iGaging 35-125-4

iGaging Digital Electronic Indicator User Manual

Model: 35-125-4

1. Introduction

The iGaging Digital Electronic Indicator is a high-precision professional tool designed for accurate dimensional measurements in various mechanical applications. It features a large LCD display, multiple measurement functions, and interchangeable probes, making it versatile for a wide range of tasks. This manual provides detailed instructions for the proper setup, operation, and maintenance of your digital indicator to ensure optimal performance and longevity.

Figure 1: iGaging Digital Electronic Indicator with included probes (Carbide ball, large flat, small flat, point).

2. Safety Information

Please read and understand all safety instructions before operating the digital indicator. Failure to follow these guidelines may result in damage to the instrument or inaccurate measurements.

- Handle the indicator with care. Avoid dropping or subjecting it to strong impacts, which can affect its precision.
- Keep the instrument clean and free from dust, oil, and other contaminants.
- Do not expose the indicator to extreme temperatures or high humidity.
- Avoid direct exposure to strong magnetic fields, as this may interfere with electronic components.
- When not in use, store the indicator in its protective case to prevent damage.
- Do not attempt to disassemble or modify the indicator. Repairs should only be performed by qualified personnel.

3. Package Contents

Verify that all items listed below are present in your package:

- 1 x iGaging Digital Electronic Indicator (Model 35-125-4)
- 1 x Carbide Ball Probe
- 1 x Large Flat Probe
- 1 x Small Flat Probe
- 1 x Point Probe
- 1 x Protective Storage Case
- 1 x Extra Battery
- 1 x Lug Back attachment
- 1 x Flat Back attachment (pre-installed or separate)

Figure 2: The digital indicator and its accessories neatly stored in the protective case.

4. Product Overview

4.1. Components

- **Indicator Body:** Houses the electronic components and display.
- **Spindle/Plunger:** The movable rod that extends and retracts to measure displacement.
- **Stem:** The cylindrical part used for mounting the indicator, typically 3/8" diameter.
- **Probes:** Interchangeable tips attached to the end of the spindle for contacting the workpiece.
- **Back Plate:** The rear attachment point, which can be a flat back or a lug back for mounting.

Figure 3: Detailed view of the indicator's stem and the four included probes.

Figure 4: The indicator's back plate, illustrating the interchangeable flat back and lug back options for mounting.

4.2. Controls and Display

- **LCD Display:** Extra large screen showing measurement readings, units (inch/mm), and mode (INC/ABS).
- **TOL Button:** (Tolerance) Used for setting tolerance limits (refer to advanced operations if applicable, not detailed in basic product info).
- **mm/inch Button:** Switches between millimeter and inch measurement units.
- **ON/OFF Button:** Powers the indicator on or off.
- **ZERO Button:** Sets the current position as the zero reference point for incremental measurements.
- **ABS/INC Button:** Toggles between Absolute and Incremental measurement modes.

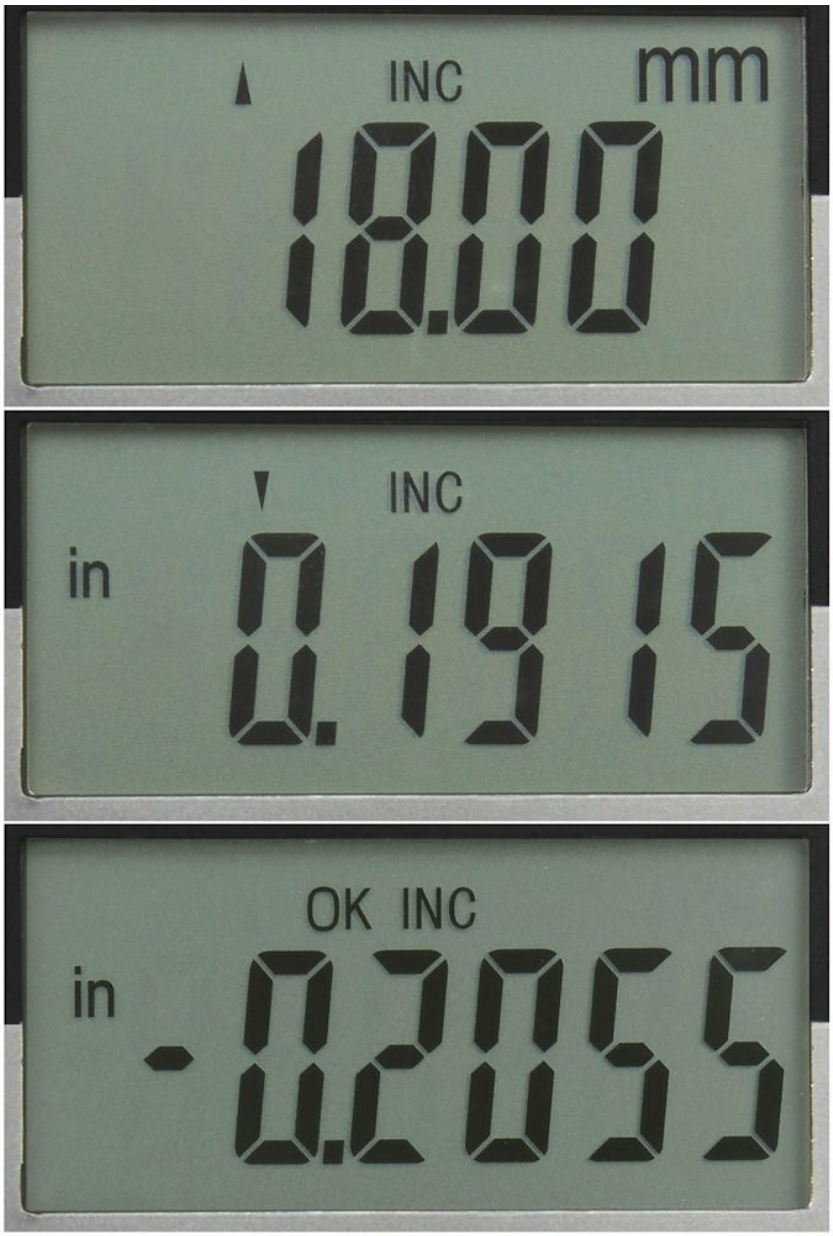

Figure 5: The large LCD display showing various measurement readings and unit indicators.

5. Setup

5.1. Battery Installation

The indicator comes with a pre-installed battery and an extra battery. If replacement is needed:

1. Locate the battery compartment cover on the back of the indicator.
2. Carefully remove the cover.
3. Insert a new CR2032 lithium coin cell battery with the positive (+) side facing up.
4. Replace the battery compartment cover securely.

5.2. Mounting the Indicator

The indicator can be mounted using its 3/8" stem or by attaching the lug back to a compatible fixture, such as a magnetic base.

1. **For Stem Mounting:** Insert the 3/8" stem into a suitable clamp or holder on your measurement stand or fixture. Secure it firmly without overtightening.

2. **For Lug Back Mounting:** If the flat back is installed, remove it by unscrewing the small screws. Attach the included lug back using the same screws. Then, mount the lug back onto a compatible magnetic base or fixture.
3. Ensure the indicator is stable and securely positioned to prevent movement during measurement.

6. Operating Instructions

6.1. 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.

6.2. Zero Setting

The ZERO function allows you to set any point as your reference zero for incremental measurements.

1. Position the probe at the desired reference point on your workpiece or fixture.
2. Press the **ZERO** button. The display will show "0.0000" (or "0.00" in mm), and subsequent movements will be measured relative to this point.

6.3. Inch/Metric Conversion

To switch between inch and millimeter units:

- Press the **mm/inch** button. The display will toggle between "in" (inches) and "mm" (millimeters).

6.4. Absolute (ABS) and Incremental (INC) Measurement

The indicator supports two measurement modes:

- **Absolute (ABS) Mode:** Measures the distance from a fixed, absolute zero point (usually the fully retracted position of the spindle). This mode is useful for measuring overall dimensions from a datum.
- **Incremental (INC) Mode:** Measures the distance from the last zeroed position. This mode is useful for measuring differences or steps between features.

To switch between modes:

- Press the **ABS/INC** button. The display will indicate "ABS" or "INC" to show the current mode.

6.5. Using Probes

The indicator comes with four interchangeable probes for various applications:

- **Carbide Ball Probe:** General purpose, durable for most surfaces.
- **Large Flat Probe:** Ideal for measuring flat surfaces or large contact areas.
- **Small Flat Probe:** Suitable for smaller flat surfaces or confined areas.
- **Point Probe:** Used for precise contact on small features, holes, or scribed lines.

To change a probe:

1. Gently unscrew the currently installed probe from the end of the spindle.
2. Carefully screw the desired probe onto the spindle until it is finger-tight. Do not overtighten.
3. After changing probes, it is recommended to re-zero the indicator if working in incremental mode.

7. Maintenance

7.1. Cleaning

- Wipe the indicator body and spindle with a clean, soft, lint-free cloth.
- For stubborn dirt, a slightly damp cloth with mild soap can be used, followed by immediate drying.
- Do not use harsh chemicals, solvents, or abrasive cleaners, as these can damage the finish or electronic components.
- Ensure no liquid enters the display or button areas.

7.2. Storage

- Always store the indicator in its protective case when not in use.
- Store in a dry environment, away from direct sunlight, extreme temperatures, and high humidity.
- Keep out of reach of children.

7.3. Battery Replacement

When the display becomes dim or erratic, it's time to replace the battery. Refer to Section 5.1 for battery installation instructions. Dispose of old batteries responsibly according to local regulations.

8. Troubleshooting

If you encounter issues with your iGaging Digital Electronic Indicator, refer to the table below for common problems and solutions.

Problem	Possible Cause	Solution
Display is blank or dim.	Low or dead battery.	Replace the battery (CR2032).
Readings are inconsistent or jumpy.	Dirt or debris on spindle/probe; loose probe; indicator not stable.	Clean the spindle and probe. Ensure probe is securely tightened. Re-mount indicator securely.
Indicator does not turn on.	Battery incorrectly installed; completely dead battery.	Check battery orientation. Replace battery.
Cannot zero the display.	Possible internal error.	Turn off the indicator, wait a few seconds, then turn it back on and try again. If issue persists, contact support.

9. Specifications

Parameter	Value
Model Number	35-125-4
Measurement Range	0-1 inch (0-25.4 mm)

Parameter	Value
Resolution	0.0005 inch / 0.01 mm / 1/128 inch
Accuracy	+/- 0.001 inch
Display	Extra Large LCD
Functions	Inch/Metric Conversion, Absolute/Incremental Reading, Zero Setting
Probes Included	Carbide Ball, Large Flat, Small Flat, Point
Back Options	Flat Back, Lug Back
Stem Diameter	3/8 inch
Material	Stainless Steel
Power Source	CR2032 Lithium Battery
Product Dimensions	1"L x 1"W (Indicator body, excluding stem/spindle)

10. Warranty and Support

For warranty information or technical support, please contact iGaging directly. Keep your purchase receipt as proof of purchase.

For the most up-to-date support information, please visit the official iGaging website or refer to the contact details provided with your product packaging.

This product is from a small business brand. Your support is appreciated.