

Frequently Asked Questions (FAQs)

Leica DISTO™ D810 touch

- **How many zoom levels does the Leica DISTO™ D810 touch have?**

The integrated digital Pointfinder in the device has an overview camera and additional 1x, 2x and 4x zoom. You can see in the middle of the status bar of the screen, which zoom level you have selected. To change from one zoom level to the next one you have to press the “up/down arrow keys” or you zoom in on the touchscreen as you are used on mobile phones.

- **Can I take photos with the Leica DISTO™ D810 touch and what is the resolution?**

Yes, it is possible to take photos and screenshots. The photos taken have a resolution of 800 x 600 pixels and screenshots have a resolution of 240 x 400 pixels. The photos and screenshots are save in jpg format.

- **How can I download my photos from the Leica DISTO™ D810 touch to a computer?**

Photos and screenshots can be downloaded to a computer via USB interface. The DISTO™ will be automatically connected (plug and play). It is now possible to download data from the DISTO™ by using of a file manager like the Windows Explorer.

Please note: It is not possible to upload data to the DISTO™ and it is not possible to delete files from the computer. Deleting files must be directly done in the DISTO™ Gallery function.

- **Can the brightness in the digital Pointfinder be adjusted?**

Yes, when turning the digital Pointfinder on it is indicated in the display that you can change the brightness with the left and right arrow keys on the keypad.

- **Why is the laser dot on distance on short distances not centred in the crosshair?**

It is the parallax effect due to the distance between the laser window and the digital Pointfinder optics. This effect occurs only when the digital Pointfinder is used on targets below 10m.

In this case the laser dot appears displaced in reference to the crosshair. This is not an error !

For distances below 10m please rely on the real laser dot.

- **How accurate is the tilt sensor in the Leica DISTO™ D810 touch?**

The accuracy of the tilt sensor in the device is $\pm 0.1^\circ$ to the housing of the device. To the laser beam the maximum deviation can be up to -0.1° and $+0.2^\circ$. This applies at room temperature ($20^\circ\text{C} - 30^\circ\text{C}$). At any other temperatures the maximum deviation increases by $\pm 0.1^\circ$.

- **What units of tilts are integrated into the Leica DISTO™ D810 touch?**

You can set the DISTO™ D810 touch to use different tilt units. Select in the settings “Units inclination” and choose between $^\circ$, %, in/ft and mm/m.

-> The level function in the right hand top corner of the display can also be switched on/off in the settings “level”. It is always set to 0.0° and cannot be changed into a different unit for tilts.

■ **What is the angular range of the tilt sensor in the Leica DISTO™ D810 touch?**

The integrated tilt sensor in the DISTO™ D810 touch functions in the range 360° and at a transverse tilt of $\pm 10^\circ$.

If the device is held at > $\pm 10^\circ$ transversely, the info code "i156" appears in the display and indicates that the device is tilted too much.

■ **Can the tilt sensor of a Leica DISTO™ D810 touch be calibrated by the user?**

You can recalibrate the zero level of the integrated tilt sensor. In the settings choose the icon for calibration. When you select calibration you will be guided through the process.

Please follow this procedure to recalibrate:

- 1) Lay the unit down on a flat surface. The side with the type label should be down on the table.
- 2) Carry out the first measurement by pressing "ON/DIST" key on a level surface. The device confirms the measurement.
- 3) Turn the device horizontally by 180° and place it again on absolutely flat surface with the type label side down.
- 4) Carry out the second measurement by pressing "ON/DIST" key on a level surface. The device confirms the measurement.
- 5) Pick the unit up and then place it the laser facing up on an absolutely flat surface.
- 6) Carry out the third measurement by pressing "ON/DIST" key on a level surface. The device confirms the measurement.
- 7) Keeping the laser up on the flat surface, rotate the device horizontally by 180° while keeping it in the same location on the flat surface.
- 8) Carry out the fourth measurement by pressing "ON/DIST" key on a level surface. The device confirms the measurement.
- 9) After 2 Sec. the device goes back to the basic mode and you have completed the calibration procedure.

Please note: The calibration process can be proceeded by placing the unit with the lens up or down to the surface. A better accuracy in the calibration procedure is achieved having the back of the unit down on the surface and the lens up.

■ **Is it possible to obtain detailed information about the measurements taken?**

Yes, it is possible to obtain detailed information in the DISTO™ D810 touch. If detail information is available this will be indicated with two small arrows in the centre of the status bar in the display. You can now navigate with the arrow keys up and arrow key down between the available measurements.

■ **The Leica DISTO™ D810 touch is the first laser distance meter providing functions for measuring with the picture. What is the accuracy of such measurements?**

The accuracy highly depends on how the function is used. Best results can be achieved when the measuring object is displayed maximum size at the DISTO™. In such case the accuracy is below 1% of the measured object. This applies for width, area and diameter measurements.

■ **What accessories are recommended for the Leica DISTO™ D810 touch?**

Leica Tripod TRI 70, TRI 100, TRI 120, TRI 200

For measuring longer distances we highly recommend the use of a tripod. A tripod enables to aim precisely on targets even for longer distances. We also recommend using the tripod together with the Leica FTA 360 adapter or Leica TA 360 adapter for best results.

Leica TRI 70

This is a compact tripod with lower working height. It is 45 cm long (folded) and therefore very compact.

Leica TRI 100

This tripod additionally has a tripod head and a larger working height.

Leica TRI 120

This tripod is very compact but sturdy and has twist locks for the legs.

Leica TRI 200

This is a compact construction tripod with a ¼ "screw for fixing DISTO™ adapters or for use with line lasers. This tripod provides highest stability.

Leica FTA 360 adapter

To achieve higher accuracy, we are offering the tripod adapter FTA 360 with fine adjustment for convenient and accurate aiming. This adapter is designed to be used as a tripod head (TRI 70, TRI 100, TRI 120 and TRI 200) or can simply be placed on a flat ground.

Leica TA 360 Adapter

In order to achieve more flexibility we are offering the tripod adapter TA 360. This adapter is made of aluminium which makes it very stable and accurate to be used as a tripod head. A major benefit of the TA 360 is that you can fix your DISTO™ exactly that way that the tripod tilt and rotating axis and the instrument laser axis meet exactly in one point. This allows to do exact measurements even when turning the unit horizontally. Please note: When using the TA 360 adapter you don't need to change the measuring reference on your DISTO™ because the tilt axis is exactly at the instrument back end.

Target Plate

For measurement especially outdoors and in very bright conditions it is very helpful to use a target plate. We offer different versions in our accessory range.

- **Can the Leica DISTO™ D810 touch also be used to measure horizontal angles?**

No, the integrated tilt sensor only measures vertical angles. If the device is held at a transverse tilt angle greater than ±10° the display shows an info code "i156", which means that the device is required to be held level (transversely).

- **What is the measuring accuracy when using the direct horizontal measuring function?**

For example, if a distance of 10m is measured at an angle of 10°, the error on uncertainty on measurement on the direct horizontal distance (fd) is 3mm.

-> in order to have best results with the direct horizontal distance measurements, considering the deviation of the tilt sensor, use the DISTO™ D810 touch as flat as possible.

The horizontal distance error (fd) and the height error (fh) can be calculated as follows:

fd = horizontal distance error

fh = error in height

d = measured distance

a = angle at which the distance is measured

fa = possible angular error

$$fd = d * \cos(a) - d * \cos(a + fa)$$

$$fh = d * \sin(a) - d * \sin(a + fa)$$

Further information and a table of measuring accuracies you can find online in the FAQ under "Measuring Accuracy".

- **Can the historical storage memory of 30 values in the device be erased?**

Yes, the memory in the device can be erased by pressing the delete button when in the memory. All memory values will be deleted.

- **Can I enter a value that is constantly added / subtracted to my measured value? (Offset)**
 Yes, in the “Settings” you can go to the “Offset Icon” and enter a value that will constantly be added / subtracted from your measured distance value. If an offset value is entered you will see the adequate symbol - a triangle with plus or respectively minus - next to the laser symbol.

-> If you want to set the offset value back to zero, enter the setting “Offset” and reset it.
- **What is the Long Range (LR) Mode?**
 For long distances under unfavourable conditions (e.g. long distances and very bright sunlight) we recommend to use the special integrated Long Range (LR) Mode . To select the mode please enter the menu and select the “LR Mode”. If the “LR Mode” is turned on in the menu you will see the letter “LR” right next to the laser symbol. This mode will allow you to make measurements that were not possible before because most of the time you would receive the info code “i255” (too less signal). When using this special Long Range (LR) Mode the measuring time increases (it may take up to 7sec). For stability it is recommended to use a tripod when having the Long Range (LR) Mode turned on.
- **How do I know if the device is still measuring in the digital Pointfinder mode?**
 When using the digital Pointfinder in any function, especially in the Long Range (LR) Mode, you will see a clock icon on the top of the display. The clock stays in the display until the measurement is finished. Please do not move the device before!
- **How can I get one extra year of warranty for the Leica DISTO™ D810 touch?**
 Our standard warranty of 2 years can be extended by one additional year if you register your device on our website www.disto.com within eight weeks of the purchase date. If the product is not registered, a two year warranty applies.
- **What does it mean when I attempt a measurement but the unit shows a number on the display versus my measured value?**
 This is a message code. The numbers are displayed if a successful measurement could not be performed. The user itself can correct the measuring situation to achieve a measurement. Below you can find the spread sheet from the manual with the corrections:

No.	Cause	Correction
156	Transverse tilt greater than 10°	Hold the instrument without any transverse tilt
162	Calibration mistake	Make sure, the device is placed on an absolutely horizontal and flat surface. Repeat the calibration procedure. If the mistake still occurs, contact your dealer.
204	Calculation error	Perform measurement again.
252	Temperature too high	Let device cool down.
253	Temperature too low	Warm device up.
255	Received signal too weak, measuring time too long	Change target surface (e.g. white paper).
256	Received signal too high	Change target surface (e.g. white paper).
257	Too much background light	Shadow target area.
258	Measurement outside of measuring range	Correct range.
260	Laser beam interrupted	Repeat measurement.

Other error messages not listed here may indicate a problem with the device. In such a case, please take the following measures:

- Switching the device off and on again
- Insert new batteries (please use quality batteries of known brand)
- RESET the device in the settings. Please note that all data on the device will be deleted. So save the data in advance if necessary.
- Repeat procedure
- If the message appears during a measurement, select a good target at close range with little ambient light and repeat the measurement. If a measurement is possible, please check whether the previously performed measurement is at the edge of the device specification.

If the message also appears repeatedly after these measures, please contact your dealer.

▪ **What can I do if my Leica DISTO™ can no longer be switched off?**

If you hold down the ON/DIST button for about 30 seconds, the instrument will perform a forced restart.

▪ **How can I activate the keypad lock?**

To activate the keypad lock, choose in the settings the lock icon and turn the keypad log on. To deactivate the keypad lock, press ON/DIST key and within 2 sec the plus/minus key.

▪ **How can I deactivate the keypad lock?**

To deactivate the keypad lock press the ON/DIST key and afterwards (within 2 Sec.) the plus/minus key. Now the keypad lock is deactivated and the device is switched on.

▪ **Measuring with tripod – is there anything to consider?**

The measuring reference has to be adjusted to the tripod thread. In the Function Screen choose the reference icon and change the measuring reference to tripod. After switching off the device goes back to the standard setting (rear of device).

▪ **What is measured with the height tracking?**

The height tracking displays an indirect height. The combination of inclination and distance measuring to the wall opens the possibility for such an indirect calculation. It is a useful function if the height cannot be measured directly or if several height points on the same vertical line need to be measured.

▪ **What does ISO 16331-1 tested mean?**

When products and services meet our expectations, we tend to take this for granted and be unaware of the role of standards. However, when standards are absent, we soon notice. We care when products turn out to be of poor quality or are unreliable or dangerous. An ISO Standard ensures consistent quality and reliability for a product.

The range and accuracy of laser distance meters depend greatly on lighting conditions and the reflective properties of the target object. For Leica Geosystems it is important that the performance of the device is maintained not only in the test laboratory but even more so on everyday site tasks. Therefore we have worked with external experts to develop a global standard to test and specify laser distance meters and allow comparisons between devices of different manufacturers. Instruments tested in accordance with ISO 16331-1 achieve their promises. Further information can be found on our website: www.disto.com.

▪ **How can I program my favourite (mostly used functions) on the self-programmable keys?**

Press the left or right top key for about 2 sec. An overview ("Favourites") with all functions appears on the display. Choose the preferred function and press then the left or right top key where you want to have the favourite behind. The favourite is now saved.

- **What Bluetooth technology is integrated in the Leica DISTO™ D810 touch?**

The DISTO™ D810 touch has Bluetooth® SMART (also called low energy) integrated. The device is working with Smartphones or tablets that have Bluetooth® 4.0 integrated or are Smart Ready. Also it is required that its operating system is supporting this Bluetooth® standard which is the case for iOS, Android 4.3 or newer, Windows 8.

- **Can I send measurement data from a Leica DISTO™ D810 touch to Apple mobile devices?**

Yes with the DISTO™ D810 touch it is possible to communicate with Apple mobile devices. Send measurement data to iPhone (iPhone 4S, iPhone 5, iPhone 5s, iPhone 5c), iPad3, iPad 4, iPad mini, iPod touch (Gen. 5). (--> Bluetooth® 4.0)

It is possible to use DISTO™ supporting apps from the app store (use App mode in DISTO™ device) or to connect the DISTO™ in the Bluetooth manager as a keyboard device where you can send the measurement data to the cursor position in any app (use text or spreadsheet mode in DISTO™ device).

The corresponding modes in the DISTO™ device needs to be set in the Setting menu of the DISTO™.

- **Can I send measurement data from a Leica DISTO™ D810 touch to Android devices?**

Yes with the DISTO™ D810 touch it is now possible to communicate with Android devices. Its operating system must be 4.3 or higher. Send measurement data to Android devices that include Bluetooth 4.0. Used Apps should support the corresponding Bluetooth® standard (e.g. Leica DISTO™ Plan).

- **Can I send measurement data from a Leica DISTO™ D810 touch Windows computers?**

Yes with the DISTO™ D810 touch it is possible to transfer data to Windows computers. The DISTO™ D810 touch is "treated" as a keyboard. For this add the DISTO™ in the device manager as a keyboard device. You can then send the measurement data from the DISTO™ to the cursor position in any program (use text or spreadsheet mode in DISTO™ device).

The corresponding modes in the DISTO™ device needs to be set in the Setting menu of the DISTO™.

The Windows computer must have the operating system Windows 8 or higher and Bluetooth 4.0.

- **Can I send measurement data from a Leica DISTO™ D810 touch to devices with Linux, Windows mobile, Windows RT or Blackberrys?**

No this is not possible.

- **On my iOS device the keyboard is not showing up in the display once I transferred data from a Leica DISTO™ in keyboard mode.**

Press the left favourite key, the centre of the icon turns green. Press now the +/- key on the DISTO™. The keyboard in the display of your iOS device will appear.

- **My software only supports comma as a decimal marker and not a dot. Can I change this on the Leica DISTO™ D810 touch?**

Yes, this can be changed. In the settings menu for Bluetooth® press the right selection key to enter a submenu for Bluetooth setting. Here you can change the setting for this.

Please note: This setting can only be changed in the text or spreadsheet mode.

- **I need to fill out a form in the Internet or a spreadsheet and it is required to jump to the next input box with a Tab or with Enter after each measurement. Can I change this on the Leica DISTO™ D810 touch?**

Yes, this can be changed. In the settings menu for Bluetooth® press the right selection key to enter a submenu for Bluetooth setting. Here you can change the setting for this.

Please note: This setting can only be changed in the text or spreadsheet mode.

- **It need to use navigation keys to move in my spreadsheet to the required input box. Can I do this remotely from my Leica DISTO™ D810 touch?**

Yes, this is possible. When you have connected your DISTO™ device with a smartphone or tablet or computer the content of the selection keys change for supporting the Bluetooth communication. With the left selection key you can switch on and off the navigation function where you can use the arrow keys of the DISTO™ for navigation.

Please note: This function is available in the text or spreadsheet mode. In the app mode it depends on the support of the app used.

- **What is the difference between text or spreadsheet mode?**

In the text mode the measurement result will be transferred as shown in the DISTO™ display. This includes units or fractions for feet and inch. In the spreadsheet mode only numbers are transferred without any unit information. Units with fractions will be converted to the corresponding unit with decimal. This makes further calculations like e.g. in Excel much easier.

- **How long does it take to charge the Li-Ion battery of the Leica DISTO™ D810 touch?**

This depends from the used charger. With the charger out of the scope of delivery it takes approx. 4hours to charge the Li-ion battery.

- **Is it possible to replace the Li-Ion battery of the Leica DISTO™ D810 touch?**

The Li-ion battery can be replaced in service cases only. Please contact your dealer for a replacement set of the Li-ion battery.

- **Does Leica DISTO™ offer Apps?**

Yes. Leica Geosystems offers an App DISTO™ Plan. This App is available for iOS on iTunes and for Android on Google play.