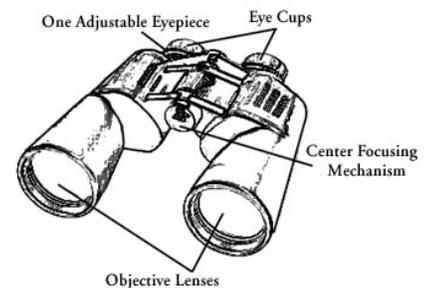


## How to Use Your Binoculars

Binoculars are the most important tool for a bird watcher. A binocular magnifies anything you view through it, giving you a much better look at it than you get with the unaided eye. For birders this helps us to see the field marks on birds so we can identify them.

**Tip: Always use your binocular's neck strap. Carrying your optics around in your hand by the strap is asking for trouble. The strap keeps the binoculars safe around your neck and against your chest, within easy reach of your hands. Some birders prefer to use a binocular harness, which uses straps over the shoulders and across the back to distribute the weight of the binoculars.**

The most useful binoculars for bird watching incorporate a few basic features. They have a central focus wheel and a diopter focus adjustment. The diopter is often part of the right-hand eyepiece on a binocular. The purpose of the diopter is to compensate for the differences between your two eyes (because no two eyes are the same or have the same ability to focus.) Adjusting both the diopter focus and the central focus is how you get the clearest possible image from your binocular.



**Warning: If your binocular does not have a diopter or if it lacks a central focus wheel (some models make you focus each eyepiece individually), these are not good optics for birding. Consider replacing them with a pair more suited for bird watching.**

### Focusing

Start by adjusting the distance between the two barrels of the binocular so that they are the right width for your eyes. Too far apart or too close together and you will see black edges in your field of view. If you have the spacing right, your view will be a perfect circle.

Next, find something to focus on, such as a dark tree branch against the blue sky, a street sign, or an overhead wire. Focus with both eyes open by turning the central focus wheel.

Now it's time for the fine focusing. Close your right eye and, using only your left eye, adjust the focus wheel. Next, close your left eye and, using the diopter adjustment, bring your view into sharp focus.

Now open both eyes and see if your focus is crystal clear. If the image is not clearly focused, repeat these steps, making small adjustments using one focus wheel or the other.

How can you tell if your focus is correct? First of all, the view through your binoculars, with the diopter adjusted, should appear almost three-dimensional. It should really pop out at you and be crystal clear. Also, your eyes should not have to work hard when using your binoculars.

**Note:** If you feel a slight strain in your eyes, or if using your optics gives you a headache, there might be a problem with your binoculars. They could be out of alignment. Most binocular manufacturers are happy to service their optics. If you think your binocs have a problem, contact the manufacturer and ask about getting your optics serviced.

## Finding the Bird

In all my years of birding, the one problem I've encountered more than any other is the difficulty people have in getting their binocs pointed right at the bird. This can be a problem even when the bird is sitting still, perched in an obvious place. Fortunately, this problem can be easily overcome with a bit of practice.

Here's how:

Looking with your naked eyes, find a bright leaf in a distant tree, or a certain spot on a distant building, and lock your eyes onto it. Now, without removing your eyes from that spot, bring your binoculars up to your eyes and into alignment with your view. Did it work?

With practice you'll find that locking your eyes in place and bringing the binocs into alignment really works. This will make it easier for you to find birds with your binocs, even if a bird is moving.

**Tip: When locking your eyes onto a distant bird, note some other feature or landmark near the bird's location. This can be a notch in a tree's outline, a brightly colored leaf, or even a passing cloud. Note where the bird is in relation to this landmark and it gives you another reference point to use when your binoculars swing into place.**

## Cleaning Your Binoculars

No matter if your binoculars cost \$100 or \$1,000, they will need to be cleaned regularly. And cleaning them the wrong way can really damage them. Wiping your shirtsleeve across your lenses may seem like the easiest way to get the dust off, but you might be putting lots of tiny scratches on the glass or lens coatings. Over time these tiny scratches will reduce the clarity of the image your binocs can produce.

The best way to clean precious optics lenses is:

1. Use a soft brush or compressed air to blow away particles (dust, dirt, grit, crumbs, etc).
2. Once the particles are removed, wet a lens cloth or lens tissue with cleaning solution (solution made for use on coated lenses, available at camera shops and outdoor stores).
3. Softly wipe the lenses with the wet cloth.
4. Dry the lenses with a dry portion of the lens cloth.
5. Hold the binocs up in the light and look for smudges or smears. Repeat the wet cleaning as needed.