

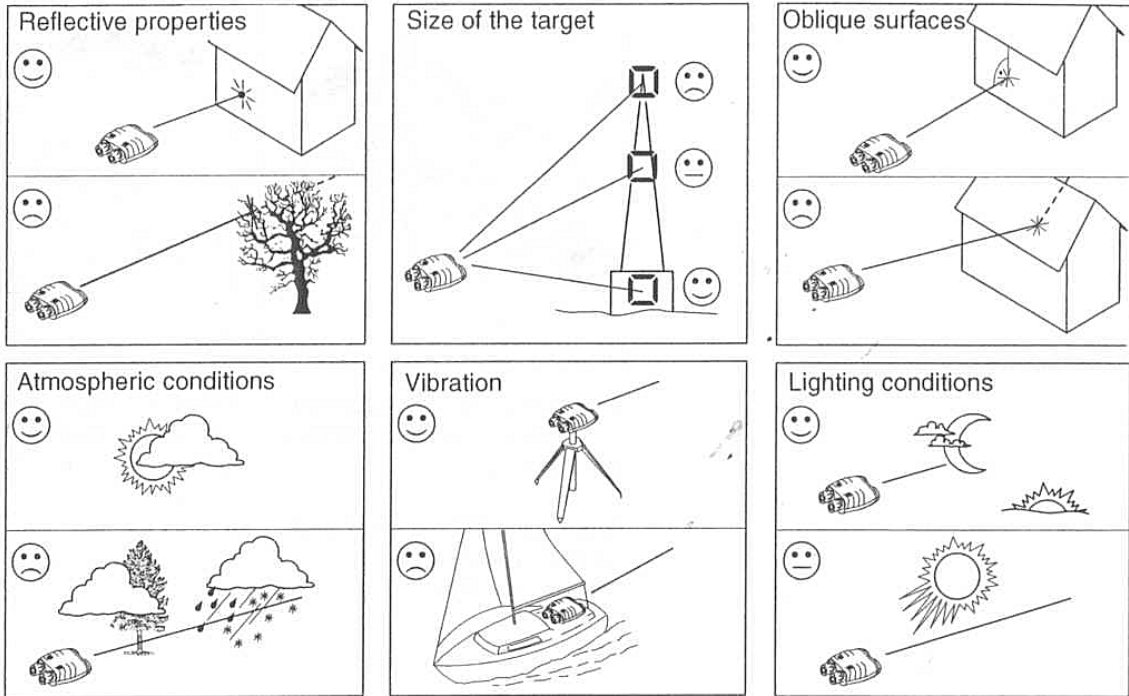
Best Practices for the Leica Laser Locator



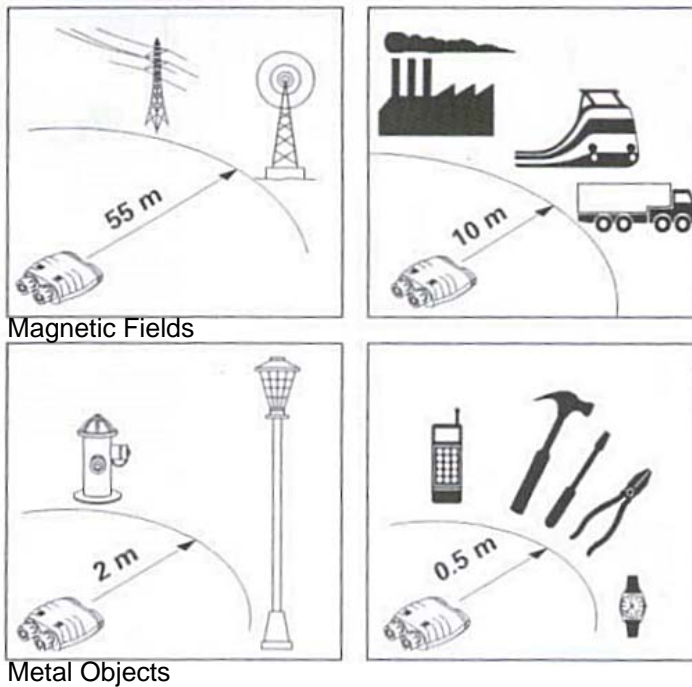
1. The Leica Laser Locator can be used on its own or in conjunction with the Leica GS20. For more information about the Leica GS20 please refer to the “Leica GS20 Tutorial”. For more information about connecting the Leica Laser Locator with the GS20 please refer to the “How to Assemble the Leica GS20 with WoRCS Extension”.
2. Pay attention not to touch the binoculars lenses. To clean the lenses, wipe with a damp cloth followed by an optical tissue (located in pouch in case).
3. The Leica Laser Locator is water resistant, but it is not recommended for use in the rain since measurements taken in rain might not be accurate.
4. Hold the Leica Laser Locator as steady as possible for best results.
5. The Leica Laser Locator has four basic functions: binoculars, digital laser rangefinder, digital compass, and inclinometer.

Factors that can Effect Measurements

Distance Measurements



Azimuth and Inclination Measurements



To Configure the Leica Laser Locator

Settings

1. To change the unit's settings, click the azimuth key quickly five times and "Unit Set" will appear.
2. Then the units will appear: azimuth will be shown on the left and distance on the right. Click the distance key to flip between units. Angular Units: mils (6400), gons, or degrees(360). Distance Units: Meters (SI-Units), yards, and feet.
3. When you find the setting you prefer, click the azimuth key quickly five times to save that setting. If you do not save the settings, the previous settings will be restored and "Old Conf" will be displayed.

Measuring Three Distances

1. To set up measuring three distances at once, click the distance key quickly five times and the configuration menu will be displayed.
2. To change the setting, click the azimuth and select either "3dIS ON" or "3dIS OFF"
3. Save changes by clicking the distance key five times. If you do not save the settings, the previous settings will be restored.

Declinations

1. Find the declination of the area you will be working in. *Note: This is usually given on a map.*
2. To see the current declination, click the azimuth key quickly three times.
3. To change the declination, click the distance key. A quick click will increase the declination, but a long click (more than one second) will decrease the declination.
4. Click the azimuth key quickly three times to save the changes you have made. If you don't save the new settings, the changes you have made will be lost.

Compass

1. The compass must be recalibrated after every battery change, if the Laser Locator has been exposed to strong magnetic fields, or if magnetic parts have been in contact with the Laser Locator.
2. If any of these situations occur, refer to the Laser Locator Operating Instructions or return to the Spatial Data Analysis Lab in K274 and inform the staff so they can recalibrate the Laser Locator.

Binocular Aspects

1. Take the Leica Laser Locator out of the case and remove the eye cover.



2. Adjust and focus Laser Locator to comfort level.



It is recommended that you pull the eyepiece out if you do not wear glasses and push the eyepiece in if you wear glasses.



Turn the knob to adjust the distance between the eyepieces until it is comfortable.



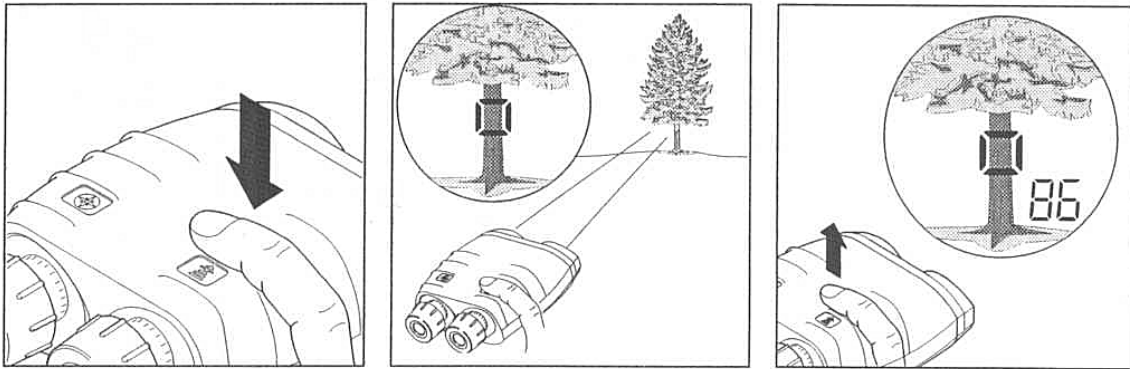
To focus the Binoculars twist the eyepieces left and right

3. Binoculars do not zoom in and out, but have a steady magnification of 7X.
4. Enjoy using the Leica Laser Locator.

Digital Laser Range Finder Aspect

Basic Distance

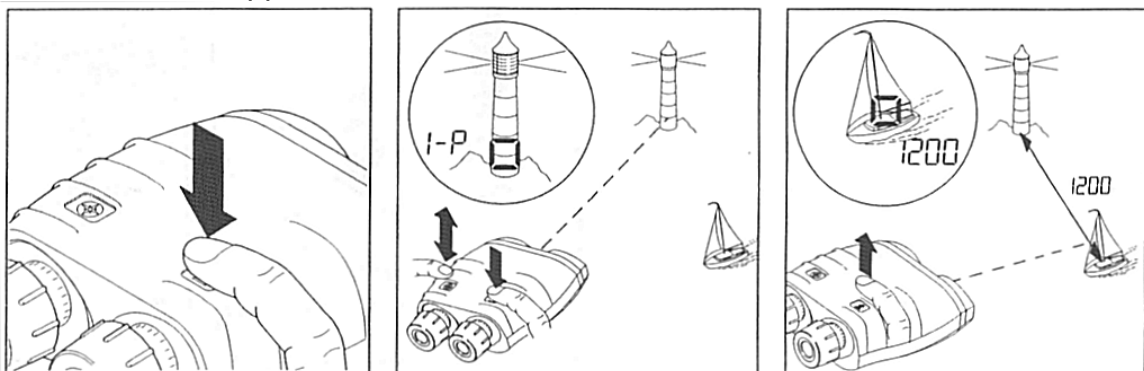
1. Make sure that the distance settings are correct (page 3).
2. First sight the object in the binoculars then press down on the distance button and make sure the object is in the box (as shown in the picture below).
3. Then release the distance button and a number will appear showing the distance.



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Distance between Two Objects

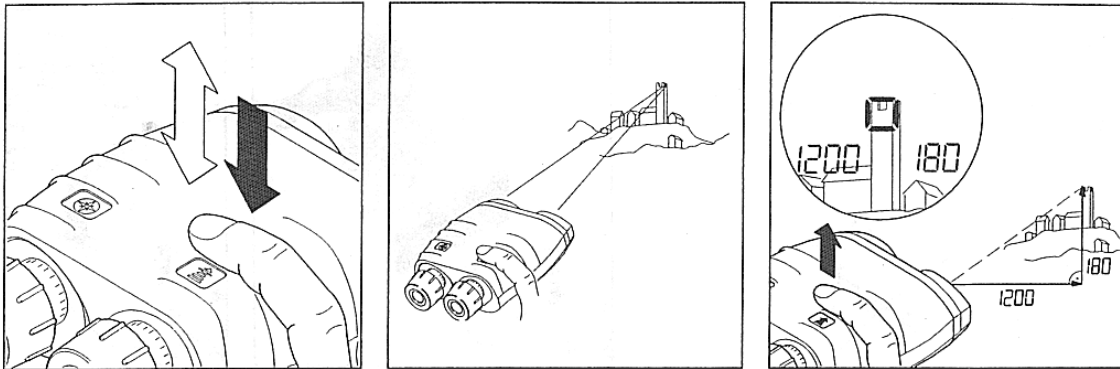
1. Sight the first object.
2. Then press and hold the distance key and the box will appear.
3. Next click the azimuth key and the screen says "1-P" meaning the first object has been confirmed.
4. Next sight the second object and release the distance key and the distance will appear.



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Vertical and Horizontal Distance from Laser Locator to an Object

1. Press and release the distance key and then press and hold the distance key.
2. Sight the object in the box.
3. Next release the distance key. The horizontal distance will appear to the left while the vertical distance will appear to the right.

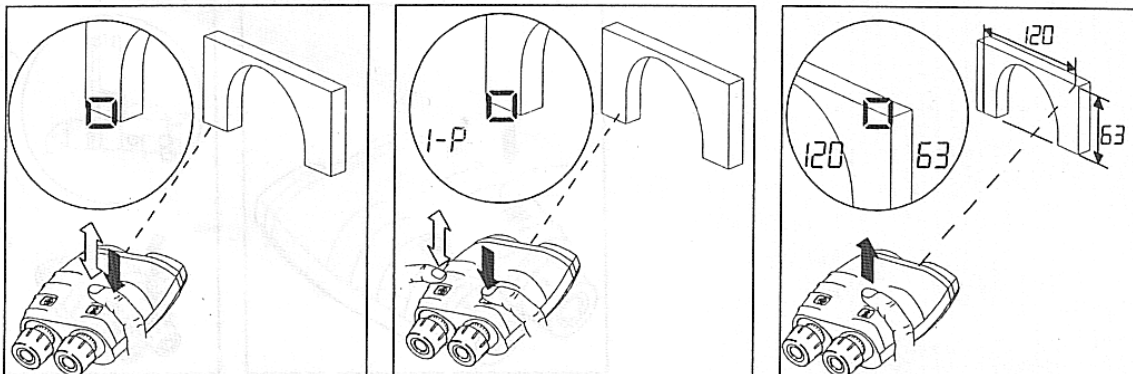


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Vertical and Horizontal Distance between Two Objects

1. Press and release the distance key and then press and hold the distance key.
2. Sight the first object in the box and click the azimuth key and "1-P" should appear on the screen.
3. Next, sight the second object in the box.
4. Then release the distance key. The horizontal distance will appear on the left while the vertical distance will appear on the right.

Note: For more information on the Digital Laser Range Finder please read Laser Locator Operating Instructions located in the Leica Laser Locator Case.

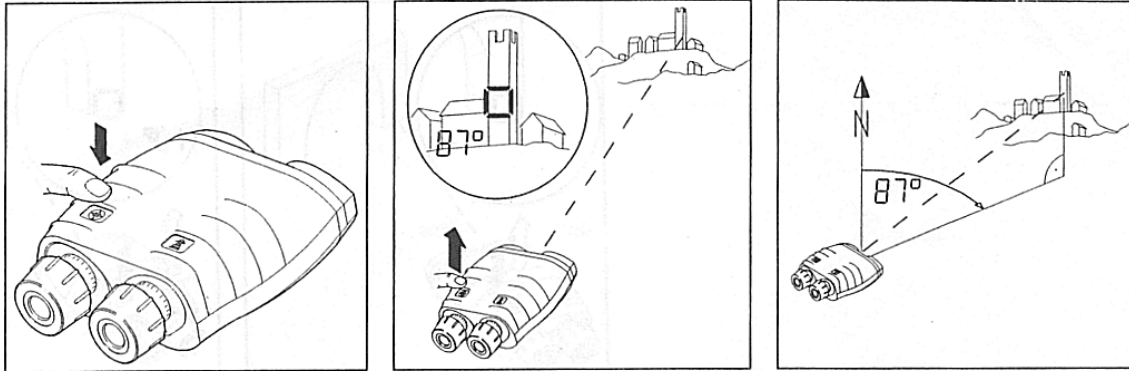


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Digital Compass

1. Make sure that the compass setting is in the correct units (page 3.)
2. Sight the object as shown above.
3. Then click the azimuth key and the azimuth direction will be shown.

Note: The digital compass shows the direction in azimuth and not quadrants.



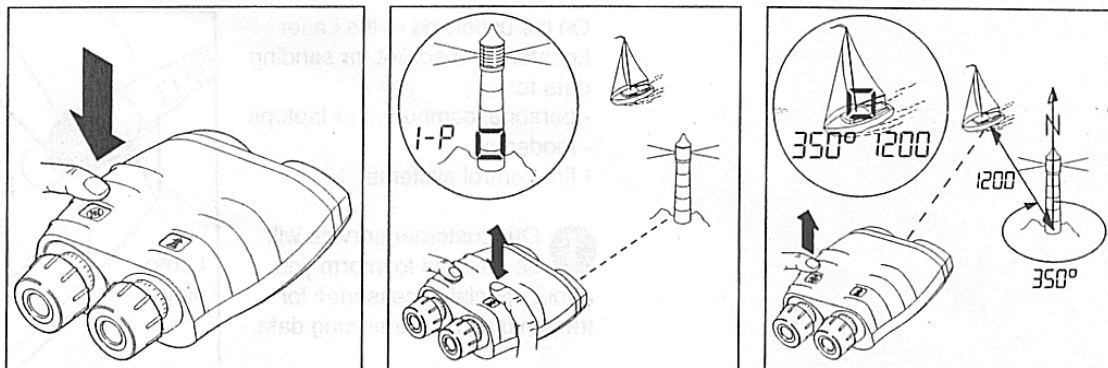
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Inclinometer

The inclinometer cannot be used by itself. It must be used with either the distance or compass measurements.

Taking Multiple Measurements at Once Azimuth and Distance between Two Objects

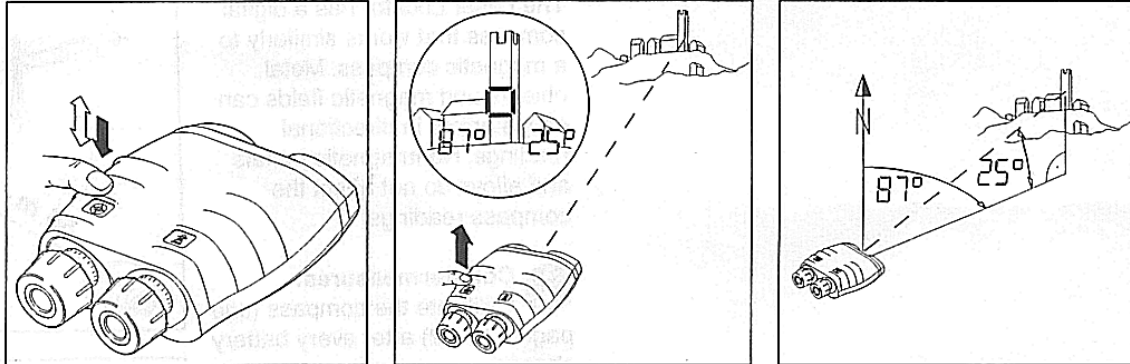
1. Press and hold the azimuth key
2. Sight the first object in the box.
3. Then click the distance key and "1-P" will appear on the screen.
4. Sight the second object in the box and then release the azimuth key. The compass direction will appear on the left while the distance will appear on the right.



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Digital Compass and Inclination Angle Measurement

1. Press, release, and press again the azimuth key.
2. Sight the object in the box and then release the azimuth key.
3. The Azimuth will be shown on the left and the angle of inclinations will be shown on the right.



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Note: For more measurement information, please refer to the Laser Locator Operation Instructions: Multiple Distance Measurements at Once (pg. 12), Relative Horizontal and Vertical Angle (pg. 21), and Combination Measurement with Data Transfer (pg. 13).

References:

Laser Locator Operating Instructions, Leica Geosystems.