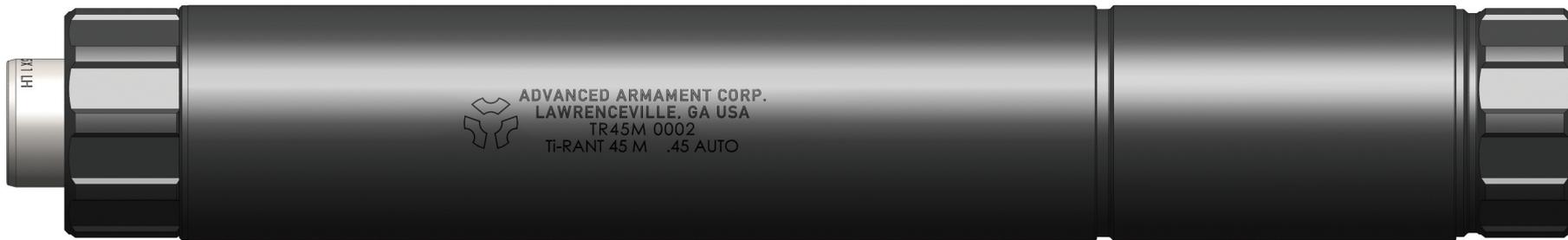


TM-TiRANT™ 45-M

TECHNICAL MANUAL FOR
OPERATION AND MAINTENANCE
OF SILENCER MODEL
Ti-RANT 45-M



1816 Remington Circle SW
Huntsville, AL 35824
ISSUED: January 1, 2016

SILENCER LIFETIME LIMITED WARRANTY

AAC will repair or replace free of charge any silencer manufactured by AAC for the duration of this lifetime warranty. This warranty is of unlimited duration, and covers, at Advanced Armament Corp., LLC and its affiliates' discretion, service, repair, and/or replacement of damaged products caused by normal use.

LIMITATIONS This warranty does not cover damage to the silencer and/or host firearm resulting in whole or in part from criminal, abusive or negligent use, improper or careless handling, unauthorized modifications, defective, improper handloaded or reloaded ammunition, or neglect. Any repairs to the unit made necessary by these factors will be invoiced to the owner. Further, baffle strikes which are not due to a defect in workmanship are not covered by this warranty.

DEFINED Negligent or abusive use is defined as utilizing the silencer in a way that is likely to result in premature wear or damage to either the silencer or the host firearm. Further, the warranty does not cover prohibited usage as described in our various owners' manuals. This expressed limited lifetime warranty is the only warranty on this product. This product is sold "as is" and has no implied warranties or merchantability or fitness for a particular purpose. There are not warranties which exceed beyond the description put forth hereto. If your silencer is not covered under this warranty, you may have the silencer replaced for half the most current retail price-subject to any and all transfer fees required by the BATFE.

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 xerox of the approved form proving ownership and a brief letter detailing the customer's concerns and contact information.

MANUFACTURERS DISCLAIMER

ADVANCED ARMAMENT CORP., LLC 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 handloaded 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., LLC at 770-925-9988 for clarification.

Nothing contained in this manual should be construed as granting, by implication or otherwise, any license to trademarks displayed herein.

THIS MANUAL

FIRST EDITION January 2016

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This manual contains operating, care, and maintenance instructions. To assure safe operation, any user of this silencer must use 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, will result in property damage, personal injury, or death.
CAUTION!	Indicates a hazardous situation which, if not avoided, will result in minor to moderate personal injury.
NOTE:	Addresses practices not relating to personal injury.

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OPERATIONAL MANUAL FOR SILENCER MODEL Ti-RANT 45-M

Distributed by

ADVANCED ARMAMENT CORP., LLC
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www.advanced-armament.com

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THE TEN COMMANDMENTS OF FIREARMS SAFETY

1. Always keep the muzzle pointed in a safe direction.
2. Firearms should be unloaded when not 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 ear 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 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! The Ti-RANT 45-M is designed for use on modern semi-automatic pistols and semi-automatic carbines in serviceable condition. It is the user's responsibility to insure the intended host firearm is in serviceable condition. Using a Ti-RANT 45-M 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 Ti-RANT 45-M 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

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the AAC website at www.advanced-armament.com. For further clarification on muzzle threads, contact **ADVANCED ARMAMENT CORP., LLC** at 770-925-9988.

WARNING! The bore through your Ti-RANT 45-M 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! Only fire standard pressure (Not +P) ammunition through a Ti-RANT 45-M silencer. The use of ammunition other than standard pressure ammunition may lead to property damage, personal injury and/or death.

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.

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.

GENERAL DESCRIPTION

Congratulations! You are now the proud owner of the only high-performance 45 caliber 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 Ti-RANT 45-M (M=Modular) as a full size, 9" silencer for the utmost in sound reduction, or as a compact 7" model when overall system size is a consideration. The Ti-RANT 45-M is designed for use on modern centerfire host firearms chambered in 9mm Luger, 40 S&W, and 45 Auto. 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 Ti-RANT 45-M





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silencer. The Ti-RANT 45-M enables reliable semi-automatic operation on most contemporary locked-breech host pistols through the use of AAC's A.S.A.P. System. A variety of A.S.A.P. accessory pistons are available to accommodate the majority of muzzle threads found on popular 9mm Luger, 40 S&W, and 45 Auto host pistols in today's marketplace. Additionally, a fixed barrel spacer and three-lug adapter are available for adapting the Ti-RANT 45-M for use on fixed (non-moving) barrel, carbines and hosts that are equipped with a 3-lug barrel machined to original H&K specifications.

INSTALLING YOUR Ti-RANT 45-M 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 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.
4. Inspect the muzzle threads to verify they are clean and undamaged
5. Inspect the threads in the rear of the A.S.A.P.™ piston 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.

NOTE: All A.S.A.P. pistons are marked with the thread size and pitch of the threads in the rear of the piston shaft as well as a directional arrow indicating the direction of rotation to properly install the piston/silencer on the host firearm muzzle threads. See Figure 1.

8. Carefully screw the silencer onto the host firearm's muzzle threads in the "ON" direction indicated on the piston. See Figure 2.
9. Tighten the silencer by hand in the direction indicated on the piston with sufficient torque to keep the silencer securely threaded onto the barrel during operation.

WARNING! Never attempt to attach a Ti-RANT 45-M silencer to muzzle

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threads that are dirty or damaged, as this may lead to property damage, personal injury and/or death.

WARNING! Never attempt to attach a Ti-RANT 45-M silencer with dirty or damaged A.S.A.P. piston 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.

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.

Figure 1



Figure 2



VERIFYING SECURE INSTALLATION OF YOUR Ti-RANT 45-M

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.

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 Ti-RANT 45-M silencer on the host firearm. Handling a hot silencer without heat-resistant gloves may lead to skin burns and/or personal injury.





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- Carefully tighten the silencer onto the host firearm's muzzle threads in the "ON" direction indicated on the piston. See Figure 2.

REMOVING YOUR Ti-RANT 45-M 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 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 lead to skin burns and/or personal injury.

Figure 3

Unscrew in *opposite* direction of "ON" rotation arrow.



- Carefully unscrew the silencer from the host firearm's muzzle threads in the opposite of the "ON" direction indicated on the piston. See Figure 3.

CONFIGURING YOUR Ti-RANT 45-M FOR COMPACT USE

WARNING! Only perform configuration procedures 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 Ti-RANT 45-M from a host firearm".
- Grasp the silencer around the front module and unscrew and remove the front end cap. See Figure 4.
- Grasp the silencer around the circumference of the main tube body and unscrew and remove the front module. See Figure 5.

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- Thread the front end cap fully into the main tube body. See Figure 6.

CONFIGURING YOUR Ti-RANT 45-M FOR FULL-SIZE USE

WARNING! Only perform configuration procedures 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.

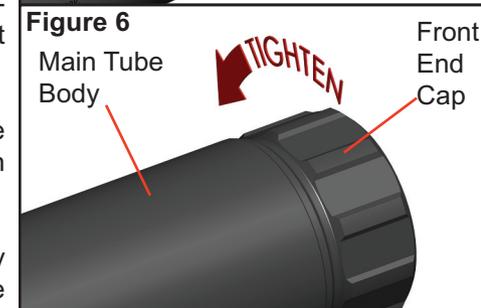
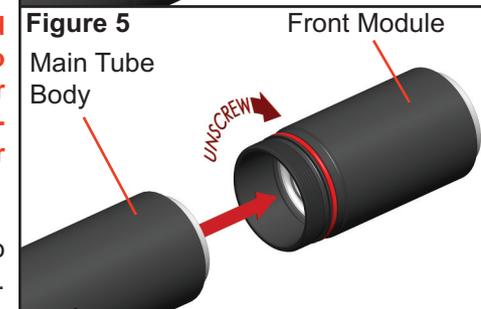
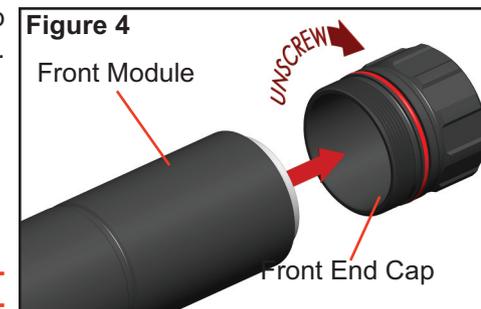
- If the silencer is mounted to a host firearm, remove it. See "Removing your Ti-RANT 45-M from a host firearm".

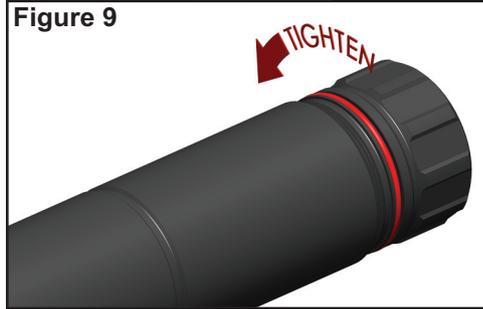
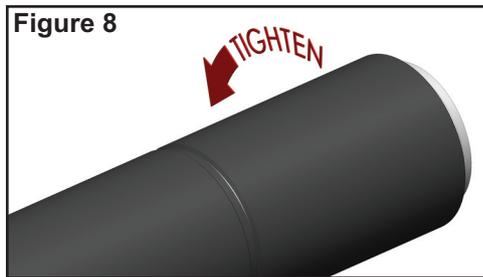
- Unscrew and remove the front end cap from the main tube body. See Figure 7.
- Thread the front module fully into the main tube body. See Figure 8.

- Thread the front end cap fully into the front module. See Figure 9.

DISASSEMBLING YOUR Ti-RANT 45-M A.S.A.P. SYSTEM

The A.S.A.P. System can be quickly and easily disassembled for cleaning, maintenance, or to simply swap one piston for another with a different barrel interface thread. It is





recommended that users disassemble and clean the A.S.A.P. System after every 500 rounds or after every range visit to remove accumulated fouling.

WARNING! Only perform disassembly, 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.

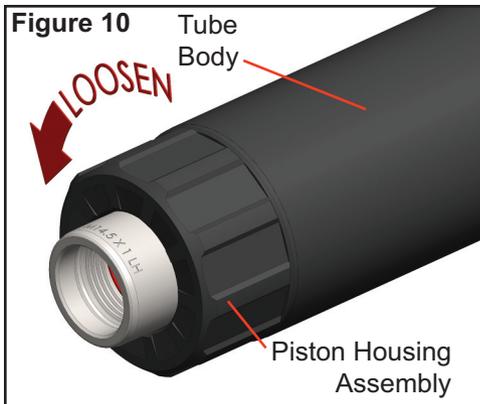
1. If the silencer is mounted to a host firearm, remove it. See

“Removing your Ti-RANT 45-M from a host firearm”.

2. Unscrew and remove the piston housing assembly from the main tube body. See Figure 10.
3. Press the rear of the piston shaft forward to remove it from the piston housing. See Figure 11.
4. Remove the driving spring from the piston housing. See Figure 12.

CLEANING AND MAINTAINING THE A.S.A.P. SYSTEM

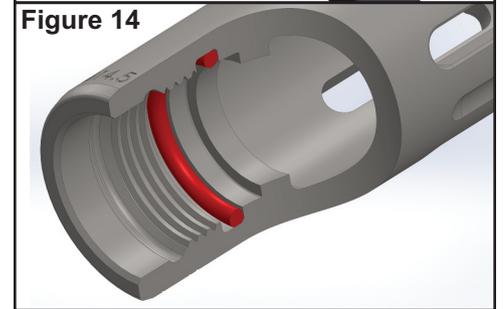
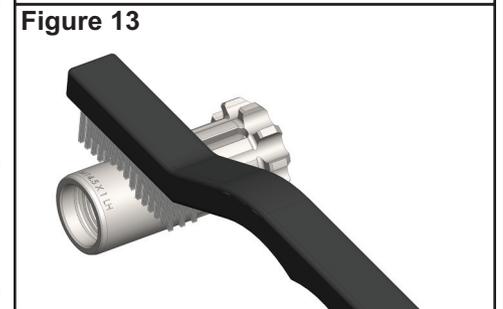
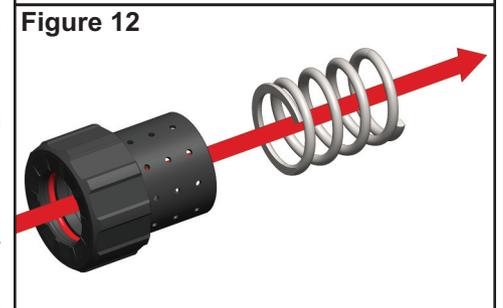
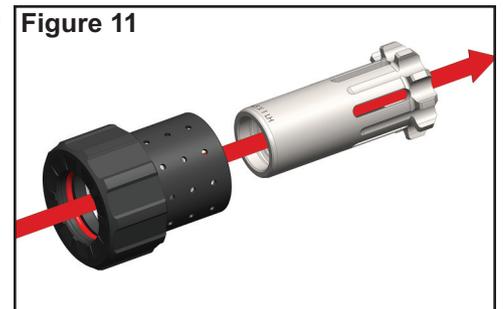
WARNING! Only perform disassembly, cleaning, and maintenance procedures on silencers that are not mounted to a firearm. Attempting to clean or perform maintenance on a mounted silencer could lead to property damage, personal injury and/or death.



1. Using a plastic bristle brush and solvent, clean the exterior of the piston of any accumulated carbon. See Figure 13.

2. Some pistons have O-rings adjacent to the threads in the socket in the rear of the piston. These O-rings grip sections of the host firearm muzzle and lower the potential for the silencer to inadvertently unscrew during use. Figure 14 shows the location of one such O-ring, shown colored red for clarity. If the O-ring appears worn or frayed, replace it. See the O-ring fitment guide at the end of this manual for replacement O-ring procurement information.

3. Using a plastic bristle brush and solvent, clean the bore and the exterior of the A.S.A.P. piston housing. See Figure 15. **NOTE:** Stubborn deposits may require the use of a solvent moistened piece of ScotchBrite cloth to remove.



WARNING! Do not use sandpaper or emery cloth to clean any part of a Ti-RANT 45-M silencer. Abrasives more aggressive than ScotchBrite may damage the precision contact surfaces of the piston, piston housing, and rear cap, resulting in friction that can lead to malfunctions of the Ti-RANT 45-M silencer



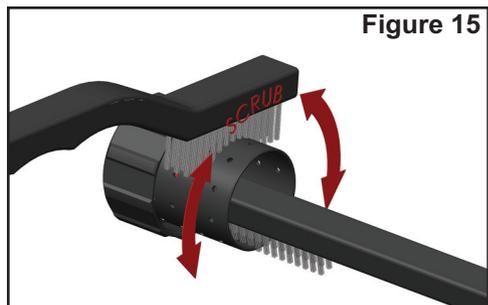
SILENCER MODEL Ti-RANT 45-M

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and host firearm. A malfunctioning silencer and/or host firearm is a dangerous situation that can lead to property damage, personal injury and/or death.

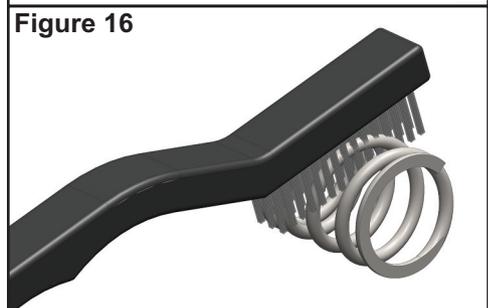
WARNING! All traces of solvent must be allowed to evaporate prior to reassembling the A.S.A.P. System. Failure to remove all traces of solvent from the A.S.A.P. System prior to use may lead to property damage, personal injury and/or death.

4. Inspect the O-ring located in the bore of the rear cap. The O-ring is shown colored red in Figures 11 and 12. If it is worn or frayed, replace it. NOTE: See the O-ring fitment guide at the end of this manual for replacement O-ring procurement information.

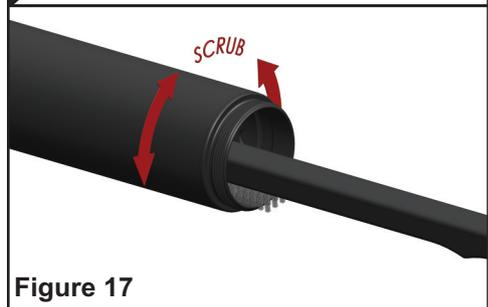


5. Using a plastic bristle brush and solvent, clean the driving spring of any loose material or carbon buildup. See Figure 16.

6. Using a plastic bristle brush and solvent, scrub the interface bore in the rear of the silencer. See Figure 17. Insure the piston index notches and piston stop-surfaces located on the inside of the piston housing are free of carbon buildup. The piston stop-surface and index notches are shown colored red in Figure 18.



7. Apply a small amount of white lithium grease or anti-seize compound to the O-ring in the rear cap (shown colored red in Figures 11 and 12).

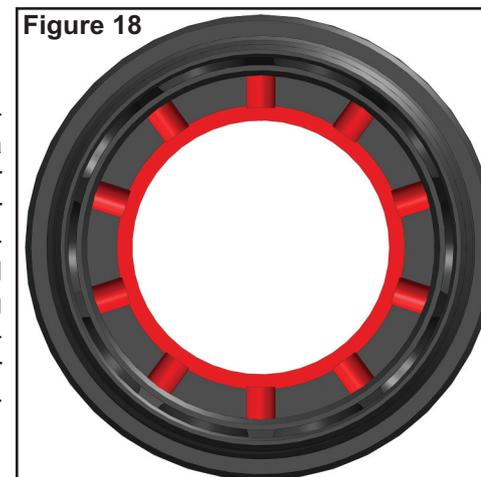


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BAFFLE STACK REMOVAL, AND MAINTENANCE

It is recommended users remove and clean the baffles in a Ti-RANT 45-M silencer after every 750 rounds of dry use or after every 250 rounds if the silencer is used with an artificial environment. See the "Using your Ti-RANT 45-M with an Artificial Environment" section for more information on artificial environments.



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 Ti-RANT 45-M from a host firearm".
2. If the A.S.A.P. System is currently installed in the silencer, remove it. See "Disassembling your Ti-RANT 45-M A.S.A.P. System".
3. If your silencer is configured as a full sized model, grasp the silencer around the circumference of the front module and unscrew and remove the front end cap. See Figure 4.
4. Disassemble the A.S.A.P. System. See "A.S.A.P. System Disassembly" in these instructions.
5. Grasp the silencer around the circumference of the main tube and unscrew and remove the front module. See Figure 5.
6. Insert a 5/8" rod of wood, plastic, or steel from the rear of the silencer, through the piston housing, and up against the rear face of the blast baffle. While holding the silencer tightly in one hand and the dowel in the other hand, apply force to the dowel to push the baffle stack out the front of the tube. See Figure 19. If the baffles will not push out with hand pres-





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sure, gently tap the end of the rod with a hammer to break the baffles loose from any accumulated carbon.

- Remove the three baffles from the front module. See Figure 20.

CLEANING YOUR BAFFLE STACK, TUBE, AND FRONT MODULE

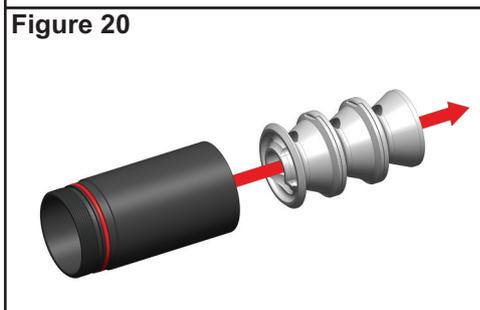
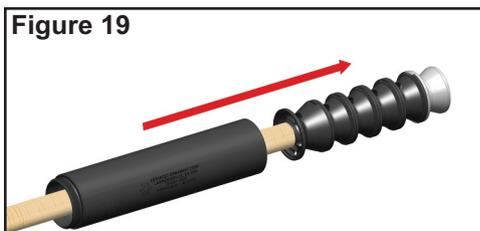
WARNING! When cleaning the baffles in a Ti-RANT 45-M silencer, only use a solvent that is not harmful to anodized aluminum, such as acetone, paint thinner, or lacquer thinner. Exposing the anodized aluminum components of a Ti-RANT 45-M silencer to a solvent that is not compatible with aluminum can weaken the components. Using a Ti-RANT 45-M silencer with weakened components may lead to property damage, personal injury and/or death.

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.

WARNING! Do not clean any part of a Ti-RANT 45-M silencer using an ultrasonic cleaner. Ultrasonic cleaners can damage aluminum components. Using a Ti-RANT 45-M silencer with weakened components may lead to property damage, personal injury and/or death.

- Clean accumulated fouling from the baffles using a plastic bristle brush and solvent. See Figure 21.



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- Use a cotton swab to clean the recess on the inside of the front end cap. See Figure 22.

- Inspect the O-ring on the outside of the front end cap (shown as red in Figure 22). Replace the O-ring if it appears worn or frayed.

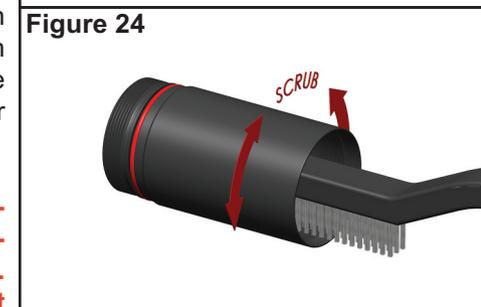
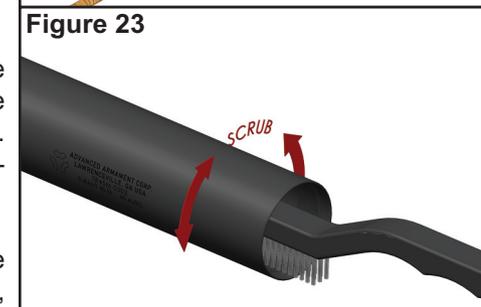
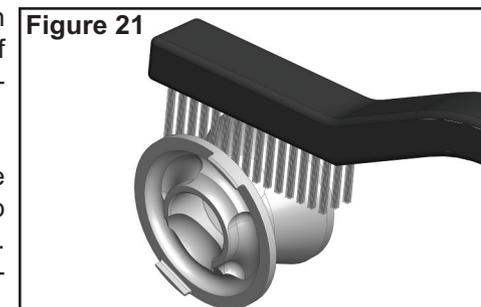
- Scrub the inside of the main tube body using a plastic bristle brush and solvent. See Figure 23.

- Scrub the inside of the front module using a plastic bristle brush and solvent. See Figure 24.

- Inspect the O-ring on the outside of the front module (shown as red in Figure 24). Replace the O-ring if it appears worn or frayed.

- Lubricate the threads on the exterior of the front end cap, front module, and the piston housing interface threads on the exterior rear of the tube with anti-seize compound or white lithium grease.

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



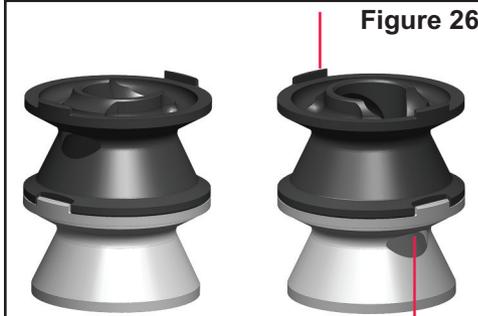


REASSEMBLING YOUR Ti-RANT 45-M

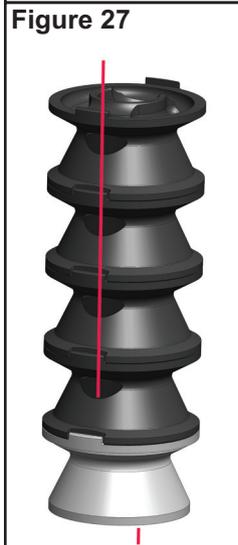
1. Assemble the baffle stack for the main tube body by placing one of the two front baffles cone-side down on a flat, level surface. The front baffles can be identified by their light grey color and absence of notches on the cone. See Figure 25.



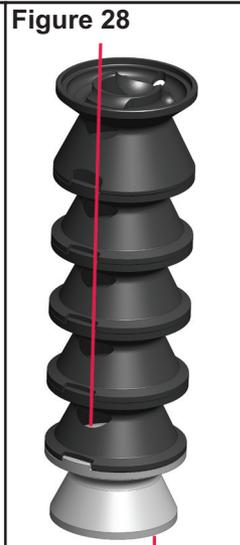
2. On top of the front baffle, place one of the black anodized aluminum baffles so that the output port at the junction of the disk and cone is 180° opposite the output port of the grey front baffle. The two baffles will rotationally lock together using the tabs on the disk and notches on the cone. See Figure 26.



2. Place three more black anodized aluminum baffles atop the stack, with the output ports aligned with the output port in the first black aluminum baffle. Ensure all tabs and notches engage. See Figure 27.

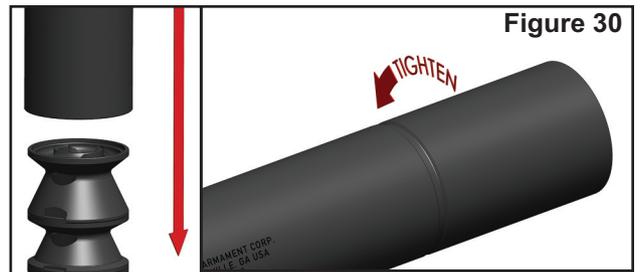


3. Place the ported blast baffle atop the stack, so that the output port of the blast baffle aligns with the output ports on the preceding four black aluminum baffles. See Figure 28.

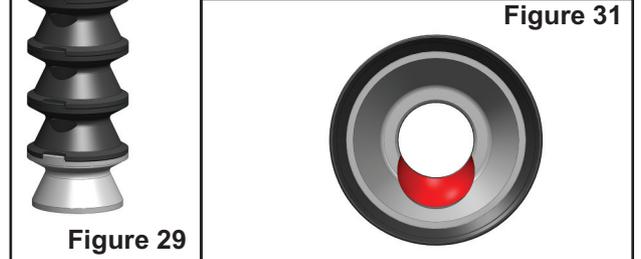


4. Slide the tube body over the assembled stack. See Figure 29.

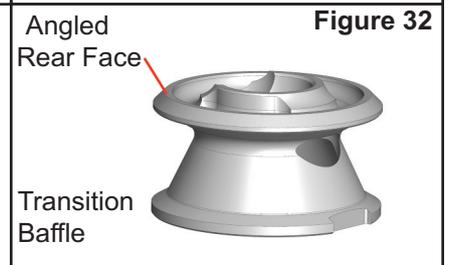
5. Thread the empty front module fully onto the tube body, capturing the baffles in the tube body. See Figure 30.



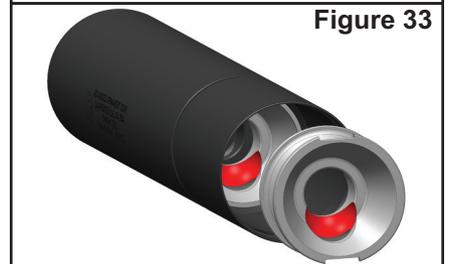
6. Looking in the front of the tube, take note of the location of the output port, which is shown in red for clarity in Figure 31.



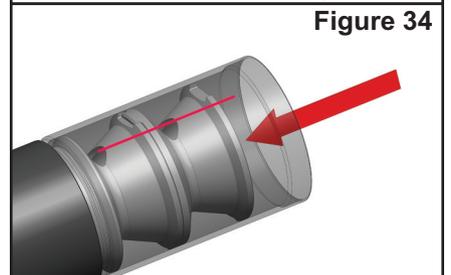
7. The first baffle to be placed in the front module is the transition baffle. It is distinguished from the other grey anodized baffles by its angled rear face and lack of tabs. See Figure 32. Insert the transition baffle into the front module so that the output scoop is aligned with the output scoop in the front baffle in the main tube body. See Figure 33.



8. The next baffle to go into the front module is the grey anodized baffle with both rear tabs and notches on the cone. Place it atop the transition baffle and tab the two together so that the output ports are aligned. See Figure 34.



9. The final baffle to install in the front module is the second front baffle. Install it and tab it to the





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preceding baffle so that the output ports are aligned. See Figure 35

10. Install the front end cap in the front module. See Figure 36.

WARNING! Do not install and use a Ti-RANT 45-M silencer with an improperly assembled baffle core. Using a Ti-RANT 45-M silencer with an improperly assembled baffle core may lead to property damage, personal injury and/or death.

INSTALLING THE A.S.A.P. SYSTEM

1. Place the driving spring in the bore of the piston housing. See Figure 37.
2. Insert the piston into the piston housing assembly. See Figure 38.
3. Thread the reassembled piston housing assembly onto the exposed threads on the rear of the interface on the main tube body. See Figure 39.

FIXED BARREL SPACER INSTALLATION

The driving spring of the A.S.A.P. System may be replaced with the separately available AAC Fixed Barrel Spacer when using a Ti-RANT 45-M silencer on a host firearm with a fixed (non-moving) barrel.

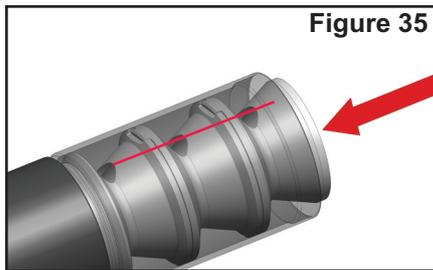


Figure 35

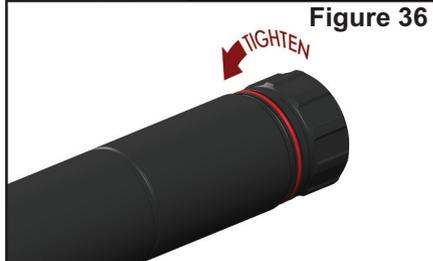


Figure 36

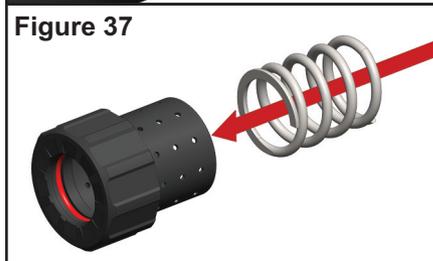


Figure 37

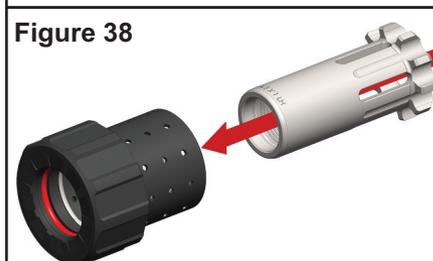


Figure 38

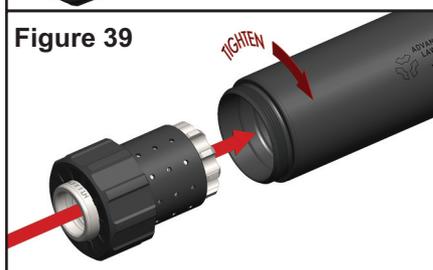


Figure 39

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WARNING! When using a Ti-RANT 45-M silencer on a host firearm with a fixed (non-moving) barrel, the driving spring of the A.S.A.P. System must be replaced with the AAC Fixed Barrel Spacer. Failure to install and use the AAC Fixed Barrel Spacer in a Ti-RANT 45-M silencer when using it on a host firearm with a non-moving barrel can result in accelerated wear to the silencer and fixed-barrel host firearm. Accelerated wear to the silencer and host firearm can result in a dangerous situation that can lead to property damage, personal injury and/or death.

1. Disassemble the A.S.A.P. System. See "Disassembling your Ti-RANT 45-M A.S.A.P. system".
2. Install the fixed barrel spacer in the piston housing bore. See Figure 40.
3. Insert the piston into the piston housing assembly. See Figure 38.
4. Thread the reassembled piston housing assembly onto the exposed threads on the rear of the interface on the main tube body. See Figure 39.

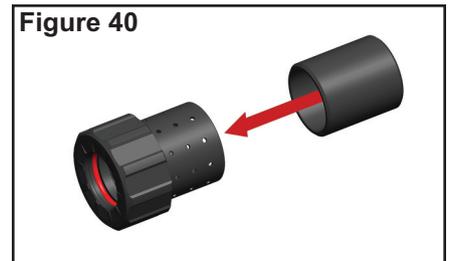


Figure 40

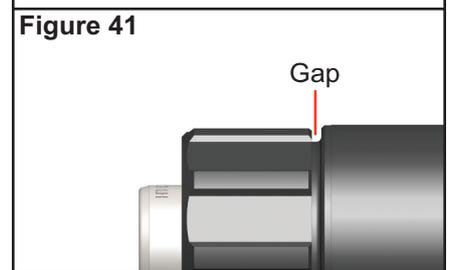


Figure 41

NOTE: With the fixed barrel spacer installed, there will be a slight gap between the rear cap and the interface. See Figure 41. This is perfectly normal and not cause for concern.

USING YOUR Ti-RANT 45-M WITH AN ARTIFICIAL ENVIRONMENT

In situations where it is advantageous to eliminate the majority of muzzle and ejection port flash and/or sound, the Ti-RANT 45-M silencer can be used with an internal artificial environment in place. The term, "artificial environment" refers to the environment inside the silencer being composed of anything other than dry air. The recommended artificial environment media for the Ti-RANT 45-M is water. An artificial environment made of 5cc's of water will influence sound performance for approximately 50 shots



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and will remain in the silencer if unfired for up to 3 days depending on environmental conditions. Although water is the preferred artificial environment media, oils such as Break-Free CLP or grease with a high flash point, and/or wire-pulling gel can be used to diminish the sound signature of a Ti-RANT 45-M equipped firearm. The following procedure details introducing water to the interior of a Ti-RANT 45-M for the purposes of firing with an artificial environment in place.

WARNING! Only use non-flammable liquids, gels, and oils to create an artificial environment in a Ti-RANT 45-M silencer. The use of other liquids and/or gels can result in a dangerous situation that can lead to property damage, personal injury and/or death.

WARNING! Using an artificial environment in a Ti-RANT 45-M silencer will accelerate the buildup of fouling within the A.S.A.P. System, necessitating more frequent and thorough disassembly and cleaning. Failure to adequately clean the A.S.A.P. System after using a Ti-RANT 45-M silencer with an artificial environment in place can result in a dangerous situation that can 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, 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 host firearm. See "Removing a Ti-RANT 45-M Silencer" in these instructions.

4. Pour 5cc's of water into the rear of the silencer through the threaded socket in the A.S.A.P.™ System piston. NOTE: The plastic cap that is standard on most commercial bottles of bottled water holds approximately 5cc's. See Figure 42.

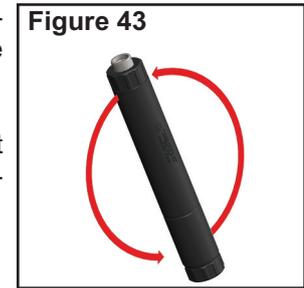


WARNING! Do not overfill a Ti-RANT 45-M silencer with more than 5cc's of water when creating an artificial environment. Over-filling a Ti-RANT 45-M silencer can result in a dangerous over-pressure situation that can lead to property damage, personal injury and/or death.

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5. Rotate the silencer around its long axis to distribute the water within the baffle stack. See Figure 43.
6. The silencer can be reinstalled on the host firearm. See "Installing your Ti-RANT 45-M silencer" in this manual.



O-ring GUIDE

There are a number of O-rings used in the Ti-RANT 45-M silencer. These O-rings are made of a high temperature material called Viton. Inspect them for signs of wear whenever the silencer and/or A.S.A.P. System are disassembled for cleaning and maintenance and replace them with quality replacements made of Viton. Replacement Viton O-rings are available from McMaster- Carr Supply. The chart below identifies the O-ring location in your silencer, the size, and the McMaster-Carr part number (PN) for ordering replacements.

LOCATION	O-ring SIZE	McMASTER PN
PISTON HOUSING	19mm I.D. X 1.5mm	9263K582
FRONT END CAP	31mm I.D. X 1.5mm	9263K598
FRONT MODULE	31mm I.D. X 1.5mm	9263K598
.578-28 PISTON	15mm I.D. X 1.0mm	9263K552
M16 x 1 PISTONS	14mm I.D. X 1mm	9263K112
M14.5 X 1 PISTON	13mm I.D. X 1.5mm	9263K123
M13.5 X 1 PISTON	12mm I.D. X 1.0mm	9263K287