



Product Specs

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Spectra Precision Laser Dealer Confidential

Spectra Precision Laser MC50 Machine Control Laser Receiver

Rugged New Laser Receiver

The Spectra Precision® Laser MC50 laser receiver is a rugged, electronic receiver that works with all common rotating lasers. It detects both visible and invisible beams.

The MC50 is designed to be installed with a Spectra Precision® Laser Control Box for automatic control on certain grading machines. Power to the MC50 receiver comes from the control box, which is connected to the machine's power.

The receiver does not have any on-board switches. Instead, settings are made at the control box. A mini built-in LED display provides grade elevation position, as well as high, low, and lost beam indications.



Standard Features

- Aluminum cast upper and lower housings — Provide rugged durability
- Polycarbonate housing — Protect internal electronics
- Mini LED display — Shows blade elevation position relative to grade
- Precise laser strike positions — Provide more accurate grade control. Unlike other laser receivers that provide only 5 to 7 fixed relative grade regions, the MC50 laser receiver provides a continuous, absolute laser strike position to precisely measure the actual height deviation from “on grade.” This feature gives you the highest accuracy and grade performance.
- Designed for construction — Shock-mounted electronics ensure stable performance and tough aluminum/poly carbonate housing for superior knock and drop protection. Sealed housing and battery chamber are designed and built to the most demanding construction industry standards.
- Receiving windows — Include four sets of photocell that are equally spaced to allow for 360-degree reception
- Mounting knobs — Allow for quick and easy installation to the mast or magnetic mount.
- Control Box Option — Creates an affordable automatic blade control for dozers when the MC50 is used with the CB25 or CB30 control box.

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Installation

The Spectra Precision Laser MC50 laser receiver mounts to round masts from sizes 42 mm to 50 mm (1.66 to 2.00 in) O.D. and to 38 mm (1.5 in) square tube. The model STM shock-mounted telescoping mast is ideally suited for machine control applications. The mast allows the receiver to be positioned above the machinery for unobstructed laser reception. The mast has a 1.2 m (4 ft) telescoping adjustment range with an Imperial/Metric scale for positioning at known elevations. Built-in shock mounts on all four sides provide excellent damping of the laser receiver in rough operating conditions.

1. Set up the laser in an appropriate location for receiver visibility and efficient machine operation. Turn on the laser.
2. Position the machine so the blade is set to the desired finished elevation, typically on a benchmark or hub stake.
3. Mount the receiver to the mast.
4. Turn on the system and choose a narrow on-grade deadband for setup (Switch 10, position 1 or 2). Always note the previous setting before making any changes.
5. Slide the receiver up or down until on-grade is indicated. If necessary, adjust the height of the laser.
6. Reset the on-grade deadband to the desired accuracy.
7. Face the LED display toward the operator and tighten the clamps.

Specifications

Specification	MC50
Beam Reception Angle	360 degrees
Operating Reception Range (Dependent on Laser)	460 m Over 1500 ft
Vertical Reception	171 mm 6.75 in
Accuracy (Grading/Excavating)	
Setup	N/A
Fine	16 accuracy levels set with Control Box
Standard	
Wide	0 mm/40 mm 0 in./1-1/2 in
Blade Tilt Indication	No
Plumb Indication	No

On-Grade Locations	
Center (Grading)	Yes
Offset (Excavation)	No
Green On Grade	No
Power	
Power Cable, 10-30 V	Required
Remote Display Option	No
Automatic Control Option	Yes
Clamp Range	42 mm- 50 mm (1.66 to 2.00 in) diameter round tube 38 mm (1.50 in) square tube
Internal Shock Mounts	Yes
Warranty	2 years
Operating Temperature	-20° C to +60° C -4° F to +140° F
Shipping Size (in carrying case)	483 mm x 406 mm x 178 mm 19 in x 16 in x 7 in
Shipping Weight	5.4 kg 12 lb

*Specifications subject to change without notice