



Vertical Indicator Post

Model No.: LF-IP555

Installation, Operation & Maintenance



GENERAL DESCRIPTION

Features

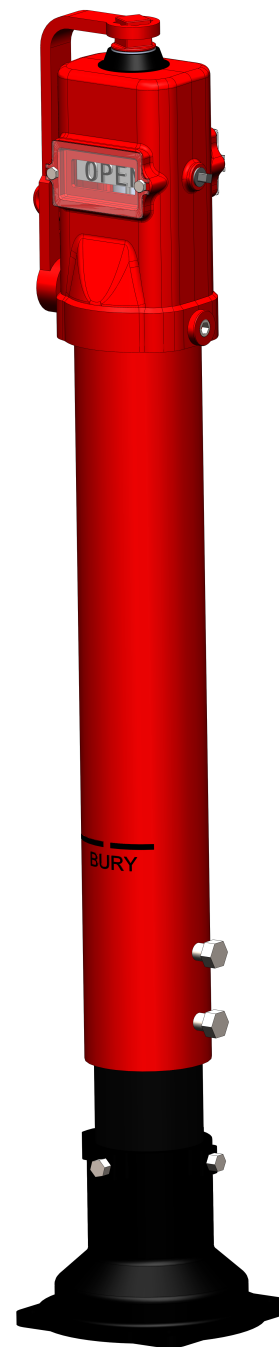
Vertical Indicator Posts are designed to operate non-rising stem gate valves, which are used to control an underground water supply to automatic sprinkler, water spray deluge, foam-water deluge, or standpipe fire protection systems. They permit operation of underground valves while providing an above ground visual indication as to whether the valves are open or shut, in addition to a means for locking the valves in a particular position. Indicator posts provide for valve operation from outside of the protected property and, therefore, the opportunity for more prompt valve operation in an emergency situation.

Model LF-IP555 Indicator Posts feature a telescoping Stem that can be adjusted to its final position without field cutting of the Stem. The telescoping Stem also permits: easier setting of the "OPEN" and "SHUT" Target Plates (before the Post is extended to its final position); easier adjustment of the post length during the initial installation; and, ready re-adjustment of the post length, if there is a modification in the location of the final grade.

Indicator Posts will accommodate 4"-14" post indicator valves (PIV) requiring 14 to 43 turns to open and that are listed or approved for fire protection system service. Indicator Posts are provided "Standard Order" for use with left hand opening valves; however, they may be "Special Ordered" for use with right hand opening valves or converted in the field for use with a right hand opening valve by changing the left hand opening Post Head to a right hand opening Post Head.

Indicator Posts are designed to withstand up to 900 ft. - lbs. of operating torque.

Indicator Posts accept direct attachment of a 1/2" NPT mounting electric supervisory switching device which can be used by proprietary and central stations to monitor the open position of the Indicator Post. Detailed information on attaching a UL/FM approved Supervisory Control Valve Switch (supplied by customer) is given in the Technical Data section.



Technical Data

The LF-IP555 Indicator Post bolts directly onto the stuffing box flange of 4"-12" post indicator valves (PIV) employing 2" operating nuts. The Bell attaches to a PIV post plate having four 3/4" bolt holes spaced at 90° on a 10-1/2" diameter bolt circle. Mounting bolts and nuts are provided with the post.

The LF-IP555 Indicator Post has a Threaded Sleeve which can readily accommodate field positioning of the “OPEN” and “SHUT” Targets for 4”-14” PIVs requiring 14 to 45 turns to open.

The LF-IP555 Indicator Post is available in six different “Order Lengths”. Each “Order Length” provides for adjustment of dimension “L” in Figure B, as indicated in Table 3. The Post Head can be adjusted relative to the Lower Barrel by using the two Set Screws located at the base of the Upper Barrel. The Stem requires no field cutting within the indicated adjustment range of each “Order Length.”

ORDER LENGTH DETERMINATION

To determine which “Order Length” is necessary (I.E., “A”, “B”, “C”, “D”, “E”, “F”, or “G”) for a given trench depth, first calculate dimension ‘L’ as follows, and then select the appropriate “Order Length” from table 3 that will best accommodate the minimum required length ‘L’.

$$'L' \text{ (REQ D)} = 'TD' - 'B' - 'C'$$

Refer to table 4a and 4b for nominal trench depths.

Min and Max Trench Depth determination:

The Min and Max Trench Depths which will be accommodated by specific “Order Length” can be calculated as follows by using the Min and Max ‘L’ dimensions given in table 3.

$$'TD' \text{ (min)} = 'L' \text{ (min)} + 'B' + 'C'$$

$$'TD' \text{ (max)} = 'L' \text{ (max)} + 'B' + 'C'$$

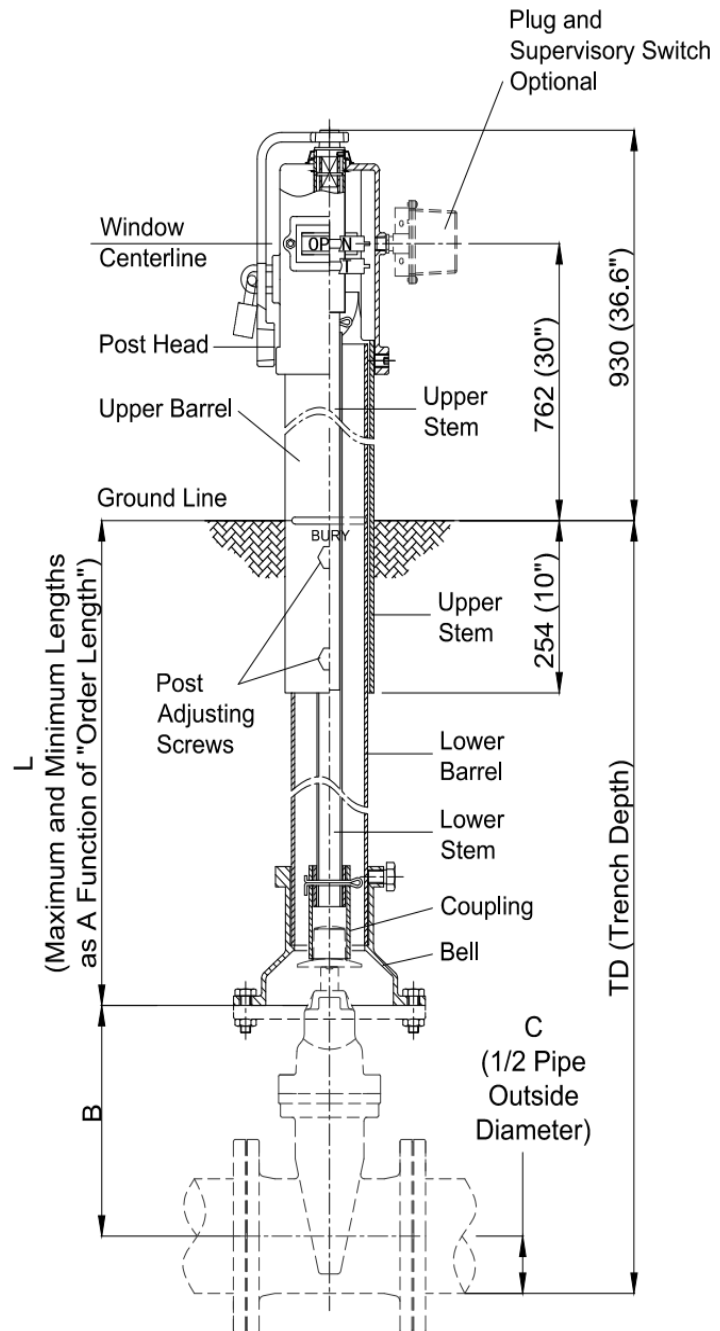


Fig. B Nominal Installation Dimensions

For Model LF-IP555

TABLE 1 Dimension B
Resilient Wedge Post Indicator Valves

Valve Size	Dimensions in inches	Turns to Open
	B	
4"	9.88	12.5-14
6"	13.98	19-20.5
8"	17.36	25-26.5
10"	21.06	31.5-33
12"	24.30	37.5-39
14"	28.62	43-45

TABLE 2 Dimension C
1/2 of Pipe O.D.

Pipe Size	Dimensions in inches
	C
4"	2.40
6"	3.45
8"	4.53
10"	5.55
12"	6.60
14"	7.65

TABLE 3 Dimension L
Adjustment Range

Order Length	Min.	Max.
A	18.25"	39.50"
B	36.00"	60.50"
C	57.00"	81.50"
D	78.00"	102.50"
E	99.00"	123.50"
F	120.00"	144.50"
G	148.50"	168.00"

TABLE 4a Nominal Trench Depths
Resilient Wedge Post Indicator Valves

Valve Size	"Order Length" A		"Order Length" B		"Order Length" C	
	Min.	Max.	Min.	Max.	Min.	Max.
4"	2'-7"	4'-4"	4'-1"	6'-0"	5'-10"	7'-9"
6"	3'-0"	4'-9"	4'-6"	6'-6"	6'-3"	8'-3"
8"	3'-5"	5'-1"	4'-10"	6'-10"	6'-7"	8'-7"
10"	3'-9"	5'-6"	5'-3"	7'-3"	7'-0"	9'-0"
12"	4'-2"	5'-10"	5'-7"	7'-7"	7'-4"	9'-4"
14"	4'-7"	6'-3"	6'-1"	8'-0"	7'-10"	9'-9"

TABLE 4b Nominal Trench Depths
Resilient Wedge Post Indicator Valves

Valve Size	"Order Length" D		"Order Length" E		"Order Length" F		"Order Length" G	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
4"	7'-7"	9'-6"	9'-4"	11'-3"	11'-1"	13'-0"	13'-5"	15'-0"
6"	8'-0"	9'-11"	9'-9"	11'-9"	11'-6"	13'-6"	13'-10"	15'-5"
8"	8'-4"	10'-4"	10'-1"	12'-1"	11'-10"	13'-10"	14'-3"	15'-10"
10"	8'-9"	10'-9"	10'-6"	12'-6"	12'-3"	14'-3"	14'-8"	16'-2"
12"	9'-1"	11'-1"	10'-10"	12'-10"	12'-7"	14'-7"	15'-0"	16'-7"
14"	9'-7"	11'-6"	11'-4"	13'-3"	13'-1"	15'-0"	15'-5"	17'-0"

PART NAME & MATERIAL

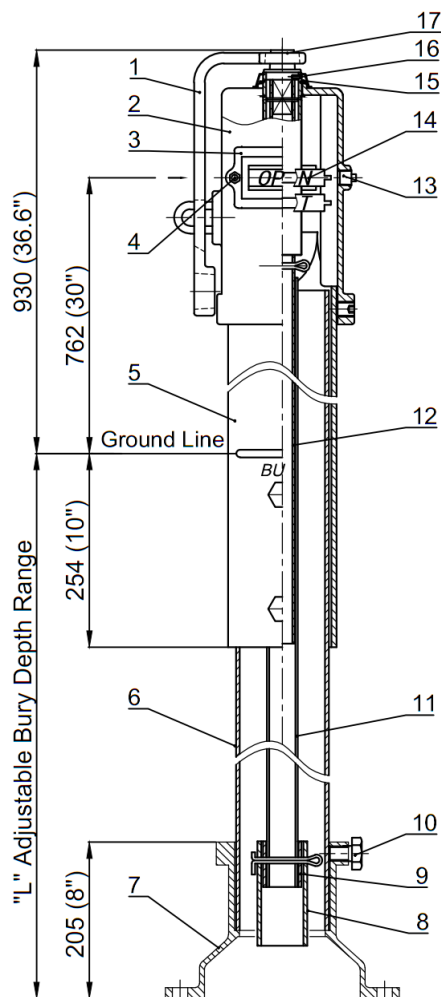


Fig. C LF-IP555

TABLE 5 F0800-IP Part Name & Material

No.	Parts	Material	ASTM Specification
1	Locking Wrench	Ductile Iron	A536 Grade 65-45-12
2	Post Head	Gray Cast Iron	A126 Class B
3	Window	Molded Plastic	
4	Bolt	Carbon Steel	A307 Grade B
5	Upper Barrel	Carbon Steel	A53 Grade B
6	Lower Barrel	Carbon Steel	A53 Grade B
7	Base Flange	Gray Cast Iron	A126 Class B
8	Adapting	Carbon Steel	A53 Grade B
9	Coupling	Carbon Steel	A53 Grade B
10	Bolts	Carbon Steel	A307 Grade B
11	Lower Stem	Carbon Steel	A513
12	Upper Stem	Carbon Steel	A513
13	Plug	Malleable Iron	A47 Grade 22010
14	Target Plate	Aluminum Alloy	B62
15	Snap Ring	Stainless Steel	A276 Type 304
16	Weather Cap	Poly Ethylene	
17	Operating Nut	Ductile Iron	A536 Grade 65-45-12

- Operating Nut / Post Head / Upper Barrel / Wrench: Red Enamel Coating RAL 3000
- Lower barrel: Black Epoxy Coating, Interior and Exterior
- Bell: Black Fusion Bonded Epoxy Powder Coated (FBE)

Installation Instructions

OPEN / SHUT Post Targets must be positioned for use with the valve size being installed and number of turns to open that size PIV. Improper positioning of the Targets can result in an erroneous indication of the open or shut position of the valve.

NOTE: The Targets for the LF-IP555 Vertical Indicator Post have been factory set for use with a 6" gate valve.

Installing the Post

1. Check the total number of turns

2. Completely close the valve.

3. Loosen the POST HEAD bolt (9, 10), and lift the POST HEAD/UPPER STEM assembly.

4. Remove the Wrench (25) or Hand wheel (21), pry off the Weather Cap (2), remove the Retaining Ring (3), and then lift the Post Head clear of the Upper Stem Assembly.

5. Position the Targets per Figure D. Set "SHUT" target first, set "OPEN" target. (Top surface of target thread with valve size reference mark).

6. Replace Retaining Ring (3), Weather Cap (2), and place POST HEAD/UPPER STEM assembly onto the UPPER BARREL. Tighten the POST HEAD bolt (9, 10) with a torque of 40 to 60 ft. lbs.

7. Using the Wrench (25) or Hand wheel (21), open and close the valve and check to see that the "SHUT" and "OPEN" Targets are clearly in view in the Windows, at their respective positions, and that there is no feeling of binding of the Upper or Lower Stem Assemblies. It is recommended that the turns to open/close be counted and compared to the valve manufacturer's specification, in order to verify full valve opening.

NOTES: If there is any indication of binding of the internal operating parts, the vertical alignment of the Indicator Post must be corrected.

If the Target Plates are not properly in view, completely close the PIV and then repeat Steps 5.

8. Loosen the two bolts (13) at the base of the Upper Barrel (11) and then slide the Post Head up until the Bury Line of the Post Head coincides with the planned finished grade. Tighten the two bolts (13) with a torque of 40 to 60 ft. lbs. When properly installed, the centerline of the Target Windows will be 30 inches above the finish grade.

Care and Maintenance

Model LF-IP555 Indicator Posts do not require any regular schedule maintenance.

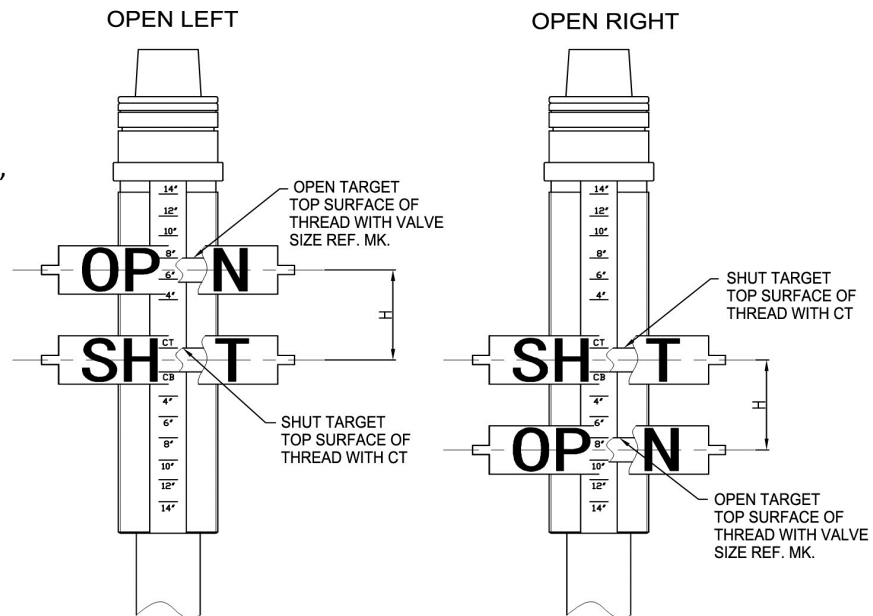


Fig. D

It is recommended that Indicator Posts used to operate fire protection system water control valves be locked in the fully-open position, It is also recommended that once a month a visual inspection procedure be followed, with the following items checked:

1. The Post Head, Upper Barrel, and Windows have not been damaged.
2. The Targets indicate that the valve is open.
3. The Wrench is in place on the Indicator Post, and it is properly locked in the “open” position. In addition, on a quarterly basis, the Indicator Post should be closed two turns and then reopened tight to verify that the PIV is in the full open position and properly engages with the Post and, that the Supervisory Switch contacts (if applicable) properly change position. Any damaged parts must be immediately replaced. The Indicator Post should also be physically tried to be sure that the valve is in the fully-open position, if there are any damaged parts, sign of tampering, or the position of the valve is questionable.

NOTE: Before closing a fire protection system main valve for maintenance work on either the Indicator Post or fire protection systems which it controls, permission to shut down the affected fire protection systems must first be obtained from the proper authorities and all personnel who may be affected by this decision must be notified.

It is recommended that fire protection systems be inspected by a qualified Inspection Service.



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