



**GREY  
BIRCH**

**BOLT ASSEMBLY GUIDE**



Congratulations on the purchase of your Grey Birch Bolt Assembly.

With the exception of the barrel, the bolt is the most important component to increase the accuracy of your rifle system.

The purpose of this guide is to provide instructions to assemble & disassemble your bolt so you can self maintain, and keep it running well for years.



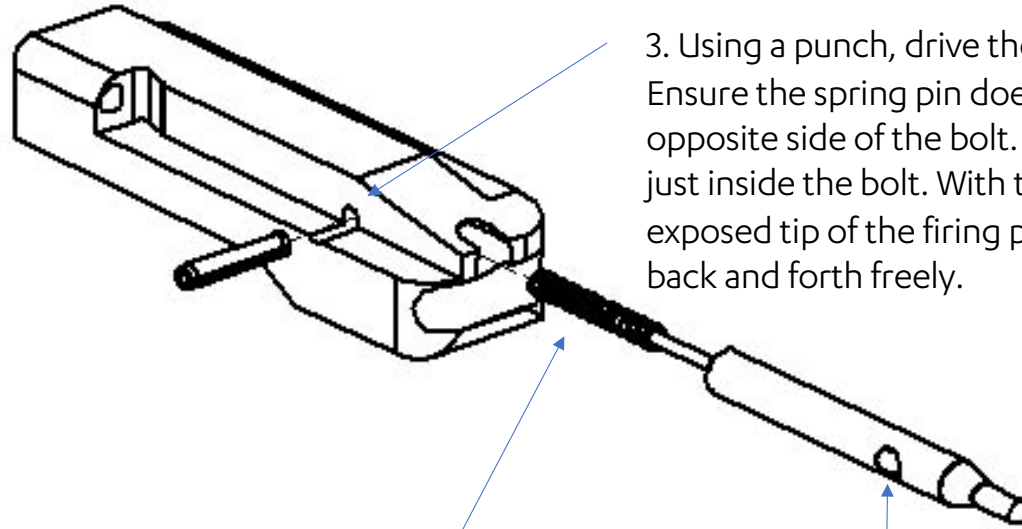
### **FIREARMS SAFETY IS IMPORTANT:**

Please follow these guidelines when using a firearm.

- Assume every firearm is loaded.
- Control the muzzle direction at all times. Do not point it at anything you do not intend to shoot.
- Remove the magazine from the firearm.
- Observe the chamber to ensure it is empty and lock back the bolt if possible.
- Now that your firearm has been proved safe, you can begin the disassembly of your rifle.



## BOLT ASSEMBLY (FIRING PIN)



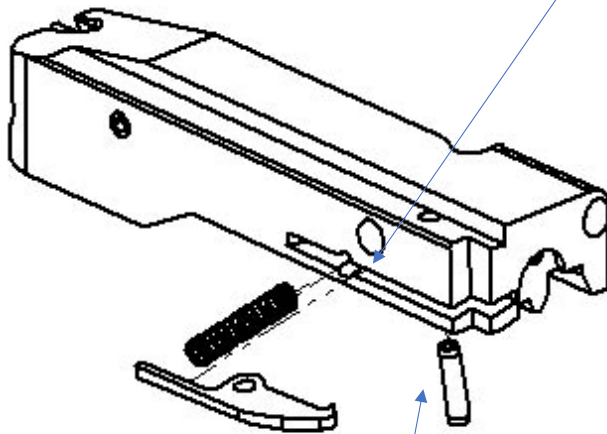
1. Slide the firing pin spring over the firing pin.

3. Using a punch, drive the spring pin into the bolt. Ensure the spring pin does not protrude from the opposite side of the bolt. The spring pin should sit just inside the bolt. With the firing pin installed, push the exposed tip of the firing pin into the bolt to ensure it moves back and forth freely.

2. Ensure the cross pin hole is horizontal inside the bolt. This is necessary to allow the spring pin to capture the firing pin assembly.



## BOLT ASSEMBLY (EXTRACTOR)



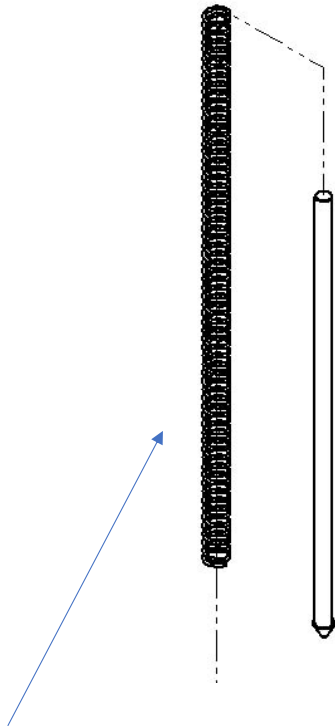
2. Prior to installing the spring into the spring pocket, ensure there is no debris. Any dirt or residue can cause extraction and cycling issues. With the spring installed place the extractor into the extractor slot and finish driving the spring pin into place.

With the extractor installed, articulate the extractor to ensure it moves freely and does not bind.

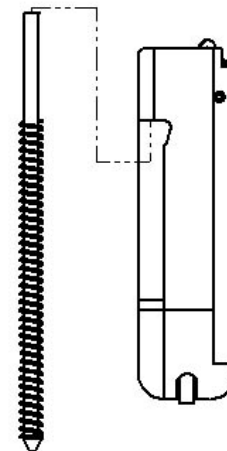
1. To install the extractor, it may be helpful to start the spring pin before putting the extractor spring and extractor into the bolt.



## BOLT ASSEMBLY (GUIDE ROD)



1. Slide the return spring over the return rod.



2. Push the rod into the bolt. This will compress the return spring. Pinch the top of the return rod protruding from the top of the bolt. This will keep the assembly together while installing the bolt into the receiver.



### **Additional Resources:**

Ballistics by the Inch - <http://ballisticsbytheinch.com/22.html>

The Ultimate Optics Guide to Rifle Shooting by our friend Reg Wales -  
<https://vortexoptics.com/the-ultimate-optics-guide-to-rifle-shooting.html>

We have achieved our best accuracy results using the following ammunition:

- RWS R50
- Eley Tenex Biathlon
- RWS Club Sport
- CCI Subsonic

For additional support please visit [www.greybirchsolutions.com/support](http://www.greybirchsolutions.com/support)