

Infrared Thermometer SP

Instruction Manual

P/N: IR101SP



The Infrared Thermometer SP has an accuracy of plus or minus 4° F (2.5° C) and is not intended to be a scientific instrument. Do not use this device if you require accuracy greater than this tolerance.

To Avoid Personal Injury, Follow These Guidelines:

- Do not point laser directly at the eye or indirectly off reflective surfaces.
- Do not use the thermometer if it operates abnormally. When in doubt, have the thermometer serviced by a certified NorCross® repair facility.
- Do not operate the thermometer around explosive liquids, gases, or vapors.
- Reflective objects will often result in lower than actual temperature measurements. Do not touch any surface suspected of being hot.
- Do not use in a manner not specified by this manual.



To Avoid Damage to the Thermometer, Follow These Guidelines:

- Do not expose to EMF (electro-magnetic fields) from arc welders, induction heaters, etc.
- Do not expose to static electricity.
- Do not expose to thermal shock caused by large or abrupt ambient temperature changes. Allow 30 minutes for the thermometer to stabilize to a new environment before use.
- Periodically wipe the case with a dry cloth. Do not use abrasives, cleaning chemical or solvents on this device. If necessary use a damp cloth to remove debris buildup.
- Do not store in a high temperature environment (automobile, vehicle or boat dashboard, direct sunlight, etc).
- Remove the batteries during storage to prevent damage from leaking batteries.

How the Thermometer Works

This thermometer is a non-contact infrared thermometer. It measures the surface temperature of a non-translucent object by detecting the infrared energy emitted by the object. The laser is used for aiming purposes only.

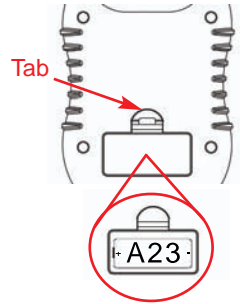


Warning:

This thermometer is not recommended for use in measuring the temperature of shiny or polished metals. It may be possible to compensate for inaccurate readings that may result from measuring shiny metal surfaces by covering the surface with tape or flat black paint and directing the laser at the taped or painted surface.

Installing the Batteries

1. Locate the battery compartment on the back of the unit.
2. Use your fingernail to pry the tab down and remove the battery cover.
3. Install one "A23" 12 Volt alkaline battery (*included*). Make certain to align the battery as per the illustration in the battery compartment.
4. Lubricate the battery cover seal as per the instructions below.
5. Reinstall the battery cover by installing the bottom first, then press the tab into place until it "clicks".




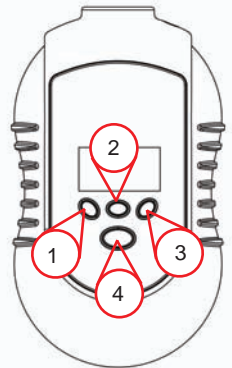
IMPORTANT:



To ensure the waterproof integrity of your thermometer, lubricate the rubber seal around the battery door with Petroleum Jelly (Vaseline®) or Silicon Grease each time you change the battery.

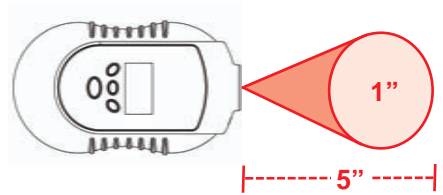
Using the Buttons

1. **°C/°F** - Press and release to change the units of measure (*Celsius to Fahrenheit*). The current setting will appear as °C or °F in the bottom right corner of the LCD.
2. **LIGHT** - Press and release to turn the backlight ON. The backlight will turn ON for 10 seconds.
3. **LASER** - Press and release to turn the laser ON or OFF. When the laser is ON, the  icon will be illuminated on the LCD.
4. **MEASURE ON** - Press and hold to obtain continuously updated readings. The unit will automatically turn OFF in 10 seconds after releasing the button.



Measurement Spot Size

Readings are projected in what is known as a Distance/Spot Ratio ($D:S$). The $D:S$ is a measurement of the diameter of the temperature measurement area as it relates to the distance between the device and the surface being read. The $D:S$ for this thermometer is 5:1 (127:25.4 mm), which means that every 5 inches (127 mm) that the device is from the target, it measures a 1" (25.4 mm) diameter spot on the target. You must consider this when using the thermometer.

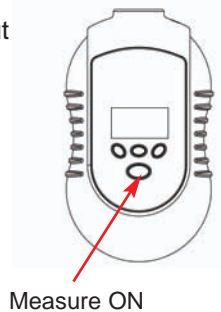


Measures the temperature of a 1" spot, every 5 inches that the unit is held from the measurement object.

Operating the Thermometer

Before activating the thermometer, find a target that's about twice as large as the thermometer's spot size. The most accurate readings are obtained at a distance of 3 to 12 inches (75 to 300 mm) from the target.

- The thermometer turns ON when you press the "Measure On" button and continuously updates the readings until the button is released.
- Once the "Measure On" button is released, the device will hold the last reading for 10 seconds and then turn OFF.



Keep in Mind:

- Always hold the thermometer PERPENDICULAR to the target measurement surface.
- Shiny or polished surfaces can give inaccurate readings. To measure these types of surfaces, cover the surface with tape or paint and allow the tape or paint to adjust to the surface temperature before measuring.
- The unit can not measure through transparent surfaces such as glass or plastic. When trying to measure through these surfaces you will obtain temperature readings of the glass or plastic surfaces.
- Air particles such as steam, dust, or smoke can interfere with the thermometers ability to give accurate readings.
- Readings may be affected if the unit is operated within intense RF or electromagnetic fields. Discontinue use under these conditions.

Frequently Asked Questions

Can this thermometer measure air temperature?

No and Yes. No, because air's infrared emissivity is too low to be detected. However, you can measure air temperature by taking the temperature of any object that is not affected by external heating sources (sunlight, air vents, lights, etc).

Can this thermometer measure the temperature of anything?

No and Yes. Gold, aluminum, reflective metals, or any low emissivity material

will provide inaccurate readings. When trying to measure the temperatures of these types of items, cover the measurement surface with tape or flat black paint.

What are some common materials that I can measure the temperature of?

Plastic, glass, ceramics, cloth, skin, water (*most liquids*), soil, foliage, rubber, wood, or any non-shiny metal surfaces.

What applications is the temperature meter good for?

- Checking water temperature , proper water circulation, misfiring of spark plugs, clogged fuel injectors, exhaust temperatures on any engine.
- Checking tire brake and hub temperatures on cars, trucks and trailers.
- Determining water and livewell temperatures while fishing.
- Check the temperature of any household appliance (*refrigerator, freezer, Air Conditioner, Heater, etc*). Setting hot water heater thermostats to prevent accidental scalding.
- Visit our knowledgebase at www.norcrossmarine.com for other ideas.

Troubleshooting

If you have questions about this product please visit our Customer Service Center on our website at www.norcrossmarine.com (*You may also call us toll free at 888-667-2767*) where you can find information relating to:


- **Warranty Details**
- **Warranty Registration**
- **Troubleshooting**
- **Product Knowledgebase**
- **Product Specifications**
- **Parts & Accessories**


FCC Notice

This device complies with FCC Part 15 Rules and Industry Canada RSS210 Issue 2 Regulations. Operation is subject to the following tow conditions:

- This device may not cause harmful interference; and,
- This device must accept any interference received, including interference that may cause undesired operation

Changes or modifications not expressly approved by NorCross Marine Products, Inc, could void the user's authority to operate the equipment.

	To be eligible for the 2 year product warranty, you must register your product within 15 days of purchase. Please visit our Customer Service Center on our website to register. Make a copy of your original purchase receipt and store it in a safe place. You will need to present it in the rare occurrence that you need to send your product in for service.
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