TruPulse® 200i & 360i Quick Reference Field Guide

LTI Part 0145003

LASER TECH

TruPulse® i Series

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YouTube.com/lasertechpro
for TruPulse® Training Videos

*For detailed instructions on the TruPulse i Series operations, please refer to lasertech.com/professional-measurement-products and navigate to the TruPulse product's webpage.

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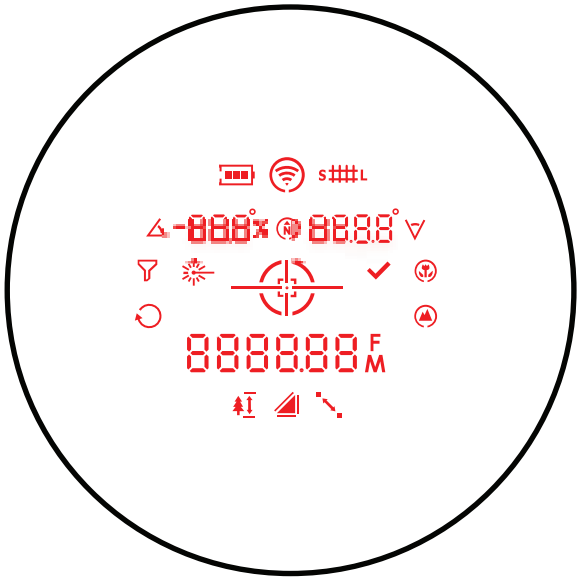
TruPulse® i Series Display Icons



Measurement Modes • Display Icons

- Inclination
- Slope Distance
- Horizontal Distance
- Vertical Distance
- Height
- Missing Line
- Battery Life Indicator
- Laser Firing
- F Feet
- M Meters
- N Azimuth
- % Percent

Target Modes •

- Closest
- Farthest
- Continuous
- Filter
- BT
- Gate Indicators

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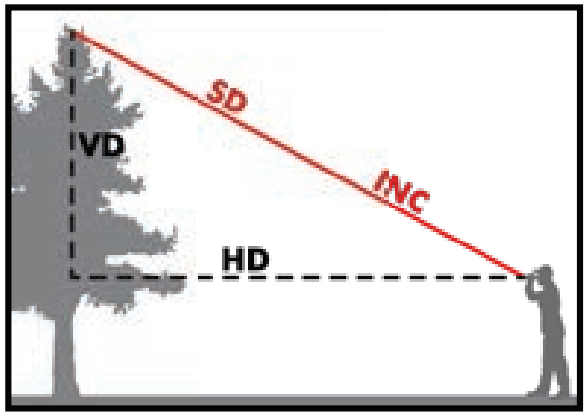
TruPulse® 200i Values & Key Code

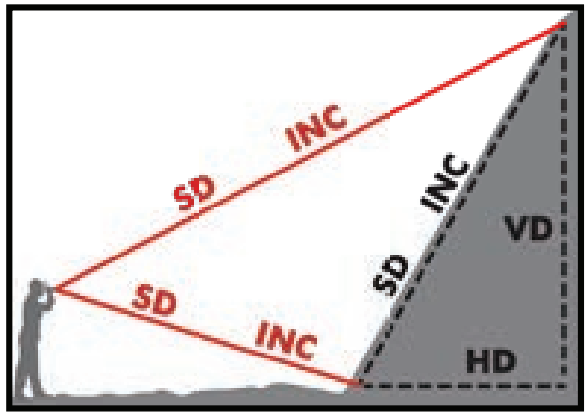
Measured by TruPulse

Calculated by TruPulse

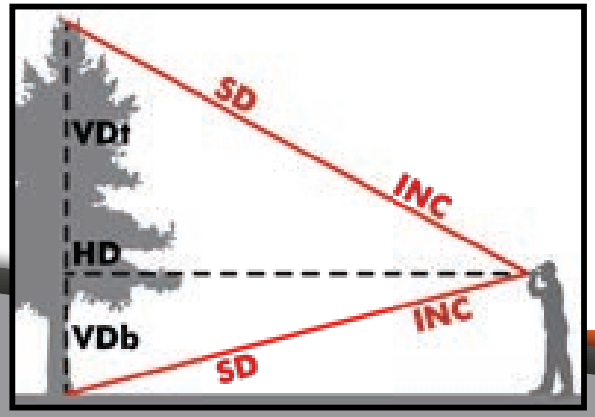
1-Shot Distance



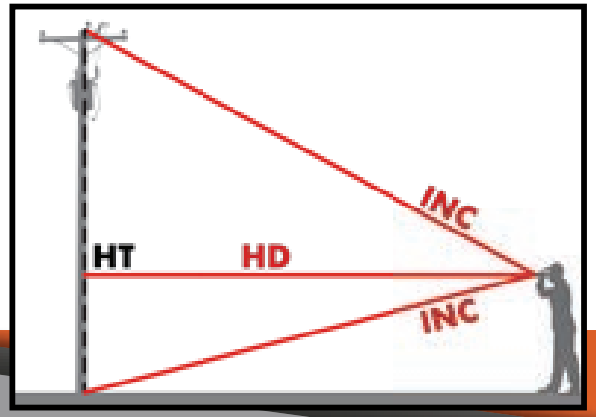
2D Missing Line



2-Shot Height



3-Shot Height



= Horizontal Distance **(HD)**

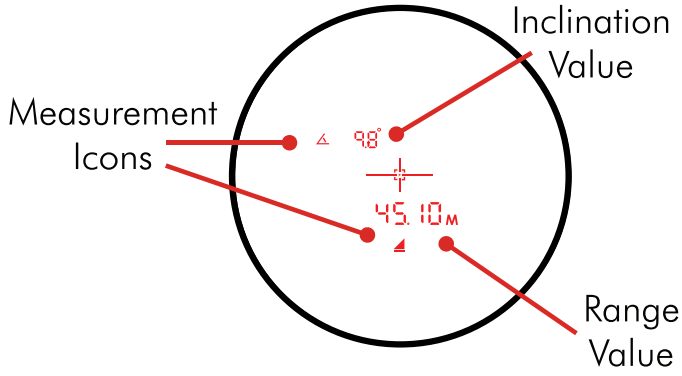
= Slope Distance **(SD)**

= Vertical Distance **(VD)**

= Height **(HT)**

= Inclination **(INC)**

Missing Line Routine **(ML)**

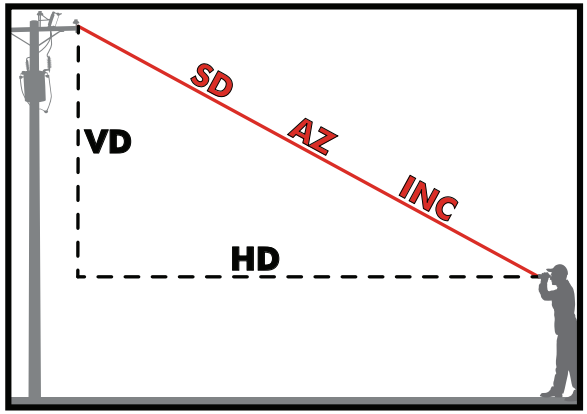


TruPulse® 360i Values & Key Code

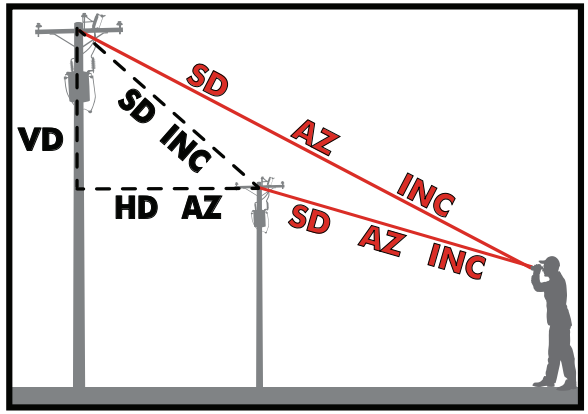
Measured by TruPulse

Calculated by TruPulse

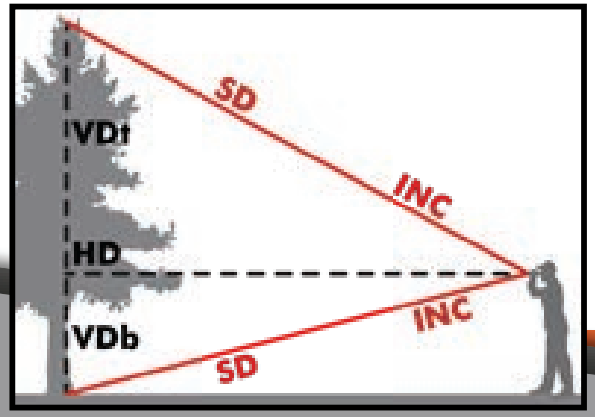
1-Shot Distance



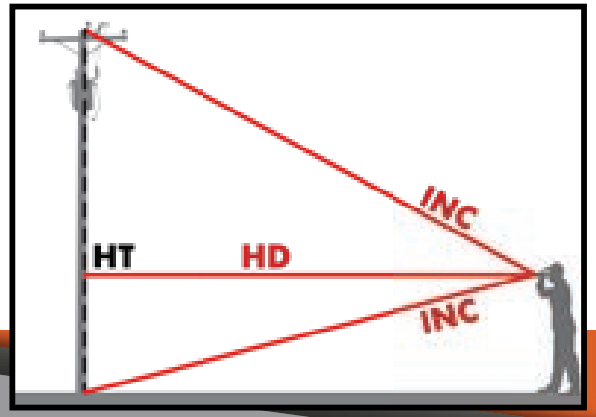
3D-Shot Missing Line



2-Shot Height



3-Shot Height



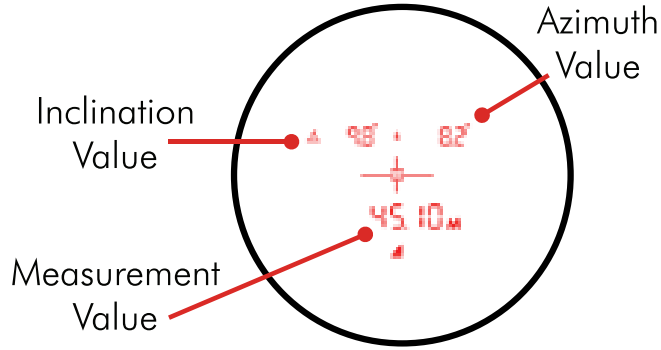
= Horizontal Distance **(HD)**

= Slope Distance **(SD)**

= Vertical Distance **(VD)**

= Azimuth **(AZ)**

= Inclination **(INC)**



Change Units of Measurement (UoM)

[1] Press Menu Button  to enter Setting menu, then press Menu button  to scroll to the UoM option screen is displayed. The last UoM option chosen will be displayed.

[2] Press Navigation Buttons  to scroll through the UoM options. Meters/Degrees, Meters/Percent (%), Feet/Degrees, Feet Percent (%)

Select Targeting Mode

The TruPulse i Series has five Target Modes which allow you to select or eliminate targets and to take the most accurate measurements possible in various field conditions.

[1] Press Menu Button to enter Setting menu, then press Menu button to scroll until the Targeting Mode option screen is displayed. The last Targeting option chosen will be displayed.

[2] Press Navigation Buttons to scroll through the Targeting Mode options.
- Standard (Std) , Filter (FILt), Closest (CLo) , Farthest (FAr) , Continuous (Cont)

[3] Press Select button to make the current Targeting Mode displayed the active mode.

[4] Ready to take measurement with selected Targeting Mode option. The icon of selected mode will be displayed. Standard Mode does not have an icon displayed.

[5] Repeat steps to change target mode option.

NOTE: Any selected option will take effect upon returning to Measurement Mode. To ensure the option remains active after powering the unit off and on, manually turn off the device.

Measure Distance

- In the Slope Distance Mode , the TruPulse i Series will automatically calculate and .

[1] Press the Navigation buttons until screen is displayed.

[2] Aim at a target where you have a clear line of sight then press-and-hold the fire button

[2.1] The laser indicator will be displayed until measurement is acquired or fire button is released.

[3] Press Navigation Buttons to scroll through the other measurement values calculated.

[4] Press Fire button to clear measurements and repeat step 1 through 4

Helpful Tip

The Vertical Distance solution can be used to measure height or clearance. In Fig. 1 & 2, just add the height of the laser at your eye level from the ground to the measurement.

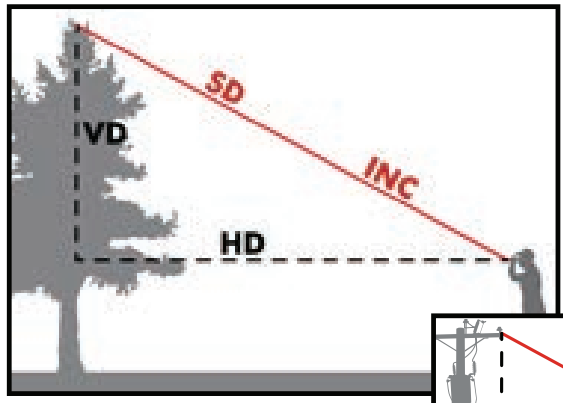


Fig. 1

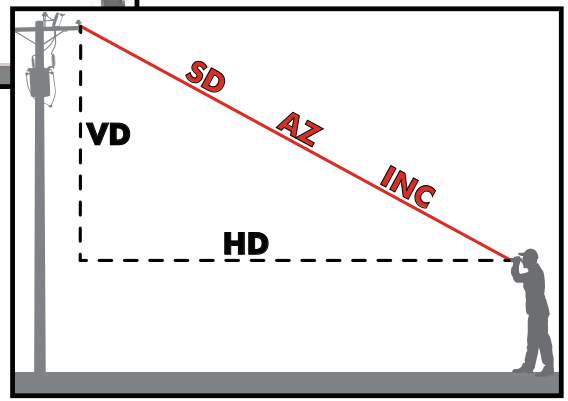


Fig. 2

Measure Height (3-pt Routine)

This routine is ideal for flat, vertical objects that do not lean. To shoot through brush, use the filter mode, foliage filter and a reflector.

[1] Press Navigation buttons until  is displayed.

[2] Aim where you have a clear line of sight to the target and press-and-hold fire button .

[2.1] The laser indicator will be displayed. The horizontal distance is acquired and displayed. 

[3]  is displayed, aim to the bottom of the target, press-and-hold fire button the inclination Angle_1 is measured and displayed. 

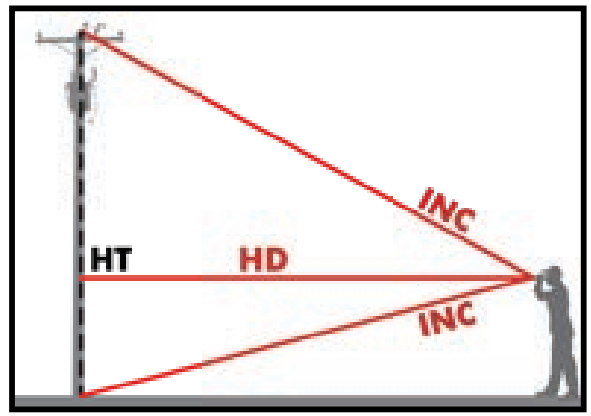
[4]  is displayed, aim at the top of target, press-and-hold , the inclination angle_2 is measured and displayed. 

Measure Height (3-pt Routine) Continued

[5] Height measurement is calculated , display flashes then solid with calculated height value.

Helpful Tip

- The laser sensor does not measure when taking the two inclination angle measurements. You do not need a clear line of sight to the bottom or top of your target.
- The sequence of the two inclination angles shots does not matter: Bottom to Top OR Top to Bottom.
- Press the Select button during the Height routine to re-measure previous measurement (ANG__1 or ANG_2), ideal for taking multiple height measurements on the same target.



Measure Height in 2-Shots

This measurement routine is ideal for leaning objects and requires a clear line of sight for both shots.

[1] Press Navigation buttons until is displayed

[2] Aim where you have a clear line of sight to the bottom of the target and press-and-hold fire button

[2.1] The laser indicator will be displayed. When the measurement is acquired will be displayed. Note this value for the Vertical Distance (VDb) measurement.

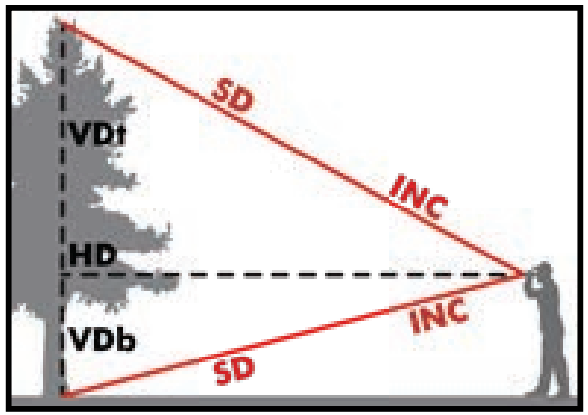
[3] Aim where you have a clear line of sight at the top of the target then press-and-hold the fire button .

Measure Height in 2-Shots Continued

[4] The laser indicator will be displayed. When the measurement is acquired will be displayed. Note this value for the Vertical Distance top (VDt) value.

[5] Subtract the two values to calculate the height, **VDt -VDb = Height.**

NOTE: when subtracting the values, pay attention to the sign of the VD.



Measure 2D Vertical Missing Line

[1] Press Navigation Buttons until  is displayed.

[2] Aim where you have a clear line of sight at target, press-and-hold fire button

[2.1] The laser indicator will be displayed. When the measurement is acquired  Shot.1 results will be displayed.

[3]  is displayed, Aim where you have a clear line of sight at target, press-and-hold fire button.

[3.1] The laser indicator will be displayed. When the measurement is acquired  Shot.2 results will be displayed.

Measure 2D Vertical Missing Line Continued

[4] The HD and INC ML values will be calculated and displayed , press navigation buttons to scroll through the SD and VD ML values from shot 1 to shot 2.

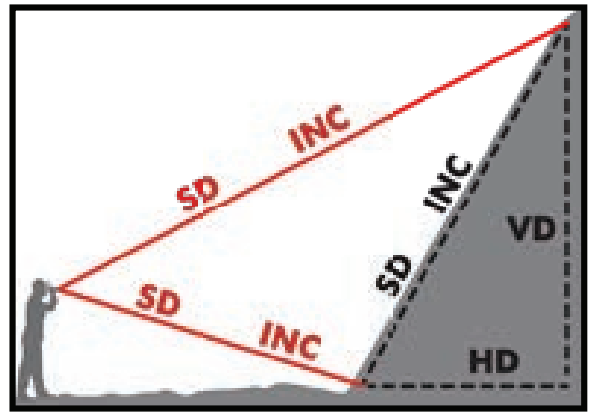
[5] Press Check button to scroll to and re-measure the Shot.2,

[6] Continue to press Check button to return to step 1.

[7] Press fire button to return to step 1.

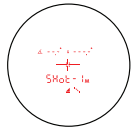
Helpful Tip

- Poisition yourself so that both shot 1 and shot 2 are taken while facing the same direction, ensuring an unobstructed line of sight to both targets.
- The VD solution will always be accurate no matter which direction shot 1 and 2 are taken.
  - If shot 1 is higher than shot 2, the VD value will be negative.



Measure 3D Missing Line (TruPulse 360i only)

[1] Position yourself anywhere you have a clear line of site to your two targets.

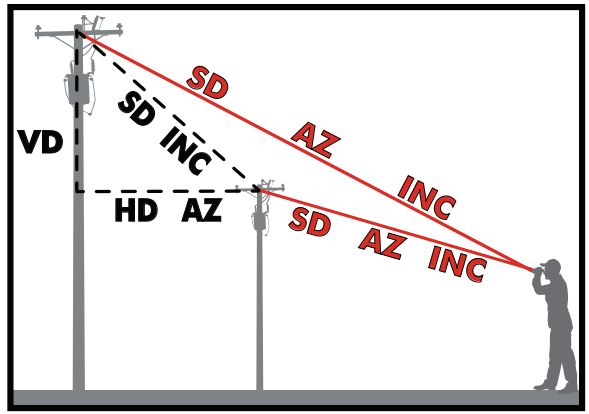
[2] Press Navigation Buttons  until  is displayed.

[3] Follow the same steps 2-7 from the 2D Vertical Missing Line routine.

[4] The TruPulse 360i calculate five variables between the two points: slope distance, inclination, azimuth, horizontal distance, and vertical distance as shown in Figure.

TIPS: IMPROVING THE ACCURACY RESULTS

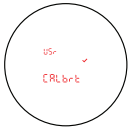
- During the Missing Line Routine, it is important that the TruPulse stay positioned above one particular point on the ground.
- Mounting the TruPulse on a monopod or tripod will improve the accuracy of your results location of the TruPulse.
- If using the TruPulse handheld, be mindful of any swinging motion in your body while aiming at the second target.



User Field Calibration: Compass

To begin the routine, you should be holding the TruPulse and facing towards Magnetic North. Always perform outside and away from magnetic interference.

[1] Press Menu button  to enter Setting menu.

[2] Press Menu button  to scroll to the User Calibration option 

.

[3] Press Navigation Buttons  to 

, then press select button  .

Helpful Tip

- Always recalibrate your compass when Calibration icon ✓ flashes. This will flash whenever:
  - Large temperature variations since last calibration.
  - Unit has been exposed to magnetic fields which may subtly magnetize it and its batteries.
  - Battery voltage has changed from last calibration.
  - Battery door was opened.
  - After a firmware update.

User Field Calibration: Compass Cont'd

[1] Face North (± 10°), hold in position 1 (C1_Fd), press .
[2] Hold in position 2 (C2_dn), press .
[3] Hold in position 3 (C3_bc), press .
[4] Hold in position 4 (C4_UP), press .
[5] Hold in position 5 (C5_rF), press .
[6] Hold in position 6 (C6_rd), press .
[7] Hold in position 7 (C7_rb), press .
[8] Hold in position 8 (C8_rU), press .
[9] Hold in position 9 (C9_UF), press .
[10] Hold in position 10 (C10_Ur), press .
[11] Hold in position 11 (C11_Ub), press .
[12] Hold in position 12 (C12_UL), press .

[13] If FAIL message appears, press , and repeat procedure.
A. The previous compass user field calibration is restored.
[14] If PASS message appears, the new calibration is saved:
A. Press FIRE or SELECT button return to the measurement screen.

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For the User Manual, navigate to the correct model and then go to “Downloads”

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