



CROSSLINE LASER LEVEL

MODEL NO.: DT1H1VR



**TO PREVENT SERIOUS INJURY, READ
AND UNDERSTAND ALL WARNINGS
AND INSTRUCTIONS BEFORE USE**

**OPERATING
INSTRUCTIONS**

ABOUT YOUR LASER LEVEL





Thank you for purchasing this DATUM CROSSLINE LASER LEVEL. Your laser level features extra bright laser technology, horizontal, vertical and crossline operations and a pendulum lock. It's ideal for carpentry, interior layout and DIY projects.

Please read and understand the content of this instruction manual before using this product. Save this manual for future reference.

SPECIFICATIONS	
MODEL	DT1H1VR
BEAM COLOUR	RED
LASER CLASS	Class II
LASER WAVELENGTH	635nm
ACCURACY	±2 mm at 10m
OPERATING RANGE (INDOOR)	10m
OPERATING RANGE (WITH DETECTOR)	50m
AUTO LEVELLING RANGE	±3.5°
BATTERY LIFE (CONTI. OPERATION)	10 Hours
POWER SUPPLY	3 x AA 1.5V batteries
LINE PATTERN	1H1V
PLUMB DOTS	N/A
IP RATING	IP54
TRIPOD THREADS	1/4" and 5/8"
DETECTOR	Optional (Part No. DT01REC sold separately)

DATUM is constantly improving its products. All information in this manual is based on the latest product information available at the time of printing. The specifications outlined herein are subject to change without prior notice or obligation.

HAZARD SIGNAL WORD DEFINITIONS

	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. Obey all safety messages that follow this symbol to avoid possible injury or death.
 DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
CAUTION	Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

GENERAL SAFETY RULES FOR OPERATION



WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this laser level. Failure to follow all instructions listed below may result in personal injury.

Save all warnings and instructions for future reference.

- Do not stare into beam regardless of distance.
- Do not use the laser intensive glasses as safety goggles, sunglasses or when driving.
- Do not point laser in the direction of other people or animals.
- Do not point laser in the direction of mirrors or other reflective surfaces.
- Store in a secure location when not in use.
- This is a quality laser measuring device and is 100% factory adjusted within the stated tolerance.
- Laser should not be used as a toy or by children.
- Do not view beam through optical instruments such as theodolites, binoculars, cameras or magnifying lenses.
- Avoid using laser in darkened areas. Ensure sufficient light levels to avoid damage to eyes.
- Set up cross line laser to ensure laser beam path is above or below eye level.
- Ensure cross line laser is securely set up to avoid accidental movement.
- Always ensure the laser beam is aimed at a sturdy work piece without reflective surface. Bright shiny reflective sheet steel or the like is not suitable for laser use as the reflective surface could direct the beam back at the operator.
- Do not break up or throw the battery into fire, please recycle the battery after use.
- Turn the laser off when it is not in use. Leaving the laser on increases the risk of staring into the laser beam.
- Do not use or store the instrument in locations where the temperature may reach or exceed 40°C.
- Do not disassemble the instrument or attempt to perform any internal servicing as this will void your warranty. Not user serviceable parts included. Only approved and authorised service technicians can carry out warranty repairs.
- Avoid direct eye exposure. Consult your laser safety officer or IEC 60825.14:2011 Part 14 for best operating practice.



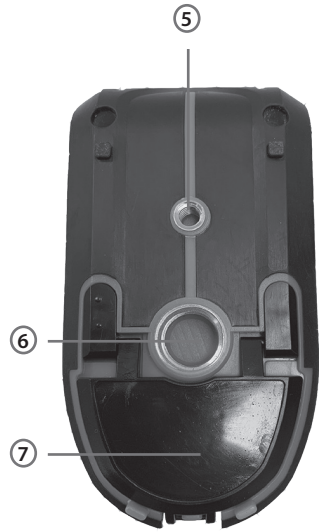
CAUTION

Class 2 laser product according to IEC 60825-1:2014.
Do not stare into the laser beam or direct it towards other people.

Product Label



COMPONENT IDENTIFICATION



1. Power switch / pendulum lock
2. Control panel
3. Vertical laser output window
4. Horizontal laser output window
5. 1/4" Tripod thread
6. 5/8" Tripod thread
7. Battery compartment
8. Wall bracket
9. Magnets on back of the bracket
10. 1/4" thread




OPERATION INSTRUCTION

BATTERY PLACEMENT

- Your laser level requires 3 AA batteries. Use only new, high-quality battery for best results.
- Locate battery compartment at the bottom of the laser. Insert batteries according to the symbols and polarity.
- When the battery voltage is low, the indicator light will start flashing in which the batteries must be replaced.

ON/OFF

 WARNING	Always turn off all lasers and latch the pendulum in place before transporting.
--	---

- Press and hold "LINE" button to turn on the laser.
- Alternatively, turn the laser on by sliding the power switch to ON position. Pendulum is automatically released for self levelling.
- To turn the laser off, place it on a stable flat surface. Slide the power switch to OFF position. Pendulum is automatically locked when the switch is turned to OFF position.


LASER LINES SELECTION


- Turn the switch to ON position. All lines appear when the laser is turned on.
- Press "LINE" button to select laser lines.

AUTOMATIC SELF-LEVELLING

- Pendulum lock (power switch to ON position) must be released for horizontal and vertical levelling.
- Turn on the laser level. The pendulum automatically aligns a position within the range of self-levelling range $\pm 3.5^\circ$. Within this range, the laser level automatically correct its position.
- Laser beams start to blink when the device is out of self-alignment range of $\pm 3.5^\circ$. In this case, place the laser level on a flat surface, adjust tripod or wall mount until blinking stops.

PULSE MODE

- Press  to activate Pulse Mode so that the device can work with optional laser detector.
- Laser lights will pulse with high frequency, making the laser lines slightly darker.
- Pulse Mode LED Indicator light will be on when this is activated. Press the button again to exit pulse mode.

 WARNING	This is a high precision instrument - To avoid damage always transport instrument and store with pendulum lock on (or power switch to OFF position) and in its protective case.
--	---

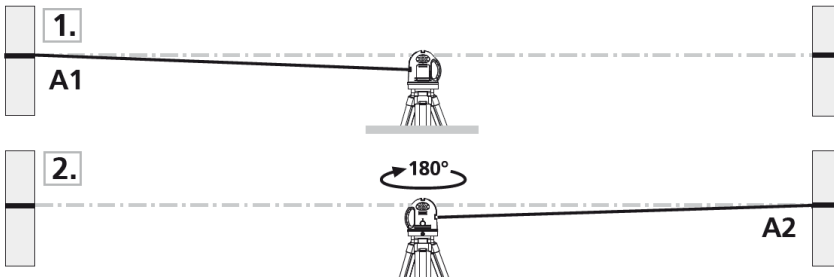
CALIBRATION CHECK

It's possible for you to check the calibration of the laser. Calibration by yourself is only approximate and the accuracy of the calibration will depend on the care with which you proceed.

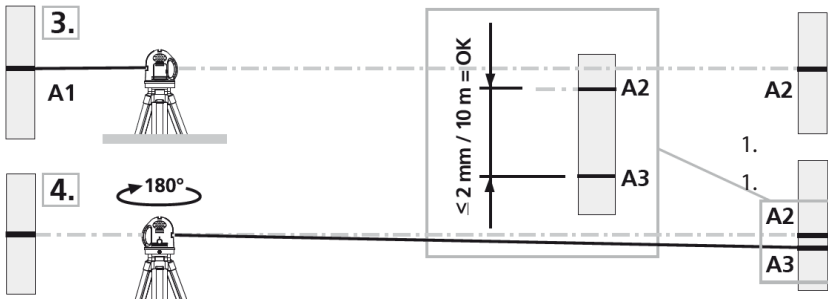
TO CHECK THE LEVEL

Checking the horizontal pitch calibration of the laser requires 2 walls, which must be at least 5 metres apart. The best calibration results can be achieved if the laser is mounted on a tripod.

1. Mark point A1 on the wall.
2. Turn the device 180° and mark A2 on the opposite side of A1. You now have a horizontal reference between point A1 and A2.



3. Position the device as near as possible to the wall at the same height of point A1.
4. Turn the device 180° and mark point A3. The difference between point A2 and A3 is the tolerance.



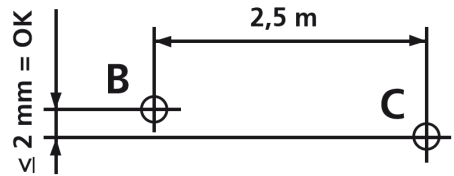
If the distance between A2 and A3 is more than 2mm/10m, the device is in need of calibration. Contact authorised dealer or service agent.

CHECKING THE VERTICAL LINE

1. Position the device about 5 m from a wall. Fix a plumb bob with a line of 2.5 m length on the wall, making sure that the bob can swing freely.
2. Switch on the device and align the vertical laser to the plumb line. The precision is within the specified tolerance if the deviation between the laser line and the plumb line is not greater than $\pm 2\text{mm}$.

CHECKING THE HORIZONTAL LINE

1. Position the device about 5 m from a wall and switch on the cross laser. Mark point B on the wall.
2. Turn the laser cross approx. 2.5 m to the right and mark point C.
3. Check whether the horizontal line from point C is level with point B to within ± 2 mm.



MAINTENANCE AND SERVICE

- Do not attempt to open the device. To ensure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by authorized service centres. Contact your dealer for more details.
- Do not drop, knock or shake the laser level as this will affect precision.
- Remove batteries when the device is not in use.
- Keep the laser level clean at all times. Use a soft lint-free cloth for the body and lens tissue for glass windows. Do not use abrasive cleaners or solvents.
- Don't expose the laser level to high temperatures or humidity.
- Do not store the laser level in hot areas, hot temperatures can short the life of electronic device, damage battery, and warp or melt certain plastics
- Do not store the laser level in cold areas. When the unit warms up to its normal operating temperature, moisture can form inside where it may damage circuit board.
- Avoid shock, vibrations and extreme heat.
- Do not immerse the instrument in water.
- Always slide the power switch to the OFF position when storing, transporting or moving around the job site.
- Calibration service is recommended at least once a year or as needed.

TROUBLESHOOTING

ISSUE	POSSIBLE CAUSE AND SOLUTIONS
Laser does not turn on	Check batteries. Make sure batteries are installed according to the correct polarity.
	The batteries may be depleted. Make sure the batteries are in proper working condition. If in doubt, try installing new batteries.
	If the laser has been stored in extremely hot temperatures, allow it to cool.
Laser does not level	Instrument may be outside its levelling range. Position the instrument, tripod or the base surface.
	Instrument may have impact damage. Contact service centre for repair and calibration.
Laser beam keeps flashing	Instrument may be outside its levelling range. Position the instrument, tripod or the base surface.



WARRANTY INFORMATION

This warranty is provided by DATUM of 20 Thackray Road, Port Melbourne VIC 3207.
Phone: 1800 868 258.

Express Warranty

Subject to the exclusions set out below, we warrant that this product will be free from defects in materials or workmanship for 3 years (90 days for accessories, batteries and chargers) from the date of purchase.

The benefits conferred by this warranty are in addition to all rights and remedies which you may be entitled to under the Australian Consumer Law, and any other statutory rights you may have under other applicable laws. This warranty does not exclude, restrict or modify any such rights or remedies.

Warranty exclusions

This express warranty does not apply where a defect or other issue with the product is caused by normal wear and tear, misuse or abuse of the product.

Consumer guarantees

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage.

You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Warranty claims

To make a claim under this warranty, you must bring the product along with the proof of purchase and any other documentary evidence which you think is relevant to the your place of purchase where the claim will be handled on our behalf during the warranty period specified above. Any cost incurred by you in bringing the product to the place of purchase will be borne by you.

Calibration and repair service

Datum recommends to check instrument calibration at least once a year or on as needed basis. Warranty does not cover calibration service. For calibration or repair, please visit your place or purchase.

