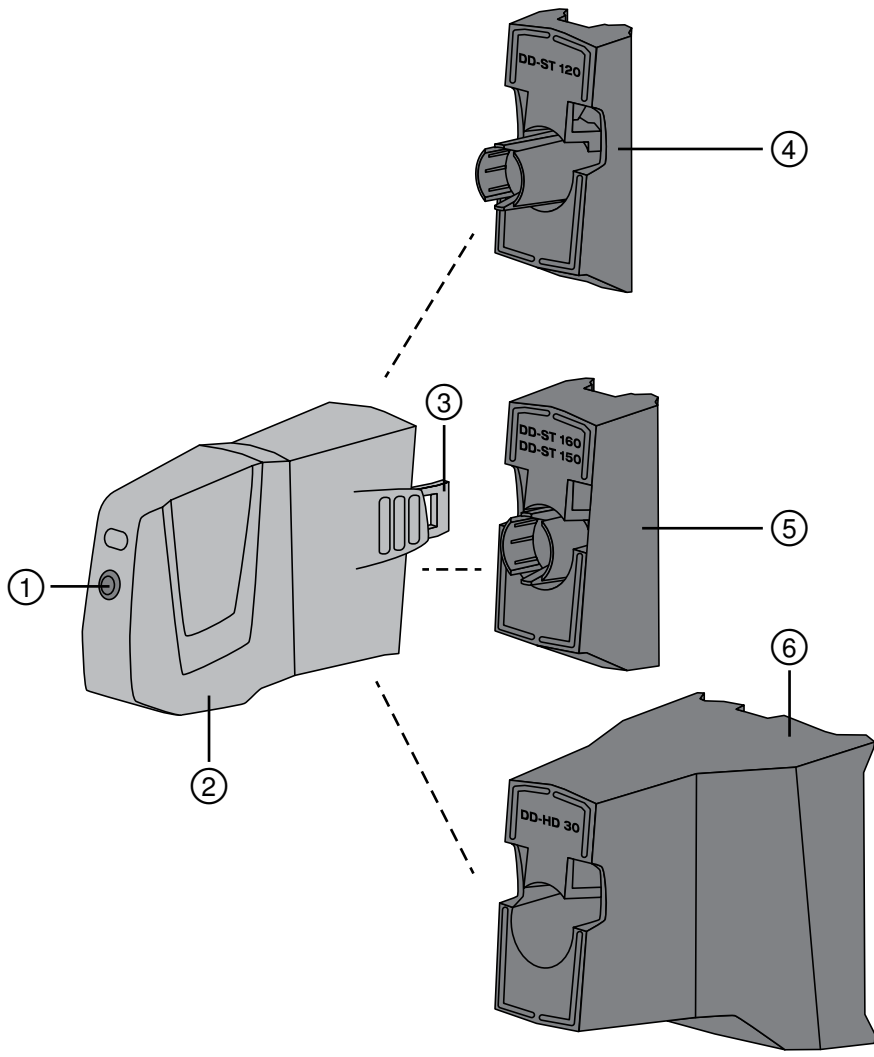
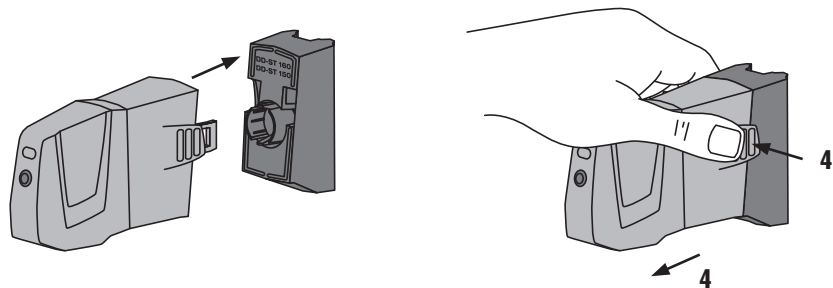


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取扱説明書	ja
사용설명서	ko
操作說明書	zh
操作说明书	cn

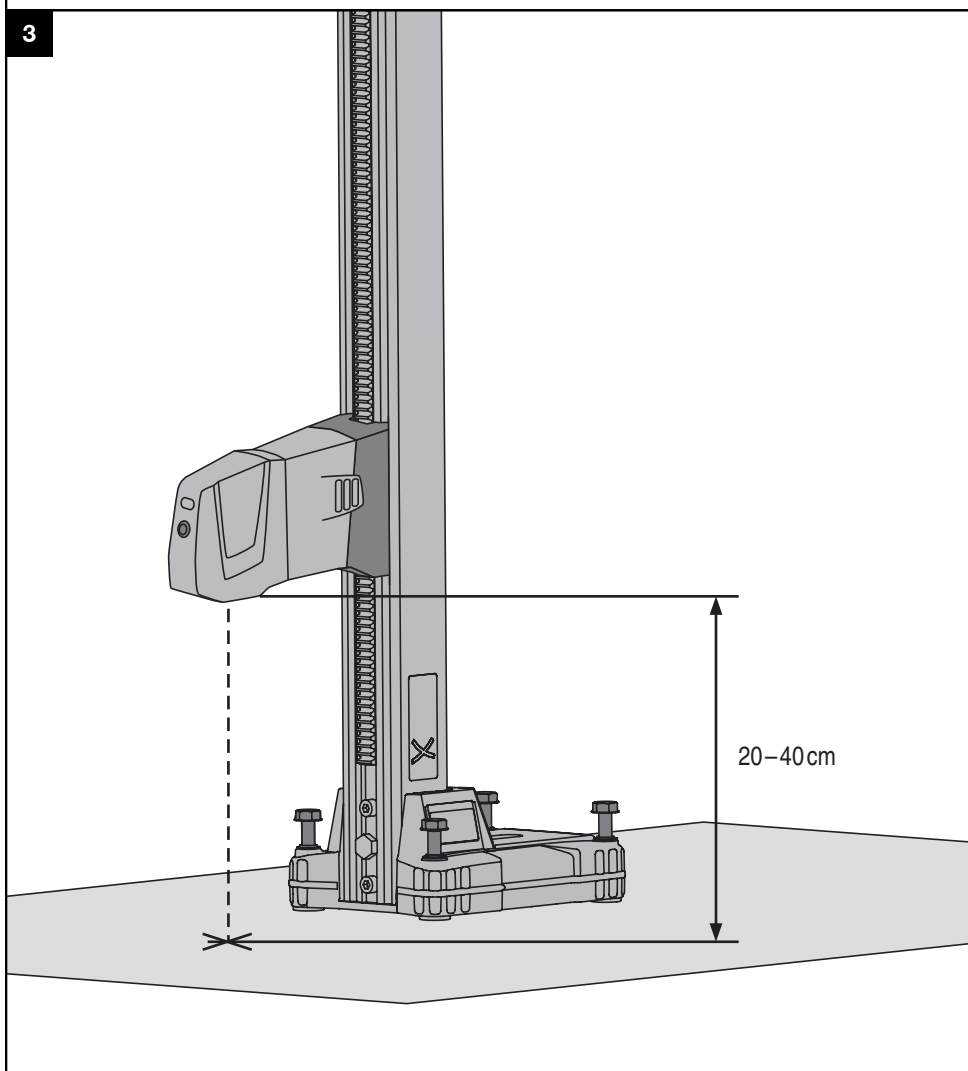




2



3



ORIGINAL OPERATING INSTRUCTIONS

DD-ST HCL hole center laser pointer

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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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❶ These numbers refer to the illustrations. You can find the illustrations at the beginning of the operating instructions.

In these operating instructions, the designation "the tool" always refers to the DD-ST HCL hole center laser pointer.

Operating controls and parts ❶

- ❶ On/off button
- ❷ Laser unit
- ❸ Adapter locking mechanism
- ❹ DD-ST 120 adapter (available as an accessory)
- ❺ DD-ST 150-U/160 adapter (available as an accessory)
- ❻ DD-HD 30 adapter (available as an accessory)

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

Obligation signs



Read the operating instructions before use.

Symbols



Disposal of power tools or appliances and batteries together with household waste is not permissible.

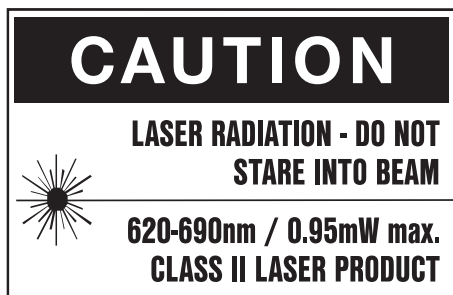


Laser radiation

Do not look into the beam.

Laser Class 2 in accordance with EN 60825-1:2007

On the tool



Laser wavelength 620-690 nm. Under the conditions stated above, mean output power is 0.95 mW.

Location of identification data on the tool

The type designation and serial number can be found on the type identification plate on the tool. Make a note of this data in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type: _____

Generation: 01 _____

Serial no.: _____

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2 Description

2.1 Use of the product as directed

The DD-ST HCL is a cross laser that is used in conjunction with the DD-HD 30, DD-ST 150-U, DD-ST 160 and DD-ST 120 drill stands. When mounted on the corresponding drill stand, the hole center laser pointer makes it possible to quickly determine the exact center of a hole to be drilled with the core drilling system. The DD-ST HCL indicates the hole center correctly even when drilling at an angle.

Depending on the Hilti core drilling machine and drill stand used, the DD-ST HCL must always be used in conjunction with one of the following adapters: DD-HD 30 adapter, DD-ST 150-U/160 adapter or DD-ST 120 adapter.

The magnet incorporated in the adapter makes it easy to mount the hole center laser pointer on the drill stand guide rail and to remove it after use.

Observe the information printed in the operating instructions concerning operation, care and maintenance.

To avoid the risk of injury, use only genuine Hilti tools and accessories.

Modification of the tool is not permissible.

The tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

2.2 Features

The tool features a cross laser with a range of approx. 1 m. The range depends on the brightness of ambient light. The tool switches itself off after 1 minute.

No provision has been made for battery replacement. The tool is designed to achieve a battery life of 150 hours at 20°C/68°F. If switched on for 1 minute per hole drilled, approx. 9,000 hole center indications are thus possible, depending on the ambient temperature.

2.3 Items supplied

- 1 Laser unit
- 1 Soft pouch
- 1 Operating instructions

3 Accessories, consumables

NOTE

The adapters listed ensure the right distance between the hole center laser pointer and the drill stand used.

Designation	Short designation	Description
Adapter	DD-ST HCL A-120	For use with the DD-ST 120 drill stand
Adapter	DD-ST HCL A-150/160	For use with the DD-ST 150-U or DD-ST 160 drill stands
Adapter	DD-ST HCL A-HD30	For use with the DD-HD 30 drill stand
Laser visibility glasses	PUA 60	For improved laser beam visibility under difficult lighting conditions.

4 Technical data

Right of technical changes reserved.

Approx. range of the lines and intersection point	1 m
Accuracy at a distance of 200 mm from the base material	± 1 mm
Laser class	2
Line width at a distance of 250 mm from the base material	1 ... 1.5 mm
Automatic power-off after approx.	1 min
Power supply	4 AA batteries
Battery life at a temperature of +20 °C	150 h
Operating temperature range	-10... +40°C (+14...+104°F)
Storage temperature	-20... +60°C (-4...+140°F)
Protection against dust and water spray	IP 53 As per IEC 60529
Weight of the laser unit with DD-ST HCL A-120 adapter	400 g
Weight of the laser unit with DD-ST HCL A-150/160 adapter	460 g
Weight of the laser unit with DD-ST HCL A-HD30 adapter	570 g
Dimensions of the laser unit with DD-ST 120 adapter (LxWxH)	146 mm x 51 mm x 97 mm
Dimensions of the laser unit with DD-ST 150-U/ 160 adapter (LxWxH)	158 mm x 52 mm x 99 mm
Dimensions of the laser unit with DD-HD 30 adapter (LxWxH)	215 mm x 99 mm x 112 mm

5 Safety instructions

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.

- a) **The tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.**
- b) **To avoid the risk of injury, use only genuine Hilti accessories and additional equipment.**
- c) **Modification of the tool is not permissible.**
- d) **Observe the information printed in the operating instructions concerning operation, care and maintenance.**
- e) **Do not render safety devices ineffective and do not remove information and warning notices.**
- f) **Keep laser tools out of reach of children.**
- g) **Take the influences of the surrounding area into account. Do not expose the tool to rain or snow**

and do not use it in damp or wet conditions. Do not use the tool where there is a risk of fire or explosion.

- h) Check the condition of the tool before use. If the tool is found to be damaged, have it repaired at a Hilti service center.
- i) The user must check the accuracy of the tool after it has been dropped or subjected to other mechanical stresses.
- j) When the tool is brought into a warm environment from very cold conditions, or vice-versa, allow it to become acclimatized before use.
- k) If mounting on an adapter, check that the tool is fitted correctly.
- l) Keep the laser exit aperture clean to avoid measurement errors.
- m) Although the tool 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.
- n) Although the tool is protected to prevent entry of dampness, it should be wiped dry each time before being put away in its transport container.
- o) Avoid looking directly into the laser beam.
- p) The laser visibility glasses are not laser protection glasses and do not protect the eyes against laser beams. As these glasses restrict color vision, wearing them while driving a vehicle on a public road is not permissible. They are also no substitute for sunglasses.
- q) Stay alert, watch what you are doing and use common sense when operating the machine. Don't use the machine when you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating machines may result in serious personal injury.

5.1 Proper organization of the work area

- a) Implement suitable safety measures in the area in which you are working and take care to avoid directing the beam towards other persons or towards yourself when setting up the tool.
- b) Avoid unfavorable body positions when working from ladders. Make sure you work from a safe stance and stay in balance at all times.
- c) The result obtained may be distorted if the laser beam passes through a pane of glass or other objects, or if the wrong adapter is used.
- d) Reflection of the laser beam from glass or other reflective surfaces may cause errors or incorrect results.

- e) Check that the tool is correctly attached to the guide rail of the drill stand (remove dirt or foreign matter such as drilling slurry from the guide rail).
- f) Use the tool only within its specified limits.
- g) If several laser tools are used in the same working area, care must be taken to avoid confusing the beams.
- h) Do not use the tool in the proximity of medical instruments.

5.2 Electromagnetic compatibility

Although the tool complies with the strict requirements of the applicable directives, Hilti cannot entirely rule out the possibility of the tool being subject to interference caused by powerful electromagnetic radiation, leading to incorrect operation.

5.3 Laser classification for Laser Class 2 / Class II appliances

Depending on the version purchased, the tool complies with Laser Class 2 in accordance with IEC825-3:2007 / EN60825-3:2007 and Class II in accordance with CFR 21 § 1040 (FDA). This tool may be used without need for further protective measures. The eyelid closure reflex protects the eyes when a person looks into the beam unintentionally for a brief moment. This eyelid closure reflex, however, may be negatively affected by medicines, alcohol or drugs. Nevertheless, as with the sun, one should not look directly into sources of bright light. Do not direct the laser beam toward persons.

5.4 Electrical

- a) Do not disassemble the tool in order to attempt to charge the batteries. The batteries in the tool are designed to last for the life of the tool. No provision has been made for battery replacement by the user.
- b) To avoid pollution of the environment, the tool must be disposed of in accordance with the currently applicable national regulations. Consult the manufacturer if you are unsure of how to proceed.
- c) Do not allow the batteries to overheat and do not expose them to fire. The batteries may explode or release toxic substances.

5.5 Liquids

Under abusive conditions, liquid may leak from the battery. Avoid contact. If contact accidentally occurs, flush with water. In the event of the liquid 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.

6 Before use

6.1 Assembling and dismantling the hole center laser pointer 2

NOTE

The adapters are available as accessories (see section 3).

1. Select the adapter that is suitable for the drill stand you are using.
2. Fit the DD-ST HCL laser unit to the adapter by pressing it onto the adapter until it is heard to engage with a click.
3. Check that both catches have engaged securely before using the hole center laser pointer.
4. To remove the adapter, press the catches on each side together slightly and pull the laser unit away from the adapter.

7 Operation

NOTE

To achieve maximum accuracy, project the line onto an even surface.

7.1 Switching the laser beam on

Press the on/off button once.

7.2 Switching the laser beam off

If the beam is already switched on, press the on / off button once.

NOTE

The laser unit switches itself off automatically after 1 minute.

7.3 Attach the hole center laser pointer to the drill stand and switch it on. 3

NOTE

For optimum use, the hole center laser pointer should be positioned at a distance of between 20 and 40 cm from the working surface. In order to attach the hole center laser pointer you may have to move the carriage to its highest position on the guide rail or remove the core bit from the machine (please refer to the operating instructions for the drilling machine).

NOTE

Check to ensure that you are using the right adapter for the drill stand.

1. Mount the hole center laser pointer on the guide rail of the drill stand and check that it lies flat against the rail (if necessary, clean the rail to remove dirt or foreign matter such as drilling slurry). The magnet incorporated in the adapter holds the hole center laser pointer in place on the guide rail of the drill stand.
2. Check to ensure that the laser points toward the working surface.
3. Press the on/off button once.

7.4 Aligning the drill stand with the hole center

1. If the drill stand has already been secured, slightly slacken the means by which it is fastened (please refer to the operating instructions for the drilling machine).
2. Adjust the position of the drill stand relative to the surface on which it is standing until the projected laser cross coincides with the center of the position at which the hole is to be drilled.
3. Refasten the drill stand and check to ensure that it holds securely (please refer to the operating instructions for the drilling machine).
4. After refastening the drill stand, check the position of the projected laser cross once again.
5. Press the on / off button to switch the laser beam off (beam no longer visible).
6. Remove the hole center laser pointer from the drill stand.

7.5 Drilling the hole

Please refer to the operating instructions for the drilling machine.

8 Care and maintenance

8.1 Cleaning and drying

1. Blow dust off the lenses.
2. Do not touch the glass with the fingers.
3. Use only a clean, soft cloth for cleaning. If necessary, moisten the cloth slightly with pure alcohol or a little water.
NOTE Do not use any other liquids as these may damage the plastic components.
4. Observe the temperature limits when storing your equipment. This is particularly important in winter / summer if the equipment is kept inside a motor vehicle (-20°C to +60°C / -4°F to 140°F).

8.2 Storage

Remove the tool from its case if it has become wet. The tool, its carrying case and accessories should be cleaned and dried (at maximum +60°C / 140°F). Repack the equipment only once it has dried completely and then store it in a dry place.

Check the equipment before it is used after a long period of storage or transportation.

8.3 Transport

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

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9 Troubleshooting

Fault	Possible cause	Remedy
The tool can't be switched on / no laser beam.	The battery is exhausted.	Contact Hilti Service.
	The on / off switch is defective.	Contact Hilti Service.
	A fault has occurred in the tool.	Contact Hilti Service.
	The temperature is too high or too low.	Allow the tool to cool down or warm up.
	The laser source or laser control unit is faulty.	Contact Hilti Service.
The hole center is not correctly indicated.	The laser diode is out of alignment as a result of a hard impact (e.g. was dropped).	Contact Hilti Service.
	Dirt or foreign matter on the guide rail or adapter.	Clean the guide rail and / or adapter.
	The wrong adapter has been selected and used.	Use the right adapter for the drill stand.
	A spacer is fitted to the drill stand.	The hole center indicated by the laser is incorrect if a spacer is used.

10 Disposal

WARNING

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.



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

Do not dispose of electronic measuring tools or appliances together with household waste.

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 batteries in accordance with national regulations.



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11 Manufacturer's warranty - tools

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

12 EC declaration of conformity (original)

Designation:	Hole center laser pointer
Type:	DD-ST HCL
Generation:	01
Year of design:	2012

We declare, on our sole responsibility, that this product complies with the following directives and standards: until 19th April 2016: 2004/108/EC, from 20th April 2016: 2014/30/EU, 2011/65/EU, EN ISO 12100.

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FL-9494 Schaan

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