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ADA INSTRUMENTS




## OPERATING MANUAL

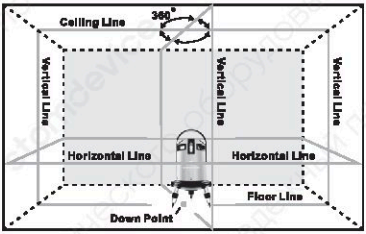
# 6D SERVOLINER GREEN

Line Laser

adainstruments.com

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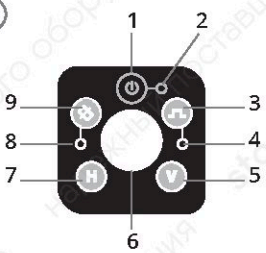
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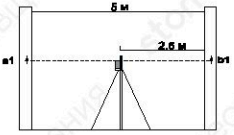

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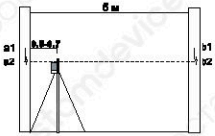



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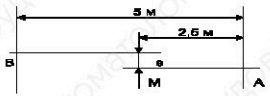



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6




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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 6D SERVOLINER 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

**Laser beam** .....4V4H1D
**Light sources**.....532nm
**Laser safety class**.....2
**Accuracy** .....±1mm/10m
**Self-leveling range**.....±3°
**Working range (with detector)**.....radius 40/70m
**Rotation/Fine adjustment** .....360°
**Power supply**.....4 x AA batteries / Li-battery 3,7V
**Service time** ..... no more than 3 h with all lines ON
**Mounting thread** .....5/8» x 11
**Operating temperature**..... -10°C ~ +40°C
**Weight** .....1.2 kg
**Size**..... Ø 135x220 mm

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## FUNCTIONAL DESCRIPTION

4 vertical lines (V), 4 horizontal lines (H) (360°), plumb down;
The line laser is designed for operation indoor and outdoor. Use the detector for outdoor operation with the range up to 70 m;
Electronic compensator for the faster self-leveling ±3°;
The line laser begins to blink automatically, if the deviation from horizontal plane is more than ±3°;
Fine adjustment mechanism helps to find the object;
The compensator blocks automatically, when the power is off. It protects the compensator form vibrations during transportation.

## (2) FEATURES

1. Switchboard
2. Vertical laser windows
3. Horizontal laser windows
4. Carrying belt
5. Battery cover
6. Fine adjustment switch
7. Adjustable legs
8. Down point laser mounting thread for tripod
9. Limb 360°
10. Connector for power unit

## (3) KEYPAD

1. Power switch On/Off
2. Power LED
3. Detector mode
4. Detector LED
5. Vertical switch (V)
6. Bubble level
7. Horizontal switch (H)
8. Leveling indication LED
9. Tilt mode

## OPERATION

1. Take out the battery lid. According the sign " + ,-", insert batteries or rechargeable batteries to the battery socket. Cover the battery lid.

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2. It is possible to use charger to operate with the instrument. Use charger for rechargeable batteries. Connect the charger to the hole that is located on the housing of the line laser. Then connect it to the main power. The line laser is in working condition and rechargeable batteries are charging.

   **WARNING: Never use charger for ordinary batteries. Do not leave the line laser unattended while using charger. Parameters of the charger must correspond to the parameters of domestic electricity. Output voltage must be no more than 6V.**

3. Set up the lione laser on the floor or the tripod. When using tripod, screw the tripod screw into the centering hole.

4. Press button (1) to switch on the line laser. Press buttons H (7) and V (5) to switch and select vertical and horizontal lines. Switch off the unnecessary lines to save battery power.
   Variants of projections:
   H button:
   - 1 horizontal line (sector 120°)
   - 2 horizontal lines (sector 180°)
   - 4 horizontal lines (sector 360°)
   V button:
   - one vertical line and plumb down
   - two vertical lines and plumb down

5. Switch On the line laser. If the LED is light and the laser beam begins to blink, the deviation of the line laser from the horizontal plane is more than ±3°. Adjust the line laser with the he;p of adjustable legs.

6. Place the line laser on the floor or tripod. When using tripod, screw the tripod screw into the centering hole. Aim the plumb down on the object on the floor. Then adjust the line laser with the help of fine adjustment switch. Rotate the upper part of the line laser to adjust the vertical lines.

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## SLOPE FINE ADJUSTMENT MODE / AUTO LEVELING SWITCH OFF

1. Switch the line laser ON. Auto leveling function is activated. Press button (9) to switch on/off the "slant / slope fine adjustment mode".
2. It is possible to set the inclination of the horizontal plane along the axis X and Y.
3. Press and hold button H (7) to set the tilt angle of the horizontal plane along the axis X down. Press and hold button V(5) to set the tilt angle of the horizontal plane up.
4. Press button (3) to set the tilt angle along the axis Y.
5. Bi-Bi sound mentions that you've reached the limit of slope position.

## (4) TO CHECK THE ACCURACY OF LINE LASER

Set up the line laser 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 line laser 0,5-0,7m away from the wall and make, as described above, the same masrks. If the difference {a1-b2} and {b1-b2} is less then the value of "accuracy" (see spesifications), there is no need in calibration.
Example: when you check the accuracy of Line Laser the difference is {a1-a2}=5 mm and {b1-b2}=7 mm. The instrument's error: {b1-b2}-{a1-a2}=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.

## (5) 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 lune, if the difference is over 3mm, the laser is out of calibration, please contact with seller to calibrate the laser.

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## 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. Hanga 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 2mm, 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.

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

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### 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 accortding 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 pe-

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riod, and upon proof of purchase, the product will be repaired or replaced (with the same or similar model at manufactures option), without charge for either parts of 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 left 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 thsn 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.

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## WARRANTY DOESN'T EXTEND TO FOLLOWING CASES:

1. If the standard or serial product number will be changed, erased, removed or wil 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 nrgligence 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.

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## 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 explotation 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 thr 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 qarranty 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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INSTRUMENTS

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Made In China

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