



GunDigest

AR-15

Assembly Tips



**Bonus Digital
Chapter**

CHAPTER 19 ASSEMBLY TIPS

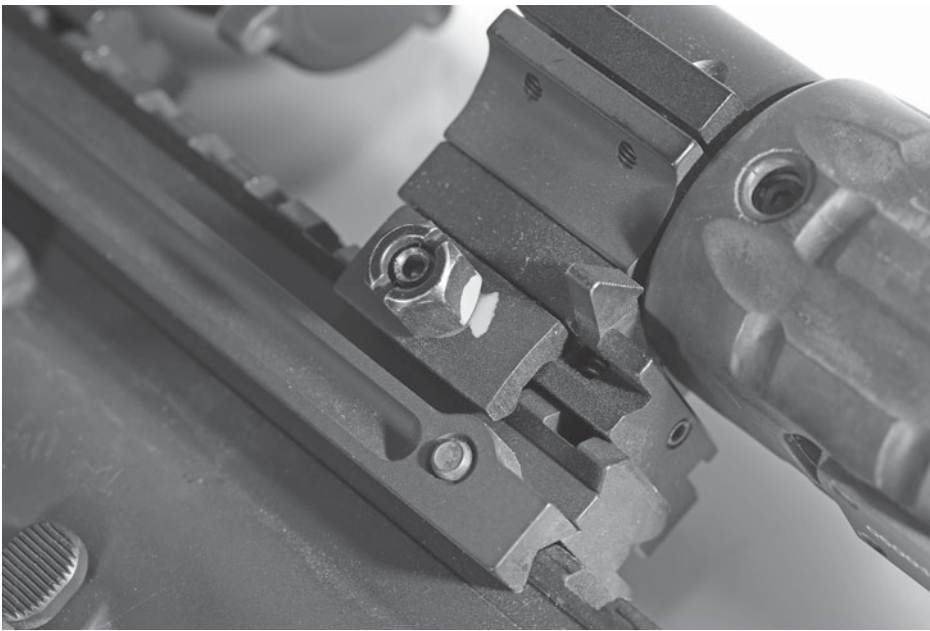
Two questions come up in every AR armorer's class. One is, "What is the best AR?" and the other, "In what order do you assemble a box of parts?" No, really. I get questions like this all the time.

Let's take the second one first, how to assemble an AR from a box o' parts.

First pull everything out of your box o' parts and do an inventory. Some parts may be missing, duplicated, wrong or even unidentifiable.

You want to make sure everything you need is at the ready before you start.

Next, do a preliminary inspection of the parts, making sure they are the correct ones. For instance, if you ordered a barrel with a 1/7 twist, is it marked to reflect that? If not, you have a return or exchange to make. Similarly, if you ordered a barrel with a mid-length gas system, and the gas tube that arrived with it is a carbine or rifle tube, you



Dabs of paint, at strategic locations, can tell you if the fasteners on your rifle have come loose.

need to make a swap. Do you have the correct buffer for the stock? Is it the correct stock?

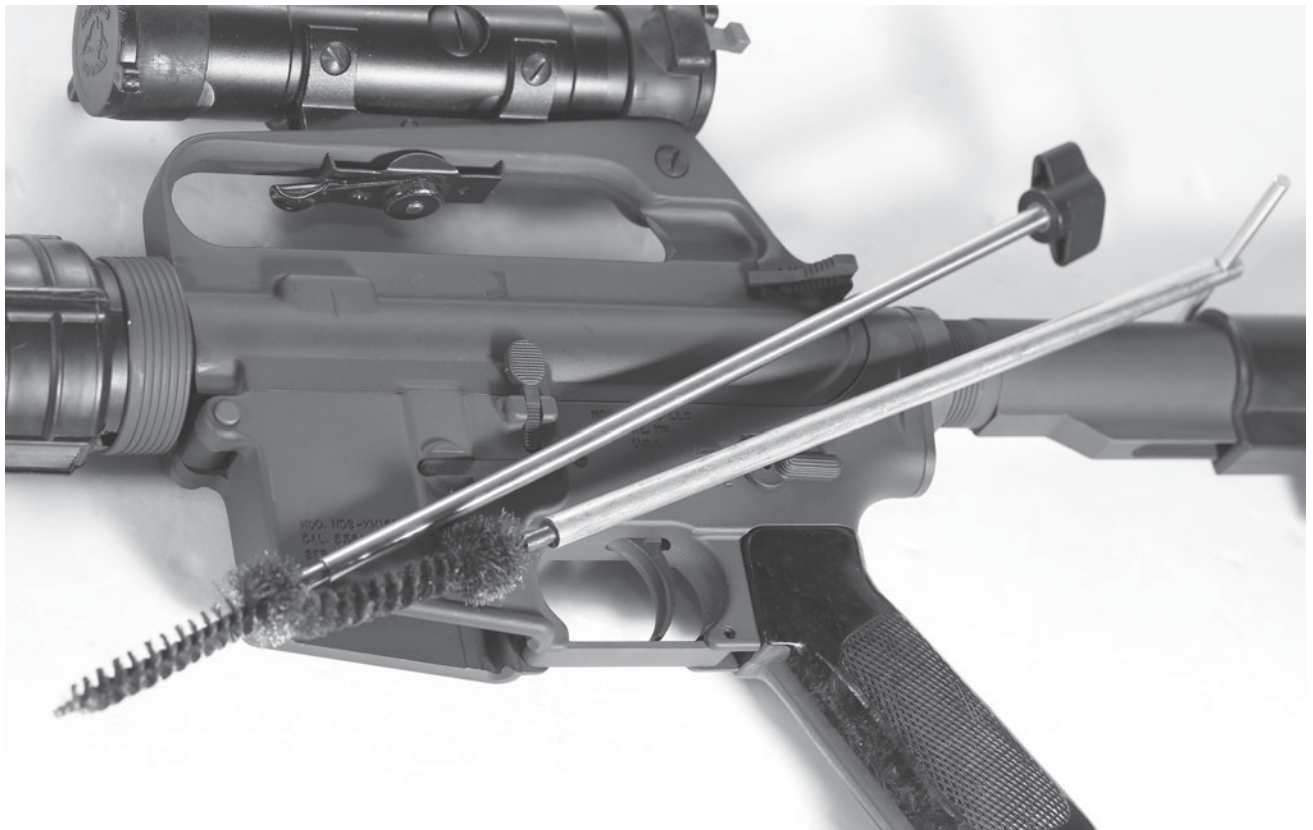
Once you've made sure that all the parts are there, and they are the ones you asked for, you're ready to check fit.

AR ASSEMBLY PROCEDURE

Start with the upper, lower and the two takedown pins. Press the upper and lower together, passing the front pin through. Don't worry about the retainer or spring, just fit the pin. Check that the upper hinges smoothly on the lower. If not, you'll need to swap parts until you find ones that do. Close the upper and lower, pressing the rear pin through. It should slide in smoothly. The upper and lower should have little or no wobble.

If you can't fit the pin in, or it needs to be pressed or hammered, pass on this set and have the place you got it from replace one or both.

Here's a pro tip. If you have other rifles, go on a fit-check mission to see if your other uppers and lowers will match with the new ones. If you're willing to do some swapping, you can often find a set that will work.



No matter where I go with an AR, I take a chamber brush on a T-handle with me. You never know.

If all of your parts came from a genuine mil-spec shop, and they don't fit, you have cause to complain. But the volume of good non-mil-spec products is large. The number of real-deal mil-spec parts is a small subset. You can build a perfectly good AR and not have a single mil-spec part in it. That's your choice.

Check how well the other major parts match. Does the barrel extension slide smoothly into the upper receiver? Is it excessively loose, or does it fit so darn tight you'll need a mallet? Does the buffer tube screw into its hoop on the lower, or not? Is the handguard the one you asked for, and will it fit the barrel length? If it is supposed to come with a replacement barrel nut, does it?

UPPER AND LOWER ASSEMBLY

It doesn't matter if you start assembling the upper or lower. I tossed a coin, and tails came up. So I took that as a sign that I should describe the sequence of assembling a lower first.

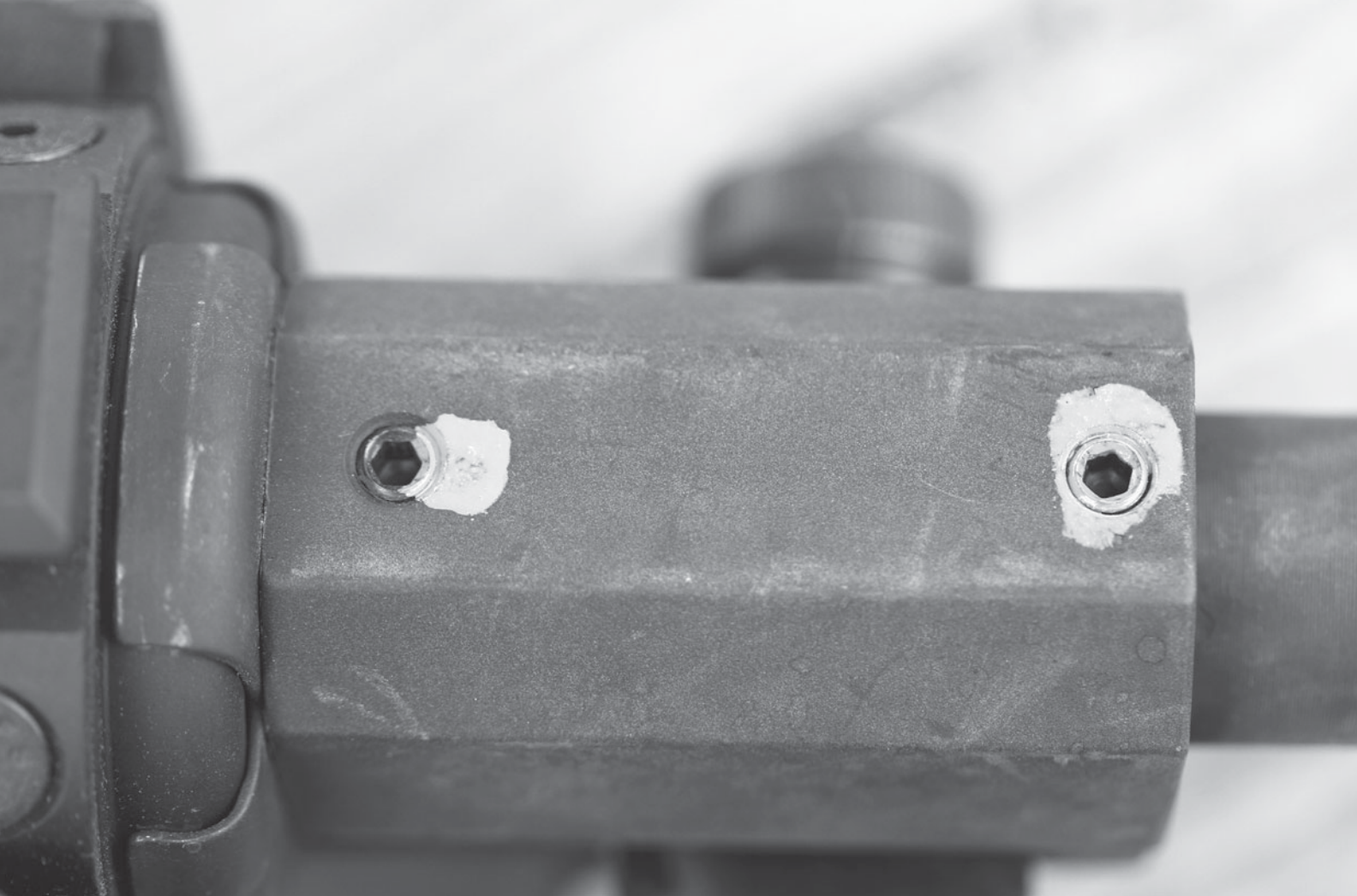
LOWER

Check the fit of the fire control parts in the lower. Do they fit? Do the pins go through? Is the trigger pull something approaching normal? If so, pull them out. Check the fit of a magazine to the lower. Does it slide in normally and fall out of its own weight? Good, then we can go on.

In sequence: Install the bolt hold-open, trigger guard, front take-down pin, fire control parts, pistol grip and then the stock. Since it doesn't have to depend on anything else, you can install the magazine catch any time that suits you. If there are any extra parts or accessories you want to put on the lower, add them last, unless they have a reason otherwise. One example would be the single-point sling plates on buffer tubes. If you are going to use one, install it as part of your stock assembly. Don't install a plain one only to remove it and replace with a single-point.

UPPER

Begin with the bolt and carrier. Check the carrier for a properly staked key. If wrong, get it staked. Assemble the bolt, with all of its upgrades (read about them in Chapter 5) and do the function checks. Install the forward assist, if any, and the ejection port cover. Install the barrel, gas or piston system, flash hider or muzzle device, handguards, sights and optics, and then put the upper and lower together.



There, that wasn't so hard, was it?

Truth is, I had to figure this out from scratch back when Reagan was President. I made mistakes, but then I moved on, and here I am. So, if you make minor mistakes non-essential to function while assembling your rifle, it isn't the end of the world. Look on it as a learning experience, and make the next one better.

THE VERY BEST ARS

What is the best AR? That depends on what you want, need or desire. A SWAT cop going on a raid will be vastly comforted with an SBR, an 11.5-inch telestock carbine and a red dot sight. A suppressor would be heaven. A varmint shooter would not look at that SBR with much enthusiasm. The red dot optic would be inadequate for his needs and the suppressor would be superfluous.

What matters is, does it work? To make sure an AR works, I have a process, a set of tasks that I check and correct if needed.

First, I make sure everything is tight. Then I do a quick dry function check, making sure the safety, trigger, disconnect and hold-open

Once parts are tight, and have stayed tight after testing, they get painted-in.

**What's the best AR? The one
I have checked, inspected,
tested, zeroed and painted-in.
Then it is the best.**



work. I check that magazines fall free of their own weight. (If not, the rifle goes back, as that is not an easy fix.)

If everything checks out, then I begin the inspections that might require mods. If I start wrenching or banging on a new rifle, and then have to send it back, the manufacturer is understandably going to be a bit leery. I might even shoot a new rifle a bit before I make any changes at all, just in case it has a hidden function problem. But once I get to the point that I'm going to keep it, and correct it if needed, I check the following from back to front: castle nut, buffer weight, gas key, leade.

Castle nuts must be staked. I check the tube to make sure it has a good hold on the buffer retainer and then stake if needed. For carbines, run the heaviest buffer the gun will reliably work with, using the softest ammo it can be fed. Do some swap-and-try range work or, if it feels a bit harsh in recoil, jump right to an H3.

The gas key must be tight and staked. If it isn't, it gets tightened (or removed, cleaned, hosed and tightened. Again, see Chapter 5) and then goes through the MOACKS.

And then finally, it must have a 5.56 leade. Measure it with the .223/5.56 Gage from Ned Christiansen (www.m-guns.com) and ream the leade if needed (I also recommend Christiansen's reamer for this job).

Add sling, scope or other accessories as needed to fulfill the niche for which the rifle is being built. Lastly, test fire, establish a zero and make sure it works properly with its assigned magazines. Do the testing with the ammo you expected the rifle to shoot later on, based on application. Paint in the various attachments, settings and parts that need to stay tightly attached. That way, if they loosen, shift or otherwise try to break, you'll have visible evidence of the change.

Then, and only then, is it the best AR.

PAINTING IN PARTS

Just how do you do this "painting-in" thing to which I refer? It starts with a paint pen. When I started this, my local hardware store had Krylon paint pens and that's what I used. I've always been happy with them, but in doing some recent research I found that there are a lot of others. It seems that pretty much anyone who makes paint, offers a pen applicator for it.

With that in mind, my process is as follows:

Ensure that the part to be secured is tight and has been test fired. There's no point in painting until you're certain everything is as it

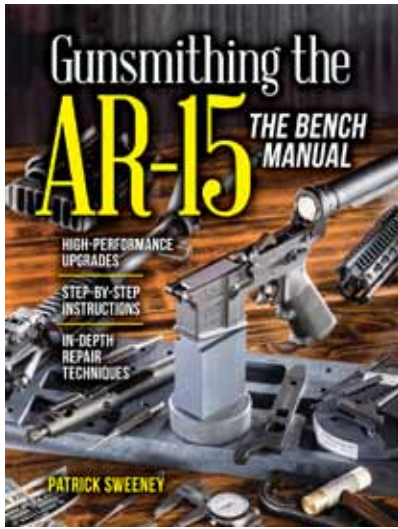
should be. Once you're sure, then you'll need a degreaser, the paint pen and your usual lubricant.

Use the aerosol degreaser or a cotton swab with rubbing alcohol to degrease the area on and around the place to be marked. Take the cap off the paint pen, shaking it to get the paint mixed. Take a few test dabs on a smooth surface that you can clean or toss. Once the paint is flowing, and you have a feel for how much comes out on each press, you can begin.

Apply at the overlap of the screw heads and nuts by pressing the paint pen in once and releasing. That's it. You want a circle or oval of paint, not your signature. The paint will wick into the gap between the nut and surface or the head and surface recess. It will be a visible circle, and if the screw or nut moves, the circle will be broken or misaligned.

That's it, the job is done. Lubricate the area only after the paint has fully dried. Color is up to you. If orange or hot pink does the trick, go for it. If you want to be "tactical," (whatever that means) then select something that is still visible to check, but won't be inappropriate for your setting or social group.

Paint is a simple thing. But sometimes the simple things can make a big difference.



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