



Consumer's Guide to Ocutech® Bioptic Telescopes

Part 2 of 3

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OCUTECH® *Sight Enhancement Technology*



Thank you for visiting Ocutech's Consumer Bioptic Guide.

Part 1 explored what bioptics are, how they are used, and whether they might be right for you.

This section (Part 2) we explain how bioptics are prescribed, the range of Ocutech's bioptic products and the benefit of Autofocusing.

Bioptics for one eye or both eyes?

Bioptics can be prescribed for one eye (monocular) or for both eyes (binocular). Since weight factors into the decision of what type of bioptic to choose, a monocular design will of course be lighter, though in low power Galilean versions (1.7x and 2.2x) weight is not significant even in binocular versions.

However since we prefer Keplerian telescopes when powers of 3x and higher are needed due to their wider field of view, monocular bioptics offer the only compelling options.

There is a benefit to a binocular device. The field of view will be slightly wider, you may get slightly better vision when using two eyes together than with either eye alone, and finding what you are looking for through the telescope may be a bit

more natural. But, because of their field of view, the most compelling binocular bioptics are limited to the 1.7x, 2.2x and maybe 3.0x powers.

The eye the telescope is prescribed to is important.

We all have a dominant eye, just as we do a dominant hand. When looking through a monocular telescope it is much easier and more natural to find what you are looking for (localize) when using the dominant eye. Some folks don't have a strong eye dominance and can look through a telescope comfortably with either eye, but most of us do.

Your better-seeing eye (with eyeglasses if they help) is not automatically your dominant eye. It often is, but not always. If you have a turned eye, the eye you normally see with will likely be your dominant eye.

So, when using a monocular bioptic, we would prefer to prescribe it for the dominant eye, hoping, of course, that it's also the better-seeing eye. If the dominant eye is not the better-seeing eye, it sometimes makes sense to prescribe a higher power telescope for the poorer-seeing dominant eye if we can achieve the visual acuity we seek and especially if the user finds it much more natural to sight through. Sorry if this is a bit confusing.

Want to figure out which is your dominant eye?

It's easy!

Step 1: With both eyes open look at a small target that's as far away as possible that you can see reasonably well.

Step 2: Extend your arm and with both eyes open point a finger directly at the target.

Step 3: While still pointing at the target, close or cover one eye and then the other.

Step 4: The eye that sees your finger most accurately pointing to the target is your dominant eye.

Want to figure out which is your better-seeing eye?

That's also easy!

Step 1: With both eyes open look at a target that's as far away as you can see reasonably clearly.

Step 2: While looking at the target close or cover one eye and then the other.

Step 3: Whichever eye sees more clearly is your better-seeing eye! Obviously!

Having trouble deciding? It's possible that both of your eyes see about the same.

The “Nuts and Bolts” of Ocutech’s Galilean Bioptics

Ocutech manufactures both **Galilean** and **Keplerian** bioptic telescope systems. They can be either attached to the eyeglass frame using Ocutech’s adjustable bridge-mounting systems, which gives the prescriber complete control of the positioning of the telescopes, or traditional through-the-lens designs, where the carrier lens is drilled and the telescope is permanently inserted through the eyeglass lens. The bridge-mounted system allows for fine-tuning of the telescope positioning even after they are made. Traditional mounting methods require careful measurements for proper positioning of the telescope(s). Optimum positioning of the telescope is important to maximize its visual benefit.

Galilean Telescopes

SightScope® systems are available in 1.7x and 2.2x powers (and also 0.5x Field Expander for Tunnel Vision—*not the topic of this white paper*) and are appropriate for individuals with best-corrected vision of 20/100 or better. They can be prescribed for one or both eyes. The adjustable mounting allows for complete positioning control of the telescopes and can also maximize the field of view. The SightScope is available as a permanent frame mounted version (using Ocutech’s specially designed frames) and also as a clip-on



SightScope NearView



SightScope “Flip” Telescope



SightScope Telescope

version. In either version, the telescope can be flipped out of the way when not needed. Reading cap adapters are available that slide onto the front of the telescope and allow the SightScope to be used at near working distances anywhere between 40 inches to 10 inches. A near-only version called the *SightScope NearView* is also available.

The **InstaMount** and **Reveal** bioptics are traditional Galilean telescopes available in 2.2x (and also 0.5x for patients with tunnel vision) that can be glued to the front of the eyeglass lens (InstaMount) either permanently or by using a clip-on frame, or permanently inserted through the eyeglass lens (Reveal). These are small and lightweight. They do not focus and are intended only for distance seeing beyond 10 feet. They are also appropriate for individuals with best-corrected vision of 20/100 or better.



InstaMount Self-Adhesive Telescope



InstaMount Clip-on Telescope



Reveal Through the lens Telescope

The “Nuts and Bolts” of Ocutech’s Keplerian Bioptics

Keplerian (VES) Telescopes

Ocutech makes two styles of Keplerian (VES) telescopes—bridge-mounted designs and traditional through-the-lens designs. Keplerian telescopes provide the widest fields of view possible in bioptic telescopes and are available in 3x, 4x, 5x, 5.5x and 6x versions depending upon the individual product.

Ocutech’s bridge-mounted systems make it very easy for the prescriber to optimize the position of the telescope for the individual user. They can be conveniently repositioned even after dispensing. Eyeglass prescriptions can also be readily updated without completely remaking the device. Keplerian bridge-mounted systems (VES K, Explorer, Sport-II, Falcon) are only available in monocular versions. All bridge-mounted systems include Ocutech’s specially designed metal eyeglass frames available in three different styles and several sizes and colors.

The **VES Sport-II** is Ocutech’s most frequently prescribed product. It is an updated version of the original Sport and is slightly smaller and retains the same bright, crisp optics. It is available in 4x, 5x and 6x powers. The Sport II has manual focusing and can be used at any distance and to as close as 10 inches (25cm). You can choose your favorite color (or standard black and silver) for the case. The Sport-II is appropriate for individuals with best-corrected visual acuity of 20/300 (6/90) and better.



The VES Sport-II

The **VES Explorer** and **VES K** each contain the same optics and are available in 3x and 4x powers and are focusable to as close as 9 inches (23cm). The Explorer has an updated, smaller, more fashionable hi-tech design and is available in colors. It is popular with both children and adults. Both the VES-Explorer and VES-K have a smaller front entrance window than the Sport-II and as a result their image is slightly less bright. These devices are appropriate for individuals with best-corrected visual acuity of 20/200 and better.



The VES Explorer



The VES-K

The **VES Mini** is a 3x traditional through-the-lens bioptic telescope. It offers the combination of the smallest size and widest field of view of any 3x bioptic available. Since the eyeglass lens is drilled to insert the telescope through the lens, the low vision specialist needs to take careful measurements to position it properly when ordered. It can be prescribed for one or both eyes. It can be focused for any distance and to as close as 9 inches (23cm).



The VES-Mini (3x)

The 'Nuts and Bolts' of Ocutech's Autofocus Keplerian Telescope

The VES Falcon Autofocus Bioptic Telescope

Autofocus offers the most natural telescopic vision possible because wherever you look the image will be clear right away. You do not have to manipulate the device.

When you look through a telescope that is miss-focused one can hardly see anything at all. That makes it hard to find what you are looking for, let alone focus on it. If you are frequently looking at different distances you'll need to refocus a manual focus telescope every time. If you are looking at near objects, and move in or out even just a little bit the image will likely blur, so you'll either need to be continually refocusing the telescope or keep a very still posture. If your hands are busy with other things—music, typing, writing, drawing—keeping the image clear through the bioptic can be inconvenient not to mention fatiguing.

Autofocus addresses all of these issues. Wherever you look (up to about 12 inches) it will be clear right away. Hands-free. All you have to do is look. Autofocus enables you to pay attention to your activity and not to manipulating the device.

The Falcon is an autofocusing Keplerian monocular telescope available in 3x, 4x and 5.5x powers and in silver and black case colors. It is appropriate for individuals with best-corrected visual acuity of 20/300 and better. It will operate up to 8 hours using its separate rechargeable battery.

Contact Ocutech today should you have any questions regarding our low vision aids.

www.ocutech.com | 800 326-6460 | 919 967-6460

If you need to frequently look at different distances or need your hands to be free to do other things, the Falcon may be ideal for you. However, if you only seek to see at distances beyond 20 feet (6m) then there may be no benefit from autofocus because very little, if any, focusing is required at those distances.



The Falcon Autofocus Bioptic

In summary...

Seeing better is really important and seeing clearly at distance is especially important. In addition to enabling you to see and do things that you might otherwise not be able to accomplish, it helps you to feel connected with the world around you avoiding feelings of isolation, loss of independence, and potential irrelevance. Coming to terms with the benefit of adopting and using vision assistive technology is a journey—it may start out uncomfortably for you due to a range of physical, and emotional reasons, but once you are able to accept it as a part of your life, it can open up your world, help you to feel more engaged, more content and more worthwhile. It takes a special person to accept such realities, and you are entitled to all the help and support that you deserve. And, you are special—accept that and be proud of it! Go for it! Most folks are glad they did!

Stay Tuned for Part 3 as we explore driving with bioptics.

I invite you to visit the Ocutech website (www.ocutech.com) for more information on Ocutech products, general information and helpful videos.

And as always, we invite your questions, suggestions and feedback.

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