APTech Miscellaneous Instructions AP3260/3600, Panel Mount Revision 3 January 31, 2013



**Note:** This procedure is intended for panel mount of AP/AZ/AK/3260/3600/4600 Series

valves.

**Note:** Recommended panel hole diameter: 0.78 inch (19.8 mm).

### A. Required Tools and Equipment

- 1/2 inch socket and wrench
- 1/2 inch socket and torque wrench, 75 in-lb (8.5 Nm)
- 1 inch wrench (open end or adjustable)
- Strap wrench to hold wheel (optional)

#### B. Wheel Removal (Refer to Figure 1)

- 1. Remove the valve from the double plastic bag.
- 2. Close the valve by turning the wheel (#3) fully clockwise.
- 3. Using a small flat screwdriver or similar tool, pry the closure (#1) off the top of the wheel.
- 4. Firmly holding the wheel in place (by hand or with a strap wrench), use a 1/2 inch socket and wrench to loosen the lock nut (#2). Remove the lock nut and wheel.

**Note:** The wheel must not rotate counterclockwise during loosening of the lock nut. If the wheel rotates, re-tighten the lock nut against the wheel and repeat step B.2.

# C. Panel Mount (Refer to Figure 1)

- 1. Remove the panel mount nut (#5) from the unit.
- 2. Place the valve through the panel hole, position the valve as desired, connect the valve into piping system and replace the panel mount nut onto the unit.
- 3. Using a 1 inch wrench, tighten the panel mount nut firmly against the panel.

# D. Wheel Replacement (Refer to Figure 1)

- 1. Place the wheel back on the stem (#4), and turn the wheel clockwise until it stops.
- 2. Rotate the wheel counter-clockwise one full turn.
- 3. Holding the wheel in place, screw the lock nut onto the stem until it stops against the wheel.
- 4. While holding the wheel from turning (by hand or with a strap wrench), use a 1/2 inch socket and torque wrench to tighten the lock nut against the wheel with 75 in-lb (8.5 Nm).
- 5. Reinstall the closure by pressing it into the top of the wheel.

#### E. Valve Testing

- 1. Open and close the valve several times to verify the actuator operates correctly. Leave the valve in closed position.
- 2. Connect the valve inlet to 60-100 psig (4.1 6.9 bar) pressure nitrogen source line. Pressurize the valve inlet. Verify there is no audible leakage across-the-seat. Open the valve and verify that there is no flow restriction in the valve. Close the valve.
- 3. Perform a helium leak test to verify that the valve does not leak across-the-seat. Leak test procedures depend greatly on equipment and operator preference. Refer to SEMI F1 for typical leak testing protocols. If it is not possible to perform a helium leak test, then a pressure decay test could be performed using inert gas.

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1. CLOSURE
2. LOCK NUT
3. WHEEL
4. STEM
5. PANEL MOUNT NUT

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Figure 1. AP3260/3600 Valve Assembly Diagram.

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