U.S. Department of Justice
Drug Enforcement Administration

COLT SUBMACHINE GUN SMG

Operation and Field Maintenance Handbook

DEA/DOJ

TABLE OF CONTENTS

CHAPTER 1 Introduction

CHAPTER 2 Description and Data

Section 1 - Description
Upper Receiver and Barrel Assembly Group
Lower Receiver and Buttstock Assembly

Section 2 - Bolt Assembly
Section 3 - Charging Handle
Section 4 - SMG Data

CHAPTER 3 SMG Operation

Section 1 - Cycle of Operation
Section 2 - SMG Controls
Front Sight
Rear Sight
Bolt Catch
Magazine Catch
Fire Control Selector
Charging Handle
Telescoping Buttstock

CHAPTER 4 - Operating Instructions - Usual Conditions

Section 1 - Clearing SMG
Section 2 - Loading the SMG Magazine
Section 3 - Precautions in Firing Ammunition
Section 4 - Firing
Section 5 - Stoppage and Immediate Action
Section 6 - Misfires and Cook-Offs
Section 7 - Water in Barrel

CHAPTER 5 - Operating Instructions - Unusual Conditions

Section 1 - Operation in Extreme Cold
Section 2 - Operation in Extreme Heat
Section 3 - Hot, Dry Climates
Section 4 - Dusty and Sandy Areas
Section 5 - Hot, Rainy, and Humid Conditions

CHAPTER 6 - SMG Functional Checklist

CHAPTER 7 - SMG Operator Maintenance Procedures

Section 1 - Pre-Functioning Lubrication
Section 2 - Operator Maintenance Procedures
Section 3 - Cleaning the SMG
Section 4 - Cleaning SMG Magazine
Section 5 - Lubrication
Section 6 - Inspection and Repair
Section 7 - Preventive Maintenance Services

CHAPTER 8 - Troubleshooting

CHAPTER 9 - SMG Shooting Positions and Techniques

CHAPTER 1. INTRODUCTION

In the spring of 1988, Drug Enforcement Administrator John C. Lawn authorized the DEA Firearms Training Unit to research and develop a 9mm submachine gun system to be utilized by DEA enforcement personnel.

Accordingly, standards for a submachine gun system were established by the DEA Firearms Training Unit and in September 1988 the Colt 9mm SMG was selected as the DEA submachine gun system.

Section 1. Scope of the SMG Handbook

This guide contains instructions for the operation and field maintenance of the 9mm (nato) Colt Submachine Gun (SMG). Photo 1 and 2.

Figure 1. S.M.G. Buttstock Extended

Figure 2. Buttstock Retracted

CHAPTER 2. DESCRIPTION AND DATA

Section 1. Description

The Colt 9mm SMG is a lightweight, air cooled, blowback, closed bolt, magazine fed, shoulder weapon. It is capable of semiautomatic or automatic fire. The SMG is easily opened to expose the working parts for inspection and cleaning. A brief description of the major components of the SMG follows:

Upper Receiver and Barrel Assembly Group

Barrel Group

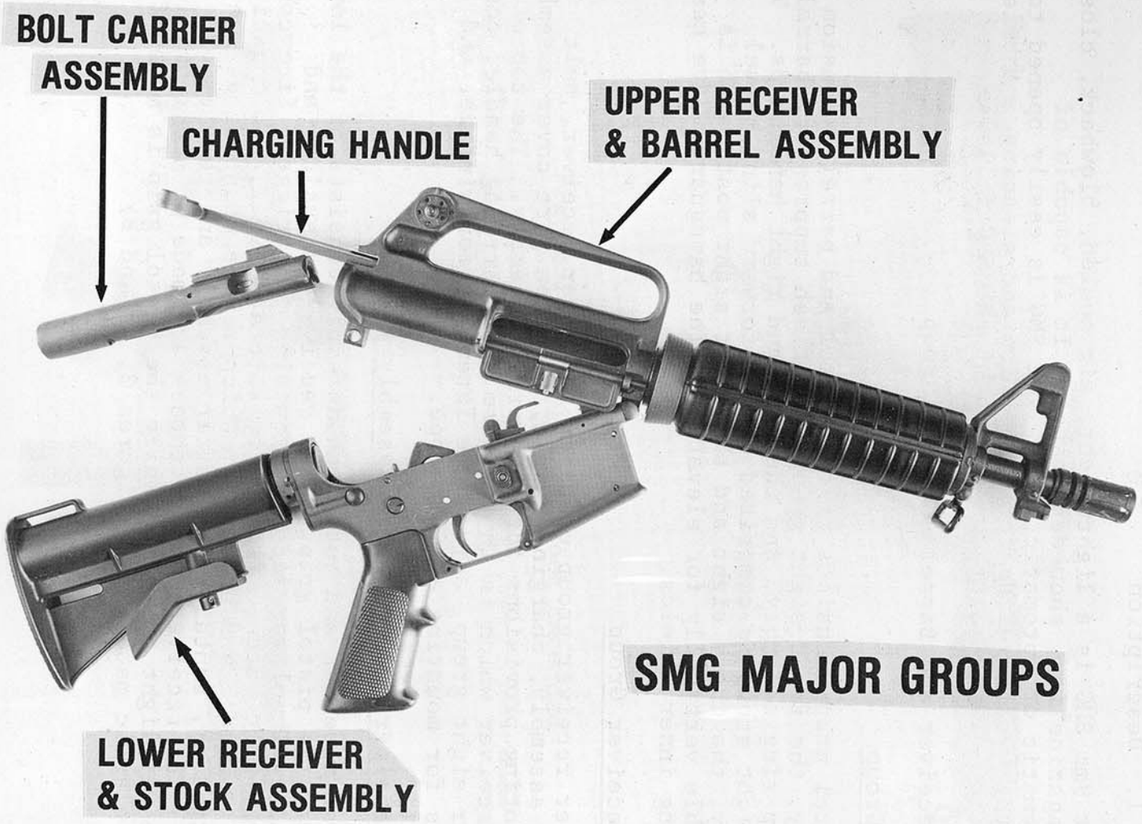
The barrel group consists of the barrel and barrel extension assembly, the front sight group, the flash suppressor, barrel nut and slip ring assembly, and the left and right handguards. The front sight group is comprised of the forward sling swivel assembly, the front sight and the front sight post which is adjustable vertically for elevation. The handguards have heat resisting inner shields.

Upper Receiver Group

The upper receiver group contains the upper receiver, bolt carrier assembly, charging handle, ejection port cover assembly, and mounting provisions for the barrel assembly. The top of the upper receiver which is in the form of a carrying handle, contains the rear sight group, adjustable laterally for windage, and provides for mounting a riflescope.

Lower Receiver and Buttstock Assembly

The lower receiver and buttstock assembly consists of the lower receiver, the pistol grip, lower receiver extension, and buttstock. The lower receiver contains the trigger, fire control selector, bolt catch, disconnect, automatic sear, and magazine catch. The receiver extension, which is the mounting device for the buttstock, contains the buffer assembly and the action spring. The receivers and buttstock are made of aluminum alloy, durable yet light in weight while the pistol grip is made of high impact plastic material. (Figures 3, 4a and B)

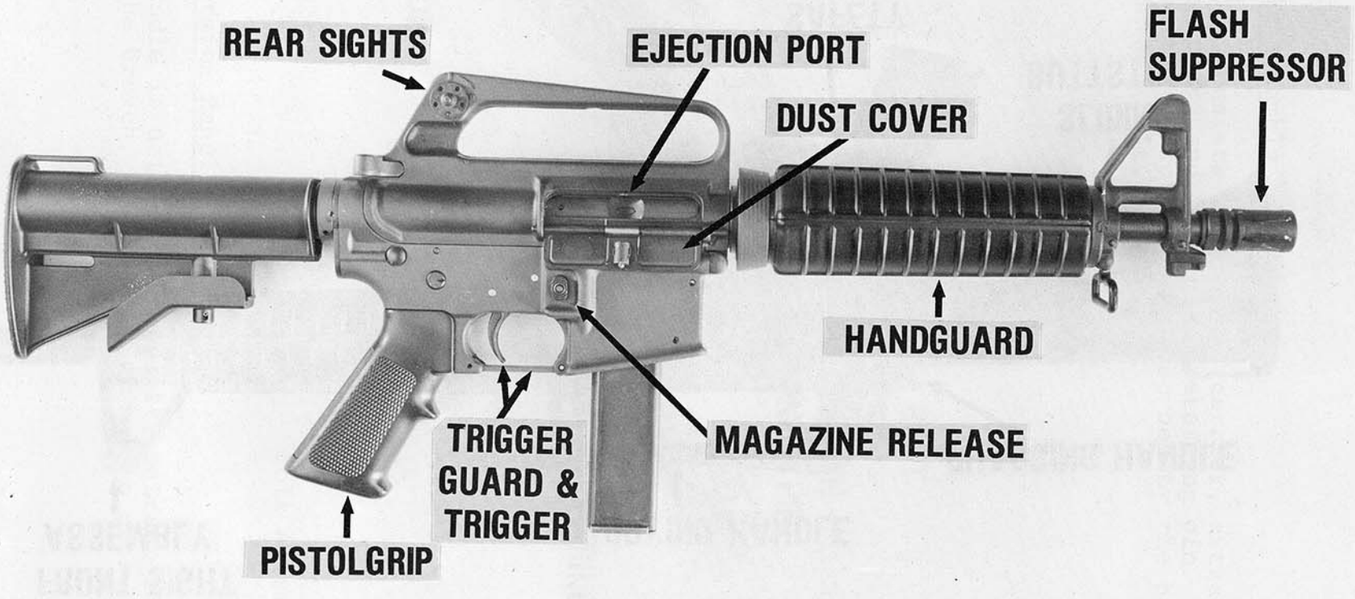


SMG MAJOR GROUPS

Photo 3
2-2

COLT 9MM SMG NOMENCLATURE

RIGHT SIDE VIEW



Phota 4a

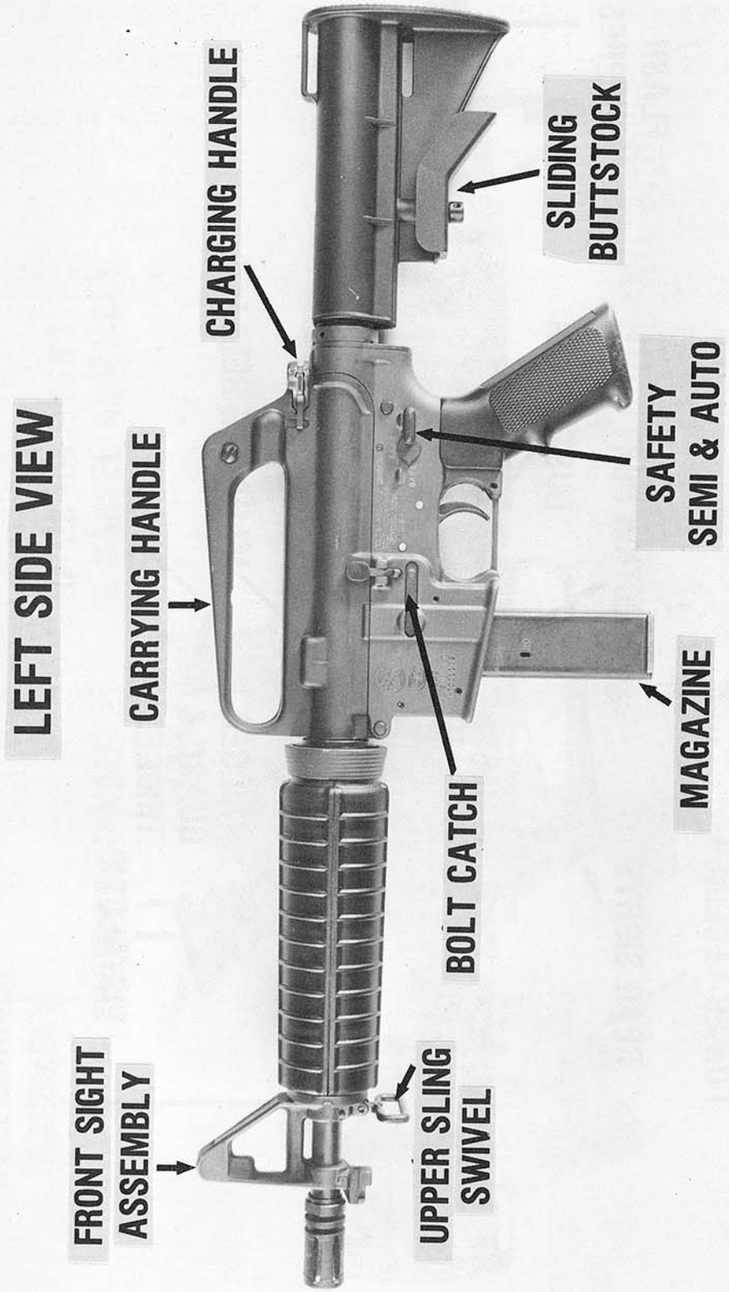


Photo 4b

Section 2. Bolt Assembly

The bolt assembly consists of the bolt carrier, extractor, firing pin, firing pin spring and firing pin retaining pin. The intial force of the cartridge explosion is absorbed by the barrel, barrel extension and bolt.

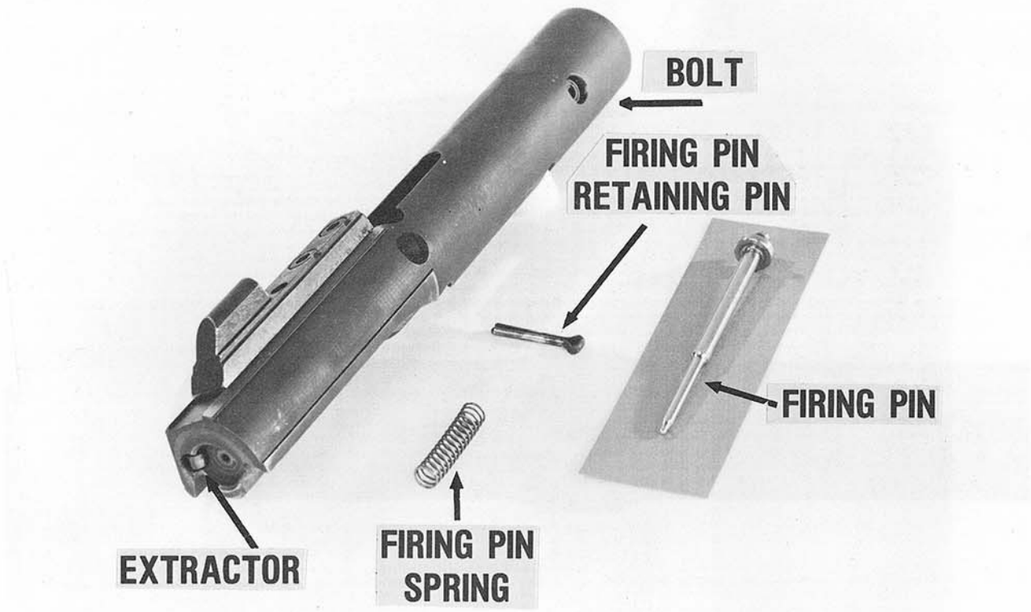


Figure 5 Bolt Assembly

Section 3. Charging Handle

The charging handle is utilized to manually retract the bolt assembly from the breech, causing the hammer to cock. (Figure 6)

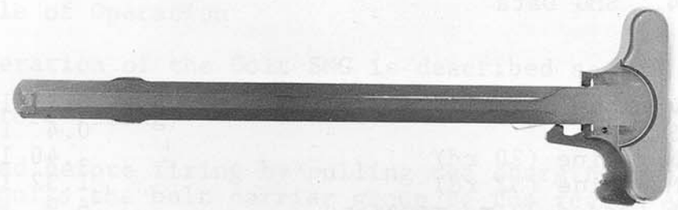


Fig 6a

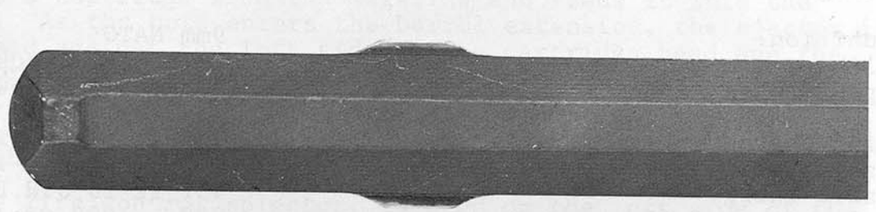


Fig 6b

Charging Handle-Showing Dimples (Fig 6a & 6b)

The enlarged photo of the Charging Handle shows the dimples at the front end. Note: To reinstall the Charging Handle into the Upper Receiver, the Dimples must fit into the like cutouts located on the inside rails of the Upper Receiver.

Section 4. SMG Data

Weight:	
Empty (without magazine and sling)	5.75 lbs
Sling (Silent)	0.4 lbs
Loaded Magazine (20 rd)	.40 lbs
Loaded Magazine (32 rd)	1.32 lbs
SMG with Loaded 32 rd magazine	6.9 lbs
Length:	
Overall (stock retracted) (with flash suppressor)	25.63 in.
Overall (stock extended) (with flash suppressor)	28.88 in.
Barrel	10.5 in.
Method of Operation	Blowback/closed bolt
Method of Feeding	Magazine
Cooling	Air
Ammunition:	9mm NATO
Caliber	Full metal jacket/
Type	Jacketed hollow point
Firing Characteristics:	1250 115 gr. Silvertip
Muzzle Velocity (approx)	1050 ft/sec - 147 gr.
Muzzle Energy	431 ft-lb J.H.P.
Cyclic rate of fire	800 - 1000 rds/min
Maximum range	150 yds
Maximum effective range	100 yds

CHAPTER 3. SMG OPERATION

Section 1. Cycle of Operation

The cycle of operation of the Colt SMG is described as follows:

1. Cocking (before firing)

The SMG is cocked before firing by pulling the charging handle rearward which pulls the bolt carrier group to the rear. As the carrier moves rearward, it cocks the hammer. If an empty magazine is installed at the time of cocking, the magazine follower will actuate the bolt catch to hold the carrier to the rear. If a loaded magazine is installed in the gun or the magazine is removed, the bolt catch must be manually operated to hold the bolt to the rear.

2. Feeding and Chambering

To feed a cartridge into the chamber, the bolt carrier group must be pulled to the rear by the charging handle or held there by the bolt catch. With a loaded magazine installed, the charging handle or the bolt catch is released and the action spring drives the carrier forward. As the carrier moves forward, the bolt picks up a cartridge from the magazine and feeds it into the chamber. As the bolt enters the barrel extension, the ejector is compressed against the left side of the cartridge head and the extractor snaps into the extractor groove on the right side of the cartridge.

3. Firing SMG

When the fire control selector, located on the left side of the lower receiver is set to either "auto" or "semi", the SMG may be fired. When the trigger is pulled, it causes the sear to release the hammer. The hammer spring then drives the hammer against the firing pin, which then strikes the cartridge primer to discharge the chambered round.

4. Extraction

As the bolt is moved rearward by the carrier, the extractor, which is engaged in the extractor groove of the fired cartridge case, withdraws the spent case from the chamber.

5. Ejection

As soon as the extractor has drawn the spent case out of the chamber, the ejector, acting against the left side of the case head, pushes the spent case out of the ejection port which is located on the right side of the upper receiver.

6. Cocking (after firing)

As the carrier group continues rearward in recoil, it compresses the action spring and cocks the hammer. Two different actions now take place dependent upon whether the fire control selector is set on SEMI (semiautomatic) or AUTO (automatic). These actions are as follows:

SEMI (semiautomatic)

When the trigger is pulled, the firing action of the SMG is so much faster than human reaction that it would be impossible to release the trigger quickly enough to prevent several shots being fired unless there was a device provided which would limit the shots fired to one. For this reason, a disconnector is used to catch and hold the hammer until the trigger is released and pulled a second time when the fire control selector is in the semiautomatic position. When the trigger is pulled, the disconnect is rotated forward by the action of the disconnect spring. As the hammer is cocked by the recoil action of the carrier group, the hook of the disconnect engages the upper inside notch of the hammer, holding it to the rear.

When the trigger is released, the trigger spring returns the trigger to its normal position rotating the disconnect back with it. The hammer is thus released from the hook on the disconnect. However, before the disconnect hook actually releases the hammer, the trigger sear surface has moved in front of its hammer notch so that the hammer drops from the disconnect sear to the trigger sear. The SMG is then ready for a second shot.

7. Auto (automatic) SMG

When the fire control selector is set on AUTO and the trigger is pulled, the trigger sear releases the hammer. The disconnector is prevented from moving forward to engage the hammer by a cam on the fire control selector. After the first shot, as the hammer is being cocked by the recoil action of the carrier group, the notch on the top outside edge of the hammer is engaged by the automatic sear. The hammer is then held in the cocked position by the automatic sear until the bolt carrier strikes the upper edge of the automatic sear in counter-recoil, causing it to release the hammer near the end of the forward travel of the carrier. The hammer then falls to fire the next round. This cycle repeats until the magazine is emptied or the trigger is released. When the trigger is released, the hammer falls from the automatic sear but is held by the trigger sear, thus ending the cycle of automatic fire.

8. Buffering

The rearward or recoil movement of the carrier group is arrested by the buffer assembly acting against the bottom of the receiver extension.

9. Counter-Recoil

After buffering, the action spring forces the carrier forward toward the chamber.

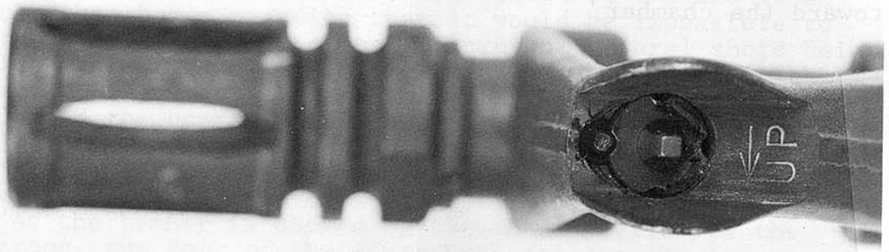


Figure 7. Front Sight

Front Sight. To adjust elevation, depress detent and rotate post. Each notch moves point of impact 1.4 inches at 100 yards up or down. To raise point of impact, turn post in direction marked "UP" on sight (clockwise).

Note: A Colt sight adjusting tool or the tip of a ball point pen may be used.

Figure 8c. View Behind Rear Sight

Rear Sight

Has two apertures for range. The unmarked or smaller circle is for ranges past 50 yds; the 50m circle (Figure 9A) is for ranges up to 50 yds. To adjust windage, rotate drum (Figure 9b). The amount of correction per notch is the same as the front sight. To move the point of impact to the right, turn drum in the direction marked "R" on the sight (clockwise).

Note: The use of the rear sight marked 50m (Figure 9c) allows an increased overall sight picture by increasing peripheral vision.

Figure 8b. Rear Sight

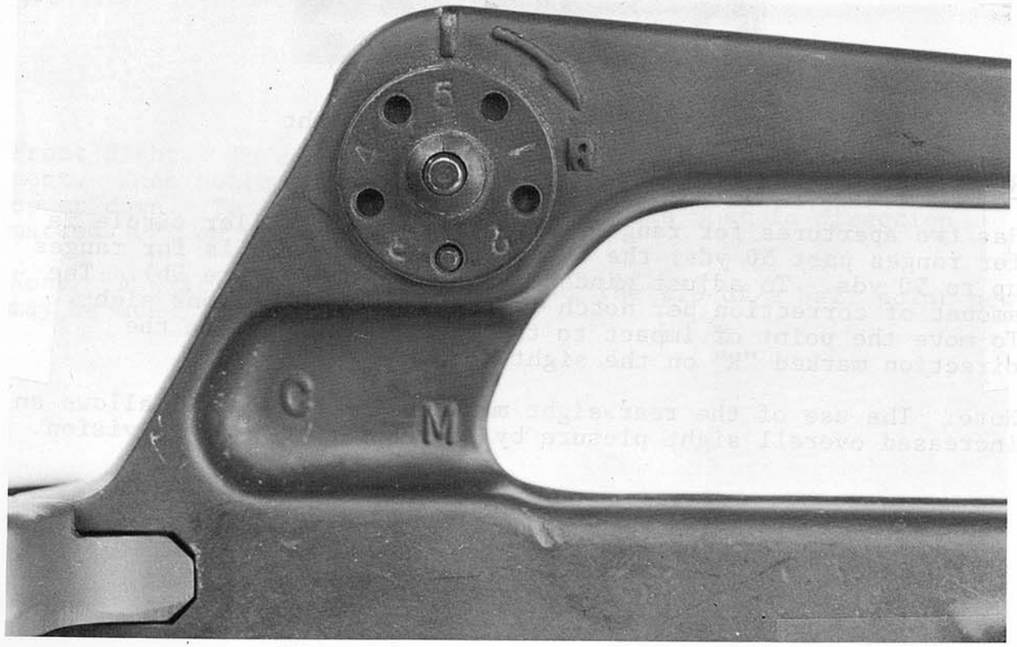


Figure 8c. Close-up Rear Sight

Figure 9. Bolt Catch

Holds bolt carrier and bolt in open position. Press lower tang of catch to engage bolt, upper tang to release.

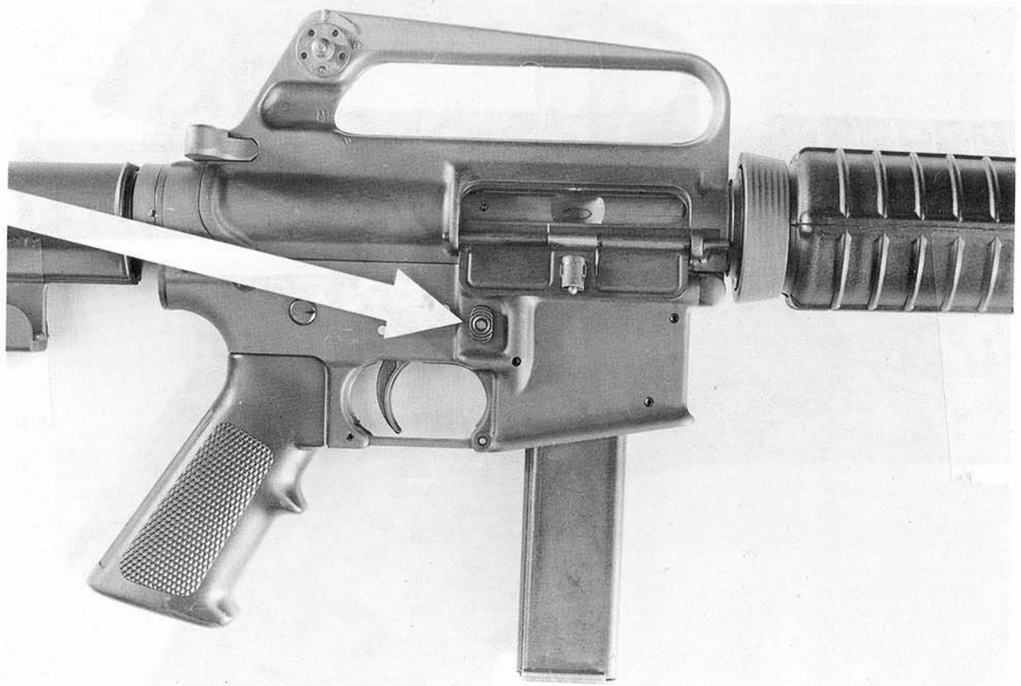


Figure 10. Magazine Catch

Retains magazine in SMG. Press with trigger finger (right hand shooters) to release magazine. (Left hand shooters use left thumb)

Figure 11. Fire Control Selector

Used to select SAFE position and SEMIautomatic or AUTOmatic fire modes.

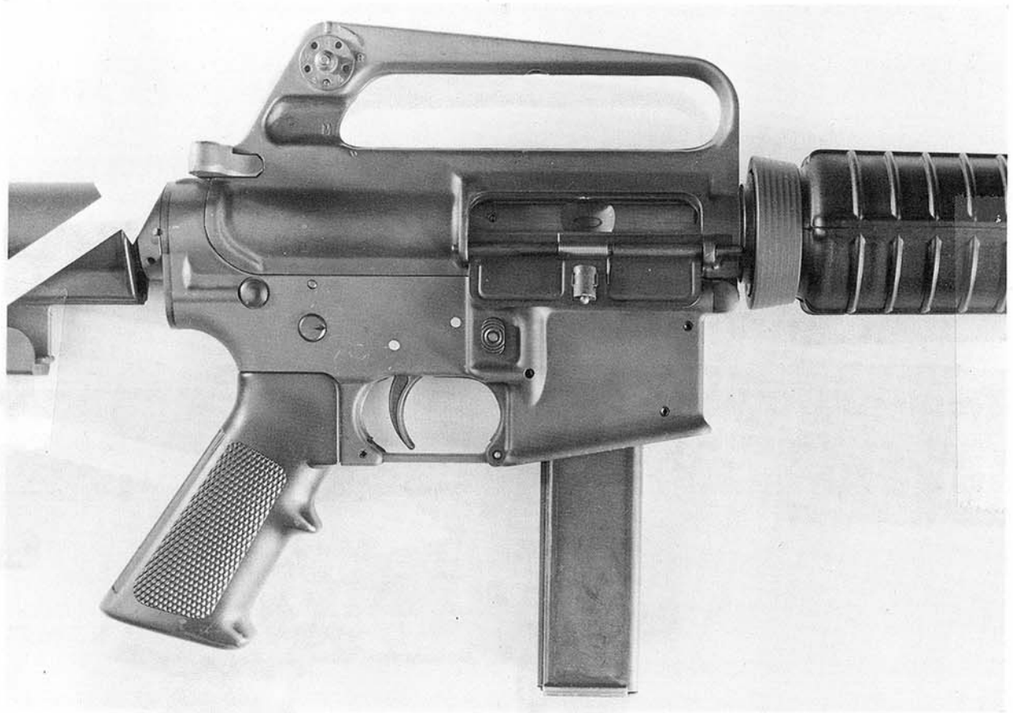


Figure 12. Charging Handle

Retracts bolt carrier and bolt. Has a thumb latch to hold it in forward position.

Figure 13. Telescoping Buttstock

To extend or retract the sliding buttstock, press the rear end of the release level up against the buttstock. The buttstock can then be slid to the extended or retracted position and will lock in position when the lever is released.

To remove the buttstock, pull the rear end of the release lever down away from the buttstock and slide the buttstock off of the receiver extension.

CHAPTER 4. OPERATING INSTRUCTIONS - USUAL CONDITIONS

General. This section contains instructions for the operation of the SMG under usual conditions, defined as conditions of moderate temperatures and humidity.

Section 1. Clearing SMG

Step 1 - Remove magazine - depress magazine catch & the magazine should freely fall.

Step 2 - Hold charging handle back, inspect chamber & lock bolt to the rear by depressing the base of the bolt catch.

Step 3 - Set selector lever in the safe position

Section 2. Loading the SMG Magazine.

The SMG is issued with a 20 round and 32 round magazine. Cartridges are loaded into the magazine so that the tips of the bullets point in the same direction, away from the magazine guide ramp (Figure 15a & 15B). It is recommended to load the magazines with 1-2 rounds less than capacity to allow ease in reloading the SMG under circumstances when the bolt is forward and a live round is chambered.

CAUTION: To reduce risk of accidental discharge set selector to safe before loading the SMG

Loading the SMG. The magazine may be inserted with the bolt opened or closed. Grasp the pistol grip, point the muzzle in a safe direction, and insert the loaded magazine into the magazine housing. Push upward until the magazine catch engages and holds the magazine. If the bolt carrier is locked to the rear, push in the upper portion of bolt catch and allow the action to close, chambering a round. If the bolt carrier is in the forward position when the magazine is inserted, pull the charging handle fully to the rear and release it.

NOTE: Do not "ride" the charging handle forward with the hand. If the charging handle is eased forward from the open position, the bolt may fail to close fully.

The charging handle should always be returned to the forward locked position prior to firing to avoid damage.

The SMG is now loaded and can be fired by placing the fire control selector in the SEMI or AUTO position.

CAUTION: If not ready to fire, maintain the fire control selector in "Safe" to reduce risk of accidental discharge.

Section 3. Precautions in Firing Ammunition

Precautions given in the following paragraphs should be closely observed in order to reduce the risk of injury to personnel or damage to material.

1. Only authorized 9mm ammunition will be fired.

2. Ammunition which is corroded should not be fired.

3. Cartridge cases are easily dented and should be protected from hard knocks and blows. Dented cartridge cases may jam in the chamber, and cause difficulty in extraction.

4. Cartridges which have been seriously damaged, or those having loose bullets, should not be used.

5. Cartridges should be kept clean and free of foreign matter.

6. Cartridges whose temperature has been raised to 130'F (55'C), (uncomfortable to hold) or more, due to exposure to the sun, or other sources of heat, should not be fired as dangerously high chamber pressures may result. When returned to lower temperatures, these cartridges should be safe to fire.

If a cartridge remains in the chamber of a very hot weapon at any time firing is interrupted, the cartridge should be removed immediately or there should be a 15-minute wait to prevent the possibility of injury to personnel in the event of a cartridge cook-off.

CAUTION: IF A NOTICEABLE DIFFERENCE IN SOUND OR RECOIL IS EXPERIENCED, STOP FIRING. A BULLET COULD BE STUCK IN THE BARREL.

In such instances, the bolt should be retracted slowly to remove and identify the fired cartridge case. The weapon should be cleared and examined for the presence of unburned propellant grains in the receiver, or the possible presence of a bullet remaining in the bore. Any unburned propellant or obstruction in the bore must be removed before firing again.

NOTE: If a bullet is lodged in the bore, the SMG must be returned by the P.F.I. to the DEA Gun Vault for proper removal.

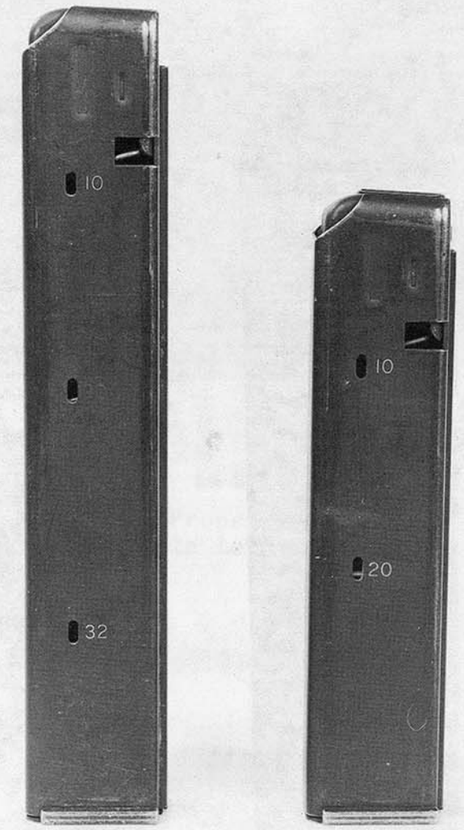


Figure 14a. 20 and 32 Round Magazines

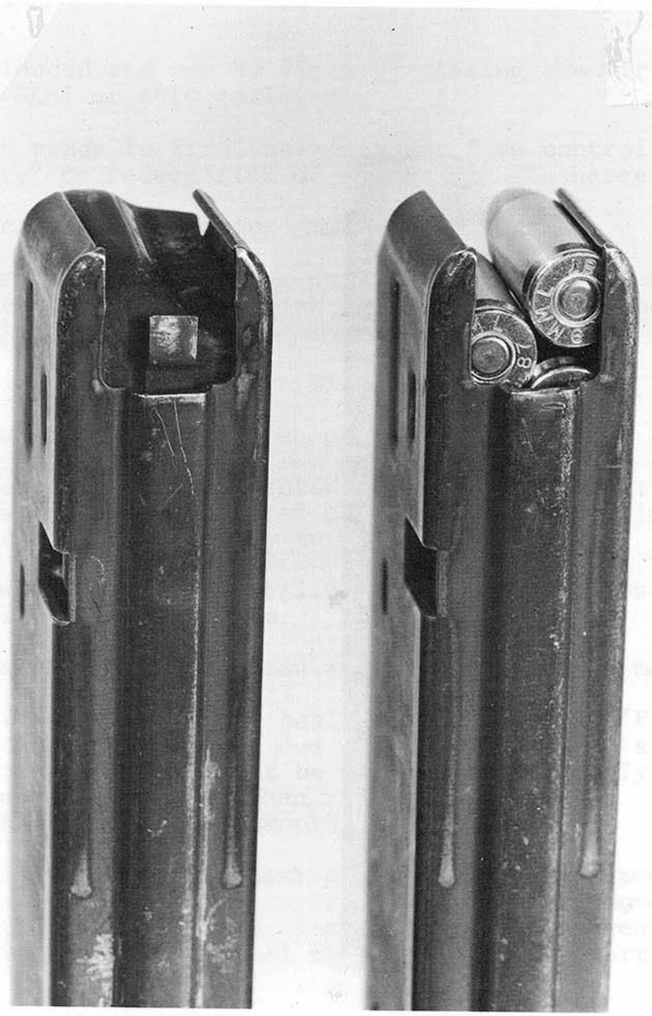


Figure 14b. Magazine Empty & Properly Loaded

Figure 15A & 15B. SMG-Properly Loaded with a 20 Round Magazine, Charging Handle Locked Forward & Dust Cover Open. Bolt Open

Bolt Forward and Ready to Fire

Section 4. Firing

Fire Control Selector. The SMG may be fired semiautomatically or automatically by moving the fire control selector to the desired position.

SEMIautomatic Position. When the fire control selector is in this position, the SMG will fire one round each time the trigger is pulled and released.

AUTOmatic Position. With the fire control selector in this position, the SMG will continue to fire until the magazine is empty or the trigger is released. When the SMG is fired in either SEMI or AUTO, the bolt will lock in open position when the last round from the magazine has been fired.

Section 5. Stoppage and Immediate Action.

Stoppage. A stoppage is any unintentional interruption in the cycle of functioning. Immediate remedial action must be taken to clear stoppages.

Immediate Action. Immediate action is the action taken to correct a stoppage without analyzing the cause. Immediate action to clear a stoppage in the SMG is as follows:

1. Tap upward on the bottom of the magazine to insure that it is fully seated.

2. Pull the charging handle fully to the rear. Watch for ejection of a complete cartridge or cartridge case.

3. If a cartridge or case is ejected, release the charging handle to feed a new round (do not ride the charging handle forward). Attempt to fire the weapon. If the weapon fails to fire, inspect to determine the cause of malfunctions and take appropriate action.

NOTE: If a cartridge or case is not ejected, check for a round in the chamber. If the chamber is clear, release the charging handle to feed a round, and attempt to fire. If the weapon still fails to fire, inspect to determine the cause of malfunction and take appropriate action.

If a cartridge or case is seen in the chamber, it must be removed before attempting to reload or recycle the rifle. A stuck cartridge or case can usually be removed when the barrel is cool by inserting the cleaning rod into the bore from the muzzle end and tapping lightly.

Section 6. Misfires and Cook-Offs

General. The malfunctions described in the following paragraphs are rarely encountered when properly maintained ammunition of the correct type is fired in properly maintained and operated weapons. However, all personnel concerned with the weapon must understand the nature of each kind of malfunction as well as the proper preventive and corrective procedures in order to avoid injury to personnel or damage to property. General precautions for removing chambered cartridges associated with these malfunctions are described below.

Misfires. A misfire is a complete failure to fire which may be due to a faulty firing mechanism in the SMG or a faulty element in the propelling charge of the cartridge.

Cook-Off. A cook-off is a functioning of any or all of the explosive components of a cartridge chambered in a very hot weapon due to heat from the weapon. To prevent injury from a cook-off, follow precautions below.

WARNING: A COOK-OFF COULD OCCUR ANY TIME AFTER CHAMBERING A ROUND IN A VERY HOT BARREL.

Immediate Action - To prevent damage or injury from cook-off when barrel is very hot, complete the following actions immediately:

1. Remove magazine.

2. Pull charging handle fully rearward. If chamber is empty, lock action open by pressing in bottom of bolt catch.

3. Allow barrel to cool for 15 minutes.

4. If round remains in chamber, release charging handle, allow bolt to move forward.

5. Fire round if safe to do so.

6. If not safe to fire - lay SMG on the ground pointing in a safe direction with ejection port toward the ground, and step back.

7. Stand clear and keep others clear, and wait 15 minutes for barrel to cool.

WARNING: COOK-OFF COULD OCCUR DURING THIS COOLING PERIOD.

8. After barrel is cool, remove round from chamber.

Section 7. Water in Barrel

WARNING: DO NOT ATTEMPT TO FIRE THE WEAPON IF WATER IS PRESENT IN THE BARREL. IMMERSION DURING FORDING, HEAVY RAIN, OR FOG CAN CAUSE WATER TO BE PRESENT IN THE BARREL.

Observe the following procedures to empty water from the barrel:

Point the muzzle down.

Pull the charging handle slightly rearward to vent the barrel, and shake the weapon vigorously to allow water to drain from the muzzle.

NOTE: Clean and lubricate.

CHAPTER 5. OPERATING INSTRUCTIONS - UNUSUAL CONDITIONS

General. The following paragraphs cover instructions for operation and maintenance of the SMG under unusual conditions.

Section 1. Operation in Extreme Cold

In climates where the temperature is consistently below O'F, (-18'C) it is necessary to prepare the SMG for cold-weather operation. The SMG should be lubricated with Lubricant Automatic Weapons (LAW) or its equivalent should be used instead of LSA.

Exercise the various controls through their entire range at intervals to keep them from freezing in place and reduce the effort required to operate them.

Section 2. Operation in Extreme Heat

Hot Climates. When operating in hot climates, the coating of oil necessary for operation and preservation will dissipate quickly. Inspect the SMG paying particular attention to all hidden surfaces of the bolt carrier group, and lower receiver components.

Perspiration contributes to corrosion because it contains acids and salts. After handling the rifle, clean, wipe dry, and oil using LSA oil or equivalent CLP.

Section 3. Hot, Dry Climates. Clean and oil the bore and bolt of the SMG more frequently when operating in hot, dry climates.

Section 4. Operating in Dusty and Sandy Areas. Clean and lubricate the SMG more frequently. Exercise particular care to keep sand out of mechanisms when inspecting and lubricating weapon. Shield parts from flying sand or dust during disassembly and assembly operations. Clean and lubricate after operating the SMG. Cover end of barrel with a protective cap.

NOTE: Protective Cap. A cap is designed so that a bullet will pass through the end without affecting accuracy and without causing a safety hazard to the user.

A cap can be purchased at local firearms dealers or a balloon can be utilized.

Do not place the cap on a hot SMG. The plastic will become soft and form into the grooves of the flash suppressor making it difficult to remove.

Section 5. Operations Under Hot, Rainy or Very Humid Conditions and in Salt Water Areas.

Inspect the SMG more frequently when operating in hot, moist areas.

When the SMG is in use, clean and lubricate the bore and chamber and exposed metal surfaces more frequently than prescribed for normal service. A very thin film of oil is prescribed for the chamber and bore.

Moist and salty atmospheres have a tendency to mix with oil and grease and destroy their rust preventive qualities. Inspect all parts frequently for rust or corrosion.

When the SMG is not in use, cover all metal surfaces with a thin film of LSA oil or CLP (Breakfree).

CHAPTER 6. SMG FUNCTIONAL CHECKLIST

General. A complete functional check of the SMG consists of checking the operation of the SMG with the fire control selector in the SAFE, SEMI and AUTO positions. The following is a rapid, complete check. Any portion of the check may be used separately to determine the operational condition of any specific selector position.

Step 1 Clear SMG

Step 2 Set fire control selector on SAFE

Step 3 Pull takedown pin and open receivers

Step 4 Pull trigger, hammer should not fall

Step 5 Set fire control selector on SEMI

Step 6 Pull trigger, hammer should fall

Step 7 Hold trigger to rear, recock hammer manually, hammer should be engaged by disconnect.

Step 8 Release trigger, hammer should be released by disconnect and drop to engagement by the trigger sear.

Step 9 Set fire control selector on AUTO

Step 10 Pull trigger, hammer should fall

Step 11 Hold trigger to rear and manually cock hammer, hammer should be engaged by automatic sear.

Step 12 With trigger still held to rear, push top of automatic sear forward, hammer should drop

Step 13 With trigger still held to rear, manually cock hammer, hammer will be engaged by automatic sear

Step 14 Release trigger and push top of automatic sear forward, automatic sear should release hammer and hammer should drop to engagement with the trigger sear.

Step 15 Move fire control selector to SAFE

Step 16 Close receivers and engage takedown pin

CAUTION: FAILURE TO MOVE FIRE CONTROL SELECTOR TO SAFE POSITION BEFORE CLOSING RECEIVERS WILL CAUSE THE AUTOMATIC SEAR TO BE DAMAGED.

Step 17 Set fire control selector on SEMI, and pull trigger, hammer should drop.

Step 18 Install an empty magazine and check that it is locked in place by the magazine catch.

Step 19 With the empty magazine installed and the fire control selector set on SEMI or AUTO, pull charging handle back and then release same. Bolt carrier assembly should be held to the rear by engagement of the bolt with the bolt catch.

Step 20 Push top of bolt catch to release bolt and bolt carrier. The bolt and carrier assembly should move forward into the locked position.

Step 21 Set fire control selector on SAFE.

Step 22 Close ejection port cover.

Step 23 Install protective cap.

Step 24 Extend and retract buttstock and check operation of release lever and lock pin.

CHAPTER 7. SMG OPERATOR MAINTENANCE PROCEDURES

Section 1. Pre-Functioning Lubrication

General. Prior to operation of the SMG, the following lubrication procedure is to be performed. The recommended lubricant to be used is Semi-fluid Lubricating Oil (LSA), or CLP (Breakfree).

Application Areas

Coat all components of the lower receiver and the bolt carrier group with a light coating of LSA oil or equivalent using a lightly oiled cotton wiping cloth, cleaning swabs, and pipe cleaners.

NOTE: The weapon is compatible with and will function properly using any good grade of oil and bore cleaner. Except in cases of extreme emergency, NEVER fire the SMG with a dry bolt!

Section 2. Operator Maintenance Procedures, Usual Conditions

General. This section describes maintenance procedures to be performed by the operator under usual conditions. Usual conditions are defined as conditions of moderate temperature and humidity.

Disassembly (Field Stripping)

The extent of disassembly required for the performance of maintenance by the operator is as follows:

Step	Action	
A.	Clear SMG and allow Bolt to return forward	
B.	Separate rear of upper receiver from lower receiver by pulling out rear takedown pin.	Figure 16A
C.	Remove charging handle by depressing spring latch and pulling to the rear, lifting out of dimple indents in upper receiver.	Figure 16B
D.	Remove Bolt Assembly	Figure 16C
1.	Pull firing pin retaining pin out from bolt	Figure 17A
2.	Remove firing pin and firing pin spring	Figure 17C

NOTE: Guard the bolt opening with hand while removing firing pin to prevent loss of firing pin or firing pin spring.

Figure 16A. Arrow shows rear take down pin. Push left to right.

Figure 16B. Arrow shows charging handle being removed and the bolt becoming visable

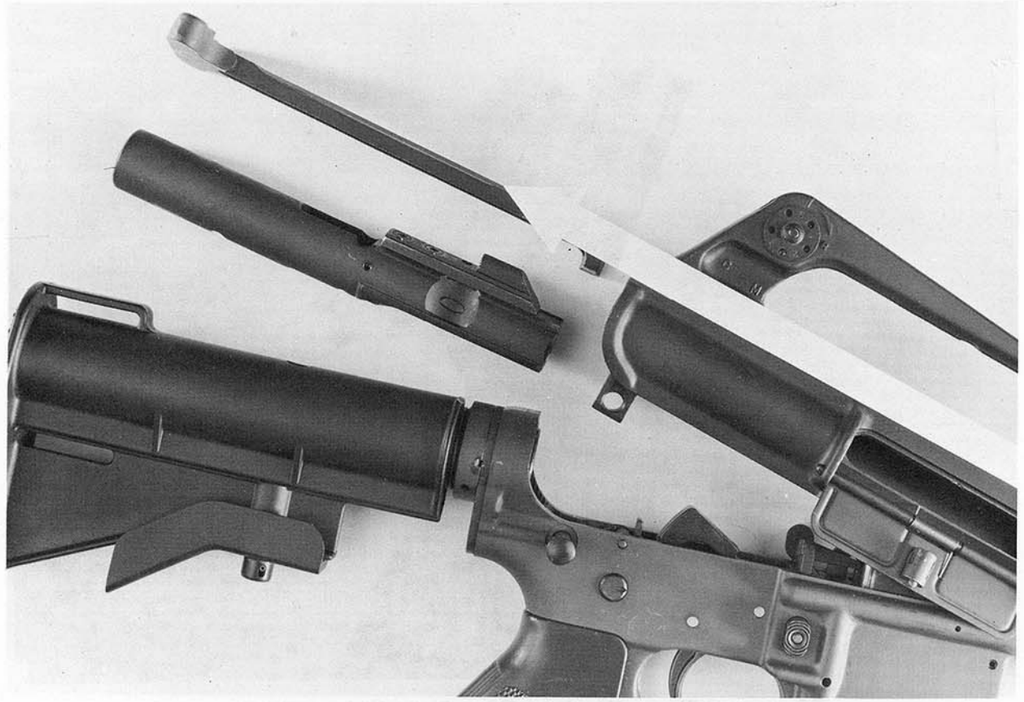


Figure 16C. Charging Handle & Bolt Assembly Free

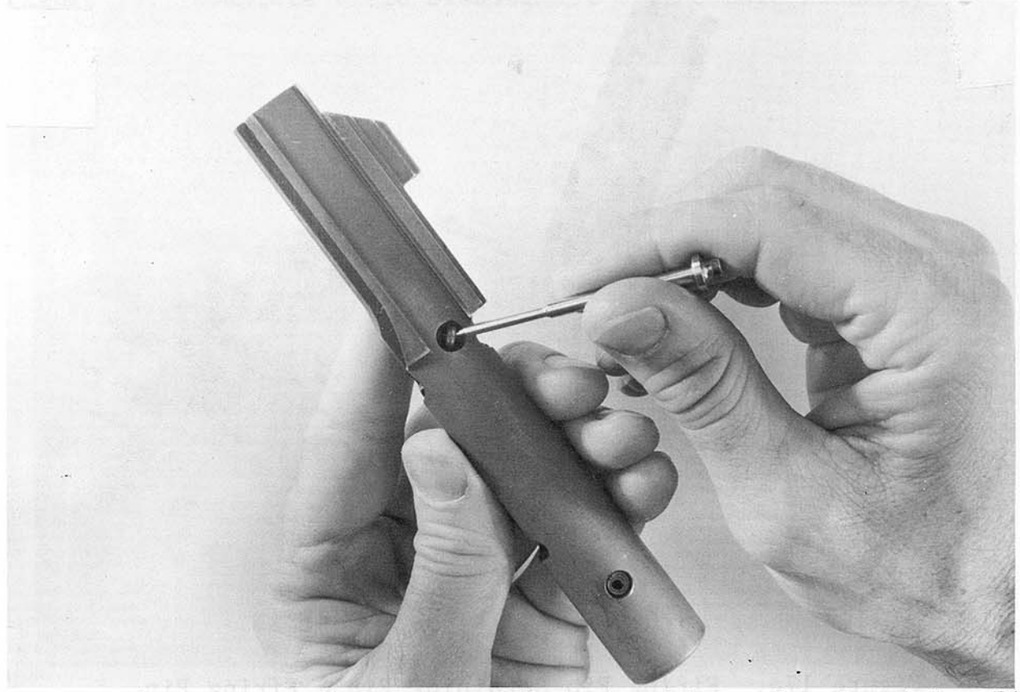


Figure 17A. Pointed Instrument Removing Firing Pin Retaining Pin

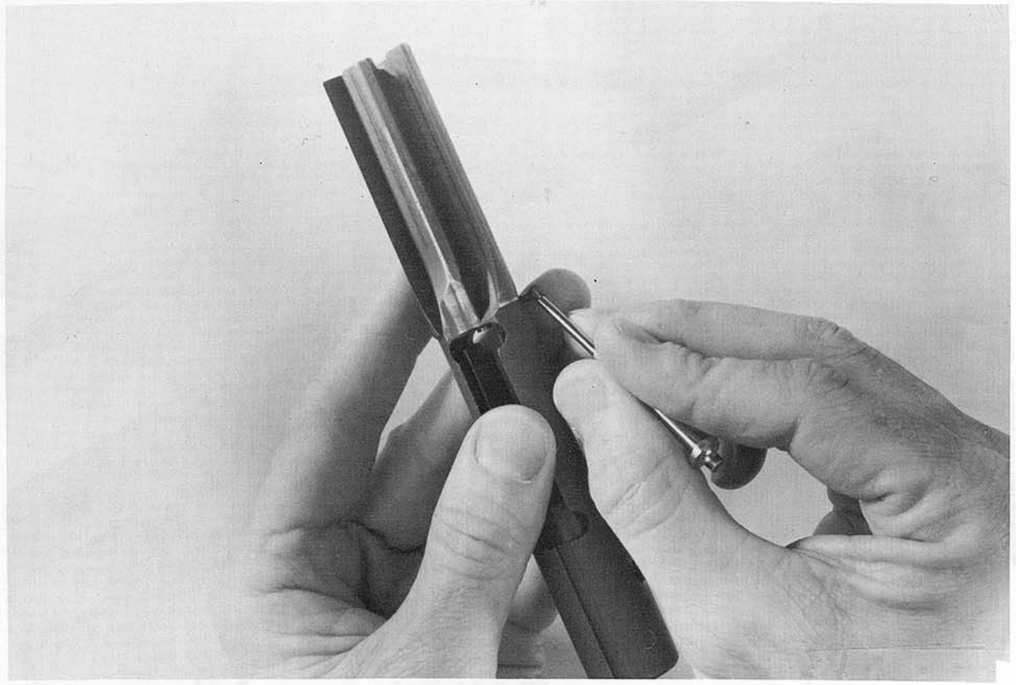


Figure 17b. Firing Pin Retaining Pin

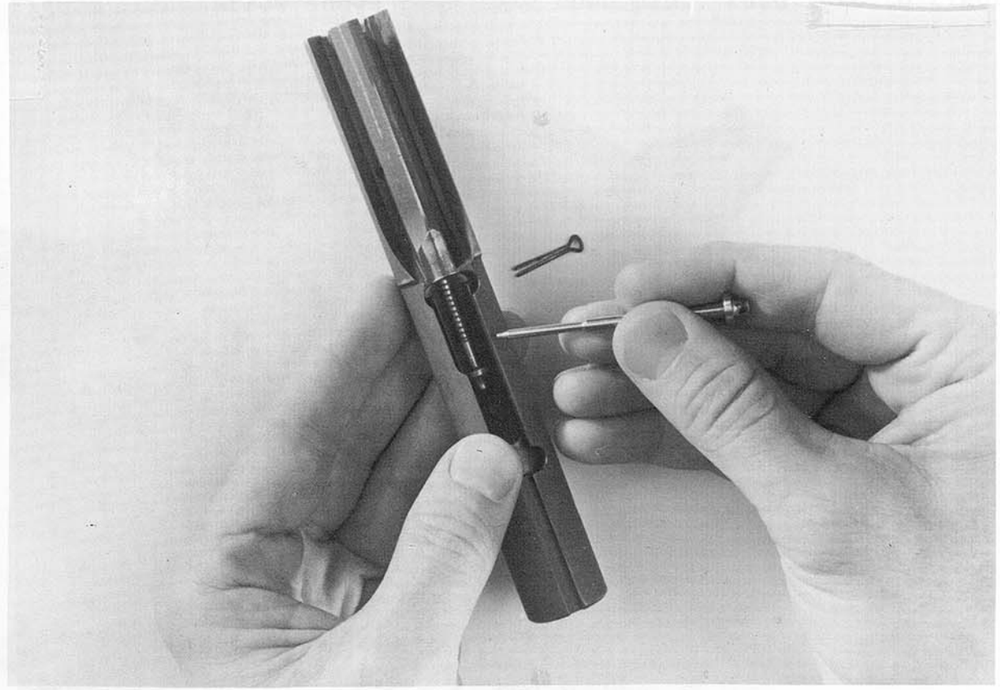


Figure 17c. Firing Pin Retaining Pin & Firing Pin

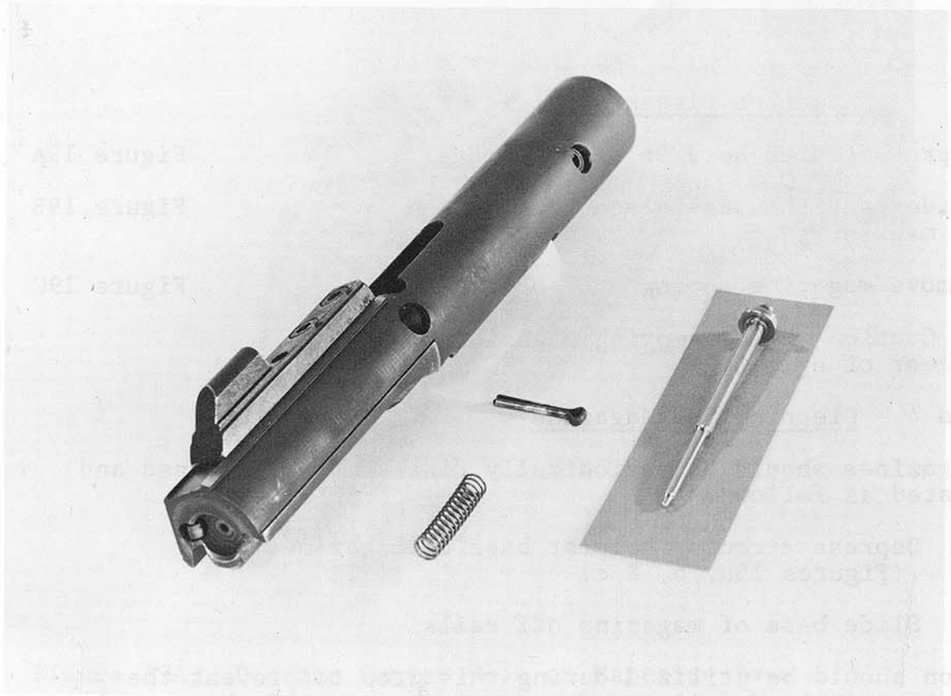


Figure 18. Complete Field Disassembly of the Bolt Assembly

Magazine Disassembly

1. Depress center hole on base of magazine — Figure 19A

2. Slide magazine base plate towards the front of the magzine. — Figure 19B

3. Remove magazine spring and follower — Figure 19C

NOTE: Caution while removing magazine spring, keep clear of eyes.

Section 4. Cleaning SMG Magazine

The magazines should be periodically disassembled, cleaned and lubricated as follows:

Step 1 Depress circular hole at base of magazine. (Figures 19a, b, & c)

Step 2 Slide base of magazine off rails.

*Caution should be utilized during this step to prevent the magazine spring and follower from springing out of the magazine. Keep face away from base of magazine during disassembly and reassembly.

Step 3 Remove magazine spring and follower from the magazine shell.

Step 4 Wipe all components, including the inside of the magazine shell, and wip a light film of oil on the spring.

Step 5 To reassemble, reverse the above steps and inspect the magazine for proper functioning.

INSPECTION. Inspect magazine components for cracks, distortion, or excess wear. If any of these conditions are found, the magazine should be replaced.

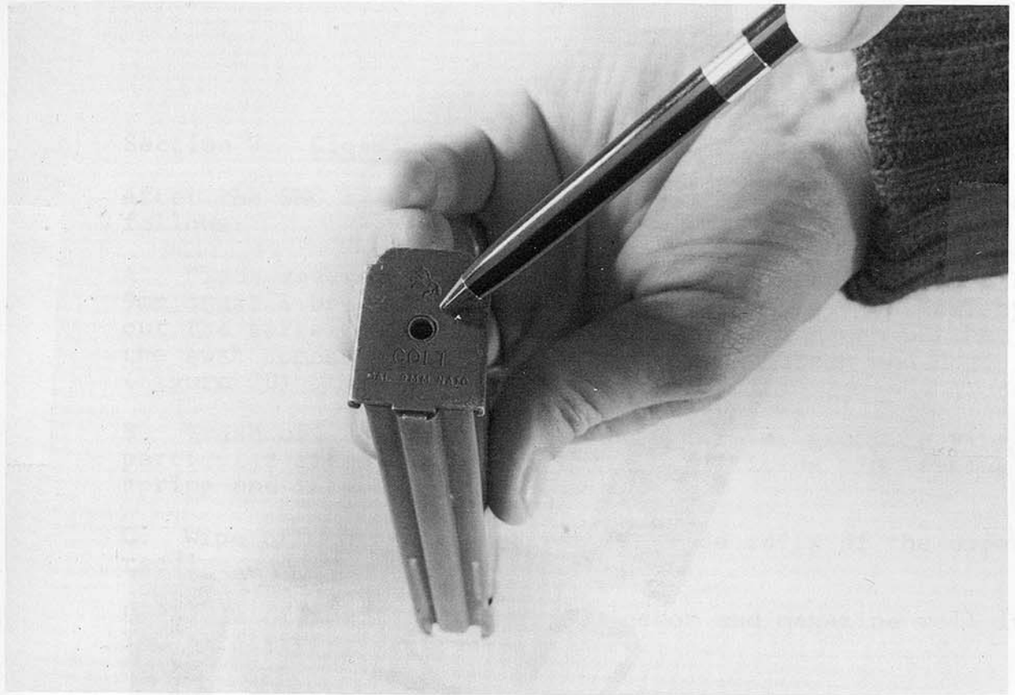


Figure 19A. Depress Center Role on Magazine Base

Figure 19B. Slide Magazine Base

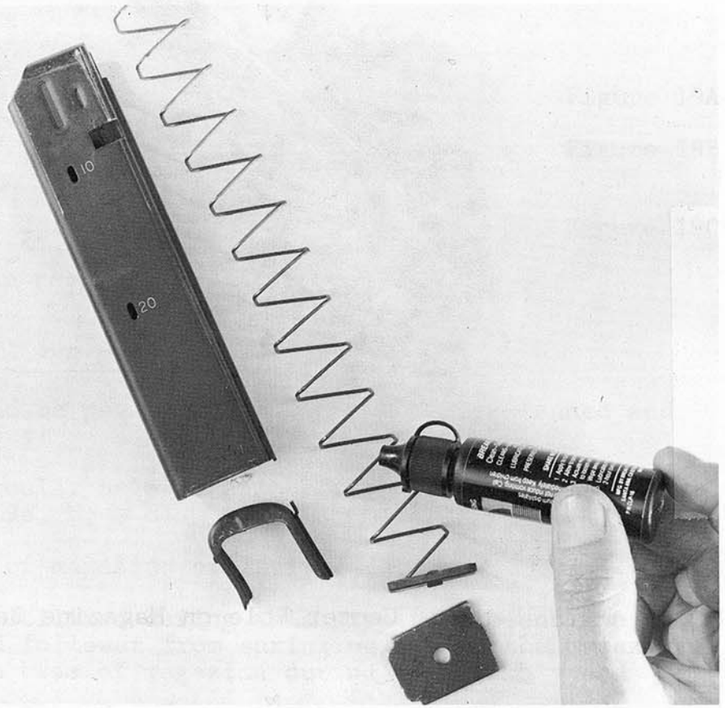


Figure 19C. Field Disassembly of SMG Magazine

Section 3. Cleaning the SMG

After the SMG has been field stripped, it is to be cleaned as follows:

A. Place several drops of CLP or Hoppes #9 solvent on a brass 9mm brush & brush the chamber and barrel bore. Follow, by wiping out the barrel bore and upper receiver with clean patches until the swab comes out of the barrel receiver clean and dry. (Figure 20)

B. Brush off residue from the bolt carrier group, paying particular attention to the extractor, firing pin, firing pin spring and face of bolt. (Figure 21)

C. Wipe off charging handle and inside rails of the upper receiver.

D. Wipe off hammer assembly, ejector and magazine well in the lower receiver. (Figure 22)

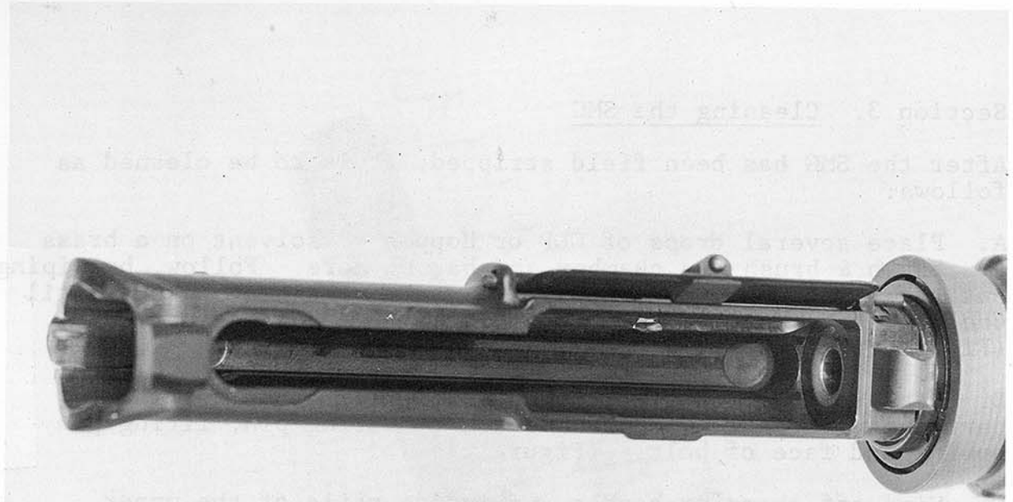


Figure 20. View of bottom of upper receiver showing chamber and inside rails

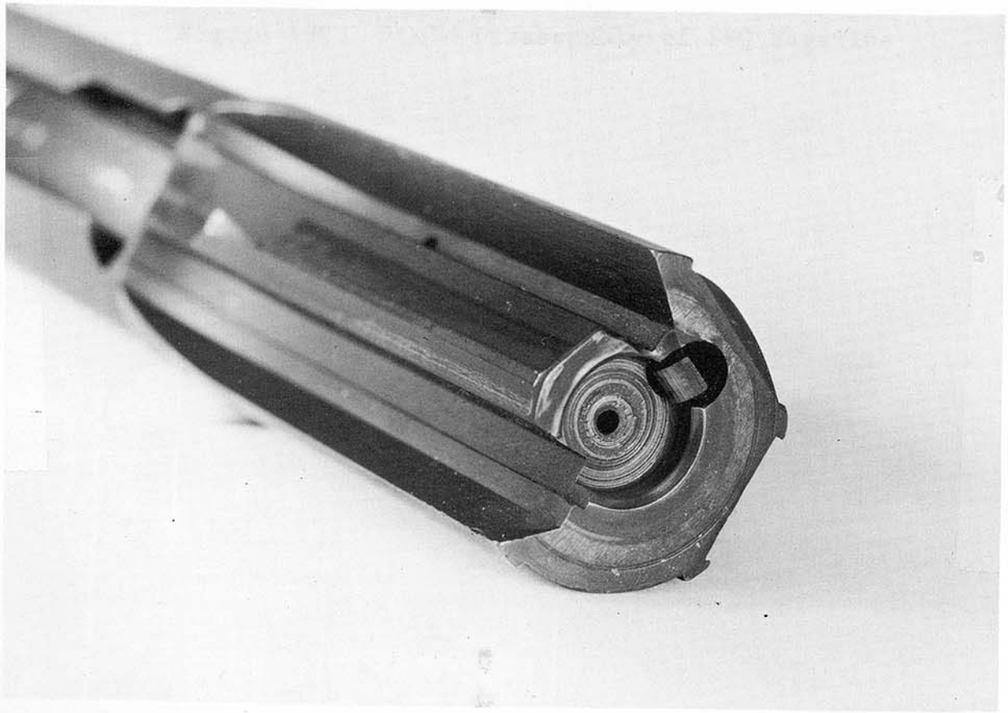


Figure 21. Bolt - Showing face firing pin hole and extractor

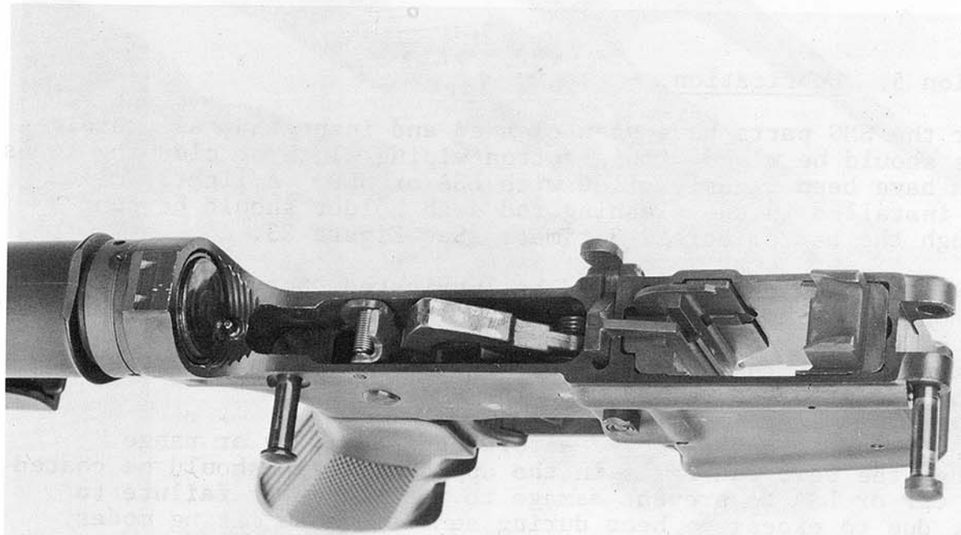


Figure 22. Lower Receiver Hammer assembly, ejector and showing magazine well

Section 5. Lubrication.

After the SMG parts have been cleaned and inspected, all metal parts should be wiped with a cotton wiping cloth or cleaning swabs which have been lightly oiled with LSA or CLP. A lightly oiled swab installed in the cleaning rod swab holder should be run through the barrel bore 2-3 times. See Figure 23.

IMPORTANT: The chamber should be lubricated, but it is important that only a thin film of lubricant be applied. Then apply one drop of LSA or equivalent lubricant to each of the places shown. An exception to the above is the magazine. The only part which is to be wipe-oiled is the magazine spring.

NOTE: Prior to any expected enforcement activity or range firing, the bolt and rails in the upper receiver should be coated with CLP or LSA to prevent damage to the weapon or failure to fire, due to excessive heat during semi and auto firing modes.

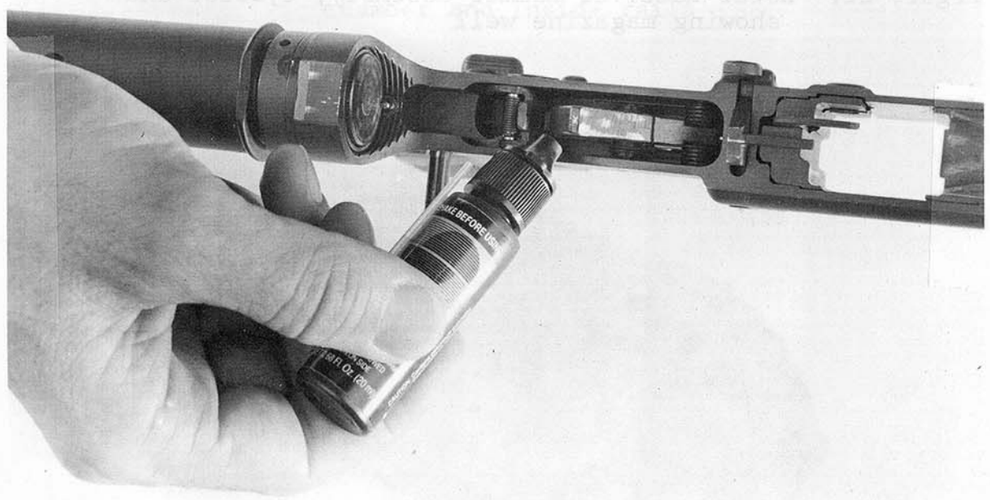


Figure 23. Hammer Assembly

Figure 24. Dust Cover Spring

Figure 25. Buttstock Lock Pin

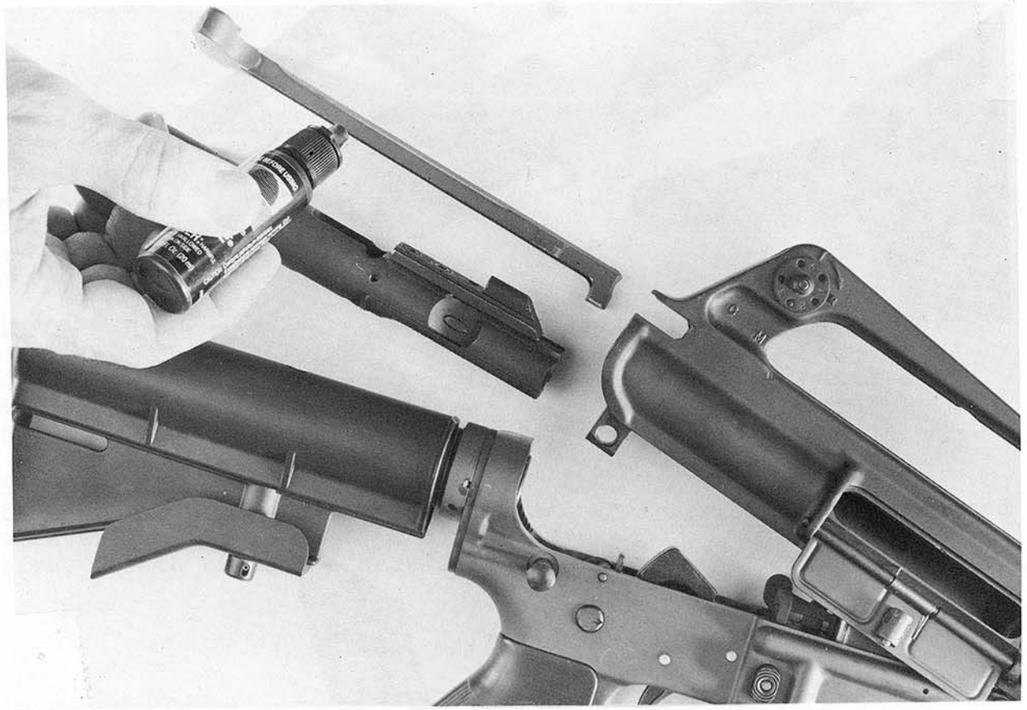


Figure 26. Charging Handle

Figure 27. Bolt Assembly and Rail

Figures 28. Rear Sight

Section 6. Inspection and Repair

Bolt Assembly. Inspect for cracks in the bolt, pitted or chipped bolt face, elongated firing pin hole. If any of these conditions are discovered, turn in the item to the DEA Gun Vault for repair. Also, inspect the ejector for excessive wear or rust. If noted, return to the DEA Gun Vault for repair.

Upper Receiver Group. Inspect the upper receiver for cracks and parts for wear. Inspect the charging handle latch for worn or damaged latch hook and worn or weak spring. Also inspect for corrosion and, if any of these conditions are discovered, return the SMG to the DEA Gun Vault for repair.

Lower Receiver Group. Inspect pistol grip for cracks and for damaged screw or lockwasher. Inspect the stock assembly for cracks or damage. Damaged or cracked stocks are to be turned in to DEA Gun Vault for repair. Inspect the lower receiver extension takedown pin, pivot pin, and fire control selector as well as their detents and detent pin. Inspect the receiver finish for scratches or wear (shiny bright areas). If discovered, return SMG to the DEA Gun Vault for repair.

Magazine. Inspect the magazine box for bulges, dents, excessive wear, or damaged lips; the spring for kinks, cracks, breaks or rust; and the follower for excessive wear. If any of the above conditions are found, replace the magazine.

Section 7. Preventive Maintenance Services

General. Preventive maintenance is the systematic care, inspection, and servicing of equipment to keep it in serviceable condition, prevent breakdowns, and assure operational readiness. The operator's role in performance of this service is to perform daily service and to assist the DEA armorer in the performance of scheduled periodic services.

Specific Procedures

Listed below are the specific procedures to be performed by the operator (O) and DEA armorer (A) or PFI.

	Step Interval	Action
A	Before operation (O)	Wipe excessive oil from bore and chamber.
B	Before operation (O)	Hand function rifle to assure proper condition.
C	After operation (O)	Clean and lubricate.
D	Periodic (A)	Clean, lubricate & inspect detents and springs within the lower receiver.

CHAPTER 8. TROUBLESHOOTING

General. The troubleshooting instructions which follow are to aid the operator and DEA armorer to restore worn, damaged, or inoperative SMGs to a serviceable condition.

Malfunction	Probable Cause	Corrective Action
Selector lever binds.	Dirt corrosion or lack of lubrication.	Clean and lubricate
Sliding buttstock sticks.	Sand, dirt, or foreign matter in buttstock.	Clean and wipe dry
Release lever sticks.	Sand, dirt or foreign matter in release lever detent well.	Clean and lubricate
Failure to fire	Selector lever on SAFE	Move selector to SEMI or AUTO
	Damaged firing pin.	Replace. Return to DEA Gun Vault
	Improper assembly of firing pin in bolt carrier group.	Remove firing pin and install correctly. Inspect retaining pin for damage.
	Too much oil in bolt firing pin recess.	Disassemble bolt and clean out excess oil.
	Fire control mechanism improperly assembled or with worn, broken, or missing parts.	Return to DEA Gun Vault
	Trigger pin improperly installed.	Check that tails of hammer spring engage grooves in trigger pin. (DEA Gun Vault)
Failure to unlock (bolt siezes)	Bolt group, firing pin, or barrel extension burred, dirty, or carboned.	Remove magazine. Hold rifle pointing up (stay clear of muzzle) and strike butt sharply and squarely on ground while pulling back on charging handle.* Remove bolt group, clean and lubricate.

*CAUTION: Make certain to be clear of muzzle. Strike butt squarely on ground to prevent damage to buttstock.

Bolt fails to lock to rear after last shot fired.	Dirty or corroded bolt catch.	Clean and lubricate. If disassembly is necessary turn in to the DEA Gun Vault for repair.
	Faulty magazine.	Replace
	Broken bolt catch or spring	DEA Gun Vault
Failure to cycle with selector set at AUTO.	Worn, broken or missing parts in fire control mechanism.	DEA Gun Vault
Fires with selector at SAFE	Worn, broken or missing parts in fire control mechanism.	DEA Gun Vault
With selector on SEMI, fires when trigger released.	Worn, broken or missing parts in fire control mechanism.	DEA Gun Vault
Failure to feed.	Magazine not seated properly.	Adjust magazine catch. Push in magazine catch button and rotate catch clockwise to tighten.
	Dirty or corroded ammunition.	Remove ammunition and clean the magazine.
	Dirty magazine.	Disassemble and clean.
	Defective magazine.	Replace magazine.
	Too many rounds in magazine.	Reload magazine with 20 or 30 rounds as appropriate.

IMPORTANT: Do not load the magazine beyond its rated capacity

	Restricted buffer assembly action.	Remove, clean and lubricate buffer assembly and action spring. By DEA Gun Vault
Double feed.	Defective magazine.	Replace magazine.

Failure to chamber.	Dirty or corroded ammunition.	Remove ammunition from magazine and clean.
	Restricted movement of bolt carrier group.	Disassemble, thoroughly clean, and lubricate SMG. Remove charging handle from upper receiver; point receiver upward, and install bolt carrier group in receiver. Slowly slide carrier in receiver to check alignment. If binding occurs, return SMG to the DEA Gun Vault for repair.
	Damaged ammunition.	Replace.
	Carbon buildup in chamber.	Clean chamber.
Failure to lock.	Dirt, corrosion, or carbon buildup on bolt.	Clean.
	Jammed extractor.	Clean and lubricate.
	Dirt on bolt face.	Clean.
	Jammed ejector.	Disassemble and clean.
	Restricted buffer assembly movement.	Remove buffer and action spring, clean and lubricate only by DEA Gun Vault. Also clean inside receiver extension.
	Worn or broken action spring.	Replace. Return to DEA Gun Vault.
Failure to extract	Dirty or corroded ammunition.	Remove ammunition and clean the magazine.
	Carbon and dirt build-up in chamber.	Clean chamber

	Carbon and dirt build-up in extractor recess or extractor lip.	Disassemble and clean.
	Defective extractor, extractor spring, or pin.	Replace. DEA Gun Vault
	Rim shear due to badly pitted chamber.	DEA Gun Vault
	Separated cartridge case caused by excessive headspace, etc.	Remove bolt and run bore brush through from muzzle end of barrel. If this does not remove separated case, turn in for repair. In any event, headspace should be checked by DEA Armorer.
Failure to eject.	Broken ejector.	DEA Gun Vault.
	Jammed ejector.	Disassemble and clean.
	Short recoil.	Inspect ammunition & return to DEA Gun Vault
Failure to remain cocked.	Worn, broken, or missing parts in fire control mechanism.	Return to DEA Gun Vault
	Hammer pin incorrectly installed.	Return to DEA Gun Vault

CHAPTER 9. SMG SHOOTING POSITIONS & TECHNIQUES

Figure 29. SMG - Shown with Nylon adjustable sling.

The sling allows the shooter to carry the SMG around the neck, freeing one or both hands if necessary during tactical needs.

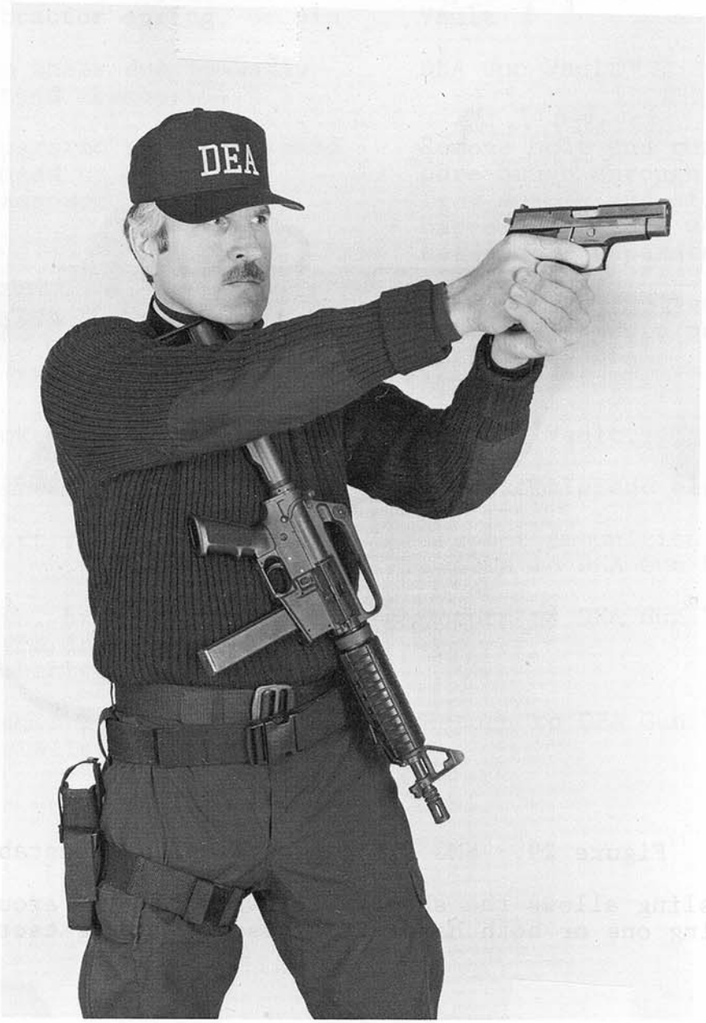


Figure 30. Two Hand Shooting

Use of the sling, allows the shooter to safely drop the weapon and draw and fire with the handgun.

Figure 31. One-Hand Shooting

This optional method allows the shooter to guide the SMG away with the weak hand and fire the handgun utilizing the strong hand only.

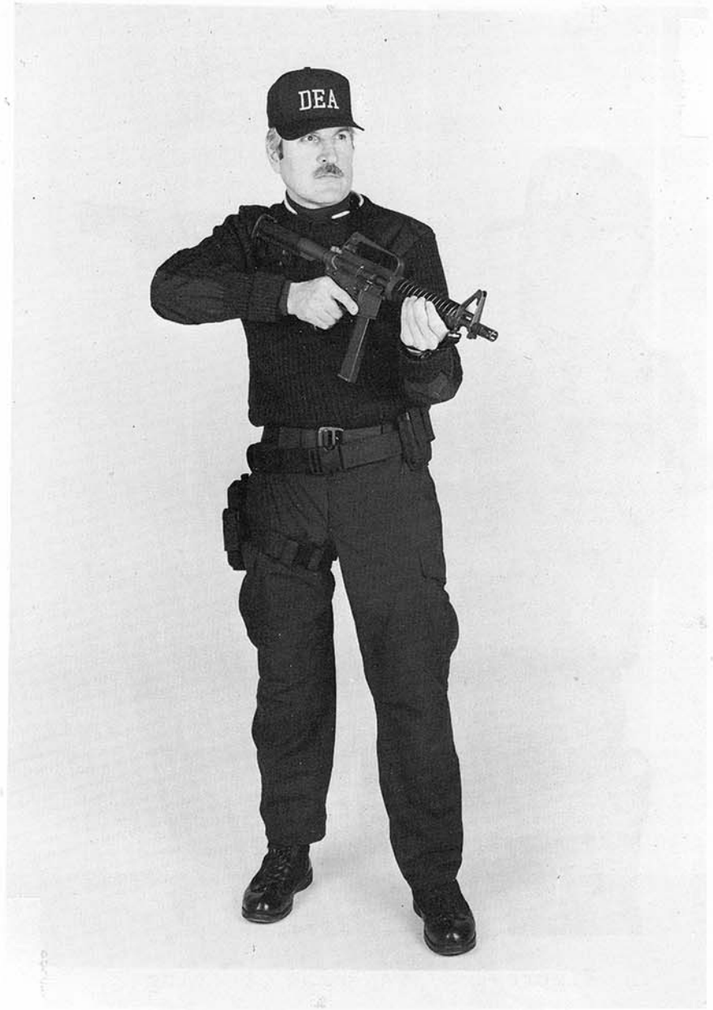


Figure 32. Standing - Ready Gun Position

Shooter in Weaver stance, SMG slightly canted from target - sling looped thru bottom sling swivel and around neck.

NOTE: The buttstock is already mounted in the shoulder, allowing the shooter to quickly raise the SMG, acquire a sight picture and fire effectively.

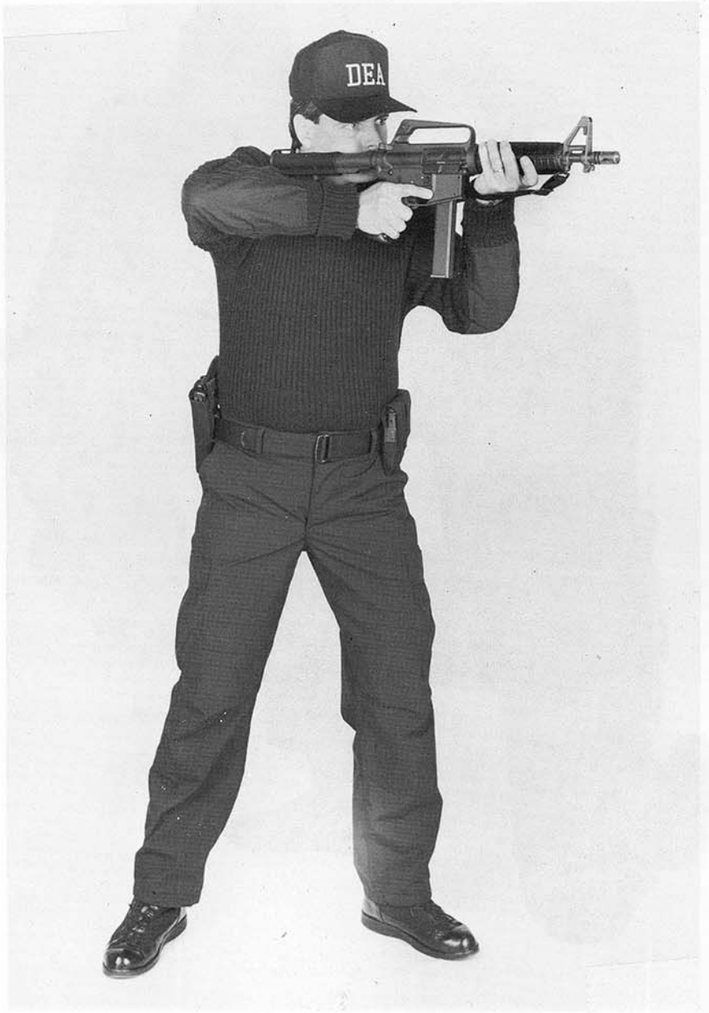
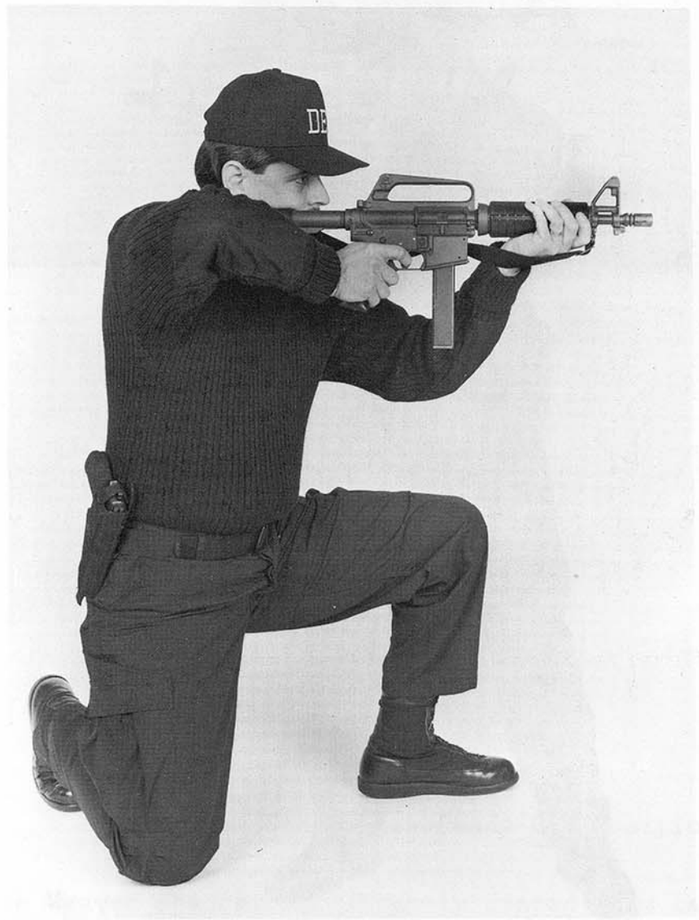


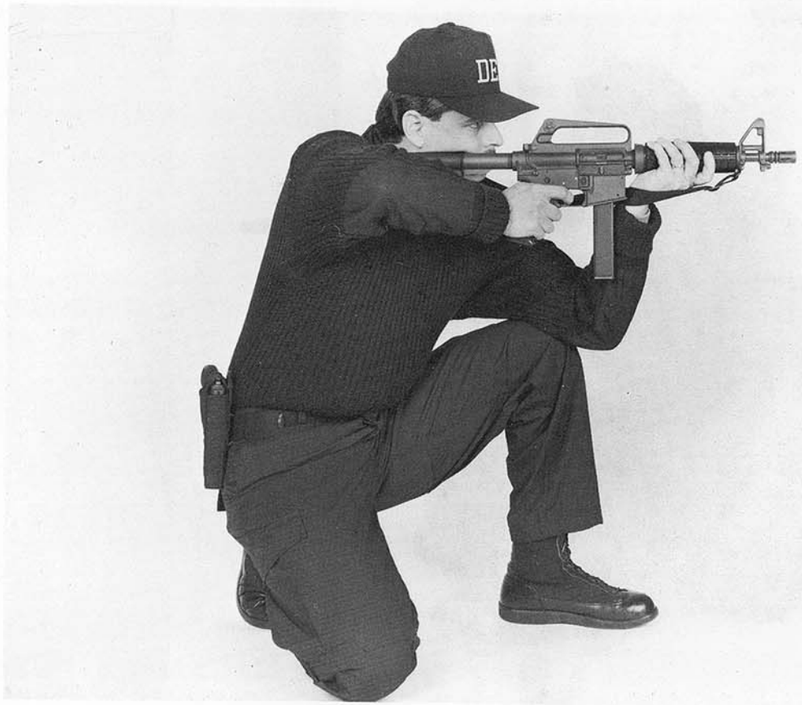
Figure 33. Standing Position

The SMG is mounted in the shoulder, the cheek rests against the buttstock known as the "cheekweld" and the weight is slightly shifted forward with the lead knee bent.



Rifleman Kneeling Position

The shooter drops the strong knee on the deck, either sitting up straight as Figure 34A shows or resting on the heel as Figure 34B shows. If the Rifleman Kneeling Position is utilized (Fig. 34B), the bracing ball of the elbow should not be resting on the knee-cap, but resting either in front or behind the kneecap.



Rifleman Kneeling (Supported Position)

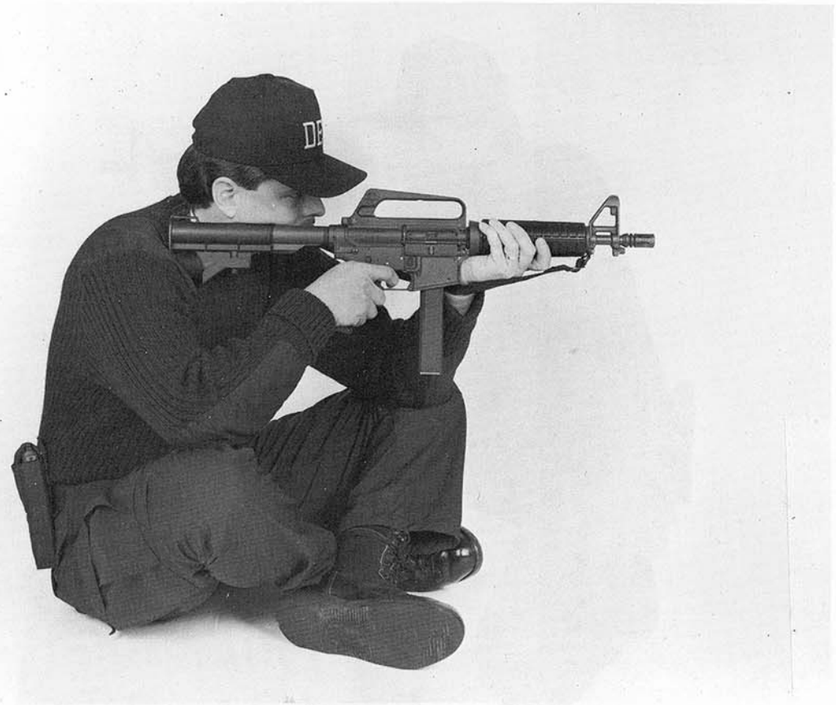


Figure 35. Sitting Position

The shooter sits with legs crossed or bent and elbows resting on the inside of the thighs.

NOTE: Again the ball of the elbows are not resting on the kneecaps.

Since this position may vary slightly from shooter to ser based on their individual build, the emphasis is placed on the proper support of the SMG within the leg area.

Figure 36. Prone Position

This position allows the shooter maximum support and protection. Both elbows are supported on the deck and the strong leg is bent as in Figure 36. This position forces the shooter to keep the buttstock mounted in the shoulder and his body in a straight line from the SMG to the target.

NOTE: This position is not to be confused with the handgun Rollover Prone Position.

Figure 37. Optional SMG - With Noise and Flash Suppressor