

# "RimFire 2" "

## OPERATION AND MAINTENANCE OF "RimFire 2" SOUND SUPPRESSOR

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



Sound Suppressor "RimFire 2"



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## IMPORTANT

The manufacturer disclaims any liability for damage resulting from any unauthorized modification of this product. Any modification of this suppressor without prior express authorization from Hughes Precision Products LLC 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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## GENERAL INFORMATION

The "RimFire 2" suppressor is one of the family of Hughes Precision Products LLCs Extreme Duty Silencers specifically designed to withstand the rigorous standards for today's harshest environments. Its tough 7075 and 6061 grades aluminum construction exhibits great strength than for prolonged engagements. For strength, durability and performance the "RimFire 2" suppressor is unparalleled.

The "RimFire 2" sound suppressor is offered in standard 1/2"-28 (2A) thread mount only.

All muzzle attachments, including suppressors, will change barrel harmonics and standing waves resulting in slight change in point of impact with the device in place. The degree of change in the point of impact will vary with the specific weapon and both the rigidity and metallurgy of the barrel. When used with standard weight varmint, law enforcement or military grade barrels, there will be no detrimental effect on group size.

This suppressor is effective in manifestly reducing the sound of the muzzle blast, making it difficult for an observer to determine the origin of the shot and reducing the need for shooter hearing protection. **There is no way of eliminating the ballistic crack (sonic boom) of the projectile traveling downrange.**

This suppressor contains no expendable parts. We recommend against cleaning the interior of the suppressor. This instruction manual give the necessary instructions for maintenance of this unit.

**DO NOT** fire this suppressor with any foreign material inside. This suppressor is designed to operate completely **DRY**. Introduction of liquids, greases or other foreign materials can cause abnormal pressures and must **NEVER** be used. Any resultant damage is not covered under warranty.

### AMMUNITION

The "RimFire 2" suppressor is designed to operate within SAAMI or NATO pressure specifications. It is not intended to be used with handloaded or other ammunition that exceed SAAMI or NATO pressure specifications.

## **SAFETY NOTES**

- (1) Always handle weapons in a safe manner and assume they are loaded until they have been cleared
- (2) User installation or removal of the sound suppressor must be accomplished in accordance with the instructions contained in this manual.
- (3) During use, the "RimFire 2" suppressor absorbs large quantities of heat from the burning propellant gases. The elevated temperatures can pose a hazard to personnel and materials that may contact the suppressor when hot. The suppressor must be allowed to cool to ambient temperature before handling.
- (4) ONLY use the suppressor completely dry.
- (5) NEVER use any type of washer, crush washer or locking washer when mounting the suppressor
- (6) Before performing any installation or 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.

## **SPECIFICATIONS**

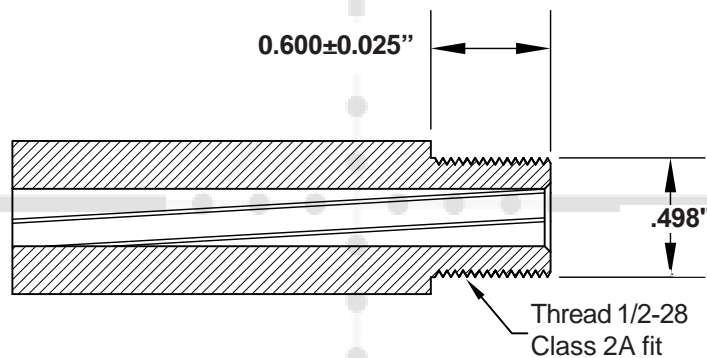
Caliber:	RimFire 2
Length:	2.0"
Diameter:	1.0"
Weight:	3 ounces
Materials:	7075/6061 Aluminum
Finish:	Flat Black ~ Dura-Coat
Mount:	1/2-28 (2A) Threads Only
Duty Cycle:	Bolt, Semi-Auto or BURST FULL AUTO

## BARREL THREADING

The "RimFire 2" suppressor was gauged for alignment and run-out on a precision test fixture before shipping from the factory. To ensure proper alignment, it is imperative that the barrel be threaded properly.

For unthreaded barrels, please refer to the drawing below. To ensure concentricity and axial alignment, it is important that the barrel be threaded with the threads coaxial with the bore and the shoulder at the back of the threads/barrel be exactly 90 Degrees to the bore axis. (see drawing below)

A small (.060" -.080") thread relief is incorporated into the rear mount of the suppressor. A thread relief in the barrel at the back of the threads is optional, but recommended.



Barrel Threading Specifications

## MOUNTING THE "RimFire 2"

If present remove the thread protector. Installation requires that the suppressor be screwed hand tight onto the threaded barrel. The threads are standard right hand.

**NEVER use any type of washer, crush washer or locking washer when mounting the suppressor.**

**Crush washers or lockwashers will cause misalignment and damage not covered by warranty**

During use, suppressors will become extremely hot. Do not touch! Failure to comply may result in burns or melted clothing.

To remove the suppressor, UNSCREW the suppressor and replace the thread protector.

## CLEANING

The "RimFire 2" suppressor Core is constructed of 100% 7075 Aluminum and 6061 grade aluminum outer tube. As such there is little concern about corrosion from the products of combustion of the propellant gases. We have found little need for cleaning the inside of the suppressor. We strongly advise against such efforts or the immersion in solvents. Solvents will not drain completely and residual liquid may cause unexpected pressure peaks which can damage the unit. The high flame temperature burns out the majority of any remaining powder residues.

All threads, mounting surfaces and alignment surfaces should be inspected and remain clean. They may be cleaned with a brass or nylon brush dipped in mild solvent.

It is acceptable to blow out particulate matter with high pressure compressed air. DO NOT under any circumstances, attempt to pass a cleaning patch through the suppressor.

FOR DISASSEMBLY AND OPTIONAL CLEANING INFORMATION (GO TO LAST PAGE OF THIS MANUAL)

## LIMITED WARRANTY STATEMENT

Hughes Precision Products LLC warrants to the initial retail purchaser that Hughes Precision Products will be free of defects in workmanship or material and that the product meets manufacturing specifications at the time of manufacture. This warranty is limited to the repair or replacement of the product. This express limited is exclusive and no other express or implied warranty is otherwise provided.

HUGHES PRECISION PRODUCTS LLC MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

Product technical specifications and/or designs may be changed without notice. This warranty does not cover negligence, misuse, careless or improper handling and/or operation, abuse, unauthorized adjustments or modifications, improper mounting/installation, ordinary wear and tear, the failure to follow manufacturer instructions and/or the use of inappropriate or defective ammunition.

Sound Suppressor "RimFire 2"

## LIMITED WARRANTY STATEMENT

Hughes Precision Products LLC shall have no liability for incidental or consequential damages and under no circumstances will Hughes Precision Products LLC be liable for personal injury, property damage or economic loss.

This warranty and disclaimer is subject to all applicable laws some of which may limit these terms.

### **WARRANTY REPAIRS: Return of damaged suppressor**

If a suppressor is damaged due to a manufacturing defect once it has been fired, it may be returned to Hughes Precision Products LLC for repair or replacement. Determination to repair or replace is made solely at our discretion and only after we have had the opportunity to examine and determine that the cause of the damage is due to a manufacturing defect. It is the responsibility of the customer to cover shipping costs and insurance to return the suppressor to Hughes Precision Products LLC for inspection or repair. Hughes Precision Products will pay any reasonable shipping and insurance costs to return the unit to you.

To assure proper legal procedures for any repair returns, fill out and provide a copy of the **NFA RETURN / REPAIR Form** with any packages sent to us. Visit [www.hughesprecision.com](http://www.hughesprecision.com) to download the **NFA RETURN / REPAIR Form.pdf**

BATFE no longer requires transfer on a form 5 to the manufacturer for repair. BATFE does require a letter accompanying the suppressor detailing the repairs or modifications required (satisfied by completely filling out the NFA RETURN / REPAIR Form). BATFE also requires proof of ownership satisfied by a photocopy of the front of the owners Form 3, 4, or 5.

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

**HUGHES PRECISION PRODUCTS LLC**  
**manufactures all of its products**  
**in the**  
**UNITER STATES of AMERICA**

## Sound Suppressor "RimFire 2"

### **DISASSEMBLY STEPS:**

#### **1. ENSURE YOUR FIREARM IS NOT LOADED**

After ensuring that your firearm is not loaded, remove the suppressor from the firearm. You CANNOT take it apart while its still attached to the firearm.

#### **2. SOAK THE SUPPRESSOR**

The can should be soaked prior to disassembly to aid in disassembly. We recommend CRC or WD40 in a large plastic jar and leave it in to soak overnight. Spraying some oil into the can will be of minimal to no benefit. Soak it. After soaking, remove from the oil, drain, wash the exterior to remove any oil, dry the exterior.

#### **3. REMOVE ONE ENDCAP**

You will need one Assembly & Disassembly Tool to unscrew the front cap. Grasp the suppressor in your hand or use a fiber, rubber or nylon strap wrench. Place the tool on the top of the suppressor. Loosen the cap unscrewing first only about 1/4 to 1/2 of a turn. Completely remove the top cap, then either by hand or with the strap wrench

#### **4. REMOVE BAFFLES FROM TUBE**

The core could be difficult to remove from the tube since the lead has soldered them together and into the tube. Use a 3/4" diameter wooden dowel cut 7 inches long to tap / hammer the baffles out. The easiest and safest way to accomplish this is to have your buddy hold the tube in the air while you use the dowel and a plastic face lead dead-blow hammer to tap the core out,

#### **5. CLEAN THE TUBE ID & INSIDES OF BOTH CAPS**

Use a soft brush to clean the inside of the tube so that you can slide the core back in for reassembly. Do not use any hard brushes that will damage the finish inside of the suppressor tube. Similarly, do not use any solvents or cleaners with ammonia or similar that will dissolve aluminum. Scrub the insides of the cap. Do not scrub the threads. After a lot of use, it may become necessary to clean the 1/2x28 thread with a class 2B tap. A tap can be purchased on line from Brownells. Use caution when chasing the threads with a tap since the tap is capable of incorrectly cutting new threads in the cap. The tap should be used by hand only to clean the existing threads if necessary.

#### **6. CLEAN THE BAFFLES**

The core will never be shiny aluminum and it doesn't need to be. The preferred method of cleaning is to use a brass bristle brush until all of the lead and carbon has been removed.

#### **7. REASSEMBLY**

Reassembly is the reverse process of disassembly. Apply a small amount of an anti-seize compound to the cap threads before assembly. Slide core into tube, screw end cap into place and tighten to 35-40 inch pounds of torque. Apply a small amount of anti-seize to the 1/2"-28 mounting threads and remount to your weapon. Job Done.