

# HILTI

## POS 15/18

Quick-start guide

en





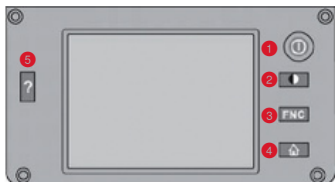
# POS 15/18 total station

<b>1. First steps</b> .....	<b>2</b>
1.1 Control panel, touch screen, start menu .....	2
1.2 Function menu .....	3
1.3 Configuration .....	3
1.4 Applications .....	4
<b>2. Data management</b> .....	<b>5</b>
2.1 Creating jobs in the measuring system .....	5
2.2 Importing and exporting data .....	6
<b>3. Setting up the total station</b> .....	<b>7</b>
3.1 Stationing the instrument .....	7
3.2 Determining heights .....	9
<b>4. Measuring distances, remote heights and areas. Vertical alignment</b> .....	<b>10</b>
4.1 Measuring distance, height difference and slope .....	10
4.2 Horizontal and vertical area measurement .....	11
4.3 Vertical alignment of building components .....	12
4.4 Remote height measurement .....	13
<b>5. Setting up and laying out using building control lines</b> .....	<b>14</b>
5.1 Setting up using control lines .....	15
5.2 Laying out using control lines .....	17
5.3 Backsighting (creating new fixed points) .....	18
5.4 Setting a new station by way of backsight points .....	20
<b>6. Setting up and laying out using points with coordinates</b> .....	<b>21</b>
6.1 Setting up using points with coordinates .....	22
6.2 Laying out points with coordinates .....	23
<b>7. Laying out batter boards (shifting control lines)</b> .....	<b>24</b>
<b>8. As-built survey with heights</b> .....	<b>26</b>

# 1. First steps

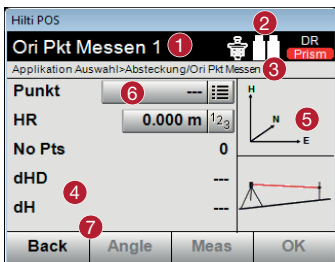
## 1.1 Control panel, touch screen, start menu

en



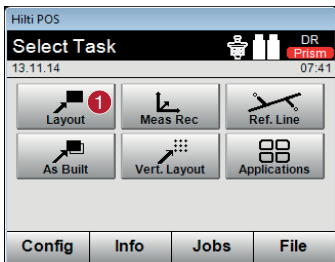
### Control panel

- 1 On / off button
- 2 Display day / night
- 3 Functions
- 4 Back to start menu
- 5 Help



### Touchscreen

- 1 Instructions and information
- 2 Battery, laser pointer, prism and RL
- 3 Active menu
- 4 Data area
- 5 Illustration
- 6 Data entry fields
- 7 Function buttons

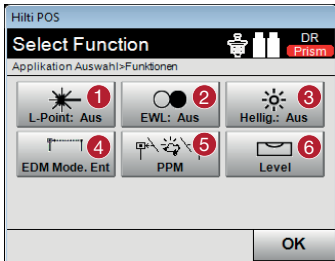


### Function buttons

- 1 Buttons to start selected tasks

## 1.2 Function menu

You can switch to the function menu at any time by pressing the **[FNC]** button.

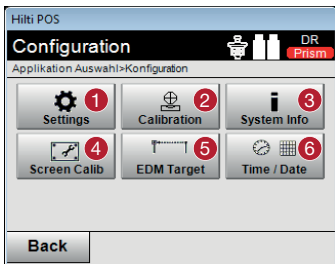


- 1 Laser pointer on / off. The laser pointer is used as an aid to make the target point visible. This is useful when taking readings indoors or when laying out.
- 2 Guide light on / off. With the aid of the guide light the reflector can be aimed approximately toward the target line.
- 3 Adjusts display brightness.
- 4 Lets you set the standard target.
- 5 Lets you enter various atmospheric data.
- 6 Shows the electronic level.

en

## 1.3 Configuration

Press the **[Config]** button in the start menu to open the configuration menu.

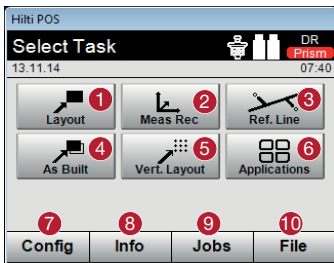


- 1 Settings for language, units of measurement, angle resolution, decimal separator.
- 2 Control and calibration of the target axis, the V-index and compensator.
- 3 Shows the system information, serial number and software version.
- 4 Touchscreen calibration
- 5 EDM and target settings
- 6 Date and time settings

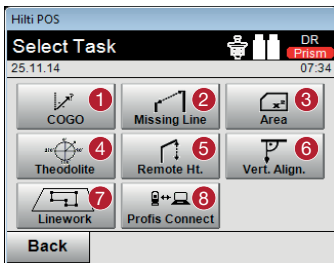
## 1.4 Applications

The start menu provides access to several applications. The **[Applications]** button lets you open additional applications. In this menu, the **[Back]** button will bring you back to the start menu.

en



- 1 Lay out design data / points in the area you are working on.
- 2 Lets you take as-built measurements and save points from the coordinate or control line system.
- 3 Measure points relative to a line.
- 4 Check existing building components.
- 5 Lay out points on a vertical plane.
- 6 Further applications
- 7 Configuration menu
- 8 Job information
- 9 Select jobs
- 10 Copy, import and export jobs and attach DXF files



- 1 CoGo: Calculate using coordinates
- 2 Missing Line: Distance between 2 points
- 3 Area: Measure areas in the horizontal or vertical plane
- 4 Theodolite: Theodolite mode
- 5 Remote Height: Indirect height measurement between two points, one of which cannot be measured directly
- 6 Vert. Align.: Vertical alignment of components
- 7 Linework: Extract points from a DXF file
- 8 Interface with the Hilti PROFIS Connect software (point transfer)

## 2. Data management

### 2.1 Creating jobs in the measuring system

After starting each application you have the possibility of creating a new job or selecting an existing job. It is always necessary to assign an application to a job.

en

Hilti POS  
Layout DR Prism  
Applikation Auswahl>Absteckung/Absteckung  
Job SAN  
Current Station 2  
Backsight Point 4  
Cancel NewSta NewJob OK

- 1 Create or select a new job

Hilti POS  
Job Select DR Prism  
Applikation Auswahl>Absteckung/Absteckung  
STEFAN  
Test 1  
unscaled  
Vorlage Grundris  
Vorlage  
Back View New OK

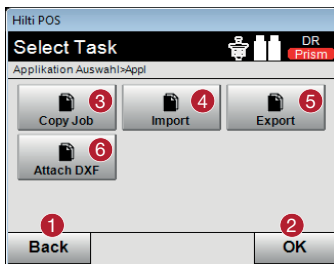
- 1 Shows existing jobs
- 2 Back to previous dialog
- 3 View details of the selected job
- 4 Create a new job
- 5 Select a job and quit dialog

Hilti POS  
Name New Job DR Prism  
Applikation Auswahl>Projekt  
Job 1  
DXF File 2  
Date 13.11.14  
Time 09:05  
Cancel OK 3

- 1 Enter job name
- 2 Optional: Select the DXF file that is to be attached to the job
- 3 Create the job

## 2.2 Importing and exporting data

[File] is used to manage all jobs held in memory and allows data to be transferred between the total station and a PC. The data origin and the data target to which the data is to be exported must be selected (Int. Mem = total station's internal memory / USB = external memory).



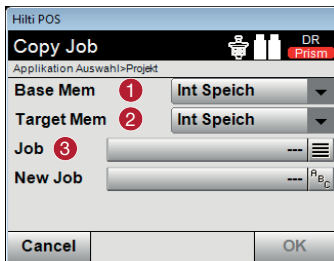
- 1 Return to previous dialog
- 2 End the dialog
- 3 Copy data
- 4 Import data
- 5 Export data
- 6 Import DXF data



Insert a USB flash drive in the connector provided.

### Note

The data on the USB flash drive must be saved in a folder named "Hilti Jobs".



**Base Mem:** The data origin location (from which the data is to be copied) 1

**Target Mem:** The data target location (to which the data is to be copied) 2

**Projekt:** The selected job 3



### 3. Setting up the total station



#### 3.1 Stationing the instrument

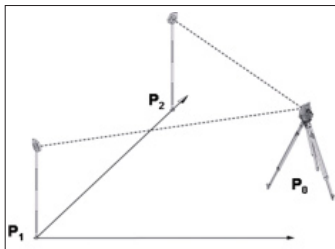
It is necessary to position the total station correctly before making layouts or taking as-built measurements. The position of the instrument (i.e. its station) can then be defined in the form of coordinates or as a position in relation to a building control line (i.e. batter board line).

en



- **Control line:** All building components are positioned relative to the dimensions or positioning information given on the control lines in the plan. Using the total station, control lines and their associated dimensions can be used to lay out points.

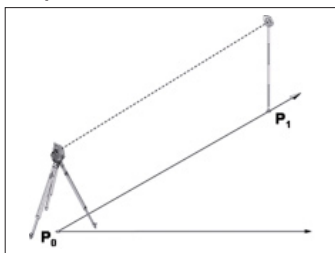
#### Stationing anywhere

Hilti POS		
<b>Select Station Type</b>   DR Prism		
Applikation Auswahl > Messen & Registrieren/Station setzen		
Heights	Ein	▼
Point System	Bauachse	▼
Setup Location	Freie Stat	▼
Cancel	New H	OK



#### Stationing using control lines - location over a control line point

Hilti POS		
<b>Select Station Type</b>   DR Prism		
Applikation Auswahl > Messen & Registrieren/Station setzen		
Heights	Ein	▼
Point System	Bauachse	▼
Setup Location	Über Pkt	▼
Cancel	New H	OK




- **Coordinates:** On many jobsites there are points with coordinates which have been laid out by a surveyor or the positions of building components, control lines, foundations, etc. may be described by coordinates. In this case, stationing of the system can be set to use coordinates.

### Stationing using coordinates - stationing anywhere

en

Hilti POS

Select Station Type  DR Prism

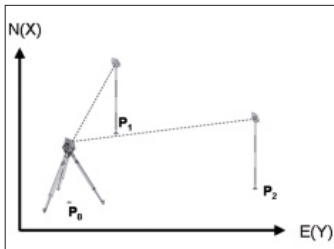
Applikation Auswahl > Absteckung/Station setzen

Heights **Aus** ▼

Point System **Koord/Plan** ▼


Setup Location **Freie Stat** ▼

Cancel New H OK



### Stationing using coordinates - location over a point

Hilti POS

Select Station Type  DR Prism

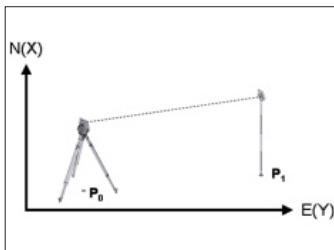
Applikation Auswahl > Absteckung/Station setzen

Heights **Aus** ▼

Point System **Koord/Plan** ▼

Setup Location **Über Pkt** ▼

Cancel New H OK

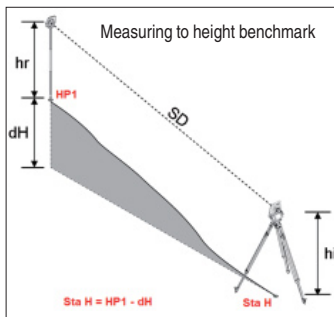


### 3.2 Determining heights

If you wish to work with heights, the "Heights" setting in the Select Station Type Menu must be set to [On].

- **Setting up the total station over a point with a known height:** When the height of the point on the ground is known, the instrument height  $hi$  has to be measured.

- **Measuring to a point, the height of which is known (benchmark height):** The angle and distance to a point with known height is measured, so the instrument height is determined by "measuring".

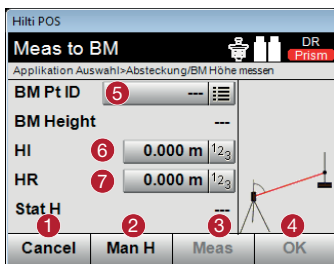


#### Note:

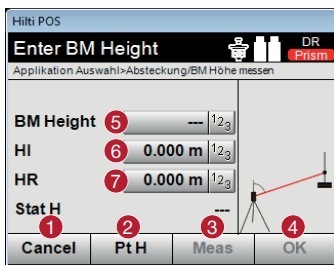
In the event of using the setting up with building control lines option, the height reference mark must always be entered manually by pressing "Height" then "Man H" and then "Ref. Height". Enter the reference height.

#### Note:

Setting-up option "Coord./Plan": the height reference mark can also be adopted automatically by selecting the point from memory, by pressing "Height" then "Ref. Height" and then selecting the point with height information.



- 1 Back to previous view
- 2 Manual entry of benchmark height
- 3 Measure to the benchmark height so that the instrument can calculate the station height from this (e.g. if the instrument has not set up using the benchmark height).
- 4 Confirm the height.
- 5 Select benchmark height (for Coord. / Plan option).
- 6 Enter instrument height  $hi$ .
- 7 Enter reflector height  $hr$ .



- 1 Cancel operation
- 2 Back to point height
- 3 Measure to the benchmark height so that the instrument can calculate the station height from this (e.g. if the instrument has not set up using the benchmark height).
- 4 Confirm height
- 5 Enter the benchmark height (for building control line option)
- 6 Enter the instrument height  $hi$
- 7 Enter the reflector height  $hr$


## 4. Measuring distances, remote heights and areas. Vertical alignment.

### 4.1 Measuring distance, height difference and slope

The **[Missing Line]** application makes it possible to determine horizontal distance (**HD**), slope distance (**SD**), height difference (**dH**) and the slope between two measured points.



Hilti POS

1. Pkt messen  DR Prism


Applikation Auswahl > Spannmass/Pkt messen

HR	0.400 m	1 <sub>2</sub> 3
HA	0° 00' 00"	
VA	90° 00' 00"	
HD	10.002 m	

Back Meas Next

- [123]:** Enter the reflector height **1**  
**[Meas]:** Measure to the first point **2**  
**[Next]:** Continue to the next point **3**

Hilti POS

2. Pkt messen  DR Prism


Applikation Auswahl > Spannmass/Pkt messen

HR	6.000 m	1 <sub>2</sub> 3
HA	0° 00' 00"	
VA	90° 00' 00"	
HD	10.002 m	

Back Line Att Meas Results

- 1** Back  
**2** Enter or show the attribute assigned to the point  
**3** Take the measurement  
**4** Show results

Hilti POS

Results  DR Prism

Applikation Auswahl > Spannmass/Ergebnisse

SD	6.000 m
HD	0.000 m
dH	-6.000 m
Slope	---
Slope	---

Back Save New Ln Next Pt

- [New Ln]:** Measure new line **1**  
**[Next Pt]:** Measure new second point **2**

## 4.2 Horizontal and vertical area measurement


The **[Area]** application makes it possible to determine horizontal or vertical areas. This is done by projecting the measured points in the horizontal or vertical plane respectively. The vertical plane is defined by the first two measured points.




Area

en

Hilti POS

**Measure Area**  DR Prism

Applikation Auswahl>Horizontale Fläche&Messungen


Area	5657.03 m <sup>2</sup>	
Perim	325.308 m	
No. Pts	6 / 99	

Cancel Del Pt Meas Results


**[Meas]:** Take measurement **1**

**[Results]:** Show / save the results **2**

Hilti POS

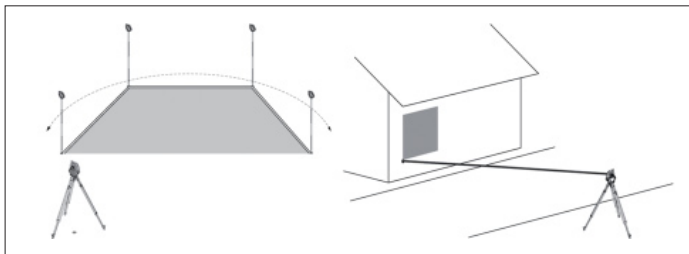
**Save Results**  DR Prism

Applikation Auswahl>Horizontale Fläche/Horiz. Fläche

Area	5657.03 m <sup>2</sup>	
Area	0.57 ha	
Perim	325.308 m	
Perim	0.33 km	
No. Pts	6	

Back Save

**[Save]:** Save the data **1**



### 4.3 Vertical alignment of building components

The [Vert. Align.] application can be used to align components vertically or to transfer and check verticals.



en

Hilti POS		DR
<b>Measure 2nd Pt</b>		Prism
Applikation Auswahl>V-Ausrichten/Ref. Pkt. anvisieren		
HR	0.000 m	1 2 3
dHA	0° 00' 00"	
Right	0.000 m	
Fwd	0.002 m	
dH	0.000 m	
Back	Save	Meas

[123]: Enter the reflector height 1

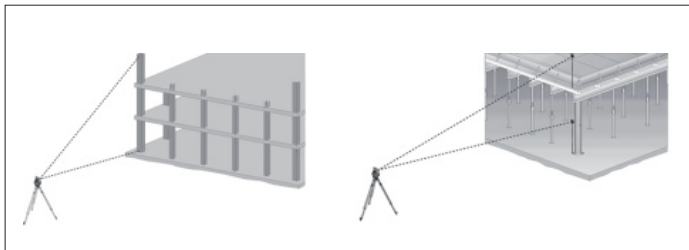
[Meas]: Measure the first point 2

Hilti POS		DR
<b>Measure 2nd Pt</b>		Prism
Applikation Auswahl>V-Ausrichten/Ref. Pkt. anvisieren		
HR	0.000 m	1 2 3
dHA	0° 00' 00"	
Right	0.000 m	
Fwd	0.002 m	
dH	0.000 m	
Back	Save	Meas

1 Go back to measuring the first reference point

2 Save the results

3 Measure angle and distance and update correction value shown




#### 4.4 Remote height measurement

The remote height measurement technique can be used to measure height differences between inaccessible positions or points in situations where no direct measurement is possible. The height can be read continuously and changes as the vertical angle is adjusted.



en

Hilti POS

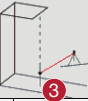
**Measure 1st Pt**  DR Prism

Applikation Auswahl>Indirekte Höhe/nd. Höhe

HR **1** 0.400 m <sup>1</sup><sub>2,3</sub>

VA 90° 00' 00"


HD 10.002 m



**Back** **Meas** **Next**

- [123]:** Enter the reflector height **1**  
**[Meas]:** Measure the first point **2**  
**[Next]:** Continue to the next point **3**

Hilti POS

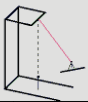
**Target 2nd Pt**  DR Prism

Applikation Auswahl>Indirekte Höhe/nd. Höhe

VA 90° 00' 00"

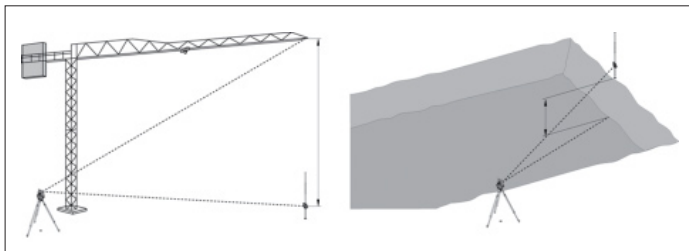
HD 10.002 m

dH 0.000 m



**Save** **New H**

- 1** New (additional) remote height measurement based on a new reference point  
**2** Save the results

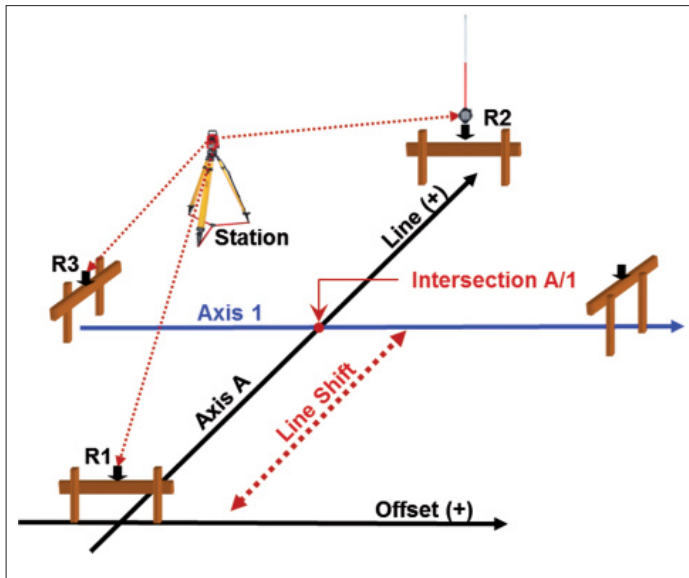


## 5. Setting up and laying out using building control lines

The total station can be set up using existing points on the lines between batter boards (control lines). The zero point of the control line system is typically a previously defined control line intersection (e.g. intersection between axis A and axis 1).



en



### Measuring procedure


Select the desired application. For stationing the instrument using control lines, the **Meas & Rec** and **Batter Board** applications are relevant.

Select the applicable application from the start menu. Before an application can be started, a job must first be selected (see 2.1). The parameters for setting up the instrument station should then be configured. Select **Height OFF**, **Control Line 3 points** and **Station Anywhere**, then press **[Next]**.



## Setting up using control lines

Hilti POS

**Measure Ref Pt 1**  DR **Prism**

Applikation Auswahl>1. Pkt messen

Point 1

HR **1** 3.000 m  $\frac{1}{2}_3$


HA 0° 00' 00"

VA 90° 00' 00"

HD

**2**


Back Meas



- 1 Enter the reflector height
- 2 Measure to reference point 1, then continue with point 2

en

Hilti POS

**Measure Ref Pt 2**  DR **Prism**

Applikation Auswahl>2. Pkt messen

Point 2

HR **1** 3.000 m  $\frac{1}{2}_3$


HA 0° 00' 00"

VA 90° 00' 00"

HD 10.002 m


**2**

Back Meas Next



- 1 Enter the reference height
- 2 Measure to reference point 2, then continue with point 3

Hilti POS

**Measure Ref Pt 3**  DR **Prism**

Applikation Auswahl>Messen & Registrieren/3. Pkt messen

Point 3

HR **1** 1.500 m  $\frac{1}{2}_3$


HA 0° 00' 00"

VA 90° 00' 00"

HD


**2**

Back Meas Next




- 1 Enter the reflector height
- 2 Measure to reference point 3

Hilti POS

**Ref. Line shifts**  DR **Prism**

Applikation Auswahl > Absteck versch.

<b>Line</b>	0.000 m	1/2/3
<b>Offset</b>	0.000 m	1/2/3
<b>Height</b>	0.000 m	1/2/3
<b>Rotation</b>	0° 00' 00"	1/2/3



**1** **Back** **Set 2**

- 1 Back to control line definition
- 2 Confirm the shift values and continue with the entry dialog for Line, Offset and Height values


**Note**

Press the button beside "Offset" and enter "0". Press **[Set]** to confirm the offset.


**Note**


Measure point R1 again in order to check the orientation. The values shown must be:  
 Offset: = 0.00 m  
 Line: = line offset (example: -2.00 m)

## 5.2 Laying out using control lines

Hilti POS	
<b>Line to Point</b>  DR Prism	
Applikation Auswahl>Querabstand	
Pt ID	RLL0 $\alpha_{B,C}$
HR	0.000 m $1_{2,3}$
Line	0.000 m $1_{2,3}$
Offset	0.000 m $1_{2,3}$
Height	0.000 m $1_{2,3}$
Back	Pt-Line
OK	

Enter the layout position as a dimension relative to the defined control line.

Hilti POS	
<b>Align and Measure</b>  DR Prism	
Applikation Auswahl>Absteckung/Absteck Punkt	
HR <b>4</b>	3.000 m $1_{2,3}$
Pt ID	1
HA	NaN $^{\circ}$
HD	NaN m
<b>1</b>	<b>2</b>
Back	Meas





The direction and distance to the point to be laid out is shown.

Pivot the instrument until the direction arrow points to "0".

Guide the reflector towards the target and take the measurement.

- 1 Back to the previous dialog
- 2 Take the measurement
- 3 Shows the direction in which the point to be laid out lies
- 4 Enter the reflector height (if the height is being used)

Hilti POS	
<b>Layout</b>  DR Prism	
Applikation Auswahl>Absteckung/Absteck Punkt	
HR	2.000 m $1_{2,3}$
Pt ID	ST
Fwd	49.004 m
Right	0.000 m
Up	2.000 m
<b>1</b>	<b>2</b>
Back	Results
Meas	Next Pt



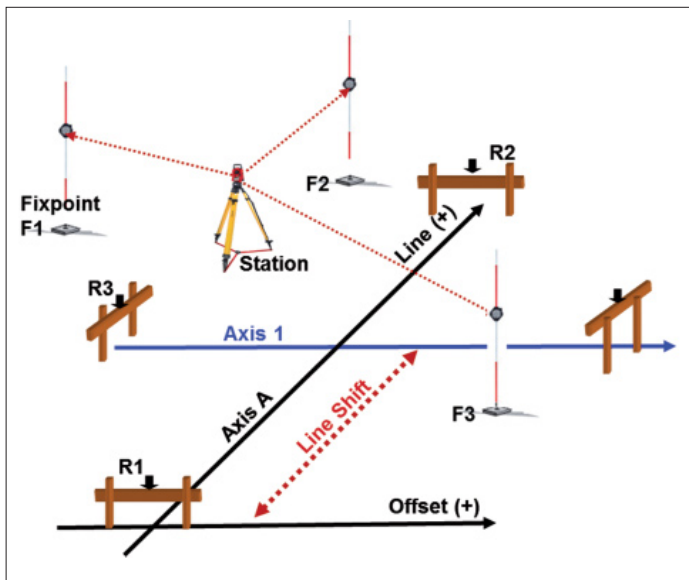
- 1 Back to previous dialog
- 2 Show the result
- 3 Take the measurement
- 4 Select the next point

### 5.3 Backsighting (creating new fixed points)



The total station is to be stationed by way of existing points on axes (control lines) between batter boards. A previously defined axis intersection (e.g. intersection between axis A and axis 1) is now to form the zero point of the axis system. Additional fixed points for further building work are also to be measured. These fixed points must be marked and numbered.

en




#### Measuring procedure

Select **[Meas & Rec]** from the main menu.

Before Measure & Register can be started, a job must first be selected (see 2.1). The parameters for stationing the instrument must then be selected. Select **Height OFF**, **Control Line 3 Points**, **Station Anywhere** and then press **[OK]**.

Hilti POS

**Measure Points**  DR **Prism**

Applikation Auswahl > Messen & Registrieren / Mess & Reg

Pt ID	1	13	B <sub>C</sub>
HR	2	3.000 m	1 <sub>2</sub> <sub>3</sub>
E			---
N			---
H			---

3

Cancel Attr Dist M&R Rec

- 1 Enter the name of the point
- 2 Enter the reflector height
- 3 Measure the point and save the result

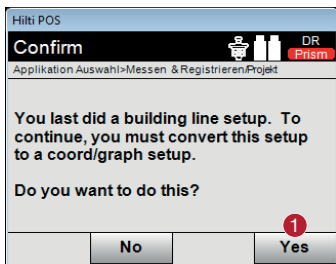
en

The newly created fixed points can be used each time the total station is set up in future. Setting up is then carried out using coordinates as the instrument converts the location of the saved points into coordinates.

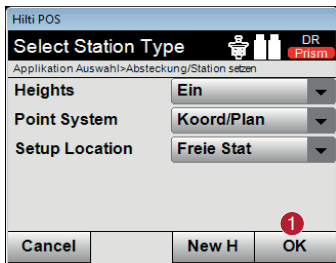
#### 5.4 Setting a new station by way of backsight points

Select the desired application (e.g. Layout) from the start menu. Select the job in which the fixed points were measured.

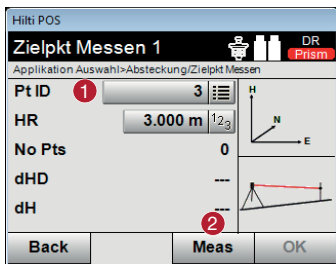
en



- 1 Press to confirm conversion of the measuring data for further use.



- 1 Select the stationing parameters and then press **OK** to confirm.



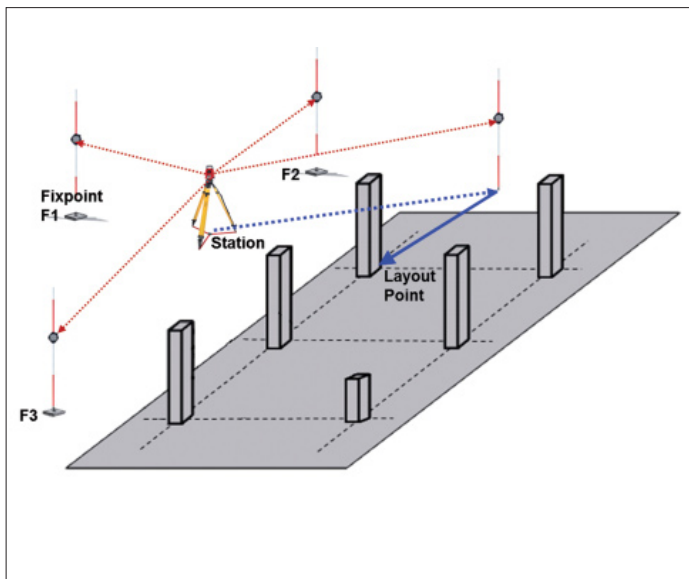
- 1 Select reference point 1 and then sight the point
- 2 Take the measurement and continue to the next point

## 6. Setting up and laying out using points with coordinates

The total station is to be stationed using existing fixed points with coordinates. Fixed points and layout points have already been created in the PROFIS Layout PC application on the basis of a building plan. This data now has to be transferred to the total station and the points created then laid out on the building site.

Absteckung

en



### Measuring procedure


Transfer the data from the USB flash drive to the instrument as already described (see 2.2.). Select the **[Layout]** application in the start menu. Select the applicable job (see 2.1.).

The parameters for stationing the instrument can then be selected: **Height OFF, Coord. / Plan, Station Anywhere** and then press **[OK]**.


## Setting up using points with coordinates

en

Hilti POS

**Ori Pkt Messen 2**  DR  
Prism

Applikation Auswahl>Absteckung/Ori Pkt Messen


**Punkt** 1  


**HR**

**No Pts**

**dHD**

**dH**






**Back** **Angle** **Meas** **OK**

- 1 Select the reference point and sight it
- 2 Take the measurement



## 6.2 Laying out points with coordinates

Hilti POS

Select From List  DR Prism

Applikation Auswahl>Absteckung/Ori Pkt Messen

Pt ID **1** 3  $\beta_{B,C}$

	Pkt	E(Y)	N(X)	H(Z)
<input type="radio"/>	1	3.000	2.000	6.000
<input type="radio"/>	2	6.000	3.000	2.000
<input type="radio"/>	3	12.489	5.163	---


Cancel Map List Man OK

The point to be laid out can be selected from the **list** or **plan** or entered manually.

- 1 Confirm the coordinates
- 2 Confirm the coordinates

en

Hilti POS

Align and Measure  DR Prism

Applikation Auswahl>Absteckung/Absteck Punkt

HR **4** 3.000 m  $1_{2,3}$

Pt ID 1

HA NaN°

HD NaN m


**1** **2**

Back Meas

The direction and distance to the point to be laid out will be shown.

- 1 Return to the previous dialog.
- 2 Take the measurement. Guide the reflector towards the target and take the measurement.
- 3 Shows the direction in which the point lies. Pivot the instrument until the direction indicator arrow points to "0".
- 4 Enter the reflector height (if the height is being used.)

Hilti POS

Layout  DR Prism

Applikation Auswahl>Absteckung/Absteck Punkt

HR 2.000 m  $1_{2,3}$

Pt ID ST

Fwd 49.004 m

Right 0.000 m

Up 2.000 m

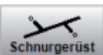
**1** **2** **3** **4**

Back Results Meas Next Pt

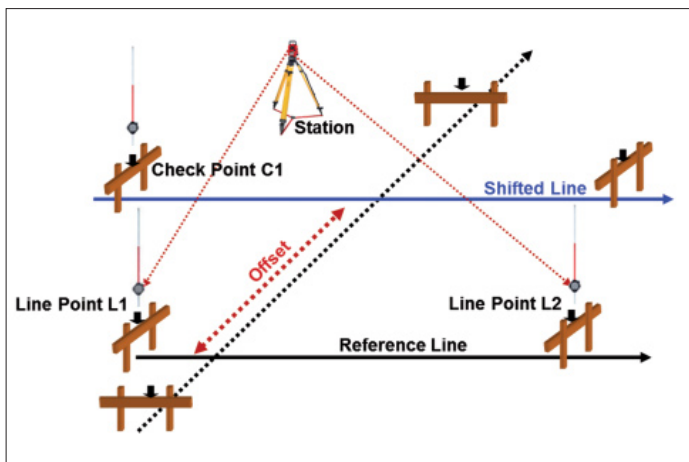
- 1 Return to the previous dialog.
- 2 Deviations in the X and Y directions (can be saved).
- 3 Take the measurement again.
- 4 Select a new layout point.

## 7. Laying out batter boards (shifting control lines)

The total station is to be stationed using existing fixed points with coordinates. On the building site there are control lines to be laid out, extended or shifted parallel, e.g. on batter boards or on floor slabs. The building plan has been processed using PROFIS Layout and the points on the control lines have been saved in the total station in the form of coordinates.



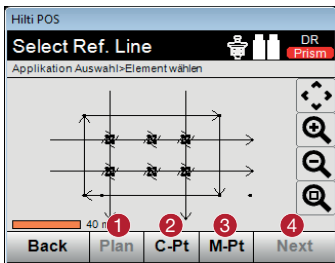
en



### Measuring procedure

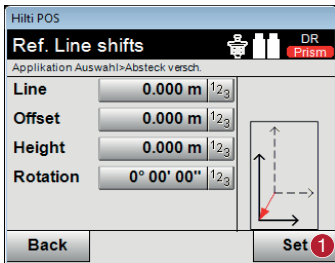
Transfer the data from the USB flash drive as described (see 2.2). Select the **[Batter Board]** application from the main menu. Select the applicable job (see 2.1.).

Next, select the parameters to be used for stationing the instrument: **Height OFF, Coord. / Plan, Station Anywhere** and then press **[OK]**. Carry out the procedure for stationing the instrument as already described (see 7.) and then set the station.



- 1 Select the building control line directly from the plan.
- 2 Define the control line by selecting 2 points.
- 3 Measure the control line.
- 4 Confirm the dialog.

en



The reference control line is defined by the two points on the line. In addition, these can optionally be shifted by a given value in the offset or line directions.

- 1 Confirm the selection and continue.

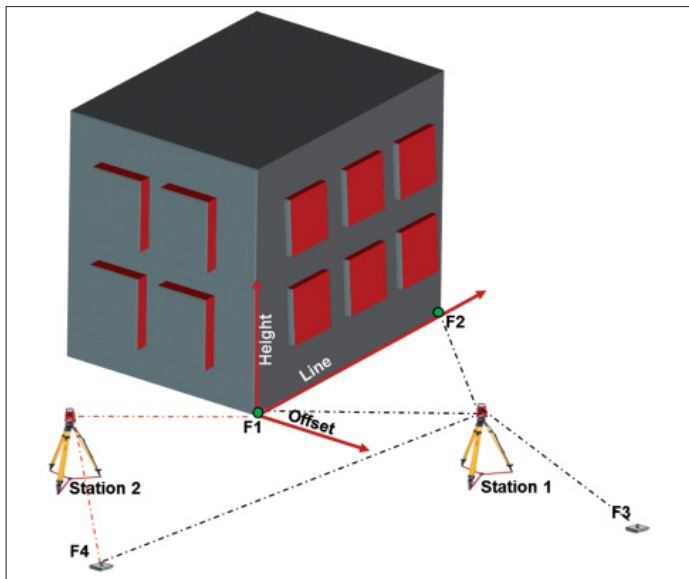
After defining the reference control line, the positions of points relative to this line can then be specified. Points already saved in the instrument, for example, can be converted so that their position is defined relative to this line. Points can also be measured. The line and offset values for positions relative to the defined line are shown in the display.

## 8. As-built survey with heights

The total station is to be used to make an as-built survey. This could be, for example, a survey of the facade of a building, the path followed by a road or the excavations for the foundations of a building. The survey is required for planning purposes. All planning of things such as facade components, road boundaries or volume calculations is carried out on the basis of the data obtained from the survey.



en



### Measuring procedure


Analyze the object and decide where the instrument is to be stationed. Fixed points for stationing the instrument are required for each station. Before beginning the measuring procedure, fixed points must be assigned around the object to be surveyed and marked accordingly.

Select the **[Meas & Reg]** application from the start menu. Create a new job (see 2.1.).


Define the parameters to be used for stationing the instrument: **Height ON**, **Control Lines**, **Station Anywhere** and then press **[OK]**.


Carry out the stationing procedure for the instrument as already described (see 6.) and set the station.

Hilti POS

Zielpkt Messen 3  DR

Applikation Auswahl>Absteckung/Zielpkt Messen

Pt ID 4  

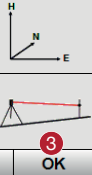
HR 5  

No Pts 2

dHD 6 ---

dH 1 ---


Back Meas OK




- 1 Back to the previous dialog.
- 2 Take the measurement to the reference point.
- 3 Confirm the dialog.
- 4 Select the reference point.
- 5 Specify the height of the reflector.
- 6 Shows the already measured reference points and the differences.


en


Hilti POS

Enter BM Height  DR

Applikation Auswahl>Absteckung/BM Höhe messen


BM Height 5  

HI 6  

HR 7  


Stat H 1 ---

Cancel Pt H Meas OK





- 1 Back to the previous dialog.
- 2 Select the height above the point.
- 3 Take the measurement.
- 4 Confirm the dialog.
- 5 Select the point (benchmark height).
- 6 Specify the height of the instrument.
- 7 Specify the height of the reflector.

Hilti POS

Measure Points  DR

Applikation Auswahl>Messen & Registrieren/Mess & Reg

Pt ID 1  

HR  

E ---

N ---

H ---

Cancel Attr Dist M&R Rec

- 1 Enter the names of the points.
- 2 Measure and save the result.

All of the required points can subsequently be measured from the first instrument station. When moving to a different station, the instrument must be set up as usual, levelled and the **[Meas & Reg]** application then started. Confirm the job that was started from the first instrument station. It is not possible to re-station the instrument using control lines. The total station converts all of the points measured in the job into coordinates (see 6.1.). Orientation is then carried out by way of coordinate points as already described. Once the new station has been set, the survey can be continued.

# HILTI

Hilti Corporation

LI-9494 Schaan

Tel.: +423 / 234 21 11

Fax: +423 / 234 29 65

[www.hilti.com](http://www.hilti.com)

Hilti = registered trademark of Hilti Corp., Schaan  
Pos. 1\_en | 20141215



2107780