

Thank you for choosing to purchase a quality pair of Optisan binoculars!

Your Optisan binoculars is designed and precision-engineered by enthusiast birder for intensive outdoor use and manufactured to provide many years of pleasant observation experience with proper care.

Please review thoroughly and pay attention to guidance applies to your specific binoculars.

## OVERVIEW

- 1 Getting to know your binoculars and what are inside the box
- 2 Adjusting the eyecup  
Adjusting the distance between your eyes  
Compensating diopter difference
- 3 Reading rangefinder scale  
Using the calculator plate  
How to read directional compass  
Locating your position
- 4 Replacing the batteries  
Care and maintenance

## GETTING TO KNOW YOUR BINOCULARS

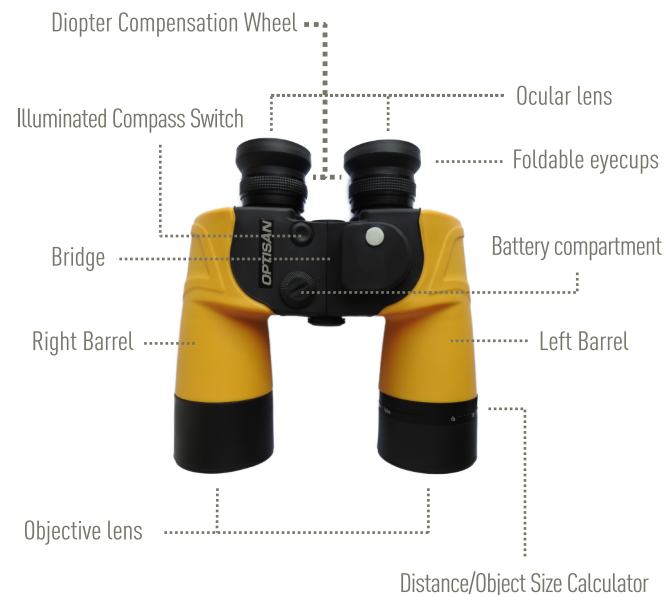


Fig. 1

## WHAT COMES INSIDE THE BOX

Delivery include:

- Binoculars
- Soft pouch
- Carrying strap
- Lens cover
- Cleaning cloth
- Owner's manual
- Warranty info card

## BEFORE SETUP

Please select an object approximately 20-30 meters from you and remain aiming at the same object throughout the whole setup procedure.

### If you are viewing with naked eyes:

(Strongly recommended if you do not bear much eye strength difference).

Keep both eyecups unfolded (Fig. 2) and you would see a complete round field of view without the moon-shaped blackout.

### If you are viewing with sun/eyeglasses:

Fold both eyecups (Fig. 3) and you would see a complete round field of view without moon-shaped blackout.



Fig. 2



Fig. 3

## ADJUSTING DISTANCE BETWEEN YOUR EYES

To adjust the IPD (Interpupillary Distance), i.e. the distance between your eye pupils, hold your binoculars at observation position then move both barrels closer or further until you see a single round field of view. (Fig. 4)



Fig. 4

## COMPENSATING DIOPTRER DIFFERENCE

If you have different eye strength between right and left eyes, you will need to compensate your eye strength difference with following steps.

### FOR CENTER FOCUSING MODELS:

1) Cover the right objective lens with your right hand, see through left barrel through your left eye and rotate center focus wheel until your left eye gets the sharpest image.

2) Cover the left objective lens with your left hand, see through right barrel through your right eye and rotate the diopter compensation wheel until your right eye gets the sharpest image. (Fig. 5)



Fig. 5

### FOR INDIVIDUAL FOCUSING MODELS:

1) Cover the right objective lens with your right hand, see through left barrel through your left eye and rotate your left ocular until your left eye gets the sharpest image.

2) Cover the left objective lens with your left hand, see through right barrel through your right eye and rotate your right ocular until your right eye gets the sharpest image.

## FOCUS AND ENJOY!

Your binoculars are now properly set for your own eye strength. Now all you need is to rotate the center focus wheel to focus at different distances.



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**READING RANGEFINDER SCALE**

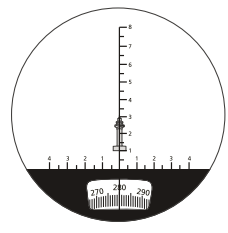
The rangefinder scale can be used to determine the approximate distance or the approximate object size. When the object size is known, the rangefinder will tell you the distance to it (and vice versa) through the calculation below.

**DETERMINING DISTANCE: (OBJECT SIZE IS KNOWN)**

$$\frac{\text{Object Size (m)} \times 100}{\text{Rangefinder Scale Reading}} = \text{Distance to object (m)}$$

**EXAMPLE**

Object size is known to be 10 meters high, you read 2 unit on rangefinder scale.

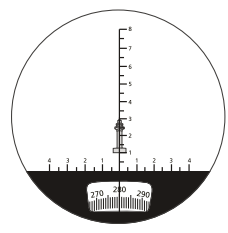
$$\text{Distance} = \frac{10 \text{ (m)} \times 100}{2} = 500 \text{ (m)}$$


**DETERMINING SIZE: (DISTANCE IS KNOWN)**

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

**EXAMPLE**

Distance is known to be 500 meters, you read 2 unit on rangefinder scale.

$$\text{Object Size} = \frac{500 \text{ (m)} \times 2}{100} = 10 \text{ (m)}$$


**USING THE CALCULATOR PLATE**

On models with calculator plate, you will be able to use the calculator for faster calculation. Calculator plate is located at either the left barrel close to objective lens end or is hiding inside the objective lens cap.

Take the above example: The object size is known to be 10 meters high and reads 2 units. You could rotate the ring and align the rangefinder scale reading “2” to the angle arrow. Then find “10” on scale OBJECT SIZE, you will find the corresponding distance “500” on the DISTANCE wheel.

**HOW TO READ DIRECTIONAL COMPASS**

The illuminated directional compass is located underneath the rangefinder scale. (as seen in Fig. 6) The compass displays the precise geographic direction to which you are looking through the binoculars.

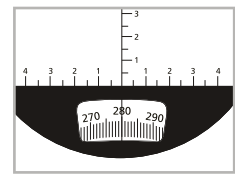


Fig. 6



Fig. 7

- 360° = North
- 90° = East
- 180° = South
- 270° = West

Note: The North indicates “Magnetic North.”

When in low light condition, you may press the illuminated compass switch to light up the compass (as seen in Fig. 7)

**LOCATING YOUR POSITION**

By using the directional compass, together with a map and angle meter, you will be able to locate your position.

First, find two reference targets on the map. Let's say we are sailing a boat with map like in Fig. 8, we can choose buoy as and the lighthouse as our two reference targets.

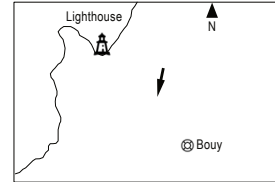


Fig. 8

Take your binoculars and observe the buoy, the directional compass reads 190°. To draw a line From the buoy to us (the boat), calculate the counter-directional angle, which is 190°-180° = 10°, start from the buoy on the map, draw a line using the angle meter with 10° like in Fig. 9.

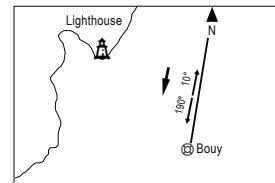


Fig. 9

Take your binoculars and observe the lighthouse, the directional compass reads 300°. Repeat last step, the counter-directional angle is 120°, draw a line using the angle meter with 120° from the lighthouse.

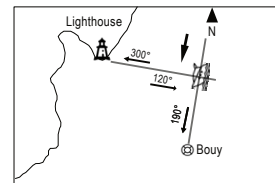


Fig. 10

Now, our position (the boat) is at the intersection of the two lines, illustrated as in Fig. 10.

**REPLACING THE BATTERIES**

Unscrew the battery cap with a coin.



Fig. 11

Replace with 2 LR43 Alkaline batteries. Keep “+” end facing outside, then tighten the battery cap back on.



Fig. 12

**CARE AND MAINTENANCE**

Please DO:  
Keep the lens surface free from dirt. In the case where it gets dirt or sand on the lens, remove the large particles with moisture free blower and clean it with a soft lintless cloth. Also we recommended to store the binoculars in a moisture proof box when the binoculars is not in use for a long period.

Please DO NOT:  
1) DO NOT LOOK DIRECTLY AT THE SUN THROUGH THE BINOCULARS OR ANY OPTICAL INSTRUMENT! THIS COULD LEAD TO PERMANENT DAMAGE TO YOUR EYES.

2) DO NOT attempt to disassemble the optical instrument unit or eyepiece. Specialized equipment is required for service. Irreparable damage from untrained or unauthorized service could void the warranty.

