

AR15/M4/M16 Generalized Maintenance, Cleaning and Lubrication

By Chris Fry

The AR15/M4/M16 family of firearms has gotten a poor reputation due to the bad experiences and poor information provided to operators in the past. This weapon platform is highly reliable when maintained properly. Some general guidelines to follow to insure reliable function and life time service from your firearm:

1. Attempt to field strip and quick clean your carbine after each shooting/range session. Even if this only means you have time to de-grease the bolt carrier, bolt face and clean out the chamber and bore. This will go a long way toward maintaining reliability.



Common build up point on bolt, NEVER stretch out or compress gas rings

2. Soak small parts such as the charging handle, bolt carrier, bolt and its small parts in a Tupperware container of Hoppe's #9 overnight. This will make cleaning these small, hard to reach surfaces much easier and save you time and trouble in the long run.

3. Attempt to fully field strip, inspect and thoroughly clean your firearm after every 3000 rounds. Note "witness marks" or where metal has rubbed on metal wearing away finish. These are important lubrications points. Look closely at the gas key on top of bolt carrier and make sure it is still tight.

4. Keep a close eye on components that are critical to the proper operation of your carbine such as the extractor and spring, ejector and spring, gas rings, firing pin and buffer spring. It is a good idea to have backups for all of these essential parts in a range bag or kept at home.

5. Inspect the extractor claw making sure there are no cracks where the metal is thin or chips and that the claw is not filled with carbon or debris.



Clean extractor claw trench of any debris and visually inspect for cracks or chips

6. When lubricating remember that "less is more". Your bolt and carrier do not have to be soaking wet. Extra lubricant will attract dust, dirt and debris when firing your carbine. A light coat or sheen is all that is needed.



Bolt carrier lubrication points, DO NOT lubricate bolt-face

7. Make sure the charging handle is not bent. Lateral stress is put on the charging handle during aggressive cycling and over time they will bend and the finish will wear on one side creating witness marks.



Charging handle lubrication points- common "witness marks" or silver areas

8. Utilize a q-tip, tooth pick or dental pick to clean carbon or chunks of debris out from around the trigger group. Visually verify the legs of the trigger spring are the same length and not broken.



Make sure a small amount of grease or lubricant is placed on rear of hammer where the trigger sear makes contact

9. During dedicated field stripping remove the action spring/buffer spring from the receiver extension and inspect. Remove the buffer from the spring and degrease along with spring. Lightly lubricate the spring before replacing buffer and spring into receiver extension.

10. Learn and understand the "Cycle of Operation" for your carbine: Feeding, Locking, Firing, Unlocking, Extracting, Ejecting, Cocking, Chambering. Understanding this cycle will aid in recognizing and diagnosing any malfunctions or problems experienced while firing your carbine.

Recommended Cleaning Tools, Solvents & Lubricants

Listed in the order I use them. No fancy cleaning tools are necessary to maintain a carbine. Field expedient items found at any small mini-mart or box store can be utilized for 99% of carbine maintenance. However, good cleaning kits such as those manufactured by Otis are a good investment and can make the job easier. <http://www.otisgun.com/>

There are numerous degreasers and lubricants available on the market today ranging in price. Over the years I have tested/used pretty much all of them. The best degreaser I have found is Mil-Comms MC25. <http://www.mil-comm.com/>. For lubricants I now use and recommend Mobile One motor oil found at any box store, if these motor oils work in high performance vehicles and motorcycles they will certainly work in my carbine. A single container of Mobile One (\$2.00) will last several years. Use sparingly, apply a very small amount to the tip of a finger and then apply to common lubrication points.

- Paper towels
- Tooth picks
- Q-Tips
- Green Scouring Pad
- Small screw driver
- Dental pick
- Brass & nylon brush
- Pipe cleaners
- Bore Snake
- Chamber brush & rod
- Mobile One 30W
- MC25 Cleaner/Degreaser (Milcom)
- Hoppe's Elite (spray bottle)
- Hoppe's #9 bore cleaner (for soaking parts overnight)
- Lubriplate (or other white lithium grease, see boating department)
- TW25b or Tetragrease (grease with Teflon suspensions from Milcom)