GENERAL **Infrared Thermometer**
Remote Temperature Measurement
(Non-Contact)

IRT50

INSTRUCTION MANUAL

INTRODUCTION

The hand-held Infrared Thermometer is easy for user to operate, in addition, the backlight illuminative function is helpful to user who is used to measure at the dark place. Moreover, the Infrared Thermometer will show a Laser symbol in LCD as a reminder and its additional auto hold the reading & auto-power-off functions are practical to users.

The Infrared Thermometer is a Non-contact thermometer with laser pointer. It can be used to measure the temperature of objects' surface that is improper to be measured by traditional (contact) thermometer (such as moving object, the surface with electricity current or the objects which are uneasy to be touched.)

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I . SAFETY INFORMATION

1. Read the following safety information carefully before attempting to operate or service the meter.
2. Use the meter only as specified in this manual ; otherwise, the protection provided by the meter may be impaired.

⚠ Warning

If user presses **MEAS** button while the ⚠ symbol is showing on LCD, then the meter will radiate the laser. At this moment, user has to avoid the laser radiating to your eyes to prevent any hurts.

- If the measured object with smooth surface and will reflect the laser, pls. prevent the reflected laser to radiate your eyes.
- Pls. don't radiate the laser to inflammable gas to avoid dangers.

3. Precautions:
   a). Do not operate the thermometer near the large electrical or magnetic fields.
   b). Keep the thermometer away from direct sunlight or strong source of light, high temperatures, high humidity, or dust during using and storaging.
   c). If the thermometer was at the environment where's temperature changes drastically, it would be fine to start measuring until the thermometer return to the stable status.
   d). Condensation may from on the focal lens if the thermometer was moved quickly form a cold to a hot environment. Before taking measurements, pls. wait for the condensation to dissipate.
   e). Do not touch the focal lens.

4. Environment conditions:
   a). Altitude up to 2000 meters.
   b). Relatively humidity 80% max.
   c). Operating Ambient 0 ~ 50℃

5. Maintenance & Clearing:
   a). Repairs or serving aren't covered in this manual should only be performed by qualified personnel.
   b). Periodically wipe the case with a dry cloth. Don't use abrasives or solvents on this instrument.
   c). When serving, use only specified replacement parts.

6. Safety symbols:

   CE Comply with EMC

II . FEATURES

- ℃ / ℉ Selectable.
- Back-light LCD display.
- Laser targeting.
- Auto Hold function.
- Maximum/Minimum reading recorder function.
- Auto-power off.

III . SPECIFICATIONS

3-1 General Information

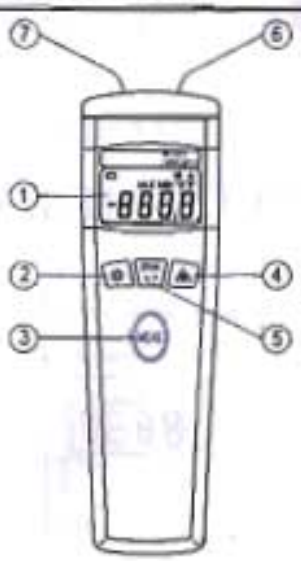
Display :	Backlight LCD Display.
Auto power off :	Approx. 15sec.
Over range indication :	"OL" or "-OL".
Low battery indication :	The [⎓] will be displayed on LCD when the battery voltage drops below the operating voltage.
Power supply :	Single 9V battery 006P 9V or IEC6F22, or NEDA1604.
Battery life :	Approx. 50hours (laser pointer and backlight turn off)
Operating temperature : and humidity	0℃ to 50℃ (32℉ to 122℉), below 80%RH.

Storage temperature and humidity :	-10℃ to 60℃ (14℉ to 140℉), below 70%RH.
Dimensions :	170(L)×52(W)×38mm(H) 6.7(L)×2.1(W)×1.5(H) inches.
Weight :	Approx. 180g with battery.
Accessories :	Instruction manual, Battery.

3-2 Electrical Specifications

Measuring range :	-20℃ to 500℃ (-4℉ to 932℉)
Resolution :	0.1℃, 0.2℉
Accuracy :	± 2% reading or ± 2℃ or 4℉, (whichever is grater).
Temperature coefficient :	0.2 times the applicable accuracy specification per ℃ from 0℃ to 18℃ and 28℃ to 40℃ (32℉ to 64℉ and 82℉ to 104℉).
Responding time :	2.5 times per second.
Spectral Response :	6 ~ 14um.
Field of view :	8:1 ; optics ratio with a 1" min target.
Emissivity :	0.95 (Fixed)
Sighting :	Laser marker < 1mw (class 2).
Sensor :	Thermopile.

IV. FRONT PANEL DESCRIPTION



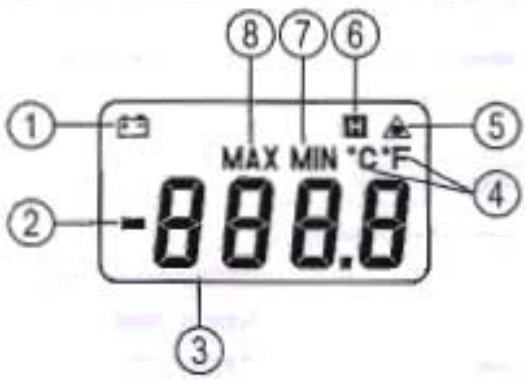
1. Display.
2. ☼ : Backlight key.
3. MEAS : Button for powering on.
   Press MEAS button to turn on the thermometer.
4. ⚠ : Laser pointer key.
5. MX/MN (℃/ ℉) : Maximum/Minimum reading recorder function key and ℃/ ℉ selector key.

a). Press MX/MN key to enter recorder mode, and cycle through maximum (MAX) reading, Minimum (MIN) reading and current (MAX MIN) reading . Press MX/MN key 2 seconds to exit this mode.

b). Press ℃/ ℉ key and hold down until desired ℃ or ℉ unit is displayed.

6. Laser aperture
7. Focal lens

V. LCD DISPLAY DESCRIPTION

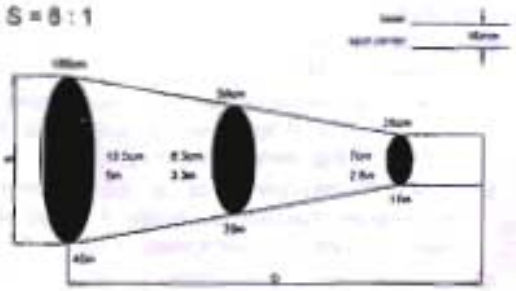


1. Low battery mark.	5. Laser indicator.
2. Negative polarity.	6. Auto Hold function.
3. Measure value.	7. Minimum reading Hold.
4. Unit ° ℃, ℉ °.	8. Maximum reading Hold.

VI. TEMPERATURE MEASUREMENT

Press MEAS button to power on the meter and start measuring. Release MEAS button to stop measuring and auto hold the reading, the meter will be off automatically after 15 sec.

D : S = 8 : 1



Note:

❑ Laser offset: The laser beam is offset 16mm(0.63in) from the focal lens. Choose a sampling spot that is large enough to include the laser offset.

❑ Surface Temperatures: The thermometer will measure the first surface it detects, even a glass cover, dust, or fog. Make sure the object is not obstructed.

VII. BATTERY REPLACEMENT

1. As battery power is not sufficient, LCD will display , replacement with one new battery type 9V is required.
2. Open battery cover, then take out the battery from instrument and replace with a new 9-Volt battery and place the battery cover back.

General TOOLS & INSTRUMENTS™
80 White Street, New York, NY 10013-3567
PHONE (212) 431-6100
FAX (212) 431-6499
TOLL FREE (800) 697-8665
e-mail: sales@generaltools.com
www.generaltools.com