



The 8X Wm. Malcolm® USMC Sniper External Adjustment Riflescope Instruction Manual



WARNING:

For safe usage of this scope, it is absolutely necessary that it must be securely mounted to your rifle. The front and rear scope mounts require installation using the special bases provided with the scope package for 1903 Springfield or equivalent bases. This should be done by a competent gunsmith and requires drilling and tapping in your barrel. Failure to follow this procedure can result in personal injury.

Contact Information:

Website: <http://www.hi-luxoptics.com> or <http://www.leatherwoodoptics.com>

Technical Support: E-mail to techsupport@hi-luxoptics.com

Distributor And Dealer Sales Only: E-mail to sales@hi-luxoptics.com

Hi-Lux, Inc.

3135 Kashiwa Street, Torrance, CA 90505, U.S.A.

Tel: (310) 257-8142, Fax : (310) 257-8096

©2012 Hi-Lux, Inc. Leatherwood, Hi-Lux, Wm Malcolm, J.W. Fecker, DiamondTuff, Multi-Dial, No-Math Mil-Dot and ZRO-LOK are the trademarks of Hi-Lux, Inc.

THANK YOU for purchasing a Wm. MALCOLM 8X USMC SNIPER RIFLESCOPE made by Leatherwood / Hi-Lux Optics.

The 8X USMC-Sniper Riflescope is a piece of history. One of the most recognized names in military sniping during the Vietnam conflict was Marine Corps marksman Carlos Hathcock. The rifle photo left is the 1941A1, of .30-06 caliber, topped with an 8x USMC Sniper scope.



The accompanying photo at the right shows an 8X USMC Sniper Scope on a 50 caliber machine gun.

Scopes of this design, with micrometer click external adjustment, were once favored by long range precision shooters, and quite a few different scope manufacturers offered very similar models. Today, an original USMC marked scope in mint condition is very rare and expensive.



Leatherwood/Hi-Lux Optics is now adding an extremely well built 8X USMC-SNIPER Model to its Wm. Malcolm line of vintage style riflescopes. Not only will this scope match the originals for extremely precise adjustment of windage and elevation, the new made scope also offers the advantages of modern lens making, with fully multi-coated lens surfaces for maximum light transmission. This scope offers the brightest, clearest, and sharpest optics ever in a riflescope of this design.

The scope will be marked with the Wm. Malcolm name over the USMC-SNIPER model designation, and each will be serial numbered - as were the original USMC models. The Marine Corps utilized this style of scope on sniper rifles during WWII, Korea and Vietnam, commonly relying on the old WWI vintage .30-06 Springfield Model 1903 and Model 70 Winchester rifles (Modified specifically for sniper use, the WWII rifle was also known as the USMC Model 1941A1 Sniper Rifle.) During the Vietnam conflict, some of the earlier snipers, such as Carlos Hathcock, continued to rely on the external adjustment "target scopes" the Corps had adopted during WWII.

Like all Leatherwood/Hi-Lux Optics, the Wm. Malcolm USMC-SNIPER model is constructed in the same manner as the originals and in keeping with the general look and feel of the original scopes, and the precision and the accuracy capable with riflescopes of this type. It is far more affordable than a serviceable original from the 1940s, or even the 1970s when they were still in production. To give modern performance to these old style scopes, we are using the high quality fully multicoated lenses. The scope comes backed with a limited lifetime warranty.

TABLE OF CONTENTS

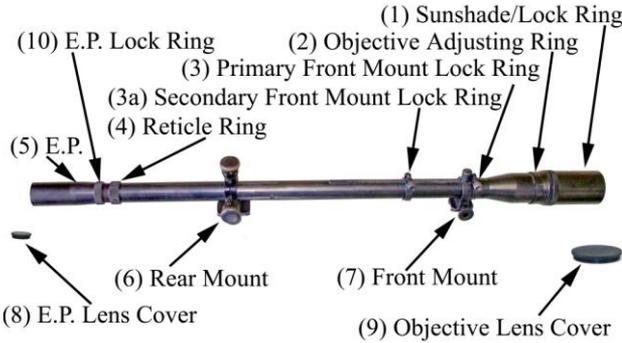
Section 1.	Riflescope Specifications -----	page 4
Section 2.	Basic Definitions And Adjustments-----	page 4
Section 3.	Adjusting 8X USMC Sniper Scope -----	page 7
Section 4.	Mounting the 8X USMC Sniper “Wm Malcolm” Telescopic Riflescope-----	page 8
Section 5.	Steps To Sighting In The 8X USMC Sniper Malcolm Riflescope-----	page 8
Section 6:	Maintaining Your Riflescope-----	page10
Section 7:	Limited Lifetime Warranty-----	page10

Section1: Riflescope 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 Size
M8USMC	8X	31	11	3.15	23	25.4	4.2	3/4"

All lens surfaces are fully multi-coated using the special technology to maximize the light transmission. The objective lens is adjustable. The reticle is a fine crosshair. The rear mount has a click adjustment for both elevation and windage. Both E/W click adjustment is 1/4 MOA with the front and rear mount spacing at 7.20". One full turn has 50 clicks or 12.5 MOA.

Section 2: Basic Definitions and Adjustments



- (1) Sunshade / Lock Ring:
Objective has a parallax adjustment. You can loosen the sunshade/lock ring and rotate the objective adjusting ring to the range setting you are going to shoot to eliminate parallax.
- (2) Objective Adjusting Ring:
After you properly set the range on the objective, tighten the sunshade/lock ring making sure the adjustment ring does not move during tightening. A small amount of backlash movement is normal in the locked position.
- (3) Front Mount Lock Rings:
There are two front mount lock rings on the rib. The primary front lock ring is in the front of the front mount and the secondary front mount lock ring is in the back of the front mount.

(4) Reticle Ring:

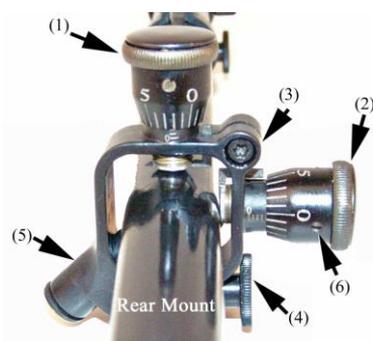
Reticle ring is used to rotate the reticle left and right until the reticle pattern is perpendicular to the bore and lined up with elevation turret. Loosen two set screws on the ring, position reticle and retighten the two screws.

(5) Eyepiece:

The eyepiece is at the rear of the scope. A knurled locking ring(10) secures the eyepiece. You can change the focus of the reticle to suit your individual eyesight. Loosen (turn clockwise) the knurled E.P. locking ring(10), and turn the eyepiece clockwise or counter-clockwise until the reticle is crisp and clear while looking at something non-descript like the sky etc. Then, retighten the locking ring snugly. Tighten finger tight only. Do not use tools to tighten.

(6) Rear Mount:

The 8X USMC Sniper SCOPE precision adjustable rear mount contains the windage and elevation adjustments.



The rear mount can be used for $\frac{3}{4}$ " short Malcolm scope, or any $\frac{3}{4}$ " Black Powder Cartridge Silhouette scopes. This mount is made out of steel, unlike the original aluminum USMC SNIPER SCOPE mount. The turret screws are made out of brass to ensure accurate clicks and minimal backlash. The

rear mount has $\frac{1}{4}$ MOA (minute of angle) per click with a 7.2" mount spacing and total 60 clicks each full turn. The total adjustment of the rear mount will have over 125 MOA in elevation and 60 MOA on each side from the center in windage with a 7.2" mount spacing. (1) & (2) are elevation and windage turret adjustment screws. (3) is the windage and elevation turret locking screw. (4) is base locking screw; (5) is a coil spring housing and plunger to hold the scope against the adjustment screws.

(7) Front Mount:

The front mount provides a precise pivot system for the scope. A rib is located on top of the tube and prevents the scope from rotating in its mount. The front lock ring is used to adjust eye relief and reposition the scope after the weapon is fired. A second lock ring behind the front mount is to limit the recoil travel of the tube and to insure that the front mount stays on the rib, and the scope tube can be moved back and forth precisely.



If you use this 8X USMC Sniper mount set for the Malcolm short scope, a sliding rail item, 17SLR, will be needed for the front mount. This mount set will also work with any 3/4" Lyman, Unertl or J W Fecker® riflescope.

(8) Lens Covers:

A threaded lens cover is provided for both the objective and eyepiece.

(9) There are two special blocks included in this scope package—the rear base (O) and the front base (E), which are typically used to mount the 8X USMC SNIPER Wm. Malcolm telescope on the M1903 or M1941A1 rifle. The rear base (O) is attached to the receiver. The front base (E) is attached on barrel. The Lyman, J.W. Fecker® and Unertl telescope mounting bases are also possible to be used with this weapon system. The photo below shows the spacing of the front and the rear mount at 7.2 inches.



(10) Eyepiece Lock Ring:

This is the lock ring to secure the E.P. after E.P.

adjustment is properly made.

- (11) A recoil spring assembly is also included in the package as a spare accessory. The recoil spring should be compressed only sufficiently to return scope to original position.



Section 3: Adjusting 8X USMC SNIPER Scope

This scope is designed to replicate the look of the scopes that appeared from 1940's to 1970's. However, they are constructed using the most modern advances in optics and construction, to give the modern shooter a fun and dependable scope.

Don't let the external adjustments of the mounts intimidate you. If you'll take a few minutes to study the relationship of the front and rear mounts, you'll find that making sight adjustments with this sighting system is actually every bit as easy as making sight adjustments with the standard open sights that probably came installed on your rifle. In fact, the movements of all adjustments with these mounts have the same exact effect on the point of impact as the adjustments made with standard open sights.

In order that the user obtains the maximum efficiency and satisfaction from his target riflescope, he must make three adjustments. There are adjustments of ocular focus of the reticle, parallax setting and mount adjustment.

The ocular focus position needs only be done once and no change is required unless the vision of the user changes. However, parallax setting and mount adjustments must be made for optimum performance of the telescope at a specific range.

Parallax is the apparent movement of the reticle on the field of view or target when viewed from various head positions while looking through the eyepiece and is the result of improper objective focus. Since the adjustment for parallax is very important, it is imperative that when making a critical check that

the scope be supported vibration free. It can be supported on a rifle rest or sandbags.

The following three steps are how to set the parallax and range:

- (1) Loosen the Sunshade/Lock ring one or two turns.
- (2) Rotate Objective Adjusting Ring to desired range setting.
- (3) Hold Objective Adjusting Ring in fixed position relative to scale and tighten Sunshade/Lock ring.

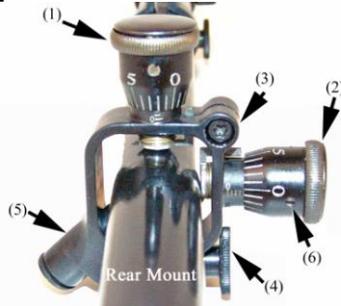
The **REAR MOUNT** offers adjustments for both **WINDAGE** and **ELEVATION**. When the **WINDAGE TURRET(2)** is turned **COUNTER CLOCKWISE**. It moves the point of impact to the **RIGHT**. When the **WINDAGE TURRET(2)** is turned **CLOCKWISE**. Then the point of impact will be moved to the **LEFT**.

When the **ELEVATION TURRET(1)** is turned **COUNTER CLOCKWISE**, then the point of impact will be moved **UPWARD**. When the **ELEVATION TURRET(1)** is adjusted **CLOCKWISE**, the point of impact will be moved **DOWNWARD**.

Section 4: Mounting the 8X USMC SNIPER “Wm Malcolm” Telescopic Rifle Scope

The front and rear mounts are designed to fit the special bases provided in this scope package. This type base has been widely used for many externally adjusted scopes before such as the Unertl, Lyman, and Fecker®.

Section 5: Steps To Sighting In The 8X USMC Sniper Malcolm Rifle Scope



1. Make sure that the mounts have been correctly and securely attached to the barrel and receiver using the proper bases. For the M1903, using the bases provided will require gunsmithing if the rifle is not pre-drilled and tapped. The proper adjustment of the reticle can be done by loosening the two **RETICLE RING SCREWS**. This allows the reticle of the scope to be rotated until the crosshairs are aligned with the windage and elevation adjustments. Be sure to retighten the screws to prevent the reticle from moving.
2. Familiarize yourself with all of the features of the scope and mounts, especially both the **WINDAGE TURRET SCREW (2)** and **ELEVATION TURRET SCREW (1)**, and the front mount. Before adjustment can be made with either turret, the **LOCK SCREW (3)** must be loosened.
3. We recommend starting at just 25 yards, placing a sizeable 2'x2' or large sheet of cardboard or paper on the target board. Using a small aiming mark near the middle of the target, center the crosshairs and take a shot. If you're on the paper, you have your starting point. If not, use each corner of the paper as an aiming point. One of the corners should produce a hit. Move the impact of the bullet toward the aiming point.

It's best to adjust the windage first. Begin by first adjusting the **WINDAGE TURRET SCREW (2)** to move the point of impact in the direction you want. To move shots to the **RIGHT**, turn the adjustment **COUNTER CLOCKWISE**. To move shots to the **LEFT**, turn the adjustment **CLOCKWISE**.

4. Once the windage has been zeroed, then adjust elevation. To move the point of impact **UP** turn the

adjustment **COUNTER CLOCKWISE.** To move point of impact **DOWN** turn adjustment screw **CLOCKWISE.**

5. Move target to 50 yards and repeat this process, once the rifle is printing on, move the target to 100 yards and repeat again to secure a good 100 yard zero.

Section 6: 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 optical quality lens paper. Grease should be removed using alcohol only.
- 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. **DO NOT USE** penetrating oils on this or any rifle scope.
- G. Store the scope in a moisture-free environment.
- H. Avoid storing the scope in a hot place 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 7: Limited Lifetime Warranty

Hi-Lux, Inc. warrants 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. The warranty is not transferable. Warranty obligation is limited to the repair or replacement of any product returned to **Hi-Lux, Inc.**

that 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 \$25 to cover postage and handling. Additional fees will be applied to all returns from outside of the United States.

Attn.: Warranty & Service Dept.

Hi-Lux, Inc.

3135 Kashiwa Street

Torrance, CA 90505

Tel: (310) 257-8142, Fax: (310) 257-8096

E-Mail: service@hi-luxoptics.com

www.hi-luxoptics.com

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™