

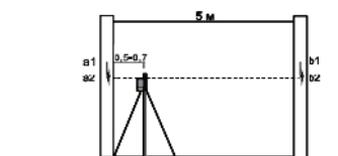
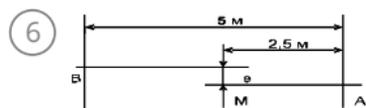
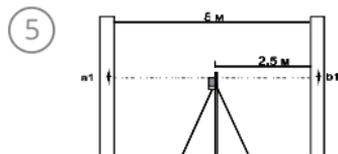
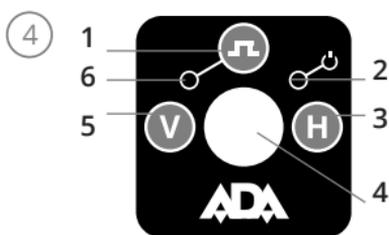
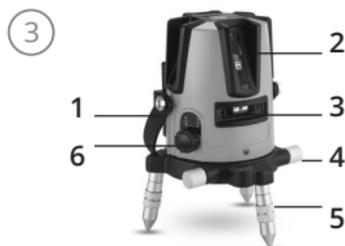
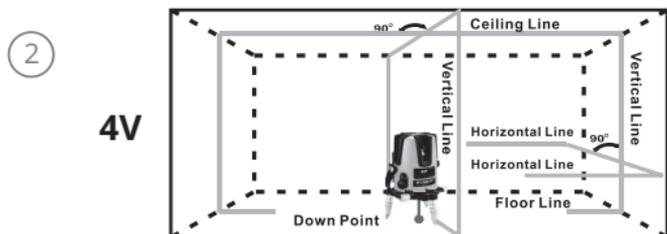
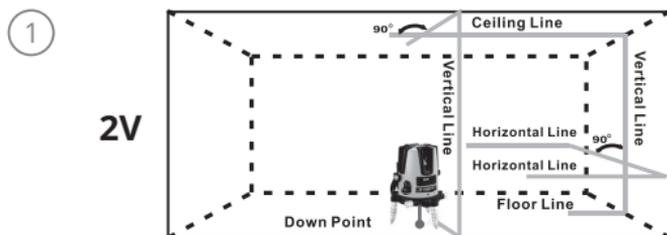


## OPERATING MANUAL

---

# 3D Liner 2V / 4V Green

Line Laser



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 3D LINER 2V/4V GREEN 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/4V1H1D
<b>Light sources</b> .....	532nm/floor point 650nm
<b>Laser safety class</b> .....	Class 2, <1mW
<b>Accuracy</b> .....	±0.2mm/1m
<b>Self-leveling range</b> .....	±3°
<b>Operating range</b>	
<b>with/without receiver</b> .....	70/40 m
<b>Power source</b> .....	Li-ion battery 3.7 V 3200 mAh / 4 AA batteries / charger
<b>Rotation/Fine adjustment</b> .....	360°
<b>Tripod thread</b> .....	5/8"
<b>Operating temperature</b> .....	-10°C +40°C

## FUNCTIONAL DESCRIPTION

1. 2 or 4 vertical lines (the quantity of lines depends on the model of the

instrument), 1 horizontal line, plumb down.

2. Can be used both for operation indoor and outdoor. Use the receiver for outdoor operation up to 70 m.
3. Electronic compensator ensures quicker self-leveling within range  $\pm 3^\circ$ .
4. When the instrument inclines more than  $\pm 3^\circ$  the laser lines automatically gleam.
5. 360° rotating fine adjustment mechanism makes it easier to aim the vertical beam.
6. When turning off the power, built-in locking system can automatically lock the compensator to avoid vibration during the transportation.

### ③ FEATURES

1. Carrying handle
2. Vertical laser window
3. Horizontal laser window
4. Fine adjustment
5. Adjusting legs
6. Power switch

### ④ KEYPAD

1. Indoor/outdoor key (D)
2. Power LED
3. H laser lines switch
4. Bubble level
5. V laser lines switch
6. Detector LED

## OPERATION

1. Take out the battery lid. According the sign “+ , -”, insert four alkaline batteries or rechargeable battery to the battery socket, then cover the battery lid. Remove batteries, if you are not going to use the tool for a long period of time.
2. It is also possible to use the charger for the operation with the tool. Use the charger to charge the rechargeable batteries. Connect the charger

to the plug that is located on the housing of the tool. And then connect it to mains. The tool will operate and charge the rechargeable batteries. **Note! Never connect the charger if you use ordinary batteries. Never leave the tool unattended when connecting the charger. Characteristics of the charger must correspond to the characteristics of mains. Output voltage must be no more than 5V.**

3. Set up the line laser on the floor or the tripod. When using tripod, put the bottom part of the instrument on the tripod. Twist in the screw of the tripod into the centering nut of the instrument.

4. Switch ON the tool moving the power switch (6) to the "ON" position. During transportation always set the power switch (6) to the position "OFF". If laser lines are blinking, it means that the inclination of the line laser is more than  $\pm 3^\circ$ . Adjust the line laser with the help of the tool's legs or tripod.

5. Aim the down point on the selected point on the floor. Move the upper part of the instrument to adjust vertical lines. Use fine adjustment mechanism for accurate adjustment of the instrument.

6. The tool has several operating modes. Use "H" and "V" buttons to select the necessary mode. "H" button switches On/Off the horizontal line. "V" button switches On/Off the vertical lines and plumb down:

- for 3D Liner 2V Green - 1V 1D/ 2V 1D
- for 3D Liner 4V Green - 1V 1D/ 2V 1D /4V 1D

7. Press once button (1). LED (6) is ON. Line laser is in the "outdoor" mode. Press button (1) once again. LED (6) is OFF. Line laser starts to operate in "indoor" mode. Use the detector to operate in this mode (see operating manual for the detector).

## 5 TO CHECK THE ACCURACY

Set up the instrument between two walls, the distance is 5 m. Turn on the line laser and mark the point of cross laser line on the wall. Set up the instrument 0,5-0,7m away from the wall and make, as described above, the same marks. If the difference  $\{a_1-b_2\}$  and  $\{b_1-b_2\}$  is less than the value of "accuracy" (see specifications), there is no need in calibration.

Example: when you check the accuracy of line laser the difference is  $\{a_1-a_2\}=5$  mm and  $\{b_1-b_2\}=7$  mm. The instrument's error:  $\{b_1-b_2\} - \{a_1-a_2\}=7-5=2$  mm.

Now you can compare this error with standard error. If the accuracy of Line Laser isn't corresponding with claimed accuracy, contact the authorized service center.

## 6 TO CHECK THE ACCURACY OF HORIZONTAL BEAM

Choose a wall and set laser 5M away from the wall. Turn on the laser and cross laser line is marked A on the wall. Find another point M on the horizontal line, the distance is around 2.5m. Swivel the laser, and another cross point of cross laser line is marked B.

Please note the distance of B to A should be 5m. Measure the distance between M to cross laser line, if the difference is over 3mm, the laser is out of calibration, please contact with seller to calibrate the laser.

## TO CHECK PLUMB

Choose a wall and set laser 5m away from the wall. Mark point A on the wall, please note the distance from point A to ground should be 3m. Hang a plumb line from A point to ground and find a plumb point B on ground. Turn on the laser and make the vertical laser line meet the point B, along

the vertical laser line on the wall and measure the distance 3m from point B to another point C. Point C must be on the vertical laser line, it means the height of C point is 3m.

Measure the distance from point A to point C, if the distance is over 2 mm, please, contact with seller to calibrate the laser.

### **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 (5) 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).

## 7 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



ADA International Group Ltd., No.6 Building, Hanjiang West Road #128,  
Changzhou New District, Jiangsu, China

Made In China

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

