

Thank you for choosing the Spearhead barrel tuner! We are confident our barrel tuner will provide the optimal tune for your rifle. Should you have any questions or concerns, please don't hesitate to contact us, your satisfaction is our highest priority. We sincerely appreciate your support and thank you once again.

Barrel tuner installation instructions

Please note: Barrel tuner adaptor is compatible for use up to .338 caliber, **do not use any caliber larger than .338.**

Barrel tuner will fit a barrel muzzle diameter up to 1.075" at two inches behind the muzzle shoulder.

If non self-timing muzzle brakes are used, crush washers are required to time and index the muzzle brake.

Installation procedure if using barrel tuner behind muzzle devices.

Remove all cartridges, ensure the firearm is completely unloaded.

Screw tuner adaptor to muzzle threads, tighten adaptor with $\frac{7}{8}$ " or adjustable wrench.



Screw tuner body onto tuner adaptor until the hex shoulder on the adaptor is slightly proud from the rim of the tuner body.

Place the 3 set screws in the holes further from the engraving marks. Lightly snug the set-screws so there is tension but still able to turn the tuner body. Set-screws are nylon tipped and won't damage threads.

Screw and tighten your muzzle device onto the tuner adaptor.

Tuner body is to be screwed toward the receiver for the tuning process so the engraved number ascends. After desired tune is achieved, snug the set-screws to secure the tuner in desired position. Do not overtighten set screws as the nylon tip will prematurely wear out.

Installation procedure if using barrel tuner only

Remove all cartridges, ensure the firearm is completely unloaded.

Screw tuner adaptor to muzzle threads, tighten adaptor with $\frac{7}{8}$ " or adjustable wrench.



Screw tuner body onto tuner adaptor until the rim with the engraving marks is flush with the rear of the adaptor.

Place the 3 set screws in the holes closer to the engraving marks. Lightly snug the set-screws so there is tension but still able to turn the tuner body. Set-screws are nylon tipped and won't damage threads.

Tuner body is to be screwed toward the receiver for the tuning process so the engraved number ascends. After desired tune is achieved, snug the set-screws to secure the tuner in desired position. Do not overtighten set screws as the nylon tip will prematurely wear out.

Tuning procedures

Ensure set screws have tension and are lightly snug.

Place a witness mark or draw a reference line on the barrel. This will be used to reference the numbered index marks on the tuner body.

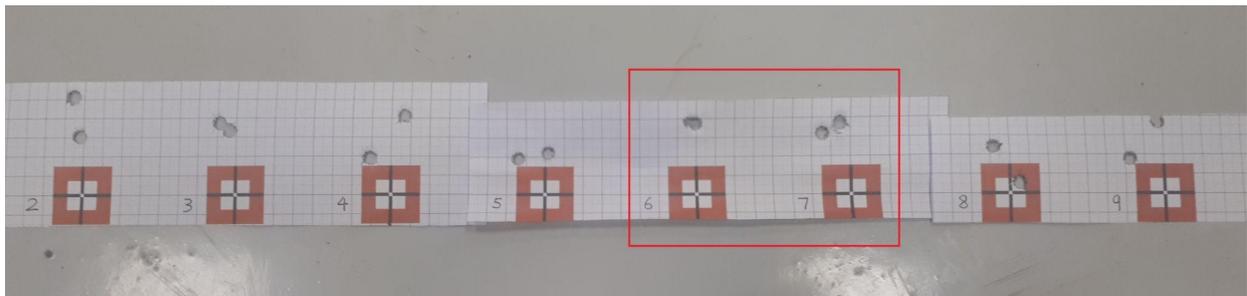
The numbered index marks are arbitrary and used to reference tuner position, you can start at any numbered index mark.

Start by taking 2 shots on a selected aiming point, rotate the tuner towards the receiver so the number index ascends to the next number. If you previously shot on #2, rotate the tuner to #3 and take 2 shots on another aiming point. Record and correspond which aiming point was shot with which index number on the tuner body. Continue this process until you see groups patterns change.

We have found rotating to the next number is enough to make a change in the grouping. However depending on the contour profile and length of your barrel, you may wish to increase or decrease the rotation between intervals. For lighter profiles, you can decrease the rotation by going to the next index mark, for heavier profiles, you can choose to rotate two numbers at a time.

You will see groups patterns change in size as well as the point of impact shift relative to the point of aim, this pattern repeats itself and the optimal tune is found within a revolution or 2. There is no need to go through multiple revolutions.

Take note especially the vertical displacement between group patterns, choose the tightest group with the same relative point of impact where the vertical displacement is stable. Say if #6 and #7 displayed tightest group, fine tune by testing index mark #5.5, #6, #6.5, #7 and #7.5.



Once optimal tune is achieved, tighten the set screw to prevent tuner movement.

If you find your loads do not perform as well due to weather/atmospheric conditions, you can rotate your tuner in either direction and usually the group will return to tune.

Maintenance

Periodically clean the inside of the tuner adaptor as required to prevent carbon build up. If too much carbon is built up, it will eventually get to the point where the carbon cake layer will interfere with the bullet path, causing inaccuracies. The best maintenance is preventative maintenance before the carbon layer has a chance to build up.

You may choose to soak your adaptor in carbon cleaner or alternatively use a q-tip with carbon cleaner to clean the internal surfaces.

Should you have any questions, please don't hesitate to contact us.

Yours in shooting excellence
-Spearhead Machine