TM-BLACKSIDE

OPERATION AND MAINTENANCE OF SOUND SUPPRESSOR MODEL BLACKSIDE

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

Manufactured by

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✯ ✯ ✯ ✯ ✯ 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-BLACKSIDE

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TM-BLACKSIDE-45

OPERATIONAL MANUAL FOR
SOUND SUPPRESSOR MODEL
BLACKSIDE

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IMPORTANT

The manufacturer disclaims any liability for damages resulting from any unauthorized modification of this product. Any modification of this suppressor without prior express authorization from Gemtech's Engineering Department will void all warranties, both written and implied, and will result in the assumption of all liability by the person performing the unauthorized modification.

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☆☆☆☆☆ WARNING ☆☆☆☆☆

☞ **Failure to follow installation, maintenance, and use 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.

INTRODUCTION

The model BLACKSIDE sound suppressor is specifically designed to operate flawlessly with the HK .45 USP Tactical, the Colt M1911, and a variety of other autoloading pistols chambered for the .45ACP cartridge. It is a physically small suppressor for the size cartridge, and it gains its remarkable efficiency through the use of artificial environment technology. To better understand this unit, please take a few moments to read this manual.

The vast majority of .45 ACP pistols will cycle using the factory recoil spring without a recoil enhancing device (Linear Inertial Decoupler or L.I.D.) because of its light weight and the rearward location of the center of gravity. However, there are occasional pistols that will not cycle and for which a L.I.D. is essential.

Current production Blackside suppressors are provided standard with the L.I.D. On special order, it can be provided with simple thread mounting, but the L.I.D. interface is standard, permitting L.I.D. usage.

This suppressor is capable of reducing the sound level of the .45ACP cartridge by up to 30 dB through the use of the proper artificial environment. Artificial environment is defined as a consumable foreign substance (liquid or paste) inserted into the suppressor to reduce sound by rapidly absorbing heat from the propelling gases. Completely dry, the suppressor is capable of sound reductions in the vicinity of 20 dB.

There are a variety of substances which will function well as an artificial environment including light oil and automotive grease. Each has its advantages and disadvantages, which are related to efficiency, durability, and smoke signature. Specific artificial environment materials are discussed later.

AMMUNITION RECOMMENDATIONS

The dynamics of the suppressed weapon system requires the use of ammunition with a relatively long recoil impulse. Ammunition with projectiles weighing less than 230 grains may not have enough recoil impulse to cycle the weapon. In addition, on some weapons it may be necessary to utilize a lighter recoil spring. Ammunition loaded with cast lead bullets can deposit lead inside the suppressor. For this reason, use only jacked bullets.

✯ ✯ ✯ ✯ ✯ WARNING ✯ ✯ ✯ ✯ ✯

☞ **Before installing, removing, or 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 or death to the user and others in the vicinity**

ATTACHMENT TO THE WEAPON

Before installing or removing the suppressor, remove the magazine, open the action, and visually ascertain that the weapon is unloaded.

The BLACKSIDE is supplied with one of four standard L.I.D. threaded pistons, depending on the weapon:

(1) M16x1: HK USP Tactical & Tactical Compact

(2) 0.578"-28 tpi (37/64-28) for other .45 caliber barrels.

(3) 0.578”-28 tpi (37/64-28) for the SIG P220-CTB requiring shorter than standard barrel threads.

(4) M16x1 (RH) for the HK MK23

In addition, for .40S&W caliber handguns, the following L.I.D. threaded pistons are available for the Blackside:

(1) 9/16-24: Most US .40S&W barrels

(2) M14.5x1-LH: HK USP Tactical .40 cal

After removing the thread protector (if any) on the weapon, screw the suppressor firmly hand tight. It is not only unnecessary to use tools or grip enhancers to screw the suppressor on, but use of such devices will acceler-

ate wear and deformation of the threads. Periodically during use, check to be certain that the suppressor is not unscrewing.

CHARGING THE ARTIFICIAL ENVIRONMENT:

Light liquids can be inserted through the rear of the suppressor with a squeeze bottle. The correct amount is about 1/2 teaspoon (2.5 cc). The baffle system is designed to hold liquids and will do so up to a day.

Light oils are best squirted into the rear of the suppressor with a squeeze bottle or from an aerosol dispenser. When using oil, it is not necessary to coat the entire inside of the suppressor. It is acceptable to squirt it into the rear 2 baffle areas only.

Greases, at this time, are best "spooned" into the rear of the suppressor with a small wood or plastic applicator. Grease is ONLY introduced into the rear two chambers. Shooting the weapon will distribute the grease throughout the remainder of the suppressor. **DO NOT** pack the entire suppressor with grease. Alternatively, grease can be inserted from the front with a long applicator attached to a hand-operated grease gun. The proper amount will be instilled with approximately 6 strokes of a hand grease gun.

DO NOT OVERFILL the suppressor with grease or liquid and be certain that the bore passage remains clear. Failure to observe this precaution can result in excessive pressure within the suppressor body.

ARTIFICIAL ENVIRONMENT MATERIALS

Water: Water is the most efficient medium and provides the greatest degree of reduction through adsorption of heat in the phase change proces. However, we discourage the use of water except in an emergency. Products of combustion of smokeless powders contain oxides of nitrogen which combine with water to produce nitric and nitrous acids. These acids, in time, will erode aluminum, including through the hard anodize outer tube. Water itself will slowly corrode aluminum. If water is used, it is important to blow the suppresor dry with compresed air at the end of the day. Water substitutes include bodily fluids, such as saliva.

Oils: Second only to water in efficiency, light oil lasts longer than water (perhaps 3 magazines). Depending on the oil, there may be slight to moderate smoke produced. The Teflon-based and synthetic oils tend to last longest and produce the least smoke.

Greases: These are the longest lasting (generally over 3 magazines), do not leak at all, and do not evaporate with time. The efficiency is similar to (or minimally less than) oil, and grease is most apt to smoke and splatter. The best greases for suppression have a low "drop point" (melting point), such as

Lubriplate F-105 and FML-2. Standard automotive chassis lubricant is considerably less efficient, and of the automotive greases, synthetic greases are by far the best. One outstanding synthetic automotive grease is Mobil Premium Synthetic, which may not be available in all states.

Vaseline: This is listed separately, and it may well be the best of the greases available. Of the greases, it provides one of the better efficiencies (moderately low drop point) with little or no smoke. Its only disadvantage is the lack of a good delivery system (no long nozzles on the tubes, not available in an automotive grease gun cartridge), and it must be installed by spooning with a stick applicator.

Gemtech will continue to research for the overall most ideal artificial environment material and a suitable delivery system. As soon as the choice is finalized, we will notify each owner of record of our recommended medium.

ROUTINE CLEANING

This suppressor does not require much maintenance. Because of the use of artificial environment technology (particularly when using grease or oil), there is only minimal carbon deposition. Further, a small amount of carbon remaining in the suppressor is beneficial to operation.

As a rule, Gemtech reccommends against any effort at cleaning this suppressor other than brushing the mounting threads with a hydrocarbon based solvent. Neglect is far less harmful than improper cleaning or use of improper cleaning agents. Water based cleaners will damage aluminum.

There are no perfect solvents for cleaning the suppressor or removing the carbon deposited on the internal parts by the burning of the powder. The factory recommendation is for using “Ed’s Red” (equal parts automatic transmission fluid, mineral spirits, kerosene, and acetone) is among the better solvents for suppressor cleaning. Never use solvents containing ammonia, which can damage aluminum parts. This includes Hoppe’s, Sweets, and “GI” bore cleaner.

Always read the warning label on any cleaner or solvent. The unit can be allowed to soak for a convenient period of time and then simply drained on each end. Compressed air can be used to blow the interior dry. Remember, the suppressor likes moisture. Don’t worry about getting the unit bone dry.

Cleaning by immersion may be performed every 2-3,000 rounds. Because of molten lead splattering from the heat generated by friction with cast bullets, we suggest against the use of non-jacketed ammunition.

Any attempt at disassembly of the suppressor will void the warranty.

Immersing or spraying the inside with a Teflon based lubricant (such as Break Free) will decrease carbon build-up within the suppressor.

Ultrasonic cleaners are of little or no value, because they require the use of water based solvents, many of which damage aluminum. Hydrocarbon based solvents do not cavitate properly, a requirement for cleaning.

PHYSICAL SPECIFICATIONS

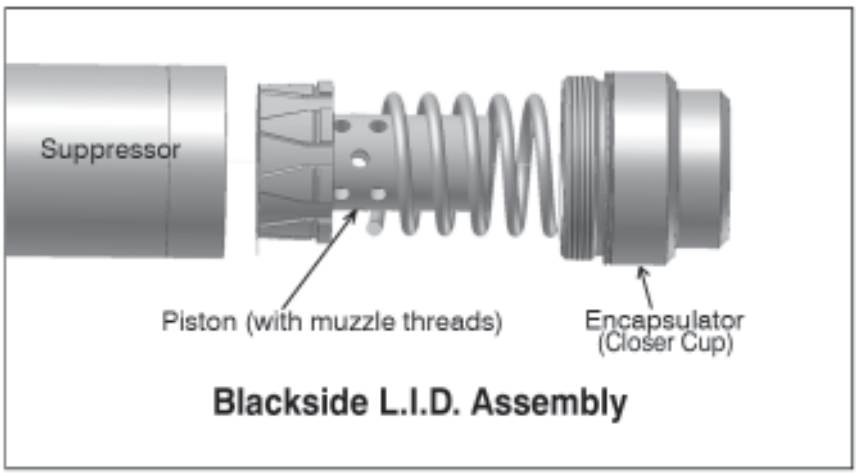
Length	6.3 inch (180 mm)
Diameter	1.37 inch (32 mm)
Weight	5.5 ounce (180 gm)
Construction	High tensile strength aluminum
Finish	Type III, Class 2 black anodized

SERVICING THE L.I.D. (Recoil booster)

Having moving parts, the L.I.D. will require periodic disassembly and cleaning. Please refer to the illustration below.

Do not use a water-based cleaning solvent, such as SLIP-2000, Simple Green, MP-7 or similar materials.

1. Unscrew the rear cap (encapsulator) and set aside.
2. Remove the spring and piston. Clean with solvent. It may be necessary to slightly scrape the parts ro remove caked-on carbon. It is acceptable to use steel wool or red Scotchbrite moistened with a solvent, such as WD-40, Ed's Red, or similar material to clean the parts.



Blackside L.I.D. Assembly

.3. Coat the internal parts of the L.I.D. with a light coat of grease (such as wheel bearing grease, Mobil-1, or Superlube with Teflon). This includes not only the piston, but also the spring, inside of the encapsulator, and mating surface of the rear of the suppressor.

4. Install all parts in the reverse order of disassembly (refer to drawing on previous page). Screw the encapsulator as tight as possible by hand (with out tools).

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 at “full” or as “limited” and sets minimum standards for a “full” warranty.

As do most 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 or operation 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, improper operation, 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.

Warranties specifically apply only to defects in materials or workmanship. They do not cover misuse by the user, damage due to failure to follow instructions in the manual, use of inappropriate ammunition, or improper mounting.

Use of ammunition that does not meet SAAMI specifications will void all warranties.

REPAIR POLICY

Gemtech maintains complete repair facilities for all suppressors manufactured by them or their antecedent companies. Return authorization and shipping instructions must be obtained prior to return. Contact Gemtech for this information.

ATF no longer requires transfer on a Form 5 to the manufacturer for repair. However, they do require a letter accompanying the weapon detailing the repairs or modifications required. ATF requires proof of ownership, satisfied by a photocopy of the front of the owner's Form 3, 4, or 5.

NOTE: ATF prohibits transferring the serial number to a new outer tube in the case of damage to the tube. Tube damage will require a new suppressor.

If repairs are necessary, call Gemtech for shipping instructions.

IMPORTANT

Any modification of this suppressor without prior written authorization from Gemtech's Engineering Department will void all warranties, both written and implied, and will result in the assumption of all liability by the person performing the unauthorized modification.

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

