EN: DIGIVAGA – USER MANUAL

Laser Angle Meter

PRODUCT SPECIFICATIONS

Model Number: JC100
Dimensions: 61 × 31 × 61 mm (Length × Width × Height)
Battery: 3.7 V, 400 mAh, 1.48 Wh
Input Rating: DC 5 V ⎓ 1 A (USB)
Maximum Output Power: < 1 mW
Emission Wavelength: 620–690 nm
Beam Divergence: 0.16 × 0.6 mrad
Pulse Duration: 1×10^{-9} s
Measurement Range: 4 × 90° (360° full range)
Resolution: 0.05°
Accuracy: ±0.2°
Ingress Protection Rating: IP54
Operating Temperature: −10 °C to 50 °C
Executed Standard: JB/T 11104-2011

PRODUCT OVERVIEW

The Digital Dipmeter is a high-precision, portable measuring instrument designed for accurately measuring the inclination angle of objects. Its compact size and lightweight construction make it suitable for a wide range of applications, including industrial manufacturing, construction, scientific research, and personal use.

The device features convenient Type-C charging and a clear LCD display for intuitive reading of measurement results. With a wide measurement range and high resolution, it is an ideal choice for users who require accurate and reliable angle measurements.

LASER SAFETY AND GENERAL WARNINGS

This device uses a Class 2 laser and is safe for normal operation when used correctly; however, direct exposure of the eyes to the laser beam must be avoided. Never stare directly into the laser aperture, aim the laser at yourself or others, or view the beam through optical instruments such as binoculars or magnifying lenses, as this may cause eye injury.

Do not direct the laser toward reflective surfaces such as mirrors, glass, or polished metal, as reflected beams may be hazardous. Use the device only for its intended purpose of distance and angle measurement. Do not attempt to disassemble, modify, or repair the device, as this may result in unsafe laser exposure or malfunction.

Keep the product out of reach of children and ensure it is operated only by responsible users. Avoid use in environments outside the specified operating conditions or where excessive moisture, dust, or

mechanical impact may compromise safe operation. Always switch off the device when not in use and follow all applicable laser safety regulations.

PRODUCT FEATURES

- HOLD Function: Retains the current measurement on the display
- 0° Calibration: Allows zero-point calibration
- Multiple Measurement Modes: Supports various measurement modes
- LCD Display: Clear screen for easy reading of results
- Ergonomic Design: Comfortable and convenient for handling
- Inverted Display: Automatically rotates the display when the device is inverted
- Built-in Strong Magnets: Securely attaches to metal surfaces for stable measurements

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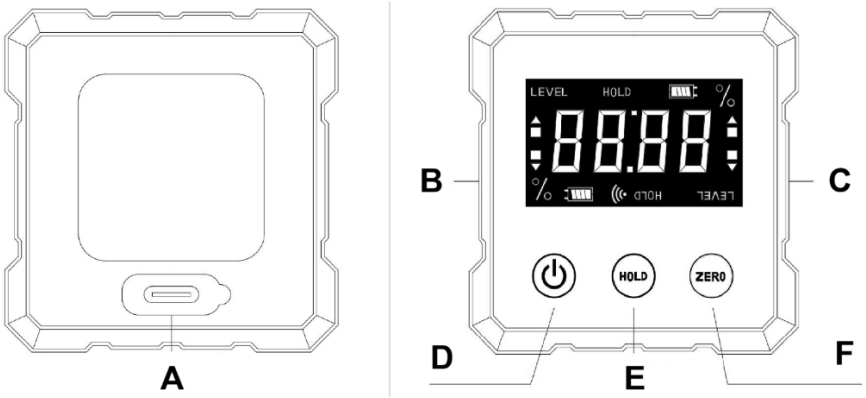
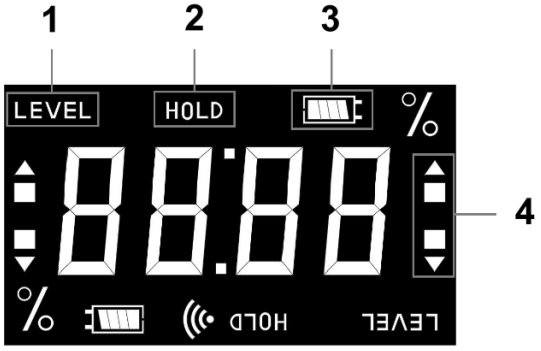
FUNCTION DESCRIPTION



A. Type-C charging port
B. Single-line laser (left)
C. Single-line laser (right)
D. Power / Laser button
E. Data Hold / Mode button
F. Relative / Absolute Measurement button

DISPLAY OVERVIEW



1. Absolute Measurement indicator
2. Data Hold indicator
3. Battery level indicator
4. Tilt direction indicator

OPERATION INSTRUCTIONS

Power On / Off

- To power on, place the inclinometer upright and briefly press the power button on the left side.
- To power off, press and hold the power button for approximately 3 seconds.
- The device will automatically power off after 3 minutes of inactivity.

Measurement

- Place the inclinometer on the surface to be measured, ensuring it is stable and free from movement.
- After powering on, the current inclination angle is displayed in degrees (°) by default.
- For changing measurement direction or calibration settings, refer to the relevant function instructions below.
- If the device is tilted excessively in a non-measuring direction, an “err0” error message will appear. Return the device to an upright position to resume normal operation.

Charging

- Connect the inclinometer to a power adapter or computer USB port using the Type-C charging cable.
- A battery icon with four level indicators is shown at the top of the screen. When the indicators are low, or the screen briefly lights up and turns off, the battery is low and charging is required.

INCLINATION INDICATION

- If an upward-pointing triangle (▲) appears on the right side and a downward-pointing triangle (▼) on the left side, the left end of the inclinometer is within 10° below horizontal. Raise the left end or lower the right end to approach level.
- If a downward-pointing triangle (▼) appears on the right side and an upward-pointing triangle (▲) on the left side, the right end of the inclinometer is within 10° below horizontal. Raise the right end or lower the left end to approach level.
- If a square indicator (■) appears next to the triangle symbol, the deviation from horizontal exceeds 10°.

MEASUREMENT MODE SWITCHING

- Absolute Measurement Mode: Measures the angle between the measured surface and the horizontal plane (absolute 0°).
- Relative Measurement Mode: Measures the angle between two arbitrary surfaces.

- Angle Measurement Mode: Displays inclination in degrees (°).
- Inclination Percentage Mode: Displays inclination as a percentage, with 45° as the maximum value, indicated by the [%] icon.
- Upon powering on, the device enters Absolute Measurement Mode, indicated by the [LEVEL] icon.
- Briefly press the ZERO button to switch to Relative Measurement Mode. The [LEVEL] icon disappears. Keep the device stationary until the display returns to zero; this surface becomes the reference plane.
- Briefly press the ZERO button again to return to Absolute Measurement Mode.
- In Angle Measurement Mode (with [HOLD] inactive), press and hold the middle button to enter Inclination Percentage Mode.
- Press and hold the middle button again to return to Angle Measurement Mode.
- Absolute/Relative and Angle/Inclination modes can be switched independently and used interchangeably.

MEASUREMENT VALUE HOLD

- Briefly press the HOLD button to freeze the displayed value. The [HOLD] icon will appear.
- Press the HOLD button again to release the hold and return to real-time measurement.

LASER OPERATION

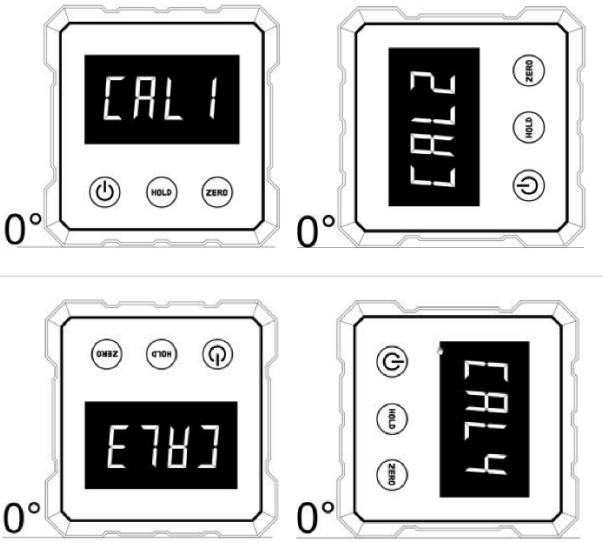
- Briefly press the power button to turn on the left laser.
- Press again to switch from the left laser to the right laser.
- Press again to turn on both lasers.
- Press once more to turn off both lasers.

CONSUMER CALIBRATION

Calibration can be performed at four positions. Follow the steps below carefully.

- For horizontal calibration (0° or 180°), power off the device and place it on a smooth, hard, level surface.
- While powered off, press and hold the MODE button, then briefly press the power button. Keep the device stationary.

- The display will show “CAL1”. Briefly press MODE. “CAL1” will flash, then “CAL2” will appear, indicating completion of horizontal calibration.
- Rotate the device 90° counterclockwise, keep it stationary, and briefly press MODE. “CAL2” will flash, then “CAL3” will appear.
- Rotate another 90° counterclockwise, keep stationary, and press MODE. “CAL3” will flash, then “CAL4” will appear.
- Rotate another 90° counterclockwise and press MODE again. “CAL4” will flash, and the device will automatically return to measurement mode.
- To exit calibration at any time, briefly press the power button.



NOTES

- Calibration must be performed on a flat, hard surface with an absolute inclination not exceeding 5°.
- If the inclination exceeds 5° during calibration, the screen will not respond and calibration cannot be completed.
- Keep the device completely stationary during calibration.
- The inclinometer is factory-calibrated. Once consumer calibration is completed, the new settings are permanently stored and cannot be reset to factory calibration. Perform calibration with caution.

INSTRUCTIONS FOR RECYCLING AND DISPOSAL:

This label means that the product cannot be disposed of as other household waste throughout the EU. To prevent potential damage tothe environment or human health from uncontrolled waste disposal. Recycle responsibly to promote the sustainable use of material resources. If youwant to return a used device, use the drop-off and collection system, or contact the retailer from whom you bought the product. The retailer can accept the product for environmentally safe recycling.

A declaration by the manufacturer that the product complies with the requirements of the applicable EU Directives.