

HUMA-AIR.COM

Market Leader In Accuracy

Welcome to Huma-Air. We design and manufacture brand- and model specific precision regulators for PCP air rifles.

By using only the highest quality materials such as aircraft grade aluminum, aluminum-bronze, chrome-moly steel and precision belleville springs, our ultra-compact regulators are high performing with less than 1% fluctuation.

Regulator installation guide BSA Lonestar / Sportsman / Hornet / Techstar / Scorpion



For adjustment tips, frequently asked questions and a complete list of installation manuals and instructions on how to adjust your Huma-Air regulator

<https://www.huma-air.com/Fitting-instructions>



Or go there directly by scanning the QR code



Before you you start, realize this;

- Working on a high pressure rifle could potentially be harmful or lethal to you or bystanders if you do not know what you are doing.
- The pictures of the rifleparts in this manual are universal and mend as an example to explain the working principle. They might not be equal to the parts in your rifle.
- Do not attempt to install this regulator yourself if you do not have a clear understanding of how these pcp rifles and regulators work.
- Do not attempt to install this regulator if you are not skilled to work on an airrifle; contact your local gunsmith to do the fitting.
- Installation and operation is done completely at your own risk.
- Installing this regulator might void your rifle's factory warranty.
- Your rifle may never be filled higher in pressure as stated in your rifle's manual.
- Do not attempt to fit this regulator in another rifle as mentioned in our order conformation.
- These regulators are not suitable to use as a CO2 to HPA conversion, this could potentially be harmful or lethal to you or bystanders.
- We cannot be held liable for any accidents in relation to this regulator and its installation.

Before you start, make sure that the rifle is unloaded, remove the magazine and make absolutely sure 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 or follow the manufactures instructions and double check to make sure all the air is out of the rifle



If the regulator is fitted and there is no output pressure after filling the pressure tube, something might be wrong causing the airflow to block totally.

Please beware even though there is no output pressure, the pressure tube is fully charged with high pressure air!!

If you are not able to relieve the pressure of the pressure tube according to the manufacture instructions or by dry firing the rifle then:

Contact a professional gunsmith to retrieve a solution!

- **DO NOT try to unscrew or to open the pressure tube in any way.**
- **DO NOT try to pierce/drill or to use force to open the pressure tube or unscrew parts in an attempt to relieve the blocked pressure.**
- **These actions can cause serious injury or death to you or bystanders**

Make sure your pressure tube is fully empty.

Remove the action out of the stock.



Loosen both the breech screws a bit so there is a bit space between pressure tube and breech. This prevents scratches on the tube when turning it loose.

(you may also remove breech totally)



Turn off the pressure tube. If it's tight there could be pressure inside! Double check this.

When turned loose you can see the brass valve house or like the older models a steel valvehouse



Steel valvehouse with brass endcap



Brass valvehouse with brass endcap



Unscrew the endcap of the valve house and take out restrictor.



If your endcap has a plastic fill ring you do not have to re-use it. We have captured this in our regulator design.

IMPORTANT NOTE:

Some bsa pressure tubes have small scratches in the length direction of the tube.

You can check this by removing the fillcap and look trough the pressure tube into the light.

If you see these tiny scratches then you have to polish the tube on the place the regulator's O-rings will come, otherwise there is a risk the o-rings won't seal properly.

You can do this easy by using a round stick of wood with some fine sanding paper on it. Place it into a hand drill and polish the inside until the sides are nice and smooth. Some like to use a honing device too.

Clean the tube properly when finished.



Continue with removing the outer O-ring of the valve house. You won't use it anymore, just like the restrictor and valve endcap.



Steel valve house version



Brass valvehouse version

Screw the regulator volume bus on top of the valve house. Do not over tighten it, just screw it on gently with your hands.

Make sure the O-ring is positioned right in the o-ring chamber in the volume bus on both sides of the regulator

Use some silicone grease (and nothing else) to grease the first 6 cm's of the inner side of the pressure tube.

Push the regulator into the pressure tube, about 0,5 cm further then where the end of the volume bus will be when the pressure tube will be screwed on. (to prevent to loosen the volume bus o-ring when screwing the tube on the valve house) When you pressurize the tube later the regulator will be seated properly on top of the volume bus.

Proceed with screwing back the pressure tube on the valve house again and you are ready. Now you can assemble the rifle again using the same steps in opposite direction.

Our advice for adjusting the pelletspeed.

If you follow these steps you will have pretty much an optimal balance between air-usage and shotcount.

Remember the regulator will determine the maximum pelletspeed.

- Fill the rifle with air.
- Turn in hammer spring to the maximum tension.
- Do some shots and measure the pelletspeed.
- If the speed is near to what you want then continue. If not, see below.

If you get way too much speed, then lower the reg pressure a bit.

If you do not get enough pelletspeed then increase the reg pressure a bit.

You can increase or decrease it by setting the screw on top of the regulator according to the pressure scale.

- Turn back the hammer spring tension and shoot and measure the speed. Keep doing this until you see the pelletspeed decreasing.
- Now you should have a pretty well balance.

After fitting the regulator, most types of rifles won't need the factory hammer spring guide/weight anymore. Also inside the hammer there is often a red rubber ring. You can also experiment with removing this ring to reduce hammer spring tension and also reduce air consumption.