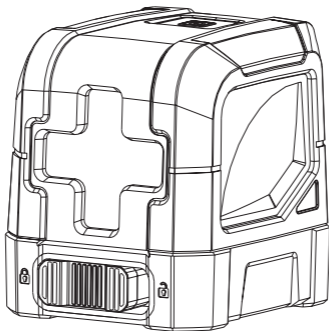




Cross-Line Laser

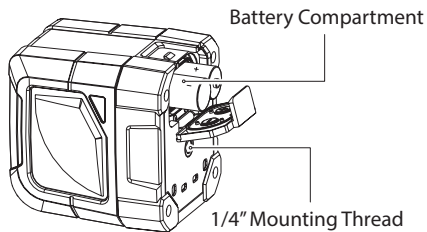
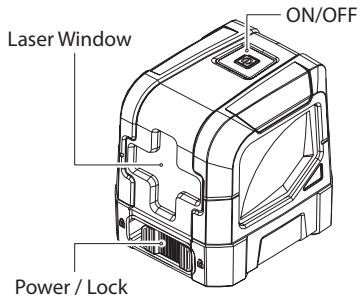
Level A1 - R



Planar laser level

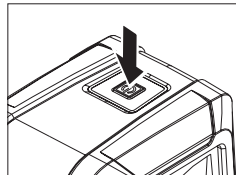
User Manual

Product Information



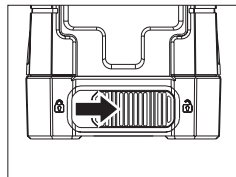
Operational Approach

ON/OFF

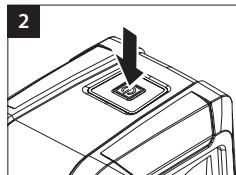
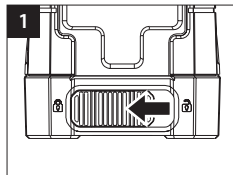


ON/OFF

ON

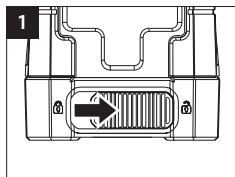


OFF

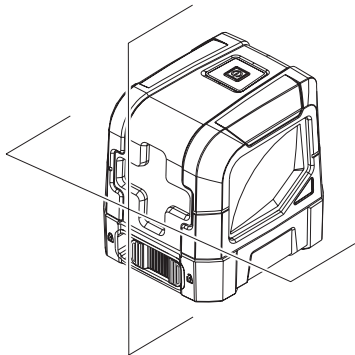


Self-leveling mode

Place the device horizontally

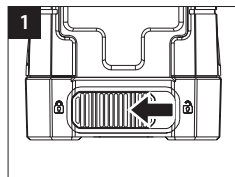


2

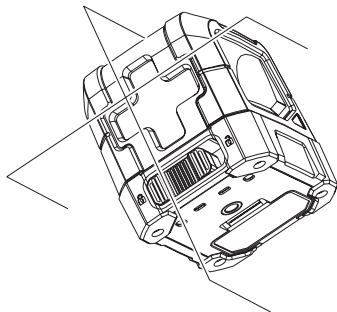


Manual Mode

Place the device obliquely



2



Technical Data

Item number	LLevel A1 - R
Laser colour	Red
Laser diode	QSI 10mW
Laser hazard class	Class 2
Laser max. output	≤ 1mW
Laser wave length	630 -640 nm
Accuracy	± 3 mm / 10 m
Laser module	Single
Compensation range	4° ± 1°
Self-leveling time	≤ 4s
Self-leveling method	Magnetic damping
Operating distance	15 m
Operating temperature	—10 °C - 50 °C
Storage temperature	—20 °C - 70 °C
Operating time	10 hours
Battery type	2 x 1.5 V LR 06 (AA), 400 mA max
Ingress protection	IP 54
Device dimension	75.8 x 75.5 x 65.4 mm
Device weight	260 gram

Attentions

- The laser device is sealed and calibrated at the plant to the accuracies specified.
- It's recommended to carry out an accuracy check before its first use and periodic checks during future use especially for precise layouts.
- When not in use please power OFF the device and place the pendulum lock in its locked position.
- In Manual Mode, self- leveling is OFF. The accuracy of the beam is not ensured to be level.
- Remove batteries if the device will not be used for several months.
- Do not store the laser device in direct sunlight or expose it to high temperatures. The housing and some internal parts are made of plastics and may become deformed at high temperatures.
- Exterior plastic parts may be cleaned with a damp cloth. Although these parts are solvent resistant, never use solvents. Use a soft, dry cloth to remove moisture from the device before storage.
- Store the device in its package when not in use. If storing for extended time, remove batteries before storage to prevent possible damage.

Safety Instructions

Symbols used


The following symbols are used to distinguish precautions by the degree of injury or damage that may happen if the precautions ignored.

WARNING

Indicate a potentially hazardous situation or an unintended use which, if not avoided, will result in death or serious injury.

CAUTION

Indicate a potentially hazardous situation or an unintended use which, if not avoided, will result in death or serious injury and/or in appreciable environment or property damages.

 Important instructions which must be adhered to in practice as they enable the product to be used in a technically correct and efficient manner.

Possible danger when use the device:

- The laser beam will harm eyes when aim to eyes directly.
- The device may produce a spark and light to dust or gas.
- When clean battery electrolyte, human fingers may be affected.
- The device may cause a hazardous radiation explosion.
- Laser exposure radiation damage.

Caution:

- Do not look straight into the laser beam.
- Do not use the device in inflammable and explosive environment.

- Remove the batteries to avoid the electrolyte leakage when not use the device.
- Do not try other functions that the device does not have itself.
- Do not attempt to alter the functions of the device in any way.

Maintenance:

Wipe off dirt with wet and soft cloth. If wet cloth does not work, use cloth with alcohol to clean the dirt. Be careful with the optical components (such as optical lens) : wipe with clean soft cloth or cotton swab with distilled water(as cleaning glasses or camera lens). Do not use harmful cleaning material.

Permitted use

Horizontal measurement, vertical measurement and oblique measurement

Prohibited use

- Using the instrument without reading instructions.
- Using beyond the stated usage limits.
- Damaging safety precaution system and removal of instruction and hazard labels.
- Disassembling the equipment by using tools (screw drivers, etc.), as far as not specifically permitted for certain cases.
- Carrying out modification or alteration to the product.
- Using accessories from other manufacturers without the approval by our company.
- Deliberate or irresponsible operation on scaffolding or when using ladders, when measuring near running machines or

- unprotected equipment.
- Aiming directly at the sun.
- Deliberately aim at other people's eyes, also in the dark.
- Using at the surveying site without adequate safeguards (e. g. when measuring on roads, construction sites, etc.)

Limits of use

See section "Technical Data".

The product is designed for use in the conditions permanently habitable for humans, do not use the product in corrosive or explosive environments.

Areas of responsibility

Original producer's responsibility:

Responsible for providing with safe products include manual and original parts.

Responsibilities of the manufacturer of non-original accessories:

The manufacturers of non-original accessories for the products are responsible for developing, implementing and communicating safety concepts for their products. They are also responsible for the effectiveness of these safety concepts in combination with the products equipment.

Responsibilities of the person in charge of the instrument:

WARNING

The person responsible for the instrument must ensure to use and request other people to use the equipment following instructions.

The person in charge of the instrument has the following duties:

- To understand the safety instructions on the product and the

instructions in the User Manual.

- To be familiar with local safety regulations related to accident prevention.
- To inform local dealer immediately if the equipment becomes unsafe.

Hazards in use

CAUTION:

Watch out for erroneous measurements if the instrument is defective or if it has been dropped or has been misused or modified.

Carry out periodic test measurements. Particularly after the instrument has been subject to abnormal use, before, during and after important measurements. Make sure the optical glasses are kept clean and that there is no mechanical damage to the instrument.

Precautions:

Only use this product as a measuring device, not as a control device. Your system must be configured and operated in such a way, that in case of an erroneous measurement, malfunction of the device or power failure, it still can take safety measures (e. g. safety limit switch), so it is assured that no damage will occur.

WARNING

Used batteries must not be disposed of with household waste. Please dispose of or recycle the used batteries according to related national or local regulations.



Do not dispose of or recycle this product with household waste. Please recycle this product in a proper way. Dispose

of or recycle this product according to related national or local regulations. Always prevent access to the product by unauthorized personnel. And take them to the collection points provided in accordance with national or local regulations.

For technical support, please contact your local dealers.

Electromagnetic Compatibility (EMC)

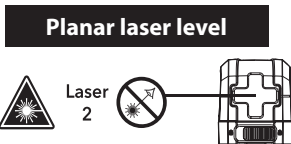
The term "electromagnetic compatibility" means the capability of the product to function smoothly in an environment where electromagnetic radiation and electrostatic discharges are present, and without causing electromagnetic interference to other equipment.

WARNING

The product conforms to relevant standards and regulations. Yet, the possibility of it causing interference with other devices cannot be totally excluded.

CAUTION:

Never attempt to repair the product by yourself. In case of damage, contact the local dealer.



It produces a visible laser beam which comes from the front of the instrument.

It is a Class 2 laser product in accordance with,

- IEC60825-1 : 2014 "Radiation safety of laser products" Laser Class 2 products.

Do not stare into the laser beam or direct it towards other people unnecessarily. Eyes will evade or blink by instinct for protection.

WARNING

Looking directly into the laser beam with optical glasses (e. g. Binoculars, telescopes) can be hazardous.

Precautions:

Do not look directly into the beam with optical glasses.

CAUTION:

Looking into the laser beam may be hazardous to the eyes.

Precautions:

Do not look into the laser beam. Make sure the laser is aimed above or below eye level, particularly when fix the instrument on machines, etc.

Warranty

We are confident of the quality of our products and offer outstanding guarantee for professional users of the products. This statement is in addition to and in no way prejudices your contractual rights as a professional user or your statutory rights as a private non-professional user. We warrant our laser level(s) against faults in materials and/or workmanship for one year from date of purchase provided that:

- Proof of purchase is produced.
- Service/repairs have not been attempted by unauthorized persons.
- The product has been subject to fair wear and tear.
- The product has not been misused.

Defective products will be repaired or replaced, free of charge or at our discretion, if sent together with proof of purchase to our authorized distributor(s).

This Warranty does not cover faults caused by accidental damage, unfair wear and tear, and use other than in accordance with the manufacturers' instructions or repair or alteration of this product not authorized by us. Users disassemble or damage the device intentionally that we will provide a pay-needed maintenance service.

Repair or replacement under this Warranty does not affect the expiry date of the Warranty.

To the extent permitted by law, we shall not be liable under this Warranty for indirect or consequential loss resulting from faults in this product. This Warranty may not be varied without our

authorization. Calibration and care are not covered by Warranty.

NOTE:

The customer is responsible for the correct use and care of the device. Moreover, the customer is completely responsible for periodically checking the accuracy of the laser, and therefore for the calibration of the device.



Thanks for purchase our products.



Carefully read the Safety Instructions and the User Manual before using this product.

The person responsible for the instrument must ensure that all users read, understand and adhere to these instructions.

