

# R-1355 Wireless Ruggedized PDA Data Receiver with Read9 Software

*Hand-held convenience, wireless communication via the ZigBee® Networking protocol, and multi-purpose alignment software*

## ■ A powerful, pocket-sized readout

The newest addition to Hamar Laser's wireless alignment technology is the R-1355 Readout. Combining a Trimble Nomad PDA with an Xbee® RF module operating at 2.4 GHz, the R-1355 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 radio 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-1355 Readout comes with Hamar Laser's READ9 alignment software pre-installed. READ9 runs under Windows Mobile® version 6.0 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-1355 Readout will reduce alignment setup time, improve workplace safety by eliminating hanging cables, and maximize convenience.



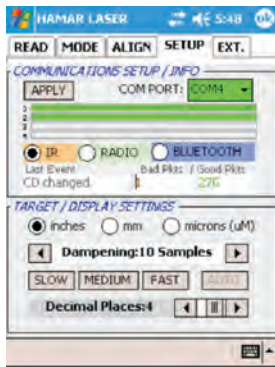
## The R-1355 features:

- A rugged PDA with a sealed wireless transmitter and an IP 67 environmental rating that can survive water up to 3 feet with no harm.
- Long battery life of 15 hours with a 2.5 hour recharge time.
- Read9 software pre-installed for basic alignment functions.
- Data display for up to 8 wireless targets.
- Wireless range of up to 133 feet.
- Compatibility with any of Hamar Laser's continuously rotating lasers.
- Protective RF cap available to cover and seal Xbee radio module.
- Unlike the previous model, the radio is powered by and sealed inside the PDA, requiring no external power supply.

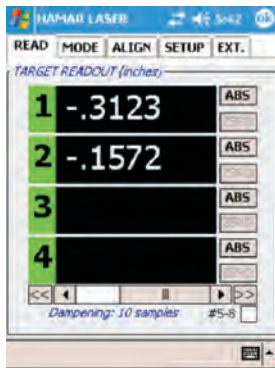


# Program Features

## Read9 Alignment Software for the R-1355 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.

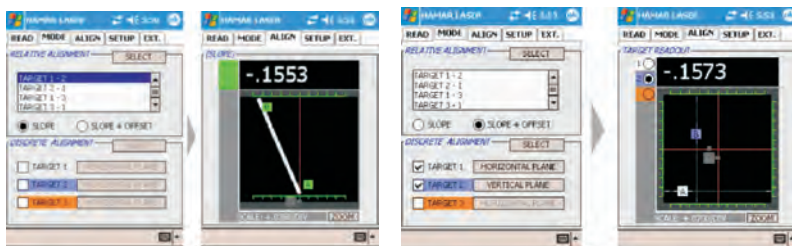


The READ screen provides a numeric display of values for the connected targets, with the numbers 1 through 8 referring to the corresponding labels on the targets. Using the READ screen mode buttons, the user can toggle between Absolute or Relative modes. Absolute Mode indicates exactly where the laser 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 for multi-target applications such as roll alignment or machine tool 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:

<b>Size:</b>	6.92" L x 3.92" W x 1.96" H (17.6 cm x 10.0 cm x 5.0 cm)
<b>Weight:</b>	1.23 lb. (558 grams) including rechargeable battery
<b>Resolution:</b>	.001" (.03 mm), .0001" (.003 mm), .00001" (.001 mm in metric mode)
<b>Battery life:</b>	15 hours with active use (recharges in 2½ hours)
<b>Power:</b>	Field swappable 5200 mAH Li-ion rechargeable battery
<b>Range:</b>	Wireless range of up to 133 feet (40.5 M)
<b>Transmit Power:</b>	1.25 mW (+1 dBm) / 2 mW (+3 dBm) boost mode
<b>Radio Frequency:</b>	2.4 GHz DSSS (Direct Sequence Spread Spectrum)
<b>Environmental Rating:</b>	IP 67, Dust proof and waterproof to 3 feet (1 M)

## Agency Certifications for the XBee® 802.15.4 Series 1

**FCC (United States of America) Certification**

**Contains FCC ID: OUR-XBEE**

**IC (Industry Canada) Certification**

**Contains Model XBee 802.14.4 IC:4214A-XBEE**

**Complies with ETSI (Europe), C-TICK (Australia) and Telec (Japan)**