

# 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.**

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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.

## **Regulator installation guide Dual Stage Tuning Regulator**

**HUMA-AIR**



**Bottle regulator**

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 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 rifle parts in this manual are universal and used 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 air rifle; 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 confirmation.
- 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 manufacturer's 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/bottle is fully charged with high pressure air!!**

**If you are not able to relieve the pressure of the pressure tube according to the manufacturer's 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**

Before you start, we would like to advise you to read our manual how to [read and adjust the regulator pressure](#) and our [General Adjustment Tips](#) to set up your rifle perfect.

**Before you start, read the full manual.**

**This manual is a guideline and can be different in detail compared to your rifle.**

### **Important Safety Notes:**

- These regulators are not suitable for stand-alone pressure bottles/buddy bottles.
- The maximum working pressure of this model is 250 Bar.
- Do not exceed the factory advised fill pressure of your rifle.
- Do not exchange the original factory bottle for a higher pressure version.

### **Pressure setting of your new regulator**

The set pressure of the regulator is marked on the label of the bag.

Setting the pressure can be done by adjusting the bronze colored set screw what is visible inside the male threaded part of the regulator.

A 5 minutes turn contra clockwise will give a pressure increase of about 6 bar.

The pressure range of this regulator is between 70 and 170 bar.

On the picture here below you see the setscrew with screw driver slot and a marking dot to indicate the position of the pressure setscrew



### **Fitting of the regulator**

The parcel consists of:

The regulator body

The fill- and pressure gauge collar

A stainless steel foster male quick connect fill connection

A mini pressure gauge with o-rings

A blind plug to disable the factory fill connection



The foster male fill connector has a o-ring powered fill valve. By loosening or tightening the small screw you can adjust the fill speed.

The pressure gauge comes with a small and a thicker o-ring. One of these two can be used for fitting the pressure gauge.



The collar of the regulator has 2 holes in it: a blind threaded hole with a tiny measuring hole inside it and a fully open threaded hole



Inside the blind hole one of the small orings can be placed and after this you can screw in the pressure gauge.

When you feel the gauge touches the o-ring, you can adjust the gauge for about  $\frac{1}{2}$  a turn for proper line up. Do not use a wrench or pliers, just hand thigh is enough.

If the gauge does not line up properly, you can exchange the o-ring for the thicker or thinner one included what will give you about  $\frac{1}{2}$  turn extra adjustment space.

(If the gauged does not read any pressure when finished and the rifle is filled, the gauge is probably screwed in to hard causing the o-ring to close the measuring hole)

Do not screw in the foster male connector yet.

Depressurize your complete rifle including the bottle.

Unscrew the pressure bottle of your rifle and double check both are completely pressure less before you continue!

Start by unscrewing the 4 bolts of the trigger cover and remove the factory foster fill connection. Replace this foster male connector by the blind-plug what comes with your new regulator.



Now unscrew the adapter with valve of the bottle and remove the "one way flow" parts of the valve. Also remove the factory o-ring what is on the adapter.



Now you can cut off the unthreaded part of the bottle adapter.



Deburr and clean the adapter afterwards and put on the thicker o-ring what is supplied with your new regulator (it is inside the facing of the regulator) and screw the adapter into the regulator body. Hand tight is sufficient.



Now screw the regulator on the action of the rifle, hand tight.



Now place the collar of the regulator on the regulator body. Make sure the blind hole with small measuring hole faces towards the same size as your factory pressure gauge. Then put the o-ring, what you removed from the bottle valve adapter, on the treaded part of the regulator



Now you can screw the bottle on the regulator body. Before you tighten the bottle, please align the regulator collar to the position you want it and after that, tighten the bottle firmly by hand.

Now you can place the pressure gauge and the foster fill connection to the collar of the regulator.

The pressure gauge needs to be hand tight, and the foster can be slightly tightened with a spanner.

Please note: the regulator collar cannot be removed of the regulator with the foster in place. You need to unscrew it first before removing the collar of the regulator body.



Now you can place the trigger guard cover back on the rifle



If everything is checked and ok, you can fill your rifle using the foster fill connector of the regulator.

**Do not use the rifle original fill port or fill connector anymore as it will damage the regulator.**

Just apply a bit of air and check if the pressure gauge of the regulator will react, if not there is a good chance the gauge is tightened to far causing the o-ring to seal the measuring hole.

When this dual stage tuning regulator is fitted to your rifle's the pressure gauges will indicate the pressures below:

- The pressure gauge on the Huma-Air regulator will indicate the fill pressure of the bottle.
- The original factory fill pressure gauge will now indicate the output pressure of the dual stage bottle regulator
- The factory regulator pressure gauge will show the output pressure of the regulator fitted inside the action of the rifle

The Huma-Air Dual Stage regulator can also be fitted with a Wika pressure gauge and or and black tactical cover.