

HILTI

XBT 4000-A

Operating instructions

en

Mode d'emploi

fr

操作說明書

zh

取扱説明書

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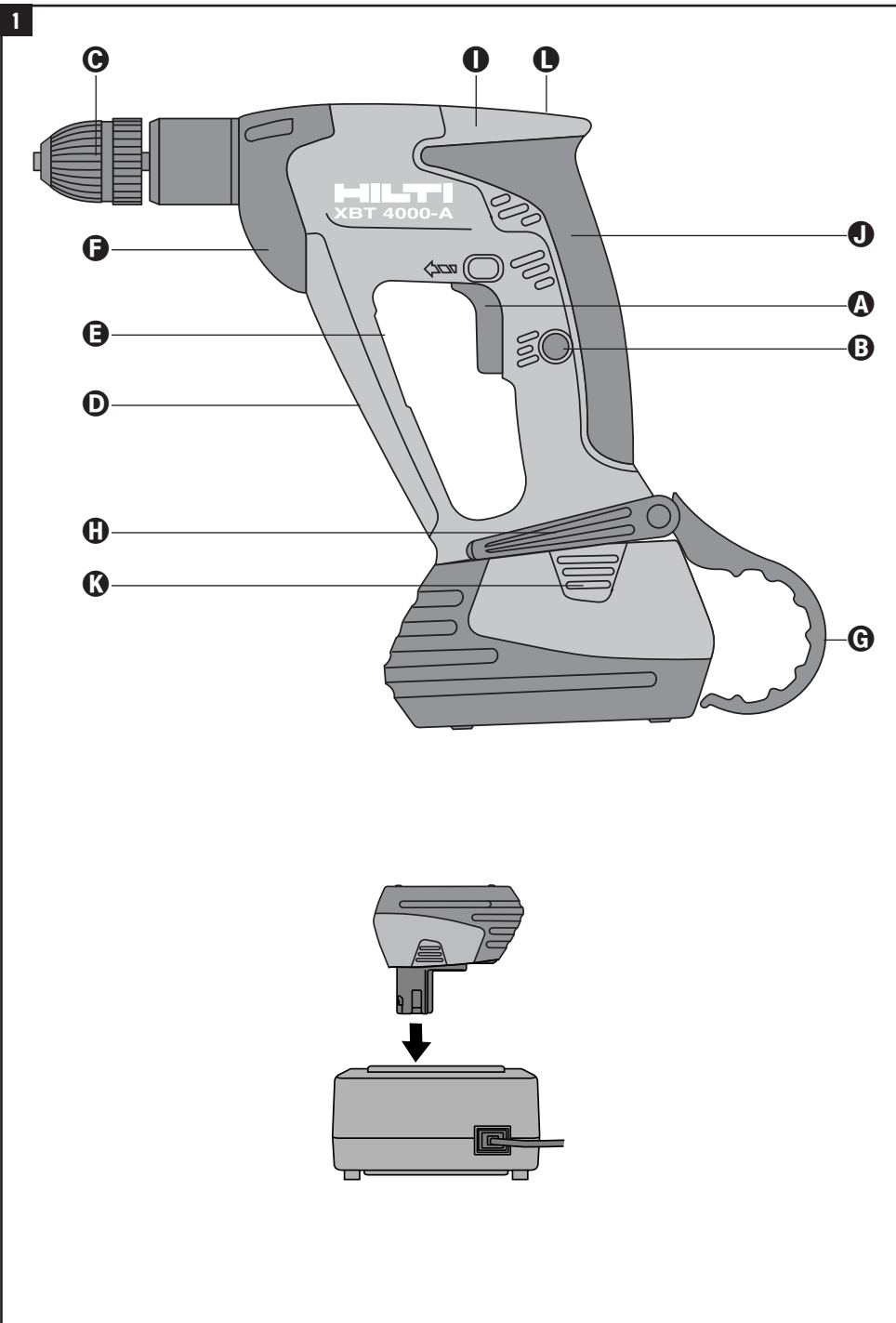
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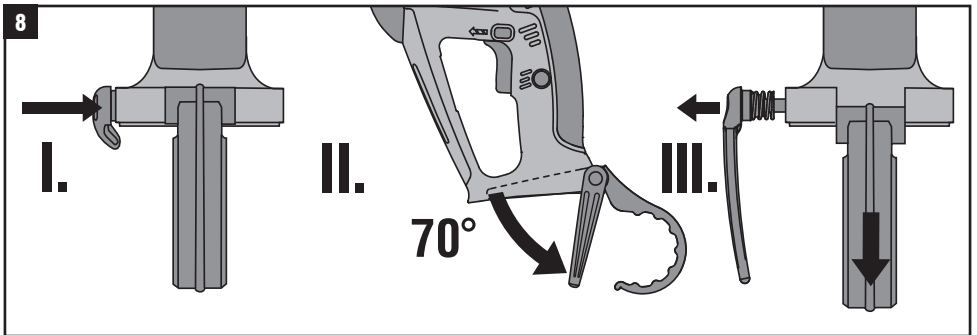
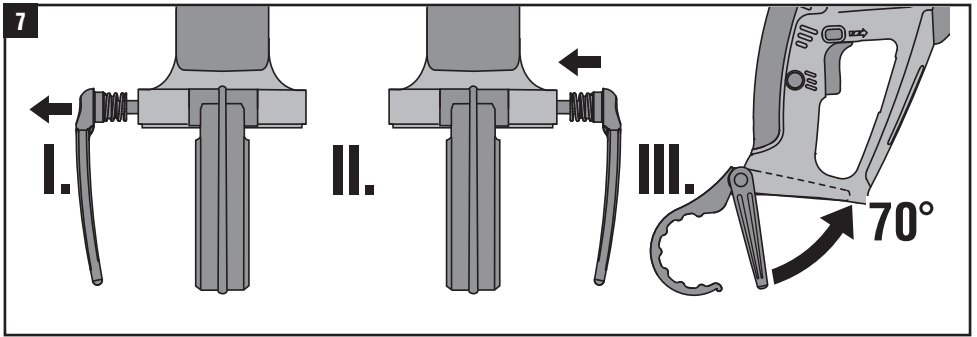
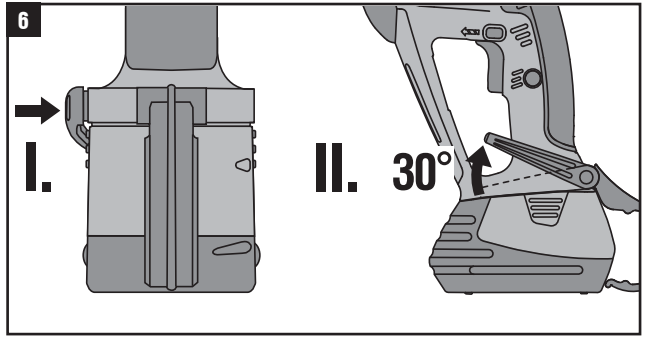
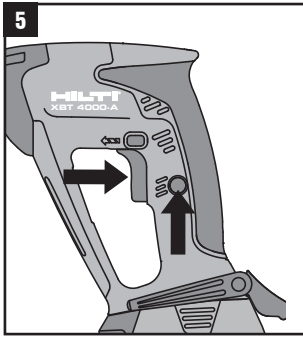
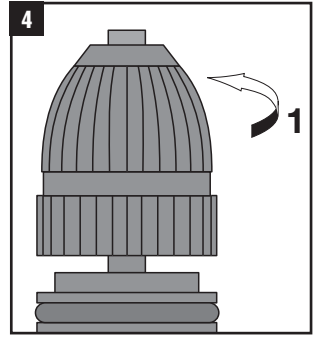
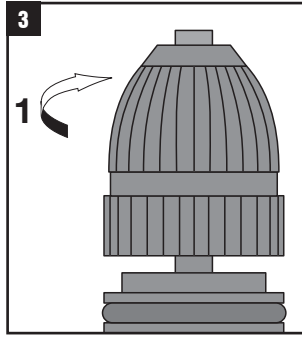
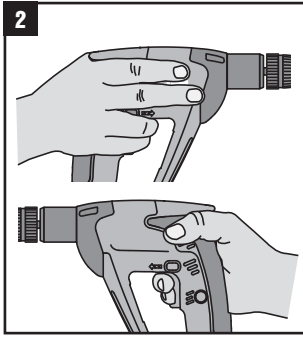
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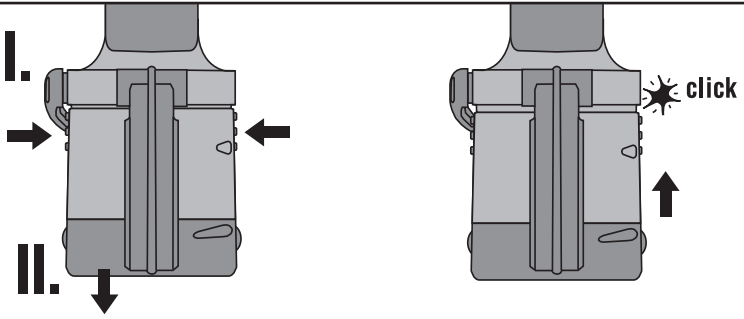
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ORIGINAL OPERATING INSTRUCTIONS

XBT 4000-A drill

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

Always keep these operating instructions with the tool.

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

Operating controls and components 1

- A** On / off switch (with electronic speed control)
- B** Lockbutton for sustained operation
- C** Chuck
- D** Cooling air exit
- E** Rating plate
- F** Gearing
- G** Scaffold hook
- H** Belt hook
- I** Motor
- J** Grip
- K** Battery release button
- L** Motor cooling air intake

Contents	Page
1. General information	1
2. Description	2
3. Insert tools and accessories	2
4. Technical data	3
5. Safety rules	4
6. Before use	6
7. Operation	6
8. Care and maintenance	8
9. Troubleshooting	9
10. Disposal	9
11. Manufacturer's warranty – tools	10
12. Declaration of conformity (original)	10

1. General information

1.1 Signal words

-CAUTION-

Used to draw attention to a potentially dangerous situation which could lead to minor personal injury or damage to the equipment or other property.

-NOTE-

Used to draw attention to an instruction or other useful information.

1.2 Pictograms

Warning signs



General warning



Warning: electricity



Warning: caustic substances

Obligation signs



Wear eye protection



Safety helmet must be worn



Wear breathing protection



Wear ear protection



Wear protective gloves

Symbols



Read the operating instructions before use.



Return waste material for recycling.

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 XBT 4000-A with battery fitted.

Location of identification data on the tool

The type designation, item number, year of manufacture and revision level are printed on the type plate on the tool. The serial number can be found on the left side of the motor housing. Make a note of this information in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type: XBT 4000-A

Serial no.: _____

2. Description

The XBT 4000-A is a cordless drill for professional use. For maximum efficiency and comfort, we recommend using the pistol grip to hold the tool in line with the forearm **2**. The motor cooling air is drawn in through the slits and expelled from the outlet. The drill is suitable for left- and right-handed use. Its nonslip rubber-padded grip reduces fatigue.

Use as intended

The XBT 4000-A is a cordless drill for drilling in steel. It is suitable for use on any type of building site, e.g. shipyards, oil platforms, etc. Its main application is drilling painted steel (4.0mm diameter with TX-BT 4/7-80 / 110 / 150 step drill bit). Only the specified tools and batteries may be used.



- Manipulation or modification of the tool is not permissible.
- To avoid the risk of injury, use only original Hilti accessories and ancillary equipment.
- Observe the information printed in the operating instructions concerning operation, care and maintenance.
- The tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or not as directed.

The following items are supplied in a cardboard box:

- Drill with chuck
- Operating Instructions

Main features of the tool

- Vibration-absorbing grip (synthetic rubber)
- Smooth speed control
- Gearing with permanent lubrication
- Automatic cut-out carbon brushes
- Scaffold hook and belt hook (pivoting and removable)
- Lockbutton for sustained operation
- Cooling air guidance (air exit)

3. Tools and accessories

Item	Designation	Item number
Step drill bit	TX-BT 4/7-80	377079/9
Step drill bit	TX-BT 4/7-110	377080/7
Step drill bit	TX-BT 4/7-150	377081/5
Centering device	X-BT CD 18/24	378885/8
Charger	C7/24	
Battery	SFB 185	
Belt hook		
Scaffold hook		
Belt adapter	SFB 180/185 BAP	

4. Technical data

XBT 4000-A drill

Rated voltage	18 V DC ---
Drill bit diameter	5 mm (main applications 4 mm dia.)
Torque	< 6 Nm
Speed	0–4000 r.p.m.
Speed control	Electronic, using ON/OFF switch
Dimensions (L×W×H)	250×69×265 mm
Weight in accordance with EPTA-procedure 01/2003	2.5 kg
Gearing section sealed to prevent ingress of dust and permanently lubricated to avoid the need for maintenance	

-NOTE-

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure. The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period. An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

Noise and vibration information (measured to EN 60745):

Typical A-weighted sound power level:	86 dB (A)
Typical A-weighted sound pressure level:	75 dB (A)
For the given sound power level as per EN 60745, the tolerance is 3 dB.	
Triaxial vibration value (vibration vector sum)	
Measured in accordance with EN 60745-2-1 prAA: 2005	
Drilling in metal, ($a_{h,v}$)	< 2.5 m/s ²
Uncertainty (K) for triaxial vibration value	1.5 m/s ²

Battery SFB 185

Rated voltage	18 V DC ---
Capacity	18 V × 3,0 Ah = 54 Wh
Weight	1.15 kg
Temperature monitoring	yes
Type of cell	SCB C nickel metal hydride
Number of cells	15

Specifications are subject to change without notice

5. Safety rules

5.1 General safety rules

-WARNING- Read all instructions! Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

5.1.1 Work area

- a) **Keep the work area clean and well lit.** Cluttered and dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

5.1.2 Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord approved for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

5.1.3 Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Avoid accidental starting. Ensure the switch is in**

the off position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.

- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of these devices can reduce dust related hazards.

5.1.4 Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

5.1.5 Battery tool use and care

- a) **Ensure the switch is in the off position before inserting battery pack.** *Inserting the battery pack into power tools that have the switch on invites accidents.*
- b) **Recharge only with the charger specified by the manufacturer.** *A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.*
- c) **Use power tools only with specifically designated battery packs.** *Use of any other battery packs may create a risk of injury and fire.*
- d) **When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** *Shorting the battery terminals together may cause burns or a fire.*
- e) **Under abusive conditions, liquid may be ejected from the battery; avoid contact.** *If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.*

5.1.6 Service

- a) **Have your power tool serviced by a qualified repair person using only genuine replacement parts.** *This will ensure that the safety of the power tool is maintained.*

5.2 Additional safety precautions

5.2.1 Personal safety

- a) **Wear ear protectors.** *Exposure to noise can cause hearing loss.*
- b) **Avoid contact with rotating parts. Switch the tool on only once it has been brought into the working position close to the workpiece.** *Touching rotating parts, especially rotating drill bits, discs or blades, etc., may lead to injury.*
- c) **Breathing protection must be worn when the tool is used without a dust removal system for work that creates dust.**
- d) **Avoid unintentional starting. Do not carry the tool with your finger on the on / off switch. Use the transport safety switch (forward / reverse switch in the middle position) when the tool is not in use, during pauses between work, before maintenance, when changing bits and during transport.**
- e) **Operate the tool only as directed and only when it is in faultless condition.**
- f) **Wear protective gloves when changing insert tools.** *The insert tool may become hot during use.*
- g) **The tool is not intended for use by children, by debilitated persons or those who have received no instruction or training.**
- h) **Children must be instructed not to play with the tool.**

- i) **Dust from material such as paint containing lead, some wood species, minerals and metal may be harmful.** *Contact with or inhalation of the dust may cause allergic reactions and/or respiratory diseases to the operator or bystanders. Certain kinds of dust are classified as carcinogenic such as oak and beech dust especially in conjunction with additives for wood conditioning (chromate, wood preservative). Material containing asbestos must only be treated by specialists. Where the use of a dust extraction device is possible it shall be used. To achieve a high level of dust collection, use a suitable vacuum cleaner of the type recommended by Hilti for wood dust and/or mineral dust together with this tool. Ensure that the workplace is well ventilated. The use of a dust mask of filter class P2 is recommended. Follow national requirements for the materials you want to work with.*

5.2.2 Power tool use and care

- a) **Secure the workpiece. Use clamps or a vice to hold the workpiece in place.** *The workpiece is thus held more securely than by hand and both hands remain free to operate the tool.*
- b) **Ensure that the insert tools used are equipped with the appropriate connection end system and that they are properly fitted and secured in the chuck.**
- c) **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** *Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.*

5.2.3 Electrical safety

- a) **Before beginning work, check the working area (e.g. with a metal detector) to ensure that no concealed electric cables or gas and water pipes are present.** *External metal parts of the tool may become live if, for example, an electric cable is damaged inadvertently. This presents a serious risk of electric shock.*

5.2.4 Work area

- a) **Ensure that the workplace is well lit.**
- b) **Ensure that the workplace is well ventilated.** *Poorly ventilated workplaces may be injurious to the health due to exposure to dust.*

5.2.5 Personal protective equipment

The user and any other persons in the vicinity must wear suitable eye protection, a hard hat, ear protection and protective gloves when the tool is in use. Breathing protection must be worn if no dust removal system is used.



5.2.6 Battery tool use and care

- a) Ensure that the outer surfaces of the battery are clean and dry before inserting it in the corresponding charger.
- b) Check that the battery is securely attached to the tool. A falling battery could injure you or other persons.

- c) The batteries must be disposed of correctly on reaching the end of their life (see section 10).
- d) Do not charge or continue to use damaged batteries (e.g. batteries with cracks, broken parts, bent or pushed-in and/or pulled-out contacts).

6. Before use



A new battery must be charged correctly for the first time before use:

- charged normally for 24 hours with the SFC 7/18 H charger, or
- charged for 12 hours using the conditioning function of the SFC 7/18, C7/24 or TCU 7/36 charger. This will ensure that the cells form correctly. Incorrect initial charging may have a permanent, negative effect on battery capacity.

-NOTE-

- The tool may be used only with SFB 185 batteries.
- Battery performance drops at low temperatures.
- Batteries should be stored at room temperature.
- Never store batteries where they are exposed to the heat of the sun, on a radiator, behind a motor vehicle windscreen or at a window.
- Never use the battery until the cells become fully discharged. Change to the second battery as soon as a drop in performance is noticed and recharge the battery immediately so that it is ready for re-use.
- Use TX-BT 4/7-80 /110 / 150 step drill bits only.

Since it cannot be charged via the belt adapter, always insert the battery straight into the charger.

7. Operation

-CAUTION-

- The tool and the drilling operation emit noise. Excessive noise may damage the hearing. Wear ear protection.
- The drilling procedure may cause the material to splinter. Splintering material may cause injury to the body, respiratory passages and the eyes. Wear eye protection, breathing protection and a safety helmet.
- The chuck has rough surface. A rotating chuck can cause hand injuries. Use protective gloves.

7.1 Quick-release chuck

7.1.1 Opening the quick-release chuck 3

1. Open the quick-release chuck by turning the sleeve until the insert tool can be fitted or removed.

7.1.2 Closing the quick-release chuck 4

1. Fit the insert tool into the chuck.
2. Tighten the chuck by turning the chuck sleeve firmly.

7.2 Switching on and off 5

Switch the drill off to avoid damage if a jammed bit stalls the motor for more than 2 or 3 seconds.

1. The speed can be varied continuously between 0 and the maximum by pressing the ON/OFF switch slowly.

7.3 Selecting sustained operation 5

The lockbutton for sustained operation can be used to keep the motor running continuously at the optimum speed with appropriate cooling.

Switch the drill off to avoid damage if a jammed bit stalls the motor for more than 2 or 3 seconds.

1. Press the ON/OFF switch and hold it in.
2. Press the lockbutton.
3. Release the ON/OFF switch.
4. Release the lockbutton.

7.4 Ending sustained operation 5

1. Press the ON/OFF switch fully. The lockbutton will

spring back to its original position so that sustained operation is ended.

7.5 Belt hook **6** **7**

This can be used to hang the drill from a belt in a position close to the body. The hook's ideal position is 30° above the horizontal.

1. Remove the battery.
2. Press the button **I**.
3. Lift the belt hook until it engages 30° above the horizontal **II**.

Left-handed users can fit the belt hook on the other side of the drill.

1. Press the button **I**.
2. Lower the belt hook 70° below the horizontal **I**.
3. Pull the belt hook out of its guide.
4. Push the belt hook into the guide on the other side of the drill **II**. For this purpose, the scaffold hook must lie against the battery, so that the guide slots in the motor housing and scaffold hook are vertically aligned to allow the pins to be secured **III**.
5. Lift the belt hook again until it engages in the horizontal position **III**.

-NOTE-

Make sure that the belt hook is securely fixed.

7.6 Scaffold hook **8**

This hook provides a convenient means of temporarily hanging the drill from neighbouring scaffolding, e.g. to free the hands for other tasks. It can be completely removed if not required.

7.6.1 Removing the scaffold hook

1. Remove the battery.
2. Press the button **I**.
3. Lower the belt hook 70° below the horizontal **II**.
4. Pull the belt hook out of its guide **III**.
5. Remove the scaffold hook **III**.
6. Push the belt hook into the guide **III**.
7. Lift the belt hook again until it engages in the horizontal position **II**.

7.6.2 Fitting the scaffold hook

1. Press the button **I**.
2. Lower the belt hook 70° below the horizontal **II**.
3. Pull the belt hook out of its guide **III**.
4. Fit the scaffold hook. For this purpose the scaffold hook must lie against the battery, so that the guide slots in the motor housing and scaffold hook are vertically aligned to allow the pins to be secured.
5. Push the belt hook into the guide **III**.
6. Lift the belt hook again until it engages in the horizontal position **II**.
7. Push the battery into the tool.

-NOTE-

Check that the scaffold hook is securely engaged. Use the scaffold hook only for as long as necessary.

Lay the tool down in a secure position when it is no longer in use.

7.7 Removing the battery (2-fingered operation) **9**

1. Press both release buttons.
2. Pull the battery downwards out of the drill.

7.8 Inserting the battery **9**

Use the Hilti SFB 185 battery only.

1. Push the battery into the drill from below until heard to engage.

7.9 Charging the battery



Use only the Hilti, C7/24, C7/36-ACS, SFC 7/18H, SFC 7/18 or TCU 7/36 charger.

Incorrect use may lead to electric shocks, overheating of the battery or leakage of a caustic liquid from the battery.

Read the operating instructions for the charger before beginning charging.

8. Care and maintenance

8.1 Care of insert tools

Remove any dirt adhering to the surface of the insert tools and protect them from corrosion by rubbing them with an oily cloth from time to time.

8.2 Care of the tool



Before cleaning, remove the battery from the tool in order to prevent inadvertent starting.

-CAUTION-

Keep the power tool, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents which contain silicone.

The outer casing of the tool is made from impact-resistant plastic. Sections of the grip are made from a synthetic rubber material. Never operate the tool when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign objects to enter the interior of the tool. Clean the outside of the tool at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the tool.

8.3 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 when parts are damaged or when the controls do not operate faultlessly. If necessary, have the tool repaired at a Hilti service centre. Electrical parts of the tool may be repaired only by trained electrical specialists.

8.4 Care of the battery

Keep the electrical contacts free from dust, oil and grease. If necessary, use a clean cloth to clean the contact surfaces.

Do not operate the tool until the battery is completely discharged as this may damage the battery cells. Recharge the battery as soon as a drop in performance is noticed.

At monthly intervals or, at the latest, when battery capacity drops significantly, the battery should be conditioned as follows:

- by charging with the SFC 7/18 H charger for 24 hours in normal charging mode, or
- by charging with the C7/24, SFC 7/18 or TCU 7/36 charger for 12 hours in conditioning mode.

If, after conditioning, battery capacity is still unsatisfactory, we recommend returning the battery to Hilti for diagnosis.

8.5 Checking the tool after care and maintenance

After carrying out care and maintenance work on the tool, check that all protective and safety devices are fitted and that they function faultlessly.

9. Troubleshooting

Fault	Possible cause	Remedy
Chuck not rotating.	<ul style="list-style-type: none"> - Battery not fully engaged. - Battery discharged. - Electrical fault. 	<ul style="list-style-type: none"> - Battery must engage with audible click. - Battery must be charged - Contact Hilti Service Centre.
Speed suddenly drops substantially.	<ul style="list-style-type: none"> - Battery nearly discharged. 	<ul style="list-style-type: none"> - Replace with a charged battery.
Battery becomes discharged more quickly than usual.	<ul style="list-style-type: none"> - Battery not in good condition. 	<ul style="list-style-type: none"> - Charge battery in conditioning mode. (see Operating Instructions)
Battery not engaging with audible click.	<ul style="list-style-type: none"> - Battery locking lugs dirty. 	<ul style="list-style-type: none"> - Clean lugs so battery engages with an audible click. - Contact Hilti Service Centre if problem continues.
Drill or battery getting hot.	<ul style="list-style-type: none"> - Electrical fault. - Drill overloaded (limit specified for application exceeded). - Bit jamming. 	<ul style="list-style-type: none"> - Switch drill off immediately. Remove battery and contact Hilti Service Centre. - Use the drill appropriately for the application. - Release jammed bit.
Bit slipping in chuck.	<ul style="list-style-type: none"> - Chuck insufficiently tightened. 	<ul style="list-style-type: none"> - Tighten chuck appropriately.
Belt hook coming off.	<ul style="list-style-type: none"> - Hook not correctly attached. 	<ul style="list-style-type: none"> - Refer to the Operating Instructions.

10. Disposal



Return waste material for recycling.

Most of the materials from which Hilti power tools 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 your old electric tools for recycling. Please ask your Hilti customer service department or Hilti sales representative for further information.

Dispose of the battery in accordance with national regulations or return used batteries to Hilti for recycling.



Only for EU countries

Disposal of electric tools together with household waste is not permissible!
 In observance of European Directive on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

11. Manufacturer's warranty – tools

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

en

12. EC declaration of conformity (original)

Designation:	Battery-powered drill
Type:	XBT 4000-A
Year of design:	2002

We declare, on our sole responsibility, that this product complies with the following directives and standards: until until 19th April 2016: 2004/108/EC, from 20th April 2016: 2014/30/EU, 2006/42/EC, 2006/66/EC, 2011/65/EU, EN 60745-1, EN 60745-2-1, EN ISO 12100.

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