

DESCRIPTION OF SMR/DMR RETICLES by FinnAccuracy

In 2009, FinnAccuracy introduced the mrad-based Multi-Purpose Sniper Reticle (MSR) concept, which quickly gained popularity among long-range shooters and hunters for its user-friendly design and high precision across diverse usage scenarios. Today, various well-known riflescope manufacturers integrate several versions of the MSR into their long-range riflescopes. For the VECTOR X, the MSR concept has now been adapted for the first time for use in an observation device, with two mrad-based reticle options (6823 mrad in full circle) being available.

The Single Magnification Reticle (SMR) caters to users who prefer a clean and simplistic L-shaped reticle design. The Dual Magnification Reticle (DMR) is specifically designed for use in the VECTOR X with the optional Range Enhancers installed, which increase the base magnification of the binoculars by 40%. Both reticles can also be used for passive distance measurements if object sizes are known.

The design philosophy for the SMR and DMR was clear from the start: to develop two reticles with a high level of versatility and precision while maintaining an unobstructed field of view. As a result, the upper half of the field of view of the VECTOR X remains clean for unimpeded glassing and observation for both reticle options. All reticle elements are located in the lower half of the field of view and intentionally not in the center. Therefore, the large display area that is fully transparent when not activated can be used for glassing and observation as well.

All reticle elements, except for the aiming mark, feature fine, light lines to prevent the reticle from being visually dominant and to offer precise reference elements when using the VECTOR X for calling shot corrections.

Both the SMR and DMR, which are described in more detail below, are versatile binocular reticles regardless of whether the main use case is calling shot corrections at any distance or glassing and observation. Both reticles are truly universal tools for long-range shooters and hunters alike, intuitive to learn even for less experienced users, while not restricting experts or competitive shooters.

This manual also applies to the RADICAL X,
for which the MSR-DMR is available (but not the MSR-SMR).



MSR-SMR SINGLE MAGNIFICATION RETICLE

The MSR-SMR is a modern observation reticle augmented by essential spotter elements. Its main L-shaped reticle element does not interfere with the display area of the VECTOR X, yet it is still close to the center. The minimalistic reticle design results in an unobstructed field of view for unimpeded glassing and observation.

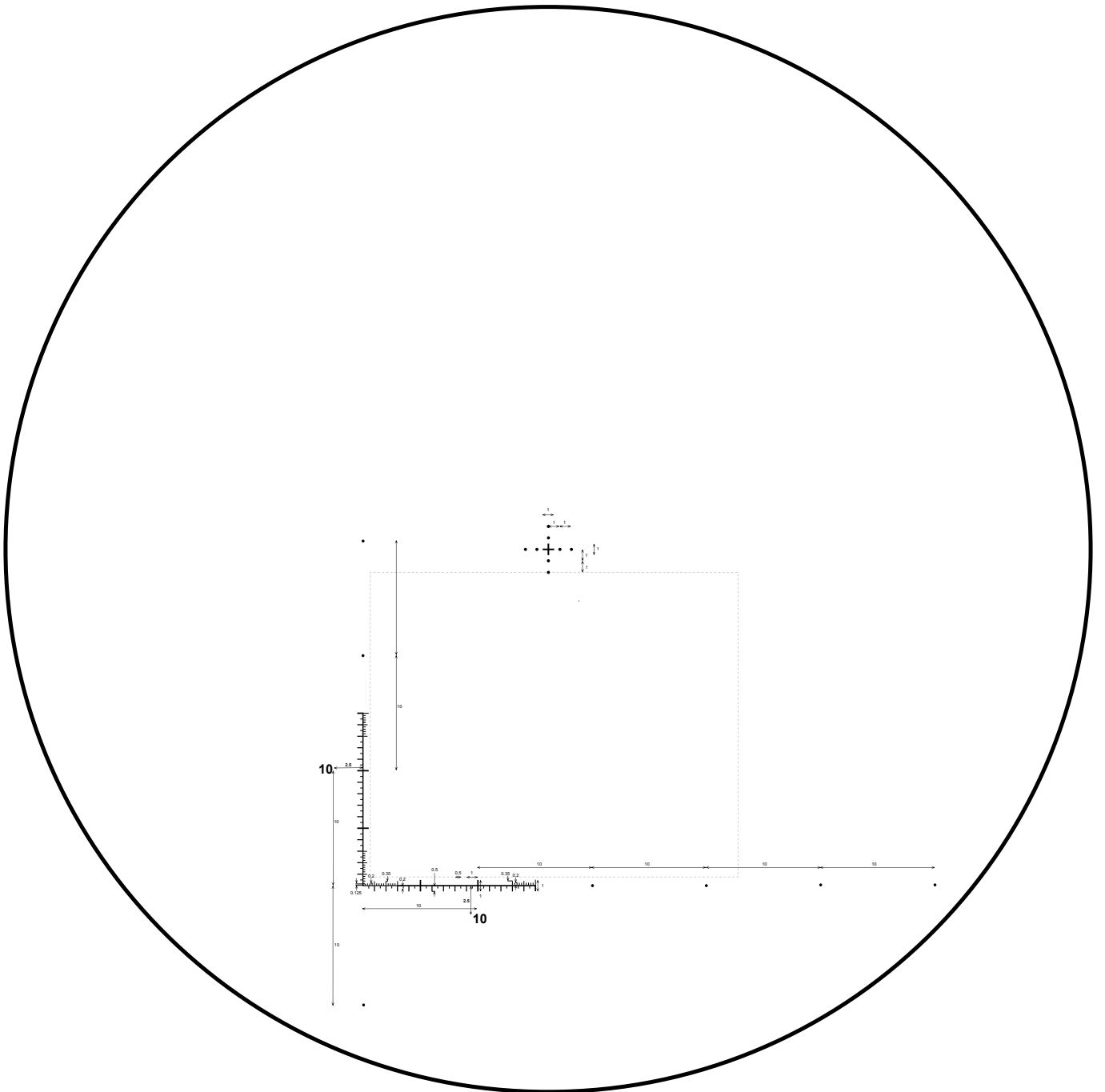
The aiming mark of the SMR is a crosshair with a size of 1×1 mrad. Its higher line thickness ensures optimal visibility in all lighting conditions. Two dots with 1 mrad spacing in between extend from all four endpoints of the crosshair element. Each of the first dots is spaced 1 mrad from the center of the crosshair. Including the extension dots, the aiming mark has a total width of 4 mrad and a total height of 4 mrad.

Both height and width of the L-shaped reticle are 15 mrad. The main hash marks are spaced in 5 mrad increments. The finer hash marks are spaced in 1 mrad, 0.5 mrad, and 0.2 mrad increments. Dots extend from the vertical and horizontal axes of the reticle. Each of the first extending dots is 20 mrad from the corner of the L, and all further dots are spaced evenly from one another in 10 mrad increments. There is one single dot positioned 10 mrad underneath the corner of the L. With the extending dots, the usable size of the reticle is 40 mrad in the vertical axis and 50 mrad in the horizontal axis.

Opting for the MSR-SMR does not restrict the use of the optional Range Enhancers. However, it is important to note that the hash marks of the MSR-SMR are not magnified by the optional Range Enhancers when installed (i.e., the reticle is calibrated to the base magnification of the VECTOR X and not to the increased magnification when used with the Range Enhancers). Users should keep this in mind when using the MSR-SMR for calling hits when the Range Enhancers are installed on their VECTOR X.

MSR-SMR SINGLE MAGNIFICATION RETICLE

Zoom in for more details





MSR-DMR DUAL MAGNIFICATION RETICLE

Optimized for use with Range Enhancers

The MSR-DMR is specifically designed for use in the VECTOR X with optional Range Enhancers. When installed, these increase the base magnification of the binoculars by 40%. With the unique MSR-DMR, the VECTOR X has a calibrated reticle for both magnification levels (i.e., for the base magnification and the increased magnification with installed Range Enhancers). It consists of two T-shaped reticle segments that are separated by the display in between. This distinct separation makes it easy and intuitive for users to choose the correct reticle segment when calling hits or estimating distances.

The right reticle segment of the MSR-DMR is to be used when the Range Enhancers are installed on the VECTOR X. This segment takes into account the increased magnification provided by the Range Enhancers. On the other hand, the left reticle segment is intended to be used when the Range Enhancers are not installed. It is designed for the base magnification of the VECTOR X.

As with the SMR, the upper half of the field of a VECTOR X equipped with the DMR is kept free for unimpeded glassing and observation. The aiming mark of the DMR is a 1×1 mrad crosshair and is calibrated for the base magnification of the VECTOR X. Its higher line thickness ensures optimal visibility in all lighting conditions. Two dots with 1 mrad spacing extend from all four endpoints of the crosshair element. Each of the first dots is spaced 1 mrad from the center of the crosshair. Including the extension dots, the aiming mark has a total width of 4 mrad and a total height of 4 mrad.

Both of the T-shaped reticle segments feature hashmarks in increments of 5 mrad, 1 mrad, and 0.5 mrad. For precision milling, the reticles also include short sections with fine hash marks in 0.2 mrad increments. A layover grid with dots evenly spaced in 1 mrad increments from one another is located at the outer edges of both reticle segments, serving as an easy-to-use reference for calling hits.

MSR-DMR DUAL MAGNIFICATION RETICLE

Zoom in for more details

