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RISEPRO 82202BB

RISEPRO Digital Level Box Angle Gauge User Manual

Model: 82202BB

1. INTRODUCTION

The RISEPRO Digital Level Box Angle Gauge, Model 82202BB, is a versatile and precise tool designed for accurate angle measurement in various professional and DIY applications. Its compact design, clear LCD with backlight, and magnetic base make it an essential instrument for tasks requiring precise angular alignment.

Key Features:

- Large, easy-to-read LCD with green backlight for visibility in low-light conditions.
- Powerful built-in magnets on the base for secure attachment to metallic surfaces.
- Multiple measurement units: degrees (°), percentage (%), mm/m, and in/ft.
- Wide measurement range of 4 x 90° (0° to 360°).
- High resolution of 0.01° and repeatability of ±0.1°.
- Calibration function for maintaining accuracy.
- Hold function to freeze displayed measurements.
- Automatic power-off after 3 minutes of inactivity to conserve battery life.
- Lightweight and portable design.

2. PRODUCT OVERVIEW

Familiarize yourself with the components and controls of your RISEPRO Digital Level Box.



Figure 2.1: Front view of the RISEPRO Digital Level Box, displaying an angle measurement of 0.56 degrees on its illuminated LCD screen. The device features three control buttons: ON/OFF & REF, MODE, and HOLD.



Figure 2.2: Detailed diagram illustrating the key components of the digital level box. This includes the LCD display, the ON/OFF & REF button, the MODE button, the HOLD button, the battery cover located on the back, and the built-in magnetic base at the bottom.

Controls:

- **ON/OFF & REF Button:** Press to turn the device on or off. A short press also sets the current position as the reference (0.00°) for relative measurements.
- **MODE Button:** Cycles through different measurement units: degrees (°), percentage (%), mm/m, and in/ft.
- **HOLD Button:** Freezes the current reading on the display. Press again to release.

3. SETUP

3.1. Battery Installation

The device requires two AAA alkaline batteries (included). To install or replace batteries:

1. Locate the battery cover on the back of the unit (refer to Figure 2.2).
2. Slide the battery cover open.
3. Insert two AAA batteries, ensuring correct polarity (+/-).
4. Close the battery cover securely.

3.2. Initial Calibration

For optimal accuracy, it is recommended to calibrate the device before first use and periodically thereafter. The calibration function ensures precise readings.

1. Place the digital level box on a flat, horizontal surface.
2. Press the ON/OFF button to turn on the device.
3. Press and hold the ON/OFF & REF button until "CAL" appears on the display.
4. The display will show "CAL 1". Keep the device still on the flat surface.
5. After a few seconds, the display will show "CAL 2". Rotate the device 180 degrees on the same flat surface without lifting it.
6. The display will show "CAL 3" and then return to 0.00°, indicating successful calibration.

4. OPERATING INSTRUCTIONS

4.1. Power On/Off

Press the **ON/OFF & REF** button to turn the device on. Press and hold the same button for a few seconds to turn it off. The device will automatically power off after 3 minutes of inactivity.

4.2. Selecting Measurement Units

Press the **MODE** button repeatedly to cycle through the available measurement units: degrees (°), percentage (%), mm/m, and in/ft. The selected unit will be displayed on the LCD.

4.3. Absolute and Relative Measurement Modes

The digital level box supports both absolute and relative angle measurements.

- **Absolute Measurement Mode:** This mode measures the angle relative to a true horizontal plane (gravity). After calibration, the device will display the absolute angle.
- **Relative Measurement Mode:** To measure the angle between two surfaces, place the device on the first surface and press the **ON/OFF & REF** button. The display will show 0.00°. Then, move the device to the second surface. The displayed value will be the relative angle between the two surfaces.



Relative Measuring Mode

Absolute Mode

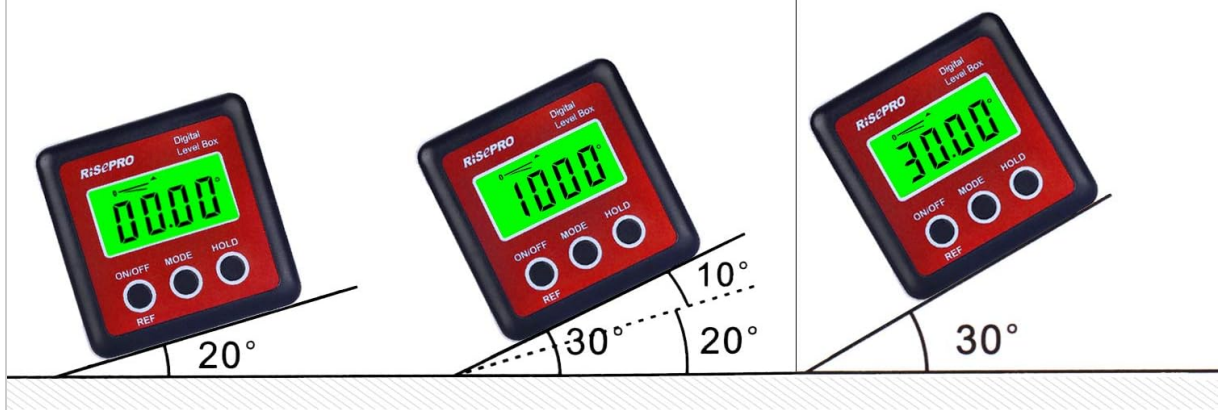


Figure 4.1: Illustration of the difference between Relative Measuring Mode and Absolute Mode. In Relative Mode, the device can be zeroed on any surface to measure the angle difference from that point. In Absolute Mode, it measures the angle relative to a true horizontal plane.

4.4. Hold Function

Press the **HOLD** button to freeze the current measurement on the display. This is useful when taking measurements in hard-to-reach areas where direct viewing of the display is difficult. Press the **HOLD** button again to release the function and resume live measurement.

4.5. Magnetic Base Usage

The powerful magnets integrated into the base allow the device to be securely attached to ferrous metal surfaces, providing hands-free operation and stable measurements.

Magnetic Base

For firmly attaching to metal surfaces



Figure 4.2: The digital level box demonstrating its magnetic base, firmly attached to an inclined metal surface. The display shows an angle of 26.85 degrees, highlighting its utility for hands-free measurement on metallic workpieces.

5. APPLICATIONS

The RISEPRO Digital Level Box is suitable for a wide range of applications, including but not limited to:

- Setting blade angles for circular saws and miter saws.
- Adjusting tool settings on lathes.
- Measuring drainage angles and runoff slopes.
- Aligning grader and tractor work.
- Checking table settings for drill presses, jointers, band saws, and saw tables.
- General woodworking, construction, and masonry tasks.
- Automotive repair and maintenance.
- Machine manufacturing and instrument detection.
- Medical industry applications requiring precise angular positioning.

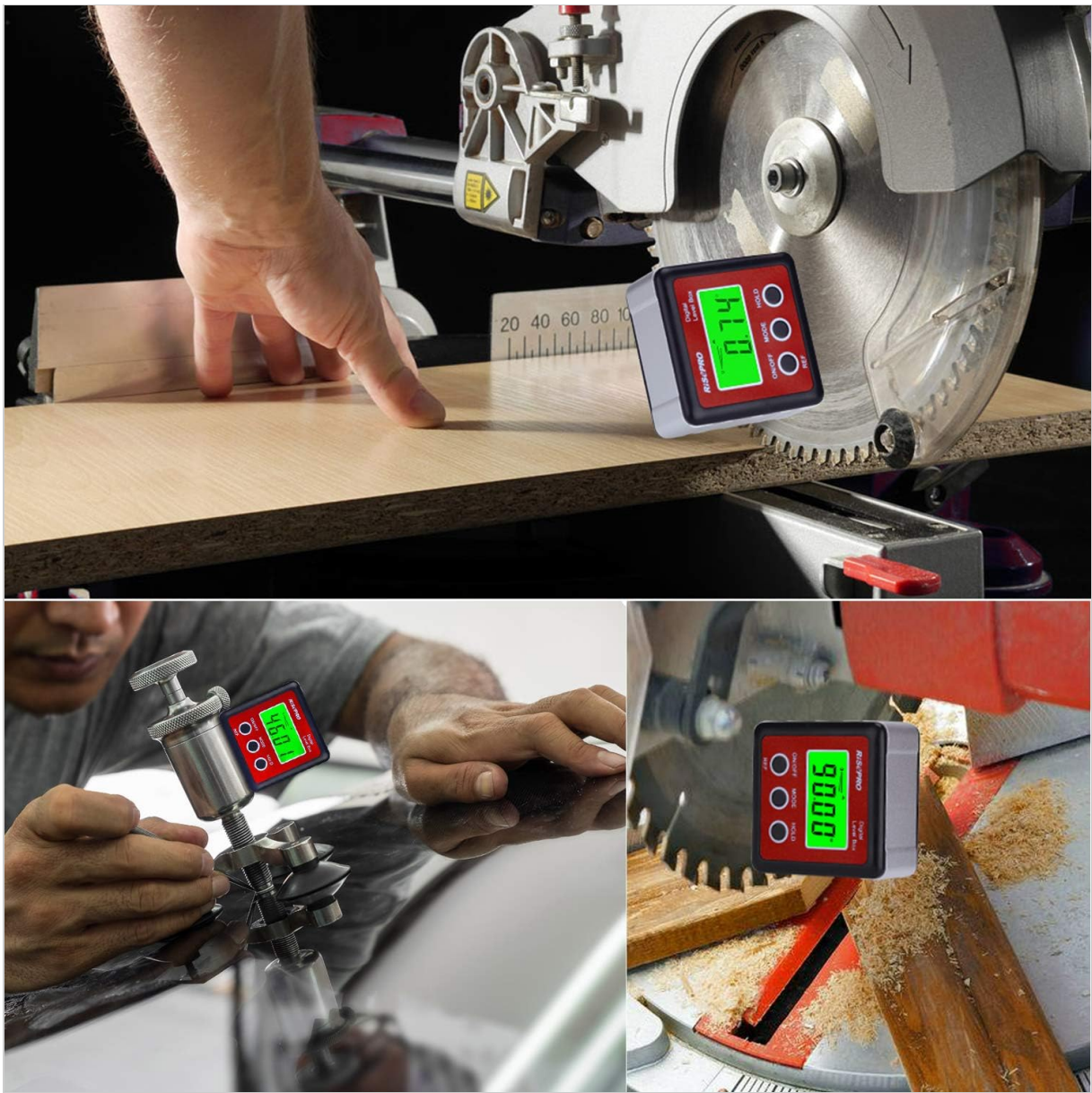


Figure 5.1: Examples of the digital level box in practical use, including setting the blade angle of a miter saw for woodworking, adjusting a component on a lathe, and measuring angles during automotive repair.



Figure 5.2: A visual representation of the diverse fields where the digital level box can be applied, such as timber processing, machine manufacturing, precise instrument detection, medical equipment alignment, house construction, and vehicle maintenance.

6. MAINTENANCE

Proper care and maintenance will ensure the longevity and accuracy of your digital level box.

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure the LCD screen is kept clean for clear readability.
- **Storage:** Store the device in its included carrying pouch in a dry, dust-free environment when not in use. Avoid extreme temperatures and direct sunlight.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display to ensure continuous accurate operation. Remove batteries if the device will not be used for an extended period to prevent leakage.
- **Calibration:** Perform calibration periodically, especially if you suspect accuracy issues or after significant temperature changes.

7. TROUBLESHOOTING

If you encounter issues with your RISEPRO Digital Level Box, refer to the following common problems and solutions:

- **Device does not power on:**

- Check if the batteries are correctly installed with the proper polarity.
- Replace the batteries with new AAA alkaline batteries.

- **Inaccurate readings:**

- Perform a full calibration as described in Section 3.2.
- Ensure the measurement surface is clean and free of debris.
- Verify that the device is stable and not moving during measurement.

- **Display is dim or flickering:**

- This usually indicates low battery power. Replace the batteries.

- **Buttons are unresponsive:**

- Ensure the device is not in HOLD mode. Press the HOLD button to release.
- Try turning the device off and on again.

8. SPECIFICATIONS

Measurement Range	4 x 90° (0° ~ 360°)
Resolution	0.01°
Repeatability	± 0.1°
Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Power Supply	2 x AAA Alkaline Batteries
Dimensions (L x W x D)	Approx. 58 x 58 x 32 mm
Weight (without batteries)	Approx. 71 g
Automatic Shut-off	After 3 minutes of inactivity
Model Number	82202BB

9. PACKAGE CONTENTS

The package includes the following items:

- 1 x RISEPRO Digital Level Box Angle Gauge
- 1 x User Manual
- 1 x Carrying Pouch
- 2 x AAA Alkaline Batteries

10. WARRANTY AND SUPPORT

Information regarding specific warranty terms and customer support contact details is not available in this manual. Please refer to the product packaging or the retailer's website for warranty information and support contacts.

For spare parts availability, information is currently unavailable.