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

Model	Model Horizontal Accuracy Dia		Application
Laser Levels			
LL100	1/8 in @ 100 ft (3.0 mm @ 30 m)	1,000 ft (300 m)	<ul> <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>
LL300	3/32 in @ 100 ft (2.2 mm @ 30 m)	1,300 ft (400 m)	<ul> <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>
LL400	1/16 in @ 100 ft (1.5 mm @ 30 m)	2,600 ft (800 m)	Checking/setting elevations, concrete forms, footings, and foundations for large commercial jobs Basic slope work such as foundations for small-to-large site prep work Excavating for forms or footers with CR600 receiver Sub-base leveling with skid steer loaders and CR600 receiver Long range machine control applications
LL500	1/16 in @ 100 ft (1.5 mm @ 30 m)	1,600 ft (500 m)	<ul> <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>
Grade & Universal	Lasers		
GL412/GL422	1/16 in @ 100 ft (1.5 mm @ 30 m)	2000 / 2600 ft (600 / 800 m)	Leveling concrete forms and footers  Vertical alignment and plumb such as anchor bolt and form alignment  Single and dual slope grading and excavating applications  Grading sports fields, tennis courts and driveways
GL512/GL522	1/16 in @ 100 ft (1.5 mm @ 30 m)	2000 / 2600 ft (600 / 800 m)	<ul> <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>
UL633	1/16 in @ 100 ft (1.5 mm @ 30 m)	2600 ft (800 m)	<ul> <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>
Horizontal & Vertic	cal Lasers		
HV101	1/8 in @ 100 ft (3 mm @ 30 m)	Receiver: 1000 ft (300 m) Visible: 200 ft (60 m)	<ul> <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>
HV301/HV301G	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> <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
Laser type / classification	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
Self-leveling range	±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
Out-of-level indication	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power source	2 x D-cell Alkaline	4 × D-cell Alkaline standard, recharge optional	4 x D-cell Alkaline standard, NiMH optional	4 × 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 × D-cell recharge batteries, Alkaline backup
Battery life	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
Grade Capability	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
Warranty	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			
Self-leveling Yes	Yes	Yes	Yes	+/- 3°	N/A	N/A			
Working range - Visible 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)			
With Receiver N/A	N/A	250 ft (75 m)	250 ft (75 m)	250 ft (75 m)	N/A	N/A			
Accuracy +/- 1/16 in at 1.5 mm @ 5		t +/- 1/16 in at 17 f 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			
Warranty 3 Years	3 Years	3 Years	3 Years	1 Year	3 Years	3 Years			

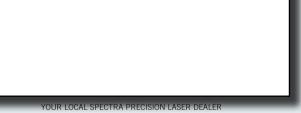
warranty	5 fears	5 feats	5 fedis 3	s rears 1 re	ar 5 fears	5 rears			
Optical Auto Levels									
	AL20M	AL24A	AL24M	AL28A	AL28M / AL28M-G	AL32A			
Magnification	20x	24×	24×	28×	28×	32x			
Accuracy	+/- 2.5 mm (0.10 in)*	±2.0 mm (0.08 in)*	±2.0 mm (0.08 in)	* ±1.5 mm (0.06 in)*	±1.5 mm (0.06 in)*	±1.0 mm (0.04 in)*			
Aperture	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.)			
Shortest focus	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)			
Compensator	Magnetic dampened	Air dampened	Magnetic dampene	d Air dampened	Magnetic dampened	Air dampened			
*Note: Standard deviation a	according to DIN 18723 on	one kilometer of double I	eveling		AL28M-G available in gon				

# The Broadest Line From the Strongest Name in Lasers



## **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.



### 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

## (€ **©**

© 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 022485-1751 (04/12)

### EUROPE

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







Toughest on EarthStrongest Warranty

Easiest to Use

## 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**

## self-leveling

## Highly rugged design and

 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

## LR20, LR30, LR50, LR60

**Machine Receivers** 

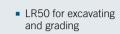
### Increase machine and operator productivity

- 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.







- LR60 for excavating
- Built in blade tilt and plumb indication



## 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

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

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

## Flexible power options

standard. Alkaline batteries can provide power backup.

## **UL633**

### The most versatile laser - ever

**Universal Lasers** 

 Dual Grade, Horizontal, Vertical. Interior and Pipe Laving Laser

## Fully automatic in X. Y and Z axis

Total control for any application

### Several unique advanced features



## DG511/DG711

**Pipe Lasers** 

## 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**

grading

3 selectable

accuracies

### 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

- **2**0, 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

vertical alignment with plumb.

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

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 iob site.

## Wireless communication with the **HL750 Laserometer**

unknown grade between two points. PlaneLok - locks the beam to a fixed elevation or vertical alignment point for

maximum stability and accuracy.



## Fast setup and automatic

 Minimizes operating costs and boosts productivity.

## patented lighthouse seal

bright conditions.

## Long range remote control

Efficient Nickel-Metal Hydride rechargeable batteries are

## **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
- Advanced features including radio comm.

warranty.



## 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



## **Portable Tools**

LP's. XL's. PL's & HD's

## LP30 and LP50 Laser Pointers

# Three and five point lasers are ideal

## 1.3XL 3 Beam Cross Line Layout

 One self-leveling tool gives you square, and plumb. Ideal for interior wall construction, ceilings, cabinets optional receiver.

## 5.2XL Multi-Purpose 5 Point & Cross Line laser

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

## 1.5PL Precision Laser

 Built in collapsible adjustment knobs and accurate

## and estimating tool

HD100 Laser

**Distance Meter** 

## QM75 Quick Measure **Distance Meter**

Advanced measuring

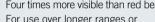
## Fast and accurate distance measurement with handheld convenience.



## Grade Matching - easily measure Make grade changes from

 Remote grade checking and wireless monitoring capabilities.

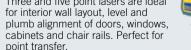
## visibility



## Plane-Lok, Grade Match and Axis

## Alignment ensure accuracy and fast setup

## Rod clamps are standard on all receivers



## Laser with 1 Down Point

level, horizontal and vertical layout, and even exterior leveling with

tripod legs and fine ensure setup is fast