Swagelok

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## PANEL MOUNT INSTRUCTIONS 4-BOLT 60 SERIES BALL VALVES

KIT CONTENTS: Button head screws (4<sup>®</sup>) Longer body bolts (2) Panel mount brackets (2) Cover plate (1) Instruction sheet (1)

## Before you begin:

-Panel mounting kits may be used with either lever or oval handles. -Before proceeding, note the position of the handle, it must be reassembled to the valve in the same position.

NOTE: It is important to refer to the exploded view drawing while following the maintenance instructions.

WARNING: Before servicing any installed valve

## • depressurize system • cycle valve

**WARNING:** Residual material may be left in valve and system.

- 1. Proceed to either step 2a. or 2b.
- 2a. **Straight-pattern assemblies:** Leave the valve in the "open" position. Loosen and remove the stem nut, stem spring, stop plate, handle, and grounding spring from the valve stem. Set components aside for later reassembly.
- 2b. **X-pattern assemblies:** With the handle positioned toward either side port, loosen and remove the stem nut, stem spring, stop plate, handle, and grounding spring from the valve stem. Set components aside for later reassembly.
- Note: If the panel mount brackets have been factory assembled to the valve, skip to step #8.
- Note: If valve assembly was previously assembled with studs, do not discard the studs and nuts, they will be used to reassemble this valve. If valve assembly was previously assembled with bolts, do not discard the nuts but discard the bolts and use the longer ones supplied in the kit.
- 3. Loosen body bolts/studs. Remove ONLY the top two body bolts/studs.
- 4. Position one of the panel mount brackets, so the bracket tab that has the
- threaded hole(s) points away from the valve flange.
- 5. While holding the panel mount bracket in place, slide the longer body bolts (Position the bolt heads toward the same end of the valve body as the unremoved body bolt for torquing convenience) or body studs (if valve had originally been assembled with studs) through the bracket and flange holes. Slide the other bracket over the other end of the bolts or studs, making sure the bracket tab(s) are pointed away from the valve flanges. Attach the hex nuts finger-tight.

<sup>®</sup> 62 series kits contain 2 pcs.

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Revision G

 With the valve in the following position: Straight-pattern assemblies – fully "open"; X-pattern assemblies – with the handle positioned toward either side port; torque the body bolts/studs in the alphabetical (crisscross) sequence shown in the appropriate center body diagram.



 X-Pattern Center Body
Torque bolts/studs to the value listed in the "1st" column of the chart below, according to the appropriate valve series/body material and fastener type/material. Repeat the sequence for the 2nd, 3rd, 4th, and 5th torques.

Valve Series/Body	Fastener Type/Material	in.·lb (N·m)				
Material		1st	2nd	3rd	4th	5th
62 Series Brass	Carbon Steel Bolts	5 (0.57)	10 (1.1)	20 (2.3)	30 (3.4)	30 (3.4)
62 Series Carbon -or- Stainless Steel	Stainless -or- Carbon Steel Bolts/Studs	5 (0.57)	10 (1.1)	20 (2.3)	40 (4.5)	40 (4.5)
62X Series Stainless Steel	Stainless Steel Bolts/Studs					
63 Series Brass	Carbon Steel Bolts	10 (1.1)	20 (2.3)	40 (4.5)	60 (6.8)	60 (6.8)
63 Series Carbon -or- Stainless Steel	Stainless -or- Carbon Steel Bolts/Studs	10 (1.1)	20 (2.3)	40 (4.5)	100 (11.3)	100 (11.3)
63X Series Stainless Steel	Stainless Steel Boits/Studs			100	100	100
65 Series Brass	Carbon Steel Bolts	25 (2.8)	50 (5.7)	(11.3)	(20.3)	(11.3)
65 Series Carbon -or- Stainless Steel	Stainless -or- Carbon Steel Bolts/Studs	25 (2.8)	50 (5.7)	100	300	300
65X Series Stainless Steel	Stainless Steel Bolts/Studs			(11.3)	(55.9)	(33.9)
67 & 67X Series Stainless Steel	Stainless Steel Bolts/Studs	35 (4.0)	75 (8.5)	150 (17.0)	300 (33.9)	300 (33.9)
67 Series Carbon -or- Stainless Steel	Carbon Steel Bolts	35 (4.0)	75 (8.5)	150 (17.0)	400 (45.2)	400 (45.2)
68 & 68X Series Stainless Steel	Stainless Steel Bolts/Studs	40 (4.5)	100 (11.3)	200 (22.6)	500 (56.5)	500 (56.5)
68 Series Carbon -or- Stainless Steel	Carbon Steel Bolts	40 (4.5)	100 (11.3)	200 (22.6)	600 (67.8)	600 (67.8)

- 8. Cut mounting holes in panel. (See Fig. 2 and/or use template provided.)
- 9. Position valve stem through panel and align mounting holes in the panel with those in the mounting bracket tabs. Bolt the valve assembly to the panel using the button head screws. (60 in.·lb, 6.8 N·m reference)
- 10. Place the grounding spring, handle<sup>®</sup>, stop plate, cover plate (included in kit), stem spring (concave side up) and stem nut on the stem. Torque the stem nut according to the chart below.

<sup>®</sup> Handle must be reassembled to the valve in the same position as prior to valve disassembly.

Valve Series	62 & 62X	63 & 63X	65 & 65X	67 & 67X	68 & 68X
Torque, in.·lb (N·m)	25 (2.8)	50 (5.7)	100 (11.3)	150 (17.0)	150 (17.0)

Note: The 62 Series uses a cover plate with the lever style handle only.







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	Diame	Distance	
Valve Series	А	В	С
62	1 3/8 (34.9)	1/4 (6.4)	1 29/32 (48.4)
63	1 7/8 (47.6)	11/32 (8.7)	2 1/2 (63.5)
65	2 3/8 (60.3)	11/32 (8.7)	3 1/2 (88.9)
67	3 5/8 (92.1)	13/32 (10.3)	4 5/8 (117)
68	3 5/8 (92.1)	13/32 (10.3)	5 (127)

Dimensions shown in inches (millimeters).

## **Maximum Panel Thickness**

62 series	3/16
All other 60 series	1/4

Dimensions shown in inches (millimeters).