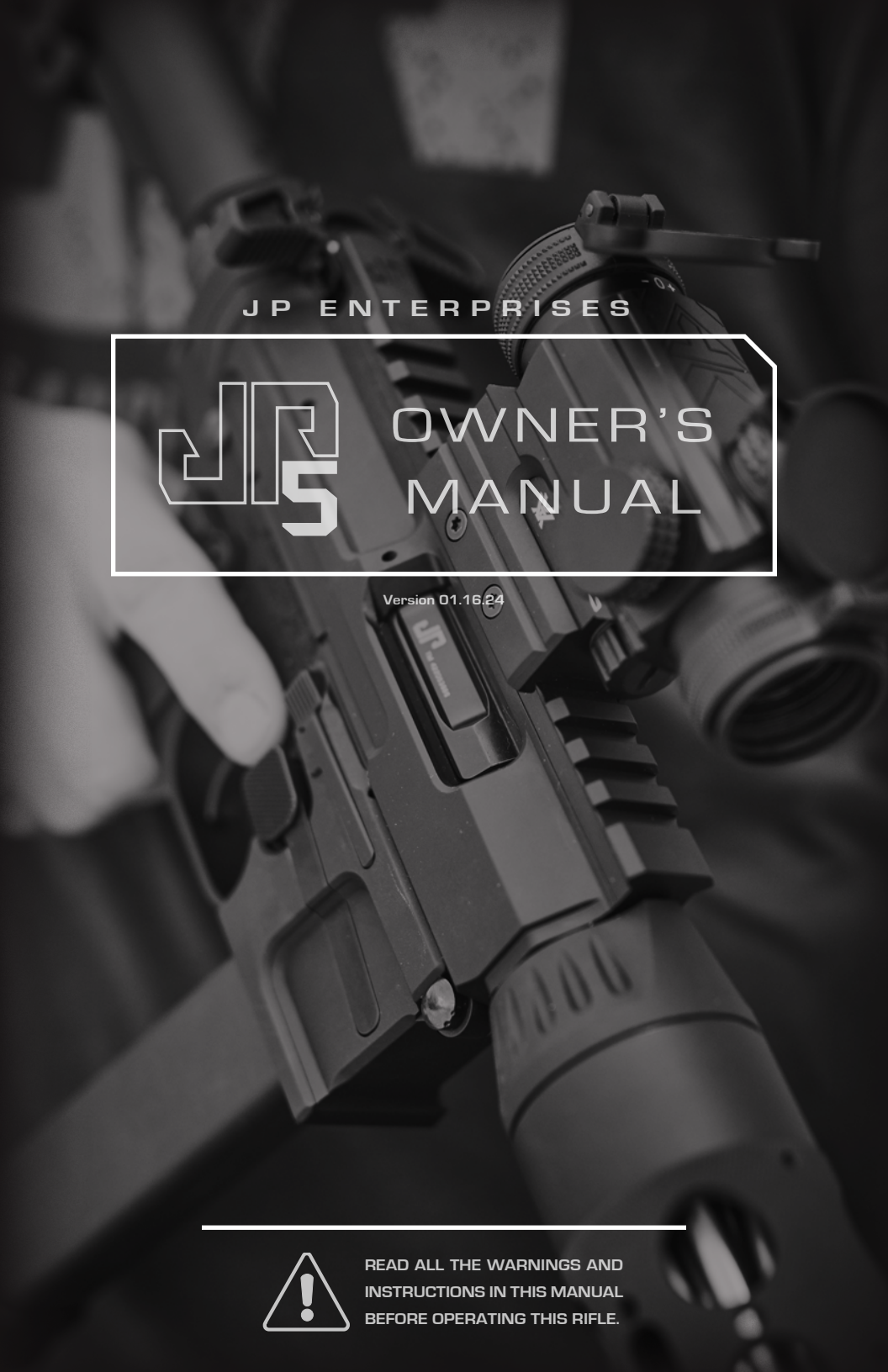


JP ENTERPRISES

JPS OWNER'S MANUAL

Version 01.16.24

READ ALL THE WARNINGS AND INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING THIS RIFLE.

CONTENTS

SAFETY

Firearm ownership, like scuba diving or rock climbing, is an endeavor that demands personal responsibility. If you cannot take responsibility for your actions, firearm ownership is not for you. If carelessly or improperly handled or stored, this or any other firearm has the potential to cause great damage to property and severe injury or death to people and animals. If you are unfamiliar or uncomfortable with the usage of firearms, seek additional training and/or education through qualified instructors or organizations such as local gun clubs or the National Rifle Association. Before using your new rifle, read through the entirety of this manual beginning with this safety section to ensure that you are intimately familiar with its use and operation.

HEALTH SAFETY

Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead and other substances known to cause birth defects, reproductive harm, and other serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.

THE DOs AND DON'Ts OF FIREARM OWNERSHIP

These are the four commandments of gun safety. Memorize them and instruct all others in your family or shooting group to make sure that these rules are understood completely and followed explicitly.

1. **Treat all firearms as if they were loaded.**
2. **Do not sweep anyone or anything with the muzzle of your firearm that you are not willing to destroy.**
3. **Keep your finger out of the trigger guard until you are ready to fire.**
4. **Be sure of your backstop.**

Most all of the safety precautions in this section originate with these rules, and if you take nothing else away from this manual, make sure that you remember and follow these. Due to the importance of this material, though, we will expand further.

DO handle your firearm at all times as if it were loaded. Unless you are presently looking at the empty chamber, the firearm should be treated as a loaded weapon. The only firearm that you can say is unloaded with certainty is the one that you have just checked and which is still in sight. Once it is out of your sight, you can no longer say with absolute certainty that it is unloaded.

DO keep the safety selector lever in the SAFE position whenever you are not immediately ready to fire.

DO practice stance, aim, rhythm and breathing with your unloaded firearm before practicing with live ammo, and practice thoroughly with your rifle at the range before going hunting or attempting other shooting sports.

DO instruct children and other members of your household to respect firearms and to follow safety procedures regarding guns, even if they do not shoot them regularly or even at all. If you intend to teach children or family members to shoot, have them trained by a qualified instructor and supervise them while they operate firearms.

DO appoint a knowledgeable and responsible individual to manage the safety of large shooting groups making use of a range facility. You should defer to, and insist that others defer to, that individual's authority for everyone's sake. Additionally, you should ensure that you are personally qualified to fill this role if necessary.

DO clean and maintain your firearm responsibly. (See the ***CLEANING AND MAINTENANCE*** section of this manual.)

DO use only high-quality, good-condition ammunition in your firearms. (See the ***Ammo Selection*** section of this manual) Be aware that the ammunition requirements for your JP-5™ may be different from certain other 9mm carbines or pistols.

DO seek medical advice regarding medication you take to determine if it will interfere with your ability to operate a firearm safely.

DO wear ear protection while you or anyone in your vicinity is operating a firearm. Additionally, insist that those around you wear ear protection while in the presence of discharging firearms. Not doing so could result in loss of hearing.

DO wear eye protection—and require others to do the same—while firearms are being discharged. Flying particles or debris could cause eye damage to the operator or those around him or her.

DO keep clear of the firearm's ejection port as spent cartridge casings are expelled from the weapon at high speeds and temperatures capable of injuring or burning. Ensure that other observers do likewise. In particular, be aware that ejected casings may bounce off walls and other objects in some range situations and enter open-topped clothing causing severe burns. It is always a good idea to wear a cap with a brim while shooting to help deflect spent cases from the face and eyes.

DON'T trust that the firearm is unloaded merely because you are told so. Visually check it yourself.

DON'T point the muzzle of the firearm at anything you are not willing to destroy. This includes times when the firearm is unloaded and when it is being inspected and cleared. It is never a good idea to handle a firearm in a situation with people standing all around you. Always clear a safe zone for the muzzle. In the field, rifles should be carried with the muzzle pointing up or down, never at the horizontal.

DON'T insert your finger into the trigger guard until you are ready to shoot. This decreases the likelihood of an accidental discharge. If you handle firearms long enough, it is a statistical certainty that eventually you will have an accidental discharge. Knowing this should give you added incentive to exercise safe muzzle and trigger control.

DON'T shoot your rifle unless the bore, muzzle, chamber and action are clear of obstruction. Verify that there is no such obstruction only after ensuring that the firearm is unloaded.

DON'T leave your firearm exposed and unattended, whether loaded or not.

DON'T transport your firearm while it is loaded, whether just around the range or over longer distances.

DON'T carry a loaded firearm in such a way that you are not fully in control of the direction of the muzzle. Always carry a rifle muzzle up or muzzle down.

DON'T inflict or allow blunt impact to your firearm, such as dropping it onto a hard surface. The firing mechanism could be triggered causing the gun to fire while not under control. Additionally, components of the firearm may be damaged reducing the overall safety of the weapon. If such damage occurs, have your firearm examined by a qualified gunsmith before further use.

DON'T allow others to operate your firearm unless they are informed and comfortable with the use of such weapons. Make sure that they follow all the preceding and following rules, because while someone is using your firearm, you are responsible. It is always a good idea to allow a new shooter to dry-fire your rifle before loading live ammo.

DON'T discharge your firearm unless you are certain of your backstop's integrity. Be certain that no bullets will pass through the backstop to potentially cause damage or injury. In the field, only fire at game or targets if you are sure that a miss or a bullet passing though the target will be contained in the visible area behind the target.

DON'T attempt to alter or modify your firearm, especially if attempting to change the trigger pull weight of the weapon. Alterations to certain components or their relationships with each other can affect the overall safety of the mechanism and potentially result in unexpected discharge, damage or malfunction.

DON'T drink alcohol or use drugs or other substances that may impair brain function, judgment, physical dexterity or vision while operating a firearm.

DON'T shoot at a hard surfaces like rocks or at a liquid surface like open water. Doing so may cause the bullet to ricochet and change trajectory unexpectedly.

DON'T use your firearm in poorly ventilated areas. Continued use could result in accumulation of lead and other toxic particulate matter in the air that could be injurious to health.

DON'T use your firearm if water is in the barrel. If your firearm is submerged, exposed to heavy rain or otherwise drenched, dry the water and clean the weapon before attempting to use it.

DON'T discharge your weapon in the presence of an animal that has not been trained to accept the noise because it may panic and cause damage, injury and confusion.

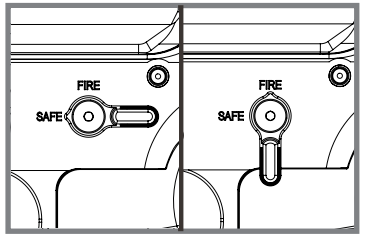
DON'T allow or partake in "horseplay" with a firearm under any circumstances.

SAFE STORAGE

All complete JP rifles include a rubberized cable lock as a safety device. This lock can be passed through the action of your rifle to render it safe and inoperable without damage. This lock should be installed whenever the rifle is stored to prevent unauthorized use.

SAFETY FEATURES

SAFETY SELECTOR



Located above the pistol grip, the selector lever has FIRE and SAFE positions. When set to FIRE, the rifle will fire a single shot each time the trigger is squeezed. When set to SAFE, a cam bears upon the rear portion of the trigger, blocking the trigger movement and preventing the hammer from releasing. Because the safety locks the trigger in the fully engaged position, the safety cannot be engaged unless the hammer is cocked.

Check the function of the safety from time to time with the rifle unloaded. Verify that the rifle is clear, cycle the action using the charging handle to cock the hammer, place

the safety selector in the SAFE position and squeeze the trigger. The trigger should have no perceptible movement, and the hammer should not fall.

Be aware that replacing any original JP fire control components with non-JP aftermarket components may render the safety selector nonfunctional by allowing the rifle to fire on SAFE. For example, some two-stage triggers will not interface with the JP adjustable selector, which will not fully block the trigger in the SAFE position thereby allowing the trigger to function even with the safety engaged. If you install a non-JP trigger system with the JP selector, it is imperative to verify safety function.

DISCONNECTOR

The disconnector, which is part of the firing mechanism, prevents the rifle from firing uncontrollably. As the hammer is cocked after each shot by a rearward movement of the bolt carrier, the disconnector engages the hammer to hold it rearward until the trigger is released. When the trigger is released, retention of the hammer passes from the disconnector to the sear surface of the trigger, which is ready for the next shot.

RIFLE OVERVIEW

This section is intended to give you an informative look at the function of the JP-5™, including the specific components and features that make it unique.

DELAY BLOWBACK RIFLE FUNCTION

The JP-5™ is a roller-delayed blowback, semi-automatic action that functions similarly to a gas-operating AR-type rifle with some key differences. Its firing cycle operates as follows:

With the action cocked, chamber loaded and safety selector lever set to FIRE, the trigger can be depressed in order to discharge the weapon. Upon activating the trigger mechanism, the trigger rotates, disengaging the trigger sear surface from the hammer. The hammer spring drives the hammer forward to strike the firing pin, which in turn strikes the primer in the base of the cartridge. Once struck, the primer composition is ignited, which then ignites the main powder charge in the cartridge. High-pressure gases push the bullet down the barrel where rifling grooves impart stabilizing spin to the bullet.

Unlike a standard AR-type rifle, the JP-5™ does not use gases redirected by a gas manifold to cycle its action. Rather, it is the recoil produced by the fired round that propels the 9mm bolt assembly towards the rear of the rifle. However, unlike the bolt assembly of a direct blowback system such the GMR-15™, the complete bolt carrier assembly of the JP-5™ does not begin to move rearward immediately. Instead, this motion is delayed momentarily by the rollers in the bolt assembly pressing into the

notches of the trunnion. As the bolt begins its rearward potion, these rollers are forced back into the bolt while bearing on the angled surfaces of the lock piece. Traveling backward, the bolt's extractor holds the spent cartridge case against the face of the bolt until the ejector throws it through the ejection port. The bolt continues rearward, compressing the Silent Captured Spring (buffer spring), pivoting the ejector into position and returning the hammer to the cocked position until the head of the Silent Captured Spring bottoms on its bumper. The rebounding Silent Captured Spring then forces the bolt assembly forward so that the face of the bolt strips the next round of ammunition from the magazine and thrusts it into the chamber. At the same time, the extractor is forced downward into the groove of the cartridge case, and the bolt locks into the barrel with the rollers reengaging into the trunnion.

The hammer is now held rearward by the disconnector, and when the trigger is released, the disconnector is rotated back releasing the hammer. However, before the disconnector hook actually releases the hammer, the trigger sear surface has rotated in front of the hammer notch so that the hammer is held on the trigger sear surface ready for another shot. Thus, as a semi-automatic firearm, the rifle is automatically and immediately loaded and ready to fire again after each shot until the magazine is empty.

JP RIFLE COMPONENTS

What follows is a listing and explanation of the components unique to the JP-5™ that contribute to its superior function. Many of these entries include maintenance instructions and should be considered supplementary to the ***CLEANING AND MAINTENANCE*** section of this manual.

JP COMPENSATOR

Most of our JP-5™ rifles are equipped with one of our 9mm compensators. Be aware that the purpose for a recoil-eliminating device on the muzzle is to lower the sight recovery time of the shooter by reducing the movement of the rifle as each shot is fired. It does this by harnessing otherwise wasted kinetic energy of the muzzle gases and directing them against baffle surfaces. These muzzle gases are much less in a 9mm platform like the JP-5™ as compared to an AR-15 chambered in .223/5.56. Nevertheless, our 9mm compensators are designed to harness what energy there is available to offset the recoil impulse.

The inside forward surfaces of the compensator baffles will show some erosion over time, but this will not affect performance until the exit hole is actually burned through completely. Replacement of the compensator separate from the barrel itself should not be necessary. More commonly, the compensator will be the site of material buildup as the JP-5™ is shot. This vaporized bullet material will deposit on the baffles and crown of the compensator and will, in time, begin to affect the rifle's accuracy as this material starts to make contact with the bullet as it exits the barrel. Because of this, we recommend regular cleaning and oiling of the compensator to remove this material.

Muzzle brakes by their very nature redirect high-pressure gases and can blow dirt or other materials present in the shooting area back towards the shooters or bystanders, especially at indoor ranges with enclosed shooting booths. Noise may also be increased to the shooter and definitely to bystanders. ***Eye protection and earplugs/earmuffs are required equipment when shooting or observing firearms with muzzle brakes or compensators. At indoor ranges, a combination of both earplugs and earmuffs is strongly recommended.*** There are many good products on the market to fill this need, such as stereoscopic hearing muffs that protect while still allowing you to hear, even while using earplugs. JP Enterprises is not responsible for hearing loss resulting from exposure to gunfire.

JP FIRE CONTROL SYSTEM

JP rifles feature the most refined single-stage fire control mechanism available. Before you use your rifle, check to make sure it is clear, and then dry-fire it several times to become accustomed to the drastically improved feel and lighter weight of the trigger. If you allow others to fire your rifle, have them do the same to reduce the likelihood of an accidental discharge.

Every performance gain will have some corresponding cost in reliability or durability. Although we have designed this system to give what we feel is the optimum compromise between performance, reliability and durability, it is a highly refined system that requires the parts to maintain much more critical tolerance relationships than the standard AR fire control system. After thousands of rounds, these relationships may change due to normal wear, and the system may need readjustment or replacement parts.

It is important that you lubricate the high-load surfaces such as the disconnector engagement surface and the sear/hammer notch surfaces for maximum parts life. We recommend using Armite LP-250 Sear Grease or a similar high film strength lubricant designed for such applications.

Should you choose, the JP adjustable/reversible selector of your rifle can be reconfigured for customization. The levers can be reversed, removed or replaced as needed. A single lever can be replaced with a readily available 8-32 x 1/4" flathead screw.

JP 9mm ROLLER DELAYED OPERATING SYSTEM

The dedicated roller-delayed operating system of the JP-5™ consists of four primary components: bolt assembly, locking piece, bolt carrier and Silent Captured Spring. This system allows for a massive reduction in component and cycling mass compared to typical direct blowback operating systems. The result is a dramatic reduction in felt recoil for a softer-shooting platform and near instantaneous target re-acquisition between shots. The system is also tunable to optimize cycling for virtually any combination of configuration and ammunition. For more details on tuning the JP-5™, see the **Tuning the Operating System** section below.

The locking piece of the JP-5™ operating system is the primary point of adjustment with a variety of replacement pieces available. Much like an adjustable gas block in a standard AR-type rifle, changing between lock pieces allows the rifle to be tuned to the "sweet spot" between reliability and soft-cycling. Unless otherwise requested, your JP-5™ will include the optimal lock piece for your configuration using factory match ammunition.

The JP-5™ also uses a modified version of our 9mm Silent Captured Spring. After you've arrived at the optimal lock piece selection, the SCS offers another point of adjustment by changing between steel and tungsten masses and operating springs, allowing for adjustment of the cyclic rate. In addition to its functional benefits, the Silent Captured Spring eliminates much of the raspy scraping caused by traditional buffer spring components to produce a virtually silent action with a dramatic reduction in friction and vibration during live fire. To achieve the utmost from the SCS, we recommend oiling the entire unit periodically, especially the spring and guide rod. If the unit becomes fouled, clean with hot, soapy water, blow dry with compressed air and reapply light oil (rather than grease). During regular rifle maintenance, check the tightness of the screws at the ends of the SCS. If they are loose, remove them, clean the threads and reapply Loctite® 263 before reinstalling.

JP HAND GUARD (MK III or M-LOK SERIES)

The JP Hand Guard Systems are extremely versatile components that can integrate numerous Picatinny rail sections to allow for the addition of accessory items such as lighting, vertical grips, secondary sight systems and co-witnessed infrared night vision systems at any position on the hand guard tube.

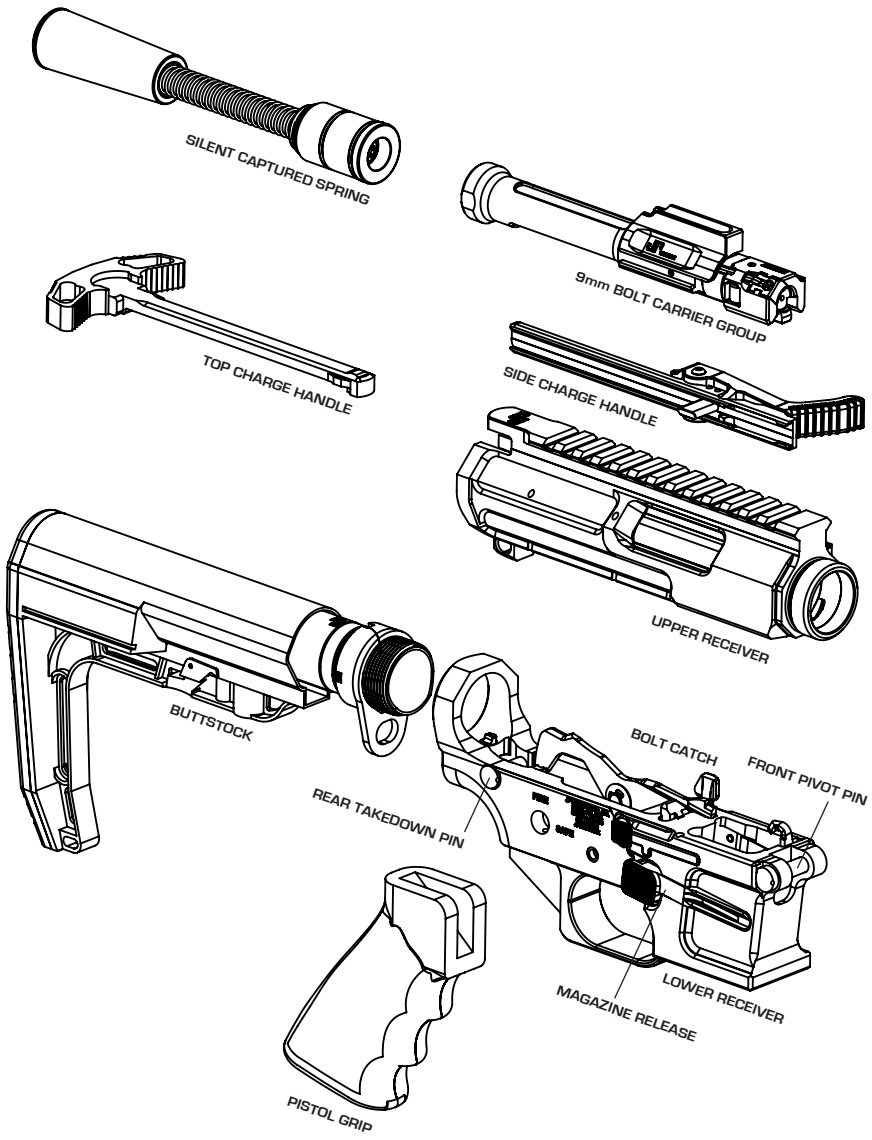
For mounting at the 12:00 position, the M-LOK Series includes an integral full-length rail. For the MK III, we offer mid-, full-length and extra-long rails in addition to a two-inch front sight rail section. Modular rail sections and other accessories are available for mounting to any other position on the hand guard tube. On the MK III Signature style tubes, these rails and accessories are attached using backer plates placed inside the hand guard tube, riding in one of the slots to provide stable yet versatile mounting for your accessories. For MK III Rapid Configuration tubes, these rails mount directly to the hand guard itself without need for backer plates. M-LOK Series tubes will accept any standard M-LOK accessories.

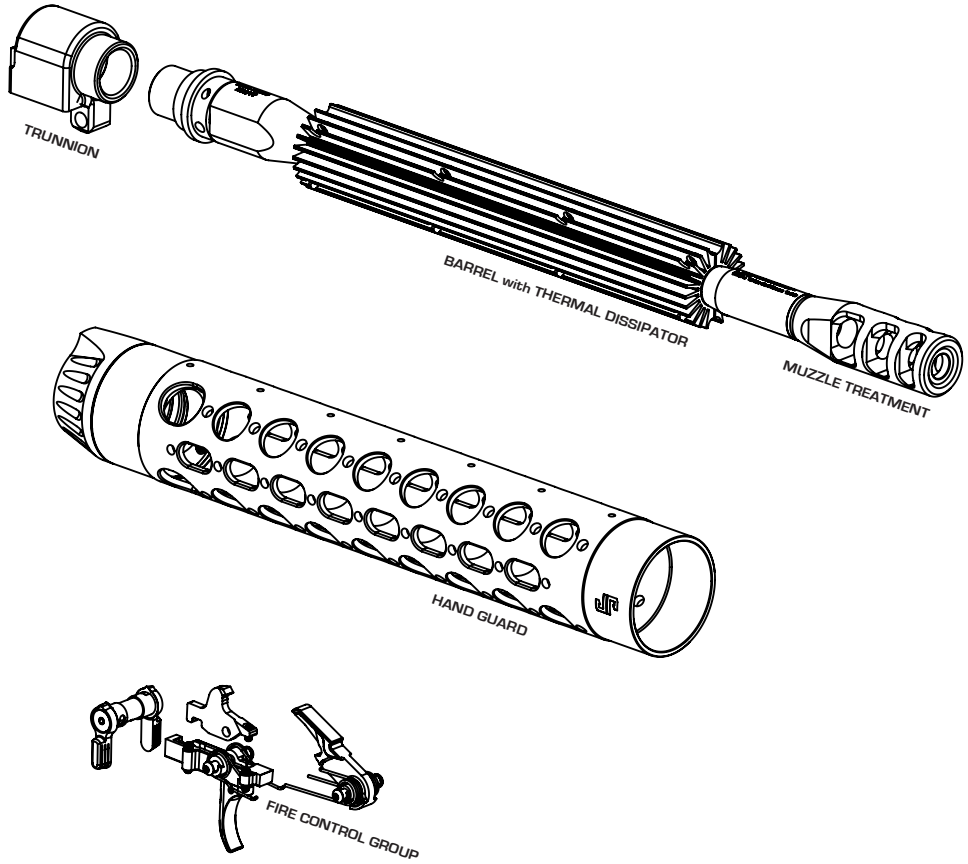
Both MK III and M-LOK Series hand guards require a unique tool in order to remove the barrel retainer nut. This tool is not included with your rifle or upper but can be supplied upon request.

COMPLETE RIFLE VIEW

This diagram depicts a JP-5™ configured with our dual-charge PSC-5™ upper assembly. Certain features and options shown here will vary between models and configurations, specifically charging handle configuration. Certain component assemblies are not shown completely disassembled because disassembly of these parts is not necessary during standard use and maintenance.

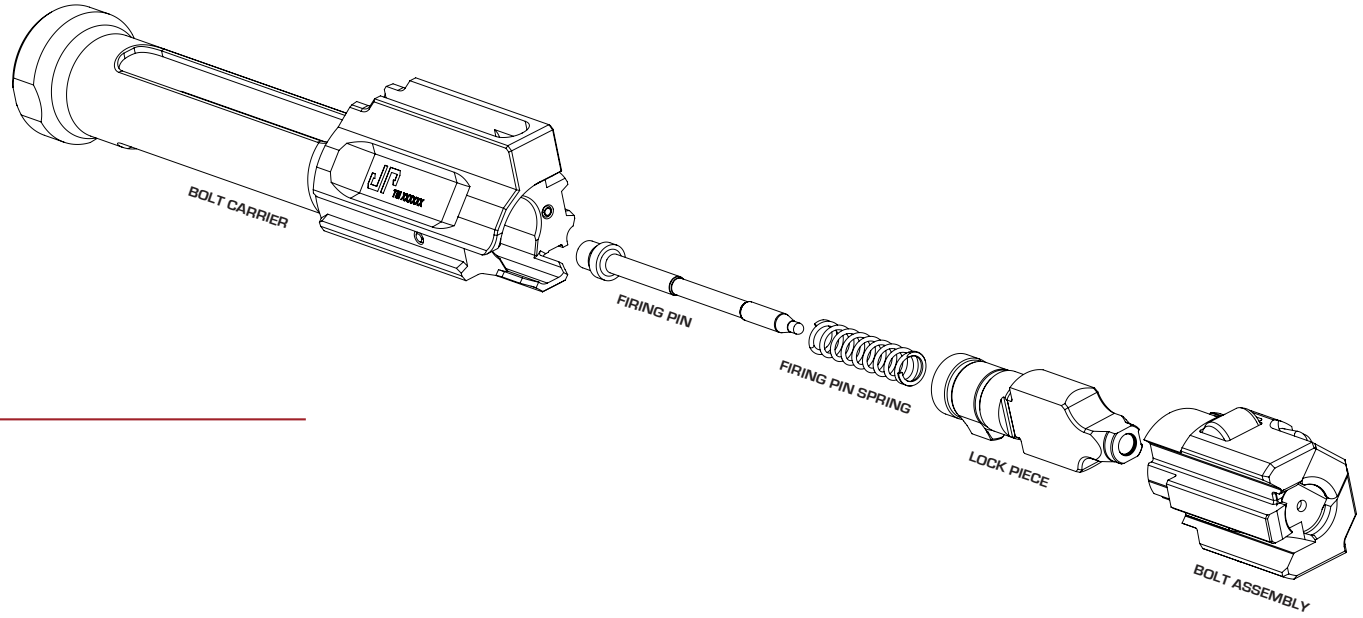
Should you need more information on the installation of JP components, refer to the appropriate instruction sheets, all available on our website.





BOLT CARRIER ASSEMBLY VIEW

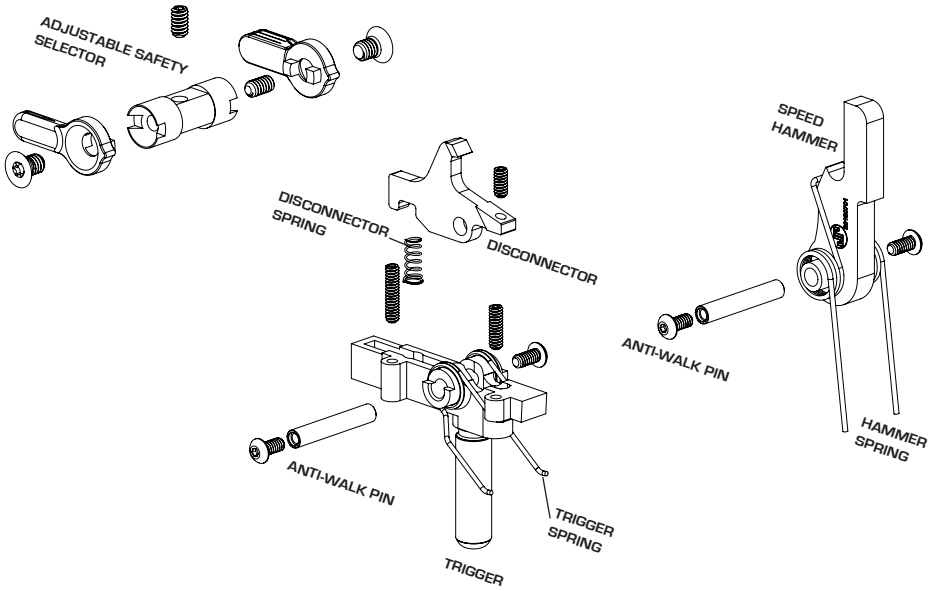
The JP-5™ bolt carrier assembly is a proprietary JP design engineered exclusively for use in the JP-5™ platform. With sufficient use, replacement of the extractor spring, rollers with retainer and spring pin, firing pin, firing pin spring and extractor will become necessary. See the ***Replacement of Parts*** *section.*



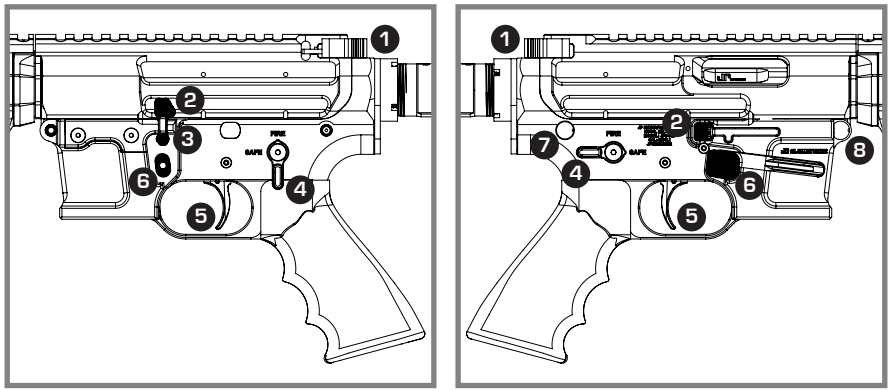
FIRE CONTROL GROUP VIEW

Shown here are the primary fire control components and their associated hardware. Our standard fire control system consists of our adjustable trigger, Speed Hammer, performance springs, Anti-Walk Pins and selector. The components in your rifle may vary slightly from those shown here.

The fire control system is set and optimized at the time of assembly. Normal use and maintenance will not require you to disassemble the trigger group. See the ***Cleaning the Rifle*** *section for specifics.*



RIFLE CONTROLS



1. *Top charge handle*
2. *Bolt release*
3. *Bolt catch*
4. *Safety lever*
5. *Trigger*
6. *Magazine release*
7. *Rear takedown pin*
8. *Front pivot pin*

RIFLE USE

Before taking your JP out to the range for the first time, there are several issues discussed in this section that contribute to optimal and enjoyable usage of your new rifle.

DRY FIRE PRACTICE

Dry fire practice is a tool used by all pro-level shooters to enhance their skills. It doesn't cost anything, can be done at home if safety precautions are taken and will make your live-fire practice much more productive and efficient. As mentioned in the section on safety, you should practice your stance, aim, trigger control and breathing with your unloaded rifle to accustom yourself to the weight of the weapon and how to move with it. It is, however, imperative that you conduct such practice in a very controlled situation with a secure backstop and no live ammo or loaded magazines available. You will obviously want to clear your rifle for these sessions, but conduct them as if your weapon were loaded to ingrain safe handling habits. If you choose to perform such practice in your home, do so only in a secure environment that will unquestionably prevent a fired round from escaping uncontrolled or impacting volatile targets like gas lines. Make sure to use a backstop adequate to obstruct and retain expended rounds of the caliber you are using and to situate the backstop against a ballistically secure surface.

AMMO SELECTION AND RELOADING

The action of the JP-5™ will function with a wide variety of 9mm loads and should be capable of cycling most serviceable rounds when tuned correctly (See **Tuning the Operating System**). If you experience regular failures to eject or excessive recoil, you likely need to change to a different lock piece.

In the interests of safety and reliability, we recommend using factory ammunition with your JP-5™ or to follow the recommendations in the **JP Loading Document**, available on our website, if you choose to reload. Ammunition produced from a reputable manufacturer with new cases drastically lowers the probability of ammunition-related malfunctions or catastrophic failures that can result in injury or death. For law enforcement, remanufactured ammunition is totally unacceptable for duty use.

As with any firearm, better ammo will produce better results, and better ammo tends to be pricier. In test firing, we use common 115gr. and 124gr. FMJ without issue, though as a general rule, the JP-5™ will yield superior accuracy with jacketed hollow-point (JHP).

We recommend that you practice firing several boxes of a particular ammunition through your JP-5™ before putting that ammunition to regular use in order to thoroughly gauge its ignition reliability and performance in your rifle. Once you find a round that meets your reliability and accuracy requirements, we suggest buying as much as you can to avoid inconsistency between lots.

Note that the chamber of the JP-5™ will impart fluting onto fired cases. Such cases can be reloaded if you so choose, but this will reduce the number of times they can be reloaded.

REMANUFACTURED AMMO WARNING

Be aware that some commercially produced 9mm remanufactured (reloaded) ammunition is over-crimped. This can render the cartridges unusable and potentially dangerous.

This over-crimping reduces or eliminates the rim feature necessary for the proper head space of the cartridge in the chamber. In extreme conditions, this may cause the cartridge to seat too deep and actually push it past the chamber cut in the barrel. This leaves the case head rim ahead of the bolt's extractor.

When the trigger is pulled with a round chambered this way, the firing pin cannot reach the primer. The gun will not fire, and the shooter may think he has experienced a failure to ignite, or what is called a "hang fire."

If not attended to properly, this can cause a double-feed. In the worst case scenario, both rounds could ignite in a sympathetic ignition if the trigger is pulled. Because the second cartridge is not contained, this will result in gas and shrapnel erupting from the gas port that could injure the operator and bystanders.

See the *TROUBLESHOOTING* section of this manual for warning signs and instructions for this type of malfunction.

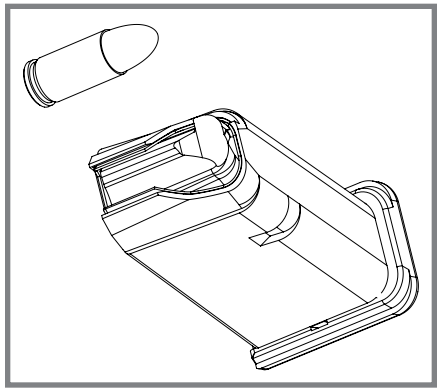
MAGAZINE SELECTION

The JP-5™ action is designed to function with the same G17 pistol magazines as Glock 9mm pistols for carbine/pistol compatibility, but this applies best to the hi-cap G17 mags. We do not recommend using the G17 10-round magazines since the bolt tends to damage the follower after the last round is fired. If you must use 10-round magazines, use the G26 staggered round versions instead. For a 15-round magazine, the G19 is best. We recommend Glock-brand magazines only for the JP-5 as we have no extensive testing data on other manufacturers' magazines.

LOADING, FIRING AND UNLOADING

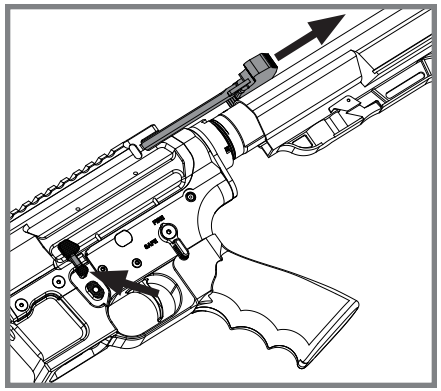
If you haven't already, read the above advisory regarding ammunition selection for your rifle and purchase accordingly. While loading, make sure to keep the rifle pointed in a safe direction, and do not touch the trigger. The following steps will walk you through the complete sequence of preparing your rifle, firing it and reloading it to fire again. If you are unfamiliar with the controls of AR-type rifles, refer to the diagrams in the ***RIFLE OVERVIEW*** section.

1. Place a cartridge in front of the lips of the magazine with the bullet forward as shown. Press the cartridge down into the follower and back under the lips until it reaches the back of the magazine body. Press down on this cartridge to allow easier loading of the next round in the same way. Repeat until capacity is reached.



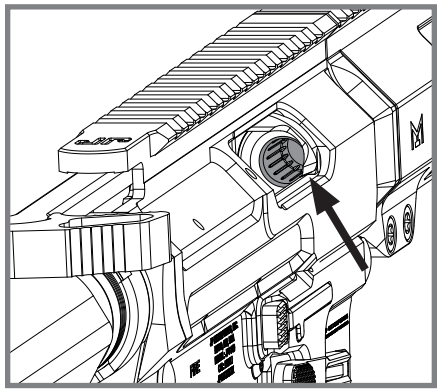
2. Pull the charging handle of the JP-5™ rearward and press in on the lower part of the bolt catch to cock the hammer and leave the bolt assembly latched open.

3. Return the charging handle forward until it locks, and then remove your finger from the bolt catch.

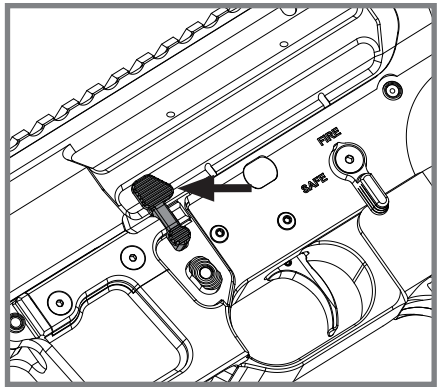


4. Place the safety selector lever on SAFE. Note that if the hammer is not cocked, the lever cannot be turned to SAFE.

5. After verifying that the chamber is clear and the bore is not blocked, insert the magazine, with the bullets pointed forward, into the magazine well and push upward until it is caught and locked in place by the magazine catch.



6. While keeping fingers clear of the ejection port, depress the upper part of the bolt catch, which will release the bolt assembly to move forward and feed the top round of the magazine into the chamber. Be aware that there is the potential for a slam fire when releasing the bolt to charge the rifle. It is very important that the muzzle is pointed down range or in a safe direction when charging the rifle in case this occurs. Do not point the rifle up in the air when releasing the bolt. The bullet must be safely absorbed by the backstop or the ground in the event of a slam fire when charging.



7. When you are ready to fire, place the safety selector lever in the FIRE position.

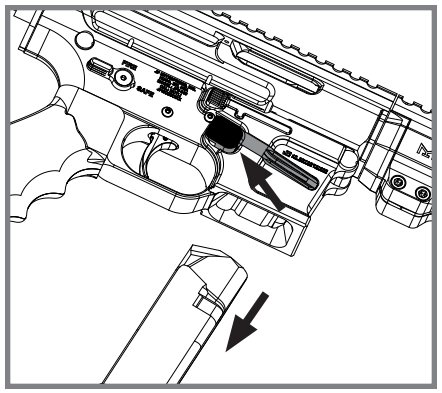
The rifle is now loaded and ready to fire. Before continuing, verify the safety of the shooting environment, including the quality of the backstop and the absence of people, animals or property in the line of fire.

8. Grasp the pistol grip firmly with one hand and steady the rifle by grasping the hand guard with the other. Seat the buttstock comfortably but snugly against your shoulder. Your sights or optic should be mounted to allow for a firm, but not too tight cheek weld with the stock.

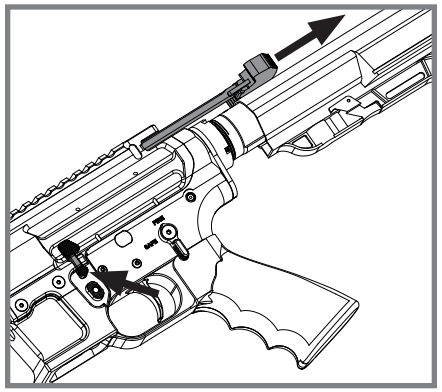
9. Placing your finger in the trigger guard, take aim with the rifle and gradually squeeze the trigger until the first round is discharged. In order to maintain a steady grip on the weapon, avoid jerking the trigger and removing your finger from the trigger between shots. Continue firing until the magazine is empty or you wish to stop.

10. When finished firing, place the safety selector lever in the SAFE position. Note that if the bolt is forward and you have dropped the hammer by pulling the trigger, the safety selector cannot be engaged until the bolt is cycled.

11. While pressing the magazine catch, pull the magazine out of the magazine well.



12. To lock the bolt open, pull the charging handle to the rear while pushing in the lower portion of the bolt catch. This will eject a remaining round that may be in the chamber and lock the action in the open position. If the last round in the magazine had been fired while the magazine was in place, the bolt assembly should have been locked to the rear by the last round lockback function.



13. When the magazine is removed and the chamber is empty, you may wish to close the bolt, though this is not necessary except for long-term storage. In this case, pull the charging handle rearward. This will release the bolt catch, after which you can allow the bolt to close by easing the charging handle forward until the bolt comes to a stop. Otherwise, push the charging handle back in, leaving the bolt open.

14. Remove remaining live rounds from the magazine by sliding them forward and out.

15. Collect live ammunition for safe storage and spent cartridge cases for disposal.

After shooting your rifle, always remove the magazine and verify that the weapon is unloaded completely before casing and transporting it. Do not store the rifle with the magazine inserted in the rifle, as this is an indicator of a loaded weapon. If you do keep loaded weapons for duty purposes or home defense, a magazine inserted in any weapon should be an immediate and clear indication that the weapon is ready to fire.

PRESS CHECKS

The term “press check” refers to opening a firearm’s action enough to verify that a round is present in the chamber. This is typically done when the firearm is made ready for use by first inserting a loaded magazine, then cycling the action or dropping the slide or bolt to strip and feed the first round. As a last verification that the weapon is indeed ready for firing, a press check can then be performed. The technique for this action obviously varies with the firearm, but in the case of the JP-5™ is not recommended.

The roller delayed action of the JP-5™ makes a press check difficult to perform due to the fact that the bolt enters a long trunnion to go into battery. By the time the action is open far enough to visually verify the presence of a live round, you have extracted the round completely from the chamber such that the bolt may lose control of it. This can cause a double-feed or out-of-battery condition when you allow the charging handle to return to its forward locked position. For this reason, press checks should be avoided.

Due to the extremely high reliability of this action, if you properly load the weapon, there will be a round in the chamber with no need to check. If you really feel that the magazine was possibly not fully inserted when you dropped the bolt or cycled the action, the proper way to handle this is to verify the magazine is locked in and then fully cycle the weapon, thereby ejecting any round that may be present in the chamber and feeding the next round from the magazine. When you fully cycle the JP-5™, the charging handle should be used to pull the bolt all the way to the rear in a rapid motion. This ensures the ejection of any chambered round. Then, release the charging handle from the rear-most position to allow full spring tension to perform the strip and feed function of the next round. Never ride the charge handle down with your hand, impeding its velocity as the feed cycle may not complete.

ACCURACY

When speaking about accuracy, we refer to it in terms of minutes of angle or MOA. One MOA is just a bit over an inch at 100 yards, two inches at 200 yards and so on. Accuracy functions as a cone of dispersion that a particular rifle is capable of delivering with a certain load by a certain shooter under certain conditions. Obviously, the cone of dispersion will increase in MOA under adverse conditions such as cross winds.

Many things affect accuracy, especially the operator’s ability to shoot accurately. Poor trigger control technique with an AR-type rifle is a common cause of poor accuracy. Many bolt gun shooters accustomed to feathering off the trigger with the tip of their finger need to develop a completely new trigger control technique with a self-loading rifle.

Ammo selection can also affect accuracy. We can’t guarantee performance with specific ammunition. Our rifles will shoot many types of ammunition well, but be willing to try multiple loads to find the best performer. As a rule, jacketed hollow-point bullets will produce the best results from your JP-5™. See the **Ammo Selection and Reloading** section for more information.

Parallax error in optical sights is another common source of shot dispersion that is often overlooked by the shooter, as are mounting systems that are not stable. Temperature, humidity, wind and lighting can also greatly affect accuracy.

The accuracy of your JP-5™ depends on many things. You must have the right elements assembled in the correct order to achieve a certain level of accuracy. 9mm is a pistol caliber cartridge, meaning its accuracy is limited, particularly at longer ranges. It is not capable of performance comparable to rifle calibers like .223 or .308. In most cases, 9mm travels very near to the sound barrier, which can hinder its accuracy potential.

With a high-quality, parallax-correctable scope properly mounted, match-grade ammo and good bench technique, 3 MOA accuracy is possible at 100 yards for a skilled shooter.

Atmospheric conditions also have a great effect on accuracy. Although it may be great practical experience to shoot in adverse conditions with high wind and mirage, do not expect to achieve the full accuracy potential of the JP-5™ under those conditions.

Most accuracy testing with pistol caliber carbines like the JP-5™ is performed at 50 yards. Obviously, the further the target, the more the atmospheric conditions, the consistency of the ammunition and the shooter's ability come into play. Shooting a one MOA group at 50 yards is one thing; achieving one MOA accuracy at 200 yards is considerably more difficult. The important thing is to have realistic expectations for a given rifle setup with a given ammunition under a given set of circumstances.

For more on 9mm carbine accuracy, especially as it relates to our shrouded ultralight 9mm barrel, see the **9mm Barrel Accuracy** statement available on our website.

TUNING THE OPERATING SYSTEM

The JP-5™ can be tuned to accommodate most configurations and ammo selections. As with an adjustable gas block in an AR-type rifle, the objective in tuning the operating system is to achieve the best possible compromise between performance/low recoil and reliable cycling.

When tuning your rifle, we recommend starting with the lock piece. For most users, swapping out the lock piece will be all that's needed to achieve high performance and reliable function. However, for those requiring further refinement, the components of the Silent Captured Spring can also be exchanged.

LOCK PIECE

Lock pieces for the JP-5™/MP5 pattern operating system are distinguished by the angle of the roller bearing surfaces. Most JP-5™ models will ship with either the 80° or 90° lock piece. This angle determines how much force is required to open the action. The larger the angle, the easier it is for the action to open. So, systems with higher pressure will take a lower angle of lock piece and vice versa. If you increase the pressure in your

system—e.g., changing to a longer barrel, adding a suppressor, switching to higher-pressure ammo—a lower-angled lock piece will function better. If you are decreasing the pressure, a higher-angle lock piece might function better. In general, if your JP-5™ cycles weakly and unreliably, a higher angle of lock piece is recommended. If the bolt is cycling violently with the SCS bottoming out noticeably in the buffer tube, a lower angle of lock piece will help. Be aware that under-delaying the JP-5™ combined with high-pressure ammo can damage the gun.

SCS MASS

The JP-5™ Silent Captured Spring comes with two steel masses, which can be exchanged for tungsten in the same way as our other SCSs. Adding extra weight in the SCS will help to slow the cycling time slightly and can help to eliminate bolt bounce. As a corrective measure, changing to a heavy buffer setup is most commonly needed where the cycling speed needs to be slowed. Because they can be prone to bolt bounce, select-fire builds will often require a heavier buffer mass. Note that increasing the buffer mass too much will result in short stroking.

SCS SPRING

The Silent Captured Spring for the JP-5™ comes standard with our 15-85 spring, which we found to provide the best recoil impulse for most typical configurations and ammo we've tried. The difference in bolt velocity that comes from changing this spring is slight, especially when compared to changing out the lock piece or SCS masses. However, competition shooters who are very in-tune with their firearms often find value in experimenting with slightly different spring rates. There is also utility in increasing spring tension to assist in stripping and feeding rounds in high-tension magazines.

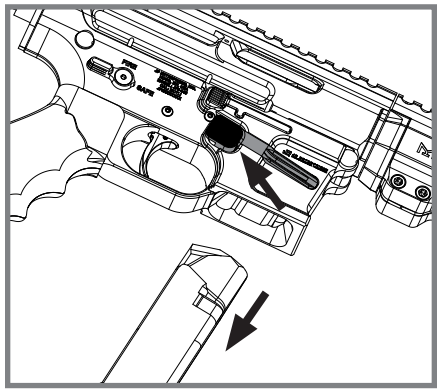
DISASSEMBLY AND REASSEMBLY

Between outings with your rifle, a thorough disassembly of your JP-5™ will occasionally be required for maintenance. The following steps will walk you through the disassembly and reassembly process and help to familiarize you with the internal components of the rifle. These processes vary slightly between the top-charge JP-5™ and dual-charge PSC-5™ upper receivers due to the side-charging handle of the latter. Supplemental information for the latter is noted below.

Before you begin disassembly, make sure to clear the rifle as described.

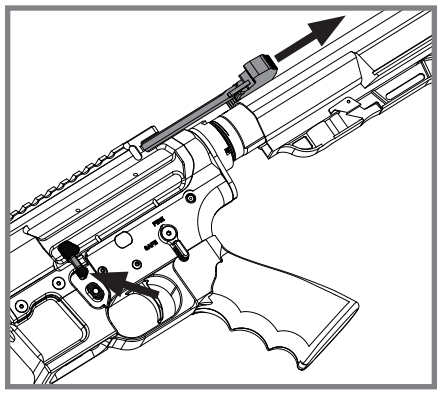
CLEARING THE RIFLE

1. Remove the magazine if not already removed.



2. Pull the charging handle rearward and press the bottom of the bolt catch button until the bolt locks.

3. Return the charging handle to the forward position.



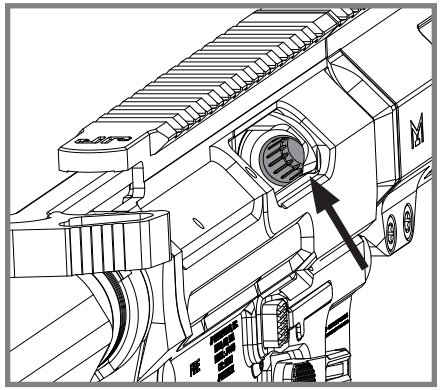
LOCKING OPEN THE ACTION ON SIDE-CHARGE RIFLES

For the left-side charging system of the PSC-5™ upper, manually locking the rifle action open without a magazine requires one of two different techniques. This is optional since the rifle can also be locked back with the standard charging handle.

Method 1: Hold the rifle with your right hand on the pistol grip and your finger out of the trigger guard. With your left hand, pull the action open all the way to the rear. When the action reaches the end of travel, use the middle finger of your left hand to actuate the bolt catch lever by pressing in at the bottom. With practice, this is a very fast manual lock back technique that allows you to retain your shooting/control grip on the weapon.

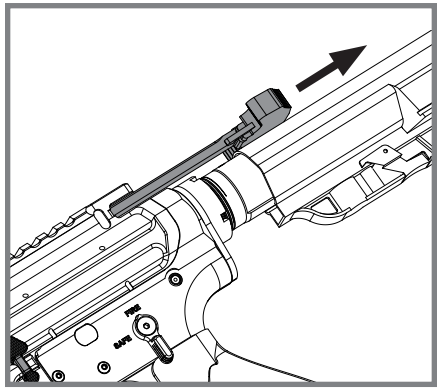
Method 2: This technique is preferable if you have small hands and can't reach the bolt stop with your middle finger while holding the charge handle to the rear. Begin by securing the rifle buttstock under your right arm. Pull the action open all the way to the rear using the charging handle. Reach underneath the rifle and cup the magazine well with your right hand, and then use the index finger of your right hand to actuate the bolt stop.

4. Visually inspect the receiver and chamber to ensure that no cartridge is present. Remember that just because no round is ejected from the receiver when locking the bolt back does not mean that there is no round in the chamber. There is no substitute for visually inspecting the chamber.



5. Place the safety selector lever on SAFE.

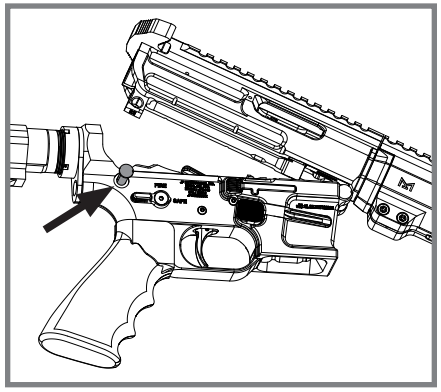
6. Pull the charging handle rearward until the bolt catch releases. Then, allow the bolt to close by easing the charging handle forward until the bolt comes to a stop.



DISASSEMBLY

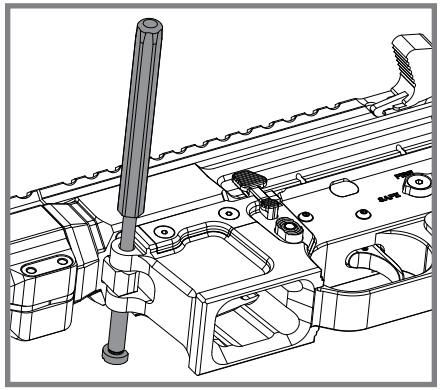
Before beginning the "field strip" described in the following steps, take care to lay out the removed components in an organized way as some can easily be misplaced and lost.

1. Press the rear takedown pin in from the left of the lower receiver and pull it out the right side until it comes to a positive stop. The pin cannot be completely removed as it is retained by a detent plunger. Bear in mind it may be necessary to use a punch to remove the takedown pin if the fit between the receivers is tight. If you use a punch and mallet to perform this task, be very gentle, as it is possible to break the detent plunger out of the side of the receiver with excessive force. Such damage is not covered under any warranty and will require the replacement of the lower receiver.

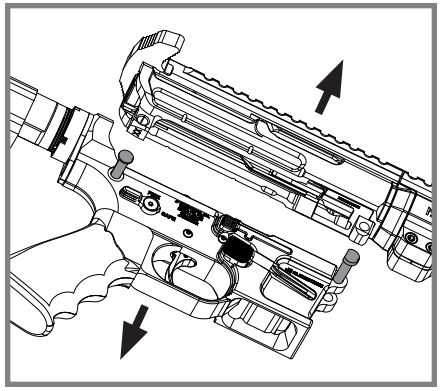


2. Pivot the lower receiver down and away from the upper receiver.

3. Press the front pivot pin in from the left side of the lower receiver, and pull it out the right side until it comes to a positive stop. Again, this pin is retained by a detent plunger and cannot be completely removed.

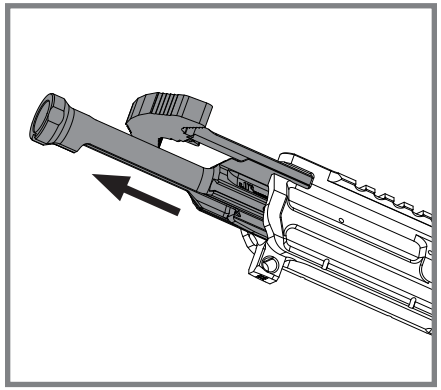


4. Separate the upper and lower assemblies. Take care that the bolt assembly does not fall out the back of the upper assembly.



5. On the lower assembly, depress the buffer retainer pin (if installed) and remove the Silent Captured Spring from the extension tube. This not necessary for regular maintenance. The Silent Captured Spring need only be removed for inspection every 1,000 to 2,000 rounds (or at least once a year) unless there is a specific problem requiring access to it.

6. Pull the charging handle to the rear of the upper assembly and remove the bolt carrier assembly.



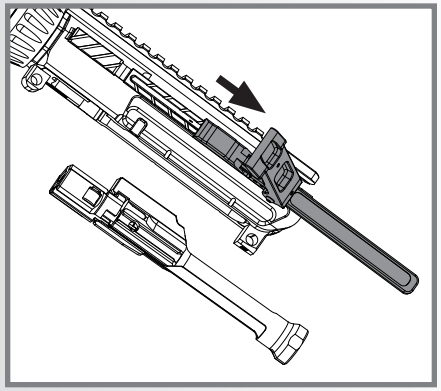
7. Remove the top charging handle by pulling it backwards until it stops and then down out of the upper receiver.

REMOVING THE SIDE-CHARGE HANDLE

The takedown of the side-charging handle of the dedicated 9mm GMR-15™ upper receiver varies slightly from a standard top-charging rifles. The disassembly directions below are in addition to steps 6 and 7 above.

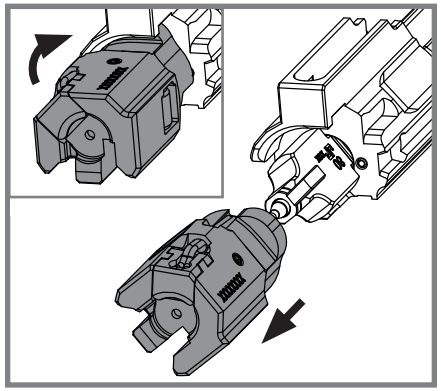
1. Extract the bolt assembly before attending to the charging assembly.

2. Move the charging handle assembly to the rear where there is a takedown notch. With the handle held out, lift the charging handle slider off the receiver rail through the takedown notch.



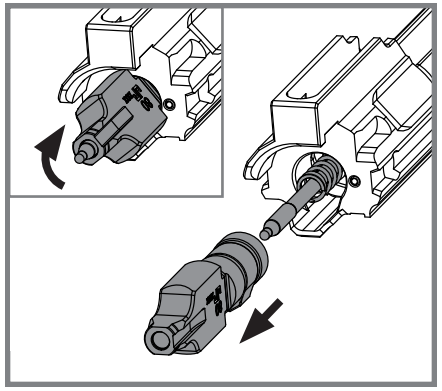
When servicing the JP-5™, cleaning of the bolt assembly does not require you to disassemble its component parts, and such a complete disassembly is not recommended as part of regular maintenance. Should you need to disassemble the bolt completely, refer to the diagram in the ***RIFLE OVERVIEW*** section for the following steps.

8. With the bolt face point towards you, rotate the bolt assembly clockwise until it stops, and then pull it free.



9. Rotate the lock piece clockwise until it is vertical, at which point it will pop free. Grip the lock piece firmly while rotating it as it is under spring tension.

10. Remove the lock piece, firing pin and firing pin spring from the bolt carrier.



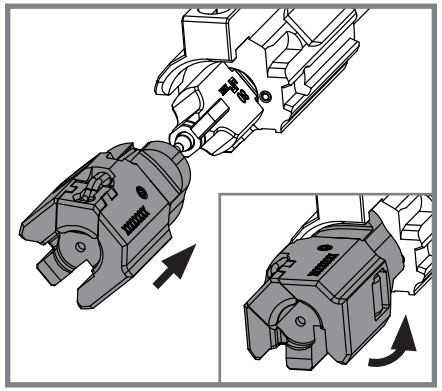
Unlike other rifles of this kind, removal of the hand guard is not necessary for routine cleaning and maintenance. During installation, Loctite® is used to secure the hand guard components, and they should only be removed in order to address a specific gunsmithing concern that necessitates access to that area of the rifle.

REASSEMBLY

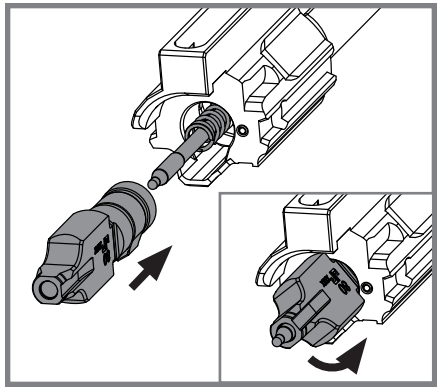
1. Reinsert the Silent Captured Spring assembly into the buffer extension tube by depressing the buffer retainer pin (if installed) and sliding the SCS back into the buffer tube.

2. Insert the firing pin and firing pin spring into the lock piece.

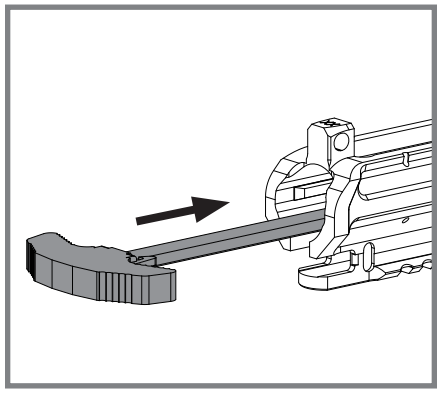
3. Compress the firing pin spring with the lock piece by inserting it as shown all the way in and then rotating it counterclockwise just enough to secure it.



4. Place the bolt onto the lock piece and continue turning counterclockwise until the lock piece clicks into place.



5. Insert the charging handle assembly into the receiver by locating the tabs over the cutout in the top rear of the upper receiver and pressing the tabs down into the charging handle slot. The charging handle should now slide freely in and out of the upper receiver.



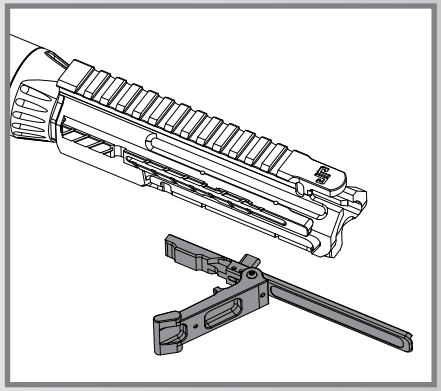
6. Insert the bolt carrier assembly into the upper receiver with the carrier key in the underside of the top charging handle. Slide both bolt carrier assembly and charging handle fully forward to the locked in-battery position.

7. Place the complete upper assembly on the complete lower assembly and press the front pivot pin in first, then the rear push pin in next to fully capture the upper on the lower. If the pins are too tight to insert with finger pressure, use a plastic or rubber mallet to tap in the pins.

REASSEMBLY OF SIDE-CHARGING RIFLES

To reassemble the upper assembly you will reverse the disassembly of the side-charge handle above. This step is an addition to step 7 for rifles with the PSC-5™ upper.

Lift the handle away from the charging handle/slider assembly holding it out from the slider. Lower the slider onto the takedown notch of the receiver rail and slide it forward until it comes to a stop in the forward position.



8. After making sure the rifle is unloaded, check for proper assembly and function by fully cycling the charging handle. Dry-fire the rifle while pointing it in a safe direction and repeat the process, finally locking the action open.

CLEANING AND MAINTENANCE

Due to the limited use of carbon steel components on a JP rifle, cleaning after every use may not be necessary, and you can even damage a barrel by over-cleaning it. However, if you only shoot occasionally, you should clean and lubricate the rifle before storage.

Lubrication of your JP-5™ is recommended before every use even if you don't clean the rifle. In normal environmental conditions (see below), lubricate the following areas before every use with quality gun oil:

- Bolt assembly roller channels
- Charging handle lug bearing surfaces
- Bolt carrier rail channels
- Lock piece

Apply a good sear lubricant to the trigger mechanism every 300 rounds. We recommend the included Armite LP-250 Sear Grease.

If you're expecting to fire hundreds of rounds in a sitting, lubricate your bolt assembly at least every 200 to 300 rounds. Apply oil at the sites mentioned above, and work the bolt back and forth a few times to disperse this oil. Running the upper receiver wet is the best thing you can do to increase the longevity of your operating system and receiver.

Rifle maintenance can be divided between short-term and long-term procedures. Short-term maintenance includes cleaning the bore and operating system every 1000 rounds or more depending on the extent and frequency of use and storage periods. However, take care to clean the crown and compensator after every use, if possible. Vaporized lead buildup occurs very quickly with 9mm. If the fouling buildup becomes too heavy, refer to our video on the subject, or consult a gunsmith for aid in removing it.

Long-term maintenance includes such tasks as cleaning and lubricating the Silent Captured Spring, cleaning the crown of the rifle and thoroughly cleaning the fire control cavity and components of the lower receiver followed by re-oiling. These services may be required after 1,000 to 2,000 rounds. With proper short- and long-term maintenance, your JP-5™ will give many years of great service.

CLEANING THE RIFLE

To perform the cleaning regimen described here, begin by disassembling the rifle as described above. You will need the following tools and substances:

- Good-quality gun oil with low- to medium-viscosity like Lucas Oil Extreme Duty (Avoid high-viscosity oils that might be used for handgun applications.)
- Gun cleaning solution (Avoid using carburetor cleaner or any ultra aggressive solvents formulated for other industrial cleaning. Damage from inappropriate solvent use is not covered under warranty.)
- Cleaning rod with a tight jag (not the slotted-type jags)
- Cotton flannel patches cut to fit snugly into the bore

- Small nylon toothbrush (When cleaning aluminum surfaces such as the receivers, do not use a wire brush. If cleaning is necessary, you can avoid scratches and wear by using a small toothbrush or flannel patch.)
- Dental picks
- Brass wire bristle bore cleaning brush
- Chamber cleaning brush
- Chamber mop
- Variable-speed drill (optional)

CLEANING THE UPPER ASSEMBLY

1. Attach the brass wire bristle brush to the cleaning rod and dip the brush in gun cleaning solution. Inserting the brush from the breech/receiver end only, thoroughly scrub out the barrel, passing the brush all the way through before reversing motion. If you try to change direction with the brush in the barrel, it may stick. Also, avoid contact between the cleaning rod and the muzzle, as resultant wear will reduce accuracy.

2. Attach a cotton flannel patch to a jag on the end of the cleaning rod. Saturate the patch with bore solvent. Insert it through the chamber and pass the rod and patch through the barrel. Repeat the process with a fresh patch until the last patch comes out clean.

3. Visually inspect the barrel. If it is clean, skip to step 5. If it remains dirty, continue with step 4.

4. Attach the chamber cleaning brush to the cleaning rod, dip the brush in bore cleaning solution and clean the chamber. You may wish to use a variable speed drill for cleaning the chamber if you're careful. If so, chuck up the last section of rod with the chamber brush installed on the end. Plunge the brush in and out of the chamber several times while running the drill at medium speed. This will remove any chamber fouling in seconds and dislodge debris from the barrel extension piece. If you have compressed air available, you can use it to blow out this area. Make sure to wear eye protection while doing so. If you find your bore still does not come clean, it may be heavily fouled by copper or lead, in which case a product like J-B® bore compound should be used to remedy the buildup. Refer to the instructions on the package.

5. Use a chamber mop to remove any remaining solvent from the chamber. Run a final dry patch through the bore to catch any solvent or dirt from the chamber that may have proceeded up the bore.

   Prior to an extended or undetermined period of storage, now is the time to prep the bore for storage. Lightly moisten a flannel patch with gun oil and pass it once through the barrel to leave a film of oil on the inside surface.

6. With the bolt carrier group disassembled (See **Disassembly** above), dip a nylon toothbrush in solvent and thoroughly scrub and scour the bolt assembly, bolt carrier and lock piece. A dental pick may also be used to remove hardened fouling not removed by the toothbrush. Dry the surfaces of the bolt assembly, bolt carrier and lock piece completely with compressed air.

7. Wipe all components clean and dry. Inspect them for excessive wear, corrosion or mechanical damage. See the **Inspection of Critical Parts** section below. If any of these faults are discovered, have them corrected before firing again. If components need to be repaired or replaced, contact JP Enterprises, Inc. or a qualified gunsmith to make arrangements.

8. Verify that no fibers or brush bristles have become lodged anywhere in the firearm such as the bore. Remove any excess lubricant or solvent. For side-charging rifles, clean any ferrous debris from the integral magnet of the side-charge handle.

9. Re-lubricate the bolt carrier assembly components with an oil cloth. Make sure to leave a light film of oil over the entirety of the bolt assembly to lubricate and avoid corrosion. Lubricate the following parts with gun oil:

   - Bolt assembly roller channels
   - Charging handle lug bearing surfaces
   - Extractor and extractor spring
   - Ejector axel and alignment channel
   - Side-charge handle spring
   - Bolt carrier rail channels
   - Lock piece
   - Action springs and pins
   - Bolt catch

10. Reassemble the rifle as described above.

11. Remove any gun cleaning solution, oil or fingerprints from the outside surfaces of the firearm. Finger moisture, if left uncleaned, could cause corrosion.

CLEANING THE LOWER ASSEMBLY

Regular cleaning of the lower assembly does not require removal of the ejector or fire control components. Because of the fine-tuned relationship between these parts, removal or adjustment of the fire control mechanism should only be performed by JP Enterprises, Inc. or a qualified gunsmith.

1. Remove the buffer components as described in the disassembly instructions.

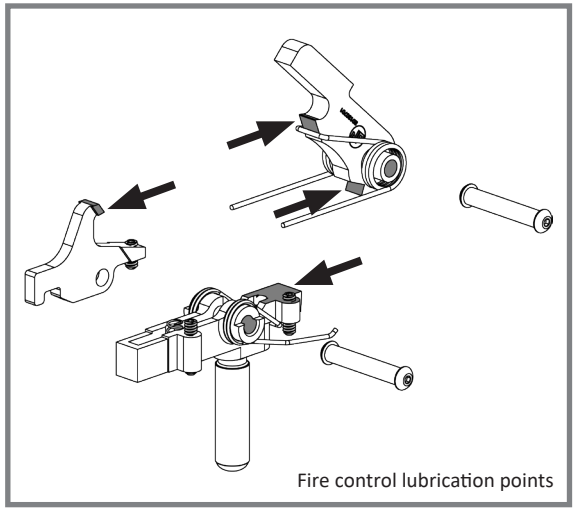
2. Wipe lubricant and dirt from the buffer components with a clean cloth.

3. Wipe out the extension tube using several large cleaning patches on your cleaning rod or a piece of cloth.

4. Use light oil to lubricate the Silent Captured Spring. Do not use grease, as it will cause malfunctions in cold conditions.

5. Making sure that you have not left any patch or material in the buffer extension tube, reinstall the Silent Captured Spring.

6. Use a degreasing agent or solvent such as Birchwood Casey® Gun Scrubber to clean out any debris such as dirt, unburned powder, brass shavings or primer parts from the fire control cavity of the lower assembly. If you have access to compressed air, use it to remove all foreign material from the fire control cavity. Again, make sure to wear eye protection while using compressed air.



Fire control lubrication points

7. Using a good sear lube like Armite LP-250 Sear Grease, lubricate the sear and hammer notch and the hammer/disconnector surfaces. You may use a good lithium grease for this application if nothing else is available. Reapply at every cleaning. Between cleanings, keep the fire control group oiled.

8. Place a drop of gun oil on the trigger and hammer pivot pins. Do likewise for the takedown and pivot pins in the receiver.

9. Place a T8 Torx driver on both sides of the JP Anti-Walk Pins and attempt to turn counter clockwise to verify that the screws are still properly secured. If either side backs out with little or no force applied, remove the screws and thoroughly degrease the threaded hole and the screw using a solvent such as lacquer thinner. Apply an appropriate thread locker product (such as Loctite® 242) and allow it to cure as instructed by the manufacturer before further use. Check the screws again after the thread locker sets up.

10. As needed, place a drop of oil on the ejector axel, in the ejector alignment channel, on the bolt catch and in the actuator arm pockets.

11. Finish reassembling the rifle as described in the reassembly instructions.

REPLACEMENT OF PARTS

On self-loading rifles like the JP-5™, certain parts must be viewed as consumable. Various components should be replaced as part of a long-term maintenance program to prevent their eventual failure as they exceed their service life. With that in mind, the regimen detailed here specifies the various components of your rifle that ought to be inspected and replaced as needed. Like any machine, rifles and their parts are not identical, and while the function and even the components may be the same, no two items will ever fail at exactly the same time. **Use only JP-5™ components from JP Enterprises in your rifle.**

PART NAME	REPLACEMENT WEAR
Barrel	Inspection of bore just past the chamber area indicates significant or complete absence of rifling.
Extractor	Any chipping, cracking, wear to the hook, or when extraction difficulties begin.
Extractor Spring	Visible damage or extraction difficulties. Replace along with extractor. Replace at 5000 rounds for duty usage or around 10,000 rounds for recreational use.
Firing Pin and Spring	Significant bending or breakage, inertial firing pin marks in primers
Ejector Spring	Ejector begins to stick up and will not return to its position against the lower. Replace at 10,000 rounds for duty usage
Buffer Spring	The rifle begins to feel sluggish or no longer strips a fresh cartridge from a magazine reliably.
Silent Captured Spring Bumper	Significant mushrooming or deformation. Inspect every 1000 rounds.
Silent Captured Spring O-Rings	Fraying/cracking or loss of rings.
Trigger and Hammer Springs	Will weaken over time, but generally not enough to cause a safety concern unless overall trigger pull weight drops below three pounds. This may prevent ignition of the primer, or trigger bumping.
Trigger and Hammer	Excessive wear to the sear engagement surfaces. Lubrication can lengthen this lifetime considerably.
Disconnector and disconnector spring	Trigger and hammer do not reliably reset, and hammer follows the carrier forward, noticeable wear on the disconnector hook, or the rifle slam fires or fires multiple shots per trigger pull. This is the most critical piece in the rifle.

PART NAME	REPLACEMENT WEAR
Bolt Catch	Cracks or heavy signs of wear.
Magazine springs	Springs lose sufficient tension and no longer actuate bolt catch mechanism.

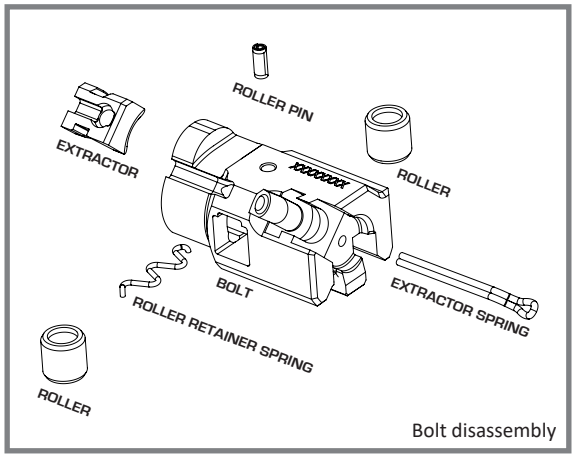
It doesn't hurt to have spares of certain parts on hand when shooting your rifle. A useful kit of backup parts would include spares of the following:

- Firing pin
- Extractor
- Ejector spring
- Roller retainer spring
- SCS O-rings
- Firing pin spring
- Extractor spring
- Ejector E-clip
- Roller retainer spring pin

In evaluating the replacement of your components, take into consideration the frequency and severity of your rifle use. This will have a strong bearing on your replacement schedule as heavier and sustained use will produce more wear than lighter, more infrequent use. This regimen reflects a rifle used on a "regular" basis of several dozen to several hundred rounds per month under unremarkable circumstances. When replacing any component retained by a roll pin or spring pin, replace said pin as well.

BOLT DISASSEMBLY

Complete disassembly of the bolt is not a part of standard maintenance for the JP-5™ and need only be done to replace specific components that are showing wear or have broken. The two component groups in the bolt assembly are the extractor assembly and the roller group. Make sure the lock piece is removed from the bolt assembly before further disassembly.

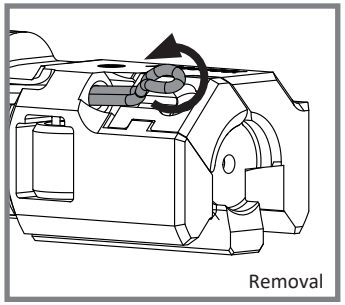


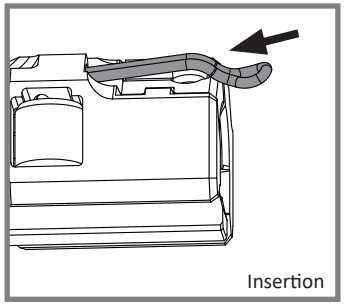
Bolt disassembly

EXTRACTOR

When disassembling the extractor, take special care not to bend or damage the extractor spring during removal or installation. Note the orientation of the extractor spring before removing it as a reference for later.

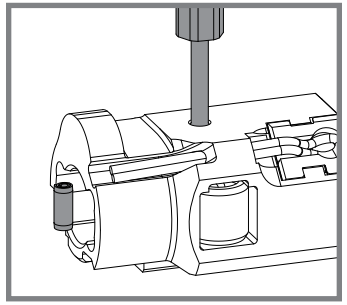
1. Insert a small punch or pick into the loop of the extractor spring and gently twist it until it pops out of its pocket and out of tension. Slip the spring forward out of the bolt assembly.
2. Slide the extractor out of the bolt and replace it (if necessary) by sliding the new extractor in the same way.
3. Reinstall the extractor spring using finger pressure to keep it in its final rotational orientation.
4. Place the extractor spring against a hard surface to push the loop back until it slips into the pocket in the extractor.


Removal


Insertion

ROLLERS

1. With the lock piece removed from the bolt assembly, use a punch to drive the roller pin down into the bolt until it falls free. Set this pin aside.
2. Push the rollers and the retainer spring out of the channel in the bolt.
3. To reassemble, place one of the retainer spurs into the counterbore of one roller.



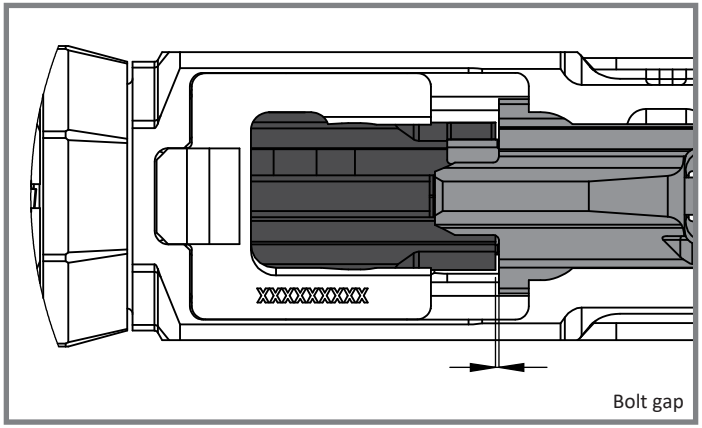
4. Place this assembly into the bolt roller channel of the bolt assembly until the other retainer spur protrudes from the other side.
5. Place the second roller's counter bore on this spur, and push both rollers in.

6. Using a punch as a drift, insert the punch into the roll pin hole to align the roller retainer such that the large central bend is centered on the punch.
7. While holding the rollers in, drive the roll pin down until it is flush with the top of the bolt.
8. Confirm that the roller retainer is flat up against its channel in the bolt and not held down by the pin. If it is, use a pick or tool the snap it up into place.
9. Check that the rollers move freely and that the lock piece moves freely in and out when inserted. There should be no binding on any of the parts.

BOLT GAP

The bolt gap is an indirect measurement of the roller engagement of the bolt carrier group into the trunnion/extension. This engagement is critical as it must be controlled to ensure the correct purchase of the rollers into the roller grooves in the trunnion. Every JP-5™ is set up with correct roller gap, but as the rollers, lock piece, bolt and trunnion wear, this gap will change over time. Past a certain point, this wear will cause cycling issues. To remedy this, replacement rollers can be swapped out to adjust this gap back into an acceptable range. Rollers should always be replaced in pairs so both sides match in size. The bolt gap will tend to decrease with wear and should be maintained between .010"-.020". Installing larger rollers will increase the measured gap.

The bolt gap can be measured with the upper assembly by itself using our JP-5™ Bolt Gap Gauge Set. This product can be found on our website along with instructions and a video demonstrating its use.



Bolt gap

RECONFIGURING THE JP-5™

The JP-5™ includes a combination of propriety components with standard AR-15-compatible components that can be changed out for others. These include the muzzle device (if not pinned and weleded), hand guard, fire control group, stock and grip. Be aware that changing your JP-5™ from its factory configuration can introduce functional issues. For instance, when changing out the stock and buffer tube, you must take care that the Silent Captured Spring is installed and shimmed correctly or damage may result. Please consult the instruction sheets on our website for any component you are removing to ensure that no critical aspects of its function are overlooked.

CLEANING AND INSPECTING THE MAGAZINE

It is advisable to also clean the magazine(s) whenever the firearm is cleaned. The cleaning process described here is specific to Glock-brand magazines and may not apply to third-party magazines.

First, make sure that the magazine is empty. Use an armorer's tool to press in the magazine insert through the floor plate on the bottom of the magazine. Press in on the sides of the magazine directly above the floorplate. Use the armorer's tool to dislodge the floor plate. Using your thumb to ensure that the magazine spring does not eject, slide the floor plate off the magazine. With the floor plate removed, you can then remove the magazine insert, spring and follower. This may seem difficult at first, but it can be accomplished without the use of extreme force. There are many useful video online demonstrating this process.

Clean all the internal components and wipe the spring with a light coat of oil. Leave all other components dry and reassemble the magazine in reverse order. For additional lubrication, you can apply powdered graphite to the magazine after it is loaded. Never use oil on the magazine body or follower.

Periodically verify the strength of the springs in your magazines. The bolt catch of the JP-5™ operates off of the magazine spring, and insufficient tension will cause this mechanism to fail. These springs will wear and soften with use and need replacement.

SPECIAL CLEANING CONSIDERATIONS

Beyond regular maintenance, you should be aware of certain conditions that will necessitate immediate or specific cleaning procedures. Before firing your rifle, you should check the barrel and chamber to ensure that they are clean and dry. After firing, expect to disassemble and clean the rifle within a 24-hour period to make the job easier and to allow less time for any corrosion to start. Check it again within a few days to ensure that no further cleaning is necessary. If your firearm has not been used for some time, you should perform a routine cleaning at least once or twice a year in a temperate climate. If you carry a loaded firearm, unload it and clean it when necessary or at least

once a month. If you get your firearm wet, clean it as soon as possible. Below is a listing of environmental factors and how they should affect you firearm maintenance routine.

Extreme Cold

- Clean and lubricate your rifle with a degreasing agent and keep it free from moisture like condensation. In freezing conditions, apply a dry lubricant sparingly in place of oil. We recommend powdered graphite like a locksmith would use. Most oils will thicken and may cause excessive hydraulic friction and subsequent malfunctions. When returning the firearm to normal environments, re-oil as dry lube will not provide corrosion protection.
- At intervals, operate the rifle's controls through their entire range to keep them from freezing up.
- If you are using the rifle in extreme cold conditions, it is wise not to bring it into a warm, humid situation like a cabin, but rather leave it cased or racked in the cold, preferably protected with a cover.

Hot, Humid Climates

- Inspect the rifle, especially the hidden surfaces of the bolt assembly, and lower receiver components. Keep them lubricated with gun oil. Use a good gun oil or rust preventative on steel components to prevent corrosion.
- When handling, make sure to wipe dry, as moisture can cause corrosion. After drying, lubricate with gun oil.
- Because of the adverse effects of humidity, be prepared to perform routine cleaning as often as every week. In particular, salt spray environments may require daily service even on stainless components.

Dusty or Sandy Environments

- Clean and generously lubricate the rifle more frequently.
- Keep sand away from the rifle's interior parts when inspecting, lubricating or assembling the rifle. Apply only a light amount of lubrication on the outside of the rifle.
- Use a magazine bag and muzzle cap for dust and sand protection.

STORAGE

Store your firearm and ammunition separately in a securely locked location out of the reach of children and other unauthorized users. Do not store your firearm in an airtight container, and do not seal or attempt to seal the barrel to exclude dust, as the internal steel surface is more likely to corrode. If you intend to store the firearm long term, purchase a sealing anti-corrosion bag designed for that purpose. When taking the firearm out of storage, be sure to run a clean swab through the barrel to remove any oil film before use.

TROUBLESHOOTING

This section is intended to address some of the most common problems encountered by the operators of self-loading rifles. Many of the problems are easily remedied with a combination of patience, minor adjustment and observation. If you would prefer to have JP Enterprises, Inc. or a qualified gunsmith inspect your rifle, carefully note all details regarding the malfunction and the positions of the cartridges and mechanisms involved.

The rifle fails to fire when the trigger is pulled…

Hangfire

If, while operating your JP-5™, you depress the trigger and hear the hammer fall, but the weapon does not discharge, keep the muzzle pointed towards a safe backstop for a full minute. If a hangfire (slow ignition) has occurred, the weapon will usually discharge in that time. If it does not discharge, remove the magazine and attempt to extract the round from the chamber by pulling back with the bolt handle. If the round does not extract due to over-insertion in the chamber, hold the rifle with both the ejection port and barrel pointed safely away from you and bystanders. Lock the bolt open and the turn the safety on. Look into the chamber to see if a round is present. If there is a round, and it won't extract using the action of the rifle, close the action and separate the upper and lower assemblies in a safe area. Remove the bolt assembly from the upper and use a cleaning rod or range rod to dislodge the stuck cartridge.

Examine the faulty round. If the indent from the firing pin is light, off-center or non-existent, have your firearm examined by a qualified gunsmith. If the indent seems consistent with previously fired rounds, assume that the cartridge was faulty and segregate it from other ammunition and shells. Dispose of misfired cartridges as instructed by the manufacturer and inform them of the malfunction.

If you extract a cartridge with no bullet, a projectile may be lodged in the bore. Refer to the "Projectile Lodged in Bore" section below.

Failure to Go Into Battery

If you have depressed the trigger, heard the hammer fall but the rifle has failed to fire, the action of your rifle may have failed to go into battery, meaning the action is not fully closed. If you observe that the bolt assembly is not all the way forward, do not attempt to force it closed.

If your rifle does not go into battery, it may have debris or some other obstruction in the chamber. However, the most common cause of this problem is out-of-spec ammunition, which means the cartridge does not fit the chamber for some reason. If you are reloading or have purchased reloaded ammunition, the sizing die may not be properly set. Verify the sizing of your ammunition before continuing to use it.

Failure to Reset

If you depress the trigger and the rifle does not fire, but you did not hear the hammer fall, unload the rifle by removing the magazine and clearing the chamber. Try dry-firing the rifle without ammunition by cycling it and pressing the trigger. If the hammer does not fall and the trigger does not follow its usual front-to-back movement, the fire control system may be failing to reset. In other words, the hammer is not releasing from the disconnector to reset back to the sear face. This is typically caused by debris such as brass shavings, a blown primer, unburned powder or sand/dirt under one or both of the trigger adjustment set screws. This may prevent the trigger from returning all the way forward, which is necessary for the hammer to be released by the disconnector to reset the mechanism. If this is the case, the fire control cavity of the lower assembly should be properly cleaned. If this fails to solve the problem, contact JP Enterprises, Inc. for service.

Projectile Lodged In Bore

If a popping sound is audible while firing the rifle instead of a full report or you experience reduced recoil, ***stop firing immediately***. These conditions could be indicative of an incomplete powder burn, light powder load or split case. Any of these could result in a bullet being lodged in the bore.

Remove the magazine and retract the bolt slowly and lock it open. Switch the safety selector to SAFE. Visually check or insert a cleaning rod into the bore to determine if a round or debris such as unburned powder or jacket material is lodged inside. If so, cease all use of the rifle and contact JP Enterprises, Inc. or a qualified gunsmith. Firing another round behind a projectile lodged in the barrel will destroy the barrel and may cause serious injury to shooters and bystanders.

The rifle fires multiple rounds with one pull of the trigger…

Fire on Release (Worn Disconnector)

A worn disconnector or sear surface may allow the hammer to prematurely release from the disconnector, which may cause the rifle to fire when the trigger is released. In other words, the rifle will fire when the trigger is pressed and again when the trigger is released. The problem will eventually appear in most AR-type rifles as parts wear if the fire control mechanism is not properly serviced and inspected. Performing a disconnector test will give you advanced warning when parts may need to be replaced to prevent this problem from occurring. If you don't feel capable of making this judgment, have a competent gunsmith check your trigger mechanism. This test should be performed during every service so you are aware of any changes to the fire control system's function.

There may be a brief period in the disconnector's life when it will release the hammer as a result of the bolt bouncing closed that may result in multiple round firing with a single trigger pull. If you experience this, the rifle should be serviced immediately.

Slam Fire

A slam fire is much less likely to occur in your JP-5™ than would be the case with a standard AR-type rifle. A slam fire occurs when the weapon fires as the bolt closes during loading or during live fire. The likely cause for such a malfunction in the JP-5™ is if the firing pin is stuck in the forward position due to debris in the firing pin channel. Check the firing pin spring for wear as well.

Slam fires may result from primers that are too sensitive for the application as well. For this reason, some 9mm primers are not suitable for pistol carbine use.

Finger Bounce

Another common cause of what is commonly referred to as "doubling" is the finger bounce effect. Failure to use proper trigger control techniques may result in the trigger finger bouncing on the trigger due to the recoil impulse of the rifle, which causes the rifle to fire multiple times without the shooter's intent. Proper trigger control technique is essential for the safe operation of your rifle and is unlike techniques used on manually operated rifles.

The rifle fails to lock back on the last round…

Failure to lock back on the last round in the magazine can have many causes, the most likely of which is a defective magazine, magazine follower or weak magazine spring. Magazines need to be rebuilt from time to time, and they eventually need to be replaced. Verify that the rifle will lock back manually on an empty magazine when you pull back on the charging handle. If this corrects the problem, use a different magazine.

If you perform the above test and the bolt still does not lock back, there may be a problem with the bolt catch. Verify that the bolt catch moves freely and that the catch and actuator arm move in unison and not independently, indicating a breakage. The only resistance you should feel is the spring tension of the catch release. Excess friction caused by dirt or corrosion between the bolt catch and the receiver slot will reduce the reliability of the bolt catch mechanism.

The rifle suffers from stoppages or jams…

It is important to note that this section refers to reoccurring stoppages, rather than one malfunction in hundreds or thousands of rounds. No mechanical device functions perfectly at all times, and every self-loading firearm will malfunction at some time, despite claims to the contrary. As with anything, realistic expectations are important.

There are many types of stoppages, and not all of them can be covered here. A self-loading rifle functions as a materials handling system. Some material (ammunition) is delivered through a feeding device (the magazine), is processed (fired), and the remains are discarded (spent case extracted and ejected). Like every mechanical device, it has an "operational window." It is important to know that any malfunction scenario

is usually the result of several factors combining to collapse this operational window until finally a stoppage occurs. Stoppages and malfunctions are rarely the result of one factor, and correcting any one of the contributing issues may bring the system back into its operational window. The best diagnostics and remedial approaches will cure most or all of the issues that contribute to a particular malfunction and thereby expand the operational window as much as possible. The larger the operational window, the greater the range of physical conditions under which the rifle will continue to function.

This section covers the most common stoppages, addressing the causes and solutions to each. It is important to be very observant when trying to diagnose a problem or relay it to someone for technical support. For the JP-5™, especially a unit with high round count, refer to the ***Bolt Gap*** section if you are experiencing persistent malfunctions.

Failure to Eject

If the spent case was extracted successfully, but did not make it out of the upper receiver to be ejected, this is a failure to eject. This can be caused a number of issues, the first being low bolt velocity. If this is the case, switching to a higher angle lock piece should resolve the issue. If this is a new problem not resulting from a change of configuration or ammo, it might be a failure of the extractor to engage the rim of the case, often due to burrs on reloaded cases or manufacturing issues in the case preventing it from getting under the extractor. This can also be caused by a poorly fit extractor, particularly if it is an aftermarket part. Make sure to replace the extractor and spring as recommended in the ***Replacement of Parts*** section. Failures to eject can also be caused by a worn out extractor spring.

Failure to Feed

A failure to feed can take several forms, each of which is caused by unique factors. The most basic failure to feed involves the rifle firing, ejecting the spent casing, and closing on either an empty chamber or on a cartridge that is only partially stripped from the magazine resulting in a "bolt ride-over." One cause of this problem is a weak magazine spring or a magazine that is otherwise defective. The magazine may also be dirty or not properly prepped with graphite.

Alternatively, failures to feed can result from too much tension on the magazine, which can come about when a high-capacity magazine is being "monopoded" for stability. This added upward pressure causes too much friction on the bolt carrier group and robs energy from the operating system such that it will not fully close on the cartridge. The solution in this case is to either avoid such situations or to switch to a stronger action spring.

The rifle may also fail to feed because a loose round in the upper receiver is jammed in front of the bolt, or there may be a combination of a loose round and the bolt attempting to feed a second round for a double feed. This again is usually indicative of a defective magazine, which should be replaced.

If a round stops on the feed ramp of the barrel (in some cases actually collapsing the bullet into the case) this can be caused by using inappropriate or oddly shaped projectiles, such as jacketed hollow points with overly large hollow points. Out-of-spec cartridge lengths and projectile shapes are not suitable for use in a self-loading rifle and will tend to cause such errors.