

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 Benjamin Marauder



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**

1. Check if your airreservoir is totally empty.

2. Remove the action from the stock.



3. Double check / check again if there is absolutely no pressure inside the pressure tube. Only when absolutely certain proceed to remove the pressure gauge.



4. Loosen the grub screws from the barrel band and take the barrel band off.



5. Take a pair of pliers to remove the end cap. Use a piece of leather (belt) to prevent damage to the end cap, and unscrew the end cap.



6. You should be able to push the pressure gauge assembly a little forward into the tube, using an allen wrench or wooden dowel that you place in the hole of the pressure gauge.

7. Make yourself a little "tool" to remove the pressure gauge assembly.

With the little hook on the end of your tool you can pull out the assembly. If you find a round piece of rubber or plastic in the tube, you can remove it too and you don't have to place it back after fitting the regulator. It is a de-pinger.





8. You receive your regulator in a small plastic bag. The bag contains the regulator and also a tiny M3 allen flow restrictor bolt that has to be placed inside the adjustment screw. This bolt creates a slower but more accurate regulating behavior.

Tip; attach for instance some fishing line to this allen bolt. This allows you to easy remove the regulator if needed.

The reg itself also has a groove in the small part suitable for placing a wire to pull the reg out of the tube.

You can use the original m3 screw as you find it the bag.

Tip; You can also grind one side of the screw a bit for a quicker response time of the reg.

Screw in this screw and 'finger-tighten' only. When you feel it can't go in further, loosen it one full turn.



9. There are three types of Mrod regulators:

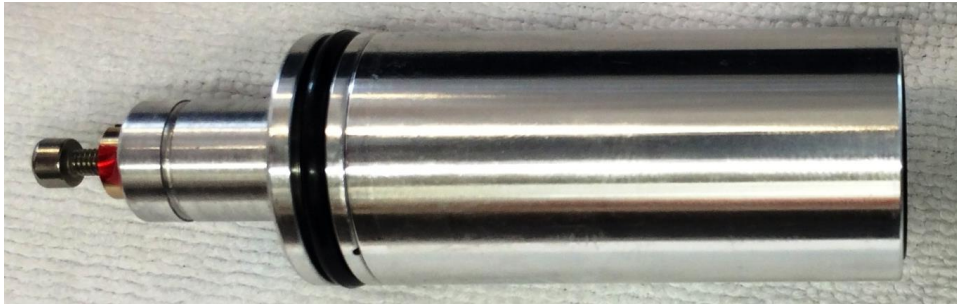
We have a regulator without pressure gauge connection for the .22 and one for the .25 rifles.

Please go to step 9a

And we have the regulator with integrated pressure gauge connection for the .177 and .22 rifles.

Please go to step 9B

9a. Regulator without pressure gauge connection for .22 or .25 caliber fitting instruction:



The regulator for the .22 and .25 can be fitted in two ways.

With, or without the original pressure gauge assembly. When you chose to fit it with pressure gauge assembly, please remember that after fitting of the regulator, the pressure gauge will indicate only a constant regulated pressure.

- 1) If you want to fit the .22/.25 regulator without the pressure gauge, then you can slide the regulator into the pressure.
Please continue with step 10.
- 2) Fitting the .22/ .25 reg including the original pressure gauge adaptor of the rifle. Before you slide back the pressure gauge assembly into the tube, remove the front o-ring of the pressure gauge assembly. This allows the regulator to breathe. Also check if the surface of the pressure gauge adaptor is smooth and without scratches so the regulator o-ring will seal properly. Then slide both into the tube like the picture below.

Make sure the breath hole of the regulator body is facing upwards to the breech when the tube is screwed on.

Please continue with step 10.



9b. Regulator with pressure gauge connection for .177 and .22 caliber fitting instruction:

After you have removed the original pressure gauge adaptor, slide the regulator in the pressure tube. Make sure the hole of the pressure gauge is lined up with to the hole in the pressure tube!!

10. You can use a piece of PVC electric installation pipe to push it in. Please do not push on the set screw because this can adjust the regulator pressure

Tip; A little silicone grease (will aid in installation and help prevent damage to the o-rings. use only silicone grease and NOTHING ELSE)

When sliding in the regulator, guide the o-ring with your fingers when it reaches the hole of the pressure gauge so it doesn't get damaged.



11. When the reg is set in place, you can place the pressure gauge again.

Just screw it in with your hands or use a wrench. DO NOT over tighten it. The o-ring inside the hole will close the tube. There is not much force needed.



12. On the side of the pressure tube near the breech and valve you will find the factory flow restrictor that restricts the airflow through the valve house. There are 2 grub screws on top of each other.

Take the first one out, this is the locking screw. Then turn the other one open 2 full turns. Then lock it again with the other screw. It must be turned in at least until it clamps on the other screw and sit fully into the tread of the valve.



13. Reinstall the endcap and barrel band and re-fill the marauder carefully.

Check around the pressure gauge if the connection is 100% air-tight. You can use water with some soap for it.

Keep the hole/pressure gauge pointed to the ground so no soap water can get into the tube.

14. You can now reduce the hammer spring tension because a regulated air-rifle does not need as much hammer spring tension as un-regulated rifle, this because of the lower working pressure.

When you are testing/adjusting your rifle using a chronograph, please remember to take sufficient time between the shots for the regulator to recharge the regulated chamber volume.

Please note, the regulator valve & valve seat combination needs to break in, so it can take a little while before the regulator is working at its best.

Tip; If you really like tune your marauder further, and get everything out of it that is possible, then there are a lot of easy modifications that can be done.

You could open the restrictor of the mrod's air valve, open up the transfer port in diameter, place extra preload on the valve return spring etc etc. this again is at your risk and we recommend you first read up on this advanced tuning of your rifle on <http://www.marauderairrifle.com/forum/>