Leica DISTO™ X3

The original laser distance meter



- when it has to be **right**



Overview	2
Technical data	
Instrument Set-up	
Settings	
Operations	
Message Codes	
Care	
Warranty	
Safety instructions	

Overview

Components

The Leica DISTO $^{\text{TM}}$ is a laser distance meter operating with a class 2 laser. See chapter Technical data for scope of use.

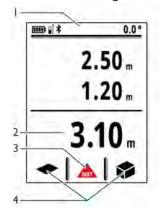


- 1 Display
- 2 ON/Measure
- 3 Clear/OFF
- 4 Memory/ Navigate upwards

5 Add/ Navigate left

- 6 Enter/ Equal
- 7 Selection keys linked to symbols above
- 8 Functions
- 9 Subtract/ Navigate right
- 10 Measuring reference/ Navigate downwards

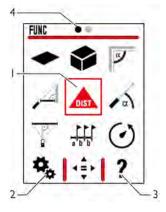
Basic measuring screen



- 1 Status bar
- 2 Main line
- 3 Active function
- 4 Favorites

Overview

Selection screen



- 1 Function/Settings
- 2 Settings
- 3 Help function
- 4 Page indicator

Icons on status bar

- Scroll down for further results
- **Battery power**
- * Bluetooth® is switched on
- * Bluetooth® connection established
- Measuring reference
- Device is measuring
- Offset is activated and adds/substracts the defined value from measuring dis-
- tance
- Device is levelled
- Device is not levelled

Technical data

donordi	
Accuracy with favourable conditions *	1 mm / 0.04" ***
Accuracy with unfavourable conditions **	2 mm / 0.08" ***
Range with favourable conditions *	0.05 - 150m / 0.16 - 500ft ***
Range with unfavourable conditions **	0.05 - 80m / 0.16 - 260ft ***
Smallest unit displayed	0.1 mm / 1/32 in
X-Range Power Technology	yes
Laser class	2
Laser type	635 nm, <1 mW
ø laser point at distances	6 /30 /60 mm 10/ 50/ 100 m
Tilt measuring tolerance to laser beam ****	± 0.2°
Tilt measuring tolerance to housing ****	± 0.2°
Tilt measuring range ****	360°
Measuring range with Leica DST 360 horizontal *****	360°
Measuring range with Leica DST 360 vertical *****	-64° to >90°
Tolerance P2P function at distances *****	±2 mm/2 m ±5 mm/5 m ±10 mm/10 m
Protection class	IP65 (dust- and splash water protected)
Auto. laser switch off	after 90 s
Auto. power switch off	after 180 s
Bluetooth® Smart	Bluetooth® v4.0
Power of Bluetooth® Smart	0.71 mW
Frequency of Bluetooth® Smart	2400 - 2483.5 MHz
Range of Bluetooth® Smart	<10m

^{*} favourable conditions are: white and diffuse reflecting target (white painted wall), low background illumination and moderate temperatures.

With unfavourable conditions the tolerance may deteriorate by 0.15 mm/m for distances above 10 m.

**** after user calibration. Additional angle related deviation of +/-0.01° per degree up to +/-45° in each quadrant.

Applies at room temperature. For the whole operating temperature range the maximum deviation increases by +/-0.1°.

Leica DISTO™ X3

4

^{**} unfavourable conditions are: targets with lower or higher reflectivity or high background illumination or temperatures at the upper or lower end of the specified temperature range.

^{***} Tolerances apply from 0.05 m to 10 m with a confidence level of 95%.

With favourable conditions the tolerance may deteriorate by 0.10 mm/m for distances above 10 m.

^{*****} In combination with Leica DST 360 adapter.

Technical data	
Battery durability (2 x AA)	up to 4000 measurements
Dimension (H x D x W)	132 x 56 x 29 mm 5.2 x 2.2 x 1.1 in
Weight (with batteries)	184 g/ 6.49 oz
Temperature range Storage Operation	-25 to 70°C/ -13 to 158°F -10 to 50°C/ 14 to 122°F
Functions	
Distance measuring	yes
Min/Max measuring	yes
Permanent measuring	yes
Stake out	yes
Addition/Subtraction	yes
Area	yes
Roomangle	yes
Volume	yes
Painter function (area with partial measurem.)	yes
Pythagoras	3-point
Smart Horizontal Mode / Indirect height	yes
Level	yes
Memory	yes
Веер	yes
Illuminated colour display	yes
Bluetooth® Smart	yes
Personalized Favorites	yes
Timer	yes
Point to point function/ distance	yes*****
Smart Area	yes*****

^{******} In combination with Leica DST 360 adapter

Introduction

The safety instructions (see 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:

⚠ WARNING

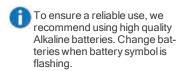
Indicates a potentially hazardous situation or an unintended use which, if not avoided, will result in death or serious injury.

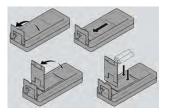


Indicates a potentially hazardous situation or an unintended use which, if not avoided, may result in minor injury and/or appreciable material, financial and environmental damage.

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

Insert batteries





Switching ON/OFF





Device is turned OFF.

Clear







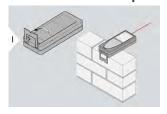
Leave actual function, go to default operation mode.

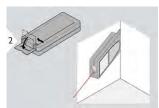
Message Codes





Multifunctional endpiece



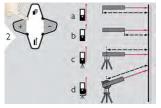


The orientation of the endpiece is automatically detected and the zero point is adjusted accordingly.

When measuring with 90° flipped-out endpiece please meake sure that it lies plane against the edge you measure from.

Adjusting measuring reference





- a) Distance is measured from the rear of the device (standard setting).
- b) Distance is measured from the front of the device.
- c) Distance is measured from the tripod thread.

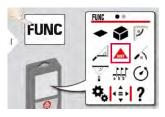
d) Distance is measured from a Leica DISTO Adapter FTA 360.

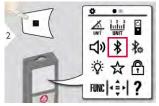


Confirm setting.

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

Overview

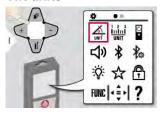


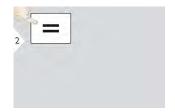


- ♣ Tilt units
- Turning screen**
- Beep
- Bluetooth®
- Bluetooth® settings
- Illumination
- ☆ Favorites
- ★ Keypad lock
- ♣ Tilt calibration
- i Information / Serial number
- **U** Reset

^{**} Firmware update might be required through the Leica DISTO™ Plan App to get this feature

Tilt units







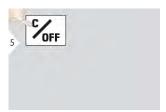
Switch between the following units:

360.0°

0.00 %

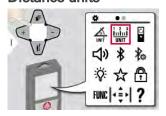


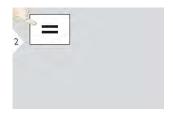




Exit settings.

Distance units







Switch between the following units:

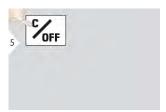
 $0.00 \, \text{m}$ 0 in 1/32 0.000 m 0 in 1/16 * 0.0000 m 0 in 1/8 * 0 in 1/4 * 0.0 mm 0'00" 1/32 0.00 ft 0'00" 1/16 * 0.000 in 0'00" 1/8 *

0'00" 1/4 *

* Available in devices purchased in USA and Canada



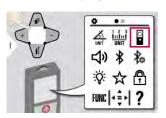
Confirm setting.

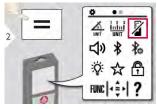


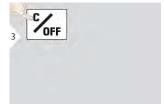
Exit settings.

Turning screen ON/OFF*

* Firmware update might be required through the Leica DISTO™ Plan App to get this feature

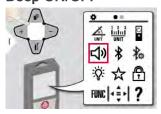


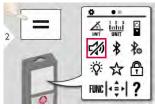




To switch ON, repeat procedure. Exit settings.

Beep ON/OFF



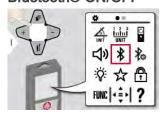


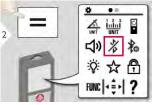


To switch ON, repeat procedure.

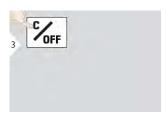
Exit settings.

Bluetooth® ON/OFF





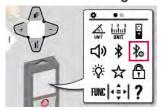


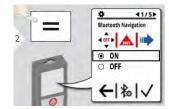


Exit settings.

Bluetooth® is switched on and black Bluetooth® icon is displayed in status bar. If connection is established the color of the icon changes to blue.

Bluetooth® Settings







Select ON or OFF.





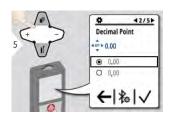
If activated in measuring mode, it allows the arrow keys to move the cursor on your computer.



Short press: send the value of the main line to your computer. Long press: send all measurements and results to your computer.



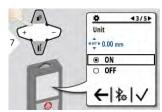
Confirm setting.



Select kind of decimal point for transmitted value.



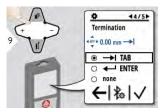
Confirm setting.



Select if unit is transmitted or not.



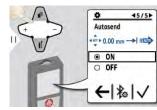
Confirm setting.



Select termination of transmission.



Confirm setting.



Select if value is transmitted automatically or manually.

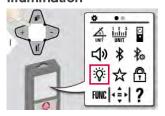


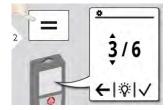
Confirm setting.

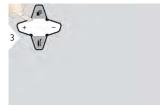


Exit settings.

Illumination



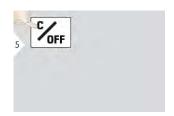




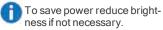


Select brightness.

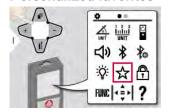
Confirm setting.

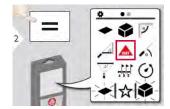


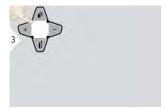
Exit settings.



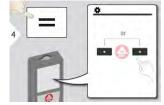
Personalized favorites



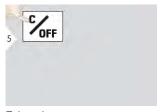




Select favorite function.



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

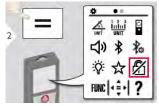


Exit settings.

Select your favorite functions for quick access. Short cut: Press 2 sec on a selection-key in the measuring mode. Select your favorite function and press again short on the corresponding selection key.

De-/Activate keylock



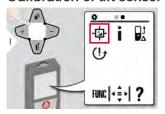


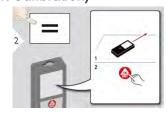


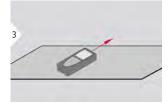
To deactivate, repeat procedure. The keylock is active if device is switched off.

Exit settings.

Calibration of tilt sensor (Tilt Calibration)

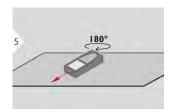




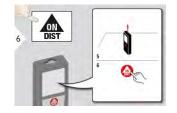


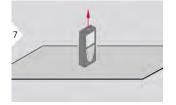


Place device on absolutely flat sur-



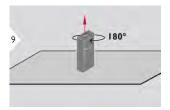
Turn the device horizontally by 180° and place it again on absolutely flat surface.





Place device on absolutely flat sur-



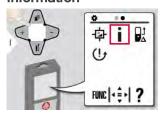


Turn the device horizontally by 180° and place it again on absolutely flat surface.



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

Information





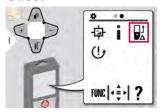


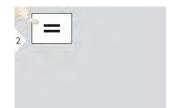


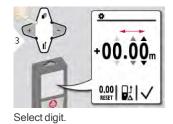
Exit information screen.

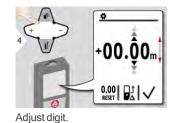
Exit settings.

Offset



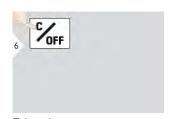








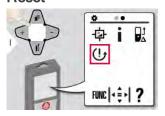
Approve value.



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





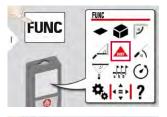


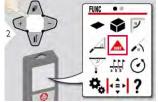
Second confirmation with selection keys: a) Refuse

- b) Confirm

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

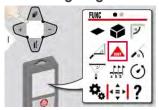
Overview

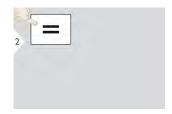


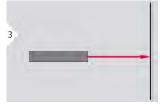


- ▲ Single distance measurement
- Area
- **❤** Volume
- Room angle
- Smart Horizontal Mode
- ∡ Level
- Pythagoras (3-point)
- ₩ Stake out
- **⊘** Timer
- ∠ Point to point measurement*
- Point to point measurement levelled*
- Smart area measurement*/**
- Memory
- * Activated when connected to Leica DST 360 adapter
- ** Firmware update might be required through the Leica DISTO™ Plan App to get this feature

Measuring single distance





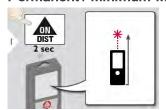


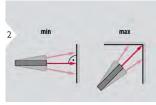


Aim active laser at target.

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

Permanent / 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.

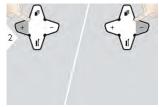
Use Down navigation key to take over values in the main line for sending via Bluetooth® Smart.



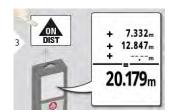
Stops permanent / minimum-maximum measuring.

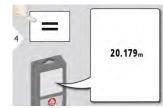
Add / Subtract





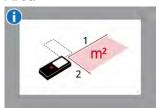
The next measurement is added to the previous one, respectively subtracted from the previous one.



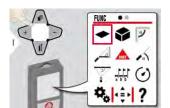


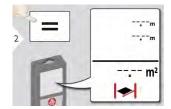
This process can be repeated as required. The same process can be used for adding or subtracting areas or volumes.

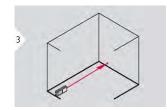
Area



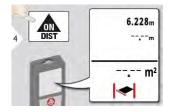
The area is calculated based on the mathematic term multiplying 2 distances.

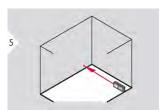




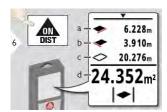


Aim laser at first target point.





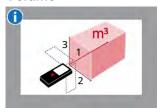
Aim laser at second target point.



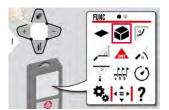
- a) First distance
- b) Second distance
- c) Circumference
- d) Area

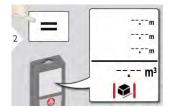
The result is shown in the main line and the measured value above. Painter function: Press + or - after starting the first measurement. Measure and add or subtract wall lengths. Measure finally height for second length to get the wall area. Use Down navigation key to take over values in the main line for sending via Bluetooth® Smart.

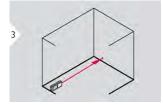
Volume



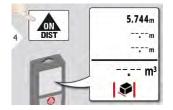
The volume is calculated based on the mathematic term multiplying 3 distances.

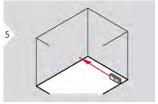




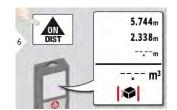


Aim laser at first target point.



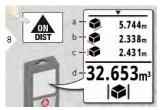




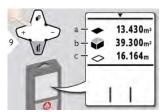




Leica DISTO™ X3 31



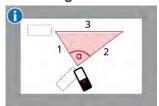
- a) First distance
- b) Second distance
- c) Third distance
- d) Volume



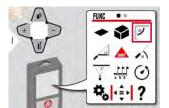
- a) Ceiling/floor area
- b) Wall areas
- c) Circumference

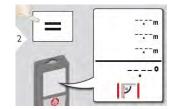
Use Down navigation key to show more results or to take over values in the main line for sending via Bluetooth® Smart.

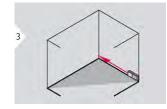
Room angle



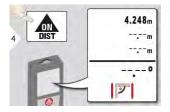
The angle is calculated based on the cosine rule with 3 known side lengths of a triangle.





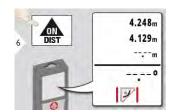


Aim laser at first target point.



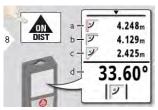




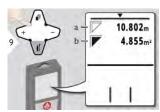




Aim laser at third target point.



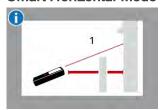
- a) First distance
- b) Second distance
- c) Third distance
- d) Angle between first and second measurement



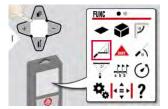
- a) Circumference
- b) Triangular area

Use Down navigation key to show more results or to take over values in the main line for sending via Bluetooth® Smart.

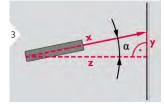
Smart Horizontal Mode



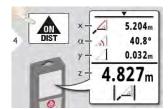
The horizontal distance is calculated based on the trigonimetric function cosine with 1 known length and 1 known angle.





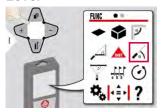


Aim laser at target (up to 360° and a transverse tilt of ±10°).

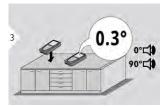


Use Down navigation key to take over values in the main line for sending via Bluetooth® Smart.

Level

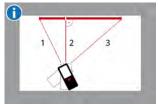






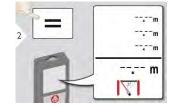
Displays inclinations of 360°. Instrument beeps at 0° and 90°. Ideal for horizontal or vertical adjustments.

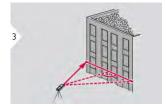
Pythagoras (3-point)



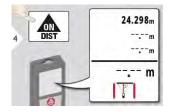
The distance is calculated based on the Pythagorean theorem with 3 known lengths of 2 right-angled triangles.

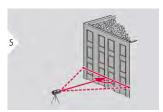


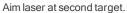


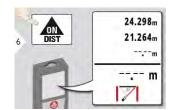


Aim laser at first target.

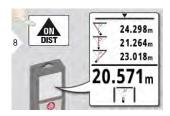










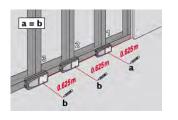


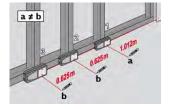
The result is shown in the main line and the measured distance above. Pressing the measuring key for 2 sec in the function activates automatically Minimum or Maximum measurement. We recommend to use the pythagoras only for indirect horizontal measuring. For height measuring (vertical) it is more precise to use a function with inclination measurement. Use Down navigation key to take over values in the main line for sending via Bluetooth®



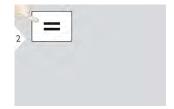
Stake out

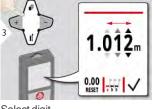
Two different distances (a and b) can be entered to mark off defined measured lengths.



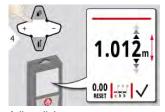












Adjust digit.



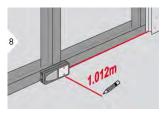
Approve value "a".



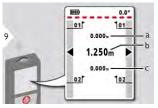
Adjust value "b".



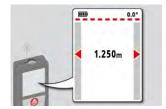
Approve value "b" and start meas-

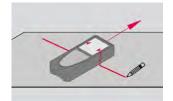


Move device slowly along the stake out line. The distance to the next stake out point is displayed.

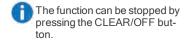


- a) Distance to first stake out point
- b) Actual position to measured target
- c) Distance to second stake out point

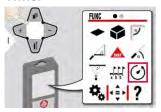


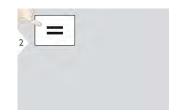


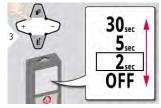
Mhen approaching a stake out point to less than 18 mm the value of the stake out point is frozen and the arrows on the side change their colour to red for marking purposes.



Timer







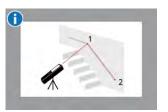


Confirm setting. Select release time.

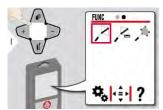


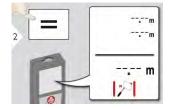
Point to point measurement*

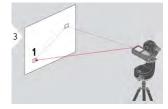
* Function is activated when connected to the Leica DST 360 adapter.



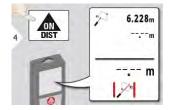
The tie distance is calculated based on 2 known coordinates with x,y and z value.

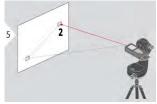






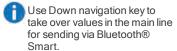
Aim laser at first target point.

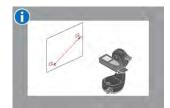


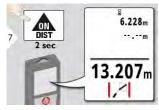


Aim laser at second target point.





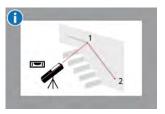




If chosen permanent measurement for second target point, the actual tie distance is displayed.

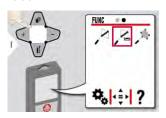
Point to point measurement levelled*

* Function is activated when connected to the Leica DST 360 adapter.



Use this Point to Point measurement function to get more measuring data. Do not move device after levelling. The tie distance is calculated based

on 2 known coordinates with x,y and z value.





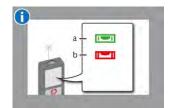
For levelling, device needs to be in an inclination range of +/- 5°.



Rotate the device clockwise 90°. Follow the instructions on the display.

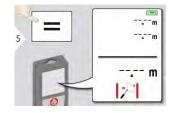


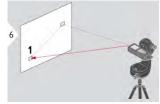
Rotate the device clockwise 90°. Follow the instructions on the display. Levelling is finished when OK icon appears on the display.



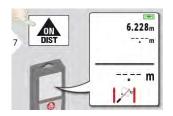
Check status line:
a) Indicates proper levelling

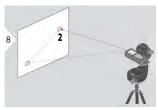
b) Indicates insufficient levelling



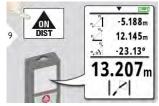


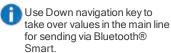
Aim laser at first target point.

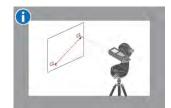


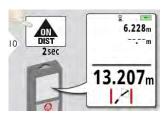


Aim laser at second target point.





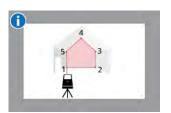




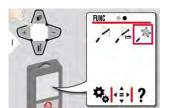
If chosen permanent measurement for second target point, the actual tie distance is displayed.

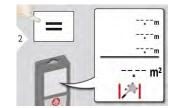
Smart area measurement*

* Function is activated when connected to the Leica DST 360 adapter. Firmware update might be required through the Leica DISTO™ Plan App to get this feature.



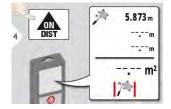
The area is calculated based on several known coordinates with x,y and z value.

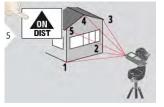






Aim laser at first target point.





Aim at and measure additional points (max. 30)

By pressing =, the area will be calculated.



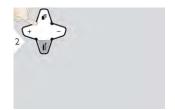
a) Circumference of measured area

Use Down navigation key to take over values in the main line for sending via Bluetooth® Smart.

Memory (last 20 results)



a) Go back to measuring mode b) Delete memory



Use Down navigation key to show more detailed results of the specific measurement.



Use Left/Right navigation keys to switch between measurements.

Bluetooth® Smart



DISTO™ Plan. Use App for Bluetooth® data transfer. Your device can be also be updated through this App.



When connected to an iOS device, press + or - key for 1 second to let the keyboard appear on the display of your mobile device. Pressing one of those keys again will close the keyboard.

Bluetooth® switches off as soon as the laser distance meter is switched

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 iOS can be found in special internet shops. For more details, see our homepage.

Message Codes

No.	Cause	Correction
156	Transverse tilt greater than 10°	Hold the instrument without any transverse tilt.
162	Calibration error	Make sure the device is placed on an absolutely horizontal and flat surface. Repeat the calibration procedure. If the error still occurs contact your dealer.
204	Calculation error	Perform measurement again.
245	Data transfer error	Connect device and 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 background light	Shadow target area.
260	Laser beam interrupted	Repeat measurement.
301	Device was moved, levelling not valid anymore	Perform levelling again. Measuring with invalid levelling is partially possible, but it affects the accuracy.
303	Error with Leica DST 360 adapter	Repeat measurement.

^{*} If other message codes are displayed frequently even the instrument has been switched off and on, please contact your dealer.

Care

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



The person responsible for the instrument must ensure that all users understand these directions and adhere to them. The product is permitted to use for skilled persons only.

Symbols used

The symbols used have the following meanings:



⚠ WARNING

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



▲ CAUTION

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.

Permitted use

- 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.)
- Use of accessories from other manufacturers without express approval
- Carrying out modification or conversion of the product
- Deliberate dazzling of third parties; also in
- 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

Hazards in use



⚠ WARNING

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.



⚠ CAUTION

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



⚠ WARNING

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



⚠ CAUTION

Only use chargers recommended by the manufacturer to charge the batteries.

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.

Areas of responsibility

Responsibilities of the manufacturer of the original equipment:

Leica Geosystems AG Heinrich-Wild-Strasse CH-9435 Heerbrugg Internet: www.leica-geosystems.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.

Disposal



▲ CAUTION

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. However, 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 instrument, 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 the 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 subjected to the following two

> This device may not cause harmful interference, and

• this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement

The radiated rf output power of the instrument is below the FCC radio frequency exposure limits for portable devices according to KDB 447498.

ISED Statement (applicable in Canada)

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

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

Radio Frequency (RF) Exposure Compliance Statement

The radiated rf output power of the instrument is below the Health Canada's Safety Code 6 exclusion limit for portable devices (radiated element separation distance between the radiating element and user and/or bystander is below 20 cm).

Japanese Radio Law Compliance

This device is granted pursuant to the Japanese Radio Law 電波法. This device should not be modified otherwise the granted designation number will become invalid.

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:

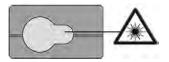
Although this product conforms to the most stringent standards and regulations, the possibility of harm to people and animals cannot be totally excluded.

- 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:

• IEC60825-1:2014 "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.



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. Don't dazzle other individuals. Pay particular attention to the direction of the laser beam when remotely operating the product via an app or software. A measurement could be triggered at any time.

Wavelength

620 - 690 nm

Maximum radiant output power for classification

< 1 mW

Pulse duration

 $> 400 \, ps$

Pulse repetition frequency

320 MHz

Beam divergence

 $0.16 \times 0.6 \, mrad$

Labelling



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



