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.

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 Display Systems for Excavating and Grading

Used on:
- Backhoes
- Excavators
- Skid Steer Attachments
- Box Blades
- Dozers
Tough, Affordable Spectra Precision Laser Machine Display Receivers

**CR600 for General Construction, Grading and Excavating**
Can be handheld, rod or machine mounted
- Use for general construction, grading and excavating applications
- High, low or on-grade information for grading and excavation applications up to 460 m (1,500 ft) radius
- Super-bright LED display can be easily seen by machine operator in brightly lit conditions
- Five on-grade sensitivities to customize for application needs
- 270-degree reception for easy visibility of on-grade beam

**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

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**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

<table>
<thead>
<tr>
<th>Specifications</th>
<th>CR600</th>
<th>LR30</th>
<th>LR50</th>
<th>LR60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Display Channels</td>
<td>15 Channels</td>
<td>5-Channel Display</td>
<td>5-Channel Display</td>
<td>9-Channel Display</td>
</tr>
<tr>
<td>Accuracy: Center on grade (grading)</td>
<td>Multiple settings - Ultra-Fine: 0.1 mm (0.004 in) to Machine mounted: 25 mm (1 in)</td>
<td>Fine: 5 mm (0.20 in) Standard: 12 mm (0.45 in) Wide: 32 mm (1.25 in)</td>
<td>Fine: 5 mm (0.20 in) Standard: 10 mm (0.40 in) Wide: 20 mm (0.80 in)</td>
<td>Setup: 5 mm (0.20 in) Fine: 10 mm (0.40 in) Standard: 20 mm (0.80 in) Wide: 40 mm (1.6 in)</td>
</tr>
<tr>
<td>Accuracy: offset on grade (excavating)</td>
<td>NA</td>
<td>NA</td>
<td>Fine: 12 mm (0.50 in) Standard: 25 mm (1.0 in) Wide: 50 mm (2.0 in)</td>
<td>Setup: 6 mm (0.25 in) Fine: 12 mm (0.50 in) Standard: 25 mm (1.0 in) Wide: 50 mm (2.0 in)</td>
</tr>
<tr>
<td>ACE—Angle Compensation Mode</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Fine: 12 mm (0.50 in) Standard: 25 mm (1.0 in)</td>
</tr>
<tr>
<td>Blade-Tilt Accuracy</td>
<td>NA</td>
<td>NA</td>
<td>± 0.5°, ± 1.5°, ± 2.5°</td>
<td>N/A</td>
</tr>
<tr>
<td>Plumb-Swing Accuracy</td>
<td>NA</td>
<td>NA</td>
<td>± 0.5°, ± 1.5°, ± 2.5°</td>
<td>Standard: (12 mm 0.5 in) Angle Compensation Mode: 25 mm (1.0 in)</td>
</tr>
<tr>
<td>Vertical Reception</td>
<td>117 mm (4.62 in)</td>
<td>171 mm (6.75 in)</td>
<td>171 mm (6.75 in)</td>
<td>222 mm (8.75 in)</td>
</tr>
<tr>
<td>LED Battery Life</td>
<td>NA</td>
<td>NA</td>
<td>45 hrs/60 hrs</td>
<td>45 hrs/75 hrs</td>
</tr>
<tr>
<td>Alkaline Bright/Dim</td>
<td>50 hrs/75 hrs</td>
<td>40 hrs/50 hrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ni-MH Bright/Dim</td>
<td>40 hrs/50 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CR600: 5-Channel Display
LR30: 5-Channel Display
LR50: 5-Channel Display 6-Channel Display in excavating mode
LR60: 9-Channel Display
## Specifications

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

### Applications

**For Residential and Smaller Commercial Sites**

**GL412 Single Grade Laser**
- Powerful, easy-to-use, single slope grade laser with radio remote

**Applications**
- Site preparation
- General construction
- Pipe-laying

**GL422 Dual Grade Laser**
- Accurate, multipurpose horizontal, vertical and dual slope grade laser with radio remote

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

**GL710 Single Grade Laser**
- Easy-to-use, single slope grade laser accurate to 900 meters (3,000 feet)

**Applications**
- Excavating
- Trenching
- Pipe laying
- General construction

**GL720 Dual Grade Laser**
- Economical, high-accuracy dual slope grade laser

**Applications**
- Excavating
- Trenching
- Pipe laying
- General construction

### For General Construction and Larger Commercial Sites

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- Powerful, easy-to-use, single slope grade laser with radio remote

**Applications**
- Site preparation
- General construction
- Pipe-laying

**GL422 Dual Grade Laser**
- Accurate, multipurpose horizontal, vertical and dual slope grade laser with radio remote

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- Grade/elevation control

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- Economical, high-accuracy dual slope grade laser

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- Trenching
- Pipe laying
- General construction