BSIDE H2 Infrared Thermometer Pistole

BSIDE Infrared Thermometer H2 User Manual
Model: H2 Infrared Thermometer Pistole
Brand: BSIDE

1. INTRODUCTION

The BSIDE H2 Infrared Thermometer is a non-contact temperature measurement device designed for various applications including cooking, automotive maintenance, HVAC, and general household use. It provides quick and accurate temperature readings from a safe distance.

Important Safety Information:

This device uses a laser for targeting. **DO NOT aim the laser directly at eyes or indirectly off reflective surfaces.** Keep out of reach of children. This thermometer is not intended for medical use or measuring human body temperature.

Please read and retain this instruction manual. Please follow all instructions and safety precautions stated in this manual.

2. PRODUCT OVERVIEW AND COMPONENTS

The package includes:

- 1 x BSIDE H2 Infrared Thermometer
- 2 x AAA Batteries
- 1 x User Manual

Image: The BSIDE H2 Infrared Thermometer shown alongside two AAA batteries, as included in the package.

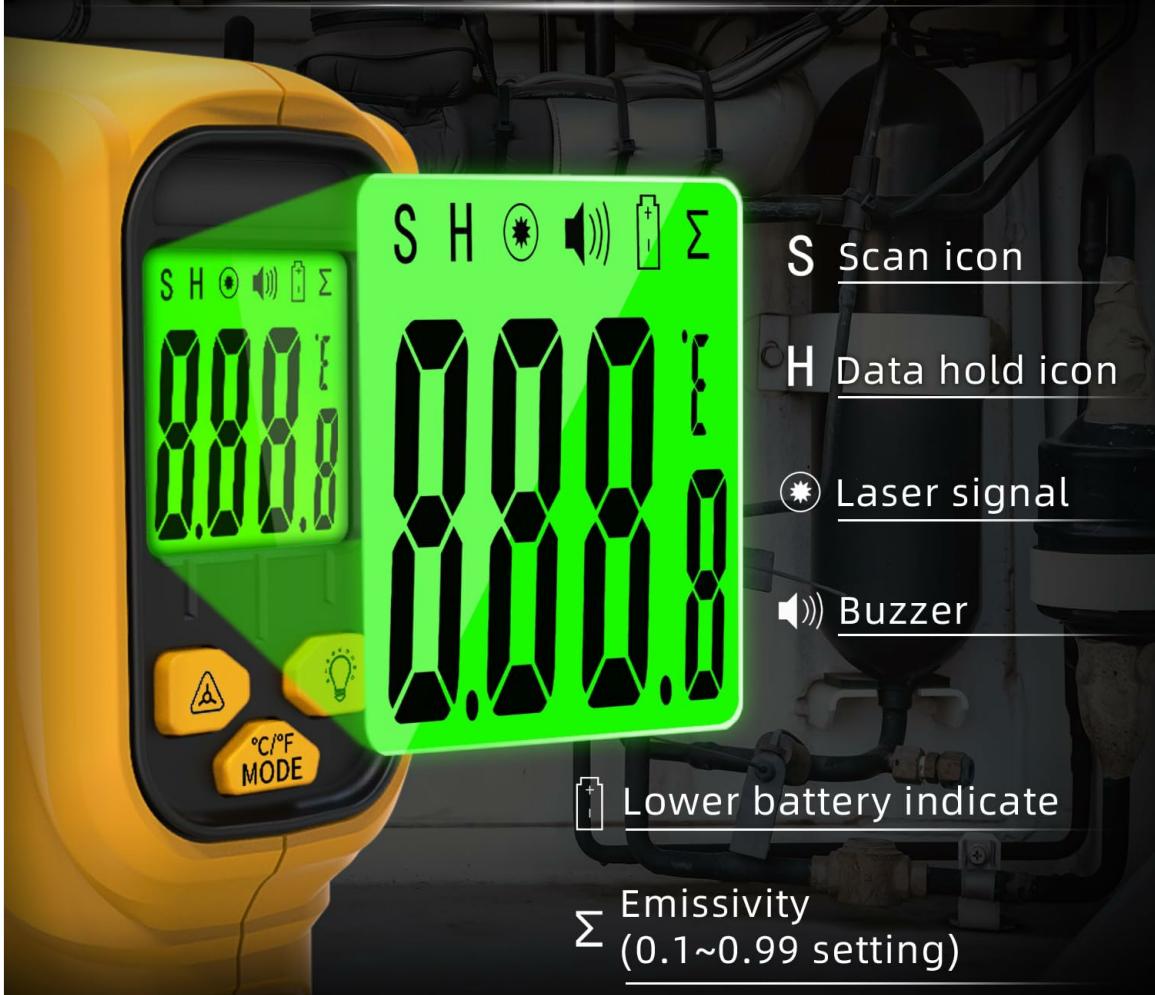The thermometer features a clear display and intuitive controls:

Image: A detailed view of the thermometer's display, highlighting various icons such as Scan (S), Data Hold (H), Laser Signal, Buzzer, Low Battery Indicator, and Emissivity setting (0.1-0.99).

- **Display:** High-definition screen showing temperature, mode, and status icons.
- **Trigger:** Activates measurement when pressed.
- **Mode Button:** Used to access and adjust settings like emissivity.
- **°C/°F Button:** Toggles between Celsius and Fahrenheit units.
- **Laser Aperture:** Emits the targeting laser.
- **IR Sensor:** Detects infrared radiation for temperature measurement.

3. SETUP

3.1 Battery Installation

1. Locate the battery compartment cover at the bottom of the thermometer's handle.
2. Slide or open the cover to reveal the battery slots.
3. Insert two (2) AAA batteries, ensuring the correct polarity (+/-) as indicated inside the compartment.
4. Close the battery compartment cover securely until it clicks into place.

3.2 Initial Power On

Once batteries are installed, the device is ready for use. Press the trigger to power on the device and begin measurement.

4. OPERATING INSTRUCTIONS

4.1 Taking a Measurement

1. Point the thermometer's IR sensor towards the target surface you wish to measure.
2. Press and hold the trigger. The laser pointer will activate (if enabled) to help you aim.
3. The temperature reading will appear on the display almost instantly (0.5s response time).
4. Release the trigger to hold the current temperature reading on the display. The 'H' (Data Hold) icon will appear.

4.2 Distance to Spot Ratio (D:S)

The BSIDE H2 has a Distance to Spot Ratio of 12:1. This means that at a distance of 12 units from the target, the measurement spot size will be 1 unit. For example, at a distance of 12 inches, the measurement area is a 1-inch circle. To ensure accurate readings, make sure the target area is larger than the spot size.

Image: A diagram illustrating the 12:1 Distance to Spot Ratio, showing how the measurement spot size (S) increases with distance (D) from the target.

4.3 Adjustable Emissivity

Emissivity (ε) is a measure of a material's ability to emit infrared energy. Different materials have different emissivity values, ranging from 0.1 (highly reflective) to 0.99 (highly emissive). The H2 thermometer allows you to adjust the emissivity to get more accurate readings for various surfaces.

Image: The thermometer's display showing the emissivity setting, which can be adjusted from 0.1 to 0.99 for precise readings across different surfaces.

To adjust emissivity:

1. With the thermometer on, press the 'MODE' button repeatedly until the emissivity symbol (Σ) is highlighted or flashing.
2. Use the up/down buttons (if available, or trigger/mode combination) to adjust the value.
3. For most organic materials, painted surfaces, or water, an emissivity of 0.95 is suitable. For shiny metals, a lower emissivity may be required. Refer to common emissivity tables for specific materials.

4.4 Unit Conversion (°C/°F)

Press the '°C/°F' button located on the device to switch the temperature display between Celsius and Fahrenheit units.

4.5 Applications

The BSIDE H2 Infrared Thermometer is versatile and can be used for a variety of non-contact temperature measurements:

Image: The thermometer being used to measure the temperature of food on a barbecue grill, demonstrating its utility in cooking.

Image: The thermometer being used to measure the temperature of an engine component, highlighting its application in automotive maintenance.

- **Cooking:** Ideal for checking oven temperatures, grill surfaces, pizza stones, and food surfaces.
- **Automotive:** Useful for diagnosing engine components, tires, brakes, and HVAC systems.
- **HVAC:** Checking vents, ducts, and insulation for temperature inconsistencies.
- **Household:** Measuring surface temperatures of appliances, pipes, and insulation.

5. MAINTENANCE

5.1 Cleaning

To clean the device casing, use a soft, damp cloth. Do not use abrasive cleaners or immerse the device in water. Keep the infrared lens clean as dust or dirt can significantly affect measurement accuracy. Use a soft brush or compressed air to gently remove debris from the lens.
Product Care Instructions: Do Not Soak.

5.2 Battery Replacement

When the low battery indicator appears on the display, replace both AAA batteries promptly to ensure

continued accurate operation.

5.3 Storage

Store the thermometer in a cool, dry place away from direct sunlight, extreme temperatures, and high humidity. When storing for extended periods, it is recommended to remove the batteries to prevent leakage.

6. TROUBLESHOOTING

- **No Reading / Device Not Turning On:**
  Check battery installation and ensure batteries are not depleted. Replace if necessary.

- **Inaccurate Readings:**

  - Ensure the distance to spot ratio is appropriate for your target size.
  - Verify the emissivity setting matches the material being measured.
  - Clean the infrared lens if it appears dirty.
  - Avoid measuring through glass or highly reflective surfaces, as these can interfere with infrared readings.

- **Laser Not Working:**
  The laser is typically activated when the trigger is pressed. If it does not appear, ensure the device is powered on and batteries are sufficient.

- **Safety Warning:**
  This device is not for human body temperature measurement. The laser can cause eye damage. Always exercise caution and never point the laser at people or animals.

7. SPECIFICATIONS

Feature	Specification
Measurement Range	-58°F~986°F (-50°C~530°C)
Accuracy	±2% (more than 100°C); ±2°C (less than 100°C)
Distance to Spot Ratio (D:S)	12:1
Response Time	0.5s
Emissivity	Adjustable 0.1~0.99
Resolution	0.1°C / 0.1°F
Power Source	2 x 1.5V AAA Batteries (included)
Auto Power Off	Yes
Display Type	HD Digital Display with Backlight
Dimensions	165 x 95 x 31 mm (6.5 x 3.7 x 1.2 inches)

Weight	125g (4.41 ounces)
Outer Material	Acrylonitrile Butadiene Styrene (ABS)
Special Feature	Non-Contact

8. WARRANTY INFORMATION

This product comes with a standard manufacturer's warranty. Please retain your purchase receipt for warranty claims. For specific warranty terms and conditions, including duration and coverage, refer to the documentation provided at the time of purchase or contact the manufacturer directly.

9. CUSTOMER SUPPORT

For technical assistance, troubleshooting, or service inquiries regarding your BSIDE H2 Infrared Thermometer, please contact BSIDE customer support. You can typically find contact information on the product packaging, the official BSIDE website, or through the retailer where the product was purchased.