










# Productivity Is The Right Tool For The Job... From The Deepest Tool Box In The Laser Business.

Model	Horizontal Accuracy	Diameter Range	Application
<b>Laser Levels</b>			
<b>LL100</b> 	1/8 in @ 100 ft (3.0 mm @ 30 m)	1,000 ft (300 m)	<ul style="list-style-type: none"> <li>Forms, footings and foundations (residential jobs)</li> <li>Septic tank or swimming pool installations</li> <li>Estimating cut and fill</li> <li>Decks and terraces</li> </ul>
<b>LL300</b> 	3/32 in @ 100 ft (2.2 mm @ 30 m)	1,300 ft (400 m)	<ul style="list-style-type: none"> <li>Elevation control across small- and mid-size construction sites</li> <li>Excavations</li> <li>Basic slopes</li> <li>Leveling forms and footers</li> <li>Concrete pours</li> <li>1 m (4 ft) marks</li> </ul>
<b>LL400</b> 	1/16 in @ 100 ft (1.5 mm @ 30 m)	2,600 ft (800 m)	<ul style="list-style-type: none"> <li>Checking/setting elevations, concrete forms, footings, and foundations for large commercial jobs</li> <li>Basic slope work such as foundations for small-to-large site prep work</li> <li>Excavating for forms or footers with CR600 receiver</li> <li>Sub-base leveling with skid steer loaders and CR600 receiver</li> <li>Long range machine control applications</li> </ul>
<b>LL500</b> 	1/16 in @ 100 ft (1.5 mm @ 30 m)	1,600 ft (500 m)	<ul style="list-style-type: none"> <li>Checking elevations</li> <li>Setting concrete forms, footings, and foundations (small-to-large jobs)</li> <li>Ideal for larger pads</li> <li>Machine control compatible</li> </ul>
<b>Grade &amp; Universal Lasers</b>			
<b>GL412/GL422</b> 	1/16 in @ 100 ft (1.5 mm @ 30 m)	2000 / 2600 ft (600 / 800 m)	<ul style="list-style-type: none"> <li>Leveling concrete forms and footers</li> <li>Vertical alignment and plumb such as anchor bolt and form alignment</li> <li>Single and dual slope grading and excavating applications</li> <li>Grading sports fields, tennis courts and driveways</li> </ul>
<b>GL512/GL522</b> 	1/16 in @ 100 ft (1.5 mm @ 30 m)	2000 / 2600 ft (600 / 800 m)	<ul style="list-style-type: none"> <li>Steep slope road embankments and ditch banks</li> <li>High accuracy grade work</li> <li>Wireless remote monitoring with HL750</li> <li>Single and dual slope grading and excavating applications</li> </ul>
<b>UL633</b> 	1/16 in @ 100 ft (1.5 mm @ 30 m)	2600 ft (800 m)	<ul style="list-style-type: none"> <li>Dual slope grading and steep slope excavating</li> <li>Precision grade up to 25% in X, Y and Z axis</li> <li>Drift free vertical alignment and plumb</li> <li>Pipe and drainage installations, measuring slopes in existing pipes</li> </ul>
<b>Horizontal &amp; Vertical Lasers</b>			
<b>HV101</b> 	1/8 in @ 100 ft (3 mm @ 30 m)	Receiver: 1000 ft (300 m) Visible: 200 ft (60 m)	<ul style="list-style-type: none"> <li>Interior and exterior light commercial and residential construction</li> <li>Leveling and aligning of interior walls and ceilings</li> <li>Exterior elevation checking and interior finishing work</li> </ul>
<b>HV301/HV301G</b> 	3/32 in @ 100 ft (2.2 mm @ 30 m)	Receiver: 1600 ft (500 m) Visible: 330 ft (100 m) / 500 ft (150 m)	<ul style="list-style-type: none"> <li>Interior and exterior light to medium commercial and residential projects</li> <li>HV301G Green beam for extended ranges or bright light conditions</li> <li>Leveling and aligning walls, ceilings, and raised floors</li> <li>Interior finishing work</li> </ul>

	Laser Levels				Grade & Universal Lasers			Horizontal & Vertical Lasers	
	LL100	LL300	LL400	LL500	GL412/512	GL422/522	UL633	HV101	HV301/301G
<b>Laser type / classification</b>	650 nm visible, Class 2	635 - 670 nm visible, Class 2	650 nm visible, Class 2	670 nm, Class 2	650 nm, Class 2, 3 mW	650 nm, Class 3A/3R, <5 mW	650 nm, Class 3A/3R, <5mW	635 nm, Class 3A/3R, <5 mW	635 nm / 532 nm Class 3A/3R, <5 mW
<b>Self-leveling range</b>	±5 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling	±11 minutes wire hung compensator	±5 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling	±14 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling
<b>Out-of-level indication</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Power source</b>	2 x D-cell Alkaline	4 x D-cell Alkaline standard, recharge optional	4 x D-cell Alkaline standard, NiMH optional	4 x D-cell Alkaline standard, recharge optional	4 x D-cell NiMH standard, Alkaline backup	4 x D-cell NiMH standard, Alkaline backup	4 x D Cell, NiMH Pack standard, Alkaline backup	2 x D-cell Alkaline	4 x D-cell recharge batteries, Alkaline backup
<b>Battery life</b>	80 hr Alkaline	90 hr Alkaline, 45 hr NiMH	90 hr Alkaline, 55 hr NiMH	175 hr Alkaline, 100 hr NiMH 75 hr Ni-Cad	90 hr Alkaline, 28 / 55 hr NiMH	90 hr Alkaline, 28 / 55 hr NiMH	40 hr alkaline, 35 hr NiMH	50 hr Alkaline	90 /45 hr Alk, 40 / 18 hr Rechargeable
<b>Grade Capability</b>	Manual - Single axis	Manual - Single axis	Manual - Single axis	No	Electronic -10 to +15% Single Axis	Electronic -10 to +15% Dual Axes	Electronic -25% to +25% X, Y, Z Axis	Manual - Single axis	Manual - Single axis
<b>Warranty</b>	3 Years	2 Years	2 Years	2 Years	2 Years	2 Years	5 Years	3 Years	2 Years

	Laser Pointers, Line Generator, and Handheld Distance Measuring Devices						
	LP30	LP50	5.2XL	1.3XL	1.5PL	HD100	QM75
<b>Self-leveling</b>	Yes	Yes	Yes	Yes	+/- 3°	N/A	N/A
<b>Working range - Visible</b>	100 ft (30 m)	100 ft (30 m)	100 ft (30 m)	100 ft (30 m)	100 ft (30 m)	330 ft (100 m)	230 ft (70 m)
<b>With Receiver</b>	N/A	N/A	250 ft (75 m)	250 ft (75 m)	250 ft (75 m)	N/A	N/A
<b>Accuracy</b>	+/- 1/16 in at 17 ft 1.5 mm @ 5 m	+/- 1/16 in at 17 ft 1.5 mm @ 5 m	+/- 1/16 in at 17 ft 1.5 mm @ 5 m	+/- 1/16 in at 17 ft 1.5 mm @ 5 m	+/- 1/32 in @ 17 ft 1.0 mm @ 5m	+/-1/16 in 1.5 mm	+/- 1/16 in 1.5 mm
<b>Warranty</b>	3 Years	3 Years	3 Years	3 Years	1 Year	3 Years	3 Years

	Optical Auto Levels					
	AL20M	AL24A	AL24M	AL28A	AL28M / AL28M-G	AL32A
<b>Magnification</b>	20x	24x	24x	28x	28x	32x
<b>Accuracy</b>	+/- 2.5 mm (0.10 in)*	±2.0 mm (0.08 in)*	±2.0 mm (0.08 in)*	±1.5 mm (0.06 in)*	±1.5 mm (0.06 in)*	±1.0 mm (0.04 in)*
<b>Aperture</b>	30 mm (1.2 in)	30 mm (1.2 in)	30 mm (1.2 in)	30 mm (1.2 in)	30 mm (1.2 in)	36 mm (1.4 in.)
<b>Shortest focus</b>	0.6 m (1.97 ft)	0.6 m (1.97 ft)	0.6 m (1.97 ft)	0.6 m (1.97 ft)	0.6 m (1.97 ft)	0.6 m (1.97 ft)
<b>Compensator</b>	Magnetic dampened	Air dampened	Magnetic dampened	Air dampened	Magnetic dampened	Air dampened

\*Note: Standard deviation according to DIN 18723 on one kilometer of double leveling  
AL28M-G available in gon

## An Entire industry. Invented here.

There's a reason Spectra Precision is the strongest name in the industry. We invented the industry. From day one, we have pioneered every major development in laser positioning for construction. That's why you'll find over one million of our professional rotating lasers on job sites around the world... more than any other brand.

## Easiest to Use

Spectra Precision instruments are engineered with state-of-the-art components, giving you the most dependable, easiest to use, laser on the job site. Spectra Precision products are always ready to work when you are.

## Best Support

Each Spectra Precision product is built with the user in mind. That is why we test and retest every laser we manufacture to assure you the most dependable, accurate laser in the world. Backed by the world's largest network of repair centers, Spectra Precision is unmatched for service, support and dependability.



YOUR LOCAL SPECTRA PRECISION LASER DEALER

## Contact Information:

**TRIMBLE / SPECTRA PRECISION DIVISION**  
8261 State Route 235  
Dayton, Ohio 45424-6383 U.S.A.  
(888) 527-3771 (Toll Free in U.S.A.)  
+1-937-203-4419 Phone  
+1-937-482-0030 Fax  
[www.trimble.com/spectra](http://www.trimble.com/spectra)

**EUROPE**  
Trimble Kaiserslautern GmbH  
Am Sportplatz 5  
67661 Kaiserslautern  
GERMANY  
Tel +49-(0)6301-71 14 14  
Fax +49-06301-32213



© 2005-2012, Trimble Navigation Limited. All rights reserved. Trimble, the Globe & Triangle logo, and Spectra Precision are trademarks of Trimble Navigation Limited registered in the United States Patent and Trademark Office and other countries. All other trademarks are the property of their respective owners. PN 022485-175L (04/12)



# The Broadest Line From the Strongest Name in Lasers



## Construction Productivity Tools

- ▣ Toughest on Earth
- ▣ Strongest Warranty
- ▣ Easiest to Use

## Laser Levels

### LL100

Complete system in one case —includes laser, HR320 receiver, rod, and tripod

- Convenient storage and transportation.

Compensated self-leveling, maintains level automatically

- Maintains accuracy over the entire work area, and minimizes errors.

Robust design

- 3 year no downtime warranty keeps productivity high and operating costs low.



### LL300

Rugged design with “hard hat” rotor protection

- Superior drop and weather protection.

Fully automatic self-leveling

- Provides fast and accurate set-up.

Extremely versatile with single-axis manual slope

- Cross-axis self-leveling allows for grade matching on the job site.



### LL400

Fast setup and automatic self-leveling

- Minimizes operating costs and boosts productivity.

Highly rugged design and patented lighthouse seal

- Superior drop and weather protection.

Single-axis slope mode

- Provides grade matching with self-leveling cross axis.



### LL500

500 m (1,600 ft) working diameter

- Long-range accurate laser increases productivity by reducing the need for multiple setups on large job sites.

Built-in leveling system with out-of-level shut off

- Maintains accuracy over the entire work area and minimizes errors.

High accuracy laser, 1.5 mm per 30 m (1/16 per 100 ft) with temperature compensation

- Highly stable and repeatable accuracy even under large temperature changes.



## Machine Receivers

### LR20, LR30, LR50, LR60

Increase machine and operator productivity

- Check grade from the machine cab.
- Saves labor, time, and fuel.
- Use on backhoes, excavators, dozers, box blades, trenchers, and skid steer attachments.

All LR receivers feature

- Versatile 360 degree reception.
- Works with all types of rotating lasers.
- Multiple accuracy selections.
- Power options and long battery life.
- Ultra-bright LED's with green on-grade.



- LR20 and adjustable magnetic mount for compact machines



- LR30 for general grading
- 3 selectable accuracies



- LR50 for excavating and grading
- Built in blade tilt and plumb indication



- LR60 for excavating
- Plumb indication and unique angle compensation

## Horizontal & Vertical Lasers

### HV101

Bright beam, scanning and variable speed control

- Suitable for shorter range interior jobs.

Automatic self-leveling in both horizontal and vertical

- Simple controls provide one touch setups.
- Simultaneous 90-degree split beam.
- Ideal for layout of walls and framing.

Available in GC Package

- Complete system in a case for interior and exterior applications.



### HV301

Temperature compensation

- Maintains accuracy regardless of season.

Composite material housing is rugged, lightweight and weatherproof

- Easy for contractor to carry and use in demanding jobsite conditions, less downtime for repair.

Fully automatic self-leveling in both horizontal and vertical

- Provides fast and accurate setup in horizontal and vertical.



### HV301G

Green beam provides superior beam visibility

- Four times more visible than red beams.
- For use over longer ranges or bright conditions.

Long range remote control

- Adjust rotation speeds or scanning zones from anywhere on the job site.

Flexible power options

- Efficient Nickel-Metal Hydride rechargeable batteries are standard. Alkaline batteries can provide power backup.



## Universal Lasers

### UL633

The most versatile laser - ever

- Dual Grade, Horizontal, Vertical, Interior and Pipe Laying Laser

Fully automatic in X, Y and Z axis

- Total control for any application

Several unique advanced features

- Plane-Lok, Grade Match and Axis Alignment ensure accuracy and fast setup



## Pipe Lasers

### DG511/DG711

Largest self-leveling range

- Fast, easy setups.
- No rough leveling required.

Wireless remotes

- included standard.

Construction tough

- Stands up to the demanding underground conditions.
- Proven rugged dependability.



## Optical Instruments

### DET-2 / ALXX-A/M Series

Digital Electronic Theodolite

- 2 second accuracy for all construction applications.
- Dual sided LCD with large easy to read characters.
- Rechargeable and alkaline battery packs included.

Spectra Precision Auto Levels

- 20, 24, 28 or 32 power magnification.
- Choice of air dampened or magnetic dampened.



## Grade Lasers

### GL412/GL422

Fully automatic self-leveling performs three jobs cost effectively

- Level, -10 to +15% grade, and vertical alignment with plumb.

Full function remote control does everything you can do at the laser keypad

- Make grade changes from anywhere on the job reducing setup times.

Automatic temperature and grade compensation

- High accuracy in any weather.



### GL512/GL522

2-way full function radio remote control

- Perform all functions that you can do at the laser keypad anywhere on the job site.

Wireless communication with the HL750 Laserometer

- Grade Matching - easily measure unknown grade between two points.
- PlaneLok - locks the beam to a fixed elevation or vertical alignment point for maximum stability and accuracy.
- Remote grade checking and wireless monitoring capabilities.



## Laser Receivers

### HR's, HL's, CR600 & DR400

Traditional laser receivers

- HR150U, HR320.
- Ideal for general exterior and interior applications.
- Models with LED's and/or LCD's.



Laserometers

- HL450, HL700, HL750.
- Digital readout of elevation.
- Exceptional durability and warranty.
- Advanced features including radio comm.



Specialty receivers

- Machine or rod mounted - CR600.
- Universal receivers detect red, infrared and green beams - HL750U, HR150U.
- Line generator receiver - HR220.



The Rod-less Grade Checker – DR400 DigiRod



Rod clamps are standard on all receivers

## Portable Tools

### LP's, XL's, PL's & HD's

LP30 and LP50 Laser Pointers

- Three and five point lasers are ideal for interior wall layout, level and plumb alignment of doors, windows, cabinets and chair rails. Perfect for point transfer.



1.3XL 3 Beam Cross Line Layout Laser with 1 Down Point

- One self-leveling tool gives you level, horizontal and vertical layout, square, and plumb. Ideal for interior wall construction, ceilings, cabinets and even exterior leveling with optional receiver.



5.2XL Multi-Purpose 5 Point & Cross Line laser

- Versatile, automatic self-leveling, multi-purpose tool combines a pointer and line generator in one tool.



1.5PL Precision Laser

- Built in collapsible tripod legs and fine adjustment knobs ensure setup is fast and accurate



HD100 Laser Distance Meter

- Advanced measuring and estimating tool



QM75 Quick Measure Distance Meter

- Fast and accurate distance measurement with handheld convenience.

