## American 180 Rifle

# Instruction Manual

American Arms International, Inc.

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by

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#### PREFACE

### WARNING, READ PREFACE COMPLETELY BEFORE USING WEAPON.

This weapon is a precision instrument which requires proper handling and maintenance to assure the safety of the user. At the same time, it is a rugged weapon, fully tested in every conceivable environment, and if properly maintained, will give many years of satisfactory service.

Proper and safe handling is required of all weapons. This is even more important where an automatic weapon is concerned. Purchasers are presumed to be familiar and experienced with weapons, nevertheless, ensure that everyone who will handle this weapon reads and understands this preface and the manual before attempting to use the weapon.

**WARNING:** If this firearm is carelessly or improperly handled, unintentional discharge could result, and could cause injury, death, or damage to property. This manual gives basic advice on the proper handling and functioning of the American 180 weapon. Safety of the firer and others in range of the weapon depends upon mature compliance with the information given in this manual, and on the adoption and use of accepted safety practices in handling weapons. CUSTODIAN OF THE WEAPON MUST ENSURE THAT ALL WHO HANDLE IT ARE FULLY TRAINED IN ACCEPTED GUN SAFETY PROCEDURES, AND HAVE FAMILIARIZED THEM-SELVES WITH THE CONTENTS OF THIS MANUAL BEFORE USE OF THE WEAPON.

## WARNING

Keep hands and body free from ejection path and ejection port. Expended cartridges exit from the weapon at a high rate and at a high temperature. Firer is advised to wear long sleeve garments when firing the weapon, and to hold the weapon by the hand grips provided. Use only high quality ammunition in this weapon. Quality of ammunition varies and "inexpensive" or poorly made ammunition can cause ammunition malfunction. **NOTICE:** American Arms International, Inc. or any of its affiliates shall not be responsible for injury or death or damage to property resulting from either intentional or accidental discharge of this firearm, or from its function when used for purposes or subjected to treatment for which it was not designed. American Arms International, Inc. will not honor claims involving this firearm which result from carelessness or improper handling, unauthorized adjustment or parts replacement, modification of any type, corrosion, neglect, or the use of ammunition other than original high quality commercially manufactured ammunition in good condition, or any combination of the above. American Arms International, Inc. will not honor claims involving this firearm for any reason or cause when such claims are made by the second or subsequent owner.

This weapon was assembled from quality controlled components, tested and inspected by quality control personnel before leaving the factory. Please read the section of assembly/disassembly instructions before examining the weapon at time of delivery.

We congratulate you on your decision to purchase the American 180 weapon. This weapon represents the finest quality in firearms and we are proud to produce it.

Charles W. Goff, Jr. President

#### CHAPTER 1

#### Section 1: General

The American 180 Submachine Gun is an air cooled, blow-back operated, magazine fed weapon weighing approximately 7.40 pounds with a loaded 177-round capacity drum magazine. The exterior surface of the rear portion of the barrel contains a series of annular flanges which serve to dissipate heat and cool the barrel during firing. The hand of the firer is protected on the underside of the barrel by a highimpact plastic fore grip: A rear grip is also provided. Sling swivels are attached to the barrel and the rear of the receiver for attachment of a rifle sling. By use of a selector pin, the weapon may be fired in either the automatic or semi-automatic mode.

#### Section II: Description

#### 1. BARREL

Diameter of bore: .217 (5.51) Number of grooves: 5 Twist in rifling, uniform, one turn in: 16" Barrel length: 16" or 9"

#### 2. GUN

Overall length: 36%" with long barrel Sight radius: 23½" Weight data: With Laser-Lok and magazine

(177 rounds): 12.651 lbs. With loaded magazine (177 rounds): 7.40 lbs.

#### 3. MISCELLANEOUS DATA

Initial velocity: 1255 feet/second\* Chamber pressure: 23,000 PSI (approximate) Bullet weight: 40 grains Rate of fire on automatic: 1800 rounds per minute\*

\*Varies with brand of ammunition used

#### 4. SIGHTS

Front: fixed blade type Rear: ramp-type elevation 1/2 minute of angle windage Laser-Lok: (Optional) pin-point direct illumination

#### 5. NOMENCLATURE OF COMPONENT PARTS

See Figure 1 and list on following page.

#### **CHAPTER 2**

#### Section I: Assembly and Disassembly

- GENERAL. The submachine gun will function correctly if it is kept clean and is properly oiled and maintained. This chapter explains disassembly, assembly, care and cleaning, stoppages and immediate action. It is a guide for mechanical training and outlines the procedures to be followed.
- 2. NOMENCLATURE. The names of the parts of the submachine gun (figure 1) should be learned during instruction in disassembly and assembly by referring to the illustrations and parts list. Generally, the parts are named for the job they do-i.e. the trigger guard actually guards the trigger from accidental or unintentional discharge. Adequate cleaning and oiling can be accomplished with the weapon broken down into the following groups: Receiver group, Barrel group, and Magazine. Some further disassembly of the magazine is required.





- GUIDES TO FOLLOW IN DIS-ASSEMBLY AND ASSEMBLY. These guides should be followed when disassembling and assembling the American 180:
  - a. Follow the step-by-step explanation.
  - b. Do not attempt to disassemble or assemble the weapon against time.
  - If it is necessary to apply force, do it carefully so that none of the parts are damaged.
  - d. As the weapon is disassembled, line up the parts in the order of their removal. This procedure helps in assembly of the weapon, which is done in reverse order of disassembly.

- PROCEDURE FOR DIS-ASSEMBLY.
  - a. Before disassembling the American 180, make sure that the weapon is CLEAR. Pull back on the magazine catch (figure 2) and remove the magazine. Inspect the feed block and chamber to ensure no ammunition is present in either. Allow the bolt to go forward by squeezing on the trigger. (Note: To pull back [retract] the bolt, pull back on the bolt handle to its rear-most position until it stops, then manually return it forward).
  - b. Detachment of the rear stock is done by pushing in on detent





on top of the stock near end of receiver with your thumb, and simultaneously pulling off the stock (figure 3).

c. Removal of barrel is done by loosening barrel locking screw, and removing the barrel by pressing barrel clip and drawing barrel away from the receiver.

- d. Remove feed block by placing thumb and forefinger on either side of the feed block and pulling up away from receiver (figure 4).
- e. Removal of cover is done by firmly holding the receiver with one hand. With the heel of the other hand, gently tap forward on the rear of the cover. Lift up



Figure 4



Figure 5

on the rear of the cover while moving slightly forward (figure 5).

- f. Remove the cover retaining pin from either side of the receiver (figure 6).
- g. Remove the bolt by drawing back the bolt handle far enough to get one finger on the face of the bolt; by pulling back and up with this finger the bolt will leave the receiver (figure 7).
- h. Removal of the trigger housing: depress the stop pin by inserting a steel punch into the hole and pressing (figure 8). Simultaneously, the trigger housing has to be drawn back and the sear positioned with the forefinger so that it does not interfere with the removal of the trigger housing (figure 9).
- ASSEMBLING THE AMERICAN 180. Assembly is done in reverse order of disassembly.
- OPERATION CHECK. With the American 180 fully assembled and unloaded, and the safety rotated

forward into firing position (figure 10) the following operation checks may be made:

- a. Push the selector to the left. With the trigger released, pull the bolt handle sharply to the rear. The bolt should be engaged and held by the sear.
- b. Squeeze and maintain pressure on the trigger. With the trigger depressed, the bolt will go forward. Pull the bolt to the rear, the sear should again engage the bolt while the trigger is depressed.
- c. With the trigger released, pull the bolt handle to the rear, cocking the weapon. Push the selector to the right (automatic) position. The bolt should not move until the trigger is squeezed.
- d. With the selector in the automatic position, pull the bolt handle to the rear; hold the trigger back. The bolt should move back and forth freely, not being engaged by the sear.
- Test the safety with the selector in both the semi-automatic and the automatic positions.







Figure 10

#### Section II: How the American 180 S.M.G. Functions

- 1. GENERAL.
  - a. By disassembling and assembling the American 180 you should become familiar with the parts. The next step is to learn how these parts function. If the user understands how the American 180 works,

he will be able to keep it in operating condition and reduce any stoppages which might occur during firing. This knowledge will give the user confidence in his weapon.

 Each time a cartridge is fired, the parts inside the American 180 function in a given order. This is known as the cycle of operation.

- c. The cycle of operation of small arms is broken down into eight basic steps. However, in the American 180, two of these steps—locking and unlocking—do not occur. The six basic steps of the American 180 are listed below in the proper sequence, although more than one step may be occurring at the same time.
  - (1) Feeding—the placing of a cartridge in the feed block, in front of the bolt, so it can be chambered. This action takes place in the magazine generally, but can be accomplished manually.
  - (2) Chambering—moving the cartridge forward until it is properly seated in the chamber.
  - (3) Firing—the striking of the primer of the cartridge by the firing pin to ignite the cartridge.
  - (4) Extraction—removal of the empty cartridge case from the chamber.
  - (5) Ejection—removal of the empty cartridge case from the receiver.
  - (6) Cocking—retraction of the bolt far enough so that it will pick up a new cartridge and, as it moves forward, will have enough energy to fire the new cartridge.
- 2. FUNCTION OF THE AMERICAN 180. As the bolt is moved back to a cocked position, the driving spring is compressed, and the sear engages the sear notch of the bolt. When the trigger is pressed, the sear releases the bolt, which is driven forward by the drive spring. During this forward movement, the bolt pushes a cartridge from the feed block into the chamber. The bolt continues forward and fires the cartridge. When the car-

tridge is fired the chamber pressure forces the bullet out of the muzzle of the barrel. At the same time, this pressure overcomes the forward movement of the bolt and starts it to the rear. By the time the bolt and empty cartridge case have moved to the rear far enough to open the rear end of the chamber, the bullet has left the barrel and the chamber pressure has decreased. (In the American 180, the chamber pressure is relatively low and the bolt is relatively heavy. thus eliminating the need for the steps of locking and unlocking.) During the rearward movement of the bolt, the empty cartridge case is extracted and ejected, the driving spring is compressed, and the next round in the magazine moves into the paws of the feed block. The rearward movement of the bolt is stopped by the compressed driving spring.

- 3. OPERATION OF THE TRIGGER AND SEAR.
  - a. When the trigger is pressed, it rotates around the trigger pin and forces the sear to rotate around the sear pin, causing the sear nose to be moved down and away from the sear notch in the bottom of the bolt. This allows the bolt to move forward under the action of the expanding drive spring.
  - b. Automatic fire—With the selector pushed to the right (automatic position), if the trigger is held to the rear, the nose of the sear cannot engage the sear notch of the bolt. The bolt will continue to move forward and backward, firing the weapon automatically until the trigger is released.
  - c. Semi-automatic fire—With the selectorpushed to the left (semiautomatic position), when the trigger is pulled, the nose of the sear disengages from the sear notch on the bottom of the bolt, allowing the bolt to

move forward. At the same time under the action of the sear spring, the sear is moved back into position to engage the bolt and hold it to the rear until pressure is released from the trigger.

#### 4. FEEDING.

- a. When a loaded magazine is placed on the weapon, the magazine catch holds the magazine in position. The bottom cartridge is held by the feed paws of the feed block through the action of the magazine spring and follower. When the bolt moves forward, it removes the round from the feed block.
- b. When the bolt moves to the rear and clears the feed block, the next cartridge is placed in the feed block by the action of the magazine spring and follower.
- 5. CHAMBERING. The bolt, moving forward under the action of the expanding drive spring, pushes the cartridge out of the feed block. The bullet ramp of the feed block aids in aligning the cartridge with the chamber. As the bolt continues forward, the cartridge is pushed into the chamber by the front of the bolt. The base of the cartridge protrudes slightly from the chamber when the cartridge is fully seated.
- 6. FIRING. After the cartridge is chambered, the bolt continues to move forward. The extractor springs out under and snaps onto the rim of the cartridge. At the same time, the fixed firing pin strikes the primer of the cartridge, firing the cartridge. At the instant of firing the cartridge is enclosed in the chamber, and the rim of the cartridge is engaged by the extractor.

- 7. EXTRACTION. When the cartridge is fired, the gas pressure forces the bullet out of the muzzle and the empty cartridge case out of the chamber, pushing the bolt to the rear. The extractor holds the base of the cartridge case against the bolt. The bolt continues moving to the rear, carrying the empty cartridge case with it. Extraction is completed when the front of the cartridge case clears the rear of the chamber. If the cartridge is not fired, the extractor will remove it from the chamber when the bolt is manually pulled to the rear.
- EJECTION. As the bolt moves to the rear, the empty cartridge case is held by the extractor. When the front of the cartridge case clears the rear of the chamber, with the extractor serving as a pivot point, the cartridge case is deflected out of the ejection opening in the bottom of the receiver.

#### 9. COCKING.

- a. Semi-automatic—As the bolt moves to the rear, the drive spring is compressed, the nose of the sear will move up. As the bolt moves forward, the sear nose will engage in the sear notch and hold the bolt to the rear in a cocked position. The trigger must be released and pulled to fire again.
- b. Automatic—If the trigger has not been released, the bolt will continue forward and the cycle of operation will be repeated.
- OPERATION OF SAFETY. The American 180 has a positive safety that blocks the sear when rotated to the safe position.



#### Section III: Operations

- GENERAL. Before firing the American 180, the firer must know how to fill the magazine; must know how to load, fire, and unload the weapon; and must observe safety precautions. These points are covered in this section.
- TO FILL MAGAZINE. CAUTION: Before attempting to fill the magazine, all spring tension should be released from the magazine winder mechanism, or,

if the magazine is partially filled, the magazine winding brake should be engaged.

- Press your thumbs upon the clips of the magazine winding device and catch it with your fingers (figure 11).
- b. Press the lock on the base and turn the magazine base until you can see the filled chamber through the loading slot of the base (figure 12). The marking arrow visible on the magazine should be positioned below the narrow protrusion of the base.



Figure 12



- c. Lay the first cartridge in the slot on the base of the magazine (figure 13). Press the lock of the magazine and slowly rotate the magazine base. The cartridge will go into the magazine without force of any kind. Repeat this process for 59 rounds.
- d. After having loaded 59 rounds, you have to turn the loading slot over the full chamber. (Then you will feel a resistance, called step resistance.) The loading slot will open once again with an "empty" chamber, and repeat the whole process. Loading the second and the third layers is performed just like the first one.

CAUTION: Do not use force when inserting rounds. Do not skip a chamber. It is advisable to always load full layers of ammunition, either load 59 rounds, 118 rounds, or the full limit of 177 rounds. This prevents the magazine from "dropping" loose rounds when the magazine is installed or removed.

Note: It is advisable to put the magazine on a non-slip surface

when loading. The magazine also can be loaded by means of a special loading device.

e. Installation of the magazine winding device is done by pushing the clips of the magazine winding device into the holes of the base until they lock in place (figure 14).

CAUTION: A winding device improperly installed may come off during firing and damage the spring.

#### 3. TO LOAD THE AMERICAN 180.

a. Insert the wide protrusion of the magazine base into the magazine guide of the barrel and press the narrow protrusion tightly until the magazine snaps into place (figure 15).

Note: Pulling back the magazine clip with your thumb facilitates the installation of the magazine.

b. Winding the magazine. Wind up clockwise until it stops, about 3 ¼ turns for a full magazine (figure 16). Winding device stop lever must not be under tension.





CAUTION: If magazine is only partially filled, do not wind completely. Wind only 1¼ turns for each (59 rounds) layer.

c. Pull back on the bolt handle until it stops, and push it forward into its forward most position. The American 180 is now ready to fire.

#### 4. UNLOADING.

- In order to remove a partial or full magazine, the magazine winding device stop lever must be placed in the position marked "F" (outside away from center).
- b. Pull back on magazine clip and lift off magazine. Inspectthe chamber (look and feel).

#### 5. SAFETY PRECAUTIONS. Safety cannot be overemphasized.

- a. Never consider a weapon to be safe.
  - b. Never playfully or carelessly point a weapon at anyone.
  - c. Load the weapon only when ready to fire.
- d. Take safety off only when weapon is raised to fire.
- e. Never leave any obstruction in the muzzle or base.

#### Section IV: Malfunction, Stoppages and Immediate Action

#### 1. GENERAL.

- A malfunction is a failure of the weapon to function satisfactorily.
- b. A stoppage is any unintentional interruption in the cycle of operation. If the American 180 stops firing through no fault or intention of the firer, or an attempt to fire is made and the weapon fails to fire, then a stoppage has occurred. The firer must be able to reduce a stoppage and continue firing.
- c. Immediate action is the prompt action taken by the firer to reduce a stoppage without considering the cause.

#### 2. MALFUNCTIONS.

- a. Failure to function freelysluggish operation of the American 180 is usually due to excessive friction caused by dirt, lack of proper lubrication, burred or dented guide rod or dented or bent receiver.
- b. Uncontrolled automatic fire (runaway gun)—uncontrolled automatic fire is fire that continues after the trigger has been released. This may be caused by

#### CAUSE OF STOPPAGES

Stoppage	Cause	How to Reduce
Failure to Feed	Dirty or dented magazine	Replace magazine
	Weak or broken magazine spring	Replace magazine
	Deformed ammunition	Replace ammunition
	Worn or broken magazine catch	Replace catch
Failure to Chamber	Dirty chamber	Clean chamber
	Obstruction in chamber	Remove
	Weak drive spring	Replace spring
Failure to Fire	Defective ammunition	<b>Replace</b> ammunition
	Defective firing pin	Replace bolt
Failure to Extract	Weak driving spring	Replace driving spring
	Broken extractor	Replace extractor
Failure to Eject	Not likely to occur	
Failure to Cock	Worn sear	Replace sear
	Worn sear notch	Replace bolt
	Bent guide rod	Replace or straighten rod
	Dirt behind cocking knob	Clean cocking knob

the following:

- (1) Worn sear nose.
- (2) Worn sear notch.
- (3) Broken sear.
- (4) Short recoil.

In case of uncontrolled automatic fire, keep the gun pointed at the target.

#### 3. STOPPAGES.

- a. Stoppages are classified in accordance with the six steps in, the cycle of operation. Stoppages are usually the result of faulty ammunition or improper care of the gun. A knowledge of how the gun functions will enable the firer to classify and correct the stoppage. Listed below are the causes of stoppages which might occur.
  - Failure to Feed—cartridge from the magazine is not positioned in the feed block in front of the bolt. Most

stoppages of submachine guns are failure to feed, caused by defective or dirty magazines.

- (2) Failure to Chambercartridge from the feed block is not seated in the chamber.
- (3) Failure to Fire—the cartridge is chambered but does not fire.
- (4) Failure to Extract—if the cartridge fires, the chamber pressure will usually push the empty cartridge case out of the chamber. If the cartridge case is not completely removed from the chamber and the bolt is retracted, then there is a failure to extract. This stoppage seldom occurs.
- (5) Failure to Eject—the empty cartridge case is not ejected from the receiver.
- (6) Failure to Cock—if the bolt is retracted and is not held by the sear, or if during

firing the bolt does not move to the rear far enough to clear the cartridge in the feed block, the weapon has failed to cock.

- b. Common stoppages—the two most common stoppages are:
  - Failure to Feed—usually caused by dirty magazine, or from a magazine which is not wound properly, or from a damaged magazine.
  - (2) Failure to Fire—usually caused by defective ammunition.
- Cause of stoppages—the chart on the preceding page lists common causes of various stoppages.
- d. Prevention of stoppagesperiodic inspection and proper care and cleaning will reduce the possibility of the American 180 having stoppages.

#### 4. IMMEDIATE ACTION.

a. As the first step in clearing a stoppage, pull back on the bolt handle and return it to its forward most position. Inspect the chamber from the bottom of the weapon, through the ejection port for the presence of jammed ammunition. This is usually caused by defective ammunition. Place the magazine winding brake in the "F" position, remove the magazine and clear the jammed rounds manually from the chamber area. Replace the magazine, remove the magazine winding brake, pull the bolt handle to the rear and return it to the 'closed position and again attempt to fire.

b. If a failure to fire occurs, again, move the magazine winding device to the brake "F" position. Remove the magazine and inspect the weapon in order to locate and clear the stoppage. Replace the magazine, move the winding device lever to the center and continue to fire.

#### Section V: Care and Cleaning

- DEPENDABILITY AND ACC-URACY. The American 180 will function under conditions that would cause some automatic weapons to fail. However, its continued dependability and accuracy depend on its receiving proper care and cleaning. The chamber and bore, receiver and moving parts must be kept clean and very lightly oiled. The same care must be given the magazine.
- THE FREQUENCY OF CLEAN-ING. The American 180 requires thorough cleaning after 2000 rounds. For this you can disassemble the weapon as described. Prior to reassembling, all functional parts have to be very lightly oiled.

## AMERICAN 180 PARTS LIST FULL AUTOMATIC

#### BARREL ASSEMBLY

Part Number	Description
1-01	Barrel
1-02	Front Sight
1-03	Sling Ring
1-04	Barrel Band
1-06	Screw
1-07	Nut
1-09	Set Screw for Front Sight
1-10	Washer
1-12	Slot Nut

#### HOUSING ASSEMBLY

2-01	Top Strap Retaining Pin	
2-03	Cocking Handle	
2-04	Safety	
2-05	Bolt Spring Guide	
2-06	Screw for Barrel Holder	
2-07	Selector Pin	
2-08	Dowel Retaining Pins for Feed Block (2)	
2-09	Steel Sleeve for Trigger Assembly Stop	
2-10	Steel Sleeve for Stock Retaining Pin	
2-11	Selector Retaining Pin	
2-12	Stop Pin for Trigger Assembly	
2-13	Bolt	
2-14	Barrel Retaining Lug	
2-15	Sear	
2-16	Cocking Knob Bolt	
2-17	Magazine Retainer	
2-18	Receiver Housing	
2-19	Top Strap Cover	
2-21	Feed Block (Complete)	
2-23	Magazine Retainer Release	
2-24	Cocking Knob Dust Cover	
2-25	Extractor	
2-26	Rear Sling Ring	
2-27	Bolt Spring	
2-29	Selector Retaining Pin Spring	
2-30	Spring for Barrel Retaining Lug	
2-31	Spring for Extractor	
2-32	Spring for Trigger Assembly Stop Pin	
2-33	Spring for Magazine Retainer	



Part Number	Descriptio
r art reuniber	Descript

- 2-34 Safety Tension Spring
- 2-35 Set Screw for Cocking Knob
- 2-36 Screw for Rear Sling Ring
  - 2-38 Sear Screw
- 2-39 Barrel Retaining Lug Pin
- 2-40 Extractor Retaining Pin
- 2-42 Safety Retaining Pin
- 2-43 Magazine Retainer Pin
- 2-44 Retainer Spring Pins for Feed Block (2)
- 2-45 Safety Bearing
- 2-47 Cocking Knob Lock Washer
- 2-49 Spring Washer

#### TRIGGER HOUSING ASSEMBLY

- 3-01 Trigger Housing
- 3-02 Trigger
- 3-03 Trigger Spring
- 3-04 Sear Return
- 3-05 Grip Retaining Bolt
- 3-06 Trigger Retaining Pin
- 3-07 Trigger Return Plunger
- 3-08 Sear Bearing
- 3-09 Grip Retaining Bolt Washer

#### STOCK ASSEMBLY

- 4-01 Stock Release Pin
- 4-03 Stock Mounting Plate
- 4-04 Fore-stock
- 4-05 Trigger Assembly Stock
- 4-06 Shoulder Stock
- 4-08 Butt Pad
- 4-09 Stock Retaining Spring
- 4-10 Screws for Stock Mounting Plate (2)
- 4-11 Mounting Plate Retaining Screw
- 4-12 Washer for Mounting Plate Retaining Screw

#### SIGHT ASSEMBLY

- 5-01 Rear Sight (Complete)
- 5-02 Sight Mounting Rail
- 5-03 Sight Retaining Screw.
- 5-04 Sight Rail Mounting Screws (2)
- 5-05 Sight Rail Mounting Screw Washers (2)
- 5-06 Sight Retaining Screw Washer

#### SHORT BARREL ASSEMBLY

- 8-01 Short Barrel
- 8-02 Front Sight
- 8-03 Set Screw for Front Sight
- 8-04 Vertical for Fore-Stock
  - 8-05 Retaining Screw for Vertical Fore-Stock





