GUNS&AMMO

AR-15

TOUR DE FORCE

LIMITED EDITION **BCM** EARNS ITS STRIPES

BUILD YOUR OWN

- HYPER-ACCURATE AR
- ULTIMATE PREDATOR GUN
- 3-GUN RIFLE

KAK .300 WSM

UPPERS WITH ATTITUDE

TOP SECRET

ARMY'S NEW ROUND! P.20

GLOBAL GUN LAWS

BY CODY EARDLEY
PHOTOS BY JEFF JONES

HIP TO BE SQUARE

CALL ON X-CALIBER'S B.A.R.T. TO ALIGN YOUR AR.

B.A.R.T. 1.0

Type	Barrel alignment/lapping tool
Material	Stainless steel
MSRP	$50
Manufacturer	X-Caliber Barrel & Mfg. x-caliber.net

B.A.R.T. 2.0

Type	Barrel alignment/ lapping and tightening tool
Material	Stainless steel
MSRP	$200
Manufacturer	X-Caliber Barrel & Mfg x-caliber.net

When trying to achieve maximum accuracy from a bolt-action rifle, there is a checklist of tasks to complete: lap the bolt lugs, free-float the barrel, bed the action and true (or blue print) the action face. Why then, when we put together ARs, do we skip one of these steps?

This topic came up when I was on the phone with Dustin Berg of X-Caliber Barrel & Manufacturing discussing a new AR build. He mentioned that I should use his B.A.R.T. (Best AR Tool) device to square the front of the upper receiver so that it would mate perfectly with the precision barrel I was buying from him. This is a step Berg doesn't overlook due to its critical importance in the firearm's performance.

B.A.R.T. ADVANTAGE

"The vast majority of receivers do not come perfectly square to their centerline. When the barrel nut is tightened down on an untrue receiver, it torques the barrel and ruins the harmonics of the whole build," explains Berg. "Lapping the upper receiver on your AR creates an exact and extremely tight fit between the barrel and the upper receiver, thus maximizing the accuracy and dependability of your rifle."

Berg explained that if the barrel is not square (parallel) with the receiver, the optic will not be mounted on the same plane as the barrel. Berg told me about one case where he clamped a factory upper receiver into a vice then inserted a barrel with a laser in it that projected onto a wall 100 feet away. He then mounted another laser to the Picatinny rail on top of the receiver.

Upon turning on the lasers, the two beams were 6 inches apart at that distance. Amazed at the gap, Berg could only imagine the spread over a couple of hundred yards. After truing the receiver with the B.A.R.T. 1.0, the lasers were aligned.

The tool is a hefty, stainless steel cylinder with a collar that engages the front of the receiver. Its use is so intuitive that it doesn't even come with directions, just a series of pictures that will guide you through the process.

It only takes a few turns to see where the receiver is out of square as the high spot gets shiny quick. After that, just keep spinning the receiver until the tool eats away all the imperfections out of square in the aluminum.

BART 2.0

The B.A.R.T 2.0 was released in late December 2018. The newer version doubles as a receiver tool for taking the stress off the receiver as you mount the barrel and handguard.

After squaring the receiver, flip the tool around in the vise, slide on your upper receiver, then secure the extension to the barrel lugs. When you torque down the barrel nut, all the pressure is on the stainless steel tool instead of flexing and even warping the softer aluminum receiver. "While testing, I cranked hard enough to try and make something bad happen and couldn't do it," said Berg.

It truly is a handy tool, sure to belong in every gun owner's kit.

With the receiver in a vice, turn the tool until the receiver face is shiny all the way around as shown on the right.

The B.A.R.T. 2.0 is also designed to support the barrel instead of the aluminum receiver during torquing of the the barrel nut. Without this support, the receiver can flex and even warp from the forces applied during the tightening procedure.

USING THE B.A.R.T.

1. Clamp the upper receiver in a vice.
2. Use a Q-Tip to smear a dab of lapping compound around the collar of the B.A.R.T.
3. Slide the tool into the receiver until the collar butts up against the threaded face of the receiver.
4. Push the B.A.R.T. against the receiver and spin until the face of the receiver is shiny all the way around. Berg does his by hand, but there is an extension to chuck it into a drill.
5. Insert the barrel and proceed with your build with confidence.