

# GENERAL

**PL-100G**  
PIPE LASER



I N S T R U C T I O N   M A N U A L

# 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.

## SAFETY (continued)

- 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.

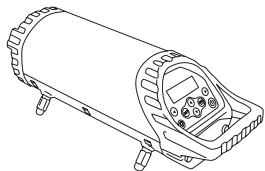


### **CAUTION: Class 3 Laser Product**

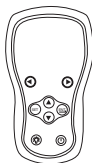
- Never look into the laser beam directly and intentionally.
- Do not use optical tools to view the laser beam.
- Do not set up the tool at a position where the laser beam can cross any person at head height.
- Do not let children come in contact with the laser.

# ITEM CHECKLIST

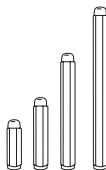
Please ensure the following items are included with your laser level.  
If anything is missing please contact your retailer.



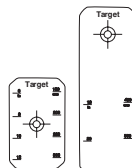
General PL-100G



Remote control



4x Sets of  
interchangeable feet



2x laser targets



Rechargeable  
battery pack



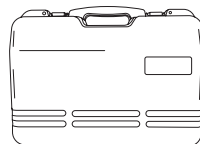
Charger



2x AA batteries  
(remote control)

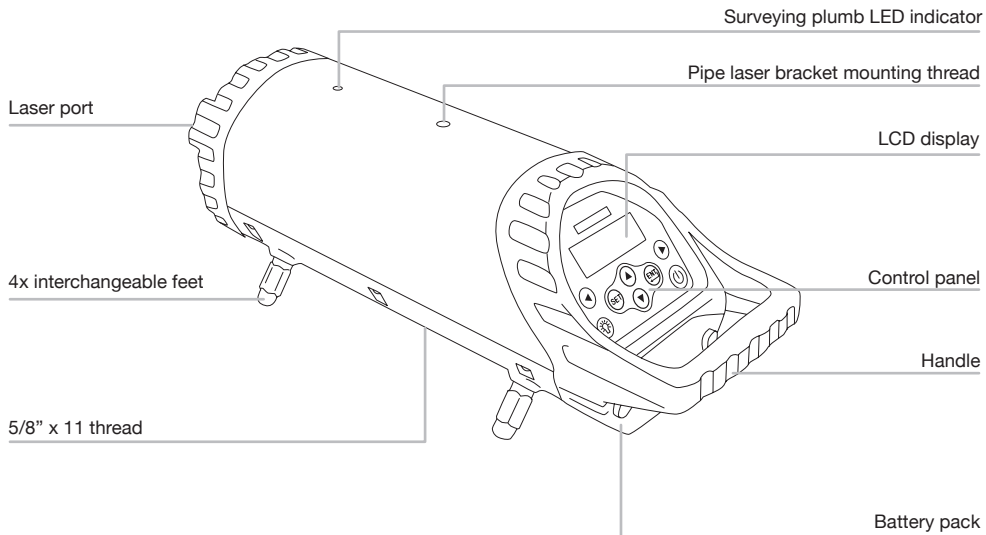


Target mount

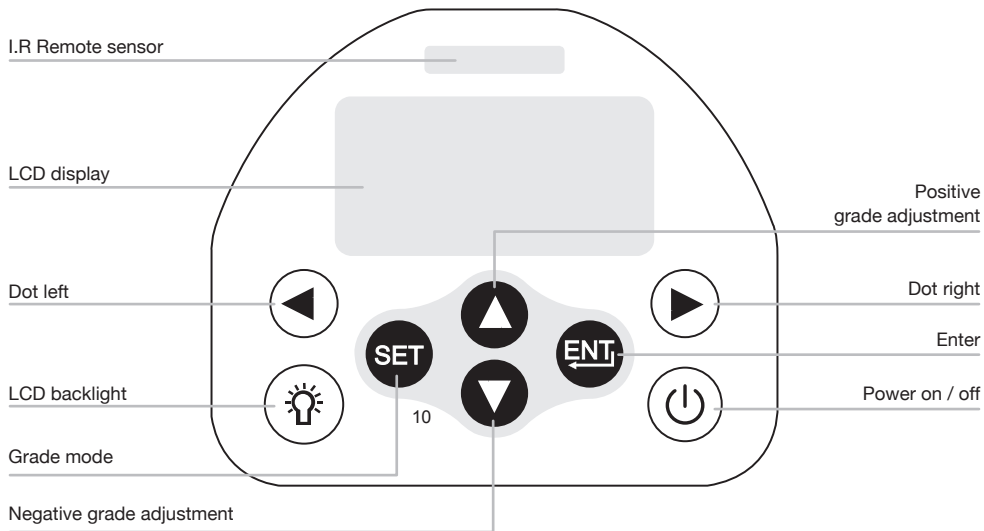


Carry case

# LASER OVERVIEW: FRONT



# LASER OVERVIEW: CONTROL PANEL



# LASER OVERVIEW: LCD SCREEN

Laser direction

Plus / minus indicator

Digital bubble vial

Grade value



# USING YOUR LASER

## POWER SUPPLY

- The instrument is supplied with a rechargeable Ni-MH battery pack. that is located in the base of the unit.
- It is recommended that the battery pack be completely charged before use.
- Use of the unit over time and changes in temperature may cause increases or decreases in charging and operation time.
- The power indicator light will flash when the battery is low. The unit should be re-charged as soon as possible. Alternatively, the alkaline batteries should be replaced.

## Inserting & removing the Ni-Mh battery pack

- Insert the ***battery pack*** according to polarity.
- Secure the ***battery pack*** in place via the two screws on either side.
- To remove the ***battery pack***, unscrew the screws and pull out the ***battery pack***.



## USING YOUR LASER (continued)

### Charging the Ni-Mh battery pack

- Remove the plug covering the **charging port** on the battery pack.
- Align the pins on the **charger** and **charging port** and screw into place.
- Plug the charger into a power source.
- Progress will be shown on the **LED lights** displayed on the **charger** as below:

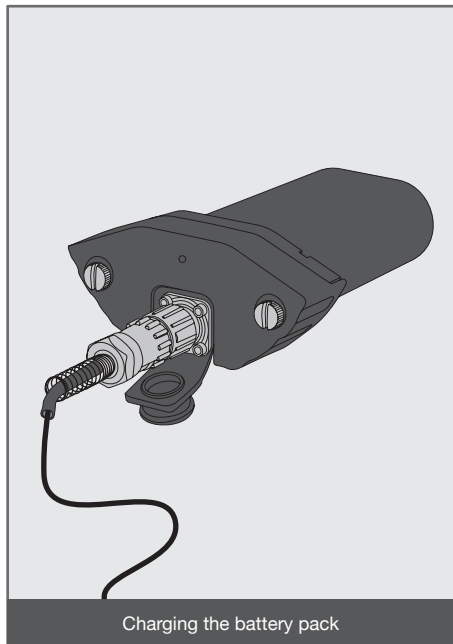
● **Red (constant)** = Battery is charging

● **Green (constant)** = Battery is charged

- Charging time is up to 6 hours on a discharged battery.



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



Charging the battery pack

## USING YOUR LASER *(continued)*

### SET UP

- Select a place as close as practical to the work site. Ensure the location is clear of traffic.
- Place the laser on a level surface such as a bench or mount. Use the bubble vial on the LCD screen to level the unit

### OPERATION

#### Powering on / setting up

- To turn the unit on press the power button.
- Press and hold the dot left and dot right buttons simultaneously to centre the laser beam. The laser direction symbol with flash during centering.
- Use the dot left and dot right buttons to adjust the beam as required.
- The LCD screen will indicate the position of the beam.

## USING YOUR LASER *(continued)*

See diagram below:



*Laser dot is in the far left position*



*Laser dot is in the left position*



*Laser dot is centred*



*Laser dot is in the right position*



*Laser dot is in the far right position*

## Setting up grades

- To create slopes and grades enter into grade mode by pressing the grade mode (set) button. +00.000% will be displayed on the screen.
- To set a grade press the negative grade adjustment or positive grade adjustment button to adjust the percentage required. Press and hold for faster adjustment.
- Press the enter button to accept.

## USING YOUR LASER *(continued)*

### Tilt Alarm

The unit may be levelled by using the digital bubble vial displayed on the LCD screen.

See diagram below:



*Flashing indicates the left side of the laser is beyond the levelling range.*



*Laser is level.*



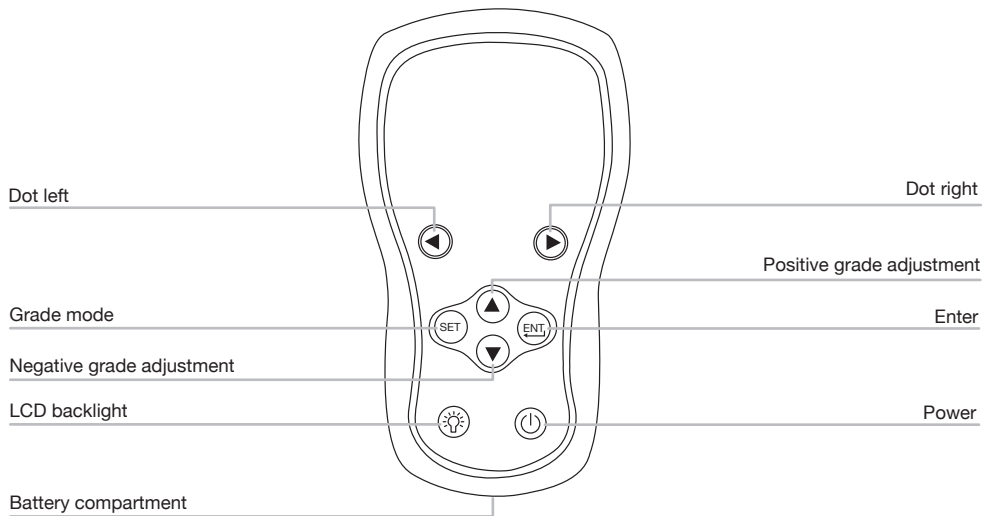
*Flashing arrow indicates the right side of the laser is beyond the levelling range.*

If the unit is tilted too far forward or backward an alarm will sound indicating adjustment is required.

A diagram will also appear on the LCD screen as in the example below:



# REMOTE OVERVIEW: FRONT



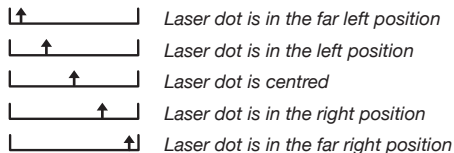
# USING YOUR REMOTE

## OPERATION

### Powering on / setting up

- To turn the unit on press the power button.
- Press and hold the *dot left* and *dot right* buttons simultaneously to centre the laser beam. The laser direction symbol with flash during centering.
- Use the dot left and dot right buttons to adjust the beam as required.
- The LCD screen will indicate the position of the beam.

See diagram below:



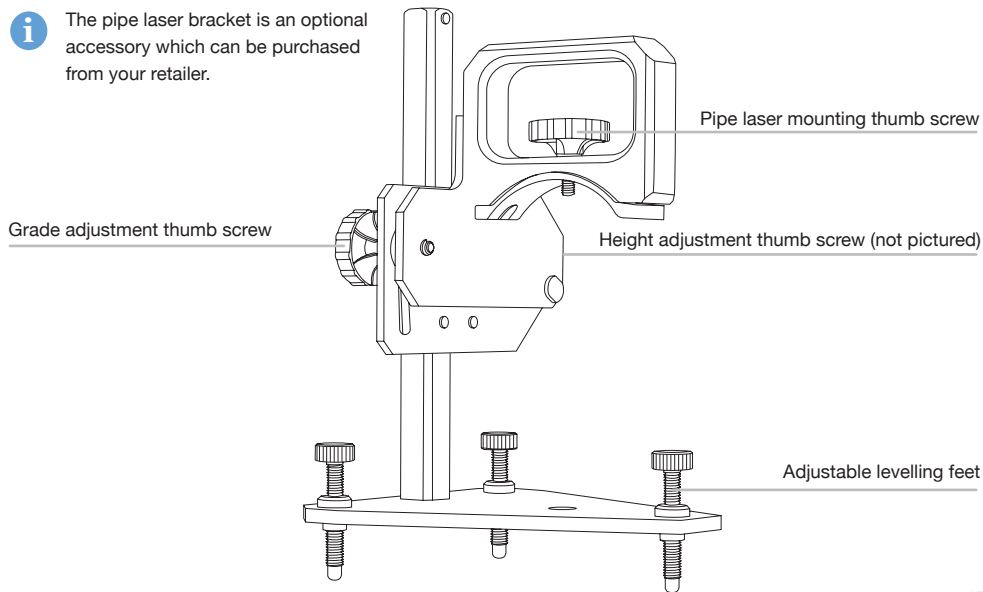
### Sleep mode

- To enter your instrument into sleep mode press the power button when the instrument is already on. Your laser will then save its current data and enter into sleep mode.
- While in sleep mode the LED light will flash slowly to indicate that sleep mode is active.
- To enter out of sleep mode press the power button, waking the instrument.
- If the instrument is not waked within 30 minutes, it will automatically power off

# PIPE LASER BRACKET OVERVIEW



The pipe laser bracket is an optional accessory which can be purchased from your retailer.



# USING THE PIPE LASER BRACKET



The pipe laser bracket is an optional accessory which can be purchased from your retailer.

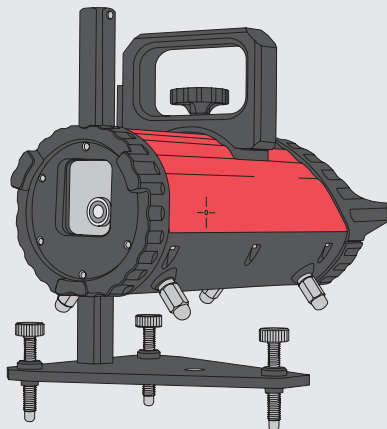
- Attach the pipe laser to the bracket via the thread on the top of the laser so the pipe laser is suspended in the air.
  - Place the bracket and pipe laser in the desired location and adjust the *adjustable levelling feet* into a level position.
  - Loosen the *height adjustment thumb screw* and either raise or lower the pipe laser to the desired position and tighten the *height adjustment thumb screw* firmly.
  - Ensure that the grade setting on the pipe laser bracket is set to 0%.
- Choose your desired grading method:
    - a) Automatic Precise Dial-in Grade (via pipe laser)
      - Please refer to the *setting up grades* on page 10.
    - b) Manual Rough Grade (via pipe laser bracket)
      - Ensure that the grade setting on the pipe laser is set to 00.000%
      - Loosen the grade adjustment thumb screw and tilt the pipe laser to the desired percentage (e.g. 15%) and tighten the grade adjustment thumb screw firmly.



## USING THE PIPE LASER BRACKET *(continued)*



**Warning:** this grading method is for rough (inaccurate) grades only due to how level the pipe laser bracket is on a flat surface or in a pipe, and also how precisely the grade has been set on the pipe laser bracket.



Pipe laser mounted on bracket

# TROUBLE SHOOTING

| Error                                                    | Cause & Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Laser does not turn on</b>                            | <ul style="list-style-type: none"><li>• Check the battery pack. The battery pack may require charging or need to be replaced due to age and/or a high number of charging cycles.</li><li>• Check the battery compartment for signs of damage and ensure that the compartment is clean and that the battery terminals are not bent.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Laser does not remain on for long periods of use.</b> | <ul style="list-style-type: none"><li>• Check the battery pack. The battery pack may require charging or need to be replaced due to age and/or a high number of charging cycles.</li><li>• Check the battery compartment for signs of damage and ensure that the compartment is clean and that the battery terminals are not bent.</li><li>• Check the display screen on the instrument. If the screen is operating and displaying all information correctly, the laser beam may have been weakened due to the instrument operating outside of its maximum temperature range or being affected by high humidity. If the instrument is being operated in a trench, the use of a trench cooling fan is recommended.</li></ul> |
| <b>Laser does not level off</b>                          | <ul style="list-style-type: none"><li>• The instrument may be outside of its levelling range and may require an adjustment before self-levelling can commence.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## TROUBLE SHOOTING *(continued)*

| Error                                                             | Cause & Solution                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Laser is not emitting a laser beam</b>                         | <ul style="list-style-type: none"><li>• Check the display screen on the instrument. If the screen is operating and displaying all information correctly, the laser beam may have been weakened due to the instrument operating outside of its maximum temperature range or being affected by high humidity. If the instrument is being operated in a trench, the use of a trench cooling fan is recommended.</li></ul> |
| <b>Battery pack will not charge or is not lasting long in use</b> | <ul style="list-style-type: none"><li>• Check the battery pack for signs of damage and ensure that the battery terminals are clean and not bent.</li><li>• Check to ensure that the charger and instrument are being operated within the specified operating temperature.</li><li>• The battery pack may need to be replaced due to age and or a high number of charging cycles.</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 ensure that the instrument is powered “off” when transporting the instrument or moving around the job site.
- 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 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. Calibrations are not covered under warranty as they are deemed wear and tear.
4. All products have a standard warranty period, you do not have to register your products to obtain the standard warranty period.
5. To claim under this warranty, the date of purchase of the 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 tool to 7 years from the date of purchase. This excludes batteries, battery packs and chargers.
3. Calibrations are not covered under warranty as they are deemed wear and tear.
4. To obtain the extended warranty, the registration process must be completed within 30 days from the date of purchase.
5. Failure to register your product online and/or submission of a valid invoice/receipt will void the warranty extension.
6. Please ensure ALL information submitted/uploaded is correct.
7. Extended warranty is ONLY available via online registration, offline (mailing in of warranty registration) will not be accepted.

## **WARRANTY (continued)**

### **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](http://consumerlaw.gov.au)

### **NEW ZEALAND**

For more information please visit  
[consumerprotection.govt.nz](http://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        | General PL-100G    |
|-----------------------|--------------------|
| Product code          | 70220              |
| Warranty              | 7 Years*           |
| Accuracy              | ±1mm at 20m        |
| Operating range       | 600m               |
| Levelling range       | ±5°                |
| Grade range           | -20% — +30%        |
| Laser class           | 3 Green            |
| Operating temperature | -20°C to +35°C     |
| Battery type          | 4x D (sealed pack) |
| IP rating             | 68                 |
| Weight (kg)           | 6 (inc. batteries) |
| Dimensions (mm)       | 379 x 128 x 126    |

\*With online registration (3 years without registration). Please refer to page 21 for details.



# NOTES

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## NOTES (continued)

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## NOTES (continued)

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