



**LEUPOLD®**  
MADE RIGHT, MADE HERE.

[ THE OFFICIAL  
LEUPOLD OWNER'S  
HANDBOOK ]

COMPLETE INSTALLATION & OPERATING INSTRUCTIONS

## [ YOU'RE PART OF THE TRADITION ]

In a sport rich in tradition, Leupold has earned its place as one of the classic names in hunting and shooting. To be sure, the Golden Ring® scope you now own is the finest example of Leupold heritage.

Frederick Leupold came to Portland, Oregon from Germany in 1907, and quickly established a firm to manufacture and repair surveying transits. Fred's son, Marcus, broadened the company's focus in the late 1930s after the avid outdoorsman missed a buck on the soggy western slopes of Oregon's Cascade Range. (His scope had fogged, as was common for scopes of that era.) Frustrated by the experience, Marcus set out to build a better scope. The rest, as they say, is history.

Marcus Leupold's quest for quality has continued on to the present. In the words of the firm's founder, Frederick Leupold, "We solemnly promise never to let down on quality; the customer is entitled to a square deal." That is why all Leupold Golden Ring products are worthy of the Leupold Full Lifetime Guarantee and all Leupold Golden Ring products are made in the U.S.A.

Leupold offers the best consumer protection in the business. It's the best way we know to thank you for buying Leupold.

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## [ KNOW YOUR SCOPE ]

Riflescopes have become far more sophisticated over the years, but the four most basic parts have remained the same. Working from front to back they are:

1. The objective lens (or front lens) is critical to a superior sight picture.
2. The internal erector lenses which right the image.
3. The reticle, often referred to as the crosshair, provides the aiming point.
4. The ocular lens (or eyepiece lens) works with the other lenses to magnify the image, provide correct eye relief, and make diopter corrections.

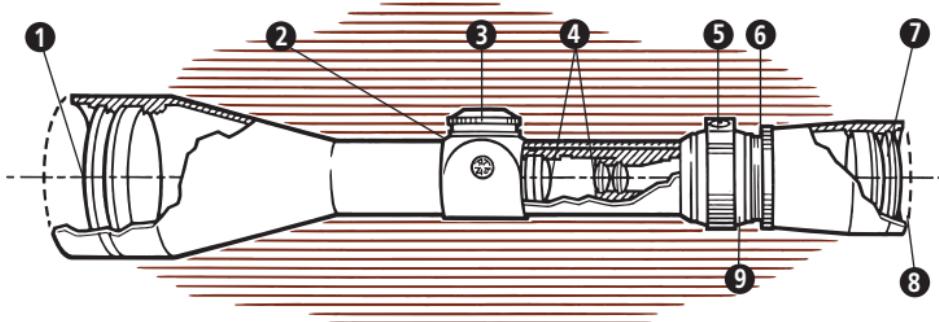
### HOW SCOPES WORK

As light passes through and beyond the objective lens, the resulting upside down image is sent to the internal lenses. Known as erector lenses, these internal lenses return the image to a right-side-up position. Finally, the ocular lens makes a final enlargement of that image and sends it on to your eye.

Your Leupold scope was designed, manufactured, and tested to ensure that, when properly mounted and sighted-in on your firearm, you will enjoy

exceptional performance. A solid mount is critical to satisfactory performance of your scope. If you have problems or questions, please contact Leupold Technical Service (see page 35).

## PARTS OF THE SCOPE



- |  |                       |
|--|-----------------------|
| 1 Objective Lens                                 | 5 Power Selector Ring |
| 2 Windage Adjustment<br>(opposite side of scope) | 6 Eyepiece Lock Ring  |
| 3 Elevation Adjustment                           | 7 Ocular Lens         |
| 4 Erector Lenses                                 | 8 Eyepiece Assembly   |
|  | 9 Reticle Housing     |

PLEASE READ THIS ENTIRE HANDBOOK  
BEFORE MOUNTING YOUR SCOPE.

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**C A U T I O N**

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*Always check and be certain that the firearm is unloaded before undertaking any work upon it.*

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## [ HOW TO INSTALL THE SCOPE ]

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### THE LOWER THE SCOPE, THE BETTER

A scope mounted close to the rifle ensures proper cheek weld on the stock for a stable firing position and allows for rapid target acquisition. We recommend using the lowest possible ring height. No specific clearance is

required, but the scope must clear the bolt handle, hammer (on lever actions and handguns), sights, and barrel.

When installed, be sure that your scope does not interfere with firearm operation and does not contact anything except the mount rings.

## INSTALLING THE BASE, RINGS, AND SCOPE

Please refer to the instructions included with the base and rings for their proper installation on the firearm.

**NOTE:** If necessary, it is safe to position the rear mount ring directly on the exposed threaded area near the eyepiece to allow a more forward placement of the scope.

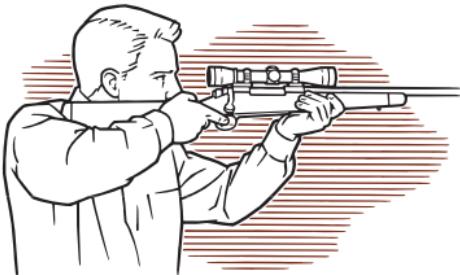
**NOTE:** The windage and elevation adjustments on new Leupold scopes are centered as part of the assembly process. If you are mounting a scope that was previously mounted on another rifle, you should center the adjustments (please see *Centering Windage and Elevation Adjustments*).

## ESTABLISHING EYE RELIEF ON RIFLES AND SHOTGUNS

Because of the safety considerations associated with proper eye relief, Leupold strongly recommends that you mount your scope as far forward as possible. Beyond that, follow these steps:

1. With the scope as far forward in the mounts as possible, hold the rifle in your normal shooting position. (Variable power scopes should be set at the highest magnification for this process.)
2. Slowly move the scope to the rear just until you can see a full field-of-view.
3. Position your scope here for maximum eye relief.
4. Proceed to COMPLETING THE INSTALLATION.

**NOTE:** *To confirm that your scope is mounted in the best possible position, try assuming various positions: kneeling, seated, prone, and aiming both uphill and downhill. Remember that aiming uphill typically reduces eye relief.*



*Leupold riflescopes are engineered to provide a generous 3" to 5" eye relief, depending on the model and the magnification level.*

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## W A R N I N G

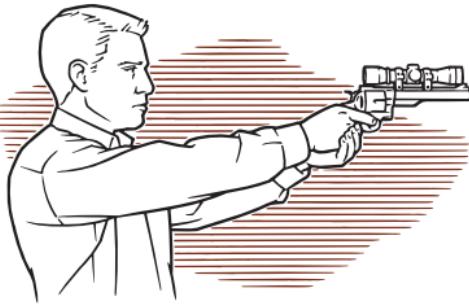
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*If a scope is mounted too far to the rear, the eyepiece can injure the shooter's brow. Shooting at an uphill angle also increases this hazard because it shortens the distance between the brow and the rear of the scope. For this reason, Leupold scopes are engineered to provide generous eye relief. Therefore, when mounting your scope, we recommend positioning it as far forward in the mounts as possible to take full advantage of this generous eye relief.*

## ESTABLISHING EYE RELIEF ON HANDGUN SCOPES

Since handguns are typically fired from an arms-extended position, eye relief is less of a safety issue than with riflescopes. However, it's still important to get the eye relief right for you.

1. Holding the handgun in your normal shooting stance, position the scope in the rings to achieve a full field-of-view.
2. Proceed to COMPLETING THE INSTALLATION.



*The eye relief of handgun scopes is more forgiving than that of rifle scopes. Nevertheless, it is important that the eye relief is compatible with your shooting style.*

Unlike riflescopes, adjustments to the eyepiece in handgun scopes affect the eye relief as well as the reticle focus. Turning the eyepiece clockwise increases eye relief and turning it counterclockwise decreases it.

## COMPLETING THE INSTALLATION

1. Without disturbing the optimal eye relief position, rotate the scope until the elevation adjustment dial is at the top of the scope.
2. From a firing position, check to be sure that the vertical hair of the reticle aligns with the vertical axis of the firearm. Misalignment will not affect accuracy at moderate distances but it can diminish long range accuracy.
3. When you are satisfied, tighten the ring screws evenly and securely.

## FOCUSING THE RETICLE

Secure the scope and firearm in a firm rest. Point the scope at a light colored background object. With the scope approximately four inches from your eye the reticle should appear sharp and crisp; if it does not, it is necessary to adjust the focus by means of the eyepiece.

If your Leupold scope is one of our models with an eyepiece that has a lock ring, follow these simple steps:

1. Grasp the eyepiece with your hand and back it away from the lock ring. Once the lock ring is free from the eyepiece, turn it clockwise away from the eyepiece to keep it out of the way during the adjustment.
2. If you tend to hold things away from yourself to see them clearly (you are farsighted) turn the eyepiece counterclockwise by three or four turns. If you hold things close to yourself to see them clearly (you are nearsighted) turn the eyepiece clockwise by three or four turns.
3. Looking through the scope when pointed at the sky, take a few quick glances at the reticle. The focus of the reticle should be noticeably different from when you started. Continue this process until the reticle appears clear and sharp.
4. When you are satisfied with the image of the reticle, turn the lock ring so that it rests firmly against the eyepiece.

If your Leupold scope is one of our models with a fast-focus eyepiece, follow these simple steps:

1. All adjustment is made with the eyepiece.
2. Look through the scope with quick glances while focusing the reticle image. If you tend to hold things away from yourself to see them clearly (far-sighted) turn the eyepiece ring counterclockwise until the reticle is clear and sharp. If you hold them close to yourself to see them clearly (near-sighted) turn the eyepiece ring clockwise until the reticle is sharp and clear.

If your eyesight changes, readjust the eyepiece. As we age, eyesight normally changes. You may want to check the sharpness of the reticle on your scope every few years to ensure it is still adjusted correctly for your eye.

**NOTE:** *To protect the integrity of the waterproof seal of every Leupold Golden Ring scope, an internal mechanism prevents the eyepiece from coming off the scope.*

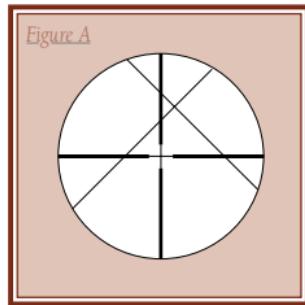
The primary function of a scope is to aim the firearm. Never use the scope as a substitute for binoculars. Never watch another person through the scope. As always, the *Golden Rule applies*.

# [ HOW TO SIGHT-IN ]

## USING A BORE-SIGHTING COLLIMATOR

To save time and ammunition, start out in your shop or gun room with a bore-sighting collimator (a spud and an optical assembly) to “get on the paper.” Remember that adjustments made during bore-sighting will appear to move in the opposite direction than that indicated by the adjustment dial.

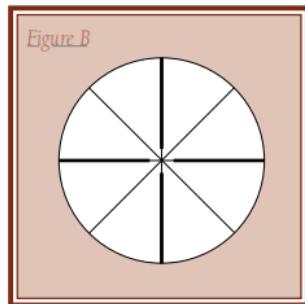
1. Assemble the collimator with the correct spud and insert it into the barrel.
2. Look through the scope. Note that the collimator displays a crosshair that is at 45° to the scope’s reticle. The center of the scope reticle is normally some distance away from the center of the boresight reticle. This shows the scope’s line of sight relative to the axis of the bore.
3. For purposes of demonstration, Figure A depicts a scope that is low and to the left. Begin with the windage adjustment.



(Remember, when possible, it is better to make the initial windage adjustments to the mount base before using the scope's windage adjustment.) Turn the windage adjustment until the vertical crosshair of the scope covers the center of the collimator crosshair.

4. Adjust the elevation until the horizontal crosshair of the scope covers the center of the collimator crosshair. With that, the scope should align with the axis of the bore, as shown in Figure B.
5. Remove the collimator spud from the barrel.

**NOTE:** *Bore-sighting alone is not sufficient to sight-in a scope. You must make final adjustments by shooting the firearm using the same ammunition you use in the field.*

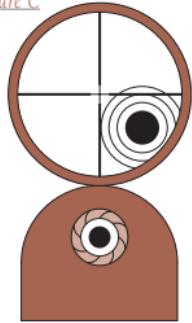


## TRADITIONAL BORE-SIGHTING (BOLT ACTIONS)

Preliminary sighting-in can also be accomplished by bore-sighting at the firing range using a target from 20 to 50 yards away.

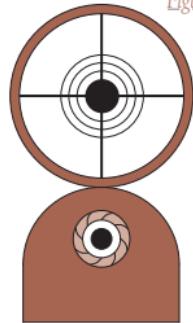
1. Position the firearm on the bench, using sandbags to steady the firearm.
2. Remove the bolt from the firearm.
3. Looking through the bore itself, move the firearm to center the bull's eye of the target inside the barrel, as shown in Figure C.
4. Hold the rifle steady. With the bull's eye centered when viewed through the bore, make windage and elevation adjustments to the scope until the very center of the reticle is aligned with the bull's eye of the target, as shown in Figure D.

Figure C



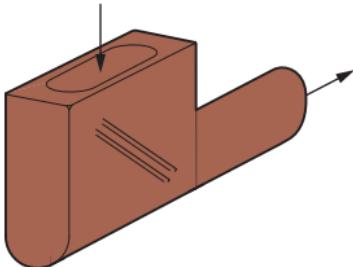
*Target as seen  
through the bore.*

Figure D



## BORE-SIGHTING LEVER ACTIONS

An inexpensive device with a small mirror, which inserts into the chamber or rests on the magazine follower to allow sighting down the barrel, is necessary for bore-sighting lever action rifles.



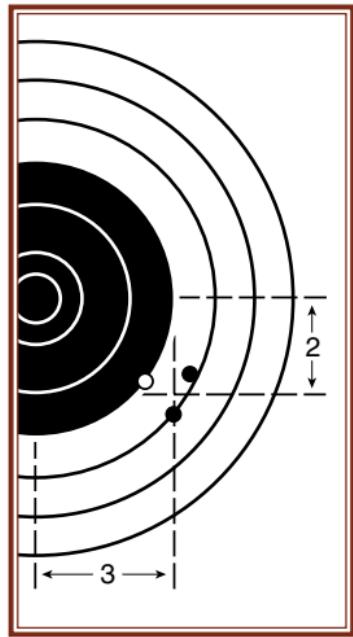
*Lever action rifles  
require a special  
bore-sighting device.*

## THE FINAL STEP: THREE-SHOT GROUPS

Whichever bore-sighting method you've used, the next steps are the same on the firing range. To ensure reliable results, always fire from a rested position when performing these steps. (If you are using an adjustable objective or side focus model scope, perform any correction for parallax before continuing, as explained in "Understanding Parallax.")

1. Fire a shot or two.
2. If you are several inches off center, make an appropriate amount of adjustment to move the reticle to the center of the target.
3. Carefully fire a three-shot group.
4. Use the center of that group as a reference point for the final adjustments to windage and elevation.

On the sample target, the center of the group is two inches low and three inches right. Assuming you're sighting-in at 100 yards, you should make a 2-MOA adjustment up, and a 3-MOA adjustment left. Your next three-shot group should be very close to the center of the target. To learn about making final adjustments, proceed to the upcoming section on windage and elevation adjustments.



## [ MAKING PRECISE WINDAGE AND ELEVATION ADJUSTMENTS ]

The style of elevation and windage adjustments on Leupold scopes varies with specific models. If you are unsure of the value of your scope's adjustment increments, follow these steps.

Determining the value of adjustment increments:

1. Count the number of hash marks—from zero to and including that of the first number—on the dial.
2. Divide the first number on the dial by the number of hash marks counted.

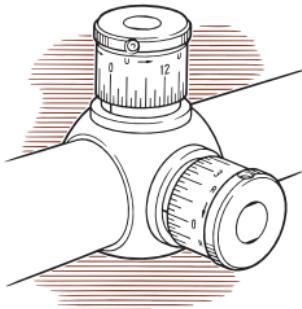
For example, divide 1 (the first number on the dial to which you counted) by 4 (the number of hash marks counted) to get .25 or 1/4.

The resulting number is the value of each increment of adjustment in MOA. This method will work with any Leupold adjustment dial. One MOA moves the point-of-impact at 100 yards by one inch (at 100 meters, it moves 29mm).

The windage adjustment has arrows pointing at an "L" for left and a "R" for right. The elevation adjustment has arrows pointing at a "U" for up and at a "D" for down. All of these symbols refer to the direction that the point-of-impact of the bullet is moved.

## ADJUSTING WINDAGE AND ELEVATION ON TARGET AND TACTICAL SCOPES

Leupold Target, Benchrest, and most Tactical (including M1 style) scopes have micrometer-style windage and elevation adjustments.



*Target style adjustments  
let you hear and  
feel each adjustment division.*

A click for each adjustment division can be both heard and felt so adjustments to the scope can be made without looking at the dials. Indicators on the micrometer portion of the dial show the number of complete 360° rotations that have been made.

### BULLET DROP COMPENSATION DIALS

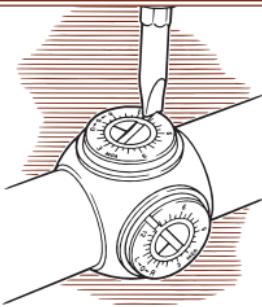
Special bullet drop compensation (BDC) elevation dials are featured on selected scopes. These dials are calibrated to achieve adjustment to specific distances rapidly by distance indicators marked directly on the dials.

Detailed information on the use of BDC dials is available in the Bullet Drop Compensation Dial Supplemental Instructions.

## ZEROING THE WINDAGE AND ELEVATION DIALS AFTER SIGHTING IN

All Leupold scopes feature adjustment dials, either numbered or with an indicator, that can be repositioned to align the marked zero of the dial with the position indicator without changing the adjustment setting of the scope that was achieved when sighting-in. This allows the shooter to know the original zero of the rifle in the event that further adjustments are made in the field.

To reposition the dials on VX™-I and Fixed Power models, move the outermost dial so that the zero aligns with the stamped line indicator mark on the top of the adjustment screw that is perpendicular to the coin slot.

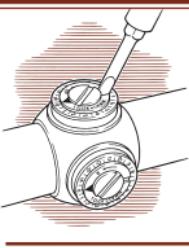


*VX-I and Fixed Power  
dials adjust easily to indicate  
the new zero position.*

VX-II and Vari-X III models have a pointer dial that moves with the adjustment slot. This dial also can be moved independently to align with the zero on the outermost dial. To reposition this dial simply rotate it until the pointer is aligned with the zero.

To reposition the dials on Target and Tactical models:

1. Loosen the set screws that surround the top of the knob until the cylinder turns freely.
2. Move the cylinder dial by hand to align the zero with the white perpendicular mark at the base of the cylinder.
3. Tighten the set screws until the cylinder is secure.



*VX-II and  
Vari-X III dials  
have a separate  
pointer dial  
that can be  
adjusted to indicate the  
new zero position.*



*Target-style dials  
can be adjusted  
to the new zero  
position by  
loosening the  
set screws, rotating the dial,  
and tightening the set screws.*

## CENTERING WINDAGE AND ELEVATION ADJUSTMENTS TO ACHIEVE OPTIMUM ADJUSTMENT TRAVEL

Making windage and elevation adjustments moves the entire erector system horizontally and vertically inside the scope. If the erector system is off to one side – as a result of having been mounted on a non-adjustable mount – the adjustments won't provide equal travel in all directions. To regain full balanced travel, you must recenter the adjustment as follows:

1. Turn the windage adjustment to the point that it stops moving.
2. Counting the clicks or hash marks, turn it all the way in the other direction.
3. Turn the dial back half the amount of clicks or hash marks counted.
4. Repeat this process for the elevation adjustment.

## [ WHAT YOU SHOULD KNOW ABOUT VARIABLE POWER SCOPES ]

Leupold variable power scopes allow you to select from a range of magnifications to suit your particular rifle, cartridge, and shooting needs.

**WARNING:** Do not loosen the screw in the power selector ring.

Doing so will release the internal nitrogen that keeps the scope fog-free.

Loosening the screw will also disconnect a pin that controls the internal operations, causing other problems that would require factory repairs.

Do not lubricate the power selector ring; doing so is unnecessary.

All variable power scopes have a power selector ring in front of the eyepiece assembly. Turn the ring to align the number indicating the desired magnification with the gold dot on the body of the scope.

## RANGE ESTIMATING WITH VARI-X III SCOPES

Selected Vari-X III scopes have a built-in range estimator. This system uses the Duplex® reticle in combination with an additional set of numbers on the power selector ring. In scopes with this feature the space between the tip of the thicker post of the Duplex reticle and the center of the reticle covers 16 inches at 200 yards (the size of a Whitetail buck from backbone to brisket).

**NOTE:** The Duplex reticle was designed to estimate ranges based on the backbone to brisket dimension of a Whitetail buck. The distance of other game with a body dimension that is known to be 16 inches (or 32 inches if the measurement is taken from post to post

instead of post to crosshair) may certainly be estimated.

It is always helpful to know the physical size of your target whenever you estimate range.

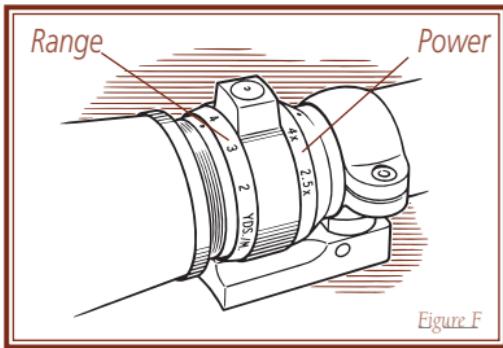


Figure F

On scopes with this feature, the numbers facing forward show the scope's magnification settings. The numbers facing the back are for ranging and show the distances in yards, as shown in Figure F.

To estimate range, follow these steps:

1. View the target through the scope.
2. When targeting an animal with a body that is 16 inches from backbone to brisket, adjust the power selector until that area of the animal's body fits between the center of the crosshair and the top of the lower heavy post.
3. Read the number on the power selector ring to determine the approximate distance in yards.

*Bracket the animal from backbone to brisket.*



## UNDERSTANDING PARALLAX

Parallax is the apparent movement of the target relative to the reticle when you move your eye away from the center point of the eyepiece. It occurs when the target does not fall on the same optical plane as the reticle.

Maximum parallax occurs when your eye is at the very edge of the exit pupil. (Even in this unlikely event, our 4x hunting scope focused for 150 yards has a maximum error of only 8/10ths of an inch at 500 yards.)

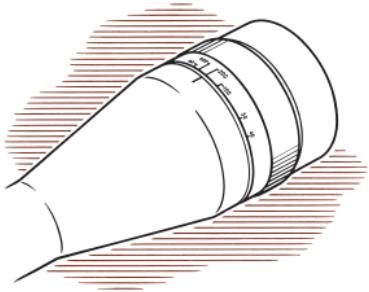
At short distances, the parallax effect does not affect accuracy. (Using the same 4x scope at 100 yards, the maximum error is less than 2/10ths of an inch.) It is also good to remember that, as long as you are sighting straight through the middle of the scope, or close to it, parallax will have virtually no effect on accuracy in a hunting situation.

## ABOUT FIXED PARALLAX DISTANCE SCOPES

Any fixed focus optical system can be adjusted to be parallax free at only one distance. Most Leupold scopes are adjusted at the factory to be parallax-free at 150 yards.

However, there are exceptions:

1. Leupold Compact RF Special scopes are set to be parallax-free at 60 yards.
2. Leupold Shotgun scopes are set to be parallax-free at 75 yards.
3. Leupold Handgun (EER) and Compact 2.5x scopes are set to be parallax-free at 100 yards.
4. Leupold Turkey Ranger scopes are set to be parallax-free at 40 yards.



*To adjust the parallax distance,  
turn the focus ring.*

## THE ADVANTAGE OF ADJUSTABLE PARALLAX SETTING SCOPES

Target shooting and varmint hunting demand extreme accuracy. You must have a scope with a parallax adjustment dial for precise shooting at various ranges.

The parallax adjustment can be located either at the objective end of the scope or on the side of the adjustment turret housing. The adjustment moves a lens within the scope causing the image and the reticle to fall on the same optical plane. This ensures optimal accuracy at the distance of the target.

To eliminate parallax in adjustable objective scopes, follow these steps:

1. The reticle should be clear (focused) before adjusting the focus ring. If it is not, follow the instructions under “Focusing the Reticle.”
2. Estimate the distance to the target in yards. Turn the focus ring to match the number indicating the estimated range.
3. With the firearm in a stable position, look through the scope, concentrating on the center aiming point of the reticle. Move your head slightly up and down. The aiming point should remain in exactly the same position against the target; if it moves, slightly rotate the focus ring until it becomes stable.

**NOTE:** *Settings may vary slightly per individual preferences, air temperature, and atmospheric conditions.*

## EFR SCOPES AND THE ADJUSTABLE OBJECTIVE

Leupold EFR (Extended Focus Range) Scopes can eliminate parallax for distances as short as 10 meters. Unlike conventional adjustable objective scopes, the focus ring on EFR models rotates more than 360°. It is important to pay special attention when adjusting these scopes.

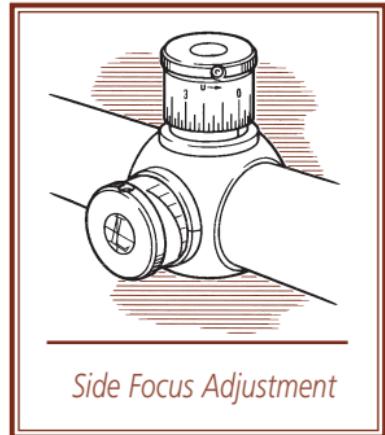
1. Turn the focus ring counterclockwise (when viewing through the eyepiece) until it stops.
2. Turn the focus ring clockwise until the “10m” mark aligns with the indicator mark on the bell of the scope.
3. From this point, all readings of the focus ring are in numerical order when the ring is turned clockwise from the shooting position.
4. Adjust the ring as you would a standard adjustable objective model.

## SIDE FOCUS ADJUSTMENT SCOPES

The Leupold side focus adjustment design allows the parallax setting to be adjusted with minimal effort or disturbance of the shooting position. No numbers indicating distance appear on the dial as all adjustment is judged by the image itself.

To eliminate parallax in side focus adjustment scopes, follow these steps:

1. The reticle should be clear (focused) before turning the side focus adjustment dial. If it is not, follow the instructions under "Focusing the Reticle."
2. With the firearm in a stable position, look through the scope, concentrating on the center aiming point of the reticle. Move your head slightly up and down. The aiming point should remain in exactly the same position against the target; if it moves, turn the side focus adjustment dial until it becomes stable.



## INSTALLING A LENS SHADE

Lens Shades are available as an option for most Leupold adjustable objective and side focus scopes. These thread directly into the objective ring.

# [ LEUPOLD MEANS MINIMAL MAINTENANCE ]

## LENSES

Leupold scope lenses are coated to reduce light reflections and light scattering thus increasing light transmission through the scope. They should be cleaned as carefully as you would a camera lens. For optimal cleaning, use the Leupold ScopeSmith Lens Cleaning System. Begin by using the brush to whisk away dust, followed by the microfiber cleaning tip, which is impregnated with a special non-liquid cleaning compound, to clean the glass. If you don't have a ScopeSmith Lens Cleaning System, use a standard lens brush to remove dust and then pure alcohol, high-grade glass cleaner, or pure water on a cotton swab.

## WINDAGE / ELEVATION ADJUSTMENTS

These adjustments are permanently lubricated. There is no need to lubricate them. Keep the turret caps on, except when adjusting, to keep out dust and dirt. (It's worth noting that, unlike competitive brands, Leupold scopes are waterproof even without the caps in place.)

## EYEPIECE ADJUSTMENT

This adjustment is permanently lubricated. There is no need to lubricate it. The eyepiece can be rotated as far as it will go in either direction. It will not detach from the scope because of an internal lock ring.

## SEALS

Leupold scopes are sealed from within by several methods, including O-rings. All seals are permanent and require no maintenance.

## SCOPE EXTERIOR

Leupold scopes are made of rugged 6061-T6 aircraft aluminum alloy. No maintenance of any kind is required; simply wipe off any dirt or fingerprints that accumulate with a clean, dry cloth.

## POWER SELECTOR RING (ON VARIABLE POWER SCOPES)

No lubrication is ever required on the power selector ring. DO NOT LOOSEN OR REMOVE THE HEX-HEAD SCREW IN THE POWER SELECTOR RING.

## ADJUSTABLE OBJECTIVE/SIDE FOCUS DIAL

No lubrication is required.

## TROUBLE SHOOTING TIPS

Before you ship a scope back to the factory for service or repair, please check the following items to make sure that the problem is really with the scope and not the rifle or mount system.

1. Check the mount. Make sure the scope is mounted securely to the rifle. Try, with bare hands only, to twist the scope in the rings or see if anything moves when you jiggle it. If there is any movement, retighten the mounting system according to mounting instructions.
2. Make sure the action of your rifle is properly bedded in the stock, and that all receiver screws are tight and have been tightened in the sequence recommended by the manufacturer. A loosely fitted stock can cause changes to the point-of-impact.
3. When test firing a rifle to check the point-of-impact relative to windage and elevation adjustments, be sure to fire from a solid bench with sandbags supporting the forearm and buttstock.
4. Be sure to use factory-loaded ammunition of the same bullet type, weight, and preferably, lot number. If one type of ammunition does not shoot well, try another brand or bullet weight.
5. Be certain that both the barrel and chamber are clean. Heavy factory grease on a new rifle and copper fouling on an older one can diminish the accuracy of the firearm.

## [ LEUPOLD PRODUCT SERVICE ]

If your Leupold Golden Ring scope fails to perform in any way, you may return it directly to the factory (or one of our international service centers) for service. It is not necessary for your dealer to ship the scope to Leupold; however, they can be very helpful in determining if factory service is necessary. Please follow these shipping instructions:

1. Remove the rings and any other accessories from the scope.
2. Record the serial number of the scope and keep it for your records.
3. Include a note with your name, address, telephone number, e-mail, and a description of the problem.
4. Pack the scope in its original box (if you have it), as this is the safest shipping container. Wrap the package securely using filament strapping tape on the outside.
5. Ship the scope by parcel or mail service (insured, if possible) to one of the following addresses:

## In the United States:

### Parcel Service:

Leupold Product Service  
14400 NW Greenbrier Parkway  
Beaverton, OR 97006-5791  
USA

### By Mail:

Leupold Product Service  
Post Office Box 688  
Beaverton, OR 97075-0688  
USA

## Outside the United States:

**Canada:** Jim Korth Agencies Ltd., 103 Stockton Point, Box 490  
Okotoks, AB T0L 1T0 CANADA

**Germany:** Harold Ros, Coburger Strasse 71, 98673 Eisfeld GERMANY

**Sweden:** AB Smålandska Vapen, Attn: Mr. Jan-Olof Swanteson  
Riksvagen 15, 36044 Ingelstad SWEDEN

Our Product Service information telephone number is **(503) 526-1400**.  
They can also be contacted through our web site at **[www.leupold.com](http://www.leupold.com)**.

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If any Leupold Golden Ring product is found to have defects in materials or workmanship, we will, at our option, repair or replace it. Free. Even if you are not the original owner. No warranty card required. No time limit applies.

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*The Leupold package is made in part from recycled materials and is 100% recyclable. This includes the black polypropylene supports, which are made of an accepted recyclable material. Many Leupold owners keep their scope boxes. If you have no use for yours, we encourage you to dispose of it responsibly. The special cloth surrounding your new scope was designed to be reusable; consider making it part of your regular gun care kit.*

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## Prière de lire ce manuel en entier avant de monter la lunette de pointage.

Attention : Toujours vérifier et s'assurer que l'arme à feu est déchargée avant d'y entreprendre un travail.

### Présentation de la lunette

La lunette de pointage Leupold consiste en 4 pièces principales :

1. La lentille de l'objectif (ou lentille avant), essentielle à l'obtention d'une image visuelle supérieure.
2. Le réticule, souvent appelé disque de visée, procurant le point de mire.
3. Les lentilles internes de redressement de l'image.
4. La lentille oculaire (ou simplement oculaire) qui fonctionne avec les autres lentilles pour grossir l'image, fournir le dégagement oculaire correct et effectuer les corrections dioptriques.

La lunette Leupold, montée et réglée correctement sur l'arme, a été testée afin d'assurer des performances appréciables et exceptionnelles. De bonnes performances dépendent d'un montage solide de la lunette.

### Mise au point du réticule

**REMARQUE :** Tous les ajustements des lunettes à grossissement variable doivent être effectués selon le réglage de grossissement le plus élevé.

Fixer la lunette et l'arme sur un appui ferme. Pointer la lunette en direction d'un objet de l'arrière-plan légèrement coloré. La lunette se trouvant à environ 10 cm de l'œil, le réticule doit apparaître distinctement et nettement ; sinon, il faut régler la mise au point à l'aide de l'oculaire.

Si la lunette Leupold possède un oculaire doté d'une bague de blocage, procéder comme suit :

1. Empoigner l'oculaire et le dégager de la bague de blocage. Lorsque la bague de blocage est débloquée de l'oculaire, la faire tourner vers la droite pour l'éloigner afin qu'elle ne gêne pas pendant le réglage.
2. Pour éloigner les divers éléments de soi afin de mieux les voir (c.-à-d., en cas de presbytie), faire tourner l'oculaire vers la gauche de 3 ou 4 tours. Pour rapprocher les divers éléments de soi afin de mieux les voir (c.-à-d., en cas de myopie), faire tourner l'oculaire vers la droite de 3 ou 4 tours.
3. En visant par la lunette dirigée vers le ciel, jeter quelques coups d'œil au réticule. La mise au point du réticule doit s'avérer quelque peu différente de celle du début. Continuer ce processus jusqu'à ce que le réticule apparaisse clair et net.
4. Lorsque l'image du réticule est satisfaisante, faire tourner la bague de blocage de façon qu'elle appuie fermement sur l'oculaire.

Si la lunette Leupold possède un oculaire à mise au point rapide, procéder comme suit :

1. Les réglages se font tous à l'aide de la bague de l'oculaire.
2. Viser par la lunette en procédant par coups d'œil rapides tout en mettant au point l'image du réticule.

Pour éloigner les divers éléments de soi et mieux les voir (presbytie), tourner la bague de l'oculaire à gauche jusqu'à ce que le réticule soit clair et net. Pour rapprocher les divers éléments de soi et mieux les voir (myopie), tourner la bague de l'oculaire à droite jusqu'à ce que le réticule soit net et clair.

**Avertissement :** Si la lunette est montée trop en arrière, l'oculaire peut blesser le sourcil du tireur. Le tir sous un angle relevé augmente encore ce risque car il raccourcit la distance entre le sourcil et l'arrière de la lunette. C'est pourquoi les lunettes Leupold sont étudiées de façon à offrir un dégagement oculaire généreux. Il est recommandé faire un montage aussi en avant que possible pour profiter pleinement de ce dégagement.

### Réglage de dérivation et d'élévation

**Remarque :** Tous les incrémentés du réglage sont exprimés en minutes d'angle (1 minute d'angle est égale à 29 mm à 100 mètres).

### Réglage des lunettes de pointage pour la chasse

Les lunettes de chasse Leupold comportent des cadans à faible réglage pour la dérivation et l'élévation, lequel s'effectue en tournant un cadran à vis à tête fendue avec une pièce de monnaie ou un petit tournevis.

Le réglage de la dérivation est muni de flèches dirigées vers un « L » (« Left » - la gauche) et un « R » (« Right » - la droite). Le réglage de l'élévation est muni de flèches dirigées vers un « U » (« Up » - le haut) et un « D » (« Down » - le bas). Ces symboles indiquent dans quelle direction se déplace le point d'impact.

### Réglage des lunettes Target et tactiques

Les lunettes Leupold Target, Varmint, Benchrest et la plupart des lunettes tactiques (notamment le type M1), possèdent des réglages de dérivation et d'élévation de type micromètre.

Un déclic se fait entendre et ressentir à chaque cran de réglage de telle sorte que les réglages peuvent se faire sans regarder les cadans. Des indicateurs sur la partie micrométrée du cadran indiquent le nombre de rotations complètes de 360° effectuées.

### Bague du sélecteur de grossissement

Ne pas perdre la vis de la bague du sélecteur de grossissement. Cela libérerait l'azote interne qui empêche la buée de se former sur la lunette. La perte de la vis déconnecte d'autre part une broche qui contrôle les manœuvres internes, entraînant d'autres problèmes exigeant des réparations en usine. Ne pas lubrifier la bague du sélecteur de grossissement ; cela n'est pas nécessaire et peut s'avérer nuisible.

## Réglage de la parallaxe

Le cadran de réglage de la parallaxe se trouve à l'extrême objectif de la lunette ou sur le côté du boîtier du tourillon de réglage. Le cadran a pour objet de déplacer une lentille de la lunette et d'obtenir la mise au point de la cible et du réticule sur le même plan optique. Ceci assure une précision optimale en fonction de la distance de la cible. Les lunettes non munies de cadrons de réglage de la parallaxe sont réglées en usine de façon à ne pas avoir de parallaxe pour une distance spécifique (137 mètres sur la plupart des modèles).

### Lunettes à objectif réglable

Pour éliminer la parallaxe sur les lunettes à objectif réglable, procéder comme suit :

1. Le réticule doit être clair (mis au point) avant de régler la bague de mise au point. Sinon, suivre les instructions de la section « Mise au point du réticule ».
2. Estimer la distance de la cible en mètresards. Faire tourner la bague de mise au point pour trouver le nombre correspondant indiquant la portée estimée.
3. L'arme en position stable, viser par la lunette en se concentrant sur le centre du point de mire du réticule. Déplacer la tête légèrement vers le haut et vers le bas. Le point de mire doit rester exactement dans la même position par rapport à la cible ; s'il bouge, faire tourner légèrement l'objectif réglable jusqu'à ce qu'il soit stable.

**REMARQUE :** Les réglages peuvent varier légèrement en fonction des préférences de chacun et des conditions atmosphériques.

### Lunettes EFR et objectif réglable

Les lunettes Leupold EFR (« Extended Focus Range » - Plage de mise au point étendue) peuvent éliminer la parallaxe pour des distances aussi rapprochées que 10 mètres. L'objectif réglable peut tourner de plus de 360°. Faire tourner la bague de mise au point vers la droite jusqu'à ce qu'elle s'arrête, puis dans l'autre sens jusqu'à la marque de portée. (Le modèle 6.5-20x a des marques d'index spéciales pour le deuxième tour.)

### Lunettes à réglage de mise au point sur le côté

Le concept à réglage de mise au point sur le côté permet de régler la distance de parallaxe avec le minimum d'effort ou de dérangement de la position de tir. Aucun chiffre d'indication de la distance n'est visible sur le cadran du fait que le réglage se juge en fonction de l'image même.

Pour éliminer la parallaxe sur les lunettes à réglage de mise au point sur le côté, procéder comme suit :

1. Le réticule doit être clair (mis au point) avant de faire tourner le cadran latéral de réglage de mise au point. Sinon, suivre les instructions de la section « Mise au point du réticule ».
2. L'arme en position stable, viser par la lunette en se concentrant sur le centre du point de mire du réticule. Déplacer la tête légèrement vers le haut et vers le bas. Le point de mire doit rester exactement dans la même position par rapport à la cible ; s'il bouge, faire tourner le cadran latéral de réglage de mise au point jusqu'à ce qu'il soit stable.

## **Leupold signifie entretien minime**

### *Lentilles*

Les lentilles des lunettes Leupold ont un revêtement qui réduit les réflexions et la dispersion de la lumière. Elles doivent être maintenues propres avec autant d'attention que les lentilles d'un appareil photo. Pour obtenir le meilleur nettoyage, utiliser le système de nettoyage pour lentilles ScopeSmith de Leupold. Commencer par épousseter la poussière avec la brosse, puis se servir de la baguette de nettoyage en microfibres imprégnée d'un composé de nettoyage spécial non liquide pour le verre. En l'absence du système ScopeSmith, employer une brosse à lentilles standard pour enlever la poussière, puis un nettoyant pour vitres de haute qualité, à l'alcool pur, ou de l'eau pure sur un tampon de coton.

### *Régagements*

Tous les dispositifs de réglages sont lubrifiés de façon permanente. Il n'est nullement besoin de les lubrifier. Laisser les capuchons des tourillons sur les cadrons de dérivation et d'élévation, sauf en cas de réglage, pour éviter la poussière et l'enrassement. (Il est bon de noter que, contrairement à celles de certaines marques concurrentes, les lunettes Leupold sont étanches à l'eau même sans les capuchons en place.)

### *Conseils de dépannage*

En cas de problèmes relatifs au point d'impact, prière de vérifier les points suivants :

1. Vérifier le montage. S'assurer que le montage de la lunette sur le fusil assure toute sécurité. Essayer, à mains nues uniquement, de faire pivoter la lunette dans les anneaux ou de voir si quelque chose bouge lorsqu'on secoue. En cas de mouvement, resserrer le système de montage en fonction des instructions.
2. S'assurer que le canon du fusil est bien encastré dans le fût et que toutes les vis de la chambre sont serrées. Un ensemble mal ajusté peut entraîner des variations du point d'impact.
3. Lors d'essais de tir d'un fusil pour contrôler le point d'impact en fonction des réglages de dérivation et d'élévation, prendre soin de tirer à partir d'un point d'appui ferme, avec sacs de sable, en se servant de munitions chargées en usine du même numéro de lot.

### **Service technique Leupold**

Si la lunette à anneaux dorés Leupold Golden Ring s'avère défectueuse en quelque point que ce soit, elle peut être retournée directement à l'usine (ou à l'un des centres d'entretien internationaux) pour réparation.

Il n'est pas nécessaire que le revendeur renvoie la lunette à Leupold ; toutefois, il peut s'avérer très utile que le revendeur détermine si un travail en usine est nécessaire. Prière d'observer les instructions d'expédition qui suivent :

1. Retirer les anneaux et tous autres accessoires de la lunette.
2. Noter le numéro de série de la lunette et le conserver en archives.
3. Inclure une note indiquant le nom, l'adresse postale, le numéro de téléphone, l'adresse électronique de l'expéditeur ainsi qu'une description du problème.

4. Emballer la lunette dans sa boîte d'origine (si elle a été conservée), car elle représente l'emballage le plus sûr.  
Envelopper le paquet pour lui assurer toute sécurité, en employant de la bande adhésive à filaments à l'extérieur.
5. Expédier la lunette par un service de livraison de paquets ou par service postal (assurée, si possible) à l'une des adresses suivantes :

Aux États-Unis :

Service de livraison de paquets :  
*Leupold Technical Service*  
14400 NW Greenbrier Parkway  
Beaverton, OR 97006-5791  
U.S.A.

Par courrier postal :  
*Leupold Technical Service*  
Post Office Box 688  
Beaverton, OR 97075-0688  
U.S.A.

En dehors des États-Unis :

**Canada:** Jim Korth Agencies Ltd., 103 Stockton Point, Box 490 Okotoks, AB T0L 1T0 CANADA

**Allemagne:** Harold Ros, Coburger Strasse 71, 98673 Eisfeld, ALLEMAGNE

**Suède:** AB Smålandska Vapen, Attn: Mr. Jan-Olof Swanteson, Riksvagen 15, 36044 Ingelstad, SUÈDE

Numéro de téléphone des renseignements sur le service technique pour les États-Unis: (503) 526-1400. Le service technique peut être également contacté par télécopie au (503) 526-1402 ou par l'internet à l'adresse [www.leupold.com](http://www.leupold.com).

**Leupold produit plus que des lunettes de pointage**

Voir notre gamme complète de systèmes de montage, de jumelles, de lunettes d'observation et d'accessoires chez le revendeur Leupold le plus proche.

Pour recevoir un catalogue Leupold gratuit, écrire à: Leupold & Stevens, Inc., P.O. Box 688, Beaverton, OR 97075, U.S.A.  
Appeler le (503) 526-5195 ou envoyer un courrier électronique par l'intermédiaire de notre page Web à l'adresse [www.leupold.com](http://www.leupold.com).

## Lea por favor todo el manual antes de montar su mira telescópica

Precaución: Compruebe siempre y asegúrese de que el arma de fuego esté descargada antes de realizar cualquier trabajo en ella.

### Conozca su mira telescópica

Las cuatro partes básicas de una mira telescópica Leupold son:

1. El objetivo (o lente frontal), esencial para obtener una excelente visión.
2. La retícula, denominado con frecuencia hilos cruzados, que proporciona el punto de mira.
3. Las lentes inversoras internas que corregir la imagen.
4. El ocular (o lente del oocular) que interacciona con las demás lentes para agrandar la imagen, proporcionar un correcto rebaje para el ojo y corregir las dioptrías.

Su mira telescópica Leupold ha sido probada para garantizar que, una vez montada adecuadamente y ajustada la mira en su arma de fuego, disfrute de un rendimiento excepcional. Un montaje firme es esencial para el rendimiento de su mira telescópica.

### Enfoque de la retícula

**NOTA:** Todos los ajustes de las miras telescópicas de aumento variable deben realizarse en la posición de mayor aumento.

Asegure la mira telescópica y el arma de fuego sobre un apoyo firme. Apunte la mira telescópica hacia un objeto del fondo de color claro. Con la mira telescópica a unos 10 cm de su ojo, la retícula debe aparecer nítido y contrastado; en caso contrario, será necesario ajustar el enfoque mediante el oocular.

Si su mira telescópica Leupold tiene un oocular con un anillo de fijación, siga estos sencillos pasos:

1. Sujete el oocular con la mano y muévalo hacia atrás alejándolo del anillo de fijación. Una vez el anillo de fijación esté separado del oocular, gírelo en la dirección de las agujas del reloj alejándolo del oocular para que no estorbe durante el ajuste.
2. Si tiende a alejar las cosas para verlas con claridad (es decir, si es hipermétrope), gire el oocular tres o cuatro vueltas en dirección contraria a las agujas del reloj. Si las acerca a usted para verlas con claridad (es decir, si es miope), gire el oocular tres o cuatro vueltas en la dirección de las agujas del reloj.
3. Mirando a través de la mira telescópica mientras apunta hacia el cielo, eche unos vistazos rápidos a la retícula. El enfoque de la retícula debe ser claramente diferente al del principio. Continúe este proceso hasta que el retículo aparezca claro y nítido.
4. Cuando esté satisfecho con la imagen de la retícula, gire el anillo de fijación de modo que descance firmemente contra el oocular.

Si su mira telescópica Leupold tiene un oocular de enfoque rápido, siga estos sencillos pasos:

1. Todo el ajuste se realiza con el anillo del oocular.
2. Mire a través de la mira telescópica con miradas rápidas mientras enfoca la imagen de la retícula. Si tiende a alejar las cosas para verlas con claridad (hipermétrope) gire el anillo del oocular en dirección contraria a las agujas del reloj hasta

que la reticula se vea claro y nítido. Si las acerca a usted para verlas con claridad (miope) gire el anillo del ocular en la dirección de las agujas del reloj hasta que el retículo se vea nítido y claro.

**Advertencia:** Si se monta la mira telescópica demasiado hacia atrás, el ocular puede dañar la ceja del tirador. Disparar en un ángulo ascendente también aumenta este peligro al disminuir la distancia entre la ceja y la parte posterior de la mira telescópica. Por este motivo, las miras telescópicas Leupold han sido concebidas para proporcionar un generoso rebaje para el ojo. Recomendamos que monte su mira telescópica lo más hacia delante que sea posible para aprovechar al máximo este generoso rebaje para el ojo.

### Ajuste de la corrección por el viento y de la elevación de tiro

**Nota:** Todos los incrementos del ajuste se dan en minutos de ángulo (1 minuto de ángulo equivale a 29 mm a 100 metros).

### Ajuste de las miras telescópicas de caza

Las miras telescópicas Leupold de caza tienen diales de perfil bajo para el ajuste de la corrección por el viento y de la elevación de tiro que se manejan haciendo girar con una moneda o un pequeño destornillador un dial de tornillo con cabeza ranurada.

El ajuste de la corrección por el viento tiene flechas que señalan a una "L" para izquierda, y a una "R" para derecha.

El ajuste de la elevación de tiro tiene flechas que señalan a una "U" para arriba, y a una "D" para abajo. Todos estos símbolos hacen referencia a la dirección en que se desplaza el punto de impacto.

### Ajuste de las miras telescópicas de tiro al blanco y tácticas

Las miras telescópicas Leupold Target, Varmint, Benchrest, y la mayoría de las miras tácticas (incluyendo las de tipo M1), tienen ajustes de corrección por el viento y de elevación de tiro de tipo micrométrico.

Cada división que se ajusta produce un chasquido que se escucha y se siente, de modo que pueden realizarse ajustes a la mira telescópica sin mirar los diales. Los indicadores en la parte micrométrica del dial muestran el número de rotaciones completas de 360° que se han realizado.

### Anillo del selector de potencia

No afloje el tornillo del anillo del selector de potencia ya que al hacerlo se liberará el nitrógeno interior que mantiene a la mira telescópica libre de vaho. Al aflojar este tornillo se desconecta también un pasador que controla las operaciones internas, lo que originaría problemas adicionales que requerirán su reparación en fábrica. No lubrique el anillo del selector de potencia; hacerlo es innecesario y potencialmente dañino.

### Ajuste del paralaje

El dial de ajuste del paralaje puede estar situado en el extremo del objetivo de la mira telescópica o en el lateral del alojamiento de la torreta de ajuste.

El propósito de este dial es mover una lente dentro de la mira telescópica y enfocar el objetivo y el retículo en el mismo plano óptico. Esto asegura una precisión óptima a la distancia del objetivo. Las miras telescópicas sin dial para el ajuste del paralaje vienen preparadas de fábrica para estar libres de paralaje a una distancia específica (137 metros en la mayoría de los modelos).

## Miras telescopicas de objetivo ajustable

Para eliminar el paralaje en las miras telescopicas de objetivo ajustable, siga los siguientes pasos:

1. La reticula debe estar claro (enfocado) antes de ajustar el anillo de enfoque. Si no lo está, siga las instrucciones que aparecen en "Enfoque de la reticula."
2. Estime la distancia al objetivo en metros. Gire el anillo de enfoque para emparejarlo con el número que indique el alcance estimado.
3. Con el arma en una posición estable, mire a través de la mira telescopica, concentrándose en el punto de mira central del reticula. Mueva levemente la cabeza arriba y abajo. El punto de mira debe permanecer exactamente en la misma posición con respecto al objetivo; si se mueve, gire levemente el objetivo ajustable hasta que se torne estable.

**NOTA:** Los ajustes pueden variar ligeramente según las preferencias individuales y las condiciones atmosféricas.

## Miras telescopicas EFR y objetivo ajustable

Las miras telescopicas Leupold EFR (Extended Focus Range, intervalo de enfoque ajustado) pueden eliminar el paralaje en distancias tan cortas como 10 metros. El objetivo ajustable puede girar más de 360°. Haga girar el anillo de enfoque en la dirección de las agujas del reloj hasta que se detenga y a continuación devuélvalo a la marca de distancia. (La 6.5-20x tiene marcas especiales de referencia para el segundo giro.)

## Miras telescopicas con ajuste lateral del enfoque

El diseño de ajuste lateral del enfoque permite ajustar la distancia de paralaje con un mínimo esfuerzo y alteración de la posición de tiro. No aparecen en el dial números que indiquen la distancia, ya que todos los ajustes se realizan según la imagen.

Para eliminar el paralaje en las miras telescopicas con ajuste lateral del enfoque, siga los siguientes pasos:

1. La reticula debe estar claro (enfocado) antes de girar el dial de ajuste lateral del enfoque. Si no lo está, siga las instrucciones que aparecen en "Enfoque de la reticula."
2. Con el arma en una posición estable, mire a través de la mira telescopica, concentrándose en el punto de mira central de la reticula. Mueva levemente la cabeza arriba y abajo. El punto de mira debe permanecer exactamente en la misma posición con respecto al objetivo; si se mueve, gire el dial de ajuste lateral del enfoque hasta que se torne estable.

## Leupold significa mantenimiento mínimo

### Lentes

Las lentes de la mira telescopica Leupold tienen un revestimiento que reduce los reflejos y la difusión de la luz. Debe limpiarlas con el mismo cuidado con que lo haría con las lentes de una cámara. Para una limpieza óptima, utilice el sistema de limpieza de lentes Leupold ScopeSmith. Comience utilizando la brocha para quitar el polvo, y utilice a continuación el extremo

limpiador de microfibra, que está impregnado con un compuesto especial de limpieza no líquido, para limpiar el cristal. Si no tiene un sistema de limpieza de lentes Leupold ScopeSmith, utilice una brocha estándar para lentes para eliminar el polvo y a continuación una torunda de algodón impregnada en alcohol puro, un limpiacristales de buena calidad o agua pura.

#### Ajustes

Todos los ajustes están permanentemente lubricados. No hay necesidad de lubricarlos. Mantenga las tapas de las torretas en los diales de corrección por el viento y elevación de tiro, excepto cuando los ajuste, para evitar la acumulación de polvo y suciedad. (Merce la pena recordar que, a diferencia de las marcas de la competencia, las miras telescopicas Leupold son impermeables incluso cuando las tapas no están puestas.)

#### *Consejos para la solución de problemas*

Si tiene problemas con el punto de impacto, compruebe por favor los elementos siguientes:

1. Compruebe el montaje. Asegúrese de que la mira telescopica está montada firmemente en el rifle. Intenta, sólo con las manos, hacer girar la mira telescopica en los anillos o ver si algo se mueve al sacudirla. Si hay algún movimiento, apriete de nuevo el sistema de montaje siguiendo las instrucciones de montaje.
2. Asegúrese de que el cañón de su rifle esté adecuadamente asentado en la caja, y de que todos los tornillos del cajón de los mecanismos estén bien apretados. Un caja de rifle con holgura puede provocar cambios en el punto de impacto.
3. Cuando realice una prueba con el rifle para comprobar el punto de impacto con respecto a los ajustes de corrección por el viento y elevación de tiro, asegúrese de disparar desde un potro sólido provisto de sacos de arena y de utilizar munición cargada en fábrica y del mismo número de lote.

#### Servicio técnico Leupold

Si el rendimiento de su mira telescopica Leupold Golden Ring es defectuoso, puede devolverla directamente a la fábrica (o a uno de nuestros centros internacionales de servicio) para su reparación. No es necesario que sea su distribuidor quien envíe la mira telescopica a Leupold; sin embargo, puede serle de gran ayuda a la hora de determinar si es necesaria repararla en la fábrica.

Siga por favor las siguientes instrucciones de envío:

1. Retire los anillos y demás accesorios de la mira telescopica.
2. Anote el número de serie de la mira telescopica y guárde lo en sus archivos.
3. Incluya una nota con su nombre, dirección, número de teléfono, correo electrónico y una descripción del problema.
4. Guarde la mira telescopica en su embalaje original (si lo conserva), pues es el contenedor más seguro para su transporte. Cierre el paquete de manera segura utilizando en el exterior cinta de hilos para atar.
5. Envíe la mira telescopica por mensajero o por correo (asegurada, si es posible) a una de las direcciones siguientes:

## **En los Estados Unidos:**

Servicio de paquetes:  
*Leupold Technical Service*  
14400 NW Greenbrier Parkway  
Beaverton, OR 97006-5791  
EE UU

Por correo postal:  
*Leupold Technical Service*  
Post Office Box 688  
Beaverton, OR 97075-0688  
EE UU

## **Fuera de los Estados Unidos:**

**Canadá:** Jim Korth Agencies Ltd., 103 Stockton Point, Box 490, Okotoks, AB T0L 1T0, CANADÁ

**Alemania:** Harold Ros, Coburger Strasse 71, 98673 Eisfeld, ALEMANIA

**Suecia:** AB Smålandska Vapen, Attn: Mr. Jan-Olof Swanteson, Riksvagen 15, 36044 Ingelstad, SUECIA

El número de teléfono de información de nuestro servicio técnico en los Estados Unidos es (503) 526-1400. También puede contactar con el servicio técnico enviando un fax al (503) 526-1402 o a través de Internet en [www.leupold.com](http://www.leupold.com).

## **Leupold fabrica más que miras telescopicas**

Vea nuestra línea completa de sistemas de montaje, binoculares, miras telescopicas de punto y accesorios en nuestro distribuidor Leupold más próximo a usted.

Para solicitar un catálogo gratis con los productos Leupold, escriba a: Leupold & Stevens, Inc., P.O. Box 688, Beaverton, OR 97075, llame al **(503) 526-5195**, o envíenos un correo electrónico a través de nuestra página web en [www.leupold.com](http://www.leupold.com).

## Bitte lesen Sie dieses Handbuch ganz durch, bevor Sie das Zielfernrohr montieren.

**Vorsicht:** Kontrollieren Sie die Waffe vor jeglichem Hantieren, um sicher zu sein, daß sie entladen ist.

### Machen Sie sich mit dem Zielfernrohr vertraut

Die vier Grundelemente eines Leupold Zielfernrohrs sind:

1. Die Objektivlinse ist die kritische Komponente für ein erstklassiges Sichtbild.
2. Das Absehen liefert den Zielpunkt.
3. Die internen Umkehrlinsen korrigieren Bildfehler.
4. Das Okular vergrößert das durch die anderen Linsen gelieferte Bild, bietet korrekten Augenabstand und macht Dioptriekorrekturen.

Das Leupold Zielfernrohr wurde geprüft, um unter der Voraussetzung, daß es richtig montiert und eingestellt ist, tadellose Leistung an Ihrer Waffe zu gewährleisten. Eine solide Fixierung ist für optimale Leistung unabdinglich.

### Scharfstellen des Absehens

**HINWEIS:** Alle Verstellungen an Zielfernrohren mit variabler Vergrößerung müssen mit der höchsten Vergrößerungseinstellung durchgeführt werden.

Bringen Sie die Waffe mit dem Zielfernrohr in einen festen Halt. Richten Sie das Zielfernrohr auf ein Hintergrundobjekt heller Farbe. Bei einem Abstand von ungefähr 10 cm zwischen dem Zielfernrohr und Ihrem Auge sollte das Absehen gestochen scharf sein. Wenn dies nicht der Fall ist, muß der Fokus über das Okular verstellt werden.

Wenn das Okular des Leupold Zielfernrohrs mit einem Feststellring ausgerüstet ist, führen Sie die folgenden Schritte durch:

1. Greifen Sie das Okular mit der Hand, und ziehen Sie es vom Feststellring nach hinten weg. Wenn der Feststellring vom Okular getrennt ist, drehen Sie ihn im Uhrzeigersinn vom Okular weg, so daß er beim Verstellen nicht im Weg ist.
  2. Wenn Sie eine Tendenz haben, Dinge von sich weg zu halten, um sie scharf zu sehen (Weitsichtigkeit), drehen Sie das Okular 3 bis 4 Umdrehungen gegen den Uhrzeigersinn. Wenn Sie Dinge nahe halten, um sie scharf zu sehen (Kurzsichtigkeit), drehen Sie das Okular 3 bis 4 Umdrehungen im Uhrzeigersinn.
  3. Richten Sie das Zielfernrohr in den Himmel, und prüfen Sie das Absehen einige Male. Die Schärfe des Absehens sollte merkbar anders sein als zu Beginn. Setzen Sie dieses Verfahren fort, bis das Absehen gestochen scharf ist.
  4. Wenn Sie mit dem Absehenbild zufrieden sind, schieben Sie den Feststellring zurück, so daß dieser fest am Okular anliegt.
- Wenn das Leupold Zielfernrohr mit einem Schnellfokus-Okular ausgerüstet ist, führen Sie die folgenden Schritte durch:
1. Alle Verstellungen werden mit dem Okularring durchgeführt.

2. Werfen Sie kurze Blicke durch das Zielfernrohr, während Sie das Absehenbild scharfstellen. Wenn Sie eine Tendenz haben, Dinge von sich weg zu halten, um sie scharf zu sehen (Weitsichtigkeit), drehen Sie den Okularring gegen den Uhrzeigersinn, bis das Absehen gestochen scharf ist. Wenn Sie Dinge nahe halten, um sie scharf zu sehen (Kurzsichtigkeit), drehen Sie den Okularring im Uhrzeigersinn, bis das Absehen gestochen scharf ist.

**WARNUNG:** Wenn das Zielfernrohr zu weit hinten montiert ist, besteht die Gefahr, daß das Okular den Schützen an der Braue verletzt. Schießen in einem Aufwärtswinkel erhöht diese Gefahr, da dabei der Abstand zwischen der Braue und dem Okular des Zielfernrohrs verkürzt wird. Leupold Zielfernrohre sind aus diesem Grund mit großzügigem Augenabstand konzipiert. Leupold empfiehlt, daß Sie das Zielfernrohr so weit vorne wie möglich montieren, um in den Genuß aller Vorteile dieses großzügigen Augenabstands zu kommen.

### Windabdrift- und Höhenverstellung

**Hinweis:** Alle Verstellwerte sind in Winkelminuten (1 Winkelminute entspricht 29 mm bei 100 m) angegeben.

#### Verstellen von Jagdzielfernrohren

Leupold Jagdzielfernrohre bieten Niederprofilwindabdrift- und Höhenverstellung über Skalenscheiben, die sich durch Drehen einer Kopfschraube mit einer Münze oder einem kleinen Schraubenzieher verstehen lassen.

Die Windabdrift- oder Seitenverstellung weist zwei Pfeile auf: "L" für nach links und "R" für nach rechts. Die Höhenverstellung weist ebenfalls zwei Pfeile auf: "U" für nach oben und "D" für nach unten. Alle diese Symbole beziehen sich auf die Richtung, in der der Treffpunkt bewegt wird.

#### Verstellen von Schießscheiben- und Scharfschützenzielfernrohren

Die Leupold Zielfernrohre der Serien Target, Varmint und Benchrest sowie die Mehrheit der Zielfernrohre der Scharfschützenserie (einschließlich des Modells M1) verfügen über Mikrometerskalen für Windabdrift- und Höhenverstellung.

Der bei jeder Verstellung erzeugte Klick ist sowohl hörbar als auch spürbar, was Zielfernrohrverstellungen ermöglicht, ohne auf die Skalenscheiben zu schauen. Anzeiger auf den Mikrometerbereichen der Skalenscheiben zeigen die Anzahl der vollständig durchgeführten 360°-Umdrehungen an.

#### Vergößerungs-Wählring

Lösen Sie die Imbusschraube im Vergößerungs-Wählring nicht. Dadurch würde der eingeschlossene Stickstoff entweichen, der das Zielfernrohr beschlagfrei hält. Das Lösen der Schraube löst zudem einen interne Funktionen steuernden Stift, was weitere Probleme verursacht und letztlich eine Reparatur im Werk erfordert. Schmieren Sie den Leistungswahlring nicht, da dies unnötig und potentiell schädigend ist.

## Verstellen des Parallaxenausgleich

Die Parallaxenausgleich-Skalenscheibe ist am Objektivende des Zielfernrohrs oder seitlich am Verstellsystemgehäuse zugänglich. Die über diese Skalenscheibe gesteuerte Funktion bewegt eine Linse innerhalb des Zielfernrohrs und fokussiert das Ziel und das Absehen auf derselben optischen Ebene.

Dies gewährleistet optimale Präzision in der Entfernung des Ziels. Zielfernrohre ohne Parallaxenausgleich-Skalenscheibe werden im Werk so eingestellt, daß sie bei einer bestimmten Entfernung (bei den meisten Modellen 137 m) parallaxenfrei sind.

### Verstellbare Objektivzielfernrohre

Zum Beseitigen von Parallaxen in verstellbaren Objektivzielfernrohren führen Sie die folgenden Schritte durch:

1. Das Absehen sollte scharf sein, bevor Sie den Fokussierring verstehen. Wenn dies nicht der Fall ist, befolgen Sie die Anweisungen unter "Scharfstellen des Absehens".
2. Schätzen Sie die Entfernung zum Ziel in Metern. Drehen Sie den Fokussierring auf den Bereich, die der geschätzten Entfernung in Metern entspricht.
3. Halten Sie die Waffe in einer stabilen Position, schauen Sie durch das Zielfernrohr, und konzentrieren Sie sich auf den zentralen Zielpunkt des Absehens. Bewegen Sie Ihren Kopf leicht nach oben und unten. Der Zielpunkt sollte dabei auf dem Ziel exakt an derselben Position bleiben. Wenn sich der Punkt leicht verschiebt, drehen Sie das verstellbare Objektiv ein wenig, bis der Zielpunkt stabil bleibt.

**HINWEIS:** Die Einstellungen können je nach persönlicher Präferenz und Wetterlage leicht variieren.

### Leupold EFR Zielfernrohre und verstellbare Objektive

Leupold EFR (Extended Focus Range/Erweiterter Fokusbereich) Zielfernrohre können Parallaxen für Entfernungen von nur 10 m beseitigen. Das verstellbare Objektiv kann mehr als 360° gedreht werden. Drehen Sie den Fokussierring im Uhrzeigersinn bis zum Anschlag und dann zur Bereichsmarke zurück. (Das Modell 6.5-20x hat spezielle Indexmarken für die zweite Umdrehung.)

### Zielfernrohre mit Seitenfokusverstellung

Die Seitenfokusverstellung ermöglicht ein Verstellen des Parallaxenabstands mit minimalem Aufwand und minimaler Beeinträchtigung der Schießposition. Die Verstelleinrichtung hat keine Skala zur Anzeige des Abstands, da alle Verstellungen anhand des Bilds abgeschätzt werden.

Zum Beseitigen von Parallaxen in Zielfernrohren mit Seitenfokusverstellung führen Sie die folgenden Schritte durch:

1. Das Absehen sollte scharf sein, bevor Sie die Seitenfokusverstellscheibe drehen. Wenn dies nicht der Fall ist, befolgen Sie die Anweisungen unter "Scharfstellen des Absehens".
2. Halten Sie die Waffe in einer stabilen Position, schauen Sie durch das Zielfernrohr, und konzentrieren Sie sich auf den zentralen Zielpunkt des Absehens. Bewegen Sie Ihren Kopf leicht nach oben und unten. Der Zielpunkt sollte dabei auf

dem Ziel exakt an derselben Position bleiben. Wenn sich der Punkt leicht verschiebt, drehen Sie die Seitenfokusverstellscheibe, bis der Zielpunkt stabil bleibt.

## **Leupold bedeutet: minimale Instandhaltung**

### **Linsen**

Leupold Zielfernrohrlinsen sind beschichtet, um Lichtreflektionen und Lichtstreuung zu reduzieren. Die Linsen sollten ebenso sorgfältig gereinigt werden wie Kameralinsen. Verwenden Sie als ideale Lösung zum Reinigen das Leupold ScopeSmith-Linsenreinigungssystem. Wischen Sie zuerst den Staub mit der Bürste weg. Verwenden Sie dann die mit einem speziellen nicht-flüssigen Reinigungsmittel imprägnierte Mikrofaser-Reinigungsspitze, und reinigen Sie das Glas. Wenn Sie kein Leupold ScopeSmith-Linsenreinigungssystem zur Verfügung haben, können Sie den Staub mit einer Standardlinsenbürste entfernen und das Glas mit einem Baumwolltuch und reinem Alkohol, hochwertigem Glasreinigungsmittel oder reinem Wasser reinigen.

### **Verstelleinrichtungen**

Alle Verstelleinrichtungen sind dauerbeschichtet. Es ist keine Schmierung erforderlich. Behalten Sie die Aufbaukappen an den Windabdrift- und Höhenskalenscheiben außer beim Verstellen aufgesetzt, um Staub und Schmutz fernzuhalten. (Leupold Zielfernrohre sind im Gegensatz zu Produkten anderer Hersteller auch ohne aufgesetzte Kappen wasserfest.)

## **Tips zur Fehlerbehandlung**

Bei Problemen mit dem Treffpunkt prüfen Sie bitte die folgenden Elemente:

1. Prüfen Sie die Fixierung. Stellen Sie sicher, daß das Zielfernrohr fest auf der Waffe montiert ist. Versuchen Sie lediglich mit bloßen Händen, das Zielfernrohr in den Ringen zu bewegen, und kontrollieren Sie, ob sich etwas bewegt, wenn Sie die Waffe rütteln. Wenn Sie irgendwo Bewegungen feststellen, ziehen Sie das Montagesystem gemäß den Montageanleitungen nach.
2. Stellen Sie sicher, daß der Lauf der Waffe korrekt im Schaft eingepaßt ist und alle Schrauben fest angezogen sind. Eine lose eingepaßte Schäfte kann Änderungen des Treffpunkts verursachen.
3. Beim Einschießen einer Waffe zwecks Prüfung des Treffpunkts in bezug auf Windabdrift- und Höhenverstellungen sollten Sie immer von einer festen Auflage mit Sandsäcken schießen und Werksmunition des gleichen Loses verwenden.

## **Leupold Technischer Kundendienst**

Wenn die Leistung des Leupold Golden Ring Zielfernrohrs in irgendeiner Weise beeinträchtigt ist, können Sie es zwecks Reparatur direkt ins Werk (oder an ein internationales Kundendienstzentrum) senden. Es ist nicht erforderlich, daß der Fachhändler das Zielfernrohr an Leupold sendet, doch dieser kann beim Bestimmen, ob eine Werksüberarbeitung erforderlich ist, sehr hilfreich sein. Bitte beachten Sie die folgenden Versandanweisungen:

1. Entfernen Sie Ringe und anderes Zubehör vom Zielfernrohr.

2. Notieren Sie sich die Seriennummer des Zielfernrohrs, und bewahren Sie die Notiz auf.
3. Legen Sie eine Notiz mit den folgenden Informationen bei: Name, Adresse, Telefonnummer, E-Mail-Adresse und Beschreibung des Problems.
4. Packen Sie das Zielfernrohr in die Originalverpackung (falls vorhanden) ein, da dies der sicherste Versandbehälter ist. Umwickeln Sie das Paket außen gut mit Paketklebeband.
5. Senden Sie das Zielfernrohr per Paketdienst oder Post (wenn möglich versichert) an eine der folgenden Adressen:

#### In den USA:

##### Paketdienst:

*Leupold Technical Service*  
14400 NW Greenbrier Parkway  
Beaverton, OR 97006-5791  
USA

##### Post:

*Leupold Technical Service*  
Post Office Box 688  
Beaverton, OR 97075-0688  
USA

#### Außerhalb der USA:

**Kanada:** Jim Korth Agencies Ltd., 103 Stockton Point, Box 490, Okotoks, AB T0L 1T0, KANADA

**Deutschland:** Harold Ros, Coburger Straße 71, 98673 Eisfeld, DEUTSCHLAND

**Schweden:** AB Smålandska Vapen, Attn: Mr. Jan-Olof Swantesson, Riksvagen 15, 36044 Ingelstad, SCHWEDEN

Die Rufnummer des technischen Kundendiensts in den USA lautet (+1) 503 526 1400. Der technische Kundendienst kann auch per Fax unter der Faxnummer (+1) 503 526 1402 bzw. über unsere Website [www.leupold.com](http://www.leupold.com) in Anspruch genommen werden.

### **Leupold fertigt nicht nur Zielfernrohre**

Wenden Sie sich für Informationen zur kompletten Reihe von Montagesystemen, Ferngläsern, Beobachterfernrohren und Zubehör an Ihren Leupold Fachhändler.

Fordern Sie bitte einen kostenlosen Leupold Katalog unter der folgenden Adresse an: Leupold & Stevens, Inc., P.O. Box 688, Beaverton, OR 97075, USA. Oder rufen Sie uns unter der Rufnummer **(+1) 503 526 5195** an, bzw. senden Sie uns eine E-Mail über unsere Website [www.leupold.com](http://www.leupold.com).

## Leggere per intero questa guida prima di montare il cannocchiale di mira.

**Attenzione:** prima di iniziare qualsiasi lavoro sull'arma da fuoco, controllarla e accertarsi che sia scarica.

### Descrizione del cannocchiale di mira

I quattro componenti basilari di un cannocchiale di mira Leupold sono:

1. Lobiettivo (la lente volta verso l'oggetto), essenziale per ottenere un puntamento di grande efficacia.
2. Il reticolo, indicato spesso con il termine mirino, che fornisce il punto di mira.
3. Le lenti interne di raddrizzamento dell'immagine.
4. L'oculare (la lente a cui si accosta l'occhio) che ingrandisce l'immagine, permette di usare il cannocchiale di mira mantenendo l'occhio a una distanza adeguata da esso e corregge la convergenza del sistema ottico.

Ogni cannocchiale di mira Leupold viene collaudato per assicurare che quando è montato e regolato correttamente fornisca prestazioni eccezionali. Un montaggio saldo è essenziale per garantire prestazioni adeguate.

### Messa a fuoco del reticolo

**NOTA:** eseguire tutte le regolazioni dei cannocchiali di mira a ingrandimento variabile al massimo ingrandimento prestabilito.

Impugnare saldamente l'arma da fuoco e puntare il cannocchiale di mira su uno sfondo di colore chiaro. Quando il cannocchiale di mira si trova a circa 10 centimetri dall'occhio, il reticolo deve apparire chiaro e distinto; in caso contrario, metterlo a fuoco mediante l'oculare.

Se l'oculare è dotato di ghiera di bloccaggio, procedere come segue:

1. Afferrare l'oculare e tirarlo in senso opposto alla ghiera fino a sbloccarla, quindi girarla in senso orario (allontanandola dall'oculare) affinché non ostacoli le operazioni di regolazione.
2. Girare l'oculare di tre o quattro giri, in senso antiorario se si è miopi o in senso orario se si è astigmatici.
3. Osservando attraverso il cannocchiale di mira mentre lo si punta al cielo, lanciare brevi sguardi al reticolo. La sua focalizzazione deve essere notevolmente differente rispetto all'inizio. Continuare a regolare l'oculare finché il reticolo appare chiaro e distinto.
4. Quando si è soddisfatti dell'immagine del reticolo, girare la ghiera in modo che si blocchi contro l'oculare.

Se l'oculare è a focalizzazione rapida, procedere come segue:

1. Tutte le regolazioni vanno eseguite con la ghiera dell'oculare.
2. Lanciare brevi sguardi attraverso il cannocchiale di mira mentre si mette a fuoco l'immagine del reticolo. Girare la ghiera in senso antiorario se si è miopi o in senso orario se si è astigmatici, finché il reticolo appare chiaro e distinto.

**Avvertenza:** se un cannocchiale di mira è montato troppo indietro, l'oculare può ferire il sopracciglio. Questo rischio aumenta se si spara tenendo l'arma da fuoco inclinata verso l'alto, perché si accorcia la distanza tra il sopracciglio e la parte posteriore del cannocchiale di mira. Per questo motivo, i cannocchiali di mira Leupold sono realizzati in modo da consentire di mantenere l'occhio a una notevole distanza dall'oculare. Si consiglia di montare il cannocchiale di mira quanto più avanti possibile, per sfruttare al meglio questa caratteristica costruttiva.

### Regolazione dell'angolo di elevazione e correzione di derivazione

**Nota:** tutti gli incrementi di regolazione sono in minuti di angolo (1 minuto di angolo equivale a 29 millimetri a 100 metri).

### Regolazione dei cannocchiali di mira per fucili da caccia

I cannocchiali di mira Leupold per fucili da caccia sono dotati di viti micrometriche nella cui testa è praticata una scanalatura che permette di girarle con una moneta o un piccolo cacciavite.

La vite di correzione di derivazione ha due frecce, contrassegnate una con "L" per indicare la sinistra e l'altra con "R" per indicare la destra. La vite di regolazione dell'angolo di elevazione ha due frecce, contrassegnate una con "U" per indicare l'alto e l'altra con "D" per indicare il basso. Questi quattro simboli indicano la direzione in cui si sposta il bersaglio.

### Regolazione dei cannocchiali di mira Target e Tactical

I cannocchiali di mira Leupold Target, Varmint, Benchrest e quasi tutti i modelli Tactical (compresi gli M1) sono dotati di viti micrometriche per la correzione di derivazione e la regolazione dell'angolo di elevazione.

A ciascun incremento di regolazione corrisponde uno scatto della vite micrometrica, sia avvertibile al tatto sia udibile, cosicché è possibile regolare il cannocchiale di mira senza bisogno di osservare le viti micrometriche. Appositi indicatori sulla parte graduata di ciascuna vite micrometrica indicano il numero di rotazioni da essa compiute.

### Anello di chiusura del sistema

Non allentare la vite di questo anello, perché si causerebbe la fuoriuscita dell'azoto che impedisce l'appannamento delle lenti e si collegherebbe un perno che regola il funzionamento interno, causando altri problemi che richiederebbero riparazioni in fabbrica. Non lubrificare questo anello; non è necessario e comporta pericoli.

### Correzione della parallasse

La manopola di regolazione può essere posta all'estremità presso l'obiettivo o sul lato della calotta della torretta di regolazione. Girando questa manopola si sposta una lente interna del cannocchiale di mira e si mettono a fuoco il bersaglio e il reticolo sullo stesso piano ottico, assicurando così una precisione ottimale in relazione alla distanza del bersaglio.

I cannocchiali di mira non dotati di manopola per la correzione della parallasse vengono regolati in fabbrica in modo da non presentare parallasse per una specifica distanza (137 metri in quasi tutti i modelli).

## Cannocchiali di mira con obiettivo regolabile

Per eliminare la parallasse nei cannocchiali di mira con obiettivo regolabile, procedere come segue:

1. Il reticolo deve essere chiaro e distinto (messo a fuoco) prima di regolare la ghiera di messa a fuoco. In caso contrario, seguire le istruzioni della sezione "Messa a fuoco del reticolo".
2. Stimare la distanza a cui si trova il bersaglio in metri. Girare la ghiera di messa a fuoco finché il numero corrisponde alla distanza stimata.
3. Impugnando saldamente l'arma da fuoco, guardare attraverso il cannocchiale di mira, puntando lo sguardo sul centro del reticolo. Muovere leggermente la testa in su e in giù. Il punto di mira deve rimanere esattamente nella stessa posizione contro il bersaglio; se si muove, girare leggermente l'obiettivo regolabile finché il punto rimane fermo.

**NOTA:** le regolazioni possono variare leggermente a seconda delle preferenze individuali e delle condizioni atmosferiche.

## Cannocchiali di mira EFR e obiettivo regolabile

I cannocchiali di mira Leupold EFR (Extended Focus Range, ovvero Portata con messa a fuoco estesa) possono eliminare la parallasse per distanze brevissime, fino a 10 metri. L'obiettivo regolabile può ruotare per più di 360 gradi. Girare la ghiera di messa a fuoco in senso orario finché si ferma, quindi girarla in senso opposto fino al segno della portata. (Il modello 6.5-20x ha segni speciali per indicare la seconda rotazione.)

## Cannocchiali di mira con regolazione della messa a fuoco laterale

Questa caratteristica costruttiva permette di regolare la distanza di parallasse con uno sforzo minimo e rimanendo pressoché nella stessa posizione di sparo. Sulla manopola non vi è nessun numero indicatore della distanza, in quanto tutte le regolazioni sono valutabili per mezzo dell'immagine stessa.

Per eliminare il parallasse nei cannocchiali di mira con regolazione della messa a fuoco laterale, procedere come segue:

1. Il reticolo deve essere chiaro e distinto (messo a fuoco) prima di regolare la manopola di regolazione della messa a fuoco laterale. In caso contrario, seguire le istruzioni della sezione "Messa a fuoco del reticolo".
2. Impugnando saldamente l'arma da fuoco, guardare attraverso il cannocchiale di mira, puntando lo sguardo sul centro del reticolo. Muovere leggermente la testa in su e in giù. Il punto di mira deve rimanere esattamente nella stessa posizione contro il bersaglio; se si muove, girare leggermente la manopola di regolazione finché il punto rimane fermo.

## I cannocchiali di mira Leupold richiedono manutenzione minima

### Lenti

Sono rivestite in modo da ridurre le riflessioni e la diffusione della luce. Vanno pulite con la stessa scrupolosità con cui si pulirebbero le lenti di una macchina fotografica. Per ottenere i migliori risultati, usare l'apposito kit di pulizia Leupold ScopeSmith. Anzitutto ripulire le lenti dalla polvere con la spazzola, quindi pulirle bene usando la punta a microfibra, che è impregnata di una speciale sostanza detergente non liquida. Se non si dispone di un kit di pulizia ScopeSmith, usare una

normale spazzola da lenti per asportare la polvere e quindi un bastoncino con punte di ovatta inumidito in alcol puro, detergente per lenti di alta qualità o acqua distillata.

### *Dispositivi di regolazione*

Non occorre lubrificarli, poiché sono stati lubrificati in fabbrica in modo da non richiedere lubrificazione per l'intera loro durata. Lasciare sempre le calotte delle torrette sulle viti micrometriche di regolazione dell'angolo di elevazione e di correzione di derivazione, tranne quando si eseguono le regolazioni, per impedire l'ingresso della polvere e dello sporco. (Si noti che, a differenza di quelli di altre marche, i cannocchiali di mira Leupold sono impermeabili all'acqua anche se le calotte non sono nella giusta posizione.)

### *Guida alla soluzione dei problemi*

Se si presentano problemi nel colpire il bersaglio, compiere le seguenti verifiche:

1. Controllare l'attacco. Accertarsi che il cannocchiale di mira sia montato saldamente sul fucile. Provare a girare con le sole mani il cannocchiale di mira nelle ghiere o osservare se quando lo si scuote lievemente si sposta qualche componente. Se si rilevano movimenti, serrare di nuovo l'attacco di sostegno seguendo le apposite istruzioni.
2. Accertarsi che la canna del fucile sia inserita bene nel calcio e che tutte le viti della cassa siano ben serrate. Un calcio non fissato saldamente può causare variazioni del punto colpito.
3. Quando si prova un fucile e si spara per controllare il punto colpito in relazione alla regolazione dell'angolo di elevazione e dello scostamento laterale, è importante sparare appoggiandosi a un banco solido con sacchi di sabbia, usando munizioni caricate in fabbrica e dello stesso numero di lotto.

### **Servizio di assistenza tecnica Leupold**

Se il cannocchiale di mira Leupold Golden Ring presenta difetti, lo si può restituire direttamente alla fabbrica (o a uno dei centri di assistenza internazionale Leupold) affinché sia riparato. Non occorre rivolgersi al rivenditore per spedirlo alla Leupold; tuttavia si può ricorrere al rivenditore per determinare se occorre un intervento presso la fabbrica. Per la spedizione, seguire queste istruzioni:

1. Togliere le ghiere ed eventuali altri accessori dal cannocchiale di mira.
2. Annotare e archiviare il numero di serie del cannocchiale di mira.
3. Allegare un foglio su cui si sono scritti il proprio nome, indirizzo, numero di telefono, eventuale indirizzo di posta elettronica e una descrizione del problema.
4. Imballare il cannocchiale di mira nella scatola originale (se la si è conservata), perché è il contenitore di spedizione più sicuro. Avvolgere bene adoperando dei nastri a strisce sull'esterno.
5. Spedire il cannocchiale di mira usando un corriere o il servizio postale (se possibile assicurando la spedizione) a uno dei seguenti indirizzi:

#### Negli USA:

Se si usa un corriere:

Leupold Technical Service  
14400 NW Greenbrier Parkway  
Beaverton, OR 97006-5791  
USA

Se si usa il servizio postale:

Leupold Technical Service  
Post Office Box 688  
Beaverton, OR 97075-0688  
USA

#### Fuori degli USA:

**Canada:** Jim Korth Agencies Ltd., 103 Stockton Point, Box 490, Okotoks, AB T0L 1T0, CANADA

**Germania:** Harold Ros, Coburger Strasse 71, 98673 Eisfeld, GERMANIA

**Svezia:** AB Smålandska Vapen, Attn: Mr. Jan-Olof Swanteson, Riksvagen 15, 36044 Ingelstad, SVEZIA

Il numero telefonico del servizio di assistenza negli USA è +1 (503) 526-1400. Si può contattare il servizio di assistenza anche tramite fax al numero +1 (503) 526-1402 o tramite Internet presso il sito [www.leupold.com](http://www.leupold.com).

#### La Leupold offre altri prodotti

Presso i rivenditori Leupold è disponibile una linea completa di attacchi, binocoli, telescopi e accessori.

Per richiedere un catalogo Leupold gratuito, scrivere a: Leupold & Stevens, Inc., P.O. Box 688, Beaverton, OR 97075, USA o chiamare il numero **+1 (503) 526-5195** o inviare un e-mail tramite il nostro sito web, all'indirizzo [www.leupold.com](http://www.leupold.com).

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