-insert the operating rod through the hole in the wall and onto the NRS valve operating nut.

6. Place the body of the wall post indicator against the wall, passing the cavity in the middle of the body over the protruding operating rod. Center the wall post indicator body on the holes in the body on the wall in step 7.

7. The bolt holes for installing the wall post indicator should be marked on the wall in 4 places, equally spaced, on a bolt circle of 10-1/2" (267 mm) diameter that is centered on the stem clearance hole in the wall drilled in step #2. Once marked, bolt holes should be drilled using a 3/4" (19 mm) drill bit.

8. The correct position of "OPEN" and "SHUT" valve position flags depends on the size of the valve intended to be operated by the wall post indicator. From the factory, the "SHUT" flag is installed at the bottom of the carrier nut with a single notch between the bottom of the flag and the bottom of the carrier nut as shown in Figure 2; the "OPEN" flag is similarly installed at the top of the carrier nut with a single notch between the top of the flag and the top of the carrier nut. For a given size of valve, there are numerous possible correct flag installations that will correctly display the position of the NRS valve operated by the wall-post indicator. The most critical part of the wall post indicator installation is ensuring that the space between the center of the two flags is correct for the size of valve being used with the wall-post indicator. For each valve size, Table A shows the required distance between the bolts on the flags in addition to the number of notches between the flags. The first flag to be adjusted is at the discretion of the installer, but when both flags are installed in their final position there must be the appropriate distance/number of notches visible as shown in Table 2, and there must be at least 1 notch visible above the "OPEN" flag and 1 notch visible below the "SHUT" flag. The nuts that retain the flags on the carrier nut may be loosened/tightened using a 5/16" (8 mm) size socket or wrench. When installing the flags in their final position, the nuts shall be tightened in an equal and alternating fashion to a torque of 16 to 22 ft-lb (22 to 20 N-M). **Note:** If the valve was opened by turning the hand wheel until it locks up, one additional notch may be required in flag spacing in addition to the number of notches shown in Table A.

Installation Instructions (cont.)

9. With the wall-post indicator body sitting on the ground, re-install the cap assembly taking care to ensure that the alignment features on the flag carrier nut are properly aligned with internal guide features in the wall-post indicator body. At the installer's discretion, it may be helpful or necessary to remove the window glass to help align the operating rod to the square cavity in the operating screw of the cap assembly during the next step. Operate the handwheel until the "OPEN" flag is visible and centered in the window glass. Remove the cap assembly and set it to the side, ensuring that the handwheel and operator screw do not turn and misalign the "OPEN" flag position.

10. Safely install the body of the wall-post indicator without removing the operating rod from the wall by sliding the cavity in the middle of the body over the protruding portion of the stem assembly and lining up the bolt holes in the body with the corresponding bolt holes on the wall. Securely mount the wall-post indicator body to the wall with installer supplied fasteners using the four 3/4" (19mm) holes provided in the wall-connection side of the body using an appropriate installation procedure and torque values for the fasteners selected. At the installer's discretion, it may be helpful or necessary to remove one or both of the window glass pieces to help align the operating rod into the cap assembly.

11. During re-installation of the cap assembly, care should be taken to ensure that the alignment features on the flag carrier nut are properly aligned with internal guide features on the wall post indicator body (these features are a set of "tongues" on the interior of the body and a set of "grooves" on the exterior of the flag carrier nut) and that the operating rod is properly inserted into the share-shaped pocket in the bottom of the cap assembly's operator screw. A removed window glass will allow the operating rod to be aligned in the center of the body, to enable insertion of the operating rod into the square cavity in the operator screw that is part of the cap assembly as the cap asembly is installed. This may require a second person to position the operating rod in the center of the body.

12. When the cap assembly is fully engaged with the operating rod and the wall post indicator body, verify that the "OPEN" flag is visible through the window glass. If the "OPEN" flag is only partially visible through the window glass, it likely means that the handwheel has been turned slightly during installation or that another component is misaligned. Remove the cap assembly, check alignment of all mating features and flag positions, and reinstall (it may be helpful to remove the handwheel from the cap assembly to prevent accidental rotation of the operator screw). When the "OPEN" flag is fully visible through the window glass, reinstall and tighten the cap assembly bolts and nuts hand tight, less than 15 ft-lb (20 N-m).

13. Fully close and open the valve three times using the wall post handwheel to verify that the valve can be opened to full open and full close positions without any binding or seizing of the wall-post indicator and that the "OPEN" and "SHUT" flag positions visible in the window are correct at the corresponding positions of the valve gate. Make adjustments to the wall-post indicator flag positions if necessary.

14. Tighten cap assembly bolts and nuts equally to secure the cap assembly to the wall-post indicator body using a torque range of 47 to 52 ft-lb (63 to 71 N-m).

15. Re-install the window glass if it was previously removed. Install tamper switch (if required for this application) by removing the plug in the side of the wall-post indicator body as shown in Figure 1.