



SFC 14-A SFC 22-A

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 symbols used

## 1.2.1 Warnings

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



#### DANGER!

▶ Draws attention to imminent danger that will lead to serious personal injury or fatality.



### WARNING!

Draws attention to a potential threat of danger that can lead to serious injury or fatality.

### **↑** CAUTION

#### 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 in the documentation

The following symbols are used in this document:



Read the operating instructions before use.



Instructions for use and other useful information



Dealing with recyclable materials



Do not dispose of electric equipment and batteries as household waste

# 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** 

This symbol is intended to draw special attention to certain points when handling the product.

Wireless data transfer



#### 1.3 Product-dependent symbols

### 1.3.1 Symbols on the product

The following symbols are used on the product:

1	Drilling without hammer action
/min	Revolutions per minute
n <sub>0</sub>	Rated speed under no load
	Direct current (DC)

#### 1.4 Product information

products are designed for professional users and only trained, authorized personnel are permitted to operate, service and maintain the products. This personnel must be specifically informed about the possible hazards. 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 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 inquire about the product.
Product information → page 2

#### Product information

Cordless drill / driver:	SFC 22-A SFC 14-A
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 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.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

# 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 power source and/or 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 plug from the power source and/or the battery pack from the power tool before
  making any adjustments, changing accessories, or storing power tools. Such preventive safety
  measures reduce the risk of starting the power tool accidentally.
- 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 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.

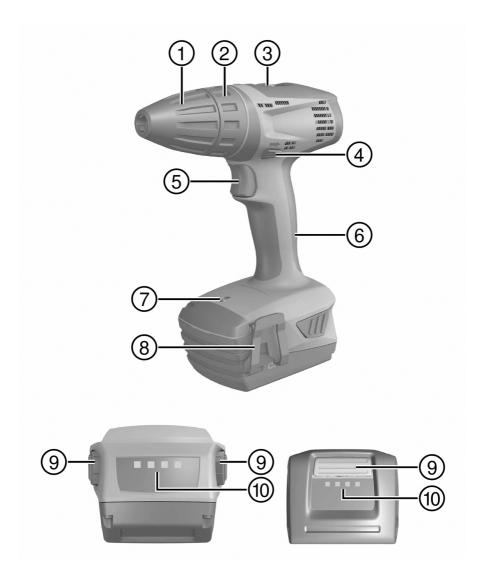
# Careful handling and use of power tools

- 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.





# 3.1 Overview





- (1) Keyless chuck
- (2) Torque and drilling mode selector ring
- 3 2-speed gear selector switch
- Forward / reverse selector switch with safety lock
- Control switch (with electronic speed control)
- 6 Grip
- (7) Lamp
- (8) Belt hook (optional)
- Release buttons with additional function (charge status display activation)
- Charge state 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 B 14 and B22 series with this product.
- ▶ Use only **Hilti** battery chargers of the C4/36 series for charging these batteries.

# 3.3 Items supplied

Drill / driver, operating instructions.

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

# 4 Technical data

#### 4.1 Technical data

	SFC 14-A	SFC 22-A
Rated voltage	14.4 V	21.6 V
Weight in accordance with EPTA procedure 01	1.5 kg	1.7 kg
Speed in 1st gear	0 /min 500 /min	0 /min 600 /min
Speed in 2nd gear	0 /min 1,700 /min	0 /min 1,800 /min
Torque (max.)	24 Nm	28 Nm
Torque range (15 settings)	1.5 Nm 10 Nm	1.5 Nm 10 Nm

#### 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 information

	SFC 14-A	SFC 22-A
Sound power level L <sub>wa</sub>	80 dB	80 dB

#### Vibration information

	SFC 14-A	SFC 22-A
Screwdriving without hammer action a <sub>h</sub>	1 m/s <sup>2</sup>	1 m/s <sup>2</sup>
Uncertainty for screwdriving without hammer action (K)	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>
Drilling in metal a <sub>h,D</sub>	2 m/s <sup>2</sup>	2 m/s <sup>2</sup>
Uncertainty for screwdriving without hammer action drilling in metal (K)	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>

# 4.3 Battery

Battery operating voltage	14.4 V
Ambient temperature	−10 °C 60 °C
Storage temperature	-20 °C 40 °C

# 4.4 Battery

Battery operating voltage	21.6 V
Ambient temperature	−17 °C 60 °C
Storage temperature	−20 °C 40 °C

# 5 Operation

# 5.1 Inserting the battery

### 

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.

# 

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.

# 5.2 Removing the battery



Remove the battery.

### 5.3 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.

# 5.4 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.

# 5.5 Switching on

Press the control switch.



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



# 5.6 Switching off

Release the control switch.

## 5.7 Drilling

- 1. Set the torque and operating mode selector ring to the 💈 symbol.
- 2. Set the forward/reverse switch to the "forward" position.

# 5.8 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.

# 5.9 Setting forward or reverse 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).



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

# 5.10 Selecting the gear





Select the gear.



# 5.11 Fitting the belt hook (optional)

### 

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.



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.

# 6 Troubleshooting

# 6.1 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.	<ul> <li>Change the battery and charge the empty battery.</li> </ul>
	Electrical fault.	► Remove the battery from the tool and contact <b>Hilti</b> Service.
The power tool does not work and one LED flashes.	Low battery.	<ul> <li>Change the battery and charge the empty battery.</li> </ul>
	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.
LED 1 flashes	Low battery.	<ul> <li>Change the battery and charge the empty battery.</li> </ul>
	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.
The battery runs down more quickly than usual.	Very low ambient temperature.	Allow the battery to warm up slowly to room temperature.



Trouble or fault	Possible cause	Action to be taken
, , ,	The retaining lugs on the battery are dirty.	<ul> <li>Clean the retaining lugs and push the battery in until it engages. Contact Hilti Service if the problem persists.</li> </ul>

# 7 Disposal

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.

### **Battery disposal**

Improper disposal of batteries can result in health hazards from leaking gases or fluids.

- DO NOT send batteries through the mail!
- Cover the terminals with a non-conductive material (such as electrical tape) to prevent short circuiting.
- Dispose of your battery out of the reach of children.
- Dispose of the battery at your Hilti Store, or consult your local governmental garbage disposal or public health and safety resources for disposal instructions.



▶ Do not dispose of power tools, electronic equipment or batteries as household waste!

# 8 China RoHS (guideline on restriction of the use of dangerous substances)

The following links take you to the table of dangerous substances: qr.hilti.com/r4793 (SFC 14-A) and qr.hilti.com/r4833 (SFC 22-A).

You will find a link to the RoHS table, in the form of a QR code, at the end of this document.

#### 9 Manufacturer's warranty

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





Hilti Aktiengesellschaft Feldkircherstraße 100 9494 Schaan | Liechtenstein

SFC 14-A / SFC 22-A (01)

[2010]

2014/30/EU

2006/42/EU

2011/65/EU

2006/66/EG

EN ISO 12100

EN 60745-1

EN 60745-2-1

EN 60745-2-2

Schaan, 03/2015

Paolo Luccini

Head of BA Quality and Process-Management

**BA Flectric Tools & Accessories** 

**Tassilo Deinzer** 

**Executive Vice President** 

Business Unit Power Tool & Accessories

# SFC 14-A



# SFC 22-A







Hilti Corporation LI-9494 Schaan

Tel.: +423 234 21 11 Fax: +423 234 29 65

www.hilti.group







2164701