

Regulator installation guide BT65/AT44/FX/S200/P10/P12



Before you you start, realize this:

- You are working on a high pressure rifle; this could potentially be harmful to you or bystanders if you do not know what you are doing.
- Do not attempt to install this regulator yourself if you do not have a clear understanding of how these pcp rifles and regulators work.
- Installation and operation is done completely at your own risk.
- Installing this regulator might void your rifle's factory warranty.
- We cannot be held liable for any accidents in relation to this regulator and its installation.

Before you start, make absolutely sure that ALL the air is drained from the pressure tube. If there is a pressure gauge, it will give you just an indication. Dry fire the rifle to make sure all the air is out of the rifle.

Method 1:

Drain the pressure tube/air cylinder completely by dry firing or opening the valve,

Remove the pressure tube/air cylinder from the action of the rifle,

Check that the air has been completely drained by pressing on the cylinder valve,

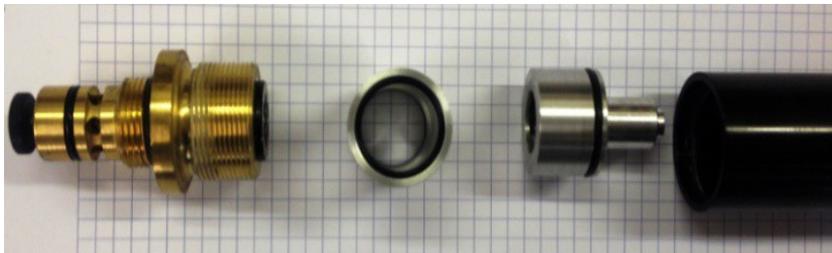
Unscrew the valve body from the pressure tube/air cylinder,

Remove the large O ring from the valve body and tighten the firing valve screw completely,

Make sure the valve body and threads are clean and free of grease and oil,



Make sure the inside of the pressure tube has no scratches or dirt inside it,
Lightly grease the first 7 cm of the pressure tube with silicone grease,
Carefully push the regulator into the pressure tube as shown in the picture below,



Make sure the O-rings are properly seated in the grooves on both sides of the shim/spacer,
Slide the shim/spacer into the pressure tube behind the regulator that you have already fitted. Carefully push the regulator and shim/spacer past the threads in the pressure tube,
Grease the end face of the valve body with some silicone grease so that the O ring can't be twisted out of the chamber.

Screw the valve body into the pressure tube, then back it off a tiny bit (the thickness of a piece of paper). This allows the regulator to vent, which allows it to operate normally.

Slowly fill the pressure tube and check for leaks,

Once you are sure it is not leaking, screw the pressure tube/air cylinder back into the action,

Take about 10-15 seconds between each shot to allow the regulator to reset,

If you notice the power spikes every few shots it means that the regulator is not venting/breathing enough/properly. Check that the threads of the pressure tube and valve body are clean and free of grease, also make sure the valve body is not screwed too tightly into the air cylinder.

If this does not cure the problem then proceed to method 2 below.

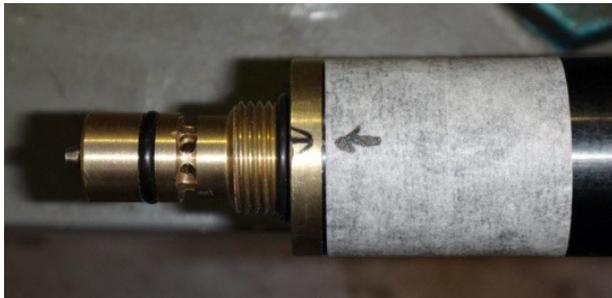
Method 2

This method is more reliable than method 1 because it allows the regulator to vent/breathe better,

There are no adverse structural changes made to the air cylinder and the rifle can be put back to standard after this modification.

Screw the cylinder into the action and make a note of the bottom of the air cylinder,

Remove the cylinder again and mark the bottom of the pressure tube and the valve casing with a pin/scraper, as shown below.



Make sure the pressure tube/air cylinder is completely empty,

Remove the valve body from the pressure tube,

Use a small metal file to make a tiny notch in the end/edge of the pressure tube. This does not have to be very big/deep, see pictures below. Just a very tiny notch.



Following your mark on the valve body, file a small groove in the longitudinal direction of the screw-thread of the valve body.

Use the corner of the file to cut a 45 degree/triangular groove in the threads, as shown below,

Note that the O ring groove does not get damaged by doing this modification.

The groove should be cut so that no threads are visible in the groove, this will allow the regulator to breath/vent freely.



To test the modification you can remove the regulator and shim/spacer from the air cylinder,

Screw the valve body into the pressure tube/air cylinder,

Remove the fill valve from the other end of the cylinder,

Put some soapy water on the edge of the valve body/pressure tube and blow (with your mouth) into the fill port end of the cylinder,

If the air duct just created is functioning properly, there will be air bubbles visible when you blow.



If you are happy that the cylinder is venting as it should then remove the valve body,

Fit the regulator and shim/spacer as described in Method 1,

The only difference now is the valve body can be tightened up to the pressure tube completely,