



# Product Specs

December 2005

Spectra Precision Laser Dealer Confidential

## Spectra Precision Laser CB25 Control Box

### Cab-mounted, user interface

#### General Description

The Spectra Precision<sup>®</sup> Laser CB25 Control Box is a rugged, operator interface for single laser-based machine control systems. This simple to setup and use control box allows the user to manually control the elevation of the blade, for balancing or rough grading, using the LED indicator or to automatically control the blade for fine grading. This device is designed to be mounted in the cab while in operation, and be quickly removed for storage when not in use.



#### Standard Features

- **Easy to use**—Simple operation with toggle and push-button switches gets you to grade fast and accurately. LED grade displays relay the blade position to grade in day or night lighting condition to maximize productivity. Operators can be trained quickly to become more productive in a shorter period of time.
- **Proportional valve control**—for a smooth and quick corrections making more consistent and accurate finish grade.
- **Super bright grade display**—gives the operator easy to see elevation feedback when balancing or finish grading.
- **A great addition**—to a dozer display receiver, the CB25 works with the LR50 or LR60 for automatic blade control.
- **Easily installed** near the operator for hand-on use, may be moved from machine to machine.

#### Options and Accessories

- Bolt-on mounting bracket
- Remote switch (single auto/manual)

Trimble Construction Division, 5475 Kellenburger Road, Dayton, OH 45424, USA

© 2005, Trimble Navigation Limited. All rights reserved. Trimble, the Globe & Triangle logo, and Spectra Precision are trademarks of Trimble Navigation Limited, registered in the United States Patent and Trademark Office and in other countries. All other trademarks are the property of their respective owners. PN 022482-376 (12/05)

## Compatible Components

The CB25 is used with the following two Spectra Precision Laser receivers:

- Spectra Precision Laser LR50 receiver
- Spectra Precision Laser LR60 receiver

## Specifications

Switch Type	Description
On/Off	Momentary, push-button type, sealed switch. Toggles the system between on and off.
Blade Raise/Lower Switch	3-position bat type, momentary, center off toggle switch. When toggled up raises the blade, toggled down lowers the blade.
Auto/Manual Switch	2-position bat type, momentary, toggle switch. Toggles the system between automatic and manual operation. Toggle up for Automatic and down for Manual control.
Right and Left Elevation INC/DEC Switches	3-position bat type, momentary, center off toggle switch. Positions the blade elevation up or down while adjusting the elevation display accordingly.

## Cable Configurations

### Receiver Cable

Powers the receiver and communicates grade information between the receiver and the control box.

Function	Control Box—6 Socket	Receiver—7 Socket	Wire—Color
Power	A	A	Red
Communication	B	B	Green
Communication	C	C	White
Ground (Signal)	D	D	Black
High Power Return	E	E	N/C
High Power Supply	F	F	N/C
	N/A	G	N/C

### Power Cable

Supplies power to the system. The control box supports both 12- and 24-Volt machine systems.

Function	Control Box—4 Pin	Wire—Color
Machine Ground	A	Black
Machine Ground	B	Black
Machine Power	C	Red
Machine Power	D	Red

**Remote-Switch Cable:**

Is an optional accessory that extends the raise/lower and auto/manual switches via a cable.

Function	Control Box—7 Socket	Wire—Color
Auto/Manual	A	Orange
Raise/Lower	B	Green
Aux. Remote 0	C	N/C
Aux. Remote 1	D	N/C
N/C	E	N/C
Remote Switch Power	F	Red
Remote Switch Ground	G	Black

**Valve Cable:**

Communicates grade information between the control box and the hydraulic valve. The type of valve determines the valve-cable wiring.

## Proportional Current/Time

Function	Control Box—10 Socket	Wire—Color
Lower Valve	A	Green
Raise Valve	B	White
Switched Power	C	N/C
Load Sense	D	Red
	E	N/C
Aux. Driver 2	F	N/C
Aux. Driver 3	G	N/C
	H	N/C
Ground	I	Black
Ground	J	N/C

## Proportional Voltage

Function	Control Box—10 Socket	Wire—Color
	A	N/C
Diagnostic	B	Green
Switched Power	C	Red
Load Sense	D	N/C
PV Signal	E	White
Aux. Driver 2	F	N/C
Aux. Driver 3	G	N/C
	H	N/C
Ground	I	Black
Ground	J	N/C

## General Specifications

Physical characteristics	Specifications
On-Grade LEDs	Green
High/Low LEDs	Red
Operating Voltage	10 Volts to 30 Volts DC Reverse Polarity Protected
Electrical Connection	Standard Military Type
Valve Compatibility	Proportional Time (On/Off) Proportional Current Proportional Voltage
Maximum Current	5 Amps per Coil
Remote Toggle Switch (Optional)	Raise/Lower Auto/Manual
Weight	2.25 kg (5 lb)
Dimensions	178 mm x 134 mm x 120 mm (7.0 in. x 5.3 in. x 4.8 in.)