



# MODEL H8131 DIGITAL LEVEL BOX INSTRUCTIONS

## Specifications

Angle Range..... 180° to -180°  
Resolution..... 0.1°  
Repeatability..... ± 0.1°  
Size ..... 2" x 2" x 1.3"

## Basic Operations

**ON/OFF:** Turns the digital display **ON** and **OFF**. The digital display will automatically shut off in 5 minutes if it is not manually turned **OFF**.

**HOLD:** Freezes the digital display.

**ABS/ZERO:** When pushed quickly, toggles the digital display back-and-forth between the "ABS" (absolute) mode and a relative display, which zeros the current position of the box.

When pushed and held down for five seconds in the "ABS" mode, the ABS/ZERO button calibrates the accuracy of the digital level.

**DIGITAL ARROWS:** The arrows on the digital display indicate which direction the right side of the box needs to be elevated to reach level.

## Zeroing Relative Angles

Being able to zero the box is useful when setting up machinery, because you can use any angle as a starting point to indicate how much you've moved a component during adjustments without adding/subtracting angles from each other.

**Example**—If you need to drill holes at 15° with your drill press: 1) Stick the magnetic bottom of the box to a piece of round stock in the drill chuck. 2) Rotate the angle of the headstock until the digital display reads 90°. 3) Push the ABS/ZERO button to zero the digital display. 4) Now rotate the headstock until the digital display reads 15°.

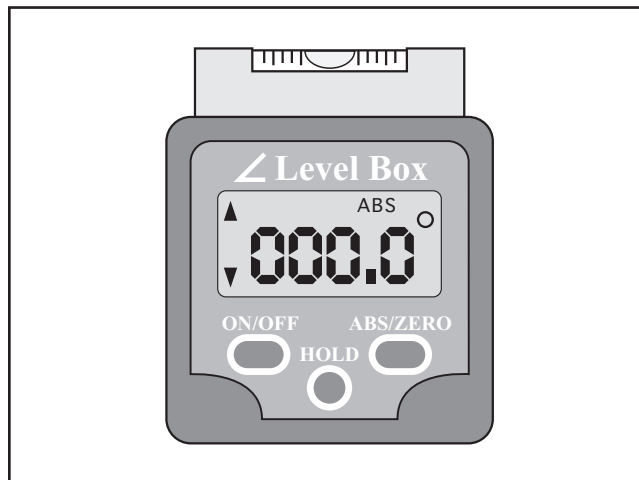


Figure 1. Model H8131.

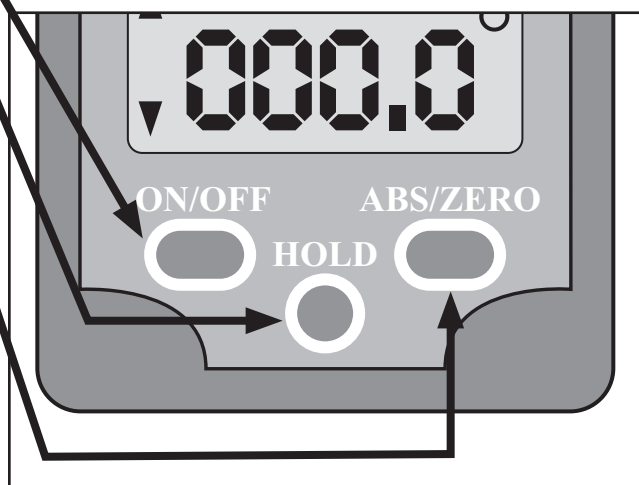


Figure 2. Buttons.

**Note:** Complete calibration instructions are on the back of this sheet. To ensure accurate results from your level box, calibrate your level box before putting it into regular operation.

If you need help with this item, call our Tech Support at: (570) 546-9663.

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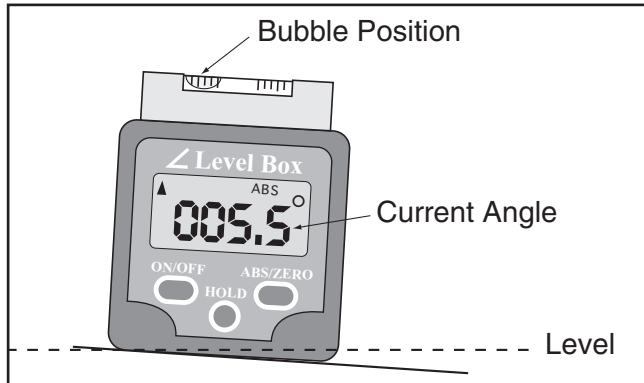
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## Calibration

The digital level box can be easily calibrated by leveling the box with the liquid vial, then pressing and holding the ABS/ZERO button while the display is in the "ABS" mode.

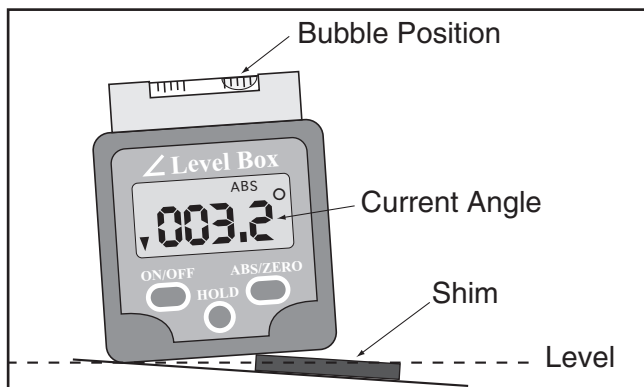
### To calibrate the level box:

1. Place the level box on a flat surface and see which way the surface slopes by looking at the bubble position (see **Figure 3**).



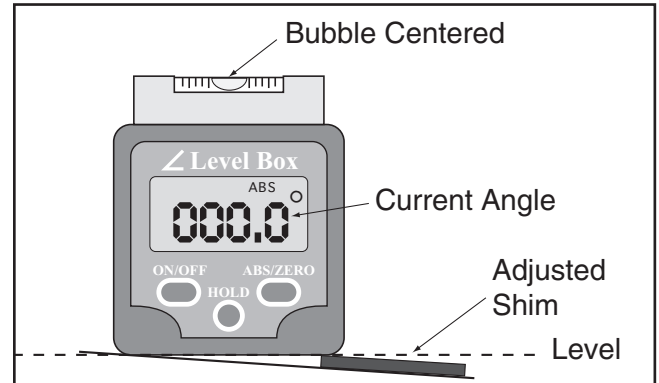
**Figure 3.** Determining which way the calibration surface slopes.

2. Place a thin item (wood, paper, metal, etc.) between the low side of the box and the surface to act as a shim (**Figure 4**).



**Figure 4.** Shimming the low side of the box.

3. Adjust the shim until the air bubble is centered in the liquid vial (**Figure 5**). If you cannot get the bubble centered, use a different shim thickness.



**Figure 5.** Bubble is centered, indicating that the box is level.

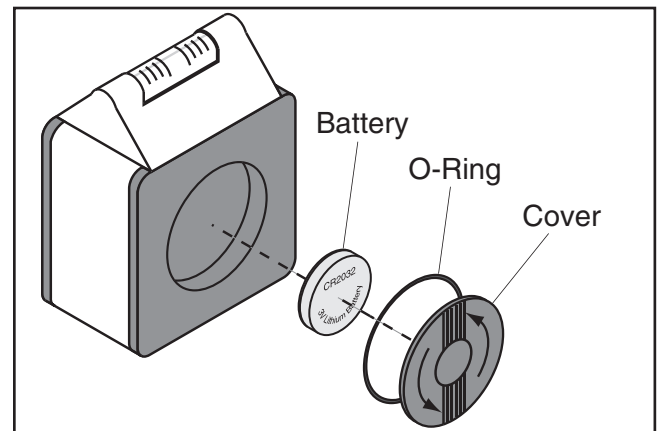
4. Carefully push and hold the ABS/ZERO button for five seconds until the digital display shows all zeros. (Be careful not to move the level box when pushing the button.)
5. Repeat **Step 3** to verify that the digital display is accurate when the bubble is centered.

## Battery Change

**Battery Type Required**..... **CR2032**

To change the battery, rotate the round cover on the back of the digital level box counterclockwise. After twisting the cover, lightly tap the back of the box on your hand to get the cover off. Pry the battery out and replace it, as shown in **Figure 6**.

**Note:** Removing the battery resets the calibration of the digital display.



**Figure 6.** Battery replacement.

