

HILTI

SCO 6-A22

English



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 signs used

1.2.1 Warnings

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



DANGER! Draws attention to imminent danger 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 damage to the equipment or other property.

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.



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 illustrations** and refer to the numbers used in the **product overview section**.



These characters are intended to specifically draw your 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:



Wear protective glasses



Direct current (DC)



Rated speed under no load



Revolutions per minute



Revolutions per minute

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

Cut-out tool	SCO 6-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 issued by the certification department 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 Additional safety instructions for cut-out tools

- ▶ **Use clamps or some other suitable means to firmly secure the workpiece to a stable supporting surface.** If the workpiece is only held by hand or against your body it remains unstable, which could lead to loss of control.

Personal safety

- ▶ Use the tool only when it is in technically faultless condition.
- ▶ Never tamper with or modify the tool in any way.
- ▶ Always hold the power tool securely with both hands on the insulated grips provided. Keep the grips clean and dry.
- ▶ Avoid touching rotating parts – risk of injury!
- ▶ Wear suitable protective glasses, a hard hat, ear protection, protective gloves and light respiratory protection while using the power tool.
- ▶ Do not look directly into the light source (LEDs) integrated in the cut-out tool and do not direct the light at other persons' faces. This presents a risk of dazzling or eye damage.

- ▶ Never touch the clamping nut or collet when the accessory tool gets stuck and stalls.
- ▶ Take breaks between working and do physical exercises to improve the blood circulation in your fingers. 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.
- ▶ The power tool is not intended for use by debilitated persons who have received no special training. Keep the power tool out of reach of children.
- ▶ Apply appropriate safety measures at the opposite side of the workpiece in work that involves breaking through. Pieces of debris could drop out and / or fall down and injure other persons.
- ▶ Slits cut in load-bearing walls of buildings or other structures may influence the statics of the structure, especially when steel reinforcing bars or load-bearing components are cut through. Consult the responsible structural engineer, architect or person in charge of the building project before beginning the work.
- ▶ Before switching on the tool, check that the collet is fitted and that the clamping nut is tightened.
- ▶ Use only accessory tools with the correct shank diameter and of a type suitable for the speed of the power tool.
- ▶ Check that accessory tools are compatible with the power tool's chuck/drive system and that they are fitted and secured correctly.
- ▶ Before beginning the work, check the hazard classification of the dust that will be produced. Use an industrial vacuum cleaner with an officially approved protection classification in compliance with locally applicable dust protection regulations.
- ▶ Use a dust removal system and suitable vacuum cleaner whenever possible. Dust from materials, such as paint containing lead, some wood species, concrete/masonry/stone containing silica, and minerals as well as metal, may be harmful.
- ▶ Make sure that the workplace is well ventilated and, where necessary, wear a respirator appropriate for the type of dust generated. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory or other 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 may be handled only by specialists.
- ▶ To reduce the risk of injury, use only genuine **Hilti** tools and accessories.
- ▶ Observe the national health and safety requirements.

Electrical safety

- ▶ Before beginning work, check the working area for concealed electric cables or gas and water pipes. External metal parts of the power tool may give you an electric shock if you damage an electric cable accidentally.

Power tool use and care

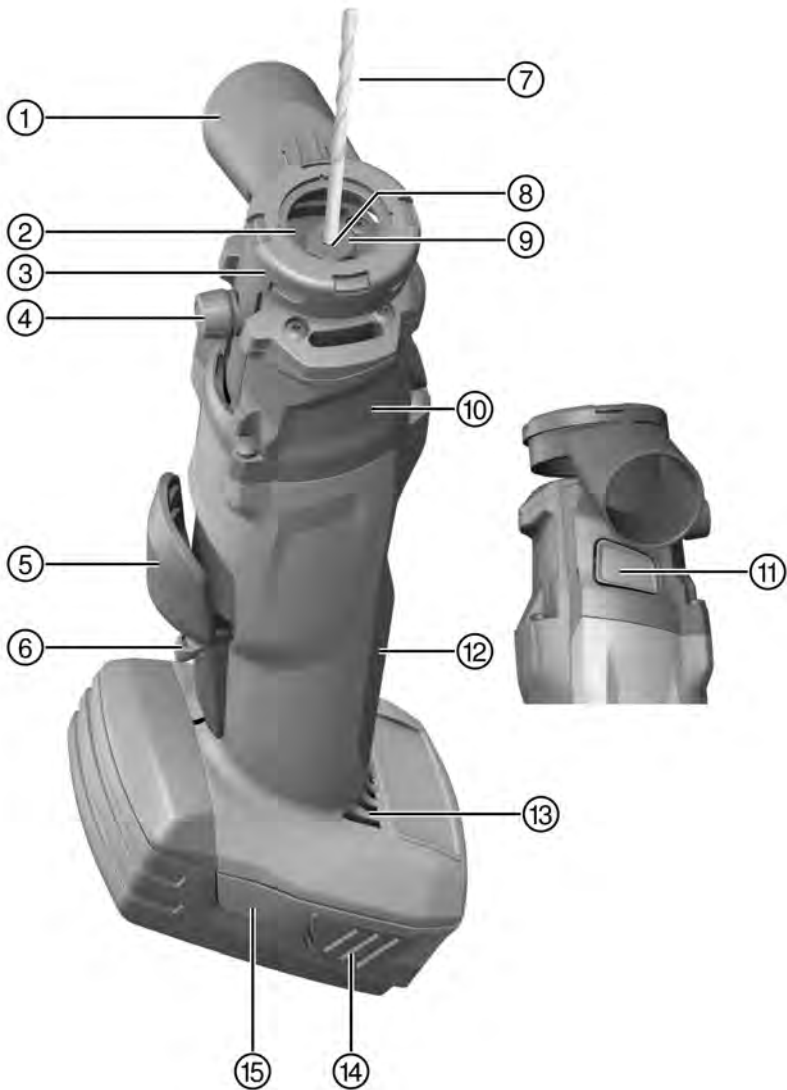
- ▶ Immediately switch off the power tool if the accessory tool jams. The power tool might twist off-line.
- ▶ Wait until the power tool stops completely before you lay it down.

2.3 Careful handling and use of batteries

- ▶ Observe the special guidelines applicable to the transport, storage and use of lithium-ion batteries.
- ▶ Do not expose batteries to high temperatures, direct sunlight or fire.
- ▶ Do not take apart, squash or incinerate batteries and do not subject them to temperatures over 80 °C.
- ▶ Do not attempt to charge or continue to use damaged batteries.
- ▶ If the battery is too hot to touch, it may be defective. In this case, place the power tool in a non-flammable location, well away from flammable materials, where it can be kept under observation and left to cool down. Contact **Hilti** Service after the battery has cooled down.

3 Description

3.1 Overview of the product



- | | |
|---|---|
| ① Vacuum cleaner hose connector (accessory) | ⑨ Clamping nut |
| ② LED lights | ⑩ Insulated gripping surface |
| ③ Depth gauge | ⑪ Spindle lockbutton |
| ④ Securing screw | ⑫ Insulated gripping surface |
| ⑤ On/off switch | ⑬ Air vents |
| ⑥ Switch-on interlock release button | ⑭ Release button with additional function (charge state display activation) |
| ⑦ Accessory tool | ⑮ Battery |
| ⑧ Collet | |

3.2 Intended use

The product described is a hand-held cordless cut-out tool. It is designed for making cut-outs in drywall board, gypsum fiber board, composite materials and wood or wood-like materials.

The product can be equipped with a removable connector for an optional vacuum cleaner / dust removal hose. This connector is designed to fit standard vacuum cleaner hoses. Use of a suitable adapter may be necessary in order to connect a vacuum cleaner hose to the product.

- ▶ Use only **Hilti** Li-ion batteries of the B 18 / B 22 series with this product.
- ▶ Use only **Hilti** battery chargers of the C4/36 series for charging these batteries.

3.3 Items supplied

Cut-out tool, depth gauge, three collets (1/8", 5/32", 1/4"), clamping nut, hex. key, operating instructions.

You can find other system products approved for your product at your local **Hilti** Center or online at: www.hilti.com

3.4 Safety devices

This power tool is equipped with a motor protection system. The system monitors current input and motor temperature and thus prevents the tool from overheating.

If the motor is overloaded through application of excessive working pressure, the power tool's performance drops noticeably or it may stall completely.

If the power tool stalls or slows significantly due to overloading, release the pressure applied to the tool and then allow it to run under no load for approx. 30 seconds.

4 Consumables

The following accessory tools can be used with the cut-out tool:

Drywall

- 1/8" guidepoint bit
- 1/8" standard bit
- 5/32" guidepoint bit (multipurpose)
- 1/4" window/door guidepoint bit

Metal

- 5/32" metal guidepoint bit

5 Technical data

	SCO 6-A22
Rated voltage	21.6 V
Rated speed under no load	30,000 /min
Operating temperature	1 °F ... 140 °F (-17 °C ... 60 °C)
Storage temperature	-4 °F ... 158 °F (-20 °C ... 70 °C)
Weight	4.2 lb (1.9 kg)
Clamping nut	⁵ / ₈ " external hexagon

	SCO 6-A22
Collet diameter	1/8", 5/32", 1/4"
Cutting bit shank diameter	1/8", 5/32", 1/4"
Battery operating temperature	1 °F ... 140 °F (-17 °C ... 60 °C)
Battery charging starting temperature	14 °F ... 113 °F (-10 °C ... 45 °C)
Battery storage temperature	-4 °F ... 104 °F (-20 °C ... 40 °C)

6 Operation

6.1 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.

6.1.1 Inserting the battery



1. Push the battery into the battery holder until it engages with an audible click.
2. Check that the battery is seated securely.

6.1.2 Removing the battery

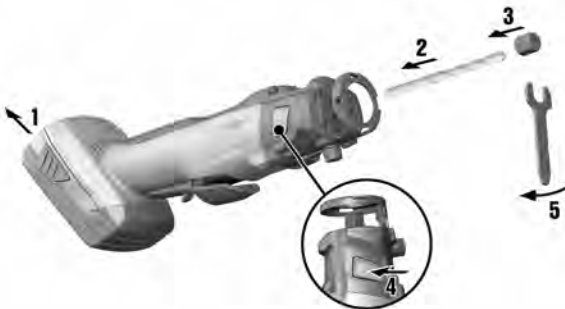


1. Press the release buttons on the battery.
2. Pull the battery out toward the rear.

6.1.2.1 Fitting an accessory tool

Risk of damage. The collet can break if tightened when no accessory tool is fitted.

- ▶ Never tighten the collet when no accessory tool is fitted.



1. Clean the connection end of the accessory tool.
2. Check that the collet has been fitted.
3. Press the spindle lockbutton and hold it in this position.
4. Insert the accessory tool in the collet and tighten the clamping nut with the hex. wrench.
5. Release the spindle lockbutton.
6. Check that the accessory tool is held securely.

6.1.3 Removing the accessory tool



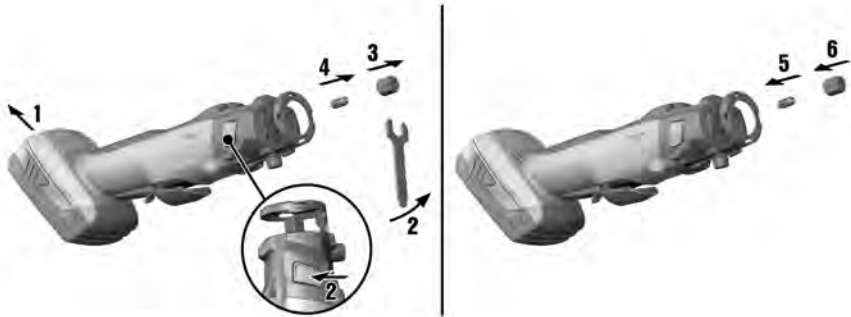
CAUTION

Risk of injury! The accessory tool may be hot and/or have sharp edges.

- ▶ Wear protective gloves when changing the accessory tool.
- ▶ Never lay down a hot accessory tool on a flammable surface.

1. Press the spindle lockbutton and hold it in this position.
2. Use the hex. wrench to release the clamping nut.
 - ◀ The collet is slack.
3. Remove the accessory tool.

6.1.4 Changing the collet



1. Press the spindle lockbutton and hold it in this position.
2. Use a hex. wrench to release and remove the clamping nut.
3. Remove the existing collet and fit the collet you wish to use.
4. Screw on and tighten the clamping nut and then release the spindle lockbutton.

6.1.5 Fitting the depth gauge



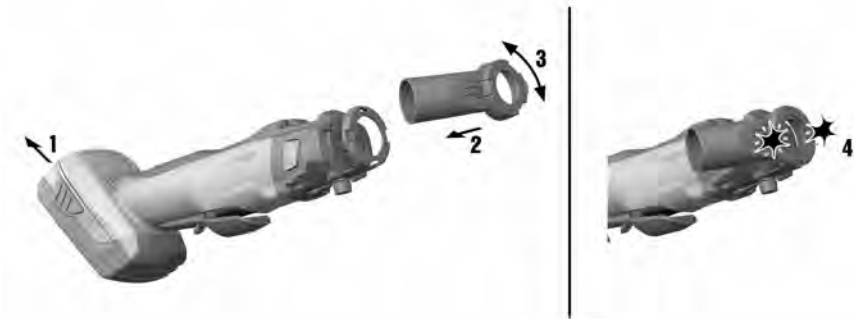
WARNING

Risk of injury! A damaged depth gauge may present a risk of inadvertent contact with the accessory tool.

- ▶ Do not use the power tool if the depth gauge is defective.

1. Place the depth gauge on the tool and screw in the fastening screw.
2. Release the clamping screw to allow adjustment of the depth gauge.
3. Slide the depth gauge to the desired position and then tighten the clamping screw.
4. Before starting, check that there is adequate space behind the workpiece so that the accessory tool will not come into contact with any hard underlying surface or object.

6.1.6 Fitting the vacuum cleaner hose connector



1. Remove the accessory tool. → page 10
2. Fit the hose connector to the power tool and bring it into the desired position.
3. Allow the retaining lugs to engage.

6.2 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.

6.2.1 Holding the power tool correctly



1. Use clamps or some other practical means to support the workpiece and secure it in a stable position.
2. When working with the power tool, hold it securely with both hands.
 - ◀ Holding the power tool with one hand, or pressing the power tool against a part of the body, may result in instability, leading to loss of control of the power tool.

6.2.2 Switching on



Note

The on / off switch with safety lock (switch-on interlock) gives you full control of the switch function and avoids unintentional starting.



1. Push the safety lock forward.
 - ◀ The on/off switch is unlocked.
2. Press the on/off switch as far as it will go.
 - ◀ The power tool's motor runs at no-load speed.

6.2.3 Switching off

- ▶ Release the on/off switch.
 - ◀ The safety lock jumps automatically into the locked position.

6.2.4 Operation

1. Hold the power tool securely so that the accessory tool is not in contact with the working surface.
2. Switch on. → page 12
3. Guide the accessory tool straight into the material in which the cut-out is to be made, until the depth gauge is in contact with the working surface.
4. Move the accessory tool while applying steady pressure.

7 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 any dirt that may be adhering to parts.
- 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 may attack the plastic parts.

Care of the lithium-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 may 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**

8 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.

9 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**.

9.1 Troubleshooting

Trouble or fault	Possible cause	Action to be taken
The battery runs down more quickly than usual.	Very low ambient temperature.	▶ Allow the battery to warm up slowly to room temperature.
The battery doesn't engage with an audible click.	The retaining lugs on the battery are dirty.	▶ Clean the retaining lugs and refit the battery.
1 LED blinks. The power tool doesn't run.	Low battery.	▶ Change the battery and charge the empty battery.
	The battery is too hot or too cold.	▶ Allow the battery to cool down or warm up slowly to room temperature.
All 4 LEDs blink. The power tool doesn't run.	The tool has been overloaded.	▶ Release the control switch and then press it again. Then allow the power tool to run under no load for approx. 30 seconds.
The cut-out tool or the battery get very hot.	Electrical fault.	▶ Switch the power tool off immediately, remove the battery, keep it under observation, allow it to cool down and contact Hilti Service .
The motor has no braking effect.	Low battery.	▶ Change the battery and charge the empty battery.

Trouble or fault	Possible cause	Action to be taken
The motor has no braking effect.	The power tool was overloaded briefly.	▶ Release the on/off switch and then press it again.


10 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.

11 Manufacturer's warranty

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

This Product is Certified
Ce produit est homologué
Producto homologado por
Este producto está registrado



HILTI

Hilti Corporation

LI-9494 Schaan

Tel.: +423/234 21 11

Fax: +423/234 29 65

www.hilti.com

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