Your Reactor Preset Regulator is equipped with the standard “QD Style” fill fitting, which allows your system to be refilled either on or off the gun. Your Reactor Preset Regulator system may be filled with either Clean, Dry Compressed Air or Nitrogen. There will be no noticeable difference in your gun’s performance.

When filling your Reactor Preset Regulator 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. It is not an exaggeration to say that 99% of all regulator failures are due to dirt or contamination. Always keep a cover on the fill nipple when you are not actually filling. If you use compressed air, make sure that the compressor providing that air is equipped with WORKING filters and moisture separators.

Connecting Your Power System

Because your Reactor Preset Regulator is factory set to deliver gas at normal CO2 pressure, there is no “setup” or user adjustment required. Your Reactor Preset Regulator system simply screws into your gun’s ASA fitting, just like the CO2 bottle its replacing. Like your old CO2 bottle, it has a “pin valve” type output valve which shuts off the gas delivery when the power system is removed from the gun.

The Safety System

All Reactor Preset Regulators are equipped with the High Pressure 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 Reactor Preset Regulators have an 1800 PSI safety burst disk (stamped 1800 PSI).

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

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

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

Refer to the service procedures below and clean dirt and debris from the regulator. Inspect the internal o’rings #10 & #11 for damage or debris. Inspect the reg. seal puck #3 for damage or dirt. Replace all worn or damaged parts.
Service & Rebuild Procedures

For reference purposes, consult the exploded parts diagram at the bottom of this page.

PRIOR TO DISASSEMBLY DEGAS THE BOTTLE COMPLETELY!!! ALL AIR MUST BE REMOVED FROM THE SYSTEM OR THE BONNET CANNOT BE REMOVED. ALL REPAIR PARTS MUST BE PURE ENERGY BRAND ONLY OR YOUR WARRANTY IS VOID!

All internal parts are accessed by unscrewing the Bonnet from the Gas Distribution Body. To remove the Bonnet, first remove the two 10-32 locking screws with a 3/32 hex key. Once those have been completely removed, the bonnet can then be unscrewed. No thread locking compound was used, so do not apply heat! If the bonnet does not easily unscrew, a 1 & 7/64 (1.110") collet, or a set of soft jaws in a vise may be used to hold the Bonnet.

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 the Reg Seat and both "O" rings on the piston. Please note that the Reg Seat may be pushed out using a 1/16" pin or drill bit inserted into the large end of the Piston. Also note that the Reg Seats are tapered, and will only install one way.

To reassemble, lubricate both piston “O” rings using Air Tool Oil. DO NOT USE TRADITIONAL FIRE ARM 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. Do not apply excessive torque when screwing the Bonnet and Gas Distribution together.

The Fill Nipple and Check Strut are the only other service items. When installing the Fill Nipple, DO NOT OVER-TIGHTEN. Over tightening will limit the available strut travel, and cause failures of the “O” ring on the Check Strut. Always check Strut travel after installation. SHAKE THE BOTTLE AND YOU SHOULD HEAR THE STRUT MOVING BACK AND FORTH.

Reactor Preset Regulator Exploded View

1. GAS DISTRIBUTION BODY
2. BELLEVILLE SPRING PACK
3. REGULATOR SEAT
4. PISTON
5. PIN VALVE SPRING
6. PIN VALVE
7. 006 TEFLO "O" RING
8. BONNET
9. BOTTLE "O" RING
10. 012-90 URETHANE "O" RING
11. 008-90 URETHANE "O" RING
12. H.P. 5000 PSI UNIFIED BURST DISK FOR 3000 PSI SYSTEM.
12A H.P. 7500 PSI UNIFIED BURST DISK FOR 4500 & 5000 PSI SYSTEM.
13. H.P. GAUGE
14. 006-90 URETHANE "O" RING
15. CHECK STRUT
16. MODIFIED MALE QD
17. L.P. 1800 PSI UNIFIED BURST DISK
18. 10-32 BONNET LOCK SCREWS