



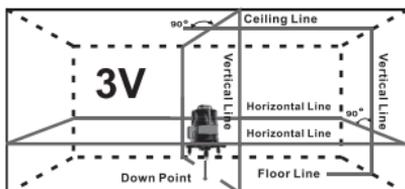
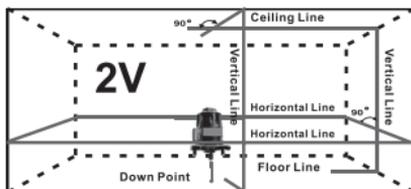
## OPERATING MANUAL

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# ULTRALINER 360 2V/3V/4V

Line Laser

[adainstruments.com](http://adainstruments.com)



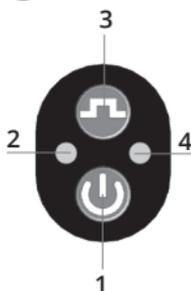
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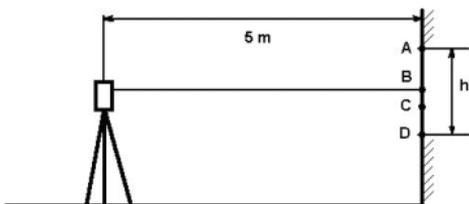
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THE MANUFACTURE RESERVES THE RIGHT TO MAKE CHANGES (NOT HAVING AN IMPACT ON THE SPECIFICATIONS) TO THE DESIGN, COMPLETE SET WITHOUT GIVING PRIOR WARNING.

## APPLICATION

Line laser ADA ULTRALiner 360 2V/3V/4V is designed to check the horizontal and vertical position of the surfaces of the elements of building structures and also to transfer the angle of inclination of the structural part to similar parts during construction and installation works.

## SPECIFICATIONS

<b>Laser beam</b> .....	2V/3V/4V1H1D (depends on the model)
<b>Light sources</b> .....	635nm/floor point 650nm
<b>Laser safety class</b> .....	2
<b>Accuracy</b> .....	±0.2mm/1m (V); ±0.3mm/1m (H)
<b>Self-leveling range</b> .....	±3°
<b>Working range (with detector)</b> .....	20m (70m)
<b>Rotation/Fine adjustment</b> .....	360°
<b>Power supply</b> .....	4 x AA (Li-ion accumulator)
<b>Service time</b> .....	approx 8h with all lines ON
<b>Mounting thread</b> .....	.5/8"
<b>Operating temperature</b> .....	-10°C ~ +40°C
<b>Weight</b> .....	0.9 kg

## FUNCTIONAL DESCRIPTION

1. The instrument projects 2, 3 or 4 vertical lines (V, depends on the model), 1 horizontal line (H) 360°, plumb point.
2. The instrument is used for indoor and outdoor applications. The detector is used in the range up to 70 m. For outdoor application.
3. Compensator for fast leveling is used in the range up to  $\pm 3^\circ$ .
4. Warning sound is produced when the instrument inclines from horizontal plane more than  $\pm 3^\circ$ .
5. Rotating fine adjustment mechanism makes it easy to find objects.
6. Built-in locking system automatically locks the compensator when the power is OFF. It protects the compensator from vibrations during transportation.
7. Intermediate position of the switch handle activates slope mode.

## 2 FEATURES

- 1 Battery compartment (rechargeable battery compartment)
- 2 Switch On handle (compensator lock)
- 3 Vertical laser window
- 4 Horizontal laser window
- 5 Fine adjustment screw
- 6 Adjusting legs
- 7 Bubble level

## 3 KEYPAD

- 1 On/shift/Off button for V emitters
- 2 ON/OFF indicator
- 3 Detector button (D)
- 4 Detector mode indicator

## OPERATION

1. Open battery compartment cover. Insert 4 batteries with proper polarity into the holder. Contacts of the holder (batteries) or Li-batteries must coincide with contacts of the battery compartment. Close the battery cover.
2. Place the instrument on the tripod or floor. When using tripod, place the instrument on the tripod and screw the centering screw into the center hole.
3. Switch On the instrument by rotating the switch (2) counterclockwise until its clicking position. Green LED will flash. If the battery power is low, green color of the indicator will be changed into red.
4. The instrument works in slope mode in the first position of the switch (X). It is possible to project laser lines at any angle. In the position ON the pendulum will be unlocked and laser lines will be automatically self-leveled.
5. If there is a sound signal and laser lines begin to blink while switching on the instrument, that means that the instrument is out of range more than  $\pm 3^\circ$ . Adjust the position of the instrument by means of the bubble level with the help of legs or tripod.
6. Aim the down point on the required point on the floor. Rotate the upper part of the instrument to adjust vertical lines. Then adjust the position of the instrument with the help of fine adjustment screw.
7. Line laser has several operating modes. Press button (1) to select laser lines. Variants of projections: - horizontal beam and down point; - horizontal beam and vertical beam, down point; - horizontal beam and 3 vertical beams, down point. - horizontal beam and 4 vertical beams, down point.

### ④ DETECTOR (IS NOT SUPPLIED WITH THE TOOL)

1. On/Off button
2. Signal LEDs

3. Bubble level
4. Sensitive element
5. Sound Off button
6. Clamp on the staff
7. Dynamic loudspeaker

### APPLICATION OF THE DETECTOR

Application of the detector is a decisive advantage when working outside in sunny weather. Press button (3) to switch on the detector mode. Open the battery cover and insert the battery into the detector. Press On/Off button to switch on the detector. Bring the receiver to the place of beam location. When laser beam will be on the sensitive element, there will be sound alarm and one of the LEDs will flash. LED will show the direction for the receiver for beam detection. Move the receiver until you will hear continuous sound alarm and middle signal LED will flash. With the help of bubble level check the leveling of the receiver housing. Mark the surface. Place the detector on the staff with the help of clamp.

### 5 TO CHECK THE ACCURACY OF LINE LASER (SLOPE OF PLANE)

Place line laser on the tripod 5m away from the wall so the horizontal laser line will be directed to the wall. Switch on the power. The instrument starts to self-level. Mark point A on the wall to show the contact of laser beam with the wall. Turn the instrument by 90° and mark points B, C, D on the wall. Measure distance "h" between the highest and lowest points (these are A and D points in the picture). If "h" is  $\leq 6$  mm, the measurement accuracy is good. If "h" exceeds 6 mm, apply service center.

### TO CHECK PLUMB

Choose a wall and set laser 5 m away from the wall. Hang a plumb with the length 2.5 m on the wall. Turn on the laser and make the vertical laser

line meet the point of the plumb. The accuracy of the line is in the range if the vertical line doesn't exceed (up or down) the accuracy that is shown in the specifications ( $\pm 2$  mm/10 m). If the accuracy isn't corresponding with claimed accuracy, contact the authorized service center. Note: Because of construction of laser emitter laser beam may be unhomogeneous and has different intensity of brightness along the perimeter in different light conditions. Unhomogeneous of laser beam: laser patch of light but the center of laser beam is identified. Different laser beam brightness: difference of intensity is up to 50%.

### PRODUCT LIFE

Product life of the tool is 7 years. The battery and the tool should never be placed in municipal waste. Date of production, manufacturer's contact information, country of origin are indicated on the product sticker.

### CARE AND CLEANING

Please handle line laser with care. Clean with soft cloth only after any use. If necessary damp cloth with some water. If instrument is wet clean and dry it carefully. Pack it up only if it is perfectly dry. Transport in original container/case only.

Note: During transport On/Off compensator lock (2) must be set to position "OFF". Disregard may lead to damage of compensator.

### SPECIFIC REASONS FOR ERRONEOUS MEASURING RESULTS

- Measurements through glass or plastic windows;
- Dirty laser emitting window;
- After line laser has been dropped or hit. Please check the accuracy;
- Large fluctuation of temperature: if instrument will be used in cold areas

after it has been stored in warm areas (or the other way round) please wait some minutes before carrying out measurements.

### **ELECTROMAGNETIC ACCEPTABILITY (EMC)**

- It cannot be completely excluded that this instrument will disturb other
- instruments (e.g. navigation systems);
- will be disturbed by other instruments (e.g. intensive electromagnetic radiation nearby industrial facilities or radio transmitters).

### **6 LASER CLASS 2 WARNING LABELS ON THE LASER INSTRUMENT**

#### **LASER CLASSIFICATION**

The instrument is a laser class 2 laser product according to DIN IEC 60825-1:2014. It is allowed to use unit without further safety precautions.

#### **SAFETY INSTRUCTIONS**

- Please follow up instructions given in operators' manual.
- Do not stare into beam. Laser beam can lead to eye injury (even from greater distances).
- Do not aim laser beam at persons or animals. The laser plane should be set up above eye level of persons. Use the instrument for measuring jobs only.
- Do not open instrument housing. Repairs should be carried out by authorized workshops only. Please contact your local dealer.
- Do not remove warning labels or safety instructions.
- Keep instrument away from children.
- Do not use instrument in explosive environment.

#### **WARRANTY**

This product is warranted by the manufacturer to the original purchaser to

be free from defects in material and workmanship under normal use for a period of two (2) years from the date of purchase. During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with the same or similar model at manufacturer's option), without charge for either parts or labour.

In case of a defect please contact the dealer where you originally purchased this product. The warranty will not apply to this product if it has been misused, abused or altered. Without limiting the foregoing, leakage of the battery, bending or dropping the unit are presumed to be defects resulting from misuse or abuse.

#### **EXCEPTIONS FROM RESPONSIBILITY**

The user of this product is expected to follow the instructions given in operators' manual. Although all instruments leave our warehouse in perfect condition and adjustment the user is expected to carry out periodic checks of the product's accuracy and general performance.

The manufacturer, or its representatives, assumes no responsibility of results of a faulty or intentional usage or misuse including any direct, indirect, consequential damage, and loss of profits.

The manufacturer, or its representatives, assumes no responsibility for consequential damage, and loss of profits by any disaster (earthquake, storm, flood ...), fire, accident, or an act of a third party and/or a usage in other than usual conditions.

The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits due to a change of data, loss of data and interruption of business etc., caused by using the product or an unusable product.

The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits caused by usage other than explained in the users' manual.

The manufacturer, or its representatives, assumes no responsibility for damage caused by wrong movement or action due to connecting with other products.

**WARRANTY DOESN'T EXTEND TO FOLLOWING CASES:**

1. If the standard or serial product number will be changed, erased, removed or will be unreadable.
2. Periodic maintenance, repair or changing parts as a result of their normal runout.
3. All adaptations and modifications with the purpose of improvement and expansion of normal sphere of product application, mentioned in the service instruction, without tentative written agreement of the expert provider.
4. Service by anyone other than an authorized service center.
5. Damage to products or parts caused by misuse, including, without limitation, misapplication or negligence of the terms of service instruction.
6. Power supply units, chargers, accessories, wearing parts.
7. Products, damaged from mishandling, faulty adjustment, maintenance with low-quality and non-standard materials, presence of any liquids and foreign objects inside the product.
8. Acts of God and/or actions of third persons.
9. In case of unwarranted repair till the end of warranty period because of damages during the operation of the product, it's transportation and storing, warranty doesn't resume.

**WARRANTY CARD**

Name and model of the product \_\_\_\_\_

Serial number \_\_\_\_\_ Date of sale \_\_\_\_\_

Name of commercial organization \_\_\_\_\_

stamp of commercial organization

Warranty period for the instrument exploitation is 24 months after the date of original retail purchase.

During this warranty period the owner of the product has the right for free repair of his instrument in case of manufacturing defects.

Warranty is valid only with original warranty card, fully and clear filled (stamp or mark of the seller is obligatory).

Technical examination of instruments for fault identification which is under the warranty, is made only in the authorized service center. In no event shall manufacturer be liable before the client for direct or consequential damages, loss of profit or any other damage which occur in the result of the instrument outage.

The product is received in the state of operability, without any visible damages, in full completeness. It is tested in my presence. I have no complaints to the product quality. I am familiar with the conditions of warranty service and I agree.

purchaser signature \_\_\_\_\_

Before operating you should read service instruction!

If you have any questions about the warranty service and technical support contact seller of this product



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