



BRS SERIES

BRS-MIL Reticle

3-18x50

5-25x56

INSTRUCTION MANUAL



Fast Focus Eyepiece Adjustment

Turn the eyepiece knob counter-clockwise until it is fully out. Look through the scope at a blank, light colored wall. Slowly turn the eyepiece knob clockwise until the reticle is in focus. As you turn the knob, look away every few seconds so your eye does not adjust to the reticle. When the reticle is clear and sharp with a quick glance, the eyepiece is set to your eye.

Illumination Adjustment

Install the included CR 2032 battery with the “+” side out. To adjust the illumination, rotate the dial; there are 11 red brightness levels.

Parallax

The parallax adjustment is used to focus the target image. Aim the scope at the target and rotate the left side parallax focus knob to match the target's range. The reticle should stay on target even if you move your eye or head slightly. If the reticle shifts in relation to the target, make slight adjustments until the reticle stays on target.

Elevation and Windage Turrets

Pull up on the knob to unlock and adjust the elevation and windage knobs. The turrets are marked ‘UP’ (elevation) and ‘R’ for right (windage). Turning the knob in the direction of the arrow will move the bullet impact point in that direction. Push the knob down to lock the turret. To reset each turret knob to zero; remove the turret cap screw with a coin, pull off the turret cap knob, rotate the cap so the “0” will line up with the dot on the scope, push the knob back down, and replace the turret cap screw.

Mounting the Scope

Mount the scope into 34mm scope rings on the rifle leaving the top half of the rings loose enough to allow the scope to slide forward and back. Start with the scope as far forward in the rings as possible and with the scope at its highest magnification. Assume a proper shooting position and adjust the scope to get a full field of view with a sharp edge. This will ensure that the scope is at the proper eye relief.

Secure the rifle on sand bags or a gun rest and level it. Without moving the rifle, rotate the scope until it is level. This can be done with a bubble level set on top of the elevation knob. Tighten the scope rings in a crisscross pattern one to two turns at a time to ensure a firm, even grip on the scope that will not induce torque on the tube or tilt the crosshair.

WARNING: Do not over-tighten any of the scope ring screws as you may cause damage to the scope body or the mounts. Such damage would not be covered under warranty.

Bore Sighting

Bore sighting the scope will ensure that the scope is mounted properly to retain full erector travel. This can be done by following the manufacturer's instructions for a laser bore sighter, or by following the instructions below to bore sight visually.

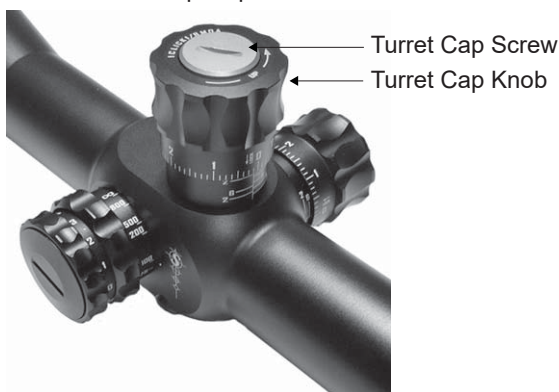
Remove the bolt (for ARs, separate the lower receiver first) and set the rifle on sand bags or a gun rest. With a target about 50 yards away, look through the bore and adjust the rifle until the target appears centered in the barrel.

Now look through the scope. The scope should be aligned to the weapon so that the center of the reticle is within a 4-inch circle on the target from your aiming point. If you are not within a 4-inch circle, you may need to shim or adjust your scope rings so that the scope is better aligned with your rifle's barrel. When the scope is aligned as closely as possible to the barrel, it is ready to be zeroed.

Zeroing Your Scope

At a range, place a target at 50 yards. When safe to do so, fire a shot from a solid rest while aiming at the center of the target. Your shot should land within a few inches of the target's aim point when properly bore sighted. Pull up on the knob to unlock and adjust the elevation and windage knobs appropriately to get the scope on target. Push the knob down to lock.

The turrets are marked 'U' for up (elevation) and 'R' for right (windage). Turning the knob in the direction of the arrow will move the bullet impact point in that direction.

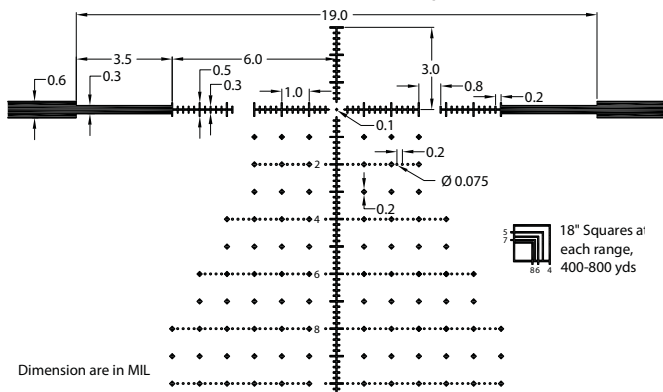


After your initial adjustments, fire another shot to make sure you are on target. Then move to your desired zero range and continue the process of adjusting the turrets to zero in the scope. Fire a three shot group and make any final adjustments based on the center of that group. To reset each turret knob to zero, remove the turret cap screw, pull off the turret cap knob, rotate the cap so the "0" will line up with the dot on the scope, push the knob back down, and replace the turret cap screw.

Note: Changes to ammunition, weather, and elevations can all affect the bullet trajectory which may require an adjustment to your zero.

Reticle

The BRS-MIL has hash marks for estimating holdover up to 15 milliradians (mrad or mils). One Mil is equal to about 3.6" at 100 yards or 36" at 1000 yards. Using the known ballistics of the weapon and ammunition makes for quick, accurate shots without the need to make turret adjustments.



The BRS series scopes have a first focal plane reticle so the subtensions are accurate at any magnification.

The reticle has ranging boxes that can be used as a passive range finder from 400-800 yards/meters. Position the target in the box that fits to estimate the range. For a half meter target read the boxes in meters, so 0.5m target that fits in the 6 box would be 600 meters away. Or for 18" target read the range in yards.

You can use the following equations to estimate the range of other objects of a known size:

$$\frac{\text{Actual Target Size(meters)} \times 1000}{\text{Target Measurement (Mils)}} = \text{Range to Target (meters)}$$

$$\frac{\text{Actual Target Size(yds)} \times 1000}{\text{Target Measurement (Mils)}} = \text{Range to Target (yds)}$$

$$\frac{\text{Actual Target Size(in)} \times 27.778}{\text{Target Measurement (Mils)}} = \text{Range to Target (yds)}$$

Ballistics

To find the ballistic drop of your bullet, use a ballistic calculator like the one at bc.shepherdsopes.com. This gives you a printable dope chart that will show you which Mil hash mark to use for elevation and windage holdovers at a given range.

Care and Maintenance

Take care not to drop, knock, or subject the scope to heavy impacts.

Keep the protective lens covers in place when not in use.

Do not over-tighten scope rings on scope tube body. Follow scope ring manufacturer's torque recommendations.

Maintain the metal surface of the scope by removing dirt, dust, etc. with a soft brush to avoid scratching the surface.

If necessary, clean the exterior lenses of the scope with the supplied cloth. First, make sure the lenses and cloth are clean of debris to avoid scratching the lens surface and coatings. Never use fingers or tissue paper.

Do not allow the scope to come into contact with acid, alkaline, or corrosive materials or substances.

Do not disassemble the scope, remove screws or parts, or lubricate any part of the scope.

