

TM-HALCYON®

TECHNICAL MANUAL FOR OPERATION AND MAINTENANCE OF SILENCER MODEL HALCYON



AAC
ADVANCED ARMAMENT CORP.

1816 Remington Circle SW
Huntsville, AL 35824

ADVANCED ARMAMENT CORPORATION

Limited Lifetime Warranty for Silencers

ADVANCED ARMAMENT CORP. ("AAC") warrants to the original purchaser ("Purchaser") of a new Silencer from AAC that such Silencer shall be free from defects in material and workmanship for the duration of time that the Purchaser originally owns that Silencer. AAC, in its sole discretion, shall repair or replace the Silencer if the Purchaser submits a valid warranty claim in accordance with these instructions. If AAC opts to replace the Silencer, AAC will keep the Silencer that it replaces. The Purchaser's remedies under this warranty are limited to repair or replacement of the Silencer; AAC will not provide cash, credit, or refund. AAC does not warrant against any type of defect to the Silencer that AAC did not cause, including but not limited to defects or failures arising out of:

1. Failure to provide proper care and maintenance,
2. Accidents, abuse, or misuse,
3. Silencer obstruction,
4. Hand loaded, reloaded, or improper ammunition,
5. Unauthorized adjustments, repairs, or modifications, or
6. Normal wear and tear.

Additionally, AAC EXCLUDES AND WILL NOT PAY INCIDENTAL OR CONSEQUENTIAL DAMAGES UNDER THIS WARRANTY. THIS WARRANTY ALSO EXCLUDES ANY OTHER WARRANTIES, TO INCLUDE IMPLIED WARRANTIES. Furthermore, no individual or entity other than AAC possesses the authority to alter the obligations, limitations, disclaimers, or exclusions under this warranty. AAC's obligations under this warranty shall not apply to the extent that any law, regulation, or other governmental requirements prohibits the repair, replacement and, or, return of a Silencer to the person who shipped the Silencer to AAC.

The Purchaser, in order to achieve eligibility under this warranty, must be able to produce, on request, Purchaser's original sales receipt for the Silencer that clearly indicates that Purchaser is the original purchaser at retail. The Purchaser, upon discovering a defect in material or workmanship in the silencer, shall contact AAC at 770-925-9988 or techinfo@advanced-armament.com

Upon receiving the Purchaser's correspondence or phone call, AAC shall provide instructions to the Purchaser governing the manner in which to return the Silencer for repair or replacement.

Repair Policy

Should the silencer require repair or modification, the owner should contact AAC Customer Service to secure a Return Merchandise Authorization (RMA). Once the customer has the RMA, they may then ship the silencer insured to AAC for evaluation and repair, along with a photocopy of the approved form proving ownership and a brief letter detailing the customer's concerns and contact information.

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.

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This manual contains operating, care, and maintenance instructions. To assure safe operation, any user of this silencer must read and understand this manual before using the silencer. Failure to follow the instructions and heed the warnings in this manual can cause property damage, personal injury, and/or death. This manual should always accompany this silencer, and be transferred with it upon change of ownership.

WARNING Keep this silencer out of the reach of children, unauthorized and/or prohibited individuals, and others unfamiliar with the safe handling of firearms and silencers.

	Alert Symbols and Definitions:
WARNING!	Indicates a hazardous situation which, if not avoided, could result in property damage, personal injury, or death.
CAUTION!	Indicates a hazardous situation which, if not avoided, could result in minor to moderate personal injury.
NOTE:	Addresses practices not relating to personal injury.

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OPERATIONAL MANUAL FOR SILENCER MODEL HALCYON

Distributed by

ADVANCED ARMAMENT CORP.

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www.advanced-armament.com

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THE TEN COMMANDMENTS OF FIREARM SAFETY

1. Always keep the muzzle pointed in a safe direction.
2. Firearms should be unloaded when not actually in use.
3. Do not rely on your firearm's safety.
4. Be sure of your target and what is beyond it.
5. Only use ammunition that exactly matches the markings on your firearm.
6. If your firearm fails to fire when the trigger is pulled, handle with care.
7. Always wear eye and hearing protection when shooting.
8. Be sure the barrel is clear of obstructions before shooting.
9. Do not alter or modify your firearm and have it serviced regularly.
10. Learn the mechanics and handling characteristics of your firearm. Read your firearm's instruction manual.

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 onto or from a host firearm that you have not verified to be completely unloaded and rendered safe. Installing or removing a silencer onto 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! The HALCYON is designed for use on modern pistols and long guns in serviceable condition. It is the user's responsibility to insure the intended host firearm is in serviceable condition. Using a HALCYON on firearms that are not in serviceable condition can lead to property damage, personal injury and/or death.

WARNING! The barrel threads must be properly machined to allow proper attachment of a HALCYON silencer. The use of an improperly threaded barrel with a 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. For further clari-

fication on muzzle threads, contact **ADVANCED ARMAMENT CORP.** at 770-925-9988.

WARNING! The bore through your HALCYON silencer must align concentrically with the bore of the barrel to which it is mounted. A mismatch of the silencer and barrel bore may lead to property damage, personal injury and/or death.

WARNING! Discharging silenced firearms can make airborne and/or deposit lead and other substances around, on and in the silencer. Using, handling and/or cleaning a silencer may result in exposure to lead and other substances known to cause birth defects, reproductive harm, cancer and other serious physical injury. Have adequate ventilation at all times and wash hands thoroughly after exposure.

CAUTION! 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. If removal is necessary prior to the silencer cooling to ambient and/or the tightness of the silencer on the host firearm barrel must be verified, the use of heat-resistant gloves is mandatory. Handling a hot silencer without heat-resistant gloves may lead to skin burns and/or personal injury.

GENERAL DESCRIPTION

Congratulations! You are now the proud owner of the only high-performance 22 WMR/5.7 x 28 rated silencer available in the marketplace today that enables users to quickly, easily, and without tools, configure the length of the silencer to suit your requirements. In seconds, you can configure the HALCYON as a full-size, 5.28" silencer for the utmost in sound reduction, or as a compact 3.46" model when overall system size is a consideration. Please take a few minutes to read through this technical manual and familiarize yourself with the details on the proper use and maintenance of your HALCYON silencer. In addition to modularity and multi-caliber compatibility, the HALCYON also enables users to quickly and without tools, change the host firearm interface thread to accommodate most of today's popular host firearms. Although the HALCYON was designed for use with high-pressure 22 WMR/5.7 x 28 ammunition, it can also be used with other ammunition calibers. The chart on the following page lists appropriated calibers, action types, and minimum barrel lengths approved for use with the HALCYON silencer.

CALIBER	ACTION TYPE	MINIMUM BARREL LENGTH
22 S/L/LR	BOLT ACTION, SEMI/FULL AUTO	4 INCH
22 WMR	BOLT ACTION, SEMI AUTO	5 INCH
17 HMR	BOLT ACTION, SEMI/FULL AUTO	16 INCH
17 M2	BOLT ACTION, SEMI/FULL AUTO	16 INCH
5.7 x 28	BOLT ACTION, SEMI/FULL AUTO	5 INCH

WARNING! Do not use this silencer with ammunition and host firearms that fall outside the list in the chart above. Using this silencer with ammunition and host firearms that fall outside the list in the chart above may lead to property damage, personal injury and/or death.

INSTALLING YOUR HALCYON ON A HOST FIREARM

1. Always keep the firearm pointed in a safe direction.
2. Render the firearm safe by removing the magazine, completely unloading the firearm (chamber and magazine) 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 muzzle, if present.
4. Inspect the muzzle threads to verify they are clean and undamaged.

WARNING! Never attempt to attach a HALCYON silencer to muzzle threads that are dirty or damaged, as this may lead to property damage, personal injury and/or death.

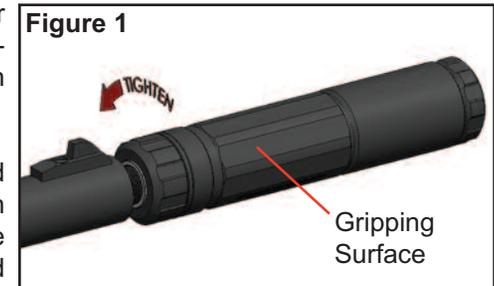
5. Inspect the threads in the rear of the HALCYON to verify they are clean and undamaged.

WARNING! Never attempt to attach a HALCYON silencer with dirty or damaged threads to a firearm, as this may lead to property damage, personal injury and/or death.

6. Look through the silencer from the rear to insure the bullet path through the silencer is unobstructed.

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

7. Examine the silencer for any signs of damage.
8. Carefully screw the silencer onto the host firearm's muzzle threads in the direction indicated in Figure 1.
9. Tighten the silencer by hand in the direction indicated with sufficient torque to keep the silencer securely threaded onto the barrel during operation.



NOTE: When tightening or loosening the HALCYON to or from a host firearm, grasp the silencer by the gripping surface on the main tube body identified in Figure 1.

WARNING! It is the responsibility of the user to insure the silencer stays securely threaded to the barrel of the host firearm during use. Failure to insure the silencer stays securely threaded to the host firearm may lead to property damage, personal injury and/or death.

VERIFYING SECURE INSTALLATION OF YOUR HALCYON

It is good practice to check the tightness of your HALCYON on the host firearm between reloads when the host firearm is completely empty (chamber and magazine) when shooting.

CAUTION! Silencers can become extremely hot while the host firearm is being shot. Heat-resistant gloves must be worn when verifying the security of the installation of a HALCYON silencer on the host firearm. Handling a hot silencer without heat-resistant gloves may cause skin burns and/or personal injury.

1. Always keep the firearm pointed in a safe direction.
2. Render the firearm safe by removing the magazine, completely unloading the firearm and engaging the safety to the "SAFE" position. See the

firearm's owner's manual for detailed instructions.

- Securely tighten the silencer onto the host firearm's muzzle threads in the direction indicated in Figure 1.

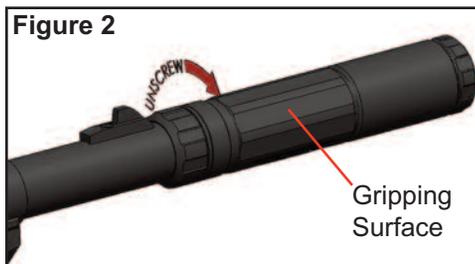
REMOVING YOUR HALCYON FROM A HOST FIREARM

- Always keep the host firearm pointed in a safe direction.
- Render the firearm safe by removing the magazine, completely unloading the firearm (chamber and magazine) and engaging the safety to the "SAFE" position. See the firearm's owner's manual for detailed instructions.
- Verify the silencer is at ambient temperature. If the silencer is hot, allow it to cool.

CAUTION! Never handle a hot silencer without heat-resistant gloves, as this may cause skin burns and/or personal injury.

NOTE: WHEN TIGHTENING OR LOOSENING THE HALCYON TO OR FROM A HOST FIREARM, GRASP THE SILENCER BY THE GRIPPING SURFACE ON THE MAIN TUBE BODY IDENTIFIED IN FIGURE 1.

- Unscrew the silencer from the host firearm's muzzle threads in the direction indicated in Figure 2.



CONFIGURING YOUR HALCYON FOR COMPACT USE

WARNING! Only perform configuration procedures on silencers that are not mounted to a firearm. Attempting to configure a silencer mounted to a host firearm could lead to property damage, personal injury and/or death.

- If the silencer is mounted to a host firearm, remove it. See "Removing your HALCYON from a host firearm".

- Grasp the silencer around the gripping surface and unscrew and remove the front end cap. See Figure 3.

- Grasp the silencer around the main tube body and unscrew and remove the front module. See Figure 4.

- Thread the front end cap fully into the main tube body and tighten securely. See Figure 5.

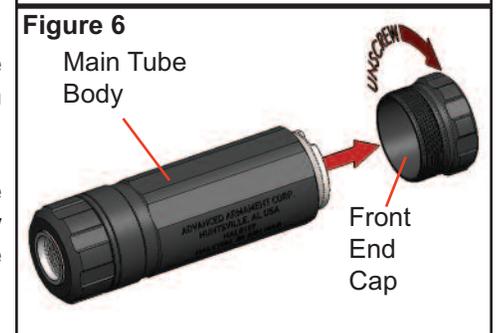
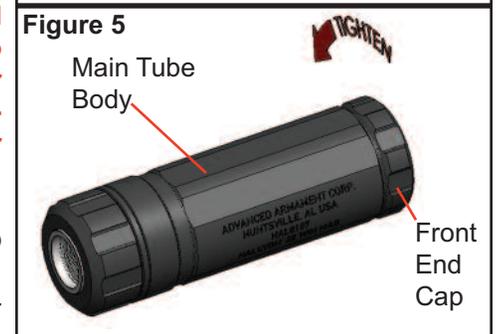
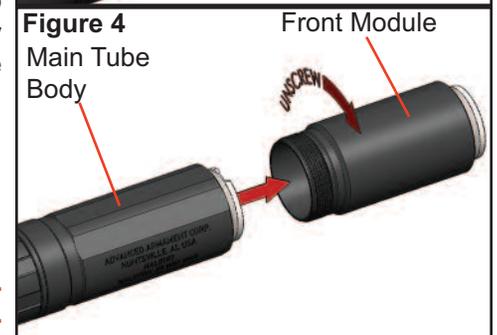
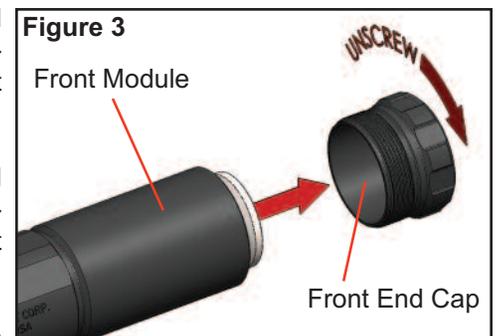
CONFIGURING YOUR HALCYON FOR FULL-SIZE USE

WARNING! Only perform configuration changes on silencers that are not mounted to a firearm. Attempting to configure a mounted silencer could lead to property damage, personal injury and/or death.

- If the silencer is mounted to a host firearm, remove it. See "Removing your HALCYON from a host firearm".

- Unscrew and remove the front end cap from the main tube body. See Figure 6.

- Thread the front module fully into the main tube body and tighten securely. See Figure 7.



4. Insure the three baffles in the front module are rotationally tabbed to the four baffles in the rear tube by holding the rim of the cone of the front-most baffle in the front tube and rotating the three baffles in the front module until the alignment tab on the rear face of the rearmost baffle in the front tube engages the alignment notch on the cone of the front-most baffle in the rear tube. See Figure 8.

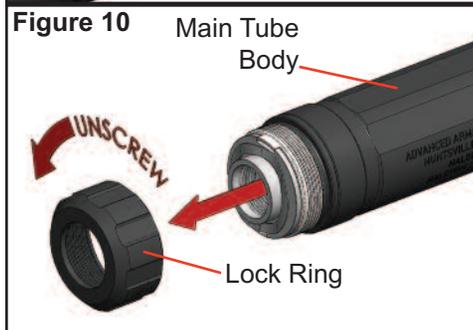
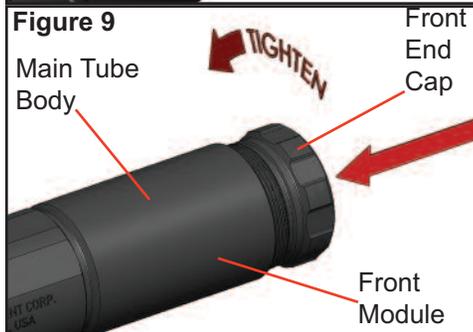
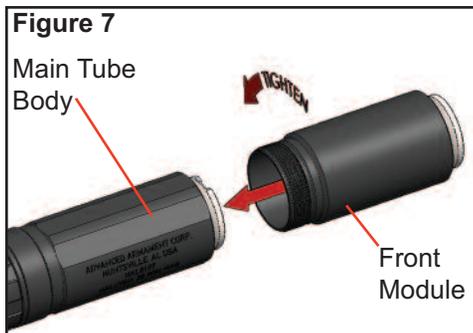
5. Thread the front end cap fully into the front module and tighten securely. See Figure 9.

HALCYON THREAD ADAPTER REMOVAL AND REPLACEMENT

The HALCYON features replaceable thread adapters that can be quickly and easily swapped out to accommodate a broad variety of host-firearm muzzle threads. The following instructions detail the proper removal, and installation of HALCYON thread adapters.

REMOVING A HALCYON THREAD ADAPTER

WARNING! Only perform disassembly, configuration changes, cleaning, and maintenance procedures on si-

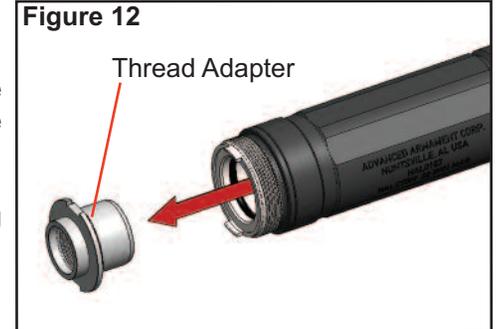
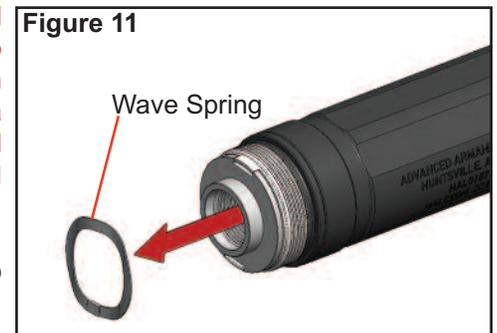


lencers that are not mounted to a firearm. Attempting to change configurations, clean or perform maintenance on a mounted silencer could lead to property damage, personal injury and/or death.

1. If the silencer is mounted to a host firearm, remove it. See "Removing your HALCYON from a host firearm".
2. Unscrew and remove the lock ring from the main tube body. See Figure 10.
3. Remove the wave spring from thread adapter shaft. See Figure 11.
4. Remove the installed thread adapter from the main tube body. See Figure 12.

REPLACING A HALCYON THREAD ADAPTER

1. Using a paper towel or shop cloth, wipe out the adapter mount bore in the rear of the main tube body. Examine the O-ring in the adapter mount bore for wear or other damage. If the O-ring appears worn or damaged, replace it. Replacement Viton O-rings are available from McMaster-Carr Supply (www.mcmaster.com). The McMaster-Carr part



number for the thread adapter bore is 9464K71. See Figure 13.

3. Using a paper towel or shop cloth, clean the threads on the rear of the main tube body. See Figure 14.

4. Using a paper towel or shop cloth, clean the threads inside the lock ring. See Figure 15.

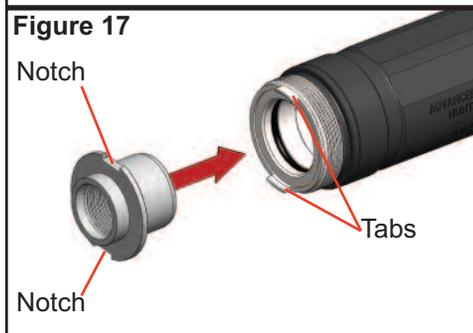
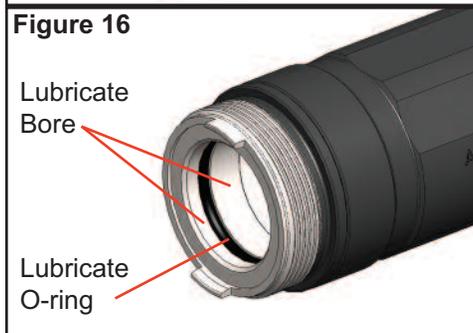
5. Lubricate the thread adapter bore and O-ring with a thin coat of white lithium grease or anti-seize compound. See Figure 16.

6. Insert the thread adapter into the bore. Rotate the adapter so that the two tabs on the rear of the main tube body engage the notches in the flange on the thread adapter. See Figure 17.

7. Lubricate the threads inside the lock ring with a thin coat of white lithium grease or anti-seize compound. See Figure 18.

8. Install the wave spring on the thread adapter shaft. See Figure 19.

9. Fully thread the lock ring onto the threads on the rear of the main tube body. See Figure 20. When properly



assembled, the rear of the HALCYON silencer will look like Figure 21.

DISASSEMBLING AND CLEANING YOUR HALCYON

It is recommended users remove and clean the baffles in a HALCYON silencer after every 1,000-2,000 rounds of use.

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.

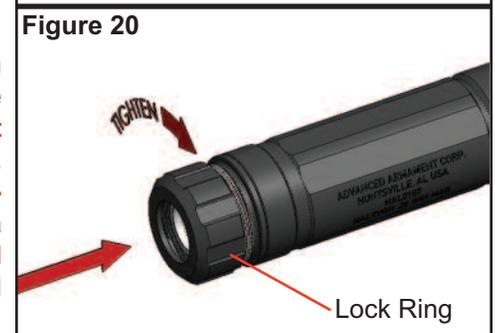
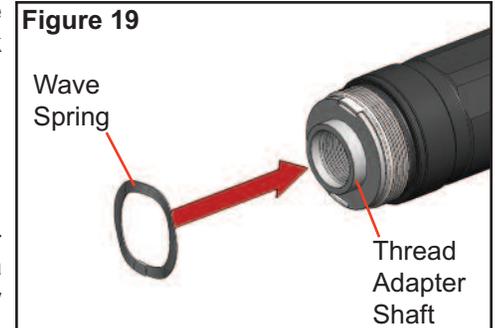
1. If the silencer is mounted to a host firearm, remove it. See "Removing your HALCYON from a host firearm".

2. If a thread adapter is currently installed in the silencer, remove it. See "Removing a HALCYON Thread Adapter".

3. If your silencer is configured as a full-sized model, grasp the silencer around the front module and unscrew and remove the front end cap. See Figure 3.

4. Grasp the silencer around the main tube body and unscrew and remove the front module. See Figure 4.

5. Pushing from the rear (thread adapter end) remove the four baffles from the main tube body and separate them. See Figure 22.



6. Pushing from the rear (external thread end) the three baffles from the front tube and separate them. See Figure 23.

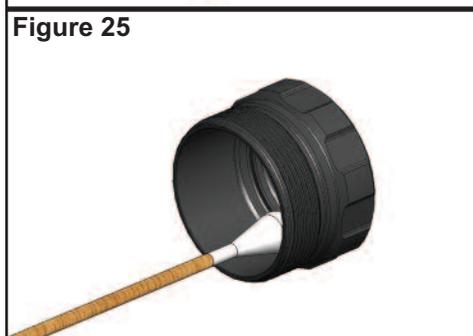
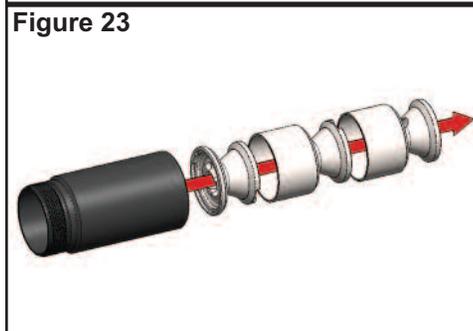
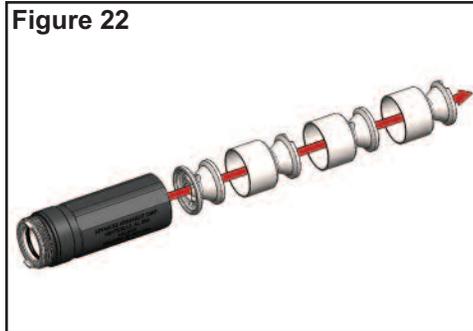
WARNING! Only use solvents in a well-ventilated area away from open flames. Unsafe use of solvents may lead to property damage, personal injury and/or death.

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

1. The baffles in the HALCYON are Titanium, and can be safely cleaned using an ultrasonic cleaner. Accumulated fouling can also be removed using a brush and appropriate solvent such as Remington® BriteBore®. See Figure 24.

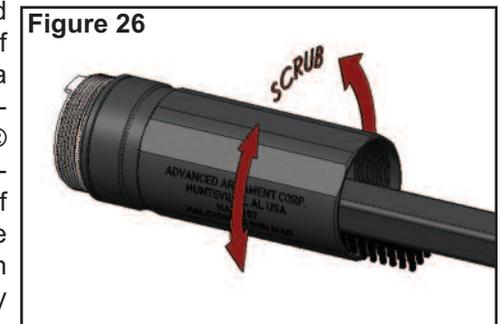
2. Remove any accumulated fouling from the front end cap using a paper towel or shop cloth for the exterior and a cotton swab for the interior. See Figure 25.

NOTE: The use of an ultrasonic cleaner for the front end cap is NOT recom-



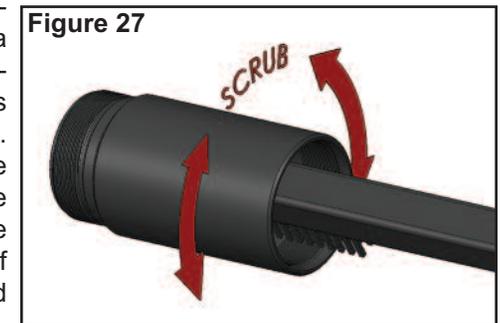
mended as this can damage the CeraKote finish of the cap.

4. Remove any accumulated fouling from the inside of the main tube body using a brush and appropriate solvent such as Remington® BriteBore®. Ensure the exterior threads on the rear of the main body tube and the threads inside the main tube body are free of any debris or fouling. See Figure 26.



NOTE: The use of an ultrasonic cleaner for the main tube body is NOT recommended as this can damage the CeraKote finish of the tube.

5. Scrub the inside of the aluminum front module using a plastic bristle brush and appropriate solvent such as Remington® BriteBore®. See Figure 27. Ensure the threads on the rear of the front module, and the threads in the inside front of the front module, are wiped clean of any loose debris.

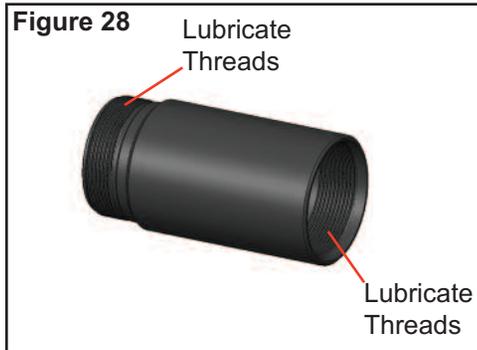


WARNING! Do not clean the front module of the HALCYON silencer with an ultrasonic cleaner because it can damage the aluminum construction. Using a HALCYON silencer with damaged components may lead to property damage, personal injury and/or death.

6. Using a paper towel or shop cloth, wipe out the adapter bore in the rear of the main tube body. See Figure 13. Examine the O-ring in the bore of the adapter mount for wear or other damage. If the O-ring appears worn or damaged, replace it. Replacement Viton O-rings are available from McMaster-Carr Supply (www.mcmaster.com). The McMaster-Carr part number for the thread adapter bore is 9464K71.

7. Using a paper towel or shop cloth, clean the threads inside the lock ring. See Figure 16.

8. Lubricate the threads on the interior of the front module and the rear main tube with a light coat of white lithium grease or anti seize compound. See Figure 28.



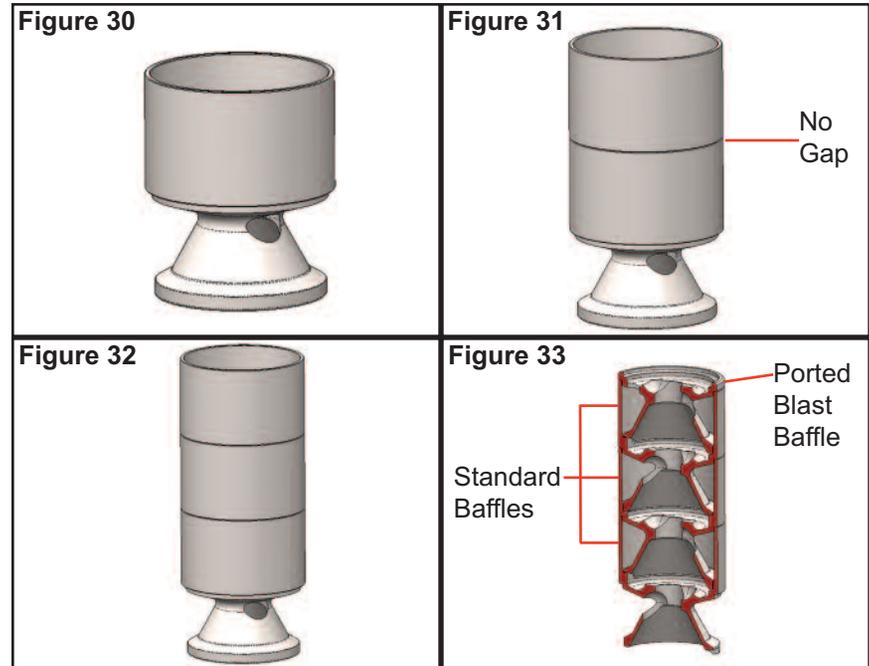
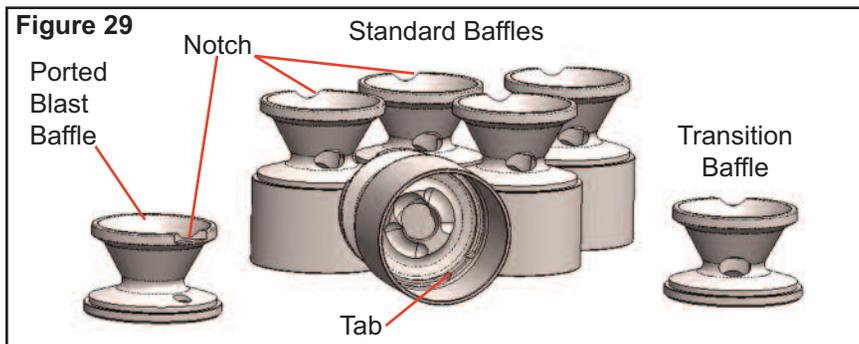
9. Lubricate the adapter mount bore and O-ring with a thin coat of white lithium grease or anti-seize compound. See Figure 16.

10. Lubricate the threads inside the lock ring with a thin coat of white lithium grease or anti-seize compound. See Figure 18.

WARNING! All traces of solvent must be allowed to evaporate completely prior to reassembly. Failure to remove all solvent from the silencer prior to use presents a risk of fire or explosion and may lead to property damage, personal injury and/or death.

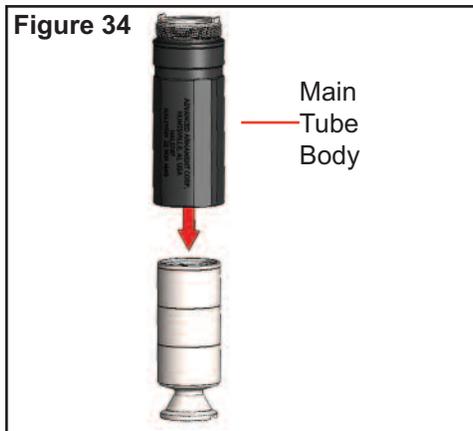
REASSEMBLING YOUR HALCYON

1. There are three different types of baffles in the HALCYON: the ported blast baffle, five standard baffles with integral spacers, and a transition baffle. All of the baffles incorporate a tab and notch design that forces the rotational orientation of each baffle to be 180° from each adjacent baffle. See Figure 29.

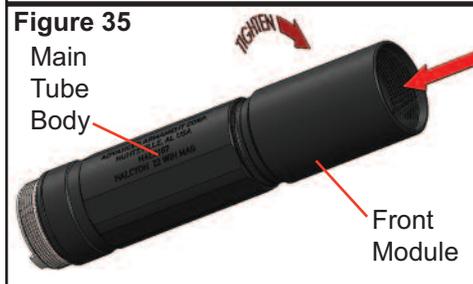


2. Build the rear main tube baffle stack by placing one of the standard baffles cone-side down on a level, flat work surface. See Figure 30.
3. Continue building the stack by placing the cone of another standard baffle inside the spacer on the backside of the first baffle. Rotate the second baffle until the notch on the cone of the second baffle engages the tab on the inside of the spacer of the first baffle. When properly engaged, the baffles will nest together with no gap between them. See Figure 31.
4. Place another standard baffle on the stack, rotating it until its notch and the second baffle engage. See Figure 32.
5. The last baffle to go on the rear main tube baffle stack is the ported blast baffle. It can be identified by its lack of spacer, and single port hole in the rear face. Place the ported blast baffle in the spacer of the top standard baffle, and rotate it until the notch on the front of the cone of the ported blast baffle engages the tab inside the spacer of the third standard baffle. See Figure 33.

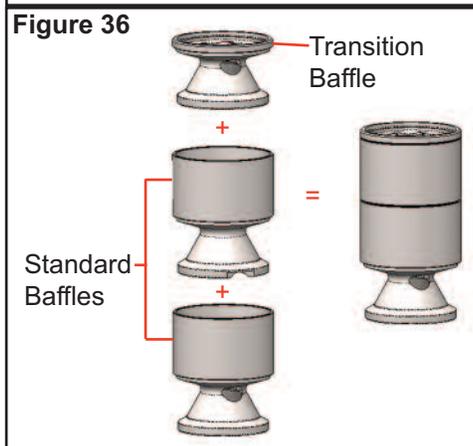
6. Slide the main tube body over the baffle stack. See Figure 34.



7. Turn the rear main tube and its baffles upright. Thread the front module into the rear main tube, capturing the rear main tube baffles inside the tube. See Figure 35.



8. The baffle stack for the front module is comprised of two standard baffles, and the transition baffle. See Figure 36.

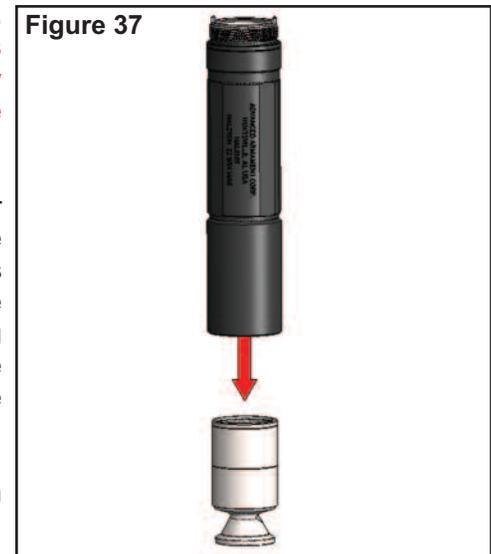


9. Slide the assembly of the rear main tube and front module over the assembled front module baffle stack. See Figure 37.

10. Turn the assembled rear main tube and front module upright. Rotate the baffles in the front module until the tab on the transition baffle engages the notch on the cone of the front-most standard baffle in the rear main tube. See Figure 8.

11. Thread the front end cap fully into the front module and tighten securely. See Figure 9.

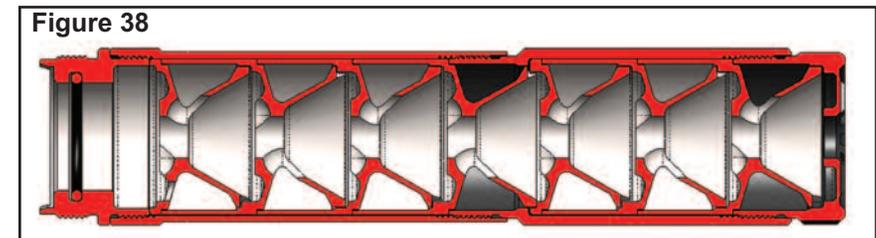
sonal injury and/or death. Figure 38 depicts a cross sectional view of a properly assembled HALCYON baffle stack.



12. Insert the thread adapter into the bore. Rotate the adapter so that the two tabs on the rear of the main tube body engage the mating notches in the flange on the thread adapter. See Figure 17.

13. Install the wave spring on the thread adapter shaft. See Figure 19.

14. Fully thread the lock ring onto the threads on the rear of the main tube body. See Figure 20.



WARNING! Do not attempt to use a HALCYON silencer with an improperly assembled baffle stack. Using a HALCYON silencer with an improperly assembled baffle stack may lead to property damage, per-