ADA 2D Basic Level Laser Level Instruction Manual

MEASUREMENT FOUNDATION
Operating manual
Laser level
Model: 2D BASIC LEVEL

2D BASIC LEVEL

Contents

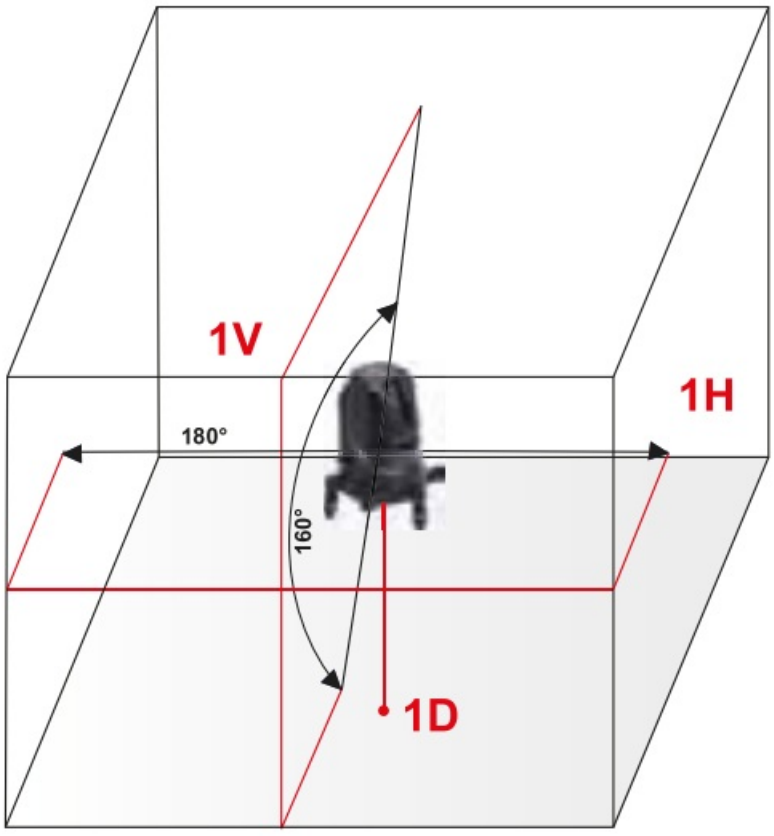
CAUTIONS

Cross line laser level – 2D BASIC LEVEL model – is an up-to-date functional and multi-prism device designed for indoor and outdoor performance. The device emits:
one horizontal laser line (beam scan angle of 180°) one vertical laser line (beam scan angle of 160°); down point laser.
Do not look at the laser beam!
Do not install the device on the eye level!
Before using the device, do read this operating manual!

TECHNICAL REQUIREMENTS

2.1. FUNCTIONAL DESCRIPTION

Emitting a horizontal and vertical laser line. Quick self-leveling: when line accuracy is out of the range the laser line flashes and the warning sound is produced.
Low battery indication: the power LED flashes and warning sound is produced.
Rotation base with scale convenient for use (range 1°).
Compensator locking system for safe transportation Indoor and outdoor performance function Back-lighted bubble level



Pic.1

2.2. FEATURES

1. Laser beam power-on button
2. Back-lighted bubble level (V/H/VH)
3. Indoor/outdoor performance indicator
4. Indoor/outdoor performance power-on button
5. Battery compartment
6. Compensator locking grip (ON/X/OFF switch)
7. Adjusting screws
8. Base with scale
9. Horizontal laser window
10. Vertical laser window

2.3. SPECIFICATIONS

Laser	Horizontal/vertical laser lines (angle between li nes is 90°)/down point
Light sources	3 laser diodes with laser emission wave length of 635 nm
Laser safety class	Class 2, <1mW
Accuracy	±1 5mm/5 meters
Self-leveling range	±3°
Operating range with/without receiverCircular level response	40/20 m
Power source	60’’/ 2mm
Operation time	3 alkaline batteries, AA type
Tripod thread	Approx. 15 hours, if everything is on
Operating temperature	5/8”
Weight	0.25kg

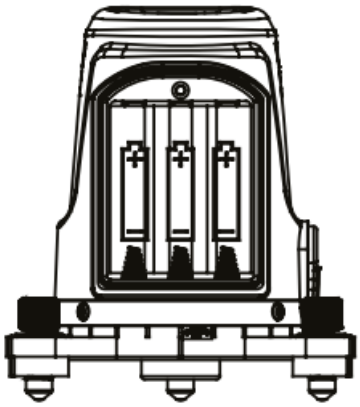
3. KIT
Laser level ADA fD Basic Level, bag, operating manual, glasses, target plate, 3xAA batteries.

SAFETY REQUIREMENTS AND CARE

Follow safety requirements! Don't face and stare at laser beam!
Laser level- Is an accurate Instrument, which should be stored and used with care.
Avoid shaking and vibrations! Store the Instrument and It's accessories only In the carrying case.
In case of high humidity and low temperature, dry out the Instrument and clean It after the usage.
Do not store the Instrument at a temperature below -50°C and above 50°C, otherwise the Instrument can be out of action.
Don't put the Instrument Into the carrying case If the Instrument or case are wet. To avoid moisture condensation Inside the Instrument- dry out the case and laser Instrument! Check regularly Instrument adjustment! Keep the lens clean and dry. To clean the Instrument use a soft cotton napkin!

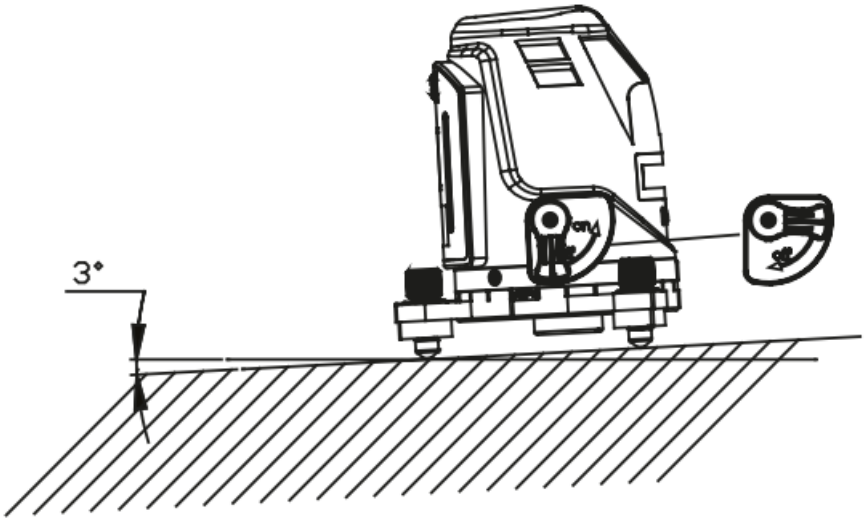
ORDER WORKING

1. Before use, remove battery compartment cover. Insert three batteries into battery compartment with proper polarity, the put the cover back (Pic. 2).
2. Set the compensator locking grip into ON position, two laser beams and back-lighted bubble level will be on.
   If the switch is ON,that means the power and the compensation are opened.
   If the switch is X, that means the power is pendent compensation is still locked ,but we can still issue the lines and dot if you push the espadas it will not warn if you issue the slope. It's the hand-mode.
   If the switch is OFF, that means shut off the power, the compensation is also locked.
3. Press V/H button – horizontal beam will turn on. Press the button V/H one more time – vertical laser beam will turn on. Again press the button V/H – horizontal and vertical beams will turn on. Pic.2



Pic.2

4. Press the button of device mode "indoor/outdoor", indicator will light. The device works in "outdoor" mode. Press the button one more time. The device will work in "indoor" mode.
5. During battery change, or when the device is on, control lamp may light or warning sound may be produced. This indicated for low battery charge. Please, change the batteries.



Pic.3

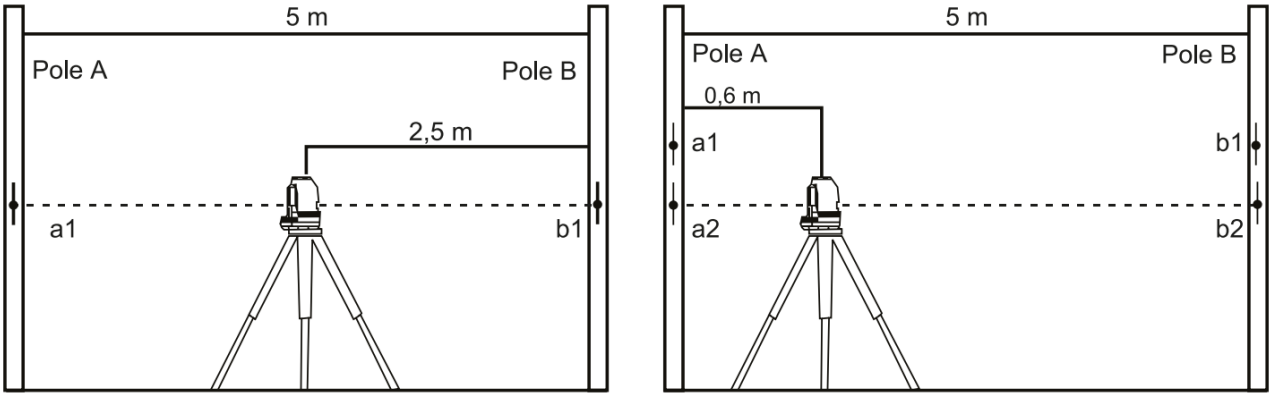
IMPORTANT:

1. Set the locking grip in position ON: when the instrument is off, the compensator will be locked.
2. Install the device on surface: table, ground, etc.
3. The self-leveling function won't work if the surface is angled for more than +1-3 degrees. You have to adjust the screws and level the bubble at the center.
4. Put the instrument on surface and set locking button into ON position. Laser beam flashing and sound emission indicate that laser is out of self-leveling range. Adjust the screws to return the laser into self-leveling range.
5. Back-lighted bubble level will be on when the instrument is on.
6. Set the locking button in OFF position, keep the device In transportation case.
7. Cross line laser level may be fixed on the tripod with the help of fixing screw 5/8″. 8. Before packing the instrument into transportation case, turn it off. Otherwise, sound will be produced, laser beam will blink and bubble level backlight will turn on.

5.1. CHECKING INSTRUMENT BEFORE USAGE

5.1.1. CHECKING ACCURACY

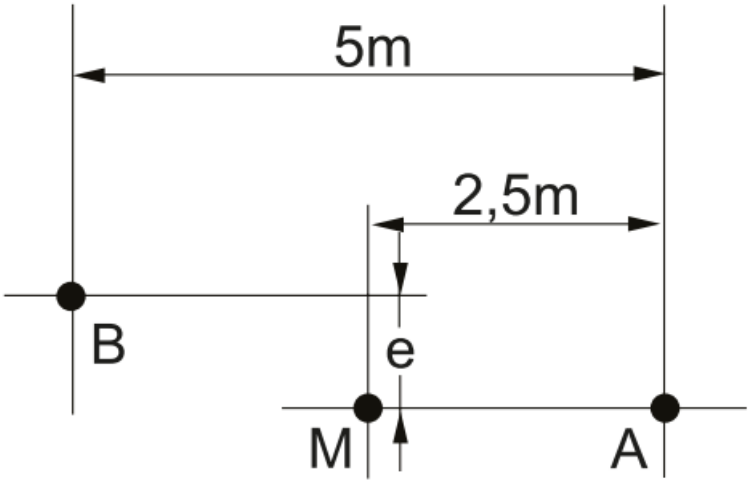
1. Set two range rods at distance of 5 m.
2. Set the tripod in the center between two rods and place cross line laser level at the tripod.
3. Turn the device on. Two laser beams will turn on. At the rod A, mark point that is indicated by laser cross al. Turn the laser for 180 degrees. At the rod B mark the point indicated by laser cross bl.
4. Move the tripod in the way, to place the device at distance of 60 cm from rod A. Repeat operation and make marks a2 and b2. Measure distance between points al and a2 and between bl and b2. Accuracy of your laser device is considered to be within acceptable limit if the difference between first and second measurements is not more than 1,5 mm.



Pic.4

5.1.2. CALIBRATION OF HORIZONTAL BEAM ACCURACY

1. Set the laser device at distance of approximately 5m from the wall and mark point A indicated by laser cross.
2. Turn the laser level, move the beam approximately for 2.5m to the left and check the horizontal laser line to be within 2 mm at the same height that marked point indicated by the laser cross.
3. Turn the device and mark point B at distance of 5 m from point A.
4. Repeat the same actions moving the laser device to the right.



Pic.5

5.1.3. CALIBRATION OF VERTICAL BEAM ACCURACY

1. Set the laser device at distance of approximately 5m from the wall.
2. Mark point A at the wall.
3. Distance to point A will be 3m.
4. Fix the plumb at the wall 3m long.
5. Turn the plotter and direct vertical laser line to the plumb at the rope.
6. Accuracy of the line is considered sufficient if its deviation from vertical laser line is no more than 2mm.

APPLICATION

This cross line laser level generates visible laser beam allowing to make the following measurements: Height measurement, calibration of horizontal and vertical planes, right angles, vertical position of installations, etc. The cross line laser level is used for indoor performance to set zero marks, for marking out of bracing, installation of tingles, panel guides, tiling. etc. Laser device is often used for marking out in the process of furniture, shelf or

mirror installation, etc. Laser device may be used for outdoor performance at distance within its operation range.

SAFETY PRECAUTION

1. Caution label regarding laser class must be placed at the battery compartment cover.
2. Do not look at the laser beam.
3. Do not install the laser beam at the eye level
4. Do not try to disassemble the instrument. In the case of failure, the instrument will be repaired only in authorized facilities.
5. The instrument meets laser emission standard

CAUTION
LASER RADIATION DO NOT STARE INTO BEAM
Maximum Output Power: <law© 635-670nm CLASS II LASER PRODUCT

LASER CLASSIFICATION
The instrument is a laser class 2 laser product according to DIN IEC 60825-1:2007. 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 work-Manship 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 manufactures option), without charge for either parts of labor. 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. Withiest limiting the foregoing, leakage of the battery, bending or drop-ping 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 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.
2. All adaptations and modifications with the purpose of improvement and expansion of normal sphere of product ap-plication, mentioned in the service instruction, without tentative written agreement of the expert provider.

3. Service by anyone other than an authorized service center.
4. Damage to products or parts caused by misuse, including, without limitation, misapplication or nrgligence of the terms of service instruction.
5. Power supply units, chargers, accessories, wearing parts.
6. Products, damaged from mishandling, faulty adjustment, maintenance with low-quality and non-standard materials, presence of any liquids and foreign objects inside the product.
7. Acts of God and/or actions of third persons.
8. 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 exploration is 24 months after the date of original retail purchase. It extends to the equipment, imported on the RF territory by official importer.
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 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

Certificate of acceptance and sale

№____ name and model of the instrument Corresponds to _____ designation of standard and technical requirements Data of issue _____	Stamp of quality control department Price Sold _____ Date of sale _____ name of commercial establishment

Documents / Resources

	**ADA 2D Basic Level Laser Level** [pdf] Instruction Manual 2D Basic Laser Level, 2D Laser Level, Basic Laser Level, Laser Level, 2D Level, Basic Level, Level, 2D Basic Level

References

- ADA Instruments