



6" Magnetic Digital Level
Model No. 40-6060



Instruction Manual

Congratulations on your choice of this 6" Magnetic Digital Level. We suggest you read this instruction manual thoroughly before using the instrument. Save this instruction manual for future use.



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1. Kit Contents

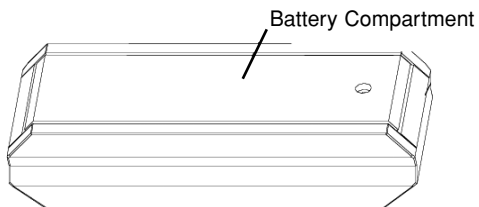
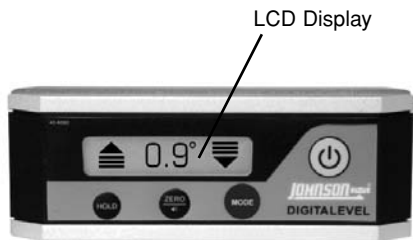
<u>Description</u>	<u>Qty.</u>
“AAA” Alkaline Batteries	3
Soft-Sided Pouch	1

2. Features and Functions

- Angle inclination in 5 construction languages - units of measure (degrees, percent, mm/m, in/ft in decimal, in/ft in fractional)
- Small and handy
- Working range of angle measurement 4 x 90°
- 0° and 90° - position of inclination is confirmed by a signal tone
- Automatic digit inversion for overhead measurements
- Hold-function to freeze measurement
- Magnetic base
- 1/4" - 20 thread for connection to tripod

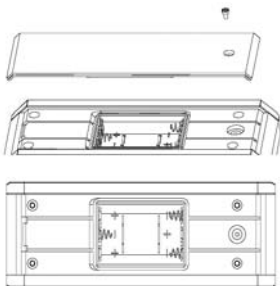


3. Location of Part/Components



4. Operating Instructions

IMPORTANT: It is the responsibility of the user to verify the calibration of the instrument before each use.



Battery Installation

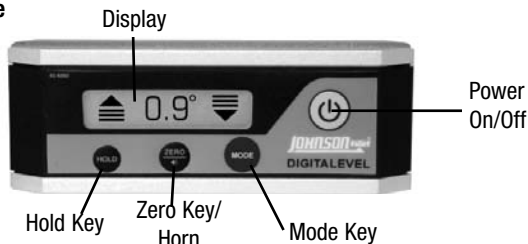
1. Make sure the instrument is turned off.
2. Turn the battery compartment cover screw counter-clockwise to remove the cover. Remove the old batteries, and install the new batteries.
3. Turn on the level to see if all functions are correct.

Note:

1. Be sure to match up polarities when replacing the batteries.
2. Always remove the batteries before storing the instrument.

5. Using the Product

Key Guide



There are four key-presses in this instrument, they are (from right to left): power on/off key, mode key, zero calibration/horn key and the hold key.

Power On/Off Key

Power on and off the instrument by pressing this key.



Mode Key

Push the MODE key to switch from one dimension to another. This controls which dimension your electronic module will measure in. Your level has the capability to measure in Degrees, Percentage of slope, Millimeters per Meter, Inches per Foot (Slope, Pitch) in decimal form and Inches per Foot in fractions of an inch. A symbol on the upper right of the screen will explain which MODE you are currently in.



Zero Calibration/Horn Key

Periodic checking should be conducted to this instrument. If it is out of alignment, recalibration will be necessary. This key is used for calibration to absolute horizontal and absolute vertical of the instrument. See the "Self-Check and Calibration" in section 6.





Horn Function

Push the Zero/Horn key once to turn on the horn (symbol should be displayed). Push again to turn off. Horn will start a slow beep at 10° or 17.5% and beep faster the closer you get to 0° or 0%. Once the instrument hits 0° or 0%, you will get a steady tone.



Hold Key

Set the level in place and press this key to enter into the hold status, record the current angle of the flashing display, the displayed value will not change. Press this key again to release the hold and the data will vary according to slope.



Automatic Shut-off

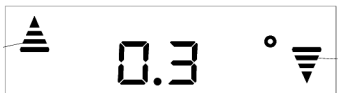
This instrument will shut-off automatically if no operation is received within six minutes.

Low-power Indication

When voltage is low, battery symbol will flash in the left LCD as shown below. When this is flashing, batteries need to be replaced.



The figure below shows the left side of the digital level needs to be moved up to achieve level.



Shows that the digital level is level.



Shows the measurement of the slope.





6. Self-Check and Calibration

IMPORTANT: It is the responsibility of the user to verify the calibration of the instrument before each use.

Horizontal Accuracy Check

1. Turn on the digital level and put it on a smooth and level surface as shown in figure 1. Wait 10 second until the display digits are stable and record the degree value.
2. Rotate the digital level 180° in the same plane, see figure 2, wait 10 seconds until the display data is stable then record the second degree value.
3. Turn over the digital level in the same plane, figure 3, wait 10 seconds and record the third degree value when it is stable.
4. Rotate the digital level 180° in the same plane, figure 4, wait 10 seconds and write down the fourth degree value when stable.
5. Of the four degree readings, if any two of the values have a difference over 0.1°, the unit must have a new Zero plumb recalibration.



Figure 1



Figure 3

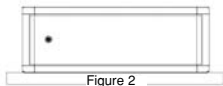


Figure 2



Figure 4





Vertical Accuracy Check

1. Turn on the digital level and put it on a smooth and vertical plane as shown in figure 5. Wait 10 seconds until the data reading is stable and then record the angle degree.
2. Rotate the digital level 180° on the same plane, see figure 6, wait 10 seconds until the display data is stable then record the second degree value.
3. Turn over the digital level in the same plane, figure 7, wait 10 seconds and record the third degree value when it is stable.
4. Rotate the digital level 180° in the same plane, figure 8, wait 10 seconds and write down the fourth degree value when stable.
5. Of the four degree readings, if any two of the values have a difference over 0.1°, the unit must have a new Zero plumb recalibration.

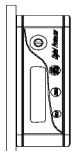


Figure 5

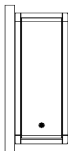


Figure 6

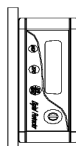


Figure 7

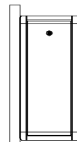
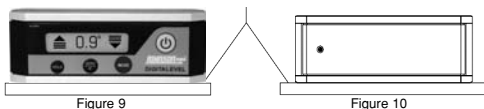


Figure 8

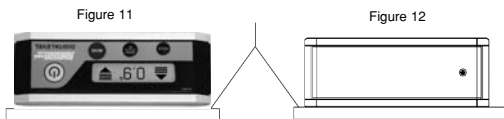
Horizontal Calibration

1. Turn on the instrument and put it on a smooth and horizontal surface, figure 9. Press and hold in for 5 seconds the Zero Calibration key, -0- will show on LCD display. Wait ten seconds then press the Zero key again, the LCD will show -1-.
2. Rotate the digital level 180° on the same plane, figure 10, wait 10 seconds and press the Zero key until the LCD displays -2-.





3. Turn the unit over, still on the same plane making it upside down, as in figure 11, then press the Zero key until the LCD displays -0-.



4. After 10 seconds, press the Zero key again until the LCD displays -1-.
5. Turn the digital level 180° on the same plane, figure 12, wait 10 seconds, and press the Zero key again until the LCD displays -2-.
6. The horizontal calibration is complete.



Vertical Calibration

1. Turn on the instrument and put it on a smooth and vertical surface, figure 13. The two side surfaces of the benchmark should be as parallel as possible, such as glass door or window. Press and hold in for 5 seconds the Zero Calibration key, -0- will show on LCD display. Wait ten seconds then press the Zero key again, the LCD will show -1-.
2. Rotate the digital level to the other vertical surface, figure 14, wait 10 seconds and press the Zero key until the LCD displays -2-.



Figure 13



Figure 14



Figure 15



Figure 16

3. Turn the unit over, still on the same plane making it upside down, as in figure 16, then press the Zero key until the LCD displays -0-.
4. After 10 seconds, press the Zero key again until the LCD displays -1-.
5. Turn the digital level back to the first vertical surface on the same benchmark plane, figure 15, wait 10 seconds, and press the Zero key again until the LCD displays -2-.
6. The vertical calibration is complete.





7. Technical Specifications

Accuracy	$\pm 0.1^\circ$ for 0° and 90° , and $\pm 2^\circ$ for 1° and 89°
Working Range	0° to 90°
Power Supply	3 "AAA" alkaline batteries
Battery Life	Approx. battery life 100 hours continuous use
Dimensions	6.14" x 2.2" x 1.22" (156 x 56 x 31mm)
Weight	0.66 lbs. (0.3 Kg)
Working Temperature	14°F to 113°F (-10°C to $+45^\circ\text{C}$)





8. Care and Handling

- Avoid exposing unit to shock vibrations and extreme temperatures.
- Before moving or transporting the unit, make sure that the unit is turned off.
- Remove the batteries when storing the unit for an extended time (more than three months) to avoid damage to the unit should the batteries deteriorate.
- Always store the unit in its case when not in use.
- Avoid getting the unit wet.
- Keep the level dry and clean. Remove any moisture or dirt with a soft, dry cloth.
- Do not use harsh chemicals, strong detergents or cleaning solvents to clean the level.





9. Product Warranty

Johnson Level & Tool offers a one year limited warranty on each its products. You can obtain a copy of the limited warranty for a Johnson Level & Tool product by contacting Johnson Level & Tool's Customer Service Department as provided below or by visiting us online at www.johnsonlevel.com. The limited warranty for each product contains various limitations and exclusions.

NOTE: The user is responsible for the proper use and care of the product. It is the responsibility of the user to verify the calibration of the instrument before each use.

For further assistance, or if you experience problems with this product that are not addressed in this instruction manual, please contact our Customer Service Dept.

In the U.S., contact Johnson Level & Tool's Customer Service Department at 888-9-LEVELS.

In Canada, contact Johnson Level & Tool's Customer Service Department at 800-346-6682.





