

Laser Display System Benefits

- Moved easily from one machine to another increasing use from a single receiver
- Allows operator to check grade from the cab while working to increase productivity
- Reduces rework because material is moved only one time
- Increases overall operator and machine efficiency, saving fuel and time

Laser Referenced Systems for Simple Excavating and Grading



Getting to Grade Faster Increases Operator and Machine Productivity

Spectra Precision® Laser Display Systems let you spend less time walking the job site ... and more time in the cab being productive. Using a grade display receiver guides the operator to the desired elevation or depth without a grade checker, you improve accuracy and increase profits. The operator optimizes machine time, effectiveness, and efficiency.

You can use these rugged, highly flexible laser display systems on a wide range of machines. The receivers are portable and easily moved from machine to machine for greater operator and machine efficiency.

Used on:

- Backhoes
- Excavators
- Skid Steer Attachments
- Box Blades
- Dozers





Tough, Affordable Spectra Precision Laser Machine Display Receivers

LR20 for Improved Productivity on Compact Machines

Standalone display receiver for mini excavators, backhoes and scrapers, skid steer attachments, box blades, pulled scrapers and small dozers

- Allows compact machines to achieve tighter tolerances without the need for a grade checker
- Use for general construction grade and depth control, landscaping, building pads, sports fields, concrete flatwork, storm drains, utility
- Super bright grade display with green "on-grade" LEDs provides superior depth/elevation indication
- 360-degree laser reception provides increased working area and range
- Push button setup for ease of use and application flexibility



LR30 for General Excavating

Used on dozers, backhoes, excavators, levelers and kilvers

- Use on grading and excavating equipment including: dozers, graders, scrapers, skid steers and levelers
- Five channels of grade information plus directional and out-of-beam indicator
- Three selectable accuracies meet job tolerances from rough grading to final finishing
- Used with CB20 Single Control Box



LR50 for Excavating and Grading

Features built-in blade tilt and excavator boom plumb indicator

- 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
- 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
- Use as a stand-alone display receiver or with CB25 or CB30 Control Boxes



Spectra Precision Laser Machine Display Receiver Features and Benefits

Versatile, 360-Degree Reception

Works with all types of rotating lasers and on all types of machinery for fast, no-hassle setup.

Multiple Accuracy Choices

Offers maximum flexibility to meet jobsite requirements, from rough grading to final finishing.

Adjustable, Ultra-bright LED with Green On-Grade Display

Provides user selectable, easy-to-see display to match ambient lighting conditions.

Long Battery Life

Keeps your machine working.

Out-of-Laser Beam Indication

Selectable on/off indicator directs which way to move and get back in the beam.

Automatic Shut-off

Conserves battery life when the receiver is not in use.

Low Battery Warning

Provides advance notice when battery replacement is required to keep workflow moving.

Two-Year Warranty

Reliability you can count on.

Power Options

Choose nickel metal hydride rechargeable batteries, optional alkaline 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. Internal isolating shock mounts protect the electronics.



LR60 for Excavating

Features excavator boom plumb indicator, plus angle compensation indicator

- Patented Angle Compensation Indicator 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
- Offset on-grade for productive excavation
- Up to nine channels of grade information plus directional out-of-beam indicators
- Four selectable accuracies for each on-grade location
- Use as a stand-alone display receiver or with CB25 or CB30 Control Boxes



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.



Affordable Automatic Blade Control

Upgrade to Spectra Precision Laser CB30 Dual Control Box

Advanced, yet affordable lift and tilt control in one control box. Designed-in flexibility, performs simple elevation display to more complex grading jobs requiring automatic blade control.



Specifications	LR20	LR30	LR50	LR60
Number of Display Channels	5-Channel Display	5-Channel Display	5-Channel Display 6-Channel Display in excavating mode	9-Channel Display
Accuracy: Center on grade (grading)	Fine: 5 mm (0.20 in) Standard: 10 mm (0.40 in) Wide: 20mm (0.80 in)	Fine: 5 mm (0.20 in) Standard: 12 mm (0.45 in) Wide: 32 mm (1.25 in)	Fine: 5 mm (0.20 in) Standard: 10 mm (0.40 in) Wide: 20 mm (0.80 in)	Setup: 5 mm (0.20 in) Fine: 10 mm (0.40 in) Standard: 20 mm (0.80 in) Wide: 40 mm (1.6 in)
Accuracy: offset on grade (excavating)	Fine: 12mm (0.50 in) Standard: 25mm (1.0 in) Wide: 50mm (2.0 in)	NA	Fine: 12 mm (0.50 in) Standard: 25 mm (1.0 in) Wide: 50 mm (2.0 in)	Setup: 6 mm (0.25 in) Fine: 12 mm (0.50 in) Standard: 25 mm (1.0 in) Wide: 50 mm (2.0 in)
ACE—Angle Compensation Mode	NA	NA	NA	Fine: 12 mm (0.50 in) Standard: 25 mm (1.0 in)
Blade-Tilt Accuracy	NA	NA	± 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: (12 mm 0.5 in) Angle Compensation Mode: 25 mm (1.0 in)
Vertical Reception	203 mm (8 in)	171 mm (6.75 in)	171 mm (6.75 in)	222 mm (8.75 in)
LED Battery Life				
Alkaline Bright/Dim	NA	50 hrs/75 hrs	45 hrs/60 hrs	45 hrs/75 hrs
Ni-MH Bright/Dim	NA	40 hrs/50 hrs	30 hrs/45 hrs	40 hrs/50 hrs
Li-Ion Continuous	35 hrs	NA	NA	NA



Spectra Precision Laser Rugged Grade Laser Transmitters Built for the Job Site



GL412 / GL422 Single and Dual Grade Lasers

for smaller commercial and residential site prep and general construction

Applications

- Site preparation
- General construction
- Pipe-laying



GL512 / GL522 Single and Dual Grade Lasers

are rugged, cost-effective, automatic self-leveling lasers for grade, and vertical alignment

Applications

- Cut and fill
- Excavation
- Elevation and slope control
- Grade/elevation control



GL710 / GL720 Single and Dual Grade Lasers

with longer range and powerful features for general construction and larger commercial sites

Applications

- Excavating
- Trenching
- Pipe laying
- General construction

Specifications	GL412	GL422	GL512	GL522	GL710	GL720
Level Accuracy	10 arc seconds 1.5 mm @ 30 m (1/16" @ 100 ft)		10 arc seconds 1.5 mm @ 30 m (1/16" @ 100ft)		8 arc seconds 1.2 mm @ 30 m (<1/16" @ 100 ft)	
Grade Range	-10 to +15% Single Axis	-10 to +15% Dual Axes	-10 to + 15% Single Axis	-10 to + 15% Dual Axes	-10 to +10% Single Axis	-10 to +10% (X Axis) -0.500 to +25% (Y Axis)
Grade Resolution	0.001% up to 9.999%	0.01% at higher grades	0.001% up to 9.999%	0.01% at higher grades	0.001% up to 9.999%	0.01% at higher grades
Operating Diameter	600 m / 1950 ft	800 m / 2600 ft	600 m / 2000 ft	800 m / 2600 ft	900 m / 3000 ft	
Laser Type / Classification	3 mW 650 nm, Class 2	<5 mW 635 nm, Class 3A/3R	3mW 650 nm, Class 2	<5mW 635 nm, Class 3A/3R	CDRH II (IECI)	
Rotation Speed	300, 600 rpm		0 (GL522), 300, 600 RPM selectable		300, 600, 900 rpm	
Battery Life	55 hrs		55 hrs		30 hrs NiMH	
Mounting Thread	5/8 x 11		5/8" x 11 Horizontal and Vertical		5/8 x 11	
Operating Temperature	-20° to +50°C (-4° to +122°F)		-20° to +50°C (-4° to 122°F)		-20° to +50°C (-4° to +122°F)	
Dimensions	21L x 18W x 20H cm (8.3L x 7.1W x 7.9H in)		21L x 18W x 20H cm (8.3L x 7.1W x 7.9H in)		19.7L x 25.4W x 29.8H cm (7.75L x 10.0W x 11.75H in)	
Weight	3.1 kg (6.8 lb)		3.1 kg (6.8 lb)		8.5 kg (18.8 lb)	
Remote Control	Full 2-way communication, operation and transmitter security lock		Full 2-way communication, operation and security lock with transmitter		N/A	N/A
Remote Operating Range	100 m (330 ft) radius		100 m (330 ft) radius		N/A	N/A
Remote Battery Life (2 x AA Alkaline)	130 hrs continuous, 1 year under normal use		130 hrs continuous, 1 year under normal use		N/A	N/A



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