



Operations Manual

R-1308 Auxiliary Target Readout

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R-1308 Auxiliary Target Readout - Overview

The R-1308 Auxiliary Target Readout is an accessory for the A-1519 and A-1520 Type II Unitargets. This single-axis, lightweight readout attaches directly to the post of the magnetic target base and connects to the auxiliary port on the side of the target, providing an excellent backup for the R-1357-2.4ZB PDA Readout or to software.

Note: *This unit operates with Unitarget firmware version 8.021 or later. Units shipped prior to July 15, 2007 may require a firmware upgrade, available from Hamar Laser Instruments.*

Target Features

- Bright LED display with up to 4 decimal places of resolution for easy target readings.
- No batteries, external power supply or charger is required. The unit is powered directly by a connection to the Unitarget and draws a minimal amount of power directly from the Unitarget battery. At the normal brightness setting, the target display draws less than 100 mW.
- User-selectable display allows the target position to be viewed in either inches or millimeters and in Relative (Zero) or Absolute modes.

The picture at the right shows a Unitarget mounted on a standard 5/8 in (15.75 mm) diameter post, with the R-1308 mounted directly beneath the target. The numerical indicators are as follows:

- (1) **Locking nut**
- (2) **Unitarget Auxiliary Port** (supplies power to the R-1308 Target)
- (3) **Display Units**
- (4) **Display Resolution**
- (5) **Zero Mode** (Relative/Absolute)
- (6) **Display Mode** used for turbine alignment to display an approximation of the H axis value when the A-1519 is used in 2-axis Mode. Also used to change the brightness of the display.

Mounting the R-1308

1. Shut off power to the Unitarget.
2. Slide the R-1308 mount on to the target post until it is 1 in (25 mm) or less below the base of the target. The R-1308 can be mounted perpendicular to the target post, as shown, or parallel to the target post for vertical plane applications.
3. Tighten the locking nut.
4. Connect the R-1308 cable to the Unitarget Auxiliary Port. *Do not force the connection.* The arrow on the plug should face toward the back of the target.



Using the R-1308

1. Turn on power to the Unitarget. The R-1308 displays - HLI - while it initializes. *Do not proceed until a numerical reading displays.*
2. Set the Display Units by pressing the DISPLAY UNITS button to toggle between inches and millimeters. The corresponding LED on the front panel lights.
3. Set the Display Resolution (the desired number of decimal places) by pressing the DISPLAY RES button.

Zeroing the Display

1. To enable Relative position, *press and hold* the ABS/REL button until the display reads zero. Release the button. The last position reading is memorized as an offset that is subtracted from all subsequent position readings. The REL LED lights when the display shows a zero offset applied.
2. Press the ABS/REL button quickly to toggle between Relative and Absolute modes.

Note: The best way to zero the display without disturbing the position measurement is to place your index finger directly behind the ABS/REL button and then push the button with your thumb, as if you are pinching the right side of the unit.



Using the Display Mode Button

The Display Mode button is used when using the A-1519 target in 2-axis mode (see page 24-24 of A-1519 Manual) to show an approximation of the H axis values. By pressing the Display Mode button, the readout is switched from showing the V axis data (actual numbers) to showing the H axis data represented by lines. Each line equals the values shown below. If the lines appear to the *right* of zero, this means the target is to the *right* of the laser beam and vice versa.



The lines equal the distance from the center of the target in the H axis as shown below:

□ = zero

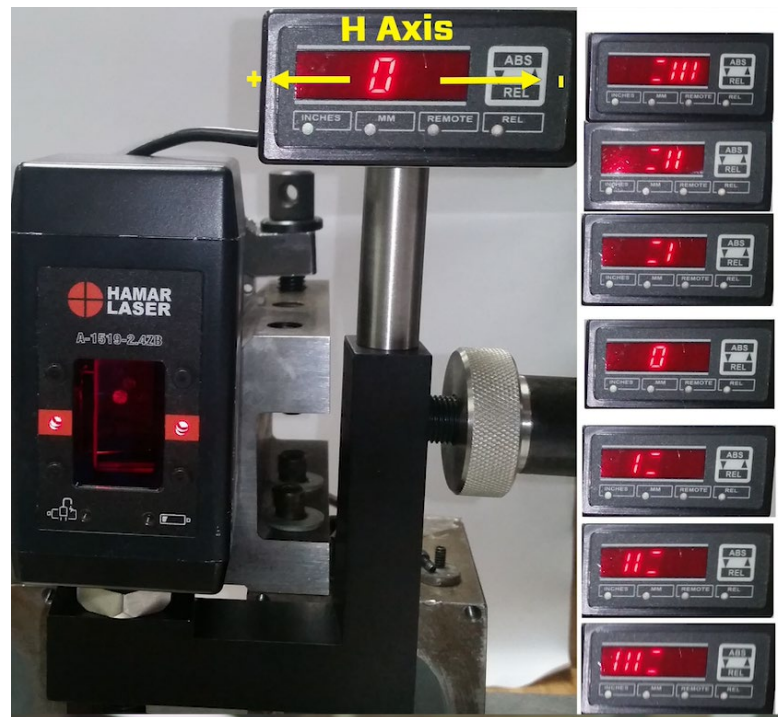
I = .001 in. (0.025 mm)

II = .005 in. (0.127 mm)

III = .010 in. (0.254 mm)

IIII = .020 in. (0.508 mm)

The image shows using the R-1308 with the A-1519 and A-1511 Wand Bore Fixture for steam turbine alignment. In this case, we recommend not letting the H axis be greater than 3 lines or .010 in. (0.25 mm) when taking the data.



Changing the Brightness

To change the brightness of the display, PRESS and HOLD the Display Mode button. Repeat for each brightness adjustment until the desired brightness is achieved.

System Specifications

Power Supply	Power is supplied by the A-1519/A-1520 Targets
Weight	3 oz. (85 g)
Housing Material	Aluminum
Physical Dimensions	1.34 H x .87 D x 2.76 W (in) 33.9 H x 22.1 D x 70.0 W (mm)
Cable Length	9.8 in (248.3 mm)
Display Resolution	.1, .01, .001, .0001 in .1, .01, .001 mm
Functions	ZERO button – Zeroes display (Relative Mode) Units – Changes inches to millimeters Display Resolution – Changes display resolution ABS/REL Mode – Toggles between Absolute and Relative Modes Display Mode – H-axis indicator and display brightness adjustment

