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Guide to using

Nikon BDC Reticle

Instruction manual

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Thank you for choosing the Nikon BDC reticle riflescope / crossbow scope. The BDC reticle is designed to compensate for the trajectory of your firearm or crossbow. Regardless of the particular style of BDC reticle you have, the position of the circles are based upon an average trajectory for some of the more popular projectiles and cartridges on the market based upon the intended use of the scope itself.

Please note that the reticle is based upon ballistic information and may or may not meet the same results for you as there are many variables that come into play such as:

- Actual Velocity (Ammunition manufactures' information in regards to muzzle velocity may or may not match the velocity your firearm or crossbow produces. The best way to determine the actual muzzle velocity for your firearm or crossbow is to use a chronograph).
- Temperature
- Humidity
- Altitude
- Barometric Pressure
- Condition and inherent accuracy of the firearm
- The mounting system and how true it positions the scope to the centerline of the bore

As you read further into this manual, you will see the suggested parameters in which the reticle was based. These parameters will help you get started in optimizing your setup. While these parameters are a great guideline, we highly recommend you visit the following website to truly ballistically match your scope to the cartridge or crossbow bolt you are shooting.

www.nikonhunting.com/SpotOn

The Spot On website has been designed to provide accurate information that matches the ballistics of whatever projectile you are shooting directly to the reticle.

Please note that you should verify that your set up matches the information provided in this manual or the Spot On program before venturing into the field. The only way to truly verify the information is by actual shooting. Again, the variables listed above may or may not affect the results.

Note: It is imperative that the reticle be level in relation to the firearm. If the reticle is canted, even just a few degrees, it can cause the shot to drift off the centerline of the point of aim. There are many commercial leveling devices on the market, but the one that we find to be the most accurate in leveling the reticle is a plum bob. Use a bubble level to make sure the firearm or crossbow is level, then look through scope at an appropriately placed plumb bob and align the reticle accordingly.

Please also note that all Nikon BDC reticles were originally designed to be used on the **highest magnification**. Since changing the magnification changes the position of the circles in relation to the target, the distances listed along with each of the illustrations are at the highest magnification. The center crosshair does not change with magnification as it is placed in the optical center of the scope. The benefit of the Spot On program is that it calculates the distance that each circle represents at every magnification. You can even print a chart that shows the distance for each circle at each magnification that is present on the scopes magnification ring.

Standard BDC

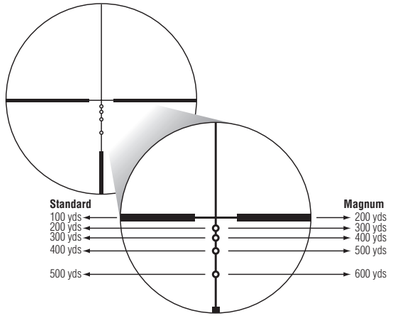
The standard BDC reticle is designed for use with either of the following cartridge categories. Please note that we highly recommend polymer tipped bullets for long range shooting as they are more aero-dynamic and tend to provide a flatter trajectory.

Standard Velocity – Cartridges with a muzzle velocity of approximately 2,800 feet per second.
We recommend that you zero the firearm at 100 yards with standard velocity cartridges, this would provide bullet drop compensation for 200, 300, 400 and 500 yards using the respective ballistic circles as shown in the image on the next page.

Magnum Velocity – Cartridges with a muzzle velocity of approximately 3,000 feet per second.
We recommend that you zero the firearm at 200 yards with magnum velocity cartridges, this would provide bullet drop compensation for 300, 400, 500 and 600 yards using the respective ballistic circles as shown right.

Please note that your firearm may or may not match the information listed for bullet drop based upon the variables listed in the beginning of the manual.

What if the cartridge you are shooting does not fall into either one of the above categories? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, even if your cartridge does fall into one of the above categories, we highly recommend that you check out the Spot On website as it will provide exact yardages that each circle represents, providing unparalleled ballistic data for long range shooting.



Standard BDC

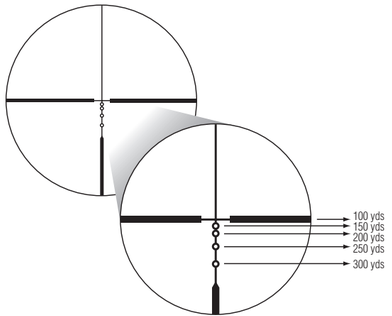
BDC 300

The BDC 300 reticle was designed to match the trajectory of today's modern inline muzzleloaders. With advancements in projectiles and black powder, the modern inline is capable of accuracy as well as knock down power out to, and beyond 300 yards.

The BDC 300 reticle is designed to be zeroed at 100 yards using a 250 grain aero-dynamic, polymer tipped bullet along with a 150 grain powder charge. The reticle would then provide bullet drop compensation for 150, 200, 250 and 300 yards using the respective ballistic circles as shown on the next page.

Please note that your firearm may or may not match the information listed for bullet drop based upon the variables listed in the beginning of the manual.

What if you prefer to shoot a 200 grain bullet and 100 grain of powder, or any other combination or bullet weight and powder? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, we highly recommend that you check out the Spot On website as it will provide exact yardages that each circle represents, providing unparalleled ballistic data for long range shooting.



BDC 300

BDC 200

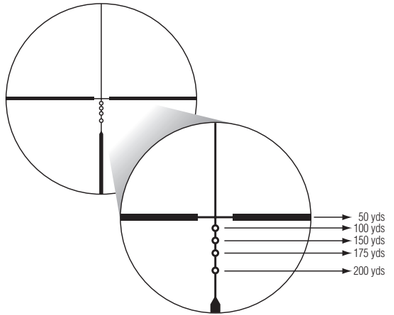
The BDC 200 reticle was designed for use with modern, high velocity sabot style slugs when used in fully rifled slug guns. We recommend using slugs that have an aero-dynamic polymer tip design as these have a higher ballistic co-efficient and provide flatter trajectory over longer ranges.

The BDC 200 reticle is designed to be zeroed at 50 yards with a polymer tipped slug with an approximate muzzle velocity of 1,900 feet per second. The reticle would then provide bullet drop compensation for 100, 150, 175 and 200 yards using the respective ballistic circles as shown on the next page.

Please note that your firearm may or may not match the information listed for bullet drop based upon the variables listed in the beginning of the manual.

Note: We highly recommend that you try various brands of ammunition to see what round is the most accurate in your respective slug gun.

What if you prefer to shoot a full bore diameter Foster type slug, or prefer to zero your firearm at 100 yards? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, we highly recommend that you check out the Spot On website as it will provide exact yardages that each circle represents, providing unparalleled ballistic data for long range shooting.



BDC 200

BDC Predator Reticle

The BDC Predator reticle was designed specifically for hunting coyote, fox and other predator, especially when calling those animals. The open circle design allows you to bracket the animal for fast target acquisition as predators are constantly on the move.

The reticle is designed around 2 of the most popular varmint cartridges, the .223 Remington and the 22/250 Remington using 55 grain polymer tipped bullets.

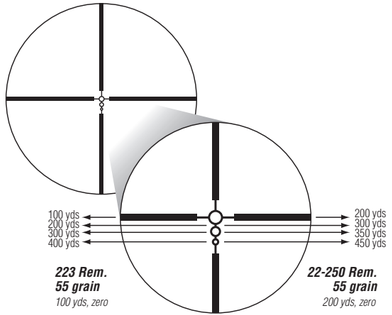
Note: When initially zeroing the BDC Predator reticle we highly recommend using a round or circular bulls-eye type target versus a diamond style. Your eye will naturally center the circle type target making it easier to zero the firearm.

When using the .223 Remington, we recommend that you zero the firearm at 100 yards, using the center circle.
The reticle would then provide bullet drop compensation for 200 (bottom of the center circle), 300yards (center of second circle) and 400 yards (center of third circle) using the respective ballistic circles as shown on the next page.

When using the .22/250 Remington, we recommend that you zero the firearm at 200 yards, using the center circle.
The reticle would then provide bullet drop compensation for 300 (bottom of the center circle), 350yards (center of second circle) and 450 yards (center of third circle) using the respective ballistic circles as shown right.

Please note that your firearm may or may not match the information listed for bullet drop based upon the variables listed in the beginning of the manual.

What if your choice of predator round is the .204 Ruger or the .220 Swift? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, we highly recommend that you check out the Spot On website as it will provide exact yardages that each circle represents, providing unparalleled ballistic data for long range shooting.



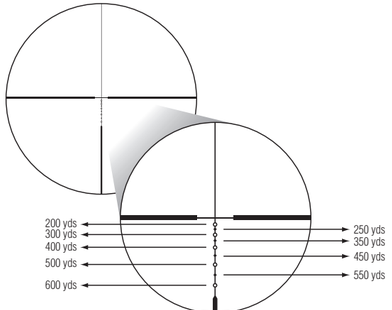
BDC Predator Reticle

BDC 600

The BDC 600 reticle was designed specifically for the AR platform rifle in .223 Remington using a 55 grain polymer tipped bullet with a muzzle velocity of 3,240 feet per second. The reticle was designed for a 100 yard zero, with circles representing 200, 300, 400, 500 and 600 yards, with hash marks in between the circles for hold points of 250, 350, 450 and 550 yards as shown on the next page.

Please note that your firearm may or may not match the information listed for bullet drop based upon the variables listed in the beginning of the manual.

What if your choice of round in your AR rifle is the .308 Winchester? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, we highly recommend that you check out the Spot On website as it will provide exact yardages that each circle represents, providing unparalleled ballistic data for long range shooting.



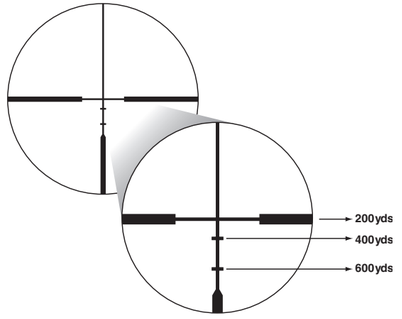
BDC 600

BDC Carbine

The BDC Carbine Reticle was designed specifically for compact AR platform rifles in .223 Remington using a variety of ammunition and muzzle velocities. We recommend using 50 grain to 62 grain polymer tipped bullets at muzzle velocities of 3000fps +. The reticle is designed for a 200 yard zero, with hash marks representing 400 and 600 yards, allowing you to quickly bracket targets at 300 and 500 yards respectively.

Please note that your firearm may or may not match the information listed for bullet drop based upon the variables listed in the beginning of the manual.

What if your choice of round in your AR rifle is a 40 grain bullet at 3600fps? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, we highly recommend that you check out the Spot On website as it will provide exact yardages that each hash mark represents, providing unparalleled ballistic data for long range shooting



BDC Carbine

BDC Handgun Reticle

The BDC Handgun reticle was designed to provide Bullet Drop Compensation for modern handguns capable of firing centerfire rifle cartridges with muzzle velocities between 2,500 and 2,600 feet per second. Here are a list of the cartridges that were used in the testing and development of the BDC Handgun reticle.

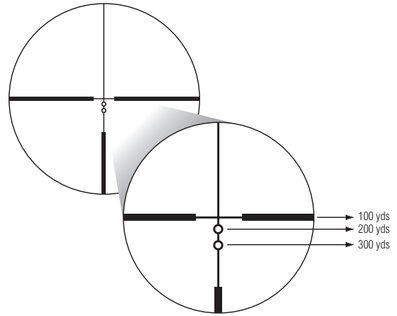
7mm/08 Remington – 140 grain polymer tipped bullet
.308 Winchester – 165 grain polymer tipped bullet
.270 Winchester – 130 grain polymer tipped bullet
30/06 Springfield – 165 grain polymer tipped bullet

The reticle was designed for a 100 yard zero, with circles representing 200 and 300 yards as shown on the next page.

While there are a multitude of handgun cartridges available, we designed the reticle for the most popular cartridges used for long range handgun shooting and hunting.

Please note that your firearm may or may not match the information listed for bullet drop based upon the variables listed in the beginning of the manual.

What if your choice of hunting handgun round is the .460 or .500 S&W? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, we highly recommend that you check out the Spot On website as it will provide exact yardages that each circle represents, providing unparalleled ballistic data for long range shooting.



BDC Handgun Reticle

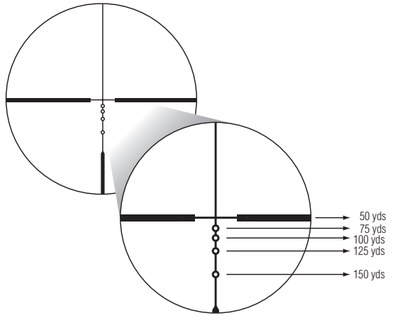
BDC 150

The BDC 150 reticle was specifically designed to match the trajectory of today's hyper velocity .22 LR rimfire cartridges and provide the same Bullet Drop Compensation found in other Nikon BDC reticle scopes.

When using a .22 LR with a muzzle velocity of approximately 1,600 feet per second, the reticle is designed to be zeroed at 50 yards, providing bullet drop compensation for 75, 100, 125 and 150 yards using the respective ballistic circles as shown on the next page.

Please note that your firearm may or may not match the information listed for bullet drop based upon the variables listed in the beginning of the manual.

What if you are a big fan of the .17 HMR or .22 Magnum rimfire? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, we highly recommend that you check out the Spot On website as it will provide exact yardages that each circle represents, providing unparalleled ballistic data for long range shooting.



BDC 150

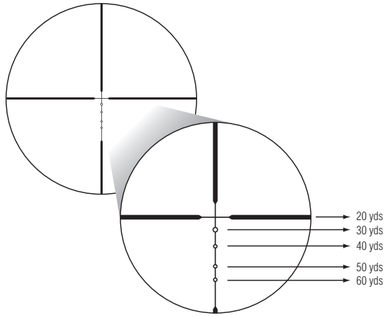
BDC 60

The BDC 60 reticle was specifically designed to match the trajectory of today's modern crossbows and provide Bolt Drop Compensation out to 60 yards, which we feel is the maximum ethical range for crossbow hunting. It is important that you determine the actual velocity of your crossbow using a chronograph as manufacturers' specifications can vary. Most local archery pro shops have chronographs readily available for you to obtain accurate velocities from you set up.

The reticle is designed to be zeroed at 20 yards with a 400 grain bolt (including a 100 grain field point, bullet point or broadhead) with the crossbow having an average velocity of approximately 305 feet per second. The ballistic circles would then provide bolt drop for 30, 40, 50 and 60 yards as seen on the next page.

What if your crossbow shoots slower or faster then 305 feet per second? NO PROBLEM, just go to the Nikon Spot On website (www.nikonhunting.com/SpotOn) and you can match your exact cartridge to the reticle. In fact, we highly recommend that you check out the Spot On website as it will provide exact yardages that each circle represents, providing unparalleled ballistic data for long range shooting

Please note that your crossbow may or may not match the information listed for bolt drop based upon the actual velocity of the crossbow that you own. We highly recommend that you visit www.nikonhunting.com/SpotOn



BDC 60

Guide to Using the Spot On Ballistic Match Technology program

The Spot On program is the most comprehensive ballistic database in the industry with over 5,000 ammunition/cartridge selections. The Spot On program allows you to match your cartridge to any Nikon BDC reticle in 3 simple steps.

Step 1 – Choose your scope/reticle
Step 2 – Select the caliber and actual cartridge you wish to match to your scope
Step 3 – Select the distance you wish to zero the firearm.
Hit the FIRE button that the program will automatically calculate the distance that each circle represents.

You can then print a copy of the ballistic chart and tape it to the side of your stock for fast in the filed reference.

If you handload your ammo, there is a complete section for you to enter your personal custom information based upon the bullet weight, ballistic coefficient and velocity of your handload. All you need to do is click on the button that says “Customize load/ammo/bullet”, enter the specifications of your handload, and click FIRE. The program automatically calculates the bullet drop in relation to the reticle based upon the information entered.

What if you don’t have a BDC reticle riflescope? The Spot On program still provides valuable ballistic information for NikoPlex, MilDot or standard Crosshair type reticles.
All you need to do is select your scope and reticle in Step 1, then click the button that says “Optimize your load”. Enter the size of your target and your target distance and the system will calculate your maximum point blank range based on the target size your selected.

There is even a magnification slide that shows you what distance the ballistic circles represent at every magnification.

There are options for changing weather and atmospheric conditions, printing and comparing loads as well as graphs and windage calculation.

The Spot On program allows you to explore all of the possibilities of what your cartridge/firearm are capable of before you even go to the range.

You can find the Spot On program free on www.nikonhunting.com/SpotOn, or you can purchase a version at a Nikon authorized retailer or at the Spot On website so you can take the program anywhere you take your laptop even if you do not have an internet connection.

Want Spot On information while you are in the field? Check out the iPhone® mobile digital device application on iTunes® application program and have instant ballistic information while you are at the range or on the hunt right from your handheld mobile device.

If you have any questions in regards to Nikon products, please contact us at:

Nikon Technical Support
8AM - 2AM (Eastern)
7 days a week
1-800-Nikon-US
1-800-645-6687

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For more information and availability of specific BDC riflescope models check out www.nikonhunting.com

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