

# CENTERFIRE RIFLE

## SILENCER TECHNICAL MANUAL

### GENERAL DESCRIPTION

This operator's card details the proper use and maintenance of the AAC Ratchet Mount™ and direct-thread centerfire rifle silencers. Direct-thread silencers couple to the host rifle using a section of screw threads on the barrel's muzzle. Direct-thread is the traditional method of attaching a silencer and is popular for its rigid interface and simplicity. Ratchet Mount™ silencers use AAC's fast-attach system and enables users to securely install the silencer onto an AAC Blackout™ flash hider, muzzle brake, or Brakeout™ compensator (all of which will henceforth be referred to as "muzzle devices"). Ratchet Mount™ silencers can be attached to muzzle devices in seconds, using an intuitive motion and gross motor skills.

### MANUFACTURER'S DISCLAIMER

ADVANCED ARMAMENT CORP. shall not be responsible in any manner whatsoever for physical injury or property damage stemming from criminal or negligent misuse, improper or careless handling, unauthorized modifications, defective, improper hand-loaded or reloaded ammunition, neglect, or other influences beyond our direct and immediate control. If you do not understand the instructions and recommendations in this manual, contact ADVANCED ARMAMENT CORP. at 770-925-9988 for clarification.

**▲ WARNING - Failure to follow the instructions and recommendations set forth in this manual can create a potentially dangerous situation for the user and surrounding personnel, and possibly leading to property damage, personal injury and/or death.**

**▲ WARNING - Never install or remove a silencer on or from a host firearm that you have not verified to be completely empty and rendered safe. Installing or removing a silencer on or from a loaded firearm may lead to property damage, personal injury and/or death.**

**▲ WARNING - Always wear eye protection when discharging a firearm equipped with a silencer. Discharging a firearm without wearing eye protection may lead to property damage, personal injury and/or death.**

**▲ WARNING - Silencers can become extremely hot while the host firearm is being discharged. After shooting, allow the silencer to reach ambient temperature before attempting to remove the silencer from the firearm. Handling a hot silencer may lead to skin burns and/or personal injury.**

**▲ WARNING - Your AAC Ratchet Mount™ and direct-thread silencer's bore must align concentrically with the bore of the barrel to which it is mounted. A mismatch of the silencer and barrel bores may lead to property damage, personal injury and/or death.**

**▲ WARNING - The barrel threads must be properly machined to allow proper attachment of an AAC Ratchet Mount™ or direct thread silencer. The use of an improperly threaded barrel with an AAC Ratchet Mount™ or direct thread silencer may lead to property damage, personal injury and/or death. Barrel threading guides are available on the AAC website at [www.advanced-armament.com](http://www.advanced-armament.com). For further clarification on muzzle threads, contact ADVANCED ARMAMENT CORP at 770-925-9988.**

**▲ WARNING - Never use an AAC Ratchet Mount™ silencer with a non AAC muzzle device. Using an AAC Ratchet Mount™ silencer with a non AAC muzzle device may lead to property damage, personal injury and/or death.**



FIGURE 5

**▲ WARNING - Never handle a hot silencer without protective gear, as this may lead to property damage, personal injury and/or death.**

### MUZZLE DEVICE CLEANING AND MAINTENANCE

**▲ WARNING - Only perform cleaning and maintenance procedures on muzzle devices on a firearm that is completely unloaded. Attempting to clean or perform maintenance on a muzzle device mounted on a loaded firearm could lead to property damage, personal injury and/or death.**

1. Always keep the firearm pointed in a safe direction.
2. Render the firearm safe by removing the magazine (if detachable), completely unloading the firearm and engaging the safety to the "SAFE" position. See the firearm's owner's manual for detailed instructions.
3. Remove the silencer from the muzzle device. See "Removing a Direct Thread Rifle Silencer" or "Removing a Ratchet Mount Silencer" sections in these instructions.
4. Use copper solvent and a small brush to remove accumulated carbon and copper fouling from the muzzle device. A solvent moistened piece of Scotch-Brite™ cloth may be used to remove stubborn copper and carbon deposits. See Figure 6.



FIGURE 6

5. Remove any loose material, copper or carbon deposits from the muzzle device's bullet path.
6. Neutralize any remaining solvent as instructed on its container.
7. Allow the muzzle device to dry completely.
8. Wipe the exterior of the muzzle device with a clean DRY cloth.

**▲ WARNING - Do not apply oil or other lubricants to the muzzle device as they may burn off during use. Oils and lubricants burning off during firearm use may lead to property damage, personal injury and/or death.**

### SILENCER CLEANING AND MAINTENANCE

**▲ WARNING - Only perform cleaning and maintenance procedures on silencers that are not mounted to a firearm. Attempting to clean or perform maintenance on a mounted silencer could lead to property damage, personal injury and/or death.**

1. Always keep the firearm pointed in a safe direction.
2. Render the firearm safe by removing the magazine (if detachable), completely unloading the firearm and engaging the safety to the "SAFE" position. See the firearm's owner's manual for detailed instructions.
3. Remove the silencer from the muzzle device. See "Removing a Direct Thread Rifle Silencer" or "Removing a Ratchet Mount Silencer" sections in these instructions.
4. Using the general purpose small brush, found in most weapon cleaning kits, aggressively brush any loosened carbon fouling from the threads in the rear of the silencer. Take care to insure none of the loosened material falls into the silencer. See Figure 7.

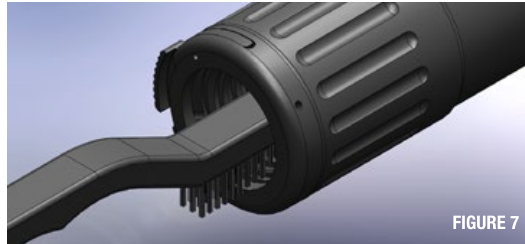


FIGURE 7

NOTE: The silencer may be cleaned via immersion in copper remover or a suitable solvent such as lacquer thinner or acetone.

**▲ WARNING - Only perform a solvent immersion soak in a well ventilated area away from open flames. Performing a solvent immersion soak may lead to property damage, personal injury and/or death.**

**▲ WARNING - Always wear protective gear, such as eye protection and rubber gloves when working with any solvent. Unprotected exposure to solvents may lead to property damage, personal injury and/or death.**

5. If you do not wish to conduct a solvent immersion soak, proceed to step 10.
6. Immerse the silencer in a container of solvent, completely covering the attachment threads.
7. Soak the silencer over night.
8. Remove the silencer from the solvent muzzle-up, allowing all the solvent to drain from the silencer.
9. Aggressively brush the threads in the rear of the silencer to remove material loosened during the solvent soak.
10. Flush all solvent and loosened material from the interior of the silencer using hot detergent water.
11. Flush the silencer with hot water to remove any remaining solvent and detergent.
12. Allow the silencer to dry.
13. Wipe the exterior of the silencer with a clean DRY cloth.

**▲ WARNING - All traces of solvent must be flushed from the interior of the silencer. Failure to remove all solvent from the silencer may lead to property damage, personal injury and/or death.**

**▲ WARNING - Do not apply oil or other lubricants to the silencer as they may burn off during use. Oils and lubricants burning off during firearm use may lead to property damage, personal injury and/or death.**



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**▲ WARNING** - Only use an AAC Ratchet Mount™ silencer with a matching tooth count AAC muzzle device. The number of teeth on the Ratchet Mount™ silencer must be the same as the number of teeth on the muzzle device, i.e. a 90 tooth Ratchet Mount™ silencer can only be used with a 90 tooth muzzle device. Mismatching the tooth count of an AAC Ratchet Mount™ silencer and muzzle device can lead to property damage, personal injury and/or death.

**▲ WARNING** - AAC Titanium rifle silencers are designed for precision, low rate of fire applications. Using an AAC Titanium rifle silencer in a high volume semi-automatic or automatic fire application may lead to property damage, personal injury and/or death.

**▲ WARNING** - A popular trend among silencer consumers is the practice of using one silencer of a given caliber on numerous host firearms of equal or smaller caliber. This practice is safe, provided the user answers the following questions in the affirmative:

1. Is the alternate caliber diameter equal to or smaller than the caliber designated on the data panel of the silencer?
2. Does the alternate caliber produce a muzzle exit pressure equal to or less than the muzzle exit pressure of the caliber designated on the data panel of the silencer?
3. Does the alternate caliber cartridge have a case capacity equal to or less than the caliber designated on the data panel of the silencer?

If the answer to all three of the above questions is, "Yes", dual use of an AAC rifle silencer is safe for the alternate caliber in question. IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE COMPATIBILITY OF HOST FIREARMS AND SILENCERS PRIOR TO DUAL USE.

**▲ WARNING** - Only use AAC silencers with firearms of compatible caliber (See instructions above) with the caliber designated on the data panel of the AAC silencer. Consult your firearm owner's instruction manual for instructions on how to identify its caliber. Improperly matching an AAC silencer with a firearm of an incompatible caliber may lead to property damage, personal injury and/or death.

## INSTALLING A DIRECT-THREAD RIFLE SILENCER

1. Always keep the firearm pointed in a safe direction.
2. Render the firearm safe by removing the magazine (if detachable), completely unloading the firearm and engaging the safety to the "SAFE" position. See the firearm's owner's manual for detailed instructions.
3. Remove the thread protector from the rifle muzzle.
4. Inspect the muzzle threads to verify they are clean and undamaged.
5. Inspect the threads in the rear of the silencer to verify they are clean and undamaged.
6. Look through the silencer from the rear to insure the bullet path through the silencer is unobstructed.
7. Examine the silencer for any signs of damage.
8. Carefully thread the silencer fully onto the host firearm. The rear of the silencer should stop against the barrel's perpendicular shoulder, behind the muzzle threads. See Figure 1.



FIGURE 1

9. Tighten the silencer with sufficient torque to keep the silencer securely attached to the barrel during operation. See Figure 2. IT IS THE RESPONSIBILITY OF THE USER TO INSURE THAT THE SILENCER REMAINS FULLY THREADED ONTO THE BARREL AND SEATED AGAINST THE MUZZLE'S PERPENDICULAR SHOULDER.



FIGURE 2

**▲ WARNING** - Never use a washer or shim of any sort between the rear face of a direct-thread silencer and the barrel's perpendicular shoulder, as this may lead to property damage, personal injury and/or death.

**▲ WARNING** - Never attempt to attach a direct-thread silencer to muzzle threads that are dirty or damaged, as this may lead to property damage, personal injury and/or death.

**▲ WARNING** - Never attempt to attach a direct-thread silencer with dirty or damaged threads to a firearm, as this may lead to property damage, personal injury and/or death.

**▲ WARNING** - Never use a silencer with an obstructed bore, as this may lead to property damage, personal injury and/or death.

## REMOVING A DIRECT THREAD RIFLE SILENCER

1. Always keep the firearm pointed in a safe direction.
2. Render the firearm safe by removing the magazine (if detachable), completely unloading the firearm and engaging the safety to the "SAFE" position. See the firearm's owner's manual for detailed instructions.
3. Verify the silencer is at ambient temperature. If the silencer is hot, allow it to cool.
4. Carefully unscrew the silencer from the host rifle's muzzle threads.

**▲ WARNING** - Never handle a hot silencer without protective gear, as this may lead to property damage, personal injury and/or death.

## INSTALLING A RATCHET MOUNT™ RIFLE SILENCER

1. Always keep the firearm pointed in a safe direction.
2. Render the firearm safe by removing the magazine (if detachable), completely unloading the firearm and engaging the safety to the "SAFE" position. See the firearm's owner's manual for detailed instructions.
3. Inspect the male ACME threads on the exterior of the AAC muzzle device to verify they are clean, undamaged, and free of obstructions.
4. Inspect the corresponding female ACME threads inside the rear of the silencer to verify they are clean, undamaged, and free of obstructions.
5. Look through the silencer from the rear to insure the bullet path through the silencer is unobstructed.
6. Examine the silencer for any signs of damage.
7. Slide the Ratchet Mount™ silencer over the AAC muzzle device until the male ACME threads engage the female ACME threads within the silencer (See Figure 3).
8. Rotate the silencer by hand 1.5-2 turns until the silencer is fully seated on the muzzle device and will no longer turn (See Figure 4). As the Ratchet Mount™ silencer is threading onto the muzzle device, teeth on the ratchet latch will engage the serrations on the rear of the muzzle device. This ratcheting action can both be felt and heard.



FIGURE 3



FIGURE 4

Once fully seated, the ratchet latch prevents the silencer from inadvertently unscrewing during use.

9. Without depressing the thumb pad on the ratchet latch, attempt to unscrew the Ratchet Mount™ silencer from the muzzle device. The silencer should not click backward or jump teeth on the muzzle device. A small amount of movement is acceptable and long as the ratchet latch does not override a tooth. When properly seated, the thumb pad will depress when pressed. If the thumb pad remains depressed, the ratchet latch is not properly engaged.

**▲ WARNING** - Never attempt to attach a Ratchet Mount™ silencer to a muzzle device with dirty or damaged ACME threads, as this may lead to property damage, personal injury and/or death.

**▲ WARNING** - Never attempt to attach a Ratchet Mount™ silencer with dirty or damaged ACME threads to a muzzle device, as this may lead to property damage, personal injury and/or death.

**▲ WARNING** - Never use a silencer with an obstructed bore, as this may lead to property damage, personal injury and/or death.

**▲ WARNING** - Only use an AAC Ratchet Mount™ silencer with a matching tooth count AAC muzzle device. Mismatching the tooth count of an AAC Ratchet Mount™ silencer and muzzle device can lead to property damage, personal injury and/or death.

## REMOVING A RATCHET MOUNT™ SILENCER

1. Always keep the firearm pointed in a safe direction.
2. Render the firearm safe by removing the magazine (if detachable), completely unloading the firearm and engaging the safety to the "SAFE" position. See the firearm's owner's manual for detailed instructions.
3. Verify the silencer is at ambient temperature. If the silencer is hot, allow it to cool.
4. Depress and hold the grooved thumb pad on the ratchet latch to disengage the ratchet teeth on the latch from the serrations on the muzzle device.
5. Unscrew the silencer in the indicated direction until it can be pulled free (Figure 5).