



# Aeroprecision

C.O.P. Kit Manual

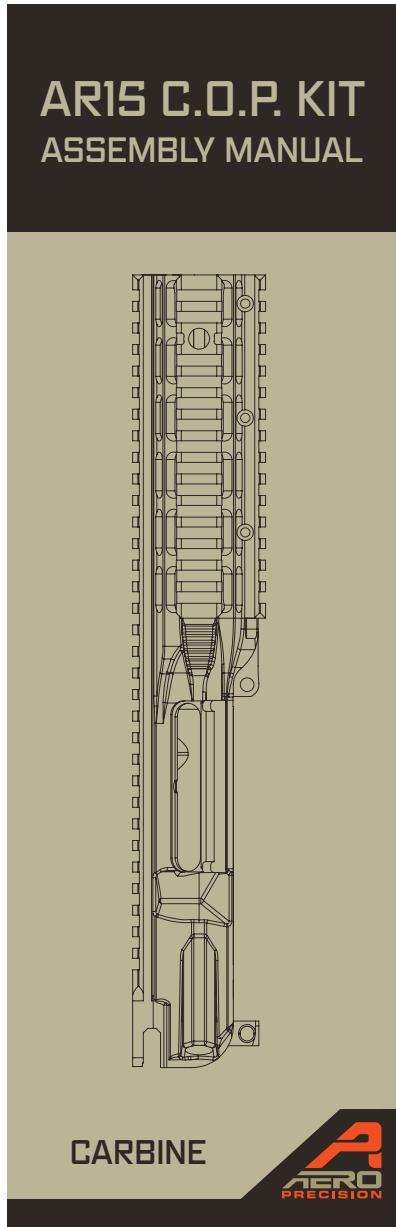
Proof 6

09 // 03 // 2013

RUSTY GEORGE  
CREATIVE



Carbine



Front Panel



Back Panel



## TOOLS REQUIRED

### INCLUDED IN KIT

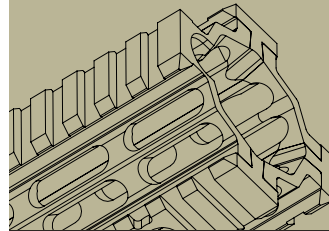
- C.O.P. Barrel Wrench
- T-25 Torx Driver

### NOT INCLUDED IN KIT

- Upper Receiver Vise Blocks
- Allen Wrenches
- $\frac{3}{4}$ " Wrench  
*For flash hider removal/installation*
- $\frac{1}{8}$ " Punch  
*For removal/installation of pinned front sight bases*
- G.I. Armorer's Wrench (Commercial)  
*Only needed for models with 2-piece handguards*
- Torque Wrenches (Commercial)
- Strap Wrench (Commercial)  
*Only needed for models with free float handguards*
- Free Float Barrel Nut Wrench T  
*This wrench may be specific to your handguard  
Only needed for models with free float handguards*

## KIT INSTALLATION PROCEDURE

This procedure assumes that you will be converting an AR-15 Carbine to utilize Aeroprecision's C.O.P. Upper Kit. Disassembly and reassembly of the AR-15 beyond that explained in the owner's manual will be required. See the AR-15 Owner's Manual for basic disassembly and reassembly procedures. Additional disassembly and assembly are explained herein.



## KIT COMPONENTS

| DESCRIPTION   | PART NO./QTY |
|---|--------------|
| Carbine Upper Receiver                                  | AP150200 (1) |
| Carbine Handguard Panel                                 | AP150300 (2) |
| Carbine Blank Rail Insert                               | AP150400 (2) |
| Carbine Blank Rail Insert<br><i>w/ Sling Socket</i>     | AP150500 (1) |
| Carbine Picatinny Rail Insert                           | AP150600 (2) |
| Carbine Picatinny Rail Insert<br><i>w/ Sling Socket</i> | AP150700 (1) |
| Carbine Combination Rail Insert                         | AP150800 (2) |
| C.O.P. Barrel Nut                                       | AP100000 (1) |
| C.O.P. Extended Port Door Pin                           | AP100100 (1) |
| C.O.P. Barrel Wrench                                    | AP100200 (1) |
| AR-15 Port Door (installed)                             | (1)          |
| Port Door Spring (installed)                            | (1)          |
| Forward Assist Assembly (installed)                     | (1)          |
| 8-32 x 3/8 Torx Drive Socket                            | (1)          |
| Head Cap Screws   | (20)         |
| T-25 Torx Screw Driver                                  | (1)          |

## APPLICABILITY OF KIT

Carbine kits can be used on most AR-15 Carbines with carbine length (7") gas systems. The Upper can be used with other barrel length and gas system length combinations, but there are few limiting factors to keep in mind. Only low-profile gas-blocks will fit under the handguard, thus a shorter than carbine gas system will require one. Gas piston systems will not fit under the handguard. Aside from these two considerations, any caliber conversion or odd barrel combination that functions well on a standard flattop upper should work equally well on the C.O.P. Upper.

### WARNING

INSTALLATION OF THE C.O.P. UPPER KIT REQUIRES REMOVAL OF THE MUZZLE BRAKE OR FLASH SUPPRESSOR. PINNED ON, OR PINNED AND WELDED ON, MUZZLE BRAKES ARE NOT USER REMOVABLE. PINNED AND WELDED MUZZLE BRAKES ARE FACTORY REMOVABLE ONLY. PINNED MUZZLE BRAKES ARE NOT REMOVABLE AT ALL. ONLY SCREW-ON FLASH SUPPRESSORS ARE USER REMOVABLE.

NEXT STEP:  
REMOVAL OF ORIGINAL  
AR-15 COMPONENTS

## Interior Panels



# REMOVAL OF ORIGINAL AR-15 COMPONENTS

**WARNING**  
ALWAYS ASSUME ALL FIREARMS ARE LOADED. ANYTIME YOU HANDLE A FIREARM, YOU SHOULD IMMEDIATELY INSPECT IT TO ASSURE THAT IT IS COMPLETELY UNLOADED.

## 1 STEP ONE

**REMOVE** the magazine by pressing the magazine catch button and pulling the magazine down and out of the receiver. Remove the magazine and all sources of ammunition from the work area.

**CAUTION**  
THE MAGAZINE WILL FALL FREE WHEN THE MAGAZINE CATCH IS PRESSED. DON'T ALLOW THE MAGAZINE TO FALL ONTO A HARD SURFACE. DOING SO MAY DAMAGE THE MAGAZINE.

## 2 STEP TWO

**EXTRACT** the cartridge (if any) from the chamber. To extract a cartridge pull the bolt carrier assembly fully to the rear. If there is a cartridge in the chamber, it should be extracted and ejected from the firearm.

**LOOK** into the chamber to assure that it does not contain a cartridge.

**WARNING**  
THE STEPS IN UNLOADING YOUR FIREARM MUST BE FOLLOWED IN THE EXACT ORDER GIVEN. THE MAGAZINE MUST BE REMOVED BEFORE THE CHAMBER IS INSPECTED. IF YOU CLEAR THE CHAMBER BEFORE REMOVING THE MAGAZINE, YOU MAY REMOVE ONE CARTRIDGE FROM THE CHAMBER AND THEN, UPON CLOSING THE BOLT, CHAMBER ANOTHER CARTRIDGE FROM THE MAGAZINE. THE FIREARM WILL STILL BE LOADED. REMEMBER THAT A CARTRIDGE IN THE CHAMBER CAN STILL BE FIRED EVEN AFTER THE MAGAZINE IS REMOVED.

## 3 STEP THREE

**PLACE** the safety selector on "SAFE."

## 4 STEP FOUR

**REMOVE** the upper receiver assembly from the lower receiver assembly as directed in your owner's manual. Then remove the bolt carrier assembly and charging handle from the upper receiver assembly.

**WARNING**  
INSTALLATION OF THE C.O.P. UPPER KIT REQUIRES REMOVAL OF THE MUZZLE BRAKE OR FLASH SUPPRESSOR. PINNED ON, OR PINNED AND WELDED ON, MUZZLE BRAKES ARE NOT USER REMOVABLE. PINNED AND WELDED MUZZLE BRAKES ARE FACTORY REMOVABLE ONLY. PINNED MUZZLE BRAKES ARE NOT REMOVABLE AT ALL. ONLY SCREW-ON FLASH SUPPRESSORS ARE USER REMOVABLE.

## 5 STEP FIVE

**REMOVE** the flash hider using a 3/4" wrench.

## 6 STEP SIX

**IF** the firearm has two-piece handguards, remove them in accordance with the owner's manual.

## 7 STEP SEVEN

**LOOK** at the front sight base/gas block. If it is pinned onto the barrel, drive out the two pins with a 1/8" punch. If it is held to the barrel with screws, loosen the retaining screws. Then slide/tap the base and gas tube assembly forward until it comes free.

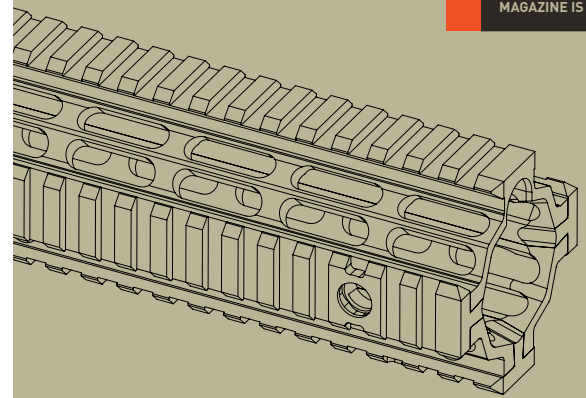
## 8 STEP EIGHT

**CLOSE** the ejection port door. Clamp the upper receiver into a vise using the universal vise blocks. Be careful to use the minimum amount of clamping force needed to retain the upper receiver. If your carbine has a free float handguard, use a strap wrench to grasp the handguard lock ring at the front of the receiver. Loosen the ring by rotating it counterclockwise as viewed from the butt and pull forward on the handguard at the same time. Wiggling the handguard slightly as it loosens may help.

## 9 STEP NINE

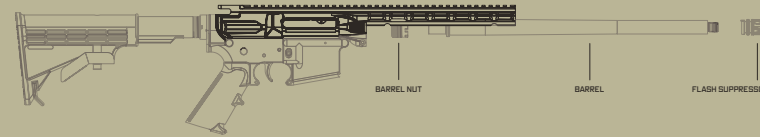
**REMOVE** the handguard lock ring, handguard, barrel nut, and barrel from the receiver. If your firearm had two piece handguards, use the G.I. Armorer's wrench to remove the barrel nut. If it had a free float handguard, use the free float handguard barrel nut wrench.

**NEXT STEP:**  
INSTALLATION OF C.O.P. UPPER KIT





## INSTALLATION OF ARIS COP KIT



BARREL ASSEMBLY DIAGRAM

SEE "KIT COMPONENTS" FOR ALL PARTS INCLUDED.

### STEP ONE: KIT PREPARATION

#### 1 STEP ONE

**GREASE** the threads in the C.O.P. upper receiver lightly with heavy duty grease. Install the barrel nut onto the barrel. Install the barrel and barrel nut to the upper receiver. Torque the barrel nut onto the upper receiver to 55 ft-lb.

**NOTE:** THE BARREL WRENCH MUST BE FULLY SEATED ON THE BARREL NUT LUGS. FAILURE TO DO SO CAN, IN RARE CASES, RESULT IN WRENCH BREAKAGE! THE BARREL NUT DOES NOT NEED TO BE INDEXED TO CLEAR THE GAS TUBE.

#### 2 STEP TWO

If your firearm originally had two-piece handguards, dispose of the original handguard cap and install the gas block spacer in its place.

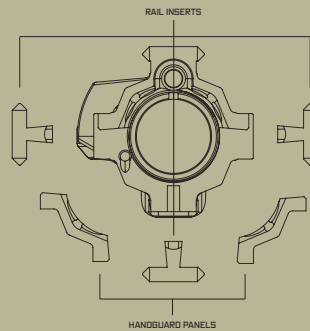
#### 3 STEP THREE

**INSTALL** the front sight base/gas block and gas tube assembly onto the barrel by gently sliding/tapping it into place. The front sight base/gas block must be vertical and aligned with the centerline of the upper receiver. Lock it in place using the screws torqued to 65 in-lb, or replace the two pins.

#### 4 STEP FOUR

**REINSTALL** the flash hider washers and flash suppressor. Using a "W" wrench, torque the flash suppressor until its flats are vertical.

### STEP TWO: KIT CONSTRUCTION



HANDGUARD ASSEMBLY DIAGRAM

#### 1 STEP ONE

Your kit comes with an assortment of rail inserts. The blank rail inserts are intended for situations where a comfortable grip and clean lines are desired. The picatinny rail inserts are intended for accessory mounting. The combination rails are a compromise between the two. A sling swivel socket equipped version of each style is also included for sling use; these inserts may be used on the left or right side and with the socket toward the front or rear of the handguard.

To install the lower half of the handguard, select the rail insert for the bottom of the handguard and hold the insert and handguard panels arranged so that the edge of each handguard panel with the three threaded holes is toward the rail insert. Install and lightly tighten the screws.

**CAUTION:** DO NOT TORQUE THE SCREWS ABOVE 40 IN LBS. DOING SO MAY RESULT IN STRIPPING THE SCREW HOLES.

#### 2 STEP TWO

**SELECT** the rail inserts for the remaining two sides of the handguard. Install and lightly tighten the remaining screws. Then torque all screws in an alternating pattern to 25 in-lb.

#### 3 STEP THREE

**CLEAN, LUBE AND FUNCTION CHECK** your mid-length in accordance with the Owner's Manual. Test fire your mid-length to assure that you have reassembled it correctly.

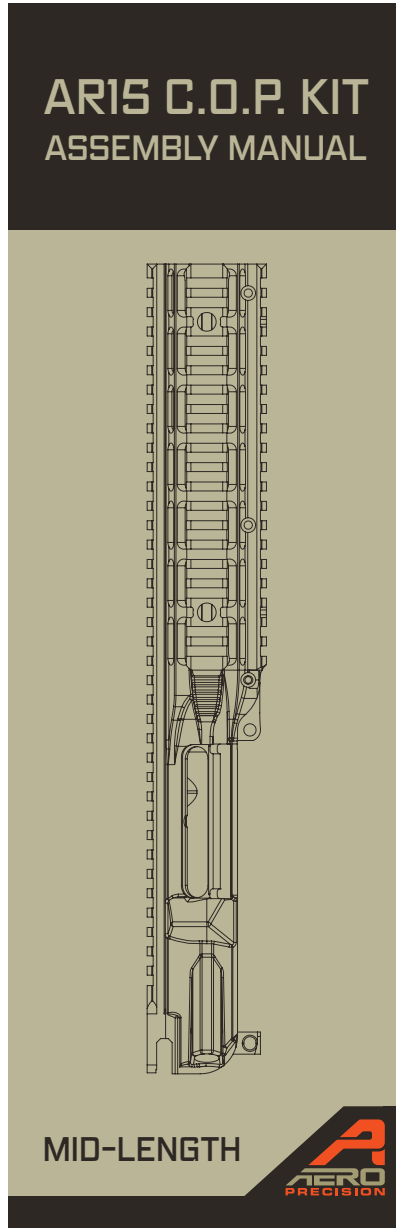
**WARNING:** ALWAYS TEST FIRE YOUR WEAPON BEFORE USING IN AN OPERATIONAL ENVIRONMENT.

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Mid-Length



Front Panel



Back Panel





## TOOLS REQUIRED

### INCLUDED IN KIT

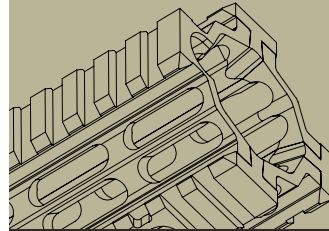
- C.O.P. Barrel Wrench
- T-25 Torx Driver

### NOT INCLUDED IN KIT

- Upper Receiver Vise Blocks
- Allen Wrenches
- 3/4" Wrench  
*For flash hider removal/installation*
- 1/8" Punch  
*For removal/installation of pinned front sight bases*
- G.I. Armorer's Wrench (Commercial)  
*Only needed for models with 2-piece handguards*
- Torque Wrenches (Commercial)
- Strap Wrench (Commercial)  
*Only needed for models with free float handguards*
- Free Float Barrel Nut Wrench T  
*This wrench may be specific to your handguard  
Only needed for models with free float handguards*

## KIT INSTALLATION PROCEDURE

This procedure assumes that you will be converting an AR-15 mid-length to utilize Aeroprecision's C.O.P. Upper Kit. Disassembly and reassembly of the AR-15 beyond that explained in the owner's manual will be required. See the AR-15 Owner's Manual for basic disassembly and reassembly procedures. Additional disassembly and assembly are explained herein.



## KIT COMPONENTS

| DESCRIPTION  | PART NO./QTY |
|--|--------------|
| Mid-Length Upper Receiver                                  | AP160200 (1) |
| Mid-Length Handguard Panel                                 | AP160300 (2) |
| Mid-Length Blank Rail Insert                               | AP160400 (2) |
| Mid-Length Blank Rail Insert<br><i>w/ Sling Socket</i>     | AP160500 (1) |
| Mid-Length Picatinny Rail Insert                           | AP160600 (2) |
| Mid-Length Picatinny Rail Insert<br><i>w/ Sling Socket</i> | AP160700 (1) |
| Mid-Length Combination Rail Insert                         | AP160800 (2) |
| Mid-Length Flat Rail <i>w/ Tab</i>                         | AP160900 (1) |
| Mid-Length Picatinny Rail <i>w/ Tab</i>                    | AP161000 (1) |
| Mid-Length Combination Rail <i>w/ Tab</i>                  | AP161100 (1) |
| C.O.P. Barrel Nut  | AP100000 (1) |
| C.O.P. Extended Port Door Pin                              | AP100100 (1) |
| C.O.P. Barrel Wrench                                       | AP100200 (1) |
| AR-15 Port Door (installed)                                | (1)          |
| Port Door Spring (installed)                               | (1)          |
| Forward Assist Assembly (installed)                        | (1)          |
| 8-32x3/8 Torx Head Cap Screws                              | (20)         |
| T-25 Torx Screw Driver                                     | (1)          |

## APPLICABILITY OF KIT

Mid-Length kits can be used on most AR15 Carbines with mid-length (9") gas systems. The Upper can be used with other barrel length and gas system length combinations but there are a few limiting factors to keep in mind. Only low-profile gas blocks will fit under the handguards, thus a shorter than mid-length gas system will require one. Gas piston systems will not fit under the handguards. Aside from these two considerations, any caliber conversion or odd barrel combination that functions well on a standard flattop upper should work equally well on the C.O.P. Upper.

### WARNING

INSTALLATION OF THE C.O.P. UPPER KIT REQUIRES REMOVAL OF THE MUZZLE BRAKE OR FLASH SUPPRESSOR. PINNED ON, OR PINNED AND WELDED ON, MUZZLE BRAKES ARE NOT USER REMOVABLE. PINNED AND WELDED MUZZLE BRAKES ARE FACTORY REMOVABLE ONLY. PINNED MUZZLE BRAKES ARE NOT REMOVABLE AT ALL. ONLY SCREW-ON FLASH SUPPRESSORS ARE USER REMOVABLE.

NEXT STEP:  
REMOVAL OF ORIGINAL  
AR-15 COMPONENTS

# Interior Panels



# REMOVAL OF ORIGINAL AR-15 COMPONENTS

WARNING

ALWAYS ASSUME ALL FIREARMS ARE LOADED. ANYTIME YOU HANDLE A FIREARM, YOU SHOULD IMMEDIATELY INSPECT IT TO ASSURE THAT IT IS COMPLETELY UNLOADED.

1

## STEP ONE

**REMOVE** the magazine by pressing the magazine catch button and pulling the magazine down and out of the receiver. Remove the magazine and all sources of ammunition from the work area.

CAUTION

THE MAGAZINE WILL FALL FREE WHEN THE MAGAZINE CATCH IS PRESSED. DON'T ALLOW THE MAGAZINE TO FALL ONTO A HARD SURFACE. DOING SO MAY DAMAGE THE MAGAZINE.

2

## STEP TWO

**EXTRACT** the cartridge (if any) from the chamber. To extract a cartridge pull the bolt carrier assembly fully to the rear. If there is a cartridge in the chamber, it should be extracted and ejected from the firearm.

**LOOK** into the chamber to assure that it does not contain a cartridge.

WARNING

THE STEPS IN UNLOADING YOUR FIREARM MUST BE FOLLOWED IN THE EXACT ORDER GIVEN. THE MAGAZINE MUST BE REMOVED BEFORE THE CHAMBER IS INSPECTED. IF YOU CLEAR THE CHAMBER BEFORE REMOVING THE MAGAZINE, YOU MAY REMOVE ONE CARTRIDGE FROM THE CHAMBER AND THEN, UPON CLOSING THE BOLT, CHAMBER ANOTHER CARTRIDGE FROM THE MAGAZINE. THE FIREARM WILL STILL BE LOADED. REMEMBER THAT A CARTRIDGE IN THE CHAMBER CAN STILL BE FIRED EVEN AFTER THE MAGAZINE IS REMOVED.

3

## STEP THREE

**PLACE** the safety selector on "SAFE."

4

## STEP FOUR

**REMOVE** the upper receiver assembly from the lower receiver assembly as directed in your owner's manual. Then remove the bolt carrier assembly and charging handle from the upper receiver assembly.

WARNING

INSTALLATION OF THE C.O.P. UPPER KIT REQUIRES REMOVAL OF THE MUZZLE BRAKE OR FLASH SUPPRESSOR. PINNED ON, OR PINNED AND WELDED ON, MUZZLE BRAKES ARE NOT USER REMOVABLE. PINNED AND WELDED MUZZLE BRAKES ARE FACTORY REMOVABLE ONLY. PINNED MUZZLE BRAKES ARE NOT REMOVABLE AT ALL. ONLY SCREW-ON FLASH SUPPRESSORS ARE USER REMOVABLE.

5

## STEP FIVE

**REMOVE** the flash hider using a  $\frac{3}{4}$ " wrench.

6

## STEP SIX

**IF** the firearm has two-piece handguards, remove them in accordance with the owner's manual.

7

## STEP SEVEN

**LOOK** at the front sight base/gas block. If it is pinned onto the barrel, drive out the two pins with a  $\frac{1}{8}$ " punch. If it is held to the barrel with screws, loosen the retaining screws. Then slide/tap the base and gas tube assembly forward until it comes free.

8

## STEP EIGHT

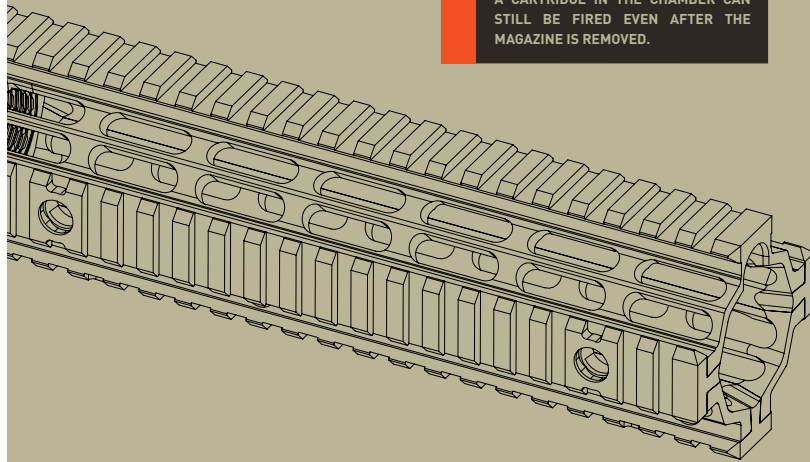
**CLOSE** the ejection port door. Clamp the upper receiver into a vise using the universal vise blocks. Be careful to use the minimum amount of clamping force needed to retain the upper receiver. If your carbine has a free float handguard, use a strap wrench to grasp the handguard lock ring at the front of the receiver. Loosen the ring by rotating it counterclockwise as viewed from the butt and pull forward on the handguard at the same time. Wiggling the handguard slightly as it loosens may help.

9

## STEP NINE

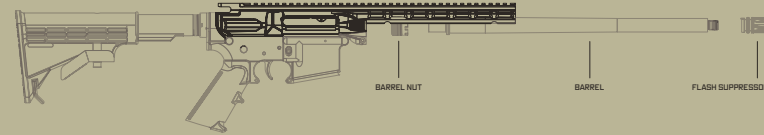
**REMOVE** the handguard lock ring, handguard, barrel nut, and barrel from the receiver. If your firearm had two piece handguards, use the G.I. Armorer's wrench to remove the barrel nut. If it had a free float handguard, use the free float handguard barrel nut wrench.

NEXT STEP:  
INSTALLATION OF C.O.P. UPPER KIT





# INSTALLATION OF ARIS COP KIT



BARREL ASSEMBLY DIAGRAM  
SEE "KIT COMPONENTS" FOR ALL PARTS INCLUDED.

## STEP ONE: KIT PREPARATION

- 1 STEP ONE**

**GREASE** the threads in the C.O.P. upper receiver lightly with heavy duty grease. Install the barrel nut onto the barrel. Install the barrel and barrel nut to the upper receiver. Torque the barrel nut onto the upper receiver to 55 ft-lb.

**NOTE:** THE BARREL WRENCH MUST BE FULLY SEATED ON THE BARREL NUT FLATS. FAILURE TO DO SO CAN, IN RARE CASES, RESULT IN WRENCH BREAKAGE! THE BARREL NUT DOES NOT NEED TO BE INDEXED TO CLEAR THE GAS TUBE.
- 2 STEP TWO**

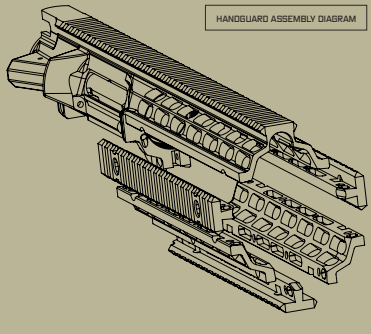
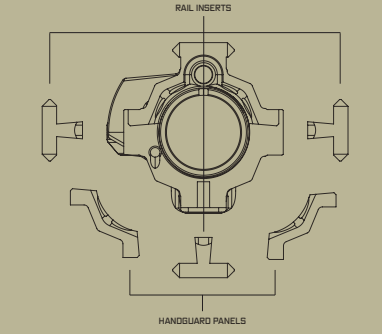
If your firearm originally had two-piece handguards, dispose of the original handguard cap and install the gas block spacer in its place.

- 3 STEP THREE**

**INSTALL** the front sight base/gas block and gas tube assembly onto the barrel by gently sliding/lapping it into place. The front sight base/gas block must be vertical and aligned with the centerline of the upper receiver. Lock it in place using the screws torqued to 65 in-lb, or replace the two pins.
- 4 STEP FOUR**

**REINSTALL** the flash hider washers and flash suppressor. Using a "W" wrench, torque the flash suppressor until its flats are vertical.

## STEP TWO: KIT CONSTRUCTION



- 1 STEP ONE**

Your kit comes with an assortment of rail inserts. The blank rail inserts are intended for situations where a comfortable grip and clean lines are desired. The picatinny rail inserts are intended for accessory mounting. The combination rails are a compromise between the two. A sling swivel socket equipped version of each style is also included for sling use; these inserts may be used on the left or right side and with the socket toward the front or rear of the handguard.

To install the lower half of the handguard, select the rail insert for the bottom of the handguard and hold the insert and handguard panels arranged so that the edge of each handguard panel with the three threaded holes is toward the rail insert. Install and lightly tighten the screws.

- 2 STEP TWO**

**SELECT** the rail inserts for the remaining two sides of the handguard. Install and lightly tighten the remaining screws. Then torque all screws in an alternating pattern to 25 in-lb.
- 3 STEP THREE**

**CLEAN, LUBE AND FUNCTION CHECK** your mid-length in accordance with the Owner's Manual. Test fire your mid-length to assure that you have reassembled it correctly.

**CAUTION:** DO NOT TORQUE THE SCREWS ABOVE 40 IN-LBS. DOING SO MAY RESULT IN STRIPPING THE SCREW HOLES.

**WARNING:** ALWAYS TEST FIRE YOUR WEAPON BEFORE USING IN AN OPERATIONAL ENVIRONMENT.

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Thank You!