BSIDE H3 Industrial Laser Thermometer

BSIDE H3 Industrial Infrared Thermometer User Manual

Model: H3 Industrial Laser Thermometer | Brand: BSIDE

1. Introduction

The BSIDE H3 Infrared Thermometer is a professional non-contact device designed for safe, accurate, quick, and reliable temperature measurement of various surfaces. Its ergonomic design ensures comfortable handling, making it suitable for a wide range of industrial and domestic applications. This manual provides essential information for the proper use and maintenance of your device.

2. Important Safety Information

WARNING: This device is NOT FOR HUMAN USE. Do not look directly into the laser beam or reflected beams. Do not point the laser at people or animals, as this could cause eye damage.

- Always exercise caution when using the laser pointer.
- Keep the device out of reach of children.
- Do not use the device in explosive gas, vapor, or dust environments.
- Do not attempt to disassemble or modify the device. Refer all servicing to qualified personnel.

3. Package Contents

Please check the package contents upon receipt to ensure all items are present and undamaged:

- BSIDE H3 IR Thermometer
- 2 x AAA Batteries
- Protective Case
- English User Manual (PDF in French available via email)

Image 3.1: The BSIDE H3 Infrared Thermometer, accompanied by two AAA batteries and a protective carrying case.

4. Setup

4.1 Battery Installation

1. Locate the battery compartment cover on the handle of the thermometer.
2. Open the battery compartment.
3. Insert the two supplied AAA batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.

The device is now ready for use.

5. Operating Instructions

5.1 Powering On/Off

- To power on, press the trigger. The color LCD will illuminate.

- The device features an automatic shutdown function to conserve battery life. It will power off after a period of inactivity.

5.2 Taking a Measurement

1. Point the thermometer at the target object.
2. Press and hold the trigger. The laser pointer will activate, indicating the measurement area.
3. The measured temperature will be displayed on the LCD screen.
4. Release the trigger to hold the data on the screen. The device will automatically save up to 9 sets of historical measurements.

Image 5.1: The BSIDE H3 thermometer in use, showing the laser targeting system for precise temperature measurement.

5.3 Understanding the Display

The large color LCD displays various information:

- **Current Temperature:** The primary reading in large digits.
- **MAX/MIN/DIF/AVG:** Maximum, Minimum, Difference, and Average temperature values during a scan.
- **HAL/LAL:** High Alarm Limit / Low Alarm Limit indicators. The screen backlight will flash and an audible alarm will

sound if the temperature exceeds these set limits.

- **Emissivity (EMS):** Adjustable setting for different surface types.
- **Unit:** Displays °C (Celsius) or °F (Fahrenheit).

Image 5.2: Visual representation of the high (HAL) and low (LAL) temperature alarm functions, indicating the device's operating range.

5.4 Distance to Spot Ratio (D:S)

The BSIDE H3 has a D:S ratio of 50:1. This means that at a distance of 50 units, the measurement spot diameter is 1 unit. A higher D:S ratio allows for accurate measurement of smaller targets from a greater distance, enhancing safety when measuring hot or hazardous objects.

Image 5.3: An illustrative diagram detailing the 50:1 Distance to Spot (D:S) ratio, explaining how the measurement spot size changes with distance.

5.5 Adjusting Emissivity

Emissivity (EMS) is the ability of a surface to emit energy by radiation. Different materials have different emissivities. For accurate readings, adjust the emissivity setting on your thermometer to match the surface being measured. The default emissivity is 0.95, which is suitable for most organic materials, painted surfaces, and plastics. Consult an emissivity table for specific materials if higher accuracy is required.

5.6 Unit Selection (°C/°F)

Press the °C/°F button to switch between Celsius and Fahrenheit temperature units.

5.7 Data Hold and Historical Measurements

After releasing the trigger, the measured temperature will be held on the display. The device can store up to 9 sets of historical measurements, which can be reviewed through the menu options.

6. Applications

The BSIDE H3 Infrared Thermometer is versatile and can be used in numerous settings:

- **Industrial Use:** Chemical industry, ceramics, metallurgy, electrical power, heat treatment, forging, metal fabrication, and other high-temperature environments.
- **HVAC:** Checking heating and cooling systems.
- **Automotive Maintenance:** Measuring engine components, brakes, and other parts.
- **Food Preparation:** Checking oven temperatures, grill surfaces, and pizza ovens.
- **Home Use:** General temperature checks around the house.

Image 6.1: The BSIDE H3 thermometer accurately measuring the temperature of molten metal, demonstrating its utility in high-temperature industrial applications.

Image 6.2: An operator using the BSIDE H3 thermometer to monitor temperatures in a forging industry environment, highlighting its robust design for demanding tasks.

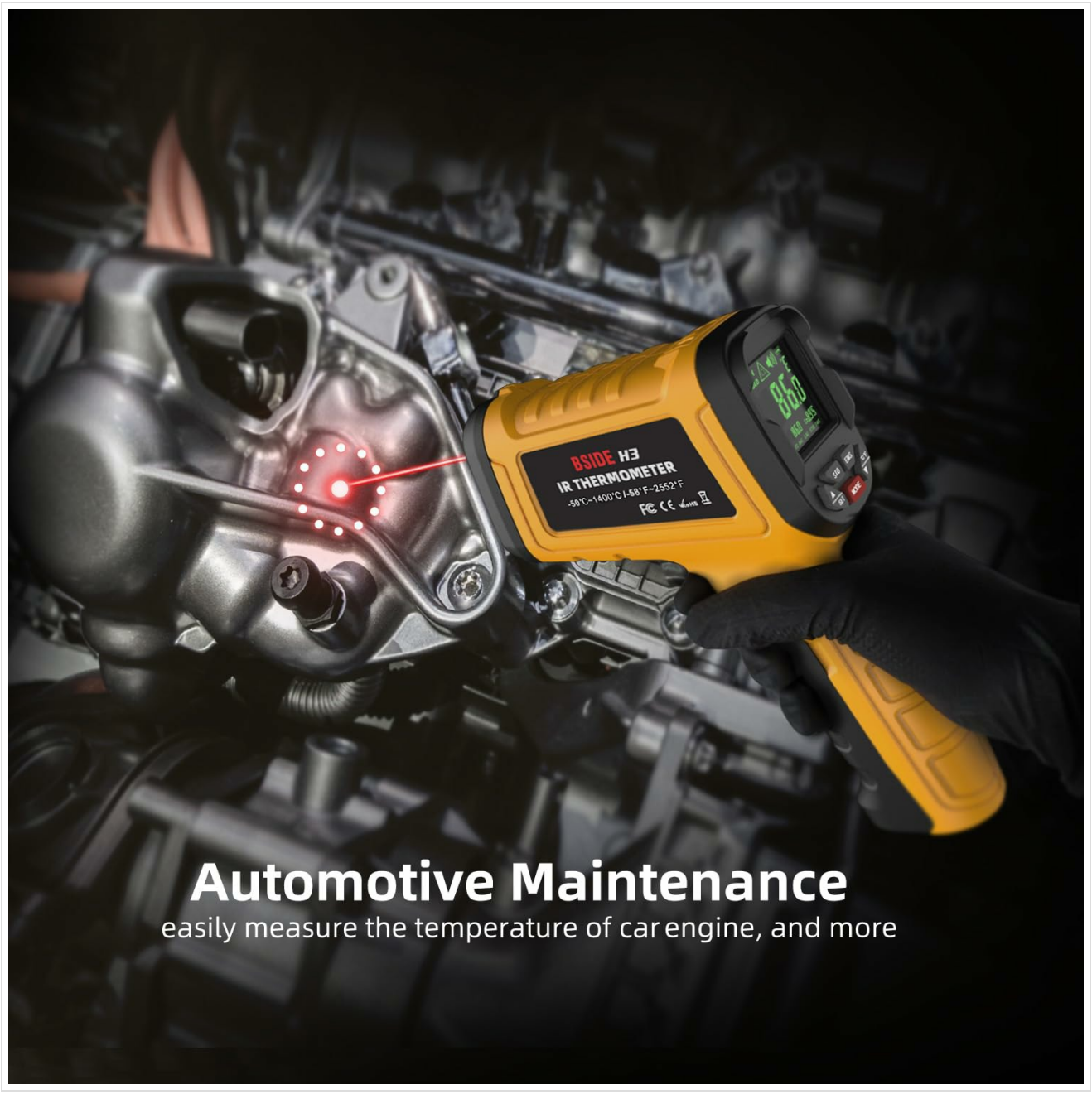

Image 6.3: The BSIDE H3 thermometer facilitating automotive maintenance by measuring engine component temperatures, ensuring precise diagnostics.

Image 6.4: The BSIDE H3 thermometer providing a safe, non-contact method to check food temperatures on a grill, ensuring proper cooking without direct contact.

7. Maintenance

7.1 Cleaning

- Clean the lens with a soft, damp cloth or cotton swab. Do not use abrasive cleaners.
- Wipe the device casing with a soft, dry cloth.
- Ensure the device is dry before storage.

7.2 Storage

- Store the thermometer in its protective case when not in use.
- Keep the device in a cool, dry place, away from direct sunlight and extreme temperatures.
- Remove batteries if the device will not be used for an extended period to prevent leakage.

8. Troubleshooting

If you encounter issues with your BSIDE H3 thermometer, consider the following:

- **No Power:** Check battery installation and replace batteries if necessary.
- **Inaccurate Readings:** Ensure the emissivity setting is correct for the surface being measured. Verify the target is within the D:S ratio. Clean the lens if it is dirty.
- **Laser Not Working:** Check battery level. If the issue persists, contact customer support.
- **Display Issues:** If the display is dim or flickering, replace the batteries.

For further assistance, please refer to the support information in Section 10.

9. Specifications

Feature	Specification
Measurement Range	-50℃~1400℃ (-58℉~2552℉)
Distance to Spot Ratio (D:S)	50:1
Accuracy (>100℃)	±2%
Accuracy (<100℃)	±2℃
Resolution	0.1℃ / 0.1℉
Response Time	0.5 seconds (500 milliseconds)
Working Temperature	0℃-50℃
Power Supply	2 x 1.5V AAA Batteries (included)
Display	Color LCD
Special Feature	High Precision, Adjustable Emissivity, High/Low Temperature Alarm
Dimensions (L x W x H)	16.1 x 7.8 x 2.4 cm
Weight	194 grams

10. Warranty and Support

For any questions, technical support, or to request the PDF manual in French, please contact BSIDE customer service. We offer 24/7 customer support to assist you.
While specific warranty details are not provided in this manual, please retain your proof of purchase for any warranty claims. Information regarding spare parts availability is currently unavailable.