



OWNER'S MANUAL | PTR® 63



FOR PATENT(S) INFORMATION VISIT www.ptr-us/patents/

WARNINGS/SAFETY.....	2	FIREARM DISASSEMBLY PROCEDURES.....	17
INTRODUCTION AND FEATURES.....	6	BOLT/CARRIER DISASSEMBLY PROCEDURES.....	19
COMPONENTS AND SPECIFICATIONS.....	7	REASSEMBLY PROCEDURES.....	22
SPECIFICATIONS.....	7	BOLT/CARRIER REASSEMBLY PROCEDURES.....	22
MAJOR COMPONENTS.....	8	FIREARM REASSEMBLY PROCEDURES.....	25
NOMENCLATURE AND DESCRIPTION.....	9	USE OF YOUR PTR® 63 FIREARM.....	28
SELECTOR POSITIONS.....	12	GENERAL OPERATION.....	28
OPERATION AND MAINTENANCE.....	13	SIGHTING AND ADJUSTMENT OF THE REAR SIGHT.....	31
INITIAL CLEANING AND BREAK IN.....	13	ELEVATION ADJUSTMENT.....	32
BREAK IN PROCEDURES.....	13	WINDAGE ADJUSTMENT.....	33
GENERAL MAINTENANCE.....	13	FREQUENTLY ASKED QUESTIONS.....	34
AMMUNITION.....	14	PTR® 63 FIREARM EXPLODED VIEW/PARTS LIST.....	35
DISASSEMBLY PROCEDURES.....	15	LIMITED LIFETIME WARRANTY.....	39
CLEARING.....	15		



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's 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) Don't 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

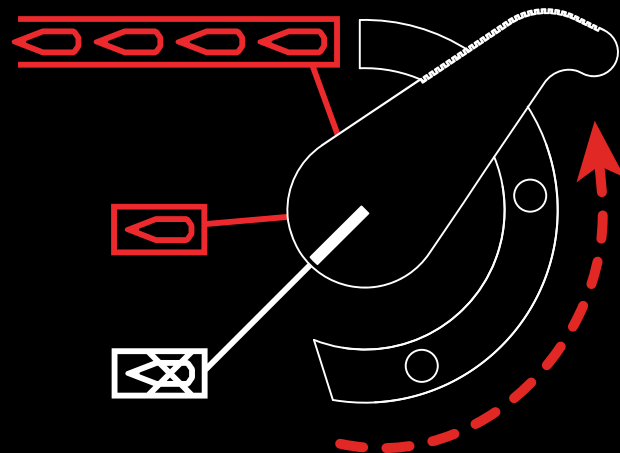
WARNING: It is your responsibility to assure that your firearm is handled, fired, and always stored safely and responsibly, failure to do so may result in death, severe injury, and/or property damage.

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: Safe



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 secured. 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 63, proudly manufactured in the United States. The PTR 63 utilizes the roller-delayed blowback system PTR has been manufacturing in the US for decades. The PTR 63 is a new rifle, with many improvements over the original legacy firearm. Here are just a few:

FEATURES

- An improved bolt head, tungsten loaded carrier and buffer system.
- The bolt head and extractor functions like a traditional legacy pattern 5.56mm rifle. This brings the design in line with bolt heads used on other PTR 9mm and 7.62mm firearms.
- The tungsten loaded bolt carrier operates as a dead blow weight to minimize bolt bounce that would otherwise affect functioning. The bolt carrier is also NFA registered sear pack ready, for those possessing a legally registered sear, all NFA rules apply.
- The buffer system is upgraded to reduce felt recoil.
- The PTR 63 adds a paddle magazine release along with the side button magazine release for familiarity of operation with other legacy PTR models.
- The bolt hold open/release located on the left side of the receiver holds the bolt to the rear after the last cartridge in the magazine is fired. Pressing the bolt release paddle allows the bolt to travel forward without the need to manipulate the charging handle. The bolt hold-open can be manually operated to lock the bolt to the rear when used in conjunction with the charging handle.
- The 5.56mm barrel muzzle is threaded 1/2"-28 to enable the use of a variety of aftermarket flash hiders, muzzle brakes, and suppressors including the groundbreaking PTR VENT® 3 and VENT Spiritus 5.56i suppressor.
- The PTR 63 trigger housing has the same function as other PTR firearms with the added benefit of being able to change out the AR pattern pistol grip for other AR style grips for user comfort.
- A modern picatinny rail replaces the dedicated and often expensive factory claw optic mounts, allowing a wider range of scope and red dot options for the user.

PTR® 63 SPECIFICATIONS

CALIBER: 5.56x45mm

MAGAZINE: 30Rd Standard AR 15 pattern with optional low-capacity versions to meet state requirements

OPERATING PRINCIPLE: Roller-delayed blowback

ACTION: Semiautomatic

OVERALL LENGTH: 38"

CARBINE BARREL LENGTH: 16.25"

SIGHTS: Front hooded post, rear rotary drum sight with adjustments for windage and elevation.
Marked for 100, 200, 300, and 400 yards. 6.9" Picatinny rail for optional sighting systems

Each PTR firearm is shipped with the following:

Owner's manual | Warranty card | Trigger lock or cable lock

MAJOR COMPONENTS

Figure 2:



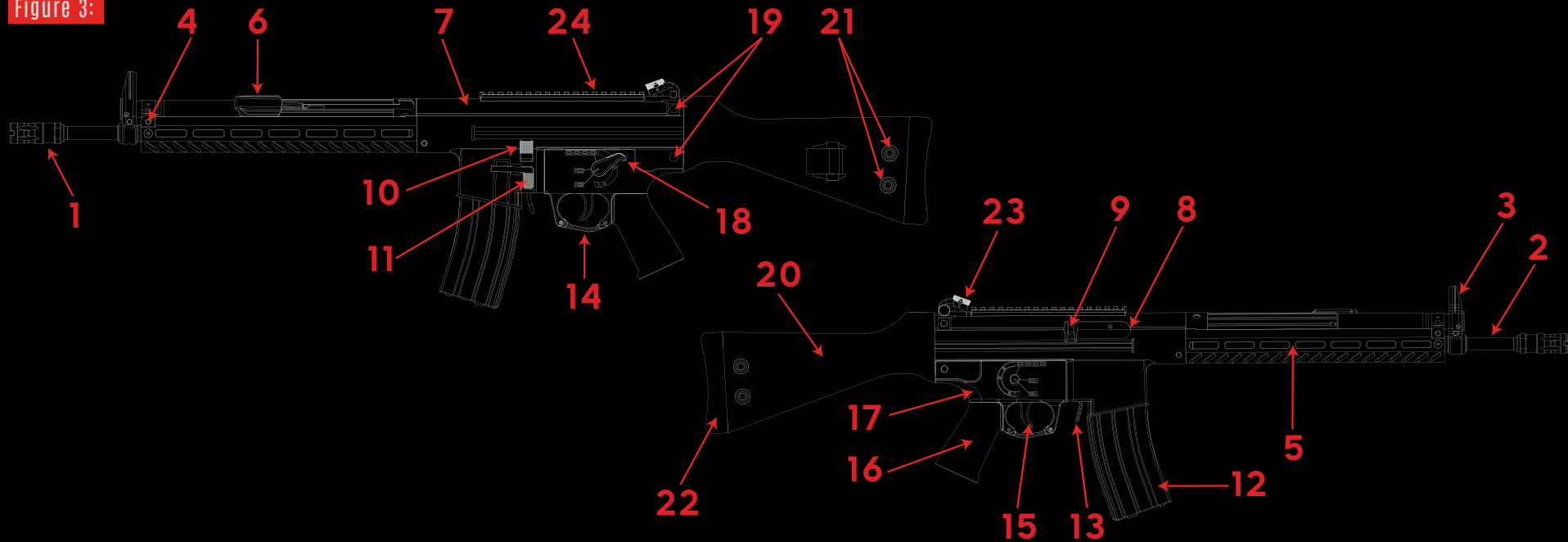
PTR® 63 MAJOR ASSEMBLY GROUPS

(See figure 2)

- 1) Receiver assembly with barrel and handguard
- 2) Bolt/carrier group with recoil spring assembly
- 3) Stock/buffer assembly
- 4) Trigger group
- 5) Magazine

NOMENCLATURE AND DESCRIPTIONS

Figure 3:



NOMENCLATURE & DESCRIPTION (See figure 3 on page 9)

- 1) Flash Hider - Bird cage style flash hider with crush washer.
Barrel thread pitch is 1/2" - 28 RH.
- 2) Barrel Assembly - Free floating 16.25" button broached 5.56mm NATO barrel with standard lands and grooves rifling (1 in 7" twist (178mm).
- 3) Front Sight - Hooded fixed front is mounted to the barrel.
- 4) Handguard Bolt - 5mm Allen bolt threaded through the cocking tube clevis and retains the M-LOK® handguard.
- 5) Handguard - M-LOK® handguard uses industry standardized mounting slots for a variety of accessories including forward grips, lights, lasers, bipods, sling attachments, and STD-1913 (Picatinny) rail segments.
- 6) Charging Handle - The non-reciprocating oversize charging handle on the PTR® 63 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, or it can be used in conjunction with the bolt catch to manually lock the bolt back.
- 7) Receiver - The receiver is made from stamped and welded high-strength carbon steel. The receiver is Parkerized and powder coated for a durable exterior finish.
- 8) Ejection Port - Located on the right side of the receiver.
- 9) Case Deflector - Located at the rear of the ejection port and redirects fired cartridge cases away from the operator.
- 10) Bolt Catch/Release - Activated manually or by an empty magazine, the bolt will remain to the rear until the top of the bolt catch/release is depressed towards the receiver.
- 11) Magazine Catch/Release - Retains a magazine inserted in the magazine well and releases the magazine when the lever is pushed towards the receiver.
- 12) Magazine - Stores ammunition for feeding into the firearm. The PTR 63 is provided with a STANAG 30-round aluminum magazine with a Magpul™ anti-tilt follower.
- 13) Paddle Mag Release - Forward actuating magazine release behind magazine well. An auxiliary magazine release utilizing the same muscle memory on legacy PTR 7.62mm and 9mm systems.

- 14) Trigger Guard - AR pattern trigger guard that can be replaced with aftermarket options to suit the user's taste. Can be folded down for winter glove use.
- 15) Trigger - The wide curved trigger bow encourages repeatable trigger finger placement for consistent pull weight.
- 16) Pistol Grip - The AR pattern pistol grip is removable and interchangeable with other AR pistol grips.
- 17) Trigger Housing - Contains the fire control components and utilizes pictogram markings to indicate selector lever placement.
- 18) Safety/Selector Lever - Located on the left side of the trigger housing, it is manually operated to select the mode of fire and to place the firearm on safe.
- 19) Rear Takedown Pins - Takedown pins are removed by pushing from right to left and allows the buttstock and trigger housing to be removed. For pin storage see Item 21. When reassembling the firearm, the takedown pins should be inserted from left to right.
- 20) Buttstock Assembly - The fixed length stock contains the recoil buffer assembly and has a sling loop on the left side.
- 21) Pin Storage - Two riveted tubes pass through the rear sides of the buttstock reinforcing the assembly and providing temporary takedown pin storage.
- 22) Butt Pad - It is a fixed butt pad that is replaceable.
- 23) Rear Sight - A drum style diopter sight is mounted at the rear of the receiver allowing rapid transition from 100 to 400 meters. The sight can be zeroed for elevation and windage using a sight adjustment tool.
- 24) Picatinny Rail - This modern standardized optic rail is welded to the top of the receiver.

SELECTOR POSITIONS

The PTR® 63 selector lever is situated on the left side of the trigger housing. The three positions are Safe, Semi-Automatic, and Automatic.

Safe Position - The white indicator line on the selector lever points to the white line leading to the closed white box containing a bullet symbol with an "X" over it. See figure 4.

Semi-automatic - The white indicator line on the selector lever points to the red line leading to the closed red box containing a single bullet symbol. See figure 5.

Automatic - The white indicator line on the selector lever points to the red line leading to the open-ended red box containing four (4) bullet symbols. Note: This only functions with NFA-registered sear packs, for those possessing a legally registered sear. All NFA rules apply. See figure 6.

Figure 4: Safe

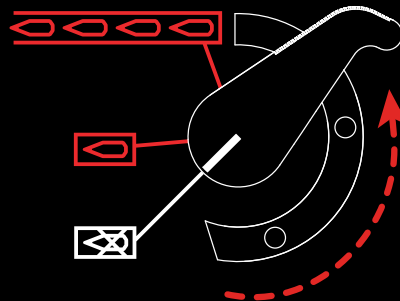


Figure 5: Semi-automatic

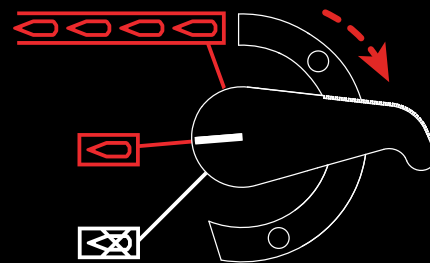
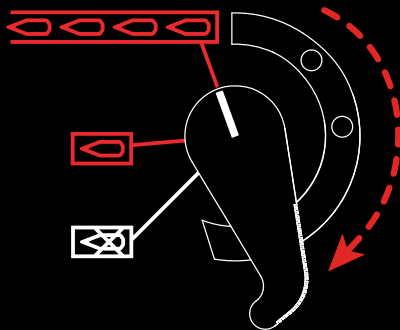


Figure 6: Automatic



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® 63 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 smooth out the action.

BREAK IN PROCEDURES

Fire 20 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 5.56 chamber brush. Finish cleaning the chamber and bore with a wet patch and then enough dry patches to completely remove any solvents or debris. Repeat this procedure until you have reached the suggested 200-300 rounds.

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.

AMMUNITION

PTR® sells firearms chambered in various calibers. It is vital that you understand your firearms cartridge nomenclature and only fire cartridges for which your purchased firearm was designed. To assist you, the name of the appropriate cartridge will be stamped on the receiver.

CAUTION

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

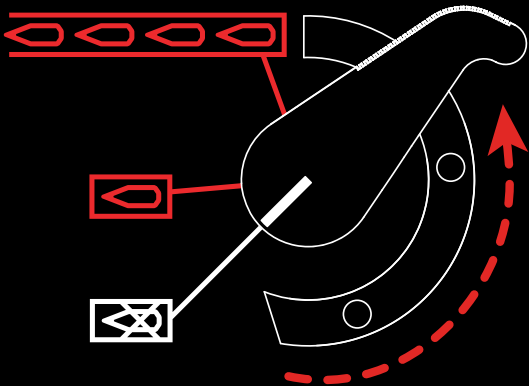
PTR recommends only using new, original, high quality commercially manufactured ammunition in good condition. PTR will not honor claims which may result from careless or improper handling, unauthorized adjustments, unauthorized parts replacement, corrosion, neglect, or the use of the wrong type or caliber 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. PTR strongly recommends before purchasing large quantities of a specific ammunition that you purchase and test a small sample for functionality.

CLEARING

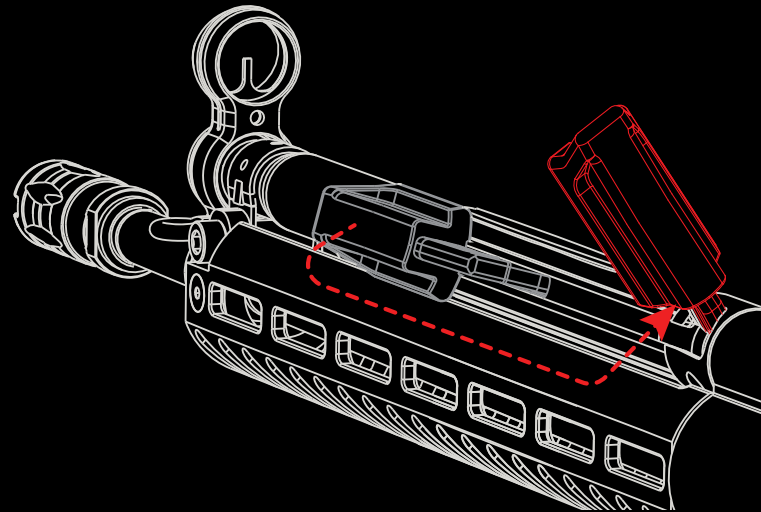
- 1) Before beginning disassembly, keep the firearm pointed in a safe direction. Set the selector lever to the "safe" position then remove the magazine by depressing the magazine release on the left side of the magazine well or pressing the magazine release paddle forward towards the magazine well. See figure 7.

Figure 7:



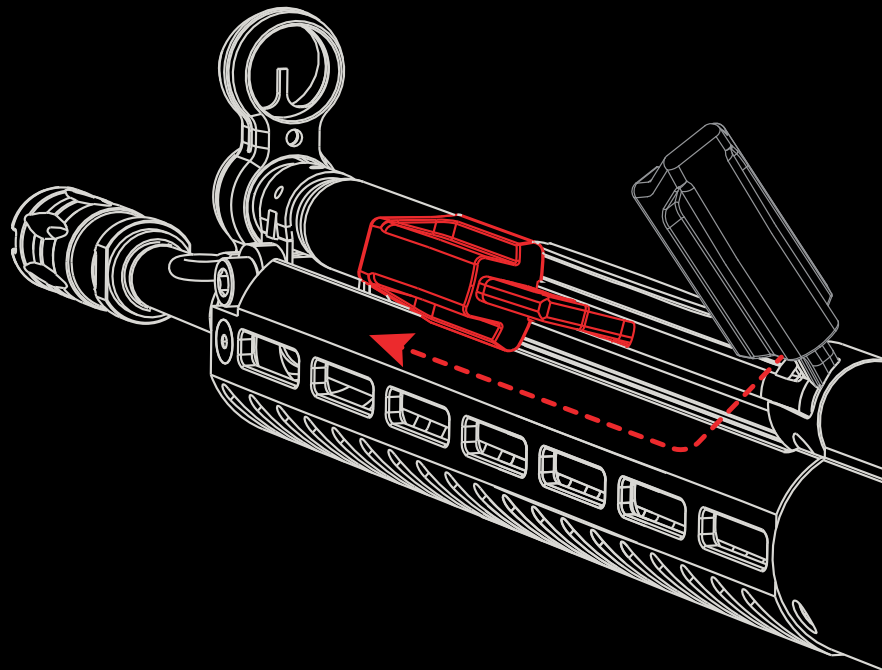
- 2) Grasp the charging handle, fold it out to the left. Pull the handle to the rear and lift the handle up into the retaining notch at the end of the cocking tube. See figure 8.

Figure 8:



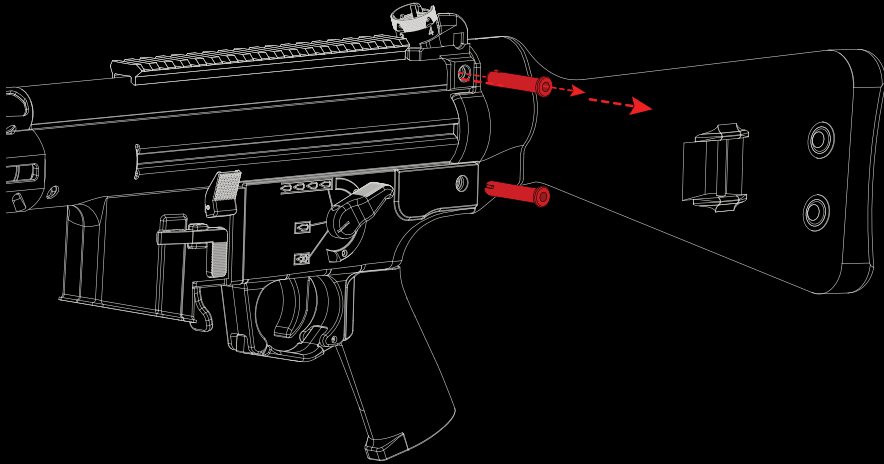
- 3) Visually and physically inspect there is no ammunition present in the chamber, on the bolt breech face or in the magazine well.
- 4) Remove any accessories that interfere with further disassembly or may get damaged.
- 5) When the firearm is confirmed as clear of any ammunition, pull the charging 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 9.

Figure 9:

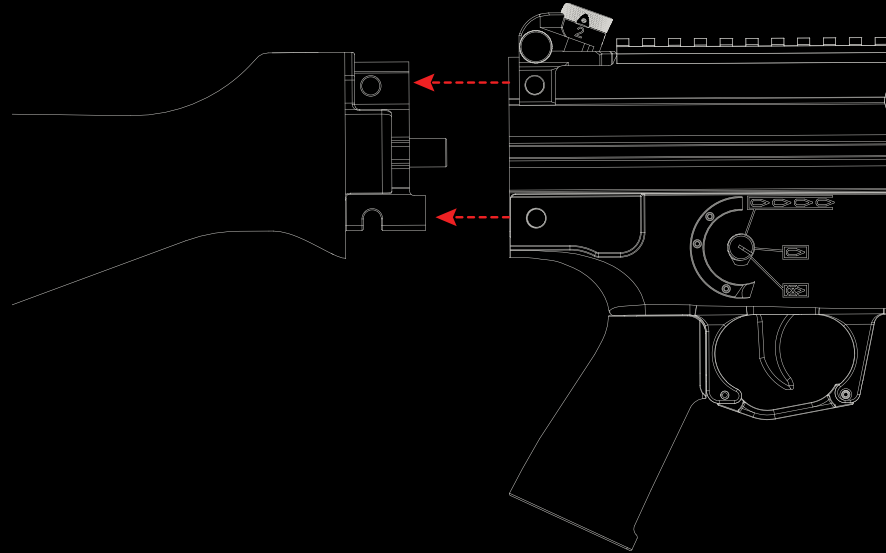


FIREARM DISASSEMBLY PROCEDURE

- 1) Remove the two takedown pins forward of the buttstock by pushing from right to left. **NOTE:** On fixed stock model PTR 63, the pins may be stored in the riveted tubes located in the side of the buttstock. See figure 10.

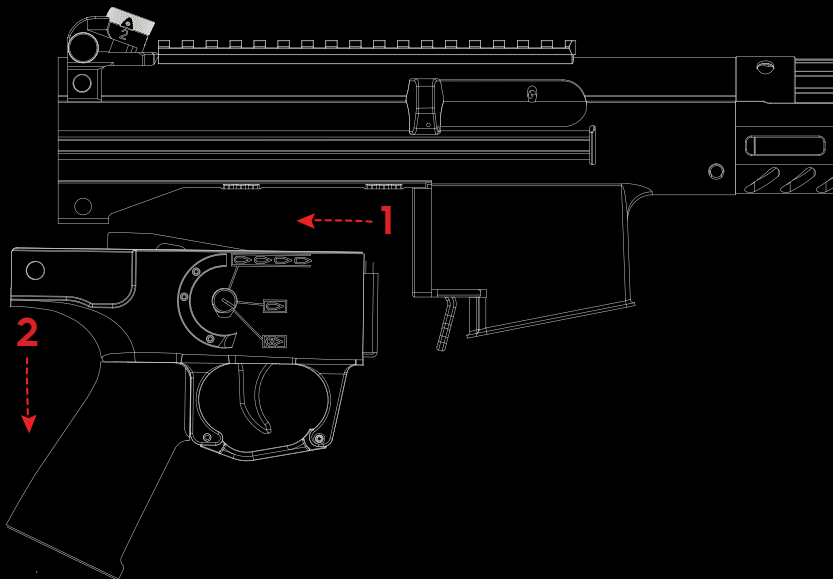
Figure 10:

- 2) The buttstock assembly with recoil buffer is now removed by pulling rearward out of the receiver. See figure 11.

Figure 11:

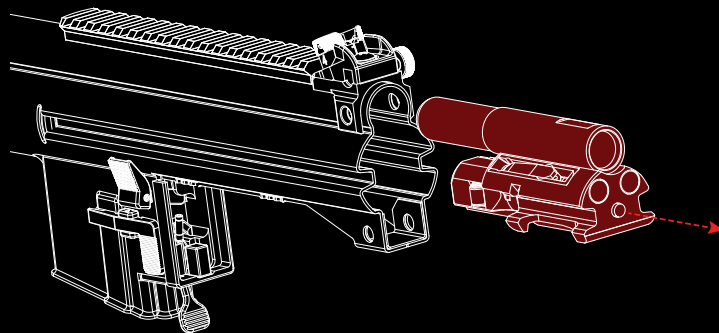
- 3) Grasp the trigger housing by the pistol grip and pull rearward to disengage from the pivot block at the rear of the magazine well, then pivot downward and out of the receiver. See figure 12.

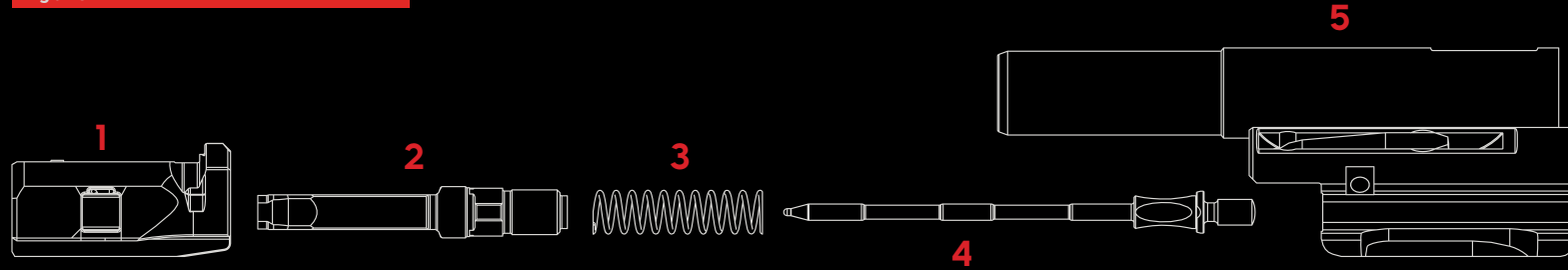
Figure 12:



- 4) Withdraw the recoil spring assembly from the rear of the receiver.
- 5) Grasp the charging handle, fold it out to the left, then pull it SLOWLY to the rear. This will release the bolt rollers from the trunnion and the bolt carrier will further 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 onto the ground. See figure 13.

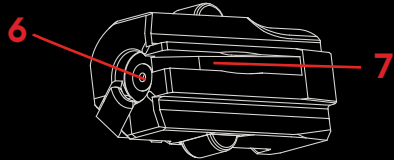
Figure 13:



BOLT/CARRIER DISASSEMBLY PROCEDURES**Figure 14:****COMPONENTS**

(See figure 14)

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

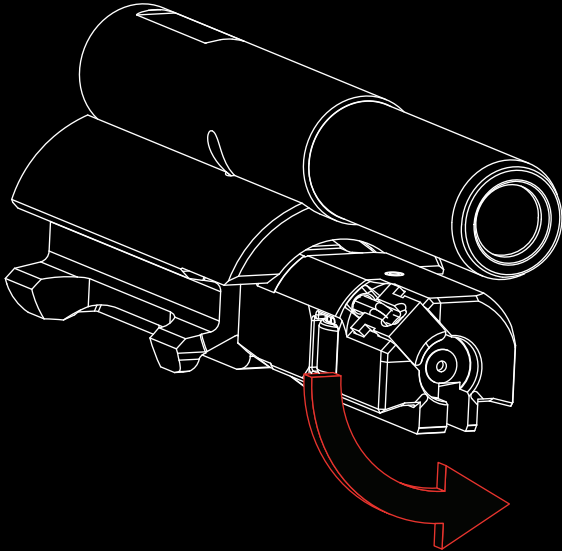
Figure 15:**BOLT HEAD**

(See figure 15)

- 6) Bolt Face
- 7) Ejector Slot Cut

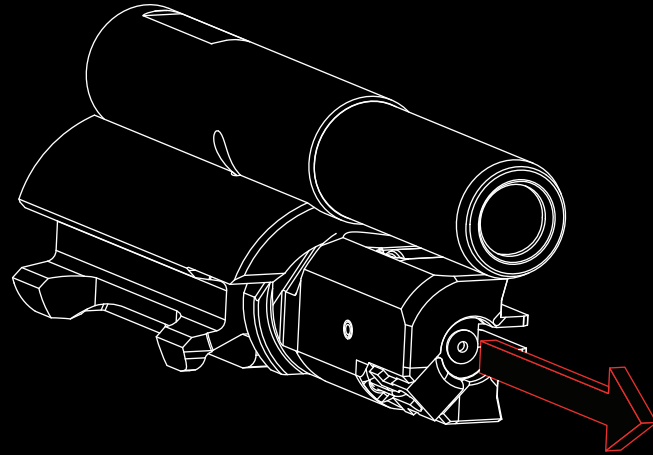
- 1) Grasp the bolt/carrier assembly by the carrier in one hand, with the bolt face towards you.
- 2) Grasp the bolt head with the opposite hand and rotate the bolt head 90° counterclockwise in relation to the carrier. See figure 16.

Figure 16:



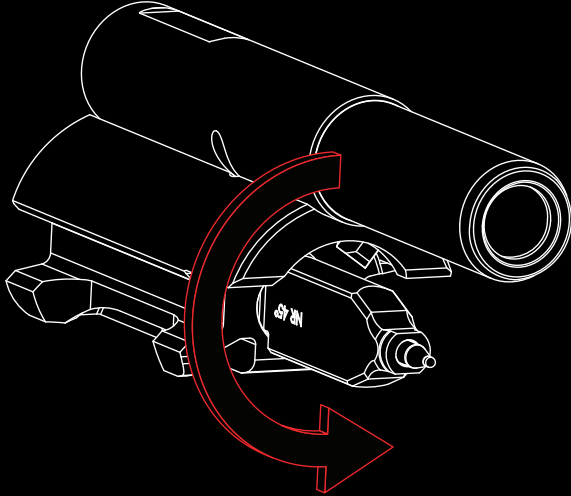
- 3) Pull the bolt head forward off the locking piece remaining in the carrier. Set the bolt head aside. See figure 17.

Figure 17:



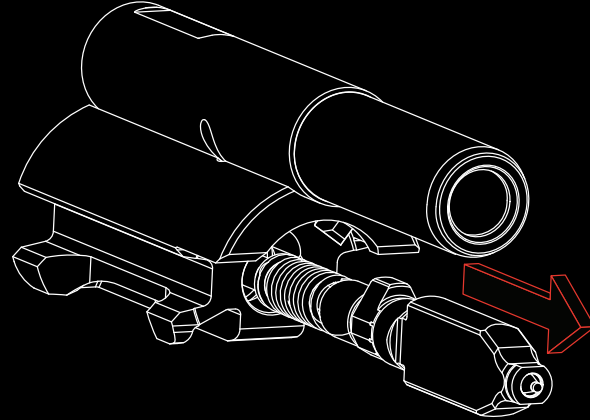
- 4) Grasp the exposed locking piece with your free hand. Push the locking piece towards the carrier and slowly rotate it counterclockwise an additional 180° until the retaining lug on the locking piece clears the recess in the bolt carrier. The locking piece will move forward under firing pin spring pressure. See figure 18.

Figure 18:



- 5) Remove the locking piece, firing pin and firing pin spring from the bolt carrier. See figure 19.

Figure 19:

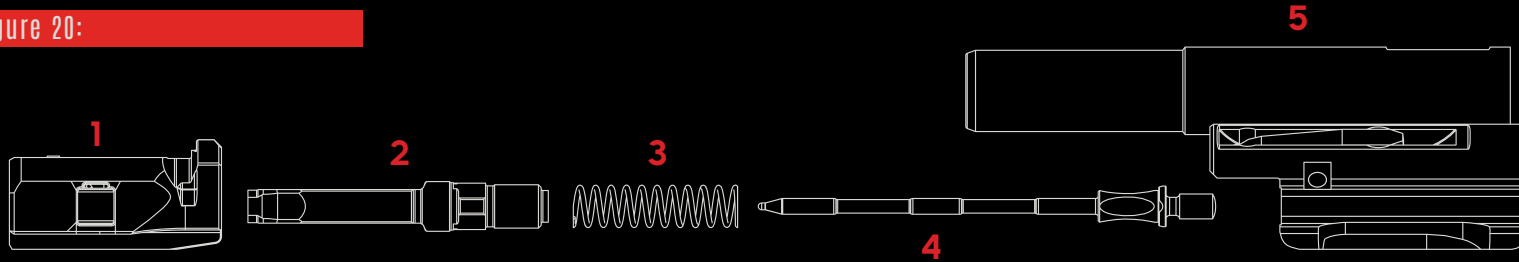


No further disassembly of the firearm is either necessary, or recommended, beyond this point.

Any repair or maintenance procedure that requires further disassembly of the firearm should be referred to a qualified gunsmith.

BOLT/CARRIER REASSEMBLY PROCEDURES

Figure 20:



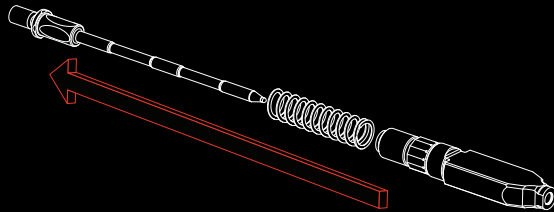
COMPONENTS

(See figure 20)

- 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. See figure 21.

Figure 21:



- 2) Insert the nose of the firing pin into the rear of the locking piece.

- 3) Hold the bolt carrier in one hand with the recoil spring tube at the top and the locking piece opening facing you.
- 4) 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 top. See figure 22.
- 5) Compress the firing pin spring by pressing the locking piece into the carrier and turning the locking piece 135° clockwise as viewed from the front of the carrier. See figure 23 and 24.

Figure 22:

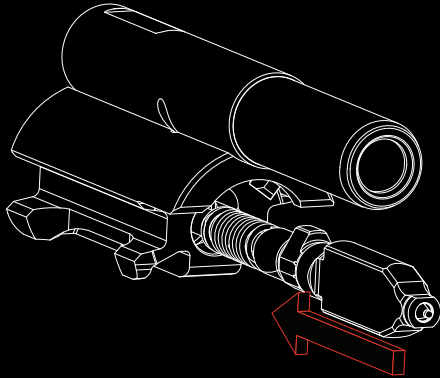


Figure 23:

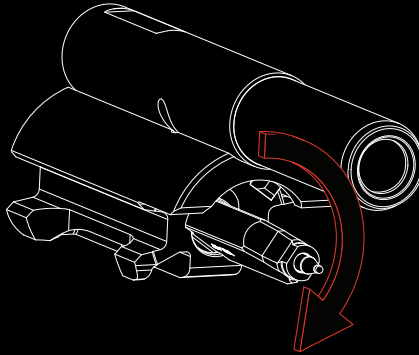


Figure 24:

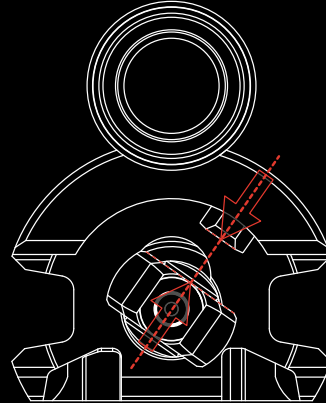
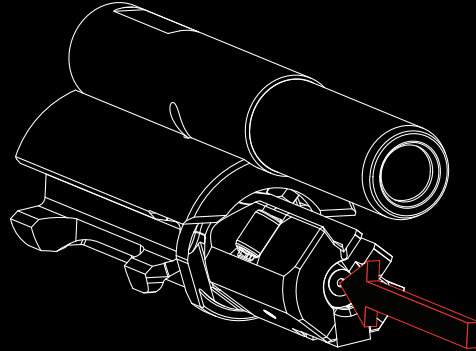


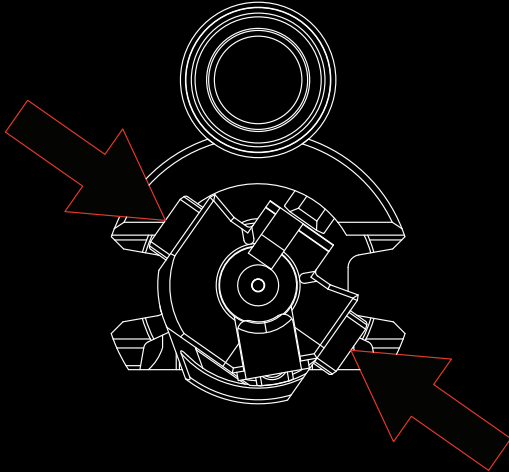
Figure 25:



- 6) With your free hand, slide the locking piece recess in the rear of the bolt head onto the locking piece, with the ejector slot cut on the bottom of the bolt head up towards bolt head locking lever. See figure 25.
- 7) Press the bolt head against the bolt head locking lever until the rear of the bolt head snaps past the lever and seats fully against the bolt carrier.

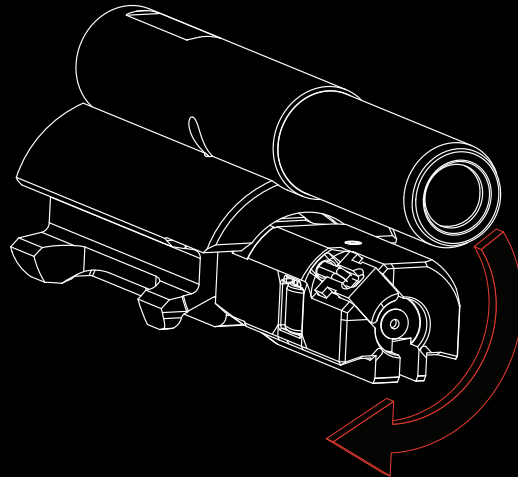
- 8) With your thumb and index finger, squeeze both the bolt head rollers inward on the bolt head to force the bolt head forward slightly, creating a gap between the rear of the bolt head and the bolt carrier. See figure 26.
- 9) Maintaining a firm grip on the carrier and the bolt head while compressing the rollers, rotate the bolt head clockwise as viewed from the bolt face. Stop when the ejector slot cut on the bottom of the bolt head is aligned with the bottom of the bolt carrier. See figure 27.

Figure 26:



- 10) Finish by pulling the bolt head as far forward as possible, ensuring the rollers are flush or below flush with the sides of the bolt.
- 11) The bolt carrier assembly is now ready to be installed in the receiver.

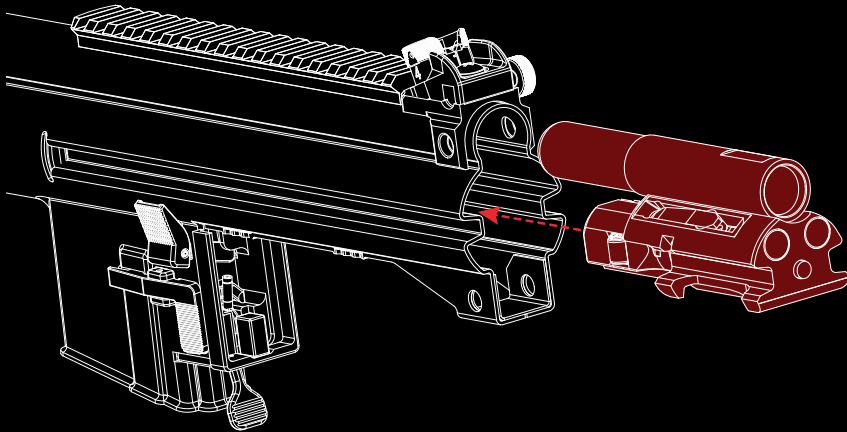
Figure 27:



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 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 28.

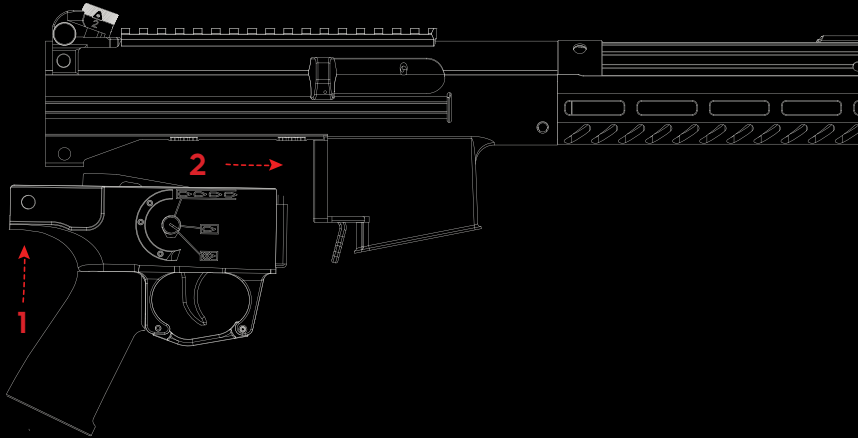
Figure 28:



- 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, follow the previous instructions to disassemble and reassemble the bolt and carrier properly. 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) Insert the recoil spring assembly into the top/rear of the receiver so that it enters fully into the recoil spring tube at the top of the bolt carrier.
- 5) Ensure the hammer in the trigger housing is fully cocked in the downward position and the selector lever is in the safe position. See figure 29.

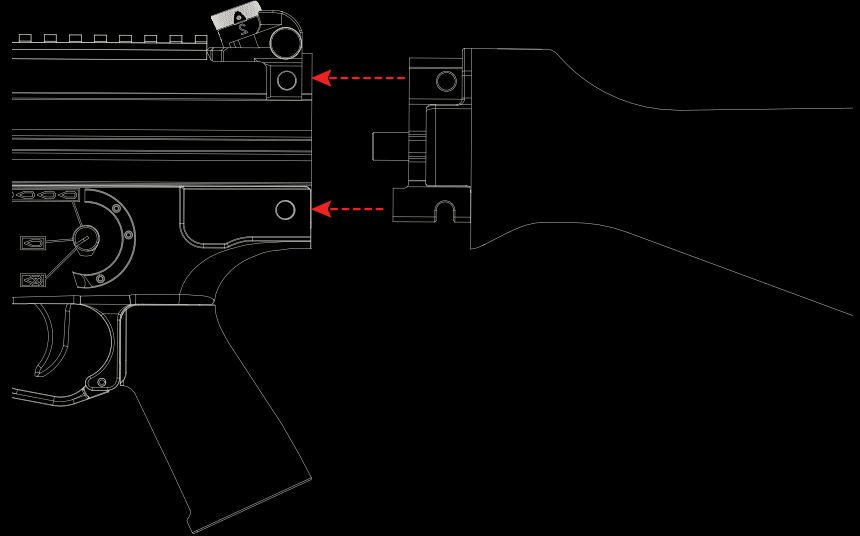
- 6) Insert the trigger housing straight up and into the receiver so that the front of the trigger housing is just clear of the shelf located at the rear of the magazine well. Push forward on the back of the pistol grip until the front of the trigger housing fully seats into the shelf located at the rear of the magazine well. Confirm alignment of the takedown pin hole in the trigger housing with its mate in the receiver, push upward/forward with the pistol grip if necessary to align. See figure 29.

Figure 29:



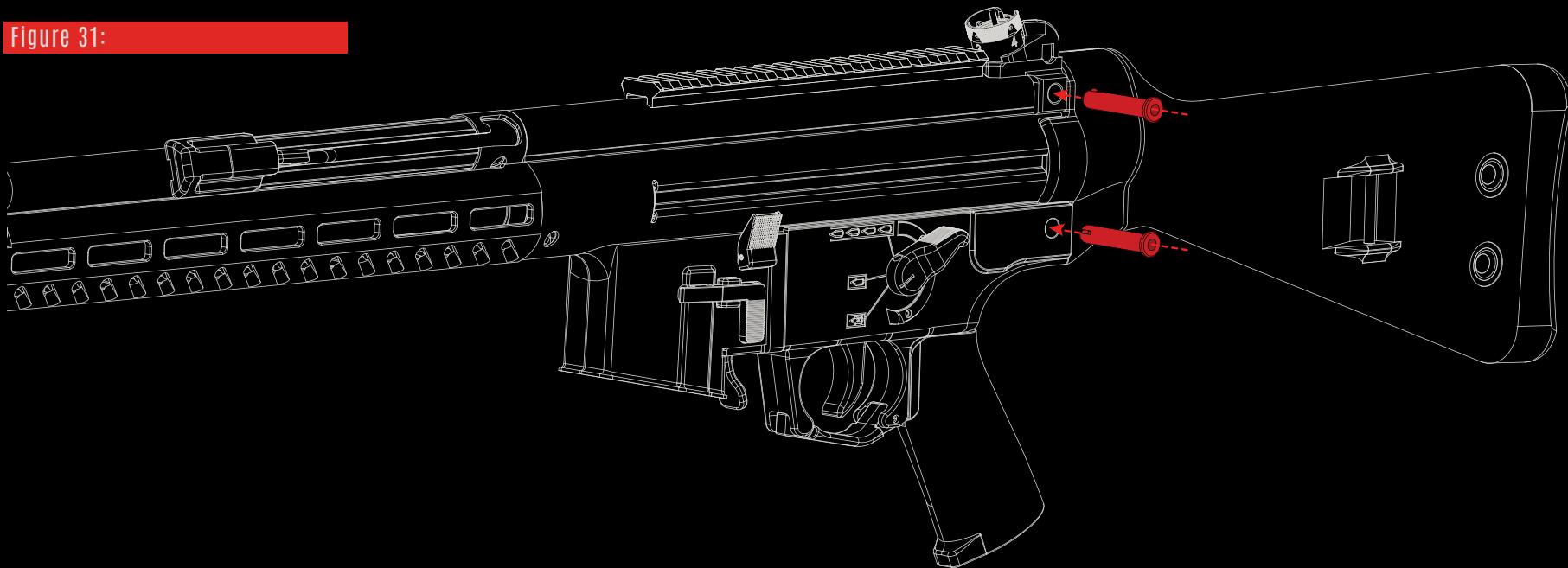
- 7) While holding the trigger housing in place, insert the buttstock/buffer assembly into the rear of the receiver, compressing the recoil spring until the stock is fully seated. See figure 30.

Figure 30:



- 8) Install the two rear takedown pins in their holes from the left side of the receiver. Ensure the buttstock and trigger housing are properly retained. Manipulate the charging handle to confirm proper assembly. The firearm is now fully assembled. See figure 31.

Figure 31:



GENERAL OPERATION

- 1) Before operating the PTR® 63, keep the firearm pointed in a safe direction. Set the selector lever to the “safe” position 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. See figure 32.
- 2) Grasp the charging handle, fold it out to the left. Pull the handle to the rear and lift the handle up into the retaining notch at the end of the cocking tube. See figure 33.

Figure 32:

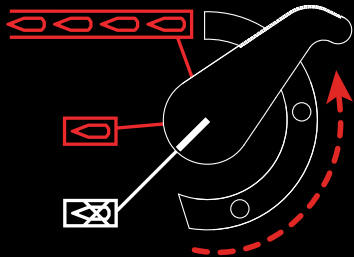
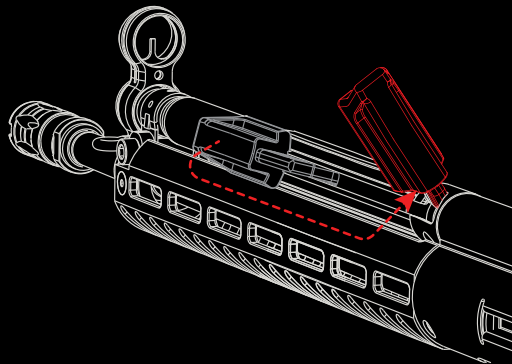


Figure 33:



- 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. Set the selector lever to the “SAFE” position. Insert the magazine (bullets forward) fully into the PTR 63 magazine well while holding the firearm in one hand and the magazine in the other. After the magazine seats fully with a “click”, 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. Additionally, the bolt can be released if the bolt carrier catch is engaged. First ensure the charging handle is all the way forward. Then depress the bolt catch release latch upwards to allow the bolt to come forward.
- 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 34.

Figure 34:



- 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.

NOTE: When the last cartridge is fired, the bolt carrier assembly will lock back to the rear. When you are done firing, place the safety selector lever in the “SAFE” position.

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® 63, 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. At the same time, the spring-loaded carrier locking lever is snapped over a shelf on the rear of the bolt head.
- 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 while 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 angles force the carrier rearward at a faster rate from the bolt head while overcoming the spring-loaded carrier locking lever that resists the carrier's initial movement.
- 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 continues rearward extracting and ejecting the fired casing.

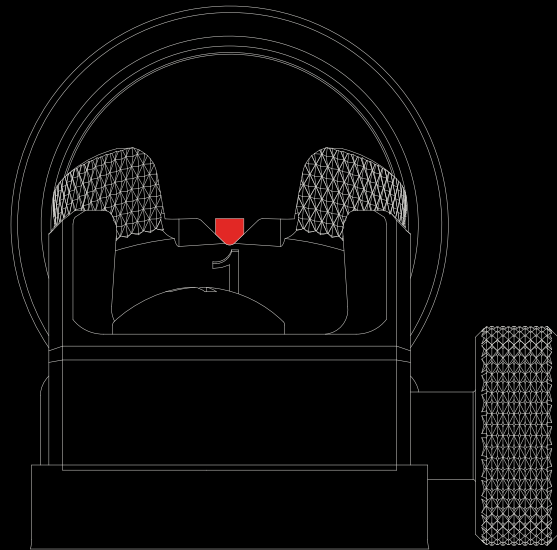
NOTE: The precise angle for the locking piece is carefully selected by engineers for the broadest choice of ammunition that maintains safe operation. Factors that can negatively affect proper and safe cycling are ammunition choice, barrel length and brands of suppressor that increase barrel back pressure. If cycling is negatively affected by the above factors, a locking piece with a different angle may be required.

- 8) The bolt/carrier group continues traveling rearward until it is stopped by the mechanical 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 and the carrier locking lever snaps onto the rear of the bolt. 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.

SIGHTING AND ADJUSTMENT OF THE REAR SIGHT

The PTR® 63 rear sight has 4 different distance apertures, 100, 200, 300, and 400 yards, marked 1, 2, 3 and 4 respectively. Before making any sight adjustments, shoot an aimed group between 3-5 shots at a 100 yard target with the rear sight aperture set to 1. This will determine if the point of impact is off and by how much. See figure 35.

Figure 35:



ELEVATION ADJUSTMENT

Use an elevation adjustment tool to zero the elevation. Looking downward on the rear sight cylinder, engage the two slots that contain the catch pieces with the legs of the tool. Insert the accompanying screwdriver into the top of the adjustment tool to lock the legs inward. The rear sight will now be able to be spun easily up or down. Turning the rear sight cylinder clockwise will lower the bullet's point of impact. Turning the rear sight cylinder counterclockwise will raise the bullet's point of impact. One full revolution of the rear sight cylinder moves the bullet's point of impact 5.16" up or down at 100 yards. Once the correction has been completed, remove the elevation adjustment tool and the catch pieces will re-engage the rear sight cylinder. Shoot another aimed group between 3-5 shots at a 100-yard target with the rear sight aperture set to 1. This will determine if the point of impact is still off and by how much. See figure 36 and 37.

Figure 36:

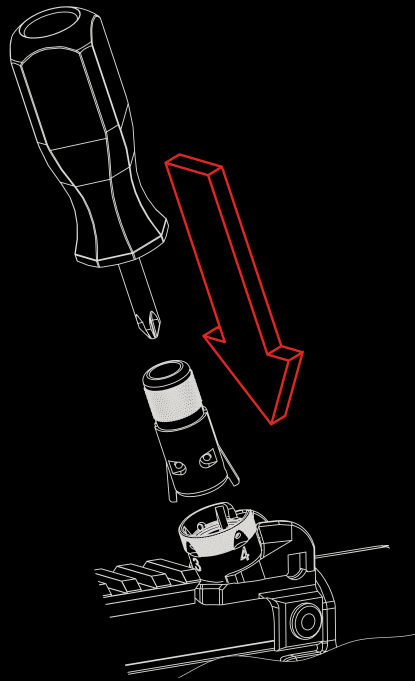
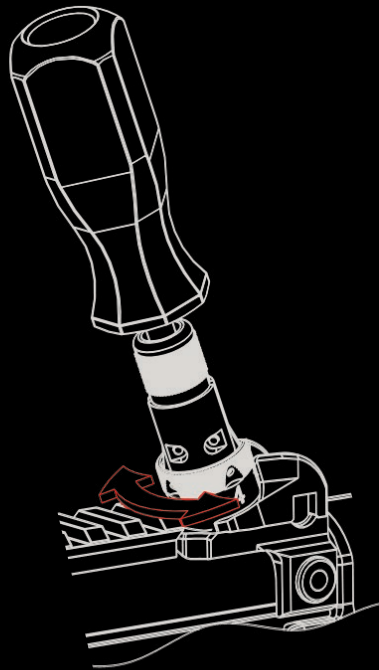


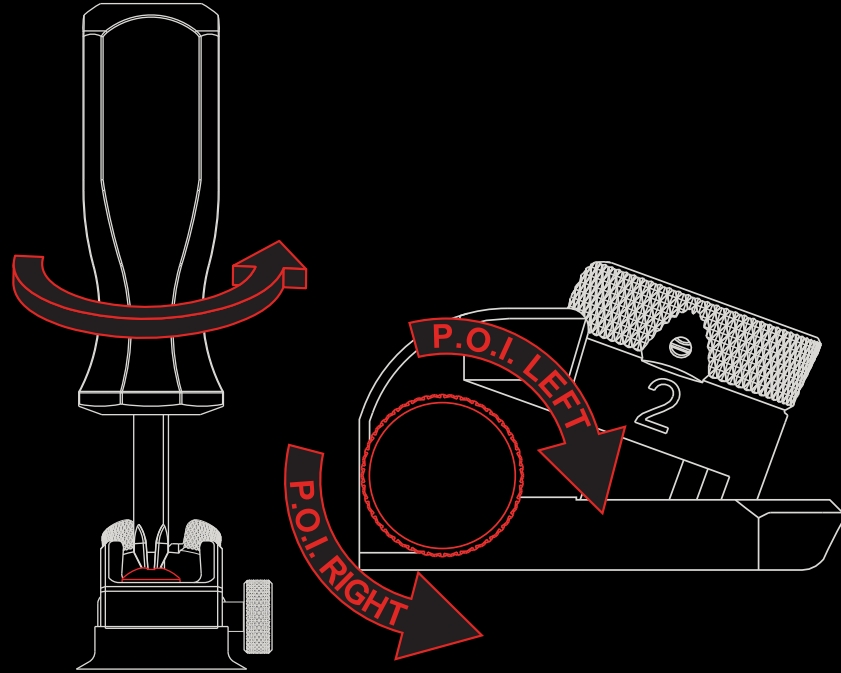
Figure 37:



WINDAGE ADJUSTMENT

To adjust the point of impact left or right, start by loosening the Phillips head clamping screw located on the top of the rear sight. Next, turning the windage adjustment knob on the right side of the sight base counterclockwise will move the bullet's point of impact to the right. Turning the windage adjustment knob clockwise will move the bullet's point of impact to the left. One full revolution of the windage adjusting knob moves the bullet's point of impact 5.14" to the left or right at 100 yards. Twist the windage adjustment knob in the appropriate direction as much as necessary. Once the correction has been completed, tighten the Phillips head rear sight clamping screw back down. Shoot another aimed group between 3-5 shots at a 100-yard target with the rear sight aperture set to 1. This will determine if the point of impact is still off and by how much. See figure 38.

Figure 38:



FREQUENTLY ASKED QUESTIONS

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

A: Minimum of 200-300 rounds.

2) Q: What calibers are PTR 63 chambered for and recommended?

A: PTR 63 Series: PTRs have a custom chamber design that will accept both 5.56x 45mm and .223 ammunition but test your ammunition for functionality.

NOTE: PTR 63 receivers are stamp marked "5.56 x 45mm".

3) Q: What is the rate of twist in a PTR barrel?

A: 1:7

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

A: Standard rifles: 7-10 lbs.

5) Q: What is the PTR 63 constructed from?

A: Receiver: Stamped and welded high strength high carbon steel

Barrel: Chrome Alloy steel

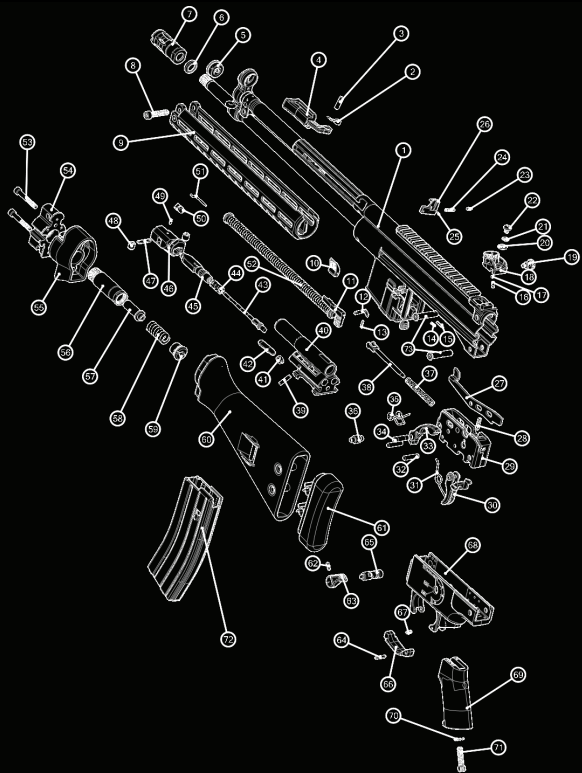
Handguard: Milled Aircraft grade aluminum or molded polymer depending on model

Stock: Molded polymer

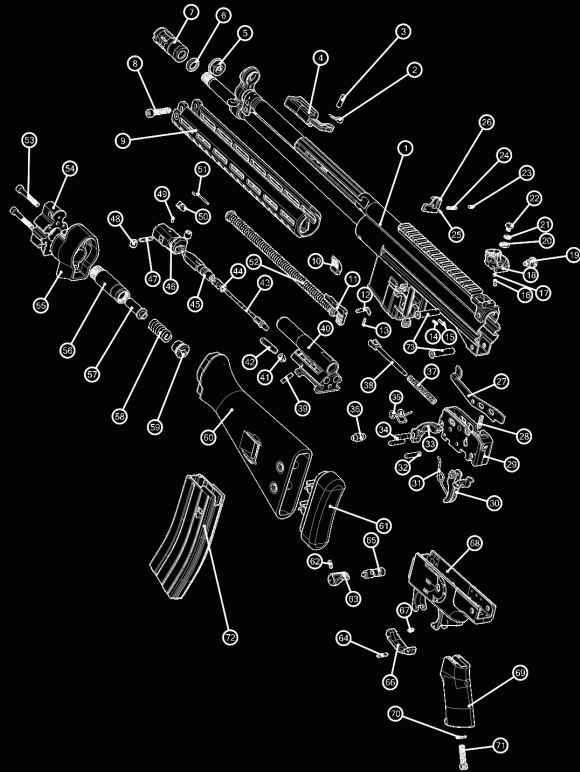
Pistol Grip: Molded polymer

6) Q: Are PTR barrels chrome lined?

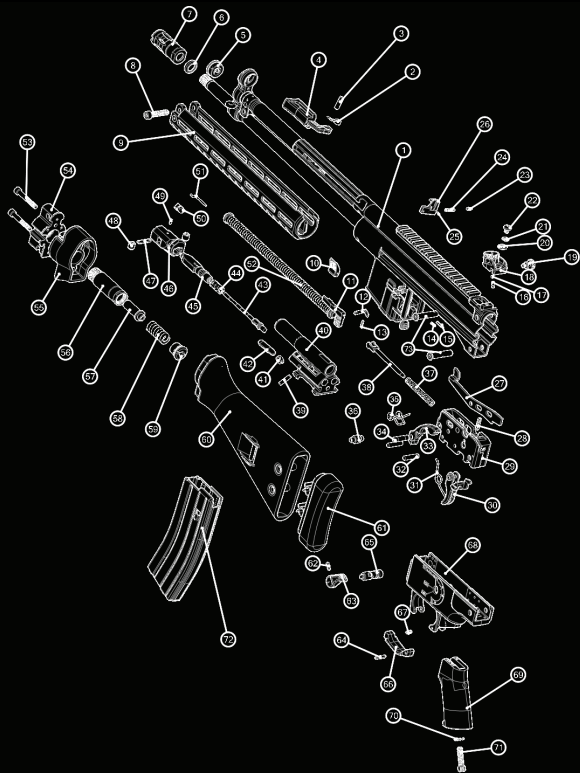
A: The PTR 63 barrels are made from MIL-SPEC 41V50 steel, button broached. They are not chrome lined.



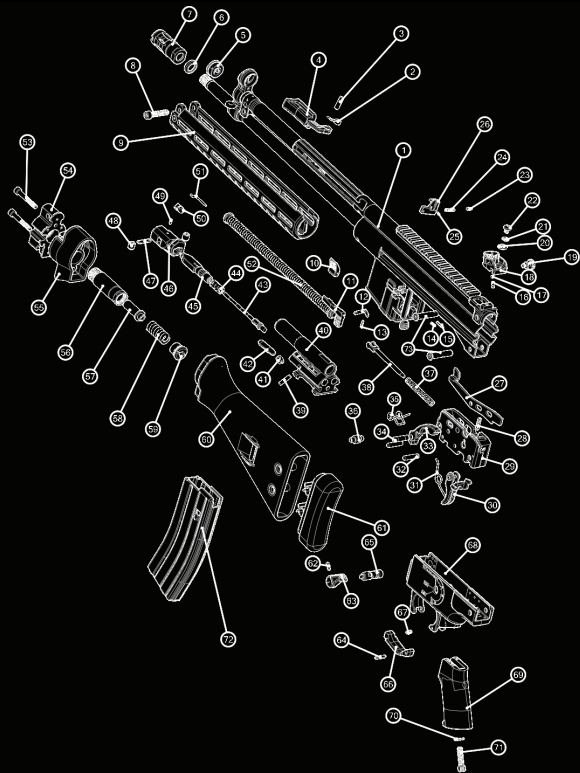
ID #	PART #	DESCRIPTION	QTY
1	NR-000182	RECEIVER	1
2	AC-000142	ELBOW SPRING, CHARGING LEVER	1
3	HW-000137	H-TYPE GROOVE PIN	1
4	NR-010144	CHARGING HANDLE, OVERMOLDED	1
5	AC-010118	COCKING TUBE END CAP ASSY	1
6	NR-000102	FLASH HIDER CRUSH WASHER	1
7	NR-000101	FLASH HIDER, 63	1
8	HW-000327	M6-1.0x30MM SHCS	1
9	NR-023651	HANDGUARD, 12.5in, COMPLETE	1
10	NR-000198	BOLT CATCH RELEASE	1
11	NR-001122	MAG CATCH	1
12	NR-001134	MAG CATCH TRAVEL GUIDE	1
13	HW-000276	COIL PIN DIA 2MM X 10MM	1
14	HW-000110	2.5M X 8MM SET SCREW	1
15	HW-000275	COIL PIN DIA 2MM X 14MM	1
16	AC-000112	SPRING, REAR SIGHT	1
17	AC-000113	BALL, 3MM, REAR SIGHT	1
18	AC-010013	REAR SIGHT ASSY	1



ID #	PART #	DESCRIPTION	QTY
19	AC-000115	WINDAGE SCREW	1
20	AC-000128	WASHER, OVAL, REAR SIGHT	1
21	HW-000606	LOCK WASHER, 5MM	1
22	HW-000503	M5 x 0.80 x 6 MACHINE SCREW	1
23	NR-001703	BOLT CATCH PLUNGER	1
24	NR-000715	BOLT CATCH SPRING	1
25	HW-000266	SLOTTED SPRING PIN, 1.5mm X 4mm	1
26	NR-000716	BOLT CATCH	1
27	NR-001339	EJECTOR, 63	1
28	AC-000337	SPRING, EJECTOR	1
29	AC-012386	TRIGGER BOX ASSY, SEMI-AUTO, ALUMINUM	1
30	AC-001345	TRIGGER, UNIBODY	1
31	AC-000341	SPRING, TRIGGER	1
32	AC-000340	PIN, TRIGGER & BUSHING	1
33	AC-001362	HAMMER, SEMI	2
34	AC-000361	PIN, HAMMER	1
35	PDW-000380	SPRING, ELBOW	1
36	AC-000377	BUSHING, SEAR SPRING	1



ID #	PART #	DESCRIPTION	QTY
37	AC-000364	SPRING, PRESSURE, HAMMER	1
38	AC-000363	PRESSURE FORK	1
39	AC-000218	PIN LOCKING LEVER	1
40	NR-010225	BOLT CARRIER TUBE ASSY	1
41	AC-000216	LOCKING LEVER SPRING	1
42	AC-000215	LOCKING LEVER	1
43	NR-000202	FIRING PIN	1
44	NR-000203	SPRING, FIRING PIN	1
45	NR-002201	LOCKING PIECE, 45°	1
46	NR-000207	5.56 BOLT HEAD	1
47	AC-002211	ROLLER RETAINER, STAMPED	1
48	AC-000210	LOCKING ROLLER	2
49	AC-000212	CLAMPING SLEEVE, SEAR	1
50	NR-000208	EXTRACTOR	1
51	AC-000209	EXTRACTOR SPRING	1
52	NR-010444	BUFFER ROD ASSY	1
53	HW-000388	M5-0.8x40MM SHCS	2
54	NR-002502	FIXED STOCK INSERT BODY	1



ID #	PART #	DESCRIPTION	QTY
55	NR-002503	FIXED STOCK JOINT	1
56	NR-001592	5.56 SPRING TUBE	1
57	NR-001593	SECONDARY BUFFER PLUNGER	1
58	NR-000464	BUFFER SPRING	1
59	NR-000461	BUFFER LOCK	1
60	AC-010481	BUTT STOCK ASSM, POST MOLD (BLK)	1
61	AC-010478	END CAP ASSY, BUTT STOCK	1
62	HW-000427	M3 X 10MM COILED SPRING PIN	1
63	NR-002318	SAFETY SELECTOR	1
64	NR-006324-2	ROLL PIN	1
65	NR-000316	SAFETY SHAFT	1
66	NR-006324	ENHANCED TRIGGER GUARD	1
67	NR-006324-1	5-40 X 5/16" SET SCREW	1
68	NR-016100	TRIGGER HOUSING ASSY	1
69	NR-000327	GRIP, AR	1
70	HW-000609	1/4" EXTERNAL, LOCK WASHER, STAINLESS	1
71	91205A565	1/4-28 x 1" SHCS	1
72	NR-010950	30RD 5.56MM MAGAZINE COMP.	1
73	NR-010009	STOCK RETAINING PIN ASSY	2

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 on the PTR website, <https://www.ptr-us.com/register-product/> or by completing and returning the enclosed warranty card to PTR within 60 days of purchase; 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.

OWNER'S MANUAL | PTR® 63