

R-1310 Readout with 900 MHz or 2.4 GHz Radio Communication and READ9 Software

*Hand-held convenience, wireless
communication, and multi-purpose
alignment software*

■ A powerful, pocket-sized readout

The newest addition to Hamar Laser's wireless alignment technology is the R-1310 readout. Combining a PDA with a built-in radio transceiver available in two frequencies, the R-1310 Readout operates with Hamar Laser's A-1519 and A-1520 radio wireless targets and any continuously rotating laser in our product line.

■ Selectable System ID allows two alignment systems to work side-by-side

The radios employ a frequency-hopping protocol to avoid interference with other radio devices that might be operating at the same frequency. The software allows the selection of different system IDs so that two or more systems can work in the same area and will not interfere with each other.

■ READ9 software supports eight targets and multiple alignment functions

The R-1310 Readout comes with Hamar Laser's READ9 alignment software pre-installed. READ9 runs under Windows CE™ and displays readings for up to 4 targets in two user-selectable screens. The software includes mode selections for alignment functions, such as setting a laser plane parallel to three points on a surface, graphic displays of the target readings, sample averaging to minimize the effects of air turbulence or vibration, and a data screen that summarizes the target readings.

■ Faster setup, improved safety, ultimate convenience

Whether it's roll alignment, leveling applications, machining centers or any application where a continuously rotating laser is used, the combination of Hamar Laser's wireless targets and the R-1310 Readout will reduce alignment setup time, improve workplace safety by eliminating hanging cables, and maximize convenience.



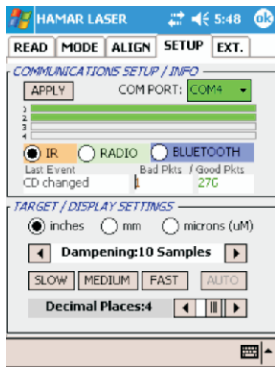
The R-1310 features:

- A PDA with built-in radio transceiver available in frequencies of 900 MHz or 2.4 GHz
- Read9 software pre-installed for basic alignment functions.
- Data display for up to 8 wireless targets.
- Displays actual dimensions when using Height Gage mode.
- Wireless range of up to 300 feet.
- Compatibility with any of Hamar Laser's continuously rotating lasers.
- 8-hour battery life.

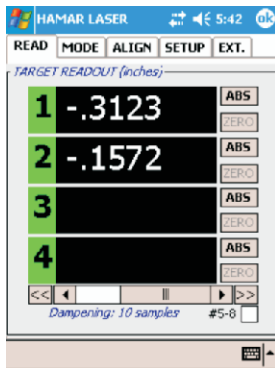


Program Features

Read9 Alignment Software for the R-1310 System

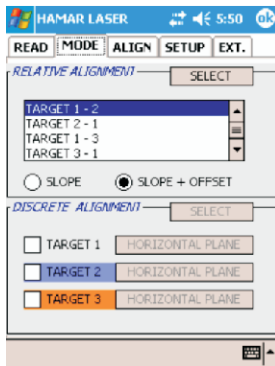


The SETUP screen is used to configure and set up wireless communication, units of measure, display resolution and measurement averaging, which ensures stable readings under most operating conditions.

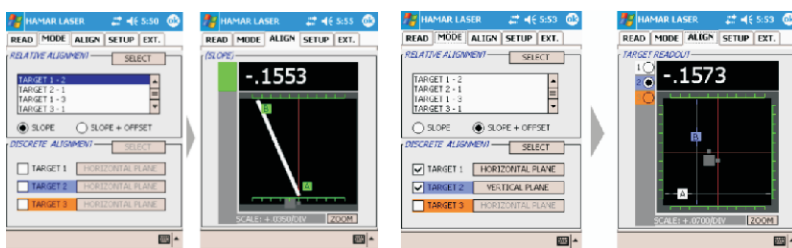


The READ screen provides a numeric display of values for the connected targets, with the numbers 1 through 8 referring to the corresponding labels on the targets. Using the READ screen mode buttons, the user can toggle between Absolute or Relative modes. Absolute Mode indicates exactly where the laser plane hits the target relative to the mechanical center of the PSD, and Relative Mode allows the user to zero the target at any point where the laser plane is detected. When in Relative Mode, the display turns yellow and subsequent readings are compared to the user-defined “zero point.” Also available is Height Gage Mode, which displays the actual dimension from the laser plane to the surface being measured.

Each displayed value is an average of 1 to 100 readings. A “slider bar” is provided to control the number of averages, minimizing the effects of air turbulence and vibration on the readings.



The MODE screen is used to specify the target configuration and to select a mode of operation. Relative Alignment is selected when aligning two target points to a laser plane or a laser plane to two target points, an example of which would be roll alignment. Discrete Alignment allows one or two laser planes to be aligned with up to three targets simultaneously, such as aligning a laser to three reference points on a surface.



The ALIGN screen is a graphic representation of the target readings, showing alignment as defined in the MODE screen. The graphic display scales up automatically to fit the readings, and it can be downscaled by clicking the ZOOM button in the bottom right-hand corner. Screens for both Relative (left) and Discrete (right) alignment modes are shown.

Specifications

Specifications:

Size:	7.25" L x 3.40" W x 1.38" H (184.15 mm x 86.36mm x 35.05mm)
Weight:	1 lb. (453.6 grams)
Resolution:	.001" (.03 mm), .0001" (.003 mm), .00001" (.001 mm in metric mode)
Battery life (PDA):	8 hours (will run on an A/C adapter)
Battery life (RF Receiver):	11 hours for 900 MHz and 7.5 hours for 2.4 GHz
Power (PDA):	3.4V lithium ion battery
Power (IR Receiver):	9V rechargeable battery

Agency Certifications for the 900 MHz Radio Transceiver

FCC (United States of America) Certification

Contains FCC ID: OUR-9XCITE

The enclosed device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation.

▲ RF EXPOSURE WARNING: This equipment is approved only for mobile and base station transmitting devices, separation distances of (i) 20 centimeters or more for antennas with gains < 6 dBi or (ii) 2 meters or more for antennas with gains ≤6 dBi should be maintained between the antenna of this device and nearby persons during operation. To ensure compliance, operation at distances close than this is not recommended.

IC (Industry Canada) Certification

Contains Model 9XCite Radio (900 MHz), IC: 4214A-9XCITE

Agency Certifications for the 2.4 GHz Radio Transceiver

FCC (United States of America) Certification

Contains FCC ID: OUR-24XSTREAM

The enclosed device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation.

▲ RF EXPOSURE WARNING: This equipment is approved only for mobile and base station transmitting devices, separation distances of (i) 20 centimeters or more for antennas with gains < 6 dBi or (ii) 2 meters or more for antennas with gains ≤6 dBi should be maintained between the antenna of this device and nearby persons during operation. To ensure compliance, operation at distances close than this is not recommended.

IC (Industry Canada) Certification

Contains Model 24XStream Radio (2.4 GHz), IC: 4214A-12008

Complies with IC ICES-003

CE

Complies with ETSI. France: France imposes restrictions on the 2.4 GHz band. Go to www.art-telecom.fr or contact MaxStream* for more information. Norway-Norway prohibits operation near Ny-Alesund in Svalbard. More information can be found at the Norway Posts and Telecommunications site (www.npt.no).

Since the 2.4 GHz band is not harmonized throughout Europe, other restrictions may apply to your country.

Technical Data:

OEM radio transceiver, model number: 24XStream

Frequency band: 2400.0 - 2483.5 Mhz

Modulation: Frequency shift keying

Channel spacing: 400 kHz

ITU classification: 400KF1D

Output power: 100 mW EIRP max.

Notified body number: 0891

*The radio transceiver contained in the A-1519/20 Unitarget is manufactured by MaxStream®. For more information pertaining exclusively to the radio transceiver, please contact MaxStream at (800) 765-9885 or visit their website (www.maxstream.net).