



### PARTS INCLUDED

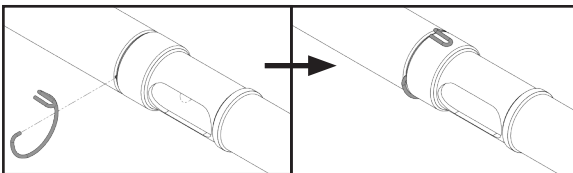
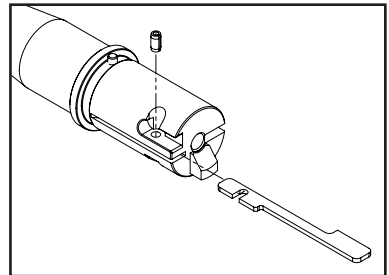
- Ultralight barrel
- Cleaning port cover
- Two (2) cleaning port shims
- Cleaning port cover spring
- Rimfire bolt assembly
- Rimfire OS charging handle
- Ejector
- Ejector roll pin

The .22 LR Ultralight Supermatch™ Barrel is a phenomenal weight saver for the all-out rimfire competitor. This assembly is built around a 6" Supermatch™ barrel with a light-weight aluminum shroud permanently pinned and welded to reach an NFA-legal length.

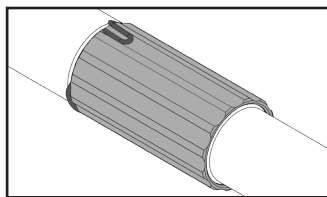
This barrel will install similarly to any standard AR-style barrel with some additional steps to allow for the cleaning port cover and spring.

### INSTALLATION

1. Install the included ejector as shown, driving the roll pin in with a hammer and punch.
2. Remove the cleaning port cover by unscrewing it and sliding it off the barrel. Beneath this cover are a pair of shims for collecting carbon and lead build-up. Remove the shims as well at this time, noting how the shims are positioned. The edge of these shims can be very sharp. take care when handling.
3. Install the barrel in your receiver with the barrel nut of your hand guard according to its instructions. Do not install the hand guard tube at this time.
4. Flex the port cover spring such that you can insert the tail end into the index hole in the barrel as shown. If the spring hangs up in the hole, simply push until it seats completely. Follow this by wrapping the spring around the outside of the barrel.



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5. Replace the shims around the cleaning port as it was originally. Then, thread the port cover back on until it bottoms out. The tab of the port cover spring should come to rest atop the cover nestling into one of the machined scallop cuts as shown.



At this point, you can finish the installation of the hand guard tube.

Should it become necessary to disassemble the upper assembly and remove the barrel, the port cover spring will need to be detached. This can be done by using a small pair of needle-nose pliers or a 90° bent needle-nose pliers to pull the spring's tail from its hole in the barrel. Alternately, a piece of wire or string can be passed between the spring and the barrel so that by pulling both ends, you can draw the tail of the spring out. Once the tail has been removed from the hole, the rest of the spring can be uncoiled from around the barrel.

## AMMO SELECTION

The .22 LR action is very accommodating to most high velocity ammunition available in that caliber and will function most reliably with copper-plated bullets. For improved accuracy, standard velocity target ammo will typically perform better. However, you may encounter reliability issues with some standard velocity or subsonic ammunition because they can lack the energy to cycle the bolt reliably. Some of the solid, match-grade options on the market include Federal Cartridge AutoMatch, CCI Green Tag, PMC Match Rifle and various loads by Lapua and Eley. From most high-velocity ammunition, you can expect 2-3 MOA and 1.5-2 MOA out of less expensive target- or match-grade loads at 50 yards.

We recommend that you practice firing several boxes of a particular ammunition through your rifle before putting that ammunition to regular use in order to thoroughly gauge its ignition reliability and performance. Once you find a round that meets your reliability and accuracy requirements, we suggest buying as much as you can since rimfire can vary substantially between lots.

The .22 LR action is designed to function with the Black Dog .22 LR magazine platform or any clone thereof. Other magazines such as the Smith & Wesson will not function.

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## **MAINTENANCE**

The cleaning port of this barrel allows easy access to remove carbon and lead buildup on the barrel crown once the hand guard tube is removed. Keeping the shims in place beneath the port cover will ensure that the cover itself will not seize up. These shims will become caked with carbon and lead after extended use but can be easily removed and cleaned. This should be done approximately every 5000 rounds.

When servicing your .22 LR rifle, cleaning of the bolt assembly does not require you to disassemble its component parts, and such a complete disassembly is not recommended as part of regular maintenance. To clean the bolt, simply use a nylon brush, solvent and a rag to thoroughly scrub and scour the entirety of the bolt assembly, paying particular attention to the bolt face and extractor. Dry the surface of the bolt completely with compressed air, and re-lubricate with an oil cloth. Make sure to leave a light film of oil over the entirety of the bolt assembly to lubricate and avoid the possibility of corrosion.

## **WARNING**

While we have done durability and drop testing with the .22 LR Ultralight barrel without any failures, more care should be taken with this barrel than with a standard steel barrel. The aluminum shroud is less rigid and could be bent if it is dropped or too much force is applied.

**THANKS FOR YOUR BUSINESS!**

**.22 LR ULTRALIGHT BARREL**

