



for Professionals

RedBack Lasers CX610G

Auto Levelling Multi Line Laser - CX610G

Instruction Manual



For Models - CX610G, CX610G+ & CX610GAT

www.redbacklasers.com.au

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CAUTION: Class 3R laser <5mW at 522nm

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

Follow relevant Australian Standards

CX610G Included Accessories

- CX610 Laser Unit
- Protective Carry Case
- Rechargeable Li-ion Batteries
- Charger
- Instruction Manual

CX610G+ Included Accessories

- As the CX610G, plus
- LLR705 Receiver & Staff Clamp
- 9v Battery

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.

CX610G



CX610G+



CX610 INTRODUCTION

Congratulations on purchasing the CX610G. An Electronic self levelling Ultra Bright builders multi-line laser level.

This models is ideal for all manner of internal fit out and installation applications. The CX610G can be purchased in a number of versions with extra options.

The CX610G+ includes an outdoor receiver, the LLR705, making general outdoor levelling a breeze.

The CX610G+MM includes the LLR805mm receiver, a fantastic upgrade receiver.

The CX610GAT includes the AT1 auto tracking base and receiver, making site square a snap.

Other features of the CX610G include rechargeable Li-ion batteries. Integrated Highly visible dots in the lines. Warranty of the laser is Two Years. (See page 12)

CX610G+MM Included Accessories

- As the CX610G, plus
- LLR805mm Receiver & Staff Clamp
- 9v Battery

CX610G+MM



CX610GAT Included Accessories

- As the CX610G, plus
- Auto Track Motorised Base
- Tracking Receiver

CX610G4AT



CX610G DIAGRAMS

CX610G Laser Unit



1. Rubberised Casing
2. Control panel & Display
3. Rough Level Vial
4. Laser Output
5. Fine Rotation Knob
6. BAT MAX 11v Li-Ion Battery
7. Levelling Feet

Keypad

Horizontal
(each press toggles through each of the 4 horizontal lines)

Display showing activated lines

Vertical Line 1 Toggle
(each press toggles between on and off)



Pulse / Dim Mode
(each press toggles through; Pulse for OPTIONAL receiver, Dim for dull conditions and back to normal visible mode)

Display also indicates Battery power and Pulse/Dim Mode

Vertical Line 2 Toggle

Optional Receivers - LLR705 or LLR805MM



LLR805MM See Separate Instruction Book

CX610 OPERATING INSTRUCTIONS

Battery Instructions & Powering Up

To operate first slide the BAT MAX 11V Li-ion battery onto the battery compartment until you hear a click. NOTE: To remove the battery you will need to first press the PUSH button on the battery to release it, then slide out.

Place the CX610G laser on a surface and roughly level the unit using the adjustment feet and bubble vial. This gets the laser into self levelling range. NOTE: you **do not** need to have the bubble perfectly central for the laser to accurately self level. Then unlock the pendulum by rotating the knob to the on position.

Select your desired Horizontal and Vertical Lines using the "H", "V1" and "V2" toggle buttons on the top of the laser level. Pressing each button will toggle on and off the indicated line.

To create a ceiling cross and plumb floor dot you will need both Vertical Line enabled. NOTE: locking the pendulum will power off the laser completely.

If you rotate the laser or move it when powered up the lasers will briefly wobble as they self-level once again. If the CX610G beeps and flashes the lasers then the laser is outside of self levelling range. Re-level the laser once more using the bubble vial and adjustment feet.

Charging

The BAT MAX 11V Li-ion battery can be charged either when attached to the laser or when detached using the USB C charger cable supplied. The Display on the top of the battery indicates its state of charge whilst being charged. NOTE: the USB C charge port must be unobstructed for this to be possible.

Handy Hints

- *Prior to initial use, charge the rechargeable batteries for at least 4 hours.*

Selecting Modes (Pulse/Flash)

The "P" Mode button toggles through Pulse Mode, Flash Mode and back to Normal Mode.

Pulse mode allows you to use an OPTIONAL line receiver such as the LLR705 receiver or LLR805mm Receiver for use outdoors up to a range of 40m in all light conditions. Ideal for Decking, Stumps etc when the ambient light is too bright to visibly see the laser lines. When pulse mode is active the laser line slightly dims. Note: The LLR705 receiver is available with the CX610G+ package, and the LLR805mm is available with the CX610G+MM package.

Flash mode appears to intensify the beam making it more visible in brighter conditions. When this mode is active the selected laser lines visibly flash. NOTE: Line Laser receivers will not pick up flashing lines, the laser needs to be in Pulse mode for that, see above.

Laser Lines with Embedded Dots

One of the outstanding features of the RedBack CX610G apart from its ultra bright Laser Lines is its even brighter integrated laser dots.

Vertical "V1" and Horizontal "H" lines have an embedded dot which corresponds with the laser lines. These dots are more visible when trying to use the CX610 visibly outdoors.

When you cannot see the lines or dots outside that's where using a laser receiver comes in handy.

Tripods

The CX610G can be mounted on an indoor tripod with survey thread such as the IET150. Note that the adjustment feet will not help to level the laser, you will need to use the tripod legs.

NOTE: to use the CX610 on a large outdoor style tripod or you will need a TSS12 Spacer set available from our website.

CX610GAT OPERATING INSTRUCTIONS

Using the Auto Track base for Site Layout

- If you have purchased the CX610GAT you will also receive the AT1 Auto Tracking Base and Tracking Receiver. The following are the instructions for this.

Laser Mounting Thread
(supplied with 5/8" and 1/4")

Power Button

powered by 4x "AA" batteries



Power Button

LED Level Indicator

Laser Sensors

IR Send/Receive window

Level Sensitivity (short press and Green LED) / Sound on/off (long press)

Auto Track INSTRUCTIONS

First insert batteries in both the motorised base and receiver. Next determine which thread fits the laser you are using and screw it into the base of the laser. The laser can now be mounted onto the motorised base and the locking nut tightened.

The motorised base is powered up by pressing the power button on one of its corners and the red LED should indicate it is powered up. Next power up the required vertical laser lines on your laser as per the instructions for your laser. Also put your laser into outdoor pulse mode.

Next power up the tracking receiver by pressing the red power button on the receiver. The receiver will now operate like a standard line receiver picking up both the horizontal line when up right and vertical lines when the receiver is placed on its side. For vertical auto alignment whilst using the rotating base the receiver needs to be on its side.

To activate the tracking feature on the receiver press the "AUTO" button on the side of the receiver the LED next to it should light up. If the LED does not illuminate when you press it then make sure that the tracking control panel is upright and try again. To start the tracking feature press either of the arrow buttons and the rotation base will begin to rotate.



As one of the vertical laser lines on your laser level passes the receiver's sensor the receiver will begin beeping and the rotation base will either slowdown, stop or change rotation direction. Over a number of seconds the base will align up with the receiver and lock on, this will be indicated by the receiver having a solid tone followed by a double beep before returning to the solid tone again. Once locked on, the receiver can be picked up and moved around your site for alignment or squaring. Note to be able to square your laser you will require at least two vertical lines at 90 degrees to each other.

INSTRUCTIONS






The receiver comes with a staff clamp for horizontal use for levelling which is used in conjunction with a levelling staff much the same way as using a rotating laser with a rotating receiver. The receiver also features a button for turning off the sound this is toggle with a long press of that button (2 second hold). This same button when pressed with a short press toggles through fine and coarse sensitivity on level, this is indicated by a green LED.

Specifications. The range for communication between the receiver and motorised base is up to 15m depending on environmental conditions. Note both the laser pickup and infra red communication need line of site to the base/laser level. Warranty is Two Years.

LLR705 Receiver (Supplied with the CX610G+)

The RedBack LLR705 is an OPTIONAL receiver. It allows the laser beam to be picked up outside at up to 40m 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. Note the sound is different for above, below and on level.
- Pressing the Near/Far button  enables the receiver to best work within 5m for Near and over 5m for Far. Note default mode when first powered up is Near (under 5m) Mode as indicated on the LCD display by a symbol of two triangles and a line between . If you are using the receiver beyond 5m switch to far mode indicated by a line symbol .

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.

CX610 SPECIFICATIONS

Care & Maintenance

- Keep laser and accessories stored in protective case.
- Make sure laser is stored dry, dry out before storage to prevent damage.
- The CX610 is a precision instrument and should not be subjected to excessive knocks, drops or vibrations.
- Self check calibration from time to time.
- For service contact Redback Lasers. www.redbacklasers.com.au

Technical Specifications

Laser Wavelength	522nm <5mW Green
Laser Class	3r
Visible Range	Up to 30m
Range with Receiver	40m
Accuracy	±2mm/20m
Self Levelling Range	±3.5°
Temperature Range	-10°C - +45°C
IP Dust Water Resistance	IP54
Power	2 x Li-Ion Batteries
Low Power	Power LED Flash
Levelling	Pendulum
Carry Case	Hard plastic clam shell

All Redback Lasers have been checked for calibration and certified by one of our technicians here in Australia prior to despatch and should under normal conditions not go out of calibration. A calibration certified sticker with the date and name of technician is located on the laser itself. It is worth checking calibration from time to time particularly after any known knocks or drops. An easy way to continually check calibration is to always double check you work with the laser located in a different position or use an alternate vertical line. Various other methods for checking calibration can be found at www.redbacklasers.com.au/downloads or the laser can be returned to our service department for checking and re-calibration. We at Redback Lasers provide a once off free calibration and check within the duration of the warranty period see page 12 for details.

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 Tarkin Ct, 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, Level1Laser 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 CX610 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. Ni-Mh Battery & Charger if supplied have 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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