BARSKA®

LIMITED LIFETIME WARRANTY

BINOCULARS

BARSKA® Optics, as manufacturer, warrants this new precision optical product to be free of original defects in materials and/or workmanship for the length of time specified by this warranty. This warranty does not include damage caused by abuse, improper handling, installation, maintenance, normal wear-and-tear, unauthorized repairs or modifications and tampering in anyway.

This warranty is limited to the original purchaser and is not transferable. This warranty applies only to products purchased in the United States of America and Canada.

In the event of a defect within 30 days, the consumer must return the defective unit to the BARSKA dealer (the place of purchase) at his/her own expense.

Beyond 30 days, BARSKA products should be sent to the following address for warranty repairs. Products must be packed carefully and sturdily to prevent damage in transit, and returned freight prepaid to:

BARSKA® OPTICS
855 Towne Center Drive
Pomona, CA 91767

For additional and updated information please visit our website at www.barska.com

Please e-mail info@barska.com or call 1-888-666-6769 for Return Merchandise Number (RMA#) before any returns.
NOTE: All merchandise received without a valid RMA # will be returned to shipper at his/her own expense.

Please include all of the following when returning BARSKA products for service and/or replacement:
1. Please write your complete details
   (Name, Address, Telephone #, E-mail address, RMA#, etc.)
2. Purchase receipt or Proof of Purchase. (Original/Copy)
3. A brief explanation of the defect.
4. A Check/Money Order of $20.00 to cover inspection, shipping and handling.
   *Please allow 6-8 weeks for delivery.

This product will either be replaced or repaired at the discretion of the warrantor. If it's a discontinued item, we will replace the product with an equivalent product. Should the repair not be covered by this warranty, an estimate will be sent for your approval. Non-warranty repairs or refurbishing of your optical products are always provided at a reasonable cost.

BARSKA® Optics shall not be liable for any consequential, incidental and/or contingent damages whatsoever. We will NOT pay shipping, insurance or transportation charges from you to us, or any import fees, duties and taxes.

This warranty supersedes all previous BARSKA® Optics warranties.

BARSKA®

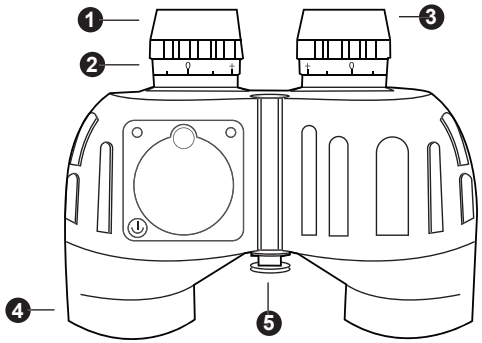
BATTALION BINOCULARS

*models may vary

Basic Parts of a Binocular

1. Eyepiece
2. Individual Focus
3. Eye Cups
4. Objective Lens
5. Tripod Adaptable Fittings

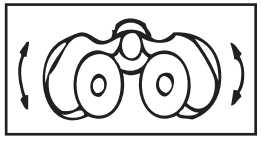
*models may vary



Battalion binoculars are designed to meet military standards, 100% waterproof and fogproof and are fully rubber armored for shock protection and a comfortable secure grip. Whether you're ashore or on the water, these binoculars are designed to perform in the most demanding conditions. Choose from compact or full-size models with or without an internal rangefinder and compass.

CAUTION: DIRECTLY VIEWING THE SUN OR ANY LIGHT SOURCE WITH THIS OPTICAL DEVICE CAN CAUSE PERMANENT EYE DAMAGE.

I. EYE ADJUSTMENTS HOW TO ADJUST FOR DISTANCE BETWEEN YOUR EYES



The distance between the eyes, called "interpupillary distance" (IPD), varies from person to person. To achieve perfect alignment of lens to eye, follow these simples steps.

1. Hold your binocular in the normal viewing position.
2. Grasp each barrel firmly. Move the barrels closer together or further apart until you see a single circular field. Always re-set your binocular to this position before using.

II. EYECUPS

Your binocular is fitted with either rubber roll-down or rubber pop-up eyecups designed for your comfort and to exclude extraneous external light. If you wear sun/eye glasses, roll down the eyecups. This will bring your eyes closer to the binocular lens thus providing improved field of view.

III. FOCUSING

Battalion models feature individual focus systems.

INDIVIDUAL FOCUS

1. Adjust interpupillary distance. Make a note of the number which appears on the central hinge scale. Always re-set your binocular to this position before using. (To see a single circular field.)
2. Cover right objective (front) lens with your hand. Rotate left eyepiece until image is focused.
3. Follow the same procedure for the right eye. The eyepiece should be turned in a counter-clockwise direction for more distant objects. With the image now in focus, make a note of the diopter setting for future use.

IV. WATERPROOF/FOG-PROOF

Your binocular is designed and built utilizing the latest waterproof and fog-proof technology. Waterproof models are O-ring sealed for complete protection. Fog proof protection is achieved from dry nitrogen purging to remove all internal moisture.

V. TRIPOD ADAPTER

If your binocular is equipped with a built in tripod adapter fitting, you will have to unscrew the cover screw located at the base of the binocular hinge.

VI. INSTRUCTIONS FOR CARE

If handled with care, this binocular will provide years of trouble-free service. Like any fine optical instrument your binocular should be given sensible care. Non waterproof models should not be exposed to excessive moisture.

NEVER attempt to clean your binocular internally or try to take it apart.

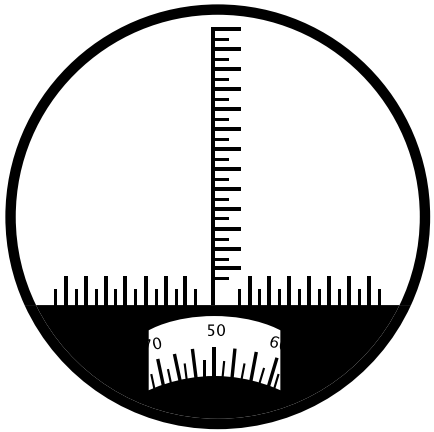
1. Keep the lens covers on the lenses when binoculars are not in use.
2. Store binoculars with the eyecups up. Thus avoiding excessive stress and wear on the eyecups in the down position.
3. Avoid banging and dropping.
4. Store in a cool, dry place.

VII. CLEANING

1. Blow away any dust or debris on the lens (or use a soft lens brush)
2. To remove dirt or fingerprints, clean with a soft cotton cloth rubbing in a circular motion. Use of a coarse cloth or unnecessary rubbing may scratch the lens surface and eventually cause permanent damage.
3. For a more thorough cleaning, photographic lens tissue and photographic-type lens cleaning fluid or isopropyl alcohol may be used. Always apply the fluid to the cleaning cloth never directly on the lens.

HOW TO USE INTERNAL RANGEFINDER AND DIRECTIONAL COMPASS RETICLE

select models



To use the rangefinder scale, you will need to know either (1) the size or (2) the distance of the object. When the size of the object is known, the rangefinder scale indicates the distance to the object. When the distance to the object is known, the rangefinder scale tells you its size. Each mark on the vertical scale has a value of 5 MIL (1 MIL is equivalent to an angle that can determine an object one meter in height at a distance of 1000 meters.) Therefore, if a navigation chart gives the height of an object, by sighting on it and counting the number of MILs, you can determine how far away the object is. The horizontal scale should be aligned with the base of the object that you are sighting on. The increments on the horizontal scale can be used to determine the distance to the object if the width of the object is known and calculated using the formula.

1. To measure the DISTANCE (object size must be determined):

$$\text{Distance} = \frac{1000 \times \text{Object Size}}{\text{Rangefinder Scale Reading}}$$

2. To measure the SIZE (object distance must be determined):

$$\text{Object Size} = \frac{\text{Distance} \times \text{Rangefinder Scale Reading}}{100}$$

USING THE DIRECTIONAL COMPASS
The compass scale is in one degree increments. It is aligned with the vertical range finding scale. North is represented as 0°, East as 90°, South as 180° and West as 270°. When using the compass, bear in mind the local variation between magnetic North and true North.

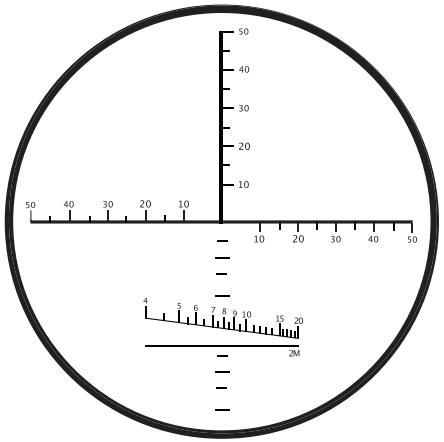
NOTE: Compass does not operate in southern hemisphere

HOW TO USE INTERNAL RANGEFINDER RETICLE

select models

How To Read the Horizontal and Vertical Lines

There are vertical and horizontal lines on the reticle. Each small division on both vertical and horizontal lines represents 5 mils and each big division represents 10 mils (one circularity angle=6400 mils) One circular angle equals 1 degree of angle, equals 1 minute of angle, equals 60 seconds of angle, equals 6400 mils.



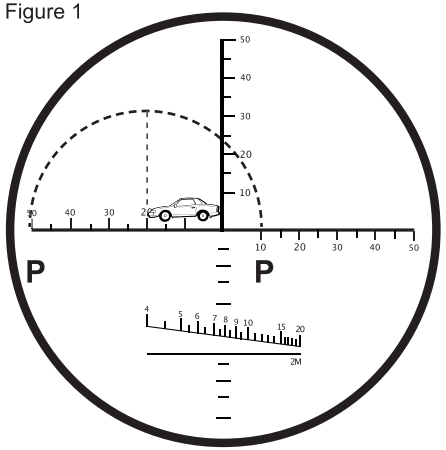
How To Use The Reticle Measure Azimuth

An azimuth of a body is the arc of the horizon intercepted between the north or south point and the foot of the vertical circle passing though the body. It is calculated in degrees from either the north or south point clockwise entirely around the horizon. Azimuth of a current is the direction toward which it is flowing, and is usually calculated from the north point.

A mil's reticle can measure the azimuth angle, upper and lower angle, distance and size of an object or target. The visual distance reticle lines can measure the distance of normal object easily on the basis that the object to be measured is a least 2 meters (6 feet) in height.

How To Measure The Azimuth Angle

Figure 1



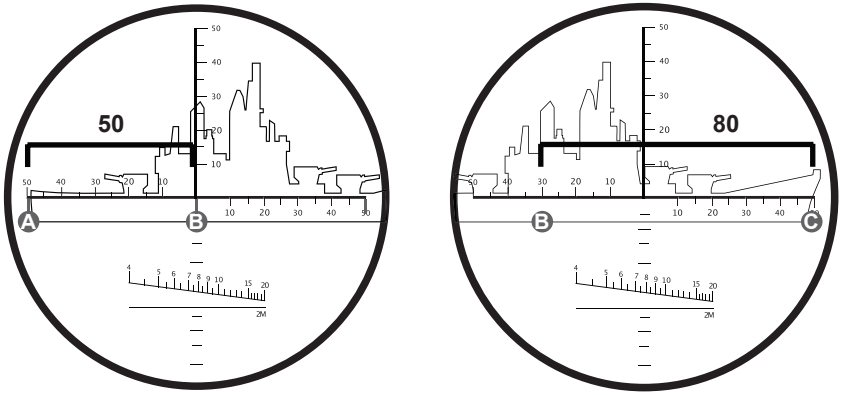
The azimuth angle is the angle included between two objects to be measured at the horizontal direction of the binocular. (Or two ends of one object at horizontal direction)

When the azimuth of two targets is smaller than the azimuth measuring range (-50~+50 mils) inside the binoculars, aim the scale line at one end of the reticle at the target then read the value of the scale at which another target was located on the reticle. The value is the measured azimuth mil. As shown in fig. 1, the azimuth of the target (car) is 0-20 mils. The azimuth between the targets (p-p) is 0-60 mils.

First Reading

Figure 2

Second Reading



When the azimuth of two targets is bigger than azimuth measuring range (-50~+50 mils) inside the binoculars, on the target can be selected to make the necessary measurements in a step by step fashion. The sum of the value from each step is used to obtain the measured azimuth. As shown in fig. 2, the azimuth of target (cruiser) is 130 mils (50+80=130).

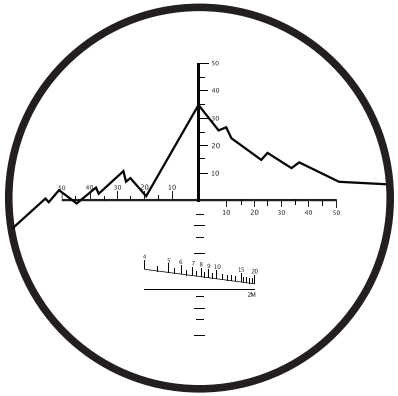
When the azimuth of a target is longer than the azimuth measuring range (-50~+50 mils) inside the binoculars, you can visually calculate the total azimuth mils by using the vertical line on the reticle by placing the image in a position where the vertical line splits the image. You will need to take two image readings. Mentally, consider the horizontal with three reference points. Point A is the 50 mil point on the far left side. Point B is where the vertical line intersects the horizontal line. Point C is the far right 50 mil point. Now your first reading on the image will be the mils from point A to B with point A on the far left part of the image (fig. 2). Your second reading will be from point C to point B where point B is now the spot on the image where point B ended after the first reading. After calculating the mils for each image, you then add them together to get the total azimuth reading. In (fig. 2), the ship is longer than the total 100 mils available on the reticle. However, by doing the foregoing mil calculations, you can now obtain the ships total mil azimuth of (50+80) 130 mils.

Upper and Lower Angle Measurement

Upper and lower angle means the angle included between any two targets (or two ends of a target) against the vertical line of the reticle

Upper and lower angle measurement is similar to measuring the azimuth. When the upper and lower angle measurement is very small, aim the cross center of the reticle at the lower part of the target, read the scale value at the top of the target. The value is the measured mils of the angle included between the upper and lowers parts. As shown in fig. 3, the value of the lower parts is 40, the angle included between the upper and lowers parts of the target is 0-75 (75mils).

Figure 3



When the target's upper and lowers parts of the is than the mils on the reticle, it can be measured in steps and the angle can be obtained by summing up the value of each step. (The process will be similar to the one that is discussed in the linear measurements)

How To Use The Reticle To Measure Distance

The distance measurement of a target can be calculated by using the mil reticle.
The formula of distance measurement: D(km) =H(m)/K

D = Distance between the observer and the target (km)
H= Height of the target (m)
K= Upper and lower angle of azimuth of the target measured with the reticle of binoculars (mil)

$$\text{Distance (km)} = \frac{\text{Height (m)}}{\text{Upper and lower angle of azimuth target (mils)}}$$

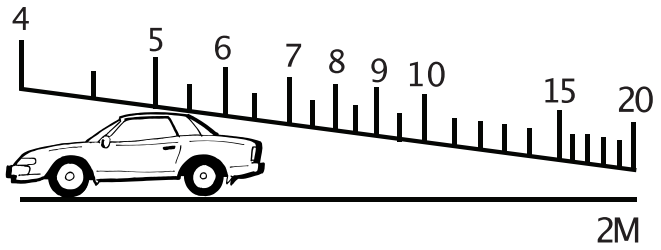
When measuring the distance, first, estimate the height or width of the target, then measuring upper and lower angle of the target. Accordingly, you can calculate the distance between the observer and the target using the formula

For example: There is a person whose height is 1.70m (H=1.70m)
The upper and lower angle of the adult is 0-40 mils (K=0-40)
D=H/K = 1.7/40 = 0.0425km x 1000 =42.5m
Therefore the distance between the observer and the person is 42.5m

How To Measure Distance Directly Using The Reticle

For example, if the target is 2 meters in height, place the lower part of the target at the horizontal line on the reticle with the upper top part of the target against the angled scale line. The reading on the top of the target where the top of the target or image touches the top of the angled scale line is the distance between the target and the observer (line value: 100m). As shown in figure 4, the distance between the target and the observer is 550m.

Figure 4



How To Measure A Target's Height And Width Using Azimuth Readings

According to the formula for distance measurement, you can calculate the height using H=DxK

When measuring the size, you first estimate the distance to the target, then measure the azimuth or upper and lower angle. With these measurements, you can calculate the height of the target using the formula.

For example: the distance is 0.6km between the observer and the target. You can measure that the azimuth is 60 (0-60) and the upper and lower angle is 30 (0-30). Using the formula you can get:

Height: H=0.6 x 30=18m Width: H=0.6 x 60=36m