



SF 2-A
SFD 2-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

DANGER !

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

WARNING

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:

2	These numbers refer to the corresponding illustrations found at the beginning of these operating instructions
3	The numbering reflects the sequence of operations shown in the illustrations and may deviate from the steps described in the text
⑪	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:

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

1.4 Product information

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

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

Product information

Drill/driver	SF 2-A SFD 2-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 issued by the certification department can be found at the end of this documentation.

The technical documentation is filed here:

2 Safety

2.1 General power tool safety warnings

⚠ WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below 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 a 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 and clothing 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.
- ▶ **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

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 remove the battery pack, if detachable, 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 and accessories. 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.
- ▶ **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

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.
- ▶ **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- ▶ **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 265 °F may cause explosion.
- ▶ **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

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.
- ▶ **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.

2.2 Drill safety warnings

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

2.3 Drill/driver safety warnings

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

2.4 Additional safety instructions

Personal safety

- ▶ **Tampering with or modification of the tool is not permitted.**
- ▶ **Keep the grips dry, clean and free from oil and grease.**
- ▶ **Improve the blood circulation in your fingers by relaxing your hands and exercising your fingers during breaks between working.**
- ▶ **Do not look directly into the light source (LEDs) integrated in the drill/driver and do not direct the light at other persons' faces.** This presents a risk of dazzling or eye damage.
- ▶ **Avoid touching rotating parts. Switch the power tool on only after bringing it into position at the workpiece.** Touching rotating parts, especially rotating drill bits or other accessory tools, may lead to injury.
- ▶ **Wear protective gloves.** The drill/driver may get hot during use. There is a risk of injury (cutting or burning) if the accessory tool is touched while changing it.
- ▶ Activate the safety lock (forward/reverse selector switch in the middle position) when changing accessory tools or batteries and before storage or transportation of the power tool.
- ▶ **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.**
- ▶ 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. 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. **Use a dust removal**

system whenever possible. To achieve a high level of dust collection, use a suitable vacuum cleaner. When indicated wear a respirator appropriate for the type of dust generated. Ensure that the workplace is well ventilated. Follow national requirements for the materials you want to work with.

- ▶ **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.**
- ▶ Working on the material may cause it to splinter. **Wear eye protection.** Flying fragments present a risk of injury to the body and eyes.
- ▶ **Always hold the tool securely by the grip.** If the accessory tool (e.g. the drill bit) sticks and stalls, the power tool, due to its high torque, may tend to rotate about its own axis in the direction opposite to that of the accessory tool.

Use and care of electric tools

- ▶ **Secure the workpiece. Use clamps or a vice to hold the workpiece in position.** The workpiece is thus held more securely than by hand and both hands remain free to operate the power tool.
- ▶ **Check that the accessory tools used are compatible with the chuck system and that they are secured in the chuck correctly.**

Use and care of battery-powered devices

- ▶ **Check that the tool is switched off before inserting the battery.** Inserting a battery into an electric tool that is switched on can lead to accidents.
- ▶ **Do not expose batteries to high temperatures and keep them away from fire.** There is a risk of explosion.
- ▶ **Do not disassemble, squash or incinerate batteries and do not subject them to temperatures over 80°C (176°F).** This presents a risk of fire, explosion or injury through contact with caustic substances.
- ▶ **Avoid ingress of moisture.** Ingress of moisture may cause a short circuit, resulting in burning injuries or fire.
- ▶ **Observe the special guidelines applicable to the transport, storage and use of Li-ion batteries.**
- ▶ **Avoid short circuiting the battery terminals. Check that the battery terminals and the terminals in the power tool are free from foreign objects before inserting the battery in the tool.** Short circuiting the battery terminals presents a risk of fire, explosion and chemical burns.
- ▶ **Do not continue to use or attempt to charge damaged batteries (e.g. batteries with cracks, broken parts, bent or pushed-in / pulled-out contacts).**
- ▶ 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**

allowed to cool down. Contact Hilti Service after the battery has cooled down.

Electrical safety

- ▶ **Before beginning work, check the working area (e.g. using a metal detector) to ensure that no concealed electric cables or gas and water pipes are present.** External metal parts of the power tool may become live, for example, when an electric cable is damaged accidentally. This presents a serious risk of electric shock.

3 Description

3.1 Intended use

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

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 hammer drill/driver and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

- ▶ Do not use the battery as a power source for other unspecified power tools or appliances.
- ▶ Observe the national health and safety requirements.
- ▶ To reduce the risk of injury, use only genuine **Hilti** tools and accessories.
- ▶ Use only **Hilti** Li-Ion batteries of the B 12 series with this product.



Make sure that the outer surfaces of the battery are clean and dry before inserting the battery in an approved battery charger.

Read the operating instructions for the charger for further information about the charging procedure.

- ▶ Use only **Hilti** battery chargers from the C4/12-50 series with these batteries.

3.2 Items supplied

Drill / driver, operating instructions.



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

4 Technical data

4.1 Technical data

	SF 2-A	SFD 2-A
Rated voltage	10.8 V	10.8 V
Weight	1.1 kg (2.4 lb)	1 kg (2 lb)
Speed in 1st gear	0 /min ... 400 /min	0 /min ... 400 /min
Speed in 2nd gear	0 /min ... 1,500 /min	0 /min ... 1,500 /min
Torque	0 Nm ... 3.5 Nm	0 Nm ... 3.5 Nm
Torque (drill symbol)	12 Nm	12 Nm

4.2 Battery

Battery operating voltage	10.8 V
Ambient temperature	-17 °C ... 60 °C (1 °F ... 140 °F)
Storage temperature	-20 °C ... 40 °C (-4 °F ... 104 °F)
Charging temperature	-10 °C ... 60 °C (14 °F ... 140 °F)

5 Operation

5.1 Inserting/removing the battery

CAUTION

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

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

CAUTION

Electrical hazard. Dirty contacts may cause a short circuit.

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

CAUTION

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

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

1. To insert, push the battery into the tool from the front until it engages with an audible click.
2. To remove, press and hold down the release button and pull the battery forward and out of the tool.



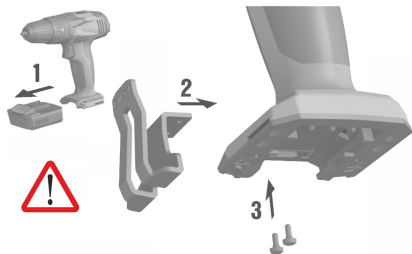
5.2 Fitting the belt hook (optional)

⚠ WARNING

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

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


i 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.



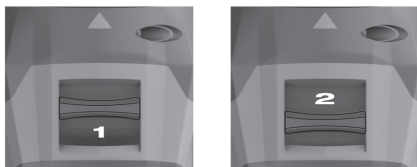
- ▶ Fit the belt hook.

5.3 Setting the torque

- ▶ Set the desired torque.

i The torque is limited only when the power tool is set to screwdriving mode .

5.4 Selecting the gear



- ▶ Select the desired gear by adjusting the two gear selector switches.

5.5 Setting forward or reverse rotation

- i** 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.

5.6 Inserting/removing the accessory tool

1. Set the forward/reverse switch to the middle position or remove the battery from the power tool.

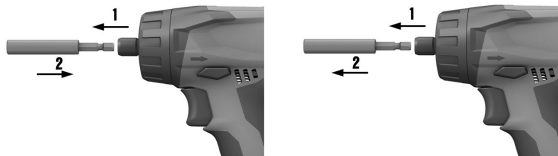
2. If the following equipment exists, also take this action:

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- ▶ Open the keyless chuck by turning it counter-clockwise.
- ▶ Insert the accessory tool into the chuck and turn the keyless chuck clockwise until it is tight.
- ▶ Check that the bit is held securely.
- ▶ To remove the accessory tool, re-open the keyless chuck.

3. If the following equipment exists, also take this action:

SFD 2-A



- ▶ Push the locking sleeve on the hex. socket forward and hold it securely in this position.
- ▶ Slide the accessory tool into the hex socket as far as it will go and release the locking sleeve.
- ▶ Check that the bit is held securely.
- ▶ To remove the accessory tool, push the locking sleeve on the hex socket forward and hold it in this position.
- ▶ Remove the accessory tool from the hex socket and release the locking sleeve.

5.7 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.


5.8 Switching off

- ▶ Release the control switch.

5.9 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.

5.10 Drilling

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

6 Care and maintenance of cordless tools

WARNING

Risk of injury with battery inserted !

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

Care and maintenance of the tool

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

Care of the Li-ion batteries

- Keep the battery free from oil and grease.
- Use only a slightly damp cloth to clean the casing. Do not use cleaning agents containing silicone as these 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.



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 Store** or online at: www.hilti.group | USA: www.hilti.com

7 Transport and storage of cordless tools

Transport

CAUTION

Accidental starting during transport !

- ▶ Always transport your products with the batteries removed!
- ▶ 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

Accidental damage caused by defective or leaking batteries !

- ▶ Always store your products with the batteries removed!
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- ▶ 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

8.1 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.

8.1.1 Troubleshooting

Trouble or fault	Possible cause	Action to be taken
The power tool does not work.	The battery is not fully inserted.	▶ Push the battery in until it engages with an audible double click.
	Low battery.	▶ Change the battery and charge the empty battery.
The 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.
The battery runs down more quickly than usual.	Very low ambient temperature.	▶ Allow the battery to warm up slowly to room temperature.
The battery does not engage with an audible double click.	The retaining lugs on the battery are dirty.	▶ Clean the retaining lugs and push the battery in until it engages. Contact Hilti Service if the problem persists.

Trouble or fault	Possible cause	Action to be taken
The tool or battery gets very hot.	The tool is overloaded (application limits exceeded).	<ul style="list-style-type: none"> ▶ 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.

8.2 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!

9 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



Intertek

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CONFORMS TO UL STD

60745-1

60745-1-2

60745-2-2

CONFORMS TO CAN/CSA STD C22.2 NO.

60745-1

60745-1-2

60745-2-2



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Hilti Connect