

Compass light [Antigua]

To read your compass in the dark, press the compass light switch (6) to illuminate it in red light.

Batteries [Antigua]

Two batteries (included) are required to operate the compass light. To install: unscrew the battery cover (8) on the top of your binocular using a coin or screwdriver. Install the two batteries, positive (+) side facing up, and screw the cover back into place. All of the following batteries are suitable for use with your Antigua binoculars: AG12, GP186, LR43, and 1176A.

Instructions for Care

To protect the binoculars, store them in their case and keep them in a dry area. Never leave them out in direct sunlight (such as on a car dashboard) for long periods of time. Avoid banging and dropping.

Extremely Important Note

It is not necessary to clean binoculars internally. Any attempt to take the binoculars apart or clean them internally will result in damage and void the warranty.

Caution

Do not use this product to view the sun. Looking at or near the sun with or without binoculars may cause instant and irreversible damage to your eyes. Eye damage is often painless, so there is no warning to the observer that damage has occurred until it is too late. Children should always have adult supervision when using binoculars.



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BINOCULARS **4** 1-800-BOATING



BINOCULARS | MODEL 10700508 | MODEL 10700516

7X50

Owner's Manual

- Waterproof, dust-proof, all-weather binoculars are designed for boating and other rugged outdoor activities
- Nitrogen gas inside the binocular eliminates fogging and mold on internal lens surfaces even under extremely severe conditions, including rainstorms and high humidity
- Antigua's internal rangefinder scale and illuminated compass help users determine the distance or size of objects, as well as their direction
- High-index Bak-4 prisms produce a bright, sharp image with vivid contrast for detailed viewing
- Rubber-coated body provides great shock resistance and a comfortable, secure grip
- Internal center focus
- Compact and convenient

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- 3 Diopter adjustment
- 4 Reticle focus adjustment [Antigua only]
- 5 Main body
- 6 Objective lens
- 7 Compass housing [Antigua only]
- 8 Compass light switch [Antigua only]
- 9 Battery compartment [Antigua only]
- 10 Strap holder

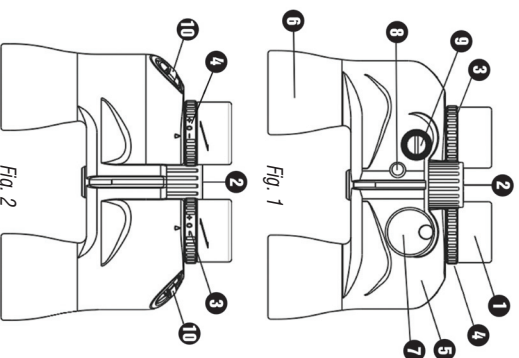


Fig. 2

Eyeiece Distance Adjustment

For best viewing, the binoculars should be adjusted for the individual user so that eyepieces line up with the user's eyes. The distance between the eyes, called "interpupillary distance," varies from person to person. To achieve perfect alignment of lens to eye, follow these simple steps:

1. Hold your binoculars in the normal viewing position.
2. Grasp each barrel firmly. While looking through the binoculars, move the barrels closer together or farther apart until you see a single circular field. Reset your binocular to this position each time you use it. The eye distance setting is indicated on the scale located on the binocular hinge.

Reticle Focus [Antigua]

The reticle can be focused for comfortable viewing by adjusting the left eyepiece focus position.

1. Cover the right objective (front) lens with your hand, and look at the reticle through the left eyepiece.
2. Adjust the reticle focus dial (2) on the left eyepiece until the reticle appears sharp and clear.
3. The reticle is now focused for your eye. Note position of reticle focus dial, and return it to this position any time you use binoculars.

Diopter setting and Internal Center Focus

The diopter setting corrects for vision differences between the user's two eyes, so the binoculars can be focused correctly for both eyes. To adjust the diopter:

1. Set the right eyepiece to 0 and look at an object that is approximately 100 feet (30 m) away.
2. Keeping both eyes open, cover the right objective (front) lens with your hand.
3. Adjust center focus wheel until image in the left eyepiece appears sharp.
4. Cover the left objective (front) lens, then rotate the right eyepiece (3) until the image appears sharp again.
5. The diopter setting is now correct for your eyes, and you need only adjust the center focus to view objects at different distances. Note the diopter setting for future use.

Twist-up Eyecups

To use binoculars while wearing eyeglasses or sunglasses, twist the eyecups clockwise until they are as short as possible. This will allow you to bring your eyes closer to the binoculars, improving your field of view. To use binoculars without glasses, twist them into the position you find most comfortable.

Reading the Rangefinder Scale [Antigua]

The rangefinder scale is a useful navigation tool if you know the size or distance of an object. If you know an object's size, you can use the rangefinder to calculate its distance. Conversely, if you know the object's distance, you can calculate its size.

To measure distance, simply apply the following formula:

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

Example (to find distance): if the object is 20 meters high and the rangefinder scale reading is 16 (Fig. 3), then:

$$\frac{20 \text{ M (height)} \times 1000}{16 (\text{rangefinder scale reading})} = 1,250 \text{ M (distance)}$$

To measure object size, the formula becomes:

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

Example: if the object is 1,250 meters away and the rangefinder scale reading is 16, then:

$$\frac{1,250 \text{ M (distance)} \times 16}{1000} = 20 \text{ M (object size)}$$

Using the Compass [Antigua]

READING: When you look into the eyepiece, you will see a compass window with figures and lines below the field of view. The compass shows orientations as angles: north is 0°, east is 90°, south is 180° and west is 270°. Between numbers, each line represents 1°. After aligning the object with the rangefinder scale in the center of the field, read the compass.

LOCATING YOUR POSITION: These binoculars, together with a chart and protractor, can be used to locate your position. For example, the binoculars plus the map in Fig. 4 could be used to determine the location of a boat sailing within the map's area:

1. From the boat, use the binoculars to locate the buoy shown on the chart (Fig. 4). In this example, the compass would show that the buoy is located 190° from the boat.
2. Use this information to determine the direction from the buoy to the boat. (To do this, subtract 180° if the object's reading is 180° or greater, add 180° if the reading is less than 180°.) So, 190° (direction from boat to buoy) - 180° = 10° (direction from buoy to boat).
3. On the map, draw a line from the buoy extending in a 10° direction (10° from magnetic north). You now know your boat is somewhere along this line (Fig. 5).
4. To determine your boat's exact position, use the binoculars to locate a second object, the lighthouse. The compass will show that the direction from your boat to the lighthouse is 300°.
5. Then calculate the direction from the lighthouse to your boat: 300° - 180° = 120°.
6. Finally, draw a line extending 120° from the light-house (Fig. 6). Your boat is located at the point where the two lines intersect.

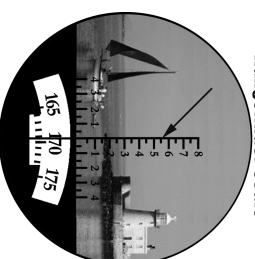


Fig. 3

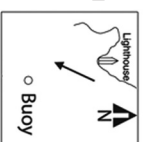


Fig. 4

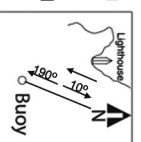


Fig. 5

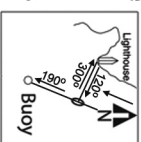


Fig. 6