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This HOWTO was written in 2000. Since then the prices on bare lowers has gone up a little and the 'assault weapons' ban has expired. I'd like to dedicate this page to the memory of my friend [Mike Jackson](#) who died in March 2003. His enthusiasm for the AR-15 is what convinced me to build my own and write this article.

[The Ultimate AR15 Trigger](#)

The reset is so short I don't even think about it. Jerry Miculek
www.AMERICANTRIGGER.com

After 3 months of waiting I finally received my [M&A Parts](#) C.A.R. 16" rifle kit. But they shipped it with the collapsible CAR stock, not the A2 stock that I ordered, so I can't finish building the rifle yet. I cannot use the CAR stock for a couple of reasons -- One is that I don't like them, and the second is that this is a [Post-Ban](#) rifle, so the US Government, under the divine guidance of Bill Clinton, has deemed it to be illegal for you to put a collapsible stock on a post-ban weapon (at least until the 'Assault Weapon' ban sunsets in October 2004).

[Ar15 Receiver](#)

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Building the AR-15 rifle

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Parts

- \$120 - [Olympic Arms](#) PCR-99 stripped lower receiver
- \$401 - [M&A Parts](#) Post-Ban CAR 16" Kit
- \$50 - Misc. tools from [Brownells](#) including the pivot pin install and removal tools and roll pin punches and holders. Also the bolt catch removal tool is handy for holding things in place while installing the bolt catch
- \$570 - Total

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I actually bought more tools than I needed. What I really used were the roll pin punches and roll pin holders, the pivot pin install and removal tools. I also used a light hammer, block of wood, some cloth to protect the lower from scratches and a screwdriver. Some people say that you can build it without the roll pin punches and holders, but personally I wouldn't recommend it. Having the right tools for the job goes a long way towards making life easier.

Here are all the pieces and the Brownell's tools



I put together the lower using the instructions from www.AR15.com, which is an excellent information source.

I only ran into a couple of small problems:

- The disconnecter spring (the one that is wider at one end) would not fit into my trigger assembly at all, so I had to squeeze the end of it a little bit. You want to make sure that the spring will still function when you do this. It should fit into the trigger assembly tightly at the bottom, leaving the top to be compressed by the disconnecter without catching on anything.
- I installed the take down pin detent backwards (I think). I installed it with the pointy side towards the take-down pin which has a couple of holes machined into the groove to catch the detent and prevent the pin from falling out. But with the pointed side up, I couldn't get the pivot pin to move without patting it with a hammer and piece of wood. I removed it (using a pivot pin detent removal tool, which I luckily bought from [Brownells](http://Brownells.com) along with my other tools. I reinstalled it with the pointed end towards the spring and it works much better.
- The safety selector would not fit smoothly. It was hanging up on the back of the trigger assembly, which was just barely visible when looking through the safety selector hole. I gave it a couple of taps with the hammer and a block of wood and it slid into place. *But that was the wrong way to do it.* I should have removed the hammer and trigger assembly and put in the selector at the same time that I put in the trigger assembly. Live and learn.

Assembled lower receiver



I also have a problem with the upper and lower not fitting together quite right. It seems that the lower must have a slight bump right behind where the forward assist is on the upper because I can't get the take down pin to fit without pushing them together pretty hard. I think I'll sand off the lower at that point until it fits, but I'm still thinking about it.

According to the guys over on www.AR15.com a tight fit between the upper and lower is normal and will probably go away after I put a couple of hundred rounds through it, so I'm not going to worry about it for now.

UPDATE: Sure enough, after fitting everything together and working the takedown and pivot pins back-n-forth a few times everything seems to fit together pretty well.

Assembled rifle, waiting for its stock



UPDATE: I got the stock (thanks to [M&A Parts](#) for getting it shipped out so quickly). I took it to the range this weekend. On the first day out I ran into magazine feed problems, the 2nd to last round wasn't feeding on 2 of my mags. The 3rd one worked fine. I used some mixed ammo I got from a friends (Winchester, Remington) and it worked great. A couple of rounds of the cheap Russian ammo I picked up at the last gunshow misfired - 4 out of about 200 rounds so far. **NOTE:** Do not use the cheap ammo with the lacquer finish on it (Wolf is one manufacturer of this), the finish will melt in the chamber and cause feed problems.

Assembled with A2 stock and 20rd magazine

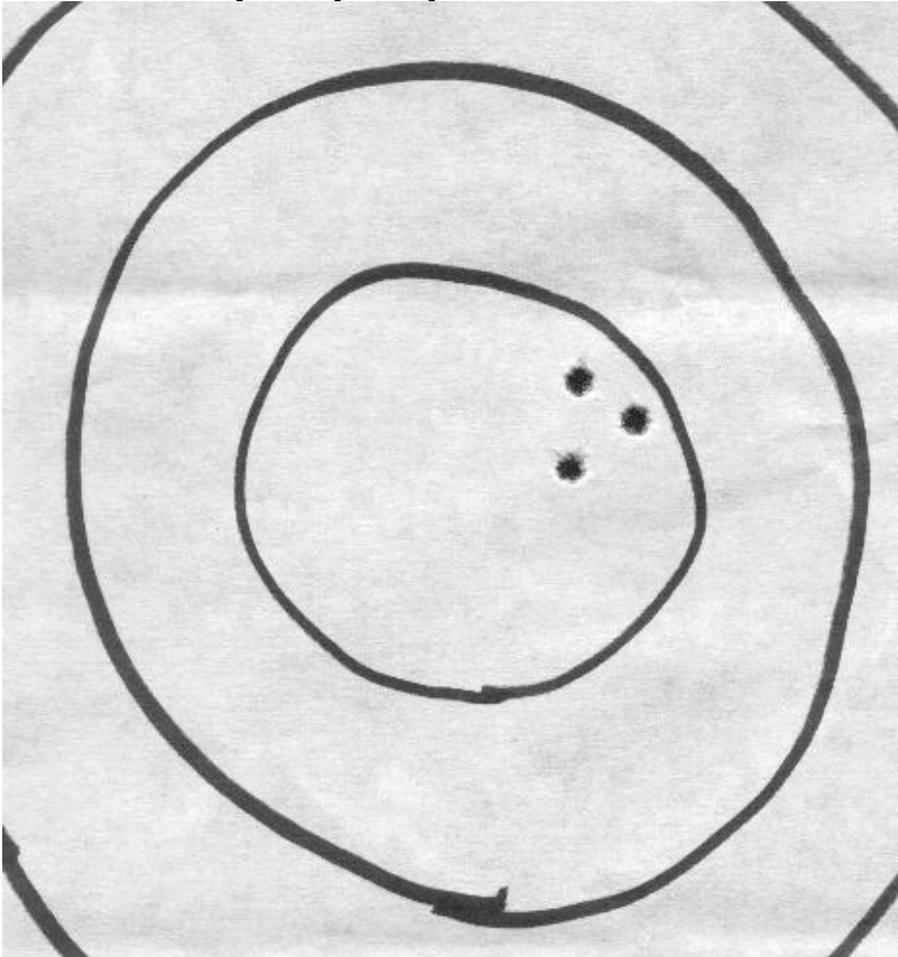


The sights were off, it was shooting high at 25 yards, but I didn't know how to adjust the front sight, so I called it a day after firing about 100 rounds through it. On Sunday I went back, after having learned how to move the front sight up and down (use a bullet tip to depress the little pin and rotate it counter clockwise to lower the point of aim). Just by chance I got it adjusted right on. The first

group on Sunday looked like the picture below! Now I just need to learn how to shoot tighter groups.

I also fixed the mag problem, I think, I bent the right lip slightly so that the base of the righthand stack was a little higher than before, so the bolt will catch and strip it off consistently. It seemed to work, I put another 200 rounds through it Sunday without a problem.

First 3 shots (@ 25yards)



11/16/2002

The mags continued to plague me until the next gunshow where I picked up a bunch of military surplus mags (Universal, OKay, Colt). Those cheap steel mags are totally unreliable. I use surplus mags with metal followers and have only had problems with the 1 Colt magazine that I picked up. I haven't paid more than \$15 for any of them and they all work great.

Since building this one I have built another, using a cast lower receiver from Olympic Arms. I didn't have any real problems other than the hole in the grip not lining up properly (I reamed out the grip hole and it fit). But the cast lowers just feel cheap. Their finish is

rough and they feel brittle. They're probably just as good as forged, but I'll stick with the ones with a better look to them -- those cheap Plinker AR-15s that Olympic Arms is making now are really ugly, with cast upper and lower parts.

I built a 3rd from the forged lower built in this article and a flattop [Olympic Arms](#) upper that I bought at their [Phoenix Rising](#) event. It really isn't building when all you do it put a new upper on the lower, but it fit just fine and works great with a Leupould 3-9x40mm scope on it, or a [Bushnell HOLOSight](#).

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