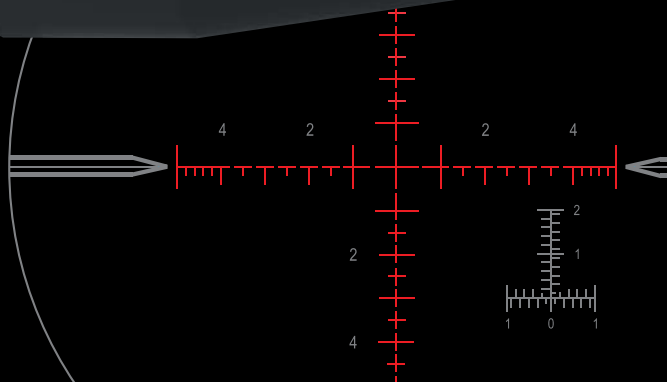


Owner's Manual  
ATACR™ 4-16x42 F1  
ATACR™ 5-25x56 F1  
ATACR™ 4-16x50  
ATACR™ 5-25x56

# NF

**ATACR™**  
ADVANCED TACTICAL RIFLESCOPE



**NIGHTFORCE®**  
2016 V2

## Contents

Nomenclature and features .....	3
Focusing the reticle .....	4
Parallax adjustment .....	5
Digillum™ reticle illumination .....	6
Battery replacement .....	6
Installing the riflescope .....	7
Leveling the reticle.....	9
Establishing a sight-in zero.....	10
Setting the ZeroStop™ elevation adjustment (4-16x50, all 5-25x56) .....	11
Setting the ZeroHold™ elevation adjustment (4-16x42 F1) .....	13
Determining proper set screw torque settings .....	16
Setting the windage adjustment .....	18
Power Throw Lever (PTL™) .....	18
Caring for your riflescope.....	19
Warranty .....	20
Warranty registration.....	21
Owner's comments.....	22
Specifications.....	23

Record the riflescope serial number below for future reference:

### WARNING!

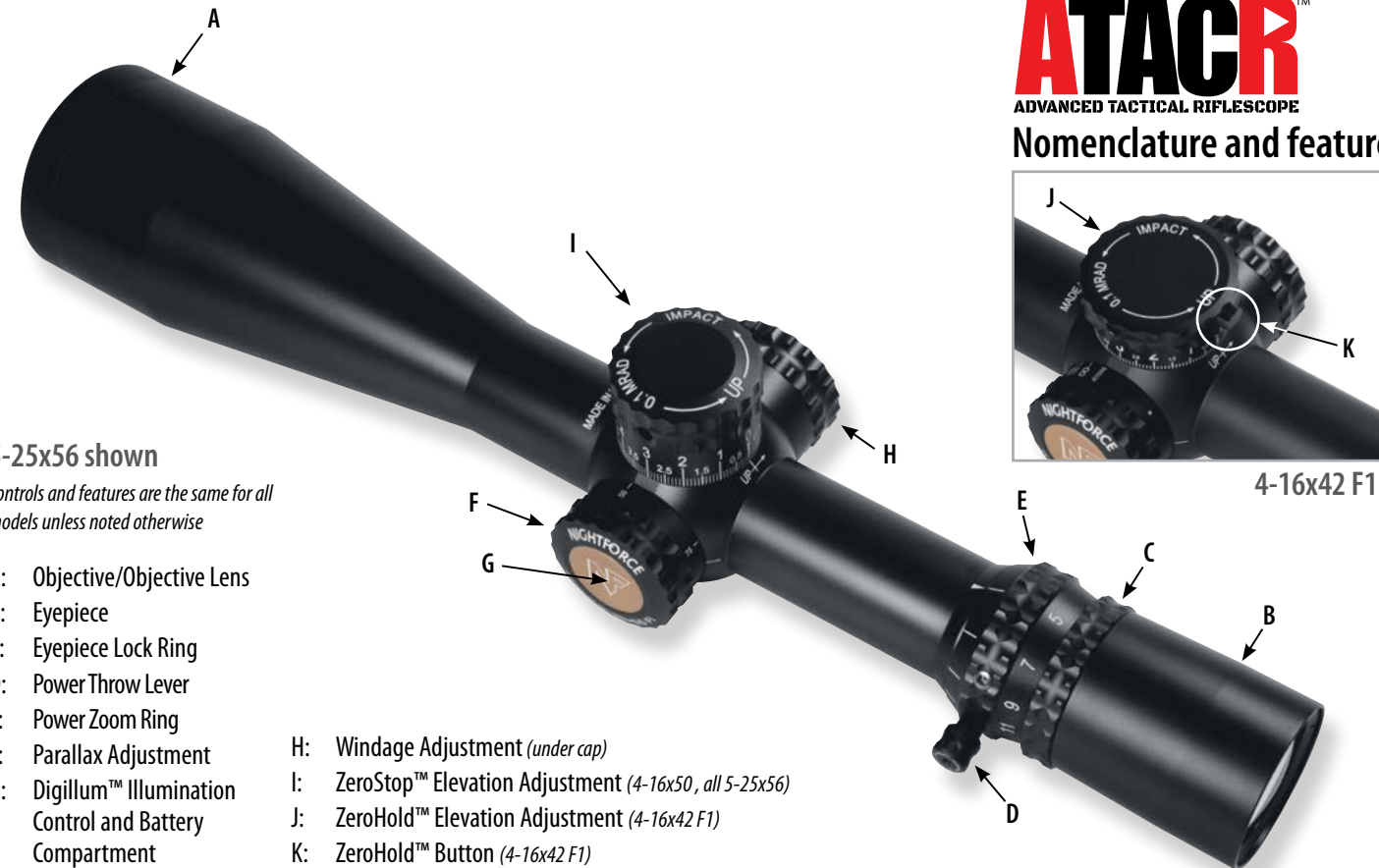


*Make sure that your rifle is not loaded before proceeding. Reconfirm that the chamber is empty if you stop the procedure then resume later.*

### WARNING!



*Nightforce Optics, Inc. 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.*



### 5-25x56 shown

Controls and features are the same for all models unless noted otherwise

- A: Objective/Objective Lens
- B: Eyepiece
- C: Eyepiece Lock Ring
- D: Power Throw Lever
- E: Power Zoom Ring
- F: Parallax Adjustment
- G: Digillum™ Illumination Control and Battery Compartment
- H: Windage Adjustment (under cap)
- I: ZeroStop™ Elevation Adjustment (4-16x50, all 5-25x56)
- J: ZeroHold™ Elevation Adjustment (4-16x42 F1)
- K: ZeroHold™ Button (4-16x42 F1)

**ATACR™**  
ADVANCED TACTICAL RIFLESCOPE

## Nomenclature and features



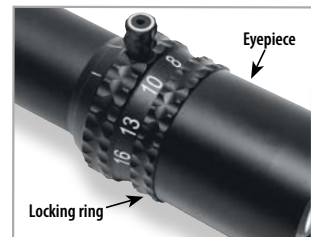
4-16x42 F1

## Focusing the Reticle

There are two user-adjustable optical settings on Nightforce ATACR™ riflescopes: the reticle focus and the parallax adjustment. The reticle focus is used for setting the reticle focus to match your particular vision. It should not be used to try to focus for parallax. If you plan to wear vision correction when shooting, then set this focus while wearing your corrective lenses. The reticle focus should be set before setting the parallax adjustment. If the reticle focus is inadvertently set to the extreme ends of travel it can adversely effect parallax. Record the number of turns you have made on the eyepiece from the original factory setting so you can return to it if needed.

**Note:** All Nightforce riflescopes are factory set for average eye strength, so this adjustment may not be necessary.

### Reticle Focus Adjustment



Grasp the eyepiece with one hand and the locking ring with the other and rotate the eyepiece counter-clockwise, turning it away from the lock-ring while holding the lock-ring, power zoom ring and the rifle scope to keep them from turning with the eyepiece. Several turns of the eyepiece may be necessary to

achieve any measurable difference. To achieve an out-of-focus starting point for your vision, you may need to turn



### WARNING!

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

the lock-ring several turns inward first, then turn the eyepiece inward as needed to achieve an out-of-focus position.

- 1) Set the power zoom ring at the highest magnification.
- 2) On riflescopes with parallax adjustment, set it to the infinity setting  $\infty$ .
- 3) Look through the rifle scope eyepiece at a light colored background such as a white wall, overcast sky, or drape a thin white cloth over the objective to eliminate background clutter. Determine if the reticle is clear and in focus instantly when you look through the eyepiece. Be aware that staring at the reticle for more than two seconds during this process will cause your eye to compensate, resulting in a false indication of reticle focus. Look away for a few seconds then retry for best results. You are looking for a sharp, crisp and well defined reticle image.
- 4) If adjustment is necessary, follow the steps outlined here. Due to the way the human eye focuses, best results are usually obtained by turning the eyepiece inward until the reticle is slightly blurred then moving it outward until sharp focus is obtained. Refer to Figure 1.

Once the desired reticle focus is achieved, lock the eyepiece in place by turning the lock-ring into firm contact with the eyepiece while holding the eyepiece in position. Tighten the lock ring against the eyepiece so that the eyepiece, lock ring and power zoom ring move as a single unit.

If the reticle tends to fade in and out of focus, or you are experiencing eye strain with extended shooting sessions, that is an indicator that the reticle is not properly focused for your eye.

## Parallax Adjustment

Nightforce ATACR™ riflescopes have parallax adjustment mechanisms. Parallax is the apparent movement of the reticle in relation to the target as the shooter moves his eye across the exit pupil of the rifle scope. This condition is caused by the target and the reticle appearing on different focal planes within a rifle scope.



**Figure 2:**  
Parallax Adjustment

At longer distances, and higher magnification settings, significant sighting error can result if parallax is not removed. For best results we recommend checking for parallax, and removing if necessary, at each change in target distance.

### Checking for and removing parallax

While keeping the rifle stable and looking through the riflescope at a specific point of aim on your target, a nod of the head up and down will quickly determine if parallax is present. When parallax exists, the reticle will appear to move even though the riflescope is stationary as the head is nodded up and down.

To remove parallax, adjust the parallax adjustment mechanism until the reticle remains stationary in relation to the target regardless of head movement.

**Note:** Yardage/meter markings are included on select Nightforce riflescopes.

These markings are approximate values as a guideline to begin adjusting parallax. These markings are not intended to be used for ranging purposes.

## Diglllum™ Reticle Illumination *(If so equipped)*

Select Nightforce ATACR™ riflescopes feature Diglllum™ digital illumination, including both red and green options. Reticle illumination is controlled by the sand-colored push button located in the center of the parallax adjustment. See Figure 3.

### Turning the illumination on and off

To turn on your Diglllum™ illuminated reticle, simply press and release the illumination control located on the center of the side parallax adjustment. The reticle will illuminate to the last used intensity and color setting. To turn your Diglllum™ illuminated reticle off, press and hold the illumination control for 1-3 seconds and release.

### Adjusting illumination intensity (brightness)

Once turned on, by repeatedly pressing and releasing the illumination control you will change the intensity of the reticle. There are multiple intensity levels in the standard illumination mode. When the illumination reaches its minimum or maximum intensity, the reticle will flash three times. After reaching the minimum or maximum intensity, continuously pressing and releasing the illumination control will either increase or decrease the intensity away from the respective setting.

### Selecting the reticle color

The Diglllum™ illuminated reticle allows the user to choose between red or green reticle illumination. By pressing the illumination control for about five seconds, the color will change from red to green or green to red.



Figure 3:  
Diglllum™ illumination control

## Battery Replacement

The battery is held underneath the adjustment cover, which is removed by turning the knurled portion of the adjustment cover counterclockwise until the cover comes off. See Figure 4.



Figure 4:  
Battery replacement

With Diglllum™ reticle illumination, your battery can produce 29 hours of continuous use at maximum illumination and up to 140 hours at its lowest intensity. Replace depleted batteries with an Energizer® CR2032 or equivalent. Install the battery with the positive (+) side up. Don't forget to turn off the illumination when not in use to prevent depletion of the battery. An auto-shutoff will turn off illumination after one hour of no activity.



### WARNING!

*Make sure that your rifle is unloaded prior to installing any Nightforce rifle scope or accessory. Recheck the chamber if you stop the procedure and resume later.*

## Installing the Rifle Scope

**FAILURE TO PROPERLY INSTALL THE RIFLESCOPE MAY CAUSE EQUIPMENT AND/OR PERSONAL DAMAGE WHICH CAN RESULT IN EQUIPMENT FAILURE, SERIOUS INJURY OR DEATH.**

**Note:** Please take time to record your serial number on the inside front cover of this booklet. It can then be easily referenced for your online Warranty Registration. Once the scope has been installed, you may not be able to read the serial number, as your rings/mounts may cover it.

### Nightforce Torque Specifications for standard and X-Treme™ Duty Rings, Bases and Mounts

- Base and Direct Mount™ attachment screws - 25 inch pounds
- Ring top screws - 25 inch pounds
- Ring crossbolt nut - 4-screw design, 68 inch pounds; 6-screw design, 100 inch pounds
- Unimount™, Extended Unimount™ and MagMount™ crossbolt nut - 68 inch pounds

For the latest updates and information regarding our products, visit [www.NightforceOptics.com](http://www.NightforceOptics.com).



### WARNING!

*With hard-recoiling rifles, serious injury or even death can result from eyepiece impact with the shooter during the recoil process when discharging the firearm. Be certain that your installation provides sufficient eye relief for the recoil generated by your rifle before shooting the firearm. NOTE: Give special attention to this warning when shooting uphill and/or from a prone position. These shooting conditions can dramatically reduce eye relief. PLEASE maintain maximum eye relief when shooting heavy recoiling and/or magnum firearms.*

### Ring and Base Selection

Your rifle scope and rifle are only as good as the link between them. The mounting of your rifle scope is as important as the bedding of the rifle's action to the stock. To ensure the highest level of performance, the following steps in the mounting procedure must be followed as described.

We recommend standard or X-Treme™ Duty Nightforce bases, along with Nightforce 34mm rings and one-piece mounts for a solid and precise installation. Please use the following guidelines to select the proper mounting solutions for your rifle.

- A high quality ring and base combination using a 1913 Mil. Std. type rail is recommended for field use and/or high-recoil applications. Nightforce standard and X-Treme™ Duty 34mm rings, bases, Unimount™ and MagMount™ are ideal for virtually all applications.

## Mount Installation

**Note:** Do NOT lap the Nightforce Unimount™, Extended Unimount™, Direct Mount™, MagMount™ or Ultralite™ rings. Lapping is not necessary with these Nightforce accessories. Lapping these products will void the Nightforce accessory warranty and may lead to slipping and/or crushing of the Nightforce riflescope main tube. Other manufacturer's ring/base combinations may or may not require lapping.

## Attaching the Base to the Action

Once you have determined that the base-to-action mating is acceptable, install the base to the action, torquing the mounting screws to the manufacturer's specifications.

## Attaching Rings to the Base

Clean/degrease the inside of the rings and then clean the outside of the scope tube before installing in the rings.

Install the rings on the base per the manufacturer's specifications using the proper torque on the locking mechanism. Avoid positioning the rings where they will make contact with the adjustment assembly, the objective bell section, or the power zoom ring on the riflescope body. Apply forward pressure to the ring while tightening it in place to keep the cross bolt on the ring in firm contact with the forward surface of the cross slot in the base.

With Nightforce rings and one-piece bases you should not lap the rings.

With other brands lapping may be required. If the scope lays into the rings stress-free, there is no need to lap the rings. If required, we recommend lapping be done by a qualified technician or gunsmith. Do not overlap the rings. Damage to the scope from improper lapping/installation is not covered by the warranty.

## Mounting the Riflescope

- 1) For initial fitting of the riflescope to the rifle, set the Nightforce riflescope to the highest magnification. Place the riflescope in the lower portion of the rings as far forward as possible. Install both ring tops. Tighten ring top screws with just enough tension to hold the riflescope where positioned, while still allowing smooth movement fore and aft and rotationally.
- 2) Hold the rifle in your normal shooting position with the riflescope positioned fully forward in the rings, preferably while adjusted to maximum magnification. Place your head as far forward on the stock as you might position it in field use. Slowly move the riflescope back just to the point where the full field of view is obtained. It is recommended to mount the riflescope at this position with as much eye relief as possible (3.5"–4") or slightly forward to ensure maximum eye relief. (Figure 5)

**Note:** Please see warning on page 7 regarding sufficient eye relief. Eye relief will change with the thickness of the clothing you wear and may need to be readjusted.

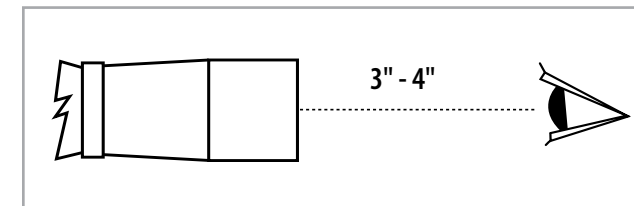


Figure 5: Eye relief

## Leveling the Reticle

For precision shooting, the reticle and the rifle need to be squared, or plumb, to each other. Any out-of-square condition can cause sighting errors that will be magnified even more at longer distances.

The reticle in all Nightforce scopes is confirmed plumb with the flat surface on the bottom of the adjustment saddle. (Figure 6) You can use pin gauges, a sliding sine bar or flat shims to align the flat surface with the top of the scope rail. To level the reticle using a plumb line, follow the three steps that follow.

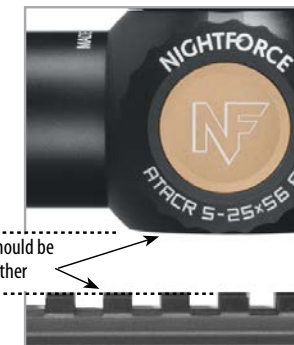


Figure 6

- 1) Level the rifle on a steady rest such as sandbags or a stable shooting rest. This can be accomplished with a bubble level attached to the riflescope base, or on a flat section of the action.
- 2) Use a plumb line or some other known plumb vertical line at a distance from the rifle where you can see it clearly through the riflescope. A distance of 100 yards is recommended, but good results can often be obtained as close as 50 yards.
- 3) Center the reticle on the plumb line and rotate the riflescope in the rings until the vertical line of the reticle is parallel with the plumb line. Recheck the rifle level and adjust the reticle position as needed. When the rifle and the reticle is plumb, tighten all ring top screws evenly until the riflescope is secure in the rings. Recheck that the rifle has remained level and that the reticle is plumb one more time, adjust as needed, then torque the screws to the recommended torque settings. Your Nightforce riflescope is now properly mounted.



## Establishing a Sight-in Zero

A quick way to get your first shot on target with a new installation is to first bore sight the riflescope. A simple yet reliable method is by looking through the bore at a round, high contrast target, approximately 5"–6" in diameter, that can be seen clearly with the naked eye at either 25, 50 or 100 yards/meters, yet is small enough to "float" in the center of the rifle bore when viewed through the opened action. This can save you time and ammunition.

1. Ensure that the rifle is unloaded and the chamber is empty. Remove the bolt and place the rifle on a steady rest.
2. Looking through the bore from the action end, center the round target downrange so that it is floating in the center of the bore, then adjust the elevation and windage adjustments until the reticle is centered on the target while the target is still centered in the bore. See Figure 9.

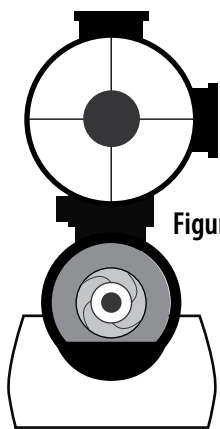


Figure 7

3. If you feel confident in the bore sighting, proceed to live firing at 25, 50 or 100 yards/meters. To aid in the sight-in process, be sure your sight-in target is large in size, and offers a contrasting color (i.e., white). After confirming

point of impact, proceed to step four. Note: if you have sighted in at 25 yards/meters, you will need to move the adjustments four times more than you would with a 100 yard/meter sight-in. If you sighted in at 50 yards/meters, you will need to move the adjustments two times more than you would with a 100 yard/meter sight-in. If the first shot isn't on target, recheck your bore sighting and/or move to a 25 yard/meter sight-in distance.

4. Without changing the adjustments, move the rifle to center the reticle on the target. Carefully turn the windage and elevation adjustments without moving the rifle, until the reticle is aligned on the center of the bullet hole from that first shot on the target.
5. Fire at least a three-shot group at the desired close-range zero distance, then fine-tune your zero as needed.

## ZeroStop<sup>™</sup> Elevation Adjustments (4-16x50, all 5-25x56)

Please visit [www.NightforceOptics.com](http://www.NightforceOptics.com) for a step-by-step video tutorial on this process and advanced setting methods that can maximize the performance of your ZeroStop<sup>™</sup>-equipped Nightforce riflescope.

The ZeroStop<sup>™</sup> elevation adjustment allows for the full use of the elevation travel above your established zero for longer target engagement distances, while still allowing for a definitive position to return to your zero, regardless of the conditions. Note: The O-rings inside the turret assembly and under the turret set screw must remain in place and must be lubricated in order to maintain the waterproof integrity of the riflescope.

Take caution to ensure that this area remains free of dirt and debris. After you have determined the ammunition that performs best for your intended use and established the zero/sight-in, please follow these instructions:

1. Remove elevation turret cap by loosening the two set screws 1 to 2 turns but do not remove the screw entirely. The dial should rotate freely and no adjustment "clicks" should be felt. See Figure 8.
2. Lift the cap upward with a slight twisting motion to remove it from the body. You should feel slight resistance but not feel any "clicks". Set the cap aside on a clean surface.
3. You have now exposed the ZeroStop<sup>™</sup> clutch assembly. Take care to maintain the cleanliness of the inside of the cap and the clutch area. Do not remove any of the lubricating grease. See Figure 9.
4. Loosen each of the four hex screws on the ZeroStop<sup>™</sup> clutch assembly 1 to 2 turns. DO NOT remove the screws from the clutch assembly.
5. To set the ZeroStop<sup>™</sup> clutch assembly, rotate the upper clutch face downward/clockwise until it is firmly against the lower clutch face.



Figure 8

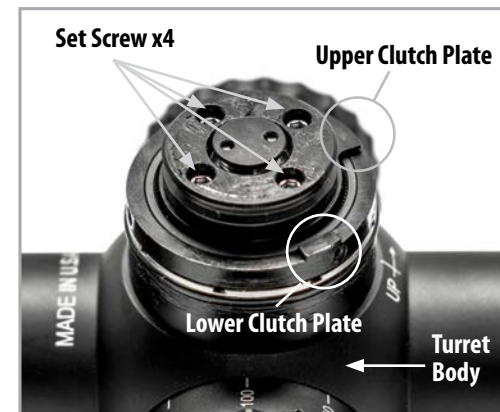


Figure 9

ZeroStop Clutch Assembly



Figure 10



Figure 11

Note: You should not feel any “clicks” or resistance while making this adjustment. See Figure 10.

6. While holding the clutch mechanism in position, tighten the four hex screws on the clutch assembly evenly in an “X” pattern. Do not over-tighten the screws as this can damage the clutch assembly. Tighten one screw until you feel slight resistance, then move to the next screw in the “X” pattern. Continue to do the same for all four screws. Now repeat the “X” pattern and tighten the screws to 4 inch-pounds. If no calibrated torque driver is available for 4 inch pounds, hold the short end of the hex key between your thumb and finger and turn the key approximately 1/4 turn past initial resistance until snug. See Figure 11.

7. To reinstall the adjustment cap, center it over the adjustment body, and press down lightly while turning the adjustment cap clockwise until it moves into position. Keep downward pressure on the adjustment cap as it may tend to move up due to the compressed air resistance created by the O-ring seal. Align the “0” (zero) fixed index mark on the engraved scale of the adjustment cap with the center line on the scope body (Figure 8) and tighten both set screws to 4 inch-pounds.

**NOTE: If no calibrated torque driver is available for 4 inch pounds, hold the short end of the hex key between your thumb and finger and turn the wrench approximately 1/4 turn past initial resistance until snug.**

## ZeroHOLD™ Elevation Adjustments

The Nightforce ATACR™ 4-16x42 F1 includes the ZeroHOLD™ elevation feature (see page 3). This feature offers two key benefits to the shooter; both a physical stop at zero and the ability to dial 2 Mils/5 MOA below the zero setting.



Figure ZH 1



Figure ZH 2

### Setting the ZeroHOLD™

After confirming your sight-in and live fire zero, you are ready to set the ZeroHOLD™ on your ATACR™.

1. With your elevation adjustment set to your confirmed zero, simply loosen (do not remove) the two opposing set screws that are located perpendicular to the ZeroHOLD™ release button; a 5/64” hex key is provided. See Figure ZH 1.
2. Rotate the dial until the “0” mark on the cap lines up with the reference line on the body tube and the ZeroHOLD™ engages (Figure ZH 2),



Figure ZH 3



Figure ZH 4

then retighten the set screws to 10 inch pounds (Figure ZH 3). You should not hear or feel the adjustment clicking during this process.

NOTE: It is *very important* to properly torque the cap set screws. Failure to do so may result in cap slippage and the inability to make elevation adjustments until corrected. Refer to the FAQ’s for proper torque procedure.

3. Depress the ZeroHOLD™ button, then attempt to dial 2 Mils/5 MOA under zero to the secondary mechanical stop (clockwise direction) and note the position of the dial. See Figure ZH 4.

NOTE: If you cannot dial 2 Mils/5 MOA below zero, refer to the FAQ’s that follow these instructions.



Figure ZH 5



Figure ZH 6



Figure ZH 7



Figure ZH 8



Figure ZH 13



Figure ZH 14



Figure ZH 9



Figure ZH 10



Figure ZH 15



Figure ZH 11



Figure ZH 12

4. Remove the ZeroHOLD™ cap by loosening, without removing, the two set screws using a 5/64" hex key. This exposes the black clamp wheel. See Figures ZH 5 and ZH 6.

5. Loosen the four size .050 hex screws in the clamp wheel one half (1/2) to one (1) turn until pressure is relieved, but do not remove them completely. See Figure ZH 7.

6. Grasp the black clamp wheel and rotate clockwise until bottomed out with no further movement (Figure ZH 8). Then retighten the four .050 hex screws (Figure ZH 9), in an "X" pattern, to two inch pounds (Figure ZH10).

NOTE: It is *very important* to properly torque the clamp wheel screws. Failure to do so may result in cap slippage and the inability to make elevation adjustments until corrected. Refer to the FAQs for proper torque procedure.

7. Replace the ZeroHOLD™ dial with the "0" mark on the cap aligned with the index mark on the rifle scope body (Figures ZH 11 and ZH 12). The ZeroHOLD™ will engage. Before tightening the set screws, rotate the cap

the "0" position and the ZeroHOLD™ should engage. Dial above your zero and when returning to your zero, the ZeroHOLD™ will engage. Depressing the ZeroHOLD™ button will allow dialing below the established zero. If you experience difficulty during the function test, please refer to the FAQ section.

Your Nightforce ZeroHOLD™ elevation adjustment is now properly set.

If you experience any difficulty during this process, please review the ZeroHOLD™ Adjustment FAQs below. If you continue to experience difficulty, please contact customer service at the number listed at the end of this manual.

### ZeroHOLD™ Adjustment Frequently Asked Questions

#### Difficulty dialing below zero

If you cannot dial 2 Mils/5 MOA below zero, you will need to access remaining travel by adjusting the elevation clamp wheel under the adjustment cap.

1. Perform Steps 4 and 5 (page 14) to expose and loosen the black clamp wheel.
2. Rotate the clamp wheel counter-clockwise approximately 1/8 to 1/4 of a turn, being careful not to unthread the upper wheel off of the lead screw.
3. Perform Steps 7 and 8 to replace the adjustment cap.

The elevation adjustment should now allow 2 Mils/5 MOA of travel below the sight-in zero, engaging the secondary mechanical stop.

to 2 Mils/5 MOA below zero engaging the secondary mechanical stop (Figure ZH 13). While maintaining downward pressure on the adjustment cap, tighten the opposing set screws to 10 inch pounds using the 5/64" hex key (Figures ZH 14 and ZH 15).

NOTE: It is *very important* to properly torque the cap set screws. Failure to do so may result in cap slippage and the inability to make elevation adjustments until corrected. Refer to the FAQ's for proper torque procedure.

8. Function test the ZeroHOLD™ elevation adjustment. Return the dial to



### ZeroHOLD™ does not engage

This can occur if the black clamp wheel has been rotated near the top of its travel, preventing the elevation dial from sitting low enough for proper engagement of the ZeroHOLD™ mechanism.

1. Perform Steps 4 and 5 to expose and loosen the black clamp wheel
2. Rotate clamp wheel clockwise until resistance is felt
3. Perform Steps 7 and 8 to replace the adjustment cap
4. Function check; adjust as necessary

## Determining proper set screw torque

### Tightening the adjustment cap set screws to 10 inch pounds

We recommend the use of a calibrated torque driver for this procedure. If one is not available to you, the following instructions will provide a field-expedient solution using the tools provided with your riflescope.



Figure ZH 16

#### Step 1 – Seat the cap

Maintain downward pressure on the adjustment cap while tightening the first set screw. Once slight resistance is felt, apply the proper torque to the set screw as noted in step 2. Repeat for the second set screw. See Figure ZH 16.



Figure ZH 17



Figure ZH 18

Note: Firm pressure may be required to properly seat the cap prior to tightening. It may be necessary to remove a set screw in order to relieve trapped air. Use caution to ensure the set screw O-rings are not damaged during this process.

#### Step 2: Apply proper torque

If a torque driver is unavailable, use the provided hex key to apply pressure until slight resistance is felt. Rotate the hex key approximately 1/8 of a turn past initial resistance to apply the approximate 10 inch pounds of torque required.

Approximately 10 inch pounds of torque will be applied when a slight flex in the hex key is noted. See Figures ZH 17 and ZH 18.

#### Tightening the clamp wheel (Figure ZH 19) to 2 inch pounds

We recommend the use of a calibrated torque driver for this procedure. If one is not available to you, the following instructions will provide a field expedient solution using the tools provided with your riflescope.



Figure ZH 19



Figure ZH 20



Figure ZH 21

#### Step 1: Tighten to slight resistance.

Using a .050 hex key (provided), held between the thumb and index finger, tightening the first screw until initial resistance is felt (Figure ZH 20). Proceeding in an “X” pattern as noted in Figure ZH 21, tighten each of the remaining screws only until initial resistance is felt. Initial resistance will occur when the tool easily slips through the fingers and the screw no longer turns.

#### Step 2: Apply proper torque: Two Inch Pounds (32 inch ounces)

Insert the short end of the hex key into the first screw. With your thumb pressing down on the clamp wheel, and holding the long end of the tool as shown in Figure ZH 22, tighten the screw by rotating the hex key approximately 1/4 to 1/2 of a turn past initial resistance stopping when there is a



Figure ZH 22



Figure ZH 23



Figure ZH 24

slight flex in the hex key (Figure ZH 23). This will apply the approximate 2 inch pounds of torque required. Proceeding in an “X” pattern as noted in Figure ZH 24, tighten each of the remaining screws.

Note: If the clamp wheel is not held in place, it may rotate during this process which can change the zero setting.

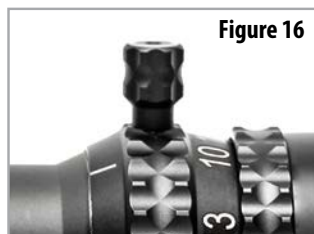
## Setting The Windage Adjustment

The windage adjustments on ATACR riflescopes include a factory installed protective, screw-on cap. The windage adjustment is waterproof and can be used without the cap. A trim ring is included to protect the threads if using as an external adjustment (Figure 14).

1. Remove the protective cap.
2. Loosen the set screw one turn on the windage adjustment and the dial should rotate freely (Figure 12). NOTE: You should not feel any clicks when adjusting the dial at this point.
3. While applying inward pressure to the dial, re-index to zero (Figure 13).
4. Retighten the setscrew to four (4) inch pounds. If a torque driver is unavailable, insert the short end of the provided hex key and tighten the set screw until a slight flex in the tool is noted. See Figure 15.



## PTL™ (Power Throw Lever)



The PTL™ (Figure 16) is designed to allow rapid magnification changes, just by feel. First, ensure that your firearm is unloaded. Your rifle scope arrives with a flush black insert screwed into the power zoom ring. To remove it, turn it counterclockwise with the supplied 5/64" hex key. You can then install the PTL™ (included with your rifle scope) by screwing it clockwise into the threaded hole. Tighten it securely with the hex key, but take care not to overtighten the PTL™ to avoid stripping the threads or hex hole. Keep the insert in a secure place should you wish to remove the PTL™ in the future and reinstall it.

## Caring for Your Rifle Scope

With proper care your Nightforce rifle scope will give you many years of dependable service. Be sure to use your lens covers whenever you are not using your rifle scope.

### Cleaning the Rifle Scope Exterior

Clean the rifle scope body with a clean cloth lightly moistened with clean water or alcohol. Do not use strong solvents. While cleaning your rifle, be sure to protect your rifle scope's lenses by installing the covers that came with the rifle scope (or equivalent covers). Ammonia-based bore solvents can destroy the coating on the glass. Avoid spilling gun cleaning solvents anywhere on the rifle scope.

In the event of submersion in mud, sand, dirty or salt water, flush the outside of the rifle scope with clean water to remove encrusted material and salt. If your rifle scope came with screw-on adjustment covers, install them before flushing with water. Wipe the outside metal surfaces dry with a soft cloth then proceed to the step below.

### Cleaning Lenses

We recommend using a Nightforce cleaning kit A130 to care for the lenses on your rifle scope. The kit contains an ultrasoft brush, microfiber cloth and cleaning solution.

With the lens facing down to allow the debris to fall away from the surface, remove loose dirt and dust with compressed air and/or a lens brush. Do NOT

use high-pressure compressed air from cans (such as found in office supply stores). They can, and have, been known to destroy lens coatings. If there is grit stuck to the lens that won't come off with the compressed air or a brush, flushing the surface with alcohol or distilled water will prevent that grit from being rubbed into the glass by the cleaning swabs.

Using a soft, clean, lint-free cotton swab or lens cleaning cloth, and lens cleaning fluid applied to the swab, clean the lens starting in the center, 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 often contain abrasive grit that will 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 for the last pass to prevent streaks.

### Long Term Storage

If the rifle scope will not be used for an extended period, remove the battery and store it separately. Keep the rifle scope in a cool, dry, dust-free location.

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



We are proud to back up Nightforce ATACR™, B.E.A.S.T.™, Benchrest, Competition™, NXS™ and SHV™ riflescopes with a transferable Limited Lifetime Warranty which covers mechanical defects in materials and workmanship in the optical and mechanical components of the riflescope. 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, Inc.**  
**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)**

Please detach here

## Nightforce Warranty Registration Card

Activate your warranty at [www.NightforceOptics.com/WarrantyRegistration](http://www.NightforceOptics.com/WarrantyRegistration) and be eligible for product support, updates and additional Nightforce gear. If you do not have Internet access, please tear out, fill in and return this product registration card within 30 days of purchase. Return to the address below along with a copy of your purchase receipt. We retain this card for warranty eligibility.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

Model: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_ Purchased From: \_\_\_\_\_

Please take a moment to provide your comments on the following page.

To locate your serial number: The serial number for all new Nightforce scopes can be found on the bottom of the elevation/windage adjustment/parallax adjustment saddle. On some earlier models, it can be found on top of the tube body in front of the elevation adjustment, or on the bottom of the tube body in front of the power change ring. Please contact Customer Service if you need help in locating the serial number on older riflescopes.

Attach a copy of your receipt and send to: **Nightforce Optics, Inc.**  
**336 Hazen Lane**  
**Orofino, Idaho 83544**

Register online at  
**[www.NightforceOptics.com/WarrantyRegistration](http://www.NightforceOptics.com/WarrantyRegistration)**

For the latest updates and information regarding our products, visit [www.NightforceOptics.com](http://www.NightforceOptics.com).

# Nightforce Owner's Comments

Your feedback and suggestions will help us maintain the high level of quality and customer service Nightforce owners have come to expect. We encourage your input.

Why did you choose Nightforce? \_\_\_\_\_

What changes or modifications would you recommend be made to improve this product? \_\_\_\_\_

What new products would you like to see offered by us? \_\_\_\_\_

What hunting/shooting magazines do you normally read? \_\_\_\_\_

What hunting/shooting television programs do you like to watch? \_\_\_\_\_

Do you participate in Internet forums or blogs? Which ones? \_\_\_\_\_

How did you hear about Nightforce products? \_\_\_\_\_

Are you a member of a local rifle shooting club or range?  Yes  No Do you participate in any of the following competitive shooting events?

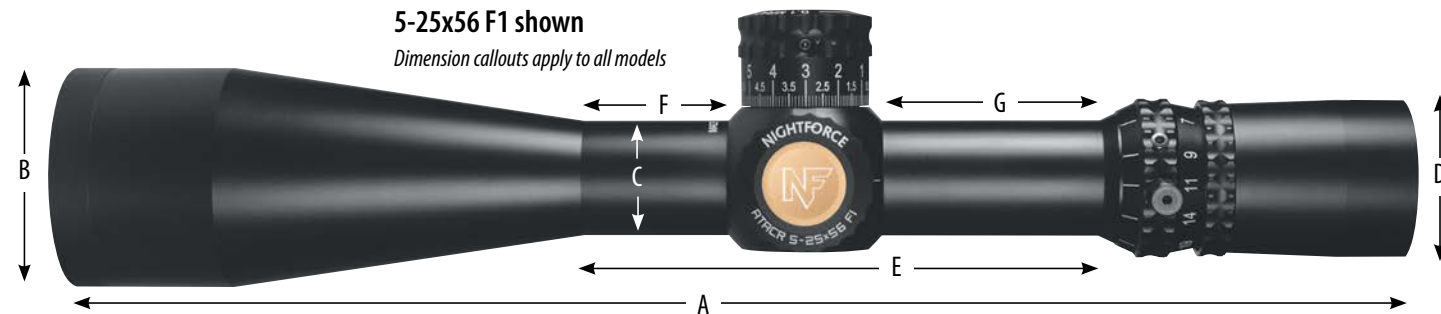
If so, please check the appropriate box:  Long-range benchrest  Short-range benchrest  F-Class  Precision tactical  3-Gun  Tactical

Other (please explain) \_\_\_\_\_

Do you travel to participate in competitive shooting events?  Yes  No If so, how far do you typically travel? \_\_\_Miles \_\_\_Hours

Please detach here

# ATA CR<sup>™</sup> ADVANCED TACTICAL RIFLESCOPE Specifications



	4-16x42 F1 (Inches/millimeters)	4-16x50	5-25x56 F1	5-25x56
<b>A. Overall length</b>	12.6/320	13.1/333	15.37/390	14.3/363
<b>B. Objective outer diameter</b>	1.97/50	2.32/59	2.56/65	2.56/65
<b>C. Tube diameter</b>	1.34/34	1.34/34	1.34/34	1.34/34
<b>D. Eyepiece outer diameter</b>	1.77/45	1.77/45	1.81/46	1.73/44
<b>E. Mounting length</b>	6.3/160	6.32/161	5.9/150	6.13/156
<b>F. Front mounting length</b>	2.0/51	2.0/51	1.65/42	2.10/53
<b>G. Rear mounting length</b>	2.53/64	2.53/64	2.48/63	2.24/57

	4-16x42 F1	4-16x50	5-25x56 F1	5-25x56
<b>Exit pupil diameter</b>	4x: 10.3mm 16x: 2.7mm	4x: 9.5 mm 16x: 3.17 mm	5x: 8.3mm 25x: 2.3mm	5x: 10.5mm 25x: 2.3mm
<b>Field of view @ 100yd/m</b>	4x: 26.9 ft/8.1 m 16x: 6.9 ft/2.1 m	4x: 26.9 ft/8.2 m 16x: 6.9 ft/2.1 m	5x: 18.7 ft/5.7 m 25x: 4.9 ft/1.5 m	5x: 17.9 ft/5.5 m 25x: 4.9 ft/1.5 m
<b>Eye relief</b>	85-90mm/3.35-3.54"	89mm/3.5"	85-90mm/3.35-3.54"	85-90mm/3.35-3.54"
<b>Parallax adjustment</b>	45 yd-∞	45 yd-∞	45 yd-∞	45 yd-∞
<b>Weight (oz/gr)</b>	30/850	33.3/944	37.6/1066	39/1108
<b>Internal adjustment</b>	e: 89 MOA/26 Mil w: 60 MOA/18 Mil	110 MOA/30 Mil 60 MOA/16.4 Mil	e: 120 MOA/34.9 Mil w: 80 MOA/23.7 Mil	e: 120 MOA/34.9 Mil w: 60 MOA/18 Mil
<b>Click value</b>	.250 MOA/.1 Mil	.250 MOA/.1 Mil	.250 MOA/.1 Mil	.250 MOA/.1 Mil
<b>Focal plane</b>	First	Second	First	Second



20

10

10

20

MOAR™

10

20

30

Get the latest news, tech tips and good stories via our newsletter at [www.NightforceOptics.com/newsletter](http://www.NightforceOptics.com/newsletter)



# NIGHTFORCE®

All trademarks, graphics and designs herein are the property of Nightforce Optics, Inc. Product specifications are subject to change without notice. Products may differ in appearance from those shown here; not responsible for typographical errors. Visit [www.NightforceOptics.com](http://www.NightforceOptics.com) for current information, tutorials, and video. Lightforce USA, dba Nightforce Optics, Inc. ©Nightforce Optics, Inc. 2016 5/16

### Factory/Headquarters U.S.A. Customer Service, Technical & Warranty:

Nightforce Optics, Inc.  
336 Hazen Lane  
Orofino, ID 83544  
tel 208.476.9814 • fax 208.476.9817  
info@nightforceoptics.com

### North American Dealer Sales:

Nightforce Optics, Inc.  
2749 Providence Church Road  
Lavonia, GA 30553  
tel 706.460.5500  
dealersales@nightforceoptics.com

### Military, Government & Law Enforcement:

Nightforce Optics, Inc.  
2749 Providence Church Road  
Lavonia, GA 30553  
tel 706.460.5515  
militaryinfo@nightforceoptics.com



[facebook.com/NightforceOptics](https://facebook.com/NightforceOptics)



[instagram.com/Nightforce\\_Optics](https://instagram.com/Nightforce_Optics)



[twitter.com/NightforceOptx](https://twitter.com/NightforceOptx)



[youtube.com/NightforceOptics](https://youtube.com/NightforceOptics)

### Marketing:

Nightforce Optics Inc.  
2749 Providence Church Road  
Lavonia, GA 30553  
tel 706.460.5505  
marketing@nightforceoptics.com

### European, Asian & African Sales:

Nightforce Optics, Inc.  
2749 Providence Church Road  
Lavonia, GA 30553  
tel 706.460.5511  
intlsales@nightforceoptics.com

### Australian & South Pacific Sales:

Nightforce Optics  
11 Manton Street  
Hindmarsh, SA 5007 Australia  
tel +61 (0)8 8440 0888  
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).