ETEKCITY

LASERGRIP 774
Infrared Thermometer

User Manual

Questions or Concerns?

Please contact us **Mon-Fri 9:00 AM - 6:00 PM PST**
at **(855) 686-3835** or email **support@etekcity.com**

CE

Thank you for purchasing the Lasergrip 774 Infrared Thermometer by Etekcity. This easy-to-use device lets you conveniently and accurately measure surface temperatures from a distance without the need of any direct contact. Should you have any questions or concerns, feel free to contact our helpful customer support team toll-free at 855.686.3835 or by email at support@etekcity.com.

AVOID EXPOSURE	**CAUTION**
LASER RADIATION IS EMITTED FROM THIS APERATURE.	**LASER RADIATION -- DO NOT STARE INTO BEAM** WAVELENGTH 630-670nm MAXIMUM OUTPUT <1mW CLASS II LASER PRODUCT

WARNING: THIS DEVICE PRODUCES CLASS 2 LASER RADIATION. USE EXTREME CAUTION AT ALL TIMES WHEN LASER IS IN USE. DO NOT LOOK INTO DIRECT OR REFLECTED LASER-LIGHT BEAM OR VIEW BEAM WITH OPTICAL INSTRUMENTS. DO NOT AIM LASER-LIGHT AT ANOTHER PERSON OR ANIMAL. LASER RADIATION MAY DAMAGE YOUR EYE. DO NOT DISASSEMBLE THE DEVICE.

⚠ IMPORTANT: Read all of the instructions in this manual. Failure to comply with the instructions in this manual or use of the device, in ways other than the ones mentioned in this manual, may result in hazardous radiation exposure.

Safety Use & Care

- **DO NOT** point the laser-light at another person or animal.
- **DO NOT** attempt to point laser-light at an aircraft.
- Avoid direct/indirect eye contact with the laser-beam. Laser radiation may cause eye damage.
- **DO NOT** view the beam with optical instruments.
- In the vicinity of use, make any bystanders aware of the dangers of looking directly into the laser beam.
- **DO NOT** allow children to operate the device.
- Use a 9V battery when replacing the battery within the device. Make sure to insert the battery in accordance with the correct polarities.
- **ALWAYS** remove the batteries when cleaning the device.
- **DO NOT** use leaking batteries or dispose old batteries in fire.
- Remove battery for storage if the device is not being used for a prolonged period of time.
- **DO NOT** disassemble the device or tamper with internal components. Doing so will void any warranty.

Laser Activation

To activate and deactivate the laser, press the laser pointer On/Off button at any time while the Lasergrip is on.
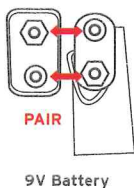
Display Backlight Operation

To activate and deactivate the display backlight, press the display backlight On/Off button at any time while the Lasergrip is on.

Battery Replacement

A low battery icon will appear on the LCD display when the Lasergrip's battery power is running low. Immediately replace the battery when the icon appears.

1. Open the battery compartment and remove the used battery. Dispose the used battery properly.
2. Connect a new DC 9V battery, making sure it's under the correct polarity.
3. Insert the battery into the compartment and close the compartment lid, making sure the wiring is not being pinched by the compartment lid.

PAIR

9V Battery

Wiring is not bulging out of the compartment
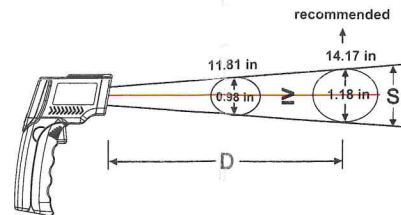
Polarity facing upward

Distance-Spot Ratio

The Lasergrip 774 measures surface temperature on the basis of distance to spot diameter ratio (D:S). As the distance between the thermometer and the surface increases, the total surface area measured will also increase. With a distance to spot ratio of 12:1 the surface area measured has a diameter of roughly 1/12 the distance.

For the most accurate results, make sure the target has a surface area of twice the corresponding spot diameter. Insufficient surface area will result in inaccurate results. The recommended distance to hold the Lasergrip from the surface of measurement is 14.17in (36 cm). This creates a spot measurement area of 1.18 inches (3 cm) in diameter.

Distance (D) to Spot (S) size   D:S = 12:1

recommended

14.17 in

11.81 in

0.98 in ≥ 1.18 in S

D

Emissivity

The emissivity of a material is its efficiency in emitting thermal energy. Non-reflective surfaces have a higher emissivity (close to 1) than reflective surfaces (closer to 0). Inaccurate results may occur when measuring reflective surfaces such as glass, polished wood, and granite.

To take accurate temperature measurement of reflective surfaces with low emissivity, place a strip of masking tape over the surface and allow for it to adjust to the temperature of the surface for approximately 30 minutes. Measure the surface, scanning the taped section, eliminating the issue of inaccuracy
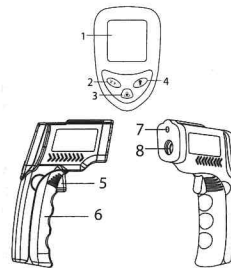
- **DO NOT** touch the lens or wipe it using anything other than a soft cloth or cotton swab.
- Keep the thermometer away from electromagnetic fields produced by objects such as arc welders and induction heaters.
- **DO NOT** expose the thermometer to direct sources of heat for extended periods of time.
- The thermometer measures surface temperature, not internal temperature. Do not use the Lasergrip as a reliable source to measure body temperatures.

Features & Specifications

- Laser guided targeting for aiming precision
- Narrow distance-spot ratio for accurate results at greater distances
- Safely measure hazardous or inaccessible objects
- Standard 9V battery powers up to 12 hours of cumulative use
- Auto-off after 15 seconds of inactivity
- Measurement Range: -58°F ~ 716°F (-50°C ~ 380°C)
- Accuracy: ± 2% / ± 2°C
- Resolution: 0.1°F/°C
- Maximum Output: < 1mW
- Wavelength: 630 - 670nm
- Distance-Spot Ratio: 12:1
- Response Time: < 500ms
- Emissivity: 0.95
- Battery: DC 9V

Function Diagram

1. LCD Display
2. Unit Switch Button (°C/°F)
3. Laser Pointer On/Off
4. Display Backlight On/Off
5. Measurement Trigger
6. Battery Compartment
7. Laser Hole
8. IR Sensor

Operation

Surface Temperature Measurement

NOTE: The Lasergrip cannot measure the temperature of objects behind glass. Inaccuracy may also occur when exposed to steam, dust or any other contaminants in the air.

1. Once the battery is properly installed, press the measurement trigger to activate the device.
2. Point the Lasergrip towards the surface of measurement.
3. Press and hold the measurement trigger and the laser will activate for aiming guidance.
4. Keep holding the trigger as you move the Lasergrip if you wish to live scan the surface area for temperature measurement.
5. Once the laser is pointed to the desired point of measurement, release the trigger and the LCD display will lock the calculated temperature.
6. Press the measurement trigger once again to make another measurement.

HOLD for continuous temperature reading

RELEASE to lock the temperature result

NOTE: The Lasergrip LCD will display 'HI' when the measured temperature is above the measurable range, and will display 'LO' when the measured temperature is below the measurable range.

Unit Conversion

To switch between units of temperature measurement, press the °C/°F button at any time while the Lasergrip is on.