

# TRUPULSE® 200i & 360i QUICK REFERENCE FIELD GUIDE

LTI Part 0145003

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# TruPulse® i Series



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(Excluding Holidays)

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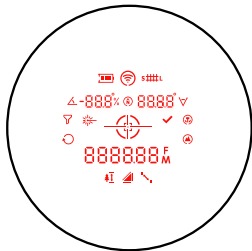
## LTI YouTube® Channel

[YouTube.com/lasertechpro](https://www.youtube.com/lasertechpro)

for TruPulse® Training Videos

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

# TruPulse® i Series Display Icons



## Measurement Modes • Display Icons

 Inclination

 Battery Life Indicator

 Slope Distance

 Laser Firing

 Horizontal Distance

**F** Feet

 Vertical Distance

**M** Meters

 Height

**N** Azimuth

 Missing Line

**%** Percent

**Target Modes •**  Closest

 Farthest

 Continuous

 Filter

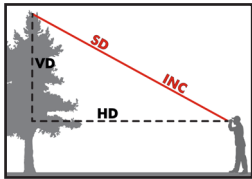
 Bluetooth

 Gate Indicators

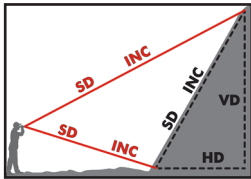
# TruPulse® 200i Values & Key Code

Measured by TruPulse  
-----  
Calculated by TruPulse

### 1-Shot Distance

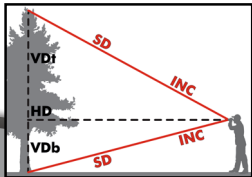


### 2D Missing Line

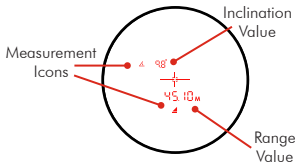
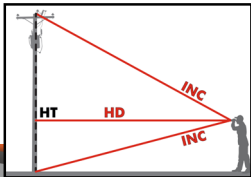


- = Horizontal Distance (HD)
- = Slope Distance (SD)
- = Vertical Distance (VD)
- = Height (HT)
- = Inclination (INC)
- = Missing Line Routine (ML)

### 2-Shot Height



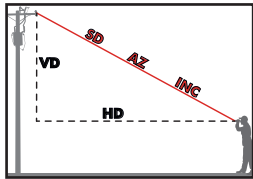
### 3-Shot Height



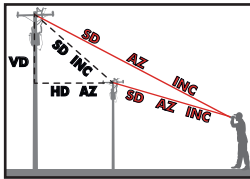
# TruPulse® 360i Values & Key Code






Measured by TruPulse  
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Calculated by TruPulse

1-Shot Distance

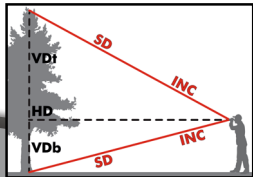


3D-Shot Missing Line

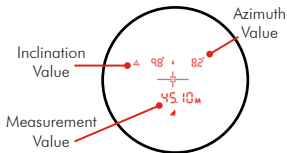
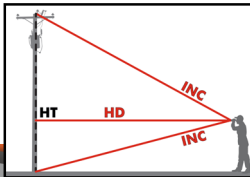


-  = Horizontal Distance (HD)
-  = Slope Distance (SD)
-  = Vertical Distance (VD)
-  = Azimuth (AZ)
-  = Inclination (INC)



2-Shot Height




3-Shot Height







## 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 options 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 option that chosen will be set when you return to the Measurement Mode. To save the option and be active when the unit powers off and on: Manually power off the unit.

## Measure Distance

- In the Slope Distance Mode , the TruPulse i Series will automatically calculate  and .
- Measurements are from the 1/4-20 tripod mount (center) of the laser to the target.



- [1] Press the Navigation buttons  until  screen is displayed.
- [2] Aim at the 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.



# Measure Distance Continued

[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.

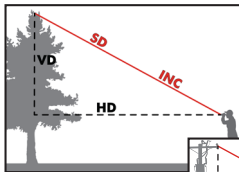


Fig. 1

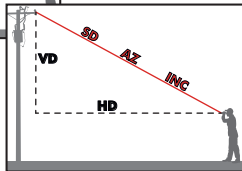





Fig. 2




## 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. 

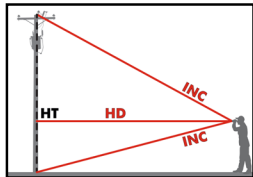
[4]  is displayed, aim at the top of target, press-and-hold , the inclination angle\_2 is measured and displayed. 

## Measure Height (3-pt Routine) Continued $\updownarrow$

[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 (VD<sub>b</sub>) measurement.

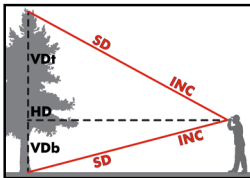
[3] Aim where you have a clear line of sight at the top of the target then press-and-hold the fire button  .

## 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,  $VDt - VD_b = \text{Height}$ .



**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.

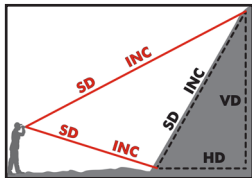
[5] Press Check button  to scroll to  and re-measure the Shot.2,

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

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

### HELPFUL TIP

- Position yourself where shot 1 and 2 are made looking in the same direction with a clear 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.

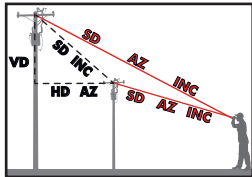
[2] Press Navigation Buttons  until  is displayed.

[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 you are using the TruPulse handheld, be aware of your body having a swinging motion as you aim to 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.
- If calibration fails repeatedly, perform the tilt calibration then repeat steps.


## User Field Calibration: Compass Cont'd

[1] Face North ( $\pm 10^\circ$ ), 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] If FAIL message appears, press , re-enter the Compass Calibration menu and repeat steps 1-8.

[10] If PASS message appears, press Select  to save and return to the measurement screen.





Navigate to the correct  
model and then Downloads  
for the User Manual

 [lasertech.com](http://lasertech.com)  
 1.303.649.1000  
 [info@lasertech.com](mailto:info@lasertech.com)

