SF 120-A battery screwdriver

It is important that the operating instructions are read before the tool is operated for the first time.

Always keep these operating instructions together with the tool.

Ensure that the operating instructions are with the tool when it is given to other persons.

General information

⚠️ In these operating instructions, this symbol indicates points of particular importance to safety. The instructions at these points must always be observed in order to avoid the risk of serious injury.

⚠️ Caution: high voltage

1 The numbers refer to the illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while you read the operating instructions.

In these operating instructions, the word “tool” always refers to the SF 120-A with battery.

Operating controls and component parts

1 Switch with electronic speed control
2 Reversing switch
3 Two-speed switch
4 Torque clutch setting ring
5 Motor brake
6 Battery release button (two)
7 Quick-release chuck
8 Dual-purpose bit (PH2 / PZD2)

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Declaration of conformity See cover

The following conditions must always be observed when the tool is in use:

– The tool is for hand-held use only.
– Do not use the tool in places where the surrounding conditions may present a risk of explosion.
Technical data

**SF120-A battery screwdriver**

**Voltage:** 12 Volt

**Screwdriver weight incl. battery and chuck:** 2 kg

**Dimensions (l×h×w):** 261×172×61 mm

**Speed (no load):**
- 1st speed: 0–320 r.p.m.
- 2nd speed: 0–1150 r.p.m.

**Chuck / Quick-release chuck capacity:** 1.5–13 mm

**Torque:** max. 21 Nm (set at drilling symbol)

**Torque adjustment:** 1–10 Nm (at 20 settings)

**Vibration:** less than 2.5 m/sec²

**Noise level (power):** less than 70 dB(A)

**Speed control:** electronic via on-off switch

**Reversing switch:** electronic with switching lock when running

**Spindle lock:** when the screwdriver is switched off

**Motor brake:** activated by the control switch

Dust-tight enclosure and permanent lubrication (maintenance free)

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**Battery**

<table>
<thead>
<tr>
<th>SBP 12</th>
<th>SFB 125</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Voltage:</strong></td>
<td>12 Volt</td>
</tr>
<tr>
<td><strong>Capacity:</strong></td>
<td>12 Volt×2,0 Ah = 24 Wh</td>
</tr>
<tr>
<td><strong>Weight:</strong></td>
<td>0.69 kg</td>
</tr>
<tr>
<td><strong>Temperature monitoring:</strong></td>
<td>yes</td>
</tr>
<tr>
<td><strong>Type of cell:</strong></td>
<td>nickel-cadmium</td>
</tr>
<tr>
<td></td>
<td>Sub C design</td>
</tr>
<tr>
<td><strong>No. of cells:</strong></td>
<td>10</td>
</tr>
</tbody>
</table>

Right of technical modifications reserved

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**Applications**

**Type of screw / application**

<table>
<thead>
<tr>
<th>Size</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 5 mm dia.</td>
<td>2nd</td>
</tr>
<tr>
<td>5–8 mm dia.</td>
<td>1st</td>
</tr>
<tr>
<td>up to M8</td>
<td>1st/2nd</td>
</tr>
</tbody>
</table>

**Screw in plastic anchor**

<table>
<thead>
<tr>
<th>Size</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 mm dia.</td>
<td>1st</td>
</tr>
<tr>
<td>12 mm dia.</td>
<td></td>
</tr>
</tbody>
</table>

**Type of drill / application**

<table>
<thead>
<tr>
<th>Size</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 mm dia.</td>
<td>2nd</td>
</tr>
<tr>
<td>20 mm dia.</td>
<td>2nd</td>
</tr>
<tr>
<td>30 mm dia.</td>
<td>2nd</td>
</tr>
<tr>
<td>20 mm dia.</td>
<td>2nd</td>
</tr>
<tr>
<td>25 mm dia.</td>
<td>2nd</td>
</tr>
<tr>
<td>12 mm dia.</td>
<td>2nd</td>
</tr>
<tr>
<td>up to 68 mm dia.</td>
<td>1st</td>
</tr>
<tr>
<td>up to 6 mm dia.</td>
<td></td>
</tr>
<tr>
<td>from 6 up to 10 mm dia.</td>
<td>1st</td>
</tr>
<tr>
<td>up to 6 mm dia.</td>
<td>1st</td>
</tr>
</tbody>
</table>

**Special insert tools / applications**

<table>
<thead>
<tr>
<th>Size</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to M8</td>
<td>1st</td>
</tr>
</tbody>
</table>

Deburrer, deburring bored holes in metal, wire brush, grinding point, emery cloth / sand paper

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Safety precautions

When using electric tools, the following fundamental safety precautions must always be observed in order to avoid the risk of injury, electric shock and fire hazards. Please read and observe the instructions below before using the tool.

1. Use protective equipment.
   - Wear protective glasses
   - Wear respiratory protection if the work causes dust.

2. Wear suitable working clothing.
   Do not wear loose clothing, loose long hair or jewellery as it can become caught up in moving parts of the machine. Wear non-slip shoes.

3. Make the working area safe.
   Objects which could cause injury should be removed from the working area. Ensure that the area is well lit. When working, keep other persons outside the range of the tool you are using.

4. Take the influences of the surrounding area into account.
   Do not operate the tool in the vicinity of flammable liquids or gasses. Do not use the tool under water.

5. "Check the tool each time before use.
   Check the condition of the tool. Do not use it if it is damaged, incomplete or if the controls cannot be operated correctly.

6. Use the correct insert tool.
   Ensure that the insert tools (drill bits, etc.) are equipped with the appropriate connection end for the chuck system in use and that they are locked in position correctly in the chuck.
   Use only the recommended original Hilti accessories and auxiliary equipment.

7. Use the tool only for the purposes for which it is intended (see page 8).
   Do not overload the tool.

8. Apply a safe working method.
   Avoid unfavourable body positions. Always ensure that you have a safe stance. Always remain attentive. The drill bit may become stuck unexpectedly. Switch the tool off if you are distracted from your work.

9. Take care to avoid concealed cables and pipes.
   Concealed electric cables or gas and water pipes present a serious hazard if damaged while you are working. Accordingly, check the area in which you are working beforehand, e.g. using a metal detector. Avoid contact between your body and earthed / grounded objects such as pipes or radiators. External metal parts of the tool may become live, for example, when an electric cable is drilled into inadvertently.

10. Avoid unintentional starting.
    The forwards / reverse / transport lock switch should be brought into the transport lock position (middle position 2) when the tool is not in use, e.g. during pauses between work, before maintenance, when changing insert tools and during transport.

11. Keep the electric tool and insert tools in good condition.
    Follow the care and maintenance instructions and replace insert tools in good time. Never operate the tool when it is dirty or wet. Dust or dampness on the surface of the tool makes it slippery and difficult to hold.
    Repairs to the tool may be carried out only by an authorised electrical specialist using original Hilti spare parts. Failure to observe this point may result in damage to the tool or present a risk of accident. Accordingly, if necessary, have the tool repaired at a Hilti service centre or authorised Hilti repair workshop.

12. Avoid short circuiting the terminals of the battery (accessory).
    Short circuiting the battery terminals presents a risk of fire.

13. Check of proper battery seating in tool.
    If the battery is not properly inserted, it can drop out when working and cause an injury.

14. Keep the tool out of the reach of children.
    Knowledge of the operating instructions is a must if the tool is to be used without injury or damage to persons and / or product respectively.
Before use

The SF120-A may be used only with the SBP12 or SFB125 battery.

Before it is used for the first time, it is important that a new battery is charged for 24 hours in normal charging mode or up to 12 hours using the conditioning charging mode, thus permitting “forming” of the battery cells to take place.

Battery performance drops at low temperatures. Store the battery at room temperature when not in use.

Do not store a battery where it may be subjected to high temperatures, e.g. exposed to the sun, at a window, behind a car windscreen or on a radiator.

Do not work with the battery until it is run down. The cells can be damaged if the battery is completely discharged.

Operation

Insert tool insertion and removal

Use the safety catch as protection against unintentional switching on during transport.

Quick-release chuck

An insert tool can be clamped or released without a chuck key. When the screwdriver is switched off by the on-off control switch, the spindle is locked. This is a help when opening / tightening the quick-release chuck.

Battery removal

Battery release button

If the battery has to be changed, press in the two release buttons using two fingers and pull the battery out of the screwdriver.

Battery insertion

Push in the battery as far as it will go. There must be an audible click.

Only the Hilti SBP12 or SFB125 batteries may be used.

Battery charging

Only the Hilti SFC 7/18, TCU 7/36 or SBC12 H battery charger may be used. Please refer to the charger operating instructions for the charging process.

If the SFB125 battery is charged in the old SBC12 H charger, a loss of capacity must be expected with this kind of charging. Full capacity of the charger will be obtained with the SFC 7/18 and TCU 7/36 chargers.

Speed selection

Two-speed switch

The speed can be selected using the mechanical two-speed switch, i.e. 1st speed: 0–320 r.p.m. or 2nd speed: 0–1150 r.p.m. Only change speed when the screwdriver is not running.

Torque selection

Torque clutch setting ring

The release torque (1–10 Nm) is obtained by turning the setting ring to the desired torque level (setting 1–20). At the drilling symbol ( ), the torque clutch is blocked and the screwdriver gives its max. torque of about 21 Nm (stalling torque) at this setting.

Reversing switch

The reversing switch is used to reverse the direction of rotation of the chuck. A locking device prevents operation of the switch while the motor is running. The control switch is deactivated when the reversing switch is in the central position.

Speed control

Switch with electronic speed control

The speed can be controlled infinitely from zero to maximum by slowly depressing the switch.

Care and maintenance

Care of the tool

The outer casing of the tool is made of impact-resistant plastic. Sections of the grip are made of an elastomer material.

Clean the outside of the tool at regular intervals using a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the tool. Always keep the grip surfaces of the tool free from oil and grease. Do not use cleaning agents which contain silicone.

Never operate the tool when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign matter to enter the interior of the tool.

Take care of your insert tools. Clean off dirt and dust deposits. Always keep the connection end clean and lightly greased.

SBP12 and SFB125 batteries

Keep the contact surfaces free of dust and lubricants. Clean them if necessary using a clean cloth. If the battery capacity drops below an acceptable level after a long period of use, we recommend that it be diagnosed by Hilti.
**Maintenance**
Check all external parts of the tool for damage and check that all controls operate faultlessly. Do not operate the tool if parts are damaged or the controls do not function faultlessly. If necessary, your electric tool should be repaired at a Hilti service centre.

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**Warranty**
Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid as long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, all warranty claims are made within 12 months from the date of the sale (invoice date), and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty. **Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular, Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.**

For repair or replacement, send tool and/or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided. This constitutes Hilti’s entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.

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**Disposal**
Most of the materials used to manufacture Hilti electric tools are can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for your old electric tools to be taken back and batteries for recycling. Please ask the local Hilti customer service or Hilti representative for further information.

Should you wish to return the electric tool yourself to a disposal facility for recycling, proceed as follows: Dismantle the electric tool as far as possible without the need for special tools. Use absorbent paper to wipe greasy parts clean and to collect the grease that runs out. This paper should also be disposed of correctly. On no account should grease be allowed to enter the waste water system or to find its way into the ground.

**The individual parts should be separated as follows:**

<table>
<thead>
<tr>
<th>Part / assembly</th>
<th>Main material</th>
<th>Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toolbox</td>
<td>Plastic</td>
<td>Plastic</td>
</tr>
<tr>
<td>Housing</td>
<td>Plastic</td>
<td>Plastic</td>
</tr>
<tr>
<td>Motor</td>
<td>Steel, copper</td>
<td>Scrap metal</td>
</tr>
<tr>
<td>Gearing parts</td>
<td>Steel</td>
<td>Scrap metal</td>
</tr>
<tr>
<td>Chuck</td>
<td>Plastic</td>
<td>Plastic</td>
</tr>
<tr>
<td></td>
<td>Steel</td>
<td>Scrap metal</td>
</tr>
<tr>
<td>Screws, small parts</td>
<td>Steel</td>
<td>Scrap metal</td>
</tr>
</tbody>
</table>

**Batteries**
The Hilti SBP 12 battery has 10 nickel-cadmium cells.
The Hilti SFB 125 battery has 10 nickel-metal hydrid cells.
Both you and Hilti bear the responsibility for recycling of the worn-out batteries in keeping with environmental protection requirements.

**Important:** Do not throw worn-out batteries into household waste, a fire or water. Dispose of the batteries in accordance with national regulations or return them to Hilti.
EG-Konformitetserklæring

Betegnelse: Batteridreven skruemaskine
Typebetegnelse: SF 120-A
Konstruktionsår: 1999

EG-Försäkran om överensstämmelse

Benämning: batteriskruvdragare
Typbeteckning: SF 120-A
Konstruktionsår: 1999

Δήλωση συμμόρφωσης ΕΕ

Περιγραφή: Κατσαβιδά μπαταρίας
Μοντέλο/Τύπος: SF 120-A
Έτος σχεδίασης: 1999

Hilti Corporation

Keith Paige
Head Business Unit
Direct Fastening
September 1999

Dr. Felix Ferlemann
Head Screw Development
Screw Fastening
September 1999
Declaração de conformidade EC

Descrição: Aparafusadora a bateria
Designação: SF120-A
Ano de design: 1999
