

HILTI

SBT 4-A22

English



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1 Information about the documentation




1.1 About this documentation

- Read this documentation before initial operation or use. This is a prerequisite for safe, trouble-free handling and use of the product.
- Observe the safety instructions and warnings in this documentation and on the product.
- Always keep the operating instructions with the product and make sure that the operating instructions are with the product when it is given to other persons.

1.2 Explanation of symbols used



1.2.1 Warnings

Warnings alert persons to hazards that may occur when handling or using the product. The following signal words are used in combination with a symbol:

	DANGER! Draws attention to an imminent hazard that will lead to serious personal injury or fatality.
	WARNING! Draws attention to a potential hazard that could lead to serious personal injury or fatality.
	CAUTION! Draws attention to a potentially dangerous situation that could lead to minor personal injury or material damage.




1.2.2 Symbols in the documentation

The following symbols are used in this document:

	Read the operating instructions before use
	Instructions for use and other useful information

1.2.3 Symbols in the illustrations



The following symbols are used in illustrations:

	These numbers refer to the corresponding illustrations found at the beginning of these operating instructions.
3	The numbering reflects the sequence of operations shown in the illustrations and may deviate from the steps described in the text.
	Item reference numbers are used in the overview illustration and refer to the numbers used in the key in the product overview section.
	This symbol is intended to draw special attention to certain points when handling the product.

1.3 Product-dependent symbols

1.3.1 Symbols on the product

The following symbols are used on the product:

	Drilling without hammer action
/min	Revolutions per minute
n_0	Rated speed under no load
	Direct current (DC)

1.4 Product information

Hilti products are designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any particular hazards that may be encountered. The product and its ancillary equipment can present hazards if used incorrectly by untrained personnel or if used not in accordance with the intended use.

The type designation and serial number are stated on the rating plate.

- ▶ Write down the serial number in the table below. You will be required to state the product details when contacting Hilti Service or your local Hilti organization to inquire about the product.

Product information

Drill/driver	SBT 4-A22
Generation	01
Serial no.	

1.5 Declaration of conformity

We declare, on our sole responsibility, that the product described here complies with the applicable directives and standards. A copy of the declaration of conformity can be found at the end of this documentation.

The technical documentation is filed and stored here:

Hilti Entwicklungsgesellschaft mbH | Tool Certification | Hiltistrasse 6 | 86916 Kaufering, Germany

2 Safety

2.1 General power tool safety warnings

WARNING

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

Work area safety

- ▶ **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- ▶ **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.
- ▶ **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

- ▶ **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.
- ▶ **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.
- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- ▶ **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.
- ▶ **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- ▶ **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

Personal safety

- ▶ **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.
- ▶ **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- ▶ **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- ▶ **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.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- ▶ **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.

- ▶ **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

Power tool use and care

- ▶ **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.
- ▶ **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.
- ▶ **Disconnect 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.
- ▶ **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.
- ▶ **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.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **Use the power tool, accessories and tool bits etc. in accordance with these instructions, 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.

Battery tool use and care

- ▶ **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.
- ▶ **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- ▶ **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.
- ▶ **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.

Service

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

2.2 Drill safety warnings

- ▶ **Use auxiliary handle(s), if supplied with the tool.** Loss of control can cause personal injury.
- ▶ **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

2.3 Drill/driver safety warnings

- ▶ **Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring.** Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

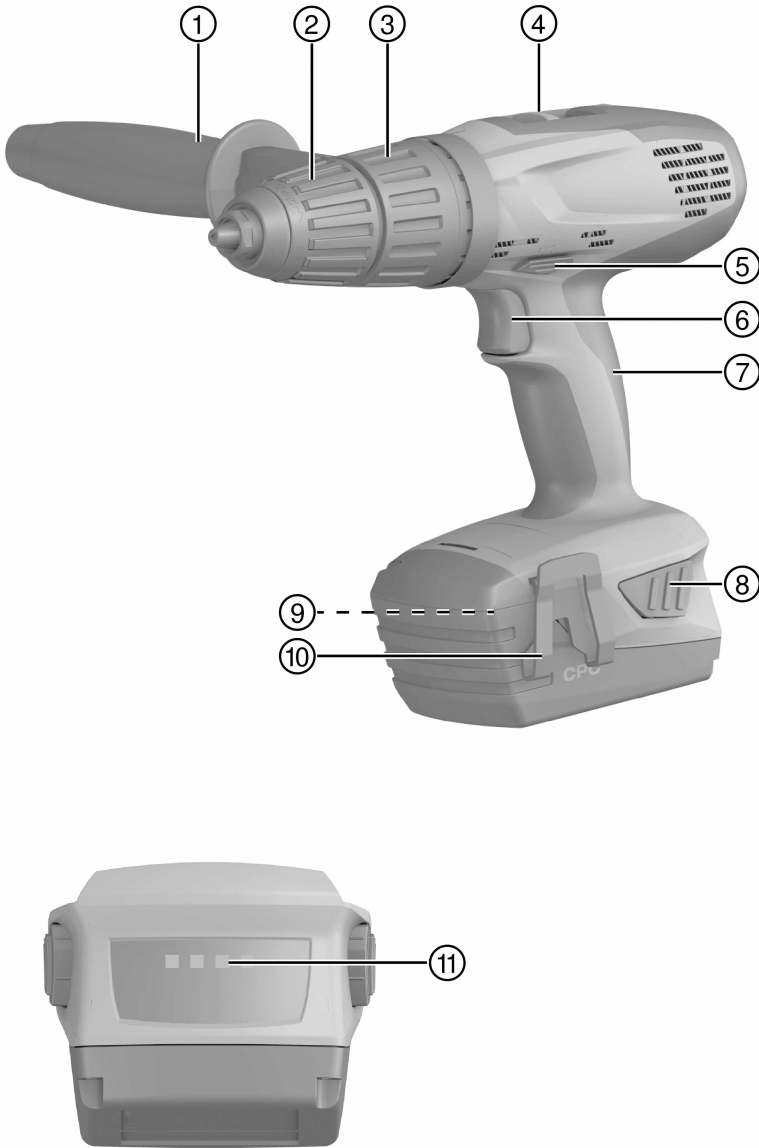
2.4 Additional safety precautions for screwdrivers

- ▶ Use the product only if it is in perfect working order. Never tamper with or modify the tool in any way.
- ▶ Use the auxiliary grips supplied with the tool. Loss of control can cause personal injury.
- ▶ Always hold the power tool with both hands on the grips provided. Keep the grips clean and dry.
- ▶ Hold the power tool by the insulated gripping surfaces when performing work in which the accessory tool might come into contact with concealed wiring. If the accessory tool comes into contact with a live wire, metal parts of the power tool can also become live, resulting in an electric shock.
- ▶ Do not touch rotating parts – risk of injury!
- ▶ Wear protective gloves also when changing the accessory tool. Touching the accessory tool presents a risk of injury (cuts or burns).

- ▶ Before beginning the work, check the hazard classification of the dust that will be produced. Wear respiratory protection of a type suitable for the dust you are exposed to and use an industrial vacuum cleaner with an officially approved protection classification in accordance with locally applicable dust protection regulations.
- ▶ Take breaks and exercise your fingers to improve the blood circulation. Exposure to vibration during long periods of work can lead to disorders of the blood vessels and nervous system in the fingers, hands and wrists.
- ▶ Before beginning work, check the working area for concealed electric cables or gas and water pipes. External metal parts of the power tool can become live, presenting a risk of electric shock, if you accidentally damage an electric cable.
- ▶ Switch the power tool off if the accessory tool sticks and stalls. The power tool may be deflected laterally.
- ▶ Wait until the power tool stops completely before you lay it down.

3 Description

3.1 Product overview



① Side handle

② Keyless chuck

- ③ Function setting ring
- ④ Gear selector switch
- ⑤ Forward/reverse selector switch with safety lock
- ⑥ Control switch (with electronic speed control)
- ⑦ Grip
- ⑧ Release buttons with additional function (state of charge display activation)
- ⑨ Rating plate
- ⑩ Belt hook (optional)
- ⑪ State of charge and fault display (Li-ion battery)

3.2 Intended use

The product described is a hand-held cordless drill/driver. It is designed for driving and removing screws and for drilling in steel, wood and plastic.

- ▶ Use only **Hilti** Li-ion batteries of the B18 / B22 series with this product.
- ▶ Use only the **Hilti** battery chargers of the C4/36 series for these batteries.

3.3 Li-ion battery state of charge display

The charge state of the Li-ion battery and malfunctions of the power tool are indicated by the display on the Li-ion battery. The charge state of the Li-ion battery is displayed after pressing one of the two battery release buttons.

Status	Meaning
4 LEDs light.	• State of charge: 75 % to 100 %
3 LEDs light.	• State of charge: 50 % to 75 %
2 LEDs light.	• State of charge: 25 % to 50 %
1 LED lights.	• State of charge: 10 % to 25 %
1 LED blinks, the power tool is ready for use.	• State of charge: < 10 %
1 LED blinks, the power tool is not ready for use.	• The battery has overheated or is completely discharged.
4 LEDs blink, the power tool is not ready for use.	• The power tool is overloaded or has overheated.



Note

Battery charge state cannot be displayed while the control switch is pressed and for up to 5 seconds after releasing the control switch. If the battery display LEDs blink, please observe the instructions given in the Troubleshooting section.

3.4 Items supplied

Drill / driver, operating instructions.

- Other system products approved for use with this product can be found at your local **Hilti** Center or online at: www.hilti.group

4 Technical data

4.1 Drill/driver

Rated voltage	21.6 V	
Weight in accordance with EPTA procedure 01	2.52 kg	
Speed	1st gear	0 /min ...370 /min
	2nd gear	0 /min ...2,140 /min
Torque (soft joint) 	≤ 50 Nm	
Torque range (15 settings)	2 Nm ...12 Nm	
Ø keyless chuck diameter range	1.5 mm ...13 mm	
Ø drill bit (metal)	1.5 mm ...13 mm	
Ø drill bit (hardwood)	1.5 mm ...20 mm	
Ø drill bit (softwood)	1.5 mm ...32 mm	

4.2 Noise information and vibration values in accordance with EN 60745

The sound pressure and vibration values given in these instructions have been measured in accordance with a standardized test and may be used to compare one power tool with another. They may be used for a preliminary assessment of exposure.

The data given represents the main applications of the power tool. However, if the power tool is used for different applications, with different accessory tools or is poorly maintained, the data may vary. This may significantly increase exposure over the total working period.

An accurate estimation of exposure should also take into account the times when the power tool is switched off, or when it is running but not actually being used for a job. This may significantly reduce exposure over the total working period.

Identify additional safety measures to protect the operator from the effects of noise and/or vibration, for example: Maintaining the power tool and accessory tools, keeping the hands warm, organization of work patterns.

Noise emission values

Emission sound pressure level (L_{pA})	75 dB(A)
Uncertainty for the sound pressure level (K_{pA})	3 dB(A)
Sound (power) level (L_{WA})	86 dB(A)
Uncertainty for the sound power level (K_{WA})	3 dB(A)

Total vibration

Vibration emission value for screwdriving (a_v)	< 2.5 m/s ²
Uncertainty for screwdriving (K)	1.5 m/s ²
Drilling in metal ($a_{h,D}$)	< 2.5 m/s ²
Uncertainty for drilling in metal (K)	1.5 m/s ²

5 Operation

5.1 Preparations at the workplace



CAUTION

Risk of injury! Inadvertent starting of the product.

- ▶ Remove the battery before making any adjustments to the power tool or before changing accessories.

Observe the safety instructions and warnings in this documentation and on the product.

5.1.1 Inserting the battery



CAUTION

Risk of injury. The drill/driver may start inadvertently.

- ▶ Before fitting the battery, check that the drill/driver is switched off and that the switch safety lock is activated.



CAUTION

Electrical hazard. Dirty contacts may cause a short circuit.

- ▶ Before inserting the battery, check to ensure that the battery terminals and the contacts in the drill/driver are free from foreign objects.



CAUTION

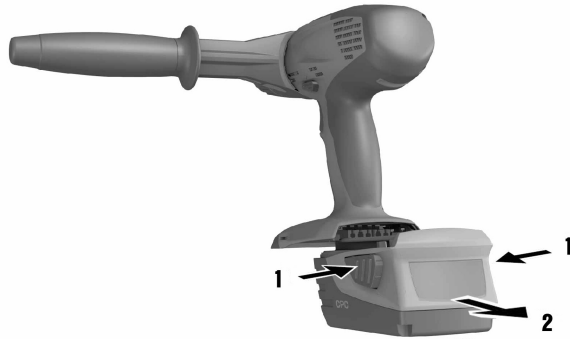
Risk of injury. If the battery is not fitted correctly it may drop out and fall.

- ▶ Check that the battery is securely seated in the tool so that it cannot drop out and fall, thereby presenting a hazard to other persons.



- ▶ Push the battery into the tool from the rear until it engages with an audible click.

5.1.2 Removing the battery



- ▶ Remove the battery.

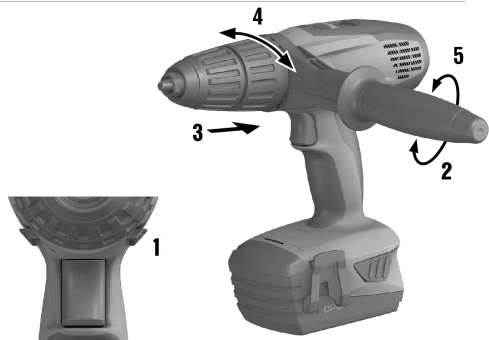
5.1.3 Fitting and adjusting the side handle



CAUTION

Risk of injury. The drill/driver may start inadvertently.

- ▶ Make sure that the forward / reverse switch is in the middle position (safety lock engaged) or that the battery has been removed from the drill / driver.



- ▶ Fit or adjust the side handle.

5.1.4 Fitting the accessory tool

1. Set the forward/reverse switch to the middle position or remove the battery from the power tool.
2. Check that the connection end of the accessory tool is clean. Clean the connection end if necessary.
3. Open the keyless chuck.
4. Insert the accessory tool into the keyless chuck and then turn the chuck firmly by hand until tight and several clicks are heard.
5. Check that the accessory tool is held securely.

5.1.5 Removing the accessory tool

1. Set the forward/reverse switch to the middle position or remove the battery from the power tool.
2. Open the keyless chuck.
3. Pull the accessory tool out of the keyless chuck.

5.1.6 Fitting the belt hook (optional)



WARNING

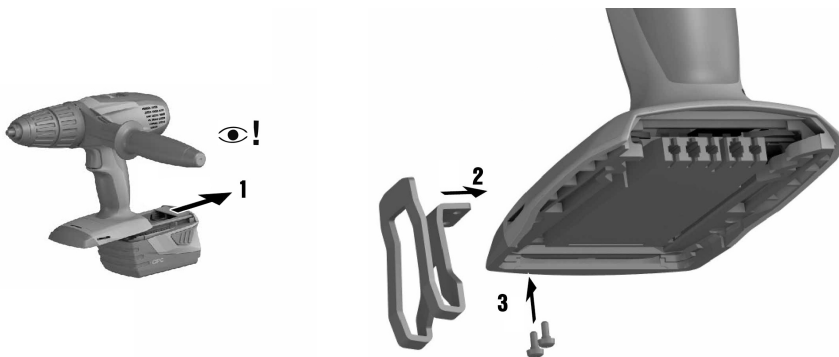
Risk of injury. A falling power tool may present a risk of injury to yourself and others.

- ▶ Check that the belt hook is fitted securely before beginning work.



Note

The belt hook allows the power tool to be attached to a belt worn by the operator. The belt hook can be fitted to allow attachment on the left or right side of the body.



- ▶ Fit the belt hook.

5.2 Types of work

Warning! Risk of damage!

- ▶ Operation of the direction of rotation and/or function selector switch while the tool is running may result in damage to the tool.
- ▶ Do not operate this switch while the tool is running.

Observe the safety instructions and warnings in this documentation and on the product.

5.2.1 Setting forward or reverse rotation



Note

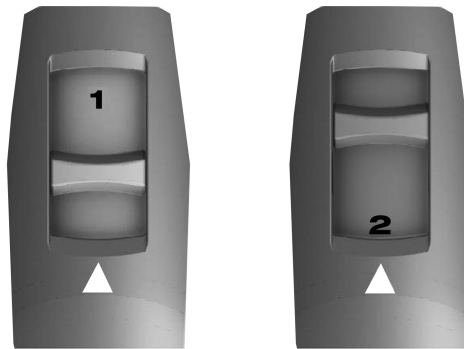
An interlock prevents switching while the motor is running.

The control switch is locked when the forward/reverse switch is in the middle position (safety lock).



- ▶ Set the forward/reverse switch to the desired direction of rotation.

5.2.2 Selecting the gear



- ▶ Select the gear.

5.2.3 Switching on


- ▶ Press the control switch.



Note

Speed can be controlled steplessly right up to maximum by varying how far the control switch is pressed in.

5.2.4 Drilling

1. Set the torque and operating mode selector ring to the  symbol.
2. Set the forward/reverse switch to the “forward” position.

5.2.5 Screwdriving

1. Set the torque and operating mode selector ring to the required torque.
2. Set the forward/reverse switch to the desired direction of rotation.

5.2.6 Switching off

- ▶ Release the control switch.

6 Care and maintenance of cordless tools



WARNING

Risk of electric shock! Attempting care and maintenance with the battery fitted in the tool can lead to severe injury and burns.

- ▶ Always remove the battery before carrying out care and maintenance tasks!

Care and maintenance of the tool

- Carefully remove stubborn dirt.
- Clean the air vents carefully with a dry brush.
- Use only a slightly damp cloth to clean the casing. Do not use cleaning agents containing silicone as these can attack the plastic parts.

Care of the Li-ion batteries

- Keep the battery free from oil and grease.
- Use only a slightly damp cloth to clean the casing. Do not use cleaning agents containing silicone as these can attack the plastic parts.
- Avoid ingress of moisture.

Maintenance

- Check all visible parts and controls for signs of damage at regular intervals and make sure that they all function correctly.
- Do not operate the cordless tool if signs of damage are found or if parts malfunction. Have the tool repaired by **Hilti Service** immediately.
- After cleaning and maintenance, fit all guards or protective devices and check that they function correctly.



Note

To help ensure safe and reliable operation, use only genuine Hilti spare parts and consumables. Spare parts, consumables and accessories approved by Hilti for use with the product can be found at your local **Hilti Center** or online at: www.hilti.com

7 Transport and storage of cordless tools

Transport



CAUTION

Inadvertent starting during transport. Uncontrolled starting during transport may occur if the battery is fitted, thereby resulting in damage to the tool.

- ▶ Always remove the battery before transporting the tool.

- ▶ Remove the battery.
- ▶ Transport the tool and batteries individually packaged.
- ▶ Never transport batteries in bulk form (loose, unprotected).
- ▶ Check the tool and batteries for damage before use after long periods of transport.

Storage



CAUTION


Inadvertent damage caused by defective battery. A leaking battery may damage the tool.

- ▶ Always remove the battery before storing the tool.

- ▶ Store the tool and batteries in a place that is as cool and dry as possible.
- ▶ Never store batteries in direct sunlight, on heating units or behind a window pane.
- ▶ Store the tool and batteries in a place where they cannot be accessed by children or unauthorized persons.
- ▶ Check the tool and batteries for damage before use after long periods of storage.

8 Troubleshooting

If the trouble you are experiencing is not listed in this table or you are unable to remedy the problem by yourself, please contact **Hilti** Service.

Trouble or fault	Possible cause	Action to be taken
The power tool does not work.	The battery is not fully inserted.	▶ Push the battery in until it engages with an audible double click.
	Low battery.	▶ Change the battery and charge the empty battery.
The power tool doesn't work and all four LEDs blink.	The power tool has been over-loaded briefly.	▶ Release the control switch and then press it again.
	The overheating cut-out has been activated.	▶ Allow the power tool to cool down. Clean the air vents.
The power tool does not work and one LED flashes.	Low battery.	▶ Change the battery and charge the empty battery.
	The battery is too hot or too cold.	▶ Bring the battery to the recommended operating temperature.
The on/off button cannot be pressed, i.e. the button is locked.	The forward/reverse selector switch is in the middle position.	▶ Push the forward/reverse switch to the left or right.
No hammering action.	The operating mode is not set correctly at the selector ring.	▶ Set the selector ring to the "Hammer drilling" position  .
The battery runs down more quickly than usual.	Very low ambient temperature.	▶ Allow the battery to warm up slowly to room temperature.
The battery does not engage with an audible double click.	The retaining lugs on the battery are dirty.	▶ Clean the retaining lugs and push the battery in until it engages. Contact Hilti Service if the problem persists.
The tool or battery gets very hot.	The tool is overloaded (application limits exceeded).	▶ Pay attention to the power and performance rating of the product before using it, i.e. check its suitability for the job on hand. See the "Technical data" section.


9 Disposal



WARNING

Risk of injury. Hazards presented by improper disposal.

- ▶ Improper disposal of the equipment may have the following 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.
- ▶ Dispose of defective batteries right away. Keep them out of reach of children. Do not disassemble or incinerate the batteries.
- ▶ Batteries that have reached the end of their life must be disposed of in accordance with national regulations or returned to **Hilti**.

 Most of the materials from which **Hilti** tools and appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, your old tools, machines or appliances can be returned to **Hilti** for recycling. Ask **Hilti** Service or your Hilti representative for further information.



-
- ▶ Disposal of electric tools or appliances together with household waste is not permissible.
-

10 Manufacturer's warranty

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



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EN 60745-2-2

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