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.

General adjustment tips for your airrifle

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

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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**

How do I adjust my rifle properly:

There is unfortunately not one general answer to this questions, but we will try to help you out with some advice to understand the principle of a regulator and the settings.
Please note, all information in this sheet is general, and just an indication and may vary per model and type of rifle

The basic step:

Start to adjust your rifle so it shoots with a constant pelletspeed.
After the rifle is shoots constant, start working on the preferred pellet speed; changing one setting at the time

Respect the common regulator pressure setting:

These settings are based on average FAC rifles.
.177 in 8,4 gn. is around 125 bar.
.22 in 16 gn. is around 130-135 bar.
.25 in 25 gn is 140-145 bar.
(BSA rifles tent to be a bit higher)
These pressures should bring you close to the average pelletspeeds of about 270-285 m/s. Adjustments can be possible but only if you know what you are doing.

Short barrels need more pressure to speed up the pellet compared to longer barrels. Heavier pellets also need more pressure to achieve the same speed as lighter pellets.

Airflow:

Your rifle's power is determined by a mix of components like hammer weight, hammer spring tension, regulator pressure and diameters of transfer ports and or other air restrictions.
Most rifles use a sort of "self regulating behavior" of the valve. This is based on certain transfer port diameters combined with valve diameters. When using a regulator you do not need this "self regulating behavior" anymore and you will get the best results when you optimize the airflow. Remove restrictions (as far as they are used in your rifle) and check transfer port sizes. (Normally FAC rifles already have proper diameter transfer ports)

How to adjust my hammer spring tension in combination with the right regulator output pressure:

When you have fitted your regulator start using the lowest hammer spring tension and start shooting and measuring with a chrony. Shoot slowly like on the range.
After every shot turn up the hammer spring tension a bit. You will see a small adjustment of hammer spring tension will give a relatively higher pellet speed.

At a certain point you will notice although you can adjust the hammerspring tension even more, the pellet speed won't get higher or even gets lower. This means you have reached the maximum pellet speed in this pressure setting. If you would like a higher pellet speed, please adjust the regulator pressure some higher, following the

instructions here. 10 bar increasement will approximately give 10 m/s more pellet speed.
Too much hammer spring tension with too low regulator pressure will resolve in high air consumption

When you followed the steps above and you notice you can get a pellet speed much higher as preferred, you should also decrease the regulator output pressure.
If you continue with a too high regulator pressure, and you adjust the pellet speed only with your hammer spring tension, there is a possibility your pellet speed will climb when pressure gets below the regulator set pressure.

Hammerweight:

An unregulated PCP rifle needs a relative heavy hammer to open up the air valve in the full pressure range (200-100 bar)
When a regulator is fitted you will have a constant “lower” pressure on your air valve. This means the hammer can open the valve easier and often does not need as much power and weight compared to an unregulated rifle.
Sometimes losing some hammer weight can have a positive effect on the air consumption. Please don’t start drilling and grinding on your hammer directly, but check the several airgun forums. You will find a lot of information on your specific rifle and tuning it to even higher performance.

Whenever I find usefull video’s on the web I will post the links in the fitting instructions setting