

# HILTI

## PSA 100

**Operating instructions**

**en**

**Mode d'emploi**

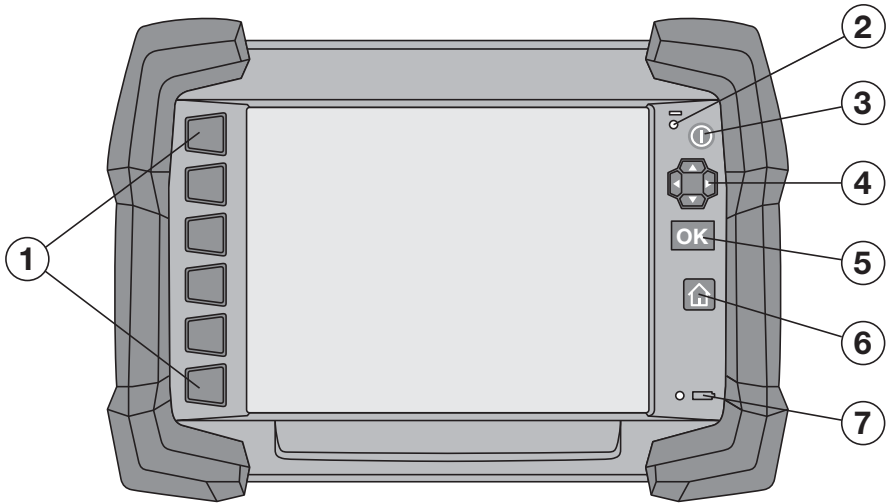
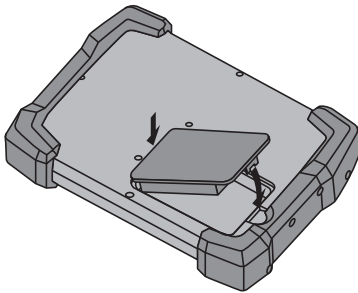
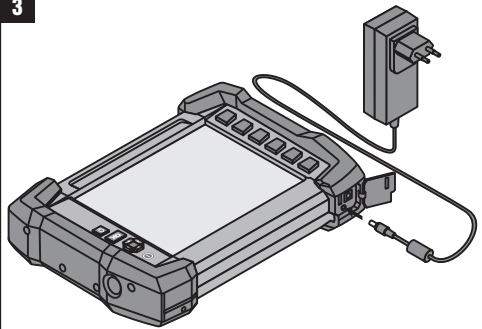
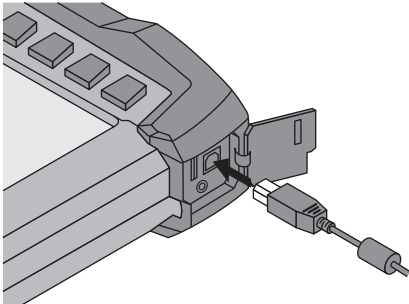
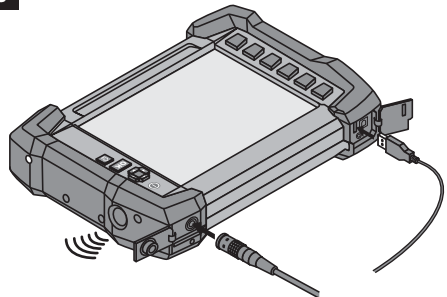
**fr**

**Manual de instrucciones**

**es**

**Manual de instruções**

**pt**

**1****2****3****4****5**

# ORIGINAL OPERATING INSTRUCTIONS

## PSA 100 monitor

**It is essential that the operating instructions are read before the tool is operated for the first time.**

**Always keep these operating instructions together with the tool.**

**Ensure that the operating instructions are with the tool when it is given to other persons.**

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**1** These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions.

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### Buttons **1**

- ① Function buttons
- ② Operating status LED
- ③ On/off button
- ④ 4-way controller
- ⑤ Confirmation button (OK)
- ⑥ Home and help button
- ⑦ Charge state LED

## 1 General information

### 1.1 Safety notices and their meaning

#### **DANGER**

Draws attention to imminent danger that will lead to serious bodily 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.

#### **NOTE**

Draws attention to an instruction or other useful information.

### 1.2 Explanation of the pictograms and other information

#### Warning signs



General warning

#### Symbols



Read the operating instructions before use.

## 2 Description

### 2.1 Use

The monitor is designed to be used to display, and thus allow evaluation, of scans made with Hilti scan systems.

Scans can be managed in projects and subsequently transferred to a PC for data evaluation and archival.

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## 3 Safety instructions

### 3.1 General safety instructions

Read the operating instructions stored in memory in the device.

In addition to the information relevant to safety given in each of the sections of these operating instructions, the following points must be strictly observed at all times.



Read all safety instructions and other instructions. Failure to observe the safety precautions and instructions may result in electric shock, fire and/or serious injury. **Keep all safety precautions and instructions for future reference.**

### 3.2 Basic information concerning safety

- a) **Keep laser tools out of reach of children.**
- b) **Check the display after switching the tool on.** The display should show the Hilti logo and the name of the tool. The disclaimer notice subsequently displayed must be accepted by the user before the main menu for the current project can be accessed.
- c) **The warnings shown in the display must always be observed.**
- d) **Make sure that the display area can be easily read (e.g. do not touch the display area with the fingers, keep the display area clean).**
- e) **Do not use the device if it is defective.** Contact Hilti Service.
- f) **Always check how the tool is set before using it.**
- g) **Always remove the battery pack before transporting the tool.**
- h) **Store and transport the tool safely.** The permissible storage temperature range is  $-25^{\circ}\text{C}$  to  $63^{\circ}\text{C}$  ( $-13$  to  $+145^{\circ}\text{F}$ ).
- i) **When the tool is brought into a warm environment from very cold conditions, or vice-versa, allow it to become acclimatized before use.**
- j) **Do not drill at positions where the device has located an object.** Take the diameter of the drill bit into account and always allow an adequate safety factor.
- k) **Due to the scanning principle employed, the results of the scan may be negatively affected by certain ambient conditions. These include, e.g. proximity to devices that generate powerful magnetic or electromagnetic fields, dampness, con-**

struction materials containing metal, aluminium foil-backed insulation, multiple layers, materials with cavities or electrically conductive wall coverings or tiles. Accordingly, other sources of information (e.g. plans of the building) should also be consulted before beginning drilling, sawing or grinding in the area scanned.

- l) **Take the influences of the surrounding area into account. Do not use the device where there is a risk of fire or explosion.**
- m) **When accessories are to be used, check that they are fitted correctly before beginning use.**

### 3.3 Proper organization of the workplace

- a) **Only use the appliance within the defined limits.**
- b) **Observe the accident prevention regulations applicable in your country.**
- c) **When performing alignment work on ladders, avoid postures to which you are unaccustomed. Make sure you work from a safe stance and stay in balance at all times.**

### 3.4 Electromagnetic compatibility

Although the device complies with the strict requirements of the applicable directives, Hilti cannot entirely rule out the possibility of interference to the device caused by powerful electromagnetic radiation, 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).

### 3.5 General safety instructions

- a) **Check the condition of the device before use. If the device is found to be damaged, have it repaired at a Hilti Service Center.**
- b) **Keep the device clean and dry at all times.**
- c) **Although the device is designed for the tough conditions of jobsite use, as with other optical and electronic instruments (e.g. binoculars, spectacles, cameras) it should be treated with care.**
- d) **Although the appliance is protected against the entry of moisture, it should be wiped dry before being put away in its transport container.**
- e) **Do not open the casing or modify the device in any way.**

### 3.6 Precautions for handling and using batteries

- a) **Keep the battery out of reach of children.**
- b) Remove the battery from the device if it is to remain unused for some time.
- c) **Do not expose the battery to high temperatures or fire.** This may cause the battery to explode or release toxic substances.
- d) Under abusive conditions, liquid may be ejected from the battery, **Avoid contact. If contact accidentally occurs, flush with water. In the event of the liquid**
- e) **coming into contact with the eyes, rinse the eyes with plenty of water and consult a doctor.** Liquid ejected from the battery may cause irritation or burns.
- f) **Use only the battery chargers recommended by the manufacturer to charge the batteries.** Use of a charger with batteries other than the specific type(s) for which it is designed presents a risk of fire.
- g) **Observe the special instructions applicable to the transport, storage and use of Li-ion batteries.**
- g) **Do not use damaged batteries.**

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## 4 Before use

### 4.1 Inserting the battery pack and switching the tool on 2 3

1. Insert the PSA 82 battery pack in the back of the tool.
2. Fully charge the PSA 82 battery pack (please refer to the operating instructions for the PUA 81 mains adapter, the PSA 82 battery pack and the PUA 82 charger for use in motor vehicles).  
**NOTE** Alternatively, the PSA 82 battery pack can be removed from the PSA 100 monitor and charged using the separately available PSA 85 charger.
3. Switch the tool on by pressing the on/off button.
4. You must accept the terms of the disclaimer notice displayed on the screen before the tool can be operated.
5. To switch off, press and hold the on/off button for 3 seconds.

### 4.2 Settings

When operating a brand new tool you will first be requested to select the country-specific settings.

1. Use the 4-way controller to select the desired language and confirm your choice by pressing the “OK” button.
2. Make further settings using the 4-way controller and the “OK” button.
3. Use the “OK” button to confirm the settings made.  
**NOTE** You can also use the “Skip” button to skip making these settings until the next time the tool is switched on.

## 5 Operation



### 5.1 Displaying the operating instructions

1. Press the “Home” button for 5 seconds.  
The operating instructions will be shown in the right context in the display. You can then browse through the complete operating instructions.
2. The operating instructions can also be displayed by way of the settings menu in the main menu by pressing the Help function button.
3. To close the operating instructions, press the Back function button.

### 5.2 Basic functions

The function buttons can be used to select the available functions.

The 4-way controller can be used to shift the focus, change parameter values or, depending on the setting, shift the cross hairs or change the layer thickness/depth, etc.

The Ok confirmation button can be used to select the object in focus or to start data processing.

### 5.3 Project and data management

Ferrosan and X-Scan data can be managed within a project at the same time.

#### 5.3.1 Managing PS 1000 X-Scan projects and data 4

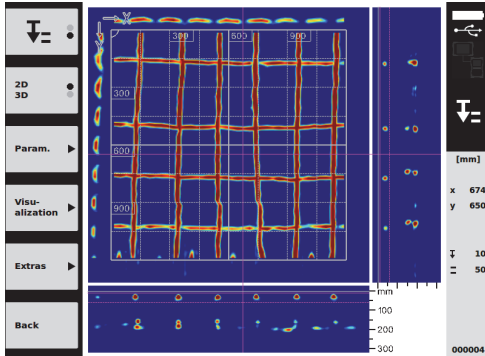
The "Projects" submenu provides access to functions that let you manage projects, display and analyze recorded scans and import new data from the PS 1000 X-Scan.

1. Import the data (projects / scans) directly from the PS 1000 X-Scan using the PSA 50/51 data transfer cable.
2. Select the Projects function from the main menu.

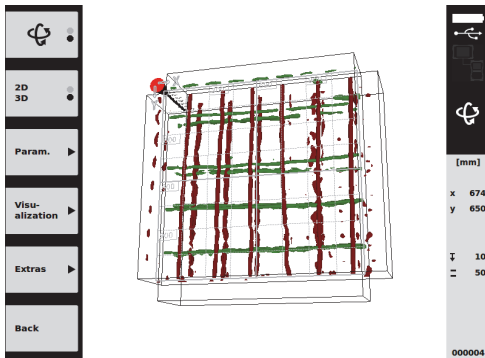
3. Select the desired project. The active project can be identified by its "dog ear" at top right.

**NOTE** The currently active project can also be accessed directly from the main menu by way of the Openproject function button.

4. Select the desired scan.  
The scan is then displayed.
5. Set the control behavior of the 4-way controller using the function button at top left.



6. Use the function button to set the display mode to "2D" or "3D".



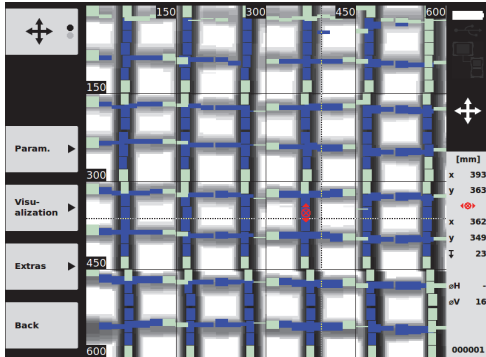
7. The Param. and Visu-alization function buttons can be used to change the visualization and calculation parameters. If you change the parameters under Param. the data must be recalculated. To do this, press the Ok confirmation button.
8. The Extras function button provides access to additional functions including the ability to export a simple report in PDF format or to set a marker position.
9. The data can be transferred to a PC for further analysis using the PSA 92 data transfer USB cable.

#### 5.3.2 Managing PS 200 S Ferrosan projects and data 5

The "Projects" submenu provides access to functions that let you manage projects, display and analyze recorded scans and import new data from the PS 200 S Ferrosan.

1. Transfer the scan data directly from the PS 200 S Ferrosan system to the PSA 100 monitor via the infrared interface. Further information about importing PS 200 S Ferrosan data can be found in the PS 200 operating instructions.

- Alternatively, the PUA 95 micro USB cable can be used to transfer scan data from the PSA 55 infrared adapter to the PSA 100 monitor. Further information about the PSA 55 infrared adapter can be found in the PS 200 operating instructions.
- Select the Projects function from the main menu.
- Select the desired project. The active project can be identified by its “dog ear” at top right.
- NOTE** The currently active project can also be accessed directly from the main menu by way of the Openproject function button.
- Set the control behavior of the 4-way controller using the function button at top left.



- The Param. and Visu-alization function buttons can be used to change the visualization and calculation parameters.
- The Extras function button provides access to additional functions including the ability to export a simple report in PDF format or to set a marker position.
- Using the PSA 92 USB data cable, the data from the PSA 100 monitor can be transferred to a PC for further analysis.

## 6 Settings

### 6.1 The following settings can be adjusted:

- Brightness
- Volume level
- Date / time
- Power modes
- Country settings

#### NOTE

Press the “Help” button to display the complete operating instructions.

## 7 Disposal

#### CAUTION

Improper disposal of the equipment may have serious consequences: The burning of plastic components generates toxic fumes which may present a health hazard. Batteries may explode if damaged or exposed to very high temperatures, causing poisoning, burns, acid burns or environmental pollution. Careless disposal may permit unauthorized and improper use of the equipment. This may result in serious personal injury, injury to third parties and pollution of the environment.



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Most of the materials from which Hilti tools or appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back old tools and appliances for recycling. Ask Hilti Customer Service or your Hilti representative for further information.



For EC countries only

Disposal of electrical appliances together with household waste is not permissible.

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



Dispose of the battery in accordance with national regulations.

## 8 FCC statement / IC statement

### 8.1 FCC statement (applicable in US) / IC statement (applicable in Canada)

#### CAUTION

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 may radiate radio frequency energy. Accordingly, if not installed and used in accordance with the instructions, it 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 on and off, the user is encouraged to try to correct the interference by one or more of the following measures:  
Re-orient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.  
Consult the dealer or an experienced TV/radio technician for assistance.

#### NOTE

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

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

This device complies with the requirements defined in RSS-220 in conjunction with RSS-Gen of IC.

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.





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