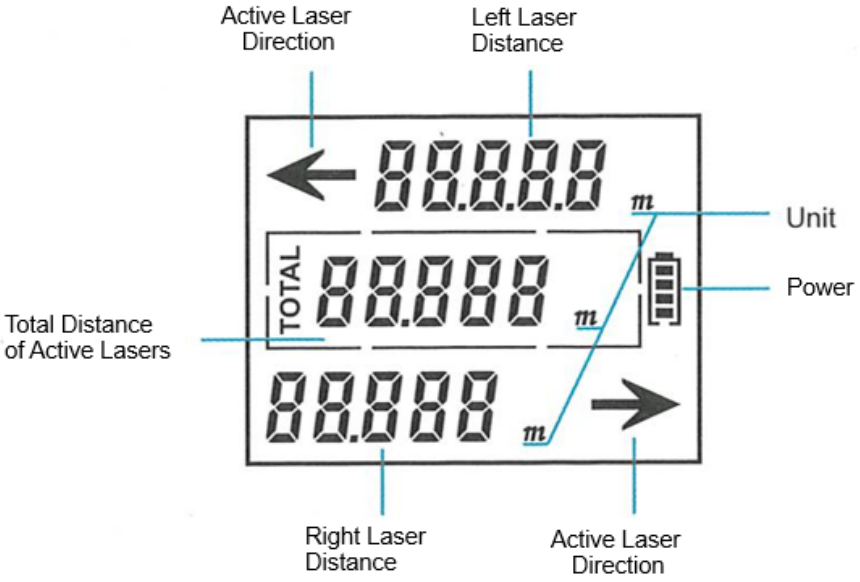
Laser Distance Meter Instructions



OFF UNIT : Unit / Turn off

: Active Laser(s)

: Power/Activate and Capture Measurements

Battery

- The LSR-2 contains a permanently installed 3.7 volt 850 mAh lithium ion battery.
- The LSR-2 provides a micro-USB charging port on the left side of the case and is shipped with a charging cable. Use any USB power source to charge the battery, such as a mobile phone charging adapter.
- The LSR-2 has internal charging circuitry. Additionally, the display shows a battery charge indicator icon. Use the USB to charge the device when the icon shows the battery is low . When the battery is fully charged the icon will display four bars and blink , indicating the charging source should be disconnected.

Battery Maintenance

To maximize battery life, charge the device at least every six months.

Start and Setting

- **Power On/Power Off**

  Press to power on the LSR-2. Press for three seconds to power off the device. The display will automatically dim after approximately 15 seconds of inactivity, and the LSR-2 will shut off automatically after approximately three minutes of inactivity.

- **Setting the Unit of Measure**

The device can display results in one of three units of measure: meters, feet and tenths, and feet and inches. Press the button to cycle through the choices and select the desired unit of measure.

- **Laser Selection**

Press the button to toggle between activating both lasers (default) or a single laser.

Bi-Directional Measuring Mode:
When both lasers are selected the LSR-2 measures from the center of the device in each direction. The display gives three readings—on top is the distance indicated by the left pointing laser, in the middle is the total distance of both lasers, and on the bottom is the distance indicated by the right pointing laser.

Single Direction Measuring Mode:
When one laser is selected the LSR-2 measures from the back edge of the device. You can place the end of the device against a wall and measure the distance to the opposite wall. The distance will show in both the lower and the middle display areas.

- **Display Backlighting:**

The display will go dim automatically after approximately 15 seconds of inactivity. Press any key to brighten the display. If you wish to preserve the data on the screen, press the OFF UNIT three times to cycle through the units without losing the on-screen information.

Using the LSR-2

- **Measuring the Distance Between Two Surfaces.**

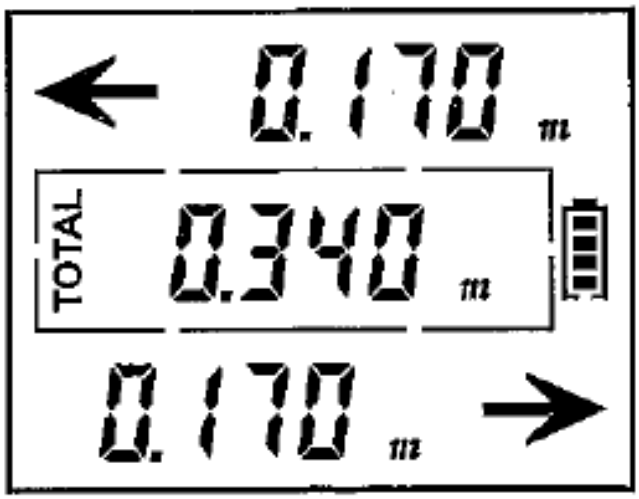
Press the button once to turn on the LSR-2, press a second time to activate the lasers, and once the lasers are centered on the surfaces, press a third time to capture the measurement. Remember, the shortest distance between two points is a straight line, so make sure to hold the laser as close to perpendicular (at a right angle) to the surfaces as possible.

- **Continuous Measuring Mode**

Hold down the button approximately three seconds to activate Continuous Measuring Mode. Now as you move the LSR-2 slowly from side to side, the display will change showing the distance in each direction. Press the again to discontinue Continuous Measuring Mode.

- **Center Point Locator**

If you have selected Bi-Directional Measuring Mode and Continuous Measuring Mode the display will appear similar to this:



When the difference between each laser's measurement is less than approximately 2 millimeters (1/8th inch) the 88888. will begin to flash in the center of the display and the continuous beeping tone will slow down, giving you both visual and aural indications that you have found the center. There is a notch on the center of the case of the LSR-2 where you can mark the center point.

HINT: If you hold the LSR-2 against the wall directly in continuous mode, it is likely that one or both lasers will scuff along the wall, giving an ERR on the display. It is helpful to hold a book or other spacer behind the LSR-2 to give it clearance so the lasers can hit the opposite walls without interference.

Technical Specifications

Item	LSR-2
Working Range	0.05 ~ 60m
Measuring Accuracy	± 2mm*
Smallest Unit Displayed	0.001m
Continuous Distance Measuring	Yes
Aural Alerts	Yes
Laser Type	class II, 635nm, <1mW
Auto Display Dim	20s
Auto Power Off	150s
Storage Temperature	-20˚C~60˚C
Working Temperature	0˚C~40˚C
Storage Humidity	20%~80%RH
Battery	3.7V 850mAh Li-ion
Battery Charging Times	500 times
Dimensions	92.5x40x22.5 mm

* Typical tolerance: ± mm when reflectivity is 100% (white surface), environmental light is less than 2,000 lux, and ambient air temperature is 77 degrees Fahrenheit (25 degrees Celsius).

* Accuracy is affected by distance, receptivity, and environmental lighting. Maximum tolerance is ±2mm + 0.2 mm/m.

Error Messages

You may get error messages as set forth below:

Info message	Cause	Solution
Err1	Signal is too weak	Choose a more reflective surface, or use a reflecting plate (see note 1 below).
Err2	Signal is too strong	Choose a more reflective surface, or use a reflecting plate (see note 1 below).
Err3	Low battery voltage	Plug the LSR-2 into a USB power source to charge the internal battery
Err4	The working temperature is out of working range	Use the device within the allowable ambient air temperature range. 32 degrees Fahrenheit (0 degrees Celsius) to 104 degrees Fahrenheit (40 degrees Celsius).
Err5	Pythagoras measuring error.	Try the measurement again and hold the LSR-2 perpendicular to the surface to be measured. Make sure the hypotenuse is longer than the cathetus.
Err6	Out of distance measurement range	The LSR-2 is too close or too far from the surface to be measured. Use the device within its operating range.

LSR-2 Maintenance

The LSR-2 should not be stored in a high temperature or high humidity environment. When not in use, store the device in its holster for maximum protection.

Keep the LSR-2 clean and free of dust. The lenses perform best when they are clean and free of smudges. Use a slightly damp cloth to clean the case, but avoid abrasive cleaners or harsh chemicals. Clean the transmitter and receiver lenses in each end of the LSR-2 with a microfiber cloth and a solution suited for cleaning optical devices.