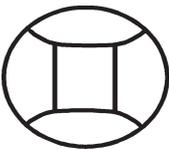


COYOTE

OPERATION AND MAINTENANCE OF SOUND SUPPRESSOR MODEL COYOTE

**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.**

COYOTE Owner's Manual

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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 varmint hunter, the COYOTE is a compact, durable and lightweight sound suppressor for the popular .223 and .222 cartridges. It is intended for and will be most effective with .22 centerfire cartridges having a similar powder charge. The COYOTE suppressor meets all OSHA and MIL-SPEC requirements for shooting without the use of hearing protection.

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. However, it causes confusion, and the target cannot determine the origin of the shot.

The COYOTE is an ultra light weight, small volume suppressor that was designed specifically around the .223 cartridge and the M4 carbine with a 14.5 inch or longer barrel. It 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 semi-automatic fire and is most popular on precision bolt action weapons. Manufactured from high tensile strength titanium alloys and Inconel, the COYOTE 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 COYOTE sound suppressor fits a variety of .223 caliber centerfire rifles which utilize 1/2"-28 tpi muzzle threads, including the AR15, and other rifles threaded with standard 1/2"-28 threads. Its light weight (9.8 ounces) will result in minimal point of impact shift seen in all suppressed weapons. A variety of other .22 centerfire rifles can be adapted to accept this suppressor

by threading the barrel 1/2"-28 tpi. If not original factory threads, threading must be done on a lathe to Gemtech specifications. We offer barrel threading services.

HEAT BUILDUP

Although it will 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. If used in this mode, it must be allowed to cool before handling.

Further, because of the large copper jacket surface area and small mass of lead in the bullet core, after 100 rounds full auto, 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 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 COYOTE suppressor is capable of reducing the sound of the muzzle blast to approximately that of a non-suppressed .22 rifle shooting high velocity .22 short ammunition.

To minimize bullet noise as well as eliminate the "sonic crack" of the supersonic bullet, many have suggested using "subsonic" ammunition. We feel that this has little or no merit for several reasons: (1) at subsonic velocities, the terminal kinetic energy is only minimally better than a .22LR; and (2) the majority of commercially available 5.56mm subsonic ammunition does not stabilize in the majority of .223 barrels 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 the user consider using .22LR instead.

Besides sound suppression, there are three 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. Third, a sound suppressor simplifies training of a new shooter, because its use reduces flinching and eliminates the need for hearing protectors.

While the suppressor may alter the point of impact slightly as compared to the non-suppressed weapon, the added weight of the suppressor on the barrel changes barrel vibrations, which usually improves grouping. We suggest sighting the weapon in using a suppressor all the time.

PHYSICAL SPECIFICATIONS

Length: 6.25 inches
Diameter: 1.375 inches

Weight: 9.8 ounces
Suppression: 29 dB

AMMUNITION

Some of the partially jacketed bullets used in .223 ammunition can have jacket separation, especially the highly frangible bullets with thin, soft jackets. Jacket separation will cause the bullet to tumble while in the suppressor which can seriously damage the internal baffles and lead to suppressor failure. We suggest the use of mainstream match, hunting, or full metal jacket ammunition. Damage resulting from use of ammunition where there is jacket separation will not be covered under the warranty. It is the user's responsibility to be certain that the bullet weight/design matches the barrel twist rate.

★★★★★ **WARNING** ★★★★★

☞ **Failure to follow installation instructions detailed in this manual can result in potential for serious injury to the user and damage to the weapon.**

INSTALLATION

The suppressor is attached to the rifle with ease. The flash hider (if present) must first be removed from the rifle, and the suppressor screwed on to the end of the barrel as tightly as possible by hand.

Because the suppressor aligns on the muzzle threads and against the shoulder at the rear of the muzzle threads, it is of utmost importance to be certain that the suppressor is at all times screwed tightly onto the muzzle of the weapon. The use of "Blue" Loctite on the threads when mounting the suppressor is acceptable if unscrewing is an issue

Do not use any type lockwasher or the factory crush washer. Lockwashers or the crush washer will cause misalignment.

It is possible that with firing, the suppressor will unscrew, which can create misalignment. Therefore it is imperative that the shooter periodically check to be certain that the suppressor remains screwed tightly onto the weapon.

★★★★★ **DANGER** ★★★★★

☞ **Before performing any maintenance operation, always remove the magazine from the firearm, open the action, and visually ascertain that the chamber is empty and the weapon unloaded. Failure to do so can result in potential for serious injury to the user and others in the vicinity**

CLEANING

We do not believe in cleaning suppressors (other than rimfire). Mounting threads do require some cleaning which can be performed with a toothbrush dipped in solvent.

Because of the high flame temperatures, there is no need whatsoever to clean this suppressor when used on weapons chambered for the .223 or comparable .22 centerfire 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 (3:1). **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.