



# 8:1 INFRARED THERMOMETER

## USER'S MANUAL



### IRT205

Please read these instructions carefully and thoroughly before using the product.

Fig. 1. The IRT205's key components

- A. Red laser pointer exit
- B. Infrared sensor
- C. Measurement trigger
- D. Battery compartment (contains an °F/°C switch)
- E. Backlit LCD (see Fig. 2)
- F. Laser safety/identification/warning label (closeup below)

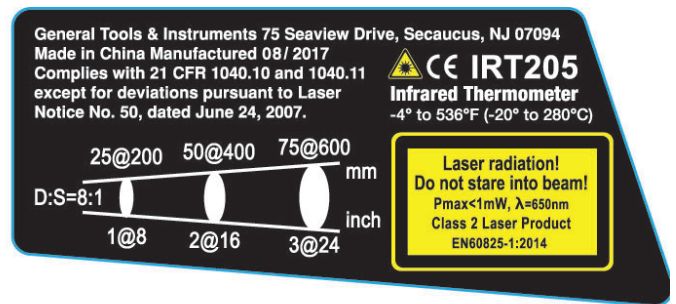
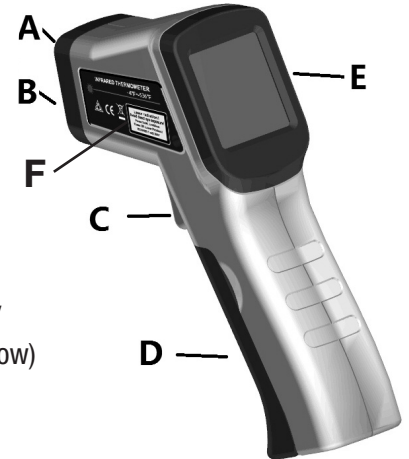
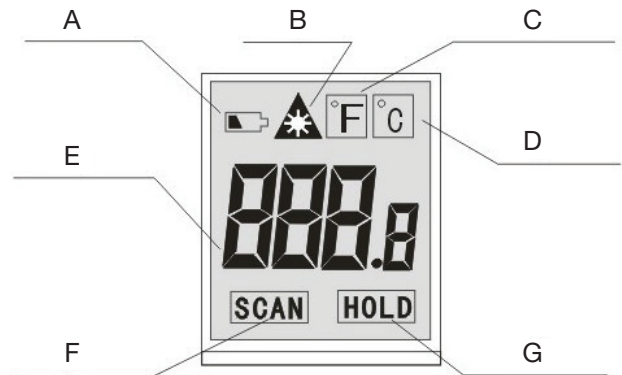


Fig. 2. All possible display indications



- A. Low battery charge indicator (replace both batteries when it appears)
- B. Laser pointer "on" icon (with trigger pulled)
- C. Indicates that temperature readouts are in °F
- D. Indicates that temperature readouts are in °C
- E. Temperature readout
- F. Indicates operation in scan mode (with the trigger squeezed)
- G. Indicates last reading is being held (after the trigger has been released)

## INTRODUCTION

Thank you for purchasing General Tools & Instruments' (General's) IRT205 8:1 Infrared Thermometer. Using an optical resolution (distance-to-spot ratio) of 8:1, the gun-style instrument measures the surface temperature of a surface or object from a distance by using an infrared (IR) sensor to quantify its thermal radiation. This noncontact measurement capability allows you to safely determine the temperature of very hot or cold surfaces (from -4° to 536°F/-20° to 280°C), inaccessible or hard-to-reach objects, and toxic substances. A red laser pointer pinpoints the target area being measured. Readings, in °F or °C, are displayed on a backlit LCD.

## WHAT'S IN THE PACKAGE

The IRT205 comes on a blister-packed card with two "AAA" Alkaline batteries in a cavity on the back.

## PRODUCT OVERVIEW

Fig. 1 shows the key components of the IRT205. Fig. 2 shows all possible display icons and indications. Use Fig. 1 to familiarize yourself with the position and function of all components before moving on to the safety, setup and operating instructions.

---

## SAFETY INSTRUCTIONS

### CAUTION!

- The IRT205's Class II laser pointer emits less than 1mW of radiation. However, avoid looking directly at the laser, and never point it at people or animals. Eye protection is normally afforded by the blink reflex.
- **Do not** operate the IRT205 in explosive environments containing flammable liquids, gases or dust.

---

## SETUP INSTRUCTIONS

### INSTALL BATTERIES

The IRT205 is ready to use after you install the two included "AAA" batteries. To open the battery compartment, place the tips of your thumb and index finger in the cutouts on the side of the compartment cover and pull to swing it down. Install the batteries in series according to the polarity marks on the inside of the compartment. Then swing the cover up and snap it shut.

---

## OPERATING INSTRUCTIONS

**To make a temperature measurement**, squeeze the trigger (Fig. 1, Callout C) to activate the laser pointer and aim it at a target surface. This causes the word **SCAN** to appear on the LCD, along with the temperature of the current target. Releasing the trigger changes **SCAN** to **HOLD** and "freezes" the readout at the temperature of the current target for seven seconds.

After seven seconds, the IRT205 (including the laser pointer) automatically powers off to extend battery life. The seven-second hold enables you to take the temperature of surfaces you cannot see (under or behind objects, for example) and then read the display after returning the gun to eye level.

**To change the displayed measurement unit from °F to °C**, open the battery compartment (as described above), remove the batteries, and move the switch inside the compartment from the factory-set °F position to the °C position (see photo at right). Then re-install the batteries and swing the compartment door up until it snaps shut.



---

## OPERATING & MAINTENANCE TIPS

- The display will indicate **OH** if the temperature of a target is above 536°F (280°C), and **OL** if its temperature is below -4°F (-20°C).
- To avoid having old or unused batteries leak acid and ruin the instrument, remove both batteries when you do not expect to use the IRT205 for a long period of time (several months).
- Clean the infrared sensor lens (Fig. 1, Callout B) often with compressed air or a moist cotton cloth. Never use a solvent or an abrasive cleaner.

---

## SPECIFICATIONS

- Measurement range: -4° to 536°F (-20° to 280°C)
- Measurement accuracy:  $\pm 3.6^{\circ}\text{F}$  ( $\pm 2^{\circ}\text{C}$ ) or  $\pm 2\%$  of reading (whichever is greater) above 32°F (0°C);  $\pm 5.4^{\circ}\text{F}$  ( $\pm 3^{\circ}\text{C}$ ) or  $\pm 2\%$  of reading (whichever is greater) below 32°F (0°C)

- Measurement resolution: 0.1° (F or C)
- Distance-to-spot (D:S) ratio: 8:1
- Emissivity: 0.95 (fixed)
- Display: 4-digit backlit LCD measuring 1 x 7/8 in., with 7/16 in. high digits
- Auto power off: 7 seconds after trigger release
- Laser output: <1mW (Class II) @ wavelength of 650nm
- Power source: Two "AAA" Alkaline batteries (included)
- Typical battery life: >3,000 measurements
- Operating temperature: 32° to 104°F (0° to 40°C)
- Storage temperature: 14° to 140°F (-10° to 60°C)
- Dimensions: 5 x 4 x 1.3 in. (128 x 102 x 32mm)
- Weight: 2.43 oz. (69g)

---

## WARRANTY INFORMATION

General warrants its instruments and accessories, and digital tools products against defects in material or workmanship for one year from the date of purchase unless otherwise stated on the packaging, user's manual, and/or marketing materials. General also warrants its non-digital tools products against defects in material or workmanship on a limited lifetime term. General will replace or repair the defective unit, at its option, subject to verification of the defect.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the product. It also does not cover products purchased from unauthorized distributors. A proof of purchase must accompany each warranty claim.

Any implied warranties arising from the sale of a General product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. General shall not be liable for loss of use of the product or other incidental or consequential damages, expenses, or economic loss, or for any claim of such damage, expenses, or economic loss. State laws vary. The above limitations or exclusions may not apply to you.

For more details or to file a warranty claim, contact General Tools & Instruments Technical Support at [techsupport@generatools.com](mailto:techsupport@generatools.com).

---

## RETURN FOR REPAIR POLICY

Every effort has been made to provide you with a reliable product of superior quality. However, in the event your instrument requires repair, please contact our Customer Service to obtain an RGA (Return Goods Authorization) number before forwarding the unit via prepaid freight to the attention of our Service Center at this address:

General Tools & Instruments



75 Seaview Drive

Secaucus, NJ 07094

212-431-6100

Remember to include a copy of your proof of purchase, your return address, and your phone number and/or e-mail address.