

GL700 Series



Precision Grade Laser Transmitter
with Long-range Remote Control

SPECTRA PRECISION LASER GL700 Series



Long-range Radio Remote -
With 2-way communication between the transmitter and the remote you can now change grade on the fly... even from the cab... without approaching the transmitter! No more long walks up grade. By remotely changing and reading grade information, you can speed setup and reduce costly communication errors.

New challenges demand new solutions. The fiercely competitive, 21st century construction environment has created a whole new set of business challenges. With increasing accuracy requirements and faster completion times, your bids need to be razor sharp just to compete.

As the leader in construction positioning technology, Trimble is providing a constant stream of innovative solutions to help you gain the edge and succeed in this environment.

Among these are new solutions to help you precisely control difficult tasks like long-range, high accuracy elevation control and fine grading for major construction projects.



Road Construction



Trenching



Airport Construction



Concrete Construction

flexibility



GL700 Series.

Not just another laser transmitter...

To keep you at the competitive edge, we've created a revolutionary new solution built for today's construction industry—the innovative Spectra Precision Laser GL700 Series of grade laser transmitters from Trimble.

The GL700 Series gives you the right laser for the right job... from an economical single grade transmitter to an advanced, long-range radio remote controlled steep grade transmitter. Further, the GL700 Series offers the most innovative collection of features ever available—Long-range Remote Control, PlaneLok, Grade Matching and Automatic Axis Alignment—to let you get to grade faster and with more accuracy.

On site, you'll find that the advanced features quickly translate into productivity and accuracy. Complex alignments are automatic and virtually foolproof. With the powerful, long-range remote control option it only takes one person to accurately set up and operate the grade laser. Even grade reverse is done in an instant. And for the first time, you can automatically control all the transmitter functions from inside the cab of a machine.

Each unit comes with a laser receiver standard, your choice of power options, and the best service and support in the industry.

With the GL700 series, you can count on quicker set-ups and more productivity... for more profitability.



Agriculture



Site Preparation



Landfill



General Construction

THE MOST ADVANCED GRADE LASERS. EVER.

Trimble's innovative technology ensures higher accuracy than ever before over a variety of machine control and general construction applications. Plus, unique features help reduce beam drift errors and speed set-up and grade changing to optimize worker and machine productivity.

The Spectra Precision Laser GL700 Series from Trimble has three robust models, so you can select the right laser for the right application. Each model in the GL700 Series is designed to be simple to set up and use.



GL710 Single Grade

An easy-to-learn, easy-to-use one-person grade laser, economical and accurate up to a 900 m (3,000 ft) diameter. Ideal for general construction, site preparation, trenching and pipe-laying applications.

GL720 Dual Grade

This economical choice has +/-10% in the X axis grade range and -0.5 to +25% Y axis grade range with high accuracy up to a 900 m (3,000 ft) diameter. Ideal for general construction and machine control grade applications.

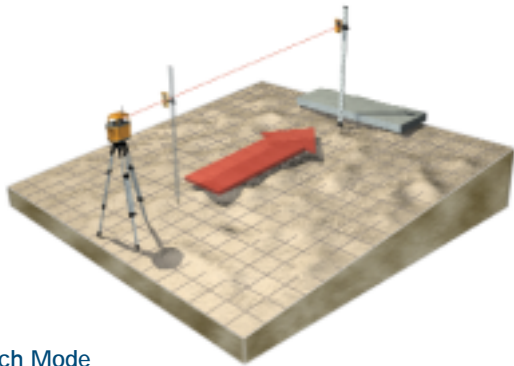


GL722 Dual Grade

With Long-range Radio Remote and with the same range and base capabilities as the GL720, the GL722 includes the benefits of the full Radio Remote functions... plus automatic alignment capability. Ideal for general construction, site preparation and road construction.

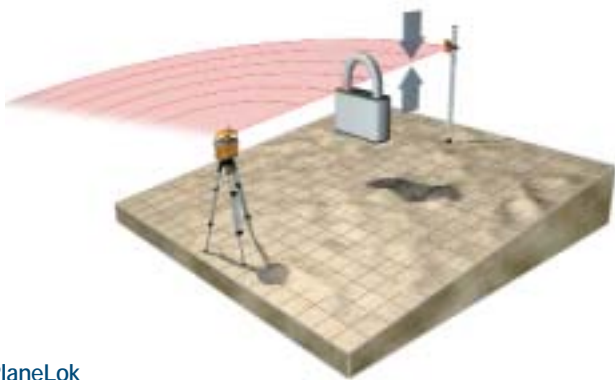


innovation



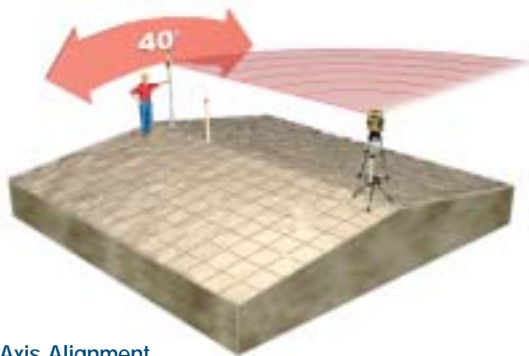
Grade Match Mode

Need to match a slope... but don't know what the grade is? Grade Match Mode allows you to simply set your receiver at the same height as the transmitter, go to your remote point, press a button on the wireless remote and the transmitter automatically matches and displays the grade... without returning to the laser transmitter.



PlaneLok

For applications that require maximum stability and accuracy, PlaneLok virtually eliminates beam drift by locking the laser beam to a fixed elevation. Simply set your hand-held receiver at the desired elevation, select PlaneLok mode on the remote control and the laser beam will remain exactly at that elevation all day long regardless of wind or temperature changes. This increased stability and accuracy means less rework, better material control... and a better bottom line.



Automatic Axis Alignment

Up to 150 meters (500 feet) from the Transmitter. Allows simple alignment of either side of any grade axis to the desired remote point. This simple, one-person operation allows you to roughly align the transmitter to within 40 degrees of the remote point. You can then go to your remote point and, with a simple button press on the wireless remote, the axis is automatically aligned. The remote provides immediate confirmation of the alignment. Automatic Axis Alignment simplifies set-up and ensures repeatable accuracy.

GL700 SERIES FEATURES BY MODEL

MODEL	GL710	GL720	GL722
Range (Diameter)	900 m (3000 ft)	900 m (3000 ft)	900 m (3000 ft)
Radio Remote			
Auto Axis Alignment			
Grade Match Mode			
PlaneLok			
Axis Grade Range X	N/A	-10 \leftrightarrow +10%	-10 \leftrightarrow +10%
Axis Grade Range Y	-0.5 \leftrightarrow +25%	-0.5 \leftrightarrow +25%	-0.5 \leftrightarrow +25%



The GL700 comes standard with the rugged Spectra Precision Laser HR500 Receiver. When combined with the LR21 Laser Receiver, the system provides superior unmatched machine control performance.

BUILT FOR THE JOB SITE.

prove

**ACTIVE TEMPERATURE
COMPENSATION**

Accurate, stable results
regardless of temperature
changes

**LONG-RANGE
WIRELESS LINK**

Unaffected by direction
or sunlight.

**PROTECTIVE
LENS HOOD**

Ensures laser performance
in inclement weather.

**MANUAL
ALIGNMENT SIGHTS**

Allows for fast, easy set-up.

**HIGH-POWERED
VISIBLE BEAM**

For fast set-up and
excellent performance
in high dust conditions.

**UNMATCHED
BEAM STABILITY**

For highest accuracy
and repeatability.

**SELECTABLE
ROTATION SPEEDS**

300, 600, and 900 rpm.

**INTUITIVE, SIMPLE
CONTROLS**

Makes the GL700
series easy to
learn and simple
to use.

**MANUAL
VERTICAL
CAPABILITY**

With the use of
the Long-range Remote,
vertical applications
such as vineyards
become simple
to set up.



FIELD CALIBRATION

Makes it simple to check
and adjust the calibration
in the field either at the
transmitter or via the remote.

LONG BATTERY LIFE

Flexible power options,
battery life indicator, and
a wireless operated sleep
mode that saves battery
during breaks.

**FULLY SEALED, RUGGED
ALUMINUM HOUSING**

With weather resistant
control panel, allows you
to work in all weather and
work conditions. Built-in
non-slip carrying handle.

GRADE BUMP

Allows you to simply
raise or lower
the grade remotely.

GRADE REVERSE

Mirrors the grade setting
with the push of a button.

**AUTOMATIC
SELF-LEVELING**

...over the entire
grade range, simplifies
set-up and ensures repeatable
accuracy.

**SPECTRA
PRECISION LASERS**

Proven performance
and quality... supported
by the industry's leading
service centers.

**AUTOMATIC OFF
GRADE SENSOR**

Prevents incorrect
grading... and wasted
man and machine hours.

**LARGE ALPHA/
NUMERIC DISPLAYS**

Transmitter display is visible
from ground even on 3m (10 ft)
tripods... no ladder needed.

n reliability

**SUPPORTED BY THE INDUSTRY'S LEADING SERVICE.
READY TO GO. ANYWHERE.**

STANDARD WITH ALL MODELS

Each GL700 Series Laser comes complete with Laser, HR500 Receiver, Charger, NiCad Rechargeable Batteries, Power Cord, Receiver Card, Laser Card, Laser Manual and rugged waterproof Carrying Case.



AVAILABLE OPTIONS

NiMh rechargeable batteries

M100 Mount converts all models to a 3 1/2" x 8" Mounting Thread or Quick Disconnect

GL722

Standard Package plus
2-way Remote and Rod Mount

FLEXIBLE POWER OPTIONS

NiCad rechargeable allows you to work for several days (6 D Cells)

NiMh rechargeable for extended work periods (6 D Cells)

Alkaline backup, just in case you forget to recharge (6 D Cells)

External 12Vdc operation for long term applications like mining or land leveling

External power cable standard

Battery status is indicated on GL700 Series Lasers, so you know exactly how much longer you can work



GL700 SERIES SPECIFICATIONS

GRADE RANGE ACCURACY

Axis Grade Range X
-10 to +10% (GL722, GL720)

Axis Grade Range Y
-0.500 to +25% (GL710, GL720, GL722)

Self Leveling
Self levels over entire grade range
(GL710, GL720, GL722)

Grade Resolution 0.001%

Servo deadband accuracy 4.6 arc seconds

LASER CLASSIFICATION

CDRH II (IECI)

RANGE/RADIUS

Laser – 450 m (1500 ft) with
Spectra Precision Lasers
machine mounted receivers

MOUNTING THREADS

5/8" x 11" on all models
3 1/2" X 8" Mounting Adapter optional

WATERPROOF & HOUSING

Waterproof Aluminum Housing

DIMENSIONS

Weight 8.5 kg (18.8 lbs)

Size Height 29.8 cm (11.75 in)
Width 25.4 cm (10.0 in)
Depth 19.7 cm (7.75 in)

REMOTE CONTROL SPECIFICATIONS

RANGE/RADIUS

225 m (750 ft) General Operation
150 m (500 ft) Automatic Alignment

DIMENSIONS

Weight 0.4 kg (0.86 lbs)

Size Height 19 cm (7.5 in)
Width 10.8 cm (4.25 in)
Depth 4.4 cm (1.75 in)

GENERAL

Radio Type
2.4 GHz spread spectrum, encrypted
to each laser transmitter to allow
multiple systems on each job.

Battery Life: 2.5 weeks*

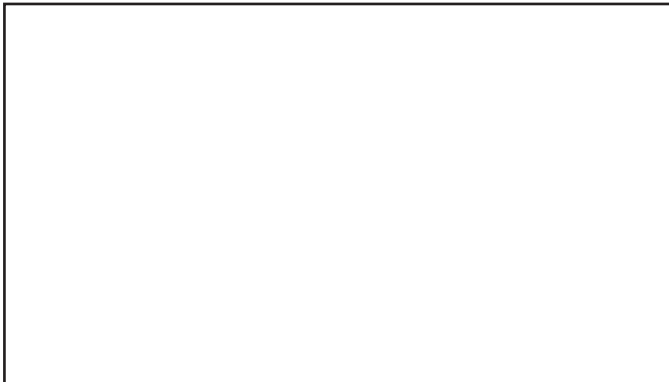
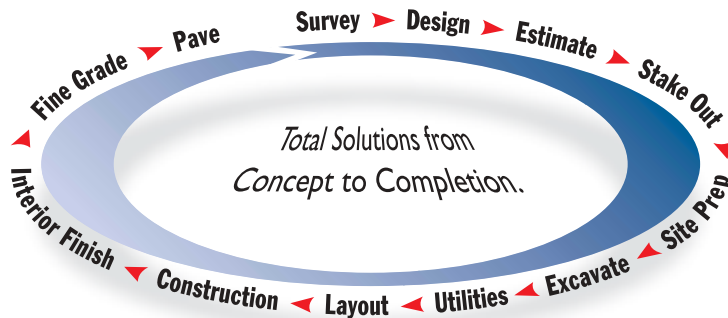
Optical Axis Fine Adjust
Automatic Alignment Range $\pm 40^\circ$ Max

*Under normal operating conditions. Shorter battery life will occur at temperature extremes or if an extraordinary amount of automatic alignments are performed.

Total Solutions from Trimble

The construction industry is more demanding and competitive than ever before. Trimble, through the combination with Spectra Precision—the pioneer of the machine control industry—helps you improve your process and productivity with the most complete range of earthmoving and grade control solutions. Trimble’s innovative solutions are based on decades of construction industry experience in positioning technologies including laser, total station and GPS with control systems, wireless communications, and software. All this results in a line of rugged, field proven products... from practical solutions for the general contractor to the most sophisticated machine control systems.

Streamline your process, minimize downtime, lower costs and boost profitability with Trimble, the world leader in construction solutions. Every Trimble purchase is supported by the industry’s largest global service and support system, with partners who understand the technology, the applications and your business needs. From concept to completion, Trimble positions you for success.



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