

SIGSAUER[®]
when it counts[®]



SIG516[®]

OPERATOR'S MANUAL: HANDLING & SAFETY INSTRUCTIONS

**READ THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL CAREFULLY
BEFORE USING THIS FIREARM; DO NOT DISCARD THIS MANUAL.**

This instruction manual should always accompany this firearm and be transferred with it upon ownership, or when the firearm is loaned or presented to another person.

Operator's Manual for the SIG516

PDW, CQB, Carbine and Patrol Variants

This manual is intended for military or law enforcement operators and contains the information necessary to safely operate and perform authorized preventive maintenance at the user level on the SIG516 series of rifles and carbines. Read this manual in its entirety prior to handling or operating the weapon.



WARNING

IN THIS MANUAL WARNINGS ARE INSTRUCTIONS OR INFORMATION THAT, IF IGNORED, CAN POTENTIALLY RESULT IN CATASTROPHIC MALFUNCTION OF THE WEAPON AND OR SERIOUS BODILY HARM OR DEATH. WARNINGS ARE ALWAYS PRINTED IN RED, ALL CAPITALS.

CAUTION: IN THIS MANUAL CAUTIONS ARE INSTRUCTIONS OR INFORMATION THAT, IF IGNORED, CAN POTENTIALLY RESULT IN DAMAGE TO THE WEAPON, LOST PARTS AND OR MINOR INJURY. CAUTIONS ARE ALWAYS PRINTED IN BLACK, ALL CAPITALS ON A WHITE BACKGROUND.



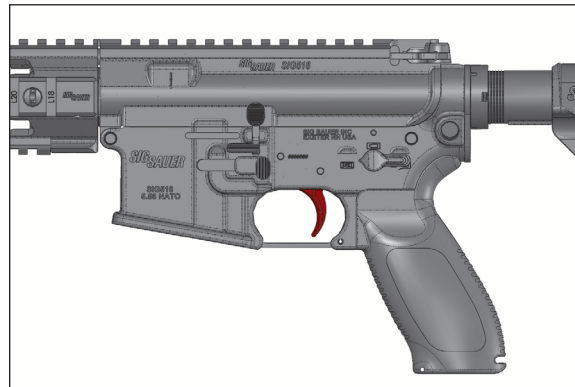
WARNING

USING OR HANDLING THE SIG516 WITHOUT READING AND UNDERSTANDING THE ENTIRE OPERATOR'S MANUAL CAN RESULT IN UNSAFE CONDITIONS WITH THE POTENTIAL TO CAUSE DEATH OR SERIOUS BODILY HARM.

- **ALWAYS HANDLE AND OPERATE THE WEAPON IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN THIS MANUAL.**
- **ONLY OPERATE THE SIG516 WITH SERVICEABLE, ISSUED AMMUNITION OF THE CORRECT CALIBER THAT HAS BEEN MANUFACTURED TO U.S. MILITARY OR NATO STANAG SPECIFICATION.**
- **NEVER ALLOW UNAUTHORIZED PERSONS TO HAVE ACCESS TO ANY WEAPON AND NEVER LEAVE A WEAPON UNSECURED.**
- **THIS MANUAL DOES NOT SUPERCEDE OR REPLACE WEAPON'S REGULATIONS, RULES, OR PROCEDURES IN PLACE IN YOUR ORGANIZATION.**

About Illustrations

Illustrations in this manual that depict a general overview of the complete weapon will be either a photograph or line drawing. Overviews of groups and assemblies will be line drawings. Diagrams intended to highlight a specific part or feature will be colored line drawings with the subject of the diagram rendered in red and the rest of the weapon rendered in gray. The subject of the example below (see Diagram 1) is the trigger. Diagrams are numbered successively starting with (Diagram 1) at the beginning of each chapter.



Trigger (Diagram 1)

TABLE OF CONTENTS

Topic	Page	Topic	Page
Introduction, Warnings & Cautions	2	2.8 Adjusting the Back Up Iron Sights	42
About Illustrations	4	2.9 Adjusting the Stock and Use of Accessories	49
Table of Contents	5	3.0 Preventative Maintenance	54
1.0 General Information	6	3.1 Field Stripping and Operator Level Detailed Disassembly	55
1.1 Description/Technical Data	6	3.2 Cleaning and Lubrication	62
1.2 Controls & Features	8	3.3 Reassembly of the SIG516	68
1.3 Groups & Assemblies	10	3.4 Functions Check / Pre-Firing Inspection/ During Firing Checks	73
1.4 Cycle of Operation	21	3.5 Transportation & Storage	76
2.0 Operating the SIG516	23	4.0 Service and Replacement Part Policy	77
2.1 Safety Rules & Procedures	23	5.0 Shipping Firearms for Repair	80
2.2 Selecting Modes of Fire	26	SIG SAUER® Limited Lifetime Firearms Warranty	81
2.3 Weapon's Conditions	27		
2.4 Clearing the SIG516	28		
2.5 Loading/Firing/Reloading	30		
2.6 Immediate and Remedial Action	33		
2.7 Operating Under Adverse/ Special Conditions	35		

1.0 General Information about the SIG516

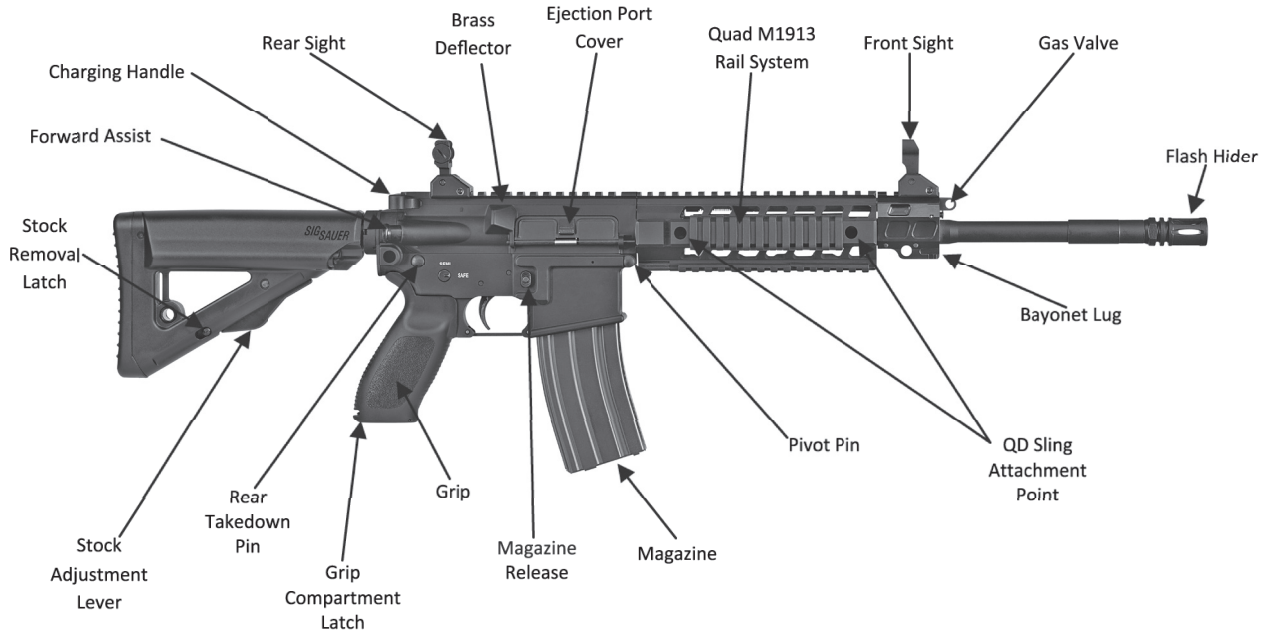
1.1 Description

The SIG516 is a magazine fed, gas operated, tactical rifle, chambered in 5.56mm x 45 NATO caliber and fires from the closed bolt position. The rifle is available in select fire or semi automatic only versions. It has four carbine variants; Personal Defense Weapon (PDW), Close Quarters Battle (CQB), Carbine and Patrol. The operating system is a short stroke pushrod gas system with a four position (three for the PDW variant) adjustable gas valve enabling optimum function under adverse conditions and when utilizing a suppressor. The weapon has the same manual of arms as the M-16 family of weapons. All SIG 516 rifles feature a four position (12-3-6 & 9 O' Clock position) Mil-Spec 1913 rail system for mounting optics and accessories. The weapon features multiple quick detach sling mounting points enabling the use of multiple sling configurations.

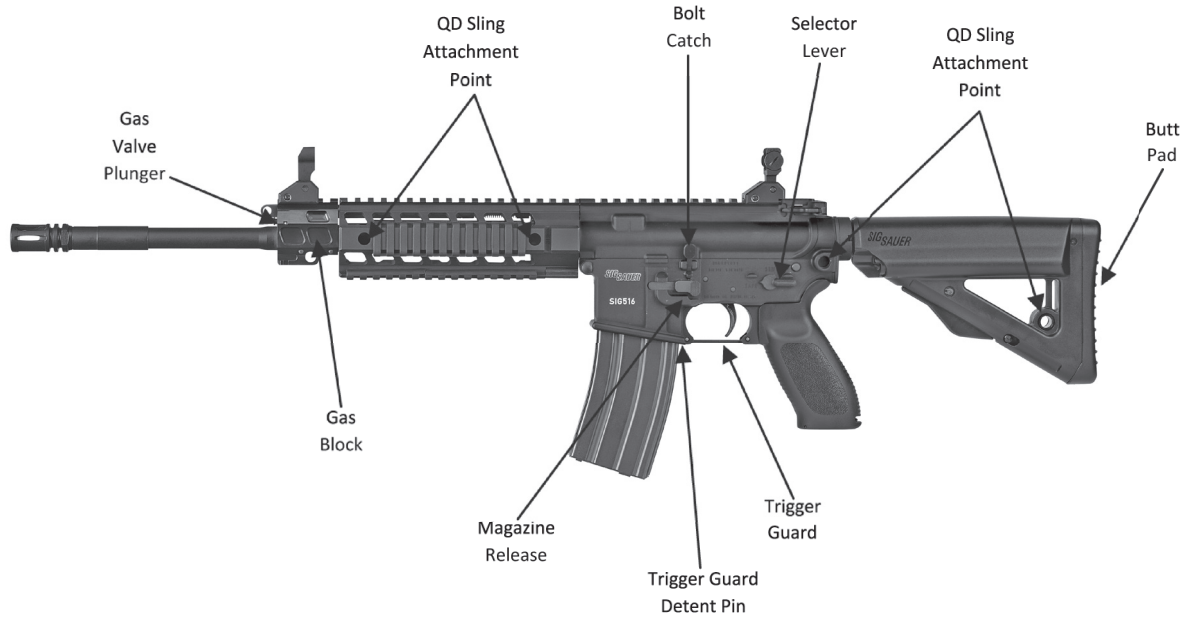
Technical Data

	PDW	CQB	CARBINE	PATROL
OVERALL LENGTH (STOCK EXTENDED)	709.5 mm (27.9 in)	778.5 mm (30.6 in)	887.5 mm (34.9 in)	910.5 mm (35.8 in)
OVERALL LENGTH (STOCK COLLAPSED)	624.8 mm (24.6 in)	694 mm (27.3 in)	803.2 mm (31.6 in)	826.1 mm (32.5 in)
BARREL LENGTH W/O FLASH SUPPRESSOR	195.5 mm (7.7 in)	269 mm (10.6 in)	370.5 mm (14.6 in)	408.5 mm (16.1 in)
LANDS & GROOVES	6	6	6	6
RATE OF TWIST	1:7 / 178 mm	1:7 / 178 mm	1:7 / 178 mm	1:7 / 178 mm
WEIGHT W/O MAGAZINE	2.93 kg (6.45 lbs)	3.06 kg (6.75 lbs)	3.29 kg (7.25 lbs)	3.47 kg (7.65 lbs)
TRIGGER WEIGHT	2.5-4.3 N (5.5 -9.5 lbs)	2.5-4.3 N (5.5 -9.5 lbs)	2.5-4.3 N (5.5 -9.5 lbs)	2.5-4.3 N (5.5 -9.5 lbs)
MUZZLE VELOCITY (W/ M855 AMMUNITION)	2188 fps (667 mps)	2561 fps (780 mps)	2821 fps (860 mps)	2855 fps (870 mps)
CYCLIC RATE	750-950 rpm	750-950 rpm	750-950 rpm	750-950 rpm
SIGHT RADIUS	285 mm (11.2 in)	360 mm (14.2 in)	360 mm (14.2 in)	360 mm (14.2 in)
STOCK	6 Position Telescoping	6 Position Telescoping	6 Position Telescoping	6 Position Telescoping

1.2 Controls & Features



Right Side (Standard Selector Lever Pictured, Ambidextrous Selector Lever Available.)

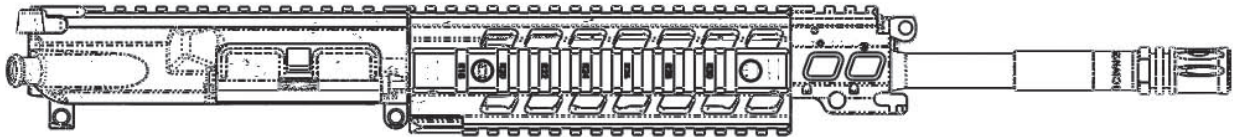


Left Side

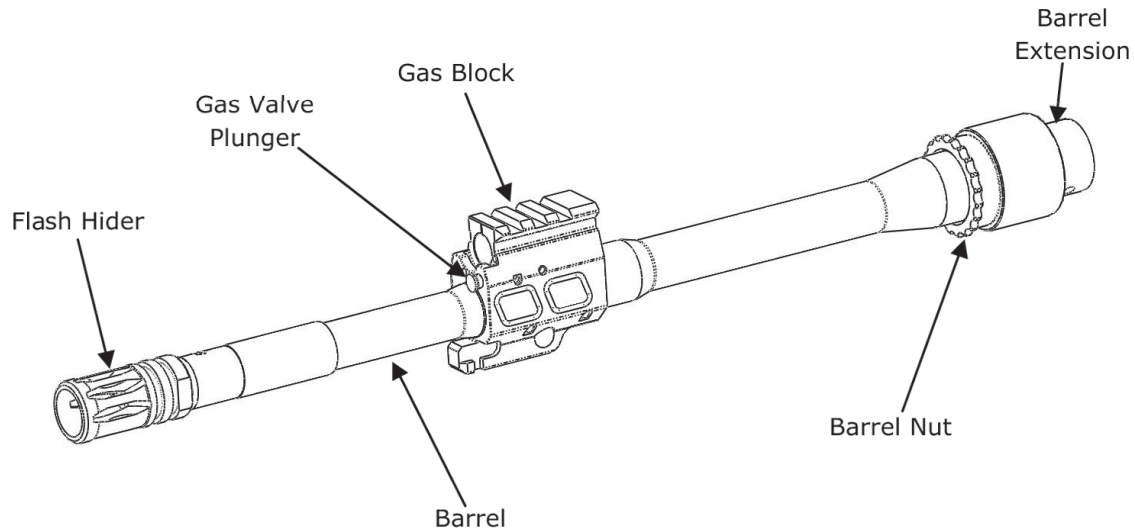
1.3 Groups & Assemblies

1.3.1 Upper Receiver Group

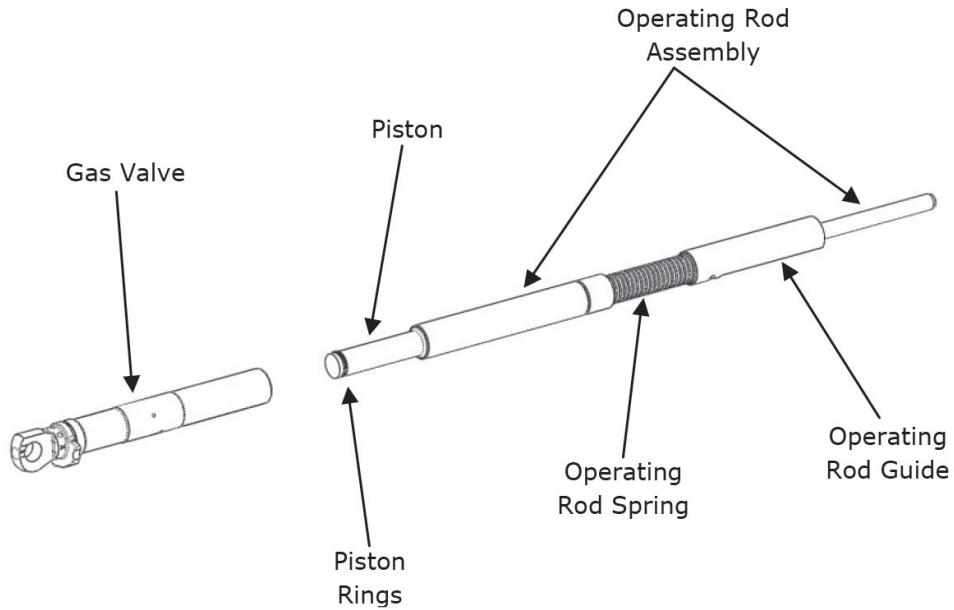
The Upper Receiver Group is composed of the following assemblies: Barrel Assembly, Gas System and Op-Rod Assembly, Upper Receiver Assembly, Bolt Carrier Assembly, Quad Rail Assembly



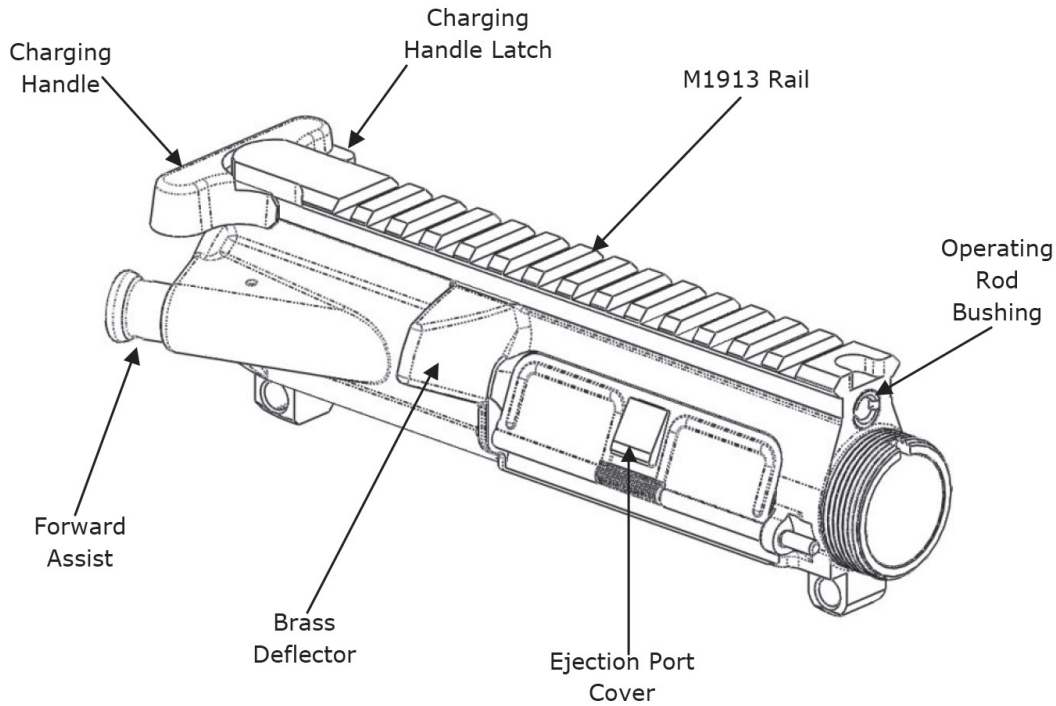
a. Barrel Assembly



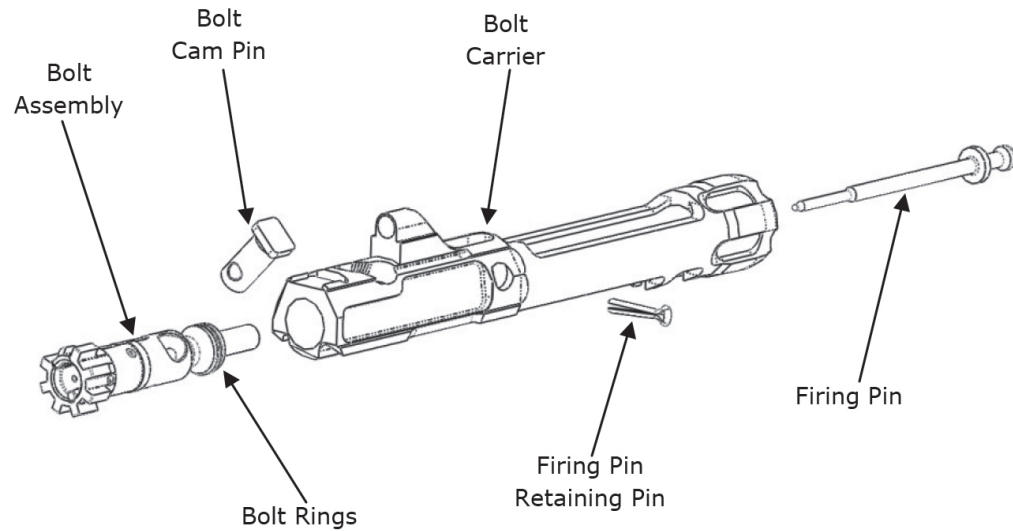
b. Gas Valve and Operating Rod Assembly



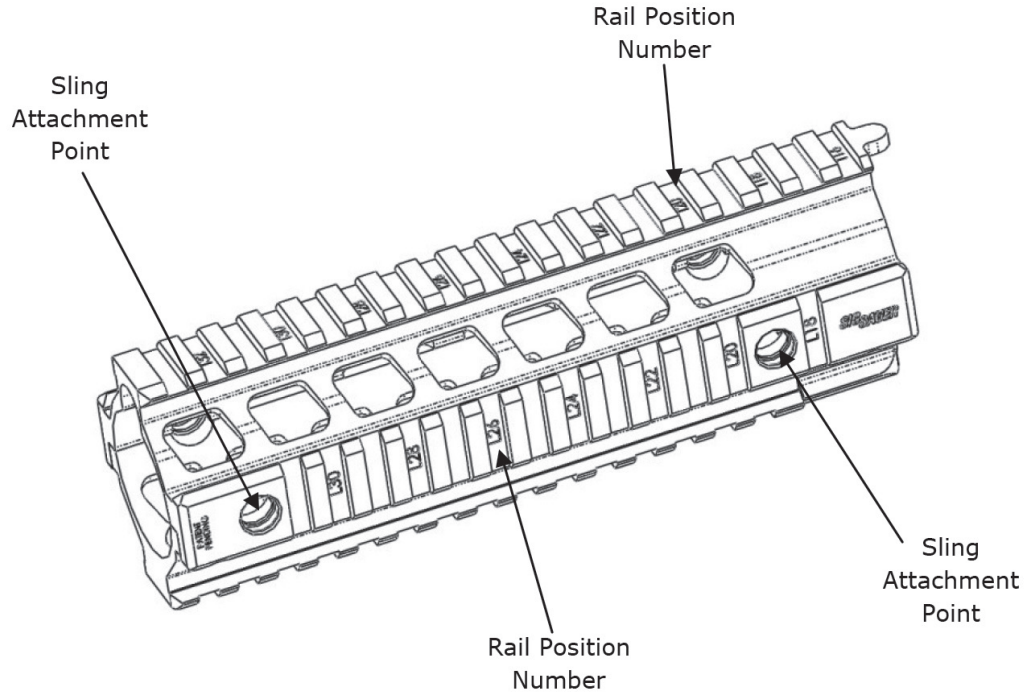
c. Upper Receiver Assembly



d. Bolt Carrier Assembly (Exploded)

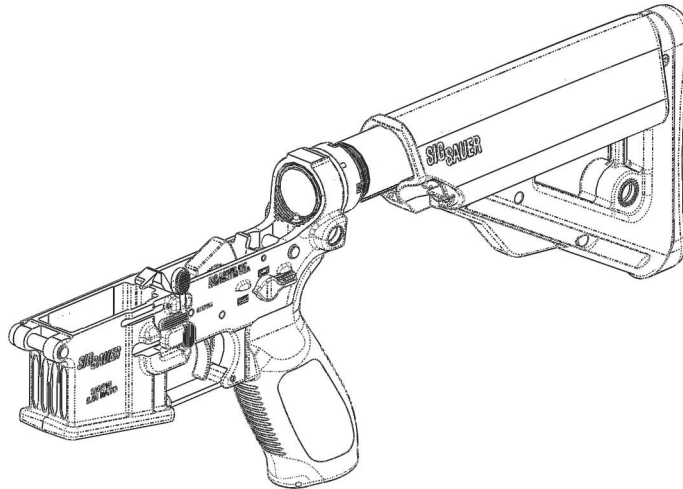


e. Quad Rail Assembly

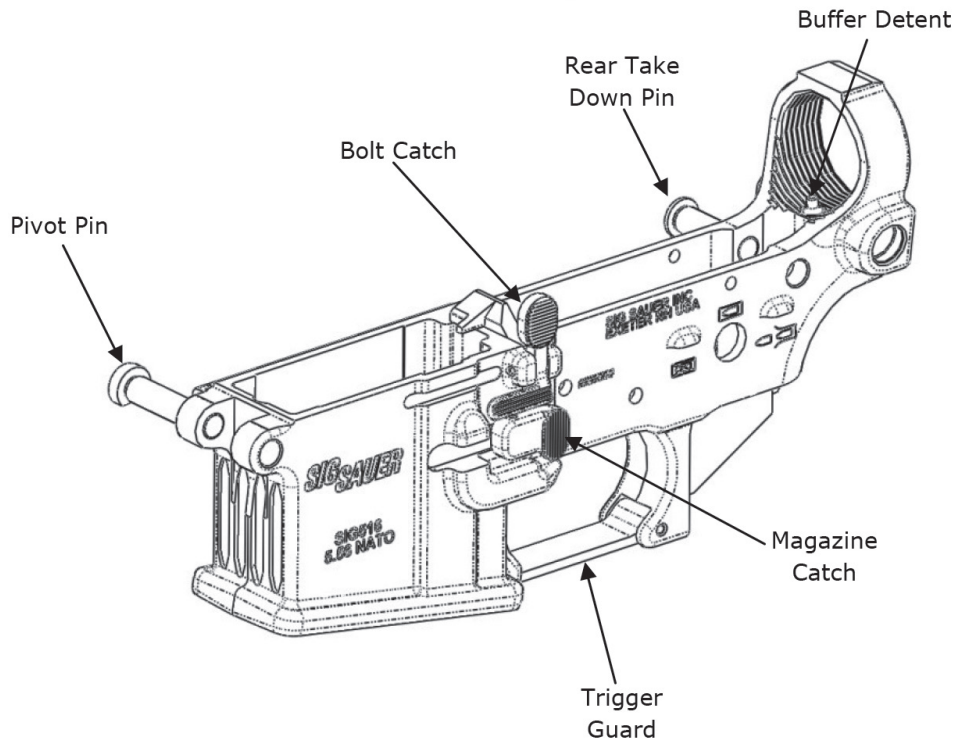


1.3.2 Lower Receiver Group

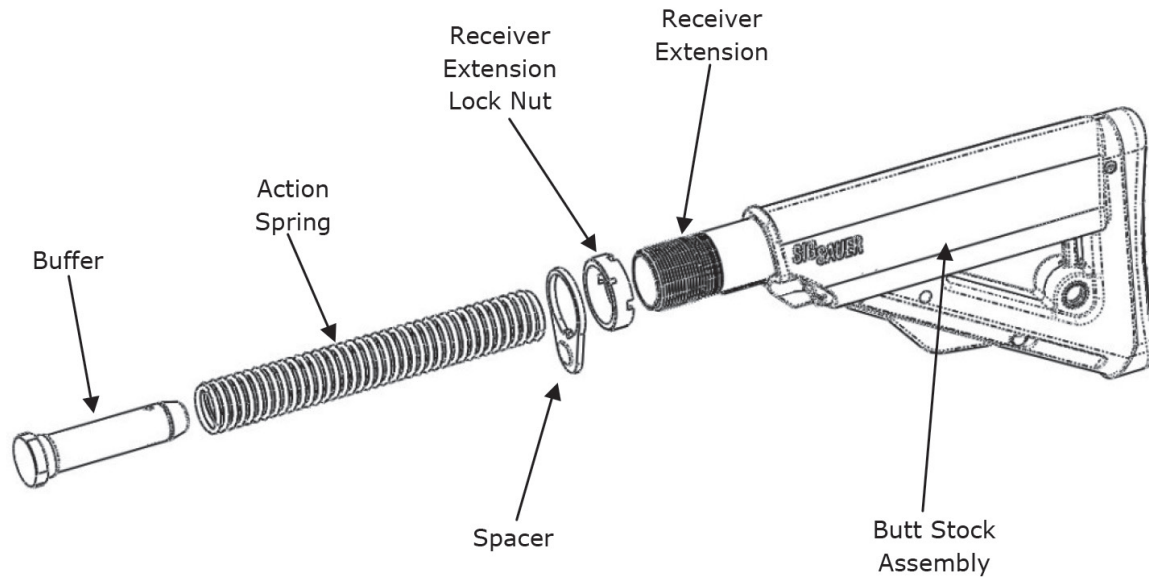
The Lower Receiver Group consists of the following assemblies: Lower Receiver Assembly, Butt Stock and Buffer Assembly, Fire Control Assembly and Grip Assembly.



a. Lower Receiver Assembly

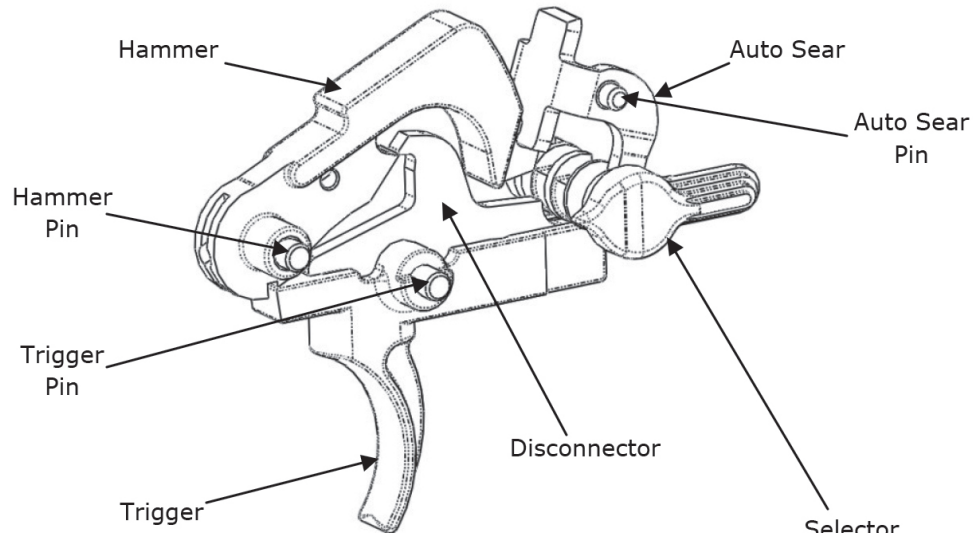


b. Buttstock and Buffer Assembly (Exploded)

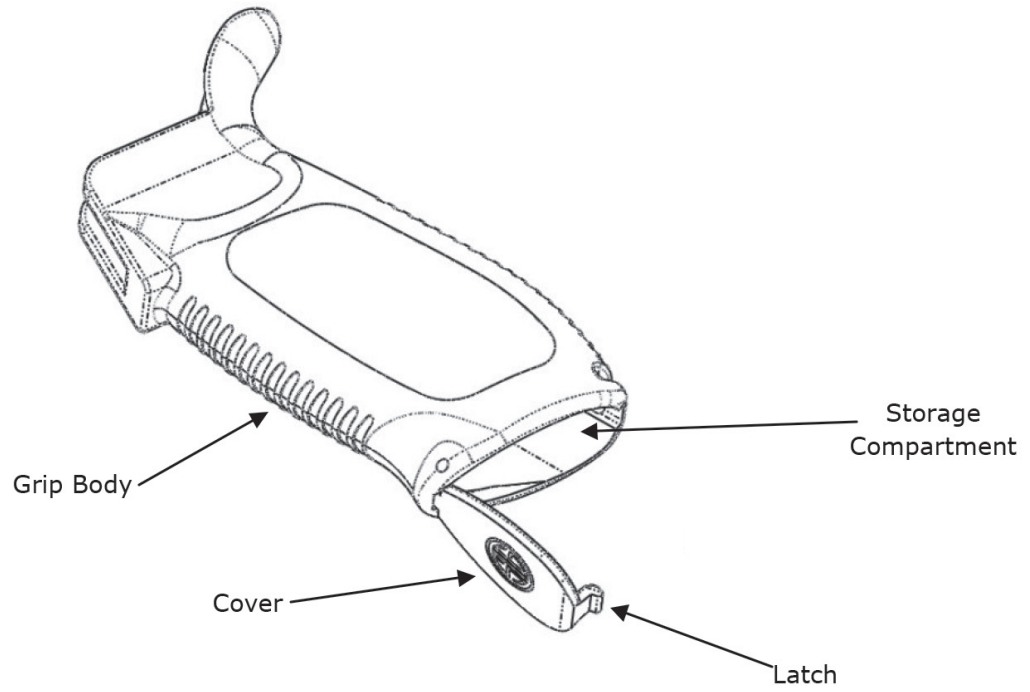


c. Fire Control Assembly

(depicted as parts are positioned within the lower receiver)



d. Grip Assembly



1.4 Cycle of Operation

There are eight steps in the cycle of operation of the SIG516.

- **Firing** – When the selector is positioned to semi or auto and the trigger is depressed, the hammer is released to strike the firing pin which in turn strikes the primer of the cartridge firing the round.
- **Unlocking** – As the bullet passes the gas port a small amount of gas is bled off through the gas port and into the gas valve. This gas acts upon the piston to move the operating rod to the rear. The operating rod 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. As the carrier assembly continues to the rear the operating rod is returned to its forward position by the op rod spring.
- **Extraction** – As the bolt carrier assembly continues its rearward travel the spent case is pulled free from the chamber by the extractor.
- **Ejection** – The rearward travel of the bolt carrier assembly reaches the point that the spent case clears the barrel extension. At this point the spring loaded ejector (which was compressed when the round was chambered) is able to pivot the base of the cartridge against the extractor flinging the spent round out through the ejection port on the right side of the receiver.
- **Cocking** – The continued reward travel of the bolt carrier forces the hammer against the tension of the hammer spring until it is in its cocked position.
- **Feeding** – The rearward movement of the bolt carrier assembly is stopped by the buffer. At this point the action spring (which was compressed by the bolt carrier) starts returning the bolt carrier to the forward position. During this movement the bolt lugs contact the base of the top cartridge in the magazine pushing it towards the chamber.

1.4 Cycle of Operation (cont.)

- **Chambering** – As the cartridge is pushed into the chamber the bolt lugs move into the barrel extension, the ejector is compressed against the ejector spring by the base of the cartridge and the extractor snaps over the rim of the cartridge.
- **Locking** – Once the bolt is fully inserted into the barrel extension its forward motion ceases. The carrier continues its forward travel until the bolt cam pin rotates the bolt locking it into the barrel extension completing the cycle of operation.

2.0 Operating the SIG516

2.1 Safety Rules & Procedures

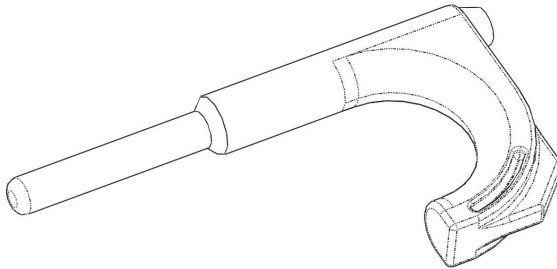
Always follow the safety rules and procedures noted in this manual in addition to the safety rules, regulations, procedures or guidelines of your organization.

2.1.1 Safety Rules

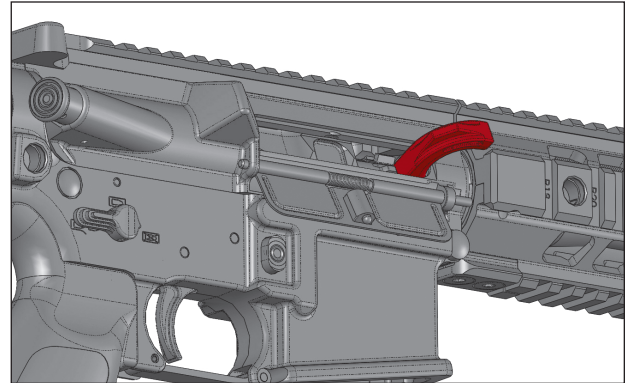
- a. Treat every weapon as if it were loaded.
- b. Never point a weapon at anything you do not intend to shoot.
- c. Keep your trigger finger straight and off the trigger until you are ready to shoot.
- d. Keep the weapon on safe until you are ready to shoot.
- e. Be sure of you have identified your intended target and know what lies beyond.

2.1.2 Safety Procedures

- a. When handing a weapon to someone else or prior to accepting a weapon from another person, always physically and visually check the chamber so both people can ensure the weapon is unloaded (see paragraph 2.3).
- b. Every SIG SAUER firearm is shipped with a chamber safety flag (see Diagram 1). The chamber safety flag precludes the chambering of a round when installed and provides a readily visible indication that the weapon's chamber is empty. The chamber safety flag is to be installed in the weapon's chamber (see Diagram 2) at all times when the weapon is not actually being fired.



Chamber Safety Flag (Diagram 1)



Chamber Safety Flag Inserted (Diagram 2)

- c. Ensure that unauthorized people never have access to a firearm. Never operate or handle a weapon when you are under the influence of alcohol or drugs.
- d. Be aware of where the muzzle of the weapon is pointed at all times while handling or operating the weapon. Never allow the muzzle to be inadvertently pointed at another person.
- c. Always perform the pre-firing inspection and functions check prior to shooting the weapon (see paragraph 3.1). Do not fire the weapon if it is damaged or it fails functions check.
- d. Always use serviceable, clean ammunition that has been manufactured to U.S. military or NATO STANAG specification of the proper caliber for the weapon that has been issued by your organization. Never oil or otherwise lubricate ammunition. Do not use damaged or dented ammunition.
- e. Live fire weapon's training should always be conducted on an approved firing range conforming to the minimum safety requirements for the caliber and ammunition utilized and under the supervision of qualified range safety personnel.
- f. Always ensure weapons are unloaded prior to storage, maintenance or when otherwise not in use.
- g. Any maintenance or disassembly beyond the user level described in this manual is to be performed by qualified personnel specifically trained on the maintenance of the SIG516 in accordance with the SIG Sauer armorer's manual for this weapon.

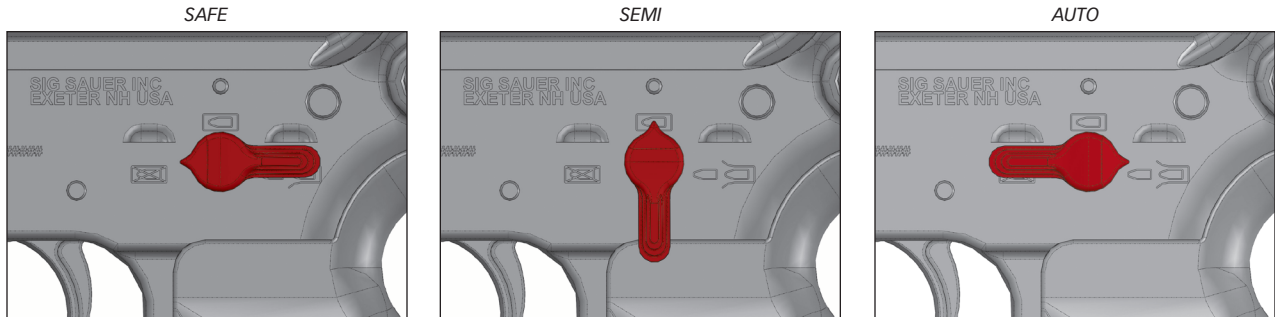
**WARNING**

DISREGARDING THE SAFETY RULES AND PROCEDURES DETAILED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH OF THE OPERATOR AND OR PEOPLE WITHIN THE MAXIMUM RANGE OF THE WEAPON. ALWAYS FOLLOW THE SAFETY RULES AND PROCEDURES IN THIS MANUAL AS WELL AS THE SAFETY RULES, PROCEDURES AND REGULATIONS OF YOUR ORGANIZATION.

2.2 Selecting Modes of Fire

2.2.1 Select fire versions of the SIG516 have three modes of fire; SAFE, SEMI and AUTO.

Modes of fire are selected by rotating the selector lever (see Diagram 3). The SAFE position prevents the weapon from firing by blocking the action of the trigger. The SEMI position is for the semi automatic mode and allows the firing of one round each time the trigger is depressed. The AUTO position is selected for full automatic mode and allows the weapon to fire successive rounds at the cyclic rate as long as the trigger is depressed and ammunition remains in the magazine. Semi Auto only versions of the SIG516 have only SAFE and SEMI selector lever positions.



Selector Lever Positions (Diagram 3)

2.3 Weapon's Conditions

Condition 1 – Bolt forward on a live round, ejection port cover closed, magazine with ammunition inserted, selector lever on SAFE. (Proper weapon condition when user is armed with the SIG516 in an operational status or conducting live fire training)

Condition 2 – Does not apply to the SIG516.

Condition 3 – Bolt forward on an empty chamber, ejection port cover closed, magazine with ammunition inserted, selector lever on SAFE. (Proper weapon condition when user is armed with the SIG516 in an operational status or conducting live fire training and is embarked on a helicopter or armored vehicle)

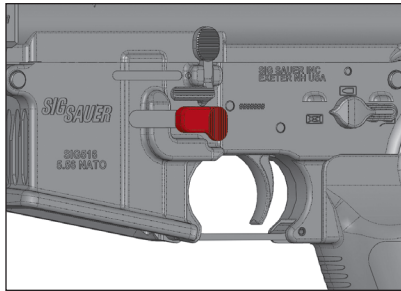
Condition 4 – Bolt forward on a chamber safety flag, ejection port cover open, no magazine in the weapon, selector lever on SAFE. (Proper weapons condition when the SIG516 is being stored, transported or carried in an administrative status)

2.4 Clearing the SIG516

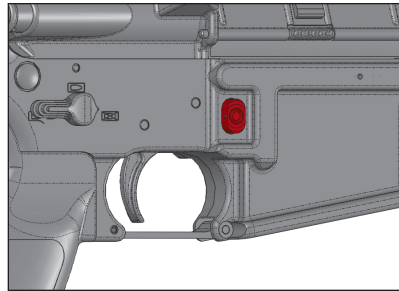
There are 5 steps required to properly clear the SIG516. The steps are to be followed in order.

2.4.1 – Ensure the muzzle of the weapon is pointed in a safe direction at all times while clearing the weapon.

2.4.2 – Remove the magazine from the weapon by depressing the magazine release (see Diagrams 4 & 5) with the index finger of the firing hand and simultaneously pulling the magazine free with the support hand.



Magazine Release Left Side (Diagram 4)



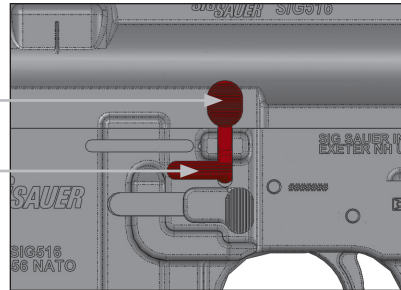
Magazine Release Right Side (Diagram 5)

2.4.3 – With the support hand, depress and hold the bottom portion of the bolt catch (see diagram 6) while pulling the charging handle briskly and fully to the rear with the firing hand. Release the bolt catch ensuring that the bolt carrier assembly remains locked to the rear and return the charging handle to its forward and locked position. Ensure the weapon is on safe.

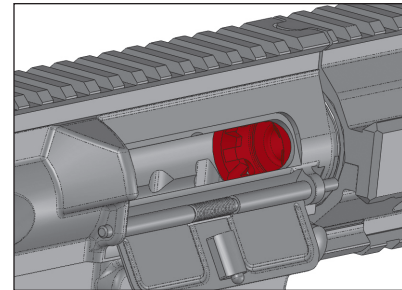
2.4.4 – Visually and physically inspect the chamber (see diagram 7) to ensure that there are no live rounds or spent cartridges present.

Press here to release bolt to the forward position when it is locked to the rear

Press and hold here while pulling the charging handle to lock bolt to the rear position



Bolt Catch (Diagram 6)



Chamber (Diagram 7)

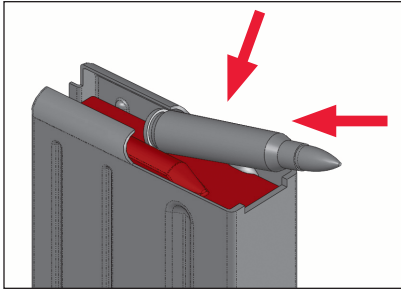
CAUTION: THE BOLT CARRIER ASSEMBLY IS UNDER SPRING TENSION AND WILL SPRING FORWARD IF THE BOLT CATCH IS INADVERTENTLY DEPRESSED POSSIBLY CAUSING INJURY. DO NOT TO ALLOW THE BOLT CATCH TO BE DEPRESSED. THE CHAMBER OF THE WEAPON COULD POTENTIALLY BE HOT CAUSING BURNS. WHEN PHYSICALLY INSPECTING THE CHAMBER, USE A PEN OR SIMILAR IMPLEMENT IF YOU ARE NOT SURE THE CHAMBER IS COLD.

2.4.5 – If passing the weapon to another authorized operator allow that person to inspect the chamber prior to relinquishing the weapon. Pass the weapon with the bolt locked to the rear. If not passing the weapon or preparing to fire the weapon, insert the flag safety into the chamber and return the bolt to its forward position by depressing the upper part of the bolt catch.

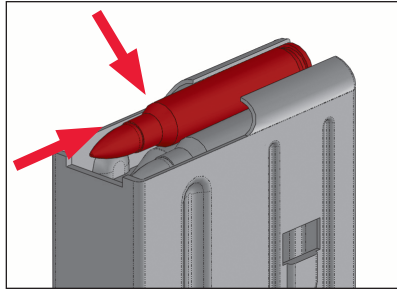
2.5 Loading / Firing / Reloading

2.5.1 Loading Magazines

To load a magazine place the first round with the base of the round depressing the follower and push the round downwards and to the rear underneath the feed lips (see Diagram 8) until it is all the way to the rear. Depress the first round with the second round (see Diagram 9) in the same manner and push the round all the way to the rear of the magazine. Repeat this procedure with additional rounds until the magazine is loaded to its capacity. Do not overfill magazines.



First Round Depressing Follower (Diagram 8)

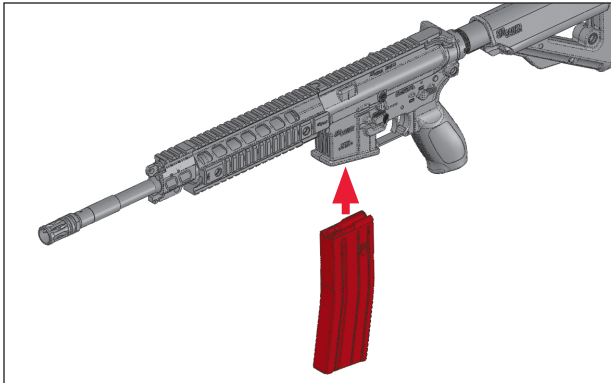


Second Round Fully Seated in Magazine (Diagram 9)

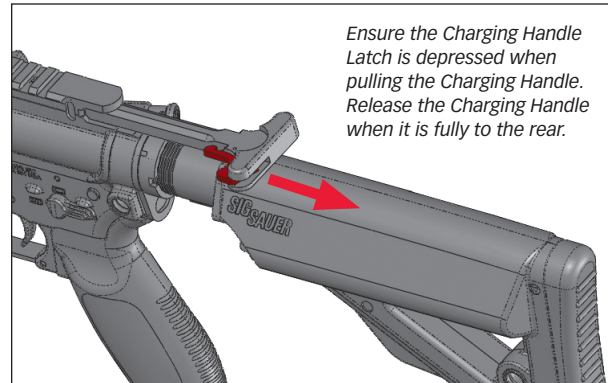
2.5.2 Loading the Weapon

Ensure that the chamber is clear and remove the chamber safety flag if it is present. Maintain the weapon's muzzle in a safe direction throughout the loading process. Insert the loaded magazine into the magazine well until the magazine release engages the magazine with an audible click (see Diagram 10). Tug on the base of the magazine to ensure it is properly seated.

If the bolt is already locked to the rear press the upper portion of the bolt catch to release the bolt and chamber the first round. If the bolt is forward charge the weapon by grasping the charging handle and pulling it fully to the rear. Be sure to depress the charging handle latch while pulling the charging handle to the rear. (see Diagram 11) with a brisk motion and release allowing the spring tension to chamber the first round (do not ride the charging handle forward).



Inserting a Loaded Magazine (Diagram 10)



Charging the Weapon (Diagram 11)

2.5.3 Firing the SIG516

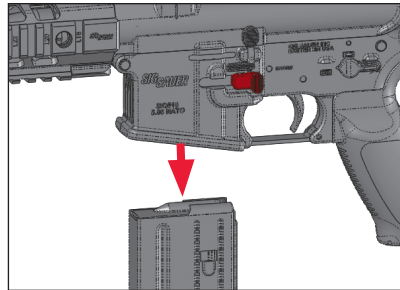
With a condition 1 weapon, assume a firing position and aim at an authorized target. Once on target rotate the selector lever to the desired mode of fire and engage the target by depressing the trigger.

Ensure the selector lever is returned to SAFE prior to removing the weapon from the shoulder. When the last round of the magazine has been expended the follower will engage the bolt catch to lock the bolt to the rear.

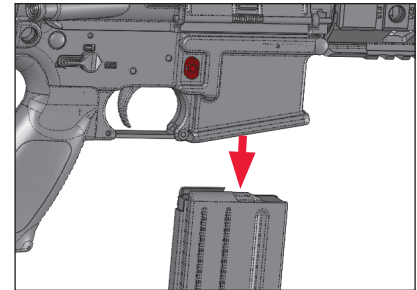
2.5.4 Reloading the SIG516

When the bolt locks to the rear after the last round of the magazine, ensure the weapon is on safe. Maintaining the weapon's muzzle in a safe direction at all times, depress the magazine release (see Diagram 12) and ensure the empty magazine is ejected from the weapon. Insert a loaded magazine into the magazine well, tug on the bottom to ensure it is seated and depress the upper portion of the bolt catch to chamber the first round of the new magazine.

Ejecting Magazine with Left or Right Magazine Release Button (Diagram 12)



Left Magazine Release Button



Right Magazine Release Button

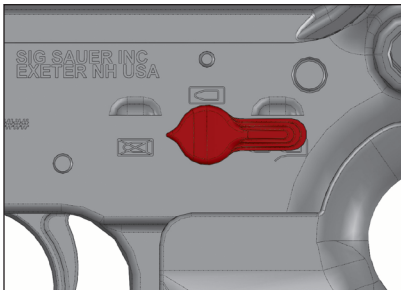
2.6 Immediate and Remedial Action

2.6.1 Stoppages and Malfunctions

A stoppage is defined as an interruption in the normal cycle of function of the weapon. The proper procedure for correcting a stoppage is Immediate Action. A stoppage that cannot be corrected by Immediate Action is considered a malfunction. The proper procedure for correcting a malfunction called Remedial Action.

2.6.2 Immediate Action

Immediate Action is the prompt action taken by the shooter to correct a stoppage without investigating its cause. Upon experiencing a stoppage the shooter will keep the weapon in his shoulder with the muzzle downrange and attempt to place the weapon on SAFE (see Diagram 13).



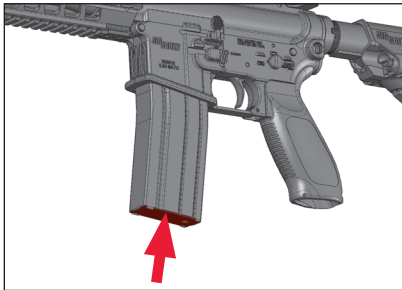
*Attempt to place the Weapon on SAFE
(Diagram 13)*

2.6.2 (cont.)

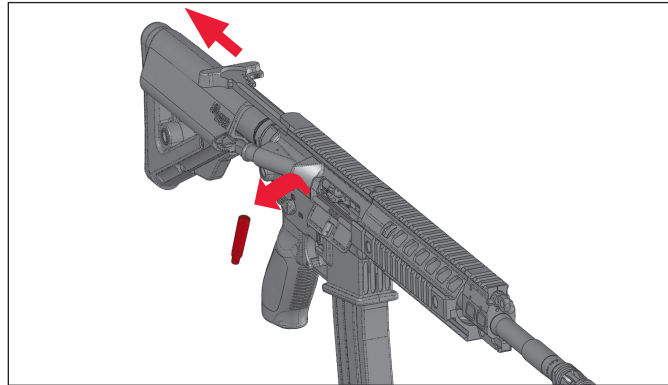
Ensuring the muzzle remains pointed down range, the shooter will tap firmly on the bottom of the magazine (see Diagram 14) with his support hand to ensure it is properly seated and move the support hand to the charging handle.

The shooter will pull the charging handle briskly to the rear with the support hand while observing for ejecting and feeding (see diagram 15).

If ejecting and feeding is observed the shooter releases the charging handle from its rearmost position, replaces the support hand on the weapon's fore end and continues to engage the target.



*Firmly Tap the Bottom of the Magazine
(Diagram 14)*



Pull Charging Handle to the Rear, Observe for Ejecting and Feeding (Diagram 15)

2.6.3 Remedial Action

If the shooter does not observe ejecting and feeding during Immediate Action or performing Immediate Action fails to return the rifle to operating condition the shooter will perform Remedial Action to investigate and correct the cause of malfunction. Ensuring the muzzle remains pointed in a safe direction, attempt to place the weapon on safe. Remove the magazine and ensure the weapon had not simply run out of ammunition. Lock the bolt to the rear. Physically and visually inspect the chamber area looking for a round (s) remaining in the chamber and clear the chamber. Once the weapon is clear perform a functions check. If the weapon passes functions check reload with a fresh magazine and attempt to fire. If the weapon fails functions check make a Condition 4 Weapon and remove from the firing line. Field strip weapon and inspect for worn, broken or missing parts.

2.7 Operating Under Adverse / Special Conditions

2.7.1 Gas System

The **Normal Gas Valve Setting** (see Diagram 16) is to be used under most circumstances. Under certain conditions described below it may be necessary to change the gas valve setting. The SIG516 has four gas valve settings (Normal, Adverse, Suppressed, and Off) except for the PDW variant which has three (Normal, Suppressed and Off).

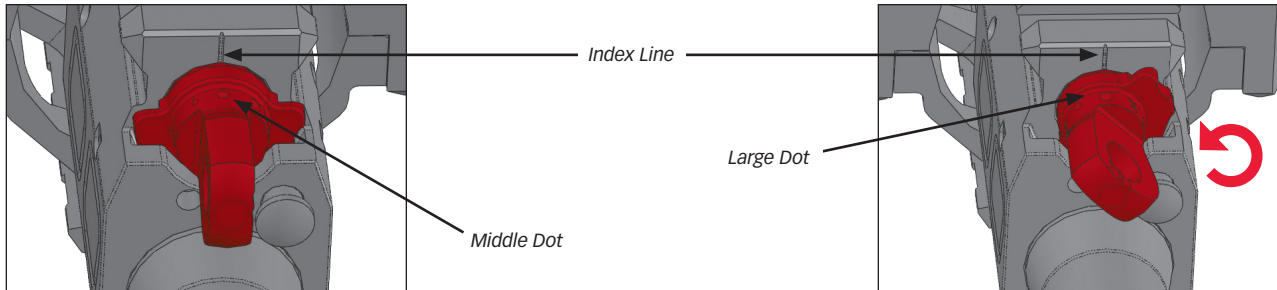


WARNING

ALWAYS CLEAR WEAPON ACCORDING TO INSTRUCTION IN PARAGRAPH 2.4 AND CONFIRM THE WEAPON IS CONDITION FOUR PRIOR TO ADJUSTING GAS VALVE SETTINGS.

Adverse Gas Valve Setting – The adverse gas valve position is intended for use under field conditions when the tactical situation prevents performing operator maintenance on the weapon. If the weapon experiences stoppages after prolonged firing clear the weapon and confirm condition four. Rotate the gas valve one notch counter clockwise from Normal when viewed from the front of the weapon (see Diagram 17).

CAUTION: THE RIFLE SHOULD NOT BE OPERATED IN POSITION #2 (ADVERSE) FOR AN EXTENDED PERIOD OF TIME. AS SOON AS THE SITUATION PERMITS PERFORM OPERATOR MAINTENANCE ON THE WEAPON AND RETURN THE GAS VALVE TO THE NORMAL POSITION. CONTINUED OPERATION WITH THE GAS VALVE IN THE ADVERSE POSITION WILL INCREASE RECOIL AND PLACE UNNECESSARY STRESS ON THE RIFLE. HAVING TO OPERATE THE RIFLE IN THE ADVERSE POSITION IS AN INDICATOR THAT THE RIFLE NEEDS MAINTENANCE.



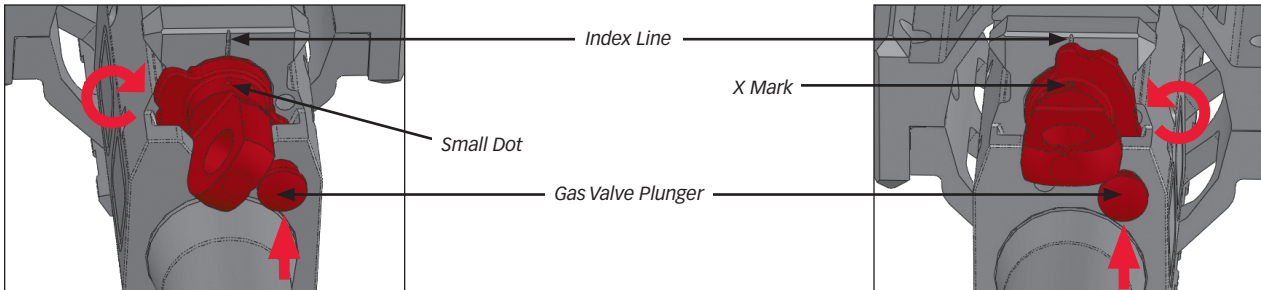
*Normal Gas Valve Setting
Middle Dot Aligned with Index Line
(Diagram 16)*

*Adverse Gas Valve Setting
Align Large Dot with Index Line
(Diagram 17)*

Suppressed Gas Valve Setting – Suppressed gas valve setting is for operation with a sound suppressor. To select this setting, clear the weapon and confirm condition four. Depress the plunger next to the gas valve and rotate the gas valve one notch clockwise from Normal when viewed from the front of the gun (see Diagram 18). Attach sound suppressor according to the instructions provided with the device.

CAUTION: SOUND SUPPRESSORS BECOME EXTREMELY HOT WHEN FIRED. ENSURE THE SOUND SUPPRESSOR IS COLD PRIOR TO DETACHING IT FROM THE WEAPON OR USE HEAT PROTECTIVE MITT.

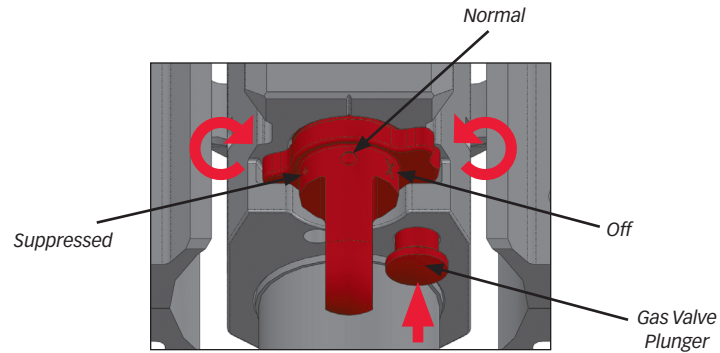
Off Gas Valve Setting – The Off gas valve setting completely closed off the gas port. It is used when maximum accuracy and sound suppression is desired. When the gas valve is set to Off the weapon must be manually cycled using the charging handle for each shot. To select this setting, clear the weapon and confirm condition four. Depress the plunger next to the gas valve and rotate the gas valve counter clockwise from Normal until the X symbol on the gas valve lines up with the index line on the gas block when viewed from the front of the gun (see Diagram 19).



*Suppressed Gas Valve Setting
Depress Gas Valve Plunger and Align Small Dot
with Index Line (Diagram 18)*

*Off Gas Valve Setting
Depress Gas Valve Plunger and Align X Mark
with Index Line (Diagram 19)*

PDW Variant Gas Valve Operation – The PDW variant has three gas valve settings; Normal, Suppressed and Off. To set the gas valve to either Suppressed or Off from the Normal position depress the gas valve plunger and rotate the gas valve clockwise for suppressed or counter clockwise for Off (see Diagram 20).



*PDW Gas Valve Setting
Depress Gas Valve Plunger and Rotate
Valve to Desired Setting (Diagram 20)*

2.7.2 Hot Gun

The sustained rate of fire at ambient temperature (21°C / 70°F) is 20 shots per minute. The maximum rate of fire at ambient temperature is 220 rounds with M855 in one minute after which a round can remain chambered without cook off.

2.7.3 Desert Conditions

Apply lubrication sparingly only where there are metal on metal moving parts. If available use dry graphite lubricant. Increase frequency of inspection and cleaning of weapon due to dust and sand. Use muzzle covers if available. Cover weapons when not in use.

2.7.4 Arctic Conditions

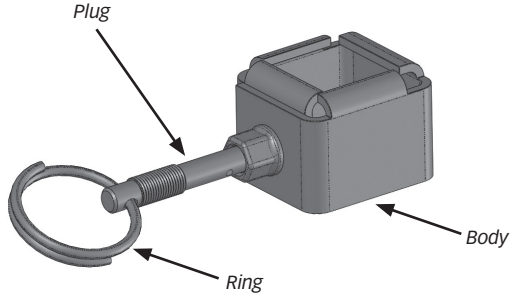
When operating in sub freezing temperatures lubricate with Lubricant Arctic Weather MIL-I-14107D (LAW). Avoid bringing weapon into heated shelters or buildings to prevent condensation from forming on moving parts which will freeze when the weapon is brought back outdoors. If it is necessary to bring the weapon indoors allow it to warm to room temperature then disassemble and clean thoroughly ensuring all moisture is removed from weapon and re-lubricate with LAW. When operating in snowy environments conduct frequent inspection of the weapon to ensure snow has not gotten into operating parts. Work the action to ensure it is not frozen. Use muzzle covers if available. If the bolt carrier becomes frozen with snow/moisture DO NOT fire weapon to free the bolt carrier. Warm weapon with body heat or bring indoors until free movement is restored then clean & re-lubricate weapon.

2.7.5 Jungle Conditions

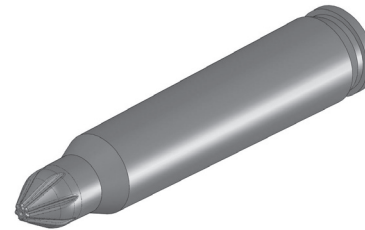
Increase frequency of inspection and cleaning of the weapon for rust/ corrosion. Apply thin coat of lubricant on steel parts frequently.

2.7.6 Firing Blank Ammunition

Firing blank ammunition from the SIG516 requires the use of a Blank Firing Adapter (BFA) for the weapon to cycle in semi automatic or automatic modes (see Diagram 21). Blank ammunition is identified by having a star crimped case mouth instead of a projectile (see Diagram 22). The appropriate SIG SAUER BFA must be used. BFA's intended for M-16 and M-4 weapons will not function properly even though they are similar in appearance.



Blank Firing Adapter (Diagram 21)



5.56mm x 45 Blank Round (Diagram 22)

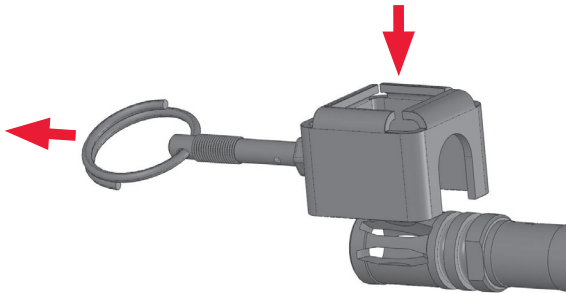
To install the BFA on the SIG516 clear the weapon according to paragraph 2.4. Unscrew the plug from the body until the threads no longer engage and pull it out as far as it will go. Place the cut out in the body over the first groove on the flash hider (see Diagram 23). Push the plug into the muzzle and tighten the plug into the BFA body using firm hand pressure only (see Diagram 24). Check the BFA plug frequently to ensure tightness when firing blanks. To remove BFA loosen and completely extend the plug and remove the body from the flash hider.



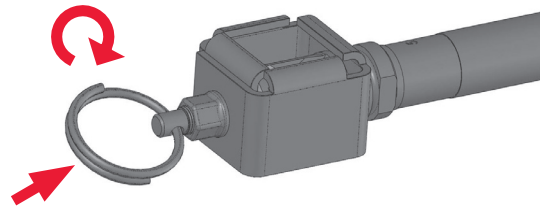
WARNING

FIRING LIVE AMMUNITION IN ANY WEAPON FITTED WITH A BLANK FIRING ADAPTER CAN RESULT IN SERIOUS INJURY OR DEATH AND CATASTROPHIC MALFUNCTION OF THE WEAPON. ALWAYS CLEAR WEAPON PRIOR TO INSTALLING, TIGHTENING OR REMOVING BFA. NEVER MIX LIVE AMMUNITION AND BLANK AMMUNITION. USE EXTREME CARE WHEN ISSUING, LOADING AND USING BLANK AMMUNITION TO PREVENT USING THE WRONG TYPE OF AMMUNITION PARTICULARLY WHEN TRANSITIONING FROM LIVE FIRE TRAINING TO FIRING BLANK AMMUNITION AND FROM FIRING BLANK AMMUNITION TO LIVE AMMUNITION.

CAUTION: BFA WILL BECOME HOT WITH FIRING USE CAUTION WHEN CHECKING FOR TIGHTNESS OR REMOVING BFA TO PREVENT BURNS.



Blank Firing Adapter Positioned for Installation with Plug Extended (Diagram 23)



Blank Firing Adapter Installed (Diagram 24)

2.8 Adjusting the Back Up Iron Sights

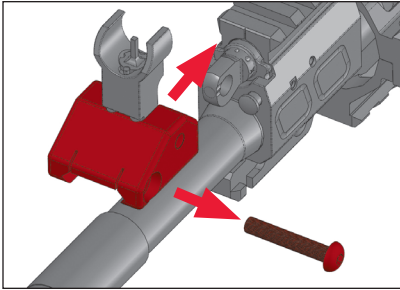


WARNING

ALWAYS CLEAR WEAPON ACCORDING TO INSTRUCTION IN PARAGRAPH 2.4 AND CONFIRM THE WEAPON IS CONDITION FOUR PRIOR TO INSTALLING THE BACK UP IRON SIGHTS OR WHEN ADJUSTING THE FRONT SIGHT. ALWAYS MAINTAIN THE WEAPON'S MUZZLE IN A SAFE DIRECTION WHEN ADJUSTING THE REAR SIGHT.

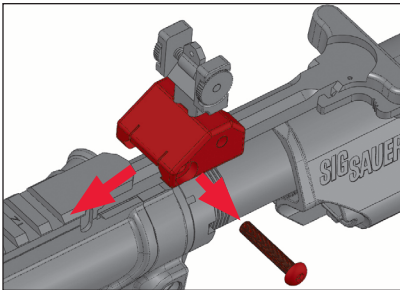
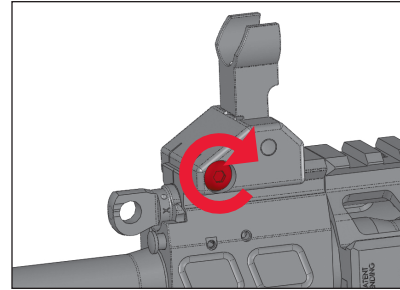
2.8.1 Installing the Back Up Iron Sights

To install the front sight remove the locking screw from the sight base with an 1/8 inch allen wrench (see Diagram 25). Slide the sight base onto the railed portion of the gas block from front to rear until the front face of the sight base is flush with and re-insert the locking screw into the sight base (see Diagram 26). It may be necessary move the sight slightly forward or backward to allow the screw to pass through the notch M1913 rail. To install the rear sight remove the locking screw from the sight base. Lock the bolt to the rear and leave the charging handle extended to provide clearance for the sight base. Remove the locking screw and slide the sight base onto the railed portion of the upper receiver (see Diagram 27). Position the sight base so the rear sight doesn't extend past the rear edge of the lower receiver when the sight is collapsed and re-insert the locking screw into the sight base (see Diagram 28).



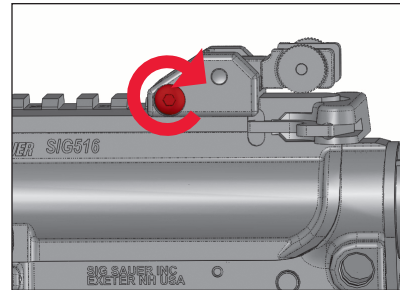
Remove Locking Screw from Front Sight Base and Slide onto Gas Block Rail (Diagram 25)

Position Base with Locking Screw in First Rail Notch and Tighten Locking Screw (Diagram 26)



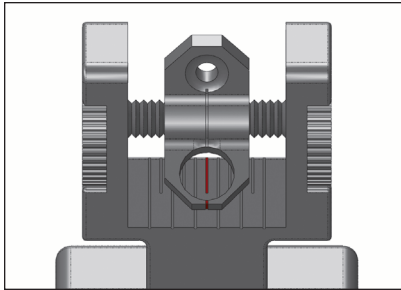
Remove Locking Screw from Rear Sight Base and Slide onto Upper Receiver Rail (Diagram 27)

Position Base with Locking Screw on Second Rail Notch and Tighten Locking Screw (Diagram 28)

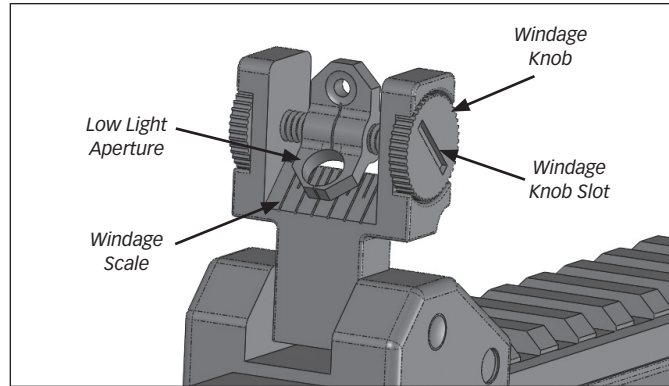


2.8.2 Initial Sight Setting

Center the rear sight aperture by aligning the index mark on the aperture with the center index mark on the windage scale using the windage knob (see Diagram 29). If necessary use the rim of a cartridge or coin in the slot of the windage knob (see Diagram 30).

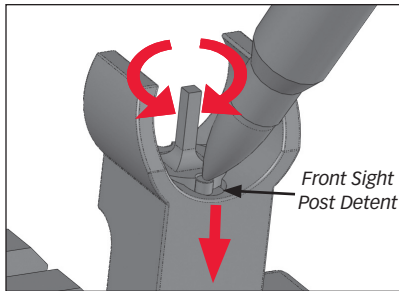


*Rear Sight Aperture Aligned with Windage Scale
(Diagram 29)*

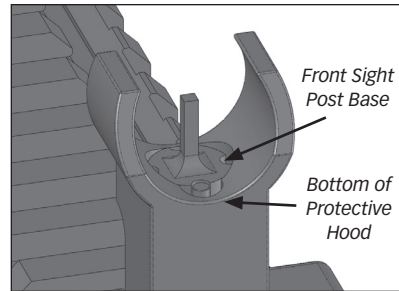


Rear Sight (Diagram 30)

Adjust the front sight post by depressing the front sight post detent with the tip of a round, a pen or similar implement and turning the front sight post base (see Diagram 31) until the base of the front sight post is flush with the bottom of the protective hood (see Diagram 32).



Adjusting the Front Sight Post (Diagram 31)



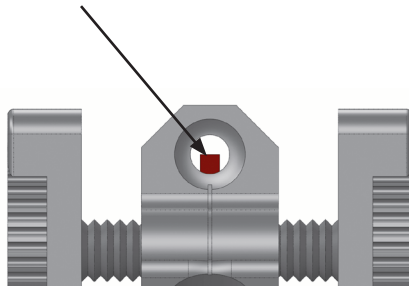
Front Sight Post Flush (Diagram 32)

2.8.3 Adjusting the Back Up Iron Sights

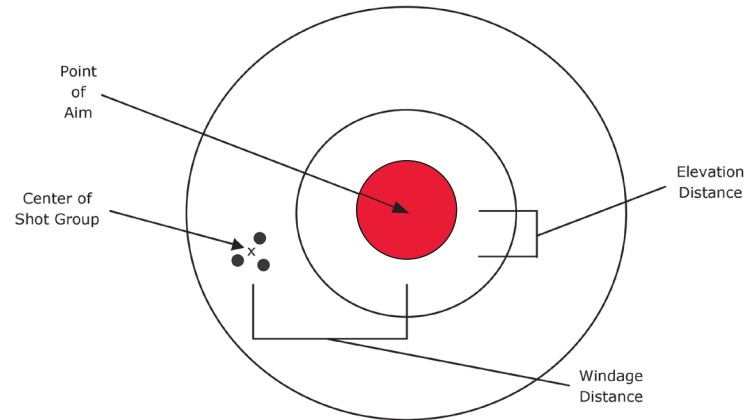
To obtain the most accurate sight adjustment fire the weapon from a supported prone position. Fire three well aimed rounds (see Diagram 33) to obtain an initial shot group. Clear the weapon, go down range and mark the center of the shot group (see Diagram 34).

To adjust the center of the shot group to coincide with the point of aim adjust the front sight for elevation and the rear sight for windage. Rotating the front sight post clockwise (when viewed from the top) will move the strike of the round up on the target. Rotating the rear sight windage knob clockwise (when viewed from the right) will move the strike of the round to the right on the target (see Diagrams 33 and 34).

When Aiming the Shooter's Eye Should be Focused on the Tip of the Front Sight Post. The Tip of the Front Sight Post should be Centered in the Rear Aperture



Correct Sight Picture Which is Placed on the Point of Aim When Aiming (Diagram 33)



Marking the Center of the Shot Group (Diagram 34)

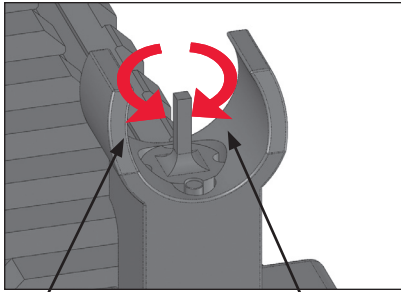
Effect of Sight Adjustment on the Strike of the Round*

Range	One Click of Elevation	One Click of Windage
25 meters	0.6 cm (.25 inch)	0.6 cm (.25 inch)
50 meters	1.2 cm (.5 inch)	1.2 cm (.5 inch)
100 meters**	2.4 cm (1.0 inch)	2.4 cm (1.0 inch)

*The table above represents the sight adjustment increments when sights are positioned to produce a 35 cm (13.75 inch) distance between the front sight post tip and the rear aperture. Positioning the sights closer together will increase the movement of the strike of the round slightly with each click of adjustment.

**It is not recommended to zero back up iron sights beyond 100 meters.

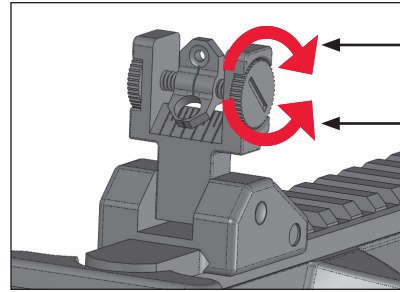
After marking the center of the shot group note the distance needed to move the center of the shot group to the point of aim for windage and elevation and apply the corrections as indicated in Table 1. After applying the corrections to the sight fire three more well aimed shots and note the center of the new shot group. If the shot group is not yet centered on the point of aim repeat the procedure above as necessary until the shot group coincides with the point of aim.



Move Strike of Round Down

Move Strike of Round Up

*Front Sight Post
Direction for Moving
Strike of Round
(Diagram 33)*



Move Strike of Round Right

Move Strike of Round Left

*Rear Sight Aperture
Direction for Moving
Strike of Round
(Diagram 34)*

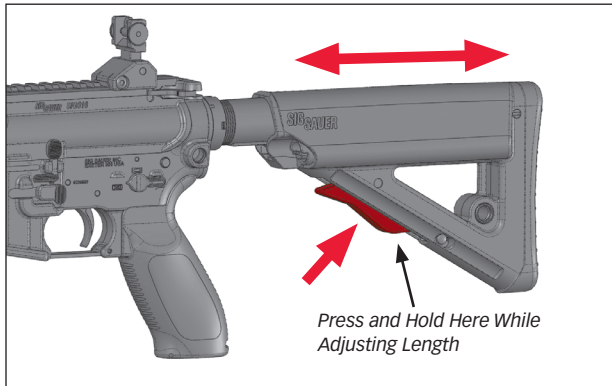
2.8.4 Zeroing Optical Sights and Other Devices

When zeroing optical sights and other devices such as laser aiming devices follow the instructions provided by the manufacturer of the device. When mounting devices, ensure that they are securely fastened to the appropriate M1913 rail. Check device for tightness frequently while operating the weapon.

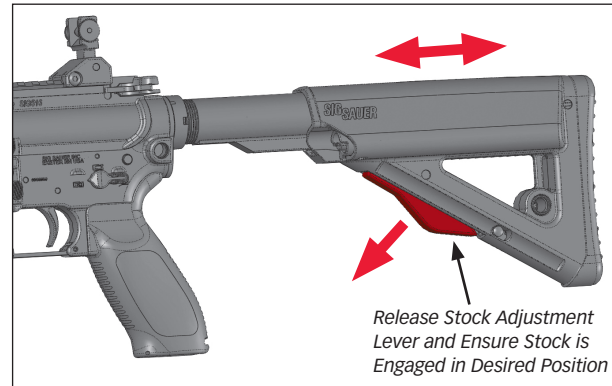
2.9 Adjusting the Stock and Use of Accessories

2.9.1 Adjusting the Stock

There are six positions of length adjustment on the stock to account for shooters of varying stature and different gear that might be worn depending on mission requirements. To adjust the length of the stock depress and hold the stock adjustment lever and push or pull buttstock to desired length (see Diagram 35). Once the stock is at the desired length, release the stock adjustment lever and manipulate the stock forward and backward to ensure it is securely engaged in the position closest to the desired length (see Diagram 36).



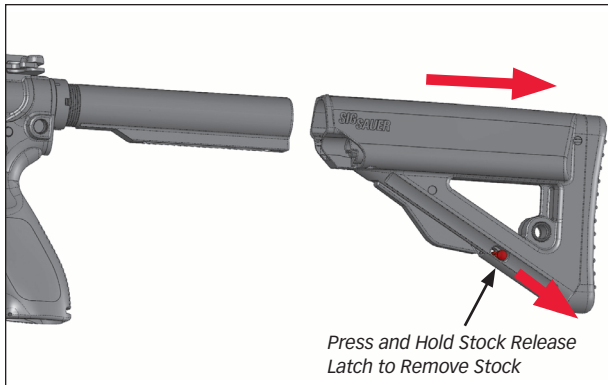
Adjusting Length of Stock (Diagram 35)



Locking Stock at Desired Length (Diagram 36)

2.9.2 Removing the Stock

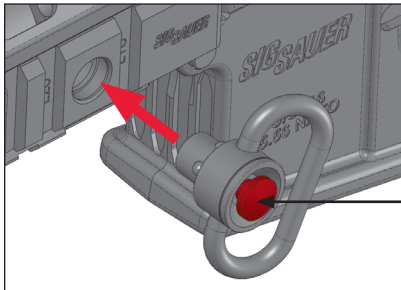
To remove the stock, extend it to its furthest position and depress and hold the stock removal latch while pulling the stock from the receiver extension (see Diagram 37).



Removing Stock (Diagram 37)

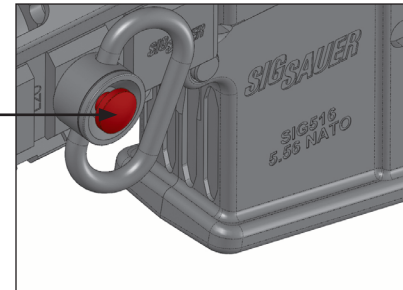
2.9.3 Quick Detach (QD) Sling Attachment Points

The SIG516 is equipped with multiple QD sling attachment points for use with QD sling swivels. To attach a QD sling swivel push and hold the plunger button while inserting the QD body into the sling attachment point. Once it is fully inserted release the plunger button and tug on the sling to ensure it is firmly attached (see Diagram 38). To remove QD sling swivel depress and hold the plunger button and pull the QD body out of the attachment point (see Diagram 39).



Press and Hold Here
to Install

*Installing QD Sling Swivel
(Sling Omitted from Depiction for Clarity)
(Diagram 38)*

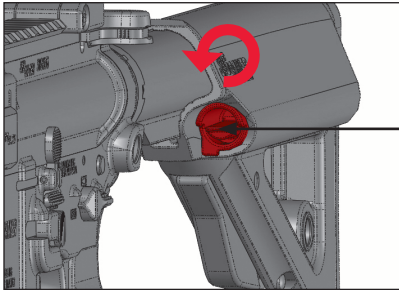


Press and Hold Here
to Remove

*Removing QD Sling Swivel
(Sling Omitted from Depiction for Clarity)
(Diagram 39)*

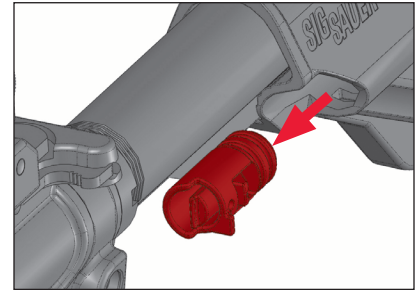
2.9.4 Stock Compartments

To access the compartments in the stock depress the tab on the compartment plug, rotate the compartment plug outboard of the stock (see Diagram 40) and remove (see Diagram 41).



*Push Here to Depress
Compartment Plug Tab*

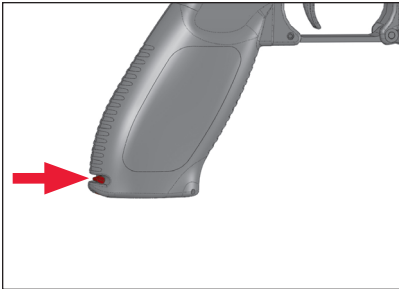
*Depress Tab and Rotate Compartment Plug
(Diagram 40)*



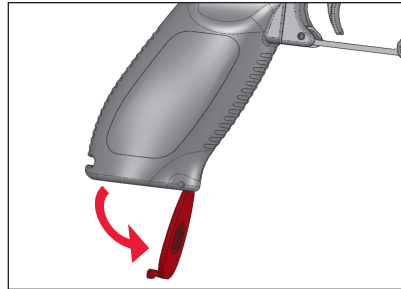
*Remove Compartment Plug
(Diagram 41)*

2.9.5 Grip Compartment

To access the grip compartment depress the grip compartment latch (see Diagram 42) and swing the grip compartment door open (see Diagram 43).



*Depress Grip Compartment Latch
(Diagram 42)*



*Open Grip Compartment Door
(Diagram 43)*

2.9.6 Other Accessories

This manual depicts the standard configuration for the SIG516 . The weapon as issued may have optional components and/or accessories. If weapon is configured differently instructions will be provided for optional components.

3.0 Preventative Maintenance for the SIG516



WARNING

ALWAYS CLEAR WEAPON ACCORDING TO INSTRUCTION IN PARAGRAPH 2.4 AND CONFIRM THE WEAPON IS CONDITION FOUR PRIOR TO PERFORMING ANY MAINTENANCE. PERFORMING MAINTENANCE TASKS NOT COVERED IN THIS MANUAL OR PERFORMING AUTHORIZED TASKS IN A MANNER NOT CONSISTENT WITH THE INSTRUCTIONS CONTAINED IN THIS MANUAL MAY RESULT IN SERIOUS INJURY OR DEATH AND CATASTROPHIC MALFUNCTION OF THE WEAPON.

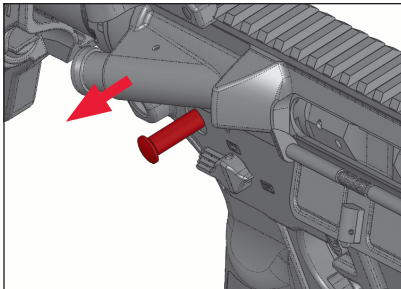
CAUTION: THE DEGREE OF DISASSEMBLY AND MAINTENANCE DETAILED IN THIS MANUAL CONSTITUTES THE COMPLETE DEGREE OF AUTHORIZED USER LEVEL MAINTENANCE AND DISASSEMBLY. ANY ADDITIONAL MAINTENANCE OR DISASSEMBLY REQUIRED MUST BE PERFORMED BY QUALIFIED PERSONNEL SPECIFICALLY TRAINED ON THE SIG516 FOR HIGHER LEVEL MAINTENANCE TASKS IN ACCORDANCE WITH THE SIG516 ARMORER'S MANUAL.

3.1 Field Stripping and Operator Level Detailed Disassembly

3.1.1 Field Stripping

Field Stripping the weapon refers to the level of disassembly required for routine preventative maintenance performed by the operator in field conditions. Disassembly is limited to major groups and assemblies to prevent the loss of small parts. Prior to field stripping, clear the weapon according to paragraph 2.4 and ensure a Condition 4 Weapon.

3.1.1a – Ensure the bolt is forward and the safety flag is removed. Push out the rear take down pin to its full length (see Diagram 1). The long end of the chamber safety flag can be used to start the rear take down pin. Rotate the lower receiver away from the upper receiver (see Diagram 2).



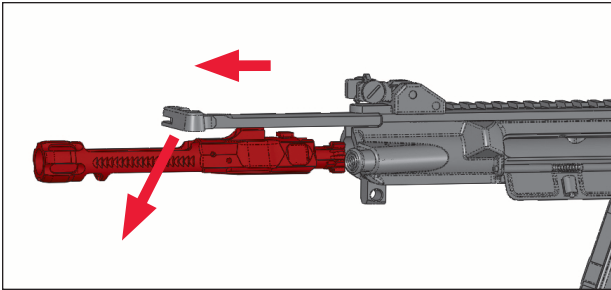
*Push Out Rear Take
Down Pin (Diagram 1)*



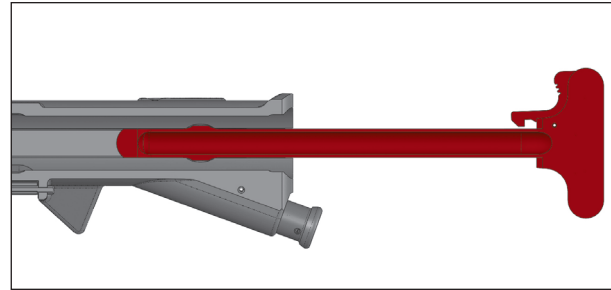
*Rotate Lower Receiver
Down (Diagram 2)*

3.1.1b – Depress the charging handle latch and pull the charging handle and bolt carrier assembly to the rear. At this point the bolt carrier assembly can be removed (see Diagram 3). Align the lugs on the charging handle with the matching recesses on the lower receiver (see Diagram 4) and remove the charging handle in a downward direction (see Diagram 5).

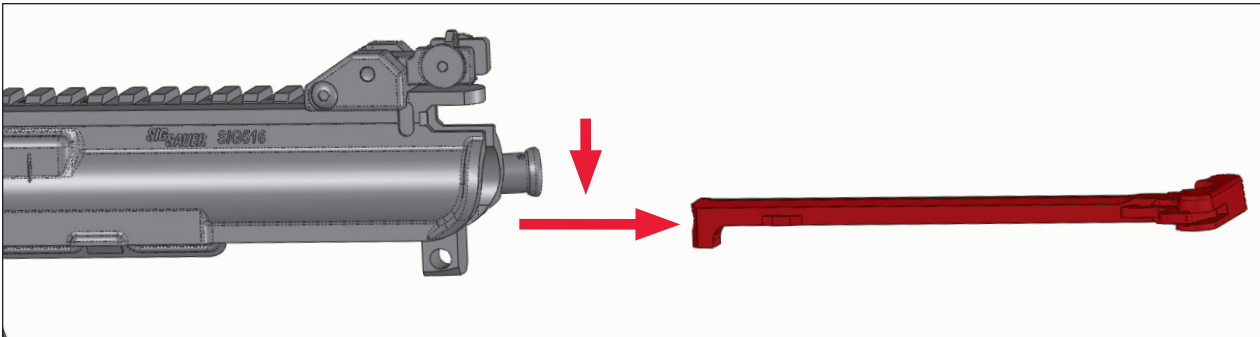
This completes field stripping. Field Stripping is appropriate for daily operator level cleaning of the weapon in field conditions. With the upper and lower receiver still connected by the front take down pin and the bolt carrier assembly removed this is also referred to as breaking the weapon down “shotgun style”.



Removing Bolt Carrier Assembly (Diagram 3)



Aligning Charging Handle Lugs with Upper Receiver Recesses
(Upper Receiver Sectioned for Clarity) (Diagram 4)

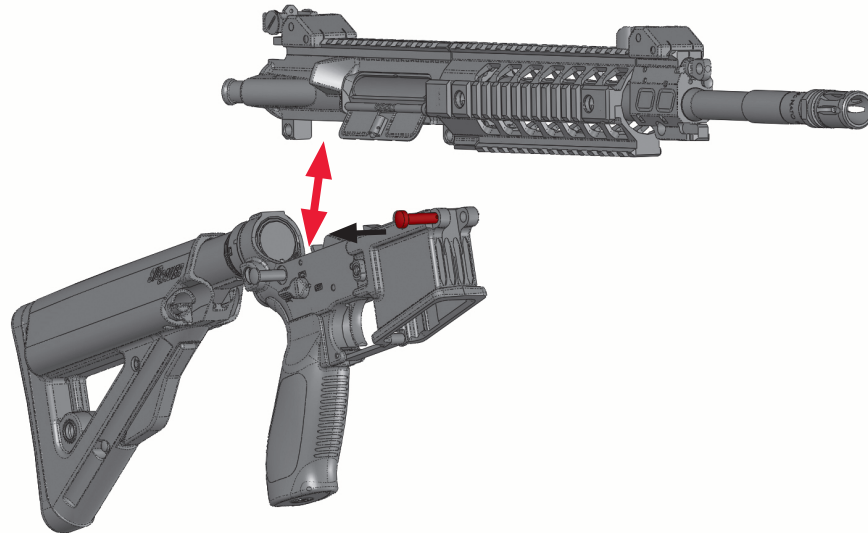


Remove Charging Handle by Pulling Downward then to the Rear (Diagram 5)

3.1.2 Operator Level Detailed Disassembly

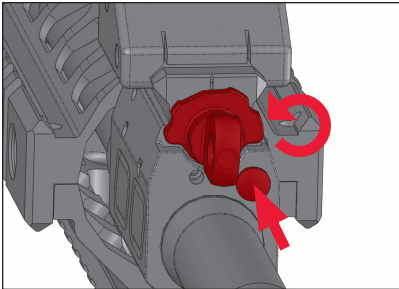
Detailed disassembly is performed by the operator for thorough cleaning and inspection of the weapon. It should be performed in an area with a solid surface such as a table or bench top to reduce the likelihood of losing small parts. If detailed disassembly is to be conducted under field conditions it is recommended that a ground cloth be used.

3.1.2a – Push out the pivot pin until it is fully extended and separate the upper and lower receiver groups (see Diagram 6).

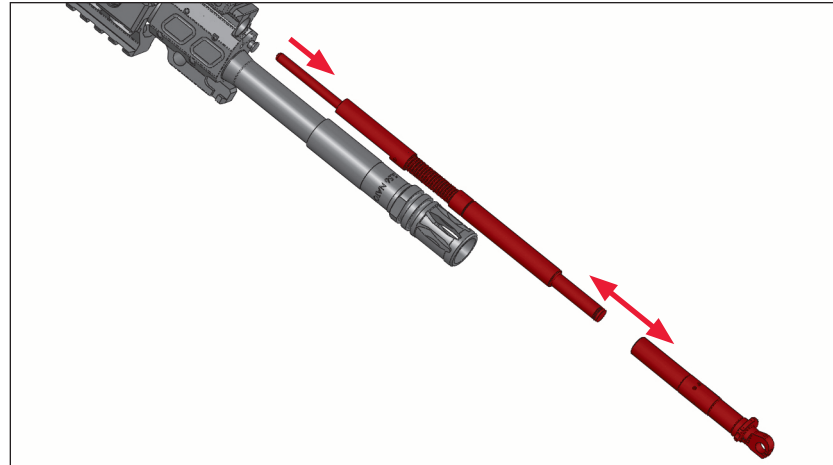


Separate Upper and Lower Receivers (Diagram 6)

3.1.2b – To remove the gas valve and operating rod assembly first depress the gas valve plunger and rotate the gas valve 180 degrees from the normal gas setting (see Diagram 7). Holding the upper receiver with the muzzle tilted downward, pull the gas valve and operating rod assembly out of the gas block (see Diagram 8) and separate the gas valve and the operating rod guide from the operating rod assembly. If the operating rod assembly doesn't come out with the gas valve tap the muzzle to against your palm to free it.

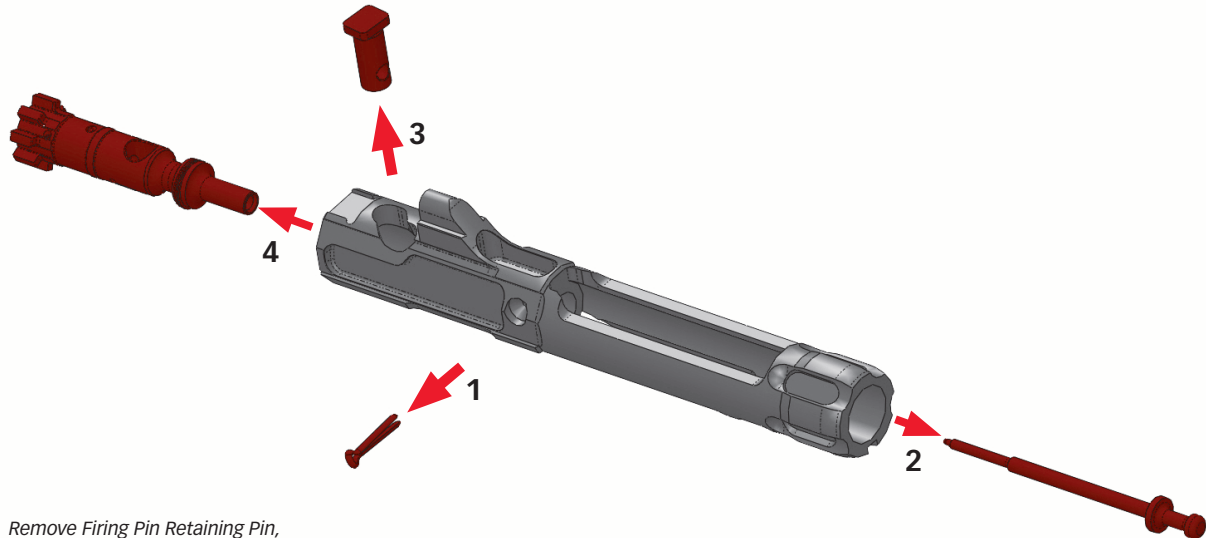


Depress Gas Valve Plunger and Rotate Gas Valve 180 Degrees (Diagram 7)



Remove Gas Valve and Operating Rod Assembly (Diagram 8)

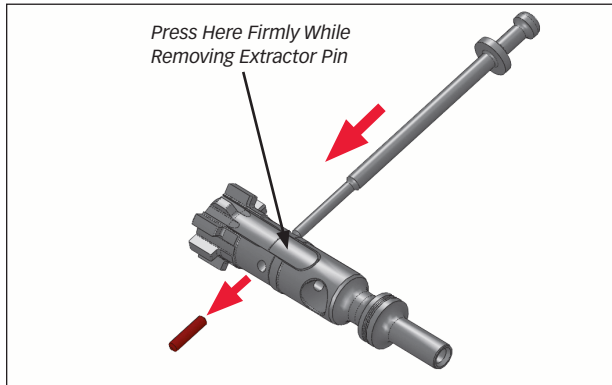
3.1.2c – Disassemble the bolt carrier assembly by first removing the firing pin retaining pin then tap the rear of the bolt carrier against your palm to remove the firing pin. Then remove the bolt cam pin and bolt (see Diagram 9).



*Remove Firing Pin Retaining Pin,
Firing Pin, Bolt Cam Pin & Bolt Assembly
(Diagram 9)*

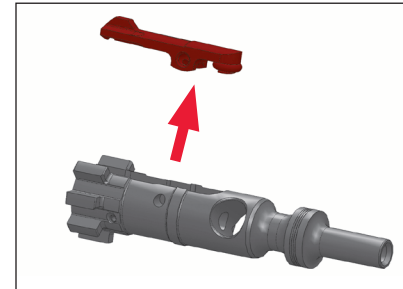
3.1.2d – Remove the extractor from the bolt assembly by applying downward pressure on the extractor while pushing out the extractor pin with the tip of the firing pin (see Diagram 10). Once the extractor pin is removed lift the extractor from the bolt assembly (see Diagram 11). Do not remove the extractor spring or rubber tensioning device from the extractor (see Diagram 12).

3.1.2e – This completes operator level detailed disassembly. Further disassembly of the SIG516 is not authorized by the operator.

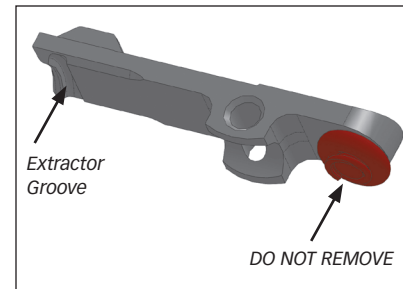


Remove Extractor Pin (Diagram 10)

Remove Extractor
(Diagram 11)



Extractor Spring
and Tensioner
(Diagram 12)



3.2 Cleaning and Lubrication



WARNING

ALWAYS CLEAR WEAPON ACCORDING TO INSTRUCTION IN PARAGRAPH 2.4 AND CONFIRM THE WEAPON IS CONDITION FOUR PRIOR TO CLEANING. AFTER CLEANING CHECK THE BORE TO ENSURE THAT NO BORE PATCHES OR OTHER CLEANING MATERIALS WERE LEFT IN THE BORE PRIOR TO REASSEMBLY.



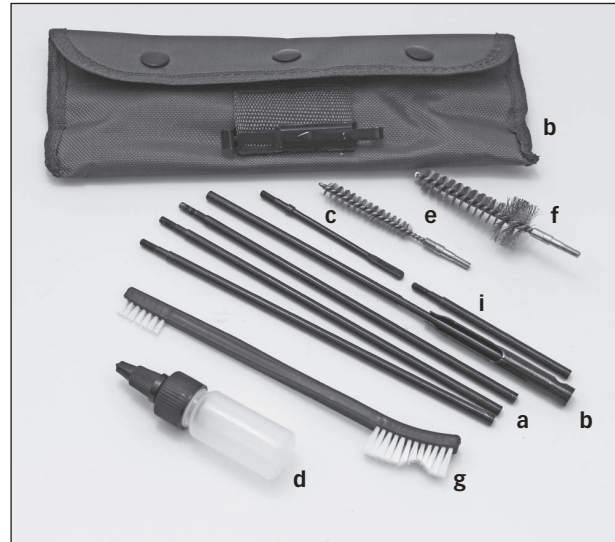
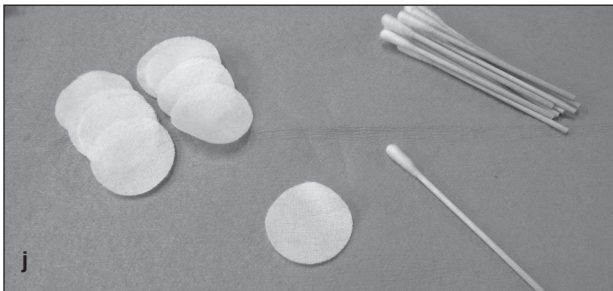
WARNING

CLEANING SOLVENTS AND LUBRICANTS CAN PRODUCE ADVERSE HEALTH CONDITIONS IF ALLOWED TO CONTACT THE SKIN OR IF VAPORS ARE INHALED IN CONCENTRATION. USE CHEMICAL RESISTANT GLOVES AND EYE PROTECTION WHEN UTILIZING THESE CHEMICALS. PERFORM WEAPON'S MAINTENANCE IN A WELL VENTILATED AREA. OBTAIN AND READ THE MATERIAL SAFETY DATA SHEET FOR ALL CHEMICALS AND LUBRICANTS FROM THE MANUFACTURER AND FOLLOW ALL RECOMMENDED SAFETY PROCEDURES.

CAUTION: THE INSTRUCTIONS FOR CLEANING AND LUBRICATION IN THIS MANUAL ARE WRITTEN FOR CLEANER LUBRICANT AND PRESERVATIVE MIL-L-63460D (CLP), DRY CLEANING SOLVENT TYPE 2 MIL-PRF-680, AND WHEN SPECIFIED LUBRICANT ARCTIC WEATHER MIL-L-14107D (LAW). WHEN USING OTHER CLEANING AND LUBRICATING PRODUCTS REFER TO THE MANUFACTURER'S INSTRUCTIONS. ONLY USE LUBRICANTS AND CLEANING PRODUCTS SPECIFICALLY FORMULATED FOR FIREARMS.

3.2.1 List of Required Cleaning Supplies

- a (3) Cleaning Rod Sections
- b (1) T-Handle Cleaning Rod Section
- c (1) Bore Patch Eyelet
- d (1) Bottle of CLP
- e (1) Bore Brush
- f (1) Chamber Brush
- g (1) General Purpose Brush
- h (1) Cleaning Kit Pouch
- i (1) Short Rod Section
- j Rags, Cotton Tipped Applicators and Bore Patches



3.2.2 Lubrication Terms

Point Lubrication – Apply one or two drops of lubrication to the specified location.

Light Coat – Apply lubricant to surface with general purpose brush to obtain even coverage and wipe off excess with a clean rag (should leave a barely visible film of lubricant).

Heavy Coat – Thoroughly wet general purpose brush with lubricant (or dip brush in lubricant) and apply to surface (should leave a film of lubricant that is readily visible and can be spread with a finger).

3.2.3 General Maintenance

Perform daily while in field conditions and weekly when in garrison conditions.

3.2.3a – Field strip weapon and inspect for damaged, missing or worn parts and corrosion.

3.2.3b – Sight down the bore in a well lit area. The bore should appear shiny and smooth with distinct rifling. A fresh dry patch ran through the bore should come out clean. If the bore appears visibly dirty or a fresh dry patch comes out dirty clean the bore using the procedure specified for detailed maintenance in section 3.2.4b. Once the bore is checked with a fresh dry patch apply 2-3 drops of CLP to the same patch and use it to apply a light coat of CLP to the bore.

3.2.3c – Remove any rust or corrosion by scrubbing with CLP. Wipe the part dry and reapplying a light coat of CLP once rust is removed.

3.2.3d – Remove any dust or sand from the weapon with cotton tipped applicators, general purpose brush and rags. If available, compressed air can be used to blow sand and dust from crevices.

3.2.3e – During reassembly, apply a light coat of CLP to all steel parts and apply point lubrication to the following parts:

Bolt Cam Pin
Hammer Pin
Trigger Pin
Auto Sear Pin
Operating Rod Spring
Operating Rod Guide

3.2.3f – DO NOT apply lubricant to the following parts:

Bolt Face
Extractor
Extractor Tensioning Device
Gas Piston
Gas Valve

Thoroughly wipe off any lubricants used to clean the parts listed above and insure they are clean and dry prior to reassembling the weapon.

3.2.4 Detailed Maintenance

Perform weekly when under field conditions, monthly when under garrison conditions and whenever the weapon is fired. Perform all cleaning and inspection required for general maintenance in addition to the steps contained below.

3.2.4a – Detail disassemble the weapon to the extent specified for operators in section 3.1.2 of this manual. Inspect for worn, broken or missing parts.

3.2.4b – Assemble the 3 sections of the cleaning rod and screw on the bore brush (do not install the T-handle section) and clean the bore by coating the bore brush in CLP and repeatedly pulling the cleaning rod through the bore from the chamber end to towards the muzzle. Re-coat the bore brush in CLP frequently. To check the bore for cleanliness install the bore patch eyelet and pull several patches through the bore that have been soaked in Dry Cleaning Solvent to remove the cleaning residue and follow with a 3-4 clean dry patches. If the last patch comes through clean the bore is clean. If the fourth patch is still dirty, repeat the process detailed above until a clean dry patch can be pulled through the bore without becoming soiled. The T-handle cleaning rod section is used if a patch becomes lodged in the barrel. Patches should be sized so only firm pressure is necessary to pull them through the bore.

3.2.4c – Clean the chamber prior to checking the bore for cleanliness. Screw the short rod section and the chamber brush onto the T-handle section of the cleaning rod and coat with CLP. Scrub the chamber by inserting the chamber brush and twisting in a clockwise motion. Re-dip the chamber brush in CLP frequently. To check the chamber for cleanliness rinse the cleaning residue from the chamber with Dry Cleaning Solvent and swab dry with rags and cotton tipped applicators. The chamber is clean when a clean dry cotton tipped applicator can be used to probe the chamber and locking lugs and comes out clean.

3.2.4d – Clean the bolt assembly by scrubbing with CLP and rinsing in Dry Cleaning Solvent. Pay particular attention to the recess where the extractor is installed. Look for brass buildup on the face of the bolt and remove with the steel bristle section of the chamber brush. Clean the extractor paying particular attention to the extractor groove. If brass has built up in the extractor groove use the steel bristle section of the chamber brush to remove it.

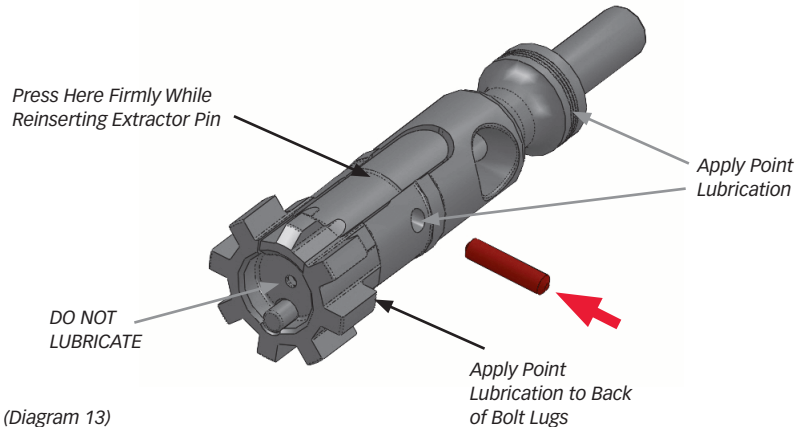
3.2.4e – Clean the Operating Rod assembly by scrubbing with CLP and rinsing with Dry Cleaning Solvent. Utilize the steel bristled portion of the chamber brush to remove carbon from the piston paying particular attention to the piston face. Remove all lubricant used during cleaning from the piston. The piston should be clean and dry prior to reassembly. Inspect the piston rings to ensure there are two present, they are not deformed and the gaps are not aligned prior to reassembly.

3.2.4f – Clean the exterior of the gas valve by scrubbing with the steel bristled portion of a dry chamber brush. Clean the inside of the gas valve with a dry bore brush. Tap the gas valve on a hard surface open end down to dislodge carbon particles produced when scrubbing the interior. If available, compressed air can be used to blow out the interior of the gas valve. Do not use lubricants when cleaning the gas valve. If necessary, dry cleaning solvent can be used to rinse carbon residue from the gas valve. The same techniques are used to clean the gas valve socket in the gas block. Ensure the gas valve is clean and dry prior to reassembly.

3.3 Reassembly of the SIG516

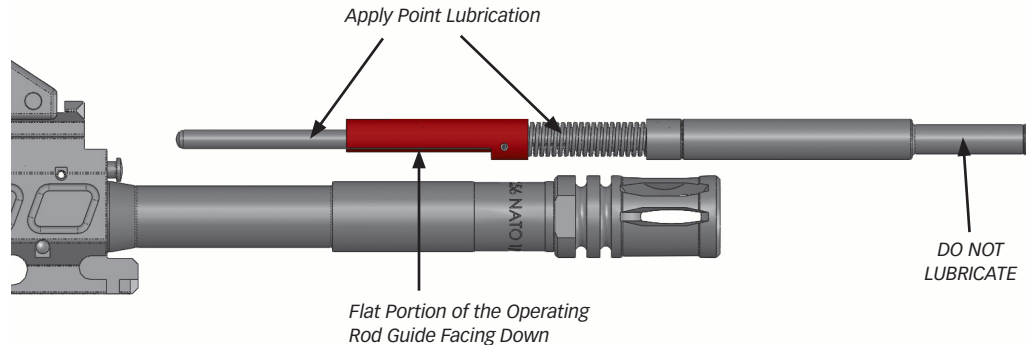
3.3.1 – Reassembly of the SIG516 is performed in the reverse order of disassembly. Note the following while reassembling the weapon.

3.3.1a – When reassembling the extractor to the bolt assembly place the extractor in position and apply pressure to the extractor in the same manner as when it was disassembled to compress the extractor spring and allow the extractor pin to be inserted (see Diagram 13). Apply point lubrication to the extractor pin and the back of the bolt lugs taking care not to get lubricant onto the face of the bolt or extractor groove. Ensure the extractor is to the right when reassembling the bolt carrier assembly.



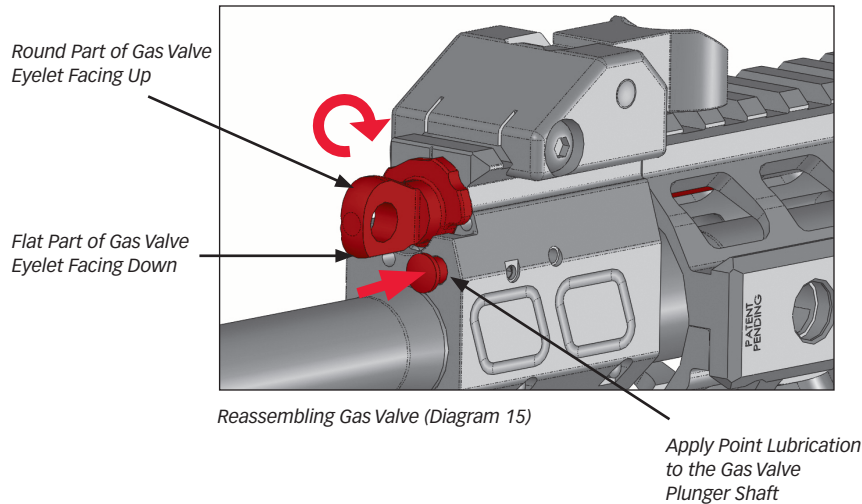
Reassembling Extractor (Diagram 13)

3.3.1b – When reassembling the operating rod and gas valve into the upper receiver group ensure the flat portion on the operating rod guide is facing down towards the barrel (see Diagram 14). Otherwise the gas valve will not be able to be installed. Installing the operating rod into the gas valve prior to inserting them both into the gas block will help with aligning the flat portion of the operating rod guide.

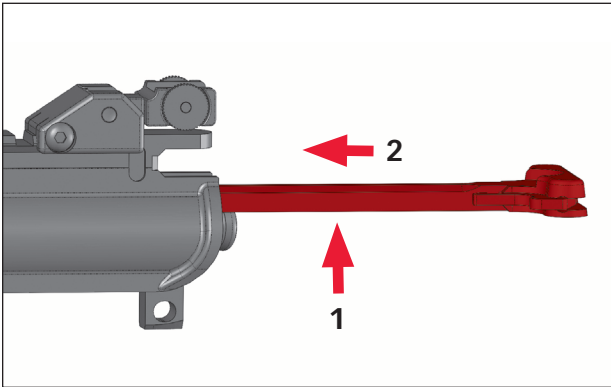


Reassembling Operating Rod (Diagram 14)

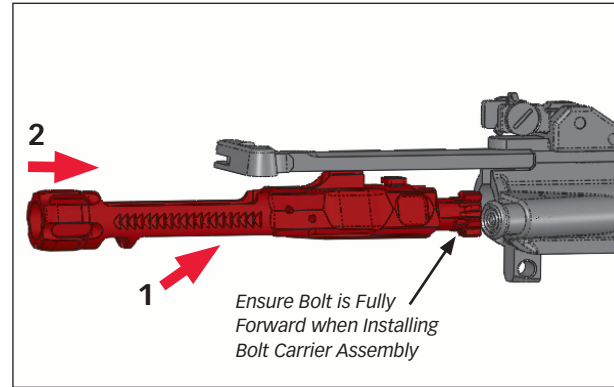
3.3.1c – When reassembling the gas valve fully insert the gas valve with the round part of the gas valve eyelet in the up position and the flat part facing down (see Diagram 15). Depress the gas valve plunger while rotating the gas valve 180 degrees to the normal position. Apply point lubrication to the shaft of the gas valve plunger and work the plunger a couple of times to spread the lubricant. Do not lubricate gas valve or gas valve bore in the gas block.



3.3.1d – To reinsert the charging handle align the lugs on the charging handle with the recess in the upper receiver in the same manner as when removing the charging handle (see Diagram 16). Insert the charging handle upward into its slot and rearward approximately 1 cm (1/4 inch) and leave it in this position in preparation for installing the bolt carrier group. Ensure the bolt is fully forward in the bolt carrier before replacing the bolt carrier assembly into the upper receiver (see Diagram 17).

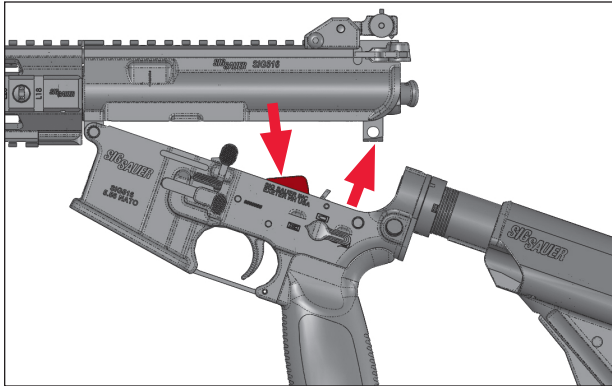


*Reassembling Charging Handle
(Diagram 16)*

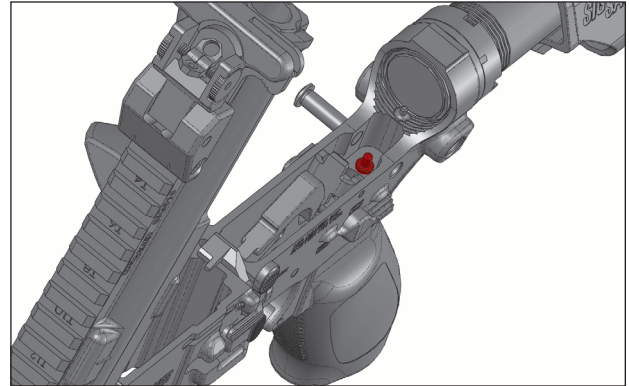


*Inserting Bolt Carrier Assembly into Upper Receiver
(Diagram 17)*

3.3.1e – When reattaching the lower receiver to the upper receiver attach at the pivot pin first. Before closing the upper and lower receiver ensure that the hammer is cocked to the rear (see Diagram 18). The SIG516 has a spring loaded receiver tensioning device that reduces movement between the upper and lower receiver when closed (see Diagram 19). Maintain closing pressure on the upper and lower receiver while pushing in the rear take down pin.



Ensure Hammer is Cocked Prior to closing Upper & Lower Receivers (Diagram 18)



Receiver Tensioning Device (Diagram 18)

3.4 Functions Check/ Pre-Firing Inspection/ During Firing Checks

3.4.1 – Use the following procedure for performing a functions check on the SIG516. Perform a functions check; when the weapon is issued, each time the weapon is reassembled and before firing the weapon. Ensure the weapon has been cleared according to the instructions in paragraph 2.4.

3.4.1a – With the weapon on safe, press the trigger. The hammer should not fall.

3.4.1b – Rotate the selector lever to semi. Press and hold the trigger. The hammer should fall. Keeping rearward pressure on the trigger, charge the weapon.

3.4.1c – Release the trigger. You should hear a distinct click as the disconnecter disengages.

3.4.1d – Rotate the selector lever to auto and charge the weapon. Press and hold the trigger. The hammer should fall.

3.4.1e – Maintaining rearward pressure on the trigger charge the weapon. Release the trigger and press again. The hammer should follow the carrier forward so you should not note a hammer fall.

3.4.1f – Return the weapon to Condition Four.

3.4.2 Pre Firing Inspection

Prior to shooting the weapon conduct the following checks:

3.4.2a – Perform a functions check.

3.4.2b – Break the weapon down shotgun style and sight through the bore to ensure there are no cleaning patches or other obstructions in the bore.

3.4.2c – Ensure the weapon is lubricated according to the instructions in paragraph 3.2 and apply a heavy coat of lubricant to the bearing surfaces of the bolt carrier. For unusual environmental conditions refer to paragraph 2.7.

3.4.2d – Ensure the ammunition to be fired is the proper caliber.

3.4.2e – Ensure that all personnel on the range have hearing and eye protection.

3.4.3 During Firing Checks

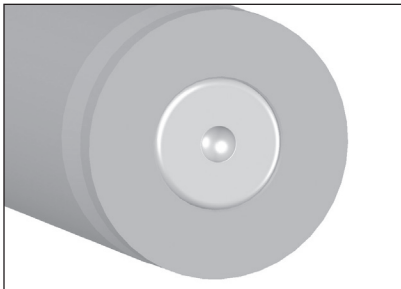
While conducting live fire remain vigilant for the following conditions. If observed discontinue firing that weapon and inform an armorer:

3.4.3a – Unusually loud or quite report of the weapon.

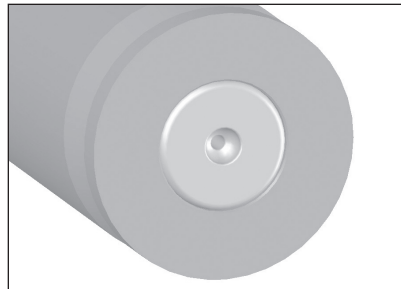
3.4.3b – Increased recoil

3.4.3c – Occasionally inspect the primers of the expended cartridges for signs of elevated pressure (see Diagram 19). The primer should be smooth and flush with the base of the round and have a uniform round indent from the firing pin. Primers that are pierced, cratered or otherwise deformed can be an indication of excessive pressures.

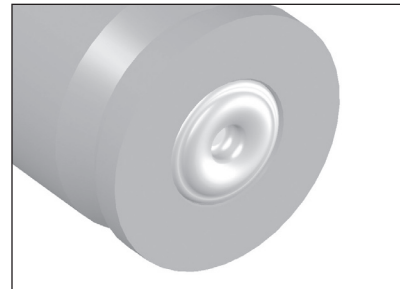
Examples of Primer Conditions (Diagram 19)



Normal Primer



Pierced Primer



Cratered Primer

3.5 Transportation and Storage

3.5.1 Transportation when transporting the SIG516 ensure that all weapons have been cleared according to the instructions in paragraph 2.4 and confirmed condition 4 with the flag safety installed. A padded case or shipping crate is recommended to avoid damage caused by vibrations or movement of the vehicle. Ensure weapons are provided proper security during transport to prevent unauthorized access or theft.

3.5.2 Storage

During routine storage of weapons that are to be used by operational forces ensure they are inspected periodically for rust or corrosion. A climate controlled storage facility is recommended. For long term storage coat steel parts with a preservative formulated for firearms. Placing the weapon in a vapor lock storage bag with a desiccant is recommended. Ensure weapons are cleared according to the instructions in paragraph 2.4 and confirmed condition 4 with the flag safety installed prior to storage. Ensure proper security measures are in place for weapons storage facility to prevent unauthorized access or theft.

4.0 Service and Replacement Parts Policy

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 your firearm, the skill and workmanship of any particular gunsmith is totally beyond our control.

Should your firearm ever require service, we strongly recommend that you return it 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 Inc., the customer 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 Inc. CANNOT BE RESPONSIBLE FOR THE FUNCTIONING OF ANY FIREARM IN WHICH REPLACEMENT PARTS ARE INSTALLED BY OTHERS.

ORDER PARTS

In the event you want to order parts for your SIG516 rifle, contact Customer Service at (603) 610-3000 ext. 3. Have available the serial number of your rifle and the part diagram number for the part(s) you wish to order.



WARNING

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 RIFLE AFTER SUCH INSTALLATION.

PARTS MUST FIT CORRECTLY

Service Policy

If you have questions concerning the performance or servicing of your rifle, please write or call:

SIG SAUER Inc.
Attention: Customer Service
72 Pease Boulevard, Newington, NH 03801
Phone: (603) 610-3000 ext. 3
Fax: (603) 766-7002

IF YOU DO NOT UNDERSTAND THE INSTRUCTIONS FOR OPERATING YOUR RIFLE, IT IS YOUR RESPONSIBILITY TO CALL OUR CUSTOMER SERVICE DEPARTMENT AT (603) 610-3000 EXT. 3 BEFORE USING YOUR RIFLE.



WARNING

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

5.0 Shipping Firearms for Repair

Returning Your Firearm For Service In the event you need to return your rifle to the SIG SAUER Service Department, here's what to do:

1. The first step is to contact Customer Service at (603) 610-3000 ext. 3 for an RMA number. This number allows SIG SAUER to track the status of your return from its receipt at SIG SAUER through its return to you. Please do not send your firearm until you obtain an RMA number.
2. Make sure that the chamber and magazine(s) are unloaded and that no ammunition is included with your returned firearm.
3. Package the firearm securely to prevent damage. Enclose a letter which includes your name, street address, daytime phone number, model and serial number, and a detailed description of the problem you have experienced or the work you want performed. With the exception of extra magazines, do not include scopes, mounts, or other accessories.
4. Generally, an individual may ship firearms to the manufacturer for repair or service. Some states and localities, however, prohibit this. If you live in such an area, the firearms must be shipped by and returned to a Federally Licensed Firearms Dealer.
5. Federal law prohibits persons who do not possess a Federal Firearms License from shipping a firearm via the U.S. Postal Service. (Note: 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, which you must strictly follow; prior to exporting any firearm you should seek legal counsel.)
6. SIG SAUER is not responsible for any firearm until it is received, nor for damage incurred during shipment.
7. Ship your firearms insured and prepaid (we do not accept collect shipments) to:

SIG SAUER Inc.
Attention: Service Department
18 Industrial Drive, Exeter, NH 03833

This instruction manual should always accompany this rifle and be transferred with it upon change of ownership.

SIG SAUER® Limited Lifetime Firearms Warranty

SIG SAUER warrants that the enclosed firearm was originally manufactured free of defects in material, workmanship and mechanical function. For the lifetime of the original purchaser, SIG SAUER agrees to correct any defect in the firearm for the original purchaser by repair, adjustment or replacement, at SIG SAUER's option, with the same or comparable quality components (or by replacing the firearms at SIG SAUER's option); provided, however, that the firearm is returned unloaded and freight prepaid to SIG SAUER at 18 Industrial Drive, Exeter, NH 03833.

This limited warranty is null and void if the firearm has been misused, damaged (by accident or otherwise), fired with handloaded, reloaded or improper ammunition, fired with an obstruction in the barrel, damaged through failure to provide reasonable and necessary maintenance as described in the manual accompanying the firearm, or if unauthorized repair or any alteration, including of a cosmetic nature, has been performed on the firearm. This limited warranty does not apply to normal wear and tear of any parts.

Subject to the foregoing, this limited warranty confers the right to have the covered firearm or its parts repaired, adjusted or replaced exclusively upon the original purchaser, which right is not transferable to any other person. No implied warranties of any kind are made herein and this warranty does not apply to any accessory items attached or appurtenant to the firearm. In no event shall SIG SAUER be liable for any incidental or consequential damages arising from or in connection with this limited warranty.

SIGSAUER[®]
when it counts[®]

www.sigsauer.com

**FOR PRODUCT SERVICE ON THIS MODEL,
PLEASE CALL (603) 610-3000 EXT. 3**

72 Pease Boulevard, Newington, NH 03801 USA