



THE ORIGINAL...AND STILL THE LEADER

Spectra Precision® Laser Distributor Catalog



THE BROADEST LINE, FROM THE STRONGEST NAME IN LASERS.



Productivity Is The Right Tool For The Job... From The Deepest To



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Tool Box In The Laser Business.



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Laser Levels

For GC Level Application Products please also see the LG20-2 (pg 13)

Spectra Precision Laser LL100

A complete leveling crew in a case



Features & Benefits

- » Complete system in one case—including LL100 laser, HR320 receiver, C59 receiver clamp, tripod, and choice of grade rod—allowing convenient storage for transportation
- » Retail packaging increases showroom sales
- » Easy to transport, easy to store, easy to use
- » Fully automatic self-leveling rotating laser provides fast and accurate setup
- » Robust design withstands a 3 ft (1 m) tripod tip over and still remains functional, reducing costs for downtime or repair
- » 3 Year No-Downtime warranty keeps productivity high and operating costs low
- » One-person elevation control up to a 1,000 ft (300 m) diameter area for increased productivity



Applications

- » Checking/setting elevations, concrete forms, footings, and foundations for smaller job sites
- » Ideal for patio decks, terraces, swimming pools, septic systems, and leach fields
- » Estimating cut and fill

Part No.	Receiver	Rod	Tripod	Case
LL100	HR320	No	No	Universal Hard Case
LL100-1	HR320	GR131 Tenths	Q104025	Gun Case
LL100-2	HR320	GR132 Inches	Q104025	Gun Case
LL100-3	HR320	GR133 Metric	Q104025	Gun Case
LL100-5	HR320	66408 Metric Cut/Fill	Q104025	Gun Case

All product numbers include LL100 transmitter, HR320 receiver, C59 rod clamp, case, retail carton graphics, 2 D and 2 AA Alkaline batteries

Spectra Precision Laser LL300

Medium-range, highly accurate leveling solution



Features & Benefits

- » Rugged design with removeable 'hard hat' rotor protection provides superior drop and weather protection
- » Fully automatic self-leveling provides fast and accurate setup
- » Rechargeable battery pack or alkaline batteries keeps the unit working with no downtime due to power loss
- » Optional RC601 remote control allows easy grade matching using the remote control from rod position
- » 1300 ft (400 m) operating diameter
- » Single-axis manual slope mode with 'cross-axis' self-leveling allowing grade matching for basic slope work, while maintaining accuracy in the cross-axis
- » Built to withstand severe drops of up to 3 ft (1 m) directly onto concrete, or up to 5 ft (1.5 m) when pushed over on a tripod means less downtime and cost due to damage caused by an accidental drop or tip-over
- » Comes with a choice of HR350 or CR600 receivers allowing you to choose the best option to suit your application

Applications

- » Checking/setting elevations, concrete forms, footings, and foundations for small and medium sized jobs
- » Basic slope work such as driveways and ramps
- » Excavating, digging footings, and septic tanks with CR600 receiver

Part No.	Receiver	Power	Remote	Rod	Tripod	Retail Package
LL300	HR350	4 D Alkaline	No	No	No	No
LL300-1	HR350	4 D Alkaline	No	GR131 Tenths	2161	Yes
LL300-2	HR350	4 D Alkaline	No	GR132 Inch	2161	Yes
LL300-4	HR350	Rechargeable pack*	No	No	No	No
LL300-10	CR600	4 D Alkaline	No	No	No	No
LL300-11	CR600	4 D Alkaline	RC601	GR131 Tenths	2161	Yes
LL300-13	CR600	4 D Alkaline	RC601	GR133 Metric	2161	Yes
LL300-14	CR600	Rechargeable pack**	No	No	No	No

All product numbers include LL300 transmitter and case. *Rechargeable pack comes with charger. EU, AU and GB versions available.

See Page 17 for Product Specifications.

Applications

General Construction Applications

- » Checking/setting elevations, concrete forms, footings, and foundations for large commercial jobs
- » Basic slope work such as driveways and ramps

Machine Control Applications

- » Excavating for forms or footers with CR600 receiver
- » Sub-base leveling with skid steer loaders and CR600 receiver
- » Long range machine control applications

Longest range, highly accurate leveling solution

Features & Benefits

- » 2,600 ft (800 m) working diameter which increases productivity by reducing need for multiple set-ups on a large job site
- » Fast setup, minimal training time and automatic self-leveling minimize operating costs and boost productivity
- » Highly rugged design and patented lighthouse seal protects the rotor head and glass and offers superior drop and weather protection for reduced downtime
- » Single-axis slope mode provides grade matching with self-leveling cross axis for improved accuracy
- » Energy-efficient design offers choice of NiMH rechargeable or alkaline batteries for lower operating costs
- » Increases productivity with fast setups, fewer controls, and automatic self leveling
- » Temperature calibrated for high accuracy over wide temperature changes
- » IP66 dust- and water-proof to withstand harsh jobsite conditions
- » Flexible power options and minimal power costs due to long battery life
- » Customizable with choice of HL700 or CR600 receivers



Part No.	Receiver	Power	Remote	Rod	Tripod	Retail Package
LL400	HL700	4 D Alkaline	No	No	No	No
LL400-4	HL700	NiMH pack*	No	No	No	No
LL400-10	CR600	4 D Alkaline	No	No	No	No
LL400-14	CR600	NiMH pack*	No	No	No	No
LL400-1	HL700	4 D Alkaline	No	GR131 Tenths	2161	Yes
LL400-2	HL700	4 D Alkaline	No	GR132 Inch	2161	Yes
LL400-3	HL700	4 D Alkaline	No	GR133 Metric	2161	Yes
LL400-11	CR600	4 D Alkaline	RC601	GR131 Tenths	2161	Yes
LL400-13	CR600	4 D Alkaline	RC601	GR133 Metric	2161	Yes

All product numbers include LL400 transmitter and case. *NiMH pack comes with charger. EU, AU and GB versions available.

Spectra Precision Laser LL500

Long-range, highly accurate leveling solution

Features & Benefits

- » 1,600 ft (500 m) working diameter which increases productivity by reducing need for multiple set-ups on a large job site
- » Self-leveling with built-in 'out-of-level' shut off that maintains accuracy over the entire work area, and minimizes errors
- » High accuracy laser, 1/16 in per 100 ft (1.5 mm per 30 m) with temperature compensation provides highly stable, repeatable accuracy even under large temperature changes
- » Uses alkaline or rechargeable batteries—so you are less likely to run out of power and the unit keeps working with no downtime due to power loss
- » Visible 'spotting' beam for determining receiver mounting placement making it faster to find the on-grade position
- » Comes with a choice of HL700 or CR600 receivers allowing you to choose the best option to suit your application



Part No.	Power	Receiver	Tripod	Rod	Retail Package
LL500	4 D Alkaline	HL700	No	No	No
LL500-4	Ni-Cad/NiMH	HL700	No	No	No
LL500-10	4 D Alkaline	CR600	No	No	No
LL500-14	Ni-Cad/NiMH	CR600	No	No	No
LL500-1	4 D Alkaline	HL700	2161	GR131 Tenths	Yes
LL500-2	4 D Alkaline	HL700	2161	GR132 Inch	Yes
LL500-3	4 D Alkaline	HL700	2161	GR133 Metric	Yes
LL500-11	4 D Alkaline	CR600	2161	GR131 Tenths	Yes
LL500-13	4 D Alkaline	CR600	2161	GR133 Metric	Yes

All product numbers include LL500 transmitter and case. *NiMH pack comes with charger. EU, AU and GB versions available.

See Page 17 for Product Specifications.

Horizontal and Vertical Lasers

Spectra Precision Laser HV101

Economical solution for leveling, aligning, and plumb applications



Features & Benefits

- » Fully automatic self-leveling in both horizontal and vertical provides fast, accurate setup
- » Robust design withstands a 3 ft (1m) drop on concrete and still remains functional, reducing costs for downtime or repair
- » Multiple scanning angles and rotation speeds to match various conditions
- » Rotor cage can be removed for exact beam spotting.
- » Simple controls allow operators to carry out many functions with "one-touch" commands.
- » Included Remote Control offers scanning, rotation speed, slope settings, and alignment control for fast one man setups
- » 3 year "over the counter" exchange warranty program eliminates downtime

Part No.	Receiver	Wall Mount	Remote
HV101	No	M101	RC601
HV101-4	HR150	M101	RC601

All product numbers include HV101 transmitter, wall mount, ceiling target, laser glasses, remote control, case and 2 D Alkaline batteries.

Applications

- » Leveling of ceiling grids
- » Installation of interior fittings (cabinets, lighting etc.)
- » Transferring points from the floor to the ceiling
- » Short range leveling for decks and patios

Accessories

Accessories and components for rotating lasers

Cases



HV101, HV301, HV401, LL100, LL300, LL400, LL500 housed in a jobsite-tough carrying case with customized pockets to hold all accessories

Wall Mounts



M101 wall mount for HV101



M300 wall mount for HV301



M201 wall mount for HV401

Remote Control

Part No. RC601



Remote Control for HV101, HV301, HV401, LL100, LL300, and LL400

Laser Glasses



Model Number 0365-1490

Increases the visibility of the laser beam under bright light conditions

Target



Model Number 1176-6

Magnetic Visiline Target

- Optically enhanced, patented – increases beam visibility by 2.5 times.
- Half translucent, half reflective
- Magnetic mounting, magnet is permanently molded in for extra durability
- White offset lines at 1/2 in (12.5 mm)
- 6 per package

See Page 16 for Additional accessories including grade rods, tripods, and battery chargers

See Page 17 for Product Specifications.

Applications

- » Interior and exterior, light to medium commercial, and residential construction
- » Leveling and aligning of forms and footers
- » Leveling and aligning of interior walls
- » Installation of ceilings and raised floors
- » Interior finishing work

General purpose construction laser for medium-range interior and exterior applications

Features & Benefits

- » Composite material housing is rugged, lightweight and IP54 weatherproof making it easy for contractor carry and use in demanding jobsite conditions, reducing repair downtime
- » Fully automatic self-leveling in both horizontal and vertical for fast, accurate setup in horizontal and vertical applications
- » Single-axis manual slope mode with 'cross-axis' self-leveling allows grade matching for basic slope work, while maintaining accuracy in the cross-axis
- » Highly visible 3a/3R beam and superior scanning functions making it easier for interior layout and aligning over longer range job sites (visible diameter of 330 ft (100 m))
- » Long-range remote control operation allows convenient access to key functions across the job site
- » Flexible power options, including rechargeable battery pack, AC power and alkaline batteries, combined with low battery warnings, reduces downtime by having multiple power options



Part No.	Receiver	Wall Mount	Laser Glasses	Ceiling Target	Remote
HV301	HR350	No	No	No	No
HV301-1	No	M300	Yes	Yes	RC601
HV301-2	HR150	M300	Yes	Yes	RC601

All product numbers include HV301 transmitter, case and Ni-Cad battery pack. EU, AU and GB versions available.

Applications

- » Wall installation
- » Drop ceilings
- » Cut and fill measurements
- » Layout and excavation lines
- » As-built checks
- » Interior fittings and fixtures
- » Interior and Exterior medium-to-large commercial and residential construction

General purpose construction laser for long range interior and exterior applications

Features & Benefits

- » Fast setup, minimal training time, and automatic self-leveling minimize operating costs and boost productivity
- » Maximum allowable milliwatts beam of 4.99mW is powerful, bright and provides permanent hands-free reference for multiple users
- » Temperature calibrated accuracy provides consistent performance over the entire day
- » Designed to withstand a drop of up to 3 ft (1 m) directly onto concrete or a tripod tip-over up to 5 ft (1.5 m) for minimum repair time
- » Multiple power options include: NiMH batteries, direct power or alkaline batteries for minimum downtime
- » With the plunging plumb beam, the laser can be referenced to right-angle marks for quick setup in layout of interior walls and framing
- » Self-leveled slope mode offers fast setup and grade match to a reference mark for permanent and accurate ceiling slope reference
- » Long-range remote control gives you quick access to all the laser functions without returning to the transmitter
- » Rugged and IP66 dust and waterproof to withstand the demands of the job site



Part No.	Receiver	Wall Mount	Remote
HV401	No	M201	RC601
HV401-4	HL700	M201	RC601

All product numbers include HV401 transmitter, case, laser glasses, ceiling target and NiMH battery. EU, AU and GB versions available.

See Page 17 for Product Specifications.

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Spectra Precision Laser GL412

Versatile Automatic Single Grade Laser for level, grade, and vertical alignment

Features & Benefits

- » GL412 is single grade plus horizontal and vertical. Simple, accurate dial in grade from -10% to +15%.
- » Up to 2,000 ft (600 m) working diameter which increases productivity by reducing need for multiple set-ups on a large job site
- » Fast setup, minimal training time and automatic self-leveling minimize operating costs and boost productivity
- » Highly rugged design and patented lighthouse seal protects the rotor head and glass and offers superior drop and weather protection for reduced downtime
- » 2-way full function remote control allows grade changes to be made from anywhere on the jobsite
- » Temperature calibrated for high accuracy over wide temperature changes
- » IP66 dust and water-proof to withstand harsh jobsite conditions
- » Customizable with choice of HL700 or CR600 receivers
- » Mask mode eliminates interference from other crews on the jobsite

Part No.	Receiver	Clamp	Remote
GL412	HL700	HL700 Clamp with Bubble Vial	RC402
GL412-14	CR600	C50 Rod Clamp and C51 Magnetic Mount	RC402

All product numbers include GL412 transmitter, remote, case and NiMH rechargeable battery pack and charger.



RC402 Remote Control

Applications

- » Leveling concrete forms and footers
- » General construction vertical alignment and plumb such as anchor bolt and form alignment
- » "Over the top" sewer and storm drain pipe installations
- » Driveways and ramps
- » Grading and excavating
- » Trenching

Spectra Precision Laser GL422

Versatile Automatic Dual Grade Laser for level, grade, and vertical alignment

Features & Benefits

- » GL422 is dual grade plus horizontal and vertical. Simple, accurate dial in grade from -10% to +15%.
- » Up to 2,600 ft (800 m) working diameter which increases productivity by reducing need for multiple set-ups on a large job site
- » Fully automatic self-leveling in both grade axis, horizontal, and vertical which provides fast, accurate setup in all applications
- » Highly rugged design and protects the rotor head and glass and offers superior drop and weather protection for reduced downtime
- » 2-way full function remote control allows grade changes to be made from anywhere on the jobsite
- » Temperature calibrated for high accuracy over wide temperature changes
- » IP66 dust- and water-proof to withstand harsh jobsite conditions
- » Customizable with choice of HL700 or CR600 receivers
- » Mask mode eliminates interference from other crews on the jobsite

Part No.	Receiver	Clamp	Remote
GL422	HL700	HL700 Clamp with Bubble Vial	RC402
GL422-14	CR600	C50 Rod Clamp and C51 Magnetic Mount	RC402

All product numbers include GL422 transmitter, remote, case and NiMH rechargeable battery pack and charger.



RC402 Remote Control

Applications

- » Leveling concrete forms and footers
- » General construction vertical alignment and plumb such as anchor bolt and form alignment
- » "Over the top" sewer and storm drain pipe installations
- » Sports fields, tennis courts and driveways
- » Grading and excavating
- » Steep slope road embankments and ditch banks
- » Ramps and drainage



Applications

- » Installation of gravity flow sanitary pipelines
- » Storm sewer pipelines
- » Pipe jacking
- » Tunnel boring

Rugged pipe lasers built for lasting performance, reliability, and repeatability

Features & Benefits

- » Rugged design is built for long lasting performance and reliability in the destructive underground environment
- » DialGrades feature the largest automatic self-leveling range in the industry providing quick, easy setups
- » The DG711 features Line Alert where the beam flashes to notify you that the setup line has been disturbed, eliminating the necessity of rework
- » Maximum legal strength red laser beam and pipe targets with optical elements to enhance beam brightness make the beam easily visible in a variety of conditions
- » Remote Controls for line and power included, DG711 remote control is full function with grade control and Line Set/Check function.
- » A full range of setup accessories and power options are available and are easy and straightforward to use

Spectra Precision Laser DG711 and DG511



DG511

RC501



DG711

RC502

Part No.	Accessory	Power
DG511	Standard Package	NiMH Recharge
DG511-2	1233 Sighting scope, mounting block & 1161 heavy duty tripod	NiMH Recharge
DG511-3	1230 Metal plate w/ adjustable legs (inches)	NiMH Recharge
DG511-5	1230 Metal plate & 1239 vertical pole (inches)	NiMH Recharge
DG511-6	1237 Metal plate & 1239 vertical pole (metric)	NiMH Recharge
DG511-7	Standard Package	Alkaline
DG511-9	External power cable	Alkaline
DG711	Standard Package	NiMH Recharge
DG711-2	1233 Sighting scope, mounting block & 1161 heavy duty tripod	NiMH Recharge
DG711-3	1230 Metal plate w/ adjustable legs (inches)	NiMH Recharge
DG711-5	1230 Metal plate & 1239 vertical pole (inches)	NiMH Recharge
DG711-6	1237 Metal plate & 1239 vertical pole (metric)	NiMH Recharge
DG711-7	Standard Package	Alkaline
DG711-9	External power cable	Alkaline



1230/1237 Metal Plate



1239 Extended Height Vertical Pole



P21 Power Cable

See Page 18 for Product Specifications.

A full line of pipe laser accessories

Pipe Laser Accessories



929 Blower



1017 Manhole Mount



936 Adjustable Large Pipe Target



P20/P20B Alkaline Battery Pack



956 Optically Enhanced Target



1161 Tripod



1233 Sighting Scope



1244 T-Bar

Laser Receivers

HR150 Receiver

Interior receiver with highly visible LEDs and built-in magnetic mount



Features & Benefits

- » Features a 3-channel dual-sided LED with a green on-grade display that can be easily seen indoors or outdoors over long distances
- » Built-in magnet and level bubble allows the receiver to mount to ceiling grid or drywall track without the need for additional accessories
- » Marking notches on both sides to easily mark alignments and elevations
- » Can be used with any brand rotating red laser
- » Strong composite housing and optional lanyard offers protection against damage due to dropping
- » For interior or exterior short-range general construction applications, with a general purpose rod clamp standard
- » The perfect entry level receiver for smaller job sites
- » Includes C61 rod clamp

Applications

- » Interior and exterior leveling and aligning
- » Soffit, curtain wall or glazing applications
- » Ceiling grid and raised floor installations



C61 Clamp

HR320 Receiver

Tough receiver for exterior leveling and alignment applications

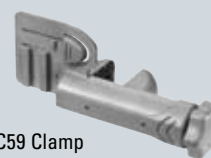


Features & Benefits

- » Dual LCD's on front and rear are ideal for general exterior applications
- » Two on-grade sensitivities (fine and coarse) allow getting to grade fast
- » Snap-on rod clamp (included) allows quick switching from rod-mounted to handheld applications
- » Strong, IP67 waterproof housing protects the unit from dust, moisture, and accidental drops
- » Loud 100 db loud speaker can easily be heard on the noisiest job sites
- » 3 adjustable speaker levels (loud, low, and off)
- » Includes C59 rod clamp

Applications

- » Measuring cut and fill for small site preparation
- » Exterior leveling, aligning and marking
- » Checking elevations



C59 Clamp

HR350 Receiver

Practical receiver for exterior and interior leveling and alignment applications

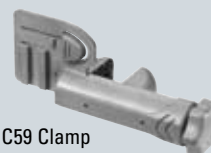


Features & Benefits

- » Dual front/rear 5-channel LCD's with a simultaneous front LED display with a green on grade are ideal for exterior and interior applications
- » Two on-grade sensitivities (fine and medium) allow getting to grade fast
- » Snap-on rod clamp (included) allows quick switching from rod-mounted to handheld applications
- » Long operating range easily covers medium-sized job sites
- » Strong, IP67 waterproof housing with rubber overmold protects the unit from dust, moisture, and accidental drops
- » Loud 100 db loud speaker can easily be heard on the noisiest job sites
- » Includes C59 rod clamp

Applications

- » Leveling concrete forms and footers
- » Measuring cut and fill for small site preparation
- » Exterior and interior leveling, aligning and marking



C59 Clamp



HL700 Laserometer

Applications

- » Checking elevations
- » Basement excavation
- » Digging septic tanks
- » Checking foundations
- » Digging footings
- » Setting forms
- » Checking sub-base materials
- » Screeding concrete

Highly versatile receiver for basic and advanced leveling and aligning applications

Features & Benefits

- » Digital Readout of Elevation provides a numeric display of ± 2 inches (± 5 cm) and shows exactly how far the elevation is from on-grade
- » A large 5 inch (12.7 cm) reception height, more than double the industry standard, allows quick acquisition of the laser beam
- » Unique anti-strobe sensor stops construction strobe lights from setting off the receiver, and eliminates phantom strikes for easier identification of true laser beam signals
- » Multiple on-grade sensitivities to customize accuracy needs to application
- » Designed to survive the tough construction site conditions; it is totally waterproof and can withstand a drop of 10 feet (3 meters) onto concrete
- » Simultaneous elevation LEDs signal in low light levels and over a longer range provide easier reading in poor light
- » Two clamp positions for cut/fill or excavation. Excavation mode puts more reception height and elevation information above grade for higher utilization in digging and staking applications
- » Three-year "No Excuses" warranty



CR600 Combination Receiver

Applications

- » Digging footings
- » Basement excavation
- » Checking sub-base materials
- » Setting and checking elevations
- » Leveling and aligning forms
- » Screeding concrete

Advanced receiver that can be machine or rod mounted for increased productivity

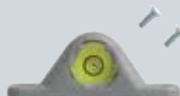
Features & Benefits

- » Provides high, low, or on-grade information for all your grading and excavation applications up to 1,500 ft (460 m) radius
- » In addition to handheld and rod-mounted capabilities, the CR600 system includes a C50 rod clamp and a C51 machine magnetic clamp so it can be used as a machine-control mounted receiver in a wide range of jobsite applications
- » Magnesium housing is rugged but lightweight
- » Super-bright LED display can be easily seen by a machine operator in brightly lit conditions
- » 270-degree reception for easy visibility of on-grade beam
- » Five on-grade sensitivities to customize need to application
- » Two-year warranty
- » Can be used with any brand rotating red laser



Accessories and Components

*All receivers include rod clamps
CR600 includes rod clamp and magnetic mount*



Optional Bubble Vial Kit
for HR150, HR250, HR320,
and HR350 receivers
PN 1277-6251S



HL700 includes clamp
with Bubble Vial
PN 400103-01V



HR250 Receiver used with
LG20 line generator.
See page 13



C51 Magnetic Mount
included with CR600
receiver



C50 Quick Disconnect
Clamp included with
CR600 receiver

Portable Tools

Spectra Precision Optical AL220, AL224, AL228, AL232

Easy-to-use optical auto-levels



Features & Benefits

- » Air dampened compensator provides superior accuracy and stability
- » Plastic/rubber controls allow easier handling in wet or cold conditions
- » Built-in angle circle allows use for basic short-range alignments
- » Metal housing for increased durability
- » Built-in bubble mirror making the level easy to see and level regardless of auto-level position
- » Auto-level kits also available so you can choose the option to best suit your application

Part No.	Magnifications	Tripod	Rod
AL220	20X	No	No
AL220-1	20X	2161	GR131 Tenth
AL220-2	20X	2161	GR132 Inch
AL220-3	20X	2161	GR133 Metric
AL224	24X	No	No

Part No.	Magnifications	Tripod	Rod
AL224-1	24X	2161	GR131 Tenth
AL224-2	24X	2161	GR132 Inch
AL224-3	24X	2161	GR133 Metric
AL228	28X	No	No
AL232	32X	No	No

Applications

- » Two-person leveling across the job site
- » Leveling forms and footers
- » Checking elevation
- » Measuring cut and fill

Spectra Precision Laser HD50

Handheld distance measuring device



Features & Benefits

- » One-person, 'non-contact' distance measuring up to 165 ft. (50 m) allows one-person measuring to difficult-to-reach or hazardous locations
- » Accuracy of 1/16" (1.5 mm) across the entire measuring range reduces measuring errors even over large distances
- » 'Area', 'volume', and 'continuous measurement' keys allow direct access to measurement functions, and eliminate math errors
- » Visible red laser beam allows fast targeting
- » Intuitive user keypad is simple and easy to use
- » Built in sighting system and waterproof to IP54 for easy outdoor use
- » Operates over one year on four 'AAA' batteries for lower operating costs and increased convenience

Applications

- » Measuring distance, area and volumes
- » Checking building square and area
- » Measuring for material estimation

Spectra Precision Laser LP40

Self-leveling four beam pocket laser for plumb up, plumb down, level and square applications



Features & Benefits

- » Water, mud, and shock resistant for improved reliability and minimum repair costs
- » Durable unit withstands a drop of up to 3 ft (1 m) onto concrete for reliable operation and consistent accuracy
- » Self-leveling provides fast, easy operator setup
- » Highly visible laser pointer in plumb up, down, level and square has easy-to-see points for fast alignment to layout marks

Spectra Precision Laser LP40-1

- » Offers all the features of the LP40, plus a complete set of universal mounting accessories, all packed in a ruggedized case
- » Lets the contractor use the LP40 to install acoustic ceilings, or attach the LP40 directly to steel studs or columns for elevations or 3 ft (1 m) marks for time-saving versatility

LP40-1 includes: LP40, Universal mount, Ceiling plate, Laser glasses, Laser targets, Pouch and Blow-molded case.

Applications

- » Layout of interior walls (drywall track installation)
- » Installing overhead or floor fixtures
- » Transferring points
- » Checking plumb and square
- » Short-range leveling

LP40-1

- » Installation of acoustic ceilings
- » Elevations and 3 ft (1 m) marks
- » Installation of decks

See Page 17 for Product Specifications.

Applications

- » Building interior walls (drywall track installation)
- » Level and plumb alignment of doors, windows, cabinets, chair rails, etc.
- » Checking level and plumb
- » Short-range exterior leveling and alignment

LG20-1

- » Elevations and 4 ft (1 m) marks

LG20-2

- » Long-range interior and exterior leveling and alignment
- » Septic tank foundations; swimming pool leveling
- » Deck installations

Self-leveling horizontal and vertical Crossbeam Generator for line, level and vertical plumb applications



Features & Benefits

- » The industry's brightest Crossbeam Generator features a biased upwards beam with easy-to-see lines for fast alignment and layout
- » Durable unit withstands a drop of up to 3 ft (1 m) onto concrete and still maintains consistent accuracy
- » Self-leveling and plumbing allows fast, easy operator setup

Kit contents

LG20 includes: LG20, 2 targets, pouch.

LG20-1 includes: LG20, 2 targets, pouch, ceiling plate, universal mount, carrying case, laser glasses and (2) targets.

LG20-2 includes: LG20, HR250 Receiver with general purpose clamp, pouch, ceiling plate, universal mount, carrying case, laser glasses and 2 targets.



Spectra Precision Laser LG20-1

- » Offers all of the features of the LG20, plus a complete set of interior accessories in a ruggedized case
- » Additional accessories give the contractor added versatility to use the LG20 to install acoustical ceilings, or to attach the LG20 directly to steel studs or columns for elevations and 4 ft (1m) marks
- » Allows mounting to a tripod for additional application flexibility



Spectra Precision Laser LG20-2

- » Offers all of the features of the LG20-1 plus the HR250 Receiver for indoor/outdoor general construction leveling and aligning tasks
- » HR250 Receiver extends the range of the laser to 250 ft (75 m)
- » Highly visible, simultaneous dual LCD and front LEDs display with green on-grade
- » The HR250 withstands a 5 ft (1.5 m) drop on concrete and has a 60+ hour battery life for reliable operation and low operating costs
- » Included general purpose clamp allows fast, easy mounting on a grade rod or wooden pole

Applications

- » Installation of interior walls (drywall track adjustment)
- » Layout of interior walls (drywall track installation)
- » Installation of overhead or floor fixtures
- » Transferring points

Self-leveling two beam pocket laser for plumb up and plumb down applications

Features & Benefits

- » Water, mud, and shock resistant for improved reliability and minimum repair costs
- » Durable unit able to survive a drop of up to 3 ft (1 m) onto concrete and remain consistent accuracy
- » Self-leveling provides a quick and easy operator setup
- » One-person operation increases productivity and reduces costs
- » Highly visible laser pointer in plumb up and down



Spectra Precision Laser LP20

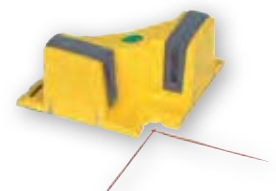
Applications

- » Layout of tile, stone, brick, and hardwood flooring
- » Short range Interior wall layout

Simultaneous 90-degree lines for interior layout and squaring

Features & Benefits

- » LG2 generates two lines on the floor at a 90-degree angle over wet mastic or concrete providing a visible reference line even after laying concrete, mastic, or flooring without the need to remark the line
- » Projects precise angles of 90, 67.5, 45, and 22.5 degrees for easier layout of complex flooring designs
- » Durable metal housing and stainless steel bottom plate is easy to clean and rugged enough for any job



Spectra Precision Laser LG2

See Page 17 for Product Specifications.

Machine Control Display Laser Receivers

LR30 Receiver

Used on dozers, box blades, levelers



Part No.	Batteries	Magnetic Mount
CTO-LR30	NiMH	No
CTO-LR30-1	Alkaline	No
CTO-LR30-MM	NiMH	MM-1

Features & Benefits

- » Use on grading and excavating equipment including: dozers, graders, scrapers, skid steers and levelers
- » Five channels of grade information plus directional out-of-beam indicators
- » Three selectable accuracies meet job tolerances from rough grading to final finishing
- » Full 360-degree reception picks up the laser from all directions
- » Ultra-bright LED's with Green on-grade provides easy-to-see display to match ambient lighting conditions
- » Choose Power Options - alkaline batteries, nickel metal hydride rechargeable batteries, or a power cord that connects directly to the machine power
- » Rugged & Waterproof - Durable polycarbonate and aluminum die cast housings withstand all weather and construction site conditions

Applications

- » Machine mounted grade checking
- » Grading and leveling

LR50 Receiver

Features built-in blade tilt and excavation plumb indicator



Part No.	Batteries	Magnetic Mount
CTO-LR50	NiMH	No
CTO-LR50-1	Alkaline	No
CTO-LR50-MM	NiMH	MM-1

Features & Benefits

- » Built-in blade tilt indicator helps the operator keep the blade level for increased accuracy and productivity
- » Center on-grade provides an equal amount of grade information above and below on-grade. Use on dozers, graders, scrapers and box blades
- » Built-in plumb indicator for fast, accurate grade checking in excavation applications
- » Offset on-grade gives you more range above grade using the entire receiver for more productive excavation
- » Up to six channels of grade information plus directional out-of-beam indicators
- » Two-Year Warranty - Reliability you can count on
- » Rugged & Waterproof - Durable polycarbonate and aluminum die cast housings withstand all weather and construction site conditions
- » Choose Power Options - alkaline batteries, nickel metal hydride rechargeable batteries, or a power cord that connects directly to the machine power

Applications

- » Machine mounted grade checking
- » Grading and leveling
- » Excavation and trenching

LR60 Receiver

Features excavation plumb indicator and angle compensation indication



Part No.	Batteries	Magnetic Mount
CTO-LR60	NiMH	No
CTO-LR60-1	Alkaline	No
CTO-LR60-MM	NiMH	MM-1

Features & Benefits

- » Patented Angle Compensation Indication automatically calculates and corrects the grade display for the angle of the dipper arm
- » Check grade with the dipper arm extended or retracted up to 30 degrees
- » Built-in plumb indicator for fast, accurate grade checking
- » Center on-grade provides an equal amount of grade information above and below on-grade. Use on dozers, graders, scrapers and box blades
- » Extended reception height stays in the beam longer providing additional grade information
- » Offset on-grade for productive excavation
- » Up to eight channels of grade information plus directional out-of-beam indicators
- » Four selectable accuracies for each on-grade location
- » LCD indicates all receiver settings
- » Rugged & Waterproof - Durable polycarbonate and aluminum die cast housings withstand all weather and construction site conditions
- » Two-Year Warranty - Reliability you can count on

Applications

- » Machine mounted grade checking
- » Grading and leveling
- » Excavation and trenching

Laser Receiver Accessories and Specifications



Applications

- » Remote Display is used when the receiver is behind the operator or is otherwise difficult to see, i.e. pulled drag boxes, scrapers, or trenchers.
- » Magnetic Mount is used to quickly attach receivers to backhoes and excavators.

Magnetic Mount and Remote Display for increased productivity

RD10 Remote Display

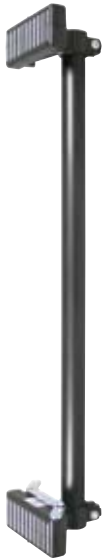
- » Mounts in the cab, connects to the laser receiver, and displays grade information to the operator
- » Helps keep focus on the work and not on the receiver for higher productivity
- » Mounting kit includes magnets, Velcro, double-sided tape, and rubber strap for mounting options
- » Power options to fit your requirements



Display Receiver Accessories

MM-1 Magnetic Mount

- » Works with all LR receivers and quickly attaches to the dipper arms of excavators or backhoes
- » Strong dual magnet packs will not slip on the machine
- » Magnets are adjustable, can be positioned around hoses or piping, for quick installation and set-up
- » Release lever aids in detaching from machine



Part No.	Description
CTO-MM-1	Magnetic Mount
CTO-RD10	Remote Display for LR Receivers
	<i>Cables for Remote Display (1 RD10 to Receiver cable required)</i>
CTO-010973	Cable, Coiled, RD10 to Receiver, 3-12 ft (0.9-3.7m)
CTO-010972-15	Cable, Straight, RD10 to Receiver, 15 ft (5m)
CTO-010983	Cable, RD10 Power, Lighter/power adapter
CTO-010987	Cable, RD10 Power, Battery terminal rings
CTO-010976-02	Mount, RD10 Swivel

Laser Display Receivers			
Specifications	LR30	LR50	LR60
Number of Display Channels	5-Channel Display	5-Channel Display 6-Channel Display in excavating mode	7-Channel Display 8-Channel Display in excavating mode
Accuracy: Center On-Grade mode (Grading)	Fine: 0.20 in (5 mm) Standard: 0.45 in (12 mm) Wide: 1.25 in (32 mm)	Fine: 0.20 in (5 mm) Standard: 0.40 in (10 mm) Wide: 0.80 in (20 mm)	Setup: 0.20 in (5 mm) Fine: 0.40 in (10 mm) Standard: 0.80 in (20 mm) Wide: 1.6 in (40 mm)
Accuracy: Offset On-Grade mode (Excavating)	NA	Fine: 0.50 in (12 mm) Standard: 1.0 in (25 mm) Wide: 2.0 in (50 mm)	Setup: 0.25 in (6 mm) Fine: 0.50 in (12 mm) Standard: 1.0 in (25 mm) Wide: 2.0 in (50 mm)
ACE—Angle Compensation Mode	NA	NA	Fine: 0.50 in (12 mm) Standard: 1.0 in (25 mm)
Blade-Tilt Accuracy	NA	± 0.5°, ± 1.5°, ± 2.5°	N/A
Plumb-Swing Accuracy	NA	± 0.5°, ± 1.5°, ± 2.5°	Standard: 0.5 in (12 mm) Angle Compensation Mode: 1.0 in (25 mm)
Beam Reception	360 Degrees	360 Degrees	360 Degrees
Vertical Reception	6.75 in (171 mm)	6.75 in (171 mm)	8.75 in (222 mm)
LED Battery Life Alkaline Bright/Dim Ni-MH Bright/Dim	50 hrs/75 hrs 40 hrs/50 hrs	45 hrs/60 hrs 30 hrs/45 hrs	45 hrs/75 hrs 40 hrs/50 hrs
Battery Recharge Time	3-4 hrs	3-4 hrs	3-4 hrs
Size	13.5x5.6x5.9 in (343x142x149 mm)	13.50x5.6x5.9 in (343x142x149 mm)	15.50x5.6x5.9 in (394x142x149 mm)
Weight	5.5 lbs (2.5 kg)	5.5 lbs (2.5 kg)	6.0 lbs (2.7 kg)
Receiver Warranty	24 Months	24 Months	24 Months

Tripods



Model Number 1161

Tripod, heavy-duty wood, screwlock.
Extends from 3 ft 2 in to 5 ft 3 in (0.96 m to 1.51 m)



Model Number Q104025

Included in LL100 Systems
Tripod, aluminum.
Extends from 2 ft 6 in to 4 ft 6 in (.82 m to 1.47 m)



Model Number 2161

Heavy-duty aluminum tripod
Extends from 3 ft 6 in to 6 ft 1 in (0.92 m to 1.55 m)



Model Number 2162

Heavy-duty elevating head aluminum tripod
Extends from 4 ft 4 in to 6 ft 2 in (1.27 m to 1.90 m)

Grade Rods



Telescopic aluminum grade rod - 10 feet (3 m)

Model GR131
Tenths

Model GR132
Inches

Model GR133
Metric



Two section 8 ft (2 m) rod

Model 984-2
Tenths

Model 984
Inches



Fiberglass telescoping CRAIN grade rods

CR-16-Inches
0600-1230

CR-16-Tenths
0600-1220

USL-25 10ths
0600-1260

SVR-25 10ths
0600-1270



Cut / Fill telescoping grade rod

Metric
66408

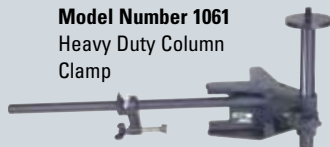
Model Number 962

Strap and Ratchet Assembly used with 1061



Model Number 1061

Heavy Duty Column Clamp



Chargers

Q102734 110V charger for NiCD or NiMH batteries
Used with HV301, HV401, LL400, LL300, LL400, LL500

Q102670 Ni-Cad rechargeable battery pack standard equipment for HV301 (compatible with HV401, LL300, and LL400)

Q103311 NiMH rechargeable battery pack standard equipment for HV401 and LL400-compatible with HV301 and LL300)

1041 Ni-Cad Charger kit Ni-Cad recharger and D cell rechargeable batteries and charger for LL500

1041S Smart Ni-Cad charger kit with universal charger for LL500

1041N NiMH recharger kit with universal charger for LL500

Contact your Spectra Precision Regional Manager or check the distributor price sheet for additional accessories

Spectra Precision Laser Specifications



Laser Levels					Horizontal and Vertical Lasers		
	LL100	LL300	LL400	LL500	HV101	HV301	HV401
Accuracy	1/8 in @ 100 ft 3 mm @ 30 m (20 arc seconds)	3/32 in @ 100 ft 2.2 mm @ 30 m (15 arc seconds)	1/16 in at 100 ft 1.5 mm at 30 m (10 arc seconds)	1/16 in @ 100 ft 1.5 mm @ 30 m (10 arc seconds)	1/8 in @ 100 ft 3 mm @ 30 m (20 arc seconds)	3/32 in @ 100 ft 2.2 mm @ 30 m (15 arc seconds)	1/16 in at 100 ft 1.5 mm at 30 m (10 arc seconds)
Operating diameter	1,000 ft (300 m)	1,300 ft (400 m)	2,600 ft (800 m)	1,600 ft (500 m)	Receiver: 1000 ft (300 m) Visible: 200 ft (60 m)	Receiver: 1,600 ft (500 m) Visible: 330 ft (100 m)	Receiver: 2,600 ft (800 m) Visible: 660 ft (200m)
Self-leveling range	±5 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling	±11 minutes	±5 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling	±5 degrees electronic servo self-leveling
Power source	2 × D-cell Alkaline batteries	4 × D-cell Alkaline/ or optional rechargeable batteries	4 D-cell Alkaline Standard, NiMH Optional	4 D-cell Alkaline Standard, NiMH or NiCad Optional	2 × D-cell Alkaline batteries	4 × 1.5 D-cell rechargeable batteries, Alkaline backup	4 × D-cell NiMH standard, Alkaline backup
Battery life	80 hr Alkaline	90 hr Alkaline / 45 hr Rechargeable	90 hr Alkaline, 55 hr NiMH	175 hr Alkaline, 100 hr NiMH, 75 hr NiCad	50 hr Alkaline	90 hr Alkaline, 40 hr Rechargeable	90 hr Alkaline, 55 hr NiMH
Water resistant	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Size L × W × H	8.5 × 6.7 × 6.0 in (22 × 17 × 15 cm)	9.6 × 6.5 × 7.3 in (24 × 16 × 18 cm)	8.3 × 7.1 × 7.9 in (21 × 18 × 20 cm)	10.8 × 7.5 × 7.5 in (27 × 19 × 19 cm)	8.5 × 6.7 × 6.0 in (22 × 17 × 15 cm)	9.6 × 6.5 × 7.3 in (24 × 16 × 18 cm)	8.3 × 7.1 × 7.9 in (21 × 18 × 20 cm)
Weight	3.3 lbs (1.5 kg)	6 lbs (2.7 kg)	6.8 lbs (3.1 kg)	8 lbs (3.6 kg)	3.3 lbs (1.5 kg)	6 lbs (2.7 kg)	6.8 lbs (3.1 kg)
Warranty duration	36 months limited, instant exchange	24 months	24 months	24 months	36 months limited, instant exchange	24 months	24 months

Please refer to product datasheets for detailed specifications.

Portable Tools				
	LP20 and LP40	LG2	LG20	HD50
Self-leveling range	+4 to -4 degrees	No	+5 to -5 degrees	N/A
Working range	100 ft (30 m) visual	50 ft (16 m) nominal up 100 ft (30 m) depending on light conditions	100 ft (30 m) visual, 250 ft (75 m) with the HR250 receiver	165 ft (50 m)
Accuracy	1/4 in at 70 ft (6 mm at 21 m) for up beam, 1/4 in at 100 ft (6 mm at 30 m) for level and square beams, 1/16 in @ 2.5 ft (1 mm @ 0.5 m) for down beam	1/4 in at 50 ft (6 mm at 15 m)	1/4 in at 70 ft (6 mm at 21 m) level and plumb beams	1/16" (1.5 mm)
Battery type	4 × AA Alkaline batteries	2 × C Alkaline batteries	4 AA Alkaline batteries	4 × AAA Alkaline batteries
Battery life	40 hours	30 hours	40 hours	30,000 readings
Size L × W × H	4.7 × 4.4 × 2.6 in (12.0 × 11.0 × 6.5 cm)	14 × 12 × 8 in (356 × 305 × 203 mm)	4.7 × 4.4 × 2.6 in. (12.0 × 11.0 × 6.5 cm)	4.4 × 1.4 × 2.2 in (110 × 35 × 55 mm)
Weight	0.9 lb (0.4 kg)	7.5 lb (3.4 kg)	1.25 lb (0.6 kg)	6.4 Oz (0.18 kg)
Warranty	1 year parts and labor / 2 additional years of Service Protection Plan 3 total plan years	1 year parts and labor / 2 additional years of Service Protection Plan 3 total plan years	1 year parts and labor / 2 additional years of Service Protection Plan 3 total plan years	1 year parts and labor / 2 additional years of Service Protection Plan 3 total plan years

Spectra Precision Laser Specifications

Grade Lasers		
	GL412	GL422
Accuracy	1/16 in at 100 ft 1.5 mm at 30 m (10 arc seconds)	
Operating diameter	2,000 ft (600 m)	2,600 ft (800 m)
Self-leveling range	±5 degrees electronic servo self-leveling	
Grade range	-10 to +15% Single axis	10 to +15% Dual axis
Grade Resolution	0.001% up to 9.999%	
Power source	4 D-cell NiMH Standard	
Battery life	55 hr NiMH 90 hr Alkaline	
Water resistant	Yes	
Size L × W × H	8.3 × 7.1 × 7.9 in (21 × 18 × 20 cm)	
Weight	6.8 lbs (3.1 kg)	
Warranty duration	24 months	
Wireless Remote Specifications		
Remote Control Type	RC402 Full 2-way communication	
Battery life	130 hrs continuous 1 year normal use	
Range	330 ft (100 m)	

Pipe Lasers		
	DG711	DG511
Grade Range	-15% to +40%	
Self-Leveling Range	Complete grade range (no rough leveling required)	
Line Range	20°	
Line Center	Yes	
Grade Zero & Quick Grade	Yes	
Line Set/Check / Line Alert	Yes	No
Temperature Compensation	Yes	No
Grade Compensation	Yes	
Waterproof	Continuous Submersion at 10 ft. (3 m)	
Laser classification / output	3A/3R / 4.5–5 mW (maximum allowable)	
Weight	8.0 lbs. (3.6 kg)	
Length	14.75 inches (37.5 cm)	
Diameter	5.5 inches (14 cm)	
Housing material	Armored Die Casting	Hard Anodized Aluminum
Battery type and life	NiMH / 60 Hours with Daily Setup at 68° F (20° C)	
Battery pack	Sealed (NiMH), O-Ring Sealed Removable (Alkaline)	
Warranty Period	24 months	12 Months
Wireless Remote Specifications		
Functionality	7 Button Power, Line and Grade Adjustment, Line Set	3 Button Power, Line Adjustment
Through the Pipe Range	750 ft (225 m)	
Front / Over the Top Range	500 ft (150 m)	
Rear Range	30 ft (10 m)	
Battery life	36 months	24 months

Optical Auto Levels				
	AL220	AL224	AL228	AL232
Magnification	20x	24x	28x	30x
Accuracy	0.1 in (±2.5 mm)*	0.08 in (±2.0 mm)*	0.05 in (±1.5 mm)*	0.03 in (±1.0 mm)*
Aperture	1.2 in (30 mm)	1.2 in (30 mm)	1.4 in (36 mm)	1.4 in (36 mm)
Shortest focus	2 ft (0.6 m)	2 ft (0.6 m)	2 ft (0.6 m)	2 ft (0.6 m)
Compensator	Air dampened	Air dampened	Air dampened	Air dampened
Warranty	3 year total plan 1 year parts and labor 2 additional years of service protection plan	3 year total plan 1 year parts and labor 2 additional years of service protection plan	3 year total plan 1 year parts and labor 2 additional years of service protection plan	3 year total plan 1 year parts and labor 2 additional years of service protection plan
*Note: Standard deviation according to DIN 18723 on one kilometer of double leveling				

Spectra Precision Laser Applications	LASER POINTERS • LP20 • LP40	LINE GENERATOR • LG2 • LG20 • LG20-1 • LG20-2	HANDHELD DISTANCE MEASURING DEVICE • HD50	LASER LEVELS • LL100 • LL300 • LL400 • LL500 OPTICAL LEVELS • AL220/AL224 AL228/AL232	HORIZONTAL VERTICAL LASERS • HV101 • HV301 • HV401	GRADE LASERS GL412 GL422
	GENERAL CONSTRUCTION					
Forms, footings and foundations		LG20-2		✓	✓	✓
Septic tank or swimming pools, decks and terraces		LG20-2		✓	✓	✓
Estimating cut and fill		LG20-2		✓	✓	✓
Checking building square and area			✓		✓	✓
Matching existing slopes and grades				✓	✓	✓
Checking elevations		LG20-2		✓	✓	✓
Checking elevations of sub-base and sub-grade		LG20-2		✓	✓	✓
Checking and setting elevations for sports fields, steep slopes, ramps, and drainage						✓
Vertical alignment and plumb such as anchor bolt and form alignment					✓	✓
INTERIOR						
Locating finished floor levels		LG20-2		✓	✓	
Laying out interior walls	✓	LG2, LG20, LG20-1, LG20-2			✓	
Installing ceiling grids	✓	LG20, LG20-1, LG20-2			✓	
Short-run vertical alignment		LG20-2			✓	
Squaring and layout of partitions, walls and tile floors	✓	LG2			✓	
Plumb reference and point transfers from below to above, such as walls, door frames, and lighting locations measured from the floor layout to ceiling	✓	LG20, LG20-1, LG20-2			✓	
Level reference used for leveling cabinets, counter tops, windows, decks ceilings, and chair rails	✓	LG20, LG20-1, LG20-2			✓	
Measuring distances, areas, volumes, depths, and heights			✓			



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