

Bolisila 543-730B

Bolisila Dial Indicator 543-730B User Manual

Precision Measurement for Industrial Applications

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1. INTRODUCTION

This manual provides essential instructions for the proper use, setup, operation, and maintenance of the Bolisila Dial Indicator Model 543-730B. Please read this manual thoroughly before using the device to ensure accurate measurements and safe operation. This instrument is designed for precise industrial measurement applications. The Bolisila Dial Indicator 543-730B is a precision measuring tool used to accurately measure small linear distances and displacements. It is commonly employed in machining, manufacturing, and quality control processes to verify dimensions, check for runout, and ensure component accuracy.

2. SETUP

2.1 Unpacking

Carefully remove the dial indicator from its packaging. Inspect the instrument for any signs of damage during transit. Retain the original packaging for future storage or transport.

2.2 Mounting the Dial Indicator

The dial indicator must be securely mounted to a stable stand or fixture. Ensure the mounting point is rigid and free from vibrations to prevent measurement inaccuracies.

- Attach the stem of the dial indicator to a suitable clamping mechanism on a magnetic base or stand.
- Tighten the clamp firmly but do not overtighten, as this can damage the stem or affect the indicator's movement.
- Position the indicator so that its contact point (plunger) is perpendicular to the surface being measured.



Figure 1: Bolisila Dial Indicator 543-730B securely mounted on a magnetic stand, ready for measurement. The image shows the main body of the indicator, the stem, and the contact point.

3. OPERATION

3.1 Basic Measurement Procedure

1. **Position the Workpiece:** Place the object to be measured on a stable surface or fixture.
2. **Bring Indicator into Contact:** Carefully lower the dial indicator until its contact point touches the surface of the workpiece. Ensure the plunger is slightly compressed, typically by 0.5 to 1.0 mm, to allow for movement in both directions.
3. **Set Zero:** Rotate the outer bezel of the dial indicator until the main needle points to the "0" mark. The small revolution counter hand should also be noted or set to zero if applicable for multi-revolution indicators.
4. **Take Measurement:** Move the workpiece or the indicator across the surface to be measured. Observe the movement of the main needle. Each division on the main dial represents a specific unit of measurement (e.g., 0.01 mm or 0.001 inch). The small hand indicates full revolutions of the main hand.

5. **Read the Value:** The total measurement is the sum of the revolutions indicated by the small hand and the fractional reading on the main dial.

3.2 Reading the Dial

The main dial typically has graduations representing small units of length. For example, if each major division is 0.1 mm and there are 10 subdivisions, each subdivision represents 0.01 mm. The small hand counts the number of full rotations of the main hand, indicating larger displacements.

4. MAINTENANCE

4.1 Cleaning

- After each use, wipe the dial indicator with a clean, soft, lint-free cloth.
- For stubborn dirt, use a cloth lightly dampened with isopropyl alcohol. Avoid using harsh solvents or abrasive cleaners.
- Ensure no liquids enter the internal mechanisms of the indicator.

4.2 Storage

Store the dial indicator in its original protective case or a dedicated storage box when not in use. Keep it in a dry, dust-free environment, away from direct sunlight and extreme temperatures. Avoid storing it with other tools that could cause damage.

4.3 Calibration

Regular calibration by a qualified technician is recommended to ensure the accuracy of the dial indicator. The frequency of calibration depends on usage intensity and environmental conditions.

5. TROUBLESHOOTING

Problem	Possible Cause	Solution
Inaccurate Readings	◦ Loose mounting ◦ Dirty contact point ◦ Indicator not perpendicular to surface ◦ Internal damage	◦ Tighten mounting clamp ◦ Clean contact point ◦ Adjust indicator position ◦ Contact service for repair/calibration
Sticking Plunger	◦ Dirt or debris in mechanism ◦ Lack of lubrication ◦ Bent plunger	◦ Clean thoroughly ◦ Apply a small amount of precision instrument oil (consult manufacturer) ◦ Contact service for repair
Bezel Difficult to Rotate	◦ Dirt or debris ◦ Damage to bezel mechanism	◦ Clean around bezel ◦ Contact service for repair

6. SPECIFICATIONS

The following specifications apply to the Bolisila Dial Indicator Model 543-730B:

- **Model:** 543-730B
- **Product Name:** Dial Indicator
- **Compatibility:** Various industrial automation products
- **Display:** Clear readings and accurate measurements
- **Application:** Industrial, residential, etc.
- **Package Dimensions:** 0.39 x 0.39 x 0.39 inches
- **Item Weight:** 2.2 pounds
- **Manufacturer:** Bolisila

7. WARRANTY & SUPPORT

7.1 Warranty Information

Bolisila warrants this product against defects in materials and workmanship for a period of **30 days** from the date of purchase. This warranty covers refund or replacement of the product under normal use conditions. This warranty does not cover damage resulting from misuse, abuse, accident, unauthorized modification, or improper maintenance. For warranty claims, please retain your proof of purchase. Contact customer support for assistance.

7.2 Customer Support

For technical assistance, troubleshooting, or inquiries regarding your Bolisila Dial Indicator 543-730B, please contact our customer support team. Refer to the product packaging or the official Bolisila website for the most current contact information. When contacting support, please have your product model number (543-730B) and purchase date available.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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