KIZEN

LaserPro *LP300*

Infrared Thermometer

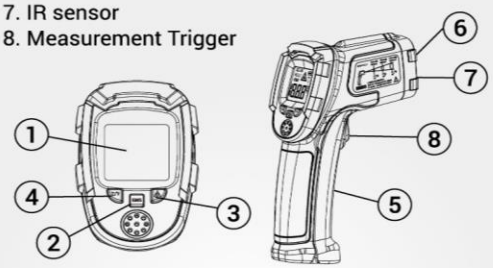
User Manual

Have Issues or **Need Help?**
email: **support@kizen.net**

WARNING!
- Use extreme caution when laser is in use.
- Do no look into direct or reflected laser beam.
- Do not aim laser beam at another person or animal.
- Laser radiation may damage your eyes.
- Do not point the laser at an aircraft
- Do not allow children to operate the device
- Do not expose thermometer to direct sources of heat
- Do not clean thermometer with anything except a soft cloth or cotton swab.

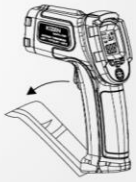
Main Functions

1. LCD display
2. Emissivity button
3. Laser light toggle button
4. C/F button
5. Battery Compartment
6. Laser Hole
7. IR sensor
8. Measurement Trigger

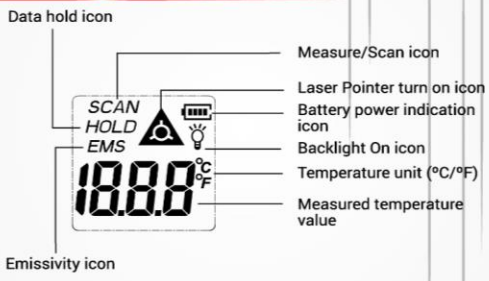


Set-up

1. Open the battery compartment
2. Remove the wrapping around batteries and install them in compartment, being mindful of the +/- orientation.
3. Close the battery compartment.



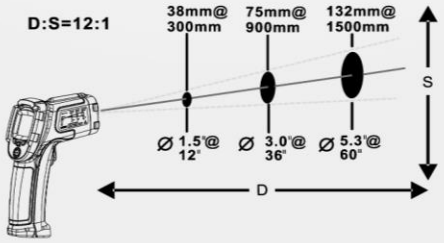
LCD Display



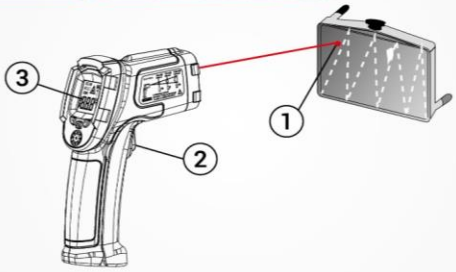
Operation

Distance to Spot Ratio

As the distance between the thermometer and the target increases, the surface area measured also increases. With a distance to spot ratio of 12:1, the area measured also has a diameter of roughtly 1/12 the distance (i.e. When standing 12 feet away from the surface measured, only 1 foot diameter on that surface is measured.) For the most accurate results, make sure the target has a surface area of twice the corresponding spot size at the given distance.



Surface Temperature Measurement



1. Point the Laserpro towards the desired surface to be measured
2. Press and hold the measurement trigger. The scan symbol will be light up while you are taking your measurement.
3. Release the measurement trigger; the temperature reading will appear on the LCD display. The temperature reading will hold on the display for 20 seconds before the device automatically turns off.
4. For continuous measurement, press and hold the measurement trigger while scanning the measured surface.

Note: The Laserpro cannot measure the temperature of objects behind glass. Inaccuracy may also occur when exposed to steam, dust, or any other contaminants in the air.

Unit Conversion

Press the ℃/℉ button to switch between temperature units at anytime while in surface temperature mode

Laser Activation

Press the ⚠ to activate and deactivate the laser pointer at anytime while Laserpro is on.

Emissivity

The emissivity of a material is its efficiency in emitting thermal energy. Non-reflective surfaces have a higher emissivity (close to 1) than reflective surfaces (closer to 0). Inaccurate results may result when measuring reflective surfaces such as glass, polished wood, and granite.

Most organic materials, and painted or oxidized surfaces have an emissivity of 0.95. Other materials, such as polished metal surfaces, have a different emissivity level, which should be taken into account for accurate temperature measurement. One way to improve accuracy is to cover the surface with non-reflective masking tape or flat black paint, and then measure when the temperature reaches that of the underlying surface.

Emissivity Adjustment

Press the **EMS** button to adjust the emissivity of the Laserpro. While in EMS mode, use C/F to decrease EMS, and ⚠ to increase the EMS. See included "Emissivity Chart" for reference on settings.

Maintenance

1. **Lens Cleaning**: Use compressed air to remove any dust or particles on the Laserpro lens. Use a soft bristle brush to remove any debris from the lens, followed by a clean, wet cloth. Dry the lens with a soft, clean cloth immediately afterwards.
2. **Case Cleaning**: Clean the case with a damp sponge/cloth and mild detergent.

Note:
Do not use soap or detergent to clean the lens
Do not immerge the thermometer in water or liquid detergetnt.

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Product Specifications

Measure temperature range	-50 ~600 °C/ -58~1112 °F
Accuracy	-50 °C(-58 °F) ~0 C(32°F) +/-2 °C 0 °C(32 °F)~100°C(212 0) +/-2 °C >100 °C, +/-2 °C OR +/-2% take the which one is greater.
Distance to spot ratio (D: S ratio)	12:1
Emissivity	0.1 to 1.00 adjustable (pre-set 0.95)
Resolution	0.1°C or 0.1 °F (< 200°C)
Spectral response and Response time	8~14um & 500mSec, 95% response
Repeatability	1% of reading or +/_1 °C