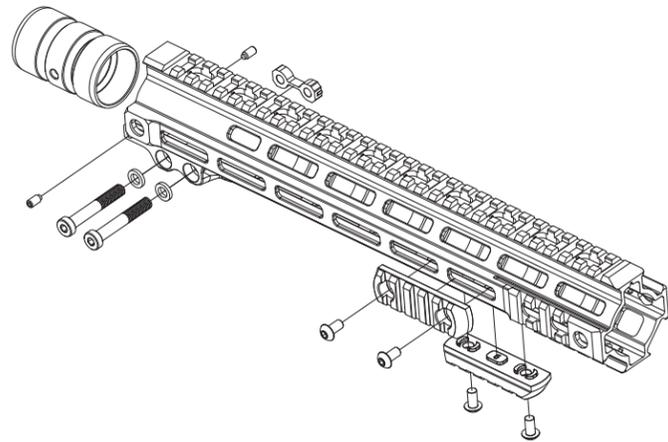




# SUPER MODULAR RAIL MK4 M-LOK



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.**

## A BRIEF DESCRIPTION OF THE MK4 M-LOK

The Super Modular Rail MK4 M-LOK™ is Geissele's ultra-lightweight M-LOK option. These rails are purpose-built and feature integrated M1913 picatinny rail sections at the fore of the rail in the 3, 6 and 9 o'clock positions. Maximum venting for heat dissipation also dramatically reduces the rails overall weight, while maintaining its same strong and rigid platform.

The MK4 M-LOK rail features M-LOK slots at the 3, 6 and 9 o'clock positions as well as the upper 45° quadrants. This allows the user to keep the weight on the rail system down, while keeping the modularity and versatility to attach accessories as necessary. The SMR is designed to fit M4 Carbine mil-spec flat top upper receivers and must be used with a low profile gas block such as the Geissele Super Gas Block (SGB). Upper receivers that are not mil spec such as those manufactured from billet may need to have gunsmith modifications made to the SMR to fit properly. Compatibility with gas piston systems is unknown at this time. **Please note that the SMR MK4 M-LOK series does NOT include accessory rails.**

The Geissele Automatics Super Modular Rail (SMR) MK4 Magpul M-LOK is easy to install. However, it will need some specialized tools that you may not have. Installation by a certified gunsmith is recommended.

## INSTALLATION INSTRUCTIONS

Refer to SMR MK4 M-LOK drawing on the back for the item numbers and positioning of the rail components.

1. Remove existing flash hider, handguard and front sight/gas block/gas tube.
2. Use the Geissele barrel nut wrench (sold separately) to remove the stock barrel nut and discard.
3. Remove barrel and inspect and clean the upper receiver threads. Reinstall the barrel being careful to align the barrel extension indexing pin with its corresponding slot in the upper receiver threads.
4. Liberally coat the upper receiver threads and the outer face (*torque shoulder*) of the barrel extension with anti-seize or grease. If these are not available, oil or CLP may be substituted.
5. Slide the aircraft aluminum Geissele barrel nut (**Item 2**) over the barrel and hand tighten.
6. Use the Geissele barrel nut wrench to tighten the Geissele barrel nut to 40 ft-lbs by using the pin and corresponding hole in the OD of the barrel nut. Torquing of the barrel nut is recommended. *However, for the last 40 years the stock barrel nut has not been torqued, only indexed to line up with the gas tube. If you are an experienced AR builder and are sure of your ability to properly tighten the stock barrel nut you can alternately tighten the Geissele barrel nut with a ratchet or breaker bar in the 1/2" square aperture in the Geissele wrench.*
7. Install the gas block and gas tube being careful to line up the gas tube with the center of the gas tube hole in the upper receiver. Once installed take the bolt carrier assembly and slide into the upper receiver making sure the gas tube slides freely onto the gas key and there is no binding.
8. Slide the SMR handguard (**Item 1**) onto the barrel nut. Be very careful when doing this as the clearance between the OD of the barrel nut and ID of the handguard is precisely machined to about 0.001" clearance. Burrs or dings on the barrel nut will not allow the handguard to slide freely. It is recommended to lightly coat the barrel nut OD and ID of the handguard with a light film of oil before installing until you get the hang of installation. Slide the handguard against the barrel nut, then use your fingers to align the other end of the handguard concentric to the barrel so the rail section is not cocked. By wiggling the handguard very slightly and pressing downward it will start on the barrel nut. Once it is about 1/2" onto the barrel nut it can be slid home. Do not force the handguard onto the barrel nut. If force is needed there is something wrong. Remove the handguard and inspect the OD and ID interface.
9. Install the two rail mounting bolts and washers (**Items 4 and 5**). You may have to slide the handguard slightly to line up the holes with the grooves in the barrel nut in order for the bolts to start. Start the bolt threads

into the dogbone nut (**Item 6**). Do not tighten the rail mounting bolts fully at this time.

10. Time the top M1913 rail to the M1913 rail on top of the upper receiver. We recommend this is done by bridging the two rails with a scope mount and tightening up the mount so that the rails are rotationally aligned.
11. Tighten the two rail mounting bolts to 5.0 ft-lbf. Keep the scope mount installed during the tightening process. If a torque wrench is not available use a short arm allen key (**Item 9**) and tighten snug.
12. Tighten the two rounded point set screws (**Item 7**) against the upper receiver using the 5/64" Allen Key (**Item 8**). These two screws are just a secondary method of ensuring the rail section does not rotate. The clamping of the rail onto the barrel nut is very secure and will not rotate even under abuse. Just a light torque on the screws is all that is needed for a bomb proof anti-rotation feature. **NOTE:** the 9 and 3 o'clock M1913 rail sections toward the muzzle are designed with a very low profile. Some accessories that have excessive overhang from the tapered sections of the M1913 profile may not fit without accessory modification at these locations.

13. Be sure to check and retighten the rail mounting bolts after the first firing of the weapon. The dogbone nut has two small barbs that bite into the rail to keep the dogbone nut captured and prevent it from falling out when the mounting bolts are removed. It takes a little time for the barbs to fully seat into the rail; one or two re-tightenings of the mounting bolts are all that is needed to fully seat the dogbone nut.

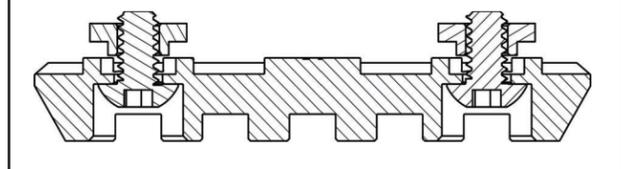
**ATTENTION:** Do not tighten the cross bolts when the rail is not installed on a barrel nut. Tightening the bolts with the rail un-installed will crush the ID to the point where the rail is unusable. Tightening the cross bolts to more than 5 ft-lbs will also damage the rail. If a torque wrench is not available just use the provided short arm allen key (*not a long arm allen key and do not put a cheater bar on the short arm allen key*). By using a short arm key a normal man that tightens the bolts snug and tight will not exceed 5 ft. lbs.

## UTILIZING THE M-LOK ATTACHMENT SYSTEM

The MK4 M-LOK has been designed using Magpul's advanced M-LOK modular locking accessory mounting system. This system allows the user to easily add or remove accessories based on mission requirements using a 1/8" hex key. Be sure to read the instructions below carefully, improper installation may cause permanent damage to your rail that is not covered by the Geissele warranty.

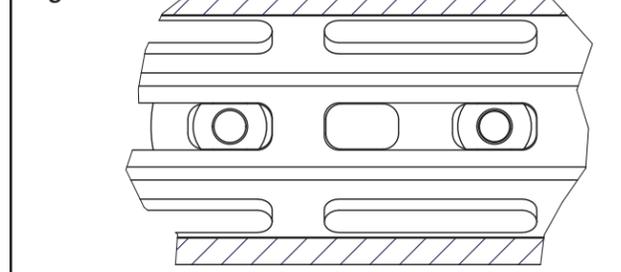
14. To install make sure the nut is started onto the bolt with at least 1 full thread showing out the back of the nut (**Figure 1**). If one full thread is not showing, there is a chance that the M-LOK nut will not cam into the M-LOK slot properly. If this occurs and the screw is tightened, the M-LOK nut can pull through the rail leaving a gash in the rail and causing a burr in the surface.

Figure 1



15. Align the nut with the recoil lugs so they pass through the M-LOK slots (**Figure 2**).

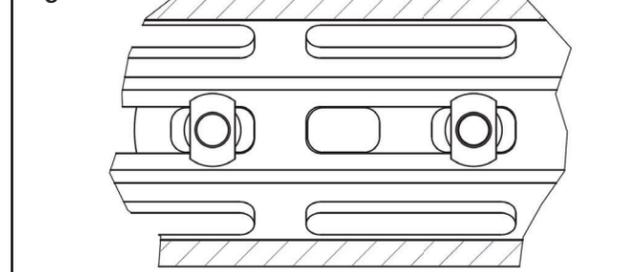
Figure 2



Detail view showing the camming M-LOK nut unlocked and ready to insert or remove the accessory.

16. Begin to tighten the bolt one full turn with the hex key. The cammed nut will rotate, tighten, and eventually lock into place retaining the accessory on the handguard. Additional torque can be applied to hold the accessory in place (**Figure 3**).

Figure 3



Detail view showing the camming M-LOK nuts locked in place to retain the accessory.

17. Removing the accessory requires 1 turn counterclockwise. The cammed nut will align with the recoil lugs on the accessory allowing the accessory to come off the rail. Care should be taken to not remove the nut from the bolt or M-LOK accessory. Loosening the screw further than 1 turn may result in permanent damage to the rail due to the issues described in **Step 17**.

Thank You For Your Purchase.  
Contact Geissele Automatics with any questions.

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SMR MK4 L-LOK Installation Instructions, 07172019