



MDT COMP MUZZLE BRAKE

V1.0 December, 2021



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Thank you for choosing the MDT COMP Muzzle Brake. The MDT [COMP BRAKE] was designed from the ground up using input from MDT's sponsored shooter team, mach flow gas simulations, and countless hours of testing. This muzzle brake is the most effective brake currently available that also provides the least concussion to the shooter and spotter by redirecting gas flow, allowing the shooter to watch bullet flight and monitor hits and misses on target.

MDT Muzzle Brakes are constructed out of a high strength alloy steel and are nitride finished for maximum durability under harsh conditions and are provided with an overlapping, self indexing lock nut. The brake features some unique and groundbreaking geometry such as; angled ports, strategically cut at varying angles to maximize recoil reduction as well as minimizing shooter concussion, forward facing "disruptor" ports to better deflect gas away from the shooter and tuneable upwards vented ports that can be open or closed with a slider mechanism for straighter rifle tracking.

CAUTION: AVOID RESTING OR HITTING THE BARREL AGAINST ANY SURFACE WHILE HANDLING THE ACTION, STOCK, AND CHASSIS.

Installation

Tools needed: 1" Crescent Wrench, Adjustable Crescent Wrench, T15 Hex Key, Bubble Level, Blue Loctite (Optional)

Pre-Installation

WARNING - if you do not feel comfortable installing the MDT COMP Muzzle Brake yourself, it is advisable to consult a gunsmith

- 1. Ensure that the firearm is unloaded.
- 2. Remove the magazine (if inserted) and bolt.
- 3. Remove any existing muzzle device currently attached to your firearm. If a muzzle device was previously on the firearm you must ensure that the threads are clear of bonding material.

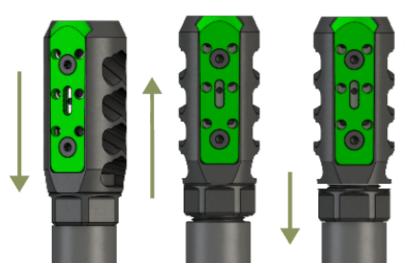
Installing and Adjusting the MDT COMP Muzzle Brake

Once the appropriate thread has been verified, any existing muzzle device has been removed and the firearm is secured and ready to be worked on, the MDT COMP Muzzle Brake can now be installed.

Installation:

OPTIONAL: Apply a drop of semi-permanent (blue), high-temperature Loctite to the threads of your barrel before installing the MDT COMP Muzzle Brake. This will ensure a secure tight connection; however it will increase difficulty in removing the MDT COMP Muzzle Brake if you desire in the future.

- Hand thread the lock nut onto the MDT COMP Muzzle Brake's external threads until it bottoms out
- Hand thread the MDT COMP Muzzle Brake onto the barrel until the lock nut makes contact with the shoulder of the thread of your barrel.
- Unscrew the MDT COMP Muzzle Brake until the ports are oriented horizontally and the logo is facing down. Use a bubble level, placed on top of the muzzle brake, to ensure level with your rifle.
- While holding the MDT COMP Muzzle Brake, securely unscrew the lock nut towards the shoulder of your barrel threads.
- 5. Place the adjustable crescent wrench over the MDT COMP Muzzle Brake to hold it securely while using the 1" crescent wrench to loosen, and drive the locknut into the shoulder of the threads on your barrel. The amount of torque to be applied to the lock nut is in the range of 15 - 30 ft-lb.
- Once the MDT COMP Muzzle Brake has been secured onto your firearm is it important to check the alignment of the MDT muzzle brake with the barrel bore. This can be done visually as well as with a tight fitting bore cleaning rod. To do this, insert the cleaning rod through the barrel bore and MDT Muzzle Brake to ensure there is no chance of bullet strikes.



NOTE: MDT muzzle brakes have a break-in period of roughly 20 shots. This ensures that the interior spaces are removed of burrs. Additionally, this brake will not fit on rifles that have a muzzle diameter smaller than 0.790" or 20 mm.

WARNING: Never use a muzzle brake with a smaller bore than the firearm itself.

WARNING: MDT muzzle brakes have been re-designed to direct high pressure gas efficiently though their ports. Blocking these ports while operating the firearm may result in injury or death

WARNING: Muzzle brakes operate by redirecting high pressure gas. This increases the chances of debris being directed at the shooter or any observers and significantly increases noise levels. ALWAYS WEAR PROPER EYE AND EAR PROTECTION WHEN OPERATING A FIREARM OR OBSERVING

Adjustment of the MDT COMP Muzzle Brake:

This section will cover the Tuneable Upwards Venting Ports and how to properly adjust them to better the performance of your rifle system under recoil, allowing you to watch bullet flight and monitor hits and misses on target! Much like the previous section, ensure that the firearm is unloaded, pointed in a safe direction and in a stable position to allow you to work on it.

- To adjust the amount of upwards vented gasses out of the top ports of the MDT COMP Muzzle Brake, first locate the two T15 Flat Head Socket Head Cap Screws on top of the brake.
- Loosen both off approximately half a turn to one turn, using your T15 Hex Key.
- Insert anything small enough to fit into the small adjustment window that will catch onto the interior vent plate and allow you to slide it forward and backwards. We'd
- recommend a bullet tip, small hex key, car key or a very helpful mouse's paw.
- 4. Adjust the interior vent plate forward to close off the ports, or rearward to open up the ports, using the indexing notches as a quide.
- 5. Once the selected position has been achieved and the vent plate holes are opened to the desired amount, repeat the opposite process of steps 1 and 2, by torquing the two T15 screws back to approximately 20 in-lbs.

NOTE: The process of removing or replacing the interior vent plate is essentially the same, however in Step 2, instead of loosening the screws half a turn, just remove them and slide the top and vent plates off the front, replacing the interior vent plate if desired.

WARRANTY



What warranty does MDT provide?

- MDT offers a 100% satisfaction guarantee on all products. If you receive any of MDT product, but you are not completely satisfied, return it to MDT's central office within 30 days for a 100% refund.
- All our products come with lifetime support against defects.
- Performing modifications/alterations to the product voids all warranties, expressed or implied.

How do I claim warranty on a MDT product?

- If you experience a problem with your MDT COMP Muzzle Brake, call us or initiate a service ticket through the MDT website.
- Warranty claims must show the product model, a contact email, a phone number, and a description of the problem.

How does MDT process warranty claims?

- Upon receiving the item, MDT decides whether to accept the warranty claim, and whether to repair or replace the parts, at its discretion.
- MDT accepts no responsibility for loss or damage in transit.
- MDT pays for shipping and insurance charges for the return to the owner, ONLY after accepting the warranty claim.
- If non-warranty parts or services are required, MDT provides an estimate for approval prior to performing any service.

What are the warranty limitations?

- This warranty is exclusive and is in lieu of any and all other warranties, expressed or implied. No implied warranties of merchantability or fitness for a particular purpose are given and any and all liability for breach of any implied warranty or warranty created by law is disclaimed.
- Under no circumstances shall MDT be liable for incidental or consequential damages with respect to economic loss, injury, death or property damage, whether as a result of breach of this warranty, negligence or otherwise.

Jurisdictional Exceptions:

- Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.
- Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you completely or in part.
- This warranty gives you specific legal rights. You may also have other rights that vary from jurisdiction to jurisdiction.

SAFETY GUIDELINES

1. ALWAYS KEEP THE MUZZLE POINTED IN A SAFE DIRECTION.



Never allow your firearm to point at anything you do not intend to shoot. Always handle any firearm as if it were loaded and ready to shoot. UNLOAD ALL FIREARMS WHEN NOT IN USE. ALWAYS VERIFY. Load your firearm only when you are in the field or on the target range and ready to fire. Unload as soon as you finish shooting. Verify that the firearm is unloaded before storing and ALWAYS when you pick it up.

2. DO NOT RELY ON ANY MECHANICAL SAFETY.

Safety devices are not a substitute for safe handling procedures. Treat every firearm as if it can fire at any time, regardless of the safety position. Do not touch the trigger until you are ready to fire.

UNDERSTAND THE TARGET AND WHAT IS BEYOND THE TARGET.

Do not fire unless you know exactly where your shot is going, and what is beyond the expected point of impact. Never fire at a sound, a movement, or a patch of color. If you cannot see clearly what is beyond the target, DO NOT SHOOT.

4. NEVER SHOOT AT WATER OR AT A HARD SURFACE.

Shooting at water, rocks, or other hard surface may result in bullet fragmentation with unpredictable flight paths.

5. USE PROPER AMMUNITION.

The use of wrong ammunition, mixed ammunition, or improperly reloaded ammunition may result in serious injuries or death, and catastrophic damage to your firearm. Check each round before loading. If in doubt, DO NOT SHOOT.

6. IF THE FIREARM FAILS TO FIRE, DO NOT MOVE.

If the ammunition does not fire when you pull the trigger, stop and keep the muzzle pointed in a safe direction. Wait 15 seconds before opening the chamber. Look away from the chamber while opening it and removing the round. In semi-automatic firearms, remove the magazine before manually cycling the round. Properly discard the round immediately. DO NOT try to fire it again.

7. ALWAYS WEAR EYE AND EAR PROTECTION WHEN SHOOTING.

Wear protective shooting glasses to guard against any combustion discharges, cartridges ejection, or debris resulting from firing your firearm or firearms around you. Also, wear eye protection when you are disassembling or cleaning a firearm to guard against tensioned parts and cleaning solvents. Always use ear protection.

8. VERIFY THAT ACTION AND BARREL ARE CLEAR BEFORE SHOOTING.

Before loading your gun, inspect the action and barrel to ensure there are no obstructions such as snow, mud, excess lubricant, cleaning patches, or any other foreign material.



9. LEARN THE PARTICULAR CHARACTERISTICS OF EACH FIREARM.

Not all firearms are alike. Become very familiar with the firearm before shooting. Learn safe handling procedures for loading, unloading, carrying, shooting and storing each firearm before firing the first round.

10. SHOOT SOBER!

NEVER handle any firearm while under the influence of alcohol, drugs, or any medication that may impair your senses in any form.

DISCLAIMER

MDT SHALL NOT BE RESPONSIBLE IN ANY MANNER WHATSOEVER FOR INJURY, DEATH, OR DAMAGE TO PROPERTY AS A RESULT OF THE INTENTIONAL OR ACCIDENTAL MISUSE OF THIS PRODUCT, OR FROM ITS PROPER FUNCTION WHEN THE PRODUCT IS USED FOR PURPOSES FOR WHICH IT WAS NOT DESIGNED.

