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Operator's Manual

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#### READ THIS ENTIRE MANUAL CAREFULLY AND THOROUGHLY BEFORE USING YOUR ARTEMIS-X<sup>™</sup> SUPPRESSOR

This is an instructional booklet on the ARTEMIS-X<sup>™</sup> suppressor with some safe handling guidelines. Please read all of the warnings and instructions in this manual, and pay careful attention to the safety and warning manual for the host firearm carefully before use. Be sure you have read and understand the manuals before using your firearm with a suppressor attached. Failure to follow the warnings and instructions can result in damage to property, serious injury, or death. Always follow the instructions and warnings in this manual for attaching, using, removing, and maintenance of the ARTEMIS-X<sup>™</sup> suppressor.

**Wall allow CAUTION:** Firearms can be dangerous. Because suppressed firearms make less noise than non-suppressed firearms, it's easy to forget that they are still firearm. It is important to remember that a suppressed firearm is just as dangerous as a non-suppressed firearm capable of causing bodily injury and property damage, and that the same safe handling principals still apply.

**CAUTION:** Always use eye and hearing protection while using a firearm and suppressor. Although suppressors reduce the noise from a firearm when in use, they do not eliminate it completely.

#### WARNING: Never attempt to attach, tighten, or remove the ARTEMIS-X<sup>™</sup> from a loaded firearm!

Before installing the ARTEMIS-X<sup>™</sup> suppressor, make sure that you take your magazine out, and clear the chamber and action of any ammunition. If you are unsure of the proper procedures to ensure that your firearm is unloaded, please consult your firearm owner's manual, or contact a properly licensed dealer, or the manufacturer of your firearm.

# WARNING: The ARTEMIS-X<sup>™</sup> can become extremely hot during use. Never touch or put a hot suppressor on or around flammable materials, or flammable liquids/vapors!

Depending on the rate of fire, a suppressor can become hot enough to cause serious burns to the skin. Extremely hot suppressors can also start a fire when they come in contact with flammable materials and liquids or ignite flammable vapors. Always allow a suppressor to cool down before handling with bare hands.

#### WARNING: Never use frangible ammunition with your ARTEMIS-X<sup>™</sup> suppressor!

Some frangible jacketed bullets can have jacket separation which will cause the bullet to tumble while in the suppressor. These tumbling bullets can strike and damage the suppressor internals causing suppressor failure.

#### WARNING: Only use the ARTEMIS-X<sup>™</sup> with the calibers for which it was designed!

This information is listed later on under "Caliber and Cartridge Compatibility and Rate of Fire" on page 6. Choosing the right ammunition is a vital part of obtaining the best results with a suppressor. Only use ammunition with bullet weights and velocities that are compatible with the firearm's barrel twist rate and length to properly stabilize the bullets. Firing ammunition through a suppressed firearm with an insufficient twist rate for the projectile may cause damage to the suppressor, property damage, serious injury to yourself or others, or even death. Only use factory new ammunition in good condition that is operating at pressures consistent with recognized commercial standards.

#### WARNING: Do not use the ARTEMIS-X<sup>™</sup> suppressor for fully automatic fire!

Although the ARTEMIS-X<sup>™</sup> is a robust state-of-the-art suppressor, due to the wide range of cartridges (.22 Short, .22 WMR, 17 HMR, 17 Win Super Mag, FN 5.7x28, etc.) and host firearms, X2 Dev Group has not rated it for full-auto fire.

#### WARNING: Never alter, modify, or allow any non-factory parts in your ARTEMIS-X<sup>™</sup> suppressor!

It is dangerous to alter or modify the ARTEMIS-X<sup>™</sup> suppressor. Only genuine X2 Dev Group ARTEMIS-X<sup>™</sup> parts should be installed. If any modifications are done or non-factory parts are used in the Artemis X suppressor, your firearm may cease to function, and damage to property, or serious injury or death may occur. Any attempt to alter or modify any part of your ARTEMIS-X<sup>™</sup> will nullify the warranty stipulated at the end of the manual.

# The safe use of a firearm and suppressor is YOUR responsibility! Failing to follow these basic rules and guidelines can result in property damage, serious injury, or even death!

You are the most important key to safety when it comes to using a firearm and suppressor. Remember, even the safest firearm is potentially dangerous to you and others when it is not handled properly with extreme care. Safety is the biggest responsibility for anyone who owns a firearm. Accidents happen when the basic fundamentals of firearm safety are violated. Always keep your finger off the trigger till you have identified your target and are ready to shoot. Remember to treat every firearm as if it is loaded and ready to fire. Never assume that a firearm is unloaded, and never take someone's word for it. Be sure you have positively identified your target, and what is beyond it. Know what your bullet will strike if you miss, or it goes through the target. X2 Dev Group shall not be responsible for property damage, or physical injury to yourself or others caused by any of the following: Negligent or criminal use of the ARTEMIS-X<sup>™</sup> suppressor, improper or careless handling, unauthorized alterations or modifications, the use of low quality, reloaded, or improper ammunition, failure to properly maintain and service the suppressor, including abuse, neglect, or other conditions that are beyond X2 Dev Group's control.

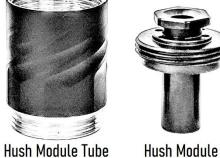




**Turbine Cores** 

<b>Thread</b>	Adapter

**Product Specifications:** 





End Cap

Length:	6.4" Fully Assembled, 5.1" Shortened	
Diameter:	1.15″	
Weight:	4.8 oz Short, 6 oz Long	
Materials:	6AL-4V Titanium, 7075 Aluminum	
Coatings:	High Temp Cerakote, SlipStream	
Thread:	Direct 1/2"-28	
Calibers:	22LR, 22WMR, 17HMR, 17WMR, FN 5.7	
Full Auto Rated:	No	
Use Wet/Dry:	Dry	
Number of Parts:	13	

#### **ARTEMIS-X<sup>™</sup> Overview:**

The ARTEMIS-X<sup>™</sup> suppressor is a state-of-the-art modular core, zero back pressure suppressor capable of use with multiple types of rimfire ammunition and centerfire ammunition including FN 5.7x28 and .22 Hornet. The ARTEMIS-X<sup>™</sup> is 100% CNC machined and proudly made in the U.S.A. with nothing but the highest-grade materials.

The main benefit you will experience with the ARTEMIS-X<sup>™</sup> is that its zero backpressure flow dynamics, with active scavenge effect, your firearm will typically run cleaner with no loss of reliability. The zero-backpressure design does not increase the weapons cyclic rate which helps prevent feeding-related malfunctions, and the additional wear and tear on your firearm. The lack of backpressure combined with the active scavenge effect inherent in the ARTEMIS-X<sup>™</sup> design has the added benefit of dramatically decreasing the amount of toxic gas blowback.

The ARTEMIS-X<sup>™</sup> is a weld-free, fully user serviceable design. Welds decrease strength and introduce potential failure points after repeated heating and cooling cycles. The ARTEMIS-X<sup>™</sup> can be cleaned in ultrasonic cleaning systems that are \*certified as safe for dental applications along with cleaning agents compatible with aluminum and titanium.

Increased service life and thermal efficiency: The QuantumFlo<sup>™</sup> technology incorporated in the ARTEMIS-X<sup>™</sup> suppressor provides beneficial flow dynamics that prevent baffle erosion inherent in typical Maxim-based trapping designs. The turbine modules create an anterior flow path, or "virtual coax" chamber that distributes heat more evenly along the suppressor. This allows you to fire more rounds before reaching the 350 degree recommended operating limit. This is typically three to four times the number of rounds for typical trapping designs. The ARTEMIS-X<sup>™</sup> also cools down faster, typically in 1/3 the time of other suppressors allowing you to get it back into service quicker. Combined with the user serviceability, you will typically experience a service life many times greater than traditional designs from the improved flow dynamics. Better recoil reduction, flash suppression, and thermal signature are all salient features of the ARTEMIS-X<sup>™</sup> flow dynamics.

**Modular Design**: You can choose to run the ARTEMIS-X<sup>™</sup> in two different configurations: Long configuration, with the Hush Module attached, which gives you maximum sound reduction and flash suppression - OR - in its short configuration with the Hush Module off, which gives you a more maneuverable profile, and lighter overall system. The ARTEMIS-X<sup>™</sup> will be in hearing safe range in the short configuration on most rimfire rifles and pistols. Use of the Hush Module is recommended to achieve the best sound reduction with the Ruger 57 5.7x28mm pistol, and FN Five-Seven pistol, etc.

#### **Caliber and Cartridge Compatibility and Rate of Fire:**

The ARTEMIS-X<sup>™</sup> is rated for the following cartridges: .22 Short, .22 Long, .22 Long Rifle, .22 WMR, 17 HMR, 17 WSM, FN 5.7x28mm, and .22 Hornet. The ARTEMIS-X<sup>™</sup> is compatible with virtually all super-sonic and sub-sonic factory ammunition in those cartridges other than frangible, tracer, and shot shells. The recommended rate of fire and number of rounds varies by firearm type, pistol, or rifle, and ammunition type. **IMPORTANT:** The FN 5.7x28mm is a high-pressure (up to 50k PSI) centerfire cartridge. The rate of fire on any 5.7x28 firearm should be no more than **1 round per second for no more than 60 rounds** (three magazines on Ruger and FN 5.7 pistols) before letting the suppressor cool to ambient temperatures.

### Know And Understand The Laws

Suppressors are regulated under the National Firearms Act (NFA; 26 U.S.C. §5849 et seq.). Suppressors are not legal in every state or jurisdiction. Make sure you know the local and state laws in the areas of which you are going to be using, or traveling through with your suppressor. If you have any questions concerning your suppressor, contact the local chief law enforcement officer for further information and help with the legalities of ownership where you reside, or will be using the suppressor. You should keep a copy of the applicable BATF suppressor documents with the suppressor whenever transporting it, or using it. Find more information at the American Suppressor Association: <a href="https://americansuppressorassociation.com/education/">https://americansuppressorassociation.com/education/</a>

# **Attaching the ARTEMIS-X<sup>™</sup> Suppressor:**

**CAUTION:** The ARTEMIS-X<sup>™</sup> suppressor should never be disassembled or assembled while the suppressor is still attached to the host firearm. Always remove the ARTEMIS-X<sup>™</sup> completely from the host firearm before disassembly or reassembly.

WARNING: Do not use a crush/peel washer or shims when installing your suppressor onto a firearm, doing so may cause a misalignment! Misalignment of the suppressor to the bore of the barrel will cause the bullet to contact the internal parts of the suppressor causing damage to the suppressor, property damage, or serious bodily injury!

**Step 1:** Make sure the magazine is out of the firearm and that the chamber and action is empty.

**Step 2:** Remove any Muzzle Device, thread protector, and crush/peel washer or shims attached to the end of your Barrel. Make sure the threads are free from damage and are clean, and free of any thread locker such as Loctite, or Rocksett, etc.

**Step 3:** Screw the ARTEMIS-X<sup>™</sup> onto the muzzle end of the barrel in a clockwise direction by hand. Hand tighten the suppressor only! Installing the ARTEMIS-X<sup>™</sup> should not require tools. **IMPORTANT:** If the suppressor doesn't screw onto your barrel by hand, do not force it. If you force it, you risk damaging the threads of the suppressor and/or the threads on the barrel which will void your warranty. If you are having problems, make sure both threaded surfaces are clean and try again. If you still cannot get the two parts to screw together by hand without excessive force, contact customer service.

**Step 4:** Make sure the suppressor Thread Adapter is fully seated on the barrel and there is no visible gap between the shoulder of the barrel and the face of the adapter.

#### WARNING: If there is any gap between the face of the suppressor and the shoulder of the barrel, DO NOT fire the firearm! Loss of accuracy, or product damage may occur if the suppressor's Thread Adapter and the barrel are not properly seated.

**IMPORTANT:** All direct thread suppressors have a tendency to loosen as they are used. It is important to periodically make sure that the ARTEMIS-X<sup>™</sup> remains secured to the shoulder of the barrel, and that the Hush Module Tube remains tightly attached to the Suppressor Tube. We recommend checking the suppressor after every 30 rounds of use. Make sure you allow the suppressor to cool before re-tightening or handling, and be sure to use appropriate gear or tools such as a welding glove when doing so (see the warning in red below). **IMPORTANT:** If a loose suppressor goes unchecked, it may become misaligned with the bore of the barrel which may cause the bullet to strike the inside of the suppressor and cause severe damage to the suppressor, property damage, and/or personal injury or death.

## **Removal of the ARTEMIS-X<sup>™</sup> Suppressor:**

WARNING: When removing the ARTEMIS-X<sup>™</sup>, be extremely cautious as it may be DANGEROUSLY hot to the touch after firing! If the ARTEMIS-X<sup>™</sup> must be removed when hot, use welding or other gloves specifically designed to protect against extreme heat to avoid burns.

**Step 1:** Make sure the firearm is unloaded and the chamber and action are empty.

<u>Step 2</u>: Unscrew the suppressor by hand in a counter clockwise direction. If necessary, use a 1" wrench on the flats of the ARTEMIS-X<sup>™</sup> Thread Adapter to assist you in unthreading the suppressor from the barrel.

# **ARTEMIS-X<sup>™</sup> Disassembly Instructions for Maintenance:**

**IMPORTANT:** We recommend cleaning after every 300 rounds. Failure to do so may make disassembly and maintenance hard to do. For cleaning, only use nylon or other hard bristled plastic brushes and non-metal, non-marring cleaning tools to remove deposits or debris. Do not use or clean the suppressor components with metal brushes or tools. Never use any abrasive material such as sand paper, steel wool, or scouring pads. Doing so will cause damage to the component's protective surface coatings decreasing their useful service life. Only use non-corrosive solvents such as Hoppes #9, or a CLP to clean the surfaces of the components. Do not immerse in any cleaning solvent for extended periods of time or use in an ultrasonic cleaner that is not \*certified as safe for dental applications. Make sure the cleaning solution is compatible with aluminum and titanium. **CAUTION:** After use, your suppressor may have a lot of lead residue inside of it. Always have adequate ventilation around you when working with your suppressor and cleaning solvents. Shooting firearms, handling ammunition, and cleaning a used suppressor may directly expose you to lead and other harmful substances. When using solvents, always read the warning label before use. Keep in mind that almost all solvents are inherently dangerous and potentially toxic. Take all necessary safety precautions when working with any of these substances such as wearing safety glasses, and nitrile gloves. If for some reason you cannot take those steps, washing your hands and exposed skin is highly recommended.

Tools Needed for Reassembly: A 1", 9/16", and 5/8" open end wrench, a 1" and 5/8" socket, and a 20 in. lb. + torque wrench

Step 1: How to remove the Thread Adapter and Turbine Cores. Hold the ARTEMIS-X<sup>™</sup> suppressor with the end cap facing up, and the Thread Adapter facing down. Use a 1" wrench to hold the flats on the adapter while holding the tube with your other hand and loosen the Thread Adapter (but do not remove it). If necessary, use the supplied end cap tool (see figure 3 on page 11) with a 3/8" ratchet or T-Handle to help loosen the adapter. With the Thread Adapter unscrewed but not removed from the Suppressor Tube, put the suppressor on a clean flat level surface with the face of the adapter down. Now lift up on the

tube. The Turbine Cores should slide out in a stack with the first Turbine Core sitting in the Thread Adapter as shown in figure 10 on page 13. At this point, the cores and the Thread Adapter can be cleaned. **NOTE:** If the cores are not sliding out with the Suppressor Tube, use the supplied core removal tool to remove the cores as outlined below. If the cores came out, proceed to step 2.

1.1: Screw the Thread Adapter back into the Suppressor Tube till it stops (hand tight).
1.2: Complete step 2.

**1.3:** Get the Turbine Core removal tool. Move the tool's threaded nut to the top of the long threaded bolt as seen in figure 1. Screw the Threaded Nut into the suppressor's Thread Adapter by hand till the faces of each part touch as seen in figure 2. Installing the Threaded Nut should not require tools. **IMPORTANT:** If the Threaded Nut doesn't thread into the Thread Adapter by hand, do not force it. If you force it, you risk damaging the threads of

the Threaded Nut and/or the threads on the Thread Adapter and may void your warranty. Make sure both threaded surfaces are clean and try again. If you still cannot get the two parts to screw together by hand without excessive force, contact customer service.

<u>1.4:</u> Screw the long bolt into the threaded nut till it comes in contact with the cores. Then, slowly screw the bolt further into the threaded nut which will push the cores out of the front of the Suppressor Tube. Make sure to grab each one as it starts to come out of the front of the tube making sure not to let them drop out. Once all of the cores are out of the suppressor tube, remove the core removal tool from the suppressor by unthreading it from the Thread Adapter. Now the cores and the inside of the tube can be cleaned.

**Step 2:** How to remove the Hush Module Tube. While holding the Suppressor Tube tightly, grip the Hush Module Tube and unscrew it by hand. If necessary, use the supplied End Cap tool as seen in







figure 3 on page 11 in conjunction with a 3/8" T-Handle or ratchet to unscrew the Hush Module Tube and remove it from the Suppressor Tube. Now the Suppressor Tube can be fully cleaned.

**Step 3:** How to remove the End Cap. While holding the Hush Module Tube tight, use the End Cap tool in conjunction with a 3/8" T-Handle or ratchet to unscrew the End Cap. Be sure to keep constant downward pressure on the End Cap tool while using it to keep the chances of the tool slipping out of the tool holes and damaging the End Cap to a minimum.

**<u>Step 4</u>**: How to remove the Hush Module. While holding the Hush Module Tube tightly, use a 5/8" socket in conjunction with the built in 5/8" hex key on the top of the module to unscrew and remove the Hush Module. Now the End Cap, Hush Module, and the inside of the Hush Module Tube can be cleaned.

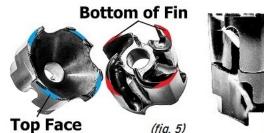
#### **ARTEMIS-X<sup>™</sup> Reassembly Instructions:**

**Step 1:** How to install the Hush Module into the Hush Module Tube. Make sure all components are clean, and dry prior to reassembly. Hold the Hush Module by the 5/8" hex key and insert its long extension into the tube first (fig. 4). Then use the 5/8" socket over the hex head to screw the module into its tube, torque to 48 in. lbs..

**<u>Step 2</u>**: Screw the End Cap onto the Hush Module Tube hand tight at this time.



**Step 3:** Screw the Hush Module Tube onto the front of the Suppressor Tube by hand as (*fig. 4*) tight as possible. The front of the Suppressor Tube is the end that is perfectly round on the outside with no flats or spirals.



Step 4: How to stack the Turbine Cores in the Threaded Adapter. The Turbine Cores lock into place as you stack them via grooves on their top face (in blue), and the bottom of the next core's fins (in red) (fig. 5).

Important: Make sure the cores are locked into place properly as you stack them (fig. 6). Pay careful attention to the order in which you are stacking the cores. Stacking them wrong can

cause the suppressor to underperform. There are four different kinds of Turbine Cores: 1 "base" core that is identifiable by having half sized fins (the core that is on the bottom in figure 6), 2 normal cores with full fins and no other marks, 3 cores identifiable by their single groove going around their fins, and 2 cores that have 2 grooves going around their fins. Place the Thread Adapter's face on a flat surface, then stack the eight

(fig. 6)

Turbine Cores in this order: The base core goes into the Thread Adapter first (fig. 7), then both of the cores with no lines stack on top of the base core (fig. 8), then a core

with a single line after that (fig. 9), then a core with a double line (fig. 10), and then alternate stacking the lined cores with a single lined core, then a double lined core, and then the last single lined core (fig. 11).





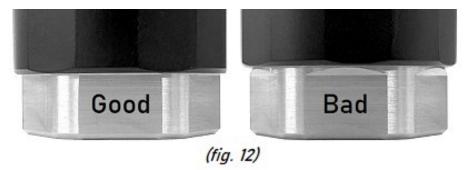






<u>Step 5:</u> How to install the Turbine Cores and Thread Adapter. Hold the Suppressor Tube with the End Cap facing up. With the Thread Adapter and all of the Turbine Cores still on the flat surface, carefully slide the Suppressor Tube over the cores and onto the Thread Adapter. Using only your fingers, screw the Thread Adapter into the tube until it stops, and as hand tight as

possible. The main body of the Thread Adapter will partially go into the tube as shown in figure 12. If it does not go into the tube far enough (if the angled flats are showing), there might be a misalignment with the Turbine Cores. **IMPORTANT:** Be careful as you do this not to shake the cores in the tube as you are sliding it over or you may cause the cores to come unlocked.



<u>CAUTION</u>: Make sure the Thread Adapter is properly hand tightened in the suppressor tube as seen in figure 12 above, this is very important before the final tightening. If the Thread Adapter is not installed like the "Good" side of figure 12, damage will occur during final tightening.

**Step 6:** Final tightening of the suppressor assembly. Hold the Suppressor Tube tightly in one hand with the End Cap facing down, and the Thread Adapter facing up. Put the 1" socket over the Thread Adapter and torque the Thread Adapter to 5 ft. lbs. -or- 60 in. lbs., either will work. Then flip the suppressor over and tighten the End Cap to 5 ft. lbs. -or- 60 in. lbs..

**Step 7:** Inspect the ARTEMIS-X<sup>™</sup> before shooting to make sure that you put it back together correctly. There should be no gaps between any of the mating parts. The suppressor should not make any noise when shaken.

# **Repair Policy:**

If a repair is needed, the owner must contact our customer service department in writing or by telephone. Return authorization and shipping instructions must be obtained prior to return. DO NOT ship the suppressor to X2 Dev Group without first contacting the customer service department via the website or by calling (385) 387-1102. When shipping the suppressor, make sure to have the proper BATF form. Also have a letter accompanying the suppressor detailing the repairs required, make sure to include a detailed statement that has the type of ammunition being used at the time of the malfunction, and the type of host firearm the suppressor was being used with. **NOTE:** The ATF prohibits the transferring of your serial number to a new outer tube (in the case of damage to the tube). Depending on the type of damage to your tube, your suppressor may not be repairable and you may require a new suppressor.

## LIMITED LIFETIME WARRANTY

X2 Dev Group guarantees this suppressor is free of manufacturing defects, and that the product meets manufacturing specifications at the time of manufacture. For the lifetime of the original purchaser, X2 Dev Group's warranty is limited to the repair or replacement of the product or parts if a defect is found during normal use. This limited lifetime warranty is at the sole discretion and determination of X2 Dev Group on whether or not a particular issue or defect is covered by the warranty. X2 Dev Group's warranty does not cover negligence, misuse, damage (by accident or otherwise), carelessness or improper handling, being fired with an obstruction in the barrel, unauthorized adjustments or modifications, improper mounting or improper installation of parts, ordinary wear and tear, the failure to follow manufacturer instructions, or the use of defective, inappropriate or reloaded ammunition. This limited warranty does not apply to the normal "wear and tear" of any parts. This limited warranty is exclusive, and no other expressed or implied contractual rights or warranties are otherwise provided.



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