



PORTER

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STANDARD CARTRIDGE VALVE TORQUE-GUARD

VALVE KNOB REPLACEMENT PROCEDURE

1. **Purpose:** The purpose of this procedure is to provide instructions to allow the user of a Standard Cartridge Valve complete with the Torque-Guard Valve Stop feature to replace the Torque-Guard valve knob.
2. **Required Tools & Equipment:**
 - 2.1. 1/16" Hex wrench (for the two [2] valve knob set screws).
 - 2.2. Gas supply (for use in leak testing).
 - 2.3. Plastic tubing or equivalent (for use in leak testing with length to be determined by user).
 - 2.4. Beaker containing water (for use in leak testing).
3. **Valve Knob Replacement Instructions:**
 - 3.1. Factory-tested valves are typically shipped 2 to 3 turns open to prevent damage to the orifice during shipment. Turn the existing valve knob clockwise until the valve knob reaches a positive stop (the valve knob stop pin engages the raised machined stop on the packing nut of the valve assembly). The valve is now in the closed position (as determined during assembly & testing prior to shipment from the factory). **Do not turn the valve stem until the remaining steps are completed!**
 - 3.2. Using the 1/16" hex wrench, loosen both set screws of the existing valve knob & remove the valve knob.
 - 3.3. Position the replacement valve knob fully onto the valve stem & rotate clockwise until unable to rotate further, reaching the valve's positive stop. Using the 1/16" hex wrench, secure the replacement valve knob on the valve stem by tightening both set screws. **Correct positioning of the valve knob is important as the valve knob provides a positive stop to ensure against overtightening & potential damage to the valve stem!**
 - 3.4. Install plastic tubing on the outlet of flowmeter, submerging the opposite end of the tubing in a beaker containing water. Introduce gas to the valve to test for shut-off. No gas bubbles should form & separate from the end of the tubing within 15 seconds. If bubbles occur, consult factory for more detailed instructions.
 - 3.5. Turn off the gas supply to the valve & remove the tubing from the outlet of flowmeter. Open (i.e. turn counterclockwise) the valve 2 to 3 turns to prevent damage to the orifice during shipment. The valve knob replacement is now complete.