

Soonkoda GM50

Soonkoda Digital Infrared Thermometer Gun GM50 User Manual

Model: GM50

1. INTRODUCTION

The Soonkoda Digital Infrared Thermometer Gun GM50 is a non-contact infrared thermometer designed for safe and accurate temperature measurement of various surfaces. It is ideal for applications such as cooking, BBQ, pizza ovens, industrial use, and general household temperature checks. This device provides quick readings without direct contact, making it suitable for measuring hot, hazardous, or hard-to-reach objects.

Important Safety Note: This thermometer is not intended for measuring human body temperature.

2. SAFETY INFORMATION

Please read and understand all safety warnings before using this product.

- **Laser Radiation Warning:** This device emits laser radiation. Avoid direct eye exposure to the laser beam. Do not stare into the beam. The laser output is less than 1mW with a wavelength of 630-670nm.
- Do not point the laser at people or animals.
- Do not use the device near explosive gases, steam, or dust.
- Keep the device away from children.
- Do not attempt to disassemble or modify the device.



Figure 2.1: Side view of the thermometer with laser warning label. The label indicates "CAUTION AVOID EXPOSURE-LASER RADIATION IS EMITTED FROM THIS APERTURE DO NOT STARE INTO BEAM OUTPUT<1mW WAVELENGTH 630-670nm".

3. PRODUCT FEATURES

- Temperature measurement range: -50°C to 500°C (-58°F to 932°F)
- Display resolution: 0.1°C or 0.1°F
- °C/°F conversion selection function
- LCD backlight for convenient use in low-light conditions. Any operation activates the backlight.
- Data hold function: Displays reading with 'SCAN' icon when trigger is pulled, and 'HOLD' icon when released.
- Built-in 8-second automatic power-off function to conserve battery life.
- Preset emissivity of 0.95, suitable for most organic materials and painted/oxidized surfaces.
- Powered by 2 AAA batteries (included).



- 1: Position the laser open symbol, 2: Read the data symbol,
 3: Data hold symbol, 4: Positioning laser switch
 5: Temperature switch, 6: Backlight on symbol
 7: Battery reminder symbol, 8: Temperature measurement unit symbol
 9: Temperature measurement reading, 10: Backlight switch,
 11: Positioning laser, 12: Sensor, 13: Measuring switch

Figure 3.1: Overview of the thermometer's key features, including its temperature range, accuracy, distance-to-spot ratio, emissivity, laser positioning, Celsius/Fahrenheit conversion, backlight, and 8-second automatic shutdown.

4. PACKAGE CONTENTS

The package includes the following items:

- Soonkoda Digital Infrared Thermometer Gun (Host)
- 2 x AAA Batteries
- User Manual
- Packaging

5. PRODUCT OVERVIEW

製品のパラメーター



Figure 5.1: Front and top view of the thermometer with labeled components.

1. Position Laser Open Symbol
2. Read Data Symbol
3. Data Hold Symbol
4. Positioning Laser Switch
5. Temperature Unit Switch (°C/°F)
6. Backlight On Symbol
7. Battery Reminder Symbol
8. Temperature Measurement Unit Symbol
9. Temperature Measurement Reading
10. Backlight Switch
11. Positioning Laser
12. Sensor
13. Measuring Switch (Trigger)

6. SETUP

6.1 Battery Installation

The Soonkoda GM50 thermometer requires 2 AAA batteries for operation. The batteries are included in the package.

1. Locate the battery compartment on the handle of the thermometer.
2. Gently open the battery compartment cover.
3. Insert the 2 AAA batteries, ensuring correct polarity (+/-) as indicated inside the compartment.
4. Close the battery compartment cover securely.



Figure 6.1: Battery compartment on the back of the handle, showing correct battery insertion.

7. OPERATING INSTRUCTIONS

7.1 Taking a Measurement

1. Point the thermometer at the target surface you wish to measure.

2. Press and hold the measuring switch (trigger) to activate the device and the laser pointer. The 'SCAN' icon will appear on the LCD.
3. The laser dot indicates the center of the measurement area. Ensure the target is within the device's distance-to-spot ratio (D:S = 12:1).
4. Release the trigger. The measured temperature will be held on the display, indicated by the 'HOLD' icon.

7.2 Temperature Unit Conversion (°C/°F)

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

7.3 Backlight Function

The LCD backlight can be turned on or off by pressing the backlight switch button (light bulb icon). When the backlight is on, any operation will activate it for improved visibility.

7.4 Emissivity (0.95 Preset)

The thermometer has a fixed emissivity of 0.95. This value is suitable for measuring the temperature of most organic materials, painted surfaces, and oxidized surfaces.

Note on Shiny Surfaces: Inaccurate readings may occur when measuring shiny or polished metal surfaces. To obtain more accurate measurements for such surfaces, cover the target area with masking tape or flat black paint. Allow the tape or paint to reach the same temperature as the underlying material, then measure the temperature of the covered surface.

7.5 Automatic Shutdown

To conserve battery life, the thermometer will automatically power off after approximately 8 seconds of inactivity.

7.6 Measurement Tips

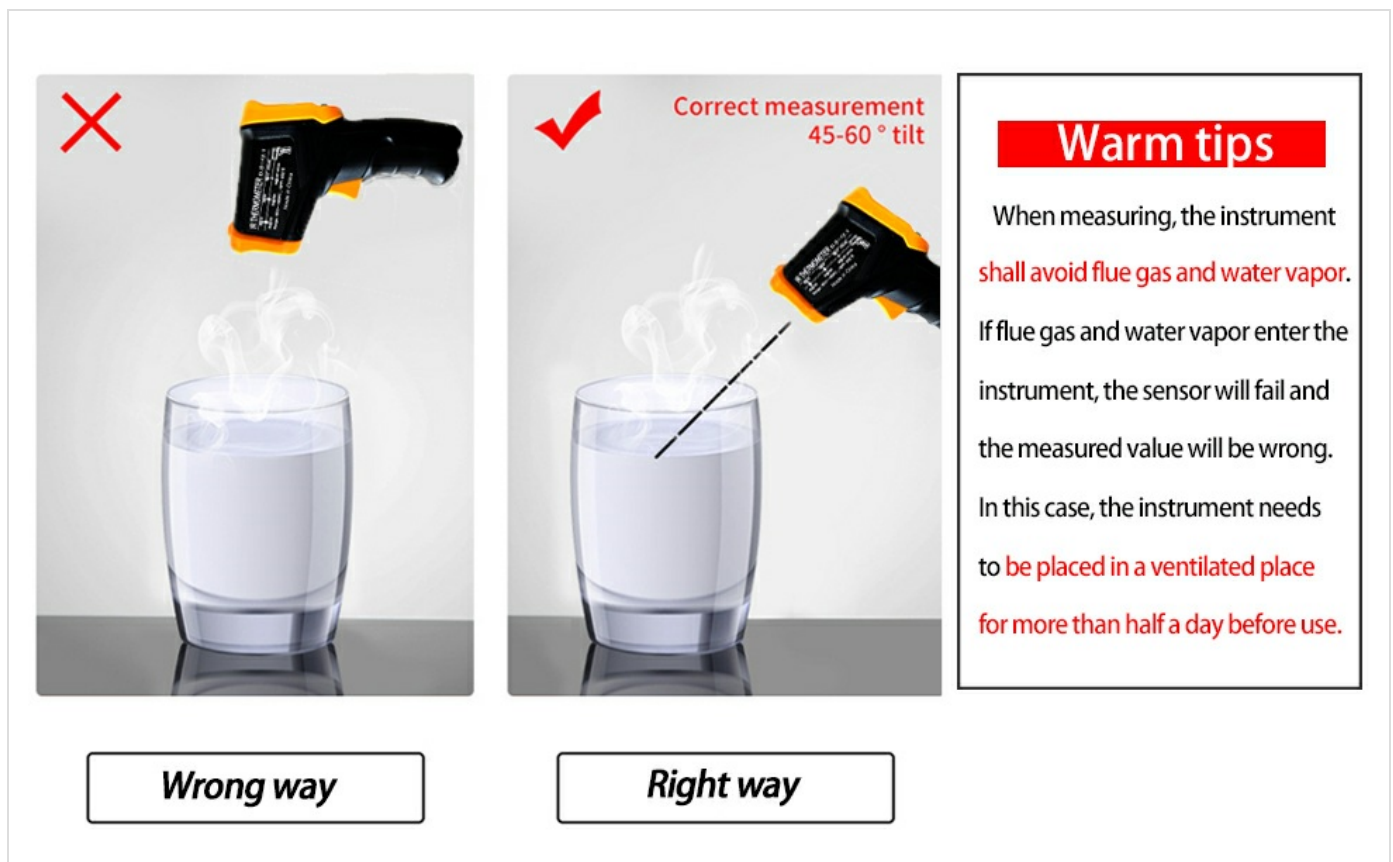


Figure 7.1: Illustration of correct measurement technique, avoiding flue gas and water vapor.

- When measuring, avoid flue gas and water vapor. If these enter the instrument, the sensor may fail, leading to incorrect readings.

- If the instrument is exposed to flue gas or water vapor, place it in a well-ventilated area for at least half a day before further use.
- Maintain a safe distance from the object being measured while ensuring the target spot is within the device's measurement area.

8. MAINTENANCE

8.1 Cleaning

To clean the thermometer, wipe it with a clean, damp cloth. Do not use abrasive cleaners or immerse the device in water.

8.2 Battery Replacement

When the battery reminder symbol appears on the display, replace the AAA batteries as described in Section 6.1.

9. TROUBLESHOOTING

- **Inaccurate Readings:** Ensure the target surface is not highly reflective (shiny metal). If it is, apply masking tape or flat black paint to the surface and measure that area. Also, ensure no steam or smoke is interfering with the sensor.
- **No Power:** Check if the AAA batteries are correctly installed and have sufficient charge. Replace batteries if necessary.
- **Laser Not Working:** Ensure the positioning laser switch is activated. If the laser still does not work, check battery levels.

10. SPECIFICATIONS

Specification	Value
Temperature Measurement Range	-50°C to 500°C (-58°F to 932°F)
Display Resolution	0.1°C or 0.1°F
Accuracy	±1.5°C or ±1.5% (whichever is greater)
Emissivity	0.95 (fixed)
Distance Spot Ratio (D:S)	12:1
Response Time	500ms (95% response)
Spectral Response	8-14µm
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Relative Humidity	10% to 90% RH non-condensing
Power Supply	2 x AAA 1.5V Batteries
Automatic Shutdown	Approx. 8 seconds
Dimensions	Approx. 148mm x 80mm x 40mm (5.83 x 3.15 x 1.57 inches)
Weight	Approx. 3.88 ounces (without batteries)
Material	Plastic
Certifications	CE



Figure 10.1: Dimensions of the Soonkoda GM50 Infrared Thermometer.

11. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the product packaging or contact the manufacturer directly. Contact details are typically provided on the product box or the manufacturer's official website.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question