ABOUT SIGHTMARK®

Sightmark offers a wide range of products that include red dot scopes, reflex sights, rangefinders, riflescopes, laser sights, night vision, and award-winning flashlights and boresights. Sightmark products are inspired by military and law enforcement applications. All products are designed to be the most effective weapon accessories possible.

Sightmark - Make Your Mark®

www.sightmark.com
Photon Riflescope ................................................................. 1- 10

To view this manual in other languages go to www.sightmark.com
The Photon Riflescope is an original combination of a digital riflescope and daylight sight. The reticle has illuminated dot with adjustable brightness. The riflescope is equipped with 780 nm or 805nm built-in eyesafe laser IR Illuminators. The 915nm or 805nm IR operates in the invisible range which allows covert observation. The riflescope can be mounted using regular mounting brackets for day sights. The riflescope is designed for observation in the twilight or in the nighttime but due to the use of CMOS array, the unit can be used in the day too. The lens cap has a light filter which reduces image brightness. The Photon Riflescope is designed for hunting, sports shooting, security, and general observation.

FEATURES:
- 3.5x/5x optical magnification
- Built-in eye-safe laser IR illuminator
- Ability to use any standard mount for daylight sights
- Reticle with illuminated red dot
- Contract image

INCLUDES:
- Riflescope Photon
- Carrying case
- User manual
- Video cable
- Cleaning cloth
- Warranty card
<table>
<thead>
<tr>
<th>Specification</th>
<th>SM18003</th>
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<th>SM18005</th>
<th>SM18006</th>
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<tr>
<td>Magnification</td>
<td>5x</td>
<td>3.5x</td>
<td>5</td>
<td>3.5</td>
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<td>Objective lens diameter</td>
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<tr>
<td>Field of view, degree</td>
<td>4°</td>
<td>6.5°</td>
<td>4°</td>
<td>6.5°</td>
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<tr>
<td>Exit pupil</td>
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<td>Eye relief</td>
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<td>Click value, MOA</td>
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<td>Eyepiece dioptre adjustment</td>
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<td>Max. detection range (IR on)</td>
<td>190m</td>
<td>160m</td>
<td>150m</td>
<td>120m</td>
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<tr>
<td>Resolution, lines/mm</td>
<td>36</td>
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<tr>
<td>Camera resolution</td>
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<td>768x576</td>
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<tr>
<td>IR wavelength</td>
<td>780nm</td>
<td>780nm</td>
<td>805nm</td>
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<td>Tube diameter</td>
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<td>Battery type (riflescope/reticle)</td>
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<td>2xAA/CR2032</td>
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<td>Video output</td>
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<td>CCIR/EIA**</td>
<td>CCIR/EIA**</td>
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<tr>
<td>Dimensions</td>
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<tr>
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</table>

**Depending on the region of the sale.
1. Built-in laser IR illuminator
2. Battery compartment knob
3. LED indicator
4. “IR” button
5. Eyepiece adjustment ring
6. Cover of reticle illumination battery compartment
7. Reticle brightness control knob
8. External power supply jack
9. Unit on/off wheel/display brightness control wheel
10. Video output
11. Windage adjustment turret
12. Elevation adjustment turret
13. Additional Weaver rail
14. Objective lens
15. Lens focus knob
16. Lens cap
**WARNING**

Before handling this product, read and understand the contents of your firearm’s manual, warnings, and the Sightmark Photon Riflescope user manual. Follow all standard safety precautions and procedures during firearm operation, even when the photon riflescope is not in use.

- Never point the laser IR illuminator directly at or into an eye. This may cause damage to they eye, or blindness.
- Avoid looking directly into the laser.
- Never allow children to handle this product.
- Avoid shining the laser into mirrors or other reflective surfaces.
- Avoid hitting or dropping the unit.
- ALWAYS check that the chamber of your weapon is clear before mounting or dismounting the unit.
- Remove the unit when cleaning, or performing other maintenance on your firearm.

CAUTION: Use of controls or adjustments or performance of procedures other than specified herein may result in hazardous radiation exposure.

Failure to follow standard firearm safety precautions and procedures, as well as the above warnings is dangerous and may result in:

- Serious injury
- Damage to property
- Death

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Sellmark Corporation
2201 Heritage Parkway
Mansfield TX, 76063
BATTERY INSTALLATION
- Turn the knob (2) of the battery compartment cover 90° counterclockwise.
- Remove the cover by raising it by its lug.
- Slide in two AA batteries so that the “+” and “−” match the polarity on the inner side of the cover; rechargeable AA batteries may be used.
- Close the cover of the battery compartment cover and turn the knob (2) of the cover 90° clockwise.
NOTE: to ensure long and reliable operation it is recommended that you use quality rechargeable batteries with a capacity of at least 2500mAh. Please do not use batteries of different types or batteries with various charge levels.

EXTERNAL POWER SUPPLY
The riflescope can be powered with an external DC power supply (2.1mm pin) with stabilized ranging from 8.4V to 15V or a 12V vehicle socket.
- External power supply (AC/DC) is to be connected to “Power” (8) jack located on the right side of the device.
- Note: the central pin of the power supply that you connect to the “power” jack of the riflescope, must have marking “+”.
- The power supply may have marking - – (°- +
Connection of an external power supply automatically cuts off power supply from batteries. External power supply DOES NOT charge the batteries in the riflescope!
ATTENTION! We suggest that you use battery packs EPS3 or EPS5 ensuring up to 40 hrs of continuous operation.
MOUNTING THE RIFLESCOPE

WARNING: Never attempt to mount the riflescope on a loaded firearm!
To ensure precise shooting, the sight should be correctly mounted on a rifle. Please follow these steps:
• Install the mounting rings (bought separately) on the riflescope’s tube and tighten the screws with the help of a hex-nut wrench.
• Install the riflescope on the rail of your rifle and make sure it is securely fixed.
• The riflescope should be mounted as low as possible without touching either the barrel or the receiver. Before tightening the mount rings make sure you have the necessary eye relief that allows you to see a full field of view.
WARNING: if the riflescope does not have sufficient eye relief, its rearward motion may injure the shooter when the rifle recoils.

STARTING THE SCOPE AND IMAGE SETUP
• Remove the cap (16) from the lens (14). The cap is outfitted with a light filter which reduces image brightness in the daylight.
• Turn on the riflescope by turning the wheel (9) clockwise until it clicks. A green LED indicator (3) will light up.
• IMPORTANT! When the indicator changes its color to red, please replace the batteries.
• Rotate the eyepiece adjustment ring (5) to see on the display a sharp image of the reticle.
• Rotate the wheel (9) to adjust brightness: clockwise to increase brightness and counterclockwise to decrease.
• To switch on the illuminated reticle, set the knob (7) against corresponding mark on the housing showing one of the illumination levels (11 total). Reticle illumination is powered by a single CR2032 Lithium battery. To replace the battery, unscrew the cover (6) of the knob counterclockwise and insert a new battery with “+” facing upwards. Screw in the cover.
• Aim at a target 20-30 meters away
• Rotate the lens focus knob (15) to achieve quality image.
• After this adjustment no further dioptre adjustment should be required, regardless of distance or other factors. Adjust the image with the lens focus knob (15) only.
• In low light conditions or in complete darkness turn on the built-in IR illuminator (1) by pushing the “IR” (4) button. The built-in IR is not focusable.
• To turn off the scope, rotate the wheel (9) clockwise until it clicks.

**ZEROING**

Boresighting is a preliminary procedure to achieve proper alignment of the sight with the rifle’s bore.
• Mount the rifle with the riflescope installed on a bench rest
• Load your Sightmark boresight and aim at a target 100 meters away.
• Turn on the riflescope, adjust display brightness and achieve a sharp image of the reticle.
• Rotate the lens focus knob (15) to achieve a sharp image of the target.
• Take aim and at the center of the target.
• If the aiming point is not matching with the target, unscrew the windage (11) and elevation (12) caps and use the turrets to line up the center of the reticle with the target.
• Re-adjust the reticle if needed.

**ATTENTION!**
Each click of the Adjustment Scale Ring will change bullet impact by 1/4 MOA (Minute of Angle) which equates to 7mm at 100 meters.
MAINTENANCE AND STORAGE

• The riflescope features IPX4 degree of protection (protected against water splash) but cannot be submerged in water.
• Attempts to disassemble or repair the scope will void the warranty!
• Clean the scope’s optical surfaces only if necessary and use caution. First, remove (by blowing with a blower brush or canned air) any dust or sand particles. Then proceed to clean by using camera/lens cleaning equipment approved for use with multi-coated lenses. Do not pour the solution directly onto the lens!
• The riflescope can be used in operating temperatures ranging from -10ºC... +50ºC. However, if it has been brought indoors from cold temperatures, do not turn it on for 2 to 3 hours. This will prevent external optical surfaces from fogging.
• Always store the unit in its carrying case in a dry, well-ventilated space. For prolonged storage, remove the batteries.

ACCESSORIES

With the help of the addition Weaver rail (13) you can attach accessories like:
• External Power supply EPS3/EPS5
• Video recorder

VIDEO OUT JACK

“Video out” jack (10) is designed to connect external recording devices and to transmit video signal to monitors, TV sets etc.
• Connect an external signal source to the “Video out” jack (10) with the supplied video cable.
• Turn on the scope - an image will show up on an external device.
TROUBLESHOOTING

Listed below are some potential problems that may occur when using the scope. Carry out the recommended checks and troubleshooting steps in the order listed. Please note that not all possible problems are listed. If the problem experienced with the scope is not listed, or if the suggested action meant to correct does not resolve the problem, please contact the manufacturer.

The riflescope will not turn on:
Check that the batteries have been correctly installed. Oxidized contact points in the battery compartment due to leaky batteries or contact points becoming exposed to a chemically-reactive solution may cause this as well. To fix the problem install fresh batteries.

The image is too dark:
The brightness setting may be set too low. Adjust the brightness by rotating the wheel (9). Make sure the lenses are not missheld or dirty.

Poor image quality:
Check that the eyepiece and lenses are adjusted in accordance with the user manual.

There are several light or black dots on the display of the device:
Presence of dots is caused by CMOS chip production technology and is not a defect.

Barely visible texture which does not impact detection range and efficiency of observation can be noticed on the display after the built-in laser IR illuminator is activated:
This is normal for eye safe laser illuminators.
SIGHTMARK LIMITED WARRANTY

Please visit www.sightmark.com for warranty details and information.