HV2G
ROTARY LASER

Lasertec

INSTRUCTION MANUAL

CONTENTS

SAFETY

Read the following safety instructions before attempting to operate this product.

Keep these instructions in a safe place or store in the carry case for future reference.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE.

⚠️ **WARNING: Read and understand all instructions.**

- Use the laser only with the specifically designated batteries.

- Store the laser out of reach of children and other untrained persons. Lasers are dangerous in the hands of untrained users.

- Use only accessories that are recommended for your model.

- Tool service must be performed only by qualified repair personnel. Repairs, service or maintenance performed by unqualified personnel will void the warranty. Only approved and authorised service technicians can carry out warranty repairs.

- Do not use optical tools such as a telescope or transit to view the laser beam. Serious eye injury could result.

- Do not place the laser in a position which may cause anyone to intentionally or unintentionally stare into the laser beam. Serious eye injury could result.

- Do not position the laser near a reflective surface which may reflect the laser beam toward anyone's eyes. Serious eye injury could result.

- Do not use optical tools to view the laser beam.

- Do not set up the tool at a position where the laser beam can cross any person at head height.

- Do not let children come in contact with the laser.

- 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 operate the laser around children or allow children to operate the laser. Serious eye injury may result.

- Do not remove or deface warning labels.

- Position the laser securely on a level surface. Damage to the laser or serious injury could result if the laser falls.

⚠️ **WARNING: Do Not Disassemble The Laser.**

There are no user serviceable parts inside. Disassembling the laser will void all warranties on the product. Do not modify the product in any way. Modifying the tool may result in hazardous laser radiation exposure.

⚠️ **CAUTION: Class 3 Laser Product**

- Never look into the laser beam directly and intentionally.

- Do not use optical tools to view the laser beam.

- Do not set up the tool at a position where the laser beam can cross any person at head height.

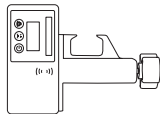- Do not let children come in contact with the laser.

ITEM CHECKLIST

Please ensure the following items are included with your laser level.
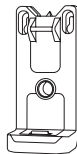If anything is missing please contact your retailer.
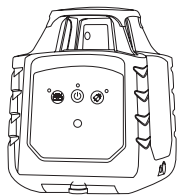
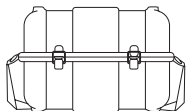|					
Lasertec HV2G	Remote control	Detector & clamp	Mount	Laser target	Laser glasses
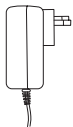
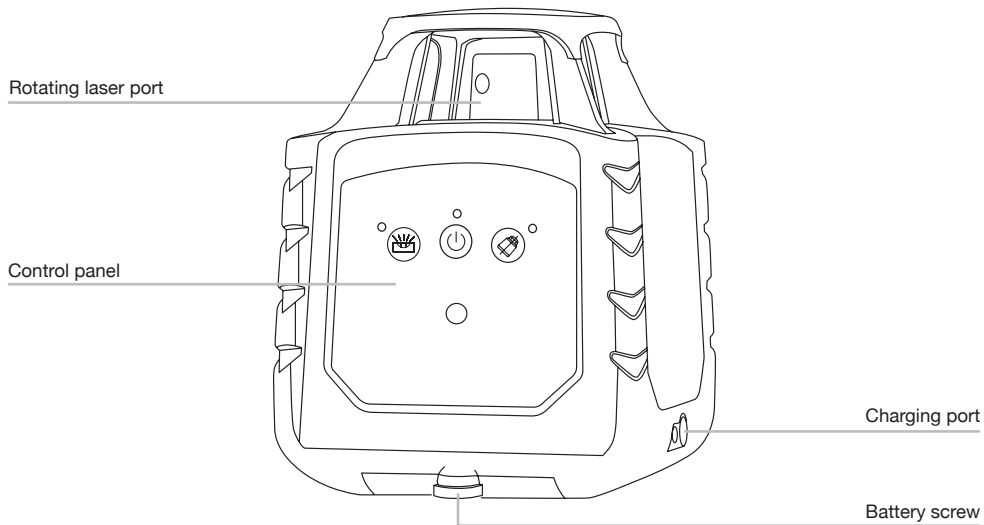|				
Charger	Carry case	4x AA rechargeable batteries (laser level)	1x 9V alkaline battery (detector)	2x AAA alkaline batteries (remote)

LASER OVERVIEW: FRONT

Rotating laser port

Control panel

Charging port

Battery screw

LASER OVERVIEW: BASE

Battery screw

Battery door

5/8" x 11 thread for
horizontal operation
on a tripod

Vertical mounting point
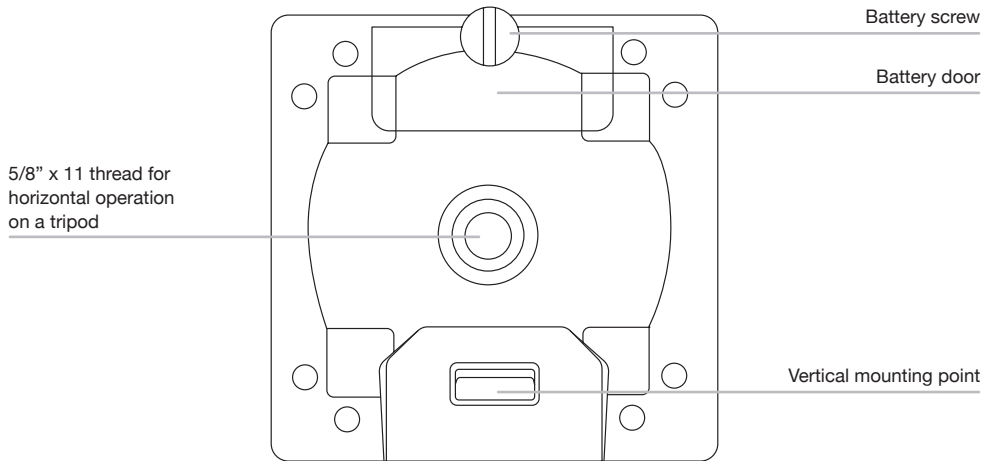
LASER OVERVIEW: CONTROL PANEL

Power indicator

Manual / automatic mode indicator

Manual / automatic mode

Tilt alarm indicator

Tilt alarm

Power

REMOTE CONTROL OVERVIEW: FRONT

Button indicator

Manual / automatic mode

Grade adjustment

Grade adjustment

Grade adjustment
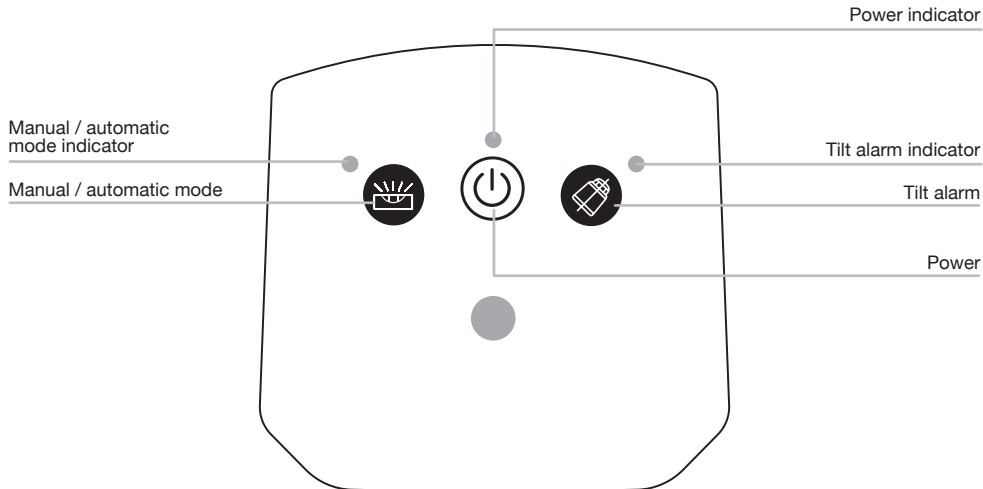
Grade adjustment
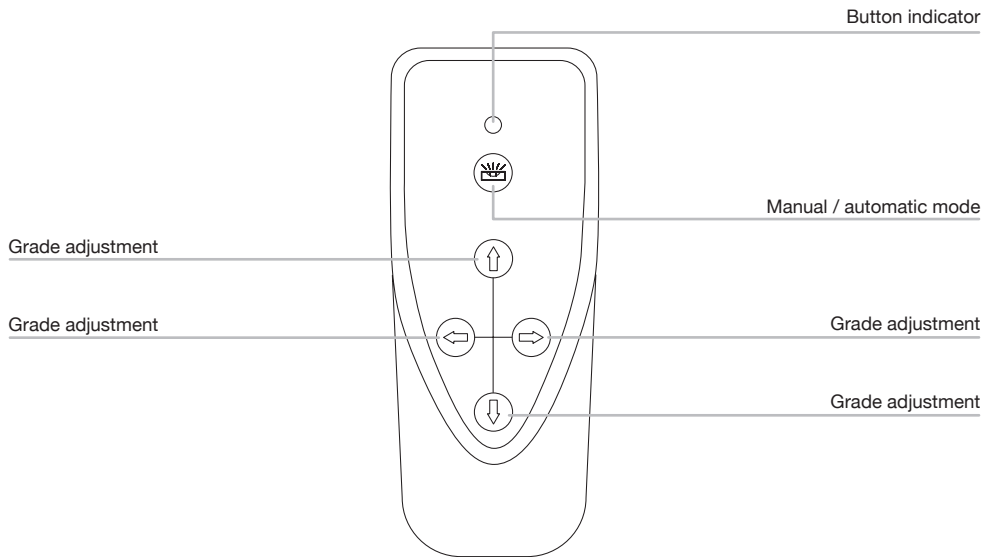
REMOTE CONTROL OVERVIEW: BACK

Battery compartment

DETECTOR OVERVIEW: FRONT

LCD display screen

Sound on / off

Coarse / fine detection

Laser sensor

Power

Speaker

DETECTOR OVERVIEW: BACK

LCD display screen

Staff clamp thread

Battery compartment
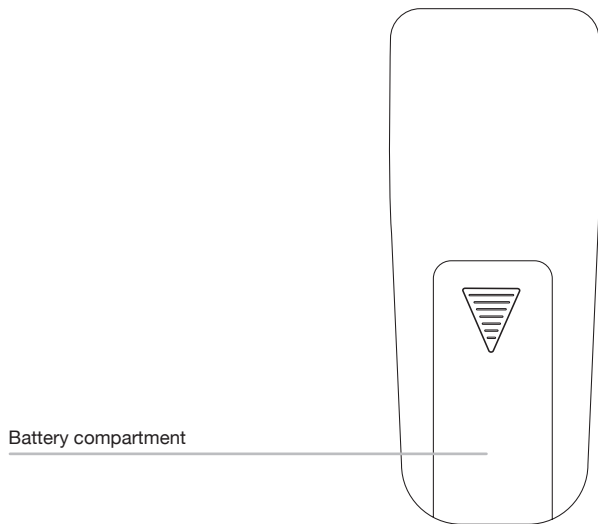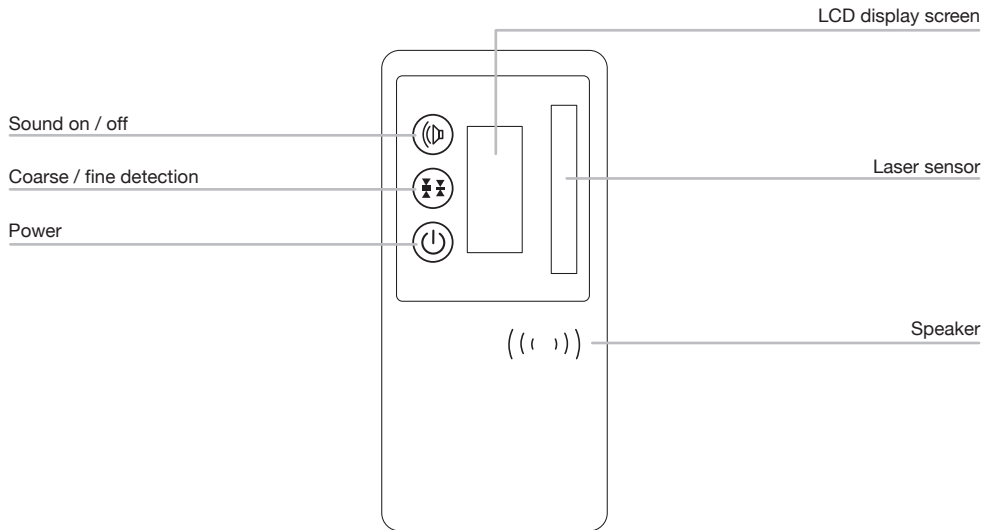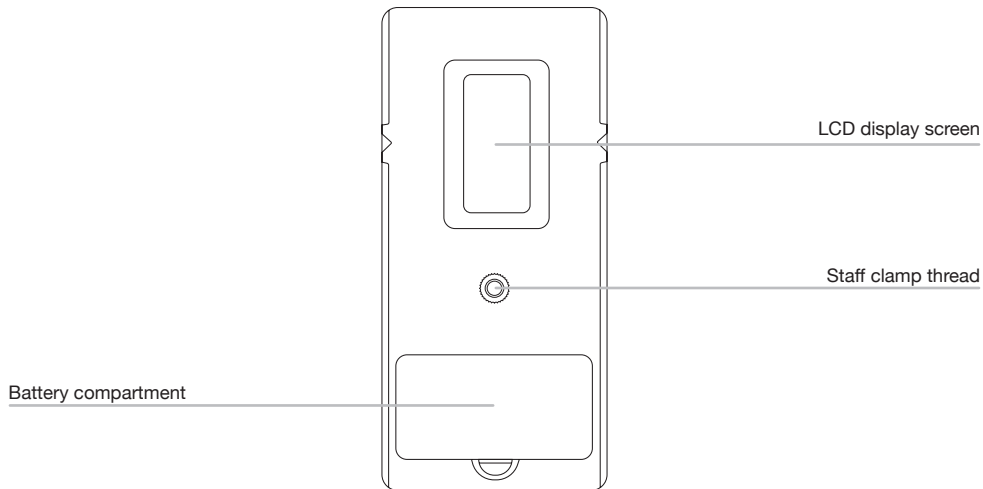
USING YOUR LASER

POWER SUPPLY

- The instrument is supplied with four *AA Ni-Mh batteries* as its standard power source.

- The instrument can also be powered by four *AA alkaline batteries*.

Rechargeable Ni-Mh batteries

- The instrument is supplied with four *rechargeable Ni-Mh batteries* that are located in the *base* of the instrument.

- The rechargeable batteries are supplied only partially charged. Charge the rechargeable batteries before use.

- Battery capacity decreases at low temperatures; depleted batteries may not function when cold.

Indoor charger

- The *indoor charger* is for indoor use only.

- Do not store in locations where moisture can be present or where the charger could be exposed to extreme temperatures.

- If a charger becomes damaged, stop using immediately and seek a replacement.

⚠️ **WARNING: Only use the supplied charger. Using an incorrect charger will void the warranty. Do not charge alkaline batteries.**

Charging the rechargeable batteries

- Insert the *charger* into the *charging port* on the instrument. Progress will be shown by the *power indicator display* on the charger as below:

☀ *Red (flashing)* = Charger and battery are not connected.

● *Red (constant)* = Battery is charging

● *Green (constant)* = Battery is charged

- Charging time is approximately 5 hours for depleted batteries.

Removing & inserting the rechargeable batteries

- Unscrew and remove the *battery cover door* and the *batteries*.

- Insert the *batteries* according to polarity and replace the *battery door.*

HORIZONTAL MEASUREMENT SET UP

Level surface set up

- Select a place as close and practical to the work site as possible, and ensure that the location is clear of traffic.

- Place the laser level onto a reasonably level surface with the *control panel* facing upwards.

VERTICAL MEASUREMENT SET UP

Level surface set up

- Select a place as close and practical to the work site as possible, and ensure that the location is clear of traffic.

- Place the laser level onto a reasonably level surface with the *lighthouse* facing upwards.

OPERATION

Powering on

- Press the *power button* once and the instrument will power on and begin automatically self-levelling. When this levelling process is complete, the penta prism inside the *lighthouse* will start rotating.

- If the instrument is outside the self levelling range the instrument will not level causing the laser beam to flash continuously. If this occurs, reposition the instrument onto a level surface until the instrument can level off.

Powering off

- Press the *power button* once and the instrument will power off.

Tilt alarm

- Once the instrument has been levelled off the tilt alarm can be enabled by pressing the *tilt alarm button* on the instrument. The *tilt alarm indicator* light will flash continuously whilst active.

- If the instrument is disturbed while the alarm is active the instrument will stop rotating and will need to be powered off and on again to reset its level position.

Setting up a grade / slope

- To create a slope / grade, enter into manual mode by pressing the *manual / automatic mode button* on either the instrument or remote control.

- The *manual / automatic mode indicator* on the instrument will light up when manual mode is active.

- To adjust the grade, press the *grade adjustment arrows* on the remote control. These arrows will adjust the grade on either the x-axis or y-axis.

- To cancel out of manual mode press the *manual / automatic mode button* on either the instrument or remote control.

ℹ When in manual mode the instrument will not self level and correct for vibrations and/or disturbances.

USING YOUR REMOTE CONTROL

Power supply

- The remote is powered by *two AAA alkaline batteries*.

Battery replacement

- Remove the *battery door cover*.

- Insert the batteries according to polarity and replace the *battery door*.

Remote operation

- Ensure the instrument is turned on and the laser head is rotating.

- To create a grade / slope press the *grade adjustment arrows*.

USING YOUR DETECTOR

Power supply

• The detector is powered by a *9V alkaline battery*.

Mounting the staff clamp

• Insert the *staff clamp screw* into the *staff clamp thread*.

• Rotate the *nut* until the *clamp* is secured in place.

Battery replacement

• Remove the *battery door cover*.

• Insert the battery according to polarity and replace the *battery door*.

Detector operation

• Switch the detector on by pressing the *power button*. The *speaker* will beep once indicating the instrument is operating.

• The *LCD screen* will display the *battery level, detection mode* and *speaker function*.

• To change between coarse and fine mode press the *coarse / fine mode button.*

• Move the detector into the path of the laser beam.

• Hold the detector upright for horizontal beams. Rotate the detector 90° for vertical beams.

• The direction arrows or level line on the *LCD screen* will indicate the position of the laser beam. The detector will emit a constant beep once the level position has been located.
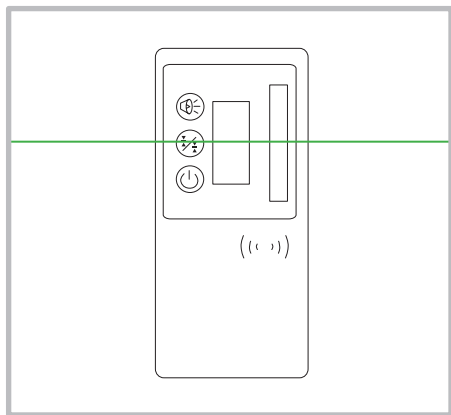
Detector position for horizontal beams
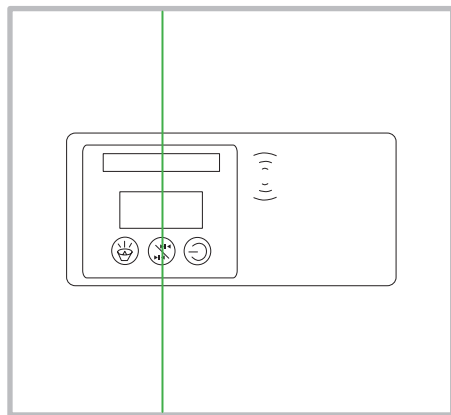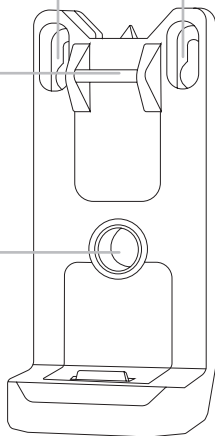

Detector position for vertical beams

USING THE MOUNT

OVERVIEW

Screw fixing point

Hook

5/8" x 11 thread for
vertical operation
on a tripod

Screw fixing point

5/8" x 11 thread for
vertical operation
on a tripod

Locking lever
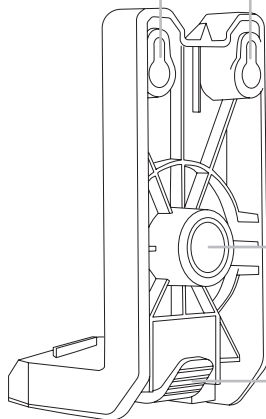
USING THE MOUNT

Mounting via screw fixing points

- Attach the mount via the *hook* onto the back of the instrument.

- Push the *locking lever* to secure in place.

- Fix a screw into a secure surface and hook the mount over the screw. Ensure that the mount has a strong hold before releasing your hands.

Mounting onto a tripod (vertical)

- Attach the mount via the *hook* onto the back of the instrument.

- Push the *locking lever* to secure in place.

- Attach the instrument onto the tripod via the *5/8" x 11 thread.*
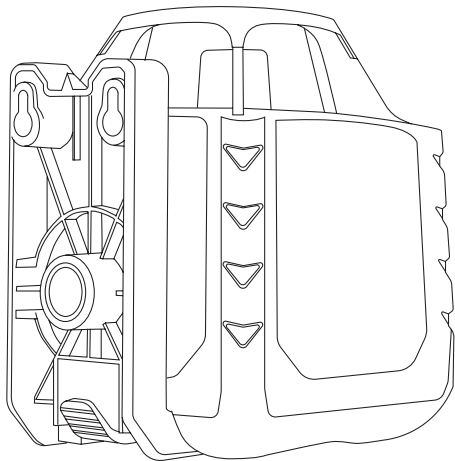
CHECKING CALIBRATION

Before doing any precision levelling it is advised to check the calibration of the instrument.

- Set up the laser on a tripod at about 30m facing a wall or staff with a detector.

- Allow the instrument to level.

- Detect and note laser position on the wall or staff.

- Without moving the tripod rotate the instrument 180°.

- Detect and note laser position on the wall or staff.

- Calculate the distance between the two readings.

- The difference should be within 6mm at 30m.

- If the instrument is out of calibration it is advised to send it in to Spot-on.
  (see www.spoton.com.au for details)

TROUBLE SHOOTING

Error	Cause & Solution
Laser does not turn on	• Check the batteries. They may be in the wrong way or need replacing. • Check the battery compartment for signs of damage. Ensure they are clean and not bent. • Connect the mains power adaptor.
Laser turns on but does not rotate	• Check the batteries. • Check the battery compartment for signs of damage. Ensure they are clean and not bent. • Instrument may be outside its self levelling range. Adjust the instrument or tripod so it is level.
Laser does not remain on for long periods of use.	• Check the batteries. • Check the battery compartment for signs of damage. Ensure they are clean and not bent. • Connect the main power adaptor.
Laser does not level off	• Instrument may be outside its self levelling range. Adjust the instrument or tripod so it is level. • Instrument may have low power. • Instrument may have impact damage.
Detector does not detect the laser beam	• Check the batteries. • Check that the laser is operating correctly.
Detector speaker is not functioning	• Check sound is on. • Check the laser is operating correctly and producing a beam.

CARE AND MAINTENANCE

- Reflective surfaces such as glass may reflect the beam, causing two beams to strike the detector at the same time. This may create inaccurate reference points.

- This is a precision measuring instrument and should always be handled with care and transported within the carry case provided.

- Whenever possible, store the instrument in a dry, shady location.

- Calibration of the instrument is recommended: every six months, if ongoing accurate levelling is required, or an impact has occurred.

- The operator should check the accuracy of the instrument before precision levelling is attempted. Failure to do so may result in inaccurate measurements.

- The supplied charger is specific to this product. Do not purchase or use any other type of charger or power adaptor.

- Clean the instrument with a dry, soft cloth after use in dusty, damp or wet conditions before storing.

- Smudges and fingerprints may be removed with a damp tissue or a soft, lint-free cloth.

WARRANTY

3 YEAR STANDARD WARRANTY PERIOD

1. The warranty period for your Lasertec tool is 3 years from the date of purchase.

2. The warranty period for batteries, battery packs and chargers is 1 year from the date of purchase.

3. All products have a standard warranty period, you do not have to register your products to obtain the standard warranty period.

4. To claim under this warranty, the date of purchase of the Lasertec tool must be documented by an invoice/receipt.

7 YEAR EXTENDED WARRANTY PERIOD

1. The extended warranty is available on selected tools only.

2. You may extend the warranty period for your Lasertec tool to 7 years from the date of purchase. This excludes batteries, battery packs and chargers.

3. To obtain the extended warranty, the registration process must be completed within 30 days from the date of purchase.

4. Failure to register your product online and/or submission of a valid invoice/receipt will void the warranty extension.

5. Please ensure ALL information submitted/ uploaded is correct.

6. Extended warranty is ONLY available via online registration, offline (mailing in of warranty registration) will not be accepted.

AUSTRALIA

"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."

For more information please visit consumerlaw.gov.au

NEW ZEALAND

For more information please visit consumerprotection.govt.nz

CUSTOMER SUPPORT

To assist you with any queries or technical questions
please contact our 24 hour customer support hotline.

Australia: 1300 658 338

New Zealand: 0800 367 527

SPECIFICATIONS

Specifications	Lasertec HV2G
Product code	91330
Warranty	7 Years*
Accuracy	±1.5mm at 30m
Operating range	250m (diameter)
Levelling range	±9% / ±5°
Laser class	3 Green
Battery life	20 hours
Battery type	4x 1.5v AA
IP rating	65
Weight (kg)	1.25
Dimensions (mm)	160 x 120 x 120

*With online registration. Please refer to page 25 for details.

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