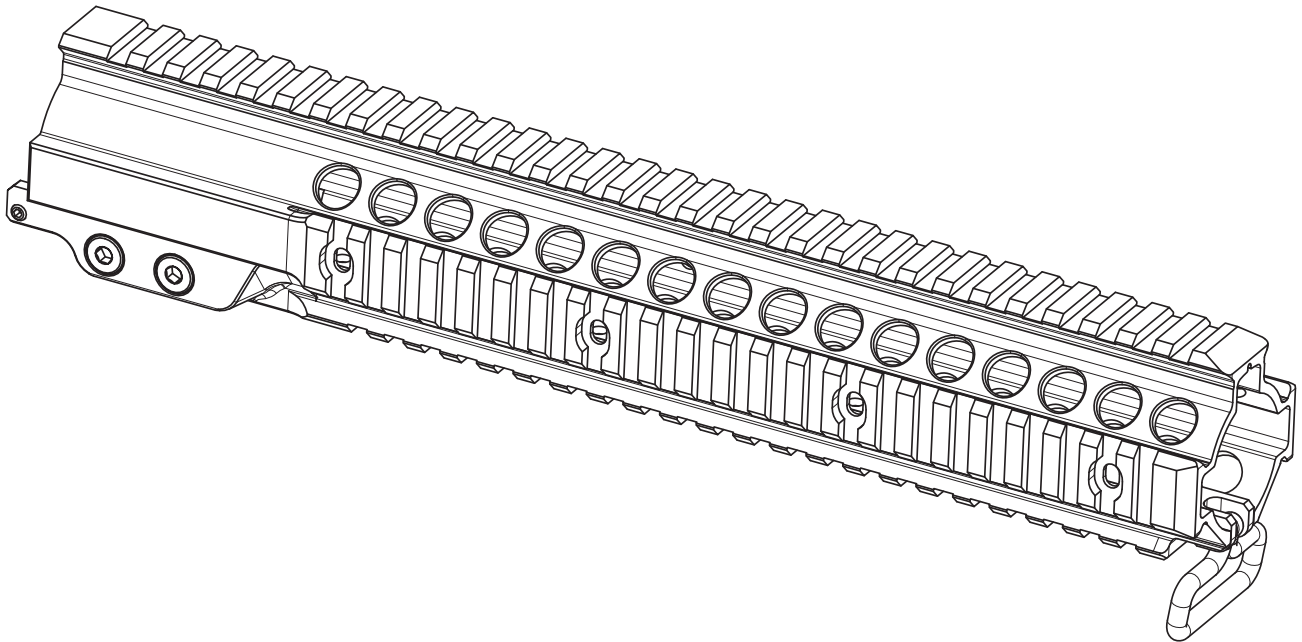


GEISSELE® ***AUTOMATICS***

We Manufacture Confidence®



SUPER MODULAR RAIL MK7 NATIONAL MATCH

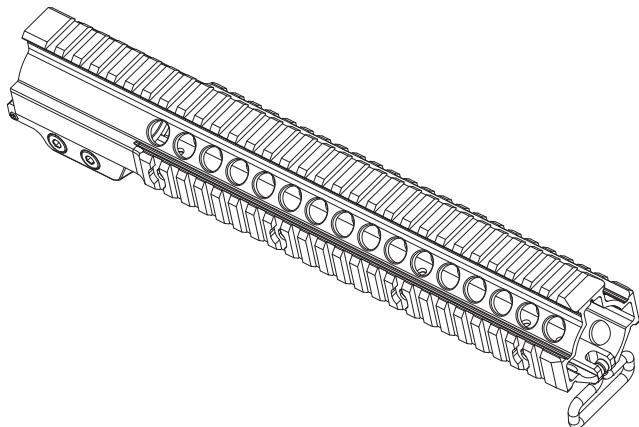
INSTALLATION INSTRUCTIONS

GEISSELE AUTOMATICS

800 NORTH WALES ROAD • NORTH WALES, PA19454

610.272.2060 • GEISSELE.COM

SUPER MODULAR RAIL MK7 NATIONAL MATCH



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.**

A BRIEF DESCRIPTION OF THE MK7 NM

The Geissele MK7 National Match is the first CMP-legal rail system that was designed specifically for National Match High Power Competition. The MK7 NM features a full quad rail with the sling loop in its appropriate legal location for competition.

The MK7 NM rail was designed with heft and balance in mind. The barrel nut is made of steel and features a heavier contour than the standard Super Modular Rail (SMR) barrel nut. To allow the shooter to perfect the weight and balance of their rifle, weight bars can be added and modified. The handguard is supplied with a steel weight bar onto which the sling loop is attached. This bar can be sliced to remove weight without affecting use of the sling.

Additionally, lead weight bars are available which can be slid behind the 3 and 9 o'clock Picatinny rail positions. These weights have knurled nuts pressed into them which correspond with screw holes on the MK7 NM handguard. The lead weights can be cut down by the rifleman and moved forward or backward along the weapon to achieve the balance they prefer.

NOTE: The Geissele Super Modular Rail MK7 NM 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

1. Remove existing flash hider, handguard and front sight/gas block/gas tube.
2. Use the supplied Geissele barrel nut wrench (**Figure 1**) to remove the stock barrel nut and discard.

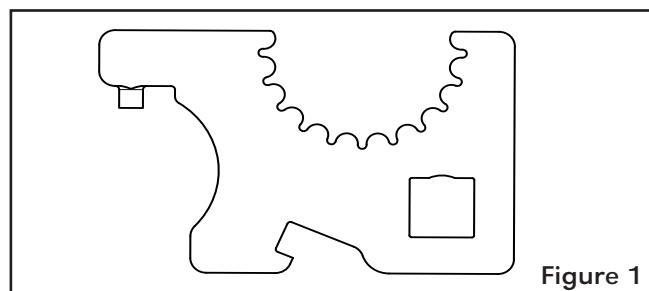
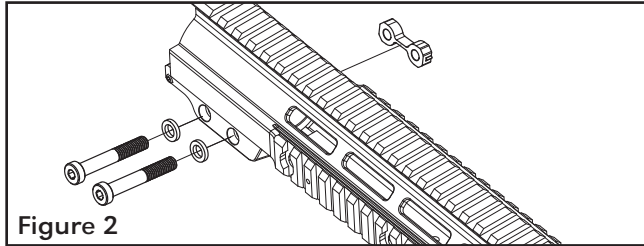


Figure 1

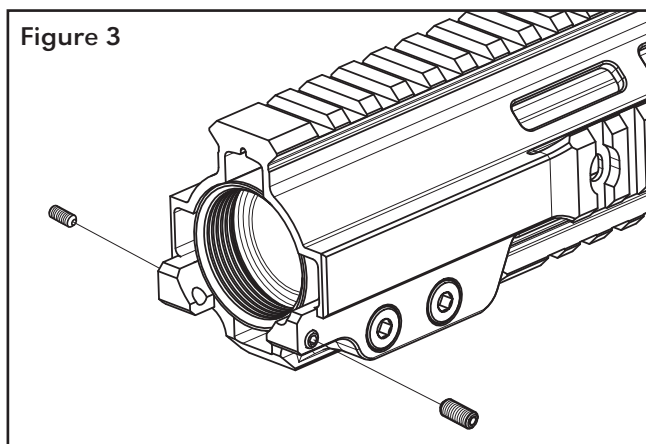
3. Remove barrel and inspect and clean the upper receiver threads. Reinstall the barrel being careful to align the barrel extension indexing pin with its corresponding slot in the upper receiver threads.
4. Liberally coat the upper receiver threads and the outer face (torque shoulder) of the barrel extension with anti-seize or grease. If these are not available, oil or CLP may be substituted.
5. Slide the Geissele barrel nut over the barrel and hand tighten.
6. Use the Geissele barrel nut wrench to tighten the Geissele barrel nut to 40ft-lbf. 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. At this time, please take a moment to read, **ADJUSTING AND BALANCING THE WEIGHT OF YOUR MARK 7**, on the next page.
8. Slide the MK7 handguard 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 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 (**Figure 2**). 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 dog bone nut. 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 and tighten snug.
12. Tighten the two rounded point set screws (**Figure 3**) against the upper receiver using the 5/64" Allen Key. 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.



13. Be sure to check and re-tighten the rail mounting bolts after the first firing of the weapon. The dog bone nut has two small barbs that bite into the rail to keep the dog bone 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 dog bone nut.

ADJUSTING AND BALANCING THE WEIGHT OF YOUR MARK 7 HANDGUARD

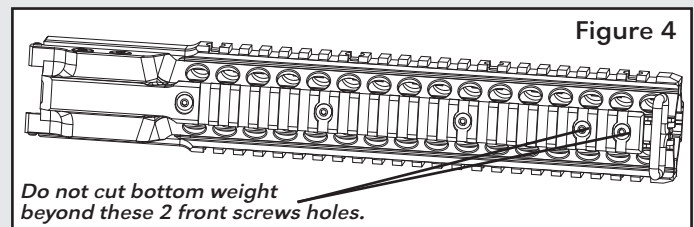
The SMR Mark 7 NM has a unique weight bar system that allows the user to adjust the weight and balance to their preference. Tuning of the the weights is done before final assembly of the front sight and flash hider.

BOTTOM WEIGHT BAR

The steel bottom weight bar is held in by five screws and runs the length of the bottom of the handguard. It also serves as the front sling swivel mount. If less weight is desired, the rear of the bottom weight bar may be carefully cut off using a bandsaw or hacksaw. For the integrity of the sling mount, it is important the front two screw holes are not removed when adjusting the bottom weight bar. (**Figure 4**)

ADDITIONAL LEAD WEIGHTS

If more weight is desired additional lead weights can be purchased that fit in the 3 and 9 o'clock positions behind the Picatinny rails. It is easiest to install these sections by sliding them in from the front of the handguard. Please note that to accommodate the barrel nut and to allow for maximum weight the bars are slightly non-symmetrical. When installed correctly the front of the uncut weight will sit flush with the front of the handguard. If the rifleman wishes to reduce the weight from the front section of the rifle these lead weights can be cut down using a bandsaw or hacksaw. For best results it is suggested that enough material is left so that two screws can be used to retain the lead weight on the handguard.



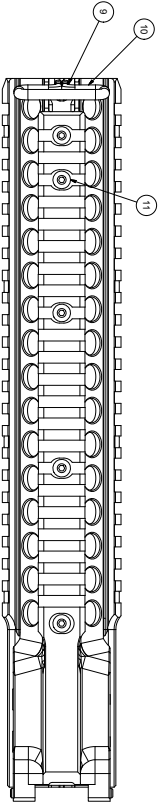
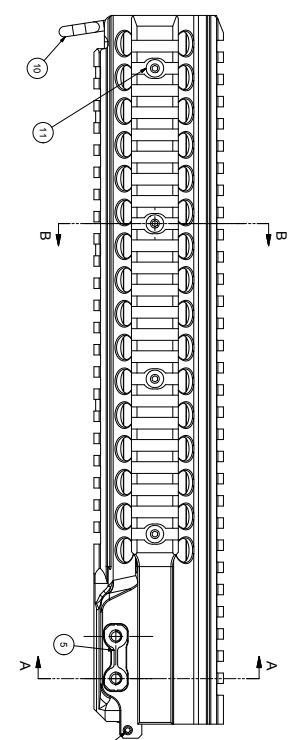
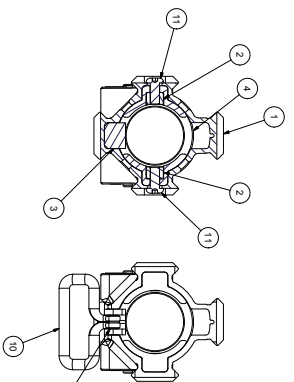
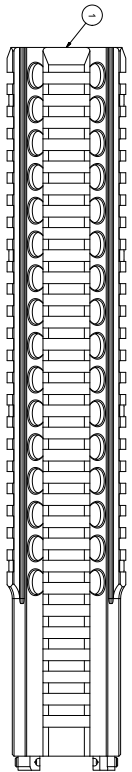
ATTENTION: Do not tighten the cross bolts when the rail is not installed on a barrel nut. Tightening the bolts with the rail un-installed will crush the ID to the point where the rail is unusable. Tightening the cross bolts to more than 5 ft-lbf will also damage the rail. If a torque wrench is not available 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.-lbf.

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

GEISSELE AUTOMATICS • 800 NORTH WALES RD • NORTH WALES, PA 19454
TEL: 610.272.2060 | FAX: 610.272.2069
E-MAIL: INFO@GEISSELE.COM | WEB: WWW.GEISSELE.COM

MK7 INSTALLATION INSTRUCTIONS, REV2. AUG 29 2016

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	05-298	HANDGUARD
2	1	02-586	SOFT WEIGHT INSERTS
3	1	02-586	BOTTOM WEIGHT INSERT
4	1	02-400	BARREL NUT
5	1	02-298	PRESS NUT 2 HOLE
6	2	02-298	LOW PROFILE E SH C.S.
7	2	02-298	LOW PROFILE E SH C.S.
8	2	8-32 UNC x 0.38	Pin - Coarse Thread STD DUTY
9	1	1.89.7116	FRONT SLINGS SWIVEL
10	1	BARRETT	FRONT SLINGS SWIVEL
11	13	ANSI B 18.3 - 8 - 32 x 2.98	Hexagon Socket Button Thread Cap Screw



ZONE	REV	DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE	12/27/2015	

PHYSICAL PROPERTIES		MATERIAL SPECIFICATIONS		ORIGINAL DATE		GEISSELE AUTOMATICS LLC	
22		4140H	4140H	12/27/2015	12/27/2015	800 NORTH MALES ROAD, NORTH MALES, PA 19624	
23		4140H	4140H				
24		4140H	4140H				
25		4140H	4140H				
26		4140H	4140H				
27		4140H	4140H				
28		4140H	4140H				
29		4140H	4140H				
30		4140H	4140H				
31		4140H	4140H				
32		4140H	4140H				
33		4140H	4140H				
34		4140H	4140H				
35		4140H	4140H				
36		4140H	4140H				
37		4140H	4140H				
38		4140H	4140H				
39		4140H	4140H				
40		4140H	4140H				
41		4140H	4140H				
42		4140H	4140H				
43		4140H	4140H				
44		4140H	4140H				
45		4140H	4140H				
46		4140H	4140H				
47		4140H	4140H				
48		4140H	4140H				
49		4140H	4140H				
50		4140H	4140H				
51		4140H	4140H				
52		4140H	4140H				
53		4140H	4140H				
54		4140H	4140H				
55		4140H	4140H				
56		4140H	4140H				
57		4140H	4140H				
58		4140H	4140H				
59		4140H	4140H				
60		4140H	4140H				
61		4140H	4140H				
62		4140H	4140H				
63		4140H	4140H				
64		4140H	4140H				
65		4140H	4140H				
66		4140H	4140H				
67		4140H	4140H				
68		4140H	4140H				
69		4140H	4140H				
70		4140H	4140H				
71		4140H	4140H				
72		4140H	4140H				
73		4140H	4140H				
74		4140H	4140H				
75		4140H	4140H				
76		4140H	4140H				
77		4140H	4140H				
78		4140H	4140H				
79		4140H	4140H				
80		4140H	4140H				
81		4140H	4140H				
82		4140H	4140H				
83		4140H	4140H				
84		4140H	4140H				
85		4140H	4140H				
86		4140H	4140H				
87		4140H	4140H				
88		4140H	4140H				
89		4140H	4140H				
90		4140H	4140H				
91		4140H	4140H				
92		4140H	4140H				
93		4140H	4140H				
94		4140H	4140H				
95		4140H	4140H				
96		4140H	4140H				
97		4140H	4140H				
98		4140H	4140H				
99		4140H	4140H				
100		4140H	4140H				

THIS DRAWING IS PROPRIETARY AND CONFIDENTIAL.

THIS DRAWING HAS COPYRIGHT WHICH IS OWNED BY GEISSELE AUTOMATICS. NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF GEISSELE AUTOMATICS. THIS DRAWING HAS BEEN DELIVERED ON THE UNDERSTANDING THAT IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF GEISSELE AUTOMATICS AND WILL BE RETURNED ON DEMAND.

DATE: 12/27/2015
 TIME: 10:00 AM
 SCALE: 1 OF 1

GEISSELE AUTOMATICS LLC
 800 NORTH MALES ROAD, NORTH MALES, PA 19624
 HANDGUARD MK7 NATIONAL MATCH MOD2
 DATE: 12/27/2015
 TIME: 10:00 AM
 SCALE: 1 OF 1