# CONSTRUCTION DISTRIBUTOR CATALOG

SPECT

### **Build a Stronger Business** with Spectra Precision Products

### The Broadest Line

From lasers to construction accessories, Spectra Precision Laser has more choices for your customer. Better choices, too, because we build our products to be the toughest on earth.

### An Entire Industry. Invented Here.

There's a reason Spectra Precision Laser 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 our products on more job sites around the world than any other brand.

### A Partnership for Success

We can help you grow your business. We have the breadth of products, the quality and the support you demand... and the attitude to do whatever it takes to make you more successful.





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### INTRODUCTION



For more than 50 years Spectra Precision has been delivering time, cost and material savings on the job site through continual development and innovation. Our products help provide control for elevation, grade, vertical alignment and 90 degree layout for both interior and exterior construction. They are designed to withstand harsh jobsite conditions providing the confidence to know they are working when you are working and where you are working. That is why we offer industry leading warranty coverage that is supported by a worldwide network of distribution and service partners. They provide expert support and guidance to help you select the right solution for your needs.

In this catalog you will discover our latest products, with unique features, that make you more productive on a daily basis. All of the information in the catalog and more can be found on our dedicated mobile App – search for Spectra Laser on both Google Play store or Apple App Store. The App allows you to select the right product for your needs, has all the product videos available and provides access to product manuals and user guides all right there on your phone.

#### So go ahead browse through the catalog and see what we have to offer.

### Warranty/Service

**Shockproof Products Built for** the Construction Environment

downtime and lower repair costs.

available depending on product:

the specified heights.

Spectra Precision products are designed to be used in the

conditions is expected. Environmental conditions are often

harsh, with water, mud and concrete being encountered on a

daily basis. At Spectra Precision this is considered with every

product. Products occasionally get dropped or knocked over;

all Spectra Precision products that show the "Shockproof" icon

are ruggedized and designed to withstand a 1m (3ft) drop onto concrete and tripod tip-over up to 1.5m (5ft) resulting in reduced

Industry Leading Warranty and Service Support

comprehensive coverage and simplicity. There are three options

Standard warranty covers manufacturing fault and where any

product has the "shockproof" warranty, parts and labour to repair the product are covered if it is dropped or knocked over within

The warranty program from Spectra Precision provides

Standard Warranty – with 1, 3 or 5 year coverage

• "No Excuses" free over the counter exchange

Supplemental Over the counter exchange

tough construction environment where performance in arduous



Products shown as having "No-excuses" free over the counter exchange can be exchanged for a new product with any Spectra Precision dealer as long as the product is within the terms of warranty.

Supplemental over the counter exchange is an instant, over-thecounter exchange policy, which can be transacted worldwide by ANY Spectra Precision dealer without a receipt. Any product will be replaced that has failed due to normal use for the same price as a typical repair, with a NEW unit from your local dealer's inventory for the specified period.

### Worldwide Service Network

In addition to factory service centres in Dayton, OH, Kaiserslautern, Germany and Shanghai, China-where specialist reprogramming and component level repairs can be undertaken, Spectra Precision has a comprehensive worldwide approved service provider network with over 170 service centres. All authorised service providers are factory trained and take part in regular training to update their skills and knowledge. Each service provider invests in specialist equipment to make sure that all service and repairs are carried out to the highest standards.

What does this mean to the Spectra Precision user? - live, experienced service technicians are available via phone, email and in person during normal business hours all around the world whether it is for technical advice, service or repairs.

### 2016

QML800G Green beam QuickMark layout system



### 2002 2008 DG711 LL100/HV101 pipe laser with anodized new generation of fully automatic lasers aluminum housing



**Bob Studebaker** with the 1st rotating laser in the world

Rotolite 1st rotating laser for interior work



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### 2017

GL612N-GL622N

Versatile Automatic Single and Dual Grade Laser for Level, Grade, and Vertical Alignment



### 2012

### 2016



UL633 the MOST versatile construction laser... EVER!



DG613-DG813 Compact, tough and smart pipe lasers

945U

1st electronic automatic self-leveling rotating laser with slope adjustment

#### EL-1

1st electronic automatic self-leveling rotating laser level with a laser diode... still produced. **Pipemaster** 

1st pipe laser with internal battery and infrared remote control

### **Buying Guide**

### 1. What do lasers do and how does that relate to what I need to do with them on the jobsite?

Simply, laser levels can provide a reference for:

- Horizontal Level
- Vertical Alignment
- Slope
- Automatic Grade
- 90 Degree Setting Out
- Plumb

Some lasers have only one of the features and some have all.



### 2. How does distance impact the way the laser functions?

Accuracy of the laser changes over distance. Over longer distances even the curvature of the Earth has an impact. Additionally the receiver you use can affect the accuracy. Depending on your requirements there are a number of things you can consider to improve accuracy.

 Planelok – a radio in the laser and the receiver, communicate and keep the laser beam locked to a fixed elevation or direction (in vertical). The laser works to keep the beam in a fixed position on the receiver. This not only improves accuracy but is best used for applications requiring higher accuracy such as concrete pads. This function can also eliminate beam drift that can be caused by vibrations or changing temperatures throughout the day.



• Tolerance Setting (Receivers) - Tolerance is an accuracy setting on the receiver. Spectra Precision receivers allow tolerance adjustment from fine to rough level. This can be helpful, for example by using a wider tolerance while moving dirt and a narrow tolerance while doing concrete or other fine grade. Spectra Precision receivers all maintain their tolerance accuracy over the full operating range of the receiver which, combined with digital readout and industry leading robustness assists greatly with improving accuracy.

#### 3. Are there industry standards for accuracy?

No. However, at Spectra Precision we work to our own standards that require all products leaving the factory to be set to a tighter specification than our published specification to allow room for possible shift during transportation and during jostling. In most cases our products have a higher accuracy performance than that specified.

#### 4. Where can I use lasers?

Lasers can be used externally with a receiver and internally visibly with or without a receiver (depending on light conditions). Spectra Precision exterior lasers have a visible beam allowing the user to be able to see where the laser is in order to get the receiver to the on-grade position faster.

#### 5. Can I use lasers for vertical applications?

Yes. Several lasers are designed for this application and are selfleveling in the vertical axis. All HV, GL400, GL600 and UL models are designed to be used in the vertical axis. Applications include formwork, foundations, 90° reference, fencing, facades and wall layout. The laser can replace the string line and be used over long distances. Please note the Planelok function (#2) can be used in either the horizontal or vertical position. There are several laser clamps and receiver brackets available to assist with the quick and efficient setup of vertical alignments.





#### 6. What is Grade Matching?

Grade Matching allows a user to match the fall of the ground or between two existing elevations without complex calculations.

- Manual Grade Matching once the height of the laser has been measured, the user takes the receiver and the rod to the elevation that needs to be matched. Then the laser is sloped until the beam reaches the on-grade position on the receiver. Once complete the grade has been matched.
- Automatic Grade Matching same process as manual grade except that the laser and the receiver communicate via radio and the beam is automatically driven to the on-grade position on the receiver. Some models of laser will also then display the actual grade.



### 7. What is Automatic Axis Alignment?

When working with grade it is vitally important that the grade axis is aligned correctly. Any slight mis-alignment can cause error, particularly over distance. Automatic Axis Alignment allows the user to align the laser to the grade hub automatically to providing a simple but accurate set-up. The laser communicates to the receiver and aligns to the receiver that is placed on the grade hub (this can be in a range of +/-40 degrees)



## **Buying Guide**

#### 8. What is a Digital Read-Out Receiver?

The Spectra Precision Digital Read-Out receivers have a patented design that delivers consistent accuracy over the entire operating range combined with jobsite durability. The receiver is the one part of the system that receives the most punishment and needs to withstand jobsite abuse such as being dropped or getting wet. With the digital readout models (which have the prefix HL) you do not even need to get the receiver to the on-grade position because it simply displays how far from ongrade you are - allowing you to work faster and more accurately. Readouts can be changed between metric and English units. Be careful to really understand the difference between a Spectra Precision Digital Read-Out receiver and other brands as this could lead to unnecessary errors and additional cost. Not only are these receivers tough and accurate but when used with certain models of laser within the Spectra Precision range they also provide advanced functionality such as automatic grade matching, PlaneLok and axis alignment.



#### 9. How can I distinguish between multiple lasers being used on the same jobsite?

With the new HL760, Spectra Precision introduces a new function called "Fingerprinting" that links the receiver with a

particular laser. Once the receiver is paired with the laser transmitter the receiver has the ability to filter out other lasers that strike the receiver and only accept the laser that it is paired with. All lasers marked with the Fingerprint icon have this ability when used with HL760 receiver.



#### 10. Can a laser be knocked over or dropped?

Spectra Precision lasers are designed to be used on the jobsite where they may get knocked over or dropped. If a laser has the "Shockproof" icon it can be dropped 1m onto concrete or

withstand a 1.5m pushover on a tripod. What does this mean in real terms? While we can't guarantee that the laser's calibration will not be changed we do guarantee that the most expensive internal components will still work reducing the lifetime running cost of the laser.



# LL100N

Affordable, Easy to Use Laser Level





### **Key Features and Benefits**

- When system case configuration purchased includes LL100N laser, HR320 receiver, C59 receiver clamp, tripod and choice of grade rod - a complete leveling crew in case
- 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

#### **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
LL100N	HR320	No	No	Small Case
LL100N-1	HR320	GR151 Tenths	Q104025	System Case
LL100N-2	HR320	GR152 Inches	Q104025	System Case
LL100N-3	HR320	GR153 Metric	Q104025	System Case







- 3 Year No-Downtime warranty keeps productivity high and operating costs low
- One-person elevation control up to a 1,150 ft (350 m) diameter
- Optional RC601 remote control allows easy grade matching using the remote control from rod position

All part numbers include LL100N transmitter, HR320 receiver, C59 Adapter for receiver, case, retail carton graphics, 2 D and 2 AA Alkaline batteries



## LASER LEVELS

# **LL300N** Medium-Range, Highly Accurate Leveling Solution



### **Key Features and Benefits**

- Available with a choice of system case (with receiver, tripod and choice of grade rod) or small carry case with receiver and clamp.
- 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
- 1650 ft (500 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 HL450 or HR320 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

Part No.	Receiver	Power	Rod	Tripod	Case
LL300N	HL450	4 D Alkaline	No	No	Small Case
LL300N-1	HL450	4-D Alkaline	GR151 Tenths	Q104025	System Case
LL300N-2	HL450	4-D Alkaline	GR152 Inches	Q104025	System Case
LL300N-3	HL450	4-D Alkaline	GR153 Metric	Q104025	System Case
LL300N-4	HL450	Rechargeable pack*	No	No	Small Case
LL300N-8	HR320	4 D Alkaline	No	No	Small Case

All part numbers include LL300N transmitter and case. \*Rechargeable pack comes with NiMH batteries and charger.



# **LL300S**

Medium-Range, Highly Accurate Leveling Solution



#### **Key Features and Benefits**

- Available in system case with receiver, tripod and choice of grade rod
- 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 RC402N remote control allows easy grade matching using the remote control from rod position
- 2,600 ft (800 m) operating diameter

#### **Applications**

 Checking/setting elevations, concrete forms, footings, and foundations for small and medium sized jobs

Part No.	Receiver	Remote	Power	Rod	Tripod	Case
LL300S	HL450	No	4 D Alkaline	No	No	Small Case
LL300S-4	HL450	No	Rechargeable Pack*	No	No	Small Case
LL300S-7	HL760	No	4 D Alkaline	No	No	Small Case
LL300S-17	HL760	No	4 D Alkaline	GR151 Tenths	Q104025	System Case
LL300S-27	HL760	No	4 D Alkaline	GR152 Inches	Q104025	System Case
LL300S-47	HL760	RC402N	Rechargeable Pack*	No	No	Small Case
All part numb	ers include L	L300S transmi	tter and case. *Rechargea	ble pack comes with	NiMH batteries	and charger.





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- 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 HL450 or HL760. Fingerprinting function can be used when used in conjunction with HL760 receiver.
- Basic slope work such as driveways and ramps
- Excavating, digging footings, and septic tanks

### LASER LEVELS

# **LL500**

Longest Range, Highly Accurate Leveling Solution











### **Key Features and Benefits**

- 1,650 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

#### **General Construction Applications**

 Checking/setting elevations, concrete forms, footings, and foundations for medium to large commercial iobs

- 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

#### Machine Control Applications

- Excavating, digging footings, and septic tanks with CR600 receiver
- Sub-base leveling with skid steer loaders and CR600 receiver
- Longer range machine control applications

Part No.	Receiver	Power	Rod	Tripod	Retail Package
LL500	HL700	4 D Alkaline	No	No	No
LL500-1	HL700	4 D Alkaline	GR151 Tenths	2161	Yes
LL500-2	HL700	4 D Alkaline	GR152 Inches	2161	Yes
LL500-3	HL700	4 D Alkaline	GR153 Metric	2161	Yes
LL500-4	HL700	NiMH	No	No	No
LL500-10	CR600	4 D Alkaline	No	No	No
LL500-14	CR600	NiMH	No	No	No
	All part numbers inc	lude LL500 transmitt	er and case. *NiMH p	ack comes with charge	· · · · · · · · · · · · · · · · · · ·





# **HV101**

Economical Solution for Leveling, Aligning, and Plumb Applications



#### **Key Features and 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
- Complete GC packages include everything you need for both interior and exterior work in a convenient system case

#### **Applications**

- Leveling of ceiling grids
- Installation of interior fittings (cabinets, lighting etc.)

Part No.	Receiver	Grade Rod	Tripod	Wall Mount	Remote	Case
HV101	No	No	No	M101	RC601	Small Case
HV101-4	HR150U	No	No	M101	RC601	Small Case
HV101GC-1	HR320	GR151 Tenths	Q104025	M101	RC601	System Case
HV101GC-2	HR320	GR152 Inches	Q104025	M101	RC601	System Case
HV101GC-3	HR320	GR153 Metric	Q104025	M101	RC601	System Case



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SPECTRA

- 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
- Transferring points from the floor to the ceiling
- Short range leveling for decks and patios

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



# HV302

**General Purpose Construction Laser** for Medium-range Interior and **Exterior Applications** 











#### **Key Features and Benefits**

- The housing is rugged, lightweight and IP66 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
- Automatic Grade Match and PlaneLok using RC402N and HL760
- 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

#### **Applications**

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- 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
- Exterior walls and facades

Part No.	Receiver	Wall Mount	Power	Ceiling Target	Remote	Rod	Tripod	Case
HV302	HL760	No	4 D Alkaline	No	RC402N	No	No	Small Case
HV302-1	No	M302	Rechargeable Pack*	1176	RC402N	No	No	Small Case
HV302-2	HR150U	M302	Rechargeable Pack*	1176	RC402N	No	No	Small Case
HV302-4	HL760	No	Rechargeable Pack*	No	RC402N	No	No	Small Case
HV302GC-2	HL760	No	4 D Alkaline	No	RC402N	GR152 Tenths	Q104025	System Case
HV302-7	HL760	M302	Rechargeable Pack*	1176	RC402N	No	No	Small Case

All part numbers include HV302 transmitter, case and NiMH battery pack with charger.



# HV302G

Multipurpose Green Beam **Construction Laser for Interior** 









### **Key Features and Benefits**

- High visibility green beam is four times more visible than standard red beam lasers allowing work at longer distances and in brighter conditions
- Fully automatic self-leveling in both horizontal and vertical for fast, accurate setup in horizontal and vertical applications
- Increases productivity with fast setups, fewer mechanical parts, and automatic self-leveling
- Line scan and beam plunge feature for easy drywalls

### **Applications**

- Interior, light to medium commercial and residential construction
- Squaring/layout
- Leveling and aligning of interior walls

Part No.	Receiver	Wall Mount	Ceiling Target	Remote
HV302G-1	No	M302	Yes	RC402N
HV302G-2	HR150U	M302	Yes	RC402N
All part num	bers include HV302G lase	r glasses, transmitter, cas	e and NiMH battery pack	with charger.





- Rotor vial for easy and accurate vertical plumb set-up
- Preset adjustable rotation speed and scan line sizes to fulfill all interior application needs
- Minimizes power costs, increases reliability with choice of rechargeable or alkaline batteries
- Automatic Grade Match and PlaneLok using RC402N and HL760U

- Installation of ceilings and raised floors Interior finishing work

- Vertical alignment
- Plumb



### **GRADE LASERS**

## **GL412N / GL422N** Single and Dual Grade Lasers with Vertical Alignment





#### **Key Features and Benefits**

- GL412N / GL422N are grade plus horizontal and vertical lasers. Simple, accurate dial in grade from -10% to +15% (Single GL412N, Dual GL422N)
- Up to 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
- 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 HL760 or CR600 receivers
- Mask mode eliminates interference from other crews on the jobsite
- Automatic Grade Match and PlaneLok

#### **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
- Grading and excavating

- Driveways and ramps
- Trenching
- Sport fields, tennis courts (GL422N only)
- Steep slope road embankments and ditch banks

Remote

RC402N

RC402N



All part numbers include GL412N/GL422N transmitter, case and NiMH rechargeable battery pack and charger.



# **GL612N / GL622N**

Versatile Automatic Single and Dual Grade Laser for Level, Grade, and **Vertical Alignment** 





### **Key Features and Benefits**

- GL612N / GL622N are grade lasers with a compensated grade range of -25% to +25%. Vertical and horizontal setups are also compensated
- Quick setups with the 2-way radio remote control
- Electronic Leveling Vibration Filter dampens vibrations typically experienced on tall tripods, in high winds, or on high vibration jobsites
- Very rugged with low service costs; takes a 3 ft (1 m) drop on concrete
- Mask mode eliminates interference with other crews on the jobsite
- Automatic Axis Alignment (GL622N only) is easy to setup for increased accuracy.

#### **General Construction 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









RC602N Remote Control

- Radio communication between the laser and HL760 Laserometer allow advanced features and remote display capabilities
- Long operating radio range 490 ft (150 m)
- Grade Match displays the existing grade over unknown ground and eliminates time consuming and error prone calculations, time spent searching for grade plans, and over excavating
- PlaneLok automatically locks on to an existing elevation or vertical alignment point which eliminates all drift or possibility of error due to improper calibration or weather
- 5 Year "No Cost" Warranty

### **HL760** Applications

- Trenching
- Remote grade checking with cable free remote display
- Wireless monitoring of foundations and steel erections
- Risk free monitoring of tilt up wall position

### **GRADE LASERS**

## **UNIVERSAL LASER**

# **GL710, GL720, GL722** High Precision, Extra Long Range Grade Lasers











### **Key Features and Benefits**

- Temperature compensation provides accurate stable results regardless of temperature changes
- Long battery life and flexible power options keep the unit working throughout the day
- Large displays make the numbers easy to read, even when set-up on a tall tripod
- Better than 5 arc second servo deadband accuracy for demanding high accuracy requirements

#### GL710 Single Grade Laser

• Up to a to 3,000 foot (900 meter) diameter. With -0.5 to 25% grade range, the GL710 is a great choice for general construction, site preparation, trenching and pipe-laying applications

#### Applications

General construction

 Site preparation Trenching

- Road construction
  - Machine control

Part No.	Grade	Receiver	Clamp
CTO-GL710	Single	HL700	C70 Adapter for Receiver
CTO-GL710-10	Single	CR600	C50 Adapter for receiver and C51 Mag. Mount
CTO-GL720	Dual	HL700	C70 Adapter for Receiver
CTO-GL720-10	Dual	CR600	C50 Adapter for receiver and C51 Mag. Mount
CTO-GL722	Dual	CR600	C50 Adapter for Receiver and C51 Mag. Mount
CTO-GL722-IR	Dual Infrared	CR600	C50 Adapter for receiver and C51 Mag. Mount

All part numbers include transmitter, case and NiMH rechargeable battery pack and charger.



#### GL720 Dual Grade Laser

RC703

Remote Control

• The GL720 features +/- 10% in the X axis grade range and -0.5 to +25% Y-axis grade range with high accuracy up to 3,000 foot (900 meter) diameter. The GL720 is ideal for general construction and machine control grade applications

#### GL722 Dual Grade Laser

• With a Long-range Radio Remote and the same range and base capabilities as the GL720. the GL722 includes all the benefits of the full Radio Remote functions... plus Automatic Axis Alignment, Grade Match and PlaneLok capability. Ideal for general construction, site preparation and road construction.



**Universal Laser UL633N** 

#### RC603N Remote Control

#### **Key Features and Benefits**

- Full control for horizontal level, sing grade, vertical alignments or setting angles- providing the ability to do so from one single laser
- Long operating radio range 490 ft (150 m)
- High precision alignment for grades align automatically to your grade hub for accurate grade set-ups on X, Y or XY axis simultaneously. Only grade laser on the market that provides the ability to have a second grade axis that can be set from 10° to 170°. For car park set ups or other applications where two grade axes are not at 90°. No need to spend time calculating the set-up just align to the receivers and start working
- Grade matching measures and displays the grade between 2 elevations over unknown ground also simultaneously on two axes

#### **Applications**

- Levelling concrete forms and footers
- Vertical alignment for anchor bolts, building
- axis, facades and form alignment Dual slope grading and steep slope excavation

Part No.	Receiver	Spot Finder SF601	Clamp	Remote
UL633N	2x HL760	with adapter with rubber strap	Rod Clamps with Bubble Vial	RC603N
AI	l part numbers incluc	le transmitter, case and NiMH recha	geable battery pack and charger.	









le or dual	
g out 90°	
o much more	

- Precise control for high accuracy applications such as concrete floors – the laser will lock onto the receiver and stay fixed in the on-grade position all day eliminating costly drift caused by temperature fluctuations – **Planelok**
- Fast vertical alignment laser will align either to the receiver or SpotFinder for vertical alignments such as façade installation, building axis alignment or kerbs.
- Rapid 90° degree layout set a 90° angle in seconds with no complex calculations
- Various power options keeping you working when you need to work
- Intuitive menu driven operation no secret button pressing, select your mode and start working
- Versatility to fit any construction application providing more value and higher return on your investment - do more with one product

- Slope work for sports fields, driveways, parking garages and ramps
- Layout of concrete pads and for any job requiring 90° layout outdoors

# **DG613** DialGrade Small and Powerful



• The Spectra Precision DG613 has advanced

easy alignment even in short trenches

- Line Alert- notifies the user if the set-up

is disturbed eliminating costly re-work

easier and more accurate:

centre of the target

functionality that makes setting up and using it

- Line-Set/Check – allows the user to align the

laser to the manhole quickly and easily to set

- Line Scan – provides a quick alignment to the

direction. The beam will go up to 100% allowing











- New reduced length to make it easier to fit in pipes around tighter inverts
- Self levelling range of -12% to +40% over the entire grade range
- Cross axis compensation provides a quicker more accurate set-up as the laser does not have to be level in the pipe – place it in the pipe it levels, you work.
- Bright visible beam that works up to 500ft (150m)
- RC803 remote works via radio 430ft (130m) or infra-red 500ft (150m) for both "over-the-top" set-up and in pipe/trench set-up.
- Large, bright, graphical user interface makes the screen easier to see and use when in or out of the pipe. Same graphical user interface can be seen on the remote - what you see on the laser you see on the remote.

#### **Applications**

- Installation of gravity flow sanitary pipelines
- Storm sewer pipelines
- Pipe jacking

• Can be used in a pipe or in over the top set-ups

Part No.	Components	Power
DG613	DG613 Laser, 1248 trivet plate 8 inch (200mm), RC803 IR/Radio Remote Control, 956 target	NiMH Recharge
DG613-5	DG613 Laser, 1230 large invert plate, 1239 vertical pole, RC803 IR/Radio Remote Control, 956 target	NiMH Recharge
DG613-6	DG613 Laser, 1237 large invert plate (metric), 1239 vertical pole, RC803 IR/Radio Remote Control, 956 target	NiMH Recharge
DG613-13	DG613 Laser – Over-the Top Package, 1263 precise scope, RC803 IR/Radio Remote Control, P25 power outlet charger, 2 x NiMH battery pack and 1 x charger	NiMH Recharge





**DG813 DialGrade** 

Perfection in a Pipe

Small, Tough and Smart –





#### **Key Features and Benefits**

- New reduced length to make it easier to fit in pipes around tighter inverts
- Self levelling range of -12% to +40% over the entire grade range
- Cross axis compensation provides a quicker more accurate set-up as the laser does not have to be level in the pipe – place it in the pipe it levels, you work.
- Bright visible beam that works up to 500ft (150m)
- RC803 remote works via radio 430ft (130m) or infra-red 500ft (150m) for both "over-the-top" set-up and in pipe/trench set-up.
- Large, bright, graphical user interface makes the screen easier to see and use when in or out of the pipe. Same graphical user interface can be seen on the remote - what you see on the laser you see on the remote.
- The DG813 has flexible power options that provide 40 hours operating time (NiMH rechargeable batteries with Worldwide charger) and 50 hours (alkaline batteries). Alkaline batteries can be used directly in the laser without a separate battery pack. Additional car charger can be purchased to keep you working even when out in remote areas.

#### **Applications**

- Installation of gravity flow sanitary pipelines
- Storm sewer pipelines

Part No.	Accessory	Power
DG813	DG813 Laser, 1248 trivet plate 8 inch (200mm), RC803 IR/Radio Remote Control, SF803 Spot Finder w/pole adapter & target plate, 956 target, Transporter ST802	NiMH Recharge
DG813-3	DG813 Laser, 1230 large invert plate, RC803 IR/Radio Remote Control, SF803 Spot Finder w/pole adapter & target plate, 956 target, Transporter ST802	NiMH Recharge
DG813-5	DG813 Laser, 1230 large invert plate, 1239 vertical pole, RC803 IR/Radio Remote Control, SF803 Spot Finder w/pole adapter & target plate, 956 target, Transporter ST802	NiMH Recharge
DG813-6	DG813 Laser, 1237 large invert plate (metric), 1239 vertical pole, RC803 IR/Radio Remote Control, SF803 Spot Finder w/pole adapter & target plate, 956 target, Transporter ST802	NiMH Recharge



**20** VISIT OUR WEB SITE AT WWW.SPECTRALASERS.COM

- Tunnel boring

from errors





- The Spectra Precision DG813 has advanced functionality that makes setting up and using it easier and more accurate:
- Line-Set/Check allows the user to align the laser to the manhole quickly and easily to set direction. The beam will go up to 100% allowing easy alignment even in short trenches
- Line Scan provides a quick alignment to the centre of the target
- Line Alert- notifies the user if the set-up is disturbed eliminating costly re-work from errors
- The SF803 SpotFinder, when used with DG813, provides other automatic functions making it the smartest pipe laser in the industry
- Spot Align automatically aligns the DG813 to the centre of the SpotFinder in the pipe or to the direction of the manhole when used in a trench or "over-the-top" set up.
- Spot Match a great tool for checking that pipe has been installed to the correct grade or for finding the grade of existing pipe work. Can also be used to calculate the grade between manholes
- SpotLok can be used to lock the beam in a desired position for applications such as solar farms where the beam could be subject to drift. Spot Search – can be used to locate the beam over long distances out of the trench
- Pipe jacking
- Tunnel boring



### LASER RECEIVERS

### **HR150U Receiver**

Interior Receiver with Highly Visible LEDs and Built-in Magnetic Mount



#### **Applications**

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



#### **Key Features and 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, green or IR 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

# HR220 Line Laser Receiver

Special Receiver for use with Line Lasers



#### **Applications**

- Extends versatility of laser line generators
- Longer distance interior layout and exterior leveling
- Ceiling grid and raised access floor installations



#### **Key Features and Benefits**

- Five channel LCD on the front for general exterior leveling
- Simultaneous LED display shows green on grade, red too high and blue too low
- Built in magnet allows the receiver to be easily mounted to ceiling grid or drywall track without the need for additional accessories
- Works with line lasers

- Snap in rod clamp allows for quick switching from rod mounted to handheld
- Integrated level bubbles for adjusting the receiver into a plumbed position
- Durable in wet and dusty conditions; the housing and battery compartment are waterproof and dustproof to IP67

# **HR320 Receiver**

Tough Receiver for Exterior Leveling and Alignment Applications



#### **Applications**

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



### **Key Features and 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 auick switching from rod-mounted to handheld applications

# **HL450 Digital Readout Receiver**

Ideal for use with any Rotating Transmitter



#### **Applications**

- Checking elevations
- Basement excavation
- Digging septic tanks
- Checking foundations
- Digging footings

### **Key Features and Benefits**

- Digital readout of elevation allows faster readings by displaying the exact numerical distance from grade, eliminating the need to move the receiver to get to "on-grade"
- Anti-Strobe Sensor stops construction strobe lights from setting off the receiver, and eliminates phantom strikes for easier identification of true laser beam signals
- Large 4-inch (10.2-cm) reception height allows faster readings by acquiring the beam quickly, and makes it easier to stay in the beam





- 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



- Withstands direct drops up to 5 feet (1.5 meters) on to concrete providing less downtime due to damage and service requirements
- Full weather and dust proof design, including the battery compartment assures a longer product life and/or repair costs
- Approximately 60-hour battery life with 2 x AA batteries keeps work going on the jobsite
- Automatic power shutoff (after 30 minutes) reduces annual battery cost
- Rod clamp included

## LASER RECEIVERS

## **HL700 Digital Readout Receiver**

Highly Versatile Receiver for Basic and Advanced Leveling and Aligning



### **Applications**

- Checking elevations
- Basement excavation
- Digging septic tanks
- Checking foundations Digging footings
- **Key Features and Benefits**
- Digital Readout of Elevation provides a numeric display of  $\pm 2$  inches ( $\pm 5$  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

- Setting forms
- Checking sub-base materials
- Screeding concrete



- 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
- C70 Adapter with Bubble Vial included

## **HL750 Radio Digital Readout Receiver**

Digital readout and robust performance



### **Applications**

- Checking elevations
- Basement excavation
- Septic tank installation Checking footings and
- foundations

### **Key Features and Benefits**

The HL750 with radio communication is a stand alone receiver that works with all red beam laser transmitters providing a digital readout for elevation control in millimetres or fractional inches, eliminating the need to get "on-grade" when taking measurements.



- Checking sub-base materials
- Screeding concrete
- Vertical alignment (with laser in vertical mode)



EPICIRA 5.0

When working in deep excavations the capture mode allows the

user to pick up the laser elevation without having to adjust the receiver to the on-grade position -it tells you how far off on-grade you are.

- Anti-strobe sensor stops construction strobe lights from setting off the receiver, reducing costly errors
- Will take a drop of upto 10ft (3m) onto concrete for reduced downtime.
- Clamp comes with patented reversible jaw to allow a more solid fix to round or square rods.

# HL760 / HL760U Radio Digital **Readout Receiver**

Highly Versatile Receiver for Basic and Advanced Leveling and Aligning



#### **Applications**

- Remote grade checking with cable free Remote Display
- Wireless monitoring of foundations and steel erections
- Risk free monitoring of tilt up wall position

#### Setting and checking jobsite elevation and depth for:

- Cut and fills and grading
- Foundations, forms, and footings Excavations

### **Key Features and Benefits**

- Digital readout of elevation not only will high or low arrows be displayed, but the exact distance from grade will be displayed, which eliminates the need to get "on-grade" to make measurements
- Large 5 inch (12.7 cm) reception height acquires the beam quickly and makes it easy to stay in the beam
- The HL760 / HL760U has an internal, long range 330 ft (100m) radius, high speed digital radio built inside that allows the receiver to communicate with any other HL760 / HL760U: LL300S, LL400HV, HV302, GL412N / GL422N laser transmitters
- Machine operators can monitor elevation shots taken by another person or foremen can monitor elevations and cut/fill readings from anywhere on the jobsite
- Anti-strobe sensor stops construction strobe lights from setting off the receiver, and makes it easier to identify true laser beam signals





SPERI

- Multiple deadband setting allows adaptation to meet all your jobsite requirements
- Dust and weatherproof housing withstands a drop of up to 10 ft (3 m) onto concrete for reduced downtime
- Two clamp positions for cut/fill or excavation
- Three-year "No Excuses" warranty
- C70 Adapter with Bubble Vial included
- HL760U can also accept infrared and green beam lasers
- When working in deep excavations the capture mode allows the user to pick up the laser elevation without having to adjust the receiver to the on-grade position -it tells you how far off on-grade you are.
- Clamp comes with patented reversible jaw to allow a more solid fix to round or square rods.

### LASER RECEIVERS

### **ELECTRONIC FIELDBOOK APP**

# **CR600 Combination Receiver**

**Key Features and Benefits** 

wide range of jobsite applications

operator in brightly lit conditions

• On grade off mode for monitoring

Magnesium housing is rugged but lightweight

• Can be used with any brand rotating red laser

Line alert mode for long range vertical alignment

270° reception for easy visibility of on-grade beam

(460 m) radius

Provides high, low, or on-grade information for all your

In addition to handheld and rod-mounted capabilities, the

CR600 system includes a C51 machine magnetic mount so

it can be used as a machine-control mounted receiver in a

Super-bright LED display can be easily seen by a machine

• Five on-grade sensitivities to customize need to application

grading and excavation applications up to 1,500 ft

Machine or Rod Mounted **Combination Receiver** 









- Digging footings
- Basement excavation

Two-year warranty

- Checking sub-base materials
- Setting and checking elevations

- Leveling and aligning forms
- Screeding concrete





Optional Bubble Vial Kit for HR150U, HR220, HR320 and HL450 receivers adapters PN 1277-6251S



Accessories and Components for Laser Receivers: All receivers include rod clamps (CR600 includes rod clamp and magnetic mount)

HL700, HL750/U and HL760/L includes C70 Adapter for C51 Magnetic Mount included receiver with Bubble Vial with CR600 receiver PN C70



🙆 🖗 Trimble

6

SPECIAL

C50 Adapter included with CR600 receive

5			
,			

# **Electronic Fieldbook App Simplifies Level Recording**



### **Key Features**

- Choose your workflow Height of Collimation, Rise & Fall or Cut & Fill
- Guides you through the workflow, making it simple and easy to use
- Input your levels and the calculations are done for you eliminating errors with calculations
- Closure checks performed automatically no math required
- Multiple methods for export (Google Drive, Email, Dropbox, Bluetooth)
- Available in iOS or Android
- No need to purchase level books permanent record for all your projects

### **User Benefits**

- Input your readings and all the math is taken care of eliminating errors
- Improve communication with rod-man
- multiple methods
- Simple and easy to use

#### **Applications**

All level work - Height of Collimation, Rise & Fall and Cut & Fill

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- Send messages to the rod man direct from the app to improve communication and eliminate hand signals

Permanent record of every job, including GPS position of the jobsite that can be sent or shared via

• Use with laser (Cut & fill) or auto-level for all applications

### **OPTICAL INSTRUMENTS**

### **Automatic Level** Easy-to-use Optical Auto-levels











#### **Key Features and Benefits**

- Choice of magnetic or air dampened automatic compensators
- Double-sided, continuous horizontal tangent drives
- Stadia lines for simple distance measurement
- Convenient horizontal angle measurement
- Built in bubble mirror and sighting guide
- Metal housing for increased durability

#### AL20M

Part No.	Power/Damp	Tripod	Rod
AL20M	20X / Magnetic	No	No
AL20M-1	20X / Magnetic	5301-27-BLK-SP	GR151
AL20M-2	20X / Magnetic	5301-27-BLK-SP	GR152
AL20M-3	20X / Magnetic	5301-27-BLK-SP	GR153

#### AL24A, AL24M

Part No.	Power/Damp	Tripod	Rod
AL24A	24X / Air	No	No
AL24M	24X / Magnetic	No	No
AL24A-1	24X / Air	5301-27-BLK-SP	GR151
AL24M-1	24X / Magnetic	5301-27-BLK-SP	GR151
AL24A-2	24X / Air	5301-27-BLK-SP	GR152
AL24M-2	24X / Magnetic	5301-27-BLK-SP	GR152
AL24A-3	24X / Air	5301-27-BLK-SP	GR153
AL24M-3	24X / Magnetic	5301-27-BLK-SP	GR153

#### Includes hardshell case • Two-person leveling across the job site

Water resistant construction

- Leveling forms and footers
- Checking elevation
- Measuring cut and fill

#### AL28M

Part No.	Power/Damp	Tripod	Rod
AL28M	28X / Magnetic	No	No
AL28M-1	28X / Magnetic	5301-27-BLK-SP	GR151
AL28M-2	28X / Magnetic	5301-27-BLK-SP	GR152
AL28M-3	28X / Magnetic	5301-27-BLK-SP	GR153

#### AL32A

Part No.	Power/Damp	Tripod	Rod
AL32A	32X / Air	No	No

# **DET-2 Construction Theodolite**

**Full Featured Digital Theodolite** for Construction



#### **Key Features and Benefits**

- 2 arc seconds angular accuracy accurate enough for any construction job, yet the display resolution can be tailored to any operator's preferences for fast readings
- Vertical axis compensation tilt sensor provides the highest level of accuracy and can be turned on or off depending on job requirements
- Dual LCD with large characters easy to see angle readings eliminate errors and reduces eve fatigue
- Simple six button keypad quick setups and simple operation with low operator learning curve
- Large suite of programmable settings provide multiple options for various users and job requirements including zero position of vertical angle
- Measurement units in degrees, gon, or mils

#### **Applications**

- Establishing 90 degree reference lines
- Checking angles, alignment, and plumb
  - Anchor bolt alignment
  - Gravity flow pipe laser setup
  - Steel column placement





No M
5301-27-BLK-SP GR
5301-27-BLK-SP GR
5301-27-BLK-SP GR





- 90 Degree angle audible notification for quick turning and set out of right angles
- Instant conversion of vertical angles to percent of grade - convenient for slope work and when used in conjunction with Dialgrade<sup>®</sup> pipe work
- NiMH rechargeable battery pack and charger lower operating cost with reusable batteries
- Alkaline battery pack standard provides backup and eliminates downtime if the charge is lost in the middle of a job
- Each DET-2 comes equipped with a plumb bob, NiMH rechargeable battery pack and charger, alkaline battery pack, adjustment tools, rain hood, multi-language user guide, and hardshell, compact, o-ring sealed, carrying case

Alignment of forms, tilt-up walls, and curtain walls

- Basic grade work
- Short range leveling

### LASER TOOLS

# LP30 / LP50 Laser Pointers

3-Beam and 5-Beam Self-leveling Pocket Lasers



### **Key Features and Benefits**

- The LP30 projects 3 beams one beam up, one down and one horizontal beam
- The LP50 projects 5 beams one beam up, one down and three beams at 90 degrees to each other
- Self-leveling, and universal accessories allow for setup in multiple applications
- Patented technology... highly visual in all conditions for better productivity
- Beam flashes if it becomes out of level for any reason

### **Applications**

- Level, horizontal and vertical layout, checking plumb
- Point transfer

LP30

Checking square with LP50 Layout of interior walls, drywall track installation

- Easily fits in your tool belt so it's always at hand
- 3 year instant exchange warranty minimizes downtime
- Able to withstand a 3-foot (1 meter) drop... IP54 rated
- LP30 ships in retail box with soft pouch, target and mounting accessory
- LP50 ships in retail carton with hard case, target, ceiling plate and mounting accessory
- Drywall track installation
- Cabinet & trim installation, finish carpentry
- Reference points for sprinkler systems, HVAC, lighting

Part No.	Description	Dots
LP30	3 beam point laser with target, magnetic bracket in a pouch	3
LP50	5 beam point laser with target, magnetic bracket in a hard case	5





# **LT20 Crossline Laser** Simple to Use — Perfect for **Interior Construction**



#### **Key Features and Benefits**

- Capable of handling interior horizo or plumb positioning application
- Extra bright lines
- Automatic self-leveling assures ad and fast setup

#### **Applications**

- Level, horizontal & vertical layout, square, & plumb
- Building, layout, & squaring of interview.
- Acoustical ceiling installation (sm

Part No.	Receiver	Case	Ceiling Bracket
LT20	No	Soft Pouch	Yes













zontal, vertical ccuracy	<ul> <li>3 year instant exchange warranty minimizes downtime</li> <li>Water, mud, and shock resistant, able to withstand a 3-foot (1 meter) drop onto concrete IP54 rated</li> <li>Included clamp for ceiling installation</li> </ul>
t, terior walls nall rooms)	<ul> <li>Drywall track installation</li> <li>Cabinet &amp; trim installation, finish carpentry</li> </ul>



### LASER TOOLS

### **LT52 Point & Line Laser Tool** The Tool for All Trades









- Eliminates the need for contractors to purchase two tools by combining a 5-beam pointer and a crossline laser into one product
- Versatile tool does multiple jobs set it up once and work plumb, level and square in the whole area
- Automatic self-leveling assures accuracy and fast setup
- The industry's brightest crosslines and points for easy viewing in all conditions – points are visible up to 200 feet (60 m)
- Wide 210° horizontal line intersects side points; Vertical up beam intersects up point

- Down point clears floor track, no accessory required
- Long battery life 56 hours for pointer on alkaline batteries
- 3 year instant exchange warranty minimizes downtime
- Water, mud, and shock resistant, able to withstand a 3-foot (1-meter) drop onto concrete... IP54 rated
- New magnetic bracket can be attached to steel columns, wall studs or any steel surface
- HR220 receiver can be added for exterior applications for maximum jobsite versatility

#### **Applications**

- Level, horizontal and vertical layout, square, and plumb
- Building, 90° layout, and squaring of interior walls
- Point transfer
- Acoustical ceiling installation

- Drywall track installation
- Cabinet and trim installation, finish carpentry
- General construction elevation control with HR220
   receiver
- Exterior building decks, patios, columns, and posts

Part No.	Receiver	Case	Magnetic Bracket
LT52	No	Hard Case	Yes
LT52-2	HR220	Hard Case	Yes







#### Key Features and Benefits

- Capable of handling interior horizo or plumb positioning application
- Horizontal plane and 2 vertical plane a precise 90 degree layout grid wit line intersections
- Automatic self-leveling assures acc and fast setup

#### **Applications**

- Level, horizontal & vertical layout, & plumb
- Building, layout, & squaring of inte
- Acoustical ceiling installation
- Drywall track installation
  - Cabinet & trim installation, finish c

Part No.	Receiver	Case
LT56	No	Hard Case
LT56-2	HR220	Hard Case









ontal, vertical anes provide ith four cross ccuracy	<ul> <li>One tool to use on every job every day. HR220 receiver can be added for exterior applications for maximum jobsite versatility</li> <li>3 year instant exchange warranty minimizes downtime</li> <li>Water, mud, and shock resistant, able to withstand a 3-foot (1 meter) drop onto concrete IP54 rated</li> </ul>
, square, erior walls carpentry	<ul> <li>General construction elevation control with HR220 receiver</li> <li>Reference points for sprinkler systems, HVAC, lighting</li> <li>Exterior building deck footings, patios, columns, &amp; posts</li> </ul>

### LASER TOOLS

## LT58 Laser Tool The Go-To Ceiling Laser















- High visibility 360° green beam can be seen up to 100 ft (30m) and provides full room coverage with a single set up
- Compact and lightweight design allows easy and secure mounting at ceiling height
- 2 red laser beams that can be used for vertical alignment
- Small compact hard case is easy to store on-site and easy to transport

#### **Applications**

- Ceilings
- Level, horizontal and vertical laout, square & plumb
- Square and plumb of interior walls

- Universal mounting accessory fits all main ceiling track styles including shadow track
- Mounting accessory includes vertical fine adjust, fine rotation, magnetic mounting for steel columns and multiple tripod mount sizes
- Simple Operation and set up automatic self levelling, constant beam, no rotation
- Drywall track layout and installation
- Cabinet and trim installation, finish carpentry
- The intersection of planes can be used for point transfer floor to ceiling, front to back and side to side

Part No.	Receiver	Case
LT58	No	Hard Case



# **QM** Series **Quick Measure Lasers Digital Distance Measuring**



#### **Key Features and Benefits**

- One-person operation allows safe measuring to difficult-to-reach or hazardous locations
- Tough and rugged, designed for construction -Drop spec of 5 feet (1.5 m)
- Sealed against dust and water simply wash it off if it gets dirty

#### **Applications**

- Measuring distance
- Measuring for material estimation

### **QM55**

Area and volume functions Easy quick calculations of common tasks

#### Pythagoras functions

 Provides indirect height or width for inaccessible areas

#### **QM95**

- High accuracy
- $\pm 1.0 \text{ mm} (\pm 1/24 \text{ inch})$  accuracy for precise work
- Long range measurements • 200 m (650 feet) range







**QM55** 

**QM75** 



- More accurate than traditional measuring tapes Small, compact - fits in your pocket or toolbelt
- Illuminated display easy to read in low light
- conditions
- Long battery life up to 8000 measurements

 Safely measurement on places, where hard to reach

#### **QM75**

#### Small and compact

• Fits in your pocket; easy to carry and transport

#### Simple to operate

Press a single button and measure

### **INTERIOR LAYOUT SYSTEMS**

### QML800 / QML800G X Marks the Spot











#### **Key Features and Benefits**

- An Android tablet wirelessly controls 2 lasers selfcontained network
- Intuitive, easy-to-use Android application operators require no surveying background or training
- The user simply selects any point and the lasers rotate to create, within few seconds, a bright visible X where this point is located
- Desired points located extremely fast within 5 seconds
- Points are accurate to within 1/8" (3mm)
- Complicated shapes, arcs and curves are now easy to layout - no calculations required

- Now includes BuildView application software that allows users to load the architectural file and select points directly from the file. No need for advanced point file creation.
- Includes license for BuilView Office which enables users to open architectural files on a computer to view, analyze and plan layout and build.
- Most floors can be laid out in one day or lesscomplete before materials clutter the floor
- Typical 65% reduced layout time and 50% labor reduction over traditional layout methods
- No distance measure errors, no math errors
- In and out before other trades start storing materials on the floor
- Available with green laser beams

#### **Applications – Interior Layout**

- Drywall
- HVAC
- Plumbing

- Electrical
- Warehouse, retail and factory layout



### MACHINE DISPLAY RECEIVERS

## **LR20** Receiver

**Compact Receiver for Compact Machines** 



#### **Applications**

- Landscaping, building pads, sports fields, concrete flatwork, tennis courts Ideal for mini-excavators

#### **Key Features and Benefits**

- Designed to be used on smaller machines LR20-1 comes with smaller adjustable magnetic mount ideal for mini-excavators
- 360 degree reception and 8 inch (203 mm) vertical reception provide large working area and range making it easier to get to desired elevation without over-digging
- Rugged housing allows the receiver to be used in the toughest jobsite conditions

Part No.	Batteries	Magnetic Mount
LR20	NiMH	No
LR20-1	NiMH	MMM

### LR30 & LR30W Receiver

Used on Dozers, Box Blades, Levelers

#### **Applications**

- Machine mounted grade checking
- Grading and leveling

#### **Key Features and Benefits**

- Three selectable accuracy settings allowing the user to rough grade through to final finish
- Full **360 degree reception** picking up the laser beam wherever you are working reducing downtime and eliminating errors
- Choice of batteries and mounting kit packages

Part No.	Batteries	
LR30	NiMH	
LR30-MM	NiMH	
LR30-DM	NiMH	
LR30-1	Alkaline	





- Footers, storm drains, utility, sewage
- General construction grade and depth control



- Super bright LED display providing easily visible depth and elevation control to the user
- Easy to use with a simple push button set-up
- Ideal for both grading and excavating
- Built-in plumb indication makes grade checking simple and easy and avoids errors



Magne Mour

• LR30W provides wireless link to RD20 remote display that can be placed in cab in the operators peripheral vision so they concentrate on what is happening at the bucket or blade Robust and built for jobsite environment – 2 year warranty

Magnetic Mount	Part No.	Batteries	Magnetic Mount	Remote Display
No	LR30W	NiMH	No	RD20
MM-1	LR30W-MM	NiMH	MM-1	RD20
DM-20	LR30W-DM	NiMH	DM-20	RD20
No	LR30W-2	NIMH	No	No

### MACHINE DISPLAY RECEIVERS

### LR50 & LR50W Receiver

Blade Tilt and Plumb Indicator





#### **Applications**

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

### **Key Features and Benefits**

- Plumb Indication for fast, accurate grade checking when excavating
- Blade Tilt Indication helps the operator keep the blade level for increased accuracy and productivity. Tilt can be set to an existing angle too providing more flexibility for the operator
- Center on-grade provides an equal amount of grade information above and below grade when used on grading machines

Part No.	Batteries	Magnetic Mount
LR50	NiMH	No
LR50-MM	NiMH	MM-1
LR50-DM	NiMH	DM-20
LR50-1	Alkaline	No

- Offset on-grade provides more range above the on-grade position using the entire receiver to avoid over-digging
- LR50W provides wireless link to RD20 remote display in cab for easier reference by the operator
- Robust and built for jobsite environment 2 year warranty

Part No.	Batteries	Magnetic Mount	Remote Display
LR50W	NiMH	No	RD20
LR50W-MM	NiMH	MM-1	RD20
LR50W-DM	NiMH	DM-20	RD20
LR50W-2	NiMH	No	No

### **Receiver Accessories**

Wireless Remote Display and Mounts



#### **RD20 Wireless Remote Display**



• Wireless remote mounts in the cab and displays grade information to the operator. Helps keep focus on the work and not on the receiver for higher productivity. Works with LR30W, LR50W & LR60W

#### **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

Description
RD20 Remote Display
Mount, RD10 Swivel
Cable, RD10 + RD20 Power, Lighter/power adapter
Magnetic Mount for LR Receivers
Bulldozer Bolt-On Mount

## **LR60 & LR60W Receiver**

Angle Compensation for Excavation





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

### **Key Features and Benefits**

- Patented Angle Compensation Indication automatically calculates and corrects the grade display for the angle of the dipper arm when excavating allowing the operator to check grade in multiple locations without moving the machine
- Check grade with the dipper arm extended to or retracted up to 30 degrees
- Four selectable accuracies allowing for rough or precise work

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

- Center on-grade provides an equal amount of grade information above and below on-grade when used with dozers, mini-graders, levellers and drag boxes
- Offset on-grade provides more range above the on-grade position using the entire receiver to avoid over-digging
- Robust and built for jobsite environment 2 year warranty

Part No.	Batteries	Magnetic Mount	Remote Display
LR60W	NiMH	No	RD20
LR60W-MM	NiMH	MM-1	RD20
LR60W-2	NiMH	No	No

### **Product Application**

Machine Type	Model	Application
Backhoes	Use CR600 or LR20 or LR50	Excavating
Skid-steer Loader	Use CR600 or LR20 or LR30 or LR30W (w/remote display)	Grading
Mini Excavator	Use CR600 or LR20 or LR50 or LR50W (w/remote display)	Excavating
Skid-steer w/blade	Use LR30 or LR50 or LR30W/LR50W (w/remote display)	Grading
Smaller Dozer	Use LR30 or LR30W (w/remote display)	Grading
Larger Excavator	Use LR60 or LR60W (w/remote display)	Excavating
Larger Dozer	Use LR50 or LR50W (w/remote display)	Grading

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#### **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

#### DM-20 Dozer Bolt-On Mast



 Trimble Ready<sup>™</sup> adjustable mount installs with no welding. The mast mount bolts instantly to machines that come from the factory Trimble Ready.

### **ACCESSORIES - RECEIVERS**



### **ACCESSORIES - TRIPODS**

# **Heavy Duty Tripods**

#### **Applications**

- Lasers
- Instruments

#### **Key Features and Benefits**

- Stable and accurate for most applications
- Choices of wood, aluminum and elevating base
- accommodates standard instruments and lasers 2161 packaged with

5/8 x 11 threaded post

- Telescopic legs allow setup at various heights
- LL500 kits

### **Medium Duty Tripods**

#### **Applications**

- Lasers
- Instruments

#### **Key Features and Benefits**

- Sturdy and lightweight for many applications
- Telescopic legs allow setup at various heights
- 5/8 x 11 threaded post accommodates standard instruments and lasers

# **Specialty Tripod**

#### **Applications**

Lasers Instruments

Machine control

### **Key Features and Benefits**

- Tri-Max is a surveying grade tripod with certified accuracy
- Adjustable legs, portability, heavy-duty construction ensure long field life.



Part No.	Material	Extension
1161	Wood	Extends from 3 ft 2 in to 5 ft 3 in (96 cm to 160 cm)
2161	Aluminum	Extends from 3 ft 6 in to 6 ft 1 in (106 cm to 185 cm)
2162	Aluminum	Elevating Base - Extends from 4 ft 3 in to 7 ft 6 in (130 cm to 228 cm)





Part No.	Material	Packaged With
Q104025	Aluminum	LL100N, LL300S/N, HV101
5301-27-BLK-SP	Aluminum	AL Auto Level Kits



### ACCESSORIES - GRADE RODS

## **Aluminum Grade Rods**

#### **Applications**

- Grading
- Leveling
- Sitework

#### **Key Features and Benefits**

- Aluminum leveling rods are made of a light and durable alloy
- Telescopic sections are anodized and silk-screened with moisture-resistant ink
- Each rod section uses sturdy polycarbonate buttons that lock each section when extended; the height gauge is on the back side

and the second

n or a set the s

Part No.

GR151

GR152

GR153

Part No.

7321-40

7301-40

Length

15 ft

15 ft

5 m

Length

13 ft

13 ft

Sections

5

5

5

Sections

4

4

Scale

Tenths

Inches

Metric

Scale

Inches

Tenths

Scale

Tenths

Metric

 Each rod includes a protective bag

Landscaping

Foundations

## Fiberglass Grade Rods

#### **Applications**

- Grading
- Leveling
- Sitework

- Key Features and Benefits
- CR Series Leveling Rods are perfect for laser detector mounting — no special brackets are required
- Rectangular shape with rounded back corners for better gripping
- SVR oval fiberglass rods are a surveying standard. Additional models available
- SVR 25 features a short collapsed length (58-1/2 inches) for convenient storage
- Fiberglass is non-conductive CR

SVR

Part No.

CTO-0319-4300

CTO-0319-4320

## **Specialty Grade Rods**

#### **Applications**

- Laser Grade Checking
- Leveling
- Sitework
- **Key Features and Benefits**
- Direct Elevation (DE) rods are made of aluminum
- Laser DE rods feature a side rail for attaching optional bracket for laser receiver
- Continuous tapes are stainless steel
- Latch in back locks the band in any position to match a benchmark elevation
- Wear resistant Delrin<sup>®</sup> end-rollers

CTO-0319-4310	15 ft	2	Tenths
CTO-0319-4330	5 m	2	Metric
_			
5079	-069		

Length

10 ft

3 m

Sections

2

2

DE Rod Bracket for HR detectors 5079-070 DE Rod Bracket for HL Laserometers

SPECIF	ICAT	ONS
<b>•</b> •• <b>•</b> ••••••••••••••••••••••••••••••		

		Laser	Levels		Horizon	tal and Verti	cal Lasers
	LL100N	LL300N	LL300S	LL500	HV101	HV302	HV302G
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 a 1.5 mm a (10 arc s	at 30 m	1/8 in @ 100 ft 3 mm @ 30 m (20 arc seconds)	1/16 in at 100 ft 1.5 mm at 30 m (10 arc seconds)	1/16 in at 100 ft 1.5 mm at 30 m (10 arc seconds)
Operating diameter	1,150 ft (350 m)	1,650 ft (500 m)	2,600 ft (800 m)	1,650 ft (500 m)	Receiver: 1150 ft (350 m) Visible: 200 ft (60 m)	Receiver: 2600 ft (800 m) Visible: 330 ft (100 m)	Receiver: 2600 ft (800 m) Visible: 250 ft (75 m)
Self- leveling range	±5 de	grees electronic ser	vo self-leveling	±11 minutes	±5 degrees electronic servo self-leveling		
Power source	2 × D-cell Alkaline batteries		4 D-cell Alkaline Standa NiMH optional	ard,	2 × D-cell Alkaline batteries	aline 4 x D-cell NIMH standard, Alkaline	
Battery life	80 hrs Alkaline	90 hrs Alkaline, 45 hrs NiMH	60 hrs Alkaline, 47 hrs NiMH	175 hrs Alkaline, 100 hrs NiMH,	50 hrs Alkaline	60 hrs Alkaline, 45 hrs NiMH	25 hrs Alkaline 30 hrs NiMH
Water res.	Yes, IP54	Ň	/es, IP66	Yes, IP5	4	Yes, IP66	Yes, IP66
Size L × W × H	8.5 × 6.7 × 6.0 in (22 x 17 x 15 cm)		: 7.7W × 7.9H in 9.7W × 20.1H cm)	$10.8 \times 7.5 \times 7.5$ in (27 × 19 × 19 cm)	8.5 × 6.7 × 6.0 in (22 x 17 x 15 cm)	10.7L × 7.7W × 7.9H in (27.2L × 19.7W × 20.1H cm)	10.7 × 7.7 × 7.9 in (27.2 × 19.7 × 20.1 cm)
Weight	3.3 lb (1.5 kg)	6.8	lbs (3.1 kg)	8 lb (3.6 kg)	3.3 lb (1.5 kg)	6.8 lbs (3.1 kg)	6.8 lbs (3.1 kg)
Warranty	3 Year, with instant exchange		5 Years		3 Year, with instant exchange	5 Years	3 Years

Laser Display Receivers									
	LR20	LR30 (W)	LR50 (W)	LR60 (W)					
Number of Display Channels	5-Channe	l 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: 0.40 in (10 mm) Wide: 0.80 in (20 mm)	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)	Fine: 0.50 in (12 mm) Standard: 1.0 in (25 mm) Wide: 2.0 in (50 mm)	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		Fine: 0.50 in (12 mm) Standard: 1.0 in (25 mm)					
Blade-Tilt Accuracy	N	٩	± 0.5°, ± 1.5°, ± 2.5°	N/A					
Plumb-Swing Accuracy	± 0.5°, ± 1.5°, ± 2.5°	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						
Vertical Reception	8 in (203.2 mm)	6.75 in	(171 mm)	8.75 in (222 mm)					
LED Battery Life Alkaline Bright / Dim NiMH Bright / Dim	35 hrs	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						
Size	9.5 x 4.38 x 1.85 in (24.1 x 11.1 x 4.7 cm)	13.5 x 5.6 x 5.9 in (34.3 x 14.2 x 14.9 cm)	13.5 x 5.6 x 5.9 in (34.3 x 14.2 x 14.9 cm)	15.5 x 5.6 x 5.9 in (39.4 x 14.2 x 14.9 cm)					
Weight	2.5 lb (1.13 kg)	5.5 lb	(2.5 kg)	6.0 lb (2.7 kg)					
Receiver Warranty		2	Years						

LandscapingFoundations

Landscaping

Foundations

Part No.	Length	Model	Scale
92021	13 ft	CR	Tenths
92022	13 ft	CR	Inches
92041	16 ft	CR	Tenths
92042	16 ft	CR	Inches
92031	20 ft	CR	Tenths
92032	20 ft	CR	Inches
Part No.	Length	Model	Scale
98010	25 ft	SVR	Tenths
98011	25 ft	SVR	Inches
98012	7.6 m	SVR	Metric



### **SPECIFICATIONS**

	Grade & l	Jniver	sal Las	sers				Pipe Lasers	
	GL412N/42	22N	GL612	N / GL	622N	UL633N		DG813	DG613
Accuracy	1/		.00 ft, 1.5		30 m		Grade range	-12% to	+40%
Operating diameter		(10 arc seconds) 2600 ft 800 m					Self-leveling range	Complete gr (no rough leveling requ compensated in	ired) also automatic
	±5 degree	s	000 111	±14	degrees		Line range	20° ±	:1°
Self-leveling range	electronic se self-levelin				onic serv -leveling	0	Line center	Yes	5
	-10 to +159	-	-25	5 to +25		-25 to +25%	Menu with variable settings	Yes	3
Grade range	Single	Dual	Single	Du	ıal	X, Y, Z	Line set/check / Line alert	Yes	3
	8			axis			Temperature compensation	Yes	5
Power source			I NiMH battery pack				Spot Align, Spot Match, Spot Lok, Spot Search with	Yes	No
Battery life	35 hrs NiM 50 hrs Alkal				rs NiMH s Alkaline		SF803 Waterproof	Continuous submersion at 10 ft (3 m)	
			GL61	2N:			Laser classification / output	3A/3R / 4.5–5 mW, o	
			300, 6 750 r	,	0 - 750 rpm		Weight	3.98 kg	
Rotation speed	300, 600 rp	om	GL62						9.8 in (25 cm)
			0 to 90				Length	9.8 in (2	5 cm)
Water resistant			Yes, IP66	6			Diameter	5.3 in (13	
Size L × W × H	10.7L × 7.7W ×				5.9 x 11 i		Battery type and life	NiMH / 40 hrs with d	, i
5126 L X W X H	(27.2 × 19.7 × 20	0.1 cm)		(24 x 1	5 x 28 ci	m)	Battery pack	Sealed (NiMH), Sealed	removable (alkaline)
Weight		6.	8 lbs (3.1	kg)			Warranty	5 Years	5 Years
Warranty	5 Years		Ę	5 Years		5 Years	Wireles	s remote specifications	
	Wireless Remote Specifications					Functionality	RC803 -Radio-/IR- offers all Lase		
Remote control type 2-way communication	RC402N		RC602N RC603N			RC603N	Through the pipe range	150	m
Battery life			hrs conti ear norma				Front / Over the top range	130	m
Range	330 ft (100	m)		490 f	t (150 m	)	Battery life	1 Ye	ar

	Laser Tools									
	LP30 / LP50	LT20	LT52	LT56	LT58					
Self-level range	±4° fro	m level	±3° from level	±4° from level						
Working range - Visible	100 ft (30m)	100 ft (30m)	100 ft (30m) Lines 200 ft (60m) Points 80 ft (25 m)		Green beam 100 ft (30 m) Red beams 80 ft (25 m)					
With detector	N/A	N/A	300 ft (90 m)	200 ft (65 m)	N/A					
Accuracy	± 1/8 in @ 35 ft (3 mm @ 12 m)	± 1/8 in @ 35 ft (3 mm @ 12 m)	± 1/8 in @ 50 ft (2.5 mm @ 15 m)	± 1/8 in (2.5 mm (						
Battery type	2 x AA	3 x AA	4 x AA	Lithium-Ion 720	00 mAh, 3.7 V					
Battery life	20 hrs	20 hrs	56 hours points 11 hours lines	25 hrs all beams	19 hrs Green beam 11 hrs all beams					
Dimensions	3.5x4.1x2.4 in 8.9x10.4x6.1 cm	4.3x2.3x4.1 in 11.0x5.8x10.4 cm	5.7 x 3.0 x 5.9 in 14.5x7.8x13.8 cm	4.6x6.0x3.3 in 15.2x11.6x8.4 cm						
Weight	0.69 lb (0.31 kg)	0.8 lb (0.35 kg)	1.5 lb. (0.68 kg)	1.48 lb (0	).67 kg)					
Warranty		3	Years, with instant exchange							

	HR / HL Laser Receivers										
	HR150U	HR220	HR320	HL450	HL700	HL750	HL760	HL760U			
Working Radius	3 - 100 ft (1 - 10 m)	3 - 100 ft (1 - 10 m)	3 - 650 ft (1 - 200 m)	3 - 650 ft (1 - 200 m)	3 - 1500 ft (1 - 460 m)	3 - 1500 ft (1 - 460 m)	3 - 1500 ft (1 - 460 m)	3 - 1500 ft (1 - 460 m)			
Laser Detection Height	2 in (50 mm)	2 in (50 mm)	2 in (50 mm)	4 in (102 mm)	5 in (127 mm)	5 in (127 mm)	5 in (127 mm)	5 in (127 mm)			
Radio Working radius	N/A	N/A	N/A	N/A	N/A	260 ft (80 m)	720 ft (220 m)	720 ft (220 m)			
Accuracy Range (Deadband)	1/8 in (3 mm)	1/16 in (2 mm)	1/16 - 1/4 in (2 - 6 mm)	1/64 - 3/8 in 0.5mm - 10mm 0.5mm - 10mm		1/64 - 3/8 in 0.5mm - 10mm	1/64 - 3/8 in 0.5mm - 10mm	1/64 - 3/8 in 0.5mm - 10mm			
LED Grade Indicators	Green - On Grade Red - High Blue - Low	N/A	N/A	N/A	Green - On Grade Red - High Blue - Low						
"Fingerprinting"	No	No	No	No	No	No	Yes	Yes			
Power Supply	2 x AA Alkaline	2 x AA Alkaline	2 x AA Alkaline	2 x AA Alkaline	2 x AA Alkaline	2 x AA Alkaline	2 x AA Alkaline	2 x AA Alkaline			
Battery Life	50+ hrs	50+ hrs	70+ hrs	60+ hrs	60+ hrs	60+ hrs	60+ hrs	60+ hrs			
Auto Shut Off	30 min	30 min	30 min	30 min - 24 hr	30 min - 24 hr	30 min - 24 hr	30 min - 24 hr	30 min - 24 hr			
IP Rating	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67			
Warranty	1 Year	1 Year	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years			

	GL700 Series Lasers								
Model	GL710	GL720	GL722						
Servo Deadband Accuracy	4.6 arc seconds	4.6 arc seconds	4.6 arc seconds						
Range (Diameter)	3,000 ft (900 m)	3,000 ft (900 m)	3,000 ft (900 m)						
Axis Grade Range X	NA	-10 to +10%	-10 to +10%						
Axis Grade Y	-0.5 to +25%	-0.5 to +25%	-0.5% to +25%						
Grade Resolution	0.001%	0.001%	0.001%						
Power Source	NiMH 6 x D cell	NiMH 6 x D cell	NiMH 6 x D cell						
Battery Life	30 hrs	30 hrs	30 hrs						
<b>Rotation Speeds</b>	300, 600, 900 rpm	300, 600, 900 rpm	300, 600, 900 rpm Yes Yes						
Radio Remote	No	No							
Auto Axis Alignment	No	No							
Grade Match Mode	No	No	Yes						
PlaneLok	No	No	Yes						
Water Resistant		Completely sealed and waterproof							
Size L x W x H		7.75 x 10.0 x 11.75 in (20 x 25 x 30 cm)							
Weight		18.5 lb (8.4 kg)							
	Wireless Re	mote Specifications							
General	Ra	dio Type, 2.4 gHz digital, encrypted to each la	ser						
Operating Range	750 ft (225 m) g	general operation	500 ft (150 m) automatic alignment						
Battery Life		100 hrs							



# SPECIFICATIONS

	Automatic Levels									
	AL20M	AL24A	AL24M	AL28M	AL32A					
Magnification	20×	24	4×	28x	32x					
Accuracy	±2.5 mm*	±2.0	±2.0 mm* ±1.5 mm*							
Aperture		30	mm		36 mm					
Shortest focus			0.6 m							
Compensator dampening	Magnetic	Air	Ma	gnetic	Air					
Warranty		3 Year, with instant exchange								
	*Note: Standa	rd deviation according to DIN	18723 on one kilometer o	f double leveling						

	DET-2										
Telesc	ope	Optical	Plummet	Angle Measuring System		Vial	s	Butt	on Functions	Other Specs	
Image	Erect	Image	Erect	Minimum reading	1" or 5"	Tubular	30"/2 mm	ON / OFF	Power	Dust/Water	IP-54
Mag.	30X	Mag.	ЗХ	Precision	2"	Circular	8'/2 mm	R	Backlight / Illumination on / off	Operating temperature	–20°C to +50°C
Aperture	45 mm	Angle of view	5°	Units	Deg / mil / gon / V%			HOLD	Angle hold	Size - instrument	164 x 154 x 340 mm
Focus distance	1.45 m to ∞	Focusing range	0.5 m ~ ∞	Display	Dual, Large Character LCD tilt sensor			R/L	Clockwise / Counterclock- wise measurement	Weight - instrument	4.5 kg
Field of view	1° 30'	Reticle type	Crosshair	Auto compensation	User Set On / Off ±3' Range			OSET	Zero reset of horizontal angle	Warranty	1 Year
Stadia Ratio / constant	100 / 0							V%	Convert vertical degrees to %		

QM Series Quick Measure Lasers								
Specification	QM55	QM75	QM95					
Range	50 m (165 ft)	70 m (230 feet)	200 m (650 feet)					
Accuracy	± 1.5 (± 1/	± 1.0 mm (± 1/24 in)						
Units of measure	m, ft, in, ft-in	m, mm, ft, in, yds						
Automatic shut off	3 minutes	10 minutes						
Battery life	5000+ measures	8000 measures						
Power supply	2 x AAA 1.5V	2 x AA 1.5V						
Drop performance	1.5 m (5 ft)	1.5 m (5 ft)						
Dust & Water resistance	IP54	IP55	IP54					
Laser type / power	635nm visible red / < 1 mW	635nm visible red / < 1 mW						
Dimensions	52 x 28 x 125 mm (2.0 x 1.1 x 4.9 in)	34 x 42 x 125 mm (1.3 x 1.6 x 4.9 in)	62 x 28 x 120 mm (2.4 x 1.2 x 4.7 in)					
Weight with batteries	187 g (6.6 oz)	144 g (5.1 oz) 217 g (7.7 oz)						
Warranty	3 Years							

Spectra Precision Laser Applications	Laser Pointers - LP30 - LP50 - LT52	Line Generator - LT20 - LT52 - LT56 - LT58	Handheld Distance Measuring Device - QM55 - QM75 - QM95	Laser Levels - LL100N - LL300N - LL300S - LL500 Optical Levels - AL20 - AL24 - AL28 - AL32	Horizontal Vertical Lasers - HV101 - HV302 - HV302G	Grade & Universal Lasers - GL412N - GL422N - GL612N - GL622N - GL710 - GL720 - GL722 - UL633N		
General Construction								
Forms, footings and foundations				0	0	0		
Septic tank or swimming pools, decks and terraces		0		0	0	0		
Estimating cut and fill				0	0	0		
Checking building square and area		0	0		0	0		
Matching existing slopes and grades				0	0	0		
Checking elevations				0	0	0		
Checking elevations of sub-base and sub-grade				0	0	0		
Checking and setting elevations for sports fields, steep slopes, ramps, and drainage						0		
Vertical alignment and plumb such as anchor bolt and form alignment		0			0	0		
Interior								
Locating finished floor levels		0		0	0			
Laying out interior walls	0	0			0			
Installing ceiling grids	0	0			0			
Short-run vertical alignment		0			0			
Squaring and layout of partitions, walls and tile floors	0	0			0			
Plumb reference and point transfers from below to above, such as walls, door frames, and lighting locations measured from the floor layout to ceiling	Ο	Ο			Ο			
Level reference used for leveling cabinets, counter tops, windows, decks ceilings and chair rails	0	0			0			
Measuring distances, depths and heights			Ο					

SPECTRA PRECISION