



## Tech Notes

### XTREME TACTICAL™ RIFLESCOPES



#### BACKGROUND

Burris has long led in the development of rifle scope technology to assist in long range marksmanship through outstanding high magnification optics, trajectory compensating reticles, and precision adjustment systems. The XTR series of riflescopes takes these characteristics to an even more advanced level of precision and durability.



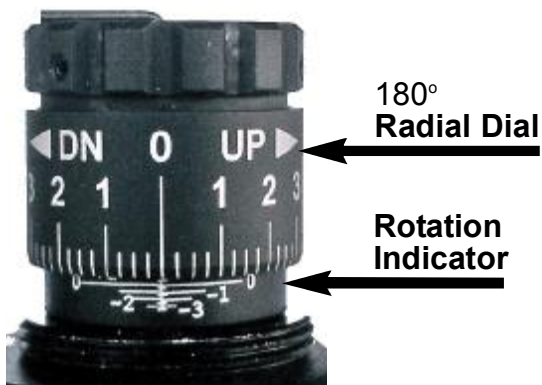
With optical systems second to none, and superior eye relief and mechanical durability suited for all small arms, including the 50 caliber BMG variants, the XTR series was designed from the ground up as a world-wide battleground solution.

#### XT-1 TACTICAL ADJUSTMENT KNOBS

Featuring the precision and durability of Steel-on-Steel construction, both radial and vertical resettable zero references, +(up) and -(down) revolution indicators, extreme environment quick detach adjustment dust caps, the XT-1 Knobs deliver the most accurate, secure, and repeatable adjustments possible.

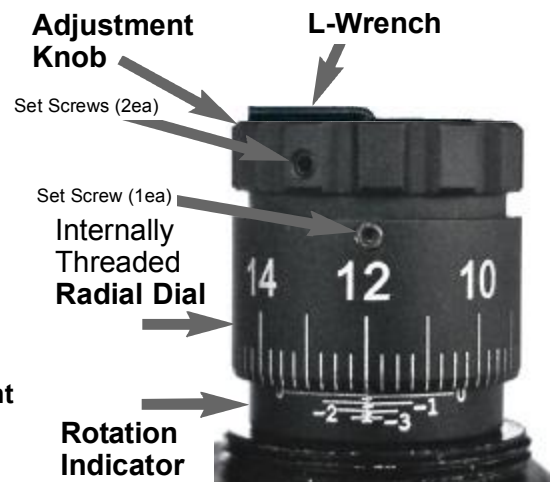
The XT-1 Knobs are the only we know of that provide the rifleman a true resettable zero reference. The **Rotation Indicator** is at zero half way through the adjustment range. Other brands usually have a series of numbers starting at one and increase vertically but do not really mean anything other than a comparative reference -- that is, the number "4" may be the true center of the scope rather than "0".

Each scope is assembled with **360°** conventionally numbered **Radial Dials** whereas the numbers increment all the way around the dial. A second pair of **180° Radial Dials** is included whereas the numbers increment half way around the dial allowing the marksman to more easily count adjustments each direction from zero for most applications where less than 1/2 turn of the dial is needed during deployment.



## XT-1 KNOB - SETTING THE KNOBS TO ZERO

1. Remove the **L-wrench** from the top of the **Adjustment Knob**.
2. Loosen the set screw on the **Radial Dial**. Rotate the Internally Threaded **Radial Dials** until the bottom of the dial bisects the Zero line on the **Rotation Indicator**. The zero on the **Radial Dial** likely will **NOT** line up perfectly with the zero on the **Rotation Indicator**. This will be corrected for in the next step. Tighten the set screw on each **Radial Dial**.
3. Loosen the set screws on top of the **Adjustment Knob**. Rotate the **Adjustment Knob** until the zero on the **Radial Dial** is lined up with the vertical line on the **Rotation Indicator**. Tighten the set screws on the **Adjustment Knob**.



(There is a set screw on the reverse side of the Rotation Indicator. This is set at the factory and should not be altered.)

## XT-1 KNOB - REPLACING THE RADIAL DIALS

1. Loosen the two set screws on the knurled part of the **Adjustment Knob** until the entire **Adjustment Knob** can be separated from the adjustment post.
2. Take this separate assembly and loosen the set screw on the **Radial Dial**. Rotate the Internally Threaded **Radial Dial** counter clockwise several revolutions until it is fully unscrewed from the **Adjustment Knob**. Install the new **Radial Dial** onto the **Adjustment Knob** being careful not to cross-thread the threads. Do not tighten the set screw yet.
3. Install the **Adjustment Knob** back onto the adjustment post. Tighten the two **Adjustment Knob** set screws and then back off these set screws 1/8th turn. Holding the **Adjustment Knob** from turning, rotate the **Radial Dial** until the bottom of the **Radial Dial** bisects the zero line on the **Rotation Indicator**. Tighten the set screw on the **Radial Dial**.
4. Turn the **Adjustment Knob** until the zero on the **Radial Dial** is lined up with the vertical line on the **Rotation Indicator**.

## SIDE PARALLAX ADJUSTMENT AND SIDE ILLUMINATION SWITCH

An optimum sized parallax adjustment knob is located on the left side of the adjustment turret for ease in seeing and adjusting for parallax at varied distances. (*This feature is available on riflescopes with magnification of 10X or higher.*) This knob also features large easy to see distance indicators and either large deep relief finger grooves (on non-illuminated scopes) or two large finger-wings to assist adjustment in cold weather or with gloves.

Rotate the parallax adjustment knob until the distance marking corresponding to the target distance lines up with the reference mark on the scope turret.

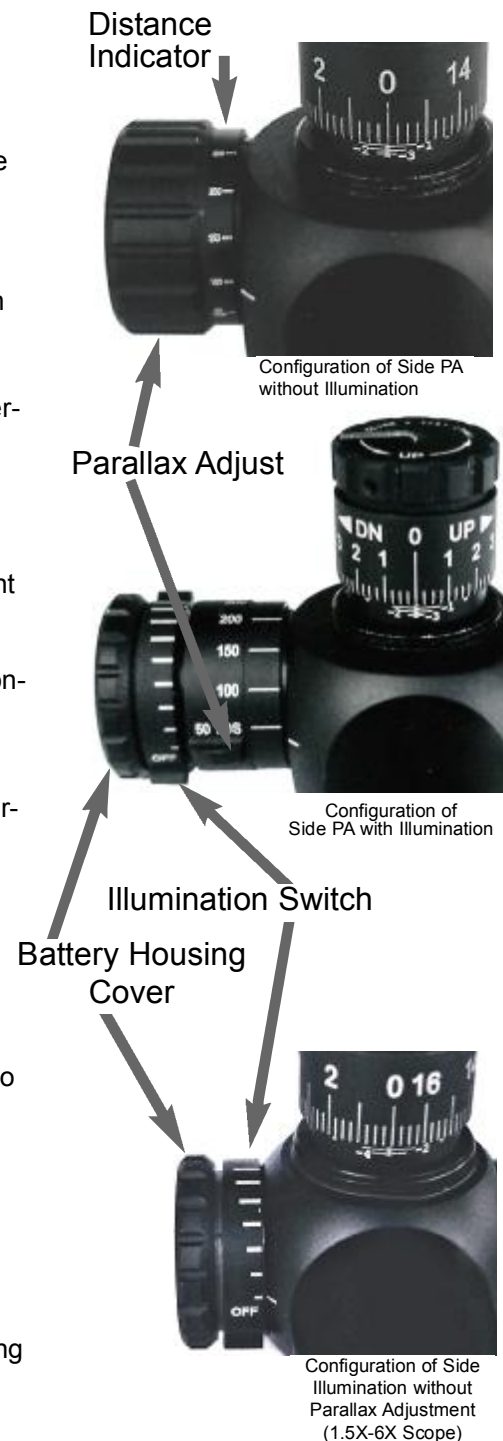
Scopes with both parallax adjustment and illuminated reticle have both the illumination switch and battery cover as an extension of the parallax adjustment knob.

## SIDE ILLUMINATION

Scope models with illuminated reticle feature a nine-position, eight-intensity rotary switch to provide quick and easy access to fine-tuning the illuminated reticle intensity to any lighting condition. Each of the nine positions feature a detent to help keep the switch from unintended changes during field use.

## RETICLE ILLUMINATION BATTERY

Illuminated reticle models are powered by a common 2025 lithium battery. To replace the battery, unscrew the Battery Housing Cover, remove the old battery, and insert a new battery with the positive (+) (flat) side facing outward, and reinstall the Battery Housing Cover. Expected battery life varies from 30 hours to over 100 hours depending on the switch intensity and ambient temperature.



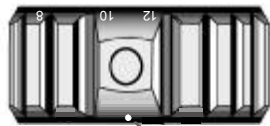
# XTR BALLISTIC MIL-DOT™ RETICLE

The Burris Ballistic Mil-Dot Reticle has been very popular for many years with long range shooters for both big game hunting and varmint shooting. The original Ballistic Mil-Dot reticle was designed to be optimized for extremely fast shooting, flat trajectory cartridges.

The XTR Ballistic Mil-Dot Reticle is designed specifically for the military-standard cartridges of the 5.56 (.223) and 7.62 NATO (.308Win) rounds. Designed for the center crosshair to be sighted in (zero'd) at 100 meters, then each additional ballistic line below center represents 100 meters in additional target distance.

The ammunition that the XTR Ballistic Mil-Dot Reticle is calibrated for is the **7.62 NATO (.308WIN) 175GR HPBT Matchking @2600FPS**. By design, this same calibration is nearly identical to the **5.56 NATO (.223Rem) 77GR HPBT Matchking @ 2750FPS** out to 500 meters.

It is important to note that the calibration of the XTR Ballistic Mil-Dot Reticle or Mil-Dot reticle is set very near the highest magnification available on your rifle scope. The Power Ring has a calibration dot which must be lined up with the index line on the scope tube to achieve the designed calibration.



Index Line — Calibration Dot

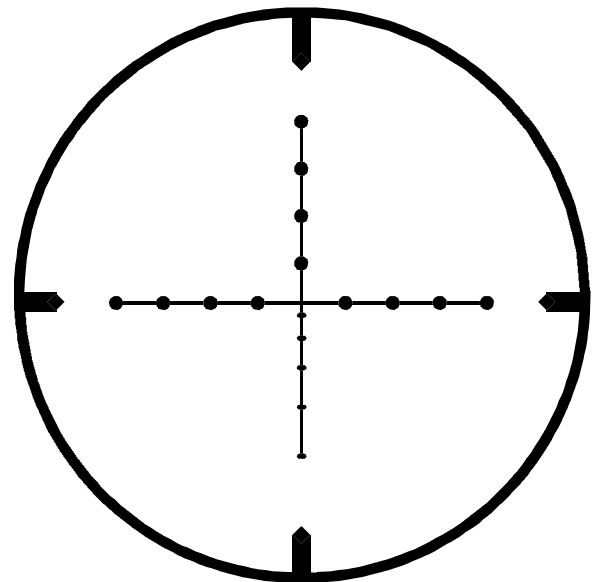
## STANDARD MIL-DOT

The top, left, and right quadrants of the reticle are a standard Mil-Dot system which can be used in the traditional manner for yardage estimation when a laser or coincidental rangefinder is not available. A separate Mil-Dot reference pamphlet #INSTR-1011 is available from Burris at no cost.

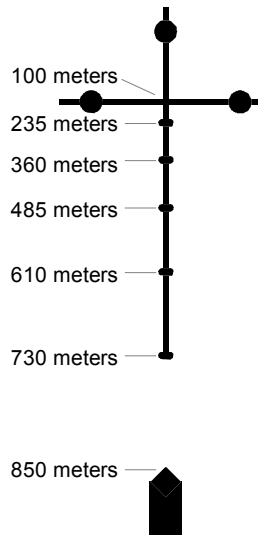
## FLEXIBILITY

Although the XTR Ballistic Mil-Dot Reticle is optimized to be used with NATO specific cartridges, with various sight-in distances and magnification changes, this reticle can be quite useful for many other cartridges. The illustrations given at right shows two examples of how this reticle can be used in conjunction with another common military and law enforcement cartridge -- the .300 Winchester Magnum with 190grain Sierra Matchking bullet. Another Tech Note for the standard Burris Ballistic Mil-Dot reticle is available that shows additional ways of using the Ballistic Mil-Dot system, though you'll need to refer to the reticle dimensions at the top of this page for proper calibration -- ask for publication #900107.

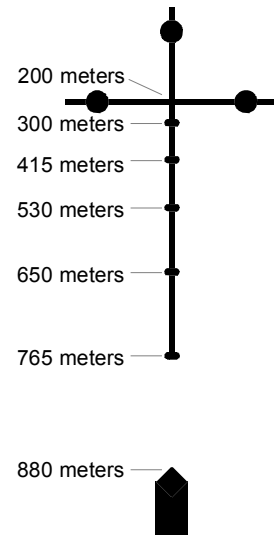
7.62 NATO (308Win)			5.56 NATO (.223)		
Meters	Drop	Corr@100m	Meters	Drop	
200	-5.4"	2.69"	200	-5.0"	
300	-19.2"	6.38"	300	-18.3"	
400	-42.8"	10.70"	400	-42.2"	
500	-78.2"	15.64"	500	-79.5"	
600	-128"	21.25"	600	-134"	
700	-194"	27.65"	700	-211"	



.300 Win Mag 190gr HPBT @ 2950fps



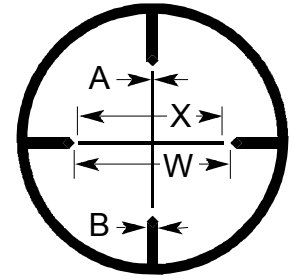
.300 Win Mag 190gr HPBT @ 2950fps



# XTREME TACTICAL™ RIFLESCOPES

## SPECIFICATIONS

Xtreme Tactical Riflescopes						
Model	1.5X-6X-40mm		10X-50mm		3X-12X-50mm	
	english	metric	english	metric	english	metric
Field of View ** Low-High (feet or meters)	60-20	18,3 - 6,1	12	3,7	34-10	10,4 - 3,0
Exit Pupil (mm) Low - High		26 - 7		5		15 - 4,2
Click Value(Inch@100yards) (cm@100M)	.5	1,4	.25	.7	.25	.7
Max Adj. (Inches@100yards)1 (cm@100M)	110	306	90	250	90	250
Weight (ounces or grams)	19	539	25	709	26	737
<b>Scope Dimensions</b>						
	inches	cm	inches	cm	inches	cm
A - Optimum Eye Relief	3.5-4.0	9 - 10	3.5-4.0	9 - 10	3.5-4.0	9 - 10
B - Objective End Dia	1.89	4,8	2.28	5,8	2.28	5,8
C - Clear Objective Dia	1.57	4,0	1.97	5,0	1.97	5,0
D - Ocular End Dia	1.65	4,2	1.65	4,2	1.65	4,2
E - Overall Length	12.2	31,0	15.2	38,6	15.2	38,6
F - Scope Dimension	2.7	6,9	4.1	10,4	4.1	10,4
G - Scope Dimension	1.7	4,3	2.3	5,8	2.3	5,8
H - Scope Dimension	2.7	6,9	4.3	10,9	3.2	8,1
I - Scope Dimension	3.6	9,1	3.7	9,4	3.7	9,4
J - Scope Dimension	5.7	14,5	8.4	21,3	7.4	18,8
Adjustment Turret	1.85	4,7	1.85	4,7	1.85	4,7
<b>Reticle Subtensions In/100meters,mm/100 meters</b>						
	inches	mm	inches	mm	inches	mm
Plex Dim.A High Magnification	.50	12.8	-	-	.24	6.2
Plex Dim.A Low Magnification	1.69	42.8	-	-	.87	22
Plex Dim. B High Magnification	1.35	34.4	-	-	.66	17
Plex Dim. B Low Magnification	4.54	115	-	-	2.3	59
Plex Dim.W High Magnification	16.1	408	-	-	7.8	198
Plex Dim.W Low Magnification	53.9	1370	-	-	27.8	706
Plex Dim.X High Magnification	11.4	291	-	-	5.6	141
Plex Dim.X Low Magnification	38.4	975	-	-	19.8	502
B-Mil-Dot & Mil-Dot Dim. A High Mag	-	-	.26	7	.23	5.7
B-Mil-Dot & Mil-Dot Dim. A Low Mag	-	-	-	-	.80	20
B-Mil-Dot & Mil-Dot Dim. B High Mag	-	-	4.2	106	3.6	91
B-Mil-Dot & Mil-Dot Dim. B Low Mag	-	-	-	-	12.7	322
B-Mil-Dot Line 1 @ High Magnification	-	-	-	-	2.70	69
B-Mil-Dot Line 2 @ High Magnification	-	-	-	-	6.37	162
B-Mil-Dot Line 3 @ High Magnification	-	-	-	-	10.71	272
B-Mil-Dot Line 4 @ High Magnification	-	-	-	-	15.6	397
B-Mil-Dot Line 5 @ High Magnification	-	-	-	-	21.2	540
B-Mil-Dot Low Post @ High Magnification	-	-	-	-	27.7	703
			Inch @ 100 Yrd	cm @ 100 meter	Inch @ 100 Yrd	cm @ 100 meter
B-Mil-Dot Posts to Center (L, R, UP) (5 Mil)	-	-	-	-	18	50
B-Mil-Dots Center to Center (1 Mil)	-	-	-	-	3.6	10
B-Mil-Dots Diameter @ High Power (1/4 Mil)	-	-	-	-	.9	2,5
Mil-Dot Posts to Center (L, R, UP) (5Mil)	-	-	18	50	18	50
Mil-Dots Center to Center (1 Mil)	-	-	3.6	10	3.6	10
Mil-Dots Diameter (1/4 Mil)	-	-	.9	2,5	.9	2,5



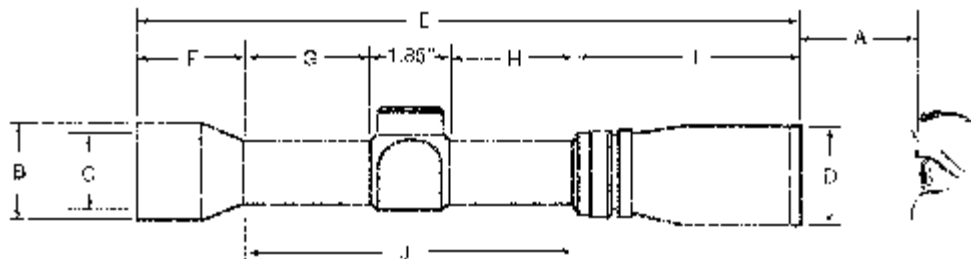
### Stackable Sunshades Item# 626033

Fits XTR & Black Diamond Side PA 50mm Riflescopes. Aluminum. Matte finish. Three inch length. You can extend the sunshade by screwing additional sunshades on to each other.



### Regular Sunshade Item# 626036

Fits XTR 1.5X-6X-40mm Riflescopes. Aluminum. Matte finish. Three inch. Not stackable.



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