

Shot Navi<sup>®</sup>

RAYS<sup>+</sup>

Laser Rangefinder for Golf

User Manual

## Introduction

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Thank you for purchasing Shot Navi Laser Sniper RAYS+ (hereinafter referred to as “this product” or “the product”). This product is a laser-based distance measuring device designed to improve your score and play fast.

Before first use, please read this manual and ensure correct and safe use. After reading, please store it in a place where it can be easily referenced at any time. Unauthorized reproduction of this manual is prohibited.

If you have any questions, please contact the store where you purchased the product.

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## Safety Precautions

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To ensure safe use of this product, please follow the safety guidelines outlined below. After reading, keep this user manual safely at hand for future reference. Unauthorized reproduction of this manual is prohibited.

- **Handle with Care:** Avoid dropping or impacting this product. Severe impacts may cause significant damage.
- **Operating Temperature:** The operating temperature range of this product is 0°C to 50°C . Avoid using this product in environments with sudden temperature changes, even within the range, as this is a precision instrument.
- **Avoid leaving unattended for a long time:** Do not leave this product in direct sunlight or in extremely hot or cold environments for long periods. This may cause malfunction or deterioration of synthetic materials.
- **Electromagnetic Interference:** Avoid placing this product near equipment that generates strong electromagnetic fields or radiation during use or storage.
- **Long-Term Storage:** When not using this product for an extended period, store it in a cool and dry place. For long-term storage, place this product in a dry box to prevent damage.
- **Do not store this product in following environments:**
  1. In areas with poor ventilation and high humidity
  2. Inside a vehicle exposed to excessive sunlight or extreme temperatures
  3. In environments where humidity exceeds 90%
- **No Disassembly or Modification:** Never disassemble, modify, or attempt to repair this product yourself. Doing so may cause damage to this product and result in exposure to laser beams, which can cause visual impairment. Warranty will be voided.
- **Avoid Extreme Conditions:** Do not use this product in extremely cold, hot, or humid conditions, as this may cause malfunction.
- **Dusty Environments:** Do not use this product in dusty areas, as this can lead to malfunction.
- **Keep Away from Fire:** Do not place this product near fire, as it may cause deformation or malfunction.
- **Water Resistance:** While this product is designed to be water-resistant (equivalent to IPX4), do not intentionally expose it to water or submerge it. If there is moisture around the buttons, wipe it off before operation.

■ **Make sure the charging cover is securely closed before use.**

Note: Do not store or leave with the lens exposed to direct sunlight.



The focusing effect of lens may damage the display.



## Warnings

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**Please do not do following things as it may cause visual impairment:**

- Do not look into the laser emission port. Exposure to laser light may cause visual impairment.
- Do not aim the laser at another person's eye.
- Do not operate the measurement button when this product is not in use.
- Never disassemble this product.
- Keep this product out of reach of children.
- Avoid dropping or impacting this product. If this product starts to make unusual noises, stop using and contact the store where you purchased the product.
- Do not use this product to look directly at the sun or any other strong light source.



## Attentions

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**Please do not do following things:**

- Do not use this product underwater.
- Do not store this product inside a car (inside a caddy bag in a trunk) which is under the blazing sun or exposed to direct sunlight.
- Do not use or store near heating appliances.
- Avoid sudden temperature change, as this may cause condensation on the lens.

**Note:** This product is designed to be waterproof equivalent to IPX4, and handle sweat and short periods of rain during use. However, do not expose it to prolonged rain or immerse it in water. When a drop of water gets on the main unit, wipe off moisture promptly and allow it to dry in the shade.

**Note:** Storing this product with a depleted battery may result becoming unusable. The battery protection circuit is designed to prevent overcharging or 0 volts, but due to natural discharge, the battery may eventually drop to 0 volts. To prevent this situation, for long-term storage, store this product with the battery charged to approximately 50%.

Do not store this product at full charge, as this can contribute to battery degradation or failure. Do not keep this product connected to a charger for long durations, as overcharging may cause chemical changes, swelling, overheating, or fire.

## Maintenance

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Remove dust from the main unit using a blower or air duster, or gently wipe it with a soft clean cloth.

As with the main unit, dust on the lens should be lightly wiped with a blower, air duster, or soft clean cloth. For fingerprints and other smudges, wipe with a commercially available lens cleaner, etc. Wiping the lens while dust or dirt is still on the surface may damage the lens.

## Before Using on the Golf Course

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This product calculates distance by measuring the time it takes for a laser beam to travel to the target and return. The accuracy of the measurement may be affected by environmental factors, such as the color, shape, and material of the target area, as well as weather conditions.

**⚠ Do not use this product to look directly at the sun or any other bright light sources. When the sun is low in the sky in the early morning or at dusk, there is a risk of accidentally looking at it, which can cause damage the device and affect measurement accuracy.**

## Contents List

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Main Unit



User Manual /  
Warranty Card



USB Type-C Cable for  
Charging



Carrying Case



Lens Cloth



## Charging

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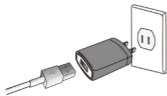
To charge the device:

Open the power cover on the device and plug the USB Type-C terminal (the smaller one) into the USB port.

Connect the USB-A terminal on the other end of the cable to a computer or AC adapter to begin charging.

The LED on the top of the device lights up red.

When charging is complete, the LED lights up green.



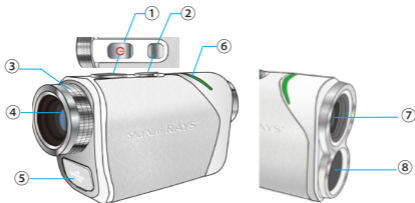
Note: AC adapter is sold separately. Please use the following specifications if you prepare your own.

Output: DC 5V, 500~1000mA

**Note: Use of a non-standard AC adapter may lead to malfunction or accident.**

## Parts Names

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### ① Power/Measurement Button

- **Short press:** power ON.  
point measurement when power is turned on
- **Press twice consecutively:** scan measurement
- **Long press (hold):** pin seek measurement (pin search)

### ② Mode Button

- **Short Press:** 3D measurement ON/OFF
- **Long press (about 3 seconds):** height difference measurement ON/OFF.  
**Note:** Height Difference measurement is ON by default when shipped.

### ③ Focus Adjustment Ring

### ④ Viewfinder

### ⑤ Power Cover/USB Port

### ⑥ LED

**Unlit:** height difference measurement is ON

- **Lit (green):** height difference measurement is OFF/charging complete
- **Lit (red):** the device is charging

### ⑦ 6x Telephoto Lens/Laser Receiver

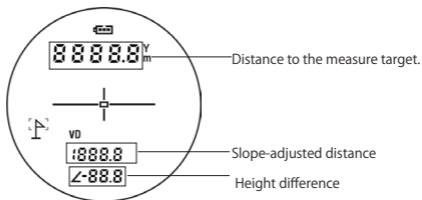
### ⑧ Laser emitting unit

**⚠ Do not look directly into this part since the laser light can cause visual impairment.**



## Screen Display Explanation

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### Target Mark

Center this mark on the target for measurement.  
It flashes during measurement.



### Pin Seek Measurement

Displays when pin seek measurement is active.

VD

### Height Difference Mark

Displays when height difference is ON.

Y  
m

### Distance Unit

m: Meter Y: Yard



### Battery Level

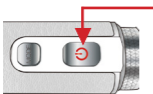
Displays the current battery level.

When , please recharge the device.

## Measuring

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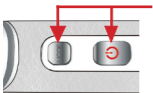
### Power ON/OFF



Look through the viewfinder and short press the power/measurement button to turn the power on. When the power is turned on, the display becomes visible in the viewfinder. If no operations are performed for about 15 seconds, the power automatically turns off.

Note: If the display does not appear, please check the battery level.

### Switching Between Meters and Yards



With the power on, press and hold the power/mode button simultaneously for about 3 seconds.

Note: The unit is set to yards (Y) at shipment.

Note: To switch again, press and hold the button in the same way.

### Adjusting Focus

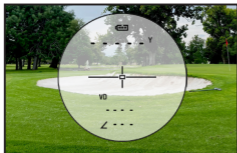


If it is difficult to see, turn the adjustment ring to adjust.

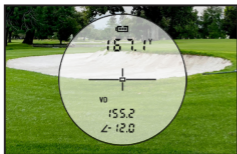
# Measurement Modes

## ① Point Measurement

This mode allows you to measure the distance to a target aligned with the center of the viewfinder.



1. Short press the power/measurement button to turn on the device.  
Align center of the target mark with the desired object and short press the power/measurement button again to begin the measurement.



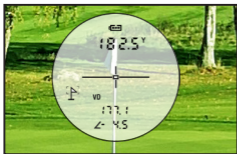
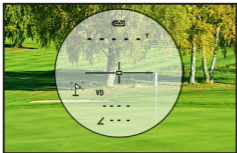
2. The measured distance is displayed.

Note: If the pin flag cannot be measured accurately, please refer to the "Pin Seek Measurement" described on page 12 .


Note: For details on the slope-adjusted distance considering elevation changes, please refer to page 18.


## ② Pin Seek Measurement (Pin Search Assistance)

This function helps you locate the pin flag when it is difficult to align the sight with it. When searching for a target in front of the initially measured object, the device notifies you of measurement completion with a vibration.



1. Short press the power/measurement button to turn on the device. Aim at an object beyond the pin flag and press and hold the power/measurement button to begin measurement.

2.  will flash during measurement. Once a provisional distance is displayed, slowly move the crosshairs towards the pin flag.

3. When the crosshairs are aligned with the pin flag,  lights up and measurement is completed with vibration. The displayed distance is the distance to the pin.

Note: If a non-pin target is measured, restart the measurement.

Note: Pin seek function may not work properly when the battery is low.

Note: This function works when the front (pin) and back targets are more than 5 meters apart.

Note: If the distance to the pin is more than 250 yards, pin seek measurement may not be accurate.

### ③ Scan Measurement

This function is useful when you want to measure the distance to multiple targets such as bunkers, creeks, or trees simultaneously.



1. Short press the power/measurement button to turn on the device. Aim at the target and quickly short press the power/measurement button twice to begin measuring.
2. The device continuously measures the distance to targets for about 10 seconds.
3. After 10 seconds or upon short pressing the power/measurement button again, measurement is completed with vibration.

## ④ 3D Measurement

Even without going to the ball's position, you can measure the distance from the ball to the pin from a remote location, such as the cart. This feature allows you to choose your club more smoothly and helps speed up play.

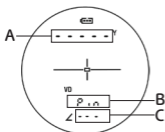
### 1. Start Measuring

Short Press the Power/Measure button to turn on the device.

### 2. Switch to 3D Measuring Mode

Short Press the Mode button to switch to 3D Measuring Mode.

When the switch is complete,  "Pin" will appear and blink on the display.




**A:** Distance from the ball to the pin flag (3D measured distance)

**B:** Distance from the current location to the pin flag

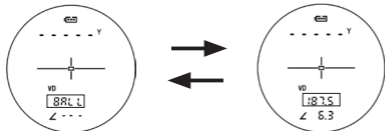
**C:** Distance from the current location to the ball

### 3. Measure the distance to the pin flag

Long Press the power/measure button to start measuring (Pin Seek measurement, see p.12) .

When the measurement is complete, the distance to the pin flag and  "BALL" will be displayed alternately at **B**.

The height difference will be displayed at **C**.

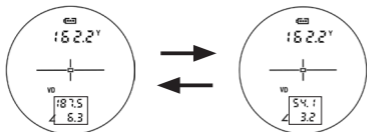


#### 4. Measure the distance to the ball

Short Press the power/measure button to measure (Point measurement, see p.11 ).

When the measurement is complete, the distance from the ball to the pin flag (3D measured distance) will be displayed at **A**.

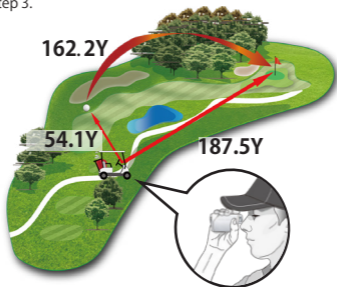
At **B**, the distance to the pin flag and the distance to the ball will be shown alternately, and at **C**, the height difference to the pin flag and the height difference to the ball will be shown alternately.



While the power is ON, you can measure the distance in step 4 as many times as you like.

Each time you measure again, the distance at **B** and the height difference at **C** will change, and then the distance from the ball to the pin flag (3D measured distance) will be displayed at **A** accompanied by a vibration.

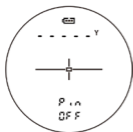
If you want to change the distance to the pin flag, please repeat the measurement starting from step 3.



Note: If a non-pin flag target is measured, restart the measurement.

Note: When height difference measurement is turned **OFF** "OFF" will be displayed at C.

Note: To exit 3D measurement mode, short press the mode button again.



### [When measuring the distance to the pin flag]

Note: Pin seek function may not work properly when the battery is low.

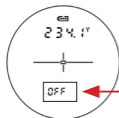
Note: This function works when the front (pin flag) and back targets are more than 5 meters apart.

Note: If the pin flag is more than 250 yards away, Pin Seek measurement may not work properly.



## Turning Height Difference Measurement ON/OFF

### Height Difference Measurement OFF

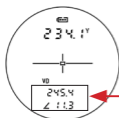


When participating in competitions etc. where height difference measurement is not allowed, you can turn this feature off. While the device is powered on, press and hold the mode button for approximately 3 seconds. Height difference and slope-adjusted distance display is hidden.



The LED indicator turns on when height difference measurement is OFF, signaling that height difference is not being measured.

### Height Difference Measurement ON



To return height difference measurement to on, press and hold the mode button for about 3 seconds while the device is powered on. The height difference, slope-adjusted distance and height difference marks is displayed.

Note: The device is set to height-difference measurement ON by default when shipped.

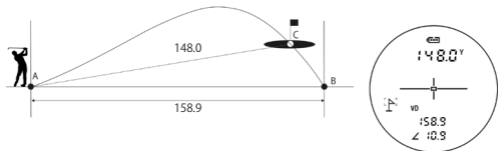


The LED is unlit when the height difference measurement is turned on.

# Slope-Adjusted Distance

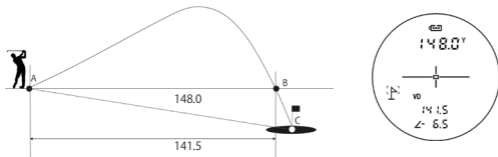
## Uphill Example

If you hit based on the straight-line distance ( $AC = 148$  yards), the ball may not reach the pin due to the uphill slope. To reach the pin, you need to hit based on the horizontal distance ( $AB = 158.9$  yards). This product automatically displays both  $AC$  (straight-line distance) and  $AB$  (slope-adjusted distance).



## Downhill Example

If you hit based on the straight-line distance ( $AC = 148$  yards), your ball overshoots the pin due to the downhill slope. To reach the pin, you need to hit based on the horizontal distance ( $AB = 141.5$  yards). This product automatically displays both  $AC$  (straight-line distance) and  $AB$  (slope-adjusted distance).



Note: When height difference measurement is OFF, height difference and slope-adjusted distance do not be displayed.

## Product Specifications

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**External Dimensions:** 92 x 55.9 x 31.5mm

**Main Unit Weight:** 115g

**Battery:** Lithium polymer battery (standard USB Type-C)

**Charging Time:** Approximately 3.5 hours

※  
Note: Number of uses on a full charge: approximately 39,000 point measurements.

**Measurement Range:** 3.3~1,640.0 yards (3.0~1,500.0 meters)

**Measurement Accuracy:**  $\pm 0.3$  meter

**Magnification:** 6x

**Laser Wavelength:** 905 nm

**Laser Classification:** IEC 60825-1 Class 1M Laser Product

**Lens Diameter/ Effective Diameter:** 21 mm/19.8 mm

**Exit Pupil Diameter:** 3.3 mm

**Eye Relief:** 14.7 mm

**Operating Temperature:** 0°C ~50°C

**Storage Temperature:** -20°C ~60°C

**Water Resistance:** Equivalent to IPX4 (splash-proof level)

Note: The number of uses decreases with years of use and frequency of use (aging).

It varies depending on the measurement mode (Scan, Pin Seek, 3D Measurement).

When performing consecutive three-point measurements, errors may occur depending on usage conditions such as the number of measurements or differences in the direction of the measurement target.

## FAQ (Frequently Asked Questions)

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Q. The device won't turn on.

- A. • Ensure the battery is sufficiently charged.  
• Confirm you press the power/measurement button correctly.

Q. The distance measurement seems incorrect.

- A. • Make sure the lens is clean.  
• Make sure that the target is properly aligned with the crosshairs.  
• Check if the measurement results are not correct after changing the target.

Note: Laser distance measurements are calculated based on the time it takes for the laser to reflect off a target. The following conditions may affect accuracy.

- In case of rain or fog.
- When it is difficult to aim the laser at a target object (e.g., target object is small or thin).
- When the laser does not bounce back well from the target object (e.g., target object is black, complex shape or curved surface, water surface, glass surface, mirror surface, etc.).
- When sunlight enters the lens directly, such as when the sun is low in the sky and backlit.

 **Avoid looking directly at the sun or its surroundings for eye protection.**

## After-Sales Service

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If the product malfunctions under normal use as outlined in the instruction manual, it is repaired or replaced free of charge within one year of the purchase date. If repair or replacement is necessary, please bring the product and the warranty card to the store where it was purchased. We provide after-sales service to our customers in accordance with the following. Please agree to these regulations before requesting after-sales service.

### 1. Repair and replacement policy

1. Items sent with the defective product may not be returned. Please remove any items that were installed after the customer purchased the product before sending it to us.
2. Products sent to us are repaired or replaced at our discretion. In the interest of environmental protection, we may use recycled parts for repair or replacement.
3. The specifications of the product and its accessories may be subject to change.
4. Our repair service is available only within the country where you purchased the product.

### 2. In the event of a repair refusal

1. In the case of improper repairs, disassembly, or modification.
2. Products that are believed to have been damaged during transport due to insufficient packaging.
3. If the damage is severe and the company determines that repair would not be able to maintain functionality.
4. If water ingress or signs of water damage are found on the product, such as from submersion.

### 3. Repair fees

After the warranty period, after-sales service incurs a charge. For detailed pricing, please contact to the store where it was purchased.

## Warranty

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1 If the product malfunctions within the warranty period under proper use in accordance with the instructions in the manual, it is repaired or replaced free of charge.

A. To request an inspection, please bring and present the equipment and this manual to the store where you purchased it.

B. Support is limited to the country where the product was purchased.

2 Even within the warranty period, the following cases result in a paid repair or replacement.

A. Malfunctions or damage caused by misuse, unauthorized repairs, or modifications.

B. Malfunctions or damage caused by transport and drops after purchase.

C. Malfunctions or damage caused by fire, earthquakes, water damage, lightning, or other natural disasters, abnormal voltage, or the use of an inappropriate power source.

D. Malfunctions due to strong shocks (dropping, twisting, crushing, etc.).

E. Replacement of consumable parts and accessories.

F. Malfunctions due to leaving the product in abnormally high temperatures (such as on the vehicle's dashboard, in the trunk, or under direct sunlight) or in extremely low temperatures.

G. Malfunctions due to water damage, such as exposure to rain.

H. Scratches or other changes in appearance that occur during use.

I. If the warranty card is not presented, if the required information (such as date of purchase, customer name, and dealer name) is not filled in, or if it has been altered.

J. Products purchased through auctions or personal transactions are not covered by the warranty.

**3** The warranty is valid only within the country where you purchased the product. Please keep the warranty card in a safe place as it is not reissued.

Note: If the product is damaged due to dropping, being stepped on, run over by a cart, struck by an object, or subjected to pressure from being carried in a pocket, repair costs is charged.

Note: We may use the personal information (warranty certificate copy) provided by you for purposes such as free repairs during the warranty period and subsequent safety inspection activities.

**4** Important Notes Regarding Global Support.

A. Repairs for a product are generally carried out in the country where you purchased it.

B. There may be restrictions on shipping and handling repaired items to other countries. Please contact the store where you purchased the product for more information.

Note: This warranty shall be valid only within the country where you purchased the product. For sale and use in the country only. Commercial use and rental prohibited.

# Warranty Card

## Shot Navi Laser Sniper RAYS +

If a fault occurs under normal operating conditions as outlined in user manual, it is rectified in accordance with the warranty provisions. Please present this document at the store where you purchased the product to request a repair. Please ensure the shop and date of purchase are marked before accepting the product.

The warranty period is one year from the date of purchase. (Consumables for the unit are excluded.) Please keep this warranty card in a safe place as it is not re-issued.

Note:When purchasing online, please keep the statement of delivery or other relevant documents with your purchase.

Customer		Date of Purchase	
Address		Name of the Dealer • Address • TEL.	
Name			
TEL.			
		If the date of purchase is not stated, the product is not eligible for free repair.	

TECHTUIT co.,ltd.