GunDigest

GUN CLEANING

Learn AR-15 Gun Cleaning

AR-15 Basics

First, a bit of information about the organizational method of this book. The AR is composed of systems, just as any complex mechanism is. While I try to work on and explain one at a time, they are all interlinked, and sometimes the discussion of one area or subject laps over into another. That's just the way things are in the AR world.

Second, you can make your AR pretty much anything you want (within the law, of course) but regardless of what you do you risk catching grief from some quarters. If you build a rifle or modify one, and it isn't exactly mil-spec, some will view it as a mongrel. Others will insist your rifle isn't complete until it has a paint job, and others will insist just as vehemently that it must be left basic black. Build what you want, at the price point you can afford, and let the self-proclaimed cognoscenti huff themselves silly.

Besides legal limitations, there may be others. For instance, you may have designed a great new caliber for the AR, but unless you can find a barrel maker who will make one, you're out of luck. The popularity of customizing ARs has reached such heights that Brownells has a section on their web site dedicated to building an AR. You can mix and match, select just the cool additions to your rifle you want, and when you have reached perfection, the software already has the part numbers and can place an order for you. I love the guys at Brownells, but in good conscience I have to suggest one additional step: Look at the total before you hit "send." You may just find that your perfect AR is one you cannot afford to customize all in one fell swoop.

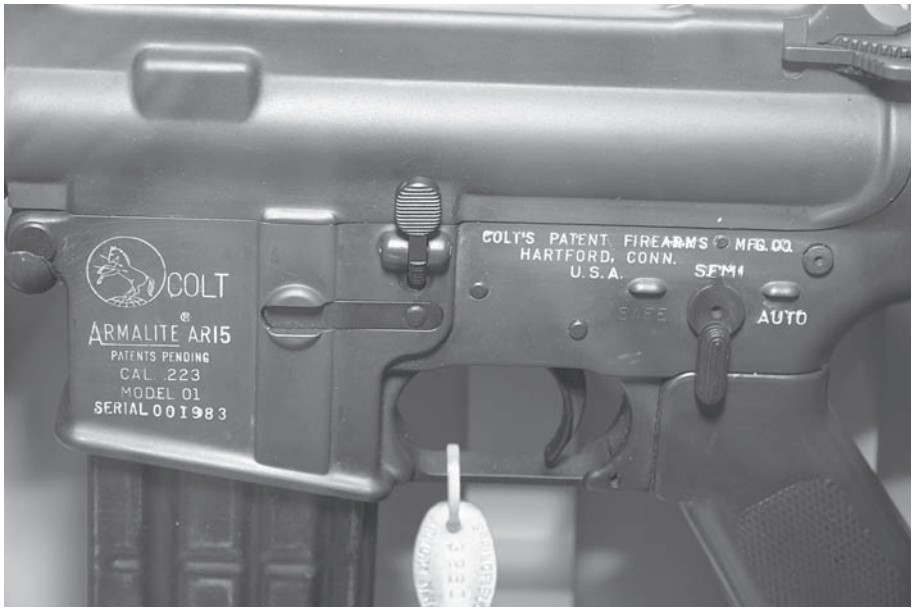
I do not do a blow-by-blow description of assembling an AR, as if you opened this book with a box full of loose parts at your elbow. In the course of the book you'll get all that, but it is much more likely that you have an AR and want to enhance, modify or rebuild it. So I cover the rifle subject by subject.

And as a final suggestion in the beginning of your AR education, have an idea of what you want the final result to be before you begin an overhaul. Just bolting things on to "see how it looks" can get expensive and soak up a lot of time. Start with a plan, even if the plan is as simple as "I want something lightweight."

The Basics We All Know

And sometimes don't. These may be obvious, they may seem like I'm nagging you, but we all need to know what's up, and be working from the same page. So, with your forbearance (and with a few humorous things thrown in) I'll get you up to speed.

(Left) You can make and re-make your AR into whatever you want it to be. This photo used to be the wallpaper on my laptop computer, until on one trip TSA insisted I turn the thing on to prove it worked.



Here it is, the earliest AR-15 I've ever laid eyes on. This is a pre-1963 Colt-made, Armalite-named select-fire rifle. In the Springfield Armory Museum, Springfield, MA.

Controls and Nomenclature

At the rear of the rifle is the buttstock. They come in fixed and adjustable models. On top are the sights, front and rear. The handguards enclose the barrel, and in front of the front sight housing is the flash hider. Some rifles lack a flash hider, and have only the bare muzzle with its crown. (The barrel underneath the flash hider also has a crown.) On the right side of the lower receiver is a button: the magazine catch or magazine release button. Rifles that are fitted with ambidextrous safeties will have a safety lever or firing selector lever on the right side as well as the left.

On the right side of the upper receiver is the ejection port in front, with its spring-loaded ejection port cover. Behind it, depending on the particular model, may or may not be an ejector lump and forward assist. (Rifle/carbines lacking an ejector lump should be viewed suspiciously by left-handed shooters. The face you save is your own.)

On the left side of the lower is the safety/fire selector. Above and forward of it is the bolt hold-open, a lever that is activated by the magazine. When the magazine is empty the magazine follower presses the hold-open lever up and it blocks the bolt. The rifle stays open after the last shot. (If those parts are working correctly, that is.)

On the front and rear of the lower, up next to the upper receiver, are two large-headed cross pins. They are the takedown pins that hold the upper and lower together.

Safety in Work

The AR-15 uses a large number of small parts in self-contained assemblies. It also uses a large number of small springs for those parts to properly function. Cleaning it requires the use of solvents, brushes and cleaning rods.

It is important that any time you are working on your rifle that you wear safety glasses. A part launched into the ceiling is cause for embarrassment, perhaps even snide comments from your co-workers or fellow shooters. A part launched into your face is painful. Without glasses it could be tragic, and be the cause of the end of your shooting career. Perhaps even other aspects of your life would suffer, as well. Who wants to have a one-eyed dentist drilling on a tooth? Trust me, only in romance novels do women find men with an eye patch sexy.

Four Safety Rules

We all know them, and often we live them. But they still bear repeating:

1) All guns are loaded. That means be polite, mind your manners, and don't point them at others, even while working on them.
2) Keep the muzzle pointed in a safe direction. In an armorers class you may be in tight quarters. Quickly flipping a rifle end-to-end could whack someone in the face with muzzle or stock.
3) Keep your finger off the trigger. Not just to avoid accidental (or negligent) discharges, but also because dropping the hammer on an AR with the two halves apart can damage the receiver.
4) Be sure of your target. Know where it is pointed when you do dry-fire your rifle.

Tools Needed

The AR-15/M-16 is designed, as all good military small arms are, to be taken apart with either the bare hands

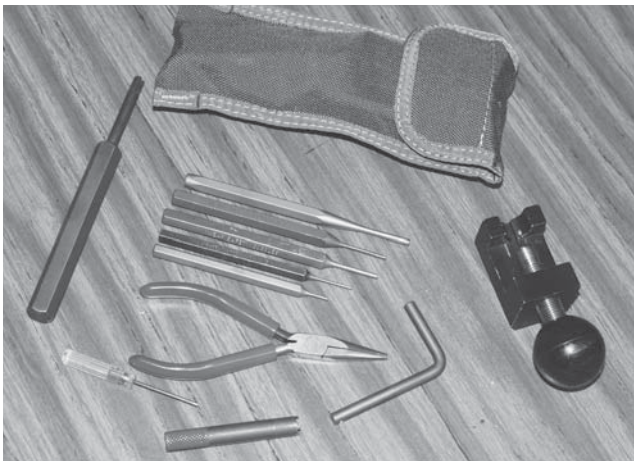
Taking it apart and working on the AR is easy, once you know how. Lawfully acquiring an SBR such as this is a bit more involved.

or with the assistance of a loaded cartridge. (In a combat setting, the only two things you can always count on the troops having are rifles and ammunition.)

Field-stripping is enough to keep a rifle working in the field. However, more than field-stripping requires tools. A soldier can take his rifle apart with his bare hands, but he can't clean the bore or scrape the carbon off the bolt with just his bare hands. Neither can you. The basic toolkit is listed in Appendix A. The more advanced toolkit can also be found there.

There are a large number of specialized tools for the AR. Not because working on the AR-15/M-16 always require that specialized tool, but because having said special tool can often make a difficult job easy.

In addition to the basic toolkit, you should have a cleaning rod (one-piece is better than a section rod), patches, brushes, solvents and lubricants.



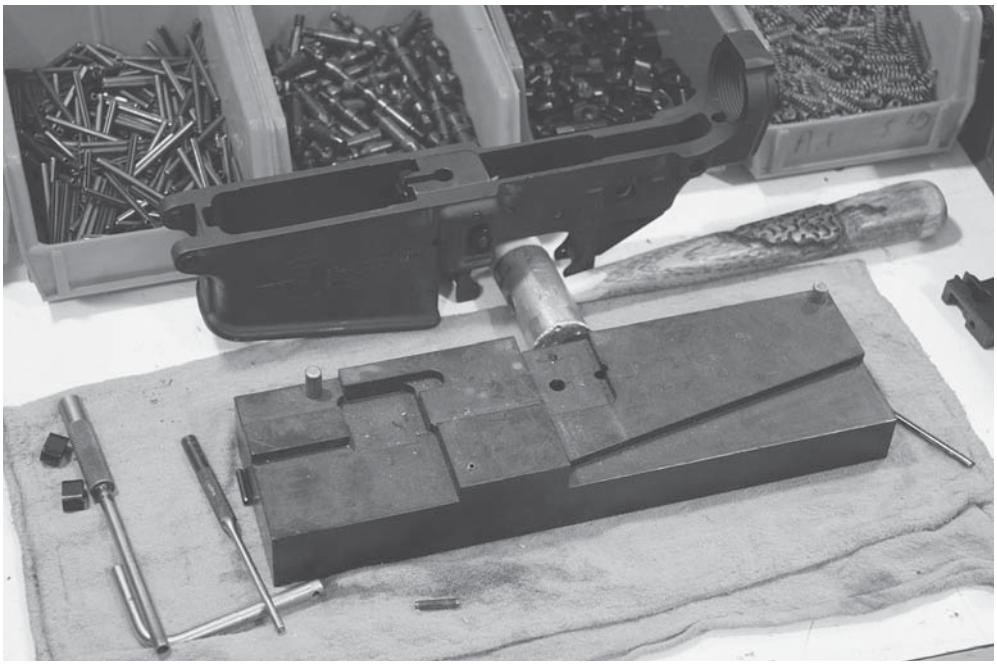
This is the basic toolkit we were handed in the Colt armorers course. With it, you can do pretty much everything but change barrels and stake carrier keys.

A complete armorers tool kit is available from Brownells, in a nearly-unbreakable container that can be sent as luggage or shipped. However, at $1,200 it is more than many shooters need or can justify.

Basic Tools List

Tool	What It's For
Punch, 1/16"	Charging handle
	Forward assist pawl
	A1 & A2 windage drum
Punch, 5/64"	Gas tube retaining pin
Punch, 3/32"	A2 elevation spring pin
	Forward assist assembly
	Front takedown pin assembly, auto-sear
Punch, 1/8"	Trigger guard roll pin
	Hammer & trigger pins
Punch, 1/4"	General pin driving
Taper pin starter	Barrel taper pins
Pivot pin install tool	Front pivot pin
M4 stock wrench	Telestock castle nut
Bolt catch pin punch	Bolt catch pin
Allen wrenches, 3/16", 5/32"	Pistol grip screws, allen head type

The Brownells toolkit is great for departments, for one good reason: it is one item. I talked to Brownells about that, and found an interesting detail of municipal acquisition: If you submit two requisition forms, one for "Armorers kit, AR-15/M-16" with a single line and total, and another with all the parts separately, the one kit will get the nod. Even with both totals being the same! Hence the "one of everything" tool kit. If you want it, get it. But better to get



If you are going to assemble a lot of lowers, you might want an assembly block like this one. However, it can be a bit expensive to use on your one-and-only rifle build.

what you need, when you need it, and build your own kits.

With the basic kit above, you can do most everything you need. As we go through the projects, if you need more, I'll list the tools, and you can decide to get them, or have someone else do the work.

Bench kit and extras

While the standard cleaning and maintenance can be done with your bare hands, or in your lap with tools, there are tasks that cannot be performed without tools. Changing barrels, stocks, assembling sights front and rear are just a few. Ideally, you'll have a solid workbench to work on. The correct height depends on whether you prefer to work standing or sitting. In many instances, it will be what it is. You should have a solid vise mounted securely to the bench. The best setup would be a solid bench, bolted to both the floor and wall, with a 5" or 6" bench vise bolted to it.

Lacking the ability to bolt it to the wall or floor, add weight. You should not be surprised to discover that adding several hundred pounds (or in my case, a ton) of dead weight acts to stabilize a bench. Of course, your bench had better be strong enough to hold the weight, or you'll be starting all over when it breaks.

If you are setting up a workstation, make sure the bench and vise have enough room around them. For instance, if you are installing a new rifle barrel (20-inch) on a receiver, you'll need at least two and a half feet of space from the end of the vise to the closest wall. More would be better, especially if your "skinny jeans" days are behind you. You can assemble a rifle while in a broom closet, but you won't enjoy it much.

The Brownells toolkit is one item with everything you need. Departments want it because it makes the paperwork easier. You can do as well buying things as you need them.

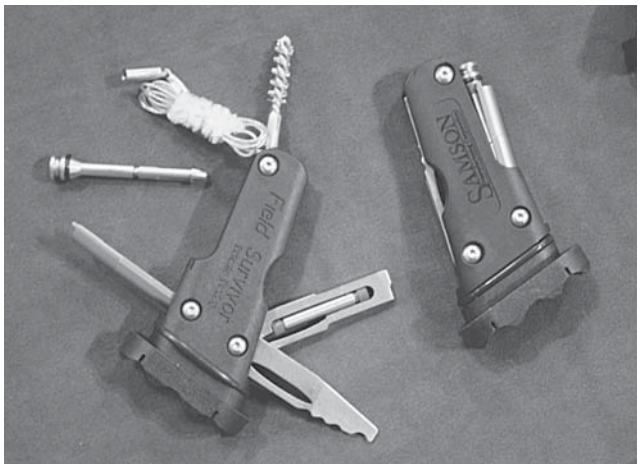
The GG&G field tool kit and maintenance pouch. Stuff some more goodies in it, and clip it to your rucksack.

Basic Parts Kits

Any selection of parts for future use or need should be considered with two aspects in mind: those that are common to wear or break, and those that are common to get lost. Stocking a spare upper receiver "just in case" is not wise, as they hardly ever break. Well, at least not under normal usage. Remember my mentioning Jeff Chudwin and the experiences of police work? Officers getting involved in fights, taking spills, or just being in automobile wrecks can damage rifles. (Not to mention the officers.) If a departmental rifle does get busted, a spare rifle can be issued until a new receiver arrives. You do not have that luxury. Well, maybe you do. But in that case, if you're going to stock a spare upper "just in case," why not just build it into a complete rifle, "just in case?" Small springs, plungers, etc., that are easily lost in disassembly or armorers work are inexpensive and prudent to stock.

Basically, if it is cheap, small, easily busted/bent, etc. get some and keep some. The more expensive stuff you may have to think about. It is common in some circles to have a spare bolt stuffed in the pistol grip. Think about it: you've got anywhere from $100 to $200 tied up in an assembled, headspaced, test-fired bolt, in your pistol grip. Is that a wise investment?

The CJ Weapons toolkit in a handle. You can do lots of maintenance with this and an extra pouch of spare parts.



The Samson field survivor kit has a lot of useful tools, and it fits in the pistol grip.

An AR cleaning kit in action.

Field Maintenance

Having spare parts kit or tool kit clipped to your belt or tac vest "just in case" seems to me to be a chancy thing. Granted, if your "beat" is a dusty ridgeline in Afghanistan, having stuff on hand instead of in the vehicle steps, yards or kilometers away is prudent. Then again, I can't help but think of Sam Elliot as Sergeant Major Plumley. He was packing a 1911A1 into a hot LZ, and when asked about taking a rifle, he remarked "If it comes to that, there will be plenty lying around."

If you have the great bad luck to have a busted rifle in a fight, you probably aren't going to fix it in time. You'd best get another one and get back to the business at hand. So, on your belt, the space and weight are better devoted to extra ammo, or a sidearm. But on your rucksack? Now you're thinking.

GG&G makes a toolkit with spares that fits in a web pouch, and is easily attached to your ruck. With it you're set to do a bunch of maintenance. It has a self-deploying cleaning rod, so you have a basic cleaning kit and if you add a few more spares and tools, you can do just about anything that needs doing, in the field.

CJ Weapons makes a tool kit where everything is attached. It is the Swiss Army Knife of AR kits. It also includes a stock wrench, so if your stock comes loose you at least have a way to regularly tighten it until you can get to a bench and staking tools.

Last is the Samson, a tool kit that fits into the pistol grip. I know, I've said on-hand tool kits usually won't help you, but the Samson has a useful addition: a broken case extractor. If your field malfunction clearance doesn't solve the problem, get the case extractor out, drop it in the chamber, cycle the bolt, reload and get back to work. I did just that in a carbine class at Gunsite, except back then I had the case extractor loose in my pocket.

Cleaning Supplies

Use only copper-removing bore solvents in the bore. The various "powder" solvents do little or nothing on copper deposits in the bore, and the copper solvents, combined with a good brushing, wash away powder deposits.
Use brass or plastic brushes on the bore of the rifle, not stainless. Buy the correct-sized cleaning patches, 100% cotton. Cotton patches hold solvents better than synthetics.

Using the wrong size "because it's cheap" or cutting down too-big patches is a recipe for hassle or disaster. If too small they won't clean well, and you may lose one in the bore. Too big, and you might wedge one (still secured to the cleaning rod) in the bore, or worse yet it might come off, which can be an expensive error to correct. Ned once had to rebuild a rifle for a shooter. The fellow had been diligently doing the correct barrel break-in procedure on his expensive new barrel. Unbeknownst to him, the sectioned cleaning rod unscrewed and left the cleaning rod tip and patch in the bore. The next shot? Bulged barrel, busted bolt, heartache and expense.

The carbon deposits on the bolt and carrier and in the interior of the upper and lower receivers can be cleaned with any good firearms solvent. Many a gunshop and armorers station uses mineral spirits to hose away scrubbed carbon. Be aware that reclaimed mineral spirits contain a high-enough percentage of kerosene to create an odor. You might well find yourself unwelcome at home due to the odor of mineral spirits.

Lubrication and the AR-15/M-16

The subject of lubricants is vast, and opinions vary. In most situations, as one of the instructors has been known to joke, "sunscreen would probably work for a while." Adherents of one or another brand of lubricant will extol its virtues endlessly. Whatever you use, use it. A dry AR

is a rifle looking to malfunction. Invariably in the patrol rifle and patrol rifle instructor classes taught in NEMRT, we have rifles whose owners thought they had sufficiently lubed them start to malfunction right after lunch of the first full firing day. You don't want so much lube on it that it splatters you and bystanders on every shot. But if, when you touch the carrier through the ejection port, you don't get oil on your fingertip, the carrier (and thus the bolt) is probably too dry. Some have suggested that the best way to keep an AR-15 or M-16 running reliably is to keep it dry, to prevent it from attracting dirt. They are wrong. You need oil to reduce friction, and carry grit and dirt away from the working parts. Running a rifle while it is dry will simply make it malfunction sooner, not later.

Let me repeat that, just in case someone you know is a strenuous advocate of running your gun dry: they are wrong.

So where to lube?

You do not need a 55 gallon drum for a dip-lube, nor do you need a shaving brush to give every surface a nice, even coating of 5W30. But you do need lubricant, and some places matter more than others. By "wet" I mean a visible layer of lubricant on the surface. By "damp" I mean the surface has been clearly oiled, but there is no danger of oil dripping off the part. An automotive example to demonstrate the differences: if you pull the dipstick out of your engine, the part that was in the oil is "dripping." The rest of the stick is "wet." If you wipe it with a cloth or paper towel, the dipstick is now "damp."

Bolt: You want the extractor joints, pivot pin and spring each wet with oil. The locking lugs should be damp, and the bearing band (the slightly raised part behind the cam pin hole) should be wet.

Carrier: The running rails, the raised sections that run the length of the carrier should be wet. The rest of the exterior should be damp. The cam pin slot should be wet, as should the cam pin riding there. The bolt tunnel should be damp.

Trigger mechanism: The bolt, trigger, disconnector and safety should be damp. The pivot pins should be wet.

The rest of the rifle can be damp or dry, as you wish, or as maintenance regulations or climate require. In the course of shooting and cleaning, all the other parts will end up with a very light film of oil. The only way to make them absolutely dry again is with liberal applications of degreasing aerosol. But it isn't needed. Unless you're in an extremely humid climate for long periods of time, the exterior steel isn't going to rust. The plastic and aluminum aren't going to rust even then.

Dry Rifles in the Armory/Rifle Rack

Many service personnel will be familiar with rifles stored in the base armory or depot being stored bone-dry. The reason is not for the longevity of the rifle, nor to ensure it is in a constant state of readiness. It is so the inspecting officer will not get oil on his or her white glove, and as a result conclude the rifles have been stored in an uncleaned condition. I kid you not. Rational? No. Should your rifle or rifles be stored dry? That is something only the

If you are lucky enough to live where you can have a suppressor, then your AR will require even more cleaning and maintenance. Keep the moving parts lubed, and the rifle will be happy.

Muzzle safe, finger off the trigger. Oh, how the world has changed: this is a Ruger!

departmental armorer (in this case: you) can decide. Oiled rifles will attract and hold dust and lint. Dry rifles must be lubed when grabbed for use, or they will not function properly. A rifle stored "just in case" as a backup can be left dry. A rifle racked "just in case" that is loaded or close to it must be properly and fully oiled. And those of you who are reading this who are not departmental armorers, keep your rifles oiled.

Which Oil?

Use whatever firearms-suitable lubricant you have. You can use the expensive stuff, the free stuff, even synthetic motor oil. Just use something. Anything is better than nothing, but avoid grease. In hot weather grease will work, but unless you are diligent about cleaning it out for the cold weather months, it will harden and become stiff in the cold. Also, over time it will collect lint and harden. As much as I love it properly applied on my M1 Garand or M1-A, grease is not good in an AR.

Handling Drills and Habits

When working on any rifle, you should (and must) ascertain that it is unloaded, every time you handle it. You must make this a reflexive habit. As a lifetime habit, this is one of the best to cultivate. You also must be in the habit of controlling the direction of the muzzle. Yes, there will be lots of times when the rifle well-and-truly isn't loaded. But if you let yourself get into bad habits, one day they will jump up and bite you or someone else.

When handled a rifle to work on, your first action must be to ascertain that the weapon you're holding is, indeed, unloaded.

ChamberSafe®

The ChamberSafe is both a training aid and a ready-to-go aid. To use it, remove the magazine (if any). Extract the chambered round (again, if any) and insert the Chambersafe into the chamber. Ease the bolt forward. It is now not possible for there to be a round in the chamber. While good safety habits (and basic good manners) dictate that you should not point the muzzle of your rifle at anyone, in a training setting instructors and students can now handle their firearms during discussions, non-live-fire training, and administrative tasks knowing they are not loaded.

The Chambersafe can also be used in storage racks and as a ready-to-go chamber check. As the Chambersafe blocks only the chamber, a loaded magazine can be inserted and locked into the magazine well. Since the Chambersafe blocks the chamber, the rifle cannot have a live round in the chamber. To load it, however, requires only that the Chambersafe be pulled free and the charging handle cycled.

If you want to have a rifle on hand, ready to go or close to it, this is the way. Now, were I on guard duty in some dusty locale in Afghanistan, would I have a Chambersafe in my M4? Probably not, unless the senior NCO insisted. However, most of us do not live in locations as rough-and-ready as Afghanistan. If you do, I have one piece of advice: move.

Checking Status of Your Rifle

Unless you own one and only one firearm, you can't remember the status they are all in. More than one, you have to check. (Even with just one, regular checks are a good habit to have.)

Bench Check

Remove the magazine, if there is one in the rifle, and extract the chambered round, if any.

Grasp the charging handle and pull it back. Either hold the handle back or lock the bolt open. Look in the chamber. If you lock the bolt back, you can use a light or your fingers to check that the chamber is empty. This check only takes a few seconds and is time well-spent.

Range/Match/Street Check

There should be a magazine in place. The bolt will probably be open, or have a Chambersafe in it. Press the magazine button and release the magazine while holding it. Look at the top of the magazine to ensure there are rounds in it. In the dark, you can feel the front of the magazine opening for the bullet tips. Press the magazine back into place and then try to pull it down. DO NOT PUSH IT IN, LET GO, AND THEN SLAP THE MAGAZINE TO SEAT IT. If you do, it is entirely possible for the magazine to drop free and fall to the ground as you are swinging your hand to slap it. Also, if the bolt is locked open, slapping the magazine can dislodge the top round. When you do then send the bolt forward, it will attempt to chamber both the free round that popped loose, and the one below it, the one still in the magazine. Your attempt at looking cool or "making sure" simply creates a malfunction.

Cobra Technique

You do this one when you expect the rifle to have a round in the chamber. You've loaded for a match, or you

The ChamberSafe chamber blocking device is a great aid to training. It allows a class of shooters to safe their rifles and concentrate on the instructional material.

The Cobra chamber-checking technique, which you can do even in the dark.

are in a potentially lethal force situation, and you want to be sure of your rifle's status.

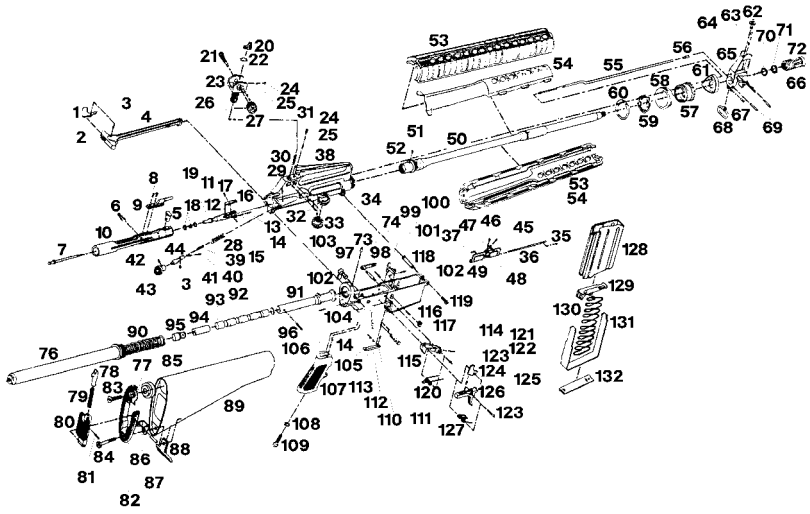
Do as above. With the magazine checked, inserted and re-locked in place, place your right hand (for right-handed shooters) behind the charging handle with your wrist against the stock. Now cup your hand and draw your fingers back. You will be lifting your hand (with your wrist against the stock) as if you are imitating a cobra ready to strike. You do not pull your arm back. With your wrist against the stock, you will only be able to draw the charging handle back a couple of inches, which is all you want.

With your left hand cupping the handguard directly in front of the receiver, bring your first or second finger around to the ejection port. You can then feel through the port that there is a round on the bolt face, held there by the extractor. Make sure that what you are feeling is the cartridge, and not the bolt or carrier.

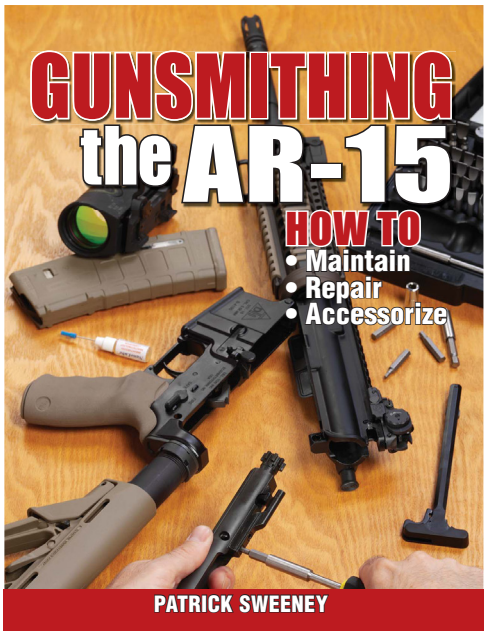
If you draw your right hand back too far you'll extract and eject the chambered round. By drawing it back just enough to feel, but not so far that the round clears the ejection port, you can quietly check the chamber.

Ease the bolt forward, or let go and let it close on its own power. Either way, press the forward assist. NOTE: This is the only time you will ever use the forward assist. Using it to drive home a recalcitrant cartridge on other occasions will simply wedge that round in place, creating a greater problem to fix than you otherwise would have had.

AR15-A2 Autoloading Rifle



1	Charging Handle Latch	**45**	Cover Latch Retaining Pin	**89**	Buttstock
2	Charging Handle Latch Spring	**46**	Cover Latch	**90**	Action Spring
3	Charging Handle Latch Roll Pin	**47**	Cover Latch Spring	**91**	Buffer Body
4	Charging Handle	**48**	Cover Latch Housing	**92**	Buffer Disc
5	Cam Pin	**49**	Ejection Slot Cover	**93**	Buffer Weight
6	Firing Pin Retaining Pin	**50**	Barrel	**94**	Buffer Spacer
7	Firing Pin	**51**	Barrel Extension	**95**	Buffer Bumper
8	Socket Head Cap Screws	**52**	Barrel Indexing Pin	**96**	Buffer Bumper Pin
9	Bolt Carrier Key	**53**	Handguard	**97**	Magazine Catch Plate
10	Bolt Carrier	**54**	Handguard Liner	**98**	Magazine Catch Shaft
11	Extractor Spring Insert	**55**	Gas Tube	**99**	Bolt Catch Plunger
12	Extractor Spring	**56**	Gas Tube Plug	**100**	Bolt Catch Spring
13	Ejector	**57**	Barrel Nut	**101**	Bolt Catch
14	Ejector and Safety Detent Spring	**58**	Handguard Slip Ring	**102**	Bolt Catch Roll Pin
15	Ejector Roll Pin	**59**	Handguard	**103**	Safety Selector Lever
16	Extractor	**60**	Handguard Snap Ring	**104**	Takedown Pin Detent
17	Bolt Ring	**61**	Handguard Cap	**105**	Takedown Pin Spring Detent
18	Extractor Pins	**62**	Front Sight Post	**106**	Safety Detent
19	Bolt	**63**	Front Sight Detent	**107**	Pistol Grip
20	Rear Sight Aperture	**64**	Front Sight Detent Spring	**108**	Lock Washer
21	Rear Sight Windage Screw	**65**	Front Sight	**109**	Pistol Grip Screw
22	Rear Sight Flat Spring	**66**	Gas Tube Roll Pin	**110**	Trigger Guard
23	Rear Sight Base	**67**	Front Sling Swivel Rivet	**111**	Roll Pin
24	Rear Sight Ball Bearings	**68**	Front Sling Swivel	**112**	Trigger Guard Plunger
25	Rear Sight Helical Springs	**69**	Front Sight Taper Pins	**113**	Trigger Guard Spring
26	Rear Sight Windage Knob Spring Pin	**70**	Compensator Spacer	**114**	Trigger Guard Pivot Pin Roll Pin
27	Rear Sight Windage Knob	**71**	Compensator Spacer	**115**	Takedown Pin
28	Forward Assist Assembly Spring	**72**	Flash Suppressor	**116**	Magazine Catch Spring
29	Forward Assist Spring Pin	**73**	Buffer Retainer	**117**	Magazine Release Button
30	Rear Sight Elevation Spring	**74**	Buffer Retainer Spring	**118**	Receiver Pivot Pin
31	Index Screw	**75**	Lower Receiver	**119**	Receiver Pivot Pin Screw
32	Rear Sight Elevation Spring Pin	**76**	Receiver Extension	**120**	Hammer Spring
33	Rear Sight Elevation Knob	**77**	Buttplate Insert	**121**	Hammer
34	Rear Sight Elevation Index	**78**	Door Assembly Plunger	**122**	Hammer Pin Retainer
35	Cover Hinge Pin Snap Ring	**79**	Door Assembly Plunger Spring	**123**	Hammer and Trigger Pin
36	Cover Hinge Pin	**80**	Door Assembly Door	**124**	Disconnector
37	Cover Spring	**81**	Door Assembly Door Pin	**125**	Disconnector Spring
38	Upper Receiver	**82**	Buttcap	**126**	Trigger
39	Forward Assist Pawl	**83**	Buttcap Screw	**127**	Trigger Spring
40	Forward Assist Pawl Detent	**84**	Rear Swivel Screw	**128**	Magazine Box
41	Forward Assist Detent Spring	**85**	Buttcap Spacer	**129**	Magazine Follower
42	Forward Assist Cap Pin	**86**	Swivel Hinge	**130**	Magazine Spring
43	Forward Assist Cap	**87**	Rear Swivel Pin	**131**	Magazine Spacer
44	Forward Assist Plunger	**88**	Rear Sling Swivel	**132**	Magazine Bottom Plate



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