

## BKO TORNADO® (PAT # 5791328) Replacement valve

### INSTALLATION INSTRUCTIONS, Ver 1.2, Dec 2006

This BKO valve will only work properly with the use of an LPC and a very high flow regulator such as the Sidewinder®(PAT 6675791) or the 2-Liter Plus Dual.

1. Remove all air sources. Remove all paint.
2. Disassemble the marker until you can take out the valve. Be careful not to damage any wires.
3. Carefully remove the stock valve from the BKO. You may have to push the valve out using a dowel rod.
4. Remove the o-rings from the stock valve body. Place them on the Tornado valve body. Lightly lube the o-rings with AKA Extreme Lube paintball gun oil. Place the valve in the marker with exhaust hole in the appropriate position. Slide the valve into the marker. Slowly work the valve past the threads at the front of the marker. With a ballpoint pen, slowly push the valve all the way into the marker until the setscrew counter bore lines up with the hole in the marker.
5. Use the valve body set screw from the original valve and screw it into the marker body. Tighten down gently.
6. Re-assemble the marker and install the larger volume LPC and valve spring onto the marker.
7. Check for leaks.
8. With the Sidewinder set at 200 psi, you will have to adjust the LPR to get the correct velocity of about 300 fps or a little higher.

#### VELOCITY ADJUSTMENT:

After you have set the LPR adjustment to get the correct velocity, you will need to adjust the Sidewinder to raise or lower your velocity.

#### EFFICIENCY AND VELOCITY PROBLEMS:

1. Regulators that do not have high enough air flow capacity
2. Large bore barrels