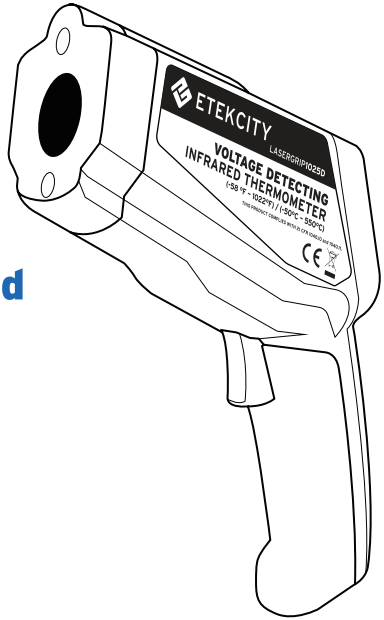
ETEKCITY®



Voltage Detecting Infrared Thermometer

Model No.: Lasergrip 1025D

Thank You.

Thank you for purchasing the Lasergrip 1025D Infrared Thermometer by Etekcity. We are dedicated to providing our customers with quality products for building a better living. Should you have any questions or concerns about using your new product, feel free to reach out to our helpful customer support team at (855) 686-3835 or by email at support@etekcity.com. We hope you enjoy your new product!

Package Contents

1 x Lasergrip 1025D
1 x 9V DC Battery
1 x User Manual

Table of Contents

Safety Information

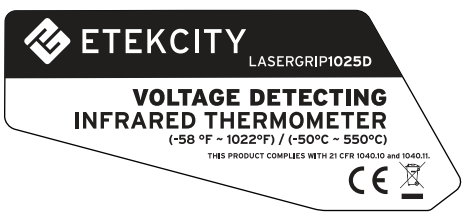
WARNING: This device produces CLASS 2 laser radiation. Use extreme caution at all times when laser is in use. Do not look into direct or reflected laser-light beam or view beam with optical instruments. Do not aim laser-light at another person or animal. Laser radiation may damage your eye. Do not disassemble the device.

IMPORTANT: Please read and comply with all of the instructions and warnings provided in this manual before using the product. Failure to comply with the instructions and warnings provided herein may result in inaccurate results and/or damage to the product itself.

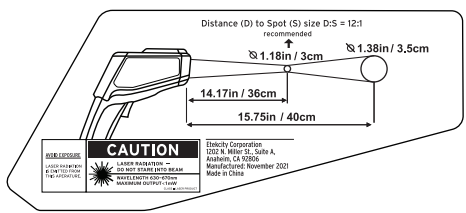
- **DO NOT** point the laser-light at another person or animal.
- **DO NOT** attempt to point the laser-light at an aircraft.
- Avoid direct/indirect eye contact with the laser-beam. Laser radiation may cause eye damage.
- **DO NOT** view the beam with optical instruments.
- When using the thermometer, make sure to warn people in the immediate area about the dangers of looking directly at 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 battery when cleaning the device.
- **DO NOT**use leaking batteries or dispose used batteries in a fire.

- Remove the 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.
- **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.

The device certification information is labeled directly on the device. The sticker is located on the left side of the Lasergrip.

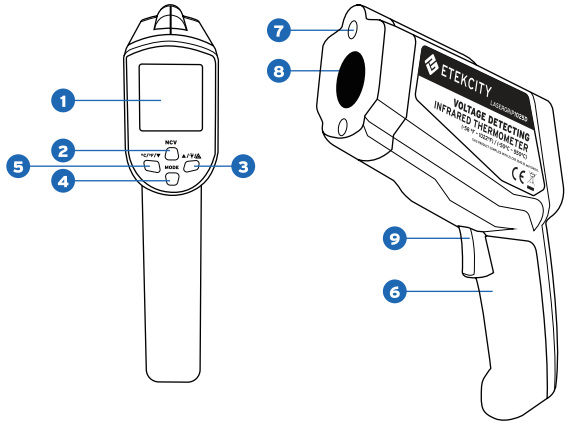


The device warning and aperture safety information are also labeled directly on the device; the sticker is located on the right side of the Lasergrip.
Any updates to the product information (date of manufacturing and manufacturer address) will be added as adhesive overlays.



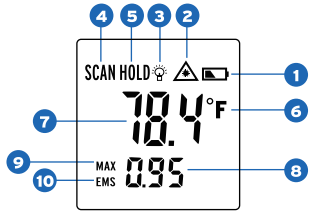
Main Functions

1. LCD display
2. Non-Contact Voltage (NCV) button
3. Backlight/ Laser Pointer / Up button
4. Mode button
5. °C/°F / Down button
6. Battery Compartment
7. Laser hole
8. IR sensor
9. Measurement trigger



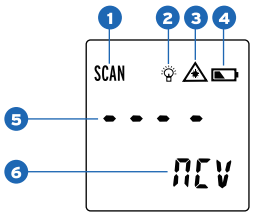
Surface Temperature Display

1. Low battery icon
2. Laser pointer icon
3. Backlight icon
4. Scanning indicator
5. Hold icon
6. Temperature unit
7. Current temperature
8. Max. temperature / emissivity level
9. Max. temperature icon
10. Adjustable emissivity icon



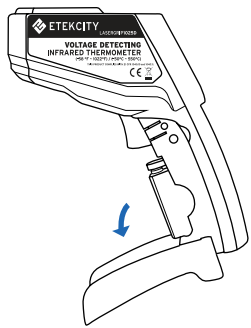
AC Voltage Display

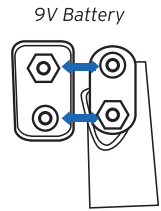
1. Scanning symbol
2. Backlight icon
3. Laser pointer icon
4. Low battery icon
5. Voltage indication line
6. NCV indication mode



Set-Up

1. Open the battery compartment and remove the battery notice strip.
2. Remove the battery from the compartment and unwrap it from its packaging.
3. Place the battery back into the compartment, connecting the battery under the correct polarity.
4. Re-seal the battery compartment, making sure the inside wiring does not get pinched by the compartment lid.

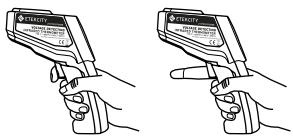




Operation

Surface Temperature Measurement

1. Point the Lasergrip towards the desired surface to be measured.
2. Press and hold the measurement trigger
   The scan symbol will be flashing while you are taking your measurement.



3. Release the measurement trigger; the temperature reading will appear on the LCD display. The temperature reading will hold on the display for 15 seconds before the device automatically turns off.

4. For continuous measurements, press and hold the measurement trigger while scanning the measured surface. The Lasergrip will display the maximum temperature at the bottom of the screen when taking continuous measurements.

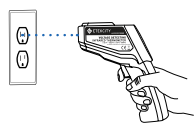
NOTE

- 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.
- The Lasergrip will display "OH" if the measured temperature exceeds the maximum temperature range and will display "OL" when the measured temperature is below the minimum temperature range.

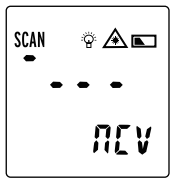
Non-Contact Voltage Testing

The Lasergrip 1025D is able to wirelessly test electrical devices for live AC voltages ranging from 90V to 600V.

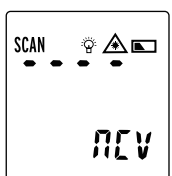
1. Press the NCV button to set the Lasergrip to measure voltage.
2. The screen will show "NCV" indicating that it is ready for measurement.
3. Point the Lasergrip towards the desired surface to be measured.



4. The lines on the screen will rise according to the voltage. The Lasergrip will sound off a low beeping tone indicating low voltage.



5. Keep moving the Lasergrip along the surface to find the maximum voltage. When all 4 lines reach the top of the screen, the maximum voltage has been found. At this point the Lasergrip will sound off a steady beeping tone.



Unit Conversion

Press the °C/°F button to switch between temperature units at anytime while in surface temperature measurement mode.

Laser Activation

Press ▲/ / to activate and deactivate the laser pointer at anytime while the Lasergrip is on.

Display Backlight Operation

While pressing the measurement trigger, press ▲/ / to turn on or turn off the display backlight.

Distance-to-Spot Ratio

As the distance between the thermometers and the target increases, the surface area measured also increases. With a distance-spot ratio 12:1, the area measured also has a diameter of roughly 1/12 the distance. (i.e. When standing 12 feet away from the surface being measured, only a 1 foot diameter on that surface is measured.) For the most accurate results, make sure the target has a surface area of twice the corresponding spot size at the given distance.

Emissivity

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

Most organic materials and painted or oxidized surfaces have an emissivity of 0.95. Other materials, such as polished metal surfaces, have a different emissivity level, which should be taken into account for accurate temperature measurement. One way to improve accuracy is to cover the surface with non-reflective masking tape or flat black paint, and then measure when the temperature reaches that of the underlying surface.

Emissivity Adjustment

Press the mode button to adjust the adjust the emissivity of the Lasergrip. Use the up and down buttons to set the emissivity level on the device.

Emissivity of Different Materials

Material	Feature	Emissivity
Aluminum	Oxidized	0.30
	Polished	0.02 - 0.04
Asbestos		0.95
Asphalt		0.95
Brass	Oxidized	0.50
	Polished	0.02 - 0.05
Brick		0.90 - 0.96
Carbon		0.85
Carbon cement		0.90
Charcoal	Powdered	0.96
Cement		0.96
Ceramics		0.95
Clay		0.92 - 0.96
Concrete		0.95

Material	Feature	Emissivity
Food	Frozen	0.95
	Heated	0.95
Glass		0.95
Gold		0.01 - 0.10
Graphite	Oxidized	0.20 - 0.60
Iron	Polished	0.20
	Oxidized	0.50 - 0.95
	Rusted	0.50 - 0.70
Lacquer	Dull	0.97
Limestone		0.98
Marbel		0.94
Mortar		0.89 - 0.91
Oil		0.94
Paint		0.93
Paper		0.95

Material	Feature	Emissivity
Plaster		0.80 - 0.90
Plastic	Non-transparent	0.95
	Acrylic / transparent	0.94
Plastic cement		0.85 - 0.95
Rubber		0.95
Sand		0.90
Soil		0.90 - 0.98
Soap bubbles		0.75 - 0.80
Stainless steel	Polished	0.10 - 0.15
	Oxidized	0.45 - 0.95
Steel	Unoxidized	0.20
	Oxidized	0.70 - 0.90
	Galvanized	0.28
Stone		0.70
Textile		0.90
Tin	Unoxidized	0.05 - 0.10

Material	Feature	Emissivity
Tungsten	Unoxidized	0.05
	Filament	0.30
	Ice	0.96 - 0.98
Water	Liquid	0.93
	Snow	0.83 - 0.90
Wood	Planed	0.80 - 0.95
	Polished	0.86
	Sawdust	0.75

Maintenance

General Maintenace

1. Use compressed air to remove any dust or particles on the Lasergrip lens.
2. Use a soft bristle brush to remove any debris from the lens, followed by a clean, wet cloth. Dry the lens with a soft, clean cloth immediately after.
3. Clean the included case with a damp sponge or cloth and mild detergent.

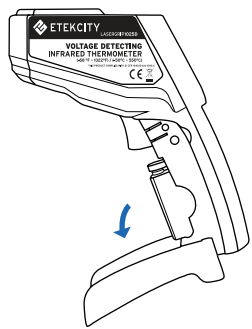
NOTE

- Do not use soap or detergent to clean the lens.
- Do not immerse the unit in water or liquid detergents.

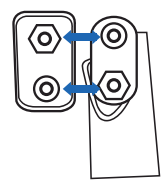
Battery Replacement

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. Properly dispose the used battery.
2. Connect a new DC 9V battery, ensuring that it is under the correct polarity.
3. Insert the battery into the compartment and close the lid. Make sure that the wiring is not pinched while closing the lid.



9V Battery



Specifications

Measurement Range	-58°~1022°F (-50°~550°C)
Accuracy	≥ 100°C ±2% / ≤100°C ±2°C
Response Time	≤ 500ms
Emissivity	Adjustable (0.1 to 1.0)
Distance-to-Spot Ratio	12:1
Storage Temperature	-4°~122°F (-20°~50°C)
Operating Temperature	32°~122°F (0°~50°C)

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

[1] This device may not cause harmful interference, and

[2] This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Warranty Information

Product Name	Voltage Detecting Infrared Thermometer
Model	Lasergrip 1025D
For your own reference, we strongly recommend that you record your order ID and date of purchase.	
Order ID	
Date of Purchase	

Terms & Policy

Etekcity Corporation ("Etekcity") warrants this product to the original purchaser to be free from defects in material and workmanship, under normal use and conditions, for a period of 2 years from the date of original purchase.

Etekcity agrees, at our option during the warranty period, to repair any defect in material or workmanship or furnish an equal product in exchange without charge, subject to verification of the defect or malfunction and proof of the date of purchase.

There is no other express warranty. This warranty does not apply:

- If the product has been modified from its original condition;
- If the product has not been used in accordance with directions and instructions in the user manual;
- To damages or defects caused by accident, abuse, misuse or improper or inadequate maintenance;
- To damages or defects caused by service or repair of the product performed by an unauthorized service provider or by anyone other than Etekcity;
- To damages or defects occurring during commercial use, rental use, or any use for which the product is not intended;
- To damages or defects exceeding the cost of the product.

Etekcity will not be liable for indirect, incidental, or consequential damages in connection with the use of the product covered by this warranty.

This warranty extends only to the original consumer purchaser of the product and is not transferable to any subsequent owner of the product regardless of whether the product is transferred during the specified term of the warranty.

This warranty does not extend to products purchased from unauthorized sellers. Etekcity's warranty extends only to products purchased from authorized sellers that are subject to Etekcity's quality controls and have agreed to follow its quality controls.

All implied warranties are limited to the period of this limited warranty.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

If you discover that your product is defective within the specified warranty period, please contact Customer Support via **support@etekcity.com**. **DO NOT** dispose of your product before contacting us. Once our Customer Support Team has approved your request, please return the product with a copy of the invoice and order ID.

Every Etekcity product automatically includes a 2-year warranty. To make the customer support process quick and easy, register your product online at www.etekcity.com/warranty.

This warranty is made by:

Etekcity Corporation
1202 N. Miller St., Suite A
Anaheim, CA 92806

Customer Support

If you encounter any issues or have any questions about your new product, please contact our helpful Customer Support Team.

Etekcity Corporation
1202 N Miller St., Suite A
Anaheim, CA 92806

Support Hours
Mon - Fri,
9:00 am - 5:00 pm PST/PDT

Toll Free: (855) 686-3835
Email: support@etekcity.com

*Please have your invoice and order ID ready before contacting Customer Support.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Building on better living.