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## Spectra Precision GL1425C

# Spectra Precision GL1425C Dual Grade Automatic Self Leveling Rotary Laser

Instruction Manual

## 1. INTRODUCTION

The Spectra Precision GL1425C is a robust and versatile dual grade laser designed for precise leveling, grading, and vertical alignment tasks. This manual provides essential information for safe and effective operation, setup, and maintenance of your GL1425C, ensuring optimal performance and longevity.

## 2. PRODUCT OVERVIEW AND KEY FEATURES

The GL1425C offers advanced capabilities for demanding job site conditions, ensuring accuracy and efficiency:

- **Automatic Self-Leveling:** Provides horizontal, vertical, and dual grade capabilities, simplifying setup for various alignment tasks.
- **High Accuracy:** Delivers 1.5mm at 30m (1/16 inch at 100 ft) accuracy, with a leveling accuracy of  $\pm 1.5$  mm / 30 m horizontally and 1.2 vertically.
- **Bluetooth Connectivity:** Allows remote control via the Spectra Precision Laser Remote App on a smartphone, eliminating the need for a separate remote.
- **Extended Working Range:** Operates within an 800m (2,600 ft) diameter, suitable for large construction sites.
- **Height of Instrument Alert:** Automatically stops rotation if the unit is jarred, preventing erroneous readings.
- **Long Battery Life:** Energy-efficient design provides approximately 45 hours of operation with the included NiMH battery pack.
- **Grade Matching and PlaneLok:** When used with HL760 or CR700 digital receivers, enables automatic grade matching and locking onto existing elevations.
- **Selectable Rotation Speeds:** Offers 300, 600, or 900 RPM options for various visibility and application needs.
- **Durable Construction:** Designed to withstand a 1m (3 feet) drop onto concrete and features an IP66 rating for dust and water resistance.



Front view of the Spectra Precision GL1425C Rotary Laser, showing the control panel and display.

### 3. SETUP AND INITIAL OPERATION

#### 3.1 Unpacking and Inspection

Carefully unpack all components from the carrying case. Verify that all items listed in the packing list are present and undamaged. Contact your supplier immediately if any items are missing or damaged.

#### 3.2 Battery Installation and Charging

The GL1425C operates with a 10000 mAh NiMH battery pack (included) or 4 x 1.5V D alkaline batteries (not included).

- **NiMH Battery Pack:** Open the battery compartment cover located at the base of the unit. Insert the battery pack, ensuring correct polarity, and close the cover securely.
- **Charging:** Connect the provided charger to the laser and a power outlet. The charging indicator will illuminate. Charging typically takes under 10 hours within a temperature range of 5°C to +40°C.
- **Alkaline Batteries:** If using D alkaline batteries, ensure they are inserted with correct polarity. Alkaline batteries are not rechargeable.

### 3.3 Mounting the Laser

The GL1425C can be mounted on a tripod using its 5/8 x 11 thread, allowing for both horizontal and vertical applications.

1. Place the tripod on a stable, level surface.
2. Securely attach the GL1425C to the tripod head by screwing it onto the 5/8 x 11 thread.
3. Ensure the laser is stable and firmly attached before powering on.



Side view of the Spectra Precision GL1425C Rotary Laser, highlighting the robust handle for transport.

## 4. OPERATING INSTRUCTIONS

### 4.1 Powering On and Self-Leveling

Press the ON/OFF button to power on the laser. The unit will automatically begin self-leveling. The self-leveling range is  $\pm 5^\circ$ , or  $\pm 8.7\%$ . Wait for the laser beam to stabilize before taking measurements. An audible alert and/or flashing light will indicate if the unit is outside its self-leveling range.

### 4.2 Adjusting Grade

The GL1425C supports dual grade adjustments for both X and Y axes. Use the control panel buttons (labeled M, E, and arrow keys) to set the desired grade. The display will show the current grade values.

Consult the detailed instructions in the full product manual for specific grade setting procedures.

### 4.3 Rotation Speed

Select rotation speeds of 300, 600, or 900 RPM using the dedicated button on the control panel. Higher speeds provide a more continuous line, which can be beneficial for visibility, while lower speeds conserve battery power.

### 4.4 Bluetooth and Remote App

The built-in Bluetooth allows for wireless control of the GL1425C via the Spectra Precision Laser Remote App on your smartphone. Pair your device with the GL1425C to access all laser functions remotely, including grade adjustments and rotation speed changes.

### 4.5 Grade Match and PlaneLok (with HL760 Receiver)

When paired with an HL760 Digital Readout receiver, the GL1425C offers advanced features:

- **Grade Match:** This function automatically measures unknown grades between two points over uneven terrain. Position the receiver at the first point, then move it to the second point, and the laser will automatically match the grade.
- **PlaneLok:** This feature locks the laser onto existing elevations, ensuring the laser maintains a specific elevation. This is particularly useful for repetitive tasks or maintaining a precise reference plane.

The operational diameter with the HL760 receiver is approximately 800 meters, with GradeMatch and PlaneLok effective up to about 80 meters each.



Close-up view of the GL1425C control panel, showing the display, function buttons, and power switch.



Rear view of the GL1425C, showing the X+ and Y+ axis indicators and product labels.

## 5. MAINTENANCE

### 5.1 Cleaning

Keep the laser clean. Use a soft, damp cloth to wipe the exterior. Do not use harsh chemicals or abrasive cleaners, as these can damage the housing or optical components. Ensure the rotating head and laser aperture are free from dust and debris for optimal performance.

### 5.2 Battery Care

For optimal battery life, fully charge the NiMH battery pack before first use and after each use. Store the laser with a charged battery if it will not be used for an extended period. Avoid exposing the battery or laser to extreme temperatures during storage or operation.

### 5.3 Storage

When not in use, store the GL1425C in its protective carrying case. Keep the case in a dry, temperature-controlled environment, away from direct sunlight and excessive humidity.

## 6. TROUBLESHOOTING

This section addresses common issues you might encounter with your GL1425C. For more complex problems, contact customer support.

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
Laser not powering on	Low or dead battery Battery not installed correctly	Charge the NiMH battery or replace alkaline batteries Ensure battery pack/alkaline batteries are correctly inserted
Laser not self-leveling	Unit is outside self-leveling range Unit is on an unstable surface	Reposition the laser on a more level surface Ensure the tripod or mounting surface is stable
Height of Instrument Alert (HI Alert) activated	Laser unit was jarred or moved during operation	Power off the unit, reposition if necessary, and restart. Allow it to self-level again.
Bluetooth connection issues	Laser or smartphone Bluetooth is off Out of range Interference	Ensure Bluetooth is enabled on both devices Move closer to the laser Reduce potential interference sources



The Spectra Precision GL1425C Rotary Laser shown with its protective carrying case, HL760 receiver, and remote control.

## 7. TECHNICAL SPECIFICATIONS

Feature	Value
Accuracy	$\pm 3.0$ mm/30 m grade accuracy; $\pm 0.9$ mm/30 m/1°C temperature drift
Leveling Accuracy	1.2 vertical, horizontal: $\pm 1,5$ mm / 30 m; 1/16 in at 100 ft; 10 arc seconds
Working Range (Diameter)	800m (2,600 ft)
Self-Leveling Range	$\pm 5^\circ$ ( $\pm 8.7\%$ )
Rotation Speeds	300, 600, 900 rpm
Laser Class	Class 2, <3.4 mW
Wavelength	630-643 nm

<b>Feature</b>	<b>Value</b>
Radio Range (with HL760)	Up to 100 meters
Operating Temperature	-20°C to +50°C
Dust/Water Resistance	IP66
Battery Type	10000 mAh NiMH (included) or 4 x 1.5V D alkaline (not included)
Battery Life	Approximately 45 hours
Charging Time	Under 10 hours (within 5°C to +40°C)
Tripod Attachment	5/8 x 11 (horizontal and vertical)
Product Dimensions	11 x 7.1 x 9.5 inches
Item Weight	15 Pounds
Material	Metal
Model Number	GL1425C
ASIN	B0CD2HPXPY



The GL1425C Rotary Laser set up on a tripod at a construction site, demonstrating its application in a large-scale environment.

## 8. WARRANTY AND SUPPORT

The Spectra Precision GL1425C comes with a **5-year warranty**, covering defects in materials and workmanship under normal use. For warranty claims, technical support, or service, please contact your authorized Spectra Precision dealer or visit the official Spectra Precision website for assistance.

For additional resources and product information, you can visit the official Spectra Precision Store on Amazon: [Spectra Precision Store](#).