Wintact WT550

Wintact Infrared Thermometer WT550 User Manual

Brand: **Wintact** | Model: **WT550**

1. INTRODUCTION

The Wintact WT550 is a non-contact infrared thermometer designed for measuring surface temperatures. It provides quick and accurate readings across a wide temperature range, making it suitable for various applications such as cooking, HVAC, automotive, and industrial use. This manual provides detailed instructions for the proper setup, operation, and maintenance of your device.

Image: The Wintact WT550 Infrared Thermometer, shown with included AAA batteries.

2. SAFETY INFORMATION

WARNING: This infrared thermometer is not intended for medical use and should not be used to measure human body temperature. It will not provide accurate readings for medical diagnosis.

- Do not point the laser directly at eyes or indirectly off reflective surfaces.
- Keep the device away from children.
- Do not use the device in environments with explosive gas, vapor, or dust.
- Avoid exposing the device to extreme temperatures, humidity, or direct sunlight.
- Do not immerse the device in water.
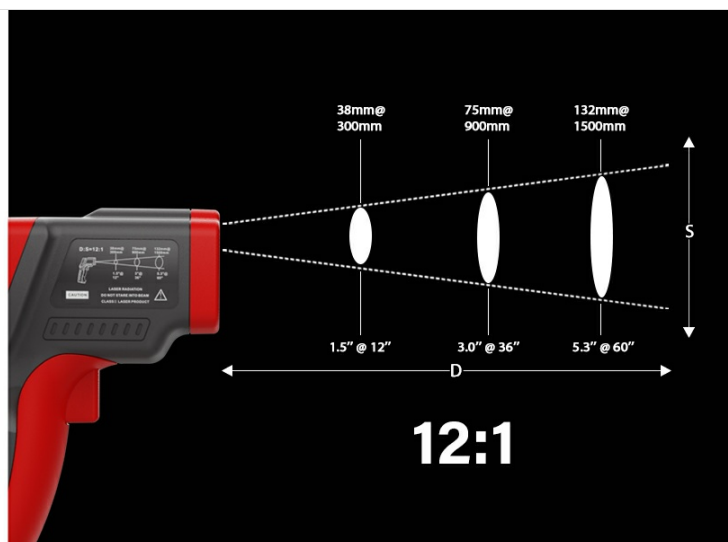- Use only the specified battery type (AAA) and ensure correct polarity during installation.

Image: Visual warning indicating the thermometer is not for body temperature measurement.

3. PACKAGE CONTENTS

Upon opening the package, please verify that all the following items are included:

- 1x Wintact WT550 Infrared Thermometer
- 2x AAA Batteries (1.5V)
- 1x English User Manual

Image: Depiction of the Wintact WT550 thermometer, batteries, and instruction manual as included in the box.

4. PRODUCT FEATURES AND COMPONENTS

The Wintact WT550 Infrared Thermometer is equipped with several features to enhance its functionality and ease of use:

- **Non-Contact Measurement:** Safely measure surface temperatures from a distance.
- **Temperature Range:** Measures from -58℉ to 1022℉ (-50℃ to 550℃).
- **High Accuracy:** Provides readings with an error of only ±1.5℃ (2.7℉).
- **Distance-to-Spot Ratio (D:S):** A 12:1 ratio ensures accurate measurement from 14.17 inches (36 centimeters) away.
- **Adjustable Emissivity:** User-adjustable from 0.1 to 1.0 for improved accuracy on various surfaces.
- **Switchable Units:** Easily switch between Celsius (℃) and Fahrenheit (℉).
- **Data Hold:** Freezes the last measured temperature on the display.
- **Temperature Alarms:** High and Low temperature alarms can be set to alert the user when temperatures

exceed or fall below preset limits.

- **Multiple Measurement Modes:** Includes Maximum (MAX), Minimum (MIN), Difference (DIF), and Average (AVG) temperature display modes.
- **Backlit Display:** Ensures readability in low-light conditions.
- **Auto-Off Function:** Automatically powers off after 20 seconds of inactivity to conserve battery life.
- **Low Battery Indication:** Alerts the user when batteries need replacement.
- **Ergonomic Grip:** Designed for comfortable and secure handling.

Image: Overview of the thermometer's versatile design, highlighting features like data hold, temperature alarm, auto-off, °C/°F switch, multiple modes, and low battery indicator.

Instant & Accurate Results

The infrared thermometer only needs **0.5 seconds** to capture the surface temperature of the object, accuracy up to ±1.5%.

0.5s Response time **±1.5%** Accuracy

Image: The thermometer's display illustrating the Maximum, Minimum, Average, and Difference temperature measurement modes.

Image: The thermometer in use, demonstrating the High Temperature Alarm (HAL) and Low Temperature Alarm (LAL) features.

Image: A close-up view of the thermometer's non-slip ergonomic grip, designed for comfortable handling.

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 two (2) AAA 1.5V batteries, ensuring correct polarity (+/-) as indicated inside the compartment.
4. Close the battery compartment cover securely.

The device is now ready for use.

Warning

This infrared thermometer can't be used for checking body temperatures, it will not give you the most accurate results.

Image: The battery compartment of the thermometer, showing the location for AAA batteries.

6. OPERATING INSTRUCTIONS

6.1 Taking a Measurement

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

2. Pull and hold the trigger. The temperature reading will appear on the display.

3. Release the trigger to hold the reading on the display (Data Hold function). The device will automatically power off after 20 seconds of inactivity.
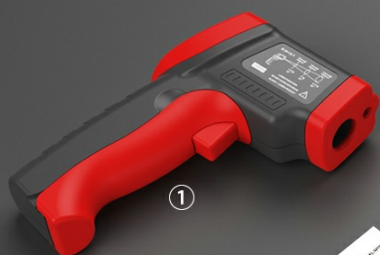
What's in the Box

① Wintact WT550 Infrared Thermometer

② 1.5V AAA Batteries

③ Instruction Manual

Image: The thermometer in use, demonstrating instant and accurate temperature measurement of a pizza in an oven.

Image: The thermometer performing remote measurement on an HVAC vent, illustrating its non-contact capability.

6.2 Switching Temperature Units (°C/°F)

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

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

The WT550 has a D:S ratio of 12:1. This means that at a distance of 12 inches from the target, the measurement spot diameter will be approximately 1 inch. To ensure accurate readings, position the thermometer at an appropriate distance from the target, ensuring the target fills the measurement spot.

Image: A diagram illustrating the 12:1 Distance-to-Spot ratio, showing how the measurement area expands with distance.

6.4 Adjusting Emissivity

Emissivity (ε) is the ability of a material to emit energy by radiation. Different materials have different emissivity values. For accurate measurements, adjust the emissivity setting on your thermometer to match the material being measured. The WT550 allows adjustment from 0.1 to 1.0.

1. Press the "EMS" button to enter emissivity adjustment mode.
2. Use the Up/Down buttons to change the emissivity value.
3. Refer to a standard emissivity table for common materials to find the appropriate setting.

Glass Temperatures

You can place non-reflective tape (with an emissivity value of 0.95) over the glass surface, wait several minutes for the tape to adjust to the temperature of the surface and then take a reading of the area covered by the tape.

Image: A user adjusting the emissivity setting on the thermometer while consulting an emissivity table for accurate readings.

6.5 Special Measurement Considerations

- **Measuring Shiny Surfaces:** Highly reflective surfaces can cause inaccurate readings. To measure, place a piece of non-reflective tape (with a known emissivity, e.g., 0.95) over the surface, allow time for the tape to reach the surface temperature, and then measure the tape.
- **Avoiding Steam/Dust:** Do not measure through steam, dust, or smoke, as these can interfere with accurate readings.

12 Hours (Laser on)

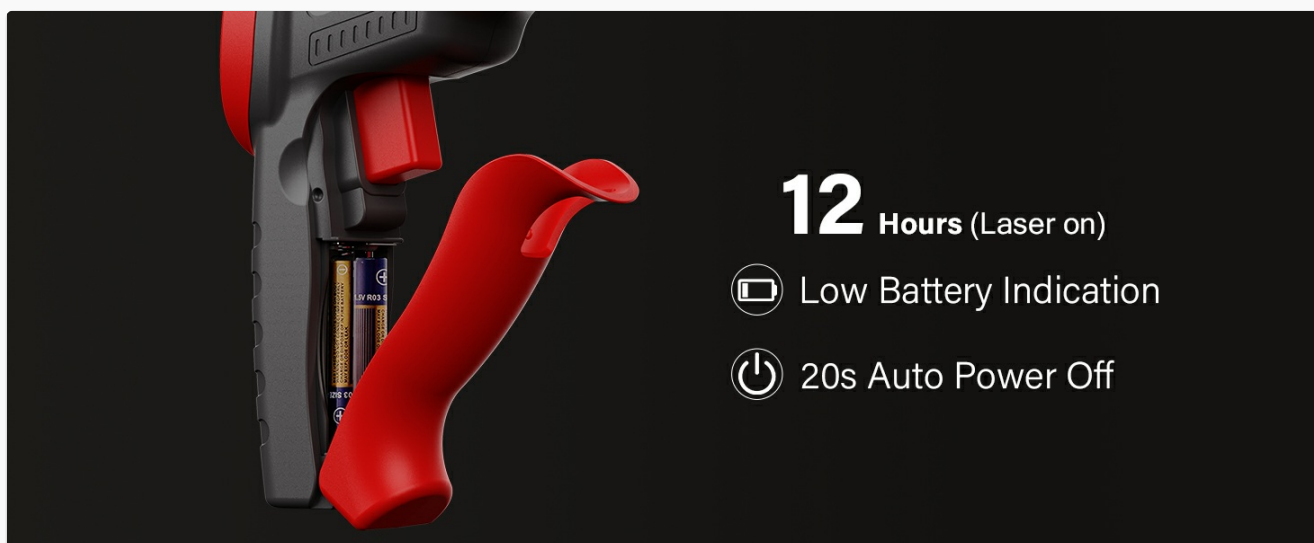Low Battery Indication

20s Auto Power Off

Image: A visual guide showing the correct and incorrect ways to use the thermometer when steam is present, emphasizing the need to avoid measuring through steam.

Image: The thermometer measuring a fish tank, demonstrating the use of non-reflective tape on glass for accurate temperature readings.

7. Maintenance

7.1 Cleaning

To clean the thermometer, wipe the casing with a damp cloth. Do not use abrasive cleaners or solvents. Keep the lens clean and free of dust or debris, as this can affect accuracy.

7.2 Battery Replacement

When the low battery indicator appears on the display, replace the batteries as described in the "Battery Installation" section (5.1).

7.3 Storage

Store the device in a cool, dry place when not in use. Remove batteries if storing for extended periods to prevent leakage.

8. Troubleshooting

Problem	Possible Cause	Solution
No display/Device won't turn on	Dead or incorrectly installed batteries	Replace batteries or ensure correct polarity.
Inaccurate readings	Incorrect emissivity setting, dirty lens, steam/dust interference, target too small or too far	Adjust emissivity, clean lens, avoid interference, ensure target fills measurement spot.
Laser not working	Laser function disabled, low battery	Check settings to enable laser, replace batteries.

If issues persist, please contact Wintact customer service for further assistance.

9. Specifications

Parameter	Value
Model	WT550
Temperature Range	-58°F to 1022°F (-50°C to 550°C)
Accuracy	±1.5°C (2.7°F)
Distance-to-Spot Ratio (D:S)	12:1
Emissivity	Adjustable 0.1 to 1.0
Response Time	0.5 seconds
Power Supply	2 x 1.5V AAA Batteries

Parameter	Value
Auto-Off	20 seconds (approx.)
Special Features	High & Low Temperature Alarm, Data Hold, Max/Min/Dif/Avg Modes, Backlit Display, Low Battery Indication
Certifications	CE, FCC, RoHS

10. WARRANTY AND SUPPORT

The Wintact WT550 Infrared Thermometer comes with a **1-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.
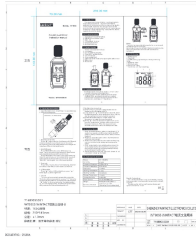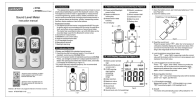
For technical support, troubleshooting assistance, or warranty claims, please contact Wintact customer service.

Refer to the contact information provided on the product packaging or the official Wintact website for 24/7 customer service.

Related Documents - WT550

[Wintact WT3652 Non-Contact Infrared Thermometer User Manual](#)
Comprehensive guide to operating the Wintact WT3652 non-contact infrared thermometer, including features, LCD display, operation instructions, technical parameters, and precautions for accurate temperature measurement.

[Wintact WT320 Infrared Thermometer Instruction Manual](#)
Comprehensive guide to operating and maintaining the Wintact WT320 Infrared Thermometer, covering features, safety precautions, specifications, and usage instructions.

[Wintact WT323C Infrared Thermometer User Manual](#)
User manual for the Wintact WT323C Infrared Thermometer, detailing its features, operation, specifications, and maintenance.

	[WINTACT WT9055 Digital Sound Level Meter: User Manual & Technical Specifications](#) Detailed instruction manual for the WINTACT WT9055 digital sound level meter, covering its features, operation, technical parameters, and considerations. Includes setup, usage, and maintenance information.
	[Wintact WT85/WT85B Sound Level Meter Instruction Manual](#) Instruction manual for the Wintact WT85 and WT85B Sound Level Meters, detailing features, operation, calibration, technical parameters, and the dB-Tester App for the Bluetooth version.
	[Wintact WT530 Manuale Utente Termometro a Infrarossi](#) Guida completa per l'utilizzo del termometro a infrarossi Wintact WT530, che copre le specifiche tecniche, le istruzioni operative e le precauzioni di sicurezza per misurazioni accurate.