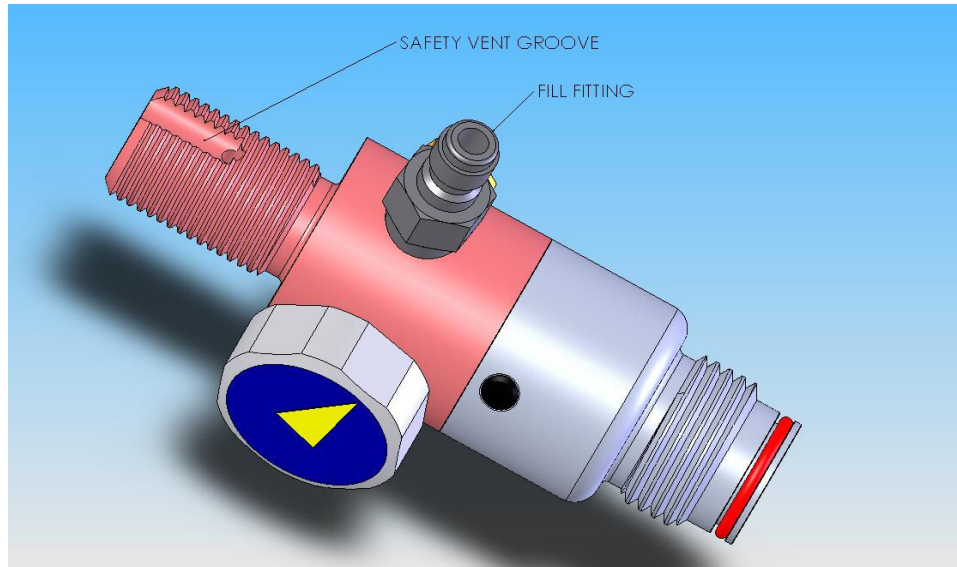


# PSIGURU 2 in 1 PRESET REGULATOR POWER SYSTEM™ OWNER'S MANUAL



**▲ DANGER MISUSE OF THIS PRODUCT MAY CAUSE SERIOUS INJURY OR DEATH.**

## **FILLING YOUR PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™**

Your PSIGURU 2 IN 1 Preset Regulator Power System™ is equipped with the standard “QD Style” fill fitting, which allows your PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™ to be refilled either on or off the marker. Your PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™ may be filled with either *Clean, Dry* Compressed Air or Nitrogen. *The 2 IN 1 feature allows you to lower the standard 800 psi output to 450-550 psi output in 5 minutes or less! Reference the PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™ low pressure spring pack. See page 5 for details.*

**▲ UNDER NO CIRCUMSTANCES SHOULD ANY POWER SYSTEM BE REFILLED WITH PURE OXYGEN!!!!!!**

When filling your PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™, do not exceed the pressure rating shown on your system’s storage bottle! A high pressure gauge showing bottle pressure is standard on your system.

You, as the operator must understand how important it is to keep dirt, oil and water out of your power system. Most regulator failures are due to dirt or contamination. Always keep a cover on the fill nipple when you are not filling the system. If you use compressed air, make sure that the compressor providing that air is equipped with *WORKING* filters and moisture separators.

## **CONNECTING YOUR PSIGURU 2 IN 1 PRESET REGULATOR POWERSYSTEM™**

Because your PSIGURU 2 IN 1 POWER SYSTEM Preset Regulator is factory set to deliver gas at normal CO2 pressure (800 psi), there is no “setup” or user adjustment required. Your PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™ simply screws into your markers ASA fitting. The PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™ has a “pin valve” output valve which shuts off the gas delivery when the power system is removed from the marker.

## **THE SAFETY SYSTEM**

### **▲ DANGER MISUSE OF THIS PRODUCT MAY CAUSE SERIOUS INJURY OR DEATH.**

All PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEMS™ are equipped with an ASTM APPROVED bottle Burst Disk required by the D.O.T. Without this safety it wouldn't be legal to fill the bottle.

In addition to the required safety burst disk, all PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEMS™ have an 1800 PSI safety burst disk (stamped 1800 PSI).

The 1800 PSI safety burst disk is there to protect you and your marker in the unlikely event that the regulator fails. **REMEMBER, most regulator failures are the result of contaminated air.**

**If the 1800 PSI safety burst disk vents, it did so for a reason. We recommend you do the following:**

- **Disassemble the regulator (refer to page 3) inspect the regulator for contamination and clean if necessary.**
- **Install a new 1800 psi burst disc. and refill the system.**
- **If the 1800 psi burst disc vents after rebuild see an airsmith for help or call 1-815-477-0007 extension 321.**

PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™ are shipped with Safety Vent Grooves in the bottle threads. (As shown in the illustration on page 1.) These lifesaving features allow for the venting of the bottle, in the event the regulator is unscrewed from the bottle with pressure present in the bottle.

**ALWAYS CHECK THE TO MAKE SURE THERE IS NO GAP BETWEEN THE BOTTLE AND REGULATOR SEAL. SEE ILLUSTRATION BELOW. IF THERE IS A GAP**

**▲STOP!!! THE CYLINDER CAN FLY OFF WITH ENOUGH FORCE TO KILL IF THE VALVE UNSCREWS FROM THE CYLINDER!**

**DO NOT FILL OR USE YOUR SYSTEM!**

**PLACE THE SYSTEM ON THE GROUND AND WAIT FOR THE SYSTEM TO FULLY DEGAS! CONTACT A QUALIFIED AIRSMITH IMMEDIATELY! OR CALL 815-477-0007 EXT 321 FOR ASSISTANCE.**



# SERVICE & REBUILD PROCEDURES

*For reference purposes, consult the exploded parts diagram on the following page.*

**ALWAYS WEAR EYE PROTECTION, GLOVES AND POINT THE AIR SYSTEM IN A SAFE DIRECTION PRIOR TO DEGASSING THE SYSTEM!!!**

**PRIOR TO DISASSEMBLY FULLY DEGAS THE AIR SYSTEM BY DEPRESSING THE PIN VALVE UNTIL NO AIR REMAINS IN THE BOTTLE!!!**

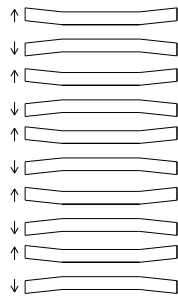
**IF YOU ARE NOT COMFORTABLE WITH DISASSEMBLING THE REGULATOR BRING THE REGULATOR TO A QUALIFIED AIR SMITH! OR CALL 815-477-0007 EXT 321**

All internal parts are accessed by unscrewing the Bonnet from the Gas Distribution Body. To remove the Bonnet, first remove the two locking screws. The bonnet can then be unscrewed. No thread locking compound was used, so **▲ DO NOT APPLY HEAT!** If the bonnet does not easily unscrew, **MAKE SURE THE SYSTEM IS COMPLETELY DEGASSED BY DEPRESSING THE PIN VALVE TO EXHAUST ANY TRAPPED GAS.**

Once the Gas Distribution Body and Bonnet have been separated, the Belleville Spring Pack, Piston Assembly and Output Pin Valve components can be removed.

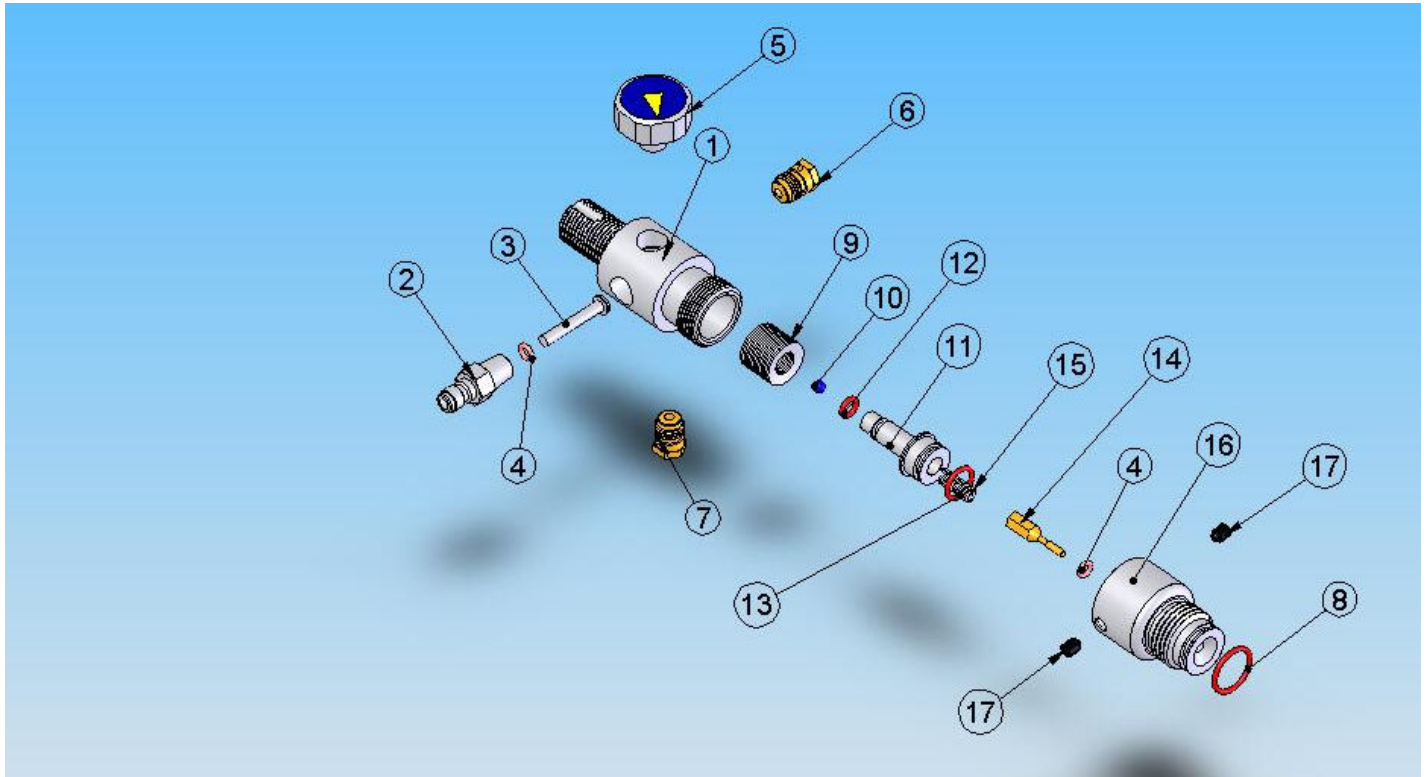
Replace both "O" rings on the piston. Inspect the reg seat ball for dirt or debris and clean if necessary.

To reassemble, lubricate both piston "O" rings using Air Tool Oil. Re-install the Output Pin Valve & Spring, and carefully push the Piston Assembly into the piston bore in the Bonnet. The Piston must be properly seated in the Bonnet before proceeding further. Place the Belleville Springs over the small end of the Piston, in the correct order, see figure below. Do not apply excessive torque when screwing the Bonnet and Gas Distribution together. Replace and securely tighten the (2) 10-32 bonnet retaining screws.



CORRECT ORIENTATION OF THE BELLEVILLE SPRINGS.

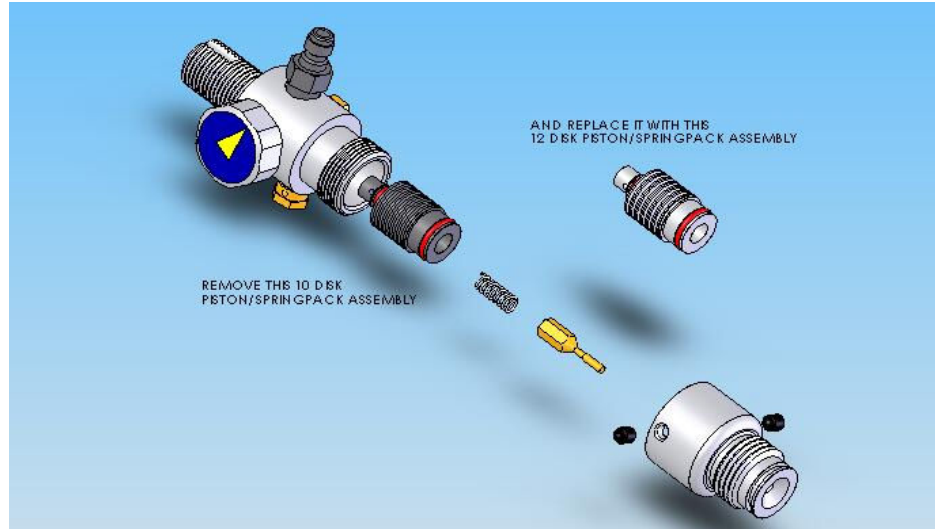
## PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM™ EXPLODED VIEW



1. GAS DISTRIBUTION BODY
2. FILL FITTING
3. CHECK STRUT
4. 006-90 URETHANE ORING
5. HIGH PRESSURE GAUGE
6. HIGH PRESSURE BURST DISK
7. LOW PRESSURE BURST DISK
8. 015-90 URETHANE ORING
9. BELLEVILLE SPRING PACK
10. REG SEAT BALL
11. PISTON
12. 008-90 URETHANE ORING
13. 012-90 URETHANE ORING
14. OUTPUT PIN VALVE
15. OUTPUT PIN VALVE SPRING
16. BONNET
17. BONNET LOCKING SCREWS

# PSIGURU 2 IN 1 PRESET REGULATOR POWER SYSTEM LOW PRESSURE SPRINGPACK INSTALLATION

The installation of the Low Pressure Springpack is simple and requires only a 3/32" Allen wrench.

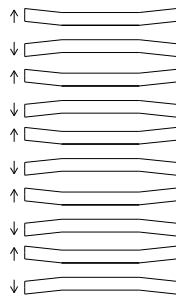


**▲ BEFORE PROCEEDING, MAKE SURE YOUR SYSTEM HAS BEEN COMPLETELY DEGASSED VIA THE OUTPUT PIN VALVE, TO INSURE THAT NO TRAPPED COMPRESSED GAS IS PRESENT! ALWAYS WEAR EYE PROTECTION, GLOVES AND POINT THE AIR SYSTEM IN A SAFE DIRECTION PRIOR TO DEGASSING THE SYSTEM!!!**

1. Remove the two set screws that lock the Bonnet (the top portion of the regulator) to the Reg Body.
2. Unscrew the Bonnet from the Reg Body. (It has normal right-hand threads.) Bonnet should remove easily. Make sure there is no trapped air in the bonnet by depressing the pin valve.
3. Being careful not to lose the brass Output Pin Valve or it's spring, pull the Piston/Springpack assembly out of the Bonnet.
4. Remove any factory adjustment shims from the Reg Body that may be present. Store them with your original Piston/Springpack assembly in case you ever wish to return your regulator to the normal output pressure range.
- 5) Remove the protective cap from the small end of the Low Pressure Piston/Springpack assembly, and lubricate both Orings with a good airgun oil.
6. Insert the Low Pressure Piston/Springpack assembly into the Reg Body.
7. Insert the small spring and the Output Pin Valve into the bore of the Piston.
8. Carefully screw the Bonnet back onto the Reg Body, making sure that the nose of the brass Output Pin Valve is correctly aligned with the small bore on the ASA side of the Bonnet.
9. Replace the two locking set screws and tighten securely.

**NOTE:** The Low Pressure Piston/Springpack assembly in this kit includes factory installed shims which were used to tune this assembly to the 450-550 psi range. You can make a 20-40psi change in your output pressure by adding or removing one shim.

**Also:** If the Disk Springs are removed from the piston, it is critical to proper operation that they be replaced in the correct orientation. You will note that the disks are dish shaped. When re-installing them, place them on the piston extension alternating up and down, so that they would look like this:



CORRECT ORIENTATION OF THE BELLEVILLE SPRINGS.