PRIMARY ARMS®
OPTICS

SLX® 3-18x50 FFP

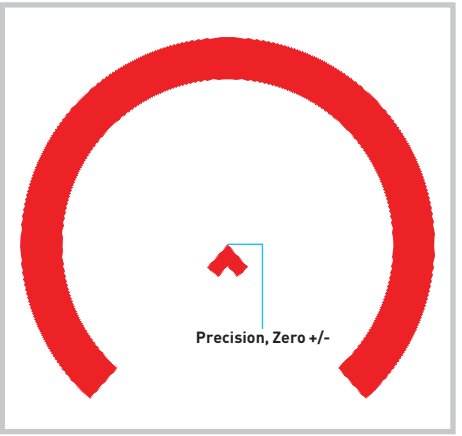
ACSS® HUD DMR .308
RETICLE MANUAL

THE HUD DMR RETICLE

ACSS HUD DMR .308 is intended for use with .308 Winchester loadings and certain .223 Remington loadings. This reticle is also compatible with particular loads of 6.5 Grendel and 5.45. This revolutionary reticle uses the holdover method to solve the problems involved in engaging moving targets appearing at unknown ranges.

When using HUD DMR there is no need to run calculations or count clicks on windage or elevation adjustment knobs. All the math has been done! You can find more information about ACSS and how to use your reticle by visiting primaryarmsoptics.com.

FAST AQUISITION



ESTABLISHING ZERO, OR DIALING IN YOUR SCOPE

Use the horseshoe for fast target acquisition and the chevron tip for precision. The "base load" for HUD DMR .308 is a 175 grain Sierra Match King bullet traveling at 2650 fps at the muzzle. The following charts give detailed ballistics data for alternate loadings, based on a 100 yard zero. Depending on type of ammunition, barrel length and weather conditions, the point of impact will vary. Using a ballistic calculator can greatly assist in understanding the bullet drop for your exact rifle and conditions. (Ballistic Charts on page 2 & 3)

- Locate your ammunition type and muzzle velocity
- Certain situations will require you to adjust zero and dial in +/- in inches at 100 yards. For example, the .223 Remington 77gr SMK at 2,800 fps should be zeroed so the point of impact is a half inch under the point of aim at 100 yards.
- The red highlighted lines indicate the boundaries of the "danger zone" for a standard 5' tall target with no holdover or scope adjustment.

HUD DMR .308 BALLISTIC CHARTS

.308 LOADS

168gr SMK 2700 FPS			M80 148gr FMJ 2790 FPS			HNDY 180gr AMAX 2550 FPS			HNDY 168gr AMAX 2700 FPS			HNDY 178gr AMAX 2700 FPS		
Range (Yards)	Drop (in)	Drop (MOA)	Range (Yards)	Drop (in)	Drop (MOA)	Range (Yards)	Drop (in)	Drop (MOA)	Range (Yards)	Drop (in)	Drop (MOA)	Range (Yards)	Drop (in)	Drop (MOA)
0	↓-2.50	0	0	↓-2.5	0.00	0	↓-2.50	0.00	0	↓-2.5	0.00	0	↓-2.5	0.00
100	-0.00	-0.00	100	-0.00	-0.00	100	-0.00	-0.00	100	-0.00	-0.00	100	-0.00	-0.00
200	-3.00	-1.43	200	-2.72	-1.30	200	-3.47	-1.66	200	-2.94	1.41	200	-3.21	-1.53
228	↑-5.02	-2.09	234	↑-5.08	-2.06	220	↑-5.02	-2.17	229	↑-5.01	-2.08	224	↑-5.00	↑-2.12
300	-12.42	-3.95	300	-11.61	-3.70	300	-13.65	-4.34	300	-12.14	-3.87	300	-12.97	-4.13
400	-29.42	-7.02	400	-27.82	-6.64	400	-31.38	-7.49	400	-28.57	-6.82	400	-30.24	-7.22
500	-55.42	-10.58	500	-52.77	-10.08	500	-57.66	-11.01	500	-53.58	-10.20	500	-56.20	-10.73
600	-92.24	-14.68	600	-88.26	-14.05	600	-93.62	-14.90	600	-87.97	-14.00	600	-92.22	-14.68
700	-142.09	-19.38	700	-136.58	-18.63	700	-140.60	-19.18	700	-134.00	-18.28	700	-139.96	-19.09
800	-207.71	-24.79	800	-200.70	-23.96	800	-200.13	-23.89	800	-193.45	-23.09	800	-201.36	-24.04
900	-29.32	-31.02	900	-284.50	-30.19	900	-273.98	-29.07	900	-268.70	-28.51	900	-278.73	-29.57
1,000	-399.32	-38.16	1,000	-393.07	-37.54	1,000	-365.19	-34.78	1,000	-362.47	-34.61	1,000	-374.71	-35.78

A NOTE ABOUT 5.56 NATO M193 55GR

While the BDC in the reticle and the information in the chart show bullet drop information out to 1,000 yards, real-world testing has shown that M193 specification 55gr ammunition loses consistency beyond 600 yards. 62gr or 77gr ammunition should be used for best results at longer ranges.

HUD DMR .223 BALLISTIC CHARTS

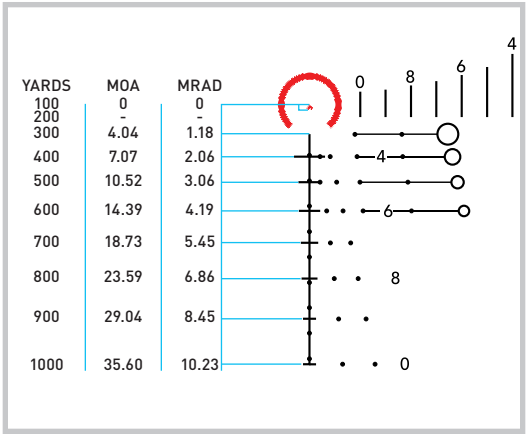
.223 LOADS

75gr HNDY 2750 FPS			75gr HNDY AMAX 2700 FPS			77gr SMK 2800 FPS +.5" @ 100 YARDS			55gr FMJ 2950 FPS			62gr FMJ 2900 FPS		
Range (Yards)	Drop (in)	Drop (MOA)	Range (Yards)	Drop (in)	Drop (MOA)	Range (Yards)	Drop (in)	Drop (MOA)	Range (Yards)	Drop (in)	Drop (MOA)	Range (Yards)	Drop (in)	Drop (MOA)
0	↓-2.50	0	0	↓-2.50	0.00	0	↓-2.50	0.00	0	↓-2.50	0.00	0	↓-2.50	0.00
100	-0.01	-0.01	100	-0.01	-0.01	100	-0.51	-0.49	100	-0.00	-0.00	100	-0.00	-0.00
200	-2.87	-1.37	200	-2.99	-1.43	200	-1.80	-0.86	200	-1.80	-1.28	200	-2.53	-1.21
230	↑-5.01	-2.07	228	↑-5.02	-2.09	228	↑-5.04	-1.95	228	↑-5.05	-2.06	237	↑-5.04	-2.02
300	-12.12	-3.86	300	-12.42	-3.95	300	-10.57	-3.37	300	-12.21	-3.89	300	-11.26	-3.58
400	-28.96	-6.91	400	-29.37	-7.01	400	-27.25	-6.50	400	-30.97	-7.39	400	-27.71	-6.61
500	-54.90	-10.49	500	-55.19	-10.54	500	-53.69	-10.25	500	-62.45	-11.93	500	-53.87	-10.29
600	-91.81	-14.61	600	-91.51	-14.56	600	-92.27	-14.69	600	-112.05	-17.83	600	-92.43	-14.71
700	-142.02	-19.37	700	-140.33	-19.14	700	-146.05	-19.69	700	-187.80	-25.62	700	-147.14	-20.07
800	-208.38	-24.87	800	-204.05	-24.36	800	-218.76	-26.11	800	-296.87	-35.44	800	-223.25	-26.65
900	-294.27	-31.22	900	-285.53	-30.30	900	-314.76	-33.40	900	-444.29	-47.14	900	-327.49	-34.75
1,000	-403.53	-38.53	1,000	-388.05	-37.06	1,000	-438.63	-41.89	1,000	-635.11	-60.65	1,000	-465.01	-44.41

HUD DMR .308 SUBTENSIONS

The following chart gives the vertical breakdown of the HUD DMR bullet drop compensation ladder in yards, MOA, and Milliradians, known as MILs or MRADs.

BDC .308/.223



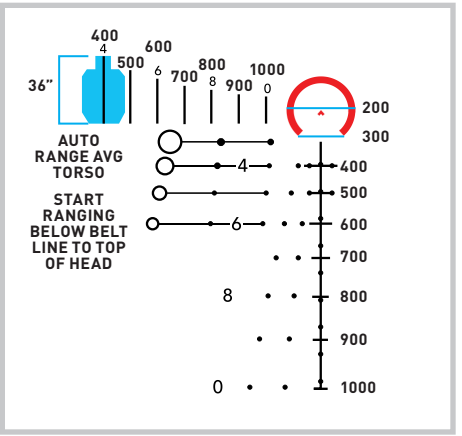
THE AUTO-RANGE SCALE

Misidentifying the range to the target is the number one reason shots are missed out in the field.

Vertical auto-ranging is calibrated for a target 36" tall. Simply line up the bottom of the target with the bottom of the vertical bars located to the left and right of the horseshoe and chevron. The line that corresponds with the top of the target indicates the distance to the target. For example, if the top of the target matches the top of the line with a "4" next to it, the target is 400 yards distant. You can also use the ranging lines to estimate distances within the hundred-yard increments. If a 5'10" target measures halfway between the "4" and "5" lines, the target's approximate distance is 450 yards.

Horizontal ranging is calibrated for an 18" wide target. Simply line up the target's width with the appropriate line to determine range to target. For instance, an 18" wide target matches the "6" horizontal ranging line at 600 yards. Because the ranging lines are correlated with the BDC, you will already be holding your rifle at the correct elevation for a 600 yard shot. This method is useful when the target's height is partially obscured, as with a target in tall grass.

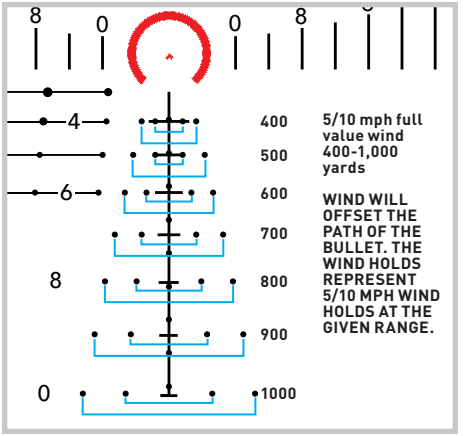
AUTO RANGE



THE AUTO WIND SCALE

Wind is the second most common reason shots are missed. Even a 2 mph wind at a 90 degree angle to the bullet's path can cause the bullet to drift over 10" at 600 yards. The ACSS HUD DMR reticle includes 5 and 10 mph wind hold dots at each range, improving hit probability. The wind hold dots can be used as a starting point to make other holdovers to compensate for wind. For example, if you have a 20 mph wind, you would double the hold of the 10 mph wind dot. For a wind pushing left to right, use the dots on the right side of the reticle. For a wind pushing right to left, use the dots on the left side of the reticle.

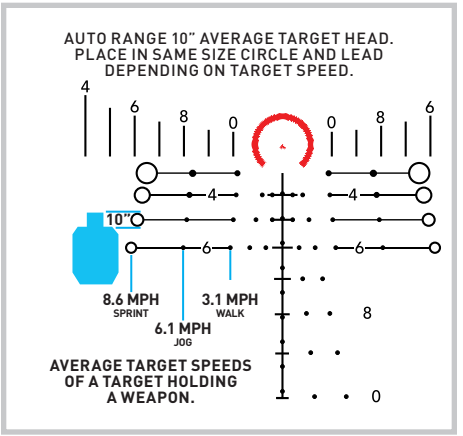
HUD DMR AUTO WIND



MOVING TARGET AUTO LEADS

Moving target leads from 3.1 mph to 8.6 mph have been pre-calculated from 300 to 600 yards. The moving target lead dots auto range for a 10" diameter target. Looking through the scope, consider the target's speed and fit a 10" target section inside the correct circle to auto-range and lead simultaneously. For targets moving left to right, aim using the leads on the left side of the reticle. For targets moving right to left, aim using the leads on the right side of the reticle.

AUTO RANGE



In close quarters shooting, target acquisition is paramount. Most scope reticles struggle to balance long-range and short-range tools, causing imbalances in the optic's performance. The ACSS HUD DMR reticle makes no such compromises. This reticle leverages the optic's first focal plane design to offer you the best of both worlds.

At low magnification, the field of view and eyebox expands, improving tolerance for dynamic movement. At the same time, the reticle scales down to highlight the chevron and bold outer horseshoe. This horseshoe provides two functions: drawing the eye and capturing point of impact. Compared to a simple dot or crosshair, the horseshoe draws your eye for faster acquisition, making it easier to center on targets. The horseshoe is also superior for estimating point of impact, as dots and crosshairs can leave the shooter guessing. At extreme close quarters, you can utilize the bottom of the horseshoe for aim, adjusting upward as distance increases towards their zero.

As distance increases, turn up the magnification. The reticle will grow in scale, revealing the ranging tools and BDC holds for long distance shooting. This flexibility makes the ACSS HUD DMR reticle a perfect fit for marksmen looking to land hits in even the most challenging scenarios.

WEAPON				DATE	
SHOT NO.	DIRECTION/DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION

NOTES:

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NOTES:

PRIMARY ARMS

PA LIFETIME* WARRANTY

LIFETIME WARRANTY

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