

Wireless Digital Precision Level

Level Man[®] Level Man ADL-T5 Series

User Manual



Thank you very much for purchasing the ADL-G series.

- Please read this manual carefully to ensure correct and safe use.
- **Before use, please be sure to read "1. Safety Precautions."**
- We hope this product provides you with accurate measurements and long-term reliability.
- After reading, please store this manual and the device in a safe place.

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1. Safety Precautions



- Do not disassemble.
 - There is a risk of injury.
 - **Disassembly will damage the product and void the warranty.**
- Do not subject to impact.
 - There is a risk of malfunction.
- Be sure to insert the batteries with the correct polarity.
 - The terminal side of the spring is "-". Reversing the polarity may cause a malfunction or damage to the battery.
 - The batteries required are two AA batteries .
- The storage temperature for Levelman is $20\pm 20[^\circ\text{C}]$.
 - The bubble tube contains liquid and may break if exposed to high or low temperatures..
 - Please be careful not to leave it in a car or other places.
 - Please be aware of the storage temperature when carrying it on an aircraft.

2. Included Items

① LevelMan
Main unit
(Number of units
ordered)



③ AAA battery
(Sample)

④ Tablet
(Option)

⑤ Hexagonal wrench
for zero adjustment

② Bluetooth 4.0 adapter is not included with products for export or overseas use.

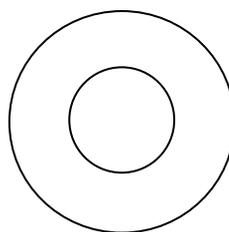
Please prepare one in accordance with local laws and regulations.

We recommend sending it to us in advance for operation verification.

⑥ Inspection
Report

⑦ Traceability
Diagram

⑧ CD



⑧ The CD contains the following electronic files, so please use them.

- ⑥ Inspection Report
- ⑦ Traceability Diagram
- Included Wireless Application

**Following instruction manuals and application software are updated regularly.
Please download the latest version from the "To All Purchasers" page.**

- ADL-T5 Series User Manual
- ADL-T5 Series Included Wireless Application Installation Manual
- ADL-T5 Series Included Wireless Application User Manual

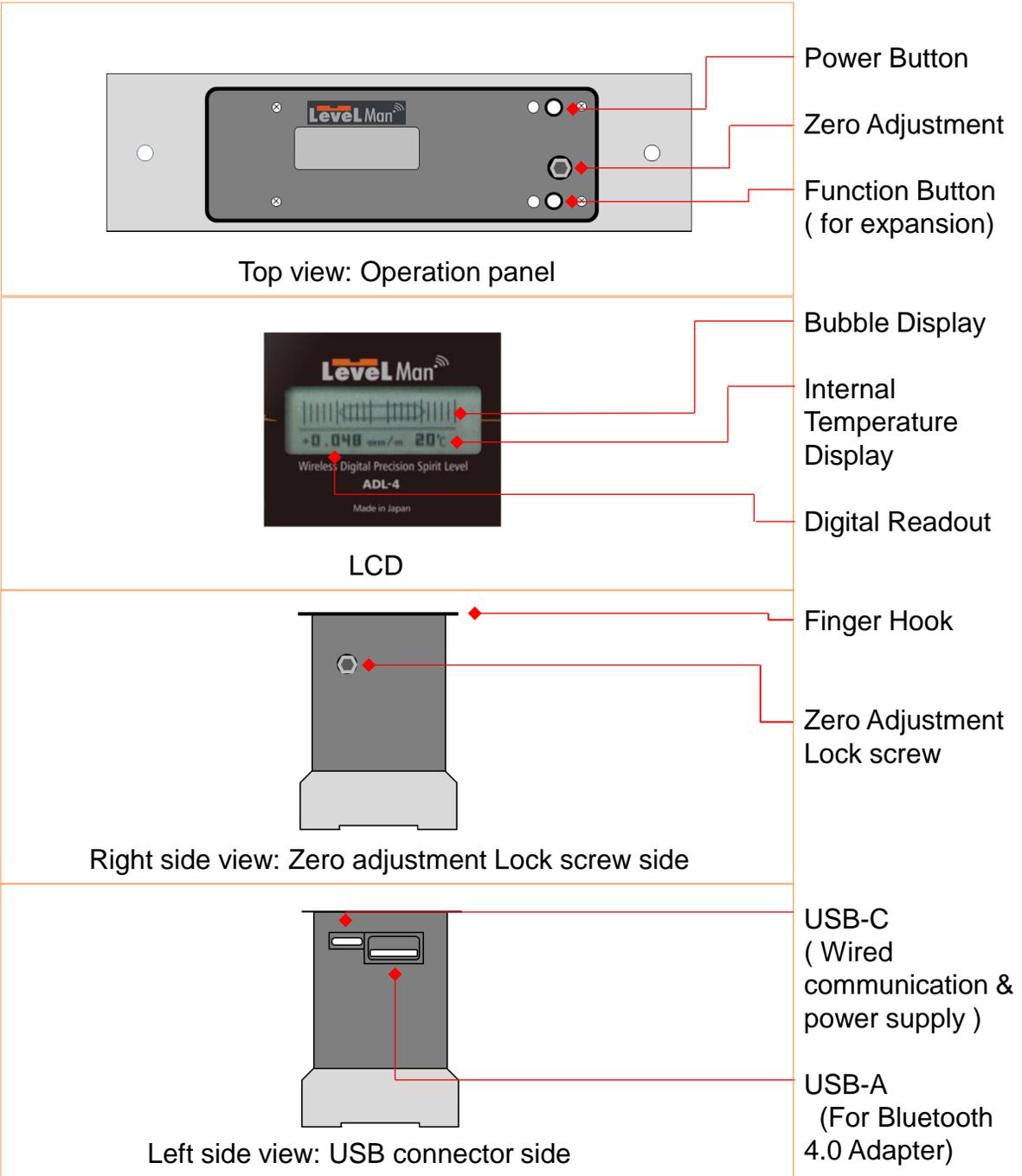
- Included Wireless Application Software

"To all customers" page

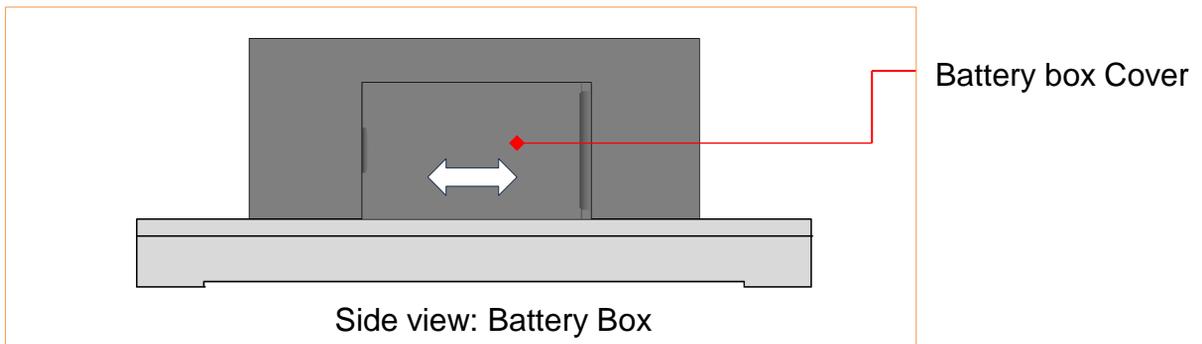
URL https://anydesign.jp/support/purchaser_support/



3. Parts and Functions



4. Battery Box



■ Insert the batteries correctly.

- The box cover slides left and right to open and close.
- If it is difficult to open or close, press it slightly with your finger and then slide it left or right as shown by the arrows in the illustration.
- Be sure to insert the batteries with the correct polarity.
 - The terminal side of the spring is "-". Reversing the polarity may cause a malfunction or battery damage.
 - Uses two AAA batteries.

5. How to Use

5.1 Preparation

5.1.1 Degrease and Clean the Measuring Surface and the Measuring Object

For high-precision measurements, especially considering the minimum display resolution of 0.001 mm/m, even minute dust or oil films can cause measurement errors..

- Make sure there is no rust or scratches on the measuring surface of the LevelMan.
- Be sure to thoroughly degrease and clean the the measuring surface of the LevelMan.
- Be sure to also degrease and clean the measuring surface of the object being measured..

5.1.2 Thermal Equilibrium

To eliminate temperature differences between the object and the LevelMan for high-precision measurements, thermal equilibration is essential.

- The power to the device can be turned off . Ensure sufficient thermal equilibration before proceeding with measurements.
- If the temperature of the object being measured and the level differ, the temperature difference will cause distortion on the measuring surface of the level, which is in close contact with the object, and this may result in measurement errors.
- Especially with high-resolution models such as ADL-T5-001, the effect of thermal distortion on the measuring surface can be significant.

5.2 Power ON/OFF

- When using batteries, press and hold the power button to turn the power
- When connected via USB-C, it will turn the power.

5.3 Warming Up

- For stable measurements, a warm-up period of at least 1 minute is recommended.

5.4 Zero Adjustment

1. Before starting, loosen the Zero Adjustment Lock Screw on the right side.
2. Place the unit on a flat surface plate and rotate it 180° at the same spot.
 - Adjust until both readings (before and after rotation) match.

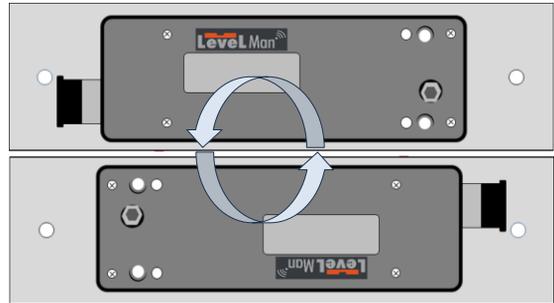
- Tips:

- Use positioning jigs or refer to a fixed point (e.g., front-left corner) to ensure the same position before and after rotation.

- Polarity of readings reverses after 180° rotation.

- Example:

- Forward: +0.025
- Reversed: -0.025



- (1) If readings before and after rotation match:

Zero adjustment is complete. No further action is needed.

- (2) If readings differ:

Perform zero adjustment as follows:

- a. Adjust so that the reading becomes half the difference between the two values.

- Turn screw clockwise: bubble moves toward screw side.
- Turn counterclockwise: bubble moves toward adapter side.
- Turn slowly for fine adjustment.

- b. After adjusting, rotate the unit 180° again at the same position.

- c. Repeat this process until readings before and after rotation match.

- d. Once readings match, adjustment is complete.

This value is the inclination of the object or installation surface.

Note: Even if the polarity changes (e.g., +0.025 ↔ -0.025), as long as the numeric values are the same, zero adjustment is considered successful.

- After finishing, re-tighten the Zero Adjustment Lock Screw.

- Fine zeroing can take time. For easier adjustment, we recommend using the included Wireless Application's "Self-Zeroing" function.

5.5 Zero Position Confirmation

- If the readings differ when the unit is rotated 180° at the same location, perform zero adjustment so that they match.
- The resulting value represents the inclination from the absolute horizontal.
- For easier adjustment, we recommend using the included Wireless Application's "Self-Zeroing" function.

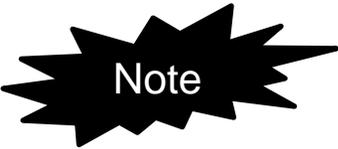
6. Measurement and Logging

- The unit continuously measures while powered on.
- Wireless Application allows logging of up to 10 sets of X-axis, Y-axis, and temperature (reference value) data with timestamps.

7. Storage

- After use, clean the measuring surface carefully, and apply anti-rust treatment such as petroleum jelly to prevent corrosion.
- Desiccants are now readily available, so we recommend sealing the device in a zipper-lock plastic bag with a desiccant.
- However, note that desiccants are generally less effective than oil-based treatments when salt-containing substances like sweat are present.
- Remove the batteries for long-term storage.
- Storage temperature: 20 ± 20 [°C]
 - The bubble tube contains liquid and may break if exposed to high or low temperatures.
 - Please be careful not to leave the device in a car or other places with extreme temperatures.
 - Please be aware of the storage temperature when carrying it on an aircraft.

8. Troubleshooting



Note

■ The measured value is not stable

- Check for temperature fluctuations during measurement.
- Ensure the measuring surface is smooth and free of irregularities.
- Check for battery deterioration.
- A fluctuation of one count at the least significant digit is normal due to digitization errors.

■ "0.999 mm/m" Displayed

- This indicates an error requiring adjustment.
- Contact your dealer for assistance.

■ Rust on the Measuring Surface

- Accurate measurement may not be possible. Repairs are recommended.
- Contact your dealer for assistance.

■ Calibration Request

- Periodic calibration is recommended to maintain measurement accuracy.
- This device includes a linearizer function that performs re-linearization during calibration, maintaining high accuracy.
- Contact your dealer for calibration services.

9. Specifications

MODEL	ADL-T5-001	ADL-T5-002	ADL-T5-005
■ Sensing Unit			
Minimum Readable Value	0.001 mm/m	0.002 mm/m	0.005 mm/m
Measurement Range	±0.005 mm/m	±0.01 mm/m	±0.025 mm/m
Measurement Accuracy	約6秒	約4秒	約3秒
Response Time	±0.25 mm/m	±0.5 mm/m	±1.5 mm/m
■ Temperature Sensing Unit			
Measurement Range	0.0~40.0 °C (Internal temperature of the unit)		
■ Common Unit			
Data	Inclination value, Temperature, Sensing Mode, Battery alert and wireless communication loss alert		
Data Port	Wired: USB-C / Wireless: Bluetooth 4.00 adapter (included) - Continuous output via wired and wireless connections		
Power supply	Wired: USB-C Battery: 2 x AAA (NiMH rechargeable recommended, alkaline included)		
Continuous Use	30 hours (900 mAh battery)		
Measurement Base Dimensions	L150 x D40 x H15 mm (Standard size)		
Zero Adjustment Lock	The components are held in place by a constant pressing force. (Patented design)		
Unit weight	0.8kg		
Operating Temperature	20 °C ±10 °C		
Storage Temperature	20 °C ±20 °C		
■ Standard inclusion	Included Wireless Application (Windows 11), Inspection Report, Calibration Certificate, Traceability diagram		
(Reference) Equivalent to:	JIS Type 1 Class A or higher	JIS Type 1 Class A	JIS Type 2 Class A or higher

■ Option	
Measurement Base	V-grooved measurement base (L150mm, L100mm) 4 Corners, 4-Point Support (L100mm)

* Specifications are subject to change without notice.

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10. Warranty Certificate

WARRANTY CERTIFICATE

Product Name: LevelMan
Model No.: ADL-T5

Warranty Period: One (1) year from the date of purchase

*Date of Purchase: _____ Year _____ Month _____ Day

Customer Information:

*Company Name: _____
*Address: _____
*Contact Name: _____
*Phone Number: _____
*E-mail: _____

Distributor Information:

*Company Name: _____
*Address: _____
*Contact Name: _____
*Phone Number: _____
*E-mail: _____

[Note to Distributors]

Please ensure that all fields marked with an asterisk (*) are completed before handing over this certificate.

Warranty Terms:

- *Free repair or replacement will be provided for malfunctions occurring during normal use within one year of purchase.*
- *The following are ****not**** covered under warranty:*
 - Damage due to misuse, mishandling, or interference from other devices
 - Theft, fire, or natural disaster
 - Unauthorized disassembly, modification, or abnormal power supply
 - Missing or incomplete warranty certificate
- *This warranty is **valid **only in Japan****.*