INSIZE ISH-DSA

INSIZE ISH-DSA Digital Shore Durometer, Shore A - User Manual

Model: ISH-DSA | Brand: INSIZE

1. INTRODUCTION

This manual provides detailed instructions for the proper use, setup, operation, maintenance, and troubleshooting of the INSIZE ISH-DSA Digital Shore Durometer, Shore A. This precision instrument is designed for measuring the hardness of soft plastics, soft rubber, and similar materials. Adhering to the guidelines in this manual will ensure accurate measurements and prolong the life of your device.

Image Description: A close-up view of the INSIZE ISH-DSA Digital Shore Durometer, Shore A. The device features a digital display showing a reading of "64.4" with average and standard deviation values. Below the display is the "INSIZE" logo and a control panel with power, up, down, and OK buttons. The measurement probe extends from the bottom of the device.

2. SAFETY INFORMATION

- Always handle the durometer with care to prevent damage.

- Avoid exposing the device to extreme temperatures, high humidity, or corrosive environments.

- Do not attempt to disassemble the unit, as this will void the warranty and may cause damage.

- Keep the device away from strong magnetic fields.

- Ensure the test surface is stable and secure to prevent accidents during measurement.

3. PRODUCT COMPONENTS

The INSIZE ISH-DSA Digital Shore Durometer package typically includes:

- INSIZE ISH-DSA Digital Shore Durometer

- Protective storage case

- User Manual (this document)
- Calibration block (optional accessory, may be sold separately)

4. SETUP

Follow these steps to prepare your durometer for first use:

1. **Unpacking:** Carefully remove the durometer from its packaging. Inspect the device for any visible damage that may have occurred during shipping.
2. **Battery Installation:** Locate the battery compartment (usually on the back or side). Open it and insert the required batteries (e.g., AAA, specific type not provided in product data), ensuring correct polarity as indicated inside the compartment. Close the compartment securely.
3. **Power On:** Press the power button (often marked with a power symbol or 'ON/OFF') on the control panel to turn on the device.
4. **Initial Display Check:** The digital display should illuminate and show a reading, typically "0.0" or a previous measurement. If the display does not light up, check the battery installation or replace the batteries.

5. OPERATING INSTRUCTIONS

The INSIZE ISH-DSA Digital Shore Durometer is specifically designed for measuring Shore A hardness, suitable for soft materials.

5.1. Basic Measurement Procedure

1. **Prepare Sample:** Ensure the test material (soft plastic, soft rubber, etc.) is flat, smooth, and has a minimum thickness of 6mm. The sample should be at a stable temperature, ideally between 20-25°C (68-77°F).
2. **Position Durometer:** Hold the durometer firmly and vertically above the test sample. Ensure the presser foot is parallel to the sample surface.
3. **Apply Pressure:** Slowly and steadily apply pressure to the durometer until the entire presser foot is in full contact with the sample. The indenter should penetrate the material. Avoid sudden impacts or lateral movements.
4. **Read Measurement:** Observe the digital display. The reading will stabilize, indicating the Shore A hardness value. The device has a resolution of 0.1 Ha.
5. **Record Data:** Note down the measurement. For accurate results, take multiple readings (at least 5) at different points on the sample, ensuring each measurement point is at least 6mm from any other measurement or edge. Calculate the average for a representative value.

5.2. Advanced Features

- **Measuring Range:** The device accurately measures within a range of 0 to 100 Ha.
- **Automatic Power Off:** To conserve battery life, the durometer features an automatic power-off function after a period of inactivity.
- **Wireless Connectivity:** This model supports wireless connection to a printer for convenient data output. Refer to the printer's manual for specific pairing and operation instructions.
- **Handhold or Test Stand Use:** The device can be used handheld for quick checks or mounted on an optional test stand (not included) for more consistent and repeatable measurements, especially when testing softer materials or requiring precise force application.

6. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your durometer.

- **Cleaning:** Wipe the durometer body with a soft, dry, lint-free cloth. Do not use solvents, alcohol, or abrasive cleaners, as these can damage the display or casing.
- **Indenter Care:** Keep the indenter tip clean and free from debris, dust, or residue from test samples. Avoid touching the tip with bare hands to prevent oil transfer. Use a soft brush or compressed air if necessary.
- **Storage:** Store the durometer in its protective case in a dry, dust-free environment when not in use. Avoid areas with extreme temperature fluctuations or high humidity.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears on the display. If the device will not be used for an extended period (e.g., more than one month), remove the batteries to prevent leakage and potential damage.
- **Calibration:** Regular calibration by a qualified technician or an accredited laboratory is highly recommended to ensure the continued accuracy of the instrument, especially for critical measurement applications or after significant use.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your durometer.

Problem	Possible Cause	Solution
Device does not power on	Dead or incorrectly installed batteries	Check battery polarity, replace batteries with fresh ones.
Inconsistent or fluctuating readings	Improper sample preparation; inconsistent pressure application; dirty indenter; unstable test surface	Ensure sample is flat, smooth, and thick enough; apply steady, vertical pressure; clean indenter tip; use a stable test platform.
Display shows "Err" or abnormal values	Measurement out of range; device malfunction; environmental interference	Power off and on again; ensure measurement is within the 0-100 Ha range; move away from strong electromagnetic fields. If issue persists, contact support.
Wireless printer connection failure	Printer not paired; printer out of range; printer battery low	Refer to printer manual for pairing; ensure devices are within range; check printer battery.

8. SPECIFICATIONS

Key technical specifications for the INSIZE ISH-DSA Digital Shore Durometer:

Feature	Detail
Model	ISH-DSA

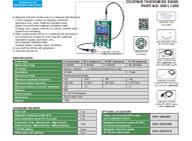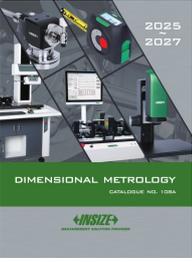| Feature	Detail
Type	Digital Shore Durometer, Shore A
Test Material	Soft plastic, soft rubber, etc.
Measuring Range	0~100 Ha
Resolution	0.1 Ha
Standards Compliance	According to ISO868, ISO7619, ASTM D 2240
Power Feature	Automatic power off
Connectivity	Wireless to printer
Usage Method	Handhold use or work with test stand
Package Dimensions	12.83 x 11.42 x 3.78 inches
Item Weight	1 Pound
Manufacturer	INSIZE
Date First Available	June 4, 2016

9. WARRANTY AND SUPPORT

For detailed warranty information, technical support, and service inquiries, please refer to the official INSIZE website or contact your authorized INSIZE dealer. It is recommended to keep your purchase receipt as proof of purchase for any warranty claims.

For further assistance or to explore other INSIZE products, you may visit theINSIZE brand page on Amazon.

10. DISPOSAL

This product contains electronic components and batteries. Do not dispose of it with general household waste. Please follow local regulations for the proper recycling and disposal of electronic waste and batteries to protect the environment.

Related Documents

[INSIZE MN-1113-E Wireless Digital Caliper Operation Instructions](#)

Detailed operation instructions for the INSIZE MN-1113-E Wireless Digital Caliper, covering installation, button functions, usage, maintenance, and FCC compliance.

[INSIZE 2844-10 Electronic Surface Profile Gage: Specifications and Features](#)

Comprehensive details on the INSIZE 2844-10 Electronic Surface Profile Gage, including technical specifications, standard delivery contents, optional accessories, and key measurement features for blast cleaned surfaces.

[INSIZE Testing Instruments Catalogue 108B](#)

Explore the comprehensive range of INSIZE testing instruments, including hardness testers, metallography preparation equipment, flaw detectors, force gauges, and more. This catalogue details specifications, standard delivery, and optional accessories for INSIZE's advanced measurement solutions.

[INSIZE Dimensional Metrology Catalogue 108A](#)

Explore the comprehensive INSIZE Dimensional Metrology Catalogue 108A, featuring a wide range of precision measuring instruments for various industrial applications. Discover tools for calipers, micrometers, depth measurement, and more.

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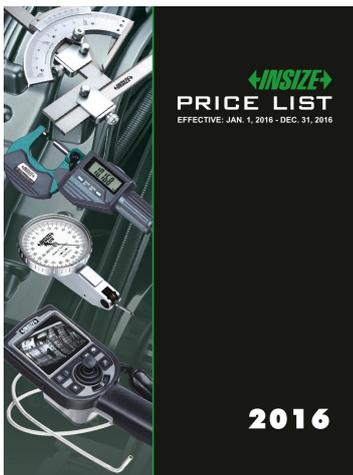
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