

Spectra Precision Laser 1242



Versatile Automatic Self-Leveling Grade Laser

The Spectra Precision™ Laser 1242 transmitter is a cost-effective automatic self-leveling laser that does two jobs—levels and grades. The 1242 transmitter sends a continuous, self-leveled 360-degree laser reference over your entire work area, and with a single-axis grade range of 0.10 to 25 percent, it can be used for a range of slope applications.

Use this versatile laser with a Spectra Precision Laser HR500 receiver at an operating diameter up to 800 meters (2,600 feet), or use it with the CR600 machine-mounted laser receiver for fast and easy machine-control display. The 1242 also has a bright, visible beam that can be stopped and pointed for use as a short-run pipe laser.

The combination of the visible beam with the AccuGuard compensator, SafeGuard service warning and the LaserGuard two-year use-and-abuse warranty make the 1242 the best value in the industry.

HR500 Receiver

The Spectra Precision Laser HR500 receiver is ideal for use with the 1242 transmitter. This flexible and highly innovative receiver can be used either as a handheld or rod mounted. The HR500 features a fully waterproof magnesium housing that is both lightweight and capable of surviving a drop of up to 3 meters (10 feet) onto concrete. Ideal for accurate elevation measurements across the jobsite, it is exceptionally easy to use. The highly visible LED display and dual-sided laser reception allow you to work where it is convenient, even in the poorest of conditions.



CR600 Receiver

Another receiver option is the Spectra Precision Laser CR600. 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.

1242 Benefits

- Fast and easy setup with no manual leveling
- Fast payback due to multiple grade application capability
- Reduced material cost
- Virtually eliminates downtime
- Highly visible beam with variable speed control
- Handles alignment tasks such as pipe installation
- Warranty covers laser for two years, even if it is dropped or knocked over



1242 Applications

- Concrete forms and footers
- Grading and excavating
- Concrete sections with run-off: sports fields, tennis courts, driveways
- Short-run sewer connections
- Ditch banks with grades up to 25%
- Parking garages, ramps, and drainage

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Grade Laser System from Trimble



1. Power Button
2. Liquid Crystal Display (LCD)
3. Mode Button
4. Increase Button
5. Leveling Screws LEDs
6. Level LED
7. SafeGuard LED
8. Decrease Button
9. Pointing-Control Knob

10. Sunshade
11. Lighthouse
12. Handle
13. Leveling Screws
14. Leveling Base
15. 5/8-11 Tripod Mount
16. Calibration Screws (on bottom)
17. Battery Recharging Jack
18. Battery Housing (on back)

1242 Specifications: Laser

Laser Type/Classification	635 nm visible, Class IIIa
Compensation Method	Wire-hung, air-dampened, AccuGuard™ compensator
Manual Leveling Method	Two-screw leveling base with electronic leveling LEDs
Self-Leveling Range	Up to 10% grade
Horizontal Leveling Accuracy	±8 arc seconds <±1.6 mm per 30 m (<±1/16 in per 100 ft) ±1.7 mm per km double run leveling
Beam Diameter	12.5 mm (1/2 in)
Operating Diameter	Target—120 m (400 ft); HR500 receiver—800 m (2,600 ft)
Rotation Speeds	.0, 50, 300, and 600 rpm
Grade Range	.0.10% to 25.0%
Grade Increments	0.01% steps from 0.10% to 2.50%; 0.02% steps from 2.52% to 5.0% 0.05% steps from 5.05% to 10.0%; 0.1% steps from 10.1% to 25.0%
Grade Accuracy	0.10-0.99% = ±0.06% total; 1.00-2.98% = ±0.15% total 3.00-25.0% = ±6.0% of the included grade
Accuracy Over Temperature Change	±20 arc seconds
Power Source	4 D-cell alkaline or Ni-Cd (4.4 Amp hr) battery
Battery Life 20°C (68°F)	Alkaline: >80 hours; Ni-Cd: >24 hours
Automatic Shut-off	Shuts off the laser if it is not leveled in automatic mode after 10 minutes
Tripod Screw	5/8-11
Operating Temperature	-20° to +50°C (-4° to 122°F)
Storage	-23° to +60°C (-10° to 140°F)
Dimensions (T x W x L)	19.0 x 16.0 x 24.1 cm (7 1/2 x 6 1/4 x 9 1/2 in)
Weight	2.9 g (6 lb 3 oz)

HR500 and CR600 Receiver Features

1. 15-channel linear LCD display allows for fast, accurate readings and easy fixed offsets.
2. 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.
3. Rugged and waterproof magnesium housing can survive a drop of up to 3 m (10 ft) onto concrete.
4. Dual-sided photocells let you receive the beam from multiple directions and maintain convenient control and view of the receiver.
5. Wraparound receiver cells with continuous pickup through an operating range of 270° mean less setups and improved productivity, especially for machine applications.

HR500 Receiver Specifications

Five 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)
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Battery Life (AA-2)	100 hours at normal operation
Auto Shut-Off	30 minutes
Weight	340 g (12 oz)
Reception Angle	180 degrees
Out-of-level Warning	
Waterproof	100%

CR600 Receiver Specifications

Seven 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 25 mm (3/8 in) Machine Coarse 25 mm (1 in)
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Battery Life (AA-2)	100 hours at normal operation
Auto Shut-Off	30 minutes
Weight	340 g (12 oz)
Reception Angle	270 degrees
Out-of-level warning	
Waterproof	100%

YOUR LOCAL TRIMBLE OFFICE OR REPRESENTATIVE



North America

Trimble Engineering and Construction Division
5475 Kellenburger Road • Dayton, Ohio 45424-1099
800-538-7800 • 937-233-8921 • 937-233-9441 Fax

Europe

Trimble GmbH • Am Prime Parc 11,
65479 Raunheim, Germany
+49-6142-21000 • +49-6142-2100550 Fax

Asia-Pacific

Trimble Navigation Australia
Pty Limited
Level 1/123 Gotha Street,
Fortitude Valley, QLD 4006, Australia
+61-7-3216-0044
+61-7-3216-0088 FAX

WWW.TRIMBLE.COM

