

GL412 and GL422 Applications

- Leveling concrete forms and footers
- General construction vertical alignment and plumb such as anchor bolt and form alignment
- Grading and excavating
- Concrete sections with run-off for sports fields, tennis courts, driveways
- "Over the Top" sewer and storm drain pipe installations
- Steep slope road embankments and ditch banks
- Parking garages, ramps and drainage

Spectra Precision Laser GL412 and GL422



Rugged New Grade Laser with Two-Way Radio Remote Offers Superior Grade, Level and Vertical Capabilities

The Spectra Precision® Laser GL412 (single grade) and GL422 (dual grade) transmitters are cost-effective, automatic self-leveling lasers that do three jobs—level, grade and vertical alignment with plumb.

Both the GL412 and GL422 feature a 2-way, full-function remote control with a built-in back-lit grade display. You can do everything with the remote control that you can do at the laser keypad, including grade reverse on both axes, up to 100 m (330 ft) away from the laser—even from the cab of the machine! The ability to make grade changes from anywhere on the job greatly reduces setup time and speeds operation, especially when multiple job grade breaks are needed.

Additionally, the GL412 and GL422 Grade Lasers self-plumb in the vertical position, to allow an even wider range of applications such as anchor bolt installation, plus form, tilt up and curtain wall plumbing. Both units also incorporate automatic temperature and grade compensation for high accuracy in any weather or geographical location.

On both models, the laser beam can be turned off electronically on up to 3 sides of your choice. This capability eliminates interference with other crews on the job site by keeping the beam from straying into other work areas.

Use this versatile laser with a Spectra Precision Laser HR550 Receiver at an operating diameter up to 800 m (2,600 ft), or use it with the CR600 machine-mounted laser receiver for fast and easy machine control display.

Spectra Precision Laser HR550 Receiver

The flexible and highly innovative Spectra Precision Laser HR550 Receiver can be used either as a hand-held or rod-mounted unit. The HR550 features a unique anti-strobe sensor that stops construction lights from setting off the receiver, and makes it easier to identify true laser beam signals. The rugged, weatherproof housing withstands a drop of up to 3 m (10 ft) onto concrete.

Spectra Precision Laser CR600 Receiver

Another receiver option is the Spectra Precision Laser CR600 Receiver. In addition to use as a handheld and rod-mounted receiver, the CR600 can be used as a machine control mounted receiver with 270-degree reception and a highly visible display for use on a backhoe, small excavator or skid steer. Rugged, accurate and easy to use, the CR600 provides high, low or on-grade information for all your grading and excavation applications.



Spectra Precision Laser GL412 and GL422



Maximum Versatility for Leveling, Grading and Vertical Alignment with Plumb

GL412 and GL422 Features

- Fast, easy horizontal level, grade and vertical plumb setup with no manual leveling
- Quick payback due to easy setups with the 2-way radio remote control, and single and dual grade application capability
- No rework due to automatic temperature and grade compensation
- Very long operating range – 800 m (2,600 ft) diameter (GL422 only) for increased machine control capability and fewer setups over the jobsite
- Very rugged with low service costs, takes a drop of up to 1 m (3 ft) onto concrete
- Mask mode eliminates interference with other crews on the jobsite
- Reduced material cost with virtually no downtime

Specifications

Laser type / classification <5 mW 635 nm, Class 3A/3R (GL422)
 3 mW 650 nm, Class 2 (GL412)

Drop height on concrete 1 m (3 ft)

Operating diameter (w/ HR550 receiver) 800 m (GL422)
 600 m (GL412)

Compensation method H/V Electronic Self Leveling

Temperature compensation Yes, every 5 °C

Level / vertical accuracy 10 arc seconds
 1.5 mm @ 30 m (1/16" @ 100 ft)

Grade range -10 to +15% Dual Axes (GL422)
 -10 to +15% Single Axis (GL412)

Grade accuracy 0.015% 3 mm@30 m (1/8" @ 100 ft)

Grade resolution 0.001% up to 9.999%,
 0.01 % at higher grades

Grade compensation Yes

Remote control type Full 2-way communication,
 operation and security lock with transmitter

Remote control range (w/ RC402) 100 m (330 ft) radius

Rotation speed 300, 600 RPM selectable

Transmitter battery life (4 x D NiMHs) 27 hours

RC402 battery Life (2 x AA Alkaline) 130 hrs continuous
 1 year under normal use

Mask mode User selectable to any window
 3 windows maximum

Standby mode Yes

Display backlight Yes, auto shutoff after 8 seconds

Mounting threads 5/8" x 11 Horizontal and Vertical

Operating temperature -20° to +50°C (-4° to 122°F)

Dimensions 21L x 18W x 20H CM (8.3L x 7.1W x 7.9H in)

Weight 3.1 kg (6.8 lb)



1. Power Button
2. Liquid Crystal Display (LCD)
3. ∠ Grade Raise / Lower and Vertical Line buttons, ∠ Manual Slope Adjust Buttons
4. ▲ Grade Raise / Lower buttons (GL422 only), ▲ Manual Slope Adjust Buttons
5. Manual / Mask Mode Button
6. Level LED
7. Height of Instrument (HI) / Manual LED
8. Battery LED
9. Sunshade w/ Grade Sighting Guides and Open (∠) and Closed Axis (▲) Markings
10. Lighthouse
11. 5/8-11 Tripod Mount Screws (Horizontal and Vertical)

HR550 and CR600 Receiver Features

- 15-channel linear LCD display allows for fast, accurate readings and easy fixed offsets.
- Simultaneous 5-channel green and red LED display ensures that information can be read even in poor light, over long distances, and at an angle.
- Dust and waterproof housing can withstand a drop of up to 3 m (10 ft) onto concrete.
- The HR550 features dual-sided photocells let you receive the beam from multiple directions and maintain convenient control and view of the receiver.
- The CR600 wraparound receiver cells offer continuous pickup through an operating range of 270° for reduced setups and improved productivity, especially in machine applications.



CR600



HR550

Receiver Specifications

On-Grade sensitivities Ultra Fine 0.1 mm (0.004 in)
 Super Fine 1.0 mm (1/32 in)
 Fine 1.5 mm (1/16 in)
 Medium 3 mm (1/8 in)
 Coarse 6 mm (1/4 in)
 Machine Fine 10 mm (3/8 in) (CR600 only)
 Machine Coarse 25 mm (1 in) (CR600 only)

Operating temperature -20 °C to 50 °C (-4 °F to 122 °F)

Battery life 100 hours at normal operation

Auto shut-off 30 minutes

Reception angle 270 degrees (CR600)
 170 degrees (HR550)

Anti-strobe sensor Yes (HR550 only)



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