

MPS ADJUSTABLE PRESSURE REGULATOR

MADE IN USA



The pin valves on CO2 bottles operate like schrader valves on a tire. Pushing down the pin opens the valve. The pin valve actuator works by pushing down on the pin when you screw the on-off knob clockwise. Since CO2 is a liquid in the bottle and the regulator can't regulate liquid, you must mount the bottle so that only gas and no liquid can get into the regulator. The regulator has a female 1/8" NPT outlet port and four (4) 1/8" NPT ports that comes plugged. We fit a fitting that will accept 1/4 poly line into the outlet. Our Adjustable Pressure Regulator allows pressure adjustment of CO2 and/or Nitrogen high pressure bottles from 0 – 160 PSI. -The regulator is set with a 3/16" allen wrench. We recommend having a small tank between the regulator and the air valve.

To install and set up the MPS Paintball Regulator assembly follow the directions below.

Construction:	Aluminum sand blasted black anodize.
Inlet Pressure:	Max 1000 PSI
Adjustment Range:	0 -160 PSI
Resettable Relief Valve:	140-150 PSI
Lubrication:	Any Silicone based, non-petroleum lubricant.
Adjustment:	3/16" Allen wrench
Tournament Cap:	Can be locked out with zip tie.
Piston:	Threaded with 1/2-20 female thread for ease of maintenance.

Maintenance kit included

OPERATION: *Figure 1 and Figure 2*

▲ WARNING: THIS IS NOT A TOY IMPROPER USE CAN RESULT IN INJURY OR DEATH

DO NOT USE THE REGULATOR PRIOR TO READING THIS MANUAL IN ITS ENTIRETY



SAFETY FIRST: ALWAYS WEAR SAFETY GLASSES WHEN OPERATING OR SERVICING THE REGULATOR.

1. On the MPS Paintball Regulator Assembly turn the on-off knob counter-clockwise fully. This is the off position.
2. Screw the regulator assembly onto the paintball bottle fully. Make sure the pressure adjustment screw is backed out fully clockwise as well. (The regulator is shipped with the adjusting slug in the off, full clockwise, position)
3. Now slowly turn the on-off knob clockwise until you feel pressure. Turn it another 1 to 1 ½ turns. The pin valve is now depressed and the bottle is open. Now you can adjust the outlet pressure. You will need to do this each time you turn the bottle on.
4. To adjust your regulator Insert a 3/16" allen wrench into the access hole on the tournament cap see (Figure 2) slowly turn the adjusting slug counter clockwise while watching the gauge until you reach the desired pressure.
5. Caution: Do not turn the adjustment screw quickly and purge the air several times during setting. Adjust it slowly to avoid over pressurizing and bursting your gauge. Each time you turn your bottle on you may need to purge a small amount of CO2 from the system to allow stable pressure and avoid over pressurizing.

▲ WARNING NEVER OPERATE OR ADJUST THE REGULATOR WITH THE TOURNAMENT CAP REMOVED. THE ADJUSTMENT SLUG IS UNDER PRESSURE AND IF REMOVED UNDER PRESSURE CAN TRAVEL AT VELOCITIES WHICH MAY CAUSE PERSONAL INJURY TO THE USER OR BYSTANDERS.

MAINTENANCE & SERVICE:

REFERENCE PARTS DIAGRAM

The maintenance is simple and will keep your regulator performing at an optimal level.

The majority pressure issues will be due to a worn or dirty piston o-ring #4 or by debris on the pressure adjustment slug #11 seal.

▲ WARNING: SAFETY FIRST

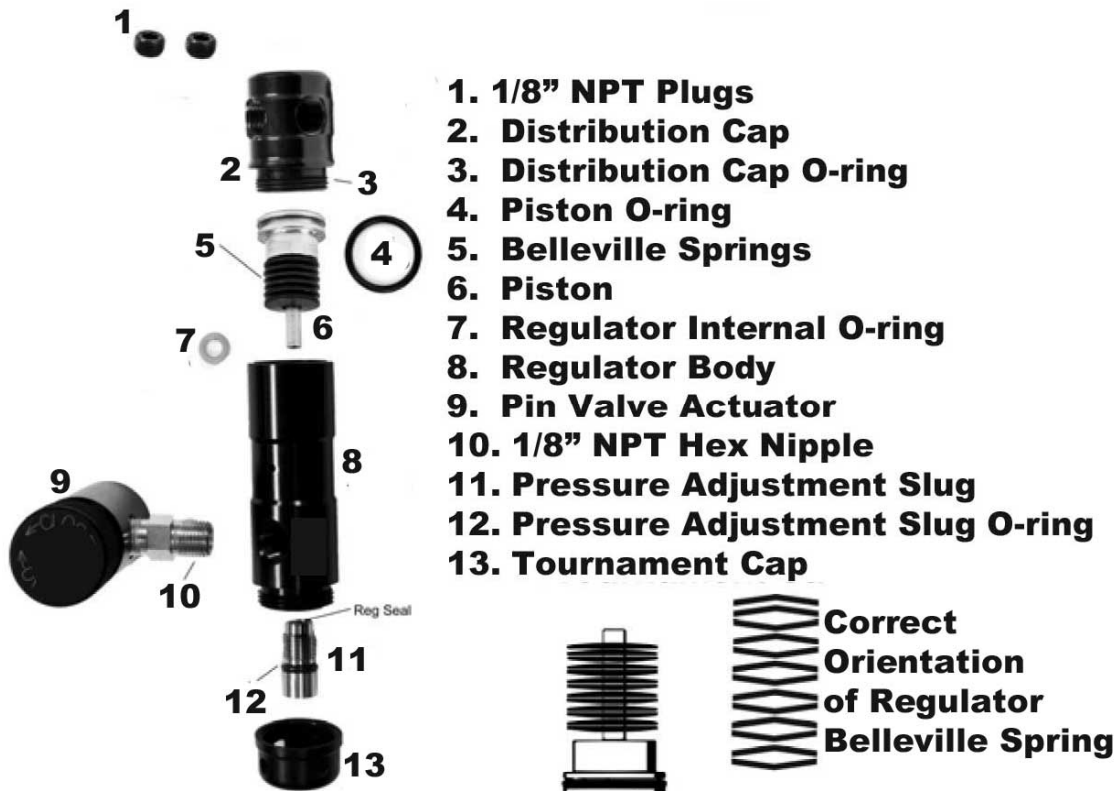
- **ALWAYS WEAR SAFETY GLASSES WHEN SERVICING THE LPR OR ANY GAS SOURCE**
- **ALWAYS REMOVE THE REGULATOR FROM THE AIR SOURCE AND DEGASS THE REGULATOR PRIOR TO SERVICING!**
- **TO DEGASS THE REGULATOR, REMOVE THE LINE FROM THE AIR SHIFTER AND TURN OFF THE BOTTLE ACTUATOR AND PUSH THE SHIFT BUTTON UNTIL NO AIR IS PRESENT.**

DISASSEMBLY:

1. Remove, turn counter clockwise, the gas distribution cap #2. No tools required.
2. Remove the tournament cap #13. If the tournament cap cannot be removed by hand the holes on the tournament cap can aid in removal simply use the 3/16" allen wrench or slim screwdriver and slide the tool through the holes and turn counter clockwise.
3. Remove the brass adjusting slug by turning counter clockwise.
4. To simplify piston removal use the supplied 1/2-20 bolt.
5. From the distribution cap end screw the bolt into the top of the piston. Hold the regulator body #8 with the tournament cap end up. See Figure 3.
6. Note the position and location of the piston this will help at time of reassembly.
7. Slowly pull the piston out.
 - a. Note: If the Belleville springs should fall from the piston the correct orientation is noted on the parts diagram. The Belleville springs have a slight curve and must be installed on the piston correctly or the LPR will not regulate correctly.
8. Inspect the piston o-ring for damage. If there is damage replace the o-ring with the piston o-ring included with the regulator rebuild kit.
9. Lubricate the piston o-ring with any Silicone based, non-petroleum Lubricant.
10. Inspect the regulator piston and adjusting slug seat for debris. Clean with a cotton swab and rubbing alcohol.
11. Inspect the adjusting slug o-ring #12 for damage, clean and or replace.

Reassembly:

1. Make sure the 1/2-20 bolt holding the piston is loose, not too tight in the piston thread or it will spin the piston when you unscrew the bolt after installing the piston back into the regulator body.
2. Hold the regulator body upright so that you are looking down into the tournament cap end.
3. With the piston loosely attach to the 1/2-20 bolt push the piston into the LPR body #8 watch as the small end of the piston appears in the regulator body. Be careful not to dislodge the internal o-ring #7 from the regulator body. The piston is now fully engaged, unscrew the 1/2-20 bolt from the piston.
4. Install the adjusting slug and turn clockwise until fully seated.
5. Install the Tournament Cap # 13, hand tight.
6. Install the gas distribution cap #2, hand tight



If you have any more questions we have a Frequently Asked Questions page at our web site as well as the telephone tech support. Thank you for your purchase of this MPS product. All products sold by MPS are for use at closed course competition events and not for use on public streets or highways.

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