### ML5 MULTI-LINE LASER





## INSTRUCTION MANUAL

### 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.

### **MARNING: 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.

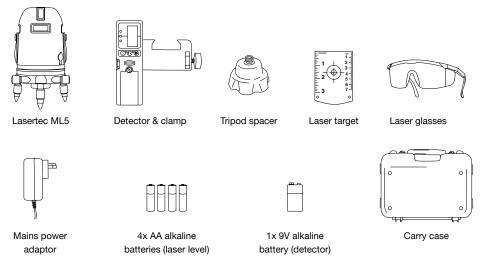
### A CAUTION: Class 2 Laser Product

• 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.

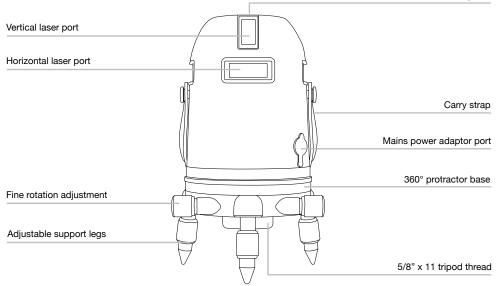
## **ITEM CHECKLIST**

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

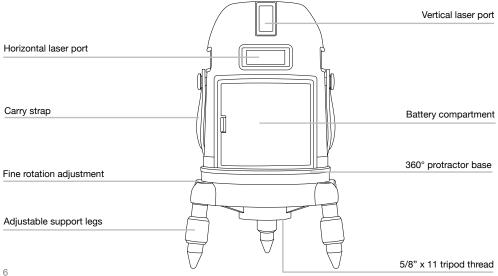


## LASER OVERVIEW: FRONT

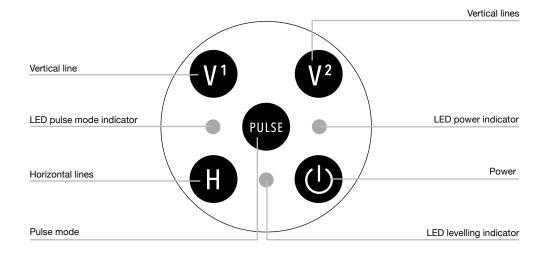
Control panel



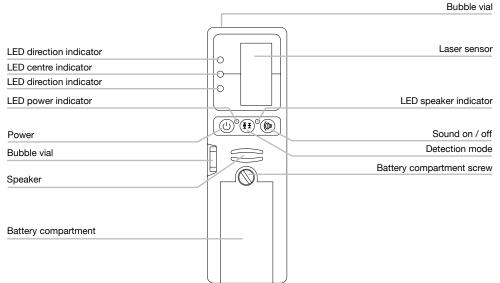
## LASER OVERVIEW: BACK



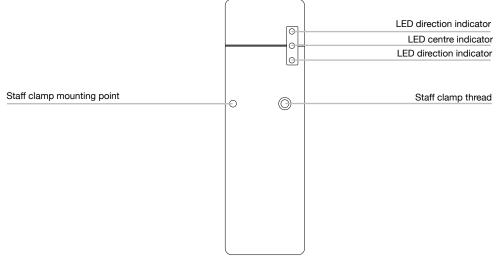
### LASER OVERVIEW: CONTROL PANEL



### DETECTOR OVERVIEW: FRONT



### DETECTOR OVERVIEW: BACK



### **USING YOUR LASER**

#### POWER SUPPLY

- The instrument is supplied with four AA alkaline batteries as its standard power source.
- The instrument can also be powered via the mains power supply.

#### **Replacing alkaline batteries**

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

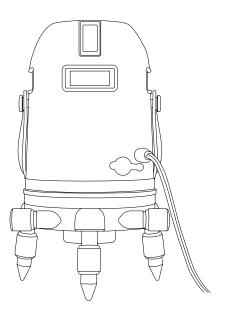
#### Mains power

- Insert the mains power adaptor into the port beside the battery door and plug into a power source.
- The instrument can operate on mains power as an alternative to battery operation.
- Do not store in locations where moisture can be present or where the chargers could be exposed to extreme temperatures.

**POWER SUPPLY** (continued)

• If a mains power adaptor becomes damaged, stop using immediately and seek a replacement.

**1** The mains power adaptor does not charge the AA batteries.



#### SET UP

- Select a place as close as practical to the work site. Ensure the location is clear of traffic.
- Place the instrument on a level surface such as a bench or mount.

#### OPERATION

• To turn the instrument on, press the *power* button. Self levelling will commence and the horizontal beam will activate. The levelling LED indicator will flash while the instrument levels. Once the LED is solid, levelling is complete.

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

• Press the  $V^1$ ,  $V^2$  and H buttons on the control panel to cycle through the active beams.

#### Setting up a grade / slope

• Press the *power* button to turn the instrument on. Self levelling will commence and the horizontal beam will activate.

• Press the  $V^1$ ,  $V^2$  and H buttons on the control panel to select the beams required.

• Press and hold the *H* button for three seconds until the *LED levelling indicator* begins flashing. The instrument is now set to grade on the X-axis.

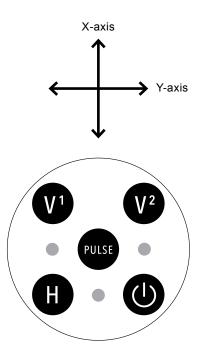
• Press the  $V^1$  or  $V^2$  to adjust the slope of the X-axis.

• To adjust the Y-axis, press the *H* button. The *LED levelling indicator* will begin flashing. The instrument is now set to grade on the Y-axis.

• Press the  $V^1$  or  $V^2$  to adjust the slope of the X-axis.

• Press and hold the *H* button for three seconds to reset the grade adjustment.

• To exit grade mode, press the *power* button to turn the instrument off. Press the *power* button again to turn the instrument on. Self levelling will commence and the horizontal beam will activate.



#### Tilt lock

• Press the *power* button to turn the instrument on. Self levelling will commence and the horizontal beam will activate.

• Press the  $V^1$ ,  $V^2$  and H buttons on the control panel to select the beams required.

• Press and hold the *H* button for three seconds until the *LED levelling indicator* begins flashing.

• The instrument can now be tilted to the desired angle.

• To exit tilt lock mode, press the *power* button to turn the instrument off. Press the *power* button again to turn the instrument on. Self levelling will commence and the horizontal beam will activate.

### USING YOUR DETECTOR

#### Power supply

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

#### **Battery replacement**

• Rotate the battery compartment screw counter clockwise. Remove the battery door cover.

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

#### Mounting the staff clamp

- Insert the staff clamp screw into the staff clamp thread.
- Rotate the nut until the clamp is secured in place.

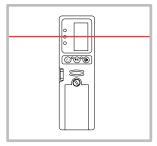


### USING YOUR DETECTOR (continued)

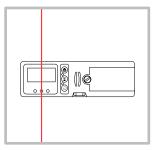
#### **Detector operation**

- Press the *pulse mode* button on the top of the instrument to enter into pulse mode.
- Switch the detector on by pressing the *power* button. The speaker will beep indicating the instrument is operating.
- Move the detector into the path of the laser beam.
- Press the *detection mode* button to alternate between fine and course detection.
- Hold the detector upright for horizontal beams. Rotate the detector 90° for vertical beams.

• The LED direction indicators will indicate the position of the laser beam. The centre LED will indicate alignment with the beam.



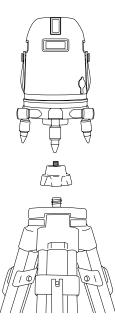
Detector position for horizontal beams



Detector position for vertical beams

#### MOUNTING TO A CONSTRUCTION TRIPOD

- The construction tripod is an optional accessory which can be purchased from your retailer.
- Stand the tripod on a level surface with legs spaced for stability.
- Screw the tripod spacer into the base of the instrument until firm.
- Push the tripod yoke through the hole of the tripod spacer and screw into place.
  - Attaching the instrument to a tripod without the correct tripod spacer may cause damage. Instructions are for a domed or flat construction tripod only.



## **TROUBLE SHOOTING**

Error	Cause & Solution	
Laser does not turn on	<ul> <li>Check the batteries. They may be in the wrong way or need replacing.</li> <li>Check the battery compartment for signs of damage.</li> <li>Ensure they are clean and not bent.</li> </ul>	
Laser does not remain on for long periods of use.	<ul> <li>Check the batteries.</li> <li>Check the battery compartment for signs of damage.</li> <li>Ensure they are clean and not bent.</li> </ul>	
Laser does not level off	<ul> <li>Instrument may be outside its self levelling range.</li> <li>Adjust the instrument or tripod so it is level.</li> <li>Instrument may have low power.</li> <li>Instrument may have impact damage.</li> </ul>	

### CARE AND MAINTENANCE

- This is a precision measuring instrument and should always be handled with care and transported within the carry case provided.
- Always turn the instrument off before transporting the instrument or moving around the job site.
- Reflective surfaces such as glass may reflect the laser beam, causing two beams to strike the detector at the same time. This may result in inaccurate reference points.
- 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.

- 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 ML5 comes with a 3 (three) year manufacturers warranty.

#### 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 customer support

Australia: 1300 658 338 New Zealand: 0800 367 527

### SPECIFICATIONS

Specifications	Lasertec ML5
Product code	91235
Warranty	3 Years
Accuracy	±2mm at 10m
Operating range	50m (with included detector)
Levelling range	±8°
Laser class	2 Red
Battery life	8 hours
Battery type	4x 1.5v AA
Vertical lines	4
Horizontal lines	4
IP rating	65
Weight (kg)	1.50
Dimensions (mm)	205 x 120 x 120



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