

[Manuals.plus](#) /

› [BSIDE](#) /

› BSIDE Ultrasonic Thickness Gauge Tester User Manual

BSIDE Ultrasonic Thickness Tester

BSIDE Ultrasonic Thickness Gauge Tester User Manual

Model: Ultrasonic Thickness Tester

INTRODUCTION

This user manual provides detailed instructions for the operation, maintenance, and troubleshooting of the BSIDE Ultrasonic Thickness Gauge Tester. Please read this manual thoroughly before using the device to ensure proper and safe operation.

The BSIDE Ultrasonic Thickness Gauge Tester is a handheld device designed for accurate measurement of various metallic and non-metallic materials. It features a color display, multiple test modes, and a rechargeable battery for convenient use.

PACKAGE CONTENTS

Upon opening the package, please verify that all components are present and undamaged:

- 1 x BSIDE Ultrasonic Thickness Gauge
- 1 x Transducer (Probe)
- 1 x Carrying Case
- 1 x Rechargeable Battery (pre-installed or separate)
- 1 x USB Charging Cable
- 1 x User Manual (this document)

Note: Coupling agent is not included in the package due to aviation security regulations.



Image: The complete package contents of the BSIDE Ultrasonic Thickness Gauge, showing the main unit, the transducer probe, USB charging cables, and a protective carrying case.

PRODUCT FEATURES

- Handheld ultrasonic thickness tester with 2.8-inch TFT color display.
- Measures thickness of various materials: metal, steel, plastic, ceramics, composites, epoxies, glass, silver, PVC, nylon, aluminum, acrylic resin, etc.
- Measuring range: 1-300mm (for steel).
- High resolution: 0.01mm (<10mm) and 0.1mm (≥10mm).
- Accuracy: $\pm(1\%H+0.05)\text{mm}$.
- Adjustable sound velocity: 1000-9999 m/s.
- Single test mode and continuous test mode.
- Displays MAX, MIN, and AVG test results.
- Probe calibration function.

- Auto power-off and low battery indication.
- Integrated flashlight design.
- Internal storage for up to 100 values.
- Powered by a 3.7V rechargeable li-ion battery.

Ultrasonic Thickness Gauge

Measuring Range	1-300mm
Resolution	0.1mm (≥10mm); 0.01mm (<10mm)
Accuracy	±(1%H+0.05)mm
Sound Velocity Ranges	1000-9999m/s
Screen	2.8" TFT color display
Power	3.7V rechargeable li-ion battery
Size	187 x 74 x 40.5 mm
Weight	265g

Image: The BSIDE Ultrasonic Thickness Gauge displayed alongside a summary of its key specifications, including measuring range, resolution, accuracy, sound velocity ranges, screen type, power, size, and weight.

SETUP

1. Charging the Battery

The device is powered by a 3.7V rechargeable li-ion battery. Before first use, or when the low battery indicator appears, charge the device using the provided USB charging cable.

1. Connect the small end of the USB cable to the charging port on the side of the thickness gauge.
2. Connect the other end of the USB cable to a standard USB power adapter (not included) or a computer USB port.

3. The charging indicator light will illuminate during charging and change color or turn off when fully charged.



Image: The BSIDE Ultrasonic Thickness Gauge being charged via a USB cable, highlighting its rechargeable battery capability.

2. Connecting the Transducer (Probe)

The transducer is essential for taking measurements. Ensure it is securely connected to the main unit.

1. Locate the two probe input ports at the top of the thickness gauge.
2. Align the connectors on the transducer cable with the corresponding ports on the device.
3. Gently push and twist the connectors until they are firmly seated.



Image: A detailed view of the transducer probe's dual connectors, ready to be plugged into the top of the BSIDE Ultrasonic Thickness Gauge.

OPERATING INSTRUCTIONS

1. Power On/Off

- To power on the device, press and hold the **Power button** (usually marked with a power symbol) until the screen illuminates.
- To power off, press and hold the **Power button** again until the screen turns off. The device also features an auto power-off function to conserve battery.

2. Probe Calibration

Calibration is crucial for accurate measurements. The device comes with a 4mm thickness steel block for calibration.

1. Ensure the probe is clean and free of debris.
2. Apply a small amount of coupling agent (not included) to the surface of the 4mm steel calibration block.

3. Press the **CALIB/MENU button** to enter calibration mode.
4. Place the transducer firmly and flatly on the calibration block.
5. Follow the on-screen prompts to complete the calibration process.

3. Selecting Measurement Mode

The device supports two primary measurement modes: Single Test Mode and Continuous Test Mode.

- Press the **MODE/SAVE button** to toggle between Single Test Mode and Continuous Test Mode.
- **Single Test Mode:** Takes a single measurement when the probe is applied. Useful for quick, individual readings.
- **Continuous Test Mode:** Continuously measures as the probe is moved across a surface. Useful for scanning larger areas or irregular surfaces.



Image: A visual comparison demonstrating the display differences between the Continuous Test Mode (left) and Single Test Mode (right) on the BSIDE Ultrasonic Thickness Gauge, showing how readings are presented in each mode.

4. Taking Measurements

Before taking any measurement, ensure the surface is clean and free of rust, paint, or other coatings that might interfere with the ultrasonic signal. Apply a small amount of coupling agent to the measurement area.

1. Select the desired measurement mode.
2. Apply coupling agent to the surface to be measured.
3. Place the transducer firmly and flatly on the prepared surface. Ensure good contact.
4. Read the thickness value displayed on the screen. The display will also show MAX, MIN, and AVG values for the current measurement series.
5. For continuous mode, slide the probe across the surface while maintaining contact.



Image: The BSIDE Ultrasonic Thickness Gauge in active use, with its probe placed on a metal engine block to measure its thickness, demonstrating a typical application.

5. Adjusting Sound Velocity

The sound velocity needs to be adjusted according to the material being measured for accurate results. Refer to a material sound velocity table for common materials.

- Enter the menu or settings (usually via the **CALIB/MENU button**).
- Navigate to the "Sound Velocity" setting.
- Use the arrow buttons to adjust the sound velocity value (range: 1000-9999 m/s) to match the material.
- Confirm the setting to save.



Image: The BSIDE Ultrasonic Thickness Gauge positioned centrally, with surrounding images of different materials like ceramics, brass, PVC, steel, glass, and plastic, illustrating the wide range of materials it can measure by adjusting sound velocity.

6. Data Storage and Recall

The device can store up to 100 measurement values.

- To save a measurement, press the **MODE/SAVE button** briefly after a measurement is taken (in single mode) or during continuous mode to save the current reading.
- To recall stored data, navigate to the "Data Recall" or "Memory" option in the menu.
- Use the arrow buttons to browse through the stored values.

7. Using the Flashlight

The device includes a built-in LED flashlight for use in low-light conditions.

- Locate the flashlight button (often integrated with another function or a dedicated button).
- Press the button to turn the flashlight on or off.

Bright LED Flashlight



Image: The BSIDE Ultrasonic Thickness Gauge with its integrated bright LED flashlight activated, demonstrating its utility in dark environments.

MAINTENANCE

1. Cleaning the Device and Probe

- After each use, especially when using coupling agent, wipe the transducer probe clean with a soft, dry cloth.
- Clean the main unit with a soft, slightly damp cloth. Do not use abrasive cleaners or solvents.
- Ensure no liquid enters the device's ports or openings.

2. Storage

- Store the device and its accessories in the provided carrying case when not in use.
- Store in a cool, dry place, away from direct sunlight, extreme temperatures, and high humidity.
- Operating Temperature: -20°C to 50°C (-4°F to 122°F).
- Storage Temperature: -30°C to 70°C (-22°F to 158°F).
- Relative Humidity: ≤90%.

3. Battery Care

- To prolong battery life, avoid fully discharging the battery frequently.
- If storing for extended periods, charge the battery to approximately 50% every few months.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery.	Charge the battery fully.
Inaccurate readings.	Probe not properly calibrated. Incorrect sound velocity setting for the material. Poor coupling between probe and surface. Surface is rough, corroded, or coated.	Perform probe calibration. Adjust sound velocity to match the material. Ensure sufficient coupling agent and firm, flat contact. Prepare the surface by cleaning or removing coatings.
No reading displayed.	No coupling agent applied. Probe not making good contact. Material is outside the measuring range. Transducer cable loose or damaged.	Apply coupling agent. Ensure firm and flat contact with the surface. Verify material thickness is within 1-300mm range. Check transducer cable connections; replace if damaged.

SPECIFICATIONS

Parameter	Value
Display	2.8 inch TFT color display
Measuring Range (Steel)	1-300mm
Speed Range	1000-9999 m/s
Resolution	0.1mm (≥10mm); 0.01mm (<10mm)
Accuracy	±(1%H+0.05)mm
Measurement Period	4 times/second (single mode), 8 times/second (scan mode)
Storage	Up to 100 values
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-30°C to 70°C (-22°F to 158°F)

Parameter	Value
Relative Humidity	≤90%
Power	3.7V rechargeable li-ion battery
Dimensions	187 x 74 x 40.5 mm (7.36 x 2.91 x 1.59 inches)
Weight	265g (9.81 ounces)

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the contact details provided with your purchase or visit the official BSIDE website. Keep your purchase receipt as proof of purchase for warranty claims.



Image: The BSIDE Ultrasonic Thickness Gauge, its protective carrying case, and a quality certificate, which may contain warranty and support information.

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.

Submit question

Open the live page

<https://manuals.plus/asin/B0D2QFR9PG>

More documents and user manuals: <https://manuals.plus/>