KIZEN LP300

Kizen Infrared Thermometer Gun (LaserPro LP300)

Model: LP300 | Brand: KIZEN

1. Introduction

The Kizen Infrared Thermometer Gun (LaserPro LP300) is a versatile handheld device designed for precise surface temperature readings across diverse materials and environments. It is ideal for both residential and industrial applications, including monitoring temperatures for griddles, grills, ovens, vehicle engines, and HVAC systems. This thermometer provides instant readings from -58°F to 1112°F (-50°C to 600°C).

Important Safety Notice: This laser thermometer is not suitable for measuring human body temperatures. Do not point the laser directly into eyes or at animals.

2. Product Components

Figure 1: Kizen Infrared Thermometer Gun (LaserPro LP300)

Figure 2: Key components and dimensions of the thermometer. Includes Infrared Lens, Laser Hole, Bright LCD, Laser Pointer Button, Emissivity Button, C/F Switch Button, and Battery Compartment.

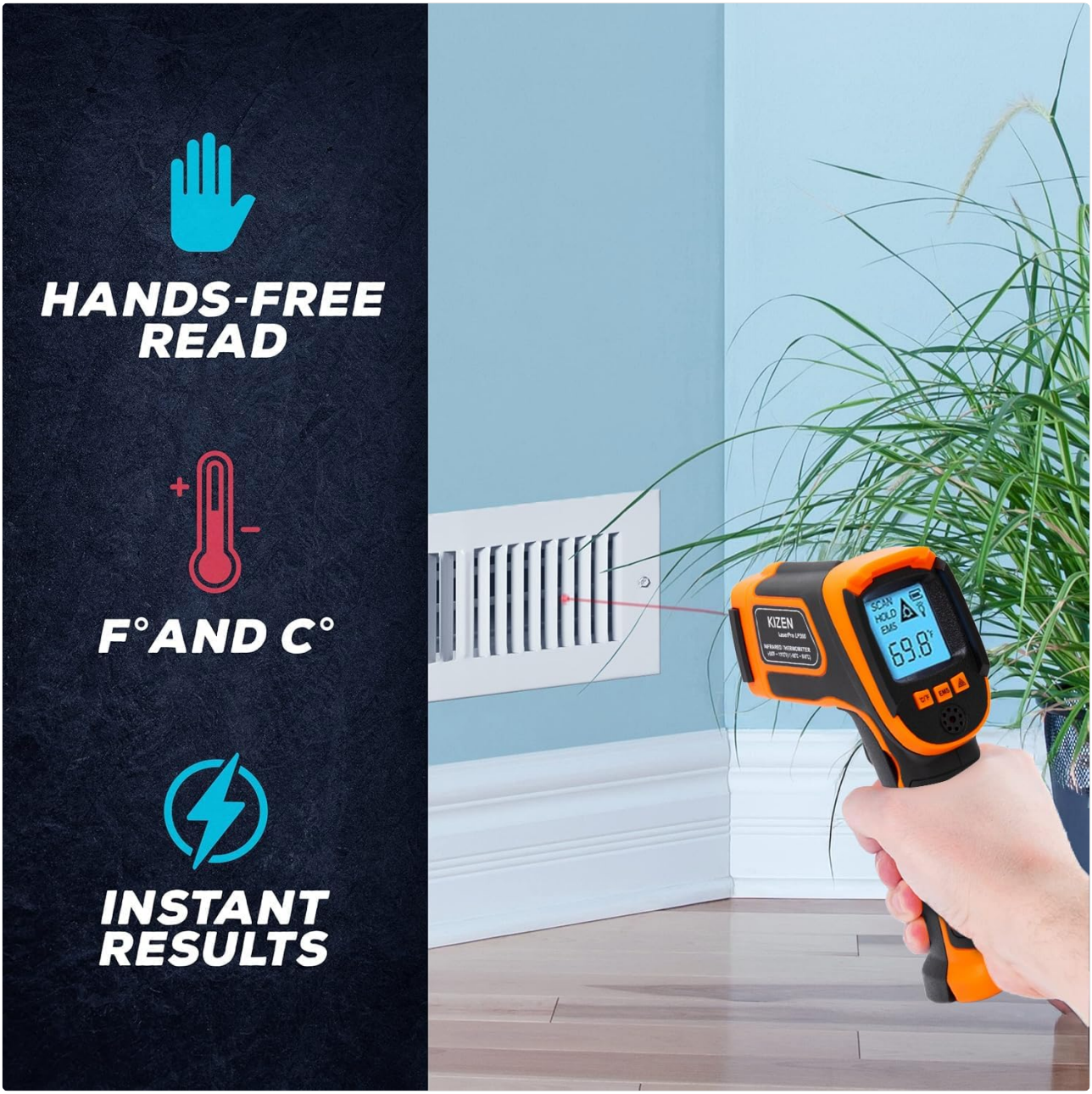


Figure 3: Detailed view of the large, backlit LCD display for clear readings in various lighting conditions.

3. Setup

3.1 Battery Installation

The Kizen LaserPro LP300 requires 2 AAA batteries, which are included with the device. To install or replace batteries:

1. Locate the battery compartment on the handle of the thermometer.
2. Gently pull open the battery compartment cover.
3. Insert the 2 AAA batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely until it clicks into place.

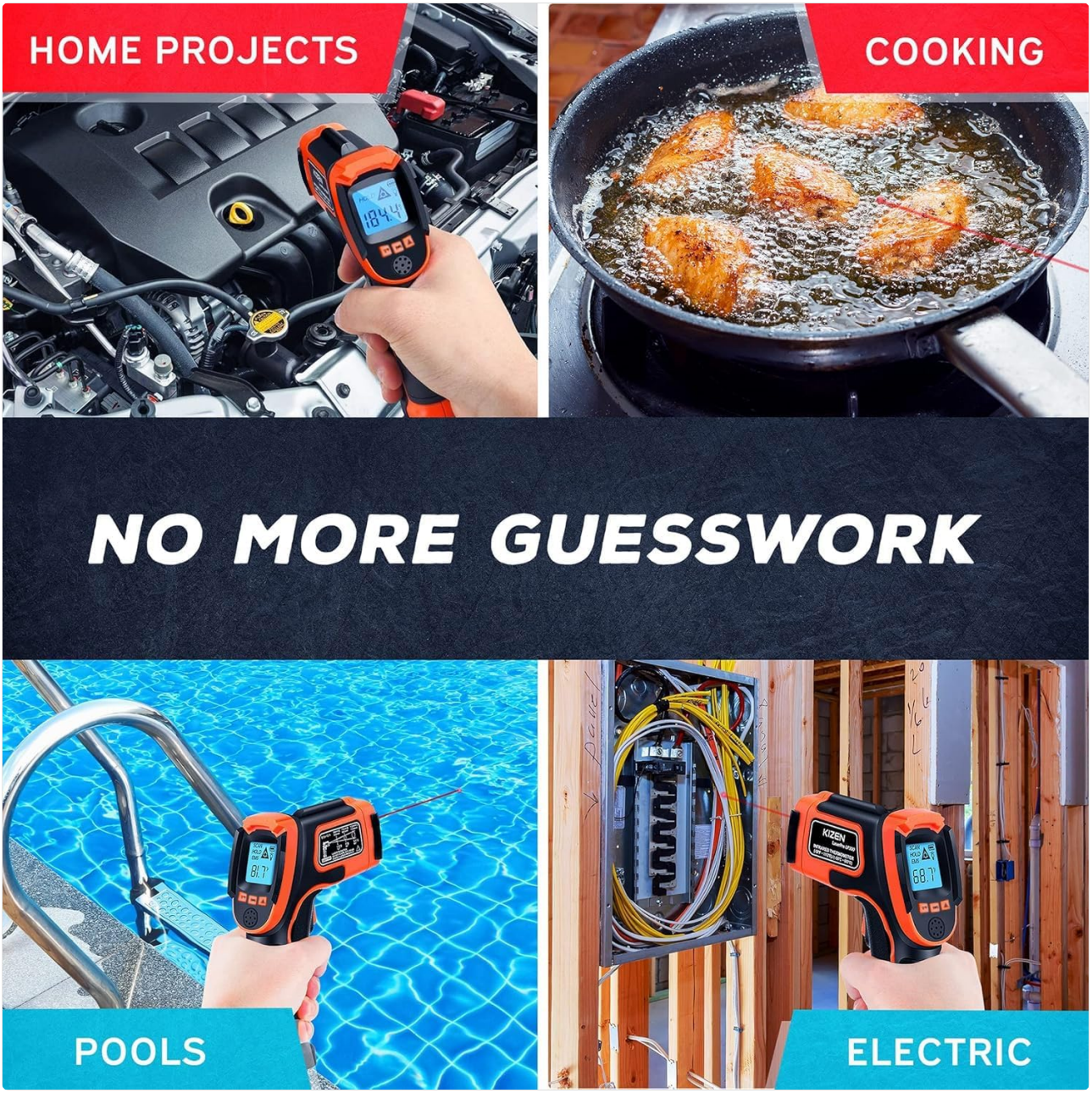


Figure 4: Step-by-step guide for battery installation.

Figure 5: The thermometer comes with 2 AAA batteries for immediate use.

4. Operating Instructions

4.1 Taking a Temperature Reading

To take a temperature reading, simply point the infrared thermometer gun at the target surface and press the trigger. The temperature reading will instantly appear on the large, backlit LCD display. For continuous measurement, hold the trigger down. Release the trigger to hold the last reading on the display.

For optimal accuracy, maintain a distance of approximately 14 inches from the target for optimal accuracy. The device has a distance-to-spot ratio of 12:1, meaning that at 12 inches, it measures a 1-inch spot. As distance increases, the measured area also increases.

4.2 Switching Temperature Units (Fahrenheit/Celsius)

To switch between Fahrenheit (°F) and Celsius (°C), press the 'C/F' button located below the LCD display.

4.3 Adjusting Emissivity

Emissivity is a measure of a material's efficiency in emitting thermal energy. Different materials have different emissivity values, which can affect measurement accuracy. The Kizen LP300 allows for adjustable emissivity from 0.10 to 1.00.

To adjust emissivity:

1. Refer to the provided Emissivity Table (see Figure 6) to match the number to the material being measured.
2. Press the 'EMS' button on the thermometer and use the up/down arrows to select the appropriate emissivity level.
3. Hold the infrared thermometer at your desired object for an accurate reading.

Figure 6: Emissivity Table showing values for various materials to ensure accurate readings.

For highly reflective surfaces (e.g., polished metals), a low emissivity value (0.10-0.15) should be used. For most organic materials and painted or oxidized surfaces, a higher emissivity value (0.95) is typical.

5. Versatile Applications

The Kizen Infrared Thermometer is designed for a wide range of temperature measurement tasks:

- **Cooking:** Ideal for checking surface temperatures of griddles, grills, ovens, and pizza stones.
- **Automotive:** Useful for monitoring engine temperatures and other vehicle components.
- **HVAC:** Assess air vent temperatures and identify drafts or insulation issues.
- **Home Projects:** Measure temperatures of pools, electrical panels, and other household surfaces.

Figure 7: Examples of the thermometer's use in various home and industrial settings.

5.1 Monitoring Glass Temperatures

Infrared thermometers cannot accurately read through glass. To measure the temperature of an object behind glass:

1. Place an opaque material (e.g., electrical tape, black paint) on the glass surface.
2. Allow sufficient time for the opaque material to reach the temperature of the object behind the glass.
3. Set the emissivity of the thermometer to match the opaque material.
4. Aim the infrared thermometer at the opaque material for an accurate reading.

Figure 8: Method for accurately measuring temperatures through glass surfaces.

6. Maintenance

6.1 Cleaning

To ensure longevity and accurate readings, keep the thermometer clean and free of scratches. Wipe the device with a soft, damp cloth. Do not use abrasive cleaners or solvents.

For the lens, use a soft brush or clean compressed air to remove loose particles. Then, gently wipe the lens with a soft, clean, damp cotton swab. Do not use harsh chemicals.

6.2 Storage

Store the thermometer in a dry, cool place away from direct sunlight and extreme temperatures. If storing for an extended period, remove the batteries to prevent leakage.

7. Troubleshooting

7.1 Inaccurate Readings

- **Check Emissivity:** Ensure the emissivity setting matches the material being measured. Refer to the Emissivity Table (Figure 6).
- **Distance to Spot Ratio:** Maintain the recommended 12:1 distance to the target for optimal accuracy.
- **Surface Conditions:** Steam, dust, and scratches on the lens can affect accuracy. Ensure the lens is clean.
- **Temperature Stabilization:** Allow the thermometer to come to the ambient temperature of its surroundings before use, especially if moving between environments with significant temperature differences.

7.2 Battery Issues

- **Battery Drain:** Some users have reported faster battery drain if left in the device for extended periods. Consider removing batteries when not in use for long durations.
- **Low Battery Indicator:** The LCD display will show a low battery icon when replacement is needed.

8. Specifications

Feature	Specification
Brand	KIZEN
Model Name	LP300
Temperature Range	-58°F to 1112°F (-50°C to 600°C)
Distance to Spot Ratio	12:1
Emissivity	0.10-1.00 adjustable
Response Time	500 Milliseconds
Resolution	0.1°C or 0.1°F
Power Source	Battery Powered (2 AAA batteries included)
Display Type	Digital (Backlit LCD)
Dimensions (L x W x D)	6.2 x 2 x 3.5 Inches
Item Weight	8.4 ounces
Outer Material	Plastic

9. Warranty & Support

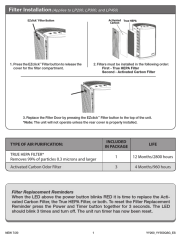
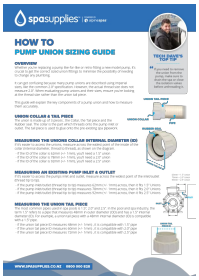
For any product support, warranty information, or if you are not satisfied with your purchase, please contact Kizen directly. Kizen states their mission is 100% customer satisfaction.

Contact Information:

- Email: support@kizen.net

This product is from a small business brand. Your support is appreciated.

Related Documents - LP300

rizoma	Rizoma LP300 Proguard System and End Mount Mirror Mounting Kit User Manual User manual for the Rizoma LP300 Proguard System and End Mount mirror mounting kit, providing installation instructions, safety warnings, and general information for motorcycle riders.
	Lasko LP200/LP300 Air Purifier Instruction Manual Instruction manual for Lasko LP200 and LP300 Air Purifiers, detailing product specifications, operation, filter installation, troubleshooting, safety guidelines, and warranty information.
	Lasko Air Purifier LP200/LP300 Instruction Manual and Safety Guide Comprehensive instruction manual for Lasko LP200 and LP300 Air Purifiers, covering operation, safety, specifications, filter installation, troubleshooting, and warranty information.
	Lasko Air Purifier Filter Installation Guide for LP200, LP300, LP450 Step-by-step guide for installing and replacing filters in Lasko LP200, LP300, and LP450 air purifiers. Includes details on True HEPA and Activated Carbon filters, their life expectancy, and replacement reminders.
	Controlpack : Solutions d'Emballage Industriel Complètes Découvrez Controlpack, votre partenaire expert en machines et consommables d'emballage. Optimisez vos processus avec des solutions innovantes pour tous vos besoins industriels.
	How to Size Spa Pump Unions: A Comprehensive Guide Learn how to accurately measure and select the correct spa pump union fittings with this comprehensive sizing guide from SpaSupplies. Covers union components, measurement techniques, and common pump sizes for spa and pool equipment.