

Horizontal 360 Laser - 1L360R

Instruction Manual



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User Safety

- Laser output sign lies near the output aperture.
 - Do not stare directly into laser beam.
 - Do not disassemble the instrument or attempt to perform any internal servicing. Repairs and service should be performed only authorised service centres of Redback Lasers.
- This instrument complies with the safety Classification standards of laser radiation.



1L360R CAUTION: Class 3r laser <5mW at 635nm.

Do NOT stare into laser beam or aim at another person.

Follow relevant Australian Standards

1L360™ INTRODUCTION

Congratulations on purchasing one of the RedBack 1L360R™ Auto Levelling 360 horizontal line lasers. The 1L360R comes in a number of different kits but the laser itself is the same in all. Please note that some of the accessories described in this manual may not be included in the particular kit you have purchased.

The 1L360R features a full horizontal 360° line which is highly visible for indoor levelling jobs. For outdoor levelling use the LLR705 electronic receiver which comes included in the 1L360R+ and 1L360+P kits. When using this receiver the 1L360R can be operated outside up to 300m diameter, ideal for all types of general levelling applications.

All the 1L360R kits comes with superior Li-ion rechargeable batteries and charger as well as being able to operate with standard "AA" Alkaline batteries.

The 1L360R laser features manual mode for setting on a manual slant if required.

The 1L360R laser has mounting threads on its base for tripods and accessories with either a 1/4" camera thread or 5/8" survey thread.

1L360R - Base Kit Includes

- a 1L360R Laser Unit
- Soft Carry Case
- Rechargeable Li-ion Battery & Charger
- Std Battery Compartment
- Instruction Manual



1L360R+ - Base Kit plus

- LLR705 electronic Receiver
- Receiver Staff Clamp



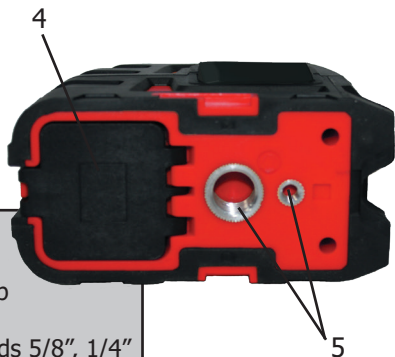
1L360R+P - Base Kit plus LLR705 plus

- Heavy Duty Flat Top Tripod
- 2.4M Staff



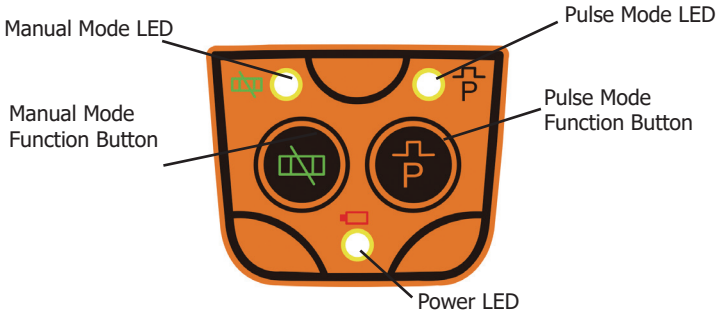
1L360R™ DIAGRAMS

1L360R Laser Level



1. Laser Output Windows
2. Control Keypad
3. Pendulum Locking Knob
4. Battery Compartment
5. Tripod/Mounting Threads 5/8", 1/4"

Keypad



1L360R+P kit with receiver, Tripod & Staff



1L360R™ OPERATING INSTRUCTIONS

Battery Instructions

The 1L360R has two battery options either 4 x standard "AA" size Alkaline or the Li-ion rechargeable pack. For standard 4 x "AA" alkaline operation simply insert "AA" batteries into standard battery holder in the direction indicated and slide the holder into battery recess and close the battery compartment cover.

To use the rechargeable battery pack first remove standard pack if inserted and place into the same battery recess in direction indicated and close the battery compartment cover.



To charge this battery pack simply insert the charger plug into the charging socket on the Li-ion battery pack itself. The LED on the charger is illuminated red during the charging process and will turn green once the battery is fully charged.

When the power LED on the keypad flashes, the rechargeable battery pack needs recharging or standard "AA" batteries need replacing. Note the charger will only charge the supplied rechargeable battery pack.



Handy Hints

- *Prior to initial use, fully charge the rechargeable battery.*
- *If when you insert a battery pack the laser does not power up try re-loading the battery pack to make sure there is a good connection.*
- *Remember the 1L360R can operate using standard "AA" batteries when rechargeable pack is out of charge or charging.*
- *When laser is not going to be used for an extended period of time it is best to remove both "AA" and Rechargeable pack if installed.*

1L360R™ OPERATING INSTRUCTIONS cont.

Turning On the 1L360R

To power up, simply unlock the pendulum by moving it to the "ON" position, this will automatically self level the laser and power up the horizontal beam. If when you unlock the pendulum the laser beam flashes and a beeping sound is emitted then the laser is out of self levelling range, place the laser on a more level surface for the device to self level and power up.

To power down the laser level simply re-lock the pendulum by switching it to the "OFF" Position.

Always transport the 1L360R laser level with the pendulum in the locked "OFF" position to protect the device when not being used.



1L360R™ OPERATING INSTRUCTIONS cont.

Pulse Mode

Pulse mode allows the 1L360R to be used with the LLR705 line receiver and so allowing the laser to be used outside for general site levelling, patios, decking etc.




With the 1L360R, pulse mode is automatically enable when powered up. For maximum visible brightness indoors disable the pulse mode by pressing the pulse "P" button, the LED above will go out. Disabling pulse mode will give a brighter visible line but a receiver will no longer operate until pulse is re-enabled. To re-enable pulse press the pulse "P" button once more.



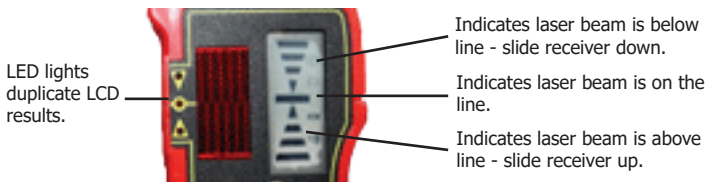
Laser Receiver LLR705 (Supplied with 1L360R+ and 1L360R+P kits)

The RedBack LLR705 allows the laser beam to be picked up outside at up to 150m radius in any lighting conditions. Ideal for decking, sheds, slabs, framing and much more.

The receiver can be used hand held or together with the staff clamp with a staff. The LLR705 has a 1mm level zone for maximum accuracy.

- A press of the Power button  on the receiver will turn on and off the receiver.
- Pressing the Speaker button  toggles speaker on and off.
- Pressing the Near / Far Button  toggles through this mode.
-
- Select near mode (line and two arrows) for short range within 5m and far range (line) when used beyond 5m. The mode you are in is displayed on the LCD of the receiver.

The LLR705 has 3 LED light displays which indicate laser is above, below and on level and a large LCD display which has a progressive display indicating when the laser gets closer to the level mark. If the receiver is left turned on without a laser being received it will auto power down after 10 minutes. For picking up horizontal lines hold the receiver as shown below, for picking up vertical lines place on its side.



1L360R™ OPERATING INSTRUCTIONS cont.

Manual Mode

Manual mode allows you to turn on the 360 degree line with the pendulum in the locked position and so allows you to set up a laser line at an angle such as for installing balustrades. Manual mode is activated by pressing the manual mode left button when the pendulum is in the locked "OFF" position. The manual mode LED light will flash warning you that the laser is not self levelling.



Unit featured is 3L360R in manual mode. Also pictured is an optional iet68 elevating tripod and optional GD12 grade dial plate; a camera style tripod with pan and tilt will provide a similar result.

1L360R Mounting on a Tripod

The 1L360R can be mounted on to a heavy duty flat top tripod using the 5/8" survey thread on the base of the 1L360R.



Technical Specifications

Laser Wavelength	635nm Red
Laser Class	3r <5mW
Visible Range (light dependent)	Up To 30m
Range with Optional Receiver	Up to 150m radius (300m diam)
Accuracy	±2mm/10m
Number 360° lines	1
Self Levelling Range	±3°
Temperature Range	-10°C - +40°C
IP Dust Water Resistance	IP55
Power	4 x "AA" Alkaline or Li-ion pack
Low Power	Power LED Flash
Size	132x122x75mm
Weight	1.0Kg

Range with Receiver as tested with RedBack LLR705 receiver, range may vary depending on type of line receiver used.

REDBACK LASERS WARRANTY

Duration of warranty is fixed and automatic, when we advertise 2 years on a particular model, its two years. No drop down to a lesser time if you forget to register, registration is NOT required just proof of purchase showing date.

Although the duration of our warranties are for a particular period it does not mean we will charge you for a genuine warranty failure a month or two outside that warranty period, we believe in a fair go.

Even though a product shows signs of accidental damage, scratches and the like, we will not automatically fail the warranty claim, if the fault is NOT caused by a drop or misuse and is a genuine warranty failure then we will cover it.

Calibration is not covered by warranty much the same as the wheel balance on your car is not covered by warranty, we do however offer a one off free re-calibration service during the period of warranty, conditions and details below.

CMI Industries Pty Ltd provides consumers with a warranty to our products, this is in addition to requirements of any relevant legislation such as the Competition and Consumer Act 2010. Definitions:

"CMI", "We" or "Our" refers to CMI Industries Pty Ltd (ABN 29 102 713 922) of Unit 1 / 381-383 Thompson Rd, Bell Park, Victoria 3215 ph 1800 769 858

"You" or "Consumer" refers to the initial purchaser of the product.

"Product" refers to goods manufactured by or for CMI Industries Pty Ltd under the brands of RedBack Lasers, LevelLaser and CMI Lasers.

"Material" refers to material or component used in the construction and manufacture of the product.

"Workmanship" refers to handling, assembly and manufacturing processes done by or for CMI Industries Pty Ltd in order to manufacture the products.

"Warranty Period" For the 1L360R is Two Years. Warranty period is from original purchase date, no extension is made in the event of warranty replacement products supplied or time spent being repaired.

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. LLR705 receivers 2 Year warranty, Ni-Mh Battery/Charger 1 Year Warranty.

CMI warrants that our products will be free from defects in material and workmanship for the warranty period.

CMI promises to repair or replace, free of charge, the product or part of product if found to be faulty due to defective workmanship or materials within the duration of the warranty as long as the following terms and conditions are met;

- Product must not have been misused or abused, must not have incurred accidental damage or had un-authorised repair or tampering that has caused or contributed to its fault or failure.
 - You must contact CMI by phone, mail or email immediately when a fault or defect has become apparent and within the warranty period.
 - Product must be returned to store of purchase or directly to CMI, we will cover cost of postage only when sent by our reply paid Australia Post service (Australian Main land and Tasmania only) details will be provided upon phone, post or email communications with us.
 - CMI will cover cost of freight back of repaired or replaced product to original purchase store or you directly (depending on how it was sent Australian Main Land and Tasmania only).
 - CMI will determine whether to repair or replace the product or part of product on a case by case basis.
 - Further exclusions in this warranty include damage or defect caused by use of non-original accessories or parts, damage in transportation, normal wear and tear, damage through moisture, damage due to electric surge, failure due to neglect or damaged caused by adjustments not outlined in CMI's instructions.
- Subject to the requirements of all applicable Australian Acts or legislation and to the extent permitted by law, CMI accepts no liability (whether expressed or implied) of any nature whatsoever for any loss of earnings, hiring of replacement equipment, inaccurate work carried out by the consumer or agent, damage or injury arising as a result of any fault in the product. It is the consumers responsibility to maintain good working practices and regularly test their tools for accuracy and serviceability.
- Calibration of the product is not covered by warranty subject to the requirement of all applicable Australian Acts or legislation and to the extent permitted by law, CMI does however offer a free re-calibration service (once within the period of the warranty) you are liable for the cost to send the product to us then we will recalibrate and return the product to you free of charge. Note this offer is invalid if the product shows signs of misuse or accidental damage that has caused it to go out of calibration.
- A CMI product returned that fails to fall within the terms and conditions of this warranty will be quoted for repair.

RedBack Lasers™ distributed by CMI Industries Pty Ltd

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