Operators Manual

Caliber .223
(5.56mm)

HK SL8-1 Rifle

In a world of compromise, some don’t.
CAUTION: Read the safety notes before handling the SL8-1 Rifle!

SL8-1
Sporting Rifle
Operators Manual

All rights reserved
HK, Inc., 21480 Pacific Blvd.
Sterling, Virginia 20166-8903
United States of America
Telephone (703) 450-1900
Specifications and models subject to change without notice.
## TABLE OF CONTENTS

**Safety Notes on the Use of the SL8-1 rifle** ........................................6

**General** ........................................................................................................8

**Assembly Groups** ........................................................................................10

**Description of Assembly Groups** .................................................................11

  - **Group 1** Receiver with barrel, buttstock and attaching parts ..........11
  - **Group 2** Bolt Assembly .............................................................................12
  - **Group 3** Buttstock Assembly (with trigger & safety mechanism) ..14
  - **Group 4** Handguard ..................................................................................16
  - **Group 5** Magazine ....................................................................................16

**Handling and Operation** ............................................................................17

**Operation of Parts** .....................................................................................22

**Disassembly of the SL8-1** ........................................................................24

**Assembly of the SL8-1** ...............................................................................28

**Disassembly and Assembly of the magazine** .............................................30

**Adjustment of the Stock and Cheekpiece** ..................................................31

**Adjustment of the Sights** ............................................................................33

**Optical Sights** ............................................................................................35

**Maintenance and Service** ..........................................................................38

**Troubleshooting Guide** ...............................................................................41

**Parts & Exploded Diagram** .........................................................................42

**Specifications** ..............................................................................................44

**Firearm Service Record** ...............................................................................45
SAFETY NOTES

Safety Notes on the Use of the HK SL8-1

Clear the rifle! Before handling the firearm, “clear it!” Do so by:

1. Make sure fingers are outside of the trigger guard and the firearm is pointed in a safe direction at all times!
2. ON SAFE – Rotate the safety/selector lever to the “Safe” position (the white “S” adjacent to the safety/selector lever)
3. REMOVE MAGAZINE – Depress the magazine paddle release lever and remove the magazine from the magazine well.
4. COCKING LEVER – Rotate the ejection port towards the ground and fold out and pull the cocking lever rearward one or more times to insure the chamber is empty. Watch for a live round or empty case to be ejected. Move the cocking lever upward slightly and lock it into the indent in the cocking lever housing to lock the bolt open.
5. BOLT CATCH – While holding the cocking lever fully rearward use the trigger finger to press upwards on the bolt catch button located in the front top corner of the trigger guard to lock the bolt rearward.
6. INSPECT CHAMBER – Inspect chamber for the presence of a live round or empty case.
   Visually – View chamber through open ejection port.
   Physically – Insert index finger through magazine well or ejection port and feel for the presence of a round or cartridge case in the chamber.
7. Remove any live rounds or empty cases from the chamber or from within the firearm or magazine before handling the firearm further.

The HK SL8-1 is now considered “Clear.”

WARNINGS

- Carefully read this operators manual before handling the rifle.
- Only use the rifle after you have fully reviewed and understand these instructions.
- Observe all notes on handling and operation. Failure to do so may result in injury or death of the operator or bystanders.
- Do not use the rifle if you have previously ingested alcohol or drugs.
- When passing the rifle between persons, the firearm must be clear and the bolt should be open.
- Always treat the rifle as if it were loaded and ready to fire.
- Never point the rifle at anyone during handling.

- Always point the rifle in a safe direction.
- Before handling and before cleaning it has to be checked to ensure that:
  - The bolt is locked to the rear
  - The rifle is unloaded (cartridge chamber empty)
  - The barrel is free of obstructions
  - The magazine is empty.
- Keep your finger off the trigger when loading, unloading or otherwise handling the rifle. Always place the trigger finger outside of the trigger guard.
- Place your finger on the trigger only when your sights are aimed at the target.
- Never use force when handling, disassembling, cleaning and assembling the rifle.
- Disassemble the rifle only as far as described in this manual.
- Always wear eye and hearing protection when using the rifle.
- Take into account the fact that bystanders are also endangered. Ensure bystanders are also wearing ear and eye protection.
- Only use factory-loaded and undamaged cartridges of the correct caliber.
- Always mind that the muzzle area is free of obstacles during firing.
- Store the firearm and ammunition in separate places.
- Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, a substance known to be associated with birth defects, reproductive harm, and other serious injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.
- Heckler & Koch does not assume any liability for events due to disregarding this manual, improper handling, negligence, improper treatment, use of improper or reloaded ammunition, unauthorized exchange of parts or manipulations of the rifle.
- Remember, firearms safety begins with you. Read this operators manual and be familiar with the safe handling of this firearm before using it. Store all firearms in a safe and secure location. Keep firearms away from children. Always be a safe shooter. Keep this manual with the rifle.
The HK SL8-1 semiautomatic rifle is a caliber .223 Remington civilian sporting arm based on the G36 rifle currently used by the German Army.

The SL8-1 rifle is gas operated with a rotating bolt head. Its receiver, pistol grip, buttstock, and handguard are all made of a high-strength polymer material, resulting in a tough and lightweight rifle.

A mechanical sight is mounted on the Picatinny long rail found on the top of the upper receiver. This sighting system can be easily replaced by other sighting systems, including optical scopes.

A movable buttplate and cheekpiece are other features that can be adjusted to the individual needs of the user.

The heavy barrel and the chamber are cold hammer forged and hard chrome plated for durability and accuracy. The barrel is fastened and centered to the receiver by means of a hex nut.

A cocking lever on the front end of the bolt head carrier can be swiveled to the left and to the right for actuation by both left and right handed users.

The magazine holds 10 rounds.

A bolt catch locks the bolt rearward (open) when the last round is fired or an empty magazine is inserted and the bolt is retracted.
Group 1  Receiver with barrel, buttstock and attaching parts
The receiver is made of high-strength fiber-reinforced plastic. It houses all the other assembly groups. Inside the receiver there are guideways for the bolt as well as contact surfaces for the pistol grip, the buttstock and the magazine well. The barrel is fastened and centered to the receiver by means of a nut.

CAUTION: The barrel nut should not be removed by the operator. Only HK certified armorers should attempt to remove the barrel.

On the right side of the receiver is an ejection port with an integral cartridge case deflector. The cartridge case deflector directs the ejected cases (at an angle of approximately 45° to the muzzle) away from the shooter.

Handguard and magazine well are fitted to the bottom of the receiver by means of removable locking pins.

The buttstock with trigger mechanism is fastened to the receiver by means of two hex head screws. To fasten and unfasten them use the HK special tool provided with the rifle.

Figure 4  SL8-1 Assembly groups

1 Receiver with barrel, gas system, magazine well, mounting rail with mechanical sights
2 Bolt assembly with recoil spring assembly
3 Buttstock assembly complete
4 Magazine
5 Handguard

Figure 5
Receiver with barrel, gas system, mounting rail with mechanical sights

1. Barrel
2. Front sight
3. Mounting rail
4. Rear sight
5. Receiver
6. Magazine catch
7. Magazine well
Gas block
The gas block is fastened with a cross pin to the barrel; do no attempt to remove it. After the bullet has passed the gas vent hole in the barrel, a portion of the propellant gases are guided into the gas cylinder within the gas block and actuate the gas piston.

The gas piston drives the bolt assembly rearward via the push rod. The return spring on the push rod returns the rod to its starting position.

Magazine well
The front of the magazine well engages into two support studs on the receiver. For fastening the magazine well is swiveled upward. A locking pin fastens both the pistol grip and the magazine well to the receiver. When the locking pin is removed the magazine well is retained by the magazine catch.

Group 2  Bolt assembly
The bolt assembly with the rotary bolt head is guided into the receiver by metal guide rails molded into the polymer receiver. The bolt assembly is driven rearward by the gas piston and forward by the recoil spring. The bolt assembly serves multiple functions including; feeding the cartridges, locking of the chamber, cartridge ignition, case extraction and ejection, as well as for cocking of the hammer.

The bolt head is retained in the bolt head carrier by the cam pin which also controls its rotary movement. Locking lugs are machined onto the front of the bolt head. The spring-loaded extractor is located in a gap between the locking lugs. Adjacent to the extractor is a spring-loaded ejector.

The firing pin is retained by the firing pin retaining pin.

A cocking lever on the front end of the bolt head carrier can be swiveled to the left and to the right for actuation by both left and right handed users. It can also be locked in a 90° position to the left and right for use as a forward assist.

The recoil spring guide rod with the recoil spring is a separate unit and fits into the bolt head carrier. Rearward movement of the bolt assembly is stopped by a buffer in the buttstock.
**DESCRIPTION OF ASSEMBLY GROUPS**

**Buttstock Assembly, complete**
The buttstock is fixed to the receiver by the means of two hex head screws which can be opened and closed with the HK Tool. The buttstock includes an integral rear sling attachment point.

Butt plate and cheekpiece can be adjusted to the individual requirement of the user by the means of spacers.

The trigger and safety/selector lever is located at the front end of the buttstock.

---

**Trigger and Safety Mechanism**
The trigger and safety mechanism are integrated into the buttstock assembly.

At the front of the trigger guard there is a bolt catch button which is used to hold the bolt open on an empty magazine or when fired “dry.” There are safety selector levers on both sides of the grip. The safety/selector levers can be placed in two positions:

- “S” = Safe (white index line on the safety/selector lever pointing to the white “S”)
- “F” = Fire (semi-automatic white index line on the safety/selector lever pointing to the red “F”)

---

![Figure 10 Buttstock assembly complete](image)

![Figure 11 Cheekpiece](image)

![Figure 12 Buttplate with interchangeable spacers](image)

![Figure 13 Trigger and safety mechanism](image)

1. Bolt catch button
2. Hammer
3. Safety/selector lever
4. Trigger
5. Bolt catch

![Figure 14A Safety/selector position “safe”](image)

![Figure 14B Safety/selector position “fire” (semi-automatic)](image)
Ammunition and Accuracy
By using ammunition with match bullets (like Sierra 62 grain Match King #1410) or other match grade ammunition the HK SL8-1 will achieve the best level of accuracy.

If used, handloaded ammo should not exceed the maximum gas pressure specified by C.I.P. and SAAMI for the cal. 223 Remington cartridge (5.56 x 45mm NATO). Follow the instructions of propellant and bullet manufacturer.

Mounting Rail
The rail with mechanical iron sights is not designed to be a carrying handle.

CAUTION: Except for loading and unloading the rifle there should be no finger placed between the rail and the receiver.

NOTE: If the bolt is locked to the rear by the bolt catch and the magazine is removed, a hard knock on the buttstock, like slamming the gun to the ground will release the bolt. However, to avoid damage to the rifle, the bolt should be pulled fully rearward and released.

Safe handling
Compared to the military issue G36 assault rifle, the trigger pull of the SL8-1 is significantly reduced. If the weapon is loaded, avoid rough handling and drops.

Because of the absence of a firing pin spring, a slight mark on the primer can be seen after chambering a round. This has no influence on the handling safety of the rifle; without pulling the trigger the gun will not fire. Please avoid chambering the same round several times in sequence as the bullet can be worked loose from the cartridge.

NOTE: Use only .223 Remington or 5.56 x 45mm NATO ammunition in the SL8-1 rifle. Damage caused by the use of improperly assembled or remanufactured ammunition in the SL8-1 may void the HK Warranty. Do not use ammunition assembled with corrosive components (primers, propellants, etc.).
Loading the Rifle

**Method 1:** No magazine in the weapon

The bolt is in its forward (locked) position

1. Set the safety/selector lever on “Safe.”
2. Swivel the cocking lever to the left or to the right, pull it all the way to the rear (Figure 20) and hold it.

3. Push the bolt catch button upward to lock the bolt open (rearward, see Figure 21)

4. Insert a loaded magazine into the magazine well until the magazine catch clearly engages. Swivel the cocking lever out, pull it all the way to the rear and release it.

The weapon is now loaded and set on “Safe.”

---

**HANDLING AND OPERATION**

Cartridges assembled with projectile weights from 50-70 grains are recommended for use with the SL8-1 rifle.

**Loading of the magazine**

1. Hold the magazine with one hand. Place a cartridge with the other hand slightly forward of the magazine lips and push back and downward until the cartridge is held underneath the lips.
2. Repeat this operation until the magazine is fully loaded and the desired 10 rounds are inside the magazine.

**Unloading the magazine**

Hold the magazine with one hand. Push the cartridges forward out of the magazine with the thumb of the other hand. Do not allow the cartridges to drop on a hard surface or they may become damaged.
Forward assist
If the exterior of the rifle is very dirty (sand, mud etc.) the cocking lever can also be used as a forward assist.

To use the cocking lever as a forward assist
1. Swivel out the cocking lever and push it inward against the bolt head carrier (the cocking lever remains in its swiveled position).
2. Push the bolt head carrier with the cocking lever forward until it fully locks closed.
3. Pull the cocking lever outward and let it swivel to its initial position (parallel with the bolt head carrier).

WARNING: Never fire the SL8-1 with cocking handle locked in the 90° forward assist position or injury may occur.
OPERATION OF PARTS

Bolt Locked
The barrel is tightly screwed to the barrel extension by means of a nut. The barrel head carrier houses the bolt head which can move along its longitudinal axis inside the bolt head carrier. Additional to its longitudinal movement the bolt head can also rotate around its longitudinal axis.

In the locked condition the bolt head is in the foremost position. The bolt head in the bolt head carrier is turned in such a way that the locking recesses of the bolt head engage the corresponding locking lugs of the barrel extension.

The SL8-1 is now loaded and safety selector lever set to fire. Pulling the trigger releases the hammer which hits the firing pin and ignites the cartridge.

The propellant gases accelerate the bullet. As soon as the bullet has passed the gas vent hole, a portion of the gases enter the gas block and the gas cylinder.

These gases push the bolt head carrier via the gas piston and the push rod to the rear. The camming slot in the bolt head carrier causes the cam pin to pivot downward, which in turn rotates the bolt head and unlocks it.

Figure 24 Bolt in locked position


OPERATION OF PARTS

Bolt Unlocked
The locking lugs disengage. The bolt head disengages (unlocks) from the barrel extension. Bolt head carrier and bolt head move to the rear. The extractor in the bolt head extracts the cartridge case by its rim from the chamber. When the bolt assembly passes the ejection port, the spring-loaded ejector ejects the cartridge case through the open ejection port forward and to the right.

The rearward movement of the bolt assembly compresses the recoil spring and cocks the hammer.

If the magazine is empty, the follower lifts the bolt catch upwards which holds the bolt rearward. If a round is present in the magazine, the bolt assembly, driven by the recoil spring moves forward and pushes the uppermost cartridge out of the magazine into the chamber.

The bolt head contacts and stops at the rear face of the barrel and the bolt head carrier continues its forward movement which rotates the bolt head via the cam pin and the camming slot into the locked position.

The firing pin tip can only protrude through the bolt face and hit the primer when the bolt is fully locked. The weapon is now ready to fire again.

Figure 25 Bolt in the unlocked position

DISASSEMBLY OF THE SL8-1

Clear the rifle! Before handling the firearm, “clear it!” Do so by:

1. Make sure fingers are outside of the trigger guard and the firearm is pointed in a safe direction at all times!
2. ON SAFE – Rotate the safety/selector lever to the “Safe” position (the white “S” adjacent to the safety/selector lever)
3. REMOVE MAGAZINE – Depress the magazine paddle release lever and remove the magazine from the magazine well.
4. COCKING LEVER – Rotate the ejection port towards the ground and fold out and pull the cocking lever rearward one or more times to ensure the chamber is empty. Watch for a live round or empty case to be ejected.
5. BOLT CATCH – While holding the cocking lever fully rearward use the trigger finger to press upwards on the bolt catch button located in the front top corner of the trigger guard to lock the bolt rearward.
6. INSPECT CHAMBER – Inspect chamber for the presence of a live round or empty case.
   Visually – View chamber through open ejection port.
   Physically – Insert index finger through magazine well or ejection port and feel for the presence of a round or cartridge case in the chamber.
7. Remove any live rounds or empty cases from the chamber or from within the firearm or magazine before handling the firearm further.

The HK SL8-1 is now considered “Clear.” Once clear, let the bolt move forwards.

NOTE: The SL8-1 is easily disassembled and reassembled with the HK Tool. Do not use force in any of the disassembly procedures. Disassembly beyond the procedures outlined in this manual is not recommended and may void the HK Warranty. Disassembly beyond the operators level described here may be carried out by qualified maintenance personnel only. Contact HK for more information.
**DISASSEMBLY OF THE SL8-1**

**Disassembly of the push rod and the gas piston**

**CAUTION:** The push rod is under considerable spring tension. Use caution when installing and removing it. To avoid injury to yourself and others, never point the compressed push rod in an unsafe direction in the event it is inadvertently released under pressure.

1. Push the push rod to the rear against spring pressure and remove it from the gas piston.
2. Swivel the push rod to the side and remove it to the front.
3. Remove the gas piston to the rear.

**Figure 27  Removing push rod**

**Figure 28  Removing the gas piston**

**DISASSEMBLY OF THE SL8-1**

**Disassembly of the bolt assembly**

1. Push the firing pin retaining pin to the left (e.g. with gas piston) and detach.
2. Remove the firing pin to the rear.
3. Take out the cam pin to the left.
4. Detach the bolt head to the front.

**Figure 29  Bolt head disassembled**
Assembly of the bolt
1. Slide the bolt head with the extractor on the right, as viewed from the rear, into the bolt head carrier.
2. Insert the cam pin from the left into the bolt head carrier and the bolt head; mind that the flat surfaces on the cam pin and the hole for the firing pin are parallel to the bore.
3. Introduce the firing pin from the rear into the bolt head carrier and the bolt head.
4. Insert the firing pin retaining pin from the left side into the bolt head carrier to secure the firing pin and cam pin in place.
5. Determine that all parts are assembled in proper sequence and complete and that the bolt head and cam pin moves freely within the bolt head carrier.

Assembly of the gas system
1. Insert the gas piston into the gas block.
2. Introduce the push rod into the front part of the receiver, push it against the spring pressure into the receiver and let it slide into the gas piston.

CAUTION: The push rod is under considerable spring tension. Use caution when installing and removing it. To avoid injury to yourself and others, never point the compressed push rod in an unsafe direction in the event it is inadvertently released under pressure.

Assembly of the SL8-1
1. Slide the handguard from the front over the barrel and the receiver. Align notches onto studs.
2. Fasten the handguard with the locking pin.
3. Place the front of the magazine well onto the bearing studs, swivel the rear of the magazine well upward all the way until it engages the magazine catch.
4. Insert the bolt assembly from the rear into the receiver together with the recoiling spring.
5. Push buttstock assembly with trigger mechanism (hammer is back, in the cocked position) from the rear into the receiver and insert the locking pin above the trigger guard.
6. Fasten the buttstock to the receiver by the means of the allen screws with the HK Tool (do not use excess force to tighten them down).
7. Set the SL8-1 safety/selector on “Safe!”
8. Insert the magazine.
**DISASSEMBLY & ASSEMBLY OF THE MAGAZINE**

### Disassembly of the magazine

1. Press the bottom of the right sidewall of the magazine inward until the front catch is disengaged.
2. Push the magazine floor plate to the rear.
3. Press the bottom of the right sidewall inward until the rear catch is disengaged.
4. Remove the floor plate to the rear.

### Assembly of the magazine

1. Insert the follower and the magazine spring from the bottom into the magazine housing.
2. Slide the magazine floor plate from the rear onto the magazine housing.
3. Push the magazine floor plate all the way over the two catches onto the magazine housing.

---

**WARNING: The magazine spring is under pressure! Remove the magazine spring and the follower from the bottom of the magazine while holding the magazine with the bottom pointed downward.**

---

**ADJUSTMENT OF THE STOCK & CHEEKPIECE**

### Buttsstock adjustments

Cheekpiece and buttplate can be adjusted by means of removable spacers to the user's preference.

### Adjustment of buttstock length

1. Use the 5mm allen wrench of the HK Tool to remove the hex head screw on the left and right side of the rear of the buttstock assembly.
2. Pull buttplate with spacer back out of the buttstock.
3. To adjust the buttstock length to your requirement you can use up to five spacers. Each spacer is 10 mm (approximately 1/2 inch wide). Maximum adjustment is 2 inches.
4. Push back buttplate with the required number of spacers into the buttstock and fasten the two hex head screws with the HK Allen wrench.

**NOTE: The buttstock can be set at any length without the use of optional spacers by using the two hex head screws to secure the buttplate in position.**
ADJUSTMENT OF THE SIGHTS

Sight Adjustments
If the point of impact of several shots does not coincide with where you aimed, a sight adjustment is necessary. The SL8-1 is zeroed at 100 meters point of aim point of impact using the 100 meter rear sight aperture. For zeroing, select the 100 meter rear sight aperture.

Elevation Adjustment
• If shots are high, elevation adjustment screw is turned clockwise with the 2.5 mm Allen wrench of the HK Tool.
• If shots are low, turn the screw counterclockwise.
• A full turn of the adjustment screw will move the point of impact 11 cm or 4-1/2 inches up or down at a distance of 100 meters.

Windage Adjustment
• If shots are right of the point of aim, use the 2 mm Allen wrench and turn the windage adjustment screw clockwise.
• If shots are to the left of the point of aim, turn the windage adjustment screw counterclockwise.
• One click of the side adjustment screw moves the point of impact 3.3 centimeters (or 1-1/4 inches) left or right.

ADJUSTMENT OF THE STOCK & CHEEKPIECE

Adjustment of the cheekpiece
1 • Use the Phillips screwdriver of the HK Tool to remove the two Phillips screws from the cheekpiece.
2 • You can use the cheekpiece alone or with up to two spacers.
3 • Tighten the cheekpiece with or without spacers to the buttstock by using the Phillips screwdriver.

Figure 36  Adjustment of cheekpiece

Figure 37  Elevation Adjustment

Figure 38  Windage Adjustment
Optical sight with 3x magnification
Instead of the standard iron sights, an optional optical sight with 3x magnification can be used on the SL8-1.

The sight comes with 2 Phillips screws, 2 spacers and 2 threaded washers, to be mounted to the rail after removing front and rear sight.

Optical Sight Reticle
The reticle of the optical sight is provided with range marks from 200 to 800 meters in increments of 200 meters.

The outer lateral surfaces of the circular reticle simultaneously serve as lead marks when aimed at laterally moving targets, moving at approximately 15 km/h (9m/h) speed at a range of 200 meters.

The interior diameter of the circular reticle corresponds to a target with a height of 1.75 meters (or 5.5 feet) at a 400 meter range.

The range marks at the bottom left which help to find and set the range at 200, 400 and 800 meters are also based on a target sized about 1.75 meters (5.5 feet).

In the same manner, the heights of the crossmarks at 600 m and 800 m correspond to a target of approximately 1.75 m (5.5 feet) height at the respective range.
Windage Adjustment
- If the weapon's point of impact is too far to the right, turn the windage adjusting screw counter-clockwise in the direction of the "L."
- If the weapon's point of impact is too far to the left, turn the windage adjusting screw clockwise in the direction of the "H."

NOTE: One graduation changes the point of impact by approx. 2.3 centimeters (1.0 inch) at a range of 100 meters.

Adjustment of the optical sight
If a sight adjustment becomes necessary, this may be done by vertically or horizontally adjusting the optical sight with the 2.5 mm Allen wrench from the HK Tool.

Elevation Adjustment
- If the weapon's point of impact is too high, turn the top adjusting screw counter-clockwise in the direction of the “T.”
- If the weapon's point of impact is too low, turn the top adjusting screw clockwise in the direction of the “H.”

NOTE: One graduation changes the point of impact by approx. 2.3 centimeters (1.0 inch) at a range of 100 meters.
MAINTENANCE AND SERVICE

Cleaning and Preservation

To clean and maintain the SL8-1 self-loading rifle you may use:

- The HK cleaning kit caliber .223/5.56 mm
- Off the shelf cleaning kits caliber .223/5.56 mm
- Cotton patches and soft tissue
- Chloride and acid-free cleaning and preservation fluids

NOTE: Do not use steel tools or brushes to clean your SL8-1 or synthetic materials like nylon when the weapon is hot. Keep cleaning solvents away from the painted surfaces of the SL8-1, to include the safety/selector and the “safe” and “fire” symbols. Proper cleaning and maintenance of your SL8-1 will extend the life of the rifle.

Normal Cleaning

You should do this after every firing of the gun:

1. Remove magazine
2. Set the SL8-1 safety/selector lever to “safe” and ensure the chamber is clear
3. Use nylon brush and soft tissue to clean the outside
4. Lock bolt to the rear and run a bronze bristle bore brush soaked with solvent several times through the barrel; follow with clean patches
5. Apply a light coat of oil to the barrel
6. Following cleaning, check function of all parts
7. Set the SL8-1 safety/selector lever on “safe”

Major Cleaning (To be conducted after firing 1,000 rounds or if exposed to or submerged in water):

1. Clean chamber and barrel extension with chamber brush caliber .223/5.56 mm
2. Take bolt group apart and clean its parts
3. Disassemble the gas system and clean the gas piston
4. Field strip magazine and clean it
5. Apply light coat of oil to all moving parts including the metal rails in the receiver
6. Reassemble the SL8-1 and check function
7. Set the SL8-1 safety/selector lever on “safe”

NOTE: Failure to use these metric tools may cause damage to the SL8-1 screws.

HK SL8-1 Combination Tool:
All the necessary tools to adjust and field strip the SL8-1 are part of the HK combination tool.

Figure 44   HK Combination Tool

1. Allen wrench 2 mm (iron sight, windage adjustment)
2. Allen wrench 2.5 mm (iron sight, elevation adjustment, Optical sight, adjustment)
3. Allen wrench, 3 mm
4. Allen wrench, 4 mm
5. Allen wrench, 5 mm (Allen head screws buttstock/receiver and buttplate adjustment)
6. Phillips screwdriver (cheekpiece adjustment)
7. Allen wrench, 6 mm
8. Screw driver, 5 mm

NOTE: Failure to use these metric tools may cause damage to the SL8-1 screws.
**Troubleshooting Guide**

### Stoppages and Malfunctions

In the event of stoppages on the SL8-1, the weapon is to be considered loaded until the actual cause of the stoppage has been determined. During the elimination of stoppages, safety precautions are to be taken into account.

If in the event of stoppages on the SL8-1, the cartridge fired from the SL8-1 is not ignited; the bolt assembly does not close completely; or the spent cartridge case is not ejected; then the following steps must be taken immediately:

1. Put the SL8-1 safety/selector lever on “Safe”
2. Remove the magazine
3.Unload the SL8-1
4. Ensure that barrel, cartridge chamber and receiver are free of obstacles
5. Determine and eliminate the cause of the stoppage

#### Stoppage, Fault Remedy

<table>
<thead>
<tr>
<th>Stoppage, Fault</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cartridge case not extracted or ejected</td>
<td>Chamber dirty</td>
<td>Clean chamber</td>
</tr>
<tr>
<td></td>
<td>Extractor or or extractor spring broken</td>
<td>Contact HK for repair</td>
</tr>
<tr>
<td></td>
<td>Ejector or ejector spring damaged</td>
<td>Contact HK for repair</td>
</tr>
<tr>
<td></td>
<td>Insufficient bolt recoil</td>
<td>Unload: Use cocking lever to retract bolt. Remove cartridge case. Check for smooth operation and check chamber for fouling. If required, clean chamber.</td>
</tr>
<tr>
<td>Cartridge is not ignited (dud round)</td>
<td>Ammunition fault (dud)</td>
<td>Recock SL8-1</td>
</tr>
<tr>
<td></td>
<td>Tip of firing pin damaged or broken</td>
<td>Contact HK for repair</td>
</tr>
<tr>
<td></td>
<td>Hammer spring damaged or broken</td>
<td>Contact HK for repair</td>
</tr>
<tr>
<td>Bolt fails to open after being fired</td>
<td>Cartridge case stuck in chamber due to deformation or dirty chamber</td>
<td>Unload: retract bolt to eject cartridge case, clean if fouled. If required, contact HK for repair</td>
</tr>
<tr>
<td></td>
<td>Gas system fouled or defective</td>
<td>Clean gas piston. If required, contact HK for repair</td>
</tr>
<tr>
<td>Bolt does not close completely, cartridge not properly seated</td>
<td>Cartridge chamber dirty</td>
<td>Clean chamber</td>
</tr>
<tr>
<td></td>
<td>Barrel extension dirty</td>
<td>Clean barrel extension</td>
</tr>
<tr>
<td></td>
<td>Cartridge damaged</td>
<td>Replace cartridge</td>
</tr>
<tr>
<td></td>
<td>Recoil spring worn</td>
<td>Contact HK for repair</td>
</tr>
<tr>
<td></td>
<td>Incomplete cocking movement</td>
<td>Release cocking lever. Let it snap forward without riding it forward.</td>
</tr>
<tr>
<td>No cartridge fed by bolt</td>
<td>Magazine not properly inserted or engaged.</td>
<td>Insert magazine properly</td>
</tr>
<tr>
<td></td>
<td>Magazine loose</td>
<td>Check magazine catch and lugs on magazine housing. If required, contact HK for repair</td>
</tr>
<tr>
<td></td>
<td>Follower spring worn</td>
<td>Replace or repair magazine</td>
</tr>
<tr>
<td></td>
<td>Magazine lips damaged</td>
<td>Magazine housing damaged. If required contact HK for repair</td>
</tr>
<tr>
<td></td>
<td>Magazine well damaged</td>
<td>Return magazine well to HK for repair</td>
</tr>
<tr>
<td>Bolt does not stay open after last shot</td>
<td>Magazine follower spring worn</td>
<td>Replace magazine follower, or spring</td>
</tr>
<tr>
<td>SL8-1 trigger cannot be pulled with hammer cocked</td>
<td>Sear broken or compression spring worn</td>
<td>Contact HK for repair</td>
</tr>
<tr>
<td>Magazine stuck in magazine well</td>
<td>Magazine damaged</td>
<td>Replace magazine</td>
</tr>
<tr>
<td></td>
<td>Magazine catch defective</td>
<td>Contact HK for repair</td>
</tr>
</tbody>
</table>
### Parts List & Exploded Diagram

#### SL8-1 Rifle

**Caliber .223**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rifle, SL8-1 complete</td>
<td>219-477</td>
</tr>
<tr>
<td>Housing</td>
<td>219-479</td>
</tr>
<tr>
<td>Barrel, complete (2-5)</td>
<td>217 906</td>
</tr>
<tr>
<td>Barrel</td>
<td>217 907</td>
</tr>
<tr>
<td>Barrel retaining nut</td>
<td>205 378</td>
</tr>
<tr>
<td>Gas block</td>
<td>217 919</td>
</tr>
<tr>
<td>Roll pin, gas block</td>
<td>927 605</td>
</tr>
<tr>
<td>Piston, complete</td>
<td>205 381</td>
</tr>
<tr>
<td>Piston rod, complete</td>
<td>205 384</td>
</tr>
<tr>
<td>Mounting Rail</td>
<td>217 947</td>
</tr>
<tr>
<td>Flat Headed Screw (3x)</td>
<td>986 785</td>
</tr>
<tr>
<td>Washer (3x)</td>
<td>214 112</td>
</tr>
<tr>
<td>Threaded Washer</td>
<td>214 113</td>
</tr>
<tr>
<td>Front sight, complete (12-14)</td>
<td>217 933</td>
</tr>
<tr>
<td>Front sight</td>
<td>217 796</td>
</tr>
<tr>
<td>Front sight base</td>
<td>217 795</td>
</tr>
<tr>
<td>Roll pin, front sight</td>
<td>928 747</td>
</tr>
<tr>
<td>Flat headed screw (4x)</td>
<td>988 428</td>
</tr>
<tr>
<td>Rear sight complete (16-24)</td>
<td>217 925</td>
</tr>
<tr>
<td>Roll pin, rear sight</td>
<td>987 695</td>
</tr>
<tr>
<td>Rear sight guard</td>
<td>217 992</td>
</tr>
<tr>
<td>Spring, elevation adjustment</td>
<td>217 504</td>
</tr>
<tr>
<td>Rear sight housing</td>
<td>217 991</td>
</tr>
<tr>
<td>Rear sight aperture</td>
<td>217 997</td>
</tr>
<tr>
<td>Spring, windage adjustment</td>
<td>217 518</td>
</tr>
<tr>
<td>Flat Spring</td>
<td>217 515</td>
</tr>
<tr>
<td>Screw, elevation adjustment</td>
<td>217 505</td>
</tr>
<tr>
<td>Screw, windage adjustment</td>
<td>217 517</td>
</tr>
<tr>
<td>Bolt complete (25-42)</td>
<td>219 560</td>
</tr>
<tr>
<td>Bolt head, complete (25-32)</td>
<td>219 561</td>
</tr>
</tbody>
</table>

---

#### Additional Items

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffer</td>
<td>205 452</td>
</tr>
<tr>
<td>Hammer spring, right</td>
<td>205 428</td>
</tr>
<tr>
<td>Hammer</td>
<td>217 936</td>
</tr>
<tr>
<td>Hammer spring, left</td>
<td>205 429</td>
</tr>
<tr>
<td>Notched disk</td>
<td>217 614</td>
</tr>
<tr>
<td>Index plate</td>
<td>205 419</td>
</tr>
<tr>
<td>Compression spring</td>
<td>205 418</td>
</tr>
<tr>
<td>Screw complete</td>
<td>205 439</td>
</tr>
<tr>
<td>Slide</td>
<td>219 411</td>
</tr>
<tr>
<td>Sear spring</td>
<td>217 917</td>
</tr>
<tr>
<td>Trigger spring</td>
<td>217 918</td>
</tr>
<tr>
<td>Bolt catch spring</td>
<td>205 466</td>
</tr>
<tr>
<td>Bolt catch</td>
<td>214 879</td>
</tr>
<tr>
<td>Locking lever, complete</td>
<td>219 094</td>
</tr>
<tr>
<td>Locking lever spring</td>
<td>214 616</td>
</tr>
<tr>
<td>Locking lever</td>
<td>219 095</td>
</tr>
<tr>
<td>Bolt</td>
<td>214 615</td>
</tr>
<tr>
<td>Locking lever</td>
<td>214 613</td>
</tr>
<tr>
<td>Elbow spring, right</td>
<td>217 946</td>
</tr>
<tr>
<td>HK Combination Tool</td>
<td>988 49</td>
</tr>
</tbody>
</table>

---

**Figure 45**

SL8-1 Rifle

Caliber .223
SL8-1 SPECIFICATIONS

Caliber .223 Remington

Operating Principle Gas operated, short stroke piston, rotary locking bolt

Mode of Fire Semi-automatic

Feed Device Single-stack polymer magazine, 10-round capacity

Sights Adjustable iron sights, and detachable MIL-STD-1913 rail available for the attachment of accessory targeting devices

Rifling 6X lands & grooves, right hand twist, I turn in 7 inches

Length (overall) 38.58 inches (980 mm)
Barrel Length 20.80 inches (528 mm)
Sight Radius 17.65 inches (448 mm)

Width (overall) 2.36 inches (60 mm)
Height (overall) 9.84 inches (250 mm) with 10-rd magazine

Weights
• Overall 8.60 pounds (3.9 kilograms with magazine)
• Magazine 2.47 oz. (70 grams) 10-round, empty

FIREARM SERVICE RECORD

SL8-1 Rifle  Serial Number ____________________________

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of Rounds Fired</th>
<th>Cumulative Total of Rounds Fired</th>
<th>Users Name</th>
<th>Maintenance &amp; Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In a world of compromise, some don’t.

Remember, firearms safety begins with you. Read and follow all safety information in the operators manual. Store all firearms in a safe and secure location. Keep firearms away from children. Always be a safe shooter.