

PRECISION ARMAMENT

TITREX

USER INSTALLATION & MAINTENANCE MANUAL

WARNING & SAFETY INFORMATION 2
AMMUNITION GUIDELINES 3
FIRING SCHEDULE 4
PRODUCT OVERVIEW..... 5
ASSEMBLY INSTRUCTIONS 6
MAINTENANCE INSTRUCTIONS 9
CORE EXCHANGES AND UPGRADES 10
WARRANTY 12

WARNING & SAFETY INFORMATION

Before using your **TiTrex® Suppressor**, read and follow the instructions outlined in this manual. Failure to follow these instructions could result in property damage, serious injury or death. Do not attempt to use this product unless you have specific training and experience in the use of firearms and suppressors. If you are unsure about any instruction in this manual, contact Precision Armament Customer Service at 800-724-3802 (toll free) for assistance.

- **Verify the firearm is unloaded** and the action is open before attaching or removing the suppressor. Check the chamber and remove any magazine. If you are unsure how to clear your firearm, stop and consult with the firearm manufacturer.

- The **TiTrex Suppressor** will absorb a significant amount of heat during the firing process. **To avoid injury**, allow time for the suppressor to cool or wear heat-resistant gloves.

- **Before each use**, ensure the suppressor is properly tightened and seated against the shoulder of the barrel. The suppressor will lose alignment when not properly seated, and the shooter may experience a baffle strike and risk damage to the equipment and personal injury.

- **Inspect the suppressor for internal obstructions** such as excessive fouling, cleaning patches, or any foreign objects before firing. A blocked suppressor can be extremely dangerous.

- **Always wear proper personal protective equipment** when shooting firearms. Suppressors can significantly reduce the sound of gunfire but will not eliminate the sound completely. It is recommended to wear hearing protection when firing.

- **Always verify caliber compatibility**: Prior to installation or use, verify that the host-firearm caliber is equal or less than the maximum caliber rating of the suppressor and front end suppressor attachment (front cap or brake). If you are unsure, do not install the suppressor; contact Precision Armament for assistance.

AMMUNITION GUIDELINES

The TiTrex® Suppressor is designed to reduce the muzzle blast and pressure wave generated when a round is fired. However, it does not alter the bullet's speed or interact with the projectile, meaning supersonic ammunition will still produce a sonic crack as it breaks the sound barrier. This sound varies with the environment but is unrelated to suppressor performance.

To minimize or eliminate this sonic crack: use subsonic ammunition with a muzzle velocity below the speed of sound (typically between 1,000–1,100 FPS, depending on temperature).

Important Ammunition Restrictions: Do not use ammunition with unjacketed or exposed lead bullets. Lead deposits cannot be effectively removed from the suppressor and may permanently affect performance.

SUPPRESSOR BREAK-IN:

⚠ 3D-printed titanium suppressors may produce more visible sparks during early use than traditional machined suppressors. This is a normal characteristic caused by internal surface roughness from the DMLS manufacturing process being cleared during firing. After approximately 30–60 rounds, visible sparking will typically settle to levels comparable to a traditional machined titanium suppressor. It does not affect suppressor performance, safety, or service life. This effect does not occur with Inconel cores.

FIRING SCHEDULE

LIGHT/LIMITED FULL-AUTO RATING:
Intended for controlled automatic fire in short, rapid strings followed by cooling periods. Typical use may include 30–90 rounds fired in short bursts or limited magazine dumps, with pauses to allow temperature stabilization. Suitable for routine training and non-continuous automatic fire, but not designed for sustained high-volume heat soak.

HEAVY/SOCOM FULL-AUTO RATING:
Designed for sustained, high-volume automatic fire consistent with military-style SOCOM* firing schedules. Capable of handling extended consecutive magazine firing (e.g., 240+ rounds with minimal cooling intervals). Built to tolerate elevated temperatures, repeated thermal cycling, and aggressive duty environments.

TiTrex® (Titanium Core) **Full Auto Rated: YES (Application Dependant)**			**TiTrex® SD (Inconel Core)** **Full Auto Rated: YES (Heavy/SOCOM)**		
Caliber	**Barrel Length**	**Full Auto Rating**	**Caliber**	**Barrel Length**	**Full Auto Rating**
7.62/.308	14.5” & Over	Light/Limited	**7.62/.308**	12.5” & Over	Heavy/SOCOM
	Under 14.5”	Semi-Auto Only		Under 12.5”	Light/Limited
5.56/.233	10.3” & Over	Light/Limited	**5.56/.233**	10.3” & Over	Heavy/SOCOM
	Under 10.3”	Semi-Auto Only		Under 10.3”	Light/Limited
9mm	All Barrel Lengths	Heavy/SOCOM			
300/8.6 BLK (Subsonic)	All Barrel Lengths	Heavy/SOCOM			
300/8.6 BLK (Supersonic)	All Barrel Lengths	Light/Limited			

*The SOCOM firing schedule mandates six firing cycles, each consisting of eight magazines discharged at varying rates of fire. Although the rifle is permitted to cool between cycles, the evaluation still subjects the suppressed weapon to 1,440 rounds in a compressed timeframe, placing significant thermal and mechanical stress on the system.

PRODUCT OVERVIEW

The TiTrex® suppressor features X-CORE® Weld-Free Exchangeable Core Technology, allowing the suppressor to be fully restored to factory-new condition—an unlimited number of times—without destructive cutting or rewelding. This design ensures consistent long-term performance and endless serviceability.

The TiTrex suppressor is a magnum-rated, multi-use suppressor engineered for everyday use, hunting, and precision shooting. For severe-duty applications the TiTrex suppressor comes in an inconel material option that is full auto rated. It delivers lightweight performance with excellent sound suppression and repeatable accuracy—ideal for extended days in the field or at the range. It is designed for use on bolt-action and semi-automatic rifles and is rated for centerfire cartridges containing less than 120 grains of powder (for example, .300 RUM) with no barrel-length restrictions.

1. **X-CORE® (Suppressor Body)** — 100% 3D-Printed.
2. **XBand™ (Serialized Containment Housing)**— Enables unlimited core exchanges.
3. **OPEN SOURCE® Direct Thread Mount (Titanium)*** — Allows direct thread attachment to 5/8-24 barrels.
   - Also available in other barrel threads.
4. **Universal Front Cap (Titanium)**** — Used to achieve maximum sound reduction.
   - Smaller caliber front caps may be used to achieve better sound performance on smaller caliber rifles.
5. **K-Brake™ Ultracompact Suppressor Brake**** — Used to achieve maximum recoil reduction. Smaller caliber brakes may be used to achieve better recoil performance on smaller caliber rifles.
6. **OPEN SOURCE® Universal Wrenches (x2)** — for proper assembly and disassembly.

COMPONENTS:



OPEN SOURCE® Suppressor Mount [3] | **XBand™ [2]** | **X-CORE® [1]** | **OPEN SOURCE® Universal Front Cap [4]** | **OPEN SOURCE® K-Brake™ [5]** | **OPEN SOURCE® Universal Wrenches [6]**

*All TiTrex cores use Precision Armament's 1.375x24 OPEN SOURCE® mount interface which is cross compatible with all industry-standard HUB systems.
**All TiTrex cores use Precision Armament's 1.420x24 OPEN SOURCE® front interface which is cross-compatible with SilencerCo Bravo style mounting systems.

ASSEMBLY INSTRUCTIONS



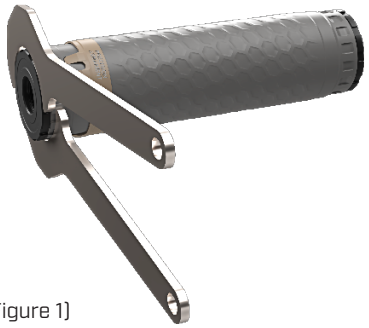
INSTALLATION & REMOVAL OF THE MOUNT:

1. Thread the mount onto the suppressor by hand.
   - All TiTrex® threads are standard RH.
   - Ensure threads are clean and free of debris.
   - It is recommended to apply a small amount of anti-seize compound to all TiTrex threads before assembly.
   - Take care to avoid cross-threading.

2. Thread the Universal Front Cap or K-Brake Ultracompact Suppressor Brake onto the suppressor by hand.
   - Ensure threads are clean and free of debris.
   - Take care to avoid cross-threading.

3. Once hand tightened, use the provided wrenches to tighten the mount[1] and front cap[2] into its final position.
   - Apply sufficient torque (25 ±5 ft-lbs for HUB Mount) to avoid loosening during use.
   - Maximizing Leverage
     * In order to maximize the leverage on the wrenches, keep them close together and offset at a distance so that one hand is able to apply clamping force as pictured.

Tighten OPEN SOURCE® Mount



(Figure 1)

Tighten Universal Front Cap



(Figure 2)

ASSEMBLY INSTRUCTIONS

MOUNTING THE SUPPRESSOR TO THE FIREARM:



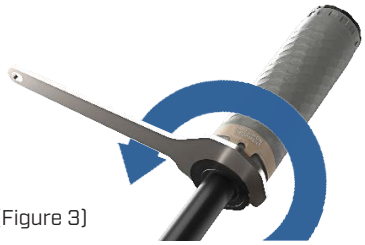
Align Barrel with Supressor

⚠ Before attaching the suppressor, always ensure the firearm is unloaded and the action is open.

1. With the mount installed, align the suppressor with the barrel threads and begin threading by hand. Make sure not to cross-thread.

Thread the suppressor onto the barrel until it is firmly seated. Once hand tightened, use one of the provided wrenches to properly seat the suppressor body to the barrel shoulder[3].

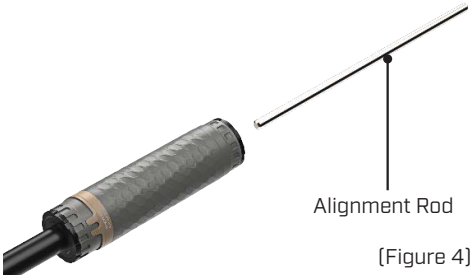
Tighten Suppressor



(Figure 3)

It is important to keep the suppressor tight against the barrel shoulder when firing. Thread locking compound such as Rocksett™ can be used on these threads to avoid unwanted loosening during firing. Please reference Rocksett installation instructions for best results.

1. Once installed securely, it is important to verify proper alignment. This can be accomplished by using an alignment rod[4] that is specific to the caliber of your firearm. If suppressor is not concentric with bore[5], stop use and immediately consult a qualified gunsmith.



Alignment Rod

(Figure 4)



YES YES NO

(Figure 5)

ASSEMBLY INSTRUCTIONS

REMOVING THE SUPPRESSOR FROM THE FIREARM:

⚠ Before removing suppressor, always ensure the firearm is unloaded and the action is open.

⚠ The suppressor can become extremely hot during and after firing. Allow adequate time for cooling, or wear heat-resistant gloves to avoid burns.

1. Support the firearm. Place the rifle in a stable rest or brace it securely so it cannot shift while you remove the suppressor.

2. Loosen the mount. Place the wrench on the mount wrench slots to break the suppressor free from the barrel.
   - **Note:** placing the wrench on the suppressor body for removal can separate the core from the mount, leaving the mount on the barrel.



Loosen Suppressor

3. Remove the suppressor. Once the mount is loose, carefully unscrew the suppressor assembly by hand.

MAINTENANCE INSTRUCTIONS

The TiTrex® Suppressor requires limited maintenance. The high pressures and temperatures of centerfire cartridges burn off most carbon and residue build up inside the core, making them largely self-cleaning. Care should be taken to regularly keep the suppressor thread interfaces clean. Periodic inspection and maintenance will ensure long-term performance and safety.

1. **Internal Maintenance:**
    - Inspect the suppressor regularly for carbon buildup and fouling.
    - Clean mounting surfaces and threads with a standard firearm solvent and a soft nylon or brass brush.
    - If necessary, pass a cleaning brush (no patches) through the bore to dislodge fouling.

⚠ Do **NOT** push cleaning patches through the bore. Patches may become lodged and cause catastrophic failure when the firearm is fired.

2. **External Cleaning & Finish Care:**
    - Wipe down the exterior with a firearm-specific cleaner, and reapply a light layer of your choice of firearm lubricant.
    - Most rust-preventative firearm oils are safe but may darken or alter the finish of the product.

⚠ **Important Cleaning Warnings:**
- Always use standard firearm cleaners and lubricants to avoid damage to the finish and substrate.
- Avoid cleaners containing chlorinated solvents, ammonia, or acids, which may damage titanium.
- Many solvents are toxic and flammable.
    * Work in a well-ventilated area
    * Wear gloves and eye protection
    * Keep solvents away from heat and flames

CORE EXCHANGES AND UPGRADES

TITREX® EXCHANGE & UPGRADE POLICY

Engineered to Evolve—Backed for Life
Whether your suppressor has endured years of use, sustained field damage, or you simply want the latest performance upgrades, our patent-pending X-CORE® technology makes it possible. Rather than being tied to a suppressor with a fixed lifespan, you can return it directly to Precision Armament and receive a factory-new, current-generation replacement—without the cost, delay, or paperwork of a new purchase. This unique capability protects your investment and ensures your TiTrex Suppressor continues to deliver cutting-edge performance for life.

CORE EXCHANGE INSTRUCTIONS

1. **Order the Replacement Core**

   Online:
   - Visit **precisionarmament.com/core-exchange**
   - Select the correct model and your preferred core options.
   - Upload the ATF documentation associated with your original suppressor purchase.
   - Complete checkout and save your order confirmation number—you will need it when shipping your core.

   By Phone:
   - Call **(800) 724-3802** (toll-free).
   - A support representative will guide you through the process to initiate your core exchange.

2. **Prepare your Core for Shipment**
   - Ship **only** the core assembly with the serialized component attached. Do **not** include mounts, front caps, brakes, or wrenches.
   - Never attempt to remove or modify the serialized component, as this will void your warranty and service eligibility.
   - If the core is no longer whole due to damage, include all recoverable pieces with your return.
   - Securely pack the core in a sturdy box with sufficient cushioning to prevent damage in transit. Original packaging is not required.
   - Include a copy of the applicable ATF documentation and a note with your order confirmation number, name, and phone number inside the package.

Note: Because your suppressor's serialized component is reused, no new NFA paperwork or tax stamp is required. You may ship the core directly to Precision Armament without involving an SOT dealer.

CORE EXCHANGES AND UPGRADES

3. Ship to Precision Armament

- Select a carrier of your choice and insure the shipment for the value of the suppressor to protect against loss or damage in transit.
- Use a trackable service **with signature confirmation**; retain the tracking number and shipping receipt until the exchange is complete.
- Clearly write your core exchange **Order #** on the Repairs Department line of the shipping label and include it on the packing slip inside the box.
- Ship to:

  Precision Armament
  Repairs Department, Order # _____
  4110 Niles Hill Road
  Wellsville, NY 14895

4. Turnaround & Return Shipping

- Typical turnaround is two business days from the date we receive your core.
- Once processing is complete, your replacement core — bearing your original serial number — will be returned to you.
- Tracking information will be sent by email once the replacement core has shipped.

WARRANTY

PRECISION ARMAMENT FULL LIFETIME GUARANTEE

Engineered to Evolve. Guaranteed to Perform.

At Precision Armament, we take pride in every product we make. If any Precision Armament product is ever found to have a defect in materials or workmanship, we will, at our option and at no cost to you, repair or replace it—even if you're not the original owner.
There are no time limits, no warranty cards, and no unnecessary paperwork—just our commitment that your suppressor will perform as intended.

What's Covered

- Defects in materials or workmanship that result in failure under normal use
- Manufacturing or assembly errors that compromise function or performance
- Premature component failure not attributable to normal wear or misuse
- Repairs or replacements performed by Precision Armament at our discretion
- Return shipping, both ways, on all approved warranty repairs

What's Not Covered

- Wear, erosion, or heat-related degradation of the core resulting from normal use
- Rust or corrosion
- Damage caused by ammunition defects, host firearm malfunctions, or bore obstructions
- Damage caused by improper or careless handling
- Unauthorized repairs, alterations, or modifications
- Improper installation, handling, or storage

TiTrex® suppressors are built around our X-CORE® Exchangeable Core Technology, which allows the internal core—a consumable, high-performance component—to be replaced or upgraded when worn or damaged.

With this system, there's virtually no such thing as "out of warranty." Even if damage falls outside this guarantee, you can replace the entire core through our Core Exchange Program at a fraction of the cost of a new suppressor—quickly, cleanly, and without additional paperwork.



WARRANTY

WARRANTY CLAIMS

If you believe your product qualifies for warranty service, please reach out to our Customer Service team—we're here to help and make it right. A representative will walk you through the process, answer any questions, and issue a Return Merchandise Authorization (RMA) number to ensure your return is handled quickly and correctly.

Contact Information

- **Toll-Free (U.S.):** 800-724-3802
- **Email:** sales@precisionarmament.com

Return Address

Precision Armament
Repairs Department, RMA # _____
4110 Niles Hill Road
Wellsville, NY 14895

LIMITATION OF LIABILITY

Precision Armament products are designed and manufactured to the highest standards of quality and reliability. However, Precision Armament disclaims all liability for product malfunctions, personal injuries, or property damage resulting from criminal, negligent, or improper use, or from modifications or alterations of the product.

Precision Armament assumes no responsibility for damage to firearms, accessories, or other equipment, or for property damage, personal injury, or death resulting from careless handling or use contrary to the recommendations and warnings in this manual.

In no event shall Precision Armament be liable for any incidental, special, or consequential damages related to the purchase, use, or performance of any Precision Armament product.

⚠ **LEGAL WARNING:**

- Suppressors are regulated under the National Firearms Act (NFA) and Gun Control Act (GCA). Ensure compliance with all federal, state, and local laws. Export is strictly prohibited without proper U.S. State Department authorization under ITAR. Always maintain a copy of your approved BATF Form with your suppressor.



Have questions?
Please contact Customer Support at
(800) 724-3802 or email us at **sales@precisionarmament.com**

CLICK HERE TO REGISTER YOUR SUPPRESSOR.



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