



# Adjustable-Objective Scopes by Hatsan



## Operation Manual

**CAUTION: Practice safe handling of your firearm at all times, especially when adding and adjusting a new component!**

### **Mounting**

Proper mounting is critical to achieving optimum performance from your scope. Follow the below instructions or take to a qualified gunsmith to mount your scope.

**CAUTION: MAKE SURE THAT THE GUN IS NOT LOADED OR COCKED AND THAT THE SAFETY IS ENGAGED!**

- 1) Using the pre-mounted rings, secure the scope to the receiver/rail of your gun by gently tightening the mounting hardware. You will want to place the mounts so that the scope can be positioned to provide proper eye relief - as indicated in the specifications.
- 2) Loosen the top rings of the mounts so that the scope can move within them.
- 3) Slide the scope forward or backward until you have a clear, full picture through it.
- 4) Twist the scope clockwise or counter-clockwise until the vertical segment of the reticle is in line with the center of the bore.
- 5) Gently tighten the top rings in a crossing pattern, and check the scope alignment after tightening.

NOTE: DO NOT over-tighten the scope rings, or you may cause damage to the scope tube or mounts. This type of damage is not covered under warranty.

### **Reticle Focusing**

The reticle can be focused so that it appears sharp in the shooter's vision. Follow the instructions below to make these adjustments.

**CAUTION: MAKE SURE THAT THE GUN IS NOT LOADED OR COCKED AND THAT THE SAFETY IS ENGAGED!**

- 1) Shoulder the gun or hold the scope so that it is 3-4" away from your eye and look through the scope at a light, featureless background. A light-colored wall or open sky work very well. **CAUTION: DO NOT LOOK DIRECTLY AT THE SUN!**
- 2) If the reticle is not sharp, loosen the focus lock ring located at the front of the eyepiece, then turn the eyepiece until the reticle appears in focus.
- 3) On models equipped with a fast-focus ring, simply turn the ring at the back of the eyepiece until the reticle is focused.

### **Zeroing**

Place a target at your preferred zero distance. Using a rest or other steadying device, aim at the bulls-eye of your target and fire a shot. If the point of impact matches your point of aim, the scope is zeroed. Otherwise, unscrew the adjustment covers and make adjustments using the below instructions.

- If the impact is either below or above your point of aim, turn the elevation (top) adjuster in the direction marked for the direction you want to move the point of impact. *Ex: If your shot was below the bulls-eye, turn the adjuster in the "UP" direction.*
- If the impact is to the left or right of the point of aim, turn the windage (side) adjuster in the direction marked for the direction you want to move the point of impact. *Ex: If your shot was to the right of the bulls-eye, turn the adjuster in the "LEFT" direction.*

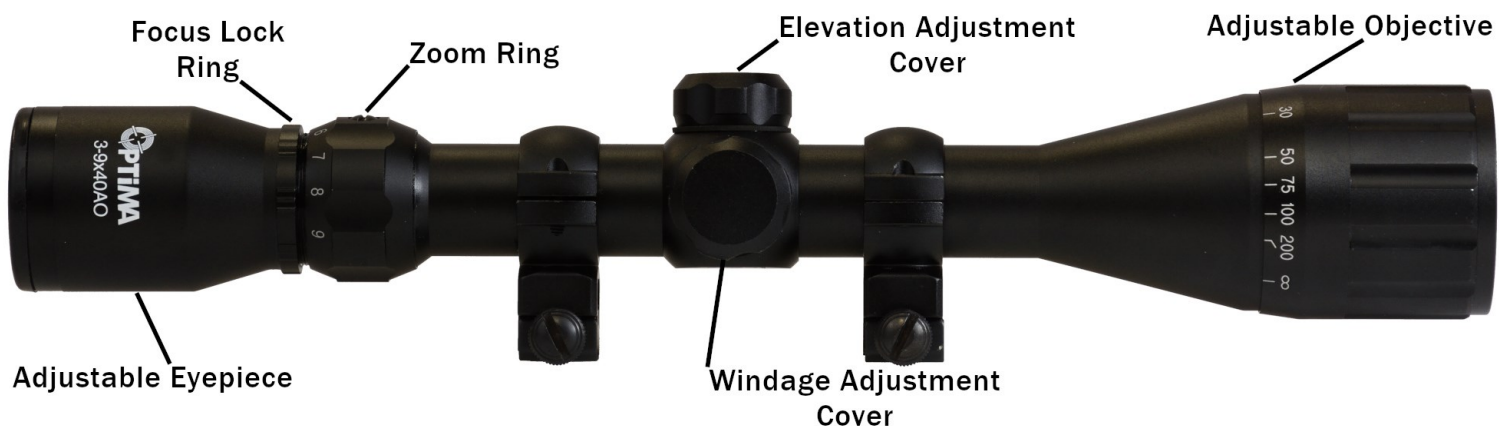
The distance of a single click can be found on the adjustment dials, and is typically 1/4 MOA, or roughly 1/4" at 100 yards. *Ex: 1 click in the "UP" direction will move the point of impact ~1/4" up at 100 yards. At 50 yards, the change is approximately half (~1/8").*

### **Care and Maintenance**

- Keep the scope clean, dry, and away from any corrosive substances.
- Keep dust covers on whenever not in use.
- Clean away dust and dirt regularly. Use a clean, soft cloth with a small amount of rubbing alcohol for cleaning.
- Refrain from dropping or subjecting the scope to harsh impacts - as this can affect its accuracy and may cause damage. Damage from impact is not covered under warranty.
- Do not disassemble any part of the scope, as this may break the water-tight seal and allow moisture/fog into the device. Damage and/or introduction of moisture due to disassembly is not covered under warranty.
- Do not lubricate any part of the scope. Some lubricants can damage the seals and/or accumulate on the lenses, causing fog and blurriness. The addition of lubricants may void your warranty.



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## Objective Focusing

The objective can be adjusted so that the target is in focus at varying ranges. Simply twist the objective until your target is clear when looking through the scope. There are range references marked on the housing for quick adjustments. The infinity ( $\infty$ ) symbol indicates the far end of the scope's focus range, and is to be used for targets beyond 300 yards.

Model #	Magnification	Objective (mm)	Tube Diameter	Exit Pupil (mm)	Length (in)	Eye Relief (in)	Field of View (Ft @ 100 yd)
HA90501	3x - 9x	40	1"	4.4 - 13.3	13.0	2.8 - 3.4	13.6 - 36.7
HA90502	3x - 12x	50	1"	4.2 - 16.6	13.2	2.6 - 3.1	7.3 - 33.5
HA90505	4x	32	1"	8.0	8.1	3.0	26.2

## 1-Year Limited Warranty

Optima scopes are warranted to the original retail customer from date of purchase. A copy of the original purchase receipt or other proof of purchase is required for warranty service. This warranty is non-transferable.

HatsanUSA limits this warranty to U.S. retail customers only. For warranty service, contact HatsanUSA by clicking on the "Contact US" link on [www.HatsanUSA.com](http://www.HatsanUSA.com), or by writing to the address below.

Any implied warranties, including merchantability and fitness for a particular purpose, are limited to the duration indicated above from original date of retail purchase. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. To the extent any provision of this warranty is prohibited by federal, state, or municipal law which cannot be preempted, it shall not be applicable. This warranty gives you specific legal rights and you may also have other rights which vary from state to state and country to country.

Damages caused by drops, impacts, natural disasters, abuse, or misuse of the product are not covered by and may void your warranty.

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