

You will only get the most out of your binoculars if you know how to adjust them properly. Many people do not know how to use the adjustable eyepiece and never really see as well as they could with their binoculars.

Here are easy, step-by-step instructions for making the four adjustments needed to get the best out of your binoculars

Note: This is why sharing binoculars is not often practical. Each person needs to have a pair of binoculars adjusted for his or her eyes.

*James Davis
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About Metro

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

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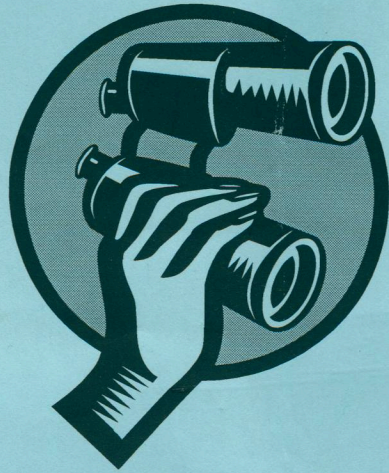
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How to use binoculars

By James Davis
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1. Eyecups

Modern binoculars have either hard plastic eyecups that screw in or soft rubber eyecups that fold down on the eyepieces to adjust for eyeglasses. If you use binoculars with your glasses on, fold the rubber eyecups down or screw in the hard eyecups so the end of the eyepiece is as flat as possible. Put the flat eyepiece right on your glass's lens when using the binoculars. If you are not wearing glasses, leave the eyecups extended.

2. Hinge

The two halves of the binoculars are joined together in the center with a hinge. This is so you can move them in and out until they are the right distance apart for your eyes. While looking through the binoculars, move them in and out until you have one big, clear, circular field of view. If you get dark patches or crescents in the center or on the sides, they are too close together. You should never see two circles. Keep fiddling with them until you get the best field of view and don't be afraid to keep adjusting them throughout the day.

3. Central focus

Hold the binoculars in both hands and reach to the center with a big finger or two fingers and turn the wheel in the center. This is the central focus. Turn the central focus back and forth every time you look at something new to get the sharpest, clearest image you can. However, your eyes are probably not the same and you need to make one more adjustment to see as well as you can with your binoculars.

4. Adjustable eyepiece

This is the most confusing thing about using binoculars. Almost no one ever explains it on nature and birding walks and it is often poorly explained in the instructions that come with binoculars (yes, there were some). It is even explained incorrectly in some bird watching books!

When you use the central focus, you focus the two sides of the binoculars at the same time. Your vision is probably different in each eye, so you will need to make adjustments so each binocular side is in focus for each eye. You do this by using the adjustable eyepiece.

The adjustable eyepiece is the eyepiece that turns and it will have a simple scale on the underside of the eyepiece with a “-”, “0”, “+” and another mark next to the scale on the binocular frame. Binoculars differ, but almost all have the adjustable eyepiece on the right. Find your adjustable eyepiece and turn it. Find the scale on the underside and set it at “0” or in the middle.

Note: If you wear glasses and have recently been prescribed new glasses, the difference between your eyes has been corrected and you can probably use “0” on the eyepiece and skip this adjustment.

The easiest way to make this adjustment for an adjustable eyepiece on the right is:

- Pick something sharp and clear a medium distance away to look at, like a sign.
- Make the other adjustments and focus on the sign with the central focus as best as you can.

- Next, close your right eye and use the central focus to get the left eye's image as sharp as possible. You should be looking through the left side of your binoculars only.
 - When your left eye is in sharp focus, close your left eye and open your right eye. Don't touch the central focus. You are now looking through the right side of your binoculars only.
 - Here's the tricky move: Turn the adjustable eyepiece back and forth with your right hand until you get the sharpest image you can in your right eye. See? You are matching your right eye to the left eye.
 - Open your left eye and the object should be in sharp focus in both eyes. To check, focus on something else using both eyes with the central focus, then alternate looking with one eye and then the other. The image in both eyes should look the same and be in sharp focus. If not, try turning the adjustable eyepiece a tiny bit back and forth to see if you can get it sharper. Sometimes you just have to fiddle a bit with the central focus and the adjustable eyepiece until you get them just right.
- When you have the adjustable eyepiece in the right position, remember the scale setting, which is your starting setting for those binoculars. Many people find their eyes change from time to time, so don't be afraid to make adjustments to get the best image.
- Remember: Left eye: central focus; right eye: adjustable eyepiece.