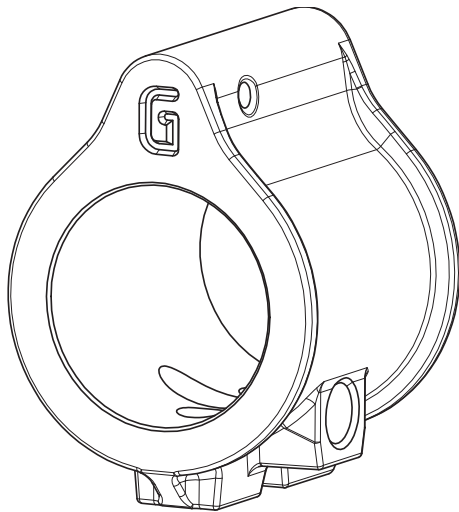


Super Gas Block (SGB)

Installation Instructions



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AUTOMATICS
We Manufacture Confidence[®]

READ THIS FIRST

Firearm safety is **YOUR** responsibility. You must memorize and put into practice the 4 Rules of Firearm Safety.

1. Assume every weapon is loaded.
2. Keep your finger off the trigger until you are ready to shoot.
3. Do not let the muzzle point at anything you are not willing to destroy.
4. Know your target and what is beyond.

Geissele Automatics recommends installation by a certified gunsmith only.

The Geissele Super Gas Block (SGB) is precision investment cast from 17-4 precipitation hardening stainless steel, which combines superior corrosion resistance with high strength. It is designed to fit under most full length free floating rails such as the Geissele Super Modular Rail. The bore of the SGB is machined to closely fit around .750" diameter mounting bosses found on most M4 Carbines, AR-15 and AR-10 type rifles. There are two possible mounting solutions that can be used for fastening an SGB to the rifle barrel. These instructions will cover both solutions.

Easy and Secure Installation

1. Deburr and smooth the mounting boss on the rifle barrel that will accept the SGB. If an A2 front sight had been installed on the barrel, raised and proud areas are usually left around the taper pin holes. These proud areas must be filed slightly below flush. Use emery cloth to smooth the remaining areas.

2. Check the fit of the SGB. Temporarily slide the SGB onto the barrel mounting boss. If the boss was machined correctly the SGB should slide on freely with about 0.0010" clearance. If it does not slide freely re-check for burrs and measure the rifle barrel boss with a quality micrometer capable of 0.0001" resolution. All Geissele Super Gas Blocks are gaged at the factory to ensure 100% compatibility with a correctly machined barrel. If the barrel is not machined correctly small deviations can be accommodated by polishing the mounting boss with emery cloth or slightly opening up the bore of the SGB. Enlarging the bore can be done with emery cloth captured on a slotted wooden dowel mounted in a die grinder.

3. Install gas tube. Install gas tube using the supplied .078" diameter stainless steel coil roll pin. Make sure the bend in the gas tube is pointing in the correct direction to mate with the upper receiver (or the gas tube will need to be removed and rotated 180 deg). Supporting the SGB on a couple of scraps of soft wood works well when installing the small roll pin. An additional aid is the Geissele Roll Pin Tool that makes installation a snap. At this time install one set screw in the bottom of the SGB making sure the set screw does not protrude into the bore.

4. Slide SGB and gas tube assembly onto barrel. Rotate the assembly until the gas tube is perfectly aligned in the upper receiver hole and the back face of the SGB is flush with the back ledge of the barrel mounting surface. Temporarily tighten the set screw to secure the SGB in place while being careful that gas tube alignment does not change. Install the bolt carrier (without bolt installed) and slide the gas key over the gas tube while checking for any binding or rubbing. If any issues with gas tube fit to carrier key are found, correct them at this time.

5. Temporarily install rail. Make sure SGB is somewhat centered in rail and not interfering with internal diameter of rail. Some slight deviation from perfect alignment is normal and should be expected. This is mostly due to gas tube straightness variations. Remove rail.

6. Spot drill barrel. Using a 135 deg split point #25 drill such as McMaster-Carr PN: 28765A75 spot drill the barrel through the open set screw hole. A hand drill works well for this step. All that is needed is a dimple so that the set screw enters into the dimple and does not pull up proud bumps when tightened. It also puts the set screw in shear from any axial or radial loads applied to the gas block in service. Blow out chips from drilling and install and tighten the 2nd set screw. Now remove the 1st set screw and dimple the barrel through that hole. Re-install the 1st set screw. Re-check gas tube alignment. It is permissible to use a locking compound such as Loctite Blue on the set screws.

GEISSELE® AUTOMATICS

Super Gas Block (SGB)

for M4 Carbine, AR-15 and AR-10 Uppers

Bombproof Installation

If the weapon is going to be used in a duty or combat situation it is recommended to pin the SGB to the barrel. The SGB has a pilot hole already in place for the supplied 3/16" diameter, stainless steel spiral coil pin. Complete the installation using the instructions above, then follow the instructions below.

1. Securely mount the barrel with SGB installed into a robust vise in a milling machine or heavy duty drill press. It may be necessary to fabricate a simple V-block fixture for this step. Drilling the coil pin hole cannot be done with a hand held drill.

2. Align the machine spindle with the pilot hole

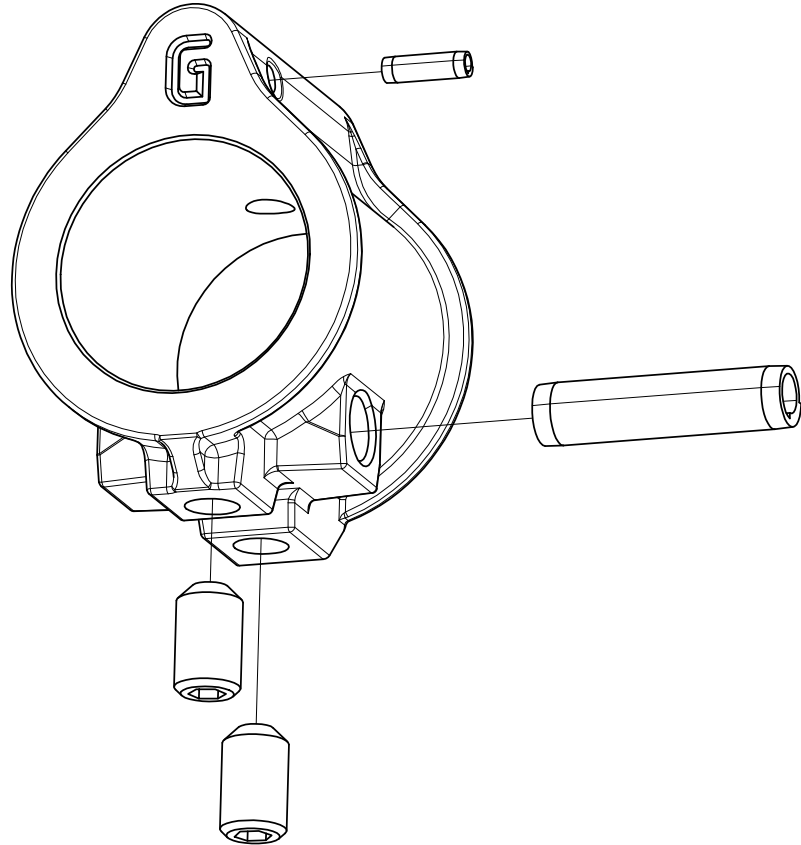
- a. Vertically align with the Z axis of the machine spindle. All that is needed here is a visual alignment.
- b. Horizontally align the X and Y axis of the machine spindle by using a close fitting pin to the pilot hole that is secured in the drill chuck. This is not a super critical alignment since there is plenty of machining stock left for the pilot hole.

3. Match drill through the SGB pilot hole and barrel using a 3/16" diameter drill with good quality sulfurized cutting oil. A 135 deg split point, cobalt screw machine drill works well for this step such as McMaster-Carr PN: 28765A19.

4. Drive the supplied 3/16" spiral coil pin into the match drilled hole while backing up the SGB onto a piece of soft wood. The SGB is now secured to the rifle barrel.

5. Note: If a nitrided SGB is used the pilot hole is already opened up to .188" diameter here at Geissele. Alignment of the pilot hole becomes more critical with the larger pilot hole. It may be advisable to spot the curved barrel inside the larger pilot hole with a small center cutting end mill so that the 3/16" drill starts smoothly and does not wander.

Contact Geissele Automatics with any questions.



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1920 W. Marshall St. Norristown, PA 19403 | Tel: 610-272-2060 | Fax: 610-272-2069 | www.geissele.com