

Lockable Stem Extension Oval Hand Wheel Kit for AN & SP Series 5 & 6 and SI Series 6, 1/2" thru 3", and SI Series 8 & 9, 1/2" thru 4" Installation, Operation, and Maintenance Instructions

WARNING:

For your safety and protection, it is important that the following precautions be taken prior to working on the valve.

1. Depressurize and drain the line.
2. Cycle the valve to relieve any pressure trapped in the valve.
3. Disconnect any air and electrical connections to the valve assembly.
4. Know what the media is in the line and wear appropriate protective clothing and equipment. Obtain appropriate MSDS sheets.
5. To ensure safe product selection and operation, it is the responsibility of the process system designer and end user to determine the appropriate compatible materials of construction and adequate product ratings for the process system. Process system designer, installer, and end user are responsible for proper installation, operation, and maintenance.
6. Fasteners are designed to prevent loosening under normal operating conditions. Prior to commissioning at final point of operation, all valves should be inspected to ensure fasteners are tightened to manufacturer's recommendations and no damage has occurred during transit or handling.
7. When disposing of Teflon parts, do not incinerate or subject to open flames.

1. General

This Installation, Operation, and Maintenance manual is for the safe use of PBM lockable stem extension oval hand wheel kits. Please read the instructions carefully and save them for future reference.

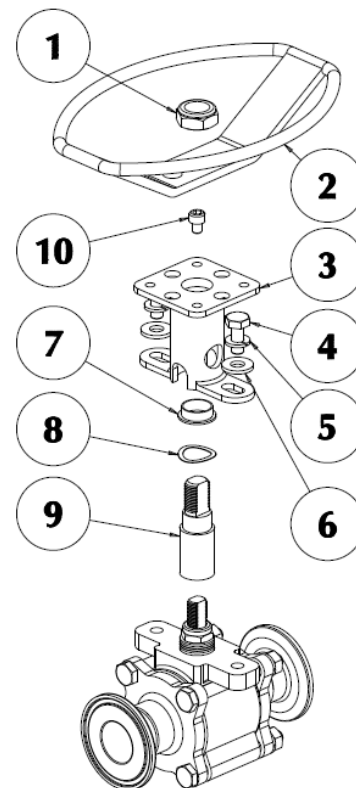
2. Installation

Fasteners are designed to prevent loosening under normal operating conditions. Prior to commissioning at final point of operation, all valves should be inspected to ensure the fasteners are tightened to manufacturer recommendations and no damage has occurred during transit or handling.

3. Operation

For manual valves, operation consists of turning the handle 1/4 turn to close or open the valve. When oval hand wheel length is parallel with the pipeline, the valve is in the open position. Good operating procedure requires periodic inspection of the valves and replacement of parts as required. Always use PBM factory authorized replacement parts.

PARTS LIST	
ITEM	DESCRIPTION
1	Locking Hex Nut
2	Oval Hand Wheel
3	Extended Locking Bracket
4	Bracket Bolts
5	Lock Washers
6	Flat Washers (If Any)
7	Stem Bearing
8	Wave Spring
9	Stem Extension
10	Stop Pin



Assembly of Lockable Stem Extension Oval Hand Wheel:

1. The valves noted above can be converted to have a lockable stem extension in the field.
2. **Automated Valves:** Disconnect all electrical line(s) and/or air line(s) that are supplying the actuator, switch, or solenoid. Remove the automation from the bracket assembly and set aside. Remove the bracket, insert, and hardware, if applicable, and set aside. Proceed to Step 8.
3. **Manual Valves:** Loosen and remove the upper jam nut that secures the handle to the stem. Discard Jam nut.
4. Remove and discard the handle, and if equipped, the ground wire and terminal from the stem. Loosen and remove the second jam nut that secures the spring washers. Discard jam nut as well
5. Loosen and remove the handle stop pin from the valve body. Discard stop pin.
6. Install the locking hex nut provided.
7. **For valves 2" and smaller,** tighten nut to completely compress spring washers, then loosen nut 1/2 turn.
For valves 2-1/2" and 3", tighten nut until a gap of about 0.05" (1.3 mm) exists between the adjacent spring washers.
For 4" valves, tighten the nut until a gap of about 0.10" (2.5 mm) exists between the adjacent spring washers.
8. Install the stem extension on top of the stem.
9. Install the wave spring on top of the stem extension.
10. Install the stem bearing, with the flange facing towards the wave spring, onto the stem extension.
11. Install the extended locking bracket over the stem extension and line up the mounting holes. Allow the stem bearing to protrude through the upper central hole.
12. Secure the extended locking bracket to the valve with the bolts, lock-washers, and flat-washers (if applicable) provided.
13. Install the oval hand wheel onto the stem extension and secure the oval hand wheel with a locking hex nut.
14. Install the stop pin onto the extended locking bracket in the appropriate position.
15. Visually inspect the valve for any alignment or hardware issues. If all looks OK, cycle the valve and check for freedom of operation.



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