



OWNER'S MANUAL | PTR® 9SDM

MADE
IN THE USA 

WWW.PTR-US.COM

101 Cool Springs Dr., Aynor, SC 29511

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WARNING AND SAFETY

This owner's manual provides instructions on the operation and maintenance of your PTR® Industries firearm. This instruction manual should always accompany this firearm and be transferred with it upon change of ownership, or when the firearm is loaned or presented to another person. Not all firearms operate the same. Only when you completely understand this manual and can properly carry out its instructions should you practice loading, unloading etc. with live ammunition. If you have any doubts about your ability to handle or operate your firearm, you should seek professional instruction. Personalized instruction is often available at firearm dealers, shooting ranges, or a gunsmith. Your safety, and those around you, depends on your knowledge of your firearm and on your knowledge of safety rules common to all firearms.

PRIMARY RULES OF FIREARM SAFETY

- 1) Always keep the muzzle pointed in a safe direction.
- 2) Treat all firearms as though they are loaded.
- 3) Keep your finger off the trigger until you are ready to shoot.
- 4) Always be sure of your target and what is beyond it.
- 5) Firearms should be unloaded when not actually in use.
- 6) Do not rely on your firearm's "Safety".
- 7) Only use approved ammunition.
- 8) If your firearm fails to fire when the trigger is pulled, handle it with care!
- 9) Always wear eye and ear protection when shooting.
- 10) Be sure the barrel is clear of obstructions before shooting.
- 11) Do not alter or modify your firearm, and have it serviced regularly.
- 12) Learn the mechanical and handling characteristics of the firearm you are using.



WARNING AND SAFETY

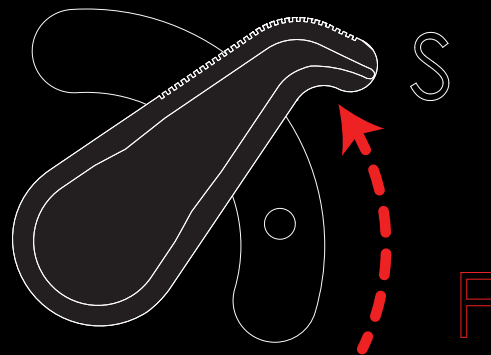
WARNING: It is your responsibility to assure that your firearm is handled, fired, and always stored safely and responsibly, failure to do so may result in death, severe injury, and/or property damage.

WARNING: Never place your finger on the trigger until you are on target and ready to shoot. Do not rely on your firearms safety to prevent negligent firearm discharge. You must always follow all safety rules. Following all safety rules can help avoid a negligent discharge resulting in death, severe injury, and/or property damage. You are fully responsible for the safe use of the firearm and for any damage, injury, and/or death caused with it.

WARNING: Do not load a cartridge into the chamber until you are ready to operate the firearm. The firearm may discharge if it is dropped or jarred violently without the trigger being pulled regardless of the position of the safety selector. Always keep the safety ON until you are ready to use the firearm.

[See figure 1 for graphic showing selector lever set to the safety on position].

Figure 1:



WARNING AND SAFETY

DISASSEMBLY AND ALTERATION

WARNING: Do not disassemble your PTR® firearm beyond the instructions in this manual. Disassembly beyond these instructions should only be performed by a PTR certified armorer, or a professional gunsmith. Do not alter your PTR firearm. It was designed to function properly in its original condition. Alteration of any part, adding or substituting any parts or accessories not manufactured by PTR Industries may result in death, severe injury, and/or property damage.

IMPROPER HANDLING / LIABILITY

WARNING: The Bureau of Alcohol, Tobacco, Firearms and Explosives classifies this product as a firearm. PTR Industries has no control over the use of your firearm, and shall not be responsible for death, injury, and/or property damage resulting from either intentional, or accidental discharge of this firearm. PTR shall not be responsible for proper function of the firearm when it is used for purposes, or subjected to treatment, for which it was not intended. PTR will not honor claims which may result from careless or improper handling, unauthorized adjustments, or parts replacement, corrosion, neglect, use of the wrong type or caliber of ammunition, or the use of ammunition other than original, high quality, commercially manufactured ammunition in good condition, or any combination thereof.



WARNING AND SAFETY

TRANSPORTATION AND STORAGE

WARNING: During transport and/or storage of firearms, make sure it is unloaded, clear of all ammunition and secure. Always store your unloaded firearm separately from ammunition and in a secured location that is not accessible to children or unauthorized persons. It is your responsibility to familiarize yourself with all federal, state and local laws and regulations.

Chamber safety flags are shipped with all PTR® firearms. The chamber safety flag, when properly used, prevents a cartridge from being chambered and provides a visible indication that the firearm chamber is empty. When the firearm is not in use, the chamber safety flag should be used while following all other firearm safety rules.

AMMUNITION

WARNING: Only use high-quality, commercially manufactured ammunition from a reputable manufacturer that is clean and undamaged. Failure to do so may result in death, severe injury, and/or property damage. See ammunition section on page 14 for more information.



PROP 65 WARNING

This product contains a chemical known to the State of California to cause cancer.” **WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.



CAUTION

It is up to the firearm owner to comply with all federal, state and local laws, regulations and ordinances.

INTRODUCTION

This manual is for the PTR® Model 9SDM Family of firearms, proudly manufactured in the United States. The PTR 9SDM utilizes the roller-delayed blowback system PTR has been manufacturing in the US for decades. The PTR 9SDM is a new firearm, with many improvements over the original legacy design. Here are just a few:

FEATURES

- An improved barrel with ported slots located in the rifling grooves to reduce bullet engraving, increasing accuracy. The base of the barrel has standard M18X1 threads. The ports bleed off gases and can reduce supersonic ammunition to subsonic velocities, making the suppressor report even quieter.
- A separate and removable expansion chamber named the Universal SD Adapter (USDA) has both threads for Alpha (1 1/8"X28) and HUB (1 3/8"X24) suppressor mount patterns, enabling a wide array of suppressors to be utilized.
- PTR offers the 9SDM with two suppressor options. The 9SDM-B will include the new purpose-built PTR VENT® SDM suppressor (threaded HUB-B, 1 3/8"-24), while the 9SDM-A will come with the award-winning PTR VENT 2 suppressor (threaded HUB-A, 1 1/8"-28).
- A welded Picatinny rail runs the full length of the receiver and cocking tube allowing the use of a wide choice of optics, red dots and backup iron sights.
- A removable M-LOK® handguard uses industry standardized mounting slots for a variety of accessories including forward grips, lights, lasers, bipods, sling attachments, along with STD-1913 (Picatinny) rail segments. Removal allows cleaning of barrel carbon buildup without the need to purchase specialized expensive tools. A feature never before available.
- The bolt head and extractor functions like PTR's existing 9mm firearms. This brings the design in line with bolt heads used on other PTR® 5.56mm and 7.62mm firearms.
- A special 120° locking piece is used to provide the broadest choice of ammunition that functions with the ported barrel and silencers. The bolt head and extractor continues to function like PTR's existing 9mm firearms.
- An extended charging handle using industry standard 5/16"-24 threads, accepts a wide variety of aftermarket bolt handles commonly used on bolt action rifles.
- The PTR 9SDM uses a paddle magazine release along with the side button magazine release for familiarity of operation with other legacy PTR models.

PTR® 9SDM SPECIFICATIONS

CALIBER: 9x19mm

MAGAZINE: 30Rd Standard pattern with optional lower-capacity versions to meet state by state requirements

OPERATING PRINCIPLE: Roller-delayed blowback

ACTION: Semiautomatic

OVERALL LENGTH 9SDM-A: Stock Extended, 30.125" Stock Collapsed 24.125"

OVERALL LENGTH 9SDM-B: Stock Extended, 28.75" Stock Collapsed 22.75"

CARBINE BARREL LENGTH: 5.8"

SIGHTS: Magpul® MBUS Pro® Steel Front and Rear Sight

OPTIC MOUNT: 13.2" Picatinny rail for optional sighting systems

Each PTR firearm is shipped with the following:

2 Magazines | Warranty card | Trigger lock or cable lock | 5 Extra seal o-rings

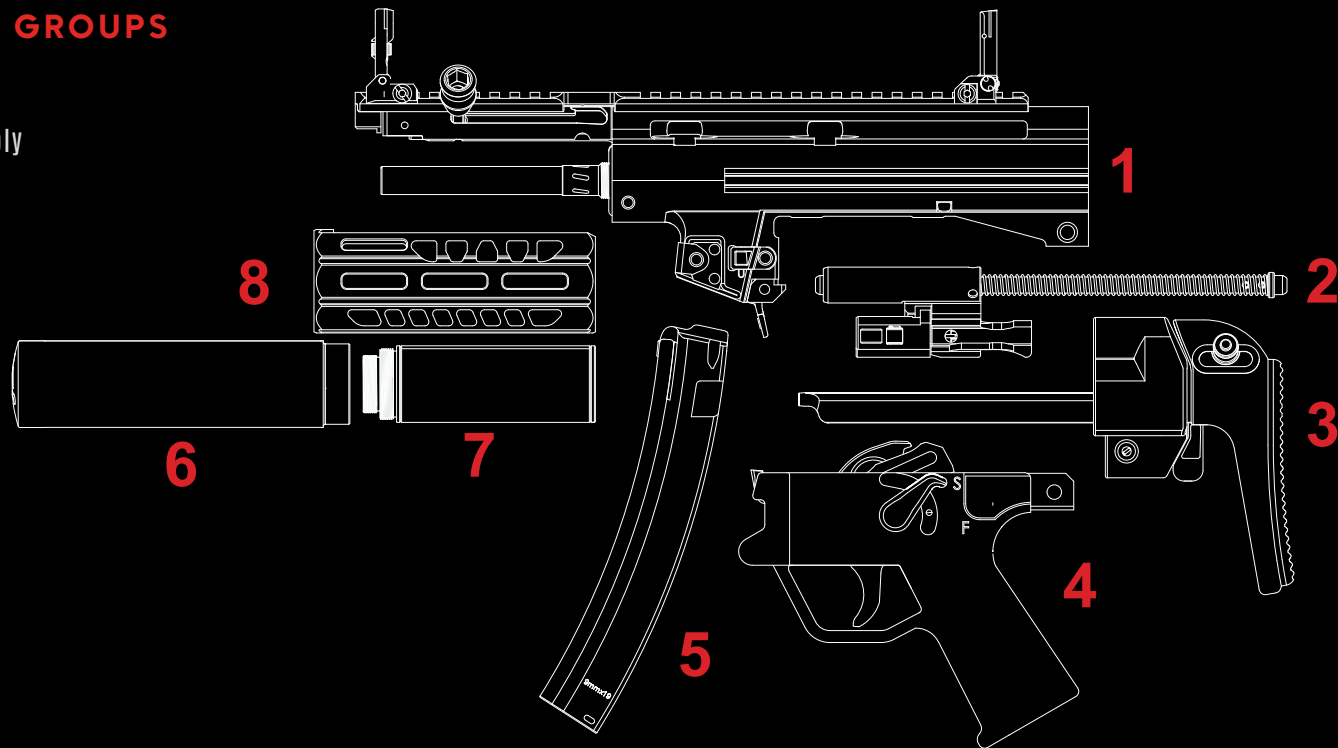
MAJOR COMPONENTS

PTR® 9SDM MAJOR ASSEMBLY GROUPS

(See figure 2)

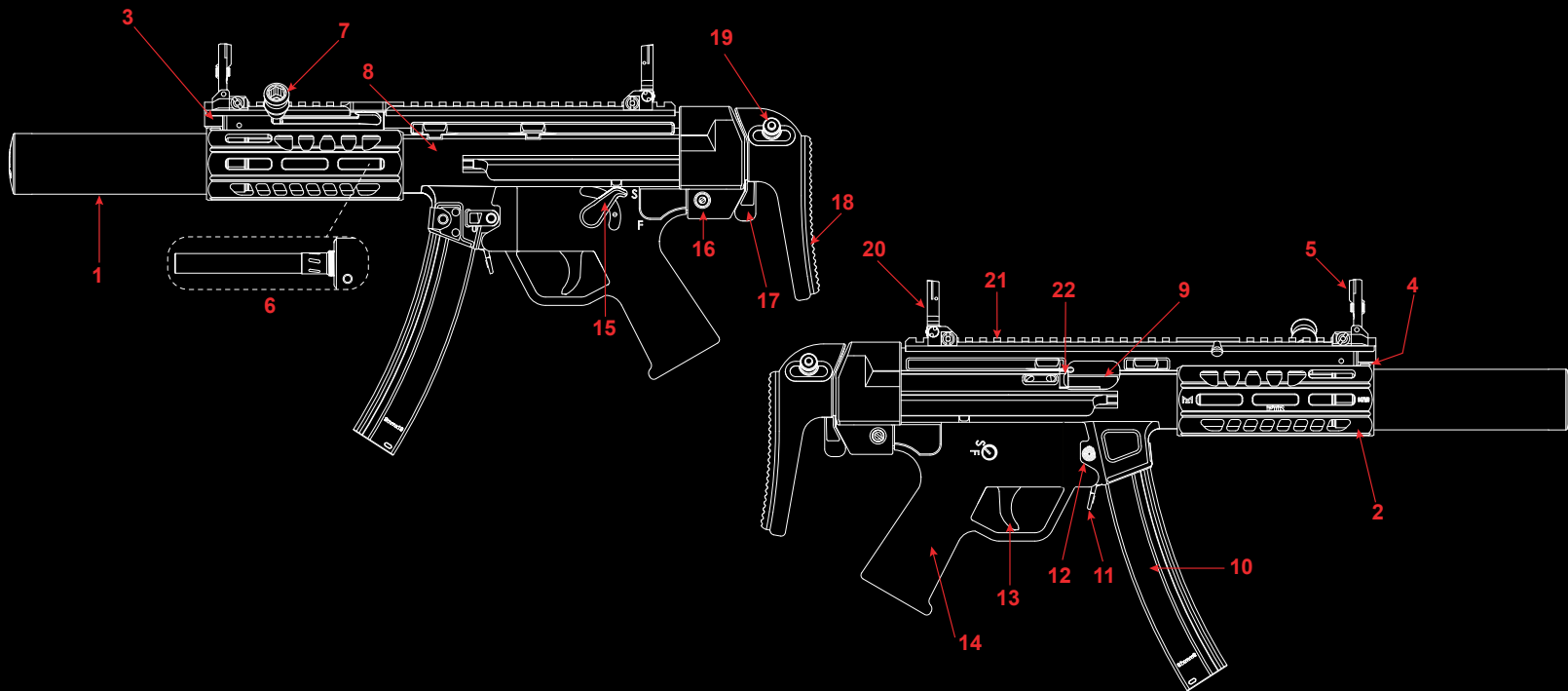
- 1) Receiver assembly with barrel and sights
- 2) Bolt/carrier group with recoil spring assembly
- 3) Stock/buffer assembly
- 4) Trigger group
- 5) Magazine
- 6) Suppressor
- 7) Universal SD Adapter (USDA)
- 8) 9SDM Handguard

Figure 2:



NOMENCLATURE AND DESCRIPTIONS

Figure 3:



NOMENCLATURE & DESCRIPTION (See figure 3 on page 9)

- 1) PTR® VENT® SDM Suppressor
- 2) Handguard - Removable M-LOK® handguard uses industry standardized mounting slots for a variety of accessories including forward grips, lights, lasers, bipods, sling attachments, along with STD-1913 (Picatinny) rail segments. Larger internal diameter accepts most ALPHA or HUB mount pistol suppressors.
- 3) Handguard Spacer/Mount
- 4) Handguard bolt - Torx bolt located inside the handguard retains the M-LOK® handguard.
- 5) Front Sight - Folding Picatinny rail mounted, back-up Iron sight. MAGPUL MBUS Pro® Sight - Front.
- 6) Barrel Assembly - Free floated 5.8" button broached 9mm NATO barrel has standard land and groove rifling with 1 in 10" twist with gas porting slots in the rifling grooves.
- 7) Charging Handle - The oversize non-reciprocating charging handle on the PTR 9SDM gives the user increased leverage to aid in retraction of the bolt/carrier when clearing the chamber or loading. The charging handle can be lifted at its rearmost travel to lock the bolt open. The post is threaded 5/16" x 24 to accept a wide array of aftermarket bolt knobs.
- 8) Receiver - The receiver is made from stamped and welded high-strength carbon steel and is powder coated for a durable exterior finish.
- 9) Ejection Port - Located on the right side of the receiver.
- 10) Magazine - Stores ammunition for feeding into the firearm. The PTR 9SDM is provided with two 30-round steel magazines.
- 11) Paddle Mag Release Lever - An auxiliary magazine release utilizing the same muscle memory of legacy PTR 7.62mm and 5.56mm systems.
- 12) Magazine Catch/Release - Retains a magazine when fully inserted in the magazine well and releases the magazine when it is pushed towards the receiver from the right side.

- 13) Trigger - The wide curved trigger bow encourages repeatable trigger finger placement for consistent pull weight.
- 14) Trigger Housing - Contains the fire control components.
- 15) Safety/Selector Lever - located on the left side of the trigger housing, it is manually operated to select the mode of fire and place the firearm on safe.
- 16) Rear Take-down Pin - Takedown pin is removed by pushing from right to left and allows the buttstock and trigger group to be removed. For pin storage place the pin into the tail cap of the stock utilizing the same hole it was removed from. When reassembling the firearm, remove the takedown the pin from the tail cap, reinstall the stock and insert the pin from left to right.
- 17) Stock Lever - Press left and hold to release and extend the stock, and right to tightly lock the stock after reaching the desired position.
- 18) Buttstock with Recoil Pad - 5 positions provide an adjustable length of pull when shouldering the 9SDM for accurate firing.
- 19) Sling Swivel - Provides a rear attachment point for a traditional two point sling.
- 20) Rear Sight - Folding Picatinny rail mounted, back-up Iron sight. MAGPUL MBUS Pro® Sight - Rear.
- 21) Picatinny Rail - This modern standardized optic rail is welded to the top of the receiver and is the full length of the receiver and cocking tube.
- 22) Case Deflector - Located at the rear of the ejection port and redirects fired cartridge cases away from the operator.

SELECTOR POSITIONS

The PTR® 9SDM selector lever is situated on the left side of the trigger housing. The two positions are Safe and Semi-Automatic.

Safe Position - When the selector lever is rotated all the way up counterclockwise, it points to the white letter S (See figure 4.) at the same time on the right side of the trigger group the white selector position indicator line points to the white letter S.

Fire Position - When the selector lever is rotated down clockwise to point to the red letter F (See figure 5.) at the same time on the right side of the trigger group the white selector position indicator line points to the red letter F.

Figure 4: Safe

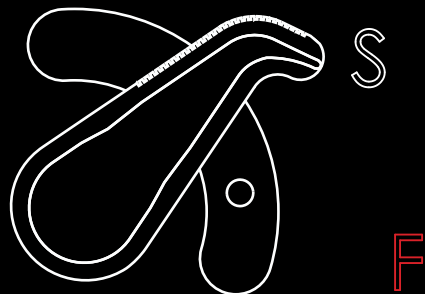
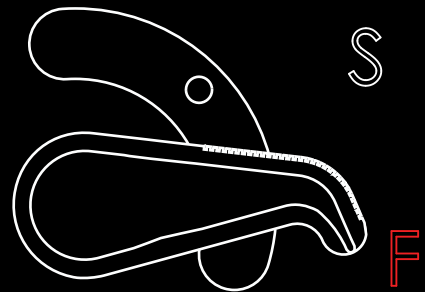


Figure 5: Semi-automatic



INITIAL CLEANING AND BREAK IN

WARNING: It is your responsibility to assure that your firearm is handled, fired, and always stored safely and responsibly, failure to do so may result in death, severe injury, and/or property damage.

Thoroughly clean your PTR® 9SDM prior to firing. See clearing and disassembly procedures. Use quality cleaning solvents and tools designed for firearms. After cleaning, lightly oil all the internal parts (bolt, rollers, bolt carrier, locking piece and trigger mechanism). DO NOT apply lubricants to the barrel bore and chamber. Because PTR firearms are made to tighter tolerances than most other firearms, a break-in period of 200-300 rounds is highly recommended. This allows components to seat and to smooth out the action.

BREAK IN PROCEDURES

Fire 30 shots. Run a solvent wet patch, through the bore. Then run a solvent wet bronze brush through the barrel five to ten times. Scrub the chamber flutes with a 9mm chamber brush. Finish cleaning the chamber and bore with a wet patch and then dry patches to completely remove any solvents or debris. Repeat this procedure until you have reached the suggested 200-300 rounds. Remove the handguard, the suppressor and the Universal SD Adaptor (USDA). With a stiff stainless steel bristle brush, clean the exterior of the barrel and threads of all carbon fouling. Take care not to damage or lose the o-ring seal.

GENERAL MAINTENANCE

This firearm is rugged, well-constructed, and will function reliably with regular proper maintenance. PTR recommends thoroughly cleaning the firearm after every shooting session. This will help ensure a lifetime of safe, reliable, and enjoyable shooting. When your firearm is not in service, it should be stored in a cool, dry, and safe location. The slotted gas ports on the 9SDM are designed to reduce the need for constant cleaning. It is recommended that the suppressor and USDA be removed every 500 rounds and cleaned using an ultrasonic cleaner. With the USDA removed, the barrel slots can be inspected and carefully cleaned with a dental pick to remove any carbon build up. Additionally, carbon-removing solvents can be applied to the outside of the barrel to aid in the removal of excess carbon deposits.

AMMUNITION

It is critical to only fire cartridges for which your firearm was designed. The 9SDM is specifically designed to shoot “strictly supersonic ammunition only”. The projectiles should be FMJ (Full Metal Jacket) with an ideal weight of 124gr round nose for best operation. The 9SDM design reduces the velocity of supersonic ammunition to subsonic velocities. The use of subsonic ammunition is not recommended and will void all warranties and can result in permanent damage to the weapon system, suppressor, and the possibility of catastrophic failure due to bullets lodging in the barrel, resulting in possible injury or death.

CAUTION

If you have any questions regarding the appropriate caliber/cartridge for your product, please contact PTR® prior to firing!

PTR recommends only using new, original, high quality commercially manufactured ammunition in good condition. PTR will not honor claims which may result from careless or improper handling, unauthorized adjustments, unauthorized parts replacement, corrosion, neglect, or the use of the wrong type or caliber of ammunition. Due to the nature of the roller-delayed blowback operating system, specifically the extraction and ejection process which results in damage to the fired casing, we do not recommend you reload cases fired from any roller-delayed blowback PTR product.

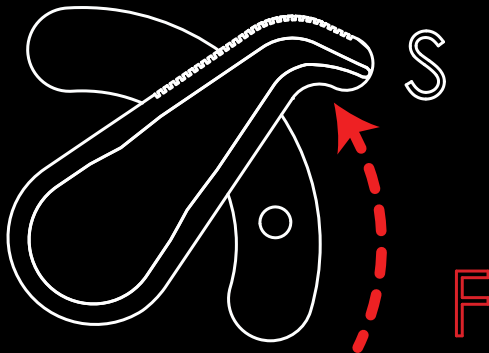
NOTE: Some types and/or brands of ammunition do not reliably function in PTR firearms. The 9SDM is most reliable with 124gr round tip ammunition. PTR strongly recommends that before purchasing large quantities of a specific ammunition that you purchase and test a small sample for functionality.

CLEARING

WARNING: It is your responsibility to assure that your firearm is handled, fired, and always stored safely and responsibly, failure to do so may result in death, severe injury, and/or property damage.

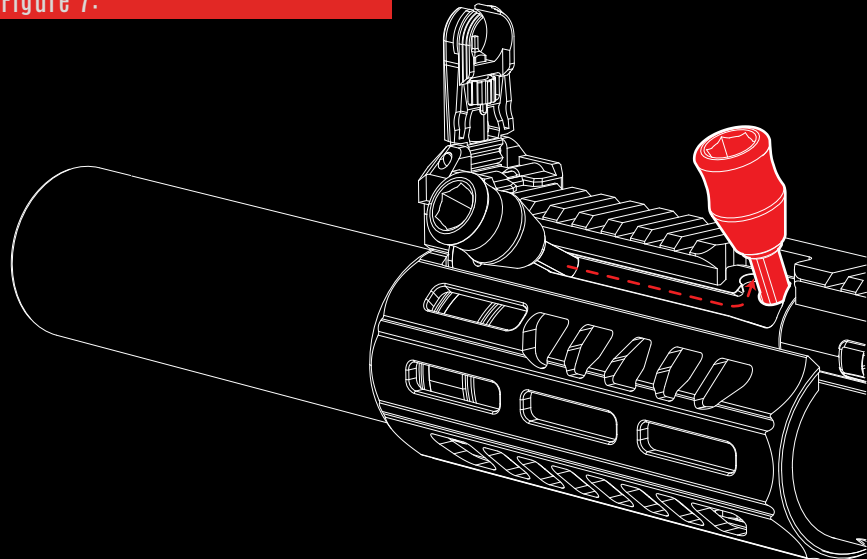
- 1) Before beginning disassembly, keep the firearm pointed in a safe direction. Set the selector lever to the “safe” position (See figure 6) then remove the magazine by depressing the magazine release on the right side of the magazine well or pressing the magazine release paddle forward towards the magazine well.

Figure 6:



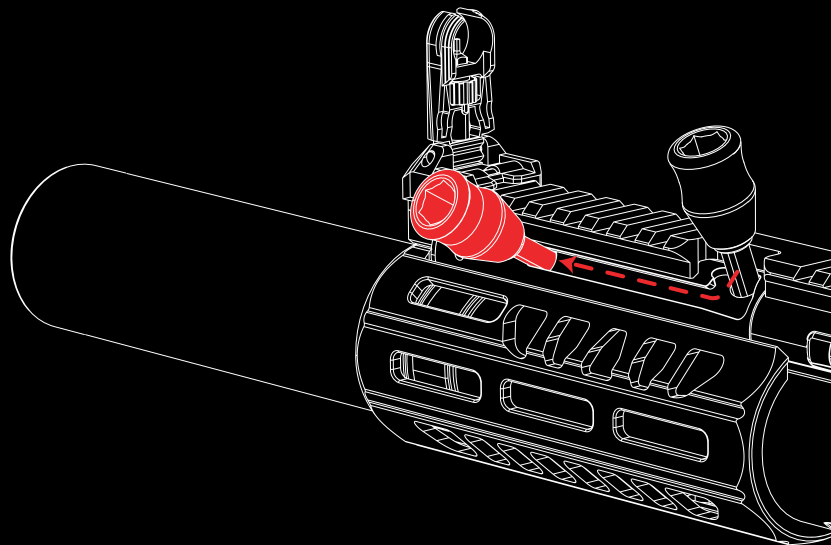
- 2) Grasp the charging handle and pull the handle to the rear and lift the handle up into the retaining notch at the end of the cocking tube. See figure 7.

Figure 7:



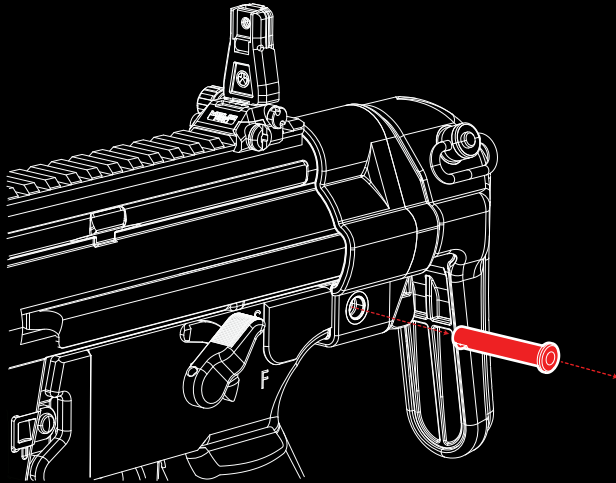
- 3) Visually and physically inspect there is no ammunition present in the chamber, on the bolt breech face or in the magazine well.
- 4) Remove any accessories that interfere with further disassembly or may get damaged.
- 5) When the firearm is confirmed as clear of any ammunition, pull the charging handle slightly rearward and rotate it downward out of the retaining notch. Then release the handle to allow the recoil spring to fully close the bolt on an empty chamber. See figure 8.

Figure 8:

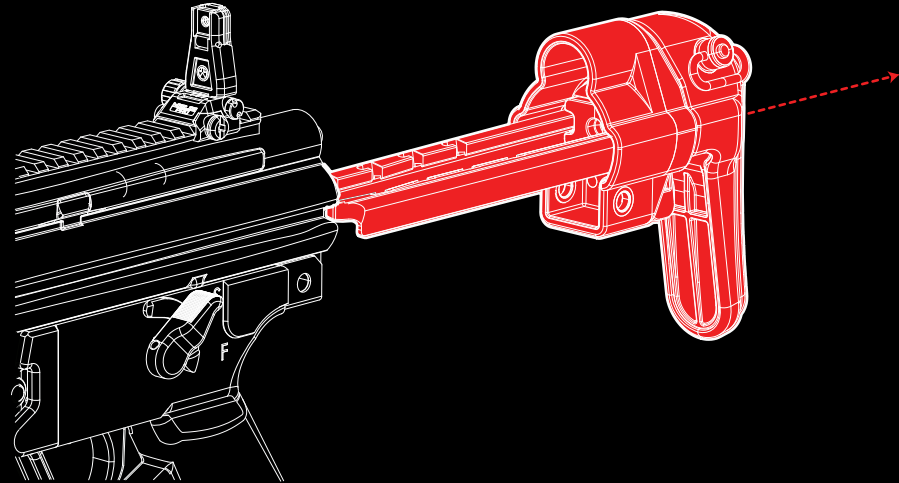


FIREARM DISASSEMBLY PROCEDURE

- 1) Remove the takedown pin forward of the buttstock by pushing from right to left. See figure 9. The pin can be stored in the hole it was removed from the tail cap of the stock once the stock is removed from the firearm.

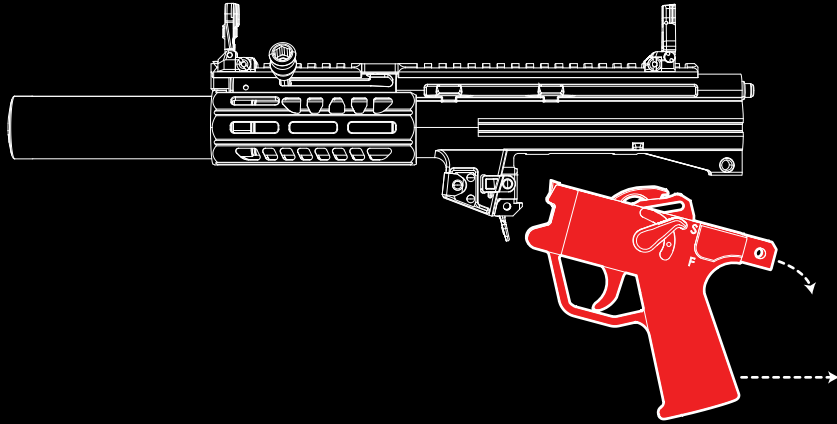
Figure 9:

- 2) The buttstock assembly with recoil buffer is now removed by pulling rearward, off of the receiver. See figure 10.

Figure 10:

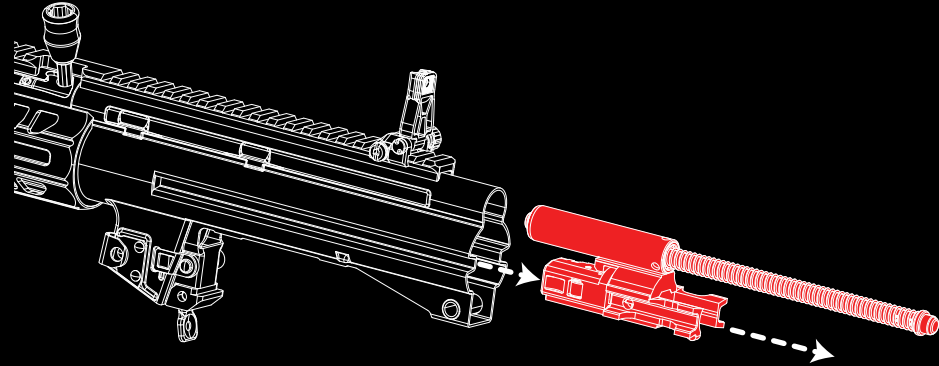
- 3) Grasp the trigger housing by the pistol grip, pull down and rearward to disengage from the shelf at the rear of the magazine well and off of the receiver. See figure 11.

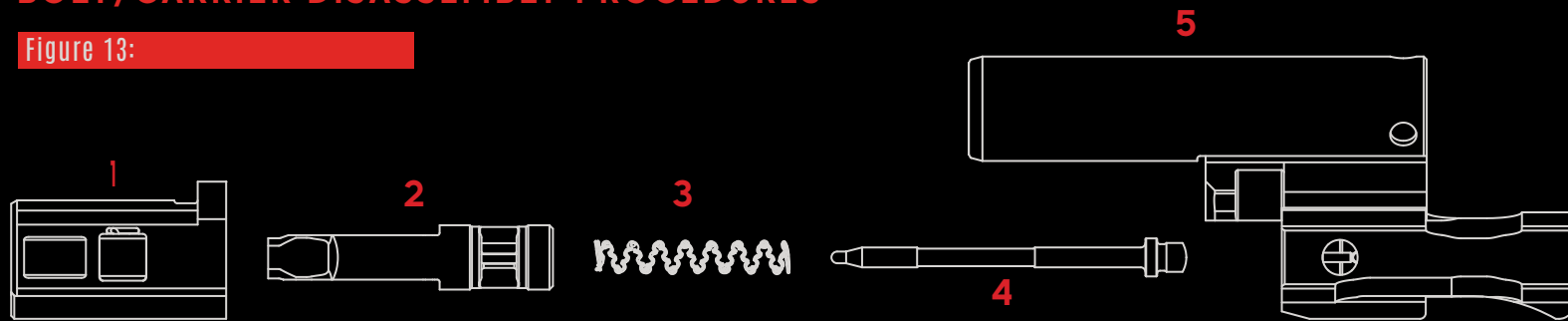
Figure 11:



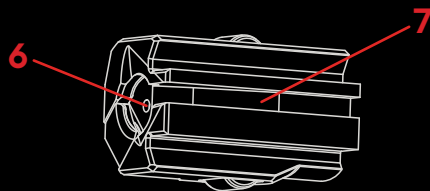
- 5) Grasp the charging handle, then pull it SLOWLY to the rear. This will release the bolt rollers from the trunnion and the bolt/carrier with the recoil spring will slide out of the rear of the receiver by tipping the muzzle upwards. As the bolt/carrier protrudes from the rear of the receiver, grasp it with your free hand and fully withdraw it, so it does not fall and become damaged. See figure 12.

Figure 12:



BOLT/CARRIER DISASSEMBLY PROCEDURES**Figure 13:****COMPONENTS***(See figure 13)*

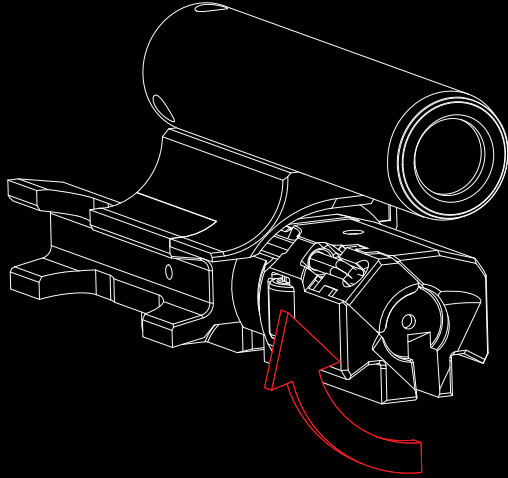
- 1) Bolt Assembly
- 2) Locking Piece
- 3) Firing Pin Spring
- 4) Firing Pin
- 5) Bolt Carrier

Figure 14:**BOLT HEAD***(See figure 14)*

- 6) Bolt Face
- 7) Ejector Slot Cut

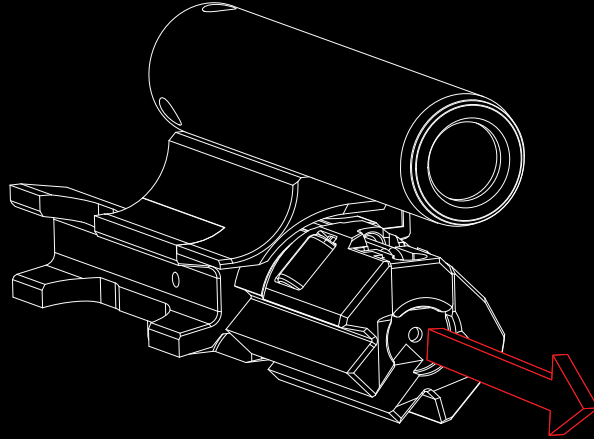
- 1) Grasp the bolt/carrier assembly by the carrier in one hand, with the bolt face towards you.
- 2) Grasp the bolt head with the opposite hand and rotate the bolt head 45° clockwise in relation to the carrier. See figure 15.

Figure 15:



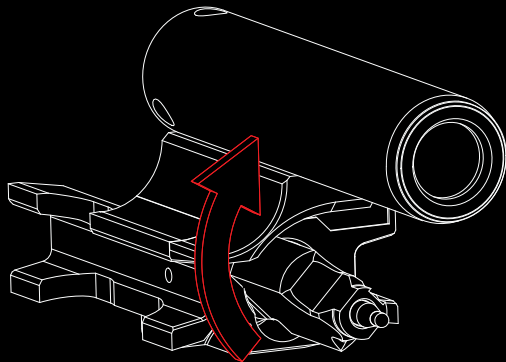
- 3) Pull the bolt head forward off the locking piece remaining in the carrier. Set the bolt head aside. See figure 16.

Figure 16:



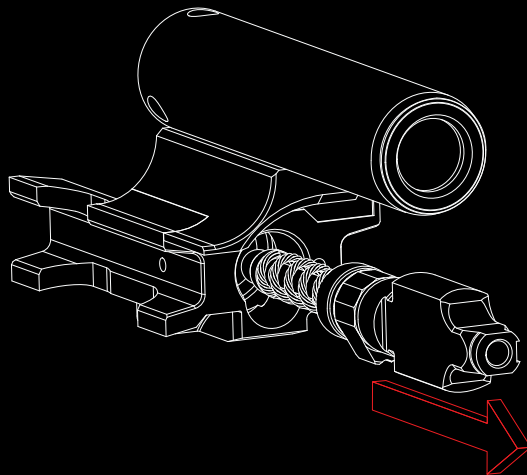
- 4) Grasp the exposed locking piece with your free hand. Push the locking piece towards the carrier and slowly rotate it clockwise an additional 45° until the retaining lug on the locking piece clears the recess in the bolt carrier. The locking piece will move forward under firing pin spring pressure. See figure 17.

Figure 17:

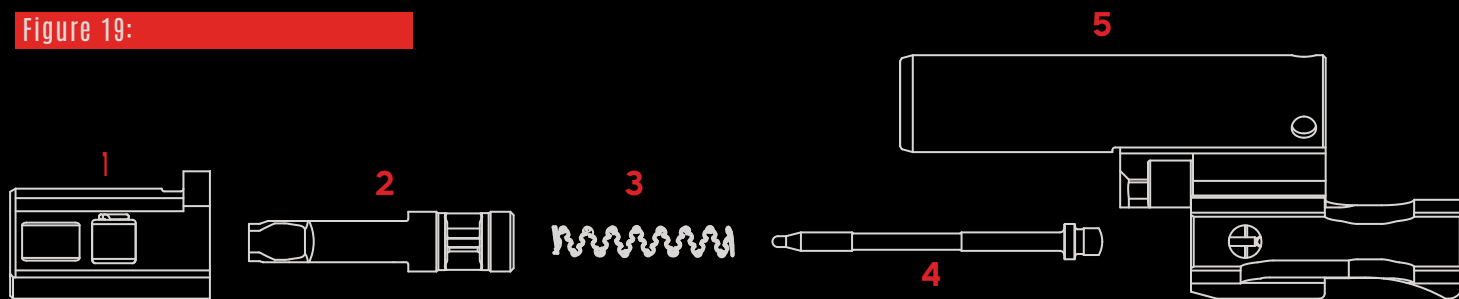


- 5) Remove the locking piece, firing pin, and firing pin spring from the bolt carrier. See figure 18.

Figure 18:



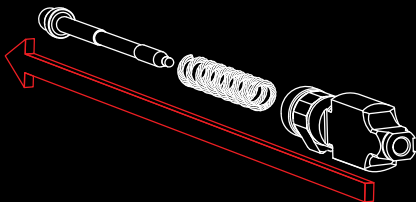
No further disassembly of the firearm is either necessary, or recommended, beyond this point. Any repair or maintenance procedure that requires further disassembly of the firearm should be referred to a qualified gunsmith.

BOLT/CARRIER REASSEMBLY PROCEDURES**Figure 19:****COMPONENTS**

(See figure 19)

- 1) Bolt Assembly
- 2) Locking Piece
- 3) Firing Pin Spring
- 4) Firing Pin
- 5) Bolt Carrier

1) Slide the firing pin spring over the front of the firing pin, and then insert this firing pin assembly into the rear of the locking piece. See figure 20.

Figure 20:

- 2) Hold the bolt carrier in one hand with the recoil spring tube at the top and the locking piece opening facing you.
- 3) Insert the locking piece tail along with the firing pin and spring into the opening on the front of the bolt carrier, aligning the retaining lug on the side of the locking piece with the cutout on the bottom of the carrier face. See figure 21.

Figure 21:

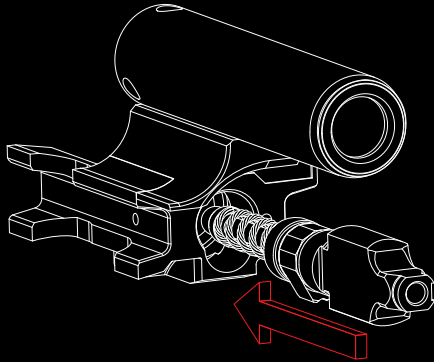


Figure 22:

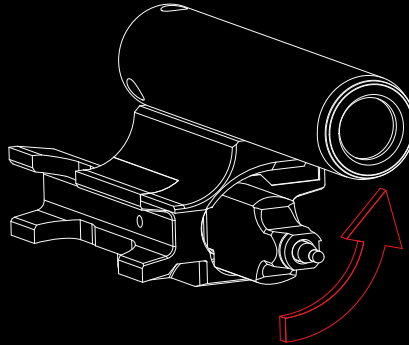
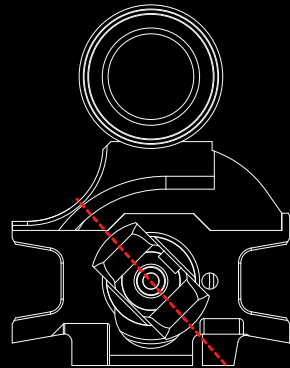


Figure 23:



- 5) With your free hand, slide the opening in the rear of the bolt head onto the locking piece, with the ejector slot cut on the bottom of the bolt head down and to the left. See figure 24.
- 6) Maintaining a firm grip on the carrier with the bolt head fully seated towards the carrier, rotate the bolt head counterclockwise as viewed from the bolt face 45° (See figure 25). Stop when the ejector slot cut on the bottom of the bolt head is perpendicular with the bottom of the bolt carrier. See figure 26. The bolt carrier assembly is now ready to be installed in the receiver.

Figure 24:

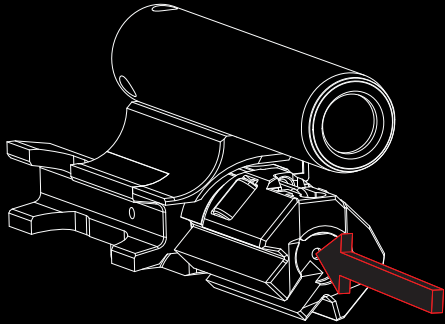


Figure 25:

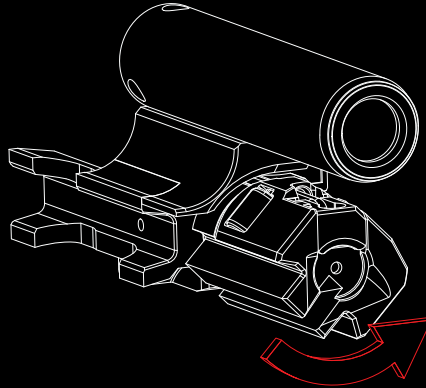
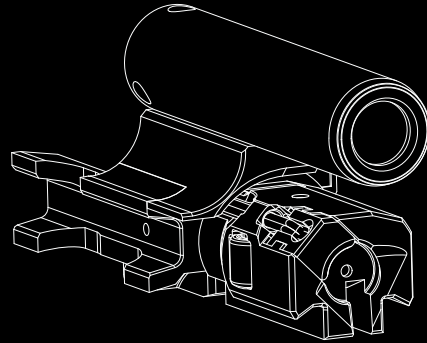


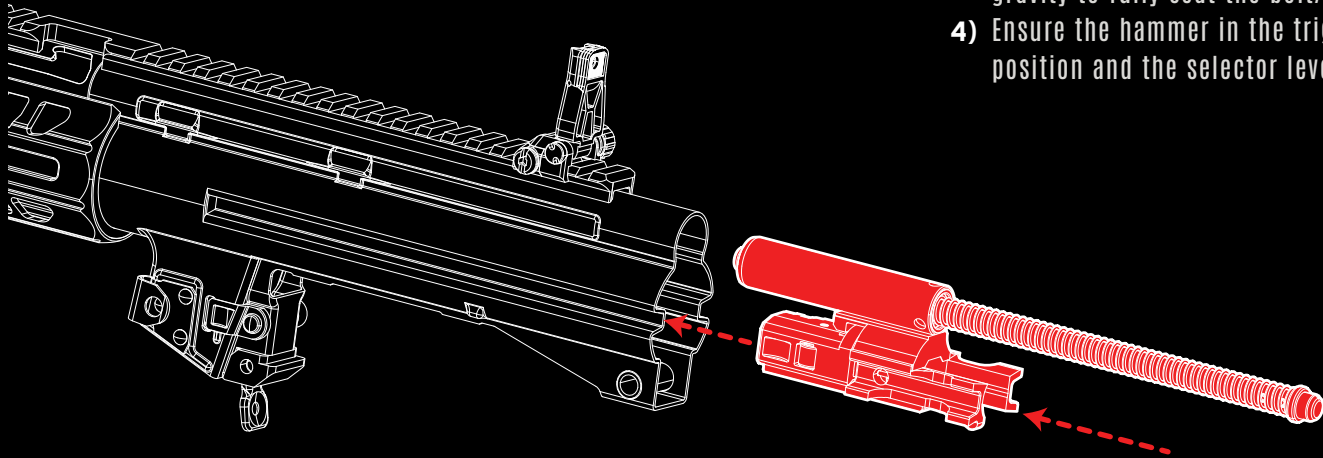
Figure 26:



FIREARM REASSEMBLY PROCEDURES

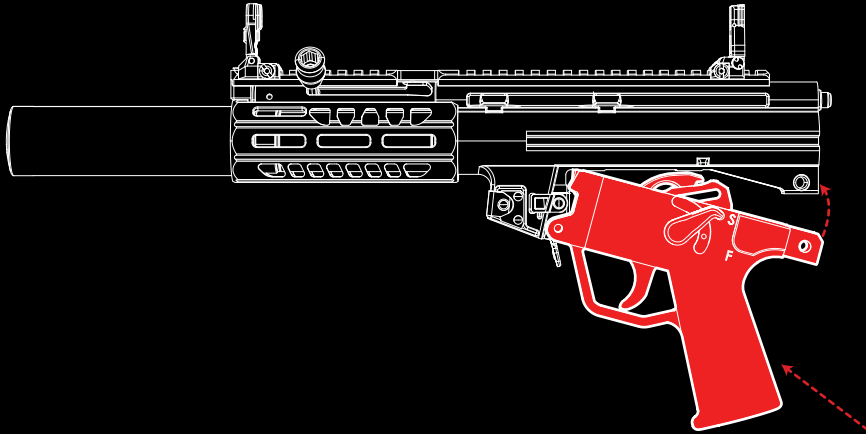
- 1) Grasp the receiver by the handguard, muzzle pointed down. Ensure the cocking handle is latched in its forward most position. Insert the complete bolt/carrier assembly with recoil spring into the rear of the receiver with the bolt head forward and recoil spring tube toward the top. Insert the bolt/carrier assembly as far as possible. See figure 27.
- 2) If the assembled bolt/carrier assembly will not enter fully into the rear of the receiver due to the bolt rollers protruding from the bolt head, remove the bolt and carrier, pull the bolt forward away from the carrier causing the rollers to retract into the bolt. Then attempt to reinstall the bolt/carrier assembly to the receiver.
- 3) When the bolt/carrier assembly is fully inserted into the rear of the receiver, with the muzzle pointed downward, release the bolt/carrier assembly. Allow gravity to fully seat the bolt/carrier assembly forward into the trunnion.
- 4) Ensure the hammer in the trigger housing is fully cocked in the downward position and the selector lever is in the safe position.

Figure 27:



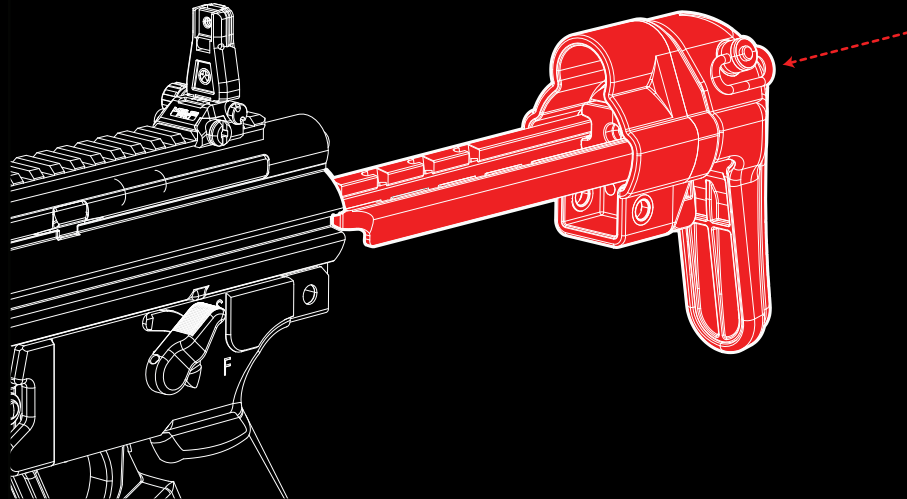
- 5) Insert the trigger housing up at an angle into the receiver so that the front of the trigger housing rests on the shelf located at the rear of the magazine well. Push forward on the back of the pistol grip until the front of the trigger housing fully seats over the shelf. Lift up on the pistol grip until the trigger housing is seated fully up against the receiver. Confirm alignment of the takedown pin hole in the trigger housing with the tube in the receiver. See figure 28.

Figure 28:



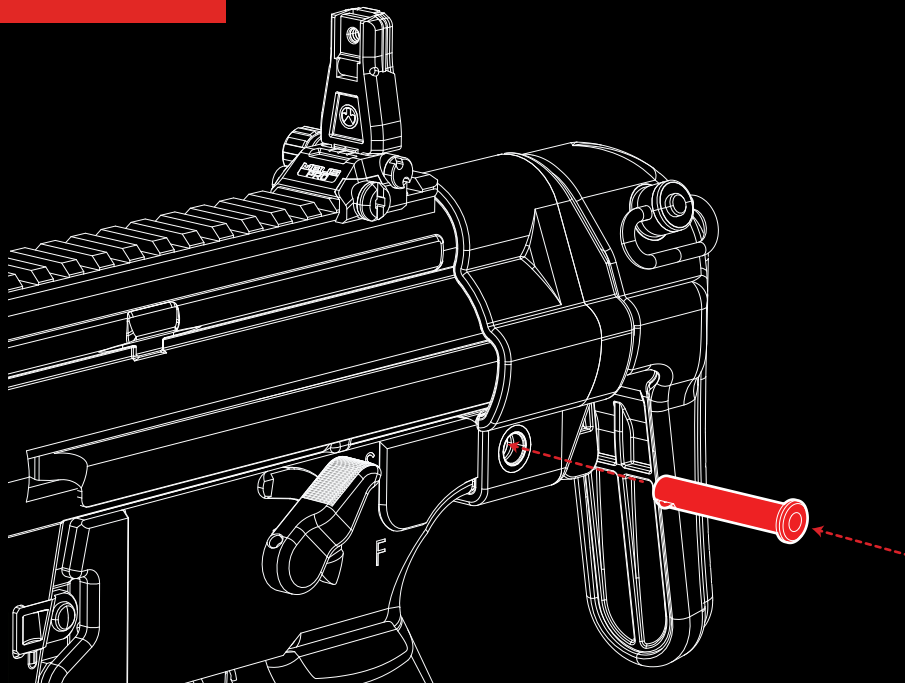
- 6) With the take down pin removed from the stock tail cap, hold the trigger housing in place, install the collapsible stock/buffer assembly onto the rear of the receiver, compressing the recoil spring until the stock is fully seated. See figure 29. **Note:** For the ease of installation, the stock should be in the collapsed configuration as shown in Figure 29.

Figure 29:



- 7) Install the rear take-down pin in its hole from the left side of the receiver. Ensure that the buttstock and trigger housing are properly retained. Pull the charging handle rearward, compressing the recoil spring to confirm the buttstock assembly is properly retained. The firearm is now fully assembled. See figure 30.

Figure 30:



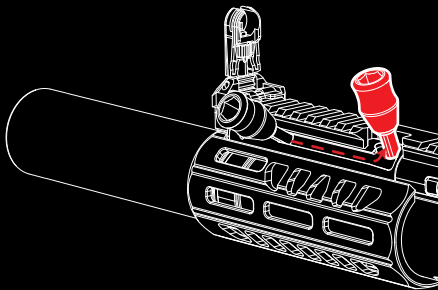
GENERAL OPERATION

- 1) Before operating the PTR 9SDM, keep the firearm pointed in a safe direction. Set the selector lever to the “safe” position (See figure 31) then remove the magazine by depressing the magazine release on the left side of the magazine well or pressing the magazine release paddle forward towards the magazine well.
- 2) Grasp the charging handle and pull the handle to the rear and lift the handle up into the retaining notch at the end of the cocking tube. See figure 32.

Figure 31:



Figure 32:



- 3) Visually and physically inspect there is no ammunition present in the chamber, on the bolt breech face or in the magazine well.
- 4) To fill a magazine, hold the magazine in either hand and use your other hand to place the first cartridge on top of the magazine follower. Ensure that the bullet end of the cartridge is pointed toward the front of the magazine. Apply downward pressure on the cartridge with your thumb until it is retained by the magazine feed lips. Load additional cartridges into the magazine using the same procedure up to the magazine's total capacity

NOTE: During cartridge loading if any bullet tips extend over the front of the magazine, seat it fully rearward before attempting to load the next cartridge.

- 5) Keep the firearm pointed in a safe direction with the selector lever in the “SAFE” position. Insert the magazine (bullets forward) fully into the PTR 9SDM magazine well while holding the firearm in one hand and the magazine in the other. After the magazine seats fully, apply rearward pressure on the magazine until a “click” is heard, tug downward on the magazine to ensure it is retained.
- 6) Pull the cocking handle slightly rearward, rotate it downward out of the retaining notch.

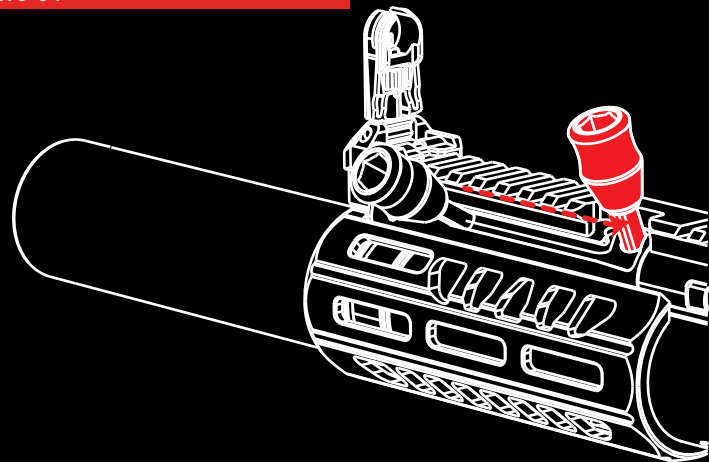
- 7) Release the cocking handle to allow the recoil spring to drive the bolt/carrier fully closed chambering the first cartridge. **NOTE:** DO NOT ride the cocking handle forward. Failure to follow this procedure will cause the round to not fully load in the chamber.
- 8) The firearm is now chambered, hammer cocked and ready to fire. Keep the firearm pointed in a safe direction and keep the safety selector lever in the "SAFE" position until you are ready to fire. See figure 33.
- 9) With one hand under the handguard and the other hand on the pistol grip of the trigger housing, point the muzzle downrange. Raise the firearm to a shooting position with the buttstock seated in the pocket formed by the shoulder. Acquire proper sight picture alignment. Rotate the selector lever to the "FIRE" position. Place your finger on the trigger and squeeze rearward. Successive shots are fired by releasing the trigger and squeezing rearward again.

Figure 33:



- 9) Keep the firearm pointed in a safe direction. Set the selector lever to the "safe" position (See figure 33) then remove the magazine by depressing the magazine release on the right side of the magazine well or pressing the magazine release paddle forward towards the magazine well.
- 10) Grasp the charging handle and pull the handle to the rear and lift the handle up into the retaining notch at the end of the cocking tube. See figure 34.
- 11) Visually and physically inspect there is no ammunition present in the chamber, on the bolt breech face or in the magazine well.

Figure 34:



SYSTEM OF OPERATION

PTR roller-delayed blowback firearms utilize one of the most unique operating systems in use today. This notable firearm system is one of the safest and most reliable of all self-loading actions.

- 1) Before firing the PTR 9SDM, a cartridge is chambered, and the bolt/carrier is fully forward. The locking piece connected to the carrier has forced the bolt head delay rollers outward into radiused pockets in the trunnion.
- 2) When the trigger is pulled the hammer falls, striking the firing pin, igniting the cartridges primer in turn igniting the gunpowder.
- 3) The resulting expansion of gas propels the bullet down the barrel until the bullet passes the slots in the 9SDM barrel, partially bleeding gas pressure into the USDA, at the same time the law of reciprocal action causes the cartridge to thrust rearward against the bolt head. Flutes in the chamber mouth allow some of the expanding gases to pass between the cartridge and chamber walls, hastening cartridge extraction.
- 4) The thrust from the cartridge case pushes the bolt head rearward.
- 5) The trunnion's radiused pockets force the rollers inward against the angled locking piece attached to the carrier.
- 6) These specific angles force the carrier rearward at a faster rate than the bolt head.

- 7) The rollers collapse fully inward and are clear of the pockets in the trunnion, the chamber pressure has been reduced to a safe level and the bolt and carrier continue rearward under momentum, extracting and ejecting the fired casing.

NOTE: The precise angle for the locking piece is carefully selected by engineers for the broadest choice of ammunition that maintains safe operation. Factors that can negatively affect proper and safe cycling are ammunition choice, barrel length and brands of suppressor that increase barrel back pressure.

- 8) The bolt/carrier group continues traveling rearward until it is stopped by the synthetic buffer in the buttstock. During the rearward travel the recoil spring is compressed, storing energy used to return the bolt/carrier forward. As the bolt/carrier accelerates forward, the bolt head strips the next cartridge presented from the magazine, feeding it into the chamber. The extractor snaps over and seats in the cartridge rim as the bolt head stops on the base of the cartridge. The carrier continues forward until the locking piece forces the rollers into the trunnion recesses.

NOTE: Bolt rebound effect is dampened by the dead-blow effect of the tungsten powder sealed in the carrier.

- 9) The trigger is released, the firing control resets, and when the trigger is pulled again, the cycle starts over.

SIGHTS

The PTR 9SDM is delivered with Picatinny Rail mounted MAGPUL MBUS Pro® Sights

MAGPUL MBUS Pro® Sights - Front, Hooded - Figure 35

MAGPUL MBUS Pro® Sights - Front, Hooded - Instructions: https://magpul.com/media/wysiwyg/Instructions/MAG1518_INSRT_MBUS_Pro_Front_092-0122-A.pdf

MAGPUL MBUS Pro® Sights - Rear - Figure 36

MAGPUL MBUS Pro® Sights - Rear - Instructions: https://magpul.com/media/wysiwyg/Instructions/MAG276_MBUS_Pro_Rear_INSRT.pdf

Figure 35:

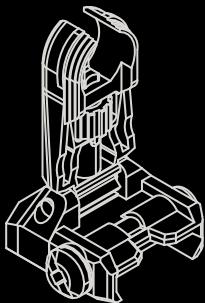
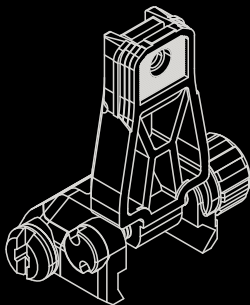


Figure 36:



FREQUENTLY ASKED QUESTIONS

1) Q: What is the normal break in period for a PTR® 9SDM?

A: Minimum of 200-300 rounds.

2) Q: What calibers are PTR 9SDM chambered for and recommended?

A: PTR 9SDM Series: PTRs have a custom chamber design for 9 x 19mm but test your ammunition for functionality.

NOTE: PTR 9SDM receivers are stamp marked "9 x 19mm". 124gr ammunition is recommended for best functioning results.

3) Q: What is the rate of twist of the PTR 9SDM barrel?

A: 1:10

4) Q: What is the pull weight of a PTR trigger?

A: 7-10 lbs.

5) Q: What is the PTR 9SDM constructed from?

A: Receiver: Stamped high strength carbon steel

Barrel: MIL-SPC 41V50 steel alloy

Handguard: Aircraft grade aluminum, with MIL-SPC anodize coating

Stock: Molded polymer or collapsing

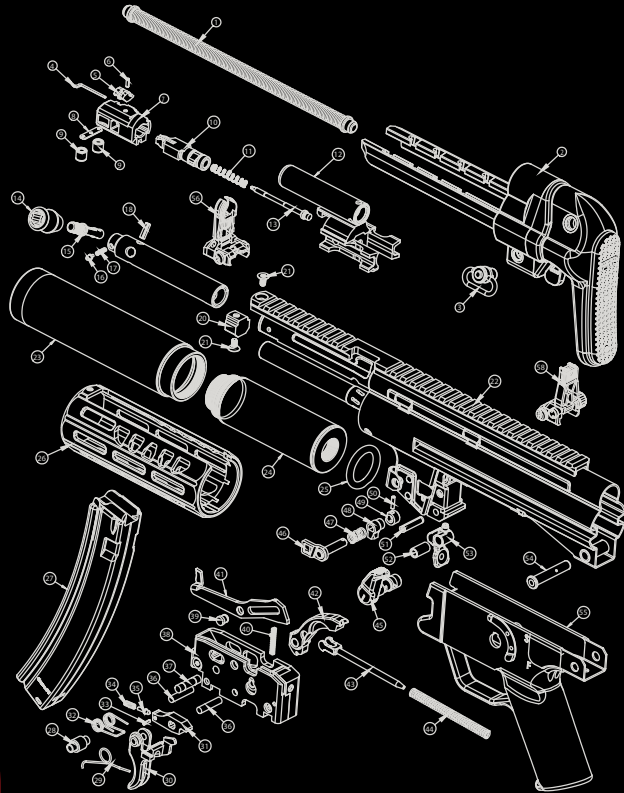
Trigger housing: Molded polymer

6) Q: Are PTR barrels chrome lined?

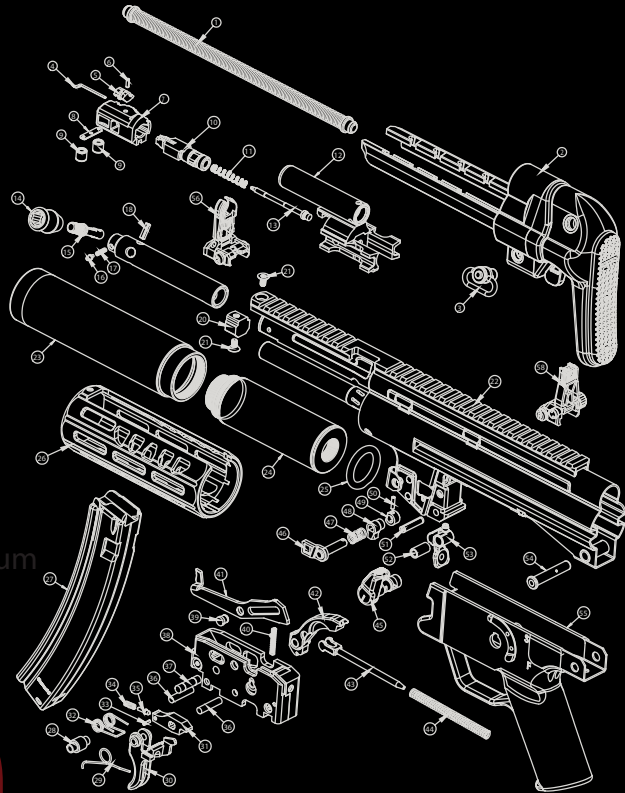
A: The PTR 9SDM barrels are Nitride coated, they are not chrome lined.

7) Q: What are the two HUB thread pattern options for the USDA pre suppressor?

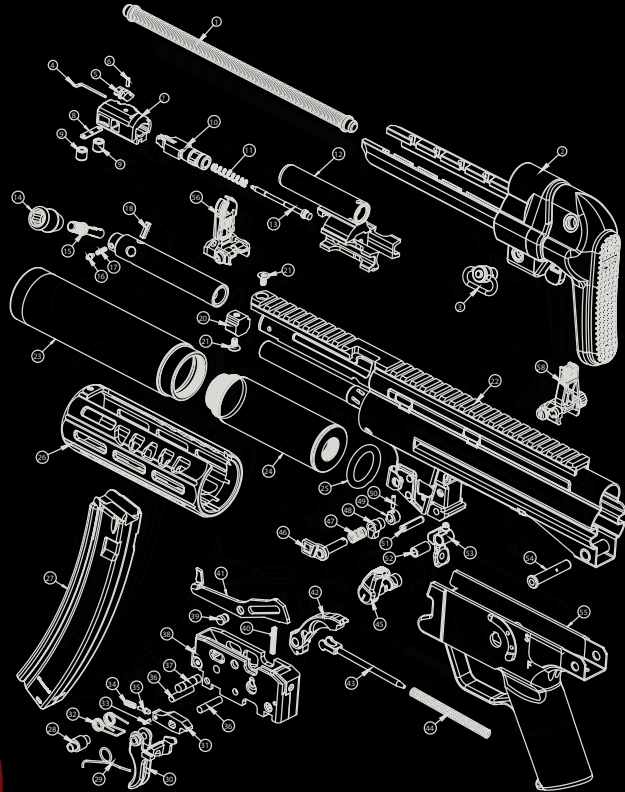
A: HUB Bravo 1.375x24 and HUB Alpha 1.125x28



ID #	PART #	DESCRIPTION	QTY
1	PDW-010444	RECOIL ROD ASSY, 9C/9R	1
2	PDW-050550	5-POS COLLAPSIBLE STOCK	1
3	PDW-000449	SLING SWIVEL, QD	1
4	AC-000209	EXTRACTOR SPRING	1
5	PDW-009208	EXTRACTOR	1
6	AC-000212	CLAMPING SLEEVE, SEAR	1
7	PDW-009207	BOLT HEAD, 9MM	1
8	AC-002211	ROLLER RETAINER, STAMPED	1
9	AC-000210	LOCKING ROLLER	2
10	PDW-002201	LOCKING PIECE, 120°	1
11	PDW-000203	SPRING, FIRING PIN, 9MM	1
12	PDW-011225	CARRIER, 9MM, COMPLETE	1
13	PDW-009202	FIRING PIN, 9MM	1
14	PDW-001138	KNOB CHARGING HANDLE, THREADED	1
15	PDW-003137	CHARGING HANDLE, THREADED	1
16	PDW-000146	CATCH BOLT, CHARGING LEVER	1
17	HW-000403	SPRING, Ø2.93 X 10.2	1
18	HW-000221	PIN, SPRING, 4MM X 12MM	1
19	SD-000136	SUPPORT, CHARGING LEVER, 9SDM	1



ID #	PART #	DESCRIPTION	QTY
20	SD-001655	FOREARM SPACER, 9SDM	1
21	HW-000048	M4-0.7 X 8 TORX FLAT-HEAD	2
22	PDW-071182	RECEIVER GROUP, 9SDM, TOP LEVEL	1
23	VSDM-0090101	PTR VENT SDM SUPPRESSOR	1
24	VU-0090101	USDA EXPANSION CHAMBER	1
25	SD-003501	SEAL O-RING, 9SDM	6
26	SD-011651	9SDM HANDGUARD ASSY	1
27	MAG-010003	9 X 19MM MAGAZINE	2
28	AC-000377	BUSHING, SEAR SPRING	1
29	AC-000348	SPRING, TRIGGER	1
30	AC-001345	TRIGGER, UNIBODY	1
31	AC-000356	SEAR	1
32	AC-001380	SPRING, ELBOW	1
33	AC-000212	CLAMPING SLEEVE, Ø2MM X 6.8MM	1
34	AC-000358	SPRING, SEAR	1
35	AC-000357	TRIGGER BOLT	1
36	AC-000340	PIN, TRIGGER & BUSHING	2
37	AC-000361	PIN, HAMMER	1
38	PDW-010386	TRIGGER BOX ASSY, SEMI-AUTO, STEEL	1



ID #	PART #	DESCRIPTION	QTY
39	AC-000335	EJECTOR PIVOT	1
40	AC-000337	SPRING, EJECTOR	1
41	PDW-000339	EJECTOR LEVER, 9MM	1
42	AC-001362	HAMMER, SEMI	1
43	AC-000363	PRESSURE FORK	1
44	PDW-000364	SPRING, HAMMER, 9MM	1
45	PDW-010317	SAFETY SELECTOR ASSY	1
46	PDW-001122	MAGAZINE CATCH, 9MM	1
47	AC-000125	SPRING, CONTACT	1
48	AC-000126	CONTACT PIECE	1
49	AC-000127	PUSH BUTTON	1
50	AC-000124	CLAMPING SLEEVE, Ø2.5 X 10	1
51	HW-000227	PIN, SPRING COIL, 5MM X 22MM	1
52	AC-002131	BUSHING, MAG RELEASE	1
53	AC-011131	MAG RELEASE LEVER ASSY	1
54	AC-010009	STOCK RETAINING PIN SUB-ASSY	1
55	PDW-030320	PISTOL GRIP, BLACK	1
56	MAG1518	MBUS PRO HOODED SIGHT FRONT	1
57	MAG276	MBUS PRO SIGHT REAR	1

PTR® INDUSTRIES LIMITED LIFETIME WARRANTY

LIMITED LIFETIME WARRANTY: PTR® Industries, Inc. (PTR®) firearm and firearm related products are warranted against defects in materials and/or workmanship under normal and intended use to the original product purchaser (Purchaser) for the lifetime of the product, provided they are properly registered and maintained in accordance with this Owner's Manual.

This Limited Warranty applies only if the Product was: a) purchased from an Authorized PTR Industries Dealer in the United States; b) properly registered by completing the warranty registration form and submitting it to PTR Industries within 60 days of purchase. This can be done either on the PTR website, <https://www.ptr-us.com/register-product/> or by completing and returning the enclosed warranty card to PTR; and c) Properly maintained in accordance with this Owner's Manual. A product otherwise subject to this Limited Lifetime Warranty that has not been properly and timely registered with PTR is covered by this Limited Lifetime Warranty for a period of one year from the date of purchase or receipt by the original retail purchaser, whichever is later.

REMEDIES: PTR Industries will, in its sole discretion, repair or replace any firearm (Product) that fails due to a defect in materials or workmanship. All warranty covered repairs are Free of Charge (FOC). This Limited Warranty and its remedies are provided in lieu of any and all other warranties, whether express or implied. Any product or component that is replaced under warranty must be returned to PTR and becomes the property of PTR.

This PTR Industries Limited Warranty supersedes any and all terms or conditions asserted by the purchaser, and it provides the sole and exclusive remedy in lieu of all other rights and remedies, including but not limited to implied warranties such as implied warranties of merchantability or fitness for a particular purpose, as well as any contract rights, tort, negligence, strict liability, and other remedies expressed or implied at law or in equity, and in no event shall PTR be liable for special, indirect, incidental, economic or consequential damages, loss or damage to property other than the product itself, loss of use of property, loss of profits, business interruption, punitive damages, contribution, indemnification, or other losses, whatever the cause, including the fault or negligence of PTR.

EXCLUSIONS: This Limited Warranty does not cover defects or damage that are the result of normal wear and tear, as determined by PTR® Industries in its full discretion, unreasonable use, damage to the suppressor from modification of the product, unauthorized repairs to the product, improper installation of original PTR parts, installation of non-PTR parts, use of substandard or improper ammunition and/or ammunition not manufactured to NATO and/ or SAAMI specifications, use of the product with an incompatible firearm, rust, corrosion or obstructions in the barrel, improper transportation of the product, misuse, neglect or abuse of the product, improper maintenance, failure to follow the instructions in the product manual including cleaning and break in, or criminal activity. PTR reserves the right to determine what constitutes unreasonable use of the Product.

PTR® Industries assumes no responsibility for misuse, neglect, abuse, irresponsible and/or careless handling, modification/adjustments of/to the suppressor and/or suppressor related products and will not honor claims of damages, regardless of the nature, for physical injury or property damage as a result. This warranty applies only to the repair or replacement of the Product and only when the Product is properly handled and maintained according to the manufacturer's instructions. Purchaser must notify PTR within thirty (30) days of noticing a defect. PTR reserves the right to change the warranty period without notice and without incurring obligation expressly disclaims all warranties not stated in this limited warranty.

SPECIAL LIMITATIONS ON TERM: Products purchased by law enforcement, military, and similar organizations for duty use, are required to contact PTR Industries for warranty information. Any product purchased for personal use and used for commercial use by law enforcement, military, and similar organizations is excluded from a lifetime term and is covered by a limited one-year warranty.

If any implied warranty or other right or remedy is deemed to exist in addition to this Limited Warranty, its duration shall be no longer than one year. If any part of this Limited Warranty is deemed to be not legal or enforceable, the remainder shall be given full force and effect. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you

may have other rights, which vary from state to state. This Limited Warranty is the only express warranty by PTR® Industries.

If unwarranted repairs to the firearms are necessary due to any of the reasons outlined above, the cost incurred will be invoiced to the owner. The owner will maintain the right to approve the work before it commences.

WARRANTY CLAIMS: To make a warranty or repair inquiry, you first need to ensure you have registered your firearms on our website, <https://www.ptr-us.com/register-product/> or completed and returned the enclosed warranty card to PTR, within 60 days of purchase. Once the product registration has been completed, please fill out the warranty claim form on the PTR website, <https://www.ptr-us.com/warranty/>. Once the warranty claim form is completed, PTR will email you a Return Material Authorization Number (RMA#) and specific instructions on how to return the product. PTR® Industries will pay any reasonable shipping costs if the issue is covered under the warranty.

If you have questions regarding the warranty inquiry process outlined above, please contact PTR Industries customer service team by visiting www.ptr-us.com/contact/, call: 843- 358-2222 x300, or email: cs@ptr-us.com

DO NOT send or ship a suppressor to PTR Industries for repair or replacement without first receiving authorization from PTR Industries customer service team.

 CAUTION

DO NOT send any live ammunition with the firearm. Further, no shipment(s) will be accepted without a valid RMA and no C.O.D. shipments will be accepted.

Failure to follow these instructions may void this warranty at PTR Industries' discretion.

 DISCLAIMER

DISCLAIMER: THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED, EXPRESSED, ORAL OR WRITTEN WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ACCURACY OF ANY INFORMATIONAL CONTENT. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL PTR® BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, ECONOMIC OR CONSEQUENTIAL DAMAGES, LOSS OR DAMAGE TO PROPERTY OTHER THAN THE PRODUCT ITSELF, LOSS OF USE OF PROPERTY, LOSS OF PROFITS, BUSINESS INTERRUPTION, PUNITIVE DAMAGES, CONTRIBUTION, INDEMNIFICATION, OR OTHER LOSSES, WHATEVER THE CAUSE, INCLUDING THE FAULT OR NEGLIGENCE OF PTR. PRODUCTS, SPECIFICATIONS PRICES, AND AVAILABILITY ARE SUBJECT TO CANCELLATION OR CHANGE AT ANY TIME WITHOUT NOTICE.

PTR® SHALL NOT BE RESPONSIBLE FOR THE PROPER FUNCTION OF THE FIREARM WHEN IT IS USED FOR PURPOSES, OR SUBJECTED TO TREATMENT, FOR WHICH IT WAS NOT INTENDED. PTR WILL NOT HONOR CLAIMS WHICH MAY RESULT FROM CARELESS OR IMPROPER HANDLING, UNAUTHORIZED ADJUSTMENTS, OR PARTS REPLACEMENT, CORROSION, NEGLIGENCE, USE OF THE WRONG TYPE OR CALIBER OF AMMUNITION, OR THE USE OF AMMUNITION OTHER THAN ORIGINAL, HIGH QUALITY, COMMERCIALY MANUFACTURED AMMUNITION IN GOOD CONDITION, OR ANY COMBINATION THEREOF.



OWNERS MANUAL | PTR 9SDM



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