
FIRE
SAFE

SHORT DOT COMBAT OPTIC

Schmidt & Bender's amazing new CQB scope features an illuminated dot on a specially designed reticle, variable power from 1.1x to 4x and a bullet drop compensator.

By Tim Lau ■ Photos by Ichiro Nagata

Optical sights on combat weapons are nothing new. Despite the outcries of anachronistic reactionaries, combat optics are here to stay. This point is in no small part evidenced by the Special Operations Peculiar Modification (SOPMOD) Kit for the M4 carbine, which specified the Trijicon TA01NSN fixed 4x Advanced Combat Optical Gunsight (ACOG) back in the late '90s. This was a rugged and reliable optic that increased the lethality of the M4 carbine at extended ranges.

While magnified optics are highly efficient at intermediate and extended ranges, they are much less so at CQB distances. Attempting to acquire a sight picture through a 4x optic when your threat is only 5 yards away is problematic at best. Due to the extremely limited field of view, along with other factors, the ACOG is ineffective as a CQB tool.

To that end, the Army issued the M68 CCO (Close Combat Optic), otherwise known as the Aimpoint Comp M/M2/M3, depending on the model's generation, to their soldiers equipped with either an M4 carbine or the flat topped M16A4. The M68 is a non-magnified reflex sight, which is not eye-relief critical.

The Aimpoint is tremendously fast and effective for engaging man-sized targets out to 400 meters and beyond. The latest generation M68 has a battery life that exceeds four years, and has a track record of being rugged and dependable in a variety of harsh environments.

Despite the availability of excellent optics for CQB and extended ranges, there remained a void in the market for a suitable general purpose sight that does all things acceptably well, while possessing the necessary reliability and durability for military use.

A few years ago, champion pistol shooter and decorated Army Special Forces veteran Larry Vickers approached Hans Bender to make the first low power variable optic with a specific list of requirements directly related to military use.

As Larry explains, "The Somalia conflict revealed a need for such a scope when US forces operating in the area discovered the Aimpoints being used did not provide the ability for target discrimination at distance." After evaluating what the market had to offer, Larry determined that there was no scope in existence that fit the bill, thus the former operator's effort to convince Schmidt & Bender to build a special CQB scope for military needs.

Why Schmidt & Bender? Because this German optics company has specialized in building the finest riflescopes money can buy for nearly 50 years, and they take their work seriously. They don't make binoculars, spotting scopes, cameras, or crystal collectibles. They only make riflescopes.

Originally designed for hunting by moonlight, Schmidt & Bender optics are considered by many to be the best in the world. Their legacy of producing high quality glass along with their willingness to meet a shooter's needs made them the obvious choice.

After examining all the options, the decision was made to modify the existing 1.25–4x FlashDot model to meet military needs. Larry drew up the specifications, which included:

- One to four magnification
- External adjustments for windage and elevation
- OFF position detents between brightness settings
- NVG (night vision) compatibility
- BDC (ballistic drop compensator) for common military cartridges
- 5 MOA red dot, skeletonized reticle
- Automatic shut-off

Diopter adjustment is made at the rear of the ocular lens while the magnification is changed by a "zenith" short throw power ring. Very little movement is needed to dial the power setting compared to a conventional hunting scope's variable power ring.

After a short prototyping phase, Schmidt & Bender released what is now known as the Gen I CQB Short Dot.

Larry explains, "The minimum power setting was one-point-one due to the fact that the original FlashDot was designed to be 1.25 power. When you made it a one power it actually had a slight ghost image when your eye got closer than normal for proper eye relief. The 1.1 power made this go away with very little or no difference for up-close reflex work."

The Gen I Short Dots have BDC cams available for M855 "Green Tip," Hornady 75 gr. TAP, M118LR/16 and M118LR/20 for use with the SR-25. The 16 or 20 designates barrel length for the SR-25.

Later, the Gen II Short Dot was released to keep the elevation and

Here's a target at 7 yards inside our photographer's house, a typical CQB distance, with the Short Dot set at its lowest 1.1x power...

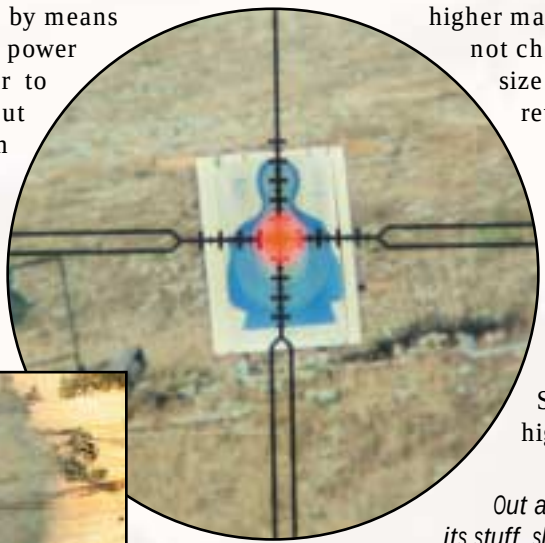
...and here it is at 4x at the same distance. Notice that at 4x, you can't see the target's hands or lower torso while the whole man is visible at 1.1x.

windage knobs from being accidentally turned. Locking turrets for both planes of adjustment were added. The Gen II Short Dots have BDC cams available for M855, M118LR16, and M118LR20.

Inside The Short Dot

Pick up a Short Dot, and the first thing you'll notice is it's big and heavy, size and weight being relative terms, of course. The scope body is approximately 10.6" long and weighs in at 18.7 ozs. Compared to the Aimpoint M68 CCO's 5.1" and 7.1 ounces, it may seem gargantuan. However, the added weight and length is a small price to pay for the additional versatility.

Magnification is adjusted by means of the "zenith" short throw power ring, which allows the user to adjust the optic throughout the entire magnification range in only half a turn. The ring is graduated at half power increments between 1.1 and 4x magnification.



The diopter is adjusted by rotating the rubber ring surrounding the eyepiece. On the Gen II models, windage and elevation are adjusted by pulling the knob out and rotating the knob the desired direction. The knob will return to its locked position when released. The BDC is marked in 50 meter graduations on the elevation knob.

The CQB reticle, designed specifically for the Short Dot, is placed on the first (objective) focal plane. It is extremely fine at low magnification to reduce clutter and allow the eye to pick up the red dot.

As magnification increases, so does the reticle. The reticle itself is a duplex type, with a detailed mil dot center for range finding or hold-overs at higher magnifications. Point of impact does not change with magnification, and the size relationship between target and reticle is unaffected.

The illumination consists of a 5.5 MOA red dot in the center of the reticle. Intensity is adjusted via the turret located to the left of the eyepiece. Stops one through six provide low level intensities compatible with NVG or for use in extremely low light conditions. Stops seven through 11 provide higher intensities for daytime use.

Out at 100 yards, the Short Dot really struts its stuff, showing how a man-size target can be engaged quickly at 1.1x or discerned in good detail at 4x. Notice how the reticle and dot remain in the same proportion to the target, allowing for mildot ranging.

There are OFF positions between each intensity setting. Battery life is rated at approximately 100 hours of continuous use on a three-volt DL2032 watch-type battery.

To protect the precision ground lenses, bikini-type scope covers are included with the optic. The covers are cumbersome at best. I replaced mine with Butler Creek flip open caps.

As there are no published sizes for the Short Dot, EAG Instructor Ben Lenett had to find the sizes the hard way: trial and error. Thanks to his hard work, we now know the requisite sizing: 18-EYE and 02A-OBJ. These are must-have accessories.

Each Short Dot comes with the elevation BDC set at 13 MOA, which is the center of the scope's adjustment range. Once sighted in, the elevation and windage rings can be re-indexed by removing the slotted cap, lifting up the adjustment ring, rotating to desired position, and replacing the slotted cap.

A note about light transmission: contrary to popular belief, there is no such thing as "light gathering." Scopes only transmit existing light— aside from night vision scopes— and no lens is 100 percent efficient. Keep in mind some manufacturers claim 99 percent efficiency, but that's when only one lens is measured. Remember there are eight or nine other lenses in the scope.

Schmidt & Bender manufactures their own glass in-house to strict standards of clarity and purity, in order to achieve total light transmission values approaching 95 percent.

The issue mount for the Short Dot is LaRue Tactical's excellent SPR 1.93. The standard SPR mount raises the optic 1.5", which was insufficient to clear the PEQ-2A IR laser/illuminator. LaRue responded with the 1.93" model, which allows the Short Dot to be compatible with the PEQ-2A.

Shooting The Short Dot

Having been a dyed-in-the-wool Aimpoint believer, I must admit to being initially skeptical when presented with the Short Dot. The size, weight, and requirement for eye relief ran counter to my interpretation of what a CQB optic should be. It wasn't until I had the opportunity to run the shoot house at night that I became a believer.

The optics actually sharpen the perceived image, acting like prescription lenses, aiding in color perception and target discrimination. As Rob Haught is fond of saying of good scopes, "So clear, you can almost see the future." That certainly applies to the Short Dot.

As with any magnified optic, eye relief is an issue. Reflex sights have infinite eye relief, which makes them ideal for CQB operations, since head position is not critical. With magnified optics, the shooter must place his eye in the same position each time in order to get a proper image. The Short Dot is very forgiving in this regard, but as with any new piece of equipment, proper training is essential.

Possibly the single most important capability the Short Dot offers is enhancing the operator's ability to identify his threat. The first phase of John Boyd's OODA loop is "Observe," and part of the observation process is target discrimination. By enhancing that capability, we are increasing our own survivability and enhancing the lethality of the weapons system. The Short Dot does this while still being viable for CQB operations.

As precision riflemen are all too aware, quality glass is not cheap. Many times, the scope itself is worth as much or more than the rifle it is attached to. The German high-speed optic is no exception. However, the Short Dot's optical quality, unique features, and ruggedness make it the best general purpose scope for the M4 carbine. If you're looking for the absolute best scope that does it all, look no further than the Schmidt & Bender CQB Short Dot.

The author is a police officer with a California municipality and a longtime student of the martial arts, including projectile weapons. For more information on the Short Dot, go to www.schmidtbender.com

The uppermost turret incorporates a BDC, interchangeable for several standard-issue 5.56mm loads, dialable in both minutes of angle and yardage. The left turret, set here at 11, is the brightness of the illuminated red dot. In between every number is an OFF position.