Neoteck NTKTL338

Neoteck Digital Dial Indicator User Manual

Model: NTKTL338

1. Product Overview

The Neoteck Digital Dial Indicator is a precision measuring instrument designed for accurately determining small linear distances in various mechanical, industrial, and laboratory applications. It eliminates reading errors common with analog indicators, providing reliable and precise measurements for tolerance checks and quality control.
Key features include a large, easy-to-read LCD display, a wide measuring range, and high accuracy, making it an indispensable tool for professionals and hobbyists alike.

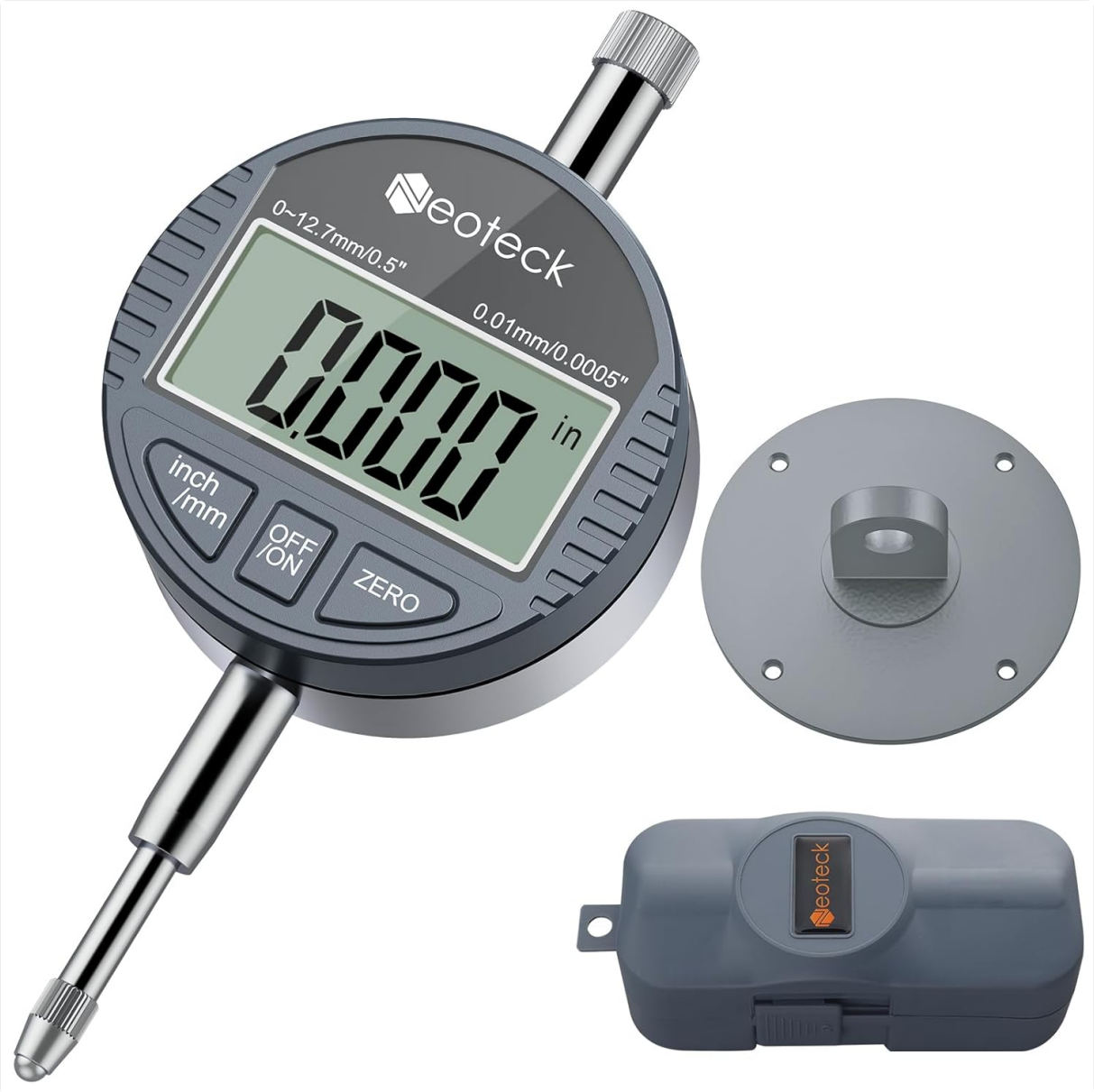

Figure 1.1: Neoteck Digital Dial Indicator and included accessories (back cover, battery, storage case).

2. Features

- **Large LCD Display:** Clear 3-digit display for easy reading.
- **Wide Measuring Range:** 0 to 12.7 mm (0 to 0.51 inches).
- **High Accuracy:** Precision up to 0.01 mm (0.0005 inches).
- **Unit Conversion:** Easily switch between millimeters (mm) and inches (in).
- **Zero Setting:** Convenient zero-setting function at any point.
- **Durable Construction:** Made from aluminum alloy for longevity.
- **High Performance Chipset:** Supports more accurate and faster measurements.
- **Glass Sensor:** Ensures stable and reliable measurement.

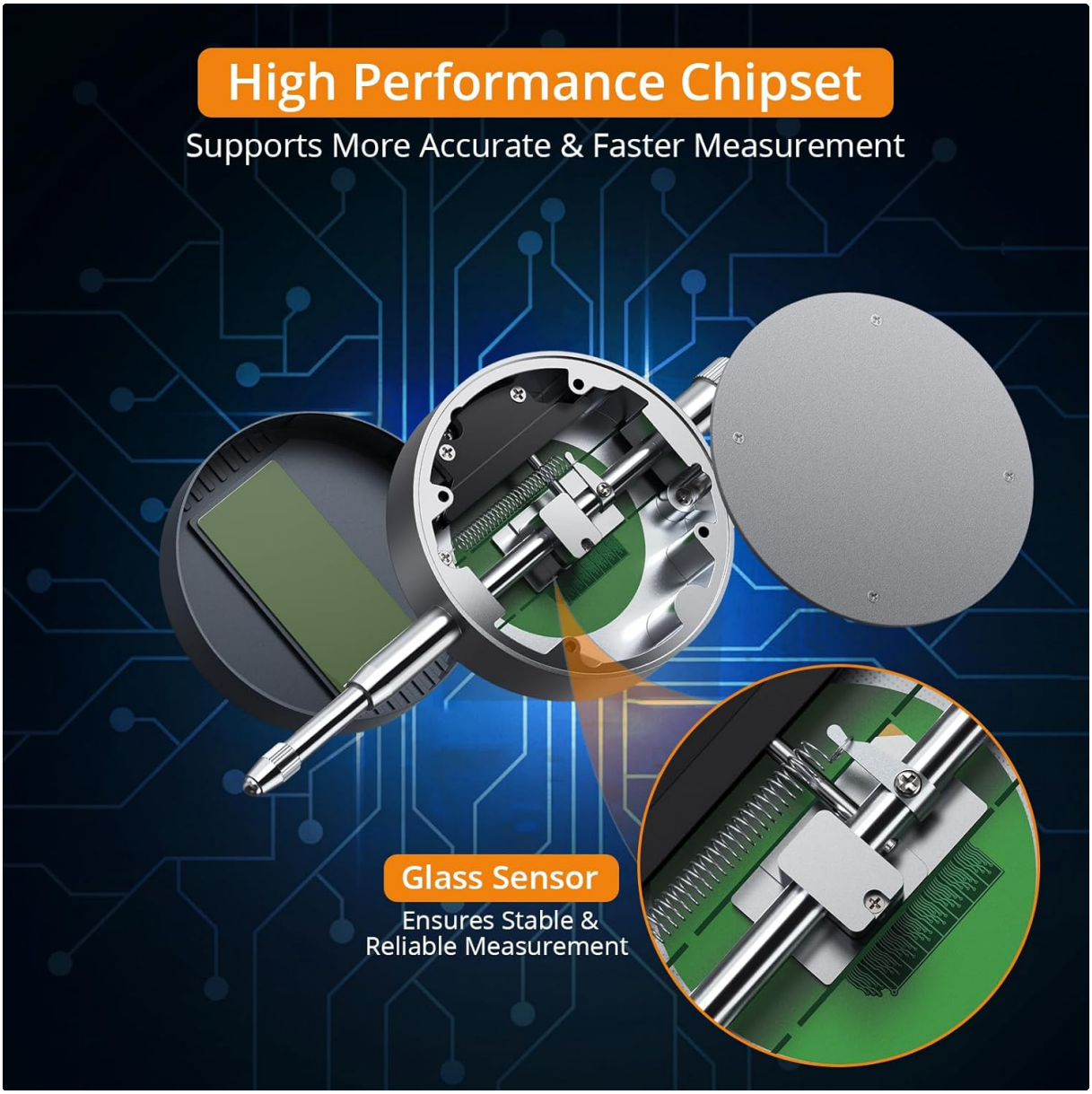

Figure 2.1: Internal components highlighting the high-performance chipset and glass sensor for enhanced accuracy.

3. Setup

3.1 Battery Installation

1. Locate the battery compartment on the back of the indicator.
2. Gently slide open the battery cover.
3. Insert one 1.5V LR44 button cell battery, ensuring the correct polarity (+/-).
4. Close the battery cover securely.

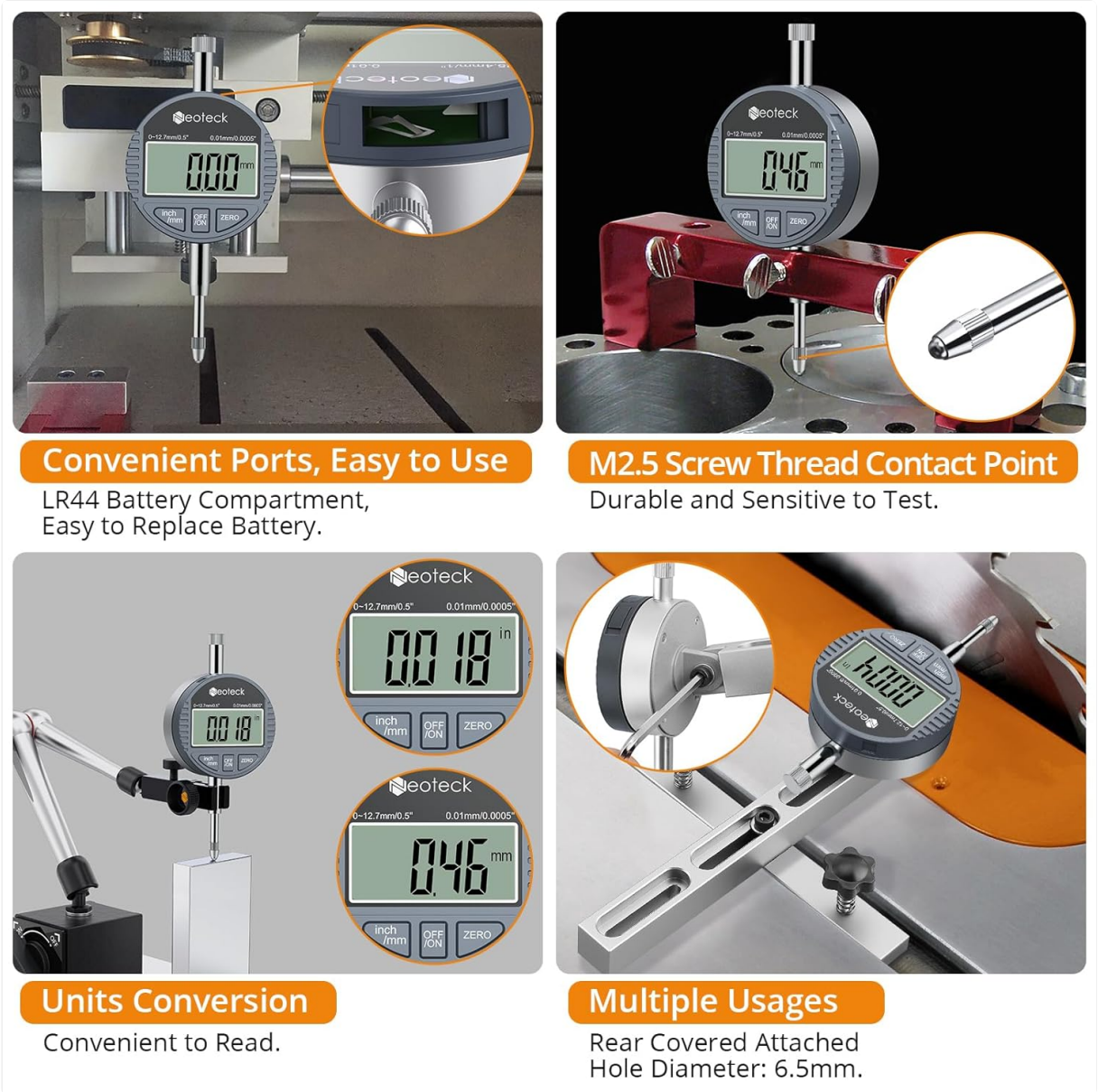

Figure 3.1: The battery compartment is easily accessible for quick battery replacement.

4. Operation

4.1 Power On/Off

- Press the **ON/OFF** button to turn the indicator on.
- Press and hold the **ON/OFF** button for a few seconds to turn the indicator off.

4.2 Zero Setting

- Position the contact point against the reference surface or at the desired starting point.
- Press the **ZERO** button to set the current position as zero. The display will show "0.000".

4.3 Unit Conversion

- Press the **inch/mm** button to toggle between millimeter (mm) and inch (in) units.

4.4 Taking Measurements

1. Ensure the indicator is securely mounted (e.g., on a magnetic base, not included).
2. Bring the contact point into contact with the object to be measured.

3. Move the object or the indicator to measure the linear displacement. The reading on the LCD display will show the precise measurement relative to the set zero point.

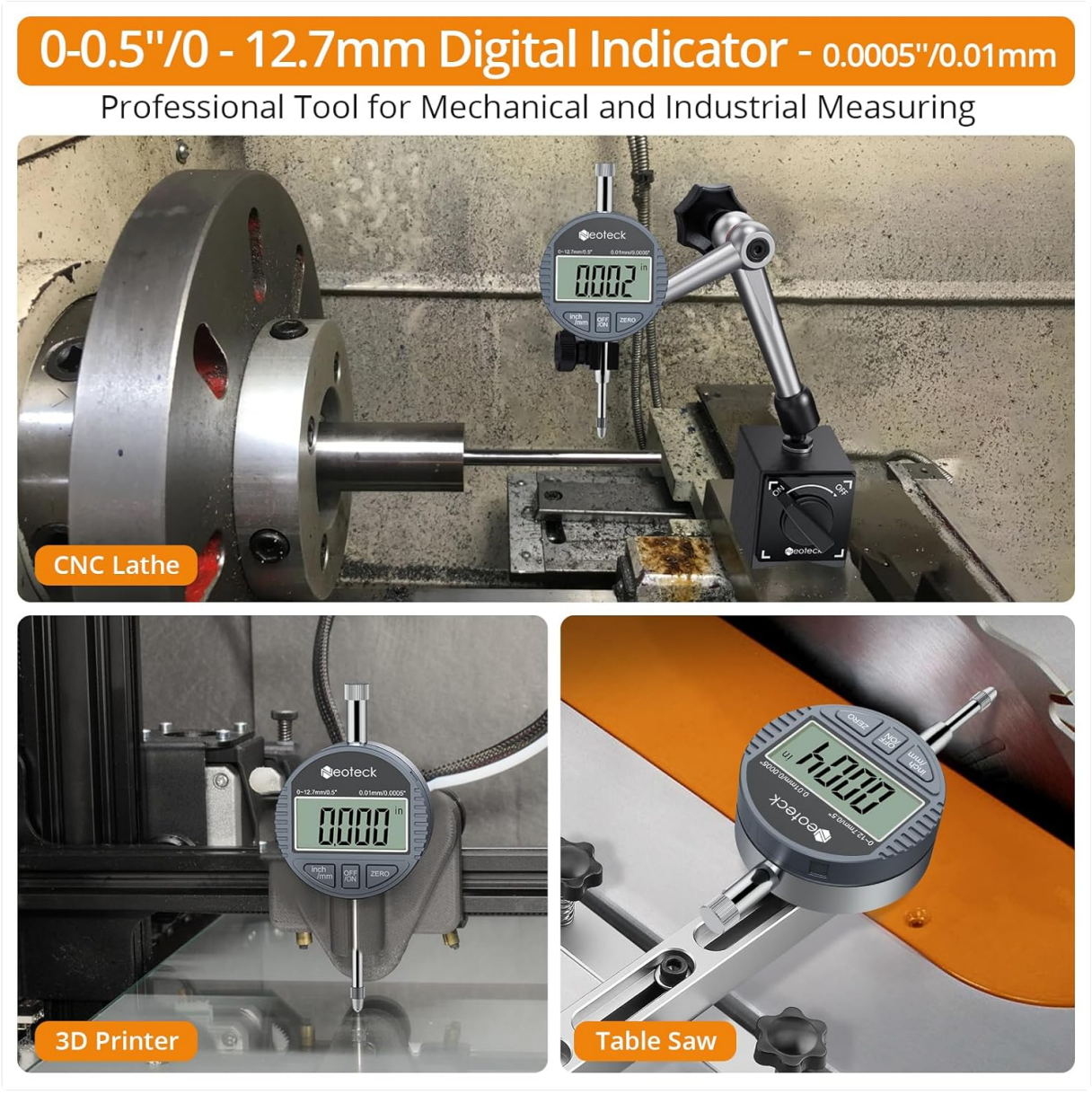

Figure 4.1: The digital dial indicator is versatile and can be used in various applications such as CNC lathes, 3D printers, and table saws for precise measurements.

5. Maintenance

5.1 Cleaning

- Wipe the indicator with a soft, dry cloth after each use to remove dust and debris.
- Do not use abrasive cleaners or solvents, as they may damage the display or finish.

5.2 Storage

- Store the indicator in its protective storage case when not in use to prevent damage.
- Keep the device in a dry environment, away from direct sunlight and extreme temperatures.

5.3 Battery Replacement

- Replace the LR44 battery when the display becomes dim or the indicator fails to power on. Refer to Section 3.1 for battery installation instructions.

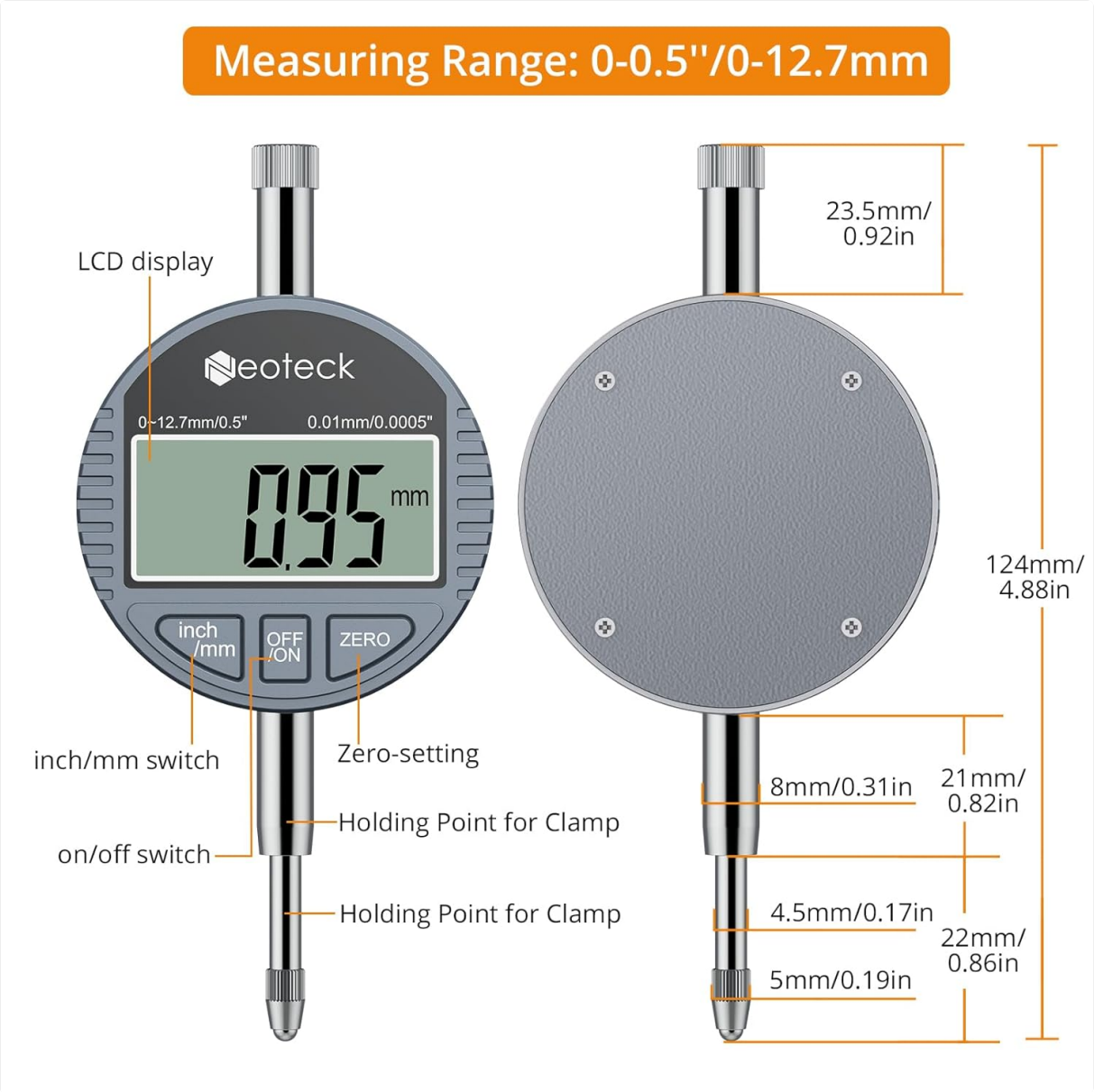

Figure 5.1: The included storage case provides excellent protection for the indicator, and a spare battery is often included for extended use.

6. Troubleshooting

Problem	Possible Cause	Solution
Display is blank or dim.	Low or dead battery.	Replace the LR44 battery.
Inaccurate readings.	Contact point dirty or damaged; Indicator not properly zeroed; Environmental factors (temperature/humidity).	Clean the contact point; Re-zero the indicator; Ensure operating within specified temperature/humidity range.
Buttons unresponsive.	Battery issue; Internal malfunction.	Replace battery; If problem persists, contact customer support.

7. Specifications

Parameter	Value

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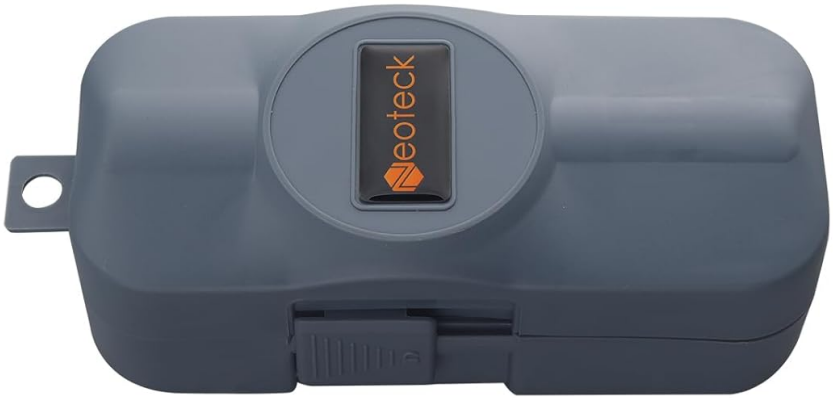
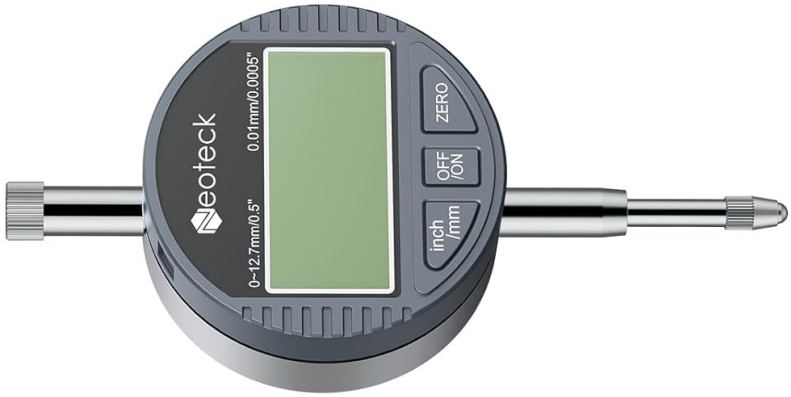
Measuring Range	0 ~ 12.7 mm (0 ~ 0.51 inch)
Accuracy	0.01 mm (0.0005 inch)
Response Time	≤ 0.5 m/s
Operating Temperature	0 ~ 40 °C (32 ~ 104 °F)
Storage Temperature	-20 ~ 70 °C (-4 ~ 154 °F)
Relative Humidity	≤ 80% RH
Material	Aluminum Alloy
Power Supply	1 × 1.5V LR44 Button Cell Battery (included)
Product Dimensions (L×W×D)	Approx. 122 × 55 × 26 mm (4.8 × 2.16 × 1.03 inch)
Product Weight	Approx. 129 grams (4.55 ounces) (battery included)





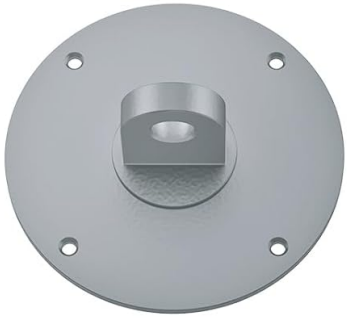


Figure 7.1: Detailed dimensions and labeled components of the digital dial indicator.

8. Package Contents

- 1 × Neoteck Digital Dial Indicator
- 1 × Back Cover
- 1 × 1.5V LR44 Battery
- 1 × Instruction Manual
- 1 × Storage Case