

SIGHTING IN



Crimson Trace laser sights are pre-sighted at the factory to 50 feet. Many times, no further adjustments are required. All of our laser products are fully user-adjustable for windage and elevation if further adjustments are desired. Assuming you are familiar with [sight picture and sight alignment](#), a good starting point is to align the laser with the fixed sights on the firearm. *Please note that Infrared (IR) products require the use of IR capable optics.*

A two-screw system is used to adjust for windage and elevation. The adjustment screws are located just behind the laser source. Use the supplied allen wrenches to make any adjustments. **DO NOT OVERTURN THE ADJUSTMENT SCREWS.** A little adjustment goes a long way. Rarely is more than half a turn required to make your needed adjustments. For additional information on your specific model, please refer to your product installation guide.

MAINTENANCE



Laser sights require minimal attention and are designed to resist most common firearm chemicals and lubricants, however, excessive exposure to these chemicals can be detrimental. To ensure safe and effective operation of your laser sight:

- Remove laser sight before cleaning gun.
- Do not use pressurized or compressed air.
- Do not immerse in cleaning fluid or lubricate firearm excessively. A firearm that has too much oil will foul the lens of the laser and result in an unfocused beam. This can be easily cleaned and causes no permanent damage.
- Do not allow cleaning solution to enter lens source.
- Do not allow solvents to contact your grips that contain: VOCs or TCE such as: carb/brake cleaner, acetone, MEK, gasoline. Damage will result.
- Crimson Trace laser diodes are designed and positioned to minimize exposure. Occasional cleaning of the lens is recommended.

After extensive shooting, you may notice a degradation of beam quality or "beam spread". This is the result of fouling on the lens surface. This is normal and can be easily cleaned with the cleaning swabs included in your laser's packaging - or a small cotton swab - dipped in isopropyl alcohol or window cleaner. Dry the lens with a clean, dry swab. When cleaning, do NOT touch the lens with any sharp objects.

INSTALLATION



While Crimson Trace laser sights are precision engineered to fit specific firearm models, they are also extremely simple to install. We call them "user-installed" because every product we manufacture can be installed by you -- the owner. You will not have to make any permanent alterations to your firearm to install and operate Crimson Trace lasers*. Take your time, follow the instructions enclosed with your new laser, and in a short amount of time, your gun will be laser-equipped.

*Owners of 1911 Pistols with ambidextrous safeties must have the right side of their external safety shortened or replace with a standard safety for clearance with 1911 Lasergrips® - except Master Series™ models, which will clear ambi-safeties. Please consult a gunsmith.

OPERATION



Crimson Trace laser sights with Instinctive Activation™ are activated by one or two strategically located pressure pad(s). With a normal shooting grip, your hand will naturally depress the activation pad whether shooting right or left-handed. Many products feature a master ON/OFF switch that is also provided to turn the laser off. The laser should be left in the 'ON' position under most circumstances. Leaving the master switch "ON" will NOT decrease battery life. Crimson Trace products with Instant Activation™ - including Rail Master® and Rail Master® Pro™ - feature ambidextrous control levers that initiate activation and mode changes.

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IF YOU'RE HOLDING IT, YOU'RE AIMING

Instinctive Activation™ is the hallmark of the Crimson Trace brand and the primary differentiating factor between Crimson Trace laser sights and the rest of the industry. Our products, including Lasergrips®, Laserguard®, Laserguard® Pro™, Lightguard™, LiNQ™ and MVF-515™, offer the unique advantage of Instinctive Activation.



WHAT IS INSTINCTIVE ACTIVATION?

Instinctive Activation means that **when you hold your gun in a normal firing grip, the laser is on**. When you holster or disengage your grip, the laser turns off. No button switching, no thinking, no battery drain, and no valuable time lost. This unique activation method provides an **unmatched tactical advantage in critical situations**. When your gun is deployed and the muzzle is pointed downrange, you can be sure that your Crimson Trace laser is activated, and your eyes are on the target.

Your Crimson Trace laser sight will arrive factory-sighted at 50 feet, but all models are fully user-adjustable for windage and elevation, allowing you to sight in to your ammo or your distance preference. Also, many models include a Master On/Off switch, allowing you to completely power down the unit for training with your iron sights.



Lightguard tactical lights (shown with Lasergrips above) also feature Instinctive Activation and are compatible with rear-activation Lasergrips. Lightguard models provide a powerful 100-130 Lumen LED white light for target identification and allow you to operate both your tactical light and laser sight with one hand.

Instinctive Activation will help you become a more accurate shooter, place you on target faster, and allow you to **reach for your personal defense firearm with much more confidence**. When you choose a Crimson Trace product, you're choosing a distinct tactical advantage you wouldn't have otherwise. It's why we say, "**When You're Holding It, You're Aiming It.**"

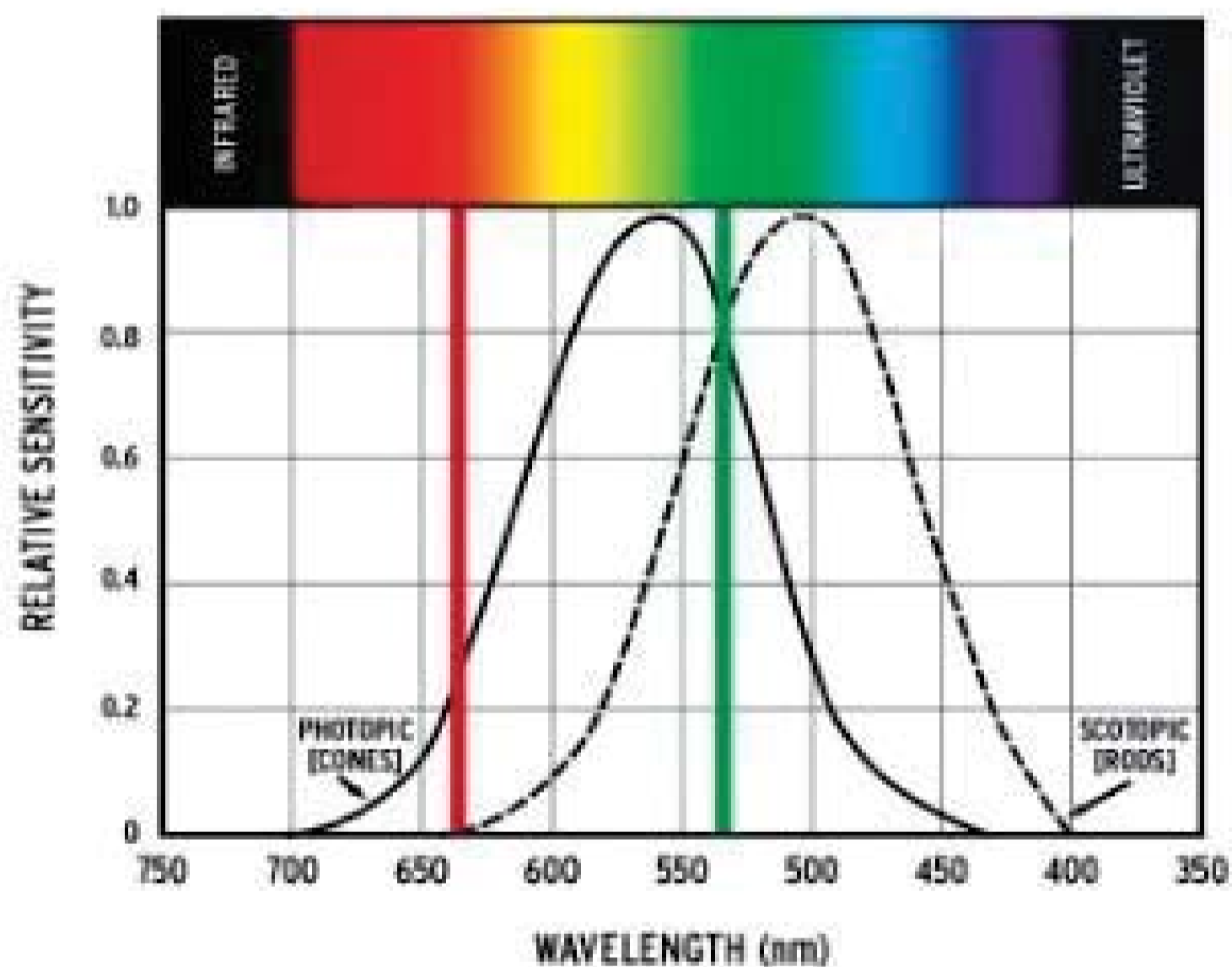
THERE'S MORE TO LASER SIGHTS THAN MEETS THE EYE

THE DIFFERENCE BETWEEN RED AND GREEN LASERS

More and more people are seeing the value of lights and laser sights for their firearms. Laser sight equipped pistols certainly make sense for personal protection and offer advantages that you simply can't get with traditional iron sights. Laser sights allow the gun to be accurately aimed from any position, whether lying on the floor or seeking cover behind a barrier. Laser sights also offer an advantage when you are engaged in a violent encounter in low-light conditions.

The primary debate regarding laser sights revolves around color options — red or green. And while selecting between a red or green laser sight for your firearm may seem no more important than choosing between a brown and black leather holster, there are fundamental differences between the two colors that should be considered before you purchase an optic. Understanding how red and green laser sights are built — and how your eye responds to each — is critical to making the right purchase.

LASER SIGHTS AND THE HUMAN EYE



Laser sights emit optically magnified light through the stimulated emission of electromagnetic radiation, a process that essentially concentrates one wavelength of light.

Lasers have the potential to damage human tissue, so the Federal Food and Drug Administration (FDA) decided to limit the wattage of laser sights that can be purchased by civilians to 5 milliwatts (5mW). These laser sights are classified as 3R devices; the same type of laser sights we mount on our firearms.

Our eyes are extraordinarily complex organs that allow us to view the world in multiple dimensions and in color. What we actually perceive as “color” is really electromagnetic radiation with wave-lengths of 390 to 700 nanometers (nm) with 390 being the color we recognize as violet and 700 being what we know as red. Electromagnetic radiation with wavelengths shorter than violet fall into the ultraviolet category, and wavelengths slightly longer than red are considered infrared. Both ultraviolet and infrared wavelengths are outside of our visible spectrum and invisible to the human eye.



So, how does this pertain to laser sights? That depends on lighting conditions. In daylight, especially in very bright conditions, the eye is better able to see green light since the wavelengths emitted by green light trigger both the M-and L-cone receptor cells within the eye. Essentially, green light triggers a higher number of those 6 million cones inside the eye to react. In very bright conditions — such as at the range on a clear, sunny day — a green laser sight will be more visible on target than a red laser sight.

Green light offers less of an advantage over red light in dim conditions. In reduced-light conditions, the cones in the eye are able to pick up both red and green light almost equally well, so while green laser sights are significantly more visible than red light in bright sun, the two colors are both easily discernable in darker lighting conditions.

According to Crimson Trace's Media Manager Mike Faw, there's a widely held misconception that the military uses green laser sights when engaging combatants at night, a myth that's been perpetuated by television and film. To be clear, Faw says, those laser sights that are clearly visible at night with special night vision equipment are actually infrared laser sights and are not visible to the naked eye.



WHICH LASER SIGHT IS FOR YOU?

Deciding which laser sight to mount on your gun is a personal decision. Your decision to purchase a red or a green laser sight will ultimately require a balancing of the pros and cons of both colors. If you're looking to save some money and are OK with sacrificing a bit of bright-light performance for a lighter and less-expensive unit, go with red.

However, if you are primarily concerned with the visibility of the laser sight under all conditions and don't mind the extra cost and bulk of a green laser sight, then that is your best option.

Either way, Crimson Trace® offers a wide range of options available in both red and green, so you'll have plenty of choices.

According to Faw, the company offers roughly 350 different firearm laser sights (most in the industry), and 200 to 250 of those products are red laser sights. With the growing interest in green laser sights, Crimson Trace has begun researching new methods of construction that will make green laser sights lighter, less complex, more efficient and more affordable than ever.

Red or green, having a laser sight on your firearm makes the firearm more versatile. You'll shoot accurately in any light conditions, and you don't have to align the sights with your eye to make an accurate shot, even at moderate ranges. No matter which laser sight you choose, you won't make a poor choice.