

Leatherwood® / Hi-Lux™ Optics



CMR RIFLESCOPE INSTRUCTIONS

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

©2013 Hi-Lux, Inc. Leatherwood®, HiLux™, Wm Malcolm®, J.W. Fecker®, DiamondTuff, Multi-Dial, No-Math Mil-Dot and ZRO-LOK™ are the trademarks of Hi-Lux, Inc.

CONGRATULATIONS! You have just purchased our 1-4x Close-Medium Range **CMR14X24** Tactical riflescope; one of the finest tactical scopes available today. The Leatherwood® / Hi-Lux™ Optics **CMR** scope is built with a 30mm tube. When shooting situations get up close and personal, you need a scope that has been designed and built specifically for that kind of shooting - whether during a tactical situation or when hunting dangerous big game. To compromise with anything else could prove to be life threatening. The **CMR** scope is the scope you need.

This relatively short 30mm tube scope does not add a lot of weight to any rifle. Thanks to its advanced optical system design and the high quality fully multicoated lenses, the target image is clear and sharp. An extremely practical circular reticle aids in quick target acquisition by drawing the attention of the shooter's eye to the center of the scope. To insure that the target is fully visible, this reticle has only a horizontal crosshair, with a partial vertical lower crosshair. The upper half of this reticle leaves the scope clean and uncluttered. Plus, the lower crosshair features short bar aiming points calibrated for a hold over values from 200 up to 900 meters in MOA or MiL, which can be used for many different trajectories. The center open circle—and dot in the reticle can be used illuminated or without illumination.

Another great feature of the **CMR** scope is Hi-Lux's ZRO-LOKTM --the turret zero locking system, which does exactly what it says. Once the shooter has the scope sighted in, this system allows that alignment to be locked in place - still offering just one full turn of the adjustment for tweaking of shot placement. This is the most advanced "zero guarantee" in the industry today.

Leatherwood®/Hi-Lux™ Optics' CMR scope is built with all of the ruggedness and reliability that has made this line well known for its quality and value. Other features include a tough, wear resistant *Perma-Coat* soft luster blueblack finish, *DiamondTuff* fully multi-coated lenses polished to photographic quality, *Tri-Center* coil spring tension for positive windage and elevation adjustment, and *Fast Focus Eye Adjustment*.

Here is a riflescope that's built to take on anything that Mother Nature can dish out. With every Leatherwood \mathbb{B}/Hi -LuxTM riflescope, you get Quality, Precision and Ruggedness at a price that doesn't break your budget. The **CMR** is built to meet the wants and needs of all shooters.

TABLE OF CONTENTS

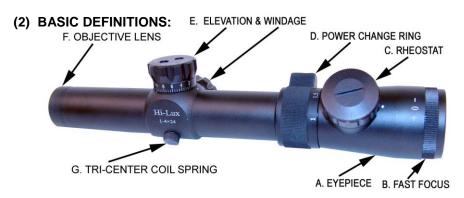
Section 1.	SPECIFICATIONS AND BASIC DEFINITIONS	Page 4
Section 2.	EYEPIECE FOCUSING AND RHEOSTAT	Page 5
Section 3.	ZRO-LOK™ ELEVATION AND WINDAGE TURRETS	Page 5
Section 4.	MOUNTING	Page 6
Section 5.	HOW TO RESET THE SCOPE OPTICAL OR PHYSICAL CENTER	Page 6
Section 6.	PRE-ZEROING	Page 7
Section 7.	ZEROING	Page 8
Section 8.	SPECIAL RANGING RETICLE & FEATURES	Page 9
Section 9.	CMR SCOPE EXTEDNED LEVER INSTALLATION (OPTIONAL ACCESSORY)	Page 14
Section 10.	MAINTAINING YOUR RIFLESCOPE	Page 15
Section 11.	LIMITED LIFETIME WARRANTY	Page 16

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)
CMR14X24	1 x – 4x	24	94.8-26.2	3"	10.2	16.5	11.1 – 6	30mm
CMR-AK762	1 x – 4x	24	94.8-26.2	3"	10.2	16.5	11.1 – 6	30mm

All air-glass surfaces are fully multi-coated using special technology to maximize the light transmission. The **Elevation** and **Windage** click adjustment is 1/2 MOA at 100 yards $\approx 1/2$ inch at 100 yards ≈ 14 mm at 100 meters. A special ranging reticle is used in this model. The details of the reticle are illustrated in the Section 8. The Elevation Adjustment of the **CMR** scope has at least 90 MOA up & 90 MOA down adjustment from center of the tube and the Windage Adjustment of the **CMR** scope has at least 90 MOA left & 90 MOA right from center of the tube as well.



A. EYEPIECE; B. FAST FOCUS; C. RHEOSTAT; D. POWER CHANGE RING (LEVER LENGTH CAN BE EXTENDED WITH AN ADD ON EXTENSION THAT IS SOLD SEPARATELY). E. ELEVATION AND WINDAGE ADJUSTMENT KNOBS; F. OBJECTIVE LENS; G. TRI-CENTER COIL SPRING.

Warning: The Tri-Center coil spring has been preset at the factory for the best tracking results. Please do not try to adjust it yourself. It will damage the scope.

SECTION 2: EYEPIECE FOCUSING AND RHEOSTAT

Hold the scope about three 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 just need to turn the fast focus (4) in or out for adjustment until the reticle appears in sharp focus.

The rheostat with 11-position detents is for varying the brightness of the reticle illumination. For the best results in a low light situation, we recommend that you set the brightness as low as possible while



you are still able to see the reticle clearly. The "NV" position is designed for night vision use. The rheostat is located 45° left on top of the eyepiece. The battery, which is included with the scope, is a coin style CR2032 3V lithium battery. The battery can be replaced by first removing the battery compartment cover (1) located in the top of the rheostat adjustment (2), then remove the old battery, insert a new battery with "+" side facing up and retighten the cover (1).

SECTION 3: ZRO-LOK™ ELEVATION AND WINDAGE TURRETS

We have developed a special ZRO-LOK™ turret system. Before you initially zero your CMR scope, you just need to loosen the two locking screws (A) on both elevation and windage turrets. Then you can adjust the elevation turret as the regular scope turret up & down till you zeroed the scope. Once you get the initial elevation zero of the scope done, you need to rotate the MOA index mark ring (B) to line up the zero on the index mark rings with the dot as the picture shows and then



retighten the two locking screws. After you retightened the two locking screws (A) on the top of the turret, the elevation turret will be locked down in place and it will only allow you to make one full-turn on the adjustment turret. One full-turn on the elevation turret can give you 28.5 MOA adjustment. In case If you have a need for a few MOA going down from the zero point, you iust need to line that number up with the zero mark. Then the numbers from that number to "0" are the MOA adjustment going down. For example: If you

need to have 4 MOA going down from the elevation zero, you just need to line up "4" with the zero mark. Then the number "4" is the true zero. The Numbers from "4" and up are the MOA adjustments that are going higher from zero point. The MOA numbers from "4" to "0" are the MOA adjustments that are going down from the zero point. The MOA index mark ring can only go counterclockwise from "0" position. For the windage turret, rely on the same process to make the initial zero. After you have the windage zeroed, you need to rotate the index mark ring to line up the zero mark and retighten the two locking screws (A). Once you lock the windage system in place, it only allows you to turn half a circle on each side, which is 14.5 MOA left and right. With this ZRO-LOK™ turret locking system, you can never lose your scope zero.

SECTION 4: 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 farthest 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 SHOULDERS OF THE RING HALVES. BE SURE THAT THE SCOPE IS MOUNTED FAR ENOUGH FORWARD. ITS REARWARD MOTION MAY INJURE THE SHOOTER WHEN THE RIFLE RECOILS.

SECTION 5: HOW TO RESET THE SCOPE OPTICAL OR PHYSICAL CENTER

The elevation and windage adjustments on all new Leatherwood®/Hi-Lux™ scopes are preset to the optical center and the physical center at the factory. For all the new scopes you do not need to reset the optical and physical center for the scope. However, if you are mounting a scope that was previously used on another rifle, you should recenter the scope first before

you zero the scope again. Centering the **Elevation** and **Windage** adjustments to the scope optical and physical center not only will help you to get the optimum travel of the adjustments, but also to save you time to rezero the scope. If the erector unit inside the scope is off to one side, the **Elevation** and **Windage** adjustments won't give equal travel in all directions. If you want the **Elevation** and **Windage** adjustments moving the entire erector unit horizontal and vertical consistently and correctly inside the scope, you need to keep the erector unit centered(This may require using a set of rings or a base mount that also allows some adjustment.). To regain the full adjustment travel, you need to recenter the adjustments as followings:

- (1) Turn the **Windage** adjustment all the way to the **Right** as the arrow indicates on the turret to the point that it stops moving.
- (2) Turn the **Elevation** adjustment all the way **UP** to the **TOP** as the arrow indicates on the turret to the point that it stops moving too.
- (3) Then turn the Windage adjustment all the way back in the other direction Left till it stopped. Counting the clicks or hash marks while you are turning the adjustment back. Remember the total clicks or the hash marks.
- (4) Moving the **Windage** adjustment back to **Right** half the amount of the clicks or hash marks. This is the position that has the **Windage** centered.
- (5) Then you can repeat the above (3) and (4) two procedures to reset the optical and physical center for **Elevation** adjustment too.
- (6) This centers the erector unit inside the scope. The Windage now in the scope is at optical and physical center. We hope you can zero the scope on your rifle near to this **Windage** optical center position. Then you will maximize your Elevation Adjustment.

SECTION 6: 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, loosen the two locking screws on both **Windage** and **Elevation**. Then you can turn the windage and elevation turrets freely.
- D. Look through the bore and center the target in the bore and adjust the **Windage** and **Elevation** turrets to position the reticle on the center of the target.

- E. For the **Windage** adjustment, turn the **Windage** adjustment turret **Clockwise** to move the point of impact **Left** and **Counterclockwise** 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 turret **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 your mounting system allows for adjustment of the scope, the gross adjustments should be made in the mount and then the final adjustments will be made with the scope's internal adjustment system.

SECTION 7: 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 shooting needs and range conditions.

- A. In general, if most of your shots will be at short range, zero-in at 100 meter. If you want to use the **CMR** reticle hold over lines to compensate the drop, you need to zero the CMR scope at 100 meters (For the CMR-AK762 scope zeroing, we will talk more in SECTION 8 under the CMR-AK762 Reticle section). The hold over value in the Ballistic Data Comparison Example Chart is based on the 100-meter zeroing. The framing information in the reticle to frame the target or estimate the range should be done at 4x magnification.
- B. Set the power to 4X and loosen the two locking screws on both **Elevation** and **Windage**.
- 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 turrets and by the amount indicated.
- E. Repeat as necessary.
- F. Once the zeroing of the scope is completed, you can re-index the MOA index mark ring to line up with the zero mark and then retighten the two locking screws on both **Elevation** and **Windage** to lock the turrets in place. You can reference Section 3 for details how to use the **ZRO-LOK™** turret locking system.

Each click of the adjustment changes bullet impact at 100 yards by 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 ½ - the "click value" indicated on the adjustment turrets by 2 and the adjustment at 200 yards is 1 inch per click. For 400 yards, you would multiply ½ - the "click value" by 4 and that would give 2 inches per click and so on. Once the zeroing of the scope is completed, you can reset the zero marking per the instruction by tightening the screws on the windage and elevation turrets in place.

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

SECTION 8: SPECIAL RANGING ILLUMINATED RETICLES

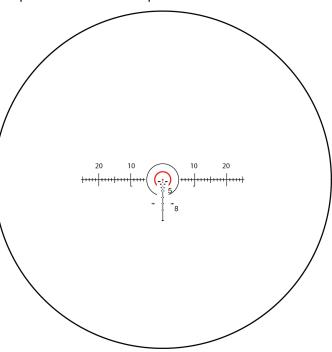
1. CMR Reticle:

(1) CMR14X24 Ranging Reticle:

This reticle provides useful ranging & framing reference information. When you use this reticle to frame and estimate the range, you need to turn the magnification to 4X. The horizontal line has 1 MiL per small scale. The O.D. of the big circle is 10 MiL(≈36 MOA). The illuminated small circle O.D. is 5 MiL(≈18 MOA). The center dot is 1 MOA. The bracket below the 10 MiL from the center dot on each side of the horizontal line is to frame a 19" target at a 25-meter range at 4 power. **The center dot and the small circle can be illuminated as needed**. The height of each 1 Mil short bar on the horizontal line is to reference 1 MiL. The height of each 5 MiL medium bar on the horizontal line is to reference 2 MiL. The height of each 10 MiL mark on the

horizontal line is to reference 4 MiL. The vertical line is calibrated with the hold over value to compensate the bullet drop from 200 to 900 meters for

different calibers. You can compare the ballistic data of any caliber you want to shoot with the hold over value listed in the chart to find out what each vertical BDC line represents to you. In order to use the vertical BDC lines to compensate the drop, the center dot should be zeroed at 100 meters. The vertical BDC



lines below the center dot represent 200, 300, 400 up to 900 meters. The outside width of each vertical BDC line(the short bar) is to frame a 19.7" (50cm) target at each range. Each open cut off area inside the center of each vertical BDC line is to frame an 7.9" (20 cm) target at each range. The numbers 10 and 20 on the horizontal line are 10 MiL and 20 MiL. The numbers on the vertical line are for the distance. The "5" means 500 meters and the "8" is for 800 meters. The position of the number 5 (2 MiL from the center) is to reference the wind speed at 10 mile per hour at the 500 meter. The position of the number 8 (4 MiL from the center) is to represent wind speed at 10 mile per hour at 800 meters. The little crosses (3 MiL from the center) at 700 meter represent the wind speed at 10 miles per hour at 700 meters. The Ballistic Drop Data Examples listed in the Ballistic Data Comparison Chart are just for two popular rounds .223 (62 grain) and .308 (168 grain) for you to understand how to compare with our hold over value in the reticle. The .223 and .308 are two calibers are working very well with that hold over value of this reticle.

(2) CMR Ballistic Data Comparison Example Chart and hold over values:

Target W	INC	H	INCH		Ballis	tic Drop	Vertical Line			
7.9" (20cm)			19.7" (50 cm)				Hold Over Values			
Banga (m)	Reading W		Reading W		Cal .223 62gr		Cal308 168gr			
Range (m)	MOA	MIL	MOA	MIL	MOA	MIL	MOA	MIL	MOA	MIL
25	28.80	8.00	72.00	20.00	3.50	1.00	3.25	0.90	4.00	1.10
50	14.40	4.00	36.00	10.00	0.50	0.25	0.50	0.14	0.50	0.14
100	7.20	2.00	18.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
200	3.60	1.00	9.00	2.50	-1.75	-0.50	-2.00	-0.56	-2.00	-0.60
300	2.40	0.67	6.00	1.67	-4.50	-1.25	-4.75	-1.32	-5.00	-1.40
400	1.80	0.50	4.50	1.25	-8.00	-2.25	-8.25	-2.29	-9.00	-2.50
500	1.40	0.40	3.60	1.00	-12.25	-3.50	-12.25	-3.40	-12.60	-3.50
600	1.20	0.33	3.00	0.83	-17.75	-5.25	-17.00	-4.72	-20.00	-5.50
700	1.00	0.29	2.60	0.71	-24.50	-7.00	-22.50	-6.25	-27.00	-7.50
800	0.90	0.25	2.30	0.63	32.75	-9.50	-29.00	-8.06	-34.20	-9.50
900	0.80	0.22	2.00	0.56	42.75	-12.50	-36.50	-10.14	-45.00	-12.50

^{**}The data in the column "Reading W" has the both MOA and MiL value, which is calculated and based on the target width 7.9" (20cm) and 19.7" (50cm) at each range in meters.

2. CMR-AK762 Reticle:

CMR-AK762 reticle is calculated for AK-47 type of rifles with

Barrel Length: 415mm = 16.3"

7.62x39mm FMJ BT Russian Military ammo type: 57-H-231 or 7H23

Bullet Diameter Ø: 7.92mm=0.312" **Bullet Weight**: 7.9g = 122gr, BC: 0.295

Drag Function: G1

Muzzle (3m=10ft) Velocity: 715 m/s = 2,345 fps

Zero: $200m \approx 219yds$ or $32m \approx 35yds$ (1 meter = 1.094 yard)

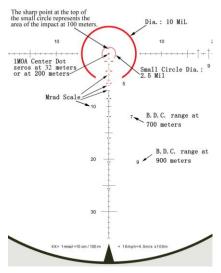
(1) CMR-AK762 Reticle Ranging Scale:

The CMR-AK762 reticle has 8 vertical BDC (bullet drop compensation) lines on the center vertical line from 300 to 1000 meters. The vertical line also has the mrad

(trigonometric milliradian) scale up to 35 mils. All the ranging estimate features are based on the magnification 4X. The center dot, the two circles and the vertical BDC line to 5 are illuminated either in green or red. The ranging crosses on the right side from 200 to 600 meters are also illuminated.

a) The center part of the CMR-AK762 scope reticle:

The diameter of the big illuminated circle is 10 Mil. The open of the big circle at the bottom is 5 Mil. The diameter of the small circle is 2.5 Mil. The open of the small circle is 2 Mil. For precision shooting we recommend to zero the scope at 200 meters. For this cartridge the 32m ≈35yds and 200m≈219yds will have the same zero. You can zero the center dot at either 32 or 200 meters. If you zero the center dot at 200 meters, then the 1st BDC line is the hold over line to compensate for 300 meters. The 2nd BDC line is the hold over line for 400 meters. The 3rd BDC line is the hold over line for 500 meters.....and the 8th BDC line is the hold over line to compensate 1000 meters. With the center

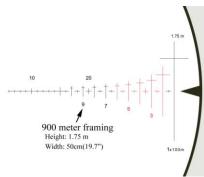


dot zeroed at either 32 meters or 200 meters, the sharp point at top of the small circle is to represent the area of the impact at 100 meter. The width of the BDC line is to frame the 50cm(19.7") at each range. The open in the center of each BDC line is frame for 20cm(7.9") at each range. The vertical line also has the mrad scale up to 35 Mil. The heights of the 10 Mil, 15 Mil, 20 Mil, 25 Mil, and 30 Mil are 1 Mil, 1.5 Mil, 2 Mil, 2.5 Mil and 3 Mil respectively. The BDC no 5, 7, and 9 are also given the windage compensation at that range respectively at the wind speed 10mph.

b) The right portion of the CMR-AK762 scope reticle:

The right side of the reticle has the ranging features. The ranging

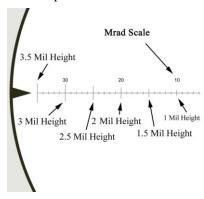
crosses from the 200 meters to 600 meters are illuminated. The height of each ranging cross is to frame the 1.75 m (\approx 69") at that range. The width of each ranging cross is to frame 50cm (\approx 19.7") at that range. Just frame a known size target in the proper ranging



cross, and you can easily estimate the range with this reticle. The numbers 10 and 20 above the horizontal line are for the mrad scale 10 Mil and 20 Mil. The heights of the 10 Mil and 20 Mil are 1 Mil. The height of the 15 Mil is 1.5 Mil. All other heights of the 1 Mil scale are all 0.4 Mil. The numbers 3, 5, 7, 9 below the horizontal line represent 300 meter, 500 meter, 700 meter, and 900 meter respectively.

c) The left portion of the CMR-AK762 scope reticle:

The left portion of the reticle has only the mrad scale up to 35 Mil. The heights of 10 Mil, 15 Mil, 20 Mil, 25 Mil, and 30 Mil, and 35 Mil are 1 Mil, 1.5 Mil, 2 Mil, 2.5 Mil, 3 Mil, and 3.5 Mil respectively. All other heights of the 1 Mil scale are all 0.4 Mil.



d) CMR-AK762 scope sighting suggestions:

You can zero the scope at 32 meters (\approx 35 Yards). For precision shooting, we recommend to zero the scope at 200 meters (\approx 219 Yards) for better accuracy. For the quick "Battle Sighting Zero", you could zero the scope at 30 meters (\approx 33 Yards) range. Remember if necessary always check and correct the sighting of the scope before each use. Do not forget to make necessary adjustments to compensate for different weather conditions. For example: Cold air has higher density. That will create higher resistance for the bullet to propel through the air. As a result the point of bullet impact will be lower in comparison to the same shot in warmer weather. The scope elevation setting should be adjusted higher to move up the point of impact.

(2) CMR-AK762 Framing and hold over line chart at the range:

Target W	INCH 7.9" (20cm)		INCH 19.7" (50 cm)		7.62x39 AK FMJBT 7.9g=122gr,BC=0.295 Muzzle Verlocity:2,345fps		
Range (m)	Reading W		Reading W		16.3"(415mm) Barrel		
Kange (III)	MOA	MIL	MOA	MIL	BDC Hold Over Line		
25	27.50	8.00	68.80	20.00	N/A		
32	22.90	6.67	57.30	16.67	Center dot is zeroed at 32 m		
50	13.80	4.00	34.40	10.00	N/A		
100	6.90	2.00	17.20	5.00	Small circle's Sharp Point is the area of impact at 100 meters		
200	3.40	1.00	8.60	2.50	Center dot is zeroed at 200 m		
300	2.30	0.67	5.70	1.67	The 1 st BDC hold over line is the impact point for 300 meters		
400	1.70	0.50	4.30	1.25	The 2 nd BDC hold over line is the impact point for 400 meters		
500	1.40	0.40	3.40	1.00	The 3 rd BDC hold over line is the impact point for 500 meters		
600	1.10	0.33	2.90	0.83	The 4 th BDC hold over line is the impact point for 600 meters		
700	1.00	0.29	2.50	0.71	The 5 th BDC hold over line is the impact point for 700 meters		
800	0.90	0.25	2.10	0.63	The 6 th BDC hold over line is the impact point for 800 meters		
900	0.80	0.22	1.90	0.56	The 7 th BDC hold over line is the impact point for 900 meters		
1000	0.70	0.20	1.70	0.20	The 8 th BDC hold over line is the impact point for 1000 meters		

^{**}The data in the column "Reading W" has the both MOA and MiL value, which is calculated and based on the target width 7.9" and 19.7" at each range in meters. The vertical BDC lines are the hold over lines for the appropriate range.

SECTION 9: CMR SCOPE EXTENDED LEVER INSTALLATION (Item No.: SMA-EL)

This is optional accessory for all CMR series. This kit includes three components: Bushing Screw #1; Screw #2; Extended Lever.



Bushing Screw #1



Extended lever



Screw # 2

The installation instructions are as followings:

- (1) Remove the existing small top covering screw on the power change ring. Do not unscrew the screw underneath the covering screw. This underneath screw is connected to the erector unit. Unscrewing the underneath screw will damage the scope.
- (2) Place Bushing Screw # 1 into the screw hole and tightened it down until it is flush with the curved surface.
- (3) Place the Extended Lever on top of the curved surface. Make sure the small arch of the Extended Lever matches up properly with the curved surface on the bump.





(4) Place Screw #2 through the Extended lever and tighten it into the bushing screw #1.

SECTION 10: 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 treaded cloth in order to protect the scope against corrosion.
- G. Store the scope in a moisture-free environment.
- H. Avoid storing the scope in a 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 11: 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. The warranty is not transferable. 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 \$17 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 ™