BENETECH GS320

BENETECH GS320 Infrared Thermometer Instruction Manual

Model: GS320 | Brand: BENETECH

1. INTRODUCTION

The BENETECH GS320 Infrared Thermometer is a non-contact device designed for measuring surface temperatures. It provides quick and accurate readings, making it suitable for various applications in cooking, home maintenance, and industrial settings. This manual provides essential information for safe and effective use of your thermometer.

Important: This device measures surface temperature only and is not intended for measuring human body temperature.

2. FEATURES

- **Easy to Use:** Simply aim and pull the trigger for continuous temperature scanning. Readings are held when the trigger is released.

- **Wide Temperature Range:** Measures temperatures between -58°F to 788°F (-50°C to 420°C).

- **High Accuracy:** Achieves an accuracy of ±1.5% (±2.7°F/±1.5°C) with a quick response time of less than 500 milliseconds.

- **Safe Non-Contact Measurement:** Features a 12:1 distance-to-spot ratio, allowing accurate readings from a safe distance of up to 4.92 feet.

- **Fixed Emissivity:** Emissivity is fixed at 0.95 for accurate readings on common materials like plastic, painted/coated surfaces, and food.

- **Backlit LCD Display:** Easy-to-read display with an option to turn the backlight on or off.

- **Unit Switch:** Easily switch between Celsius (°C) and Fahrenheit (°F).

- **Data Hold:** Automatically holds the last reading.

- **Low Battery Indicator:** Alerts you when batteries need replacement.

- **Auto Power Off:** Automatically shuts off after 7 seconds of inactivity to conserve battery life.

- **Compact and Lightweight:** Designed for easy portability and handling.

Figure 1: Overview of BENETECH GS320 features.

3. PACKAGE CONTENTS

- 1 x BENETECH GS320 Infrared Thermometer
- 2 x AAA Batteries
- 1 x User Manual

Figure 2: Included items in the package.

4. Safety Information

- **Laser Safety:** Do not stare directly into the laser beam or point it at people or animals. The laser is used for aiming only.
- **Non-Contact Measurement:** This thermometer is designed for surface temperature measurement. It cannot measure internal temperatures of objects or the temperature of living beings.
- **Material Limitations:** Infrared thermometers cannot accurately measure the temperature of transparent materials (like glass or water) or highly reflective/shiny materials (like polished metal).
- **Proper Use:** Ensure the device is used within its specified temperature range and operating conditions.

Figure 3: The thermometer is not for measuring human temperature.

5. SETUP

5.1 Battery Installation

1. Locate the battery compartment on the handle of the thermometer.

2. Open the battery compartment cover.

3. Insert the two AAA batteries, ensuring correct polarity (+/-).

4. Close the battery compartment cover securely.

6. OPERATING INSTRUCTIONS

6.1 Taking a Temperature Reading

1. Point the thermometer at the target surface.

2. Pull and hold the trigger to begin continuous scanning. The laser pointer will indicate the measurement area.

3. Release the trigger to hold the last temperature reading on the display.

Figure 4: Easy to use for various applications like grilling.

6.2 Understanding Distance-to-Spot Ratio (D:S)

The GS320 has a D:S ratio of 12:1. This means that from a distance of 12 inches, the measurement spot size will be 1 inch. To ensure accurate readings, position the thermometer at an appropriate distance from the target surface.

Figure 5: Visual representation of the 12:1 Distance to Spot Ratio.

6.3 Switching Temperature Units (°C/°F)

Press the '°C/°F' button on the device to toggle between Celsius and Fahrenheit temperature displays.

6.4 Backlight Control

Press the backlight button (often indicated by a light bulb icon) to turn the display backlight on or off for better visibility in different lighting conditions.

Backlit LCD Screen

°F / °C

Unit Switch

Toggle between
Fahrenheit and Celsius

Battery Indicator

Temperature gun with
a low battery indicator

Auto Power Off

Automatic shut-off after
10 seconds of no use

Figure 6: Backlit LCD screen with various indicators.

7. MAINTENANCE

- **Cleaning:** Wipe the device clean with a soft, damp cloth. Do not use abrasive cleaners or immerse the device in water.

- **Storage:** Store the thermometer in a cool, dry place away from direct sunlight and extreme temperatures. Remove batteries if storing for extended periods to prevent leakage.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display.

8. TROUBLESHOOTING

- **No Reading/Inaccurate Reading:**
    - Check battery levels and replace if necessary.
    - Ensure the target surface is not transparent or highly reflective.
    - Verify the distance to the target is within the optimal 12:1 D:S ratio.
    - Clean the sensor lens if it appears dirty.
- **Laser Not Working:**
    - Check if the laser function is enabled (refer to operating instructions).
    - Ensure batteries are properly installed and charged.

9. SPECIFICATIONS

Feature	Specification
Model Number	GS320
Temperature Range	-58°F ~ 788°F (-50°C ~ 420°C)
Accuracy	±1.5% (±2.7°F/±1.5°C)
Response Time	< 500ms
Distance to Spot Ratio (D:S)	12:1
Emissivity	Fixed at 0.95
Power Source	2 x AAA Batteries (included)
Display Style	Digital, Backlit LCD
Auto Power Off	7 seconds of inactivity
Dimensions	5.68 x 1.49 x 3.66 inches (14.5 x 3.8 x 9.3 cm)
Item Weight	0.22 lb (115 g)
Special Features	Alarm, Auto Off, Backlit, High Accuracy, Low Battery Indicator
Material	Plastic

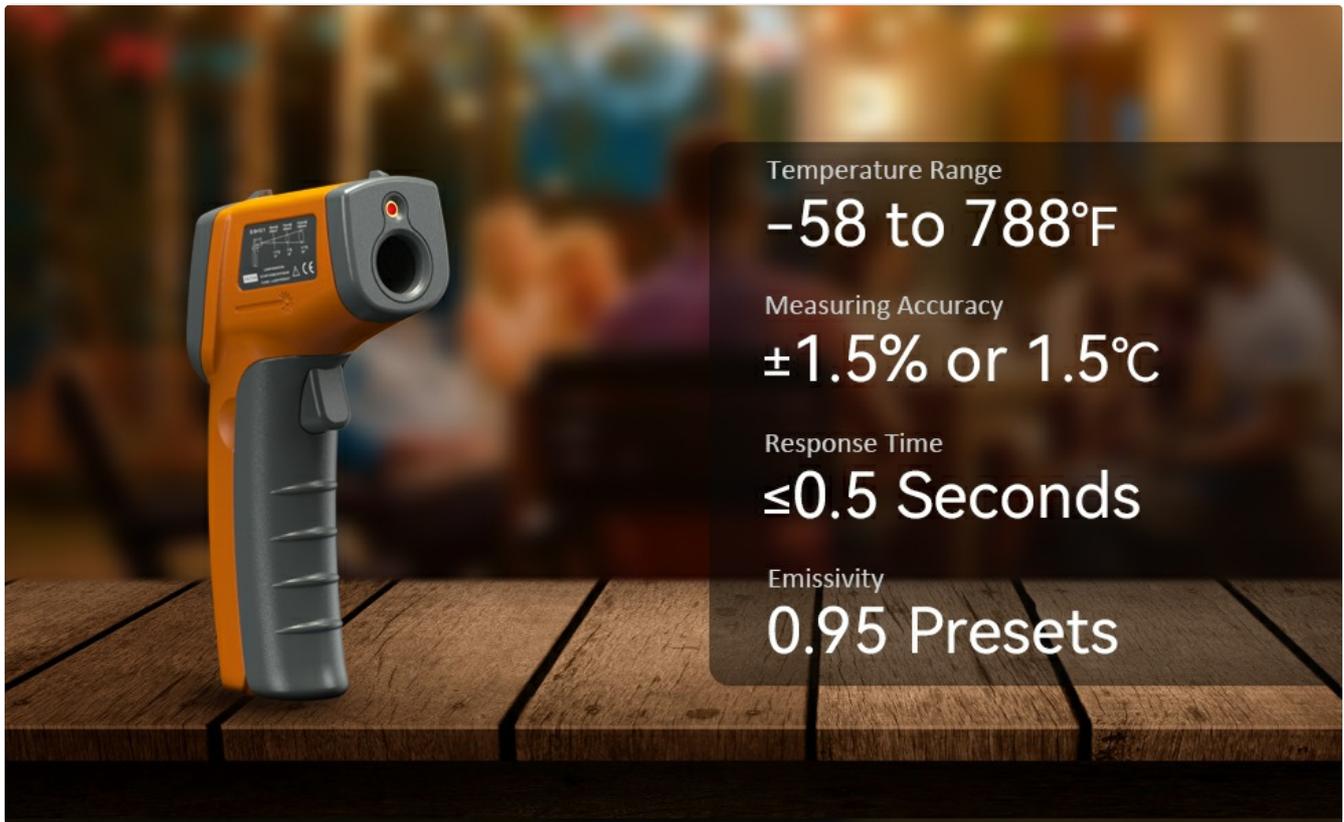| Feature	Specification
Product Care	Wipe Clean

Figure 7: Key specifications of the thermometer.

10. WARRANTY AND SUPPORT

Your BENETECH GS320 Infrared Thermometer comes with a worry-free 12-month warranty. For any questions or support, please refer to the contact information provided with your purchase or visit the official BENETECH website for friendly customer service.