



Laser Range Finder L-Measure 30 Metric/Shaku (Item Code 78180) **Instruction Manual**



Introduction

Thank you for purchasing Laser Range Finder L-Measure 30 Metric/Shaku. This product is only for indoor use. Even when used indoors, an accurate measurement cannot be obtained for an area into which sunshine shines directly. Before using the product, please read the instructions contained in this manual to ensure correct use. After having read this manual, always keep it with you or in a safe place.

■ Specifications

Measuring Range	0.1~30m
Accuracy	$\pm 3.0\text{mm}$ ※1
Output	Less than 1mW (JIS class 2)
Wavelength	620~690nm
Operating Temperature	0~40°C
Storage Temperature	-10~50°C
Dust-proof, Water-proof	IP40 ※2
Power Source	2x AAA alkaline battery ※3 (Batteries included are for trial use only and may not last as long.)
Auto Power Off	3 minutes ※4
Body Size	112×38×24mm
Weight	94g (including batteries)

※1 0.1~10m... $\pm 3.0\text{mm}$

More than 10m... $\pm 3.0 \pm 0.05 \times (D-10)\text{mm}$
(D=Measurement distance Unit: m)

Measurement conditions

① Illuminance of less than 3,000 Lux

② Reflectivity is 90% of white target

③ Measurement temperature 25°C

※2 Dustproof performance: Particles larger than 1.0 mm will not penetrate the device

Waterproof performance: No special protection

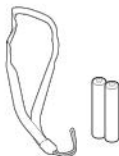
※3 Can measure more than 5,000 times when using new batteries (when using alkaline batteries)

※4 Laser light will turn off after 30 seconds pass without an operation. Also, a beep will sound when it automatically powers off.

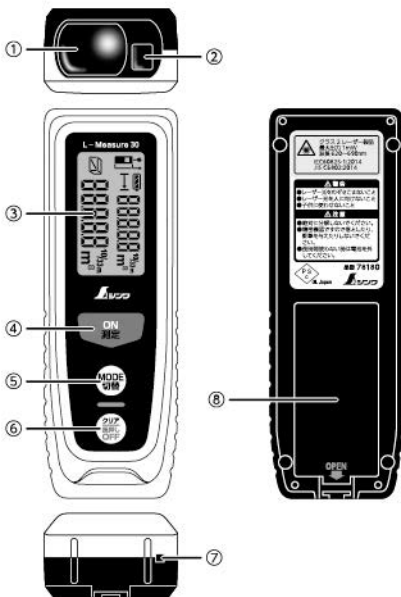
■ Accessories

● Strap

● 2x AAA alkaline battery
for trial use

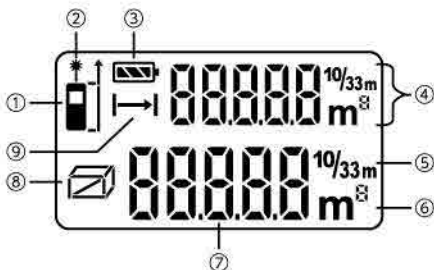


■Part Names



- ①Lens ②Laser light-emitting port ③Display
 ④ON/Measure (ON・測定) button
 ⑤MODE Change (MODE切替) button
 ⑥Clear/OFF (クリア・OFF) button ⑦Hole to attach strap
 ⑧Battery cover

Icon Names

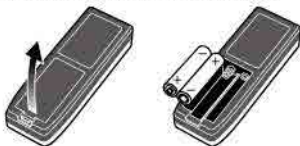


- ① Measurement Reference icon ② Laser Status icon
 ③ Battery Status icon ④ Previous Measured Value icon
 ⑤ Shaku Conversion Unit icon ⑥ Measurement Unit icon
 ⑦ Measured Value icon
 ⑧ Area/Volume/Pythagoras icon
 ⑨ Continuous Measurement icon

Before Using

● Installing the batteries

Open the battery cover on the back of the device, and properly install the 2 AAA alkaline batteries for monitoring use included in the package.



※When using this product, the Battery Status Icon will change as shown above until finally it will just become an empty battery icon. If the battery continues to be used after that point, a beep will sound 4 times and the device will automatically power off.

⚠ Warning



Class 2 laser product
Maximum output 1mW
Wavelength 620~690nm

- Do not look into the laser light
- Do not point the laser light at a person
- Not for operation by a child

⚠ Caution

- Do not use other than as intended.
- The various accuracies of measuring instruments are predetermined. Use this device in accordance with the usage situation. See the ■ Specifications section for information about the accuracy of this product.
- Do not drop or subject to strong impact as this may cause the device to operate incorrectly.
- Do not aim the lens directly into sunlight.
- If the device becomes dirty, do not wash with water but rather wipe away any grime with a soft cloth. Do not wipe the device with any alcohol or petroleum product such as thinner.
- Dust and grime on the lens adversely affect the measurement accuracy, so be sure to gently remove any dust that may adhere to the lens with a cotton swab.
- Do not alter or disassemble the device other than as directed in this manual.
- Remove the battery before storing the device when not being used for a long period.
- Avoid getting the device wet as it does not have a waterproof construction.
- We shall not be liable for any consequential, incidental, or indirect damages such as losses and lost profits to the customer as well as a third party resulting from the operation of this product, regardless of whether or not they were foreseeable or the possibility was reasonably foreseeable. However, this shall not apply in the case where there is willful or gross negligence or when the customer is a consumer according to the Consumer Contract Act. In the event that we are liable for the use of this product, we shall be liable for damages limited to an amount equal to the price of the product.

■How to Operate

- ※The Laser Status icon will flash when the laser pointer is active.
- ※The laser will turn off after 30 seconds pass without an operation, and the Laser Status icon will disappear.

(1)Turning On/Off



- ①When the device is off, press the ON/Measure (ON・測定) button and the display will be backlit as shown in the diagram below. This is called the Start Screen.

Start Screen



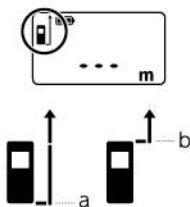
- ②Press and hold the Clear/OFF (クリア・OFF) button to turn off the device.
③The Auto Power Off function will automatically turn off the device after 3 minutes pass without an operation.

(2) Changing the Measurement Reference



① The Start Screen's measurement reference is initially set as the rear edge of the device (a). The device will change between this and the front edge of the device (b) each time the MODE Change (MODE切替) button is pressed and held.

※ When the device is turned off, it will return to the setting of the rear edge of the device (a).



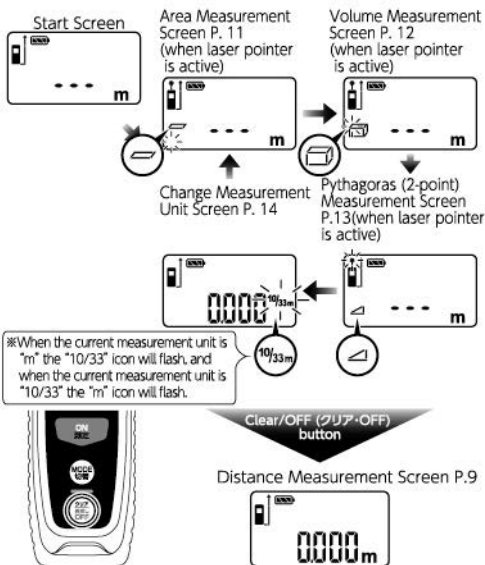
(3) Changing Modes



① Each time the MODE Change (MODE切替) button is pressed when the power is on, the device will change between modes in the following order: Area Measurement → Volume Measurement → Pythagoras (2-point) Measurement → Change Measurement Unit.

※ See (6)~(9) for instructions on how to operate each mode.

② Pressing the Clear/OFF (クリア・OFF) button will change to the Distance Measurement mode.



⚠ Caution

- Begin measuring after confirming that no dust or grime is on the lens or in proximity to it.

(4) Distance Measurement

Start Screen



Distance Measurement Screen



- ① Press the ON/Measure (ON・測定) button in either the Start Screen or the Distance Measurement Screen, and the laser pointer will become active.
- ② Shine the laser dot on the object to be measured, and after pressing the ON/Measure (ON・測定) button the distance from the laser dot to the measurement reference (the front edge or rear edge of the device) will be displayed.
- ③ Continuous measurement can be performed by repeating steps ① and ②. The most recent measured value will be displayed on the lower part of the panel, while the previous measured value will be displayed on the upper part.



◀ Previous

◀ Current



- ④ Each time the Clear/OFF (クリア・OFF) button is pressed, the most recent measured value displayed will be cleared, and the device will return to the previous condition.

※ Pressing the Clear/OFF (クリア・OFF) button in distance measurement, will allow you to return to the measured value before the previous one. It is not possible to return to any further condition beyond that.



◀ The value before the previous one

◀ Previous

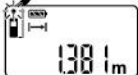
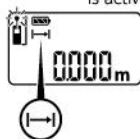
◀ Current

(5) Continuous Measurement

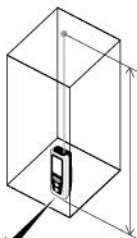


- ① Press and hold the ON/Measure (ON・測定) button and the Continuous Measurement Display will light up, and the device will begin continuous measurement.
- ② During continuous measurement, the device will automatically switch between measured values depending on the distance even if you do not press the button.

(when laser pointer is active)



(when laser pointer is active)

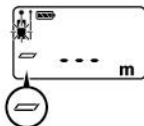


(when laser pointer is active)

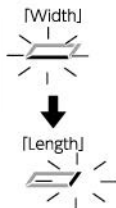
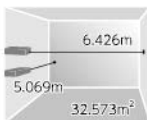
- ③ Press the On/Measure (ON・測定) button once again or press the Clear/OFF (クリア・OFF) button and the last measured value will be displayed, and the device will stop continuous distance measurement.

(6) Measurement Area

Area Measurement
Screen
(when laser pointer
is active)



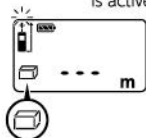
- ① In the Area Measurement Screen, the corresponding side being measured in the Area icon will blink. When measuring the width and length in that order, the area will be displayed on the lower part of the screen.
- ② Each time the Clear/OFF (クリア・OFF) button is pressed, the most recent measured value displayed will be cleared, and the device will return to its previous condition.



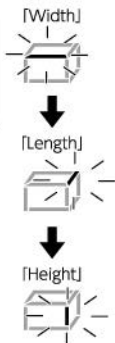
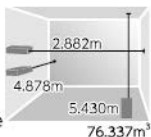
(7) Measurement Volume

Volume Measurement Screen

(when laser pointer is active)

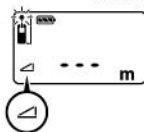


- ① In the Volume Measurement Screen, the corresponding side being measured in the Volume icon will blink. When measuring the width, length and height in that order, the volume will be displayed on the lower part of the screen.
- ② Each time the Clear/OFF (クリア・OFF) button is pressed, the most recent measured value displayed will be cleared, and the device will return to its previous condition.



(8)Pythagoras (2-point) Measurement

Pythagoras (2-point)
Measurement Screen
(when laser pointer
is active)

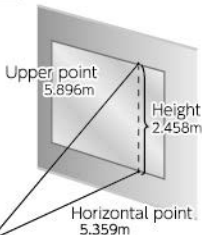


① In the Pythagoras (2-point) Measurement Screen, the Pythagoras (2-point) Measurement icon will be displayed and the corresponding side being measured in the Pythagoras (2-point) Measurement icon will blink.

② When measuring the "Upper point" and "Horizontal point" in that order, the "Height" will be displayed on the lower part of the screen.

※ When using Continuous Distance Measurement during horizontal point measurement, a more accurate horizontal distance can be measured by moving the laser dot up and down around the horizontal position, and incorporating the shortest distance as a measured value.

③ Each time the Clear/OFF (クリア・OFF) button is pressed, the most recent measured value displayed will be cleared, and the device will return to its previous condition.



[Upper point]



[Horizontal point]



[Height icon]



(9) Changing Measurement Unit

Measurement Unit Change Screen



Meter icon



Shaku
Conversion
icon



① In the Change Measurement Unit Screen (when the Measurement Unit is blinking), pressing the ON/Measure (ON/測定) button allows you to change between measurement units. When the current measurement unit is displayed with an m (meter) icon, the device will switch to 10/33m (shaku conversion). When the current measurement unit is displayed with a 10/33m (shaku conversion) icon, the device will switch to the m (meter) icon.

※ The 10/33m (shaku conversion) icon can only be used for distance measurement and Pythagoras (2-point) measurement.

※ The preceding measurement result will be cleared when the measured value is changed.

■ Display Error Codes



Info	Cause	Action
204	Outside display range	Please measure within a distance of 30m
252	High temperature	Please cool down the device to its operating temperature
253	Low temperature	Please warm up the device to its operating temperature
255	Received signal too weak	Please use a commercially available target board
256	Received signal too strong	
205	Outside measuring range	Please use within the measuring range
206	Operation error	While in Pythagoras Mode please make the diagonal side longer than the horizontal side
258	Initialization Error	Please remove the batteries, then reinsert them and restart the device

■After-sales Service

After-sales service or repair is unavailable for this product. Pursuant to the terms of the warranty printed on the packaging, we will replace the product with a new device free of charge during the warranty period (2 years from purchase).

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