



Dual-Focal Plane MDR

(Mil-Dot Ranging)

The Dual-Focal Plane MDR technology integrates the close-range, quick targeting of a second focal plane (SFP) illuminated dot with the medium- to long-range versatility of a first focal plane (FFP) mil-dot reticle. In this system the SFP dot is slaved to the FFP etched-glass reticle to offer maximum versatility for competition, tactical and sport shooters.

For close range and quick acquisition, the scope offers true 1x power and a 4-MOA, daylight visible red dot. Because it is in the second focal plane, the dot remains the same size at any power. And, it offers 11 intensity settings. Zeroing of the dot is automatic with zeroing of the etched-glass, FFP reticle, and it can be turned off for clear viewing of Weaver's Mil-Dot Ranging (MDR) reticle. The MDR reticle is placed in the first focal plane so the calibrations are valid at any magnification. Unlike the dot, the reticle will size along with the image when changing magnification.

The Weaver MDR Reticle design offers five dots and four hash marks (evenly separated) on each side of the crosshair center arranged horizontally and vertically, and spaced 1 mil apart. The hash marks bisect the dots at 1 mil. The total distance between the thick parts of the duplex line is 20 mils vertically and horizontally (10 mils from center to thick part). With this system and with practice, it will become easy to estimate mils and fractions of mils.

Advantages of the Dual-Focal Plane MDR

- Etched-glass mil-dot reticle (1st focal plane)
- Refined ranging capabilities
- Illuminated center dot (2nd focal plane) for fast/close-range shooting
- Open center subtenion for easy target acquisition (with illuminated dot switched off)

How to Use the Dual-Focal Plane MDR

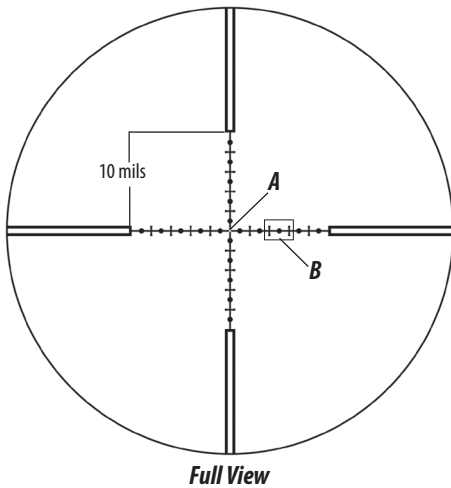
A mil is an angular measurement unit equal to 3.438 MOA (Minutes of Angle). This is almost exactly 1 yard at 1,000 yards or 1 meter at 1,000 meters. Because apparent size and distance are proportional, it is easy to use this information to estimate ranges using the following formula:

$$\text{Real size (yards)} \div \text{Reticle size (mils)} \times 1,000 = \text{Range (yards)}$$

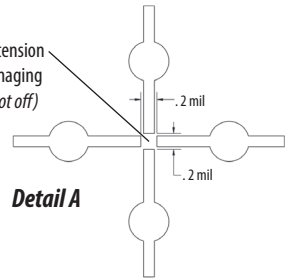
or

$$\text{Real size (meters)} \div \text{Reticle size (mils)} \times 1,000 = \text{Range (meters)}$$

Details of the MDR Reticle



Open center subtenion for easy target imaging (w/illuminated dot off)



Detail B
Mil Dot & Hash Mark Dimensions
(horizontal axis shown-vertical axis is identical)

