

# **SIGSAUER**<sup>®</sup>



## ***SIG MCX-SPEAR***<sup>®</sup>

***OPERATOR'S MANUAL: HANDLING & SAFETY INSTRUCTIONS***



READ THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL CAREFULLY BEFORE USING THIS FIREARM.



# WARNINGS



# WARNINGS

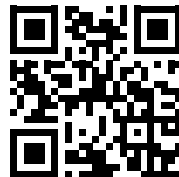
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## WARNING

**BEFORE OPERATING THE FIREARM, REVIEW THE SAFETY WARNINGS MANUAL THAT WAS PROVIDED WITH THE FIREARM. ALTERNATIVELY, REFER TO SIGSAUER.COM FOR THE LATEST SAFETY WARNING INFORMATION.**

For more information, scan the QR code below to visit sigsauer.com.





# WARNINGS

## 1.0 SAFETY WARNINGS

**READ THIS ENTIRE MANUAL THOROUGHLY AND CAREFULLY PRIOR TO USING THIS FIREARM.**

The warnings in this Operator's Manual are extremely important. By understanding the dangers inherent in the use of any firearm, and by taking the precautions described in this manual, you can experience a high level of safety in the use of your firearm. Failure to heed any of these warnings may result in serious injury or death to you or others, as well as severe damage to the firearm or other property.

**WARNINGS** in this manual identify a clear danger to the person performing that procedure. Warnings are identified by a red banner with the word **WARNING** in white, bold, uppercase letters and a **WARNING** icon. Failure to comply with a **WARNING** can result in serious injury or death to you or a bystander.



**WARNING**



# WARNINGS

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**CAUTIONS** in this manual identify a risk of damage to the firearm being maintained. **CAUTIONS** are identified by a black banner with the word **CAUTION** in white, bold, uppercase letters.

**CAUTION**

SIG SAUER, INC.<sup>®</sup> firearms are designed to function reliably with proper care and knowledgeable use. Operators must understand the safe operation and use of any SIG SAUER firearm. Read and follow these instructions carefully. Do not use the firearm without understanding the instructions outlined in this manual and the safe operation of the firearm. **Failure to follow the instructions outlined in this manual may result in serious injury or death to the operator and/or others. Damage to the firearm and other property may also occur.**



# WARNINGS

## 2.0 HANDLING

Your firearm comes equipped with effective, well-designed safety features. However, never rely completely on any safety mechanism. Safety mechanisms are designed to augment, not replace, safe handling practices. Careless and improper handling of any firearm can result in an unintentional discharge.

Proper and applied training in safe firearm handling will ensure the safe use of your firearm. Like all mechanical devices, the safety mechanisms are subject to breakage or malfunction and can be negatively affected by wear, abuse, dirt, corrosion, incorrect assembly, improper adjustment or repair, or lack of maintenance. Moreover, there is no such thing as a safety mechanism that is “childproof” or that can completely prevent accidental discharge from improper usage, carelessness, “horseplay,” or abusive handling.

Always handle your firearm as though you expect the safeties not to work.

### **THE MOST EFFECTIVE SAFETY IS TO CARRY FIREARM WITHOUT A ROUND IN THE CHAMBER, AND TO LOAD A ROUND IN THE CHAMBER ONLY WHEN READY TO FIRE.**

Do not load a cartridge into the chamber until you are ready to use the firearm. Keep the firearm on SAFE until you are actually ready to use the firearm. Always move the selector fully to its engaged position and visually check it. The selector is not on SAFE unless it is completely on SAFE.



# WARNINGS

## 2.1 BASIC RULES OF SAFE FIREARMS HANDLING

- ALWAYS treat every firearm as if it were loaded.
- ONLY load a round in the chamber when ready to fire.
- NEVER pull the trigger or place fingers on the trigger or in the trigger guard until ready to fire.
- NEVER allow clothing or other foreign objects to interfere or come in contact with the trigger.
- ALWAYS be sure the barrel is clear of any obstruction.
- ALWAYS be aware of the surroundings, and the safety of bystanders before shooting. Know the target and what is in front of and beyond it.
- ALWAYS use clean, dry, original factory-made ammunition of the proper type and caliber for the firearm.
- ALWAYS wear ear protection and safety glasses when shooting.
- ALWAYS carry a firearm so that control of the muzzle can be maintained in the event of a fall or stumble.
- NEVER shoot at a flat surface or water.
- DO NOT leave a loaded firearm unattended. Only store a firearm that is unloaded, cleared of all ammunition, and locked in a secure place inaccessible to children or unauthorized persons.
- NEVER allow the firearm to be used by anyone who has not read and understood the Operator's Manual.
- ALWAYS unload and clear a firearm according to the instructions in the Operator's Manual before handing it to another person.
- DO NOT point any firearm, loaded or unloaded, at any undesignated or unsafe target.



# WARNINGS

- NEVER discharge a firearm near an animal unless the animal is trained to accept the noise. An animal's startled reaction could injure it or cause an accident.
- NEVER drink alcoholic beverages or use drugs before or during shooting, as vision and judgment could be seriously impaired, making firearm handling unsafe.
- ALWAYS seek a doctor's advice before using a firearm if using medication that would impair judgment or usage.



# WARNINGS

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## 2.2 ABUSIVE HANDLING

SIG SAUER firearms incorporate effective mechanical safeties. However, like any mechanical device, exposure to abusive conditions may harm these safety mechanisms and cause them to fail to work as designed. Do not subject the SIG SAUER firearm to any abusive handling. This includes the firearm being dropped, impact to the firearm, or the firearm being struck by another object. Always maintain control of the firearm. If the firearm suffers an abusive event such as previously described, or experiences a malfunction, do not attempt to use the firearm. Keep the firearm pointed in a safe direction, unload and clear the firearm of all ammunition immediately, and have it inspected by a certified SIG SAUER armorer before using the firearm.

ALWAYS keep the firearm pointed in a safe direction. A safe direction is defined as an area where, if the firearm were to discharge, no property damage would occur, and no personal injury would result.

As previously noted, if the SIG SAUER firearm suffers an abusive event, unload it immediately and have it inspected by a certified SIG SAUER Armorer prior to using the firearm. If the firearm suffers an abusive event during a life-threatening/self-defense situation, follow the steps below immediately:

1. Pull the charging handle entirely rearward to eject the chambered cartridge.
2. Return the charging handle forward to chamber a new cartridge and reset the hammer.
3. The firearm should now be returned to proper operational condition.

Intentional or repetitive abusive handling of any SIG SAUER firearm will void the manufacturer's warranty and could render the firearm unsafe.



# WARNINGS

## 3.0 ALTERATIONS AND REPLACEMENT PARTS

**Do not attempt to disassemble a SIG SAUER firearm beyond the point explained in the Operator's Manual. Disassembly beyond the instructions in the Operator's Manual is restricted to a certified SIG SAUER Armorer. Failure to comply with these restrictions will void the warranty.**

This SIG SAUER firearm was designed to function properly in its original condition. Unauthorized alterations can make it unsafe. Do not alter or substitute any parts or accessories not manufactured or specifically authorized by SIG SAUER for this firearm. Warnings and instructions about the use of SIG SAUER replacement parts, assemblies, and accessories may be described in instructions accompanying the specific products. Read and carefully follow those instructions. Failure to comply may result in serious injury or death to the operator and/or others.

### 3.1 ACCESSORIES

It is the responsibility of the operator to ensure all accessories are compatible with the firearm and do not interfere with the safe operation and handling of the firearm.



# WARNINGS

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## 3.2 TRANSPORTING

When transporting a firearm, be sure the firearm is unloaded and cleared of all ammunition. It is the responsibility of the operator to know the laws of different states and jurisdictions when traveling with a firearm.

### 3.3 STORAGE

Safe and secure storage is an important responsibility. The only safe way to store a firearm is unloaded, cleared of all ammunition, and locked in a secure place inaccessible to children or unauthorized persons.

### 3.4 CHAMBER SAFETY FLAG

Every SIG SAUER firearm is shipped with a chamber safety flag. When installed, the chamber safety flag prevents the chambering of a round and provides a readily visible indication that the firearm's chamber is empty. The chamber safety flag is to be placed in the firearm's chamber at all times when the firearm is not in use. Many public ranges require chamber safety flags be installed when the firing line is cold.



# WARNINGS

## 3.5 LIABILITY

This product is classified as a FIREARM and is sold by SIG SAUER with the specific understanding that we shall not be responsible in any manner whatsoever for malfunctioning of the firearm, physical injury, or property damage resulting in whole or in part from:

- Criminal or negligent discharge
- Improper, careless, or abusive handling
- Unauthorized modifications or parts replacement
- Defective, improper, hand-loaded, or reloaded ammunition
- Corrosion
- Neglect
- Other influences beyond our direct and immediate control

This limitation applies regardless of whether liability is asserted on the basis of contract, negligence, or strict liability (including any failure to warn). Under no circumstance shall SIG SAUER, Inc. be liable for incidental or consequential damages such as loss of use of property, commercial loss, and loss of earnings or profits.



# WARNINGS

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## 4.0 EYE AND EAR PROTECTION



Always wear safety glasses that meet the requirements of American National Standards Institute (ANSI) z87.1 or European Standard (EN)166:2001 and ear plugs and “ earmuff ” type protectors whenever shooting. Always make certain that persons close are similarly protected. Unprotected eyes may be injured by powder, gas, carbon residue, lubricant, metallic particles, or similar debris that may emanate occasionally from any firearm in normal use. Without ear protection, repeated exposure to shooting noise may lead to cumulative, permanent hearing loss.

## 5.0 AMMUNITION

Use only high-quality, original, factory-manufactured ammunition. Do not use cartridges that are dirty, wet, corroded, bent, or damaged. A damaged or deformed cartridge may impede chambering or cause the cartridge case to burst upon firing. Do not oil cartridges. Lubricant or other foreign matter on cartridges can potentially cause dangerous ammunition malfunctions. Some highly penetrative lubricants can also migrate inside cartridge cases and cause deterioration of the propellant powder; on firing, the powder might not ignite. If only the primer ignites, there is danger that the bullet may become lodged in the barrel. Only use ammunition of the caliber for which the firearm is chambered.

The proper caliber is permanently engraved on the firearm’s barrel.



# WARNINGS

The use of reloaded, hand-loaded (re-manufactured), or other nonstandard ammunition voids all warranties. Reloading is a science, and improperly loaded ammunition can cause severe damage to the firearm and may result in serious injury or death to the operator and/or others.

Always use ammunition that complies with the industry performance standards established by the Sporting Arms and Ammunition Manufacturers' Institute, Inc. (SAAMI) or ammunition manufactured to U.S. military specifications.

**SIG SAUER specifically disclaims responsibility for any damage or injury whatsoever occurring in connection with, or as a result of, the use in any SIG SAUER firearm of faulty, nonstandard, hand-loaded (reloaded) ammunition, or cartridges other than those for which the firearm was originally chambered. Excessive pressure inside the chamber or barrel while firing a firearm may cause severe damage and serious injury or death to the shooter or to others may occur.**



**WARNING: CANCER AND REPRODUCTIVE HARM—[www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)**



DISCHARGING FIREARMS IN POORLY VENTILATED AREAS, CLEANING FIREARMS, OR HANDLING AMMUNITION MAY RESULT IN EXPOSURE TO LEAD AND OTHER SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS, REPRODUCTIVE HARM, AND OTHER SERIOUS PHYSICAL INJURY. MAINTAIN ADEQUATE VENTILATION AT ALL TIMES. WASH HANDS THOROUGHLY AFTER EXPOSURE. SHOOTING OR CLEANING FIREARMS MAY EXPOSE OPERATORS TO LEAD.



# WARNINGS

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## 6.0 LOCKING DEVICES



All SIG SAUER firearms are shipped with a key-operated locking device or a lockable case.

Never install the locking device inside the trigger guard or in any way that makes it possible to pull the trigger. Do not leave the keys in the lock.

All firearm owners are responsible for secure storage of any firearm.

ALWAYS refer to the locking device's manufacturer directions for installation and removal of the device.



# WARNINGS

## 7.0 SAFETY INFORMATION

This operator's manual is designed to assist you in learning how to use and care for your SIG SAUER® firearm properly.

Only when you are certain that you fully understand this manual and can properly carry out its instructions should you practice loading and firing your firearm with live ammunition. Having a firearm in your possession is a full-time job; you cannot guess and you cannot forget. You must know how to use your firearm safely.

If you have any doubts about your ability to handle or use this firearm safely, you should seek supervised instruction.

The SIG SAUER Academy provides all levels of firearms safety and skill training, from beginner to expert.

For more information contact:



sigsaueracademy.com • (603) 610-3400  
Epping, New Hampshire

**SAFETY MUST BE THE FIRST AND CONSTANT CONSIDERATION OF EVERY PERSON WHO HANDLES FIREARMS AND AMMUNITION.**

For more information about safety, responsible firearms ownership, and shooting sports, contact:  
National Rifle Association (NRA) of America  
11250 Waples Mill Road, Fairfax, VA 22030-7400 • 1-800-672-3888  
nra.com

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## 8.0 MECHANICAL CHARACTERISTICS AND RIFLE THEORY

### 8.1 RIFLE DESCRIPTION

The SIG MCX-SPEAR is a gas operated, semi-automatic, magazine fed, medium range rifle chambered in .308 Win and .277 Fury. The rifle fires from the closed bolt position. The piston driven operating system enables optimum function under all environmental conditions. The rifle is designed to be fired with or without a suppressor attached.

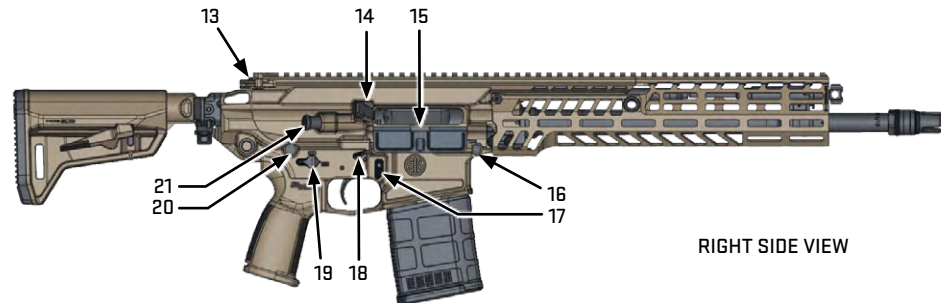
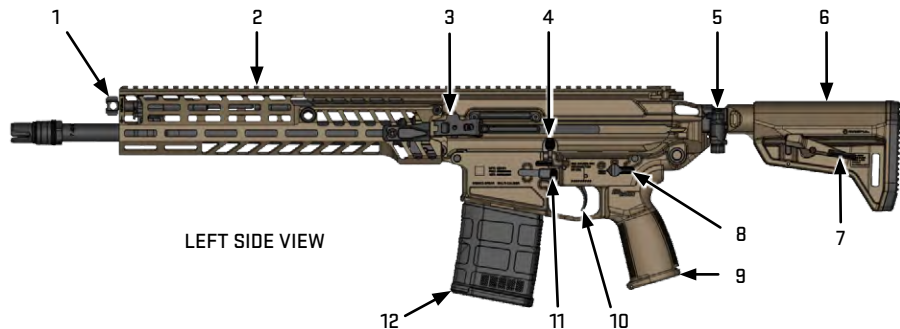
The SIG MCX-SPEAR provides a full length MIL-STD 1913 rail for the mounting of optics. The M-LOK® interface allows for the mounting of MIL-STD 1913 rail segments and other accessories at multiple locations. The rifle features several sling mounting points enabling the use of multiple sling configurations.

Scan the QR code to visit sigsauer.com. There you will find additional information about SIG SAUER products, SIG SAUER Academy and Experience Center, special programs, and additional support.





## 8.2 CONTROLS AND FEATURES



NUMBER	NOMENCLATURE
1	Gas Valve
2	MIL-STD 1913 Rail
3	Side Charging Handle
4	Bolt Catch, Ambi
5	Stock Lock
6	Stock

NUMBER	NOMENCLATURE
7	Stock Latch
8	Fire Control Selector
9	Grip
10	Trigger
11	Magazine Catch
12	Magazine

NUMBER	NOMENCLATURE
13	Charging Handle
14	Deflector
15	Ejection Port Cover
16	Pivot Pin
17	Magazine Release Button

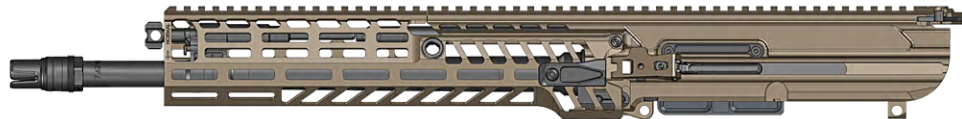
NUMBER	NOMENCLATURE
18	Right Side Bolt Catch
19	Fire Control Selector
20	Takedown Pin
21	Forward Assist (available on some models)



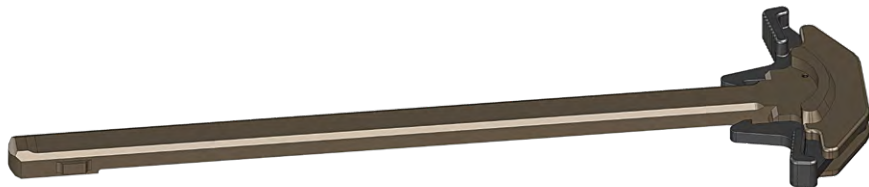
## GROUPS AND ASSEMBLIES

### 8.2.1 UPPER RECEIVER GROUP

The upper receiver group consists of the following:

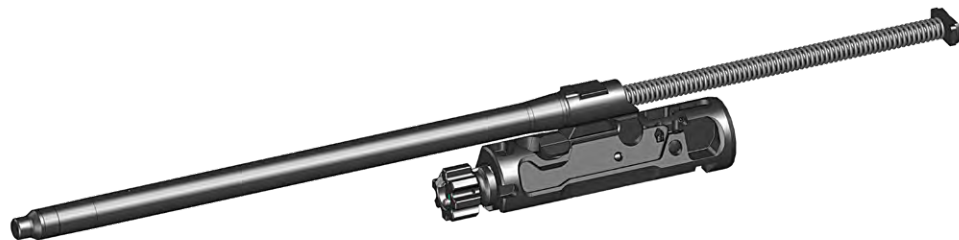


A. Ambidextrous Charging Handle Assembly



### B. Operating Group

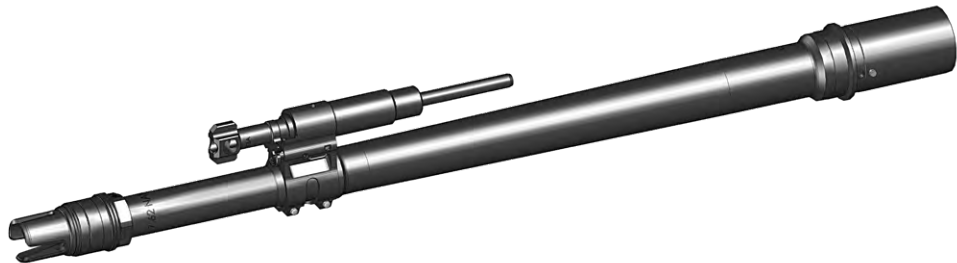
The SIG MCX-SPEAR uses a unique operating system that eliminates the traditional buffer and receiver extension found in M16/M4 platforms. This allows for the use of folding and collapsible stocks.





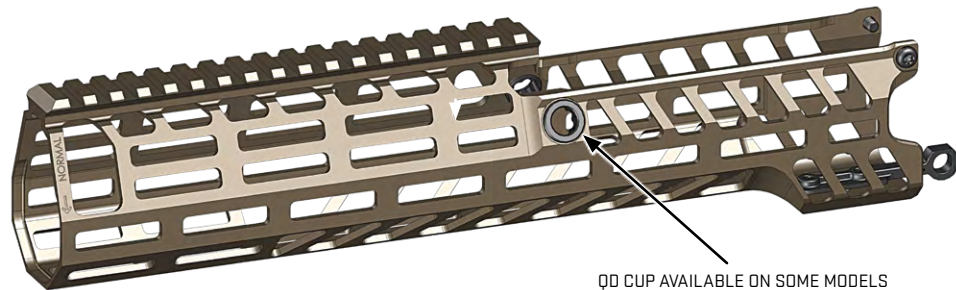
### C. Barrel Assembly

The SIG MCX-SPEAR barrel assembly includes the barrel extension, barrel, gas block, gas valve, gas piston, and the flash hider base. The image below depicts a 16-inch 7.62x51 mm barrel assembly. Other calibers and configurations may have parts that are different in appearance.



### D. Handguard Assembly

The SIG MCX-SPEAR handguard assembly is composed of the handguard and the handguard link. The handguard features multiple M-LOK points for mounting M-LOK accessories.





## 8.2.2 LOWER RECEIVER GROUP

The lower receiver group consists of the following assemblies: lower receiver assembly with fire control components, buttstock assembly, and grip assembly.



## 8.3 CYCLE OF FUNCTION

There are eight steps in the cycle of function of the SIG SPEAR that begin after a loaded magazine is inserted into the firearm.

### FEEDING

As the bolt carrier is released from its rearward position, the operating group moves forward allowing the lower lugs of the bolt to make contact with the rear of the cartridge as it sits in the magazine. The cartridge is stripped from the magazine and begins forward movement toward the chamber.

### CHAMBERING

As the bolt moves forward, the bolt locking lugs move forward into the barrel extension. The ejector is compressed against the left side of the cartridge head. The extractor snaps over the rim of the cartridge case.

### LOCKING

The movement of the bolt and the cartridge is stopped by the chamber. The bolt carrier continues forward movement until it is stopped by contact with the rear face of the barrel extension. As the carrier goes through the last portion of movement, the bolt is rotated to the left, through the action of the cam pin. The bolt lugs engage the barrel extension lugs to lock the bolt into the barrel extension.

### FIRING

The selector is rotated to the Semi-Auto position. The trigger is pressed releasing the hammer. The hammer spring drives the hammer forward unlocking the firing pin. The firing pin strikes the cartridge primer, causing detonation.



## UNLOCKING

As the bullet passes the gas port in the barrel, a small amount of gas is bled off, traveling up through the gas port and into the gas block. The gas is regulated by the gas valve and is based on the type of ammunition being fired. This gas acts upon the piston to move the recoil assembly to the rear. The recoil assembly transfers its energy to the carrier assembly setting it in motion. The rearward movement of the carrier causes the bolt cam pin to rotate the bolt to the unlocked position.

## EXTRACTION

As the bolt carrier assembly moves rearward the spent case is pulled free from the chamber by the extractor.

## EJECTION

The extractor continues to grip the rim of the spent case on the right side. The ejector is applying forward pressure to the left side of the case. As the expended case clears the chamber, then the barrel extension, it is flipped out through the ejector port on the right side of the receiver.

## COCKING

The rearward movement of the bolt carrier overrides the hammer, forcing it down into the receiver and compressing the hammer spring, cocking the hammer into the firing position.

## 9.0 OPERATING THE SIG MCX-SPEAR

### 9.1 PREPARATION BEFORE USING THE FIREARM



#### WARNING



**PRIOR TO PERFORMING MAINTENANCE ON THE FIREARM, READ AND UNDERSTAND THE OPERATOR'S MANUAL. ENSURE THAT THE FIREARM IS UNLOADED, CLEARED, AND THE MAGAZINE IS REMOVED. SAFETY GLASSES SHOULD BE WORN WHENEVER DISASSEMBLING, CLEANING, INSPECTING, OR ASSEMBLING A FIREARM. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY OR DEATH TO THE USER OR BYSTANDERS.**

Prior to using the firearm, the operator must read, understand, and follow all safety warnings in the Safety Warnings Manual included with the firearm.

- Field strip the firearm. See *10.1 Field Strip the SIG MCX-SPEAR on page 54.*
- Clean any fouling that might have occurred during factory testing. See *12.1 Cleaning on page 68.*
- Inspect, lubricate, and reassemble the firearm. See *13.0 Assemble SIG MCX-SPEAR on page 81.*
- After reassembly and prior to firing the rifle, conduct a function check. See *14.0 Function Check on page 90.*

Any maintenance beyond the user level described in this manual must be performed by a certified SIG SAUER Armorer specifically trained on the maintenance of the MCX-SPEAR.



## 9.2 FIRE CONTROL SELECTOR

The SIG MCX-SPEAR features an ambidextrous fire control selector. Rotating either fire control selector lever 90 degrees changes the firing mode from SAFE to SEMI-AUTO. Moving one lever automatically moves the opposite lever to the same position.



SAFE



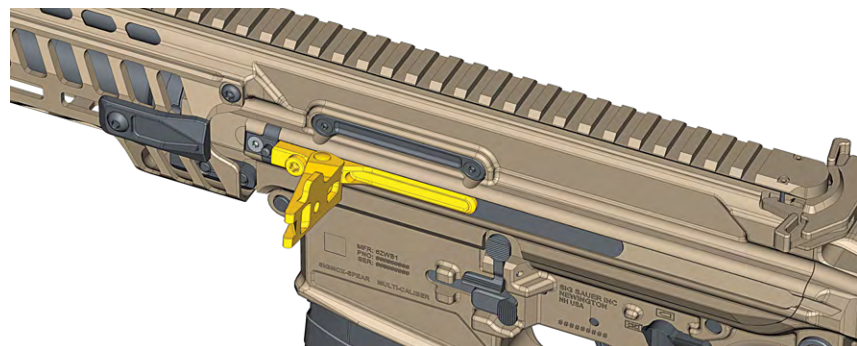
SEMI-AUTO

## 9.3 SIDE CHARGING HANDLE

The SIG MCX-SPEAR is equipped with a left side non-reciprocating charging handle. This charging handle can be used as an alternate method of charging the rifle or locking the bolt to the rear.

### NOTE

The side charging handle returns to the forward and stowed position with assistance of the user or the bolt-carrier group.





## 9.4 UNLOAD AND CLEAR THE RIFLE



### WARNING UNLOAD/CLEAR



FAILURE TO ENSURE THE FIREARM IS UNLOADED AND CLEARED COULD RESULT IN UNINTENTIONAL DISCHARGE, CAUSING SERIOUS INJURY, DEATH, OR PROPERTY DAMAGE. REMOVING THE MAGAZINE FROM THE FIREARM DOES NOT PREVENT A CHAMBERED ROUND FROM BEING FIRED.

1. Ensure the safety selector lever is rotated to SAFE and the muzzle of the rifle is pointed in a safe direction at all times while unloading and clearing the firearm.
2. Press the magazine catch on either side to remove the magazine from the rifle.



3. Pull back on either charging handle (1) while pressing in on the bottom of the left side bolt catch (2) or up on right side bolt catch (3) to lock the bolt to the rear. Watch ejection port for ejection of a cartridge.



4. Return the charging handle to the forward locked position.



5. Conduct a three-point safety check to the chamber; ensure there is no cartridge, foreign debris, or any physical damage.
  - A. Ensure the chamber is empty.
  - B. Inspect for no magazine.
  - C. Inspect bolt face.
6. Press the upper part of the left side bolt catch or down on right side bolt catch to release the bolt to forward position.
7. Close ejection port cover.

**WARNING INSPECTION**

**THE OPERATING GROUP IS UNDER SPRING TENSION AND WILL SPRING FORWARD IF THE BOLT CATCH IS PRESSED. DO NOT ALLOW THE BOLT CATCH TO BE PRESSED WHILE INSPECTING THE RIFLE. AFTER FIRING, THE CHAMBER OF THE RIFLE COULD POTENTIALLY BE HOT. WHEN PHYSICALLY INSPECTING THE CHAMBER, USE A PEN OR SIMILAR OBJECT IF THE CHAMBER IS HOT. FAILURE TO COMPLY MAY RESULT IN INJURY.**

8. If passing the rifle to another person, ensure the safety selector lever is on SAFE and the bolt is locked to the rear. Allow them to inspect the chamber before handing over the firearm.

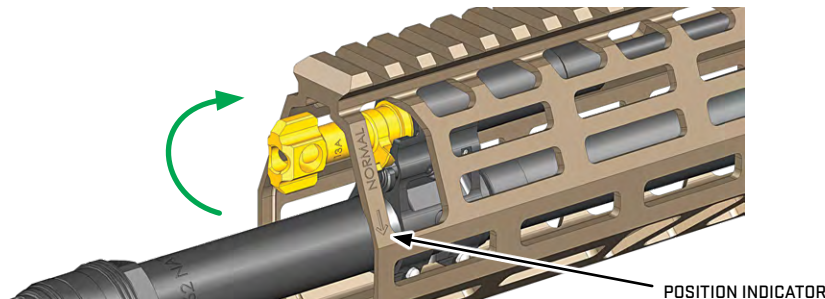
**9.5 ADJUSTING GAS VALVE**

The SIG MCX-SPEAR has a two-position gas valve. This gas valve assembly regulates the function of the rifle by metering the amount of gas that is required for the firearm to function. This allows for normal and suppressed operation (normal and adverse on .277 Fury models). The handguard is clearly marked on each side to indicate which position the gas valve is set to. Adjust the position of the gas valve by rotating the lever in the direction of the arrow.

**9.5.1 NORMAL POSITION**

Normal position is used without a suppressor.

- Rotate gas valve in the direction of the position indicator until it stops in the vertical position.

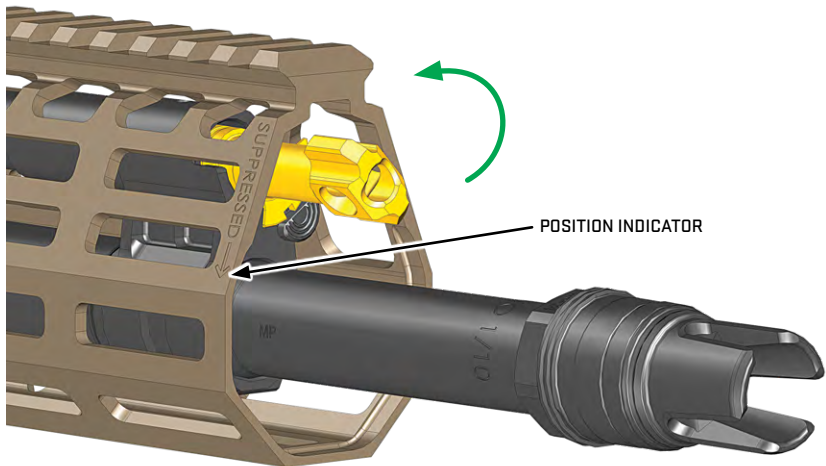




### 9.5.2 SUPPRESSED POSITION

Suppressed position is used to regulate the function of the rifle with a suppressor attached.

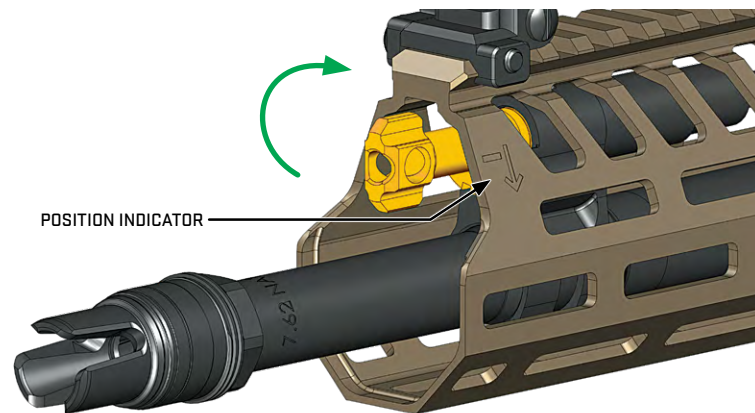
- Rotate the gas valve in the direction of the position indicator until it stops.



### 9.5.3 NORMAL POSITION (-) (.277 FURY MODELS)

Normal position is used with or without a suppressor.

1. If the gas valve is in the adverse condition setting, rotate the gas valve lever clockwise in the direction of the arrow to the vertical position until it stops.





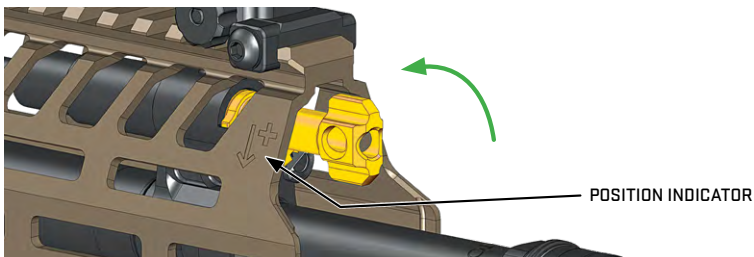
### 9.5.4 ADVERSE POSITION (+) (.277 FURY MODELS)

Adverse position is used when operating in adverse environmental conditions that affect the function of the weapon or when fouling of gas system has impaired function. This position regulates gas system for optimum function.

#### CAUTION

OPERATING THE MCX-SPEAR WITH GAS VALVE IN THE ADVERSE POSITION FOR EXTENDED PERIODS OF TIME CAN ACCELERATE WEAR ON COMPONENTS. MAINTENANCE SHOULD BE CONDUCTED AS SOON AS POSSIBLE TO RETURN WEAPON TO NORMAL FUNCTION. FAILURE TO COMPLY CAN CAUSE DAMAGE TO EQUIPMENT.

1. Rotate the gas valve lever counterclockwise in the direction of the arrow until it stops.



### 9.6 ENVIRONMENTAL/SPECIAL CONDITIONS

#### Arctic (Extreme Cold/Sub Freezing)

- When exposed to subfreezing temperatures, thoroughly remove all existing lubricants and only apply lubricant that is designed to be used in temperatures of -65°F (-53°C) or below. Do not use CLP as it may freeze and prevent the rifle from firing.
- Avoid bringing the firearm into heated shelters or buildings as this can cause condensation to form on moving parts, which may freeze when the firearm is brought back outdoors.
- If it is necessary for you to bring the firearm indoors allow it to warm to room temperature and then disassemble and clean it thoroughly to ensure that all moisture is removed from the firearm. Re-lubricate the firearm with the proper cold weather lubricant.
- When operating in snowy environments conduct frequent inspections of the firearm to ensure that snow has not gotten into operating parts. Work the action to ensure that it is not frozen. Use muzzle covers if available.
- If the bolt carrier becomes frozen with snow/moisture, warm the firearm using body heat or bring it indoors until free movement is restored, then clean and re-lubricate the firearm.



### Desert (Hot/Dry)

- Apply light lubrication to internal metal-on-metal moving parts only. If available, use dry graphite lubricant.
- Increase frequency of inspection and cleaning of firearm due to blowing dust and sand. Pay particular attention to the bolt assembly ensuring the firing pin is free of any foreign matter to include sand, dust, or mud.
- Unload and clean ammunition and inside of magazines daily. Do not lubricate magazine.
- Cover the firearm when not in use.

### Jungle (Hot/Humid)

- Increase the frequency of inspection and cleaning of the firearm to prevent corrosion. Apply a thin coat of lubricant on steel parts frequently.
- Inspect hidden surfaces of bolt, receiver, chamber, and barrel extension (locking lugs) for corrosion.
- Unload the magazine, clean ammunition, and inspect the inside of magazines daily for corrosion.
- Wipe ammunition dry before reloading the magazine.

## 9.7 ADJUSTABLE STOCK

### 9.7.1 ADJUSTING THE LENGTH OF PULL

1. Grasp the stock, lifting up the stock latch.
2. Adjust to desired position then release stock latch.





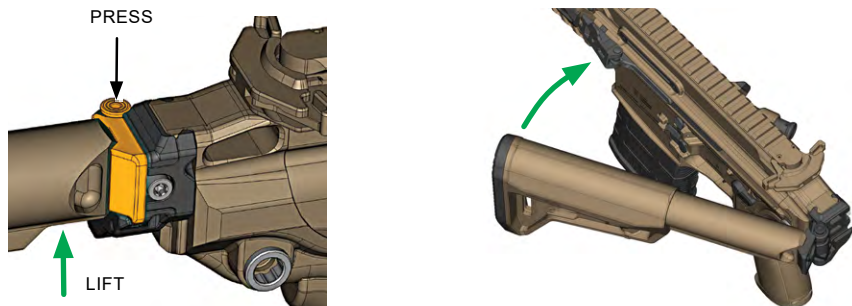
## 9.7.2 FOLDING THE STOCK

The stock must be fully extended in order to fold to the maximum distance.

### NOTE

The SIG MCX-SPEAR utilizes a MIL-STD 1913 interface to accommodate multiple stock options. To fold the stock:

- Press the stock lock button to disengage the folding hinge.
- While the button is pressed, lift up and fold the stock to the left.



- To deploy the stock, pull the stock outward and rotate until it locks in place.

## 9.8 LOADING/RELOADING

### 9.8.1 LOADING THE MAGAZINE

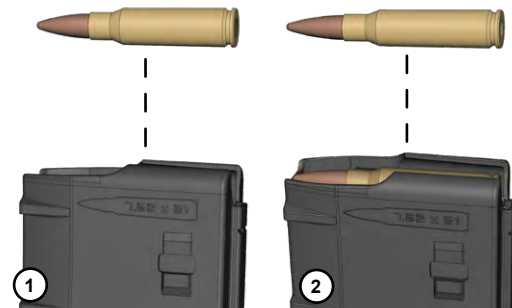
### CAUTION

ENSURE THE MAGAZINE IS THE PROPER TYPE AND CALIBER FOR THE RIFLE.

### NOTE

Do not overload the magazine.

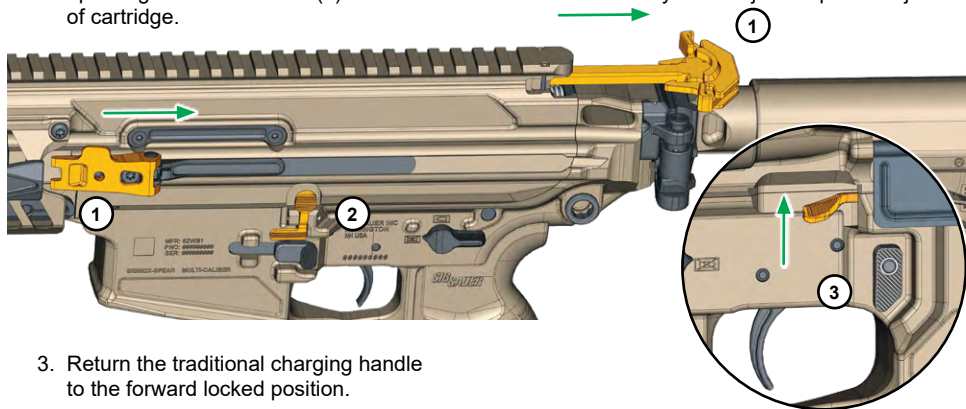
- Press down on the magazine follower with the first cartridge and push the cartridge to the rear under the magazine lips.
- Align the next cartridge, repeating step 1 until the magazine is loaded.





### 9.8.2 LOADING THE SIG MCX-SPEAR

1. Rotate fire control selector to SAFE.
2. Pull back on either charging handle (1) while pressing in on bottom of left side bolt catch (2) or up on right side bolt catch (3) to lock the bolt to the rear. Visually watch ejection port for ejection of cartridge.



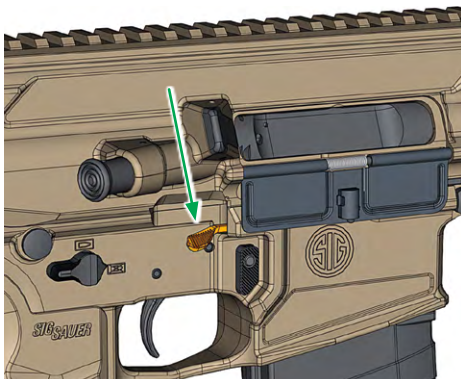
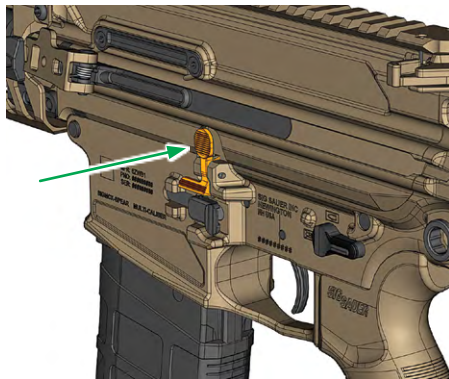
3. Return the traditional charging handle to the forward locked position.
4. Conduct a three-point safety check to ensure there is no cartridge, foreign debris, or any physical damage.

- A. Ensure the chamber is empty.
  - B. Inspect for no magazine.
  - C. Inspect bolt face.
5. Insert a loaded magazine into magazine well until magazine catch engages and locks magazine in place.
  6. Pull down on the magazine to ensure it is locked in place.





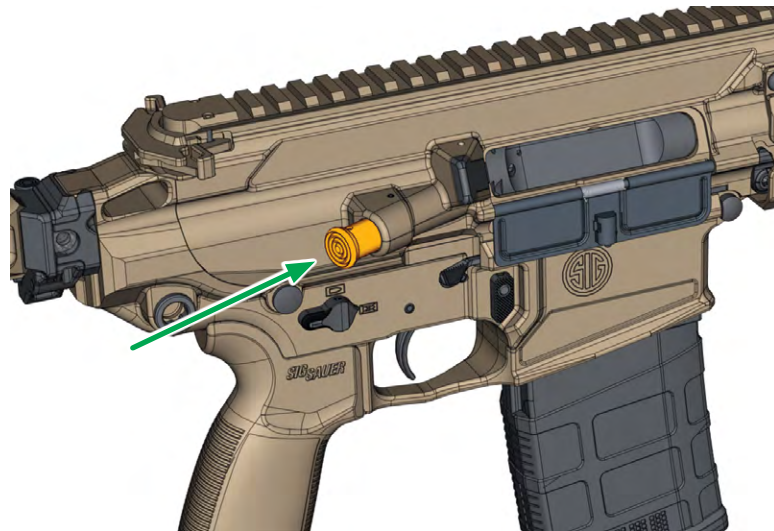
7. Press the upper part of the left side bolt catch or down on right side bolt catch to release the bolt to forward position.



 **WARNING** **LOADED RIFLE** 

THE RIFLE IS NOW LOADED AND READY TO FIRE

8. Tap forward assist (available on some models) to ensure bolt is fully forward, ensure bolt is fully forward and locked into barrel extension.





### 9.8.3 CHAMBERING CARTRIDGE FROM BOLT CLOSED POSITION

#### NOTE

Do not ride the charging handle forward as it may cause a stoppage.

1. With rifle on SAFE and a loaded magazine inserted, pull either charging handle completely rearward and release.



**WARNING**

**LOADED RIFLE**



**THE RIFLE IS NOW LOADED AND READY TO FIRE**

### 9.8.4 FIRING THE SIG MCX-SPEAR



**WARNING**

**LOADED RIFLE**



**THE RIFLE IS LOADED AND READY TO FIRE**

1. Face target, placing the firearm to your shoulder and point the muzzle downrange.
2. Rotate fire control selector from SAFE to SEMI-AUTO.
3. Pressing trigger will result in one cartridge being fired.
4. Trigger must be released to reset and fire an additional cartridge.

### 9.8.5 RELOADING (DEPLETED MAGAZINE, CHAMBER EMPTY)

1. Rotate fire control selector to SAFE.
2. Press magazine release to remove magazine from magazine well.
3. Repeat steps 2-7 from section 9.8.2 *Loading the SIG MCX-SPEAR on page 46.*

### 9.8.6 RELOADING (MAGAZINE PARTIALLY DEPLETED, LIVE ROUND CHAMBERED)

1. Rotate fire control selector to SAFE.
2. Press magazine release to remove magazine from magazine well.
3. Insert a loaded magazine until it engages and is held by the magazine release. Always pull down on the magazine to ensure that it is seated properly.



## 9.9 STOPPAGES

**WARNING****STOPPAGE**

**WHILE PERFORMING IMMEDIATE OR REMEDIAL ACTIONS AS LISTED BELOW, PLACE FIRE CONTROL SELECTOR ON SAFE, MAINTAIN TRIGGER FINGER DISCIPLINE AND MUZZLE AWARENESS. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY, DEATH, OR DAMAGE TO PROPERTY.**

**If the rifle stops firing apply immediate action as follows:**

1. Rotate fire control selector to SAFE.
2. Slap up on the bottom of the magazine.
3. Pull charging handle completely rearward.
4. Observe the ejection of the case/cartridge and check the chamber for any obstruction.
5. Release the charging handle to feed a new cartridge.
6. Tap the forward assist to ensure the round is chambered and the bolt is locked.
7. Rotate fire control selector to SEMI-AUTO and attempt to fire the rifle.

**If the SIG MCX-SPEAR still fails to fire upon completion of the previous steps, apply remedial action as follows:**

1. Rotate fire control selector to SAFE.
2. Remove the magazine.
3. Check the chamber for a stuck cartridge case.
4. If a cartridge case is present separate the receivers and remove the op rod/bolt carrier assembly.
5. Attempt to tap out the case with cleaning rod from the muzzle end of the barrel.
6. If successful then reassemble, reload, rotate fire control selector to SEMI-AUTO, and attempt to fire.

### **NOTE**

If rifle still fails to fire after applying remedial action, unload and clear, then contact an authorized SIG SAUER Armorer.



## 10.0 OPERATOR LEVEL AUTHORIZED PREVENTIVE MAINTENANCE

### 10.1 FIELD STRIP THE SIG MCX-SPEAR



#### **WARNING UNLOAD/CLEAR**



**FAILURE TO ENSURE THE FIREARM IS UNLOADED AND CLEARED COULD RESULT IN UNINTENTIONAL DISCHARGE, CAUSING SERIOUS INJURY, DEATH, OR PROPERTY DAMAGE. REMOVING THE MAGAZINE FROM THE FIREARM DOES NOT PREVENT A CHAMBERED ROUND FROM BEING FIRED.**

1. Unload and clear the rifle. See 9.4 *Unload and Clear the Rifle* on page 34.
2. Press the bolt catch to release the operating group forward.
3. Push out the takedown pin from left to right and pivot the upper receiver from the lower receiver.



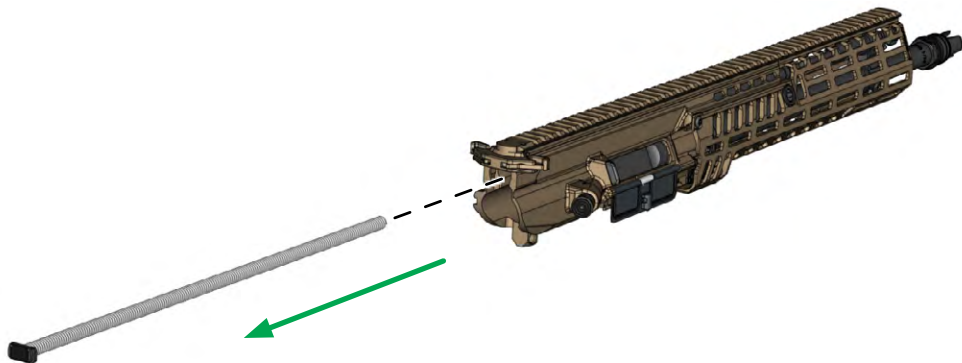
4. Push pivot pin from left to right until stopped by detent.
5. Separate upper receiver from lower receiver.



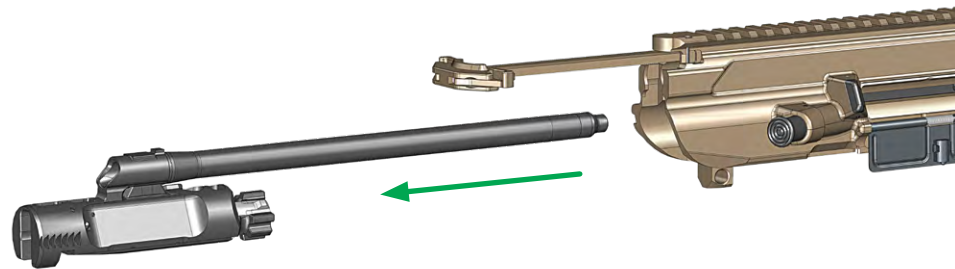
**WARNING PARTS UNDER SPRING PRESSURE**

**THE RECOIL SPRING GUIDE IS UNDER SPRING PRESSURE. USE CAUTION WHEN REMOVING. WEAR EYE PROTECTION TO PREVENT INJURY.**

6. Press recoil spring guide inward then downward slightly to release the recoil spring guide then remove from upper receiver.

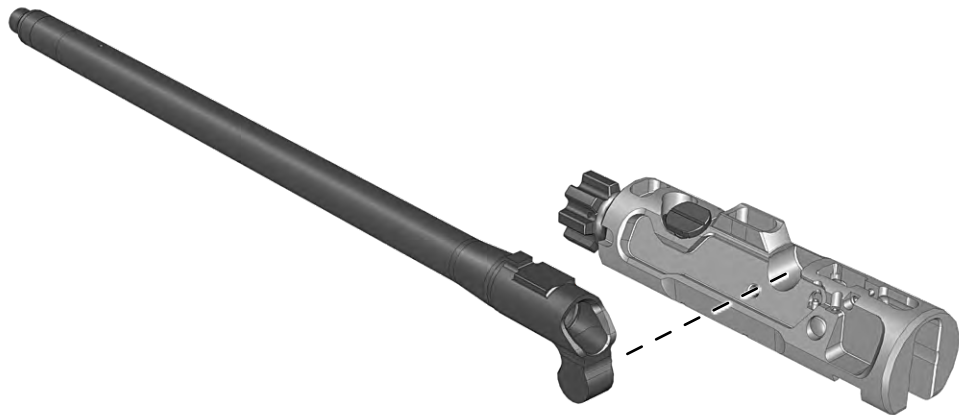


7. Pull back the charging handle to expose the bolt carrier.
8. Remove the bolt carrier assembly from the upper receiver.
9. Remove the charging handle.





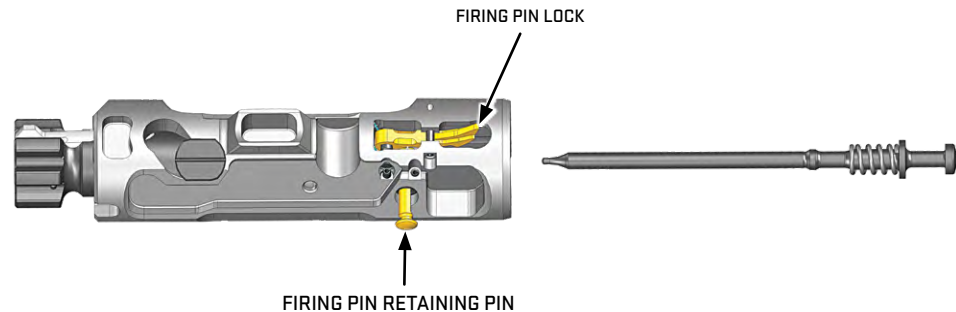
10. Remove the op rod from the bolt carrier.



## CAUTION

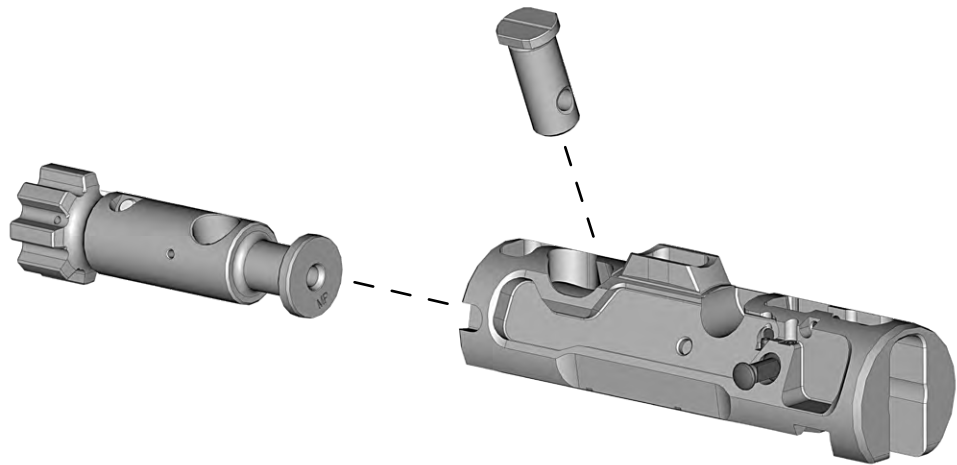
REMOVAL OF FIRING PIN SPRING FROM FIRING PIN MAY CAUSE DAMAGE TO SPRING.  
DO NOT REMOVE FIRING PIN SPRING UNLESS REPLACEMENT IS NECESSARY.

11. Pull firing pin retaining pin out until it stops.
12. Lift firing pin lock to remove firing pin and firing pin spring from bolt carrier.



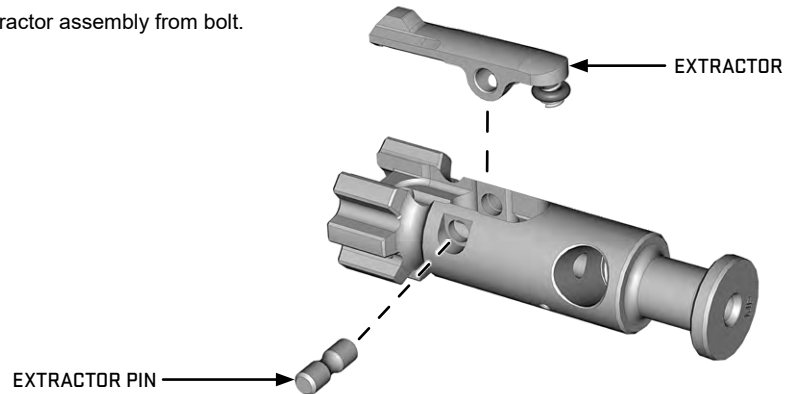


13. Remove cam pin from bolt carrier.
14. Remove bolt assembly from bolt carrier.

**CAUTION**

REMOVAL OF EXTRACTOR INSERT OR SPRING FROM EXTRACTOR MAY CAUSE DAMAGE TO THE INSERT OR SPRING. DO NOT REMOVE INSERT OR SPRING UNLESS REPLACEMENT IS NECESSARY.

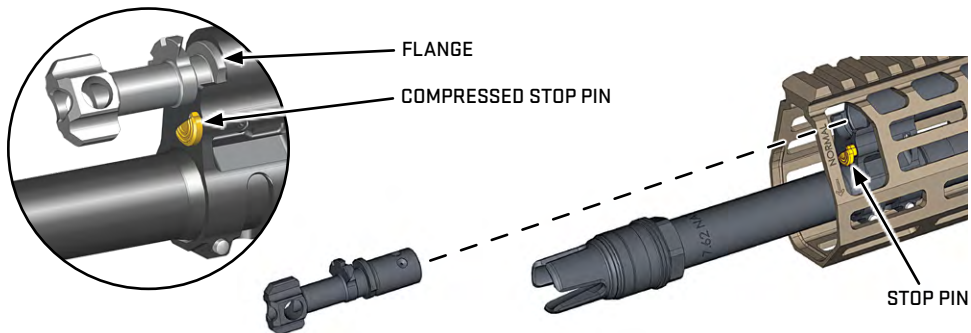
15. Apply pressure to extractor over extractor pin and push extractor pin from right to left to remove from bolt.
16. Remove extractor assembly from bolt.



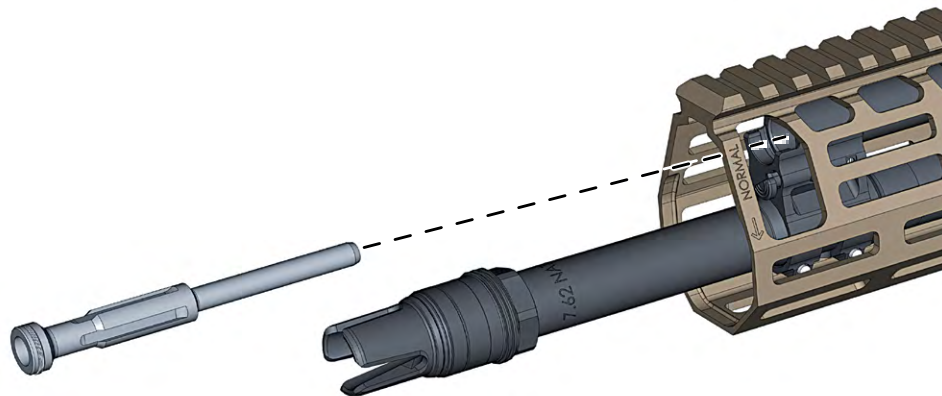
**NOTE**

Steps 17-20 should only be done if function degrades, indicating carbon buildup.

17. Push stop pin in.
18. Rotate gas valve 180 degrees until flange of valve is visible.
19. Pull gas valve from gas block.



20. Remove piston from gas block.





## 10.2 MAGAZINE DISASSEMBLY



**WARNING PARTS UNDER SPRING PRESSURE**



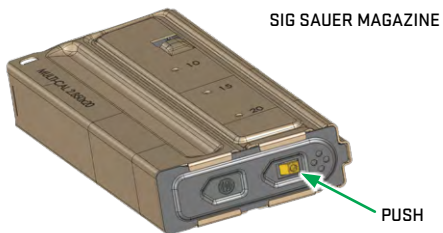
**MAGAZINE SPRING IS UNDER PRESSURE. USE CAUTION WHEN REMOVING. KEEP MAGAZINE POINTED AWAY FROM FACE AND WEAR EYE PROTECTION TO PREVENT SERIOUS INJURY.**

1. Push post of magazine insert until magazine floorplate can be pushed off of magazine tube.



MAGPUL® MAGAZINE

PUSH

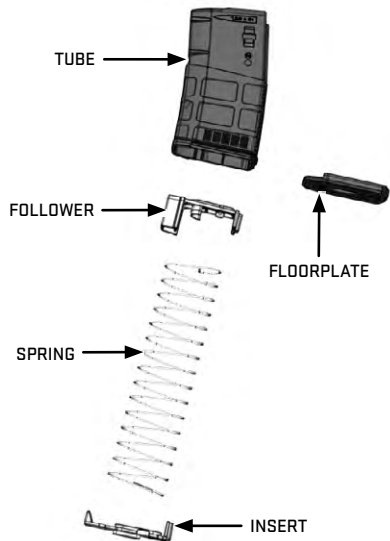


SIG SAUER MAGAZINE

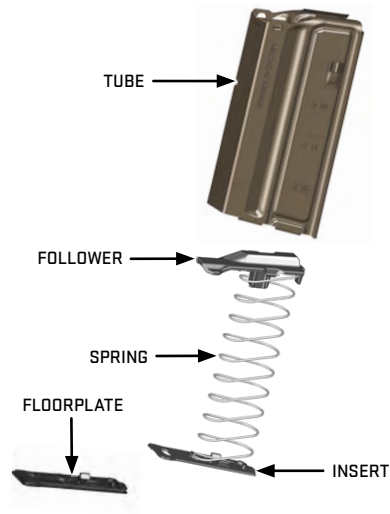
PUSH

2. Remove magazine insert, spring, and follower from magazine tube.
3. Remove follower from spring by sliding it left to right.
4. Remove insert from spring by sliding it rearward.

MAGPUL® MAGAZINE



SIG SAUER MAGAZINE





## 11.0 MAINTENANCE



### **WARNING UNLOAD/CLEAR**



**ALWAYS ENSURE THE FIREARM IS UNLOADED AND CLEARED OF ALL AMMUNITION PRIOR TO PERFORMING ANY MAINTENANCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY, DEATH, OR DAMAGE TO PROPERTY.**

- Do not use wire brushes on aluminum surfaces such as the upper and lower receivers. This may damage the finish.
- Follow all manufacturer's instructions and cautions when using cleaning and lubrication products
- Wherever the term "CLP" (Cleaner-Lubricant-Preservative) or the word "lubrication" are used in this manual, those terms should be interpreted to mean that you can use any cleaner, lubricant, and preservative designed for use on a firearm.

## 12.0 CLEANING AND LUBRICATION



### **WARNING CLEANING**



**READ AND FOLLOW THE MANUFACTURER'S WARNINGS BEFORE USING SOLVENTS OR CLEANERS. USE IN A WELL-VENTILATED AREA. WEAR EYE PROTECTION.**

- Use only cleaning and lubrication products designed for firearms.
- In this manual, the terms CLP (Cleaner, Lubricant, Preservative), lube, or lubricant are interchangeable and can be understood as any lubricant designed for firearms.
- Do not use wire brushes on aluminum surfaces such as the upper and lower receivers. This may damage the finish.
- Follow all manufacturer's instructions and cautions when using cleaning and lubrication products.



## 12.1 CLEANING

### 12.1.1 CLEANING THE BORE AND CHAMBER

Do not run patches through the bore with a suppressor attached.

1. Attach a jag to the cleaning rod.
2. Attach a clean patch to the jag.
3. Moisten the patch with CLP and slowly push it through the bore toward the muzzle end.



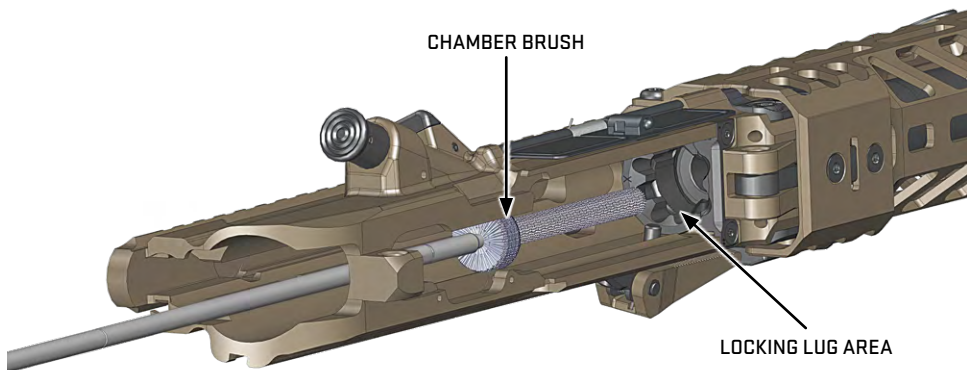
4. If there is heavy fouling, use a bore brush to scrub the bore.



5. Push a patch with CLP through the bore to remove any residue loosened by the bore brush.
6. Push new patches through the bore until they come out clean.
7. Grab a chamber brush and coat it with CLP.
8. Keep the muzzle elevated so the CLP does not run into the freshly cleaned bore.



9. Make several plunging strokes followed by several 360-degree rotations in the barrel extension to clean the locking lug area.



### 12.1.2 CLEANING THE BOLT AND BOLT CARRIER ASSEMBLY

1. Clean carbon fouling residue from bolt and bolt carrier with a rag soaked in CLP. Use receiver cleaning brush for any hard carbon.
2. Clean area of bolt beneath extractor of all residue. Wipe dry.
3. Clean bolt lugs of all fouling residue.
4. Clean firing pin channel of bolt. **Ensure there is no lubricant in channel.**
5. Clean firing pin and spring of all residue and carbon.
6. Clean carbon build up from beneath hook of extractor.
7. Clean cam pin of all fouling residue.





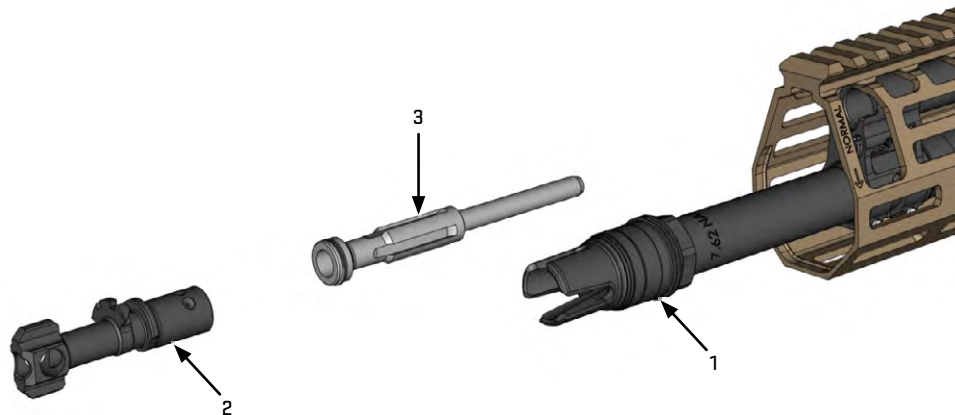
### 12.1.3 CLEANING THE OP ROD/RECOIL SPRING GUIDE ASSEMBLY

1. Clean recoil spring with a rag soaked in CLP. Wipe dry.
2. Clean op rod with a rag soaked in CLP. Wipe dry.

### 12.1.4 CLEANING THE BARREL/GAS BLOCK ASSEMBLY

1. Run a patch soaked in CLP through barrel bore. Let CLP soak for several minutes to loosen fouling residue.
2. Run another CLP soaked patch through the bore.
3. If heavy fouling is present, scrub bore with bore brush.
4. Repeat step 2.
5. Run clean patches through bore until patch comes out clean.
6. Clean chamber.

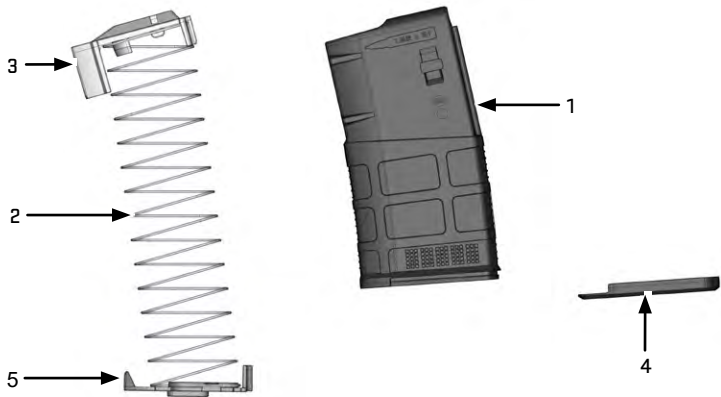
7. Clean flash hider base (1) with rag soaked in CLP and a nylon brush. Wipe dry.
8. Clean fouling residue from gas valve (2) with rag soaked in CLP and cleaning brush. Wipe dry.
9. Clean piston (3) of fouling residue with rag soaked in CLP and cleaning brush. Wipe dry.





### 12.1.5 CLEANING THE MAGAZINE

1. Clean magazine body (1) with a damp cloth to remove any debris. Wipe dry.
2. Clean spring (2) with a rag soaked in CLP. Wipe dry.
3. Clean follower (3), floorplate (4), and insert (5) with a damp cloth to remove any debris.



### 12.2 INSPECTION

#### 12.2.1 INSPECTING THE UPPER RECEIVER AND BARREL AND GAS BLOCK ASSEMBLY

**WARNING****SAFETY**

**DO NOT INTERCHANGE BOLTS BETWEEN RIFLES. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY OR DEATH.**

1. Inspect handguard and all MIL-STD 1913 rails for cracks, broken rails, proper installation, or any other damage.
2. Inspect flash hider base for looseness or damage to prongs.
3. Inspect barrel for cracks, burrs, bulging, pitting, or looseness.
4. Inspect charging handle for cracks, bends, or breaks. Latches should spring load.
5. Inspect forward assist for proper function.
6. Ejection port cover should stay in the spring-loaded open position when not latched.
7. Side charging handle should move without binding. Handle should spring load to closed position when released.



8. Inspect gas valve assembly for cracks, burrs, or erosion. Gas valve should move freely without binding when in gas block.
9. Inspect piston for burrs, cracks, or galling. Spiral gas ring should not bind on piston.

### **12.2.2 INSPECTING THE BOLT CARRIER/OP ROD ASSEMBLY**

1. Inspect op rod for straightness, dents, or damage.
2. Inspect bolt carrier for burrs, cracks, or galling especially at cam pin through hole.
3. Firing pin retaining pin must move freely in carrier.
4. Recoil spring should be free of kinks and should stay attached to recoil spring guide.
5. Inspect bolt lugs for cracks or burrs.
6. Inspect firing pin for straightness or damaged tip.
7. Inspect firing pin spring for damage to coils.
8. Inspect cam pin for cracks or galling.
9. Inspect extractor for damage to hook or cracks where pin passes through.
10. Inspect ejectors for binding or damage.

### **12.2.3 INSPECTING THE LOWER RECEIVER ASSEMBLY**

1. Fire control selector lever should move freely without binding to each position.
2. Ensure free movement of magazine catch/release button.
3. Ensure free movement of bolt catch.
4. Check grip for tightness or damage.

### **12.2.4 INSPECTING THE MAGAZINE**

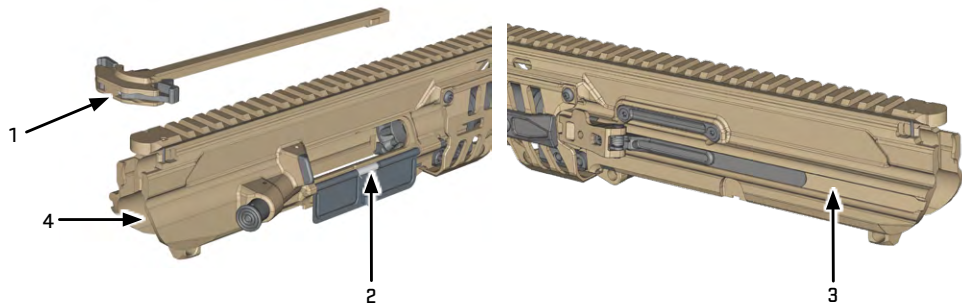
1. Inspect follower for free movement.
2. Ensure feed lips are not damaged.
3. Magazine is is not cracked, bent, or visibly damaged.



## 12.3 LUBRICATION

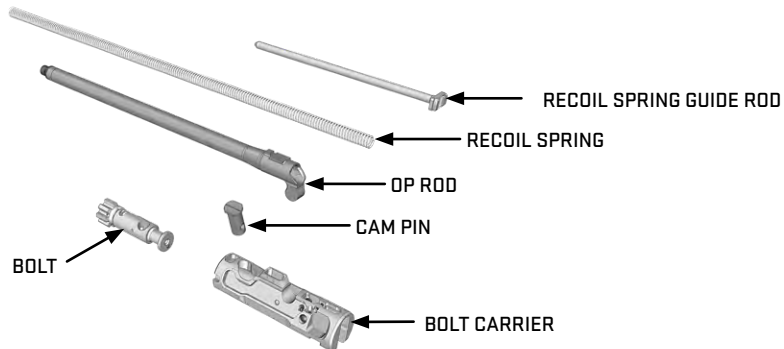
### 12.3.1 UPPER RECEIVER

1. Lubricate exterior surfaces of charging handle and latch spring.
2. Lubricate ejection port cover spring.
3. Apply lubricant to side charging handle channel.
4. Generously lubricate all internal surfaces of upper receiver.



### 12.3.2 LUBRICATING THE RECOIL AND BOLT CARRIER ASSEMBLY

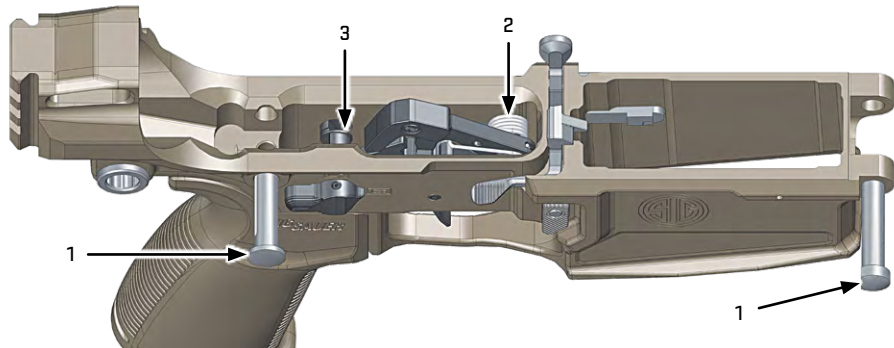
1. Lightly lubricate exterior surface of recoil spring.
2. Lightly lubricate recoil spring guide rod.
3. Lightly lubricate outside surface of op rod and surface where op rod engages bolt carrier.
4. Lubricate all contact surfaces of the bolt carrier.
5. Lightly lubricate cam pin where cam pin interacts with cam pin insert.
6. Lightly lubricate outside surfaces of bolt and back of bolt lugs.





### 12.3.3 LUBRICATING THE LOWER RECEIVER ASSEMBLY

1. Generously lubricate takedown pin (1) and pivot pin (1).
2. Lightly lubricate the hammer spring (2) and trigger spring.
3. Generously lubricate fire control selector (3).

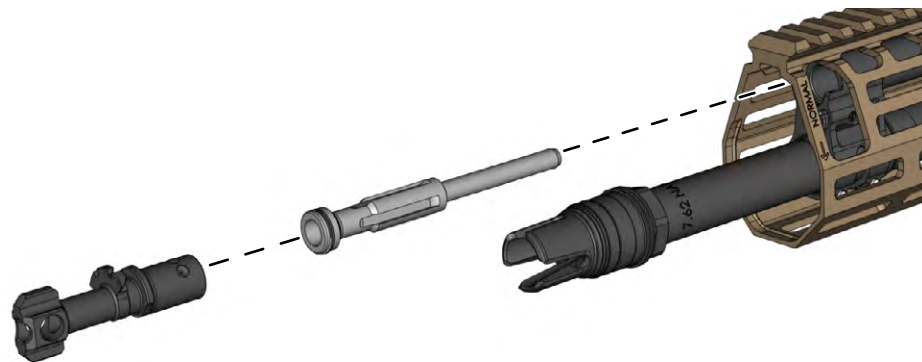


### 12.3.4 LUBRICATING THE MAGAZINE

1. Lightly lubricate magazine spring using a rag soaked in CLP.

### 13.0 ASSEMBLE SIG MCMX-SPEAR

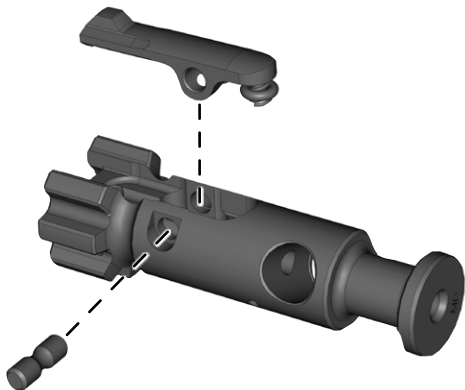
1. Install the piston into the gas block.
2. Install the gas valve into the gas block.
3. Press the stop pin and rotate the gas valve 180 degrees until the detent holds the valve in place.



**NOTE**

Extractor pin can only be installed in one direction.

4. Attach the extractor assembly to the bolt body.
5. Insert the extractor pin from left to right into the bolt body until it stops.

**WARNING****SAFETY**

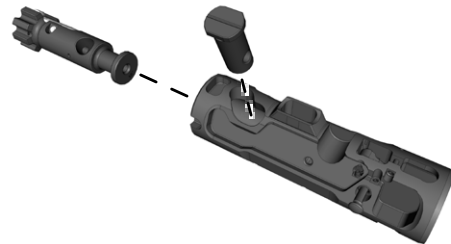
**DO NOT INTERCHANGE BOLTS BETWEEN RIFLES. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY OR DEATH.**

6. Assemble the bolt to the bolt carrier. The extractor must face the right side of the bolt carrier.

**WARNING****SAFETY**

**ENSURE THE CAM PIN IS INSTALLED IN THE BOLT CARRIER. THE RIFLE WILL SUFFER A CATASTROPHIC FAILURE WHEN FIRED IF THE CAM PIN IS NOT INSTALLED. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY OR DEATH.**

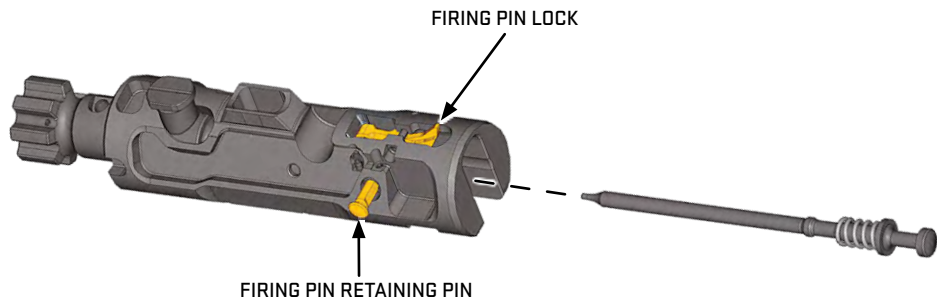
7. Insert the cam pin into the bolt.



**NOTE**

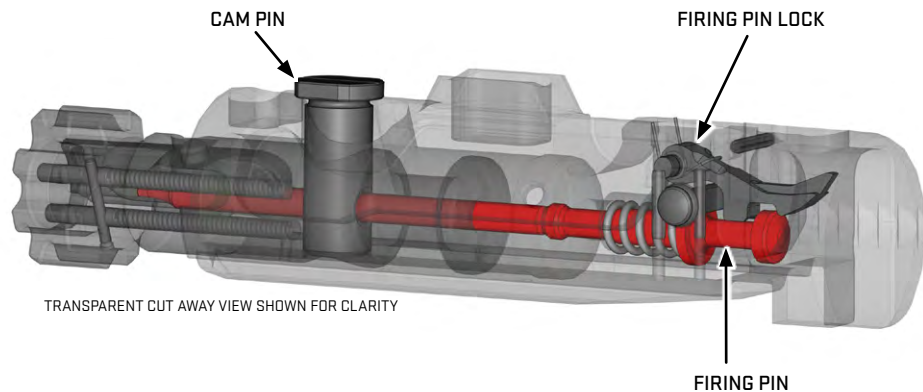
Holding the bolt carrier assembly vertically and ensuring the cam pin is properly aligned may aid in assembly.

8. Hold the firing pin lock upward.
9. Insert the firing pin and spring into the bolt through the rear of the bolt carrier.
10. Release the firing pin lock.
11. Push the firing pin in until it stops.

**CAUTION**

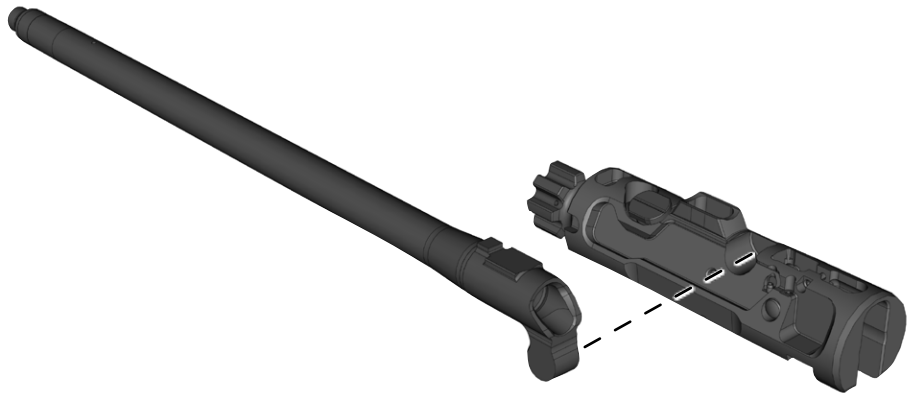
ENSURE THE FIRING PIN IS RETAINED IN THE BOLT CARRIER TO PREVENT A FAILURE TO FIRE AND DAMAGE TO EQUIPMENT.

12. Push the firing pin retaining pin until completely seated into the bolt carrier.





13. Attach the op rod to the bolt carrier.



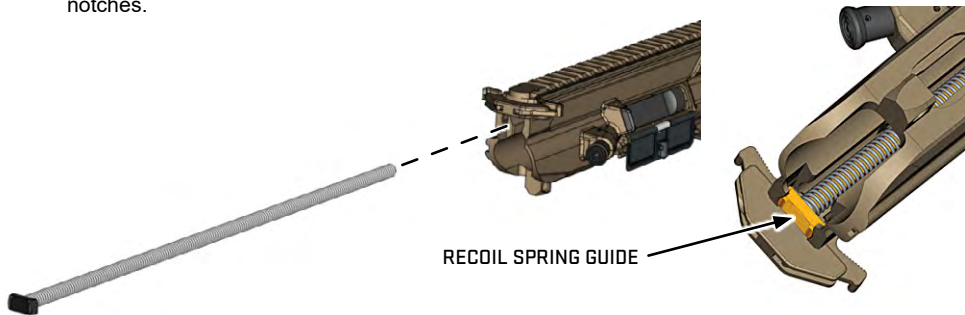
- 14. Partially install charging handle into upper receiver.
- 15. Pull bolt forward to unlocked position.
- 16. Insert op rod into round channel in upper receiver, pushing op rod/bolt carrier assembly completely forward until bolt locks into barrel extension.



**WARNING PARTS UNDER SPRING PRESSURE**

**THE RECOIL SPRING GUIDE IS UNDER SPRING PRESSURE. USE CAUTION WHEN INSTALLING. WEAR EYE PROTECTION TO PREVENT INJURY.**

17. Insert recoil spring guide assembly into rear of op rod.
18. Push recoil spring guide to compress recoil spring in rear of upper receiver. Once in line with notches, slide head of recoil spring guide up.
19. Release pressure on recoil spring guide. End of recoil spring guide should be horizontal in notches.



20. Attach upper to lower receiver.
21. Push in pivot pin until it stops.
22. Close receivers and push in takedown pin until it stops.





## 14.0 FUNCTION CHECK

A function check should be performed after any repair, cleaning, or reassembly to ensure the firearm operates properly.



### **WARNING UNLOAD/CLEAR**



**FAILURE TO ENSURE THE FIREARM IS UNLOADED AND CLEARED COULD RESULT IN UNINTENTIONAL DISCHARGE, CAUSING SERIOUS INJURY, DEATH, OR PROPERTY DAMAGE.**



### **WARNING FUNCTION CHECK**

**KEEP THE FIREARM POINTED IN A SAFE DIRECTION DURING THE ENTIRE FUNCTION CHECK. IF THE FIREARM FAILS TO COMPLETE THE FUNCTION CHECK, DO NOT USE THE FIREARM. CONTACT CUSTOMER SERVICE.**

1. Ensure the firearm is unloaded and clear of ammunition. See *9.4 Unload and Clear the Rifle on page 34*.
2. Ensure the fire control selector is rotated to SAFE.
3. Insert empty magazine. Magazine catch must lock magazine in place.
4. Pull side charging handle completely rearward and then return forward to its forward and stowed position. Bolt should stay locked to the rear.

5. Press down on right side bolt catch, bolt should go forward into battery.
6. Pull charging handle completely rearward. Bolt should lock to the rear.
7. Push charging handle forward. Charging handle must lock in place.
8. Press magazine catch. Magazine must drop free under its own weight.
9. While observing bolt catch, slightly pull back charging handle and release. Bolt catch should drop and bolt should go forward into battery.
10. Press trigger to rear. Hammer should not fall.
11. Rotate fire control selector to SEMI-AUTO position.
12. Press trigger and hold to rear. Hammer should fall.
13. Pull charging handle completely to rear and release.
14. Slowly release trigger. You should hear an audible click.
15. Rotate fire control selector back to SAFE.

## **CAUTION**

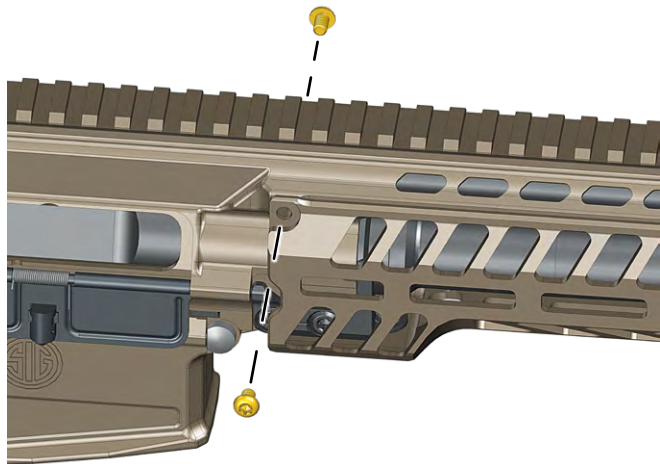
**NEVER USE A FIREARM OR MAGAZINE THAT SHOWS SIGNS OF DAMAGE OR FAILS A FUNCTION CHECK. VERIFY THE MAGAZINE IS THE CORRECT MODEL AND CALIBER FOR THE RIFLE. IF THE CONDITION OR FUNCTION OF THE RIFLE OR MAGAZINE IS SUSPECT, RETURN THE RIFLE OR MAGAZINE TO SIG SAUER FOR EVALUATION. ALWAYS VERIFY THE CONDITION AND FUNCTION OF THE EQUIPMENT BEFORE USE.**



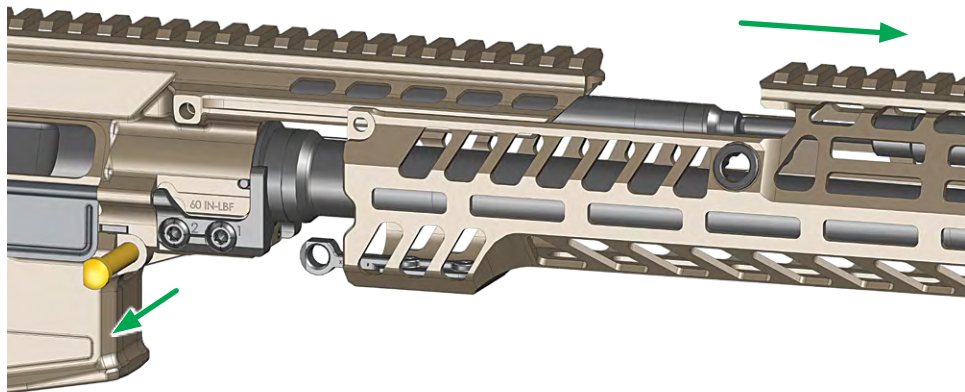
## 15.0 HANDGUARD

### 15.1 HANDGUARD REMOVAL

1. Use a T15IP drive bit to remove the screws from the rear of the handguard.

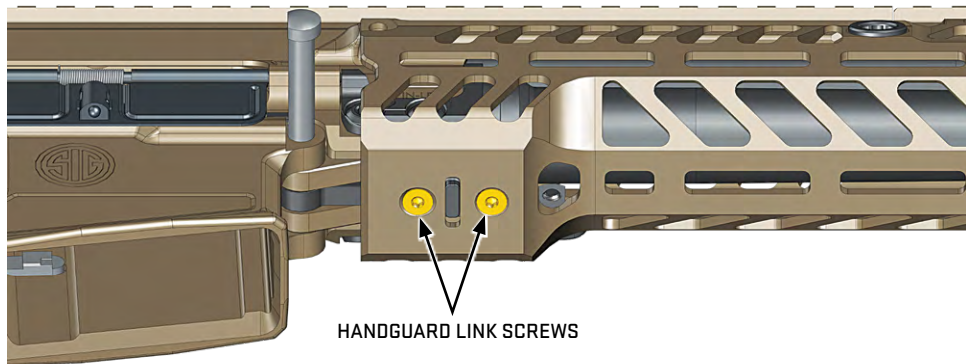


2. Pull pivot pin out until it stops.
3. Slide the handguard forward and off of the upper receiver and barrel.



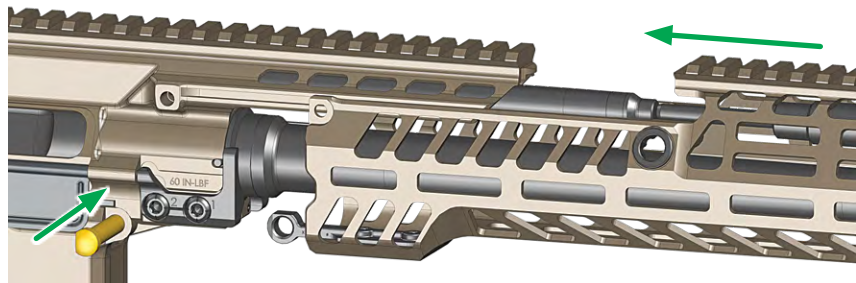
**NOTE**

Removing the handguard link screws is not necessary to take off the handguard.

**15.2 HANDGUARD INSTALLATION****WARNING PHYSICAL INJURY/DAMAGE**

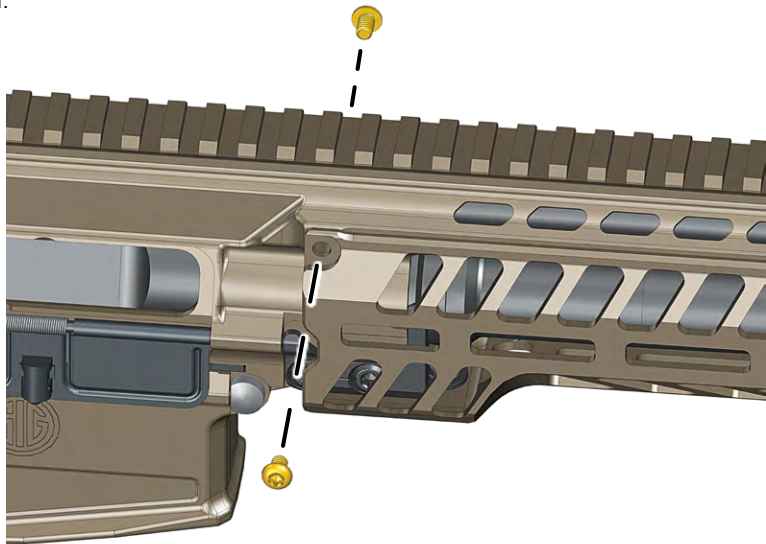
**YOU MUST MAKE SURE THAT WHEN CHANGING BARRELS AND HANDGUARDS, THE FLASH HIDER, MUZZLE BRAKE, OR SUPPRESSOR MUST BE EXPOSED FROM THE END OF THE HANDGUARD. FAILURE TO DO SO COULD RESULT IN INJURY TO THE OPERATOR AND OR DAMAGE TO THE RIFLE.**

1. Slide the handguard onto rails of upper receiver.
2. Push in pivot pin from right to left into lower receiver and handguard link until it stops.





3. Use a T15IP drive bit to install handguard screws into upper receiver. Torque both screws to 45 in-lbf.

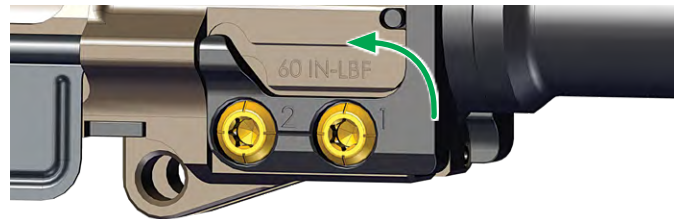


## 16.0 BARREL REMOVAL

### NOTE

Field strip the weapon. See section 10.1 *Field Strip the SIG MCX-SPEAR on page 54*. The barrel clamping screws are captive to the upper receiver and only need to be loosened to remove the barrel.

1. Using a T27IP drive bit, loosen the two barrel clamp screws until the left and right barrel clamps clear the barrel.

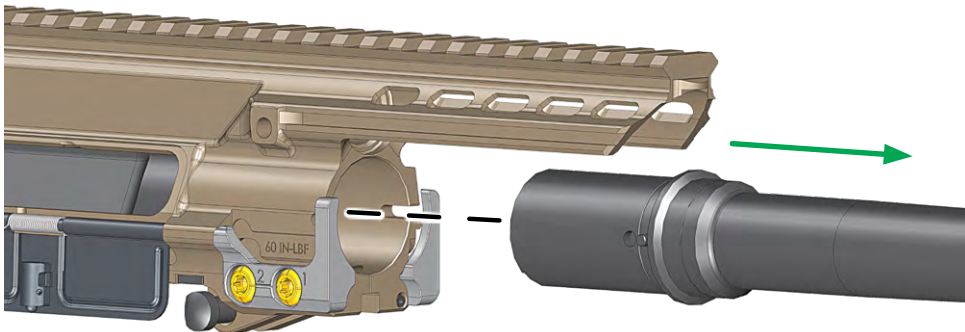


### CAUTION

DO NOT WIGGLE THE BARREL SIDE TO SIDE IN AN ATTEMPT TO REMOVE IT. FAILURE TO COMPLY MAY RESULT IN DAMAGE TO EQUIPMENT.



2. Remove the barrel and gas block assembly from the upper receiver.



## 16.1 INSPECTION

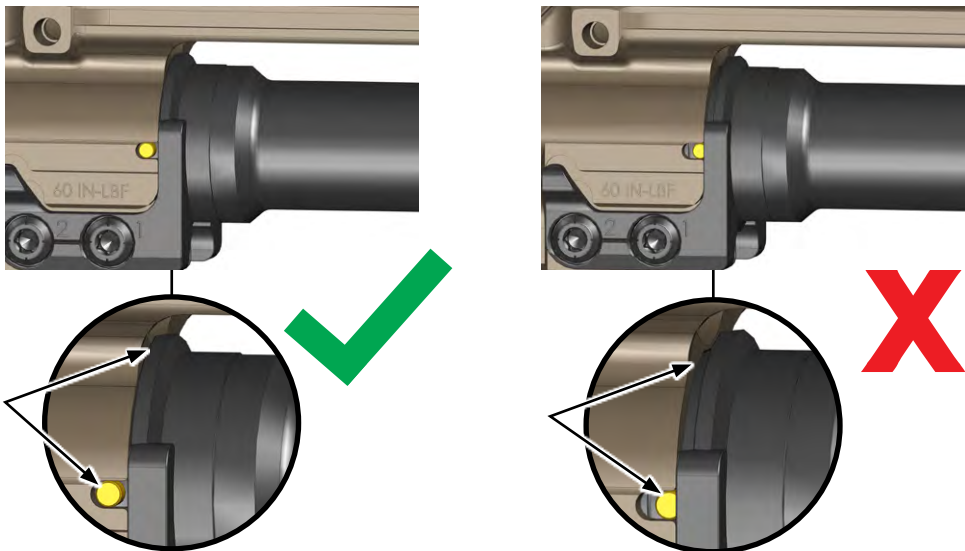
1. Inspect the barrel for bulges or cracks.
2. Inspect the flash hider base for damage to external threads.
3. Inspect the flash hider base for bent, cracked, or missing prongs.
4. Inspect the gas block for loose or missing retaining pins.
5. Inspect the left and right index pins. Inspect the feed ramps for galling or other damage.

## 16.2 BARREL INSTALLATION

1. Ensure that all mating surfaces are clean.
2. Ensure the barrel clamp screws are loose and the barrel clamps have moved outward.
3. Ensure the barrel index pins are completely seated into the receiver and install the barrel and gas block assembly into the upper receiver.



4. Ensure both left and right index pins are seated completely into the upper receiver.



5. Squeeze the left and right clamp together until they contact the upper receiver. Using a T27 torque wrench, tighten screw #1 and then screw #2. Alternate back and forth between screw #1 and screw #2 until they are hand tight. Starting again with screw #1, apply a torque of 60 lbf-in. Move to screw #2 and apply torque of 60 lbf-in. Return to screw #1 and tighten again to ensure that the screw is at 60 lbf-in.



6. Reinsert the bolt carrier assembly and ensure that the bolt locks properly.



## 17.0 TROUBLESHOOTING GUIDE



**WARNING STOPPAGE**



**STOP FIRING IMMEDIATELY. UNLOAD AND CLEAR THE FIREARM.**

A stoppage is an interruption in the rifle's cycle of function that can be cleared by the operator taking immediate action. Immediate action consists of steps taken by the operator to place the rifle back in service without investigating the cause of the stoppage.

### **Immediate action:**

1. Keep the firearm pointed in a safe direction.
2. Unload and clear the firearm immediately by removing the magazine, locking the bolt to the rear, and clearing any ammunition from the firearm.
3. Visually and physically checking the chamber, breech face, and magazine well.

With the firearm unloaded and cleared, perform an additional visual inspection of the firearm and the ammunition. If a bore obstruction exists, refer to the following page: *17.1 Obstructed Bore on page 103*. If damage to the firearm is found, the stoppage persists, or a malfunction is suspected, take the firearm to a certified SIG SAUER Armorer for service.

## 17.1 OBSTRUCTED BORE



**WARNING OBSTRUCTED BORE**



**STOP FIRING IMMEDIATELY AND KEEP THE FIREARM POINTED IN A SAFE DIRECTION. UNLOAD AND CLEAR THE FIREARM. DO NOT FIRE ANOTHER ROUND UNTIL THE OBSTRUCTION IS CLEARED. FAILURE TO COMPLY CAN RESULT IN SERIOUS INJURY OR DEATH TO THE OPERATOR AND/OR OTHERS AND CATASTROPHIC DAMAGE TO THE FIREARM.**

Immediately stop shooting and keep the firearm pointed in a safe direction whenever:

- There is difficulty or unusual resistance in chambering a cartridge;
- A cartridge misfires (does not go off);
- The mechanism fails to extract a fired cartridge case;
- Unburned grains of propellant powder are discovered spilled in the mechanism;
- A shot sounds weak or abnormal.

It is possible that a bullet is lodged partway down the barrel. If a bullet is in the bore, do not attempt to shoot it out with another cartridge, a blank, or a case without a bullet. Bullets can become lodged in the barrel when the cartridge has been improperly loaded without propellant powder, the powder fails to ignite, or the bullet was not properly seated in the cartridge case. Immediately unload and clear the firearm. Field strip the firearm and look through the bore of the barrel.



It is not sufficient to merely look in the chamber as a bullet may be lodged some distance down the barrel where it cannot easily be seen. Attempt to remove the bullet by tapping it out with a cleaning rod. If the bullet can be removed, clean any unburned powder grains from the bore, chamber, and mechanism before resuming shooting. If the bullet cannot be dislodged, take the firearm to a certified SIG SAUER Armorer.

## 17.2 COOK-OFF



### WARNING COOK-OFF



**COOK-OFF IS DEFINED AS A CHAMBERED CARTRIDGE DETONATING DUE TO THE HEAT OF THE BARREL. FAILURE TO COMPLY WITH THE BELOW LISTED STEPS COULD RESULT IN DEATH, SERIOUS INJURY, OR PROPERTY DAMAGE.**

If the rifle stops firing with a cartridge in the chamber of a hot barrel due to a misfire or stoppage, do the following:

1. Keep the rifle pointed in a safe direction.
2. Immediately remove the magazine and chambered cartridge.
3. If the cartridge cannot be removed within 10 seconds, keep rifle pointed in a safe direction. Wait at least 15 minutes for the chamber and the barrel to cool and then remove the cartridge.

## 17.3 GENERAL STOPPAGES

Stoppage	Test/Inspection	Corrective Action
Rifle will not fire	Fire control selector on SAFE	Rotate fire control selector to SEMI-AUTO
	Improper installation of firing pin	Assemble correctly
	Excessive lubricant in firing pin channel	Clean firing pin channel
	Damaged firing pin	Replace part
	Defective ammunition	Discard and replace ammunition
	Light indent on primer	Clean associated parts replace ammunition
	Broken firing pin lock or spring	Replace part
	Debris in trigger group	Clean trigger group and lower receiver
Bolt will not unlock	Dirty bolt	Clean part



<b>Cartridge will not feed</b>	Dirty or corroded ammunition	Clean or replace ammunition
	Dirty magazine	Clean magazine
	Defective magazine	Replace magazine
	Overloaded magazine	Remove excess cartridges
	Magazine not fully seated	Properly seat magazine and attempt to fire
	Bolt over base of round	Clean magazine
	Weak recoil spring	Replace recoil spring

Stoppage	Test/Inspection	Corrective Action
<b>Double feed</b>	Defective magazine	Replace magazine
<b>Cartridge will not chamber</b>	Dirty or corroded ammunition	Clean or replace ammunition
	Damaged ammunition	Replace ammunition
	Dirty chamber	Clean chamber
	Weak or damaged op rod spring	Replace spring
<b>Bolt will not lock</b>	Dirt, corrosion, or carbon build up in barrel extension, bolt lugs, or barrel face	Clean barrel and bolt
	Ejectors seized	Clean and free ejectors, replace if necessary
<b>Bolt will not extract cartridge</b>	Frozen extractor	Remove bolt and clean extractor
	Dirty chamber	Clean chamber
	Dirty or corroded ammunition	Clean or replace ammunition
	Broken extractor	Replace part
	Broken or weak extractor spring	Replace part
<b>Short recoil</b>	Dirty gas valve	Remove and clean gas valve and piston, clean gas block
	Dirty upper receiver and bolt carrier	Clean and lubricate upper receiver and bolt carrier



Stoppage	Test/Inspection	Corrective Action
Bolt fails to lock to the rear after last round	Broken bolt catch	Replace part
	Faulty magazine	Replace magazine
	Dirty upper receiver and bolt carrier	Clean and lubricate upper receiver and bolt carrier
Fire control selector binds	Lack of lubrication	Lubricate fire control selector
	Dirt or sand under trigger	Clean lower receiver and trigger

### 17.4 MINIMIZING STOPPAGES

- Most stoppages can be minimized by cleaning and lubricating the firearm. See *12.3 Lubrication on page 78*. Cleaning and lubricating the firearm after each range session will reduce the chances of a stoppage due to dirt and residue buildup.
- Perform maintenance if the firearm is exposed to extreme environmental conditions (rain, snow, freezing temperatures, etc.).
- Periodically inspect the firearm if it is to be stored for extended periods of time without use.
- Most stoppages are directly related to the magazine. Perform maintenance on the magazines as well as the firearm. See *12.1.5 Cleaning the Magazine on page 74*.
- Mark the magazines so the operator can note which ones are more commonly involved in stoppages and malfunctions. Mark the magazines so the operator can note which ones are more commonly involved in stoppages and malfunctions.

### 18.0 STORAGE AND TRANSPORTATION



#### WARNING STORAGE

**NEVER PLACE OR STORE ANY FIREARM IN SUCH A MANNER THAT IT MAY BE DISLODGED. FIREARMS SHOULD ALWAYS BE STORED, LOCKED, UNLOADED, SEPARATE FROM THEIR AMMUNITION, AND INACCESSIBLE TO CHILDREN AND ANY OTHER UNAUTHORIZED PERSON. THE USE OF A LOCKING DEVICE OR SAFETY LOCK IS ONLY ONE ASPECT OF RESPONSIBLE FIREARMS STORAGE. FAILURE TO PROPERLY STORE FIREARMS MAY CAUSE SERIOUS INJURY OR DEATH TO SELF OR OTHERS, OR PROPERTY DAMAGE.**

#### 18.1 SHORT TERM STORAGE (90 DAYS OR LESS)

1. Ensure the chamber and magazine do not contain live ammunition.
2. Clean the bore and chamber.
3. Apply a generous coat of CLP to the chamber and bore.
4. Apply a light coat of CLP to all other metal surfaces for corrosion protection.

#### 18.2 LONG TERM STORAGE (90 DAYS OR LONGER)

1. Ensure the firearm is thoroughly cleaned.
2. Apply a medium coat of CLP to the chamber and bore.
3. Apply a light coat of CLP to all other metal surfaces for corrosion protection.
4. Wrap the firearm with a waterproof material.
5. Place the firearm in a corrosion resistant barrier bag.



### 18.3 ENVIRONMENTAL STORAGE RECOMMENDATIONS (ARMORY)

Provide humidity control to limit the relative humidity to no greater than 40% at 80°F (26.7°C). If personnel will be working in these areas, design to 68°F (20.0°C) dry bulb and 40% RH for indoor design heating conditions, and 75°F (23.9°C) dry bulb and 40% RH for indoor design cooling conditions.

### 18.4 TRANSPORTATION

IT IS THE OWNER'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE LAWS OF ANY JURISDICTION(S) THEY ARE PLANNING TO TRAVEL TO AND THROUGH WITH THE FIREARM.

When transporting the firearm to and from shooting activities, keep it unloaded for safety purposes. When storing the firearm for transportation, keep it separated from ammunition, under lock and key, and out of the reach of children and other unauthorized persons. If transporting the firearm in a vehicle, ensure that it is secured within the confines of the vehicle. Should the vehicle become involved in an accident, the firearm could become dislodged and move about the interior of the vehicle or be ejected from the vehicle.

### 19.0 SIG SPEAR PARTS DIAGRAMS

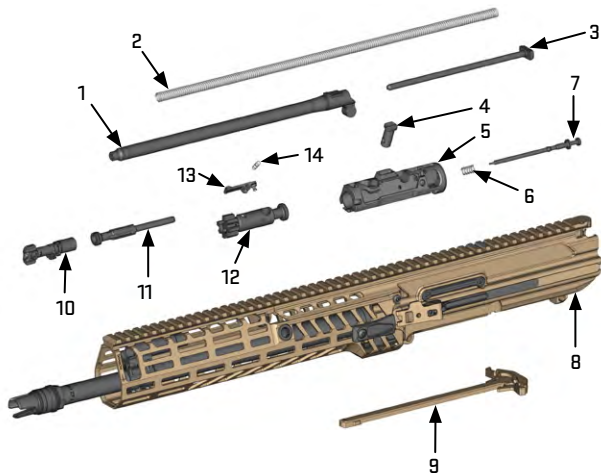
#### 19.1 LOWER RECEIVER GROUP PARTS DIAGRAM



NUMBER	NOMENCLATURE
1	MAGAZINE, 20 ROUND
2	LOWER RECEIVER ASSEMBLY
3	STOCK ASSEMBLY



## 19.2 UPPER RECEIVER GROUP PARTS DIAGRAM



NUMBER	NOMENCLATURE
1	OP ROD
2	RECOIL SPRING
3	RECOIL SPRING GUIDE ROD
4	CAM PIN
5	BOLT CARRIER ASSEMBLY
6	FIRING PIN SPRING
7	FIRING PIN
8	UPPER RECEIVER ASSEMBLY
9	CHARGING HANDLE ASSEMBLY
10	GAS VALVE
11	PISTON
12	BOLT ASSEMBLY
13	EXTRACTOR ASSEMBLY
14	EXTRACTOR PIN

## 20.0 REPLACEMENT PARTS POLICY



### WARNING PARTS REPLACEMENT

**IT IS THE PURCHASER'S RESPONSIBILITY TO BE ABSOLUTELY CERTAIN THAT ANY PARTS ORDERED FROM THE FACTORY ARE CORRECTLY FITTED AND INSTALLED. FIREARMS ARE COMPLICATED MECHANISMS AND IMPROPER FITTING OF PARTS MAY RESULT IN A DANGEROUS MALFUNCTION, DAMAGE TO THE FIREARM, AND SERIOUS INJURY TO THE SHOOTER AND OTHER PERSONS. THE PURCHASER AND INSTALLER OF PARTS MUST ACCEPT FULL RESPONSIBILITY FOR THE CORRECT ADJUSTMENT AND FUNCTIONING OF THE FIREARM AFTER SUCH INSTALLATION.**

#### Parts Policy

Our Service Department maintains a full complement of replacement parts. Even though most gunsmiths have the knowledge, training, and the ability to make necessary repairs to the firearm, the skill and workmanship of any particular third-party gunsmith is totally beyond our control.

Should the firearm ever require service, it is strongly recommended that it be returned to SIG SAUER Inc. A firearm is a precision instrument and some replacement parts will require individual fitting to ensure correct operation. A wrong part, improper fitting, or incorrect mechanical adjustment may result in an unsafe condition or dangerous malfunction, damage to the firearm, or cause possible serious injury to the shooter or others.



IF ANY PART IS ORDERED WITHOUT RETURNING THE FIREARM TO SIG SAUER, the owner bears full responsibility for ensuring that the part supplied is correct for their particular firearm and is properly installed and fitted by a qualified gunsmith.

SIG SAUER IS NOT RESPONSIBLE FOR THE FUNCTIONING OF ANY FIREARM IN WHICH REPLACEMENT PARTS ARE INSTALLED BY OTHERS. THE USE OF UNAPPROVED AFTERMARKET PARTS WILL VOID THE WARRANTY OF THIS FIREARM. THE REPLACEMENT OF ORIGINAL EQUIPMENT MANUFACTURER (OEM) SIG SAUER PARTS WITH AFTERMARKET PARTS IS UNAUTHORIZED AND IN SOME INSTANCES COULD ALTER THE FUNCTION OF THE FIREARM, CREATING A DANGER TO THE OPERATOR.

Scan the QR code below to visit the Small Parts Shopper page at sigsauer.com:

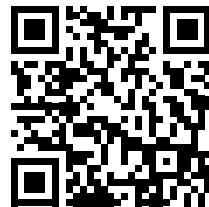


## 21.0 FACTORY REPAIR OF THE FIREARM

Contact SIG SAUER Customer Service for questions or concerns regarding the performance or serviceability of the firearm. There are three ways to contact SIG SAUER Customer Service:

Have the firearm's serial number readily available before contacting SIG SAUER Customer Service.

1. Call (603) 610-3000, choose option 1.
2. Email [CustomerService@sigsauer.com](mailto:CustomerService@sigsauer.com).
3. Go to <https://www.sigsauer.com/customer-support> to message customer service electronically. Scan the QR code below to visit the Customer Support page at sigsauer.com.





## 21.1 RETURNING FIREARMS FOR REPAIR

Do not ship a firearm without an RMA number provided by Customer Service.



**WARNING DO NOT SHIP AMMUNITION**



**BEFORE SHIPPING ANY FIREARM, BE ABSOLUTELY CERTAIN THAT THE FIREARM AND MAGAZINES ARE UNLOADED. DO NOT SHIP AMMUNITION WITH A FIREARM.**

1. The RMA number allows SIG SAUER to track the status of the return from the time SIG SAUER receives the firearm until it is returned.
2. Package the firearm securely to prevent damage.
3. Do not include any accessories such as scopes or mounts unless directed to do so.
4. Some states and localities, require firearms to be shipped and returned to SIG SAUER using a federally licensed firearms dealer.
5. Federal law prohibits persons who do not possess a Federal Firearms License (FFL) from shipping a firearm via the U.S. Postal Service.
6. Any shipment of firearms outside U.S. borders is subject to the export laws of the United States and to the valid laws of the specific country.
7. SIG SAUER is not responsible for any damage to a firearm during shipping until it is received.
8. Firearms must be insured and prepaid prior to shipment (SIG SAUER does not accept collect shipments) to the address provided by Customer Service.

## SIG SAUER INFINITE GUARANTEE™

For warranty information on new SIG SAUER firearms, scan the QR code below to visit the SIG SAUER Warranty Information and Registration page. New firearms can also be registered and warranty information can be found on the website.





NOTES:

NOTES:

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