PD-C

English en

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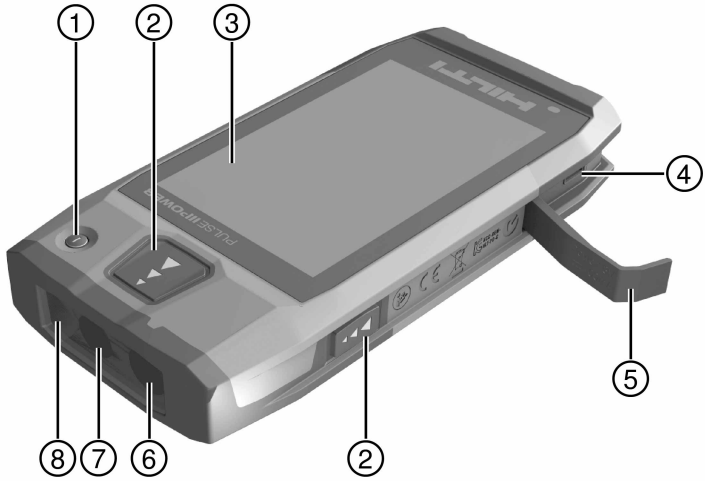


PD-C

1 Information about the documentation

1.1 Explanation of signs used

1.1.1 Warnings

Warnings alert persons to hazards that occur when handling or using the product. The following signal words are used in combination with a symbol:

⚠	**DANGER!** Draws attention to imminent danger that will lead to serious personal injury or fatality.
⚠	**WARNING!** Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.
⚠	**CAUTION!** Draws attention to a potentially dangerous situation that could lead to slight personal injury or damage to the equipment or other property.

1.1.2 Symbols

The following symbols are used:

	Read the operating instructions before use.
⚠	General warning
	Laser radiation. Do not stare into the beam. Class 2 laser in accordance with IEC/EN 60825-1:2007

1.1.3 Characters used in illustrations

The illustrations in these operating instructions are intended to promote a better understanding and may deviate from the actual version of the product.

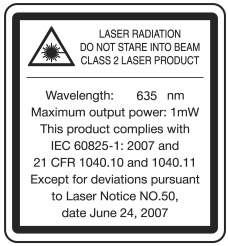
2	These numbers refer to the corresponding illustrations found at the beginning of these operating instructions.
3	The numbering in the illustrations reflects the order of the work steps in the illustration and may deviate from the numbering of work steps in the text.
(11)	Item reference numbers are used in the **overview illustration** and refer to the numbers used in the **product overview** section. In the product overview section, the numbers shown in the legend relate to these item reference numbers.

1.2 About this documentation

- Read these operating instructions before the product is used or operated for the first time. This is a prerequisite for safe, trouble-free handling and use of the product.
- **The information provided in the detailed operating instructions installed in the tool** as well as the supplements and updates provided at **www.hilti.com** must also be observed.
- Observe the safety instructions and warnings in this documentation and on the product.
- This document forms a permanent, integral part of the product described and must always be with the product when it is handed over to other persons.

1.3 Laser information on the product

Laser information

	Laser radiation. Do not stare into the beam. Class 2 laser.

1.4 Product information

Hilti products are designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any particular hazards that may be encountered. The product and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

- Write down the serial number in the table below. You will be required to state the product details when contacting Hilti Service or your local Hilti organization to enquire about the product.

Product information

Type:	PD-C
Generation:	01
Serial number:	

2 Safety

2.1 Basic information concerning safety

CAUTION

Possible hazard or risk of electric shock or burning injuries! Attempting to remove the battery presents a risk of electrical hazards, e.g. short circuiting, burning injuries and leakage of harmful substances.

- Do not attempt to open the product. Have the battery replaced only by **Hilti** Service.

CAUTION

Possible hazard or risk of electric shock or burning injuries! Ingress of liquids such as rainwater, dew or condensation, etc. into the product presents a risk of electrical hazards, e.g. short circuiting, burning injuries and explosion.

- Keep the product clean and dry at all times.
- Keep the hinged cover cap closed to prevent dampness entering the interior of the product.

CAUTION

Possible hazards as result of short circuiting, overload and fire. Possible hazards due to heat radiation, ejection of molten material or chemical reactions caused by short circuiting, overloading or through resulting fire.

- Do not expose the product to high temperatures or fire. The battery contained in the tool could explode or release toxic substances.
- Use only the approved USB AC adapter with standard micro-USB cable.
- Under abusive conditions, liquid may be ejected from the battery. Avoid contact with this liquid. Rinse with water if contact occurs. In the event of eye contact with the liquid, a doctor should also be consulted. The liquid that leaks from a battery may cause skin irritation or burns.

WARNING

Warning: hazardous high-frequency or low-frequency electromagnetic radiation! Electromagnetic radiation may cause spontaneous activation/starting. The emission of radiation may cause interference to other devices.

- Do not use the product in the proximity of persons who have a cardiac pacemaker.
- Do not use the product in the proximity of medical instruments and appliances.
- Operation of the product in the proximity of military installations, airports, radio astronomy facilities or in aircraft is not permissible unless prior permission has been obtained.

CAUTION

Visible and invisible laser radiation present hazards. Looking into the laser beam causes eye damage.

- Secure the area in which you will be taking measurements. Take care to avoid directing the laser beam toward other persons or toward yourself when setting up the product.
- Do not look directly into the light source. In the event of direct eye contact with the laser beam, close your eyes and move your head out of the path of the laser beam.
- Keep laser tools out of reach of children.

CAUTION

Unintentional activation of the laser beam presents a hazard. The laser beam may be switched on by inadvertently pressing a measure command button or by a software error.

- Avoid unintentional activation of the laser beam.
- When handling the product, always bear in mind that the laser beam could be switched on inadvertently. Before looking toward the path of the laser beam, make sure that the laser beam is switched off or that the product is switched off completely.

WARNING

Risk of explosion! Operation in the vicinity of flammable liquids, gases or dusts is hazardous.

- Pay attention to the ambient conditions. Do not use the product where there is a risk of fire or explosion.

Possible measurement errors Measurement errors are possible when the operating temperature range is not observed, when there is a high concentration of particles in the air, when the lens is dirty, when measurements are taken from unsuitable surfaces or when the product is used incorrectly.

- After switching on and while using the product, always pay attention to the information and warnings displayed on the touchscreen.
- Check the accuracy of the product before using it for measuring.
- When the product is brought into a warm environment from very cold conditions, or vice-versa, allow it to become acclimatized before use.

Incorrect settings may have damaging consequences. Incorrect settings, e.g. due to use of a measuring extension of a different length, may lead to incorrect results and consequential damage.

- Always pay attention to the information and warnings displayed on the touchscreen.
- Make sure that you use the correct settings when taking measurements.

In addition to the safety rules listed in the individual sections of these operating instructions, the following rules must be strictly observed at all times. The product and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

- Keep all safety instructions and information for future reference.
- Stay alert, watch what you are doing and use common sense when working with the product. Do not use the product while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating the product may result in serious personal injury.
- Do not render safety devices ineffective and do not remove information and warning notices.
- If the product is opened improperly, laser radiation in excess of Class 2 may be emitted. **Have the product repaired only by Hilti Service.**
- Tampering with or modification of the product is not permitted.
- Check that the product functions correctly each time before use.
- Measurements taken from surfaces with low reflectivity in highly reflective surroundings may be inaccurate.
- Measurements taken through panes of glass or other objects may be inaccurate.
- The measurement may be incorrect if the conditions under which the measurement is taken change rapidly, e.g. due to people walking through the path of the laser beam.
- Do not point the product toward the sun or other powerful light sources.

- The product and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.
- To avoid the risk of injury, use only genuine **Hilti** accessories and additional equipment.
- Observe the information printed in the operating instructions concerning operation, care and maintenance.
- Never use the product without having received the appropriate instruction on its use or without having read this documentation.
- Due to the principle employed, the results of measurements may be negatively affected by the surrounding conditions. This includes, e.g. close proximity to equipment that generates powerful magnetic or electromagnetic fields, taking measurements from unsuitable surfaces and use of unsuitable reflectors.
- Measurements to plastic foam surfaces, e.g. polystyrene foam, to snow or to highly reflective surfaces, etc. may result in incorrect readings.

2.2 Proper preparation of the working area

- Avoid unfavorable body positions when working from ladders. Make sure you have a safe stance and that you stay in balance at all times.
- Secure the site at which you are taking measurements and take care to avoid directing the laser beam toward other persons or toward yourself.
- Use the product only within its specified limits. Do not direct the laser beam toward mirrors, stainless steel, polished stone or similar surfaces.
- Keep the laser exit window clean in order to avoid measurement errors.
- Observe the accident prevention regulations applicable in your country.

2.3 Electromagnetic compatibility

Although the laser range meter complies with the strict requirements of the applicable directives, **Hilti** cannot entirely rule out the possibility of interference to the laser range meter caused by powerful electromagnetic radiation, possibly leading to incorrect operation. Accuracy must be checked by taking measurements by other means when working under such conditions or if you are unsure. Likewise, **Hilti** cannot rule out the possibility of interference with other devices (e.g. aircraft navigation equipment). The laser range meter complies with the requirements of class A: The possibility of interference occurring in a domestic environment cannot be excluded.

2.4 Working safely with laser tools

- Laser Class 2 tools may be operated only by appropriately trained persons.
- Laser beams should not be projected at eye height.
- Precautions must be taken to ensure that the laser beam does not unintentionally strike highly reflective surfaces.
- Precautions must be taken to ensure that persons do not stare directly into the beam.
- The laser beam must not be allowed to project beyond the controlled area.
- Switch the laser tool off when it is not in use.
- Activate the locking function in the tool settings in order to prevent unauthorized persons, especially children, from activating the laser beam.
- Store laser tools, when not in use, in places to which unauthorized persons have no access.

2.5 General safety rules

- Check the product for damage before use. Have the damage repaired by **Hilti** Service.
- Before using the product, just to be sure, check the product's preset settings and any settings you have made yourself.
- Do not use the product while you are driving a vehicle or operating a machine.
- Check the accuracy of the product after it has been dropped or subjected to other mechanical stresses.
- Although the product is designed for the tough conditions of jobsite use, as with other measuring instruments it should be treated with care.
- Although the product is protected against the entry of moisture, it should be wiped dry before being put away in its transport container.
- Store tools and appliances out of reach of children when not in use. Do not allow persons who are unfamiliar with the product, or with these instructions, to operate the product. Tools or appliances are dangerous in the hands of untrained, inexperienced persons.

3 Description

3.1 Overview of the product 1

① On/off switch
② Measure command buttons
③ Touchscreen
④ Micro-USB socket, type B
⑤ Hinged cover
⑥ Laser exit
⑦ Camera lens
⑧ Glass cover
⑨ Thread for extension, base
⑩ Thread for extension, underside

3.2 Intended use

The product described is a laser range meter. It is designed to be used for measuring distances. The measured distances can be used in conjunction with a wide range of calculation functions, e.g. areas, volumes, minimum/maximum distances, Pythagoras calculations, laying out, etc.

3.3 Items supplied

Laser range meter, wrist strap, soft pouch, short measuring extension, AC adapter with micro-USB cable.

You can find other system products approved for your product at your local **Hilti** Center or online at: **www.hilti.com**.

4 Technical data

4.1 Distance measurement

Note

Distance and inclination measurement accuracy: Influences such as, in particular, high temperature fluctuations, dampness, shock, dropping, etc. can affect the accuracy of the tool. Unless stated otherwise, the tool was adjusted or calibrated under standard ambient conditions (MIL-STD-810G). As a basic principle, when taking distance measurements an additional distance-dependent error of 0.02 mm per meter is to be taken into account. The reference for inclination measurements is the underside of the tool.

Operating modes	• Single measurements • Range (multiple) measurements
Distance measurement accuracy (2σ, standard deviation)	±10 mm
Inclination measurement accuracy (2σ, standard deviation)	±0.3°
Beam divergence	0.20 mrad ...0.45 mrad
Measuring range with target plate	0 m ...200 m (0 ft ...656 ft)
Target camera maximum resolution [megapixels]	5.0
Minimum distance for aiming with the laser point and cross hairs without use of the zoom function	> 2 m (> 6 ft - 10 in)
Minimum distance for aiming with the laser point and cross hairs at the maximum zoom setting	> 5 m (> 16 ft)

4.2 Touchscreen

Indicators	Continuous display of distance, operating status and battery charge status
Touchscreen diagonal size	10.16 cm (4.00 in)

4.3 Power source

Li-ion battery	Built-in
Rated voltage	3.7 V
Capacity	3,220 mAh
Standby time	> 200 h
Battery life under normal operating conditions, display switched on	≈ 10 h
AC adapter voltage output	5 V
AC adapter current output	≤ 2 A
Charging time (depending on AC adapter and charging cable)	≈ 3 h

4.4 Laser

Laser class	Visible, laser class 2, IEC/EN 60825-1:2007; Class 2 CFR 21 § 1040 (FDA)
Wavelength	635 nm
Output power	< 1 mW
Time until activation of power-saving mode	20 s

4.5 Other characteristics of the product

Internal flash memory capacity for saving measurements	≈ 3,000 **Note** The value given is based on typical direct measurements with target photo. The actual maximum depends on the type of measurements and the resolution of the photos.
Bluetooth version	2.1 + EDR (3 Mbit/s)
Weight	260 g (9.2 oz)
Dimensions	154 mm × 75 mm × 24 mm (6.1 in × 3.0 in × 0.9 in)
Protection class	IP54
Operating temperature	−15 °C ...50 °C (5 °F ...122 °F)
Storage temperature	−25 °C ...63 °C (−13 °F ...145 °F)

5 Preparation

5.1 Charging the built-in battery

▸ Charge the internal battery completely before using the tool for the first time.

5.2 Switching on

1. Press the on/off switch briefly.
   ◃ The product is ready for operation in 30 seconds. The locked display is shown.
2. To unlock the display, swipe the lock symbol off the screen to the right.
   ◃ The measurements for the currently active project are displayed and ≡ can be used to select functions.

6 Regular product updates

Regular software updates are planned. Please download the **PD-C updater utility for PC** as well as the latest product manual with operating instructions and the latest software.
The permanent link for the **PD-C updater utility for PC** is: **https://www.hilti.com/updatePDC**
Minimum requirements must be fulfilled in order to use the software. Details can be found at **www.hilti.com**.

7 Switching off

1. Press the on/off switch for several seconds.
2. Select **'Switch off'** from the menu.
3. Confirm the settings by pressing **'OK'**.
   ◁ The tool vibrates twice and switches itself off.

8 Care and maintenance

8.1 Care

Risk of damage! The plastic parts may be damaged by chemical substances.

- ▸ Use only pure alcohol or water for cleaning.

1. Blow any dust off the glass.
2. Clean the tool with a soft clean cloth. If necessary, moisten the cloth slightly with pure alcohol or a little water.

8.2 Maintenance

- ▸ To help ensure safe and reliable operation, use only genuine Hilti spare parts and consumables. Spare parts, consumables and accessories approved by Hilti for use with the product can be found at your local **Hilti** Center or online at: **www.hilti.com**.

8.2.1 Adjusting the inclination sensor

8.2.1.1 Adjustment intervals

In order to achieve greatest possible accuracy when making inclination measurements, the inclination sensor must be adjusted at regular intervals. Adjustment is also necessary if the product has suffered an impact or has been subjected to considerable temperature change.

8.2.1.2 Adjusting the inclination sensor

1. Select the option **'Settings'** and **'Adjusting the inclination sensor'** from the **'Functions'** menu.
2. Lay the tool on a flat surface with the display facing upwards.
3. Press the "Measure" button.
4. Rotate the tool, without lifting it off the surface, until it points in the opposite direction.
5. Press the "Measure" button.
   ◁ The inclination sensor is adjusted.

9 Transport and storage

9.1 Transport

- ▸ Use the **Hilti** packaging or packaging of equivalent quality for transporting or shipping your equipment.

9.2 Storage

- ▸ Do not put the tool into storage when wet. Allow it to dry before putting it away.
- ▸ Observe the storage temperature limits for the equipment, which are given in the Technical Data section.
- ▸ Check the accuracy of the equipment before it is used after a long period of storage or transportation.

10 Disposal

Most of the materials from which **Hilti** tools and appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, your old tools, machines or appliances can be returned to **Hilti** for recycling. Ask **Hilti** Service or your Hilti representative for further information.

In accordance with the European Directive on waste electrical and electronic equipment and its implementation in conformance with national law, electric tools or appliances that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

- Disposal of electric tools or appliances together with household waste is not permissible.

11 Manufacturer's warranty

- Please contact your local **Hilti** representative if you have questions about the warranty conditions.

12 FCC statement (applicable in US) / IC statement (applicable in Canada)

Changes or modifications not expressly approved by **Hilti** may restrict the user's authorization to operate the equipment.

This device complies with paragraph 15 of the FCC regulations.

This device complies with Industry Canada's licence-exempt RSSs.

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.

Note

Please refer to the IC information on the PD-C display: **Home** / **'Settings'** / **'Tool settings'** / **'Information about the tool'** / **'Legal notes'**

13 EC declaration of conformity

Manufacturer

Hilti Aktiengesellschaft
Feldkircherstrasse 100
9494 Schaan
Liechtenstein

We declare, on our sole responsibility, that this product complies with the following directives and standards.

Designation	Laser range meter
Type designation	PD-C
Generation	01
Year of design	2015
Applicable directives:	• 1999/5/EC
Applicable standards:	• EN 60950-1:2006 / A2:2013 • EN 60825-1, Edition 2.0 (2007-03) • EN 300 328 V1.8.1 • EN 301 489-1 V1.9.2 • EN 301 489-17 V2.2.1 • EN 62479

Technical documentation filed at:

- Hilti Entwicklungsgesellschaft mbH

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Schaan, 10/2015

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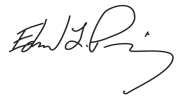

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14 Identification number of the notified body

American Certification Body (ACB)
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