

Laser Rangefinder / Télémètre laser Telémetro láser / Telêmetros a Laser



RifleHunter 1000



Archer's Choice MAX

Instruction manual/Manuel d'utilisation/ Manual de instrucciones/Manual de instruções







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English

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Cautions before use

Thank you for purchasing the Nikon RifleHunter 1000/Archer's Choice MAX.

This high-spec laser rangefinder features an angle compensation function in addition to the existing linear distance measurement function for enhanced enjoyment of sports and other outdoor applications. (The Nikon RifleHunter 1000/ Archer's Choice MAX is also able to measure the horizontal distance to a target.)



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Please observe the following guidelines strictly so you can use the equipment properly and avoid potentially hazardous problems. Before using this product, read thoroughly the "SAFETY PRECAUTIONS" and instructions on correct usage accompanying the product.

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

Keep this manual within reach for easy reference.

- Specifications and design are subject to change without notice.
- No reproduction in any form of this manual, in whole or in part (except for brief quotation in critical articles or reviews), may be made without written authorization from NIKON VISION CO., LTD.

Cautions before use

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- potentially hazardous problems.
 Before using this product, read thoroughly the "SAFETY AND OPERATION PRECAUTIONS" and instructions on correct usage accompanying the product. Keep this manual within reach for easy reference.

↑ WARNING

This indication alerts you to the fact that any improper use ignoring the contents described herein can result in potential death or serious injury.

ACAUTION

This indication alerts you to the fact that any improper use ignoring the contents described herein can result in potential injury or material loss.

SAFETY AND OPERATION PRECAUTIONS

⚠Warning

- Never look directly at the laser beam or directly at the sun when using the Nikon RifleHunter 1000/Archer's Choice MAX.
- Do not depress the POWER button while looking into the optics from the

- objective side.
- · Do not aim at the eve.
- Do not operate the unit with other additional optical elements, such as lenses or binoculars. Using an optical instrument together with the Nikon RifleHunter 1000/Archer's Choice MAX increases the danger of damaging the eyes.
- Do not disassemble the Nikon RifleHunter 1000/Archer's Choice MAX. The emitting laser may be harmful to your health. A product that has been disassembled is not guaranteed by the manufacturer.
- If the Nikon RifleHunter 1000/Archer's Choice MAX's body cover is damaged, or if it emits a strange sound due to dropping or for some other cause, immediately remove the battery and stop using.

ACautions

- When not using the Nikon RifleHunter 1000/Archer's Choice MAX, do not push the POWER button.
- Do not leave the Nikon RifleHunter 1000/Archer's Choice MAX within the reach of small children.
- Rain, water, sand and mud should be removed from the rangefinder body surface as soon as possible, using a soft, clean, dry cloth.
- · Although the Nikon RifleHunter 1000/

- Archer's Choice MAX is waterproof, it is not designed for use underwater.
- Do not swing the Nikon RifleHunter 1000/Archer's Choice MAX by its strap. It may hit someone and cause injury.
- Do not leave the Nikon RifleHunter 1000/Archer's Choice MAX in an unstable place, as it may fall and cause injury, or damage the equipment.
- Do not look through the Nikon RifleHunter 1000/Archer's Choice MAX while walking. You may walk into something and get hurt.
- Do not leave the Nikon RifleHunter 1000/Archer's Choice MAX in a car on a hot or sunny day, or near heatgenerating equipment. This may damage or negatively affect it.
- Do not leave the Nikon RifleHunter 1000/Archer's Choice MAX in direct sunlight. Ultraviolet rays and excessive heat may negatively affect or even damage the unit.
- When the Nikon RifleHunter 1000/ Archer's Choice MAX is exposed to sudden changes in temperature, water condensation may occur on lens surfaces. Do not use the product until the condensation has evaporated.
- Do not use alcohol for cleaning the main body.
- Do not leave the polyethylene bag used for packaging within the reach of small children.

- If you use the rubber eyecup for a long period of time, you may suffer skin inflammation. If you develop any symptoms, consult a doctor immediately.
- When carrying the Nikon RifleHunter 1000/Archer's Choice MAX, store it in the soft case.
- If your Nikon RifleHunter 1000/ Archer's Choice MAX should fail to operate correctly, discontinue use immediately and consult the Troubleshooting Table. If you are unable to fix the problem, contact your local dealer for instructions on where to send it for repair.

CARE AND MAINTENANCE

Lenses

- When removing dust on the lens surface, use a soft oil-free brush.
- When removing stains or smudges like fingerprints from the lens surface, wipe the lenses very gently with a soft clean cotton cloth or quality oil-free lens tissue

Use a small quantity of pure alcohol (not denatured) to wipe stubborn smudges. Do not use velvet cloth or ordinary tissue, as it may scratch the lens surface. Once the cloth has been used for cleaning the body, it should not be used again for the lens surface.

Main body

 Clean the body surface with a soft, clean cloth and a dry cloth. Do not use benzene, thinner, or other organic agents because they may cause discoloration or rubber degeneration.

Storage

 Water condensation or mold may occur on the lens surface because of high humidity. Therefore, store the Nikon RifleHunter 1000/Archer's Choice MAX in a cool, dry place. After use on a rainy day or at night, thoroughly dry it at room temperature, then store in a cool, dry place.

NOTES ON LITHIUM BATTERY

If handled incorrectly, batteries may rupture and leak, corroding equipment and staining clothing. Be sure to observe the following:

- Install batteries with the + and poles positioned correctly.
- Batteries should be removed when exhausted or during extended periods of non-use.
- · Always use the same type of battery.
- If battery fluid contacts eyes or skin, rinse well with water. If swallowed, consult a doctor immediately.
- Do not short-circuit battery chamber terminals.
- Do not carry batteries together with keys or coins in a pocket or bag. This may overheat and short-circuit batteries.
- Do not put batteries in fire or water. Never disassemble batteries.
- · Do not charge batteries.
- Do not subject stored batteries to extremes in temperature.
- Do not subject batteries to strong vibrations or shock.







Key Features

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· Linear distance measurement range:

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10-915 meter/11-1,000 yards (RifleHunter 1000) 4.5-183 meter/5-200 yards (Archer's Choice MAX)

Distance measurement display steps:



(Linear Distance) 0.1 meter/vard

(measurement distance is less than 999.9 meters/yards)
1.0 meter/yard

(measurement distance is 1,000 meters/yards or further)
(Horizontal Distance)

0.1 meter/vard

(calculated distance is less than 999.9 meters/yards)
1.0 meter/yard

(calculated distance is 1,000 meters/yards or further)

- · Easy-to-aim 6x optical observation system
- Quantifies the horizontal distance to the target in relation to the rangefinder's level by measuring linear distance and angle.
- · The results are displayed on an internal LCD panel.
- Active Brightness Control Viewfinder detects light conditions of the ground area mainly in the view field and, when necessary, automatically turns on the orange LED illumination.
 The brightness of the orange illumination is adjusted automatically according to the light conditions.
- Target Priority Switch System allows you to easily match the measuring situation.
- Waterproof design (NOT designed for underwater usage)
- Invisible/Eyesafe EN/IEC Class 1M Laser
- · 8-second results display
- · Compact, lightweight, ergonomic design
- · Automatic shut-off (after approx. 8 sec. unattended)
- Default to "Last Use" settings
- Approx. 5-second continuous measuring function

The Nikon RifleHunter 1000/Archer's Choice MAX emits invisible, eyesafe, infrared energy pulses that reflect off the selected target back to its optical receiver. Sophisticated precision charge circuitry is used to instantaneously calculate distances, by measuring the time it takes for each pulse to travel from the rangefinder to the target and back. Laser reflectivity and measurement results may vary according to climatic and environmental conditions, the colour, surface finish, size, shape and other characteristics of the target.

The following factors ensure better range and accuracy:

- Night time use
- · Cloudy weather
- · Bright-coloured targets
- Targets with highly reflective surfaces
- Targets with shiny exteriors
- Large-size targets
- · Shooting targets facing at 90 degrees

Measurement may result in inaccuracy or failure in the following cases:

- · Slender or small target
- · Target has diffusing reflective surface
- Target does not reflect the laser beam to the rangefinder (glass, mirror, etc.)
- Black target
- Target has varying depths
- In snow, rain or fog
- Target measured through glass
- Reflective surface measured from diagonal direction
- · Moving target
- Obstacle moving in front of the target
- · When targeting the surface of water





Nomenclature/Composition







- 1 Monocular objective lens/ Laser emission aperture
- (2) Laser detector aperture
- (3) MODE button
- (4) POWER button
- (5) 6x monocular eyepiece
- (6) Eyecup/diopter adjustment ring
- (7) Diopter index

(9)

- (8) Strap eyelet
- (9) Battery chamber cover
- (10) Battery chamber cover "Open/Close" indication
- (1) Product number/explanatory label





RifleHunter 1000

Archer's Choice MAX

(12) Laser warning label



Composition Bodyx1 Strap.....x1 Soft case (CDC: RifleHunter 1000)x1 Lithium battery (CR2)x1 Stay-on case (CDD: Archer's choice).....x1

Changing Batteries

• Type of battery: 3V CR2 lithium battery

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· Battery condition indicators

: Battery has enough power for use.

Battery is getting low.

- flashing: Battery is low and battery should be replaced.

Flashing mark in the LCD alerts that the battery should be replaced.

1 Open the battery chamber cover

Using the ball of the thumb or a coin in the recessed part of the battery chamber cover, rotate the cover following the Open/Close arrow indicator. It may not open easily due to its rubber packing for water resistance.

2 Replace the old battery with a new one

Install new battery with the [+] and [-] correctly positioned following the "Battery installation" indication seal in the battery chamber. (Insert battery positioning the [+] pole towards the inside of the chamber.) [The Nikon RifleHunter 1000/Archer's Choice MAX will not operate if the battery is installed incorrectly.]

(3) Close the battery chamber cover

Align the Open/Close indicator with the white dot and insert the battery chamber cover. Using the ball of the thumb or a coin, turn the cover in the opposite direction to the arrow indicator. It may not close easily due to the rubber packing for water resistance, but continue to turn it all the way until it stops. Confirm that the cover is securely closed.

· Battery life

Continuous operation: Approx. 5,500 times (at 20°C)

This figure may differ according to temperature, and other factors such as target shape, color, etc.

- * The Nikon RifleHunter 1000/Archer's Choice MAX comes with a 3V CR2 lithium battery. However, due to natural electrical discharge, the life of the battery will likely be shorter than that noted above.
- * Replace battery if the Nikon RifleHunter 1000/Archer's Choice MAX is ever submerged in water or if water enters the battery chamber.

Internal display



- Target aiming/Laser irradiate system
 Aim at the target. Position the target at the center of the reticle.



Appears while the laser is being used for a measurement.

(Remains present during single measurement, Blinks during continuous measurements.) Warning: Do not look into the objective lenses when this mark is shown. [888.8] - Distance/measurement status display

Digitally indicates measured distance in meters or yards. Also indicates measuring



status such as "Measurement in progress", "Measurement unsuccessful" or "Unable to measure."

<Examples of measurement results>

(Distance)

Display of results: (\leq 999.9m/vards) e.g. 234.9 meters = $\begin{bmatrix} 234.9 \\ \end{bmatrix}$ Display of results: ($\ge 1,000 \text{m/yards}$) e.g. 1,065 yards = [105 Syp]

「 ∃ 」 Now measuring

[---- Failure to measure or unable to measure distance

Display units

m | Indicates distance being measured in meters.

「YD 」 Indicates distance being measured in yards.

- Indicates battery condition. (See "Changing Batteries")
- 「Ang 」 Display modes

A. Horizontal Distance Mode

Ang Lalculates horizontal distance to your target by measuring the linear distance and angle, and displays the results

B. Linear Distance Mode

(no sign) Lalculates linear distance to your target and displays the results.

6. St Dst J Target Priority mode

First Target Priority mode

1 1st Indicated when First Target Priority mode is set.

Distant Target Priority mode

■ Dst **■** Indicated when Distant Target Priority mode is set.

7. Active Brightness Control Viewfinder Active Brightness Control Viewfinder detects light conditions of the ground area mainly in the view field and, when necessary, automatically turns on the orange LED illumination. The brightness of the orange illumination is adjusted automatically according to the light conditions.

Although the LCD was produced using the most advanced technology, it is impossible to eliminate dust completely. When using this product, the LCD is magnified by high magnification of the eyepiece lens and dust may appear as a defect. It will not, however, affect measurement accuracy.

Operational summary

Caution — use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure

- 1. Install a battery in the battery chamber. (See "Changing Batteries")
- 2. Rubber eveniece cup Both eyeglass wearers and non-wearers can use this rangefinder without attaching the rubber eyepiece cup.
 - 3. Diopter adjustment Adjust diopter to obtain a clear image in the LCD. First, rotate the diopter adjustment ring counterclockwise until it comes to a complete stop. Next, turn on the power to activate the LCD when you look through the Nikon RifleHunter 1000/Archer's Choice MAX. Rotate the diopter adjustment ring clockwise until the display comes into focus. If the diopter is not adjusted to correspond to your eyesight, you may not be able to aim your subject.







Operational summary

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4. Measuring

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Note: Depressing and holding down the POWER button causes all symbols to be displayed in the internal LCD panel. After you remove your finger from the POWER button, the last-used setting is displayed. (If you briefly press the POWER button then remove your finger, the LCD panel may display the last-used setting without displaying all of the symbols. This is not a malfunction or other problem.)

Before measuring, be sure to confirm settings, such as unit, measurement/display mode and priority mode.

 $\ensuremath{\mathbb{O}}$: See the relevant mode section in this manual for setting.

 Press the POWER button for power-on. (Power turns off 8 seconds after the last operation.)



Immediately after power-on. (Initializing)



Stand-by.

2. Aim at the target.
Position the target at the center of the reticle



Target aiming

[Single measurement]

3. Press POWER button once to start single measurement.



Measuring.

4. After measurement, "distance" or "fail to measure" indicator are displayed for 8 seconds, then power turns off. If you press the POWER button during power-on (while the internal display is lit), another single measurement starts.



Failure to measure or unable to measure distance.



Displays the measured figure.

[Continuous measurement]

- Keep pressing POWER button to start continuous measurement up to approx. 5 seconds. The internal display shows "distance" and "fail to measure" indicator alternately.
 - Note: Laser irradiaton mark is blinking during the measurement. Note: If you stop pressing the button, the continuous measurement stops.



Failure to measure or unable to measure distance.



Displays the measured figure. (Target 1)



Displays the measured figure. (Target 2)

- Blinks while performing measurements.
- 4. After continuous measurement, the measured results are displayed for 8 seconds, then power turns off. If you press the POWER button during power-on (while the internal display is active), another measurement starts.



5. Display examples of each mode



Linear distance mode



Horizontal distance mode







Operational summary

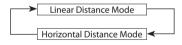
5. Selecting display unit (Factory default setting is yard.)

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- 1. Confirm the LCD panel is on.
- 2. Press and hold the MODE button for approx. two seconds.
- 3. When display unit has switched, release the MODE button.
- 4. After the unit is set, results will be converted and displayed in the your selected measurement unit.
- **6. Switching measurement modes** (Factory default setting is linear distance measurement mode)

Mode	Linear Distance Mode	Horizontal Distance Mode
Symbol	No symbol	Ang
7-segment display	Linear Distance	Horizontal Distance



By pressing the MODE button, modes will change in the order indicated above.

- 1. Confirm the LCD panel is on.
- 2. Press MODE button within 0.5 seconds.
- 3. Release MODE button to switch the mode.
- 4. Repeat steps 2 and 3 until your desire mode is displayed.
- 5. Switching the mode after measurement converts the results to the new mode.
- 6. After the mode is set, measurements are performed in the new mode.

7. Switching Target priority modes

(Factory default setting is First Target Priority mode for Archer's Choice, Distant Target Priority mode for RifleHunter 1000.)



- 1. LCD panel should be on.
- 2. Press and hold MODE button, then depress and hold POWER button within 0.5 second.

Note) If the POWER button is not pressed within 0.5 second, the display unit (m/yd) will be switched.

- Continue to press and hold both buttons (more than 2 seconds) until First Target Priority mode and Distant Target Priority mode are switched.
 - Note: If buttons are not pressed in the correct order, switching will not take place.
- Note: If switching fails to take place, repeat 2.
- 4. Release buttons.

[Deciding which Target Priority to use]

When obtaining different results from a single measuring operation, the Nikon RifleHunter 1000/Archer's Choice MAX will display the distance to the farthest target on the LCD panel when using Distant Target Priority mode, while First Target Priority mode will show the range to the nearest target.

ex.) When measuring a tree standing in front of a house;

	Distance to Target	Tree	Fence	House
		115m	123m	128m

"115m" (distance to the tree) will be displayed in First Target Priority mode, and "128m" (distance to the house) in Distant Target Priority mode. First Target Priority mode, for example, has applications for golf, while Distant Target Priority is useful when hunting in heavily wooded areas.

8. Low battery indication

Flashing indicates that the battery power is low and battery should be replaced. (See "Changing Battery")





Specifications



	RifleHunter 1000	Archer's Choice MAX
Measurement system		
Measuring mode display	Linear Distance Mode: No sign Horizontal Distance Mode: Ang	
Measuring range	Linear distance: 10-915m/11-1,000 yd.	Linear distance: 4.5-183m/5-200 yd.
Distance indication step	Linear Distance/Horizontal Distance: 4-digit, 7-segment display 0.1m/yd. (≤999.9m/yards) 1.0m/yd. (≥1,000m/yards)	
Accuracy	Linear distance: ±1.0 meter/yard Horizontal distance: depends on linear distance and angle. Note: At distance greater than 460 meters/500 yards, accuracy may not achieve ±1.0 meter/yard.	
LED Illumination system	Orange colour. Auto Power on. Active Brightness Control (Dark: Low intensity, Bright: High intensity)	
Target system	First Target Priority/Distant Target Priority Switching System	
Measuring system	Single mode/Continuous mode (Approx. 5 seconds)	

Optical system	
Туре	Roof-prism monocular
Magnification (x)	6
Effective diameter of objective lens (mm)	ø21
Angular field of view (real) (°)	7.5
Eye relief (mm)	18.3
Exit pupil (mm)	ø3.5
Diopter adjustment	±4m ⁻¹

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Others	
Operating temperature	-10° — +50°C
Power source	CR2 lithium battery x 1, 3V DC Auto power-off (approx. 8 seconds)
Dimensions (D x W x H)	118x40.5x73 mm
Weight	Approx. 195g (without battery)
Structure	Body: Waterproof (maximum depth of 1 meter for up to 10 minutes)* Battery chamber: Water resistant**
Safety	Class 1M Laser product (EN/IEC60825-1:2007)
EMC	FCC Part 15 Subpart B Class B, CE: EMC directive, C-tick, VCCI Class B
Environment	RoHS, WEEE

Laser		
Class	EN/IEC Class 1M	
Wavelength	905nm	870nm
Pulse duration	8nS	14nS
Output	35W	15W
Beam divergence	Vertical:25°, Horizontal:11°	Vertical: 25° - 35°, Horizontal: 5° - 11°
Operating humidity	80% RH (without dew condensation)	

* Waterproof models

The Nikon RifleHunter 1000/Archer's Choice MAX is waterproof, and will suffer no damage to the optical system if submerged or dropped in water to a maximum depth of 1 meter for up to 10 minutes.

The Nikon RifleHunter 1000/Archer's Choice MAX offers the following advantages: Can be used in conditions of high humidity, dust and rain without risk of damage.

- Nitrogen-filled design makes it resistant to condensation and mold.

Observe the following when using the Nikon RifleHunter 1000/Archer's Choice MAX.

- The unit should not be operated nor held in running water.
- Any moisture should be wiped off before adjusting movable parts (eveniece, etc.) of the Nikon RifleHunter 1000/Archer's Choice MAX to prevent damage and for safety reasons.

To keep your Nikon RifleHunter 1000/Archer's Choice MAX in excellent condition, Nikon Vision recommends regular servicing by an authorized dealer

** The battery chamber is water resistant, not waterproof. Water may enter the device if the Nikon RifleHunter 1000/Archer's Choice MAX is submerged in water. If water enters the battery chamber, wipe out any moisture and allow time for the chamber to dry.

Others



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- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and to EU EMC directive. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- •Reorient or relocate the receiving antenna.
- •Increase the separation between the equipment and receiver.
- •Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Do not use the Nikon RifleHunter 1000/Archer's Choice MAX for purposes beyond the limits of its stated accuracy.

If your Nikon RifleHunter 1000/Archer's Choice MAX should require repair, please contact your local dealer for details regarding where to send it. Before doing so, you are advised to consult the Troubleshooting Table below.

Symptom	Check Points	
Unit does not turn on — LCD fails to illuminate	Depress POWER button. Check and replace batteries if necessary.	
Target range cannot be obtained	 Be sure that nothing, such as your hand or finger, is blocking the laser emission aperture and laser detector. Be sure that the laser emission aperture and laser detector are clean. Clean them if necessary. Be sure that the target shape and condition is appropriate to reflect the laser beam. Replace battery. 	
[] ("Cannot measure") appears	Be sure to hold the unit steady while depressing the POWER button. Be sure the target is within measuring range (10-915 meters/ 11-1,000 yards for RifleHunter 1000, 4.5-183 meters/ 5-200 yards for Archer's Choice MAX)	
Closer target cannot be measured	Be sure that nothing, such as leaves or grass, is between the Nikon RifleHunter 1000/Archer's Choice MAX and the target.	
Target beyond a certain distance cannot be measured	Be sure that nothing, such as leaves or grass, is between the Nikon RifleHunter 1000/Archer's Choice MAX and the target.	

Troubleshooting/Repair

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Symptom	Check Points
Measurement result is unstable	Replace battery. Be sure that the target shape and condition is appropriate to reflect the laser beam. Be sure to hold the unit steady while depressing the POWER button. Be sure that nothing, such as leaves or grass, is between the Nikon RifleHunter 1000/Archer's Choice MAX and the target.
Incorrect result is displayed	Replace battery. Be sure that the target shape and condition is appropriate to reflect the laser beam. Be sure that nothing, such as leaves or grass, is between the Nikon RifleHunter 1000/Archer's Choice MAX and the target.

If problems persist after consulting the Troubleshooting Table, please contact your local dealer to check/repair the Nikon RifleHunter 1000/Archer's Choice MAX. Never let anyone other than the official representative of the product manufacturer check or repair the Nikon RifleHunter 1000/Archer's Choice MAX. Failure to follow this instruction could result in injury, or damage to the product.