



INSTRUCTION MANUAL

ZEROTECH RIFLESCOPES

TRACE ADV - 4-24X50

WARNING

KEEP BATTERIES OUT OF REACH OF CHILDREN



**THIS PRODUCT CONTAINS A COIN BATTERY.
THE BATTERY CAN CAUSE SEVERE OR FATAL INJURIES IN
2 HOURS OR LESS IF IT IS SWALLOWED OR PLACED
INSIDE ANY PART OF THE BODY.**

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INTRODUCTION

WELCOME TO THE ZEROTECH RIFLESCOPE FAMILY!

Customer First - We listened to you and came up with a family of riflescopes that will satisfy the needs of our most discerning and experienced customers.

Backed by Experience - ZeroTech enjoys 55 years of experience in the Optics Market supplying high quality brands to retailers throughout Australia and the Asia Pacific.

Built for the Australian Shooter - Designed and built to endure the harsh conditions of the Australian bush and the exacting demands of the precision shooter.

Lifetime Warranty - Be safe in the knowledge that your scope is backed by our Triple A Lifetime Warranty: **'ANY OWNER, ANY PROBLEM, ALWAYS COVERED'**

Bespoke Reticles - Practical reticles for the everyday shooter. Helping you put rounds on target!

LIFETIME WARRANTY

BACKED FOR LIFE!

Be safe in the knowledge that your scope is backed by our **Triple A Lifetime Warranty**:

- Fully transferable, covers accidental damage as well as defects in materials and workmanship.
- No receipt or warranty card is required.
- We will repair or replace product with equal or similar value and/or specifications.
- We will return product to you at no charge.

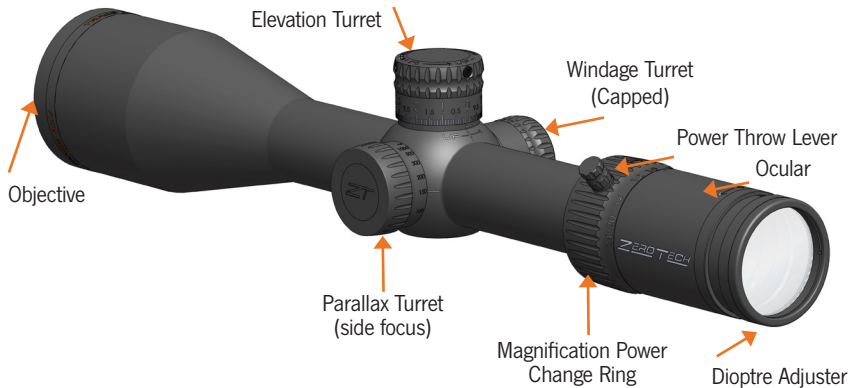


LIFETIME WARRANTY

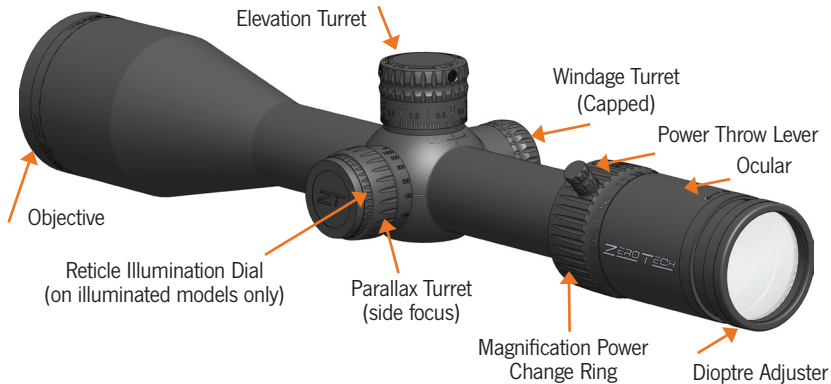
**'ANY OWNER, ANY PROBLEM,
ALWAYS COVERED'**

SCOPE FEATURES

NON-ILLUMINATED MODEL



ILLUMINATED MODEL



TENEBRAEX COVERS FITTED



NON-ILLUMINATED MODEL



ILLUMINATED MODEL

Tenebraex® covers removed
for comparison

SETTING THE DIOPTRE

BEFORE YOU START USING YOUR SCOPE, IT IS EXTREMELY IMPORTANT TO MAKE SURE YOU HAVE ADJUSTED THE DIOPTRE CORRECTLY. THE CORRECT DIOPTRE SETTING WILL ENSURE THAT YOUR RETICLE REMAINS CLEAR AND SHARP THROUGHOUT THE ENTIRE FOCAL RANGE OF YOUR SCOPE. TO SET YOUR DIOPTRE, FOLLOW THE STEPS BELOW;

1. Set your magnification to the maximum power.
2. If fitted, set the parallax turret to the infinity marker
3. Find a blank, featureless and bright surface, such as a white wall or clear blue sky and look through your scope for no more than 5 seconds at a time.

NEVER LOOK THROUGH YOUR SCOPE DIRECTLY AT THE SUN.

4. When briefly looking through the scope, the reticle should appear sharp and clear immediately. If the reticle is not immediately sharp and clear, twist the dioptre adjuster to bring the reticle into sharp focus. The dioptre adjuster has approximately $1 \frac{3}{4}$ turns of adjustment. We recommend starting with the dioptre assembly twisted flush up against the ocular and making adjustments in an anticlockwise (towards the + symbol marked on the ocular) direction until the optimal setting is reached.
5. Once you have established your dioptre setting, make note of the position of the dioptre for future reference. You will not need to make frequent adjustments to your dioptre unless your setting is disturbed or changed by someone else.



MOUNTING YOUR SCOPE

BEFORE MOUNTING YOUR SCOPE TO A FIREARM, IT IS ESSENTIAL THAT YOU CONFIRM THAT YOUR FIREARM IS UNLOADED AND NO AMMUNITION IS PRESENT IN YOUR WORKSPACE.

TO AVOID DAMAGE AND TO PRESERVE YOUR WARRANTY, YOUR SCOPE SHOULD ALWAYS BE MOUNTED BY AN EXPERIENCED PROFESSIONAL.

1. Once you are satisfied the base(s) is correctly fitted to the receiver of your firearm, proceed to fit the rings to the base(s) and ensure the ring clamps are tightened to the recommend torque settings as specified by the manufacturer.
2. With the ring tops removed, place the scope in the ring bases and gently slide the scope back and fourth in the ring bases to ensure the scope slides freely. If the scope does not slide freely, lapping of the rings may be necessary to avoid damage

to the scope maintube. ZeroTech always recommends the use of high quality rings and bases to ensure the best possible fitting of your scope.

3. Avoid mounting the scope with the rings contacting the junction of the maintube/erector housing, magnification ring/ maintube junction or the objective/maintube junction.
4. It is essential to confirm that no part of the scope is contacting the barrel or receiver when the scope is mounted in the rings.
5. Once you have confirmed the fit of the scope in the ring bases, fit the ring tops and tighten the ring top bolts to between 22 – 25 in lbs or 2.5 – 2.8NM.
6. ZeroTech highly recommends the use of a scope level (bubble level) fitted to the rings or the scope maintube to ensure the reticle can consistently be aligned with the fall of gravity every time a shot is fired. This is particularly important for precision shooting applications, especially in uneven or steep terrain.

*If your level mounts to the maintube of the scope, follow the same guidelines as observed for scope ring fitting to ensure the level does not damage the maintube of your scope.

ADJUSTING PARALLAX

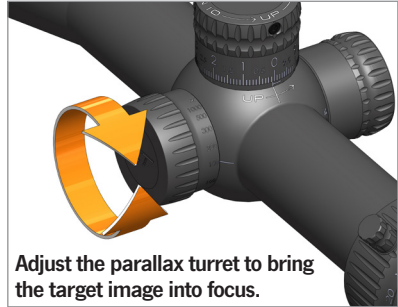
If your ZeroTech scope is fitted with a parallax turret, it is important to adjust the parallax turret for shots taken at different distances. Some shooters refer to the parallax turret as the 'side focus'. It is referred to as the 'side focus' because by turning the turret, it will bring your target image into focus. As a general rule and as long as your dioptre is set correctly (refer to page 4 – 'Setting the Dioptre') the sharper the target image is focused, the parallax error will be less.

Parallax error is quite easy to detect when following the instructions below;

1. Acquire your target image at any distance and make sure your rifle is well supported by the use of a bipod and rear bag (or similar).
2. Use the parallax turret to obtain the sharpest/ clearest possible target image and establish a refined point of aim on the target.
3. Once you have established a refined point of aim and a sharp target image, move

your head gently up and down whilst looking through the scope. Be sure not to disturb the rifle/ sights.

4. If you are able to observe the reticle departing slightly from the intended point of aim, make small adjustments on the parallax turret until the reticle remains fixed on your point of aim.
5. You will need to repeat this process when shooting at different distances or in different environmental conditions.
6. **The distance markings on the parallax turret are intended as a guide only.** Dioptre settings and environmental factors are likely to cause the distance markings to vary in relation to the actual distance of the target.



ZEROING YOUR RIFLE

ZEROING DISTANCES

Centrefire rifles: Zerotech recommends zeroing most centrefire rifles at approximately 100 metres +/- 10 metres. 100 metres enables the shooter to overcome any offset problems caused by the centre height of the scope above bore but is not too far as to accidentally build in an error due to unobserved environmental conditions such as wind.

Rimfire rifles: Most commonly, rimfire hunting rifles are zeroed at 50 – 75 metres depending on the type of ammunition being used. Rimfire target rifles may have different zeroing requirements depending on purpose.

We always recommend that you zero your rifle in the same manner as you typically shoot your rifle. For example, if you mainly shoot your rifle from a bench, zero your rifle by shooting from a bench. If you predominately shoot your rifle in the prone position, zero your rifle from the same position.

ZEROING DISTANCES CONTINUED...

Before you fire your first shot, you should bore sight your rifle to ensure your scope and your barrel are both aligned at the intended point of impact on your target. To do this with a bolt action rifle, remove the bolt with the rifle securely supported (front and rear) and align the bore with the target.

Without disturbing the rifle, carefully look through the scope and check that the reticle is also aligned with the same point as the bore on the target. If the reticle is not aligned, use the windage and elevation adjustments on your scope to adjust the reticle to the intended point of impact on the target.

Once you are satisfied that the scope and the bore of your rifle are aligned to the same point on the target, fire a shot at the target and observe the point of impact (bullet hole). If required, use the windage and elevation turrets on your scope to adjust the bullet impact.

ZEROING DISTANCES CONTINUED...

Dialling the elevation turret in the direction of the 'U' symbol will adjust the bullet impact upwards on the target. Likewise, dialling the windage turret in the direction of the 'R' symbol will adjust the bullet impact to the right on the target.

- ▲ If your scope turrets are indexed in $\frac{1}{4}$ Minutes of Angle (0.25 MOA), each 'click' of your scope turret will adjust your bullet impact approximately 7-8mm at 100 metres (approx. $\frac{1}{4}$ " at 100 yards).
- ▲ If your scope turrets are indexed in 0.1 Milrad (0.1 MRAD), each 'click' of your scope turret will adjust your bullet impact 1cm at 100 metres (0.36" at 100 yards).

ZEROING YOUR RIFLE CONT'D

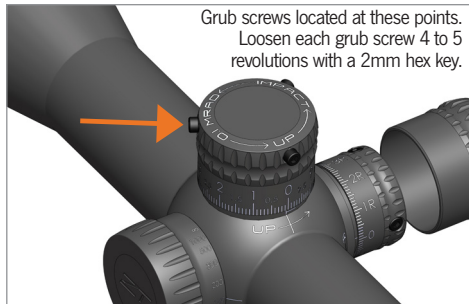
SETTING THE ELEVATION ZERO STOP

Once you have established a zero for your rifle, the zero stop feature can be set. This can help to ensure a consistent return to zero after dialling the elevation turret to compensate for shots taken at distances other than that of your confirmed zero.

SETTING THE ZERO STOP

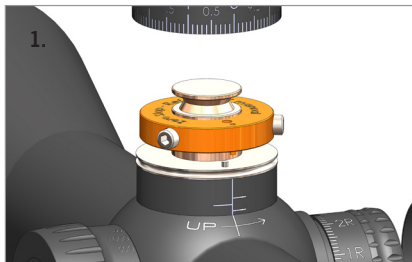
1. Remove the elevation turret by loosening the three (3) opposing grub screws located in the top of the elevation turret with a 2mm hex key. Remove the elevation turret and set aside

*(TRACE AND TRACE ADV MODELS ONLY)

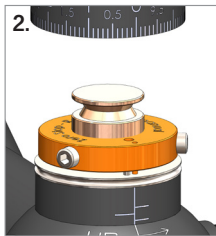


Grub screws located at these points.
Loosen each grub screw 4 to 5 revolutions with a 2mm hex key.

2. With the elevation turret removed, the orange zero stop ring will be visible. Similar to the elevation turret cap, the orange zero stop ring also has three (3) opposing grub screws. Use your 2mm hex key to loosen the grub screws 1 to 2 revolutions each. This will allow the orange zero stop ring to spin freely.
3. Slide the orange zero stop ring downwards until it stops. During this process, it is important to note the small pins located in both the under side of the orange zero stop ring, as well as the top side of the lower turret assembly. **It is critical that the screw on the under side of the zero stop is positioned on the right hand side of the screw on the lower assembly.** Failure to follow this step will result in the elevation adjustment being locked out and unusable until the zero stop is reset.
4. Tighten the three (3) 2mm grub screws in the zero stop ring. The zero stop is now set.

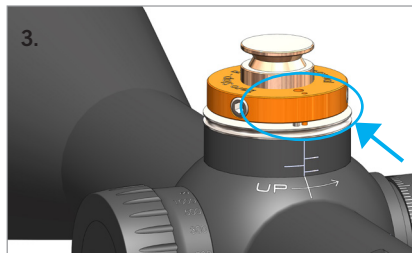


Loosen the three 2mm grub screws in the orange zero stop and slide the zero stop downwards until it stops.



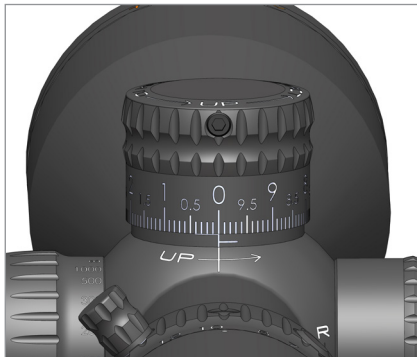
SETTING THE ZERO STOP CONTINUED...

The zero stop is now set. Tighten the three 2mm grub screws and replace the elevation turret indexed to the '0' position.



Note the position of the lugs as described in step 3.

5. Replace the elevation turret and make sure to align the '0' on the elevation turret cap to the vertical marker on the lower turret assembly to enable an easy and precise reference when dialling the elevation turret. Tighten the three (3) 2mm grub screws to secure the turret cap. We recommend using the short end of your hex key to apply adequate torque to the grub 2mm grub screws.

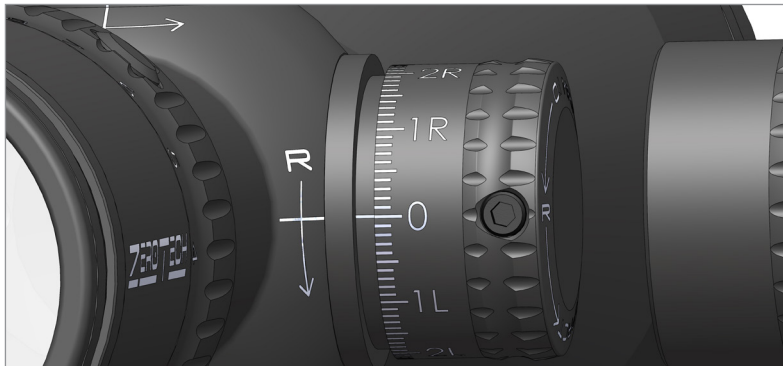


Elevation turret is indexed to '0' showing that the scope is set to the zero range of the rifle.

ZEROING THE WINDAGE TURRET

1. The windage turret can be reset to '0' without completely removing the windage turret cap from the scope. It is important to note that the windage turret does not have a zero stop feature as the turret needs to be able to adjust the bullet impact both left and right equally at all times.
2. With the windage turret in the unlocked position, loosen the three (3) 2mm grub screws approximately $\frac{1}{2}$ - 1 revolution each. This will allow the windage turret to spin freely.
3. With the windage turret spinning freely, align the '0' on the turret with the index line on the lower turret assembly and tighten the three (3) 2mm grub screws, using the short end of your hex key for adequate leverage.

ZEROING THE WINDAGE TURRET CONTINUED...



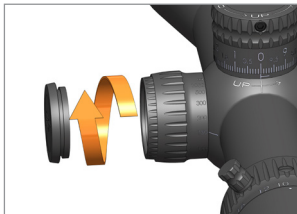
Align the '0' on the windage turret cap with the index marker line on the turret body.

ILLUMINATION FEATURE

Trace Advanced 4-24x50 models fitted with the push button illumination function have 10 brightness settings.

1. Before use, install the CR2032 battery by removing the illumination turret battery cover. Unscrew in an anticlockwise direction. If the battery is already installed, simply remove the plastic circuit blocker on the bottom of the battery and reinstall.
2. The illumination function has 6 different reticle brightness settings as well as an “Off” function between each brightness setting.
3. Be sure to switch your reticle illumination setting to the “Off” position when your rifle is in storage or being transported.
4. We always recommend to carry a spare CR 2032 button battery when you're using your rifle, especially if you're heavily reliant on the illumination function. ZT recommends the use of high quality, well known battery brands for use in your ZT riflescope. This will ensure your IR functions reliably.

ILLUMINATION FEATURE CONTINUED...



BATTERY REPLACEMENT

Unscrew battery cap anticlockwise.

Insert battery and replace illumination turret cap.



WARNING

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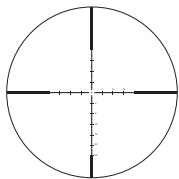
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2 HOURS OR LESS IF IT IS SWALLOWED OR PLACED

WARNING – KEEP BATTERIES OUT OF REACH OF CHILDREN

Zerotech rifle scopes and optics with a reticle illumination feature contain coin batteries. Products containing coin batteries must be kept out of reach of children. The battery can cause severe or fatal injuries in 2 hours or less if it is swallowed or placed inside any part of the body. If you suspect your child has swallowed or inserted a button battery immediately call the 24-hour Poisons Information Centre on 13 11 26 (Australia) for fast, expert advice.

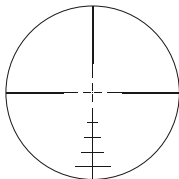
ZEROTECH RETICLES

SECOND FOCAL PLANE RETICLES



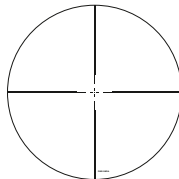
R3

Available in;
TRACE 3-18x50
TRACE 4.5-27x50



PHR-II

Available in;
THRIVE HD 2.5-15x50
THRIVE HD 2.5-15x50 Illum.
THRIVE HD 6-24x50
THRIVE HD 6-24x50 Illum.

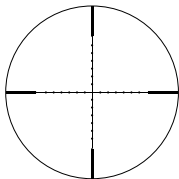


PHR 3

Available in;
THRIVE 3-9x40
THRIVE 3-12x44

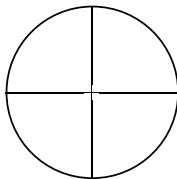
ZEROTECH RETICLES

SECOND FOCAL PLANE RETICLES



Mildot

Available in;
THRIVE 3-12x44
THRIVE 4-16x50



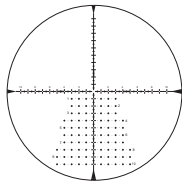
ZEROPLEX

Available in;
THRIVE 3-9x40
THRIVE 3-12x44
THRIVE 4-16x50

For specific information on your reticle, refer to the reticle spec sheet provided in your scope box or visit our websites: zerotech.com.au (aust.) / zerotechoptics.com (USA)

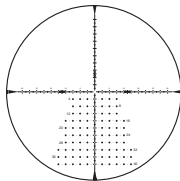
ZEROTECH RETICLES

FIRST FOCAL PLANE RETICLES



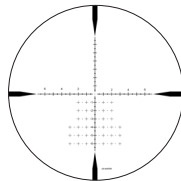
RMG

Available in;
TRACE Advanced 4.5-27x50



RMG MOA

Available in;
TRACE Advanced 4.5-27x50



LR HUNTER

Available in;
TRACE Advanced 3-18x50
THRIVE HD - 4-16x44
THRIVE HD - 6-24x50

For specific information on your reticle, refer to the reticle spec sheet provided in your scope box or visit our websites: zerotech.com.au (aust.) / zerotechoptics.com (USA)

SCOPE CARE

1. Wipe dust and debris from your scope body using a damp microfibre cleaning cloth.
2. If necessary, clean dust and dirt from the scope lenses using a lens brush and the ZeroTech lens cleaning cloth.
3. Never spray cleaners or solvents on any part of your scope. Irreversible damage may be caused by such products.
4. Avoid touching the scope lenses. Wipe fingerprints off the scope lenses using the ZeroTech lens cleaning cloth.

WARRANTY INFORMATION

Please direct all enquiries to **service@zerotech.com.au**

Company details;

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AUSTRALIA

NOTES

NOTES



www.zerotech.com.au





LIFETIME WARRANTY

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www.zerotech.com.au



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