

HILTI

DX 351-CT

Bedienungsanleitung [de](#)

Operating instructions [en](#)

Mode d'emploi [fr](#)

Manual de instrucciones [es](#)

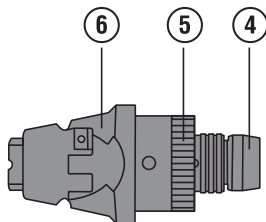
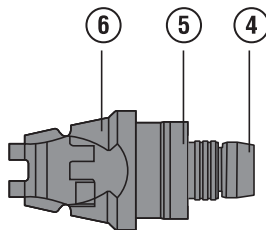
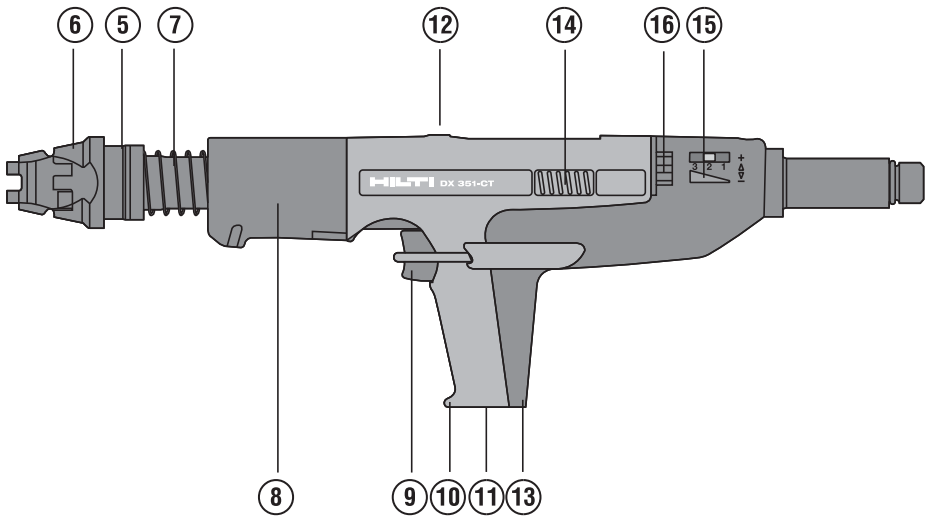
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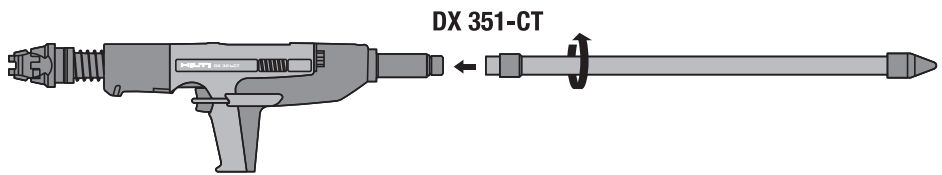
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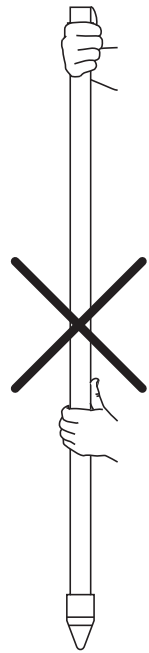
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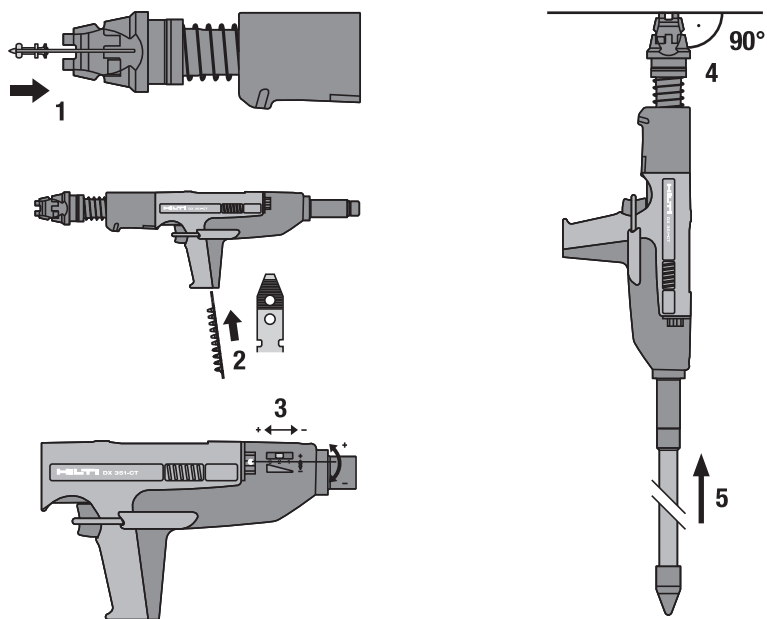
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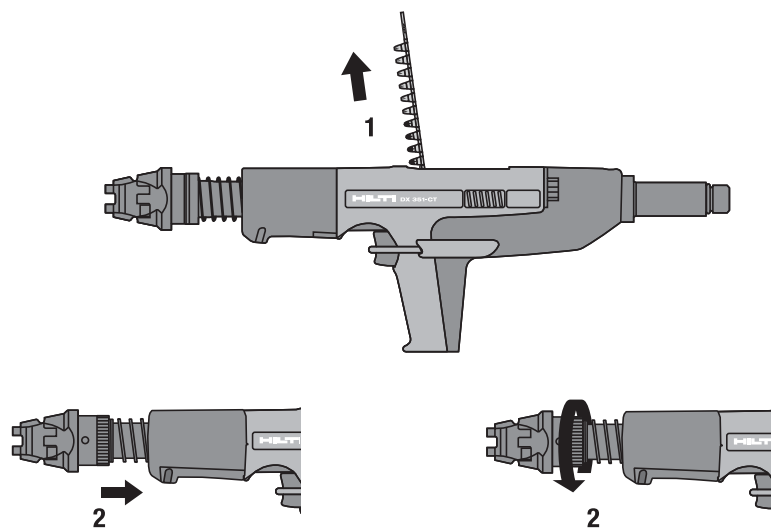
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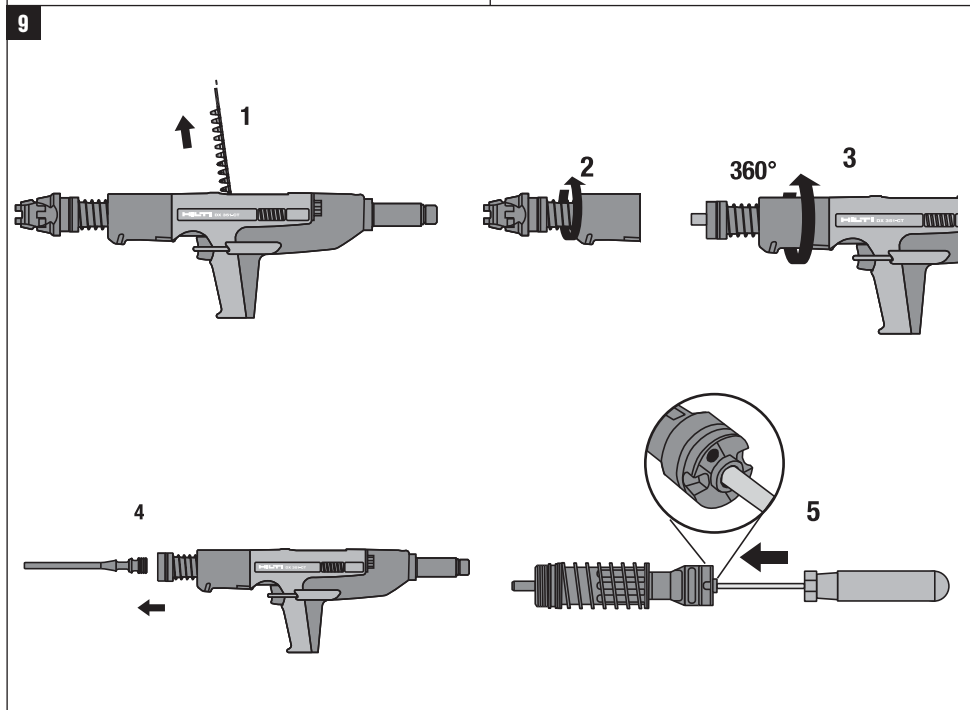
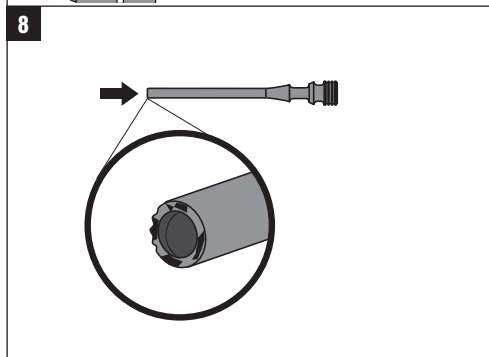
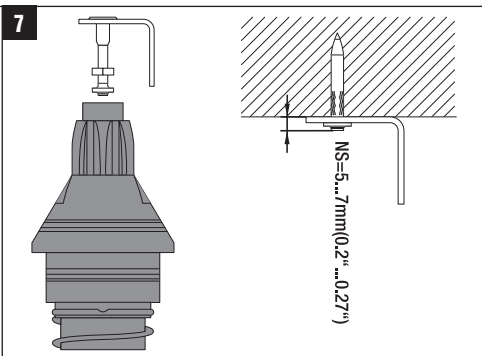
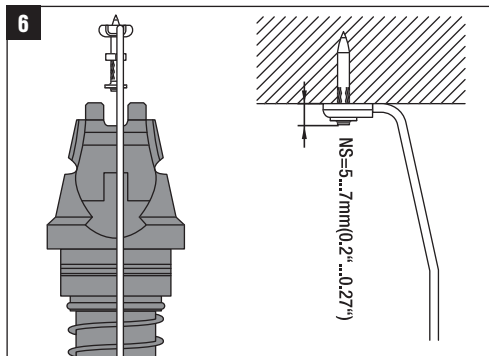


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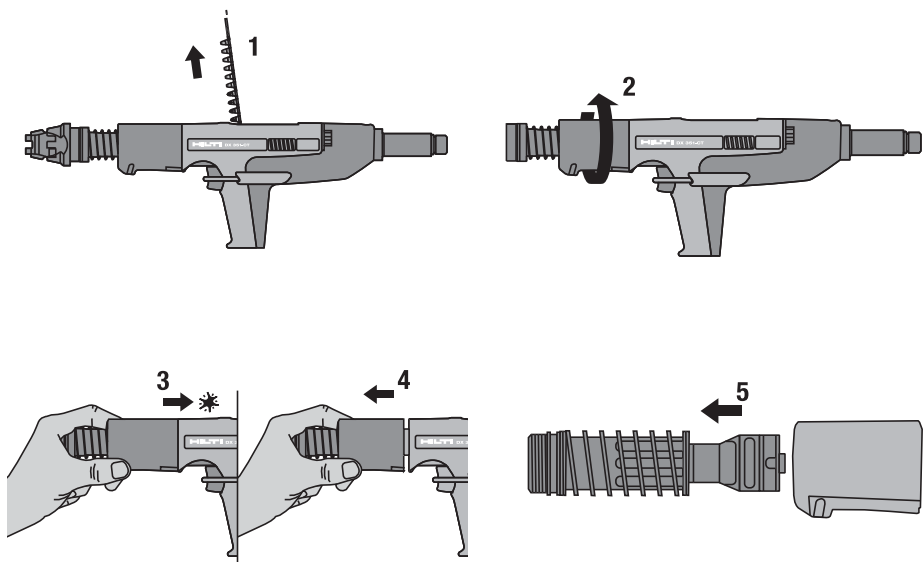


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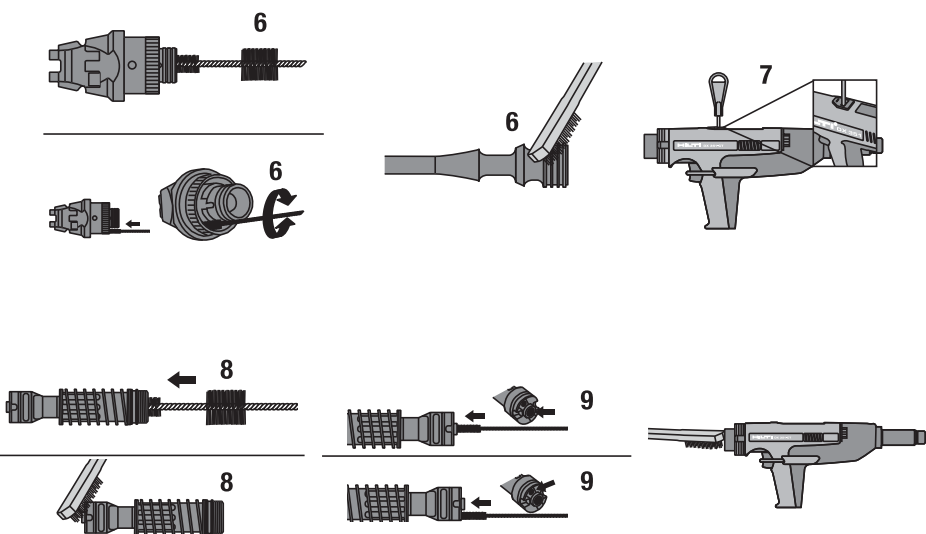




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DX 351-CT powder-actuated fastening tool

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.

In these operating instructions, the designation "the tool" always refers to the DX 351-CT powder-actuated tool with grip.

Parts, operating controls and indicators 1

- 1 Piston brake (part of fastener guide)
- 2 Threaded sleeve
- 3 Fastener guide
- 4 Piston return spring
- 5 Black housing
- 6 Trigger
- 7 Grip
- 8 Cartridge feed
- 9 Cartridge ejection
- 10 Grip covering
- 11 Ventilation slots
- 12 Power regulation indicator
- 13 Power regulation wheel

1 Safety instructions

1.1 Basic information concerning safety

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.

1.1.1 Using cartridges

Use only Hilti cartridges or cartridges of equivalent quality.

Use of cartridges of inferior quality in Hilti tools may lead to a build-up of unburned powder, which may explode and cause severe injuries to operators and bystanders. Cartridges must fulfill one of the following minimum requirements:

- a) The applicable manufacturer must be able to verify successful testing in accordance with the EU standard EN 16264 or
- b) The cartridges must bear the CE conformity mark (mandatory in the EU as of July 2013).

NOTE

All Hilti cartridges for powder-actuated tools have been tested successfully in accordance with EN 16264. The tests defined in the EN 16264 standard are system tests carried out by the certification authority using specific

combinations of cartridges and tools. The tool designation, the name of the certification authority and the system test number are printed on the cartridge packaging.

Please refer to the packaging example at: www.hilti.com/dx-cartridges

1.1.2 Requirements to be met by users

Never attempt to use the tool without first receiving proper instruction on its use and observance of the associated safety precautions. Contact your local Hilti representative for assistance.

1.1.3 Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a direct fastening tool. Do not use tool while tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating tools may result in serious personal injury.
- b) **Avoid unfavorable body positions. Make sure you work from a safe stance and stay in balance at all times.**

- c) Never point the tool toward yourself or other persons.
- d) Never press the nosepiece of the tool against your hand or against any other part of your body (or other person's hand or part of their body).
- e) Keep other persons, especially children, away from the area in which the work is being carried out.
- f) Keep the arms slightly bent while operating the tool (do not straighten the arms). Stop using the tool immediately if you experience pain or discomfort.

1.1.4 Use and care of powder-actuated fastening tools

- a) Use the right tool for the job. Do not use the tool for purposes for which it was not intended. Use it only as directed and when in faultless condition.
- b) Always hold the tool securely with both hands on the grip provided. Do not hold the exposed metal pole of the extensions. This may cause the tool to malfunction.
- c) Press the tool against the working surface at right angles.
- d) Never leave a loaded tool unattended.
- e) Always unload the tool (remove cartridges and fasteners) before cleaning, before maintenance, before work breaks and before storing the tool.
- f) Check the tool and its accessories for any damage. Guards, safety devices and any slightly worn parts must be checked carefully to ensure that they function faultlessly and as intended. Check that moving parts function correctly without sticking and that no parts are damaged. All parts must be fitted correctly and fulfill all conditions necessary for correct operation of the tool. Damaged guards, safety devices and other parts must be repaired or replaced properly at a Hilti service center unless otherwise indicated in the operating instructions.
- g) Always hold the tool securely and at right angles to the working surface when driving in fasteners. This will help to prevent fasteners being deflected by the working surface.
- h) Never use a fastener twice.
- i) Never redrive a fastener. This may cause the fastener to break and the tool may jam.
- j) Never drive fasteners into existing holes unless this is recommended by Hilti.
- k) Always observe the application guidelines, including the minimum thickness of the base material, fastener spacing and the minimum edge distances.
- l) Use the spill guard when the application permits.
- m) Never pull the fastener guide back by hand as this could, under certain circumstances, make the tool ready to fire. This could cause a fastener or the piston to be driven into a part of the body.
- n) Do not dismantle the tool while it is hot.
- o) The applicable national regulations, especially those concerning accident prevention, must be observed.

1.1.5 Work area safety



- a) Ensure that the workplace is well lit.
- b) Operate the tool only in well-ventilated working areas.
- c) Do not attempt to drive fasteners into unsuitable materials. Materials that are too hard, e.g. welded steel and cast iron. Materials that are too soft, e.g. wood and drywall panel (gypsum board). Materials that are too brittle, e.g. glass and ceramic tiles. Other unsuitable materials include: Glass, marble, plastic, bronze, brass, copper, rock, insulating material, hollow brick, ceramic tiles, thin sheet metal (< 4 mm) and cellular concrete. Driving a fastener into these materials may cause the fastener to break, shatter or to be driven right through.
- d) Do not use the tool on surfaces with a fire protection coating thicker than 12 mm (½"). Using the tool on surfaces with a fire protection coating may cause the tool to malfunction.
- e) Before driving fasteners, check that no one is present immediately behind the working surface.
- f) Keep the workplace tidy. Objects which could cause injury should be removed from the working area. Untidiness at the workplace can lead to accidents.
- g) Keep the grip section and grip clean, dry and free from oil and grease.
- h) Wear non-skid shoes.
- i) Take the influences of the surrounding area into account. Do not expose the tool to rain or snow. Do not use the tool where there is a risk of fire or explosion.

1.1.6 Mechanical safety precautions



- a) Select the correct fastener guide and fastener combination for the job on hand. Failure to use the correct combination of these items may result in injury or cause damage to the tool and/or lead to unsatisfactory fastening quality.
- b) Use only fasteners of a type approved for use with the tool.
- c) Do not use a worn or damaged piston or piston brake. Do not tamper with or modify the piston.

1.1.7 Thermal safety precautions



- a) If the tool has overheated, allow it to cool down.

- b) Always wear gloves if the tool has to be dismantled for cleaning or maintenance before it has been allowed to cool down.
- c) The tool must be allowed to cool down if the plastic cartridge strip begins to melt.

- c) Never use force when attempting to remove cartridges from the tool.
- d) Unused cartridges must be stored in a dry, high place, locked up or out of reach of children.

1.1.8 Electrical safety precautions

Keep your hands on the black gripping section and avoid electric cables (risk of electric shock). Regularly check to ensure the gripping section and extension are in good condition.

1.1.9 Danger of explosion



- a) Use only cartridges of a type approved for use with the tool.
- b) Remove the cartridge strip from the tool carefully.

1.1.10 Personal protective equipment



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The user and any other persons in the vicinity must wear suitable eye protection, a hard hat, safety shoes, ear protection and protective gloves while the tool is in use or when checking for faults etc. The user must also wear protective gloves.

2 General information

2.1 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.

2.2 Explanation of the pictograms and other information

Warning signs



General warning



Warning: explosive substances



Warning: hot surface

Obligation signs



Wear eye protection



Wear a hard hat



Wear ear protection



Wear protective gloves



Read the operating instructions before use.

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.: _____

3 Description

3.1 Use of the product as directed

The Hilti DX 351-CT is a powder-actuated tool designed for driving nails into concrete, steel and other materials suitable for DX fastening (see Fastening Technology Manual).

The tool utilizes a captive piston to provide optimum functional reliability and working safety. The tool features automatic piston return and cartridge transport powered by gas pressure resulting from operation of the tool. Nails of up to 37 mm in length can thus be driven very quickly and efficiently.

As with all powder-actuated fastening tools, the tool, the fastener guide, the grip, the fasteners and the cartridges form a single "technical unit". This means that trouble-free fastening with this system can be assured only if fasteners and cartridges specially manufactured for it, or products of equivalent quality, are used. The fastening and application recommendations given by Hilti apply only when these conditions are observed.

The tool is designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any special hazards that may be encountered. The tool 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 fasteners, cartridges, accessories and spare parts or those of equivalent quality.

Modification of the tool is not permissible.

3.2 Through-shot and ricochet safety device

As a result of the piston principle, the DX 351-CT is classified as a low-velocity tool. Most excess driving energy is dissipated inside the tool.

3.3 Drop-firing safety device

The drop-firing safety device is the result of coupling the firing mechanism with the cocking movement. This helps prevent the tool firing when dropped onto a hard surface, no matter at which angle the impact occurs.

3.4 Trigger safety device

The trigger safety device prevents the tool firing when only the trigger is pulled. The tool can be fired only when it is pushed fully against the working surface, pointing upwards, and the grip pressed.

3.5 Contact pressure safety device

The contact pressure safety device prevents the tool firing unless it is firmly pressed against a surface. The tool can be fired only when pressed fully against a surface with a force of at least 140 N.

3.6 Gravitation safety device

The gravitation safety device prevents the tool firing when in a horizontal position or when pointing toward the floor. The tool can be fired only when it is pointing upwards.

4 Consumables

NOTE

Not all of the products listed in the following tables are available in all countries. Please contact Hilti in your country for further information or check the Hilti catalog for details of the products available.

| DX 351-CT powder-actuated fastening tool | Ordering designation | Fasteners |
|--|----------------------|----------------------|
| Grip | X-PT CT-351 | |
| Main unit | DX 351-CT | |
| Standard piston | X-P8-351 CT | X-CW |
| DX 351 piston | X-P8S-351 | X-CC, X-HS, X-U, X-C |
| Standard fastener guide | X-351-F8CT | X-CW |
| DX 351 fastener guide | X-FG8S351 | X-CC, X-HS, X-U, X-C |
| ME fastener guide | X-FG8ME-351 | X-CC, X-HS, X-U, X-C |
| Spall guard | X-351-CT | |

| Standard accessories | Ordering designation |
|----------------------|----------------------|
| Toolbox | DX 351-CT |
| Cleaning set | DX 351 |
| Hilti spray | 66 ML |

| Additional accessories | Ordering designation |
|---------------------------|----------------------|
| 3FT extension | X-PT CT-351 3FT |
| 1FT extension | X-PT CT-351 1FT |
| Woven fabric shoulder bag | X-PT CT |

| Cartridge type | Ordering designation |
|----------------|----------------------|
| Heavy | 6.8/11 M red |
| Medium | 6.8/11 M yellow |
| Light | 6.8/11 M green |

5 Technical data

Right of technical changes reserved.

| Description | Weight | Dimensions (L x W x H) |
|--|------------------|---|
| DX 351-CT tool (main unit, piston, fastener guide) | 2.7 kg (5.95 lb) | 545 mm X 55 mm X 164 mm (21.4" x 6.4" x 2.1") |
| X-PT CT-351 grip | 0.9 kg (2 lb) | 935 mm x Ø35.5 mm (36.8" x 1.4") |
| 3FT extension | 0.5 kg (1.2 lb) | 915 mm x Ø30 mm (36" x 1.2") |
| 1FT extension | 0.2 kg (0.5 lb) | 288 mm x Ø30 mm (12" x 1.2") |

DX 351-CT tool

| | |
|-------------------------------------|-----------------------------|
| Contact movement | 62 mm (2.4") |
| Trigger force | 140...320 N |
| Ambient operating temperature range | -15... +45°C (5°F to 113°F) |

6 Before use



NOTE

Read the operating instructions before the tool is operated for the first time.

6.1 Check the tool

Check that no cartridge strip is loaded in the tool. If a cartridge strip is present in the tool, remove the strip by pulling it out.

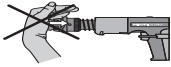
Check all external parts of the tool for damage and check that all controls operate faultlessly. Do not operate the tool when parts are damaged or when the controls do not function correctly. If necessary, have the tool repaired at an authorized Hilti service center.

Check the piston and piston brake for wear and ensure that the parts have been fitted correctly.

7 Operation



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CAUTION

Never push back the fastener guide with the palm of the hand, with any other part of the body or with the nail as this presents a risk of injury.

WARNING

Driving a fastener may cause flying fragments. **The user of the tool and bystanders must wear protective glasses and a hard hat.** Flying fragments present a risk of injury to the eyes and body.

CAUTION

The fastener driving action is initiated by ignition of a propellant charge. **The user of the tool and other persons in the immediate vicinity must wear ear protectors.** Exposure to noise can cause hearing loss.

WARNING

Never make the tool ready to fire by pressing it against a part of the body (e.g. the hand). This could cause a nail or the piston to be driven into a part of the body. **Never press the tool against a part of the body.**

7.1 Fitting the grip to the tool 2

CAUTION

Unless national or local regulations specify a shorter length, a maximum of 3 extensions (3 ft and / or 1 ft extensions) may be fitted between the grip and the tool in order to reach high ceilings. The maximum permitted length of all extensions (not including the grip) is 9 ft (3 m).

CAUTION

Check that the grip and extension are fitted correctly.

Push the grip onto the tool from the rear.

7.2 Operation 3 4

CAUTION

Keep your hands on the black gripping section and avoid electric cables (risk of electric shock). Regularly check to ensure the gripping section and extension are in good condition.

1. Insert the fastener.
2. Push the cartridge strip, narrow end first, into the grip of the tool from below until the full length of the cartridge strip is inside the grip.

NOTE If the cartridge strip is already partly used, pull it through by hand until an unused cartridge is in position in the cartridge chamber.

3. Adjust the driving power by turning the regulating wheel (1 = minimum power, 2 = medium power, 3 = maximum power). Start with minimum power. Increase the power if the fastener does not penetrate deep enough.
4. Position the tool perpendicular to the ceiling.
5. Fire the tool and drive the fastener by pushing the grip toward the ceiling.

7.3 Changing the equipment 5

1. Pull the cartridge strip out of the tool at the cartridge strip exit aperture.
2. Push the fastener guide firmly against the piston guide and then screw it on in a clockwise direction until it engages.

7.4 Application guidelines

NOTE

For detailed information, please ask your local Hilti representative for a copy of the applicable technical guidelines or national technical regulations.

7.4.1 Procedure if a cartridge fails to fire

If a cartridge fails to fire or misfires, always proceed as follows:

Keep the nose of the tool pressed at right angles against the working surface for 30 seconds.

If the cartridge still fails to fire, withdraw the tool from the working surface, taking care to avoid pointing it toward your body or toward bystanders.

Pull the cartridge strip through to the next cartridge by hand. Use up the remaining cartridges on the strip and remove the used cartridge strip from the tool. The (partly) used cartridge strip must then be disposed of appropriately to prevent further use or misuse of any unfired cartridges.

7.4.2 Instructions for use of the X-CW 6

Recommended fastener guides: X-351-F8CT

Use of the X-CW fastener with other DX351 fastener guides may result in poorer fastening quality (higher rate of failure).

Insert the X-CW fastener in the fastener guide.

Check to ensure that the fastener is inserted correctly. Any fasteners which fail to hold or are incorrectly driven must be replaced.

Base material: Concrete

Fasteners: X-CW C27; X-CW C32; X-CW U22; X-CW U27
Fastening quality: The head of the nail must press the sleeve against the working surface.

Nail stand-off: 5 - 7 mm (0.2" - 0.27")

7.4.3 Instructions for use of the X-CC 7

Recommended fastener guides: X-FG8S351; X-FG8ME-351

Insert the X-CC fastener in the fastener guide.

Check to ensure that the fastener is inserted correctly. Any fasteners which fail to hold or are incorrectly driven must be replaced.

Base material: Concrete

Fasteners: X-CC C27; X-CC27 C32; X-CC27 U22; X-CC27 U27

Fastening quality: The head of the nail must press the clip against the working surface.

Nail stand-off: 5 - 7 mm (0.2" - 0.27")

7.5 Changing the piston and piston brake 8 9

WARNING

All cartridges must be removed from the tool. Ensure that there is no fastener in the fastener guide.

CAUTION

After the tool has been in use, the parts to be handled may be very hot. **It is essential that gloves are worn if the following maintenance operations have to be carried out before the tool has been allowed to cool down.**

NOTE

Firing the tool repeatedly without driving a fastener stresses the piston and piston brake and causes these parts to wear. If the piston shows signs of chipping and / or the synthetic rubber part of the piston brake is badly worn, then these parts have reached the end of their life.

1. Pull the cartridge strip out of the tool at the cartridge strip exit aperture.
2. Unscrew the fastener guide.
3. Rotate the black housing one complete revolution (360°) in a counterclockwise direction.

This releases the piston stop.

4. Remove the piston from the piston guide and the piston brake from the fastener guide.

NOTE If the piston is stuck inside the piston guide, the complete piston guide must be removed (see section "Cleaning").

5. Push the piston out by pushing through the cartridge chamber.

NOTE Do not regrind the piston. The tool will be damaged if the piston is shortened.

7.6 Cleaning 10 11

WARNING

Dirt and residues in DX tools contain substances that may be hazardous to your health. **Do not inhale dust / or dirt from cleaning. Keep the dust or dirt away from foodstuffs. Wash your hands after cleaning the tool. Never use grease for the maintenance/lubrication of parts of the tool. This may lead to malfunctions. Use only Hilti lubricant spray or a product of equivalent quality.**

1. Pull the cartridge strip out of the tool at the cartridge strip exit aperture.
2. Unscrew the black housing completely in a counterclockwise direction.
3. Push the piston guide back with the palm of the hand to release the piston stop.
4. Remove the black housing from the piston guide.
5. Remove the complete assembly.
6. Clean the piston and fastener guide.
7. Clean the cartridge transport system.
8. Clean the inside and outside of the piston guide (rear of the piston guide and spring area) and lubricate the outside of these parts with Hilti lubricant spray.
9. Clean the cartridge chamber and the power regulation bore on the end surface of the piston guide.
10. Clean the inside of the housing and spray it lightly with Hilti lubricant spray.

8 Care and maintenance



CAUTION

When this type of tool is used under normal operating conditions, dirt and residues build up inside the tool and functionally relevant parts are also subject to wear. **Regular inspections and maintenance are thus essential in order to ensure reliable operation. We recommend that the piston and piston brake are checked and inspected at least weekly when the tool is subjected to**

intensive use, but at the latest after 3,000 fasteners have been driven.

WARNING

The tool must be unloaded before carrying out care and maintenance.

CAUTION

The tool may get hot during use. You could burn your hands. **Wear protective gloves when carrying out care and maintenance. Allow the tool to cool down.**

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8.1 Care of the tool

Clean the outside of the tool at regular intervals with a slightly damp cloth.

NOTE

Do not use a spray or steam/water jet system for cleaning. Never operate the tool when the ventilation slots are blocked. Do not permit foreign objects to enter the interior of the tool.

8.2 Maintenance

Check all external parts of the tool for damage at regular intervals and check that all controls operate faultlessly. Do not operate the tool if parts are damaged or when the controls do not function faultlessly. If necessary, the tool should be repaired by Hilti Service.

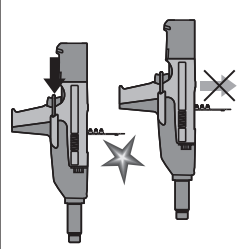
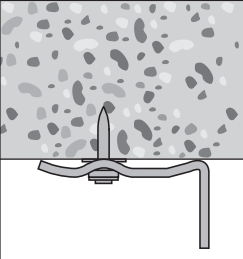
8.3 Checking the tool after care and maintenance

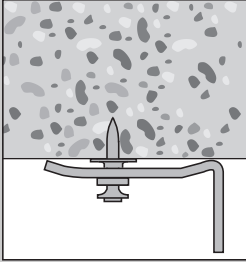
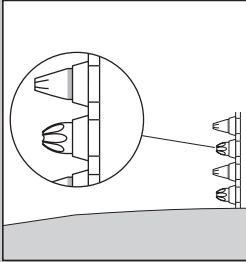
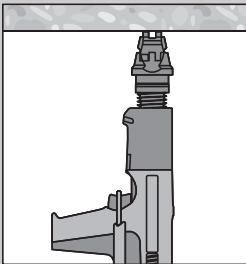
After carrying out care and maintenance and before loading the cartridges, check that all safety devices have been fitted and that they function faultlessly.

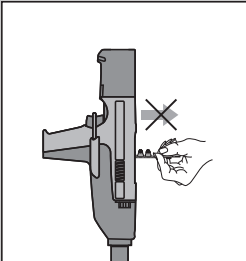
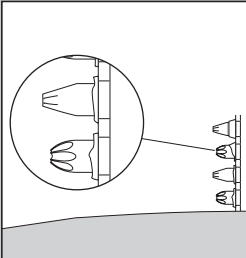
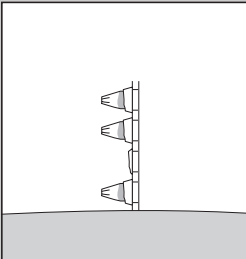
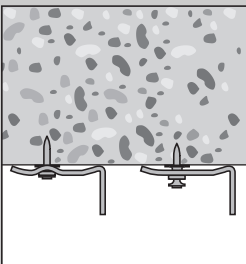
9 Troubleshooting

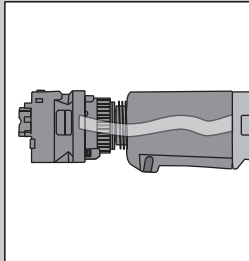
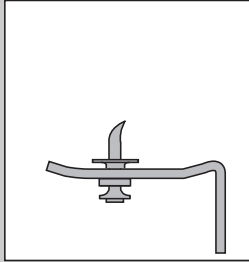
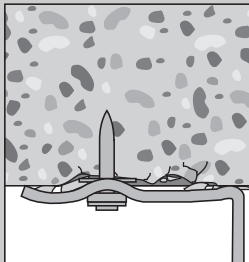
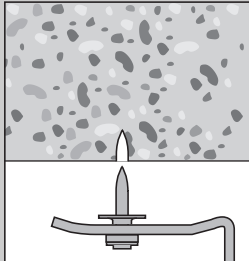
WARNING

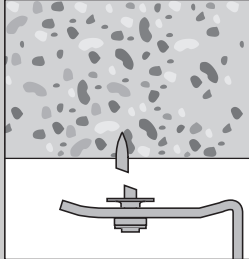
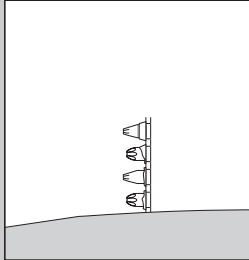
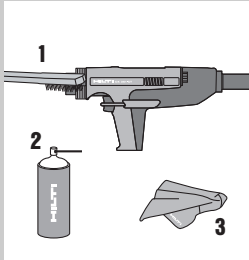
The tool must be unloaded (cartridges and fasteners removed from the tool) before carrying out cleaning or maintenance.

| Fault | Possible cause | Remedy |
|---|--|---|
|  | <p>The cartridge strip is damaged.</p> <hr/> <p>Incorrect use of the grip.</p> <hr/> <p>Build-up of combustion residues.</p> <hr/> <p>The tool is damaged.</p> | <p>Change the cartridge strip.</p> <hr/> <p>Use the grip correctly. See section: 7.2 Operation 3 4</p> <hr/> <p>Clean the cartridge strip guide channel.</p> <hr/> <p>Contact Hilti.</p> |
|  | <p>Fastener driving power is too high.</p> <hr/> <p>The fastener is too short.</p> | <p>Reduce fastener driving power in accordance with recommendations or, respectively, use a less powerful cartridge.</p> <hr/> <p>Use a longer fastener.</p> |

| Fault | Possible cause | Remedy |
|---|---|---|
| <p>The fastener is not driven deep enough.</p>  | <p>Fastener driving power is too low.</p> <hr/> <p>The fastener used is too long.</p> <hr/> <p>The tool is fouled with dirt and residues.</p> <hr/> <p>The piston is broken.</p> <hr/> <p>The tool is damaged.</p> | <p>Increase fastener driving power in accordance with recommendations or, respectively, use a more powerful cartridge.</p> <hr/> <p>Use a shorter fastener if permissible.</p> <hr/> <p>Clean the tool.</p> <hr/> <p>Change the piston.</p> <hr/> <p>Contact Hilti.</p> |
| <p>The tool remains compressed (does not extend to original state when pressure is released).</p> | <p>The tool is fouled with dirt and residues.</p> | <p>Clean the tool.</p> |
| <p>A cartridge doesn't fire.</p>  | <p>The tool is not pressed fully against the working surface.</p> <hr/> <p>The cartridge strip is used up.</p> <hr/> <p>One of the cartridges is faulty.</p> <hr/> <p>The tool is defective or the cartridges are faulty.</p> <hr/> <p>The tool is badly fouled with dirt and residues.</p> | <p>Press the tool fully against the working surface.</p> <hr/> <p>Remove the used cartridge strip and load a new one.</p> <hr/> <p>Push the cartridge strip further and use up the remaining cartridges.</p> <hr/> <p>Contact Hilti.</p> <hr/> <p>Clean the tool.</p> |
| <p>Big drop in driving power.</p> | <p>The tool is badly fouled with dirt and residues.</p> | <p>Clean the tool.</p> |
| <p>The piston guide jams.</p>  | <p>The tool is badly fouled with dirt and residues.</p> <hr/> <p>The piston is damaged.</p> <hr/> <p>Excessively thick fire protection coating on the ceiling.</p> | <p>Clean the tool.</p> <hr/> <p>Unscrew the black housing. Check the piston and replace it if necessary.</p> <hr/> <p>Remove the fire protection coating.</p> |
| <p>The tool cannot be fired even when fasteners and cartridges are inserted correctly.</p> | <p>The tool is badly fouled with dirt and residues.</p> <hr/> <p>Incorrect use of the grip.</p> <hr/> <p>Material with fire protection coating.</p> | <p>Clean the tool.</p> <hr/> <p>Use the grip correctly. See section: 7.2 Operation 3 4</p> <hr/> <p>Excessively thick fire protection coating on the ceiling.</p> |

| Fault | Possible cause | Remedy |
|--|--|---|
| <p>The cartridge strip cannot be removed.</p>  | <p>The tool is damaged or has overheated as a result of an excessively high fastener driving rate.</p> | <p>Allow the tool to cool. Subsequently remove the cartridge strip carefully from the tool.</p> <p>WARNING</p> <p>Do not attempt to forcibly remove cartridges from the magazine strip or tool.</p> <p>Contact Hilti.</p> <hr/> <p>The tool is damaged.</p> <p>Contact Hilti.</p> |
| <p>The cartridge strip melts.</p>  | <p>The tool is pressed against the working surface for too long before firing.</p> | <p>Fire the tool sooner after pressing it against the working surface.</p> <hr/> <p>The fastener driving rate is too high.</p> <p>Do not exceed the maximum recommended fastener driving rate. Remove the cartridges. Dismantle the tool to allow quicker cooling and to avoid possible damage.</p> |
| <p>A cartridge detaches itself from the cartridge strip.</p>  | <p>The fastener driving rate is too high.</p> | <p>Stop using the tool immediately. Remove the cartridge strip. Allow the tool to cool down. Clean the tool and remove any loose cartridges.</p> <p>WARNING</p> <p>Do not attempt to forcibly remove cartridges from the magazine strip or tool.</p> |
| <p>Fastener driving depth varies.</p>  | <p>The tool is fouled with dirt and residues.</p> | <p>Clean the tool.</p> |

| Fault | Possible cause | Remedy | |
|---|--|--|--|
| <p>The piston jams in the fastener guide.</p> | <p>The piston is damaged.</p> | <p>Unscrew the black housing. Check the piston and replace it if necessary.</p> | |
|  | <p>Use of excessively high driving power on steel.</p> | <p>Reduce the driving power.</p> | |
| | <p>Firing the tool at a high power setting without a fastener loaded.</p> | <p>Avoid firing the tool without a fastener loaded.</p> | |
| | <p>Hard and/or large aggregates in the concrete.</p> | <p>Use a shorter fastener if permissible.</p> | |
| <p>The nail bends.</p> |  | <p>A rebar is located just below the concrete surface.</p> | <p>Use a nail with a higher application limit.</p> |
| <p>Hard surface.</p> | | <p>Use a different system.</p> | |
| <p>Concrete spalling.</p> | | <p>High-strength concrete. Hard and/or large aggregates in the concrete. Old concrete.</p> | <p>Adjust the driving power. Use a different system. e.g. DX-Kwik.</p> |
|  | <p>The fastener doesn't penetrate the concrete deeply enough.</p> | <p>Driving power is too low.</p> | <p>Increase driving power or use a more powerful cartridge.</p> |
| |  | <p>The application limits have been exceeded (very hard material).</p> | <p>Use a stronger fastener.</p> |
| | | | |

| Fault | Possible cause | Remedy |
|---|---|--|
| Nail breakage. | Driving power is too low. | Increase driving power or use a more powerful cartridge. |
|  | The application limits have been exceeded (very hard material). | Use a stronger nail. |
| Unused cartridge problem. | The tool is not pressed fully against the working surface. | Press the tool fully against the working surface and then pull the trigger. |
|  | | |
| Considerable force is required to unscrew or refit the locking sleeve. | Dirt or deposits on the screw thread. | Clean the thread. Spray lightly with Hilti lubricant spray and then wipe off with a cloth. |
|  | | |

10 Disposal



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.

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: | Powder-actuated fastening tool |
| Type: | DX 351-CT |
| Generation: | 01 |
| Year of design: | 2008 |

We declare, on our sole responsibility, that this product complies with the following directives and standards: 2006/42/EC, 2011/65/EU.

Hilti Corporation, Feldkircherstrasse 100,
FL-9494 Schaan



Norbert Wohlwend
Head of Quality & Processes Management
BU Direct Fastening
04/2013



Tassilo Deinzer
Head of BU Direct Fastening
BU Direct Fastening
04/2013

Technical documentation filed at:

Hilti Entwicklungsgesellschaft mbH
Zulassung Elektrowerkzeuge
Hiltistrasse 6
86916 Kaufering
Deutschland

13 Confirmation of CIP testing

The Hilti DX 351 CT has been system and type tested. As a result, the tool bears the rectangular PTB approval mark showing approval number S 817. Hilti thus guarantees compliance with the approved type. Unacceptable

defects or deficiencies, etc. determined during use of the tool must be reported to the person responsible at the approval authority (PTB) and to the Office of the Permanent International Commission (C.I.P.).

14 Health and safety of the operator

14.1 Noise information

Powder-actuated fastening tool

| | |
|------------------|--|
| Type | DX 351-CT |
| Model | Series |
| Caliber | 6.8/11 red |
| Power regulation | 3 |
| Application | Fastening 0.75 mm steel sheet to concrete (B35) using X-U 27P8 |

en

Declared measured values of noise characteristics according to 2006/42/EC Machinery Directive in conjunction with DIN EN 15895

| | |
|---|------------|
| Noise (power) level, $L_{WA}, 1s$ ¹ | 110 dB (A) |
| Emission noise-pressure level in the work station, $L_{pA}, 1s$ ² | 97 dB (A) |
| Peak sound pressure emission level, $L_{pC}, peak$ ³ | 127 dB (C) |

¹ ± 2 dB (A)
² ± 2 dB (A)
³ ± 2 dB (C)

en

Operation and set-up conditions: Set-up and operation of the pin driver in accordance with E DIN EN 15895-1 in the semi-anechoic test room of Müller-BBM GmbH. The ambient conditions in the test room conform to DIN EN ISO 3745.

Testing procedure: Enveloping surface method in anechoic room on reflective surface area in accordance with E DIN EN 15895, DIN EN ISO 3745 and DIN EN ISO 11201.

NOTE The noise emissions measured and the associated measurement uncertainty represent the upper limit for the noise values to be expected during the measurements.

Variations in operating conditions may cause deviations from these emission values.

14.2 Vibration

Total vibration in accordance with 2006/42/EC does not exceed 2.5 m/s².

Further information about user health and safety can be found at www.hilti.com/hse.



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