

# Safety Instructions

Version 1.0

English

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The User Manual (part2) in a separate brochure, forms a part of the safety instructions.



Carefully read the User Manual before using this product.

The following directions should enable the person responsible for the Leica DISTO™, and the person who actually uses the instrument, to anticipate and avoid operational hazards.

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

## Symbols used

The symbols used in the User Manual 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 in appreciable material, financial and environmental damage.



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

## Use of the instrument

### Permitted use

The permitted use of the Leica DISTO™ are the following:

- Measuring distances
- Computing areas and volumes
- Storing measurements (BLUETOOTH®)

### Prohibited use

- Using the instrument 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.), as far as not specifically permitted for certain cases
- Carrying out modification or conversion of the product
- Use after misappropriation
- Use of accessories from other manufacturers without the express approval of Leica Geosystems.
- 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 into the sun
- Deliberate dazzling of third parties; also in the dark

- Inadequate safeguards at the surveying site (e.g. when measuring on roads, etc.)



### WARNING

Prohibited use can lead to injury, malfunction, and material damage. It is the task of the person responsible for the instrument to inform the user about hazards and how to counteract them. The Leica DISTO™ is not to be operated until the user has been instructed.

## Limits of use



See section "Technical Data".

### Environment:

Suitable for use in an atmosphere appropriate for permanent human habitation. Cannot be used in an aggressive or explosive\* environment. Use in rain is permissible for limited periods.

- \* Potentially explosive atmospheres:  
Areas with potentially explosive atmospheres are often, but not always clearly marked. They include fuelling area, such as petrol stations, below deck on boats, fuel or chemical transfer facilities, and areas where the air contains chemicals or particles, such as grain, dust or metal powder.

## ***Areas of responsibility***

### **Responsibilities of the manufacturer of the original equipment Leica Geosystems AG, CH-9435 Heerbrugg (kurz Leica Geosystems):**

Leica Geosystems is responsible for supplying the product, including the User Manual and original accessories, in a completely safe condition.

### **Responsibilities of the manufacturer of non-Leica accessories:**

 The manufacturers of non-Leica accessories for the Leica DISTO™ are responsible for developing, implementing and communicating safety concepts for their products. They are also responsible for the effectiveness of these safety concepts in combination with the Leica Geosystems equipment.

### ***Responsibilities of the person in charge of the instrument:***

#### **WARNING:**

The person responsible for the instrument must ensure that the equipment is used in accordance with the instructions. This person is also accountable for the deployment of personnel and for their training and for the safety of the equipment when in use.

The person in charge of the instrument has the following duties:

- 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.
- To inform Leica Geosystems immediately if the equipment becomes unsafe.

## ***Hazards in use***

### ***Important hazards in use***

#### **WARNING:**

The absence of instruction, or the inadequate imparting of instruction, can lead to incorrect or prohibited use, and can give rise to accidents with far-reaching human, material and environmental consequences.

#### **Precautions:**

All users must follow the safety instructions given by the manufacturer and the directions of the person responsible for the instrument.

#### **CAUTION:**

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

#### **Precautions:**

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

Make sure the Leica DISTO™ optics is kept clean and that there is no mechanical damage to the bumpers.



#### **WARNING:**

Insufficient securing or marking of your measurement site could cause a dangerous situation on the public highway, building site, or in the factory, etc.

#### **Precautions:**

Always ensure your measurement site is appropriately secured. Obey the local accident prevention regulations, and road safety rules, at all times.



#### **CAUTION:**

In using the instrument for distance measurements or for positioning moving objects (e.g. cranes, building equipment, platforms, etc.) unforeseen events may cause erroneous measurements.

#### **Precautions:**

Only use this product as a measuring sensor, not as a control device. Your system must be configured and operated in such a way, that in case of an erroneous measurement, malfunction of the device or power failure due to installed safety measures (e.g. safety limit switch), it is assured that no damage will occur.



#### **WARNING:**

Dispose of the equipment appropriately in accordance with the regulations in force in your country. Always prevent access to the equipment by unauthorized personnel.



#### **CAUTION:**

Be careful when pointing a telescope towards the sun, because the telescope functions as a burning glass and

can injure your eyes and/or cause damage inside the Leica DISTO™.

#### **Precautions:**

Do not point the telescopic viewer directly at the sun.

### **Laser classification**

The Leica DISTO™ produces a visible laser beam which emerges from the front of the instrument.

It is a Class 2 laser product in accordance with:

- IEC60825-1 : 1993 "Radiation safety of laser products"
- EN60825-1 : 1994 "Radiation safety of laser products"

It is a Class II laser product in accordance with:

- FDA 21CFR Ch.I §1040 : 2003 (US Department of Health and Human Service, Code of Federal Regulations)

#### **Laser Class 2/ II 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.

#### **Precautions:**

Do not look directly into the beam with optical aids.



#### **CAUTION:**

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

#### **Precautions:**

Do not look into the laser beam. Make sure the laser is aimed above or below eye level. (particularly with fixed installations, in machines, etc.)



#### **WARNING:**

Looking right at the reflected laser beam in a Leica DISTO™ operated with telescopic viewfinder could be dangerous when you aim at areas that reflect like a mirror, or emit reflections unexpectedly (e.g. a mirror, metallic surfaces, windows, prisms, liquids).

#### **Precautions:**

If you are using a telescopic viewfinder, do not aim at areas that are reflective like a mirror, or which could produce unintended reflections (e.g. mirrors, metallic surfaces, windows, prisms).

### **Electromagnetic Compatibility(EMC)**

The term "electromagnetic compatibility" is taken to mean the capability of the Leica DISTO™ to function smoothly in an environment where electromagnetic radiation and electrostatic discharges are present, and without causing electromagnetic interference to other equipment.



#### **WARNING:**

Electromagnetic radiation can cause interference in other equipment.

Although the Leica DISTO™ meets the strict regulations and standards which are in force in this respect, Leica Geosystems cannot completely exclude the possibility that interference may be caused to other equipment.

#### **Use of the product with BLUETOOTH®:**



#### **WARNING:**

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, Leica Geosystem cannot totally exclude the possibility of harm to people and animals.

- 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.



#### **WARNING:**

This BLUETOOTH® transmitter must not be operated in conjunction with any other transmitter or transmitting antenna.

**FCC statement (applic. in U.S.)****WARNING:**

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:

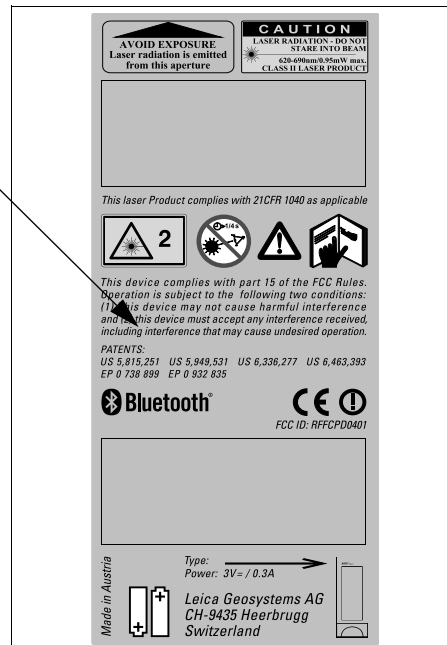
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**WARNING:**

Changes or modifications not expressly approved by Leica Geosystems for compliance could void the user's authority to operate the equipment.

**Product labelling:**

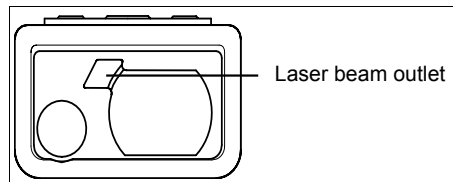
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



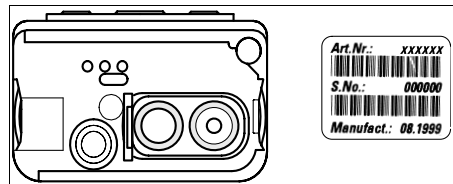
## Labelling

|                        |                                     |
|------------------------|-------------------------------------|
| Maximum radiant power: | 0.95mW                              |
| Emitted wavelength:    | 620-690nm                           |
| Standard applied:      | EN60825-1: 1994<br>IEC60825-1: 1993 |

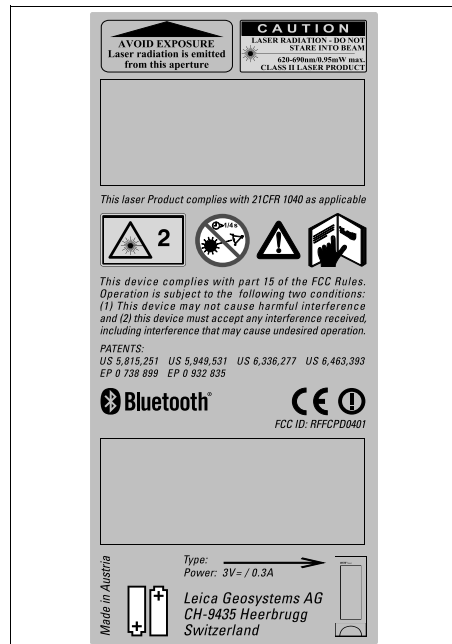
D5-Z1



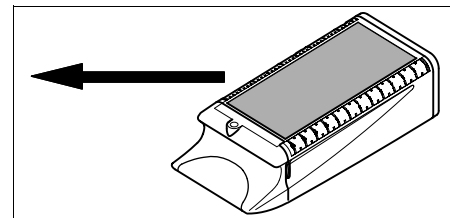
D5-Z2



D5-Z3



D5-Z4



|                              |                         |
|------------------------------|-------------------------|
| Beam divergence              | 0.16 x 0.6 mrad         |
| Pulse duration               | 15 x 10 <sup>-9</sup> s |
| Max. radiant power           | 0.95 mW *               |
| Max. radiant power per pulse | 8 mW                    |

\* Measurement accuracy ±5%

**CAUTION:**  
In case of damage, contact the local dealership.  
Never attempt to repair the product yourself.