



Magnetic Digital Level
Model No. 40-6060



Instruction Manual

Congratulations on your choice of this 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

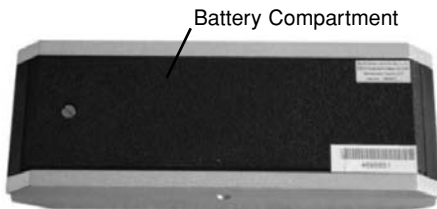
Description for Model 40-6060	Qty.
Magnetic Digital Level	1
“AAA” Alkaline Batteries	3
Soft-Sided Pouch	1
Instruction Manual	1

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)
- Working range of angle measurement 0° to 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

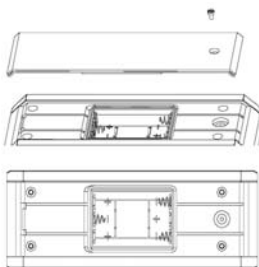


4. Operating Instructions

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

Battery Installation

1. Make sure the digital level 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.



Note:

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

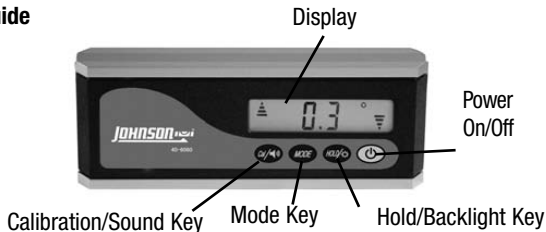
Display after Installing Batteries:

1. After installing new batteries, the LCD will display “good” and then show “-0-”.
2. Calibrate the instrument as described in self-check & fine calibration.



5. Using the Product

Key Guide



There are four key pads on this instrument, they are (from left to right): calibration/sound key, mode key, hold/backlight key and the power on/off key.

Calibration/Sound Key

A short press will activate the sound function. A long press (more than 2 seconds) will activate the calibration function. Periodic checking should be conducted to this instrument. If it is out of alignment, recalibration will be necessary. This key pad is used for horizontal and vertical calibration of the instrument. See the “Self-Check and Calibration” in section 6.



Push the Cal/Sound a short press to turn on the horn (symbol will be displayed). Push again to turn off. Horn will start a slow beep at 10° and 80° and beep faster the closer you get to 0° or 90°. Once the instrument hits 0° or 90°, you will get a steady tone.



Mode Key

Push the MODE key to switch from one construction language to another. This controls which construction language 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 display which MODE you are currently in.



Hold/Backlight Key

Set the level in place and press this key a short press 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. A long press (more than 2 seconds) will turn on the LCD backlight.



Power On/Off Key

Power on and off the instrument by pressing this key.



Automatic Shut-off

This instrument will shut-off automatically if no operation is received within 20 minutes.

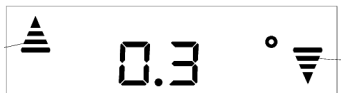


Low-power Indication

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



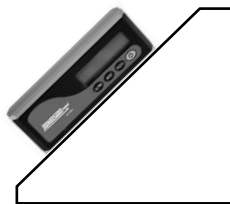
The figure below shows the left side of the digital level needs to be moved up to achieve level.



Shows that the digital level is level.



Shows the measurement of the slope.





6. Self-Check & Fine 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 seconds until the display digits are stable and record the degree reading.
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 reading.
3. Turn over the digital level in the same plane, figure 3, wait 10 seconds and record the third degree reading 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 reading when stable.
5. Of the four degree readings, if any two of the values have a difference over 0.2°, the unit must be recalibrated.



Figure 1



Figure 3

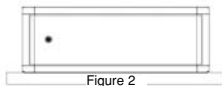


Figure 2



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 0.2°, the unit must be recalibrated.



Figure 5

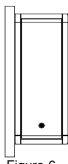


Figure 6



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 2 seconds the Calibration key, -0- will show on LCD display. Wait 10 seconds then press the Calibration 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 Cal key until the LCD displays -2-.



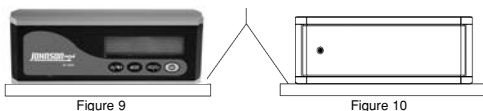


Figure 9

Figure 10

3. The horizontal calibration is complete.

7. Technical Specifications

Accuracy	$\pm 0.1^\circ$ for 0° and 90° , and $\pm 0.2^\circ$ for 1° to 89°
Working Range	0° to 90°
Resolution	$\pm 0.1^\circ$, 0.1%, 1/8", 0.02", 1.7mm
Power Supply	3 "AAA" alkaline batteries
Battery Life	Approx. battery life 100 hours continuous use
Dimensions	6.45" x 2.3" x 1.25" (164 x 60 x 32mm)
Weight	0.66 lbs. (0.3 Kg)
Working Temperature	14°F to 113°F (-10°C to $+45^\circ\text{C}$)
Center Screw Thread	1/4" – 20



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 three year limited warranty on each of 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 our web site at www.johnsonlevel.com. The limited warranty for each product contains various limitations and exclusions.

Do not return this product to the store/retailer or place of purchase. Non-warranty repairs and course calibration must be done by an authorized Johnson® service center or Johnson Level & Tool's limited warranty, if applicable, will be void and there will be NO WARRANTY. Contact one of our service centers for all non-warranty repairs.

A list of service centers can be found on our web site at www.johnsonlevel.com or by calling our Customer Service Department. Contact our Customer Service Department for Return Material Authorization (RMA) for warranty repairs (manufacturing defects only). Proof of purchase is required.

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.





10. Trouble Shooting

- If the unit does not turn on, clean the battery terminals, check the battery polarity or install new alkaline batteries.
- If the unit will not turn off, hold the power button in for several seconds until the unit turns off.
- If the unit is out of calibration or the numbers are inverted, confirm that the unit is not in “hold” mode when the arrows are blinking on each side of the digital readout. Push the “hold” button to disengage the “hold” function before attempting calibration. Follow the calibration procedure in the user manual (section 6).
- If the unit will not calibrate, contact our Customer Service Department.
- If the unit turns off after a short time, install new alkaline batteries and clean the battery terminals.



