

Getting the most out of your binoculars

Photo: Opticron

In our previous issue, **Niall Hatch** gave some advice on how to choose a pair of binoculars. This time around, he fills us in on how to make sure you are using your new binoculars to best advantage.

All too often, the straps which come with binoculars are surprisingly narrow: so narrow, indeed, that you may find they begin to dig into your skin. If you are going to be lugging your binoculars around your neck for extended periods, it makes sense to pair them with a comfortable **strap**.

Carrying your binoculars

A wide strap will distribute the weight of the binoculars more evenly across your neck, making for more comfortable days in the field. Straps made from **neoprene**, the same fabric from which wet-suits are made, are my own personal preference, as they are slightly elastic and tend to be more durable.

When hanging from your neck, your binoculars should be within easy reach, allowing you swiftly to raise them to your eyes. Be sure to adjust your strap so that they don't sit either too low or too high on your body.

It is even possible to buy special **chest harnesses** for binoculars, allowing you to distribute the weight more evenly across your back and to stop them swinging against your body as you walk.

Adjusting the dioptre settings

I have lost count of the number of people over the years who have told me that the image they get from their binoculars is so poor that they must be broken, only for me to then discover that they are absolutely fine but that the owner has never set the dioptre. This is an adjustment mechanism found on all good binocular models, allowing the user to customise the focal properties of each barrel to suit the respective eye.

Indeed, this is probably the most common binocular pitfall of all. It is vital that you calibrate your binoculars to suit your own eyesight, otherwise the images that you see through them will be below par, and may even cause eye-strain.

Almost all of us have one eye that is stronger than the other; when one of our eyes is perfectly focused on an object, there is a good

Eye-cups in or out?

Most binoculars have rubber or plastic **eye-cups** that can be extended or retracted by twisting or pulling. The main purpose of these is to accommodate people who use spectacles. If you don't wear glasses, you should *extend* the eye-cups and place your eyes right into them.

Some models allow you to extend the eye-cups to different steps: simply choose whichever position is most comfortable and gives you the clearest view.

If, like me, you wear glasses when using your binoculars, leave the eye-cups fully in, so that they are flush with the lenses. Please note that there is no need whatsoever to remove or lift up your glasses when using binoculars, as I so often see people doing: they are designed to work perfectly well with spectacles.

Eye-cup extended



JASON WHITEHEAD (BESTBINOCULARREVIEWS.COM)

chance the other eye will be slightly out of focus. When viewing objects with the naked eye, these small focal differences are usually too insignificant for us even to notice. However, multiply them eight or ten times, such as when using binoculars, and they can pose a real problem.

The location of the dioptre varies from model to model. On many, it is to be found on one of the eyepieces (usually the right one), while on others it may be located on the central focusing wheel and is often accessed by pulling on the wheel itself. You will notice that the dioptre can be turned to the left and right and probably also has a **small marker** that corresponds to gradations on a printed or raised **scale**, usually marked with "+" and "-" symbols. You will notice that rotating this dioptre will adjust the focus of just one of the binocular barrels.



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To adjust your binoculars to suit your own eyes, go outside and find an isolated stationary object approximately 30 to 40 metres away: for example, the top of a lamp post or a tall tree.

As mentioned above, the dioptre adjusts the focus of just one of the barrels: cover the end of this barrel with a lens cap and then look at your chosen object. As one lens is covered, you will only see the image in one eye. Now, turn the main focusing wheel until your chosen target is in pin-sharp focus.

Next, remove the lens cap and use it to cover the lens at the end of the other barrel. Now look at the object with your binoculars again and this time rotate the dioptre – *not* the main focusing wheel – until the image is once again pin-sharp.

Remove the lens cap and you should find that your binoculars are now perfectly calibrated for your eyes. From now on, you will only have to move the focusing wheel for the image to focus perfectly for both your eyes.

Make a note of the dioptre's position on the marking scale so that, should someone else adjust it, you can simply move it back again.

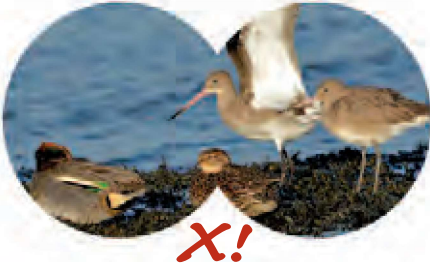
Interpupillary distance and how Hollywood has misled you

Interpupillary distance essentially means "the distance between the centres of your eyes." Some of us have eyes that are close together; others have eyes that are further apart.

To ensure that you get a proper image from your binoculars, you must ensure that the centres of your right and left eyepieces are precisely aligned with the pupils of your respective eyes.

Doing this is actually quite simple. The barrels of virtually all binoculars are joined to each other by a **hinged mechanism**, allowing you to pull the barrels closer together or push them further apart, as required. Looking through your binoculars with both eyes, adjust the barrels, using the hinges, until the image forms a **single solid circle**.

I know that countless films and television programmes represent the view through binoculars as looking like two *intersecting circles* (as below), almost like a sideways figure eight-shape; maybe they believe this a better way of showing



Your view should be a single solid circle, not overlapping circles as is frequently shown in films and on tv.

RICHARD MILLS

Now there's the rub: cleaning your lenses

Keeping your binocular lenses free of dust and dirt is a never-ending task. Most pairs come with a **lens-cleaning cloth**, which you should use, but before you do so you should first make sure that no grit or sand is present. I would recommend using a **blower brush** (readily available in any camera store) for this or, if your binoculars are fully waterproof, you can hold them under a gently running tap.

If particles of dirt are present when you rub the lenses with the cloth, you could easily scratch the protective coatings on the surface. Rub using a circular motion, taking care not to touch the lenses with your fingers.

You can also use dedicated **lens tissues** to clean the lenses, and disposable **lens-cleaning wipes**, impregnated with cleaning solution, are also available. Never use ordinary household tissues or kitchen paper to clean the lenses: these can sometimes cause scratches, and at the very least will almost always leave some degree of annoying lint behind.

When not in use, keep your lenses covered with **lens caps** and safely stored in a protective



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case. Many binoculars now also come with **stay-on rain-guards**, which fit over the eyepieces but which can usually be moved aside quickly as you raise your binoculars to your eyes: if you have these, be sure to use them. It is also very important to wash sea-spray off your lenses as soon as possible: saltwater can damage the lens coatings ■

Buy your binoculars from BirdWatch Ireland

➔ The BirdWatch Ireland shop stocks a wide range of binoculars and binocular accessories: please visit www.birdwatchireland.ie or give us a telephone call on **01 2819 878** for more details and advice. You can also call into our shop at our offices in Bullford Business Campus, Kilcoole, Co Wicklow, to try optics out in person.

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