



# WEAVER® CLASSIC SERIES RIFLESCOPE OWNER'S GUIDE

Congratulations on your purchase of a Weaver<sup>®</sup> Classic Series Series Riflescope! You are now the owner of one of the most technologically advanced riflescopes in the industry. Weaver maintains absolute product integrity and quality control throughout the entire design, production, and delivery cycle of these riflescopes.



WARNING: NEVER LOOK AT THE SUN THROUGH THE RIFLESCOPE (OR ANY OTHER OPTICAL INSTRUMENT). IT MAY PERMANENTLY DAMAGE YOUR EYES.

#### WEAVER CLASSIC SERIES RIFLESCOPE FEATURES

Weaver<sup>®</sup> is constantly at the forefront of quality and value, and Weaver riflescopes are the next step in the revolution. Weaver riflescopes are built with premium technology. Fully-Multi Coated Optics and waterproof construction offer crisp, bright images in every environment. The compact 2-6x32 model is a perfect handgun scope. A special version of the 3-9x40 configuration (model# W803940R) is ideal for rimfire shooting, and includes 2 extra turrets for popular ammo.

All exterior lens surfaces have our new Elements Protective Coating (in addition to full multi-coating). Added at the end of the coating process, Elements Protective Coating molecularly bonds to the lens and fills the microscopic pores in the glass. The result is an ultra-slick coating that repels water, oil, fog, dust and debris - rain, snow, fingerprints and dirt will not stick. Elements Protective Coating is built to last: the bonded coating will not fade with the passage of time or normal wear and tear.

All Weaver Classic Series riflescopes feature:

- CLARITY The best resolution and contrast in all lighting conditions
- SECOND FOCAL PLANE Ensures accuracy at highest magnification
- HIGH LIGHT TRANSMISSION Anti reflective Multi-Coating on every air-to glass surface enables optimum brightness and true color in every lighting condition.
- VALUE Industry-best technology at an affordable price.

#### **KEY ELEMENTS OF A SCOPE**

There are four major elements of a scope:

- 1. Objective Lens: This lens has three functions. First, it permits light to pass into the scope. Second, it determines resolution. Generally, larger lenses allow more light to enter the scope and resolve details better than smaller ones. Finally, it forms an image for the other lenses to magnify to a usable size. The image formed by this lens is upside down.
- 2. Erector System: The erector system serves three functions. Its primary function is to erect the image (that is, flips the image right-side up) and align it to the reticle. During this process, primary magnification of the image takes place. These two functions are the result of lens action.
- 3. The third function is a mechanical one. The erector lenses are housed in a tube that is fixed at one end, while the other end of the tube is free to move and respond to dial adjustments. By moving the erector system, the point-of-aim of the scope is adjusted to match the point-of-impact of the bullet.
- 4. Reticle: In simple terms, the aiming device around which the scope is built. This element replaces the iron sight system of non-scoped rifles.
- 5. Ocular or Eye Lens: This element provides the secondary and final magnification of the image.

#### MOUNTING YOUR SCOPE

Your new scope, even with its technologically advanced design and features, will not perform at its best if not properly mounted. One of the most important contributing factors to the accuracy of your scope and rifle is the selection of the mount and the care with which mounting is done. Dependable mounts that attach your scope solidly to the rifle will reward you with dependability and consistent accuracy. You should take as much care in selecting a mounting system as you did in selecting your scope.

Remember, not all scopes are compatible with all mounts on all rifles. If there is any doubt in your mind, you should seek the advice of your local retailer or gunsmith.



WARNING: A RIFLESCOPE SHOULD NEVER BE USED AS A SUBSTITUTE FOR EITHER A BINOCULAR OR SPOTTING SCOPE. IT MAY RESULT IN YOU INADVERTENTLY POINTING THE GUN AT ANOTHER PERSON.

## **PARTS GUIDE**



#### PRELIMINARY SCOPE ADJUSTMENTS

Before installing the scope, we recommend you set the focus of the eyepiece to fit your individual visual requirement. Refocusing the ocular distance will result in a sharper reticle focus, an improved optical image, and will help to avoid eye fatigue when using the scope over prolonged periods of time. To refocus, hold the scope about 3 to 4 inches from your eye and point at the open sky or other flatly lit area such as a monotone painted wall.

Quickly glance into the scope. If the reticle appears blurred at first glance, it is out of focus. Turn the eyepiece clockwise or counter clockwise several turns. Glance into the scope again to check the sharpness of the reticle. Remember to take quick glances, as the eye will compensate for slightly out of focus conditions with prolonged looks. If the reticle still appears blurred, turn the eyepiece another two or three turns. Repeat this procedure until the reticle is sharp and clearly defined.

Unless your eyes undergo a significant change over the years, you will not have to make this adjustment again.

## ATTACHING A MOUNT, RINGS AND SCOPE TO YOUR RIFLE



#### WARNING: BEFORE BEGINNING THE MOUNTING PROCEDURE, BE SURE THE ACTION IS OPEN, THE CLIP OR MAGAZINE IS REMOVED AND THE CHAMBER IS CLEAR. DO NOT ATTEMPT ANY WORK UNTIL YOUR FIREARM HAS BEEN CLEARED AND DETERMINED TO BE SAFE.

## WARNING: IF THE SCOPE IS NOT MOUNTED FAR ENOUGH FORWARD, ITS REARWARD MOTION MAY INJURE THE SHOOTER WHEN THE RIFLE RECOILS.

In mounting your scope, we recommend that you DO NOT take short cuts as it may lead to damage to either the mounting system or to the scope. Each mounting system will have its own instructions to follow, and it is best to read the instructions first to be sure you understand them and have the necessary tools on hand.

We further recommend that you plan to go through the mounting procedure twice. The first time, to be sure everything fits together and functions properly. On the first run through, please keep the following in mind:

- Before attaching the base, clean the mounting holes in the receiver and the threads of the attaching screws with acetone or any good solvent to free them of oil or grease.
- If the mount manufacturer has recommended the use of a thread adhesive, do not use it on the first mounting trial. Once adhesive has set, it is difficult to demount if anything needs correction.
- Be sure the mounting screws do not protrude into the receiver or the barrel.

- When using dovetail mounts, do not use the scope as a lever when installing the scope. The initial resistance to turning may cause damage to the scope, and is not covered by the warranty. We recommend using a 1" wooden dowel or metal cylinder to seat the rings.
- Be sure the position of the scope does not interfere with the operation of the action.
- Be sure there is at least 1/8" of clearance between the edges of the rings and any protruding surfaces such as the turret housing (saddle), power selecting ring, and the flare of the objective bell. Also be sure there is at least 1/8" of clearance between the objective bell and the barrel.
- You should test position the scope for the proper eye relief. The scope rings should be left loose enough so that the scope will slide easily. Variable power scopes should be set at the highest magnification when performing this procedure. Mount the rifle and look through the scope in your normal shooting position.
- Test position the rifle for the proper cheek weld a number of times to ensure that your scope is positioned properly.
- When you are satisfied that everything is okay, demount and start again. This time, seat all screws firmly.

#### PARALLAX

You may have noticed that placing your eye at different positions behind the scope's eyepiece causes the reticle crosshairs to appear to move around to different points on your target. This is called "parallax error" (target and reticle are not in the same focal plane), and it becomes more noticeable (and more of a problem) at shorter distances and/or when the scope is set to higher powers. In most cases, parallax will not affect bullet point of impact enough to be of significant concern in large game hunting situations. Some Weaver models provide an adjustment for parallax compensation, which works by moving an optical element until the target (based on its distance) appears in the same plane of focus as the reticle. All Weaver scopes are set at the factory to be parallax-free at 100 yards.

#### USING THE SIDE FOCUS (Selected High Power Models Only)

The 4-16x44 and 6-24x50 models provide parallax compensations by the use of a movable lens back near the reticle, so the adjustment can be made with a "side focus" knob placed next to the windage and elevation adjustments. Just line up the estimated distance to your target with the index dot, and you will eliminate the aiming errors caused by parallax. After setting the side focus, you can double check by moving your head around from side to side behind the eyepiece-the point of aim should not shift if the side focus is correctly set. An alternative method is to look through the scope and turn the side focus knob until the target, at whatever range, is sharply focused.

#### PRELIMINARY SIGHTING-IN

You can save a significant amount of expense and frustration by pre-sighting the scope to the rifle before you take it to the range for zeroing.

There are two basic methods that can be used for pre-sighting your scope. Method one is to use a Bushnell<sup>®</sup> Bore Sighter (laser, magnetic or standard). The use of a Bore Sighter saves time and ammunition and is the system most often used by gunsmiths. The second method is traditional bore sighting:

#### **BORE SIGHTING METHOD**

- 1. Place a target at 25 to 50 yards.
- 2. Remove the bolt from the rifle.
- 3. Place the rifle on sandbags or a shooting rest.
- 4. Set the scope to its lowest magnification.
- 5. Peer through the bore from the receiver and adjust the position of the rifle to center the target bull's eye in the bore (Fig. A).
- 6. Without moving the rifle, look into the scope and note the position of the reticle on the target. Remove the caps and adjust the windage and elevation adjustments to center the reticle on the bull's eye (Fig. B).

#### **FINAL SIGHTING-IN**



WARNING: SINCE THIS PROCEDURE INVOLVES LIVE FIRE, IT SHOULD BE DONE AT AN APPROVED RANGE OR OTHER SAFE AREA. CHECK BORE FOR OBSTRUCTIONS. AN OBSTRUCTED BORE MAY CAUSE INJURY TO YOU AND OTHERS NEARBY. EYE AND EAR PROTECTION IS RECOMMENDED.

- 1. From a steady rest position, fire two or three rounds at a 100-yard target. Note the impact of the bullet on the target and adjust the windage and elevation dials as needed.
- 2. To move the bullet impact, turn the windage and/or elevation adjustments in the direction on the dials that corresponds to where the impact point falls on the target (for example, if test shots are hitting low, adjust elevation "down"). The adjustments on your riflescope model are marked in MOA (minutes of arc), and the point of impact at 100 yards will change by 1/4 MOA for each click of the windage or elevation adjustment. One full revolution of the adjustment=15 MOA (12 MOA in model# W802632).
- When the impact on the 100-yard target is satisfactory, switch to a target set at the desired distance for final zeroing. Set the magnification to the desired power on variable power models.





Fig. A Reticle not in alignment

Fig. B Reticle in alignment

#### THE DUAL-X RETICLE

All Weaver riflescopes described in this manual feature our Dual-X reticle, shown at right.

#### ALTITUDE AND TEMPERATURE

Ballistic charts published by ammunition manufacturers are based upon standard sea level conditions. When sighting in, it is well to keep in mind that altitude and temperature affect trajectory. It is best to sight-in under the same conditions in which you will be hunting.

#### CARING FOR YOUR RIFLESCOPE

Your scope needs very little maintenance. Exterior metal surfaces should be kept clean. A light dusting with a slightly dampened soft cloth is enough in most cases.

Your new scope features windage and elevation turrets that are completely sealed against water intrusion. However, we recommend that you keep the windage and elevation caps on the turrets, except when making adjustments, to prevent dust and dirt from collecting in the turret area.

We also recommend that lens covers be kept in place when the scope is not being used. Lenses should be inspected regularly and kept clean at all times. Dust, dirt, and fingerprints that collect on the lens surfaces will severely degrade image quality, and if left unclean for long periods, the anti-reflection coating could be damaged. Although lens cleaning is not difficult, it does require care and some patience.

- Start with a lens brush or a small, soft bristle paintbrush. Gently whisk away loose dirt particles.
- Next, use an ear syringe or bulb aspirator (available in most drug stores) to blow remaining dirt or dust from lens surfaces.
- If further cleaning is needed, use a dry, soft lint-free cloth. Very gently wipe the lens, starting at the center using a circular motion, then working outward to the edge.
- If this has not corrected the problem repeat the process using condensation from your breath.

#### DO YOU NEED TO SEND YOUR SCOPE TO US?

Before returning your scope for service, you should check the following points to make sure the problem is with the scope:

- Check the mounting system and rings for looseness or misalignment.
- Check to be sure the barrel and action are properly bedded and all receiver screws are tight.
- Check to be sure the mounting system allows sufficient clearance between the objective bell and the barrel.
- Check to be sure you are using the same type and weight ammunition that you used for sighting-in.

### **Technical Specifications**

SKU	Mag x Obj. Diam.	Reticle	Turrets	Elev. Travel (MOA)	Travel per Revolu- tion	Parallax Adjustment	Min. Parallax (Yards)	Eye Relief, Max Mag.	Field of View @ 100 Yds (Feet)	Length (inches)	Weight (oz )
W802632	2-6x32	Dual-X	Capped	30/30	12	Fixed	100	20"	12-4.5	9.375	11.5
W803940	3-9x40	Dual-X	Capped	30/30	15	Fixed	100	3.5"	38-13	12	14.7
W803940R*	3-9x40	Dual-X	Capped	30/30	15	Fixed	100	3.5"	38-13	12	14.7
W803950	3-9x50	Dual-X	Capped	25/25	15	Fixed	100	3.9"	31-10.5	12.75	16.7
W8041644	4-16x44	Dual-X	Capped	30/30	15	Side	10	3.6"	23-6	13.812	22.1
W8062450	6-24x50	Dual-X	Capped	30/30	15	Side	10	3.7"	16-4	14.625	24.6

\* the W803940R includes 2 additional, interchangeable elevation turret knobs. See next page for details.

## Special Instructions for model# W803940R (3-9x40 w/interchangeable elevation turret knobs)

Model W803940R includes two additional elevation turret knobs (standard MOA knob is pre-installed):

- (1) 17HMR
- (1) 22LR •

To switch to a different elevation turret knob:

- 1. Remove the outer turret cover/cap (Fig. A) to expose the turret (Fig. B). While holding the elevation turret tightly, unscrew and remove the turret retaining screw at the top of the turret, using a coin in the slot if necessary. Set the turret screw aside.
- 2. Remove the currently installed turret knob, lifting it straight up (Fig C). Store it away for future use. Keep the rubber O-ring for use on the new turret.
- 3. Replace the original turret knob with the extra knob that matches your load type and press it down into position (Fig. D), with the lowest yardage reference (17HMR=100yds, 22LR=50yds) lined up with the index mark (Fig. E). Place the O-ring from the original turret on top.
- 4. Secure the new turret knob in place by screwing the turret retaining screw back in place (Fig. E).
- 5. Sight-in and zero the turret knob (at a marked distance), loosening the retaining screw and rotating the turret knob as needed for proper calibration, then retightening the retaining screw.





Turret Retaining Screw

New Turret Knob (17HMR)





#### WEAVER LIFETIME LIMITED WARRANTY

Weaver warrants all optical and mechanical components within this product to be free of defects in materials and workmanship for as long as it is owned by the original owner. All electro-optics products\* and electronic components come with a one year warranty from the date of purchase. Weaver will repair or replace (at Weavers' option) any such defective product when it is returned by the original owner with a copy of the original receipt.

\*Examples of electro-optics products include laser rangefinders, red dot sights, reflex red dot sights.

Any return in the U.S. or Canada made under this warranty must be accompanied by the items listed below:

- 1. A check/money order in the amount of \$10.00 to cover the cost of postage and handling
- 2. Name and address for product return
- 3. An explanation of the defect
- 4. Proof of Purchase (copy of original receipt)

Product should be well packed in a sturdy outside shipping carton, to prevent damage in transit, with return postage prepaid to the address listed below:

IN CANADA Send To:
Weaver Optics (BOP)
Attn.: Repairs
140 Great Gulf Drive, Unit E
Vaughan, Ontario L4K 5W1

For products purchased outside the United States or Canada please contact your local dealer for applicable warranty information.

This warranty gives you specific legal rights. You may have other rights which vary from country to country.

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This warranty is your exclusive warranty and replaces all other warranties, express or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Some jurisdictions do not allow the exclusion or limitation of express or implied warranties, so the above exclusion may not apply to you. In that event, such warranties are limited in duration for as long as the product is owned by you (the original owner). In addition, in no event shall weaver be liable for costs in excess of the price of the product including any incidental or consequential damages. Some jurisdictions do not allow limitations on consequential or incidental damages, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from jurisdiction to jurisdiction. This warranty does not cover defects or problems caused by abuse, misuse, normal wear and tear, or by improper handling or installation, and the warranty is voided by unauthorized repair.



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