

## **EQUIPMENT WARRANTY POLICY**

*Premier Industries ("PI") warrants to the initial user of products manufactured and sold by PI that such products are free from defects in material and workmanship under normal use and care, for a period of ninety days from the date of installation or one year from the date of shipment from the factory, whichever comes first. Within this warranty period, PI agrees to replace or repair at the factory any product found by PI to have been defective in material or workmanship at no charge to the user. PI will not pay for or warrant repairs made by anyone other than PI factory personnel.*

*PI shall not be liable for consequential or in direct damages to the extent permitted by law. This warranty shall be the exclusive warranty and shall be in lieu of all implied warranties including implied warranties of fitness for a particular purpose or application. This warranty shall not apply to product that has been altered or modified except by PI factory personnel or product which has been damaged by accident, abuse or misuse.*

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# *National* REGULATORS

By **Premier Industries**

Blaine, Minnesota

Made in USA



## **Safety, Installation & Operation Information**

### **For National Regulator Models:**

2500.350, 2500.510, 2500.540,  
2300.510, 4500-350, & 4500.54

**Be sure to read and understand this manual before installing and operating a regulator.**

## GENERAL SAFETY INFORMATION

- ◆ Never use compressed gases from cylinders without an approved gas pressure regulator attached to the outlet of the cylinder.
- ◆ Never connect a regulator to a cylinder having a pressure greater than the maximum rated pressure of the regulator.
- ◆ Use only compressed gas cylinders that are approved by the Department of Transportation (DOT.) Obtain, read, and understand the Material Safety Data Sheet (MSDS) for each media used in your system. Follow the instructions and safety procedures provided by your gas cylinder supplier, such as:
  - *Cylinders must be in the vertical position when in use and secured from falling.*
  - *Keep cylinder valve protection caps on and valves closed whenever cylinders are not in use.*
  - *Locate cylinders away from flames, sparks and heat sources, especially those which contain flammable gasses.*
- ◆ The safety of the workplace must be maintained:
  - *The work site should be clear of combustible materials, especially oil and grease.*
  - *Never allow gas-oxygen equipment to be contaminated with petroleum-based substances. In the presence of oxygen, these substances can easily ignite and burn violently.*
  - *Never select equipment constructed of materials that are not compatible with the media being used.*
- ◆ For torch applications, it is recommended that reverse flow checkvalves or flashback arrestors be installed in the system between the regulator and the torch. Consult your gas cylinder supplier or local governmental agencies for installation and maintenance information.
- ◆ Maintain all equipment and hoses used with pressure regulators to minimize potential leaks.
- ◆ To check your system fittings and joints for leaks, brush on an oxygen compatible leak check solution or a dilute solution of soap and water and look for bubbles.
- ◆ If a regulator or valve leaks or malfunctions, take it out of service immediately.
- ◆ When using **hydrogen** regulators attach a hose to the threaded end of relief valve and vent hose to outside. This is an OSHA requirement.

## REGULATOR OPERATION

1. A regulator can only be used on cylinders when the cylinder valve connection matches the cylinder connection (CGA nut & nipple) on the regulator.
2. Before attaching the regulator to the cylinder, be sure the cylinder valve connection and regulator connection are free of all contaminants; oil, grease, dirt and dust.
3. Make sure the regulator adjustment knob is in the full counterclockwise ⤴ stop position.
4. Attach the regulator to the cylinder valve and tighten securely with a wrench.
5. Stand to the side of the cylinder, opposite the regulator, when opening the cylinder valve, keeping the cylinder between you and the regulator. (On acetylene cylinders, never open the cylinder valve more than 1 complete turn.) The regulator inlet gauge should indicate the pressure in the cylinder.
6. Connect outlet of the regulator to the appropriate fitting, which is the "B" size welding hose connection. (9/16-18 RH thread for oxygen & 9/16-18 LH thread for fuel gases.)
7. Adjust the regulator outlet pressure by turning the hand knob clockwise ⤵ to obtain the desired operating pressure setting.
8. Check for leaks by closing the cylinder valve and monitoring the regulator pressure gauges. If the inlet gauge (high) pressure drops, and the outlet gauge (low) pressure rises, this indicates an internal leak at the regulator main valve. Consult your distributor or contact factory.
9. If inlet gauge is dropping, this indicates a leak between the cylinder valve and the regulator main valve. Apply an appropriate leak check solution to all joints (including high pressure gauge joint).
10. If outlet gauge is dropping, this indicates a leak from the regulator main valve to the equipment being supplied with gas. Apply an appropriate leak check solution to all joints, including relief valve, low pressure gauge joint and bonnet seal.
11. If an external regulator leak is found, correct joint/connection leaks by re-torquing. If tightening fails, uncouple connection, thoroughly clean mating parts and apply appropriate sealing material if needed. (Note: Use only Teflon® tape or other oxygen compatible sealing material on oxygen systems.) Reassemble and retest connection. If leak persists, consult your distributor or contact factory.
12. When not using the regulator, close the cylinder valve and completely purge the lines of all gas. Turn the regulator hand knob to the full counterclockwise ⤴ stop position.