

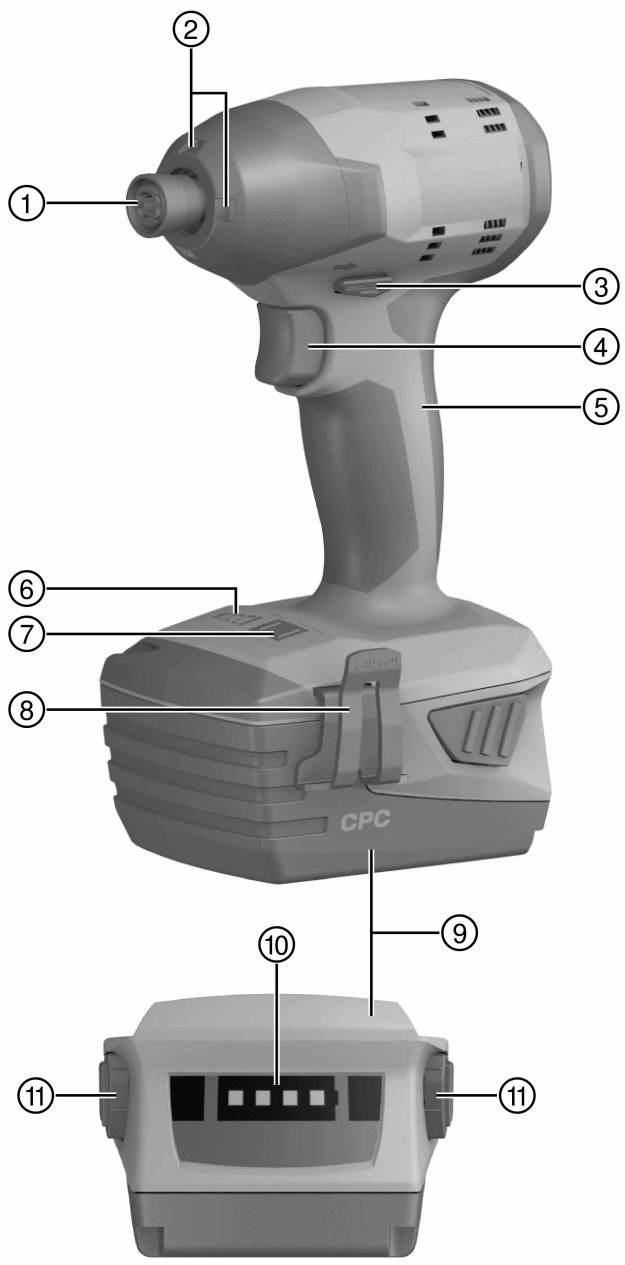
HILTI

SID 4-A22

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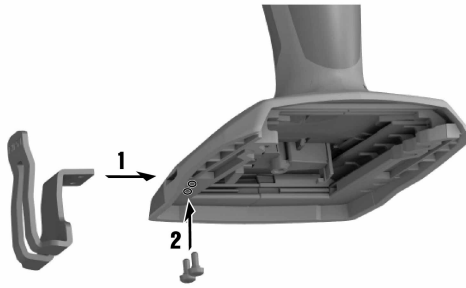




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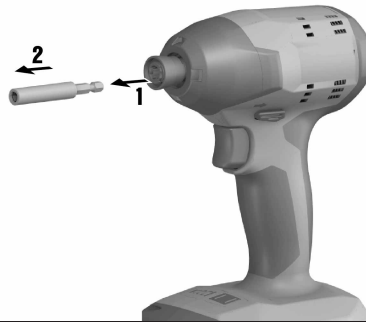
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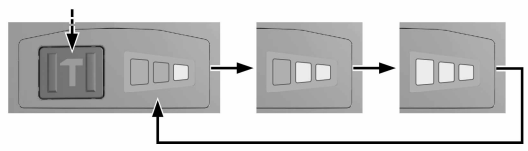
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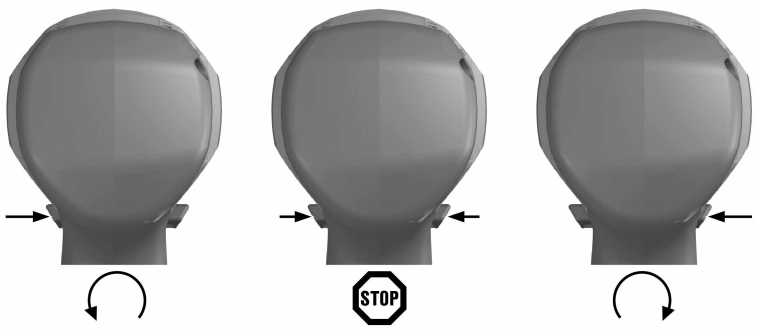
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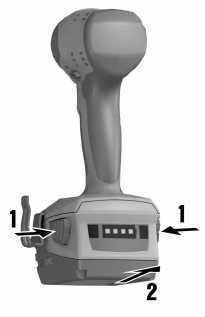
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1 Information about the documentation




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 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 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.

1.2.2 Symbols

The following symbols are used:

	Read the operating instructions before use.
	Instructions for use and other useful information
n_0	Rated speed under no load
/min	Revolutions per minute
	Direct current (DC)

1.2.3 Illustrations

The illustrations in these operating instructions are intended to convey a basic understanding and may differ from the actual version of the product:

2	These numbers refer to the corresponding illustrations found at the beginning of these operating instructions.
3	The numbering in the illustrations reflects the order of the work steps in the illustration and may deviate from the numbering of work steps in the text.
⑪	Item reference numbers are used in the overview illustration. In the product overview section, the numbers shown in the legend relate to these item reference numbers.

1.3 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 may present hazards when used incorrectly by untrained personnel or when used not as directed.

The type designation and serial number are printed 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 enquire about the product.

Product information

Impact screwdriver	SID 4-A22
Generation	01

2 Safety

2.1 General safety precautions for power tools

⚠ WARNING! Read all safety precautions and other instructions. Failure to observe the safety precautions and other instructions may result in electric shock, fire and/or serious injury.

Keep all safety precautions and instructions for future reference.

Working area safety

- ▶ **Keep your working area clean and well lit.** Cluttered or dark working areas can cause accidents.
- ▶ **Do not operate the power tool 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 bystanders, children and visitors away while operating the power tool.** Distractions may cause you to lose control of the tool.

Electrical safety

- ▶ **Do not expose the power tool to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- ▶ **Do not allow your body to come into contact with grounded surfaces such as pipes, radiators, ovens and refrigerators.** There is an increased risk of electric shock if your body is grounded.

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 the power tool may result in serious personal injury.
- ▶ **Adopt the correct posture when working. Maintain proper footing and balance at all times.** This will allow you to control the power tool better, even in unexpected situations.
- ▶ **Wear your personal protective equipment and always wear protective glasses.** Depending on the type of power tool you are using and its purpose, wearing safety equipment such as a dust mask, slip-resistant safety shoes, a hard hat or hearing protection will reduce the risk of injury.
- ▶ **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair may be caught in moving parts.
- ▶ **Avoid starting the tool accidentally. Make sure that the power tool is switched off before connecting it to the battery and before picking it up or carrying it.** Carrying power tools with your finger on the switch or plugging in power tools that are already switched on may cause accidents.
- ▶ **Remove accessory tools or wrenches before switching the power tool on.** An accessory tool or a wrench left attached to a rotating part of the power tool may cause personal injury.
- ▶ **If devices are provided for connecting dust extraction and collection equipment, make sure these are connected and used correctly.** The use of a dust extraction system can reduce dust-related hazards.

Using and handling the power tool

- ▶ **Do not overload the tool. Use the correct power tool for your application.** The correct power tool will do the job better and more safely within the performance range for which it is designed.
- ▶ **Do not use a power tool if it has a faulty on/off switch.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- ▶ **Remove the battery from the power tool before making any adjustments, changing accessories or storing the tool.** This precaution reduces the risk of the power tool starting accidentally.
- ▶ **Store power tools out of reach of children when not in use. Do not allow persons who are not familiar with the tool or these instructions to operate it.** Power tools are dangerous in the hands of untrained users.
- ▶ **Maintain power tools properly. Check that moving parts are in correct working order and do not jam, and check whether any parts are broken or so damaged that correct operation of the power tool cannot be guaranteed. If any parts are damaged, have these parts repaired before using the tool.** Many accidents are caused by poorly maintained power tools.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to jam and are easier to control.

Using and handling the cordless power tool

- ▶ **Use only the specified batteries in the power tools.** Use of any other batteries may present a risk of injury and fire.

- ▶ **Recharge the batteries only with the chargers specified by the manufacturer.** A charger that is suitable for a certain type of battery may present a risk of fire when used with other types of battery.
- ▶ **When the battery is not in use, keep it away from other metal objects such as paper clips, coins, keys, nails, screws, or other small metal objects that could cause bridging between the terminals.** A short circuit between the battery terminals may cause burns or a fire.
- ▶ **Liquid may leak from the battery if used incorrectly. Avoid contact with this liquid.** Liquid leaking from the battery may cause skin irritation or burns. If contact accidentally occurs, rinse with water. Seek medical attention if the liquid comes into contact with the eyes.

2.2 Additional safety precautions for screwdrivers

Personal safety

- ▶ Only use the product if it is in perfect working order.
- ▶ Never tamper with or modify the tool in any way.
- ▶ Use the auxiliary grip 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 an operation where the accessory tool may come into contact with concealed wiring. If the accessory tool comes into contact with a live wire, metal parts of the power tool may also become live, causing the operator to receive an electric shock.
- ▶ 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 tool.
- ▶ Wear protective gloves also when changing the accessory tool. Touching the accessory tool presents a risk of injury (cuts or burns).
- ▶ Wear eye protection. Flying fragments present a risk of injury to the body and eyes.
- ▶ Before starting work, check the hazard class of the dust that will be produced when working. Use an industrial vacuum cleaner with an officially approved protection class in compliance with the locally applicable dust protection regulations. Dust from materials such as lead-based paint, certain types of wood and concrete/masonry/stone containing quartz, minerals or metal may be harmful to health.
- ▶ Make sure that the working area is well ventilated and, where necessary, wear a respirator appropriate for the type of dust generated. Contact with or inhalation of dust may cause allergic reactions and/or respiratory or other diseases to the operator or bystanders. Certain kinds of dust, such as oak and beech dust, are classified as carcinogenic, especially in conjunction with additives for treating wood (chromate, wood preservative). Materials containing asbestos may only be handled by specialists.
- ▶ 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.

Electrical safety

- ▶ Before starting work, check the working area for concealed electric cables or gas and water pipes. If you damage an electric cable accidentally, external metal parts of the power tool may become live and present a risk of electric shock.

Careful handling and use of power tools

- ▶ Switch the power tool off immediately if the accessory tool jams. The power tool may go off course and veer to the side.
- ▶ Wait until the power tool has come to a complete stop before setting 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

- | | |
|--|-----------------------------------|
| ① Chuck (1/4" hex socket) | ⑥ Torque display |
| ② Illumination | ⑦ Torque selector button |
| ③ Forward/reverse selector switch with safety lock | ⑧ Belt hook (optional) |
| ④ Control switch (with electronic speed control) | ⑨ Battery |
| ⑤ Grip | ⑩ Battery state of charge display |
| | ⑪ Battery release button |

3.2 Intended use

The product described is a hand-held, cordless impact screwdriver for driving and removing screws or tightening and releasing threaded nuts and studs in wood, metal, masonry and concrete.

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

3.3 State of charge display

The charge state of the Li-ion battery is displayed after pressing one of the two battery release buttons lightly (press only until slight resistance is felt).

Status	Meaning
4 LEDs light.	• Charge state: 75 % to 100 %
3 LEDs light.	• Charge state: 50 % to 75 %
2 LEDs light.	• Charge state: 25 % to 50 %
1 LED lights.	• Charge state: 10 % to 25 %
1 LED blinks.	• Charge state: < 10 %



Note

Battery charge state cannot be displayed while the control switch is pressed and for up to 5 seconds after releasing the control switch.

3.4 Items supplied

Impact screwdriver, operating instructions.



Note

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

4 Technical data

4.1 Impact wrench

Rated voltage	21.6 V	
Weight in accordance with EPTA procedure 01/2003	1.5 kg	
Rated speed under no load	Torque setting I	0 /min ... 1,000 /min
	Torque setting II	0 /min ... 1,500 /min
	Torque setting III	0 /min ... 2,700 /min
Impact speed	≤ 3,500 bpm	
Torque adjustment	3 settings	
Large standard bolts	M8 to M16	
Large high-strength bolts	M6 to M12	
Socket/bit drive	1/4" hex. socket with locking ring	

4.2 Noise information and vibration values determined 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 electric tool with another. They may be used for a preliminary assessment of exposure.

The data given represents the main applications of the electric tool. However, if the electric 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 information in accordance with EN 60745

Sound (power) level (L_{WA})	0 dB(A)
Uncertainty for the sound power level (K_{WA})	0 dB(A)
Emission sound pressure level (L_{pA})	0 dB(A)
Uncertainty for the sound pressure level (K_{pA})	0 dB(A)

Total vibration (vector sum of three directions), measured in accordance with EN 60745

Vibration emission value when tightening screws/bolts and nuts of the maximum permitted size (a_n)	0 m/s ²
Uncertainty for tightening screws/bolts and nuts of the maximum permitted size	0 m/s ²

5 Operation

5.1 Inserting the battery



WARNING

Risk of injury! Inadvertent starting of the impact screwdriver.

- ▶ Before fitting the battery, check that the cordless impact screwdriver is switched off and that the forward/reverse switch is in the middle position (i.e. safety lock engaged).



WARNING

Electrical hazards! Risk of short circuiting.

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



WARNING

Risk of injury! Hazard presented by a falling battery.

- ▶ A falling battery may present a risk of injury to yourself and others. Check that the battery is securely seated in the power tool.

- ▶ Fit the battery and make sure that it is heard to engage.

5.2 Fitting the belt hook (optional)



WARNING

Risk of injury! Hazard presented by a falling power tool.

- ▶ 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.

5.3 Fitting an accessory tool 4

1. Check that the connection end of the accessory tool is clean.

Result

The connection end is dirty.

- ▶ Clean the connection end.

2. Set the forward/reverse switch to the middle position or remove the battery from the power tool.
3. Push the accessory tool into the chuck as far as it will go (until it engages).

5.4 Removing the accessory tool 5



CAUTION

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

- ▶ Wear protective gloves when using the power tool and when changing accessory tools.

1. Set the forward/reverse switch to the middle position or remove the battery from the power tool.
2. Pull the chuck ring forward and hold it in this position.
3. Pull the accessory tool out of the chuck.
4. Release the chuck ring.

5.5 Setting the torque 6

- ▶ Push the torque selector button repeatedly until the desired torque setting is displayed in the torque display.

5.6 Setting forward or reverse rotation 7



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.

5.7 Screwdriving



WARNING

Risk of injury and damage. Screws/bolts or the workpiece may be damaged by excessively high torque; this may also lead to serious injury.

- ▶ Ensure that the fastener and attachment will withstand the level of torque generated by the tool.

1. Move the forward/reverse switch into the middle position.
2. Use the torque selector button to set the desired torque. → page 24
3. Set the forward/reverse switch to the desired direction of rotation.

5.8 Switching on

- ▶ Press the control switch.
 - ◁ Speed of rotation is regulated by the distance the control switch is pressed in.

5.9 Switching off

- ▶ Release the control switch.

5.10 Removing the battery

1. Press the two battery release buttons and hold them in the pressed position.
2. Remove the battery from the tool.

6 Care and maintenance



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

- ▶ Keep the product, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents containing silicone.
- ▶ Never operate the product when the air vents are blocked. Clean the air vents carefully using a dry brush. Do not allow foreign objects to enter the interior of the product.
- ▶ Clean the outer surfaces of the tool with a slightly damp cloth at regular intervals.

7 Transport and storage



WARNING

Risk of fire! Risk of short circuiting.

- ▶ To avoid short circuits and associated heat generation, Li-ion batteries should never be stored or transported in loose, bulk form and without protective measures.
- ▶ Remove the battery before transporting or storing the impact screwdriver.
- ▶ Observe the nationally and internationally applicable transport regulations when shipping batteries by road, rail, sea or air.

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 doesn't run.	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 run.	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.
Running speed suddenly drops considerably.	Low battery.	▶ Change the battery and charge the empty battery.
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 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.

Applicable standards:

- EN 60745-1, EN 60745-2-2
- EN ISO 12100

Technical documentation filed at:

- Hilti Entwicklungsgesellschaft mbH
Zulassung Geräte
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86916 Kaufering
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Schaan, 2016

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