



RL-H1SA/RL-H2SA

**GRADE
LASER**

Topcon makes using the World's most advanced laser technology on your jobs simple and affordable

The new standard

- Precise grade mechanism
- Easy input of grade
- Full electronic leveling
- Electronic laser beam shutters (Masking)
- Compact and portable with integrated handle
- Topcon's power management

At Topcon we provide contractor's with continually advancing technology at a price they can afford. Topcon's all new RL-H1Sa and RL-H2Sa lasers are no exception. Incorporating technologies that set new standards for accuracy and repeatability, these new slope lasers far exceed the performance of competing lasers. Using leveling mechanisms found in our World leading Survey products, the RL-H1Sa and RL-H2Sa have broken the 5 arc second barrier for repeatability, and provide 10 arc second accuracy across their entire grade range. What that means to you is the confidence that you're making accurate grade across the entire job, all day long.

Electronic self-leveling simplicity

No manual leveling screws. No hybrid pendulum compensators. These new lasers are fast, accurate and self-leveling. Just push the power button, set your slope, and you're ready to go. The RL-H1Sa gives you accurate single slopes from -5% to +10%. The RL-H2Sa provides dual slope capabilities in either the X or Y axis of -8% to +8%, or dual slopes $[X] + [Y] = 10\%$. Large buttons and easy to see LCD make it easy to set grade. The LCD also displays power consumption, HI alert, and Topcon's unique masking feature.



Superior Machine Control compatibility

Featuring high-output infrared beams for a full 350m radius operating range, these lasers are perfect for all of your machine control needs. And the RL-H1Sa and RL-H2Sa will be compatible with the receivers you already have.

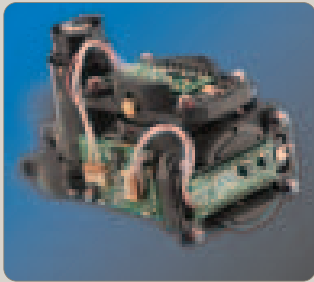
Grade checking made easy

The RL-H1Sa and RL-H2Sa lasers are all the laser you'll need for grade checking. Using the LS-70B receiver (included), you'll have complete grade checking control of your sites from 2m to 700m in diameter. Contact your local Topcon dealer for a demonstration. You'll see, Topcon has the lasers to fit your jobs and your budget.



Advancing technology, affordably...

Developing innovative, cost-effective solutions, it's Topcon's passion. And it's what you'll find in every feature of the new RL-H1Sa/RL-H2Sa



Precise grade accuracy and repeatability

- World's most accurate grade repeatability: 5 arc seconds.
- Unique CCD based leveling system provides superior 10 arc second grade accuracy across the entire grade range.
- Eliminate grade errors and eliminate rework.
- 0.001% grade input for the World's most precise adjustment.



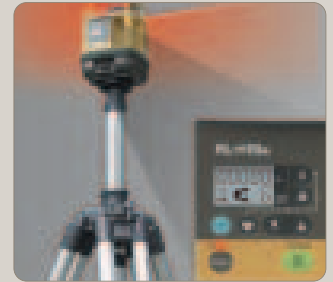
Graphical LCD display for sure grade and systems info

- Large, high-contrast grade numbers.
- Battery power indication for laser and LS-70 receiver.
- HI alert indicates that the laser has been disturbed.
- Electronic shutter feature icon shows which quadrant beam is currently being masked.



Topcon's Power Management Options to Suit your Jobs

- "Snap-in" rechargeable battery pack. No wires to snap or rip. Simply "pop" our rechargeables out and snap in alkalines.
- Up to 45 hours of cordless battery operation.
- Convenient 6-hour quick charge.
- 12vDC connection powers the laser and recharges the battery at the same time.



Electronic shutters for multiple lasers on the same site

- Simple push button operation selects 1 to 4 quadrants. Keep the beam only where you want it.
- No more clumsy shutters to raise and lower so you won't disturb the laser.
- LCD displays quadrants for easy verification of masking.

- 600 rpm rotating speed for excellent machine control performance
- Patented "PowerLevel" for fast $\pm 5^\circ$ self-leveling range, best stability, and one touch operation
- Heavy duty glass protects lighthouse, rubber bumpers protect body
- Selectable HI Alert
- Electric shutters allows for multiple lasers on the same job site
- Alkaline or NiMH battery option



Precision Grade Indication

- Fine or Coarse Grade Selector
- Indicates 11 Levels of Grade
- HI Alert Indicator
- Laser and Sensor Battery Life
- LCD displays clear grade signals front and back
- QuickFind catches beam on contact
- Loud on-grade horn even audible near heavy machinery
- Two levels of precision to choose from: fine or coarse
- Auto shut off saves battery power

RL-H1Sa Package & RL-H2Sa Package



RL-H1Sa Laser

- Sensor Holder 3 for LS-70A/B
- Sensor LS-70B
- DB-51 Dry Battery Holder
- 4 'D' Size Alkaline Batteries
- One '9v' Battery (for LS-70B)
- Carrying Case
- Instruction Manual



RL-H2Sa Laser

- Sensor Holder 3 for LS-70A/B
- Sensor LS-70B
- DB-51C NiMH Battery Holder
- BT-51Q NiMH Battery
- One '9v' Battery (for LS-70B)
- Carrying Case
- Instruction Manual



LS-70B Sensor

From work, finishing, footings, site prep or any other leveling and alignment tasks.



Remote Sensor for LS-70A

Allows additional access to your laser without disturbing its mounted position. Choose from an array of Tripod options.



Sighting Scope

For Quick initial alignments of grade axes and excellent repeat setups.



Tangent Base

Achieve fine rotation adjustments to align your laser accurately.

Topcon has the industry's most complete line of general construction lasers, each with unique technologies to make your jobs easier, faster and more profitable.

SPECIFICATIONS

MODEL NAME	RL-H1Sa	RL-H2Sa
Auto-Leveling range:	± 5°	± 5°
Accuracy:	± 10" (2.4mm@50m)	± 10" (2.4mm@50m)
Operating Range:	350m (1150') Radius	350m (1150') Radius
Beam detecting range:	2m - 700m diameter	2m - 700m diameter
(When used with LS-70A/B)	(6' - 2300')	(6' - 2300')
Laser source:	780nm Infrared laser diode	685nm Visible laser diode
Laser class:	Class 1 Laser product	Class 3A Laser product
Rotation speeds:	Changeable: 300, 600 rpm	Selectable: 300, 600, 900 rpm
Grade setting range:	-5% to +10%	-8% to +8% (Single Axis)
Power supply:	4 'D' Cell Batteries	X + Y ≤ 10% (Dual Axis) Rechargeable battery
(Optional):	Rechargeable battery (BT-51Q)	4 'D' Cell Batteries
Continuous operating time		
Alkaline batteries:	Approx. 45 hours	Approx. 45 hours
Rechargeable battery:	Approx. 30 hours	Approx. 30 hours
Tripod screw:	Flat & dome head type,	Flat & dome head type,
Operating Temperature:	5/8" x 11 threads -20°C to +50°C	5/8" x 11 threads -20°C to +50°C
Dimensions: (L x W x H)	(-4°F to +122°F) 169mm x 169mm x 250mm	(-4°F to +122°F) 169mm x 169mm x 250mm
Weight:	(6.7" x 6.7" x 9.8") 2.7 kg. (6 lbs.) including batteries	(6.7" x 6.7" x 9.8") 2.7 kg. (6 lbs.) including batteries

Designs and specifications herein are subject to change without prior notice. In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.

Why not pair your new laser with one of the World's best laser receivers?



9130 with Trackerjack

The standard for laser accurate grade control. Use the 9130 with your Grader, Dozer, Paver, or Profiler System Five. Optional trackerjack makes capturing the beam automatic. Just put it on the mast and press the button. The 9130 automatically hunts for the beam and locks on.

- 360° Receiving
- Bright grade indication
- Use with or without trackerjack
- Rugged, cast housing



NEW LS-B4 Receiver

The new low-cost laser receiver from Topcon. Use it for indicate, automatic grade control, or mount it to a trackerjack. The LS-B4 provides hours of production from rechargeable NiMH batteries, or provide power directly from the machine for unlimited operation.

- 360° Receiving
- Multi-colored grade display with green on-grade
- Optional trackerjack
- Cordless or machine power



LS-B2 Series Receiver

Versatility is the key for Topcon's LS-B2. Use it as an economical indicate system for your compactors and dozers, or with the RD-2 remote display for your scrapers. Mount on Topcon's TM-1 for fully automatic land leveling.

- 360° Receiving
- Bright grade indication
- Selectable on-grade accuracy
- Cordless battery operation



LS-B3 Indicate Receiver

The economical laser indicate system for backhoes or excavators. Mounts easily with no-slip magnets, or optional mechanical clamp. The LS-B3 can be used on either side of the stick for clear, accurate grade indication.

- 180° Receiving
- 9 channels of grade indication and 3 on-grade positions
- Optional vertical indicator
- Cordless battery operation

Topcon's RL-H1Sa and RL-H2Sa have the strength and accuracy for all of your mid-to long range machine control needs. Convenient push-button control and power management options contribute to the simplicity of these lasers. And, their compact, portable design makes them easy to set up. Use them as part of your integrated Topcon grade control system including System Five for your grader, LS-B2 for your Dozer, Touch Series 5 for your Excavator, and LS-B3 for your Backhoe. The RL-H1Sa and RL-H2Sa each feature a beam radius of 350m, so your machines can work continuously without having to reposition the laser.

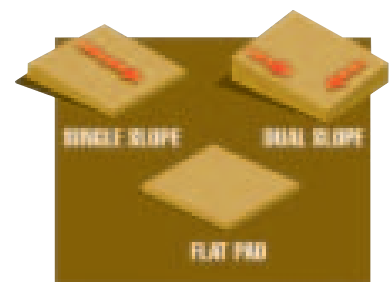
General construction applications

Site grading, footing excavation, foundation, footing concrete, aligning formwork, checking excavations, transferring 1 m marks, landscaping and drainage, pools, patios, fences.

Machine control applications

Site preparation (dozers, loaders, levellers etc), road grading, airport jobs (grading & paving), land levelling, irrigation, trenching, milling, landfills, slopes and embankments etc.

Flat, single, and dual slopes in positive and negative axes



- Dual slopes to a full +/-8% without tilting the laser (RL-H2Sa)
- Single slopes from -5% to +10% (RL-H1Sa)
- Flat horizontal capabilities (both units)

Topcon International



More than 70 years of experience

For 70 years, Topcon has been a leading manufacturer in industrial, medical and positioning enhancement tools. This broad experience has created a basis for Topcon's wide product line for basically every positioning need, whether it's for construction or surveying applications. For the construction industry, Topcon offers a complete range of innovative laser and sonic solutions, including industry leading products for interior, utility, general construction and machine control applications. For surveying applications, Topcon manufactures and supplies a complete range of optical measuring products, from digital and optical levels to theodolites and robotic total stations, and a full line of GPS+ satellite positioning solutions.

Product & Service support

To assure that your Topcon product maintains peak performance, your local Topcon dealer offers factory trained certified service technicians. And just in case service assistance isn't available in your area, our Europe wide network of Topcon offices, offer repair and return service policies second to none.

Innovation, not imitation

During the last decades, Topcon has brought many innovative solutions to the industry, that offer the contractor significant productivity increase and greater ease of use. That's the key to leadership, and the reason Topcon is the world's leading supplier of laser and surveying instruments. Some examples of unique topcon technologies:

- Waterproof auto level
- The integrated total station, "The Guppy"
- The compact coaxial total station (GTS-1)
- World's First laser with beam scanning technology
- The first waterproof total station
- GreenBeam® visible construction lasers
- Automatic excavator control system
- World's First 3-D machine control (3D- MC™ LPS)
- 5" Grade laser with automatic alignment & remote control
- Horizontal self leveling laser with liquid compensator
- robotic total station with instant beam lock system (GTS-800A and RC-2)
- First satellite-directed automatic 3D machine control system (3D-MC™ GPS)



*The TP-L4 Series pipe laser
with green beam*



*The LS-B2 Laser Receiver: use
as indicate or truly propor-
tional automatic control*



*Auto Tracking Total Station
GRT-2000 3D MC™ control*



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