

S I G H T  M A R K[®]

USER MANUAL



Solitude 10x42 and 10x42A Laser Range finder Binoculars
SM22006 and SM22007

ABOUT SIGHTMARK®

Sightmark offers a wide range of products that include red dot sights, reflex sights, 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

SOLITUDE LASER RANGE FINDER BINOCULARS

The Sightmark **Solitude 10x42LRF** and **Solitude 10x42LRF-A Laser Range Finding Binoculars** feature integrated laser range finding capabilities to provide hunters with yet another distinct advantage. Delivering precision accuracy up to 1,200 meters, these binoculars feature simplistic two button operation and a clear LCD display that does not wash out in sunlight. The **10x42LRF-A** accounts for angle measurements to calculate the true horizontal distance for uphill and downhill shooting. Sightmark binoculars boast a rugged, lightweight, rubber-armored body that are nitrogen-filled and O-ring sealed, making them waterproof and fogproof.

FEATURES

- Integrated laser rangefinder
- Precision accuracy 1 meter/yard accuracy
- 1,200 meter rangefinding
- Measures true horizontal distance for uphill/downhill shooting*
- Ranges in meters or yards
- Clear LCD display does not wash out in sunlight
- Simple two button operation
- Bak-4 room prisms
- Fully multi-coated optics
- Waterproof, fogproof, dustproof
- Durable rubber armored housing
- Twist-up eyecups

**SM22007 Solitude LRF-A only*

TECHNICAL SPECIFICATIONS

Magnification (x)	10	Accuracy, yd/m	+/-1
Objective lens diameter (mm)	42	Max range (reflective), yd/m	1312 / 1200
Type of prism (type/material)	roof	Max range (trees), yd/m	1202 / 1100
Lens coating (CL/FC/BMC/FBMC)	Fully multi-coated	Max range (deer), yd/m	1093 / 1000
Field of view (angle)	5	Min Range, yd/m	5 / 4.5
Field of view (Ft/1,000yds)	261	Measuring time	Less than 1 second
Field of view (m/1,000m)	87	Auto Power Off	After 35 seconds
Minimum focus distance (m/ yd)	13 / 15	Battery type	CR2
Diopter range	-4 to +4	Battery life	At least 5,000 actuations
Interpupillary distance. (in/mm)	2.2 - 2.8 / 58-72	Length, in/mm	6.3 / 160
Waterproof/nitrogen purged(yes/no)	yes	Width, in/mm	4.9 / 124
IP Rating	IP67, 1m for 1hour	Height, in/mm	2.4 / 60
Laser type	FDA Class 1 / IEC Class 1	Weight, oz	33

INCLUDED ACCESSORIES

Nylon carrying case	Neck strap	Lens covers
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DIAGRAM

1. Laser aperture
2. Objective lens
3. Mode selection
4. Power button
5. Eyepiece
6. Diopter adjustment
7. Display focus
8. Battery cap
9. Reticle
10. Distance/Angle* display
11. Unit of measurement
12. Angle mode*
13. True Horizontal Distance mode*
14. Height mode*

*SM22007 Solitude LRF-A only



WARNING

Before handling the laser rangefinder binoculars, read and understand the contents of this manual. The Sightmark Solitude Laser Rangefinder Binoculars utilize an eye safe FDA Class 1 / IEC Class 1 laser.

Although eye safe, please follow the following precautions:

- **NEVER** point the laser rangefinder directly at, or into, an eye while pressing the power button.
- Never look directly into the optics of the laser rangefinder while pressing the power button.
- **DO NOT** leave the laser rangefinder within the reach of children.
- When pressing the power button, the laser rangefinder is emitting an invisible laser from the laser aperture (1) and therefore should not be pointed at anyone.

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

**CLASS 1
LASER PRODUCT**

Distributed by:
Sellmark Corporation
2201 Heritage Parkway
Mansfield, Texas 76063

INSTALLING THE BATTERY

The Sightmark Solitude Laser Rangefinder Binoculars operate on one 3V CR2 battery. When the battery is low, the low battery indicator will appear in the top right corner of the image.

In order to install the battery:

1. Unscrew the battery cap (8) using a flathead screw driver
2. Insert the battery negative end first.
3. Screw the battery cap back on.

Do not over tighten.



ADJUSTING THE EYECUPS

The Sightmark Solitude Laser Rangefinding Binoculars are equipped with twist-up eyecups which provide a custom fit for proper eye relief even for those who wear glasses. If not wearing glasses, leave the eyecups in the up position. If wearing glasses, leave the eyecups in the down position.

To adjust the twist-up eyecups:

- 1 Rotate the eyepiece (5) counter-clockwise to extend the eyecup. The eyecup will click into the first position. Rotate again counter-clockwise to fully extend the eyecup in the second and final position.
- 2 Rotate the eyepiece clockwise to retract the eyecup.



SETTING DIOPTRIC ADJUSTMENT AND DISPLAY FOCUS

Before using the Sightmark Solitude Laser Rangefinder Binoculars, the binocular's diopter adjustment and display focus should be set in order to ensure a sharp, focused image.

To set the binocular's diopter:

- 1 First, pull or push the binoculars apart or together in order to correctly set the interpupillary distance for your eyes. Do this until the view is a single circular image.
- 2 Next, locate the display focus ring (7) at the base of the right eyepiece (5). While looking through the binocular adjust this ring until the reticle (9) is clear and crisp.
- 3 Next, locate the diopter adjustment ring (6) at the base of the left eyepiece (5). While looking through the binoculars at an object at least 15 yards away, adjust the diopter adjustment ring until the image is sharp and focused.



Note: There is no focus adjustment for viewing different distances as this is a fixed focus binocular. Also diopter and display focus adjustment does not need to be changed unless the user of the binocular changes.

MEASURING DISTANCE

The Sightmark Solitude Laser Rangefinding Binoculars can measure large objects out to 1200m. The table below is a reference for the maximum range each model can measure depending upon the object. These measurements were recorded with the laser rangefinder binoculars resting on a stabilized platform on a clear, warm, low humidity afternoon. Variables such as surface material, texture, reflectivity, color, size, and shape will affect the quality of the measurement. For example, a bright, highly reflective surface is more reflective than a dark, dull surface. Humidity, haze, dust, smoke, fog, rain, and any factor that reduces atmospheric clarity will affect the measurement performance of the laser rangefinder.

MAXIMUM RANGE		
OBJECT	METERS	YARDS
Reflective Target	1200	1312
Trees	1100	1202
Deer	1000	1093

To measure the distance of an object:

- 1 View the object through the eyepiece (5) of the binocular rangefinder.
- 2 Press the power button (4) for one second to activate the rangefinder.
- 3 Align the object in the center of the reticle (9).
- 4 Press the power button again to activate the laser.

- 5 The distance display (10) will show the reading at the bottom left of the image. To maintain the current reading, release the power button. The reading will remain until 1) 35 seconds have passed and the unit automatically shuts off with no button activation 2) the power button is pressed again to range find.
- 6 To maintain a constant measurement of the object, continue to hold down the power button and the laser rangefinder will continuously range. Once the object is aligned with the reticle, the distance will continuously update. In this mode, the last measurement will not remain after the power button is released.

SWITCHING UNIT OF MEASUREMENT

The Sightmark Solitude Laser Rangefinding Binoculars can measure distance in yards and meters.

To switch the unit of measurement (11):

1. Press the mode button (3) for two seconds (*long press*). Each long press of the mode button will switch from meters to yards.



MEASURING TRUE HORIZONTAL DISTANCE

The Sightmark Solitude LRF-A Laser Rangefinder Binoculars are equipped with an integrated inclinometer that measures the exact angle of elevation. The binocular's software then uses this angle measurement to determine the true horizontal distance (THD) to a target. When shooting uphill or downhill at a target, bullet drop will always be less (*meaning point of impact will be high*) compared to shooting a flat trajectory at the same distance. The shooter must use the THD readout to adjust for bullet drop. The THD mode is very helpful when hunting deer or elk in rugged, mountainous terrain when shots at extreme angles are fairly common.

To activate THD:

- 1 Press the mode button (*short press*) until the true horizontal distance mode (13) is activated. The "Horz" indicator will appear on the display.
- 2 Next, press the power button to range the target.

MEASURING ANGLE

The Sightmark Solitude LRF-A Laser Rangefinder Binoculars can measure the angle you are viewing an object. This angle readout is beneficial for shooters who prefer to calculate true horizontal distance or need to know the exact angle of a shot.

To measure the angle of an object:

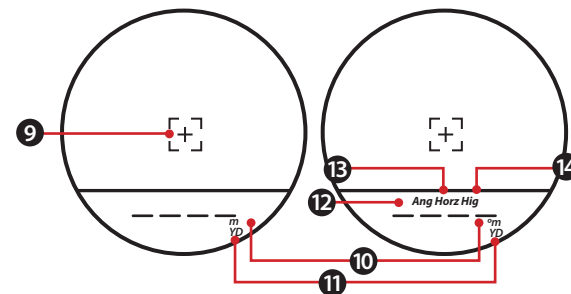
- 1 Short press the mode button until the angle mode (12) is activated. The "Ang" indicator will appear on the display.
- 2 Once angle mode is activated, press the power button to measure the angle. Note: angle mode does not have a continuous mode. The power button will need to be pressed every time to measure angle.

MEASURING HEIGHT

The Sightmark Solitude LRF-A Laser Rangefinder Binoculars can measure the height of the target you are viewing. The height readout is beneficial for shooters who need to know the exact height of their target, but prefer to range using their riflescope's rangefinding reticle.

To measure the height of an object:

- 1 Short press the mode button until the height mode (14) is activated. The "Hig" indicator will appear on the display.
- 2 Once height mode is activated, press the power button to range the target. The measurement of the target's height will appear on the display.
- 3 To change the unit of measurement, press the mode button (3) for two seconds (long press). Each long press of the mode button will switch from meters to yards.



MAINTENANCE

Proper maintenance of the Sightmark Solitude Laser Rangefinder Binoculars is recommended to ensure longevity. It is recommended that when the laser rangefinder becomes dirty that it is wiped down with a dry or slightly damp cloth. To clean off dirt and debris from the laser's aperture, make sure the laser is deactivated. It is recommended to remove the battery to ensure the laser will not activate during maintenance procedures. Clean lenses with a soft lens brush or lens cloth. Apply lens cleaning fluid to the cleaning cloth, never directly on the lens, in order to remove fingerprints, smudges, and dirt. No further maintenance is required.

TROUBLESHOOTING

Proper authorization is required before shipping any product back to Sightmark. Failure to obtain authorization could result in your product being returned to the wrong address, lost, or damaged. Sightmark is not liable for products returned without authorization.

The Rangefinder does not provide measurement:

- 1 Press the power button to activate the unit and once more to activate the laser.
- 2 Make sure the target is at least 15 yards/meters away.
- 3 For long range measurements, make sure the laser rangefinder is held in a stable position.
- 4 Ensure that no objects are blocking the laser aperture as this will interfere with the emission/reception of the laser.

TROUBLESHOOTING continued

- 5 Ensure the laser rangefinder lens cover has been removed.
- 6 Check the battery polarity.
- 7 The battery may be low. Replace the battery with a new CR2 battery.

SIGHTMARK WARRANTY

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

This Sightmark Solitude Laser Range Finding Binocular belongs to:

Name

Address

City, State, zip

phone

email

NOTES

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NOTES

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This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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