



Leatherwood® / Hi-Lux™ Optics



RIFLESCOPE INSTRUCTIONS

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CONGRATULATIONS! You have just purchased one of our LER Scout Rifle Intermediate eye relief scope. It is one of the best scopes built today. The Leatherwood® / Hi-Lux™ Optics LER is a 1" tube conventional scope. This scope is the answer to those special scooping situations that require rifle optics with an extended eye relief. Designed to give full view of the target when placed 8 to 14 inches ahead of the shooter's eye, **LER scope is ideal for installing on a scout rifle, lever-action rifles with top ejection and muzzleloaders with a side hammerlock that interferes with mounting a scope in the normal position.**

While made popular through the 1980s by gun writer Jeff Cooper, Scout Rifles have been around for decades - in a variety of short and fast handling bolt-action, semi-auto and even lever-action models that can deliver a high rate of fire, and which can be quickly reloaded - yet still offer a dependable degree of accuracy. Scout rifle shooters looking to fully tap that capability are turning to low magnification scopes mounted forward of the receiver.

This scope has been specifically designed for being mounted in just this fashion. Depending on the magnification setting, the workable eye relief of this scope is approximately 8 to 14 inches, which puts it mounted in front of the receiver. With the LER Scout magnification turned down to the lowest 2x setting, a hunter following wounded game can hold the rifle in the ready position, and when the target suddenly appears at close range, just snapping the rifle up to the shoulder will generally put the reticle on the target. A rifle in a popular caliber such as .308 Winchester can still deliver the accuracy and performance needed for shots out to and past 200 yards – and the LER Scout offers the higher magnification often needed to precisely place those longer range shots. This scope is built with a high tensile strength one-piece aluminum tube and the lenses have been fully multi-coated to insure a clear, bright and sharp sight picture. No short cuts have been taken in the production of Leatherwood® / Hi-Lux™ scopes. All glass lenses are meticulously polished to photographic quality for exceptional clarity and light gathering capability, which is especially critical during the low light hunting conditions of daybreak and dusk. Shooters can choose between a standard fine duplex reticle or a heavy 3-post with crosshairs and Scout Rifle .308 BDC reticle. The 1/4" click windage and elevation adjustment is crisp and positive.

All Leatherwood®/Hi-Lux™ scopes feature **DiamondTuff™** fully multi-coated lenses. The rugged new **All Terrain Riflescope** (ATR) design and construction makes this scope Waterproof – Fogproof – Shockproof – Recoilproof.

Here is a riflescope that's built to take on anything that Mother Nature can dish out. With your Leatherwood®/Hi-Lux™ riflescope, you get Quality, Precision and Ruggedness at a price that doesn't break your budget. The LER Series scope is built to meet the wants and needs of American shooters.

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SECTION 1: SPECIFICATIONS AND BASIC DEFINITIONS

(1) SPECIFICATIONS:

| Model | Power | Obj. (mm) | F.O.V. @ 100 Yds (Feet) | Eye Relief (Inch) | Length (Inch) | Weight (O.Z.) | Exit Pupil Range In Variable mm | Tube (mm) |
|-------------|---------|--------------|-------------------------------|-------------------------|------------------|------------------|--|--------------|
| LER27X32 | 2X - 7X | 32 | 18.8-6.3 | 13.2-8.7 | 10.90 | 10 | 17.9-5.9 | 1" |
| LER27X32BDC | 2X - 7X | 32 | 18.8-6.3 | 13.2-8.7 | 10.90 | 10 | 17.9-5.9 | 1" |

Remarks:

All air-glass surfaces are fully multi-coated using special technology to maximize light transmission. The click adjustment for both Elevation and Windage is $\frac{1}{4}$ MOA.

(2) BASIC DEFINITIONS:



A. E.P.LOCK RING; B. LEVER; C. ELEVATION AND WINDAGE ADJUSTMENT KNOBS; D. OBJECTIVE LENS; E. POWER CHANGE RING; F. EYEPiece;

SECTION 2: EYEPiece FOCUSING

Hold the scope about ten or twelve inches from your eye and look through the eyepiece at a featureless flatly lit bright area such as a wall or open sky.



If the reticle is not sharply defined instantly, you need to change the scope's focus to suite your individual eyesight. Loosen the E.P.Lock Ring (A) (turn clockwise), and turn the Eyepiece (F) counter-clockwise or clockwise until you are comfortable with the focus. Then tighten (turn 4

counter-clockwise) the Lock Ring (A) snugly. Tighten the finger tight only. Do not use the tools to tighten.

WARNING: NEVER LOOK AT THE SUN WITH THIS PRODUCT, OR EVEN THE NAKED EYE. YOU COULD PERMANENTLY DAMAGE YOUR EYES.

SECTION 3: MOUNTING

To achieve the best accuracy from your rifle, the scope must be mounted properly. You should use a high-quality mount with bases designed to fit your particular rifle. To mount the scope:

- A. The scope should be mounted as low as possible without touching either the barrel or the receiver.
- B. Before tightening the mount rings, look through the scope in your normal shooting position. Adjust the scope (either forward or backward) until you find the furthest point forward (to ensure maximum eye relief) that allows you to see a full field of view.
- C. Rotate the scope in the rings until the reticle pattern is perpendicular to the bore and the elevation turret is on top.
- D. Then tighten the mounting screws.

WARNING: AVOID OVER-TIGHTENING THE RINGS. THIS CAN DAMAGE THE SCOPE, AFFECTING PERFORMANCE OR RENDERING IT INOPERABLE. THERE SHOULD BE A SLIGHT EVEN GAP BETWEEN THE TOP AND BOTTOM HALVES OF THE RINGS.

SECTION 4: PRE-ZEROING

Pre-zero sighting can be done either manually, or with a bore-sighting device. To bore sight manually,

- A. It is necessary to be able to see through the bore from the breech end. In the case of a bolt action, this usually means removing the bolt.
- B. Set the variable-power scope to low power.
- C. With the firearm in a rested position, remove the caps from the windage and elevation screws.
- D. Look through the bore and center the target in the bore and adjust the windage and elevation screws to position the reticle on the center of the target.
- E. For the Windage adjustment, turn the windage adjustment screw **clockwise** to move the point of impact **left** and **countrerclockwise** to move the point of impact **right** as the arrow on the turret indicates.

F. In the same manner, adjust the Elevation by turning the elevation adjustment screw **clockwise** to **lower** the point of impact and **counterclockwise** to **raise** the point of the impact. **If a large amount of adjustment is required to align the reticle, make approximately one-half of the windage correction, then approximately one-half of the required elevation correction.

G. Finish by applying the balance of windage and elevation correction.

If you can't see through the bore then it will be necessary to use some type of bore-sighting device. When using a bore-sighting device, follow the instructions provided with the device.

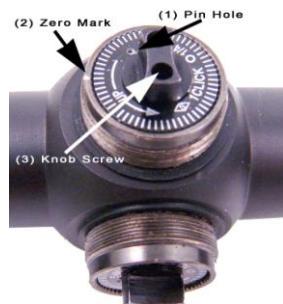
NOTE: If you're mounting system allows for adjustment of the scope, the gross adjustments should be made in the mount and then the final adjustments made with the scope's internal adjustment system.

SECTION 5: ZEROING

DANGER: IF A BORE SIGHTING COLLIMATOR OR ANY OTHER BORE OBSTRUCTING DEVICE WAS USED; IT MUST BE REMOVED BEFORE PROCEEDING. AN OBSTRUCTION CAN CAUSE SERIOUS DAMAGE TO THE GUN AND POSSIBLE PERSONAL INJURY TO YOU AND OTHERS NEARBY.

The zero range will depend on your hunting conditions.

- A. In general, if most of your shots will be at short range, zero-in at 100 yards. For long-range shooting at big game, most experienced shooters zero-in about three inches high at 100 yards.
- B. Set variable-power scopes to the highest power.
- C. From a rested position, fire three rounds at the target.
- D. Observe the center of the points of impact on the target and adjust the windage and elevation screws as needed to bring the point of aim to the desired relationship to the points of impact. The point of impact moves in the direction indicated on the adjustment knob and by the amount indicated.
- E. Repeat as necessary.
- F. Once the zeroing of the rifle is completed, you can re-index the zero marking. You just imply loosen the two knob screws (3) and use a pin to push the pinhole (1) to rotate the index marking plate and align the "0" on the plate with the zero mark (2). Then you can tighten the two knob screws to hold the plate in place and put the windage and elevation caps back on to protect your zero from moving.



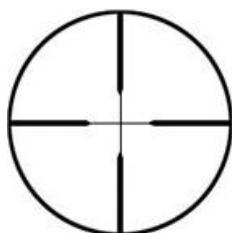
Each click of the adjustment changes bullet impact at 100 yards by $\frac{1}{4}$ " as the amount indicated on the windage and elevation adjustments. The adjustments are calibrated in Minutes of Angle (MOA). One minute of angle is very close to 1 inch at 100 yards. To calculate the click value at distances other than 100 yards, use the following formula: divide the distance (number of yards) by 100. Then multiply this number by the click value stated on the windage and elevation adjustments. This will tell you the actual click value of the scope at that distance. For Example: your range is 200 yards. Divide 200 by 100 and that equals 2. Multiply the $\frac{1}{4}$ minute indicated on the adjustments by 2 and the adjustment at 200 yards is $\frac{1}{2}$ inch per click. For 400 yards, you would multiply $\frac{1}{4}$ by 4 and that would give 1 inch per click and so on.

WARNING: ALL SHOOTING SHOULD BE DONE AT AN APPROVED RANGE, OR SAFE AREA. EYE AND EAR PROTECTION IS RECOMMENDED.

SECTION 6: RETICLES IN USE

(1) Fine Duplex Reticle:

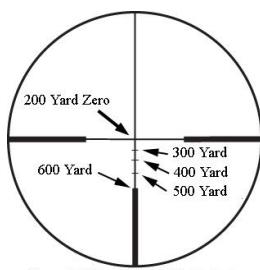
The fine center crosshairs provide a precise aiming point. You can use the thinner portion of the reticle to estimate the range.



Hi-Lux Fine
Duplex Reticle

You just frame a known size of a target at a known range, so you can find out how many MOA the end-to-end distance of the thinner portion of the reticle posts (both vertical and horizontal) will subtend. Different magnifications or difference models may have different results. You just have to memorize it for your own reference.

(2) Crosshairs with Scout Rifle .308 BDC reticle Item No. : LER27X32BDC



Scout Rifle .308 BDC Reticle

We have developed a LER27X32BDC scout rifle scope for the .308 caliber.

The new reticle 3-post with crosshairs and BDC line reticle is designed for the .308 Scout Rifle. The rifleman should zero the rifle for 200 yards on the central crosshair. All the BCD lines should be used under magnification 7. The first BDC line down is 3

MOA from the center, which will provide a 300 yard aiming point. The second BDC line down from the center is 6 MOA. This will provide a 400 yard aiming point. The third BDC line down from the center is 10 MOA. This will provide a 500 yard aiming point. The top of the vertical heavy post is 15 MOA from the center. This will provide the 600 yard aiming point. While the aiming points for each range may not be exact, they will be very close with either a 150 grain or 168 grain bullet at the 2550 fps velocities measured using a short barrel Ruger Scout. The rifleman should test and verify what each BDC line represents to you exactly with your load and your rifle.

| LER BDC LINE HOLD OVER VALUE | | |
|------------------------------|------------------------|-------------------------------------|
| Range (Yard) | BDC Line | BDC Line Hold Over Values MOA |
| 200 | Center Cross | 0 |
| 300 | 1st BDC Line | 3 |
| 400 | 2nd BDC Line | 6 |
| 500 | 3rd BDC Line | 10 |
| 600 | Top of the Post | 15 |

SECTION 7: MAINTAINING YOUR RIFLESCOPE

Your scope, though amazingly tough, is a precision instrument that deserves reasonable and cautious care. For normal maintenance:

- A. Do not attempt to disassemble or clean the scope internally.
- B. The external optical surfaces should occasionally be wiped clear with the lens cloth provided or an optical quality lens paper.
- C. Keep the protective lens covers in place when the scope is not in use.
- D. Remove any external dirt or sand with a soft brush so as to avoid scratching the finish.
- E. Wipe the scope with a damp cloth, followed by a dry cloth.
- F. Then go over the metal portions of the scope with a silicon treated cloth in order to protect the scope against corrosion.
- G. Store the scope in a moisture-free environment.
- H. Avoid storing the scope in the hot place, such as the passenger compartments of a vehicle on hot days. The high temperatures could adversely affect the lubricants and sealants. A vehicle's trunk, a gun cabinet or a closet are the preferred storage locations.

- I. Never leave the scope where direct sunlight can enter either the objective or the eyepiece lens. Damage may result from the concentration of the sun's rays (burning glass effect).

WARNING: UNNECESSARY RUBBING OR USE OF A COARSE CLOTH MAY CAUSE PERMANENT DAMAGE TO LENS COATINGS.

SECTION 8: LIMITED LIFETIME WARRANTY

Hi-Lux, Inc. warranties its products against defects arising from faulty workmanship, or materials, for the lifetime of the **original purchaser**. Any attempt to alter, dismantle or change the standard specifications of the products, will make this warranty null and void. This warranty is made to the **original purchaser** of the goods including all international sales, and applies only to the products purchased through our authorized distributors or dealers. The international warranty is subject to approval from our authorized distributor or us directly. Warranty obligation is limited to the repair or replacement of any product returned to **Hi-Lux, Inc.**, which is determined by the manufacturer to have defects arising from faulty workmanship, or materials that adversely affect the satisfactory operation of the product. It should be noted that on items containing an etched glass reticle that the occasional appearance of some small particles is common and not a warrantable repair. We only have a one-year warranty for the electronic components that are contained on the products. **Hi-Lux, Inc.** reserves the right to request proof of purchase and purchase date. To guarantee warranty service, the enclosed warranty form must be completed and returned within ten (10) days of purchase to establish all warranty rights between you, the original purchaser, and **Hi-Lux, Inc.** We assume no liability for any incidental or consequential damages, or incidental expenses. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you. No warranties are made, or are authorized to be made, other than those expressly contained herein. To file a claim under this warranty, please contact the Customer Service Department of **Hi-Lux, Inc.** at (310) 257-8142 to obtain a Return Authorization number (RA number). After receiving your RA number, please mark the number on the outside of the package; enclose the defective item with a brief explanation of the problem. Please be sure to include your name, address and phone number. Failure to obtain a RA number may result in either refusal upon delivery, or lengthy delays for warranty repairs and service required for the item returned to us. All returns are to be shipped prepaid direct to **Hi-Lux, Inc.** including a check or money order in the amount of \$15 to cover postage and handling.

Attn.: Warranty & Service Dept.

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In the event of a non-warranty repair, you will receive an estimate prior to any work being done. This warranty gives you specific legal rights and you may have other rights, which vary from state to state. As defined by federal law, this is a limited warranty.



We lead the way™