

AR-15 Rifle Operator Maintenance

These procedures cover how to Clean, Inspect and Lubricate the AR15 Rifle

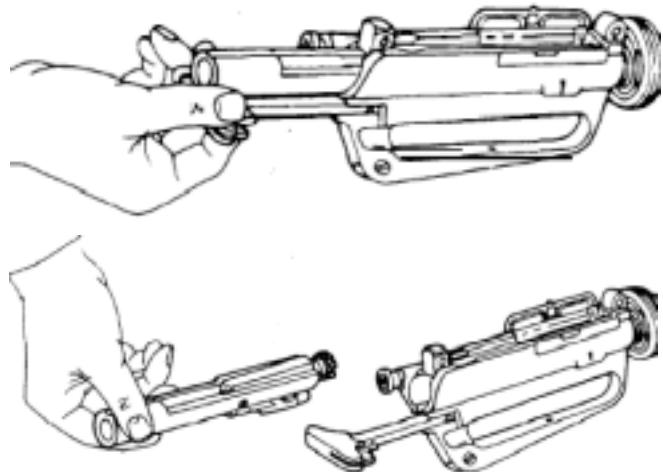
NOTICE: This is not a replacement for the manufacturer's manual. If you do not have the owners manual for your rifle contact the manufacturer or distributor.

- CLEARING**
1. Unload - Check for Clear
 2. Magazine out
 3. Lock the Bolt Back
 4. Visual and tactile check for a live round in the chamber
- If a cartridge is found clear it, then check again.
 5. Point muzzle in a safe direction. Slap Bolt Release.
DO NOT PULL TRIGGER.

Field Strip Hand guards - remove only if necessary to remove excessive dirt or carbon (some carbon around the gas tube is normal).

Separate Upper and Lower.

1. Pull the Operating Handle part way out



2. Remove the bolt carrier

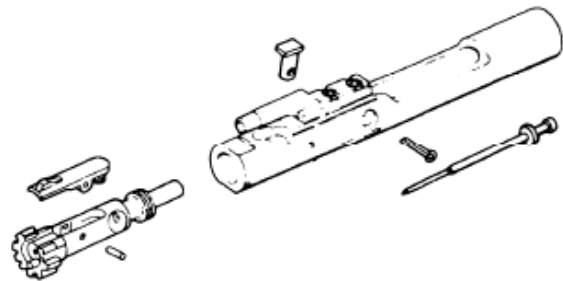
Disassemble the Bolt Carrier Assembly

1. Remove the Firing Pin Retaining Pin - Do not open or close the ends of the retaining pin.
2. Push the bolt into the carrier (locked position).

3. Drop the Firing Pin out of the bolt carrier assembly - do not pull it out, let it drop out.



4. Rotate the cam pin one quarter turn and remove.
5. Pull the bolt assembly out of the carrier
6. Remove the extractor from the bolt. Press the extractor in and remove the extractor pivot pin. This does not need to be done every time. Only when extremely dirty or damaged.



**** Do not remove the spring from the extractor. ****

7. Remove the recoil buffer and recoil spring,

This is all of the disassembly required.

CLEANING

Recoil Spring and Buffer	Use a dry cloth or paper towel to wipe off the spring and buffer.
Lower Receiver	Use a cloth and brush to clean out all of the nooks and crannies. As needed, use a little cleaner-lubricant-protectant (CLP) on the cloth.
Upper Receiver	<ol style="list-style-type: none">1. Use a cloth and/or soft brush to clean the inside of the upper receiver. <p>CAUTION: Do not bend the gas tube.</p> <ol style="list-style-type: none">2. Use a chamber brush and cotton swabs to clean the chamber and barrel lugs. <p>Use brass or plastic brush.</p>
Clean the Bore	Use the cleaner, solvent or CLP of your choice. If you use a brush, use brass or plastic not steel.
Bolt Carrier	Use a brass or plastic brush. Inside and out. Clean the gas key, use a small (worn .22) brush or pipe cleaner (don't leave lint in there). If you just have to scrape, get the tool from Browells.
Bolt	NOTE: Inspect the bolt face for cracks and gas cutting. Look for brass shards around the ejector. Clean the bolt with a cloth and small brush. Do not remove the gas rings unless you are replacing them. Do not scrape - (if ya just gotta scrape use a 30 caliber rifle cartridge)

INSPECTION and LUBRICATION

With everything cleaned, carefully inspect for:

- Cracks
- Gas cutting
- Battered surfaces or peening
- Brass shards

Bolt Carrier

Inspection Look for cracks
Gas Key - Tight, Screws tight (and swaged)

Lubrication Light film of lube (oil) on all surfaces of the carrier.
Put a drop or two of lubricant into the gas key.

Bolt

Inspection

1. Look for gas cutting, signs of primer leaks
2. Check the firing pin hole, should be round
3. Check for broken or chipped lugs
4. Check the extractor for wear, chips or cracks
5. Check ejector

Note: Replace gas rings every 3000 rounds

Lubrication Light film of lubricant on whole surface of the bolt, including lugs and firing pin recess. Grease is recommended for the gas rings. and cam pin hole. (TW25B Weapon Lubricant from Mil-Comm is good)

Cam Pin

Inspection Look for cracks

Lubrication Light film of lubricant, or grease
(TW25B Weapon Lubricant from Mil-Comm is good)

Firing Pin

Inspection Look for cracks, chips, bent, blunted or broken tip

Lubrication Light film of lubricant

Firing Pin Retainer

Inspection	Look for cracks or battering. Replace if needed. CAUTION: Use a firing pin retainer, not a cotter pin. The retainer is a specially heat-treated piece. Do not spread or close the ends.
Lubrication	Light film of lubricant

Operating Handle

Inspection	Look for cracks, bends
Lubrication	Light film of lubricant

Buffer and Recoil Spring

Inspection	Look for cracks
Lubrication	A light (really light) film of lubricant on the spring and buffer. (Some think that a light coat of grease on the spring, not the buffer, will reduce spring noise. This is not for dusty/dirty environments)

ASSEMBLY

Put it all back together. Note: The order of these steps is critical.

Buffer and Recoil Spring

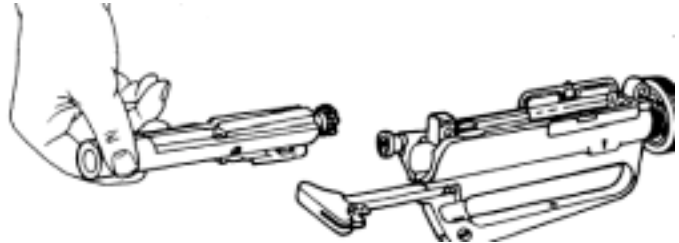
Replace the recoil spring and buffer.

Bolt Carrier Assembly

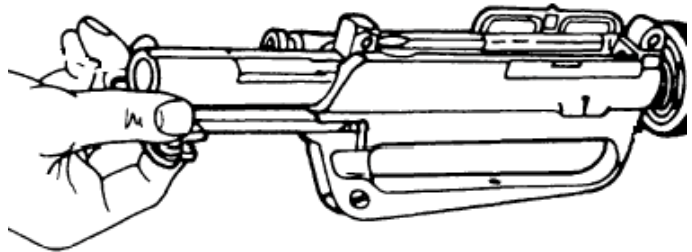
If the extractor was removed from the bolt replace it now.

1. Insert the bolt into the carrier. Be sure the extractor is on the side of the carrier that will be next to the ejection port. Most bolts are made so that the cam pin will only install with the bolt correctly aligned. Double check! Be sure the gas ring gaps are not lined up.
2. Insert the cam pin, turn one quarter turn.
3. Perform bolt-gas ring fit check.
4. Insert the firing pin.
5. Insert the firing pin retainer.
The retainer inserts behind the large flange of the firing pin. Ensure that the firing pin moves freely.

6. Pull the bolt out to the unlocked position. The carrier will not go into the upper if the bolt is pushed into the carrier.
7. Position the charging handle in the upper.



8. Place the carrier in the handle slide into the upper until locked.



9. Close the ejection port cover.
10. Place the selector on Safe.
11. Assemble the upper onto the lower receiver.
12. Function check before storing or firing.

Bolt - Gas Ring Fit Test

1. Push the bolt into the carrier.
2. Hold carrier assembly vertically with the bolt down. The bolt should not drop down.
3. Pull the bolt out to the unlocked position.
4. Place the assembly on a table or the deck, balanced on the bolt head. The carrier should not slide down.

If the assembly fails either of these checks replace the gas rings.