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Introduction



The safety instructions and the user manual should be read through carefully before the product is used for the first time.



The person responsible for the product must ensure that all users understand these directions and adhere to them.

The symbols used have the following meanings:



MWARNING

Indicates a potentially hazardous situation or an unintended use which, if not avoided, will result in death or serious injury.

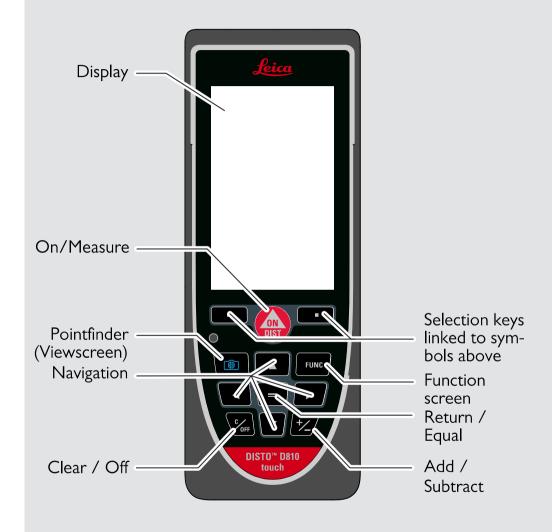


ACAUTION

Indicates a potentially hazardous situation or an unintended use which, if not avoided, may result in minor injury and/or appreciable material, financial and environmental damage.

Important paragraphs which must be adhered to in practice as they enable the product to be used in a technically correct and efficient manner.

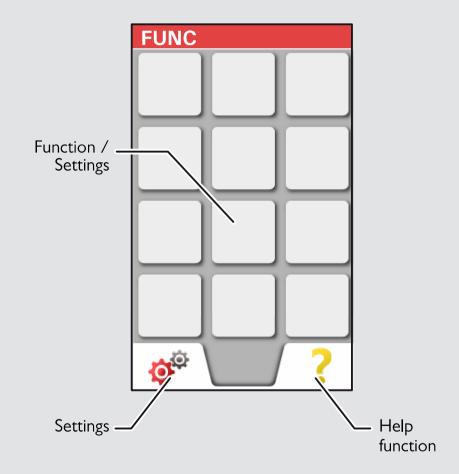
Overview



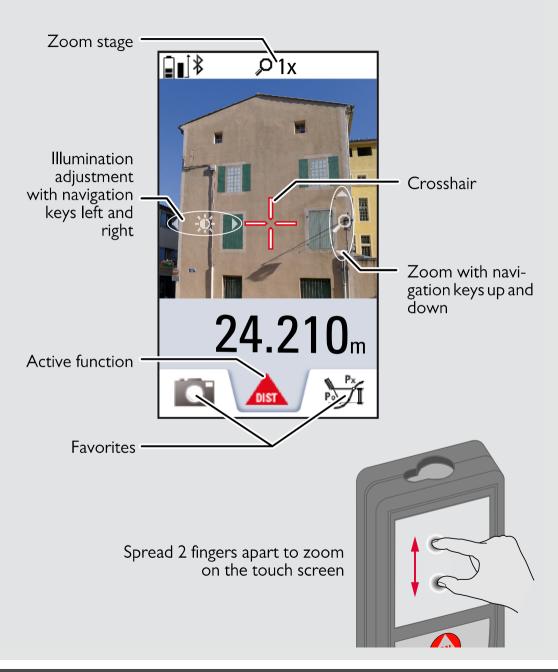
Basic measuring screen

Status bar -10:39 3.9° 0.051 m 5.678_m 32.542 m 199.826... Main line Active function -Tap here to start ON/DIST in a distance function. Favorites -

Selection screen



Pointfinder (Viewscreen)

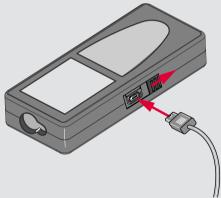


Charging the Li-Ion battery via USB

Charge the battery before using it for the first time. Use the charger to charge the battery.

Plug the small end of the charger into the jack of the device, and plug the large end of the charger into an electric socket. Select the appropriate connector for your country. The device cannot be used while it is charging.

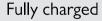
The computer can be used also to charge the device, but this takes more time. If the device is connected to the computer via USB cable, you can download or delete the gallery. **It is not possible to upload any data.**



When you charge the battery, the following icons show the status:

Charging









4h

Charge batteries when battery symbol is flashing.

While charging, the device may heat up. This is normal and should not affect the device's lifespan or performance. If the battery gets hotter than 40°C / 104°F, the charger stops.

At a recommended storage temperature of -20°C to +30°C (-4°F to +86°F), batteries containing a 50% to 100% charge can be stored up to 1 year. After this storage period the batteries must be recharged.

To save energy, unplug the charger when not in use.

ACAUTION

Connecting the charger improperly may cause serious damage to the device. Any damage caused by misuse is not covered by the warranty. Use only Leica-approved chargers, batteries, and cables. Unapproved chargers or cables can cause the battery to explode or damage the device.

If the device is connected to the computer via USB cable, you can download or delete the gallery. It is not possible to upload any data.

Using the Touch Screen

Use only fingers to use the touch screen.

Do not allow the touch screen to come into contact with other electrical devices.

Electrostatic discharges can cause the touch screen to malfunction.

Do not allow the touch screen to contact water. The touch screen may malfunction in humid conditions or when exposed to water.

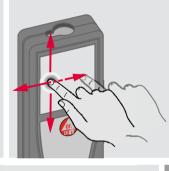
To avoid damaging the touch screen, do not tap it with anything sharp or do not apply excessive pressure to it with your fingertips.

Tapping



Tap on the display to open an onscreen button or to make a selection. Tapping on the icon in the mid of the bottom line activates the distance measurement or triggers the camera.

Dragging



Drag on the display to move to prior or to next screen.

Pinching



Spread 2 fingers apart to zoom.

Instead of using the touch screen, the normal keypad buttons can be used also.

Switching ON/OFF





Device is turned OFF.

Clear

If no key is

pressed for 180

sec, the device

switches off au-



Undo last action.

C C

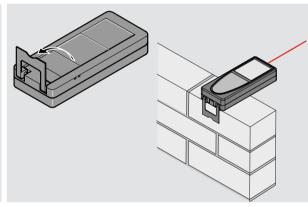
Leave actual function, go to default operation mode.

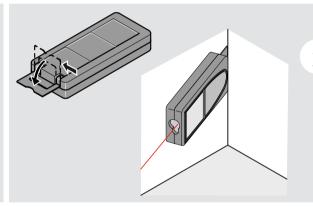
Message Codes

If the info icon appears with a number, observe the instructions in section "Message Codes". Example:



Multifunctional endpiece

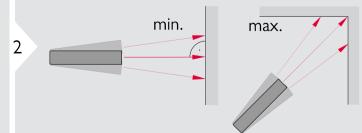




The orientation of the endpiece is automatically detected and the zero point is accordingly adjusted.

Permament / Minimum-Maximum measuring





Used to measure room diagonals (maximum values) or horizontal distance (minimum values)

The minimum and maximum distance measured is displayed (min, max.). The last value measured is displayed in the main line.





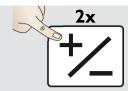
Stops permanent / minimum-maximum measuring.

Add / Subtract



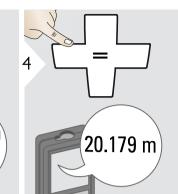


The next measurement is **added** to the previous one.



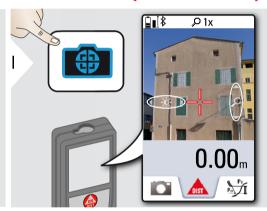
The next measurement is **subtracted** from the previous one.

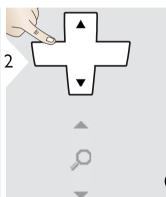


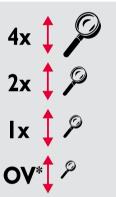


This process can be repeated as required. The same process can be used for adding or subtracting areas or volumes.

Pointfinder (Viewscreen)

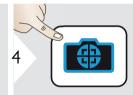












Exit pointfinder (viewscreen).

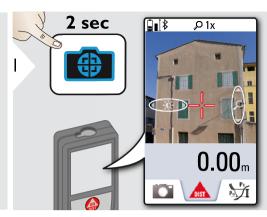
This is a great help for outdoor measuring. The integrated pointfinder (viewscreen) shows the target on the display. The device measures in the middle of the cross hair, even if the laser dot is not visible.

Parallax errors occur when the pointfinder camera is used on close targets, with the effect that the laser appears displaced in the crosshair. In this case rely on the real laser dot.

* OV = Overview

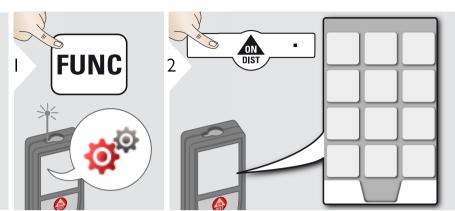
Operations EN

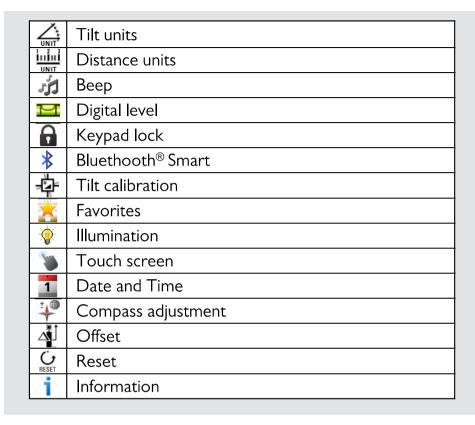
Screenshot



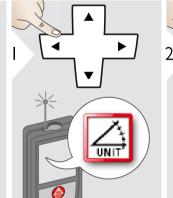
Screenshot photo is saved in gallery.

Overview

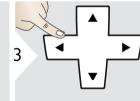






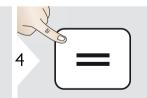


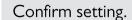




Switch between the following units:

360.0°	0.00 %
± 180.0°	0.0 mm/m
± 90.0°	0.00 in/ft
	± 180.0°

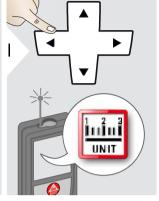


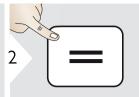


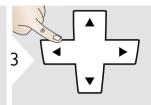


Exit settings.

Distance units







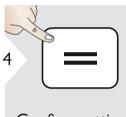
Switch between the following units:

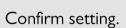
Art. No. 792297:

	0.00 m	0.00 ft
	0.000 m	0.00 in
Γ	0.0000 m	0 in 1/32
	0.0 mm	0'00" 1/32

US-Model Art. No. 799097:

0.00 m	0 in 1/16
0.000 m	0'00" 1/16
0.0000 m	0 in 1/8
0.0 mm	0'00" 1/8
0.00 ft	0 in 1/4
0.00 in	0'00" 1/4
0 in 1/32	0.000 yd
0'00" 1/32	

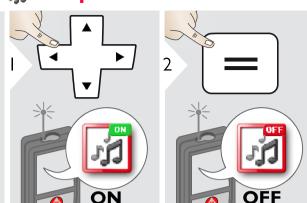






Exit settings.

Beep ON/OFF

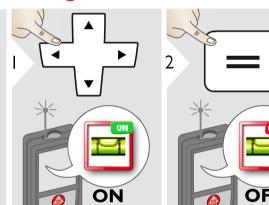


To switch ON, repeat procedure.

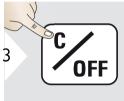


Exit settings.

■ Digital level ON/OFF



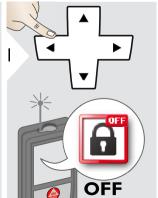
To switch ON, repeat procedure.



Exit settings.

The digital level is displayed in the status bar.

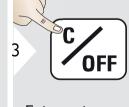
○ De-/Activate keylock





To deactivate, repeat procedure. The keylock is active if device is switched off.

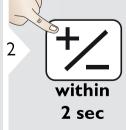




Exit settings.

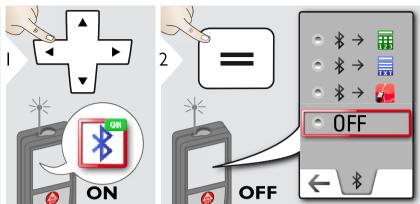
Switch on with keylock



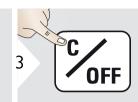




Bluetooth® Settings



Explanation see info box below.



Exit settings.

Default mode: Bluetooth® is s

Bluetooth[®] is switched on and black Bluetooth[®] icon is displayed in status bar.

Blue Bluetooth® icon in status line is displayed if device is connected with Bluetooth®.



Switches Bluetooth® off. To switch on repeat the procedure.



Figure Mode: Choose it, if the data should be transferred as figures, e.g. working with spread sheets. Ft/in fractional is converted into ft/in decimal.

Favorites disappear and two softkeys appear:

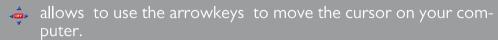


sends the value of the main line to the computer.



Text Mode: Choose it, if the data should be transferred as text, e.g. working with word processing programs.

Favorites disappear and two softkeys appear:



sends the value of the main line to the computer.



App Mode: Choose it, if the data is transferrred to an App.

ሳ

Switch on Bluetooth® Smart in Settings.

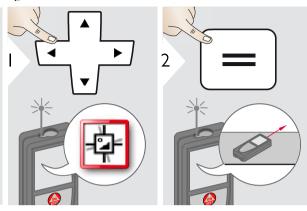
Connect the device with your smart phone, pad, laptop,... The actual measurement is transferred automatically if Bluetooth[®] connection is established. To transfer a result from the main line, press =. Bluetooth[®] switches off as soon as the laser distance meter is switched off.

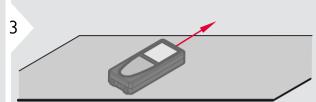
The efficient and innovative Bluetooth® Smart module (with the new Bluetooth® standard V4.0) works together with all Bluetooth® Smart Ready devices. All other Bluetooth® devices do not support the energy saving Bluetooth® Smart Module, which is integrated in the device.

We provide no warranty for free DISTO[™] software and offer no support for it. We accept no liability whatsoever arising from the use of the free software and we are not obliged to provide corrections nor to develop upgrades. A wide range of commercial software can be found on our homepage. Apps for Android[®] or Mac iOS can be found in special internet shops.

For more details, see our homepage.

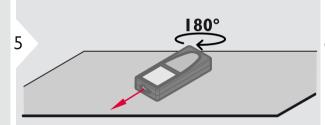
Calibration of tilt sensor (Tilt Calibration)





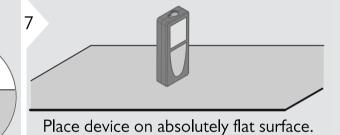
Place device on absolutely flat surface.



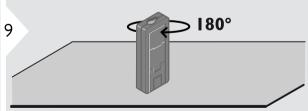


Turn the device horizontally by 180° and place it again on absolutely flat surface.







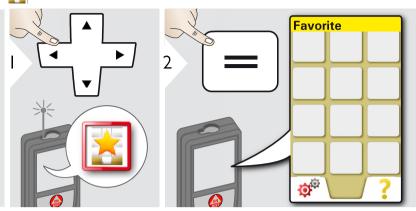


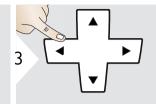
Turn the device horizontally by 180° and place it again on absolutely flat surface.



After 2 sec the device goes back to the basic mode.

Personalized favorites





Select favorite function.



Press selection key left or right. Function is set as favorite above the corresponding selection key.

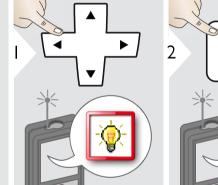


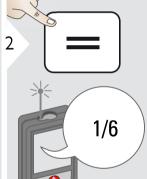
Exit settings.

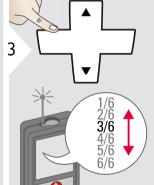
Select your favorite functions for quick access.

Short cut: Press 2 sec on a selection-key in the measuring mode.

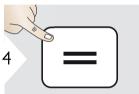
| Illumination







Select brightness.



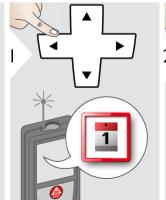
Confirm setting.

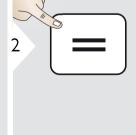


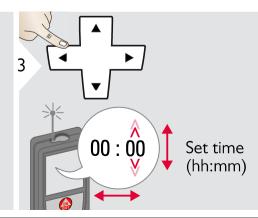
Exit settings.

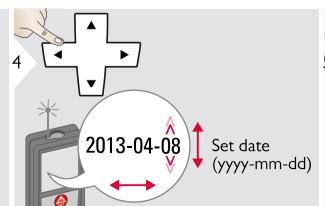
To save power reduce brightness if not necessary.

Date and Time











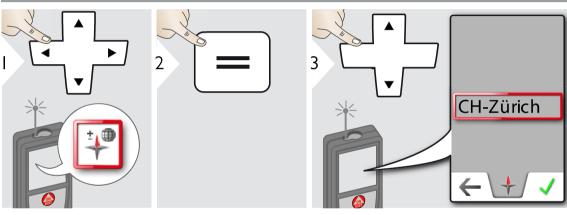
Exit settings.

Compass Adjustment

Adjusting the magnetic declination

The difference between the north geographic pole and the north magnetic pole is called magnetic declination or usually just declination.

Depending on where you are on the earth, the angle of declination will be different - from some locations, the geographic and magnetic poles are aligned so declination is minimal, but from other spots, the angle between the two poles is pretty big.

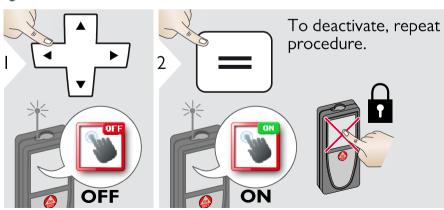


Select the nearest location and the device adjusts the declination accordingly.



Exit settings.

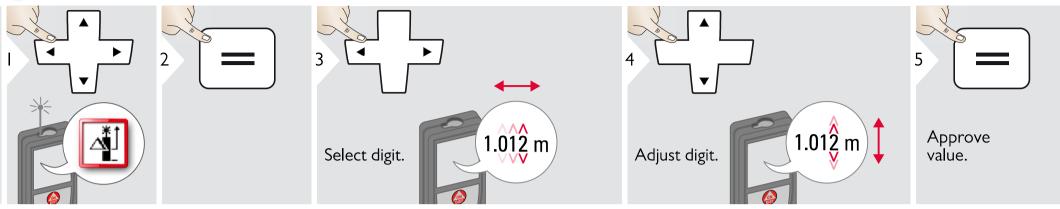
Touch Screen ON/OFF





Exit settings.



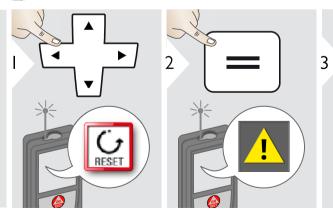




Exit settings.

An offset adds or subtracts a specified value automatically to or from all measurements. This function allows tolerances to be taken into account. The offset icon is displayed.

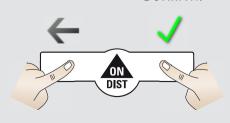
Reset



Second confirmation with selection keys:

Reys.

Refuse: Confirm:



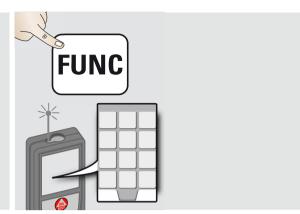
4 C OFF

Exit settings.

Reset returns the instrument to the factory settings. All customized settings and memories are lost.

A HARDWARE-RESET is done by pressing 15 sec on ON/DIST key.

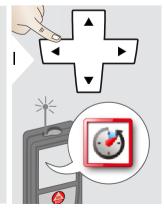
Overview

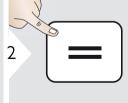


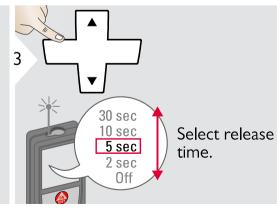
(*)	Timer
0.5	Calculator
Î	Adjusting measuring reference
125.5 7891.9 367.0 78732.3	Memory
DIST	Sinlge Distance Measurement
	Smart Horizontal Mode
(Level
\Diamond	Area
	Volume
	Photo
+	Compass
	Gallery

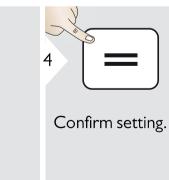
	Triangle Area
* ↑ ■LR	Long Range Mode
P _o P _x	Height-profile Measurement
A	Measuring on sloped objects
Px¶	Height Tracking
	Trapezium
a b b	Stake out
	Pythagoras (2-point)
	Pythagoras (3-point)
	Width
	Diameter
i i	Area from Photo





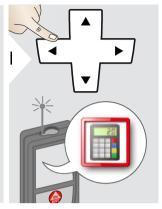


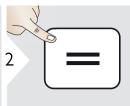


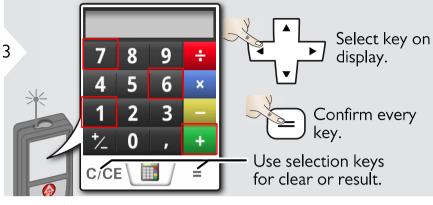




Calculator





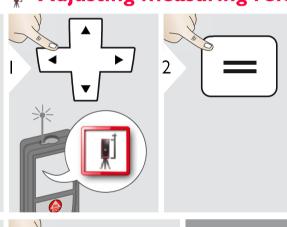


The measurement result from the main line is taken over to the calculator and can be used for further calculations.

Ft/in fractions are converted into ft/in decimal.

To takte over a result from the calculator in the basic mode press DIST before leaving the calculator function.

Adjusting measuring reference/tripod



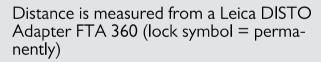


Confirm setting.

If device is switched off, reference goes back to standard setting (rear of the device).



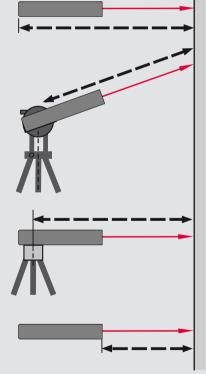
Distance is measured from the rear of the device (standard setting).



Distance is measured from the tripod thread permanently.

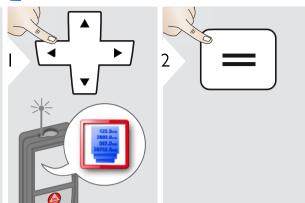


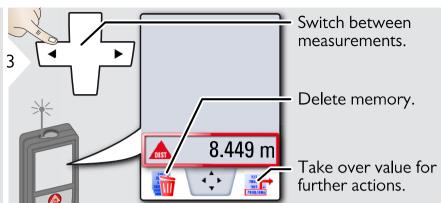
Distance is measured from the front of the device (lock symbol = permanently).

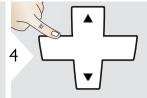


Functions EN

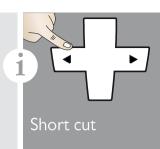




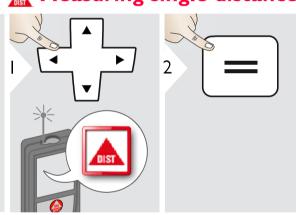


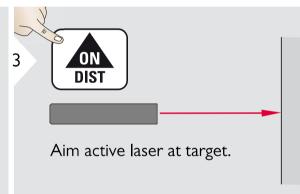


Use Up/Down navigation keys to show more detailed results of the specific measurement.



▲ Measuring single distance



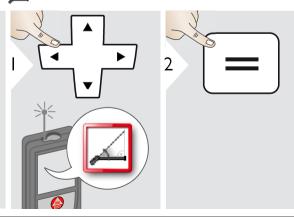




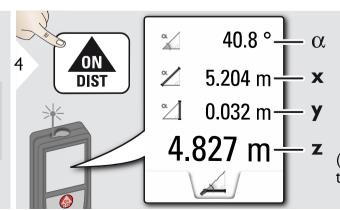
Target surfaces:

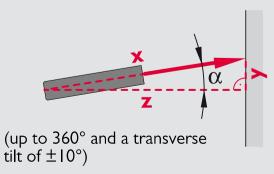
Measuring errors can occur when measuring to colourless liquids, glass, styrofoam or semi-permeable surfaces or when aiming at high gloss surfaces. Against dark surfaces the measuring time increases.

Smart Horizontal Mode









Functions	
Distance measuring	yes
Min/Max measuring	yes
Permanent measuring	yes
Stake-out	yes
Addition/Subtraction	yes
Area	yes
Triangle area	yes
Volume	yes
Trapezium	yes
Painter function (area with partial measurem.)	yes
Pythagoras	2-point, 3-point
Smart Horizontal Mode / Indirect height	yes
Height-profile measurement	yes
Level	yes
Sloped objects	yes
Height tracking	yes
Memory	yes
Веер	yes
Illuminated colour display	yes
Multifunctional endpiece	yes
Pointfinder (Viewscreen)	4x zoom, OV
Bluetooth® Smart	yes
Personalized Favorites	yes
Timer	yes
Long Range Mode	yes
Calculator	yes
Photo/Screenshot	yes
Compass	yes
Gallery with USB download	yes
Diameter	yes
Width	yes
Area from Photo	yes

If the message **Error** does not disappear after switching on the device repeatedly, contact the dealer.

If the message **InFo** appears with a number, press the Clear button and observe the following instructions:

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 a absolutely horizontal and flat surface. Repeat the calibration procedure. If the mistake still occurs, contact your dealer.
204	Calculation error	Perform measurement again.
240	Data transfer error	Repeat procedure.
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 back- ground light	Shadow target area.
258	Measurement outside of measuring range	Correct range.
260	Laser beam inter- rupted	Repeat measurement.
	of measuring range Laser beam inter-	

- Clean the device with a damp, soft cloth.
- Never immerse the device in water.
- Never use aggressive cleaning agents or solvents.

Warranty

Lifetime Manufacturer's Warranty

Warranty coverage for the entire usage time of the product according to Leica Geosystems International Limited Warranty. Free of charge repair or replacement for all products that suffer defects as a result of faults in materials or manufacturing, for the entire life of the product.

3 Years no Cost

Guaranteed service should the product become defective and require servicing under normal conditions of use, as described in the user manual, at no additional charge.

To receive the "3 years no cost" period, the product must be registered at www.leica-geosystems.com/registration within 8 weeks of the purchase date. If the product is not registered, a "2 years no cost" period applies.

Safety Instructions

The person responsible for the instrument must ensure that all users understand these directions and adhere to them.

Areas of responsibility

Responsibilities of the manufacturer of the original equipment:

Leica Geosystems AG Heinrich-Wild-Strasse CH-9435 Heerbrugg

Internet: www.disto.com

The company above is responsible for supplying the product, including the User Manual in a completely safe condition.

The company above is not responsible for third party accessories.

Responsibilities of the person in charge of the instrument:

- To understand the safety instructions on the product and the instructions in the User Manual.
- To be familiar with local safety regulations relating to accident prevention.
- Always prevent access to the product by unauthorised personnel.

- Measuring distances
- Tilt measurement
- Data transfer with Bluetooth[®]

Prohibited use

- Using the product without instruction
- Using outside the stated limits
- Deactivation of safety systems and removal of explanatory and hazard labels
- Opening of the equipment by using tools (screwdrivers, etc.)
- Carrying out modification or conversion of the product
- Use of accessories from other manufacturers without express approval
- Deliberate dazzling of third parties; also in the dark
- Inadequate safeguards at the surveying site (e.g. when measuring on roads, construction sites, etc.)
- Deliberate or irresponsible behaviour on scaffolding, when using ladders, when measuring near machines which are running or near parts of machines or installations which are unprotected
- Aiming directly in the sun

MARNING

Watch out for erroneous measurements if the instrument is defective or if it has been dropped or has been misused or modified. Carry out periodic test measurements.

Particularly after the instrument has been subject to abnormal use, and before, during and after important measurements.

ACAUTION

Never attempt to repair the product yourself. In case of damage, contact a local dealer.

MARNING

Changes or modifications not expressly approved could void the user's authority to operate the equipment.

Limits of use

Refer to section "Technical data".

The device is designed for use in areas permanently habitable by humans. Do not use the product in explosion hazardous areas or in aggressive environments.

Disposal



Flat batteries must not be disposed of with household waste. Care for the environment and take them to the collection points provided in accordance with national or local regulations.

The product must not be disposed with household waste.

Dispose of the product appropriately in accordance with the national regulations in force in your country.



Adhere to the national and country specific regulations.

Product specific treatment and waste management can be downloaded from our homepage.

Electromagnetic Compatibility (EMC)



The device conforms to the most stringent requirements of the relevant standards and regulations.

Yet, the possibility of causing interference in other devices cannot be totally excluded.

FCC statement (applicable in U.S.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- This device may not cause interference and
- this device must accept any interference, including interference that may cause undesired operation of the device.

Déclaration FCC, applicable aux Etats-Unis

Ce produit a été testé et ses limites ont été jugées conformes à celles prescrites pour les dispositifs numériques de classe B, décrites dans le paragraphe I5 des règles FCC. Ces limites ont pour but de fournir une protection raisonnable contre des interférences nocives dans une installation résidentielle. Les appareils de ce type génèrent, utilisent et peuvent rayonner de hautes fréquences. Ils sont de ce fait susceptibles de perturber la réception radiophonique en cas d'installation non conforme aux instructions.

Même en cas de respect des instructions, l'absence d'interférences dans une installation particulière ne peut cependant être garantie. Si cet instrument perturbe la réception radiophonique ou télévisuelle, ce que l'on constate en éteignant puis en rallumant l'instrument, l'utilisateur peut tenter de corriger ces interférences en appliquant les mesures suivantes :

- Réorienter ou repositionner l'antenne de réception.
- Augmenter la distance entre l'instrument et le récepteur.
- Connecter l'instrument à un autre circuit que celui du récepteur.
- Consulter le revendeur ou un technicien expérimenté dans le domaine radio/TV.

Cet appareil est conforme à la section 15 des règlements FCC. Son fonctionnement est soumis aux deux conditions suivantes :

- cet appareil ne doit pas causer d'interférences nuisibles, et
- cet appareil doit accepter toute autre interférence reçue, y compris les interférences pouvant entraîner un fonctionnement non désiré.

Ce dispositif est conforme à la norme RSS-210 d'Industrie Canada. L'utilisation est sujette aux deux conditions suivantes :

- ce dispositif ne pas doit pas être la source d'interférences nuisibles, et
- ce dispositif doit accepter toutes les interférences, y compris les interférences pouvant induire des opérations non souhaitées.

Normativa FCC (aplicable en EE UU)

Las pruebas efectuadas han puesto de manifiesto que este equipo se atiene a los valores límite, determinados en la sección 15 de la normativa FCC, para instrumentos digitales de la clase B. Esto significa que el instrumento puede emplearse en las proximidades de lugares habitados, sin que su radiación resulte molesta. Los equipos de este tipo generan, utilizan y emiten una frecuencia de radio alta y, en caso de no ser instalados conforme a las instrucciones, pueden causar perturbaciones en la recepción radiofónica.

En todo caso, no es posible excluir la posibilidad de que se produzcan perturbaciones en determinadas instalaciones.

Si este equipo causa perturbaciones en la recepción radiofónica o televisiva, lo que puede determinarse al apagar y volver a encender el equipo, el operador puede intentar corregir estas interferencias de la forma siguiente:

- cambiando la orientación o la ubicación de la antena receptora.
- aumentando la distancia entre el instrumento y el receptor.
- conectando el instrumento a un circuito distinto al del receptor.
- asesorándose por el vendedor o algún técnico de radio-televisión.

Use of the product with Bluetooth®



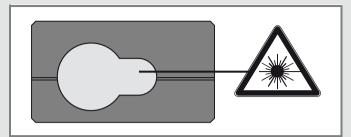
Electromagnetic radiation can cause disturbances in other equipment, in installations (e.g. medical ones such as pacemakers or hearing aids) and in aircraft. It can also affect humans and animals.

Precautions:

Athough this product conforms to the most stringent standards and regulations, the possibility of harm to people and animals cannot totally excluded.

- Do not use the product near petrol stations, chemical plants, in areas with a potentially explosive atmosphere and where blasting takes place.
- Do not use the product near medical equipment.
- Do not use the product in airplanes.
- Do not use the product near your body for extended periods.

Laser classification



The device produces visible laser beams, which are emitted from the instrument: It is a Class 2 laser product in accordance with:

• IEC60825-1: 2007 "Radiation safety of laser products"

Laser Class 2 products:

Do not stare into the laser beam or direct it. towards other people unnecessarily. Eye protection is normally afforded by aversion responses including the blink reflex.

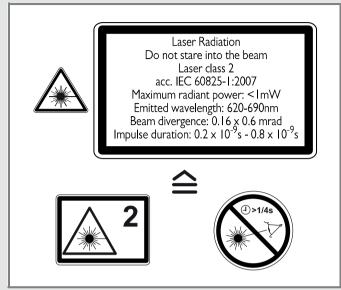
!\warning

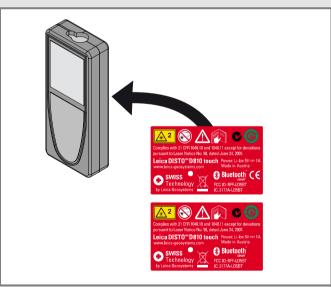
Looking directly into the beam with optical aids (e.g. binoculars, telescopes) can be hazardous.



Looking into the laser beam may be hazardous to the eyes.

Labelling





Subject to change (drawings, descriptions and technical data) without prior notice.

Leica DISTO™ D810 touch 799093