

EVTSCAN DT8380D

EVTSCAN DT8380D Non-Contact Digital Infrared Thermometer User Manual

Model: DT8380D

1. INTRODUCTION

This manual provides detailed instructions for the safe and effective use of the EVTSCAN DT8380D Non-Contact Digital Infrared Thermometer. This device is designed for industrial applications requiring precise temperature measurement without physical contact. Please read this manual thoroughly before operating the device.

2. SAFETY INFORMATION

WARNING: LASER RADIATION. DO NOT STARE INTO BEAM. CLASS II LASER PRODUCT.

- Do not point the laser beam directly at eyes or indirectly off reflective surfaces.
- 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.
- Use only the specified battery type (2 x 1.5V AAA).
- Dispose of batteries and the device according to local regulations.



Figure 1: Laser warning and Distance-to-Spot Ratio diagram on the device.

This image shows a close-up of the side of the EVTSCAN DT8380D infrared thermometer, highlighting the laser warning label and a diagram explaining the distance-to-spot ratio for accurate measurements. The warning clearly states "LASER RADIATION DO NOT STARE IN TO BEAM CLASS II LASER PRODUCT".

3. PRODUCT OVERVIEW

The EVTSCAN DT8380D is a handheld non-contact infrared thermometer designed for quick and accurate temperature readings. Its robust ABS construction ensures durability for industrial environments.

Key Features:

- **Non-Contact Measurement:** Safely measure temperatures from a distance.
- **Fast Response Time:** Provides readings in 0.5 seconds.
- **Wide Temperature Range:** Measures from -50°C to 380°C (-58°F to 716°F).
- **Unit Switching:** Easily switch between Celsius (°C) and Fahrenheit (°F).
- **LCD Backlight:** Ensures readability in low-light conditions.
- **Data Hold Function:** Freezes the last measured reading on the display.
- **Durable Construction:** Made from high-quality ABS material.





Figure 2: Front view of the EVTSCAN DT8380D Infrared Thermometer.

This image displays the EVTSCAN DT8380D thermometer from a slight angle, showcasing its digital LCD screen with a temperature reading, the trigger, and the main body. The C/F and backlight buttons are visible below the screen.



Figure 3: Close-up of the display and control buttons.

A detailed view of the EVTSCAN DT8380D's LCD screen, showing a temperature reading of 26.2 degrees Celsius, a "HOLD" indicator, and the laser indicator. Below the screen are three buttons: one for switching between Celsius and Fahrenheit, one for activating the laser, and one for the backlight.

4. SETUP

4.1 Battery Installation

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

2. Slide or open the cover to access the battery compartment.
3. Insert two (2) 1.5V AAA batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.

Note: Batteries are not included with the device.





Figure 4: Bottom view of the thermometer handle.

This image shows the bottom of the EVTSCAN DT8380D thermometer's handle, where the battery compartment is typically located. The smooth, ergonomic design of the handle is visible.

5. OPERATING INSTRUCTIONS

5.1 Taking a Measurement

1. Point the infrared sensor (located at the front of the device) towards the target surface.
2. Press and hold the trigger button on the handle. The laser pointer will activate (if enabled) to indicate the measurement area.
3. The temperature reading will appear on the LCD screen within 0.5 seconds.
4. Release the trigger button to hold the reading on the display (Data Hold function).



Figure 5: Thermometer in operation.

This image shows the EVTSCAN DT8380D infrared thermometer being used to measure the temperature of a hot, glowing industrial surface. A red laser dot is visible on the target, indicating the measurement point, and the device's display shows a temperature reading.

5.2 Distance to Spot Size Ratio (D:S)

The DT8380D has a Distance to Spot Size ratio of **12:1**. This means that at a distance of 12 units from the target, the measurement area (spot size) will be 1 unit in diameter. For accurate readings, ensure the target area is larger than the spot size at your chosen measurement distance.

- For example, if you are 12 cm away from the target, the measurement spot will be 1 cm in diameter.
- Measuring closer to the target will result in a smaller spot size and more precise measurement of a specific area.

5.3 Unit Switching (°C/°F)

Press the "°C/°F" button located below the display to toggle between Celsius and Fahrenheit temperature units.

5.4 Backlight Control

Press the " " button located below the display to turn the LCD backlight on or off for improved visibility in various lighting

conditions.

5.5 Laser Pointer Control

Press the "▲" button (laser symbol) located below the display to activate or deactivate the laser pointer. Use the laser to precisely aim at the measurement target.

6. MAINTENANCE

6.1 Cleaning

- Wipe the device clean with a soft, damp cloth.
- Do not use abrasive cleaners or solvents.
- Keep the infrared lens clean and free from dust or debris for accurate readings.

6.2 Storage

- Store the thermometer in a dry place, away from direct sunlight and extreme temperatures.
- Recommended storage environment: -20°C to 50°C (-4°F to 122°F).
- Remove batteries if the device will not be used for an extended period to prevent leakage.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not turn on.	Low or dead batteries; incorrect battery installation.	Replace batteries with new 1.5V AAA batteries; ensure correct polarity.
Inaccurate readings.	Dirty infrared lens; incorrect distance to target; target too small.	Clean the lens; ensure proper D:S ratio; measure a larger target area.
Laser not visible.	Laser function deactivated; bright ambient light.	Press the laser button to activate; use in less bright conditions if possible.

8. SPECIFICATIONS

Parameter	Value
Model	DT8380D
Temperature Measurement Range	-50°C to 380°C (-58°F to 716°F)

Parameter	Value
Temperature Measurement Accuracy	$\geq 100^{\circ}\text{C}$, $\pm 2\%$ / $\leq 100^{\circ}\text{C}$, $\pm 2^{\circ}\text{C}$
Response Time	0.5 Seconds
Emissivity	0.95 (Fixed)
Measuring Distance Ratio (D:S)	12:1
Storage Environment	-20°C to 50°C (-4°F to 122°F)
Operating Temperature	0°C to 50°C (32°F to 122°F)
Power Supply	2 x 1.5V AAA Battery (Not Included)
Material	ABS
Special Feature	Non-Contact
Connectivity Technology	Infrared

9. WARRANTY AND SUPPORT

For warranty information or technical support, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase.
You can visit the EVTSCAN store for more information:[EVTSCAN Store on Amazon](#).

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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

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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