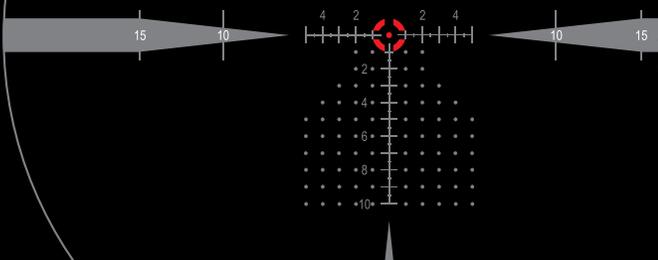
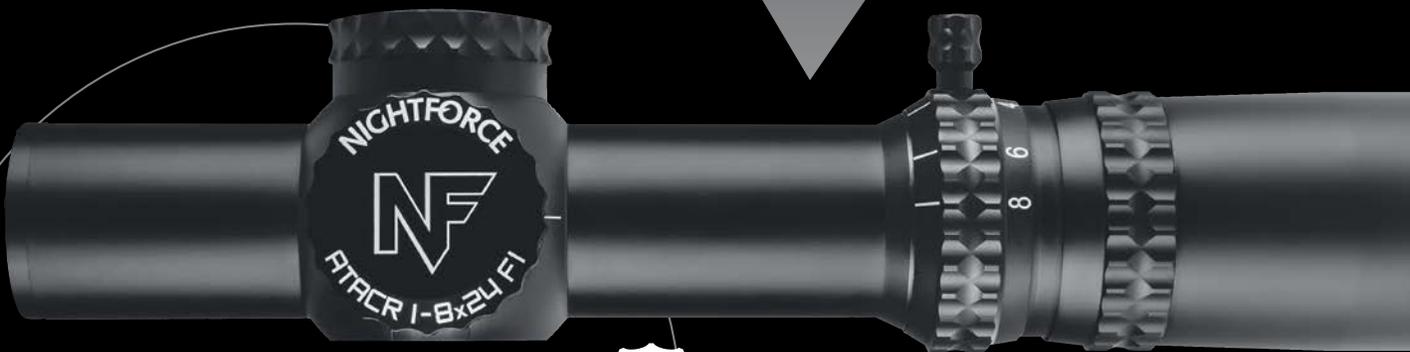


# Owner's Manual ATACR™ 1-8x24 F1



**ATACR™**  
ADVANCED TACTICAL RIFLESCOPE



# NIGHTFORCE®

2018 V1

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Record the riflescope serial number below for future reference:

### WARNING!



*Make sure that your rifle is not loaded before proceeding. Reconfirm that the chamber is empty if you stop the procedure then resume later.*

### WARNING!



*Nightforce Optics does not authorize the export of these items outside of the United States of America. Riflescopes and accessories listed within, are controlled for export by the U.S. Department of State, under the International Traffic In Arms (ITAR) regulations (22 CFR, Parts 120-130), and/or the Department of Commerce under the Bureau of Industry and Security Export Administration Regulations (15 CFR, Parts 730-774). To export these products outside of the United States of America, you must comply with the regulatory agency's license and documentation requirements.*



- A: Objective/Objective Lens
- B: Eyepiece
- C: Eyepiece Lock Ring
- D: Power Throw Lever
- E: Power Zoom Ring
- F: Illumination Control and Battery Compartment
- G: Windage Adjustment (under cap)
- H: Elevation Adjustment (under cap)

Product specifications, features, appearances and information subject to change without notice. For the latest updates and information regarding our products, visit [www.NightforceOptics.com](http://www.NightforceOptics.com).

**ATACR™**  
ADVANCED TACTICAL RIFLESCOPE

**1-8x24 F1**  
Nomenclature and features

## Mounting/Installation Considerations

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There are many ways to mount and level a riflescope to a rifle system. Below are some considerations when mounting the riflescope to the rifle. Some may vary depending on rifle, mount and riflescope combination.

- If using a removable scope base, ensure base is solidly attached to receiver.
- Install mount(s) and bases per manufacturer's specifications using proper torque.
- Avoid positioning the rings where they will contact the adjustments, objective bell or power zoom ring on the riflescope.
- Apply forward pressure to the mount(s) while tightening in place to keep the cross bolt in firm contact with the forward surface of the cross slot in the base.
- Set the riflescope to the highest magnification for mounting.
- Check for eye/head position when mounting, so that the riflescope is mounted in the best location for the various shooting positions behind the rifle.
- It is recommended to mount the riflescope with as much eye relief as possible on heavy recoiling rifles.
- For precision shooting, ensure the reticle and rifle are plumb to each other. Improper alignment creates sighting/impact errors that become magnified at distance.



### WARNING!

*To avoid permanent eye damage or blindness, do not look directly at the sun or other extremely bright lights through the riflescope.*

### Establishing a Sight-in Zero

An expedient way to save time and ammunition when zeroing a rifle is to bore sight the riflescope.

### To Bore Sight

- 1) Ensure that the rifle is completely unloaded.
- 2) Remove the bolt and place the rifle on a stable rest.
- 3) Looking through the bore from the action/receiver, center your target downrange so that it is floating in the center of the bore (high visibility target of 5-6" at 50-100 yards is best).
- 4) Adjust the elevation and windage adjustments until the reticle is centered on the target while the target is still centered in the bore.

### To Zero

- 5) After bore-sighting, proceed to fire three to five rounds of ammunition at the target.
- 6) Calculate the difference between point-of-aim (POA) and point-of-impact (POI) with the reticle of the riflescope or a measuring device on the target.
- 7) Adjust the elevation and windage adjustment to match the POA and POI.
- 8) Fire three to five rounds of ammunition to confirm zero distance. Repeat adjustments until POA = POI.
- 9) Follow instructions to zero elevation and windage dials.

## Operation in Extreme Conditions

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The ATACR™ 1-8x24 F1 riflescope has been designed and constructed to withstand heavy use in austere environments.

### Temperature

Extreme heat: No additional procedures required.  
Extreme cold: No additional procedures required.

NOTE: Adjustments may have more friction than normal, and battery life may be shortened.

### Conditions

Dust and sand storms: When riflescope is not in use, keep protective caps closed over glass lenses.  
Salty air: No additional procedures required.  
High altitude: No additional procedures required.

### Immersion

Water, mud, snow: Ensure that adjustments are properly installed and screws are properly torqued. When riflescope is not in use, keep protective caps closed over glass lenses. Clean and dry riflescope as soon as possible after exposure.

## Capped Elevation Adjustment

This Nightforce® ATACR™ 1-8x24 F1 features a low profile, capped elevation adjustment. (Figure 1) The elevation adjustment is waterproof and can be used without the cap. A trim ring is included to protect the cap threads if using as an external adjustment. Once you have established your zero, you can now reset the elevation dial to zero.

- 1) **While holding the adjustment dial**, loosen the two set screws on top of the dial with a 5/64" Allen wrench. (Figure 2) The dial should now rotate freely, and you should not feel any clicks.
- 2) **Rotate the dial clockwise until it stops.**
- 3) **Turn the dial counter-clockwise** until the "0" on the dial is aligned with the zero-reference mark on the body tube. (Figure 3)
- 4) **While holding the dial**, tighten both set screws to 4 inch-pounds. If no torque driver is available, use a 5/64" Allen wrench by holding the short end and tighten until resistance.
- 5) **Dust cap may be placed** over adjustment dial by turning clockwise until secure. (Figure 4)

### Trim Ring Installation

- 1) **Remove outer cap** by screwing counter-clockwise.
- 2) **Install trim ring** by screwing on clockwise until snug against the body tube. (Figure 5)



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

## Capped Windage Adjustment

The windage adjustment on the ATACR™ 1-8x24 F1 is included with a protective, screw-on cap from the factory. (Figure 6) The windage adjustment is waterproof and can be used without the cap. A trim ring is included to protect the cap threads if using as an external adjustment. Once you have established your zero, you can now reset the windage dial to zero.

- 1) **While holding the adjustment dial**, loosen the two set screws on top of the dial with a 5/64" Allen wrench. (Figure 7) The dial should now rotate freely, and you should not feel any clicks.
- 2) **Rotate the dial clockwise until it stops.**
- 3) **Turn the dial counter-clockwise** until the "0" on the dial is aligned with the zero-reference mark on the body tube. (Figure 8)
- 4) **While holding the dial**, tighten both set screws to 4 inch-pounds. If no torque driver is available, use a 5/64" Allen wrench by holding the short end and tighten until resistance.
- 5) **Dust cap may be placed over** adjustment dial by turning clockwise until secure. (Figure 9)

### Trim Ring Installation

- 1) **Remove outer cap** by screwing counter-clockwise.
- 2) **Install trim ring** by screwing on clockwise until snug against the body tube. (Figure 10)



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10

## Diopter Adjustment

The one user-adjustable optical setting on the Nightforce® ATACR™ 1-8x24 F1 riflescope is the reticle/diopter adjustment. The diopter adjustment changes reticle focus to match the user's eye prescription. If you wear vision correction when shooting, set this focus while wearing your corrective lenses. Record the number of turns you made on the eyepiece from the original factory setting so you can return to it if needed.

**NOTE:** Nightforce® riflescopes are factory set for 20/20 vision (-3/4 diopter), so this adjustment may not be necessary. If the reticle fades in and out of focus, or if the user experiences eye strain with extended shooting sessions, it is an indicator that the diopter may be out of focus.

- 1) **Adjust to the highest** magnification setting.
- 2) **Grasp the eyepiece with one hand** and the locking ring with the other and rotate the eyepiece counter-clockwise, loosening it from the lock-ring.
- 3) **Look through the riflescope** at a light-colored background such as a white wall or overcast sky to eliminate background clutter that will distract your eye. Determine if the reticle is clear and in focus at the instant you look through the eyepiece and see the reticle (a snap sight picture).

**NOTE:** Staring at the reticle for more than a second will cause your eye to focus on the reticle, falsely indicating proper reticle focus. Look away for a few seconds and then retry repeatedly for best results.

- 4) **If the reticle is not crisp and well defined**, move the eyepiece and re-check for focus. Best results are obtained by turning the eyepiece inward until the reticle is slightly blurred, then moving it outward until a sharp focus is obtained.
- 5) **Once the desired reticle focus is achieved**, turn the lock ring clockwise while holding the eyepiece in place. Tighten the lock ring firmly so that the eyepiece, lock ring and power zoom ring move as a single unit.

## Diopter Adjustment Nomenclature



## Power Throw Lever

The Nightforce® ATACR™ 1-8x24 F1 is equipped with an optional, integrated Power Throw Lever (PTL™). This feature is removable at the user's preference. The PTL is designed to allow easy and rapid magnification changes; as well as provide a visual reference to the current magnification setting. To install the PTL™, first remove the flush black insert located in the power zoom ring with a 5/64" hex key (Figure 11). Install the PTL by screwing it into the threaded hole in a clockwise direction. Tighten to snug with the 5/64" hex key, but do not overtighten to avoid stripping the threads or hex key slot. (Figure 12)



Figure 11



Figure 12

## Reticle Illumination

The ATACR™ 1-8x24 F1 riflescope is equipped with externally adjustable illumination, including daylight visible and night vision compatible settings. To turn on the illuminated reticle, simply rotate the external dial to your preferred intensity setting. There are "OFF" settings between each intensity adjustment, so that a user can turn off illumination at their preferred setting.

Daylight illumination of the reticle is available at the higher intensity settings. Ambient light and environmental conditions will dictate the appropriate setting for desired visibility. Too much intensity in low-light environments can produce a flare effect on the reticle.

### Battery Replacement

The battery is located underneath the adjustment cover, which is removed by turning the parallax adjustment cover counter-clockwise until the cover comes off. (Figure 13)

Replace depleted batteries with an Energizer CR2032 or equivalent. Install the battery with the positive (+) side up. (Figure 14) Turn off the illumination when not in use to prevent depletion of the battery. A fresh battery will last approximately 29 hours at the brightest illumination setting.



Figure 13



Figure 14

## Riflescope Maintenance

With proper care, a Nightforce® riflescope will provide many years of dependable service. Be sure to use lens covers whenever you are not using your riflescope.

### Cleaning Riflescope Exterior

Clean the riflescope body with a clean cloth, lightly moistened, with clean water or rubbing alcohol. Do not use strong solvents or gun cleaner as they can destroy lens coatings. While cleaning your rifle, be sure to protect your riflescope's lenses by installing the covers that came with the riflescope.

In the event of submersion in mud, sand, dirt or salt water; irrigate the outside of the riflescope with clean water to remove encrusted material and salt. Wipe the outside metal surfaces dry with a soft cloth.

### Cleaning Riflescope Lenses

We recommend using a Nightforce® cleaning kit for lens cleaning. The kit contains an ultrasoft brush, microfiber cloth and cleaning solution.

With the lens facing down, to allow debris to fall away, remove loose dirt and dust with lens brush. If there is grit stuck to the lens, irrigate the surface with distilled water and rub off with cleaning swabs.

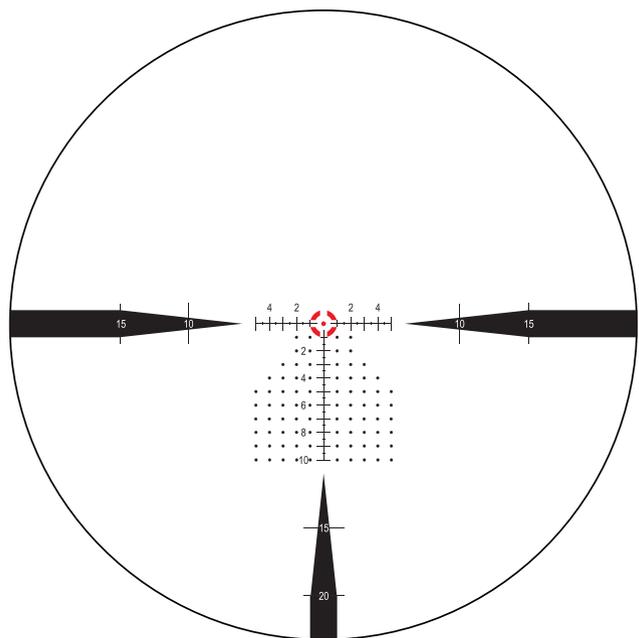
Using a soft, clean, lint-free cotton swab or lens cleaning cloth, clean the lens starting in the center and working to the outside in a circular motion. Make only one pass to the edge where the glass meets the metal. Once you reach the edge of the lens do not re-use that swab as it will contain abrasive grit that can scratch the surface. Start over in the center with a new swab and repeat the process until the glass is clean. Use a very small amount of cleaning solution if necessary and to prevent streaks.

### Long Term Storage

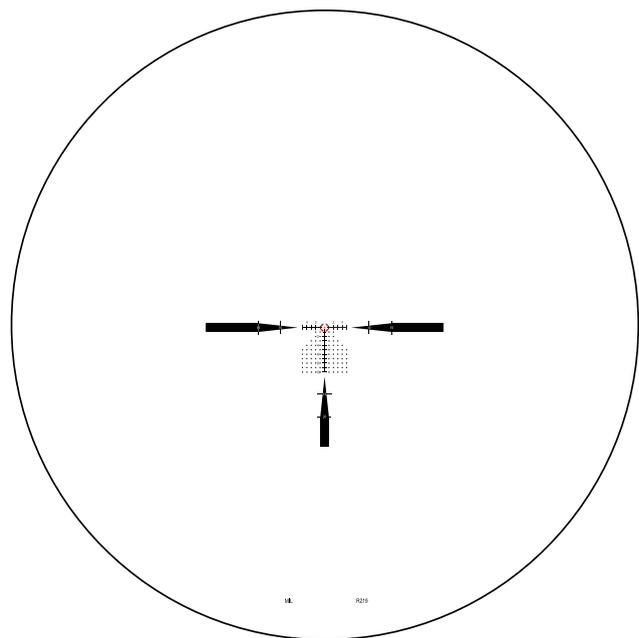
If the riflescope will not be used for an extended period, remove the battery and store separately. Keep the riflescope in a cool, dry, dust-free location with lens covers closed.

**For a list of frequently asked questions, video instruction, information on service and on Nightforce accessories, visit [www.NightforceOptics.com](http://www.NightforceOptics.com).**

## Reticle Information



**FC-DM** shown at 8x magnification



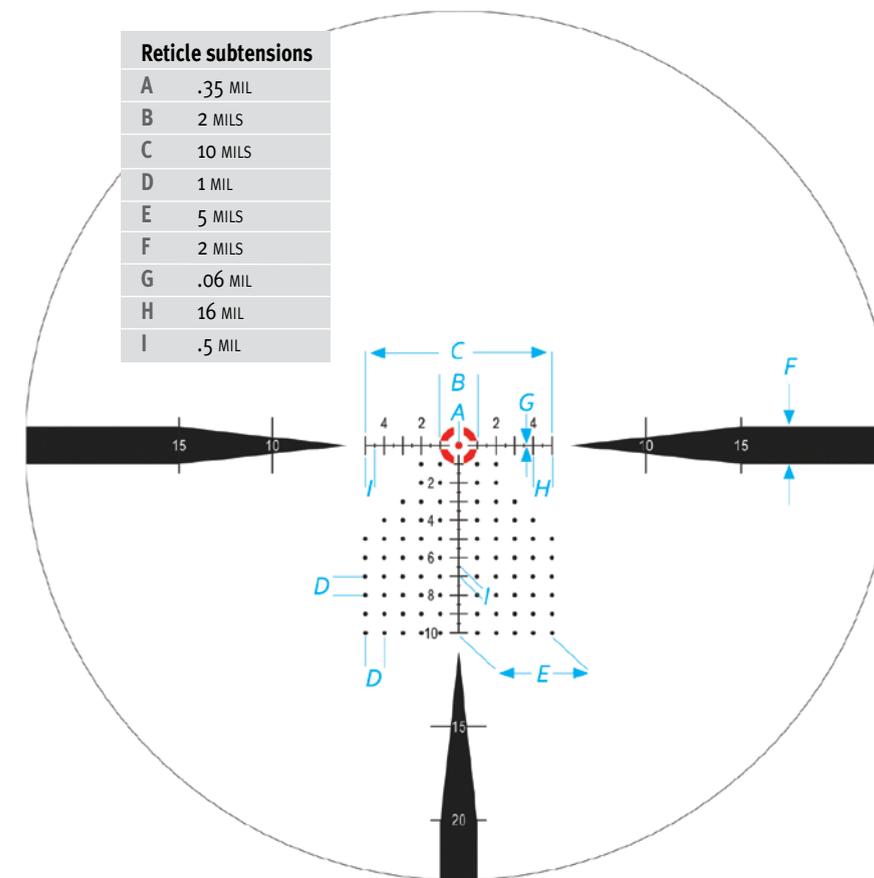
shown at 1x magnification

**Designed to meet the needs of today's close proximity and designated marksman roles.**

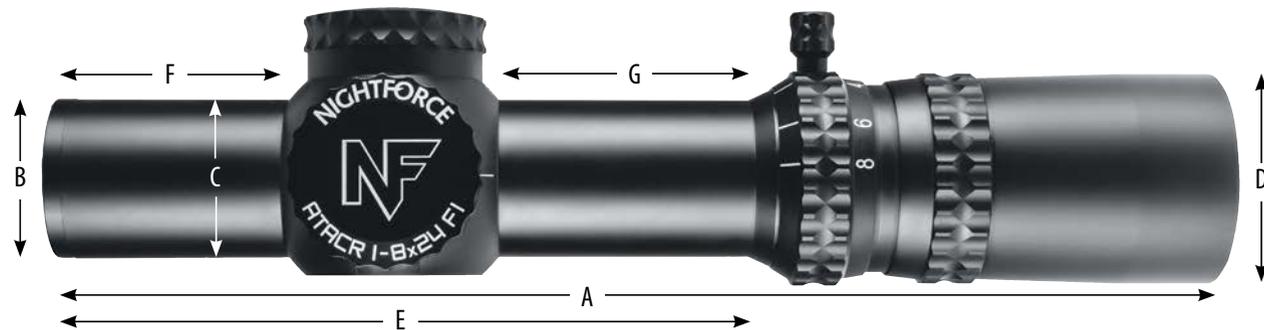
The FC-DM reticle includes a daylight visible, illuminated center aiming point for rapid target engagement at close ranges. The illuminated .35 Mil-Radian center dot is surrounded by a 2 Mil-Radian segmented circle which creates a large, bright dot at 1x.

For more precise engagements and use at longer ranges, the additional features of the reticle provide fast and easy elevation and windage holds. The reticle includes 10 Mil-Radians of holdover points along with 1 Mil-Radian spaced aiming points off of the main line. Along the main horizontal line, .5 Mil-Radian spaces and reference numbers aid the shooter with making effective shots on target.

Reticle subtensions	
A	.35 MIL
B	2 MILS
C	10 MILS
D	1 MIL
E	5 MILS
F	2 MILS
G	.06 MIL
H	16 MIL
I	.5 MIL



## 1-8 x 24 F1 Specifications



	(Inches/millimeters)
A. Overall length	10.06/256
B. Objective outer diameter	34 mm
C. Tube diameter	1.34/34
D. Eyepiece outer diameter	46 mm
E. Mounting length	5.67/144
F. Front mounting length	1.77/45
G. Rear mounting length	2.1/54

Exit pupil diameter	1x: 11.26 mm 8x: 3.19 mm
Field of view @ 100yd/m	1x: 96.1 ft/29.3 m 8x : 13.1 ft/4.0 m
Eye relief	90mm/3.74"
Parallax adjustment	Fixed 125 m
Weight (oz/gr)	21/595
Internal adjustment	e: 30 Mil w: 30 Mil
Click value	.1 Mil
Focal plane	First



We are proud to back the Nightforce ATACR™, NX8, B.E.A.S.T.™, Benchrest, Competition™, NXS™ and SHV™ families of riflescopes with a transferable Limited Lifetime Warranty. The warranty covers mechanical defects in materials and workmanship in the optical and mechanical components of Nightforce riflescopes. In the event of a defect in materials or workmanship that is covered by this warranty, we will either repair the riflescope or replace it at no charge, with a comparable product at our discretion.

Exclusions to this warranty include intentional or accidental damage, abuse, misuse, unauthorized modifications or repairs, and improper mounting. This warranty does not cover any consequential or incidental damages resulting from the inability to use the riflescope. Any serial number obliteration or alteration on the product will void the warranty. SHV™ models maintain waterproof integrity with their protective caps installed.

To ensure warranty coverage, please register online or fill out completely and mail in the provided warranty card found in the back of the owner's manual, along with a copy of the sales receipt. The warranty begins on the date the product was purchased by the original owner. The optical and mechanical components are covered without time limitations. The riflescope's electronic components are covered for a period of three years.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not

apply to you. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

**Before sending a riflescope in for service, please call Nightforce Optics, Inc. at the number below, to determine if the problem can be resolved without sending us the product. All returns must be accompanied by a Return Merchandise Authorization (RMA) number. Failure to do so can result in lost merchandise and/or severely delayed service time.**

- Remove any mounting rings or accessories other than dust covers and the original sunshade.
- Record and keep on hand the serial number.
- Include with the riflescope a detailed description of the defect(s), the RMA number, your name, phone number and the address you wish the riflescope returned to.
- Place the boxed or protectively wrapped riflescope in a well-padded outer box insured for replacement value and send it shipping prepaid, to the appropriate address below. **Write the RMA number on the outside of the package.**

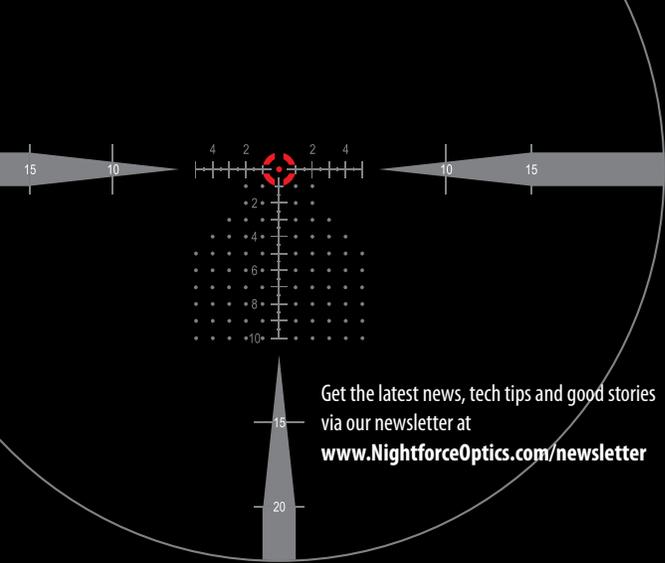
**U.S.A. & Canada:**  
**Nightforce Optics**  
**Attention: Service Dept.**  
**336 Hazen Lane**  
**Orofino, Idaho 83544**

tel 208.476.9814  
fax 208.476.9817  
www.NightforceOptics.com

**International:**  
**Nightforce Optics**  
**Attention: Service Dept.**  
**11 Manton Street**  
**Hindmarsh, SA 5007 Australia**

tel +61 (0)8 8440 0888  
fax +61 (0)8 8346 0504  
www.NightforceOptics.com

**Be sure to register your warranty at**  
**[www.NightforceOptics.com/WarrantyRegistration](http://www.NightforceOptics.com/WarrantyRegistration)**



Get the latest news, tech tips and good stories  
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fax +61 (0)8 8346 0504

#### **International Warranty & Service:**

Please contact your country's authorized Nightforce Optics distributor and/or retailer for instructions. A list of international distributors and dealers can be found at [www.NightforceOptics.com](http://www.NightforceOptics.com).