SFC 7/18 H charger

1. General information

1.1 Indication of danger

NOTE: This word is used to draw attention to an instruction or other useful information. It is not used to indicated dangerous situations or situations that could lead to damage to the equipment or other property.

IMPORTANT: This word is used to draw attention to a potentially dangerous situation which could lead to minor personal injury or damage to the equipment or other property.

1.2 Pictograms

Warning signs

General warning    Warning: electricity    Warning: caustic substances

Electrical or chemical (WARNING)

This symbol warns of hazards as a result of the electrical current when using the tool. It marks a dangerous situation. The illustrated behavior following this symbol must always be observed in order to help avoid serious injury or damages to property.

Symbols

Read the operating instructions before use.

These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions.

In these operating instructions, the designation “appliance” refers to the SFC 7/18H charger.

Location of identification data on the appliance

The type designation and serial number can be found on the type plate on the appliance. Make a note of this data in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type: Serial no:
2. Description
The appliance is used for charging Hilti batteries with a nominal voltage of 7.2 to 18 volts.

3. Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains voltage</td>
<td>110–127 V</td>
</tr>
<tr>
<td>Mains frequency</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Output voltage</td>
<td>7.2–18.0 V</td>
</tr>
<tr>
<td>Current output within the voltage range</td>
<td>NiCd 7.2–18.0 V NiMH 7.2–18.0 V</td>
</tr>
<tr>
<td>Charging current (± 0.2 A)</td>
<td>2 A NiCd 100 mA NiMH 100mA</td>
</tr>
<tr>
<td>Trickle charge (± 10%)</td>
<td>NiCd 100 mA NiMH 100mA</td>
</tr>
<tr>
<td>Charging time</td>
<td>60 min. 90 min.</td>
</tr>
<tr>
<td>Weight</td>
<td>ca. 3.8 lbs</td>
</tr>
<tr>
<td>Supply cord length</td>
<td>approx. 6.6 ft</td>
</tr>
<tr>
<td>Dimensions (L x W x H)</td>
<td>9.2 x 5.3 x 3.0 in</td>
</tr>
<tr>
<td>Wall mount</td>
<td>electronic (microcontroller) charging control</td>
</tr>
<tr>
<td>Battery cell temperature monitoring:</td>
<td>NiCd: ≤ 12 V with diode NiCd: ≥ 15.6 V with NTC NiMH: ≥ 9.6 V with NTC</td>
</tr>
<tr>
<td>Protection class</td>
<td>Electrical protection class II (double insulated)</td>
</tr>
</tbody>
</table>

Right of technical changes reserved.

4. Safety precautions

4.1 Basic safety information
In addition to the safety precautions listed in the individual sections of these operating instructions, the following points must be strictly observed at all times:

4.2 Correct use
The appliance is to be used to charge Hilti batteries with a nominal voltage of 7 to 18 volts. It can be used to charge the following batteries:

- SFB 105 NiMH battery: For the SF100-A and SB 10 cordless drill drivers and the Hilti HIT-BD2000 dispenser
- SFB 10 NiCd battery: For the SF120-A and SB 12 cordless drill drivers
- SFB 125 NiMH battery: For the SF120-A and SB 12 cordless drill drivers
- SBP 10 NiCd battery: For the SF121-A cordless drill driver
- SFB 121 NiCd battery: For the SF121-A cordless drill driver
- SFB 126 NiMH battery: For the SF121-A cordless drill driver
- SFB 150 NiCd battery: For the SF150-A cordless drill driver
- SFB 155 NiMH battery: For the SF150-A cordless drill driver
- SFB 180 NiCd battery: For the SF4000-A drywall drill driver and SF180-A cordless drill driver
- SFB 185 NiMH battery: For the SF4000-A drywall drill driver and SF180-A cordless drill driver

4.3 Incorrect use (misuse)
- The appliance must not be used in areas where there is a risk of explosion.
- Use only Hilti batteries.
- Manipulation or modification of the appliance is not permissible.

Follow the instructions concerning care and maintenance.

4.4 State of the art
The appliance is designed and manufactured according to the state of the art.
- The appliance and its ancillary equipment may present hazards when used incorrectly by untrained personnel or not as directed.
4.5 Proper arrangement and organisation of the workplace

- Keep other persons, children in particular, outside the working area.
- Do not expose the appliance to rain or snow and do not use it in damp or wet areas or in the vicinity of inflammable liquids or gases.

4.6 General hazards presented by the appliance

- Operate the appliance only as directed and only when it is in faultless condition.
- Never leave the appliance unsupervised.
- When the appliance is not in use, it must be stored in a dry place, locked up or out of reach of children.

4.6.1 Mechanical hazards

- Follow the instructions concerning care and maintenance.

4.6.2 Electrical hazards

- Protect yourself from electric shocks. Avoid body contact with earthed objects, e.g. pipes and radiators.
- Check the condition of the appliance including the supply cord and extension cord as well as the plug connections. Do not operate the appliance if damage is found, if the appliance is not complete or if its controls cannot be operated faultlessly.
- Never carry the appliance by the cable.
- Grip the plug and not the cable when pulling it out of the socket.
- Do not expose the supply cord to heat, oil or sharp edges.
- Do not touch the supply cord in the event of it becoming damaged while working. Disconnect the supply cord plug from the socket.
- When working outdoors, use only extension cords approved and correspondingly marked for this application.
- If necessary, have the appliance repaired by an electrical specialist (Hilti service department).
- To avoid risk of accident, use only original Hilti spare parts.
- Never operate the appliance when it is dirty or wet. Under unfavourable conditions, dust or dampness on the surface of the appliance may lead to electric shocks.
- Avoid short-circuiting the battery. A short circuit may present a fire hazard.
- Check that the battery is seated securely in the appliance.

4.6.3 Liquids

Caustic liquids may leak from defective batteries. Avoid contact with these liquids. In the event of contact with the skin, wash the area affected with soap and plenty of water. Should the liquid come into contact with the eyes, flush the eyes with water immediately and subsequently consult a doctor.

5. Before use

It is essential that the safety precautions printed in these operating instructions are read and observed.

5.1 Batteries

- A new battery must be charged for 24 hours in order to ensure that the cells form correctly.
- Never use the battery until the cells become fully discharged. Recharge the battery as soon as a drop in performance is noticed. When a battery is allowed to become fully discharged, the cells that reach zero voltage first are damaged by the current still flowing from the other cells.

At low temperatures
- Battery performance drops at low temperatures. Batteries should be stored at room temperature, removed from the tool.

At high temperatures
- Never store and load the battery at high temperatures, i.e. exposed to the direct heat of the sun, on a radiator, behind a motor vehicle windscreen or at a window. High temperatures may cause chemical liquids to leak from the battery.

5.2 Operating the appliance

The charger should be operated in a clean, dry, cool place but not at temperatures below zero.
1. Check that the voltage of the mains supply corresponds to the information on the type plate.
2. Insert the supply cord plug in the mains socket. The green lamp should light continuously.

5.3 Wall mounting

The surface on which the charger is mounted should not be overhanging (the battery may fall out).
1. Mount the charger by way of the mounting holes in the base of the casing.
2. Check at regular intervals to ensure that it is securely fastened.
6. Operation

**NOTE**
- The battery will not suffer damage if left in the charger for a long period (when the charger is connected to the mains supply and in operation).

**NiCd batteries**
- The charging current is greatly reduced when the battery is left in the charger for longer than 24 hours. This avoids damage to the battery and ensures that it remains ready for use.

**NiMH batteries**
- The charging current is greatly reduced when the battery is left in the charger for longer than 4 hours. This avoids damage to the battery and ensures that it remains ready for use.

**IMPORTANT**
- The charger has been designed to charge the batteries listed. It must not be used to charge other batteries. Temperature monitoring may not function with other batteries, thus causing overheating and leakage of chemical liquids.
- Corrosive liquids may leak from defective batteries. Avoid contact with these liquids.

6.1 Charging the battery
1. Check that the battery is fitted into the appliance correctly (shape of battery and battery compartment must correspond).
2. Push the battery into the compartment in the appliance as far as it will go.

6.2 Conditioning the battery
To achieve an effect similar to that of the conditioning function provided by the SFC7/18 and TCU 7/36 rapid chargers, we recommend that the battery is left in the charger for at least 24 hours once each month.

**Indicators**

**Green lamp**
- Lit continuously: The charger is connected to the mains supply and ready for operation.
- Blinking: The battery is not ready for charging. Re-insert the battery in the charger. If charging does not begin, please refer to the “Care and maintenance” section of the operating instructions for the SF100-A, SF120-A, SF121-A, SF150-A, SF180-A or SF4000-A.

**Red lamp**
- Lit continuously: The battery is being charged.
- Blinking: The battery is charged.

**Yellow lamp**
- Blinking: The battery is too cold (approx. 0°C/32°F) or too hot (approx. 60°C/140°F). Charging does not begin. The charging operation begins automatically as soon as the battery reaches the permissible temperature.

7. Care and maintenance

Unplug the supply cord from the mains socket.

**7.1 Care of the appliance**
The outer housing of the appliance is manufactured from impact-resistant plastic. Do not permit metal objects to enter the interior of the appliance. Clean the outside of the casing at regular intervals with a slightly damp cloth or a dry brush. Do not use a spray cleaning system, high-pressure steam cleaning system or running water for cleaning. These may negatively affect the electrical safety of the appliance. Keep the appliance free from oil and grease. Do not use cleaning agents or polishes, etc. containing silicone.

**7.2 Maintenance**
- Check all external parts of the appliance for damage at regular intervals and ensure that all operating controls function faultlessly. Do not operate the appliance when parts are damaged or when the operating controls do not function faultlessly. If necessary, have the appliance repaired at a Hilti service centre.
- The electrical parts of the appliance may be repaired only by trained electrical specialists.

**7.3 Care of the battery**
- Keep the electrical contacts free from dust, oil and grease. If necessary, use a clean cloth to clean the contact surfaces.
- In the event of battery capacity dropping below an acceptable level after a long period of use, we recommend that the battery is returned to Hilti for a diagnostic check.
8. Troubleshooting

<table>
<thead>
<tr>
<th>Fault</th>
<th>Possible cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The green indicator</td>
<td>The battery is not ready for charging.</td>
<td>Re-insert the battery in the charger. If charging does not begin, please refer to the &quot;Care and maintenance&quot; section of the operating instructions for the SF 100-A, SF 120-A, SF 121-A, SF 150-A, SF 180-A or SF 4000-A.</td>
</tr>
<tr>
<td>blinks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The yellow indicator</td>
<td>The battery is too cold (approx. 0°C / 0°F) or too hot (approx. 60°C / 140°F). Charging does not begin.</td>
<td>The charging operation begins automatically as soon as the battery reaches the permissible temperature.</td>
</tr>
<tr>
<td>blinks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Disposal

Most of the materials from which Hilti appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back your old appliances for recycling. Please ask your Hilti customer service department or Hilti sales representative for further information.

Should you wish to return the appliance yourself to a disposal facility for recycling, proceed as follows:
Dismantle the appliance as far as possible without the need for special tools.

Separate the individual parts as follows:

<table>
<thead>
<tr>
<th>Parts / assembly</th>
<th>Main material</th>
<th>Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer housing</td>
<td>Plastic / synthetic rubber</td>
<td>Plastics recycling</td>
</tr>
<tr>
<td>Electronics</td>
<td>Various</td>
<td>Electronics scrap</td>
</tr>
<tr>
<td>Supply cord</td>
<td>Copper, synth. rubber sheathed</td>
<td>Scrap metal</td>
</tr>
<tr>
<td>Battery</td>
<td>Nickel-cadmium</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Nickel metal-hydride</td>
<td>*</td>
</tr>
<tr>
<td>Screws, small parts</td>
<td>Steel</td>
<td>Scrap metal</td>
</tr>
</tbody>
</table>

* Dispose of batteries in accordance with national regulations or return them to Hilti for disposal.

Disposal

Batteries
Hilti batteries contain nickel, cadmium and nickel-metal hydrid.
Disposal of batteries in accordance with national regulations or return used batteries to Hilti for disposal.
10. Warranty

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so 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.

Under no circumstances will Hilti be 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. Hilti specifically excludes the implied warranties of merchantability and fitness for a particular purpose. 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.