Digital Angle Meter II Dust/Waterproof

Instruction Manual

Item Code 76825/Item Code 76826 (with Magnet)

■Part Names

HOLD・ BEEP button

LIGHT ˚ ・mm/m・% button

76825
Digital Angle Meter II

0.00˚

HOLD・BEEP

LIGHT

ON・ZERO・OFF

˚ ・ mm/m ・ %

ON・ZERO・ OFF button — Liquid crystal display

HOLD icon   REF icon   Battery consumption icon

BEEP icon

*1 Measured value display

88.88

*2 Tilt display

Measurement unit icon

$\frac{mm}{m}$ 0 % : Angle

$\frac{mm}{m}$ 0 % : Gradient

$\frac{mm}{m}$ 0 % : Rise per 1 m

Measurement reference plane
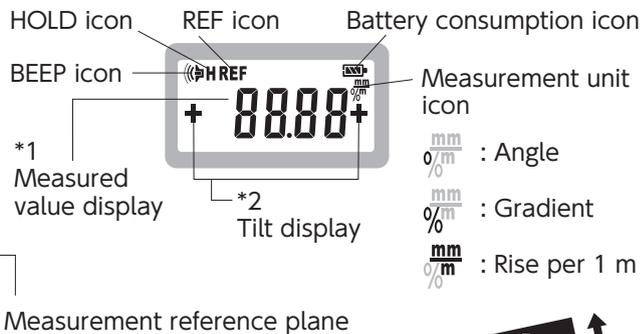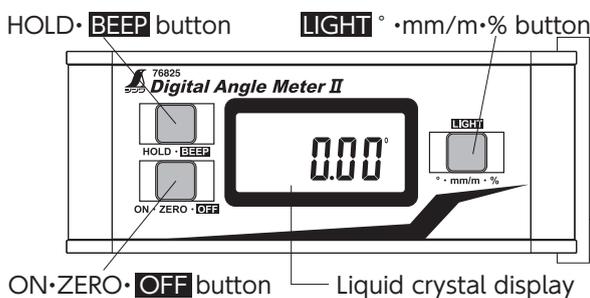
*1 When the device is turned upside down, the measured value display will also rotate so you can always read the numerical value displayed.

*2 When the right of the device (as seen from the front) is on an increasing gradient, a + (plus) will be displayed, and when it is on a decreasing gradient, a − (minus) will be displayed.
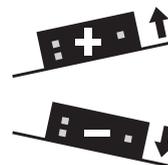
■Calibration

*This device is calibrated at the time of shipment. Should it receive a strong impact such as from being dropped, or if it is affected by a magnetic field, calibrate the device as follows.

1. Place the device on a surface as level as possible and turn on the power.

76825
Digital Angle Meter II
HOLD・BEEP
+ 0.05˚
LIGHT
ON・ZERO・OFF
˚ ・ mm/m ・ %

A surface as level as possible
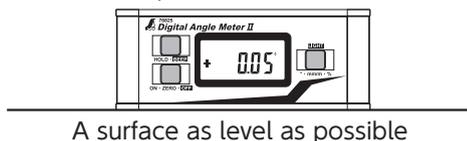
2. Simultaneously press the HOLD・ BEEP button and the ON・ZERO・ OFF button to display "- 1 -".

Press simultaneously

76825
Digital Angle Meter II
HOLD・BEEP
- 1 -
LIGHT
ON・ZERO・OFF
˚ ・ mm/m ・ %
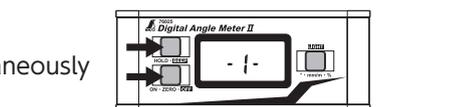
3. Press the ON・ZERO・ OFF button once and "- 1 -" will blink and then change to "- 2 -".

76825
Digital Angle Meter II
HOLD・BEEP
LIGHT
ON・ZERO・OFF

▼

76825
Digital Angle Meter II
HOLD・BEEP
- 2 -
LIGHT
ON・ZERO・OFF
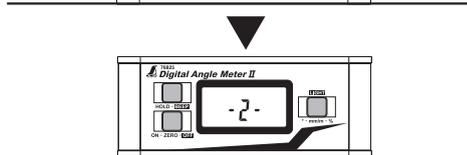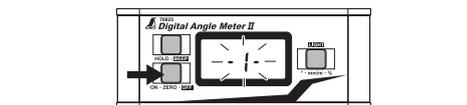
4. Turn it around on the same surface and press the ON・ZERO・ OFF button. When "- 2 -" blinks and changes to the angle display, calibration is complete.

Turn around
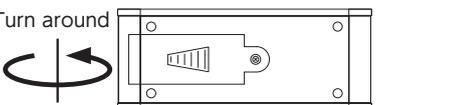
■Replacing the Batteries

If the battery level is low, the battery consumption icon will appear on the LCD screen and start blinking. Replace with new batteries.
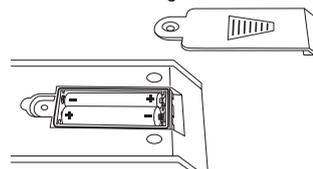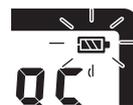
1. Unscrew the battery cover on the back and remove the battery cover.

2. Replace the batteries with new batteries. *Pay attention to the batteries' orientation.

3. Replace the battery cover and tighten the screws.

■Specifications

Measuring Range	90°× 4 directions (360°)
Minimum Indication	0.05°, 0.1%, 1mm/m
Precision	0°, 90°: ±0.05° Other Degrees: ±0.15°
Use Temperature	− 10 – 50℃
Power Source	2x AAA Alkaline batteries (Batteries included are for trial use only and may not last as long)
Auto Power Off	5 minutes
Material	ABS resin, aluminum
Accessory	Holder case
Dust/water proof	IP65 *3
Body Size	151 × 60 × 31 mm
Weight	280 g (including battery)

*3 Dustproof performance: Dust will not penetrate.
Waterproof performance: It will not be harmfully affected by water jets from any direction.

■Function Description

ON·ZERO· OFF button   When the measurement value is not displayed, pressing this button will turn the power ON. Pressing this button when a measurement value is displayed will turn on the REF icon and set the device to zero. You can release the value on the display by pressing the button again. Pressing and holding when a measurement value is displayed will turn the power OFF.

HOLD· BEEP button   Pressing this button when a measurement value is displayed will turn on the HOLD icon and the numerical value will remain fixed. Pressing it again releases the hold and the HOLD icon will disappear. Pressing and holding this button will turn on the BEEP icon, and a BEEP will sound when the device is horizontal/vertical. The alarm sound will start from ±1.4°, and the interval between BEEP sounds becomes shorter as the device gets closer to horizontal/vertical, and then remain one long tone when it is horizontal/vertical. (The alarm changes in four stages: Beep! Beep! Beep! → Bip! Bip! Bip! → BeBeBeBeBeBeBe → Beeeeeeeeeeeeeee.) Press and hold the button again to cancel the alarm.

LIGHT ° ·mm/m·% button   Pressing this button when a measurement value is displayed allows you to change the measurement unit. (The units repeat in the order of → mm/m→% → °). Pressing and holding will turn on the backlight. (It will turn off when there is no operation for about 27 seconds, but can be turned on again by pressing any button.) Press and hold again to turn off the backlight.

■Normal measurement

It displays the "angle" from the horizontal plane. You can also switch the measurement unit to display "rise per meter" and "gradient."

Angle (°)

19.8°

Horizontal plane

Rise per 1 m (mm/m)

360 mm

1 m   Horizontal plane

Gradient (%)

36.0

100   Horizontal plane
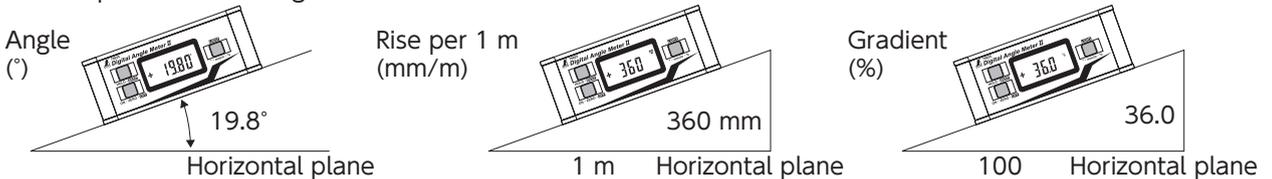
■Relative measurement

You can set a reference point (0.00 °) and any angle can become the reference point. (The following explanation is for angle, but the process is the same for rise per meter and gradient.)

For example, if you press the ON·ZERO· OFF button at 25 °, the display will read 0.00 °and the REF icon will turn on. This is useful to compare how much of a difference there is between 25 °and another angle. When the ON·ZERO· OFF button is pressed again, the display changes to show the angle from the horizontal plane (usual measurement).

25°   Horizontal plane   →   26°   Horizontal plane
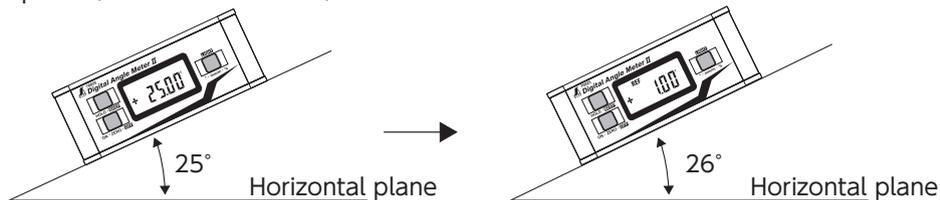
■Checking Accuracy

Turn the device around on the same surface and check that the numerical values are the same. If the difference between the values is within 0.05°, the device is within the accuracy range. If the difference is more than 0.1°, calibration is needed.
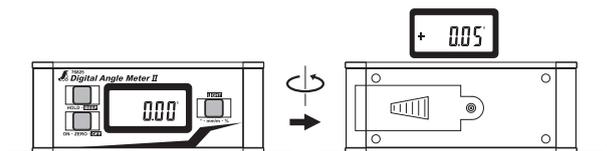
⚠ Caution

● If the device is not upright, an error will be displayed. Please make sure it is an upright position.

Plane   Plane   Error display
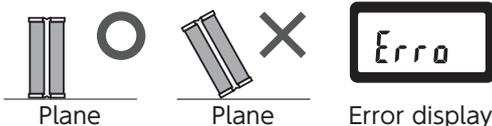
● If the device gets dirty, wipe it clean with a soft cloth. Do not wipe with water, a volatile oil such as thinner or alcohol.

● Be sure to check the accuracy before use.

● The accuracy of this product is described in the ■Specification section. If higher accuracy is required, please use a measuring instrument with greater accuracy such as a level.

● Do not drop or subject to strong impacts/vibrations.

● Never disassemble the device.

● Remove the batteries when the device will not be used for a long time.

● Measurement cannot be performed on surfaces other than the measurement reference plane.

● Keep out of the reach of children.

● When the display is as shown in the diagram on the right, press the ON·ZERO· OFF button.