



CRIMSON TRACE®

CRIMSON TRACE HEADQUARTERS • 9780 SW FREEMAN DRIVE, WILSONVILLE, OR 97070
TELEPHONE: 800-442-2406 • FAX: 503-783-5334 • CRIMSONTRACE.COM

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27-3056 REV000 11/18



CRIMSON TRACE®

USER GUIDE

CTA-2104 2-SERIES RIFLESCOPE



TACTICAL

PLEASE READ THE ENTIRE MANUAL

FAILURE TO FOLLOW THESE INSTRUCTIONS AND PROCEDURES MAY RESULT IN INJURY OR DEATH.


Always follow firearm safety rules as outlined by the firearms manufacturer.

Keep this and all firearm related products locked and secured from children or other unauthorized users.

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GENERAL WARNINGS

 **WARNING: READ THESE INSTRUCTIONS AND WARNINGS CAREFULLY. BE SURE YOU UNDERSTAND THESE INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT ON A FIREARM. FAILURE TO READ THESE INSTRUCTIONS AND TO FOLLOW THESE WARNINGS MAY RESULT IN SERIOUS INJURY OR DEATH TO YOU AND OTHERS AND DAMAGE TO PROPERTY.**

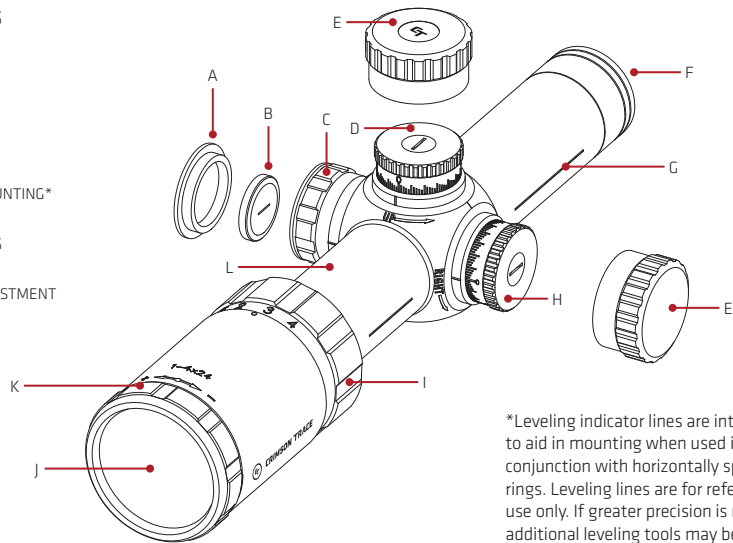
 **WARNING: ENSURE THAT YOUR FIREARM IS UNLOADED, THE MAGAZINE IS REMOVED, THE SAFETY IS ON AND YOUR FINGER(S) ARE OFF THE TRIGGER BEFORE ATTEMPTING TO INSTALL, REMOVE OR ADJUST YOUR SCOPE. FOLLOW THE BASIC FIREARMS SAFETY RULES AT ALL TIMES.**

 **WARNING: DO NOT INSTALL OR USE THIS PRODUCT IF THE INSTALLATION OF THE PRODUCT IN ANY WAY AFFECTS THE SAFE FUNCTION OF THE FIREARM. IF, WHILE INSTALLING THIS PRODUCT, YOU HAVE ANY TROUBLE WITH THE FIT OR FUNCTIONALITY OF THE FIREARM, STOP IMMEDIATELY AND CALL CUSTOMER SERVICE FOR ASSISTANCE AT 800-442-2406.**

 **WARNING: FAILURE TO SECURELY MOUNT YOUR SCOPE CAN RESULT IN SERIOUS INJURY.**

CTA -2104 KEY FEATURES

- A. BATTERY CAP
- B. CR2032 BATTERY
- C. ILLUMINATION CONTROL KNOB
- D. ELEVATION TURRET
- E. TURRET CAP (2x)
- F. OBJECTIVE LENS
- G. LEVELING INDICATORS FOR MOUNTING*
- H. WINDAGE TURRET
- I. MAGNIFICATION SELECTOR RING
- J. OCULAR LENS
- K. RETICAL FOCUS / DIOPTER ADJUSTMENT
- L. 30mm TUBE



*Leveling indicator lines are intended to aid in mounting when used in conjunction with horizontally split rings. Leveling lines are for reference use only. If greater precision is required, additional leveling tools may be needed.

QUICK START GUIDE

• **Using the Illuminated Reticle:** Your Riflescope contains an illuminated reticle with 11x distinct levels of brightness. The knob for controlling this feature is located on the left side of the rifle scope (C). This knob also contains the battery compartment. To install a new battery unscrew the battery cap (A) from the top of the illumination knob (C) and place a new CR2032 battery (B) inside with positive (+) facing out. Refer to the image on the left for specifics.

With a CR2032 battery installed, the reticle can be illuminated by rotating the rotary dial to the desired level of intensity (C). When rotating the knob between settings the reticle may flash or turn off, this is normal. It is recommended to always store the rifle scope in the 0 or OFF setting when not in use. Depending on use, battery life may vary. **NOTE: The illumination feature is not required for use, the reticle is functional with or without power.** For specifics on the portions of the reticle that illuminate, consult the reticle guide specific to your product.

MAINTENANCE AND TROUBLESHOOTING

Your Crimson Trace Riflescope requires very little maintenance. It is internally lubricated from the factory and nitrogen purged for a lifetime of service. Depending on use, external optics may require periodic cleaning. Crimson Trace recommends using the included cleaning cloth. Other optic specific cleaning cloths or lens pens may also be used. **WARNING: Always blow dirt and debris from the optics prior to wiping.** If significant cleaning is required, water or isopropyl alcohol may be used in conjunction with optic specific cleaning cloths.

CAUTION: Using harsh chemicals may damage the optical coatings.

MOUNTING YOUR NEW RIFLESCOPE

In order to optimize the capability of this Rifle scope, correct mounting is necessary. Crimson Trace recommends that a gunsmith or other qualified individual mount and verify that the scope is correctly installed.

- **Setting Eye Relief:** Start by attaching the lower portion of the rings to your firearm. Place the scope into the lower portion of the rings and loosely attach the top of the rings. Adjust the scope's magnification to the highest level and hold the firearm naturally with a proper cheek weld. While looking through the scope, move the scope forward and backward until the full field of view is visible. The edge of the image should be perfectly round with a sharp obvious transition to the black housing. Continue to move the scope forward until the edge of the field of view becomes obscured, this is the limit of the eye relief at maximum magnification. Move the scope slightly back towards the shooter until the full field of view is again visible and secure the scope in place. **NOTE: It is at this point that you should verify the scope is level to the firearm before securing it in place. Always reference ring and base manufacturer's recommendations when securing your rifle scope.**



PROPER EYE RELIEF ~3.5"

- **Focusing The Reticle:** The diopter adjustment, located at the rear portion of the rifle scope, is used to focus the reticle to each individual user's eye. In order to achieve the best focus, adjust the magnification to the maximum level and look into the scope at the reticle. There should not be a target, or other object in view. A flat, single color wall or the sky works best. Adjust the reticle into the best focus by turning the diopter. After you find the best focus, look away from the scope and allow your eye to relax for a few seconds. Look through the scope again and see if the reticle is still in focus, if not, adjust as necessary.

NOTE: The diopter adjustment is not intended to focus the target, only the reticle.

NOTE: Once proper reticle focus has been achieved, it generally will not require regular adjustment.



ROTATE EYE PIECE TO FOCUS RETICLE

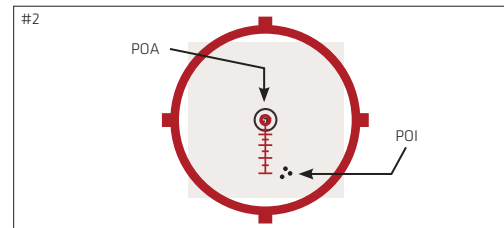
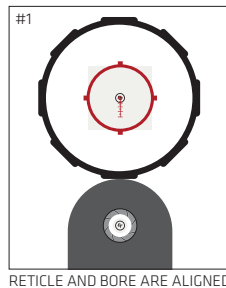
ZEROING YOUR NEW RIFLESCOPE

Achieving approximate zero by boresighting: Once correctly mounted to your firearm, you are ready to boresight your Rifle scope. Start by placing your firearm in a rest or on a bipod so that it is secured in place. Remove the bolt and look down the bore. Align the target so that it is centered and that both the muzzle and breach are concentric as shown below. **NOTE: Use a 100 yard target for best results.** Next, with the firearm secured in place, turn the turrets to align the reticle to the same target. Once aligned, verify that your bore is still aligned to the target. Repeat as necessary until both the bore and reticle are aligned on the target. (See illustration #1.)

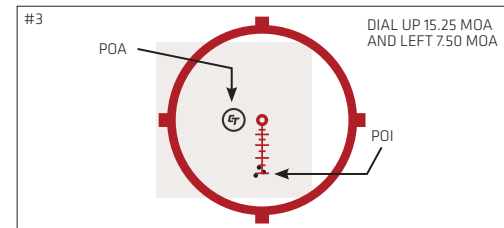
• **Range Zero:** Start your zero process by holding your reticle on the zero target. Generally, the smaller your zero target, the more precise you can be. Fire a three round group as precisely as you can holding on the same point for all three. Try to ignore the point of impact until all three shots have been fired. If you pull a shot or make another aiming error, omit that round and fire another shot until you have an acceptable group of three. (See illustration #2.)

Observe your point of impact (POI) relative to your point of aim (POA) and measure the distance between the two. Your reticle is designed to help you measure and is subtended in increments that are consistent with your turret graduations. See illustration #3 for an example of how to use a reticle to measure your correction. Using your reticle manual as a guide, determine both the windage error and elevation error between your POA and POI. Make the adjustments to your windage and elevation accordingly. **NOTE: The directions referenced on your dials refer to changes to the POI.** (See illustration #3.)

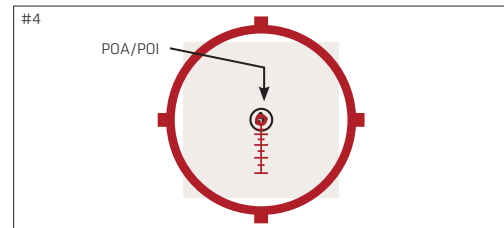
After making the adjustments, fire another 3 round group utilizing the original POA. This group's POI should be very close to your POA. Make the final adjustments as needed utilizing the method above. Confirm your zero by firing a final 3 round group. If the shooter does their part, the final group should match your POA and resemble target on the right. (See illustration #4.) Congratulations, you are now zeroed!



AFTER FIRING YOUR 3 SHOT GROUP, YOUR TARGET SHOULD LOOK LIKE THE IMAGE ABOVE



MOVE YOUR RETICLE SO THAT IT INTERSECTS BOTH YOUR POA AND POI, AS SHOWN ABOVE. NOTE THE OFFSETS TO BOTH WINDAGE AND ELEVATION



POI NOW MATCHES POA

COMMON CHALLENGES

• **Bad Groups:** The primary cause of poor grouping is ammunition. Rifles are very sensitive to minor changes in ammunition. Not all ammunition, even match ammunition, will perform perfectly in every rifle. Changes in manufacturers, bullet weights, or manufacturing processes will create varied results. It's best to experiment with several ammunition types from reputable manufacturers prior to finding the ideal combination for your rifle.

The second most common cause of poor grouping is improper scope mounting. Verify that you have followed the mount manufacturers recommendations. If these challenges persist, please contact customer service at 800-442-2406.

• **Unable to Zero:** If you are unable to zero the Riflescope to your rifle and ammunition combination, the most likely cause is misalignment between the action of the rifle (where the Riflescope is mounted) and the barrel (where the projectile goes).

Riflescopes have a limited amount of windage and elevation adjustment to correct this misalignment and occasionally this range of adjustability is too limited. If this is the case, a ring and base combination, with the necessary cant, may be available that offers a solution. Please consult ring and base manufacturers for further information.

FREE BATTERIES FOR LIFE

Your product qualifies for Free Batteries For Life! Product registration required and other terms and conditions apply. For information please visit www.crimsontrace.com/support/free_batteries_for_life, or call 800-442-2406.

FULL LIFETIME WARRANTY

Crimson Trace Corporation (CTC) warrants that this product will be free from defects in materials and workmanship for the lifetime of the product. Terms and conditions apply. For complete warranty information please visit www.crimsontrace.com/support/warranty, or contact CTC at the address / telephone number listed on the back of this User Guide.

For warranty service call Customer Service at 800-442-2406, or email customer@crimsontrace.com for a Return Authorization Number (RMA).

BATTERY WARNINGS

If a battery-operated accessory or attachment (i.e., laser, optical sight, or flash light, etc.) is supplied or used with a firearm, the following warnings and instructions must be adhered to:



WARNING: KEEP BATTERIES AWAY FROM CHILDREN. THERE IS A CHEMICAL BURN HAZARD ASSOCIATED WITH BATTERIES.



WARNING: IF A NEW OR USED LITHIUM BUTTON/COIN CELL BATTERY IS SWALLOWED OR ENTERS THE BODY, IT CAN CAUSE SEVERE INTERNAL BURNS AND CAN LEAD TO DEATH IN AS LITTLE AS 2 HOURS. ALWAYS COMPLETELY SECURE THE BATTERY COMPARTMENT. IF THE BATTERY COMPARTMENT DOES NOT CLOSE SECURELY, STOP USING THE PRODUCT, REMOVE THE BATTERIES, AND KEEP IT AWAY FROM CHILDREN. IF YOU THINK BATTERIES MIGHT HAVE BEEN SWALLOWED OR PLACED INSIDE ANY PART OF THE BODY, SEEK IMMEDIATE MEDICAL ATTENTION.

- When used correctly, batteries provide a safe and dependable source of portable power. However, misuse or abuse may result in leakage, fire, or explosion.
- Batteries can explode or leak and cause burns if installed backwards, disassembled, charged, or exposed to water, fire or high temperature.
- Always take care to install your batteries correctly observing the "+" and "-" marks on the battery and the device.
- Always replace the whole set of batteries at one time, taking care not to mix old and new batteries, or batteries of different types.
- Store unused batteries in their original packaging and away from metal objects that may short-circuit them.
- Remove discharged batteries from equipment promptly to avoid possible damage from leakage.
- Never dispose of batteries in fire. (Failure to observe this precaution may result in an explosion.)
- The batteries are supplied in a charged state, and are not designed for recharging. Recharging may cause leakage, fire, or explosion.
- The batteries should be disposed of properly, including keeping them away from children.
- Dispose of used batteries immediately. Even used batteries can cause injury.