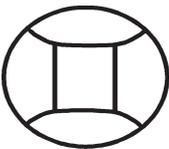


TM-TREK

OPERATION AND MAINTENANCE OF SOUND SUPPRESSOR MODELS TREK and TREK-Ti

**Before using this suppressor,
be certain you have read and
understand this manual.**

Manufactured by



GEMTECH
Div. of Gemini Technologies, Inc.
P.O. Box 140618
Boise, Idaho 83714

ISSUED: February 12, 2010

★ ★ ★ ★ ★ **WARNING** ★ ★ ★ ★ ★

☞ **Because sound suppressed weapons make less noise than non-suppressed weapons, it is easy to forget that they are still firearms. It is of vital importance to remember that a sound suppressed firearm is just as dangerous as a non-suppressed one, and the same safe handling requirements apply.**

TM-TREK

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SOUND SUPPRESSOR MODEL
TREK

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☆☆☆☆☆ **WARNING** ☆☆☆☆☆

☞ **Failure to follow installation and maintenance instructions detailed in this manual can result in potential for serious injury to the user and damage to the weapon.** Firearm sound suppressors are user-attached firearm muzzle devices, and as such are subject to improper attachment unless the proper procedures outlined in this manual are followed.

MANUFACTURER'S DISCLAIMER

The manufacturer is not responsible for improper usage of this product. This product is potentially dangerous, and as such it is the user's responsibility to understand and implement its proper use. If you do not understand the instructions in this manual, please contact the manufacturer for further clarification.

GENERAL DESCRIPTION

Designed specifically to fill the needs of the law enforcement user, the TREK is a compact, durable and lightweight sound suppressor for the 5.56x45 mm centerfire cartridge. The TREK suppressor meets all OSHA and MIL-SPEC requirements for shooting without the use of hearing protection.

The TREK is also available in a lightweight version, the Trek-T, fabricated from high strength, aircraft grade titanium alloys.

This suppressor markedly reduces the sound of the muzzle blast, making it difficult for an observer to determine the origin of the shot and eliminating the need for shooter hearing protection. There is no way to eliminate the ballistic crack (or sonic boom) of the projectile traveling downrange. As well as being a superior recoil and flash reducer, the TREK masks the far field perception of gunfire.

The TREK is designed to operate completely dry, and the introduction of liquids into the suppressor prior to use may result in damage from erratic pressures. The suppressor was specifically engineered for semiautomatic fire and limited fully automatic fire. Manufactured from series 300 stainless steel and Inconel, the TREK suppressor is engineered to give a lifetime of service if these simple instructions are followed. Please take a few minutes to read this instruction manual and keep it in a safe place.

The TREK is a medium volume suppressor that was designed specifically around the M4 carbine platform. The user should be aware that shorter barrels are associated with significantly increased pressure in the entrance chamber. While it may be used on barrels shorter than the M4, the minimum barrel length for which it is warranted is 10.4 inches. Use on shorter barrels could result in damage.

The TREK sound suppressor fits a variety of .223 caliber centerfire rifles which utilize 1/2"-28 tpi muzzle threads, including the M16, AR15, AR-18 and similarly threaded rifles. The suppressor warranty is voided by installation on threads cut by anyone other than the original manufacturer or Gemtech. The TREK is intended for the 5.56mm NATO cartridge and should not be used with higher powered .22 cartridges, such as the .22-250 or .220 Swift.

HEAT BUILDUP

Although designed to withstand limited fully automatic fire, heat buildup with fully automatic fire can reach levels that can cause severe burns and ignite flammable materials. Temperature increases average 7.5°F per round, and a 30 round magazine will raise the suppressor approximately 225°F above ambient air temperature. After 60-80 rounds full auto, the suppressor and barrel should be allowed to cool to room temperature.

Further, because of the large copper jacket surface area and small mass of lead in the bullet core, after 100 rounds the heat of friction in the bore has raised the bore temperature above the melting point of lead, causing the bullet core to soften or melt. This results in serious bullet instability with subsequent baffle damage.

OVERALL EFFECTIVENESS

The real limiting factor on the effectiveness of centerfire rifle suppressors is related to the sound of the bullet in free flight. The free flight bullet noise is related to the general bullet shape and is also directly proportional to the bullet velocity. The TREK suppressor is capable of reducing the sound of the muzzle blast to approximately that of a .22 rifle shooting .22 short ammunition.

To minimize bullet noise as well as eliminate the "sonic crack" of the supersonic bullet, many have suggested using "subsonic" ammunition. The majority of commercially available 5.56mm subsonic ammunition does not stabilize in the M16 barrel and will yaw while in the suppressor. Damage caused by this ammunition is not covered under warranty.

If it is desired to reduce the bullet flight noise and sonic crack, we suggest that a .22 rimfire adapter be used with standard velocity .22LR ammunition. If subsonic .223 ammunition is a requirement, Gemtech recommends only subsonic ammunition manufactured by Engel Ballistic Research, Inc.

Besides sound suppression, there are two additional added benefits of a sound suppressor, which are seldom mentioned. The first is that a sound suppressor is also an exceptionally effective recoil reducer, often reducing recoil to less than one fourth of its original magnitude. The second is that a sound suppressor is an effective flash suppressor, preventing "blooming" on a night vision device sight and reducing the possibility of igniting surrounding combustible materials.

Although the suppressor may alter the point of impact slightly as compared to the non-suppressed weapon, the added weight of the suppressor on

CLEANING

Because of the high flame temperatures, there is no need whatsoever to clean this suppressor when used on weapons chambered for the 5.56x45 cartridge. There is no need to disassemble the suppressor, and any evidence of an attempt to do so will void the warranty.

If used on weapons chambered for the .22 rimfire cartridges, it is necessary to flush out unburned powder residues by immersion in solvents such as WD-40 or a mixture of mineral spirits and automatic transmission fluid (2:1). **Do not use water-based solvents, such as SLIP-2000, Simple Green, or MP7.** They will create a residue that is corrosive and which cannot be removed. Because ultrasonic cleaners do not cavitate properly with hydrocarbon-based solvents, they have little or no use in suppressor cleaning.

★★★★★ CAUTION ★★★★★

☞ **Always read the warning label on any cleaner or solvent, and remember that virtually all solvents are inherently dangerous and potentially toxic. Always use adequate ventilation and both skin and eye protection when using organic solvents.**

After soaking in solvent, the suppressor is then drained by standing first on one end and then the other for a few minutes. Before use, it is of utmost importance that the suppressor be blown out with a high pressure air hose to remove any residual liquid.

WARRANTY STATEMENT

Our "warranty" has been practiced since our personnel started in the suppressor business in 1976, in a time before legalese and when a handshake and this simple statement sufficed: "If a Gemtech product breaks and it's your fault, we'll fix it for a fair price in a timely manner. If it's our fault, we'll fix it quickly at no charge." This policy born of pride in craftsmanship and honor has served us and our clients well for over two decades and will continue in Gemtech's future. The small print follows:

The Magnuson-Moss Act (Public Law 93-637) does not require any seller or manufacturer of a consumer product to give a written warranty. It does provide that if a written warranty is given, it must be designated as "full" or as "limited" and sets minimum standards for a "full" warranty.

As do all major firearms manufacturers, Gemtech has elected not to provide any written warranty, either "limited" or "full," rather than to attempt to comply with the provisions of the Magnuson-Moss Act and the regulations issued thereunder.

There are certain implied warranties under state law with respect to sales of consumer goods. As the extent and interpretation of these implied warranties varies from state to state, you should refer to your state statutes.

Gemtech certifies that all sound suppressors manufactured by them are free of defects in materials or workmanship, and that they meet manufacturing specifications at the time of manufacture.

It is our intent that the customer be completely satisfied with the product. Certain Gemtech products may be classified as ordnance and/or implements of war and are sold by us with the specific understanding that Gemtech has taken every reasonable precaution in providing our customers with inherently safe merchandise, and that we assume no liability whatsoever for unsafe handling by the purchaser or his agents. Gemtech assumes no responsibility whatsoever and we will honor no claims for damages, regardless of

nature, for physical injury or property damage resulting from careless and/or irresponsible handling, adjustments to equipment, neglect or abuse.

Gemtech reserves the right to make changes at any time and without notice, in prices, to change specification or design, to add or remove accessory materials, and to add or delete items without incurring any obligation.

Use of ammunition that does not meet SAAMI specifications will void all warranties, as will failure to follow the instructions in this manual.



All Gemtech products are
100% manufactured in the
United States of America.