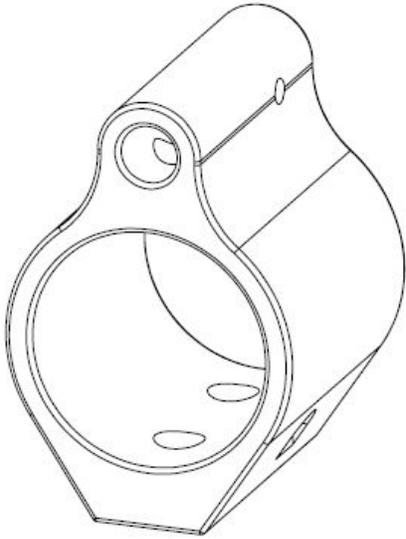


# MicroPin Gas Block™

Installation Instructions



## BLACK RIVER Tactical

### Warning

Always verify the weapon is unloaded and in a safe condition before performing any work.

Installation of the MicroPin Gas block should be performed by a certified armorer or gunsmith.

### Applications

The MicroPin Gas Block is designed for use with AR15/M16/M4 and AR-308 type weapons with barrels having a nominal gas block journal diameter of .750".

The bores of the MicroPin Gas Block are precision reamed for a close fit to the barrel and gas tube, ensuring maximum gas system performance.

The MicroPin Gas Block is extremely versatile, fitting under or in front of most free floating handguards. It can also be installed in front of a standard handguard cap for use with non-free floating handguards and a Delta Ring.

Hard use weapons see both heat and impact. Those are usually recommend to remove stuck fasteners. For years, militaries and weapons designers around the world have relied on pins to secure weapon components under harsh conditions. The standard M4 Front Sight Base is required to be pinned by mil-spec. Ordinary low profile gas blocks only designed to be attached with set screws just can't measure up.

The MicroPin Gas Block is designed to be easily secured using both set screws and a pin, for ultimate reliability. Gas block pinning is recommended for any weapon that sees Military, Law Enforcement, and Self Defense use.

Black River Tactical makes it easy to do the right thing, so there is no excuse NOT to have a pinned gas block.

### Specifications

- Precision CNC Machined
- Hardened 4140 Chrome-Moly Steel
- Mil-Spec Black Oxide Finish
- Weight: 1.6 oz
- 100% Designed and Manufactured in USA

### Package Contents

- MicroPin Gas Block
- (2) Knurled Cup Point Set Screws
- 1/8" Cobalt Steel Drill Bit
- 1/8" Stainless Steel Spiral Coil Pin

MicroPin Gas Block is a trademark of Black River Tactical LLC.

# Installation

## 1) Get Started

These instructions assume installation of the MicroPin Gas Block on a barrel that has already been mounted in the upper receiver and secured with an appropriate barrel nut.

## 2) Inspect Barrel

Ensure the gas block journal on the barrel is clean and burr free. New barrels usually do not require any preparation. If the barrel previously had a gas block or Front Sight Base mounted, it may need to be cleaned up.

## 3) Test Fit Gas Block

Slide the gas block onto the barrel. It should assemble with minimal effort. If it does not assemble, check the barrel diameter with a set of quality calipers. Incorrect barrel machining or coatings applied to the barrel can cause the barrel fit to be tight. The barrel may be polished down to allow fitting. Black River Tactical offers a version of the MicroPin gas block that is slightly oversized to allow for the thickness buildup of barrels coated with finishes like Cerakote.

## 4) Install Gas Tube

Support the gas block with a soft wooden block. Install the gas tube into the gas block and verify proper orientation of the tube. Install the gas tube roll pin using a roll pin starter punch and roll pin punch to finish.

## 5) Assemble Gas Block

Install the BRT MicroPin Gas Block onto the barrel and align the rearward set screw with the dimple in the barrel directly opposite the gas port. Tighten the rearward set screw first and then the forward one. There will normally be a 0.025" gap between the gas block and the shoulder of the barrel to allow for the installation of a standard hand guard cap.

If the barrel does not have a set screw dimple, the gas block must be positioned by eye. A .025" shim may be used between the gas block and barrel shoulder for front to back positioning. Align the gas block in the vertical plane.

Verify proper alignment of the gas tube by placing a stripped bolt carrier into the receiver while checking for any contact. A thread locking compound may be used on the set screws, but is not required due to the use of knurled tip screws.

## 6) Drill Pin Hole

Clamp the assembled barrel and gas block in a drill press vice with the flat pin feature facing up. A V-block may be used to locate the top of the gas block. Using the supplied 1/8" cobalt drill bit, drill the retaining pin hole completely through both the gas block and barrel, using steady pressure and suitable cutting fluid. Nitro-Carburized or Melonite barrels have a very hard but thin coating. The supplied cobalt drill bit should have no trouble getting through. Remove the barrel from the vise.

## 7) Install Pin

Support the gas block with a soft wooden block. Using a small hammer and roll pin starter punch, carefully drive the supplied 1/8" coil pin into the gas block. Before the punch bottoms out, switch to a 1/8" roll pin punch and drive the pin until it is centered in the gas block.

## 8) Finish Installation

Install the muzzle device and torque per manufacturer's specifications. Install hand guards or free float rail.

## 9) Verify Proper Function

Test fire the weapon at a firearm range, observing all safety procedures. Verify proper weapon cycling by loading one round in the magazine and firing. The bolt should hold open. Repeat this test several times with a loose grip on the weapon. It should always lock back.

Contact Black River Tactical with any questions.