

Another Tactical Upgrade from MGI Military

Text & Photos
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The QCB Upper Receiver for the AR-15/M16/M4

The QCB (Quick Change Barrel) M16 Upper Receiver is one of the most radical modifications to the AR-15/M16/M4 weapons system that the author has seen to date. While I am not aware of any other weapon system with so many options, accessories and available configurations, the list of options continues to grow at an amazing pace. There are countless manufacturers who have products and upgrades for this family of firearms, from muzzle brakes to custom stocks and every piece in between. Some are simple attachments and enhancements such as grips and scope mounts, and others are so radical that the rifle hardly even resembles the original “Black Rifle” anymore. The MGI QCB Upper Receiver falls into the latter category, in both design and function.

Quick-change barrel mechanisms are common in machine guns but are more of a rarity in assault rifles. Examples of QCB systems in larger machine guns would include the M60, the Stoner 63 Rifles, M249, the M240 and the M2HB-QCB by FN-Herstal. The newer M96 Expedition-

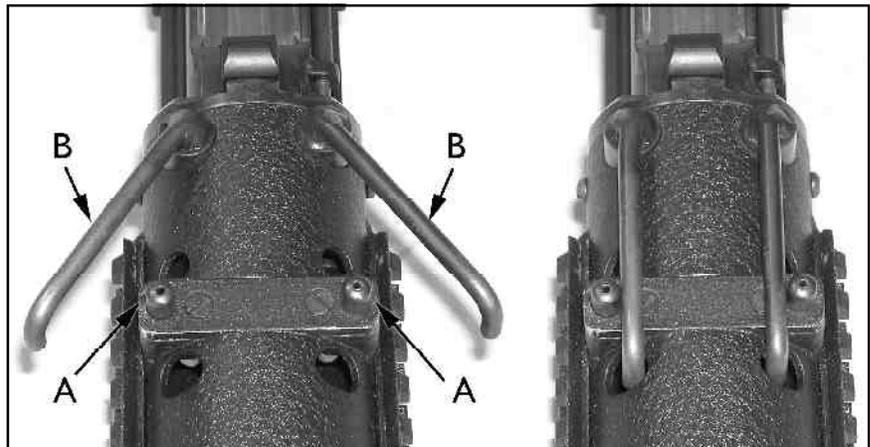
ary Rifle by Robinson Armament also utilizes a QCB similar to the Stoner 63 System it was based on.

Mack Gwinn, the designer of the M2HB-QCB, designed this latest addition to the QCB family. Having over 25 firearms related patents, and founding sev-

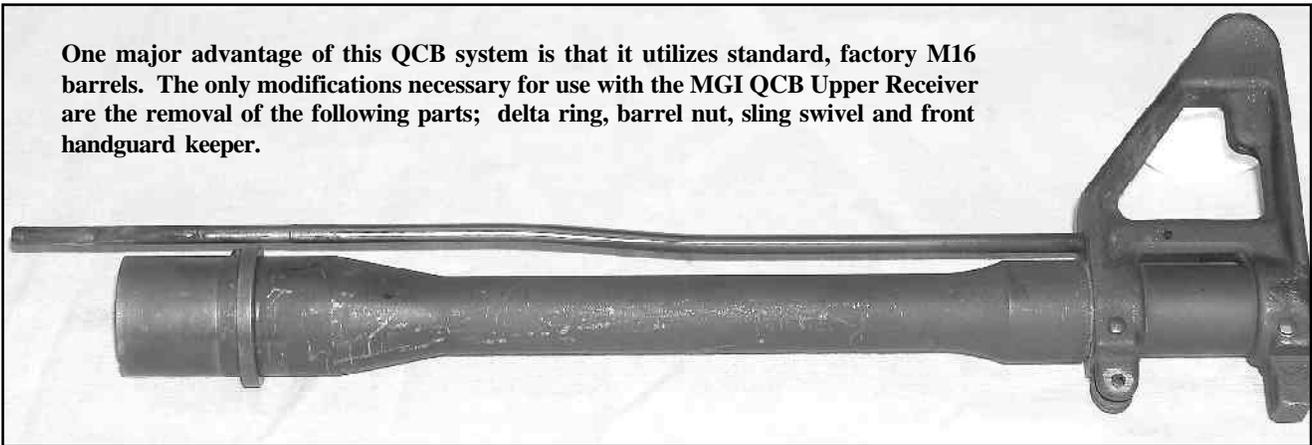
eral firearms companies including Bushmaster and MWG, Gwinn is far from a newcomer to the world of gun design. MGI Military currently offers several upgrades for the M16 weapons system. Their product line includes a rate-reducing buffer, regulated gas tubes, the D-

Lead photo, above: The MGI QCB Upper Receiver on the authors M16 with an EO Tech Holographic Sight and custom .22lr barrel prior to being re-crowned and threaded.

Right: Changing a barrel is as easy as depressing the barrel release lever retainer (A) and swinging open the barrel release lever (B). The old barrel is removed, the new barrel is inserted and the levers are closed until they snap into place as indicated in the example on the right.



One major advantage of this QCB system is that it utilizes standard, factory M16 barrels. The only modifications necessary for use with the MGI QCB Upper Receiver are the removal of the following parts; delta ring, barrel nut, sling swivel and front handguard keeper.



Fender D-Ring and will soon be offering a new lower receiver with interchangeable magazine wells, allowing the user to use common magazines in different calibers. Other products in line for production also include open-bolt firing mechanisms and an open-bolt/closed-bolt mechanism. (Watch future issues of *SAR* for a feature on these once they are in production).

A major advantage of the M16 weapons system is the modular design. Using one lower receiver as a platform, the part the BATF considers the firearm; the owner can effectively have several different rifles just by purchasing new parts. Generally, most of these parts, regardless of manufacturer, are interchangeable with little or no modification. This, combined with the fact that it has been a primary

service rifle for over 40 years and there is a huge inventory of surplus parts, makes it extremely easy to maintain and reconfigure as desired. This huge inventory of parts was not overlooked when the MGI QCB was designed. As radically different as it looks and performs, it actually uses standard barrels. All the owner has to do is remove the original delta ring, barrel nut, sling swivel and front handguard keeper and it is then completely compatible with the MGI QCB upper receiver. This means no expensive, custom or additional proprietary barrels to buy and can be used immediately with all your standard barrels. While none of these changes are permanent, the barrels can always be reconfigured to attach to the factory, standard upper receiver again.

Presently, all MGI QCB upper receivers are manufactured in a flat-top configuration. A 6-inch, MIL-STD-1913 rail interface is mounted on top of the receiver in place of the standard carry handle. On the handguard, there are three more MIL-STD-1913 rails for attaching accessories: a 6-inch rail at the 3 o'clock and 9 o'clock positions and a 2-inch rail at 6 o'clock. The receiver is based on the M16 design utilizing the small front takedown pin so it is completely compatible with all M16s and most AR-15s. Some of the Colt AR-15s use a larger front takedown pin so a reverse offset pin is necessary to replace



Left: Never before has an M16 been so compact as to fit in a standard briefcase, giving operators new storage and transportation options. This example even has a 16-inch barrel complete with flash hider under the foam insert.

Right: The upper and lower receivers are actually shorter than the standard 16-inch M4 style barrel.

the factory one.

With an overall length of only 15 inches, the MGI QCB upper receiver gives the shooter the advantage of having an extremely compact rifle. For comparison, a standard upper receiver with a 16-inch barrel is almost 25 inches long. Utilizing an MGI QCB upper receiver, a complete M16 or AR-15, including a 16-inch barrel, with upper receiver, lower receiver and optics can actually fit completely in a standard briefcase. This gives a professional operator such as a body-guard or special-ops member an amazing amount of firepower in a smaller package than ever before.

To install a barrel in the MGI QCB Upper Receiver, all you do is push down on the spring-loaded barrel release lever retainer, swing out the release levers, insert the barrel, and close the barrel release levers until they snap into place. Barrel changes are accomplished in only seconds. The shooter can be afforded the luxury of having several barrels for different applications that can be changed faster than ever before. Caliber changes are made with ease without the burden and expense of needing additional upper receivers.

The finish on the handguard portion of the MGI QCB upper receiver is a non-glare black phosphate and is made from aluminum keeping the unit lightweight. There are 24 circular cooling vents giving the handguard a similar appearance to a Browning M1919 barrel shroud. The handguard is attached to the upper receiver and is completely free-floating, transferring absolutely no tension on the barrel.

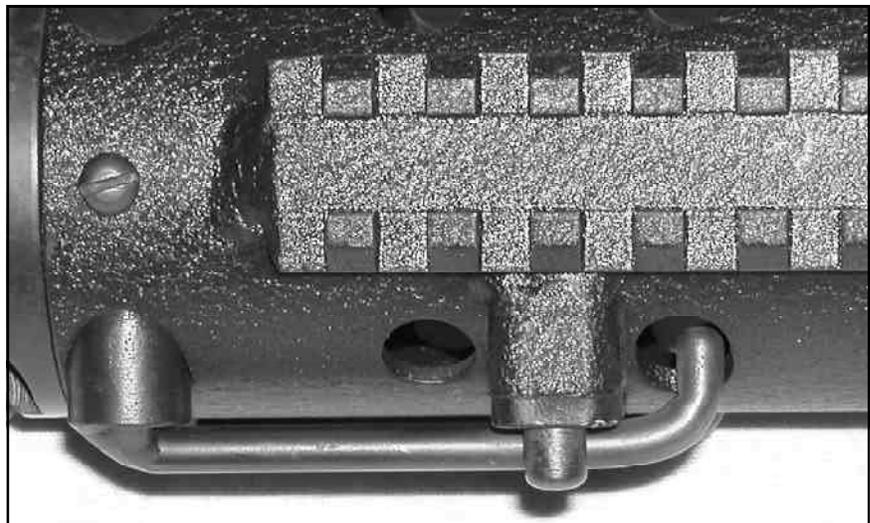
All units are personally test fired by MGI staff before shipping and are guaranteed to function with your standard barrels. Test groups are fired and the barrels are removed. The barrels are reinstalled and test fired again to confirm continuity in the grouping. The rifle will only be as accurate as the shooter, the barrel and the ammunition combination will allow, but the group placement always returns upon disassembly and reassembly of the barrel and upper receiver.

During test firing, the author utilized several barrels with absolutely no failure



Above: The MGI QCB Upper Receiver is topped with a 6-inch MIL-STD-1913 rail interface, clearly marked for precise placement of accessories.

Below: The release levers are very low profile and recess into the handguard so as not to catch on any type of gear, clothing or vegetation.





Overall length of the MGI QCB Upper Receiver is a mere 15 inches.

to function with any of them. For purposes of testing different calibers, 5.56x45mm, 7.62x39mm and .22LR were used. A custom 9-inch, dedicated .22LR barrel was used for that caliber, combined with one of Jonathan Ciener's .22LR Atchisson kits. It functioned without any problems in both semiautomatic and full automatic. Where no gas tube is necessary in the .22LR configuration, a standard barrel may be cut very short without regard to the gas block. The gas block is no longer necessary as a method of handguard attachment so the length of the barrel is determined by the user's imagination.

One thing to note when changing barrels is the bolt carrier must be locked in the rearward position before attempting to remove a barrel. The locking lugs of the bolt otherwise engage the locking mechanism holding the barrel firmly in place. With the Atchisson .22LR kit, the lack of locking lugs may lead you to believe that the barrel can be removed without locking the bolt carrier rearward. However, the bolt hold-open device does not function with the Atchisson kit due to its short cycle, and it was discovered that when the barrel was removed with the kit installed, the kit would slide forward with the buffer often following it. The result was usually a jammed up rifle. It is recommended that if you are utilizing an Atchisson .22LR kit, it should be removed before changing barrels in the MGI QCB upper receiver.

Conclusion

The author, being a big fan of the M16 weapons system, has had the opportunity to test a countless number of enhancements, attachments and upgrades in the past. Only a few have been as drastically altered from the original design as the MGI QCB upper receiver. Some have been manufactured to look different but this enhancement has been designed to function entirely different. The ability to

change barrels so fast and easy gives the shooter an added flexibility over the original design. Configuring your rifle for different tasks can now be accomplished in seconds. A shooter can go from a light barrel to a heavy barrel and from a short barrel to a long barrel in lightning speed utilizing the MGI QCB upper receiver.

The decrease in size when the barrel is removed provides a much smaller package than the original system, giving operators more storage options than before.

The end user now has the option of purchasing spare barrels without needing spare upper receivers. This keeps the expense of barrel and caliber changes to a minimum.

Cleaning the barrel, especially the chamber and locking area, have never been easier. Now that completely removing the barrel to get at this section only involves throwing a couple of levers and a spare second or two, the user can maintain his weapon system better than ever before.

The unit tested by SAR for this evaluation performed exactly as the manufacturer claimed it would and exceeded the expectations of the author. With a suggested retail price of \$550.00 (barrel and bolt with carrier not included), the MGI QCB upper receiver provides the serious AR-15 / M16 collector and shooter opportunities never before possible. As of this writing, units were in stock and shipping regularly.

Sources:

MGI QCB Upper Receivers

MGI Military

Dept. SAR

102 Cottage Street

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(207) 945-5441

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www.mgimilitary.com

Atchisson .22LR Conversion Kits

Jonathan Arthur Ciener

Dept. SAR

8700 Commerce Street

Cape Canaveral, Florida 32920

(321) 868-2200

www.22lrconversions.com

Ammunition

Wolf Performance Ammunition

Dept. SAR

1225 North Lance Lane

Anaheim, CA 92806

(888) 757-WOLF

www.wolfammo.com

Holographic Sights

EOTech, Inc

Dept. SAR

3600 Green Court

Suite 400

Ann Arbor, MI 48105

(734)741-8868

www.eotech-inc.com



An MGI QCB equipped M16 with the barrel removed.