

TM-Ti-RANT® 45-M

TECHNICAL MANUAL FOR
OPERATION AND MAINTENANCE
OF SILENCER MODEL

Ti-RANT 45-M



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 TI-RANT 45-M

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 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

the AAC website at www.advanced-armament.com. For further clarification on muzzle threads, contact ADVANCED ARMAMENT CORP. 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 world's first high-performance 45 caliber silencer that enables users to quickly, easily, and without tools, configure the length of the silencer to suit your requirements. In seconds, the patented design of the Ti-RANT 45-M (M=Modular) enables you to configure it 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. Although the Ti-RANT 45-M was optimized for use on 45 Auto pistols, it can be employed safely with impressive results on a broad spectrum of other hosts. The Ti-RANT 45-M enables reliable semi-automatic operation on most contemporary locked-breech host pistols in 9mm Luger, 40 S&W,

and 45 Auto through the use of AAC's A.S.A.P. (Assured Semi Automatic Performance) 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. In 2016, an accessory adapter with 5/8" x 24 tpi threads was made available separately for suppressing **SUBSONIC** 300 AAC BLK ammunition when fired from bolt action and semi-automatic rifles and carbines. Please refer to the chart on the following page for a list of appropriated calibers, action types, and minimum barrel lengths approved for use with your Ti-RANT 45-M silencer.

CALIBER	ACTION TYPE	MIN. BARREL LENGTH
22 S/L/LR	BOLT ACTION, SEMI/FULL AUTO	4 INCH
9mm Luger	BOLT ACTION, SEMI/FULL AUTO	4 INCH
357 MAGNUM	BOLT/LEVER ACTION	16 INCH
40 S&W	SEMI/FULL AUTO	4 INCH
44 MAGNUM	BOLT/LEVER ACTION	16 INCH
45 AUTO	BOLT ACTION, SEMI/FULL AUTO	5 INCH
300 BLK SUBSONIC	BOLT ACTION, SEMI AUTO	6 INCH

WARNING! Only fire **SUBSONIC 300 AAC BLK ammunition through your Ti-RANT 45 silencer with the 5/8 x 24 Adapter installed. Firing supersonic centerfire rifle ammunition of any caliber through your Ti-RANT 45 silencer will damage the silencer and may cause property damage, personal injury and/or death.**

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.

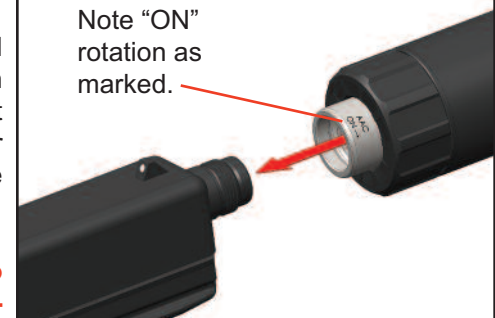
Figure 1



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

Figure 2

Note "ON" rotation as marked.



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 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.

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.

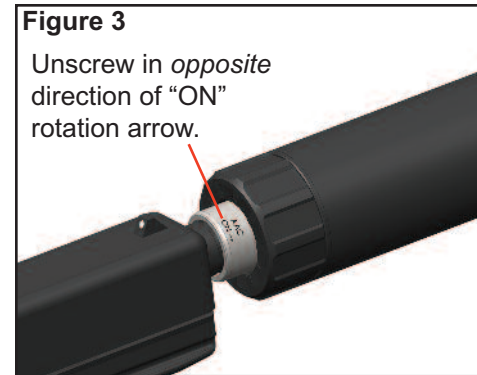
3. Carefully tighten the silencer onto the host firearm's muzzle threads in the "ON" direction indicated on the piston. See Figure 2.

REMOVING YOUR Ti-RANT 45-M FROM A HOST FIREARM

1. Always keep the host 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. 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.

4. 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.

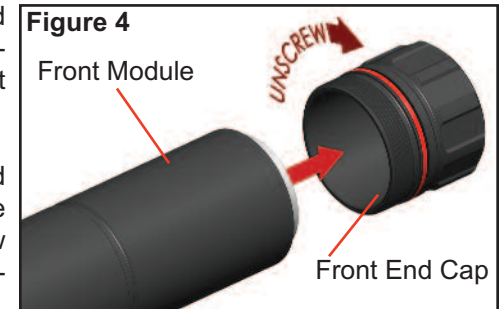


CONFIGURING YOUR Ti-RANT 45-M FOR COMPACT USE

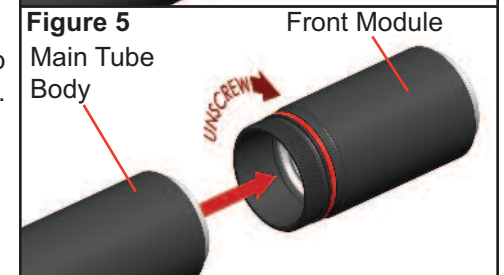
WARNING! Only perform configuration procedures on silencers that are not mounted to a firearm. Attempting to configure a mounted silencer could lead to property damage, personal injury and/or death.

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

2. Grasp the silencer around the front module and unscrew and remove the front end cap. See Figure 4.



3. Grasp the silencer around the circumference of the main tube body and unscrew and remove the front module. See Figure 5.



4. 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.

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 front end cap from the main tube body. See Figure 7.

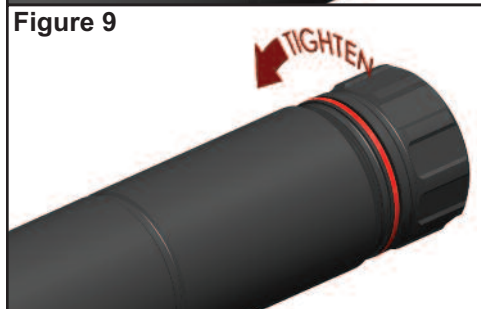
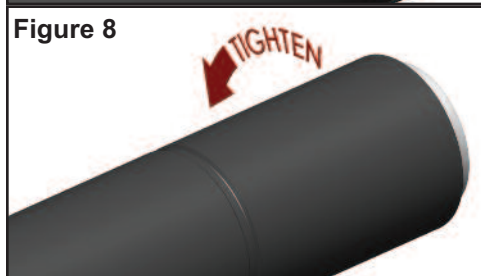
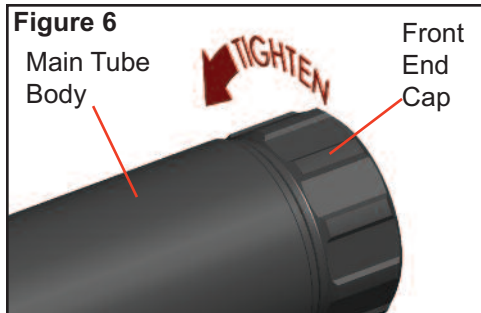
3. Thread the front module fully into the main tube body. See Figure 8.

4. 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 range visit, after 500 rounds of regular use, or after 250 rounds of use with an artificial environment, whichever comes first. See the "Using your Ti-RANT 45-M with an Artificial Environment" section for more information on artificial environments.

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.

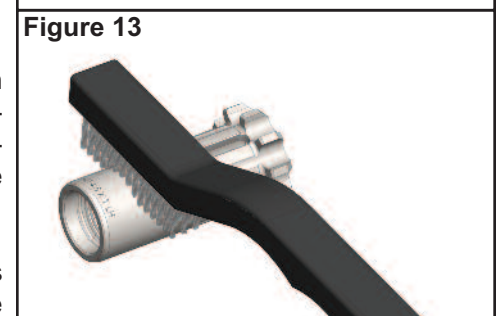
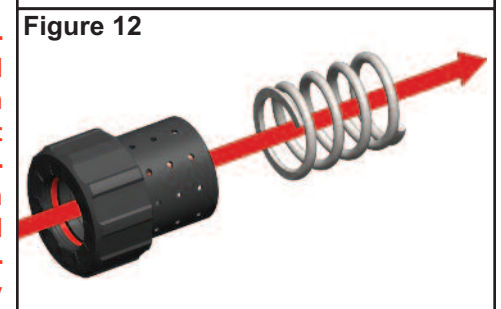
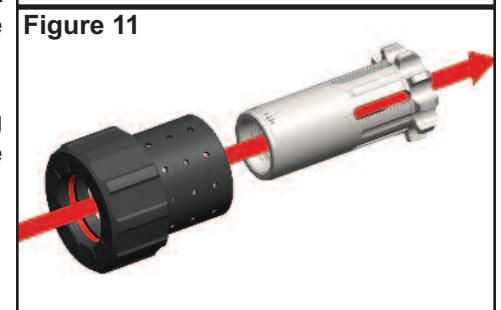
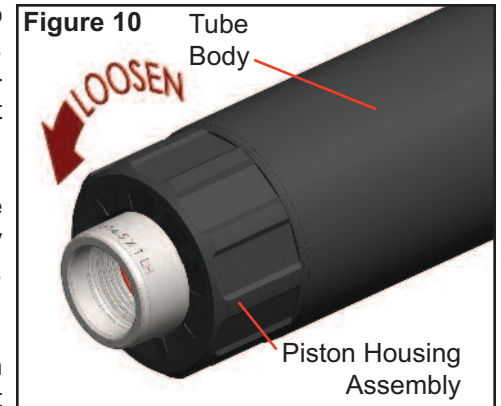
4. Remove the driving spring from the piston housing. See Figure 12.

CLEANING/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.

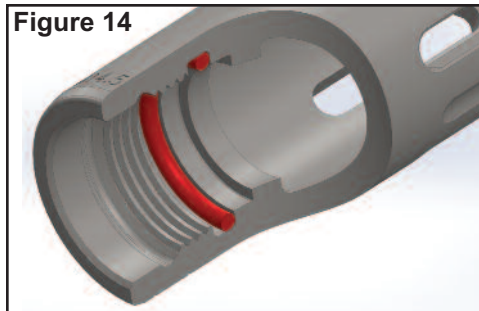


Figure 14

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.



Figure 15

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 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, clean the interface in the rear of the silencer. See Figure 17. Insure the piston index notches and piston stop-surfaces located on the front end of the interface 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).

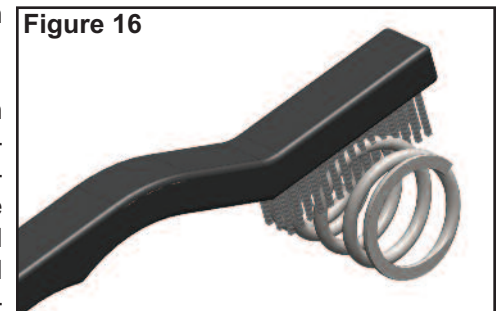


Figure 16

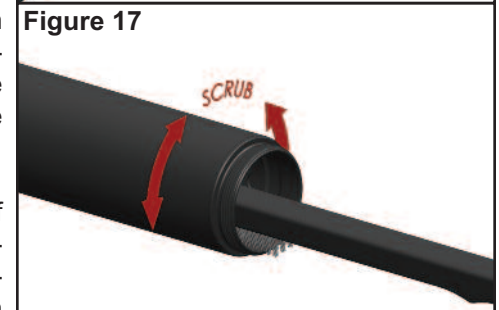


Figure 17

BAFFLE STACK REMOVAL/ 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.

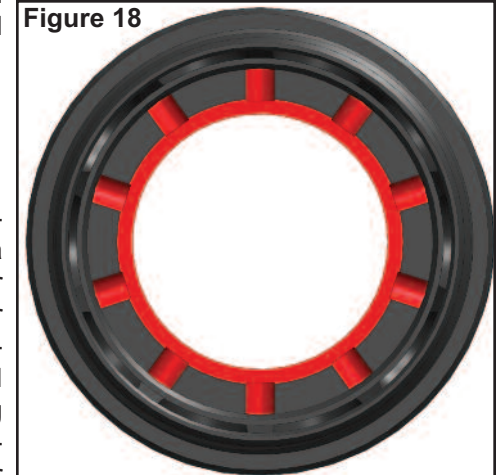
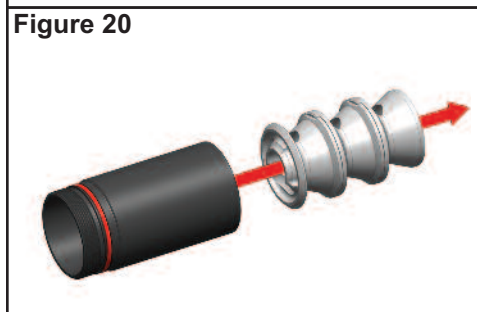
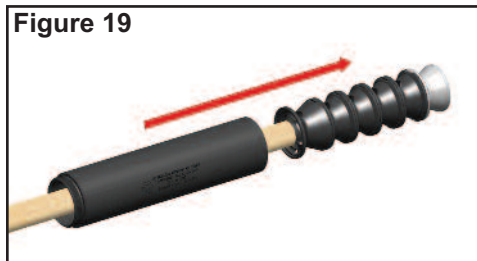


Figure 18

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



7. 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 alu-

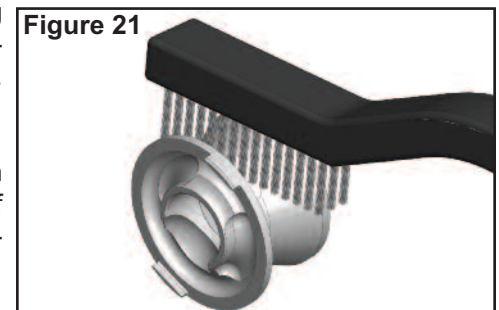
minum components of a Ti-RANT 45-M silencer to a solvent that is not compatible with aluminum can weaken the components. Using a Ti-RANT 45-M silencer with weakened components may lead to property damage, personal injury and/or death.

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.

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



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



3. 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.

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

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

6. 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.

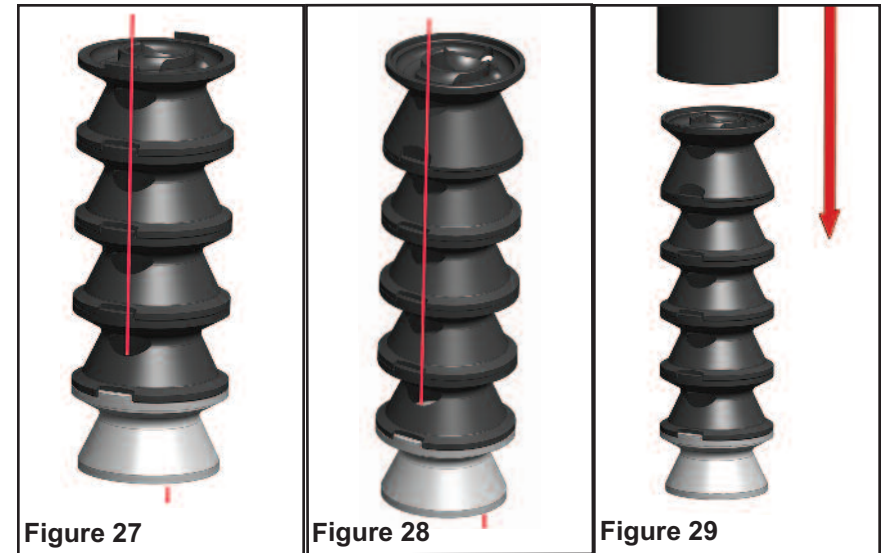
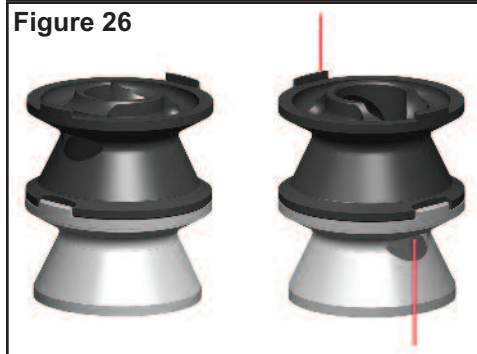
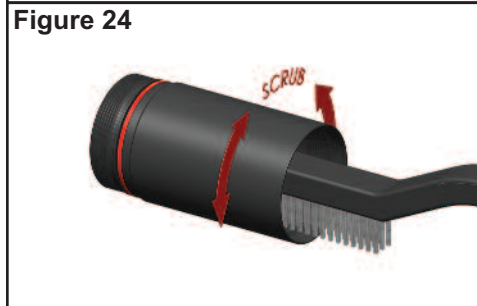
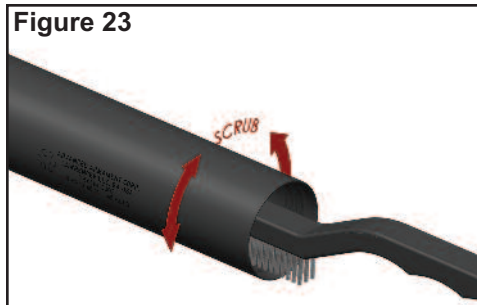
7. Lubricate the threads on the exterior of the front end cap, front module, and the piston housing interface threads on the exterior rear of the tube with anti-seize compound or white lithium grease.

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.

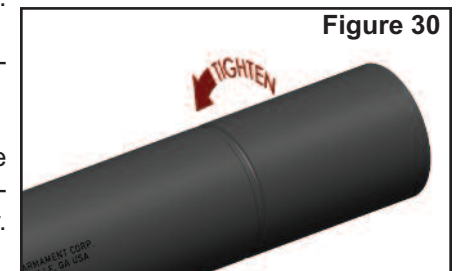


2. Place three more black anodized aluminum baffles atop the stack, with the output ports aligned with the output port in the first black aluminum baffle. Ensure all tabs and notches engage. See Figure 27.

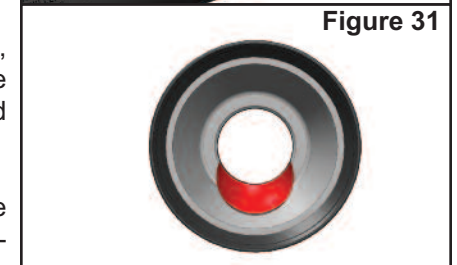
3. Place the ported blast baffle atop the stack, so that the output port of the blast baffle aligns with the output ports on the preceding four black aluminum baffles. See Figure 28.

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 baf-

fle. 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.

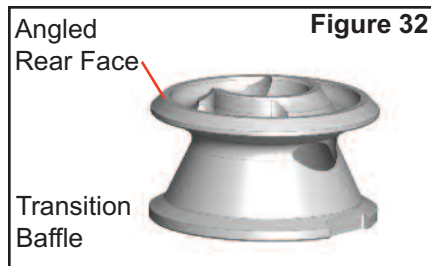


Figure 32

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.



Figure 33

9. The final baffle to install in the front module is the second front baffle. Install it and tab it to the preceding baffle so that the output ports are aligned. See Figure 35.

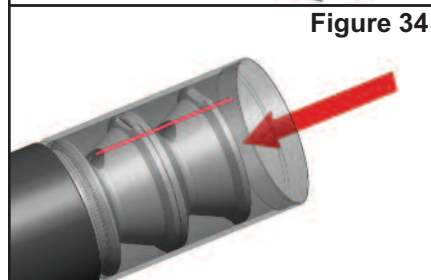


Figure 34

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

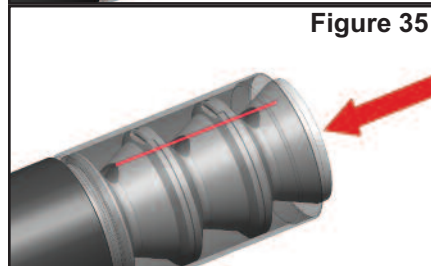


Figure 35

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



Figure 36

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.

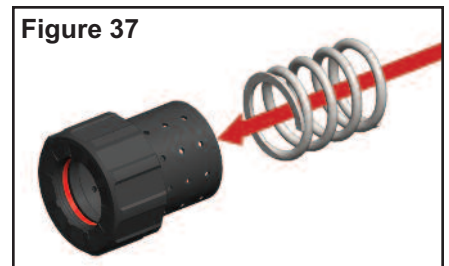


Figure 37

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 preferred artificial environment media for the Ti-RANT 45-M is water. An artificial environment made of 5cc's of water will positively influence sound performance for approximately 50 shots and will remain in the silencer if unfired for up to 3 days depending on temperature and humidity.

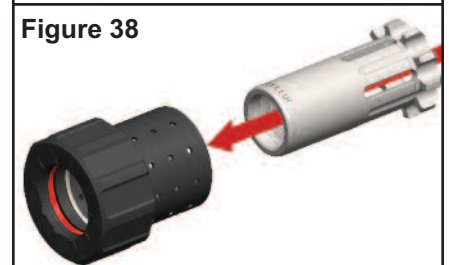


Figure 38

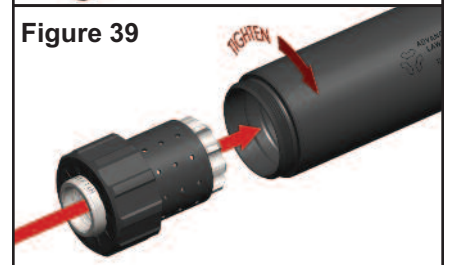


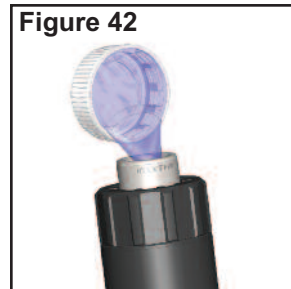
Figure 39

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 frequent disassembly and thorough 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 danger-

ous 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.

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.



USING YOUR Ti-RANT 45-M ON FIXED-BARREL HOST FIREARMS

The Ti-RANT 45-M can be used on host firearms with fixed, non-moving barrels using an AAC Fixed-Barrel Spacer that is sold separately.

NOTE: AAC recommends that users replace the driving spring of their Ti-Rant 45-M silencer with a Fixed-Barrel Spacer when using their Ti-Rant

45-M silencer on host firearms with a fixed, non-moving barrel. Using a Fixed-Barrel Spacer in this application will prevent premature fatigue of the driving spring. If users wish to suppress **SUBSONIC** 300 AAC BLK with their Ti-Rant 45-M, a 5/8" x 24 tpi adapter is also available.

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

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