# Weems BINOCULARS

**Weems & Plath®**

*Manufacturer of Fine Nautical & Weather Instruments*

**Good quality marine binoculars are a critical navigation tool that no boat should be without. The key factors to consider when selecting marine binoculars are the quality of optics, waterproof construction, and comfort in your hands. The following chart provides an at-a-glance comparison of the important features of the Weems & Plath all-weather binoculars.**

| Item | Eye relief (mm) | Exit Pupil (mm) | purge gas | Field at 1000 yds | Focus | LENS coating | Compass | Reticle | Prism | Floating | Weight (oz) | Construction |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BN50** ***PRO*** 7x50 | 23 | 7.14 | Ar | 430' | IND | FMC | No | No | PORRO BAK-4 | No | 51 | Magnesium alloy body |
| **BN40** ***CLASSIC*** 7x50 | 20 | 7.1 | Ar | 413' | IND | FMC | No | No | PORRO BAK-4 | No | 40.5 | Magnesium alloy body |
| **BN20C** ***EXPLORER*** 7x50 | 23 | 7.1 | Ar | 396' | IND | FMC | Yes | Yes | PORRO BAK-4 | Yes | 29.25 | Polycarbonate |
| **BN10** ***SPORT*** 7x50 | 24 | 7.1 | Ar | 367' | CTR | FMC | No | No | PORRO BAK-4 | No | 33.5 | Aluminum alloy |

**Binocular Accessories (included):**

Lens cloth

Lens covers


Binocular case

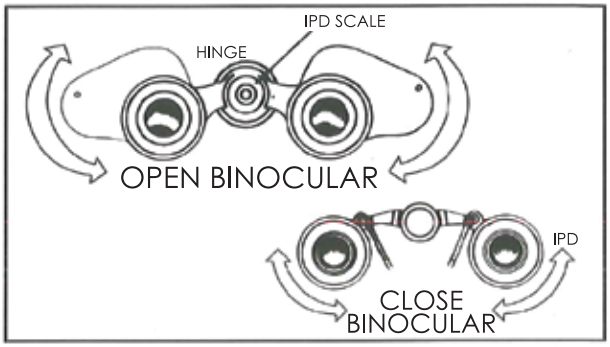
Neck strap


Two LR44 batteries (if required)

## How to use your binoculars:

### 1. How to Adjust the Interpupillary distance (IPD)

You must first fit the binocular to your eye width distance (IPD). IPD stands for 'interpupillary distance' or the distance between the pupils of your eyes. As this distance is different for each person, the binocular can easily be adjusted to fit by opening or closing the hinge. Our binoculars include an IPD scale in millimeters on the hinge mechanism. IPD is set correctly by placing both hands on the lens barrels and then opening the hinge completely. Next, observe a distant object while folding them shut until you view a perfect circle in the lens. Note: the image will not be clear. You will adjust for clarity in the next step. Take note of the correct measurement on the millimeter scale for your eye width distance.




### 2. How to Focus

Binoculars should be focused for each user.
There are two focusing systems for Weems & Plath binoculars:

*Center Focus:* (BN10) Center focus system binoculars allow you to change focus quickly between objects near and far by turning the center focus wheel.

To focus using center focus system:

A. Close your right eye and look through the left side of the binocular. Focus by turning the center focus wheel until the image is clear.

B. Close your left eye and look only through the right side of the binocular and turn the right eyepiece focus ring until the image is clear.

C. Now, your binoculars should be adjusted for your eyes. Now you can focus for both far and near objects by simply turning the center focus wheel.

**Individual Focus:** (BN40, BN50, BN20C) The advantage of individual focus binoculars is that you can pre-focus the binoculars allowing you to see objects in low light without further adjustments for distances of 40 yards to infinity. To focus using individual focus system: cover one lens or close one eye at a time (it is better to cover a lens and leave both eyes open) and rotate the opposite eyepiece focusing (diopter) ring until the image is sharp, then repeat for the other side.

**3. How to use with eye glasses:**

Fold down rubber fold-down cups for use with eye glasses in order to obtain full image view. (BN20C, BN40, BN50) Twist each eye-piece down for use with eye glasses. (BN10)

**4. How to use the compass (BN20C)**

A compass bearing can be measured with the built-in compass in the right half of the binocular body. It shows the bearing to an object from the observer. Each graduation of the compass equals one degree of angle. When the object lies north the compass shows 0°. It will increase as you turn clockwise. 90°means the object lies east of you. 180°means the object is south and 270° it is west.

In order to ensure precise angle measurements, keep binocular horizontal and level when reading the compass. The object must lie in the center of the reticle.

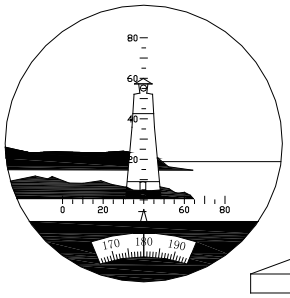
The binocular compass is illuminated by holding the power button down while taking a reading at night or in low light conditions. Two LR44 batteries accompany the binocular and should be replaced annually to avoid battery corrosion. (See Warranty Information*)

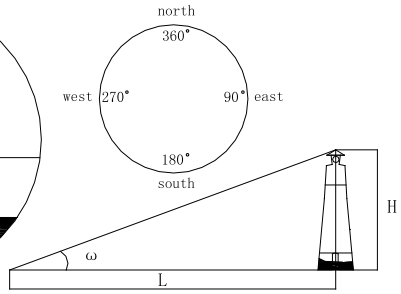
**How to use the reticle to measure distance (BN20C)**

The distance measurement to an object of known height can be calculated by using the mil reticle. With the addition of a compass bearing, a very accurate fix can be plotted from an object with a known position on land, (for example: a tower or light house).

The formula of distance measurement: $\frac{\text{Object Height (m)}}{\text{Scale reading}} \times 1000\text{m} = \text{Distance in meters}$

L — the distance between the observer and an object (km) "of known height"
H — the height of the object (m)
ω — reticle scale reading




To determine your position, plot the distance from the object on the reciprocal magnetic bearing of the object. Plotting more than one
known object will result in improved accuracy.

## How to care for your binoculars:

To protect lenses when not in use, cover with lens covers.
To clean lenses wipe with lens cloth that comes with binocular or use soft, lintless cloth.
Dirt and smudges can be removed with one or two drops of isopropyl alcohol on cloth.
Store binocular in moisture-free location.
Never take binocular apart.

## Warranty Information*

Your Weems & Plath binocular is warranted against defects in material and workmanship for two (2) years from the date of original purchase. Retain a copy of receipt for proof of purchase. Any defect caused by misuse, accident, tampering or negligence of the user is not covered by this warranty.

Caution: If your product is battery operated, damage caused by battery leakage is not covered under warranty. Leaving a dead battery in place causes the battery to leak acid which destroys the lighting system. For this reason, it is important to replace the battery once a year, even if the battery is not dead at the time of replacement. If the binocular is not in use, remove the battery to reduce the possibility of damage.

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