



# Lasertec

HV1R Red Rotary Laser

**INSTRUCTION MANUAL**

# SAFETY

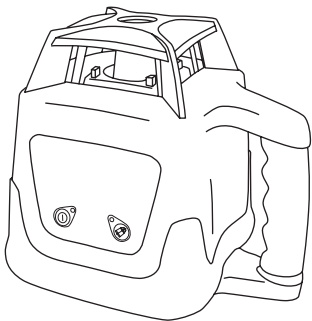
Please read this instruction manual before operating this product.  
Please store this instruction manual in the carry case for future reference.

## **CAUTION: Class 2 Laser Product**

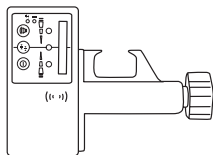
Do not stare directly into the laser beam from apertures.  
Do not disassemble the instrument or attempt to perform any internal servicing as this will void your warranty. No user serviceable parts included.  
Only approved and authorised service technicians can carry out warranty repairs.

# ITEM CHECKLIST

Please ensure the following items are included with your laser.  
If anything is missing please contact your retailer.



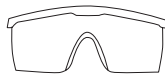
Lasertec HV1R



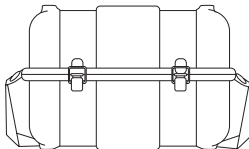
LED Detector and clamp



Laser target



Laser glasses

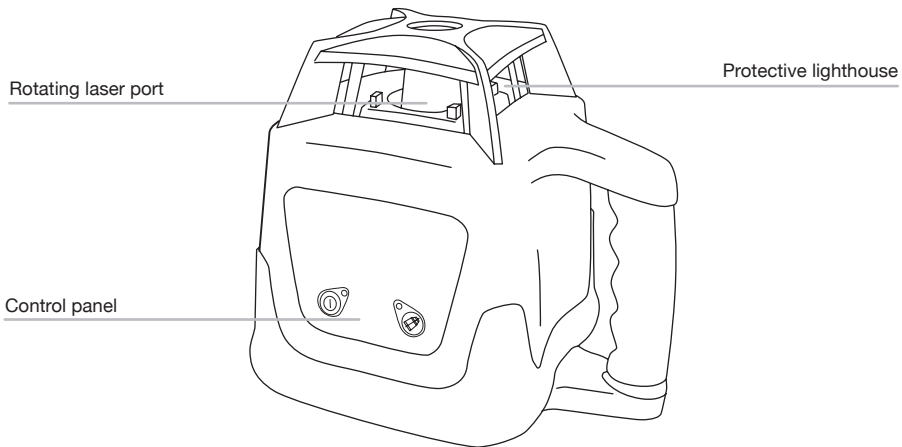


Carry case

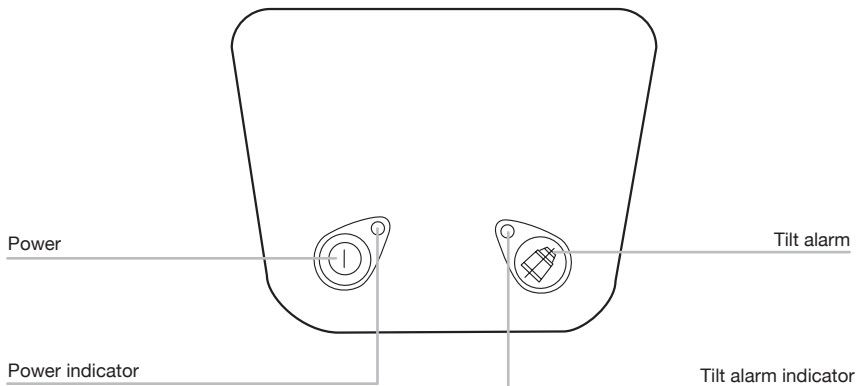


Batteries

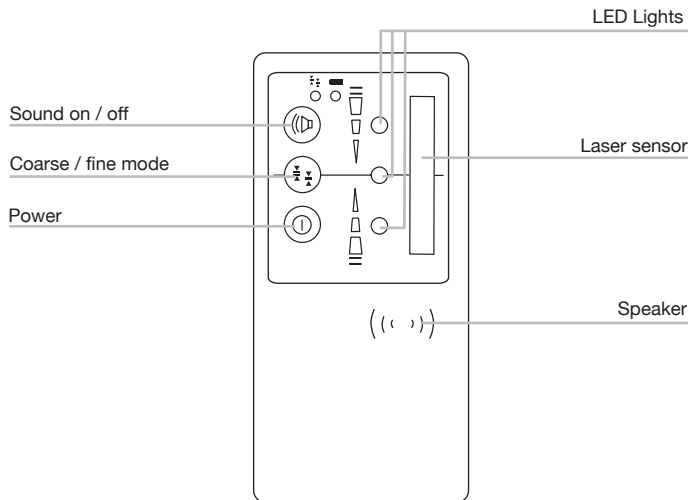
# PRODUCT OVERVIEW



# CONTROL PANEL



# DETECTOR CONTROL PANEL



# USING YOUR LASER

## Power Supply

The Lasertec HV1R is powered by four C cell alkaline batteries.

## Horizontal Set Up

- ▶ Select a place as close as practical to the work site.  
Ensure the location is clear of traffic.
- ▶ Attach the laser to a tripod and place on a level surface.  
Ensure the unit is secured correctly and tightened in position.

## Vertical Set Up

- ▶ Select a place as close as practical to the work site.  
Ensure the location is clear of traffic.
- ▶ Place the laser onto a level surface with the control panel facing upwards.

## Operation

- ▶ To turn the unit on press the *power* button. Self levelling will commence and the laser will begin to rotate.
- ▶ If the unit is outside the self levelling range the unit will not level causing the laser beam to flash continuously.

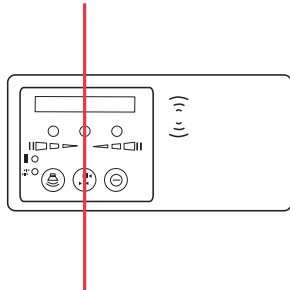
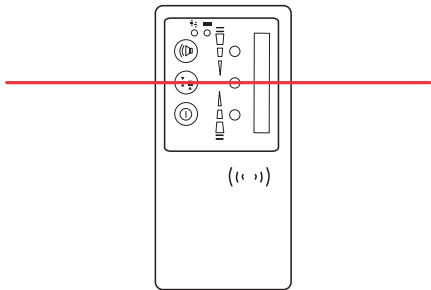
### Tilt alarm

- ▶ Once the unit has been levelled off the tilt alarm can be enabled by pressing the *tilt alarm* button. The tilt alarm indicator light will flash for approximately 15 seconds. Once the light is constant the alarm is enabled.
- ▶ If the unit is disturbed while the alarm is active the unit will need to be powered off and on again to reset its level position.



## Using Your Detector

- ▶ Switch the detector on by pressing the *power* button. The speaker will beep once indicating the unit is operating.
- ▶ 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 LED lights will indicate the position of the beam alongside the up and down arrows. The detector will emit a constant beep once the level position has been located.



# CHECKING CALIBRATION

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

- ▶ Set up the laser on a tripod at about 30m facing a wall or staff with a detector.
- ▶ Allow the unit to level.
- ▶ Detect and note laser position on the wall or staff.
- ▶ Without moving the tripod rotate the unit 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 unit is out of calibration it is advised to send it in to *Spot-on*.  
(see [www.spoton.com.au](http://www.spoton.com.au) for details)

# TROUBLE SHOOTING

## **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.

## **Laser turns on but does not rotate**

- ▶ 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.

## **Laser does not remain on for long periods of use.**

- ▶ 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.

## **Laser does not level off**

- ▶ Unit may be outside its self levelling range. Adjust the unit or tripod so it is level.
- ▶ Unit may have low power
- ▶ Unit may have impact damage.

**Detector does not detect the laser beam**

- Check the batteries. They may be in the wrong way or need replacing.
- 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 instrument and should always be transported within the carry case provided.
- ▶ Whenever possible, store the instrument in a dry, shady location.
- ▶ The HV1R should be calibrated every 6 months, if ongoing accurate levelling is required or an impact has occurred.
- ▶ The operator should check the HV1R for accuracy before precision levelling is attempted.
- ▶ 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

## **The Lasertec HV1R comes with a 1 year manufacturers warranty.**

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.

Separate to the above Australia Consumer Law, *Spot-on* offers a global warranty.

## **30 Day Free Service**

If your laser is out of calibration within the first 30 days of purchase you are entitled to a free calibration adjustment. For more information please contact your retailer or *Spot-on*.

## **Customer Support**

To assist you with any queries or technical questions please contact the customer support line: 1300 658 338

# SPECIFICATIONS

<b>Specifications</b>	<b>Lasertec HV1R</b>
Product code	90013
Warranty	1 Year
Accuracy	±3mm at 30m
Range	250m
Levelling range	±9% / ±5°
Laser class	2 Red
Battery life	20 hours
Battery type	4x C
IP rating	65
Weight (kg)	1.95
Dimensions (mm)	185x200x150

[www.spoton.com.au](http://www.spoton.com.au)

