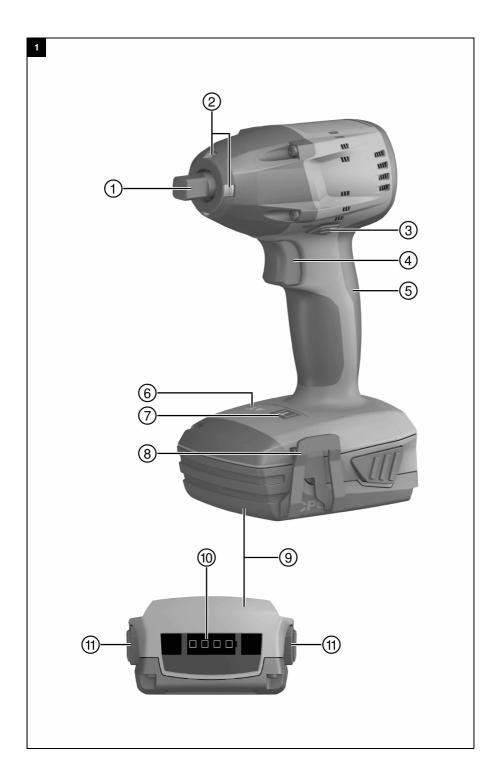
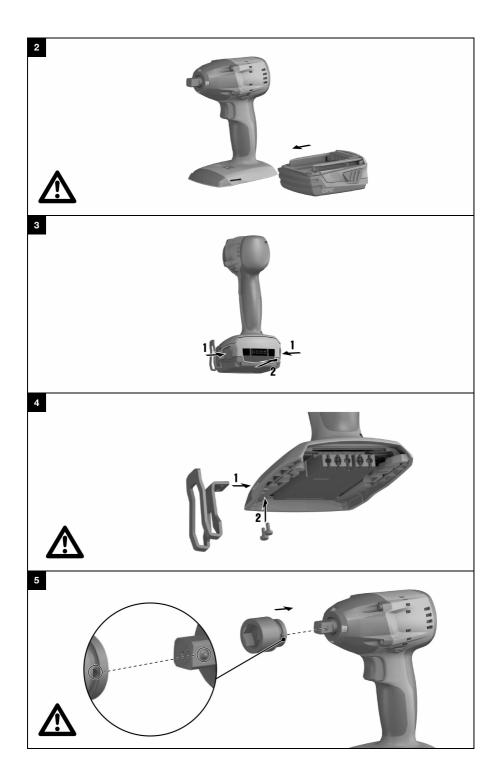


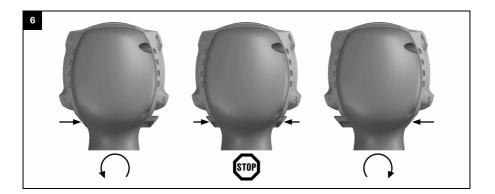
# **SIW 6 AT-A22**

English	1
Français	10
Español	19
Português	28









# **SIW 6 AT-A22**

en	Original operating instructions	1
fr	Mode d'emploi original	10
es	Manual de instrucciones original	19
pt	Manual de instruções original	28



# 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.



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 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**

Impact screwdriver	SIW 6AT-A22
Generation	01
Serial no.	

#### 1.4 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 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 beed 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) (6) Square drive Torque display 2 (7) Illumination Torque selector button (3) Forward/reverse selector switch with safety (8) Belt hook (optional) lock (9) Battery (4) Control switch (with electronic speed (10) Battery charge status display

# 3.2 Intended use

control)

Grip

(5)

The product described is a hand-held cordless impact screwdriver. It is designed for tightening and releasing nuts, bolts, anchors and wood screws.

(11)

Battery release button

The impact screwdriver may be used only for applications that do not require a precise/specified torque. Failure to observe this point presents a risk of over-tightening and damage to the bolt, screw or workpiece.

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

# 3.3 Items supplied

Impact screwdriver, operating instructions.



#### Note

You can find other system products approved for 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 (including battery and chuck)		4.0 lb
		(1.8 kg)
Rated speed under no	Setting I	0 Hz 16.7 Hz
load		(0 /min 1,000 /min)
	Setting II	0 Hz 25.0 Hz
		(0 /min 1,500 /min)

Rated speed under no load	Setting III	0 Hz 45.0 Hz (0 /min 2,700 /min)
Impact speed		≤ 3,500 bpm
Torque adjustment		Three settings (additional settings are possible when using the intelligent torque module SI-AT-22 and the torque display shows "AT")
Large standard bolts		M8 to M16
Large high-strength bolts	,	M6 to M12
Chuck		1/2" square drive with ball-notch retention

# 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 2

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

# 5.1.2 Removing the battery 3

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

# 5.1.2.1 Fitting the belt hook (optional) 4



### 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.

- 1. Insert the belt hook in the opening provided at the base of the screwdriver's grip.
- 2. Secure the belt hook with the 2 screws.
  - Make sure that the heads of the screws are fully countersunk when tightened.
- 3. Check that the belt hook is fitted securely before beginning work.

# 5.1.3 Fitting an accessory tool 5



#### CAUTION

Risk of injury through use of the wrong type of accessory tool!

- Use only accessory tools of the locking type.
- Do not use worn or damaged accessory tools.
- Clean the connection end of the accessory tool.
- 2. Set the forward/reverse switch to the middle position or remove the battery from the power tool.
- 3. Bring the notch in the accessory tool into alignment with the ball on the square drive.
- 4. Push the accessory tool onto the square drive until it engages.
- 5. Allow the accessory tool to engage and check that it is held securely.

# 5.1.4 Removing the accessory tool



#### 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 accessory tool off the square drive.

# 5.1.5 Setting the torque

Select one of the following alternatives:

# 5.1.5.1 Operation without the intelligent torque module

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

# 5.1.5.2 Operation with the intelligent torque module



#### Note

"AT" lights in the torque display (intelligent torque mode).

- On the intelligent torque module, set the correct type of anchor or threaded stud to be fastened or the screw to be used (→ Operating instructions for the intelligent torque module).
  - When "AT" lights in the torque display, the torque selector switch is inoperative. Speed and torque are regulated by the torque module.

# 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 6

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

# 5.2.2 Switching on

Press the control switch.



#### Note

When operated without the intelligent torque module: Speed of rotation is regulated by the travel of the control switch.

When operated with the intelligent torque module: The control switch works only as an on/off switch and the speed of rotation is controlled via the intelligent torque module.

# 5.2.3 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.

#### Conditions

- + Operation without the intelligent torque module
- 1. Move the forward/reverse switch into the middle position.
- Use the torque selector button to set the desired torque. → page 6
- 3. Set the forward/reverse switch to the desired direction of rotation.



#### Note

When using the intelligent torque module, the torque selector button does not work. The torque is controlled depending on the type of screw, threaded stud or anchor selected in the intelligent torque module (-) Operating instructions for the intelligent torque module).

#### 5.2.4 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 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** 

# 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.



# Note

When operating the impact screwdriver with the intelligent torque module SI-AT-A22, make sure that you also read the notes on remedying possible faults in the operating instructions for the torque module.

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.
The power tool doesn't work and the battery charge status display blinks.	Low battery.	<ul> <li>Change the battery and charge the empty battery.</li> </ul>
	The battery is too hot or too cold.	<ul> <li>Bring the battery to the recom- mended operating temperature.</li> </ul>
The power tool doesn't work and all four LEDs on the battery charge status display blink.	The power tool was overloaded briefly.	<ul> <li>Release the control switch and then press it again.</li> </ul>
	The overheating cut-out has been activated.	Allow the power tool to cool down. Clean the air vents.
The control switch can't be pressed, i.e. the switch is locked.	The forward/reverse selector switch is in the middle position.	Push the forward/reverse switch to the left or right.
Running speed suddenly drops considerably.	Low battery.	<ul> <li>Change the battery and charge the empty battery.</li> </ul>
The battery runs down more quickly than usual.	Very low ambient temperature.	<ul> <li>Allow the battery to warm up slowly to room temperature.</li> </ul>
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.
The power tool or the battery becomes very warm.	Electrical fault.	► Switch the power tool off immediately, remove the battery, keep it under observation, allow it to cool down and contact <b>Hilti</b> Service.
	The tool is overloaded (application limits exceeded).	<ul> <li>Select a suitable power tool for the application.</li> </ul>

# 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.

# 10 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 produto está registrado





# Hilti Corporation

LI-9494 Schaan

Tel.: +423/2342111 Fax: +423/2342965

www.hilti.com

2124662

Pos. 3 | 20161130